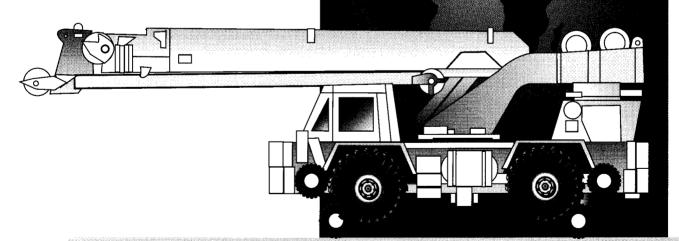


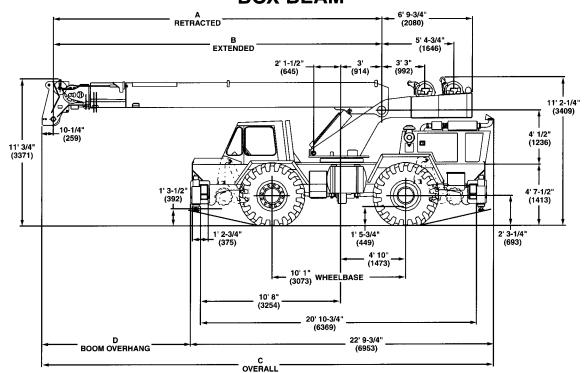
RTR58D



Rough Terrain Rail Hydraulic Crane

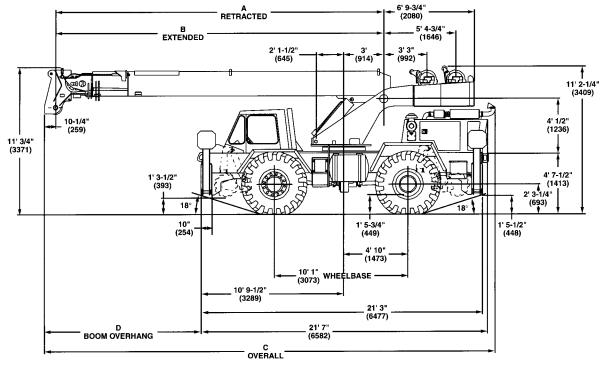
Dimensions

BOX BEAM



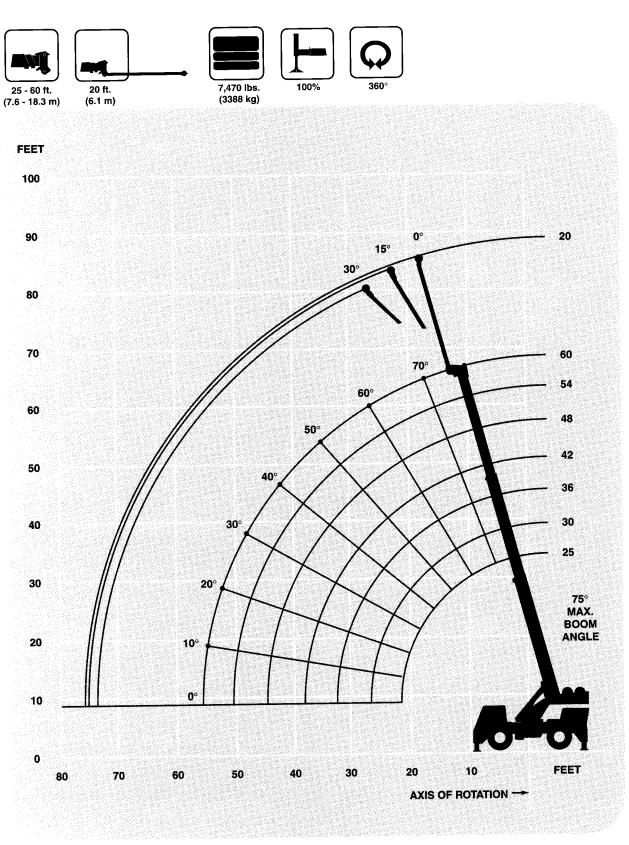
Boom Option	Α	В	С	Box Beam	Cantilever
24' - 42'	289.5	498.5	400.44	126.89	134.19
	(7353.3)	(12 661.9)	(10 171.2)	(3217.9)	(3408.4)
25' - 60'	297	715.0	407.94	134.19	141.69
	(7543.8)	(18 161)	(10 361.7)	(3408.4)	(3598.9)

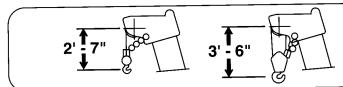
CANTILEVER



Note: () Reference dimensions in mm

Working range





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

Superstructure specifications

Boom

25 ft. - 60 ft. (7.6 m - 18.3 m) three-section, full power boom. Maximum tip height: 66 ft. (20.1 m).

