

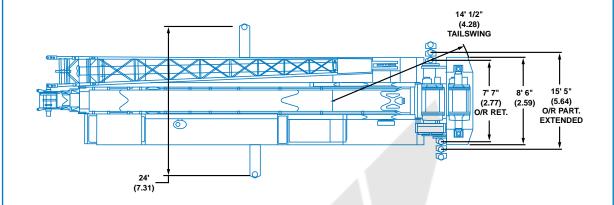


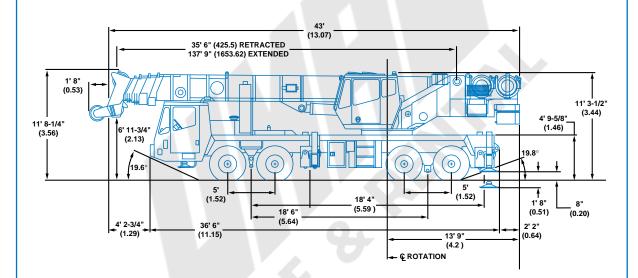


Truck Mounted Hydraulic Cranes



# **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







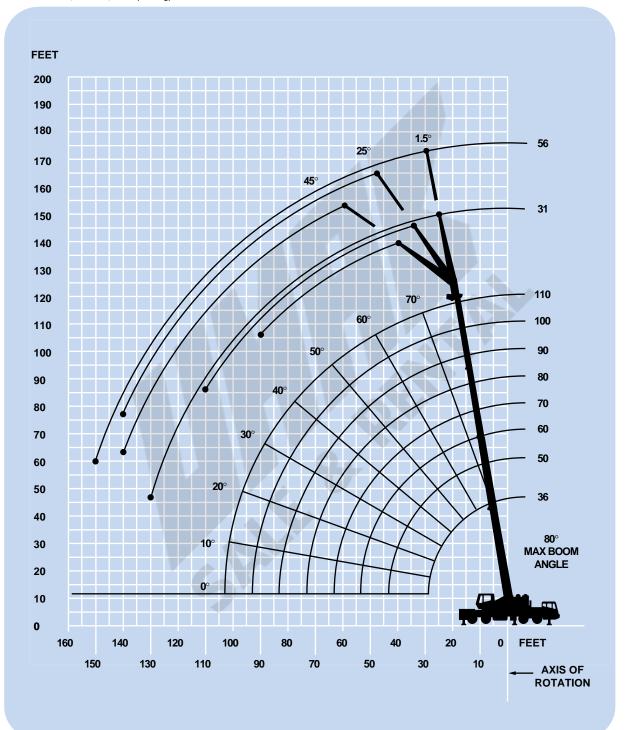


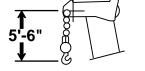


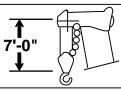
36 - 110 ft. (10.9 - 33.5 m)

31 - 56 ft. (9.4 - 17 m)

8,500 lbs. (3856 kg)







**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

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 audiovisual 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.

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

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)

Maximum single line speed	Layer 1	High Range 372 fpm 113m/m	Low Range 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)

<sup>\*</sup>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

## 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.

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

#### TTS Axles

(2) Eaton beam-type steering axles, 84 in. (2.13 m) track. (2) Kessler single reduction drive axles, 83.38 in. Front:

(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

Spring mounted tandem Front:

Rear Solid mounted tandem with equalizing beam

and solid steel saddles.

#### TMS Tires

445/65R 22.5 Goodyear G286, tubeless, mounted Front:

on aluminum disc wheels. 315/80R 22.5 Goodyear G286, tubeless, mounted Rear:

on aluminum disc wheels.

#### **TTS Tires**

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

## **TMS \*Optional Tires**

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

## TTS \*Optional Tires

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 helt door lock and electric windshield. 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)

## 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

## 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)

<sup>\*</sup>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.



(Feet) 36 50  10 +140,000 109,50 (68) (75) 12 110,500 104,50 (64) (72.5) 15 96,800 91,400 (58.5) (69) 20 78,750 75,300 (47) (62) 25 59,800 59,750 (32.5) (55) 30 47,300 (47) 35 38,551 (32.5) 40 28,450 (24.5) 45 50  55 60  65 70  75 80  85 90  95 100  Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to MOTE: ( ) Boom angles are in degree to	18,000 lbs. 100%	360°				
(Feet) 36 50  10 +140,000 (68) (75)  12 110,500 104,50 (64) (72.5)  15 96,800 91,400 (47) (62)  20 78,750 75,300 (47) (62)  25 59,800 59,750 (32.5) (55)  30 47,300 (47)  35 38,551 (37.5)  40 28,451 (24.5)  45  50  55  60  65  70  75  80  86  90  96  100  Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to the company of t						
10			85% D	omestic (Pound	s)	
10 (68) (75) 12 110,500 104,50 (64) (72.5) 15 96,800 91,400 (58.5) (69) 20 78,750 75,300 (47) (62) 25 59,800 59,750 (32.5) (55) 30 47,300 (47) 35 38,555 40 28,456 (24.5) 45 50 66 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree to the sound in the sound	36 50 *60	70	80	90	100	110
12		**56,450 (80)				
15	110,500 104,500 79,850	56,450				
(36.3) (69) 78,750 (75,30) (47) (62) 25 59,800 59,750 (32.5) (55) 30 47,300 (47) 35 38,551 40 28,451 (24.5) 45 50 66 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree to the content of the	96,800 91,400 73,900	(78.5) 56,450	56,500	**47,850		
25		(76) 56,450	(78.5) 50,950	(80) 41,000	40,350	**27,35
25 (32.5) (55) 30 47,30(47) 35 38,551 40 28,450 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to the company of the co		(71.5)	(74.5)	(77)	(79)	(80)
30 47,300 (47) 35 38,555 40 23,45 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree to the source of the sour		48,900 (67)	43,800 (71)	35,250 (73.5)	34,750 (76)	27,350
35 (47) 35 (37.5) 40 28,451 (24.5) 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		(67) 41,900	(71) 38,300	(73.5) 31,050	(76) 30,450	(78.5) 27,350
(37.5) 40		(62.5)	(67)	(70.5)	(73)	(75.5)
40 28,45 (24.5) 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree to the source of the source o	38,550 36,950 (37.5) (50)	36,400 (57.5)	33,900	27,650	27,000	25,300
40 (24.5) 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		(57.5) 29,700	(63) 30,300	(67) 24,350	(70) 24,250	(72.5) 22,900
50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	<u>(24.5)</u> (43)	(52)	(58.5)	(63)	(67)	(70)
55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	23,400	24,650	25,550	22,050	21,900	20,850
55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	(34.5) 19,450	(46.5) 20,700	(54) 21,600	(59.5) 20,050	(63.5) 19,950	(67) 19,100
60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	(23)	(39.5)	(49)	(55.5)	(60)	<b>(64)</b>
65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		17,500 (32)	18,450	18,350	18,300 (56.5)	17,550
65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		14,900	(43.5) 15,850	(51) 16,550	(56.5) 16,850	(61) 16,200
70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		<u>(21)</u>	(37.5)	(46.5)	(53)	(57.5)
75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m			13,650 (30)	14,350 (41.5)	14,900 (49)	15,050 (54.5)
80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	Α.		11,650 (20)	12,500 (35.5)	13,050 (44.5)	13,500 (50.5)
80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m				10,900	11,450	11,900
95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m				(29) 9,480	(39.5) 10,000	(47) 10,500
90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree b NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m				(19)	(34.5)	(43)
95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m					8,790 (28)	9,260 (38.5)
95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m					7,690	8,150
Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m					(18.5)	(33) 7,170
Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree b NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m						(27)
Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m						6,280 (18.5)
NOTE: () Boom angles are in degree	om angle (deg.) for indicated length (no load)					0
*60 ft. boom length is with inner-m	om length (ft.) at 0 degree boom angle (no load)					110
-	oom angles are in degrees.	,				
same to the same t	n length is with inner-mid extended and out	er-mid & fly retra	acted.			
** I his capacity is based on maximum bo	y is based on maximum boom angle.					
+ 12 parts line required to lift this of	ne required to lift this capacity (using aux.	boom nose).				
Boom Angle 36 50	36 50 *60	70	80	90	100	110
0 27,600 16,200 (28.3) (42.8)	27,600 16,200 11,350	9,150	7,410	6,040	4,950	4,060

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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



		( ۵		**					
- 110 ft. - 33.5 m)	12,500 lbs. (5670 kg)	1	00%	360°					
						85% De	omestic (Pound	s)	
(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)	**27,35( (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) 22,150	28,600 (52) 23,000	1	29,600 (58.5) 23,950	24,350 (63) 22,050	24,250 (67) 21,900	22,900 (70) 20,850
45			(34.5) 17,900	(46.5) 18,850		(54) 19,750	(59.5) 20,050	(63.5) 19,950	(67) 19,100
50			(23)	(39.5)		(49) 16,500	(55.5) 17,400	(60) 17,850	(64) 17,550
55				(32) 12,900		(43.5) 13,850	(51) 14,800	(56.5) 15,250	(61) 15,700
60				(21)		(37.5) 11,700	(46.5) 12,650	(53) 13,100	(57.5) 13,550
65						(30) 9,890	(41.5) 10,850	(49) 11,300	(54.5) 11,800
70						(20)	(35.5) 9,320	(44.5) 9,820	(50.5) 10,250
75 80					4		(29) 7,980	(39.5) 8,520	(47) 8,980
85					н		(19)	(34.5) 7,370	(43) 7,860
90					-			(28) 6,360	(38.5) 6,880
95								(18.5)	(33) 6,020
100					7				(27) 5,230
Minimum I	boom angle (deg.) fo	or indicated leng	th (no load)						(18.5) 0
	boom length (ft.) at (								110
NOTE: ()	Boom angles are	in degrees.		, ,					
*60 ft. bo	om length is with	inner-mid ext	ended and oute	er-mid & fly reti	acted	l.			
**This capa	acity is based on ma	ximum boom a	ngle.						
+ 12 parts	s line required to	lift this capac	ity (using aux. b	poom 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

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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.

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

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.



		(¥	<u>-</u>	44				
-110 ft. -33.5 m)	8,500 lbs. (3855 kg)	1	00%	<b>360</b> °				
					85%	% Domestic (Pounds	s)	
(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)	**27,35 (80)
25	54,450	54,350	50,000	48,900	43,800	35,250	34,750	27,350
30	(32.5)	(55) 42,900	(62.5) 42,300	(67) 41,900	(71) 38,300	(73.5) 31,050	(76) 30,450	(78.5) 27,350
		32,300	(56.5) 32,600	(62.5) 33,900	(67) 33,900	(70.5) 27,650	(73) 27,000	(75.5) <b>25,300</b>
35		(37.5) 24,300	(50) 25,450	(57.5) 26,500	(63) 27,450	(67) 24,350	(70) 24,250	(72.5) 22,900
40		(24.5)	(43)	(52)	(58.5)	(63)	(67)	(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	15,050	15,950	16,300	16,700
60				(32) 11,600	(43.5) 12,600	(51) 13,400	(56.5) 13,800	(61) 14,150
				( <b>21</b> )	(37.5) 10,550	(46.5) 11,400	(53) 11,750	(57.5) 12,150
65					(30) 8,830	(41.5) 9,720	(49) 10,050	(54.5) 10,450
70					(20)	(35.5)	(44.5)	(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		A					5,510	5,900
95							(18.5)	(33) 5,100
								(27) 4,390
100								(18.5)
Minimum	boom angle (deg.) fo	or indicated leng	th (no load)					0
Maximum	n boom length (ft.) at (	0 degree boom	angle (no load)	9.	1			110
*60 ft. bo	oom length is with	inner-mid ext	ended and oute	er-mid & fly ret	racted.			
**This cap	pacity is based on ma	aximum boom a	ngle.					
+ 12 part	ts line required to	lift this capac	ity (using aux. b	ooom 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

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.

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



110 ft.	5,500 lbs.	کے ۔	00%	360°					
-33.5 m)	(2495 kg)	'	00%	_					
						85% D	omestic (Pound	s)	
(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)	**27,35 (80)
25	52,750 (32.5)	52,650 (55)	50,000 (62.5)	48,900 (67)	4	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					$A_{\perp}$		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		A						4,470 (18.5)	4,970 (33)
95				4					4,220 (27)
100									3,540 (18.5)
Minimum I	ooom angle (deg.) fo	or indicated leng	th (no load)						0
Maximum	boom length (ft.) at	0 degree boom	angle (no load)		1				110
*60 ft. boo	m length is with inn	er-mid extended	d and outer-mid &	fly retracted.					
**This capa	acity is based on ma	aximum boom a	ıngle.						
+ 12 parts	s line required to	lift this capac	ity (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

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.

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

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				44					
-110 ft. )-33.5 m)	3,000 lbs (1361 kg)		00%	360°					
						85% D	omestic (Pound	ls)	
(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)	**27,35( (80)
25	51,300 (32.5)	51,250 (55)	50,000 (62.5)	48,900 (67)		13,800 (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					A		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		A						4,070 (18.5)	4,270 (33)
95				4					3,580 (27)
100									2,960 (18.5)
Minimum I	ooom angle (deg.)	for indicated leng	th (no load)						0
Maximum	boom length (ft.) a	t 0 degree boom	angle (no load)	2 9					110
*60 ft. boo	m length is with in	ner-mid extended	and outer-mid &	fly retracted.					
**This capa	acity is based on n	naximum boom a	ngle.						
+ 12 parts	s line required to	o lift this capaci	ty (using aux. b	ooom 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

A6-829-013948D

11

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.

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



		<u> </u>	<u>.                                    </u>	<b>**</b>				
110 ft. -33.5 m)	0 lbs. (0 kg)	1	00%	360°				
						35% Domestic (Pound	s)	
(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)	56,50 (78.5			
20	65,950 (47)	65,800 (62)	59,600 (67.5)	56,450 (71.5)	50,95 (74.5		40,350 (79)	**27,35 (80)
25	49,650 (32.5)	49,550 (55)	49,300 (62.5)	48,900 (67)	43,80 (71)		34,750 (76)	27,350 (78.5)
30		34,800 (47)	33,900 (56.5)	35,350 (62.5)	36,50 (67)	0 31,050	30,450 (73)	27,350 (75.5)
35		24,500 (37.5)	25,200 (50)	26,200 (57.5)	27,20 (63)	0 27,650	27,000 (70)	25,300 (72.5)
40		17,900 (24.5)	19,050 (43)	19,950 (52)	21,00 (58.5	0 21,950	22,350 (67)	22,750 (70)
45		(=,	14,550 (34.5)	15,500 (46.5)	16,55 (54)	0 17,400	17,800 (63.5)	18,200 (67)
50			11,100 (23)	12,150 (39.5)	13,25 (49)	0 14,050	14,450 (60)	14,850 (64)
55			, ,	9,590 (32)	10,65 (43.5	0 11,500	11,900 (56.5)	12,300 (61)
60				7,430 (21)	8,640 (37.5	9,510	9,880 (53)	10,250 (57.5)
65					6,940 (30)	7,870	8,230 (49)	8,620 (54.5)
70			A		5,490 (20)	6,510	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.) f	or indicated leng	th (no load)					0
Maximum	boom length (ft.) at	0 degree boom	angle (no load)					110
*60 ft. boo	m length is with inr	ner-mid extended	and outer-mid &	fly retracted.				
**This cap	acity is based on m	aximum boom a	ngle.					
+ 12 part	s line required to	lift this capac	ity (using aux. I	boom nose).				
Poor								
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)	4,76 (72.8		2,770 (92.8)	1,990 (102.8

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.

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

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				Q				
6 -110 ft. .9-33.5 m)	8,500 lbs. (3855 kg)		50%	360°				
					SA	EJ1289 APR81 Dor	nestic (Pounds	s)
(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	(02.0)	20,900	20,700	21,400	22,200	23,000	23,300	23,150
		(47) 14,800	(56.5) 14,600	(62.5) 15,450	(67) 16,350	(70.5) 17,250	(73) 17,800	(75.5) 18,350
35		(37.5)	(50)	(57.5)	(63)	(67)	(70)	(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			(20)	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				(21)	2,640	3,940	4,320	4,680
					(30) 1,600	(41.5) 2,920	(49) 3,330	(54.5) 3,690
70					(20)	(35.5)	(44.5)	(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.) fo	or indicated ler	gth (no load)			18	27	37
Maximum	n boom length (ft.) at	0 degree boon	n angle (no load)	4 1				80
*This cap	acity is based upon r	naximum obta	inable boom angle					
**60 ft. bo	om length is with inr	ner-mid extend	led 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)			
	(28.3) ) Reference radii a		(53.1)	(62.8)	(72.8)			

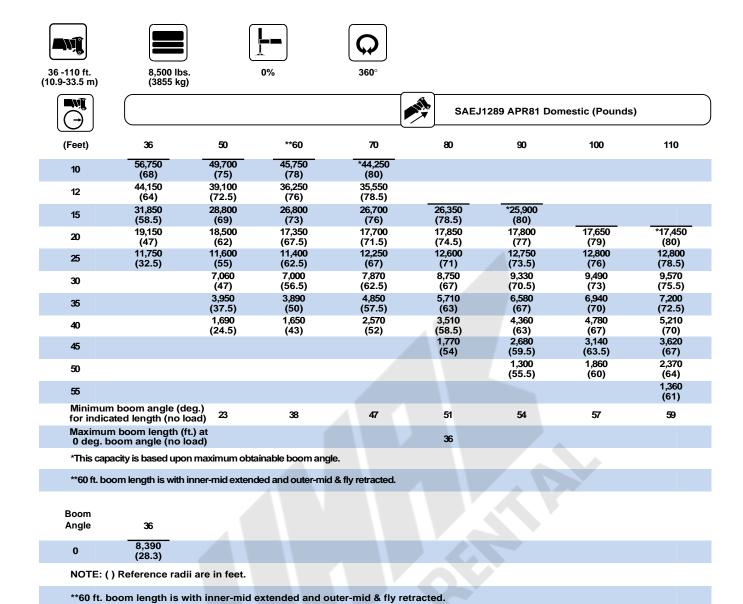
\*\*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

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

TMS870/TTS870 13





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.

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36 - 110 ft. (10.9 - 33.5 m)



18,000 lbs. (8165 kg)





				85% Domest	ic (Pounds)	
	31 FT. L	ENGTH (SWINGAWA	AY BASE)	56 FT. LENG	TH (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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			9-1	2,460 (24.5)		
nimum boom angle .) for indicated length	2	25	45	2	25	45
kimum boom length		110			110	

\*This capacity is based on maximum boom angle.

A6-829-015081

15





36 - 110 ft. (10.9 - 33.5 m)



12,500 lbs. (5670 kg)







				85% Domesti	ic (Pounds)			
	31 FT. LE	NGTH (SWINGAWA	Y BASE)	56 FT. LENGT	56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °		
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			9-1	2,180 (24.5)				
nimum boom angle .) for indicated length	2	25	45	2	25	45		
ximum boom length at 0 deg. boom angle		110			110			

\*This capacity is based on maximum boom angle.

