

GROVE®

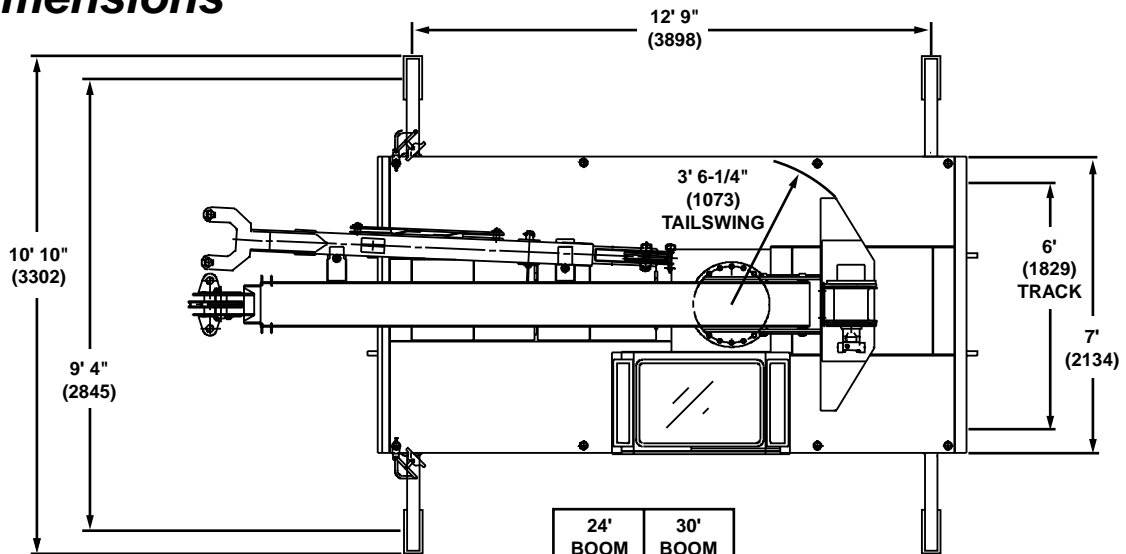
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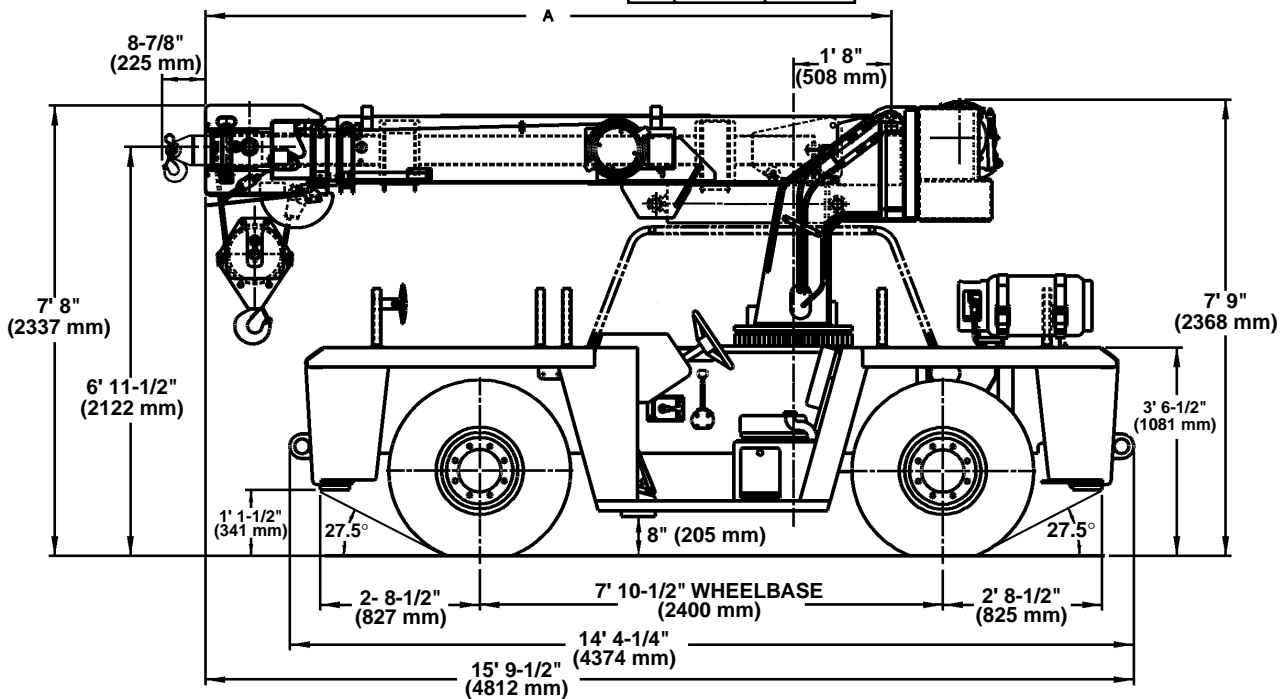
INDUSTRIAL CRANE



Dimensions



	24' BOOM	30' BOOM
A	11' 8" (3556)	13' 8" (4166)
B	1' 8-1/2" (521)	3' 8-1/2" (1129)
	15' 9-1/2" (4813)	17' 9-1/2" (5421)



Note: () Reference dimensions in mm

Turning Radius 15' 11" (4.9 m) 2 Wheel Steer
 9' 10" (3.04 m) 4 Wheel Steer

Front Axle Load 6,500 lbs. (2 949 kg)

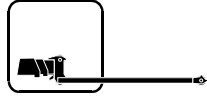
Rear Axle Load 10,500 lbs. (4 763 kg)

Gross Vehicle Weight 17,000 lbs. (7 711 kg)

