



Absolutely The Best Crane Mats In The World.

This document is stored and available in the Raptor Tech Technical Document Repository.

To help our customers understand certain critical data points that factor into purchasing crane mats, Raptor Tech maintains a repository of technical documents with data from all major crane manufacturers.

You can visit Raptor Tech's repository to get crane specifications and technical details for crane models in addition to this model at:

<https://library.steelcranemats.com>

Thank You for Visiting the [SteelCraneMats.com](https://library.steelcranemats.com) Technical Specifications Document Repository.

ATF 200G-5

220 US t / 200 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	22
--	----

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 - 56
--	---------

Equipment · Équipement · Equipamiento

Equipment · Équipement · Equipamiento	58 - 60
---------------------------------------	---------

Additional information · Informations supplémentaires · Información adicional

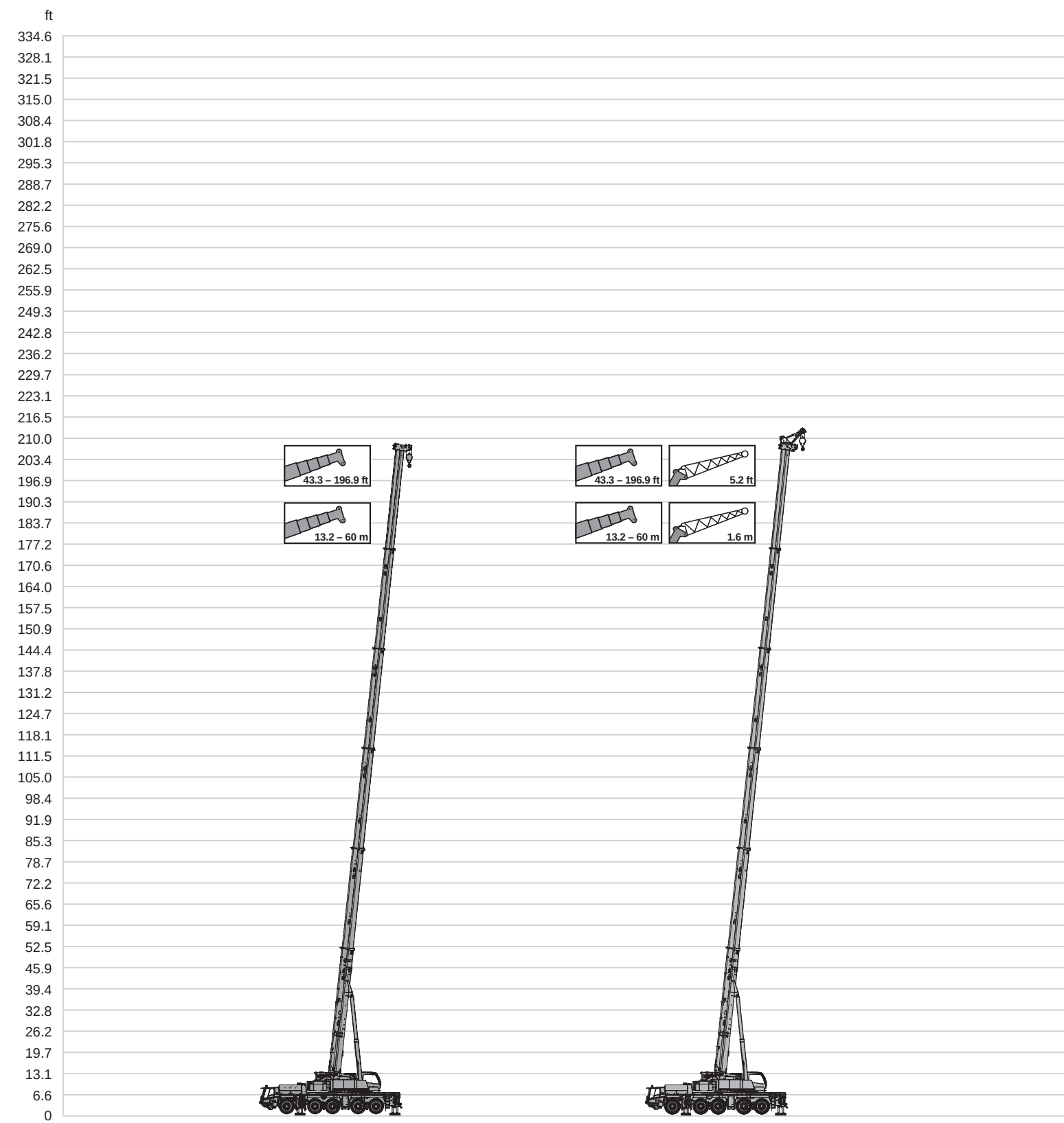
Remarks · Remarques · Notas	62
-----------------------------	----

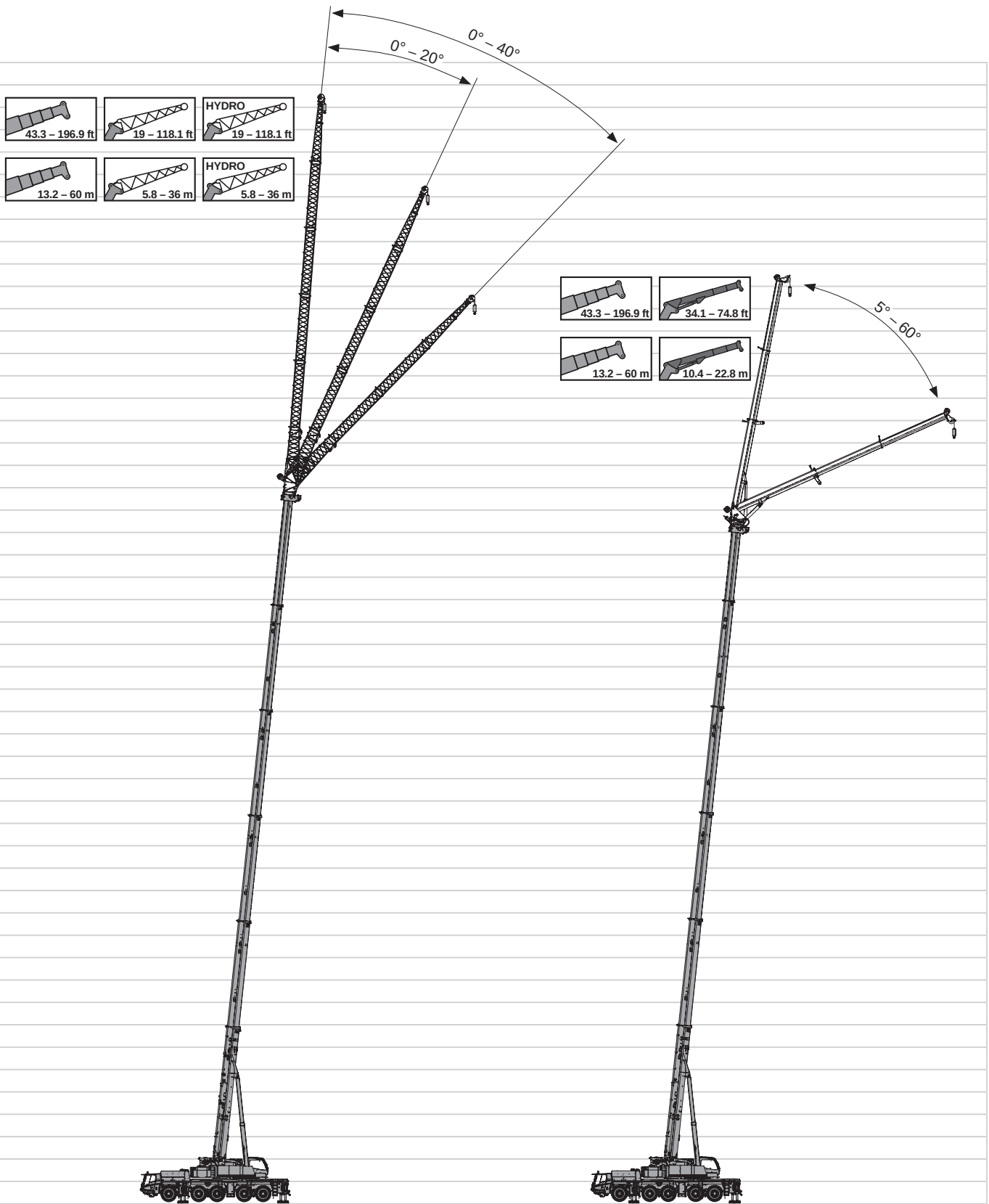
Symbols · Glossaire des symboles · Glosario de simbolos	63
---	----

GENERAL TECHNICAL DATA

CARACTÉRISTIQUES TECHNIQUES GÉNÉRALES
DATOS TÉCNICOS GENERALES

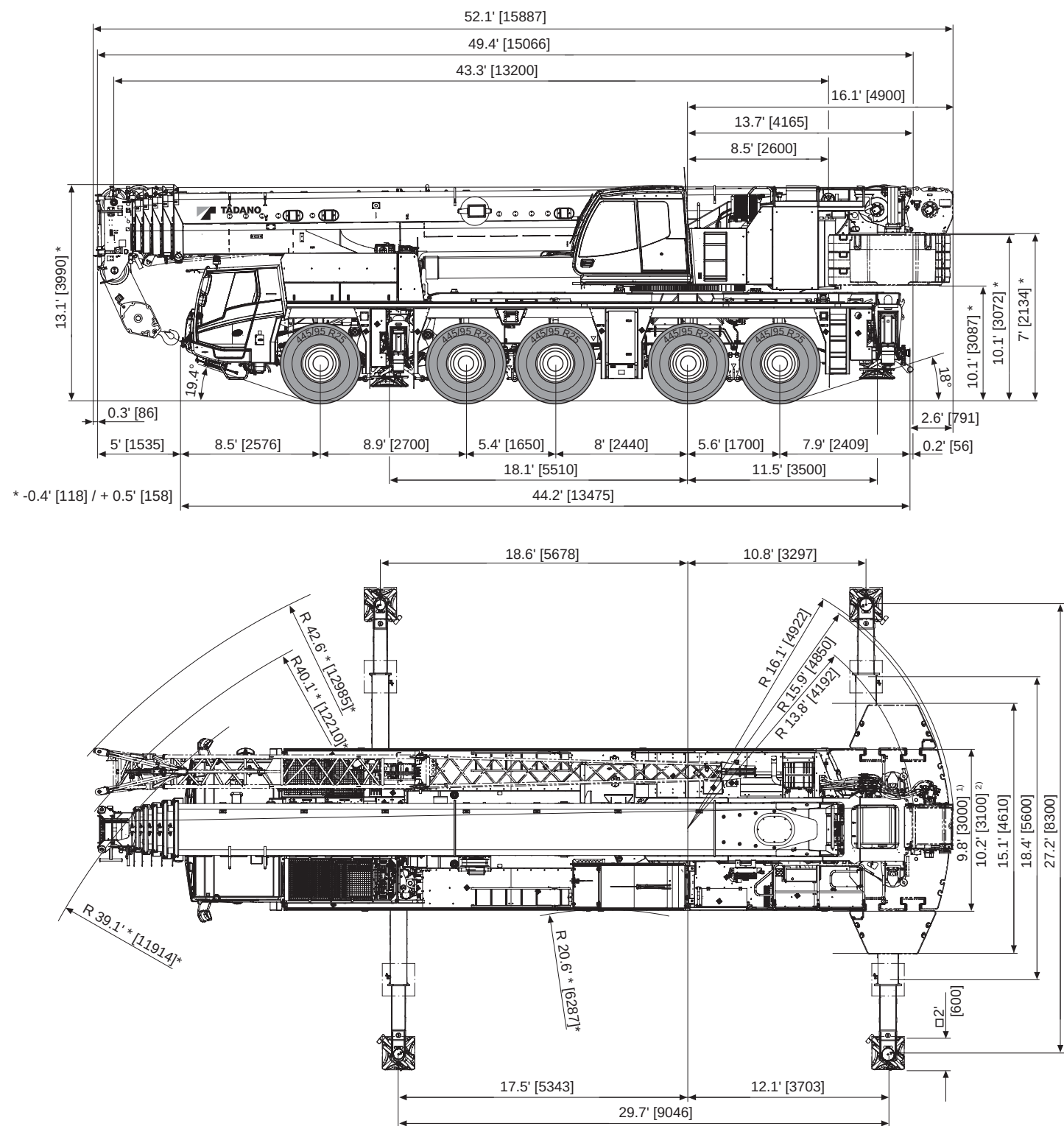






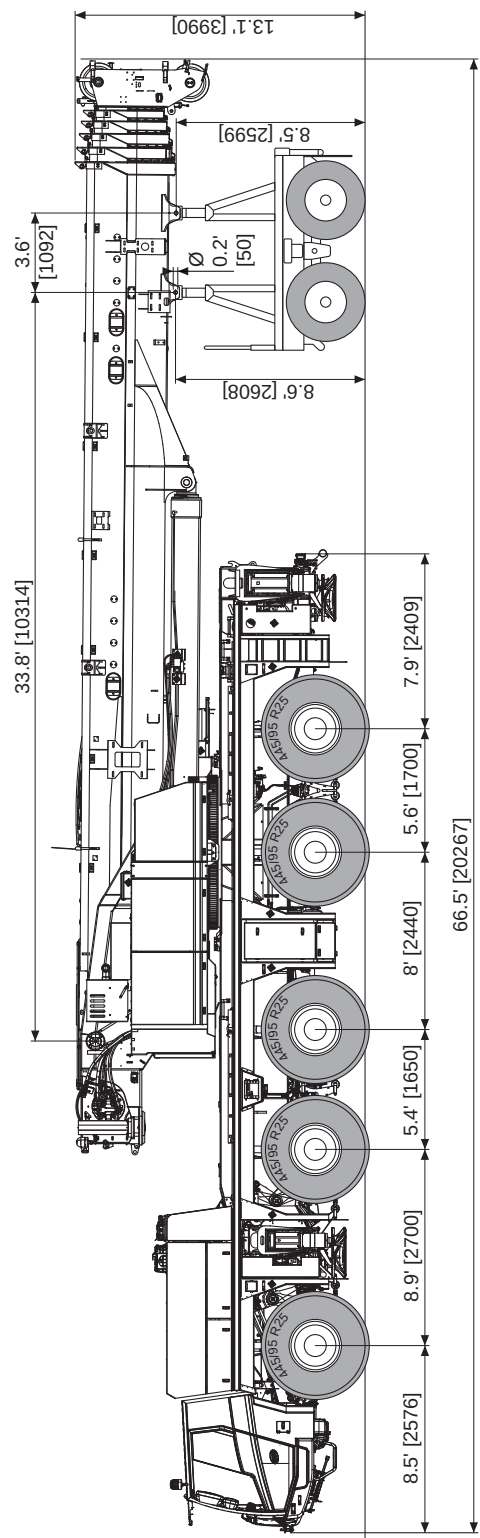
m
102
100
98
96
94
92
90
88
86
84
82
80
78
76
74
72
70
68
66
64
62
60
58
56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0

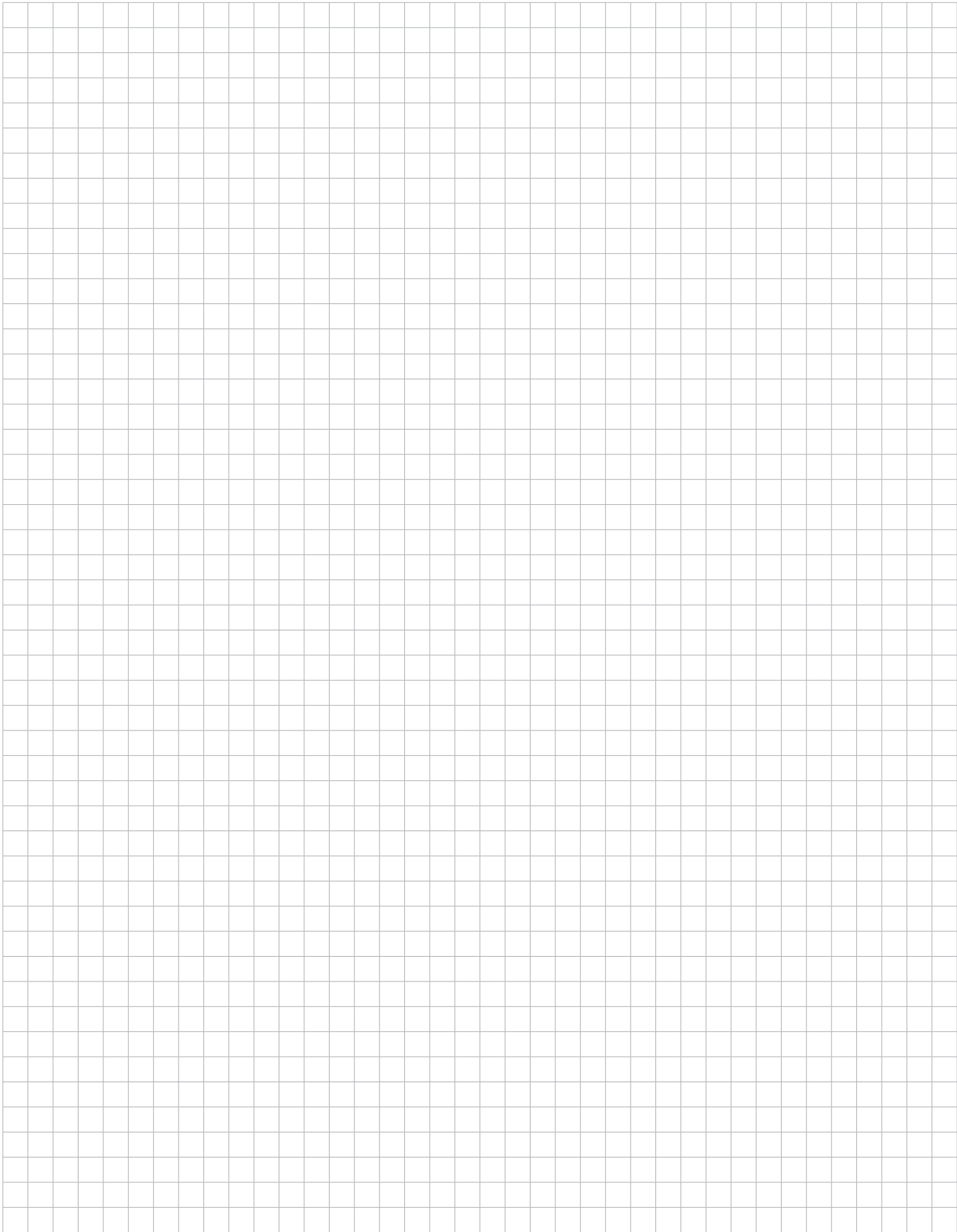
Vehicle dimensions · Dimensions du véhicule · Dimensiones del vehículo



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

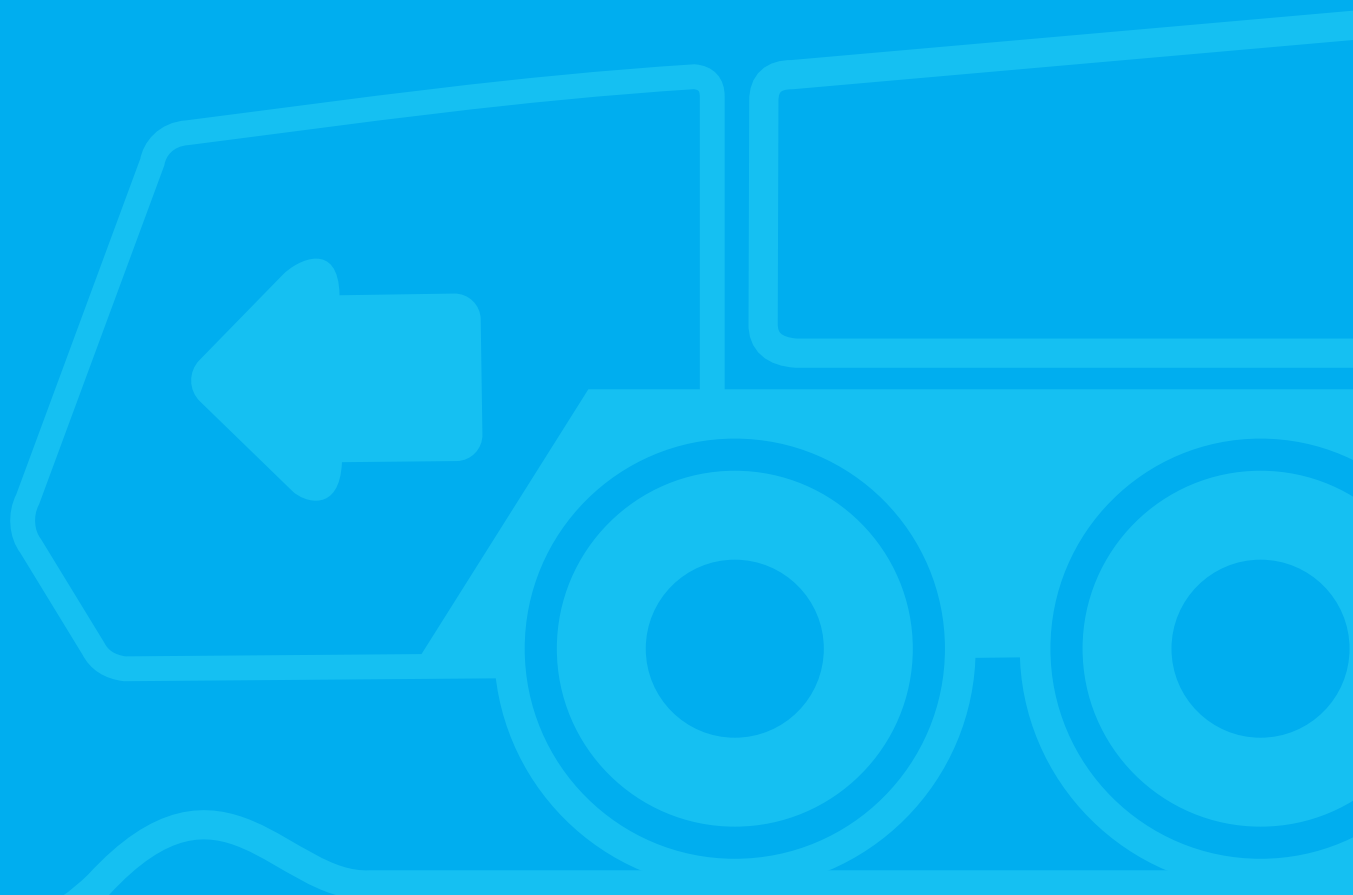
1) 445/95 R 25 (16.00 R 25)
2) 525/80 R 25 (20.5 R 25)





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	135,882/ 61635	24,759/ 11230	24,746/ 11224	28,844/ 13083	28,760/ 13045	28,774/ 13052
1. Standard Equipment	See page 58; no counterweight	124,186/ 56330	22,986/ 10426	22,982/ 10425	26,078/ 11829	26,071/ 11826	26,069/ 11825
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	3,219/ 1460	-1,463/ -664	-1,454/ -659	2,084/ 945	2,019/ 916	2,033/ 922
	Hose drum for hydraulic jib (detachable)	575/ 261	458/ 208	454/ 206	-114/ -52	-111/ -50	-112/ -51
	Hydraulic jib fixed on main boom (transport position)	3,420/ 1551	2,055/ 932	2,042/ 926	-230/ -104	-223/ -101	-224/ -102
	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	198/ 90	168/ 76	167/ 76	-46/ -21	-45/ -20	-45/ -20
	Fuel in carrier	1,138/ 516	-259/ -117	-257/ -116	561/ 256	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	1,742/ 760	1,699/ 771	1,688/ 765	-559/ -253	-541/ -246	-545/ -247
	Counterweight No. 1; 3,968 lbs/1.8 t (on carrier)	4,090/ 1855	1,396/ 633	1,387/ 629	444/ 201	430/ 195	433/ 196
	Counterweight No. 2; 22,487 lbs/10.2 t (on carrier)	22,105/ 10027	7,501/ 3402	7,453/ 3380	2,429/ 1102	2,354/ 1068	2,369/ 1075
	Counterweight No. 3; 26,455 lbs/12 t (on carrier)	26,296/ 11928	8,977/ 4072	8,919/ 4046	2,853/ 1294	2,765/ 1254	2,783/ 1262
	Counterweight No. 4; 26,455 lbs/12 t (on carrier)	26,287/ 11924	8,991/ 4078	8,934/ 4052	2,840/ 1288	2,752/ 1248	2,770/ 1256

