

GROVE®

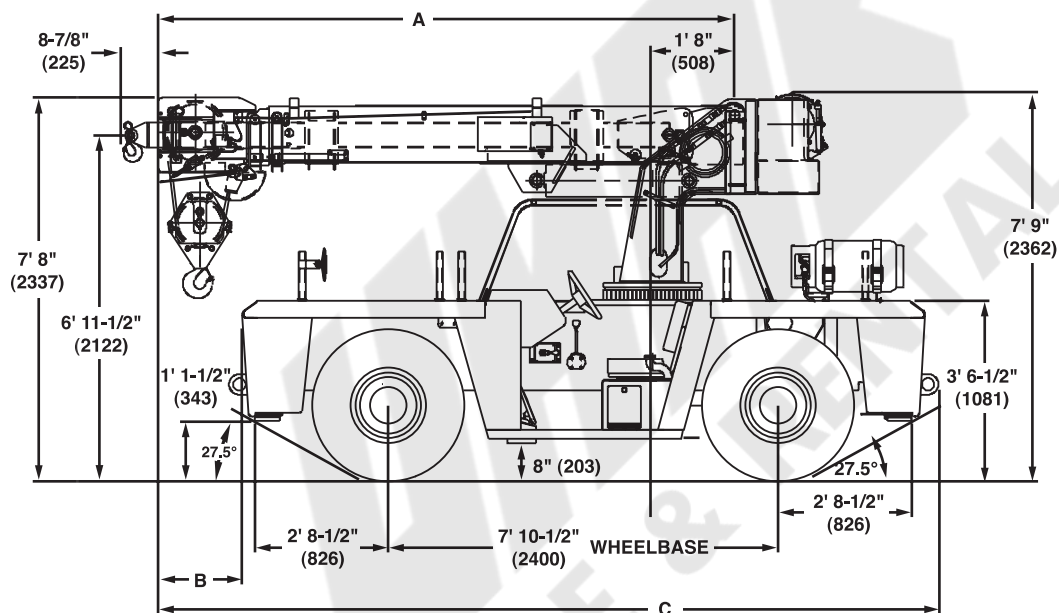
YB4408



INDUSTRIAL CRANE

Technical drawing of the 24' Boom (Side View). The drawing shows the boom structure with various dimensions and components labeled. The overall length is 12' 9" (3898). The height of the boom is 10' 10" (3302). The height of the boom at the base is 9' 4" (2845). The height of the boom at the end is 6' (1829). The height of the boom at the end is 7' (2134). The boom is labeled 24' BOOM. The boom is labeled 30' BOOM. The boom is labeled 3' 6-1/4" (1073) TAILSWING. The boom is labeled 6' TRACK. The boom is labeled 7' TRACK.

