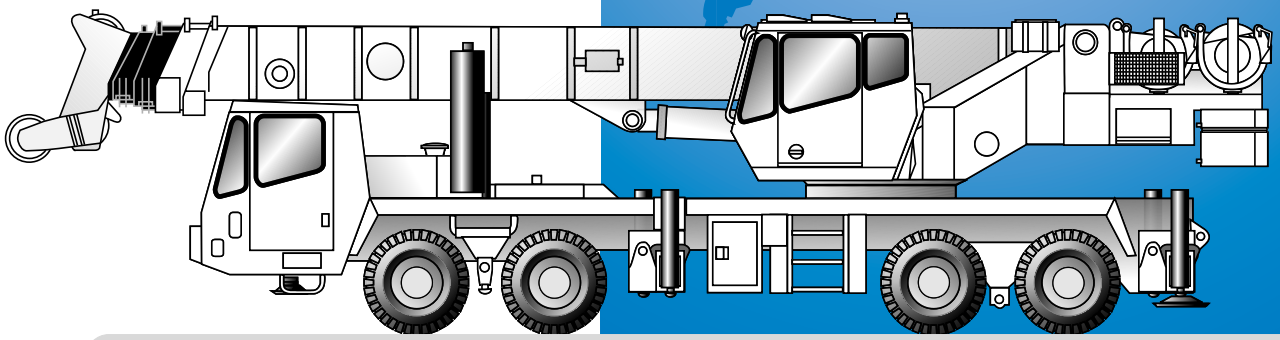
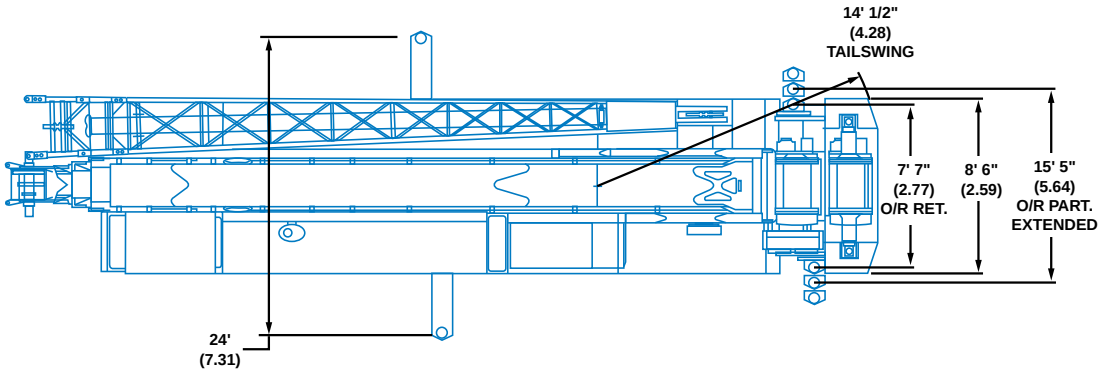
GROVE®
CRANE
A GROVE WORLDWIDE COMPANY

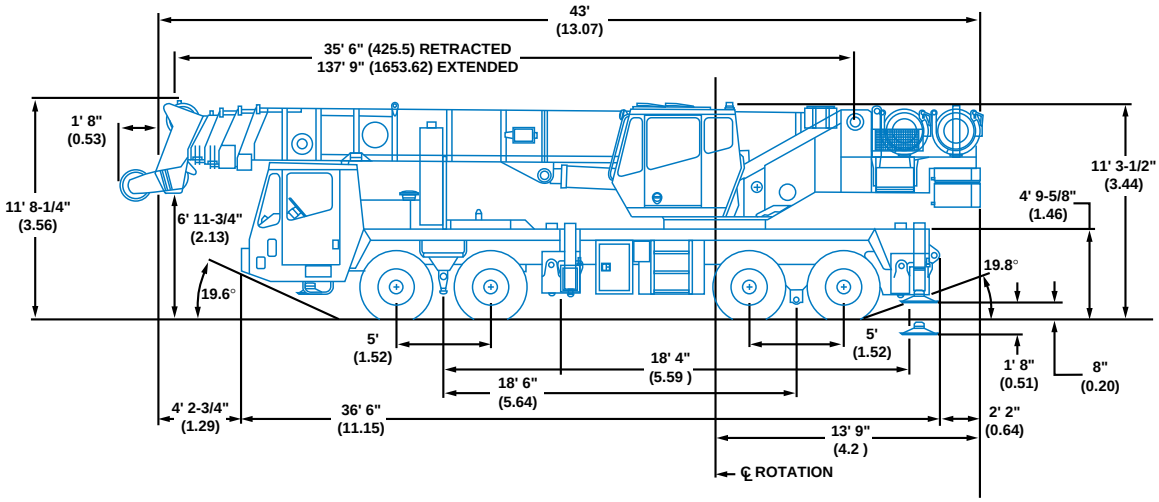
TMS870
TTS870



Truck Mounted Hydraulic Cranes

Dimensions





Turning Radius: TMS870 - 45' 1" (13.7 m)
TTS870 - 29' 8" (9.04 m) (8 wheel)

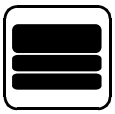
Curb Clearance: TMS870 45' 9-9/16" (13.9 m)
TTS870 29' 8" (9.04 m)

Note: ( ) Reference in meters.

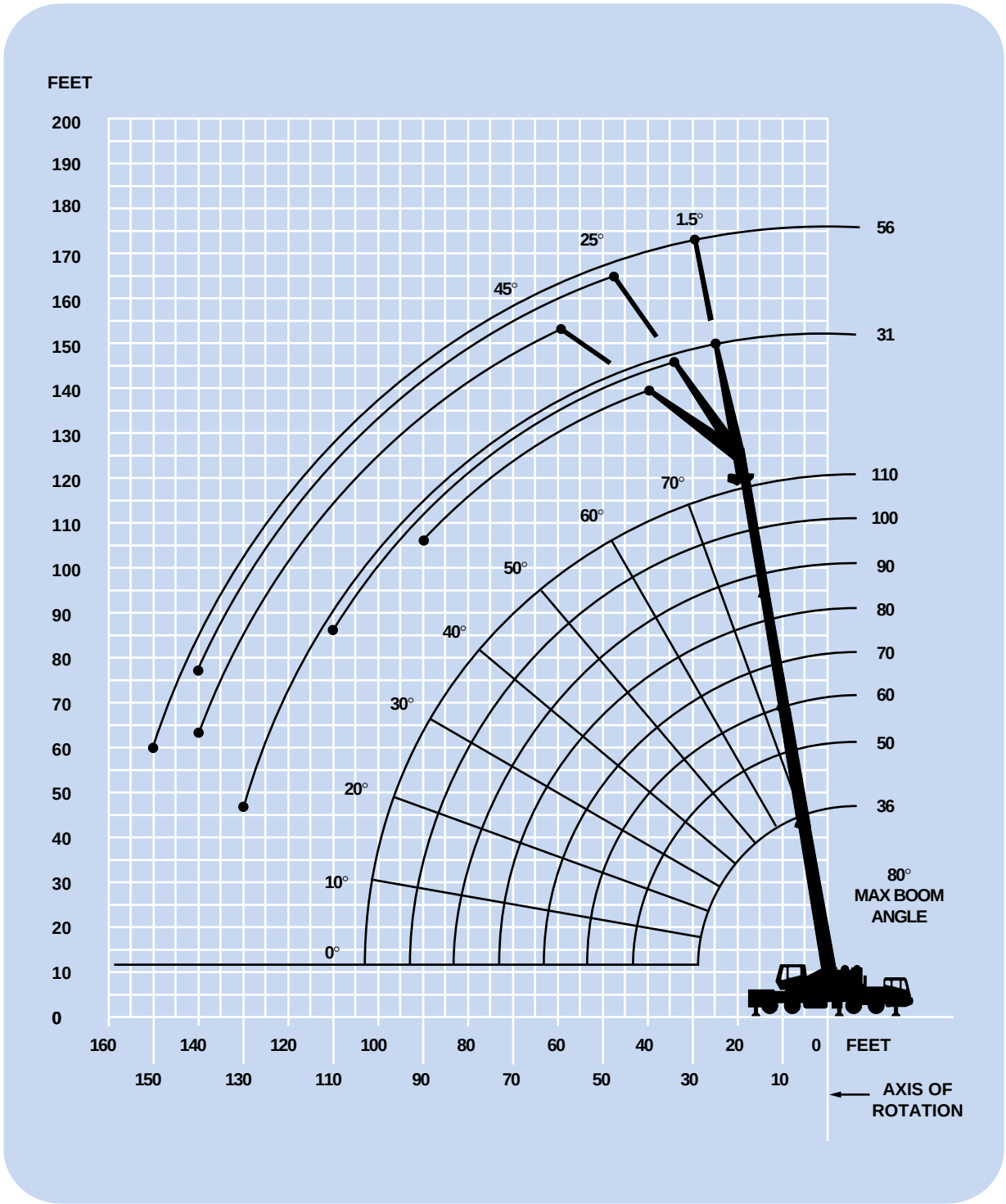
Working Range

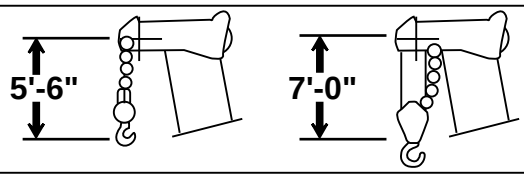

36 - 110 ft.
(10.9 - 33.5 m)


31 - 56 ft.
(9.4 - 17 m)


8,500 lbs.
(3856 kg)


360°





DIMENSIONS ARE FOR LARGEST GROVE FURNISHED HOOK BLOCK AND HEADACHEBALL, WITH ANTI-TWO BLOCK ACTIVATED.

Superstructure specifications

Boom (Standard)
36 ft. - 110 ft. (10.9 m - 33.5 m) four section full power boom. Equipped with remote greasing lines for upper wear pad area.
Maximum Tip Height: 118 ft. (35.9 m).

Folding Lattice Extension - 110 ft. (33.5 m) Boom
31 ft. or 56 ft. (9.4 m or 17 m) folding lattice swingaway extension offsettable at 1.5°, 25° or 45°. Stows alongside base boom section.
Maximum Tip Height: 172 ft. (52.4 m).

*Optional Lattice Extension - 110 ft. (33.5 m) Boom
31 ft. (9.4 m) lattice swingaway extension, offsettable at 1.5°, 25° or 45°. Stows alongside base boom section.
Maximum Tip Height: 149 ft. (45.4 m).

*Boom (Optional)
35 ft. - 138 ft. (10.8 m - 42 m) five section full power boom. Equipped with remote greasing lines for upper wear pad area.
Maximum Tip Height: 147 ft. (44.8 m).

*Folding Lattice Extension - 138 ft. (42 m) Boom
31 ft. or 56 ft. (9.4 m or 17 m) folding lattice swingaway extension offsettable at 1.5°, 25° or 45°. Stows alongside the boom base section.
Maximum Tip Height: 202 ft. (61.5 m).

*Optional Lattice Extension - 138 ft. (42 m) Boom
31 ft. (9.4 m) lattice swingaway extension offsettable at 1.5°, 25° or 45°. Stows alongside boom base section.
Maximum Tip Height: 177 ft. (10.8 m).

Boom Nose
Five nylatron, permanently lubricated sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Quick reeving type boom nose. Removable auxiliary boom nose with removable pin type rope guard.

Boom Elevation
One double acting hydraulic cylinder with integral holding valve provides elevation from -3° to 80°.

Load Moment & Anti-Two Block System
Standard load moment and anti-two block system with audio-visual warning and control lever lockout. These systems provide electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load and load indication and warning of impending two-block condition.

Cab
High visibility, all steel cab with acoustical lining and tinted safety glass throughout. Deluxe seat with armrest mounted hydraulic single axis controls. Dash panel incorporates gauges for all engine functions. Other standard features include: sliding side and rear windows, hot water heat, electric windshield wash/wipe, circulating air fan, sliding skylight with sunscreen and electric skylight wiper, fire extinguisher, cup holder.

Swing
Planetary swing with foot applied multi-disc wet brake. Spring applied, hydraulically released parking brake and plunger type, mechanical house lock operated from cab.
Maximum speed: 2.0 RPM.

Counterweight
8,500 lbs. (3856 kg) total consisting of (1) 5,500 lbs. (2495 kg) section and (1) 3,000 lbs. (1361 kg) section. Hydraulic installation/removal. Optional 9,500 lbs. (4309 kg) to be used in conjunction with standard counterweight to provide 12,500 lbs. (5670 kg) or 18,000 lbs. (8165 kg) total counterweight.

Hydraulic System
Four main gear pumps with a combined capacity of 160 GPM (730.5 lpm).

Three individual valve banks.

Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with beta rating of 5/12/16.

170 gallons (643 L) reservoir.

Remote mounted oil cooler with thermostatically controlled hydraulic motor driven fan.

Hoist specifications Main and Auxiliary Hoists - Model HO3OG-26G
Planetary reduction with integral automatic brake, electronic hoist drum rotation indicator, and hoist drum cable follower. Grooved drum.

Maximum Permissible Line Pull:	12,920 lbs. (5860 kg)
Rope Diameter:	3/4 in. (19 mm)
Rope Length:	620 ft. (189 m)
Maximum Rope Stowage:	1,163 ft. (354 m)

		High Range	Low Range
Maximum single line speed	Layer 1	372 fpm 113m/m	191 fpm 58 m/m
	Layer 2	405 fpm 123 m/m	208 fpm 63 m/m
	Layer 3	438 fpm 134 m/m	225 fpm 69 m/m
	Layer 4	471 fpm 144 m/m	242 fpm 74 m/m
	Layer 5	504 fpm 154 m/m	258 fpm 79 m/m
Maximum single line pull	Layer 1	8,933 lbs. (4051 kg)	17,866 lbs. (8103 kg)
	Layer 2	8,210 lbs. (3723 kg)	16,421 lbs. (7447 kg)
	Layer 3	7,596 lbs. (3449 kg)	15,192 lbs. (6890 kg)
	Layer 4	7,067 lbs. (3205 kg)	14,135 lbs. (6410 kg)
	Layer 5	6,607 lbs. (2996 kg)	13,215 lbs. (5993 kg)

**Denotes optional equipment*

TMS/TTS carrier specifications

TMS/TTS Chassis
Triple box section, four-axle carrier fabricated from high-strength, low alloy steel with towing and tie-down lugs.

TMS/TTS Outrigger System
Four hydraulic telescoping, two-stage, double box beam outriggers with inverted jack and integral holding valves. Quick release type outrigger floats 24 in. (610 mm) diameter. Three position setting with fully extended, intermediate (50%) extended and fully retracted capacities.

TMS/TTS Outrigger Controls
Located in the superstructure cab on left side (umbilical design) and on either side of carrier with lighted box. Require two hand operation. Crane level indicator (sight bubble) on right side console.