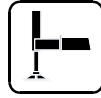
Working Range



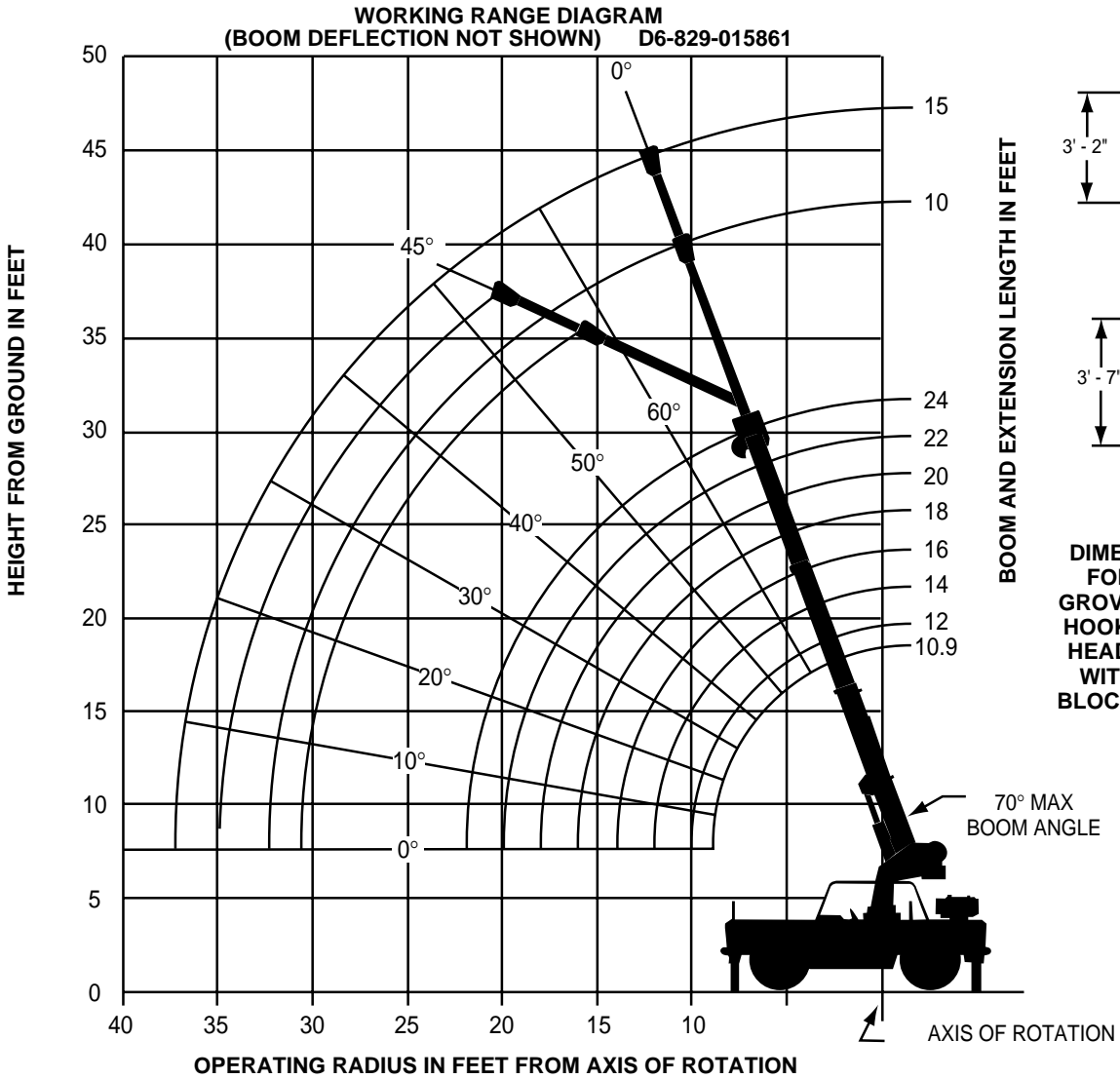
10.9 ft. - 24 ft.
(3.3 m - 7.3 m)



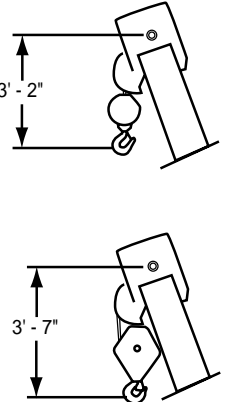
10 ft. - 15 ft.
(3.05 m - 4.8 m)



360°



BOOM AND EXTENSION LENGTH IN FEET



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

70° MAX BOOM ANGLE

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.

Superstructure Specifications

Boom (Standard)

10.9 ft. - 24 ft. (3.3 m - 7.3 m) three-section full power boom.
Maximum tip height: 29 ft. (8.8 m)

Boom (Optional)

13 ft. - 30 ft. (3.9 m - 9.1 m) three-section full power boom.
Maximum tip height: 35 ft. (10.7 m)

*Fixed Boom Extension

10 ft. (3.05 m) swingaway extension w/single metallic sheave in point. Stows alongside base boom section for travel. Extends tip heights to 38 ft. (11.6 m) or 44 ft. (13.4 m) with the 24 ft. (7.3 m) and 30 ft. (9.1 m) booms respectively.

*Telescopic Offsettable Boom Extension

10 ft. - 15.7 ft. (3.05 m - 4.8 m) telescopic boom extension with offset mechanism which permits offsetting at 0° or 45° to the boom head. It stows alongside base boom section for travel. Extends tip height to 44 ft. (13.4 m) or 50 ft. (15.2 m) with 24 ft. (7.3 m) and 30 ft. (9.1 m) booms, respectively.

Boom Nose

Low profile quick reeve design with single metallic sheave mounted on bronze bushing.

*Searcher Hook

A boom nose mounted fixed hook with safety latch.
Maximum capacity: 3,000 lbs. (1 316 kg). Use is limited to boom angles of 25° or below.

Boom Elevation

One double acting hydraulic cylinder with integral holding valve provides elevation from 0° to 70°.

Anti-Two Block Device - standard is a low profile type anti-two block device, which when activated, provides an audible-visual warning to the crane operator and disengages all crane functions whose movement can cause two-blocking.

