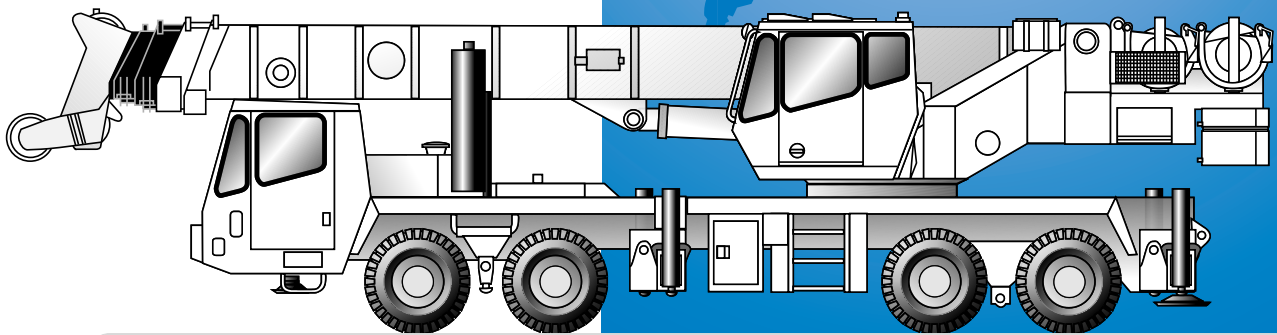




**GROVE<sup>®</sup>**  
**CRANE**

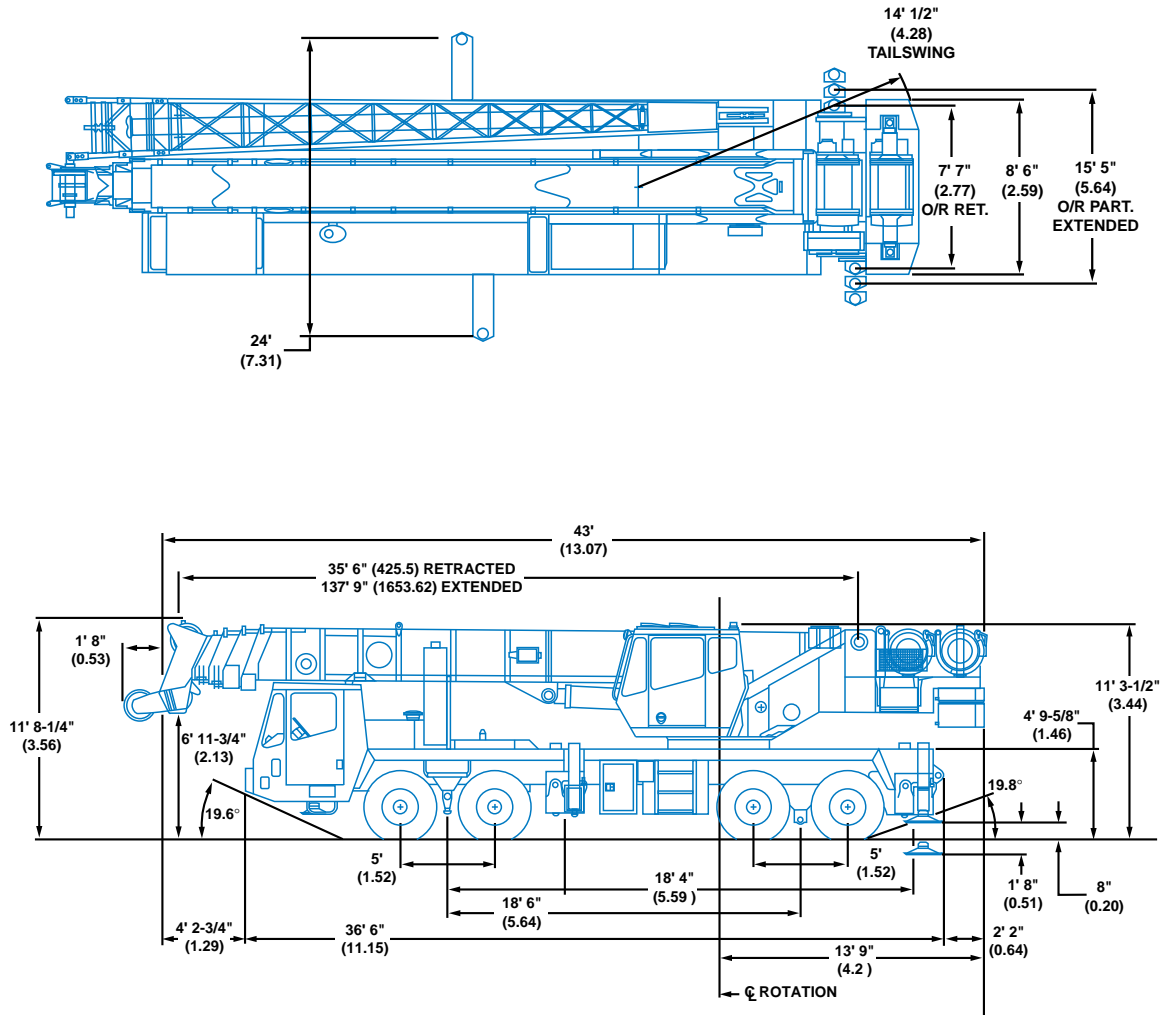
A GROVE WORLDWIDE COMPANY

**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



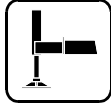
36 - 110 ft.  
(10.9 - 33.5 m)