A6-829-015082





36 - 110 ft. (10.9 - 33.5 m)



56 ft. 8,500 lbs. 17 m) (3855 kg)



Q

				85% Domest	ic (Pounds)	
	31 FT. LI	ENGTH (SWINGAWA			TH (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	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			95	1,580 (24.5)		
imum boom angle for indicated length	2	25	45	2	25	45
mum boom length 0 deg. boom angle		110			110	

\*This capacity is based on maximum boom angle.

A6-829-015083





36 - 110 ft. (10.9 - 33.5 m)









14

25

110

	FOLDING							
			N.	85% Domesti	ic (Pounds)			
	31 FT. LEI	NGTH (SWINGAWA	AY BASE)	56 FT. LENGTH (SWINGAWAY BASE & FLY)				
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °		
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			7 93	1,130 (24.5)				

NOTE: () Boom angles are in degrees.

Minimum boom angle (deg.) for indicated length

Maximum boom length (ft.) at 0 deg. boom angle

\*This capacity is based on maximum boom angle.

25

110

A6-829-015084

45





36 - 110 ft. (10.9 - 33.5 m)



3,000 lbs. (1361 kg)





				85% Domest	ic (Pounds)			
	31 FT. LE	ENGTH (SWINGAWA		56 FT. LENGTH (SWINGAWAY BASE & FLY)				
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °		
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)			
mum boom angle for indicated length	2	25	45	23	26	45		
mum boom length 0 deg. boom angle		110			100			

 $\ensuremath{^{*}}$  This capacity is based on maximum boom angle.

A6-829-015085





36 - 110 ft. (10.9 - 33.5 m)









				85% Domest	ic (Pounds)			
	31 FT. L	ENGTH (SWINGAWA		56 FT. LENGTH (SWINGAWAY BASE & FLY)				
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °		
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)			
imum boom angle for indicated length	16	25	45	31	32	45		
mum boom length 0 deg. boom angle		100			90			

\*This capacity is based on maximum boom angle.

A6-829-015086



## Working Range







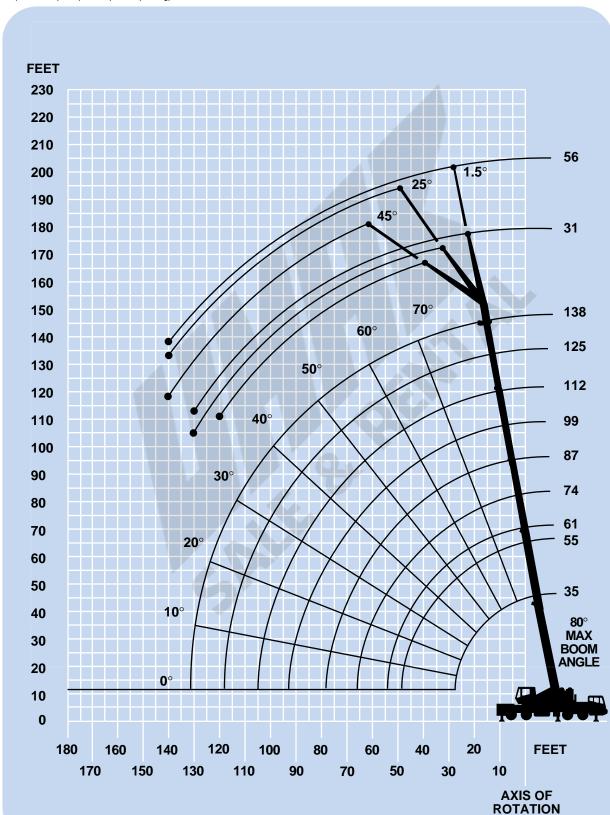




35-138 ft. (10.8-42.0 m)

31-56 ft.

8,500 lbs. (3856 kg)





## 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)

<sup>\*</sup>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.



				(C	)				
5 - 138 ft. 8 - 42.0 m)	18,000 (8165		100%	360	D°				
						85% Dome	estic (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		(2110)	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			(24.0)	12,800 (28)	12,800 (42.5)	14,000 (51)	13,250 (57)	13,100 (61.5)	13,300 (65)
70				(20)	8,830 (30)	10,150 (42.5)	10,700 (50)	10,700 (56)	11,050 (60)
80						7,160	8,240	8,660	9,120
90					_	(32) 4,800	(42.5) 5,870	(49.5) 6,700	(55) 7,380
100						(15.5)	(33.5) 4,010	(43) 4,840	(49.5) 5,500
110			4				(21)	(35) 3,340	(43) 4,000
120								(24.5)	(36) 2,760
130									(27) 1,720
Minimum I	noom angle (de	a ) for indicated	length (no load)						(9.5)
			oom angle (no k						125
	Boom angles			Judy					123
	city is based on								
	-			aux. boom nos	20)				
r 12 parts	ino requirec	. to me uno ce	ipacity (using	uux. Soom no					
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)	

A6-829-014914

l	T1 T2 T3 T4	% <b>M</b> (	ODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	0	0	0	0	0	25	50	75	100
	Т4	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

TMS870/TTS870 23



Т3

**T4** 

				C					
35 - 138 ft. (10.8 - 42.0 m)	12,500 (5670		100%	360	0				
						85% Dome	estic (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	79,100	77,500	57,050	*43,300				
15	(62) 95,800	(73.5) 79,100	(75.5) 69,850	(78.5) 51,650	(80) 43,300	*32,100			
20	(56) 70,700	(70) 70,300	(72.5) 59,850	(76) 44,350	(78.5) 39,550	(80) 32,100	30,050	*20,150	
	(44.5) 53,150	(64.5) 52,850	(67.5) 52,200	(71.5) 38,750	(75) 33,800	(77.5) 32,100	(79.5) 30,050	(80) 20,150	*19,000
25	(29.5)	(58)	(62)	(67.5)	(71.5)	(74.5)	(77)	(79)	(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	22,050	21,800	20,000	20,450	19,250	16,450	16,350
50		(21.5)	(35) 17,900	(48.5) 17,600	(56) 17,500	(61.5) 17,900	(66) 16,900	(69) 15,750	(72) 15,700
			(24.5)	(42.5) 11,200	(52) 11,450	(58.5) 12.500	(63) 13,250	(66.5) 13.100	(69.5) 13,300
60				(28)	(42.5) 7,460	(51) 8,480	9,520	(61.5) 10,550	(65) 11,050
70				4	(30)	(42.5)	(50)	(56)	(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
110							(21)	2,400	(43) 3,360
120			4					(24.5)	(36) 2,250
									(27) 1,330
130		$\overline{A}$			,				(9.5)
Minimum I	boom angle (de	g.) for indicated	length (no load)	A					9
Maximum	boom length (ft	at 0 degree bo	oom angle (no lo	ad)					125
NOTE: ()	Boom angles	are in degree	es.						
*This capa	city is based on	maximum boo	m angle.						
+ 12 parts	s line required	to lift this ca	pacity (using	aux. boom nos	e).				
Boom Angle	35	55	61	74	87	99	112	125	
0	26,400	12,500	10,150	6,240	3,420	2,440	1,680	1,070	
	(28.2) ( ) Reference i	(47.4)	(53.8)	(66.6)	<u>(79.4)</u>	(92.2)	(105)	(117.8)	
NOTE: (	( ) Kelerence I	aun are in fee	i.						AC 000 04404=
T1 T2 T3 T4 0	% MC	DDE B							A6-829-014915
T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	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

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.



				<b>(</b>					
35 - 138 ft. 0.8 - 42.0 m)	8,500 (3856		100%	36	<b>0</b> °				
						85% Dome	estic (Pounds)	ı	
(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	79,100	77,500	57,050	*43,300				
15	(62) 95,800	(73.5) 79,100	(75.5) 69,850	(78.5) 51,650	(80) 43,300	*32,100			
20	(56) 70,700	(70) 70,300	(72.5) 59,850	(76) 44,350	(78.5) 39,550	(80) 32,100	30,050	*20,150	
20	(44.5)	(64.5)	(67.5)	(71.5)	(75)	(77.5) 32,100	(79.5)	(80)	*40.000
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	41,800	34,200	29,200	30,200	27,350	19,100	18,300
		(51) 31,850	(56.5) 31,950	(63) 29,050	(68) 25,800	(71.5) 26,600	(74.5) 24.300	(76.5) 18.100	(78.5) 17,650
35		(43.5)	(50)	(58.5)	(64)	(68.5)	(71.5)	(74)	(76.5)
40		24,700	24,750 (43)	24,800	22,900	23,450	21,600	17,250	17,000
45		(34.5) 19,550	19,550	(53.5) 19,750	(60) 19,500	(65) 20,450	(69) 19,250	(72) 16,450	(74) 16,350
45		(21.5)	(35)	(48.5)	(56)	(61.5)	( <del>6</del> 6)	( <del>6</del> 9)	( <del>7</del> 2)
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				(=0)	6,020	7,040	8,080	9,130	10,200
					(30)	(42.5) 4,390	(50) 5,390	(56) 6,400	(60) 7,430
80						(32)	(42.5)	(49.5)	(55)
90						2,420 (15.5)	3,390 (33.5)	4,370 (43)	5,370 (49.5)
100						(10.0)	1,840	2,800	3,770
100							(21)	(35) 1,550	(43) 2,510
110								(24.5)	(36)
120									1,480 (27)
Minimum I	ooom angle (de	g.) for indicated	length (no load)					5	10
Maximum	boom length (fi	t.) at 0 degree bo	oom angle (no lo	ad)				1:	12
NOTE: ()	Boom angles	are in degree	es.						
*This capa	city is based on	maximum boo	m angle.						
+ 12 parts	s line required	d to lift this ca	pacity (using a	aux. boom no	se).				
D									
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)		

A6-829-014530A

l	T1\T2\T3\T4\	% <b>M</b> (	ODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	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.

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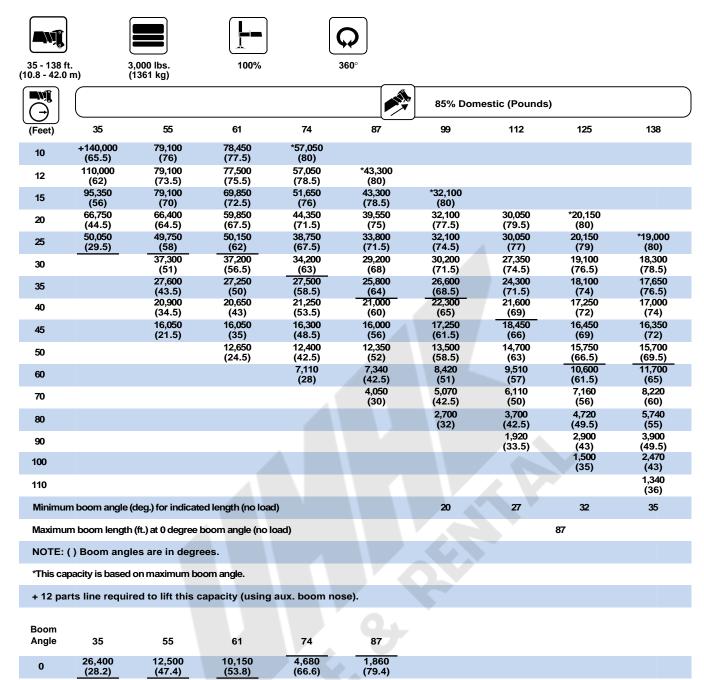
				Ç					
35 - 138 ft.  0.8 - 42.0 m)	5,500 (2495		100%	360	<b>0</b> °				
						85% Dome	estic (Pounds)	)	
(Feet)	35	55	61	74	87	99	112	125	138
10	+140,000 (65.5)	79,100 (76)	78,450 (77.5)	*57,050 (80)					
12	110,000 (62)	79,100 (73.5)	77,500 (75.5)	57,050 (78.5)	*43,300 (80)				
15	95,800 (56)	79,100 (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		(21.0)	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			(24.0)	8,190 (28)	8,430 (42.5)	9,500 (51)	10,550 (57)	11,700 (61.5)	12,800 (65)
70				(20)	4,950 (30)	5,970 (42.5)	7,000 (50)	8,060 (56)	9,120 (60)
80					(50)	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						(13.3)	1,130 (21)	2,090 (35)	3,060 (43)
110			A				(21)	(00)	1,870 (36)
Minimum	boom angle (de	g.) for indicated	length (no load)				20	27	33
			oom angle (no loa	ad)				99	
NOTE: (	Boom angles	are in degre	es.						
*This capa	ncity is based on	maximum boo	om angle.						
+ 12 part	s line required	d to lift this ca	apacity (using	aux. boom no	se).				
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)			

A6-829-014533A

L	T1 T2 T3 T4	, % MC	DDE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	0	0	0	0	0	25	50	75	100
	Т4	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.





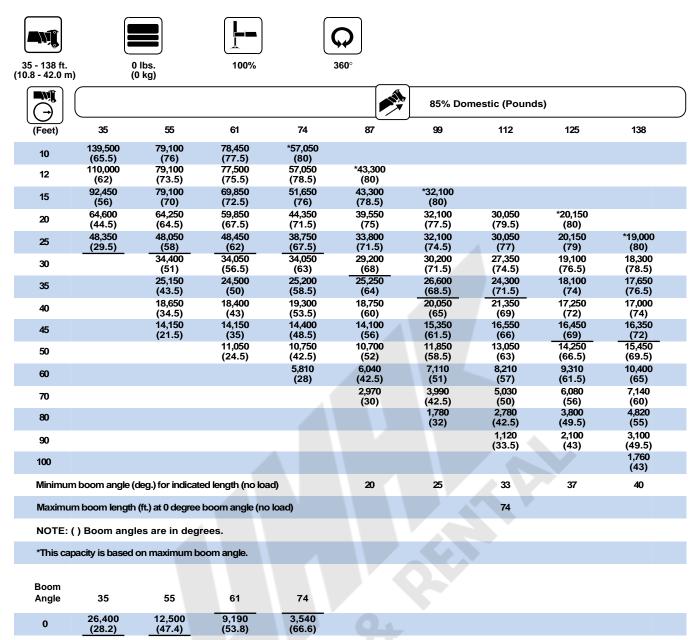
A6-829-014536A

T1\T2\T3\T4	<b>%</b>	MODE B							
T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
Т3	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.

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A6-829-014539

l	T1\T2\T3\T4\	%	MODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	0	0	0	0	0	25	50	75	100
	Т4	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)



ft. 18,000 lbs. m) (8165 kg)





				85% Domes	tic (Pounds)			
	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)				
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °		
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		401		1,540 (42.5)	2,100 (46.5)			
160					1,300 (41)			
Minimum boom angle eg.) for indicated length	32	32	45	40	40	45		
laximum boom length .) at 0 deg. boom angle		112			99			

\*This capacity is based on maximum boom angle.

MODE B A6-829-014929





35 - 138 ft. (10.8 - 42.0 m)



56 ft. 12,500 lbs. 17 m) (5670 kg)



Q

				85% Domest	ic (Pounds)			
	31 FT. L	ENGTH (SWINGAWA	Y BASE)	56 FT. LENGTH (SWINGAWAY BASE & FLY)				
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °		
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)			
imum boom angle ) for indicated leng imum boom lengtl	gth <sup>34</sup>	38	45	42	45	47		

<sup>\*</sup> This capacity is based on maximum boom angle.

A6-829-014931

## **MODE B**





35 - 138 ft. (10.8 - 42.0 m)



1 - 56 ft. .4 - 17 m)





**Q** 

				85% Domesti	ic (Pounds)	
	31 FT.	LENGTH (SWINGAWAY	BASE)	56 FT. LENG	TH (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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)	3,6 <b>00</b> (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		A		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	

\*This capacity is based on maximum boom angle.

MODE B A6-829-014543A





35 - 138 ft. (10.8 - 42.0 m)



5,500 lbs. (2495 kg)





				85% Domestic	c (Pounds)			
	31 FT. LE	ENGTH (SWINGAWA	Y BASE)	56 FT. LENG	56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °		
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)		
imum boom and for indicated le		44	45	50	51	52		

MODE B A6-829-014545

<sup>\*</sup> This capacity is based on maximum boom angle.





35 - 138 ft. (10.8 - 42.0 m)



6 ft. 3,000 lbs. 7 m) (1361 kg)





				85% Domesti	c (Pounds)	
	31 FT.	LENGTH (SWINGAWA	Y BASE)	56 FT. LENGT	TH (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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		A				1,020 (53.5)
Minimum boom angle eg.) for indicated length	47	47	48	52	53	54
Maximum boom length		74			61	

**MODE B** 

A6-829-014547A

<sup>\*</sup> This capacity is based on maximum boom angle.











i - 138 ft. 8 - 42.0 m)	31 - 56 ft. (9.4 - 17 m) FOLDING	0 lbs. (0 kg)	100%	360°
				85% Domestic (Pounds)
	31 FT.	LENGTH (SWINGAW	VAY BASE)	56 FT. LENGTH (SWINGAWAY BAS

				85% Domesti	c (Pounds)	
	31 FT. L	ENGTH (SWINGAWAY		56 FT. LENGT	H (SWINGAWAY BAS	E & FLY)
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °
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 eg.) for indicated length	50	51	52	55	55	56
laximum boom length .) at 0 deg. boom angle		74			61	

\*This capacity is based on maximum boom angle.

**MODE B** A6-829-014549A





35 - 125 ft. (10.8 - 38.1 m)



18,000 lbs. (8165 kg)





				85% Dom	estic (Pounds)				
	31 FT.	LENGTH (SWINGAWA)	( BASE)	56 FT. LE	56 FT. LENGTH (SWINGAWAY BASE & FLY)				
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °			
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				

\*This capacity is based on maximum boom angle.

MODE B A6-829-014930

TMS870/TTS870

35





35 - 125 ft. (10.8 - 38.1 m)



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



1000/

**Q** 

				85% Domestic	85% Domestic (Pounds)		
	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °	
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 eg.) for indicated length	33	33	45	36	40	46	
laximum boom length ) at 0 deg. boom angle		99			74		

\*This capacity is based on maximum boom angle.

MODE B A6-829-014932





35 - 125 ft. (10.8 - 38.1 m)



8,500 lbs. (3855 kg)





				85% Domestic	c (Pounds)	
	31 FT. I	LENGTH (SWINGAWA)	Y BASE)	56 FT. LENGT	TH (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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)	
linimum boom angle g.) for indicated length	37	39	46	42	46	47
ximum boom length 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



- 42.0 m)	(3855 kg)						
					85% Domestic (Pe	ounds)	
(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	29,400	31,350	28,850	21,350	19,000	
25	(44.5) 53,150	(67.5) 24,350	(71.5) 26,450	(75) 25,050	(77.5) 20,850	(79.5) 18,150	*19,000
ے	(29.5)	(62) 20,500	(67.5) 22,300	(71.5) 21,550	(74.5)	(77) 17,300	(80)
30		(56.5)	(63)	(68)	18,650 (71.5)	(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	16,500	16,000	15,300	15,650	17,000
		(43) 13,100	(53.5) 14,450	(60) 14,000	(65) 13,650	(69) 14,150	(74) 16,350
45		(35)	(48.5)	(56)	(61.5)	(66)	(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			(23)	7,860	7,710	8,220	10,200
				(30)	(42.5) 6,270	(50) 6,730	(60) 7,430
80					(32)	(42.5)	(55)
90					4,800 (15.5)	5,550 (33.5)	5,370 (49.5)
100						4,010 (21)	3,770 (43)
110		A					2,510 (36)
120							1,480 (27)
Minimum bo	oom angle (deg.) for	indicated length (no	o load)			0	10
Maximum bo	oom length (ft.) at 0	degree boom angle	(no load)				112
NOTE: ( ) B	Boom angles are i	n degrees.					
*This capacit	ty is based on maxii	mum boom angle.					
+ 12 parts	line required to li	ft this capacity (ເ	ısing aux. boom n	ose).			
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)	

T1 T2 T3 T4 %	MODE	Α					
T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
Т3	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.