*Optional Boom

24 ft. - 42 ft. (7.4 m - 12.7 m) two-section, full power boom. Maximum tip height: 48 ft. (14.6 m).

*Optional Jib (60 ft. Boom)

20 ft. (6.1 m) "A-frame" jib offsettable at 0°, 15° or 30°. Stows beneath base boom section.

Maximum tip height: 85 ft. (25.9 m).

Boom Nose

Three steel sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. *Optional removable auxiliary boom nose with removable pin-type rope guards.

Boom Elevation

Two double acting hydraulic cylinders with integral holding valves provide elevation from 0° to 75°.

Load Moment & Anti-Two Block System

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

Additionally, boom angle, tip height, and swing angle presets with A/V warning are provided. An on track inclinometer provides readout of side-to-side inclination which automatically switches on rail charts.

Swing

Ball bearing swing circle with 360° continuous rotation. Grove planetary drive with automatic multi-disc swing brake and plunger type 1 position mechanical houselock. Maximum speed: 2.9 RPM.

Counterweight

Removable, bolted to turntable mast. Main only: 7,470 lbs. (3388 kg).

Main & Auxiliary: 5,710 lbs. (2590 kg).

Hydraulic System

Three main gear pumps with a combined capacity of 112.5 GPM (426 LPM) driven by carrier engine through P.T.O. *Optional pump disconnect with engine jogging switch.

Three individual valve banks.

Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with micron filtration rating of 15/30/38.

88 gallon (333 L) reservoir.

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

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

Hoist Specifications Main and Auxiliary Hoist

Power up and down equal speed, planetary reduction with automatic brake and hoist drum cable followers. Electronic hoist drum rotation indicators.

Make/Mode	<u>·1</u>	HO15B-16	HO15B-16
Maximum Single Line Speed:	Bottom layer	340 FPM (104 m/min)	184 FPM (56 m/min)
	Intermediate layer	370 FPM (113 m/min)	200 FPM (61 m/min)

Main Hoist

8,496 lbs.

(3854 kg)

5/8 in. (16 mm) 18 x 19 class

*Aux. Hoist

	layer	(113 m/min)	(61 m/min)
	Top layer	399 FPM	216 FPM
	Top layer	(122 m/min)	(66 m/min)
Maximum	Bottom layer	9,640 lbs.	8,653 lbs.
Single Line Pull:	•	(4373 kg)	(3925 kg)
i un.	Intermediate	8,861 lbs.	7,953 lbs.
	layer	(4019 kg)	(3607 kg)
	Top layer	8,198 lbs.	7,358 lbs.
		(3719 kg)	(3338 kg)

Maximum Permissible

w/5:1 Strength Factor:

Single Line Pull

*Optional Equipment

*Aux. hoist w/electronic *Tow winch (front hoist drum rotation mounted - maximum indicator & cable pull: 15,000 lbs. [6804 follower kg]; maximum speed: 72 *Dual 360° flashing lights ft./min. [22 m/min]) *Cab spotlight *Spare tire & wheel *Worklights - boom *Tool kit mounted *Engine oil pan heater *Cold start aid (less *A/V warning system *Hydraulic oil cooler canister) *Propane cab heater *Tachometer *Engine block heater *Partial outrigger *Hot water heater extension (box beam *Hookblocks/headache only) balls *Acoustics - cab *Pintle hook front/rear *360° positive swing lock

*Denotes optional equipment

Carrier specifications

Frame

Steel all welded box-type construction with integral outrigger housings and front/rear lifting, towing and tie down lugs.

Outriggers (Cantilever)

Cantilever arm type with mechanical locks at all four corners with integral check valves on each extension cylinder. Integral all steel outrigger float pads 13.5 in. (343 mm) square.

*Outriggers (Box Beam)

Hydraulic single stage telescopic box beam with mechanical locks and jack outriggers with holding valves. All steel fabricated outrigger floats, 18 in. (457 mm) diameter, with stowage.