Axle loads

Boom over rear, supported by dolly (35.6 ft / 10.86 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	135,882/ 61635	20,130/ 9131	20,145/ 9138	22,130/ 10038	22,254/ 10094	22,225/ 10081	28,998/ 13153
1. Standard Equipment	See page 58; no counterweight	124,186/ 56330	18,634/ 8452	18,658/ 8463	20,678/ 9380	20,839/ 9452	20,802/ 9436	24,574/ 11147
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	3,219/ 1460	1,305/ 592	1,296/ 588	210/ 95	203/ 92	205/ 93	0/ 0
	Hose drum for hydraulic jib (detachable)	575/ 261	-3/ -1	-3/ -1	-2/ -1	-2/ -1	-2/ -1	587/ 266
	Hydraulic jib fixed on main boom (transport position)	3,420/ 1551	127/ 58	127/ 57	105/ 48	102/ 46	103/ 47	2,856/ 1296
	Additional oil cooler	104/ 47	5/ 2	5/ 2	32/ 15	31/ 14	32/ 14	0/ 0
	Single top	139/ 63	-7/ -3	-7/ -3	-6/ -2	-5/ -2	-5/ -2	168/ 76
	Hook block 11.0 US t / 10 t (hanging at main boom)	655/ 297	-35/ -16	-35/ -16	-29/ -13	-28/ -13	-29/ -13	812/ 368
3. Others	Driver	198/ 90	168/ 76	167/ 76	-46/ -21	-45/ -20	-45/ -21	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	1,185/ 537
	Hook block 88.2 US t / 80 t	1,742/ 790	-84/ -38	-83/ -38	-69/ -31	-67/ -30	-68/ -31	2,113/ 958
	Counterweight No. 1; 3,968 lbs/1.8 t (on carrier)	4,090/ 1855	1,396/ 633	1,387/ 629	444/ 201	430/ 195	433/ 196	0/ 0
	Counterweight No. 2; 22,487 lbs/10.2 t (on carrier)	22,105/ 10027	7,501/ 3402	7,453/ 3380	2,429/ 1102	2,354/ 1068	2,369/ 1075	0/ 0
	Counterweight No. 3; 26,455 lbs/12 t (on carrier)	26,296/ 11928	8,977/ 4072	8,919/ 4046	2,853/ 1294	2,765/ 1254	2,783/ 1262	0/ 0
	Counterweight No. 4; 26,455 lbs/12 t (on carrier)	26,287/ 11924	8,991/ 4078	8,934/ 4052	2,840/ 1288	2,752/ 1248	2,770/ 1256	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	135,882/ 61635	24,759/ 11230	24,746/ 11224	28,844/ 13083	28,760/ 13045	28,774/ 13052
1. Équipement standard	Voir page 59; sans contrepoids	124,186/ 56330	22,986/ 10426	22,982/ 10425	26,078/ 11829	26,071/ 11826	26,069/ 11825
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	3,219/ 1460	-1,463/ -664	-1,454/ -659	2,084/ 945	2,019/ 916	2,033/ 922
	Tambour de flexible pour rallonge de flèche hydraulique (détachable)	575/ 261	458/ 208	454/ 206	-114/ -52	-111/ -50	-112/ -51
	Rallonge de flèche hydraulique fixée sur flèche principale (position de transport)	3,420/ 1551	2,055/ 932	2,042/ 926	-230/ -104	-223/ -101	-224/ -102
	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	198/ 90	168/ 76	167/ 76	-46/ -21	-45/ -20	-45/ -20
	Carburant dans le châssis	1,138/ 516	-259/ -117	-257/ -116	561/ 256	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	1,742/ 760	1,699/ 771	1,688/ 765	-559/ -253	-541/ -246	-545/ -247
	Contrepoids n° 1; 3,968 lbs/1.8 t (sur châssis)	4,090/ 1855	1,396/ 633	1,387/ 629	444/ 201	430/ 195	433/ 196
	Contrepoids n° 2; 22,487 lbs/10.2 t (sur châssis)	22,105/ 10027	7,501/ 3402	7,453/ 3380	2,429/ 1102	2,354/ 1068	2,369/ 1075
	Contrepoids n° 3; 26,455 lbs/12 t (sur châssis)	26,296/ 11928	8,977/ 4072	8,919/ 4046	2,853/ 1294	2,765/ 1254	2,783/ 1262
	Contrepoids n° 4; 26,455 lbs/12 t (sur châssis)	26,287/ 11924	8,991/ 4078	8,934/ 4052	2,840/ 1288	2,752/ 1248	2,770/ 1256

Charges par essieu

Flèche vers l'arrière, soutenue par chariot de transport "Dolly" (35.6 ft / 10.86 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	135,882/ 61635	20,130/ 9131	20,145/ 9138	22,130/ 10038	22,254/ 10094	22,225/ 10081	28,998/ 13153
1. Équipement standard	Voir page 59; sans contrepoids	124,186/ 56330	18,634/ 8452	18,658/ 8463	20,678/ 9380	20,839/ 9452	20,802/ 9436	24,574/ 11147
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	3,219/ 1460	1,305/ 592	1,296/ 588	210/ 95	203/ 92	205/ 93	0/ 0
	Tambour de flexible pour rallonge de flèche hydraulique (détachable)	575/ 261	-3/ -1	-3/ -1	-2/ -1	-2/ -1	-2/ -1	587/ 266
	Rallonge de flèche hydraulique fixée sur flèche principale (position de transport)	3,420/ 1551	127/ 58	127/ 57	105/ 48	102/ 46	103/ 47	2,856/ 1296
	Radiateur supplémentaire	104/ 47	5/ 2	5/ 2	32/ 15	31/ 14	32/ 14	0/ 0
	Poulie simple	139/ 63	-7/ -3	-7/ -3	-6/ -2	-5/ -2	-5/ -2	168/ 76
	Moufle 11.0 US t / 10 t (suspendue sur la flèche principale)	655/ 297	-35/ -16	-35/ -16	-29/ -13	-28/ -13	-29/ -13	812/ 368
3. Autres	Conducteur	198/ 90	168/ 76	167/ 76	-46/ -21	-45/ -20	-45/ -21	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	1,185/ 537
	Moufle 88.2 US t / 80 t	1,742/ 790	-84/ -38	-83/ -38	-69/ -31	-67/ -30	-68/ -31	2,113/ 958
	Contrepoids n° 1; 3,968 lbs/1.8 t (sur châssis)	4,090/ 1855	1,396/ 633	1,387/ 629	444/ 201	430/ 195	433/ 196	0/ 0
	Contrepoids n° 2; 22,487 lbs/10.2 t (sur châssis)	22,105/ 10027	7,501/ 3402	7,453/ 3380	2,429/ 1102	2,354/ 1068	2,369/ 1075	0/ 0
	Contrepoids n° 3; 26,455 lbs/12 t (sur châssis)	26,296/ 11928	8,977/ 4072	8,919/ 4046	2,853/ 1294	2,765/ 1254	2,783/ 1262	0/ 0
	Contrepoids n° 4; 26,455 lbs/12 t (sur châssis)	26,287/ 11924	8,991/ 4078	8,934/ 4052	2,840/ 1288	2,752/ 1248	2,770/ 1256	0/ 0

Cargas por eje

Pluma dirigida hacia delante		TOTAL					
		lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg
Total	1. Equipamiento estándar + 2. Equipamiento especial + 3. Otros	135,882/ 61635	24,759/ 11230	24,746/ 11224	28,844/ 13083	28,760/ 13045	28,774/ 13052
1. Equipamiento estándar	Ver páginas 60; sin contrapeso	124,186/ 56330	22,986/ 10426	22,982/ 10425	26,078/ 11829	26,071/ 11826	26,069/ 11825
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	3,219/ 1460	-1,463/ -664	-1,454/ -659	2,084/ 945	2,019/ 916	2,033/ 922
	Tambor de manguera para alargamiento de pluma hidráulico (desmontable)	575/ 261	458/ 208	454/ 206	-114/ -52	-111/ -50	-112/ -51
	Alargamiento de pluma hidráulica fijado sobre pluma principal (posición de transporte)	3,420/ 1551	2,055/ 932	2,042/ 926	-230/ -104	-223/ -101	-224/ -102
	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	198/ 90	168/ 76	167/ 76	-46/ -21	-45/ -20	-45/ -20
	Combustible en el chasis	1,138/ 516	-259/ -117	-257/ -116	561/ 256	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	1,742/ 760	1,699/ 771	1,688/ 765	-559/ -253	-541/ -246	-545/ -247
	Contrapeso N° 1; 3,968 lbs/1.8 t (encima del chasis)	4,090/ 1855	1,396/ 633	1,387/ 629	444/ 201	430/ 195	433/ 196
	Contrapeso N° 2; 22,487 lbs/10.2 t (encima del chasis)	22,105/ 10027	7,501/ 3402	7,453/ 3380	2,429/ 1102	2,354/ 1068	2,369/ 1075
	Contrapeso N° 3; 26,455 lbs/12 t (encima del chasis)	26,296/ 11928	8,977/ 4072	8,919/ 4046	2,853/ 1294	2,765/ 1254	2,783/ 1262
	Contrapeso N° 4; 26,455 lbs/12 t (encima del chasis)	26,287/ 11924	8,991/ 4078	8,934/ 4052	2,840/ 1288	2,752/ 1248	2,770/ 1256

Cargas por eje

Pluma hacia atrás, apoyada por carro tipo dolly (35.6 ft / 10.86 m detrás punto de articulación de la pluma)		TOTAL						
		lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg	lb/kg
Total	1. Equipamiento estándar + 2. Equipamiento especial + 3. Otros	135,882/ 61635	20,130/ 9131	20,145/ 9138	22,130/ 10038	22,254/ 10094	22,225/ 10081	28,998/ 13153
1. Equipamiento estándar	Ver páginas 60; sin contrapeso	124,186/ 56330	18,634/ 8452	18,658/ 8463	20,678/ 9380	20,839/ 9452	20,802/ 9436	24,574/ 11147
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	3,219/ 1460	1,305/ 592	1,296/ 588	210/ 95	203/ 92	205/ 93	0/ 0
	Tambor de manguera para alargamiento de pluma hidráulico (desmontable)	575/ 261	-3/ -1	-3/ -1	-2/ -1	-2/ -1	-2/ -1	587/ 266
	Alargamiento de pluma hidráulica fijado sobre pluma principal (posición de transporte)	3,420/ 1551	127/ 58	127/ 57	105/ 48	102/ 46	103/ 47	2,856/ 1296
	Radiator de aceite adicional	104/ 47	5/ 2	5/ 2	32/ 15	31/ 14	32/ 14	0/ 0
	Rodillo antepuesto	139/ 63	-7/ -3	-7/ -3	-6/ -2	-5/ -2	-5/ -2	168/ 76
	Motón 11.0 US t / 10 t (suspendido desde la pluma principal)	655/ 297	-35/ -16	-35/ -16	-29/ -13	-28/ -13	-29/ -13	812/ 368
3. Otros	Conductor	198/ 90	168/ 76	167/ 76	-46/ -21	-45/ -20	-45/ -21	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	1,185/ 537
	Motón 88.2 US t / 80 t	1,742/ 790	-84/ -38	-83/ -38	-69/ -31	-67/ -30	-68/ -31	2,113/ 958
	Contrapeso N° 1; 3,968 lbs/1.8 t (encima del chasis)	4,090/ 1855	1,396/ 633	1,387/ 629	444/ 201	430/ 195	433/ 196	0/ 0
	Contrapeso N° 2; 22,487 lbs/10.2 t (encima del chasis)	22,105/ 10027	7,501/ 3402	7,453/ 3380	2,429/ 1102	2,354/ 1068	2,369/ 1075	0/ 0
	Contrapeso N° 3; 26,455 lbs/12 t (encima del chasis)	26,296/ 11928	8,977/ 4072	8,919/ 4046	2,853/ 1294	2,765/ 1254	2,783/ 1262	0/ 0
	Contrapeso N° 4; 26,455 lbs/12 t (encima del chasis)	26,287/ 11924	8,991/ 4078	8,934/ 4052	2,840/ 1288	2,752/ 1248	2,770/ 1256	0/ 0

Speeds and gradeability · Vitesses de conduite et gravisement 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 cargos por ejes

Steering · Direction · Dirección

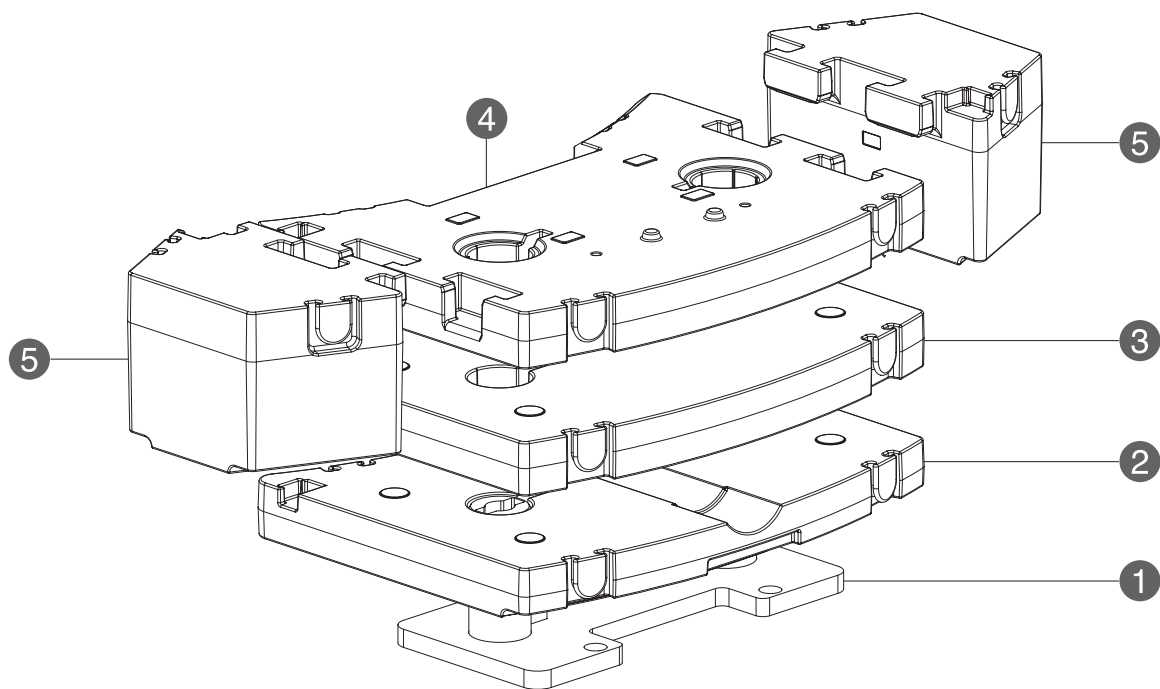
		v < 15.5 mph v < 25 km/h
		v ≥ 15.5 mph v ≥ 25 km/h
		v > 31.1 mph v > 50 km/h
		Manual steering · Direction manuelle · Dirección manual
		Smallest turning circle · Rayon de braquage mini · Mínimo radio
		Diagonal steering · Marche en crabe · Marcha cangrejo
		Rear veering suppression · Suppression de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

TECHNICAL DATA FOR TRANSPORT

CARACTÉRISTIQUES TECHNIQUES POUR LE TRANSPORT
DATOS TÉCNICOS PARA EL TRANSPORTE

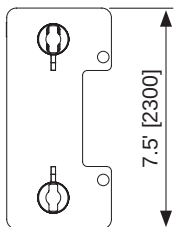
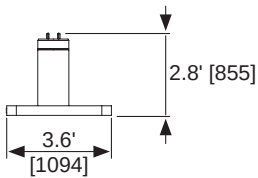


Counterweight · Contrepoids · Contrapeso

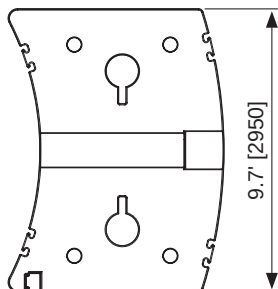
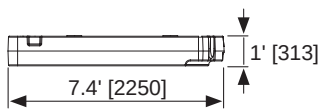


		3,968 lbs 1.8 t	26,455 lbs 12.0 t	52,911 lbs 24.0 t	79,366 lbs 36.0 t	110,231 lbs 50.0 t
1	3,968 lbs 1.8 t	1	1	1	1	1
2	22,487 lbs 10.2 t	-	1	1	1	1
3	26,455 lbs 12.0 t	-	-	1	1	1
4	26,455 lbs 12.0 t	-	-	-	1	1
5	15,432 lbs 7.0 t	-	-	-	-	2

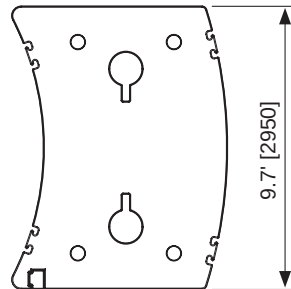
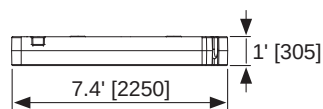
1



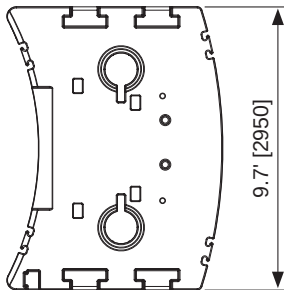
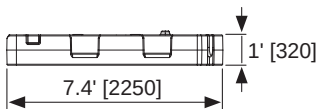
2



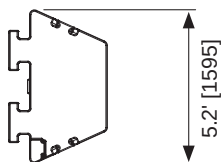
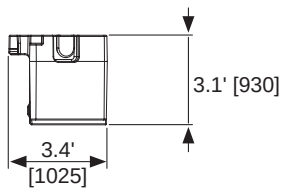
3



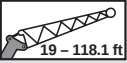
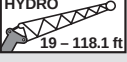
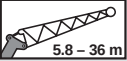
4



5



Jibs · Fléchettes · Plumines

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

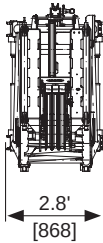
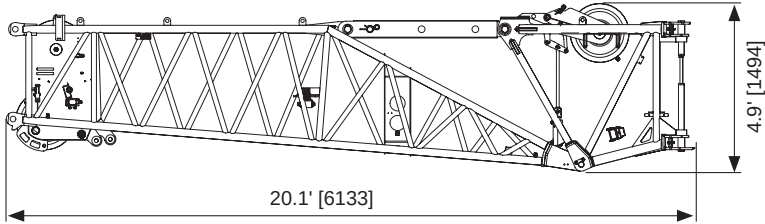
1



2,249



1020



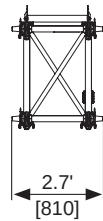
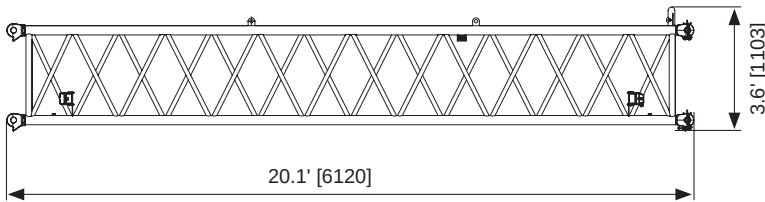
2



965



438



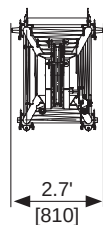
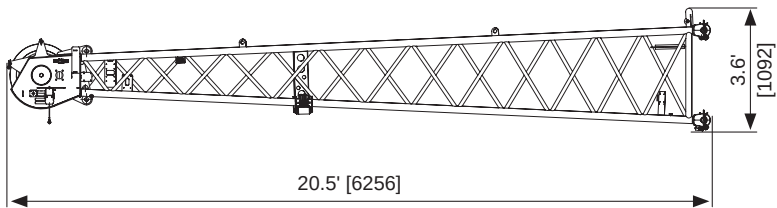
3

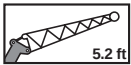


853

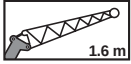


387

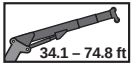
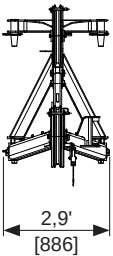
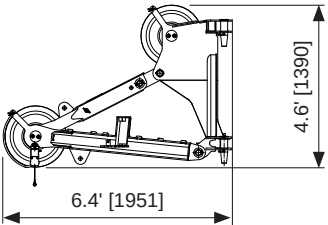




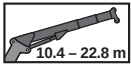
725



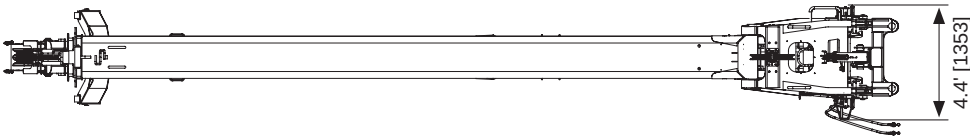
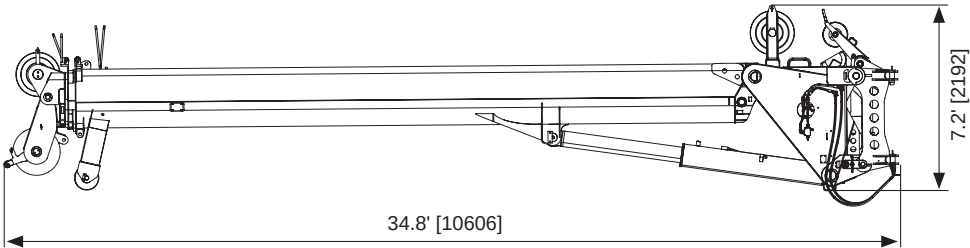
329



10,750



4876

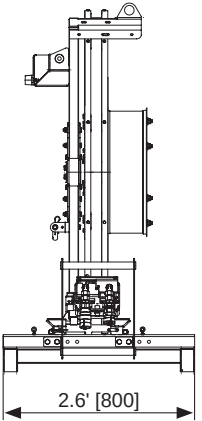
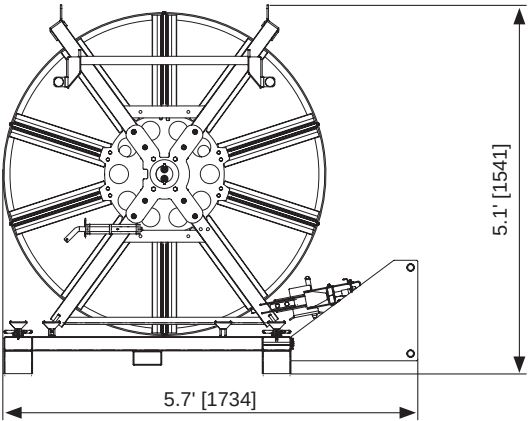


Hose drum for hydraulic jib · Tambour de flexible pour fléchette hydraulique · Devanadera para plumín hidráulico



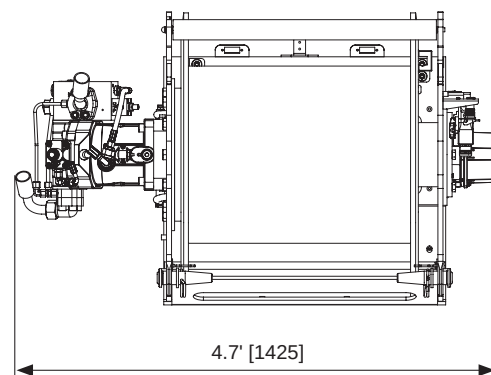
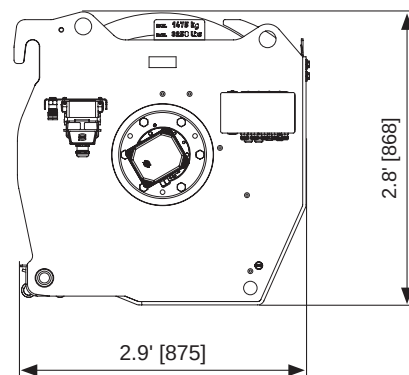
551

