

ATF 220G-5

250 US t / 220 t MAX. CAPACITY

TIER 4f

ALL TERRAIN CRANE



2 ENGINES

Table of contents · Table des matières · Índice

General · Généralités · Generalidades

Boom systems · Systèmes de flèche · Sistema de pluma 4 - 5

Vehicle dimensions · Dimensions du véhicule · Dimensiones del vehículo 6 - 7

On-road and off-road driving · Marche route et tout terrain · Traslado por carretera y todoterreno

Axle loads · Charges par essieu · Cargas por eje 10 - 15

Speeds and gradeability · Vitesses de conduite et gravissement de pente · Velocidades y pendientes superables 16

Steering · Direction · Dirección 16

Transport · Transporte

Counterweight · Contrepoids · Contrapeso 18 - 19

Jibs · Fléchettes · Plumines 20 - 21

Hose drum for hydraulic jib · Tambour de flexible pour fléchette hydraulique · Devanadera para plumín hidráulico 21

Auxiliary winch · Treuil supplémentaire · Cabrestante auxiliar 21

Operation · Utilisation · Uso

Main boom · Flèche principale · Pluma principal 24

Swing mechanism · Groupe de rotation · Mecanismo de giro 24

Winches · Treuils · Cabrestantes 24

Hook blocks · Moufles · Pastecas de carga 24

Working ranges and lifting capacities · Rayons de travail et charges de levage · Áreas de trabajo y cargas 26 - 52

Equipment · Équipement · Equipamiento

Equipment · Équipement · Equipamiento 54 - 56

Additional information · Informations supplémentaires · Información adicional

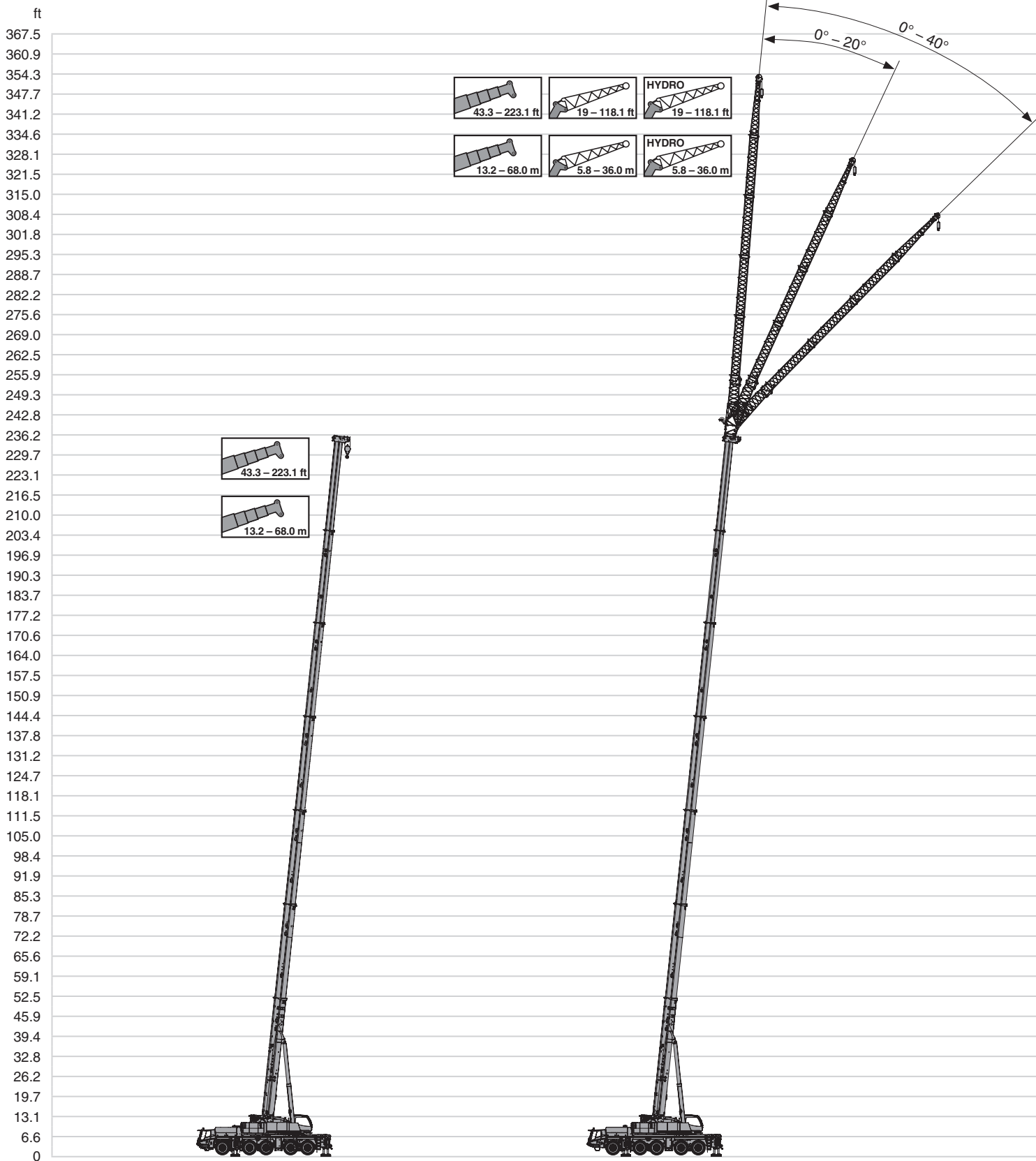
Remarks · Remarques · Notas 58

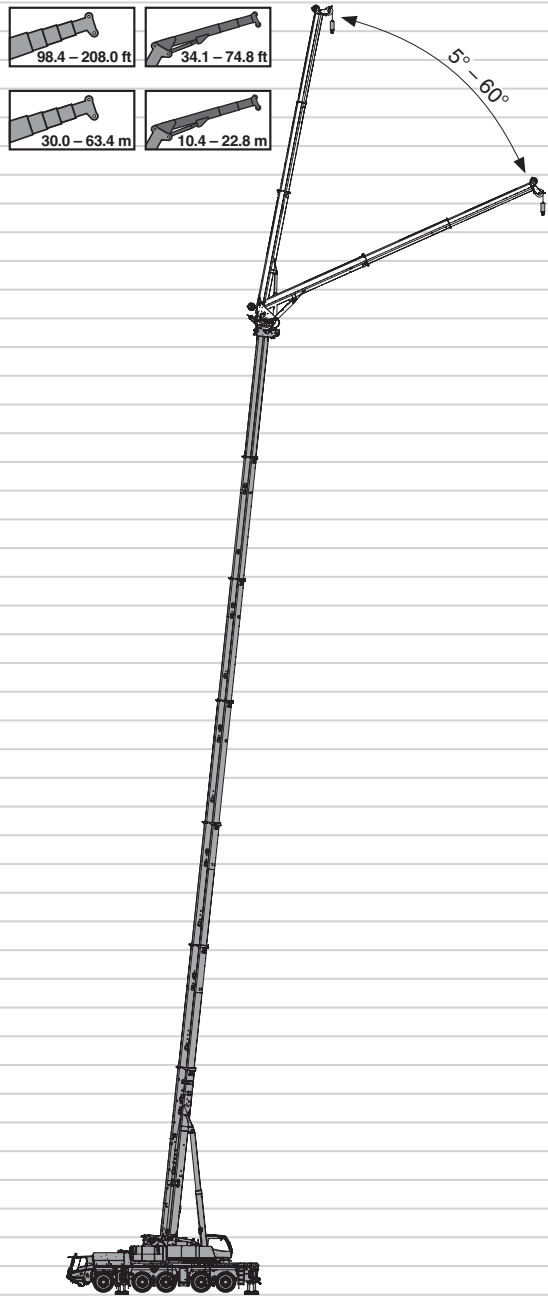
Symbols · Glossaire des symboles · Glosario de simbolos 59

GENERAL TECHNICAL DATA

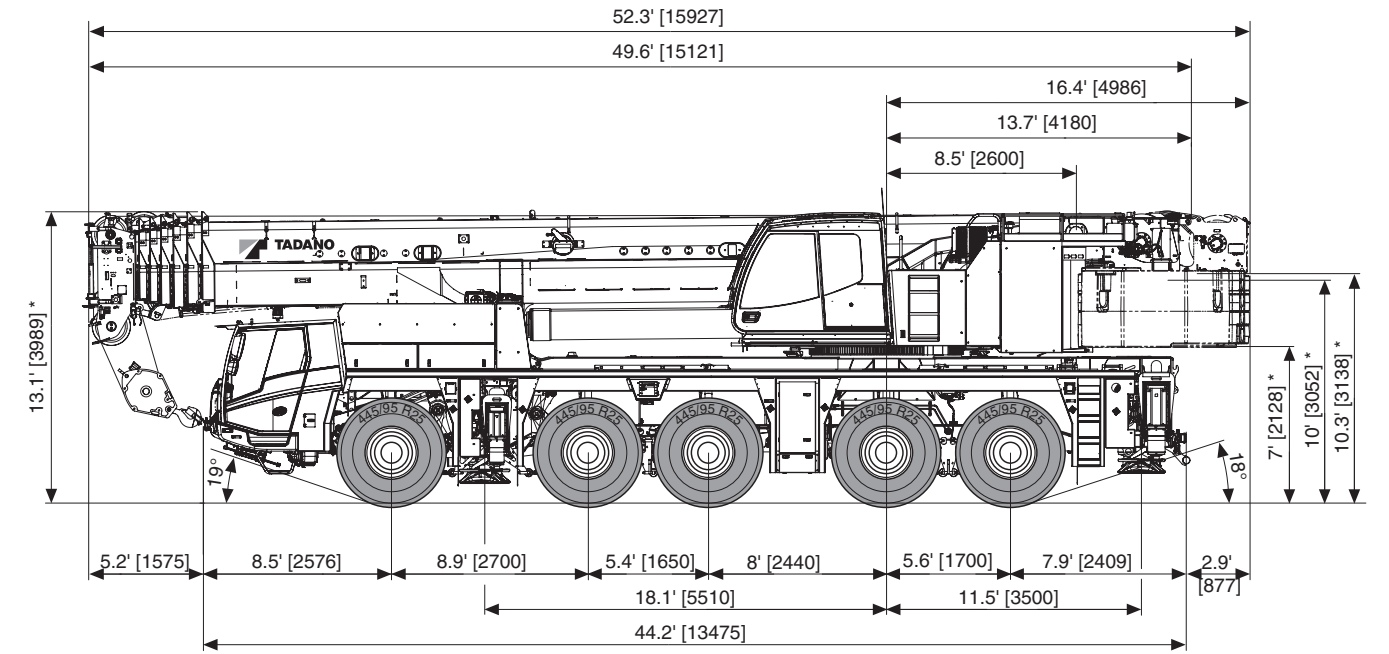
CARACTÉRISTIQUES TECHNIQUES GÉNÉRALES
DATOS TÉCNICOS GENERALES



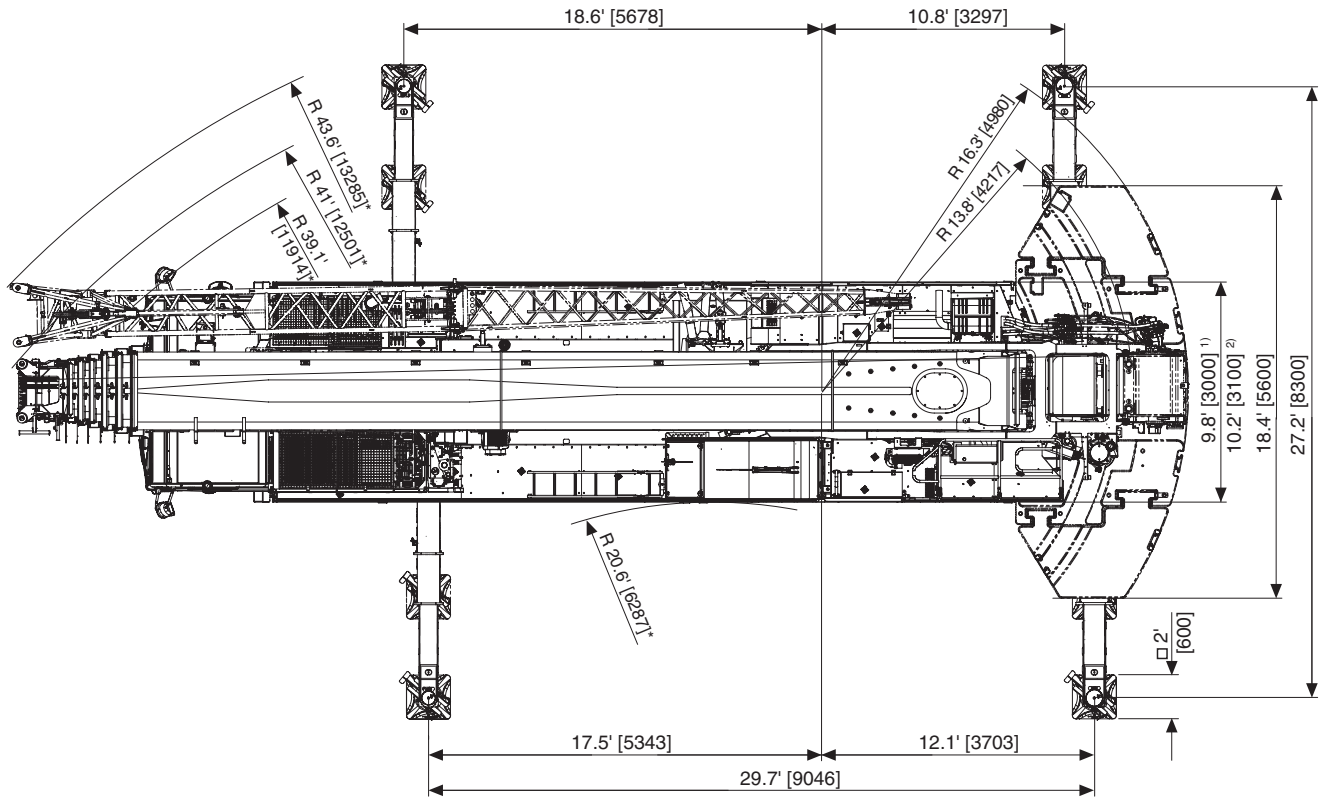




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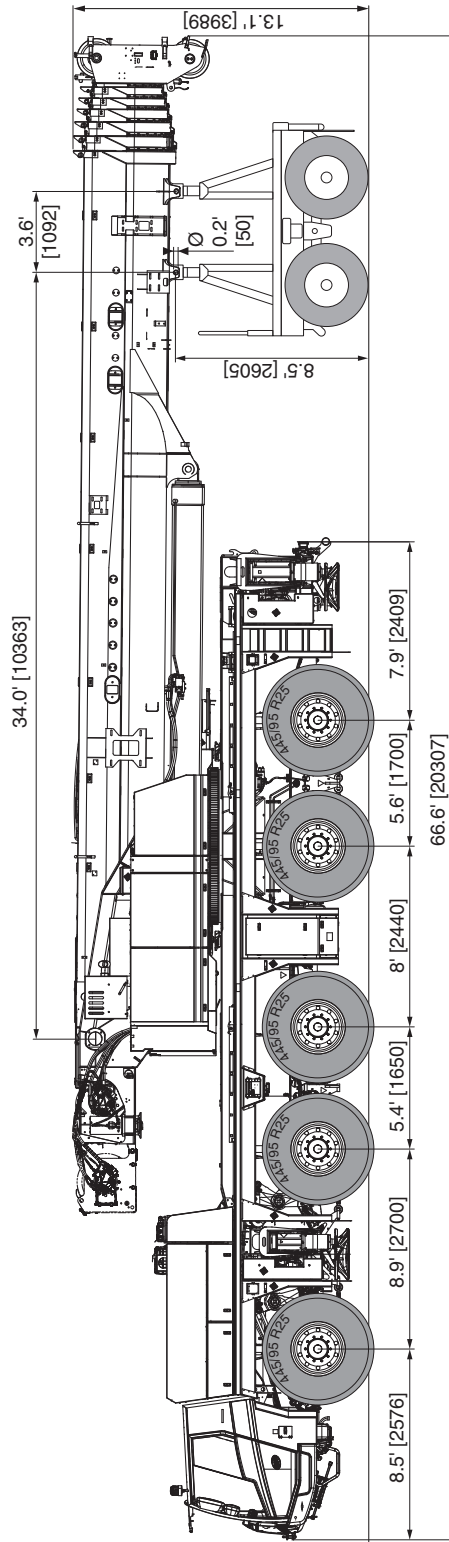
* -0.4' [118] / +0.5' [158]



* Minimum turning radius · Rayon de braquage mini · Radio de viraje mínimo

¹⁾ 445/95 R 25 (16.00 R 25)

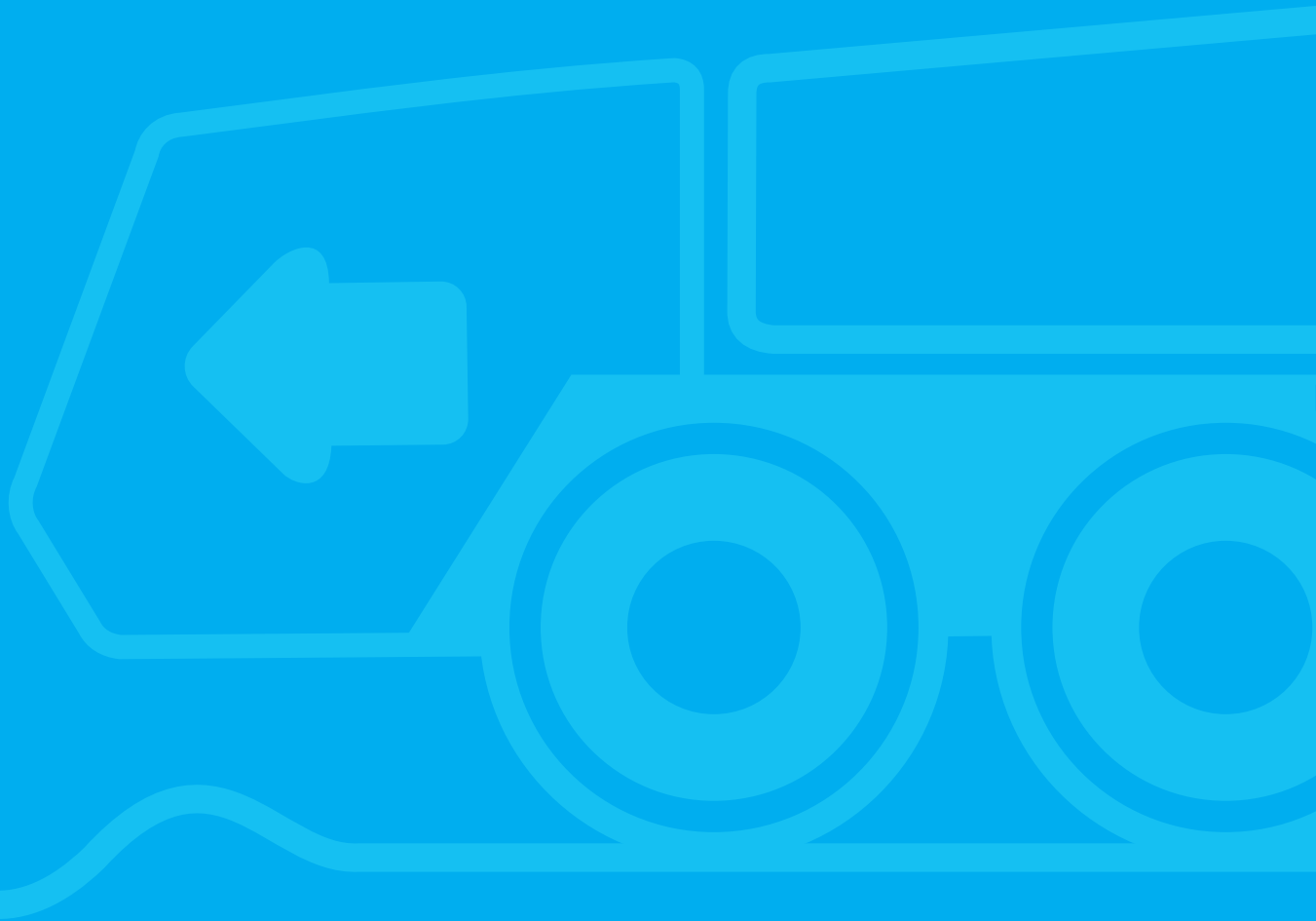
²⁾ 525/80 R 25 (20.5 R 25)
















TECHNICAL DATA FOR ON-ROAD AND OFF-ROAD DRIVING

CARACTÉRISTIQUES TECHNIQUES POUR MARCHÉ ROUTE ET TOUT TERRAIN
DATOS TÉCNICOS PARA SU TRASLADO POR CARRETERA Y TODO TERRENO



Axle loads

Boom to front		TOTAL					
		lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg
Total	1. Standard equipment + 2. Optional equipment + 3. Others	141,441/ 64157	25,811/ 11707	26,354/ 11954	29,829/ 13530	29,713/ 13477	29,735/ 13488
1. Standard Equipment	See page 54; no counterweight	129,338/ 58667	24,266/ 11007	24,817/ 11257	26,770/ 12143	26,740/ 12129	26,745 12131
2. Optional Equipment (selection)	Tyres 525/80R25 (20.50 R25) instead of 445/95R25 (16.00 R25)	1,442/ 654	288/ 131	288/ 131	289/ 131	289/ 131	289/ 131
	Towing hook at rear, including couplings for lights and brake	140/ 63	-57/ -26	-57/ -26	86/ 39	84/ 38	84/ 38
	Toolbox at rear (without wood storage)	197/ 90	-86/ -39	-85/ -39	125/ 57	121/ 55	122/ 55
	Auxiliary winch including rope	3,647/ 1654	-1,681/ -763	-1,670/ -758	2,377/ 1078	2,303/ 1045	2,319/ 1052
	Hose drum for hydraulic jib (detachable)	575/ 261	452/ 205	449/ 204	-111/ -50	-107/ -49	-108/ -49
	Hydraulic jib fixed on main boom (transport position)	3,420/ 1551	2,069/ 938	2,055/ 932	-239/ -108	-232/ -105	-233/ -106
	Additional oil cooler	104/ 47	-10/ -4	-10/ -4	42/ 19	41/ 19	41/ 19
	Single top	139/ 63	139/ 63	138/ 62	-47/ -21	-45/ -21	-46/ -21
	Hook block 11.0 US t / 10 t (hanging at main boom)	655/ 297	614/ 278	610/ 277	-193/ -88	-187/ -85	-188/ -85
3. Others	Driver	176/ 80	149/ 68	148/ 67	-41/ -19	-40/ -18	-40/ -18
	Fuel in carrier	1,138/ 516	-259/ -117	-257/ -116	561/ 255	544/ 247	548/ 248
	Fuel in superstructure	468/ 212	-73/ -33	-73/ -33	209/ 95	202/ 92	204/ 92
Additional weight information	Hook block 35.3 US t / 32 t (hanging at main boom)	977/ 443	941/ 427	935/ 424	-306/ -139	-296/ -134	-298/ -135
	Hook block 88.2 US t / 80 t (hanging at main boom)	1,742/ 790	1,699/ 771	1,688/ 765	-559/ -253	-541/ -246	-545/ -247
	Counterweight No. 1; 4,409 lbs/2.0 t (on carrier)	4,407/ 1999	1,494/ 678	1,484/ 673	485/ 220	470/ 213	473/ 215
	Counterweight No. 2; 22,046 lbs/10.0 t (on carrier)	21,341/ 9680	7,293/ 3308	7,244/ 3286	2,311/ 1048	2,239/ 1016	2,254/ 1023
	Counterweight No. 3; 25,353 lbs/11.5 t (on carrier)	25,582/ 11604	8,639/ 3919	8,581/ 3892	2,840/ 1288	2,752/ 1248	2,770/ 1257
	Counterweight No. 4; 25,353 lbs/11.5 t (on carrier)	25,467/ 11552	8,686/ 3940	8,627/ 3913	2,769/ 1256	2,683/ 1217	2,702/ 1225
	Counterweight No. 5; 26,455 lbs/12 t (on superstructure)	26,205/ 11886	-10,258/ -4653	-10,189/ -4622	15,844/ 7187	15,352/ 6964	15,455/ 7010
	Counterweight No. 6 + No. 7; 26,455 lbs + 26,455 lbs/ 12 t + 12 t (on superstructure)	52,802/ 23951	-20,555/ -9323	-20,417/ -9261	31,848/ 14446	30,859/ 13997	31,067/ 14092

Boom over rear, supported by dolly (35.8 ft / 10.91 m behind boom pivot point)		TOTAL						
		lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg
Total	1. Standard equipment + 2. Optional equipment + 3. Others	141,441/ 64157	20,060/ 9099	20,641/ 9363	22,772/ 10329	22,875/ 10376	22,852/ 10366	32,241/ 14624
1. Standard Equipment	See page 54; no counterweight	129,338/ 58667	18,388/ 8341	18,979/ 8609	21,304/ 9663	21,444/ 9727	21,413/ 9713	27,810/ 12614
2. Optional Equipment (selection)	Tyres 525/80R25 (20.50 R25) instead of 445/95R25 (16.00 R25)	1,442/ 654	288/ 131	288/ 131	289/ 131	289/ 131	289/ 131	0/ 0
	Towing hook for dolly, including couplings for lights and brake	140/ 63	-57/ -26	-57/ -26	86/ 39	84/ 38	84/ 38	0/ 0
	Toolbox at rear (without wood storage)	197/ 90	-86/ -39	-85/ -39	125/ 57	121/ 55	122/ 55	0/ 0
	Auxiliary winch including rope	3,647/ 1654	1,501/ 681	1,491/ 676	223/ 101	216/ 98	217/ 99	0/ 0
	Hose drum for hydraulic jib (detachable)	575/ 261	-1/ 0	-1/ 0	-1/ 0	-1/ 0	-1/ 0	579/ 263
	Hydraulic jib fixed on main boom (transport position)	3,420/ 1551	127/ 58	126/ 57	105/ 48	101/ 46	102/ 46	2,859/ 1297
	Additional oil cooler	104/ 47	5/ 2	5/ 2	32/ 15	31/ 14	32/ 14	0/ 0
	Single top	139/ 63	-7/ -3	-6/ -3	-5/ -2	-5/ -2	-5/ -2	168/ 76
	Hook block 11.0 US t / 10 t (hanging at main boom)	655/ 297	-37/ -17	-38/ -17	-32/ -15	-31/ -14	-31/ -14	826/ 375
3. Others	Driver	176/ 80	149/ 68	148/ 67	-41/ -19	-40/ -18	-40/ -18	0/ 0
	Fuel in carrier	1,138/ 516	-259/ -117	-257/ -116	561/ 255	544/ 247	548/ 248	0/ 0
	Fuel in superstructure	468/ 212	49/ 22	49/ 22	126/ 57	122/ 55	123/ 56	0/ 0
Additional weight information	Hook block 35.3 US t / 32 t (hanging at main boom)	977/ 443	-47/ -21	-47/ -21	-39/ -18	-38/ -17	-38/ -17	1,184/ 537
	Hook block 88.2 US t / 80 t (hanging at main boom)	1,742/ 790	-84/ -38	-83/ -38	-69/ -31	-67/ -30	-67/ -31	2,112/ 958
	Counterweight No. 1; 4,409 lbs/2.0 t (on carrier)	4,407/ 1999	1,494/ 678	1,484/ 673	485/ 220	470/ 213	473/ 215	0/ 0
	Counterweight No. 2; 22,046 lbs/10.0 t (on carrier)	21,341/ 9680	7,293/ 3308	7,244/ 3286	2,311/ 1048	2,239/ 1016	2,254/ 1023	0/ 0
	Counterweight No. 3; 25,353 lbs/11.5 t (on carrier)	25,582/ 11604	8,639/ 3919	8,581/ 3892	2,840/ 1288	2,752/ 1248	2,770/ 1257	0/ 0
	Counterweight No. 4; 25,353 lbs/11.5 t (on carrier)	25,467/ 11552	8,686/ 3940	8,627/ 3913	2,769/ 1256	2,683/ 1217	2,702/ 1225	0/ 0
	Counterweight No. 5; 26,455 lbs/12 t (on superstructure)	26,205/ 11886	8,910/ 4041	8,850/ 4014	2,868/ 1301	2,779/ 1261	2,798/ 1269	0/ 0
	Counterweight No. 6 + No. 7; 26,455 lbs + 26,455 lbs/ 12 t + 12 t (on superstructure)	52,802/ 23951	17,839/ 8092	17,719/ 8037	5,856/ 2656	5,675/ 2574	5,713/ 2591	0/ 0

Charges par essieu

Flèche vers l'avant		TOTAL					
		lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg
Total	1. Équipement standard + 2. équipement spécial + 3. autres	141,441/ 64157	25,811/ 11707	26,354/ 11954	29,829/ 13530	29,713/ 13477	29,735/ 13488
1. Équipement standard	Voir page 55; sans contrepoids	129,338/ 58667	24,266/ 11007	24,817/ 11257	26,770/ 12143	26,740/ 12129	26,745 12131
2. Équipement spécial (sélection)	Pneus 525/80R25 (20.50 R25) au lieu de 445/95R25 (16.00 R25)	1,442/ 654	288/ 131	288/ 131	289/ 131	289/ 131	289/ 131
	Crochet de remorquage pour chariot de transport, y compris accouplements pour éclairage et frein	140/ 63	-57/ -26	-57/ -26	86/ 39	84/ 38	84/ 38
	Boîte d'outillage à l'arrière de l'engin (sans boîte de rangement de bois)	197/ 90	-86 -39	-85/ -39	125/ 57	121/ 55	122/ 55
	Treuil auxiliaire y compris câble métallique	3,647/ 1654	-1,681/ -763	-1,670/ -758	2,377/ 1078	2,303/ 1045	2,319/ 1052
	Tambour de flexible pour rallonge de flèche hydraulique (détachable)	575/ 261	452/ 205	449/ 204	-111/ -50	-107/ -49	-108/ -49
	Rallonge de flèche hydraulique fixée sur flèche principale (position de transport)	3,420/ 1551	2,069/ 938	2,055/ 932	-239/ -108	-232/ -105	-233/ -106
	Radiateur supplémentaire	104/ 47	-10/ -4	-10/ -4	42/ 19	41/ 19	41/ 19
	Poulie simple	139/ 63	139/ 63	138/ 62	-47/ -21	-45/ -21	-46/ -21
	Moufle 11.0 US t / 10 t (suspendue sur la flèche principale)	655/ 297	614/ 278	610/ 277	-193/ -88	-187/ -85	-188/ -85
3. Autres	Conducteur	176/ 80	149/ 68	148/ 67	-41/ -19	-40/ -18	-40/ -18
	Carburant dans le châssis	1,138/ 516	-259/ -117	-257/ -116	561/ 255	544/ 247	548/ 248
	Carburant dans la superstructure	468/ 212	-73/ -33	-73/ -33	209/ 95	202/ 92	204/ 92
Poids supplémentaires	Moufle 35.3 US t / 32 t (suspendue sur la flèche principale)	977/ 443	941/ 427	935/ 424	-306/ -139	-296/ -134	-298/ -135
	Moufle 88.2 US t / 80 t (suspendue sur la flèche principale)	1,742/ 790	1,699/ 771	1,688/ 765	-559/ -253	-541/ -246	-545/ -247
	Contrepoids n° 1; 4,409 lbs/2.0 t (sur châssis)	4,407/ 1999	1,494/ 678	1,484/ 673	485/ 220	470/ 213	473/ 215
	Contrepoids n° 2; 22,046 lbs/10.0 t (sur châssis)	21,341/ 9680	7,293/ 3308	7,244/ 3286	2,311/ 1048	2,239/ 1016	2,254/ 1023
	Contrepoids n° 3; 25,353 lbs/11.5 t (sur châssis)	25,582/ 11604	8,639/ 3919	8,581/ 3892	2,840/ 1288	2,752/ 1248	2,770/ 1257
	Contrepoids n° 4; 25,353 lbs/11.5 t (sur châssis)	25,467/ 11552	8,686/ 3940	8,627/ 3913	2,769/ 1256	2,683/ 1217	2,702/ 1225
	Contrepoids n° 5; 26,455 lbs/12 t (sur superstructure)	26,205/ 11886	-10,258/ -4653	-10,189/ -4622	15,844/ 7187	15,352/ 6964	15,455/ 7010
	Contrepoids n° 6 + n° 7; 26,455 lbs + 26,455 lbs/ 12 t + 12 t (sur superstructure)	52,802/ 23951	-20,555/ -9323	-20,417/ -9261	31,848/ 14446	30,859/ 13997	31,067/ 14092

Flèche vers l'arrière, soutenue par chariot de transport "Dolly" (35.8 ft / 10.91 m derrière le point d'articulation de la flèche)		TOTAL						
		lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg
Total	1. Équipement standard + 2. équipement spécial + 3. autres	141,441/ 64157	20,060/ 9099	20,641/ 9363	22,772/ 10329	22,875/ 10376	22,852/ 10366	32,241/ 14624
1. Équipement standard	Voir page 55; sans contrepoids	129,338/ 58667	18,388/ 8341	18,979/ 8609	21,304/ 9663	21,444/ 9727	21,413/ 9713	27,810/ 12614
2. Équipement spécial (sélection)	Pneus 525/80R25 (20.50 R25) au lieu de 445/95R25 (16.00 R25)	1,442/ 654	288/ 131	288/ 131	289/ 131	289/ 131	289/ 131	0/ 0
	Crochet de remorquage pour chariot de transport, y compris accouplements pour éclairage et frein	140/ 63	-57/ -26	-57/ -26	86/ 39	84/ 38	84/ 38	0/ 0
	Boîte d'outillage à l'arrière de l'engin (sans boîte de rangement de bois)	197/ 90	-86/ -39	-85/ -39	125/ 57	121/ 55	122/ 55	0/ 0
	Treuil auxiliaire y compris câble métallique	3,647/ 1654	1,501/ 681	1,491/ 676	223/ 101	216/ 98	217/ 99	0/ 0
	Tambour de flexible pour rallonge de flèche hydraulique (détachable)	575/ 261	-1/ 0	-1/ 0	-1/ 0	-1/ 0	-1/ 0	579/ 263
	Rallonge de flèche hydraulique fixée sur flèche principale (position de transport)	3,420/ 1551	127/ 58	126/ 57	105/ 48	101/ 46	102/ 46	2,859/ 1297
	Radiateur supplémentaire	104/ 47	5/ 2	5/ 2	32/ 15	31/ 14	32/ 14	0/ 0
	Poulie simple	139/ 63	-7/ -3	-6/ -3	-5/ -2	-5/ -2	-5/ -2	168/ 76
	Moufle 11.0 US t / 10 t (suspendue sur la flèche principale)	655/ 297	-37/ -17	-38/ -17	-32/ -15	-31/ -14	-31/ -14	826/ 375
3. Autres	Conducteur	176/ 80	149/ 68	148/ 67	-41/ -19	-40/ -18	-40/ -18	0/ 0
	Carburant dans le châssis	1,138/ 516	-259/ -117	-257/ -116	561/ 255	544/ 247	548/ 248	0/ 0
	Carburant dans la superstructure	468/ 212	49/ 22	49/ 22	126/ 57	122/ 55	123/ 56	0/ 0
Poids supplémentaires	Moufle 35.3 US t / 32 t (suspendue sur la flèche principale)	977/ 443	-47/ -21	-47/ -21	-39/ -18	-38/ -17	-38/ -17	1,184/ 537
	Moufle 88.2 US t / 80 t (suspendue sur la flèche principale)	1,742/ 790	-84/ -38	-83/ -38	-69/ -31	-67/ -30	-67/ -31	2,112/ 958
	Contrepoids n° 1; 4,409 lbs/2.0 t (sur châssis)	4,407/ 1999	1,494/ 678	1,484/ 673	485/ 220	470/ 213	473/ 215	0/ 0
	Contrepoids n° 2; 22,046 lbs/10.0 t (sur châssis)	21,341/ 9680	7,293/ 3308	7,244/ 3286	2,311/ 1048	2,239/ 1016	2,254/ 1023	0/ 0
	Contrepoids n° 3; 25,353 lbs/11.5 t (sur châssis)	25,582/ 11604	8,639/ 3919	8,581/ 3892	2,840/ 1288	2,752/ 1248	2,770/ 1257	0/ 0
	Contrepoids n° 4; 25,353 lbs/11.5 t (sur châssis)	25,467/ 11552	8,686/ 3940	8,627/ 3913	2,769/ 1256	2,683/ 1217	2,702/ 1225	0/ 0
	Contrepoids n° 5; 26,455 lbs/12 t (sur superstructure)	26,205/ 11886	8,910/ 4041	8,850/ 4014	2,868/ 1301	2,779/ 1261	2,798/ 1269	0/ 0
	Contrepoids n° 6 + n° 7; 26,455 lbs + 26,455 lbs/ 12 t + 12 t (sur superstructure)	52,802/ 23951	17,839/ 8092	17,719/ 8037	5,856/ 2656	5,675/ 2574	5,713/ 2591	0/ 0




Cargas por eje

Pluma dirigida hacia adelante		TOTAL					
		lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg
Total	1. Equipamiento estándar + 2. Equipamiento especial + 3. Otros	141,441/ 64157	25,811/ 11707	26,354/ 11954	29,829/ 13530	29,713/ 13477	29,735/ 13488
1. Equipamiento estándar	Ver páginas 56; sin contrapeso	129,338/ 58667	24,266/ 11007	24,817/ 11257	26,770/ 12143	26,740/ 12129	26,745/ 12131
2. Equipamiento especial (selección)	Neumáticos 525/80R25 (20.50 R25) en lugar de 445/95R25 (16.00 R25)	1,442/ 654	288/ 131	288/ 131	289/ 131	289/ 131	289/ 131
	Dispositivo de enganche para remolque, incluyendo los acoplamientos para iluminación y frenos	140/ 63	-57/ -26	-57/ -26	86/ 39	84/ 38	84/ 38
	Caja de herramientas en la parte trasera (sin caja para maderos)	197/ 90	-86/ -39	-85/ -39	125/ 57	121/ 55	122/ 55
	Torno auxiliar incluyendo el cable	3,647/ 1654	-1,681/ -763	-1,670/ -758	2,377/ 1078	2,303/ 1045	2,319/ 1052
	Tambor de manguera para alargamiento de pluma hidráulica (desmontable)	575/ 261	452/ 205	449/ 204	-111/ -50	-107/ -49	-108/ -49
	Alargamiento de pluma hidráulica fijado sobre pluma principal (posición de transporte)	3,420/ 1551	2,069/ 938	2,055/ 932	-239/ -108	-232/ -105	-233/ -106
	Radiator de aceite adicional	104/ 47	-10/ -4	-10/ -4	42/ 19	41/ 19	41/ 19
	Rodillo antepuesto	139/ 63	139/ 63	138/ 62	-47/ -21	-45/ -21	-46/ -21
	Motón 11.0 US t / 10 t (suspendido desde la pluma principal)	655/ 297	614/ 278	610/ 277	-193/ -88	-187/ -85	-188/ -85
3. Otros	Conductor	176/ 80	149/ 68	148/ 67	-41/ -19	-40/ -18	-40/ -18
	Combustible en el chasis	1,138/ 516	-259/ -117	-257/ -116	561/ 255	544/ 247	548/ 248
	Combustible en la superestructura	468/ 212	-73/ -33	-73/ -33	209/ 95	202/ 92	204/ 92
Pesos adicionales	Motón 35.3 US t / 32 t (suspendido desde la pluma principal)	977/ 443	941/ 427	935/ 424	-306/ -139	-296/ -134	-298/ -135
	Motón 88.2 US t / 80 t (suspendido desde la pluma principal)	1,742/ 790	1,699/ 771	1,688/ 765	-559/ -253	-541/ -246	-545/ -247
	Contrapeso N° 1; 4,409 lbs/2.0 t (encima del chasis)	4,407/ 1999	1,494/ 678	1,484/ 673	485/ 220	470/ 213	473/ 215
	Contrapeso N° 2; 22,046 lbs/10.0 t (encima del chasis)	21,341/ 9680	7,293/ 3308	7,244/ 3286	2,311/ 1048	2,239/ 1016	2,254/ 1023
	Contrapeso N° 3; 25,353 lbs/11.5 t (encima del chasis)	25,582/ 11604	8,639/ 3919	8,581/ 3892	2,840/ 1288	2,752/ 1248	2,770/ 1257
	Contrapeso N° 4; 25,353 lbs/11.5 t (encima del chasis)	25,467/ 11552	8,686/ 3940	8,627/ 3913	2,769/ 1256	2,683/ 1217	2,702/ 1225
	Contrapeso N° 5; 26,455 lbs/12 t (encima del superestructura)	26,205/ 11886	-10,258/ -4653	-10,189/ -4622	15,844/ 7187	15,352/ 6964	15,455/ 7010
	Contrapeso N° 6 + N° 7; 26,455 lbs + 26,455 lbs/12 t + 12 t (encima del superestructura)	52,802/ 23951	-20,555/ -9323	-20,417/ -9261	31,848/ 14446	30,859/ 13997	31,067/ 14092

Pluma hacia atrás, apoyada por carro tipo dolly (35.8 ft / 10.91 m detrás punto de articulación de la pluma)		TOTAL						
		lb/kg	1 lb/kg	2 lb/kg	3 lb/kg	4 lb/kg	5 lb/kg	lb/kg
Total	1. Equipamiento estándar + 2. Equipamiento especial + 3. Otros	141,441/ 64157	20,060/ 9099	20,641/ 9363	22,772/ 10329	22,875/ 10376	22,852/ 10366	32,241/ 14624
1. Equipamiento estándar	Ver páginas 56; sin contrapeso	129,338/ 58667	18,388/ 8341	18,979/ 8609	21,304/ 9663	21,444/ 9727	21,413/ 9713	27,810/ 12614
2. Equipamiento especial (selección)	Neumáticos 525/80R25 (20.50 R25) en lugar de 445/95R25 (16.00 R25)	1,442/ 654	288/ 131	288/ 131	289/ 131	289/ 131	289/ 131	0/ 0
	Dispositivo de enganche para remolque, incluyendo los acoplamientos para iluminación y frenos	140/ 63	-57/ -26	-57/ -26	86/ 39	84/ 38	84/ 38	0/ 0
	Caja de herramientas en la parte trasera (sin caja para maderos)	197/ 90	-86/ -39	-85/ -39	125/ 57	121/ 55	122/ 55	0/ 0
	Torno auxiliar incluyendo el cable	3,647/ 1654	1,501/ 681	1,491/ 676	223/ 101	216/ 98	217/ 99	0/ 0
	Tambor de manguera para alargamiento de pluma hidráulico (desmontable)	575/ 261	-1/ 0	-1/ 0	-1/ 0	-1/ 0	-1/ 0	579/ 263
	Alargamiento de pluma hidráulica fijado sobre pluma principal (posición de transporte)	3,420/ 1551	127/ 58	126/ 57	105/ 48	101/ 46	102/ 46	2,859/ 1297
	Radiator de aceite adicional	104/ 47	5/ 2	5/ 2	32/ 15	31/ 14	32/ 14	0/ 0
	Rodillo antepuesto	139/ 63	-7/ -3	-6/ -3	-5/ -2	-5/ -2	-5/ -2	168/ 76
	Motón 11.0 US t / 10 t (suspendido desde la pluma principal)	655/ 297	-37/ -17	-38/ -17	-32/ -15	-31/ -14	-31/ -14	826/ 375
3. Otros	Conductor	176/ 80	149/ 68	148/ 67	-41/ -19	-40/ -18	-40/ -18	0/ 0
	Combustible en el chasis	1,138/ 516	-259/ -117	-257/ -116	561/ 255	544/ 247	548/ 248	0/ 0
	Combustible en la superestructura	468/ 212	49/ 22	49/ 22	126/ 57	122/ 55	123/ 56	0/ 0
Pesos adicionales	Motón 35.3 US t / 32 t (suspendido desde la pluma principal)	977/ 443	-47/ -21	-47/ -21	-39/ -18	-38/ -17	-38/ -17	1,184/ 537
	Motón 88.2 US t / 80 t (suspendido desde la pluma principal)	1,742/ 790	-84/ -38	-83/ -38	-69/ -31	-67/ -30	-67/ -31	2,112/ 958
	Contrapeso N° 1; 4,409 lbs/2.0 t (encima del chasis)	4,407/ 1999	1,494/ 678	1,484/ 673	485/ 220	470/ 213	473/ 215	0/ 0
	Contrapeso N° 2; 22,046 lbs/10.0 t (encima del chasis)	21,341/ 9680	7,293/ 3308	7,244/ 3286	2,311/ 1048	2,239/ 1016	2,254/ 1023	0/ 0
	Contrapeso N° 3; 25,353 lbs/11.5 t (encima del chasis)	25,582/ 11604	8,639/ 3919	8,581/ 3892	2,840/ 1288	2,752/ 1248	2,770/ 1257	0/ 0
	Contrapeso N° 4; 25,353 lbs/11.5 t (encima del chasis)	25,467/ 11552	8,686/ 3940	8,627/ 3913	2,769/ 1256	2,683/ 1217	2,702/ 1225	0/ 0
	Contrapeso N° 5; 26,455 lbs/12 t (encima del superestructura)	26,205/ 11886	8,910/ 4041	8,850/ 4014	2,868/ 1301	2,779/ 1261	2,798/ 1269	0/ 0
	Contrapeso N° 6 + N° 7; 26,455 lbs + 26,455 lbs/12 t + 12 t (encima del superestructura)	52,802/ 23951	17,839/ 8092	17,719/ 8037	5,856/ 2656	5,675/ 2574	5,713/ 2591	0/ 0










On-road and off-road driving · Marche route et tout terrain · Traslado por carretera y todoterreno

Speeds and gradeability · Vitesses de conduite et gravissement de pente · Velocidades y pendientes superables

			
445/95 R 25 / 525/80 R 25	52.8 mph max. 85 km/h max.	25.5 mph max. 41 km/h max.	63 % / 48 %

* Depending on axle loads · En fonction des charges par essieu · Según los cargas por ejes

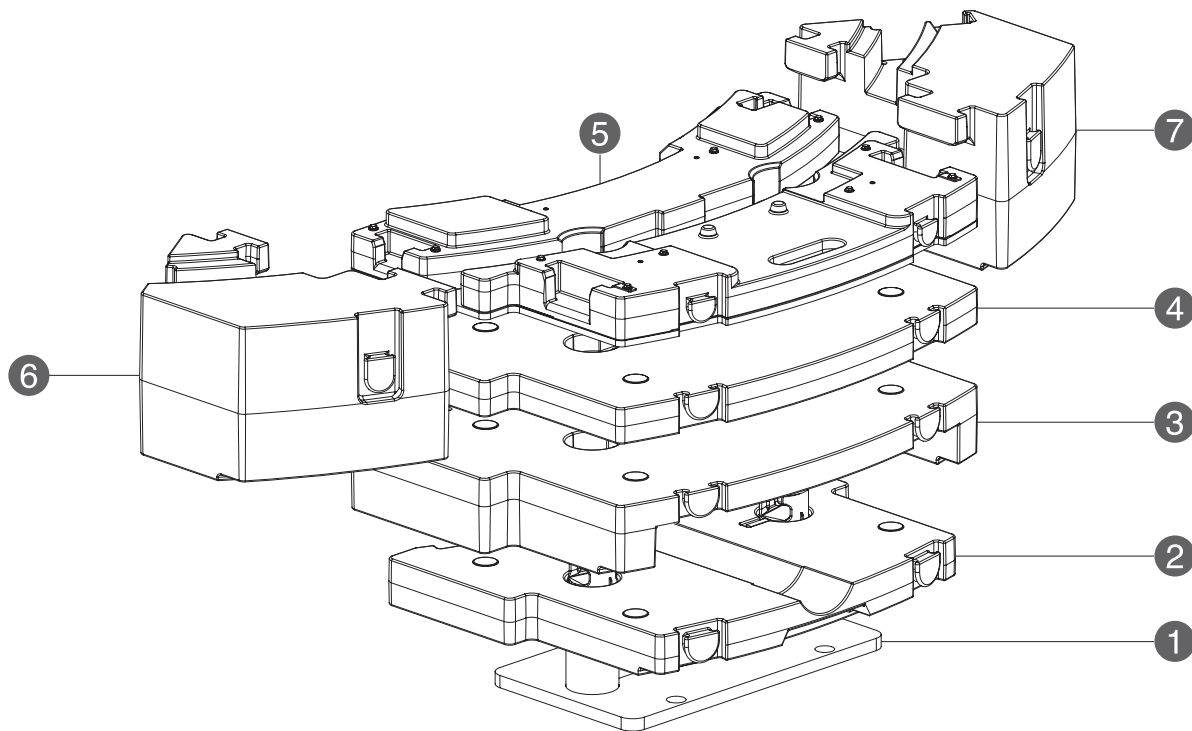
Steering · Direction · Dirección

		v < 15.5 mph v < 25 km/h
		v ≥ 15.5 mph v ≥ 25 km/h
		v > 31.1 mph v > 50 km/h
		Manual steering · Direction manuelle · Dirección manual
		Smallest turning circle · Rayon de braquage mini · Mínimo radio
		Diagonal steering · Marche en crabe · Marcha cangrejo
		Rear veering suppression · Suppression de déboîtement AR Supresión de movimiento transversal de parte posterior

TECHNICAL DATA FOR TRANSPORT

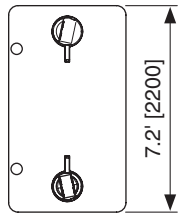
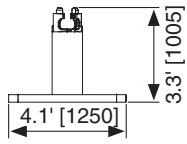
CARACTÉRISTIQUES TECHNIQUES POUR LE TRANSPORT
DATOS TÉCNICOS PARA EL TRANSPORTE



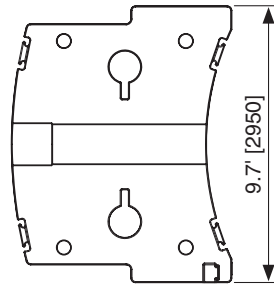
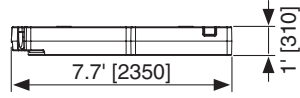


		26,455 lbs 12.0 t	51,809 lbs 23.5 t	77,162 lbs 35.0 t	103,617 lbs 47.0 t	131,175 lbs 59.5 t	156,528 lbs 71.0 t
①	4,409 lbs 2.0 t	1	1	1	1	1	1
②	22,046 lbs 10.0 t	1	1	1	1	1	1
③	25,353 lbs 11.5 t	-	1	1	1	1	1
④	25,353 lbs 11.5 t	-	-	1	1	-	1
⑤	26,455 lbs 12.0 t	-	-	-	1	1	1
⑥	26,455 lbs 12.0 t	-	-	-	-	1	1
⑦	26,455 lbs 12.0 t	-	-	-	-	1	1

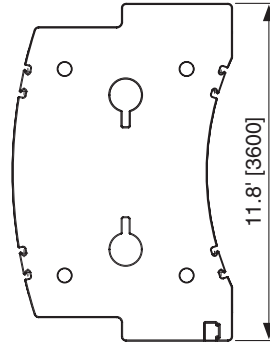
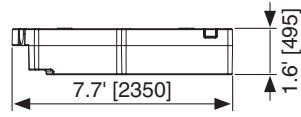
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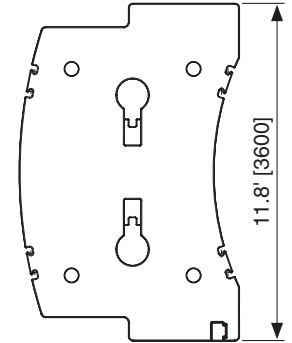
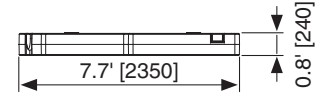
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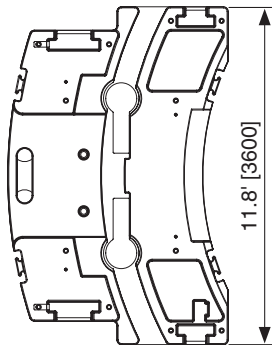
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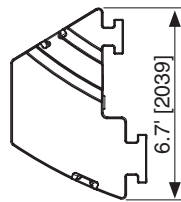
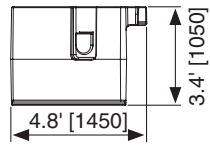
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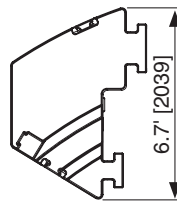
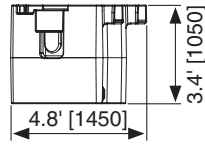
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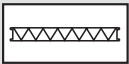
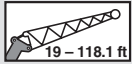

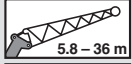



6



7

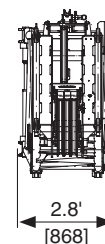
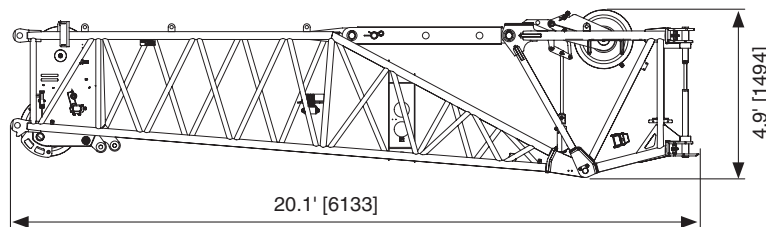


	ft	m	
	3.6 ft + 15.4 ft	1.1 m + 4.7 m	①
 19 – 118.1 ft	3.6 ft + 35.8 ft	1.1 m + 10.9 m	① + ③
 HYDRO 19 – 118.1 ft	3.6 ft + 55.4 ft	1.1 m + 16.9 m	① + ② + ③
 5.8 – 36 m	3.6 ft + 75.1 ft	1.1 m + 22.9 m	① + ② + ② + ③
 HYDRO 5.8 – 36 m	3.6 ft + 94.8 ft	1.1 m + 28.9 m	① + ② + ② + ② + ③
	3.6 ft + 114.5 ft	1.1 m + 34.9 m	① + ② + ② + ② + ② + ③

①



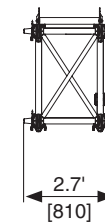
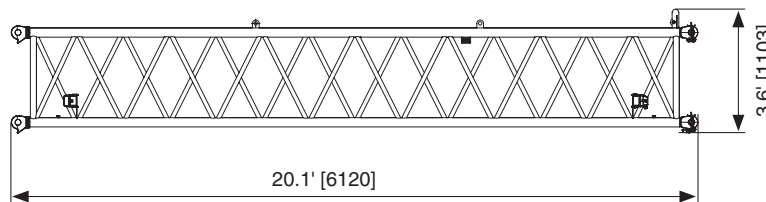
2,249 1020



②



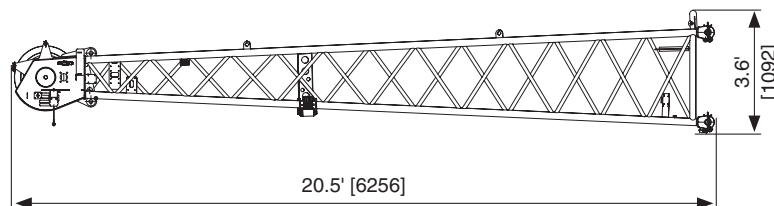
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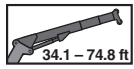


③



853 387

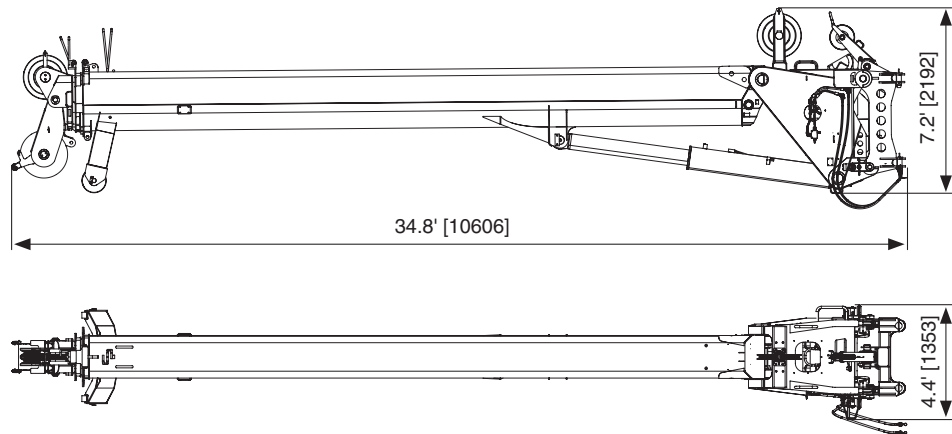




10,750



4876



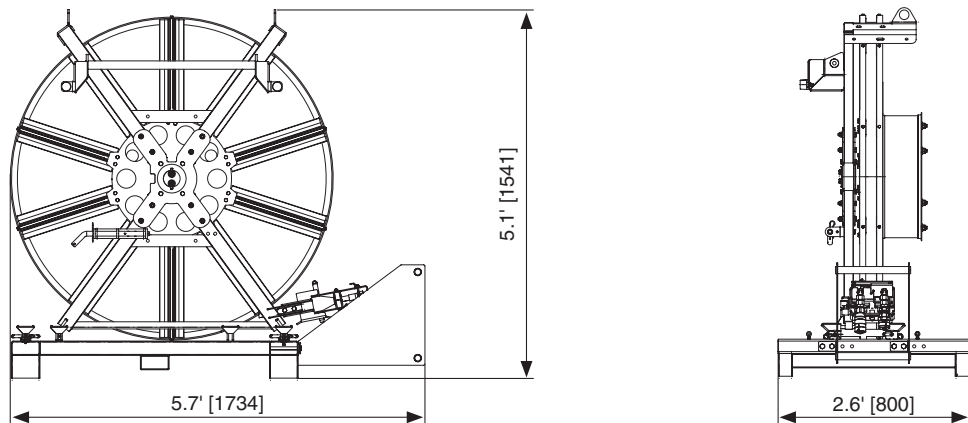
Hose drum for hydraulic jib · Tambour de flexible pour fléchette hydraulique · Devanadera para plumín hidráulico



551



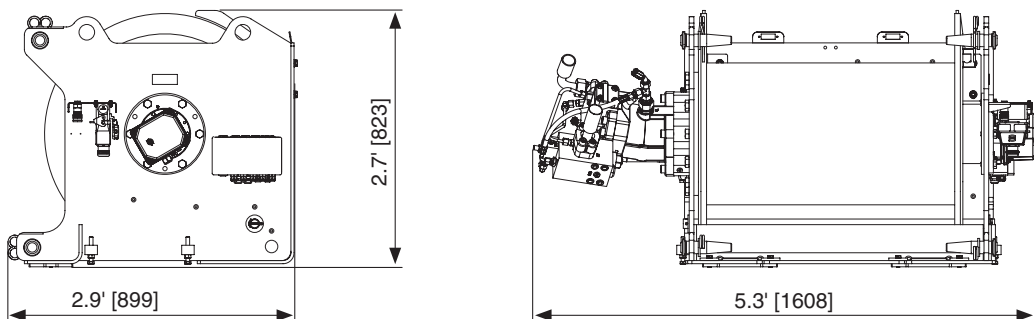
250



Auxiliary winch · Treuil supplémentaire · Cabrestante auxiliar



2,066/ 937/
3,605* 1635*



* with rope · avec câble · con cable



TECHNICAL DATA FOR OPERATION

CARACTÉRISTIQUES TECHNIQUES POUR L'UTILISATION
DATOS TÉCNICOS PARA EL USO



Operation · Utilisation · Uso






Main boom · Flèche principale · Pluma principal

	-1.3° – 84°	~ 60 s
	43.3 ft – 223.1 ft 13.2 m – 68.0 m	~ 500 s






Swing mechanism · Groupe de rotation · Mecanismo de giro

	0 – 1.2 min ⁻¹		0° / 180°
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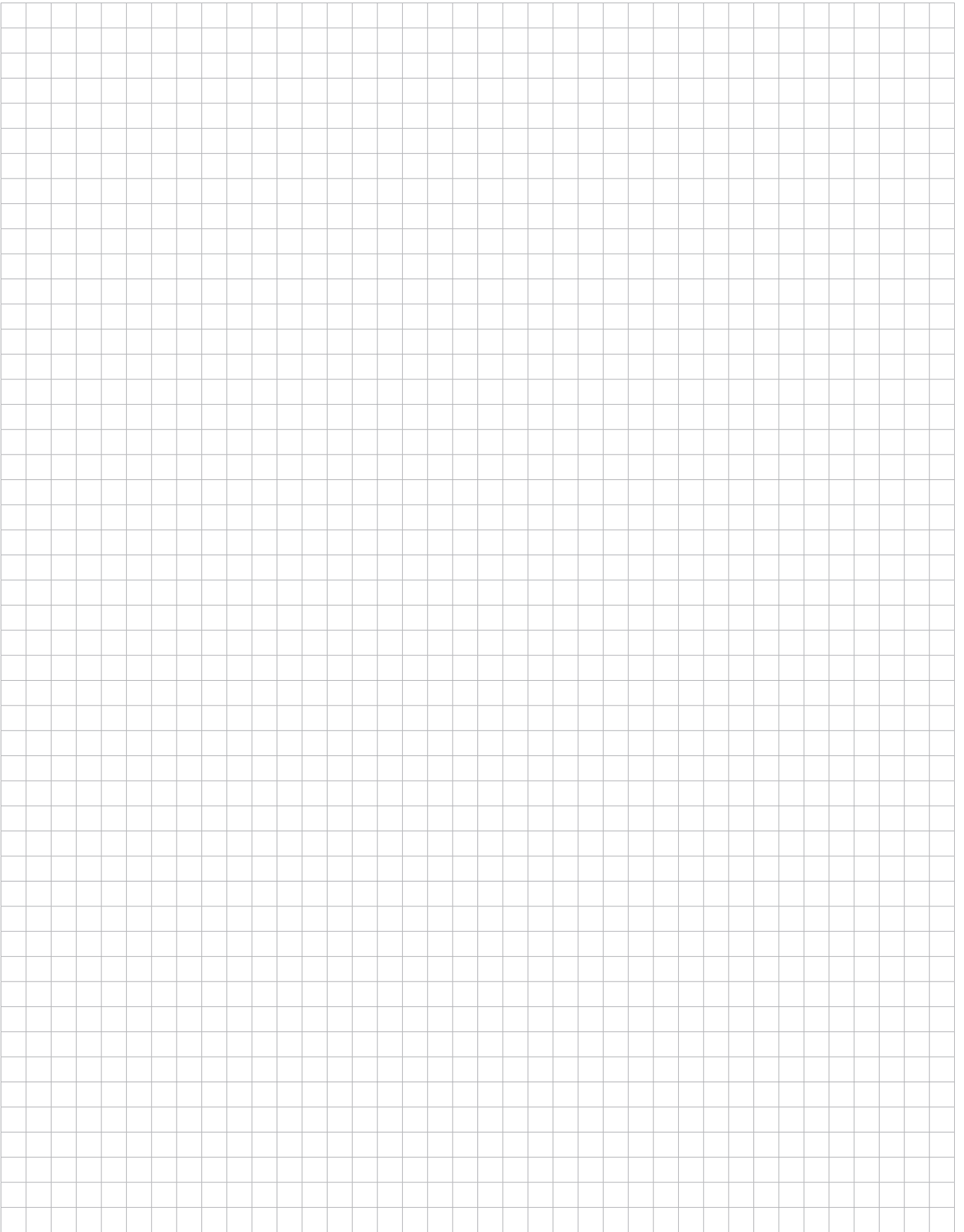
Winches · Treuils · Cabrestantes

			
	0 – 420 ft/min 0 – 128 m/min	0.83 in / 1,049.9 ft 21 mm / 320 m	22,031 lbs / 98 kN
	0 – 420 ft/min 0 – 128 m/min	0.83 in / 1,049.9 ft 21 mm / 320 m	22,031 lbs / 98 kN

Hook blocks · Moufles · Pastecas de carga

				
275.6 US t* / 250 t*	469,144 / 212.8	11	23	4,409 / 2000
220.5 US t* / 200 t*	392,202 / 177.9	9	19	3,527 / 1600
176.4 US t* / 160 t*	313,277 / 142.1	7	15	2,976 / 1350
137.8 US t* / 125 t*	232,367 / 105.4	5	11	2,535 / 1150
88.2 US t* / 80 t*	149,694 / 67.9	3	7	1,874 / 850
88.2 US t / 80 t	149,694 / 67.9	3	7	1,874 / 850
35.3 US t / 32 t	64,816 / 29.4	1	3	992 / 450
11.0 US t / 10 t	22,046 / 10	0	1	661 / 300

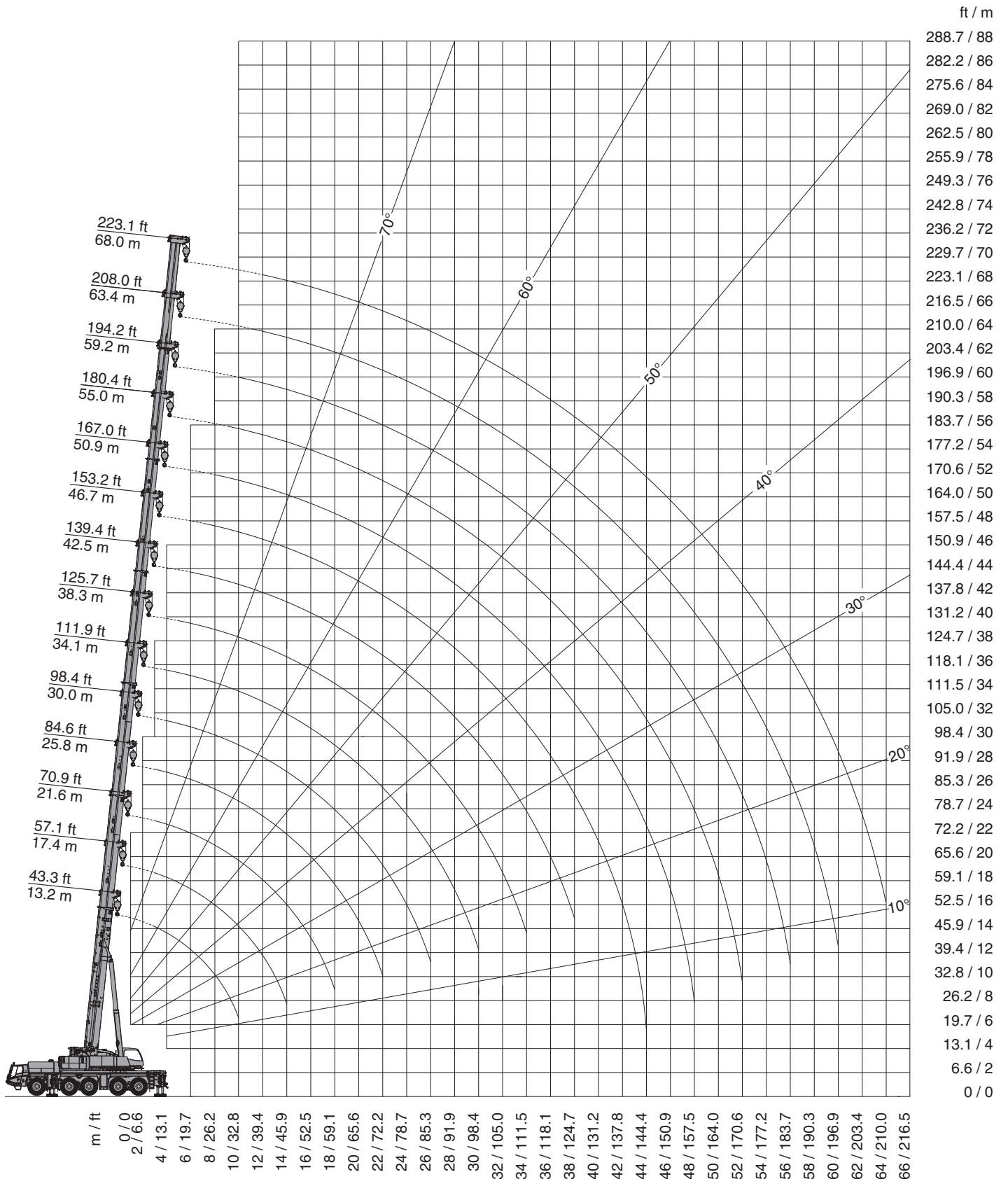
* Twin hook · Moufle avec crochet marin · Gancho doble



Working range · Rayon de travail · Zona de trabajo

 43.3 – 223.1 ft
 ← 27.2 ft →
 360°
156,528 lbs **ASME**

 13.2 – 68.0 m
 ← 8.3 m →
 360°
71 t **ASME**



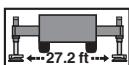
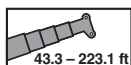


lbs x 1,000

ft	43.3 ft*	43.3 ft	57.1 ft	70.9 ft	84.6 ft	98.4 ft	111.9 ft	125.7 ft	139.4 ft	153.2 ft	167.0 ft	180.4 ft	194.2 ft	208.0 ft	223.1 ft
8.2	485.0**														
9.8	396.8**	389.1**	308.6**	308.6**	252.2										
11.5	373.7**	352.7**	308.6**	308.6**	252.2	199.5									
13.1	352.7**	331.8**	308.6**	308.6**	244.9	199.5									
14.8	331.8**	304.2**	304.7**	301.8**	231.0	199.5	154.3								
16.4	298.7**	280.0	281.1	277.8	227.1	195.1	154.3	120.2							
19.7	248.0	240.3	241.8	238.5	227.1	175.9	154.3	120.2	95.9						
23.0	212.3	210.5	211.2	210.8	209.2	170.9	147.0	120.2	95.9	76.1					
26.2	184.3	184.3	185.2	186.1	183.2	170.9	134.9	120.2	95.9	76.1	62.8				
29.5	162.0	162.0	162.7	163.6	160.9	162.5	127.9	116.4	95.9	76.1	62.8	50.7			
32.8	144.2	144.2	146.2	145.5	145.9	144.4	127.9	108.0	94.1	76.1	62.8	50.7	41.4		
36.1			131.4	131.6	132.1	129.4	127.2	100.8	89.3	76.1	62.8	50.7	41.4	33.1	
39.4			119.0	120.4	119.5	117.1	119.0	95.7	86.6	74.1	62.8	50.7	41.4	33.1	30.4
45.9			99.6	101.0	100.1	101.0	99.6	89.3	79.4	69.4	61.1	50.7	41.4	33.1	30.4
52.5				86.4	87.3	86.4	85.1	83.8	71.7	64.4	56.2	50.3	41.4	33.1	30.4
59.1				75.2	75.8	75.0	73.6	75.2	64.8	59.1	52.0	46.7	41.2	33.1	30.4
65.6					66.8	65.9	67.5	66.1	59.1	54.7	48.3	44.1	38.4	33.1	30.4
72.2					59.1	59.1	59.7	58.0	54.2	50.5	45.0	41.2	36.4	32.8	30.4
78.7						53.6	52.5	50.7	49.2	46.7	42.1	38.6	34.2	30.9	29.1
85.3						47.6	46.5	44.8	43.2	42.8	39.2	36.2	32.4	29.3	27.3
91.9							41.4	39.7	38.1	39.7	37.0	34.2	30.6	27.8	25.4
98.4							37.3	35.5	35.9	35.5	33.7	32.2	28.9	26.2	23.6
105.0								32.4	33.3	31.7	30.2	30.4	27.6	24.9	22.3
111.5								31.3	30.2	28.7	28.0	28.2	26.2	23.8	20.7
118.1									27.3	25.8	26.7	26.2	25.1	22.5	19.6
124.7									24.9	24.5	25.1	23.8	24.0	21.6	18.3
131.2										23.6	22.9	22.0	22.0	20.5	17.4
137.8										21.8	20.9	20.9	20.1	19.6	16.3
144.4										18.5	19.2	19.6	18.3	18.3	15.4
150.9											17.9	18.1	17.2	16.8	14.6
157.5												17.2	16.5	15.2	13.7
164.0													15.2	13.9	13.0
170.6													14.1	12.6	12.1
177.2														12.8	11.5
183.7														11.7	10.4
190.3															9.7
196.9															9.5
203.4															8.8
210.0															8.6
															7.7
															7.1

* Over rear · A l'arrière · Hacia atrás

** With additional lifting equipment · Avec équipement de levage supplémentaire · Con equipamiento de elevación adicional



131,175 lbs

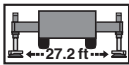
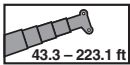
ASME

lbs x 1,000

ft	43.3 ft*	43.3 ft	57.1 ft	70.9 ft	84.6 ft	98.4 ft	111.9 ft	125.7 ft	139.4 ft	153.2 ft	167.0 ft	180.4 ft	194.2 ft	208.0 ft	223.1 ft
8.2	485.0**														
9.8	396.8**	389.1**	308.6**	308.6**	252.2										
11.5	373.7**	352.7**	308.6**	308.6**	252.2	199.5									
13.1	352.7**	324.3**	308.6**	308.6**	244.9	199.5									
14.8	320.6**	296.7**	297.2**	293.9**	231.0	199.5	154.3								
16.4	288.6	272.9	273.4	270.1	227.1	195.1	154.3	120.2							
19.7	239.9	234.1	234.6	232.6	227.1	175.9	154.3	120.2	95.9						
23.0	204.4	203.0	203.3	204.1	201.5	170.9	147.0	120.2	95.9	76.1					
26.2	176.8	175.5	175.7	176.6	173.7	170.9	134.9	120.2	95.9	76.1	62.8				
29.5	155.0	153.9	155.9	155.0	155.4	153.9	127.9	116.4	95.9	76.1	62.8	50.7			
32.8	137.8	136.7	138.5	138.9	139.1	136.7	127.9	108.0	94.1	76.1	62.8	50.7	41.4		
36.1			124.3	125.7	125.0	122.6	124.3	100.8	89.3	76.1	62.8	50.7	41.4	33.1	
39.4			112.7	114.0	113.1	114.0	112.7	95.7	86.6	74.1	62.8	50.7	41.4	33.1	30.4
45.9			95.2	95.5	96.3	95.5	94.1	89.3	79.4	69.4	61.1	50.7	41.4	33.1	30.4
52.5				81.4	82.2	81.4	79.6	81.6	71.7	64.4	56.2	50.3	41.4	33.1	30.4
59.1				69.2	69.0	68.3	69.9	68.1	64.8	59.1	52.0	46.7	41.2	33.1	30.4
65.6					58.9	60.8	59.5	57.8	56.2	54.7	48.3	44.1	38.4	33.1	30.4
72.2					53.1	52.7	51.6	49.8	48.3	47.6	45.0	41.2	36.4	32.8	30.4
78.7						46.3	45.0	43.2	42.8	43.4	41.7	38.6	34.2	30.9	29.1
85.3							41.0	39.7	38.8	39.5	37.9	36.4	36.2	32.4	29.3
91.9								35.3	35.5	35.1	33.5	33.1	33.1	30.6	27.8
98.4								31.7	33.1	31.3	29.8	30.6	30.2	28.9	26.2
105.0									29.8	28.0	27.8	28.2	27.1	27.3	24.9
111.5									26.9	25.1	26.5	25.4	25.6	24.5	23.8
118.1										24.0	24.0	23.1	23.4	22.0	22.0
124.7										23.1	21.8	21.8	21.2	20.9	19.8
131.2											19.8	20.3	19.2	19.0	17.9
137.8											19.2	18.5	18.1	17.2	16.1
144.4											18.1	17.0	16.8	15.7	14.6
150.9												15.9	15.2	14.3	13.0
157.5												15.0	13.9	13.0	11.9
164.0													12.8	11.9	10.6
170.6													11.7	10.8	9.5
177.2														9.7	8.6
183.7														8.8	7.7
190.3															6.8
196.9															6.2
203.4															
210.0															

* Over rear · A l'arrière · Hacia atrás

** With additional lifting equipment · Avec équipement de levage supplémentaire · Con equipamiento de elevación adicional



103,617 lbs

ASME

lbs x 1,000

ft	43.3 ft*	43.3 ft	57.1 ft	70.9 ft	84.6 ft	98.4 ft	111.9 ft	125.7 ft	139.4 ft	153.2 ft	167.0 ft	180.4 ft	194.2 ft	208.0 ft	223.1 ft
8.2	485.0**														
9.8	396.8**	384.7**	308.6**	308.6**	252.2										
11.5	373.7**	347.0**	308.6**	308.6**	252.2	199.5									
13.1	339.7**	315.0**	308.6**	308.6**	244.9	199.5									
14.8	302.5**	287.9	288.4	284.8	231.0	199.5	154.3								
16.4	272.1	264.3	264.8	261.5	227.1	195.1	154.3	120.2							
19.7	226.0	226.0	226.4	226.0	224.4	175.9	154.3	120.2	95.9						
23.0	191.4	191.4	191.8	192.7	189.8	170.9	147.0	120.2	95.9	76.1					
26.2	165.1	165.1	167.1	166.4	166.9	165.3	134.9	120.2	95.9	76.1	62.8				
29.5	144.8	144.8	146.6	147.0	146.4	144.8	127.9	116.4	95.9	76.1	62.8	50.7			
32.8	128.5	128.5	130.3	131.8	131.0	128.5	127.9	108.0	94.1	76.1	62.8	50.7	41.4		
36.1			116.8	118.4	117.5	118.4	115.1	100.8	89.3	76.1	62.8	50.7	41.4	33.1	
39.4			106.3	106.9	107.8	106.9	103.0	95.7	86.6	74.1	62.8	50.7	41.4	33.1	30.4
45.9			85.1	86.9	86.9	85.5	86.0	84.2	79.4	69.4	61.1	50.7	41.4	33.1	30.4
52.5				70.3	70.3	72.5	71.2	69.4	67.2	64.4	56.2	50.3	41.4	33.1	30.4
59.1				58.6	60.8	60.4	59.3	57.5	56.2	55.3	52.0	46.7	41.2	33.1	30.4
65.6					51.8	51.4	50.3	49.4	48.1	48.7	46.7	44.1	38.4	33.1	30.4
72.2					45.0	44.3	43.2	42.1	43.0	41.4	40.6	41.0	36.4	32.8	30.4
78.7						38.6	37.7	39.2	37.3	36.4	36.8	35.5	34.2	30.9	29.1
85.3						34.2	34.8	34.4	32.6	33.3	32.8	31.7	31.7	29.3	27.3
91.9							31.7	30.6	29.5	30.2	29.1	29.5	28.2	27.8	25.4
98.4							28.4	27.6	27.6	26.9	27.1	26.2	26.0	24.9	23.6
105.0								24.9	25.4	24.5	24.5	23.8	23.1	22.0	21.8
111.5								23.4	22.9	22.7	22.0	21.6	20.7	19.4	19.4
118.1									20.7	20.9	20.3	19.4	18.5	17.2	17.2
124.7									19.4	19.0	18.5	17.6	16.5	15.4	15.2
131.2										17.2	16.8	15.9	14.8	13.7	13.7
137.8										15.9	15.2	14.3	13.2	12.1	12.1
144.4										14.6	13.9	12.8	11.9	10.8	10.6
150.9											12.6	11.7	10.6	9.5	9.5
157.5											11.5	10.6	9.5	8.4	8.2
164.0												9.5	8.4	7.3	7.3
170.6												8.6	7.5	6.4	6.2
177.2													6.6	5.5	5.5
183.7													6.0	4.6	4.6
190.3														4.0	4.0
196.9														3.3	3.3
203.4															2.6

* Over rear · A l'arrière · Hacia atrás

** With additional lifting equipment · Avec équipement de levage supplémentaire · Con equipamiento de elevación adicional

Operation · Utilisation · Uso

lbs x 1,000

ft	43.3 ft*	43.3 ft	57.1 ft	70.9 ft	84.6 ft	98.4 ft	111.9 ft	125.7 ft	139.4 ft	153.2 ft	167.0 ft	180.4 ft	194.2 ft	208.0 ft	223.1 ft
8.2	485.0**														
9.8	396.8**														
11.5	368.0**	374.8**	308.6**	308.6**	252.2										
13.1	323.0**	337.1**	308.6**	308.6**	252.2	199.5									
14.8	287.3	278.4	306.0**	302.5**	244.9	199.5									
16.4	258.4	255.3	278.9	275.4	231.0	199.5	154.3								
19.7	213.2	213.2	213.6	213.2	211.6	175.9	154.3	120.2							
23.0	180.1	180.1	182.1	181.4	181.9	170.9	147.0	120.2	95.9						
26.2	155.2	155.2	157.2	157.6	157.0	149.3	134.9	120.2	95.9	76.1					
29.5	136.0	136.0	137.8	139.3	138.0	133.2	124.8	116.4	95.9	76.1	62.8				
32.8	120.2	120.2	121.9	123.5	121.0	116.2	108.9	102.3	94.1	76.1	62.8	50.7			
36.1			105.8	106.3	107.8	102.5	96.3	95.5	87.1	76.1	62.8	50.7	41.4		
39.4			91.3	93.3	93.0	91.5	90.8	85.5	80.7	74.1	62.8	50.7	41.4	33.1	
45.9			70.5	72.3	75.0	74.5	73.4	70.3	67.5	63.7	61.1	50.7	41.4	33.1	30.4
52.5				60.2	60.8	60.2	59.1	58.2	56.7	55.6	52.2	50.3	41.4	33.1	30.4
59.1				49.8	50.5	50.0	48.7	48.5	48.7	47.2	46.7	44.8	41.2	33.1	30.4
65.6					42.5	42.1	42.3	42.8	41.0	41.4	40.3	39.5	38.1	33.1	30.4
72.2					36.6	36.2	37.9	37.0	36.6	36.4	35.3	35.3	34.4	32.8	30.4
78.7						33.5	32.8	32.2	32.6	32.2	32.0	30.9	30.6	29.3	28.9
85.3						29.3	28.9	28.9	28.9	28.7	28.0	27.6	26.7	25.4	25.4
91.9							25.6	26.2	25.6	25.6	25.1	24.3	23.1	22.0	21.8
98.4							23.6	23.4	23.4	22.7	22.3	21.4	20.3	19.2	19.0
105.0								20.9	20.9	20.3	19.8	18.7	17.9	16.5	16.5
111.5								19.0	18.7	18.1	17.6	16.8	15.7	14.6	14.3
118.1									17.0	16.3	15.7	14.8	13.9	12.6	12.6
124.7									15.2	14.6	14.1	13.0	12.1	11.0	10.8
131.2										13.0	12.6	11.7	10.6	9.5	9.5
137.8										11.9	11.2	10.4	9.3	8.2	8.2
144.4										10.8	10.1	9.0	8.2	6.8	6.8
150.9											9.0	7.9	7.1	5.7	5.7
157.5											8.2	7.1	6.0	4.9	4.9
164.0												6.2	5.1	4.0	4.0
170.6												5.3	4.4	3.1	3.1
177.2													3.5	2.4	2.2
183.7													2.9		

lbs x 1,000

ft	43.3 ft*	43.3 ft	57.1 ft	70.9 ft	84.6 ft	98.4 ft	111.9 ft	125.7 ft	139.4 ft	153.2 ft	167.0 ft	180.4 ft	194.2 ft	208.0 ft	223.1 ft
8.2	478.8**														
9.8	396.8**	364.2**	308.6**	308.6**	252.2										
11.5	349.2**	326.7**	308.6**	308.6**	252.2	199.5									
13.1	306.4**	295.4**	295.9**	292.3	244.9	199.5									
14.8	272.5	268.5	269.0	265.4	231.0	199.5	154.3								
16.4	244.3	244.3	244.7	244.3	227.1	195.1	154.3	120.2							
19.7	200.4	200.4	202.6	201.9	189.8	173.1	154.3	120.2	95.9						
23.0	169.1	169.1	171.3	170.0	157.6	145.1	134.0	120.2	95.9	76.1					
26.2	145.3	145.3	147.3	141.8	135.4	126.8	117.7	109.3	95.9	76.1	62.8				
29.5	118.6	118.6	123.9	119.7	115.3	108.2	105.2	95.9	89.7	76.1	62.8	50.7			
32.8	97.4	97.4	102.1	104.1	99.9	97.2	92.8	86.9	81.4	76.1	62.8	50.7	41.4		
36.1			86.2	88.2	88.6	86.9	82.2	77.8	73.4	68.8	62.8	50.7	41.4	33.1	
39.4			73.9	76.9	78.7	77.6	73.4	69.4	65.5	63.3	59.7	50.7	41.4	33.1	30.4
45.9			57.5	60.2	61.1	60.4	59.5	57.5	56.0	53.4	51.1	48.1	41.4	33.1	30.4
52.5				48.3	48.9	48.5	49.6	49.6	48.7	46.1	44.5	42.3	39.9	33.1	30.4
59.1				39.7	40.3	41.9	41.7	41.0	41.0	40.8	39.2	37.5	35.1	33.1	30.4
65.6					34.8	35.5	35.1	35.5	35.3	35.5	34.4	33.3	31.3	29.1	28.4
72.2					30.2	30.4	30.4	30.9	30.9	30.2	29.8	28.7	27.1	25.1	24.3
78.7						26.0	26.9	26.7	26.7	25.8	25.4	24.5	23.4	21.6	20.9
85.3						22.9	23.4	23.1	22.9	22.3	21.8	20.7	19.8	18.5	18.1
91.9							20.5	20.3	20.1	19.4	19.0	17.9	16.8	15.7	15.4
98.4							18.1	17.6	17.6	16.8	16.3	15.4	14.3	13.0	13.0
105.0								15.7	15.4	14.8	14.3	13.2	12.3	11.0	11.0
111.5								13.9	13.7	13.0	12.3	11.5	10.4	9.3	9.0
118.1									12.1	11.2	10.8	9.9	8.8	7.5	7.5
124.7									10.6	9.9	9.5	8.4	7.5	6.2	6.2
131.2										8.6	8.2	7.3	6.2	5.1	4.9
137.8										7.7	7.1	6.2	5.1	4.0	3.7
144.4										6.8	6.0	5.1	4.2		
150.9											5.1	4.2	3.1		
157.5											4.4	3.3	2.4		
164.0												2.6			