Outrigger Controls (Cantilever)

Joystick type hydraulic hand selector control located on right hand console and dash mounted extend/retract lever requires two hand operation. Crane level indicator located in cab.

*Outrigger Controls (Box Beam)

Joystick type electrical/hydraulic hand selector control located on right hand console and dash mounted extend/retract lever requires two hand operation. Crane level indicator located in cab.

Engine

Cummins 6BT 5.9 L six cylinders, turbocharged, water cooled diesel. 130 bhp (97 kW) (Gross) @ 2,700 RPM. Maximum torque: 368 ft. lbs. (499 Nm) @ 1,600 RPM with spark arrestor.

Fuel Tank Capacity

60 gallons (227 L) with vandal protection.

Electrical System

Two 12 V - maintenance free batteries. 625 CCA @ 0° E 24 V starting with battery disconnect switch. 30 AMP breaker for radio.

Drive

4 x 4 or 4 x 2.

Steering

Fully independent power steering:

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

Transmission

Remote mounted powershift with 6 speeds forward and 6 reverse, 3 in high range, 3 in low range. Rear axle disconnect for 4 x 2 travel with high transmission temperature A/V warning.

Axles

Heavy duty axles with frame modification.

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.

*Optional: No-spin differential on rear axle.

Oscillation Lockouts

Automatic full hydraulic lockouts on rear axle permit oscillation only with boom centered over the front. *Optional oscillation lockout override control.

Tires

16.00 x 25 - 28 PR earthmover type, tubeless.

Brakes

Service brakes, full air dual circuit on all four wheels with standard air dryer. Spring applied parking brake, air released on all 4 wheels.

Lights

Lighting package including turn indicators, head, tail, brake and hazard warning lights.

Cab

Steel fabricated frame mounted with tinted safety glass throughout. Deluxe adjustable seat. Complete driving controls and engine instrumentation. Dash mounted control levers for all craning functions. Other standard features include: sliding side doors, horn, circulationg air fan, domelight, electric windshield washer/wiper, fire extinguisher and seat belt.

Maximum Speed

16 MPH (25.7 kph).

Gradeability (Theoretical)

80% (Based on 58,280 lbs. [26 435 kg] GVW).

Gross Vehicle Weight & Axle Loads

BASIC STANDARD MACHINE WITH HI-RAIL

Front: 28,320 lbs. (12 845 kg) Rear: 29,960 lbs. (13 589 kg) G.V.W.: 58,280 lbs. (26 435 kg)

Miscellaneous Standard Equipment

Full width steel fenders, electronic back-up alarm, tire inflation kit, hourmeter, amp meter, lubrication chart, air cleaner service indicator.

*Optional Rail Equipment

*Friction drive hi-rail and controls

*Battery disconnect switch

*Handrails on fenders
*Heavy duty tiedowns

*Draw bar hitches (heavy duty) (not available with pintle hook opt.)

*Tool box

*Air horns - front & rear

*Dry chemical fire extinguisher (20 lbs.)

*Paint to specification *Rear flood lights

*Extended West Coast mirrors

*Hydraulic tool circuits

*Spare tire carrier - rear *Front windshield guard

*Front mounted winch with 5/8 in. x 100 ft. cable *Boom point Fairlead roller

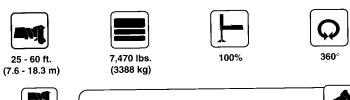
(main winch only)
*Auxiliary boom point
Fairlead rollers