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		(X	4				
138 ft. - 42.0 m)	5,500 lbs. (2495 kg)	100%	360	)°			
					85% Domestic (Po	ounds)	
(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		4					1,870 (36)
Minimum k	ooom angle (deg.) for	indicated length (n	o load)			0	33
Maximum I	boom length (ft.) at 0	degree boom angle	(no load)			•	112
NOTE: ()	Boom angles are	in degrees.					
*This capa	city is based on maxi	mum boom angle.					
+ 12 parts	s line required to li	ft this capacity (	using aux. boom i	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)	

A6-829-014469A

T1 T2 T3 T4 0 %	MODE A						
T1	0	0	0	0	0	0	100
Т2	0	100	100	100	100	100	100
Т3	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.

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			C				
- 138 ft. 3 - 42.0 m)	3,000 lbs. (1361 kg)	100%	360				
					85% Domestic (P	ounds)	
(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	14,450	14,000	13,650	14,150	16,350
50		(35) 11,450	(48.5) 12,750	(56) 12,350	(61.5) 12,100	(66) 12,700	(72) 15,700
60		(24.5)	(42.5) 10,050	(52) 9,780	(58.5) 9,580	(63) 10,150	(69.5) 11,700
			(28)	(42.5) 6,990	(51) 7,710	(57) 8,220	(65) 8,220
70			4	(30)	(42.5) 5,580	(50) 6,660	(60) 5,740
80					(32)	(42.5)	(55)
90					3,410 (15.5)	4,480 (33.5)	3,900 (49.5)
100						2,770 (21)	2,470 (43)
110		4					1,340 (36)
Minimum be	oom angle (deg.) for i	ndicated length (no	load)			0	35
Maximum b	oom length (ft.) at 0 d	legree boom angle	(no load)				112
NOTE: ()	Boom angles are i	n degrees.					
*This capac	ity is based on maxin	num boom angle.					
+ 12 parts	line required to lif	t this capacity (u	ising aux. boom n	ose).			
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: ( ) F	Reference radii are	in feet.					
							A6-829-014
2 T3 T4 ° 6	MODE A	4					

T1 T2 T3 T4 %	MODE A						
T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
Т3	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.

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Т4

0

0

		<b>-</b>		Q			
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	42,000	32,100	*31,850			
15	(62) 92,450	(75.5) 36,550	(78.5) 32,100	(80) 31,850	*21,350		
20	(56) 64,600	(72.5) 29,400	(76) 31,350	(78.5) 28,850	(80) 21,350	19,000	
20	(44.5)	(67.5)	(71.5)	(75)	(77.5)	(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	22,300	21,550	18,650	17,300	18,300
		(56.5)	(63)	(68)	(71.5)	(74.5)	(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	16,500	16,000	15,300	15,650	17,000
-10		(43) 13,100	(53.5)	(60)	(65)	(69)	(74)
45		(35)	14,450 (48.5)	14,000 (56)	13,650 (61.5)	14,150 (66)	16,350 (72)
50		11,450	12,750	12,350	12,100	12,700	15,450
30		(24.5)	(42.5)	(52)	(58.5)	(63)	(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	3,700	3,100
			A		(15.5)	(33.5) 1,990	(49.5) 1,760
100				1		(21)	(43)
Minimum b	oom angle (deg.) fo	or indicated length (	no load)			0	40
Maximum b	oom length (ft.) at	0 degree boom ang	le (no load)				112
NOTE: ()	Boom angles are	e in degrees.					
*This capac	ity is based on ma	ximum 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: ( ) F	Reference radii a			107			
							A6-829-01447
T1 T2 T3 T4 %	MODE	A					
T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
Т3	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.

50

75

100

100

25

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#### 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.	REAR 60,000 lbs. (27 216 kg)	GVW 109,200 lbs. (49 533 kg)
	(22 317 kg)	(27 210 kg)	(+3 333 kg)

#### Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	34,955 lbs.	57,525 lbs.	92,480 lbs.
on superstructure	(15 856 kg)	(26 093 kg)	(41 949 kg)
8,500 lbs. (3856 kg) cwt.	46,450 lbs.	46,030 lbs.	92,480 lbs.
on carrier	(21 070 kg)	(20 879 kg)	(41 949 kg)
3,000 lbs. (1361 kg) on S/S	42,393 lbs.	50,087 lbs.	92,480 lbs.
5,500 lbs. (2495 kg) on carrier	(19 229 kg)	(22 719 kg)	(41 949 kg)
5,500 lbs. (2495 kg) on S/S	39,012 lbs.	53,468 lbs.	92,480 lbs.
3,000 lbs. (1361 kg) on carrier	(17 696 kg)	(24 253 kg)	(41 949 kg)
5,500 lbs. (2495 kg) ONLY	36,308 lbs.	53,172 lbs.	89,480 lbs.
on superstructure	(16 469 kg)	(24 119 kg)	(40 588 kg)
5,500 lbs. (2495 kg) ONLY	43,746 lbs.	45,734 lbs.	89,480 lbs.
on carrier	(19 843 kg)	(20 745 kg)	(40 588 kg)
No cwt. on carrier or superstructure	38,788 lbs. (17 594 kg)	45,192 lbs. (20 499 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	REAR	GVW
	.,	49,200 lbs.	98,400 lbs.
	(22 317 kg)	(22 317 kg)	(44 634 kg)

#### Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	46,450 lbs.	46,547 lbs.	92,997 lbs.
on superstructure	(21 070 kg)	(21 114 kg)	(42 183 kg)
5,500 lbs. (2495 kg) ONLY on carrier	43,746 lbs.	46,251 lbs.	89,997 lbs.
	(19 843 kg)	(20 979 kg)	(40 823 kg)
No cwt. on carrier or superstructure	38,788 lbs.	45,709 lbs.	84,497 lbs.
	(17 594 kg)	(20 734 kg)	(38 328 kg)

## TMS/TTS870 WEIGHT EFFECTS ....

#### REMOVE:

#### FRONT REAR GVW

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

## SUBSTITUTE:

### FRONT

#### REAR

GVW

70 ton hookblock w/o cheekplates	+1,205 lbs.	-361 lbs.	+844 lbs.
	(547 kg)	(-164 kg)	(383 kg)
31 ft. (9.4 m) swingaway	-417 lbs.	-264 lbs.	-681 lbs.
	(-189 kg)	(-120 kg)	(-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	REAR	GVW
	49.200 lbs.	60.000 lbs.	109,200 lbs.
		(27 216 kg)	(49 533 kg)

#### Counterweight placement effects:

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

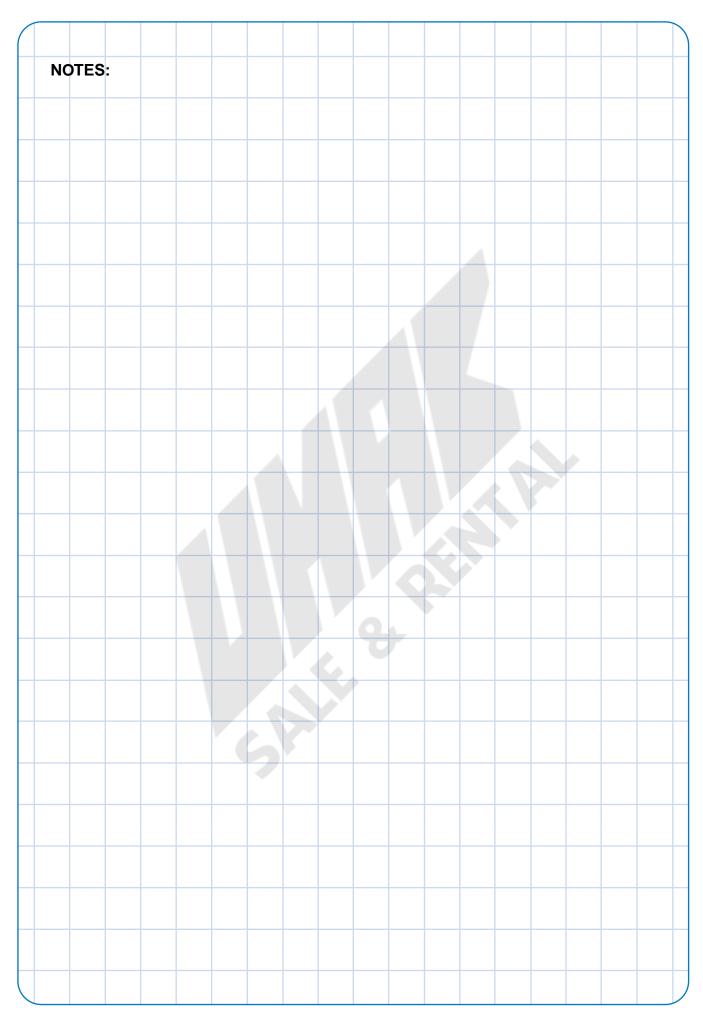
AXLE/TIRE CAPACITY	FRONT 49,200 lbs.	REAR 49,200 lbs.	GVW 98,400 lbs.
	(22 317 kg)	(22 317 kg)	(44 634 kg)

#### Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	49,031 lbs.	47,665 lbs.	96,696 lbs.
on carrier	(22 240 kg)	(21 621 kg)	(43 861 kg)
5,500 lbs. (2495 kg) ONLY	46,327 lbs.	47,369 lbs.	93,696 lbs.
on carrier	(21 014 kg)	(21 487 kg)	(42 501 kg)
No cwt. on carrier or superstructure	41,369 lbs.	46,827 lbs.	88,196 lbs.
	(18 765 kg)	(21 241 kg)	(40 006 kg)

Note: Weights will vary due to manufacturing tolerances.

TMS870/TTS870 43





## Rated Lifting Capacities

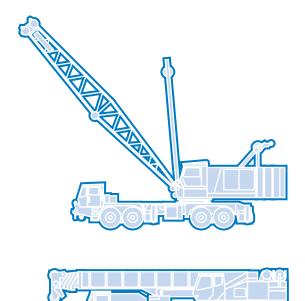
#### **IMPORTANT NOTES:**

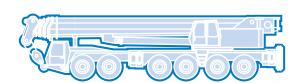
WARNING: THIS CHART IS ONLY A GUIDE.
The notes below are for illustration only and should not be relied upon to operate the crane.
The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.

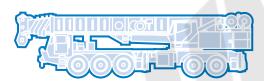
- 1. All rated loads have been tested to and meet minimum requirements of SAEJ1063 NOV93 Cantilevered Boom Crane Structures Method of Test, and do not exceed 85% of the tipping load on outriggers fully extended as determined by SAEJ765 OCT90 Crane Stability Test Code.
- 2. Capacities given do not include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



















#### Grove Worldwide – World Headquarters Grove North America

1565 Buchanan Trail East P.O. Box 21 Shady Grove, Pennsylvania 17256, U.S.A. Tel: [Int + 1] (717) 597-8121 Fax: [Int + 1] (717) 597-4062 Western Hemisphere, Asia/Pacific

## **Grove Europe Limited\***

Sunderland SR4 6TT, England Tel: [Int + 44] 191 565-6281 Fax: [Int + 44] 191 564-0442 Europe, Africa, Middle East

## Grove Europe Limited\*

P.O. Box No. 268 4A Kimber Road Abingdon, Oxfordshire, 0X141SG Tel: [Int + 44] 1235 55-3184 Fax: [Int + 44] 1235 55-3218

#### Deutsche Grove GmbH Sales and Service

Helmholtzstrasse 12, Postfach 5026 D-40750 Langenfeld, Germany Tel: [Int + 49] (2173) 8909-0 Fax: [Int + 49] (2173) 8909-30

#### Wilhelmshaven Works

Industriegelande West, Postfach 1853 D-26358 Wilhelmshaven, Germany Tel: [Int + 49] (4421) 294-0 Fax: [Int + 49] (4421) 294-301

#### **Grove France S.A**

16, chaussée Jules-César, 95520 OSNY B.P. 203, 95523 CERGY PONTOISE CEDEX France

Tel: [Int + 33] (1) 30313150 Int: [Int + 33] (1) 30386085

\*Grove Europe Limited, Registered in England, Number 1845128, Registered office, Crown Works, Pallion, Sunderland, Tyne & Wear, England SR4 6TT

#### Grove Asia/Pacific - Regional Office

171 Chin Swee Road #06-01 San Centre Singapore 0316 Tel: [Int + 65] 536-6112 Fax: [Int + 65] 536-6119 Asia/Pacific, Near East

#### **Grove China-Representative Offices**

Regional Sales Office
Beijing Hotel Room 6074
No. 33 East Chang An Avenue
Beijing, 100004, China
Tel: [Int + 86] (10) 513-7766
Fax: [Int + 86] (10) 513-7307

#### **Grove Product Support**

Western Hemisphere, Asia/Pacific 1086 Wayne Avenue Chambersburg, Pennsylvania USA Tel: [Int + 1] (717) 263-5100 Fax: [Int + 1] (717) 267-0404

Europe, Africa, Middle East Sunderland SR4 6TT, England Tel: [Int + 44] 191 565-6281 Parts Fax: [Int + 44] 191 510-9242 Service Fax: [Int + 44] 191 510-9560

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.

Distributed By:

Form No.: TMS/TTS870 Part No.: 3-967 597-10M Printed in U.S.A.



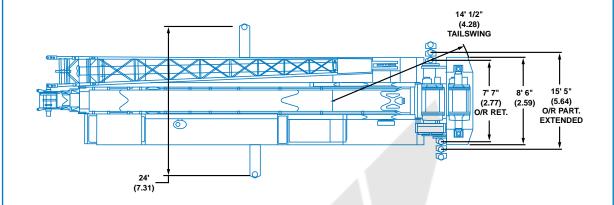


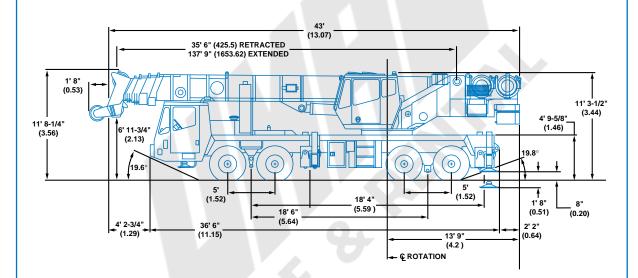


Truck Mounted Hydraulic Cranes



# **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







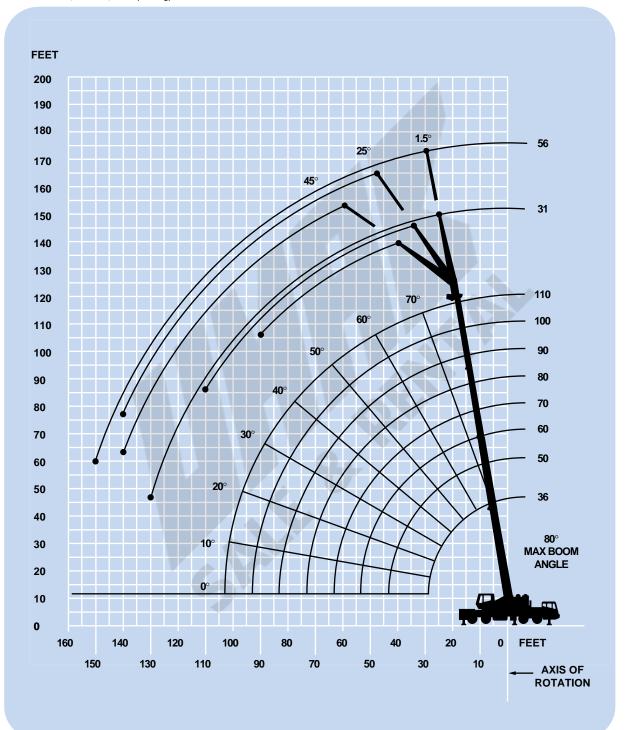


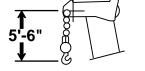


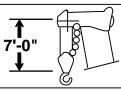
36 - 110 ft. (10.9 - 33.5 m)

31 - 56 ft. (9.4 - 17 m)

8,500 lbs. (3856 kg)







**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

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 audiovisual 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.

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

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)

Maximum single line speed	Layer 1	High Range 372 fpm 113m/m	Low Range 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)

<sup>\*</sup>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

## 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.

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

#### TTS Axles

(2) Eaton beam-type steering axles, 84 in. (2.13 m) track. (2) Kessler single reduction drive axles, 83.38 in. Front:

(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

Spring mounted tandem Front:

Rear Solid mounted tandem with equalizing beam

and solid steel saddles.

#### TMS Tires

445/65R 22.5 Goodyear G286, tubeless, mounted Front:

on aluminum disc wheels. 315/80R 22.5 Goodyear G286, tubeless, mounted Rear:

on aluminum disc wheels.

#### **TTS Tires**

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

## **TMS \*Optional Tires**

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

### TTS \*Optional Tires

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 helt door lock and electric windshield. 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)

## 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

### 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)

<sup>\*</sup>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.