TMS Engine
Cummins MII 400E diesel, six cylinders, turbo-charged and after cooled, 661 cu. in. (10.8 L), 400 bhp (298 kW) (gross) @ 1800 RPM. Maximum torque: 1,350 ft. lbs. (1830 Nm) @ 1500 RPM. Equipped with engine brake and audio-visual engine distress system.

TTS Engine
Cummins MII 400E Plus diesel, six cylinders, turbo-charged and after cooled, 661 cu. in. (10.8 L), 400 bhp (298 kW) (gross) @ 1800 RPM. Maximum torque 1,450 ft. lbs. (1966 Nm) @ 1200 RPM. Equipped with engine brake and audio-visual engine distress system.

*Optional TMS/TTS Engine
Caterpillar C-12 diesel, six-cylinders, turbo-charged and air-to-air aftercooled, 732 cu. in. (12.0 L), 405 bhp (302 kW) (gross) @ 1800 RPM. Maximum torque: 1,450 ft. lbs. (1966 Nm) @ 1200 RPM. Equipped with engine brake and audio-visual engine distress system.

TMS/TTS Fuel Tank Capacity
(1) 100 gallons (376 L)

TMS Transmission
Roadranger 10 speeds forward, 3 reverse.

TTS Transmission
Roadranger 13 speeds forward, 2 reverse.

TMS Drive
8 x 4 x 4.

TTS Drive
8 x 4 x 8.

TMS Steering
Front axle, single circuit, mechanical steering with hydraulic power assist.

TTS Steering
Front axle, single circuit, mechanical steering with hydraulic power assist. Rear steering controls located in the carrier cab.

TMS Axles
Front: (2) Eaton beam-type steering axles, 84 in. (2.13 m) track.
Rear: (2) Eaton single reduction drive axles, 74.46 in. (1.89 m) track. Inter-axle differential locks.

TTS Axles
Front: (2) Eaton beam-type steering axles, 84 in. (2.13 m) track.
Rear: (2) Kessler single reduction drive axles, 83.38 in. (2.11 m) track. Inter-axle differential locks.

TMS Brakes
S-cam, dual air split system operating on all wheels. Spring-applied, air released parking brake acting on rear axles. Air dryer.

TTS Brakes
Dual air, split-system operating on all wheels. S-cam brakes on the front and wedge brakes on the rear. Spring-applied, air released parking brake acting on rear axles. Air dryer.

TMS/TTS Suspension
Front: Spring mounted tandem
Rear: Solid mounted tandem with equalizing beam and solid steel saddles.

TMS Tires
Front: 445/65R 22.5 Goodyear G286, tubeless, mounted on aluminum disc wheels.
Rear: 315/80R 22.5 Goodyear G286, tubeless, mounted on aluminum disc wheels.

TTS Tires
Front/Rear: 445/65R 22.5 Goodyear G286, tubeless, mounted on aluminum disc wheels.

TMS *Optional Tires
Front: 445/65R 22.5 Bridgestone M844F, tubeless.
445/65R 22.5 Michelin XZY (WB), tubeless.
Rear: 315/80R 22.5 Bridgestone M843, tubeless.
315/80R 22.5 Michelin XZY-1 tubeless.

TTS *Optional Tires
Front/Rear: 445/65R 22.5 Bridgestone M844F, tubeless.
445/65R 22.5 Michelin XZY (WB), tubeless.

TMS/TTS Lights
Full lighting package including turn indicators, head, tail, brake, and hazard warning lights.

TMS/TTS Cab
One man design, all steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe fabric covered, fully adjustable air ride seat. Complete driving controls and engine instrumentation including tilt telescope steering wheel, tachometer, speedometer, voltmeter, water temp., oil pressure, fuel level, air pressure gauge with A/V warning and engine high temp./low oil pressure A/V warning. Other standard items include hot water heater/defroster, electric windshield wash/wipe, fire extinguisher, seat belt, door lock and electric window.

TMS/TTS Electrical System
Two 12 V - maintenance free batteries. 12 V carrier driving lights, remaining systems 24 V. Battery disconnect standard equipment.

TMS/TTS Maximum Speed
55 MPH (88 kph)

TMS/TTS Gradeability (Theoretical)
71%

TMS Gross Vehicle Weight
BASIC STANDARD MACHINE.
91,090 lbs. (41 318 kg), minus block and ball.

TTS Gross Vehicle Weight
BASIC STANDARD MACHINE.
91,606 lbs. (41 552 kg), minus block and ball.

TMS/TTS Miscellaneous Standard Equipment
Aluminum fenders with rear storage compartments (TMS only); dual rear view mirrors; electronic back-up alarm; sling/tool box; pump disconnect; tire inflation kit; air cleaner restriction indicator; block and ball stowage; and chrome package which includes aluminum wheels.

TMS/TTS Optional Equipment
* 360° rotating beacon
* Cab spotlight
* Engine block heater
* Hookblocks
* Tool kit
* Trailing boom package
* Aluminum outrigger pads

**Denotes optional equipment*

Weight Reductions for Load Handling Devices

4 Section Boom
31 ft. - 56 ft. (9.4 m - 17 m) Folding Boom Extension

*31 ft. (9.4 m) extension (erected)	4,048 lbs.	(1836 kg)
*56 ft. (17 m) extension (erected)	8,963 lbs.	(4066 kg)

*Reduction of main boom capacities:

When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Grove furnished equipment.

Auxiliary Boom Nose	116 lbs.	(53 kg)
+ 70 ton, 6 sheave hookblock w/o cheekplates	1,674 lbs.	(759 kg)
+ 70 ton, 6 sheave hookblock w/cheekplates	2,010 lbs.	(912 kg)
+ 45 ton, 3 sheave hookblock w/o cheekplates	876 lbs.	(397 kg)
+ 45 ton, 3 sheave hookblock w/cheekplates	1,066 lbs.	(484 kg)
+ 15 ton, 1 sheave hookblock	380 lbs.	(173 kg)
+ 10 ton headache ball	560 lbs.	(254 kg)

+ Refer to rating plate for actual weight.


36 - 110 ft.
(10.9 - 33.5 m)


18,000 lbs.
(8165 kg)


100%


360°


85% Domestic (Pounds)

(Feet)	36	50	*60	70	80	90	100	110
10	+140,000 (68)	109,500 (75)	84,200 (78)	**56,450 (80)				
12	110,500 (64)	104,500 (72.5)	79,850 (76)	56,450 (78.5)				
15	96,800 (58.5)	91,400 (69)	73,900 (73)	56,450 (76)	56,500 (78.5)	**47,850 (80)		
20	78,750 (47)	75,300 (62)	59,600 (67.5)	56,450 (71.5)	50,950 (74.5)	41,000 (77)	40,350 (79)	**27,350 (80)
25	59,800 (32.5)	59,750 (55)	50,000 (62.5)	48,900 (67)	43,800 (71)	35,250 (73.5)	34,750 (76)	27,350 (78.5)
30		47,300 (47)	42,300 (56.5)	41,900 (62.5)	38,300 (67)	31,050 (70.5)	30,450 (73)	27,350 (75.5)
35		38,550 (37.5)	36,950 (50)	36,400 (57.5)	33,900 (63)	27,650 (67)	27,000 (70)	25,300 (72.5)
40		28,450 (24.5)	28,450 (43)	29,700 (52)	30,300 (58.5)	24,350 (63)	24,250 (67)	22,900 (70)
45			23,400 (34.5)	24,650 (46.5)	25,550 (54)	22,050 (59.5)	21,900 (63.5)	20,850 (67)
50			19,450 (23)	20,700 (39.5)	21,600 (49)	20,050 (55.5)	19,950 (60)	19,100 (64)
55				17,500 (32)	18,450 (43.5)	18,350 (51)	18,300 (56.5)	17,550 (61)
60				14,900 (21)	15,850 (37.5)	16,550 (46.5)	16,850 (53)	16,200 (57.5)
65					13,650 (30)	14,350 (41.5)	14,900 (49)	15,050 (54.5)
70					11,650 (20)	12,500 (35.5)	13,050 (44.5)	13,500 (50.5)
75						10,900 (29)	11,450 (39.5)	11,900 (47)
80						9,480 (19)	10,000 (34.5)	10,500 (43)
85							8,790 (28)	9,260 (38.5)
90							7,690 (18.5)	8,150 (33)
95								7,170 (27)
100								6,280 (18.5)
Minimum boom angle (deg.) for indicated length (no load)								0
Maximum boom length (ft.) at 0 degree boom angle (no load)								110

NOTE: ( ) Boom angles are in degrees.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

**This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	36	50	*60	70	80	90	100	110
0	27,600 (28.3)	16,200 (42.8)	11,350 (53.1)	9,150 (62.8)	7,410 (72.8)	6,040 (82.8)	4,950 (92.8)	4,060 (102.8)

NOTE: ( ) Reference radii are in feet.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-015107

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.


36 - 110 ft.
(10.9 - 33.5 m)


12,500 lbs.
(5670 kg)


100%


360°


85% Domestic (Pounds)

(Feet)	36	50	*60	70	80	90	100	110
10	+140,000 (68)	109,500 (75)	84,200 (78)	**56,450 (80)				
12	110,500 (64)	104,500 (72.5)	79,850 (76)	56,450 (78.5)				
15	96,800 (58.5)	91,400 (69)	73,900 (73)	56,450 (76)	56,500 (78.5)	**47,850 (80)		
20	72,000 (47)	71,850 (62)	59,600 (67.5)	56,450 (71.5)	50,950 (74.5)	41,000 (77)	40,350 (79)	**27,350 (80)
25	54,450 (32.5)	54,350 (55)	50,000 (62.5)	48,900 (67)	43,800 (71)	35,250 (73.5)	34,750 (76)	27,350 (78.5)
30		42,900 (47)	42,300 (56.5)	41,900 (62.5)	38,300 (67)	31,050 (70.5)	30,450 (73)	27,350 (75.5)
35		34,750 (37.5)	34,750 (50)	35,850 (57.5)	33,900 (63)	27,650 (67)	27,000 (70)	25,300 (72.5)
40		27,050 (24.5)	27,750 (43)	28,600 (52)	29,600 (58.5)	24,350 (63)	24,250 (67)	22,900 (70)
45			22,150 (34.5)	23,000 (46.5)	23,950 (54)	22,050 (59.5)	21,900 (63.5)	20,850 (67)
50			17,900 (23)	18,850 (39.5)	19,750 (49)	20,050 (55.5)	19,950 (60)	19,100 (64)
55				15,600 (32)	16,500 (43.5)	17,400 (51)	17,850 (56.5)	17,550 (61)
60				12,900 (21)	13,850 (37.5)	14,800 (46.5)	15,250 (53)	15,700 (57.5)
65					11,700 (30)	12,650 (41.5)	13,100 (49)	13,550 (54.5)
70					9,890 (20)	10,850 (35.5)	11,300 (44.5)	11,800 (50.5)
75						9,320 (29)	9,820 (39.5)	10,250 (47)
80						7,980 (19)	8,520 (34.5)	8,980 (43)
85							7,370 (28)	7,860 (38.5)
90							6,360 (18.5)	6,880 (33)
95								6,020 (27)
100								5,230 (18.5)
Minimum boom angle (deg.) for indicated length (no load)								0
Maximum boom length (ft.) at 0 degree boom angle (no load)								110

NOTE: ( ) Boom angles are in degrees.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

**This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	36	50	*60	70	80	90	100	110
0	27,600 (28.3)	16,200 (42.8)	11,350 (53.1)	9,150 (62.8)	7,410 (72.8)	6,040 (82.8)	4,950 (92.8)	4,060 (102.8)

NOTE: ( ) Reference radii are in feet.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-015108

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

36 -110 ft.
(10.9-33.5 m)

8,500 lbs.
(3855 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	36	50	*60	70	80	90	100	110
10	+140,000 (68)	109,500 (75)	84,200 (78)	**56,450 (80)				
12	110,500 (64)	104,500 (72.5)	79,850 (76)	56,450 (78.5)				
15	96,800 (58.5)	91,400 (69)	73,900 (73)	56,450 (76)	56,500 (78.5)	**47,850 (80)		
20	72,000 (47)	71,850 (62)	59,600 (67.5)	56,450 (71.5)	50,950 (74.5)	41,000 (77)	40,350 (79)	**27,350 (80)
25	54,450 (32.5)	54,350 (55)	50,000 (62.5)	48,900 (67)	43,800 (71)	35,250 (73.5)	34,750 (76)	27,350 (78.5)
30		42,900 (47)	42,300 (56.5)	41,900 (62.5)	38,300 (67)	31,050 (70.5)	30,450 (73)	27,350 (75.5)
35		32,300 (37.5)	32,600 (50)	33,900 (57.5)	33,900 (63)	27,650 (67)	27,000 (70)	25,300 (72.5)
40		24,300 (24.5)	25,450 (43)	26,500 (52)	27,450 (58.5)	24,350 (63)	24,250 (67)	22,900 (70)
45			20,350 (34.5)	21,200 (46.5)	22,150 (54)	22,050 (59.5)	21,900 (63.5)	20,850 (67)
50			16,300 (23)	17,250 (39.5)	18,150 (49)	19,100 (55.5)	19,450 (60)	19,100 (64)
55				14,150 (32)	15,050 (43.5)	15,950 (51)	16,300 (56.5)	16,700 (61)
60				11,600 (21)	12,600 (37.5)	13,400 (46.5)	13,800 (53)	14,150 (57.5)
65					10,550 (30)	11,400 (41.5)	11,750 (49)	12,150 (54.5)
70					8,830 (20)	9,720 (35.5)	10,050 (44.5)	10,450 (50.5)
75						8,300 (29)	8,670 (39.5)	9,060 (47)
80						7,070 (19)	7,460 (34.5)	7,850 (43)
85							6,420 (28)	6,810 (38.5)
90							5,510 (18.5)	5,900 (33)
95								5,100 (27)
100								4,390 (18.5)
Minimum boom angle (deg.) for indicated length (no load)								0
Maximum boom length (ft.) at 0 degree boom angle (no load)								110

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

**This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	36	50	*60	70	80	90	100	110
0	27,600 (28.3)	16,200 (42.8)	11,350 (53.1)	9,150 (62.8)	7,410 (72.8)	6,040 (82.8)	4,950 (92.8)	4,010 (102.8)

NOTE: ( ) Reference radii are in feet.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-013911D

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.