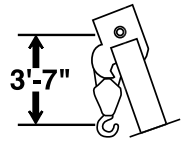
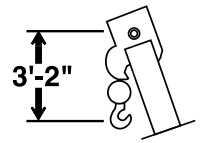
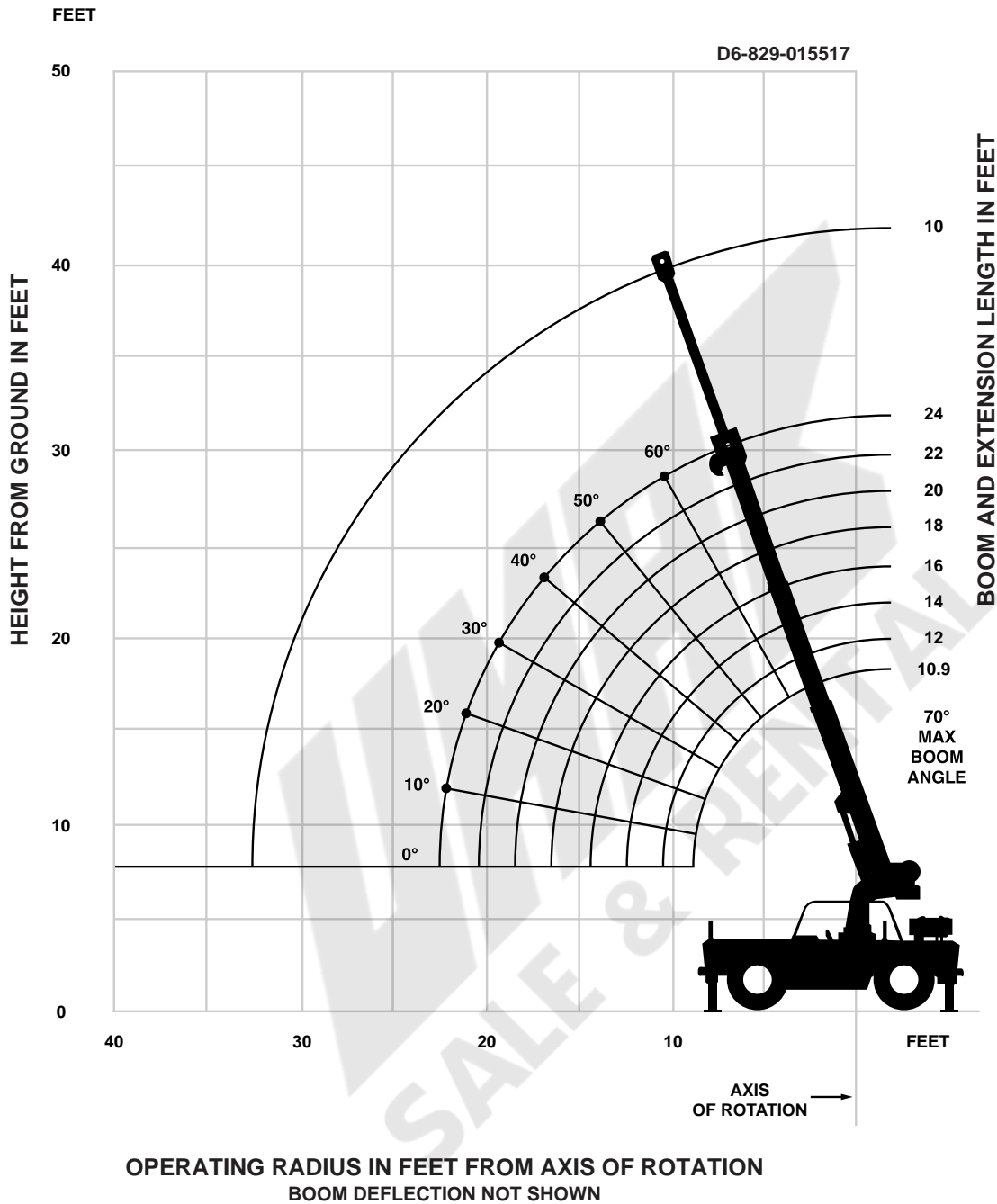
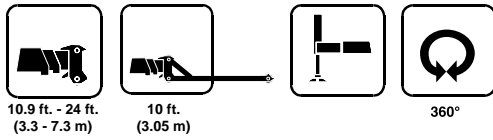
	24' BOOM	30' BOOM
A	11' 8" (3556)	13' 8" (4166)
B	1' 8-1/2" (521)	3' 8-1/2" (1129)
C	15' 9-1/2" (4813)	17' 9-1/2" (5421)



Note: () Reference dimensions in mm

Gross Vehicle Weight 16,500 lbs. (7484 kg)

Working Range



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

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.

Boom Nose

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

Boom Elevation

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

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

*Rated Capacity Limiter (RCL)

A simple, effective and easy to use overload protection system in conjunction with a low profile type anti-two block device that assists the operator in the efficient operation of the unit. The RCL constantly monitors 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 capacity.