*PAT Load Moment Indicator (LMI) and Grove Anti-Two Block Device

An operator friendly interactive LMI displays the crane operating configuration and actual load. Properly configured, the LMI system constantly monitors the actual lifting conditions versus allowable capacity ratings to assist in preventing an overload condition. It provides the operator with a visual pre-warning at approximately 90% of the rated capacity and an audible-visual warning in combination with automatic lockout at approximately 100% of rated load.

Swing

Ball bearing swing circle with 360° continuous rotation. Grove planetary glide-swing with automatic multi-wet-disc brake.
Maximum speed: 1.5 RPM

Counterweight

2,500 lbs. (1 134 kg). Integral with superstructure. Rotates 360° within chassis width.

Hydraulic System

Two main gear pumps driven off engine through PTO.
Combined capacity: Cummins Engine: 46.3 GPM (175 LPM)
Continental Engine: 54 GPM (204 LPM)

Two individual valve banks mounted on top of dash panel with direct mechanical linkage lever controls.

Return line type filter with full flow by-pass protection and service indicator. Three micron rated replaceable cartridges.

30 gallon (114 L) reservoir with lockable cap and steel plate to guard against side impact damage.

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

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

HOIST SPECIFICATIONS - Grove HO12

Planetary reduction with automatic spring applied multi-wet-disc brake. *Cable follower available.

Drum Dim. (Dia. x Width)	9.62" x 9.0" (244 mm x 229 mm)
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Maximum Single Line Pull:	13,436 lbs. (6 095 kg)
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Maximum Single Line Speed:	135 FPM (41.1 m/min)
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Maximum Permissible Single Line Pull:

Std:	9,600 lbs. (4 355 kg) [9116" (14 mm) 6 x 37 EIPS] 3.5:1FOS
Opt:	10,220 lbs. (4 636 kg) [9116" (14 mm) 34 x 7 EEIPS] 5:1FOS

Rope Length (Std):	9/16 in. x 130 ft. (14 mm x 39.6 m)
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Maximum Drum Rope Stowage Capacity:	185 ft. (56.4 m)
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**Denotes optional equipment*

Carrier Specifications

Frame

High strength alloy steel construction with integral outrigger housings, front/rear lifting, towing and tie down lugs and recessed lifting rings in all four corners of deck top. Carry deck constructed of 1/4" (6 mm) thick plate steel. Surface area of 61.2 sq. ft. (5.69 m²) with Continental engine and 52.15 sq. ft. (4.85 m²) with Cummins engine.

Outriggers

Front and rear oblique type beams at all four corners with integral holding valves. Outrigger pads form an integral part of the beam and have a surface area of 72 sq. in. (464 cm²).
Maximum outrigger pad load: 17,727 lbs. (8 041 kg)

Outrigger Controls, Synchronized

Controls are located on dash panel and operate beams in pairs from side to side. Two hand sequence minimizes unintentional actuation. *Independent control of each individual beam is available.

Engine, Dual Fuel (Gas/LPG)

Continental TM 2.7 L, four cylinder, dual fuel (LPG/gas) engine, 62 bhp (46 kW) (Gross) @ 2,800 RPM.
Maximum torque: 136 ft. lbs. (184 Nm) @ 1,800 RPM

Engine, Diesel

Cummins 4B3.9 L diesel, four cylinder, 80 bhp (60 kW) (Gross) @ 2,500 RPM.
Maximum torque: 201 ft. lbs. (73 Nm) @ 1,200 RPM

Operator's Control Station

Frame mounted, open-air style control station with overhead canopy includes all crane function and driving controls. Other standard equipment includes a durable, nylon cushion seat with lap belt, fire extinguisher; dash panel includes all critical engine monitoring instruments; engine low oil pressure/high water temperature A/V warning, Anti-two block A/V warning, *LMI Console, and warning indicators, outrigger controls, park/emergency brake toggle switch with warning light. All control valves are mounted on top of dash area for ease of operation and increased leg room.

Overhead Canopy

Tubular steel construction with steel mesh covering on top and right side grill type guard. Not available with enclosed cab option.

*Cab, Enclosed

Fully enclosed galvanized sheet metal structure replaces standard overhead canopy. Includes safety glass throughout, hinged removable door, sliding left and right side glass for cross ventilation, door lock, electric windshield wiper/washer, skylight glass, circulating air fan, heater & defroster, rear deck storage shelf area behind operator's seat.

Fuel Tank

30 gallons (114 L) all steel construction w/lockable cap and steel plate to guard against side impact damage.

Electrical System

One 12 V - maintenance free battery. 815 CCA. Includes standard 12 V remote slave receptacle to facilitate battery jump starting.

Drive

Front axle, 4 x 2 with no-spin differential.

Steering

All wheel (four-wheel), full hydraulic power via steering wheel permits three modes of operation: two wheel (front only), four wheel coordinated or four wheel crab. Inside switch to select between three modes.

Transmission

Automatic with 3 speeds forward and 1 reverse with torque converter.

Axles

Front: Clark-Hurth (4 x 2 x 4) drive/steer with planetary reduction hubs, internal multi-wet-disc brakes and no-spin differential.

Rear: Steer-type, non-driving rigid mounted to frame. *Dry disc brakes available.

Tires

Standard 10.00 x 15-16PR tube type, bias ply highway rib. *Mine lug service tires are available.

Suspension

Both front and rear axles are solid mounted to frame.

Brakes

Hydraulic, internal multi-wet-disc service brakes act on the front wheels. A dash mounted toggle switch activates the parking brake on front axle and has a dash mounted warning light. *Dry disc brakes for rear axle with split circuit design are optional.

Lights

Recessed head, tail, turn signals, brake and 4-way hazard warning lights.

Maximum Speed

15 MPH (24 Km/h)

Gradeability (Theoretical)

40% (Based on 17,000 lbs. [7 711 kg] GVW)

Miscellaneous Standard Equipment

Hookblock tiedown sling, electronic back-up alarm, front and rear running lights, tool stowage well, 11 ton (10 MT) capacity single sheave quick reeve hookblock, engine low oil pressure/high water temperature A/V warning system, remote slave receptacle for jump starting, R/S rearview mirror, O/R audio motion alarm.