(Feet) 36 50  10 +140,000 109,50 (68) (75) 12 110,500 104,50 (64) (72.5) 15 96,800 91,400 (58.5) (69) 20 78,750 75,300 (47) (62) 25 59,800 59,750 (32.5) (55) 30 47,300 (47) 35 38,551 (32.5) 40 28,450 (24.5) 45 50  55 60  65 70  75 80  85 90  95 100  Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to MOTE: ( ) Boom angles are in degree to	18,000 lbs. 100%	360°				
(Feet) 36 50  10 +140,000 (68) (75)  12 110,500 104,50 (64) (72.5)  15 96,800 91,400 (47) (62)  20 78,750 75,300 (47) (62)  25 59,800 59,750 (32.5) (55)  30 47,300 (47)  35 38,551 (37.5)  40 28,451 (24.5)  45  50  55  60  65  70  75  80  86  90  96  100  Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to the company of t						
10			85% D	omestic (Pound	s)	
10 (68) (75) 12 110,500 104,50 (64) (72.5) 15 96,800 91,400 (58.5) (69) 20 78,750 75,300 (47) (62) 25 59,800 59,750 (32.5) (55) 30 47,300 (47) 35 38,555 40 28,456 (24.5) 45 50 66 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree to the sound in the sound	36 50 *60	70	80	90	100	110
12		**56,450 (80)				
15	110,500 104,500 79,850	56,450				
(36.3) (69) 78,750 (75,30) (47) (62) 25 59,800 59,750 (32.5) (55) 30 47,300 (47) 35 38,551 40 28,451 (24.5) 45 50 66 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree to the content of the	96,800 91,400 73,900	(78.5) 56,450	56,500	**47,850		
25		(76) 56,450	(78.5) 50,950	(80) 41,000	40,350	**27,35
25 (32.5) (55) 30 47,30(47) 35 38,551 40 28,450 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to the company of the co		(71.5)	(74.5)	(77)	(79)	(80)
30 47,300 (47) 35 38,555 40 23,45 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree to the source of the sour		48,900 (67)	43,800 (71)	35,250 (73.5)	34,750 (76)	27,350
35 (47) 35 (37.5) 40 28,451 (24.5) 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		(67) 41,900	(71) 38,300	(73.5) 31,050	(76) 30,450	(78.5) 27,350
(37.5) 40		(62.5)	(67)	(70.5)	(73)	(75.5)
40 28,45 (24.5) 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree to the source of the source o	38,550 36,950 (37.5) (50)	36,400 (57.5)	33,900	27,650	27,000	25,300
40 (24.5) 45 50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		(57.5) 29,700	(63) 30,300	(67) 24,350	(70) 24,250	(72.5) 22,900
50 55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	<u>(24.5)</u> (43)	(52)	(58.5)	(63)	(67)	(70)
55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	23,400	24,650	25,550	22,050	21,900	20,850
55 60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	(34.5) 19,450	(46.5) 20,700	(54) 21,600	(59.5) 20,050	(63.5) 19,950	(67) 19,100
60 65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	(23)	(39.5)	(49)	(55.5)	(60)	<b>(64)</b>
65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		17,500 (32)	18,450	18,350	18,300 (56.5)	17,550
65 70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		14,900	(43.5) 15,850	(51) 16,550	(56.5) 16,850	(61) 16,200
70 75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m		<u>(21)</u>	(37.5)	(46.5)	(53)	(57.5)
75 80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m			13,650 (30)	14,350 (41.5)	14,900 (49)	15,050 (54.5)
80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m	Α.		11,650 (20)	12,500 (35.5)	13,050 (44.5)	13,500 (50.5)
80 85 90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m				10,900	11,450	11,900
95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m				(29) 9,480	(39.5) 10,000	(47) 10,500
90 95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree b NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m				(19)	(34.5)	(43)
95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m					8,790 (28)	9,260 (38.5)
95 100 Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m					7,690	8,150
Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m					(18.5)	(33) 7,170
Minimum boom angle (deg.) for indicate Maximum boom length (ft.) at 0 degree b NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m						(27)
Maximum boom length (ft.) at 0 degree to NOTE: ( ) Boom angles are in degree *60 ft. boom length is with inner-m						6,280 (18.5)
NOTE: () Boom angles are in degree	om angle (deg.) for indicated length (no load)					0
*60 ft. boom length is with inner-m	om length (ft.) at 0 degree boom angle (no load)					110
-	oom angles are in degrees.	,				
same to the same of the same o	length is with inner-mid extended and out	er-mid & fly retra	acted.			
** I his capacity is based on maximum bo	y is based on maximum boom angle.					
+ 12 parts line required to lift this of	ne required to lift this capacity (using aux.	boom nose).				
Boom Angle 36 50	36 50 *60	70	80	90	100	110
0 27,600 16,200 (28.3) (42.8)	27,600 16,200 11,350	9,150	7,410	6,040	4,950	4,060

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



		( ۵		**					
- 110 ft. - 33.5 m)	12,500 lbs. (5670 kg)	1	00%	360°					
						85% De	omestic (Pound	s)	
(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)	**27,35( (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) 22,150	28,600 (52) 23,000	1	29,600 (58.5) 23,950	24,350 (63) 22,050	24,250 (67) 21,900	22,900 (70) 20,850
45			(34.5) 17,900	(46.5) 18,850		(54) 19,750	(59.5) 20,050	(63.5) 19,950	(67) 19,100
50			(23)	(39.5)		(49) 16,500	(55.5) 17,400	(60) 17,850	(64) 17,550
55				(32) 12,900		(43.5) 13,850	(51) 14,800	(56.5) 15,250	(61) 15,700
60				(21)		(37.5) 11,700	(46.5) 12,650	(53) 13,100	(57.5) 13,550
65						(30) 9,890	(41.5) 10,850	(49) 11,300	(54.5) 11,800
70						(20)	(35.5) 9,320	(44.5) 9,820	(50.5) 10,250
75 80					4		(29) 7,980	(39.5) 8,520	(47) 8,980
85					н		(19)	(34.5) 7,370	(43) 7,860
90					-			(28) 6,360	(38.5) 6,880
95								(18.5)	(33) 6,020
100					7				(27) 5,230
Minimum I	boom angle (deg.) fo	or indicated leng	th (no load)						(18.5) 0
	boom length (ft.) at (								110
NOTE: ()	Boom angles are	in degrees.		, ,					
*60 ft. bo	om length is with	inner-mid ext	ended and oute	er-mid & fly reti	acted	l.			
**This capa	acity is based on ma	ximum boom a	ngle.						
+ 12 parts	s line required to	lift this capac	ity (using aux. b	poom 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

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.

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

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		(¥	<u>-</u>	44				
-110 ft. -33.5 m)	8,500 lbs. (3855 kg)	1	00%	<b>360</b> °				
					85%	% Domestic (Pounds	s)	
(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)	**27,35 (80)
25	54,450	54,350	50,000	48,900	43,800	35,250	34,750	27,350
30	(32.5)	(55) 42,900	(62.5) 42,300	(67) 41,900	(71) 38,300	(73.5) 31,050	(76) 30,450	(78.5) 27,350
		32,300	(56.5) 32,600	(62.5) 33,900	(67) 33,900	(70.5) 27,650	(73) 27,000	(75.5) <b>25,300</b>
35		(37.5) 24,300	(50) 25,450	(57.5) 26,500	(63) 27,450	(67) 24,350	(70) 24,250	(72.5) 22,900
40		(24.5)	(43)	(52)	(58.5)	(63)	(67)	(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	15,050	15,950	16,300	16,700
60				(32) 11,600	(43.5) 12,600	(51) 13,400	(56.5) 13,800	(61) 14,150
				( <b>21</b> )	(37.5) 10,550	(46.5) 11,400	(53) 11,750	(57.5) 12,150
65					(30) 8,830	(41.5) 9,720	(49) 10,050	(54.5) 10,450
70					(20)	(35.5)	(44.5)	(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		4					5,510	5,900
95							(18.5)	(33) 5,100
								(27) 4,390
100								(18.5)
Minimum	boom angle (deg.) fo	or indicated leng	th (no load)					0
Maximum	n boom length (ft.) at (	0 degree boom	angle (no load)	9.	1			110
*60 ft. bo	oom length is with	inner-mid ext	ended and oute	er-mid & fly ret	racted.			
**This cap	pacity is based on ma	aximum boom a	ngle.					
+ 12 part	ts line required to	lift this capac	ity (using aux. b	ooom 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

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.

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



110 ft.	5,500 lbs.	کے ۔	00%	360°					
-33.5 m)	(2495 kg)	'	00%	_					
						85% D	omestic (Pound	s)	
(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)	**27,35 (80)
25	52,750 (32.5)	52,650 (55)	50,000 (62.5)	48,900 (67)	4	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					$A_{\perp}$		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		A						4,470 (18.5)	4,970 (33)
95				4					4,220 (27)
100									3,540 (18.5)
Minimum I	ooom angle (deg.) fo	or indicated leng	th (no load)						0
Maximum	boom length (ft.) at	0 degree boom	angle (no load)		1				110
*60 ft. boo	m length is with inn	er-mid extended	d and outer-mid &	fly retracted.					
**This capa	acity is based on ma	aximum boom a	ıngle.						
+ 12 parts	s line required to	lift this capac	ity (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

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.

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

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				44					
-110 ft. )-33.5 m)	3,000 lbs (1361 kg)		00%	360°					
						85% D	omestic (Pound	ls)	
(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)	**27,35( (80)
25	51,300 (32.5)	51,250 (55)	50,000 (62.5)	48,900 (67)		13,800 (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					A		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		A						4,070 (18.5)	4,270 (33)
95				4					3,580 (27)
100									2,960 (18.5)
Minimum I	ooom angle (deg.)	for indicated leng	th (no load)						0
Maximum	boom length (ft.) a	t 0 degree boom	angle (no load)	2 9					110
*60 ft. boo	m length is with in	ner-mid extended	and outer-mid &	fly retracted.					
**This capa	acity is based on n	naximum boom a	ngle.						
+ 12 parts	s line required to	o lift this capaci	ty (using aux. b	ooom 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

A6-829-013948D

11

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.

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



		<u> </u>	<u>.                                    </u>	<b>**</b>				
110 ft. -33.5 m)	0 lbs. (0 kg)	1	00%	360°				
						35% Domestic (Pound	s)	
(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)	56,50 (78.5			
20	65,950 (47)	65,800 (62)	59,600 (67.5)	56,450 (71.5)	50,95 (74.5		40,350 (79)	**27,35 (80)
25	49,650 (32.5)	49,550 (55)	49,300 (62.5)	48,900 (67)	43,80 (71)		34,750 (76)	27,350 (78.5)
30		34,800 (47)	33,900 (56.5)	35,350 (62.5)	36,50 (67)	0 31,050	30,450 (73)	27,350 (75.5)
35		24,500 (37.5)	25,200 (50)	26,200 (57.5)	27,20 (63)	0 27,650	27,000 (70)	25,300 (72.5)
40		17,900 (24.5)	19,050 (43)	19,950 (52)	21,00 (58.5	0 21,950	22,350 (67)	22,750 (70)
45		(=,	14,550 (34.5)	15,500 (46.5)	16,55 (54)	0 17,400	17,800 (63.5)	18,200 (67)
50			11,100 (23)	12,150 (39.5)	13,25 (49)	0 14,050	14,450 (60)	14,850 (64)
55			, ,	9,590 (32)	10,65 (43.5	0 11,500	11,900 (56.5)	12,300 (61)
60				7,430 (21)	8,640 (37.5	9,510	9,880 (53)	10,250 (57.5)
65					6,940 (30)	7,870	8,230 (49)	8,620 (54.5)
70			A		5,490 (20)	6,510	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.) f	or indicated leng	th (no load)					0
Maximum	boom length (ft.) at	0 degree boom	angle (no load)					110
*60 ft. boo	m length is with inr	ner-mid extended	and outer-mid &	fly retracted.				
**This cap	acity is based on m	aximum boom a	ngle.					
+ 12 part	s line required to	lift this capac	ity (using aux. I	boom nose).				
Poor								
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)	4,76 (72.8		2,770 (92.8)	1,990 (102.8

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.

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

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				Q				
6 -110 ft. .9-33.5 m)	8,500 lbs. (3855 kg)		50%	360°				
					SA	EJ1289 APR81 Dor	nestic (Pounds	s)
(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	(02.0)	20,900	20,700	21,400	22,200	23,000	23,300	23,150
		(47) 14,800	(56.5) 14,600	(62.5) 15,450	(67) 16,350	(70.5) 17,250	(73) 17,800	(75.5) 18,350
35		(37.5)	(50)	(57.5)	(63)	(67)	(70)	(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			(20)	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				(21)	2,640	3,940	4,320	4,680
					(30) 1,600	(41.5) 2,920	(49) 3,330	(54.5) 3,690
70					(20)	(35.5)	(44.5)	(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.) fo	or indicated ler	gth (no load)			18	27	37
Maximum	n boom length (ft.) at	0 degree boon	n angle (no load)	4 1				80
*This cap	acity is based upon r	naximum obta	inable boom angle					
**60 ft. bo	om length is with inr	ner-mid extend	led 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)			
	(28.3) ) Reference radii a		(53.1)	(62.8)	(72.8)			

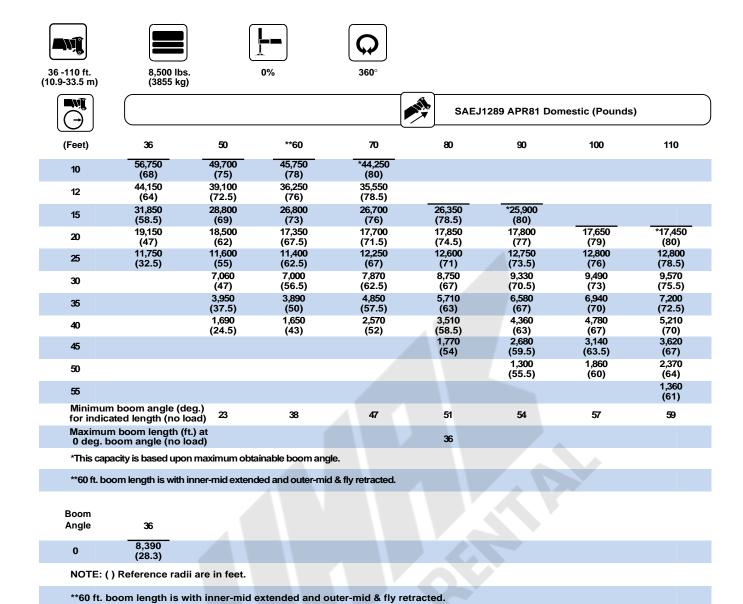
\*\*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

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

TMS870/TTS870 13





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.

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36 - 110 ft. (10.9 - 33.5 m)



18,000 lbs. (8165 kg)





				85% Domest	ic (Pounds)	
	31 FT. L	ENGTH (SWINGAWA	AY BASE)	56 FT. LENG	TH (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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			9-1	2,460 (24.5)		
nimum boom angle .) for indicated length	2	25	45	2	25	45
kimum boom length		110			110	

NOTE: () Boom angles are in degrees.

\*This capacity is based on maximum boom angle.

A6-829-015081

15





36 - 110 ft. (10.9 - 33.5 m)



12,500 lbs. (5670 kg)







				85% Domesti	ic (Pounds)	
	31 FT. LE	NGTH (SWINGAWA	Y BASE)	56 FT. LENGT	TH (SWINGAWAY BA	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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			9-1	2,180 (24.5)		
nimum boom angle .) for indicated length	2	25	45	2	25	45
ximum boom length 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)



56 ft. 8,500 lbs. 17 m) (3855 kg)



Q

				85% Domest	ic (Pounds)	
	31 FT. LI	ENGTH (SWINGAWA			TH (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	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			95	1,580 (24.5)		
imum boom angle for indicated length	2	25	45	2	25	45
mum boom length 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)









14

25

110

	FOLDING					
			N.	85% Domesti	ic (Pounds)	
	31 FT. LEI	NGTH (SWINGAWA	AY BASE)	56 FT. LENGT	TH (SWINGAWAY BA	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °
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			7 93	1,130 (24.5)		

NOTE: () Boom angles are in degrees.

Minimum boom angle (deg.) for indicated length

Maximum boom length (ft.) at 0 deg. boom angle

\*This capacity is based on maximum boom angle.

25

110

A6-829-015084

45





36 - 110 ft. (10.9 - 33.5 m)



3,000 lbs. (1361 kg)





				85% Domest	ic (Pounds)	
	31 FT. LE	ENGTH (SWINGAWA			TH (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °
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)	
mum boom angle for indicated length	2	25	45	23	26	45
mum boom length 0 deg. boom angle		110			100	

NOTE: ( ) Boom angles are in degrees.

 $\ensuremath{^{*}}$  This capacity is based on maximum boom angle.

A6-829-015085





36 - 110 ft. (10.9 - 33.5 m)









				85% Domest	ic (Pounds)	
	31 FT. L	ENGTH (SWINGAWA			TH (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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)	
imum boom angle for indicated length	16	25	45	31	32	45
mum boom length 0 deg. boom angle		100			90	

\*This capacity is based on maximum boom angle.

A6-829-015086



## Working Range







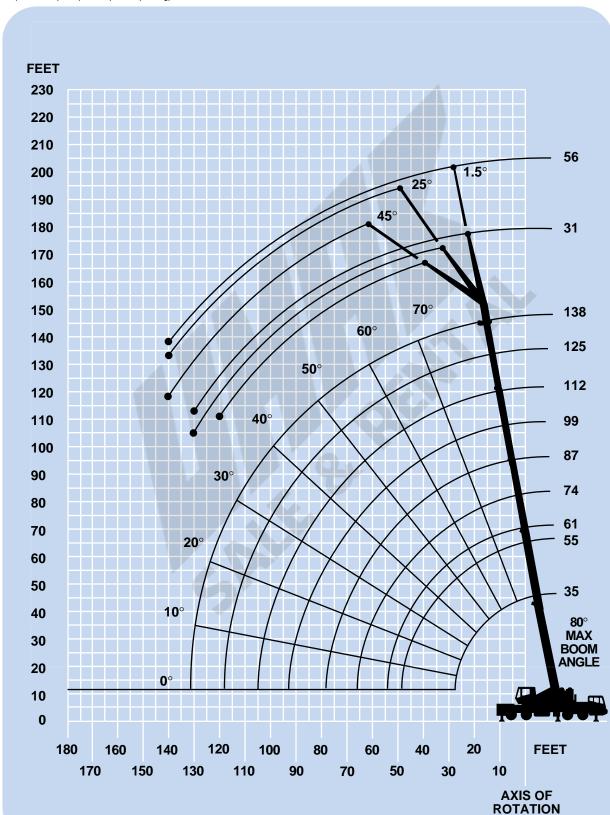




35-138 ft. (10.8-42.0 m)

31-56 ft.

8,500 lbs. (3856 kg)





## 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)

<sup>\*</sup>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.



