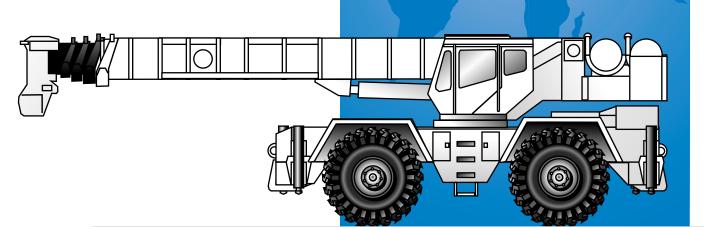
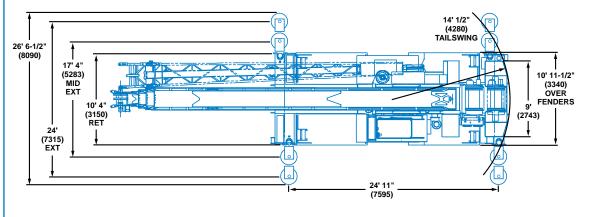


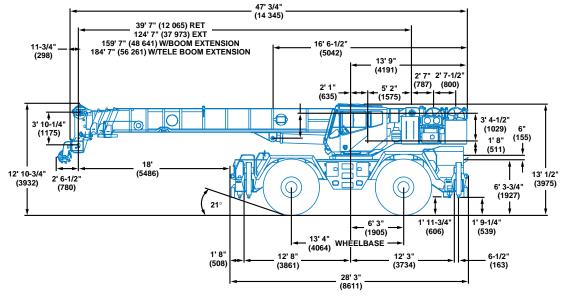
# RT865B



**Rough Terrain Hydraulic Crane** 

# **Dimensions**





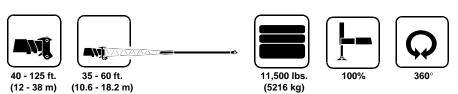
Note: () Reference dimensions in mm

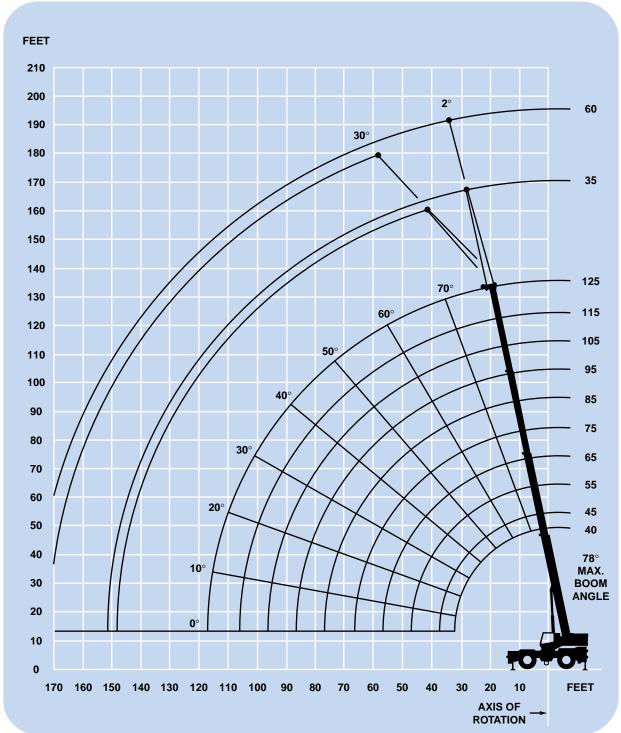
**Turning Radius.....** 22' 6" (6858 mm)

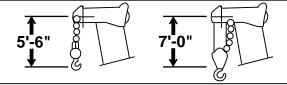
**Gross Vehicle Weight . . . . . .** 107,038 lbs. (48 552 kg)

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# Working range







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

### Superstructure specifications

#### **Boom**

40 ft. - 125 ft. (12 m - 38 m) four-section, full power boom. Maximum tip height: 135 ft. (41 m).

#### **Lattice Extension**

35 ft. - 60 ft. (10.6 m - 18.2 m) telescoping lattice swingaway extension offsettable at 2° or 30°. Stows alongside base boom section.

Maximum tip height: 193 ft. (59 m).

#### \*Optional Lattice Extension

35 ft. (10.6 m) lattice swingaway extension. Offsettable at 2° or 30°. Stows alongside base boom section. Maximum tip height: 169 ft. (51.5 m).