*Miscellaneous Optional Equipment

- * Worklights
- * 360° Flashing light
- * Cab spotlight, 360°
- * Cold start aid (less canister)
- * Engine cold weather pkg (block heater & ether injection)
- * Pintle hook rear
- * Carry deck posts
- * Spark arrestor muffler
- * Sound suppression package for 87 dBa cab
- * Dual rearview mirrors
- * Removable light grill guards
- * Independent controls for each outrigger beam
- * Hydraulic system oil cooler
- * Quick reeve overhaul weight with 5 ton (4 500 kg mt) hook
- * Mine lug service tires
- * CE Mark (European) approval package

**Denotes optional equipment*

**RATED LIFTING CAPACITIES IN POUNDS
ON OUTRIGGERS FULLY EXTENDED -
360° & OVER FRONT**

10.9 ft. - 24 ft. BOOM

Radius in Feet	10.9 ft. (Fully Retracted)		10.9 ft. - 24 ft. BOOM	
	Over Front	360°	Over Front	360°
5	20,000	20,000	17,000	17,000
6	18,000	18,000	15,000	15,000
8	13,750	13,750	13,000	13,000
10			11,000	11,000
12			9,500	9,500
14			8,100	7,860
16			6,900	6,230
18			5,900	5,120
20			5,150	4,310
22			4,590	3,700

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Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation. Capacities also do not exceed 85% of the tipping loads as determined by test in accordance with SAE J765.

**NO LOAD STABILITY FOR
ON OUTRIGGERS AND RUBBER CAPACITIES**

	No Load Stability Data	Main Boom 24 ft.
Front (No load)	Min. boom angle (deg.) for indicated length	0
	Max. boom length (ft.) at 0 deg. boom angle	24
360 Deg. (No load)	Min. boom angle (deg.) for indicated length	0
	Max. boom length (ft.) at 0 deg. boom angle	24

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES



10 FT. FIXED BOOM EXTENSION	
*Stowed -	114 lbs.
*Erected -	568 lbs.
10 FT. - 15 FT. TELE. BOOM EXT.	
*Stowed -	221 lbs.
*Erected (Retracted) -	1,066 lbs.
*Erected (Extended) -	1,285 lbs.

*Reduction of main boom capacities

SEARCHER HOOK	55 lbs.
HOOK BLOCKS and HEADACHE BALLS:	
11 Ton, 1 Sheave	304 lbs.+
5 Ton Quick Reeve Overhaul Wgt.	148 lbs.+

+Refer to rating plate for actual weight.

Load Distribution Chart for Carry Deck

CONTINENTAL ENGINE			CUMMINS ENGINE		
1	3	2	1	3	2
1		2	1		ENGINE HOOD
1	OPERATOR COMPARTMENT	L. P. TANK	1	OPERATOR COMPARTMENT	
MAXIMUM ALLOWABLE LOAD			MAXIMUM ALLOWABLE LOAD		
AREA 1	34.0 sq. ft. (3.16 m ²)	8,500 lbs. (3856 kg)	AREA 1	34.0 sq. ft. (3.16 m ²)	8,500 lbs. (3856 kg)
AREA 2	18.7 sq. ft. (1.74 m ²)	4,675 lbs. (2120 kg)	AREA 2	9.65 sq. ft. (0.90 m ²)	2,412 lbs. (1094 kg)
AREA 3	8.5 sq. ft. (0.79 m ²)	2,125 lbs. (964 kg)	AREA 3	8.5 sq. ft. (0.79 m ²)	2,125 lbs. (964 kg)
TOTAL	61.2 sq. ft. (5.69 m ²)	15,300 lbs. (6940 kg)	TOTAL	52.15 sq. ft. (4.85 m ²)	13,037 lbs. (5914 kg)

1. MAXIMUM TRAVEL SPEED WITH ANY OR ALL LOADS - 2.5 MPH/4.0 KPH
2. LOADS TO BE TRANSPORTED ON SMOOTH LEVEL FIRM SURFACES ONLY.
3. BOOM MUST BE RETRACTED AND IN CENTER FORWARD POSITION.
4. ANY COMBINATION OR TOTAL OF AREAS 1, 2, & 3 MAY BE USED.
5. LIFTING IS NOT PERMITTED WHEN CARRY DECK IS LOADED EXCEPT FOR LOADING AND UNLOADING CARRY DECK.
6. RATED PICK & CARRY LOADS MAY BE TRANSPORTED ON DECK AREA 1 PROVIDED THE LOAD IS CRIBBED DIRECTLY ON THE FRAME RAILS.

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MINE LUG TIRES ON RUBBER CAPACITIES

Radius in Feet	Stationary Capacity Defined Arc Over Front (See Note 3)	Stationary Capacity 360 Degree Arc	Pick & Carry Cap. Up to 2.5 MPH Boom Centered Over Front (See Note 6)
4	14,080	11,230	14,080
5	14,080	11,230	14,080
6	14,080	8,840	14,080
7	12,500	7,220	12,500
8	11,200	6,060	11,200
10	9,260	4,490	9,260
12	7,850	3,490	7,850
14	6,360	2,790	6,360
16	5,020	2,270	5,020
18	4,110	1,880	4,110
20	3,440	1,560	3,440
22	2,940	1,310	2,940

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RIB TIRES ON RUBBER CAPACITIES

Radius in Feet	Stationary Capacity Defined Arc Over Front (See Note 3)	Stationary Capacity 360 Degree Arc	Pick & Carry Cap. Up to 2.5 MPH Boom Centered Over Front (See Note 6)
4	14,080	11,230	14,080
5	14,080	11,230	14,080
6	14,080	8,840	14,080
7	12,500	7,220	12,500
8	11,200	6,060	11,200
10	9,260	4,490	9,260
12	7,850	3,490	7,850
14	6,115	2,790	6,115
16	4,825	2,270	4,825
18	3,945	1,880	3,945
20	3,300	1,560	3,300
22	2,815	1,310	2,815

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- Capacities are in pounds and do not exceed 75% of the tipping loads in accordance with SAE J765.
- Capacities are applicable to machines equipped with 10.00 x 15 (16 ply) mine lug tires, at 115 psi cold inflation pressure.
- Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.
- Capacities are applicable only with machine on firm level surface.
- All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
- For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speed* 2.5 MPH capacities are permissible on main boom only, NOT on boom extension.