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

2,100 lbs. (952 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)

Maximum Single Line Pull: 13,436 lbs. (6 095 kg)

Maximum Single Line Speed: 135 FPM (41.1 m/min)

Maximum Permissible Single Line Pull:

Std.: 9,600 lbs. (4 355 kg) [9/16" (14 mm) 6 x 37 EIPS] 3.5:1 FOS

Opt.: 10,220 lbs. (4 636 kg) [9/16" (14 mm) 34 x 7 EEIPS] 5:1 FOS

Rope Length (Std.): 9/16 in. x 130 ft. (14 mm x 39.6 m)

Maximum Drum Rope Stowage Capacity: 185 ft. (56.4 m)

**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 sq. ft. (5.69 m²) with Continental engine and 52 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: 16,400 lbs. (7439 kg).

Outrigger Controls, Synchronized

Controls located on dash panel and operate beams in pairs from side-to-side. Two hand sequence minimizes unintentional actuation. *Independent controls of each individual beam are 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, four cylinder, diesel, 80 bhp (60 kW) (Gross) @ 2,500 RPM. Maximum torque: 201 ft. lbs. (273 Nm) @ 1,200 RPM.

Operator's Control Station

Frame mounted, open air style with overhead canopy, includes all crane function and driving controls, 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, outrigger controls, park/ emergency brake toggle switch with warning light. *RCL selector, and warning indicators when machine is equipped with the *RCL. All control valves mounted on top of dash area for ease of operation and increased leg room.

Carrier Specifications (continued)

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 tinted 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, hot water heater and defroster, rear deck storage shelf area behind operator's seat.

Fuel Tank

30 gal. (114 L) all steel construction w/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 wired directly to starter to facilitate battery jump starting.

Drive

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

Steering

All wheel (4 wheel), full hydraulic power via steering wheel permits three modes of operation: 2 wheel (front only), four wheel coordinated or four wheel crab. Inside selector switch to select between 3 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.

Tires

Standard 10.00 x 15-14PR tube-type, bias ply highway rib. *10.00 x 15-16PR mine lug service tires are available.

Suspension

Both front and rear axles are solid mounted to frame.

Brakes

Hydraulic, internal multi-wet-disc acting on the front wheels with dash mounted toggle switch to set parking brake on front axle with dash mounted warning light.

*Optional are dry disc brakes for rear axle with split circuit design.

Lights

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

Maximum Speed

15 MPH (9.3 kph)

Gradeability (Theoretical)

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

*Tow Winch

Optional hydraulic winch mounted behind the front bumper area and operated from within the operator's compartment using the Outrigger/Tow winch control lever via selector switch. Hydraulic powered unit has a bare drum pull of 6,000 lbs. (2722 kg) at 48 ft./min. (14.6 m/min.) single line speed. Includes 100 ft. (30.5 m) length of 3/8" diameter 6 x 25 EIPS IWRC wire rope, hook & thimble, 4-way roller guide and winch mounted drum release lever to permit free spooling the rope from the drum. Winch is not designed for any type of vertical lifting.

Miscellaneous Standard Equipment

Hookblock tiedown sling, 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° Amber flashing light
- * Cab spotlight, 360°
- * Engine cold weather package (block heater and ether injection)
- * Engine block heater (D/F only)
- * 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 w/5 ton hook
- * Mine lug service tires

**Denotes optional equipment*

RATED LIFTING CAPACITIES IN POUNDS ON OUTRIGGERS - 360°
10.9 - 24 FT. BOOM

Radius in Feet	Main Boom Length in Feet							
	*10.9	12	14	16	18	20	22	24
5	17,000	16,850	16,450	14,800	14,250	13,800		
6	15,000	14,750	14,650	13,700	13,200	13,000		
8	13,000	12,500	12,000	11,500	11,000	11,000	9,000	9,100
10		11,000	10,900	10,100	9,700	9,200	7,750	8,200
12			9,100	7,700	8,300	8,250	6,750	6,600
14				6,750	6,730	6,650	5,800	5,700
16					5,740	5,600	5,000	5,100
18							4,750	4,600
20							3,900	4,040
22								3,500

* Fully retracted boom.

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Note: For machines equipped with an RCL system, double line lifting service is required for all main boom capacities. For machines not equipped with an RCL system, single part lifting service is permissible for capacities less than the permissible line pulls.