#### **Boom Nose**

Six Nylatron 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 78°.

# Load Moment & Anti-Two Block System

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

#### Cab

Full vision, all galvanealed steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe seat with armrest mounted hydraulic single axis controllers. Dash panel incorporates gauges for all engine functions. Other standard features include: skylight screen, hydraulic oil cab heater/defroster, telescoping tilt wheel, sliding side and rear windows, opening skylight, electric windshield wash-wipe, electric skylight wipers, fire extinguisher, seat belt, ashtray and level indicator.

#### **Swing**

Planetary swing with foot applied multi-disc wet brake. Spring applied, hydraulically released swing brake, 360° positive swing lock (N.Y.C. style) and 1 position mechanical house lock, operated from cab. Maximum speed: 2.0 RPM.

#### Counterweight

Removable: 11,500 lbs. (5216 kg). 2,155 lbs. (977 kg) slab I.P.O. auxiliary hoist.

#### **Hydraulic System**

Seven main pumps with a combined capacity of 199.2 GPM (754 LPM).

Maximum operating pressure: 3500 psi (241 bar).

Three individual valve banks.

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

200 gallon (757 L) reservoir.

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

System pressure test panel with quick release type fittings for each circuit.

# **Hoist Specifications Main and Auxiliary Hoist**

Planetary reduction with automatic spring applied multi-disc brake. Electronic hoist drum rotation indicator, and hoist drum cable followers.

Maximum Single	16,969 lbs.
Line Pull:	(7697 kg)
Maximum Single	517 FPM
Line Speed:	(157 m/min)
Maximum Permissible	12,920 lbs.
Line Pull:	(5860 kg)
Rope Diameter:	3/4" (19 mm)
Rope Length:	650 ft. (198 m)
Maximum Rope Stowage:	1,163 ft. (354.5 m)

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<sup>\*</sup>Denotes optional equipment

### Carrier specifications

#### Chassis

Box section frame fabricated from high-strength, low alloy steel. Integral outrigger housings and front/rear towing and tie down lugs.

#### **Outrigaer System**

Four hydraulic telescoping single-stage double box beam outriggers with inverted jacks and integral holding valves. Three position setting. All steel fabricated, quick release type outrigger floats, 30.5" (775 mm) diameter.

Maximum outrigger pad load: 95,817 lbs. (43 462 kg).

#### **Outrigger Controls**

Controls and crane level indicator located in cab.

#### **Engine**

Cummins 6CTA 8.3L diesel, six cylinders, turbocharged, 250 bhp (191 kW) (Gross) @ 2,500 RPM. Maximum torque: 650 ft. lbs. (881 Nm) @ 1,800 RPM.

#### \*Optional Engine

Caterpillar 3116TA diesel, six cylinders, turbocharged, 250 bhp (191 kW) (Gross) @ 2,500 RPM. Maximum torque: 642 ft. lbs. (870 Nm) @ 1,600 RPM.

#### **Fuel Tank Capacity**

80 gallons (303 L)

#### **Transmission**

Full powershift with 6 forward and 6 reverse speeds. Rear axle disconnect for 4 x 2 travel.

#### **Electrical System**

Two 12 V - maintenance free batteries. 24 V starting and lighting.

#### Drive

4 x 4.

#### Steering

Fully independent power steering:

Front: Full hydraulic steering wheel controlled. Full hydraulic hand lever controlled. Rear: Provides infinite variations of 4 main steering modes: front only, rear only, crab and coordinated. Rear steer indicator gauge.

#### Axles

Front: Drive/steer with differential and planetary

reduction hubs rigid mounted to frame.

Rear: Drive/steer with differential and planetary reduction hubs pivot mounted to frame.

\*Denotes optional equipment

#### **Oscillation Lockouts**

Automatic full hydraulic lockouts on rear axle permit oscillation only with boom centered over the front.

#### **Brakes**

Full air split circuit operating on all wheels. Springapplied, air released parking brake operating on front and rear axles.

#### Tires

Std. 33.25 x 29 - 32PR earthmover type. \*Optional: 33.25R29 radial.

#### Liahts

Full lighting including turn indicators, head, tail, brake and hazard warning lights.

#### Maximum Speed

25 MPH (40 kph).

#### **Gradeability (Theoretical)**

87% (Based on 104,031 lbs. [47 188 kg] GVW) 33.25 x 29 tires, pumps disengaged, 125 ft. (38 m) boom, plus 35 ft. (10.6 m) swingaway.