36 -110 ft.
(10.9-33.5 m)


5,500 lbs.
(2495 kg)


100%


360°


85% Domestic (Pounds)

(Feet)	36	50	*60	70	80	90	100	110
10	+140,000 (68)	109,500 (75)	84,200 (78)	**56,450 (80)				
12	110,500 (64)	104,500 (72.5)	79,850 (76)	56,450 (78.5)				
15	96,800 (58.5)	91,400 (69)	73,900 (73)	56,450 (76)	56,500 (78.5)	**47,850 (80)		
20	69,900 (47)	69,750 (62)	59,600 (67.5)	56,450 (71.5)	50,950 (74.5)	41,000 (77)	40,350 (79)	**27,350 (80)
25	52,750 (32.5)	52,650 (55)	50,000 (62.5)	48,900 (67)	43,800 (71)	35,250 (73.5)	34,750 (76)	27,350 (78.5)
30		40,300 (47)	40,100 (56.5)	41,100 (62.5)	38,300 (67)	31,050 (70.5)	30,450 (73)	27,350 (78.5)
35		29,350 (37.5)	29,550 (50)	30,600 (57.5)	31,700 (63)	27,650 (67)	27,000 (70)	25,300 (72.5)
40		21,850 (24.5)	22,500 (43)	23,600 (52)	24,750 (58.5)	24,350 (63)	24,250 (67)	22,900 (70)
45			17,500 (34.5)	18,600 (46.5)	19,800 (54)	21,000 (59.5)	21,500 (63.5)	20,850 (67)
50			13,700 (23)	14,850 (39.5)	16,100 (49)	17,100 (55.5)	17,650 (60)	18,150 (64)
55				11,950 (32)	13,200 (43.5)	14,100 (51)	14,650 (56.5)	15,150 (61)
60				9,590 (21)	10,900 (37.5)	11,750 (46.5)	12,250 (53)	12,800 (57.5)
65					9,010 (30)	9,870 (41.5)	10,350 (49)	10,900 (54.5)
70					7,380 (20)	8,290 (35.5)	8,790 (44.5)	9,300 (50.5)
75						6,960 (29)	7,450 (39.5)	7,960 (47)
80						5,820 (19)	6,310 (34.5)	6,820 (43)
85							5,330 (28)	5,830 (38.5)
90							4,470 (18.5)	4,970 (33)
95								4,220 (27)
100								3,540 (18.5)
Minimum boom angle (deg.) for indicated length (no load)								0
Maximum boom length (ft.) at 0 degree boom angle (no load)								110

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

**This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	36	50	*60	70	80	90	100	110
0	27,600 (28.3)	16,200 (42.8)	11,350 (53.1)	8,430 (62.8)	6,570 (72.8)	5,220 (82.8)	4,010 (92.8)	3,180 (102.8)

NOTE: ( ) Reference radii are in feet.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-013912D

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

36 -110 ft.
(10.9-33.5 m)

3,000 lbs.
(1361 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	36	50	*60	70	80	90	100	110
10	+140,000 (68)	109,500 (75)	84,200 (78)	**56,450 (80)				
12	110,500 (64)	104,500 (72.5)	79,850 (76)	56,450 (78.5)				
15	96,750 (58.5)	91,400 (69)	73,900 (73)	56,450 (76)	56,500 (78.5)	**47,850 (80)		
20	68,100 (47)	67,950 (62)	59,600 (67.5)	56,450 (71.5)	50,950 (74.5)	41,000 (77)	40,350 (79)	**27,350 (80)
25	51,300 (32.5)	51,250 (55)	50,000 (62.5)	48,900 (67)	43,800 (71)	35,250 (73.5)	34,750 (76)	27,350 (78.5)
30		37,950 (47)	36,750 (56.5)	37,700 (62.5)	38,300 (67)	31,050 (70.5)	30,450 (73)	27,350 (75.5)
35		27,150 (37.5)	26,950 (50)	28,000 (57.5)	29,100 (63)	27,650 (67)	27,000 (70)	25,300 (72.5)
40		20,100 (24.5)	20,500 (43)	21,450 (52)	22,500 (58.5)	23,600 (63)	24,200 (67)	22,900 (70)
45			16,050 (34.5)	16,900 (46.5)	17,900 (54)	18,950 (59.5)	19,450 (63.5)	19,950 (67)
50			12,750 (23)	13,600 (39.5)	14,500 (49)	15,500 (55.5)	15,900 (60)	16,350 (64)
55				11,000 (32)	11,900 (43.5)	12,850 (51)	13,250 (56.5)	13,600 (61)
60				9,000 (21)	9,880 (37.5)	10,750 (46.5)	11,100 (53)	11,450 (57.5)
65					8,210 (30)	9,090 (41.5)	9,390 (49)	9,700 (54.5)
70					6,830 (20)	7,690 (35.5)	7,960 (44.5)	8,240 (50.5)
75						6,510 (29)	6,750 (39.5)	7,010 (47)
80						5,510 (19)	5,730 (34.5)	5,960 (43)
85							4,840 (28)	5,060 (38.5)
90							4,070 (18.5)	4,270 (33)
95								3,580 (27)
100								2,960 (18.5)
Minimum boom angle (deg.) for indicated length (no load)								0
Maximum boom length (ft.) at 0 degree boom angle (no load)								110

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

**This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	36	50	*60	70	80	90	100	110
0	27,600 (28.3)	16,200 (42.8)	11,000 (53.1)	7,990 (62.8)	6,110 (72.8)	4,970 (82.8)	3,650 (92.8)	2,630 (102.8)

NOTE: ( ) Reference radii are in feet.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-013948D

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

36 -110 ft.
(10.9-33.5 m)

0 lbs.
(0 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	36	50	*60	70	80	90	100	110
10	+140,000 (68)	109,500 (75)	84,200 (78)	**56,450 (80)				
12	110,500 (64)	104,500 (72.5)	79,850 (76)	56,450 (78.5)				
15	93,850 (58.5)	91,400 (69)	73,900 (73)	56,450 (76)	56,500 (78.5)	**47,850 (80)		
20	65,950 (47)	65,800 (62)	59,600 (67.5)	56,450 (71.5)	50,950 (74.5)	41,000 (77)	40,350 (79)	**27,350 (80)
25	49,650 (32.5)	49,550 (55)	49,300 (62.5)	48,900 (67)	43,800 (71)	35,250 (73.5)	34,750 (76)	27,350 (78.5)
30		34,800 (47)	33,900 (56.5)	35,350 (62.5)	36,500 (67)	31,050 (70.5)	30,450 (73)	27,350 (75.5)
35		24,500 (37.5)	25,200 (50)	26,200 (57.5)	27,200 (63)	27,650 (67)	27,000 (70)	25,300 (72.5)
40		17,900 (24.5)	19,050 (43)	19,950 (52)	21,000 (58.5)	21,950 (63)	22,350 (67)	22,750 (70)
45			14,550 (34.5)	15,500 (46.5)	16,550 (54)	17,400 (59.5)	17,800 (63.5)	18,200 (67)
50			11,100 (23)	12,150 (39.5)	13,250 (49)	14,050 (55.5)	14,450 (60)	14,850 (64)
55				9,590 (32)	10,650 (43.5)	11,500 (51)	11,900 (56.5)	12,300 (61)
60				7,430 (21)	8,640 (37.5)	9,510 (46.5)	9,880 (53)	10,250 (57.5)
65					6,940 (30)	7,870 (41.5)	8,230 (49)	8,620 (54.5)
70					5,490 (20)	6,510 (35.5)	6,870 (44.5)	7,250 (50.5)
75						5,370 (29)	5,730 (39.5)	6,100 (47)
80						4,400 (19)	4,750 (34.5)	5,120 (43)
85							3,910 (28)	4,270 (38.5)
90							3,170 (18.5)	3,530 (33)
95								2,890 (27)
100								2,310 (18.5)
Minimum boom angle (deg.) for indicated length (no load)								0
Maximum boom length (ft.) at 0 degree boom angle (no load)								110

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

**This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	36	50	*60	70	80	90	100	110
0	27,600 (28.3)	15,000 (42.8)	9,290 (53.1)	6,380 (62.8)	4,760 (72.8)	3,880 (82.8)	2,770 (92.8)	1,990 (102.8)

NOTE: ( ) Reference radii are in feet.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-013913D

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.


36 -110 ft.
(10.9-33.5 m)


8,500 lbs.
(3855 kg)


50%


360°

SAEJ1289 APR81 Domestic (Pounds)

(Feet)	36	50	**60	70	80	90	100	110
10	92,500 (68)	92,250 (75)	84,200 (78)	*56,450 (80)				
12	81,100 (64)	80,850 (72.5)	79,850 (76)	56,450 (78.5)				
15	67,850 (58.5)	67,650 (69)	67,500 (73)	56,450 (76)	56,500 (78.5)	*47,850 (80)		
20	47,850 (47)	46,450 (62)	43,750 (67.5)	43,300 (71.5)	42,600 (74.5)	41,000 (77)	40,350 (79)	*27,350 (80)
25	30,600 (32.5)	30,400 (55)	30,300 (62.5)	30,800 (67)	30,800 (71)	30,550 (73.5)	30,200 (76)	27,350 (78.5)
30		20,900 (47)	20,700 (56.5)	21,400 (62.5)	22,200 (67)	23,000 (70.5)	23,300 (73)	23,150 (75.5)
35		14,800 (37.5)	14,600 (50)	15,450 (57.5)	16,350 (63)	17,250 (67)	17,800 (70)	18,350 (72.5)
40		10,500 (24.5)	10,400 (43)	11,350 (52)	12,350 (58.5)	13,350 (63)	13,800 (67)	14,300 (70)
45			7,250 (34.5)	8,350 (46.5)	9,400 (54)	10,450 (59.5)	10,900 (63.5)	11,350 (67)
50			4,810 (23)	6,010 (39.5)	7,150 (49)	8,270 (55.5)	8,670 (60)	9,090 (64)
55				4,120 (32)	5,380 (43.5)	6,530 (51)	6,920 (56.5)	7,310 (61)
60				2,590 (21)	3,880 (37.5)	5,130 (46.5)	5,500 (53)	5,870 (57.5)
65					2,640 (30)	3,940 (41.5)	4,320 (49)	4,680 (54.5)
70					1,600 (20)	2,920 (35.5)	3,330 (44.5)	3,690 (50.5)
75						2,050 (29)	2,450 (39.5)	2,840 (47)
80						1,310 (19)	1,700 (34.5)	2,080 (43)
85							1,040 (28)	1,420 (38.5)
Minimum boom angle (deg.) for indicated length (no load)						18	27	37
Maximum boom length (ft.) at 0 degree boom angle (no load)								80

*This capacity is based upon maximum obtainable boom angle.

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

Boom Angle	36	50	**60	70	80
0	23,450 (28.3)	8,610 (42.8)	3,530 (53.1)	1,850 (62.8)	1,090 (72.8)

NOTE: ( ) Reference radii are in feet.

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-014188A

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.


36 -110 ft.
(10.9-33.5 m)


8,500 lbs.
(3855 kg)


0%


360°

SAEJ1289 APR81 Domestic (Pounds)

(Feet)	36	50	**60	70	80	90	100	110
10	56,750 (68)	49,700 (75)	45,750 (78)	*44,250 (80)				
12	44,150 (64)	39,100 (72.5)	36,250 (76)	35,550 (78.5)				
15	31,850 (58.5)	28,800 (69)	26,800 (73)	26,700 (76)	26,350 (78.5)	*25,900 (80)		
20	19,150 (47)	18,500 (62)	17,350 (67.5)	17,700 (71.5)	17,850 (74.5)	17,800 (77)	17,650 (79)	*17,450 (80)
25	11,750 (32.5)	11,600 (55)	11,400 (62.5)	12,250 (67)	12,600 (71)	12,750 (73.5)	12,800 (76)	12,800 (78.5)
30		7,060 (47)	7,000 (56.5)	7,870 (62.5)	8,750 (67)	9,330 (70.5)	9,490 (73)	9,570 (75.5)
35		3,950 (37.5)	3,890 (50)	4,850 (57.5)	5,710 (63)	6,580 (67)	6,940 (70)	7,200 (72.5)
40		1,690 (24.5)	1,650 (43)	2,570 (52)	3,510 (58.5)	4,360 (63)	4,780 (67)	5,210 (70)
45					1,770 (54)	2,680 (59.5)	3,140 (63.5)	3,620 (67)
50						1,300 (55.5)	1,860 (60)	2,370 (64)
55								1,360 (61)
Minimum boom angle (deg.) for indicated length (no load)	23	38		47	51	54	57	59
Maximum boom length (ft.) at 0 deg. boom angle (no load)					36			

*This capacity is based upon maximum obtainable boom angle.

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

Boom Angle	36
0	8,390 (28.3)

NOTE: ( ) Reference radii are in feet.

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-014192A

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

36 - 110 ft.
(10.9 - 33.5 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

18,000 lbs.
(8165 kg)

100%

360°

85% Domestic (Pounds)

	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
(Feet)	1.5°	25°	45°	1.5°	25°	45°
25	*12,900 (80)					
30	12,900 (78.5)					
35	12,900 (76.5)	8,340 (79.5)		8,220 (79.5)		
40	12,750 (74.5)	8,020 (77.5)	*6,370 (80)	8,220 (78)		
45	12,350 (72.5)	7,730 (76)	6,300 (79)	8,220 (76.5)		
50	11,500 (70.5)	7,390 (74)	6,250 (77)	8,220 (75)	*4,780 (80)	
55	10,950 (68.5)	7,130 (72)	6,190 (74.5)	8,220 (74)	4,640 (79.5)	
60	10,400 (66.5)	6,870 (69.5)	6,120 (72)	8,220 (72)	4,490 (78)	
65	9,960 (64)	6,660 (67.5)	6,090 (69.5)	8,220 (70)	4,340 (76)	*3,770 (80)
70	9,480 (61.5)	6,450 (65)	6,050 (67)	8,080 (68)	4,190 (74)	3,740 (78)
75	9,060 (59)	6,280 (62.5)	6,050 (64.5)	7,650 (66)	4,070 (72)	3,720 (76)
80	8,630 (56.5)	6,110 (60)	6,050 (62)	7,220 (64)	3,940 (70)	3,700 (73.5)
85	8,270 (54)	5,970 (57.5)	6,050 (59)	6,870 (62)	3,830 (67.5)	3,700 (71.5)
90	7,900 (51)	5,840 (54.5)	6,050 (56)	6,530 (60)	3,730 (65.5)	3,700 (69)
95	7,580 (48.5)	5,740 (51.5)		6,130 (58)	3,640 (63.5)	3,700 (66.5)
100	7,060 (45.5)	5,650 (48.5)		5,730 (55.5)	3,550 (61)	3,700 (64)
110	5,600 (38.5)	5,510 (41.5)		5,060 (51)	3,420 (56)	3,480 (59)
120	4,400 (30.5)			4,510 (46)	3,320 (51)	
130	3,400 (18.5)			4,050 (40)	3,280 (45)	
140				3,190 (33.5)	2,320 (37.5)	
150				2,460 (24.5)		
Minimum boom angle (deg.) for indicated length	2	25	45	2	25	45
Maximum boom length (ft.) at 0 deg. boom angle		110			110	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

A6-829-015081

36 - 110 ft.
(10.9 - 33.5 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

12,500 lbs.
(5670 kg)