				(Ç						
5 - 138 ft. .8 - 42.0 m)	18,000 (8165		100%	360	D°					
						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				A		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			4					3,340 (24.5)	4,000 (36)	
120									2,760 (27)	
130									1,720 (9.5)	
Minimum b	oom angle (de	g.) for indicated	length (no load)						9	
Maximum I	oom length (ft	.) at 0 degree be	oom angle (no lo	oad)					125	
NOTE: ()	Boom angles	are in degre	es.							
*This capac	ity is based on	maximum boo	m angle.							
+ 12 parts	line required	I to lift this ca	pacity (using	aux. boom nos	se).					
Boom Angle	35	55	61	74	87	99	112	125		
_	26,400	12,500	10,150	6,240	3,420	2,440	1,680	1,070		
0	(28.2)	(47.4)	(53.8)	(66.6)	(79.4)	(92.2)	(105)	(117.8)		

A6-829-014914

l	T1 T2 T3 T4	% <b>M</b> (	ODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	0	0	0	0	0	25	50	75	100
	Т4	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

TMS870/TTS870 23



Т3

**T4** 

				Ç					
35 - 138 ft. (10.8 - 42.0 m)	12,500 (5670		100%	360	0				
						85% Dome	estic (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	79,100	77,500	57,050	*43,300				
15	(62) 95,800	(73.5) 79,100	(75.5) 69,850	(78.5) 51,650	(80) 43,300	*32,100			
20	(56) 70,700	(70) 70,300	(72.5) 59,850	(76) 44,350	(78.5) 39,550	(80) 32,100	30,050	*20,150	
	(44.5) 53,150	(64.5) 52,850	(67.5) 52,200	(71.5) 38,750	(75) 33,800	(77.5) 32,100	(79.5) 30,050	(80) 20,150	*19,000
25	(29.5)	(58)	(62)	(67.5)	(71.5)	(74.5)	(77)	(79)	(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	22,050	21,800	20,000	20,450	19,250	16,450	16,350
50		(21.5)	(35) 17,900	(48.5) 17,600	(56) 17,500	(61.5) 17,900	(66) 16,900	(69) 15,750	(72) 15,700
			(24.5)	(42.5) 11,200	(52) 11,450	(58.5)	(63) 13,250	(66.5) 13.100	(69.5) 13,300
60				(28)	(42.5)	(51)	(57)	(61.5)	(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	4,450	5,440	6,430
100						(15.5)	(33.5) 2,790	(43) 3,750	(49.5) 4,720
							(21)	(35) 2,400	(43) 3,360
110			4					(24.5)	(36)
120									2,250 (27)
130									1,330 (9.5)
Minimum	boom angle (de	g.) for indicated	length (no load)						9
Maximum	boom length (ft	.) at 0 degree bo	oom angle (no lo	ad)					125
NOTE: ()	Boom angles	are in degree	es.						
*This capa	city is based on	maximum boo	m angle.						
+ 12 part	s line required	d to lift this ca	pacity (using	aux. boom nos	e).				
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 i	radii are in fee	et.						
									A6-829-014915
T1 T2 T3 T4 0	% МС	DDE B							
T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	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

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.



				<b>(</b>					
35 - 138 ft. 0.8 - 42.0 m)	8,500 (385)		100%	36	<b>0</b> °				
						85% Dome	estic (Pounds)	ı	
(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	79,100	77,500	57,050	*43,300				
15	(62) 95,800	(73.5) 79,100	(75.5) 69,850	(78.5) 51,650	(80) 43,300	*32,100			
20	(56) 70,700	(70) 70,300	(72.5) 59,850	(76) 44,350	(78.5) 39,550	(80) 32,100	30,050	*20,150	
20	(44.5)	(64.5)	(67.5)	(71.5)	(75)	(77.5)	(79.5)	(80)	*40.000
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	41,800	34,200	29,200	30,200	27,350	19,100	18,300
		(51) 31,850	(56.5) 31,950	(63) 29,050	(68) 25,800	(71.5) 26,600	(74.5) 24.300	(76.5) 18.100	(78.5) 17,650
35		(43.5)	(50)	(58.5)	(64)	(68.5)	(71.5)	(74)	(76.5)
40		24,700	24,750	24,800	22,900	23,450	21,600	17,250	17,000
45		(34.5) 19,550	(43) 19,550	(53.5) 19,750	(60) 19.500	(65) 20,450	(69) 19,250	(72) 16,450	(74) 16,350
45		(21.5)	(35)	(48.5)	(56)	(61.5)	( <del>6</del> 6)	<b>(69)</b>	( <del>7</del> 2)
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				(=0)	6,020	7,040	8,080	9,130	10,200
					(30)	(42.5) 4,390	(50) 5,390	(56) 6,400	(60) 7,430
80						(32)	(42.5)	(49.5)	(55)
90						2,420 (15.5)	3,390 (33.5)	4,370 (43)	5,370 (49.5)
100						(13.3)	1,840	2,800	3,770
100							(21)	(35)	(43)
110								1,550 (24.5)	2,510 (36)
120								(=,	1,480
								_	(27)
			length (no load)					5	10
Maximum	boom length (f	t.) at 0 degree be	oom angle (no lo	ad)				1	12
NOTE: ()	Boom angles	are in degree	es.						
*This capa	city is based on	maximum boo	m angle.						
+ 12 parts	s line required	d to lift this ca	pacity (using a	ux. boom no	se).				
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

l	T1\T2\T3\T4\	% <b>M</b> (	ODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	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.

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				Ç					
35 - 138 ft.  0.8 - 42.0 m)	5,500 (2495		100%	360	<b>0</b> °				
						85% Dome	estic (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		(21.0)	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			(24.0)	8,190 (28)	8,430 (42.5)	9,500 (51)	10,550 (57)	11,700 (61.5)	12,800 (65)
70				(20)	4,950 (30)	5,970 (42.5)	7,000 (50)	8,060 (56)	9,120 (60)
80					(50)	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						(13.3)	1,130 (21)	2,090 (35)	3,060 (43)
110			A				(21)	(00)	1,870 (36)
Minimum	boom angle (de	g.) for indicated	length (no load)				20	27	33
			oom angle (no loa	ad)				99	
NOTE: (	Boom angles	are in degre	es.						
*This capa	ncity is based on	maximum boo	om angle.						
+ 12 part	s line required	d to lift this ca	apacity (using	aux. boom no	se).				
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)			

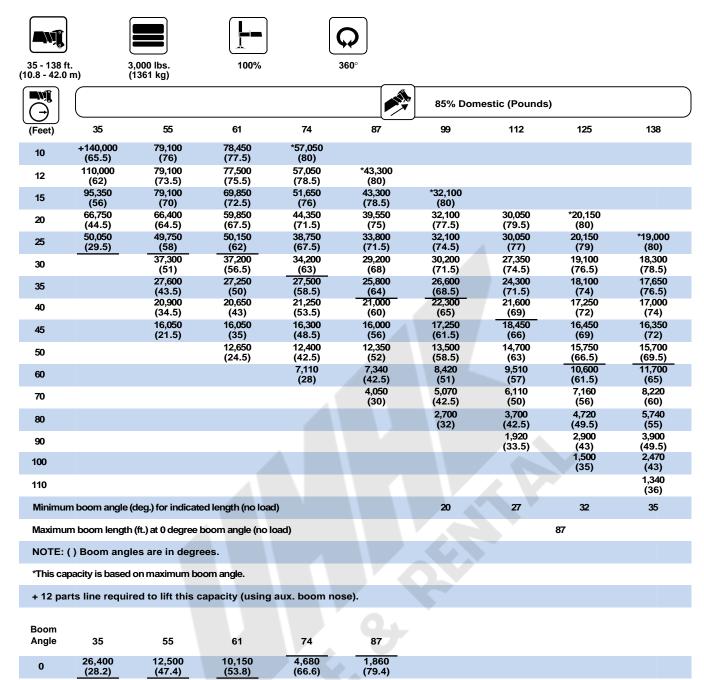
NOTE: () Reference radii are in feet.

A6-829-014533A

L	T1 T2 T3 T4	, % MC	DDE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	0	0	0	0	0	25	50	75	100
	Т4	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.





NOTE: () Reference radii are in feet.

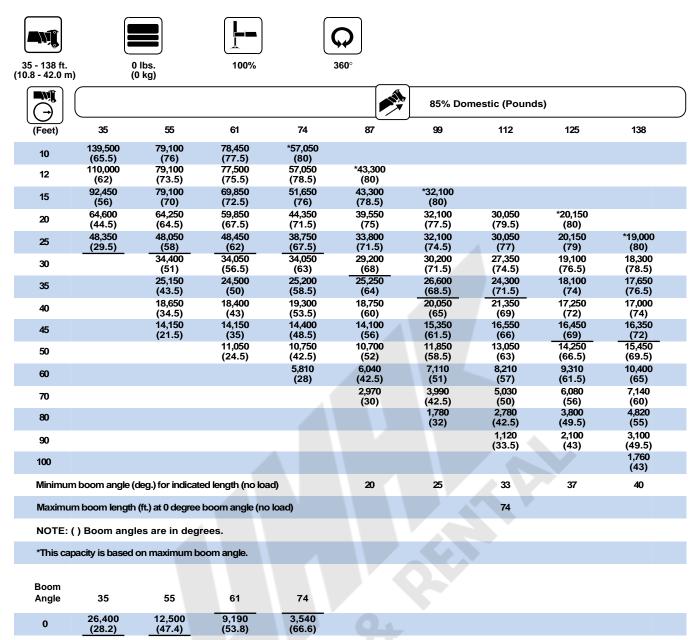
A6-829-014536A

T1\T2\T3\T4	<b>%</b>	MODE B							
T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
Т3	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.

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NOTE: () Reference radii are in feet.

A6-829-014539

l	T1\T2\T3\T4\	%	MODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	0	0	0	0	0	25	50	75	100
	Т4	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)



ft. 18,000 lbs. m) (8165 kg)





				85% Domes	tic (Pounds)			
	31 FT.	LENGTH (SWINGAWA	Y BASE)	56 FT. LENG	56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °		
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		401		1,540 (42.5)	2,100 (46.5)			
160					1,300 (41)			
Minimum boom angle eg.) for indicated length	32	32	45	40	40	45		
laximum boom length .) at 0 deg. boom angle		112			99			

\*This capacity is based on maximum boom angle.

MODE B A6-829-014929





35 - 138 ft. (10.8 - 42.0 m)



56 ft. 12,500 lbs. 17 m) (5670 kg)



Q

				85% Domest	ic (Pounds)	
	31 FT. L	ENGTH (SWINGAWA	Y BASE)	56 FT. LENG	TH (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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)	
imum boom angle ) for indicated leng imum boom lengtl	gth <sup>34</sup>	38	45	42	45	47

<sup>\*</sup> This capacity is based on maximum boom angle.

A6-829-014931

#### **MODE B**





35 - 138 ft. (10.8 - 42.0 m)



1 - 56 ft. .4 - 17 m)





**Q** 

				85% Domesti	ic (Pounds)	
	31 FT.	LENGTH (SWINGAWAY	BASE)	56 FT. LENG	TH (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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)	3,6 <b>00</b> (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		A		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	

\*This capacity is based on maximum boom angle.

MODE B A6-829-014543A





35 - 138 ft. (10.8 - 42.0 m)



5,500 lbs. (2495 kg)





				85% Domestic	c (Pounds)			
	31 FT. LE	ENGTH (SWINGAWA	Y BASE)	56 FT. LENG	56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °		
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)		
imum boom and for indicated le		44	45	50	51	52		

MODE B A6-829-014545

<sup>\*</sup> This capacity is based on maximum boom angle.





35 - 138 ft. (10.8 - 42.0 m)



6 ft. 3,000 lbs. 7 m) (1361 kg)





				85% Domesti	c (Pounds)		
	31 FT.	LENGTH (SWINGAWA	Y BASE)	56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °	
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		A				1,020 (53.5)	
Minimum boom angle eg.) for indicated length	47	47	48	52	53	54	
Maximum boom length		74			61		

**MODE B** 

A6-829-014547A

<sup>\*</sup> This capacity is based on maximum boom angle.











i - 138 ft. 8 - 42.0 m)	31 - 56 ft. (9.4 - 17 m) FOLDING	0 lbs. (0 kg)	100%	360°
				85% Domestic (Pounds)
	31 FT.	LENGTH (SWINGAW	VAY BASE)	56 FT. LENGTH (SWINGAWAY BAS

				85% Domesti	c (Pounds)		
	31 FT. L	ENGTH (SWINGAWAY		56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °	
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 eg.) for indicated length	50	51	52	55	55	56	
laximum boom length .) at 0 deg. boom angle		74			61		

\*This capacity is based on maximum boom angle.

MODE B A6-829-014549A





35 - 125 ft. (10.8 - 38.1 m)



18,000 lbs. (8165 kg)





				85% Dom	estic (Pounds)	
	31 FT.	LENGTH (SWINGAWA)	( BASE)	56 FT. LE	NGTH (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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	

\*This capacity is based on maximum boom angle.

MODE B A6-829-014930

TMS870/TTS870

35





35 - 125 ft. (10.8 - 38.1 m)



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



100%

**Q** 

				85% Domestic	c (Pounds)			
	31 FT.	LENGTH (SWINGAWA	Y BASE)	56 FT. LENGT	56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	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 g.) for indicated length	33	33	45	36	40	46		
aximum boom length ) at 0 deg. boom angle		99			74			

\*This capacity is based on maximum boom angle.

MODE B A6-829-014932





35 - 125 ft. (10.8 - 38.1 m)



8,500 lbs. (3855 kg)





				85% Domestic	c (Pounds)	
	31 FT.	LENGTH (SWINGAWA)	Y BASE)	56 FT. LENGT	TH (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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)	
linimum boom angle g.) for indicated length	37	39	46	42	46	47
ximum boom length 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



- 42.0 m)	(3855 kg)						
					85% Domestic (Pe	ounds)	
(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	29,400	31,350	28,850	21,350	19,000	
25	(44.5) 53,150	(67.5) 24,350	(71.5) 26,450	(75) 25,050	(77.5) 20,850	(79.5) 18,150	*19,000
ے	(29.5)	(62) 20,500	(67.5) 22,300	(71.5) 21,550	(74.5)	(77) 17,300	(80)
30		(56.5)	(63)	(68)	18,650 (71.5)	(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	16,500	16,000	15,300	15,650	17,000
		(43) 13,100	(53.5) 14,450	(60) 14,000	(65) 13,650	(69) 14,150	(74) 16,350
45		(35)	(48.5)	(56)	(61.5)	(66)	(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			(23)	7,860	7,710	8,220	10,200
				(30)	(42.5) 6,270	(50) 6,730	(60) 7,430
80					(32)	(42.5)	(55)
90					4,800 (15.5)	5,550 (33.5)	5,370 (49.5)
100						4,010 (21)	3,770 (43)
110		A					2,510 (36)
120							1,480 (27)
Minimum bo	oom angle (deg.) for	indicated length (no	o load)			0	10
Maximum bo	oom length (ft.) at 0	degree boom angle	(no load)				112
NOTE: ( ) B	Boom angles are i	n degrees.					
*This capacit	ty is based on maxii	mum boom angle.					
+ 12 parts	line required to li	ft this capacity (ເ	ısing aux. boom n	ose).			
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)	

T1 T2 T3 T4 %	MODE	Α					
T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
Т3	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.

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		(X	4				
138 ft. - 42.0 m)	5,500 lbs. (2495 kg)	100%	360	)°			
					85% Domestic (Po	ounds)	
(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		4					1,870 (36)
Minimum k	ooom angle (deg.) for	indicated length (n	o load)			0	33
Maximum I	boom length (ft.) at 0	degree boom angle	(no load)			•	112
NOTE: ()	Boom angles are	in degrees.					
*This capa	city is based on maxi	mum boom angle.					
+ 12 parts	s line required to li	ft this capacity (	using aux. boom i	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)	

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T1 T2 T3 T4 0 %	MODE A						
T1	0	0	0	0	0	0	100
Т2	0	100	100	100	100	100	100
Т3	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.

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			C				
- 138 ft. 3 - 42.0 m)	3,000 lbs. (1361 kg)	100%	360				
					85% Domestic (P	ounds)	
(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	14,450	14,000	13,650	14,150	16,350
50		(35) 11,450	(48.5) 12,750	(56) 12,350	(61.5) 12,100	(66) 12,700	(72) 15,700
60		(24.5)	(42.5) 10,050	(52) 9,780	(58.5) 9,580	(63) 10,150	(69.5) 11,700
			(28)	(42.5) 6,990	(51) 7,710	(57) 8,220	(65) 8,220
70			4	(30)	(42.5) 5,580	(50) 6,660	(60) 5,740
80					(32)	(42.5)	(55)
90					3,410 (15.5)	4,480 (33.5)	3,900 (49.5)
100						2,770 (21)	2,470 (43)
110		4					1,340 (36)
Minimum be	oom angle (deg.) for i	ndicated length (no	load)			0	35
Maximum b	oom length (ft.) at 0 d	legree boom angle	(no load)				112
NOTE: ()	Boom angles are i	n degrees.					
*This capac	ity is based on maxin	num boom angle.					
+ 12 parts	line required to lif	t this capacity (u	ising aux. boom n	ose).			
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: ( ) F	Reference radii are	in feet.					
							A6-829-014
2 T3 T4 ° %	MODE A	4					

T1 T2 T3 T4 %	MODE A						
T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
Т3	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.

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			)				
			•]	Q			
35 - 138 ft. ).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	29,400	31,350	28,850	21,350	19,000	
	(44.5) 48,350	(67.5) 24,350	(71.5) 26,450	(75) 25,050	(77.5) 20,850	(79.5) 18,150	*19,000
25	(29.5)	(62)	(67.5)	(71.5)	(74.5)	(77)	(80)
30		20,500	22,300	21,550	18,650	17,300	18,300
		(56.5) 17,450	(63) 19,100	(68) 18,500	(71.5) 16,900	(74.5) 16,450	(78.5) 17,650
35		(50)	(58.5)	(64)	(68.5)	(71.5)	(76.5)
40		15,050	16,500	16,000	15,300	15,650	17,000
		(43) 13,100	(53.5) 14,450	(60) 14,000	(65) 13,650	(69) 14,150	(74) 16,350
45		(35)	(48.5)	(56)	(61.5)	(66)	(72)
50		11,450	12,750	12,350	12,100	12,700	15,450
55		(24.5)	9,160	(52) 9,710	(58.5) 9,580	(63)	(69.5) 10,400
60			9,160 (28)	(42.5)	9,560 (51)	10,150 (57)	(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	3,700	3,100
			A		(15.5)	(33.5) 1,990	(49.5) 1,760
100						(21)	(43)
Minimum b	oom angle (deg.) fo	or indicated length (	no load)	1 4		0	40
Maximum b	ooom length (ft.) at	0 degree boom ang	le (no load)				112
NOTE: ( ) I	Boom angles are	in degrees.					
*This capac	ity is based on ma	ximum 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: ( ) F	Reference radii a	re in feet.					
^							A6-829-01
<u></u>	MODE	Α					
T1	0	0	0	0	0	0	100
T2	0	100	100	100	100	100	100
Т3	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.