250



Auxiliary winch · Treuil supplémentaire · Cabrestante auxiliar

 
1,973/ 895/
3,174* 1440*



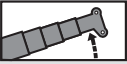
* with rope · avec câble · con cable

TECHNICAL DATA FOR OPERATION

CARACTÉRISTIQUES TECHNIQUES POUR L'UTILISATION
DATOS TÉCNICOS PARA EL USO



Main boom · Flèche principale · Pluma principal

	-1.5° – 84°	~ 55 s
	43.3 ft – 196.9 ft 13.2 m – 60 m	~ 450 s

Swing mechanism · Groupe de rotation · Mecanismo de giro

	0 – 1.6 min ⁻¹		0° / 180°
---	---------------------------	---	-----------

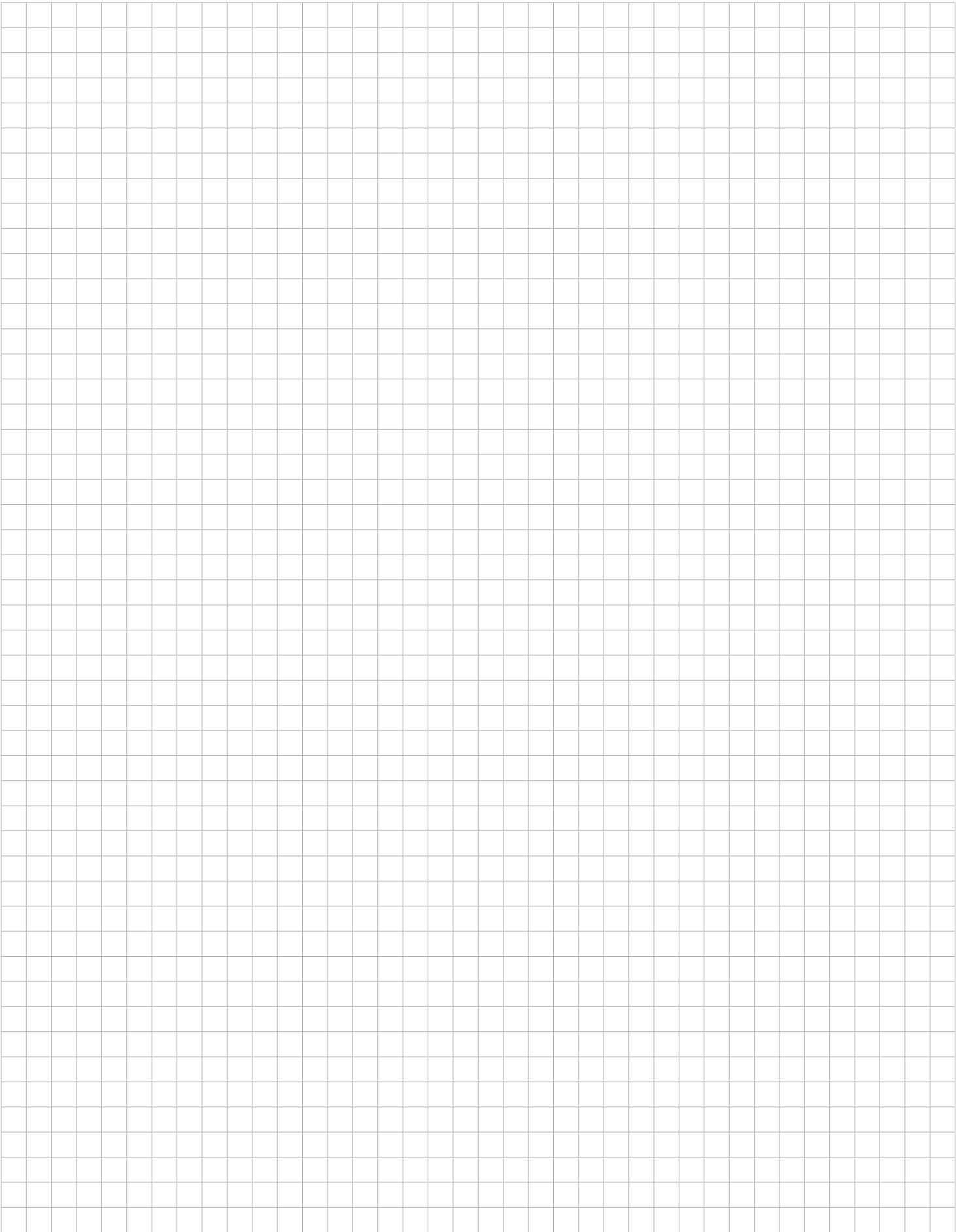
Winches · Treuils · Cabrestantes

			
	0 – 427 ft/min 0 – 130 m/min	0.83 in / 1,049.9 ft 21 mm / 320 m	19,109 lbs / 85 kN
	0 – 427 ft/min 0 – 130 m/min	0.83 in / 1,049.9 ft 21 mm / 320 m	19,109 lbs / 85 kN

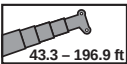
Hook blocks · Moufles · Pastecas de carga

				
220.5 US t* / 200 t*	341,055 / 154.7	9	19	3,527 / 1600
176.4 US t* / 160 t*	272,491 / 123.6	7	15	2,866 / 1300
137.8 US t* / 125 t*	202,164 / 91.7	5	11	2,535 / 1150
88.2 US t* / 80 t*	130,073 / 59	3	7	1,874 / 850
88.2 US t / 80 t	130,073 / 59	3	7	1,874 / 850
35.3 US t / 32 t	56,438 / 25.6	1	3	992 / 450
11.0 US t / 10 t	19,180 / 8.7	0	1	661 / 300

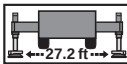
* Twin hook · Moufle avec crochet marin · Gancho doble



Working range · Rayon de travail · Zona de trabajo



43.3 – 196.9 ft



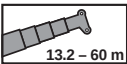
27.2 ft



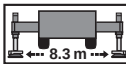
360°

110,231 lbs

ASME



13.2 – 60 m



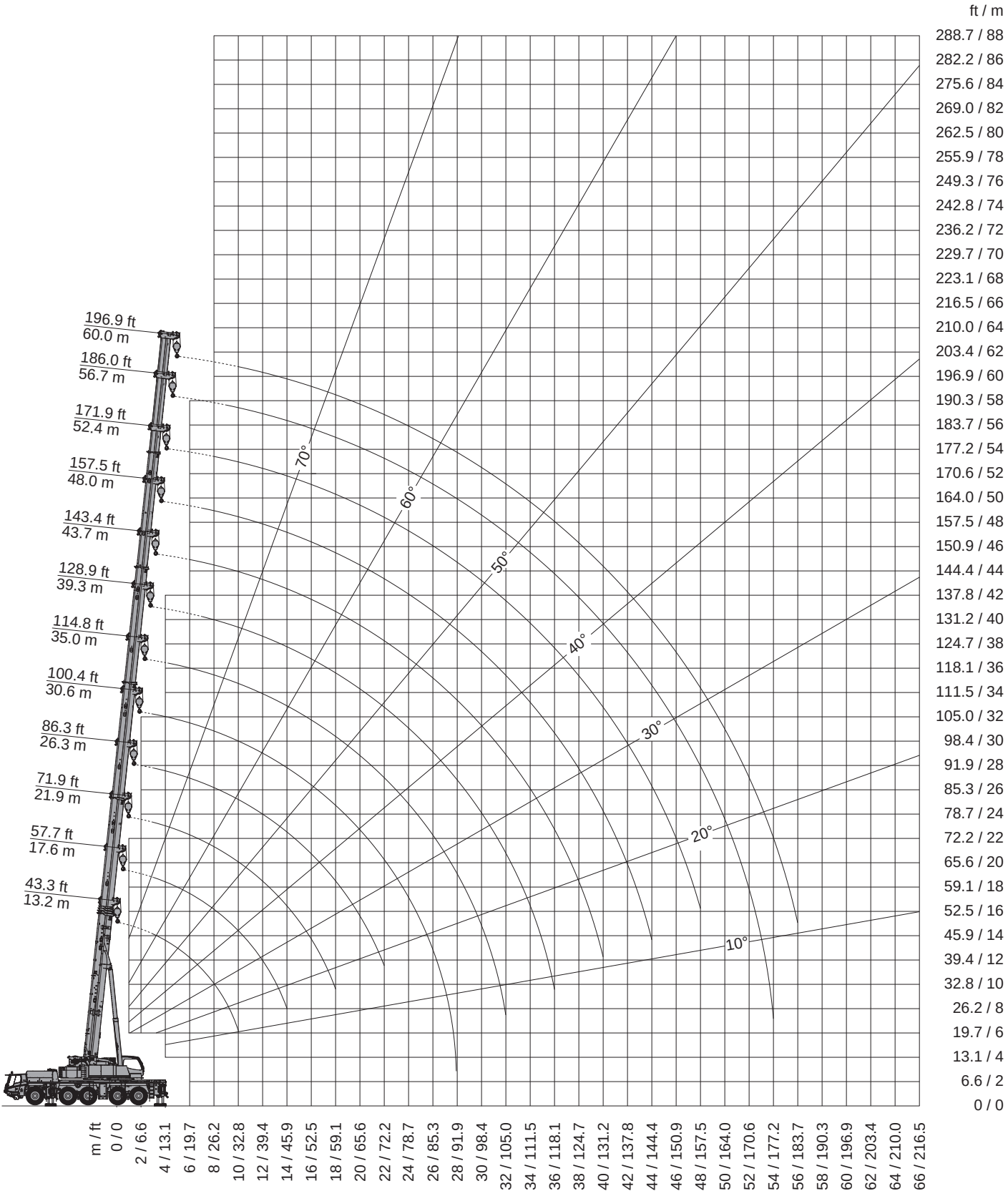
8.3 m

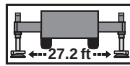
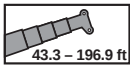


360°

50 t

ASME





110,231 lbs

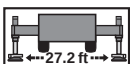
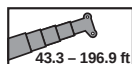
ASME

lbs x 1,000

 ft	43.3 ft*	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
8.9	440.9**												
9.8	376.3**	355.2**	264.6**	259.7**	198.4								
11.5	347.4**	320.8**	264.6**	259.7**	198.4	164.9							
13.1	322.5**	291.7**	264.6**	259.7**	198.4	164.9							
14.8	300.7**	266.8**	264.6**	259.7**	198.4	164.9	124.6						
16.4	275.6**	245.2	246.3	243.4	198.4	161.8	124.6	57.5					
19.7	229.3	210.1	211.0	209.4	198.4	151.2	124.6	95.2	76.1				
23.0	194.4	182.8	183.9	183.4	182.3	138.9	120.4	95.2	76.1	61.5			
26.2	168.0	161.2	162.0	161.6	160.5	128.1	113.1	95.2	76.1	61.5	49.2		
29.5	147.7	143.5	144.2	144.0	142.9	125.0	105.4	92.6	76.1	61.5	49.2	40.3	
32.8	131.4	127.6	129.6	129.2	130.5	125.0	102.1	87.7	75.4	61.5	49.2	40.3	34.2
36.1			117.9	116.8	119.0	117.7	102.1	83.1	72.1	61.1	49.2	40.3	34.2
39.4			108.2	108.9	108.5	107.1	98.8	78.7	70.3	59.1	49.2	40.3	34.2
45.9			88.2	89.1	88.4	86.9	88.2	70.5	63.7	55.3	47.6	40.3	34.2
52.5				72.3	73.2	74.1	72.3	63.9	57.8	51.1	44.5	38.8	34.2
59.1				60.4	62.8	61.9	60.2	58.4	52.7	47.4	41.4	37.0	34.2
65.6					53.6	52.7	51.1	49.4	48.3	44.3	38.8	34.8	32.4
72.2					46.5	45.6	43.9	44.5	42.1	40.8	36.4	32.8	30.4
78.7						39.9	39.7	39.9	37.3	37.0	34.2	30.9	28.2
85.3						35.3	36.6	35.1	33.5	32.4	32.2	29.1	26.0
91.9						28.4	32.6	31.1	30.2	29.1	29.3	27.6	24.0
98.4							29.3	28.0	28.4	26.9	26.0	26.2	22.3
105.0							26.5	26.0	25.6	24.3	23.8	24.0	20.7
111.5								24.5	23.1	21.8	22.3	21.4	19.4
118.1								22.3	20.9	19.6	20.5	19.2	18.1
124.7									19.6	17.6	18.5	17.2	16.8
131.2									18.5	16.3	16.8	15.7	15.7
137.8										15.4	15.2	14.1	14.1
144.4										14.6	13.9	12.6	12.8
150.9											12.6	11.5	11.5
157.5											11.5	10.4	10.4
164.0												9.3	9.3
170.6												8.4	8.4
177.2												7.5	7.5
183.7													6.8

* Over rear · A l'arrière · Hacia atrás

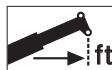
** With additional lifting equipment · Avec équipement de levage supplémentaire · Con equipamiento de elevación adicional



79,366 lbs

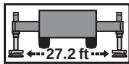
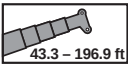
ASME

lbs x 1,000

 ft	43.3 ft*	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
8.9	396.8**												
9.8	376.3**	344.4**	264.6**	259.7**	198.4								
11.5	347.4**	310.0**	264.6**	259.7**	198.4	164.9							
13.1	322.5**	281.1**	264.6**	259.7**	198.4	164.9							
14.8	288.6**	256.4**	256.2**	254.6	198.4	164.9	124.6						
16.4	259.7**	235.2	236.1	233.2	198.4	161.8	124.6	57.5					
19.7	214.3	200.6	201.7	201.3	198.4	151.2	124.6	95.2	76.1				
23.0	181.2	173.9	174.8	174.6	173.5	138.9	120.4	95.2	76.1	61.5			
26.2	156.5	152.6	153.7	153.2	152.1	128.1	113.1	95.2	76.1	61.5	49.2		
29.5	137.3	135.4	136.2	136.0	136.5	125.0	105.4	92.6	76.1	61.5	49.2	40.3	
32.8	121.7	121.5	123.5	124.1	118.8	111.6	102.1	87.7	75.4	61.5	49.2	40.3	34.2
36.1			106.0	107.1	104.7	99.9	97.2	83.1	72.1	61.1	49.2	40.3	34.2
39.4			91.7	92.8	92.2	92.6	87.3	78.7	70.3	59.1	49.2	40.3	34.2
45.9			72.8	72.3	75.0	74.1	71.7	67.5	63.7	55.3	47.6	40.3	34.2
52.5				60.6	60.8	60.0	58.2	58.0	54.9	51.1	44.5	38.8	34.2
59.1				50.5	50.5	49.8	50.0	49.8	47.0	46.1	41.4	37.0	34.2
65.6					43.0	42.1	43.7	42.1	40.6	39.2	38.8	34.8	32.4
72.2					37.0	38.1	37.7	36.8	35.9	35.5	34.2	32.8	30.4
78.7						33.7	32.6	32.4	32.0	30.6	30.6	30.4	28.2
85.3						29.8	28.7	29.3	28.7	27.3	27.6	26.5	26.0
91.9						26.5	26.5	26.0	26.0	25.1	24.3	23.1	23.4
98.4							24.0	23.1	23.1	22.3	21.4	20.3	20.5
105.0							21.8	21.2	20.7	19.8	19.0	17.9	18.1
111.5								19.0	18.5	17.6	16.8	15.7	15.9
118.1								17.2	16.8	15.9	15.0	13.9	14.1
124.7									15.2	14.3	13.4	12.1	12.3
131.2									13.7	12.8	11.9	10.8	11.0
137.8										11.5	10.6	9.5	9.7
144.4										10.4	9.5	8.2	8.4
150.9											8.4	7.3	7.3
157.5											7.5	6.2	6.4
164.0												5.3	5.5
170.6												4.6	4.6
177.2												4.0	4.0
183.7													3.3

* Over rear · A l'arrière · Hacia atrás

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

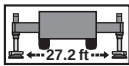
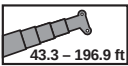


52,911 lbs

ASME

lbs x 1,000

ft	43.3 ft*	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
8.9	396.8**												
9.8	376.3**	333.8**	264.6**	259.7**	198.4								
11.5	347.4**	299.8**	264.6**	259.7**	198.4	164.9							
13.1	306.9**	270.9**	264.6**	259.7**	198.4	164.9							
14.8	273.2**	246.7	247.6	244.7	198.4	164.9	124.6						
16.4	244.7	225.5	226.6	226.4	198.4	161.8	124.6	57.5					
19.7	201.1	191.6	192.7	192.2	187.8	151.2	124.6	95.2	76.1				
23.0	170.0	165.3	166.2	164.0	150.8	138.9	120.4	95.2	76.1	61.5			
26.2	146.2	144.6	145.3	139.3	130.5	121.3	112.7	95.2	76.1	61.5	49.2		
29.5	119.0	119.0	122.4	118.2	111.1	108.7	101.6	92.6	76.1	61.5	49.2	40.3	
32.8	98.1	98.1	101.2	102.1	99.6	94.8	88.8	83.1	75.4	61.5	49.2	40.3	34.2
36.1			85.5	86.6	88.6	83.8	78.5	74.5	70.5	61.1	49.2	40.3	34.2
39.4			75.4	77.4	77.6	75.0	70.1	67.2	63.1	59.1	49.2	40.3	34.2
45.9			58.2	60.0	60.2	59.3	59.5	57.3	53.6	50.5	47.6	40.3	34.2
52.5				48.3	48.5	48.5	49.4	47.8	45.0	44.5	41.9	38.8	34.2
59.1				39.9	40.1	41.9	40.8	40.6	40.3	37.9	37.5	35.7	34.2
65.6					35.5	35.3	34.8	35.1	35.3	34.4	32.8	30.6	30.2
72.2					30.4	30.2	30.9	30.4	30.0	29.1	28.0	26.5	26.2
78.7						26.5	26.7	26.0	25.8	24.9	23.8	22.7	22.7
85.3						22.9	23.1	22.7	22.3	21.4	20.5	19.2	19.4
91.9						20.3	20.3	19.8	19.4	18.5	17.6	16.3	16.5
98.4							17.9	17.4	17.0	16.1	15.2	13.9	14.3
105.0							16.1	15.4	15.0	14.1	13.2	11.9	12.1
111.5								13.7	13.2	12.3	11.5	10.1	10.4
118.1								12.1	11.7	10.8	9.9	8.6	8.8
124.7									10.4	9.5	8.4	7.3	7.5
131.2									9.0	8.2	7.3	6.2	6.2
137.8										7.1	6.2	5.1	5.3
144.4										6.2	5.3	4.0	4.2
150.9											4.4	3.3	3.3
157.5											3.7	2.4	2.6



26,455 lbs

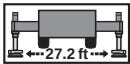
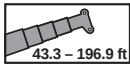
ASME

lbs x 1,000

ft	43.3 ft*	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
8.9	396.8**												
9.8	376.3**	322.5**	264.6**	259.7**	198.4								
11.5	330.5**	288.6**	264.6**	259.7**	198.4	164.9							
13.1	289.9**	260.1**	259.7**	258.2**	198.4	164.9							
14.8	256.0**	235.9	237.0	236.8	198.4	164.9	124.6						
16.4	228.8	215.2	216.3	215.8	192.7	161.8	124.6	57.5					
19.7	187.8	181.7	178.4	166.9	150.1	132.9	124.6	95.2	76.1				
23.0	150.8	150.8	141.3	132.3	122.6	118.2	103.4	95.2	76.1	61.5			
26.2	115.3	115.3	115.1	108.7	105.8	99.0	91.5	84.7	76.1	61.5	49.2		
29.5	91.3	91.3	94.6	94.8	90.2	84.7	79.4	74.5	69.2	61.5	49.2	40.3	
32.8	74.5	74.5	79.6	81.8	78.0	73.4	70.8	67.5	61.7	58.0	49.2	40.3	34.2
36.1			67.0	69.0	68.6	65.3	63.9	60.2	54.7	51.4	49.2	40.3	34.2
39.4			57.3	59.3	59.5	59.5	56.7	53.8	51.6	47.8	44.3	40.3	34.2
45.9			43.0	45.6	47.4	47.4	45.4	44.8	43.4	40.8	38.4	35.7	34.2
52.5				35.7	37.5	37.7	38.1	37.5	35.9	33.7	31.7	29.3	28.9
59.1				28.7	30.4	30.6	31.1	30.4	30.2	28.4	26.5	24.3	24.0
65.6					25.1	25.4	25.6	25.1	24.9	23.8	22.3	20.3	20.1
72.2					20.9	21.2	21.6	20.9	20.7	19.6	18.7	17.2	16.8
78.7						18.1	18.3	17.6	17.4	16.5	15.4	14.1	14.1
85.3						15.4	15.7	15.0	14.8	13.7	12.8	11.5	11.9
91.9						13.2	13.2	12.8	12.3	11.5	10.6	9.5	9.7
98.4							11.5	11.0	10.6	9.7	8.8	7.5	7.7
105.0							9.9	9.3	9.0	8.2	7.1	6.0	6.2
111.5								7.9	7.5	6.6	5.7	4.6	4.9
118.1								6.8	6.4	5.5	4.6	3.3	3.5
124.7									5.3	4.4	3.5	2.4	2.6
131.2									4.4	3.5	2.6		
137.8										2.6			

* Over rear · A l'arrière · Hacia atrás

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

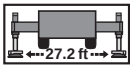
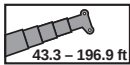


3,968 lbs

ASME

lbs x 1,000

	43.3 ft*	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
8.9	396.8**												
9.8	364.6**	312.4**	264.6**	259.7**	198.4								
11.5	314.4**	278.7**	264.6**	259.7**	198.4	164.9							
13.1	273.6**	250.2	251.3	242.5	198.4	164.9							
14.8	241.2	226.2	227.3	202.4	176.1	154.8	124.6						
16.4	215.4	205.5	190.7	174.4	150.1	132.3	124.3	57.5					
19.7	152.1	152.1	140.7	129.9	123.7	113.3	102.1	93.3	76.1				
23.0	115.5	115.5	109.1	105.8	99.0	91.5	84.2	76.3	69.9	61.5			
26.2	90.4	86.9	90.2	86.4	81.1	77.2	73.0	66.6	60.6	55.3	49.2		
29.5	70.8	67.7	73.6	71.2	67.5	66.4	61.5	58.9	54.7	49.8	45.9	40.3	
32.8	57.3	53.1	58.6	60.4	59.7	56.7	55.1	51.8	49.2	44.8	41.2	39.0	34.2
36.1			47.8	50.9	51.8	49.8	48.1	45.4	43.0	40.1	37.3	34.2	33.3
39.4			39.9	42.8	44.8	43.7	42.3	40.1	37.9	35.5	32.8	30.0	29.3
45.9			28.9	31.5	33.3	33.7	33.7	31.7	30.2	28.0	26.0	23.4	22.9
52.5				24.0	25.6	26.0	26.5	25.8	24.5	22.7	20.7	18.5	18.3
59.1				18.7	20.3	20.5	20.9	20.5	20.1	18.5	16.8	14.8	14.6
65.6					16.3	16.5	16.8	16.3	16.1	15.0	13.7	11.7	11.5
72.2					13.2	13.4	13.7	13.2	12.8	11.9	11.0	9.3	9.0
78.7						11.0	11.2	10.6	10.4	9.5	8.4	7.3	7.1
85.3						9.0	9.3	8.6	8.4	7.5	6.4	5.3	5.3
91.9						7.5	7.5	7.1	6.6	5.7	4.9	3.5	3.7
98.4							6.2	5.5	5.1	4.2			
105.0							5.1	4.4	4.0	3.1			
111.5								3.3	2.9				
118.1								2.4					