100%

360°

85% Domestic (Pounds)

	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
(Feet)	1.5°	25°	45°	1.5°	25°	45°
25	*12,900 (80)					
30	12,900 (78.5)					
35	12,900 (76.5)	8,340 (79.5)		8,220 (79.5)		
40	12,750 (74.5)	8,020 (77.5)	*6,370 (80)	8,220 (78)		
45	12,350 (72.5)	7,730 (76)	6,300 (79)	8,220 (76.5)		
50	11,500 (70.5)	7,390 (74)	6,250 (77)	8,220 (75)	*4,780 (80)	
55	10,950 (68.5)	7,130 (72)	6,190 (74.5)	8,220 (74)	4,640 (79.5)	
60	10,400 (66.5)	6,870 (69.5)	6,120 (72)	8,220 (72)	4,490 (78)	
65	9,960 (64)	6,660 (67.5)	6,090 (69.5)	8,220 (70)	4,340 (76)	*3,770 (80)
70	9,480 (61.5)	6,450 (65)	6,050 (67)	8,080 (68)	4,190 (74)	3,740 (78)
75	9,060 (59)	6,280 (62.5)	6,050 (64.5)	7,650 (66)	4,070 (72)	3,720 (76)
80	8,630 (56.5)	6,110 (60)	6,050 (62)	7,220 (64)	3,940 (70)	3,700 (73.5)
85	8,270 (54)	5,970 (57.5)	6,050 (59)	6,870 (62)	3,830 (67.5)	3,700 (71.5)
90	7,900 (51)	5,840 (54.5)	6,050 (56)	6,530 (60)	3,730 (65.5)	3,700 (69)
95	7,120 (48.5)	5,740 (51.5)		6,130 (58)	3,640 (63.5)	3,700 (66.5)
100	6,320 (45.5)	5,650 (48.5)		5,730 (55.5)	3,550 (61)	3,700 (64)
110	4,970 (38.5)	5,210 (41.5)		5,060 (51)	3,420 (56)	3,480 (59)
120	3,860 (30.5)			4,510 (46)	3,320 (51)	
130	2,950 (18.5)			3,630 (40)	3,280 (45)	
140				2,850 (33.5)	2,320 (37.5)	
150				2,180 (24.5)		
Minimum boom angle (deg.) for indicated length	2	25	45	2	25	45
Maximum boom length (ft.) at 0 deg. boom angle		110			110	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

A6-829-015082

36 - 110 ft.
(10.9 - 33.5 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

8,500 lbs.
(3855 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE) 1.5°	25°	45°	56 FT. LENGTH (SWINGAWAY BASE & FLY) 1.5°	25°	45°
25	*12,900 (80)					
30	12,900 (78.5)					
35	12,900 (76.5)	8,340 (79.5)		8,220 (79.5)		
40	12,750 (74.5)	8,020 (77.5)	*6,370 (80)	8,220 (78)		
45	12,350 (72.5)	7,730 (76)	6,300 (79)	8,220 (76.5)		
50	11,500 (70.5)	7,390 (74)	6,250 (77)	8,220 (75)	*4,780 (80)	
55	10,950 (68.5)	7,130 (72)	6,190 (74.5)	8,220 (74)	4,640 (79.5)	
60	10,400 (66.5)	6,870 (69.5)	6,120 (72)	8,220 (72)	4,490 (78)	
65	9,960 (64)	6,660 (67.5)	6,090 (69.5)	8,220 (70)	4,340 (76)	*3,770 (80)
70	9,480 (61.5)	6,450 (65)	6,050 (67)	8,080 (68)	4,190 (74)	3,740 (78)
75	9,060 (59)	6,280 (62.5)	6,050 (64.5)	7,650 (66)	4,070 (72)	3,720 (76)
80	8,630 (56.5)	6,110 (60)	6,050 (62)	7,220 (64)	3,940 (70)	3,700 (73.5)
85	7,910 (54)	5,970 (57.5)	6,050 (59)	6,870 (62)	3,830 (67.5)	3,700 (71.5)
90	6,950 (51)	5,840 (54.5)	6,050 (56)	6,530 (60)	3,730 (65.5)	3,700 (69)
95	6,120 (48.5)	5,740 (51.5)		6,130 (58)	3,640 (63.5)	3,700 (66.5)
100	5,370 (45.5)	5,650 (48.5)		5,730 (55.5)	3,550 (61)	3,700 (64)
110	4,120 (38.5)	4,360 (41.5)		4,820 (51)	3,420 (56)	3,480 (59)
120	3,090 (30.5)			3,780 (46)	3,320 (51)	
130	2,240 (18.5)			2,920 (40)	3,280 (45)	
140				2,200 (33.5)	2,320 (37.5)	
150				1,580 (24.5)		
Minimum boom angle (deg.) for indicated length	2	25	45	2	25	45
Maximum boom length (ft.) at 0 deg. boom angle		110			110	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

A6-829-015083

36 - 110 ft.
(10.9 - 33.5 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

5,500 lbs.
(2495 kg)

100%

360°

85% Domestic (Pounds)

	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
(Feet)	1.5°	25°	45°	1.5°	25°	45°
25	*12,900 (80)					
30	12,900 (78.5)					
35	12,900 (76.5)	8,340 (79.5)		8,220 (79.5)		
40	12,750 (74.5)	8,020 (77.5)	*6,370 (80)	8,220 (78)		
45	12,350 (72.5)	7,730 (76)	6,300 (79)	8,220 (76.5)		
50	11,500 (70.5)	7,390 (74)	6,250 (77)	8,220 (75)	*4,780 (80)	
55	10,950 (68.5)	7,130 (72)	6,190 (74.5)	8,220 (74)	4,640 (79.5)	
60	10,400 (66.5)	6,870 (69.5)	6,120 (72)	8,220 (72)	4,490 (78)	
65	9,960 (64)	6,660 (67.5)	6,090 (69.5)	8,220 (70)	4,340 (76)	*3,770 (80)
70	9,480 (61.5)	6,450 (65)	6,050 (67)	8,080 (68)	4,190 (74)	3,740 (78)
75	9,060 (59)	6,280 (62.5)	6,050 (64.5)	7,650 (66)	4,070 (72)	3,720 (76)
80	8,080 (56.5)	6,110 (60)	6,050 (62)	7,220 (64)	3,940 (70)	3,700 (73.5)
85	7,050 (54)	5,970 (57.5)	6,050 (59)	6,870 (62)	3,830 (67.5)	3,700 (71.5)
90	6,150 (51)	5,840 (54.5)	6,050 (56)	6,530 (60)	3,730 (65.5)	3,700 (69)
95	5,360 (48.5)	5,740 (51.5)		6,090 (58)	3,640 (63.5)	3,700 (66.5)
100	4,660 (45.5)	5,040 (48.5)		5,380 (55.5)	3,550 (61)	3,700 (64)
110	3,480 (38.5)	3,730 (41.5)		4,180 (51)	3,420 (56)	3,480 (59)
120	2,510 (30.5)			3,210 (46)	3,320 (51)	
130	1,710 (18.5)			2,390 (40)	2,780 (45)	
140				1,710 (33.5)	1,940 (37.5)	
150				1,130 (24.5)		
Minimum boom angle (deg.) for indicated length	2	25	45	14	25	45
Maximum boom length (ft.) at 0 deg. boom angle		110			110	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

A6-829-015084

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

36 - 110 ft.
(10.9 - 33.5 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

3,000 lbs.
(1361 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE) 1.5°	25°	45°	56 FT. LENGTH (SWINGAWAY BASE & FLY) 1.5°	25°	45°
25	*12,900 (80)					
30	12,900 (78.5)					
35	12,900 (76.5)	8,340 (79.5)		8,220 (79.5)		
40	12,750 (74.5)	8,020 (77.5)	*6,370 (80)	8,220 (78)		
45	12,350 (72.5)	7,730 (76)	6,300 (79)	8,220 (76.5)		
50	11,500 (70.5)	7,390 (74)	6,250 (77)	8,220 (75)	*4,780 (80)	
55	10,950 (68.5)	7,130 (72)	6,190 (74.5)	8,220 (74)	4,640 (79.5)	
60	10,400 (66.5)	6,870 (69.5)	6,120 (72)	8,220 (72)	4,490 (78)	
65	9,960 (64)	6,660 (67.5)	6,090 (69.5)	8,220 (70)	4,340 (76)	*3,770 (80)
70	9,480 (61.5)	6,450 (65)	6,050 (67)	8,080 (68)	4,190 (74)	3,740 (78)
75	8,450 (59)	6,280 (62.5)	6,050 (64.5)	7,650 (66)	4,070 (72)	3,720 (76)
80	7,310 (56.5)	6,110 (60)	6,050 (62)	7,220 (64)	3,940 (70)	3,700 (73.5)
85	6,340 (54)	5,970 (57.5)	6,050 (59)	6,870 (62)	3,830 (67.5)	3,700 (71.5)
90	5,490 (51)	5,840 (54.5)	6,050 (56)	6,220 (60)	3,730 (65.5)	3,700 (69)
95	4,740 (48.5)	5,190 (51.5)		5,460 (58)	3,640 (63.5)	3,700 (66.5)
100	4,070 (45.5)	4,450 (48.5)		4,790 (55.5)	3,550 (61)	3,700 (64)
110	2,950 (38.5)	3,200 (41.5)		3,650 (51)	3,420 (56)	3,480 (59)
120	2,030 (30.5)			2,720 (46)	3,290 (51)	
130	1,270 (18.5)			1,950 (40)	2,330 (45)	
140				1,300 (33.5)	1,530 (37.5)	
Minimum boom angle (deg.) for indicated length	2	25	45	23	26	45
Maximum boom length (ft.) at 0 deg. boom angle		110			100	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

A6-829-015085

36 - 110 ft.
(10.9 - 33.5 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

0 lbs.
(0 kg)

100%

360°

85% Domestic (Pounds)

	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
(Feet)	1.5°	25°	45°	1.5°	25°	45°
25	*12,900 (80)					
30	12,900 (78.5)					
35	12,900 (76.5)	8,340 (79.5)		8,220 (79.5)		
40	12,750 (74.5)	8,020 (77.5)	*6,370 (80)	8,220 (78)		
45	12,350 (72.5)	7,730 (76)	6,300 (79)	8,220 (76.5)		
50	11,500 (70.5)	7,390 (74)	6,250 (77)	8,220 (75)	*4,780 (80)	
55	10,950 (68.5)	7,130 (72)	6,190 (74.5)	8,220 (74)	4,640 (79.5)	
60	10,400 (66.5)	6,870 (69.5)	6,120 (72)	8,220 (72)	4,490 (78)	
65	9,960 (64)	6,660 (67.5)	6,090 (69.5)	8,220 (70)	4,340 (76)	*3,770 (80)
70	8,690 (61.5)	6,450 (65)	6,050 (67)	8,080 (68)	4,190 (74)	3,740 (78)
75	7,450 (59)	6,280 (62.5)	6,050 (64.5)	7,650 (66)	4,070 (72)	3,720 (76)
80	6,390 (56.5)	6,110 (60)	6,050 (62)	7,150 (64)	3,940 (70)	3,700 (73.5)
85	5,480 (54)	5,970 (57.5)	6,050 (59)	6,220 (62)	3,830 (67.5)	3,700 (71.5)
90	4,680 (51)	5,230 (54.5)	5,400 (56)	5,410 (60)	3,730 (65.5)	3,700 (69)
95	3,980 (48.5)	4,440 (51.5)		4,710 (58)	3,640 (63.5)	3,700 (66.5)
100	3,360 (45.5)	3,740 (48.5)		4,080 (55.5)	3,550 (61)	3,700 (64)
110	2,310 (38.5)	2,560 (41.5)		3,010 (51)	3,420 (56)	3,480 (59)
120	1,450 (30.5)			2,140 (46)	2,710 (51)	
130				1,420 (40)	1,810 (45)	
140					1,040 (37.5)	
Minimum boom angle (deg.) for indicated length	16	25	45	31	32	45
Maximum boom length (ft.) at 0 deg. boom angle		100			90	

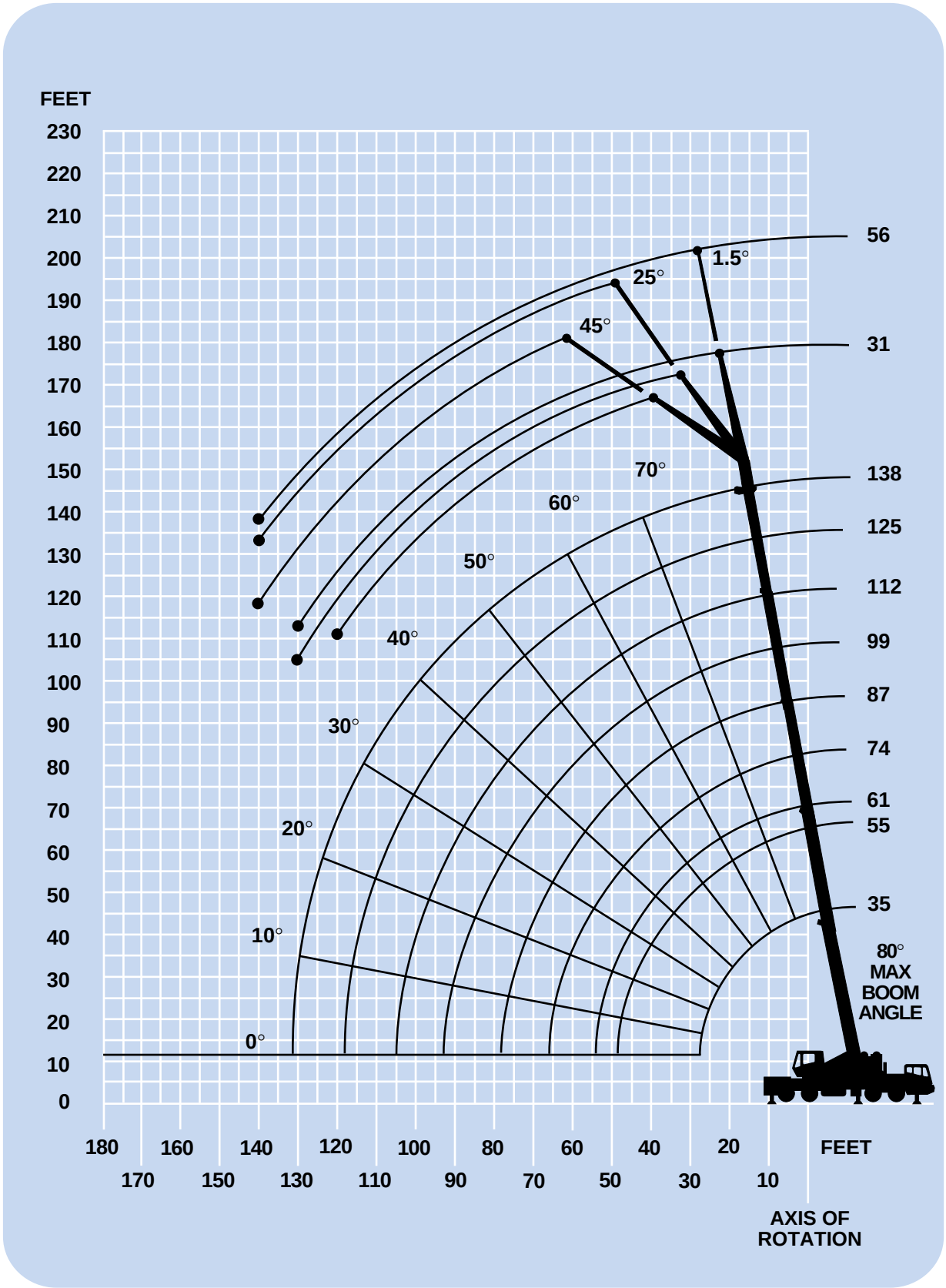
NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

A6-829-015086

Working Range

35-138 ft. (10.8-42.0 m) | 31-56 ft. (9.4-17 m) | 8,500 lbs. (3856 kg) | 360°



Weight Reductions for Load Handling Devices

5 Section Boom
31 ft. - 56 ft. (9.4 m - 17 m) Folding Boom Extension

*31 ft. (9.4 m) extension (erected)	4,048 lbs.	(1836 kg)
*56 ft. (17 m) extension (erected)	8,941 lbs.	(4056 kg)

*Reduction of main boom capacities:

When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Grove furnished equipment.