* Over rear · A l'arrière · Hacia atrás
 ** With additional lifting equipment · Avec équipement de levage supplémentaire · Con equipamiento de elevación adicional



43.3 – 223.1 ft 27.2 ft 360° 26,455 lbs ASME

lbs x 1,000

ft	43.3 ft*	43.3 ft	57.1 ft	70.9 ft	84.6 ft	98.4 ft	111.9 ft	125.7 ft	139.4 ft	153.2 ft	167.0 ft	180.4 ft	194.2 ft	208.0 ft	223.1 ft
8.2	455.9**														
9.8	383.8**														
11.5	330.7**	353.0**	308.6**	308.6**	252.2										
13.1	290.1	284.4	284.8	281.3	244.9	199.5									
14.8	256.6	256.6	257.1	256.6	230.8	199.5	154.3								
16.4	229.1	229.1	229.5	226.6	201.3	179.9	154.3	120.2							
19.7	187.8	187.8	188.9	173.7	158.7	144.0	131.2	120.2	95.9						
23.0	155.6	155.6	147.0	139.1	131.8	122.1	113.3	103.2	95.9	76.1					
26.2	116.6	116.6	121.3	115.7	109.1	106.3	99.4	91.9	82.9	76.1	62.8				
29.5	91.7	91.7	97.0	97.4	95.9	90.8	85.1	80.0	74.7	69.4	62.8	50.7			
32.8	74.7	74.7	79.4	83.8	83.1	78.9	74.7	71.0	68.1	62.8	58.6	50.7	41.4		
36.1			67.7	70.5	71.4	69.2	65.9	65.5	61.1	55.8	51.4	50.3	41.4	33.1	
39.4			57.8	60.4	61.3	60.8	60.2	58.4	56.2	52.0	48.7	45.2	41.4	33.1	30.4
45.9			43.2	45.9	46.7	48.9	48.5	47.8	46.5	45.4	41.7	39.0	36.2	33.1	30.4
52.5				36.2	38.4	38.6	39.0	39.2	39.2	37.7	35.9	33.7	31.5	29.1	28.2
59.1				28.9	30.9	31.5	32.2	32.0	31.7	31.1	30.2	28.2	26.2	24.0	23.4
65.6					25.4	26.0	26.5	26.2	26.2	25.6	24.9	24.0	22.0	20.1	19.4
72.2					21.2	21.6	22.3	22.0	21.8	21.2	20.7	19.6	18.5	16.8	16.1
78.7						18.3	18.7	18.5	18.5	17.6	17.2	16.3	15.2	13.9	13.4
85.3						15.7	16.1	15.7	15.7	15.0	14.3	13.4	12.3	11.0	11.0
91.9							13.7	13.4	13.2	12.6	12.1	11.0	10.1	8.8	8.8
98.4							11.9	11.5	11.2	10.6	10.1	9.3	8.2	6.8	6.8
105.0								9.9	9.7	9.0	8.4	7.5	6.4		
111.5								8.4	8.2	7.5	7.1	6.0	5.1		
118.1									7.1	6.2	5.7	4.9			
124.7									6.0	5.1	4.6	3.7			
131.2										4.2	3.5	2.6			
137.8										3.3	2.6				
144.4										2.6					



43.3 – 223.1 ft 27.2 ft 360° 0 lbs ASME

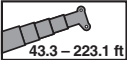
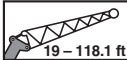

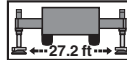

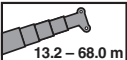


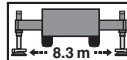

lbs x 1,000

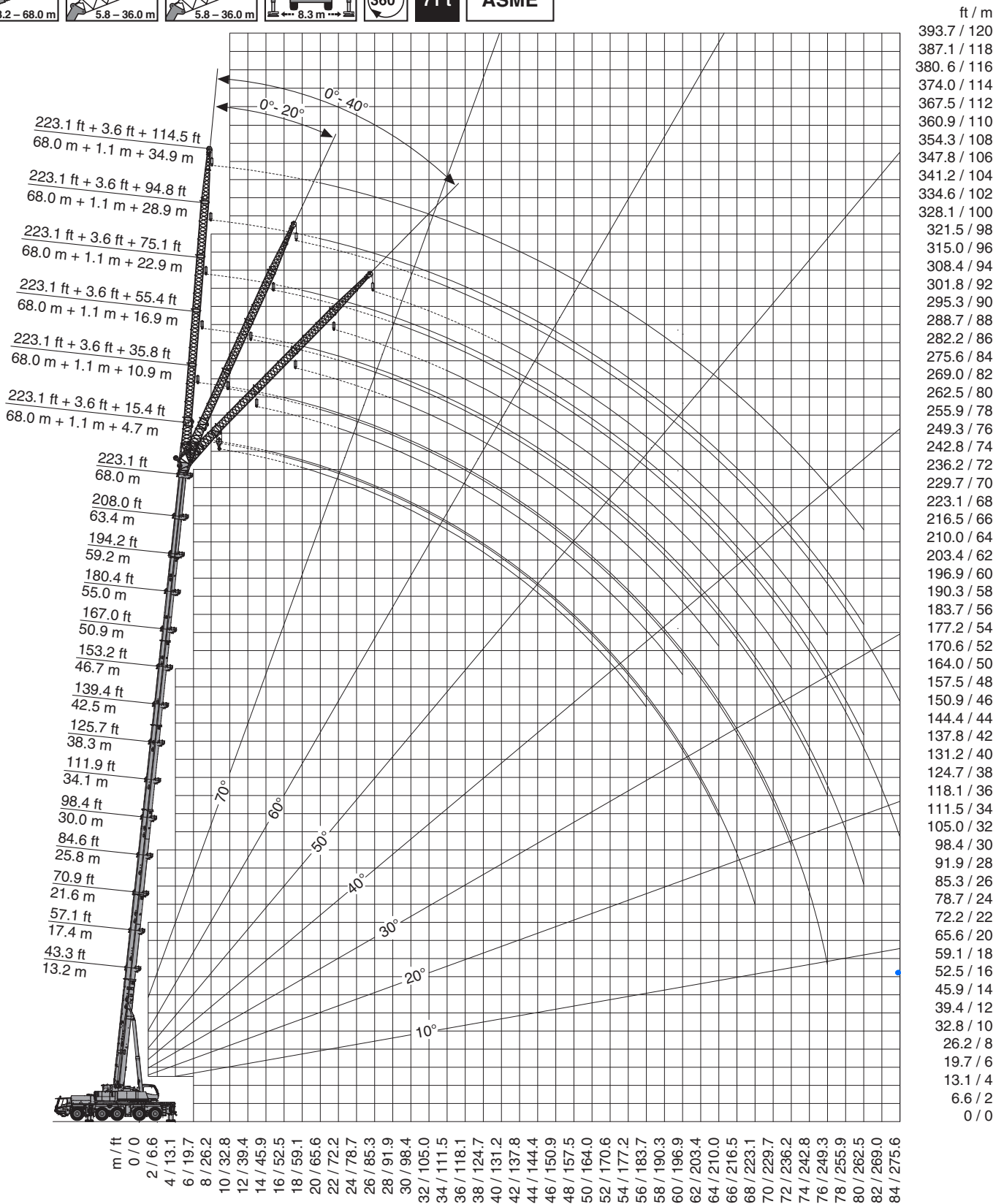
ft	43.3 ft*	43.3 ft	57.1 ft	70.9 ft	84.6 ft	98.4 ft	111.9 ft	125.7 ft	139.4 ft	153.2 ft	167.0 ft	180.4 ft	194.2 ft	208.0 ft	223.1 ft
8.2	430.6**														
9.8	362.4**	340.4**	308.6**	308.6**	252.2										
11.5	312.2**	303.4**	303.8**	300.3**	252.2	199.5									
13.1	271.8	271.8	272.3	250.2	212.7	183.6									
14.8	239.4	239.4	231.3	207.5	182.5	160.1	141.5								
16.4	213.6	213.6	192.5	172.6	154.1	136.7	127.9	115.7							
19.7	150.1	150.1	141.3	131.8	121.5	116.2	106.5	95.9	84.0						
23.0	113.3	113.3	109.1	104.1	100.5	93.7	87.3	79.4	72.3	65.5					
26.2	88.6	88.6	89.3	86.9	82.5	76.9	75.0	69.4	62.8	57.1	51.4				
29.5	68.8	68.8	72.8	71.4	68.3	67.0	63.5	60.2	56.7	52.0	47.2	43.0			
32.8	54.7	54.0	60.4	60.0	58.9	57.5	54.7	53.6	51.1	47.2	42.3	39.7	36.6		
36.1			49.2	51.1	51.8	49.8	48.9	46.7	44.8	42.1	39.7	36.8	33.1	30.9	
39.4			40.8	44.3	45.2	44.1	43.0	41.2	39.5	37.0	35.1	32.4	29.8	27.1	25.8
45.9			29.1	32.4	34.8	34.6	34.2	32.6	31.3	29.5	27.8	25.6	23.4	20.9	20.1
52.5				24.5	26.7	27.3	27.8	26.5	25.4	23.8	22.3	20.5	18.5	16.3	15.7
59.1				18.7	20.9	21.6	22.3	21.8	20.9	19.4	18.1	16.3	14.6	12.6	12.1
65.6					16.8	17.2	17.9	17.6	17.4	16.1	14.8	13.2	11.5	9.7	9.3
72.2					13.4	13.9	14.6	14.3	14.1	13.2	12.1	10.6	9.0	7.3	
78.7						11.2	11.9	11.7	11.5	10.8	9.9	8.4	6.8		
85.3						9.3	9.7	9.5	9.3	8.6	7.9	6.6			
91.9							7.9	7.7	7.5	6.8	6.4	5.1			
98.4							6.4	6.2	6.0	5.3	4.9				
105.0								4.9	4.6	4.0	3.5				
111.5								3.7	3.5	2.9					
118.1									2.6						

* Over rear · A l'arrière · Hacia atrás

** With additional lifting equipment · Avec équipement de levage supplémentaire · Con equipamiento de elevación adicional

Working range · Rayon de travail · Zona de trabajo

					156,528 lbs	ASME
43.3 – 223.1 ft	19 – 118.1 ft	19 – 118.1 ft	← 27.2 ft →	360°		
					71 t	ASME
13.2 – 68.0 m	5.8 – 36.0 m	5.8 – 36.0 m	← 8.3 m →	360°		

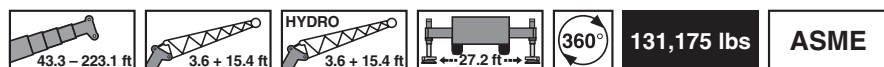


156,528 lbs **ASME**

lbs x 1,000

ft	43.3 ft + 3.6 ft + 15.4 ft			70.9 ft + 3.6 ft + 15.4 ft			98.4 ft + 3.6 ft + 15.4 ft			125.7 ft + 3.6 ft + 15.4 ft			153.2 ft + 3.6 ft + 15.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	105.4			115.3											
11.5	99.6	67.2		110.5											
13.1	94.4	65.0		106.0											
14.8	89.9	63.1	50.0	101.9	68.1										
16.4	85.8	61.1	48.9	98.1	66.4		94.6								
19.7	78.5	57.8	47.4	91.3	63.5	50.3	94.6								
23.0	72.5	54.9	45.9	85.5	60.8	48.9	94.1	63.3		66.8					
26.2	67.5	52.5	44.5	80.5	58.4	47.6	89.3	61.3	48.9	66.8			43.7		
29.5	63.1	50.3	43.4	75.8	56.2	46.5	84.9	59.3	47.8	66.8	63.7		43.7		
32.8	59.3	48.3	42.5	71.9	54.5	45.4	80.7	57.8	47.0	66.8	61.9	47.8	43.7	37.5	
36.1	56.2	46.7	41.4	68.3	52.7	44.5	76.9	56.0	46.1	66.8	60.4	47.2	42.3	36.2	32.6
39.4	53.1	44.5	40.6	65.3	50.9	43.7	73.4	54.5	45.4	66.8	59.1	46.5	40.6	35.1	31.7
45.9	45.9	41.0		59.7	48.3	42.3	66.8	51.8	44.1	63.7	56.4	45.4	37.7	32.8	30.0
52.5	40.1			55.3	46.1	41.4	60.8	49.6	43.0	58.0	54.0	44.3	35.1	31.1	28.4
59.1				50.9	43.7	40.6	55.6	47.6	41.9	53.1	51.8	43.4	33.1	29.3	27.1
65.6				46.5	41.2	39.7	51.4	46.1	41.2	49.2	48.1	42.8	31.3	28.0	26.0
72.2				42.5	39.2		47.6	44.5	40.8	45.6	44.8	42.1	29.8	26.9	25.1
78.7				39.2			44.5	43.4	40.1	42.5	41.7	41.2	28.4	25.8	24.3
85.3							41.4	41.2	39.7	39.7	39.2	38.8	27.1	24.9	23.6
91.9							36.6	37.3		37.3	36.8	36.6	26.0	24.0	22.9
98.4							32.4	32.8		33.1	34.0	34.2	25.1	23.1	22.3
105.0							28.9			29.5	30.2	30.4	24.5	22.7	21.8
111.5										26.2	26.9		23.6	22.0	21.4
118.1										23.6	24.0		23.1	21.6	20.9
124.7										21.2	21.4		21.8	21.2	20.7
131.2										19.0			19.6	20.1	
137.8													17.6	18.1	
144.4													15.9	16.3	
150.9													14.3	14.6	
157.5													13.0		

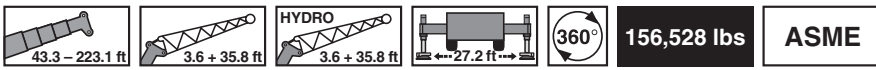
ft	167.0 ft + 3.6 ft + 15.4 ft			180.4 ft + 3.6 ft + 15.4 ft			194.2 ft + 3.6 ft + 15.4 ft			208.0 ft + 3.6 ft + 15.4 ft			223.1 ft + 3.6 ft + 15.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
32.8	39.2														
36.1	39.2	34.8		34.2											
39.4	37.9	33.7		34.2	30.9		28.4								
45.9	35.5	31.7	29.1	32.4	29.3	27.1	28.4	26.5		24.0	22.3		22.0		
52.5	33.5	30.0	27.8	30.6	27.8	25.8	27.1	25.1	23.8	22.7	21.2	20.3	20.7	19.4	
59.1	31.7	28.4	26.5	29.1	26.5	24.7	25.6	24.0	22.9	21.6	20.3	19.4	19.8	18.5	17.9
65.6	30.0	27.1	25.4	27.8	25.4	23.6	24.5	22.9	22.0	20.5	19.2	18.5	19.0	17.6	17.2
72.2	28.4	25.8	24.3	26.7	24.3	22.7	23.1	22.0	21.2	19.6	18.5	17.9	18.1	17.0	16.3
78.7	27.3	24.9	23.4	25.4	23.1	22.0	22.3	21.2	20.3	18.7	17.6	17.0	17.2	16.3	15.7
85.3	26.0	23.8	22.7	24.3	22.3	21.2	21.4	20.3	19.6	18.1	17.0	16.5	16.5	15.7	15.2
91.9	25.1	23.1	21.8	23.4	21.6	20.5	20.5	19.4	19.0	17.2	16.5	15.9	15.9	15.2	14.8
98.4	24.3	22.3	21.4	22.5	20.9	19.8	19.6	18.7	18.3	16.5	15.9	15.4	15.2	14.8	14.3
105.0	23.4	21.6	20.7	21.4	20.3	19.4	19.0	18.1	17.9	15.9	15.4	15.0	14.6	14.1	13.9
111.5	22.7	21.2	20.3	20.5	19.6	19.0	18.3	17.6	17.2	15.4	14.8	14.6	14.1	13.7	13.4
118.1	22.0	20.7	19.8	19.6	19.2	18.5	17.4	17.0	16.8	15.0	14.3	14.1	13.7	13.2	13.0
124.7	21.2	20.3	19.6	18.7	18.5	18.3	16.8	16.5	16.3	14.3	13.9	13.7	13.2	12.8	12.6
131.2	19.4	19.8	19.4	17.9	17.9	17.6	16.1	15.9	15.9	13.9	13.4	13.4	12.8	12.3	12.1
137.8	17.9	18.1		16.3	17.0	17.0	15.4	15.2	15.2	13.7	13.2	13.0	12.3	12.1	11.9
144.4	16.1	16.3		15.4	15.4	15.4	14.3	14.3	14.8	13.2	12.8	12.8	12.1	11.7	11.7
150.9	14.6	14.8		14.8	14.8		13.4	13.4	13.4	12.8	12.6	12.3	11.7	11.5	11.2
157.5	13.0	13.2		13.2	13.7		12.8	12.8	12.8	12.1	12.1	12.1	11.5	11.2	11.0
164.0	11.7	11.9		11.9	12.1		12.1	12.1		11.5	11.5	11.5	11.0	11.0	10.8
170.6	10.6			10.8	11.0		11.2	11.5		10.8	10.8	10.8	10.4	10.6	10.6
183.7				8.6			9.3	9.5		9.7	9.7		9.5	9.5	9.5
196.9							7.5			8.2	8.2		8.2	8.4	
210.0										6.6			6.6	6.6	
223.1													5.1		



lbs x 1,000

ft	43.3 ft + 3.6 ft + 15.4 ft			70.9 ft + 3.6 ft + 15.4 ft			98.4 ft + 3.6 ft + 15.4 ft			125.7 ft + 3.6 ft + 15.4 ft			153.2 ft + 3.6 ft + 15.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	105.4			115.3											
11.5	99.6	67.2		110.5											
13.1	94.4	65.0		106.0											
14.8	89.9	63.1	50.0	101.9	68.1										
16.4	85.8	61.1	48.9	98.1	66.4		94.6								
19.7	78.5	57.8	47.4	91.3	63.5	50.3	94.6								
23.0	72.5	54.9	45.9	85.5	60.8	48.9	94.1	63.3		66.8					
26.2	67.5	52.5	44.5	80.5	58.4	47.6	89.3	61.3	48.9	66.8					
29.5	63.1	50.3	43.4	75.8	56.2	46.5	84.9	59.3	47.8	66.8	63.7		43.7		
32.8	59.3	48.3	42.5	71.9	54.5	45.4	80.7	57.8	47.0	66.8	61.9	47.8	43.7	37.5	
36.1	56.2	46.7	41.4	68.3	52.7	44.5	76.9	56.0	46.1	66.8	60.4	47.2	42.3	36.2	32.6
39.4	53.1	44.5	40.6	65.3	50.9	43.7	73.4	54.5	45.4	66.8	59.1	46.5	40.6	35.1	31.7
45.9	45.9	41.0		59.7	48.3	42.3	66.8	51.8	44.1	63.7	56.4	45.4	37.7	32.8	30.0
52.5	40.1			55.3	46.1	41.4	60.8	49.6	43.0	58.0	54.0	44.3	35.1	31.1	28.4
59.1				50.9	43.7	40.6	55.6	47.6	41.9	53.1	51.8	43.4	33.1	29.3	27.1
65.6				46.5	41.2	39.7	51.4	46.1	41.2	49.2	48.1	42.8	31.3	28.0	26.0
72.2				42.5	39.2		46.7	44.5	40.8	45.6	44.8	42.1	29.8	26.9	25.1
78.7				39.2			40.1	41.4	40.1	41.0	41.7	41.2	28.4	25.8	24.3
85.3							34.8	35.9	36.2	35.7	36.8	37.3	27.1	24.9	23.6
91.9							30.4	31.3		31.3	32.2	32.6	26.0	24.0	22.9
98.4							26.7	27.3		27.6	28.2	28.7	25.1	23.1	22.3
105.0							23.6			24.3	24.9	25.1	24.5	22.7	21.8
111.5										21.4	22.0		22.3	22.0	21.4
118.1										19.0	19.4		19.6	20.5	20.7
124.7										16.8	17.2		17.6	18.1	18.3
131.2										15.0			15.7	16.1	
137.8													13.9	14.3	
144.4													12.3	12.6	
150.9													10.8	11.2	
157.5													9.7		

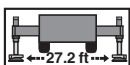
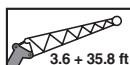
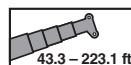
ft	167.0 ft + 3.6 ft + 15.4 ft			180.4 ft + 3.6 ft + 15.4 ft			194.2 ft + 3.6 ft + 15.4 ft			208.0 ft + 3.6 ft + 15.4 ft			223.1 ft + 3.6 ft + 15.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
32.8	39.2														
36.1	39.2	34.8		34.2											
39.4	37.9	33.7		34.2	30.9		28.4								
45.9	35.5	31.7	29.1	32.4	29.3	27.1	28.4	26.5		24.0	22.3		22.0		
52.5	33.5	30.0	27.8	30.6	27.8	25.8	27.1	25.1	23.8	22.7	21.2	20.3	20.7	19.4	
59.1	31.7	28.4	26.5	29.1	26.5	24.7	25.6	24.0	22.9	21.6	20.3	19.4	19.8	18.5	17.9
65.6	30.0	27.1	25.4	27.8	25.4	23.6	24.5	22.9	22.0	20.5	19.2	18.5	19.0	17.6	17.2
72.2	28.4	25.8	24.3	26.7	24.3	22.7	23.1	22.0	21.2	19.6	18.5	17.9	18.1	17.0	16.3
78.7	27.3	24.9	23.4	25.4	23.1	22.0	22.3	21.2	20.3	18.7	17.6	17.0	17.2	16.3	15.7
85.3	26.0	23.8	22.7	24.3	22.3	21.2	21.4	20.3	19.6	18.1	17.0	16.5	16.5	15.7	15.2
91.9	25.1	23.1	21.8	23.4	21.6	20.5	20.5	19.4	19.0	17.2	16.5	15.9	15.9	15.2	14.8
98.4	24.3	22.3	21.4	22.5	20.9	19.8	19.6	18.7	18.3	16.5	15.9	15.4	15.2	14.8	14.3
105.0	23.4	21.6	20.7	21.4	20.3	19.4	19.0	18.1	17.9	15.9	15.4	15.0	14.6	14.1	13.9
111.5	22.5	21.2	20.3	20.5	19.6	19.0	18.3	17.6	17.2	15.4	14.8	14.6	14.1	13.7	13.4
118.1	19.8	20.5	19.8	19.6	19.2	18.5	17.4	17.0	16.8	15.0	14.3	14.1	13.7	13.2	13.0
124.7	17.6	18.1	18.5	18.1	18.5	18.3	16.8	16.5	16.3	14.3	13.9	13.7	13.2	12.8	12.6
131.2	15.7	16.1	16.3	16.1	16.5	16.8	16.1	15.9	15.9	13.9	13.4	13.4	12.8	12.3	12.1
137.8	13.9	14.3		14.3	14.8	15.0	15.0	15.2	15.2	13.7	13.2	13.0	12.3	12.1	11.9
144.4	12.3	12.8		12.8	13.0	13.2	13.2	13.7	13.9	13.2	12.8	12.8	12.1	11.7	11.7
150.9	11.0	11.2		11.2	11.7		11.9	12.1	12.3	12.6	12.6	12.3	11.7	11.5	11.2
157.5	9.7	9.9		9.9	10.4		10.6	10.8	11.0	11.2	11.7	12.1	11.5	11.2	11.0
164.0	8.6	8.6		8.8	9.0		9.5	9.7		10.1	10.4	10.8	10.4	10.6	10.8
170.6	7.5			7.7	7.9		8.4	8.6		9.0	9.3	9.7	9.0	9.5	9.5
183.7				6.0			6.4	6.6		7.1	7.3		7.3	7.5	7.5
196.9							4.9			5.5	5.5		5.5	5.7	
210.0										4.0			4.0	4.2	
223.1													2.9		



lbs x 1,000

ft	43.3 ft + 3.6 ft + 35.8 ft			70.9 ft + 3.6 ft + 35.8 ft			98.4 ft + 3.6 ft + 35.8 ft			125.7 ft + 3.6 ft + 35.8 ft			153.2 ft + 3.6 ft + 35.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	43.4			43.4											
11.5	43.2			43.4											
13.1	42.1			43.4											
14.8	41.0			43.4			43.4								
16.4	39.7			43.0			43.4								
19.7	37.5	31.1		41.2			42.1								
23.0	35.3	29.1		39.2	31.5		40.8			38.1					
26.2	33.3	27.3		37.5	29.8		39.2			37.3					
29.5	31.5	25.6	21.4	35.9	28.4		37.9	30.0		36.2			31.7		
32.8	29.8	24.3	20.5	34.2	27.1		36.4	28.9		35.3			31.7		
36.1	28.4	23.1	19.6	32.8	25.8	20.7	35.3	27.8		34.4	27.8		31.5		
39.4	27.1	22.0	19.0	31.5	24.7	20.3	34.0	26.7	20.9	33.5	27.1		30.9		
45.9	24.3	20.1	17.9	29.1	22.9	19.2	31.7	24.9	20.1	31.7	25.8	20.5	29.8	24.9	
52.5	21.6	18.5	17.0	27.1	21.4	18.3	29.8	23.4	19.2	30.0	24.5	19.8	28.7	23.8	20.1
59.1	19.4	17.4	16.3	25.1	20.1	17.6	28.0	22.0	18.5	28.7	23.1	19.2	27.1	22.5	19.6
65.6	17.6	16.5		22.9	19.0	17.0	26.5	20.9	17.9	27.3	22.0	18.5	25.6	21.4	19.0
72.2	16.3	15.9		21.2	18.1	16.5	25.1	19.8	17.4	26.0	21.2	18.1	24.3	20.3	18.5
78.7				19.6	17.2	16.1	23.6	19.0	17.0	24.9	20.3	17.6	22.9	19.4	17.9
85.3				18.3	16.5	15.9	22.0	18.3	16.5	24.0	19.4	17.2	21.8	18.7	17.2
91.9				17.2	16.1		20.7	17.6	16.3	22.9	18.7	16.8	20.9	17.9	16.8
98.4				16.3			19.6	17.0	16.1	22.0	18.3	16.5	20.1	17.4	16.1
105.0							18.5	16.5	15.9	20.9	17.6	16.3	19.2	16.8	15.7
111.5							17.6	16.1		19.8	17.2	16.1	18.5	16.3	15.2
118.1							16.8	15.9		19.2	16.8	15.9	17.9	15.7	15.0
124.7							16.3			18.3	16.5	15.9	17.2	15.4	14.6
131.2										17.6	16.1		16.8	15.0	14.3
137.8										17.0	15.9		16.3	14.6	14.1
144.4										16.5	15.9		15.9	14.3	13.9
150.9										15.7			15.7	14.1	
157.5													14.3	13.9	
164.0													13.0	13.4	
170.6													11.7	12.1	

ft	167.0 ft + 3.6 ft + 35.8 ft			180.4 ft + 3.6 ft + 35.8 ft			194.2 ft + 3.6 ft + 35.8 ft			208.0 ft + 3.6 ft + 35.8 ft			223.1 ft + 3.6 ft + 35.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
32.8	28.9														
36.1	28.9			22.0											
39.4	28.9			22.0			19.4								
45.9	28.7	23.8		22.0			19.4			16.5					
52.5	26.9	22.7		22.0	21.2		19.4	19.4		16.5			14.6		
59.1	25.6	21.6	19.2	22.0	20.1		19.4	18.5		16.5	16.1		14.6		
65.6	24.3	20.5	18.5	22.0	19.2	17.4	19.4	17.6	16.3	16.5	15.4		14.6	14.3	
72.2	23.1	19.6	17.9	21.4	18.5	17.0	18.5	17.2	15.7	15.9	14.8	13.7	14.6	13.7	12.8
78.7	22.0	18.7	17.2	20.5	17.9	16.3	17.9	16.5	15.2	15.2	14.1	13.2	14.1	13.2	12.3
85.3	21.2	18.1	16.5	19.6	17.2	15.9	17.4	15.9	14.8	14.8	13.4	12.8	13.4	12.6	11.9
91.9	20.1	17.4	16.1	19.0	16.5	15.2	16.8	15.4	14.3	14.3	13.0	12.3	13.2	12.1	11.5
98.4	19.2	16.8	15.7	18.1	16.1	14.8	16.1	14.8	13.7	13.7	12.6	11.9	12.8	11.7	11.0
105.0	18.5	16.1	15.2	17.6	15.7	14.3	15.4	14.3	13.4	13.2	12.1	11.5	12.1	11.2	10.8
111.5	17.9	15.7	14.8	17.0	15.2	14.1	15.0	13.9	13.0	12.8	11.7	11.2	11.7	11.0	10.4
118.1	17.2	15.2	14.3	16.5	14.8	13.7	14.6	13.4	12.8	12.3	11.5	10.8	11.5	10.6	10.1
124.7	16.8	14.8	14.1	15.9	14.3	13.4	13.9	13.0	12.3	11.9	11.0	10.6	11.0	10.4	9.7
131.2	16.1	14.3	13.7	15.4	14.1	13.0	13.4	12.6	12.1	11.5	10.8	10.1	10.6	9.9	9.5
137.8	15.7	14.1	13.4	15.0	13.7	12.8	13.2	12.3	11.9	11.2	10.6	9.9	10.4	9.7	9.3
144.4	15.4	13.7	13.2	14.3	13.4	12.6	12.8	11.9	11.7	10.8	10.1	9.7	9.9	9.5	9.0
150.9	15.0	13.4	13.0	13.2	13.0	12.3	12.3	11.7	11.2	10.6	9.9	9.5	9.7	9.3	8.8
157.5	14.1	13.2	12.8	12.6	12.6	12.1	11.5	11.5	11.0	10.1	9.7	9.5	9.5	9.0	8.6
164.0	12.8	13.0		11.9	11.9	11.9	10.8	11.0	10.8	9.9	9.5	9.3	9.3	8.8	8.6
170.6	11.5	12.1		11.2	11.2		10.4	10.4	10.6	9.7	9.3	9.0	8.8	8.6	8.4
183.7	9.5	9.7		9.7	10.1		9.3	9.5		8.8	8.8	8.6	8.4	8.2	7.9
196.9	7.3			7.9	8.4		8.4	8.4		7.9	7.9		7.7	7.7	7.7
210.0				6.4			6.8	7.1		7.1	7.3		6.8	7.1	
223.1							5.5			6.0	6.2		5.7	6.0	
236.2										4.6			4.4	4.6	
249.3													3.3		



131,175 lbs

ASME

lbs x 1,000

ft	43.3 ft + 3.6 ft + 35.8 ft			70.9 ft + 3.6 ft + 35.8 ft			98.4 ft + 3.6 ft + 35.8 ft			125.7 ft + 3.6 ft + 35.8 ft			153.2 ft + 3.6 ft + 35.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	43.4			43.4											
11.5	43.2			43.4											
13.1	42.1			43.4											
14.8	41.0			43.4			43.4								
16.4	39.7			43.0			43.4								
19.7	37.5	31.1		41.2			42.1								
23.0	35.3	29.1		39.2	31.5		40.8			38.1					
26.2	33.3	27.3		37.5	29.8		39.2			37.3					
29.5	31.5	25.6	21.4	35.9	28.4		37.9	30.0		36.2			31.7		
32.8	29.8	24.3	20.5	34.2	27.1		36.4	28.9		35.3			31.7		
36.1	28.4	23.1	19.6	32.8	25.8	20.7	35.3	27.8		34.4	27.8		31.5		
39.4	27.1	22.0	19.0	31.5	24.7	20.3	34.0	26.7	20.9	33.5	27.1		30.9		
45.9	24.3	20.1	17.9	29.1	22.9	19.2	31.7	24.9	20.1	31.7	25.8	20.5	29.8	24.9	
52.5	21.6	18.5	17.0	27.1	21.4	18.3	29.8	23.4	19.2	30.0	24.5	19.8	28.7	23.8	20.1
59.1	19.4	17.4	16.3	25.1	20.1	17.6	28.0	22.0	18.5	28.7	23.1	19.2	27.1	22.5	19.6
65.6	17.6	16.5		22.9	19.0	17.0	26.5	20.9	17.9	27.3	22.0	18.5	25.6	21.4	19.0
72.2	16.3	15.9		21.2	18.1	16.5	25.1	19.8	17.4	26.0	21.2	18.1	24.3	20.3	18.5
78.7				19.6	17.2	16.1	23.6	19.0	17.0	24.9	20.3	17.6	22.9	19.4	17.9
85.3				18.3	16.5	15.9	22.0	18.3	16.5	24.0	19.4	17.2	21.8	18.7	17.2
91.9				17.2	16.1		20.7	17.6	16.3	22.9	18.7	16.8	20.9	17.9	16.8
98.4				16.3			19.6	17.0	16.1	22.0	18.3	16.5	20.1	17.4	16.1
105.0							18.5	16.5	15.9	20.9	17.6	16.3	19.2	16.8	15.7
111.5							17.6	16.1		19.8	17.2	16.1	18.5	16.3	15.2
118.1							16.8	15.9		19.2	16.8	15.9	17.9	15.7	15.0
124.7							16.3			18.3	16.5	15.9	17.2	15.4	14.6
131.2										16.8	16.1		16.8	15.0	14.3
137.8										15.0	15.7		15.2	14.6	14.1
144.4										13.4	14.1		13.7	14.3	13.9
150.9										12.1			12.1	13.0	
157.5													10.8	11.5	
164.0													9.7	10.4	
170.6													8.6	9.0	

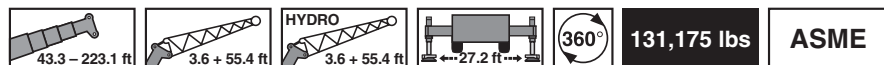
ft	167.0 ft + 3.6 ft + 35.8 ft			180.4 ft + 3.6 ft + 35.8 ft			194.2 ft + 3.6 ft + 35.8 ft			208.0 ft + 3.6 ft + 35.8 ft			223.1 ft + 3.6 ft + 35.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
32.8	28.9														
36.1	28.9			22.0											
39.4	28.9			22.0			19.4								
45.9	28.7	23.8		22.0			19.4			16.5					
52.5	26.9	22.7		22.0	21.2		19.4	19.4		16.5			14.6		
59.1	25.6	21.6	19.2	22.0	20.1		19.4	18.5		16.5	16.1		14.6		
65.6	24.3	20.5	18.5	22.0	19.2	17.4	19.4	17.6	16.3	16.5	15.4		14.6	14.3	
72.2	23.1	19.6	17.9	21.4	18.5	17.0	18.5	17.2	15.7	15.9	14.8	13.7	14.6	13.7	12.8
78.7	22.0	18.7	17.2	20.5	17.9	16.3	17.9	16.5	15.2	15.2	14.1	13.2	14.1	13.2	12.3
85.3	21.2	18.1	16.5	19.6	17.2	15.9	17.4	15.9	14.8	14.8	13.4	12.8	13.4	12.6	11.9
91.9	20.1	17.4	16.1	19.0	16.5	15.2	16.8	15.4	14.3	14.3	13.0	12.3	13.2	12.1	11.5
98.4	19.2	16.8	15.7	18.1	16.1	14.8	16.1	14.8	13.7	13.7	12.6	11.9	12.8	11.7	11.0
105.0	18.5	16.1	15.2	17.6	15.7	14.3	15.4	14.3	13.4	13.2	12.1	11.5	12.1	11.2	10.8
111.5	17.9	15.7	14.8	17.0	15.2	14.1	15.0	13.9	13.0	12.8	11.7	11.2	11.7	11.0	10.4
118.1	17.2	15.2	14.3	16.5	14.8	13.7	14.6	13.4	12.8	12.3	11.5	10.8	11.5	10.6	10.1
124.7	16.8	14.8	14.1	15.9	14.3	13.4	13.9	13.0	12.3	11.9	11.0	10.6	11.0	10.4	9.7
131.2	16.1	14.3	13.7	15.4	14.1	13.0	13.4	12.6	12.1	11.5	10.8	10.1	10.6	9.9	9.5
137.8	15.0	14.1	13.4	15.0	13.7	12.8	13.2	12.3	11.9	11.2	10.6	9.9	10.4	9.7	9.3
144.4	13.4	13.7	13.2	13.9	13.4	12.6	12.8	11.9	11.7	10.8	10.1	9.7	9.9	9.5	9.0
150.9	11.9	12.8	13.0	12.3	13.0	12.3	12.3	11.7	11.2	10.6	9.9	9.5	9.7	9.3	8.8
157.5	10.6	11.5	12.1	11.2	11.9	12.1	11.5	11.5	11.0	10.1	9.7	9.5	9.5	9.0	8.6
164.0	9.5	10.1		9.9	10.8	11.2	10.4	11.0	10.8	9.9	9.5	9.3	9.3	8.8	8.6
170.6	8.4	9.0		8.8	9.5		9.3	9.9	10.4	9.7	9.3	9.0	8.8	8.6	8.4
183.7	6.6	7.1		7.1	7.5		7.3	7.9		7.9	8.6	8.6	7.7	8.2	7.9
196.9	5.1			5.3	5.7		5.7	6.2		6.2	6.8		6.0	6.6	7.1
210.0				4.0			4.4	4.6		4.9	5.3		4.6	5.1	
223.1							3.1			3.5	4.0		3.3	3.7	
236.2										2.6			2.2	2.6	

43.3 - 223.1 ft 3.6 + 55.4 ft HYDRO 3.6 + 55.4 ft 27.2 ft 360° **156,528 lbs** **ASME**

lbs x 1,000

ft	43.3 ft + 3.6 ft + 55.4 ft			70.9 ft + 3.6 ft + 55.4 ft			98.4 ft + 3.6 ft + 55.4 ft			125.7 ft + 3.6 ft + 55.4 ft			153.2 ft + 3.6 ft + 55.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	38.8														
11.5	38.1														
13.1	37.5			33.3											
14.8	36.8			33.3											
16.4	35.9			33.3											
19.7	34.2			33.3			32.6								
23.0	32.6			33.3			32.6								
26.2	31.1			32.8			32.6			27.3					
29.5	29.8	24.5		31.5			32.0			27.3					
32.8	28.2	22.9		30.4			31.1			27.3			19.8		
36.1	27.1	21.4		29.3	23.6		30.2			27.3			19.8		
39.4	25.6	20.1		28.2	22.5		29.3	23.8		27.3			19.8		
45.9	22.0	17.9	15.0	26.5	20.3		27.6	21.8		26.5	22.3		19.8		
52.5	19.2	16.1	13.7	24.5	18.5	14.8	26.2	20.1		25.4	20.9		19.8	18.7	
59.1	17.0	14.8	12.8	21.8	17.0	13.7	24.7	18.7	14.3	24.3	19.6		19.8	17.9	
65.6	15.2	13.4	11.9	19.6	15.9	13.0	23.6	17.4	13.7	23.4	18.5	14.1	19.8	17.2	
72.2	13.9	12.6	11.2	17.9	14.8	12.3	21.6	16.3	13.0	22.3	17.4	13.4	19.8	16.3	13.7
78.7	12.6	11.7	10.6	16.3	13.7	11.7	19.6	15.4	12.6	21.6	16.5	13.0	18.7	15.7	13.2
85.3	11.5	10.8		15.0	13.0	11.2	18.1	14.6	12.1	20.5	15.7	12.6	17.9	15.0	12.8
91.9	10.6	10.4		13.9	12.1	10.8	17.0	13.7	11.7	19.0	15.0	12.1	17.2	14.6	12.3
98.4				13.0	11.5	10.6	15.7	13.0	11.2	17.9	14.3	11.7	16.5	14.1	12.1
105.0				12.1	11.0	10.1	14.8	12.3	10.8	16.8	13.7	11.5	15.9	13.7	11.9
111.5				11.2	10.6		13.9	11.9	10.6	15.9	13.0	11.2	15.2	13.2	11.5
118.1				10.6			13.0	11.5	10.4	15.0	12.6	10.8	14.8	12.8	11.2
124.7							12.3	11.0	10.1	14.1	12.1	10.6	14.3	12.3	11.0
131.2							11.7	10.6		13.4	11.7	10.4	13.7	12.1	10.8
137.8							11.0	10.4		12.8	11.2	10.4	13.4	11.7	10.6
144.4							10.6			12.3	11.0	10.1	13.0	11.5	10.4
150.9										11.7	10.6		12.6	11.2	10.4
157.5										11.2	10.4		12.3	10.8	10.1
164.0										10.8	10.1		11.9	10.6	10.1
170.6										10.4			11.7	10.6	
183.7													10.6	10.1	
196.9													8.8		

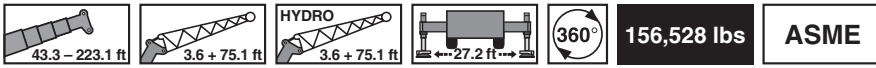
ft	167.0 ft + 3.6 ft + 55.4 ft			180.4 ft + 3.6 ft + 55.4 ft			194.2 ft + 3.6 ft + 55.4 ft			208.0 ft + 3.6 ft + 55.4 ft			223.1 ft + 3.6 ft + 55.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
36.1	18.3														
39.4	18.3			16.3											
45.9	18.3			16.3			14.3								
52.5	18.3			16.3			14.3			12.3					
59.1	18.3	17.2		16.3			14.3			12.3			11.2		
65.6	18.3	16.3		16.3	15.4		14.3	14.3		12.3			11.2		
72.2	18.3	15.7		16.3	14.8		14.3	13.9		12.3	12.1		11.2		
78.7	17.9	15.0	13.2	16.3	14.3	12.8	14.3	13.2		12.3	11.5		11.2	10.8	
85.3	17.2	14.6	13.0	16.1	13.7	12.3	14.3	12.8	11.7	12.3	11.0		11.2	10.4	
91.9	16.5	13.9	12.6	15.4	13.2	11.9	13.9	12.3	11.2	11.9	10.8	9.9	11.0	10.1	9.3
98.4	15.9	13.4	12.1	15.0	12.8	11.7	13.2	11.9	11.0	11.5	10.4	9.5	10.6	9.7	9.0
105.0	15.2	13.0	11.9	14.3	12.3	11.2	13.0	11.5	10.6	11.0	9.9	9.3	10.1	9.3	8.6
111.5	14.6	12.6	11.5	13.9	11.9	11.0	12.6	11.2	10.4	10.8	9.7	9.0	10.1	9.0	8.4
118.1	14.1	12.3	11.2	13.4	11.7	10.8	12.1	10.8	10.1	10.4	9.3	8.6	9.7	8.8	8.2
124.7	13.7	11.9	11.0	13.0	11.2	10.4	11.7	10.6	9.9	10.1	9.0	8.4	9.3	8.4	7.9
131.2	13.2	11.7	10.8	12.6	11.0	10.1	11.5	10.1	9.7	9.7	8.8	8.2	9.0	8.2	7.7
137.8	12.8	11.2	10.4	12.1	10.8	9.9	11.0	9.9	9.3	9.5	8.4	7.9	8.8	7.9	7.5
144.4	12.6	11.0	10.1	11.9	10.6	9.7	10.8	9.7	9.0	9.0	8.2	7.7	8.4	7.7	7.3
150.9	12.1	10.8	10.1	11.5	10.1	9.5	10.4	9.5	8.8	8.8	7.9	7.7	8.2	7.5	7.1
157.5	11.9	10.6	9.9	11.2	9.9	9.5	10.1	9.3	8.8	8.6	7.7	7.5	7.9	7.3	6.8
164.0	11.7	10.4	9.7	11.0	9.9	9.3	9.9	9.0	8.6	8.4	7.5	7.3	7.7	7.1	6.6
170.6	11.5	10.1	9.5	10.4	9.7	9.0	9.5	8.8	8.4	8.2	7.5	7.1	7.5	6.8	6.6
183.7	10.4	9.9		9.5	9.5	8.8	8.6	8.4	8.2	7.7	7.1	6.8	7.1	6.6	6.4
196.9	8.4	9.0		8.4	8.6		7.7	7.9	7.9	7.1	6.8	6.6	6.6	6.4	6.2
210.0	6.8			6.8	7.5		6.8	7.1		6.4	6.4	6.4	6.2	6.0	6.0
223.1				5.5			5.7	6.2		5.7	6.0		5.5	5.7	
236.2							4.6			4.9	5.3		4.6	5.1	
249.3										4.0			3.5	4.0	
262.5													2.6		



lbs x 1,000

ft	43.3 ft + 3.6 ft + 55.4 ft			70.9 ft + 3.6 ft + 55.4 ft			98.4 ft + 3.6 ft + 55.4 ft			125.7 ft + 3.6 ft + 55.4 ft			153.2 ft + 3.6 ft + 55.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	38.8														
11.5	38.1														
13.1	37.5			33.3											
14.8	36.8			33.3											
16.4	35.9			33.3											
19.7	34.2			33.3			32.6								
23.0	32.6			33.3			32.6								
26.2	31.1			32.8			32.6			27.3					
29.5	29.8	24.5		31.5			32.0			27.3					
32.8	28.2	22.9		30.4			31.1			27.3			19.8		
36.1	27.1	21.4		29.3	23.6		30.2			27.3			19.8		
39.4	25.6	20.1		28.2	22.5		29.3	23.8		27.3			19.8		
45.9	22.0	17.9	15.0	26.5	20.3		27.6	21.8		26.5	22.3		19.8		
52.5	19.2	16.1	13.7	24.5	18.5	14.8	26.2	20.1		25.4	20.9		19.8	18.7	
59.1	17.0	14.8	12.8	21.8	17.0	13.7	24.7	18.7	14.3	24.3	19.6		19.8	17.9	
65.6	15.2	13.4	11.9	19.6	15.9	13.0	23.6	17.4	13.7	23.4	18.5	14.1	19.8	17.2	
72.2	13.9	12.6	11.2	17.9	14.8	12.3	21.6	16.3	13.0	22.3	17.4	13.4	19.8	16.3	13.7
78.7	12.6	11.7	10.6	16.3	13.7	11.7	19.6	15.4	12.6	21.6	16.5	13.0	18.7	15.7	13.2
85.3	11.5	10.8		15.0	13.0	11.2	18.1	14.6	12.1	20.5	15.7	12.6	17.9	15.0	12.8
91.9	10.6	10.4		13.9	12.1	10.8	17.0	13.7	11.7	19.0	15.0	12.1	17.2	14.6	12.3
98.4				13.0	11.5	10.6	15.7	13.0	11.2	17.9	14.3	11.7	16.5	14.1	12.1
105.0				12.1	11.0	10.1	14.8	12.3	10.8	16.8	13.7	11.5	15.9	13.7	11.9
111.5				11.2	10.6		13.9	11.9	10.6	15.9	13.0	11.2	15.2	13.2	11.5
118.1				10.6			13.0	11.5	10.4	15.0	12.6	10.8	14.8	12.8	11.2
124.7							12.3	11.0	10.1	14.1	12.1	10.6	14.3	12.3	11.0
131.2							11.7	10.6		13.4	11.7	10.4	13.7	12.1	10.8
137.8							11.0	10.4		12.8	11.2	10.4	13.4	11.7	10.6
144.4							10.6			12.3	11.0	10.1	13.0	11.5	10.4
150.9										11.7	10.6		12.6	11.2	10.4
157.5										11.2	10.4		11.9	10.8	10.1
164.0										10.6	10.1		10.8	10.6	10.1
170.6										9.7			9.7	10.6	
183.7													7.7	8.4	
196.9													6.2		

ft	167.0 ft + 3.6 ft + 55.4 ft			180.4 ft + 3.6 ft + 55.4 ft			194.2 ft + 3.6 ft + 55.4 ft			208.0 ft + 3.6 ft + 55.4 ft			223.1 ft + 3.6 ft + 55.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
36.1	18.3														
39.4	18.3			16.3											
45.9	18.3			16.3			14.3								
52.5	18.3			16.3			14.3			12.3					
59.1	18.3	17.2		16.3			14.3			12.3			11.2		
65.6	18.3	16.3		16.3	15.4		14.3	14.3		12.3			11.2		
72.2	18.3	15.7		16.3	14.8		14.3	13.9		12.3	12.1		11.2		
78.7	17.9	15.0	13.2	16.3	14.3	12.8	14.3	13.2		12.3	11.5		11.2	10.8	
85.3	17.2	14.6	13.0	16.1	13.7	12.3	14.3	12.8	11.7	12.3	11.0		11.2	10.4	
91.9	16.5	13.9	12.6	15.4	13.2	11.9	13.9	12.3	11.2	11.9	10.8	9.9	11.0	10.1	9.3
98.4	15.9	13.4	12.1	15.0	12.8	11.7	13.2	11.9	11.0	11.5	10.4	9.5	10.6	9.7	9.0
105.0	15.2	13.0	11.9	14.3	12.3	11.2	13.0	11.5	10.6	11.0	9.9	9.3	10.1	9.3	8.6
111.5	14.6	12.6	11.5	13.9	11.9	11.0	12.6	11.2	10.4	10.8	9.7	9.0	10.1	9.0	8.4
118.1	14.1	12.3	11.2	13.4	11.7	10.8	12.1	10.8	10.1	10.4	9.3	8.6	9.7	8.8	8.2
124.7	13.7	11.9	11.0	13.0	11.2	10.4	11.7	10.6	9.9	10.1	9.0	8.4	9.3	8.4	7.9
131.2	13.2	11.7	10.8	12.6	11.0	10.1	11.5	10.1	9.7	9.7	8.8	8.2	9.0	8.2	7.7
137.8	12.8	11.2	10.4	12.1	10.8	9.9	11.0	9.9	9.3	9.5	8.4	7.9	8.8	7.9	7.5
144.4	12.6	11.0	10.1	11.9	10.6	9.7	10.8	9.7	9.0	9.0	8.2	7.7	8.4	7.7	7.3
150.9	12.1	10.8	10.1	11.5	10.1	9.5	10.4	9.5	8.8	8.8	7.9	7.7	8.2	7.5	7.1
157.5	11.7	10.6	9.9	11.2	9.9	9.5	10.1	9.3	8.8	8.6	7.7	7.5	7.9	7.3	6.8
164.0	10.4	10.4	9.7	10.6	9.9	9.3	9.9	9.0	8.6	8.4	7.5	7.3	7.7	7.1	6.6
170.6	9.3	10.1	9.5	9.5	9.7	9.0	9.5	8.8	8.4	8.2	7.5	7.1	7.5	6.8	6.6
183.7	7.5	8.2		7.5	8.4	8.8	7.7	8.4	8.2	7.7	7.1	6.8	7.1	6.6	6.4
196.9	5.7	6.4		6.0	6.6		6.2	7.1	7.5	6.6	6.8	6.6	6.4	6.4	6.2
210.0	4.4			4.4	5.1		4.6	5.3		5.1	6.0	6.2	4.9	5.7	6.0
223.1				3.3			3.5	4.0		4.0	4.4		3.5	4.2	
236.2							2.4			2.9	3.3		2.4	3.1	



lbs x 1,000

ft	43.3 ft + 3.6 ft + 75.1 ft			70.9 ft + 3.6 ft + 75.1 ft			98.4 ft + 3.6 ft + 75.1 ft			125.7 ft + 3.6 ft + 75.1 ft			153.2 ft + 3.6 ft + 75.1 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
11.5	24.5														
13.1	24.5														
14.8	24.5														
16.4	24.0			20.5											
19.7	23.1			20.5											
23.0	22.3			20.5			19.4								
26.2	21.4			20.5			19.4								
29.5	20.5			20.5			19.4			17.0					
32.8	19.6			20.5			19.4			17.0					
36.1	19.0			20.1			19.4			17.0					
39.4	18.1	16.8		19.4			19.4			17.0			14.1		
45.9	16.8	15.0		18.3	15.9		18.7			17.0			14.1		
52.5	15.4	13.4		17.2	14.6		17.9	15.0		17.0			14.1		
59.1	14.1	12.1		16.1	13.7		17.0	14.1		16.5	13.9		14.1		
65.6	12.6	11.0	9.5	15.2	12.6	9.9	16.1	13.4		15.9	13.2		14.1	12.8	
72.2	11.2	10.1	8.8	14.3	11.7	9.5	15.2	12.6	9.7	15.2	12.8		14.1	12.3	
78.7	10.4	9.3	8.4	13.4	10.8	8.8	14.6	11.9	9.3	14.6	12.1	9.5	14.1	11.9	
85.3	9.5	8.6	7.7	12.6	10.1	8.4	13.9	11.0	8.8	14.1	11.7	9.0	13.7	11.5	
91.9	8.6	7.9	7.5	11.5	9.5	7.9	13.2	10.4	8.4	13.4	11.2	8.8	13.2	11.0	8.8
98.4	8.2	7.5	7.1	10.6	8.8	7.7	12.8	9.9	8.2	13.0	10.6	8.4	12.8	10.8	8.6
105.0	7.5	7.1		9.7	8.4	7.5	11.9	9.5	7.9	12.6	10.1	8.2	12.3	10.4	8.4
111.5	7.1	6.6		9.0	7.9	7.1	11.0	8.8	7.5	12.1	9.7	7.9	11.9	10.1	8.2
118.1				8.4	7.5	6.8	10.4	8.4	7.3	11.7	9.3	7.7	11.7	9.7	7.9
124.7				7.9	7.1	6.8	9.7	8.2	7.1	11.2	8.8	7.5	11.2	9.5	7.7
131.2				7.3	6.8		9.0	7.7	7.1	10.8	8.6	7.3	11.0	9.0	7.5
137.8				6.8			8.6	7.5	6.8	10.1	8.2	7.1	10.8	8.8	7.3
144.4							7.9	7.3	6.6	9.5	7.9	7.1	10.4	8.4	7.3
150.9							7.7	6.8		9.0	7.7	6.8	10.1	8.2	7.1
157.5							7.3	6.6		8.6	7.3	6.8	9.7	7.9	7.1
164.0							6.8			8.2	7.1	6.6	9.3	7.7	6.8
170.6										7.7	6.8		8.8	7.5	6.8
183.7										7.1	6.6		8.2	7.1	6.6
196.9													7.5	6.8	
210.0													7.1	6.6	

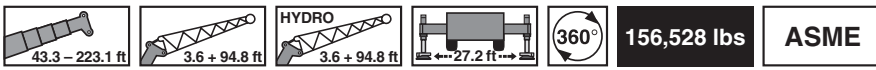
ft	167.0 ft + 3.6 ft + 75.1 ft			180.4 ft + 3.6 ft + 75.1 ft			194.2 ft + 3.6 ft + 75.1 ft			208.0 ft + 3.6 ft + 75.1 ft			223.1 ft + 3.6 ft + 75.1 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
45.9	13.2														
52.5	13.2			12.1											
59.1	13.2			12.1											
65.6	13.2			12.1			10.8			9.5			8.8		
72.2	13.2	12.1		12.1	11.9		10.8			9.5			8.8		
78.7	13.2	11.7		12.1	11.5		10.8	10.8		9.5			8.8		
85.3	13.2	11.5		12.1	11.2		10.8	10.6		9.5	9.3		8.8		
91.9	13.0	11.0	8.8	12.1	10.8		10.8	10.1		9.5	8.8		8.8	8.4	
98.4	12.6	10.6	8.6	12.1	10.4	8.6	10.8	9.7		9.5	8.6		8.8	7.9	
105.0	12.3	10.4	8.4	11.9	10.1	8.4	10.8	9.5	8.4	9.5	8.2	7.5	8.6	7.7	
111.5	11.9	10.1	8.2	11.5	9.7	8.2	10.4	9.3	8.2	9.0	7.9	7.3	8.4	7.5	6.8
118.1	11.7	9.9	7.9	11.0	9.5	7.9	10.1	8.8	8.2	8.6	7.7	7.1	7.9	7.3	6.6
124.7	11.2	9.5	7.7	10.8	9.0	7.9	9.7	8.6	7.9	8.4	7.5	6.8	7.7	7.1	6.4
131.2	10.8	9.3	7.7	10.4	8.8	7.7	9.7	8.4	7.7	8.2	7.1	6.6	7.5	6.8	6.2
137.8	10.6	9.0	7.5	9.9	8.6	7.5	9.3	8.2	7.5	7.9	6.8	6.4	7.3	6.6	6.2
144.4	10.1	8.6	7.3	9.7	8.4	7.3	9.0	7.9	7.3	7.5	6.6	6.2	7.1	6.4	6.0
150.9	9.9	8.4	7.1	9.5	8.2	7.3	8.8	7.7	7.1	7.3	6.6	6.2	6.8	6.2	5.7
157.5	9.7	8.2	7.1	9.3	7.9	7.1	8.4	7.5	7.1	7.1	6.4	6.0	6.6	6.0	5.5
164.0	9.5	7.9	6.8	8.8	7.7	7.1	8.2	7.3	6.8	6.8	6.2	5.7	6.4	5.7	5.5
170.6	9.0	7.7	6.8	8.6	7.7	6.8	7.9	7.1	6.6	6.6	6.0	5.7	6.2	5.5	5.3
183.7	8.6	7.3	6.6	8.4	7.3	6.6	7.5	6.8	6.4	6.4	5.7	5.3	6.0	5.3	5.1
196.9	7.9	7.1	6.6	7.7	7.1	6.6	7.1	6.6	6.2	6.0	5.3	5.1	5.5	5.1	4.9
210.0	7.3	6.6		7.1	6.8		6.4	6.2	6.0	5.5	5.1	4.9	5.3	4.9	4.4
223.1	6.0	6.4		6.0	6.4		5.5	5.7		5.3	4.9	4.6	4.9	4.6	4.4
236.2				4.6	5.1		4.9	5.3		4.6	4.6		4.4	4.4	4.2
249.3							3.7	4.2		4.0	4.2		3.7	4.2	
262.5							2.9			3.1	3.5		2.6	3.3	
275.6										2.2				2.2	

43.3 – 223.1 ft 3.6 + 75.1 ft HYDRO 3.6 + 75.1 ft 27.2 ft 360° **131,175 lbs** **ASME**

lbs x 1,000

ft	43.3 ft + 3.6 ft + 75.1 ft			70.9 ft + 3.6 ft + 75.1 ft			98.4 ft + 3.6 ft + 75.1 ft			125.7 ft + 3.6 ft + 75.1 ft			153.2 ft + 3.6 ft + 75.1 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
11.5	24.5														
13.1	24.5														
14.8	24.5														
16.4	24.0				20.5										
19.7	23.1				20.5										
23.0	22.3				20.5			19.4							
26.2	21.4				20.5			19.4							
29.5	20.5				20.5			19.4			17.0				
32.8	19.6				20.5			19.4			17.0				
36.1	19.0				20.1			19.4			17.0				
39.4	18.1	16.8			19.4			19.4			17.0			14.1	
45.9	16.8	15.0			18.3	15.9		18.7			17.0			14.1	
52.5	15.4	13.4			17.2	14.6		17.9	15.0		17.0			14.1	
59.1	14.1	12.1			16.1	13.7		17.0	14.1		16.5	13.9		14.1	
65.6	12.6	11.0	9.5		15.2	12.6	9.9	16.1	13.4		15.9	13.2		14.1	12.8
72.2	11.2	10.1	8.8		14.3	11.7	9.5	15.2	12.6	9.7	15.2	12.8		14.1	12.3
78.7	10.4	9.3	8.4		13.4	10.8	8.8	14.6	11.9	9.3	14.6	12.1	9.5	14.1	11.9
85.3	9.5	8.6	7.7		12.6	10.1	8.4	13.9	11.0	8.8	14.1	11.7	9.0	13.7	11.5
91.9	8.6	7.9	7.5		11.5	9.5	7.9	13.2	10.4	8.4	13.4	11.2	8.8	13.2	11.0
98.4	8.2	7.5	7.1		10.6	8.8	7.7	12.8	9.9	8.2	13.0	10.6	8.4	12.8	10.8
105.0	7.5	7.1			9.7	8.4	7.5	11.9	9.5	7.9	12.6	10.1	8.2	12.3	10.4
111.5	7.1	6.6			9.0	7.9	7.1	11.0	8.8	7.5	12.1	9.7	7.9	11.9	10.1
118.1					8.4	7.5	6.8	10.4	8.4	7.3	11.7	9.3	7.7	11.7	9.7
124.7					7.9	7.1	6.8	9.7	8.2	7.1	11.2	8.8	7.5	11.2	9.5
131.2					7.3	6.8		9.0	7.7	7.1	10.8	8.6	7.3	11.0	9.0
137.8					6.8			8.6	7.5	6.8	10.1	8.2	7.1	10.8	8.8
144.4								7.9	7.3	6.6	9.5	7.9	7.1	10.4	8.4
150.9								7.7	6.8		9.0	7.7	6.8	10.1	8.2
157.5								7.3	6.6		8.6	7.3	6.8	9.7	7.9
164.0								6.8			8.2	7.1	6.6	9.3	7.7
170.6											7.7	6.8		8.8	7.5
183.7											7.1	6.6		8.2	7.1
196.9														6.6	6.8
210.0														5.3	5.7

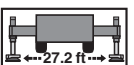
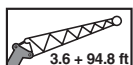
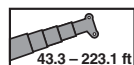
ft	167.0 ft + 3.6 ft + 75.1 ft			180.4 ft + 3.6 ft + 75.1 ft			194.2 ft + 3.6 ft + 75.1 ft			208.0 ft + 3.6 ft + 75.1 ft			223.1 ft + 3.6 ft + 75.1 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
45.9	13.2														
52.5	13.2				12.1										
59.1	13.2				12.1			10.8							
65.6	13.2				12.1			10.8			9.5			8.8	
72.2	13.2	12.1			12.1	11.9		10.8			9.5			8.8	
78.7	13.2	11.7			12.1	11.5		10.8	10.8		9.5			8.8	
85.3	13.2	11.5			12.1	11.2		10.8	10.6		9.5	9.3		8.8	
91.9	13.0	11.0	8.8		12.1	10.8		10.8	10.1		9.5	8.8		8.8	8.4
98.4	12.6	10.6	8.6		12.1	10.4	8.6	10.8	9.7		9.5	8.6		8.8	7.9
105.0	12.3	10.4	8.4		11.9	10.1	8.4	10.8	9.5	8.4	9.5	8.2	7.5	8.6	7.7
111.5	11.9	10.1	8.2		11.5	9.7	8.2	10.4	9.3	8.2	9.0	7.9	7.3	8.4	7.5
118.1	11.7	9.9	7.9		11.0	9.5	7.9	10.1	8.8	8.2	8.6	7.7	7.1	7.9	7.3
124.7	11.2	9.5	7.7		10.8	9.0	7.9	9.7	8.6	7.9	8.4	7.5	6.8	7.7	7.1
131.2	10.8	9.3	7.7		10.4	8.8	7.7	9.7	8.4	7.7	8.2	7.1	6.6	7.5	6.8
137.8	10.6	9.0	7.5		9.9	8.6	7.5	9.3	8.2	7.5	7.9	6.8	6.4	7.3	6.6
144.4	10.1	8.6	7.3		9.7	8.4	7.3	9.0	7.9	7.3	7.5	6.6	6.2	7.1	6.4
150.9	9.9	8.4	7.1		9.5	8.2	7.3	8.8	7.7	7.1	7.3	6.6	6.2	6.8	6.2
157.5	9.7	8.2	7.1		9.3	7.9	7.1	8.4	7.5	7.1	7.1	6.4	6.0	6.6	6.0
164.0	9.5	7.9	6.8		8.8	7.7	7.1	8.2	7.3	6.8	6.8	6.2	5.7	6.4	5.7
170.6	9.0	7.7	6.8		8.6	7.7	6.8	7.9	7.1	6.6	6.6	6.0	5.7	6.2	5.5
183.7	7.9	7.3	6.6		7.9	7.3	6.6	7.5	6.8	6.4	6.4	5.7	5.3	6.0	5.3
196.9	6.2	7.1	6.6		6.2	7.1	6.6	6.4	6.6	6.2	6.0	5.3	5.1	5.5	5.1
210.0	4.9	5.7			4.9	5.7		5.1	6.0	6.0	5.3	5.1	4.9	5.1	4.9
223.1	3.5	4.2			3.5	4.2		3.7	4.6		4.2	4.9	4.6	3.7	4.6
236.2					2.4	2.9		2.6	3.3		2.9	3.7		2.6	3.5
249.3									2.2			2.6			2.4



lbs x 1,000

ft	43.3 ft + 3.6 ft + 94.8 ft			70.9 ft + 3.6 ft + 94.8 ft			98.4 ft + 3.6 ft + 94.8 ft			125.7 ft + 3.6 ft + 94.8 ft			153.2 ft + 3.6 ft + 94.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
16.4	14.3														
19.7	14.3			13.7											
23.0	14.3			13.7											
26.2	14.3			13.7			13.7								
29.5	14.3			13.7			13.7								
32.8	14.3			13.7			13.7								
36.1	14.1			13.7			13.7			11.9					
39.4	13.7			13.7			13.7			11.9					
45.9	12.8			13.2			13.4			11.9			10.1		
52.5	11.9	10.8		12.6			12.8			11.9			10.1		
59.1	11.0	9.9		11.9	10.4		12.3			11.7			10.1		
65.6	10.4	9.3		11.2	9.7		11.7	9.9		11.5			10.1		
72.2	9.7	8.6		10.6	9.0		11.2	9.5		11.0	9.3		10.1		
78.7	9.0	7.9	6.8	10.1	8.6		10.8	9.0		10.6	8.8		9.9	8.6	
85.3	8.4	7.3	6.4	9.5	8.2	6.6	10.1	8.6		10.1	8.6		9.7	8.4	
91.9	7.5	6.6	6.0	9.0	7.7	6.4	9.7	8.2	6.6	9.9	8.2		9.5	7.9	
98.4	6.8	6.2	5.5	8.6	7.1	6.0	9.3	7.9	6.2	9.5	7.9	6.4	9.3	7.7	
105.0	6.4	5.7	5.3	8.2	6.6	5.7	9.0	7.5	6.0	9.3	7.7	6.2	8.8	7.5	6.2
111.5	5.7	5.3	5.1	7.5	6.4	5.5	8.6	7.1	5.7	8.8	7.3	6.0	8.6	7.3	6.0
118.1	5.3	5.1	4.9	6.8	6.0	5.3	8.2	6.6	5.5	8.6	7.1	5.7	8.4	7.1	5.7
124.7	5.1	4.9		6.4	5.5	5.1	7.7	6.4	5.3	8.2	6.8	5.5	8.2	6.8	5.7
131.2	4.6	4.4		6.0	5.3	4.9	7.3	6.0	5.1	7.9	6.6	5.3	7.9	6.6	5.5
137.8				5.5	5.1	4.6	6.8	5.7	5.1	7.7	6.2	5.3	7.7	6.4	5.3
144.4				5.3	4.9	4.6	6.4	5.5	4.9	7.5	6.0	5.1	7.5	6.4	5.3
150.9				4.9	4.6		6.0	5.3	4.6	7.1	5.7	4.9	7.3	6.2	5.1
157.5				4.6			5.7	5.1	4.6	6.6	5.5	4.9	7.1	6.0	5.1
164.0							5.3	4.9	4.4	6.4	5.3	4.6	6.8	5.7	4.9
170.6							5.1	4.6		6.0	5.1	4.6	6.8	5.5	4.9
183.7							4.6			5.5	4.9	4.4	6.2	5.3	4.6
196.9										5.1	4.6		5.7	4.9	4.4
210.0										4.6			5.3	4.6	
223.1													4.9	4.4	
236.2													4.4		

ft	167.0 ft + 3.6 ft + 94.8 ft			180.4 ft + 3.6 ft + 94.8 ft			194.2 ft + 3.6 ft + 94.8 ft			208.0 ft + 3.6 ft + 94.8 ft			223.1 ft + 3.6 ft + 94.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
52.5	9.7														
59.1	9.7			9.0											
65.6	9.7			9.0			8.4			7.3			6.8		
72.2	9.7			9.0			8.4			7.3			6.8		
78.7	9.7	8.6		9.0			8.4			7.3			6.8		
85.3	9.5	8.2		9.0	7.9		8.4			7.3			6.8		
91.9	9.3	7.9		8.8	7.7		8.4	7.5		7.3			6.8		
98.4	9.0	7.7		8.6	7.5		8.2	7.3		7.3	6.8		6.8		
105.0	8.8	7.5		8.4	7.3		7.9	7.1		7.3	6.6		6.8	6.4	
111.5	8.6	7.3	6.0	8.2	7.1		7.9	6.8		7.3	6.6		6.8	6.2	
118.1	8.4	7.1	6.0	8.2	6.8	6.0	7.7	6.8	5.7	7.3	6.4		6.8	6.0	
124.7	8.2	6.8	5.7	7.9	6.8	5.7	7.5	6.6	5.7	7.1	6.2	5.5	6.6	5.7	
131.2	7.9	6.6	5.5	7.7	6.6	5.5	7.5	6.4	5.5	6.8	6.0	5.3	6.4	5.5	5.1
137.8	7.7	6.4	5.3	7.5	6.4	5.5	7.3	6.4	5.5	6.6	5.7	5.3	6.2	5.3	4.9
144.4	7.5	6.4	5.3	7.5	6.2	5.3	7.1	6.2	5.3	6.4	5.5	5.1	6.0	5.3	4.9
150.9	7.3	6.2	5.1	7.3	6.2	5.1	7.1	6.0	5.3	6.2	5.3	4.9	5.5	5.1	4.6
157.5	7.1	6.0	5.1	7.1	6.0	5.1	6.8	6.0	5.1	6.0	5.1	4.9	5.3	4.9	4.4
164.0	7.1	6.0	4.9	6.8	6.0	4.9	6.6	5.7	5.1	5.7	5.1	4.6	5.3	4.6	4.4
170.6	6.8	5.7	4.9	6.8	5.7	4.9	6.6	5.7	4.9	5.5	4.9	4.4	5.1	4.4	4.2
183.7	6.4	5.3	4.6	6.4	5.5	4.6	6.2	5.5	4.6	5.1	4.6	4.2	4.9	4.2	4.0
196.9	6.0	5.1	4.4	6.2	5.1	4.6	6.0	5.1	4.6	4.9	4.2	4.0	4.4	4.0	3.7
210.0	5.5	4.9	4.4	5.7	4.9	4.4	5.5	4.9	4.4	4.4	4.0	3.7	4.2	3.7	3.5
223.1	5.1	4.6		5.5	4.6	4.4	5.1	4.6	4.4	4.2	3.7	3.5	4.0	3.5	3.3
236.2	4.9	4.4		4.9	4.4		4.4	4.4	4.2	3.7	3.5	3.3	3.7	3.3	3.1
249.3	4.0			3.7	4.4		4.0	4.2		3.5	3.3	3.1	3.3	3.1	2.9
262.5				2.9			2.9	3.5		3.1	3.1		2.9	2.9	
275.6										2.2	2.9		2.6		



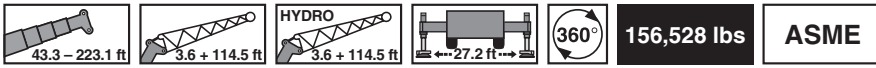
131,175 lbs

ASME

lbs x 1,000

ft	43.3 ft + 3.6 ft + 94.8 ft			70.9 ft + 3.6 ft + 94.8 ft			98.4 ft + 3.6 ft + 94.8 ft			125.7 ft + 3.6 ft + 94.8 ft			153.2 ft + 3.6 ft + 94.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
16.4	14.3														
19.7	14.3			13.7											
23.0	14.3			13.7											
26.2	14.3			13.7			13.7								
29.5	14.3			13.7			13.7								
32.8	14.3			13.7			13.7								
36.1	14.1			13.7			13.7			11.9					
39.4	13.7			13.7			13.7			11.9					
45.9	12.8			13.2			13.4			11.9			10.1		
52.5	11.9	10.8		12.6			12.8			11.9			10.1		
59.1	11.0	9.9		11.9	10.4		12.3			11.7			10.1		
65.6	10.4	9.3		11.2	9.7		11.7	9.9		11.5			10.1		
72.2	9.7	8.6		10.6	9.0		11.2	9.5		11.0	9.3		10.1		
78.7	9.0	7.9	6.8	10.1	8.6		10.8	9.0		10.6	8.8		9.9	8.6	
85.3	8.4	7.3	6.4	9.5	8.2	6.6	10.1	8.6		10.1	8.6		9.7	8.4	
91.9	7.5	6.6	6.0	9.0	7.7	6.4	9.7	8.2	6.6	9.9	8.2		9.5	7.9	
98.4	6.8	6.2	5.5	8.6	7.1	6.0	9.3	7.9	6.2	9.5	7.9	6.4	9.3	7.7	
105.0	6.4	5.7	5.3	8.2	6.6	5.7	9.0	7.5	6.0	9.3	7.7	6.2	8.8	7.5	6.2
111.5	5.7	5.3	5.1	7.5	6.4	5.5	8.6	7.1	5.7	8.8	7.3	6.0	8.6	7.3	6.0
118.1	5.3	5.1	4.9	6.8	6.0	5.3	8.2	6.6	5.5	8.6	7.1	5.7	8.4	7.1	5.7
124.7	5.1	4.9		6.4	5.5	5.1	7.7	6.4	5.3	8.2	6.8	5.5	8.2	6.8	5.7
131.2	4.6	4.4		6.0	5.3	4.9	7.3	6.0	5.1	7.9	6.6	5.3	7.9	6.6	5.5
137.8				5.5	5.1	4.6	6.8	5.7	5.1	7.7	6.2	5.3	7.7	6.4	5.3
144.4				5.3	4.9	4.6	6.4	5.5	4.9	7.5	6.0	5.1	7.5	6.4	5.3
150.9				4.9	4.6		6.0	5.3	4.6	7.1	5.7	4.9	7.3	6.2	5.1
157.5				4.6			5.7	5.1	4.6	6.6	5.5	4.9	7.1	6.0	5.1
164.0							5.3	4.9	4.4	6.4	5.3	4.6	6.8	5.7	4.9
170.6							5.1	4.6		6.0	5.1	4.6	6.8	5.5	4.9
183.7							4.6			5.5	4.9	4.4	6.2	5.3	4.6
196.9										5.1	4.6		5.7	4.9	4.4
210.0										4.6			5.3	4.6	
223.1													4.2	4.4	
236.2													3.3		

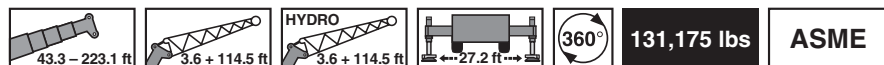
ft	167.0 ft + 3.6 ft + 94.8 ft			180.4 ft + 3.6 ft + 94.8 ft			194.2 ft + 3.6 ft + 94.8 ft			208.0 ft + 3.6 ft + 94.8 ft			223.1 ft + 3.6 ft + 94.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
52.5	9.7														
59.1	9.7			9.0											
65.6	9.7			9.0			8.4			7.3			6.8		
72.2	9.7			9.0			8.4			7.3			6.8		
78.7	9.7	8.6		9.0			8.4			7.3			6.8		
85.3	9.5	8.2		9.0	7.9		8.4			7.3			6.8		
91.9	9.3	7.9		8.8	7.7		8.4	7.5		7.3			6.8		
98.4	9.0	7.7		8.6	7.5		8.2	7.3		7.3	6.8		6.8		
105.0	8.8	7.5		8.4	7.3		7.9	7.1		7.3	6.6		6.8	6.4	
111.5	8.6	7.3	6.0	8.2	7.1		7.9	6.8		7.3	6.6		6.8	6.2	
118.1	8.4	7.1	6.0	8.2	6.8	6.0	7.7	6.8	5.7	7.3	6.4		6.8	6.0	
124.7	8.2	6.8	5.7	7.9	6.8	5.7	7.5	6.6	5.7	7.1	6.2	5.5	6.6	5.7	
131.2	7.9	6.6	5.5	7.7	6.6	5.5	7.5	6.4	5.5	6.8	6.0	5.3	6.4	5.5	5.1
137.8	7.7	6.4	5.3	7.5	6.4	5.5	7.3	6.4	5.5	6.6	5.7	5.3	6.2	5.3	4.9
144.4	7.5	6.4	5.3	7.5	6.2	5.3	7.1	6.2	5.3	6.4	5.5	5.1	6.0	5.3	4.9
150.9	7.3	6.2	5.1	7.3	6.2	5.1	7.1	6.0	5.3	6.2	5.3	4.9	5.5	5.1	4.6
157.5	7.1	6.0	5.1	7.1	6.0	5.1	6.8	6.0	5.1	6.0	5.1	4.9	5.3	4.9	4.4
164.0	7.1	6.0	4.9	6.8	6.0	4.9	6.6	5.7	5.1	5.7	5.1	4.6	5.3	4.6	4.4
170.6	6.8	5.7	4.9	6.8	5.7	4.9	6.6	5.7	4.9	5.5	4.9	4.4	5.1	4.4	4.2
183.7	6.4	5.3	4.6	6.4	5.5	4.6	6.2	5.5	4.6	5.1	4.6	4.2	4.9	4.2	4.0
196.9	6.0	5.1	4.4	6.2	5.1	4.6	6.0	5.1	4.6	4.9	4.2	4.0	4.4	4.0	3.7
210.0	5.1	4.9	4.4	5.1	4.9	4.4	5.3	4.9	4.4	4.4	4.0	3.7	4.2	3.7	3.5
223.1	4.0	4.6		3.7	4.6	4.4	4.0	4.6	4.4	4.2	3.7	3.5	3.7	3.5	3.3
236.2	2.9	3.5		2.6	3.5		2.9	3.7	4.2	3.1	3.5	3.3	2.6	3.3	3.1
249.3					2.4			2.6			3.1	3.1		2.9	2.9



lbs x 1,000

ft	43.3 ft + 3.6 ft + 114.5 ft			70.9 ft + 3.6 ft + 114.5 ft			98.4 ft + 3.6 ft + 114.5 ft			125.7 ft + 3.6 ft + 114.5 ft			153.2 ft + 3.6 ft + 114.5 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
19.7	10.4														
23.0	10.4			9.9											
26.2	10.4			9.9											
29.5	10.4			9.9											
32.8	10.4			9.9			9.9								
36.1	10.4			9.9			9.9								
39.4	9.9			9.9			9.9			8.8					
45.9	9.5			9.7			9.7			8.8					
52.5	8.8			9.0			9.3			8.6					
59.1	8.4			8.6			8.8			8.4			7.7		
65.6	7.9	7.3		8.2	7.3		8.4			8.2			7.5		
72.2	7.5	6.8		7.9	6.8		8.2	7.1		7.7			7.3		
78.7	7.1	6.4		7.5	6.6		7.7	6.6		7.5	6.4		7.1		
85.3	6.6	6.0		7.1	6.2		7.5	6.4		7.3	6.2		6.8	6.0	
91.9	6.2	5.7		6.8	6.0		7.1	6.0		7.1	6.0		6.6	5.7	
98.4	6.0	5.3	4.6	6.4	5.7	4.6	6.8	5.7		6.8	5.7		6.4	5.5	
105.0	5.5	4.9	4.2	6.2	5.5	4.4	6.6	5.5	4.6	6.6	5.5		6.2	5.3	
111.5	4.9	4.4	4.0	6.0	5.1	4.2	6.4	5.3	4.4	6.4	5.3	4.4	6.2	5.1	
118.1	4.6	4.2	3.7	5.7	4.9	4.0	6.0	5.1	4.2	6.2	5.1	4.2	6.0	5.1	
124.7	4.2	3.7	3.5	5.3	4.4	3.7	5.7	4.9	4.0	6.0	5.1	4.2	5.7	4.9	4.2
131.2	3.7	3.5	3.3	4.9	4.2	3.5	5.5	4.6	3.7	5.7	4.9	4.0	5.5	4.6	4.0
137.8	3.5	3.3	3.1	4.6	4.0	3.5	5.3	4.4	3.7	5.5	4.6	3.7	5.5	4.6	4.0
144.4	3.3	3.1		4.2	3.7	3.3	5.1	4.2	3.5	5.3	4.6	3.7	5.3	4.4	3.7
150.9	2.9	2.9		4.0	3.5	3.1	4.9	4.0	3.3	5.3	4.4	3.5	5.1	4.4	3.7
157.5				3.7	3.3	3.1	4.6	3.7	3.3	5.1	4.2	3.5	5.1	4.2	3.5
164.0				3.3	3.1	2.9	4.2	3.5	3.1	4.9	4.0	3.3	4.9	4.2	3.5
170.6				3.1	3.1		4.0	3.5	3.1	4.6	3.7	3.3	4.9	4.0	3.3
183.7							3.5	3.1	2.9	4.2	3.5	3.1	4.4	3.7	3.1
196.9							3.1	2.9		3.7	3.3	2.9	4.4	3.5	3.1
210.0										3.3	3.1		4.0	3.3	2.9
223.1										3.1	2.9		3.5	3.1	2.9
236.2													3.3	2.9	
249.3													3.1	2.9	