0 lbs

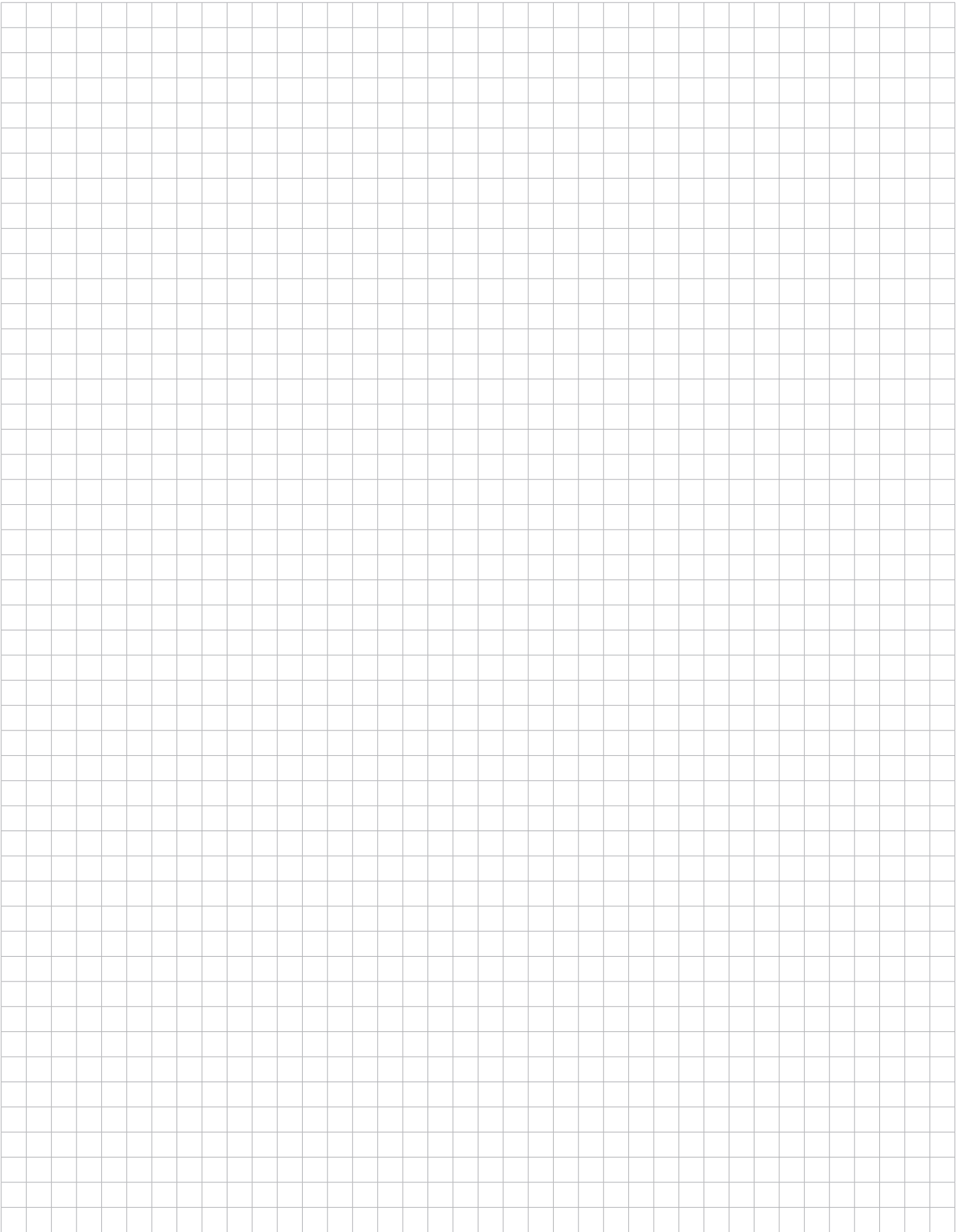
ASME

lbs x 1,000

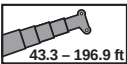
	43.3 ft*	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
8.9	396.8**												
9.8	361.3**	310.4**	264.6**	259.7**	198.4								
11.5	311.5**	276.7**	264.6**	259.7**	198.4	164.9							
13.1	270.5**	248.2	249.3	238.1	198.4	164.9							
14.8	238.5	224.2	221.1	194.9	166.9	146.4	124.6						
16.4	205.3	203.7	184.1	165.6	148.2	125.0	117.5	57.5					
19.7	143.7	143.7	133.4	125.2	117.3	107.4	97.2	87.3	76.1				
23.0	109.1	109.1	105.4	100.3	93.7	86.9	80.7	73.2	64.8	61.5			
26.2	85.1	81.8	84.2	80.7	75.6	73.9	68.1	62.6	56.2	51.4	49.2		
29.5	66.4	62.4	68.3	66.4	65.7	61.9	59.7	56.0	50.7	46.1	42.1	40.3	
32.8	53.6	48.7	54.2	56.4	55.8	53.4	51.4	48.3	45.6	42.5	39.2	35.9	34.2
36.1			44.1	47.2	48.1	46.3	44.8	42.1	39.9	37.0	34.4	31.3	30.4
39.4			36.6	39.5	41.7	40.6	39.2	37.0	35.1	32.6	30.2	27.3	26.7
45.9			26.2	28.9	30.6	31.1	31.1	29.3	27.8	25.8	23.6	21.2	20.7
52.5				21.8	23.6	23.8	24.3	23.8	22.5	20.7	18.7	16.5	16.3
59.1				16.8	18.3	18.7	19.2	18.5	18.3	16.8	15.0	13.0	12.8
65.6					14.6	15.0	15.2	14.8	14.3	13.4	11.9	10.1	9.9
72.2					11.7	11.9	12.3	11.7	11.5	10.6	9.5	7.7	7.7
78.7						9.7	9.9	9.5	9.0	8.2	7.3	6.0	5.7
85.3						7.7	7.9	7.5	7.1	6.2	5.3	4.0	
91.9						6.4	6.4	6.0	5.5	4.6	3.7		
98.4							5.1	4.6	4.2	3.3	2.4		
105.0							4.0	3.5	3.1				
111.5								2.4					

* Over rear · A l'arrière · Hacia atrás

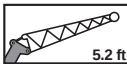
** With additional lifting equipment · Avec équipement de levage supplémentaire · Con equipamiento de elevación adicional



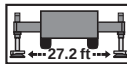
Working range · Rayon de travail · Zona de trabajo



43.3 – 196.9 ft



5.2 ft



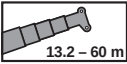
27.2 ft



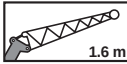
360°

110,231 lbs

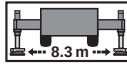
ASME



13.2 – 60 m



1.6 m



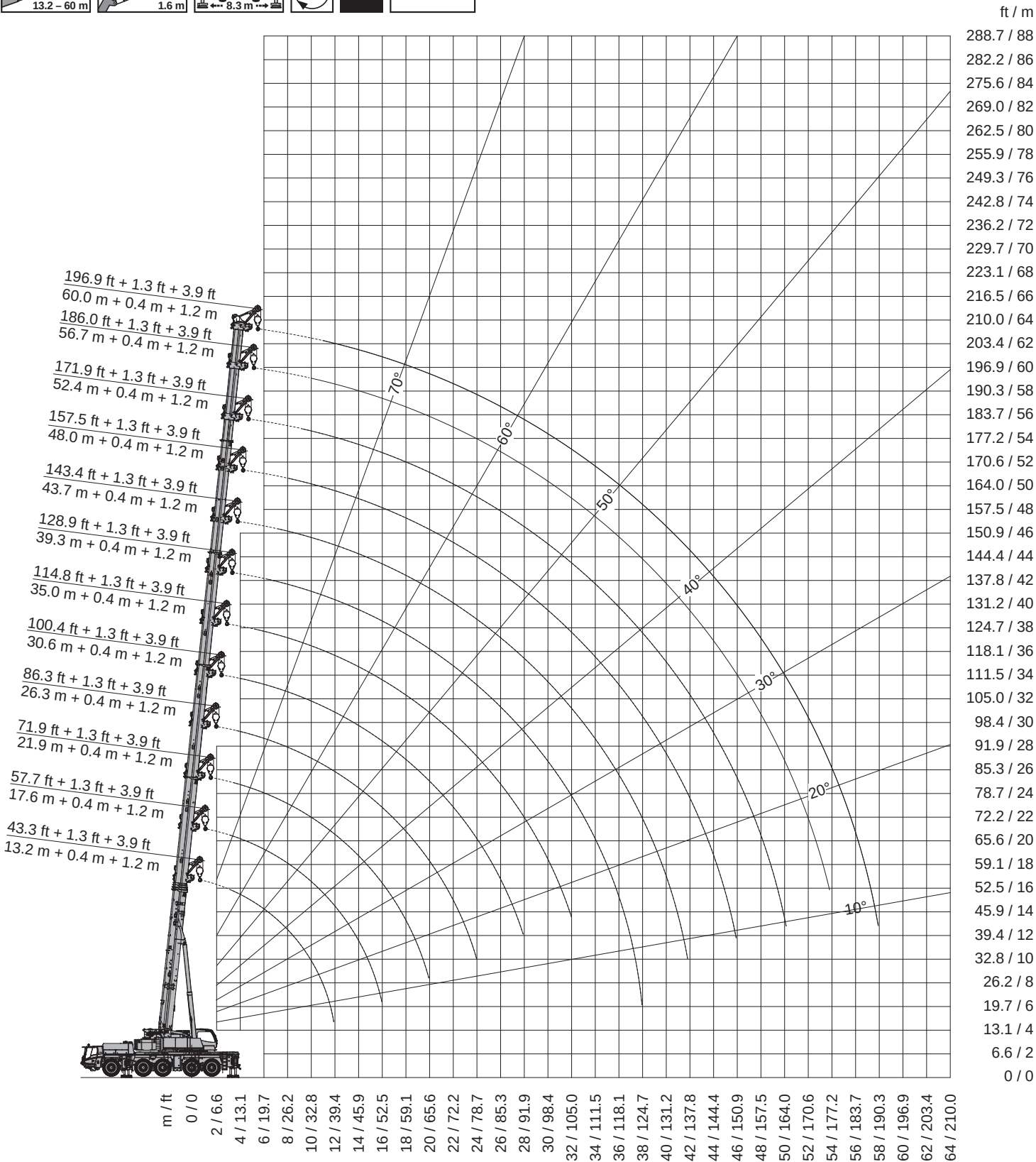
8.3 m

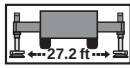
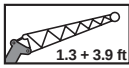
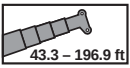


360°

50 t

ASME



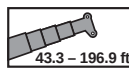
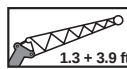
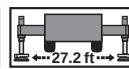


110,231 lbs

ASME

lbs x 1,000

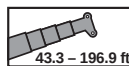
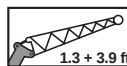
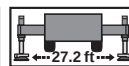
 ft	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
9.8	37.7	37.7										
11.5	37.7	37.7	37.7	37.7								
13.1	37.7	37.7	37.7	37.7	37.7							
14.8	37.7	37.7	37.7	37.7	37.7							
16.4	37.7	37.7	37.7	37.7	37.7	37.7						
19.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7					
23.0	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7				
26.2	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7			
29.5	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7		
32.8	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	31.5	
36.1	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	36.8	30.9	28.0
39.4	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	35.5	30.0	27.8
45.9		37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	33.3	28.2	26.2
52.5		37.7	37.7	37.7	37.7	37.7	37.7	37.7	36.8	31.5	26.7	24.9
59.1			37.7	37.7	37.7	37.7	37.7	37.7	34.6	30.0	25.4	23.6
65.6			37.7	37.7	37.7	37.7	37.7	37.3	32.6	28.4	24.0	22.5
72.2				37.7	37.7	37.7	35.5	35.1	30.6	27.1	22.9	21.4
78.7				37.7	37.7	35.9	33.5	32.8	28.9	25.8	22.0	20.5
85.3					35.7	31.1	31.7	31.1	27.3	24.3	21.2	19.6
91.9					31.7	29.1	29.8	28.4	26.0	23.1	20.3	19.0
98.4						27.8	26.5	25.1	24.9	22.0	19.6	18.3
105.0						25.4	23.4	23.6	22.5	20.9	19.0	17.6
111.5							21.4	21.2	20.1	20.1	18.1	17.0
118.1							20.7	19.0	19.2	18.5	17.4	16.1
124.7							16.8	17.4	17.6	16.8	16.8	15.7
131.2								17.0	15.9	16.1	15.7	15.0
137.8								16.3	14.3	15.2	14.1	14.1
144.4									13.7	13.7	12.6	12.6
150.9									13.2	12.3	11.2	11.2
157.5										11.2	10.1	10.1
164.0										10.4	9.0	9.0
170.6											8.2	8.2
177.2											7.3	7.3
183.7												6.4
190.3												5.7


79,366 lbs
ASME

lbs x 1,000

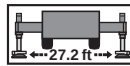
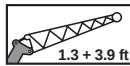
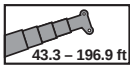
 ft	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
9.8	37.7	37.7										
11.5	37.7	37.7	37.7	37.7								
13.1	37.7	37.7	37.7	37.7	37.7							
14.8	37.7	37.7	37.7	37.7	37.7							
16.4	37.7	37.7	37.7	37.7	37.7	37.7						
19.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7					
23.0	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7				
26.2	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7			
29.5	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7		
32.8	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	31.5	
36.1	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	36.8	28.0
39.4	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	35.5	27.8
45.9		37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	33.3	26.2
52.5		37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	31.5	24.9
59.1			37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	30.0	23.6
65.6			37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	28.4	22.5
72.2				37.7	36.8	34.8	35.1	33.7	30.6	27.1	22.9	21.4
78.7				32.6	32.0	32.0	30.0	29.1	28.9	25.8	22.0	20.5
85.3					28.4	28.0	26.9	26.2	25.1	24.3	21.2	19.6
91.9					26.0	24.7	24.5	22.9	23.1	22.5	20.3	19.0
98.4						22.3	22.3	21.6	20.7	20.1	19.6	18.3
105.0						20.5	19.8	19.6	19.0	19.2	17.9	17.6
111.5							18.1	18.5	17.9	17.0	15.9	15.9
118.1							17.2	16.8	15.9	15.0	13.9	13.9
124.7							15.4	15.0	14.3	13.4	12.3	12.3
131.2								13.7	12.8	11.9	10.8	10.8
137.8								12.3	11.5	10.6	9.5	9.5
144.4									10.1	9.3	8.2	8.2
150.9									9.3	8.4	7.1	7.1
157.5										7.3	6.2	6.2
164.0										6.4	5.3	5.3
170.6											4.4	4.4
177.2											3.7	3.7
183.7												3.1
190.3												2.4


52,911 lbs
ASME

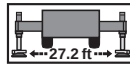
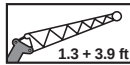
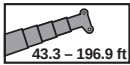
lbs x 1,000

 ft	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
9.8	37.7	37.7										
11.5	37.7	37.7	37.7	37.7								
13.1	37.7	37.7	37.7	37.7	37.7							
14.8	37.7	37.7	37.7	37.7	37.7							
16.4	37.7	37.7	37.7	37.7	37.7	37.7						
19.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7					
23.0	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7				
26.2	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7			
29.5	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7		
32.8	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	31.5	
36.1	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	36.8	28.0
39.4	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	35.5	27.8
45.9		37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	33.3	26.2
52.5		37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	31.5	24.9
59.1			37.7	37.7	37.7	37.7	37.7	36.2	34.6	30.0	25.4	23.6
65.6			34.4	34.6	34.2	34.0	32.8	32.2	30.2	28.4	24.0	22.5
72.2				29.3	30.2	28.7	28.9	27.6	27.6	26.0	22.9	21.4
78.7				26.7	25.8	25.6	25.1	24.3	23.4	22.7	22.0	20.5
85.3					22.3	22.9	22.3	22.5	21.6	20.7	19.6	19.6
91.9					20.3	20.5	20.1	19.6	18.7	17.9	16.5	16.8
98.4						18.1	17.6	17.2	16.3	15.4	14.1	14.1
105.0						15.9	15.4	15.0	14.1	13.2	12.1	12.1
111.5							13.7	13.2	12.3	11.5	10.4	10.4
118.1							12.1	11.7	10.8	9.9	8.8	8.8
124.7							10.6	10.1	9.3	8.4	7.3	7.3
131.2								9.0	8.2	7.3	6.2	6.2
137.8								7.9	7.1	6.2	5.1	5.1
144.4									6.0	5.1	4.0	4.0
150.9									5.1	4.2	3.1	3.1
157.5										3.5	2.4	2.4
164.0										2.9		

**26,455 lbs****ASME**

lbs x 1,000

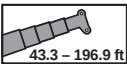
 ft	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
9.8	37.7	37.7										
11.5	37.7	37.7	37.7	37.7								
13.1	37.7	37.7	37.7	37.7	37.7							
14.8	37.7	37.7	37.7	37.7	37.7							
16.4	37.7	37.7	37.7	37.7	37.7	37.7						
19.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7					
23.0	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7				
26.2	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7			
29.5	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7		
32.8	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	31.5	
36.1	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	36.8	30.9	28.0
39.4	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	35.5	30.0	27.8
45.9		37.7	37.7	37.7	37.7	37.7	37.7	37.7	36.2	33.3	28.2	26.2
52.5		34.8	36.6	36.8	36.8	36.2	35.3	33.7	31.5	29.1	26.7	24.9
59.1			29.8	31.3	30.4	30.0	29.5	28.0	27.1	26.2	24.5	23.6
65.6			24.3	25.8	26.0	26.2	25.8	25.1	24.0	22.3	20.3	20.1
72.2				21.6	21.8	22.0	21.4	20.9	20.1	19.0	17.2	16.8
78.7				18.1	18.3	18.5	18.1	17.6	16.8	15.9	14.3	14.1
85.3					15.7	15.9	15.4	14.8	14.1	13.0	11.9	11.7
91.9					13.4	13.4	13.0	12.6	11.7	10.8	9.7	9.7
98.4						11.7	11.0	10.6	9.9	8.8	7.7	7.7
105.0						9.9	9.5	9.0	8.2	7.3	6.2	6.2
111.5							7.9	7.5	6.8	6.0	4.6	4.6
118.1							6.8	6.4	5.5	4.6		
124.7							5.7	5.3	4.4	3.5		
131.2								4.4	3.5	2.6		
137.8								3.5	2.6			

**0 lbs****ASME**

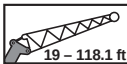
lbs x 1,000

 ft	43.3 ft	57.7 ft	71.9 ft	86.3 ft	100.4 ft	114.8 ft	128.9 ft	143.4 ft	157.5 ft	171.9 ft	186.0 ft	196.9 ft
9.8	37.7	37.7										
11.5	37.7	37.7	37.7	37.7								
13.1	37.7	37.7	37.7	37.7	37.7							
14.8	37.7	37.7	37.7	37.7	37.7							
16.4	37.7	37.7	37.7	37.7	37.7	37.7						
19.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7					
23.0	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7				
26.2	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7			
29.5	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7		
32.8	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	36.6	31.5	
36.1	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.5	34.6	32.6	30.9	28.0
39.4	35.3	37.7	37.7	37.7	37.7	37.5	35.5	34.4	32.8	30.4	27.6	26.9
45.9		28.2	30.4	32.0	32.2	31.3	29.5	28.0	25.8	23.8	21.4	20.9
52.5		20.9	22.9	24.7	24.9	25.1	23.8	22.5	20.7	19.0	16.8	16.3
59.1			17.9	19.4	19.6	19.6	19.2	18.3	16.8	15.0	13.2	12.8
65.6			13.9	15.4	15.7	15.7	15.2	14.8	13.7	12.1	10.4	9.9
72.2				12.3	12.6	12.8	12.1	11.7	10.8	9.5	7.9	7.7
78.7				9.9	10.1	10.1	9.7	9.3	8.4	7.5		
85.3					8.2	8.2	7.7	7.3	6.4	5.5		
91.9					6.4	6.6	6.2	5.7	4.9			
98.4						5.3	4.6	4.2				
105.0						4.0	3.5	3.1				
111.5							2.4					

Working range · Rayon de travail · Zona de trabajo



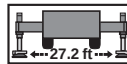
43.3 – 196.9 ft



19 – 118.1 ft



HYDRO 19 – 118.1 ft



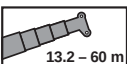
27.2 ft



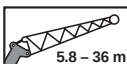
360°

110,231 lbs

ASME



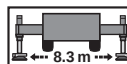
13.2 – 60 m



5.8 – 36 m



HYDRO 5.8 – 36 m



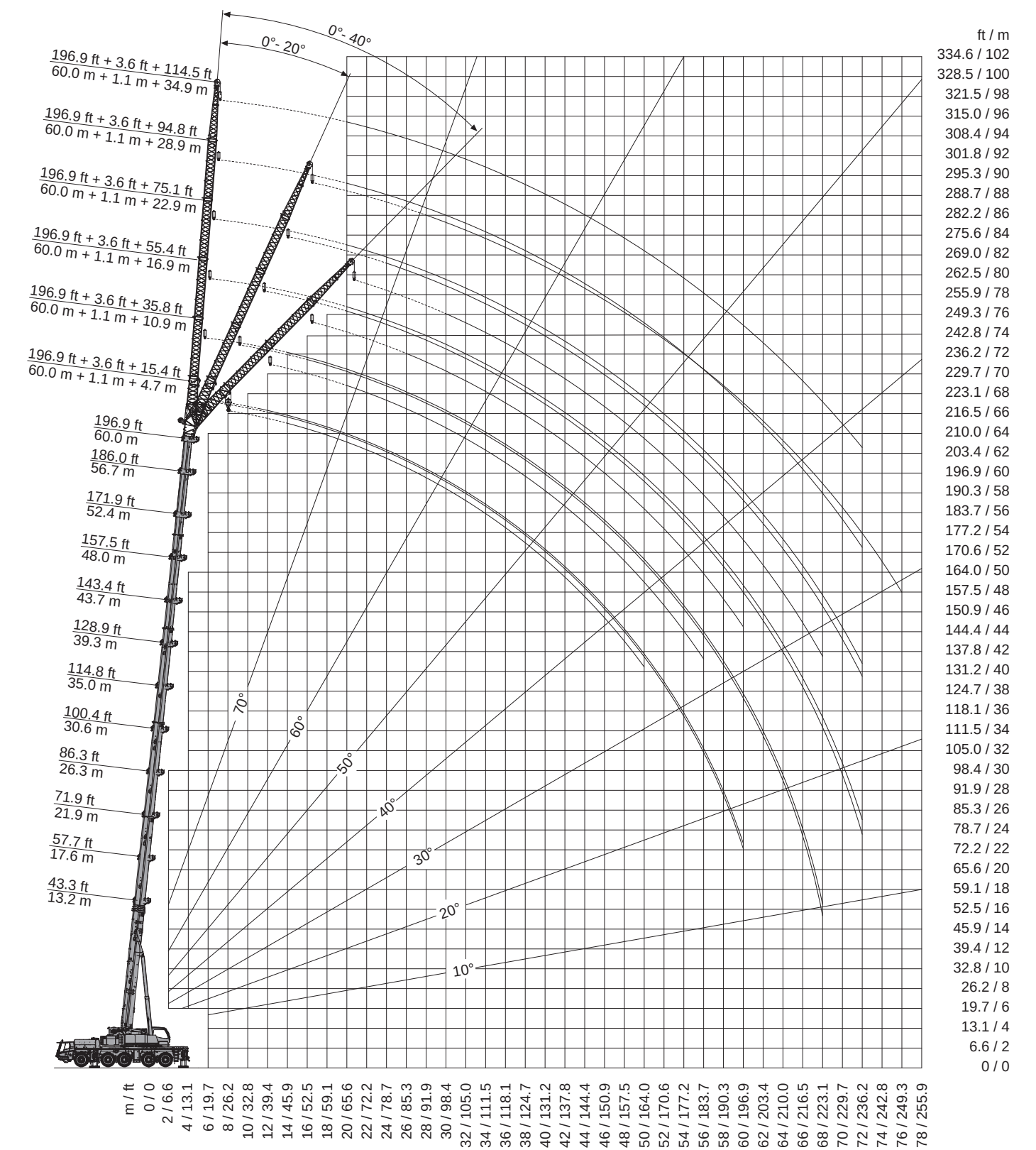
8.3 m

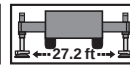
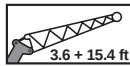
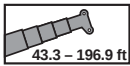