*Metal diagram for maintenance on hi-rail *Two way selector switch

(back-up alarm)
*Vandalism Protection Kit
*Machanical locks for

*Mechanical locks for retracted hi-rail

*Denotes optional equipment



eet	25	30	36	42	48	54	60
eei 0	40,000 (60)	36,000 (66)	36,000 (70.5)	36,000 (74)			
244 (144 (144 (144 (144 (144 (144 (144 (36,000 (54.5)	36,000 (62)	36,000 (67.5)	35,500 (71)	34,500 (74)		
15	30,000 (45)	30,000 (55)	30,000 (62)	30,000 (66.5)	29,350 (70)	28,000 (73)	25,000 (75.5)
10-20 2 0	25,000 (23.5)	25,000 (41.5)	25,000 (52)	24,300 (59)	23,550 (63.5)	22,900 (67.5)	21,500 (70.5)
1		23,000 (27.5)	23,000 (43.5)	23,000 (52)	20,300 (58)	19,800 (62.5)	18,600 (66)
25	。 1945年, 1947年 1947	19,900 (23)	19,900 (41)	19,800 (50.5)	19,400 (56.5)	19,000 (61.5)	18,000 (65)
30			14,850 (25.5)	14,850 (40.5)	14,850 (49)	14,850 (55)	14,850 (59.5)
35				11,650 (27.5)	11,650 (40)	11,650 (48)	11,650 (53.5)
10					9,420 (28,5)	9,420 (40)	9,420 (47)
45				karan adam ah karat dalam dalam	萨克·斯克克·阿斯 斯斯斯特 (1995年)	7,780 (30)	7,780 (39.5)
50						6,520 (13.5)	6,520 (30)
55			· 通过运动的人的复数形式 (1914年)	didi dali iprocessi di difanti amang a 1987, a se am	all makkat i tikk kaluarangan sa pina i kaluarangan an a anna in	- Participate de la company de	5,530 (16.5)

9,260

(39)

36

11,350

(33)

30

14,200

48

7,310

(45)

NOTE: () Boom angles are in degrees.

25

17,800

A6-829-012954

60

4,890

(56.6)

54

5,900

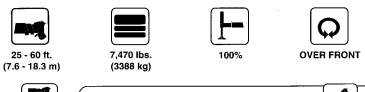
(51)

NOTE: () Reference radii are in fee	et.
0° (21.8)	27)

Boom

Angle

NOTE: () Reference radii are in rec



Θ				Pounds	3		
Feet	25	30	36	42	48	54	60
10	40,000 (60)	36,000 (66)	36,000 (70.5)	36,000 (74)			
12	36,000 (54.5)	36,000 (62)	36,000 (67.5)	35,500 (71)	34,500 (74)		
15	30,000 (45)	30,000 (55)	30,000 (62)	30,000 (66.5)	29,350 (70)	28,000 (73)	25,000 (75.5)
20	25,000 (23.5)	25,000 (41.5)	25,000 (52)	24,300 (59)	23,550 (63.5)	22,900 (67.5)	21,500 (70.5)
24		23,000 (27.5)	23,006 (43.5)	23,000 (52)	20,300 (58)	19,800 (62.5)	18,600 (66)
25		20,000 (23)	20,000 (41)	19,800 (50.5)	19,400 (56.5)	19,000 (61.5)	18,000 (65)
30			16,000 (25.5)	16,000 (40.5)	16,000 (49)	15,900 (55)	15,400 (59.5)
35			**************************************	13,300 (27.5)	13,300 (40)	13,300 (48)	13,200 (53.5)
40					11,200 (28.5)	11,200 (40)	11,200 (47)
45					a manamag <mark>a manamana manama</mark> (kw. il.) II.	9,600 (30)	9,600 (39.5)
50						8,000 (13.5)	8,000 (30)
55							6,900 (16.5)
Minimum	boom angle (degi	rees) for Indicate	d length (no load)				0
	boom length (ft.)	_	n angle (no load)				60
NOTE: ()	Boom angles are	in degrees.					A6-829-01

9,260 (39) 48

7,310 (45) 54

5,900 (51)

NOTE: () Reference radii are in feet.

25

17,800 (21.8) 30

14,200

(27)

36

11,350 (33)

Angle

0°

60

4,890 (56.6)







360°

25 - 60 ft. (7.6 - 18.3 m)

7,470 lbs. (3388 kg) Stationary 16.00 x 25 (28PR) Tires

Pounds 48 54 42 36 30 25 Feet 25.350 10 (60)19,250 12 (54.5)11,550 11,550 11,550 13,450 11,550 (70) (62) (66.5)15 (55) (45)8,480 8,480 8,480 8,480 8.480 8,500 (67.5)(63.5)(59) 20 (41.5)(52) (23.5)5,880 5,880 5,880 5,880 5,880 (61.5)(50.5)(56.5)(41) 25 (23) 4,260 4,260 4,260 4,260 (55) (49) (40.5)30 (25.5)3,160 3,160 3,160 (40)(48)(27.5)35 2.360 2,360 (40) (28.5)40 1,760