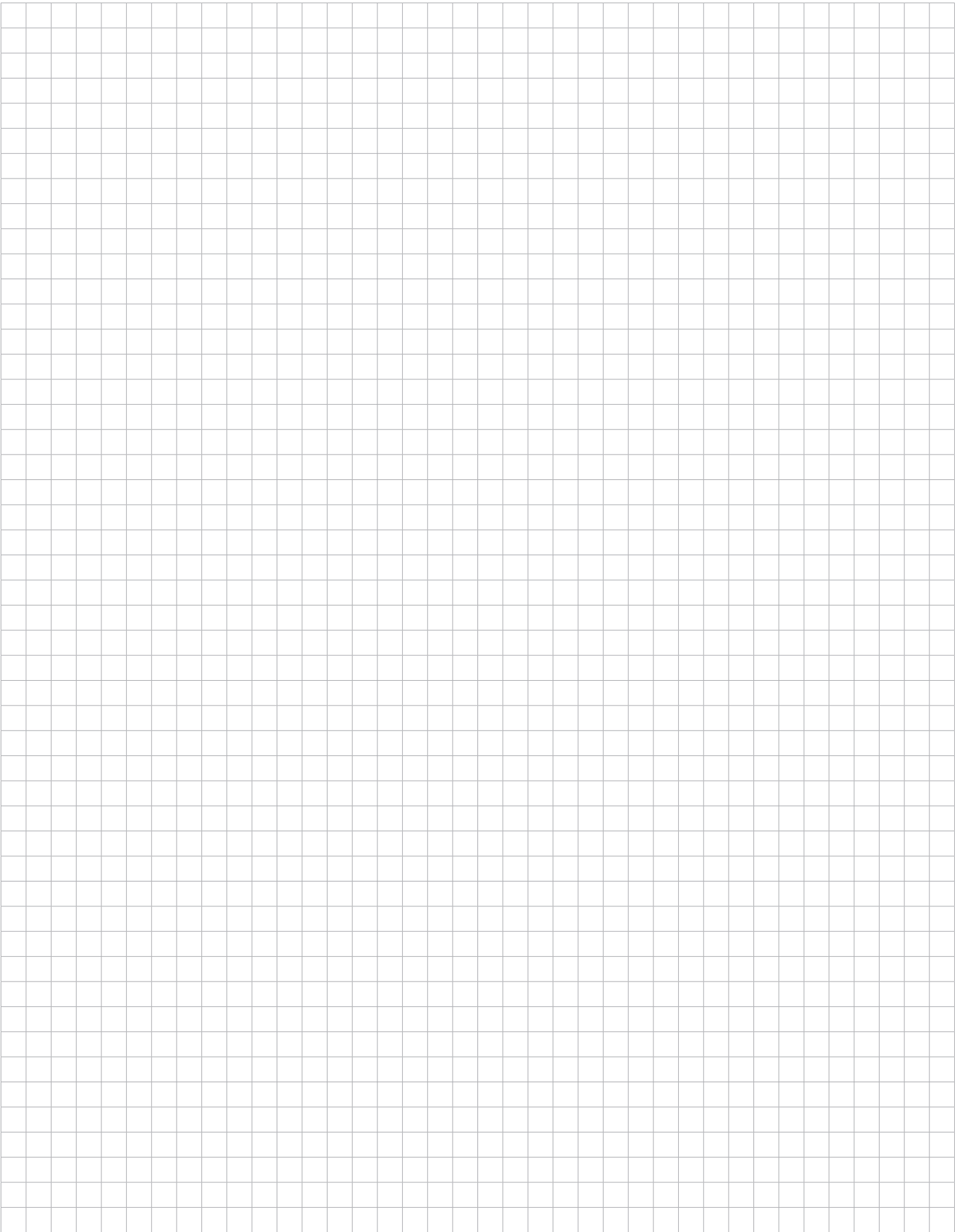
ft	167.0 ft + 3.6 ft + 114.5 ft			180.4 ft + 3.6 ft + 114.5 ft			194.2 ft + 3.6 ft + 114.5 ft			208.0 ft + 3.6 ft + 114.5 ft			223.1 ft + 3.6 ft + 114.5 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
65.6	7.3			6.8			6.4			5.7			5.3		
72.2	7.1			6.6			6.2			5.7			5.3		
78.7	6.8			6.6			6.2			5.5			5.3		
85.3	6.6			6.4			6.0			5.5			5.1		
91.9	6.4	5.5		6.2			5.7			5.3			5.1		
98.4	6.4	5.3		6.0	5.3		5.7			5.3			4.9		
105.0	6.2	5.3		6.0	5.1		5.5	4.9		5.1			4.9		
111.5	6.0	5.1		5.7	4.9		5.5	4.9		5.1	4.4		4.9		
118.1	5.7	4.9		5.7	4.9		5.3	4.6		5.1	4.4		4.6		
124.7	5.7	4.9		5.5	4.6		5.3	4.4		4.9	4.2		4.6		
131.2	5.5	4.6	4.0	5.3	4.6	4.0	5.1	4.4		4.9	4.2		4.6		
137.8	5.3	4.6	4.0	5.3	4.4	4.0	5.1	4.2	4.0	4.6	4.0		4.4		
144.4	5.3	4.4	3.7	5.1	4.4	3.7	4.9	4.2	3.7	4.6	4.0		4.4		
150.9	5.1	4.4	3.7	5.1	4.2	3.7	4.9	4.2	3.7	4.4	4.0		4.2		
157.5	5.1	4.2	3.5	4.9	4.2	3.5	4.6	4.0	3.5	4.4	3.7		4.2		
164.0	4.9	4.2	3.5	4.9	4.0	3.5	4.6	4.0	3.5	4.4	3.7		4.2		
170.6	4.6	4.0	3.3	4.6	4.0	3.3	4.4	3.7	3.3	4.2	3.7		4.0		
183.7	4.4	3.7	3.3	4.4	3.7	3.3	4.2	3.7	3.3	4.0	3.5		3.7		
196.9	4.4	3.5	3.1	4.2	3.7	3.1	4.2	3.5	3.1	3.7	3.3		3.5		
210.0	4.2	3.3	2.9	4.0	3.5	3.1	4.0	3.5	3.1	3.5	3.1		3.3		
223.1	3.7	3.1	2.9	4.0	3.3	2.9	3.7	3.3	2.9	3.3	2.9		2.9		
236.2	3.5	3.1	2.9	3.7	3.1	2.9	3.7	3.1	2.9	2.9	2.6		2.6		
249.3	3.3	2.9		3.5	2.9		3.3	3.1	2.9	2.4	2.2		2.4		
262.5	2.9	2.9		2.9	2.9		2.9	2.9		2.2			2.2		
275.6					2.6		2.2	2.6							



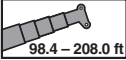

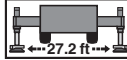

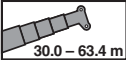

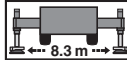

lbs x 1,000

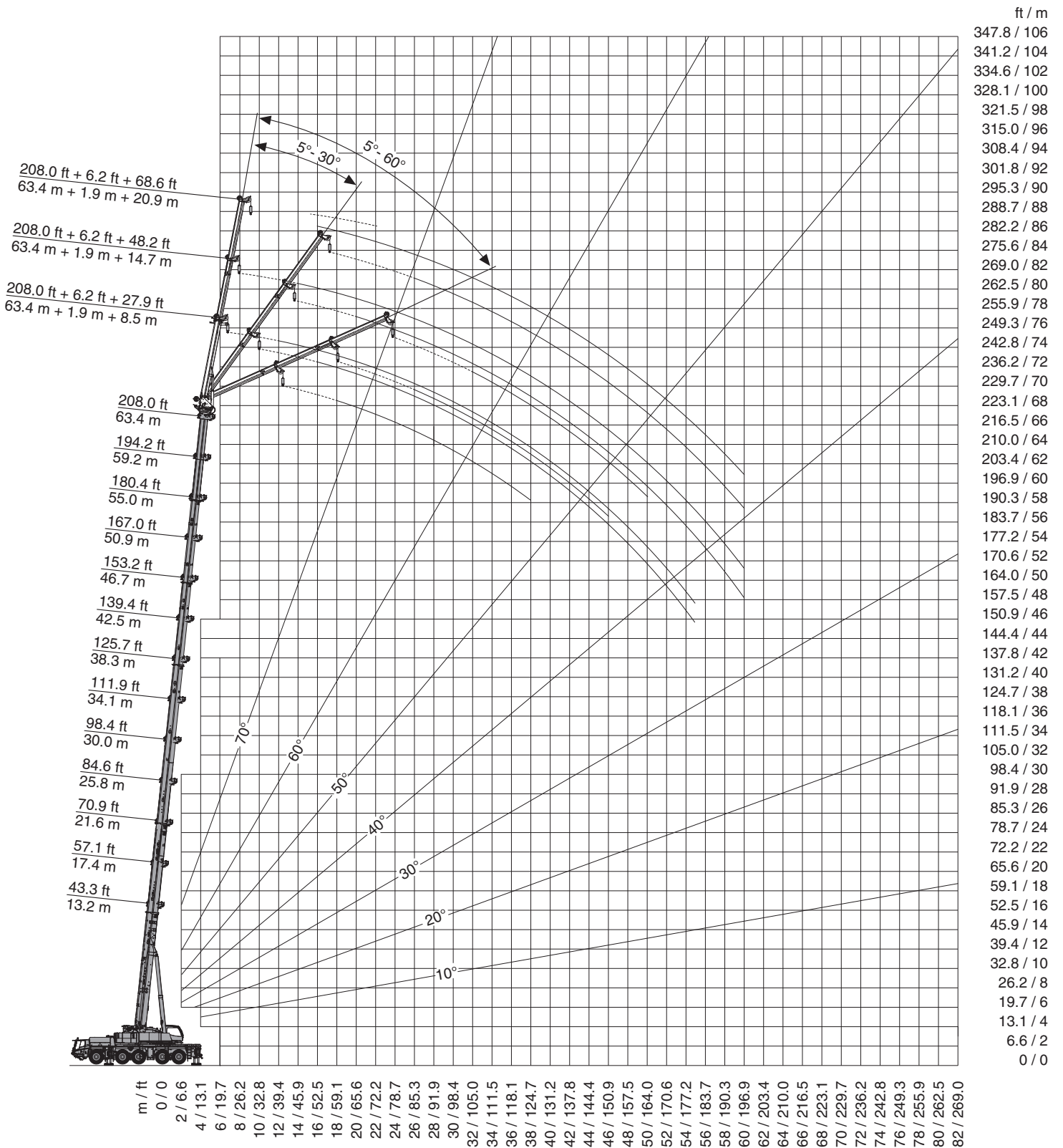
ft	43.3 ft + 3.6 ft + 114.5 ft			70.9 ft + 3.6 ft + 114.5 ft			98.4 ft + 3.6 ft + 114.5 ft			125.7 ft + 3.6 ft + 114.5 ft			153.2 ft + 3.6 ft + 114.5 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
19.7	10.4														
23.0	10.4			9.9											
26.2	10.4			9.9											
29.5	10.4			9.9											
32.8	10.4			9.9			9.9								
36.1	10.4			9.9			9.9								
39.4	9.9			9.9			9.9			8.8					
45.9	9.5			9.7			9.7			8.8					
52.5	8.8			9.0			9.3			8.6					
59.1	8.4			8.6			8.8			8.4			7.7		
65.6	7.9	7.3		8.2	7.3		8.4			8.2			7.5		
72.2	7.5	6.8		7.9	6.8		8.2	7.1		7.7			7.3		
78.7	7.1	6.4		7.5	6.6		7.7	6.6		7.5	6.4		7.1		
85.3	6.6	6.0		7.1	6.2		7.5	6.4		7.3	6.2		6.8	6.0	
91.9	6.2	5.7		6.8	6.0		7.1	6.0		7.1	6.0		6.6	5.7	
98.4	6.0	5.3	4.6	6.4	5.7	4.6	6.8	5.7		6.8	5.7		6.4	5.5	
105.0	5.5	4.9	4.2	6.2	5.5	4.4	6.6	5.5	4.6	6.6	5.5		6.2	5.3	
111.5	4.9	4.4	4.0	6.0	5.1	4.2	6.4	5.3	4.4	6.4	5.3	4.4	6.2	5.1	
118.1	4.6	4.2	3.7	5.7	4.9	4.0	6.0	5.1	4.2	6.2	5.1	4.2	6.0	5.1	
124.7	4.2	3.7	3.5	5.3	4.4	3.7	5.7	4.9	4.0	6.0	5.1	4.2	5.7	4.9	4.2
131.2	3.7	3.5	3.3	4.9	4.2	3.5	5.5	4.6	3.7	5.7	4.9	4.0	5.5	4.6	4.0
137.8	3.5	3.3	3.1	4.6	4.0	3.5	5.3	4.4	3.7	5.5	4.6	3.7	5.5	4.6	4.0
144.4	3.3	3.1		4.2	3.7	3.3	5.1	4.2	3.5	5.3	4.6	3.7	5.3	4.4	3.7
150.9	2.9	2.9		4.0	3.5	3.1	4.9	4.0	3.3	5.3	4.4	3.5	5.1	4.4	3.7
157.5				3.7	3.3	3.1	4.6	3.7	3.3	5.1	4.2	3.5	5.1	4.2	3.5
164.0				3.3	3.1	2.9	4.2	3.5	3.1	4.9	4.0	3.3	4.9	4.2	3.5
170.6				3.1	3.1		4.0	3.5	3.1	4.6	3.7	3.3	4.9	4.0	3.3
183.7							3.5	3.1	2.9	4.2	3.5	3.1	4.4	3.7	3.1
196.9							3.1	2.9		3.7	3.3	2.9	4.4	3.5	3.1
210.0										3.3	3.1		4.0	3.3	2.9
223.1										3.1	2.9		3.5	3.1	2.9
236.2													3.3	2.9	
249.3													2.4	2.9	

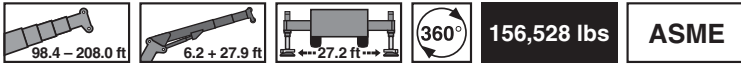
ft	167.0 ft + 3.6 ft + 114.5 ft			180.4 ft + 3.6 ft + 114.5 ft			194.2 ft + 3.6 ft + 114.5 ft			208.0 ft + 3.6 ft + 114.5 ft			223.1 ft + 3.6 ft + 114.5 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
65.6	7.3			6.8			6.4			5.7			5.3		
72.2	7.1			6.6			6.2			5.7			5.3		
78.7	6.8			6.6			6.2			5.5			5.3		
85.3	6.6			6.4			6.0			5.5			5.1		
91.9	6.4	5.5		6.2			5.7			5.3			5.1		
98.4	6.4	5.3		6.0	5.3		5.7			5.3			4.9		
105.0	6.2	5.3		6.0	5.1		5.5	4.9		5.1			4.9		
111.5	6.0	5.1		5.7	4.9		5.5	4.9		5.1	4.4		4.9		
118.1	5.7	4.9		5.7	4.9		5.3	4.6		5.1	4.4		4.6		
124.7	5.7	4.9		5.5	4.6		5.3	4.4		4.9	4.2		4.6		
131.2	5.5	4.6	4.0	5.3	4.6	4.0	5.1	4.4		4.9	4.2		4.6		
137.8	5.3	4.6	4.0	5.3	4.4	4.0	5.1	4.2	4.0	4.6	4.0		4.4		
144.4	5.3	4.4	3.7	5.1	4.4	3.7	4.9	4.2	3.7	4.6	4.0		4.4		
150.9	5.1	4.4	3.7	5.1	4.2	3.7	4.9	4.2	3.7	4.4	4.0		4.2		
157.5	5.1	4.2	3.5	4.9	4.2	3.5	4.6	4.0	3.5	4.4	3.7		4.2		
164.0	4.9	4.2	3.5	4.9	4.0	3.5	4.6	4.0	3.5	4.4	3.7		4.2		
170.6	4.6	4.0	3.3	4.6	4.0	3.3	4.4	3.7	3.3	4.2	3.7		4.0		
183.7	4.4	3.7	3.3	4.4	3.7	3.3	4.2	3.7	3.3	4.0	3.5		3.7		
196.9	4.4	3.5	3.1	4.2	3.7	3.1	4.2	3.5	3.1	3.7	3.3		3.5		
210.0	4.2	3.3	2.9	4.0	3.5	3.1	4.0	3.5	3.1	3.5	3.1		3.3		
223.1	3.7	3.1	2.9	4.0	3.3	2.9	3.7	3.3	2.9	3.3	2.9		2.9		
236.2	3.1	3.1	2.9	2.9	3.1	2.9	2.9	3.1	2.9	2.9	2.6				
249.3		2.9			2.9			3.1	2.9		2.2				



Working range · Rayon de travail · Zona de trabajo

				156,528 lbs	ASME
98.4 – 208.0 ft	34.1 – 74.8 ft	← 27.2 ft →			
				71 t	ASME
30.0 – 63.4 m	10.4 – 22.8 m	← 8.3 m →			






156,528 lbs

ASME

lbs x 1,000

ft	98.4 ft + 6.2 ft + 27.9 ft			125.7 ft + 6.2 ft + 27.9 ft			139.4 ft + 6.2 ft + 27.9 ft			153.2 ft + 6.2 ft + 27.9 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
16.4	66.1											
19.7	61.9			51.6								
23.0	57.5			55.1			47.0					
26.2	53.8			55.1			47.0			38.6		
29.5	50.3	35.1		55.1			47.0			38.6		
32.8	47.4	34.0		54.5	35.5		47.0			38.6		
36.1	44.8	33.1	27.3	51.6	34.6		47.0	35.1		38.6		
39.4	42.3	32.2	27.1	48.9	33.7	27.3	46.3	34.4		38.6	34.8	
45.9	38.1	30.6	26.7	44.5	32.2	26.9	43.0	32.8	27.1	37.3	33.5	27.1
52.5	34.8	29.1	26.5	40.6	30.9	26.7	39.9	31.5	26.7	34.2	32.2	26.9
59.1	32.0	28.0	26.2	37.5	29.8	26.5	36.8	30.4	26.5	31.5	30.2	26.2
65.6	29.5	26.9	26.2	34.6	28.7	26.2	34.0	29.3	26.2	29.1	28.0	26.0
72.2	27.3	26.0		32.2	27.8	26.2	31.5	28.4	26.2	27.1	26.0	25.8
78.7	25.6	25.4		30.2	26.9	26.2	29.1	27.6	25.8	25.1	24.5	24.3
85.3	24.0	24.7		28.4	26.0		27.1	26.7	25.8	23.4	22.7	22.9
91.9	22.7	24.3		26.7	25.4		25.4	24.9		21.6	21.4	21.4
98.4	21.4	23.8		24.9	24.9		23.6	23.4		20.1	20.1	
105.0	20.3	23.8		21.4	22.9		22.0	21.8		18.7	18.7	
111.5	19.4			19.6	19.6		19.0	20.1		17.4	17.4	
118.1	18.5			17.4	18.1		16.1	17.2		16.3	16.3	
124.7				15.0	15.7		14.3	14.6		14.1	15.0	
131.2				13.0	13.4		13.0	13.2		11.9	12.8	
137.8				11.0			11.5	11.9		10.6	10.8	
144.4				9.7			9.7	9.9		9.5	9.7	
150.9				4.6			8.2			8.6	8.8	
157.5							6.6			7.3		
164.0							5.7			6.0		

ft	167.0 ft + 6.2 ft + 27.9 ft			180.4 ft + 6.2 ft + 27.9 ft			194.2 ft + 6.2 ft + 27.9 ft			208.0 ft + 6.2 ft + 27.9 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
29.5	30.4			22.5								
32.8	30.4			25.4			18.7					
36.1	30.4			25.4			21.2					
39.4	30.4			25.4			21.2			15.4		
45.9	30.4	29.3		25.4	25.1		19.8	18.3		15.4		
52.5	29.5	27.6	26.7	24.7	23.4	22.9	18.5	17.0		15.0	13.9	
59.1	27.1	25.8	25.1	23.1	21.8	21.4	17.9	16.1	15.4	13.9	13.0	12.3
65.6	25.1	24.3	23.8	21.6	20.5	20.1	16.5	15.2	14.6	13.2	12.1	11.7
72.2	23.1	22.7	22.5	20.3	19.2	19.0	15.7	14.6	13.9	12.3	11.2	11.0
78.7	21.6	21.2	21.2	18.7	18.1	17.9	14.6	13.7	13.2	11.7	10.6	10.4
85.3	20.1	19.6	19.6	17.4	17.0	16.8	13.7	12.8	12.6	10.8	10.1	9.7
91.9	18.7	18.3	18.3	16.1	15.9	15.9	13.0	12.1	11.9	10.1	9.5	9.3
98.4	17.4	17.2	17.2	15.0	14.8	15.0	12.1	11.5	11.5	9.5	9.0	8.8
105.0	16.3	16.1		13.9	13.9	13.9	11.5	10.8	10.8	8.8	8.6	8.4
111.5	15.2	15.0		13.0	13.0	13.0	10.8	10.4	10.4	8.4	7.9	7.9
118.1	14.1	14.1		12.1	12.1		10.4	9.7	9.7	7.9	7.5	7.5
124.7	13.2	13.2		11.2	11.2		9.7	9.3		7.3	7.1	7.1
131.2	11.5	12.3		10.6	10.6		9.0	8.8		6.8	6.6	
137.8	10.6	10.6		9.0	9.9		8.4	8.4		6.6	6.2	
144.4	9.0	9.7		8.4	8.4		7.3	7.9		6.2	6.0	
150.9	7.5	7.9		7.7	7.7		6.6	6.8		5.3	5.5	
157.5	6.6	6.8		6.6	7.1		6.2	6.2		5.1	4.9	
164.0	5.1	6.2		5.3	5.7		5.5	5.7		4.6	4.6	
180.4	3.5			3.1	3.1		3.1	3.3		3.5	3.7	

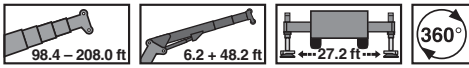


131,175 lbs **ASME**

lbs x 1,000

ft	98.4 ft + 6.2 ft + 27.9 ft			125.7 ft + 6.2 ft + 27.9 ft			139.4 ft + 6.2 ft + 27.9 ft			153.2 ft + 6.2 ft + 27.9 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
16.4	66.1											
19.7	61.9			51.6								
23.0	57.5			55.1			47.0					
26.2	53.8			55.1			47.0			38.6		
29.5	50.3	35.1		55.1			47.0			38.6		
32.8	47.4	34.0		54.5	35.5		47.0			38.6		
36.1	44.8	33.1	27.3	51.6	34.6		47.0	35.1		38.6		
39.4	42.3	32.2	27.1	48.9	33.7	27.3	46.3	34.4		38.6	34.8	
45.9	38.1	30.6	26.7	44.5	32.2	26.9	43.0	32.8	27.1	37.3	33.5	27.1
52.5	34.8	29.1	26.5	40.6	30.9	26.7	39.9	31.5	26.7	34.2	32.2	26.9
59.1	32.0	28.0	26.2	37.5	29.8	26.5	36.8	30.4	26.5	31.5	30.2	26.2
65.6	29.5	26.9	26.2	34.6	28.7	26.2	34.0	29.3	26.2	29.1	28.0	26.0
72.2	27.3	26.0		32.2	27.8	26.2	31.5	28.4	26.2	27.1	26.0	25.8
78.7	25.6	25.4		30.2	26.9	26.2	29.1	27.6	25.8	25.1	24.5	24.3
85.3	24.0	24.7		27.8	26.0		27.1	26.7	25.8	23.4	22.7	22.9
91.9	22.7	24.3		25.1	25.4		23.8	24.9		21.6	21.4	21.4
98.4	21.4	23.6		21.4	23.1		20.7	21.8		20.1	20.1	
105.0	20.3	21.4		18.3	19.6		18.7	19.0		17.2	18.7	
111.5	18.1			15.9	16.5		15.9	17.0		15.4	15.9	
118.1	16.3			14.6	14.6		13.4	14.3		13.9	14.1	
124.7				12.3	13.0		11.7	12.1		11.7	12.8	
131.2				10.8	11.0		10.6	10.8		9.9	10.8	
137.8				9.9			9.3	9.7		8.4	8.8	
144.4				8.8			7.7	7.9		7.5	7.7	
150.9				4.6			6.8			6.6	6.8	
157.5							6.2			5.3		
164.0							5.5			4.6		

ft	167.0 ft + 6.2 ft + 27.9 ft			180.4 ft + 6.2 ft + 27.9 ft			194.2 ft + 6.2 ft + 27.9 ft			208.0 ft + 6.2 ft + 27.9 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
29.5	30.4			22.5								
32.8	30.4			25.4			18.7					
36.1	30.4			25.4			21.2					
39.4	30.4			25.4			21.2			15.4		
45.9	30.4	29.3		25.4	25.1		19.8	18.3		15.4		
52.5	29.5	27.6	26.7	24.7	23.4	22.9	18.5	17.0		15.0	13.9	
59.1	27.1	25.8	25.1	23.1	21.8	21.4	17.9	16.1	15.4	13.9	13.0	12.3
65.6	25.1	24.3	23.8	21.6	20.5	20.1	16.5	15.2	14.6	13.2	12.1	11.7
72.2	23.1	22.7	22.5	20.3	19.2	19.0	15.7	14.6	13.9	12.3	11.2	11.0
78.7	21.6	21.2	21.2	18.7	18.1	17.9	14.6	13.7	13.2	11.7	10.6	10.4
85.3	20.1	19.6	19.6	17.4	17.0	16.8	13.7	12.8	12.6	10.8	10.1	9.7
91.9	18.7	18.3	18.3	16.1	15.9	15.9	13.0	12.1	11.9	10.1	9.5	9.3
98.4	17.4	17.2	17.2	15.0	14.8	15.0	12.1	11.5	11.5	9.5	9.0	8.8
105.0	16.3	16.1		13.9	13.9	13.9	11.5	10.8	10.8	8.8	8.6	8.4
111.5	15.2	15.0		13.0	13.0	13.0	10.8	10.4	10.4	8.4	7.9	7.9
118.1	12.8	14.1		12.1	12.1		10.4	9.7	9.7	7.9	7.5	7.5
124.7	11.2	11.7		11.2	11.2		9.7	9.3		7.3	7.1	7.1
131.2	10.4	10.4		9.3	10.4		9.0	8.8		6.8	6.6	
137.8	8.8	9.5		8.2	8.4		8.2	8.4		6.6	6.2	
144.4	7.3	7.9		7.5	7.5		6.6	7.5		6.2	6.0	
150.9	6.2	6.4		6.4	6.8		5.7	6.0		5.3	5.5	
157.5	4.6	5.5		5.1	5.7		5.1	5.3		4.9	4.9	
164.0	4.0	4.0		4.0	4.4		4.4	4.6		3.7	4.2	
180.4	2.6							2.6				



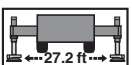
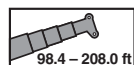
156,528 lbs

ASME

lbs x 1,000

ft	98.4 ft + 6.2 ft + 48.2 ft			125.7 ft + 6.2 ft + 48.2 ft			139.4 ft + 6.2 ft + 48.2 ft			153.2 ft + 6.2 ft + 48.2 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
23.0	30.6											
26.2	30.6			30.6								
29.5	30.6			30.6			30.6			22.5		
32.8	30.6			30.6			30.6			26.5		
36.1	30.6			30.6			30.6			26.5		
39.4	29.5	20.5		30.6			30.4			26.5		
45.9	26.5	19.4		30.0	20.1		28.9			26.5		
52.5	23.8	18.3		27.1	19.0		27.3	19.4		26.5	19.6	
59.1	21.6	17.2	14.3	24.7	18.1	14.6	26.2	18.5		25.4	18.7	
65.6	19.6	16.5	14.1	22.7	17.4	14.3	24.0	17.6	14.3	24.7	18.1	14.1
72.2	18.1	15.7	13.9	20.9	16.5	14.1	22.3	17.0	14.1	23.6	17.4	14.3
78.7	16.8	15.0	13.9	19.4	15.9	13.9	20.5	16.3	14.1	21.8	16.8	14.1
85.3	15.4	14.6	13.9	17.9	15.4	13.9	19.2	15.9	13.9	20.3	16.1	13.9
91.9	14.3	13.9		16.8	14.8	13.9	17.9	15.2	13.9	19.0	15.7	13.9
98.4	13.4	13.4		15.7	14.3	13.7	16.8	14.8	13.7	17.9	15.2	13.9
105.0	12.6	13.2		14.8	13.9	13.7	15.9	14.3	13.7	16.8	14.8	13.7
111.5	11.9	12.8		13.9	13.4		15.0	13.9	13.7	15.9	14.3	13.7
118.1	11.2	12.6		13.2	13.2		14.1	13.7		15.0	13.9	13.7
124.7	10.6	12.6		12.6	13.0		13.4	13.2		14.3	13.4	
131.2	10.1			11.9	12.8		12.8	13.0		13.7	13.2	
137.8	9.7			11.2	12.6		12.1	12.8		12.8	13.0	
144.4				10.8	12.3		11.5	12.1		11.0	12.3	
150.9				10.4	11.2		10.6	10.8		9.3	10.6	
157.5				9.3			9.3	9.9		8.4	9.0	
164.0				7.9			7.9	8.4		7.7	7.9	
180.4							5.1			5.3	3.5	
196.9										2.4		

ft	167.0 ft + 6.2 ft + 48.2 ft			180.4 ft + 6.2 ft + 48.2 ft			194.2 ft + 6.2 ft + 48.2 ft			208.0 ft + 6.2 ft + 48.2 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
32.8	19.4											
36.1	22.3			15.2								
39.4	22.3			15.2			12.6					
45.9	22.3			15.2			14.3			11.9		
52.5	22.3			15.2			14.3			11.9		
59.1	22.3	18.7		15.2	15.2		14.3			11.9		
65.6	22.0	18.1		15.2	15.2		13.9	12.1		11.5	10.1	
72.2	20.7	17.4	14.3	15.2	15.2		13.0	11.5		10.6	9.5	
78.7	20.1	17.0	14.1	15.2	15.2	14.1	12.6	11.0	10.4	9.9	9.0	
85.3	18.7	16.3	14.1	15.2	14.8	13.9	11.9	10.6	9.9	9.5	8.6	8.2
91.9	17.4	15.9	13.9	14.8	13.9	13.7	11.2	9.9	9.5	8.8	7.9	7.7
98.4	16.3	15.4	13.9	13.9	13.2	13.0	10.6	9.5	9.3	8.4	7.7	7.3
105.0	15.4	15.0	13.4	13.2	12.6	12.3	9.9	9.0	8.8	7.9	7.3	7.1
111.5	14.3	14.1	13.4	12.3	11.9	11.9	9.5	8.6	8.4	7.5	6.8	6.6
118.1	13.4	13.4	13.4	11.5	11.2	11.2	9.0	8.4	8.2	7.1	6.4	6.2
124.7	12.8	12.6	12.8	10.8	10.8	10.8	8.6	7.9	7.7	6.6	6.2	6.0
131.2	11.9	11.9		10.1	10.1	10.1	8.2	7.5	7.5	6.2	5.7	5.7
137.8	11.2	11.2		9.5	9.5		7.7	7.3	7.3	6.0	5.5	5.3
144.4	10.6	10.6		8.8	8.8		7.3	6.8		5.5	5.3	5.1
150.9	9.3	9.9		7.7	8.4		7.1	6.6		5.3	5.1	4.9
157.5	8.4	8.8		7.3	7.9		6.2	6.2		4.9	4.6	
164.0	7.1	7.9		6.6	6.8		5.7	6.0		4.6	4.4	
180.4	5.1	5.3		4.6	5.5		4.6	4.9		3.5	3.5	
196.9	3.1			2.6	2.9		2.9	3.5		3.1	2.9	



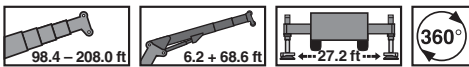
131,175 lbs

ASME

lbs x 1,000

ft	98.4 ft + 6.2 ft + 48.2 ft			125.7 ft + 6.2 ft + 48.2 ft			139.4 ft + 6.2 ft + 48.2 ft			153.2 ft + 6.2 ft + 48.2 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
23.0	30.6											
26.2	30.6			30.6								
29.5	30.6			30.6			30.6			22.5		
32.8	30.6			30.6			30.6			26.5		
36.1	30.6			30.6			30.6			26.5		
39.4	29.5	20.5		30.6			30.4			26.5		
45.9	26.5	19.4		30.0	20.1		28.9			26.5		
52.5	23.8	18.3		27.1	19.0		27.3	19.4		26.5	19.6	
59.1	21.6	17.2	14.3	24.7	18.1	14.6	26.2	18.5		25.4	18.7	
65.6	19.6	16.5	14.1	22.7	17.4	14.3	24.0	17.6	14.3	24.7	18.1	14.1
72.2	18.1	15.7	13.9	20.9	16.5	14.1	22.3	17.0	14.1	23.6	17.4	14.3
78.7	16.8	15.0	13.9	19.4	15.9	13.9	20.5	16.3	14.1	21.8	16.8	14.1
85.3	15.4	14.6	13.9	17.9	15.4	13.9	19.2	15.9	13.9	20.3	16.1	13.9
91.9	14.3	13.9		16.8	14.8	13.9	17.9	15.2	13.9	19.0	15.7	13.9
98.4	13.4	13.4		15.7	14.3	13.7	16.8	14.8	13.7	17.9	15.2	13.9
105.0	12.6	13.2		14.8	13.9	13.7	15.9	14.3	13.7	16.8	14.8	13.7
111.5	11.9	12.8		13.9	13.4		15.0	13.9	13.7	15.9	14.3	13.7
118.1	11.2	12.6		13.2	13.2		14.1	13.7		15.0	13.9	13.7
124.7	10.6	12.6		12.6	13.0		13.4	13.2		13.0	13.4	
131.2	10.1			11.9	12.8		12.1	13.0		12.1	12.6	
137.8	9.7			11.2	11.7		10.4	11.7		10.6	11.2	
144.4				9.9	10.8		9.3	9.9		9.0	10.4	
150.9				8.6	9.0		8.4	8.8		7.7	8.8	
157.5				7.9			7.5	7.9		6.6	7.3	
164.0				7.3			6.2	6.8		6.0	6.4	
180.4							4.6			4.0	3.5	
196.9										2.4		

ft	167.0 ft + 6.2 ft + 48.2 ft			180.4 ft + 6.2 ft + 48.2 ft			194.2 ft + 6.2 ft + 48.2 ft			208.0 ft + 6.2 ft + 48.2 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
32.8	19.4											
36.1	22.3			15.2								
39.4	22.3			15.2			12.6					
45.9	22.3			15.2			14.3			11.9		
52.5	22.3			15.2			14.3			11.9		
59.1	22.3	18.7		15.2	15.2		14.3			11.9		
65.6	22.0	18.1		15.2	15.2		13.9	12.1		11.5	10.1	
72.2	20.7	17.4	14.3	15.2	15.2		13.0	11.5		10.6	9.5	
78.7	20.1	17.0	14.1	15.2	15.2	14.1	12.6	11.0	10.4	9.9	9.0	
85.3	18.7	16.3	14.1	15.2	14.8	13.9	11.9	10.6	9.9	9.5	8.6	8.2
91.9	17.4	15.9	13.9	14.8	13.9	13.7	11.2	9.9	9.5	8.8	7.9	7.7
98.4	16.3	15.4	13.9	13.9	13.2	13.0	10.6	9.5	9.3	8.4	7.7	7.3
105.0	15.4	15.0	13.4	13.2	12.6	12.3	9.9	9.0	8.8	7.9	7.3	7.1
111.5	14.3	14.1	13.4	12.3	11.9	11.9	9.5	8.6	8.4	7.5	6.8	6.6
118.1	13.4	13.4	13.4	11.5	11.2	11.2	9.0	8.4	8.2	7.1	6.4	6.2
124.7	12.8	12.6	12.8	10.8	10.8	10.8	8.6	7.9	7.7	6.6	6.2	6.0
131.2	11.2	11.9		10.1	10.1	10.1	8.2	7.5	7.5	6.2	5.7	5.7
137.8	9.5	11.2		9.5	9.5		7.7	7.3	7.3	6.0	5.5	5.3
144.4	8.8	9.3		8.6	8.8		7.3	6.8		5.5	5.3	5.1
150.9	7.9	8.2		7.1	8.4		7.1	6.6		5.3	5.1	4.9
157.5	6.6	7.5		6.4	7.1		6.2	6.2		4.9	4.6	
164.0	5.5	6.4		6.0	6.2		5.1	6.0		4.6	4.4	
180.4	3.3	4.2		3.5	4.4		3.7	4.0			3.5	
196.9	2.2											

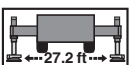
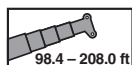


156,528 lbs **ASME**

lbs x 1,000

ft	98.4 ft + 6.2 ft + 68.6 ft			125.7 ft + 6.2 ft + 68.6 ft			139.4 ft + 6.2 ft + 68.6 ft			153.2 ft + 6.2 ft + 68.6 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
26.2	12.3											
29.5	12.3			12.3								
32.8	12.3			12.3			12.3					
36.1	12.3			12.3			12.3			12.3		
39.4	12.3			12.3			12.3			12.3		
45.9	12.3			12.3			12.3			12.3		
52.5	12.3			12.3			12.3			12.3		
59.1	12.3	12.3		12.3			12.3			12.3		
65.6	12.3	12.3		12.3	12.3		12.3	12.3		12.3		
72.2	12.3	11.7		12.3	12.1		12.3	12.1		12.3	11.9	
78.7	12.3	11.0	8.8	12.3	11.7		12.3	11.7		12.3	11.5	
85.3	11.9	10.6	8.6	12.3	11.2	8.6	12.3	11.2	8.6	12.3	11.2	
91.9	11.0	10.1	8.6	12.3	10.8	8.4	12.3	10.8	8.6	12.3	10.8	8.6
98.4	10.4	9.7	8.4	11.9	10.4	8.4	12.3	10.6	8.4	12.3	10.4	8.4
105.0	9.5	9.3	8.4	11.2	9.9	8.4	11.9	10.1	8.4	12.3	10.1	8.4
111.5	9.0	9.0	8.2	10.6	9.5	8.2	11.2	9.9	8.2	11.9	9.9	8.2
118.1	8.4	8.6		9.9	9.3	8.2	10.6	9.5	8.2	11.2	9.7	8.2
124.7	7.9	8.4		9.3	9.0	8.2	9.9	9.3	8.2	10.6	9.5	8.2
131.2	7.5	8.2		8.8	8.6		9.5	9.0	8.2	10.1	9.3	8.2
137.8	7.1	7.9		8.4	8.4		8.8	8.8		9.5	9.0	8.2
144.4	6.6	7.9		7.9	8.2		8.4	8.6		9.0	8.8	
150.9	6.2	7.9		7.5	8.2		7.9	8.4		8.6	8.6	
157.5	6.0			7.1	7.9		7.7	8.2		8.2	8.4	
164.0	5.7			6.8	7.9		7.3	7.9		7.9	8.2	
180.4				6.0			6.6	7.7		6.6	7.1	
196.9							4.9			5.1	5.5	

ft	167.0 ft + 6.2 ft + 68.6 ft			180.4 ft + 6.2 ft + 68.6 ft			194.2 ft + 6.2 ft + 68.6 ft			208.0 ft + 6.2 ft + 68.6 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
39.4	12.3											
45.9	12.3			12.3			9.3					
52.5	12.3			12.3			11.0			9.3		
59.1	12.3			12.3			11.0			9.3		
65.6	12.3			12.3			11.0			9.3		
72.2	12.3	11.7		12.3			11.0			9.3		
78.7	12.3	11.2		12.3	11.0		10.6	9.3		8.8		
85.3	12.3	11.0		12.3	10.6		10.1	8.8		8.4	7.3	
91.9	12.3	10.6	8.6	12.3	10.4		9.5	8.4		7.9	6.8	
98.4	12.3	10.4	8.4	12.1	10.1	8.6	9.3	7.9		7.3	6.6	
105.0	12.3	9.9	8.4	11.7	9.7	8.4	8.8	7.7	7.3	7.1	6.2	6.0
111.5	12.3	9.7	8.4	11.5	9.5	8.4	8.4	7.3	7.1	6.6	6.0	5.7
118.1	11.9	9.5	8.2	10.8	9.3	8.2	7.9	7.1	6.8	6.2	5.7	5.3
124.7	11.2	9.3	8.2	10.4	9.0	8.2	7.5	6.6	6.6	6.0	5.3	5.1
131.2	10.6	9.0	8.2	9.7	8.8	8.2	7.3	6.4	6.4	5.5	5.1	4.9
137.8	10.1	8.8	8.2	9.3	8.6	8.2	6.8	6.2	6.0	5.3	4.9	4.6
144.4	9.5	8.6	8.2	8.6	8.4	8.2	6.4	6.0	5.7	5.1	4.4	4.4
150.9	9.0	8.6	8.2	8.2	8.2	8.2	6.2	5.7	5.5	4.9	4.2	4.2
157.5	8.6	8.2		7.7	7.7	7.9	6.0	5.5	5.5	4.4	4.0	4.0
164.0	7.9	8.2		7.3	7.3		5.5	5.3	5.3	4.2	4.0	3.7
180.4	6.2	7.1		5.7	6.4		4.6	4.6		3.5	3.5	
196.9	4.4	4.9		4.2	5.1		4.0	4.0		2.9	2.9	



131,175 lbs

ASME

lbs x 1,000

ft	98.4 ft + 6.2 ft + 68.6 ft			125.7 ft + 6.2 ft + 68.6 ft			139.4 ft + 6.2 ft + 68.6 ft			153.2 ft + 6.2 ft + 68.6 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
26.2	12.3											
29.5	12.3			12.3								
32.8	12.3			12.3			12.3					
36.1	12.3			12.3			12.3			12.3		
39.4	12.3			12.3			12.3			12.3		
45.9	12.3			12.3			12.3			12.3		
52.5	12.3			12.3			12.3			12.3		
59.1	12.3	12.3		12.3			12.3			12.3		
65.6	12.3	12.3		12.3	12.3		12.3	12.3		12.3		
72.2	12.3	11.7		12.3	12.1		12.3	12.1		12.3	11.9	
78.7	12.3	11.0	8.8	12.3	11.7		12.3	11.7		12.3	11.5	
85.3	11.9	10.6	8.6	12.3	11.2	8.6	12.3	11.2	8.6	12.3	11.2	
91.9	11.0	10.1	8.6	12.3	10.8	8.4	12.3	10.8	8.6	12.3	10.8	8.6
98.4	10.4	9.7	8.4	11.9	10.4	8.4	12.3	10.6	8.4	12.3	10.4	8.4
105.0	9.5	9.3	8.4	11.2	9.9	8.4	11.9	10.1	8.4	12.3	10.1	8.4
111.5	9.0	9.0	8.2	10.6	9.5	8.2	11.2	9.9	8.2	11.9	9.9	8.2
118.1	8.4	8.6		9.9	9.3	8.2	10.6	9.5	8.2	11.2	9.7	8.2
124.7	7.9	8.4		9.3	9.0	8.2	9.9	9.3	8.2	10.6	9.5	8.2
131.2	7.5	8.2		8.8	8.6		9.5	9.0	8.2	10.1	9.3	8.2
137.8	7.1	7.9		8.4	8.4		8.8	8.8		9.5	9.0	8.2
144.4	6.6	7.9		7.9	8.2		8.4	8.6		9.0	8.8	
150.9	6.2	7.9		7.5	8.2		7.9	8.4		8.6	8.6	
157.5	6.0			7.1	7.9		7.7	8.2		8.2	8.4	
164.0	5.7			6.8	7.9		7.3	7.9		7.3	8.2	
180.4				6.0			5.7	6.4		5.1	5.7	
196.9							4.0			3.3	4.2	

ft	167.0 ft + 6.2 ft + 68.6 ft			180.4 ft + 6.2 ft + 68.6 ft			194.2 ft + 6.2 ft + 68.6 ft			208.0 ft + 6.2 ft + 68.6 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
39.4	12.3											
45.9	12.3			12.3			9.3					
52.5	12.3			12.3			11.0			9.3		
59.1	12.3			12.3			11.0			9.3		
65.6	12.3			12.3			11.0			9.3		
72.2	12.3	11.7		12.3			11.0			9.3		
78.7	12.3	11.2		12.3	11.0		10.6	9.3		8.8		
85.3	12.3	11.0		12.3	10.6		10.1	8.8		8.4	7.3	
91.9	12.3	10.6	8.6	12.3	10.4		9.5	8.4		7.9	6.8	
98.4	12.3	10.4	8.4	12.1	10.1	8.6	9.3	7.9		7.3	6.6	
105.0	12.3	9.9	8.4	11.7	9.7	8.4	8.8	7.7	7.3	7.1	6.2	6.0
111.5	12.3	9.7	8.4	11.5	9.5	8.4	8.4	7.3	7.1	6.6	6.0	5.7
118.1	11.9	9.5	8.2	10.8	9.3	8.2	7.9	7.1	6.8	6.2	5.7	5.3
124.7	11.2	9.3	8.2	10.4	9.0	8.2	7.5	6.6	6.6	6.0	5.3	5.1
131.2	10.6	9.0	8.2	9.7	8.8	8.2	7.3	6.4	6.4	5.5	5.1	4.9
137.8	10.1	8.8	8.2	9.3	8.6	8.2	6.8	6.2	6.0	5.3	4.9	4.6
144.4	9.5	8.6	8.2	8.6	8.4	8.2	6.4	6.0	5.7	5.1	4.4	4.4
150.9	8.6	8.6	8.2	8.2	8.2	8.2	6.2	5.7	5.5	4.9	4.2	4.2
157.5	7.7	8.2		7.5	7.7	7.9	6.0	5.5	5.5	4.4	4.0	4.0
164.0	7.1	7.9		6.4	7.3		5.5	5.3	5.3	4.2	4.0	3.7
180.4	4.9	6.0		4.9	5.3		4.2	4.6		3.5	3.5	
196.9	2.9	3.7		3.1	4.0		3.3	3.1				

EQUIPMENT

ÉQUIPEMENT
EQUIPAMIENTO



Equipment

Carrier

Frame: Torsion-resistant, welded construction made from high strength, fine-grained steel. Central lubricating system.

Outriggers: 4-point double telescopic hydraulic outriggers incl. asymmetric outrigger base and automatic length detection. Controls on both sides of carrier and in superstructure cab. Outrigger base 27.2 ft/ 8.3 m, 23.0 ft/ 7.0 m, 18.4 ft/ 5.6 m, 15.1 ft/ 4.6 m x 29.6 ft/ 9.01 m.

Carrier engine: Mercedes-Benz 6 cylinder model OM 471 LA (Euromot IV / EPA Tier 4f), water-cooled diesel engine. Rated at 530 HP (390 kW) at 1700 min⁻¹. Torque 1,814 ft-lbs/ 2460 Nm (251 kpm) at 1300 min⁻¹. Engine rating according to ECE R 120. Fuel tank 159 gal/ 600 l. AdBlue tank 11 gal/ 40 l.

Transmission: ZF-AS-Tronic 12 AS 2531 mechanical transmission with electro-pneumatically operated dry-type clutch and automatic gear shifting with 12 forward gears and 2 reverse gears.

Transfer case: Two stage.

Drive: 10 x 8

Axles:

1st axle: steered, driven, with differential lock, transverse.

2nd axle: steered, driven, shiftable, with differential lock, transverse.

3rd axle: steered, not driven.

4th axle: steered, driven, with differential lock, longitudinal and transverse.

5th axle: steered, driven, with differential lock, transverse.

Suspension: Hydro-pneumatic with levelling adjustment.

Brake system: Service disk brakes: dual circuit compressed air system with electronic wear indicator. Parking brake: spring loaded type acting on 2nd, 4th and 5th axles. Auxiliary brakes: Intarder and engine brake.

Tyres: (10) 445/95 R 25 (16.00 R 25).

Steering system: ZF-ServoCom, dual circuit hydraulic steering with emergency steering pump, mechanical steering of front two axles and automatic steering of the 3rd and 4th axle up to a travel speed of 15.5 mph/ 25km/h and of the 5th axle up to 31.1 mph/ 50 km/h.

Carrier cab: Two man full width cab of composite (steel sheet metal and fibre-glass) structure, with safety glass, central locking system, air-cushioned seats, driver's seat offering various adjustment options, with memory function and heater, engine dependent water heater, air conditioning, Bluetooth hands-free equipment, multifunction display, rear view camera, radio/CD player with USB port, control and operating elements for driving operation, Cruise Control and hill braking feature.

Electrical system: 24 V DC system, 2 batteries, outrigger area lighting, acoustic back-up alarm, lighting system with Bi halogen headlights; LED daytime running light; LED foglights, 4 rotating beacon warning lights, CAN bus system.

Optional equipment: (at extra charge)

Towing attachment, engine independent additional heater with engine pre-heat, drive 10 x 6, ABS System, 525/80 R 25 (20.5 R 25) tyres, spare wheel and tyre, special painting and lettering.

Further optional equipment available upon request.

Superstructure

Frame: Torsion-resistant, all-welded structure. Connected to carrier by single-row, ball-bearing slewing ring with external gearing for 360° continuous rotation. Central lubricating system.

Superstructure engine: Mercedes-Benz 4 cylinder model OM 934 LA (Euromot IV / EPA Tier 4f), water cooled diesel engine. The engine speed can be varied via a foot pedal. Rated at 197 HP (145 kW) at 1800 min⁻¹. Torque 590 ft-lbs/ 800 Nm (82 kpm) at 1200 - 1600 min⁻¹. Engine rating according to ECE R 120. Fuel tank 66 gal/ 250 l. AdBlue tank 2.6 gal/ 10 l.

Hydraulic system: Three-circuit diesel-hydraulic system, 1 power-controlled axial piston twin pump (electro-hydraulically adjustable) with accumulative power control and 1 axial piston pump, oil cooler.

Controls: Electrical, 2 joy-stick levers for simultaneous operation of crane motions.

Telescopic boom: 7 sections, made of high tensile, fine-grained steel, consisting of 1 base section and 6 telescoping sections extended by means of a single telescopic cylinder. All telescope sections extendable hydraulically under partial load. 43.3 ft/ 13.2 m to 223.1 ft/ 68.0 m long. Boom head with 7 sheaves. Jib bracket.

Boom elevation: 1 double acting hydraulic cylinder with integral brake holding valve.

Main winch: Axial piston motor, winch drum with integrated planetary reduction and hydraulically controlled spring-loaded multiple disc brake and integrated free rotation (no sagging of load when hoisting), drum turn indicator. Hoist cable with 'Super-Stop' easy reeving system.

Slewing system: Axial piston constant motor, three-stage planetary gear with service and parking brake. Open hydraulic circuit with wearless, dynamic free slewing function. Speed infinitely variable from 0 to 1.2 rpm.

Counterweight: Total 156,528 lbs/ 71 t divisible. Installation and removal controlled from superstructure cab.

Superstructure cab: Spacious crane cab in steel / plastic design with laterally extended tread plate, safety glass windows with tinted panes, tilting working place with adjustable, mechanically cushioned driver's seat with heating, engine-fed and autonomous water heating (with engine pre-heating), air conditioning, radio/CD player with MP3/USB/SD Card port, control and operating elements for crane operation, outrigger actuation and carrier engine features.

Electrical system: 24 V DC system, 2 batteries. 2 working floodlights on base boom, 2 integrated in crane cab.

Safety devices: 'Lift Adjuster', electronic load moment limiter (LMB) with LCD color display, anemometer, slewing area and working range limitation with 'Slow-Stop' feature, hoist limit switch, lower limit switch, safety valves protect against pipe and hose ruptures. Fall protection system.

Dolly kit: Slewing gear unfixed & boom socket.

Optional equipment: (at extra charge)

Jibs from 3.6 ft/ 1.1 m + 15.4 ft/ 4.7 m to 3.6 ft/ 1.1 m + 114.5 ft/ 34.9 m, tiltable at choice 0°, 20° and 40° or hydraulically 0° to 40°, HTLJ jib 6.2 ft/ 1.85 m + 27.9 ft/ 8.5 m to 6.2 ft/ 1.85 m + 68.6 ft/ 20.9 m (hydraulically tiltable and telescopic 0° to 60°), hook blocks from 35.3 US t/ 32 t to 275.6 US t/ 250 t, 2nd hoisting winch (as main winch), supported forces display, special paint and lettering.

Further optional equipment available on request.

Châssis

Châssis: Construction mécano-soudée, en acier à grain fin très rigide, résistant aux flexions et aux torsions. Graissage centralisé.

Calage: Dispositif de calage horizontal et vertical double en 4 points, entièrement déployable hydrauliquement, y compris distance entre appuis asymétrique, détection de longueur automatique et commande des mouvements sur les deux côtés du porteur et depuis la cabine de la superstructure. Calage 27.2 ft/ 8.3 m, 23.0 ft/ 7.0 m, 18.4 ft/ 5.6 m, 15.1 ft/ 4.6 m x 29.6 ft/ 9.01 m.

Moteur: Mercedes Benz diesel 6 cylindres, modèle OM 471 LA (Euromot IV / EPA Tier 4f), refroidi par eau, de 530 CV (390 kW) à 1700 min⁻¹. Couple: 1,814 ft-lbs/ 2460 Nm (251 kpm) à 1300 min⁻¹. Puissance selon ECE R 120. Capacité du réservoir 159 gal/ 600 l. Capacité du réservoir AdBlue: 11 gal/ 40l.

Boîte de vitesse: Boîte mécanique ZF-AS-Tronic, modèle 12 AS 2531 avec embrayage à sec électro-pneumatique et commande des vitesses automatique, 12 vitesses AV et 2 vitesses AR.

Boîte de transfert: à 2 gammes.

Entraînement: 10 x 8

Essieux:

1^{er} essieu: directeur, entraîné, blocage de différentiel transversal.

2^{ème} essieu: directeur, entraîné, entraîné sur commande, blocage de différentiel transversal.

3^{ème} essieu: directeur, non entraîné.

4^{ème} essieu: directeur, entraîné, blocage de différentiel longitudinal et transversal.

5^{ème} essieu: directeur, entraîné, blocage de différentiel transversal.

Suspension: Hydro-pneumatique, avec réglage de niveau.

Freins: Système de freinage à disque à air comprimé, à deux circuits, avec indicateur d'usure électronique. Frein de stationnement, agit sur les essieux 2, 4 et 5 comme frein à ressorts accumulateurs. Intarder et frein moteur comme frein continu.

Pneus: 10 x 445/95 R 25 (16:00 R 25).

Direction: Servocom à double circuit, marque ZF avec pompe de secours pour direction. Direction mécanique du 1^{er} et 2^{ème} essieu, direction à assistance hydraulique du 3^{ème} et 4^{ème} essieu jusqu'à une vitesse de 15.5 mph/ 25 km/h, et du 5^{ème} essieu jusqu'à une vitesse de 31.1 mph/ 50 km/h.

Cabine: Cabine bi-place, construction en matière combinée (acier/matière plastique), vitres en verre de sécurité, système de verrouillage central, sièges à suspension pneumatique, siège du conducteur à plusieurs réglages, avec fonction de mémoire et chauffant, chauffage d'eau alimenté par le moteur, climatiseur, dispositif mains libres Bluetooth, affichage multifonctions, caméra de recul, radio / CD-player avec connecteur USB, éléments de contrôle et de commande pour la conduite, régulateur de vitesse, système automatique de freinage.

Système électrique: 24 V CC, 2 batteries, allumage de la zone d'appui, alarme de recul acoustique, système d'éclairage avec des projecteurs halogène Bi ; feu de circulation diurne DEL ; feux-brouillard DEL, 4 gyrophares, système du bus CAN.

Équipement supplémentaire: (avec supplément de prix) Attache-remorque, chauffage auxiliaire indépendant du moteur avec préchauffage du moteur, entraînement 10 x 6, système ABS, 525/80 R 25 (20.5 R 25), roue de secours, peinture spéciale et inscription.

Autres équipements supplémentaires sur demande.

Superstructure

Plate forme: Construction mécano-soudée résistante à la torsion. Couronne d'orientation à billes à une rangée, à denture extérieure, permettant une rotation illimitée sur 360°. Graissage centralisé.

Moteur: Mercedes Benz diesel 4 cylindres, modèle OM 934 LA (Euromot IV / EPA Tier 4f), refroidi par eau, réglage en continu du nombre de tours par pédale, de 197 CV (145 kW) à 1800 min⁻¹. Couple: 590 ft-lbs/ 800 Nm (82 kpm) à 1200 - 1600 min⁻¹. Puissance selon ECE R 120. Capacité du réservoir 66 gal/ 250 l. Capacité du réservoir AdBlue: 2.6 gal/ 10l.

Système hydraulique: Diesel-hydraulique à 3 circuits, 1 double pompe à piston axial réglée en fonction de la puissance (à réglage électro-hydraulique) avec circuit de la somme et 1 pompe à piston axial, refroidisseur d'huile.

Commande: 2 manipulateurs à commande en croix (4 sens), assistés électriquement.

Flèche télescopique: Flèche télescopique à 7 éléments en acier à texture fine et très résistant, se composant de 1 flèche de base et 6 éléments télescopiques, 1 vérin télescopique, hydrauliquement télescopable avec charge partielle. Longueur de 43.3 ft/ 13,2 m à 223.1 ft/ 68,0 m. Tête de flèche avec 7 poulies. Console de rallonge de flèche.

Mécanisme de relevage: 1 vérin différentiel muni de clapet ralentisseur d'arrêt de descente.

Mécanisme de levage: Moteur à pistons axiaux, tambour de levage avec boîte planétaire incorporée, frein d'arrêt à disques multiples à ressort, libéré lors du levage, indicateur de rotation du treuil. Câble de levage avec dispositif 'Super-Stop'.

Groupe de rotation: Moteur à cylindrée constante à pistons axiaux, avec engrenage planétaire à trois étages avec frein de service et frein d'arrêt. Circuit hydraulique ouvert avec déconnexion du groupe de rotation dynamique sans usure. Vitesse de rotation 0 à 1,2 min⁻¹ en continu.

Contrepoids: Poids total 156,528 lbs/ 71 t divisible, pose et dépose commandés depuis la cabine du grutier.

Cabine du grutier: Cabine de grue spacieuse, construction en acier/plastique avec tôle marche-pied extensible latéralement, vitrage de sécurité en verre teinté, place de travail inclinable avec siège du conducteur réglable, amorti mécaniquement, chauffant ; chauffage à eau chaude alimenté par le moteur et autonome (avec préchauffage du moteur), climatiseur, radio / CD-player avec connecteur pour carte MP3/USB/SD et dispositif mains libres Bluetooth, éléments de commande et de contrôle pour le service de grue, actionnement des outriggers et fonctions du moteur dans le châssis.

Système électrique: 24 V CC, 2 batteries. 2 phares de travail sur la flèche de base, 2 intégrés dans la cabine de grue.

Dispositifs de sécurité: 'Lift Adjuster', Contrôleur de l'état de charge (CEC) électronique, avec affichage couleur à cristaux liquides, anémomètre, limitation de rotation et limitation de la zone de travail avec fonction « Slow-Stop », interrupteur de fin de course de levage et de treuil, soupapes de sécurité comme protection contre ruptures des conduites et flexibles. Système de protection antichute.

Jeu d'accessoires pour chariot de transport: Groupe de rotation non bloqué + support pour la flèche.

Équipement supplémentaire: (avec supplément de prix) Rallonge de flèche de 3.6 ft/ 1,1 m + 15.4 ft/ 4.7 m à 3,6 ft/ 1.1 m + 114.5 ft/ 34.9 m, au choix inclinables 0°, 20° et 40° ou hydrauliquement de 0° à 40°, rallonge de flèche HTLJ 6.2 ft/ 1,85 m + 27.9 ft/ 8,5 m à 6.2 ft/ 1,85 m + 68.6 ft/ 20,9 m (inclinable et télescopable hydrauliquement de 0° à 60°), moulés inférieurs de 35.3 US t/ 32 t à 275.6 US t/ 250 t, 2^{ème} treuil de levage (identique au treuil principal), affichage des forces d'appui, peinture spéciale et inscription.

Autres équipements supplémentaires sur demande.

Equipamiento

Chasis

Chasis portante: Construcción de acero de alta resistencia soldado, resistente a la torsión y a la flexión en acero de grano fino altamente resistente. Sistema de engrase central.

Estabilizadores: Estabilizadores telescópicos hidráulicos dobles de 4 puntos, incl. base de apoyo asimétrica y detección automática de longitud, posibilidad de manejo desde ambos lados del chasis portante y desde la cabina de la grúa. Extensión de los estabilizadores 27.2 ft/ 8.3 m, 23.0 ft/ 7.0 m, 18.4 ft/ 5.6 m, 15.1 ft/ 4.6 m x 29.6 ft/ 9.01 m.

Motor: Mercedes Benz modelo OM 471 LA (Euromot IV / EPA Tier 4f), 6 cilindros, diesel, refrigerado por agua. Nominal 530 CV (390 kW) a 1700 min⁻¹. Par 1,814 ft-lbs/ 2460 Nm (251 kpm) a 1300 min⁻¹. Potencia del motor según ECE R 120. Depósito de combustible de 159 gal/ 600 l. Depósito AdBlue 11 gal/ 40 l.

Transmisión: Transmisión mecánica tipo ZF-AS Tronic modelo 12 AS 2531 con accionamiento electro-neumático, embrague en seco y cambio automático 12 marchas delanteras y 2 marchas traseras.

Caja transfer: Caja de distribución (transfer) con 2 relaciones de velocidad.

Tracción: 10 x 8

Ejes:

1° eje: de dirección, accionado, con bloqueo diferencial transversal.

2° eje: de dirección, accionado, conectar según necesidad, con bloqueo diferencial transversal.

3° eje: de dirección, no accionado.

4° eje: de dirección, accionado, con bloqueo diferencial longitudinal y transversal.

5° eje: de dirección, accionado, con bloqueo diferencial transversal.

Suspensión: Suspensión hidroneumática con regulación de nivel.

Sistemas de frenos: Sistema de frenos de disco neumático de doble circuito con indicador electrónico de desgaste. Freno de estacionamiento como freno de acumuladores a resorte accionando en los ejes 2, 4 y 5. Bloqueo de la corona de rodaduras 360°. Intarder y freno de motor como freno continuo.

Neumáticos: 10 x 445/95 R 25 (16.00 R 25).

Dirección: Hidráulica ZF Servocom de doble circuito. Bomba hidráulica de emergencia. Dirección mecánica al 1° y 2° eje y direccionable al 3° y 4° eje hasta una velocidad de 15.5 mph/ 25 km/h y al 5° eje hasta una velocidad de conducción de 31.1 mph/ 50 km/h.

Cabina: Cabina de conductor frontal para dos personas construida en material compuesto de chapa de acero y plástico, acristalamiento de seguridad, bloqueo central, asientos neumáticos, asiento del conductor regulable en múltiples posiciones con función memoria y calefactable, calefacción por agua dependiente del motor, climatizador, dispositivo manos libres con Bluetooth, display multifunción, cámara de marcha atrás, radio/reproductor CD con toma USB, elementos de control y mando para el modo de conducción, regulador de velocidad, sistema automático de frenado.

Sistema eléctrico: 24 voltios de corriente continua, 2 baterías, iluminación de la zona de apoyo, alarma acústica para indicar la marcha atrás, sistema de luces con faros bialógenos, luz LED de marcha diurna, faro LED antiniebla, 4 luces de aviso omnidireccionales, sistema de bus CAN.

Equipo adicional: (con suplemento de precio)

Attache-remorque, chauffage auxiliaire indépendant du moteur avec préchauffage du moteur, entraînement 10 x 6, système ABS, pneus 525/80 R 25 (20.5 R 25), roue de secours, peinture spéciale et inscription. Autres équipements supplémentaires sur demande.

Superestructura

Superestructura: Construida en aceros soldados, resistente a la torsión. Corona de giro con rodamiento de una fila de bolas con dientes externos con giro continuo a 360°. Sistema de engrase central.

Motor: Mercedes Benz modelo OM 934 LA (Euromot IV / EPA Tier 4f), 4 cilindros, diesel, refrigerado por agua. Las revoluciones aumentan de forma gradual accionando el pedal acelerador. Nominal 197 CV (145 kW) a 1800 min⁻¹. Par 590 ft-lbs/ 800 Nm (82 kpm) a 1200 - 1600 min⁻¹. Potencia del motor según ECE R 120. Depósito de combustible de 66 gal/ 250 l. Depósito AdBlue 2.6 gal/ 10 l.

Sistema hidráulico: Dieselhidráulico con sistema hidráulico de 3 circuitos, 1 bomba doble de pistones axiales de caudal variable (regulable electro-hidráulicamente) con regulación a caudal total y 1 bomba de pistones axiales, enfriador de aceite.

Mandos: 2 palancas de control de tipo joy-stick para movimientos simultáneos de la grúa (4 direcciones), asistidos eléctricamente.

Pluma telescópica: 7 secciones, un tramo base y 6 telescópicos de acero de alta resistencia soldado, 1 cilindro hidráulico, los tramos se pueden telescopar hidráulicamente bajo carga parcial. Longitud de 43.3 ft/ 13,2 m a 223.1 ft/ 68,0 m. Cabeza de pluma con 7 poleas. Depósito de alargamiento de pluma.

Elevación de pluma: Mediante un cilindro hidráulico de doble efecto con válvula de retención integrada.

Cabrestante principal: Motor hidráulico de pistones axiales. Tambor del cabrestante con reducción planetaria y frenos de disco múltiples, cargado por resorte, con sistema libre de elevación, indicador de giros del cabrestante. Cable de elevación con sistema fácil de guiado y 'Super-Stop'.

Mecanismo de giro: Motor de cilindrada constante de émbolos axiales, engranaje planetario de tres etapas con freno de servicio y estacionamiento. Circuito hidráulico abierto con desbloqueo del mecanismo giratorio dinámico sin desgaste, velocidad de giro gradual de 0 a 1,2 min⁻¹.

Contrapeso: Peso total 156,528 lbs/ 71 t. divisible. Montaje y desmontaje se accionan desde la cabina de la grúa.

Cabina de la grúa: Amplia cabina de grúa construida en chapa de acero y plástico con chapa pisadera lateral extensible, acristalamiento de seguridad coloreado, puesto de trabajo rebatible con asiento de conductor regulable amortiguado mecánicamente, con calefacción, calefacción por agua dependiente e independiente del motor (con precalentamiento del motor), climatizador, radio/reproductor CD con toma para MP3/USB/tarjeta SD, elementos de control y mando para el servicio de la grúa, accionamiento de estabilizadores y funciones del motor del chasis.

Sistema eléctrico: 24 voltios de corriente continua, 2 baterías. 2 faros de trabajo en pluma base, 2 integrados en la cabina de grúa.

Medidas de seguridad: "Lift Adjuster", limitador electrónico del momento de carga (LMC) con pantalla de color LCD, anemómetro, limitación de la zona de giro y del área de trabajo con función "Slow Stop", interruptor de fin de carrera, interruptor de fin de carrera del cabrestante, indicador de giros del cabrestante. Válvulas de seguridad como protección contra roturas de tubos y de tubos flexibles. Sistema de protección contra caídas.

Juego para carro tipo dolly: Sin fijar el mecanismo giratorio + soporte para pluma.

Equipo adicional: (con suplemento de precio)

Alargamiento de pluma de 3.6 ft/ 1,1 m + 15.4 ft/ 4,7 m a 3.6 ft/ 1,1 m + 114.5 ft/ 34,9 m, regulables opcionalmente entre 0°, 20° y 40° o hidráulicamente de 0° a 40°, alargamiento de pluma HTLJ de 6.2 ft/ 1,85 m + 27.9 ft/ 8,5 m a 6.2 ft/ 1,85 m + 68.6 ft/ 20,9 m (telescopiable y regulable hidráulicamente de 0° a 60°), pastecas de carga de 35.3 US t/ 32 t a 275.6 US t/ 250 t, 2° cabrestante (similar al cabrestante principal), indicador de la fuerza de apoyo, pintura especial y rotulación. Otros equipamientos sobre pedido.

ADDITIONAL INFORMATION

INFORMATIONS SUPPLÉMENTAIRES
INFORMACIÓN ADICIONAL



Remarks relating to the capacity charts · Remarques relatives aux tableaux des charges Notas relativas a los graficos de carga

1. The rated lifting capacities conform to ASME B30.5-1.1. Capacities shown are for reference only. Please refer to the original lifting capacity charts for operations.
2. Depending on the boom length, with the lifting capacity charts, wind speeds up to max. 49 fps/ 15 m/s are admissible. Due to the different extension sequences of the various telescopes, the boom lengths may differ slightly from those indicated in the lifting capacity charts.
3. The lifting capacities are indicated in 1,000 lbs.
4. The weight of load handling devices such as hook blocks, slings, etc., must be considered as part of the load and must be deducted from the lifting capacities.
5. The lifting capacities for the telescopic boom apply to a crane with no jib being stowed or mounted on the crane.
6. The working radius is the horizontal distance from the centre of rotation to the centre of the freely suspended non-oscillating load.

1. Les charges de levage nominales sont en conformité avec ASME B30.5-1.1. Les charges de levage indiquées sont uniquement des valeurs indicatives. Pour les travaux réels, voir les tableaux de charges originaux.
2. En fonction de la longueur de la flèche, des vitesses du vent jusqu'à 49 fps/ 15 m/s maxi. sont admissibles avec les tableaux des charges. A cause des séquences d'extension différentes des télescopes individuels, les longueurs de flèche peuvent varier légèrement par rapport aux valeurs indiquées dans les tableaux de charge.
3. Les forces de levage sont indiquées en 1,000 lbs.
4. Le poids du crochet-moufle et de tous les accessoires d'élingage font partie de la charge et sont à déduire des charges indiquées.
5. Les forces de levage indiquées pour la flèche télescopique s'entendent rallonge de flèche déposée.
6. Comme portée, on entend la distance horizontale du centre de la couronne de rotation au centre de la charge librement suspendue et non oscillante.

1. Las cargas nominales son en conformidad con ASME B30.5-1.1. Las cargas indicadas son únicamente valores indicativos. Para los trabajos, consúltense las tablas de carga originales.
2. En función de la longitud de la pluma, las tablas de carga permiten velocidades del viento hasta un máximo de 49 fps/ 15 m/s. Debido a las diferentes secuencias de extensión de los telescopios, puede haber algunas variaciones insignificantes con respecto a las longitudes de pluma indicadas en las tablas de carga.
3. Las capacidades de carga indicadas en las tablas se indican en 1,000 lbs.
4. Hay que deducir los pesos del gancho, eslingas y de otros dispositivos para fijación de cargas de los valores indicados en las tablas.
5. Las capacidades de carga referentes a la pluma telescópica valen solamente si el alargamiento de pluma está desmontado.
6. Como alcance se entiende la distancia horizontal desde el centro de la corona de giro hasta el centro de la carga suspendida libremente y no oscilante.





















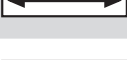



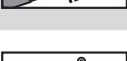







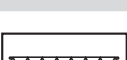

General remarks · Remarques générales · Notas adicionales

Unless otherwise specified, all the information given in this brochure refers to the standard equipment of the crane and only is intended as general information. For correct crane operation, the original operating manual and lifting capacity charts are mandatory. No liability is accepted for the accuracy of this information. We reserve the right to change information at our discretion. Illustrations are for representation only. All dimensions are indicated in feet [millimeters] - unless otherwise specified.

Sauf indication contraire, toutes les informations dans cette brochure se rapportent à l'équipement standard de la grue et constituent uniquement des informations générales. Pour le fonctionnement correct de la grue, le manuel d'instructions original et les tableaux des charges de levage sont déterminants. Toutes les informations sont fournies sans garantie. Nous nous réservons le droit de modifier les informations à notre discrétion. Les illustrations sont présentées à des fins d'illustration uniquement. Toutes les cotes - sauf indication différente - en feet [millimeters].

A no ser que se indique lo contrario, todos los datos incluidos en este folleto hacen referencia al equipamiento estándar de la grúa y sólo tienen un carácter informativo general. El manual de instrucciones original y las tablas de capacidades de carga son determinantes para lograr un correcto funcionamiento de la grúa. Todos los datos se facilitan sin garantía. Queda reservado el derecho de introducir modificaciones según nuestra única discreción. Las ilustraciones se incluyen únicamente con fines ilustrativos. Todas las dimensiones - salvo indicación en contrario - en feet [millimeters].

Symbols · Glossaire des symboles · Glosario de símbolos

	<p>Gross weight · Poids total · Peso total</p>		<p>Hydraulic telescopic and luffing jib HTLJ Fléchette télescopique relevable hydrauliquement HTLJ Plumín hidráulicamente telescópico y regulable HTLJ</p>
	<p>Axle load · Charge à l'essieu · Carga por eje</p>		<p>Dolly · Chariot de transport dolly · Carro tipo dolly</p>
	<p>Drive · Entraînement · Tracción</p>		<p>Swing area · Rayon de rotation · Zona de giro</p>
	<p>Tyres · Pneus · Neumáticos</p>		<p>Hydraulically lockable · Verrouillable hydrauliquement Con embulonamiento hidráulico</p>
	<p>Gradeability · Capacité de gravissement de pente Superación de pendientes</p>		<p>Main winch · Mécanisme de levage Cabrestante principal</p>
	<p>Off road / On road · Tout-terrain / Mode "Route" Todo terreno / En carretera</p>		<p>Auxiliary winch · Treuil supplémentaire Cabrestante auxiliar</p>
	<p>Speed · Vitesse · Velocidad</p>		<p>Hook block / Swivel hook · Moufle / Élingues Gancho / Gancho de bola</p>
	<p>Outriggers · Calage · Estabilizadores</p>		<p>Rated capacity Capacité nominale Capacidad nominal</p>
	<p>Counterweight · Contrepoids · Contrapeso</p>		<p>Lifting capacity · Charge de levage · Carga Portata</p>
	<p>Counterweight element · Élément de contrepoids Parte del contrapeso</p>		<p>Rope sheaves · Poulies de câbles · Poleas de cable</p>
	<p>Length · Longueur · Longitud</p>		<p>Parts of line · Brins de câble · Ramales de cable</p>
	<p>Boom elevation · Mécanisme de relevage Elevación de pluma</p>		<p>Dead-weight · Poids total · Tara</p>
	<p>Boom telescoping · Télescopage de flèche Telescopaje de pluma</p>		<p>Wire rope length · Longueur du câble de levage Longitud del cable</p>
	<p>Telescopic boom · Flèche télescopique Pluma telescopica</p>		<p>Wire rope diameter · Diamètre du câble de levage Diámetro del cable de elevación</p>
	<p>Radius · Portée · Radio</p>		<p>Maximum wire rope pulling force Force de traction maxi. du câble de levage Fuerza de tracción maxima del cable de elevación</p>
	<p>Tilttable jib · Fléchette inclinable · Plumín regulable</p>		<p>Weight · Poids · Peso</p>
	<p>Hydraulically tilttable jib Fléchette inclinable hydrauliquement Plumín regulable hidráulicamente</p>	<p>US t t</p>	<p>= short tons · tonnes américaines · toneladas cortas = metric tons · tonnes métriques · toneladas métricas</p>
	<p>Fly jib section · Élément de fléchette · Plumín</p>	<p>ASME</p>	<p>Standard by The American Society of Mechanical Engineers Norme délivrée par The American Society of Mechanical Engineers Norma emitida por The American Society of Mechanical Engineers</p>



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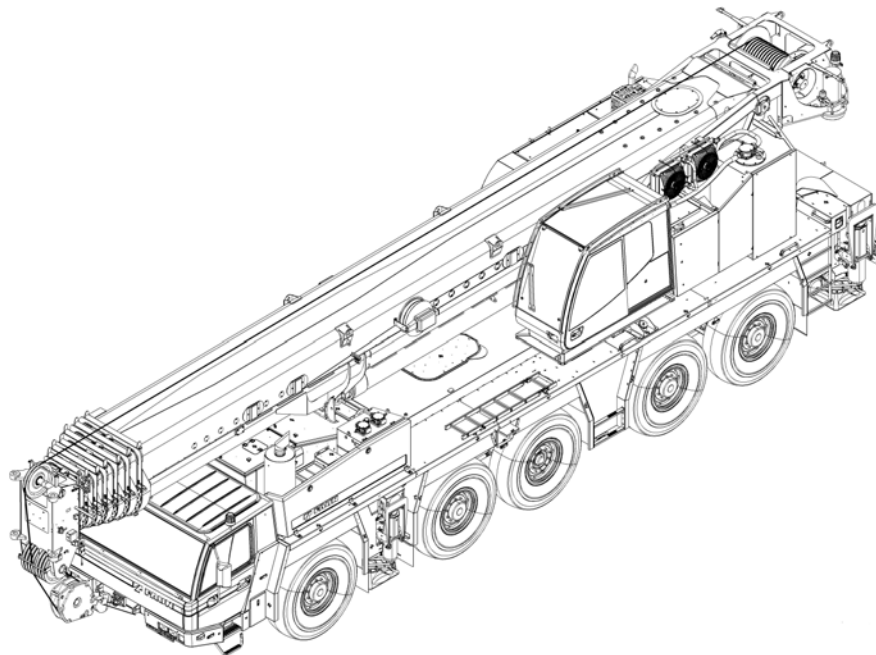
TADANO

ALL-TERRAIN-CRANE

ATF 220G-5

Serial-No.: 2136181

Version: 00



LOAD RATING CHARTS

INSTRUCTION FOR LIFTING CAPACITIES

OUTRIGGER REACTION FORCE CHARTS

TADANO AMERICA CORPORATION

4242 West Greens Road
Houston, Texas 77066
Phone: (281) 869-0030
Fax: (281) 869-0040
www.tadanoamerica.com

ATF 220G-5

No.	[ft]	[%]					
		I	II	III	IV	V	VI
1	43,4	0	0	0	0	0	0
2	57,2	0	0	0	0	0	46
3	70,9	0	0	0	0	0	92
4	84,6	0	0	0	0	46	92
5	98,3	0	0	0	0	92	92
6	112,0	0	0	0	46	92	92
7	125,7	0	0	0	92	92	92
8	139,4	0	0	46	92	92	92
9	153,1	0	0	92	92	92	92
10	166,9	0	46	92	92	92	92
11	180,6	0	92	92	92	92	92
12	194,3	46	92	92	92	92	92
13	208,0	92	92	92	92	92	92
14	70,9	0	0	0	0	46	46
15	84,6	0	0	0	46	46	46
16	98,3	0	0	46	46	46	46
17	112,0	0	46	46	46	46	46
18	125,7	46	46	46	46	46	46
19	139,4	92	46	46	46	46	46
20	139,4	46	46	46	46	46	92
21	153,1	46	46	46	46	92	92
22	166,9	92	46	46	46	92	92
23	153,1	92	92	46	46	46	46
24	166,9	92	92	92	46	46	46
25	180,6	92	92	92	92	46	46
26	180,6	46	92	92	92	92	46
27	194,3	92	92	92	92	92	46
28	223,1	100	100	100	100	100	100
29	57,2	0	46	0	0	0	0
30	70,9	46	46	0	0	0	0
31	84,6	92	46	0	0	0	0
32	84,6	46	46	46	0	0	0
33	98,3	92	46	46	0	0	0
34	98,3	46	46	46	46	0	0
35	112,0	92	46	46	46	0	0
36	112,0	46	46	46	46	46	0
37	125,7	92	46	46	46	46	0
38	139,4	92	92	46	46	46	0

No.	[ft]	[%]					
		I	II	III	IV	V	VI
1	43,4	0	0	0	0	0	0
29	57,2	0	46	0	0	0	0
2	57,2	0	0	0	0	0	46
30	70,9	46	46	0	0	0	0
14	70,9	0	0	0	0	46	46
3	70,9	0	0	0	0	0	92
31	84,6	92	46	0	0	0	0
32	84,6	46	46	46	0	0	0
15	84,6	0	0	0	46	46	46
4	84,6	0	0	0	0	46	92
33	98,3	92	46	46	0	0	0
34	98,3	46	46	46	46	0	0
16	98,3	0	0	46	46	46	46
5	98,3	0	0	0	0	92	92
35	112,0	92	46	46	46	0	0
36	112,0	46	46	46	46	46	0
17	112,0	0	46	46	46	46	46
6	112,0	0	0	0	46	92	92
37	125,7	92	46	46	46	46	0
18	125,7	46	46	46	46	46	46
7	125,7	0	0	0	92	92	92
38	139,4	92	92	46	46	46	0
19	139,4	92	46	46	46	46	46
20	139,4	46	46	46	46	46	92
8	139,4	0	0	46	92	92	92
23	153,1	92	92	46	46	46	46
21	153,1	46	46	46	46	92	92
9	153,1	0	0	92	92	92	92
24	166,9	92	92	92	46	46	46
22	166,9	92	46	46	46	92	92
10	166,9	0	46	92	92	92	92
25	180,6	92	92	92	92	46	46
26	180,6	46	92	92	92	92	46
11	180,6	0	92	92	92	92	92
27	194,3	92	92	92	92	92	46
12	194,3	46	92	92	92	92	92
13	208,0	92	92	92	92	92	92
28	223,1	100	100	100	100	100	100

	0 %	46 %	92 %	100 %
VI	4,92 ft	18,63 ft	32,35 ft	33,79 ft
V	3,94 ft	17,65 ft	31,36 ft	33,79 ft
IV	2,95 ft	16,67 ft	30,38 ft	33,20 ft
III	1,97 ft	15,68 ft	29,40 ft	32,22 ft
II	0,98 ft	14,70 ft	28,41 ft	31,23 ft
I	0,00 ft	13,71 ft	27,43 ft	30,25 ft

Working radius [ft]		Load rating chart ATF 220G-5														Working radius [ft]				
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 156,527 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																		
		Boom length [ft]																		
		43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		
		1)																		
8	73	500.0*																	8	
9	72	442.1*																	9	
10	70	394.6*	385.6*	75	308.6*	75	134.7	79	308.6*	79	140.3	79	100.4	81	251.3*	81	227.1	81	142.7	10
12	67	367.1*	346.1*	73	308.6*	73	126.1	77	308.6*	77	132.6	77	93.1	80	247.5*	80	227.1	80	135.9	12
14	64	341.5*	317.1*	71	305.7*	71	118.9	75	304.5*	75	125.8	75	86.7	78	233.3	78	227.1	78	129.6	14
16	61	306.9*	286.0*	68	284.9*	68	112.2	73	283.5*	73	119.6	73	81.1	77	221.0	77	227.1	77	123.9	16
18	58	274.1*	260.7*	67	260.1*	67	106.5	72	258.5*	72	114.3	72	76.4	76	208.3	76	227.1	76	118.9	18
20	54	244.6*	237.4	65	237.4	65	101.1	70	235.2	70	109.3	70	71.9	74	195.6	74	225.4	74	114.2	20
25	45	194.9	194.3	59	193.4	59	90.4	65	191.5	65	98.8	65	63.0	71	170.4	71	193.0	71	104.1	25
30	33	159.5	159.5	52	158.6	52	82.0	61	156.6	61	90.4	61	55.9	67	150.3	67	157.9	67	95.9	30
35				45	133.2	45	75.2	56	131.4	56	83.0	56	50.5	63	129.9	63	132.6	63	88.9	35
40				36	114.1	36	70.1	50	112.4	50	76.0	50	45.8	59	110.8	59	113.5	59	81.6	40
45				24	99.5	24	66.2	44	97.7	44	69.9	44	42.1	55	96.2	55	98.8	55	74.9	45
50								37	86.1	37	64.8	37	39.1	50	84.6	50	87.1	50	69.3	50
55								29	76.5	29	60.6	29	36.6	45	74.9	45	77.3	45	64.4	55
60								19	68.1	19	57.1	19	34.4	40	67.0	40	69.5	40	60.1	60
65														34	63.0	34	65.3	34	56.5	65
70														25	55.9	25	58.9	25	53.5	70
75																				75
80																				80
85																				85
90																				90
95																				95
100																				100
110																				110
120																				120
130																				130
140																				140
150																				150
160																				160
170																				170
180																				180
190																				190
200																				200
210																				210
Tel.		Telescoping sequence [%]														Tel.				
1		0		0		0		46		0		0		92		46		0		1
2		0		46		0		46		0		0		46		46		0		2
3		0		0		0		0		0		0		0		46		0		3
4		0		0		0		0		0		0		0		0		46		4
5		0		0		0		0		46		0		0		0		46		5
6		0		0		46		0		46		92		0		0		46		6

1) Over rear with superstructure locking pin engaged.
* With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704308
Counterweight 156,527 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																		Working radius [ft]		
	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
8	500.0	131.8																	8		
9	442.1	123.4																	9		
10	394.6	116.4	385.6	124.6	308.6	102.2	134.7	70.5	308.6	102.6	140.3	71.1	100.4	70.7	251.3	86.2	227.1	78.4	142.7	71.3	10
12	367.1	116.4	346.1	123.3	308.6	111.6	126.1	66.3	308.6	112.0	132.6	66.8	93.1	90.2	247.5	92.7	227.1	85.4	135.9	67.0	12
14	341.5	116.1	317.1	123.5	305.7	119.9	118.9	62.5	304.5	119.9	125.8	62.9	86.7	64.7	233.3	95.5	227.1	92.5	129.6	63.0	14
16	306.9	112.2	286.0	121.4	284.9	121.2	112.2	59.1	283.5	121.2	119.6	59.4	81.1	62.2	221.0	98.2	227.1	99.5	123.9	59.3	16
18	274.1	107.5	260.7	119.4	260.1	119.5	106.5	57.7	258.5	119.3	114.3	59.0	76.4	60.0	208.3	99.7	227.1	106.6	118.9	59.9	18
20	244.6	103.3	237.4	117.7	237.4	117.9	101.1	57.0	235.2	117.5	109.3	59.7	71.9	57.9	195.6	101.0	225.4	112.8	114.2	61.5	20
25	194.9	96.4	194.3	114.0	193.4	113.9	90.4	60.0	191.5	113.7	98.8	63.2	63.0	53.5	170.4	103.8	193.0	113.8	104.1	65.5	25
30	159.5	91.4	159.5	109.5	158.6	109.3	82.0	62.9	156.6	109.0	90.4	66.5	55.9	49.7	150.3	106.2	157.9	109.1	95.9	69.2	30
35					133.2	105.7	75.2	65.6	131.4	105.4	83.0	69.2	50.5	48.3	129.9	105.4	132.6	105.5	88.9	72.6	35
40					114.1	103.1	70.1	68.6	112.4	102.8	76.0	71.2	45.8	49.6	110.8	102.7	113.5	102.8	81.6	74.7	40
45					99.5	101.2	66.2	71.8	97.7	101.0	69.9	73.0	42.1	51.1	96.2	100.9	98.8	100.9	74.9	76.3	45
50									86.1	99.6	64.8	74.7	39.1	52.6	84.6	99.5	87.1	99.4	69.3	77.8	50
55									76.5	98.5	60.6	76.6	36.6	54.2	74.9	98.3	77.3	98.2	64.4	79.3	55
60									68.1	97.7	57.1	78.7	34.4	55.9	67.0	97.9	69.5	97.7	60.1	80.8	60
65															63.0	99.6	65.3	99.8	56.5	82.2	65
70															55.9	98.2	58.9	98.7	53.5	83.9	70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
110																					110
120																					120
130																					130
140																					140
150																					150
160																					160
170																					170
180																					180
190																					190
200																					200
210																					210
Tel.	Telescoping sequence %																		Tel.		
1		0			0		0		46		0		0		92		46		0		1
2		0			46		0		46		0		0		46		46		0		2
3		0			0		0		0		0		0		0		46		0		3
4		0			0		0		0		0		0		0		0		46		4
5		0			0		0		0		46		0		0		0		46		5
6		0			0		46		0		46		92		0		0		46		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5										Working radius [ft]										
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 156,527 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																				
		Boom length [ft]																				
		84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7											
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠											
8													8									
9													9									
10	81	103.5											10									
12	80	96.8	82	199.5	82	170.9	82	137.4	82	87.8			12									
14	78	91.0	80	199.5	80	170.9	80	131.7	80	83.1			14									
16	77	85.7	79	193.7	79	170.9	79	126.5	79	78.7	80	154.3	80	127.9	80	112.4	80	75.0			16	
18	76	81.2	78	184.1	78	170.9	78	121.8	78	74.4	80	154.3	80	127.9	80	112.4	80	72.6	81	120.2	18	
20	74	77.0	77	174.4	77	170.9	77	117.3	77	70.2	79	153.5	79	127.9	79	112.4	79	70.3	80	120.2	20	
25	71	68.4	74	151.7	74	170.9	74	107.8	74	61.3	76	139.1	76	127.9	76	110.1	76	63.4	78	120.2	25	
30	67	61.4	71	133.7	71	159.7	71	99.7	71	54.1	74	123.3	74	127.9	74	103.2	74	57.2	76	113.7	30	
35	63	55.5	68	119.5	68	134.2	68	93.1	68	48.5	71	110.2	71	126.0	71	96.6	71	51.8	74	103.1	35	
40	59	50.4	65	107.7	65	115.0	65	87.2	65	43.8	68	99.4	68	117.2	68	91.1	68	47.4	71	93.3	40	
45	55	46.2	61	96.5	61	100.4	61	81.3	61	40.2	65	90.5	65	102.2	65	86.2	65	43.5	68	85.1	45	
50	50	42.7	57	85.5	57	88.6	57	75.7	57	37.0	63	83.1	63	90.4	63	80.8	63	40.2	66	78.2	50	
55	45	39.7	53	75.7	53	78.8	53	70.7	53	34.2	59	76.1	59	80.6	59	75.8	59	37.3	63	72.2	55	
60	40	37.0	49	67.3	49	71.1	49	66.3	49	31.8	56	69.8	56	72.3	56	71.4	56	34.9	61	66.8	60	
65	34	34.7	45	59.6	45	67.1	45	62.4	45	29.6	52	65.6	52	65.2	52	67.5	52	32.7	58	62.1	65	
70	25	32.9	41	54.7	41	60.4	41	59.2	41	27.8	49	59.0	49	61.1	49	64.1	49	30.8	55	58.1	70	
75			36	49.7	36	54.2	36	56.2	36	26.3	45	52.8	45	56.3	45	59.6	45	29.1	52	53.8	75	
80			29	44.5	29	48.9	29	53.5	29	24.8	41	47.4	41	50.8	41	54.4	41	27.7	49	49.1	80	
85			21	40.0	21	44.4	21	50.7	21	23.7	37	42.8	37	46.1	37	49.7	37	26.3	45	44.4	85	
90											32	38.9	32	42.2	32	45.6	32	25.1	42	40.5	90	
95											26	35.5	26	38.8	26	42.1	26	24.2	38	37.0	95	
100											19	32.3	19	35.6	19	38.9	19	23.3	34	33.9	100	
110																			23	28.4	110	
120																						120
130																						130
140																						140
150																						150
160																						160
170																						170
180																						180
190																						190
200																						200
210																						210
Tel.		Telescoping sequence [%]										Tel.										
1	0	92	46	0	0	92	46	0	0	92	1											
2	0	46	46	0	0	46	46	46	0	46	2											
3	0	46	46	46	0	46	46	46	0	46	3											
4	0	0	46	46	0	46	46	46	46	46	4											
5	46	0	0	46	92	0	46	46	92	46	5											
6	92	0	0	46	92	0	0	46	92	0	6											

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Working radius [ft]		Outrigger reaction force chart ATF 220G-5																		Working radius [ft]				
		Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704308 Counterweight 156,527 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 27.23 ft																						
		Boom length [ft]																						
		84.6		98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9				125.7		
		m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
8																							8	
9																							9	
10	103.5	71.2																					10	
12	96.8	68.0	199.5	77.0	170.9	67.3	137.4	66.9	87.8	68.3													12	
14	91.0	65.1	199.5	83.3	170.9	72.3	131.7	62.8	83.1	65.7													14	
16	85.7	62.5	193.7	87.4	170.9	77.7	126.5	59.8	78.7	63.3	154.3	72.0	127.9	61.3	112.4	59.7	75.0	63.7					16	
18	81.2	60.2	184.1	89.5	170.9	83.2	121.8	60.9	74.4	61.1	154.3	77.0	127.9	65.1	112.4	59.8	72.6	61.5	120.2	62.5			18	
20	77.0	58.0	174.4	91.3	170.9	88.6	117.3	62.9	70.2	59.1	153.5	81.6	127.9	69.2	112.4	61.2	70.3	59.3	120.2	66.5			20	
25	68.4	53.3	151.7	93.8	170.9	102.2	107.8	67.4	61.3	55.0	139.1	86.7	127.9	79.6	110.1	69.1	63.4	54.8	120.2	76.5			25	
30	61.4	49.6	133.7	96.0	159.7	109.2	99.7	71.5	54.1	51.6	123.3	89.1	127.9	90.1	103.2	74.0	57.2	51.1	113.7	82.7			30	
35	55.5	50.3	119.5	98.0	134.2	105.5	93.1	75.4	48.5	48.7	110.2	91.0	126.0	99.2	96.6	78.2	51.8	48.1	103.1	85.4			35	
40	50.4	51.6	107.7	99.7	115.0	102.8	87.2	78.9	43.8	46.6	99.4	92.7	117.2	103.1	91.1	82.3	47.4	48.6	93.3	87.2			40	
45	46.2	52.8	96.5	100.2	100.4	100.9	81.3	81.5	40.2	47.7	90.5	94.3	102.2	101.0	86.2	86.1	43.5	49.8	85.1	88.8			45	
50	42.7	54.1	85.5	99.2	88.6	99.4	75.7	83.5	37.0	48.7	83.1	95.9	90.4	99.4	80.8	88.6	40.2	50.9	78.2	90.3			50	
55	39.7	55.3	75.7	98.0	78.8	98.1	70.7	85.3	34.2	49.8	76.1	97.0	80.6	98.2	75.8	90.8	37.3	52.1	72.2	91.8			55	
60	37.0	56.6	67.3	96.9	71.1	97.7	66.3	87.1	31.8	50.8	69.8	97.8	72.3	97.2	71.4	93.0	34.9	53.2	66.8	93.2			60	
65	34.7	57.7	59.6	95.2	67.1	100.0	62.4	88.8	29.6	51.7	65.6	99.9	65.2	96.2	67.5	95.2	32.7	54.3	62.1	94.4			65	
70	32.9	59.2	54.7	95.5	60.4	98.5	59.2	90.6	27.8	52.7	59.0	98.6	61.1	97.5	64.1	97.2	30.8	55.4	58.1	95.7			70	
75			49.7	95.0	54.2	96.9	56.2	92.4	26.3	53.8	52.8	96.9	56.3	97.3	59.6	97.4	29.1	56.5	53.8	96.1			75	
80			44.5	93.8	48.9	95.6	53.5	94.0	24.8	54.8	47.4	95.4	50.8	95.8	54.4	96.2	27.7	57.7	49.1	95.5			80	
85			40.0	92.6	44.4	94.5	50.7	95.1	23.7	56.0	42.8	94.4	46.1	94.6	49.7	94.9	26.3	58.8	44.4	94.2			85	
90												38.9	93.5	42.2	93.6	45.6	93.8	25.1	59.9	40.5	93.2			90
95												35.5	92.7	38.8	92.9	42.1	93.0	24.2	61.1	37.0	92.5			95
100												32.3	92.1	35.6	92.3	38.9	92.4	23.3	62.5	33.9	91.8			100
110																				28.4	90.3			110
120																								120
130																								130
140																								140
150																								150
160																								160
170																								170
180																								180
190																								190
200																								200
210																								210
Tel.	Telescoping sequence %																					Tel.		
1	0		92		46		0		0		92		46		0		0		92		1			
2	0		46		46		0		0		46		46		46		0		46		2			
3	0		46		46		46		0		46		46		46		0		46		3			
4	0		0		46		46		0		46		46		46		46		46		4			
5	46		0		0		46		92		0		46		46		92		46		5			
6	92		0		0		46		92		0		0		46		92		0		6			

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5																		Working radius [ft]			
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 156, 527 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																					
		Boom length [ft]																					
		125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2				167.0	
		°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°			
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠			
8																						8	
9																						9	
10																						10	
12																						12	
14																						14	
16																						16	
18	81	95.9	81	66.1																		18	
20	80	95.9	80	65.8	82	95.9	82	82.9	82	69.4	82	56.2										20	
25	78	95.9	78	61.5	79	95.9	79	82.9	79	69.4	79	56.2	80	76.1	80	55.8	80	47.2				25	
30	76	95.9	76	56.9	78	95.0	78	82.9	78	69.3	78	55.1	79	76.1	79	55.6	79	47.2	80	62.8		30	
35	74	95.9	74	52.2	76	88.3	76	82.9	76	66.4	76	52.5	77	75.5	77	52.8	77	47.2	78	62.8		35	
40	71	93.8	71	47.3	74	82.4	74	82.5	74	62.3	74	49.1	76	71.3	76	50.0	76	47.0	77	62.1		40	
45	68	89.1	68	43.3	71	78.4	71	79.1	71	59.6	71	45.3	73	67.0	73	47.8	73	45.3	75	59.6		45	
50	66	84.5	66	39.8	69	73.0	69	74.1	69	56.2	69	41.9	72	64.1	72	45.2	72	42.8	74	56.5		50	
55	63	79.5	63	36.8	67	67.6	67	68.8	67	52.9	67	39.0	70	61.1	70	42.8	70	40.3	72	53.4		55	
60	61	73.9	61	34.2	65	62.7	65	63.8	65	50.0	65	36.4	68	57.6	68	40.6	68	37.9	71	50.4		60	
65	58	67.0	58	31.8	62	58.3	62	59.6	62	47.5	62	34.0	66	54.4	66	38.6	66	35.6	68	47.7		65	
70	55	62.5	55	29.8	60	54.5	60	55.8	60	45.1	60	32.0	64	51.7	64	36.9	64	33.5	67	45.3		70	
75	52	57.8	52	27.9	58	51.1	58	52.4	58	43.0	58	30.1	62	48.9	62	35.2	62	31.7	65	43.1		75	
80	49	52.8	49	26.3	55	47.8	55	49.3	55	41.2	55	28.5	59	46.1	59	33.6	59	30.0	63	40.9		80	
85	45	48.1	45	25.0	52	44.1	52	46.3	52	39.6	52	27.0	57	43.8	57	32.3	57	28.3	61	38.9		85	
90	42	44.1	42	23.6	49	40.2	49	42.4	49	38.0	49	25.6	55	41.4	55	30.9	55	27.0	59	37.2		90	
95	38	40.4	38	22.5	46	36.8	46	38.9	46	36.6	46	24.4	52	38.5	52	29.7	52	25.5	57	35.1		95	
100	34	37.2	34	21.5	43	33.7	43	35.7	43	35.3	43	23.3	49	35.3	49	28.6	49	24.1	54	32.9		100	
110	23	32.0	23	19.7	36	28.2	36	30.3	36	33.0	36	21.4	44	29.9	44	26.7	44	21.7	50	29.2		110	
120					27	23.7	27	25.9	27	29.1	27	19.8	38	25.5	38	25.0	38	19.7	45	25.7		120	
130														29	21.6	29	23.5	29	17.8	39	21.8		130
140														16	18.4	16	20.3	16	16.5	32	18.6		140
150																				23	16.1		150
160																							160
170																							170
180																							180
190																							190
200																							200
210																							210
Tel.		Telescoping sequence [%]																		Tel.			
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	1		
2	46	0	92	46	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	2		
3	46	0	46	46	46	46	46	46	46	46	92	92	3										
4	46	92	46	46	46	92	46	46	92	46	92	46	4										
5	46	92	46	46	46	92	46	92	92	92	46	5											
6	46	92	0	46	92	92	46	92	92	46	92	46	6										

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.




Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704308
Counterweight 156,527 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																Working radius [ft]							
	125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2			153.2		167.0				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		m	F	m	F			
8																						8		
9																							9	
10																							10	
12																							12	
14																							14	
16																							16	
18	95.9	57.2	66.1	61.7																			18	
20	95.9	54.9	65.8	59.5	95.9	56.0	82.9	55.3	69.4	57.9	56.2	61.0											20	
25	95.9	62.7	61.5	54.7	95.9	64.3	82.9	56.8	69.4	51.8	56.2	56.1	76.1	53.9	55.8	54.9	47.2	57.6					25	
30	95.9	70.7	56.9	50.6	95.0	72.1	82.9	64.1	69.3	54.7	55.1	51.5	76.1	60.3	55.6	50.1	47.2	53.3	62.8	52.6			30	
35	95.9	78.8	52.2	48.5	88.3	76.0	82.9	71.3	66.4	58.9	52.5	48.6	75.5	66.7	52.8	49.6	47.2	49.0	62.8	58.5			35	
40	93.8	85.3	47.3	49.3	82.4	79.5	82.5	78.2	62.3	61.8	49.1	50.0	71.3	70.5	50.0	52.4	47.0	48.9	62.1	63.7			40	
45	89.1	89.4	43.3	50.4	78.4	83.7	79.1	82.8	59.6	65.2	45.3	51.4	67.0	73.5	47.8	55.4	45.3	51.9	59.6	67.5			45	
50	84.5	93.1	39.8	51.5	73.0	86.0	74.1	85.4	56.2	67.7	41.9	52.6	64.1	77.2	45.2	57.6	42.8	53.9	56.5	70.5			50	
55	79.5	95.7	36.8	52.5	67.6	87.7	68.8	87.1	52.9	69.8	39.0	53.9	61.1	80.3	42.8	59.7	40.3	55.6	53.4	73.0			55	
60	73.9	97.0	34.2	53.6	62.7	89.2	63.8	88.5	50.0	71.9	36.4	55.0	57.6	82.6	40.6	61.7	37.9	57.1	50.4	75.3			60	
65	67.0	96.2	31.8	54.5	58.3	90.5	59.6	89.9	47.5	73.9	34.0	56.0	54.4	84.7	38.6	63.6	35.6	58.3	47.7	77.4			65	
70	62.5	97.0	29.8	55.4	54.5	91.8	55.8	91.2	45.1	75.8	32.0	57.0	51.7	86.8	36.9	65.5	33.5	59.4	45.3	79.4			70	
75	57.8	97.0	27.9	56.3	51.1	93.1	52.4	92.4	43.0	77.7	30.1	58.0	48.9	88.5	35.2	67.2	31.7	60.6	43.1	81.3			75	
80	52.8	96.1	26.3	57.3	47.8	94.1	49.3	93.6	41.2	79.6	28.5	59.0	46.1	90.0	33.6	68.8	30.0	61.7	40.9	83.0			80	
85	48.1	94.9	25.0	58.4	44.1	94.0	46.3	94.4	39.6	81.5	27.0	60.0	43.8	91.5	32.3	70.5	28.3	62.6	38.9	84.6			85	
90	44.1	93.7	23.6	59.2	40.2	93.2	42.4	93.6	38.0	83.3	25.6	60.9	41.4	92.6	30.9	72.0	27.0	63.6	37.2	86.4			90	
95	40.4	92.8	22.5	60.2	36.8	92.4	38.9	92.7	36.6	85.1	24.4	61.8	38.5	92.5	29.7	73.5	25.5	64.3	35.1	87.2			95	
100	37.2	92.0	21.5	61.3	33.7	91.8	35.7	91.9	35.3	86.9	23.3	62.8	35.3	91.7	28.6	75.0	24.1	65.0	32.9	87.7			100	
110	32.0	91.0	19.7	63.2	28.2	90.2	30.3	90.6	33.0	90.3	21.4	64.8	29.9	90.4	26.7	78.2	21.7	66.4	29.2	88.9			110	
120					23.7	89.1	25.9	89.6	29.1	90.1	19.8	66.8	25.5	89.4	25.0	81.1	19.7	67.6	25.7	89.4			120	
130														21.6	88.3	23.5	84.0	17.8	68.8	21.8	88.2			130
140														18.4	87.4	20.3	82.8	16.5	70.6	18.6	87.2			140
150																				16.1	87.1			150
160																								160
170																								170
180																								180
190																								190
200																								200
210																								210
Tel.	Telescoping sequence %																				Tel.			
1	46		0		92		92		46		0		92		46		0		92		1		1	
2	46		0		92		46		46		0		92		46		0		92		2		2	
3	46		0		46		46		46		46		46		46		92		92		3		3	
4	46		92		46		46		46		92		46		46		92		92		4		4	
5	46		92		46		46		46		92		46		92		92		92		5		5	
6	46		92		0		46		92		92		46		92		92		46		6		6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

 Load rating chart ATF 220G-5																			
Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 156,527 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																			
Working radius [ft]	Boom length [ft]										Working radius [ft]								
	167.0 ° /	167.0 ° /	180.4 ° /	180.4 ° /	180.4 ° /	194.2 ° /	194.2 ° /	208.0 ° /	223.1 ° /										
8												8							
9												9							
10												10							
12												12							
14												14							
16												16							
18												18							
20												20							
25												25							
30	80	49.8	80	41.7	81	50.7	81	42.3	81	37.3		30							
35	78	49.8	78	41.7	79	50.7	79	42.3	79	37.3	80	41.4	80	33.1		35			
40	77	49.6	77	41.7	79	50.7	79	42.3	79	37.3	79	41.4	79	33.1	80	33.1	81	30.4	40
45	75	47.6	75	41.7	77	50.3	77	42.3	77	37.3	77	41.4	77	33.1	79	33.1	80	30.4	45
50	74	45.4	74	41.0	76	48.9	76	42.3	76	37.3	76	41.4	76	33.1	78	33.1	79	30.4	50
55	72	43.3	72	39.3	74	46.9	74	41.8	74	37.3	75	41.0	75	33.1	77	33.1	78	30.1	55
60	71	41.3	71	36.8	73	44.6	73	40.6	73	36.9	74	40.0	74	33.1	76	33.1	77	29.4	60
65	68	39.3	68	34.7	71	42.4	71	38.4	71	35.1	72	38.1	72	33.1	74	33.1	75	28.9	65
70	67	37.7	67	32.8	69	40.2	69	36.5	69	33.2	71	36.4	71	32.9	73	32.8	74	28.4	70
75	65	36.2	65	31.0	67	38.2	67	34.7	67	31.5	69	34.8	69	32.0	72	31.9	73	27.9	75
80	63	34.7	63	29.4	66	36.4	66	32.9	66	29.9	68	33.2	68	30.5	71	30.6	72	27.4	80
85	61	33.2	61	27.9	64	34.7	64	31.4	64	28.5	66	31.8	66	29.2	69	29.4	71	26.9	85
90	59	32.0	59	26.5	62	33.2	62	29.9	62	27.2	65	30.5	65	27.8	68	28.2	70	25.6	90
95	57	30.9	57	25.3	60	31.8	60	28.5	60	25.9	63	29.1	63	26.7	66	27.0	68	24.3	95
100	54	29.9	54	24.2	59	30.4	59	27.2	59	24.8	62	27.8	62	25.6	65	25.9	67	23.0	100
110	50	27.9	50	22.0	55	27.9	55	25.0	55	22.8	58	25.7	58	23.5	61	24.1	64	20.8	110
120	45	25.9	45	19.9	50	25.0	50	22.8	50	20.6	54	23.7	54	21.7	58	22.2	61	18.9	120
130	39	23.4	39	18.1	46	22.2	46	20.8	46	18.5	50	21.1	50	20.0	54	20.7	58	17.2	130
140	32	21.2	32	16.5	40	19.2	40	18.8	40	16.8	46	18.9	46	18.1	51	18.4	54	15.7	140
150	23	18.7	23	15.3	34	16.5	34	17.1	34	15.1	41	16.7	41	16.7	46	16.7	51	14.2	150
160					26	14.3	26	15.8	26	13.9	35	14.9	35	15.3	42	15.3	47	13.1	160
170							17	14.4	17	12.6	29	12.9	29	14.0	37	13.8	43	12.0	170
180											19	11.2	19	12.9	31	12.1	39	10.9	180
190															23	10.4	34	9.5	190
200																	28	8.6	200
210																	18	7.7	210
Tel.	telescoping sequence [%]											Tel.							
1	92	0	92	46	0	92	46	92	46	92	100	1							
2	46	46	92	92	92	92	92	92	92	92	100	2							
3	46	92	92	92	92	92	92	92	92	92	100	3							
4	46	92	92	92	92	92	92	92	92	92	100	4							
5	92	92	46	92	92	92	92	92	92	92	100	5							
6	92	92	46	46	92	46	92	46	92	92	100	6							

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

TADANO																				Outrigger reaction force chart ATF 220G-5	
Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704308 Counterweight 156,527 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 27.23 ft																					
Working radius [ft]	Boom length [ft]																		Working radius [ft]		
	167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0		223.1				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
8																			8		
9																			9		
10																			10		
12																			12		
14																			14		
16																			16		
18																			18		
20																			20		
25																			25		
30	49.8	50.7	41.7	54.5	50.7	49.7	42.3	52.8	37.3	55.2									30		
35	49.8	49.1	41.7	50.5	50.7	50.3	42.3	48.6	37.3	51.5	41.4	48.2	33.1	52.3					35		
40	49.6	53.1	41.7	47.3	50.7	55.2	42.3	47.8	37.3	48.1	41.4	48.0	33.1	48.8	33.1	48.2	30.4	49.1	40		
45	47.6	56.3	41.7	49.7	50.3	59.8	42.3	52.0	37.3	47.5	41.4	52.2	33.1	45.3	33.1	46.0	30.4	45.8	45		
50	45.4	59.0	41.0	52.8	48.9	63.5	42.3	56.3	37.3	50.4	41.4	56.5	33.1	47.5	33.1	48.5	30.4	46.9	50		
55	43.3	61.5	39.3	55.1	46.9	66.4	41.8	60.0	37.3	54.1	41.0	60.3	33.1	51.0	33.1	52.1	30.1	49.3	55		
60	41.3	63.8	36.8	56.5	44.6	68.8	40.6	62.9	36.9	57.5	40.0	63.5	33.1	54.5	33.1	55.7	29.4	52.1	60		
65	39.3	65.8	34.7	57.9	42.4	71.0	38.4	64.7	35.1	59.2	38.1	65.6	33.1	58.0	33.1	59.2	28.9	54.8	65		
70	37.7	68.0	32.8	59.2	40.2	72.9	36.5	66.5	33.2	60.6	36.4	67.7	32.9	61.4	32.8	62.5	28.4	57.5	70		
75	36.2	70.1	31.0	60.4	38.2	74.7	34.7	68.0	31.5	62.0	34.8	69.5	32.0	63.7	31.9	64.9	27.9	60.2	75		
80	34.7	72.0	29.4	61.6	36.4	76.4	32.9	69.5	29.9	63.3	33.2	71.3	30.5	65.2	30.6	66.8	27.4	62.8	80		
85	33.2	73.7	27.9	62.7	34.7	78.1	31.4	71.0	28.5	64.7	31.8	73.1	29.2	66.8	29.4	68.6	26.9	65.3	85		
90	32.0	75.5	26.5	63.7	33.2	79.8	29.9	72.3	27.2	65.9	30.5	74.8	27.8	68.1	28.2	70.2	25.6	66.6	90		
95	30.9	77.4	25.3	64.8	31.8	81.4	28.5	73.5	25.9	67.1	29.1	76.2	26.7	69.5	27.0	71.7	24.3	67.6	95		
100	29.9	79.3	24.2	65.9	30.4	82.9	27.2	74.8	24.8	68.2	27.8	77.6	25.6	70.9	25.9	73.1	23.0	68.6	100		
110	27.9	82.6	22.0	67.6	27.9	85.7	25.0	77.4	22.8	70.5	25.7	80.5	23.5	73.2	24.1	76.1	20.8	70.6	110		
120	25.9	85.3	19.9	69.0	25.0	87.0	22.8	79.3	20.6	71.8	23.7	83.1	21.7	75.6	22.2	78.6	18.9	72.5	120		
130	23.4	86.6	18.1	70.3	22.2	87.7	20.8	80.9	18.5	73.0	21.1	84.0	20.0	71.5	20.7	81.3	17.2	74.3	130		
140	21.2	87.8	16.5	71.5	19.2	87.2	18.8	82.2	16.8	74.1	18.9	84.8	18.1	78.8	18.4	81.7	15.7	76.1	140		
150	18.7	87.6	15.3	73.3	16.5	86.7	17.1	83.6	15.1	74.9	16.7	85.2	16.7	80.4	16.7	83.0	14.2	77.5	150		
160					14.3	86.3	15.8	85.1	13.9	76.2	14.9	85.9	15.3	81.8	15.3	84.6	13.1	79.3	160		
170							14.4	86.4	12.6	77.3	12.9	85.5	14.0	82.9	13.8	85.3	12.0	80.7	170		
180											11.2	85.4	12.9	84.4	12.1	85.2	10.9	82.0	180		
190															10.4	84.7	9.5	82.2	190		
200																	8.6	83.3	200		
210																	7.7	84.3	210		
Tel.	Telescoping sequence %																		Tel.		
1	92		0		92		46		0		92		46		92		100		1		
2	46		46		92		92		92		92		92		92		100		2		
3	46		92		92		92		92		92		92		92		100		3		
4	46		92		92		92		92		92		92		92		100		4		
5	92		92		46		92		92		92		92		92		100		5		
6	92		92		46		46		92		46		92		92		100		6		

**The chart shows the maximum existing outrigger reaction forces in the worst condition,
dynamic influences are not being taken into account**

Working radius [ft]		Load rating chart ATF 220G-5																		Working radius [ft]	
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 103,616 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																			
°		Boom length [ft]																			
		43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6			
1)		70	394.6*	381.0*	75	308.6*	75	134.7	79	308.6*	79	140.3	79	100.4	81	251.3*	81	227.1	81	142.7	10
12	67	362.9*	336.0*	73	308.6*	73	126.1	77	308.6*	77	132.6	77	93.1	80	247.5*	80	227.1	80	135.9	12	
14	64	319.5*	299.4*	71	296.9*	71	118.9	75	295.7*	75	125.8	75	86.7	78	233.3	78	227.1	78	129.6	14	
16	61	278.8*	269.2*	68	269.2*	68	112.2	73	266.9*	73	119.6	73	81.1	77	221.0	77	227.1	77	123.9	16	
18	58	248.6*	244.7*	67	244.7*	67	106.5	72	242.5*	72	114.3	72	76.4	76	208.3	76	225.5	76	118.9	18	
20	54	221.6	221.6	65	221.5	65	101.1	70	219.4	70	109.3	70	71.9	74	195.6	74	220.5	74	114.2	20	
25	45	174.7	174.7	59	173.8	59	90.4	65	172.0	65	98.8	65	63.0	71	167.8	71	173.3	71	104.1	25	
30	33	142.1	142.1	52	141.2	52	82.0	61	139.4	61	90.4	61	55.9	67	137.9	67	140.7	67	95.9	30	
35				45	118.4	45	75.2	56	116.5	56	83.0	56	50.5	63	115.1	63	117.8	63	88.9	35	
40				36	100.8	36	70.1	50	97.8	50	76.0	50	45.8	59	95.7	59	99.6	59	81.6	40	
45				24	86.8	24	66.2	44	80.0	44	69.9	44	42.1	55	78.0	55	81.8	55	74.9	45	
50								37	69.7	37	64.8	37	39.1	50	67.6	50	71.2	50	69.3	50	
55								29	61.0	29	60.6	29	36.6	45	58.8	45	62.3	45	64.4	55	
60								19	52.1	19	57.1	19	34.4	40	50.3	40	53.6	40	60.0	60	
65														34	43.6	34	46.7	34	55.3	65	
70														25	38.1	25	41.1	25	50.0	70	
75																				75	
80																				80	
85																				85	
90																				90	
95																				95	
100																				100	
110																				110	
120																				120	
130																				130	
140																				140	
150																				150	
160																				160	
170																				170	
180																				180	
190																				190	
200																				200	
210																				210	
Tel.		Telescoping sequence [%]																		Tel.	
1		0		0		0		46		0		0		92		46		0		1	
2		0		46		0		46		0		0		46		46		0		2	
3		0		0		0		0		0		0		0		46		0		3	
4		0		0		0		0		0		0		0		0		46		4	
5		0		0		0		0		46		0		0		0		46		5	
6		0		0		46		0		46		92		0		0		46		6	

1) Over rear with superstructure locking pin engaged.

* With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]

Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704309

Counterweight 103,616 lbs

On outriggers, 360° working area

Outrigger fully extended, outrigger base 27.23 ft

Boom length [ft]

Working radius [ft]	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		Working radius [ft]		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
10	394.6	113.8	381.0	124.3	308.6	103.3	134.7	53.4	308.6	103.7	140.3	54.1	100.4	53.4	251.3	87.3	227.1	79.5	142.7	54.4	10
12	362.9	112.7	336.0	121.2	308.6	112.7	126.1	52.7	308.6	113.1	132.6	54.1	93.1	50.3	247.5	93.8	227.1	86.5	135.9	54.9	12
14	319.5	107.5	299.4	118.4	296.9	117.8	118.9	54.2	295.7	117.8	125.8	55.9	86.7	47.5	233.3	96.6	227.1	93.6	129.6	57.0	14
16	278.8	101.6	269.2	116.1	269.2	116.3	112.2	55.6	266.9	116.0	119.6	57.6	81.1	45.0	221.0	99.3	227.1	100.6	123.9	58.9	16
18	248.6	97.2	244.7	114.1	244.7	114.3	106.5	56.8	242.5	114.0	114.3	59.2	76.4	44.4	208.3	100.8	225.5	107.0	118.9	60.8	18
20	221.6	93.4	221.6	111.9	221.5	112.1	101.1	58.1	219.4	111.8	109.3	60.8	71.9	44.5	195.6	102.1	220.5	111.8	114.2	62.6	20
25	174.7	86.5	174.7	105.2	173.8	105.1	90.4	61.1	172.0	104.9	98.8	64.3	63.0	46.2	167.8	103.6	173.3	105.0	104.1	66.6	25
30	142.1	81.7	142.1	100.6	141.2	100.4	82.0	64.0	139.4	100.2	90.4	67.6	55.9	47.8	137.9	100.1	140.7	100.3	95.9	70.4	30
35					118.4	97.3	75.2	66.8	116.5	96.9	83.0	70.4	50.5	49.4	115.1	97.0	117.8	97.1	88.9	73.7	35
40					100.8	94.6	70.1	69.7	97.8	93.5	76.0	72.3	45.8	50.7	95.7	93.0	99.6	94.0	81.6	75.8	40
45					86.8	92.4	66.2	72.9	80.0	88.1	69.9	74.1	42.1	52.2	78.0	87.7	81.8	88.6	74.9	77.4	45
50									69.7	86.7	64.8	75.8	39.1	53.7	67.6	86.1	71.2	87.0	69.3	78.9	50
55									61.0	85.3	60.6	77.7	36.6	55.4	58.8	84.6	62.3	85.3	64.4	80.4	55
60									52.1	82.9	57.1	79.8	34.4	57.0	50.3	82.3	53.6	82.9	60.0	81.7	60
65															43.6	80.5	46.7	81.0	55.3	82.1	65
70															38.1	79.1	41.1	79.6	50.0	81.0	70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
110																					110
120																					120
130																					130
140																					140
150																					150
160																					160
170																					170
180																					180
190																					190
200																					200
210																					210
Tel.	Telescoping sequence %																				Tel.
1		0			0		0		46		0		0		92		46		0		1
2		0			46		0		46		0		0		46		46		0		2
3		0			0		0		0		0		0		0		46		0		3
4		0			0		0		0		0		0		0		0		46		4
5		0			0		0		0		46		0		0		0		46		5
6		0			0		46		0		46		92		0		0		46		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5														Working radius [ft]					
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 103,616 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																			
		Boom length [ft]																			
		84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7										
		°	°	°	°	°	°	°	°	°											
		∠	∠	∠	∠	∠	∠	∠	∠	∠											
10	81	103.5															10				
12	80	96.8	82	199.5	82	170.9	82	137.4	82	87.8							12				
14	78	91.0	80	199.5	80	170.9	80	131.7	80	83.1							14				
16	77	85.7	79	193.7	79	170.9	79	126.5	79	78.7	80	154.3	80	127.9	80	112.4	80	75.0			16
18	76	81.2	78	184.1	78	170.9	78	121.8	78	74.4	80	154.3	80	127.9	80	112.4	80	72.6	81	120.2	18
20	74	77.0	77	174.4	77	170.9	77	117.3	77	70.2	79	153.5	79	127.9	79	112.4	79	70.3	80	120.2	20
25	71	68.4	74	151.7	74	167.3	74	107.8	74	61.3	76	139.1	76	127.9	76	110.1	76	63.4	78	120.2	25
30	67	61.4	71	133.7	71	142.3	71	99.7	71	54.1	74	123.3	74	127.9	74	103.2	74	57.2	76	113.7	30
35	63	55.5	68	116.2	68	119.3	68	93.1	68	48.5	71	110.2	71	120.1	71	96.6	71	51.8	74	103.1	35
40	59	50.4	65	97.4	65	101.4	65	87.2	65	43.8	68	97.2	68	102.1	68	91.1	68	47.4	71	93.0	40
45	55	46.2	61	79.6	61	83.8	61	81.3	61	40.2	65	81.6	65	86.3	65	86.2	65	43.5	68	82.6	45
50	50	42.7	57	66.4	57	72.5	57	74.9	57	37.0	63	68.7	63	73.2	63	76.4	63	40.2	66	71.0	50
55	45	39.7	53	55.9	53	63.4	53	68.4	53	34.2	59	56.5	59	62.5	59	66.4	59	37.3	63	60.6	55
60	40	37.0	49	47.5	49	55.2	49	62.0	49	31.8	56	49.9	56	53.8	56	57.8	56	34.9	61	52.0	60
65	34	34.7	45	40.9	45	48.4	45	55.1	45	29.6	52	43.2	52	47.1	52	50.9	52	32.7	58	45.2	65
70	25	32.9	41	35.7	41	42.8	41	49.4	41	27.8	49	39.2	49	42.8	49	45.3	49	30.8	55	40.8	70
75			36	31.7	36	38.0	36	44.5	36	26.3	45	35.7	45	39.1	45	41.3	45	29.1	52	37.0	75
80			29	28.6	29	33.9	29	40.3	29	24.8	41	32.1	41	35.7	41	38.3	41	27.7	49	33.5	80
85			21	26.0	21	30.2	21	36.6	21	23.7	37	28.2	37	32.2	37	35.4	37	26.3	45	30.2	85
90											32	25.2	32	29.1	32	32.4	32	25.1	42	27.1	90
95											26	22.2	26	26.2	26	29.7	26	24.2	38	24.2	95
100											19	19.4	19	23.4	19	27.2	19	23.3	34	21.6	100
110																			23	17.4	110
120																					120
130																					130
140																					140
150																					150
160																					160
170																					170
180																					180
190																					190
200																					200
210																					210
Tel.		Telescoping sequence [%]														Tel.					
1	0	92	46	0	0	92	46	0	0	92	46	0	0	92	1						
2	0	46	46	0	0	46	46	46	0	46	2										
3	0	46	46	46	0	46	46	46	0	46	3										
4	0	0	46	46	0	46	46	46	46	46	4										
5	46	0	0	46	92	0	46	46	92	46	5										
6	92	0	0	46	92	0	0	46	92	0	6										

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704309
Counterweight 103,616 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																		Working radius [ft]			
	84.6		98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9			125.7		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		m	F	
10	103.5	53.9																				10
12	96.8	50.7	199.5	78.1	170.9	68.0	137.4	55.5	87.8	51.1												12
14	91.0	47.9	199.5	84.4	170.9	73.4	131.7	57.8	83.1	48.4												14
16	85.7	45.3	193.7	88.5	170.9	78.8	126.5	60.0	78.7	46.0	154.3	73.1	127.9	62.0	112.4	55.0	75.0	46.4				16
18	81.2	45.3	184.1	90.6	170.9	84.3	121.8	62.0	74.4	44.1	154.3	78.1	127.9	66.2	112.4	58.6	72.6	44.2	120.2	63.6		18
20	77.0	45.9	174.4	92.4	170.9	89.7	117.3	64.0	70.2	42.7	153.5	82.7	127.9	70.3	112.4	62.3	70.3	42.6	120.2	67.6		20
25	68.4	48.0	151.7	94.9	167.3	101.4	107.8	68.6	61.3	44.2	139.1	87.8	127.9	80.8	110.1	70.2	63.4	44.9	120.2	77.6		25
30	61.4	49.8	133.7	97.1	142.3	100.3	99.7	72.7	54.1	45.4	123.3	90.2	127.9	91.2	103.2	75.2	57.2	46.8	113.7	83.8		30
35	55.5	51.4	116.2	96.9	119.3	97.0	93.1	76.5	48.5	46.5	110.2	92.1	120.1	96.5	96.6	79.3	51.8	48.3	103.1	86.5		35
40	50.4	52.7	97.4	93.4	101.4	94.1	87.2	80.0	43.8	47.6	97.2	92.2	102.1	93.4	91.1	83.4	47.4	49.7	93.0	88.0		40
45	46.2	53.9	79.6	87.9	83.8	88.9	81.3	82.6	40.2	48.7	81.6	88.3	86.3	89.6	86.2	87.2	43.5	50.9	82.6	87.9		45
50	42.7	55.2	66.4	84.0	72.5	86.7	74.9	83.9	37.0	49.8	68.7	84.6	73.2	85.8	76.4	85.8	40.2	52.0	71.0	85.1		50
55	39.7	56.4	55.9	80.8	63.4	84.9	68.4	84.3	34.2	50.9	56.5	81.5	62.5	82.5	66.4	83.2	37.3	53.2	60.6	82.1		55
60	37.0	57.7	47.5	78.2	55.2	82.9	62.0	83.9	31.8	51.9	49.9	79.1	53.8	79.9	57.8	80.6	34.9	54.4	52.0	79.5		60
65	34.7	58.8	40.9	76.4	48.4	81.2	55.1	82.1	29.6	52.8	43.2	77.1	47.1	78.0	50.9	78.5	32.7	55.4	45.2	77.4		65
70	32.9	60.3	35.7	75.0	42.8	79.6	49.4	80.5	27.8	53.8	39.2	77.3	42.8	77.7	45.3	76.9	30.8	56.5	40.8	77.1		70
75			31.7	74.5	38.0	78.5	44.5	79.2	26.3	54.9	35.7	77.5	39.1	77.8	41.3	76.5	29.1	57.6	37.0	77.0		75
80			28.6	74.7	33.9	77.5	40.3	78.2	24.8	55.9	32.1	77.1	35.7	77.6	38.3	76.8	27.7	58.8	33.5	76.7		80
85			26.0	74.9	30.2	76.6	36.6	77.2	23.7	57.1	28.2	75.8	32.2	76.9	35.4	76.9	26.3	59.9	30.2	76.2		85
90											25.2	75.1	29.1	76.2	32.4	76.2	25.1	61.0	27.1	75.5		90
95											22.2	74.1	26.2	75.3	29.7	75.7	24.2	62.2	24.2	74.6		95
100											19.4	73.1	23.4	74.3	27.2	75.2	23.3	63.6	21.6	73.7		100
110																			17.4	72.7		110
120																						120
130																						130
140																						140
150																						150
160																						160
170																						170
180																						180
190																						190
200																						200
210																						210
Tel.	Telescoping sequence %																					Tel.
1	0		92		46		0		0		92		46		0		0		92		1	
2	0		46		46		0		0		46		46		46		0		46		2	
3	0		46		46		46		0		46		46		46		0		46		3	
4	0		0		46		46		0		46		46		46		46		46		4	
5	46		0		0		46		92		0		46		46		92		46		5	
6	92		0		0		46		92		0		0		46		92		0		6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		TADANO Load rating chart ATF 220G-5 Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 103,616 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																		Working radius [ft]			
		Boom length [ft]																					
		125.7	125.7	139.4	139.4	139.4	139.4	153.2	153.2	153.2	167.0												
		°	°	°	°	°	°	°	°	°	°												
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠												
10																						10	
12																						12	
14																						14	
16																						16	
18	81	95.9	81	66.1																		18	
20	80	95.9	80	65.8	82	95.9	82	82.9	82	69.4	82	56.2										20	
25	78	95.9	78	61.5	79	95.9	79	82.9	79	69.4	79	56.2	80	76.1	80	55.8	80	47.2				25	
30	76	95.9	76	56.9	78	95.0	78	82.9	78	69.3	78	55.1	79	76.1	79	55.6	79	47.2	80	62.8		30	
35	74	95.9	74	52.2	76	88.3	76	82.9	76	66.4	76	52.5	77	75.5	77	52.8	77	47.2	78	62.8		35	
40	71	93.5	71	47.3	74	82.4	74	82.5	74	62.3	74	49.1	76	71.3	76	50.0	76	47.0	77	62.1		40	
45	68	86.4	68	43.3	71	78.4	71	79.1	71	59.6	71	45.3	73	67.0	73	47.8	73	45.3	75	59.6		45	
50	66	75.3	66	39.8	69	69.7	69	71.6	69	56.2	69	41.9	72	64.1	72	45.2	72	42.8	74	56.5		50	
55	63	64.7	63	36.8	67	60.4	67	62.9	67	52.9	67	39.0	70	59.9	70	42.8	70	40.3	72	53.4		55	
60	61	56.0	61	34.2	65	51.8	65	54.3	65	50.0	65	36.4	68	53.8	68	40.6	68	37.9	71	50.3		60	
65	58	49.1	58	31.8	62	44.9	62	47.4	62	47.5	62	34.0	66	46.9	66	38.6	66	35.6	68	46.9		65	
70	55	43.6	55	29.8	60	39.5	60	43.1	60	44.2	60	32.0	64	41.4	64	36.9	64	33.5	67	43.9		70	
75	52	39.4	52	27.9	58	35.6	58	39.5	58	40.3	58	30.1	62	37.2	62	35.2	62	31.7	65	40.1		75	
80	49	36.3	49	26.3	55	32.8	55	35.9	55	36.4	55	28.5	59	34.1	59	33.6	59	30.0	63	35.9		80	
85	45	32.5	45	25.0	52	29.9	52	32.4	52	33.9	52	27.0	57	31.0	57	32.3	57	28.3	61	32.2		85	
90	42	30.8	42	23.6	49	26.9	49	29.3	49	31.8	49	25.6	55	28.3	55	30.9	55	27.0	59	29.1		90	
95	38	28.1	38	22.5	46	24.0	46	26.4	46	29.5	46	24.4	52	25.8	52	29.3	52	25.5	57	26.2		95	
100	34	25.5	34	21.5	43	21.3	43	23.7	43	27.0	43	23.3	49	23.3	49	27.4	49	24.1	54	23.5		100	
110	23	21.3	23	19.7	36	17.1	36	19.4	36	22.7	36	21.4	44	18.9	44	23.7	44	21.7	50	19.1		110	
120					27	13.5	27	15.9	27	19.0	27	19.8	38	15.3	38	20.1	38	19.7	45	15.5		120	
130														29	12.5	29	17.1	29	17.8	39	12.5		130
140														16	10.0	16	14.6	16	16.5	32	10.1		140
150																				23	7.9		150
160																							160
170																							170
180																							180
190																							190
200																							200
210																							210
Tel.		Telescoping sequence [%]																		Tel.			
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	1
2	46	0	92	46	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	2
3	46	0	46	46	46	46	46	46	46	46	46	46	46	46	92	92	92	92	92	92	92	92	3
4	46	92	46	46	46	92	46	46	92	46	46	92	46	46	92	46	46	92	46	46	46	46	4
5	46	92	46	46	46	92	46	46	92	46	46	92	46	46	92	46	46	92	46	46	46	46	5
6	46	92	0	46	92	92	46	92	92	46	92	92	46	92	92	92	92	92	92	92	46	46	6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704309
Counterweight 103,616 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																		Working radius [ft]				
	125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2			167.0			
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		m	F		
10																						10	
12																							12
14																							14
16																							16
18	95.9	52.5	66.1	44.5																			18
20	95.9	55.7	65.8	42.6	95.9	57.1	82.9	50.7	69.4	43.7	56.2	43.8											20
25	95.9	63.8	61.5	44.5	95.9	65.4	82.9	58.0	69.4	49.8	56.2	42.0	76.1	54.7	55.8	42.5	47.2	40.4					25
30	95.9	71.8	56.9	47.2	95.0	73.2	82.9	65.2	69.3	55.8	55.1	45.8	76.1	61.4	55.6	47.4	47.2	41.5	62.8	53.7			30
35	95.9	79.9	52.2	49.2	88.3	77.1	82.9	72.4	66.4	60.0	52.5	48.9	75.5	67.8	52.8	50.7	47.2	45.8	62.8	59.6			35
40	93.5	86.1	47.3	50.4	82.4	80.6	82.5	79.4	62.3	62.9	49.1	51.1	71.3	71.6	50.0	53.5	47.0	50.0	62.1	64.8			40
45	86.4	88.4	43.3	51.6	78.4	84.8	79.1	83.9	59.6	66.4	45.3	52.5	67.0	74.6	47.8	56.5	45.3	53.0	59.6	68.6			45
50	75.3	86.0	39.8	52.6	69.7	84.2	71.6	84.3	56.2	68.8	41.9	53.8	64.1	78.3	45.2	58.7	42.8	55.0	56.5	71.6			50
55	64.7	82.9	36.8	53.6	60.4	82.0	62.9	82.7	52.9	70.9	39.0	55.0	59.9	80.2	42.8	60.8	40.3	56.7	53.4	74.1			55
60	56.0	80.3	34.2	54.7	51.8	79.5	54.3	80.0	50.0	73.0	36.4	56.1	53.8	79.9	40.6	62.8	37.9	58.2	50.3	76.2			60
65	49.1	78.2	31.8	55.6	44.9	77.4	47.4	78.0	47.5	75.1	34.0	57.1	46.9	77.8	38.6	64.7	35.6	59.4	46.9	77.6			65
70	43.6	76.6	29.8	56.5	39.5	75.9	43.1	77.9	44.2	75.8	32.0	58.1	41.4	76.2	36.9	66.6	33.5	60.5	43.9	78.8			70
75	39.4	76.0	27.9	57.4	35.6	75.6	39.5	77.9	40.3	75.4	30.1	59.1	37.2	75.6	35.2	68.3	31.7	61.7	40.1	78.7			75
80	36.3	76.2	26.3	58.4	32.8	76.0	35.9	77.6	36.4	74.5	28.5	60.1	34.1	75.6	33.6	69.9	30.0	62.8	35.9	77.6			80
85	32.5	76.2	25.0	59.5	29.9	76.1	32.4	76.8	33.9	74.9	27.0	61.1	31.0	75.4	32.3	71.6	28.3	63.7	32.2	76.7			85
90	30.8	76.0	23.6	60.3	26.9	75.4	29.3	76.1	31.8	75.6	25.6	62.0	28.3	75.2	30.9	73.1	27.0	64.7	29.1	75.9			90
95	28.1	75.5	22.5	61.3	24.0	74.5	26.4	75.3	29.5	75.5	24.4	62.9	25.8	74.7	29.3	73.9	25.5	65.4	26.2	75.1			95
100	25.5	74.9	21.5	62.4	21.3	73.6	23.7	74.4	27.0	75.0	23.3	63.9	23.3	74.2	27.4	49.2	24.1	66.1	23.5	74.2			100
110	21.3	74.0	19.7	64.3	17.1	72.5	19.4	73.1	22.7	73.8	21.4	66.0	18.9	72.9	23.7	74.2	21.7	67.5	19.1	72.9			110
120					13.5	71.5	15.9	72.3	19.0	72.8	19.8	67.9	15.3	71.8	20.1	73.1	19.7	68.8	15.5	71.8			120
130													12.5	71.2	17.1	72.3	17.8	69.9	12.5	70.8			130
140													10.0	70.6	14.6	71.8	16.5	71.7	10.1	70.4			140
150																			7.9	69.7			150
160																							160
170																							170
180																							180
190																							190
200																							200
210																							210
Tel.	Telescoping sequence %																					Tel.	
1	46		0		92		92		46		0		92		46		0		92		1		1
2	46		0		92		46		46		0		92		46		0		92		2		2
3	46		0		46		46		46		46		46		46		92		92		3		3
4	46		92		46		46		46		92		46		46		92		46		4		4
5	46		92		46		46		46		92		46		92		92		46		5		5
6	46		92		0		46		92		92		46		92		92		46		6		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5												Working radius [ft]					
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 103,616 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																	
		Boom length [ft]																	
		167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0		223.1	
		°		°		°		°		°		°		°		°		°	
		/		/		/		/		/		/		/		/		/	
10																			10
12																			12
14																			14
16																			16
18																			18
20																			20
25																			25
30	80	49.8	80	41.7	81	50.7	81	42.3	81	37.3									30
35	78	49.8	78	41.7	79	50.7	79	42.3	79	37.3	80	41.4	80	33.1					35
40	77	49.6	77	41.7	79	50.7	79	42.3	79	37.3	79	41.4	79	33.1	80	33.1	81	30.4	40
45	75	47.6	75	41.7	77	50.3	77	42.3	77	37.3	77	41.4	77	33.1	79	33.1	80	30.4	45
50	74	45.4	74	41.0	76	48.9	76	42.3	76	37.3	76	41.4	76	33.1	78	33.1	79	30.4	50
55	72	43.3	72	39.3	74	46.9	74	41.8	74	37.3	75	41.0	75	33.1	77	33.1	78	30.1	55
60	71	41.3	71	36.8	73	44.6	73	40.6	73	36.9	74	40.0	74	33.1	76	33.1	77	29.4	60
65	68	39.3	68	34.7	71	42.4	71	38.4	71	35.1	72	38.1	72	33.1	74	33.1	75	28.9	65
70	67	37.7	67	32.8	69	40.2	69	36.5	69	33.2	71	36.4	71	32.9	73	32.8	74	28.4	70
75	65	36.2	65	31.0	67	37.9	67	34.7	67	31.5	69	34.8	69	32.0	72	31.9	73	27.9	75
80	63	34.6	63	29.4	66	35.5	66	32.9	66	29.9	68	33.0	68	30.5	71	30.6	72	27.4	80
85	61	32.7	61	27.9	64	33.0	64	31.4	64	28.5	66	31.0	66	29.2	69	29.4	71	26.9	85
90	59	30.7	59	26.5	62	29.8	62	29.7	62	27.2	65	29.0	65	27.8	68	28.2	70	25.6	90
95	57	28.6	57	25.3	60	27.0	60	28.0	60	25.9	63	27.0	63	26.6	66	26.6	68	24.3	95
100	54	26.4	54	24.2	59	24.4	59	26.3	59	24.8	62	24.9	62	25.3	65	24.8	67	22.9	100
110	50	21.8	50	22.0	55	20.0	55	22.2	55	22.5	58	20.7	58	22.3	61	21.4	64	20.3	110
120	45	18.3	45	19.9	50	16.3	50	18.5	50	20.1	54	17.1	54	19.3	58	18.2	61	17.8	120
130	39	15.3	39	17.9	46	13.2	46	15.4	46	17.5	50	14.3	50	16.4	54	15.1	58	15.1	130
140	32	12.9	32	16.0	40	10.9	40	13.1	40	15.0	46	11.6	46	14.0	51	12.6	54	12.6	140
150	23	10.6	23	14.0	34	8.8	34	10.8	34	12.8	41	9.4	41	11.8	46	10.4	51	10.4	150
160					26	6.9	26	9.0	26	11.0	35	7.6	35	9.9	42	8.6	47	8.5	160
170							17	7.6	17	9.6	29	6.3	29	8.3	37	6.9	43	6.9	170
180											19	4.8	19	7.0	31	5.7	39	5.4	180
190															23	4.4	34	4.2	190
200																	28	3.1	200
210																	18	2.2	210
Tel.	telescoping sequence [%]																		Tel.
1	92		0		92		46		0		92		46		92		100		1
2	46		46		92		92		92		92		92		92		100		2
3	46		92		92		92		92		92		92		92		100		3
4	46		92		92		92		92		92		92		92		100		4
5	92		92		46		92		92		92		92		92		100		5
6	92		92		46		46		92		46		92		92		100		6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

TADANO																				Outrigger reaction force chart ATF 220G-5	
Outrigger reaction force F in ton [US]																					
Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704309																					
Counterweight 103,616 lbs																					
On outriggers, 360° working area																					
Outrigger fully extended, outrigger base 27.23 ft																					
Working radius [ft]	Boom length [ft]																		Working radius [ft]		
	167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0		223.1				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
10																			10		
12																			12		
14																			14		
16																			16		
18																			18		
20																			20		
25																			25		
30	49.8	44.9	41.7	38.6	50.7	46.4	42.3	40.5	37.3	38.4									30		
35	49.8	49.7	41.7	42.6	50.7	51.4	42.3	44.7	37.3	40.3	41.4	44.9	33.1	38.2					35		
40	49.6	54.2	41.7	46.6	50.7	56.3	42.3	48.9	37.3	44.0	41.4	49.1	33.1	41.7	33.1	42.5	30.4	40.6	40		
45	47.6	57.4	41.7	50.6	50.3	61.0	42.3	53.1	37.3	47.8	41.4	53.3	33.1	45.2	33.1	46.0	30.4	44.0	45		
50	45.4	60.1	41.0	53.9	48.9	64.6	42.3	57.4	37.3	51.5	41.4	57.6	33.1	48.7	33.1	49.6	30.4	47.4	50		
55	43.3	62.6	39.3	56.2	46.9	67.5	41.8	61.1	37.3	55.2	41.0	61.4	33.1	52.1	33.1	53.2	30.1	50.4	55		
60	41.3	64.9	36.8	57.6	44.6	69.9	40.6	64.0	36.9	58.6	40.0	64.6	33.1	55.6	33.1	56.8	29.4	53.2	60		
65	39.3	66.9	34.7	59.0	42.4	72.1	38.4	65.8	35.1	60.3	38.1	66.7	33.1	59.1	33.1	60.3	28.9	55.9	65		
70	37.7	69.1	32.8	60.3	40.2	74.0	36.5	67.6	33.2	61.8	36.4	68.8	32.9	62.5	32.8	63.6	28.4	58.7	70		
75	36.2	71.2	31.0	61.5	37.9	75.4	34.7	69.1	31.5	63.1	34.8	70.6	32.0	64.8	31.9	66.0	27.9	61.3	75		
80	34.6	73.0	29.4	62.7	35.5	76.4	32.9	70.6	29.9	64.4	33.0	72.2	30.5	66.4	30.6	67.9	27.4	63.9	80		
85	32.7	74.2	27.9	63.8	33.0	76.9	31.4	72.1	28.5	65.8	31.0	73.1	29.2	67.9	29.4	69.7	26.9	66.4	85		
90	30.7	74.9	26.5	64.8	29.8	76.1	29.7	73.2	27.2	67.0	29.0	73.7	27.8	69.2	28.2	71.3	25.6	67.7	90		
95	28.6	75.1	25.3	65.9	27.0	75.3	28.0	74.0	25.9	68.2	27.0	74.1	26.6	70.5	26.6	72.2	24.3	68.7	95		
100	26.4	74.9	24.2	67.0	24.4	74.6	26.3	74.4	24.8	69.4	24.9	74.1	25.3	71.3	24.8	72.4	22.9	69.6	100		
110	21.8	73.4	22.0	68.7	20.0	73.4	22.2	73.7	22.5	71.1	20.7	73.1	22.3	72.1	21.4	72.7	20.3	70.8	110		
120	18.3	72.5	19.9	70.1	16.3	72.2	18.5	72.6	20.1	72.0	17.1	72.1	19.3	72.2	18.2	72.3	17.8	71.6	120		
130	15.3	71.7	17.9	71.0	13.2	70.9	15.4	71.4	17.5	72.0	14.3	71.5	16.4	71.6	15.1	71.3	15.1	71.3	130		
140	12.9	71.3	16.0	71.7	10.9	70.7	13.1	71.3	15.0	71.3	11.6	70.5	14.0	71.0	12.6	70.5	12.6	70.5	140		
150	10.6	70.3	14.0	71.6	8.8	70.2	10.8	70.3	12.8	70.7	9.4	69.9	11.8	70.6	10.4	69.8	10.4	69.8	150		
160					6.9	69.8	9.0	69.9	11.0	70.5	7.6	69.4	9.9	70.0	8.6	69.6	8.5	69.4	160		
170							7.6	70.1	9.6	70.5	6.3	70.0	8.3	69.5	6.9	69.0	6.9	69.0	170		
180											4.8	69.3	7.0	69.6	5.7	69.2	5.4	68.5	180		
190															4.4	68.9	4.2	68.4	190		
200																69.1	3.1	68.1	200		
210																	2.2	68.3	210		
Tel.	Telescoping sequence %																		Tel.		
1	92		0		92		46		0		92		46		92		100		1		
2	46		46		92		92		92		92		92		92		100		2		
3	46		92		92		92		92		92		92		92		100		3		
4	46		92		92		92		92		92		92		92		100		4		
5	92		92		46		92		92		92		92		92		100		5		
6	92		92		46		46		92		46		92		92		100		6		

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5														Working radius [ft]				
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 77,161 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																		
		Boom length [ft]																		
		43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		
		1)																		
10	70	394.0*	370.1*	75	308.6*	75	134.7	79	308.6*	79	140.3	79	100.4	81	251.3*	81	227.1	81	142.7	10
12	67	352.8*	326.1*	73	307.3*	73	126.1	77	306.6*	77	132.6	77	93.1	80	247.5*	80	227.1	80	135.9	12
14	64	303.0*	290.1*	71	289.5*	71	118.9	75	287.3*	75	125.8	75	86.7	78	233.3	78	227.1	78	129.6	14
16	61	265.0*	260.3*	68	259.2*	68	112.2	73	257.0*	73	119.6	73	81.1	77	221.0	77	227.1	77	123.9	16
18	58	235.8	234.2	67	233.2	67	106.5	72	231.1	72	114.3	72	76.4	76	208.3	76	219.4	76	118.9	18
20	54	209.3	209.3	65	208.5	65	101.1	70	206.5	70	109.3	70	71.9	74	195.2	74	208.0	74	114.2	20
25	45	164.1	164.1	59	163.3	59	90.4	65	161.4	65	98.8	65	63.0	71	160.0	71	162.7	71	104.1	25
30	33	134.1	134.1	52	132.9	52	82.0	61	131.0	61	90.4	61	55.9	67	124.9	67	129.5	67	95.9	30
35				45	110.8	45	75.2	56	107.9	56	83.0	56	50.5	63	102.8	63	107.1	63	88.9	35
40				36	87.8	36	70.1	50	85.1	50	76.0	50	45.8	59	83.1	59	86.9	59	81.6	40
45				24	72.1	24	66.2	44	69.5	44	69.9	44	42.1	55	67.3	55	71.1	55	74.9	45
50								37	58.0	37	64.8	37	39.1	50	55.8	50	59.2	50	67.3	50
55								29	48.8	29	58.7	29	36.6	45	46.6	45	49.9	45	59.4	55
60								19	41.1	19	51.3	19	34.4	40	39.2	40	42.6	40	51.6	60
65														34	33.2	34	36.9	34	45.7	65
70														25	28.4	25	31.9	25	40.9	70
75																				75
80																				80
85																				85
90																				90
95																				95
100																				100
110																				110
120																				120
130																				130
140																				140
150																				150
160																				160
170																				170
180																				180
Tel.	Telescoping sequence [%]																			Tel.
1	0	0	0	46	0	0	92	46	0	1										
2	0	46	0	46	0	0	46	46	0	2										
3	0	0	0	0	0	0	0	46	0	3										
4	0	0	0	0	0	0	0	0	46	4										
5	0	0	0	0	46	0	0	0	46	5										
6	0	0	46	0	46	92	0	0	46	6										

1) Over rear with superstructure locking pin engaged.

* With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704310
Counterweight 77,161 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Boom length [ft]

Working radius [ft]	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		Working radius [ft]		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
10	394.0	112.4	370.1	121.7	308.6	103.9	134.7	51.7	308.6	104.3	140.3	52.7	100.4	44.8	251.3	87.9	227.1	80.0	142.7	53.2	10
12	352.8	108.9	326.1	118.5	307.3	112.8	126.1	53.2	306.6	113.0	132.6	54.7	93.1	42.4	247.5	94.4	227.1	87.1	135.9	55.5	12
14	303.0	101.7	290.1	115.7	289.5	115.7	118.9	54.7	287.3	115.4	125.8	56.5	86.7	42.8	233.3	97.1	227.1	94.2	129.6	57.5	14
16	265.0	96.6	260.3	113.4	259.2	113.2	112.2	56.1	257.0	112.8	119.6	58.2	81.1	43.6	221.0	99.8	227.1	101.2	123.9	59.5	16
18	235.8	92.1	234.2	110.3	233.2	110.1	106.5	57.4	231.1	109.9	114.3	59.8	76.4	44.3	208.3	101.4	219.4	105.0	118.9	61.3	18
20	209.3	88.2	209.3	107.1	208.5	107.0	101.1	58.7	206.5	106.7	109.3	61.3	71.9	45.1	195.2	102.5	208.0	106.9	114.2	63.1	20
25	164.1	81.4	164.1	100.5	163.3	100.4	90.4	61.7	161.4	100.1	98.8	64.8	63.0	46.8	160.0	100.1	162.7	100.2	104.1	67.2	25
30	134.1	77.2	134.1	96.6	132.9	96.3	82.0	64.6	131.0	96.0	90.4	68.2	55.9	48.3	124.9	93.2	129.5	94.4	95.9	70.9	30
35					110.8	92.9	75.2	67.3	107.9	91.9	83.0	70.9	50.5	49.9	102.8	89.6	107.1	90.7	88.9	74.3	35
40					87.8	85.9	70.1	70.2	85.1	85.0	76.0	72.9	45.8	51.3	83.1	84.6	86.9	85.4	81.6	76.4	40
45					72.1	81.4	66.2	73.4	69.5	80.4	69.9	74.6	42.1	52.8	67.3	79.8	71.1	80.7	74.9	78.0	45
50									58.0	77.1	64.8	76.3	39.1	54.3	55.8	76.5	59.2	77.2	67.3	77.8	50
55									48.8	74.6	58.7	76.3	36.6	55.9	46.6	94.3	49.9	74.5	59.4	76.2	55
60									41.1	72.4	51.3	74.6	34.4	57.6	39.2	71.8	42.6	72.5	51.6	73.9	60
65															33.2	70.0	36.9	71.1	45.7	72.4	65
70															28.4	68.7	31.9	69.7	40.9	71.2	70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
110																					110
120																					120
130																					130
140																					140
150																					150
160																					160
170																					170
180																					180
Tel.	Telescoping sequence %																				Tel.
1		0			0		0		46		0		0		92		46		0		1
2		0			46		0		46		0		0		46		46		0		2
3		0			0		0		0		0		0		0		46		0		3
4		0			0		0		0		0		0		0		0		46		4
5		0			0		0		0		46		0		0		0		46		5
6		0			0		46		0		46		92		0		0		46		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5												Working radius [ft]								
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 77,161 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																				
		Boom length [ft]																				
		84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7											
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠											
10	81	103.5												10								
12	80	96.8	82	199.5	82	170.9	82	137.4	82	87.8				12								
14	78	91.0	80	199.5	80	170.9	80	131.7	80	83.1				14								
16	77	85.7	79	193.7	79	170.9	79	126.5	79	78.7	80	154.3	80	127.9	80	112.4	80	75.0			16	
18	76	81.2	78	184.1	78	170.9	78	121.8	78	74.4	80	154.3	80	127.9	80	112.4	80	72.6	81	120.2	18	
20	74	77.0	77	174.4	77	170.9	77	117.3	77	70.2	79	153.5	79	127.9	79	112.4	79	70.3	80	120.2	20	
25	71	68.4	74	150.3	74	158.0	74	107.8	74	61.3	76	139.1	76	127.9	76	110.1	76	63.4	78	120.2	25	
30	67	61.4	71	120.6	71	125.9	71	99.7	71	54.1	74	117.9	74	123.4	74	103.2	74	57.2	76	113.0	30	
35	63	55.5	68	97.6	68	102.6	68	93.1	68	48.5	71	96.3	71	101.2	71	96.6	71	51.8	74	95.2	35	
40	59	50.4	65	79.4	65	89.3	65	86.6	65	43.8	68	80.5	68	85.3	68	90.1	68	47.4	71	79.9	40	
45	55	46.2	61	64.3	61	73.3	61	75.5	61	40.2	65	70.3	65	74.7	65	79.0	65	43.5	68	68.3	45	
50	50	42.7	57	53.0	57	61.3	57	66.9	57	37.0	63	59.5	63	63.7	63	67.8	63	40.2	66	57.8	50	
55	45	39.7	53	45.1	53	51.9	53	58.8	53	34.2	59	50.1	59	54.2	59	58.1	59	37.3	63	48.8	55	
60	40	37.0	49	39.5	49	44.5	49	51.1	49	31.8	56	42.8	56	46.7	56	50.4	56	34.9	61	41.7	60	
65	34	34.7	45	33.8	45	38.4	45	45.1	45	29.6	52	36.9	52	40.6	52	44.2	52	32.7	58	37.4	65	
70	25	32.9	41	29.1	41	33.6	41	40.2	41	27.8	49	31.9	49	35.8	49	39.3	49	30.8	55	33.6	70	
75			36	25.0	36	29.3	36	36.0	36	26.3	45	27.5	45	31.6	45	35.2	45	29.1	52	29.7	75	
80			29	21.6	29	25.7	29	32.3	29	24.8	41	23.7	41	27.9	41	31.6	41	27.7	49	25.8	80	
85			21	18.9	21	22.5	21	29.5	21	23.7	37	20.5	37	24.7	37	28.4	37	26.3	45	22.5	85	
90											32	17.9	32	21.9	32	25.7	32	25.1	42	19.9	90	
95											26	15.5	26	19.5	26	23.3	26	24.2	38	17.5	95	
100											19	13.1	19	17.1	19	21.1	19	23.3	34	15.2	100	
110																			23	11.5	110	
120																						120
130																						130
140																						140
150																						150
160																						160
170																						170
180																						180
Tel.	Telescoping sequence [%]												Tel.									
1	0	92	46	0	0	92	46	0	0	92	46	0	0	92	1							
2	0	46	46	0	0	46	46	46	0	46	46	46	0	46	2							
3	0	46	46	46	0	46	46	46	0	46	46	46	0	46	3							
4	0	0	46	46	0	46	46	46	46	46	46	46	46	46	4							
5	46	0	0	46	92	0	46	46	92	46	46	92	46	46	5							
6	92	0	0	46	92	0	0	46	92	0	0	46	92	0	6							

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704310
Counterweight 77,161 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																				Working radius [ft]	
	84.6		98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9		125.7			
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10	103.5	45.3																				10
12	96.8	43.0	199.5	78.7	170.9	68.6	137.4	56.0	87.8	42.4												12
14	91.0	43.7	199.5	85.0	170.9	74.0	131.7	58.3	83.1	41.0												14
16	85.7	44.6	193.7	89.1	170.9	79.4	126.5	60.5	78.7	41.8	154.3	73.7	127.9	62.6	112.4	55.6	75.0	40.2				16
18	81.2	45.6	184.1	91.2	170.9	84.8	121.8	62.6	74.4	42.6	154.3	78.7	127.9	66.7	112.4	59.2	72.6	41.7	120.2	64.2		18
20	77.0	46.5	174.4	93.0	170.9	90.3	117.3	64.6	70.2	43.3	153.5	83.3	127.9	70.9	112.4	62.9	70.3	43.1	120.2	68.2		20
25	68.4	48.6	150.3	94.8	158.0	97.1	107.8	69.1	61.3	44.7	139.1	88.4	127.9	81.3	110.1	70.7	63.4	45.5	120.2	78.1		25
30	61.4	50.4	120.6	90.1	125.9	91.5	99.7	73.2	54.1	45.9	117.9	87.7	123.4	89.1	103.2	75.7	57.2	47.4	113.0	83.9		30
35	55.5	51.9	97.6	85.5	102.6	86.8	93.1	77.1	48.5	47.1	96.3	83.6	101.2	84.9	96.6	79.9	51.8	48.8	95.2	81.9		35
40	50.4	53.2	79.4	81.1	89.3	86.0	86.6	80.0	43.8	48.2	80.5	80.8	85.3	82.0	90.1	83.2	47.4	50.2	79.9	79.2		40
45	46.2	54.5	64.3	76.6	73.3	81.3	75.5	78.5	40.2	49.3	70.3	80.1	74.7	81.1	79.0	82.0	43.5	51.5	68.3	77.2		45
50	42.7	55.7	53.0	73.1	61.3	77.6	66.9	77.5	37.0	50.4	59.5	77.3	63.7	78.2	67.8	79.0	40.2	52.6	57.8	74.4		50
55	39.7	57.0	45.1	71.4	51.9	74.9	58.8	75.9	34.2	51.4	50.1	74.6	54.2	75.5	58.1	76.1	37.3	53.7	48.8	71.8		55
60	37.0	58.2	39.5	70.8	44.5	72.8	51.1	73.6	31.8	52.4	42.8	72.5	46.7	73.3	50.4	73.8	34.9	54.9	41.7	69.9		60
65	34.7	59.4	33.8	69.3	38.4	71.1	45.1	71.9	29.6	53.3	36.9	71.0	40.6	71.6	44.2	71.9	32.7	56.0	37.4	69.7		65
70	32.9	60.8	29.1	68.1	33.6	69.8	40.2	70.6	27.8	54.4	31.9	69.5	35.8	70.5	39.3	70.6	30.8	57.1	33.6	69.5		70
75			25.0	67.0	29.3	68.6	36.0	69.5	26.3	55.4	27.5	68.1	31.6	69.2	35.2	69.6	29.1	58.2	29.7	68.7		75
80			21.6	66.2	25.7	67.6	32.3	68.6	24.8	56.5	23.7	66.9	27.9	68.2	31.6	68.8	27.7	59.3	25.8	67.5		80
85			18.9	65.9	22.5	66.7	29.5	89.3	23.7	57.7	20.5	65.9	24.7	67.3	28.4	68.0	26.3	60.4	22.5	66.3		85
90											17.9	65.4	21.9	66.6	25.7	67.3	25.1	61.5	19.9	65.8		90
95											15.5	64.7	19.5	65.9	23.3	66.7	24.2	62.8	17.5	65.1		95
100											13.1	63.9	17.1	65.2	21.1	66.3	23.3	64.2	15.2	64.3		100
110																			11.5	63.3		110
120																						120
130																						130
140																						140
150																						150
160																						160
170																						170
180																						180
Tel.	Telescoping sequence %																				Tel.	
1	0		92		46		0		0		92		46		0		0		92		1	
2	0		46		46		0		0		46		46		46		0		46		2	
3	0		46		46		46		0		46		46		46		0		46		3	
4	0		0		46		46		0		46		46		46		46		46		4	
5	46		0		0		46		92		0		46		46		92		46		5	
6	92		0		0		46		92		0		0		46		92		0		6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5										Working radius [ft]									
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 77,161 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																			
		Boom length [ft]																			
		125.7	125.7	139.4	139.4	139.4	139.4	153.2	153.2	153.2	167.0										
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠										
10													10								
12													12								
14													14								
16													16								
18	81	95.9	81	66.1									18								
20	80	95.9	80	65.8	82	95.9	82	82.9	82	69.4	82	56.2	20								
25	78	95.9	78	61.5	79	95.9	79	82.9	79	69.4	79	56.2	80	76.1	80	55.8	80	47.2	25		
30	76	95.9	76	56.9	78	95.0	78	82.9	78	69.3	78	55.1	79	76.1	79	55.6	79	47.2	80	62.8	30
35	74	95.9	74	52.2	76	88.3	76	82.9	76	66.4	76	52.5	77	75.5	77	52.8	77	47.2	78	62.8	35
40	71	84.7	71	47.3	74	77.1	74	79.7	74	62.3	74	49.1	76	71.1	76	50.0	76	47.0	77	62.1	40
45	68	73.0	68	43.3	71	66.0	71	68.6	71	59.6	71	45.3	73	65.2	73	47.8	73	45.3	75	59.6	45
50	66	62.0	66	39.8	69	56.8	69	59.3	69	56.2	69	41.9	72	57.7	72	45.2	72	42.8	74	55.1	50
55	63	52.8	63	36.8	67	48.6	67	51.0	67	52.1	67	39.0	70	50.2	70	42.8	70	40.3	72	49.7	55
60	61	45.7	61	34.2	65	41.5	65	43.9	65	47.6	65	36.4	68	43.5	68	40.6	68	37.9	71	43.6	60
65	58	41.5	58	31.8	62	37.3	62	39.6	62	43.9	62	34.0	66	39.1	66	38.6	66	35.6	68	37.8	65
70	55	37.5	55	29.8	60	33.4	60	35.6	60	39.2	60	32.0	64	35.2	64	36.4	64	33.5	67	33.1	70
75	52	33.5	52	27.9	58	29.5	58	31.9	58	35.0	58	30.1	62	31.3	62	33.9	62	31.7	65	29.0	75
80	49	29.8	49	26.3	55	25.7	55	28.3	55	31.4	55	28.5	59	27.6	59	31.2	59	30.0	63	25.6	80
85	45	26.6	45	25.0	52	22.5	52	24.9	52	28.2	52	27.0	57	24.2	57	28.8	57	28.3	61	23.3	85
90	42	23.8	42	23.6	49	19.7	49	22.2	49	25.5	49	25.6	55	21.7	55	26.3	55	26.5	59	21.1	90
95	38	21.2	38	22.5	46	17.2	46	19.6	46	23.0	46	24.3	52	19.1	52	23.9	52	24.7	57	19.0	95
100	34	19.0	34	21.5	43	14.8	43	17.2	43	20.7	43	23.0	49	16.8	49	21.6	49	23.2	54	17.0	100
110	23	15.3	23	19.7	36	11.1	36	13.4	36	16.9	36	20.5	44	12.9	44	17.8	44	20.1	50	13.1	110
120					27	8.3	27	10.5	27	13.8	27	17.8	38	9.9	38	14.7	38	17.0	45	10.1	120
130													29	7.4	29	12.2	29	14.4	39	7.6	130
140													16	5.4	16	10.0	16	12.3	32	5.4	140
150																			23	3.9	150
160																					160
170																					170
180																					180
Tel.	Telescoping sequence [%]											Tel.									
1	46	0	92	92	46	0	92	46	0	92	1										
2	46	0	92	46	46	0	92	46	0	92	2										
3	46	0	46	46	46	46	46	46	92	92	3										
4	46	92	46	46	46	92	46	46	92	46	4										
5	46	92	46	46	46	92	46	92	92	46	5										
6	46	92	0	46	92	92	46	92	92	46	6										

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704310
Counterweight 77,161 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																				Working radius [ft]		
	125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2		167.0				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
10																						10	
12																							12
14																							14
16																							16
18	95.9	53.1	66.1	39.4																			18
20	95.9	56.3	65.8	41.2	95.9	57.7	82.9	51.3	69.4	44.2	56.2	37.1											20
25	95.9	64.4	61.5	44.6	95.9	66.0	82.9	58.5	69.4	50.3	56.2	42.0	76.1	55.2	55.8	43.0	47.2	37.8					25
30	95.9	72.4	56.9	47.3	95.0	73.8	82.9	65.8	69.3	56.3	55.1	46.3	76.1	62.0	55.6	48.0	47.2	42.1	62.8	54.3			30
35	95.9	80.5	52.2	49.2	88.3	77.7	82.9	73.0	66.4	60.5	52.5	49.5	75.5	68.4	52.8	51.3	47.2	46.4	62.8	60.1			35
40	84.7	80.4	47.3	50.3	77.1	77.3	79.7	77.9	62.3	63.4	49.1	51.7	71.1	72.0	50.0	54.1	47.0	50.6	62.1	65.4			40
45	73.0	78.4	43.3	51.4	66.0	75.5	68.6	76.1	59.6	66.9	45.3	53.0	65.2	73.8	47.8	57.0	45.3	53.5	59.6	69.2			45
50	62.0	75.3	39.8	52.4	56.8	73.8	59.3	74.3	56.2	69.4	41.9	54.3	57.7	73.3	45.2	59.3	42.8	55.5	55.1	70.9			50
55	52.8	72.5	36.8	53.4	48.6	71.7	51.0	72.3	52.1	70.7	39.0	55.5	50.2	71.8	42.8	61.4	40.3	57.2	49.7	71.1			55
60	45.7	70.7	34.2	54.4	41.5	69.8	43.9	70.4	47.6	71.1	36.4	56.7	43.5	70.2	40.6	63.4	37.9	58.8	43.6	70.1			60
65	41.5	70.7	31.8	55.2	37.3	69.9	39.6	70.2	43.9	71.8	34.0	57.7	39.1	70.1	38.6	65.3	35.6	59.9	37.8	68.4			65
70	37.5	70.3	29.8	56.1	33.4	69.5	35.6	69.9	39.2	70.6	32.0	58.7	35.2	69.8	36.4	66.6	33.5	61.1	33.1	67.0			70
75	33.5	69.5	27.9	56.9	29.5	68.6	31.9	69.3	35.0	69.5	30.1	59.7	31.3	69.0	33.9	67.2	31.7	62.2	29.0	65.9			75
80	29.8	68.5	26.3	57.8	25.7	67.5	28.3	68.4	31.4	68.7	28.5	60.7	27.6	67.9	31.2	67.3	30.0	63.4	25.6	65.1			80
85	26.6	67.6	25.0	58.8	22.5	66.6	24.9	67.3	28.2	67.8	27.0	61.7	24.2	66.8	28.8	67.5	28.3	64.2	23.3	63.7			85
90	23.8	66.7	23.6	59.6	19.7	65.8	22.2	66.5	25.5	67.1	25.6	62.6	21.7	66.3	26.3	67.1	26.5	64.6	21.1	65.1			90
95	21.2	65.9	22.5	60.6	17.2	64.9	19.6	65.7	23.0	66.4	24.3	63.3	19.1	65.5	23.9	66.5	24.7	64.9	19.0	65.0			95
100	19.0	65.3	21.5	61.6	14.8	64.0	17.2	64.8	20.7	65.8	23.0	64.0	16.8	64.6	21.6	65.8	23.2	65.2	17.0	64.6			100
110	15.3	64.3	19.7	63.4	11.1	62.9	13.4	63.5	16.9	64.5	20.5	64.9	12.9	63.3	17.8	64.6	20.1	65.3	13.1	63.3			110
120					8.3	62.4	10.5	63.0	13.8	63.7	17.8	64.8	9.9	62.5	14.7	63.8	17.0	64.3	10.1	62.5			120
130													7.4	61.8	12.2	63.2	14.4	63.7	7.6	61.7			130
140													5.4	61.4	10.0	62.5	12.3	63.2	5.4	60.9			140
150																			3.9	61.1			150
160																							160
170																							170
180																							180
Tel.	Telecooping sequence %																				Tel.		
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	1			
2	46	0	92	46	46	0	92	46	46	0	92	46	46	0	92	46	46	0	92	2			
3	46	0	46	46	46	46	46	46	46	46	46	46	46	46	92	92	92	92	92	3			
4	46	92	46	46	46	92	46	46	92	46	92	46	46	92	92	46	92	46	46	4			
5	46	92	46	46	46	92	46	46	92	46	92	46	92	92	92	92	92	46	46	5			
6	46	92	0	46	92	92	46	92	92	46	92	92	46	92	92	92	46	46	46	6			

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5										Working radius [ft]									
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 77,161 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																			
		Boom length [ft]																			
		167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0		223.1			
		°		°		°		°		°		°		°		°		°			
		∠		∠		∠		∠		∠		∠		∠		∠		∠			
10																				10	
12																				12	
14																				14	
16																				16	
18																				18	
20																				20	
25																				25	
30	80	49.8	80	41.7	81	50.7	81	42.3	81	37.3										30	
35	78	49.8	78	41.7	79	50.7	79	42.3	79	37.3	80	41.4	80	33.1						35	
40	77	49.6	77	41.7	79	50.7	79	42.3	79	37.3	79	41.4	79	33.1	80	33.1	81	30.4		40	
45	75	47.6	75	41.7	77	50.3	77	42.3	77	37.3	77	41.4	77	33.1	79	33.1	80	30.4		45	
50	74	45.4	74	41.0	76	48.9	76	42.3	76	37.3	76	41.4	76	33.1	78	33.1	79	30.4		50	
55	72	43.3	72	39.3	74	46.7	74	41.8	74	37.3	75	41.0	75	33.1	77	33.1	78	30.1		55	
60	71	41.3	71	36.8	73	43.6	73	40.6	73	36.9	74	40.0	74	33.1	76	33.1	77	29.4		60	
65	68	39.3	68	34.7	71	38.5	71	38.4	71	35.1	72	38.1	72	33.1	74	33.1	75	28.9		65	
70	67	35.5	67	32.8	69	35.0	69	35.5	69	33.2	71	36.4	71	32.9	73	32.8	74	28.4		70	
75	65	31.6	65	31.0	67	31.9	67	32.7	67	31.5	69	33.5	69	31.7	72	31.0	73	27.9		75	
80	63	28.1	63	29.4	66	29.0	66	30.2	66	29.6	68	29.8	68	29.7	71	28.4	72	27.0		80	
85	61	25.1	61	27.9	64	25.8	64	27.7	64	27.3	66	26.4	66	27.7	69	26.6	71	25.0		85	
90	59	23.0	59	26.2	62	22.9	62	25.0	62	25.2	65	23.6	65	25.7	68	24.4	70	22.4		90	
95	57	21.2	57	24.5	60	20.4	60	22.6	60	23.4	63	21.0	63	23.4	66	22.2	68	20.0		95	
100	54	19.5	54	22.9	59	18.1	59	20.3	59	21.8	62	18.8	62	21.2	65	20.0	67	18.1		100	
110	50	16.0	50	19.5	55	14.2	55	16.4	55	18.4	58	14.9	58	17.3	61	16.0	64	15.6		110	
120	45	12.9	45	16.4	50	11.0	50	13.3	50	15.4	54	11.8	54	14.2	58	12.9	61	12.9		120	
130	39	10.3	39	13.7	46	8.3	46	10.5	46	12.7	50	9.3	50	11.5	54	10.3	58	10.2		130	
140	32	8.3	32	11.6	40	6.2	40	8.4	40	10.6	46	7.1	46	9.3	51	8.2	54	8.1		140	
150	23	6.5	23	9.6	34	4.3	34	6.5	34	8.8	41	5.2	41	7.5	46	6.3	51	5.9		150	
160					26	2.7	26	5.0	26	7.2	35	3.5	35	6.0	42	4.5	47	4.5		160	
170							17	3.8	17	5.6				29	4.5	37	3.2	43	3.0		170
180														19	3.5						180
Tel.	telescoping sequence [%]																			Tel.	
1	92	0	92	46	0	92	46	92	100	1											
2	46	46	92	92	92	92	92	92	100	2											
3	46	92	92	92	92	92	92	92	100	3											
4	46	92	92	92	92	92	92	92	100	4											
5	92	92	46	92	92	92	92	92	100	5											
6	92	92	46	46	92	46	92	92	100	6											

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Working radius [ft]		TADANO Outrigger reaction force chart ATF 220G-5																		Working radius [ft]	
		Outrigger reaction force F in ton [US]																			
		Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704310																			
		Counterweight 77,161 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 27.23 ft																			
		Boom length [ft]																			
		167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0		223.1			
		m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10																					10
12																					12
14																					14
16																					16
18																					18
20																					20
25																					25
30	49.8	45.5	41.7	39.2	50.7	47.0	42.3	41.1	37.3	37.1											30
35	49.8	50.2	41.7	43.2	50.7	51.9	42.3	45.3	37.3	40.9	41.4	45.4	33.1	38.7							35
40	49.6	54.8	41.7	47.1	50.7	56.8	42.3	49.5	37.3	44.6	41.4	49.7	33.1	42.2	33.1	43.0	30.4	41.1			40
45	47.6	57.9	41.7	51.1	50.3	61.5	42.3	53.7	37.3	48.3	41.4	53.9	33.1	45.7	33.1	46.6	30.4	44.5			45
50	45.4	60.7	41.0	54.5	48.9	65.2	42.3	57.9	37.3	52.1	41.4	58.1	33.1	49.2	33.1	50.2	30.4	47.9			50
55	43.3	63.2	39.3	56.8	46.7	67.9	41.8	61.6	37.3	55.8	41.0	63.3	33.1	52.7	33.1	53.8	30.1	51.0			55
60	41.3	65.5	36.8	58.2	43.6	69.5	40.6	64.6	36.9	59.1	40.0	65.1	33.1	56.2	33.1	57.3	29.4	53.7			60
65	39.3	67.5	34.7	59.5	38.5	68.6	38.4	66.4	35.1	60.9	38.1	67.3	33.1	59.7	33.1	60.9	28.9	56.5			65
70	35.5	67.1	32.8	60.8	35.0	68.6	35.5	66.9	33.2	62.3	36.4	69.4	32.9	63.0	32.8	64.1	28.4	59.2			70
75	31.6	66.2	31.0	62.1	31.9	68.7	32.7	67.4	31.5	63.6	33.5	69.7	31.7	65.0	31.0	65.5	27.9	61.9			75
80	28.1	65.3	29.4	63.2	29.0	68.6	30.2	67.7	29.6	64.6	29.8	68.6	29.7	65.8	28.4	65.7	27.0	63.9			80
85	25.1	64.5	27.9	64.3	25.8	67.8	27.7	67.7	27.3	64.7	26.4	67.5	27.7	66.4	26.6	66.4	25.0	64.4			85
90	23.0	64.5	26.2	64.9	22.9	66.8	25.0	67.1	25.2	64.8	23.6	66.6	25.7	66.6	24.4	66.5	22.4	63.6			90
95	21.2	64.7	24.5	65.3	20.4	66.0	22.6	66.4	23.4	65.0	21.0	65.8	23.4	66.3	22.2	66.2	20.0	62.9			95
100	19.5	64.8	22.9	65.6	18.1	65.4	20.3	65.7	21.8	65.2	18.8	65.1	21.2	65.6	20.0	65.6	18.1	62.7			100
110	16.0	64.1	19.5	65.1	14.2	64.1	16.4	64.5	18.4	64.8	14.9	63.8	17.3	64.4	16.0	64.1	15.6	63.5			110
120	12.9	63.2	16.4	64.2	11.0	62.8	13.3	63.5	15.4	63.9	11.8	62.8	14.2	63.4	12.9	63.2	12.9	63.1			120
130	10.3	62.2	13.7	63.4	8.3	61.8	10.5	62.3	12.7	63.0	9.3	62.2	11.5	62.5	10.3	62.2	10.2	62.2			130
140	8.3	62.0	11.6	62.9	6.2	61.3	8.4	61.8	10.6	62.5	7.1	61.4	9.3	61.8	8.2	61.7	8.1	61.6			140
150	6.5	61.7	9.6	62.1	4.3	60.8	6.5	61.3	8.8	62.1	5.2	60.9	7.5	61.2	6.3	61.2	5.9	60.3			150
160					2.7	60.2	5.0	60.9	7.2	61.7	3.5	60.3	6.0	61.0	4.5	60.3	4.5	60.3			160
170							3.8	61.1	5.6	61.0			4.5	60.5	3.2	60.0	3.0	59.5			170
180													3.5	60.7							180
Tel.	Telescoping sequence %																			Tel.	
1	92		0		92		46		0		92		46		92		100		1		
2	46		46		92		92		92		92		92		92		100		2		
3	46		92		92		92		92		92		92		92		100		3		
4	46		92		92		92		92		92		92		92		100		4		
5	92		92		46		92		92		92		92		92		100		5		
6	92		92		46		46		92		46		92		92		100		6		

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account


Working radius [ft]		Load rating chart ATF 220G-5										Working radius [ft]							
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 77,161 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																	
		Boom length [ft]																	
		43.3	57.1	57.1	70.9	70.9	70.9	84.6	84.6	84.6									
		∠	∠	∠	∠	∠	∠	∠	∠	∠									
10	70	334.8*	75	307.9*	75	134.7	79	307.7*	79	140.3	79	100.4	81	251.3*	81	227.1	81	142.7	10
12	67	291.2*	73	290.9*	73	126.1	77	289.0*	77	132.6	77	93.1	80	247.5*	80	227.1	80	135.9	12
14	64	256.5*	71	255.4*	71	118.9	75	248.4*	75	125.8	75	86.7	78	222.5	78	220.0	78	129.6	14
16	61	228.1	68	227.0	68	112.2	73	207.7	73	119.6	73	81.1	77	187.1	77	192.9	77	123.9	16
18	58	205.4	67	197.0	67	106.5	72	178.0	72	114.3	72	76.4	76	161.2	76	166.7	76	118.9	18
20	54	183.0	65	167.8	65	101.1	70	151.9	70	109.3	70	71.9	74	138.5	74	143.6	74	114.2	20
25	45	123.9	59	120.5	59	90.4	65	111.5	65	98.8	65	63.0	71	102.5	71	107.1	71	104.1	25
30	33	88.4	52	87.1	52	82.0	61	84.2	61	90.0	61	55.9	67	79.0	67	83.2	67	94.8	30
35			45	66.0	45	72.0	56	63.6	56	75.5	56	50.5	63	61.6	63	65.4	63	76.1	35
40			36	51.9	36	58.2	50	49.5	50	60.8	50	45.8	59	47.5	59	51.2	59	61.5	40
45			24	42.0	24	48.0	44	39.5	44	50.3	44	42.1	55	37.6	55	41.1	55	50.9	45
50							37	32.1	37	42.4	37	39.1	50	30.1	50	33.5	50	42.9	50
55							29	26.1	29	36.2	29	35.6	45	24.1	45	27.4	45	36.6	55
60							19	21.1	19	31.0	19	31.4	40	19.3	40	22.4	40	31.6	60
65													34	15.5	34	18.6	34	27.4	65
70													25	12.5	25	15.4	25	24.2	70
75																			75
80																			80
85																			85
90																			90
95																			95
100																			100
110																			110
120																			120
130																			130
140																			140
150																			150
Tel.	Telescoping sequence [%]										Tel.								
1	0	0	0	46	0	0	92	46	0	1									
2	0	46	0	46	0	0	46	46	0	2									
3	0	0	0	0	0	0	0	46	0	3									
4	0	0	0	0	0	0	0	0	46	4									
5	0	0	0	0	46	0	0	0	46	5									
6	0	0	46	0	46	92	0	0	46	6									

* With additional lifting equipments.


Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Working radius [ft]		Outrigger reaction force chart ATF 220G-5																Working radius [ft]			
		Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704311 Counterweight 77,161 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 18.37 ft																			
		Boom length [ft]																			
		43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6			
		m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10	334.8	122.2	307.9	113.4	134.7	53.0	307.7	113.9	140.3	54.2	100.4	45.7	251.3	95.2	227.1	86.1	142.7	54.7	10		
12	291.2	119.1	290.9	119.2	126.1	55.5	289.0	119.1	132.6	57.1	93.1	42.8	247.5	104.1	227.1	95.5	135.9	58.0	12		
14	256.5	116.4	255.4	116.3	118.9	57.9	248.4	113.9	125.8	59.9	86.7	43.6	222.5	103.8	220.0	101.8	129.6	61.1	14		
16	228.1	114.1	227.0	113.9	112.2	60.1	207.7	105.8	119.6	62.5	81.1	44.9	187.1	97.2	192.9	98.6	123.9	63.9	16		
18	205.4	112.0	197.0	107.9	106.5	62.1	178.0	99.5	114.3	64.8	76.4	46.2	161.2	92.1	166.7	93.4	118.9	66.7	18		
20	183.0	109.0	167.8	101.4	101.1	64.0	151.9	93.9	109.3	67.1	71.9	47.4	138.5	87.6	143.6	88.9	114.2	69.3	20		
25	123.9	91.4	120.5	89.7	90.4	68.5	111.5	85.2	98.8	72.4	63.0	50.1	102.5	80.7	107.1	81.7	104.1	75.2	25		
30	88.4	80.1	87.1	79.7	82.0	72.9	84.2	78.7	90.0	76.9	55.9	52.5	79.0	76.1	83.2	77.1	94.8	79.8	30		
35			66.0	72.9	72.0	74.1	63.6	72.2	75.5	75.0	50.5	54.9	61.6	71.8	65.4	72.7	76.1	74.9	35		
40			51.9	68.7	58.2	70.2	49.5	67.9	60.8	70.5	45.8	57.0	47.5	67.4	51.2	68.3	61.5	70.4	40		
45			42.0	65.7	48.0	67.2	39.5	64.9	50.3	67.2	42.1	59.2	37.6	64.4	41.1	65.2	50.9	67.1	45		
50							32.1	62.8	42.4	64.9	39.1	61.3	30.1	62.2	33.5	63.0	42.9	64.6	50		
55							26.1	61.1	36.2	63.2	35.6	62.3	24.1	60.6	27.4	61.2	36.6	62.7	55		
60							21.1	59.8	31.0	61.8	31.4	62.1	19.3	59.3	22.4	59.7	31.6	61.4	60		
65													15.5	58.2	18.6	58.8	27.4	60.1	65		
70													12.5	57.8	15.4	58.2	24.2	59.5	70		
75																			75		
80																			80		
85																			85		
90																			90		
95																			95		
100																			100		
110																			110		
120																			120		
130																			130		
140																			140		
150																			150		
Tel.	Telescoping sequence %																			Tel.	
1	0	0	0	46	0	0	92	46	0	1											
2	0	46	0	46	0	0	46	46	0	2											
3	0	0	0	0	0	0	0	46	0	3											
4	0	0	0	0	0	0	0	0	46	4											
5	0	0	0	0	46	0	0	0	46	5											
6	0	0	46	0	46	92	0	0	46	6											


The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

 Load rating chart ATF 220G-5 Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 77,161 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																						
Working radius [ft]	Boom length [ft]												Working radius [ft]									
	84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7												
10	81	103.5												10								
12	80	96.8	82	199.5	82	170.9	82	137.4	82	87.8				12								
14	78	91.0	80	195.9	80	170.9	80	131.7	80	83.1				14								
16	77	85.7	79	174.6	79	170.9	79	126.5	79	78.7	80	154.3	80	127.9	80	112.4	80	75.0		16		
18	76	81.2	78	151.7	78	155.7	78	121.8	78	74.4	80	141.9	80	127.9	80	112.4	80	72.6	81	120.2	18	
20	74	77.0	77	131.5	77	137.4	77	117.3	77	70.2	79	126.6	79	126.4	79	112.4	79	70.3	80	118.6	20	
25	71	68.4	74	98.7	74	103.9	74	107.8	74	61.3	76	96.5	76	101.7	76	104.9	76	63.4	78	94.5	25	
30	67	61.4	71	76.7	71	81.6	71	90.5	71	54.1	74	75.9	74	80.7	74	85.8	74	57.2	76	75.1	30	
35	63	55.5	68	61.8	68	66.4	68	74.7	68	48.5	71	61.6	71	66.3	71	71.0	71	51.8	74	61.6	35	
40	59	50.4	65	49.0	65	53.4	65	60.8	65	43.8	68	50.8	68	55.2	68	59.8	68	47.4	71	51.4	40	
45	55	46.2	61	38.9	61	43.1	61	50.3	61	40.2	65	41.2	65	45.5	65	49.5	65	43.5	68	43.2	45	
50	50	42.5	57	31.4	57	35.3	57	42.4	57	37.0	63	33.7	63	37.8	63	41.7	63	40.2	66	35.9	50	
55	45	38.1	53	25.4	53	29.1	53	36.1	53	34.2	59	27.6	59	31.6	59	35.4	59	37.2	63	29.8	55	
60	40	33.0	49	20.4	49	24.2	49	31.0	49	31.7	56	22.6	56	26.6	56	30.3	56	34.3	61	24.8	60	
65	34	28.9	45	16.6	45	20.3	45	27.0	45	29.4	52	18.6	52	22.5	52	26.1	52	30.1	58	20.8	65	
70	25	25.6	41	13.4	41	17.0	41	23.7	41	26.2	49	15.4	49	19.2	49	22.8	49	26.7	55	17.5	70	
75			36	10.8	36	14.2	36	20.7	36	23.3	45	12.7	45	16.3	45	19.9	45	23.8	52	14.6	75	
80			29	8.5	29	11.8	29	18.2	29	20.8	41	10.3	41	13.8	41	17.3	41	21.3	49	12.1	80	
85			21	6.5	21	9.8	21	16.2	21	18.7	37	8.1	37	11.8	37	15.1	37	19.1	45	10.0	85	
90											32	6.4	32	9.9	32	13.4	32	17.2	42	8.2	90	
95											26	4.9	26	8.3	26	11.8	26	15.6	38	6.5	95	
100											19	3.5	19	6.8	19	10.3	19	14.1	34	5.1	100	
110																			23	2.8	110	
120																						120
130																						130
140																						140
150																						150
Tel.	Telescoping sequence [%]												Tel.									
1	0	92	46	0	0	92	46	0	0	92	46	0	0	92	1							
2	0	46	46	0	0	46	46	46	0	46	46	46	0	46	2							
3	0	46	46	46	0	46	46	46	0	46	46	46	0	46	3							
4	0	0	46	46	0	46	46	46	0	46	46	46	46	46	4							
5	46	0	0	46	92	0	46	46	92	0	46	46	92	46	5							
6	92	0	0	46	92	0	0	46	92	0	0	46	92	0	6							

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

 Outrigger reaction force chart ATF 220G-5																					
Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704311 Counterweight 77,161 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 18.37 ft																					
Working radius [ft]	Boom length [ft]																				Working radius [ft]
	84.6		98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9		125.7		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10	103.5	46.1																			10
12	96.8	43.4	199.5	85.7	170.9	73.7	137.4	58.7	87.8	43.1											12
14	91.0	44.6	195.9	92.5	170.9	80.9	131.7	62.0	83.1	41.5											14
16	85.7	46.1	174.6	91.0	170.9	88.1	126.5	65.2	78.7	42.7	154.3	81.3	127.9	67.9	112.4	59.4	75.0	40.8			16
18	81.2	47.6	151.7	86.9	155.7	87.4	121.8	68.2	74.4	44.0	141.9	81.5	127.9	73.4	112.4	64.2	72.6	42.8	120.2	70.4	18
20	77.0	49.1	131.5	83.3	137.4	84.8	117.3	71.0	70.2	45.1	126.6	79.9	126.4	78.0	112.4	69.0	70.3	44.9	118.6	74.8	20
25	68.4	52.2	98.7	77.5	103.9	78.8	107.8	77.6	61.3	47.5	96.5	75.1	101.7	76.3	104.9	76.3	63.4	48.4	94.5	72.8	25
30	61.4	55.1	76.7	73.6	81.6	74.8	90.5	76.8	54.1	49.4	75.9	71.8	80.7	72.9	85.8	74.2	57.2	51.2	75.1	70.0	30
35	55.5	57.3	61.8	71.0	66.4	72.2	74.7	74.1	48.5	51.3	61.6	69.6	66.3	70.7	71.0	71.7	51.8	53.5	61.6	68.2	35
40	50.4	59.4	49.0	67.6	53.4	68.7	60.8	69.9	43.8	52.9	50.8	67.8	55.2	68.8	59.8	69.9	47.4	55.5	51.4	66.8	40
45	46.2	61.2	38.9	64.4	43.1	65.6	50.3	66.6	40.2	54.7	41.2	65.2	45.5	66.1	49.5	66.8	43.5	57.3	43.2	65.5	45
50	42.5	62.9	31.4	62.2	35.3	63.2	42.4	64.2	37.0	56.2	33.7	63.0	37.8	63.8	41.7	64.5	40.2	59.0	35.9	63.5	50
55	38.1	62.9	25.4	60.5	29.1	61.3	36.1	62.4	34.2	57.8	27.6	61.2	31.6	62.0	35.4	62.6	37.2	60.6	29.8	61.8	55
60	33.0	61.4	20.4	59.1	24.2	59.9	31.0	60.8	31.7	59.2	22.6	59.8	26.6	60.6	30.3	61.1	34.3	61.6	24.8	60.4	60
65	28.9	60.4	16.6	58.1	20.3	59.0	27.0	59.7	29.4	60.2	18.6	58.6	22.5	59.6	26.1	59.8	30.1	60.3	20.8	59.2	65
70	25.6	59.7	13.4	57.4	17.0	58.1	23.7	58.9	26.2	59.5	15.4	57.9	19.2	58.7	22.8	58.9	26.7	59.5	17.5	58.3	70
75			10.8	56.9	14.2	57.4	20.7	58.1	23.3	58.8	12.7	57.3	16.3	57.9	19.9	58.1	23.8	58.7	14.6	57.5	75
80			8.5	56.6	11.8	56.9	18.2	57.5	20.8	58.3	10.3	56.7	13.8	57.3	17.3	57.4	21.3	58.1	12.1	56.8	80
85			6.5	56.2	9.8	56.7	16.2	57.2	18.7	57.8	8.1	56.1	11.8	57.0	15.1	56.9	19.1	57.6	10.0	56.6	85
90											6.4	55.9	9.9	56.5	13.4	56.7	17.2	57.2	8.2	56.1	90
95											4.9	55.9	8.3	56.2	11.8	56.5	15.6	56.8	6.5	55.7	95
100											3.5	56.0	6.8	56.0	10.3	56.4	14.1	56.6	5.1	55.6	100
110																			2.8	55.7	110
120																					120
130																					130
140																					140
150																					150
Tel.	Telescoping sequence %																				Tel.
1	0		92		46		0		0		92		46		0		0		92		1
2	0		46		46		0		0		46		46		46		0		46		2
3	0		46		46		46		0		46		46		46		0		46		3
4	0		0		46		46		0		46		46		46		46		46		4
5	46		0		0		46		92		0		46		46		92		46		5
6	92		0		0		46		92		0		0		46		92		0		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

 Load rating chart ATF 220G-5 Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 77,161 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																					
Working radius [ft]	Boom length [ft]											Working radius [ft]									
	125.7 ° /	125.7 ° /	139.4 ° /	139.4 ° /	139.4 ° /	139.4 ° /	153.2 ° /	153.2 ° /	153.2 ° /	167.0 ° /											
10													10								
12													12								
14													14								
16													16								
18	81	95.9	81	66.1									18								
20	80	95.9	80	65.8	82	95.9	82	82.9	82	69.4	82	56.2		20							
25	78	94.5	78	61.5	79	88.8	79	82.9	79	69.4	79	56.2	80	76.1	80	55.8	80	47.2			25
30	76	80.0	76	56.9	78	71.9	78	74.7	78	69.3	78	55.1	79	71.3	79	55.6	79	47.2	80	62.7	30
35	74	66.2	74	52.2	76	59.1	76	61.8	76	65.0	76	52.5	77	59.1	77	52.8	77	47.2	78	57.4	35
40	71	55.8	71	47.3	74	49.3	74	52.0	74	55.9	74	49.1	76	49.8	76	49.9	76	47.0	77	48.5	40
45	68	47.4	68	43.3	71	41.8	71	44.4	71	48.2	71	45.3	73	42.4	73	47.0	73	45.3	75	41.4	45
50	66	40.0	66	39.8	69	35.3	69	37.8	69	41.3	69	41.9	72	36.5	72	41.9	72	42.8	74	35.7	50
55	63	33.7	63	36.8	67	29.6	67	31.9	67	35.2	67	38.2	70	31.2	70	36.3	70	38.7	72	31.0	55
60	61	28.5	61	33.9	65	24.6	65	26.8	65	30.1	65	34.0	68	26.4	68	31.2	68	33.4	71	26.8	60
65	58	24.3	58	30.0	62	20.6	62	22.8	62	26.1	62	29.8	66	22.3	66	27.0	66	29.2	68	22.8	65
70	55	21.0	55	26.6	60	17.3	60	19.5	60	22.6	60	26.4	64	19.0	64	23.7	64	25.7	67	19.5	70
75	52	18.2	52	23.6	58	14.4	58	16.6	58	19.6	58	23.4	62	16.1	62	20.7	62	22.7	65	16.6	75
80	49	15.8	49	21.1	55	11.8	55	14.0	55	17.1	55	20.8	59	13.6	59	18.2	59	20.2	63	14.0	80
85	45	13.6	45	18.9	52	9.8	52	12.0	52	14.9	52	18.7	57	11.6	57	16.0	57	18.0	61	11.8	85
90	42	11.7	42	17.0	49	8.0	49	10.2	49	13.2	49	16.8	55	9.7	55	14.1	55	16.1	59	9.9	90
95	38	10.1	38	15.4	46	6.3	46	8.5	46	11.5	46	15.0	52	8.1	52	12.4	52	14.5	57	8.3	95
100	34	8.6	34	13.9	43	4.9	43	7.1	43	9.9	43	13.5	49	6.6	49	10.8	49	13.0	54	6.9	100
110	23	6.3	23	11.4			36	4.6	36	7.6	36	10.9	44	4.1	44	8.3	44	10.5	50	4.3	110
120							27	2.5	27	5.6	27	8.9				38	6.3	38	8.3		120
130																29	4.6	29	6.6		130
140																16	3.3	16	5.3		140
150																					150
Tel.	Telescoping sequence [%]											Tel.									
1	46	0	92	92	46	0	92	46	0	92	46	0	92	1							
2	46	0	92	46	46	0	92	46	0	92	46	0	92	2							
3	46	0	46	46	46	46	46	46	92	92	46	0	92	3							
4	46	92	46	46	46	46	92	46	46	46	46	92	46	4							
5	46	92	46	46	46	46	92	46	92	46	92	92	46	5							
6	46	92	0	46	92	92	46	92	92	46	92	92	46	6							

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.




Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704311
Counterweight 77,161 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 18.37 ft

Working radius [ft]	Boom length [ft]																				Working radius [ft]			
	125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2		167.0					
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F				
10																						10		
12																							12	
14																							14	
16																							16	
18	95.9	56.8	66.1	40.3																			18	
20	95.9	61.1	65.8	42.7	95.9	63.0	82.9	55.1	69.4	46.5	56.2	37.6											20	
25	94.5	70.9	61.5	47.3	88.8	69.4	82.9	64.7	69.4	54.5	56.2	44.1	76.1	60.7	55.8	45.6	47.2	39.0					25	
30	80.0	71.1	56.9	51.1	71.9	67.8	74.7	68.5	69.3	62.5	55.1	49.9	71.3	66.3	55.6	52.1	47.2	44.7	62.7	60.0			30	
35	66.2	69.2	52.2	53.9	59.1	66.3	61.8	66.8	65.0	67.0	52.5	54.2	59.1	64.9	52.8	56.6	47.2	50.4	57.4	63.4			35	
40	55.8	67.7	47.3	55.6	49.3	65.1	52.0	65.7	55.9	66.5	49.1	57.4	49.8	64.0	49.9	60.4	47.0	55.9	48.5	62.6			40	
45	47.4	66.4	43.3	57.3	41.8	64.1	44.4	64.9	48.2	65.6	45.3	59.3	42.4	63.2	47.0	63.8	45.3	60.0	41.4	62.0			45	
50	40.0	64.3	39.8	58.8	35.3	63.0	37.8	63.6	41.3	64.1	41.9	61.2	36.5	62.6	41.9	63.9	42.8	62.8	35.7	61.5			50	
55	33.7	62.4	36.8	60.2	29.6	61.7	31.9	62.1	35.2	62.5	38.2	62.0	31.2	61.7	36.3	62.8	38.7	63.2	31.0	61.1			55	
60	28.5	60.8	33.9	61.3	24.6	60.3	26.8	60.6	30.1	61.1	34.0	61.6	26.4	60.5	31.2	61.2	33.4	61.5	26.8	60.7			60	
65	24.3	59.5	30.0	60.5	20.6	59.2	22.8	59.5	26.1	59.9	29.8	60.3	22.3	59.4	27.0	60.0	29.2	60.3	22.8	59.6			65	
70	21.0	58.7	26.6	59.5	17.3	58.3	19.5	58.6	22.6	58.9	26.4	59.3	19.0	58.5	23.7	59.1	25.7	59.2	19.5	58.8			70	
75	18.2	58.1	23.6	58.6	14.4	57.5	16.6	57.8	19.6	58.0	23.4	58.5	16.1	57.7	20.7	58.4	22.7	58.4	16.6	58.0			75	
80	15.8	57.5	21.1	58.0	11.8	56.8	14.0	57.2	17.1	57.3	20.8	57.8	13.6	57.0	18.2	57.7	20.2	57.7	14.0	57.2			80	
85	13.6	56.9	18.9	57.4	9.8	56.5	12.0	56.9	14.9	56.7	18.7	57.2	11.6	56.7	16.0	57.1	18.0	57.1	11.8	56.7			85	
90	11.7	56.5	17.0	57.0	8.0	55.9	10.2	56.5	13.2	56.5	16.8	56.7	9.7	56.3	14.1	56.7	16.1	56.6	9.9	56.2			90	
95	10.1	56.2	15.4	56.7	6.3	55.6	8.5	56.2	11.5	56.1	15.0	56.2	8.1	55.9	12.4	56.2	14.5	56.3	8.3	55.9			95	
100	8.6	55.9	13.9	56.5	4.9	55.3	7.1	55.9	9.9	55.7	13.5	55.8	6.6	55.7	10.8	55.7	13.0	56.1	6.9	55.7			100	
110	6.3	55.8	11.4	56.0			4.6	55.5	7.6	55.6	10.9	55.3	4.1	55.2	8.3	55.2	10.5	55.6	4.3	55.1			110	
120							2.5	55.1	5.6	55.6	8.9	55.1		54.9	6.3	55.0	8.3	55.0					120	
130															4.6	55.0	6.6	54.9					130	
140															3.3	55.3	5.3	55.2					140	
150																								150
Tel.	Telescoping sequence %																				Tel.			
1	46		0		92		92		46		0		92		46		0		92				1	
2	46		0		92		46		46		0		92		46		0		92				2	
3	46		0		46		46		46		46		46		46		92		92				3	
4	46		92		46		46		46		92		46		46		92		46				4	
5	46		92		46		46		46		92		46		92		92		46				5	
6	46		92		0		46		92		92		46		92		92		46				6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

 Load rating chart ATF 220G-5																			
Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 77,161 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																			
Working radius [ft]	Boom length [ft]										Working radius [ft]								
	167.0	167.0	180.4	180.4	180.4	194.2	194.2	208.0	223.1										
10											10								
12											12								
14											14								
16											16								
18											18								
20											20								
25											25								
30	80	49.8	80	41.7	81	50.7	81	42.3	81	37.3	30								
35	78	49.8	78	41.7	79	50.7	79	42.3	79	37.3	80	41.4	80	33.1	35				
40	77	49.2	77	41.7	79	47.9	79	42.3	79	37.3	79	41.3	79	33.1	80	33.1	81	30.4	40
45	75	44.1	75	41.7	77	41.2	77	42.3	77	37.3	77	39.9	77	33.1	79	33.1	80	30.4	45
50	74	38.8	74	40.6	76	35.7	76	38.1	76	37.3	76	35.6	76	33.1	78	33.1	79	30.4	50
55	72	33.9	72	37.5	74	31.0	74	33.4	74	35.4	75	31.0	75	32.1	77	31.2	78	29.3	55
60	71	29.4	71	32.9	73	26.9	73	29.3	73	31.7	74	27.2	74	29.8	76	27.6	77	27.0	60
65	68	25.4	68	28.7	71	23.6	71	25.6	71	27.8	72	24.0	72	26.4	74	24.4	75	23.8	65
70	67	22.0	67	25.3	69	20.2	69	22.3	69	24.4	71	20.9	71	23.2	73	21.7	74	21.2	70
75	65	19.0	65	22.3	67	17.3	67	19.4	67	21.4	69	18.1	69	20.3	72	19.1	73	18.7	75
80	63	16.4	63	19.7	66	14.9	66	16.9	66	18.9	68	15.5	68	17.7	71	16.6	72	16.4	80
85	61	14.2	61	17.5	64	12.7	64	14.7	64	16.7	66	13.4	66	15.6	69	14.5	71	14.2	85
90	59	12.4	59	15.7	62	10.8	62	12.8	62	14.8	65	11.5	65	13.7	68	12.6	70	12.4	90
95	57	10.7	57	14.0	60	9.1	60	11.2	60	13.1	63	9.9	63	12.1	66	10.9	68	10.7	95
100	54	9.3	54	12.5	59	7.5	59	9.7	59	11.5	62	8.4	62	10.6	65	9.3	67	9.3	100
110	50	6.8	50	9.8	55	5.0	55	7.2	55	9.0	58	5.9	58	8.1	61	6.8	64	6.8	110
120	45	4.8	45	7.8	50	2.9	50	5.0	50	6.9	54	3.8	54	5.9	58	4.7	61	4.7	120
130	39	3.1	39	6.2			46	3.3	46	5.1			50	4.2	54	3.0	58	2.9	130
140			32	4.6					40	3.7			46	2.8					140
150			23	3.4					34	2.5									150
Tel.	telescoping sequence [%]										Tel.								
1	92	0	92	46	0	92	46	92	100	1									
2	46	46	92	92	92	92	92	92	100	2									
3	46	92	92	92	92	92	92	92	100	3									
4	46	92	92	92	92	92	92	92	100	4									
5	92	92	46	92	92	92	92	92	100	5									
6	92	92	46	46	92	46	92	92	100	6									

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

TADANO																				
Outrigger reaction force chart ATF 220G-5																				
Outrigger reaction force F in ton [US]																				
Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704311																				
Counterweight 77,161 lbs																				
On outriggers, 360° working area																				
Outrigger fully extended, outrigger base 18.37 ft																				
Boom length [ft]																				
Working radius [ft]																				
Working radius [ft]																				
167.0 167.0 180.4 180.4 180.4 194.2 194.2 208.0 223.1																				
m F m F m F m F m F m F m F m F m F																				
10																				10
12																				12
14																				14
16																				16
18																				18
20																				20
25																				25
30	49.8	49.1	41.7	41.2	50.7	51.0	42.3	43.6	37.3	38.7										30
35	49.8	55.4	41.7	46.4	50.7	57.6	42.3	49.2	37.3	43.6	41.4	49.5	33.1	40.9						35
40	49.2	61.1	41.7	51.7	47.9	61.5	42.3	54.8	37.3	48.5	41.3	54.9	33.1	45.6	33.1	46.7	30.4	44.9		40
45	44.1	62.3	41.7	57.0	41.2	61.0	42.3	60.4	37.3	53.5	39.9	59.1	33.1	50.3	33.1	51.4	30.4	49.5		45
50	38.8	62.2	40.6	61.1	35.7	60.8	38.1	61.2	37.3	58.5	35.6	59.7	33.1	54.9	33.1	56.2	30.4	54.1		50
55	33.9	61.7	37.5	62.5	31.0	60.4	33.4	60.9	35.4	61.1	31.0	59.5	32.1	58.3	31.2	58.6	29.3	57.3		55
60	29.4	61.0	32.9	61.6	26.9	60.1	29.3	60.5	31.7	61.2	27.2	59.3	29.8	60.0	27.6	58.7	27.0	57.9		60
65	25.4	59.9	28.7	60.4	23.6	59.8	25.6	59.9	27.8	60.4	24.0	59.3	26.4	59.7	24.4	58.6	23.8	57.7		65
70	22.0	58.8	25.3	59.4	20.2	58.9	22.3	59.1	24.4	59.4	20.9	58.8	23.2	58.9	21.7	58.4	21.2	57.7		70
75	19.0	57.9	22.3	58.5	17.3	58.2	19.4	58.4	21.4	58.5	18.1	58.1	20.3	58.1	19.1	58.1	18.7	57.6		75
80	16.4	57.2	19.7	57.8	14.9	57.7	16.9	57.6	18.9	57.8	15.5	57.4	17.7	57.4	16.6	57.5	16.4	57.2		80
85	14.2	56.7	17.5	57.2	12.7	57.1	14.7	57.0	16.7	57.2	13.4	56.8	15.6	56.9	14.5	57.0	14.2	56.7		85
90	12.4	56.2	15.7	56.8	10.8	56.7	12.8	56.6	14.8	56.8	11.5	56.4	13.7	56.5	12.6	56.6	12.4	56.2		90
95	10.7	55.8	14.0	56.5	9.1	56.2	11.2	56.3	13.1	56.3	9.9	56.0	12.1	56.2	10.9	56.1	10.7	55.8		95
100	9.3	55.6	12.5	56.1	7.5	55.7	9.7	56.0	11.5	55.9	8.4	55.8	10.6	55.9	9.3	55.6	9.3	55.6		100
110	6.8	55.1	9.8	55.4	5.0	55.2	7.2	55.6	9.0	55.4	5.9	55.3	8.1	55.5	6.8	55.1	6.8	55.1		110
120	4.8	54.9	7.8	55.2	2.9	54.9	5.0	54.9	6.9	55.1	3.8	55.0	5.9	54.7	4.7	54.7	4.7	54.7		120
130	3.1	54.8	6.2	55.1			3.3	54.8	5.1	54.6			4.2	54.7	3.0	54.7	2.9	54.2		130
140			4.6	54.8					3.7	54.6			2.8	54.7						140
150			3.4	54.9					2.5	54.8										150
Tel.	Telescoping sequence %																			Tel.
1	92	0	92	46	0	92	46	92	100	1										
2	46	46	92	92	92	92	92	92	100	2										
3	46	92	92	92	92	92	92	92	100	3										
4	46	92	92	92	92	92	92	92	100	4										
5	92	92	46	92	92	92	92	92	100	5										
6	92	92	46	46	92	46	92	92	100	6										

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom

Counterweight 51,808 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]										Working radius [ft]									
	43.3		57.1		57.1		70.9		70.9			70.9		84.6		84.6		84.6		
	∠	°	∠	°	∠	°	∠	°	∠	°		∠	°	∠	°	∠	°	∠	°	
10	70	392.2*	359.1*	75	308.6*	75	134.7	79	308.6*	79	140.3	79	100.4	81	251.3*	81	227.1	81	142.7	10
12	67	334.8*	315.5*	73	303.8*	73	126.1	77	303.1*	77	132.6	77	93.1	80	247.5*	80	227.1	80	135.9	12
14	64	287.1*	280.2*	71	279.7*	71	118.9	75	276.9*	75	125.8	75	86.7	78	233.3	78	227.1	78	129.6	14
16	61	249.6*	248.8*	68	248.8*	68	112.2	73	246.3*	73	119.6	73	81.1	77	221.0	77	227.1	77	123.9	16
18	58	221.6	221.6	67	221.3	67	106.5	72	218.6	72	114.3	72	76.4	76	198.5	76	205.7	76	118.9	18
20	54	196.5	196.5	65	195.8	65	101.1	70	191.8	70	109.3	70	71.9	74	173.7	74	179.6	74	114.2	20
25	45	156.0	156.0	59	149.2	59	90.4	65	136.5	65	98.8	65	63.0	71	124.9	71	130.2	71	104.1	25
30	33	120.1	120.1	52	118.1	52	82.0	61	102.9	61	90.4	61	55.9	67	94.7	67	99.3	67	95.9	30
35				45	89.0	45	75.2	56	83.8	56	83.0	56	50.5	63	74.9	63	79.2	63	88.9	35
40				36	69.8	36	69.6	50	67.2	50	75.4	50	45.8	59	61.0	59	64.9	59	79.8	40
45				24	56.7	24	62.0	44	54.2	44	64.8	44	42.1	55	51.6	55	55.0	55	65.9	45
50								37	44.6	37	55.2	37	39.1	50	42.6	50	45.9	50	55.8	50
55								29	36.8	29	47.2	29	36.6	45	34.6	45	38.0	45	47.8	55
60								19	30.0	19	40.6	19	34.4	40	27.9	40	31.5	40	41.3	60
65														34	22.7	34	26.4	34	36.1	65
70														25	18.5	25	22.1	25	32.0	70
75																				75
80																				80
85																				85
90																				90
95																				95
100																				100
110																				110
120																				120
130																				130
140																				140
150																				150
160																				160
Tel.	Telescoping sequence [%]																			Tel.
1	0			0				46			0			92			46		0	1
2	0			46				46			0			46			46		0	2
3	0			0				0			0			0			46		0	3
4	0			0				0			0			0			0		46	4
5	0			0				0			46			0			0		46	5
6	0			0			46				46			92			0		46	6

1) Over rear with superstructure locking pin engaged.

* With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704312
Counterweight 51,808 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Boom length [ft]

Working radius [ft]	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		Working radius [ft]		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
10	392.2	110.7	359.1	119.0	308.6	104.5	134.7	52.2	308.6	104.9	140.3	53.3	100.4	41.5	251.3	88.4	227.1	80.6	142.7	53.8	10
12	334.8	103.1	315.5	115.7	303.8	112.2	126.1	53.8	303.1	112.4	132.6	55.2	93.1	42.5	247.5	95.0	227.1	87.7	135.9	56.0	12
14	287.1	96.2	280.2	112.8	279.7	112.7	118.9	55.3	276.9	112.4	125.8	57.0	86.7	43.3	233.3	97.7	227.1	94.7	129.6	58.1	14
16	249.6	90.7	248.8	109.5	248.8	109.7	112.2	56.7	246.3	109.3	119.6	58.7	81.1	44.1	221.0	100.4	227.1	101.8	123.9	60.1	16
18	221.6	86.5	221.6	105.8	221.3	105.9	106.5	58.0	218.6	105.3	114.3	60.3	76.4	44.9	198.5	97.8	205.7	99.7	118.9	61.9	18
20	196.5	82.8	196.5	102.1	195.8	102.1	101.1	59.2	191.8	100.9	109.3	61.9	71.9	45.6	173.7	93.7	179.6	95.1	114.2	63.7	20
25	156.0	77.3	156.0	97.0	149.2	93.8	90.4	62.2	136.5	88.1	98.8	65.4	63.0	47.3	124.9	83.0	130.2	84.4	104.1	67.7	25
30	120.1	70.3	120.1	89.1	118.1	88.3	82.0	65.1	102.9	80.4	90.4	68.7	55.9	48.9	94.7	76.5	99.3	77.7	95.9	71.5	30
35					89.0	79.4	75.2	67.9	83.8	77.0	83.0	71.5	50.5	50.5	74.9	72.2	79.2	73.3	88.9	74.8	35
40					69.8	73.6	69.6	70.4	67.2	72.8	75.4	73.0	45.8	51.9	61.0	69.4	64.9	70.3	79.8	75.6	40
45					56.7	69.8	62.0	70.7	54.2	69.0	64.8	71.1	42.1	53.3	51.6	68.1	55.0	68.7	65.9	71.3	45
50									44.6	66.3	55.2	68.5	39.1	54.9	42.6	65.8	45.9	66.4	55.8	68.4	50
55									36.8	64.0	47.2	66.3	36.6	56.5	34.6	63.3	38.0	64.1	47.8	66.1	55
60									30.0	62.0	40.6	64.6	34.4	58.1	27.9	61.1	31.5	62.0	41.3	64.3	60
65															22.7	59.4	26.4	60.5	36.1	62.8	65
70															18.5	58.0	22.1	59.1	32.0	61.6	70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
110																					110
120																					120
130																					130
140																					140
150																					150
160																					160
Tel.	Telescoping sequence %																				Tel.
1		0			0		0		46		0		0		92		46		0		1
2		0			46		0		46		0		0		46		46		0		2
3		0			0		0		0		0		0		0		46		0		3
4		0			0		0		0		0		0		0		0		46		4
5		0			0		0		0		46		0		0		0		46		5
6		0			0		46		0		46		92		0		0		46		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5											Working radius [ft]									
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 51,808 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																				
		Boom length [ft]																				
		84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7											
		°	°	°	°	°	°	°	°	°	°	°	°									
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠									
10	81	103.5													10							
12	80	96.8	82	199.5	82	170.9	82	137.4	82	87.8					12							
14	78	91.0	80	199.5	80	170.9	80	131.7	80	83.1					14							
16	77	85.7	79	193.7	79	170.9	79	126.5	79	78.7	80	154.3	80	127.9	80	112.4	80	75.0			16	
18	76	81.2	78	179.6	78	170.9	78	121.8	78	74.4	80	154.3	80	127.9	80	112.4	80	72.6	81	120.2	18	
20	74	77.0	77	163.5	77	167.9	77	117.3	77	70.2	79	151.9	79	127.9	79	112.4	79	70.3	80	120.2	20	
25	71	68.4	74	119.7	74	125.4	74	107.8	74	61.3	76	116.2	76	119.1	76	110.1	76	63.4	78	111.1	25	
30	67	61.4	71	91.8	71	97.0	71	99.5	71	54.1	74	90.1	74	95.6	74	100.9	74	57.2	76	88.9	30	
35	63	55.5	68	73.2	68	78.1	68	87.3	68	48.5	71	72.7	71	77.7	71	82.8	71	51.8	74	72.4	35	
40	59	50.4	65	60.0	65	64.7	65	73.4	65	43.8	68	60.2	68	65.0	68	69.8	68	47.4	71	60.1	40	
45	55	46.2	61	51.6	61	56.8	61	64.5	61	40.2	65	53.3	65	58.0	65	62.4	65	43.5	68	50.7	45	
50	50	42.7	57	42.8	57	48.0	57	55.2	57	37.0	63	45.6	63	50.0	63	54.1	63	40.2	66	44.3	50	
55	45	39.7	53	35.0	53	40.1	53	47.1	53	34.2	59	38.3	59	42.6	59	46.5	59	37.3	63	38.8	55	
60	40	37.0	49	28.6	49	33.6	49	40.7	49	31.8	56	31.8	56	36.2	56	40.0	56	34.9	61	33.7	60	
65	34	34.7	45	23.5	45	28.2	45	35.5	45	29.6	52	26.5	52	30.7	52	34.6	52	32.7	58	28.8	65	
70	25	32.6	41	19.5	41	23.9	41	31.3	41	27.8	49	22.0	49	26.3	49	30.4	49	30.8	55	24.4	70	
75			36	16.2	36	20.2	36	27.6	36	26.3	45	18.3	45	22.6	45	26.8	45	28.8	52	20.5	75	
80			29	13.2	29	17.0	29	24.5	29	24.8	41	15.2	41	19.4	41	23.5	41	26.8	49	17.2	80	
85			21	10.5	21	14.5	21	22.0	21	23.7	37	12.5	37	16.7	37	20.5	37	24.8	45	14.5	85	
90											32	10.3	32	14.3	32	18.2	32	22.5	42	12.3	90	
95											26	8.3	26	12.3	26	16.2	26	20.4	38	10.3	95	
100											19	6.5	19	10.4	19	14.1	19	18.6	34	8.5	100	
110																			23	5.5	110	
120																						120
130																						130
140																						140
150																						150
160																						160
Tel.	Telescoping sequence [%]											Tel.										
1	0	92	46	0	0	92	46	0	0	92	46	0	0	92	1							
2	0	46	46	0	0	46	46	46	0	46	46	46	0	46	2							
3	0	46	46	46	0	46	46	46	0	46	46	46	0	46	3							
4	0	0	46	46	0	46	46	46	46	46	46	46	46	46	4							
5	46	0	0	46	92	0	46	46	92	46	46	92	46	46	5							
6	92	0	0	46	92	0	0	46	92	0	0	46	92	0	6							

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force F in ton [US]
 Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704312
Counterweight 51,808 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																		Working radius [ft]			
	84.6		98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9			125.7		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		m	F	
10	103.5	41.9																				10
12	96.8	43.1	199.5	79.2	170.9	69.1	137.4	56.6	87.8	40.1												12
14	91.0	44.2	199.5	85.5	170.9	74.5	131.7	58.9	83.1	41.3												14
16	85.7	45.2	193.7	89.6	170.9	80.0	126.5	61.1	78.7	42.3	154.3	74.2	127.9	63.1	112.4	56.1	75.0	65.7	120.2	64.7		16
18	81.2	46.1	179.6	89.8	170.9	85.4	121.8	63.1	74.4	43.1	154.3	79.2	127.9	67.3	112.4	59.8	72.6	42.2	120.2	68.7		18
20	77.0	47.1	163.5	88.8	167.9	89.4	117.3	65.1	70.2	43.9	151.9	83.1	127.9	71.4	112.4	63.4	70.3	43.7	111.1	74.0		20
25	68.4	49.1	119.7	79.8	125.4	81.2	107.8	69.7	61.3	45.3	116.2	77.3	119.1	77.3	110.1	71.3	63.4	46.0	88.9	70.7		25
30	61.4	51.0	91.8	74.1	97.0	75.5	99.5	73.7	54.1	46.5	90.1	72.3	95.6	73.7	100.9	74.9	57.2	47.9	72.4	67.8		30
35	55.5	52.5	73.2	70.3	78.1	71.6	87.3	73.8	48.5	47.6	72.7	69.1	77.7	70.3	82.8	71.5	51.8	49.4	60.1	65.6		35
40	50.4	53.8	60.0	67.9	64.7	69.1	73.4	71.2	43.8	48.7	60.2	66.9	65.0	68.1	69.8	69.3	47.4	50.8	50.7	64.0		40
45	46.2	55.1	51.6	67.2	56.8	69.0	64.5	70.4	40.2	49.9	53.3	67.4	58.0	68.6	62.4	69.6	43.5	52.0	44.3	63.6		45
50	42.7	56.3	42.8	65.0	48.0	66.8	55.2	68.0	37.0	51.0	45.6	66.1	50.0	67.1	54.1	67.9	40.2	53.2	38.8	63.2		50
55	39.7	57.5	35.0	62.6	40.1	64.5	47.1	65.7	34.2	52.0	38.3	64.2	42.6	65.2	46.5	65.9	37.3	54.3	33.7	62.4		55
60	37.0	58.8	28.6	60.6	33.6	62.6	40.7	63.8	31.8	53.0	31.8	62.2	36.2	63.4	40.0	64.0	34.9	55.5	28.8	61.1		60
65	34.7	59.9	23.5	59.0	28.2	60.8	35.5	62.3	29.6	53.9	26.5	60.4	30.7	61.5	34.6	62.3	32.7	46.6	24.4	59.6		65
70	32.6	61.0	19.5	57.8	23.9	59.3	31.3	61.1	27.8	55.0	22.0	58.8	26.3	60.1	30.4	61.1	30.8	57.6	20.5	58.2		70
75			16.2	56.9	20.2	58.1	27.6	60.0	26.3	56.0	18.3	57.5	22.6	58.9	26.8	60.0	28.8	58.4	17.2	57.0		75
80			13.2	56.1	17.0	57.1	24.5	59.2	24.8	57.0	15.2	56.6	19.4	57.9	23.5	59.0	26.8	58.8	14.5	56.1		80
85			10.5	55.4	14.5	56.5	22.0	58.7	23.7	58.2	12.5	55.8	16.7	57.1	20.5	57.8	24.8	59.0	12.3	55.5		85
90											10.3	55.1	14.3	56.3	18.2	57.2	22.5	58.3	10.3	55.0		90
95											8.3	54.6	12.3	55.7	16.2	56.6	20.4	57.8	8.5	54.5		95
100											6.5	54.1	10.4	55.3	14.1	56.0	18.6	57.4	5.5	53.6		100
110																						110
120																						120
130																						130
140																						140
150																						150
160																						160
Tel.	Telescoping sequence %																				Tel.	
1	0		92		46		0		0		92		46		0		0		92		1	
2	0		46		46		0		0		46		46		46		0		46		2	
3	0		46		46		46		0		46		46		46		0		46		3	
4	0		0		46		46		0		46		46		46		46		46		4	
5	46		0		0		46		92		0		46		46		92		46		5	
6	92		0		0		46		92		0		0		46		92		0		6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5										Working radius [ft]									
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 51,808 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																			
		Boom length [ft]																			
		125.7	125.7	139.4	139.4	139.4	139.4	153.2	153.2	153.2	167.0										
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠										
10													10								
12													12								
14													14								
16													16								
18	81	95.9	81	66.1									18								
20	80	95.9	80	65.8	82	95.9	82	82.9	82	69.4	82	56.2	20								
25	78	95.9	78	61.5	79	95.9	79	82.9	79	69.4	79	56.2	80	76.1	80	55.8	80	47.2			25
30	76	94.2	76	56.9	78	84.8	78	82.2	78	69.3	78	55.1	79	75.9	79	55.6	79	47.2	80	62.8	30
35	74	77.3	74	52.2	76	69.3	76	72.2	76	66.4	76	52.5	77	69.0	77	52.8	77	47.2	78	62.8	35
40	71	64.9	71	47.3	74	57.7	74	60.6	74	61.8	74	49.1	76	58.0	76	50.0	76	47.0	77	56.3	40
45	68	55.4	68	43.3	71	48.6	71	51.5	71	55.0	71	45.3	73	49.4	73	47.8	73	45.3	75	48.1	45
50	66	48.8	66	39.8	69	41.4	69	44.2	69	48.2	69	41.9	72	42.4	72	45.2	72	42.8	74	41.3	50
55	63	43.2	63	36.8	67	35.6	67	38.5	67	42.6	67	39.0	70	36.4	70	41.5	70	40.3	72	35.6	55
60	61	38.0	61	34.2	65	31.2	65	34.1	65	38.4	65	36.4	68	31.6	68	37.1	68	37.9	71	30.9	60
65	58	32.8	58	31.8	62	27.4	62	30.4	62	34.0	62	34.0	66	28.2	66	34.1	66	35.2	68	27.5	65
70	55	28.5	55	29.8	60	23.7	60	26.6	60	30.1	60	31.5	64	25.0	64	30.9	64	32.6	67	24.8	70
75	52	24.8	52	27.8	58	20.2	58	22.9	58	26.5	58	29.1	62	22.0	62	27.6	62	29.7	65	22.1	75
80	49	21.5	49	26.0	55	17.0	55	19.6	55	23.3	55	26.7	59	19.2	59	24.2	59	26.6	63	19.4	80
85	45	18.7	45	24.4	52	14.3	52	16.9	52	20.2	52	24.4	57	16.5	57	21.5	57	23.8	61	16.7	85
90	42	16.3	42	22.2	49	12.1	49	14.5	49	17.9	49	21.9	55	13.9	55	19.2	55	21.5	59	14.3	90
95	38	14.2	38	20.2	46	10.0	46	12.4	46	15.8	46	19.8	52	11.7	52	16.9	52	19.4	57	12.3	95
100	34	12.3	34	18.4	43	8.1	43	10.5	43	14.0	43	18.0	49	9.8	49	15.0	49	17.3	54	10.5	100
110	23	9.4	23	15.2	36	5.1	36	7.5	36	10.8	36	14.8	44	6.8	44	11.9	44	14.1	50	7.3	110
120					27	2.4	27	4.9	27	8.4	27	12.2	38	4.4	38	9.2	38	11.5	45	4.7	120
130																29	7.0	29	9.5		130
140																16	5.4	16	7.6		140
150																					150
160																					160
Tel.	Telescoping sequence [%]											Tel.									
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	1
2	46	0	92	46	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	2
3	46	0	46	46	46	46	46	46	46	46	46	46	46	46	92	92	46	92	92	46	3
4	46	92	46	46	46	92	46	46	92	46	46	46	46	46	92	46	46	92	46	46	4
5	46	92	46	46	46	92	46	46	92	46	46	92	46	92	92	92	46	92	46	46	5
6	46	92	0	46	92	92	46	92	92	46	92	92	46	92	92	92	46	92	46	46	6

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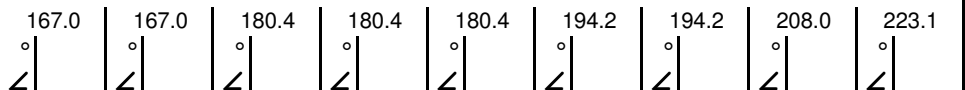


Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704312
Counterweight 51,808 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																		Working radius [ft]					
	125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2			167.0				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		m	F			
10																						10		
12																							12	
14																							14	
16																							16	
18	95.9	53.6	66.1	39.7																			18	
20	95.9	56.9	65.8	41.8	95.9	58.3	82.9	42.9	69.4	44.8	56.2	37.7											20	
25	95.9	64.9	61.5	45.2	95.9	66.6	82.9	59.1	69.4	50.9	56.2	42.6	76.1	55.8	55.8	43.6	47.2	38.3					25	
30	94.2	71.9	56.9	47.8	84.8	68.4	82.2	65.9	69.3	56.9	55.1	46.9	75.9	62.5	55.6	48.5	47.2	42.6	62.8	54.8			30	
35	77.3	68.9	52.2	49.8	69.3	65.9	72.2	66.6	66.4	61.1	52.5	50.0	69.0	64.7	52.8	51.8	47.2	47.0	62.8	60.7			35	
40	64.9	66.8	47.3	50.9	57.7	64.0	60.6	64.8	61.8	63.6	49.1	52.2	58.0	63.1	50.0	54.6	47.0	51.1	56.3	61.8			40	
45	55.4	65.1	43.3	52.0	48.6	62.5	51.5	63.3	55.0	63.8	45.3	53.6	49.4	61.9	47.8	57.6	45.3	54.1	48.1	60.6			45	
50	48.8	64.7	39.8	53.0	41.4	61.2	44.2	62.0	48.2	63.0	41.9	54.9	42.4	60.7	45.2	59.8	42.8	56.1	41.3	59.6			50	
55	43.2	64.3	36.8	54.0	35.6	60.4	38.5	61.3	42.6	62.5	39.0	56.1	36.4	59.6	41.5	60.7	40.3	57.8	35.6	58.7			55	
60	38.0	63.5	34.2	54.9	31.2	60.1	34.1	61.2	38.4	62.5	36.4	57.2	31.6	58.9	37.1	60.5	37.9	59.3	30.9	58.0			60	
65	32.8	62.0	31.8	55.8	27.4	59.8	30.4	61.1	34.0	61.8	34.0	58.2	28.2	59.0	34.1	61.0	35.2	60.1	27.5	58.0			65	
70	28.5	60.6	29.8	56.6	23.7	59.0	26.6	60.2	30.1	60.9	31.5	58.7	25.0	58.7	30.9	60.9	32.6	60.6	24.8	58.2			70	
75	24.8	59.5	27.8	57.4	20.2	58.0	22.9	59.0	26.5	59.9	29.1	59.0	22.0	58.3	27.6	60.1	29.7	60.4	22.1	58.1			75	
80	21.5	58.4	26.0	58.0	17.0	56.9	19.6	57.9	23.3	58.8	26.7	59.0	19.2	57.7	24.2	59.0	26.6	59.6	19.4	57.7			80	
85	18.7	57.5	24.4	58.5	14.3	56.1	16.9	57.1	20.2	57.7	24.4	58.7	16.5	56.9	21.5	58.3	23.8	58.6	16.7	56.9			85	
90	16.3	56.7	22.2	58.1	12.1	55.5	14.5	56.3	17.9	56.9	21.9	57.8	13.9	55.9	19.2	57.6	21.5	58.1	14.3	56.1			90	
95	14.2	55.9	20.2	57.7	10.0	59.4	12.4	55.5	15.8	56.3	19.8	57.2	11.7	55.0	16.9	56.7	19.4	57.4	12.3	55.5			95	
100	12.3	55.3	18.4	57.2	8.1	54.2	10.5	54.9	14.0	55.8	18.0	56.8	9.8	54.3	15.0	56.0	17.3	56.5	10.5	55.0			100	
110	9.4	54.8	15.2	56.3	5.1	53.3	7.5	54.1	10.8	54.8	14.8	55.8	6.8	53.5	11.9	55.3	14.1	55.6	7.3	53.9			110	
120					2.4	52.1	4.9	53.2	8.4	54.2	12.2	55.0	4.4	52.9	9.2	54.2	11.5	54.7	4.7	53.0			120	
130															7.0	53.6	9.5	54.4					130	
140														5.4	53.4	7.6	53.9						140	
150																							150	
160																							160	
Tel.	Telecoping sequence %																				Tel.			
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	1	
2	46	0	92	46	46	0	92	46	46	0	92	46	46	0	92	46	46	0	92	46	46	0	92	2
3	46	0	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	3
4	46	92	46	46	46	92	46	46	46	92	46	46	46	92	46	46	92	46	46	92	46	46	46	4
5	46	92	46	46	46	92	46	46	92	46	92	46	46	92	46	92	46	92	46	92	46	46	46	5
6	46	92	0	46	92	92	46	92	92	46	92	92	46	92	92	46	92	92	46	92	92	46	46	6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

 Load rating chart ATF 220G-5																				
Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 51,808 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																				
Working radius [ft]																				
Boom length [ft]																				
167.0 167.0 180.4 180.4 180.4 194.2 194.2 208.0 223.1																				
																				
10																				10
12																				12
14																				14
16																				16
18																				18
20																				20
25																				25
30	80	49.8	80	41.7	81	50.7	81	42.3	81	37.3										30
35	78	49.8	78	41.7	79	50.7	79	42.3	79	37.3	80	41.4	80	33.1						35
40	77	49.6	77	41.7	79	50.3	79	42.3	79	37.3	79	41.4	79	33.1	80	33.1	81	30.4		40
45	75	47.6	75	41.7	77	46.7	77	42.3	77	37.3	77	41.4	77	33.1	79	33.1	80	30.4		45
50	74	43.6	74	41.0	76	41.0	76	41.2	76	37.3	76	39.3	76	33.1	78	33.1	79	30.4		50
55	72	38.9	72	39.3	74	35.5	74	38.1	74	37.0	75	35.6	75	33.1	77	32.7	78	30.1		55
60	71	34.2	71	36.7	73	30.8	73	33.4	73	35.9	74	31.0	74	32.6	76	31.5	77	29.1		60
65	68	31.0	68	34.1	71	26.9	71	29.6	71	32.0	72	27.2	72	29.9	74	27.8	75	26.7		65
70	67	27.8	67	31.4	69	23.7	69	26.3	69	28.6	71	24.0	71	26.7	73	24.7	74	24.0		70
75	65	25.0	65	28.7	67	21.0	67	23.6	67	25.9	69	21.6	69	24.2	72	21.9	73	21.3		75
80	63	22.4	63	26.0	66	18.9	66	21.4	66	23.7	68	19.6	68	22.2	71	19.6	72	18.9		80
85	61	19.6	61	23.3	64	16.7	64	19.5	64	21.7	66	17.5	66	20.2	69	18.0	71	16.9		85
90	59	17.2	59	20.9	62	14.8	62	17.5	62	19.7	65	15.7	65	18.3	68	16.1	70	15.3		90
95	57	15.0	57	18.7	60	13.0	60	15.5	60	17.7	63	13.8	63	16.4	66	14.5	68	13.9		95
100	54	13.1	54	16.7	59	11.2	59	13.6	59	15.8	62	12.0	62	14.5	65	13.0	67	12.6		100
110	50	9.9	50	13.5	55	8.0	55	10.4	55	12.4	58	9.0	58	11.4	61	9.9	64	9.9		110
120	45	7.3	45	11.0	50	5.4	50	7.6	50	9.8	54	6.4	54	8.8	58	7.3	61	7.3		120
130	39	5.3	39	8.8	46	3.3	46	5.5	46	7.6	50	4.2	50	6.6	54	5.1	58	5.1		130
140	32	3.6	32	7.0			40	3.8	40	5.9	46	2.2	46	4.8	51	3.4	54	3.4		140
150			23	5.4					34	4.3			41	3.2						150
160									26	3.0										160
Tel.	telescoping sequence [%]																			Tel.
1	92	0	92	46	0	92	46	92	100	1										
2	46	46	92	92	92	92	92	92	92	2										
3	46	92	92	92	92	92	92	92	92	3										
4	46	92	92	92	92	92	92	92	92	4										
5	92	92	46	92	92	92	92	92	92	5										
6	92	92	46	46	92	46	92	92	100	6										

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

TADANO																			
Outrigger reaction force chart ATF 220G-5																			
Outrigger reaction force F in ton [US]																			
Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704312																			
Counterweight 51,808 lbs																			
On outriggers, 360° working area																			
Outrigger fully extended, outrigger base 27.23 ft																			
Boom length [ft]																			
167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0		223.1			
m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10																			10
12																			12
14																			14
16																			16
18																			18
20																			20
25																			25
30	49.8	46.0	41.7	39.8	50.7	47.5	42.3	41.6	37.3	37.7									30
35	49.8	50.8	41.7	43.7	50.7	52.5	42.3	45.8	37.3	41.4	41.4	46.0	33.1	39.3					35
40	49.6	55.4	41.7	47.7	50.3	57.1	42.3	50.1	37.3	45.2	41.4	50.2	33.1	42.8	33.1	43.6	30.4	41.7	40
45	47.6	58.5	41.7	51.7	46.7	59.2	42.3	54.3	37.3	48.9	41.4	54.5	33.1	46.3	33.1	47.2	30.4	45.1	45
50	43.6	59.6	41.0	55.0	41.0	58.9	41.2	57.5	37.3	52.6	39.3	56.8	33.1	49.8	33.1	50.7	30.4	48.5	50
55	38.9	59.6	39.3	57.4	35.5	58.0	38.1	58.7	37.0	56.1	35.6	57.4	33.1	53.3	32.7	54.0	30.1	51.5	55
60	34.2	59.0	36.7	58.7	30.8	57.3	33.4	58.0	35.9	58.6	31.0	56.7	32.6	56.2	31.5	56.3	29.1	53.9	60
65	31.0	59.3	34.1	59.4	26.9	56.8	29.6	57.5	32.0	58.2	27.2	56.1	29.9	56.8	27.8	55.8	26.7	54.7	65
70	27.8	59.0	31.4	59.8	23.7	56.3	26.3	57.0	28.6	57.6	24.0	55.8	26.7	56.5	24.7	55.4	24.0	54.6	70
75	25.0	58.8	28.7	59.8	21.0	56.2	23.6	56.9	25.9	57.5	21.6	55.8	24.2	56.5	21.9	55.1	21.3	54.3	75
80	22.4	58.5	26.0	59.4	18.9	56.3	21.4	57.0	23.7	57.7	19.6	56.1	22.2	56.8	19.6	55.0	18.9	54.1	80
85	19.6	57.6	23.3	58.7	16.7	56.1	19.5	57.2	21.7	57.8	17.5	56.1	20.2	56.9	18.0	55.4	16.9	54.0	85
90	17.2	56.8	20.9	58.0	14.8	55.9	17.5	57.0	19.7	57.5	15.7	56.0	18.3	56.8	16.1	55.3	15.3	54.2	90
95	15.0	56.0	18.7	57.2	13.0	55.6	15.5	56.4	17.7	57.0	13.8	60.3	16.4	56.3	14.5	55.2	13.9	54.4	95
100	13.1	55.4	16.7	56.4	11.2	55.1	13.6	55.8	15.8	56.4	12.0	55.2	14.5	55.7	13.0	55.2	12.6	54.6	100
110	9.9	54.3	13.5	55.4	8.0	54.0	10.4	54.8	12.4	55.1	9.0	54.4	11.4	55.0	9.9	54.3	9.9	54.3	110
120	7.3	53.2	11.0	54.8	5.4	53.1	7.6	53.5	9.8	54.2	6.4	53.5	8.8	54.0	7.3	53.5	7.3	53.4	120
130	5.3	53.0	8.8	54.2	3.3	52.6	5.5	53.1	7.6	53.4	4.2	52.7	6.6	53.3	5.1	52.6	5.1	52.6	130
140	3.6	52.6	7.0	53.6			3.8	52.7	5.9	53.3	2.2	51.8	4.8	52.7	3.4	52.1	3.4	52.2	140
150			5.4	53.2					4.3	52.6			3.2	52.2					150
160									3.0	52.3									160
Tel.	Telescoping sequence %																		Tel.
1	92		0		92		46		0		92		46		92		100		1
2	46		46		92		92		92		92		92		92		100		2
3	46		92		92		92		92		92		92		92		100		3
4	46		92		92		92		92		92		92		92		100		4
5	92		92		46		92		92		92		92		92		100		5
6	92		92		46		46		92		46		92		92		100		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account


Working radius [ft]		Load rating chart ATF 220G-5																Working radius [ft]			
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 51,808 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																			
		Boom length [ft]																			
		43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6			
		°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°			
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠			
10	70	320.6*	75	306.5*	75	134.7	79	304.7*	79	140.3	79	100.4	81	249.4*	81	227.1	81	142.7	10		
12	67	278.0*	73	275.8*	73	126.1	77	252.4*	77	132.6	77	93.1	80	219.1	80	218.2	80	135.9	12		
14	64	243.3*	71	229.2	71	118.9	75	200.0	75	125.8	75	86.7	78	176.7	78	183.1	78	129.6	14		
16	61	207.7	68	185.2	68	112.2	73	163.9	73	119.6	73	81.1	77	146.4	77	152.2	77	123.9	16		
18	58	175.4	67	156.6	67	106.5	72	139.6	72	114.3	72	76.4	76	125.4	76	130.8	76	118.9	18		
20	54	145.8	65	131.8	65	101.1	70	118.5	70	109.3	70	71.9	74	107.1	74	112.1	74	114.0	20		
25	45	95.6	59	93.1	59	90.4	65	85.7	65	96.7	65	63.0	71	78.0	71	82.5	71	95.4	25		
30	33	67.0	52	65.7	52	73.1	61	62.8	61	75.9	61	55.9	67	58.8	67	62.9	67	74.9	30		
35			45	48.9	45	55.7	56	46.3	56	58.3	56	50.5	63	44.3	63	48.1	63	59.0	35		
40			36	37.6	36	43.9	50	35.1	50	46.3	50	45.3	59	33.2	59	36.7	59	47.0	40		
45			24	29.5	24	35.5	44	27.1	44	37.9	44	37.8	55	25.1	55	28.6	55	38.4	45		
50							37	21.1	37	31.6	37	31.7	50	19.2	50	22.5	50	32.0	50		
55							29	16.4	29	26.5	29	26.7	45	14.5	45	17.6	45	26.9	55		
60							19	12.5	19	22.1	19	22.3	40	10.7	40	13.8	40	22.8	60		
65													34	7.6	34	10.7	34	19.6	65		
70													25	5.2	25	8.2	25	17.0	70		
75																			75		
80																			80		
85																			85		
90																			90		
95																			95		
100																			100		
110																			110		
120																			120		
130																			130		
Tel.		Telescoping sequence [%]																Tel.			
1	0	0	0	46	0	0	92	46	0	1											
2	0	46	0	46	0	0	46	46	0	2											
3	0	0	0	0	0	0	0	46	0	3											
4	0	0	0	0	0	0	0	0	46	4											
5	0	0	0	0	46	0	0	0	46	5											
6	0	0	46	0	46	92	0	0	46	6											

* With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Working radius [ft]		TADANO Outrigger reaction force chart ATF 220G-5																Working radius [ft]			
		Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704313 Counterweight 51,808 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 18.37 ft																			
		Boom length [ft]																			
		43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6			
		m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10	320.6	119.4	306.5	114.9	134.7	55.1	304.7	114.8	140.3	56.2	100.4	42.6	249.4	96.6	227.1	88.2	142.7	56.8	10		
12	278.0	116.1	275.8	115.5	126.1	57.5	252.4	107.2	132.6	59.2	93.1	44.2	219.1	95.3	218.2	94.0	135.9	60.1	12		
14	243.3	113.0	229.2	107.3	118.9	59.9	200.0	95.9	125.8	61.9	86.7	45.6	176.7	86.9	183.1	88.4	129.6	63.1	14		
16	207.7	106.9	185.2	97.0	112.2	62.1	163.9	88.1	119.6	64.5	81.1	47.0	146.4	80.9	152.2	82.3	123.9	66.0	16		
18	175.4	99.1	156.6	90.3	106.5	64.1	139.6	82.8	114.3	66.9	76.4	48.2	125.4	76.7	130.8	78.0	118.9	68.7	18		
20	145.8	91.5	131.8	84.6	101.1	66.0	118.5	78.3	109.3	69.2	71.9	49.4	107.1	73.1	112.1	74.3	114.0	71.2	20		
25	95.6	76.0	93.1	74.9	90.4	70.6	85.7	71.3	96.7	73.1	63.0	52.2	78.0	67.5	82.5	68.6	95.4	71.6	25		
30	67.0	66.9	65.7	66.4	73.1	68.4	62.8	65.5	75.9	68.9	55.9	54.5	58.8	63.8	62.9	64.8	74.9	67.6	30		
35			48.9	61.2	55.7	62.9	46.3	60.3	58.3	63.3	50.5	57.0	44.3	60.0	48.1	60.8	59.0	63.2	35		
40			37.6	57.8	43.9	59.4	35.1	57.0	46.3	59.6	45.3	58.6	33.2	56.6	36.7	57.3	47.0	59.4	40		
45			29.5	55.4	35.5	56.9	27.1	54.5	37.9	57.0	37.8	56.8	25.1	54.1	28.6	54.9	38.4	56.7	45		
50							21.1	52.8	31.6	55.2	31.7	55.2	19.2	52.4	22.5	53.0	32.0	54.8	50		
55							16.4	51.7	26.5	53.8	26.7	53.9	14.5	51.2	17.6	51.7	26.9	53.3	55		
60							12.5	50.9	22.1	52.5	22.3	52.6	10.7	50.3	13.8	50.8	22.8	52.1	60		
65													7.6	49.7	10.7	50.1	19.6	51.5	65		
70													5.2	49.3	8.2	49.6	17.0	50.9	70		
75																			75		
80																			80		
85																			85		
90																			90		
95																			95		
100																			100		
110																			110		
120																			120		
130																			130		
Tel.	Telescoping sequence %																Tel.				
1	0	0	0	0	46	0	0	92	46	0	1										
2	0	46	0	46	0	0	46	46	0	2											
3	0	0	0	0	0	0	0	46	0	3											
4	0	0	0	0	0	0	0	0	46	4											
5	0	0	0	0	46	0	0	0	46	5											
6	0	0	46	0	46	92	0	0	46	6											

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

 Load rating chart ATF 220G-5 Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 51,808 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																						
Working radius [ft]	Boom length [ft]												Working radius [ft]									
	84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7												
10	81	103.5																10				
12	80	96.8	82	192.2	82	170.9	82	137.4	82	87.8								12				
14	78	91.0	80	162.8	80	164.0	80	131.7	80	83.1								14				
16	77	85.7	79	136.8	79	143.3	79	126.5	79	78.7	80	129.9	80	127.9	80	112.4	80	75.0	16			
18	76	81.2	78	118.3	78	124.4	78	121.8	78	74.4	80	113.3	80	117.3	80	112.1	80	72.6	81	109.0	18	
20	74	77.0	77	102.0	77	107.6	77	116.2	77	70.2	79	98.6	79	104.3	79	110.0	79	70.3	80	95.6	20	
25	71	68.4	74	75.2	74	80.3	74	90.0	74	61.3	76	73.9	76	79.3	76	84.4	76	63.4	78	72.8	25	
30	67	61.4	71	57.4	71	62.2	71	71.2	71	54.1	74	57.2	74	62.1	74	67.1	74	57.2	76	57.1	30	
35	63	55.5	68	45.2	68	49.8	68	57.8	68	48.5	71	45.6	71	50.3	71	55.0	71	51.8	74	46.1	35	
40	59	48.5	65	34.5	65	38.9	65	46.3	65	43.8	68	36.7	68	41.3	68	45.7	68	47.1	71	37.7	40	
45	55	40.0	61	26.4	61	30.6	61	37.9	61	40.2	65	29.0	65	33.2	65	37.3	65	41.2	68	31.0	45	
50	50	33.6	57	20.4	57	24.5	57	31.5	57	34.5	63	22.9	63	27.0	63	30.8	63	35.2	66	25.0	50	
55	45	28.5	53	15.6	53	19.5	53	26.3	53	29.3	59	18.0	59	21.9	59	25.6	59	29.9	63	19.9	55	
60	40	24.3	49	11.8	49	15.5	49	22.3	49	24.9	56	13.9	56	17.9	56	21.4	56	25.6	61	15.9	60	
65	34	20.9	45	8.8	45	12.3	45	18.9	45	21.6	52	10.8	52	14.5	52	18.3	52	22.2	58	12.7	65	
70	25	18.3	41	6.2	41	9.7	41	16.3	41	19.0	49	8.2	49	11.9	49	15.5	49	19.5	55	10.1	70	
75			36	3.6	36	7.5	36	14.0	36	16.6	45	5.9	45	9.6	45	13.1	45	17.1	52	7.8	75	
80					29	5.6	29	12.0	29	14.6	41	3.9	41	7.5	41	11.0	41	15.0	49	5.7	80	
85					21	4.1	21	10.5	21	12.9				37	5.8	37	9.4	37	13.1	45	4.0	85
90														32	4.5	32	7.8	32	11.7	42	2.7	90
95														26	3.2	26	6.5	26	10.4			95
100																19	5.4	19	9.1			100
110																						110
120																						120
130																						130
Tel.	Telescoping sequence [%]												Tel.									
1	0	92	46	0	0	92	46	0	0	92	46	0	0	92	1							
2	0	46	46	0	0	46	46	46	0	46	46	46	0	46	2							
3	0	46	46	46	0	46	46	46	46	0	46	46	46	46	3							
4	0	0	46	46	0	46	46	46	46	46	46	46	46	46	4							
5	46	0	0	46	92	0	46	46	46	46	46	46	92	46	5							
6	92	0	0	46	92	0	46	46	46	46	46	92	46	0	6							

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5


Outrigger reaction force F in ton [US]
 Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704313
Counterweight 51,808 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 18.37 ft

Working radius [ft]	Boom length [ft]																		Working radius [ft]			
	84.6		98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9			125.7		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		m	F	
10	103.5	43.0																				10
12	96.8	44.9	192.2	84.8	170.9	75.7	137.4	60.7	87.8	41.2												12
14	91.0	46.6	162.8	80.7	164.0	79.9	131.7	64.1	83.1	43.1												14
16	85.7	48.1	136.8	76.0	143.3	77.5	126.5	67.3	78.7	44.8	129.9	72.2	127.9	69.9	112.4	61.4	75.0	42.8				16
18	81.2	49.7	118.3	72.7	124.4	74.1	121.8	70.2	74.4	46.0	113.3	69.5	117.3	69.9	112.1	66.0	72.6	44.9	109.0	66.6		18
20	77.0	51.1	102.0	69.8	107.6	71.1	116.2	72.5	70.2	47.2	98.6	67.2	104.3	68.4	110.0	69.6	70.3	46.9	95.6	64.7		20
25	68.4	54.2	75.2	65.0	80.3	66.2	90.0	68.5	61.3	49.5	73.9	63.2	79.3	64.5	84.4	65.6	63.4	50.5	72.8	61.5		25
30	61.4	57.1	57.4	61.8	62.2	63.1	71.2	65.1	54.1	51.4	57.2	60.5	62.1	61.6	67.1	62.9	57.2	53.3	57.1	59.2		30
35	55.5	59.4	45.2	59.7	49.8	60.9	57.8	62.5	48.5	53.3	45.6	58.8	50.3	59.9	55.0	61.0	51.8	55.5	46.1	57.7		35
40	48.5	59.6	34.5	56.6	38.9	57.8	46.3	59.0	43.8	55.0	36.7	57.2	41.3	58.4	45.7	59.3	47.1	57.3	37.7	56.5		40
45	40.0	56.9	26.4	54.1	30.6	55.2	37.9	56.5	40.2	56.7	29.0	55.1	33.2	56.1	37.3	56.7	41.2	57.0	31.0	55.4		45
50	33.6	55.1	20.4	52.4	24.5	53.4	31.5	54.4	34.5	55.5	22.9	53.4	27.0	54.2	30.8	54.7	35.2	55.5	25.0	53.7		50
55	28.5	53.7	15.6	51.1	19.5	52.0	26.3	52.8	29.3	53.8	18.0	51.9	21.9	52.7	25.6	53.1	29.9	53.9	19.9	52.2		55
60	24.3	52.4	11.8	50.1	15.5	50.9	22.3	51.8	24.9	52.5	13.9	50.8	17.9	51.6	21.4	51.9	25.6	52.6	15.9	51.1		60
65	20.9	51.5	8.8	49.4	12.3	50.0	18.9	50.8	21.6	51.6	10.8	49.9	14.5	50.6	18.3	51.1	22.2	51.7	12.7	50.2		65
70	18.3	50.9	6.2	48.8	9.7	49.4	16.3	50.3	19.0	51.0	8.2	49.3	11.9	50.0	15.5	50.4	19.5	50.9	10.1	49.6		70
75			3.6	48.2	7.5	48.9	14.0	49.7	16.6	50.5	5.9	48.8	9.6	49.5	13.1	49.7	17.1	50.3	7.8	49.0		75
80					5.6	48.7	12.0	49.2	14.6	50.1	3.9	48.5	7.5	48.9	11.0	49.2	15.0	49.7	5.7	48.5		80
85					4.1	48.7	10.5	49.2	12.9	49.8			5.8	48.6	9.4	48.9	13.1	49.2	4.0	48.1		85
90													4.5	48.5	7.8	48.6	11.7	49.1	2.7	48.0		90
95													3.2	48.5	6.5	48.4	10.4	48.9				95
100														48.5	5.4	48.3	9.1	48.4				100
110																						110
120																						120
130																						130
Tel.	Telescoping sequence %																				Tel.	
1	0		92		46		0		0		92		46		0		0		92		1	
2	0		46		46		0		0		46		46		46		0		46		2	
3	0		46		46		46		0		46		46		46		0		46		3	
4	0		0		46		46		0		46		46		46		46		46		4	
5	46		0		0		46		92		0		46		46		92		46		5	
6	92		0		0		46		92		0		0		46		92		0		6	


The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5												Working radius [ft]							
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 51,808 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																			
Working radius [ft]		Boom length [ft]												Working radius [ft]							
		125.7	125.7	139.4	139.4	139.4	139.4	153.2	153.2	153.2	167.0										
		°	°	°	°	°	°	°	°	°	°	°	°								
		∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠								
10																10					
12																12					
14																14					
16																16					
18	81	95.9	81	66.1												18					
20	80	94.9	80	65.8	82	89.8	82	82.6	82	69.4	82	56.2				20					
25	78	78.1	78	61.5	79	69.0	79	72.1	79	69.4	79	56.2	80	68.1	80	55.8	80	47.2			25
30	76	61.9	76	56.9	78	54.3	78	57.3	78	61.5	78	55.1	79	54.3	79	55.6	79	47.2	80	52.6	30
35	74	50.7	74	52.2	76	43.9	76	46.8	76	50.8	76	52.5	77	44.5	77	50.1	77	47.2	78	43.1	35
40	71	42.1	71	47.1	74	36.0	74	38.7	74	42.6	74	47.3	76	36.7	76	42.4	76	45.1	77	35.9	40
45	68	35.0	68	41.0	71	29.8	71	32.5	71	36.2	71	40.9	73	30.9	73	36.2	73	38.9	75	30.2	45
50	66	28.9	66	35.0	69	24.6	69	27.1	69	30.5	69	34.8	72	26.1	72	31.2	72	33.7	74	25.5	50
55	63	23.9	63	29.8	67	19.9	67	22.3	67	25.6	67	29.5	70	21.7	70	26.7	70	29.0	72	21.6	55
60	61	19.9	61	25.6	65	15.9	65	18.1	65	21.4	65	25.2	68	17.7	68	22.5	68	24.7	71	18.1	60
65	58	16.5	58	22.0	62	12.5	62	14.9	62	18.1	62	21.8	66	14.3	66	19.2	66	21.4	68	14.7	65
70	55	13.7	55	19.2	60	9.9	60	12.2	60	15.3	60	19.0	64	11.7	64	16.4	64	18.6	67	12.1	70
75	52	11.4	52	16.8	58	7.7	58	9.9	58	13.0	58	16.6	62	9.3	62	14.0	62	16.2	65	9.8	75
80	49	9.5	49	14.7	55	5.7	55	7.9	55	11.0	55	14.5	59	7.3	59	11.9	59	14.1	63	7.7	80
85	45	7.6	45	12.9	52	3.9	52	6.1	52	9.2	52	12.7	57	5.6	57	10.0	57	12.2	61	6.1	85
90	42	6.2	42	11.5			49	4.7	49	7.6	49	11.1	55	4.1	55	8.5	55	10.7	59	4.5	90
95	38	4.9	38	10.2			46	3.3	46	6.3	46	9.8			52	7.2	52	9.3	57	3.2	95
100	34	3.7	34	8.9					43	5.1	43	8.7			49	6.0	49	8.1			100
110			23	6.9					36	3.1	36	6.7			44	4.0	44	6.0			110
120											27	5.0			38	2.3	38	4.4			120
130																	29	3.0			130
Tel.		Telescoping sequence [%]												Tel.							
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	1
2	46	0	92	46	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	2
3	46	0	46	46	46	46	46	46	46	46	46	46	46	46	92	92	46	92	46	46	3
4	46	92	46	46	46	92	46	46	92	46	46	46	46	46	92	46	92	46	46	46	4
5	46	92	46	46	46	92	46	46	92	46	46	46	46	92	46	92	46	46	46	46	5
6	46	92	0	46	92	92	92	46	92	46	92	46	92	46	92	46	92	46	46	46	6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

 Outrigger reaction force chart ATF 220G-5																					
Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704313 Counterweight 51,808 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 18.37 ft																					
Working radius [ft]	Boom length [ft]																				Working radius [ft]
	125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2		167.0		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10																					10
12																					12
14																					14
16																					16
18	95.9	58.9	66.1	41.9																	18
20	94.9	62.6	65.8	44.7	89.8	61.8	82.6	57.0	69.4	48.5	56.2	39.7									20
25	78.1	62.6	61.5	49.4	69.0	59.2	72.1	59.9	69.4	56.6	56.2	46.2	68.1	57.7	55.8	47.6	47.2	41.0			25
30	61.9	60.2	56.9	53.1	54.3	57.3	57.3	58.1	61.5	59.0	55.1	52.0	54.3	56.2	55.6	54.1	47.2	46.7	52.6	54.8	30
35	50.7	58.7	52.2	55.9	43.9	56.1	46.8	56.8	50.8	57.6	52.5	56.3	44.5	55.2	50.1	56.4	47.2	52.5	43.1	53.9	35
40	42.1	57.5	47.1	57.4	36.0	55.1	38.7	55.8	42.6	56.7	47.3	57.7	36.7	54.3	42.4	55.7	45.1	56.2	35.9	53.3	40
45	35.0	56.1	41.0	57.1	29.8	54.3	32.5	55.1	36.2	55.8	40.9	57.0	30.9	53.8	36.2	55.0	38.9	55.5	30.2	52.9	45
50	28.9	54.4	35.0	55.5	24.6	53.4	27.1	54.1	30.5	54.5	34.8	55.3	26.1	53.3	31.2	54.4	33.7	54.9	25.5	52.6	50
55	23.9	53.0	29.8	53.9	19.9	52.4	22.3	52.8	25.6	53.2	29.5	53.7	21.7	52.5	26.7	53.5	29.0	53.9	21.6	52.2	55
60	19.9	51.9	25.6	52.7	15.9	51.3	18.1	51.6	21.4	52.0	25.2	52.3	17.7	51.4	22.5	52.3	24.7	52.5	18.1	51.6	60
65	16.5	50.9	22.0	51.6	12.5	50.3	14.9	50.9	18.1	51.0	21.8	51.4	14.3	50.4	19.2	51.4	21.4	51.6	14.7	50.7	65
70	13.7	50.1	19.2	50.8	9.9	49.6	12.2	50.1	15.3	50.3	19.0	50.6	11.7	49.8	16.4	50.6	18.6	50.8	12.1	50.1	70
75	11.4	49.5	16.8	50.1	7.7	49.1	9.9	49.5	13.0	49.7	16.6	49.9	9.3	49.2	14.0	49.9	16.2	50.2	9.8	49.5	75
80	9.5	49.1	14.7	49.6	5.7	48.7	7.9	49.1	11.0	49.3	14.5	49.3	7.3	48.6	11.9	49.3	14.1	49.7	7.7	49.0	80
85	7.6	48.6	12.9	49.0	3.9	48.1	6.1	48.6	9.2	48.7	12.7	48.8	5.6	48.4	10.0	48.8	12.2	49.2	6.1	48.7	85
90	6.2	48.5	11.5	49.0			4.7	48.5	7.6	48.4	11.1	48.5	4.1	47.9	8.5	48.4	10.7	48.7	4.5	48.4	90
95	4.9	48.2	10.2	48.7			3.3	48.2	6.3	48.2	9.8	48.3			7.2	48.2	9.3	48.4	3.2	48.2	95
100	3.7	47.9	8.9	48.5					5.1	48.0	8.7	48.1			6.0	48.0	8.1	48.1			100
110			6.9	48.3					3.1	47.8	6.7	47.9			4.0	47.8	6.0	47.9			110
120											5.0	47.8			2.3	47.6	4.4	47.7			120
130															3.0	47.7					130
Tel.	Telescoping sequence %																				Tel.
1	46		0		92		92		46		0		92		46		0		92		1
2	46		0		92		46		46		0		92		46		0		92		2
3	46		0		46		46		46		46		46		46		92		92		3
4	46		92		46		46		46		92		46		46		92		46		4
5	46		92		46		46		46		92		46		92		92		46		5
6	46		92		0		46		92		92		46		92		92		46		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

 Load rating chart ATF 220G-5																	
Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 51,808 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																	
Working radius [ft]	Boom length [ft]										Working radius [ft]						
	167.0 °	167.0 °	180.4 °	180.4 °	180.4 °	194.2 °	194.2 °	208.0 °									
10											10						
12											12						
14											14						
16											16						
18											18						
20											20						
25											25						
30	80	49.8	80	41.7	81	50.0	81	42.3	81	37.3	30						
35	78	46.3	78	41.7	79	42.3	79	42.3	79	37.3	80	40.7	80	33.1	35		
40	77	39.0	77	41.1	79	35.5	79	38.1	79	36.9	79	35.3	79	32.9	80	32.7	40
45	75	33.3	75	36.7	77	29.9	77	32.6	77	34.4	77	30.1	77	31.9	79	29.9	45
50	74	28.5	74	32.2	76	25.5	76	28.0	76	30.4	76	25.7	76	28.3	78	26.0	50
55	72	24.4	72	28.0	74	21.7	74	24.1	74	26.5	75	22.0	75	24.6	77	22.4	55
60	71	20.7	71	24.3	73	18.4	73	20.8	73	23.0	74	18.9	74	21.3	76	19.4	60
65	68	17.4	68	20.9	71	15.6	71	17.8	71	19.8	72	16.2	72	18.6	74	16.8	65
70	67	14.6	67	18.1	69	12.9	69	15.1	69	17.0	71	13.7	71	15.9	73	14.6	70
75	65	12.3	65	15.6	67	10.5	67	12.7	67	14.6	69	11.3	69	13.5	72	12.4	75
80	63	10.3	63	13.5	66	8.6	66	10.6	66	12.5	68	9.3	68	11.5	71	10.3	80
85	61	8.5	61	11.8	64	6.7	64	8.9	64	10.7	66	7.6	66	9.8	69	8.5	85
90	59	7.0	59	10.3	62	5.2	62	7.4	62	9.2	65	6.1	65	8.3	68	7.0	90
95	57	5.7	57	8.9	60	3.9	60	6.0	60	7.9	63	4.7	63	6.9	66	5.7	95
100	54	4.5	54	7.6	59	2.7	59	4.8	59	6.7	62	3.4	62	5.6	65	4.5	100
110	50	2.5	50	5.6			55	2.7	55	4.5			58	3.6			110
120			45	3.9					50	2.8							120
130			39	2.4													130
Tel.	telescoping sequence [%]										Tel.						
1	92	0	92	46	0	92	46	92	46	92	1						
2	46	46	92	92	92	92	92	92	92	92	2						
3	46	92	92	92	92	92	92	92	92	92	3						
4	46	92	92	92	92	92	92	92	92	92	4						
5	92	92	46	92	92	92	92	92	92	92	5						
6	92	92	46	46	92	46	92	46	92	92	6						

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Working radius [ft]		Outrigger reaction force chart ATF 220G-5																Working radius [ft]	
		Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704313 Counterweight 51,808 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 18.37 ft																	
		Boom length [ft]																	
		167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0			
		m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10																			10
12																			12
14																			14
16																			16
18																			18
20																			20
25																			25
30	49.8	51.1	41.7	43.2	50.0	52.5	42.3	45.6	37.3	40.7								30	
35	46.3	54.5	41.7	48.4	42.3	52.8	42.3	51.3	37.3	45.6	40.7	50.9	33.1	43.0				35	
40	39.0	53.9	41.1	53.2	35.5	52.3	38.1	52.9	36.9	50.2	35.3	51.5	32.9	47.5	32.7	48.3		40	
45	33.3	48.7	36.7	54.0	29.9	52.0	32.6	52.6	34.4	52.6	30.1	51.3	31.9	51.1	29.9	50.1		45	
50	28.5	53.1	32.2	53.9	25.5	51.7	28.0	52.2	30.4	52.9	25.7	51.1	28.3	51.6	26.0	50.3		50	
55	24.4	52.6	28.0	53.4	21.7	51.5	24.1	52.0	26.5	52.6	22.0	50.9	24.6	51.4	22.4	50.2		55	
60	20.7	52.0	24.3	52.7	18.4	51.3	20.8	51.7	23.0	52.1	18.9	50.8	21.3	51.2	19.4	50.2		60	
65	17.4	50.9	20.9	51.7	15.6	51.0	17.8	51.2	19.8	51.5	16.2	50.7	18.6	51.1	16.8	50.2		65	
70	14.6	50.1	18.1	51.0	12.9	50.3	15.1	50.5	17.0	50.7	13.7	50.2	15.9	50.4	14.6	50.2		70	
75	12.3	49.6	15.6	50.2	10.5	49.7	12.7	49.8	14.6	50.0	11.3	49.6	13.5	49.7	12.4	49.8		75	
80	10.3	49.2	13.5	49.5	8.6	49.3	10.6	49.3	12.5	49.4	9.3	49.1	11.5	49.2	10.3	49.2		80	
85	8.5	48.7	11.8	49.3	6.7	48.8	8.9	49.0	10.7	48.9	7.6	48.8	9.8	48.9	8.5	48.7		85	
90	7.0	48.3	10.3	48.9	5.2	48.4	7.4	48.7	9.2	48.5	6.1	48.5	8.3	48.6	7.0	48.3		90	
95	5.7	48.1	8.9	48.6	3.9	48.2	6.0	48.4	7.9	48.3	4.7	48.1	6.9	48.2	5.7	48.1		95	
100	4.5	47.9	7.6	48.2	2.7	48.1	4.8	48.1	6.7	48.2	3.4	47.8	5.6	47.9	4.5	47.9		100	
110	2.5	47.6	5.6	48.0			2.7	47.9	4.5	47.5			3.6	47.6				110	
120			3.9	47.8					2.8	47.4								120	
130			2.4	47.4														130	
Tel.	Telescoping sequence %																Tel.		
1	92	0	92	46	0	92	46	92	46	92	46	92	46	92	46	92	46	1	
2	46	46	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	2	
3	46	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	3	
4	46	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	4	
5	92	92	46	92	92	92	92	92	92	92	92	92	92	92	92	92	92	5	
6	92	92	46	46	92	46	92	46	92	46	92	46	92	46	92	46	92	6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5																Working radius [ft]		
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 26,455 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																		
Working radius [ft]		Boom length [ft]																Working radius [ft]		
		43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6				84.6
		1)																		
10	70	377.4*	348.0*	75	308.6*	75	134.7	79	308.6*	79	140.3	79	100.4	81	251.3*	81	227.1	81	142.7	10
12	67	316.7*	304.4*	73	300.3*	73	126.1	77	299.6*	77	132.6	77	93.1	80	247.5*	80	227.1	80	135.9	12
14	64	271.1*	268.0*	71	267.5*	71	118.9	75	265.3*	75	125.8	75	86.7	78	233.3	78	227.1	78	129.6	14
16	61	235.0	233.9	68	233.9	68	112.2	73	228.0	73	119.6	73	81.1	77	203.1	77	208.0	77	123.9	16
18	58	208.1	207.5	67	205.4	67	106.5	72	192.1	72	114.3	72	76.4	76	171.3	76	177.7	76	118.9	18
20	54	183.9	183.7	65	178.6	65	101.1	70	159.3	70	109.3	70	71.9	74	143.4	74	149.3	74	114.2	20
25	45	133.4	133.4	59	126.4	59	90.4	65	112.2	65	98.8	65	63.0	71	102.1	71	107.1	71	104.1	25
30	33	92.7	92.7	52	91.2	52	82.0	61	85.8	61	90.1	61	55.9	67	76.6	67	81.2	67	94.7	30
35				45	67.5	45	72.9	56	64.8	56	76.9	56	50.5	63	61.5	63	65.8	63	78.3	35
40				36	51.5	36	58.7	50	48.6	50	61.3	50	45.8	59	46.6	59	50.6	59	60.2	40
45				24	40.4	24	46.9	44	37.6	44	49.6	44	42.1	55	35.4	55	39.4	55	50.0	45
50								37	29.3	37	41.0	37	38.4	50	27.0	50	31.0	50	41.6	50
55								29	22.9	29	34.3	29	34.1	45	20.5	45	24.3	45	34.9	55
60								19	17.5	19	28.7	19	29.0	40	15.3	40	19.0	40	29.6	60
65														34	11.1	34	14.8	34	25.4	65
70														25	8.1	25	11.7	25	22.1	70
75																				75
80																				80
85																				85
90																				90
95																				95
100																				100
110																				110
120																				120
130																				130
140																				140
Tel.		Telescoping sequence [%]																Tel.		
1		0		0		0		46		0		0		92		46		0		1
2		0		46		0		46		0		0		46		46		0		2
3		0		0		0		0		0		0		0		46		0		3
4		0		0		0		0		0		0		0		0		46		4
5		0		0		0		0		46		0		0		0		46		5
6		0		0		46		0		46		92		0		0		46		6

1) Over rear with superstructure locking pin engaged.