Auxiliary Boom Nose	116 lbs.	(53 kg)
+ 70 ton, 6 sheave hookblock w/o cheekplates	1,674 lbs.	(759 kg)
+ 70 ton, 6 sheave hookblock w/cheekplates	2,010 lbs.	(912 kg)
+ 45 ton, 3 sheave hookblock w/o cheekplates	876 lbs.	(397 kg)
+ 45 ton, 3 sheave hookblock w/cheekplates	1,066 lbs.	(484 kg)
+ 15 ton, 1 sheave hookblock	380 lbs.	(173 kg)
+ 10 ton headache ball	560 lbs.	(254 kg)

+ Refer to rating plate for actual weight.

35 - 138 ft.
(10.8 - 42.0 m)

18,000 lbs.
(8165 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	35	55	61	74	87	99	112	125	138
10	+140,000 (65.5)	79,100 (76)	78,450 (77.5)	*57,050 (80)					
12	110,000 (62)	79,100 (73.5)	77,500 (75.5)	57,050 (78.5)	*43,300 (80)				
15	95,800 (56)	79,100 (70)	69,850 (72.5)	51,650 (76)	43,300 (78.5)	*32,100 (80)			
20	77,250 (44.5)	70,850 (64.5)	59,850 (67.5)	44,350 (71.5)	39,550 (75)	32,100 (77.5)	30,050 (79.5)	*20,150 (80)	
25	58,500 (29.5)	58,200 (58)	52,200 (62)	38,750 (67.5)	33,800 (71.5)	32,100 (74.5)	30,050 (77)	20,150 (79)	*19,000 (80)
30		45,850 (51)	46,200 (56.5)	34,200 (63)	29,200 (68)	30,200 (71.5)	27,350 (74.5)	19,100 (76.5)	18,300 (78.5)
35		37,100 (43.5)	37,500 (50)	29,050 (58.5)	25,800 (64)	26,600 (68.5)	24,300 (71.5)	18,100 (74)	17,650 (76.5)
40		27,050 (34.5)	27,500 (43)	25,150 (53.5)	22,900 (60)	23,450 (65)	21,600 (69)	17,250 (72)	17,000 (74)
45		22,000 (21.5)	22,450 (35)	21,800 (48.5)	20,000 (56)	20,450 (61.5)	19,250 (66)	16,450 (69)	16,350 (72)
50			18,500 (24.5)	18,550 (42.5)	17,500 (52)	17,900 (58.5)	16,900 (63)	15,750 (66.5)	15,700 (69.5)
60				12,800 (28)	12,800 (42.5)	14,000 (51)	13,250 (57)	13,100 (61.5)	13,300 (65)
70					8,830 (30)	10,150 (42.5)	10,700 (50)	10,700 (56)	11,050 (60)
80						7,160 (32)	8,240 (42.5)	8,660 (49.5)	9,120 (55)
90						4,800 (15.5)	5,870 (33.5)	6,700 (43)	7,380 (49.5)
100							4,010 (21)	4,840 (35)	5,500 (43)
110								3,340 (24.5)	4,000 (36)
120									2,760 (27)
130									1,720 (9.5)
Minimum boom angle (deg.) for indicated length (no load)									9
Maximum boom length (ft.) at 0 degree boom angle (no load)									125

NOTE: ( ) Boom angles are in degrees.

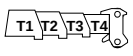
***This capacity is based on maximum boom angle.**

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	35	55	61	74	87	99	112	125
0	26,400 (28.2)	12,500 (47.4)	10,150 (53.8)	6,240 (66.6)	3,420 (79.4)	2,440 (92.2)	1,680 (105)	1,070 (117.8)

NOTE: ( ) Reference radii are in feet.

A6-829-014914



%

MODE B

T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
T3	0	0	0	0	0	25	50	75	100
T4	0	0	0	0	0	25	50	75	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

35 - 138 ft.
(10.8 - 42.0 m)

12,500 lbs.
(5670 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	35	55	61	74	87	99	112	125	138
10	+140,000 (65.5)	79,100 (76)	78,450 (77.5)	*57,050 (80)					
12	110,000 (62)	79,100 (73.5)	77,500 (75.5)	57,050 (78.5)	*43,300 (80)				
15	95,800 (56)	79,100 (70)	69,850 (72.5)	51,650 (76)	43,300 (78.5)	*32,100 (80)			
20	70,700 (44.5)	70,300 (64.5)	59,850 (67.5)	44,350 (71.5)	39,550 (75)	32,100 (77.5)	30,050 (79.5)	*20,150 (80)	
25	53,150 (29.5)	52,850 (58)	52,200 (62)	38,750 (67.5)	33,800 (71.5)	32,100 (74.5)	30,050 (77)	20,150 (79)	*19,000 (80)
30		41,400 (51)	41,800 (56.5)	34,200 (63)	29,200 (68)	30,200 (71.5)	27,350 (74.5)	19,100 (76.5)	18,300 (78.5)
35		33,350 (43.5)	33,700 (50)	29,050 (58.5)	25,800 (64)	26,600 (68.5)	24,300 (71.5)	18,100 (74)	17,650 (76.5)
40		27,050 (34.5)	27,500 (43)	25,150 (53.5)	22,900 (60)	23,450 (65)	21,600 (69)	17,250 (72)	17,000 (74)
45		21,750 (21.5)	22,050 (35)	21,800 (48.5)	20,000 (56)	20,450 (61.5)	19,250 (66)	16,450 (69)	16,350 (72)
50			17,900 (24.5)	17,600 (42.5)	17,500 (52)	17,900 (58.5)	16,900 (63)	15,750 (66.5)	15,700 (69.5)
60				11,200 (28)	11,450 (42.5)	12,500 (51)	13,250 (57)	13,100 (61.5)	13,300 (65)
70					7,460 (30)	8,480 (42.5)	9,520 (50)	10,550 (56)	11,050 (60)
80						5,610 (32)	6,610 (42.5)	7,630 (49.5)	8,650 (55)
90						3,480 (15.5)	4,450 (33.5)	5,440 (43)	6,430 (49.5)
100							2,790 (21)	3,750 (35)	4,720 (43)
110								2,400 (24.5)	3,360 (36)
120									2,250 (27)
130									1,330 (9.5)
Minimum boom angle (deg.) for indicated length (no load)									9
Maximum boom length (ft.) at 0 degree boom angle (no load)									125

NOTE: ( ) Boom angles are in degrees.

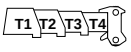
*This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	35	55	61	74	87	99	112	125
0	26,400 (28.2)	12,500 (47.4)	10,150 (53.8)	6,240 (66.6)	3,420 (79.4)	2,440 (92.2)	1,680 (105)	1,070 (117.8)

NOTE: ( ) Reference radii are in feet.

A6-829-014915



%

MODE B

T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
T3	0	0	0	0	0	25	50	75	100
T4	0	0	0	0	0	25	50	75	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

35 - 138 ft.
(10.8 - 42.0 m)

8,500 lbs.
(3856 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	35	55	61	74	87	99	112	125	138
10	+140,000 (65.5)	79,100 (76)	78,450 (77.5)	*57,050 (80)					
12	110,000 (62)	79,100 (73.5)	77,500 (75.5)	57,050 (78.5)	*43,300 (80)				
15	95,800 (56)	79,100 (70)	69,850 (72.5)	51,650 (76)	43,300 (78.5)	*32,100 (80)			
20	70,700 (44.5)	70,300 (64.5)	59,850 (67.5)	44,350 (71.5)	39,550 (75)	32,100 (77.5)	30,050 (79.5)	*20,150 (80)	
25	53,150 (29.5)	52,850 (58)	52,200 (62)	38,750 (67.5)	33,800 (71.5)	32,100 (74.5)	30,050 (79.5)	20,150 (79)	*19,000 (80)
30		41,400 (51)	41,800 (56.5)	34,200 (63)	29,200 (68)	30,200 (71.5)	27,350 (74.5)	19,100 (76.5)	18,300 (78.5)
35		31,850 (43.5)	31,950 (50)	29,050 (58.5)	25,800 (64)	26,600 (68.5)	24,300 (71.5)	18,100 (74)	17,650 (76.5)
40		24,700 (34.5)	24,750 (43)	24,800 (53.5)	22,900 (60)	23,450 (65)	21,600 (69)	17,250 (72)	17,000 (74)
45		19,550 (21.5)	19,550 (35)	19,750 (48.5)	19,500 (56)	20,450 (61.5)	19,250 (66)	16,450 (69)	16,350 (72)
50			15,700 (24.5)	15,400 (42.5)	15,350 (52)	16,550 (58.5)	16,900 (63)	15,750 (66.5)	15,700 (69.5)
60				9,490 (28)	9,730 (42.5)	10,800 (51)	11,900 (57)	13,000 (61.5)	13,300 (65)
70					6,020 (30)	7,040 (42.5)	8,080 (50)	9,130 (56)	10,200 (60)
80						4,390 (32)	5,390 (42.5)	6,400 (49.5)	7,430 (55)
90						2,420 (15.5)	3,390 (33.5)	4,370 (43)	5,370 (49.5)
100							1,840 (21)	2,800 (35)	3,770 (43)
110								1,550 (24.5)	2,510 (36)
120									1,480 (27)
Minimum boom angle (deg.) for indicated length (no load)								5	10
Maximum boom length (ft.) at 0 degree boom angle (no load)									112

NOTE: ( ) Boom angles are in degrees.

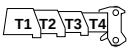
*This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	35	55	61	74	87	99	112
0	26,400 (28.2)	12,500 (47.4)	10,150 (53.8)	6,240 (66.6)	3,420 (79.4)	2,060 (92.2)	1,200 (105)

NOTE: ( ) Reference radii are in feet.

A6-829-014530A



%

MODE B

T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
T3	0	0	0	0	0	25	50	75	100
T4	0	0	0	0	0	25	50	75	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

35 - 138 ft.
(10.8 - 42.0 m)

5,500 lbs.
(2495 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	35	55	61	74	87	99	112	125	138
10	+140,000 (65.5)	79,100 (76)	78,450 (77.5)	*57,050 (80)					
12	110,000 (62)	79,100 (73.5)	77,500 (75.5)	57,050 (78.5)	*43,300 (80)				
15	95,800 (56)	79,100 (70)	69,850 (72.5)	51,650 (76)	43,300 (78.5)	*32,100 (80)			
20	68,550 (44.5)	68,150 (64.5)	59,850 (67.5)	44,350 (71.5)	39,550 (75)	32,100 (77.5)	30,050 (77)	*20,150 (80)	
25	51,450 (29.5)	51,150 (58)	51,550 (62)	38,750 (67.5)	33,800 (71.5)	32,100 (74.5)	30,050 (77)	20,150 (79)	*19,000 (80)
30		39,750 (51)	39,600 (56.5)	34,200 (63)	29,200 (68)	30,200 (71.5)	27,350 (74.5)	19,100 (76.5)	18,300 (78.5)
35		29,550 (43.5)	29,500 (50)	29,050 (58.5)	25,800 (64)	26,600 (68.5)	24,300 (71.5)	18,100 (74)	17,650 (76.5)
40		22,750 (34.5)	22,500 (43)	22,850 (53.5)	22,750 (60)	23,450 (65)	21,600 (69)	17,250 (72)	17,000 (74)
45		17,650 (21.5)	17,650 (35)	17,850 (48.5)	17,600 (56)	18,800 (61.5)	19,250 (66)	16,450 (69)	16,350 (72)
50			14,050 (24.5)	13,800 (42.5)	13,750 (52)	14,900 (58.5)	16,050 (63)	15,750 (66.5)	15,700 (69.5)
60				8,190 (28)	8,430 (42.5)	9,500 (51)	10,550 (57)	11,700 (61.5)	12,800 (65)
70					4,950 (30)	5,970 (42.5)	7,000 (50)	8,060 (56)	9,120 (60)
80						3,470 (32)	4,470 (42.5)	5,480 (49.5)	6,510 (55)
90						1,610 (15.5)	2,580 (33.5)	3,570 (43)	4,560 (49.5)
100							1,130 (21)	2,090 (35)	3,060 (43)
110									1,870 (36)
Minimum boom angle (deg.) for indicated length (no load)							20	27	33
Maximum boom length (ft.) at 0 degree boom angle (no load)								99	

NOTE: ( ) Boom angles are in degrees.

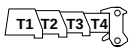
*This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	35	55	61	74	87	99
0	26,400 (28.2)	12,500 (47.4)	10,150 (53.8)	5,640 (66.6)	2,630 (79.4)	1,280 (92.2)

NOTE: ( ) Reference radii are in feet.