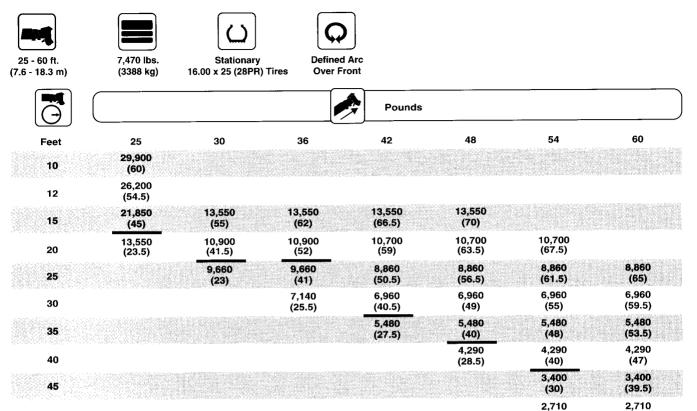
NOTE: () Boom angles are in degrees.

A6-829-012916

(30)

Boom Angle	25	30	36	42	48	54
0.0	7,390	5,150	3,560	2,500	1,760	1,200
	(21.8)	(27)	(33)	(39)	(45)	(51)

NOTE: () Reference radii are in feet.



NOTE: () Boom angles are in degrees.

50

55

Boom

A6-829-012915

(30)2,160

(16.5)

60

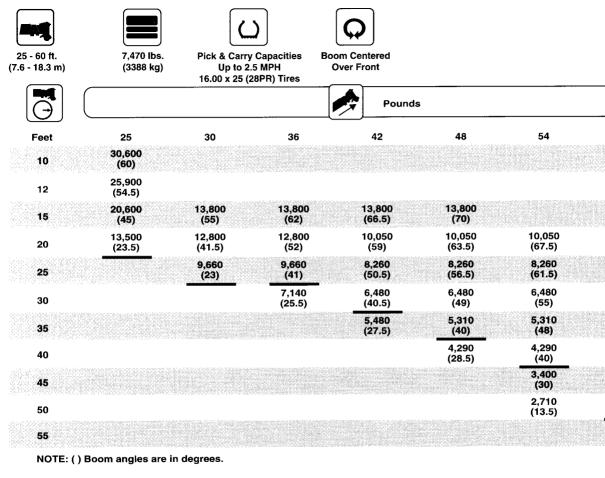
2,010 (56.6)

(13.5)

54

Angle	25	30	36	42	48	54
	11,300 (21.8)	8,510 E-555 (27) 1990 (27) 1990	6.070 (33)	4.500 00000 (39)	3,400 (45)	2,590 (51)

NOTE: () Reference radii are in feet.



11.300 O° (21.8)

25

NOTE: () Reference radii are in feet.

Boom

Angle

30 36

6,070

(33)

8.400

(27)

42

4,500

(39)

48

3,400

(45)

54

2,590

(51)

8,260 (65) 6.480 (59.5)

5.310

(53.5)

4,290

(47)

3,400

(39.5)

2,710

(30)2,160

(16.5)