50

75

100

100

25

0

T4

0

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#### 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.	REAR 60,000 lbs. (27 216 kg)	GVW 109,200 lbs. (49 533 kg)
	(22 317 kg)	(27 210 kg)	(+3 333 kg)

#### Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	34,955 lbs.	57,525 lbs.	92,480 lbs.
on superstructure	(15 856 kg)	(26 093 kg)	(41 949 kg)
8,500 lbs. (3856 kg) cwt.	46,450 lbs.	46,030 lbs.	92,480 lbs.
on carrier	(21 070 kg)	(20 879 kg)	(41 949 kg)
3,000 lbs. (1361 kg) on S/S	42,393 lbs.	50,087 lbs.	92,480 lbs.
5,500 lbs. (2495 kg) on carrier	(19 229 kg)	(22 719 kg)	(41 949 kg)
5,500 lbs. (2495 kg) on S/S	39,012 lbs.	53,468 lbs.	92,480 lbs.
3,000 lbs. (1361 kg) on carrier	(17 696 kg)	(24 253 kg)	(41 949 kg)
5,500 lbs. (2495 kg) ONLY	36,308 lbs.	53,172 lbs.	89,480 lbs.
on superstructure	(16 469 kg)	(24 119 kg)	(40 588 kg)
5,500 lbs. (2495 kg) ONLY	43,746 lbs.	45,734 lbs.	89,480 lbs.
on carrier	(19 843 kg)	(20 745 kg)	(40 588 kg)
No cwt. on carrier or superstructure	38,788 lbs. (17 594 kg)	45,192 lbs. (20 499 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	REAR	GVW
	.,	49,200 lbs.	98,400 lbs.
	(22 317 kg)	(22 317 kg)	(44 634 kg)

#### Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	46,450 lbs.	46,547 lbs.	92,997 lbs.
on superstructure	(21 070 kg)	(21 114 kg)	(42 183 kg)
5,500 lbs. (2495 kg) ONLY on carrier	43,746 lbs.	46,251 lbs.	89,997 lbs.
	(19 843 kg)	(20 979 kg)	(40 823 kg)
No cwt. on carrier or superstructure	38,788 lbs.	45,709 lbs.	84,497 lbs.
	(17 594 kg)	(20 734 kg)	(38 328 kg)

#### TMS/TTS870 WEIGHT EFFECTS ....

#### REMOVE:

#### FRONT REAR GVW

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

#### SUBSTITUTE:

#### FRONT

#### REAR

GVW

70 ton hookblock w/o cheekplates	+1,205 lbs.	-361 lbs.	+844 lbs.
	(547 kg)	(-164 kg)	(383 kg)
31 ft. (9.4 m) swingaway	-417 lbs.	-264 lbs.	-681 lbs.
	(-189 kg)	(-120 kg)	(-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	REAR	GVW
	49,200 lbs.	60,000 lbs.	109,200 lbs.
	(22 317 kg)	(27 216 kg)	(49 533 kg)

#### Counterweight placement effects:

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

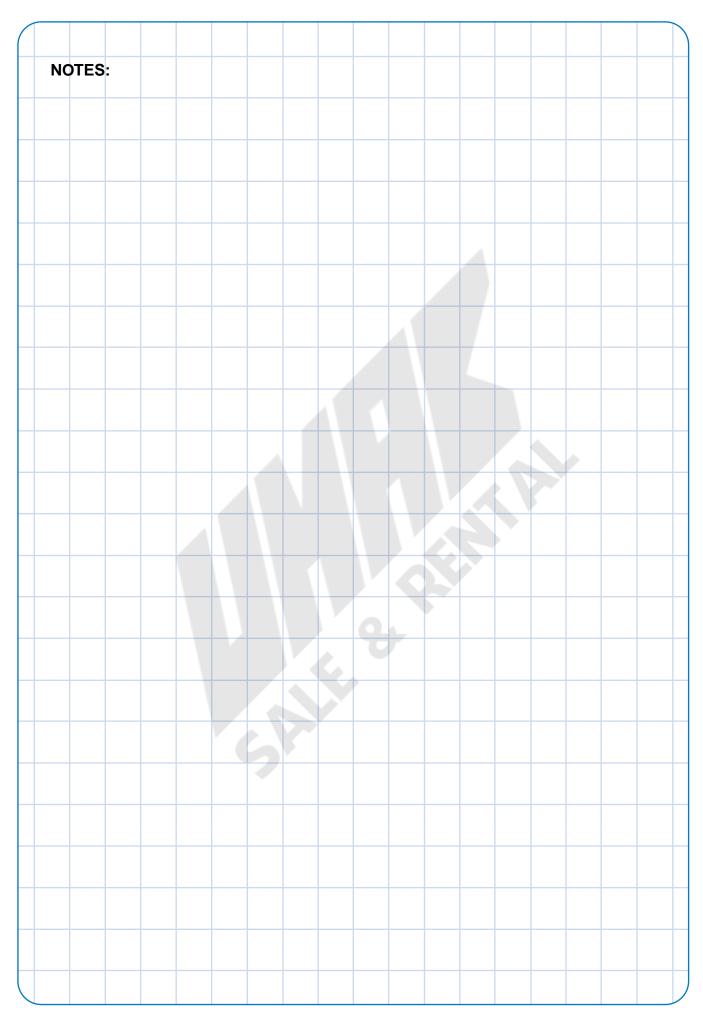
AXLE/TIRE CAPACITY	FRONT	REAR	GVW
	49,200 lbs.	49.200 lbs.	98.400 lbs.
	(22 317 kg)	(22 317 kg)	(44 634 kg)

#### Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	49,031 lbs.	47,665 lbs.	96,696 lbs.
on carrier	(22 240 kg)	(21 621 kg)	(43 861 kg)
5,500 lbs. (2495 kg) ONLY on carrier	46,327 lbs.	47,369 lbs.	93,696 lbs.
	(21 014 kg)	(21 487 kg)	(42 501 kg)
No cwt. on carrier or superstructure	41,369 lbs.	46,827 lbs.	88,196 lbs.
	(18 765 kg)	(21 241 kg)	(40 006 kg)

Note: Weights will vary due to manufacturing tolerances.

TMS870/TTS870 43





## Rated Lifting Capacities

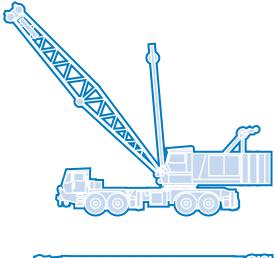
#### **IMPORTANT NOTES:**

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.

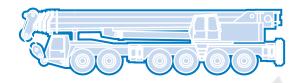
- 1. All rated loads have been tested to and meet minimum requirements of SAEJ1063 NOV93 Cantilevered Boom Crane Structures Method of Test, and do not exceed 85% of the tipping load on outriggers fully extended as determined by SAEJ765 OCT90 Crane Stability Test Code.
- 2. Capacities given do not include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





















#### Grove Worldwide – World Headquarters Grove North America

1565 Buchanan Trail East P.O. Box 21 Shady Grove, Pennsylvania 17256, U.S.A. Tel: [Int + 1] (717) 597-8121 Fax: [Int + 1] (717) 597-4062 Western Hemisphere, Asia/Pacific

#### **Grove Europe Limited\***

Sunderland SR4 6TT, England Tel: [Int + 44] 191 565-6281 Fax: [Int + 44] 191 564-0442 Europe, Africa, Middle East

#### Grove Europe Limited\*

P.O. Box No. 268 4A Kimber Road Abingdon, Oxfordshire, 0X141SG Tel: [Int + 44] 1235 55-3184 Fax: [Int + 44] 1235 55-3218

#### Deutsche Grove GmbH Sales and Service

Helmholtzstrasse 12, Postfach 5026 D-40750 Langenfeld, Germany Tel: [Int + 49] (2173) 8909-0 Fax: [Int + 49] (2173) 8909-30

#### Wilhelmshaven Works

Industriegelande West, Postfach 1853 D-26358 Wilhelmshaven, Germany Tel: [Int + 49] (4421) 294-0 Fax: [Int + 49] (4421) 294-301

#### **Grove France S.A**

16, chaussée Jules-César, 95520 OSNY B.P. 203, 95523 CERGY PONTOISE CEDEX France

Tel: [Int + 33] (1) 30313150 Int: [Int + 33] (1) 30386085

\*Grove Europe Limited, Registered in England, Number 1845128, Registered office, Crown Works, Pallion, Sunderland, Tyne & Wear, England SR4 6TT

#### Grove Asia/Pacific - Regional Office

171 Chin Swee Road #06-01 San Centre Singapore 0316 Tel: [Int + 65] 536-6112 Fax: [Int + 65] 536-6119 Asia/Pacific, Near East

#### **Grove China-Representative Offices**

Regional Sales Office
Beijing Hotel Room 6074
No. 33 East Chang An Avenue
Beijing, 100004, China
Tel: [Int + 86] (10) 513-7766
Fax: [Int + 86] (10) 513-7307

#### **Grove Product Support**

Western Hemisphere, Asia/Pacific 1086 Wayne Avenue Chambersburg, Pennsylvania USA Tel: [Int + 1] (717) 263-5100 Fax: [Int + 1] (717) 267-0404

Europe, Africa, Middle East Sunderland SR4 6TT, England Tel: [Int + 44] 191 565-6281 Parts Fax: [Int + 44] 191 510-9242 Service Fax: [Int + 44] 191 510-9560

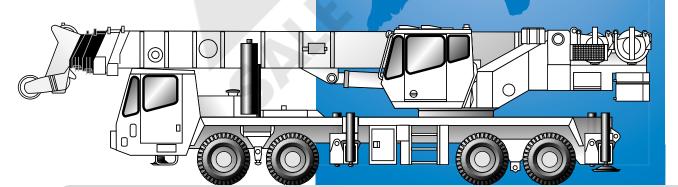
Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.

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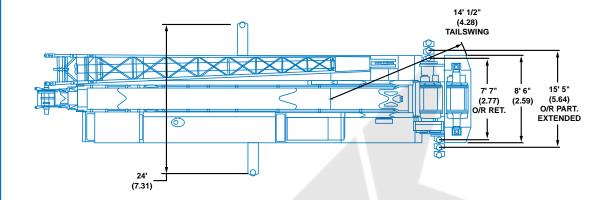


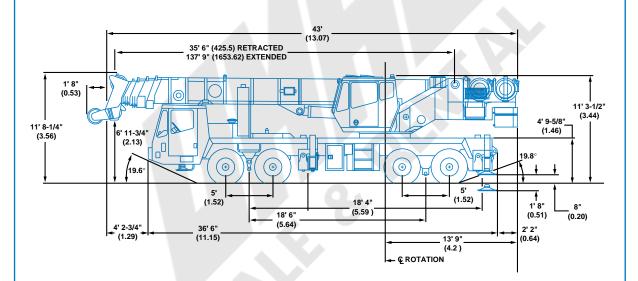
# TMS870 TTS870



**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











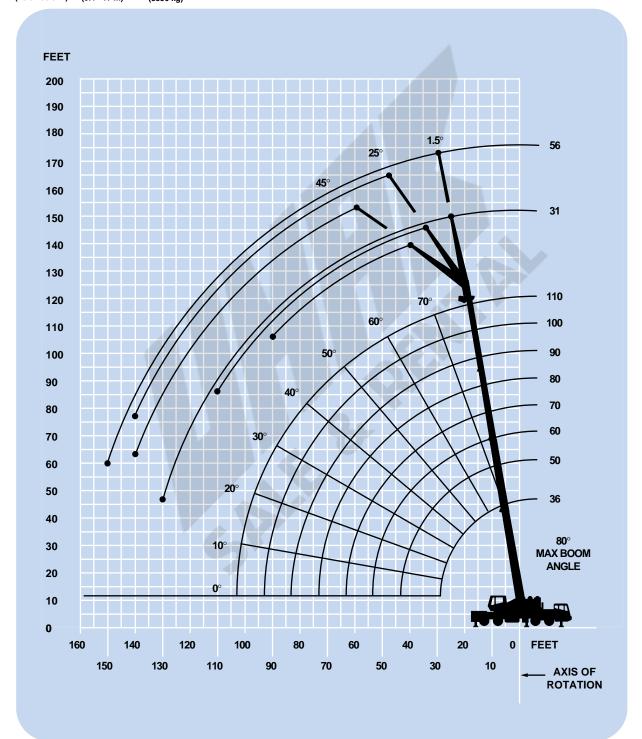
36 - 110 ft. (10.9 - 33.5 m)

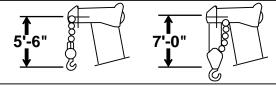
31 - 56 ft. ) (9.4 - 17 m)

56 ft. 8,5 17 m) (3

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  $1.5^{\circ}$ ,  $25^{\circ}$  or  $45^{\circ}$ . 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  $\cdot 3^{\circ}$  to  $80^{\circ}$ .

# Load Moment & Anti-Two Block System

Standard load moment and anti-two block system with audiovisual 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)

<sup>\*</sup>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

 $8 \times 4 \times 4$ .

#### **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

TMS870/TTS870 5

# 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)

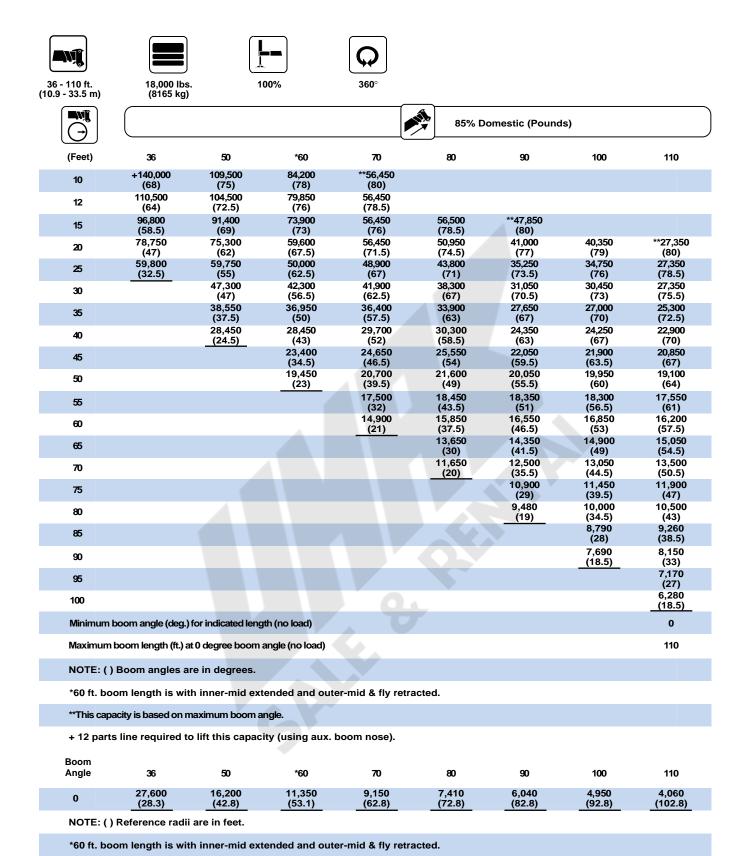
<sup>\*</sup>Reduction of main boom capacities:

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.

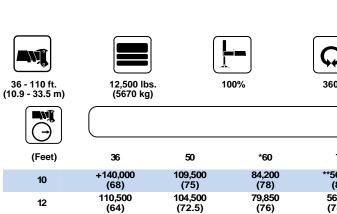
Auxiliary Boom Nose	116 lbs.	(53 kg)
+ 70 ton, 6 sheave hookblock w/o cheekplates	1,674 lbs.	(759 kg)
+ 70 ton, 6 sheave hookblock w/cheekplates	2,010 lbs.	(912 kg)
+ 45 ton, 3 sheave hookblock w/o cheekplates	876 lbs.	(397 kg)
+ 45 ton, 3 sheave hookblock w/cheekplates	1,066 lbs.	(484 kg)
+ 15 ton,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

+ Refer to rating plate for actual weight.



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7



(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	71,850 (62)	59,600 (67.5)	56,450 (71.5)	50,950 (74.5)	41,000	40,350 (79)	**27,350 (80)
25	(47) 54,450	54,350	50,000	48,900	43,800	(77) 35,250	34,750	27,350
30	(32.5)	(55) 42,900	(62.5) 42,300	(67) 41,900	(71) 38,300	(73.5) 31,050	(76) 30,450	(78.5) 27,350
35		(47) 34,750	(56.5) 34,750	(62.5) 35,850	(67) 33,900	(70.5) 27,650	(73) 27,000	(75.5) 25,300
40		<u>(37.5)</u> <u>27,050</u>	(50) 27,750	28,600	29,600	(67) 24,350	(70) 24,250	(72.5) 22,900
		(24.5)	(43) 22,150	(52) 23.000	(58.5) 23,950	(63) 22,050	(67) 21,900	(70) 20,850
45			(34.5) 17,900	(46.5) 18,850	(54) 19,750	(59.5) 20,050	(63.5) 19,950	(67) 19,100
50			(23)	(39.5)	(49)	(55.5)	( <del>6</del> 0)	( <del>6</del> 4)
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			4		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						(11)	7,370 (28)	7,860 (38.5)
90							6,360 (18.5)	6,880 (33)
95							,	6,020 (27)
100				0				5,230 (18.5)
Minimum I	boom angle (deg.)	for indicated leng	th (no load)	. 0				0
Maximum	boom length (ft.) a	t 0 degree boom a	angle (no load)					110
NOTE: ()	Boom angles a	re in degrees.						
*60 ft. bo	om length is wit	th inner-mid ext	ended and oute	er-mid & fly retra	cted.			
**This capa	acity is based on n	naximum boom a	ngle.					
+ 12 parts	s line required to	o lift this capaci	ity (using aux. b	ooom nose).				

85% Domestic (Pounds)

(28.3) NOTE: () Reference radii are in feet.

27,600

0

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

11,350

(53.1)

16,200

(42.8)

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4,060

(102.8)

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.