*Creep - not over 200 feet of movement in any 30 minute period and not exceeding 1 mph.

- Capacities are in pounds and do not exceed 75% of the tipping loads in accordance with SAE J765.
- Capacities are applicable to machines equipped with Denman 10.00 x 15 (16 ply) tires, at 125 psi cold inflation pressure.
- Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.
- Capacities are applicable only with machine on firm level surface.
- All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
- For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speed* 2.5 MPH capacities are permissible on main boom only, NOT on boom extension.

*Creep - not over 200 feet of movement in any 30 minute period and not exceeding 1 mph.

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**RATED LIFTING CAPACITIES IN POUNDS ON OUTRIGGERS FULLY EXTENDED
10 ft. FIXED & 10 ft. - 15 ft. TELE. BOOM EXTENSION**

Radius in Feet	360 Degrees				Over Front			
	10 ft. Tele. Ext.		15 ft. Tele. Ext.		10 ft. Tele. Ext.		15 ft. Tele. Ext.	
	* 0°	45°	0°	45°	* 0°	45°	0°	45°
8	7,000				7,000			
10	6,500		4,150		6,500		4,150	
12	6,000		3,800		6,000		3,800	
14	5,500	4,500	3,400		5,500	4,500	3,400	
16	5,000	4,200	3,150		5,000	4,200	3,150	
18	4,500	3,900	2,950	2,600	4,500	3,900	2,950	2,600
20	4,200	3,600	2,800	2,550	4,200	3,600	2,800	2,550
22	3,670	3,350	2,650	2,500	3,700	3,350	2,650	2,500
24	3,170	3,150	2,550	2,450	3,500	3,150	2,550	2,450
26	2,770	2,770	2,500	2,400	3,250	3,000	2,500	2,400
28	2,430		2,450	2,250	3,000		2,450	2,250
30	2,160		2,350	2,100	2,800		2,350	2,100
32	1,920		2,110	2,050	2,600		2,200	2,050
34			1,900				2,000	
36			1,710				1,900	
38			1,550				1,800	

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*10 ft. capacities at 0° offset only are also applicable to the 10 ft. fixed length non-offsettable extension.

BOOMEXTENSIONCAPACITY NOTES:

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of the tipping loads on outriggers in accordance with SAE J765.
2. 10 ft. and 15 ft. boom extension lengths may be used for single line lifting service only.
3. Rated load is based on radius, regardless of main boom length.
WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
4. Capacities listed are with fully extended outriggers only.
5. No load stability on outriggers 360° with fixed or tele. extension installed:
 - a. Minimum boom angle for 24 ft. main boom = 0°
 - b. Maximum main boom length at 0° main boom angle = 24 ft.
6. When lifting loads the minimum allowable boom angle is: 3° with 0° offset and 48° with 45° offset.

10:00 X 15 (16 PLY) MINE LUG TIRES
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER
10 ft. FIXED & 10 - 15 ft. TELE. BOOM EXTENSION - STATIONARY CAPACITY

Radius in Feet	360 Degrees				**Defined Arc Over Front			
	10 ft. Tele. Ext.		15 ft. Tele. Ext.		10 ft. Tele. Ext.		15 ft. Tele. Ext.	
	* 0°	45°	0°	45°	* 0°	45°	0°	45°
8	6,200				7,000			
10	4,410		4,150		6,500		4,150	
12	3,340		3,380		6,000		3,800	
14	2,620	3,030	2,780		5,500	4,500	3,400	
16	2,100	2,430	2,320		5,000	4,200	3,150	
18	1,710	1,960	1,960	2,100	4,150	3,900	2,950	2,600
20	1,410	1,610	1,660	1,770	3,480	3,480	2,800	2,550
22	1,170	1,330	1,410	1,510	2,960	2,960	2,650	2,500
24	970	1,120	1,210	1,300	2,560	2,560	2,550	2,450
26	810	950	1,030	1,130	2,230	2,230	2,330	2,330
28	670		870	980	1,960		2,060	2,060
30	550		740	840	1,730		1,830	1,830
32	450		620	710	1,540		1,640	1,640
34			510				1,470	
36			420				1,330	
38							1,200	

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*10 ft. capacities at 0° offset only are also applicable to the 10 ft. fixed length non-offsettable extension.
 **Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.

BOOM EXTENSION CAPACITY NOTES:

- All capacities above the bold line are based on structural strength of boom extension and do not exceed 75% of the tipping loads in accordance with SAE J765.
- 10 ft. and 15 ft. boom extension lengths may be used for single line lifting service only.
- Rated load is based on radius, regardless of main boom length.
- WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- No load stability on rubber over front & 360° with fixed or tele. extension installed:
 - Minimum boom angle for 24 ft. main boom = 0°
 - Maximum main boom length at 0° main boom angle = 24 ft.
- When lifting loads the minimum allowable boom angle is: 3° with 0° offset and 48° with 45° offset.