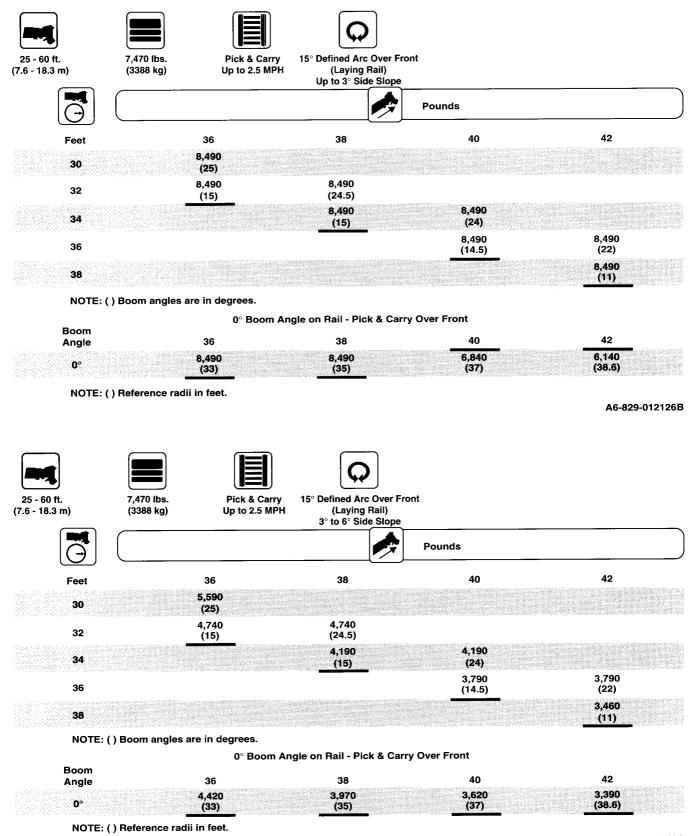
60

2,010

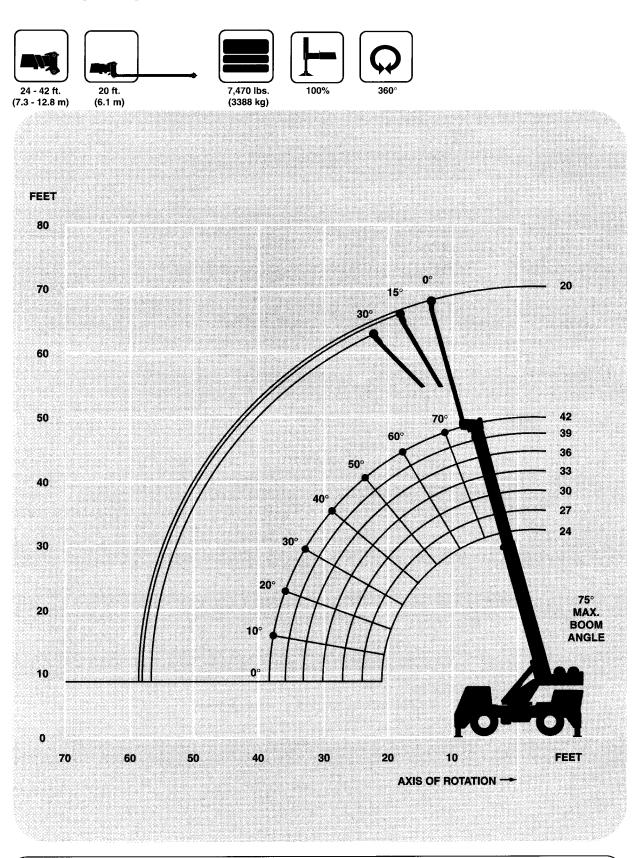
(56.6)

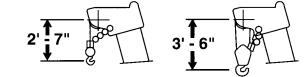
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60

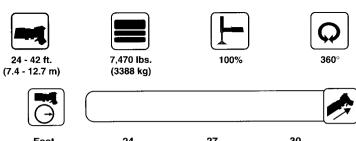


Working range





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



Feet	24	27	30	33	36	39	42
10	40,000	40,000	40,000	40,000	40,000	40,000	36,000
	(59.5)	(63)	(66)	(68.5)	(70.5)	(72)	(73.5)
12	35,800	35,800	35,800	35,800	35,800	35,450	35,000
	(54)	(58)	(61.5)	(64.5)	(67)	(69)	(70.5)
15	29,300	29,300	29,300	29,300	29,300	29,300	29,300
	(44)	(50)	(54.5)	(58.5)	(61.5)	(64)	(66)
20	23,300	23,300	23,300	23,300	23,300	23,200	23,000
	(20)	(33)	(41.5)	(47.5)	(52)	(55.5)	(58)
25			18,400 (22.5)	18,400 (33.5)	18,400 (40.5)	18,400 (46)	18,400 (49.5)
30			an ininina		14,900 (25)	14,900 (34)	14,900 (39)
35						12,500 (14.5)	12,500 (25.5)

winimum boom a	ngle (deg.) for indicated length (no load)
Maximum boom l	ength (ft.) at 0 deg. boom angle (no load)

30

A6-829-014123

42

12,300 (33) 11,150 (36) 10,300 (38.6) 13,650 (30) 15,250 17,200 (24)(27)

36

39

33

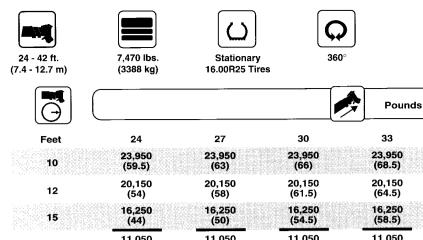
19,600 (21.1) NOTE: () Reference radii are in feet.