9,150

(62.8)

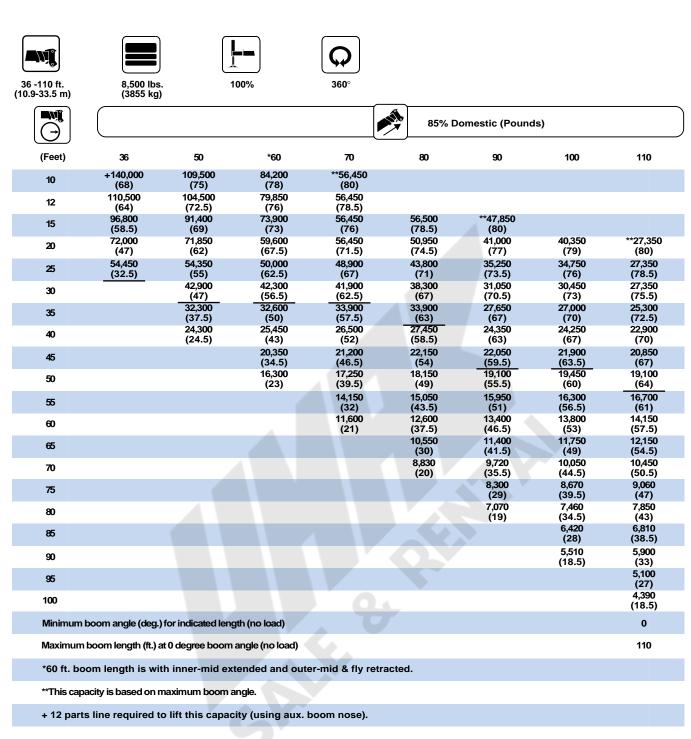
7,410

(72.8)

6,040

4,950

(92.8)

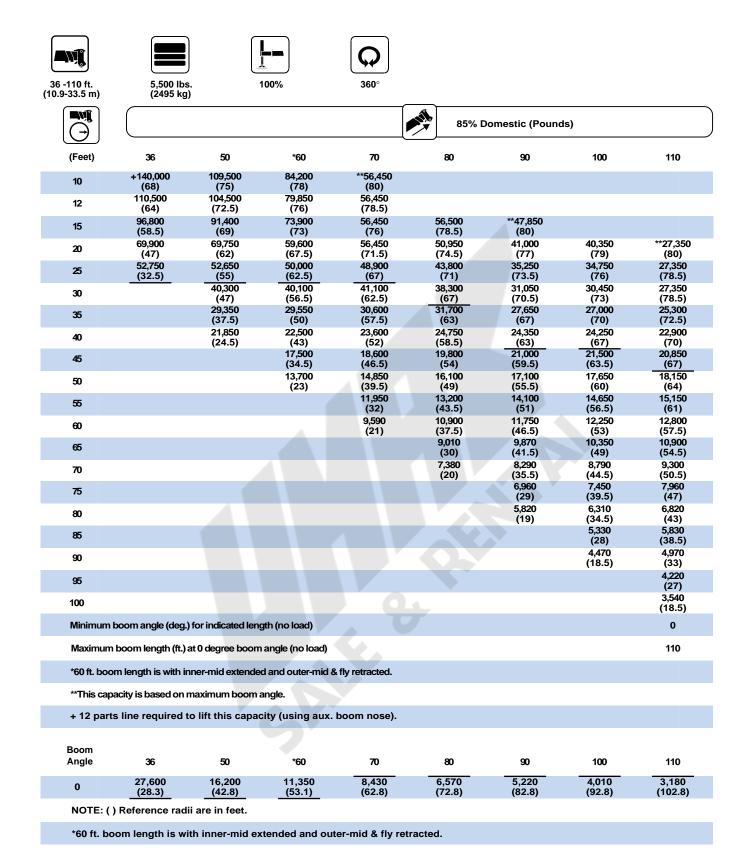


Boom Angle	36	50	*60	70	80	90	100	110
0	27,600	16,200	11,350	9,150	7,410	6,040	4,950	4,010
	(28.3)	(42.8)	(53.1)	(62.8)	(72.8)	(82.8)	(92.8)	(102.8)

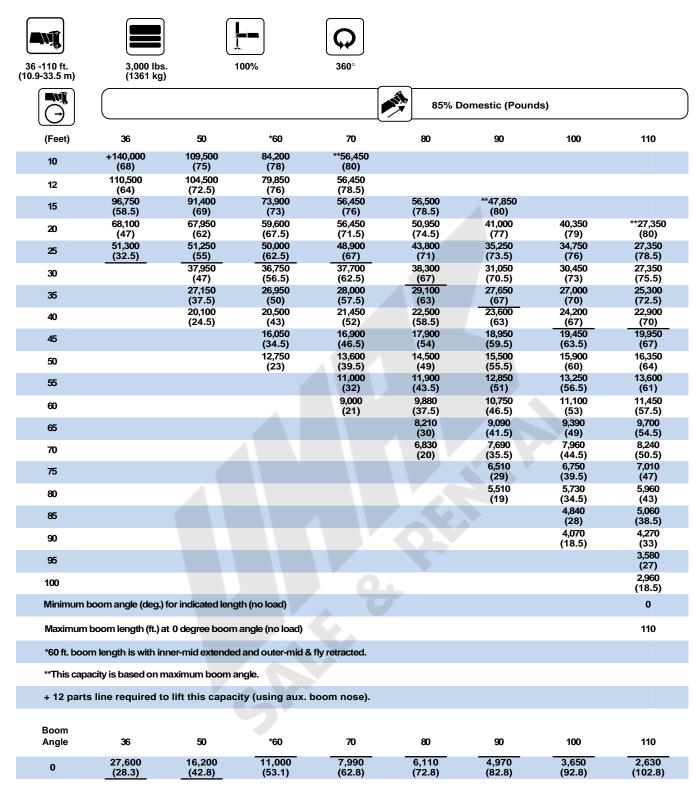
NOTE: ( ) Reference radii are in feet.

 $^{\star}60$  ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-013911D



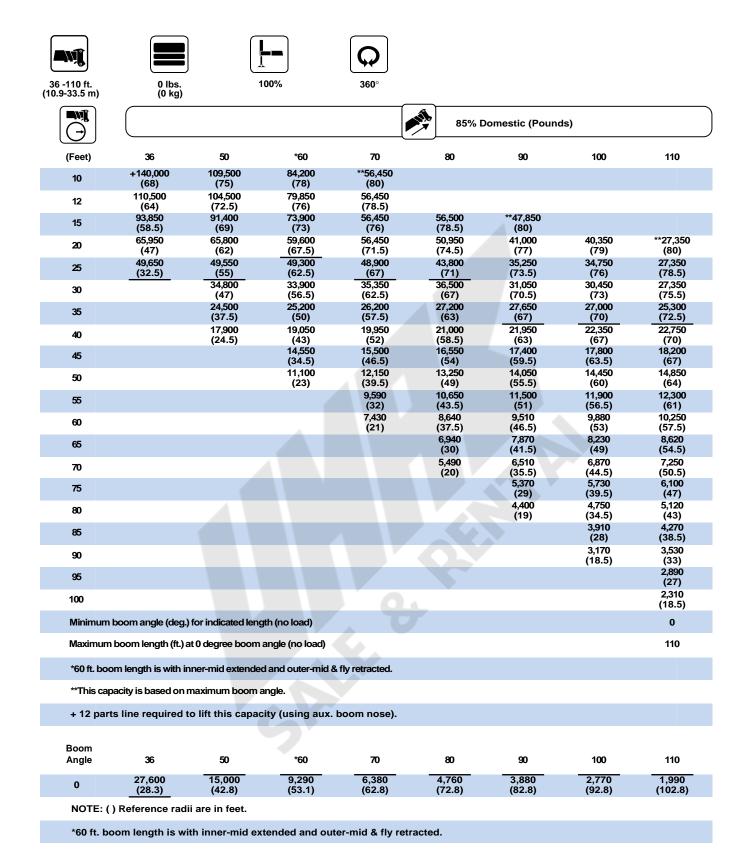
A6-829-013912D



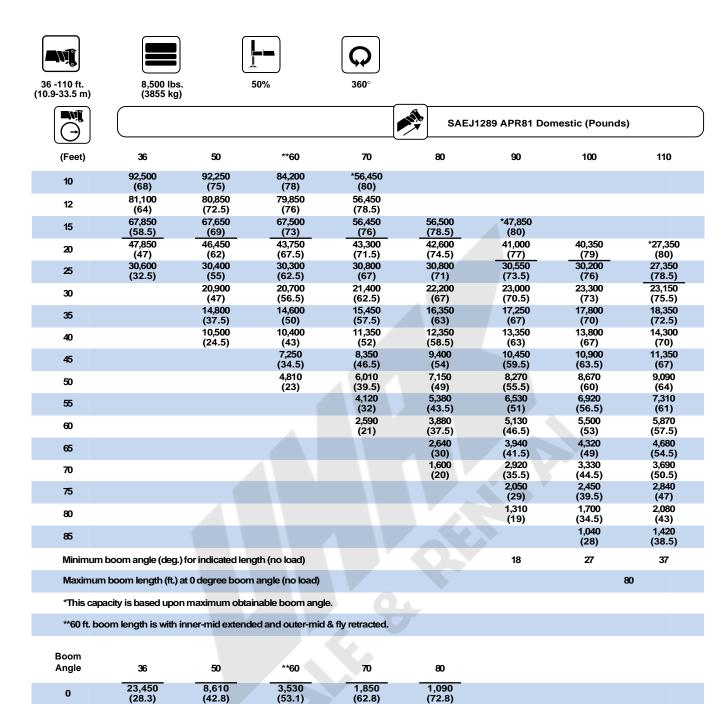
NOTE: () Reference radii are in feet.

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

A6-829-013948D



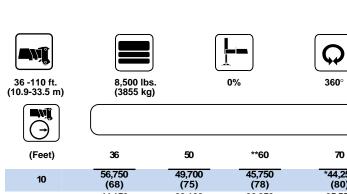
A6-829-013913D



NOTE: () Reference radii are in feet.

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

A6-829-014188A



(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 for indica	n boom angle (de ated length (no le	eg.) oad) 23	38	47	51	54	57	59
	n boom length (f oom angle (no k				36			

SAEJ1289 APR81 Domestic (Pounds)

<sup>\*\*60</sup> ft. boom length is with inner-mid extended and outer-mid & fly retracted.

Boom Angle	36
0	8,390

NOTE: () Reference radii are in feet.

A6-829-014192A

<sup>\*</sup>This capacity is based upon maximum obtainable boom angle.

<sup>\*\*60</sup> ft. boom length is with inner-mid extended and outer-mid & fly retracted.











				85% Domestic	(Pounds)		
	31 FT. LENGTH (SWINGAWAY BASE)			56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °	
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)		01	4,050 (40)	3,280 (45)		
140				3,190 (33.5)	2,320 (37.5)		
150				2,460 (24.5)			
imum boom angle for indicated length	2	25	45	2	25	45	
imum boom length t 0 deg. boom angle		110			110		

\*This capacity is based on maximum boom angle.

A6-829-015081

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.

TMS870/TTS870 15











				85% Domestic	(Pounds)		
	31 FT. LI	ENGTH (SWINGAWA	Y BASE)	56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	45°	1.5°	25°	<b>45</b> °	
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)	(1.10)		4,510 (46)	3,320 (51)	(00)	
130	2,950 (18.5)		0.	3,630 (40)	3,280 (45)		
140	(10.0)			2,850 (33.5)	2,320 (37.5)		
150				2,180 (24.5)	(07.0)		
inimum boom angle g.) for indicated length	2	25	45	2	25	45	
aximum boom length at 0 deg. boom angle		110			110		

\*This capacity is based on maximum boom angle.

A6-829-015082

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.











				85% Domestic	(Pounds)			
	31 FT. L	ENGTH (SWINGAWA	Y BASE)	56 FT. LENGTI	56 FT. LENGTH (SWINGAWAY BASE & FLY)			
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °		
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)		9 01	2,920 (40)	3,280 (45)			
140	, , , ,			2,200 (33.5)	2,320 (37.5)			
150			54.	1,580 (24.5)	(5.15)			
linimum boom angle g.) for indicated length	2	25	45	2	25	45		
aximum boom length		110			110			

\*This capacity is based on maximum boom angle.

A6-829-015083

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.











				85% Domestic	(Pounds)			
	31 FT. LEN	GTH (SWINGAWA	Y BASE)	56 FT. LENGTH (SWINGAWAY BASE & FLY				
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °		
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)	$A \setminus A$	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)		9 04	2,390 (40)	2,780 (45)			
140				1,710 (33.5)	1,940 (37.5)			
150			500	1,130 (24.5)	ζ/			
imum boom angle for indicated length	2	25	45	14	25	45		
imum boom length t 0 deg. boom angle		110			110			

\*This capacity is based on maximum boom angle.

A6-829-015084











				85% Domesti	c (Pounds)	
	31 FT. LE	NGTH (SWINGAWA			H (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °
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)		P Qu	1,950 (40)	2,330 (45)	
140				1,300 (33.5)	1,530 (37.5)	
imum boom angle for indicated length	2	25	45	23	26	45
mum boom length t 0 deg. boom angle		110			100	

\*This capacity is based on maximum boom angle.

A6-829-015085











				85% Domest	ic (Pounds)	
	31 FT. LE	ENGTH (SWINGAWA	Y BASE)	56 FT. LENG	TH (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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	(,,,,,,		7 04	1,420 (40)	1,810 (45)	
140					1,040 (37.5)	
inimum boom angle ı.) for indicated lengtl	16	25	45	31	32	45
ximum boom length at 0 deg. boom angle		100			90	

\*This capacity is based on maximum boom angle.

A6-829-015086

# Working Range











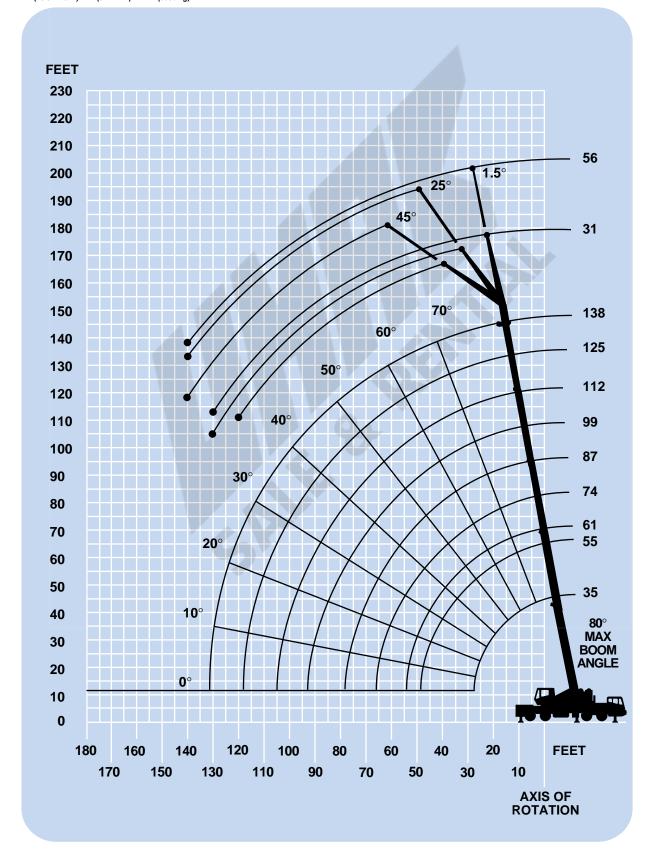
35-138 ft. (10.8-42.0 m)

38 ft. 31-2 0 m) (9 4

31-56 ft. (9.4-17 m)

(3856 kg)

bs.



# 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)

<sup>\*</sup>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.



40,000 lh a





35 - 138 ft. (10.8 - 42.0 m)

18,000 lbs. (8165 kg)

)

						85% Dome	estic (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		4	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		4						3,340 (24.5)	4,000 (36)
120				4					2,760 (27)
130									1,720 (9.5)
Minimum	boom angle (de	g.) for indicated	length (no load)						9
Maximun	n boom length (f	t.) at 0 degree bo	oom angle (no lo	oad)	0.				125
NOTE: (	) Boom angles	s are in degree	es.						
*This cap	acity is based on	maximum boo	m angle.						
+ 12 par	ts line required	d to lift this ca	pacity (using	aux. boom no	se).				
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

 <u>T2\T3\T4</u> %	M	ODE B							
T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
Т3	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.

TMS870/TTS870 23



35 - 138 ft. (10.8 - 42.0 m)



12,500 lbs. (5670 kg)



Q

						85% Dome	estic (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 (de	g.) for indicated	length (no load)						9
Maximun	n boom length (f	t.) at 0 degree bo	oom angle (no lo	oad)					125
NOTE: (	) Boom angles	s are in degree	es.						
*This capa	acity is based on	maximum boo	m angle.						
+ 12 part	ts line required	d to lift this ca	pacity (using	aux. boom no	se).				
Boom	25				07	20	440	425	
Angle	35 26,400	55 12,500	61 10,150	74 6,240	87 3,420	99 2,440	112 1,680	125 1,070	
0	(28.2)	(47.4)	(53.8)	(66.6)	(79.4)	(92.2)	(105)	(117.8)	

NOTE: ( ) Reference radii are in feet.

A6-829-014915

T1\T2\T3\T4\	% <b>M</b> (	ODE B							
T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
Т3	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)



						85% Dome	estic (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					(-2,	4,390 (32)	5,390 (42.5)	6,400 (49.5)	7,430 (55)
90					A	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	n boom angle (de	g.) for indicated	length (no load)					5	10
Maximun	n boom length (fi	t.) at 0 degree b	oom angle (no lo	pad)				1	12
NOTE: (	) Boom angles	are in degre	es.		0.				
*This cap	acity is based on	maximum boo	m angle.						
+ 12 par	ts line required	d to lift this ca	pacity (using	aux. boom no	se).				
Boom Angle	35	55	61	74	87	99	112		
O O	26,400	12,500	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

l	T1 T2 T3 T4	% <b>M</b>	ODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	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.



**■**//j\_

(Feet)



55



61



35 - 138 ft. (10.8 - 42.0 m) 5,500 lbs. (2495 kg)

35

74

_				
•	85% Dome	stic (Pounds)		
_	99	112	125	138
)				
	*32,100 (80)			

, ,									
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			A		4	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		4							1,870 (36)
Minimum	n boom angle (de	g.) for indicated	length (no load)				20	27	33
Maximun	n boom length (ft.	.) at 0 degree bo	om angle (no lo	ad)				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).

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)	
Boom Angle	35	55	61	74	87	99	

NOTE: () Reference radii are in feet.

A6-829-014533A

l	T1 T2 T3 T4	% <b>M</b> (	ODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	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)



Ç

b

						85% Dom	estic (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)
90 100					4		1,920 (33.5)	2,900 (43) 1,500	3,900 (49.5) 2,470
110								(35)	(43) 1,340 (36)
Minimu	m boom angle (d	deg.) for indicate	ed length (no loa	d)		20	27	32	35
Maximu	m boom length	(ft.) at 0 degree b	ooom angle (no l	oad)				87	
NOTE:	() Boom angle	es are in degre	es.						
*This ca	pacity is based	on maximum bo	om angle.						
+ 12 pa	rts line require	ed to lift this c	apacity (using	aux. boom no	se).				

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

NOTE: () Reference radii are in feet.

A6-829-014536A

ı	T1 T2 T3 T4	%	MODE B							
	T1	0	50	50	75	100	100	100	100	100
	T2	0	25	50	75	100	100	100	100	100
	Т3	0	0	0	0	0	25	50	75	100
	Т4	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.

TMS870/TTS870 27









35 - 138 ft. 0 (10.8 - 42.0 m) (0

U	DS.
(0	kg)

						85% Don	nestic (Pound	s)	
(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					4		1,120 (33.5)	2,100 (43)	3,100 (49.5)
100									1,760 (43)
Minimur	n boom angle (d	deg.) for indicate	ed length (no loa	nd)	20	25	33	37	40
Maximu	m boom length	(ft.) at 0 degree	boom angle (no	load)			74		
NOTE:	( ) Boom angl	es are in degr	ees.						
*This ca	pacity is based o	on maximum bo	oom angle.						

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

NOTE: () Reference radii are in feet.

A6-829-014539

T1 T2 T3 T4	<b>%</b>	MODE B							
T1	0	50	50	75	100	100	100	100	100
T2	0	25	50	75	100	100	100	100	100
Т3	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.











				85% Domestic	c (Pounds)	
	31 FT. L	ENGTH (SWINGAW	AY BASE)	56 FT. LENGT	H (SWINGAWAY B	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	<b>1.5</b> °	<b>25</b> °	<b>45</b> °
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)	1 1	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 leng		32	45	40	40	45
Maximum boom lengtl (ft.) at 0 deg. boom ang		112			99	

\*This capacity is based on maximum boom angle.



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







				85% Domestic	: (Pounds)	
	31 FT. I	ENGTH (SWINGAW	AY BASE)	56 FT. LENGTI	H (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °
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 eg.) for indicated leng	th 34	38	45	42	45	47
laximum boom length ) at 0 deg. boom angle	e	99			74	
NOTE: ( ) Boom	angles are in	degrees.				

<sup>\*</sup> This capacity is based on maximum boom angle.

A6-829-014931

# **MODE B**



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







				85% Domestic	c (Pounds)	
	31 FT. LI	ENGTH (SWINGAWA	Y BASE)	56 FT. LENGT	TH (SWINGAWAY BA	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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	A	99			87	

\*This capacity is based on maximum boom angle.