10:00 X 15 (16 PLY) RIB TIRES
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER
10 ft. FIXED & 10 - 15 ft. TELE. BOOM EXTENSION - STATIONARY CAPACITY

Radius in Feet	360 Degrees				**Defined Arc Over Front			
	10 ft. Tele. Ext.		15 ft. Tele. Ext.		10 ft. Tele. Ext.		15 ft. Tele. Ext.	
	* 0°	45°	0°	45°	* 0°	45°	0°	45°
8	6,200				7,000			
10	4,410		4,150		6,500		4,150	
12	3,340		3,380		6,000		3,800	
14	2,620	2,880	2,780		5,500	4,500	3,400	
16	2,100	2,300	2,320		4,900	4,200	3,150	
18	1,710	1,880	1,960	1,995	3,995	3,900	2,950	2,600
20	1,410	1,565	1,660	1,675	3,340	3,340	2,800	2,550
22	1,170	1,320	1,410	1,420	2,840	2,840	2,650	2,500
24	970	1,120	1,210	1,220	2,450	2,450	2,550	2,450
26	810	950	1,030	1,055	2,135	2,135	2,245	2,245
28	670		870	920	1,875		1,980	1,980
30	550		740	800	1,655		1,755	1,755
32	450		620	700	1,470		1,570	1,570
34			510				1,405	
36			420				1,265	
38							1,140	

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*10 ft. capacities at 0° offset only are also applicable to the 10 ft. fixed length non-offsettable extension.
 **Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.

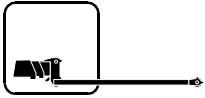
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- 10 ft. and 15 ft. boom extension lengths may be used for single line lifting service only.
- Rated load is based on radius, regardless of main boom length.
- WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- No load stability on rubber **over front & 360°** with fixed or tele. extension installed:
 - Minimum boom angle for 24 ft. main boom = 0°
 - Maximum main boom length at 0° main boom angle = 24 ft.
- When lifting loads the minimum allowable boom angle is: 3° with 0° offset and 48° with 45° offset.

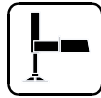
Working Range



13 ft. - 30 ft.
(3.9 m - 9.1 m)

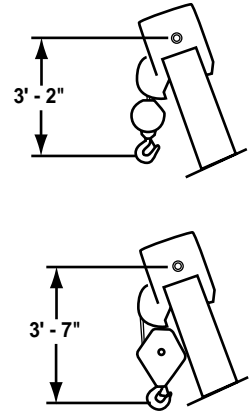
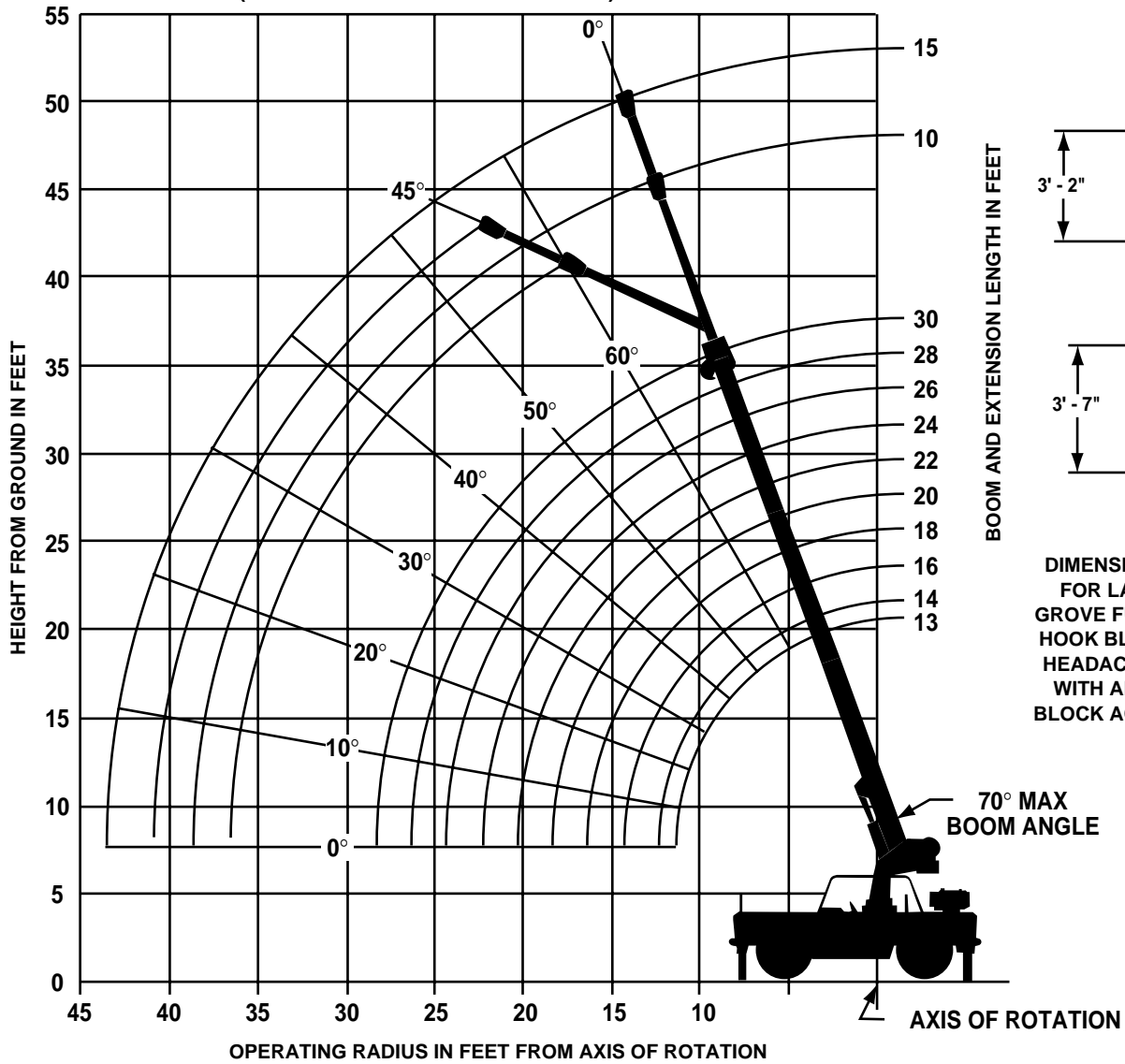


10 ft. - 15 ft.
(3.05 m - 4.8 m)



360°

WORKING RANGE DIAGRAM
(BOOM DEFLECTION NOT SHOWN) D6-829-015862



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

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.