A6-829-014533A



%

MODE B

T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
T3	0	0	0	0	0	25	50	75	100
T4	0	0	0	0	0	25	50	75	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

35 - 138 ft.
(10.8 - 42.0 m)

3,000 lbs.
(1361 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	35	55	61	74	87	99	112	125	138
10	+140,000 (65.5)	79,100 (76)	78,450 (77.5)	*57,050 (80)					
12	110,000 (62)	79,100 (73.5)	77,500 (75.5)	57,050 (78.5)	*43,300 (80)				
15	95,350 (56)	79,100 (70)	69,850 (72.5)	51,650 (76)	43,300 (78.5)	*32,100 (80)			
20	66,750 (44.5)	66,400 (64.5)	59,850 (67.5)	44,350 (71.5)	39,550 (75)	32,100 (77.5)	30,050 (79.5)	*20,150 (80)	
25	50,050 (29.5)	49,750 (58)	50,150 (62)	38,750 (67.5)	33,800 (71.5)	32,100 (74.5)	30,050 (77)	20,150 (79)	*19,000 (80)
30		37,300 (51)	37,200 (56.5)	34,200 (63)	29,200 (68)	30,200 (71.5)	27,350 (74.5)	19,100 (76.5)	18,300 (78.5)
35		27,600 (43.5)	27,250 (50)	27,500 (58.5)	25,800 (64)	26,600 (68.5)	24,300 (71.5)	18,100 (74)	17,650 (76.5)
40		20,900 (34.5)	20,650 (43)	21,250 (53.5)	21,000 (60)	22,300 (65)	21,600 (69)	17,250 (72)	17,000 (74)
45		16,050 (21.5)	16,050 (35)	16,300 (48.5)	16,000 (56)	17,250 (61.5)	18,450 (66)	16,450 (69)	16,350 (72)
50			12,650 (24.5)	12,400 (42.5)	12,350 (52)	13,500 (58.5)	14,700 (63)	15,750 (66.5)	15,700 (69.5)
60				7,110 (28)	7,340 (42.5)	8,420 (51)	9,510 (57)	10,600 (61.5)	11,700 (65)
70					4,050 (30)	5,070 (42.5)	6,110 (50)	7,160 (56)	8,220 (60)
80						2,700 (32)	3,700 (42.5)	4,720 (49.5)	5,740 (55)
90							1,920 (33.5)	2,900 (43)	3,900 (49.5)
100								1,500 (35)	2,470 (43)
110									1,340 (36)
Minimum boom angle (deg.) for indicated length (no load)						20	27	32	35
Maximum boom length (ft.) at 0 degree boom angle (no load)								87	

NOTE: ( ) Boom angles are in degrees.

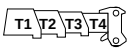
*This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	35	55	61	74	87
0	26,400 (28.2)	12,500 (47.4)	10,150 (53.8)	4,680 (66.6)	1,860 (79.4)

NOTE: ( ) Reference radii are in feet.

A6-829-014536A



%

MODE B

T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
T3	0	0	0	0	0	25	50	75	100
T4	0	0	0	0	0	25	50	75	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.


35 - 138 ft.
(10.8 - 42.0 m)


0 lbs.
(0 kg)


100%


360°

85% Domestic (Pounds)

(Feet)	35	55	61	74	87	99	112	125	138
10	139,500 (65.5)	79,100 (76)	78,450 (77.5)	*57,050 (80)					
12	110,000 (62)	79,100 (73.5)	77,500 (75.5)	57,050 (78.5)	*43,300 (80)				
15	92,450 (56)	79,100 (70)	69,850 (72.5)	51,650 (76)	43,300 (78.5)	*32,100 (80)			
20	64,600 (44.5)	64,250 (64.5)	59,850 (67.5)	44,350 (71.5)	39,550 (75)	32,100 (77.5)	30,050 (79.5)	*20,150 (80)	
25	48,350 (29.5)	48,050 (58)	48,450 (62)	38,750 (67.5)	33,800 (71.5)	32,100 (74.5)	30,050 (77)	20,150 (79)	*19,000 (80)
30		34,400 (51)	34,050 (56.5)	34,050 (63)	29,200 (68)	30,200 (71.5)	27,350 (74.5)	19,100 (76.5)	18,300 (78.5)
35		25,150 (43.5)	24,500 (50)	25,200 (58.5)	25,250 (64)	26,600 (68.5)	24,300 (71.5)	18,100 (74)	17,650 (76.5)
40		18,650 (34.5)	18,400 (43)	19,300 (53.5)	18,750 (60)	20,050 (65)	21,350 (69)	17,250 (72)	17,000 (74)
45		14,150 (21.5)	14,150 (35)	14,400 (48.5)	14,100 (56)	15,350 (61.5)	16,550 (66)	16,450 (69)	16,350 (72)
50			11,050 (24.5)	10,750 (42.5)	10,700 (52)	11,850 (58.5)	13,050 (63)	14,250 (66.5)	15,450 (69.5)
60				5,810 (28)	6,040 (42.5)	7,110 (51)	8,210 (57)	9,310 (61.5)	10,400 (65)
70					2,970 (30)	3,990 (42.5)	5,030 (50)	6,080 (56)	7,140 (60)
80						1,780 (32)	2,780 (42.5)	3,800 (49.5)	4,820 (55)
90							1,120 (33.5)	2,100 (43)	3,100 (49.5)
100									1,760 (43)
Minimum boom angle (deg.) for indicated length (no load)					20	25	33	37	40
Maximum boom length (ft.) at 0 degree boom angle (no load)							74		

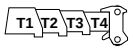
NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

Boom Angle	35	55	61	74
0	26,400 (28.2)	12,500 (47.4)	9,190 (53.8)	3,540 (66.6)

NOTE: ( ) Reference radii are in feet.

A6-829-014539



%

MODE B

T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
T3	0	0	0	0	0	25	50	75	100
T4	0	0	0	0	0	25	50	75	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

35 - 138 ft.
(10.8 - 42.0 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

18,000 lbs.
(8165 kg)

100%

360°

85% Domestic (Pounds)

	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
(Feet)	1.5°	25°	45°	1.5°	25°	45°
35	9,500 (79.5)					
40	9,500 (78)			*5,500 (80)		
45	9,500 (76.5)	*8,750 (80)		5,400 (79.5)		
50	9,500 (75)	7,490 (78.5)	*7,800 (80)	5,300 (78)		
60	9,110 (71.5)	7,060 (75)	6,740 (77)	5,100 (75.5)	*4,640 (80)	
70	8,450 (68.5)	6,720 (71.5)	6,460 (73.5)	4,900 (72.5)	4,430 (78)	*3,600 (80)
80	7,550 (64.5)	6,330 (68)	6,350 (69.5)	4,700 (69.5)	4,220 (74.5)	3,500 (77.5)
90	6,990 (60.5)	6,060 (64)	6,280 (65.5)	4,500 (66.5)	4,120 (71)	3,400 (74)
100	6,330 (56.5)	5,820 (60)	6,220 (61)	4,300 (63.5)	3,810 (67.5)	3,300 (70.5)
110	4,820 (52)	5,400 (55.5)	5,670 (56.5)	4,100 (59.5)	3,600 (64)	3,200 (67)
120	3,580 (47)	4,050 (50.5)	4,050 (52)	3,900 (56)	3,400 (60.5)	3,100 (63)
130	2,550 (41.5)	2,910 (45)		3,190 (52)	3,190 (56)	3,000 (58.5)
140	1,680 (35.5)	1,940 (38.5)		2,300 (47.5)	2,980 (51.5)	2,900 (53.5)
150				1,540 (42.5)	2,100 (46.5)	
160					1,300 (41)	
Minimum boom angle (deg.) for indicated length	32	32	45	40	40	45
Maximum boom length (ft.) at 0 deg. boom angle		112			99	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

MODE B

A6-829-014929

35 - 138 ft.
(10.8 - 42.0 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

12,500 lbs.
(5670 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE) 1.5°	25°	45°	56 FT. LENGTH (SWINGAWAY BASE & FLY) 1.5°	25°	45°
35	9,500 (79.5)					
40	9,500 (78)			*5,500 (80)		
45	9,500 (76.5)	*8,750 (80)		5,400 (79.5)		
50	9,500 (75)	7,490 (78.5)	*7,800 (80)	5,300 (78)		
60	9,110 (71.5)	7,060 (75)	6,740 (77)	5,100 (75.5)	*4,640 (80)	
70	8,450 (68.5)	6,720 (71.5)	6,460 (73.5)	4,900 (72.5)	4,430 (78)	*3,600 (80)
80	7,550 (64.5)	6,330 (68)	6,350 (69.5)	4,700 (69.5)	4,220 (74.5)	3,500 (77.5)
90	6,990 (60.5)	6,060 (64)	6,280 (65.5)	4,500 (66.5)	4,120 (71)	3,400 (74)
100	5,480 (56.5)	5,820 (60)	6,220 (61)	4,300 (63.5)	3,810 (67.5)	3,300 (70.5)
110	4,050 (52)	4,710 (55.5)	4,820 (56.5)	4,100 (59.5)	3,600 (64)	3,200 (67)
120	2,890 (47)	3,430 (50.5)	3,430 (52)	3,890 (56)	3,400 (60.5)	3,100 (63)
130	1,920 (41.5)	2,370 (45)		2,850 (52)	3,190 (56)	3,000 (58.5)
140	1,110 (35.5)	1,470 (38.5)		1,970 (47.5)	2,290 (51.5)	2,570 (53.5)
150				1,220 (42.5)	1,390 (46.5)	
Minimum boom angle (deg.) for indicated length	34	38	45	42	45	47
Maximum boom length (ft.) at 0 deg. boom angle		99			74	

NOTE: ( ) Boom angles are in degrees.

* This capacity is based on maximum boom angle.

A6-829-014931

MODE B

35 - 138 ft.
(10.8 - 42.0 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

8,500 lbs.
(3855 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE) 1.5°	25°	45°	56 FT. LENGTH (SWINGAWAY BASE & FLY) 1.5°	25°	45°
35	9,500 (79.5)					
40	9,500 (78)			*5,500 (80)		
45	9,500 (76.5)	*8,750 (80)		5,400 (79.5)		
50	9,500 (75)	7,490 (78.5)	*7,800 (80)	5,300 (78)		
60	9,110 (71.5)	7,060 (75)	6,740 (77)	5,100 (75.5)	*4,640 (80)	
70	8,450 (68.5)	6,720 (71.5)	6,460 (73.5)	4,900 (72.5)	4,430 (78)	*3,600 (80)
80	7,550 (64.5)	6,330 (68)	6,350 (69.5)	4,700 (69.5)	4,220 (74.5)	3,500 (77.5)
90	6,200 (60.5)	6,060 (64)	6,280 (65.5)	4,500 (66.5)	4,120 (71)	3,400 (74)
100	4,530 (56.5)	5,330 (60)	5,580 (61)	4,300 (63.5)	3,810 (67.5)	3,300 (70.5)
110	3,200 (52)	3,860 (55.5)	3,970 (56.5)	4,100 (59.5)	3,600 (64)	3,200 (67)
120	2,120 (47)	2,660 (50.5)	2,660 (52)	3,120 (56)	3,400 (60.5)	3,100 (63)
130	1,220 (41.5)	1,660 (45)		2,150 (52)	2,640 (56)	3,000 (58.5)
140				1,320 (47.5)	1,640 (51.5)	1,920 (53.5)
Minimum boom angle (deg.) for indicated length	39	44	45	47	49	50
Maximum boom length (ft.) at 0 deg. boom angle		99			87	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

MODE B

A6-829-014543A

35 - 138 ft.
(10.8 - 42.0 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

5,500 lbs.
(2495 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE) 1.5°	25°	45°	56 FT. LENGTH (SWINGAWAY BASE & FLY) 1.5°	25°	45°
35	9,500 (79.5)					
40	9,500 (78)			*5,500 (80)		
45	9,500 (76.5)	*8,750 (80)		5,400 (79.5)		
50	9,500 (75)	7,490 (78.5)	*7,800 (80)	5,300 (78)		
60	9,110 (71.5)	7,060 (75)	6,740 (77)	5,100 (75.5)	*4,640 (80)	
70	8,450 (68.5)	6,720 (71.5)	6,460 (73.5)	4,900 (72.5)	4,430 (78)	*3,600 (80)
80	7,450 (64.5)	6,330 (68)	6,350 (69.5)	4,700 (69.5)	4,220 (74.5)	3,500 (77.5)
90	5,400 (60.5)	6,060 (64)	6,280 (65.5)	4,500 (66.5)	4,120 (71)	3,400 (74)
100	3,820 (56.5)	4,390 (60)	4,870 (61)	4,300 (63.5)	3,810 (67.5)	3,300 (70.5)
110	2,560 (52)	2,980 (55.5)	3,330 (56.5)	3,660 (59.5)	3,600 (64)	3,200 (67)
120	1,540 (47)	1,830 (50.5)	2,080 (52)	2,540 (56)	3,250 (60.5)	3,100 (63)
130				1,620 (52)	2,110 (56)	2,540 (58.5)
140					1,150 (51.5)	1,430 (53.5)
Minimum boom angle (deg.) for indicated length	44	44	45	50	51	52
Maximum boom length (ft.) at 0 deg. boom angle		74			74	

NOTE: ( ) Boom angles are in degrees.

* This capacity is based on maximum boom angle.

MODE B

A6-829-014545

35 - 138 ft.
(10.8 - 42.0 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

3,000 lbs.
(1361 kg)

100%

360°

85% Domestic (Pounds)

	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
(Feet)	1.5°	25°	45°	1.5°	25°	45°
35	9,500 (79.5)					
40	9,500 (78)			*5,500 (80)		
45	9,500 (76.5)	*8,750 (80)		5,400 (79.5)		
50	9,500 (75)	7,490 (78.5)	*7,800 (80)	5,300 (78)		
60	9,110 (71.5)	7,060 (75)	6,740 (77)	5,100 (75.5)	*4,640 (80)	
70	8,450 (68.5)	6,720 (71.5)	6,460 (73.5)	4,900 (72.5)	4,430 (78)	*3,600 (80)
80	6,680 (64.5)	6,330 (68)	6,350 (69.5)	4,700 (69.5)	4,220 (74.5)	3,500 (77.5)
90	4,730 (60.5)	5,490 (64)	6,140 (65.5)	4,500 (66.5)	4,120 (71)	3,400 (74)
100	3,230 (56.5)	3,790 (60)	4,280 (61)	4,300 (63.5)	3,810 (67.5)	3,300 (70.5)
110	2,030 (52)	2,450 (55.5)	2,800 (56.5)	3,130 (59.5)	3,600 (64)	3,200 (67)
120	1,060 (47)	1,350 (50.5)	1,600 (52)	2,060 (56)	2,770 (60.5)	3,100 (63)
130				1,170 (52)	1,670 (56)	2,100 (58.5)
140						1,020 (53.5)
Minimum boom angle (deg.) for indicated length	47	47	48	52	53	54
Maximum boom length (ft.) at 0 deg. boom angle		74			61	

NOTE: ( ) Boom angles are in degrees.

* This capacity is based on maximum boom angle.