#### Miscellaneous Standard Equipment

Full width steel fenders, dual rear view mirrors, hookblock tiedown, electronic back-up alarm, light package, front stowage well, tachometer/hourmeter, cold start aid (less canister), rear wheel position indicator, hydraulic cab heater, hoist mirrors, engine distress A/V warning system, tire inflation kit.

#### \*Optional Equipment

\*Boom mounted worklights

\*360° flashing light

\*Cab spotlights remote

mounted

\*Engine block heater

\*Hookblock (quick reeving type)

\*Tow winch - front

mounted maximum pull: 15,000 lbs.(6804 kg); maximum speed: 92

ft/min. (28 m/min). \*Spare tire & wheel

assembly \*Tool kit

\*Pintle hook front/rear

\*High speed glide system

\*Air conditioning

\*Dual axis joystick controllers

\*Auxiliary oil cooler

\*Emergency steer pump

\*Propane heater \*T/T lube system

\*Hoist mounted work light

\*Counterweight removal

system

\*3rd wrap indicators (main or auxiliary)

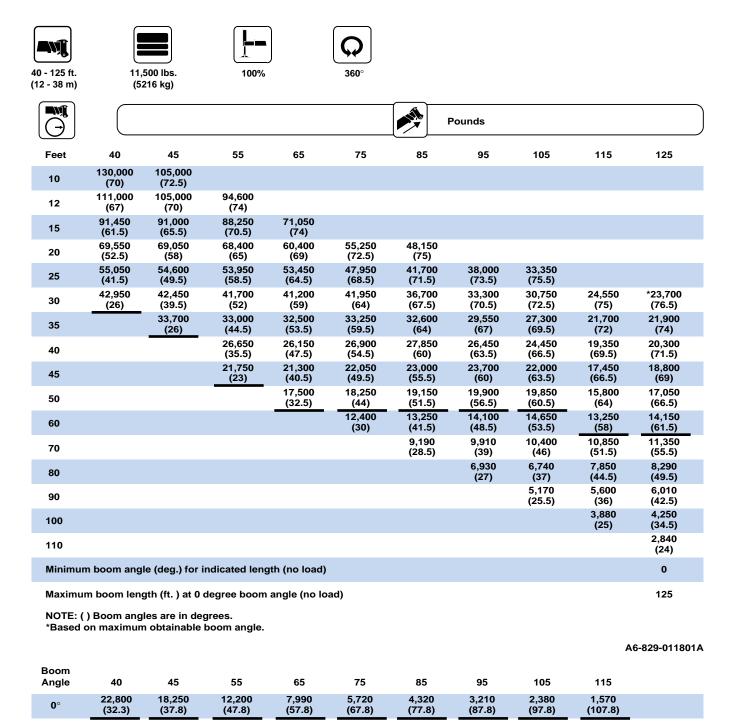
\*LMI light bar

\*Cross axle differential

locks

\*Oscillation lockout override control

RT865B 5



NOTE: () Reference radii are in feet.

6



40 - 125 ft. (12 - 38 m)

100



11,500 lbs. (5216 kg)



50% 17' 4" Spread



360

			•							
							Pounds			
Feet	40	45	55	65	75	85	95	105	115	125
10	116,000 (70)	105,000 (72.5)								
12	102,500 (67)	102,000 (70)	94,600 (74)							
15	86,800 (61.5)	86,350 (65.5)	85,800 (70.5)	71,050 (74)						
20	67,250 (52.5)	64,850 (58)	60,550 (65)	56,950 (69)	55,250 (72.5)	48,150 (75)				
25	45,750 (41.5)	44,950 (49.5)	42,050 (58.5)	39,700 (64.5)	39,100 (68.5)	38,900 (71.5)	38,000 (73.5)	33,350 (75.5)		
30	32,500 (26)	32,050 (39.5)	31,000 (52)	29,250 (59)	29,050 (64)	29,250 (67.5)	29,300 (70.5)	29,250 (72.5)	24,550 (75)	*23,700 (76.5)
35		23,900 (26)	23,350 (44.5)	22,250 (53.5)	22,300 (59.5)	22,700 (64)	22,900 (67)	23,050 (69.5)	21,700 (72)	21,900 (74)
40			17,650 (35.5)	17,200 (47.5)	17,400 (54.5)	17,900 (60)	18,250 (63.5)	18,550 (66.5)	18,550 (69.5)	18,550 (71.5)
45			13,400 (23)	13,000 (40.5)	13,600 (49.5)	14,300 (55.5)	14,700 (60)	15,050 (63.5)	15,150 (66.5)	15,250 (69)
50				9,850 (32.5)	10,450 (44)	11,450 (51.5)	11,900 (56.5)	12,350 (60.5)	12,450 (64)	12,600 (66.5)
60					5,970 (30)	6,940 (41.5)	7,840 (48.5)	8,310 (53.5)	8,500 (58)	8,700 (61.5)
70						4,020 (28.5)	4,840 (39)	5,410 (46)	5,700 (51.5)	5,930 (55.5)
80							2,630 (27)	3,170 (37)	3,620 (44.5)	3,870 (49.5)
90								1,490 (25.5)	2,000 (36)	2,280 (42.5)
								· ,	٠,,	