MODE B A6-829-014543A











				85% Domestic	c (Pounds)	
	31 FT. I	ENGTH (SWINGAWAY	BASE)	56 FT. LENG	TH (SWINGAWAY BA	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	45°	1.5°	<b>25</b> °	<b>45</b> °
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		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	

<sup>\*</sup> This capacity is based on maximum boom angle.











				85% Domest	ic (Pounds)	
	31 FT.	LENGTH (SWINGAWA	Y BASE)	56 FT. LENG	TH (SWINGAWAY BA	SE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
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 1			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	

MODE B A6-829-014547A

<sup>\*</sup> This capacity is based on maximum boom angle.











				85% Domesti	c (Pounds)	
	31 FT. L	ENGTH (SWINGAWA	Y BASE)	56 FT. LENGT	H (SWINGAWAY BA	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	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)
linimum boom angleg.) for indicated leng	gth <sup>ວບ</sup>	51	52	55	55	56
aximum boom lengt at 0 deg. boom ang		74			61	

\*This capacity is based on maximum boom angle.

MODE B A6-829-014549A











	A.F. 15		V.BASE)			105 a 51 V
		NGTH (SWINGAWA	•		H (SWINGAWAY BA	•
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
30	*11,500 (80)					
35	11,500 (78.5)			4		
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 and (deg.) for indicated le		25	45	35	37	45
Maximum boom leng		112			99	

\*This capacity is based on maximum boom angle.











				85% D	omestic (Pounds)	
	31 FT.	LENGTH (SWINGAWA	Y BASE)		LENGTH (SWINGAWAY	BASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	<b>45</b> °
30	*11,500 (80)					
35	11,500 (78.5)					
40	11,500 (77)	*10,000 (80)		6,950 (79.5)	4	
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		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	

\*This capacity is based on maximum boom angle.











				85% Domestic	(Pounds)	
	31 FT. L	ENGTH (SWINGAWA			H (SWINGAWAY BA	ASE & FLY)
(Feet)	1.5°	<b>25</b> °	<b>45</b> °	1.5°	<b>25</b> °	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 leg.) for indicated length	37	39	46	42	46	47
Maximum boom length t.) at 0 deg. boom angle		99			87	
NOTE: ( ) Boom a	ngles are in d	egrees.				

<sup>\*</sup>This capacity is based on maximum boom angle.









5 - 138 ft. 8,500 lbs. 0.8 - 42.0 m) (3855 kg)

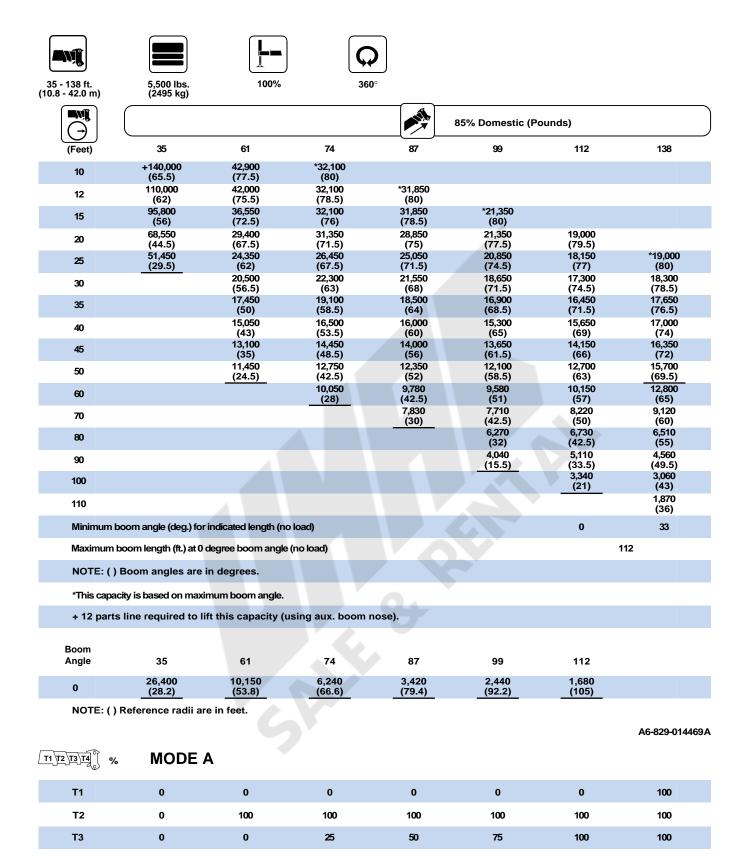
					85% Domestic (Po	ounds)	
(Feet)	35	61	74	87	99	112	138
10	+140,000 (65.5)	42,900 (77.5)	*32,100 (80)				
12	110,000 (62)	42,000 (75.5)	32,100 (78.5)	*31,850 (80)			
15	95,800 (56)	36,550 (72.5)	32,100 (76)	31,850 (78.5)	*21,350 (80)		
20	70,700 (44.5)	29,400 (67.5)	31,350 (71.5)	28,850 (75)	21,350 (77.5)	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	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			1			4,010 (21)	3,770 (43)
110		4					2,510 (36)
120							1,480 (27)
Minimum b	oom angle (deg.) for	indicated length (no	o load)			0	10
Maximum I	ooom length (ft.) at 0	degree boom angle	(no load)			1	112
NOTE: ()	Boom angles are	in degrees.		0.			
*This capac	city is based on maxi	mum boom angle.		4			
+ 12 parts	line required to li	ft this capacity (ເ	ısing aux. boom n	ose).			
Boom	0.5			0.77	••	440	
Angle	35	61	74	87	99	112	

NOTE: () Reference radii are in feet.

A6-829-014468A

ı	T1 T2 T3 T4 %	MODE	<b>A</b>					
	T1	0	0	0	0	0	0	100
	T2	0	100	100	100	100	100	100
	Т3	0	0	25	50	75	100	100
	Т4	0	0	25	50	75	100	100

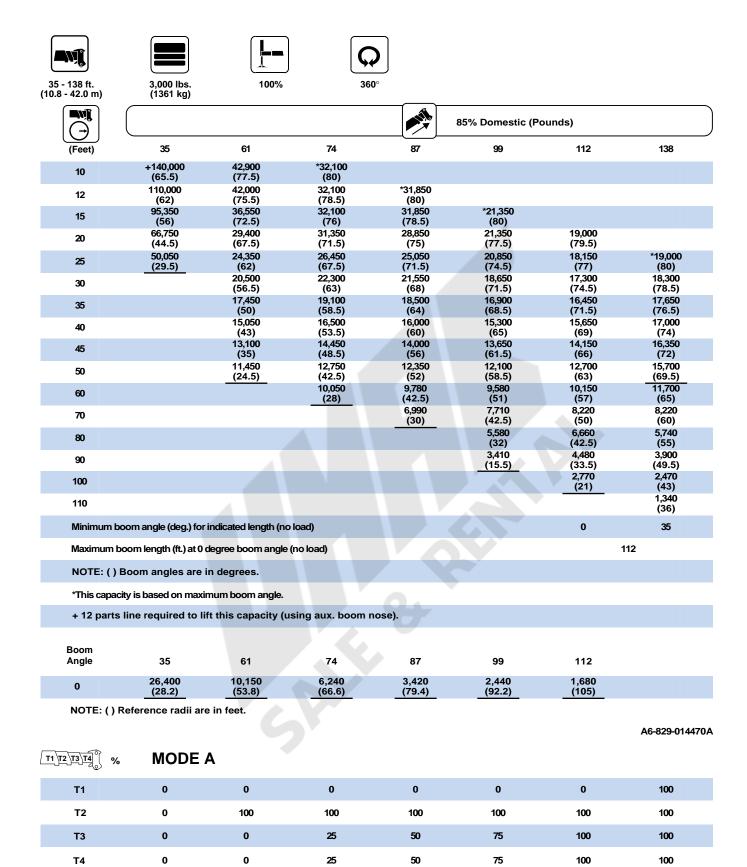
Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom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



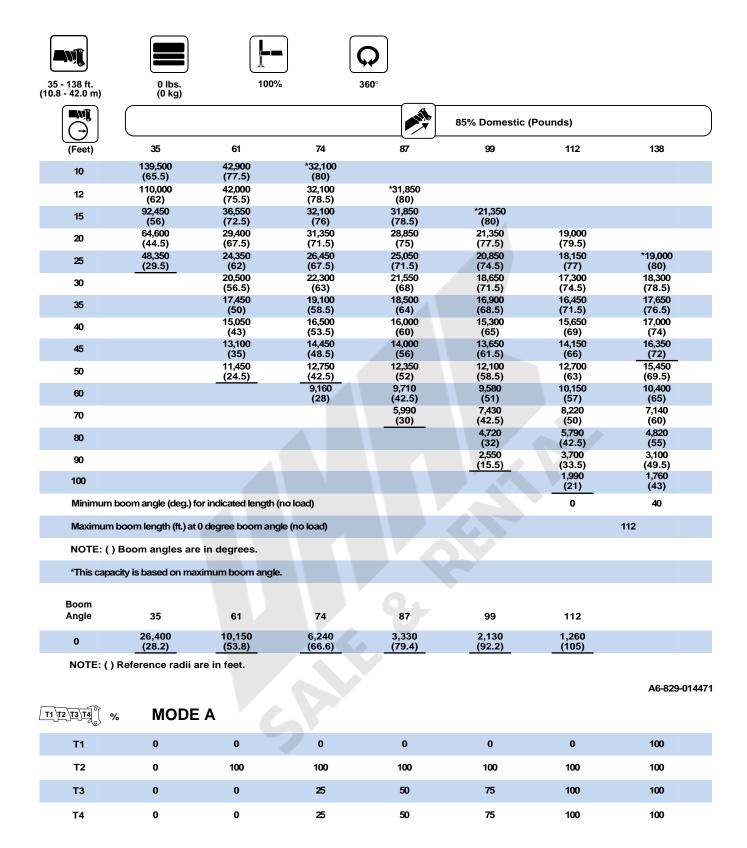
Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension. However, the LMI system still monitors the effect of the stowed boom extension and will display a load value which will vary with changes in boom length and boom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

**T4** 

TMS870/TTS870 39



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.



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/TTS870 41

#### 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	REAR	GVW
	49,200 lbs.	60,000 lbs.	109,200 lbs.
	(22 317 kg)	(27 216 kg)	(49 533 kg)

#### Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	34,955 lbs.	57,525 lbs.	92,480 lbs.
on superstructure	(15 856 kg)	(26 093 kg)	(41 949 kg)
8,500 lbs. (3856 kg) cwt.	46,450 lbs.	46,030 lbs.	92,480 lbs.
on carrier	(21 070 kg)	(20 879 kg)	(41 949 kg)
3,000 lbs. (1361 kg) on S/S	42,393 lbs.	50,087 lbs.	92,480 lbs.
5,500 lbs. (2495 kg) on carrier	(19 229 kg)	(22 719 kg)	(41 949 kg)
5,500 lbs. (2495 kg) on S/S	39,012 lbs.	53,468 lbs.	92,480 lbs.
3,000 lbs. (1361 kg) on carrier	(17 696 kg)	(24 253 kg)	(41 949 kg)
5,500 lbs. (2495 kg) ONLY on superstructure	36,308 lbs.	53,172 lbs.	89,480 lbs.
	(16 469 kg)	(24 119 kg)	(40 588 kg)
5,500 lbs. (2495 kg) ONLY on carrier	43,746 lbs.	45,734 lbs.	89,480 lbs.
	(19 843 kg)	(20 745 kg)	(40 588 kg)
No cwt. on carrier or superstructure	38,788 lbs.	45,192 lbs.	83,980 lbs.
	(17 594 kg)	(20 499 kg)	(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	REAR	GVW
	49,200 lbs.	49,200 lbs.	98,400 lbs.
	(22 317 kg)	(22 317 kg)	(44 634 kg)

#### Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	46,450 lbs.	46,547 lbs.	92,997 lbs.
on superstructure	(21 070 kg)	(21 114 kg)	(42 183 kg)
5,500 lbs. (2495 kg) ONLY	43,746 lbs.	46,251 lbs.	89,997 lbs.
on carrier	(19 843 kg)	(20 979 kg)	(40 823 kg)
No cwt. on carrier or superstructure	38,788 lbs.	45,709 lbs.	84,497 lbs.
	(17 594 kg)	(20 734 kg)	(38 328 kg)

# TMS/TTS870 WEIGHT EFFECTS ..... REM

≺⊏	IVIO		

FRONT REAR

**GVW** 

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

# SUBSTITUTE:

FRONT

REAR

GVW

70 ton hookblock w/o cheekplates	+1,205 lbs.	-361 lbs.	+844 lbs.
	(547 kg)	(-164 kg)	(383 kg)
31 ft. (9.4 m) swingaway	-417 lbs.	-264 lbs.	-681 lbs.
	(-189 kg)	(-120 kg)	(-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	REAR	GVW
	49,200 lbs.		109,200 lbs.
	(22 317 kg)	(27 216 kg)	(49 533 kg)

#### Counterweight placement effects:

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

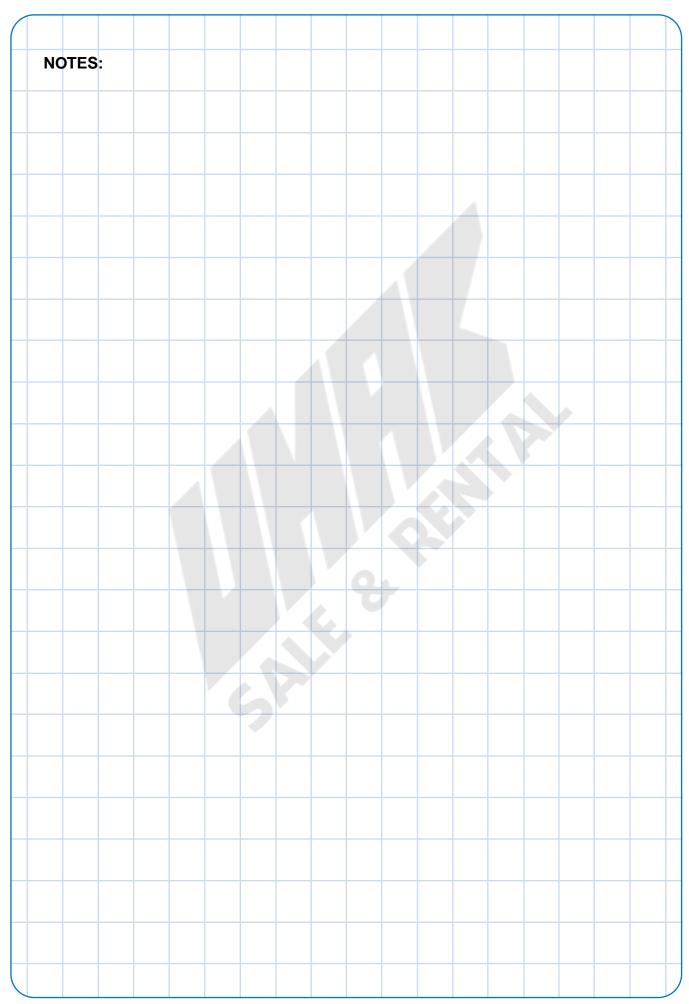
AXLE/TIRE CAPACITY FRO 49,200 (22 31)		GVW 98,400 lbs. (44 634 kg)
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# Counterweight placement effects:

8,500 lbs. (3856 kg) cwt.	49,031 lbs.	47,665 lbs.	96,696 lbs.
on carrier	(22 240 kg)	(21 621 kg)	(43 861 kg)
5,500 lbs. (2495 kg) ONLY on carrier	46,327 lbs.	47,369 lbs.	93,696 lbs.
	(21 014 kg)	(21 487 kg)	(42 501 kg)
No cwt. on carrier or superstructure	41,369 lbs.	46,827 lbs.	88,196 lbs.
	(18 765 kg)	(21 241 kg)	(40 006 kg)

Note: Weights will vary due to manufacturing tolerances.

TMS870/TTS870 43



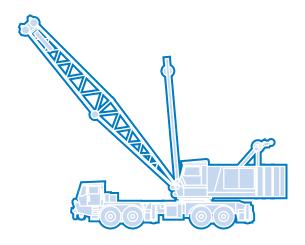
# Rated Lifting Capacities

#### **IMPORTANT NOTES:**

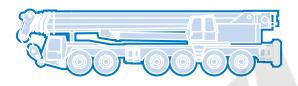
WARNING: THIS CHART IS ONLY A GUIDE.
The notes below are for illustration only and should not be relied upon to operate the crane.
The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.

- 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.



















#### Grove Worldwide – World Headquarters Grove North America

1565 Buchanan Trail East P.O. Box 21 Shady Grove, Pennsylvania 17256, U.S.A. Tel: [Int + 1] (717) 597-8121 Fax: [Int + 1] (717) 597-4062 Western Hemisphere, Asia/Pacific

#### Grove Europe Limited\*

Sunderland SR4 6TT, England Tel: [Int + 44] 191 565-6281 Fax: [Int + 44] 191 564-0442 Europe, Africa, Middle East

#### **Grove Europe Limited\***

P.O. Box No. 268 4A Kimber Road Abingdon, Oxfordshire, 0X141SG Tel: [Int + 44] 1235 55-3184 Fax: [Int + 44] 1235 55-3218

#### Deutsche Grove GmbH Sales and Service

Helmholtzstrasse 12, Postfach 5026 D-40750 Langenfeld, Germany Tel: [Int + 49] (2173) 8909-0 Fax: [Int + 49] (2173) 8909-30

#### Wilhelmshaven Works

Industriegelande West, Postfach 1853 D-26358 Wilhelmshaven, Germany Tel: [Int + 49] (4421) 294-0 Fax: [Int + 49] (4421) 294-301

#### **Grove France S.A.**

16, chaussée Jules-César, 95520 OSNY B.P. 203, 95523 CERGY PONTOISE CEDEX France

Tel: [Int + 33] (1) 30313150 Int: [Int + 33] (1) 30386085

\*Grove Europe Limited, Registered in England, Number 1845128, Registered office, Crown Works, Pallion, Sunderland, Tyne & Wear, England SR4 6TT

#### Grove Asia/Pacific - Regional Office

171 Chin Swee Road #06-01 San Centre Singapore 0316 Tel: [Int + 65] 536-6112 Fax: [Int + 65] 536-6119 Asia/Pacific, Near East

#### **Grove China-Representative Offices**

Regional Sales Office Beijing Hotel Room 6074 No. 33 East Chang An Avenue Beijing, 100004, China Tel: [Int + 86] (10) 513-7766 Fax: [Int + 86] (10) 513-7307

#### **Grove Product Support**

Western Hemisphere, Asia/Pacific 1086 Wayne Avenue Chambersburg, Pennsylvania USA Tel: [Int + 1] (717) 263-5100 Fax: [Int + 1] (717) 267-0404

Europe, Africa, Middle East Sunderland SR4 6TT, England Tel: [Int + 44] 191 565-6281 Parts Fax: [Int + 44] 191 510-9242 Service Fax: [Int + 44] 191 510-9560

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.

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Form No.: TMS/TTS870 Part No.: 3-967 597-10M Printed in U.S.A.