24

NOTE: () Boom angles are in degrees.

Boom Angle

0°



42 36 39 23,950 23,950 23,950 23,950 (70.5)(72)(73.5)(68.5)20,150 20.150 20,150 20,150 (64.5)(67)(69)(70.5)16,250 16,250 16,250 16,250 (61.5)(64)(66)(58.5)11,050 11,050 11,050 11.050 11,050 11,050 11,050 20 (20)(33)(41.5)(47.5)(52)(55.5)(58)8.010 8,010 8,010 8,010 8,010 25 (49.5)(40.5)(46)(22.5)(33.5)6,040 6,040 6,040 6,040 30 (2.5)(25)(34)(39) 4.840 4,840 35 (25.5)(14.5)NOTE: () Boom angles are in degrees. A6-829-014124 Boom 36 39 42 30 33 Angle 24 27 5,260 4,660 4,250 10,050 8,570 7,080 6,040 0° (386)(36)

(27)

(30)

(33)

NOTE: () Reference radii are in feet.

(21.1)

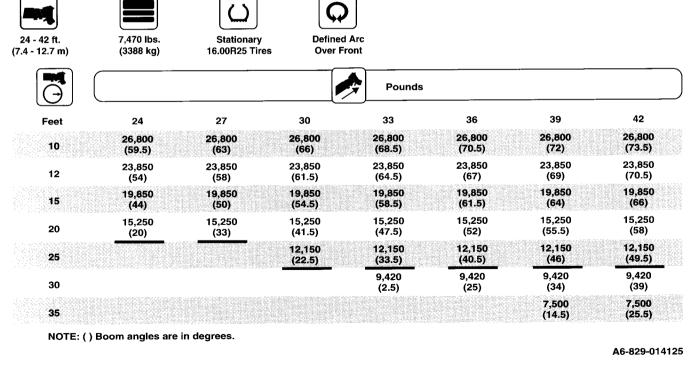
(24)

27

12,700

(24)

A6-829-014127



30

11,000

(27)

33

9.420

(30)

36

8,180

(33)

39

7.190

(36)

NOTE: () Reference radii are in feet.

24

14,450

(21.1)

Boom

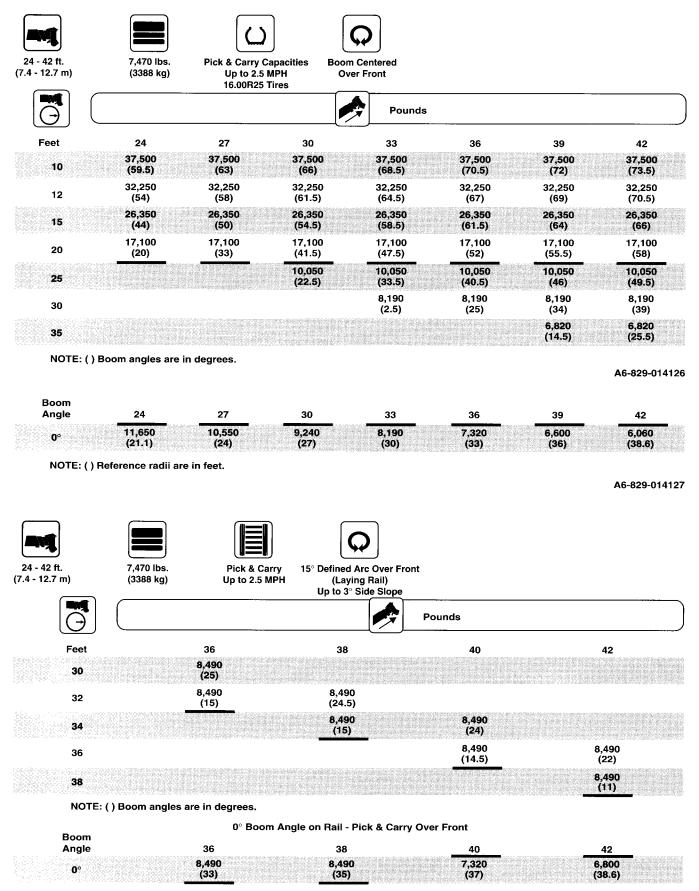
Angle

0°

42

6.500

(38.6)



NOTE: () Reference radii in feet.