Minimum boom angle (deg.) for indicated length (no load)

Maximum boom length (ft. ) at 0 degree boom angle (no load)

\*Based on maximum obtainable boom angle.

NOTE: () Boom angles are in degrees.

Dased on maximum obtainable boom angle.

Boom Angle	40	45	55	65	75	85	95
<b>0</b> °	22,800	18,250	11,500	6,220	3,740	2,350	1,300
	(32.3)	(37.8)	(47.8)	(57.8)	(67.8)	(77.8)	(87.8)

NOTE: () Reference radii are in feet.

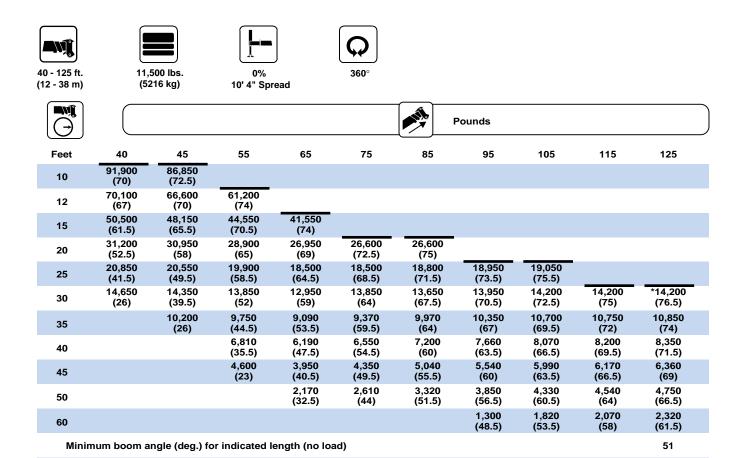
A6-829-012282

1,020 (34.5)

27.5

105

A6-829-011802A



Maximum boom length (ft. ) at 0 degree boom angle (no load)

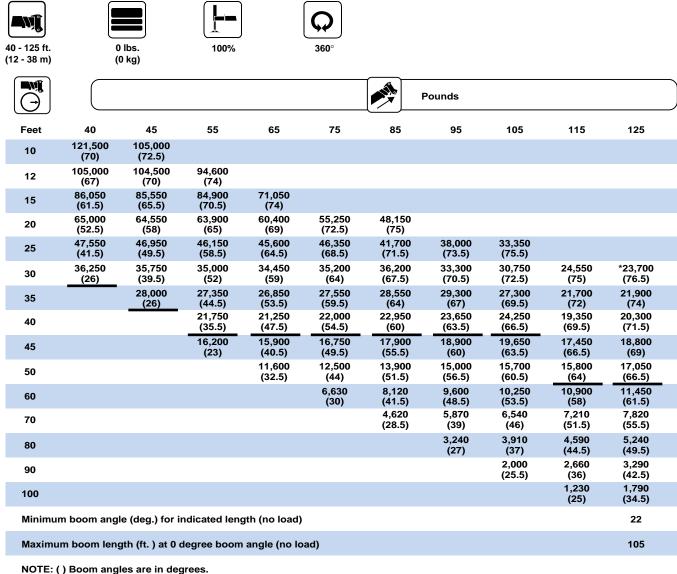
A6-829-011927A

65

NOTE: ( ) Reference radii are in feet.