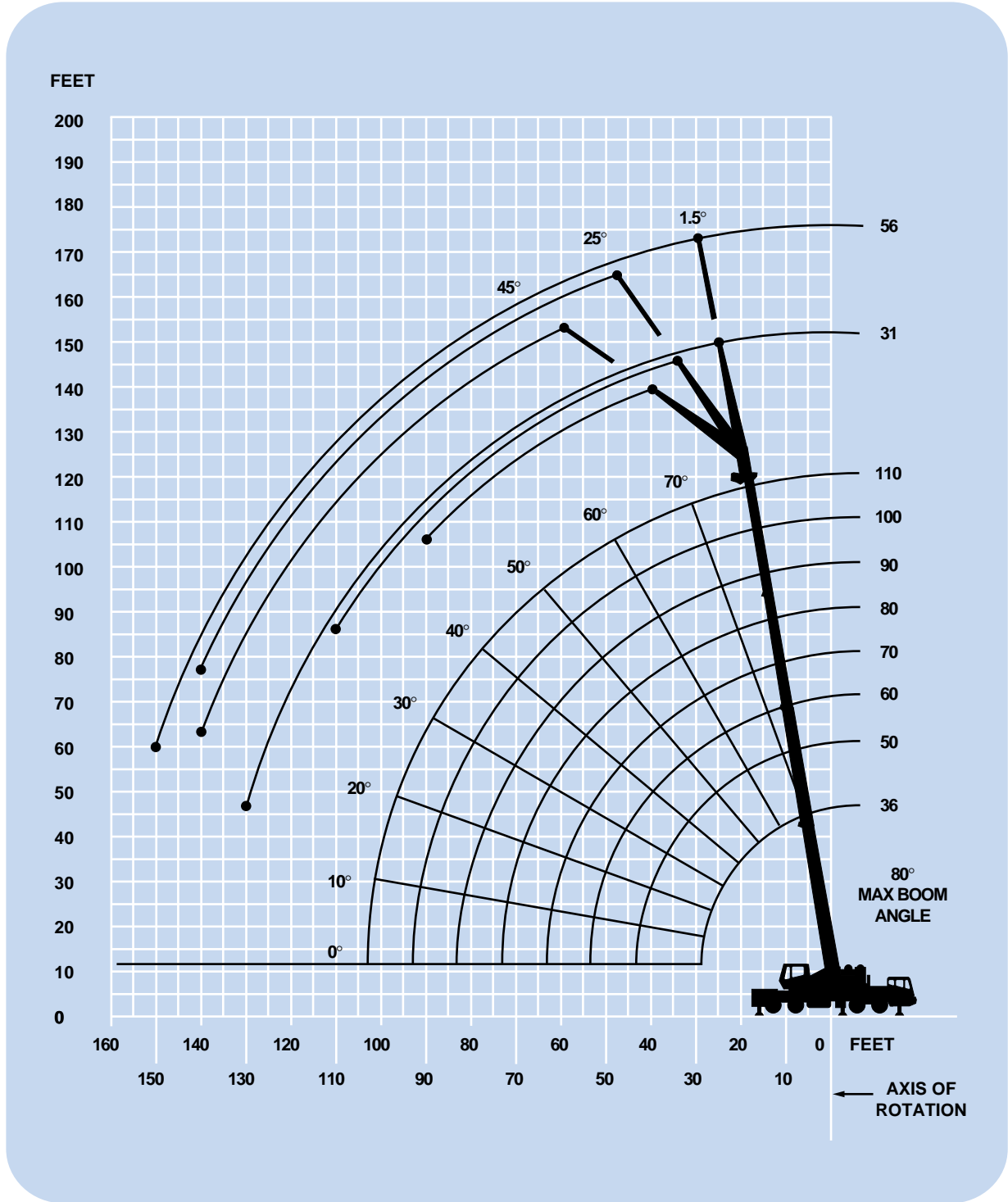
31 - 56 ft.  
(9.4 - 17 m)



8,500 lbs.  
(3856 kg)



360°



5'-6"

7'-0"

**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 boom base 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 M11 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 M11 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)	13,250 (61)	13,600 (61)	
60			9,000 (21)	9,880 (37.5)	10,750 (46.5)	11,100 (53)	11,100 (57.5)	11,450 (57.5)	
65				8,210 (30)	9,090 (41.5)	9,390 (49)	9,390 (54.5)	9,700 (54.5)	
70				6,830 (20)	7,690 (35.5)	7,960 (44.5)	7,960 (50.5)	8,240 (50.5)	
75					6,510 (29)	6,750 (39.5)	6,750 (47)	7,010 (47)	
80					5,510 (19)	5,730 (34.5)	5,730 (43)	5,960 (43)	
85						4,840 (28)	4,840 (38.5)	5,060 (38.5)	
90						4,070 (18.5)	4,070 (33)	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°



(Feet)



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)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
	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)

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	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



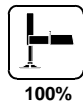
85% Domestic (Pounds)

(Feet)	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)		
	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



85% Domestic (Pounds)

31 FT. LENGTH (SWINGAWAY BASE)

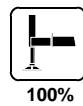
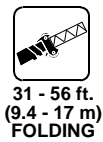
56 FT. LENGTH (SWINGAWAY BASE & FLY)

(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	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



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

## 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)
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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)
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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.





































# 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

	Frame		Steering
	Outriggers		Transmission
	Outrigger Controls		Axles
	Engine		Brakes
	Fuel Tank Capacity		Tires
	Electrical System		Suspension
	Drive		Rotation
	Lights		Boom Elevation
	Cab		Swing
	Boom		Counterweight
	Fixed Swingaway		Oil
	Tele-Swingaway		Hydraulic System
	Jib		Hoist
	Boom Nose		Radius
	Boom Extension		Boom Length
	Speed		Hookblock
	Grade		Gear
	Lattice Extension		Luffing Jib