(7.4 - 12.7 m)



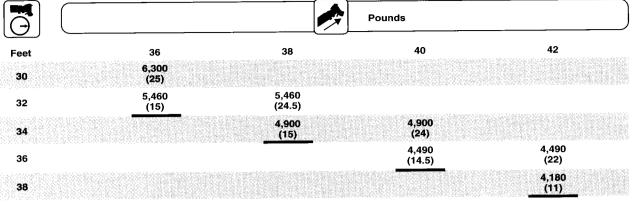
7.470 lbs. (3388 kg)



Up to 2.5 MPH



15° Defined Arc Over Front (Laying Rail) 3° to 6° Side Slope



NOTE: () Boom angles are in degrees.

0° Boom Angle on Rail - Pick & Carry Over Front

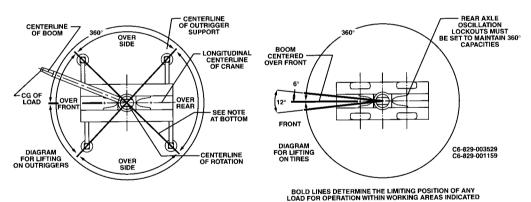
Doom				40
Angle	36	38	40	42
	5,150 (33)	4,680 (35)		(38.6)

NOTE: () Reference radii in feet.

A6-829-012376

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.

Lifting Area Diagram



WORKING AREA DIAGRAM

Weight Reductions for Load Handling Devices

Hookblocks and Headache Balls: 12 Ton, 1 Sheave 15 Ton, 2 Sheave

22 Ton. 3 Sheave

Auxiliary Boom Head

5 Ton Headache Ball

Fairlead Assembly (Main) Fairlead Assembly (Aux.)

+Refer to rating plate for actual weight

100 lbs. (45.4 kg)

268 lbs.+ (121.6 kg)+

290 lbs.+ (131.5 kg)+

455 lbs.+ (206.4 kg)+ 172 lbs.+ (78 kg)+

250 lbs. (113.4 kg) 160 lbs. (72.6 kg)

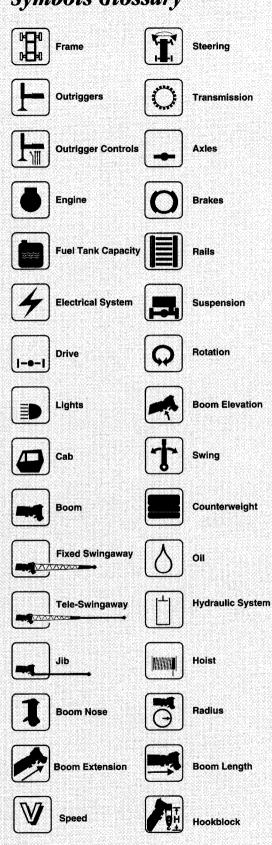
Rated lifting capacities

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. Capacities are applicable to machines equipped with 16.00×25 (28 ply) bias ply tires, at 109 psi cold inflation pressure or 16.00R25 ** xnp radial tire, at 115 psi cold inflation pressure.
- 3. Defined Arc $\,$ Over front includes +/-6° on either side of longitudal centerline of machine.
- 4. Capacities appearing above the bold line are based on structural strength. Tipping should not be relied upon as a capacity indication.
- 5. Capacities are applicable only with the machine on a firm level surface.
- 6. On rail lifting with jib not permitted.
- 7. For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speeds.
- 8. Lifting loads at close radii directly over the operator's compartment is not recommended.
- 9. Creep not over 200 ft. of movement in any 30 minute period and not exceeding 1 mph.

Symbols Glossary





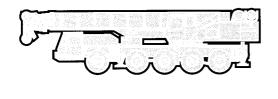
Lattice Extension

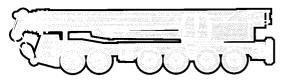
Grade

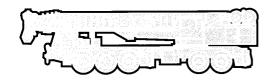


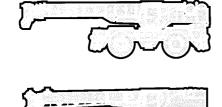
Gear

Luffing Jib













Grove Worldwide – World Headquarters Grove U.S. L.L.C.

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Form No.: SBRTR58D Part No.: 3-1112 698-3M Printed in U.S.A.