8

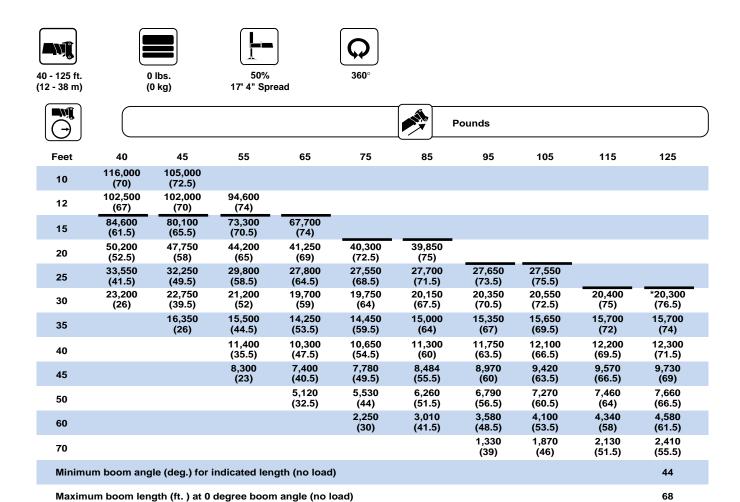
<sup>\*</sup>Based on maximum obtainable boom angle.



<sup>\*</sup>Based on maximum obtainable boom angle.

Boom Angle	40	45	55	65	75	85	95
<b>0</b> °	22,800	18,250	12,200	6,760	4,000	2,660	1,680
	(32.3)	(37.8)	(47.8)	(57.8)	(67.8)	(77.8)	(87.8)

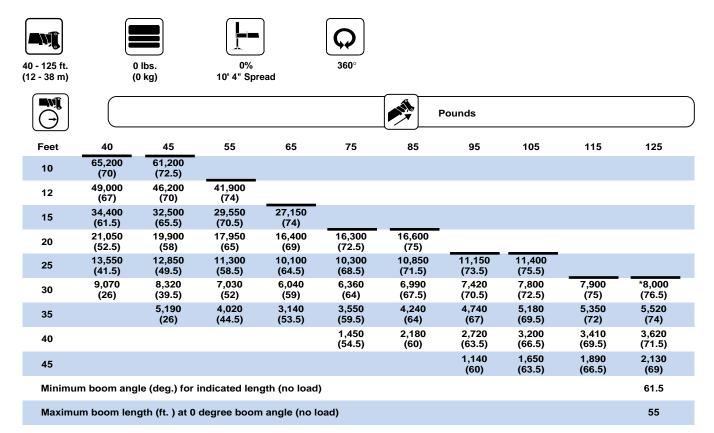
NOTE: () Reference radii are in feet.



A6-829-012263

NOTE: () Reference radii are in feet.

<sup>\*</sup>Based on maximum obtainable boom angle.