* With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704314
Counterweight 26,455 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft


Boom length [ft]

Working radius [ft]	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		Working radius [ft]		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
10	377.4	106.0	348.0	116.3	308.6	105.0	134.7	52.7	308.6	105.4	140.3	53.8	100.4	42.1	251.3	88.9	227.1	81.1	142.7	54.3	10
12	316.7	97.2	304.4	112.6	300.3	111.5	126.1	54.3	299.6	111.7	132.6	55.7	93.1	43.0	247.5	95.5	227.1	88.2	135.9	56.6	12
14	271.1	90.6	268.0	109.1	267.5	109.1	118.9	55.8	265.3	108.8	125.8	57.6	86.7	43.8	233.3	98.2	227.1	95.2	129.6	58.6	14
16	235.0	85.2	233.9	104.4	233.9	104.6	112.2	57.2	228.0	102.9	119.6	59.2	81.1	44.6	203.1	94.0	208.0	95.0	123.9	60.6	16
18	208.1	81.2	207.5	100.6	205.4	99.9	106.5	58.5	192.1	95.0	114.3	60.8	76.4	48.6	171.3	87.2	177.7	88.7	118.9	62.4	18
20	183.9	77.5	183.7	97.1	178.6	95.1	101.1	59.8	159.3	87.3	109.3	62.4	71.9	52.1	143.4	81.1	149.3	82.5	114.2	64.2	20
25	133.4	67.7	133.4	86.0	126.4	82.9	90.4	62.7	112.2	76.4	98.8	65.9	63.0	47.8	102.1	72.1	107.1	73.3	104.1	68.3	25
30	92.7	57.9	92.7	73.9	91.2	73.3	82.0	65.7	85.8	71.1	90.1	69.1	55.9	49.4	76.6	66.6	81.2	67.8	94.7	71.3	30
35					67.5	66.1	72.9	66.8	64.8	65.3	76.9	68.0	50.5	51.0	61.5	64.1	65.8	65.2	78.3	68.4	35
40					51.5	61.1	58.7	63.1	48.6	60.1	61.3	63.5	45.8	52.4	46.6	59.6	50.6	60.6	60.2	62.1	40
45					40.4	57.6	46.9	59.3	37.6	56.5	49.6	59.7	42.1	53.9	35.4	55.9	39.4	57.0	50.0	59.4	45
50									29.3	53.8	41.0	56.9	38.4	55.1	27.0	53.2	31.0	54.2	41.6	56.8	50
55									22.9	51.7	34.3	54.8	34.1	54.6	20.5	50.8	24.3	52.0	34.9	54.7	55
60									17.5	50.0	28.7	53.2	29.0	53.4	15.3	49.0	19.0	50.2	29.6	53.1	60
65															11.1	47.5	14.8	48.7	25.4	51.9	65
70															8.1	46.7	11.7	47.8	22.1	51.0	70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
110																					110
120																					120
130																					130
140																					140
Tel.	Telescoping sequence %																				Tel.
1		0			0		0		46		0		0		92		46		0		1
2		0			46		0		46		0		0		46		46		0		2
3		0			0		0		0		0		0		0		46		0		3
4		0			0		0		0		0		0		0		0		46		4
5		0			0		0		0		46		0		0		0		46		5
6		0			0		46		0		46		92		0		0		46		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5																		Working radius [ft]		
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 26,455 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																				
Working radius [ft]		Boom length [ft]																		Working radius [ft]		
		84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7	84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9			111.9
10	81	103.5																			10	
12	80	96.8	82	199.5	82	170.9	82	137.4	82	87.8											12	
14	78	91.0	80	199.5	80	170.9	80	131.7	80	83.1											14	
16	77	85.7	79	184.7	79	170.9	79	126.5	79	78.7	80	154.3	80	127.9	80	112.4	80	75.0			16	
18	76	81.2	78	159.4	78	158.0	78	121.8	78	74.4	80	143.4	80	127.9	80	112.4	80	72.6	81	120.2	18	
20	74	77.0	77	135.1	77	141.7	77	117.3	77	70.2	79	129.4	79	126.4	79	112.4	79	70.3	80	118.6	20	
25	71	68.4	74	97.8	74	103.5	74	107.8	74	61.3	76	95.3	76	101.2	76	104.5	76	63.4	78	93.2	25	
30	67	61.4	71	74.0	71	79.4	71	89.1	71	54.1	74	73.1	74	78.7	74	83.9	74	57.2	76	72.6	30	
35	63	55.5	68	57.7	68	63.3	68	72.4	68	48.5	71	57.7	71	63.0	71	68.3	71	51.8	74	57.7	35	
40	59	50.4	65	44.3	65	51.6	65	59.8	65	43.8	68	46.3	68	51.3	68	56.5	68	47.4	71	47.1	40	
45	55	46.2	61	33.7	61	41.4	61	49.3	61	40.2	65	39.0	65	43.5	65	48.3	65	43.5	68	41.4	45	
50	50	41.6	57	27.2	57	33.2	57	41.0	57	37.0	63	31.3	63	36.0	63	40.2	63	40.2	66	33.9	50	
55	45	36.5	53	21.8	53	26.5	53	34.3	53	34.2	59	24.5	59	29.3	59	33.4	59	36.5	63	27.1	55	
60	40	31.2	49	16.7	49	21.1	49	29.0	49	31.5	56	19.1	56	23.9	56	28.1	56	32.3	61	21.7	60	
65	34	27.0	45	12.6	45	17.0	45	24.8	45	27.6	52	15.0	52	19.5	52	23.9	52	28.1	58	17.5	65	
70	25	23.7	41	9.3	41	13.6	41	21.3	41	24.2	49	11.6	49	16.0	49	20.3	49	24.8	55	14.0	70	
75			36	6.6	36	10.7	36	18.3	36	21.2	45	8.7	45	13.1	45	17.2	45	21.9	52	11.0	75	
80			29	4.3	29	8.4	29	15.8	29	18.6	41	6.3	41	10.7	41	14.7	41	19.2	49	8.5	80	
85					21	6.5	21	13.8	21	16.4	37	4.3	37	8.3	37	12.5	37	16.9	45	6.5	85	
90														32	6.7	32	10.6	32	15.0	42	4.7	90
95														26	5.2	26	9.0	26	13.4	38	2.8	95
100														19	3.7	19	7.5	19	11.9			100
110																						110
120																						120
130																						130
140																						140
Tel.	Telescoping sequence [%]																		Tel.			
1	0	92	46	0	0	92	46	0	0	92	46	0	0	92	1							
2	0	46	46	0	0	46	46	46	0	46	2											
3	0	46	46	46	0	46	46	46	0	46	3											
4	0	0	46	46	0	46	46	46	46	46	4											
5	46	0	0	46	92	0	46	46	92	46	5											
6	92	0	0	46	92	0	0	46	92	0	6											

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

 Outrigger reaction force chart ATF 220G-5																					
Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704314 Counterweight 26,455 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 27.23 ft																					
Working radius [ft]																					
Boom length [ft]																					
84.6		98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9		125.7			
m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10	103.5	42.5																	10		
12	96.8	43.6	199.5	79.7	170.9	69.6	137.4	57.1	87.8	40.6									12		
14	91.0	44.7	199.5	86.1	170.9	75.1	131.7	59.4	83.1	41.8									14		
16	85.7	45.7	184.7	86.7	170.9	80.5	126.5	61.6	78.7	42.9	154.3	74.7	127.9	63.6	112.4	56.6	75.0	41.3	16		
18	81.2	46.6	159.4	81.9	158.0	80.4	121.8	63.7	74.4	43.7	143.4	75.1	127.9	67.8	112.4	60.3	72.6	42.7	120.2	65.2	18
20	77.0	47.6	135.1	77.0	141.7	78.6	117.3	65.7	70.2	44.4	129.4	73.8	126.4	71.3	112.4	63.9	70.3	44.2	118.6	68.5	20
25	68.4	49.6	97.8	69.3	103.5	70.7	107.8	70.2	61.3	45.8	95.3	67.3	101.2	68.7	104.5	68.9	63.4	46.6	93.2	65.5	25
30	61.4	51.5	74.0	64.4	79.4	65.9	89.1	68.2	54.1	47.0	73.1	63.1	78.7	64.5	83.9	65.7	57.2	48.4	72.6	61.8	30
35	55.5	53.0	57.7	60.9	63.3	62.6	72.4	64.8	48.5	48.2	57.7	59.9	63.0	61.3	68.3	62.7	51.8	49.9	57.7	58.9	35
40	50.4	54.3	44.3	57.1	51.6	60.2	59.8	61.9	43.8	49.2	46.3	57.5	51.3	58.8	56.5	60.3	47.4	51.3	47.1	56.9	40
45	46.2	55.6	33.7	53.7	41.4	57.3	49.3	59.1	40.2	50.4	39.0	56.7	43.5	57.7	48.3	58.9	43.5	52.5	41.4	57.2	45
50	41.6	55.8	27.2	52.3	33.2	54.7	41.0	56.4	37.0	51.5	31.3	54.3	36.0	55.6	40.2	56.5	40.2	53.7	33.9	55.1	50
55	36.5	55.0	21.8	50.9	26.5	52.5	34.3	54.3	34.2	52.5	24.5	51.9	29.3	53.5	33.4	54.3	36.5	54.0	27.1	52.8	55
60	31.2	53.4	16.7	49.2	21.1	50.6	29.0	52.7	31.5	53.2	19.1	50.1	23.9	51.7	28.1	52.7	32.3	53.4	21.7	51.0	60
65	27.0	52.2	12.6	47.9	17.0	49.4	24.8	51.4	27.6	52.3	15.0	48.8	19.5	50.2	23.9	51.4	28.1	52.1	17.5	49.6	65
70	23.7	51.3	9.3	46.7	13.6	48.2	21.3	50.3	24.2	51.3	11.6	47.5	16.0	49.0	20.3	50.1	24.8	51.3	14.0	48.4	70
75			6.6	45.9	10.7	47.2	18.3	49.3	21.2	50.4	8.7	46.6	13.1	48.1	17.2	49.1	21.9	50.4	11.0	47.3	75
80			4.3	45.3	8.4	46.6	15.8	48.6	18.6	49.6	6.3	45.8	10.7	47.3	14.7	48.2	19.2	49.6	8.5	46.5	80
85					6.5	46.3	13.8	48.1	16.4	49.0	4.3	45.2	8.3	46.3	12.5	47.6	16.9	48.8	6.5	45.9	85
90													6.7	46.1	10.6	47.0	15.0	48.2	4.7	45.2	90
95													5.2	45.8	9.0	46.5	13.4	47.8	2.8		95
100													3.7	45.3	7.5	46.0	11.9	47.4			100
110																					110
120																					120
130																					130
140																					140
Tel.	Telescoping sequence %																			Tel.	
1	0		92		46		0		0		92		46		0		0		92	1	
2	0		46		46		0		0		46		46		46		0		46	2	
3	0		46		46		46		0		46		46		46		0		46	3	
4	0		0		46		46		0		46		46		46		46		46	4	
5	46		0		0		46		92		0		46		46		92		46	5	
6	92		0		0		46		92		0		0		46		92		0	6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5												Working radius [ft]								
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 26,455 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																				
		Boom length [ft]																				
		125.7		125.7		139.4		139.4		139.4		139.4				153.2		153.2		153.2		167.0
		°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
10																						10
12																						12
14																						14
16																						16
18	81	95.9	81	66.1																		18
20	80	95.9	80	65.8	82	95.9	82	82.9	82	69.4	82	56.2										20
25	78	93.7	78	61.5	79	87.4	79	82.9	79	69.4	79	56.2	80	76.1	80	55.8	80	47.2				25
30	76	77.9	76	56.9	78	68.9	78	72.0	78	69.3	78	55.1	79	68.5	79	55.6	79	47.2	80	62.2		30
35	74	63.1	74	52.2	76	55.0	76	58.1	76	62.7	76	52.5	77	55.1	77	52.8	77	47.2	78	53.3		35
40	71	52.1	71	47.3	74	44.6	74	47.5	74	52.1	74	49.1	76	45.1	76	49.5	76	47.0	77	43.8		40
45	68	45.7	68	43.3	71	36.7	71	39.6	71	43.9	71	45.3	73	37.8	73	43.3	73	45.3	75	36.6		45
50	66	38.1	66	39.8	69	31.2	69	33.8	69	38.5	69	41.3	72	32.5	72	37.9	72	41.8	74	31.9		50
55	63	31.5	63	36.2	67	26.2	67	28.8	67	33.4	67	36.8	70	28.0	70	33.3	70	37.0	72	27.9		55
60	61	26.3	61	32.2	65	21.5	65	24.3	65	28.1	65	32.0	68	23.7	68	29.2	68	31.6	71	24.1		60
65	58	21.9	58	27.9	62	17.3	62	19.9	62	23.9	62	27.7	66	19.5	66	25.0	66	27.2	68	19.9		65
70	55	18.3	55	24.5	60	13.8	60	16.5	60	20.3	60	24.3	64	15.9	64	21.4	64	23.7	67	16.3		70
75	52	15.3	52	21.6	58	10.8	58	13.5	58	17.1	58	21.3	62	12.9	62	18.3	62	20.7	65	13.3		75
80	49	12.9	49	19.0	55	8.3	55	10.9	55	14.4	55	18.6	59	10.4	59	15.7	59	18.1	63	10.9		80
85	45	10.5	45	16.7	52	6.3	52	8.7	52	12.3	52	16.4	57	8.1	57	13.2	57	15.6	61	8.7		85
90	42	8.6	42	14.8	49	4.4	49	6.9	49	10.4	49	14.6	55	6.2	55	11.3	55	13.7	59	6.9		90
95	38	7.1	38	13.1			46	5.2	46	8.6	46	12.8	52	4.7	52	9.7	52	12.1	57	5.1		95
100	34	5.7	34	11.5			43	3.7	43	7.1	43	11.3	49	3.3	49	8.3	49	10.6	54	3.4		100
110	23	3.2	23	9.1						36	4.7	36	8.6			44	5.7	44	8.1			110
120										27	2.7	27	6.8			38	3.8	38	6.0			120
130																		29	4.4			130
140																		16	2.9			140
Tel.		Telescoping sequence [%]												Tel.								
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	1	
2	46	0	92	46	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	2	
3	46	0	46	46	46	46	46	46	46	46	46	46	46	46	92	92	46	92	92	46	3	
4	46	92	46	46	46	92	46	46	92	46	46	92	46	46	92	92	46	92	46	46	4	
5	46	92	46	46	46	92	46	46	92	46	46	92	46	92	92	92	46	92	46	46	5	
6	46	92	0	46	92	92	46	92	92	46	92	92	46	92	92	92	46	92	46	46	6	

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704314
Counterweight 26,455 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																		Working radius [ft]					
	125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2			167.0				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		m	F			
10																						10		
12																							12	
14																							14	
16																							16	
18	95.9	54.2	66.1	40.2																			18	
20	95.9	57.4	65.8	42.3	95.9	58.8	82.9	52.3	69.4	45.3	56.2	38.2											20	
25	93.7	64.3	61.5	45.7	87.4	62.6	82.9	59.6	69.4	51.4	56.2	43.1	76.1	56.3	55.8	44.1	47.2	38.8					25	
30	77.9	63.1	56.9	48.4	68.9	59.8	72.0	60.5	69.3	57.4	55.1	47.4	68.5	58.7	55.6	49.1	47.2	43.2	62.2	54.9			30	
35	63.1	60.3	52.2	50.3	55.0	57.2	58.1	58.0	62.7	59.2	52.5	50.5	55.1	56.3	52.8	52.3	47.2	47.5	53.3	55.0			35	
40	52.1	58.2	47.3	51.4	44.6	55.2	47.5	55.9	52.1	57.2	49.1	52.7	45.1	54.5	49.5	54.8	47.0	51.6	43.8	53.4			40	
45	45.7	58.1	43.3	52.5	36.7	53.7	39.6	54.5	43.9	55.6	45.3	54.1	37.8	53.3	43.3	54.5	45.3	54.6	36.6	52.2			45	
50	38.1	56.0	39.8	53.5	31.2	53.0	33.8	53.6	38.5	55.2	41.3	54.8	32.5	52.9	37.9	54.0	41.8	55.8	31.9	52.1			50	
55	31.5	53.9	36.2	53.9	26.2	52.2	28.8	52.9	33.4	54.4	36.8	54.5	28.0	52.4	33.3	53.6	37.0	55.2	27.9	52.1			55	
60	26.3	52.4	32.2	53.5	21.5	50.9	24.3	51.9	28.1	52.8	32.0	53.4	23.7	51.6	29.2	53.1	31.6	53.5	24.1	51.8			60	
65	21.9	50.9	27.9	52.1	17.3	49.5	19.9	50.4	23.9	51.5	27.7	51.9	19.5	50.2	25.0	51.8	27.2	52.1	19.9	50.4			65	
70	18.3	49.6	24.5	51.2	13.8	48.3	16.5	49.2	20.3	50.2	24.3	51.0	15.9	48.9	21.4	50.5	23.7	51.0	16.3	49.1			70	
75	15.3	48.6	21.6	50.4	10.8	47.3	13.5	48.2	17.1	49.1	21.3	50.1	12.9	47.9	18.3	49.5	20.7	50.1	13.3	48.1			75	
80	12.9	47.9	19.0	49.5	8.3	46.4	10.9	47.3	14.4	48.1	18.6	49.2	10.4	47.1	15.7	48.6	18.1	49.2	10.9	47.4			80	
85	10.5	46.9	16.7	48.7	6.3	45.8	8.7	46.6	12.3	47.4	16.4	48.5	8.1	46.1	13.2	47.5	15.6	48.1	8.7	46.7			85	
90	8.6	46.3	14.8	48.1	4.4	45.2	6.9	45.9	10.4	46.8	14.6	48.0	6.2	45.4	11.3	46.9	13.7	47.5	6.9	46.0			90	
95	7.1	45.9	13.1	47.5			5.2	45.4	8.6	46.1	12.8	47.4	4.7	45.0	9.7	46.5	12.1	47.1	5.1	45.3			95	
100	5.7	45.7	11.5	47.0			3.7	44.9	7.1	45.5	11.3	46.8	3.3	44.8	8.3	46.2	10.6	46.7	3.4	44.6			100	
110	3.2	44.8	9.1	46.5					4.7	45.0	8.6	45.7			5.7	45.1	8.1	45.9					110	
120									2.7	44.4	6.8	45.6			3.8	44.8	6.0	45.2					120	
130																	4.4	44.8					130	
140																	2.9	44.5					140	
Tel.	Telescoping sequence %																				Tel.			
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	1	
2	46	0	92	46	46	0	92	46	46	0	92	46	46	0	92	46	46	0	92	46	46	0	92	2
3	46	0	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	3
4	46	92	46	46	46	92	46	46	46	92	46	46	46	46	92	46	46	92	46	46	92	46	46	4
5	46	92	46	46	46	92	46	46	46	92	46	46	46	92	46	46	92	46	46	92	46	46	46	5
6	46	92	0	46	92	92	46	92	92	46	92	92	46	92	92	46	92	92	46	92	92	46	46	6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft.]		Load rating chart ATF 220G-5																Working radius [ft.]			
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 26,455 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																			
		Boom length [ft]																			
		167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0		223.1			
		°		°		°		°		°		°		°		°		°			
		/		/		/		/		/		/		/		/		/			
10																					10
12																					12
14																					14
16																					16
18																					18
20																					20
25																					25
30	80	49.8	80	41.7	81	50.7	81	42.3	81	37.3											30
35	78	49.8	78	41.7	79	50.3	79	42.3	79	37.3	80	41.4	80	33.1							35
40	77	47.6	77	41.7	79	43.2	79	41.9	79	37.3	79	40.8	79	33.1	80	33.1	81	30.4			40
45	75	40.2	75	41.7	77	36.3	77	38.5	77	37.3	77	36.0	77	33.1	79	33.1	80	30.4			45
50	74	35.1	74	39.6	76	30.8	76	33.7	76	34.9	76	31.0	76	32.0	78	30.5	79	28.6			50
55	72	30.8	72	35.9	74	26.6	74	29.4	74	32.3	75	27.0	75	30.2	77	27.4	78	25.9			55
60	71	26.8	71	31.1	73	23.5	73	26.1	73	29.7	74	24.1	74	27.8	76	24.7	77	22.7			60
65	68	22.8	68	26.8	71	20.6	71	23.1	71	25.6	72	21.1	72	24.4	74	22.1	75	20.6			65
70	67	19.3	67	23.3	69	17.3	69	19.8	69	22.2	71	18.1	71	20.9	73	19.2	74	18.4			70
75	65	16.3	65	20.3	67	14.3	67	16.8	67	19.1	69	15.1	69	17.9	72	16.3	73	16.1			75
80	63	13.8	63	17.7	66	11.6	66	14.2	66	16.4	68	12.5	68	15.3	71	13.8	72	13.7			80
85	61	11.6	61	15.1	64	9.4	64	11.8	64	14.2	66	10.3	66	12.9	69	11.6	71	11.4			85
90	59	9.7	59	13.3	62	7.5	62	9.9	62	12.2	65	8.4	65	11.1	68	9.7	70	9.5			90
95	57	8.0	57	11.5	60	5.9	60	8.3	60	10.5	63	6.8	63	9.3	66	8.0	68	7.9			95
100	54	6.4	54	10.0	59	4.4	59	6.8	59	9.0	62	5.3	62	7.8	65	6.4	67	6.4			100
110	50	4.1	50	7.5			55	4.3	55	6.5	58	2.8	58	5.3	61	3.7	64	3.7			110
120			45	5.4					50	4.2			54	3.4							120
130			39	3.6					46	2.6											130
140																					140
Tel.	telescoping sequence [%]																				Tel.
1	92	0	92	46	0	92	46	92	46	92	100	1									
2	46	46	92	92	92	92	92	92	92	92	100	2									
3	46	92	92	92	92	92	92	92	92	92	100	3									
4	46	92	92	92	92	92	92	92	92	92	100	4									
5	92	92	46	92	92	92	92	92	92	92	100	5									
6	92	92	46	46	92	46	92	92	92	92	100	6									

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

TADANO																			
Outrigger reaction force chart ATF 220G-5																			
Outrigger reaction force F in ton [US]																			
Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704314																			
Counterweight 26,455 lbs																			
On outriggers, 360° working area																			
Outrigger fully extended, outrigger base 27.23 ft																			
Boom length [ft]																			
Working radius [ft]	167.0		167.0		180.4		180.4		180.4		194.2		194.2		208.0		223.1		Working radius [ft]
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10																			10
12																			12
14																			14
16																			16
18																			18
20																			20
25																			25
30	49.8	46.6	41.7	40.3	50.7	48.1	42.3	42.6	37.3	38.2									30
35	49.8	51.3	41.7	44.2	50.3	52.7	42.3	46.4	37.3	42.0	41.4	46.5	33.1	39.8					35
40	47.6	54.4	41.7	48.2	43.2	52.5	41.9	50.2	37.3	45.7	40.8	50.3	33.1	43.3	33.1	44.1	30.4	42.2	40
45	40.2	53.1	41.7	52.2	36.3	51.5	38.5	51.8	37.3	49.4	36.0	50.6	33.1	46.8	33.1	47.7	30.4	45.6	45
50	35.1	52.9	39.6	54.3	30.8	50.7	33.7	51.5	34.9	51.1	31.0	50.1	32.0	49.3	30.5	48.9	28.6	47.4	50
55	30.8	52.6	35.9	54.7	26.6	50.4	29.4	51.1	32.3	52.2	27.0	50.0	30.2	51.1	27.4	49.5	25.9	48.1	55
60	26.8	52.1	31.1	53.6	23.5	50.6	26.1	51.2	29.7	53.0	24.1	50.4	27.8	52.0	24.7	50.0	22.7	48.1	60
65	22.8	50.9	26.8	52.2	20.6	50.6	23.1	51.1	25.6	51.9	21.1	50.2	24.4	51.5	22.1	50.3	20.6	48.6	65
70	19.3	49.8	23.3	51.1	17.3	49.6	19.8	50.1	22.2	50.8	18.1	49.5	20.9	50.4	19.2	49.7	18.4	48.8	70
75	16.3	48.9	20.3	50.2	14.3	48.5	16.8	49.2	19.1	49.8	15.1	48.6	17.9	49.4	16.3	48.9	16.1	48.6	75
80	13.8	48.0	17.7	49.3	11.6	47.5	14.2	48.3	16.4	48.8	12.5	47.6	15.3	48.5	13.8	48.0	13.7	48.0	80
85	11.6	47.3	15.1	48.2	9.4	46.8	11.8	47.4	14.2	48.2	10.3	46.8	12.9	47.6	11.6	47.3	11.4	47.1	85
90	9.7	46.7	13.3	47.6	7.5	46.1	9.9	46.8	12.2	47.4	8.4	46.2	11.1	47.0	9.7	46.7	9.5	46.4	90
95	8.0	46.1	11.5	47.0	5.9	45.6	8.3	46.3	10.5	46.8	6.8	45.7	9.3	46.3	8.0	46.1	7.9	45.9	95
100	6.4	45.4	10.0	46.5	4.4	45.1	6.8	45.7	9.0	46.3	5.3	45.2	7.8	45.8	6.4	45.4	6.4	45.4	100
110	4.1	44.9	7.5	45.7			4.3	44.9	6.5	45.6	2.8	44.3	5.3	45.0	3.7	44.3	3.7	44.2	110
120			5.4	45.1					4.2	44.6			3.4	44.6					120
130			3.6	44.3					2.6	44.1									130
140																			140
Tel.	Telescoping sequence %																		Tel.
1	92		0		92		46		0		92		46		92		100		1
2	46		46		92		92		92		92		92		92		100		2
3	46		92		92		92		92		92		92		92		100		3
4	46		92		92		92		92		92		92		92		100		4
5	92		92		46		92		92		92		92		92		100		5
6	92		92		46		46		92		46		92		92		100		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 26,455 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft												
Working radius [ft]	Boom length [ft]											Working radius [ft]
	43.3	57.1	57.1	70.9	70.9	70.9	84.6	84.6	84.6	84.6		
	70°	75°	75°	79°	79°	79°	81°	81°	81°	81°	81°	
10	305.2*	300.9*	134.7	295.3*	140.3	100.4	243.7*	222.4	142.7	103.5	10	
12	256.3*	222.7	126.1	188.4	132.6	93.1	162.1	169.0	135.9	96.8	12	
14	198.8	171.5	118.9	148.0	125.8	86.7	129.4	135.6	129.6	91.0	14	
16	156.6	137.4	112.2	120.1	119.6	81.1	106.1	111.9	123.9	85.7	16	
18	130.3	115.3	106.5	101.5	111.0	76.4	90.1	95.5	110.3	81.2	18	
20	107.3	96.3	100.3	85.3	101.2	71.9	76.0	81.0	95.3	77.0	20	
25	67.5	65.7	73.9	65	60.0	65	74.4	63.0	71	58.0	25	
30	45.8	44.5	52.0	61	41.9	61	54.8	61	55.0	67	30	
35		31.9	38.6	56	29.2	56	41.3	56	41.5	63	35	
40		23.3	29.6	50	20.8	50	32.0	50	32.2	59	40	
45		17.2	23.2	44	14.8	44	25.5	44	25.7	55	45	
50				37	10.3	37	20.7	37	20.9	50	50	
55				29	6.7	29	16.8	29	17.1	45	55	
60				19	3.9	19	13.5	19	13.7	40	60	
65										34	65	
70										25	70	
75											75	
80											80	
85											85	
90											90	
95											95	
100											100	
110											110	
Tel.	Telescoping sequence [%]											Tel.
1	0	0	0	46	0	0	92	46	0	0	1	
2	0	46	0	46	0	0	46	46	0	0	2	
3	0	0	0	0	0	0	0	46	0	0	3	
4	0	0	0	0	0	0	0	0	46	0	4	
5	0	0	0	0	46	0	0	0	46	46	5	
6	0	0	46	0	46	92	0	0	46	92	6	

*With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704315
Counterweight 26,455 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 18.37 ft

Boom length [ft]

Working radius [ft]	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		84.6		Working radius [ft]
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10	305.2	116.2	300.9	114.8	134.7	57.0	295.3	113.4	140.3	58.1	100.4	44.5	243.7	96.5	222.4	88.4	142.7	58.7	103.5	45.0	10
12	256.3	109.8	222.7	97.4	126.1	59.5	188.4	85.1	132.6	61.1	93.1	46.1	162.1	75.9	169.0	77.4	135.9	62.1	96.8	46.8	12
14	198.8	96.4	171.5	85.4	118.9	61.9	148.0	76.3	125.8	63.9	86.7	47.6	129.4	69.4	135.6	70.8	129.6	65.1	91.0	48.6	14
16	156.6	85.8	137.4	77.4	112.2	64.1	120.1	70.3	119.6	66.4	81.1	49.0	106.1	64.7	111.9	67.2	123.9	68.0	85.7	50.2	16
18	130.3	79.2	115.3	72.3	106.5	66.1	101.5	66.3	111.0	67.0	76.4	50.2	90.1	61.6	95.5	62.8	110.3	66.2	81.2	51.6	18
20	107.3	73.2	96.3	67.9	100.3	67.6	85.3	62.9	101.2	66.8	71.9	51.4	76.0	58.8	81.0	60.0	95.3	63.3	77.0	53.1	20
25	67.5	60.6	65.7	60.0	73.9	62.2	60.0	57.4	74.4	61.1	63.0	54.1	53.5	54.3	58.0	55.5	71.1	58.6	68.4	56.3	25
30	45.8	53.9	44.5	53.3	52.0	55.3	41.9	52.5	54.8	55.8	55.0	55.9	38.8	51.4	42.9	52.4	54.9	55.3	56.8	55.8	30
35			31.9	49.5	38.6	51.3	29.2	48.6	41.3	51.6	41.5	51.6	27.3	48.2	31.0	49.1	42.0	51.5	43.6	51.7	35
40			23.3	46.9	29.6	48.6	20.8	46.1	32.0	48.7	32.2	48.8	18.9	45.6	22.4	46.4	32.7	48.5	34.2	48.8	40
45			17.2	45.3	23.2	46.7	14.8	44.4	25.5	46.7	25.7	46.8	12.8	43.8	16.3	44.7	26.1	46.6	27.7	46.8	45
50							10.3	43.1	20.7	45.4	20.9	45.5	8.4	42.7	11.8	43.5	21.2	45.1	22.8	45.4	50
55							6.7	42.3	16.8	44.4	17.1	44.5	4.4	41.8	8.1	42.5	17.3	43.9	18.8	44.3	55
60							3.9	41.9	13.5	43.4	13.7	43.6			4.9	41.7	14.1	43.1	15.6	43.4	60
65																	11.8	42.8	13.1	42.8	65
70																	9.7	42.3	11.2	42.6	70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
110																					110
Tel.	Telescoping sequence %																				Tel.
1	0		0		0		46		0		0		92		46		0		0		1
2	0		46		0		46		0		0		46		46		0		0		2
3	0		0		0		0		0		0		0		46		0		0		3
4	0		0		0		0		0		0		0		0		46		0		4
5	0		0		0		0		46		0		0		0		46		46		5
6	0		0		46		0		46		92		0		0		46		92		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5																Working radius [ft]							
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 26,455 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																							
		Boom length [ft]																							
		98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7	125.7	98.4	98.4	98.4	98.4	111.9	111.9			111.9	111.9	125.7	125.7		
10																									10
12	82	146.8	82	154.7	82	137.4	82	87.8																	12
14	80	119.4	80	126.3	80	131.4	80	83.1																	14
16	79	99.2	79	105.7	79	117.2	79	78.7	80	94.8	80	101.3	80	106.1	80	75.0									16
18	78	85.0	78	91.0	78	102.1	78	74.4	80	81.9	80	88.0	80	94.0	80	72.6	81	79.5	81	85.2					18
20	77	72.4	77	78.1	77	88.6	77	70.2	79	70.5	79	76.2	79	81.9	79	70.3	80	69.1	80	74.6					20
25	74	51.9	74	57.0	74	66.7	74	61.3	76	51.6	76	56.8	76	62.1	76	63.4	78	51.3	78	56.5					25
30	71	38.3	71	43.1	71	52.1	71	53.9	74	38.8	74	43.6	74	48.4	74	53.9	76	39.2	76	44.1					30
35	68	28.5	68	33.1	68	41.1	68	44.6	71	29.8	71	34.4	71	39.1	71	44.2	74	30.7	74	35.4					35
40	65	20.4	65	24.6	65	32.2	65	35.3	68	22.8	68	27.2	68	31.4	68	36.2	71	24.2	71	28.6					40
45	61	14.2	61	18.4	61	25.7	61	28.8	65	16.6	65	20.8	65	24.8	65	29.5	68	18.9	68	22.9					45
50	57	9.6	57	13.6	57	20.8	57	23.7	63	12.0	63	16.1	63	19.9	63	24.4	66	14.3	66	18.1					50
55	53	6.0	53	9.9	53	16.8	53	19.7	59	8.3	59	12.3	59	16.0	59	20.3	63	10.4	63	14.3					55
60	49	3.0	49	6.8	49	13.6	49	16.5	56	5.1	56	9.2	56	12.8	56	16.9	61	7.3	61	11.2					60
65			45	4.5	45	11.1	45	13.8			52	6.7	52	10.2	52	14.4	58	4.9	58	8.7					65
70					41	9.0	41	11.7			49	4.6	49	8.2	49	12.2			55	6.6					70
75					36	7.3	36	9.9			45	2.6	45	6.4	45	10.3			52	4.8					75
80					29	5.9	29	8.3					41	5.0	41	8.7			49	3.1					80
85					21	4.7	21	7.1					37	3.6	37	7.4									85
90																32	6.3								90
95																26	5.3								95
100																19	4.3								100
110																									110
Tel.	Telescoping sequence [%]																Tel.								
1	92		46		0		0		92		46		0		0		92		46					1	
2	46		46		0		0		46		46		46		0		46		46					2	
3	46		46		46		0		46		46		46		0		46		46					3	
4	0		46		46		0		46		46		46		46		46		46					4	
5	0		0		46		92		0		46		46		92		46		46					5	
6	0		0		46		92		0		0		46		92		0		46					6	

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]

Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704315

Counterweight 26,455 lbs

On outriggers, 360° working area

Outrigger fully extended, outrigger base 18.37 ft

Working radius [ft]	Boom length [ft]																				Working radius [ft]	
	98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9		125.7		125.7			
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10																						10
12	146.8	69.6	154.7	71.3	137.4	62.7	87.8	43.2														12
14	119.4	64.7	126.3	66.3	131.4	66.0	83.1	45.1														14
16	99.2	61.0	105.7	62.5	117.2	65.0	78.7	46.7	94.8	58.3	101.3	59.8	106.1	60.4	75.0	44.7						16
18	85.0	58.5	91.0	59.9	102.1	62.3	74.4	48.0	81.9	56.3	88.0	57.6	94.0	58.8	72.6	46.8	79.5	54.2	85.2	55.4		18
20	72.4	56.3	78.1	57.6	88.6	59.9	70.2	49.2	70.5	54.4	76.2	55.7	81.9	56.9	70.3	48.9	69.1	52.7	74.6	53.9		20
25	51.9	52.6	57.0	53.8	66.7	56.0	61.3	51.5	51.6	51.3	56.8	52.6	62.1	53.7	63.4	52.4	51.3	50.1	56.5	51.3		25
30	38.3	50.2	43.1	51.4	52.1	53.4	53.9	53.3	38.8	49.3	43.6	50.4	48.4	51.6	53.9	52.8	39.2	48.4	44.1	49.6		30
35	28.5	48.2	33.1	49.4	41.1	50.9	44.6	52.1	29.8	47.9	34.4	49.1	39.1	50.1	44.2	51.3	30.7	47.3	35.4	48.3		35
40	20.4	46.0	24.6	46.9	32.2	48.3	35.3	49.2	22.8	46.6	27.2	47.6	31.4	48.3	36.2	49.4	24.2	46.3	28.6	47.3		40
45	14.2	44.0	18.4	45.1	25.7	46.3	28.8	47.2	16.6	44.8	20.8	45.7	24.8	46.3	29.5	47.4	18.9	45.3	22.9	46.0		45
50	9.6	42.6	13.6	43.7	20.8	44.8	23.7	45.8	12.0	43.5	16.1	44.3	19.9	44.9	24.4	45.8	14.3	44.1	18.1	44.6		50
55	6.0	41.7	9.9	42.6	16.8	43.7	19.7	44.6	8.3	42.5	12.3	43.3	16.0	43.7	20.3	44.5	10.4	43.0	14.3	43.6		55
60	3.0	41.0	6.8	41.8	13.6	42.7	16.5	43.7	5.1	41.7	9.2	42.6	12.8	42.8	16.9	43.5	7.3	42.1	11.2	42.8		60
65			4.5	41.3	11.1	42.1	13.8	42.9			6.7	41.9	10.2	42.1	14.4	42.9	4.9	41.6	8.7	42.1		65
70					9.0	41.6	11.7	42.5			4.6	41.4	8.2	41.6	12.2	42.2			6.6	41.7		70
75					7.3	41.3	9.9	42.0			2.6	40.9	6.4	41.3	10.3	41.7			4.8	41.2		75
80					5.9	41.2	8.3	41.7					5.0	41.1	8.7	41.3			3.1	40.7		80
85					4.7	41.2	7.1	41.8					3.6	40.8	7.4	41.2						85
90															6.3	41.2						90
95															5.3	41.0						95
100															4.3	40.9						100
110																						110
Tel.	Telescoping sequence %																				Tel.	
1	92		46		0		0		92		46		0		0		92		46		1	
2	46		46		0		0		46		46		46		0		46		46		2	
3	46		46		46		0		46		46		46		0		46		46		3	
4	0		46		46		0		46		46		46		46		46		46		4	
5	0		0		46		92		0		46		46		92		46		46		5	
6	0		0		46		92		0		0		46		92		0		46		6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5														Working radius [ft]							
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 26,466 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																					
		Boom length [ft]																					
		125.7		139.4		139.4		139.4		139.4		153.2		153.2				153.2		167.0		167.0	
		°		°		°		°		°		°		°		°		°		°		°	
10																							10
12																							12
14																							14
16																							16
18	81	66.1																					18
20	80	65.8	82	64.6	82	67.9	82	68.7	82	56.2													20
25	78	61.3	79	48.4	79	51.4	79	55.9	79	56.2	80	48.2	80	52.9	80	47.2							25
30	76	51.3	78	37.1	78	40.0	78	44.1	78	49.2	79	37.6	79	43.5	79	46.4	80	36.3	80	39.6	80	41.3	30
35	74	42.3	76	28.9	76	31.8	76	35.8	76	40.5	77	29.9	77	35.5	77	38.4	78	28.9	78	32.1	78	36.3	35
40	71	35.4	74	22.8	74	25.6	74	29.4	74	34.0	76	23.9	76	29.4	76	32.2	77	23.3	77	26.5	77	30.5	40
45	68	29.2	71	18.1	71	20.7	71	24.5	71	28.7	73	19.4	73	24.7	73	27.4	75	18.9	75	22.0	75	25.8	45
50	66	24.2	69	13.9	69	16.4	69	19.9	69	24.0	72	15.6	72	20.7	72	23.2	74	15.2	74	18.3	74	22.0	50
55	63	20.1	67	10.3	67	12.6	67	16.0	67	19.8	70	12.2	70	17.1	70	19.4	72	12.1	72	15.0	72	18.7	55
60	61	16.9	65	7.2	65	9.4	65	12.8	65	16.5	68	9.0	68	13.8	68	16.0	71	9.4	71	12.1	71	15.6	60
65	58	14.2	62	4.7	62	6.9	62	10.2	62	14.0	66	6.5	66	11.1	66	13.3	68	6.9	68	9.6	68	12.9	65
70	55	12.1			60	4.8	60	8.2	60	11.8			64	9.0	64	11.2			67	7.5	67	10.8	70
75	52	10.3					58	6.3	58	9.9			62	7.2	62	9.4			65	5.7	65	9.0	75
80	49	8.7					55	4.7	55	8.3			59	5.6	59	7.8			63	4.0	63	7.4	80
85	45	7.1					52	3.4	52	6.9			57	4.3	57	6.5					61	6.0	85
90	42	5.9							49	5.7			55	3.1	55	5.3					59	4.8	90
95	38	5.0							46	4.7					52	4.2					57	3.8	95
100	34	4.1							43	3.7					49	3.3					54	2.8	100
110	23	2.6																					110
Tel.	Telescoping sequence [%]																						Tel.
1	0	92	92	46	0	92	46	0	92	92	0	92	92	0	1								
2	0	92	46	46	0	92	46	0	92	46	46	2											
3	0	46	46	46	46	46	46	92	92	46	92	3											
4	92	46	46	46	92	46	46	92	46	46	92	4											
5	92	46	46	46	92	46	92	92	46	92	92	5											
6	92	0	46	92	92	46	92	92	46	92	92	6											

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5


Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704315
Counterweight 26,455 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 18.37 ft

Boom length [ft]

Working radius [ft]	Boom length [ft]																		Working radius [ft]				
	125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2		167.0			167.0		167.0	
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10																							10
12																							12
14																							14
16																							16
18	66.1	43.8																					18
20	65.8	46.6	64.6	50.4	67.9	51.1	68.7	50.0	56.2	41.7													20
25	61.3	51.2	48.4	48.4	51.4	49.0	55.9	50.0	56.2	48.2	48.2	47.4	52.9	47.7	47.2	43.0							25
30	51.3	51.1	37.1	47.0	40.0	47.7	44.1	48.6	49.2	49.7	37.6	46.2	43.5	47.5	46.4	48.0	36.3	45.1	39.6	45.7	41.3	44.9	30
35	42.3	49.9	28.9	46.0	31.8	46.7	35.8	47.5	40.5	48.5	29.9	45.5	35.5	46.6	38.4	47.3	28.9	44.5	32.1	45.1	36.3	46.1	35
40	35.4	48.8	22.8	45.2	25.6	46.0	29.4	46.7	34.0	47.7	23.9	44.8	29.4	45.9	32.2	46.7	23.3	43.9	26.5	44.7	30.5	45.6	40
45	29.2	47.2	18.1	44.7	20.7	45.4	24.5	46.2	28.7	46.9	19.4	44.4	24.7	45.5	27.4	46.2	18.9	43.7	22.0	44.4	25.8	45.2	45
50	24.2	45.8	13.9	43.9	16.4	44.5	19.9	45.0	24.0	45.6	15.6	44.0	20.7	44.9	23.2	45.5	15.2	43.3	18.3	43.9	22.0	44.8	50
55	20.1	44.6	10.3	43.0	12.6	43.4	16.0	43.8	19.8	44.3	12.2	43.3	17.1	44.2	19.4	44.5	12.1	42.9	15.0	43.5	18.7	44.3	55
60	16.9	43.7	7.2	42.3	9.4	42.5	12.8	42.9	16.5	43.3	9.0	42.4	13.8	43.2	16.0	43.5	9.4	42.6	12.1	42.9	15.6	43.6	60
65	14.2	42.9	4.7	41.6	6.9	41.9	10.2	42.3	14.0	42.7	6.5	41.7	11.1	42.4	13.3	42.6	6.9	42.0	9.6	42.2	12.9	42.7	65
70	12.1	42.4			4.8	41.4	8.2	41.8	11.8	42.0			9.0	41.8	11.2	42.1			7.5	41.7	10.8	42.2	70
75	10.3	42.0					6.3	41.4	9.9	41.5			7.2	41.4	9.4	41.7			5.7	41.7	9.0	41.8	75
80	8.7	41.6					4.7	41.0	8.3	41.1			5.6	41.0	7.8	41.3			4.0	40.8	7.4	41.4	80
85	7.1	41.1					3.4	40.7	6.9	40.8			4.3	40.7	6.5	41.1					6.0	41.2	85
90	5.9	40.8							5.7	40.5			3.1	40.5	5.3	40.8					4.8	41.0	90
95	5.0	40.8							4.7	40.3					4.2	40.5					3.8	40.8	95
100	4.1	40.8							3.7	40.1					3.3	40.3					2.8	40.5	100
110	2.6	40.8																					110

Tel.	Telescoping sequence %																					Tel.	
1	0		92		92		46		0		92		46		0		92		92		0		1
2	0		92		46		46		0		92		46		0		92		46		46		2
3	0		46		46		46		46		46		46		92		92		46		92		3
4	92		46		46		46		92		46		46		92		46		46		92		4
5	92		46		46		46		92		46		92		92		46		92		92		5
6	92		0		46		92		92		46		92		92		46		92		92		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

		Load rating chart ATF 220G-5																		
Working radius [ft]		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom												Working radius [ft]						
		Counterweight 0 lbs																		
		On outriggers, 360° working area																		
		Outriggers fully extended, outrigger base 27.23 ft																		
		Boom length [ft]																		
		43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		
		°		°		°		°		°		°		°		°		°		
		1)																		
10	70	355.7*	334.9*	75	307.9*	75	134.7	79	307.7*	79	140.3	79	100.4	81	251.3*	81	227.1	81	142.7	10
12	67	298.0*	292.0*	73	290.9*	73	126.1	77	281.7*	77	132.6	77	93.1	80	237.7	80	223.7	80	135.9	12
14	64	253.0*	253.0*	71	247.8*	71	118.9	75	218.7	75	125.8	75	86.7	78	187.5	78	195.2	78	129.6	14
16	61	218.8	218.8	68	197.7	68	112.2	73	170.4	73	119.6	73	81.1	77	148.8	77	155.5	77	123.9	16
18	58	183.0	183.0	67	161.4	67	106.5	72	140.7	72	114.3	72	76.4	76	124.1	76	130.3	76	118.9	18
20	54	148.7	148.7	65	131.0	65	101.1	70	115.5	70	109.3	70	71.9	74	102.7	74	108.5	74	113.6	20
25	45	101.5	101.5	59	91.4	59	90.4	65	77.7	65	93.2	65	63.0	71	68.5	71	74.1	71	90.0	25
30	33	67.7	67.7	52	65.1	52	73.9	61	58.2	61	74.1	61	55.9	67	48.1	67	53.2	67	67.5	30
35				45	45.8	45	53.5	56	42.9	56	57.0	56	50.5	63	38.1	63	42.6	63	55.8	35
40				36	33.8	36	40.8	50	31.3	50	44.3	50	44.5	59	27.9	59	32.7	59	45.0	40
45				24	25.4	24	32.1	44	22.9	44	35.2	44	35.4	55	20.4	55	24.8	55	36.2	45
50								37	16.6	37	28.5	37	28.7	50	14.3	50	18.3	50	29.6	50
55								29	11.6	29	23.2	29	23.4	45	9.3	45	13.1	45	24.2	55
60								19	7.4	19	18.8	19	19.0	40	4.9	40	9.1	40	19.9	60
65																34	5.9	34	16.5	65
70																		25	13.9	70
75																				75
80																				80
85																				85
90																				90
95																				95
100																				100
110																				110
Tel.		Telescoping sequence [%]												Tel.						
1		0		0		0		46		0		0		92		46		0		1
2		0		46		0		46		0		0		46		46		0		2
3		0		0		0		0		0		0		0		46		0		3
4		0		0		0		0		0		0		0		0		46		4
5		0		0		0		0		46		0		0		0		46		5
6		0		0		46		0		46		92		0		0		46		6

1) Over rear with superstructure locking pin engaged.

* With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704316
Counterweight 0 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 27.23 ft

Boom length [ft]

Working radius [ft]	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		Working radius [ft]		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
10	355.7	99.6	334.9	113.0	307.9	105.3	134.7	53.3	307.7	105.6	140.3	54.4	100.4	42.6	251.3	89.5	227.1	81.7	142.7	54.9	10
12	298.0	91.2	292.0	109.2	290.9	109.0	126.1	54.9	281.7	106.4	132.6	56.3	93.1	43.6	237.7	92.7	223.7	87.6	135.9	57.1	12
14	253.0	84.4	253.0	104.4	247.8	102.7	118.9	56.4	218.7	93.0	125.8	58.1	86.7	44.4	187.5	82.6	195.2	84.4	129.6	59.2	14
16	218.8	79.3	218.8	99.3	197.7	91.5	112.2	57.8	170.4	81.7	119.6	59.8	81.1	45.2	148.8	74.1	155.5	75.7	123.9	61.1	16
18	183.0	72.1	183.0	91.0	161.4	82.5	106.5	59.1	140.7	74.8	114.3	61.4	76.4	46.0	124.1	68.7	130.3	70.2	118.9	63.0	18
20	148.7	64.9	148.7	82.4	131.0	75.0	101.1	60.3	115.5	68.9	109.3	63.0	71.9	46.7	102.7	64.0	108.5	65.4	113.6	64.5	20
25	101.5	54.9	101.5	70.5	91.4	65.9	90.4	63.3	77.7	59.6	93.2	63.6	63.0	48.4	68.5	55.7	74.1	57.2	90.0	61.5	25
30	67.7	46.5	67.7	60.1	65.1	59.0	73.9	61.5	58.2	55.8	74.1	60.5	55.9	50.0	48.1	50.8	53.2	52.3	67.5	56.3	30
35					45.8	52.7	53.5	54.9	42.9	51.8	57.0	55.8	50.5	51.6	38.1	49.6	42.6	50.8	55.8	54.5	35
40					33.8	49.0	40.8	50.9	31.3	48.3	44.3	51.9	44.5	51.9	27.9	46.9	32.7	48.5	45.0	51.8	40
45					25.4	46.4	32.1	48.2	22.9	45.6	35.2	49.0	35.4	49.1	20.4	44.7	24.8	46.2	36.2	49.2	45
50									16.6	43.5	28.5	46.8	28.7	46.9	14.3	42.8	18.3	44.0	29.6	47.1	50
55									11.6	41.8	23.2	45.2	23.4	45.3	9.3	41.0	13.1	42.2	24.2	45.4	55
60									7.4	40.4	18.8	43.8	19.0	43.9	4.9	39.4	9.1	40.9	19.9	44.0	60
65																	5.9	39.8	16.5	43.0	65
70																			13.9	42.2	70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
110																					110
Tel.	Telescoping sequence %																				Tel.
1		0			0		0		46		0		0		92		46		0		1
2		0			46		0		46		0		0		46		46		0		2
3		0			0		0		0		0		0		0		46		0		3
4		0			0		0		0		0		0		0		0		46		4
5		0			0		0		0		46		0		0		0		46		5
6		0			0		46		0		46		92		0		0		46		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5														Working radius [ft]						
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 0 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																				
		Boom length [ft]																				
		84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7											
		◊	◊	◊	◊	◊	◊	◊	◊	◊												
10	81	103.5																10				
12	80	96.8	82	195.3	82	170.9	82	137.4	82	87.8								12				
14	78	91.0	80	169.4	80	166.5	80	131.7	80	83.1								14				
16	77	85.7	79	137.2	79	144.6	79	126.5	79	78.7	80	128.9	80	127.9	80	112.4	80	75.0	16			
18	76	81.2	78	115.7	78	122.6	78	121.7	78	74.4	80	110.0	80	115.2	80	110.4	80	72.6	81	105.1	18	
20	74	77.0	77	96.9	77	103.4	77	115.5	77	70.2	79	93.2	79	99.8	79	106.2	79	70.3	80	89.8	20	
25	71	68.4	74	65.6	74	72.1	74	83.7	74	61.3	76	64.6	76	70.9	76	77.3	76	63.4	78	63.6	25	
30	67	61.4	71	46.5	71	52.2	71	62.8	71	54.1	74	46.6	74	52.3	74	58.2	74	57.2	76	46.9	30	
35	63	55.5	68	35.7	68	41.7	68	51.4	68	48.5	71	35.0	71	40.4	71	45.8	71	50.8	74	35.9	35	
40	59	46.9	65	27.6	65	33.5	65	42.7	65	43.6	68	29.6	68	34.6	68	39.7	68	45.0	71	28.1	40	
45	55	38.0	61	21.1	61	26.3	61	35.3	61	38.3	65	22.7	65	27.9	65	32.8	65	38.1	68	23.9	45	
50	50	31.2	57	15.5	57	20.4	57	28.9	57	32.1	63	17.3	63	22.4	63	27.4	63	32.4	66	19.2	50	
55	45	25.8	53	10.7	53	15.4	53	23.5	53	26.6	59	12.9	59	17.8	59	22.7	59	27.4	63	14.9	55	
60	40	21.6	49	6.5	49	11.3	49	19.2	49	22.3	56	9.3	56	13.9	56	18.5	56	23.0	61	11.3	60	
65	34	18.1			45	7.9	45	15.8	45	18.9	52	6.1	52	10.6	52	15.0	52	19.6	58	8.3	65	
70	25	15.4			41	5.4	41	13.1	41	16.2				49	7.9	49	12.2	49	16.7	55	5.7	70
75								36	10.8	36	13.8			45	5.7	45	9.8	45	14.3			75
80								29	8.9	29	11.7			41	3.7	41	7.7	41	12.3			80
85								21	7.4	21	10.0					37	5.8	37	10.5			85
90																32	4.6	32	9.1			90
95																		26	7.9			95
100																		19	6.7			100
110																						110
Tel.	Telescoping sequence [%]																Tel.					
1	0	92	46	0	0	92	46	0	0	92	46	0	0	92	1							
2	0	46	46	0	0	46	46	46	0	46	46	46	0	46	2							
3	0	46	46	46	0	46	46	46	0	46	46	46	0	46	3							
4	0	0	46	46	0	46	46	46	46	46	46	46	46	46	4							
5	46	0	0	46	92	0	46	46	46	92	46	46	92	46	5							
6	92	0	0	46	92	0	0	46	92	0	0	46	92	0	6							

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]

Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704316

Counterweight 0 lbs

On outriggers, 360° working area

Outrigger fully extended, outrigger base 27.23 ft

Boom length [ft]

Working radius [ft]	Boom length [ft]																				Working radius [ft]	
	84.6		98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9		125.7			
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10	103.5	43.0																				10
12	96.8	44.2	195.3	78.9	170.9	70.2	137.4	57.7	87.8	41.1												12
14	91.0	45.3	169.4	75.9	166.5	74.1	131.7	60.0	83.1	42.4												14
16	85.7	46.3	137.2	69.3	144.6	71.0	126.5	62.2	78.7	43.4	128.9	65.6	127.9	64.2	112.4	57.2	75.0	41.8				16
18	81.2	47.2	115.7	64.9	122.6	66.5	121.7	64.2	74.4	44.2	110.0	62.0	115.2	62.9	110.4	60.0	72.6	43.3	105.1	59.4		18
20	77.0	48.2	96.9	61.0	103.4	62.5	115.5	65.4	70.2	44.9	93.2	58.7	99.8	60.3	106.2	61.7	70.3	44.8	89.8	56.6		20
25	68.4	50.2	65.6	53.7	72.1	55.5	83.7	58.5	61.3	46.4	64.6	52.4	70.9	54.1	77.3	55.7	63.4	47.1	63.6	51.1		25
30	61.4	52.1	46.5	49.2	52.2	50.8	62.8	53.6	54.1	47.6	46.6	48.4	52.3	49.9	58.2	51.5	57.2	49.0	46.9	47.6		30
35	55.5	53.6	35.7	47.3	41.7	49.3	51.4	51.8	48.5	48.7	35.0	45.9	40.4	47.3	45.8	48.8	50.8	49.8	35.9	45.3		35
40	46.9	52.4	27.6	45.8	33.5	47.9	42.7	50.4	43.6	49.6	29.6	46.1	34.6	47.5	39.7	48.8	45.0	50.2	28.1	43.9		40
45	38.0	49.7	21.1	44.3	26.3	46.1	35.3	48.7	38.3	49.4	22.7	44.4	27.9	46.1	32.8	47.4	38.1	48.8	23.9	44.1		45
50	31.2	47.5	15.5	42.8	20.4	44.4	28.9	46.7	32.1	47.7	17.3	43.0	22.4	44.7	27.4	46.2	32.4	47.6	19.2	43.2		50
55	25.8	45.8	10.7	41.2	15.4	42.9	23.5	45.0	26.6	46.0	12.9	41.9	17.8	43.5	22.7	45.0	27.4	46.2	14.9	42.1		55
60	21.6	44.5	6.5	39.8	11.3	41.4	19.2	43.5	22.3	44.6	9.3	40.9	13.9	42.4	18.5	43.7	23.0	44.7	11.3	41.2		60
65	18.1	43.3			7.9	40.2	15.8	42.5	18.9	43.6	6.1	39.8	10.6	41.2	15.0	42.5	19.6	43.7	8.3	40.4		65
70	15.4	42.6			5.4	39.5	13.1	41.5	16.2	42.7			7.9	40.4	12.2	41.5	16.7	42.6	5.7	39.5		70
75							10.8	40.8	13.8	42.0			5.7	39.7	9.8	40.7	14.3	41.9				75
80							8.9	40.3	11.7	41.3			3.7	39.0	7.7	39.9	12.3	41.4				80
85							7.4	40.1	10.0	40.9					5.8	39.2	10.5	40.7				85
90															4.6	39.1	9.1	40.4				90
95																	7.9	40.2				95
100																	6.7	39.9				100
110																						110
Tel.	Telescoping sequence %																				Tel.	
1	0		92		46		0		0		92		46		0		0		92			1
2	0		46		46		0		0		46		46		46		0		46			2
3	0		46		46		46		0		46		46		46		0		46			3
4	0		0		46		46		0		46		46		46		46		46			4
5	46		0		0		46		92		0		46		46		92		46			5
6	92		0		0		46		92		0		0		46		92		0			6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5												Working radius [ft]									
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 0 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft																					
125.7 °		125.7 °		139.4 °		139.4 °		139.4 °		139.4 °		153.2 °		153.2 °		153.2 °		167.0 °					
																				Boom length [ft]			
10																				10			
12																				12			
14																				14			
16																				16			
18	81	95.9	81	66.1																18			
20	80	94.2	80	65.8	82	83.0	82	81.8	82	69.4	82	56.2								20			
25	78	69.8	78	61.5	79	59.4	79	63.1	79	65.8	79	56.2	80	58.8	80	55.8	80	47.2		25			
30	76	52.6	76	56.8	78	44.1	78	47.4	78	52.2	78	54.8	79	44.4	79	51.4	79	47.2	80	42.7	30		
35	74	41.2	74	49.2	76	33.7	76	37.0	76	41.5	76	46.9	77	34.7	77	41.1	77	43.9	78	33.5	35		
40	71	33.2	71	40.9	74	26.6	74	29.5	74	33.9	74	39.1	76	27.7	76	33.9	76	36.7	77	26.7	40		
45	68	28.8	68	36.2	71	22.4	71	25.4	71	29.9	71	34.8	73	23.9	73	30.0	73	32.7	75	21.3	45		
50	66	24.0	66	31.0	69	17.8	69	20.9	69	25.1	69	30.1	72	19.5	72	25.6	72	28.3	74	18.1	50		
55	63	19.8	63	26.2	67	13.7	67	16.8	67	21.0	67	25.9	70	15.4	70	21.6	70	24.3	72	15.1	55		
60	61	16.1	61	21.9	65	10.5	65	13.3	65	17.7	65	22.4	68	12.1	68	18.2	68	21.0	71	11.8	60		
65	58	12.8	58	18.5	62	7.6	62	10.3	62	14.7	62	19.3	66	9.4	66	15.1	66	18.0	68	9.1	65		
70	55	10.1	55	15.7			60	8.0	60	12.1	60	16.3	64	7.1	64	12.9	64	15.6			70		
75	52	7.9	52	13.4					58	9.7	58	13.8			62	10.8	62	13.3			75		
80	49	5.9	49	11.5					55	7.5	55	11.7			59	8.8	59	11.2			80		
85	45	4.1	45	9.8					52	5.6	52	10.0			57	6.9	57	9.4			85		
90			42	8.3					49	4.4	49	8.5			55	5.4	55	7.8			90		
95			38	7.0							46	7.2			52	4.0	52	6.4			95		
100			34	5.9							43	6.0			49	2.7	49	5.2			100		
110			23	4.0							36	4.0					44	3.2			110		
Tel.		Telescoping sequence [%]												Tel.									
1	46	0	92	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	1
2	46	0	92	46	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	46	0	92	2
3	46	0	46	46	46	46	46	46	46	46	46	46	46	46	92	92	46	92	46	46	92	46	3
4	46	92	46	46	46	92	46	46	92	46	46	46	46	46	92	92	46	92	46	46	92	46	4
5	46	92	46	46	46	92	46	46	92	46	46	46	46	46	92	92	46	92	46	46	92	46	5
6	46	92	0	46	92	92	46	92	92	46	92	46	92	46	92	92	46	92	46	46	92	46	6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force F in ton [US]

Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704316

Counterweight 0 lbs

On outriggers, 360° working area

Outrigger fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length [ft]																				Working radius [ft]		
	125.7		125.7		139.4		139.4		139.4		139.4		153.2		153.2		153.2		167.0				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F			
10																						10	
12																							12
14																							14
16																							16
18	95.9	54.7	66.1	40.8																			18
20	94.2	57.2	65.8	42.9	83.0	53.7	81.8	52.4	69.4	45.9	56.2	38.8											20
25	69.8	52.7	61.5	46.3	59.4	49.1	63.1	50.0	65.8	50.1	56.2	43.7	58.8	48.0	55.8	44.7	47.2	39.4					25
30	52.6	49.1	56.8	48.9	44.1	46.1	47.4	47.0	52.2	48.1	54.8	47.7	44.4	45.4	51.4	47.2	47.2	43.7	42.7	44.3			30
35	41.2	46.8	49.2	48.9	33.7	44.1	37.0	45.0	41.5	46.1	46.9	47.5	34.7	43.7	41.1	45.3	43.9	45.9	33.5	42.8			35
40	33.2	45.3	40.9	47.3	26.6	42.9	29.5	43.7	33.9	44.8	39.1	46.2	27.7	42.6	33.9	44.2	36.7	44.9	26.7	41.7			40
45	28.8	45.4	36.2	47.5	22.4	43.0	25.4	44.0	29.9	45.2	34.8	46.4	23.9	43.0	30.0	44.7	32.7	45.3	21.3	40.7			45
50	24.0	44.6	31.0	46.5	17.8	42.1	20.9	43.2	25.1	44.4	30.1	45.8	19.5	42.2	25.6	44.1	28.3	44.7	18.1	40.9			50
55	19.8	43.7	26.2	45.2	13.7	41.2	16.8	42.3	21.0	43.6	25.9	45.0	15.4	41.4	21.6	43.4	24.3	44.1	15.1	40.8			55
60	16.1	42.8	21.9	43.7	10.5	40.6	13.3	41.5	17.7	43.0	22.4	44.3	12.1	40.6	18.2	42.7	21.0	43.6	11.8	40.1			60
65	12.8	41.7	18.5	42.7	7.6	39.8	10.3	40.7	14.7	42.3	19.3	43.7	9.4	40.0	15.1	41.9	18.0	42.9	9.1	39.5			65
70	10.1	40.9	15.7	41.7			8.0	40.2	12.1	41.6	16.3	42.5	7.1	39.5	12.9	41.5	15.6	42.3					70
75	7.9	40.2	13.4	41.0					9.7	40.7	13.8	41.5			10.8	41.0	13.3	41.7					75
80	5.9	39.6	11.5	40.5					7.5	39.8	11.7	40.9			8.8	40.4	11.2	41.0					80
85	4.1	38.9	9.8	40.0					5.6	39.0	10.0	40.4			6.9	39.7	9.4	40.3					85
90			8.3	39.5					4.4	38.9	8.5	39.9			5.4	39.1	7.8	39.8					90
95			7.0	39.1							7.2	39.6			4.0	38.6	6.4	39.3					95
100			5.9	38.8							6.0	39.2			2.7	38.0	5.2	38.8					100
110			4.0	38.4							4.0	38.6					3.2	38.1					110
Tel.	Telescoping sequence %																				Tel.		
1	46		0		92		92		46		0		92		46		0		92				1
2	46		0		92		46		46		0		92		46		0		92				2
3	46		0		46		46		46		46		46		46		92		92				3
4	46		92		46		46		46		92		46		46		92		46				4
5	46		92		46		46		46		92		46		92		92		46				5
6	46		92		0		46		92		92		46		92		92		46				6


The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

Working radius [ft]		Load rating chart ATF 220G-5												Working radius [ft]			
		Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 0 lbs On outriggers, 360° working area Outriggers fully extended, outrigger base 27.23 ft															
		Boom length [ft]															
		167.0		167.0		180.4		180.4		180.4		194.2		194.2			
		°		°		°		°		°		°		°			
10																	10
12																	12
14																	14
16																	16
18																	18
20																	20
25																	25
30	80	46.6	80	41.7	81	41.7	81	41.9	81	37.3							30
35	78	37.1	78	40.5	79	33.0	79	35.9	79	37.1	80	32.7	80	33.1			35
40	77	30.2	77	34.6	79	26.3	79	29.3	79	32.0	79	26.5	79	29.6			40
45	75	24.8	75	29.0	77	21.2	77	24.1	77	26.8	77	21.6	77	24.5			45
50	74	21.2	74	25.4	76	17.7	76	20.7	76	23.2	76	18.3	76	21.1			50
55	72	18.2	72	22.4	74	14.7	74	17.7	74	20.3	75	15.5	75	18.4			55
60	71	15.4	71	19.6	73	12.1	73	15.0	73	17.8	74	12.9	74	15.8			60
65	68	12.7	68	16.9	71	9.6	71	12.4	71	15.1	72	10.3	72	13.1			65
70	67	10.4	67	14.6	69	7.5	69	10.2	69	12.9	71	8.2	71	11.0			70
75	65	8.4	65	12.5			67	8.2	67	10.9			69	9.1			75
80	63	6.6	63	10.6			66	6.5	66	9.1			68	7.3			80
85	61	5.0	61	8.9			64	4.9	64	7.6			66	5.8			85
90			59	7.4					62	6.1							90
95			57	6.0					60	4.8							95
100			54	4.8					59	3.6							100
110																	110
Tel.	telescoping sequence [%]																Tel.
1	92	0	92	46	0	92	46										1
2	46	46	92	92	92	92	92										2
3	46	92	92	92	92	92	92										3
4	46	92	92	92	92	92	92										4
5	92	92	46	92	92	92	92										5
6	92	92	46	46	92	46	92										6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Working radius [ft]		Outrigger reaction force chart ATF 220G-5																Working radius [ft]	
		Outrigger reaction force F in ton [US] Lifting capacities m in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704316 Counterweight 0 lbs On outriggers, 360° working area Outrigger fully extended, outrigger base 27.23 ft																	
		Boom length [ft]																	
		167.0		167.0		180.4		180.4		180.4		194.2		194.2					
		m	F	m	F	m	F	m	F	m	F	m	F	m	F				
10																			10
12																			12
14																			14
16																			16
18																			18
20																			20
25																			25
30	46.6	45.3	41.7	40.8	41.7	43.4	41.9	42.5	37.3	38.8								30	
35	37.1	43.6	40.5	44.0	33.0	42.1	35.9	42.7	37.1	42.4	32.7	41.4	33.1	40.4				35	
40	30.2	42.5	34.6	43.7	26.3	41.0	29.3	41.8	32.0	42.4	26.5	40.6	29.6	41.3				40	
45	24.8	41.7	29.0	42.8	21.2	40.2	24.1	41.0	26.8	41.7	21.6	39.9	24.5	40.6				45	
50	21.2	41.6	25.4	42.7	17.7	40.1	20.7	41.0	23.2	41.6	18.3	39.9	21.1	40.6				50	
55	18.2	41.5	22.4	42.8	14.7	40.0	17.7	40.9	20.3	41.7	15.5	39.9	18.4	40.7				55	
60	15.4	41.3	19.6	42.6	12.1	39.8	15.0	40.7	17.8	41.7	12.9	39.8	15.8	40.6				60	
65	12.7	40.8	16.9	42.2	9.6	39.3	12.4	40.3	15.1	41.2	10.3	39.2	13.1	40.0				65	
70	10.4	40.3	14.6	41.8	7.5	39.0	10.2	39.9	12.9	40.8	8.2	38.8	11.0	39.7				70	
75	8.4	39.9	12.5	41.4			8.2	39.4	10.9	40.4			9.1	39.4				75	
80	6.6	39.5	10.6	40.9			6.5	39.0	9.1	40.1			7.3	38.9				80	
85	5.0	38.9	8.9	40.4			4.9	39.7	7.6	39.8			5.8	38.6				85	
90			7.4	39.9					6.1	39.3								90	
95			6.0	39.4					4.8	38.9								95	
100			4.8	38.9					3.6	38.6								100	
110																		110	
Tel.		Telescoping sequence %																Tel.	
1	92		0		92		46		92		46							1	
2	46		46		92		92		92		92		92					2	
3	46		92		92		92		92		92		92					3	
4	46		92		92		92		92		92		92					4	
5	92		92		46		92		92		92		92					5	
6	92		92		46		46		92		46		92					6	

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

 Load rating chart ATF 220G-5																					
Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom Counterweight 0 lbs On outriggers, 360° working area Outriggers half extended, outrigger base 18.37 ft																					
Working radius [ft]	Boom length [ft]											Working radius [ft]									
	43.3	57.1	57.1	70.9	70.9	70.9	84.6	84.6	84.6	84.6											
	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠										
10	70	266.8*	75	209.4	75	134.7	79	167.7	79	140.3	79	100.4	81	138.0	81	145.8	81	142.7	81	103.5	10
12	67	179.7	73	148.6	73	126.1	77	123.1	77	131.8	77	93.1	80	103.8	80	110.6	80	130.1	80	96.8	12
14	64	132.1	71	112.4	71	117.2	75	94.9	75	115.0	75	86.7	78	81.3	78	87.2	78	104.8	78	91.0	14
16	61	102.5	68	88.6	68	99.5	73	75.6	73	93.9	73	81.1	77	65.1	77	70.7	77	86.8	77	85.7	16
18	58	84.1	67	73.2	67	83.2	72	62.7	72	79.7	72	74.7	76	54.0	76	59.2	76	74.3	76	76.1	18
20	54	68.5	65	59.9	65	69.2	70	51.4	70	67.2	70	67.6	74	44.3	74	49.1	74	63.4	74	65.8	20
25	45	44.8	59	40.1	59	48.2	65	33.9	65	48.2	65	48.4	71	28.8	71	33.2	71	46.1	71	48.1	25
30	33	29.2	52	27.5	52	34.9	61	22.8	61	35.8	61	36.2	67	18.7	67	22.6	67	34.7	67	36.7	30
35			45	18.5	45	25.2	56	15.3	56	27.6	56	27.8	63	11.7	63	15.6	63	27.0	63	29.0	35
40			36	12.0	36	18.3	50	9.4	50	20.8	50	21.0			59	10.4	59	21.4	59	23.2	40
45			24	7.5	24	13.5			44	15.9	44	16.1					55	16.6	55	18.1	45
50									37	12.1	37	12.3					50	12.8	50	14.3	50
55									29	9.2	29	9.4					45	9.8	45	11.3	55
60									19	6.8	19	7.1					40	7.4	40	8.9	60
65																	34	5.5	34	6.9	65
70																	25	4.0	25	5.4	70
75																					75
80																					80
85																					85
Tel.	Telescoping sequence [%]											Tel.									
1	0	0	0	46	0	0	92	46	0	0	1										
2	0	46	0	46	0	0	46	46	0	0	2										
3	0	0	0	0	0	0	0	46	0	0	3										
4	0	0	0	0	0	0	0	0	46	0	4										
5	0	0	0	0	46	0	0	0	46	46	5										
6	0	0	46	0	46	92	0	0	46	92	6										

* With additional lifting equipments.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704317
Counterweight 0 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 18.37 ft

Boom length [ft]

Working radius [ft]	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6		84.6		Working radius [ft]
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10	266.8	105.1	209.4	86.0	134.7	59.1	167.7	72.3	140.3	60.3	100.4	46.7	138.0	62.7	145.8	64.5	142.7	60.8	103.5	47.0	10
12	179.7	83.0	148.6	71.6	126.1	61.6	123.1	62.6	131.8	62.9	93.1	48.2	103.8	56.0	110.6	57.5	130.1	61.8	96.8	48.9	12
14	132.1	70.9	112.4	63.1	117.2	63.2	94.9	56.5	115.0	61.3	86.7	49.7	81.3	51.6	87.2	52.8	104.8	56.8	91.0	50.6	14
16	102.5	63.5	88.6	57.5	99.5	60.3	75.6	52.3	93.9	56.8	81.1	51.0	65.1	48.3	70.7	49.6	86.8	53.2	85.7	52.2	16
18	84.1	58.9	73.2	53.9	83.2	56.5	62.7	49.6	79.7	53.7	74.7	51.4	54.0	46.1	59.2	47.3	74.3	50.8	76.1	51.0	18
20	68.5	55.0	59.9	50.8	69.2	53.3	51.4	47.2	67.2	51.1	67.6	51.2	44.3	44.2	49.1	45.3	63.4	48.7	65.8	49.2	20
25	44.8	48.7	40.1	46.2	48.2	48.5	33.9	43.4	48.2	47.0	48.4	47.1	28.8	41.1	33.2	42.2	46.1	45.2	48.1	45.7	25
30	29.2	44.1	27.5	43.4	34.9	45.4	22.8	41.1	35.8	44.4	36.2	44.6	18.7	39.2	22.6	40.1	34.7	43.0	36.7	43.5	30
35			18.5	40.8	25.2	42.5	15.3	39.4	27.6	42.6	27.8	42.8	11.7	37.8	15.6	38.8	27.0	41.5	29.0	42.1	35
40			12.0	38.9	18.3	40.5	9.4	38.1	20.8	40.6	21.0	40.8			10.4	37.8	21.4	40.5	23.2	41.0	40
45			7.5	37.7	13.5	39.1			15.9	39.3	16.1	39.4					16.6	39.2	18.1	39.4	45
50									12.1	38.2	12.3	38.3					12.8	38.1	14.3	38.3	50
55									9.2	37.5	9.4	37.6					9.8	37.2	11.3	37.5	55
60									6.8	37.0	7.1	37.1					7.4	36.6	8.9	36.9	60
65																	5.5	36.2	6.9	36.4	65
70																	4.0	36.0	5.4	36.2	70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
110																					110
120																					120
130																					130
Tel.	Telescoping sequence %																				Tel.
1	0		0		0		46		0		0		92		46		0		0		1
2	0		46		0		46		0		0		46		46		0		0		2
3	0		0		0		0		0		0		0		46		0		0		3
4	0		0		0		0		0		0		0		0		46		0		4
5	0		0		0		0		46		0		0		0		46		46		5
6	0		0		46		0		46		92		0		0		46		92		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

TADANO														Load rating chart ATF 220G-5										
Lifting capacities in 1,000 lbs according per SAE J765, at telescopic boom																								
Counterweight 0 lbs																								
On outriggers, 360° working area																								
Outriggers half extended, outrigger base 18.37 ft																								
Boom length [ft]																								
Working radius [ft]	98.4		98.4		98.4		98.4		111.9		111.9		111.9		125.7		125.7		125.7		Working radius [ft]			
	∠	°	∠	°	∠	°	∠	°	∠	°	∠	°	∠	°	∠	°	∠	°	∠	°				
10																					10			
12	82	94.2	82	101.7	82	115.4	82	87.8													12			
14	80	75.0	80	81.9	80	94.3	80	83.1													14			
16	79	61.1	79	67.4	79	79.0	79	78.7	80	58.9	80	65.4	80	71.4	80	75.0					16			
18	78	51.2	78	57.2	78	68.1	78	71.0	80	50.0	80	56.1	80	61.9	80	67.6	81	49.2	81	55.0	81	61.6	18	
20	77	42.4	77	48.1	77	58.4	77	62.6	79	42.1	79	47.7	79	53.4	79	59.6	80	41.9	80	47.4	80	55.9	20	
25	74	28.3	74	33.3	74	42.9	74	46.5	76	28.8	76	33.9	76	39.1	76	44.9	78	29.5	78	34.6	78	42.3	25	
30	71	18.7	71	23.6	71	32.3	71	35.8	74	19.9	74	24.7	74	29.5	74	34.8	76	21.0	76	25.8	76	33.1	30	
35	68	12.3	68	16.7	68	25.2	68	28.5	71	13.6	71	18.2	71	22.9	71	28.0	74	15.0	74	19.5	74	26.6	35	
40			65	11.7	65	20.0	65	23.1	68	8.7	68	13.4	68	17.8	68	22.9	71	10.2	71	15.0	71	21.6	40	
45			61	8.0	61	15.8	61	18.9			65	9.5	65	13.9	65	18.8			68	11.3	68	17.9	45	
50					57	12.3	57	15.2			63	6.6	63	10.9	63	15.6			66	8.4	66	14.9	50	
55					53	9.2	53	12.1					59	8.3	59	12.8					63	12.3	55	
60					49	6.7	49	9.5					56	6.0	56	10.2					61	10.0	60	
65					45	4.9	45	7.5					52	4.2	52	8.2					58	8.0	65	
70							41	5.9							49	6.5					55	6.4	70	
75							36	4.6							45	5.1					52	5.0	75	
80							29	3.5							41	3.9					49	3.7	80	
85															37	2.9					45	2.7	85	
Tel.	Telescoping sequence [%]																				Tel.			
1	92	46	0	0	92	46	0	0	92	46	0	0	92	46	0	0	92	46	0	0	92	46	0	1
2	46	46	0	0	46	46	46	0	46	46	46	0	46	46	46	0	46	46	0	0	46	46	0	2
3	46	46	46	0	46	46	46	0	46	46	46	46	0	46	46	46	46	46	46	46	46	0	0	3
4	0	46	46	0	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	92	0	4
5	0	0	46	92	0	46	46	46	92	46	46	92	46	46	46	46	46	46	46	46	46	92	92	5
6	0	0	46	92	0	0	46	92	0	0	46	92	0	46	92	0	46	92	0	46	92	92	92	6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J765, at telescopic boom, load rating chart 99707704317
Counterweight 0 lbs
 On outriggers, 360° working area
Outrigger fully extended, outrigger base 18.37 ft

Boom length [ft]

Working radius [ft]	98.4		98.4		98.4		98.4		111.9		111.9		111.9		111.9		125.7		125.7		125.7		Working radius [ft]
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
	10																						
12	94.2	51.9	101.7	53.5	115.4	56.3	87.8	45.2															12
14	75.0	48.5	81.9	49.9	94.3	52.6	83.1	47.1															14
16	61.1	46.0	67.4	47.4	79.0	49.9	78.7	48.8	58.9	44.2	65.4	45.7	71.4	46.8	75.0	46.9							16
18	51.2	44.2	57.2	45.5	68.1	47.9	71.0	48.3	50.0	42.8	56.1	44.2	61.9	45.3	67.6	46.3	49.2	41.5	55.0	42.7	61.6	43.6	18
20	42.4	42.6	48.1	43.9	58.4	46.1	62.6	47.2	42.1	41.6	47.7	42.8	53.4	44.0	59.6	45.3	41.9	40.5	47.4	41.6	55.9	43.5	20
25	28.3	40.1	33.3	41.3	42.9	43.4	46.5	44.3	28.8	39.4	33.9	40.5	39.1	41.6	44.9	43.0	29.5	38.7	34.6	39.8	42.3	41.5	25
30	18.7	38.3	23.6	39.6	32.3	41.5	35.8	42.5	19.9	38.0	24.7	39.1	29.5	40.2	34.8	41.3	21.0	37.6	25.8	38.6	33.1	40.2	30
35	12.3	37.2	16.7	38.3	25.2	40.3	28.5	41.3	13.6	37.0	18.2	38.1	22.9	39.1	28.0	40.3	15.0	36.7	19.5	37.7	26.6	39.3	35
40			11.7	37.4	20.0	39.4	23.1	40.3	8.7	36.1	13.4	37.4	17.8	38.3	22.9	39.6	10.2	35.9	15.0	37.1	21.6	38.5	40
45			8.0	36.9	15.8	38.6	18.9	39.6			9.5	36.7	13.9	37.7	18.8	38.9			11.3	36.5	17.9	38.2	45
50					12.3	37.7	15.2	38.6			6.6	36.3	10.9	37.2	15.6	38.4			8.4	36.2	14.9	37.8	50
55					9.2	36.8	12.1	37.7					8.3	36.8	12.8	37.8					12.3	37.5	55
60					6.7	36.0	9.5	37.0					6.0	36.4	10.2	37.0					10.0	37.0	60
65					4.9	35.7	7.5	36.5					4.2	36.0	8.2	36.5					8.0	36.4	65
70							5.9	36.1							6.5	36.0					6.4	36.1	70
75							4.6	35.9							5.1	35.7					5.0	35.8	75
80							3.5	35.8							3.9	35.6					3.7	35.5	80
85															2.9	35.5					2.7	35.4	85
90																							90
95																							95
100																							100
110																							110
120																							120
130																							130
Tel.	Telescoping sequence %																						Tel.
1	92		46		0		0		92		46		0		0		92		46		0		1
2	46		46		0		0		46		46		46		0		46		46		0		2
3	46		46		46		0		46		46		46		0		46		46		46		3
4	0		46		46		0		46		46		46		46		46		46		46		4
5	0		0		46		92		0		46		46		92		46		46		92		5
6	0		0		46		92		0		0		46		92		0		46		92		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account

TADANO																					
Load rating chart ATF 220G-5																					
Telescoping loads in 1,000 lbs according per SAE J765, at telescopic boom On outriggers, 360° working area																					
Working radius [ft]	Boom length [m]																				Working radius [ft]
	43.3		57.1		57.1		70.9		70.9		70.9		84.6		84.6		84.6				
	°	∟	°	∟	°	∟	°	∟	°	∟	°	∟	°	∟	°	∟	°	∟	°	∟	
8.2	73	63.2																		8.2	
9.8	70	63.0	63.0	75	51.8	75	51.1	79	42.9	79	46.5	79	33.9	81	27.9	81	41.4	81	42.1	9.8	
11.5	68	62.8	62.8	74	50.9	74	50.4	77	41.8	77	45.4	77	32.6	80	26.4	80	40.1	80	41.2	11.5	
13.1	65	63.0	63.0	72	50.2	72	49.8	76	41.0	76	44.5	76	31.3	79	24.9	79	39.0	79	40.1	13.1	
14.8	63	63.2	63.2	70	49.6	70	49.1	75	39.9	75	43.6	75	30.2	78	23.3	78	37.9	78	39.2	14.8	
16.4	60	63.4	63.4	68	48.9	68	48.7	73	39.0	73	42.7	73	29.1	77	22.0	77	36.8	77	38.3	16.4	
19.7	55	64.5	64.5	65	48.0	65	47.6	70	37.4	70	41.4	70	27.3	74	19.6	74	34.8	74	36.5	19.7	
23.0	49	66.5	66.5	61	47.3	61	46.9	67	35.9	67	40.1	67	25.5	72	17.6	72	33.0	72	35.2	23.0	
26.2	42	69.8	69.8	57	46.9	57	46.5	64	34.8	64	39.0	64	24.2	70	15.6	70	31.5	70	33.9	26.2	
29.5	35	75.6	75.6	53	46.9	53	46.0	61	33.7	61	37.9	61	22.9	67	14.1	67	30.2	67	32.6	29.5	
32.8	24	87.5	87.5	48	47.1	48	46.0	58	32.8	58	37.0	58	21.8	65	12.7	65	28.8	65	31.5	32.8	
36.1				43	48.0	43	46.2	55	32.1	55	36.3	55	20.7	62	11.4	62	27.7	62	30.6	36.1	
39.4				38	49.3	38	47.1	51	31.7	51	35.9	51	19.8	59	10.3	59	26.8	59	29.7	39.4	
45.9				22	56.8	22	52.0	43	31.5	43	35.2	43	18.5	54	8.3	54	25.3	54	28.4	45.9	
52.5								34	32.1	34	35.2	34	17.4	48	7.0	48	24.2	48	27.3	52.5	
59.1								21	35.7	21	37.0	21	16.7	41	5.7	41	23.8	41	26.6	59.1	
65.6														33	5.0	33	23.8	33	26.4	65.6	
72.2														21	4.8	21	25.3	21	27.3	72.2	
78.7																				78.7	
85.3																				85.3	
91.9																				91.9	
98.4																				98.4	
105.0																				105.0	
111.5																				111.5	
118.1																				118.1	
124.7																				124.7	
131.2																				131.2	
137.8																				137.8	
144.4																				144.4	
150.9																				150.9	
157.5																				157.5	
164.0																				164.0	
170.6																				170.6	
177.2																				177.2	
183.7																				183.7	
Max.		89.0		94.1		104.9		86.6		101.9		66.4		76.5		84.4		98.1		Max.	
Tel.	Telescoping sequence [%]																				Tel.
1		0		0		0		46		0		0		92		46		0		1	
2		0		46		0		46		0		0		46		46		0		2	
3		0		0		0		0		0		0		0		46		0		3	
4		0		0		0		0		0		0		0		0		46		4	
5		0		0		0		0		46		0		0		0		46		5	
6		0		0		46		0		46		92		0		0		46		6	

1) Over rear with superstructure locking pin engaged

Max.: Supportable maximum load for telescoping cylinder (without locked B-pins), not to telescope

ATTENTION:

The given telescoping loads are without consideration of counterweight and outrigger base. The crane's really existing counterweight and outrigger base **must** be taken into consideration.