360°

50 t

ASME



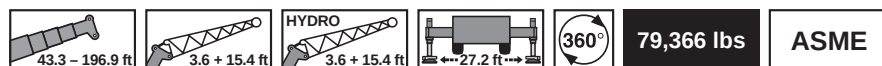


110,231 lbs

ASME

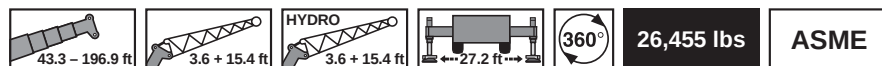
lbs x 1,000

 ft	43.3 ft + 3.6 ft + 15.4 ft			86.3 ft + 3.6 ft + 15.4 ft			128.9 ft + 3.6 ft + 15.4 ft			171.9 ft + 3.6 ft + 15.4 ft			196.9 ft + 3.6 ft + 15.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	100.1														
11.5	94.8	67.7		98.3											
13.1	89.9	65.5		98.3											
14.8	85.8	63.3	51.4	98.3											
16.4	81.8	61.3	50.3	98.3	68.6										
19.7	75.2	57.8	48.1	96.8	65.7		49.4								
23.0	69.4	54.7	46.3	90.8	63.3	50.3	49.4								
26.2	64.6	51.8	44.8	85.8	60.8	48.9	49.4	44.1							
29.5	60.4	49.6	43.4	81.1	58.9	47.8	48.1	42.5	38.8	30.4					
32.8	56.9	47.6	42.3	77.2	56.9	46.7	46.3	41.0	37.7	30.4					
36.1	53.8	45.9	41.4	73.4	55.1	45.9	44.5	39.7	36.6	30.4	30.4				
39.4	50.3	43.9	40.8	70.3	53.4	45.0	42.8	38.4	35.5	30.4	30.4	28.7	22.3	22.3	
45.9	43.7	39.9		64.6	50.5	43.4	40.1	36.2	33.7	30.4	28.9	27.1	22.3	22.3	21.4
52.5	38.1			59.7	48.1	42.3	37.7	34.2	32.2	28.7	27.1	26.0	22.3	21.2	20.3
59.1				55.8	46.1	41.2	35.7	32.6	30.9	27.1	25.8	24.9	21.4	20.3	19.4
65.6				51.8	44.1	40.6	34.0	31.1	29.5	25.6	24.5	23.6	20.3	19.4	18.5
72.2				45.2	41.9	39.5	32.4	30.0	28.4	24.5	23.4	22.7	19.2	18.5	17.9
78.7				39.5	39.9	38.8	31.1	28.9	27.6	23.4	22.3	21.6	18.3	17.6	17.2
85.3				34.8	35.3		29.3	27.8	26.7	22.3	21.4	20.9	17.6	17.0	16.5
91.9				30.9	31.1		27.8	26.9	26.0	21.2	20.5	20.1	16.8	16.3	15.9
98.4							26.2	26.0	25.4	20.1	19.8	19.4	16.1	15.7	15.4
105.0							23.4	23.8	24.0	19.2	19.0	18.7	15.4	15.0	14.8
111.5							20.9	21.4	21.4	18.3	18.1	18.1	15.0	14.6	14.3
118.1							18.7	19.0		17.4	17.2	17.2	14.3	14.1	13.9
124.7							17.4	17.4		16.3	16.5	16.5	13.9	13.7	13.4
131.2							16.8	16.5		14.6	14.8	15.0	13.4	13.2	13.0
137.8							13.9			13.9	13.7	13.7	12.8	12.8	12.8
144.4										13.0	13.0	13.0	12.1	12.3	12.3
150.9										12.1	12.3		10.8	11.2	11.2
157.5										11.0	11.0		9.7	9.9	10.1
164.0										9.9	9.9		8.6	8.8	9.0
170.6										9.0	9.0		7.7	7.9	
177.2										8.2	8.2		6.8	7.1	
183.7													6.0	6.2	
190.3													5.3	5.3	
196.9													4.6	4.6	



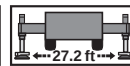
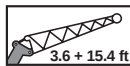
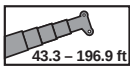
lbs x 1,000

	43.3 ft + 3.6 ft + 15.4 ft			86.3 ft + 3.6 ft + 15.4 ft			128.9 ft + 3.6 ft + 15.4 ft			171.9 ft + 3.6 ft + 15.4 ft			196.9 ft + 3.6 ft + 15.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	100.1														
11.5	94.8	67.7		98.3											
13.1	89.9	65.5		98.3											
14.8	85.8	63.3	51.4	98.3											
16.4	81.8	61.3	50.3	98.3	68.6										
19.7	75.2	57.8	48.1	96.8	65.7		49.4								
23.0	69.4	54.7	46.3	90.8	63.3	50.3	49.4								
26.2	64.6	51.8	44.8	85.8	60.8	48.9	49.4	44.1							
29.5	60.4	49.6	43.4	81.1	58.9	47.8	48.1	42.5	38.8	30.4					
32.8	56.9	47.6	42.3	77.2	56.9	46.7	46.3	41.0	37.7	30.4					
36.1	53.8	45.9	41.4	73.4	55.1	45.9	44.5	39.7	36.6	30.4	30.4		22.3		
39.4	50.3	43.9	40.8	70.3	53.4	45.0	42.8	38.4	35.5	30.4	30.4	28.7	22.3	22.3	
45.9	43.7	39.9		64.6	50.5	43.4	40.1	36.2	33.7	30.4	28.9	27.1	22.3	22.3	21.4
52.5	38.1			59.3	48.1	42.3	37.7	34.2	32.2	28.7	27.1	26.0	22.3	21.2	20.3
59.1				49.6	46.1	41.2	35.7	32.6	30.9	27.1	25.8	24.9	21.4	20.3	19.4
65.6				41.9	42.8	40.6	34.0	31.1	29.5	25.6	24.5	23.6	20.3	19.4	18.5
72.2				35.7	36.6	37.0	32.4	30.0	28.4	24.5	23.4	22.7	19.2	18.5	17.9
78.7				32.6	31.5	31.7	30.0	28.9	27.6	23.4	22.3	21.6	18.3	17.6	17.2
85.3				29.1	29.5		26.0	26.7	26.7	22.3	21.4	20.9	17.6	17.0	16.5
91.9				25.8	26.0		23.6	23.6	23.6	21.2	20.5	20.1	16.8	16.3	15.9
98.4							21.2	21.2	21.6	19.2	19.8	19.4	16.1	15.7	15.4
105.0							19.6	19.8	19.6	17.2	17.4	17.6	15.4	15.0	14.8
111.5							17.6	17.9	18.1	16.5	16.1	15.9	15.0	14.6	14.3
118.1							15.7	15.9		14.6	15.0	15.2	13.4	13.9	13.9
124.7							14.6	14.3		13.0	13.4	13.7	11.7	12.1	12.6
131.2							13.9	13.7		11.5	11.9	11.9	10.4	10.8	11.0
137.8							12.6			10.1	10.6	10.6	9.0	9.3	9.5
144.4										9.0	9.3	9.3	7.7	8.2	8.4
150.9										7.9	8.2		6.6	7.1	7.1
157.5										6.8	7.1		5.7	6.0	6.2
164.0										6.0	6.2		4.9	5.1	5.1
170.6										5.3	5.3		4.0	4.2	
177.2										4.6	4.6		3.3	3.5	
183.7													2.6	2.6	



lbs x 1,000

	43.3 ft + 3.6 ft + 15.4 ft			86.3 ft + 3.6 ft + 15.4 ft			128.9 ft + 3.6 ft + 15.4 ft			171.9 ft + 3.6 ft + 15.4 ft			196.9 ft + 3.6 ft + 15.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	100.1														
11.5	94.8	67.7		98.3											
13.1	89.9	65.5		98.3											
14.8	85.8	63.3	51.4	98.3											
16.4	81.8	61.3	50.3	98.3	68.6										
19.7	75.2	57.8	48.1	96.8	65.7		49.4								
23.0	69.4	54.7	46.3	90.8	63.3	50.3	49.4								
26.2	64.6	51.8	44.8	85.8	60.8	48.9	49.4	44.1							
29.5	60.4	49.6	43.4	80.9	58.9	47.8	48.1	42.5	38.8	30.4					
32.8	56.9	47.6	42.3	72.5	56.9	46.7	46.3	41.0	37.7	30.4					
36.1	53.8	45.9	41.4	63.7	55.1	45.9	44.5	39.7	36.6	30.4	30.4		22.3		
39.4	50.3	43.9	40.8	56.0	53.4	45.0	42.8	38.4	35.5	30.4	30.4	28.7	22.3	22.3	
45.9	43.7	39.9		44.5	46.3	43.4	38.8	36.2	33.7	30.4	28.9	27.1	22.3	22.3	21.4
52.5	35.7			37.3	37.3	37.0	32.8	33.3	32.2	27.8	27.1	26.0	22.3	21.2	20.3
59.1				30.0	31.1	31.7	28.9	28.7	29.3	23.8	24.3	24.9	21.4	20.3	19.4
65.6				26.0	25.8	26.2	24.3	24.9	25.8	21.4	21.6	20.9	18.7	19.4	18.5
72.2				21.8	22.5	22.7	21.2	22.0	21.6	18.1	19.0	19.6	15.7	16.8	17.4
78.7				18.5	19.0	19.2	17.9	18.5	19.0	15.2	16.1	16.8	13.0	13.9	14.8
85.3				15.9	16.1		15.2	15.7	16.1	12.6	13.4	13.9	10.8	11.7	12.3
91.9				13.7	13.9		12.8	13.4	13.7	10.4	11.0	11.5	9.0	9.7	10.4
98.4							11.0	11.5	11.7	8.6	9.0	9.5	7.3	7.9	8.4
105.0							9.3	9.7	9.9	6.8	7.5	7.7	5.7	6.2	6.6
111.5							7.9	8.2	8.4	5.5	6.0	6.2			5.1
118.1							6.6	6.8		4.2	4.6	4.9			
124.7							5.5	5.7			3.5	3.7			
131.2							4.6	4.6							
137.8							3.7								

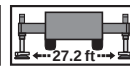
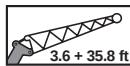
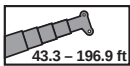


0 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 15.4 ft			86.3 ft + 3.6 ft + 15.4 ft			128.9 ft + 3.6 ft + 15.4 ft			171.9 ft + 3.6 ft + 15.4 ft			196.9 ft + 3.6 ft + 15.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	100.1														
11.5	94.8	67.7		98.3											
13.1	89.9	65.5		98.3											
14.8	85.8	63.3	51.4	98.3											
16.4	81.8	61.3	50.3	98.3	68.6										
19.7	75.2	57.8	48.1	96.8	65.7		49.4								
23.0	69.4	54.7	46.3	83.8	63.3	50.3	49.4								
26.2	64.6	51.8	44.8	68.8	60.8	48.9	49.4	44.1							
29.5	60.4	49.6	43.4	57.3	58.6	47.8	47.4	42.5	38.8	30.4					
32.8	56.9	47.6	42.3	52.0	51.4	46.7	42.1	41.0	37.7	30.4					
36.1	47.4	45.9	41.4	45.0	44.5	45.9	38.6	38.6	36.6	29.8	30.4		22.3		
39.4	39.7	41.4	40.8	39.9	41.2	40.1	33.7	35.3	34.6	26.9	28.0	28.7	22.3	22.3	
45.9	28.9	29.8		32.2	32.6	33.3	28.2	28.7	29.5	22.5	24.0	23.8	19.4	20.9	21.4
52.5	21.6			24.9	26.0	26.9	22.9	24.0	25.1	17.6	19.0	20.3	15.0	16.5	17.6
59.1				19.6	20.5	21.2	18.7	19.6	20.5	14.1	15.2	16.3	11.7	13.0	13.9
65.6				15.7	16.3	16.8	15.0	15.9	16.5	11.2	12.1	13.0	9.0	10.1	11.0
72.2				12.6	13.2	13.4	11.9	12.8	13.2	8.8	9.7	10.4			8.4
78.7				10.1	10.6	10.8	9.5	10.1	10.6	6.8	7.5	8.2			
85.3				8.2	8.6		7.5	8.2	8.6			6.4			
91.9				6.6	6.8		6.0	6.4	6.6						
98.4							4.6	5.1	5.3						
105.0							3.3	3.7	4.0						
111.5							2.4	2.6	2.6						

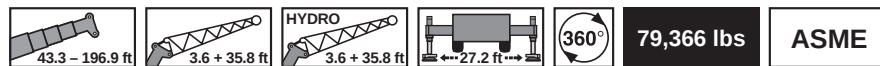


110,231 lbs

ASME

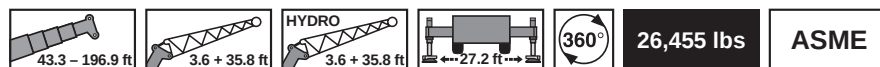
lbs x 1,000

 ft	43.3 ft + 3.6 ft + 35.8 ft			86.3 ft + 3.6 ft + 35.8 ft			128.9 ft + 3.6 ft + 35.8 ft			171.9 ft + 3.6 ft + 35.8 ft			196.9 ft + 3.6 ft + 35.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	32.8														
11.5	32.8			32.8											
13.1	32.8			32.8											
14.8	32.8			32.8											
16.4	32.8			32.8											
19.7	32.8	30.6		32.8			32.8								
23.0	32.8	28.4		32.8			32.8								
26.2	32.8	26.7		32.8	30.0		32.8								
29.5	32.8	25.1	20.3	32.8	28.7		32.8								
32.8	31.3	23.8	19.6	32.8	27.3		32.8	27.1							
36.1	29.1	22.5	19.0	32.8	26.2	20.3	32.8	26.5		22.7					
39.4	26.9	21.6	18.3	32.8	25.4	19.8	32.8	25.8		22.7					
45.9	23.6	19.6	17.2	32.4	23.6	19.0	32.2	24.7	19.6	22.7	22.5		15.4		
52.5	21.2	18.3	16.3	30.0	22.0	18.1	30.6	23.6	19.0	22.7	21.6		15.4	15.4	
59.1	19.0	17.0	15.9	27.1	20.7	17.4	28.9	22.5	18.3	22.7	20.5	18.3	15.4	15.4	
65.6	17.4	16.1	15.7	24.9	19.6	17.0	27.1	21.4	17.9	22.3	19.6	17.6	15.4	15.4	14.3
72.2	16.1	15.7		22.9	18.7	16.5	25.8	20.5	17.4	21.2	18.7	17.0	15.4	14.8	13.9
78.7				21.4	17.9	16.1	24.5	19.6	17.0	20.1	18.1	16.5	15.4	14.3	13.2
85.3				20.1	17.2	15.9	23.4	19.0	16.5	19.2	17.4	15.9	15.2	13.7	12.8
91.9				18.7	16.5	15.7	22.3	18.3	16.3	18.3	17.0	15.4	14.6	13.2	12.3
98.4				17.6	16.1	15.7	21.2	17.9	16.1	17.6	16.3	15.0	13.9	12.8	12.1
105.0				16.8	15.7		20.3	17.2	15.9	17.0	15.7	14.8	13.4	12.3	11.7
111.5				16.1	15.7		19.4	16.8	15.7	16.3	15.2	14.3	12.8	11.9	11.2
118.1							18.5	16.5	15.7	15.7	14.8	13.9	12.3	11.5	11.0
124.7							17.9	16.1	15.4	15.2	14.1	13.4	11.9	11.2	10.8
131.2							16.3	15.9	15.4	14.6	13.9	13.2	11.5	10.8	10.4
137.8							14.8	15.4		13.7	13.4	12.8	11.0	10.6	10.1
144.4							13.7	13.9		12.1	13.0	12.6	10.8	10.1	9.9
150.9							13.0	13.0		11.5	11.7	12.3	10.6	9.9	9.7
157.5							12.1			11.0	10.8	11.2	10.1	9.7	9.5
164.0										10.4	10.4	10.1	9.5	9.5	9.3
170.6										9.5	9.9		8.4	9.0	9.0
177.2										8.6	9.0		7.5	8.2	8.6
183.7										7.9	8.2		6.8	7.3	7.5
190.3										7.1	7.3		6.0	6.4	
196.9										6.4	6.6		5.3	5.7	
210.0													4.0	4.4	
223.1													3.1	3.1	



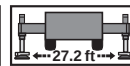
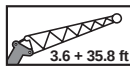
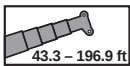
lbs x 1,000

 ft	43.3 ft + 3.6 ft + 35.8 ft			86.3 ft + 3.6 ft + 35.8 ft			128.9 ft + 3.6 ft + 35.8 ft			171.9 ft + 3.6 ft + 35.8 ft			196.9 ft + 3.6 ft + 35.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	32.8														
11.5	32.8			32.8											
13.1	32.8			32.8											
14.8	32.8			32.8											
16.4	32.8			32.8											
19.7	32.8	30.6		32.8			32.8								
23.0	32.8	28.4		32.8			32.8								
26.2	32.8	26.7		32.8	30.0		32.8								
29.5	32.8	25.1	20.3	32.8	28.7		32.8								
32.8	31.3	23.8	19.6	32.8	27.3		32.8	27.1							
36.1	29.1	22.5	19.0	32.8	26.2	20.3	32.8	26.5		22.7					
39.4	26.9	21.6	18.3	32.8	25.4	19.8	32.8	25.8		22.7					
45.9	23.6	19.6	17.2	32.4	23.6	19.0	32.2	24.7	19.6	22.7	22.5		15.4		
52.5	21.2	18.3	16.3	30.0	22.0	18.1	30.6	23.6	19.0	22.7	21.6		15.4	15.4	
59.1	19.0	17.0	15.9	27.1	20.7	17.4	28.9	22.5	18.3	22.7	20.5	18.3	15.4	15.4	
65.6	17.4	16.1	15.7	24.9	19.6	17.0	27.1	21.4	17.9	22.3	19.6	17.6	15.4	15.4	14.3
72.2	16.1	15.7		22.9	18.7	16.5	25.8	20.5	17.4	21.2	18.7	17.0	15.4	14.8	13.9
78.7				21.4	17.9	16.1	24.5	19.6	17.0	20.1	18.1	16.5	15.4	14.3	13.2
85.3				20.1	17.2	15.9	23.4	19.0	16.5	19.2	17.4	15.9	15.2	13.7	12.8
91.9				18.7	16.5	15.7	22.3	18.3	16.3	18.3	17.0	15.4	14.6	13.2	12.3
98.4				17.6	16.1	15.7	20.9	17.9	16.1	17.6	16.3	15.0	13.9	12.8	12.1
105.0				16.8	15.7		19.4	17.2	15.9	17.0	15.7	14.8	13.4	12.3	11.7
111.5				16.1	15.7		17.2	16.8	15.7	15.2	15.2	14.3	12.8	11.9	11.2
118.1							16.3	16.3	15.7	13.7	14.6	13.9	12.3	11.5	11.0
124.7							15.0	15.0	15.0	13.2	13.0	13.4	11.9	11.2	10.8
131.2							13.4	14.1	14.3	12.1	12.1	12.3	11.0	10.8	10.4
137.8							12.1	12.8		10.8	11.5	11.2	9.7	10.6	10.1
144.4							11.2	11.5		9.5	10.4	11.0	8.6	9.5	9.9
150.9							10.8	10.8		8.4	9.3	9.9	7.5	8.4	8.8
157.5							10.1			7.5	8.2	8.8	6.4	7.3	7.7
164.0										6.6	7.3	7.7	5.5	6.4	6.8
170.6										5.7	6.4		4.9	5.5	5.7
177.2										5.1	5.5		4.0	4.6	4.9
183.7										4.4	4.9		3.3	4.0	4.2
190.3										3.7	4.0		2.6	3.1	
196.9										3.3	3.5		2.2	2.4	



lbs x 1,000

 ft	43.3 ft + 3.6 ft + 35.8 ft			86.3 ft + 3.6 ft + 35.8 ft			128.9 ft + 3.6 ft + 35.8 ft			171.9 ft + 3.6 ft + 35.8 ft			196.9 ft + 3.6 ft + 35.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	32.8														
11.5	32.8			32.8											
13.1	32.8			32.8											
14.8	32.8			32.8											
16.4	32.8			32.8											
19.7	32.8	30.6		32.8			32.8								
23.0	32.8	28.4		32.8			32.8								
26.2	32.8	26.7		32.8	30.0		32.8								
29.5	32.8	25.1	20.3	32.8	28.7		32.8								
32.8	31.3	23.8	19.6	32.8	27.3		32.8	27.1							
36.1	29.1	22.5	19.0	32.8	26.2	20.3	32.8	26.5		22.7					
39.4	26.9	21.6	18.3	32.8	25.4	19.8	32.8	25.8		22.7					
45.9	23.6	19.6	17.2	32.4	23.6	19.0	32.2	24.7	19.6	22.7	22.5		15.4		
52.5	21.2	18.3	16.3	30.0	22.0	18.1	30.6	23.6	19.0	22.7	21.6		15.4	15.4	
59.1	19.0	17.0	15.9	27.1	20.7	17.4	27.3	22.5	18.3	22.5	20.5	18.3	15.4	15.4	
65.6	17.4	16.1	15.7	24.3	19.6	17.0	24.5	21.4	17.9	19.6	19.6	17.6	15.4	15.4	14.3
72.2	16.1	15.7		22.3	18.7	16.5	20.7	20.5	17.4	17.9	18.1	17.0	15.4	14.8	13.9
78.7				19.6	17.9	16.1	18.5	19.2	17.0	15.2	15.9	16.5	13.2	14.3	13.2
85.3				17.2	17.0	15.9	15.9	16.5	16.5	13.0	14.8	14.8	11.0	13.0	12.8
91.9				15.0	15.9	15.7	13.7	14.8	15.0	10.8	12.6	13.7	9.3	11.0	12.3
98.4				13.0	13.7	14.1	11.7	12.8	13.7	9.0	10.6	12.1	7.7	9.3	10.6
105.0				11.5	11.9		9.9	11.0	11.7	7.3	8.8	10.1	6.2	7.7	9.0
111.5				10.1	10.4		8.6	9.5	10.1	6.0	7.3	8.6		6.4	7.5
118.1							7.3	8.2	8.6	4.9	6.0	7.1			6.2
124.7							6.4	7.1	7.5	3.7	4.6	5.7			
131.2							5.3	6.0	6.2		3.7	4.6			
137.8							4.4	5.1				3.7			
144.4							3.7	4.2							
150.9							3.1	3.3							
157.5							2.6								

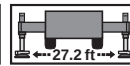
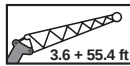
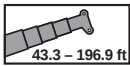


0 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 35.8 ft			86.3 ft + 3.6 ft + 35.8 ft			128.9 ft + 3.6 ft + 35.8 ft			171.9 ft + 3.6 ft + 35.8 ft			196.9 ft + 3.6 ft + 35.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	32.8														
11.5	32.8			32.8											
13.1	32.8			32.8											
14.8	32.8			32.8											
16.4	32.8			32.8											
19.7	32.8	30.6		32.8			32.8								
23.0	32.8	28.4		32.8			32.8								
26.2	32.8	26.7		32.8	30.0		32.8								
29.5	32.8	25.1	20.3	32.8	28.7		32.8								
32.8	31.3	23.8	19.6	32.8	27.3		32.8	27.1							
36.1	29.1	22.5	19.0	32.8	26.2	20.3	32.8	26.5		22.7					
39.4	26.9	21.6	18.3	32.8	25.4	19.8	30.9	25.8		22.7					
45.9	23.6	19.6	17.2	30.9	23.6	19.0	26.0	24.7	19.6	20.1	22.5				
52.5	21.2	18.3	16.3	26.2	22.0	18.1	22.5	23.1	19.0	17.2	19.2				
59.1	19.0	17.0	15.9	21.2	20.5	17.4	18.7	20.1	18.3	13.9	16.5	17.6			
65.6	16.5	16.1	15.7	17.2	19.0	17.0	15.4	17.4	17.9	11.0	13.4	15.9			
72.2	13.7	14.1		14.1	15.7	16.3	12.8	14.6	16.1	8.8	11.0	13.0			
78.7				11.7	13.0	13.9	10.4	11.9	13.2	6.8	8.8	10.8			
85.3				9.7	10.8	11.5	8.4	9.7	10.8		7.1	8.6			
91.9				7.9	8.8	9.5	6.6	7.9	8.8			7.1			
98.4				6.6	7.3	7.7	5.3	6.4	7.3						
105.0				5.5	6.0		4.2	5.1	5.7						
111.5				4.6	4.9		3.1	4.0	4.6						
118.1								2.9	3.5						

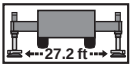
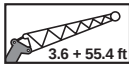
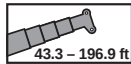