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

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

RATED LIFTING CAPACITIES IN POUNDS ON OUTRIGGERS FULLY EXTENDED - 360°
10 FT. EXTENSION

Radius in Feet	Main Boom Length in Feet							
	*10.9	12	14	16	18	20	22	24
8	7,000	6,700	6,500					
10	6,200	6,000	5,800	6,500	6,450			
12	6,000	5,900	5,000	6,000	5,900	5,750	5,700	5,500
14	5,500	5,450	5,420	5,450	5,425	5,350	5,200	5,100
16	5,000	4,800	4,500	5,000	4,700	4,600	4,550	4,500
18	4,500	4,450	4,400	4,500	4,400	4,150	4,050	3,950
20	3,500	3,900	3,950	4,110	4,000	3,800	3,700	3,650
22			3,400	3,480	3,400	3,400	3,300	3,250
24				2,890	2,900	2,990	2,900	2,750
26					2,500	2,590	2,500	2,490
28						2,260	2,200	2,200
30							1,810	1,980
32								1,750

*Fully retracted boom.

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NOTES:

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads on outriggers in accordance with J765 OCT90.
2. 10 ft. boom extension may be used for single line lifting service only.
3. **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 10 ft. 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°.

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 RUBBER

STATIONARY - 360°

Radius in Feet	Main Boom Length in Feet							
	*10.9	12	14	16	18	20	22	24
4	12,650	12,300	11,750					
5	10,200	10,000	10,050	8,400	8,100			
6	8,440	8,400	8,430	7,100	6,900	6,650		
7	5,800	7,100	6,500	6,000	5,900	5,800	4,200	
8	5,600	5,200	5,920	4,600	5,200	5,300	3,900	3,700
10		4,000	4,170	3,500	3,400	3,250	3,100	3,000
12			3,160	2,850	2,800	2,750	2,650	2,500
14				2,300	2,500	2,400	2,300	2,200
16					1,950	2,040	1,700	1,850
18						1,660	1,520	1,450
20							1,200	1,280
22								960

*Fully retracted boom.

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DEFINED ARC OVER FRONT - PICK & CARRY CAPACITIES

Radius in Feet	Main Boom Length in Feet							
	*10.9	12	14	16	18	20	22	24
4	15,000	14,500	14,200					
5	10,250	13,000	12,900	9,400	9,600			
6	9,300	8,800	10,250	8,600	8,000	7,800		
7	9,000	8,400	7,900	7,500	6,900	6,850	6,350	
8	7,200	7,250	7,300	6,900	6,600	6,450	6,150	6,000
10		5,920	5,820	5,750	5,420	5,050	5,000	4,900
12			4,970	4,630	4,500	4,350	4,250	4,100
14				3,800	4,270	4,110	3,900	3,750
16					3,250	3,520	3,250	3,200
18						2,800	2,890	2,920
20							2,400	2,480
22								2,130

*Fully retracted boom.

A6-829-015917E

Note: For machines equipped with an RCL system, double line lifting service is required for all main boom capacities. For machines not equipped with an RCL system, single part lifting service is permissible for capacities less than the permissible line pulls.

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with Denman 10.00 x 15TR (14 ply) tires at 110 psi cold inflation pressure and 10.00 x 15 (16 ply) or 36.00 x 11-15 (16 ply) mine lug tires at 115 psi cold inflation pressure.
3. Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.
4. Capacities are applicable only with machine on firm level surface.
5. 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.
6. 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 ft. 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.

10 FT. EXTENSION RATED LIFTING CAPACITIES IN POUNDS ON RUBBER STATIONARY-360°

Radius in Feet	Main Boom Length in Feet							
	*10.9	12	14	16	18	20	22	24
8	6,110	5,300	4,800	3,900				
10	4,260	4,100	3,750	3,250	3,000	2,900		
12	3,000	2,800	3,190	2,600	2,400	2,300	2,200	2,100
14	2,490	2,450	2,300	2,250	2,250	1,950	1,850	1,800
16	2,010	1,950	2,010	1,850	1,800	1,800	1,700	1,650
18	1,640	1,630	1,600	1,640	1,540	1,440	1,400	1,350
20	1,350	1,355	1,360	1,350	1,340	1,330	1,250	1,230
22			1,130	1,140	1,130	1,050	1,040	1,030
24				926	960	950	940	930
26					800	810	800	750
28						690	680	670
30							560	580
32								480

*Fully retracted boom.