The given telescoping loads are based at theoretical assumptions, which are valid normally for a well maintained and operated crane.

To lock and un-lock a boom telescoping section under load (operation of B-pin and C-pin) ist not permissible.

The B-pins of the extending telescoping section must be un-locked **before** loading and the telescoping section extended approx. 1.5ft.

The extension of a telescoping section under load is only permissible up to approx. 1.5ft in front of the next telescoping locking position, to prevent automatically locking from the B-pins.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Load rating chart ATF 220G-5

Working radius [ft]	Telescoping loads in 1,000 lbs according per SAE J765, at telescopic boom On outriggers, 360° working area											Working radius [ft]										
	Boom length [ft]																					
	84.6	98.4	98.4	98.4	98.4	111.9	111.9	111.9	111.9	125.7												
8.2													8.2									
9.8	81	45.4											9.8									
11.5	80	44.3	82	25.3	82	39.4	82	36.8	82	28.2			11.5									
13.1	79	43.2	81	23.8	81	38.3	81	35.7	81	26.6			13.1									
14.8	78	42.1	80	22.2	80	37.0	80	34.8	80	25.5	81	21.6	81	35.9	81	36.5	81	36.5		14.8		
16.4	77	41.2	79	20.7	79	35.9	79	33.7	79	24.2	80	20.0	80	34.6	80	35.7	80	35.7	82	20.5	16.4	
19.7	74	39.4	77	18.2	77	33.7	77	32.1	77	22.2	79	17.6	79	32.6	79	33.7	79	33.7	80	17.8	19.7	
23.0	72	37.9	75	16.0	75	31.9	75	30.6	75	20.5	77	15.4	77	30.6	77	32.1	77	32.1	79	15.6	23.0	
26.2	70	36.5	73	14.1	73	30.2	73	29.1	73	18.9	76	13.4	76	29.1	76	30.6	76	30.6	77	13.6	26.2	
29.5	67	35.2	71	12.3	71	28.6	71	27.9	71	17.6	74	11.9	74	27.5	74	29.3	74	29.3	76	12.1	29.5	
32.8	65	34.1	69	11.0	69	27.3	69	26.8	69	16.5	72	10.3	72	26.0	72	27.9	72	27.9	75	10.5	32.8	
36.1	62	33.0	67	9.7	67	26.0	67	25.7	67	15.4	70	9.0	70	24.6	70	26.8	70	26.8	73	9.2	36.1	
39.4	59	32.1	65	8.3	65	24.9	65	24.9	65	14.5	68	7.7	68	23.5	68	26.0	68	26.0	71	8.1	39.4	
45.9	54	30.6	60	6.3	60	22.9	60	23.1	60	12.7	65	5.7	65	21.6	65	24.0	65	24.0	68	5.9	45.9	
52.5	48	29.5	55	4.8	55	21.3	55	21.8	55	11.4	61	4.1	61	19.8	61	22.4	61	22.4	65	4.4	52.5	
59.1	41	28.6	50	3.3	50	20.0	50	20.9	50	10.3	57	2.8	57	18.5	57	21.1	57	21.1	61	3.0	59.1	
65.6	33	28.4	45	2.2	45	19.1	45	20.0	45	9.4			52	17.1	52	20.0	52	20.0			65.6	
72.2	21	28.8			39	18.7	39	19.6	39	8.8			48	16.3	48	19.1	48	19.1			72.2	
78.7					31	18.5	31	19.4	31	8.1			42	15.6	42	18.5	42	18.5			78.7	
85.3					21	19.4	21	20.0	21	7.7			37	15.2	37	17.8	37	17.8			85.3	
91.9													30	14.9	30	17.6	30	17.6			91.9	
98.4													21	15.4	21	17.6	21	17.6			98.4	
105.0																					105.0	
111.5																					111.5	
118.1																					118.1	
124.7																					124.7	
131.2																					131.2	
137.8																					137.8	
144.4																					144.4	
150.9																					150.9	
157.5																					157.5	
164.0																					164.0	
170.6																					170.6	
177.2																					177.2	
183.7																					183.7	
Max.	101.4	77.6	83.3	94.5	66.5	78.2	80.7	86.9	77.1	76.7	Max.											

Tel.	Telescoping sequence [%]											Tel.
1	0	92	46	0	0	92	46	0	0	92	1	
2	0	46	46	0	0	46	46	46	0	46	2	
3	0	46	46	46	0	46	46	46	0	46	3	
4	0	0	46	46	0	46	46	46	46	46	4	
5	46	0	0	46	92	0	46	46	92	46	5	
6	92	0	0	46	92	0	0	46	92	0	6	

Max.: Supportable maximum load for telescoping cylinder (without locked B-pins), not to telescope.

ATTENTION:

The given telescoping loads are without consideration of counterweight and outrigger base. The crane's really existing counterweight and outrigger base **must** be taken into consideration.
The given telescoping loads are based at theoretical assumptions, which are valid normally for a well maintained and operated crane.

To lock and un-lock a boom telescoping section under load (operation of B-pin and C-pin) ist not permissible.
The B-pins of the extending telescoping section must be un-locked before loading and the telescoping section extended approx. 1.5ft.
The extension of a telescoping section under load is only permissible up to approx. 1.5ft in front of the next telescoping locking position, to prevent automatically locking from the B-pins.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Load rating chart ATF 220G-5																						
Working radius [ft]	Telescoping loads in 1,000 lbs according per SAE J765, at telescopic boom On outriggers, 360° working area											Working radius [ft]										
	Boom length [ft]																					
	125.7	125.7	139.4	139.4	139.4	139.4	153.2	153.2	153.2	167.0												
8.2												8.2										
9.8												9.8										
11.5												11.5										
13.1												13.1										
14.8												14.8										
16.4	82	34.6	82	21.8								16.4										
19.7	80	32.4	80	19.6	82	17.8	82	18.5	82	31.5	82	29.9									19.7	
23.0	79	30.4	79	17.8	80	15.4	80	16.3	80	29.7	80	28.2	81	16.3	81	29.1	81	16.0				23.0
26.2	77	28.6	77	16.3	79	13.4	79	14.3	79	27.9	79	26.8	80	14.1	80	27.5	80	14.3	81	14.3		26.2
29.5	76	27.1	76	14.7	78	11.4	78	12.5	78	26.4	78	25.3	79	12.3	79	26.0	79	12.7	80	12.3		29.5
32.8	75	25.7	75	13.6	77	9.9	77	11.2	77	25.1	77	24.0	78	10.5	78	24.6	78	11.6	79	10.5		32.8
36.1	73	24.4	73	12.5	75	8.5	75	9.9	75	23.8	75	22.9	77	9.2	77	23.3	77	10.3	78	9.2		36.1
39.4	71	23.3	71	11.6	74	7.2	74	8.5	74	22.7	74	21.8	76	7.9	76	22.2	76	9.4	77	7.9		39.4
45.9	68	21.1	68	9.9	71	5.0	71	6.6	71	20.7	71	20.0	73	5.7	73	20.0	73	7.7	75	5.5		45.9
52.5	65	19.4	65	8.5	68	3.3	68	5.0	68	18.9	68	18.2	71	3.9	71	18.2	71	6.3	73	3.7		52.5
59.1	61	17.8	61	7.4			65	3.5	65	17.4	65	16.9	68	2.6	68	16.7	68	5.0	71	2.2		59.1
65.6	58	16.5	58	6.6			62	2.4	62	16.0	62	15.6			66	15.4	66	4.1				65.6
72.2	54	15.4	54	5.7					59	14.9	59	14.7			63	14.3	63	3.3				72.2
78.7	50	14.5	50	5.0					56	13.8	56	13.6			60	13.2	60	2.6				78.7
85.3	45	13.8	45	4.4					52	13.0	52	13.0			57	12.3						85.3
91.9	41	13.2	41	3.9					48	12.3	48	12.3			54	11.6						91.9
98.4	35	13.0	35	3.5					44	11.9	44	11.6			50	11.0						98.4
105.0	29	12.7	29	3.0					40	11.4	40	11.2			47	10.3						105.0
111.5	21	13.0	21	2.8					35	11.0	35	10.8			43	9.9						111.5
118.1									29	11.0	29	10.5			39	9.4						118.1
124.7									21	11.2	21	10.5			34	9.2						124.7
131.2															28	9.2						131.2
137.8															21	9.2						137.8
144.4															7	10.3						144.4
150.9																						150.9
157.5																						157.5
164.0																						164.0
170.6																						170.6
177.2																						177.2
183.7																						183.7
Max.	79.1		66.1		77.4		74.7		69.5		56.2		76.0		55.8		47.2		62.8		Max.	
Tel.	Telescoping sequence [%]											Tel.										
1	46		0		92		92		46		0		92		46		0		92		1	
2	46		0		92		46		46		0		92		46		0		92		2	
3	46		0		46		46		46		46		46		46		92		92		3	
4	46		92		46		46		46		92		46		46		92		46		4	
5	46		92		46		46		46		92		46		92		92		46		5	
6	46		92		0		46		92		92		46		92		92		46		6	

Max.: Supportable maximum load for telescoping cylinder (without locked B-pins), not to telescope.

ATTENTION:

The given telescoping loads are without consideration of counterweight and outrigger base. The crane's really existing counterweight and outrigger base **must** be taken into consideration.
 The given telescoping loads are based at theoretical assumptions, which are valid normally for a well maintained and operated crane.

To lock and un-lock a boom telescoping section under load (operation of B-pins and C-pins) ist not permissible.
 The B-pins of the extending telescoping section must be un-locked **before** loading and the telescoping section extended approx. 1.5ft.
 The extension of a telescoping section under load is only permissible up to approx. 1.5ft in front of the next telescoping locking position, to prevent automatically locking from the B-pins.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Load rating chart ATF 220G-5																				
Telescoping loads in 1,000 lbs according per SAE J765, at telescopic boom On outriggers, 360° working area																				
Working radius [ft]	Boom length [ft]										Working radius [ft]									
	167.0		167.0		180.4		180.4		180.4			194.2		194.2		208.0		223.1		
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	
8.2																				8.2
9.8																				9.8
11.5																				11.5
13.1																				13.1
14.8																				14.8
16.4																				16.4
19.7																				19.7
23.0																				23.0
26.2	81	14.7	81	31.5																26.2
29.5	80	13.0	80	29.7	81	12.1	81	26.0	81	16.9										29.5
32.8	79	11.4	79	28.2	80	10.5	80	24.2	80	15.2	81	11.9	81	25.5						32.8
36.1	78	10.1	78	26.6	79	9.0	79	22.9	79	13.4	80	10.3	80	24.0	81	11.9				36.1
39.4	77	9.0	77	25.3	79	7.7	79	21.3	79	12.1	79	9.0	79	22.4	80	10.3	81	7.2		39.4
45.9	75	7.0	75	22.9	77	5.5	77	19.1	77	9.7	77	6.6	77	20.0	79	7.7	80	4.4		45.9
52.5	73	5.5	73	20.9	75	3.7	75	16.9	75	7.9	76	4.6	76	17.8	77	5.7	78	2.4		52.5
59.1	71	4.1	71	19.1	73	2.2	73	15.2	73	6.1	74	3.0	74	15.8	76	3.9				59.1
65.6	68	2.8	68	17.6			71	13.6	71	4.8			72	14.3	74	2.6				65.6
72.2			66	16.3			68	12.3	68	3.7			70	12.7						72.2
78.7			63	14.9			66	11.0	66	2.8			68	11.6						78.7
85.3			61	13.8			64	10.1					66	10.5						85.3
91.9			58	13.0			61	9.0					64	9.4						91.9
98.4			55	12.1			59	8.1					62	8.5						98.4
105.0			52	11.4			57	7.4					60	7.7						105.0
111.5			49	10.8			54	6.8					57	7.0						111.5
118.1			46	10.1			51	6.1					55	6.3						118.1
124.7			42	9.7			48	5.5					52	5.9						124.7
131.2			38	9.2			45	5.0					50	5.2						131.2
137.8			34	8.8			41	4.6					47	4.8						137.8
144.4			28	8.5			37	4.4					44	4.4						144.4
150.9			22	8.3			33	4.1					41	3.9						150.9
157.5			11	8.8			28	3.9					37	3.7						157.5
164.0							22	3.7					33	3.5						164.0
170.6							12	4.1					29	3.3						170.6
177.2													23	3.3						177.2
183.7													14	3.5						183.7
Max.	49.8		41.7		50.7		42.3		37.2		41.4		33.1		33.1		30.4		Max.	
Tel.	Telescoping sequence [%]										Tel.									
1	92		0		92		46		0		92		46		92		100		1	
2	46		46		92		92		92		92		92		92		100		2	
3	46		92		92		92		92		92		92		92		100		3	
4	46		92		92		92		92		92		92		92		100		4	
5	92		92		46		92		92		92		92		92		100		5	
6	92		92		46		46		92		46		92		92		100		6	

Max.: Supportable maximum load for telescoping cylinder (without locked B-pins), not to telescope.

ATTENTION:

The given telescoping loads are without consideration of counterweight and outrigger base. The crane's really existing counterweight and outrigger base **must** be taken into consideration.

The given telescoping loads are based at theoretical assumptions, which are valid normally for a well maintained and operated crane.

To lock and un-lock a boom telescoping section under load (operation of B-pins and C-pins) ist not permissible. The B-pins of the extending telescoping section must be un-locked **before** loading and the telescoping section extended approx. 1.5ft.

The extension of a telescoping section under load is only permissible up to approx. 1.5ft in front of the next telescoping locking position, to prevent automatically locking from the B-pins.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J765, at fly jib 5,4 m

Counterweight 156,527 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length												Working radius [ft]												
	43.3 ft			43.3 ft to 111.9 ft				43.3 ft to 208.0 ft			43.3 ft to 223.1 ft														
	Fly jib 17.7 ft offset			Fly jib 17.7 ft offset				Fly jib 17.7 ft offset			Fly jib 17.7 ft offset														
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°													
10	76	104.2																	10						
12	74	97.5	79	66.3															12						
14	72	91.6	77	63.8															14						
16	70	86.4	75	61.3															16						
18	68	81.9	73	59.2	78	48.1													18						
20	66	77.7	71	57.3	76	47.0	80	85.3											20						
25	61	69.2	66	53.2	70	44.8	78	85.3											25						
30	55	62.3	60	49.8	63	43.1	76	85.2	78	60.8	80	47.3							30						
35	49	56.7	54	47.0	57	41.7	74	81.7	76	58.5	78	46.3							35						
40	42	51.6	47	44.0	50	40.2	72	75.4	74	56.2	76	45.3							40						
45	34	46.6	39	41.3			69	69.8	71	54.4	73	44.5							45						
50	22	42.1					67	64.8	69	52.6	71	43.6	79	23.2			80	20.3	50						
55							65	60.4	67	51.1	68	42.9	78	22.3	79	20.7	80	19.9	79	20.0	80	19.1			55
60							62	56.4	64	49.6	66	42.2	77	21.4	78	19.9	79	19.3	78	19.5	79	18.4	80	17.7	60
65							59	52.9	61	48.2	63	41.7	75	20.6	76	19.3	78	18.6	76	18.8	78	17.7	79	17.1	65
70							57	49.8	59	47.0	60	41.1	74	19.9	75	18.6	77	18.1	75	18.2	77	17.2	78	16.5	70
75							54	47.0	56	45.6	57	40.4	73	19.2	74	18.0	75	17.5	75	17.6	76	16.7	77	16.0	75
80							51	44.3	53	43.8	54	39.8	72	18.6	73	17.5	74	16.8	74	17.1	75	16.2	76	15.6	80
85							48	41.4	50	41.6	51	39.5	70	17.9	72	17.0	73	16.3	72	16.6	73	15.7	74	15.2	85
90							45	38.9	47	39.6	48	39.0	69	17.4	71	16.7	72	16.0	71	16.1	72	15.3	73	14.9	90
95							42	35.9	44	36.7	45	36.8	68	16.9	69	16.2	70	15.7	70	15.6	71	14.9	72	14.6	95
100							38	32.8	40	33.4	41	33.6	67	16.4	68	15.8	69	15.3	69	15.1	70	14.4	71	14.2	100
110							29	27.2	31	27.7			64	15.5	65	14.9	66	14.7	66	14.2	67	13.8	68	13.6	110
120							16	22.8					61	14.6	62	14.2	63	14.0	64	13.5	65	13.1	65	12.9	120
130													58	14.0	59	13.5	60	13.3	61	12.9	62	12.4	63	12.2	130
140													55	13.4	56	13.0	57	12.8	58	12.3	59	11.9	60	11.7	140
150													52	12.7	53	12.4	53	12.3	56	11.8	57	11.5	57	11.3	150
160													48	11.7	49	11.7	50	11.7	53	11.3	54	11.1	54	10.9	160
170													44	10.9	45	10.9	46	10.9	49	10.4	50	10.4	51	10.4	170
180													40	10.0	41	10.0			46	9.7	47	9.7	47	9.7	180
190													36	9.1	36	9.3			42	9.1	43	9.1	44	9.1	190
200													30	8.1	30	8.6			38	8.2	39	8.2			200
210													23	7.1					33	7.1	34	7.1			210
220																			27	5.9					220
Tel.	Telescoping sequence %																		Tel.						
1	0			92				92			100				1										
2	0			92				92			100				2										
3	0			46				92			100				3										
4	0			0				92			100				4										
5	0			0				92			100				5										
6	0			0				92			100				6										

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Working radius [ft]		Outrigger reaction force F in ton [US]																								Working radius [ft]	
		Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 17.7 ft, load rating chart 99707704318																									
		Counterweight 156,527 lbs																									
		On outriggers, 360° working area																									
		Outriggers fully extended, outrigger base 27.23 ft																									
Boom length 43.3 ft						Boom length 43.3 ft to 111.9 ft						Boom length 43.3 ft to 208.0 ft						Boom length 43.3 ft to 223.1 ft									
Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset									
0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°					
m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F				
10	104.2	71.2																							10		
12	97.5	67.8	66.3	69.6																					12		
14	91.6	64.9	63.8	67.3																					14		
16	86.4	62.2	61.3	65.2																					16		
18	81.9	59.7	59.2	63.2	48.1	65.3																			18		
20	77.7	57.4	57.3	61.2	47.0	63.5	85.3	55.2																	20		
25	69.2	52.4	53.2	56.7	44.8	59.3	85.3	59.3																	25		
30	62.3	51.2	49.8	52.5	43.1	55.1	85.2	66.9	60.8	51.2	47.3	52.7													30		
35	56.7	53.2	47.0	48.6	41.7	51.0	81.7	72.1	58.5	55.6	46.3	48.3													35		
40	51.6	54.8	44.0	48.6	40.2	47.1	75.4	74.9	56.2	59.6	45.3	50.6													40		
45	46.6	55.7	41.3	51.0			69.8	77.4	54.4	63.7	44.5	54.8													45		
50	42.1	56.3					64.8	79.5	52.6	67.7	43.6	58.9	23.2	46.7					20.3	48.2					50		
55							60.4	81.5	51.1	71.5	42.9	62.9	22.3	45.1	20.7	46.6	19.9	48.2	20.0	45.7	19.1	47.6			55		
60							56.4	83.5	49.6	75.3	42.2	67.0	21.4	44.9	19.9	44.8	19.3	45.9	19.5	43.9	18.4	45.4	17.7	46.9	60		
65							52.9	85.3	48.2	79.0	41.7	71.1	20.6	46.8	19.3	44.3	18.6	43.7	18.8	45.1	17.7	43.3	17.1	44.9	65		
70							49.8	87.0	47.0	82.6	41.1	75.0	19.9	48.7	18.6	45.9	18.1	44.6	18.2	46.8	17.2	44.5	16.5	43.9	70		
75							47.0	88.6	45.6	85.7	40.4	78.8	19.2	50.6	18.0	47.8	17.5	46.2	17.6	48.7	16.7	46.3	16.0	44.5	75		
80							44.3	90.1	43.8	88.3	39.8	82.6	18.6	52.4	17.5	49.8	16.8	48.0	17.1	50.6	16.2	48.2	15.6	46.4	80		
85							41.4	90.9	41.6	90.1	39.5	86.7	17.9	54.1	17.0	51.6	16.3	49.8	16.6	52.4	15.7	50.0	15.2	48.4	85		
90							38.9	91.8	39.6	91.8	39.0	90.5	17.4	55.9	16.7	53.6	16.0	51.8	16.1	54.2	15.3	51.9	14.9	50.3	90		
95							35.9	91.6	36.7	91.9	36.8	91.7	16.9	57.6	16.2	55.5	15.7	53.8	15.6	55.8	14.9	53.6	14.6	52.2	95		
100							32.8	90.9	33.4	91.1	33.6	91.3	16.4	59.3	15.8	57.2	15.3	55.7	15.1	57.4	14.4	55.3	14.2	54.1	100		
110							27.2	89.2	27.7	89.5			15.5	62.8	14.9	60.6	14.7	59.4	14.2	60.7	13.8	58.8	13.6	57.6	110		
120							22.8	88.1					14.0	65.9	14.2	64.0	14.0	62.9	13.5	64.1	13.1	62.2	12.9	61.0	120		
130													14.0	69.2	13.5	67.3	13.3	66.3	12.9	67.3	12.4	65.3	12.2	64.2	130		
140													13.4	72.6	13.0	70.8	12.8	69.8	12.3	70.5	11.9	68.6	11.7	67.5	140		
150													12.7	75.3	12.4	73.9	12.3	73.1	11.8	73.7	11.5	72.0	11.3	71.0	150		
160													11.7	77.4	11.7	76.6	11.7	76.2	11.3	76.6	11.1	75.3	10.9	74.4	160		
170													10.9	79.5	10.9	78.8	10.9	78.5	10.4	78.6	10.4	77.8	10.4	77.4	170		
180													10.0	81.3	10.0	80.7			9.7	80.8	9.7	80.1	9.7	79.8	180		
190													9.1	82.6	9.3	82.7			9.1	82.9	9.1	82.3	9.1	82.2	190		
200													8.1	83.5	8.6	84.8			8.2	84.3	8.2	83.8			200		
210													7.1	84.1					7.1	84.4	7.1	84.0			210		
220																			5.9	84.2					220		
Tel.	Telescoping sequence %																								Tel.		
1			0							92															1		
2			0							92															2		
3			0							46															3		
4			0							0															4		
5			0							0															5		
6			0							0															6		

The chart shows the maximum existing outrigger reaction forces in the worst condition,
dynamic influences are not being taken into account.

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 156,527 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft

Working radius [ft]	Fly jib																		Working radius [ft]		
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset								
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°						
10	79	39.7																	10		
12	77	39.7				80	35.1												12		
14	75	39.0				78	34.3			80	22.9								14		
16	74	37.2				77	33.3			80	22.9								16		
18	73	35.4				77	32.3			79	22.9			81	14.1				18		
20	72	33.7				76	31.4			78	22.9			80	14.1			81	10.1	20	
25	69	30.4	78	24.5		73	29.2			76	22.9			77	14.1			79	10.1	25	
30	65	27.6	75	22.5		70	27.1			74	21.9			76	14.1			78	10.1	30	
35	62	25.2	71	21.0		68	24.9			71	20.2			74	14.1			76	10.1	35	
40	58	23.2	67	19.7	75	17.3	65	22.9	76	18.8				72	14.1			74	10.1	40	
45	54	21.5	63	18.5	71	16.5	62	21.3	73	17.6				70	13.9			72	10.1	45	
50	49	20.1	59	17.6	66	15.9	59	19.9	70	16.3				68	13.2			71	10.0	50	
55	45	18.8	54	16.8	61	15.4	55	18.4	66	15.1	76	12.7		66	12.4			69	9.7	55	
60	40	17.7	49	16.0	56	15.0	51	16.9	63	14.1	73	12.0		64	11.8			68	9.2	60	
65	35	16.7	44	15.3	50	14.8	48	15.6	59	13.1	69	11.5		62	11.1			66	8.9	65	
70	28	15.9	37	14.9			45	14.4	56	12.4	65	11.0		60	10.4			64	8.4	70	
75	21	15.3	30	14.6			40	13.3	51	11.7	60	10.5		51	11.6	63	9.8	58	9.9	75	
80							36	12.4	47	11.1	55	10.1		48	10.6	60	9.1	55	9.3	80	
85							31	11.5	42	10.4	49	9.7		45	10.0	57	8.6	68	7.7	85	
90							25	10.7	36	10.0				41	9.3	53	8.1	64	7.4	90	
95														38	8.6	50	7.7	60	7.1	95	
100														34	8.0	46	7.4	55	6.8	100	
110														24	7.2	36	6.7	45	6.4	110	
120																					120
130																					130
140																					140
150																					150
160																					160
170																					170
180																					180
190																					190
200																					200
210																					210
220																					220
230																					230
240																					240
250																					250
260																					260
270																					270
280																					280
Tel.	Telescoping sequence %																		Tel.		
1	0																				
2	0																				
3	0																				
4	0																				
5	0																				
6	0																				

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 156,527 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 111.9 ft

Working radius [ft]	Fly jib															Working radius [ft]																
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset																			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°																	
10																						10										
12																							12									
14																							14									
16																							16									
18																							18									
20	81	39.3																					20									
25	79	36.8					80	28.9															25									
30	77	34.6					79	28.8			80	19.6				81	12.6						30									
35	75	32.4					77	28.0			78	19.6				79	12.6				80	9.0	35									
40	74	30.7	79	22.4			76	27.0			77	19.6				78	12.6				79	9.0	40									
45	71	29.0	77	21.4			74	25.8			76	19.4				77	12.6				78	9.0	45									
50	70	27.4	75	20.5			73	24.6			75	18.9				76	12.6				77	9.0	50									
55	68	26.1	73	19.7	77	16.5	71	23.5	77	17.7					75	12.6				76	9.0	55										
60	66	24.9	71	19.1	76	16.0	69	22.5	76	17.1					74	12.6				75	9.0	60										
65	64	23.7	69	18.4	73	15.7	67	21.5	74	16.4	80	12.8			72	12.6				73	9.0	65										
70	62	22.7	67	17.9	71	15.4	66	20.5	73	15.9	78	12.5	69	15.9	77	12.1				72	9.0	70										
75	60	21.8	65	17.4	69	15.1	64	19.7	71	15.4	76	12.2	67	15.3	75	11.7				71	8.8	75										
80	57	21.0	62	16.9	66	14.9	62	19.0	69	14.9	74	11.8	66	14.6	74	11.4				68	11.4	78	9.0	80								
85	55	20.1	60	16.6	64	14.6	60	18.1	67	14.4	72	11.5	64	13.9	72	11.0				67	11.0	76	8.6	85								
90	53	19.4	58	16.1	62	14.4	59	17.4	65	13.9	70	11.1	63	13.4	71	10.7				66	10.5	75	8.3	90								
95	51	18.8	56	15.7	59	14.2	57	16.9	63	13.4	68	10.9	61	12.9	69	10.4	75	8.3		64	10.2	73	8.1	95								
100	48	18.1	53	15.3	56	14.1	55	16.3	61	12.8	66	10.7	59	12.5	67	10.0	73	8.1	63	9.8	72	7.8		66	7.4	76	6.1	100				
110	43	16.9	48	14.8	51	13.9	51	15.1	57	12.0	61	10.2	55	11.6	63	9.4	69	7.5	59	9.1	68	7.3	75	5.8	62	7.1	72	5.8	110			
120	38	16.1	42	14.3	45	13.9	46	13.9	52	11.3	56	9.9	52	10.9	59	8.7	65	7.2	56	8.5	65	6.7	72	5.4	60	6.6	69	5.4	120			
130	31	15.3	35	13.9			41	12.7	47	10.6	51	9.5	48	10.0	56	8.0	61	6.9	53	8.0	61	6.2	69	5.1	57	6.2	66	4.9	74	4.0	130	
140	21	14.9					35	11.7	41	10.1			44	9.2	51	7.6	56	6.7	50	7.3	58	5.9	65	4.9	54	5.9	63	4.6	71	3.7	140	
150							29	10.8	34	9.7			39	8.4	46	7.2	51	6.5	46	6.7	54	5.5	60	4.8	51	5.4	60	4.2	68	3.4	150	
160							21	9.9	26	9.4			34	7.8	41	6.7	44	6.4	42	6.0	50	5.2	56	4.6	48	4.9	57	3.9	64	3.3	160	
170													28	7.1	34	6.4			37	5.5	45	4.9	50	4.4	44	4.4	53	3.8	60	3.1	170	
180													19	6.6					33	5.2	40	4.5			40	4.1	49	3.4	56	3.1	180	
190																			27	4.8	33	4.3			36	3.8	45	3.2	50	3.0	190	
200																			20	4.3	26	4.1			31	3.5	40	3.0	44	2.8	200	
210																									26	3.3	34	2.9				210
220																									18	3.0						220
230																																230
240																																240
250																																250
260																																260
270																																270
280																																280
Tel.	Telescoping sequence %																					Tel.										
1	92																					1										
2	92																					2										
3	46																					3										
4	0																					4										
5	0																					5										
6	0																					6										

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 156,527 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 208.0 ft

Working radius [ft]	Fly jib																Working radius [ft]												
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset																
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°														
10																		10											
12																		12											
14																		14											
16																		16											
18																		18											
20																		20											
25																		25											
30																		30											
35																		35											
40																		40											
45	80	15.0																45											
50	79	15.0				80	11.5											50											
55	78	15.0				79	11.5			80	8.8							55											
60	77	15.0				78	11.5			79	8.8			80	7.1			60											
65	76	15.0	80	14.8		77	11.5			78	8.8			79	7.1		80	5.5	65										
70	75	15.0	79	14.3		76	11.5			77	8.8			78	7.1		79	5.5	70										
75	75	15.0	78	13.9		76	11.5	80	11.4					78	7.1		79	5.5	75										
80	74	14.9	77	13.6	79	12.5	75	11.5	79	11.2				77	7.1		78	5.5	80										
85	72	14.8	75	13.2	78	12.1	74	11.5	78	10.8				75	8.8	81	8.8	76	7.1	85									
90	71	14.3	74	12.9	77	12.0	73	11.5	77	10.5				74	8.8	80	8.7	75	7.1	90									
95	70	13.9	73	12.6	76	11.7	72	11.5	76	10.2				74	8.8	79	8.5	75	7.1	95									
100	69	13.5	72	12.2	75	11.4	71	11.4	75	9.9	79	9.2		73	8.8	78	8.3	74	7.1	100									
110	66	12.7	69	11.6	72	10.9	69	10.7	73	9.5	76	8.7	70	8.8	76	7.8	81	7.1	72	7.1	78	6.4		73	5.5	80	4.6	110	
120	64	12.1	67	11.0	69	10.5	67	10.1	71	9.0	74	8.3	69	8.5	74	7.4	78	6.8	71	7.1	77	6.1		72	5.4	79	4.6	120	
130	62	11.5	64	10.4	67	10.0	64	9.6	68	8.6	71	8.0	67	8.2	72	7.1	76	6.6	69	6.9	75	5.8	80	5.3	70	5.3	77	4.4	130
140	59	11.0	62	10.1	64	9.6	62	9.2	66	8.3	69	7.6	65	7.7	70	6.8	74	6.3	67	6.4	73	5.4	78	5.1	69	5.1	76	4.3	140
150	57	10.5	60	9.7	61	9.3	60	8.8	64	8.0	67	7.4	63	7.3	68	6.4	72	6.1	65	6.1	71	5.2	76	4.9	67	5.0	74	4.1	150
160	54	10.1	57	9.4	58	9.0	57	8.3	61	7.6	64	7.2	60	7.0	65	6.1	69	5.9	63	5.9	69	5.0	73	4.6	66	4.8	72	3.9	160
170	51	9.7	54	9.1	55	8.8	55	8.0	59	7.3	61	7.1	58	6.6	63	6.0	66	5.5	61	5.5	67	4.9	71	4.4	64	4.6	70	3.8	170
180	48	9.1	51	8.7	52	8.7	53	7.8	56	7.0	58	6.7	56	6.3	61	5.8	64	5.4	60	5.2	65	4.5	69	4.3	58	4.3	69	3.6	180
190	45	8.5	48	8.4	48	8.3	50	7.5	53	6.7	55	6.5	54	6.1	59	5.5	61	5.2	58	5.0	63	4.3	67	4.1	60	4.1	67	3.4	190
200	41	8.0	44	8.0	44	7.8	47	7.1	50	6.6	52	6.3	51	5.9	56	5.2	58	5.0	55	4.7	60	4.1	64	3.9	58	3.9	64	3.3	200
210	37	7.5	39	7.5		44	6.6	47	6.4	48	6.2	49	5.7	53	5.1	55	4.8	53	4.4	64	4.0	61	3.7	56	3.7	62	3.1	210	
220	32	6.8	34	7.0		40	6.3	43	6.1	44	6.0	46	5.4	50	4.9	52	4.7	51	4.2	57	3.8	59	3.6	54	3.4	60	3.1	220	
230	25	6.0	27	6.3		36	5.8	39	5.7			43	5.1	47	4.7	48	4.5	48	4.1	53	3.6	55	3.4	51	3.2	58	3.0	230	
240						31	5.3	34	5.4			40	4.7	44	4.6	45	4.3	45	3.8	50	3.5	52	3.2	49	3.0	55	2.8	240	
250						26	4.8	28	5.0			36	4.4	40	4.4			42	3.5	47	3.3	49	3.1	47	2.9			250	
260												31	4.1	34	4.2			39	3.3	43	3.1	44	2.9					260	
270												25	3.5	27	3.7			35	3.1	39	3.0							270	
280												19	2.8	20	3.0			31	2.7	35	2.8							280	
Tel.	Telescoping sequence %																Tel.												
1	92																1												
2	92																2												
3	92																3												
4	92																4												
5	92																5												
6	92																6												

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

**Outrigger reaction force chart ATF 220G-5**

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707704319
Counterweight 156,527 lbs / On outriggers, 360° working area / Outriggers fully extended, outrigger base 27.23 ft
 Boom length 43.3 ft to 208.0 ft

Work. radius [ft]	Fly jib 43.3 ft, offset			Fly jib 63.0 ft, offset			Fly jib 82.7 ft, offset			Fly jib 102.4 ft, offset			Fly jib 122.0 ft, offset			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F
10																
12																
14																
16																
18																
20																
25																
30																
35																
40																
45		54.6														
50		52.3					8.8	54.9								
55		50.0					8.8	53.1								
60		47.7					8.8	51.3								
65		45.5	14.8	48.7			8.8	49.5								
70		43.7	14.3	46.9			8.8	47.7								
75		44.3	13.9	45.0			8.8	45.9								
80		46.5	13.6	43.6	12.5	46.7	11.5	43.4	11.2	47.4						
85		48.5	13.2	43.6	12.1	44.8	11.5	43.7	10.8	45.8						
90		50.1	12.9	45.2	12.0	42.9	11.5	45.6	10.5	44.2						
95		51.7	12.6	46.8	11.7	43.2	11.5	47.6	10.2	43.0						
100		53.3	12.2	48.4	11.4	44.8	11.4	49.4	9.9	43.2	9.2	45.3	8.8	45.1	8.3	44.8
110		56.2	11.6	51.5	10.9	48.2	10.7	52.3	9.5	46.3	8.7	42.3	8.8	48.7	7.8	42.5
120		59.3	11.0	54.6	10.5	51.6	10.1	55.1	9.0	49.1	8.3	44.7	8.5	51.8	7.4	44.6
130		62.4	10.4	57.6	10.0	54.8	9.6	57.8	8.6	52.2	8.0	47.8	8.2	54.7	7.1	47.5
140		65.4	10.1	60.8	9.6	58.2	9.2	60.8	8.3	55.2	7.6	50.9	7.7	57.1	6.8	50.2
150		68.2	9.7	64.1	9.3	61.5	8.8	63.4	8.0	58.1	7.4	54.2	7.3	59.7	6.4	52.9
160		71.0	9.4	67.2	9.0	64.8	8.3	66.0	7.6	61.0	7.2	57.5	7.0	62.2	6.1	55.6
170		74.0	9.1	70.2	8.8	68.4	8.0	68.7	7.3	63.7	7.1	60.9	6.6	64.7	6.0	58.6
180		77.6	8.7	73.2	8.7	72.0	7.8	71.7	7.0	66.4	6.7	63.8	6.3	67.1	5.8	61.5
190		80.3	8.4	76.1	8.3	75.0	7.5	74.4	6.7	69.3	6.5	67.0	6.1	69.7	5.5	64.1
200		82.3	8.0	78.8	7.8	77.6	7.1	76.7	6.6	72.4	6.3	70.3	5.9	72.4	5.2	66.6
210		83.6	7.5	81.0			6.6	78.5	6.4	75.4	6.2	73.6	5.7	75.0	5.1	69.4
220		84.3	7.0	83.1			6.3	80.7	6.1	77.9	6.0	77.0	5.4	77.1	4.9	72.2
230		84.3	6.3	84.4			5.8	82.5	5.7	80.3			5.1	79.1	4.7	75.0
240							5.3	83.9	5.4	82.7			4.7	80.9	4.6	77.8
250							4.8	85.2	5.0	85.1			4.4	82.7	4.4	80.5
260													4.1	84.4	4.2	83.3
270									3.5	85.0	3.7	84.8	3.5	85.0	3.7	84.8
280									2.8	85.2	3.0	85.8	2.8	85.2	2.8	84.2

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 92/92/92/92/92 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J765, at fly jib 5,4 m
Counterweight 103,616 lbs
 On outriggers, 360° working area
Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length														Working radius [ft]										
	43.3 ft			43.3 ft to 111.9 ft				43.3 ft to 208.0 ft				43.3 ft to 223.1 ft													
	Fly jib 17.7 ft offset			Fly jib 17.7 ft offset				Fly jib 17.7 ft offset				Fly jib 17.7 ft offset													
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°													
10	76	104.2														10									
12	74	97.5	79	66.3												12									
14	72	91.6	77	63.8												14									
16	70	86.4	75	61.3												16									
18	68	81.9	73	59.2	78	48.1										18									
20	66	77.7	71	57.3	76	47.0	80	85.3								20									
25	61	69.2	66	53.2	70	44.8	78	85.3								25									
30	55	62.3	60	49.8	63	43.1	76	85.2	78	60.8	80	47.3				30									
35	49	56.7	54	47.0	57	41.7	74	81.7	76	58.5	78	46.3				35									
40	42	51.6	47	44.0	50	40.2	72	75.4	74	56.2	76	45.3				40									
45	34	46.6	39	41.3			69	69.8	71	54.4	73	44.5				45									
50	22	42.1					67	64.8	69	52.6	71	43.6	79	23.2		50									
55							65	58.4	67	51.1	68	42.9	78	22.3	79	20.7	80	19.9	79	20.0	80	19.1			55
60							62	50.8	64	49.1	66	42.2	77	21.4	78	19.9	79	19.3	78	19.5	79	18.4	80	17.7	60
65							59	44.0	61	45.2	63	41.7	75	20.6	76	19.3	78	18.6	76	18.8	78	17.7	79	17.1	65
70							57	38.5	59	39.9	60	39.5	74	19.9	75	18.6	77	18.1	75	18.2	77	17.2	78	16.5	70
75							54	33.8	56	35.7	57	36.6	73	19.2	74	18.0	75	17.5	75	17.6	76	16.7	77	16.0	75
80							51	29.8	53	32.6	54	33.5	72	18.6	73	17.5	74	16.8	74	17.1	75	16.2	76	15.6	80
85							48	26.2	50	29.7	51	30.6	70	17.9	72	17.0	73	16.3	72	16.6	73	15.7	74	15.2	85
90							45	24.1	47	26.4	48	27.1	69	17.4	71	16.7	72	16.0	71	16.1	72	15.3	73	14.9	90
95							42	22.2	44	23.4	45	23.9	68	16.9	69	16.2	70	15.7	70	15.6	71	14.9	72	14.6	95
100							38	20.2	40	20.9	41	20.9	67	16.4	68	15.8	69	15.3	69	15.1	70	14.4	71	14.2	100
110							29	15.8	31	16.2			64	15.5	65	14.9	66	14.7	66	14.2	67	13.8	68	13.6	110
120							16	12.4					61	14.6	62	14.2	63	14.0	64	13.5	65	13.1	65	12.9	120
130													58	13.6	59	13.5	60	13.3	61	12.9	62	12.4	63	12.2	130
140													55	11.2	56	11.5	57	11.8	58	11.2	59	11.6	60	11.5	140
150													52	9.1	53	9.4	53	9.8	56	9.3	57	10.1	57	10.1	150
160													48	7.3	49	7.6	50	7.8	53	7.5	54	8.1	54	8.2	160
170													44	5.6	45	6.3	46	6.3	49	5.8	50	6.3	51	6.5	170
180													40	4.4	41	4.8			46	4.6	47	4.9	47	5.0	180
190																			42	3.5	43	3.6	44	3.5	190
Tel.	Telescoping sequence %														Tel.										
1	0			92				92				100			1										
2	0			92				92				100			2										
3	0			46				92				100			3										
4	0			0				92				100			4										
5	0			0				92				100			5										
6	0			0				92				100			6										

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 103,616 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft

Working radius [ft]	Fly jib															Working radius [ft]					
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset								
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°						
10	79	39.7																		10	
12	77	39.7				80	35.1													12	
14	75	39.0				78	34.3			80	22.9									14	
16	74	37.2				77	33.3			80	22.9									16	
18	73	35.4				77	32.3			79	22.9			81	14.1					18	
20	72	33.7				76	31.4			78	22.9			80	14.1			81	10.1	20	
25	69	30.4	78	24.5		73	29.2			76	22.9			77	14.1			79	10.1	25	
30	65	27.6	75	22.5		70	27.1			74	21.9			76	14.1			78	10.1	30	
35	62	25.2	71	21.0		68	24.9			71	20.2			74	14.1			76	10.1	35	
40	58	23.2	67	19.7	75	17.3	65	22.9	76	18.8				72	14.1			74	10.1	40	
45	54	21.5	63	18.5	71	16.5	62	21.3	73	17.6				70	13.9			72	10.1	45	
50	49	20.1	59	17.6	66	15.9	59	19.9	70	16.3				68	13.2			71	10.0	50	
55	45	18.8	54	16.8	61	15.4	55	18.4	66	15.1	76	12.7	62	15.1	75	12.9		66	12.4	55	
60	40	17.7	49	16.0	56	15.0	51	16.9	63	14.1	73	12.0	59	14.2	72	12.2		64	11.8	60	
65	35	16.7	44	15.3	50	14.8	48	15.6	59	13.1	69	11.5	56	13.3	69	11.1		62	11.1	65	
70	28	15.9	37	14.9			45	14.4	56	12.4	65	11.0	54	12.5	66	10.4		60	10.4	70	
75	21	15.3	30	14.6			40	13.3	51	11.7	60	10.5	51	11.6	63	9.8		58	9.9	75	
80							36	12.4	47	11.1	55	10.1	48	10.6	60	9.1		55	9.3	80	
85							31	11.5	42	10.4	49	9.7	45	10.0	57	8.6	68	7.7	52	8.4	85
90							25	10.7	36	10.0			41	9.3	53	8.1	64	7.4	50	7.9	90
95													38	8.6	50	7.7	60	7.1	48	7.4	95
100													34	8.0	46	7.4	55	6.8	45	6.9	100
110													24	7.2	36	6.7	45	6.4	39	6.1	110
120																			32	5.4	120
130																			22	4.7	130
140																					140
150																					150
160																					160
170																					170
180																					180
190																					190
200																					200
210																					210
220																					220
230																					230
Tel.	Telescoping sequence %																	Tel.			
1	0																	1			
2	0																	2			
3	0																	3			
4	0																	4			
5	0																	5			
6	0																	6			

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 103,616 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 208.0 ft

Working radius [ft]	Fly jib																				Working radius [ft]								
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset																
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°														
10																					10								
12																						12							
14																						14							
16																						16							
18																						18							
20																						20							
25																						25							
30																						30							
35																						35							
40																						40							
45	80	15.0																				45							
50	79	15.0				80	11.5															50							
55	78	15.0				79	11.5			80	8.8											55							
60	77	15.0				78	11.5			79	8.8			80	7.1							60							
65	76	15.0	80	14.8		77	11.5			78	8.8			79	7.1				80	5.5		65							
70	75	15.0	79	14.3		76	11.5			77	8.8			78	7.1				79	5.5		70							
75	75	15.0	78	13.9		76	11.5	80	11.4		77	8.8		78	7.1				79	5.5		75							
80	74	14.9	77	13.6	79	12.5	75	11.5	79	11.2		76	8.8		77	7.1			78	5.5		80							
85	72	14.8	75	13.2	78	12.1	74	11.5	78	10.8		75	8.8	81	8.8				76	7.1		85							
90	71	14.3	74	12.9	77	12.0	73	11.5	77	10.5		74	8.8	80	8.7				75	7.1		90							
95	70	13.9	73	12.6	76	11.7	72	11.5	76	10.2		74	8.8	79	8.5				75	7.1		95							
100	69	13.5	72	12.2	75	11.4	71	11.4	75	9.9	79	9.2	73	8.8	78	8.3			74	7.1	81	6.6	75	5.5		100			
110	66	12.7	69	11.6	72	10.9	69	10.7	73	9.5	76	8.7	70	8.8	76	7.8	81	7.1	72	7.1	78	6.4		73	5.5	80	4.6	110	
120	64	12.1	67	11.0	69	10.5	67	10.1	71	9.0	74	8.3	69	8.5	74	7.4	78	6.8	71	7.1	77	6.1		72	5.5	79	4.6	120	
130	62	11.5	64	10.4	67	10.0	64	9.6	68	8.6	71	8.0	67	8.2	72	7.1	76	6.6	69	7.1	75	5.8	80	5.3	70	5.4	77	4.4	130
140	59	11.0	62	10.1	64	9.6	62	9.2	66	8.3	69	7.6	65	7.7	70	6.8	74	6.3	67	6.9	73	5.4	78	5.1	69	5.3	76	4.3	140
150	57	10.2	60	9.7	61	9.3	60	8.8	64	8.0	67	7.4	63	7.3	68	6.4	72	6.1	65	6.4	71	5.2	76	4.9	67	5.1	74	4.1	150
160	54	9.1	57	9.2	58	9.0	57	8.3	61	7.6	64	7.2	60	7.0	65	6.1	69	5.9	63	6.1	69	5.0	73	4.6	66	5.0	72	3.9	160
170	51	7.4	54	8.2	55	8.8	55	7.7	59	7.3	61	7.1	58	6.6	63	6.0	66	5.5	61	5.9	67	4.9	71	4.4	64	4.8	70	3.8	170
180	48	6.0	51	6.9	52	7.4	53	6.3	56	7.0	58	6.7	56	6.3	61	5.8	64	5.4	60	5.5	65	4.5	69	4.3	58	4.6	69	3.6	180
190	45	4.8	48	5.6	48	6.0	50	5.1	53	6.1	55	6.4	54	5.5	59	5.5	61	5.2	58	5.2	63	4.3	67	4.1	60	4.3	67	3.4	190
200	41	3.6	44	4.3	44	4.6	47	4.0	50	5.0	52	5.7	51	4.6	56	5.2	58	5.0	55	5.0	60	4.1	64	3.9	58	4.1	64	3.3	200
210			39	3.1			44	2.9	47	4.0	48	4.4	49	3.7	53	4.8	55	4.8	53	4.6	64	4.0	61	3.7	56	3.9	62	3.1	210
220							43	3.0	44	3.2	46	2.9	50	3.7	52	4.3	51		51	3.7	57	3.8	59	3.6	54	3.7	60	3.1	220
230																						55	3.4				58	3.0	230
Tel.	Telescoping sequence %																				Tel.								
1	92																				1								
2	92																				2								
3	92																				3								
4	92																				4								
5	92																				5								
6	92																				6								

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707704321
Counterweight 103,616 lbs / On outriggers, 360° working area / **Outriggers fully extended, outrigger base 27.23 ft**

Boom length 43.3 ft to 208.0 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset						
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
10																															
12																															
14																															
16																															
18																															
20																															
25																															
30																															
35																															
40																															
45																															
50																															
55																															
60																															
65																															
70																															
75																															
80																															
85																															
90																															
95																															
100																															
110																															
120																															
130																															
140																															
150																															
160																															
170																															
180																															
190																															
200																															
210																															
220																															
230																															

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 92/92/92/92/92/92 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 103,616 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 223.1 ft

Working radius [ft]	Fly jib																				Working radius [ft]
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset								
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°						
10																					
12																					
14																					
16																					
18																					
20																					
25																					
30																					
35																					
40																					
45																					
50	80	13.0																			80
55	79	13.0																			79
60	78	13.0																			78
65	77	13.0	80	13.0																	80
70	76	13.0	79	13.0																	79
75	76	13.0	79	12.9																	79
80	75	13.0	78	12.7	80	11.8															80
85	74	13.0	77	12.4	79	11.5															79
90	73	13.0	76	12.0	78	11.1															78
95	72	12.8	75	11.7	77	10.9															77
100	71	12.5	74	11.4	76	10.7															76
110	68	11.8	71	10.7	73	10.2															73
120	67	11.3	69	10.2	71	9.8															71
130	64	10.7	67	9.7	69	9.3															69
140	62	10.1	65	9.4	67	9.0															67
150	60	9.6	63	9.1	64	8.6															64
160	57	8.8	60	8.6	61	8.3															61
170	55	7.2	57	8.0	59	8.2															59
180	52	5.8	54	6.7	56	7.2															56
190	49	4.6	52	5.3	53	5.9															53
200	46	3.4	49	4.0	49	4.5															49
210			45	2.9	46	3.3															46
220																					48
230																					49
Tel.	Telescoping sequence %																				Tel.
1	100																				1
2	100																				2
3	100																				3
4	100																				4
5	100																				5
6	100																				6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707704321
Counterweight 103,616 lbs / On outriggers, 360° working area / **Outriggers fully extended, outrigger base 27.23 ft**
 Boom length 43.3 ft to 223.1 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset						
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10																															
12																															
14																															
16																															
18																															
20																															
25																															
30																															
35																															
40																															
45																															
50																															
55																															
60																															
65																															
70																															
75																															
80																															
85																															
90																															
95																															
100																															
110																															
120																															
130																															
140																															
150																															
160																															
170																															
180																															
190																															
200																															
210																															
220																															
230																															

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 100/100/100/100/100/100 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J765, at fly jib 5,4 m

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length																								Working radius [ft]
	43.3 ft						43.3 ft to 111.9 ft						43.3 ft to 208.0 ft						43.3 ft to 223.1 ft						
	Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°		
10	76	104.2																							10
12	74	97.5	79	66.3																					12
14	72	91.6	77	63.8																					14
16	70	86.4	75	61.3																					16
18	68	81.9	73	59.2	78	48.1																			18
20	66	77.7	71	57.3	76	47.0	80	85.3																	20
25	61	69.2	66	53.2	70	44.8	78	85.3																	25
30	55	62.3	60	49.8	63	43.1	76	85.2	78	60.8	80	47.3													30
35	49	56.7	54	47.0	57	41.7	74	81.7	76	58.5	78	46.3													35
40	42	51.6	47	44.0	50	40.2	72	74.9	74	56.2	76	45.3													40
45	34	46.6	39	41.3			69	66.0	71	54.4	73	44.5													45
50	22	42.1					67	56.3	69	52.6	71	43.6	79	23.2					80	20.3					50
55							65	47.6	67	48.5	68	42.9	78	22.3	79	20.7	80	19.9	79	20.0	80	19.1			55
60							62	40.3	64	42.1	66	41.5	77	21.4	78	19.9	79	19.3	78	19.5	79	18.4	80	17.7	60
65							59	34.5	61	36.2	63	37.1	75	20.6	76	19.3	78	18.6	76	18.8	78	17.7	79	17.1	65
70							57	29.8	59	31.4	60	32.2	74	19.9	75	18.6	77	18.1	75	18.2	77	17.2	78	16.5	70
75							54	25.8	56	27.1	57	28.4	73	19.2	74	18.0	75	17.5	75	17.6	76	16.7	77	16.0	75
80							51	22.4	53	23.4	54	25.5	72	18.6	73	17.5	74	16.8	74	17.1	75	16.2	76	15.6	80
85							48	19.4	50	20.3	51	22.4	70	17.9	72	17.0	73	16.3	72	16.6	73	15.7	74	15.2	85
90							45	16.8	47	18.3	48	19.7	69	17.4	71	16.7	72	16.0	71	16.1	72	15.3	73	14.9	90
95							42	14.8	44	16.4	45	17.2	68	16.9	69	16.2	70	15.7	70	15.6	71	14.9	72	14.6	95
100							38	13.2	40	14.4	41	14.6	67	16.4	68	15.8	69	15.3	69	15.1	70	14.4	71	14.2	100
110							29	10.2	31	10.5			64	14.5	65	14.9	66	14.7	66	14.2	67	13.8	68	13.6	110
120							16	7.1					61	11.6	62	12.3	63	12.9	64	11.8	65	12.5	65	12.6	120
130													58	8.9	59	9.6	60	9.9	61	9.3	62	10.0	63	10.3	130
140													55	6.7	56	7.3	57	7.7	58	7.3	59	7.8	60	8.0	140
150													52	4.9	53	5.4	53	5.8	56	5.4	57	5.8	57	6.0	150
160													48	3.4	49	3.8	50	3.9	53	3.8	54	3.9	54	4.2	160
Tel.	Telescoping sequence %																								Tel.
1	0						92						92						100						1
2	0						92						92						100						2
3	0						46						92						100						3
4	0						0						92						100						4
5	0						0						92						100						5
6	0						0						92						100						6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 17.7 ft, load rating chart 99707704322
Counterweight 77,161 lbs
 On outriggers, 360° working area
Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length 43.3 ft																								Boom length 43.3 ft to 111.9 ft												Boom length 43.3 ft to 208.0 ft												Boom length 43.3 ft to 223.1 ft												Working radius [ft]
	Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset																																										
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°																																						
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F																																					
10	104.2	45.3																							10																																				
12	97.5	43.9	66.3	43.7																					12																																				
14	91.6	45.1	63.8	41.4																					14																																				
16	86.4	46.2	61.3	39.3																					16																																				
18	81.9	47.3	59.2	38.5	48.1	39.4																			18																																				
20	77.7	48.3	57.3	38.2	47.0	37.6	85.3	53.5																	20																																				
25	69.2	50.7	53.2	41.5	44.8	36.5	85.3	61.0																	25																																				
30	62.3	52.9	49.8	44.6	43.1	40.1	85.2	68.5	60.8	52.9	47.3	43.7													30																																				
35	56.7	54.9	47.0	47.7	41.7	43.7	81.7	73.8	58.5	57.2	46.3	48.1													35																																				
40	51.6	56.4	44.0	50.2	40.2	47.1	74.9	76.2	56.2	61.3	45.3	52.3													40																																				
45	46.6	57.3	41.3	52.6			66.0	76.0	54.4	65.4	44.5	56.5													45																																				
50	42.1	58.0					56.3	73.7	52.6	69.3	43.6	60.5	23.2	42.4						20.3	40.0				50																																				
55							47.6	71.2	48.5	70.7	42.9	64.6	22.3	44.5	20.7	41.7	19.9	39.9	20.0	42.5	19.1	40.3			55																																				
60							40.3	69.1	42.1	69.4	41.5	67.9	21.4	46.5	19.9	43.7	19.3	42.0	19.5	44.7	18.4	42.2	17.7	40.5	60																																				
65							34.5	67.2	36.2	67.8	37.1	67.8	20.6	48.4	19.3	45.7	18.6	44.0	18.8	46.6	17.7	44.1	17.1	42.4	65																																				
70							29.8	65.8	31.4	66.4	32.2	66.4	19.9	50.4	18.6	47.6	18.1	46.0	18.2	48.5	17.2	46.1	16.5	44.3	70																																				
75							25.8	64.7	27.1	65.1	28.4	65.9	19.2	52.2	18.0	49.5	17.5	47.9	17.6	50.4	16.7	48.0	16.0	46.2	75																																				
80							22.4	63.8	23.4	64.0	25.5	65.9	18.6	54.0	17.5	51.4	16.8	49.6	17.1	52.3	16.2	49.9	15.6	48.1	80																																				
85							19.4	62.9	20.3	63.0	22.4	65.4	17.9	55.7	17.0	53.3	16.3	51.5	16.6	54.1	15.7	51.6	15.2	50.1	85																																				
90							16.8	62.2	18.3	63.3	19.7	64.8	17.4	57.6	16.7	55.3	16.0	53.5	16.1	55.8	15.3	53.6	14.9	52.0	90																																				
95							14.8	62.0	16.4	63.4	17.2	64.2	16.9	59.3	16.2	57.1	15.7	55.5	15.6	57.5	14.9	55.3	14.6	53.9	95																																				
100							13.2	62.1	14.4	63.1	14.6	63.4	16.4	61.0	15.8	58.9	15.3	57.4	15.1	59.1	14.4	57.0	14.2	55.7	100																																				
110							10.2	62.0	10.5	61.9			14.5	62.7	14.9	62.3	14.7	61.1	14.2	62.4	13.8	60.5	13.6	59.3	110																																				
120							7.1	61.0					11.6	61.9	12.3	62.1	12.9	62.5	11.8	62.6	12.5	62.5	12.6	62.2	120																																				
130													8.9	60.8	9.6	61.2	9.9	61.1	9.3	61.9	10.0	62.1	10.3	62.0	130																																				
140													6.7	59.9	7.3	60.3	7.7	60.6	7.3	61.4	7.8	61.4	8.0	61.3	140																																				
150													4.9	59.3	5.4	59.7	5.8	60.1	5.4	60.9	5.8	60.7	6.0	60.6	150																																				
160													3.4	59.2	3.8	59.3	3.9	59.4	3.8	60.4	3.9	59.9	4.2	60.0	160																																				
Tel.	Telescoping sequence %																								Tel.																																				
1			0						92											92					1																																				
2			0						92											92					2																																				
3			0						46											92					3																																				
4			0						0											92					4																																				
5			0						0											92					5																																				
6			0						0											92					6																																				

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account.



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft

Working radius [ft]	Fly jib															Working radius [ft]					
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset								
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°								
	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠								
10	79	39.7																		10	
12	77	39.7				80	35.1													12	
14	75	39.0				78	34.3			80	22.9									14	
16	74	37.2				77	33.3			80	22.9									16	
18	73	35.4				77	32.3			79	22.9			81	14.1					18	
20	72	33.7				76	31.4			78	22.9			80	14.1			81	10.1	20	
25	69	30.4	78	24.5		73	29.2			76	22.9			77	14.1			79	10.1	25	
30	65	27.6	75	22.5		70	27.1			74	21.9			76	14.1			78	10.1	30	
35	62	25.2	71	21.0		68	24.9			71	20.2			74	14.1			76	10.1	35	
40	58	23.2	67	19.7	75	17.3	65	22.9	76	18.8				72	14.1			74	10.1	40	
45	54	21.5	63	18.5	71	16.5	62	21.3	73	17.6				70	13.9			72	10.1	45	
50	49	20.1	59	17.6	66	15.9	59	19.9	70	16.3				64	16.2			71	10.0	50	
55	45	18.8	54	16.8	61	15.4	55	18.4	66	15.1	76	12.7		62	15.1	75	12.9	66	12.4	55	
60	40	17.7	49	16.0	56	15.0	51	16.9	63	14.1	73	12.0		59	14.2	72	12.2	64	11.8	60	
65	35	16.7	44	15.3	50	14.8	48	15.6	59	13.1	69	11.5		56	13.3	69	11.1	62	11.1	65	
70	28	15.9	37	14.9			45	14.4	56	12.4	65	11.0		54	12.5	66	10.4	60	10.4	70	
75	21	15.3	30	14.6			40	13.3	51	11.7	60	10.5		51	11.6	63	9.8	58	9.9	75	
80							36	12.4	47	11.1	55	10.1		48	10.6	60	9.1	55	9.3	80	
85							31	11.5	42	10.4	49	9.7		45	10.0	57	8.6	68	7.7	85	
90							25	10.7	36	10.0				41	9.3	53	8.1	64	7.4	90	
95														38	8.6	50	7.7	60	7.1	95	
100														34	8.0	46	7.4	55	6.8	100	
110														24	7.2	36	6.7	45	6.4	110	
120																					120
130																					130
140																					140
150																					150
160																					160
170																					170
180																					180
190																					190
200																					200
210																					210
Tel.	Telescoping sequence %																		Tel.		
1	0																		1		
2	0																		2		
3	0																		3		
4	0																		4		
5	0																		5		
6	0																		6		

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

**Outrigger reaction force chart ATF 220G-5**

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707704323
Counterweight 77,161 lbs / On outriggers, 360° working area / **Outriggers fully extended, outrigger base 27.23 ft**

Boom length 43.3 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset							
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°			
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10	39.7	45.8																														
12	39.7	44.4				35.1	45.2																									
14	39.0	42.9				34.3	43.9							22.9	44.9																	
16	37.2	41.6				33.3	42.7							22.9	44.0																	
18	35.4	40.3				32.3	41.5							22.9	43.1																	
20	33.7	39.2				31.4	40.4							22.9	42.1																	
25	30.4	36.5				29.2	37.8							22.9	39.7																	
30	27.6	34.2				27.1	35.5							21.9	37.7																	
35	25.2	32.4				24.9	33.5							20.2	35.9																	
40	23.2	33.1				22.9	32.1							18.8	34.4																	
45	21.5	34.4				21.3	34.6							17.4	32.9																	
50	20.1	35.6				19.9	34.1							16.2	31.6																	
55	18.8	36.8				18.4	35.0							15.1	31.3																	
60	17.7	37.9				16.9	35.7							14.2	32.0																	
65	16.7	39.0				15.6	36.2							13.3	32.8																	
70	15.9	40.3				14.4	36.8							12.5	33.6																	
75	15.3	41.6				13.3	37.3							11.6	34.1																	
80						12.4	37.8							10.6	34.5																	
85						11.5	38.4							10.0	35.1																	
90						10.7	38.8							9.3	35.6																	
95														8.6	36.0																	
100														8.0	36.4																	
110														7.2	37.6																	
120																																
130																																
140																																
150																																
160																																
170																																
180																																
190																																
200																																
210																																

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 0/0/0/0/0/0 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 111.9 ft

Working radius [ft]	Fly jib															Working radius [ft]						
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset									
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°									
10																				10		
12																				12		
14																				14		
16																				16		
18																				18		
20	81	39.3																		20		
25	79	36.8				80	28.9													25		
30	77	34.6				79	28.8			80	19.6			81	12.6					30		
35	75	32.4				77	28.0			78	19.6			79	12.6			80	9.0	35		
40	74	30.7	79	22.4		76	27.0			77	19.6			78	12.6			79	9.0	40		
45	71	29.0	77	21.4		74	25.8			76	19.4			77	12.6			78	9.0	45		
50	70	27.4	75	20.5		73	24.6			75	18.9			76	12.6			77	9.0	50		
55	68	26.1	73	19.7	77	16.5	71	23.5	77	17.7				75	12.6			76	9.0	55		
60	66	24.9	71	19.1	76	16.0	69	22.5	76	17.1				74	12.6			75	9.0	60		
65	64	23.7	69	18.4	73	15.7	67	21.5	74	16.4	80	12.8		72	12.6			73	9.0	65		
70	62	22.7	67	17.9	71	15.4	66	20.5	73	15.9	78	12.5	69	15.9	77	12.1		71	12.1	70		
75	60	21.8	65	17.4	69	15.1	64	19.7	71	15.4	76	12.2	67	15.3	75	11.7		69	11.7	75		
80	57	21.0	62	16.9	66	14.9	62	19.0	69	14.9	74	11.8	66	14.6	74	11.4		68	11.4	80		
85	55	20.1	60	16.6	64	14.6	60	18.1	67	14.4	72	11.5	64	13.9	72	11.0		67	11.0	85		
90	53	19.4	58	16.1	62	14.4	59	17.4	65	13.9	70	11.1	63	13.4	71	10.7		66	10.5	90		
95	51	18.8	56	15.7	59	14.2	57	16.9	63	13.4	68	10.9	61	12.9	69	10.4	75	8.3	64	10.2	95	
100	48	17.6	53	15.3	56	14.1	55	16.3	61	12.8	66	10.7	59	12.5	67	10.0	73	8.1	63	9.8	100	
110	43	13.6	48	14.8	51	13.9	51	15.0	57	12.0	61	10.2	55	11.6	63	9.4	69	7.5	59	9.1	110	
120	38	10.7	42	12.0	45	13.3	46	12.1	52	11.3	56	9.9	52	10.9	59	8.7	65	7.2	56	8.5	120	
130	31	8.0	35	9.1			41	9.6	47	10.6	51	9.5	48	10.0	56	8.0	61	6.9	53	8.0	130	
140	21	5.9					35	7.5	41	8.8			44	8.6	51	7.6	56	6.7	50	7.3	140	
150							29	5.7	34	6.8			39	7.0	46	7.2	51	6.5	46	6.7	150	
160							21	4.0	26	4.8			34	5.4	41	6.5	44	6.4	42	5.9	160	
170													28	4.0	34	4.9			37	4.7	170	
180																			33	3.4	180	
190																						190
200																						200
210																						210
Tel.	Telescoping sequence %																		Tel.			
1	92																		1			
2	92																		2			
3	46																		3			
4	0																		4			
5	0																		5			
6	0																		6			

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 208.0 ft

Working radius [ft]	Fly jib																		Working radius [ft]										
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset																
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°														
10																				10									
12																				12									
14																				14									
16																				16									
18																				18									
20																				20									
25																				25									
30																				30									
35																				35									
40																				40									
45	80	15.0																		45									
50	79	15.0			80	11.5														50									
55	78	15.0			79	11.5		80	8.8											55									
60	77	15.0			78	11.5		79	8.8			80	7.1							60									
65	76	15.0	80	14.8		77	11.5		78	8.8			79	7.1			80	5.5		65									
70	75	15.0	79	14.3		76	11.5		77	8.8			78	7.1			79	5.5		70									
75	75	15.0	78	13.9		76	11.5	80	11.4		77	8.8		78	7.1		79	5.5		75									
80	74	14.9	77	13.6	79	12.5	75	11.5	79	11.2			76	8.8			77	7.1		80									
85	72	14.8	75	13.2	78	12.1	74	11.5	78	10.8		81	8.8			76	7.1		77	5.5	85								
90	71	14.3	74	12.9	77	12.0	73	11.5	77	10.5		74	8.8	80	8.7		75	7.1		76	5.5	90							
95	70	13.9	73	12.6	76	11.7	72	11.5	76	10.2		74	8.8	79	8.5		75	7.1		76	5.5	95							
100	69	13.5	72	12.2	75	11.4	71	11.4	75	9.9	79	9.2	73	8.8	78	8.3		74	7.1	81	6.6		75	5.5		100			
110	66	12.7	69	11.6	72	10.9	69	10.7	73	9.5	76	8.7	70	8.8	76	7.8	81	7.1	72	7.1	78	6.4		73	5.5	80	4.6	110	
120	64	12.1	67	11.0	69	10.5	67	10.1	71	9.0	74	8.3	69	8.5	74	7.4	78	6.8	71	7.1	77	6.1		72	5.4	79	4.6	120	
130	62	10.8	64	10.4	67	10.0	64	9.6	68	8.6	71	8.0	67	8.2	72	7.1	76	6.6	69	6.9	75	5.8	80	5.3	70	5.3	77	4.4	130
140	59	8.7	62	9.6	64	9.6	62	8.6	66	8.3	69	7.6	65	7.7	70	6.8	74	6.3	67	6.4	73	5.4	78	5.1	69	5.1	76	4.3	140
150	57	6.8	60	8.2	61	8.6	60	7.3	64	8.0	67	7.4	63	7.2	68	6.4	72	6.1	65	6.1	71	5.2	76	4.9	67	5.0	74	4.1	150
160	54	5.2	57	6.4	58	7.1	57	5.8	61	7.3	64	7.2	60	6.5	65	6.1	69	5.9	63	5.7	69	5.0	73	4.6	66	4.8	72	3.9	160
170	51	3.8	54	4.7	55	5.4	55	4.3	59	5.6	61	6.9	58	4.9	63	6.0	66	5.5	61	4.9	67	4.9	71	4.4	64	4.6	70	3.8	170
180			51	3.4	52	3.9	53	2.8	56	4.4	58	5.3	56	3.6	61	5.2	64	5.4	60	3.7	65	4.5	69	4.3	58	3.7	69	3.6	180
190								53	3.2	55	3.8				59	4.1	61	4.9	58	2.6	63	4.2	67	4.1	60	2.7	67	3.4	190
200															56	2.9	58	4.0					64	3.9		64	3.2		200
210																	55	2.9					61	3.7		62	2.9		210
Tel.	Telescoping sequence %																		Tel.										
1															92														1
2															92														2
3															92														3
4															92														4
5															92														5
6															92														6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707704323
Counterweight 77,161 lbs / On outriggers, 360° working area / **Outriggers fully extended, outrigger base 27.23 ft**

Boom length 43.3 ft to 208.0 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset											
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°							
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F						
10																																				
12																																				
14																																				
16																																				
18																																				
20																																				
25																																				
30																																				
35																																				
40																																				
45																																				
50																																				
55																																				
60																																				
65																																				
70																																				
75																																				
80																																				
85																																				
90																																				
95																																				
100																																				
110																																				
120																																				
130																																				
140																																				
150																																				
160																																				
170																																				
180																																				
190																																				
200																																				
210																																				

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 92/92/92/92/92/92 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 223.1 ft

Working radius [ft]	Fly jib															Working radius [ft]				
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset							
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°					
	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠					
10																		10		
12																		12		
14																		14		
16																		16		
18																		18		
20																		20		
25																		25		
30																		30		
35																		35		
40																		40		
45																		45		
50	80	13.0																50		
55	79	13.0				80	10.1											55		
60	78	13.0				79	10.1											60		
65	77	13.0	80	13.0		78	10.1			79	7.9			80	6.2			65		
70	76	13.0	79	13.0		77	10.1			78	7.9			79	6.2		80	5.1		
75	76	13.0	79	12.9		77	10.1			78	7.9			79	6.2		80	5.1		
80	75	13.0	78	12.7	80	11.8	76	10.1	80	10.1				77	7.9		78	5.1		
85	74	13.0	77	12.4	79	11.5	75	10.1	79	10.1				76	7.9		77	5.1		
90	73	13.0	76	12.0	78	11.1	74	10.1	78	9.8				75	7.9		76	5.1		
95	72	12.8	75	11.7	77	10.9	74	10.1	78	9.6				75	7.9	80	7.9	76	5.1	
100	71	12.5	74	11.4	76	10.7	73	10.1	77	9.4	80	8.5		74	7.9	79	7.8	75	5.1	
110	68	11.8	71	10.7	73	10.2	70	10.0	74	8.9	77	8.2	72	7.9	77	7.3		73	5.1	
120	67	11.3	69	10.2	71	9.8	69	9.4	73	8.5	76	7.9	71	7.9	76	7.0	79	6.6	72	5.1
130	64	10.5	67	9.7	69	9.3	66	8.9	70	8.0	73	7.5	69	7.5	73	6.7	77	6.2	70	5.1
140	62	8.4	65	9.3	67	9.0	65	8.5	69	7.6	71	7.2	67	7.2	72	6.3	75	5.9	69	5.1
150	60	6.5	63	8.0	64	8.2	63	7.4	67	7.3	69	7.0	65	6.8	70	6.1	73	5.6	67	5.1
160	57	4.9	60	6.2	61	7.1	60	5.8	64	6.8	66	6.7	63	6.0	68	5.9	71	5.5	66	5.1
170	55	3.4	57	4.7	59	5.4	58	4.3	62	5.8	64	6.4	61	4.5	66	5.5	69	5.3	64	5.1
180			54	3.4	56	3.9			59	4.5	62	5.3	59	3.3	64	4.9	67	5.1	62	5.1
190									57	3.1	59	4.0			62	3.9	64	4.8		5.1
200											56	2.7			59	2.7	61	4.0		5.1
210																	59	2.9		5.1
Tel.	Telescoping sequence %																	Tel.		
1	100																	1		
2	100																	2		
3	100																	3		
4	100																	4		
5	100																	5		
6	100																	6		

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707704323
Counterweight 77,161 lbs / On outriggers, 360° working area / **Outriggers fully extended, outrigger base 27.23 ft**
 Boom length 43.3 ft to 223.1 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset					
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°			
m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10																														
12																														
14																														
16																														
18																														
20																														
25																														
30																														
35																														
40																														
45																														
50	13.0	33.1																												
55	13.0	35.2					10.1	32.3																						
60	13.0	37.4					10.1	34.2																						
65	13.0	39.5	13.0	36.3			10.1	36.2																						
70	13.0	41.7	13.0	38.5			10.1	38.1																						
75	13.0	43.8	12.9	40.5			10.1	40.0																						
80	13.0	45.9	12.7	42.4	11.8	38.7	10.1	41.9	10.1	37.5																				
85	13.0	48.1	12.4	44.1	11.5	40.4	10.1	43.9	10.1	39.4																				
90	13.0	50.2	12.0	45.8	11.1	42.0	10.1	45.8	9.8	41.0																				
95	12.8	52.1	11.7	47.4	10.9	43.8	10.1	47.7	9.6	42.6																				
100	12.5	53.7	11.4	49.0	10.7	45.6	10.1	49.6	9.4	44.1	8.5	39.3																		
110	11.8	56.8	10.7	52.0	10.2	48.9	10.0	53.2	8.9	47.1	8.2	42.5																		
120	11.3	60.0	10.2	55.2	9.8	52.2	9.4	56.0	8.5	50.3	7.9	45.7																		
130	10.5	62.4	9.7	58.2	9.3	55.3	8.9	58.7	8.0	53.0	7.5	48.9																		
140	8.4	61.9	9.3	61.1	9.0	58.6	8.5	61.6	7.6	55.8	7.2	51.9																		
150	6.5	61.3	8.0	62.0	8.2	60.9	7.4	62.6	7.3	58.7	7.0	55.1																		
160	4.9	60.8	6.2	61.6	7.1	62.0	5.8	62.2	6.8	61.0	6.7	58.3																		
170	3.4	60.1	4.7	61.2	5.4	61.5	4.3	61.6	5.8	62.0	6.4	61.2																		
180			3.4	60.8	3.9	60.9			4.5	61.8	5.3	61.8																		
190									3.1	61.5	4.0	61.7																		
200											2.7	61.3																		
210																														

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 100/100/100/100/100%



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J765, at fly jib 5,4 m
Counterweight 77,161 lbs
 On outriggers, 360° working area
Outriggers half extended, outrigger base 18.37 ft

Working radius [ft]	Boom length												Working radius [ft]													
	43.3 ft			43.3 ft to 111.9 ft			43.3 ft to 208.0 ft			43.3 ft to 223.1 ft																
	Fly jib 17.7 ft offset			Fly jib 17.7 ft offset			Fly jib 17.7 ft offset			Fly jib 17.7 ft offset																
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°														
10	76	104.2												10												
12	74	97.5	79	66.3										12												
14	72	91.6	77	63.8										14												
16	70	86.4	75	61.3										16												
18	68	81.9	73	59.2	78	48.1								18												
20	66	77.7	71	57.3	76	47.0	80	85.3						20												
25	61	69.2	66	53.2	70	44.8	78	85.3						25												
30	55	62.3	60	49.8	63	43.1	76	72.9	78	60.8	80	47.3		30												
35	49	56.7	54	47.0	57	41.7	74	59.7	76	58.5	78	46.3		35												
40	42	51.6	47	44.0	50	40.2	72	49.7	74	52.5	76	45.3		40												
45	34	46.6	39	41.3			69	41.8	71	44.3	73	44.5		45												
50	22	41.4					67	34.7	69	37.0	71	38.6	79	23.2	80	20.3		50								
55							65	28.6	67	30.7	68	32.2	78	22.3	79	20.7	80	19.9	79	20.0	80	19.1		55		
60							62	23.5	64	25.4	66	26.7	77	21.4	78	19.9	79	19.3	78	19.5	79	18.4	80	17.7	60	
65							59	19.5	61	21.0	63	22.2	75	20.6	76	19.3	78	18.6	76	18.8	78	17.7	79	17.1	65	
70							57	16.2	59	17.6	60	18.5	74	19.6	75	18.6	77	18.1	75	18.2	77	17.2	78	16.5	70	
75							54	13.3	56	14.6	57	15.4	73	17.8	74	17.7	75	17.5	75	17.2	76	16.7	77	16.0	75	
80							51	10.9	53	12.0	54	12.6	72	15.3	73	16.4	74	16.5	74	15.8	75	15.9	76	15.6	80	
85							48	8.7	50	9.6	51	10.3	70	13.1	72	14.0	73	14.7	72	13.6	73	14.4	74	15.2	85	
90							45	7.0	47	7.7	48	8.2	69	11.3	71	12.2	72	12.8	71	11.7	72	12.6	73	13.3	90	
95							42	5.4	44	6.1	45	6.4	68	9.5	69	10.4	70	11.1	70	10.0	71	10.9	72	11.5	95	
100							38	4.0	40	4.6	41	4.8	67	8.0	68	8.8	69	9.4	69	8.4	70	9.3	71	9.9	100	
110														64	5.4	65	6.1	66	6.8	66	5.9	67	6.6	68	7.0	110
120														61	3.4	62	4.1	63	4.5	64	3.8	65	4.5	65	4.9	120
Tel.	Telescoping sequence %												Tel.													
1		0																							1	
2			0																						2	
3				0																					3	
4					0																				4	
5						0																			5	
6							0																		6	

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US]
 Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 17.7 ft, load rating chart 99707704324
Counterweight 77,161 lbs
 On outriggers, 360° working area
Outriggers half extended, outrigger base 18.37 ft

Working radius [ft]	Boom length 43.3 ft			Boom length 43.3 ft to 111.9 ft						Boom length 43.3 ft to 208.0 ft						Boom length 43.3 ft to 223.1 ft						Working radius [ft]			
	Fly jib 17.7 ft offset			Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset									
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10	104.2	45.8																							10
12	97.5	44.3	66.3	45.5																					12
14	91.6	46.1	63.8	42.6																					14
16	86.4	47.8	61.3	39.9																					16
18	81.9	49.4	59.2	38.9	48.1	40.8																			18
20	77.7	51.0	57.3	38.7	47.0	38.4	85.3	57.5																	20
25	69.2	54.6	53.2	43.3	44.8	37.0	85.3	67.6																	25
30	62.3	57.9	49.8	47.6	43.1	41.9	72.9	68.7	60.8	58.0	47.3	46.5													30
35	56.7	60.9	47.0	51.9	41.7	46.7	59.7	66.9	58.5	63.9	46.3	52.3													35
40	51.6	63.1	44.0	55.3	40.2	51.3	49.7	65.5	52.5	66.0	45.3	57.9													40
45	46.6	64.6	41.3	58.6			41.8	64.4	44.3	64.8	44.5	63.6													45
50	41.4	64.9					34.7	62.6	37.0	63.1	38.6	63.2	23.2	45.9					20.3	43.0					50
55							28.6	60.7	30.7	61.3	32.2	61.6	22.3	48.7	20.7	45.2	19.9	42.8	20.0	46.2	19.1	43.3			55
60							23.5	59.1	25.4	59.7	26.7	60.0	21.4	51.5	19.9	47.8	19.3	45.6	19.5	49.2	18.4	46.0	17.7	43.8	60
65							19.5	57.9	21.0	58.3	22.2	58.5	20.6	54.1	19.3	50.5	18.6	48.2	18.8	51.8	17.7	48.5	17.1	46.2	65
70							16.2	57.0	17.6	57.2	18.5	57.5	19.6	56.3	18.6	53.1	18.1	51.0	18.2	54.3	17.2	51.1	16.5	48.8	70
75							13.3	56.2	14.6	56.4	15.4	56.7	17.8	56.9	17.7	55.2	17.5	53.5	17.2	56.2	16.7	53.7	16.0	51.3	75
80							10.9	55.5	12.0	55.7	12.6	55.9	15.3	56.3	16.4	56.4	16.5	55.3	15.8	57.2	15.9	55.7	15.6	53.8	80
85							8.7	54.9	9.6	55.0	10.3	55.3	13.1	55.7	14.0	55.6	14.7	55.4	13.6	56.6	14.4	56.4	15.2	56.5	85
90							7.0	54.6	7.7	54.6	8.2	54.9	11.3	55.1	12.2	55.1	12.8	54.8	11.7	56.1	12.6	56.1	13.3	56.2	90
95							5.4	54.3	6.1	54.4	6.4	54.5	9.5	54.5	10.4	54.6	11.1	54.7	10.0	55.6	10.9	55.7	11.5	55.7	95
100							4.0	54.0	4.6	54.1	4.8	54.6	8.0	54.0	8.8	54.2	9.4	54.3	8.4	55.1	9.3	55.3	9.9	55.3	100
110													5.4	53.3	6.1	53.4	6.8	53.8	5.9	54.5	6.6	54.6	7.0	54.4	110
120													3.4	52.9	4.1	53.1	4.5	53.1	3.8	54.3	4.5	54.2	4.9	54.2	120
Tel.	Telescoping sequence %																								Tel.
1			0																						1
2			0																						2
3			0																						3
4			0																						4
5			0																						5
6			0																						6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account.