110,231 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 55.4 ft			86.3 ft + 3.6 ft + 55.4 ft			128.9 ft + 3.6 ft + 55.4 ft			171.9 ft + 3.6 ft + 55.4 ft			196.9 ft + 3.6 ft + 55.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	32.8														
11.5	32.8														
13.1	32.8			32.2											
14.8	32.8			32.2											
16.4	32.8			32.2											
19.7	32.8			32.2											
23.0	32.8			32.2			22.5								
26.2	32.8			32.2			22.5								
29.5	32.6	24.9		32.2			22.5								
32.8	30.4	23.1		32.2			22.5								
36.1	27.8	21.6		32.2	24.7		22.5								
39.4	25.6	20.3		31.3	23.6		22.5			15.0					
45.9	21.8	18.1	15.2	29.1	21.4		22.5	21.4		15.0					
52.5	19.2	16.3	13.9	26.9	19.6	15.2	22.5	20.3		15.0			11.7		
59.1	17.0	14.8	13.0	24.0	18.1	14.3	22.5	19.4		15.0	15.0		11.7		
65.6	15.2	13.4	12.1	21.6	17.0	13.7	22.0	18.3	14.1	15.0	15.0		11.7	11.7	
72.2	13.7	12.6	11.2	19.6	15.7	13.0	20.9	17.4	13.7	15.0	15.0		11.7	11.7	
78.7	12.6	11.7	10.8	18.1	14.8	12.3	19.8	16.5	13.2	15.0	14.3	13.0	11.7	11.7	
85.3	11.5	10.8	10.4	16.5	13.9	11.9	19.0	15.7	12.6	15.0	13.9	12.6	11.7	11.2	10.4
91.9	10.6	10.4		15.4	13.2	11.5	18.1	15.0	12.3	15.0	13.4	12.1	11.7	10.8	10.1
98.4				14.3	12.6	11.0	17.2	14.3	11.9	15.0	12.8	11.9	11.7	10.4	9.7
105.0				13.4	11.9	10.6	16.3	13.7	11.5	14.3	12.6	11.5	11.2	10.1	9.5
111.5				12.6	11.2	10.4	15.4	13.2	11.2	13.7	12.1	11.2	10.8	9.7	9.0
118.1				11.9	10.8	10.1	15.0	12.6	11.0	13.2	11.7	10.8	10.6	9.5	8.8
124.7				11.2	10.6		14.6	12.1	10.8	12.8	11.5	10.6	10.1	9.0	8.6
131.2				10.6	10.1		13.9	11.7	10.6	12.3	11.0	10.4	9.7	8.8	8.4
137.8							13.2	11.5	10.4	11.9	10.8	10.1	9.5	8.6	8.2
144.4							12.6	11.0	10.1	11.5	10.6	9.9	9.3	8.4	7.9
150.9							11.9	10.8	10.1	11.2	10.4	9.7	8.8	8.2	7.7
157.5							11.2	10.6		10.6	10.1	9.7	8.6	7.9	7.5
164.0							10.6	10.4		9.5	9.9	9.5	8.4	7.7	7.5
170.6							9.9	10.1		8.8	9.5	9.3	8.2	7.5	7.3
177.2							9.7	9.7		8.6	8.4	9.0	7.7	7.5	7.1
183.7										8.2	7.9	7.9	7.1	7.3	7.1
190.3										7.5	7.7		6.2	7.1	6.8
196.9										6.8	7.3		5.5	6.2	6.6
210.0										5.5	6.0		4.2	4.9	
223.1													3.1	3.5	
236.2													2.2	2.4	

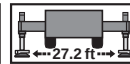
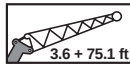
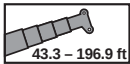


79,366 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 55.4 ft			86.3 ft + 3.6 ft + 55.4 ft			128.9 ft + 3.6 ft + 55.4 ft			171.9 ft + 3.6 ft + 55.4 ft			196.9 ft + 3.6 ft + 55.4 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
9.8	32.8														
11.5	32.8														
13.1	32.8			32.2											
14.8	32.8			32.2											
16.4	32.8			32.2											
19.7	32.8			32.2											
23.0	32.8			32.2			22.5								
26.2	32.8			32.2			22.5								
29.5	32.6	24.9		32.2			22.5								
32.8	30.4	23.1		32.2			22.5								
36.1	27.8	21.6		32.2	24.7		22.5								
39.4	25.6	20.3		31.3	23.6		22.5			15.0					
45.9	21.8	18.1	15.2	29.1	21.4		22.5	21.4		15.0					
52.5	19.2	16.3	13.9	26.9	19.6	15.2	22.5	20.3		15.0			11.7		
59.1	17.0	14.8	13.0	24.0	18.1	14.3	22.5	19.4		15.0	15.0		11.7		
65.6	15.2	13.4	12.1	21.6	17.0	13.7	22.0	18.3	14.1	15.0	15.0		11.7	11.7	
72.2	13.7	12.6	11.2	19.6	15.7	13.0	20.9	17.4	13.7	15.0	15.0		11.7	11.7	
78.7	12.6	11.7	10.8	18.1	14.8	12.3	19.8	16.5	13.2	15.0	14.3	13.0	11.7	11.7	
85.3	11.5	10.8	10.4	16.5	13.9	11.9	19.0	15.7	12.6	15.0	13.9	12.6	11.7	11.2	10.4
91.9	10.6	10.4		15.4	13.2	11.5	18.1	15.0	12.3	15.0	13.4	12.1	11.7	10.8	10.1
98.4				14.3	12.6	11.0	17.2	14.3	11.9	15.0	12.8	11.9	11.7	10.4	9.7
105.0				13.4	11.9	10.6	16.3	13.7	11.5	14.3	12.6	11.5	11.2	10.1	9.5
111.5				12.6	11.2	10.4	15.4	13.2	11.2	13.7	12.1	11.2	10.8	9.7	9.0
118.1				11.9	10.8	10.1	15.0	12.6	11.0	13.2	11.7	10.8	10.6	9.5	8.8
124.7				11.2	10.6		14.6	12.1	10.8	12.6	11.5	10.6	10.1	9.0	8.6
131.2				10.6	10.1		13.2	11.7	10.6	11.0	11.0	10.4	9.7	8.8	8.4
137.8							12.3	11.5	10.4	10.4	10.8	10.1	9.5	8.6	8.2
144.4							11.7	11.0	10.1	9.9	9.9	9.9	8.8	8.4	7.9
150.9							10.6	10.6	10.1	9.0	8.8	9.7	7.7	8.2	7.7
157.5							9.7	10.4		8.2	8.6	8.6	6.8	7.9	7.5
164.0							8.8	9.3		7.3	8.2	8.2	6.0	7.1	7.5
170.6							8.4	8.4		6.4	7.3	7.7	5.1	6.2	6.8
177.2							7.9	7.9		5.5	6.4	6.8	4.4	5.3	6.0
183.7										4.9	5.5	6.0	3.5	4.4	5.1
190.3										4.2	4.9		2.9	3.7	4.2
196.9										3.7	4.2		2.4	3.1	3.5
210.0										2.6	2.9				

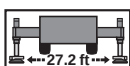
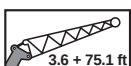
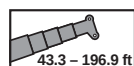


110,231 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 75.1 ft			86.3 ft + 3.6 ft + 75.1 ft			128.9 ft + 3.6 ft + 75.1 ft			171.9 ft + 3.6 ft + 75.1 ft			196.9 ft + 3.6 ft + 75.1 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
11.5	21.6														
13.1	21.6														
14.8	21.6														
16.4	21.6			19.2											
19.7	21.6			19.2											
23.0	21.6			19.2											
26.2	21.6			19.2											
29.5	21.6			19.2											
32.8	21.6			19.2			14.1								
36.1	20.7			19.2			14.1								
39.4	19.8	17.0		19.2			14.1								
45.9	17.9	15.2		19.2	15.9		14.1								
52.5	15.7	13.7		19.0	15.0		14.1			11.0					
59.1	13.9	12.3	10.4	17.6	14.1		14.1	13.4		11.0					
65.6	12.3	11.2	9.7	16.5	13.2		14.1	12.8		11.0	11.0		9.0		
72.2	11.2	10.1	9.0	15.7	12.3	9.7	14.1	12.3		11.0	11.0		9.0		
78.7	10.1	9.5	8.4	14.8	11.5	9.3	14.1	11.9	9.5	11.0	11.0		9.0	9.0	
85.3	9.3	8.6	7.9	13.9	10.8	8.8	14.1	11.5	9.3	11.0	11.0		9.0	9.0	
91.9	8.6	8.2	7.5	12.8	10.1	8.4	13.7	11.0	8.8	11.0	10.8	9.0	9.0	9.0	
98.4	7.9	7.5	7.1	11.9	9.5	8.2	13.2	10.8	8.6	11.0	10.4	8.6	9.0	8.6	7.9
105.0	7.3	7.1	6.8	11.0	9.0	7.7	12.8	10.1	8.4	11.0	10.1	8.4	9.0	8.4	7.7
111.5	6.8	6.6		10.1	8.6	7.5	12.3	9.7	7.9	11.0	9.9	8.2	9.0	8.2	7.5
118.1				9.5	8.2	7.3	11.7	9.3	7.7	11.0	9.5	8.2	8.8	7.7	7.3
124.7				8.8	7.7	7.1	11.0	9.0	7.5	10.8	9.3	7.9	8.6	7.5	7.1
131.2				8.4	7.5	6.8	10.4	8.6	7.5	10.4	9.0	7.7	8.2	7.3	6.8
137.8				7.9	7.1	6.8	9.9	8.4	7.3	10.1	8.8	7.5	7.9	7.1	6.6
144.4				7.3	6.8		9.5	7.9	7.1	9.7	8.6	7.3	7.7	6.8	6.4
150.9				6.8	6.6		9.0	7.7	6.8	9.5	8.4	7.3	7.5	6.6	6.2
157.5							8.6	7.5	6.8	9.3	8.2	7.1	7.3	6.4	6.0
164.0							8.2	7.3	6.6	8.8	7.9	6.8	7.1	6.2	6.0
170.6							7.9	7.1	6.6	8.6	7.7	6.8	6.8	6.2	5.7
177.2							7.5	6.8		7.9	7.5	6.6	6.6	6.0	5.5
183.7							7.3	6.6		7.1	7.5	6.6	6.4	5.7	5.5
190.3							6.8	6.6		6.8	7.3	6.6	6.0	5.7	5.3
196.9							6.6	6.6		6.6	6.6	6.4	5.7	5.5	5.3
210.0										5.7	6.0		4.4	5.3	5.1
223.1										4.6	5.1		3.3	4.0	4.4
236.2										3.7	4.0		2.4	2.9	

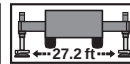
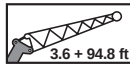
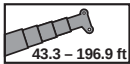


79,366 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 75.1 ft			86.3 ft + 3.6 ft + 75.1 ft			128.9 ft + 3.6 ft + 75.1 ft			171.9 ft + 3.6 ft + 75.1 ft			196.9 ft + 3.6 ft + 75.1 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
11.5	21.6														
13.1	21.6														
14.8	21.6														
16.4	21.6			19.2											
19.7	21.6			19.2											
23.0	21.6			19.2											
26.2	21.6			19.2											
29.5	21.6			19.2											
32.8	21.6			19.2			14.1								
36.1	20.7			19.2			14.1								
39.4	19.8	17.0		19.2			14.1								
45.9	17.9	15.2		19.2	15.9		14.1								
52.5	15.7	13.7		19.0	15.0		14.1			11.0					
59.1	13.9	12.3	10.4	17.6	14.1		14.1	13.4		11.0					
65.6	12.3	11.2	9.7	16.5	13.2		14.1	12.8		11.0	11.0		9.0		
72.2	11.2	10.1	9.0	15.7	12.3	9.7	14.1	12.3		11.0	11.0		9.0		
78.7	10.1	9.5	8.4	14.8	11.5	9.3	14.1	11.9	9.5	11.0	11.0		9.0	9.0	
85.3	9.3	8.6	7.9	13.9	10.8	8.8	14.1	11.5	9.3	11.0	11.0		9.0	9.0	
91.9	8.6	8.2	7.5	12.8	10.1	8.4	13.7	11.0	8.8	11.0	10.8	9.0	9.0	9.0	
98.4	7.9	7.5	7.1	11.9	9.5	8.2	13.2	10.8	8.6	11.0	10.4	8.6	9.0	8.6	7.9
105.0	7.3	7.1	6.8	11.0	9.0	7.7	12.8	10.1	8.4	11.0	10.1	8.4	9.0	8.4	7.7
111.5	6.8	6.6		10.1	8.6	7.5	12.3	9.7	7.9	11.0	9.9	8.2	9.0	8.2	7.5
118.1				9.5	8.2	7.3	11.7	9.3	7.7	11.0	9.5	8.2	8.8	7.7	7.3
124.7				8.8	7.7	7.1	11.0	9.0	7.5	10.8	9.3	7.9	8.6	7.5	7.1
131.2				8.4	7.5	6.8	10.4	8.6	7.5	10.4	9.0	7.7	8.2	7.3	6.8
137.8				7.9	7.1	6.8	9.9	8.4	7.3	10.1	8.8	7.5	7.9	7.1	6.6
144.4				7.3	6.8		9.5	7.9	7.1	9.0	8.6	7.3	7.7	6.8	6.4
150.9				6.8	6.6		9.0	7.7	6.8	8.2	8.4	7.3	7.5	6.6	6.2
157.5							8.6	7.5	6.8	7.9	8.2	7.1	7.1	6.4	6.0
164.0							8.2	7.3	6.6	7.3	7.5	6.8	6.2	6.2	6.0
170.6							7.9	7.1	6.6	6.6	6.6	6.8	5.3	6.2	5.7
177.2							7.5	6.8		5.7	6.4	6.6	4.4	6.0	5.5
183.7							6.8	6.6		5.1	6.2	6.0	3.7	5.1	5.5
190.3							6.2	6.6		4.4	5.3	6.0	3.1	4.4	5.1
196.9							6.2	6.0		3.7	4.6	5.3		3.5	4.4
210.0										2.6	3.3				2.9
223.1											2.2				

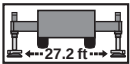
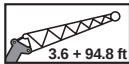
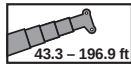


110,231 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 94.8 ft			86.3 ft + 3.6 ft + 94.8 ft			128.9 ft + 3.6 ft + 94.8 ft			171.9 ft + 3.6 ft + 94.8 ft			196.9 ft + 3.6 ft + 94.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
13.1	13.7														
14.8	13.7														
16.4	13.7														
19.7	13.7														
23.0	13.7			13.4											
26.2	13.7			13.4											
29.5	13.7			13.4											
32.8	13.7			13.4											
36.1	13.7			13.4											
39.4	13.7			13.4			10.1								
45.9	13.7			13.4			10.1								
52.5	12.8	11.2		13.4			10.1								
59.1	11.9	10.4		12.8	10.6		10.1			8.4					
65.6	11.0	9.5		12.3	9.9		10.1	9.3		8.4			7.1		
72.2	10.1	8.6		11.7	9.5		10.1	9.0		8.4			7.1		
78.7	9.3	7.9	6.8	11.0	9.0		10.1	8.6		8.4	7.9		7.1		
85.3	8.4	7.3	6.4	10.6	8.6	6.8	10.1	8.4		8.4	7.7		7.1		
91.9	7.5	6.8	6.0	9.9	8.2	6.6	9.9	8.2		8.4	7.5		7.1	6.8	
98.4	6.8	6.2	5.7	9.5	7.7	6.2	9.5	7.7	6.4	8.4	7.3		7.1	6.6	
105.0	6.4	5.7	5.3	8.8	7.1	6.0	9.3	7.5	6.2	8.4	7.3		7.1	6.6	
111.5	6.0	5.5	5.1	8.2	6.8	5.7	8.8	7.3	6.0	8.4	7.1	6.0	7.1	6.4	
118.1	5.3	5.1	4.9	7.5	6.4	5.5	8.6	7.1	5.7	8.2	6.8	6.0	7.1	6.4	
124.7	5.1	4.9	4.6	7.1	6.0	5.3	8.4	6.8	5.5	7.9	6.6	5.7	7.1	6.2	
131.2	4.6	4.6		6.6	5.7	5.1	8.2	6.6	5.5	7.7	6.6	5.5	6.8	6.0	
137.8				6.2	5.5	4.9	7.7	6.4	5.3	7.5	6.4	5.5	6.6	5.7	
144.4				6.0	5.3	4.6	7.3	6.0	5.1	7.5	6.2	5.3	6.4	5.5	
150.9				5.5	5.1	4.6	6.8	5.7	5.1	7.3	6.2	5.1	6.2	5.5	
157.5				5.3	4.9	4.6	6.6	5.5	4.9	7.1	6.0	5.1	6.0	5.3	
164.0				4.9	4.6		6.2	5.3	4.9	6.8	5.7	4.9	5.7	5.1	
170.6				4.6	4.4		6.0	5.3	4.6	6.8	5.7	4.9	5.5	4.9	
177.2							5.7	5.1	4.6	6.4	5.5	4.6	5.3	4.9	
183.7							5.5	4.9	4.4	6.2	5.5	4.6	5.3	4.6	
190.3							5.3	4.6	4.4	6.0	5.3	4.4	5.1	4.4	
196.9							5.1	4.6		5.7	5.1	4.4	4.9	4.4	
210.0							4.6	4.4		5.1	4.9	4.2	4.4	4.2	
223.1										4.6	4.2	4.2	3.3	4.0	
236.2										3.7	4.2		2.4	3.3	
249.3										2.9	3.3			2.2	

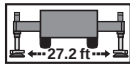
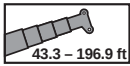


79,366 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 94.8 ft			86.3 ft + 3.6 ft + 94.8 ft			128.9 ft + 3.6 ft + 94.8 ft			171.9 ft + 3.6 ft + 94.8 ft			196.9 ft + 3.6 ft + 94.8 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
13.1	13.7														
14.8	13.7														
16.4	13.7														
19.7	13.7														
23.0	13.7			13.4											
26.2	13.7			13.4											
29.5	13.7			13.4											
32.8	13.7			13.4											
36.1	13.7			13.4											
39.4	13.7			13.4			10.1								
45.9	13.7			13.4			10.1								
52.5	12.8	11.2		13.4			10.1								
59.1	11.9	10.4		12.8	10.6		10.1			8.4					
65.6	11.0	9.5		12.3	9.9		10.1	9.3		8.4			7.1		
72.2	10.1	8.6		11.7	9.5		10.1	9.0		8.4			7.1		
78.7	9.3	7.9	6.8	11.0	9.0		10.1	8.6		8.4	7.9		7.1		
85.3	8.4	7.3	6.4	10.6	8.6	6.8	10.1	8.4		8.4	7.7		7.1		
91.9	7.5	6.8	6.0	9.9	8.2	6.6	9.9	8.2		8.4	7.5		7.1	6.8	
98.4	6.8	6.2	5.7	9.5	7.7	6.2	9.5	7.7	6.4	8.4	7.3		7.1	6.6	
105.0	6.4	5.7	5.3	8.8	7.1	6.0	9.3	7.5	6.2	8.4	7.3		7.1	6.6	
111.5	6.0	5.5	5.1	8.2	6.8	5.7	8.8	7.3	6.0	8.4	7.1	6.0	7.1	6.4	
118.1	5.3	5.1	4.9	7.5	6.4	5.5	8.6	7.1	5.7	8.2	6.8	6.0	7.1	6.4	
124.7	5.1	4.9	4.6	7.1	6.0	5.3	8.4	6.8	5.5	7.9	6.6	5.7	7.1	6.2	
131.2	4.6	4.6		6.6	5.7	5.1	8.2	6.6	5.5	7.7	6.6	5.5	6.8	6.0	
137.8				6.2	5.5	4.9	7.7	6.4	5.3	7.5	6.4	5.5	6.6	5.7	
144.4				6.0	5.3	4.6	7.3	6.0	5.1	7.5	6.2	5.3	6.4	5.5	
150.9				5.5	5.1	4.6	6.8	5.7	5.1	7.3	6.2	5.1	6.2	5.5	
157.5				5.3	4.9	4.6	6.6	5.5	4.9	7.1	6.0	5.1	6.0	5.3	
164.0				4.9	4.6		6.2	5.3	4.9	6.2	5.7	4.9	5.7	5.1	
170.6				4.6	4.4		6.0	5.3	4.6	6.0	5.7	4.9	5.3	4.9	
177.2							5.7	5.1	4.6	6.0	5.5	4.6	4.6	4.9	
183.7							5.5	4.9	4.4	5.1	5.5	4.6	3.7	4.6	
190.3							5.1	4.6	4.4	4.4	4.9	4.4		4.4	
196.9							4.9	4.6		4.0	4.9	4.4		4.0	
210.0							4.6	4.4		2.9	3.7	4.2			
223.1											2.6	3.1			

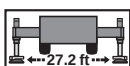
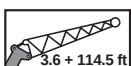
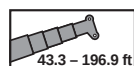


110,231 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 3.6 ft + 114.5 ft			86.3 ft + 3.6 ft + 114.5 ft			128.9 ft + 3.6 ft + 114.5 ft			171.9 ft + 3.6 ft + 114.5 ft			196.9 ft + 3.6 ft + 114.5 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
16.4	10.1														
19.7	10.1														
23.0	10.1														
26.2	10.1														
29.5	10.1														
32.8	10.1			9.7											
36.1	10.1			9.7											
39.4	10.1			9.7											
45.9	10.1			9.7			7.7								
52.5	9.5			9.7			7.7								
59.1	9.0	7.9		9.3			7.7								
65.6	8.4	7.5		8.8	7.3		7.7			6.6			5.5		
72.2	7.9	7.1		8.4	7.1		7.7			6.6			5.5		
78.7	7.3	6.6		7.9	6.6		7.5	6.2		6.6			5.5		
85.3	6.8	6.2		7.7	6.4		7.3	6.0		6.4			5.5		
91.9	6.4	5.7	4.9	7.3	6.2		7.1	5.7		6.2	5.3		5.5		
98.4	5.7	5.3	4.6	7.1	5.7		6.8	5.5		6.2	5.1		5.3		
105.0	5.3	4.9	4.2	6.6	5.5	4.6	6.4	5.3		6.0	4.9		5.3		
111.5	4.9	4.4	4.0	6.4	5.3	4.4	6.4	5.3	4.6	5.7	4.9		5.1		
118.1	4.4	4.2	3.7	6.2	5.1	4.2	6.2	5.1	4.4	5.7	4.6		5.1		
124.7	4.0	3.7	3.5	5.7	4.9	4.0	6.0	4.9	4.2	5.5	4.6	4.2	4.9		
131.2	3.7	3.5	3.3	5.3	4.4	3.7	5.7	4.6	4.0	5.3	4.4	4.0	4.9		
137.8	3.5	3.3	3.1	4.9	4.2	3.5	5.5	4.6	4.0	5.3	4.4	4.0	4.6		
144.4	3.3	3.1	3.1	4.6	4.0	3.5	5.3	4.4	3.7	5.1	4.2	3.7	4.6		
150.9	2.9	2.9		4.2	3.7	3.3	5.1	4.4	3.5	5.1	4.2	3.5	4.6		
157.5				4.0	3.5	3.3	5.1	4.2	3.5	4.9	4.0	3.5	4.4		
164.0				3.7	3.5	3.1	4.6	4.0	3.3	4.6	4.0	3.3	4.4		
170.6				3.5	3.3	3.1	4.4	4.0	3.3	4.6	4.0	3.3	4.2		
177.2				3.3	3.1	2.9	4.2	3.7	3.1	4.4	3.7	3.3	4.2		
183.7				3.1	3.1		4.0	3.5	3.1	4.4	3.7	3.1	4.2		
190.3				3.1	2.9		3.7	3.5	3.1	4.2	3.7	3.1	4.0		
196.9							3.5	3.3	2.9	4.2	3.5	2.9	4.0		
210.0							3.3	3.1	2.9	4.0	3.5	2.9	3.7		
223.1							3.1	2.9		3.5	3.3	2.6	3.1		
236.2							2.9	2.9		3.3	3.1	2.6	2.4		
249.3										2.9	2.9				
262.5											2.6				