MODE B

A6-829-014547A

35 - 138 ft.
(10.8 - 42.0 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

0 lbs.
(0 kg)

100%

360°

85% Domestic (Pounds)

	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
(Feet)	1.5°	25°	45°	1.5°	25°	45°
35	9,500 (79.5)					
40	9,500 (78)			*5,500 (80)		
45	9,500 (76.5)	*8,750 (80)		5,400 (79.5)		
50	9,500 (75)	7,490 (78.5)	*7,800 (80)	5,300 (78)		
60	9,110 (71.5)	7,060 (75)	6,740 (77)	5,100 (75.5)	*4,640 (80)	
70	8,220 (68.5)	6,720 (71.5)	6,460 (73.5)	4,900 (72.5)	4,430 (78)	*3,600 (80)
80	5,760 (64.5)	6,330 (68)	6,350 (69.5)	4,700 (69.5)	4,220 (74.5)	3,500 (77.5)
90	3,930 (60.5)	4,690 (64)	5,330 (65.5)	4,500 (66.5)	4,120 (71)	3,400 (74)
100	2,520 (56.5)	3,080 (60)	3,570 (61)	3,730 (63.5)	3,810 (67.5)	3,300 (70.5)
110	1,390 (52)	1,810 (55.5)	2,160 (56.5)	2,490 (59.5)	3,450 (64)	3,200 (67)
120			1,020 (52)	1,480 (56)	2,190 (60.5)	2,790 (63)
130					1,140 (56)	1,570 (58.5)
Minimum boom angle (deg.) for indicated length	50	51	52	55	55	56
Maximum boom length (ft.) at 0 deg. boom angle		74			61	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

MODE B

A6-829-014549A

35 - 125 ft.
(10.8 - 38.1 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

18,000 lbs.
(8165 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE) 1.5°	25°	45°	56 FT. LENGTH (SWINGAWAY BASE & FLY) 1.5°	25°	45°
30	*11,500 (80)					
35	11,500 (78.5)					
40	11,500 (77)	*10,000 (80)		6,950 (79.5)		
45	11,500 (75)	9,300 (78.5)	*8,000 (80)	6,780 (78.5)		
50	11,000 (73.5)	8,790 (76.5)	6,810 (78.5)	6,620 (77)		
60	10,050 (70)	7,960 (72.5)	6,490 (74.5)	6,290 (74)	*4,900 (80)	
70	9,220 (66)	7,360 (68.5)	6,400 (70.5)	5,960 (71)	4,560 (76.5)	*3,700 (80)
80	8,440 (62)	6,900 (64.5)	6,350 (66)	5,640 (67.5)	4,230 (73)	3,520 (76.5)
90	7,340 (57.5)	6,590 (60)	6,340 (61.5)	5,260 (64.5)	3,870 (69.5)	3,400 (72.5)
100	6,020 (53)	6,250 (55)	6,320 (56.5)	4,980 (60.5)	3,700 (65.5)	3,290 (68.5)
110	4,510 (47.5)	5,050 (50)	5,260 (51)	4,650 (56.5)	3,480 (61.5)	3,190 (64)
120	3,280 (41.5)	3,690 (44)		4,070 (52)	3,290 (57.5)	3,110 (59.5)
130	2,250 (34.5)	2,540 (36.5)		3,020 (47.5)	3,120 (52.5)	3,040 (54)
140	1,380 (26)			2,140 (42.5)	2,750 (47.5)	
150				1,380 (36.5)	1,840 (41)	
Minimum boom angle (deg.) for indicated length	24	25	45	35	37	45
Maximum boom length (ft.) at 0 deg. boom angle		112			99	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

MODE B

A6-829-014930

35 - 125 ft.
(10.8 - 38.1 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

12,500 lbs.
(5670 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE) 1.5°	25°	45°	56 FT. LENGTH (SWINGAWAY BASE & FLY) 1.5°	25°	45°
30	*11,500 (80)					
35	11,500 (78.5)					
40	11,500 (77)	*10,000 (80)		6,950 (79.5)		
45	11,500 (75)	9,300 (78.5)	*8,000 (80)	6,780 (78.5)		
50	11,000 (73.5)	8,790 (76.5)	6,810 (78.5)	6,620 (77)		
60	10,050 (70)	7,960 (72.5)	6,490 (74.5)	6,290 (74)	*4,900 (80)	
70	9,220 (66)	7,360 (68.5)	6,400 (70.5)	5,960 (71)	4,560 (76.5)	*3,700 (80)
80	8,440 (62)	6,900 (64.5)	6,350 (66)	5,640 (67.5)	4,230 (73)	3,520 (76.5)
90	6,850 (57.5)	6,590 (60)	6,340 (61.5)	5,260 (64.5)	3,870 (69.5)	3,400 (72.5)
100	5,090 (53)	5,490 (55)	6,060 (56.5)	4,980 (60.5)	3,700 (65.5)	3,290 (68.5)
110	3,690 (47.5)	3,940 (50)	4,310 (51)	4,650 (56.5)	3,480 (61.5)	3,190 (64)
120	2,540 (41.5)	2,670 (44)		3,620 (52)	3,290 (57.5)	3,110 (59.5)
130	1,600 (34.5)	1,620 (36.5)		2,620 (47.5)	3,110 (52.5)	3,040 (54)
140				1,770 (42.5)	2,130 (47.5)	
150				1,050 (36.5)	1,290 (41)	
Minimum boom angle (deg.) for indicated length	33	33	45	36	40	46
Maximum boom length (ft.) at 0 deg. boom angle		99			74	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

MODE B

A6-829-014932

35 - 125 ft.
(10.8 - 38.1 m)

31 - 56 ft.
(9.4 - 17 m)
FOLDING

8,500 lbs.
(3855 kg)

100%

360°

85% Domestic (Pounds)

	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
(Feet)	1.5°	25°	45°	1.5°	25°	45°
30	*11,500 (80)					
35	11,500 (78.5)					
40	11,500 (77)	*10,000 (80)		6,950 (79.5)		
45	11,500 (75)	9,300 (78.5)	*8,000 (80)	6,780 (78.5)		
50	11,000 (73.5)	8,790 (76.5)	6,810 (78.5)	6,620 (77)		
60	10,050 (70)	7,960 (72.5)	6,490 (74.5)	6,290 (74)	*4,900 (80)	
70	9,220 (66)	7,360 (68.5)	6,400 (70.5)	5,960 (71)	4,560 (76.5)	*3,700 (80)
80	7,910 (62)	6,900 (64.5)	6,350 (66)	5,640 (67.5)	4,230 (73)	3,520 (76.5)
90	5,790 (57.5)	6,380 (60)	6,340 (61.5)	5,260 (64.5)	3,870 (69.5)	3,400 (72.5)
100	4,140 (53)	4,550 (55)	5,110 (56.5)	4,980 (60.5)	3,700 (65.5)	3,290 (68.5)
110	2,840 (47.5)	3,090 (50)	3,460 (51)	4,060 (56.5)	3,480 (61.5)	3,190 (64)
120	1,770 (41.5)	1,900 (44)		2,860 (52)	3,290 (57.5)	3,110 (59.5)
130				1,860 (47.5)	2,380 (52.5)	2,830 (54)
140				1,020 (42.5)	1,430 (47.5)	
Minimum boom angle (deg.) for indicated length	37	39	46	42	46	47
Maximum boom length (ft.) at 0 deg. boom angle		99			87	

NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

MODE B

A6-829-014542


35 - 138 ft.
(10.8 - 42.0 m)


8,500 lbs.
(3855 kg)


100%


360°


85% Domestic (Pounds)

(Feet)	35	61	74	87	99	112	138
10	+140,000 (65.5)	42,900 (77.5)	*32,100 (80)				
12	110,000 (62)	42,000 (75.5)	32,100 (78.5)	*31,850 (80)			
15	95,800 (56)	36,550 (72.5)	32,100 (76)	31,850 (78.5)	*21,350 (80)		
20	70,700 (44.5)	29,400 (67.5)	31,350 (71.5)	28,850 (75)	21,350 (77.5)	19,000 (79.5)	
25	53,150 (29.5)	24,350 (62)	26,450 (67.5)	25,050 (71.5)	20,850 (74.5)	18,150 (77)	*19,000 (80)
30		20,500 (56.5)	22,300 (63)	21,550 (68)	18,650 (71.5)	17,300 (74.5)	18,300 (78.5)
35		17,450 (50)	19,100 (58.5)	18,500 (64)	16,900 (68.5)	16,450 (71.5)	17,650 (76.5)
40		15,050 (43)	16,500 (53.5)	16,000 (60)	15,300 (65)	15,650 (69)	17,000 (74)
45		13,100 (35)	14,450 (48.5)	14,000 (56)	13,650 (61.5)	14,150 (66)	16,350 (72)
50		11,450 (24.5)	12,750 (42.5)	12,350 (52)	12,100 (58.5)	12,700 (63)	15,700 (69.5)
60			10,050 (28)	9,780 (42.5)	9,580 (51)	10,150 (57)	13,300 (65)
70				7,860 (30)	7,710 (42.5)	8,220 (50)	10,200 (60)
80					6,270 (32)	6,730 (42.5)	7,430 (55)
90					4,800 (15.5)	5,550 (33.5)	5,370 (49.5)
100						4,010 (21)	3,770 (43)
110							2,510 (36)
120							1,480 (27)
Minimum boom angle (deg.) for indicated length (no load)						0	10
Maximum boom length (ft.) at 0 degree boom angle (no load)							112

NOTE: ( ) Boom angles are in degrees.

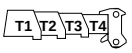
*This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	35	61	74	87	99	112
0	26,400 (28.2)	10,150 (53.8)	6,240 (66.6)	3,420 (79.4)	2,440 (92.2)	1,680 (105)

NOTE: ( ) Reference radii are in feet.

A6-829-014468A



%

MODE A

T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
T3	0	0	25	50	75	100	100
T4	0	0	25	50	75	100	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.


35 - 138 ft.
(10.8 - 42.0 m)


5,500 lbs.
(2495 kg)


100%


360°

85% Domestic (Pounds)

(Feet)	35	61	74	87	99	112	138
10	+140,000 (65.5)	42,900 (77.5)	*32,100 (80)				
12	110,000 (62)	42,000 (75.5)	32,100 (78.5)	*31,850 (80)			
15	95,800 (56)	36,550 (72.5)	32,100 (76)	31,850 (78.5)	*21,350 (80)		
20	68,550 (44.5)	29,400 (67.5)	31,350 (71.5)	28,850 (75)	21,350 (77.5)	19,000 (79.5)	
25	51,450 (29.5)	24,350 (62)	26,450 (67.5)	25,050 (71.5)	20,850 (74.5)	18,150 (77)	*19,000 (80)
30		20,500 (56.5)	22,300 (63)	21,550 (68)	18,650 (71.5)	17,300 (74.5)	18,300 (78.5)
35		17,450 (50)	19,100 (58.5)	18,500 (64)	16,900 (68.5)	16,450 (71.5)	17,650 (76.5)
40		15,050 (43)	16,500 (53.5)	16,000 (60)	15,300 (65)	15,650 (69)	17,000 (74)
45		13,100 (35)	14,450 (48.5)	14,000 (56)	13,650 (61.5)	14,150 (66)	16,350 (72)
50		11,450 (24.5)	12,750 (42.5)	12,350 (52)	12,100 (58.5)	12,700 (63)	15,700 (69.5)
60			10,050 (28)	9,780 (42.5)	9,580 (51)	10,150 (57)	12,800 (65)
70				7,830 (30)	7,710 (42.5)	8,220 (50)	9,120 (60)
80					6,270 (32)	6,730 (42.5)	6,510 (55)
90					4,040 (15.5)	5,110 (33.5)	4,560 (49.5)
100						3,340 (21)	3,060 (43)
110							1,870 (36)
Minimum boom angle (deg.) for indicated length (no load)						0	33
Maximum boom length (ft.) at 0 degree boom angle (no load)							112

NOTE: ( ) Boom angles are in degrees.

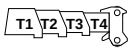
*This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	35	61	74	87	99	112
0	26,400 (28.2)	10,150 (53.8)	6,240 (66.6)	3,420 (79.4)	2,440 (92.2)	1,680 (105)

NOTE: ( ) Reference radii are in feet.

A6-829-014469A



%

MODE A

T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
T3	0	0	25	50	75	100	100
T4	0	0	25	50	75	100	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.


35 - 138 ft.
(10.8 - 42.0 m)


3,000 lbs.
(1361 kg)


100%


360°

85% Domestic (Pounds)

(Feet)	35	61	74	87	99	112	138
10	+140,000 (65.5)	42,900 (77.5)	*32,100 (80)				
12	110,000 (62)	42,000 (75.5)	32,100 (78.5)	*31,850 (80)			
15	95,350 (56)	36,550 (72.5)	32,100 (76)	31,850 (78.5)	*21,350 (80)		
20	66,750 (44.5)	29,400 (67.5)	31,350 (71.5)	28,850 (75)	21,350 (77.5)	19,000 (79.5)	
25	50,050 (29.5)	24,350 (62)	26,450 (67.5)	25,050 (71.5)	20,850 (74.5)	18,150 (77)	*19,000 (80)
30		20,500 (56.5)	22,300 (63)	21,550 (68)	18,650 (71.5)	17,300 (74.5)	18,300 (78.5)
35		17,450 (50)	19,100 (58.5)	18,500 (64)	16,900 (68.5)	16,450 (71.5)	17,650 (76.5)
40		15,050 (43)	16,500 (53.5)	16,000 (60)	15,300 (65)	15,650 (69)	17,000 (74)
45		13,100 (35)	14,450 (48.5)	14,000 (56)	13,650 (61.5)	14,150 (66)	16,350 (72)
50		11,450 (24.5)	12,750 (42.5)	12,350 (52)	12,100 (58.5)	12,700 (63)	15,700 (69.5)
60			10,050 (28)	9,780 (42.5)	9,580 (51)	10,150 (57)	11,700 (65)
70				6,990 (30)	7,710 (42.5)	8,220 (50)	8,220 (60)
80					5,580 (32)	6,660 (42.5)	5,740 (55)
90					3,410 (15.5)	4,480 (33.5)	3,900 (49.5)
100						2,770 (21)	2,470 (43)
110							1,340 (36)
Minimum boom angle (deg.) for indicated length (no load)						0	35
Maximum boom length (ft.) at 0 degree boom angle (no load)							112

NOTE: ( ) Boom angles are in degrees.

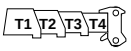
*This capacity is based on maximum boom angle.

+ 12 parts line required to lift this capacity (using aux. boom nose).

Boom Angle	35	61	74	87	99	112
0	26,400 (28.2)	10,150 (53.8)	6,240 (66.6)	3,420 (79.4)	2,440 (92.2)	1,680 (105)

NOTE: ( ) Reference radii are in feet.