**RATED LIFTING CAPACITIES
IN POUNDS ON OUTRIGGERS
FULLY EXTENDED - 360° & OVER FRONT**

13 ft. - 30 ft. BOOM

Radius in Feet	13 ft. (Fully Retracted)		13 ft. - 30 ft. BOOM	
	Over Front	360°	Over Front	360°
5	20,000	20,000	17,000	17,000
6	18,000	18,000	15,000	15,000
8	13,750	13,750	13,000	13,000
10			11,000	11,000
12			9,500	9,500
14			8,100	7,880
16			6,900	6,250
18			5,900	5,140
20			5,150	4,330
22			4,590	3,720
24			4,275	3,240
26			3,870	2,850
28			3,520	2,530

A6-829-016115

Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation. Capacities also do not exceed 85% of the tipping loads as determined by test in accordance with SAE J765 OCT90.

**NO LOAD STABILITY FOR
ON OUTRIGGERS & RUBBER CAPACITIES**

No Load Stability Data		Main Boom 30 ft.
Front (No Load)	Min. boom angle (deg.) for indicated length	0
	Max. boom length (ft.) at 0 deg. boom angle	30
360 Deg. (No Load)	Min. boom angle (deg.) for indicated length	0
	Max. boom length (ft.) at 0 deg. boom angle	30

**MINE LUG TIRES
ON RUBBER CAPACITIES**

Radius in Feet	Stationary Capacity Defined Arc Over Front (See Note 3)	Stationary Capacity 360° Arc	Pick & Carry Cap. Up to 2.5 MPH Boom Centered Over Front (See Note 6)
5	15,100	10,450	15,100
6	13,250	8,370	13,250
8	10,600	5,830	10,600
10	8,790	4,360	8,790
12	7,470	3,390	7,470
14	6,040	2,710	6,040
16	4,800	2,210	4,800
18	3,940	1,820	3,940
20	3,320	1,510	3,320
22	2,850	1,250	2,850
24	2,480	1,040	2,480
26	2,190	870	2,190
28	1,940	720	1,940

A6-829-016117A

- Capacities are in pounds and do not exceed 75% of the tipping loads in accordance with SAE J765.
- Capacities are applicable to machines equipped with 36.00x11-15 (16 ply) mine lug tires, at 115 psi cold inflation pressure.
- Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.
- Capacities are applicable only with machine on firm level surface.
- All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
- For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speed* 2.5 MPH capacities are permissible on main boom only, NOT on boom extension.

*Creep - not over 200 feet of movement in any 30 minute period and not exceeding 1 mph.

**RIB TIRES
ON RUBBER CAPACITIES**

Radius in Feet	Stationary Capacity Defined Arc Over Front (See Note 3)	Stationary Capacity 360 Degree Arc	Pick & Carry Cap. Up to 2.5 MPH Boom Centered Over Front (See Note 6)
5	15,100	10,450	15,100
6	13,250	8,047	13,250
8	10,600	5,270	10,600
10	8,790	3,770	8,790
12	7,470	2,840	7,470
14	5,820	2,210	5,820
16	4,620	1,740	4,620
18	3,800	1,390	3,800
20	3,200	1,110	3,200
22	2,740	890	2,740
24	2,380	710	2,380
26	2,100	550	2,100
28	1,860	450	1,860

A6-829-016346A

- Capacities are in pounds and do not exceed 75% of the tipping loads in accordance with SAE J765.
- Capacities are applicable to machines equipped with Denman 10.00 x 15 (16 ply) tires, at 125 psi cold inflation pressure.
- Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.
- Capacities are applicable only with machine on firm level surface.
- All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
- For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speed* 2.5 MPH capacities are permissible on main boom only, NOT on boom extension.

*Creep - not over 200 feet of movement in any 30 minute period and not exceeding 1 mph.

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.

RATED LIFTING CAPACITIES IN POUNDS ON OUTRIGGERS
10 ft. FIXED & 10 ft. - 15 ft. TELE. BOOM EXTENSION

Radius in Feet	360 Degrees				Over Front			
	10 ft. Tele. Ext.		15 ft. Tele. Ext.		10 ft. Tele. Ext.		15 ft. Tele. Ext.	
	* 0°	45°	0°	45°	* 0°	45°	0°	45°
8	7,000				7,000			
10	6,500		4,150		6,500		4,150	
12	6,000		3,800		6,000		3,800	
14	5,500	4,500	3,400		5,500	4,500	3,400	
16	5,000	4,200	3,150		5,000	4,200	3,150	
18	4,500	3,900	2,950	2,600	4,500	3,900	2,950	2,600
20	4,200	3,600	2,800	2,550	4,200	3,600	2,800	2,550
22	3,700	3,350	2,650	2,500	3,700	3,350	2,650	2,500
24	3,270	3,150	2,550	2,450	3,500	3,150	2,550	2,450
26	2,860	2,860	2,500	2,400	3,250	3,000	2,500	2,400
28	2,520	2,520	2,450	2,250	3,000	2,850	2,450	2,250
30	2,230	2,230	2,350	2,100	2,800	2,700	2,350	2,100
32	1,990		2,130	2,050	2,600		2,200	2,050
34	1,780		1,910	1,910	2,450		2,000	1,950
36	1,600		1,720		2,300		1,900	
38	1,440		1,550		2,200		1,800	
40			1,400				1,700	
42			1,270				1,600	

A6-829-016116

*10 ft. capacities at 0° offset only are also applicable to the 10 ft. fixed length non-offsettable extension.

BOOM EXTENSION CAPACITY NOTES:

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of the tipping loads on outriggers in accordance with SAE J765.
2. 10 ft. and 15 ft. boom extension lengths may be used for single line lifting service only.
3. Rated load is based on radius, regardless of main boom length.
WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
4. Capacities listed are with fully extended outriggers only.
5. No load stability on outriggers 360° with fixed or tele. extension installed:
 - a. Minimum boom angle for 30 ft. main boom = 0°
 - b. Maximum main boom length at 0° main boom angle = 30 ft.
6. When lifting loads the minimum allowable boom angle is: 3° with 0° offset and 48° with 45° offset.