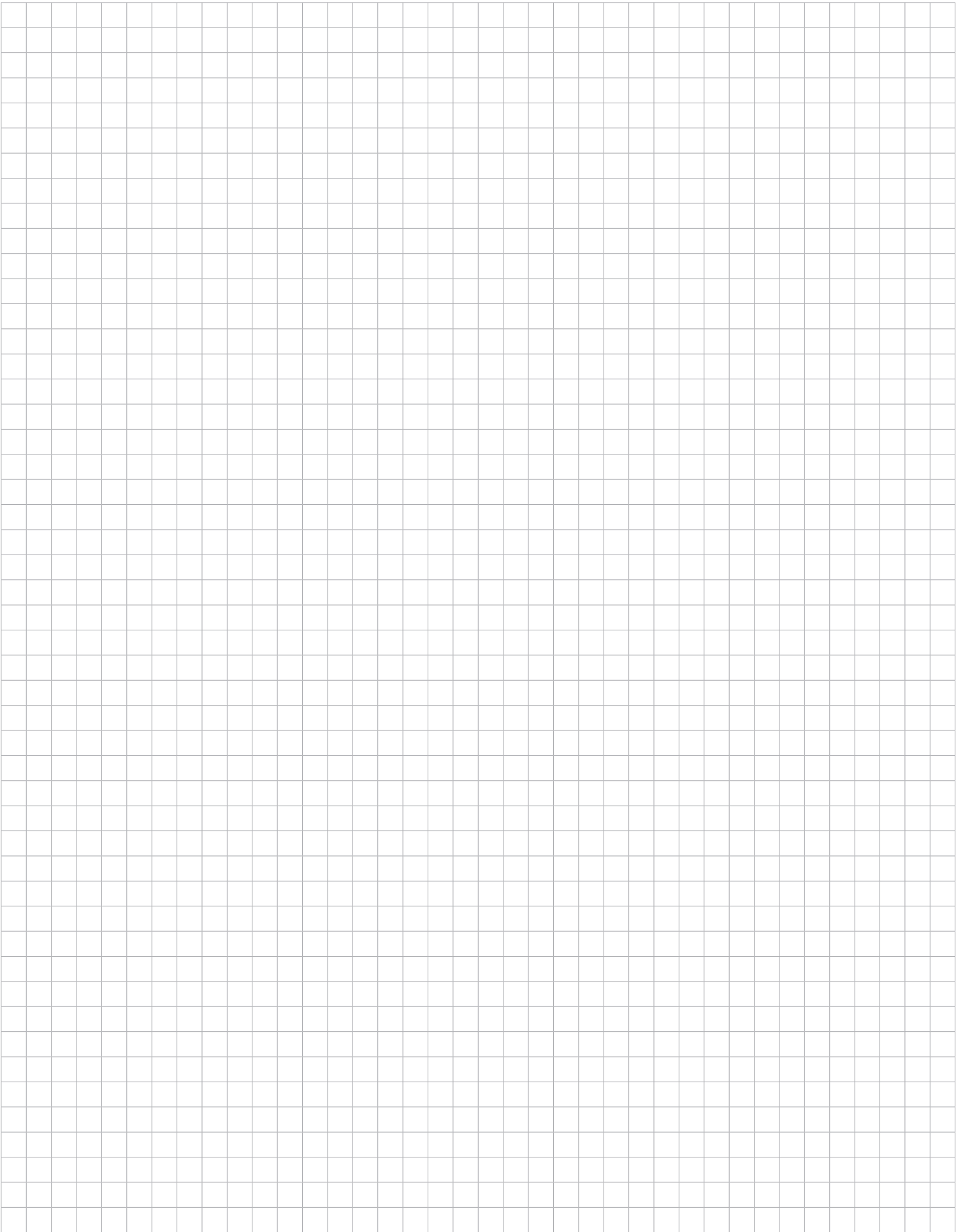


79,366 lbs

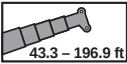
ASME

lbs x 1,000

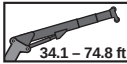
 ft	43.3 ft + 3.6 ft + 114.5 ft			86.3 ft + 3.6 ft + 114.5 ft			128.9 ft + 3.6 ft + 114.5 ft			171.9 ft + 3.6 ft + 114.5 ft			196.9 ft + 3.6 ft + 114.5 ft		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
16.4	10.1														
19.7	10.1														
23.0	10.1														
26.2	10.1														
29.5	10.1														
32.8	10.1			9.7											
36.1	10.1			9.7											
39.4	10.1			9.7											
45.9	10.1			9.7			7.7								
52.5	9.5			9.7			7.7								
59.1	9.0	7.9		9.3			7.7								
65.6	8.4	7.5		8.8	7.3		7.7			6.6			5.5		
72.2	7.9	7.1		8.4	7.1		7.7			6.6			5.5		
78.7	7.3	6.6		7.9	6.6		7.5	6.2		6.6			5.5		
85.3	6.8	6.2		7.7	6.4		7.3	6.0		6.4			5.5		
91.9	6.4	5.7	4.9	7.3	6.2		7.1	5.7		6.2	5.3		5.5		
98.4	5.7	5.3	4.6	7.1	5.7		6.8	5.5		6.2	5.1		5.3		
105.0	5.3	4.9	4.2	6.6	5.5	4.6	6.4	5.3		6.0	4.9		5.3		
111.5	4.9	4.4	4.0	6.4	5.3	4.4	6.4	5.3	4.6	5.7	4.9		5.1		
118.1	4.4	4.2	3.7	6.2	5.1	4.2	6.2	5.1	4.4	5.7	4.6		5.1		
124.7	4.0	3.7	3.5	5.7	4.9	4.0	6.0	4.9	4.2	5.5	4.6	4.2	4.9		
131.2	3.7	3.5	3.3	5.3	4.4	3.7	5.7	4.6	4.0	5.3	4.4	4.0	4.9		
137.8	3.5	3.3	3.1	4.9	4.2	3.5	5.5	4.6	4.0	5.3	4.4	4.0	4.6		
144.4	3.3	3.1	3.1	4.6	4.0	3.5	5.3	4.4	3.7	5.1	4.2	3.7	4.6		
150.9	2.9	2.9		4.2	3.7	3.3	5.1	4.4	3.5	5.1	4.2	3.5	4.6		
157.5				4.0	3.5	3.3	5.1	4.2	3.5	4.9	4.0	3.5	4.4		
164.0				3.7	3.5	3.1	4.6	4.0	3.3	4.6	4.0	3.3	4.4		
170.6				3.5	3.3	3.1	4.4	4.0	3.3	4.6	4.0	3.3	4.2		
177.2				3.3	3.1	2.9	4.2	3.7	3.1	4.4	3.7	3.3	4.2		
183.7				3.1	3.1		4.0	3.5	3.1	4.2	3.7	3.1	4.0		
190.3				3.1	2.9		3.7	3.5	3.1	4.2	3.7	3.1			
196.9							3.5	3.3	2.9	4.0	3.5	2.9			
210.0							3.3	3.1	2.9	2.9	3.3	2.9			
223.1							3.1	2.9			2.9	2.6			
236.2							2.9	2.9							



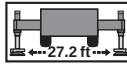
Working range · Rayon de travail · Zona de trabajo



43.3 – 196.9 ft



34.1 – 74.8 ft



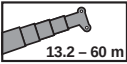
27.2 ft



360°

110,231 lbs

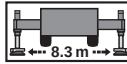
ASME



13.2 – 60 m



10.4 – 22.8 m



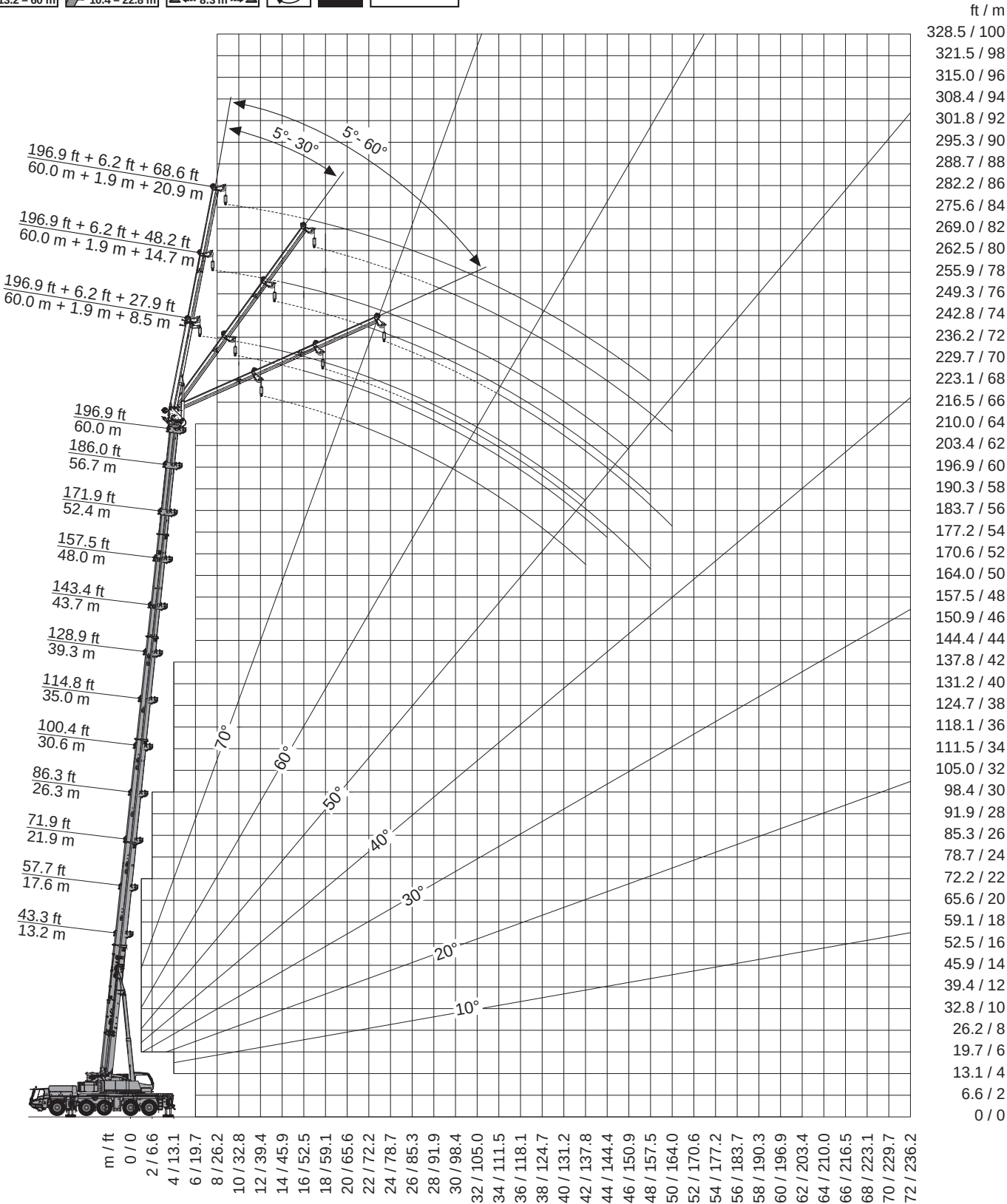
8.3 m

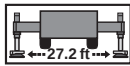
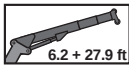
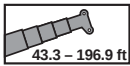


360°

50 t

ASME





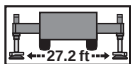
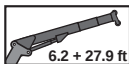
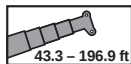
110,231 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 6.2 ft + 27.9 ft			71.9 ft + 6.2 ft + 27.9 ft			100.4 ft + 6.2 ft + 27.9 ft			114.8 ft + 6.2 ft + 27.9 ft			128.9 ft + 6.2 ft + 27.9 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
9.8	62.2														
11.5	58.2														
13.1	54.9			65.5											
14.8	51.8			62.2											
16.4	49.2			59.3											
19.7	44.5			54.5			62.2								
23.0	40.6	34.2		50.3			58.0			58.6					
26.2	37.3	32.6		46.5	35.3		54.9			57.3			47.0		
29.5	34.4	31.1	27.1	43.4	34.2		51.8	35.9		54.0			47.0		
32.8	32.0	29.8	26.7	40.6	32.8	27.3	48.7	34.8		50.9	35.7		47.0		
36.1	29.8	28.7	26.5	38.1	31.7	26.9	45.9	34.0	27.3	48.5	34.8		47.0	35.5	
39.4	28.0	27.8	26.5	35.9	30.9	26.7	43.4	33.1	27.1	46.5	34.0	27.3	45.0	34.6	
45.9	24.9	26.0		32.2	29.1	26.5	39.2	31.3	26.7	42.1	32.4	26.9	41.2	33.1	26.9
52.5	22.3	24.9		29.1	27.6	26.5	35.7	30.0	26.5	38.6	30.9	26.7	37.7	31.7	26.7
59.1	20.3	24.3		26.7	26.5	26.5	32.8	28.7	26.2	35.5	29.8	26.5	34.8	30.4	26.5
65.6	19.0			24.5	25.6		30.2	27.6	26.2	32.8	28.7	26.2	32.2	29.3	26.2
72.2				22.7	24.7		28.0	26.7	26.2	30.2	27.6	26.2	30.0	28.4	26.2
78.7				21.2	24.3		26.2	25.8		28.0	26.7	26.2	28.0	26.9	26.2
85.3				19.8	24.3		24.5	25.1		26.0	26.0		25.8	25.1	25.1
91.9				19.0			23.1	24.7		23.8	23.8		22.3	23.6	
98.4							21.6	21.2		20.3	21.6		19.6	20.3	
105.0							20.1	20.1		17.4	18.3		17.9	18.1	
111.5							17.4	17.6		15.7	15.7		15.2	16.1	
118.1							15.2			14.8	14.6		13.0	13.7	
124.7							12.3			13.4	13.7		11.7	11.7	
131.2										11.7			10.8	10.8	
137.8										10.1			9.9	10.1	
144.4													9.0		
150.9													7.9		

 ft	143.4 ft + 6.2 ft + 27.9 ft			157.5 ft + 6.2 ft + 27.9 ft			171.9 ft + 6.2 ft + 27.9 ft			186.0 ft + 6.2 ft + 27.9 ft			169.9 ft + 6.2 ft + 27.9 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
26.2	32.8														
29.5	37.9			26.5											
32.8	37.9			29.8			24.5								
36.1	37.9			29.8			24.5								
39.4	37.5	31.7		29.8			24.5			18.7			17.0		
45.9	34.4	32.6		29.8	28.0		23.4	20.9		18.7			17.0		
52.5	32.4	30.4	26.7	27.3	26.0	25.4	21.8	19.6		17.6	15.9		16.3	14.8	
59.1	30.0	28.4	26.5	25.8	24.3	23.8	20.3	18.7	17.4	16.5	15.0	14.3	15.2	13.9	
65.6	27.8	26.7	26.2	24.0	22.7	22.3	19.4	17.6	16.8	15.7	14.1	13.4	14.3	13.2	12.6
72.2	25.8	24.9	24.7	22.3	21.2	20.9	18.1	16.8	15.9	14.6	13.4	12.8	13.2	12.3	11.9
78.7	24.0	23.4	23.1	20.7	20.1	19.6	17.0	15.9	15.2	13.9	12.6	12.1	12.3	11.7	11.2
85.3	22.3	21.8	21.8	19.2	18.7	18.7	16.1	15.0	14.6	13.0	11.9	11.7	11.9	11.0	10.8
91.9	20.9	20.5	20.5	18.1	17.6	17.6	15.2	14.3	13.9	12.1	11.5	11.0	11.2	10.6	10.1
98.4	19.4	19.2	19.2	16.8	16.5	16.5	14.3	13.4	13.2	11.5	10.8	10.6	10.6	9.9	9.7
105.0	16.3	17.9		15.7	15.4	15.7	13.7	12.8	12.6	10.8	10.4	10.1	9.9	9.5	9.3
111.5	14.8	15.0		14.6	14.6		12.8	12.3	12.1	10.1	9.7	9.7	9.3	8.8	8.8
118.1	13.4	13.7		12.1	13.2		11.9	11.7		9.7	9.3	9.3	8.8	8.4	8.4
124.7	11.5	12.1		11.2	11.2		10.8	11.2		9.3	8.8		8.4	7.9	7.9
131.2	9.7	10.1		10.4	10.6		9.0	9.9		8.6	8.4		7.5	7.5	7.5
137.8	8.6	8.6		8.6	9.3		8.4	8.2		8.2	7.9		6.6	7.1	7.1
144.4	7.9	7.9		7.3	7.7		7.9	7.9		6.8	7.5		5.7	6.2	
150.9	7.1	7.3		6.0	6.2		6.6	7.3		5.5	6.2		5.1	5.5	
157.5	6.4			5.3	5.5		5.5	6.0		4.4	4.9		4.4	4.6	
164.0	5.7			4.6	4.6		4.4	4.6		3.3	3.7		3.3	3.7	
177.2				3.3			2.4	2.6							



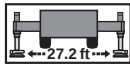
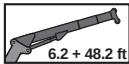
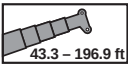
79,366 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 6.2 ft + 27.9 ft			71.9 ft + 6.2 ft + 27.9 ft			100.4 ft + 6.2 ft + 27.9 ft			114.8 ft + 6.2 ft + 27.9 ft			128.9 ft + 6.2 ft + 27.9 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
9.8	62.2														
11.5	58.2														
13.1	54.9			65.5											
14.8	51.8			62.2											
16.4	49.2			59.3											
19.7	44.5			54.5			62.2								
23.0	40.6	34.2		50.3			58.0			58.6					
26.2	37.3	32.6		46.5	35.3		54.9			57.3			47.0		
29.5	34.4	31.1	27.1	43.4	34.2		51.8	35.9		54.0			47.0		
32.8	32.0	29.8	26.7	40.6	32.8	27.3	48.7	34.8		50.9	35.7		47.0		
36.1	29.8	28.7	26.5	38.1	31.7	26.9	45.9	34.0	27.3	48.5	34.8		47.0	35.5	
39.4	28.0	27.8	26.5	35.9	30.9	26.7	43.4	33.1	27.1	46.5	34.0	27.3	45.0	34.6	
45.9	24.9	26.0		32.2	29.1	26.5	39.2	31.3	26.7	42.1	32.4	26.9	41.2	33.1	26.9
52.5	22.3	24.9		29.1	27.6	26.5	35.7	30.0	26.5	38.6	30.9	26.7	37.7	31.7	26.7
59.1	20.3	24.3		26.7	26.5	26.5	32.8	28.7	26.2	35.5	29.8	26.5	34.8	30.4	26.5
65.6	19.0			24.5	25.6		30.2	27.6	26.2	32.8	28.7	26.2	32.2	29.3	26.2
72.2				22.7	24.7		28.0	26.7	26.2	29.1	27.6	26.2	27.6	28.4	26.2
78.7				21.2	24.3		26.2	25.8		24.0	26.2	26.2	24.3	24.9	26.0
85.3				19.8	24.3		22.7	23.8		21.6	21.8		20.5	22.0	22.0
91.9				19.0			19.2	20.3		19.2	19.4		17.9	18.7	
98.4							16.5	17.2		16.5	17.4		15.7	16.5	
105.0							14.8	15.2		14.1	14.8		14.1	14.1	
111.5							13.4	13.2		12.1	12.6		12.6	13.0	
118.1							11.9			11.0	11.2		10.6	11.2	
124.7							10.1			9.5	9.7		9.0	9.3	
131.2										8.8			7.9	8.4	
137.8										7.7			7.1	7.3	
144.4													6.0		
150.9													4.9		

 ft	143.4 ft + 6.2 ft + 27.9 ft			157.5 ft + 6.2 ft + 27.9 ft			171.9 ft + 6.2 ft + 27.9 ft			186.0 ft + 6.2 ft + 27.9 ft			169.9 ft + 6.2 ft + 27.9 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
26.2	32.8														
29.5	37.9			26.5											
32.8	37.9			29.8			24.5								
36.1	37.9			29.8			24.5								
39.4	37.5	31.7		29.8			24.5			18.7			17.0		
45.9	34.4	32.6		29.8	28.0		23.4	20.9		18.7			17.0		
52.5	32.4	30.4	26.7	27.3	26.0	25.4	21.8	19.6		17.6	15.9		16.3	14.8	
59.1	30.0	28.4	26.5	25.8	24.3	23.8	20.3	18.7	17.4	16.5	15.0	14.3	15.2	13.9	
65.6	27.8	26.7	26.2	24.0	22.7	22.3	19.4	17.6	16.8	15.7	14.1	13.4	14.3	13.2	12.6
72.2	25.8	24.9	24.7	22.3	21.2	20.9	18.1	16.8	15.9	14.6	13.4	12.8	13.2	12.3	11.9
78.7	23.1	23.4	23.1	20.7	20.1	19.6	17.0	15.9	15.2	13.9	12.6	12.1	12.3	11.7	11.2
85.3	19.6	21.2	21.8	19.2	18.7	18.7	16.1	15.0	14.6	13.0	11.9	11.7	11.9	11.0	10.8
91.9	17.6	18.1	18.1	16.3	17.6	17.6	15.2	14.3	13.9	12.1	11.5	11.0	11.2	10.6	10.1
98.4	14.8	15.9	16.3	14.8	14.8	15.4	14.1	13.4	13.2	11.5	10.8	10.6	10.6	9.9	9.7
105.0	13.7	13.7		12.8	13.4	13.2	11.5	12.8	12.6	10.8	10.4	10.1	9.9	9.5	9.3
111.5	11.5	12.3		10.8	11.7		10.6	10.6	11.2	10.1	9.7	9.7	9.3	8.8	8.8
118.1	10.4	10.4		10.1	9.7		9.5	9.5		8.4	9.3	9.3	8.4	8.4	8.4
124.7	9.3	9.5		8.4	9.3		7.7	8.6		6.6	7.7		6.6	7.7	7.9
131.2	7.7	8.4		6.8	7.7		6.2	7.1		5.1	6.0			6.0	6.2
137.8	6.4	6.8		5.5	6.4		4.9	5.5			4.6				
144.4	5.3	5.5		4.4	5.1		3.7	4.2							
150.9	4.2	4.2		3.3	3.7			3.1							
157.5	3.1			2.2	2.6										
164.0	2.2														