A6-829-014470A



%

MODE A

T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
T3	0	0	25	50	75	100	100
T4	0	0	25	50	75	100	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

35 - 138 ft.
(10.8 - 42.0 m)

0 lbs.
(0 kg)

100%

360°

85% Domestic (Pounds)

(Feet)	35	61	74	87	99	112	138
10	139,500 (65.5)	42,900 (77.5)	*32,100 (80)				
12	110,000 (62)	42,000 (75.5)	32,100 (78.5)	*31,850 (80)			
15	92,450 (56)	36,550 (72.5)	32,100 (76)	31,850 (78.5)	*21,350 (80)		
20	64,600 (44.5)	29,400 (67.5)	31,350 (71.5)	28,850 (75)	21,350 (77.5)	19,000 (79.5)	
25	48,350 (29.5)	24,350 (62)	26,450 (67.5)	25,050 (71.5)	20,850 (74.5)	18,150 (77)	*19,000 (80)
30		20,500 (56.5)	22,300 (63)	21,550 (68)	18,650 (71.5)	17,300 (74.5)	18,300 (78.5)
35		17,450 (50)	19,100 (58.5)	18,500 (64)	16,900 (68.5)	16,450 (71.5)	17,650 (76.5)
40		15,050 (43)	16,500 (53.5)	16,000 (60)	15,300 (65)	15,650 (69)	17,000 (74)
45		13,100 (35)	14,450 (48.5)	14,000 (56)	13,650 (61.5)	14,150 (66)	16,350 (72)
50		11,450 (24.5)	12,750 (42.5)	12,350 (52)	12,100 (58.5)	12,700 (63)	15,450 (69.5)
60			9,160 (28)	9,710 (42.5)	9,580 (51)	10,150 (57)	10,400 (65)
70				5,990 (30)	7,430 (42.5)	8,220 (50)	7,140 (60)
80					4,720 (32)	5,790 (42.5)	4,820 (55)
90					2,550 (15.5)	3,700 (33.5)	3,100 (49.5)
100						1,990 (21)	1,760 (43)
Minimum boom angle (deg.) for indicated length (no load)						0	40
Maximum boom length (ft.) at 0 degree boom angle (no load)							112

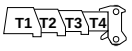
NOTE: ( ) Boom angles are in degrees.

*This capacity is based on maximum boom angle.

Boom Angle	35	61	74	87	99	112
0	26,400 (28.2)	10,150 (53.8)	6,240 (66.6)	3,330 (79.4)	2,130 (92.2)	1,260 (105)

NOTE: ( ) Reference radii are in feet.

A6-829-014471



%

MODE A

T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
T3	0	0	25	50	75	100	100
T4	0	0	25	50	75	100	100

Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom angle. To achieve maximum boom capacities, the boom extension must be removed from this crane.

TMS870 4 SECTION BOOM . . . . . .

Machine equipped as follows:
110 ft. full power 4 section boom
31 - 56 ft. (9.4 - 17 m) folding swingaway
Main and auxiliary hoist w/rope
Auxiliary boom nose
Full fuel and hydraulics
445/65R22.5 front tires
315/80R22.5 rear tires
45 ton hook block (on carrier deck)
10 ton ball (on carrier deck)
Counterweight configuration-see chart

AXLE/TIRE CAPACITY	FRONT 49,200 lbs. (22 317 kg)	REAR 60,000 lbs. (27 216 kg)	GVW 109,200 lbs. (49 533 kg)
Counterweight placement effects:			
8,500 lbs. (3856 kg) cwt. on superstructure	34,955 lbs. (15 856 kg)	57,525 lbs. (26 093 kg)	92,480 lbs. (41 949 kg)
8,500 lbs. (3856 kg) cwt. on carrier	46,450 lbs. (21 070 kg)	46,030 lbs. (20 879 kg)	92,480 lbs. (41 949 kg)
3,000 lbs. (1361 kg) on S/S 5,500 lbs. (2495 kg) on carrier	42,393 lbs. (19 229 kg)	50,087 lbs. (22 719 kg)	92,480 lbs. (41 949 kg)
5,500 lbs. (2495 kg) on S/S 3,000 lbs. (1361 kg) on carrier	39,012 lbs. (17 696 kg)	53,468 lbs. (24 253 kg)	92,480 lbs. (41 949 kg)
5,500 lbs. (2495 kg) ONLY on superstructure	36,308 lbs. (16 469 kg)	53,172 lbs. (24 119 kg)	89,480 lbs. (40 588 kg)
5,500 lbs. (2495 kg) ONLY on carrier	43,746 lbs. (19 843 kg)	45,734 lbs. (20 745 kg)	89,480 lbs. (40 588 kg)
No cwt. on carrier or superstructure	38,788 lbs. (17 594 kg)	45,192 lbs. (20 499 kg)	83,980 lbs. (38 093 kg)

TTS870 4 SECTION BOOM . . . . . .

Machine equipped as follows:
110 ft. full power 4 section boom
31 - 56 ft. (9.4 - 17 m) folding swingaway
Main and auxiliary hoist w/rope
Auxiliary boom nose
Full fuel and hydraulics
445/65R22.5 front and single rear tires
45 ton hook block (on carrier deck)
10 ton ball (on carrier deck)
Counterweight configuration-see chart

AXLE/TIRE CAPACITY	FRONT 49,200 lbs. (22 317 kg)	REAR 49,200 lbs. (22 317 kg)	GVW 98,400 lbs. (44 634 kg)
Counterweight placement effects:			
8,500 lbs. (3856 kg) cwt. on superstructure	46,450 lbs. (21 070 kg)	46,547 lbs. (21 114 kg)	92,997 lbs. (42 183 kg)
5,500 lbs. (2495 kg) ONLY on carrier	43,746 lbs. (19 843 kg)	46,251 lbs. (20 979 kg)	89,997 lbs. (40 823 kg)
No cwt. on carrier or superstructure	38,788 lbs. (17 594 kg)	45,709 lbs. (20 734 kg)	84,497 lbs. (38 328 kg)

TMS/TTS870 WEIGHT EFFECTS . . . . . .

REMOVE:	FRONT	REAR	GVW
45 ton hookblock	-1,185 lbs. (-538 kg)	+355 lbs. (161 kg)	-830 lbs. (-376 kg)
31 - 56 ft. (9.4 - 17 m) swingaway	-1,970 lbs. (-894 kg)	-267 lbs. (-121 kg)	-2,237 lbs. (-1015 kg)
Auxiliary Nose	-234 lbs. (-106 kg)	+107 lbs. (49 kg)	-127 lbs. (-58 kg)
10 ton ball	-800 lbs. (-363 kg)	+240 lbs. (109 kg)	-560 lbs. (-254 kg)

SUBSTITUTE:	FRONT	REAR	GVW
70 ton hookblock w/o cheekplates	+1,205 lbs. (547 kg)	-361 lbs. (-164 kg)	+844 lbs. (383 kg)
31 ft. (9.4 m) swingaway	-417 lbs. (-189 kg)	-264 lbs. (-120 kg)	-681 lbs. (-309 kg)

Note: Weights will vary due to manufacturing tolerances.

TMS870 5 SECTION BOOM . . . . . .

Machine equipped as follows:
138 ft. full power 5 section boom
31 - 56 ft. (9.4 - 17 m) folding swingaway
Main and auxiliary hoist w/rope
Auxiliary boom nose
Full fuel and hydraulics
445/65R22.5 front tires
315/80R22.5 rear tires
45 ton hook block (on carrier deck)
10 ton ball (on carrier deck)
Counterweight configuration-see chart

AXLE/TIRE CAPACITY	FRONT 49,200 lbs. (22 317 kg)	REAR 60,000 lbs. (27 216 kg)	GVW 109,200 lbs. (49 533 kg)
Counterweight placement effects:			
8,500 lbs. (3856 kg) cwt. on superstructure	37,739 lbs. (17 118 kg)	58,701 lbs. (26 627 kg)	96,440 lbs. (43 745 kg)
8,500 lbs. (3856 kg) cwt. on carrier	49,234 lbs. (22 333 kg)	47,206 lbs. (21 413 kg)	96,440 lbs. (43 745 kg)
3,000 lbs. (1361 kg) on S/S 5,500 lbs. (2495 kg) on carrier	45,177 lbs. (20 492 kg)	51,263 lbs. (23 253 kg)	96,440 lbs. (43 745 kg)
5,500 lbs. (2495 kg) on S/S 3,000 lbs. (1361 kg) on carrier	41,796 lbs. (18 959 kg)	54,644 lbs. (24 787 kg)	96,440 lbs. (43 745 kg)
5,500 lbs. (2495 kg) ONLY on superstructure	39,092 lbs. (17 732 kg)	54,348 lbs. (24 652 kg)	93,440 lbs. (42 384 kg)
5,500 lbs. (2495 kg) ONLY on carrier	46,530 lbs. (21 106 kg)	46,910 lbs. (21 278 kg)	93,440 lbs. (42 384 kg)
No cwt. on carrier or superstructure	41,572 lbs. (18 857 kg)	46,368 lbs. (21 033 kg)	87,940 lbs. (39 890 kg)

TTS870 5 SECTION BOOM . . . . . .

Machine equipped as follows:
138 ft. full power 5 section boom
31 - 56 ft. (9.4 - 17 m) folding swingaway
Main and auxiliary hoist w/rope
Auxiliary boom nose
Full fuel and hydraulics
445/65R22.5 front and single rear tires
45 ton hook block (on carrier deck)
10 ton ball (on carrier deck)
Counterweight configuration-see chart

AXLE/TIRE CAPACITY	FRONT 49,200 lbs. (22 317 kg)	REAR 49,200 lbs. (22 317 kg)	GVW 98,400 lbs. (44 634 kg)
Counterweight placement effects:			
8,500 lbs. (3856 kg) cwt. on carrier	49,031 lbs. (22 240 kg)	47,665 lbs. (21 621 kg)	96,696 lbs. (43 861 kg)
5,500 lbs. (2495 kg) ONLY on carrier	46,327 lbs. (21 014 kg)	47,369 lbs. (21 487 kg)	93,696 lbs. (42 501 kg)
No cwt. on carrier or superstructure	41,369 lbs. (18 765 kg)	46,827 lbs. (21 241 kg)	88,196 lbs. (40 006 kg)

Note: Weights will vary due to manufacturing tolerances.

NOTES:

Rated Lifting Capacities

IMPORTANT NOTES:

WARNING: THIS CHART IS ONLY A GUIDE.
The notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.

1. All rated loads have been tested to and meet minimum requirements of SAEJ1063 NOV93 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load on outriggers fully extended as determined by SAEJ765 OCT90 Crane Stability Test Code.

2. Capacities given do not include the weight of hook blocks, slings, auxiliary lifting equipment and load handling devices. Their weights MUST be added to the load to be lifted. When more than minimum required reeving is used, the additional rope weight shall be considered part of the load.

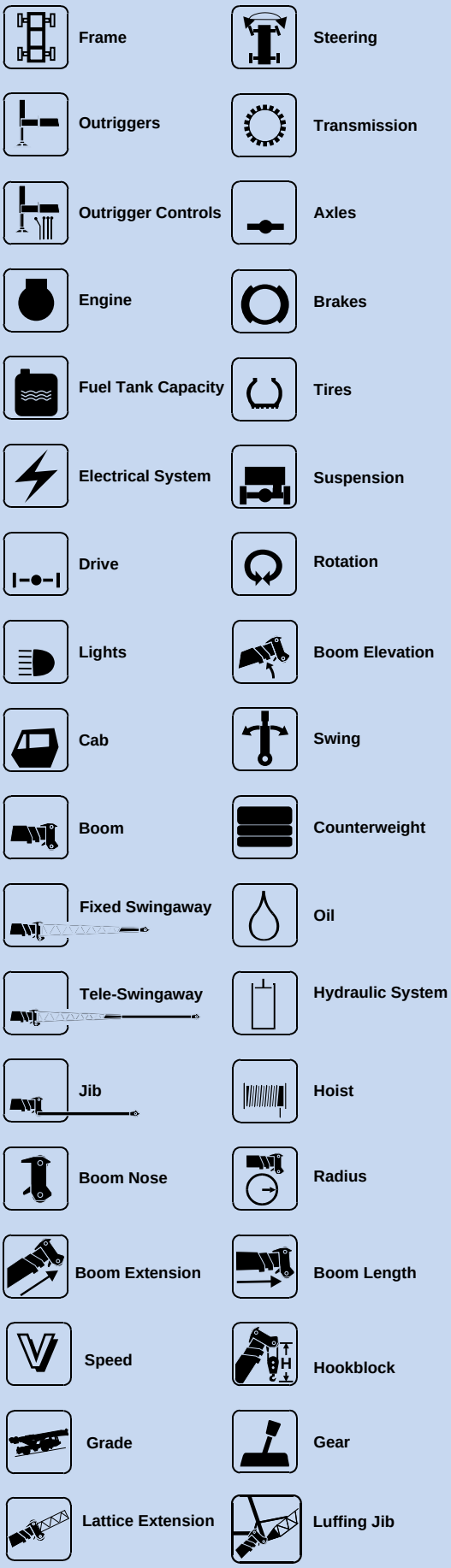
3. Capacities appearing above the bold line are based on structural strength. Tipping should never be relied upon as a capacity limitation.

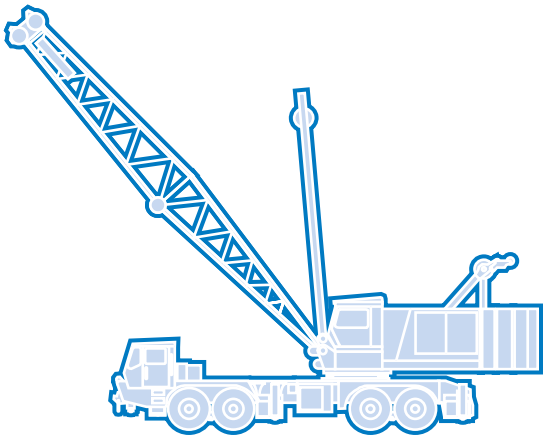
4. All capacities are for crane on firm, level surface. It may be necessary to have structural supports under the outrigger floats to spread the load to a larger bearing surface.

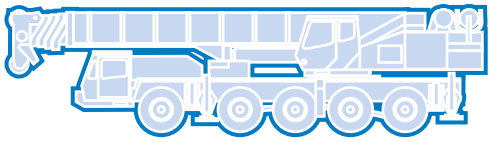
5. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.

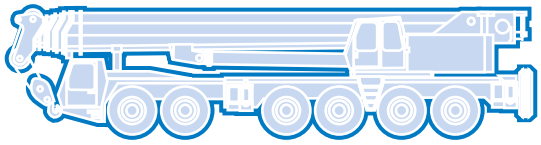
6. For outrigger operation, ALL outriggers shall be properly extended with tires raised free of ground before raising the boom or lifting loads.

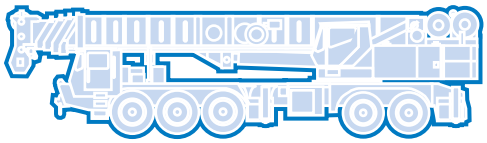
Symbols Glossary

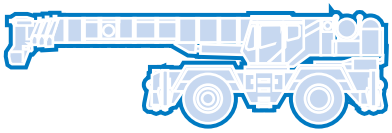


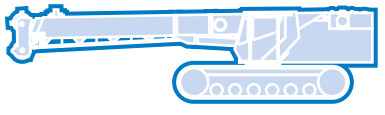












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