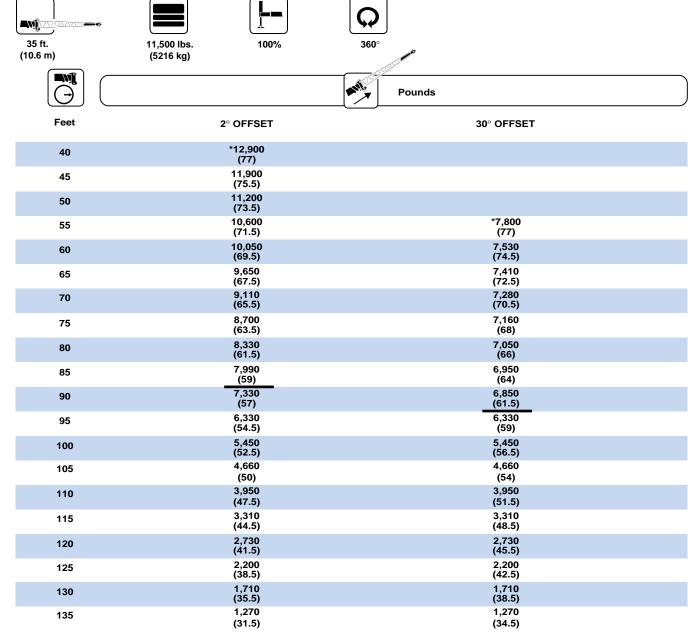


A6-829-012264

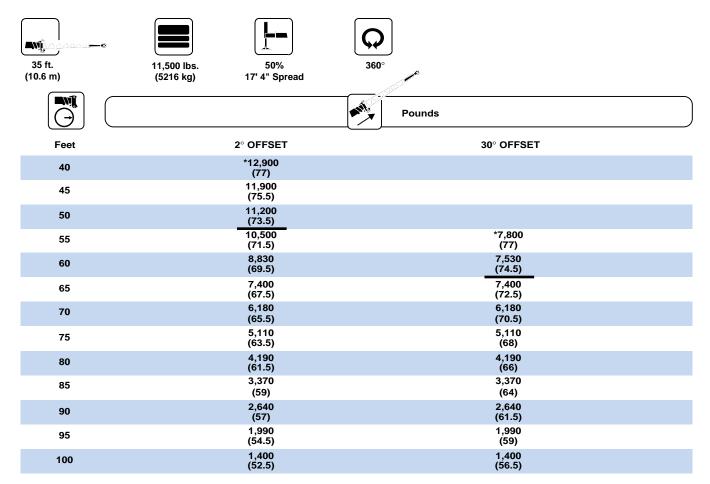
Boom Angle	40	45
<b>0</b> °	7,540 (32.3)	3,970 (37.8)

NOTE: () Reference radii are in feet.

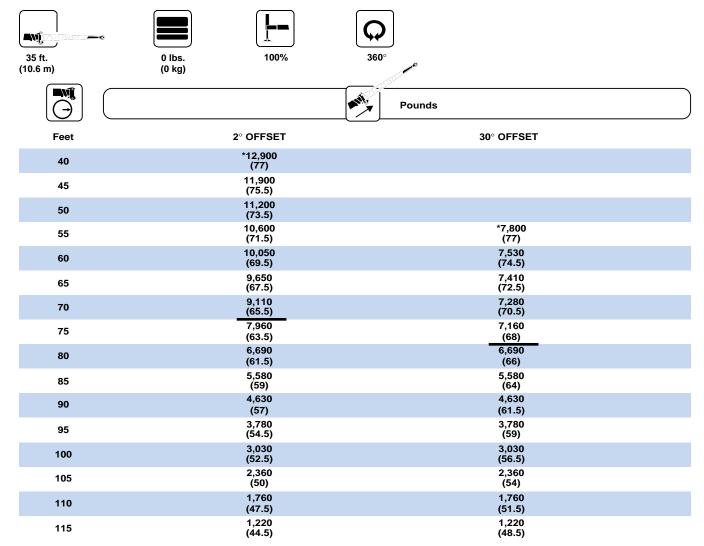
<sup>\*</sup>Based on maximum obtainable boom angle.



NOTE: ( ) Boom angles are in degrees. \*This capacity is based upon maximum boom angle.

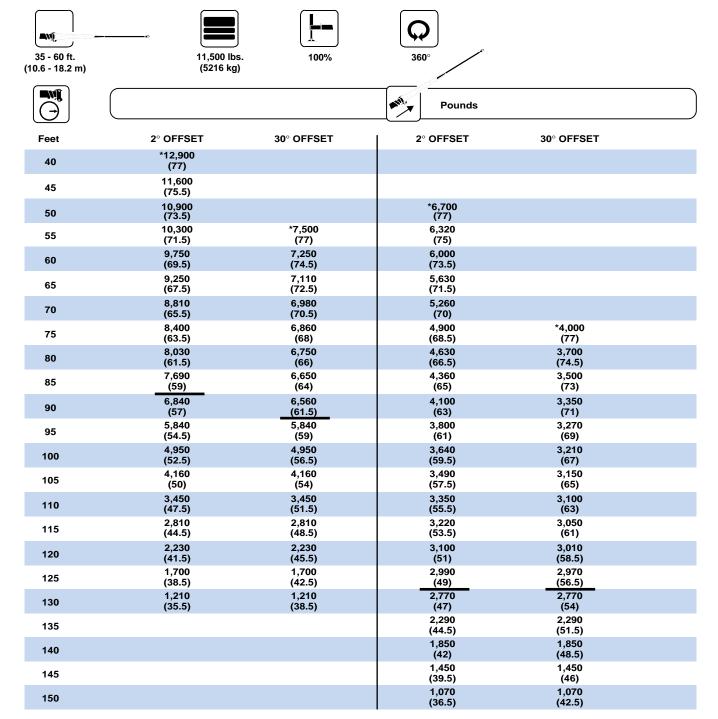


NOTE: ( ) Boom angles are in degrees. \*This capacity is based upon maximum boom angle.