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.

10:00 X 15 (16 PLY) RIB TIRES
 RATED LIFTING CAPACITIES IN POUNDS ON RUBBER
 10 ft. FIXED & 10 - 15 ft. TELE. BOOM EXTENSION - STATIONARY CAPACITY

Radius in Feet	360 Degrees				**Defined Arc Over Front			
	10 ft. Tele. Ext.		15 ft. Tele. Ext.		10 ft. Tele. Ext.		15 ft. Tele. Ext.	
	*0°	45°	0°	45°	*0°	45°	0°	45°
8	5,510				7,000			
10	3,810		4,150		6,500		4,150	
12	2,800		3,170		6,000		3,800	
14	2,130	2,690	2,440		5,500	4,500	3,400	
16	1,660	2,110	1,930		4,840	4,200	3,150	
18	1,300	1,670	1,550	2,060	3,940	3,900	2,950	2,600
20	1,030	1,320	1,250	1,670	3,280	3,280	2,800	2,550
22	800	1,050	1,010	1,360	2,780	2,780	2,650	2,500
24	620	820	820	1,110	2,380	2,380	2,500	2,450
26	480	630	660	910	2,070	2,070	2,180	2,180
28	350	460	520	730	1,810	1,810	1,910	1,910
30		320	410	590	1,590	1,590	1,690	1,690
32			310	460	1,400		1,500	1,500
34				350	1,240		1,340	1,340
36					1,100		1,200	
38					980		1,070	
40							960	
42							870	

A6-829-016345

*10 ft. capacities at 0° offset only are also applicable to the 10 ft. fixed length non-offsetable extension.
 **Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.

BOOM EXTENSION CAPACITY NOTES:

- All capacities above the bold line are based on structural strength of boom extension and do not exceed 75% of the tipping loads in accordance with SAE J765.
 - Capacities are applicable to machines equipped with Denman 10.00 x 15 (16 ply) tires, at 125 psi cold inflation pressure.
 - 10 ft. and 15 ft. boom extension lengths may be used for single line lifting service only.
 - Rated load is based on radius, regardless of main boom length.
 - WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
 - No load stability on rubber **over front** with fixed or tele. extension installed:
 - Minimum boom angle for 30 ft. main boom = 0°
 - Maximum main boom length at 0° main boom angle = 30 ft.
- No load stability on rubber **360°**:
- Minimum boom angle for 30 ft. main boom = 46° with 10 ft. fixed or 10 ft. tele., and 52° with 15 ft. tele. ext.
 - Maximum main boom length at 0° main boom angle = 22 ft. with 10 ft. fixed or 10 ft. tele., and 18 ft. with 15 ft. tele. ext.
- When lifting loads the minimum allowable boom angle is: 3° with 0° offset and 48° with 45° offset.

MINE LUG TIRES
 RATED LIFTING CAPACITIES IN POUNDS ON RUBBER
 10 ft. FIXED & 10 - 15 ft. TELE. BOOM EXTENSION - STATIONARY CAPACITY

Radius in Feet	360 Degrees				**Defined Arc Over Front			
	10 ft. Tele. Ext.		15 ft. Tele. Ext.		10 ft. Tele. Ext.		15 ft. Tele. Ext.	
	*0°	45°	0°	45°	*0°	45°	0°	45°
8	6,200				7,000			
10	4,450		4,150		6,500		4,150	
12	3,370		3,380		6,000		3,800	
14	2,630	2,960	2,670		5,500	4,500	3,400	
16	2,100	2,370	2,150		5,000	4,200	3,150	
18	1,660	1,950	1,750	2,120	4,080	3,900	2,950	2,600
20	1,380	1,620	1,440	1,770	3,390	3,390	2,800	2,550
22	1,120	1,330	1,180	1,500	2,860	2,860	2,650	2,500
24	910	1,070	980	1,280	2,450	2,450	2,520	2,450
26	740	860	800	1,090	2,120	2,120	2,190	2,190
28	590	680	650	920	1,840	1,840	1,920	1,920
30	460	530	520	780	1,610	1,610	1,700	1,700
32	350		410	660	1,410		1,510	1,510
34			310	560	1,250		1,340	1,340
36					1,100		1,200	
38					970		1,070	
40							960	
42							860	

A6-829-100412

*10 ft. capacities at 0° offset only are also applicable to the 10 ft. fixed length non-offsetable extension.
 **Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.

BOOM EXTENSION CAPACITY NOTES:

- All capacities above the bold line are based on structural strength of boom extension and do not exceed 75% of the tipping loads in accordance with SAE J765.
 - 10 ft. and 15 ft. boom extension lengths may be used for single line lifting service only.
 - Rated load is based on radius, regardless of main boom length.
 - WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
 - No load stability on rubber **over front** with fixed or tele. extension installed:
 - Minimum boom angle for 30 ft. main boom = 0°
 - Maximum main boom length at 0° main boom angle = 30 ft.
- No load stability on rubber **360°**:
- Minimum boom angle for 30 ft. main boom = 45° with 10 ft. fixed or 10 ft. tele., and 51° with 15 ft. tele. ext.
 - Maximum main boom length at 0° main boom angle = 22 ft. with 10 ft. fixed or 10 ft. tele., and 18 ft. with 15 ft. tele. ext.
- Capacities are applicable to machines equipped with 36.00x11-15 (16 ply) mine lug tires, at 115 psi cold inflation pressure.

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.

YB4410 Features and Benefits

- ▶ Three steering modes: two wheel (front only), four wheel coordinated, or four wheel crab to handle jobsite maneuverability



- ▶ Full power standard 24 ft. (7 m) boom with 10 - 16 ft. (3 - 5 m) fixed or 45 degree offsettable telescopic boom extension that gives max tip height of 38 ft. (11.5 m) or 44 ft. (13 m) respectively



- ▶ Low-profile quick reeve boom nose design with single metallic sheave for improved accessibility



- ▶ Interactive PAT/LMI system with actual load display that provides visual prewarning at 90% of rated capacity

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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