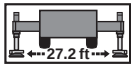
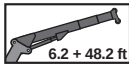
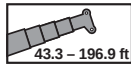
110,231 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 6.2 ft + 48.2 ft			71.9 ft + 6.2 ft + 48.2 ft			100.4 ft + 6.2 ft + 48.2 ft			114.8 ft + 6.2 ft + 48.2 ft			128.9 ft + 6.2 ft + 48.2 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
14.8	30.6														
16.4	30.6														
19.7	30.6			30.6											
23.0	30.6			30.6			30.6								
26.2	28.2			30.6			30.6			30.6					
29.5	25.8			30.6			30.6			30.6			26.7		
32.8	23.8			29.1			30.6			30.6			29.8		
36.1	22.0	19.2		27.1			30.6			30.6			29.8		
39.4	20.5	18.7		25.4	19.2		30.0			30.6			29.8		
45.9	17.9	17.0		22.5	18.7		26.7	19.2		28.4			29.8		
52.5	15.7	15.9	14.1	20.1	17.4	14.6	24.0	18.7		25.8	19.2		27.6	19.2	
59.1	14.1	14.8	13.9	18.1	16.5	14.1	21.8	17.6	14.6	23.4	18.3		25.1	18.7	
65.6	12.8	13.9	13.9	16.3	15.7	13.9	19.8	16.8	14.1	21.4	17.4	14.3	22.9	17.9	14.3
72.2	11.5	13.2		15.0	14.8	13.9	18.3	16.1	14.1	19.8	16.5	14.1	21.2	17.2	14.1
78.7	10.6	12.8		13.9	14.1	13.9	16.8	15.4	13.9	18.3	15.9	13.9	19.6	16.5	14.1
85.3	9.9			12.8	13.4		15.7	14.8	13.9	17.0	15.4	13.9	18.3	15.9	13.9
91.9				11.9	13.0		14.6	14.3	13.9	15.9	14.8	13.9	17.2	15.2	13.9
98.4				11.0	12.8		13.7	13.9		14.8	14.3	13.9	16.1	14.8	13.7
105.0				10.4	12.6		12.8	13.4		13.9	13.9		15.0	14.3	13.7
111.5				9.9			12.1	13.0		13.2	13.4		14.1	13.9	13.7
118.1							11.5	12.8		12.3	13.2		13.4	13.7	
124.7							10.8	12.6		11.7	13.0		12.8	13.2	
131.2							10.4	12.6		11.2	12.8		11.7	13.0	
137.8							9.9			10.6	11.0		10.1	11.5	
144.4							9.5			10.1	10.4		9.0	9.7	
150.9										9.5			8.4	8.4	
157.5										8.4			7.7	7.9	
164.0													7.1		

 ft	143.4 ft + 6.2 ft + 48.2 ft			157.5 ft + 6.2 ft + 48.2 ft			171.9 ft + 6.2 ft + 48.2 ft			186.0 ft + 6.2 ft + 48.2 ft			169.9 ft + 6.2 ft + 48.2 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
32.8	24.9														
36.1	24.9			21.2											
39.4	24.9			21.2			15.2								
45.9	24.9			21.2			15.2			12.8			12.6		
52.5	24.9			21.2			15.2			12.8			12.6		
59.1	24.9	19.2		21.2	19.0		15.2			12.8			12.6		
65.6	24.0	18.3		21.2	18.7		15.2	13.9		12.8	11.5		12.3		
72.2	22.5	17.6	14.3	19.6	17.9	14.3	15.2	13.2		12.3	11.0		11.7	10.1	
78.7	20.9	17.0	14.1	18.7	17.2	14.1	14.3	12.6	11.7	11.7	10.4		11.0	9.7	
85.3	19.6	16.3	13.9	17.6	16.3	14.1	13.9	12.1	11.2	11.0	9.9	9.3	10.4	9.3	8.8
91.9	18.3	15.7	13.9	16.5	15.4	13.9	13.0	11.5	11.0	10.6	9.5	9.0	9.7	8.8	8.4
98.4	17.2	15.2	13.7	15.7	14.6	13.9	12.3	11.0	10.6	9.9	9.0	8.6	9.3	8.4	7.9
105.0	16.1	14.8	13.7	14.8	13.9	13.7	11.7	10.6	10.1	9.5	8.6	8.2	8.8	7.9	7.7
111.5	15.2	14.3	13.7	13.9	13.2	13.2	11.2	10.1	9.9	9.0	8.2	7.9	8.4	7.5	7.3
118.1	14.3	14.1	13.7	13.0	12.6	12.6	10.6	9.9	9.7	8.6	7.7	7.5	7.9	7.3	7.1
124.7	12.3	13.7		12.3	11.9	11.9	10.1	9.5	9.3	8.2	7.5	7.3	7.5	6.8	6.8
131.2	11.5	12.3		10.6	11.5		9.7	9.0	9.0	7.7	7.1	7.1	7.1	6.6	6.4
137.8	10.4	10.8		9.5	10.8		9.3	8.6		7.3	6.8	6.8	6.8	6.4	6.2
144.4	8.8	10.1		8.8	9.3		8.4	8.4		7.1	6.6		6.2	6.2	6.0
150.9	7.5	8.6		8.2	8.2		7.1	7.9		6.6	6.4		5.7	5.7	5.7
157.5	6.6	7.3		7.1	7.9		6.6	6.8		6.2	6.0		5.1	5.5	5.5
164.0	6.2	6.2		6.0	6.6		6.2	6.0		5.1	5.7		4.4	4.9	
177.2	5.1			4.2	4.6		4.2	4.9		3.1	4.0			3.7	
190.3				3.1			2.6	2.9							



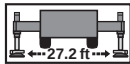
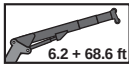
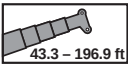
79,366 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 6.2 ft + 48.2 ft			71.9 ft + 6.2 ft + 48.2 ft			100.4 ft + 6.2 ft + 48.2 ft			114.8 ft + 6.2 ft + 48.2 ft			128.9 ft + 6.2 ft + 48.2 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
14.8	30.6														
16.4	30.6														
19.7	30.6			30.6											
23.0	30.6			30.6			30.6								
26.2	28.2			30.6			30.6			30.6					
29.5	25.8			30.6			30.6			30.6			26.7		
32.8	23.8			29.1			30.6			30.6			29.8		
36.1	22.0	19.2		27.1			30.6			30.6			29.8		
39.4	20.5	18.7		25.4	19.2		30.0			30.6			29.8		
45.9	17.9	17.0		22.5	18.7		26.7	19.2		28.4			29.8		
52.5	15.7	15.9	14.1	20.1	17.4	14.6	24.0	18.7		25.8	19.2		27.6	19.2	
59.1	14.1	14.8	13.9	18.1	16.5	14.1	21.8	17.6	14.6	23.4	18.3		25.1	18.7	
65.6	12.8	13.9	13.9	16.3	15.7	13.9	19.8	16.8	14.1	21.4	17.4	14.3	22.9	17.9	14.3
72.2	11.5	13.2		15.0	14.8	13.9	18.3	16.1	14.1	19.8	16.5	14.1	21.2	17.2	14.1
78.7	10.6	12.8		13.9	14.1	13.9	16.8	15.4	13.9	18.3	15.9	13.9	19.6	16.5	14.1
85.3	9.9			12.8	13.4		15.7	14.8	13.9	17.0	15.4	13.9	18.3	15.9	13.9
91.9				11.9	13.0		14.6	14.3	13.9	15.9	14.8	13.9	17.2	15.2	13.9
98.4				11.0	12.8		13.7	13.9		14.8	14.3	13.9	16.1	14.8	13.7
105.0				10.4	12.6		12.8	13.4		13.9	13.9		14.8	14.3	13.7
111.5				9.9			12.1	13.0		13.2	13.4		13.2	13.9	13.7
118.1							11.5	12.8		12.3	13.0		11.5	12.8	
124.7							10.8	11.7		10.6	11.9		10.8	11.2	
131.2							9.9	10.4		9.5	10.1		9.5	9.7	
137.8							9.5			8.6	8.8		8.2	9.3	
144.4							8.4			7.5	7.9		6.8	7.7	
150.9										6.6			6.2	6.6	
157.5										6.0			5.5	6.0	
164.0													4.9		

 ft	143.4 ft + 6.2 ft + 48.2 ft			157.5 ft + 6.2 ft + 48.2 ft			171.9 ft + 6.2 ft + 48.2 ft			186.0 ft + 6.2 ft + 48.2 ft			169.9 ft + 6.2 ft + 48.2 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
32.8	24.9														
36.1	24.9			21.2											
39.4	24.9			21.2			15.2								
45.9	24.9			21.2			15.2			12.8			12.6		
52.5	24.9			21.2			15.2			12.8			12.6		
59.1	24.9	19.2		21.2	19.0		15.2			12.8			12.6		
65.6	24.0	18.3		21.2	18.7		15.2	13.9		12.8	11.5		12.3		
72.2	22.5	17.6	14.3	19.6	17.9	14.3	15.2	13.2		12.3	11.0		11.7	10.1	
78.7	20.9	17.0	14.1	18.7	17.2	14.1	14.3	12.6	11.7	11.7	10.4		11.0	9.7	
85.3	19.6	16.3	13.9	17.6	16.3	14.1	13.9	12.1	11.2	11.0	9.9	9.3	10.4	9.3	8.8
91.9	18.3	15.7	13.9	16.5	15.4	13.9	13.0	11.5	11.0	10.6	9.5	9.0	9.7	8.8	8.4
98.4	15.9	15.2	13.7	15.7	14.6	13.9	12.3	11.0	10.6	9.9	9.0	8.6	9.3	8.4	7.9
105.0	14.6	14.8	13.7	13.2	13.9	13.7	11.7	10.6	10.1	9.5	8.6	8.2	8.8	7.9	7.7
111.5	12.3	13.4	13.7	11.5	13.2	13.2	11.2	10.1	9.9	9.0	8.2	7.9	8.4	7.5	7.3
118.1	11.0	12.6	12.8	11.0	11.5	12.6	9.9	9.9	9.7	8.6	7.7	7.5	7.9	7.3	7.1
124.7	10.4	10.6		9.3	9.7	10.4	8.4	9.5	9.3	8.2	7.5	7.3	7.5	6.8	6.8
131.2	8.8	9.5		8.2	9.3		7.9	8.4	9.0	7.1	7.1	7.1	6.8	6.6	6.4
137.8	7.7	8.4		7.7	7.7		6.8	7.3		5.7	6.8	6.8	5.5	6.4	6.2
144.4	7.3	7.1		6.4	7.1		5.5	6.8			6.0			5.7	6.0
150.9	6.2	6.8		5.3	6.2		4.4	5.5			4.6				
157.5	5.1	5.7		4.2	5.1		3.3	4.4							
164.0	4.2	4.6		3.3	4.0										
177.2	2.6														



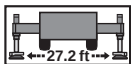
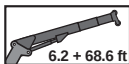
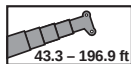
110,231 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 6.2 ft + 68.6 ft			71.9 ft + 6.2 ft + 68.6 ft			100.4 ft + 6.2 ft + 68.6 ft			114.8 ft + 6.2 ft + 68.6 ft			128.9 ft + 6.2 ft + 68.6 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
19.7	12.3														
23.0	12.3			12.3											
26.2	12.3			12.3											
29.5	12.3			12.3			12.3								
32.8	12.3			12.3			12.3								
36.1	12.3			12.3			12.3			12.3			12.3		
39.4	12.3			12.3			12.3			12.3			12.3		
45.9	12.3			12.3			12.3			12.3			12.3		
52.5	12.3	12.3		12.3	12.3		12.3			12.3			12.3		
59.1	11.7	11.5		12.3	12.3		12.3	12.3		12.3			12.3		
65.6	10.6	10.6		12.3	11.7		12.3	12.3		12.3	12.3		12.3	12.3	
72.2	9.5	9.9	8.6	11.9	10.8		12.3	11.7		12.3	12.1		12.3	11.9	
78.7	8.6	9.3	8.4	11.0	10.4	8.6	12.3	11.0	8.8	12.3	11.5		12.3	11.7	
85.3	7.7	8.6	8.4	9.9	9.7	8.4	12.1	10.6	8.6	12.3	11.0	8.6	12.3	11.2	8.6
91.9	7.1	8.2		9.3	9.3	8.4	11.2	10.1	8.4	12.1	10.6	8.6	12.3	10.8	8.6
98.4	6.6	7.9		8.6	8.8	8.4	10.4	9.7	8.4	11.2	10.1	8.4	12.1	10.4	8.4
105.0	6.0	7.9		7.9	8.6		9.7	9.3	8.4	10.6	9.7	8.4	11.5	9.9	8.4
111.5				7.3	8.2		9.0	9.0	8.4	9.9	9.3	8.4	10.6	9.7	8.4
118.1				6.8	7.9		8.4	8.6	8.4	9.3	9.0	8.4	10.1	9.3	8.4
124.7				6.4	7.9		7.9	8.4		8.6	8.8	8.4	9.5	9.0	8.4
131.2				6.0	7.9		7.5	8.2		8.2	8.4		8.8	8.8	8.4
137.8				5.7			7.1	7.9		7.7	8.2		8.4	8.6	
144.4							6.6	7.9		7.3	8.2		7.9	8.4	
150.9							6.4	7.9		7.1	7.9		7.5	8.2	
157.5							6.0	7.9		6.6	7.9		7.3	7.9	
164.0							5.7			6.4	7.9		6.8	7.9	
177.2										5.7			6.2	6.4	
190.3													5.1		

 ft	143.4 ft + 6.2 ft + 68.6 ft			157.5 ft + 6.2 ft + 68.6 ft			171.9 ft + 6.2 ft + 68.6 ft			186.0 ft + 6.2 ft + 68.6 ft			169.9 ft + 6.2 ft + 68.6 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
39.4	12.3														
45.9	12.3			12.3			11.0								
52.5	12.3			12.3			11.0			9.7			9.5		
59.1	12.3			12.3			11.0			9.7			9.5		
65.6	12.3			12.3			11.0			9.7			9.5		
72.2	12.3	11.9		12.3			11.0			9.7			9.5		
78.7	12.3	11.5		12.3	11.2		11.0	10.4		9.7			9.5		
85.3	12.3	11.0		12.3	10.8		11.0	9.9		9.7	8.4		9.0		
91.9	12.3	10.8	8.6	12.3	10.6		11.0	9.5		9.0	7.9		8.6	7.5	
98.4	12.3	10.4	8.6	12.3	10.4	8.6	10.6	9.0		8.6	7.7		8.2	7.3	
105.0	12.1	10.1	8.4	12.3	10.1	8.4	10.1	8.8	8.4	8.2	7.3	6.8	7.7	6.8	
111.5	11.5	9.9	8.4	12.1	9.7	8.4	9.7	8.4	7.9	7.9	7.1	6.6	7.3	6.6	6.2
118.1	10.8	9.7	8.4	11.5	9.5	8.4	9.3	8.2	7.7	7.5	6.6	6.4	7.1	6.2	6.0
124.7	10.1	9.3	8.2	10.8	9.3	8.4	9.0	7.7	7.5	7.1	6.4	6.2	6.6	6.0	5.7
131.2	9.7	9.0	8.2	10.4	9.0	8.2	8.6	7.5	7.3	6.8	6.2	6.0	6.4	5.7	5.5
137.8	9.0	8.8	8.2	9.7	9.0	8.2	8.2	7.3	7.1	6.6	5.7	5.7	6.0	5.5	5.3
144.4	8.6	8.6		9.3	8.8	8.2	7.7	7.1	7.1	6.2	5.5	5.5	5.7	5.3	5.1
150.9	8.2	8.4		8.4	8.6		7.5	6.8	6.8	6.0	5.3	5.3	5.5	5.1	4.9
157.5	7.7	8.2		7.3	8.4		7.3	6.6		5.7	5.1	5.1	5.3	4.9	4.6
164.0	7.3	8.2		7.1	7.5		6.4	6.4		5.5	4.9		4.6	4.6	4.6
177.2	5.3	6.2		5.5	6.2		5.1	5.7		4.6	4.6		3.7	4.2	4.2
190.3	4.4	4.6		3.7	4.6		4.0	4.4		2.9	4.2			3.5	
203.4	3.7			2.9	3.5		2.6	3.3							



79,366 lbs

ASME

lbs x 1,000

 ft	43.3 ft + 6.2 ft + 68.6 ft			71.9 ft + 6.2 ft + 68.6 ft			100.4 ft + 6.2 ft + 68.6 ft			114.8 ft + 6.2 ft + 68.6 ft			128.9 ft + 6.2 ft + 68.6 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
19.7	12.3														
23.0	12.3			12.3											
26.2	12.3			12.3											
29.5	12.3			12.3			12.3								
32.8	12.3			12.3			12.3			12.3					
36.1	12.3			12.3			12.3			12.3			12.3		
39.4	12.3			12.3			12.3			12.3			12.3		
45.9	12.3			12.3			12.3			12.3			12.3		
52.5	12.3	12.3		12.3	12.3		12.3			12.3			12.3		
59.1	11.7	11.5		12.3	12.3		12.3	12.3		12.3			12.3		
65.6	10.6	10.6		12.3	11.7		12.3	12.3		12.3	12.3		12.3	12.3	
72.2	9.5	9.9	8.6	11.9	10.8		12.3	11.7		12.3	12.1		12.3	11.9	
78.7	8.6	9.3	8.4	11.0	10.4	8.6	12.3	11.0	8.8	12.3	11.5		12.3	11.7	
85.3	7.7	8.6	8.4	9.9	9.7	8.4	12.1	10.6	8.6	12.3	11.0	8.6	12.3	11.2	8.6
91.9	7.1	8.2		9.3	9.3	8.4	11.2	10.1	8.4	12.1	10.6	8.6	12.3	10.8	8.6
98.4	6.6	7.9		8.6	8.8	8.4	10.4	9.7	8.4	11.2	10.1	8.4	12.1	10.4	8.4
105.0	6.0	7.9		7.9	8.6		9.7	9.3	8.4	10.6	9.7	8.4	11.5	9.9	8.4
111.5				7.3	8.2		9.0	9.0	8.4	9.9	9.3	8.4	10.6	9.7	8.4
118.1				6.8	7.9		8.4	8.6	8.4	9.3	9.0	8.4	10.1	9.3	8.4
124.7				6.4	7.9		7.9	8.4		8.6	8.8	8.4	9.5	9.0	8.4
131.2				6.0	7.9		7.5	8.2		8.2	8.4		8.8	8.8	8.4
137.8				5.7			7.1	7.9		7.7	8.2		8.4	8.6	
144.4							6.6	7.9		7.3	8.2		7.9	8.4	
150.9							6.4	7.9		7.1	7.9		7.5	7.7	
157.5							6.0	7.3		6.6	7.1		6.6	7.1	
164.0							5.7			6.2	6.6		5.5	6.4	
177.2										4.6			4.4	5.1	
190.3													3.3		

 ft	143.4 ft + 6.2 ft + 68.6 ft			157.5 ft + 6.2 ft + 68.6 ft			171.9 ft + 6.2 ft + 68.6 ft			186.0 ft + 6.2 ft + 68.6 ft			169.9 ft + 6.2 ft + 68.6 ft		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
39.4	12.3														
45.9	12.3			12.3			11.0								
52.5	12.3			12.3			11.0			9.7			9.5		
59.1	12.3			12.3			11.0			9.7			9.5		
65.6	12.3			12.3			11.0			9.7			9.5		
72.2	12.3	11.9		12.3			11.0			9.7			9.5		
78.7	12.3	11.5		12.3	11.2		11.0	10.4		9.7			9.5		
85.3	12.3	11.0		12.3	10.8		11.0	9.9		9.7	8.4		9.0		
91.9	12.3	10.8	8.6	12.3	10.6		11.0	9.5		9.0	7.9		8.6	7.5	
98.4	12.3	10.4	8.6	12.3	10.4	8.6	10.6	9.0		8.6	7.7		8.2	7.3	
105.0	12.1	10.1	8.4	12.3	10.1	8.4	10.1	8.8	8.4	8.2	7.3	6.8	7.7	6.8	
111.5	11.5	9.9	8.4	12.1	9.7	8.4	9.7	8.4	7.9	7.9	7.1	6.6	7.3	6.6	6.2
118.1	10.8	9.7	8.4	11.2	9.5	8.4	9.3	8.2	7.7	7.5	6.6	6.4	7.1	6.2	6.0
124.7	10.1	9.3	8.2	9.7	9.3	8.4	9.0	7.7	7.5	7.1	6.4	6.2	6.6	6.0	5.7
131.2	9.3	9.0	8.2	8.8	9.0	8.2	8.4	7.5	7.3	6.8	6.2	6.0	6.4	5.7	5.5
137.8	8.4	8.8	8.2	8.2	9.0	8.2	7.1	7.3	7.1	6.6	5.7	5.7	6.0	5.5	5.3
144.4	7.7	8.4		6.8	7.5	8.2	6.4	7.1	7.1	6.0	5.5	5.5	5.7	5.3	5.1
150.9	6.6	7.3		6.2	7.1		6.0	6.6	6.8	4.9	5.3	5.3		5.1	4.9
157.5	6.0	6.8		5.7	6.2		4.9	5.3			5.1	5.1		4.9	4.6
164.0	5.7	5.7		4.9	5.3		4.0	5.1			4.6				4.6
177.2	4.0	4.9		3.1	4.2			3.5							
190.3	2.6	2.9													

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. Slewing ring locking 360°. 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 hydraulically assisted 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, 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 lubrication 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 175 HP (129 kW) at 2200 min⁻¹. Torque 553 ft-lbs/ 750 Nm (76 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: Six sections, made of high tensile, fine-grained steel, consisting of 1 base section and 5 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 196.9 ft/ 60.0 m long. Boom head with 7 sheaves. Jib bracket.

Boom elevation: One double acting hydraulic cylinder with integral lowering brake check 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 rotation 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 1.6 rpm.

Counterweight: Total 110,321 lbs/ 50 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 heater, engine-based 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)

Jib 1.3 ft/ 0.4 m + 3.9 ft/ 1.2 m, 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 11.0 US t/ 10 t to 220.5 US t/ 200 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. Verrouillage du groupe de rotation 360°. 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 multi-fonctions, 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, 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 175 CV (129 kW) à 2200 min⁻¹. Couple: 553 ft-lbs/ 750 Nm (76 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 6 éléments en acier à texture fine et très résistant, se composant de 1 flèche de base et 5 éléments télescopiques, 1 vérin télescopique, hydrauliquement télescopable avec charge partielle. Longueur de 43.3 ft/ 13.2 m à 196.9 ft/ 60.0 m. Tête de flèche avec 7 poules. 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 1,6 min⁻¹ en continu.

Contrepoids: Poids total 110,321 lbs/ 50 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 1.3 ft/ 0.4 m + 3.9 ft/ 1.2 m, 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°), moufles inférieures de 11.0 US t/ 10 t à 220.5 US t/ 200 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:

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

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

3º eje: de dirección, no accionado.

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

5º 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 1º y 2º eje y direccional al 3º y 4º eje hasta una velocidad de 15.5 mph/ 25 km/h y al 5º 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)

Enganche de remolque, calefacción adicional con precalefacción del motor, Sistema anti bloqueo ABS, 525/80 R 25 (20.5 R 25), rueda de repuesto, pintura especial y rotulación. Otros equipamientos sobre pedido.

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 175 CV (129 kW) a 2200 min⁻¹. Par 553 ft-lbs/ 750 Nm (76 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: 6 secciones, un tramo base y 5 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 196.9 ft/ 60.0 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 1,6 min⁻¹.

Contrapeso: Peso total 110,321 lbs/ 50 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 1.3 ft/ 0.4 m + 3.9 ft/ 1.2 m, 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 11.0 US t/ 10 t a 220.5 US t/ 200 t, 2º 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

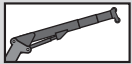
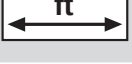
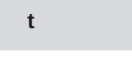
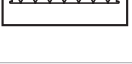
1. The rated lifting capacities conform to ASME B30.5-1.1. Capacities shown are for reference only. Please refer to the original lifting capacity charts for operations.
 2. Depending on the boom length, with the lifting capacity charts, wind speeds up to max. 49 fps/ 15 m/s are admissible. Due to the 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].

	Gross weight · Poids total · Peso total		Hydraulic telescopic and luffing jib HTLJ Fléchette télescopique relevable hydrauliquement HTLJ Plumín hidráulicamente telescópico y regulable HTLJ
	Axle load · Charge à l'essieu · Carga por eje		Dolly · Chariot de transport dolly · Carro tipo dolly
	Drive · Entraînement · Tracción		Swing area · Rayon de rotation · Zona de giro
	Tyres · Pneus · Neumáticos		Hydraulically lockable · Verrouillable hydrauliquement Con embulonamiento hidráulico
	Gradeability · Capacité de gravissement de pente Superación de pendientes		Main winch · Mécanisme de levage Cabrestante principal
	Off road / On road · Tout-terrain / Mode "Route" Todo terreno / En carretera		Auxiliary winch · Treuil supplémentaire Cabrestante auxiliar
	Speed · Vitesse · Velocidad		Hook block / Swivel hook · Moufle / Élingues Gancho / Gancho de bola
	Outriggers · Calage · Estabilizadores		Rated capacity Capacité nominale Capacidad nominal
	Counterweight · Contrepoids · Contrapeso		Lifting capacity · Charge de levage · Carga Portata
	Counterweight element · Élément de contrepoids Parte del contrapeso		Rope sheaves · Poulies de câbles · Poleas de cable
	Length · Longueur · Longitud		Parts of line · Brins de câble · Ramales de cable
	Boom elevation · Mécanisme de relevage Elevación de pluma		Dead-weight · Poids total · Tara
	Boom telescoping · Télescopage de flèche Telescopaje de pluma		Wire rope length · Longueur du câble de levage Longitud del cable
	Telescopic boom · Flèche télescopique Pluma telescópica		Wire rope diameter · Diamètre du câble de levage Diámetro del cable de elevación
	Radius · Portée · Radio		Maximum wire rope pulling force Force de traction maxi. du câble de levage Fuerza de tracción máxima del cable de elevación
	Tilttable jib · Fléchette inclinable · Plumín regulable		Weight · Poids · Peso
	Hydraulically tilttable jib Fléchette inclinable hydrauliquement Plumín regulable hidráulicamente		= short tons · tonnes américaines · toneladas cortas = metric tons · tonnes métriques · toneladas métricas
	Fly jib section · Élément de fléchette · Plumín		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



TADANO AMERICA Corporation

4242 West Greens Road, Houston, TX 77066

Phone: 281-869-0030 Fax: 281-869-0040

www.tadanoamerica.com E-mail: tac.sales@tadano.com

Parts Hotline: 281-869-0033 Service Hotline: 281-869-5925