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DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet							
	*10.9	12	14	16	18	20	22	24
8	7,000	6,700	6,500	5,600				
10	6,300	6,000	5,900	4,500	4,300	4,250		
12	5,300	5,000	5,500	3,800	3,600	3,500	3,450	3,300
14	4,570	4,300	4,000	3,500	3,400	3,200	3,100	3,050
16	3,500	3,600	3,630	2,900	2,700	2,650	2,600	2,500
18	2,970	2,890	2,700	2,500	2,400	2,300	2,240	2,100
20	2,300	2,400	2,480	2,200	2,150	2,100	2,000	1,950
22			2,100	1,950	1,900	1,800	1,790	1,750
24				1,650	1,800	1,750	1,700	1,650
26					1,500	1,560	1,550	1,500
28						1,250	1,350	1,360
30							1,140	1,180
32								1,040

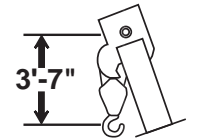
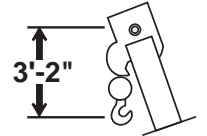
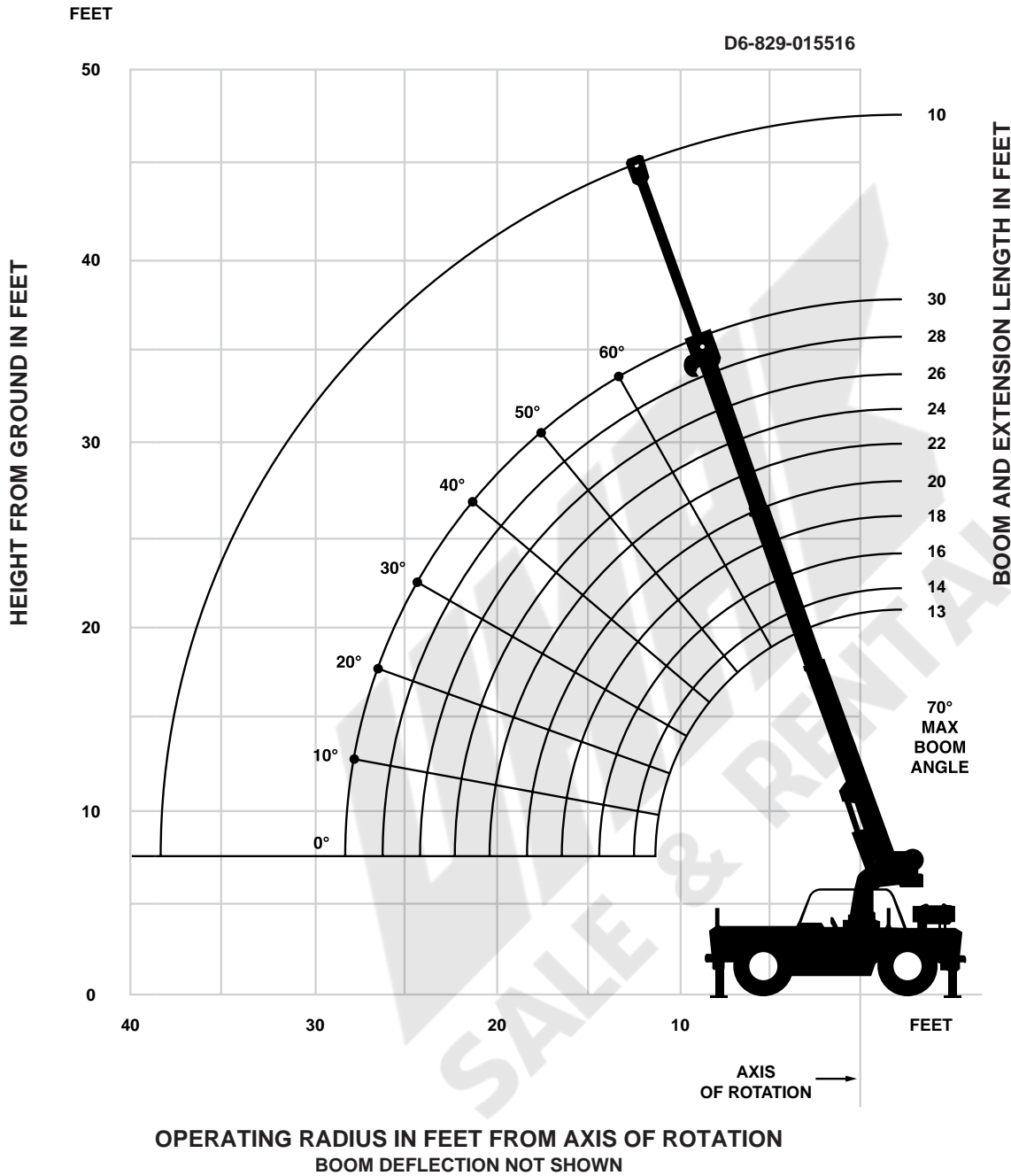
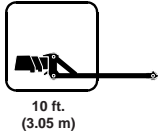
*Fully retracted boom.