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers half extended, outrigger base 18.37 ft

Boom length 43.3 ft

Working radius [ft]	Fly jib																					Working radius [ft]	
	43.3 ft offset						63.0 ft offset						82.7 ft offset										
	0°		20°		40°		0°		20°		40°		0°			20°			40°				
	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠			
10	79	39.7																				10	
12	77	39.7					80	35.1															12
14	75	39.0					78	34.3					80	22.9									14
16	74	37.2					77	33.3					80	22.9									16
18	73	35.4					77	32.3					79	22.9									18
20	72	33.7					76	31.4					78	22.9									20
25	69	30.4	78	24.5			73	29.2					76	22.9									25
30	65	27.6	75	22.5			70	27.1					74	21.9									30
35	62	25.2	71	21.0			68	24.9					71	20.2									35
40	58	23.2	67	19.7	75	17.3	65	22.9	76	18.8			69	18.8									40
45	54	21.5	63	18.5	71	16.5	62	21.3	73	17.6			66	17.4									45
50	49	20.1	59	17.6	66	15.9	59	19.9	70	16.3			64	16.2									50
55	45	18.8	54	16.8	61	15.4	55	18.4	66	15.1	76	12.7	62	15.1	75	12.9							55
60	40	17.7	49	16.0	56	15.0	51	16.9	63	14.1	73	12.0	59	14.2	72	12.2							60
65	35	16.7	44	15.3	50	14.8	48	15.6	59	13.1	69	11.5	56	13.3	69	11.1							65
70	28	15.9	37	14.9			45	14.4	56	12.4	65	11.0	54	12.5	66	10.4							70
75	21	15.3	30	14.6			40	13.3	51	11.7	60	10.5	51	11.6	63	9.8							75
80							36	12.4	47	11.1	55	10.1	48	10.6	60	9.1							80
85							31	11.5	42	10.4	49	9.7	45	10.0	57	8.6	68	7.7					85
90							25	10.7	36	10.0			41	9.3	53	8.1	64	7.4					90
95													38	8.6	50	7.7	60	7.1					95
100													34	8.0	46	7.4	55	6.8					100
110													24	7.2	36	6.7	45	6.4					110
120																							120
130																							130
140																							140
150																							150
160																							160
170																							170
Tel.	Telescoping sequence %																					Tel.	
1	0																					1	
2	0																					2	
3	0																					3	
4	0																					4	
5	0																					5	
6	0																					6	

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft, load rating chart 99707704325
Counterweight 77,161 lbs / On outriggers, 360° working area / **Outriggers half extended, outrigger base 18.37 ft**

Boom length 43.3 ft

Work. radius [ft]	Fly jib 43.3 ft, offset									Fly jib 63.0 ft, offset									Fly jib 82.7 ft, offset									Work. radius [ft]	
	0°			20°			40°			0°			20°			40°			0°			20°			40°				
	m	F	F	m	F	F	m	F	F	m	F	F	m	F	F	m	F	F	m	F	F	m	F	F	m	F	F		
10	39.7	49.7																											10
12	39.7	47.7																											12
14	39.0	45.8							35.1	48.9																			14
16	37.2	44.1							34.3	47.3																			16
18	35.4	42.5							33.3	45.7																			18
20	33.7	41.0							32.3	44.2																			20
25	30.4	37.8	24.5	42.8					31.4	42.7																			25
30	27.6	34.8	22.5	39.9					29.2	39.4																			30
35	25.2	32.6	21.0	37.3					27.1	36.4																			35
40	23.2	30.6	19.7	34.7	17.3	38.8			24.9	33.9																			40
45	21.5	35.3	18.5	32.3	16.5	36.1	15.3	35.8	22.9	32.1	18.8	38.0																	45
50	20.1	37.0	17.6	32.5	15.9	33.4	14.8	34.0	21.3	33.5	17.6	35.8																	50
55	18.8	38.7	16.8	33.9	15.4	32.2	14.8	32.2	19.9	35.0	16.3	34.0																	55
60	17.7	40.2	16.0	35.9	15.0	33.1	14.8	36.2	18.4	36.3	15.1	32.3	12.7	37.7	15.1	31.5	12.9	36.5											60
65	16.7	41.7	15.3	38.1	14.8	36.2			16.9	37.3	14.1	30.9	12.0	35.7	14.2	32.4	12.2	34.9											65
70	15.9	43.5	14.9	40.6					15.6	38.0	13.1	31.6	11.5	33.7	13.3	33.6	11.1	33.7											70
75	15.3	45.3	14.6	43.2					14.4	38.8	12.4	33.1	11.0	31.7	12.5	34.6	10.4	32.3											75
80									13.3	39.6	11.7	34.5	10.5	31.2	11.6	35.3	9.8	31.0											80
85									12.4	40.3	11.1	35.9	10.1	32.2	10.6	35.9	9.1	30.3											85
90									11.5	41.1	10.4	37.1	9.7	34.4	10.0	36.7	8.6	31.1	7.7	33.1									90
95									10.7	41.7	10.0	39.0			9.3	37.4	8.1	32.1	7.4	31.3									95
100															8.6	38.0	7.7	33.4	7.1	30.6									100
110															8.0	38.6	7.4	34.7	6.8	31.2									110
120															7.2	40.2	6.7	37.5	6.4	35.4									120
130																													130
140																													140
150																													150
160																													160
170																													170

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 0/0/0/0/0 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers half extended, outrigger base 18.37 ft

Boom length 43.3 ft to 111.9 ft

Working radius [ft]	43.3 ft offset			63.0 ft offset			82.7 ft offset			Working radius [ft]										
	0°	20°	40°	0°	20°	40°	0°													
	∠	∠	∠	∠	∠	∠	∠													
10										10										
12										12										
14										14										
16										16										
18										18										
20	81	39.3								20										
25	79	36.8			80	28.9				25										
30	77	34.6			79	28.8		80	19.6	30										
35	75	32.4			77	28.0		78	19.6	35										
40	74	30.7	79	22.4		76	27.0		77	19.6	40									
45	71	29.0	77	21.4		74	25.8		76	19.4	45									
50	70	27.4	75	20.5		73	24.6		75	18.9	50									
55	68	26.1	73	19.7	77	16.5	71	23.5	77	17.7	55									
60	66	24.7	71	19.1	76	16.0	69	22.5	76	17.1	60									
65	64	22.5	69	18.4	73	15.7	67	21.5	74	16.4	80	12.8	70	16.6	78	12.6	65			
70	62	19.5	67	17.9	71	15.4	66	20.2	73	15.9	78	12.5	69	15.9	77	12.1	70			
75	60	16.7	65	17.4	69	15.1	64	18.2	71	15.4	76	12.2	67	15.3	75	11.7	75			
80	57	14.2	62	16.5	66	14.9	62	15.8	69	14.9	74	11.8	66	14.6	74	11.4	80			
85	55	12.0	60	14.7	64	14.6	60	13.6	67	14.4	72	11.5	64	13.9	72	11.0	85			
90	53	10.2	58	12.5	62	13.9	59	11.7	65	13.9	70	11.1	63	12.9	71	10.7	90			
95	51	8.5	56	10.6	59	12.4	57	10.1	63	12.8	68	10.9	61	11.5	69	10.4	75	8.3	95	
100	48	7.1	53	9.0	56	10.5	55	8.6	61	11.4	66	10.7	59	9.9	67	10.0	73	8.1	100	
110	43	4.6	48	6.1	51	7.3	51	6.1	57	8.4	61	10.0	55	7.4	63	9.4	69	7.5	110	
120			42	3.8	45	4.6	46	4.0	52	6.0	56	7.5	52	5.4	59	8.0	65	7.2	120	
130									47	4.0	51	5.1	48	3.5	56	6.0	61	6.9	130	
140															51	4.1	56	5.5	140	
150																51	4.0		150	
160																			160	
170																			170	
Tel.	Telescoping sequence %																			Tel.
1	92																			1
2	92																			2
3	46																			3
4	0																			4
5	0																			5
6	0																			6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Work. radius [ft]		Outrigger reaction force F in ton [US] / Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft, load rating chart 99707704325 Counterweight 77,161 lbs / On outriggers, 360° working area / Outriggers half extended, outrigger base 18.37 ft Boom length 43.3 ft												Work. radius [ft]			
		Fly jib 43.3 ft, offset				Fly jib 63.0 ft, offset				Fly jib 82.7 ft, offset							
		0°		20°		40°		0°		20°		40°					
m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10																10	
12																12	
14																14	
16																16	
18																18	
20	39.3	36.7														20	
25	36.8	35.6														25	
30	34.6	39.3				28.9	35.5									30	
35	32.4	42.6				28.8	34.3		19.6	35.9						35	
40	30.7	45.9	22.4	33.7		28.0	38.0		19.6	32.5						40	
45	29.0	48.9	21.4	36.7		27.0	41.4		19.4	37.2						45	
50	27.4	51.7	20.5	39.6		25.8	44.4		18.9	39.9						50	
55	26.1	54.5	19.7	42.5	16.5	24.6	47.2		18.1	42.4						55	
60	24.7	57.0	19.1	45.4	16.0	23.5	49.9	17.7	17.3	44.7						60	
65	22.5	58.2	18.4	48.2	15.7	22.5	52.5	17.1	16.6	46.9	12.6	36.2				65	
70	19.5	57.5	17.9	51.0	15.4	21.5	55.0	16.4	16.6	49.1	12.1	38.4				70	
75	16.7	56.8	17.4	53.8	15.1	20.2	56.7	15.9	15.9	51.2	11.7	40.6				75	
80	14.2	56.2	16.5	56.0	14.9	18.2	57.2	15.4	15.3	53.2	11.4	42.8				80	
85	12.0	55.6	14.7	56.4	14.6	15.8	56.6	14.9	14.6	55.2	11.0	45.0				85	
90	10.2	55.1	12.5	55.6	13.9	13.6	56.0	14.4	13.9	55.0	10.7	47.0				90	
95	8.5	54.7	10.6	55.1	12.4	11.7	55.5	13.9	11.1	54.0	10.7	47.0				95	
100	7.1	54.4	9.0	54.9	10.5	10.1	55.1	12.8	10.9	49.8	10.4	49.1	8.3	37.0		100	
110	4.6	53.7	6.1	54.3	7.3	8.6	54.8	11.4	10.7	54.6	9.9	55.6	8.1	39.2		110	
120			3.8	53.9	4.6	6.1	54.3	8.4	10.0	54.7	7.4	55.1	7.5	43.6		120	
130						4.0	53.8	6.0	54.2	7.5	54.6	5.4	54.7	8.0	55.0	7.2	48.2
140						4.0	54.0	5.1	54.2	5.1	54.2	3.5	54.2	6.0	54.5	6.9	52.9
150														4.1	54.0	5.5	54.7
160														4.0	56.1		
170																	170

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 92/92/46/0/0/0 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers half extended, outrigger base 18.37 ft

Boom length 43.3 ft to 208.0 ft

Working radius [ft]	Fly jib																								Working radius [ft]		
	43.3 ft offset						63.0 ft offset						82.7 ft offset														
	0°		20°		40°		0°		20°		40°		0°				20°				40°						
	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠			
10																										10	
12																											12
14																											14
16																											16
18																											18
20																											20
25																											25
30																											30
35																											35
40																											40
45	80	15.0																									45
50	79	15.0					80	11.5																			50
55	78	15.0					79	11.5																			55
60	77	15.0					78	11.5																			60
65	76	15.0	80	14.8			77	11.5																			65
70	75	15.0	79	14.3			76	11.5																			70
75	75	15.0	78	13.9			76	11.5	80	11.4																	75
80	74	14.9	77	13.6	79	12.5	75	11.5	79	11.2																	80
85	72	14.8	75	13.2	78	12.1	74	11.5	78	10.8																	85
90	71	13.0	74	12.9	77	12.0	73	11.5	77	10.5																	90
95	70	11.4	73	12.6	76	11.7	72	11.0	76	10.2																	95
100	69	9.9	72	11.9	75	11.4	71	10.2	75	9.9	79	9.2															100
110	66	7.4	69	9.2	72	10.3	69	7.6	73	9.5	76	8.7	70	8.3	76	7.8	81	7.1									110
120	64	5.2	67	6.9	69	8.2	67	5.6	71	7.9	74	8.3	69	6.3	74	7.4	78	6.8									120
130	62	3.5	64	4.9	67	6.0	64	4.0	68	5.9	71	7.4	67	4.6	72	7.1	76	6.6									130
140			62	3.3	64	4.3			66	4.3	69	5.8	65	2.9	70	5.6	74	6.3									140
150					61	2.6					67	4.2			68	4.0	72	5.5									150
160											64	2.7					69	4.3									160
170																	66	2.9									170
Tel.	Telescoping sequence %																								Tel.		
1	92																								1		
2	92																								2		
3	92																								3		
4	92																								4		
5	92																								5		
6	92																								6		

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Work. radius [ft]		Outrigger reaction force F in ton [US] / Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft, load rating chart 99707704325 Counterweight 77,161 lbs / On outriggers, 360° working area / Outriggers half extended, outrigger base 18.37 ft Boom length 43.3 ft												Work. radius [ft]		
		Fly jib 43.3 ft, offset				Fly jib 63.0 ft, offset				Fly jib 82.7 ft, offset						
	m	0°		20°		40°		0°		20°		40°		m	F	
		m	F	m	F	m	F	m	F	m	F	m	F			
10																10
12																12
14																14
16																16
18																18
20																20
25																25
30																30
35																35
40																40
45	15.0	33.0														45
50	15.0	35.9														50
55	15.0	38.9			11.5	32.2										55
60	15.0	41.9			11.5	34.4			8.8	31.0						60
65	15.0	44.9	14.8	40.7	11.5	37.0			8.8	33.3						65
70	15.0	48.0	14.3	42.9	11.5	39.7			8.8	35.7						70
75	15.0	51.0	13.9	45.2	11.5	42.4			8.8	38.1						75
80	14.9	54.0	13.6	47.7	11.5	45.0	11.4	39.0	8.8	40.5						80
85	14.8	56.7	13.2	50.0	12.1	47.7	11.2	41.4	8.8	42.9						85
90	13.0	56.4	12.9	52.3	12.0	44.8	11.5	43.5	8.8	45.3	8.8	37.9				90
95	11.4	56.1	12.6	54.5	11.7	47.4	11.5	45.5	8.8	47.6	8.7	40.0				95
100	9.9	55.9	11.9	55.9	11.4	49.7	11.0	47.4	8.8	50.0	8.5	42.2				100
110	7.4	55.4	9.2	55.5	10.3	51.8	10.2	49.5	8.8	52.4	8.3	44.2				110
120	5.2	54.7	6.9	55.1	8.2	55.2	7.6	53.9	8.3	56.0	7.8	47.8	7.1	40.4		120
130	3.5	54.6	4.9	54.6	6.0	54.9	5.6	54.9	7.9	55.1	7.4	51.8	6.8	44.4		130
140			3.3	54.4	4.3	54.8	4.0	54.8	5.9	54.8	7.4	51.8	6.6	48.8		140
150					2.6	54.7			4.3	54.5	5.8	55.0	6.3	52.7		150
160									4.2	55.0	4.0	55.5	5.5	55.0		160
170									2.7	54.8			4.3	55.9		170

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 92/92/92/92/92/92 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft

Counterweight 77,161 lbs

On outriggers, 360° working area

Outriggers half extended, outrigger base 18.37 ft

Boom length 43.3 ft to 223.1 ft

Working radius [ft]	Fly jib																								Working radius [ft]	
	43.3 ft offset						63.0 ft offset						82.7 ft offset													
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°		
	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠		
10																									10	
12																										12
14																										14
16																										16
18																										18
20																										20
25																										25
30																										30
35																										35
40																										40
45																										45
50	80	13.0																								50
55	79	13.0					80	10.1																		55
60	78	13.0					79	10.1																		60
65	77	13.0	80	13.0			78	10.1						79	7.9											65
70	76	13.0	79	13.0			77	10.1						78	7.9											70
75	76	13.0	79	12.9			77	10.1						78	7.9											75
80	75	13.0	78	12.7	80	11.8	76	10.1	80	10.1				77	7.9											80
85	74	13.0	77	12.4	79	11.5	75	10.1	79	10.1				76	7.9											85
90	73	12.4	76	12.0	78	11.1	74	10.1	78	9.8				75	7.9											90
95	72	11.2	75	11.7	77	10.9	74	10.1	78	9.6				75	7.9											95
100	71	9.7	74	11.1	76	10.7	73	9.9	77	9.4	80	8.5	74	7.9												100
110	68	7.0	71	9.0	73	10.0	70	7.9	74	8.9	77	8.2	72	7.8												110
120	67	5.0	69	6.7	71	7.9	69	5.8	73	8.2	76	7.9	71	6.0												120
130	64	3.3	67	4.8	69	5.9	66	4.0	70	6.2	73	7.5	69	4.2												130
140					67	4.3			69	4.5	71	6.0														140
150					64	2.6			67	2.8	69	4.4														150
160											66	2.9														160
170																										170
Tel.	Telescoping sequence %																								Tel.	
1	100																								1	
2	100																								2	
3	100																								3	
4	100																								4	
5	100																								5	
6	100																								6	

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Work. radius [ft]		Outrigger reaction force F in ton [US] / Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft, load rating chart 99707704325 Counterweight 77,161 lbs / On outriggers, 360° working area / Outriggers half extended, outrigger base 18.37 ft Boom length 43.3 ft												Work. radius [ft]			
		Fly jib 43.3 ft, offset				Fly jib 63.0 ft, offset				Fly jib 82.7 ft, offset							
10 12 14 16 18 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 130 140 150 160 170	m	0°		20°		40°		0°		20°		40°		0°		m	F
		F	m	F	m	F	m	F	m	F	m	F	m	F	m		
10																	
12																	
14																	
16																	
18																	
20																	
25																	
30																	
35																	
40																	
45																	
50	13.0	34.0															
55	13.0	36.8						10.1	33.1								
60	13.0	39.7						10.1	35.7								
65	13.0	42.6	13.0	38.3				10.1	38.2					7.9	34.9		
70	13.0	45.4	13.0	41.2				10.1	40.8					7.9	37.2		
75	13.0	48.3	12.9	43.9				10.1	43.3					7.9	39.5		
80	13.0	51.1	12.7	46.5	11.8	41.6	10.1	45.8	10.1	40.0				7.9	41.9		
85	13.0	54.0	12.4	48.8	11.5	43.8	10.1	48.4	10.1	42.6				7.9	44.3		
90	12.4	55.6	12.0	51.0	11.1	46.1	10.1	51.0	9.8	44.6				7.9	46.6		
95	11.2	56.0	11.7	53.1	10.9	48.4	10.1	53.5	9.6	46.7				7.9	48.9		
100	9.7	55.7	11.1	54.7	10.7	50.7	9.9	55.6	9.4	48.8	8.5	42.4	7.9	51.2			
110	7.0	54.9	9.0	55.4	10.0	54.8	7.9	56.1	8.9	52.8	8.2	46.8	7.8	55.5			
120	5.0	54.7	6.7	55.0	7.9	55.2	5.8	55.9	8.2	56.0	7.9	51.1	6.0	55.9			
130	3.3	54.6	4.8	54.9	5.9	55.0	4.0	55.4	6.2	55.8	7.5	55.3	4.2	55.5			
140					4.3	55.0			4.5	55.6	6.0	55.9					
150					2.6	54.9			2.8	55.4	4.4	55.9					
160											2.9	55.8					
170																	

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 100/100/100/100/100/100 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J765, at fly jib 5,4 m
Counterweight 51,808 lbs
 On outriggers, 360° working area
Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length												Working radius [ft]												
	43.3 ft			43.3 ft to 111.9 ft			43.3 ft to 208.0 ft			43.3 ft to 223.1 ft															
	Fly jib 17.7 ft offset			Fly jib 17.7 ft offset			Fly jib 17.7 ft offset			Fly jib 17.7 ft offset															
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°													
10	76	104.2																10							
12	74	97.5	79	66.3														12							
14	72	91.6	77	63.8														14							
16	70	86.4	75	61.3														16							
18	68	81.9	73	59.2	78	48.1												18							
20	66	77.7	71	57.3	76	47.0	80	85.3										20							
25	61	69.2	66	53.2	70	44.8	78	85.3										25							
30	55	62.3	60	49.8	63	43.1	76	84.7	78	60.8	80	47.3						30							
35	49	56.7	54	47.0	57	41.7	74	74.5	76	58.5	78	46.3						35							
40	42	51.6	47	44.0	50	40.2	72	62.0	74	56.1	76	45.3						40							
45	34	46.6	39	41.3			69	52.3	71	53.6	73	44.5						45							
50	22	42.1					67	45.7	69	48.3	71	43.6	79	23.2			80	20.3	50						
55							65	39.5	67	41.9	68	41.0	78	22.3	79	20.7	80	19.9	79	20.0	80	19.1			55
60							62	33.1	64	35.1	66	36.4	77	21.4	78	19.9	79	19.3	78	19.5	79	18.4	80	17.7	60
65							59	27.6	61	29.4	63	30.5	75	20.6	76	19.3	78	18.6	76	18.8	78	17.7	79	17.1	65
70							57	23.2	59	24.7	60	25.8	74	19.9	75	18.6	77	18.1	75	18.2	77	17.2	78	16.5	70
75							54	19.4	56	20.6	57	21.7	73	19.2	74	18.0	75	17.5	75	17.6	76	16.7	77	16.0	75
80							51	16.0	53	17.2	54	18.2	72	18.6	73	17.5	74	16.8	74	17.1	75	16.2	76	15.6	80
85							48	13.2	50	14.5	51	15.0	70	17.9	72	17.0	73	16.3	72	16.6	73	15.7	74	15.2	85
90							45	11.0	47	12.0	48	12.4	69	15.8	71	16.3	72	16.0	71	15.7	72	15.3	73	14.9	90
95							42	8.9	44	9.7	45	10.1	68	13.7	69	14.8	70	14.9	70	14.2	71	14.4	72	14.6	95
100							38	7.0	40	7.7	41	7.9	67	11.8	68	12.9	69	13.3	69	12.2	70	13.0	71	13.7	100
110							29	4.1	31	4.5			64	8.6	65	9.5	66	9.9	66	9.0	67	9.8	68	10.4	110
120													61	6.1	62	6.6	63	7.1	64	6.4	65	7.1	65	7.6	120
130													58	4.0	59	4.4	60	4.9	61	4.2	62	4.9	63	5.4	130
Tel.	Telescoping sequence %																	Tel.							
1	0			92			92			100			1												
2	0			92			92			100			2												
3	0			46			92			100			3												
4	0			0			92			100			4												
5	0			0			92			100			5												
6	0			0			92			100			6												

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force F in ton [US]
 Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 17.7 ft, load rating chart 99707704326
Counterweight 51,808 lbs
 On outriggers, 360° working area
Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length 43.3 ft						Boom length 43.3 ft to 111.9 ft						Boom length 43.3 ft to 208.0 ft						Boom length 43.3 ft to 223.1 ft						Working radius [ft]	
	Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset							
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°			
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10	104.2	43.2																							10	
12	97.5	44.5	66.3	35.3																						12
14	91.6	45.6	63.8	34.7																						14
16	86.4	46.8	61.3	36.1																						16
18	81.9	47.8	59.2	37.4	48.1	32.8																				18
20	77.7	48.8	57.3	38.8	47.0	33.4	85.3	54.0																		20
25	69.2	51.2	53.2	42.1	44.8	37.0	85.3	61.6																		25
30	62.3	53.4	49.8	45.2	43.1	40.6	84.7	68.8	60.8	53.4	47.3	44.3														30
35	56.7	55.4	47.0	48.3	41.7	44.2	74.5	69.6	58.5	57.8	46.3	48.6														35
40	51.6	57.0	44.0	50.8	40.2	47.7	62.0	67.5	56.1	61.8	45.3	52.8														40
45	46.6	57.9	41.3	53.2			52.3	65.8	53.6	65.4	44.5	57.0														45
50	42.1	58.5					45.7	65.3	48.3	66.1	43.6	61.1	23.2	43.0					20.3	40.6						50
55							39.5	64.3	41.9	65.1	41.0	63.3	22.3	45.1	20.7	42.3	19.9	40.5	20.0	43.1	19.1	40.8				55
60							33.1	62.4	35.1	63.0	36.4	63.3	21.4	47.1	19.9	44.3	19.3	42.6	19.5	45.2	18.4	42.8	17.7	41.1		60
65							27.6	60.5	29.4	61.0	30.5	61.3	20.6	49.0	19.3	46.3	18.6	44.5	18.8	47.2	17.7	44.7	17.1	42.9		65
70							23.2	58.9	24.7	59.3	25.8	59.7	19.9	50.9	18.6	48.1	18.1	46.6	18.2	49.0	17.2	46.7	16.5	44.9		70
75							19.4	57.5	20.6	57.8	21.7	58.4	19.2	52.8	18.0	50.1	17.5	48.4	17.6	50.9	16.7	48.6	16.0	46.8		75
80							16.0	56.2	17.2	56.5	18.2	57.1	18.6	54.6	17.5	52.0	16.8	50.2	17.1	52.8	16.2	50.4	15.6	48.6		80
85							13.2	55.1	14.5	55.8	15.0	55.9	17.9	56.3	17.0	53.9	16.3	52.1	16.6	54.6	15.7	52.2	15.2	50.6		85
90							11.0	54.4	12.0	54.9	12.4	55.0	15.8	55.8	16.3	55.4	16.0	54.0	15.7	55.9	15.3	54.1	14.9	52.6		90
95							8.9	53.7	9.7	53.9	10.1	54.2	13.7	55.1	14.8	55.6	14.9	54.9	14.2	55.9	14.4	55.0	14.6	54.5		95
100							7.0	52.9	7.7	53.2	7.9	53.5	11.8	54.4	12.9	54.9	13.3	54.8	12.2	55.2	13.0	55.2	13.7	55.5		100
110							4.1	52.2	4.5	52.3			8.6	53.3	9.5	53.6	9.9	53.6	9.0	54.1	9.8	54.2	10.4	54.5		110
120													6.1	52.4	6.6	52.3	7.1	52.5	6.4	53.1	7.1	53.4	7.6	53.4		120
130													4.0	51.6	4.4	51.6	4.9	51.9	4.2	52.3	4.9	52.7	5.4	52.8		130
Tel.	Telescoping sequence %																								Tel.	
1			0							92														100		1
2			0							92														100		2
3			0							46														100		3
4			0							0														100		4
5			0							0														100		5
6			0							0														100		6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account.



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 51,808 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft

Working radius [ft]	Fly jib															Working radius [ft]					
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset								
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°						
10	79	39.7																		10	
12	77	39.7				80	35.1													12	
14	75	39.0				78	34.3			80	22.9									14	
16	74	37.2				77	33.3			80	22.9									16	
18	73	35.4				77	32.3			79	22.9			81	14.1					18	
20	72	33.7				76	31.4			78	22.9			80	14.1			81	10.1	20	
25	69	30.4	78	24.5		73	29.2			76	22.9			77	14.1			79	10.1	25	
30	65	27.6	75	22.5		70	27.1			74	21.9			76	14.1			78	10.1	30	
35	62	25.2	71	21.0		68	24.9			71	20.2			74	14.1			76	10.1	35	
40	58	23.2	67	19.7	75	17.3	65	22.9	76	18.8				72	14.1			74	10.1	40	
45	54	21.5	63	18.5	71	16.5	62	21.3	73	17.6				70	13.9			72	10.1	45	
50	49	20.1	59	17.6	66	15.9	59	19.9	70	16.3				68	13.2			71	10.0	50	
55	45	18.8	54	16.8	61	15.4	55	18.4	66	15.1	76	12.7	62	15.1	75	12.9		66	12.4	55	
60	40	17.7	49	16.0	56	15.0	51	16.9	63	14.1	73	12.0	59	14.2	72	12.2		64	11.8	60	
65	35	16.7	44	15.3	50	14.8	48	15.6	59	13.1	69	11.5	56	13.3	69	11.1		62	11.1	65	
70	28	15.9	37	14.9			45	14.4	56	12.4	65	11.0	54	12.5	66	10.4		60	10.4	70	
75	21	15.3	30	14.6			40	13.3	51	11.7	60	10.5	51	11.6	63	9.8		58	9.9	75	
80							36	12.4	47	11.1	55	10.1	48	10.6	60	9.1		55	9.3	80	
85							31	11.5	42	10.4	49	9.7	45	10.0	57	8.6	68	7.7	52	8.4	85
90							25	10.7	36	10.0			41	9.3	53	8.1	64	7.4	50	7.9	90
95													38	8.6	50	7.7	60	7.1	48	7.4	95
100													34	8.0	46	7.4	55	6.8	45	6.9	100
110													24	7.2	36	6.7	45	6.4	39	6.1	110
120																			32	5.4	120
130																			22	4.7	130
140																					140
150																					150
160																					160
170																					170
180																					180
Tel.	Telescoping sequence %																		Tel.		
1	0																		1		
2	0																		2		
3	0																		3		
4	0																		4		
5	0																		5		
6	0																		6		

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Work, radius [ft] Outrigger reaction force F in ton [US] / Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft; load rating chart 99707704327
Counterweight 51,808 lbs / On outriggers, 360° working area / Outriggers fully extended, outrigger base 27.23 ft
 Boom length 43.3 ft

Work, radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset										
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°						
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F					
10	39.7	37.4																																	
12	39.7	36.0																																	
14	39.0	34.5																																	
16	37.2	33.2																																	
18	35.4	31.9																																	
20	33.7	30.8																																	
25	30.4	29.7	24.5	31.7																															
30	27.6	31.1	22.5	29.5																															
35	25.2	32.4	21.0	28.0																															
40	23.2	33.7	19.7	29.1	17.3	28.5	22.9	32.4	18.8	28.1																									
45	21.5	34.9	18.5	30.6	16.5	27.6	21.3	33.6	17.6	28.2																									
50	20.1	36.2	17.6	32.2	15.9	29.0	19.9	34.7	16.3	29.0																									
55	18.8	37.3	16.8	33.7	15.4	31.0	18.4	35.5	15.1	29.9	12.7	27.5	15.1	31.7	12.9	27.3																			
60	17.7	38.5	16.0	35.2	15.0	32.9	16.9	36.2	14.1	30.9	12.0	26.5	14.2	32.5	12.2	27.4																			
65	16.7	39.6	15.3	36.8	14.8	35.3	15.6	36.8	13.1	31.8	11.5	27.9	13.3	33.4	11.1	28.1																			
70	15.9	40.9	14.9	38.6			14.4	37.3	12.4	32.9	11.0	29.3	12.5	34.1	10.4	28.9																			
75	15.3	42.2	14.6	40.5			13.3	37.9	11.7	34.0	10.5	30.7	11.6	34.6	9.8	29.7																			
80							12.4	38.4	11.1	34.9	10.1	32.1	10.6	35.0	9.1	30.4																			
85							11.5	39.0	10.4	35.9	9.7	33.8	10.0	35.6	8.6	31.3	7.7	27.6	8.4	32.8	7.3	28.1													
90							10.7	39.4	10.0	37.3			9.3	36.1	8.1	32.1	7.4	28.8	7.9	33.4	6.8	28.7													
95													8.6	36.5	7.7	33.0	7.1	30.0	7.4	33.9	6.4	29.5													
100													8.0	36.9	7.4	34.0	6.8	31.3	6.9	34.3	6.1	30.2													
110													7.2	38.1	6.7	36.0	6.4	34.5	6.1	35.3	5.4	31.7	5.0	28.5											
120																			5.4	36.3	5.0	33.6	4.6	30.9	4.6	30.4	3.7	26.6							
130																			4.7	37.2	4.5	35.3	4.2	33.6	4.1	35.1	3.8	32.0	3.3	28.5					
140																																			
150																																			
160																																			
170																																			
180																																			

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 0/0/0/0/0 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 51,808 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 111.9 ft

Working radius [ft]	Fly jib															Working radius [ft]						
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset									
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°							
10																			10			
12																			12			
14																			14			
16																			16			
18																			18			
20	81	39.3																	20			
25	79	36.8				80	28.9												25			
30	77	34.6				79	28.8			80	19.6								30			
35	75	32.4				77	28.0			78	19.6						80	9.0	35			
40	74	30.7	79	22.4		76	27.0			77	19.6						79	9.0	40			
45	71	29.0	77	21.4		74	25.8			76	19.4						78	9.0	45			
50	70	27.4	75	20.5		73	24.6			75	18.9						77	9.0	50			
55	68	26.1	73	19.7	77	16.5	71	23.5	77	17.7							76	9.0	55			
60	66	24.9	71	19.1	76	16.0	69	22.5	76	17.1							75	9.0	60			
65	64	23.7	69	18.4	73	15.7	67	21.5	74	16.4	80	12.8					73	9.0	65			
70	62	22.7	67	17.9	71	15.4	66	20.5	73	15.9	78	12.5	69	15.9	77	12.1		72	9.0	70		
75	60	21.6	65	17.4	69	15.1	64	19.7	71	15.4	76	12.2	67	15.3	75	11.7		69	11.7	75		
80	57	20.0	62	16.9	66	14.9	62	19.0	69	14.9	74	11.8	66	14.6	74	11.4		68	11.4	80		
85	55	17.1	60	16.6	64	14.6	60	18.1	67	14.4	72	11.5	64	13.9	72	11.0		67	11.0	85		
90	53	14.8	58	16.1	62	14.4	59	16.2	65	13.9	70	11.1	63	13.4	71	10.7		66	10.5	90		
95	51	12.6	56	14.8	59	14.2	57	14.3	63	13.4	68	10.9	61	12.9	69	10.4	75	8.3	64	10.2	95	
100	48	10.7	53	13.1	56	13.7	55	12.4	61	12.8	66	10.7	59	12.5	67	10.0	73	8.1	63	9.8	100	
110	43	7.5	48	9.6	51	10.5	51	9.2	57	11.7	61	10.2	55	10.8	63	9.4	69	7.5	59	9.1	110	
120	38	5.1	42	6.5	45	7.1	46	6.6	52	9.0	56	9.7	52	8.3	59	8.7	65	7.2	56	8.4	120	
130	31	3.1	35	4.0			41	4.6	47	6.5	51	7.8	48	6.0	56	8.0	61	6.9	53	6.9	130	
140								41	4.3				44	4.1	51	6.3	56	6.7	50	5.1	140	
150															46	4.5	51	5.7	46	3.5	150	
160															41	2.6	44	4.0			160	
170																				50	4.4	170
180																				50	4.0	180
Tel.	Telescoping sequence %																	Tel.				
1	92																	1				
2	92																	2				
3	46																	3				
4	0																	4				
5	0																	5				
6	0																	6				

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force F in ton [US] / Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707704327
Counterweight 51,808 lbs / On outriggers, 360° working area / Outriggers fully extended, outrigger base 27.23 ft
Boom length 43.3 ft to 111.9 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset							
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°			
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F		
10																																
12																																
14																																
16																																
18																																
20																																
25																																
30																																
35																																
40																																
45																																
50																																
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60																																
65																																
70																																
75																																
80																																
85																																
90																																
95																																
100																																
110																																
120																																
130																																
140																																
150																																
160																																
170																																
180																																

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 92/92/46/0/0/0 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 51,808 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 208.0 ft

Working radius [ft]	Fly jib																				Working radius [ft]		
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset										
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°		0°										
10																					10		
12																						12	
14																						14	
16																						16	
18																						18	
20																						20	
25																						25	
30																						30	
35																						35	
40																						40	
45	80	15.0																				45	
50	79	15.0				80	11.5															50	
55	78	15.0				79	11.5			80	8.8											55	
60	77	15.0				78	11.5			79	8.8			80	7.1							60	
65	76	15.0	80	14.8		77	11.5			78	8.8			79	7.1			80	5.5			65	
70	75	15.0	79	14.3		76	11.5			77	8.8			78	7.1			79	5.5			70	
75	75	15.0	78	13.9		76	11.5	80	11.4					77	8.8			78	5.5			75	
80	74	14.9	77	13.6	79	12.5	75	11.5	79	11.2				76	8.8			77	5.5			80	
85	72	14.8	75	13.2	78	12.1	74	11.5	78	10.8				75	8.8	81	8.8	76	7.1			85	
90	71	14.3	74	12.9	77	12.0	73	11.5	77	10.5				74	8.8	80	8.7	75	7.1			90	
95	70	13.9	73	12.6	76	11.7	72	11.5	76	10.2				74	8.8	79	8.5	75	7.1			95	
100	69	13.3	72	12.2	75	11.4	71	11.4	75	9.9	79	9.2	73	8.8	78	8.3		74	7.1	81	6.6	100	
110	66	10.6	69	11.6	72	10.9	69	10.7	73	9.5	76	8.7	70	8.8	76	7.8	81	7.1	72	7.1	78	6.4	110
120	64	8.2	67	9.9	69	10.4	67	8.6	71	9.0	74	8.3	69	8.5	74	7.4	78	6.8	71	7.1	77	6.1	120
130	62	5.8	64	7.6	67	8.8	64	6.4	68	8.3	71	8.0	67	7.1	72	7.1	76	6.6	69	6.9	75	5.8	130
140	59	4.0	62	5.5	64	6.7	62	4.7	66	6.5	69	7.5	65	5.4	70	6.8	74	6.3	67	5.4	73	5.4	140
150			60	3.5	61	4.7	60	3.0	64	4.9	67	6.2			68	5.9	72	6.1	65	3.8	71	5.2	150
160					58	2.8			61	3.4	64	4.5			65	4.5	69	5.7			69	4.8	160
170									61	3.0					63	3.2	66	4.7			67	3.8	170
180																	64	3.4					180
Tel.	Telescoping sequence %																				Tel.		
1	92																				1		
2	92																				2		
3	92																				3		
4	92																				4		
5	92																				5		
6	92																				6		

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force F in ton [US] / Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft; load rating chart 99707704327
Counterweight 51,808 lbs / On outriggers, 360° working area / Outriggers fully extended, outrigger base 27.23 ft
 Boom length 43.3 ft to 208.0 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset									
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°					
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F				
10																																		
12																																		
14																																		
16																																		
18																																		
20																																		
25																																		
30																																		
35																																		
40																																		
45	15.0	32.9																																
50	15.0	35.2					11.5	31.9																										
55	15.0	37.4					11.5	33.9																										
60	15.0	39.7					11.5	35.9																										
65	15.0	42.0	14.8	38.7			11.5	37.9																										
70	15.0	44.2	14.3	40.4			11.5	39.9																										
75	15.0	46.5	13.9	42.1			11.5	41.9	11.4	37.4																								
80	14.9	48.7	13.6	43.9	12.5	40.0	11.5	43.9	11.2	39.1																								
85	14.8	50.8	13.2	45.7	12.1	41.7	11.5	45.9	10.8	40.7																								
90	14.3	52.3	12.9	47.4	12.0	43.6	11.5	47.9	10.5	42.2																								
95	13.9	54.0	12.6	49.0	11.7	45.4	11.5	49.9	10.2	43.7																								
100	13.3	55.2	12.2	50.7	11.4	47.0	11.4	51.7	9.9	45.2	9.2	40.7	8.3	41.1																				
110	10.6	54.9	11.6	53.8	10.9	50.4	10.7	54.5	9.5	48.5	8.7	43.7	8.8	51.0	7.8	43.9	7.1	38.3																
120	8.2	54.4	9.9	54.9	10.4	53.7	8.6	54.5	9.0	51.3	8.3	46.9	8.5	53.9	7.4	46.8	6.8	41.3																
130	5.8	53.3	7.6	54.1	8.8	54.8	6.4	53.8	8.3	53.7	8.0	50.1	7.1	54.7	7.1	49.7	6.6	44.6																
140	4.0	52.7	5.5	53.3	6.7	54.0	4.7	53.4	6.5	53.6	7.5	52.8	5.4	54.3	6.8	52.5	6.3	47.5																
150			3.5	52.5	4.7	53.2	3.0	53.0	4.9	53.3	6.2	53.7			5.9	53.8	6.1	50.6																
160					2.8	52.4			3.4	53.0	4.5	53.1			4.5	53.9	5.7	53.2																
170											3.0	52.7			3.2	53.7	4.7	54.2																
180																																		

Telescoping sequence / Tel.1 / Tel.2 / Tel.3 / Tel.4 / Tel.5 / Tel.6 / 92/92/92/92/92 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 51,808 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 223.1 ft

Working radius [ft]	Fly jib																				Working radius [ft]		
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset										
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°								
10																					10		
12																						12	
14																						14	
16																						16	
18																						18	
20																						20	
25																						25	
30																						30	
35																						35	
40																						40	
45																						45	
50	80	13.0																				50	
55	79	13.0					80	10.1														55	
60	78	13.0					79	10.1														60	
65	77	13.0	80	13.0			78	10.1				79	7.9				80	6.2				65	
70	76	13.0	79	13.0			77	10.1				78	7.9				79	6.2		80	5.1	70	
75	76	13.0	79	12.9			77	10.1				78	7.9				79	6.2		80	5.1	75	
80	75	13.0	78	12.7	80	11.8	76	10.1	80	10.1		77	7.9				78	6.2		79	5.1	80	
85	74	13.0	77	12.4	79	11.5	75	10.1	79	10.1		76	7.9				77	6.2		78	5.1	85	
90	73	13.0	76	12.0	78	11.1	74	10.1	78	9.8		75	7.9				76	6.2		77	5.1	90	
95	72	12.8	75	11.7	77	10.9	74	10.1	78	9.6		75	7.9	80	7.9		76	6.2		77	5.1	95	
100	71	12.4	74	11.4	76	10.7	73	10.1	77	9.4	80	8.5	74	7.9	79	7.8		75	6.2	76	5.1	100	
110	68	10.4	71	10.7	73	10.2	70	10.0	74	8.9	77	8.2	72	7.9	77	7.3		73	6.2	74	5.1	110	
120	67	7.8	69	9.7	71	9.8	69	8.8	73	8.5	76	7.9	71	7.9	76	7.0	79	6.6	72	6.2	74	5.1	120
130	64	5.6	67	7.3	69	8.4	66	6.6	70	8.0	73	7.5	69	6.8	73	6.7	77	6.2	70	6.2	72	5.1	130
140	62	3.8	65	5.4	67	6.4	65	4.8	69	6.8	71	7.2	67	5.0	72	6.3	75	5.9	69	5.0	71	4.8	140
150			63	3.6	64	4.6	63	2.9	67	5.2	69	6.2	65	3.1	70	5.5	73	5.6	67	3.7	69	4.4	150
160					61	2.9			64	3.5	66	4.7			68	4.3	71	5.3					160
170									64	3.2					66	2.9	69	4.5					170
180																							180
Tel.	Telescoping sequence %																				Tel.		
1	100																				1		
2	100																				2		
3	100																				3		
4	100																				4		
5	100																				5		
6	100																				6		

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force F in ton [US] / Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft; load rating chart 99707704327

Counterweight 51,808 lbs / On outriggers, 360° working area / Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 223.1 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset										
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°						
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F					
10																																			
12																																			
14																																			
16																																			
18																																			
20																																			
25																																			
30																																			
35																																			
40																																			
45																																			
50	13.0	33.6																																	
55	13.0	35.8						10.1	32.9																										
60	13.0	37.9						10.1	34.8																										
65	13.0	40.1	13.0	36.9				10.1	36.7						7.9	34.2											6.2	32.2							
70	13.0	42.2	13.0	39.0				10.1	38.6					7.9	35.9											6.2	33.8								
75	13.0	44.4	12.9	41.1				10.1	40.6					7.9	37.7											6.2	35.4								
80	13.0	46.5	12.7	43.0	11.8	39.3	10.1	42.5	10.1	38.0				7.9	39.4										6.2	37.1									
85	13.0	48.7	12.4	44.7	11.5	41.0	10.1	44.4	10.1	40.0				7.9	41.2										6.2	38.7									
90	13.0	50.8	12.0	46.3	11.1	42.6	10.1	46.3	9.8	41.5				7.9	43.0										6.2	40.3									
95	12.8	52.6	11.7	48.0	10.9	44.4	10.1	48.3	9.6	43.1				7.9	44.7	7.9	39.1								6.2	41.9									
100	12.4	54.1	11.4	49.5	10.7	46.1	10.1	50.2	9.4	44.7	8.5	39.8	7.9	46.5	7.8	40.8									6.2	43.5									
110	10.4	54.9	10.7	52.5	10.2	49.4	10.0	53.7	8.9	47.7	8.2	43.1	7.9	50.0	7.3	43.5									6.2	46.8									
120	7.8	54.0	9.7	54.7	9.8	52.8	8.8	55.3	8.5	50.8	7.9	46.3	7.9	53.4	7.0	46.4	6.6	41.1						6.2	50.0										
130	5.6	53.2	7.3	54.0	8.4	54.1	6.6	54.7	8.0	53.5	7.5	49.4	6.8	54.8	6.7	49.2	6.2	44.0						6.2	53.3										
140	3.8	52.7	5.4	53.5	6.4	53.6	4.8	54.1	6.8	54.5	7.2	52.5	5.0	54.1	6.3	52.0	5.9	46.9						5.0	53.9										
150			3.6	53.0	4.6	53.1	2.9	53.4	5.2	54.5	6.2	53.9	3.1	53.4	5.5	53.5	5.6	49.9						3.7	54.3										
160					2.9	52.6			3.5	53.9	4.7	53.9			4.3	53.9	5.3	52.6																	
170											3.2	53.5			2.9	53.7	4.5	54.0																	
180																																			

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 100/100/100/100/100/100 %



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J765, at fly jib 5,4 m

Counterweight 26,455 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft.]	Boom length																								Working radius [ft.]
	43.3 ft						43.3 ft to 111.9 ft						43.3 ft to 208.0 ft						43.3 ft to 223.1 ft						
	Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		
10	76	104.2																							10
12	74	97.5																							12
14	72	91.6																							14
16	70	86.4																							16
18	68	81.9																							18
20	66	77.7																							20
25	61	69.2																							25
30	55	62.3																							30
35	49	56.7																							35
40	42	51.5																							40
45	34	45.8																							45
50	22	40.2																							50
55																									55
60																									60
65																									65
70																									70
75																									75
80																									80
85																									85
90																									90
95																									95
100																									100
Tel.	Telescoping sequence %																								Tel.
1	0						92						92						100						1
2	0						92						92						100						2
3	0						46						92						100						3
4	0						0						92						100						4
5	0						0						92						100						5
6	0						0						92						100						6

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force F in ton [US]
 Lifting capacities m in 1,000 lbs according per SAE J 765, at fly jib 17.7 ft, load rating chart 99707705699
Counterweight 26,455 lbs
 On outriggers, 360° working area
Outriggers fully extended, outrigger base 27.23 ft

Working radius [ft]	Boom length 43.3 ft						Boom length 43.3 ft to 111.9 ft						Boom length 43.3 ft to 208.0 ft						Boom length 43.3 ft to 223.1 ft						Working radius [ft]
	Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						Fly jib 17.7 ft offset						
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10	104.2	43.8																							10
12	97.5	45.0	66.3	33.8																					12
14	91.6	46.2	63.8	35.2																					14
16	86.4	47.4	61.3	36.6																					16
18	81.9	48.4	59.2	38.0	48.1	32.5																			18
20	77.7	49.4	57.3	39.4	47.0	34.0	85.3	54.6																	20
25	69.2	51.9	53.2	42.7	44.8	37.6	83.8	61.4																	25
30	62.3	54.1	49.8	45.8	43.1	41.2	69.1	60.3	60.8	54.1	47.3	44.9													30
35	56.7	56.0	47.0	48.9	41.7	44.8	54.8	57.6	57.0	57.4	46.3	49.2													35
40	51.5	57.5	44.0	51.4	40.2	48.2	44.2	55.3	47.4	56.1	44.9	53.0													40
45	45.8	57.9	41.3	53.8			36.1	53.6	39.0	54.4	40.5	54.4													45
50	40.2	57.5					29.4	52.0	32.0	52.7	33.9	53.2	23.2	43.6					20.3	41.1					50
55							23.8	50.5	26.2	51.2	27.9	51.7	22.3	45.7	20.7	42.9	19.9	41.1	20.0	43.6	19.1	41.4			55
60							19.2	49.2	21.5	50.1	23.0	50.6	21.1	47.4	19.9	44.9	19.3	43.1	19.3	45.6	18.4	43.4	17.7	41.6	60
65							15.8	48.6	17.7	49.1	18.8	49.4	18.6	47.4	19.3	46.9	18.6	45.1	17.8	46.8	17.7	45.3	17.1	43.5	65
70							12.6	47.6	14.3	48.1	15.2	48.3	16.4	47.5	17.6	47.6	18.1	47.1	16.2	47.3	17.0	47.1	16.5	45.5	70
75							9.7	46.5	11.3	47.1	12.1	47.3	14.2	47.3	15.6	47.7	16.5	47.8	14.4	47.6	15.6	47.8	15.5	46.7	75
80							7.2	45.6	8.7	46.2	9.3	46.4	12.1	46.9	13.6	47.5	14.2	47.4	12.5	47.6	13.6	47.7	13.9	47.1	80
85							5.2	44.9	6.3	45.4	6.8	45.4	10.0	46.3	11.4	46.8	11.8	46.6	10.5	47.0	11.6	47.3	12.2	47.2	85
90							3.3	44.2	4.4	44.8	4.7	44.7	8.2	45.6	9.3	46.1	9.9	46.1	8.6	46.4	9.7	46.8	10.4	46.8	90
95													6.5	45.1	7.5	45.3	8.2	45.5	6.9	45.7	8.0	46.1	8.6	46.2	95
100													5.0	44.6	6.0	44.7	6.6	44.9	5.2	45.0	6.3	45.4	7.0	45.7	100
Tel.	Telescoping sequence %																								Tel.
1			0							92															1
2			0							92															2
3			0							46															3
4			0							0															4
5			0							0															5
6			0							0															6

The chart shows the maximum existing outrigger reaction forces in the worst condition, dynamic influences are not being taken into account.

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 26,455 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft

Working radius [ft]	Fly jib															Working radius [ft]			
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset						
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°				
	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠				
10	79	39.7																	10
12	77	39.7				80	35.1												12
14	75	39.0				78	34.3			80	22.9								14
16	74	37.2				77	33.3			80	22.9								16
18	73	35.4				77	32.3			79	22.9		81	14.1					18
20	72	33.7				76	31.4			78	22.9		80	14.1			81	10.1	20
25	69	30.4	78	24.5		73	29.2			76	22.9		77	14.1			79	10.1	25
30	65	27.6	75	22.5		70	27.1			74	21.9		76	14.1			78	10.1	30
35	62	25.2	71	21.0		68	24.9			71	20.2		74	14.1			76	10.1	35
40	58	23.2	67	19.7	75	17.3	65	22.9	76	18.8			72	14.1			74	10.1	40
45	54	21.5	63	18.5	71	16.5	62	21.3	73	17.6			70	13.9			72	10.1	45
50	49	20.1	59	17.6	66	15.9	59	19.9	70	16.3			68	13.2			71	10.0	50
55	45	18.8	54	16.8	61	15.4	55	18.4	66	15.1	76	12.7	62	15.1	75	12.9	66	12.4	55
60	40	17.7	49	16.0	56	15.0	51	16.9	63	14.1	73	12.0	59	14.2	72	12.2	64	11.8	60
65	35	16.7	44	15.3	50	14.8	48	15.6	59	13.1	69	11.5	56	13.3	69	11.1	62	11.1	65
70	28	15.9	37	14.9			45	14.4	56	12.4	65	11.0	54	12.5	66	10.4	60	10.4	70
75	21	15.3	30	14.6			40	13.3	51	11.7	60	10.5	51	11.6	63	9.8	58	9.9	75
80							36	12.4	47	11.1	55	10.1	48	10.6	60	9.1	55	9.3	80
85							31	11.5	42	10.4	49	9.7	45	10.0	57	8.6	68	7.7	85
90							25	10.7	36	10.0			41	9.3	53	8.1	64	7.4	90
95													38	8.6	50	7.7	60	7.1	95
100													34	8.0	46	7.4	55	6.8	100
110													24	7.2	36	6.7	45	6.4	110
120															32	5.4	45	5.0	120
130															22	4.7	35	4.5	130
140																			140
150																			150
160																			160
Tel.	Telescoping sequence %																	Tel.	
1	0																	1	
2	0																	2	
3	0																	3	
4	0																	4	
5	0																	5	
6	0																	6	

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707705700
Counterweight 26,455 lbs / On outriggers, 360° working area / **Outriggers fully extended, outrigger base 27.23 ft**

Boom length 43.3 ft

Work. radius [ft]	Fly jib 43.3 ft, offset			Fly jib 63.0 ft, offset			Fly jib 82.7 ft, offset			Fly jib 102.4 ft, offset			Fly jib 122.0 ft, offset			Work. radius [ft]			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°				
10	39.7	29.0															10		
12	39.7	27.5		35.1	28.3												12		
14	39.0	26.8		34.3	27.0		22.9	28.2									14		
16	37.2	27.3		33.3	25.8		22.9	27.2									16		
18	35.4	27.9		32.3	26.2		22.9	26.2		14.1	27.0						18		
20	33.7	28.6		31.4	27.0		22.9	25.3		14.1	26.3						20		
25	30.4	30.3	24.5	29.2	28.9		22.9	25.3		14.1	24.4						25		
30	27.6	31.6	22.5	27.1	30.6		21.9	27.1		14.1	23.1						30		
35	25.2	33.0	21.0	24.9	31.9		20.2	28.3		14.1	25.0						35		
40	23.2	34.2	19.7	17.3	26.0	18.8	18.8	29.5		14.1	26.8						40		
45	21.5	35.5	18.5	16.5	27.7	17.6	17.4	30.4		13.9	28.5						45		
50	20.1	36.7	17.6	15.9	29.6	16.3	16.2	31.4		13.2	29.6						50		
55	18.8	37.9	16.8	15.4	31.5	15.1	15.1	32.3	12.9	12.9	30.7						55		
60	17.7	39.0	16.0	15.0	33.5	14.1	14.2	33.1	12.2	12.2	28.0						60		
65	16.7	40.1	15.3	14.8	35.8	13.1	13.3	34.0	11.1	11.1	28.6						65		
70	15.9	41.5	14.9	14.8	37.4	12.4	12.5	34.7	10.4	10.4	29.4						70		
75	15.3	42.8	14.6	14.1		13.3	13.3	38.4	11.7	11.6	35.2	9.8	30.2	8.3	29.7		75		
80						12.4	12.4	39.0	11.1	10.6	35.6	9.1	31.0	7.8	30.6	6.7	25.8	80	
85						11.5	11.5	39.6	10.4	10.0	36.2	8.6	31.9	7.7	28.2	7.3	31.5	85	
90						10.7	10.7	40.0	10.0	10.0	37.8	9.3	36.7	8.1	32.7	7.4	32.1	90	
95										8.6	37.1	7.7	33.6	7.1	30.6	6.4	33.1	95	
100										8.0	37.5	7.4	34.6	6.8	31.9	6.1	34.0	100	
110										7.2	38.7	6.7	36.6	6.4	35.2	5.4	36.0	110	
120															5.0	34.8	5.2	33.8	120
130															4.6	36.2	4.6	34.8	130
140															4.2	36.5	4.1	35.8	140
150															3.5	36.6	3.5	36.6	150
160															3.1	37.6	3.1	37.6	160

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 0/0/0/0/0 [%]



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 26,455 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 111.9 ft

Working radius [ft]	Fly jib															Working radius [ft]															
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset																		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°																
	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠	∠																
10																		10													
12																		12													
14																		14													
16																		16													
18																		18													
20	81	39.3																20													
25	79	36.8				80	28.9											25													
30	77	34.6				79	28.8			80	19.6				81	12.6		30													
35	75	32.4				77	28.0			78	19.6				79	12.6	80	9.0	35												
40	74	30.7	79	22.4		76	27.0			77	19.6				78	12.6	79	9.0	40												
45	71	29.0	77	21.4		74	25.8			76	19.4				77	12.6	78	9.0	45												
50	70	27.4	75	20.5		73	24.6			75	18.9				76	12.6	77	9.0	50												
55	68	25.3	73	19.7	77	16.5	71	23.5	77	17.7				73	18.1	75	12.6	76	9.0	55											
60	66	22.4	71	19.1	76	16.0	69	22.5	76	17.1				72	17.3			74	12.6	75	9.0	60									
65	64	18.4	69	18.4	73	15.7	67	21.5	74	16.4	80	12.8	70	16.6	78	12.6		72	12.6	73	9.0	65									
70	62	15.2	67	17.7	71	15.4	66	20.5	73	15.9	78	12.5	69	15.9	77	12.1		71	12.1	72	9.0	70									
75	60	12.5	65	16.1	69	15.1	64	18.5	71	15.4	76	12.2	67	15.0	75	11.7		69	11.7	71	8.8	75									
80	57	10.1	62	13.8	66	14.7	62	15.9	69	14.9	74	11.8	66	13.6	74	11.4		68	11.4	78	9.0	80									
85	55	8.1	60	11.8	64	13.7	60	13.4	67	14.4	72	11.5	64	11.8	72	11.0		67	11.0	76	8.6	85									
90	53	6.4	58	9.6	62	11.8	59	11.3	65	13.9	70	11.1	63	10.1	71	10.7		66	10.5	75	8.3	90									
95	51	5.0	56	7.9	59	9.8	57	9.4	63	12.5	68	10.9	61	8.5	69	10.4	75	8.3	64	9.4	73	8.1	95								
100	48	3.8	53	6.3	56	7.8	55	7.7	61	10.8	66	10.7	59	7.1	67	10.0	73	8.1	63	8.0	72	7.8	100								
110			48	3.3	51	4.6	51	4.8	57	7.6	61	9.5	55	4.8	63	8.4	69	7.5	59	5.6	68	7.3	75	5.8	62	6.0	72	5.8	110		
120							46	2.4	52	5.1	56	7.0	52	2.7	59	5.9	65	7.1	56	3.6	65	6.6	72	5.4	60	4.1	69	5.4	120		
130											51	4.5			56	3.6	61	5.6			61	5.1	69	5.1			66	4.9	74	4.0	130
140																56	3.5						65	4.9			63	4.1	71	3.7	140
150																													68	3.4	150
160																													64	3.3	160
Tel.	Telescoping sequence %																	Tel.													
1	92																	1													
2	92																	2													
3	46																	3													
4	0																	4													
5	0																	5													
6	0																	6													

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707705700
Counterweight 26,455 lbs / On outriggers, 360° working area. / **Outriggers fully extended, outrigger base 27.23 ft**

Boom length 43.3 ft to 111.9 ft

Work. radius [ft]	Fly jib 43.3 ft, offset			Fly jib 63.0 ft, offset			Fly jib 82.7 ft, offset			Fly jib 102.4 ft, offset			Fly jib 122.0 ft, offset			Work. radius [ft]			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°				
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	
10																			
12																			
14																			
16																			
18																			
20																			
25																			
30																			
35																			
40																			
45																			
50																			
55																			
60																			
65																			
70																			
75																			
80																			
85																			
90																			
95																			
100																			
110																			
120																			
130																			
140																			
150																			
160																			

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 92/92/46/0/0/0 [%]



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 26,455 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 208.0 ft

Working radius [ft]	Fly jib																				Working radius [ft]		
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset										
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°					
10																				10			
12																					12		
14																					14		
16																					16		
18																					18		
20																					20		
25																					25		
30																					30		
35																					35		
40																					40		
45	80	15.0																			45		
50	79	15.0				80	11.5														50		
55	78	15.0				79	11.5			80	8.8										55		
60	77	15.0				78	11.5			79	8.8			80	7.1						60		
65	76	15.0	80	14.8		77	11.5			78	8.8			79	7.1			80	5.5		65		
70	75	15.0	79	14.3		76	11.5			77	8.8			78	7.1			79	5.5		70		
75	75	14.1	78	13.9		76	11.5	80	11.4		77	8.8		78	7.1			79	5.5		75		
80	74	12.6	77	13.6	79	12.5	75	11.5	79	11.2		76	8.8		77	7.1		78	5.5		80		
85	72	11.1	75	13.2	78	12.1	74	11.5	78	10.8		75	8.8	81	8.8		76	7.1		77	5.5	85	
90	71	9.8	74	12.1	77	12.0	73	11.5	77	10.5		74	8.8	80	8.7		75	7.1		76	5.5	90	
95	70	8.3	73	10.7	76	11.6	72	10.6	76	10.2		74	8.4	79	8.5		75	7.1		76	5.5	95	
100	69	6.9	72	9.3	75	10.8	71	9.3	75	9.9	79	9.2	73	7.7	78	8.3		74	6.9	81	6.6	100	
110	66	4.7	69	6.8	72	8.1	69	6.8	73	9.2	76	8.7	70	5.8	76	7.8	81	7.1	72	5.7	78	6.4	110
120			67	4.4	69	5.8	67	4.4	71	7.1	74	8.2	69	4.1	74	6.8	78	6.8		77	6.1		120
130					67	3.6			68	4.9	71	6.6			72	5.1	76	6.6		75	5.4		130
140											69	5.5					74	5.4					140
150																							150
160																							160
Tel.	Telescoping sequence %																				Tel.		
1	92																				1		
2	92																				2		
3	92																				3		
4	92																				4		
5	92																				5		
6	92																				6		

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707705700
Counterweight 26,455 lbs / On outriggers, 360° working area / **Outriggers fully extended, outrigger base 27.23 ft**

Boom length 43.3 ft to 208.0 ft

Work. radius [ft]	Fly jib 43.3 ft, offset						Fly jib 63.0 ft, offset						Fly jib 82.7 ft, offset						Fly jib 102.4 ft, offset						Fly jib 122.0 ft, offset												
	0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°		0°		20°		40°								
	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F	m	F							
10																																					
12																																					
14																																					
16																																					
18																																					
20																																					
25																																					
30																																					
35																																					
40																																					
45		15.0	33.4																																		
50		15.0	35.7																																		
55		15.0	38.0				11.5	32.4																													
60		15.0	40.3				11.5	34.4																													
65		15.0	42.6	14.8	39.3		11.5	36.5																													
70		15.0	44.8	14.3	41.0		11.5	38.4																													
75		14.1	46.0	13.9	42.7		11.5	40.4																													
80		12.6	46.4	13.6	44.5	12.5	11.5	42.4	11.4	38.0																											
85		11.1	46.4	13.2	46.2	12.1	11.5	44.5	11.2	39.8																											
90		9.8	46.4	12.1	46.8	12.0	11.5	46.4	10.8	41.3																											
95		8.3	46.2	10.7	46.8	11.6	11.5	48.4	10.5	42.8																											
100		6.9	45.8	9.3	46.6	10.8	10.6	49.1	10.2	44.2																											
110		4.7	45.6	6.8	46.2	8.1	9.3	49.0	9.9	45.8	9.2	41.3	41.3	41.8																							
120				4.4	45.3	5.8	6.8	48.4	9.2	48.5	8.7	44.3	44.3	44.5	7.1	38.8																					
130						4.4	45.8	4.4	47.5	7.1	48.3	8.2	47.3	4.1	46.4	6.8	41.9																				
140						3.6	44.9		4.9	47.5	6.6	48.0	4.1	46.3	5.1	46.3	6.6	45.2																			
150												5.5	49.2			5.4	46.2																				
160																																					

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 92/92/92/92/92/92 [%]



Load rating chart ATF 220G-5

Lifting capacities in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft

Counterweight 26,455 lbs

On outriggers, 360° working area

Outriggers fully extended, outrigger base 27.23 ft

Boom length 43.3 ft to 223.1 ft

Working radius [ft]	Fly jib															Working radius [ft]					
	43.3 ft offset			63.0 ft offset			82.7 ft offset			102.4 ft offset			122.0 ft offset								
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°				0°							
10																		10			
12																		12			
14																		14			
16																		16			
18																		18			
20																		20			
25																		25			
30																		30			
35																		35			
40																		40			
45																		45			
50	80	13.0																50			
55	79	13.0					80	10.1										55			
60	78	13.0					79	10.1										60			
65	77	13.0	80	13.0			78	10.1						80	6.2			65			
70	76	13.0	79	13.0			77	10.1						79	6.2		80	5.1	70		
75	76	12.7	79	12.9			77	10.1						79	6.2		80	5.1	75		
80	75	12.0	78	12.7	80	11.8	76	10.1	80	10.1				78	6.2		79	5.1	80		
85	74	10.5	77	12.4	79	11.5	75	10.1	79	10.1				77	6.2		78	5.1	85		
90	73	9.3	76	11.4	78	11.1	74	9.2	78	9.8				76	6.2		77	5.1	90		
95	72	8.0	75	10.2	77	10.8	74	8.2	78	9.6				75	7.7	80	7.9	76	6.2	95	
100	71	6.7	74	8.8	76	10.3	73	7.2	77	9.3	80	8.5	74	7.2	79	7.8	75	6.0	76	5.1	100
110			71	6.3	73	8.1	70	5.2	74	7.8	77	8.2	72	5.2	77	7.3					110
120			69	4.2	71	5.7			73	5.8	76	7.6			76	6.5	79	6.6			120
130											73	5.8			73	4.8	77	6.2			130
140																	75	5.1			140
150																					150
160																					160
Tel.	Telescoping sequence %																	Tel.			
1	100																	1			
2	100																	2			
3	100																	3			
4	100																	4			
5	100																	5			
6	100																	6			

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.



Outrigger reaction force chart ATF 220G-5

Outrigger reaction force **F** in ton [US] / Lifting capacities **m** in 1,000 lbs according per SAE J 765, at fly jib 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft, load rating chart 99707705700
Counterweight 26,455 lbs / On outriggers, 360° working area / **Outriggers fully extended, outrigger base 27.23 ft**

Boom length 43.3 ft to 223.1 ft

Work. radius [ft]	Fly jib 43.3 ft, offset			Fly jib 63.0 ft, offset			Fly jib 82.7 ft, offset			Fly jib 102.4 ft, offset			Fly jib 122.0 ft, offset		
	0° m	20° m	40° m	0° m	20° m	40° m	0° m	20° m	40° m	0° m	20° m	40° m	0° m	20° m	40° m
10															
12															
14															
16															
18															
20															
25															
30															
35															
40															
45															
50															
55															
60															
65															
70															
75															
80															
85															
90															
95															
100															
110															
120															
130															
140															
150															
160															

Telescoping sequence / Tel. 1 / Tel. 2 / Tel. 3 / Tel. 4 / Tel. 5 / Tel. 6 / 100/100/100/100/100 [%]



**WARNING AND OPERATING
INSTRUCTIONS
FOR LIFTING CAPACITIES**

ATF 220G-5

GENERAL

1. Total rated loads shown on the TADANO LOAD RATING CHARTS apply only to the mobile crane as originally manufactured and normally equipped by TADANO FAUN GmbH. Modifications to the mobile crane or use of optional equipment other than that specified can result in a reduction of capacity and can cause an accident.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this mobile crane must be in compliance with the information in the operation, safety and maintenance manual supplied with the mobile crane. If this manual is missing, order replacement through the distributor.
3. The operator and other personnel associated with this mobile crane shall fully acquaint themselves with the latest applicable ASME B30.5 safety standards for cranes as mentioned in OSHA CFR 29, part 1926.

SET UP

1. Total rated loads shown on the TADANO LOAD RATING CHARTS are the maximum allowable crane capacities and are based on the mobile crane standing level on firm supporting surface under ideal job conditions. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats to spread the load to a larger bearing surface.
2. For on outrigger operation, outriggers shall be extended to the dimension according to the TADANO LOAD RATING CHARTS and secured by pins with tires free of supporting surface, before operating crane.
3. Working on tires and travelling with load is not permitted.

OPERATION

1. Rated lifting capacities have been tested to and meet minimum requirements of SAE J 1063 – Cantilevered Boom Crane Structures Method of Test.
2. Rated lifting capacities do not exceed 85% of the tipping load on outrigger fully extended as determined by SAE J 765 -Crane Stability Test Code. Rated lifting capacities for partially extended outriggers are determined from the formula. Rated Lifting Capacities = (Tipping load – 0.1 x tip reaction)/1.25.
3. The crane's design and construction as well as structural steelwork are in compliance with the ANSI B 30.5-2009 regulations.
4. Total rated loads include the weight of the main hook block, auxiliary hook ball, slings and other auxiliary lifting devices and all their weights shall be subtracted from the listed capacities to obtain the net load to be lifted.

Hook ball / hook block [ton]	11.0	27.6	35.3	69.4	88.2	137.8	176.4
Number of sheaves	-	1	1	3	5	7	9
Weight [lbs]	661	992	992	1,874	2,535	2,976	3,527

Number of parts of line	1	2	3	4	5	6	7	8	9	10	11
Max. load capacity [10 ³ lbs]	16.8	33.1	49.6	65.9	82.2	98.3	114.4	130.5	146.4	162.0	177.7
Number of parts of line	12	13	14	15*	16*	17*	18*	19*	20*	21*	22*
Max. load capacity [10 ³ lbs]	193.3	208.8	224.2	239.6	254.9	270.1	285.1	300.0	314.8	329.6	344.4
Number of parts of line	23*	24*	25	26	27	28	29	30	31	32	33
Max. load capacity [10 ³ lbs]	358.9	373.5	387.8	402.1	416.4	430.6	444.7	458.6	472.4	486.3	500.0

* For 15 and more parts of line additional lifting equipment is necessary, see operation and maintenance manual.

5. Total rated loads are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, operating speeds, side loads, etc. Side pull on boom or boom extension is extremely dangerous.

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Page 1 of 3



**WARNING AND OPERATING
INSTRUCTIONS
FOR LIFTING CAPACITIES**

ATF 220G-5

6. Total rated loads are taken into account for wind on lifted load or boom as given below. Total rated loads and boom length shall be appropriately reduced, when wind velocity is above 18 mph (26 ft/sec.) for main boom operation and above 15 mph (22 ft/sec.) for boom extension operation.

Wind speed restrictions for main boom operation	
If the wind speed is	Rated lifting capacities must be reduced to
0 – 18 mph	no reduction (see load rating charts = 100% normal lifting operation)
19 – 27 mph	50%
28 – 34 mph	30%
> 34 mph	Crane operation must be shutdown and boom retracted and lowered to horizontal

7. Total rated loads at load radius shall not be exceeded. Do not tip the crane to determine allowable loads.
8. Do not operate at boom lengths beyond radii or boom angles where no capacities are shown. Crane may overturn without any load at the hook.
9. Slewing of the superstructure is admissible only when the crane is supported depending on outrigger base dimension and counterweight version.
10. The lifting capacity ratings specified in the TADANO LOAD RATING CHARTS apply to the telescopic boom without boom extension fixed in transport position or working position. If the boom extension is secured to the telescopic boom in transport position or working position, the lifting capacities of the telescopic boom are reduced by the values specified below. The weight of the boom extension is detected in terms of a load, and the load moment limiter will shut off earlier.

Load rating reduction for the telescopic boom with mounted boom extension									
Position of the boom extension	Telescopic boom length [ft]								
	43.3	57.1	70.9	98.4	125.7	153.2	180.4	194.2	223.1
	Load rating reduction [10 ³ lbs]								
17.7ft / 43.3ft boom extension, in transport position	1.00	0.64	0.46	0.30	0.22	0.20	0.18	0.16	0.14
17.7ft boom extension, mounted to boom head	6.00	4.98	4.38	3.68	2.70	2.20	2.08	2.02	2.00
43.3ft boom extension, mounted to boom head	12.62	10.20	8.76	7.04	4.64	3.50	3.16	3.08	2.98
63.0ft boom extension, mounted to boom head	22.54	17.96	15.14	11.88	7.28	5.14	4.48	4.32	4.10
82.7ft boom extension, mounted to boom head	36.18	28.52	23.84	18.38	10.68	7.08	5.98	5.72	5.38
102.4ft boom extension, mounted to boom head	53.56	41.94	34.78	26.52	14.82	9.38	7.68	7.28	6.74
122.0ft boom extension, mounted to boom head	74.60	58.12	48.02	36.28	19.68	11.98	9.56	9.00	8.26

11. When making lifts at a load radius not shown, use the next longer radius to determine allowable capacity.
12. Maximum permissible line pull may be affected by wire rope strength, which should not exceed 16.750lbf for the main winch and the auxiliary winch.
13. Loaded boom angles are approximate. The boom angle before loading should be greater to account for deflection.
14. Extension or retraction of the telescopic boom with loads may be attempted within the limits of the TADANO LOAD RATING CHARTS. The ability to telescope loads is limited by hydraulic pressure, boom angle, boom length, crane maintenance, etc.
15. When erecting or stowing the boom extension, be sure to retain it by hand or by other means to prevent its free movement.
16. Use the Anti-Two Block (OVERWIND CUTOUT) disable switch when erecting or stowing the boom extension and stowing the hook block. While the switch is pushed, the winch will not stop, even when an overwind condition occurs.

17. The working radius specified in the TADANO LOAD RATING CHARTS for the boom extension applies only if the telescopic boom is extended according to the TADANO LOAD RATING CHARTS. If one or more elements of the telescopic boom are retracted partially or completely, the specified boom angles will be decisive in determining total rated lifting capacities.
18. When lifting a load by using the boom extension (auxiliary winch) and telescopic boom (main winch) simultaneously, do the following:
- A. Select the correct program for the load moment device in accordance with boom extension length, boom extension offset angle, counterweight and outrigger base.
 - B. Before starting the operation, make sure that the weight of the load is within the total rated load for the boom extension.
19. Working with Single Top
Operation with the single top is allowed with the main winch and the auxiliary winch. The maximum allowed capacity is limited by the selected S.L.I. code for main boom operation according to existing counterweight and outrigger base at one side and by the single line pull which is limited by hydraulic pressure at the other side. For operations with single top, the S.L.I. display indications for working radius and actual load are not absolutely exact, because the geometrical dimensions for the single top are not taken into account at boom geometry for the S.L.I. system.
For operations with the single top mounted, use the TADANO LOAD RATING CHARTS for the telescopic boom in accordance with existing counterweight and outrigger base to find the total rated lifting capacity and also select the correct S.L.I. code for the telescopic boom in accordance with the existing counterweight and outrigger base. Find the total rated lifting capacity based on boom length and working radius. From that value, subtract weight of the single top and the weights of all lifting equipment used including; hook block, sling and other auxiliary lifting devices.

Definitions

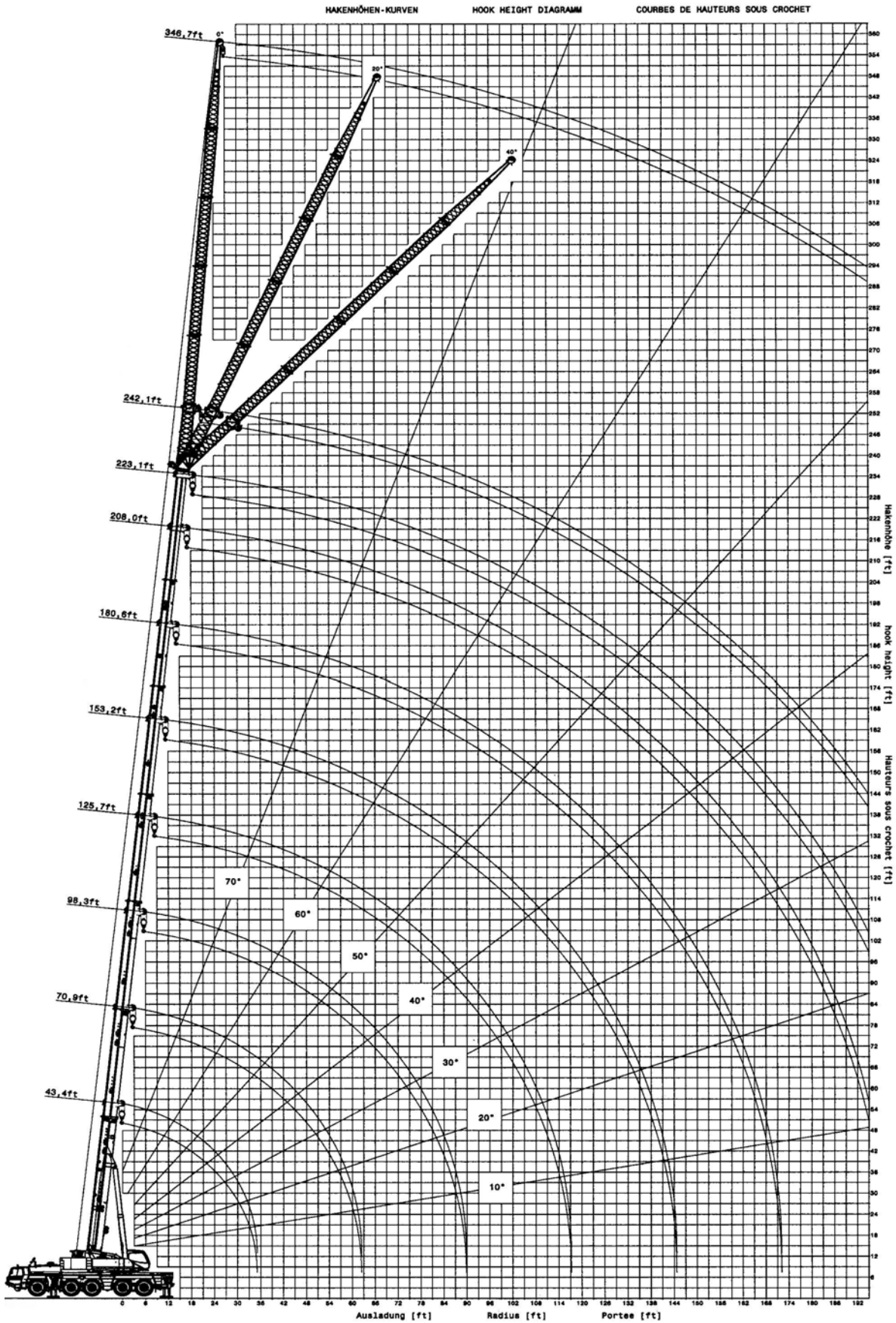
- Working Radius:** Horizontal distance from a projection of the axis of rotation to supporting surface before loading to the center of the vertical winch rope or tackle with load applied. The deflection of the boom due to its deadweight and the rated load are taken into account.
- Loaded Boom Angle:** The angle between the boom base section and the horizontal after lifting the total rated load at the working radius.
- Working Area:** Area measured in a circular arc about the centerline of rotation.
- Freely Suspended Load:** Load hanging free with no direct external force applied except by the winch rope.
- Side Load:** Horizontal side force applied to the lifted load either on the ground or in the air.

Safe Load Indicator

The Safe Load Indicator is intended as an aid to the operator. Under no condition should it be relied upon to replace use of TADANO LOAD RATING CHARTS and Operating Instructions. Sole reliance upon the Safe Load Indicator Aids in place of good operating practice can cause an accident. The operator must exercise caution to assure safety.

OPERATING RADIUS / LIFTING HEIGHT CHART

with fly jib 17.7 ft / 43.3 ft / 63.0 ft / 82.7 ft / 102.4 ft / 122.0 ft



NOTE : Operating Radius is measured in feet from Axis of Rotation.
 Boom and jib geometry shown are for unloaded condition and machine standing level on firm supporting surface.
 Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.