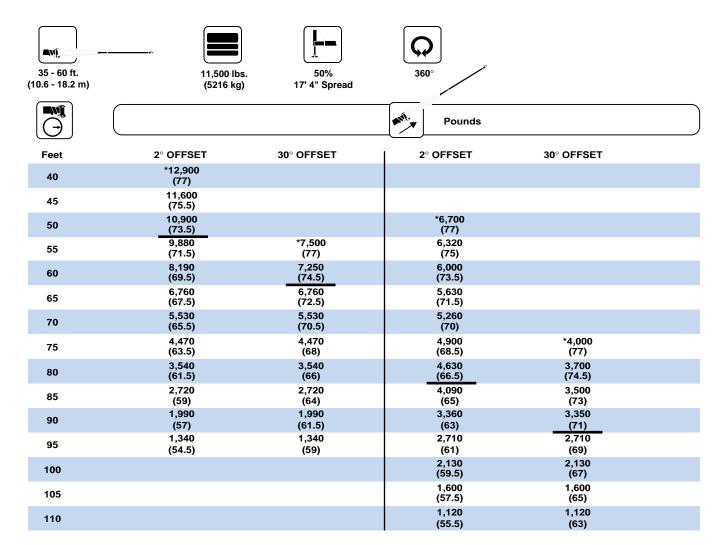
14 RT865B

NOTE: ( ) Boom angles are in degrees. \*This capacity is based upon maximum boom angle.



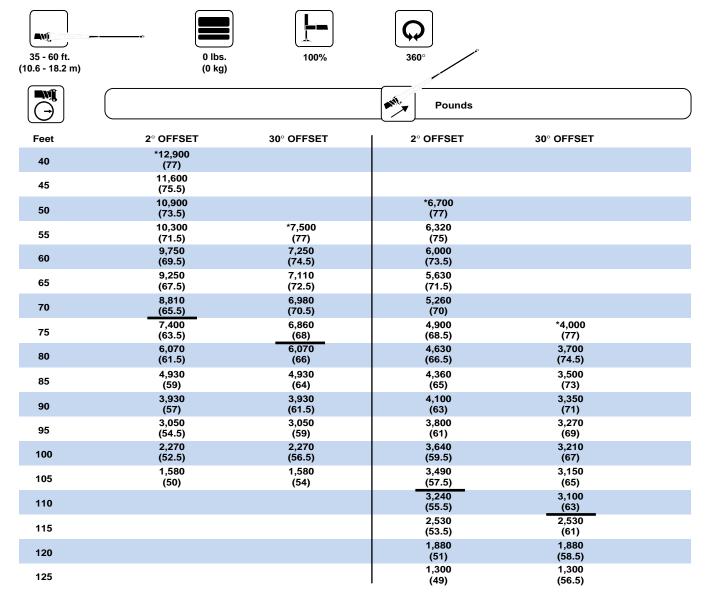
\*This capacity is based upon maximum boom angle.

A6-829-011806A



\*This capacity is based upon maximum boom angle.

A6-829-011807A



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



40 - 125 ft. (12 - 38 m)



11,500 lbs. (5216 kg)



x 29 Ply)

Q

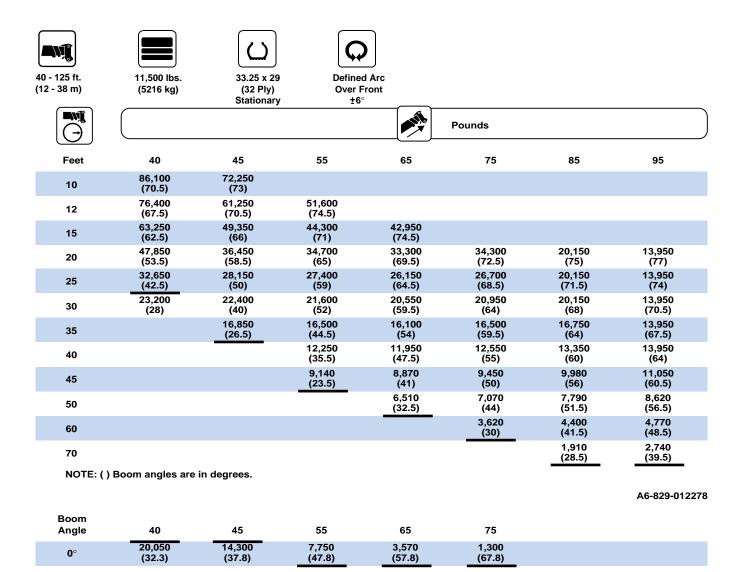
33.25 x 29 (32 Ply) Stationary

					Pounds		
Feet	40	45	55	65	75	85	95
10	66,250 (70.5)	63,400 (73)					
12	51,800 (67.5)	51,500 (70.5)	50,900 (74.5)				
15	35,850 (62.5)	35,450 (66)	33,500 (71)	30,800 (74.5)			
20	21,500 (53.5)	21,200 (58.5)	20,650 (65)	18,950 (69.5)	21,250 (72.5)	18,200 (75)	
25	14,050 (42.5)	13,800 (50)	13,300 (59)	12,850 (64.5)	13,650 (68.5)	14,800 (71.5)	13,950 (74)
30	9,430 (28)	8,920 (40)	8,590 (52)	8,260 (59.5)	8,470 (64)	8,920 (68)	9,980 (70.5)
35		5,750 (26.5)	5,100 (44.5)	4,460 (54)	5,000 (59.5)	6,060 (64)	6,500 (67.5)
40			3,000 (35.5)	2,160 (47.5)	3,260 (55)	3,870 (60)	4,100 (64)
45							2,330 (60.5)

A6-829-012279

Boom Angle	40	45
<b>0</b> °	7,420 (32.3)	4,770 (37.8)

NOTE: () Reference radii are in feet.



NOTE: () Reference radii are in feet.



40 - 125 ft. (12 - 38 m)



11,500 lbs. (5216 kg)



33.25 x 29 Pick & Carry Up to 2.5 MPH



Boom Centered Over Front

					Pounds		
Feet	40	45	55	65	75	85	95
10	87,650 (70.5)	84,400 (73)					
12	76,500 (67.5)	74,250 (70.5)	69,200 (74.5)				
15	63,700 (62.5)	63,500 (66)	56,400 (71)	52,100 (74.5)			
20	48,850 (53.5)	48,650 (58.5)	43,700 (65)	38,300 (69.5)	38,300 (72.5)	30,100 (75)	21,400 (77)
25	32,650 (42.5)	32,400 (50)	31,900 (59)	30,100 (64.5)	30,100 (68.5)	27,150 (71.5)	21,400 (74)
30	23,200 (28)	22,950 (40)	22,250 (52)	22,100 (59.5)	22,850 (64)	24,000 (68)	21,400 (70.5)
35		16,850 (26.5)	16,500 (44.5)	16,100 (54)	16,750 (59.5)	17,850 (64)	18,900 (67.5)
40			12,250 (35.5)	11,950 (47.5)	12,550 (55)	13,550 (60)	14,500 (64)
45			9,140 (23.5)	8,870 (41)	9,450 (50)	10,350 (56)	11,300 (60.5)
50				6,510 (32.5)	7,070 (44)	7,950 (51.5)	8,840 (56.5)
60					3,650 (30)	4,470 (41.5)	5,290 (48.5)
70						2,180 (28.5)	2,870 (39.5)
80							1,120 (27)

A6-829-012280

Boom Angle	40	45	55	65	75
<b>0</b> °	20,050	14,300	7,750	3,770	1,900
	(32.3)	(37.8)	(47.8)	(57.8)	(67.8)

NOTE: () Reference radii are in feet.

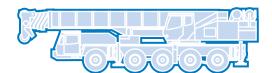
### Rated lifting capacities

#### NOTES FOR LIFTING CAPACITIES

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 meet ANSI/ASME B30.5, Mobile and Locomotive Cranes. Testing and development were performed to SAEJ1063, Cantilevered Boom Crane Structures Method of Test, and SAEJ765 Crane Stability Test Code.
- 2. Rated loads include the weight of hookblock, slings and auxiliary lifting devices and their weights shall be subtracted from the listed rating to obtain the net load to be lifted. When more than the minimum required hoist reeving is used, the additional rope weight shall be considered part of the load to be handled.
- 3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- 4. The machine shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats or tires 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 next longer or shorter boom length shall be used.
- 6. Tires shall be inflated to the recommended pressure before lifting on rubber.
- 7. For outrigger operation, outriggers shall be properly extended with tires raised free of crane weight before operating the boom or lifting loads.

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















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Form No.: SBRT865B Part No.: 3-670 1097-15M Printed in U.S.A.