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NOTES:

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 75% of tipping loads on rubber in accordance with J765 OCT90.
2. 10 ft. boom extension may be used for single line lifting service only.
3. Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.
4. Capacities are applicable to machines equipped with Denman 10.00 x 15TR (14 ply) tires at 110 psi cold inflation pressure and 10.00 x 15 (16 ply) mine lug tires at 115 psi cold inflation pressure.
5. Capacities are applicable only with machine on firm level surface.
6. 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.
7. **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.
8. No load stability on rubber 360° with 10 ft. extension installed:
 - a. Minimum boom angle for 24 ft. main boom = 0°
 - b. Maximum main boom length at 0° main boom angle = 24 ft.
9. When lifting loads the minimum allowable boom angle is 3°.

Working Range



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

RATED LIFTING CAPACITIES IN POUNDS ON OUTRIGGERS FULLY EXTENDED - 360°

13 - 30 FT. BOOM

Radius in Feet	Main Boom Length in Feet									
	*13	14	16	18	20	22	24	26	28	30
5	17,000	16,515								
6	15,000	14,460	14,225	14,970						
8	12,970	12,425	11,895	11,800	11,580	11,270	11,000			
10	10,550	10,320	10,105	9,150	10,160	9,705	9,405	8,715	8,560	8,430
12		8,885	8,825	8,190	7,975	7,910	7,935	7,625	7,545	7,350
14			7,000	6,060	7,105	6,760	6,845	5,550	6,650	6,525
16				5,030	5,350	5,140	5,800	4,945	4,940	5,900
18					4,220	4,450	4,450	4,500	4,350	4,350
20						3,830	4,060	3,525	4,040	4,025
22							3,460	3,160	3,175	3,175
24								2,590	2,860	2,860
26									2,390	2,538
28										2,150

* Fully retracted boom.

A6-829-015602B

Note: For machines equipped with an RCL system, double line lifting service is required for all main boom capacities. For machines not equipped with an RCL system, single part lifting service is permissible for capacities less than the permissible line pulls.

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2. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.

NO LOAD STABILITY FOR ON OUTRIGGERS AND 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

RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - 360°

Radius in Feet	Main Boom Length in Feet									
	*13	14	16	18	20	22	24	26	28	30
5	7,585	7,430								
6	6,660	6,440	6,210	5,115						
8	4,350	4,000	4,890	3,890	3,835	3,770	3,715			
10	3,020	3,020	3,365	3,155	3,100	3,100	3,100	2,450	2,370	2,360
12		2,335	2,430	2,440	2,350	2,350	2,500	2,060	1,950	1,940
14			1,890	1,700	1,995	1,995	1,950	1,925	1,620	1,610
16				1,225	1,430	1,350	1,590	1,515	1,370	1,400
18					1,070	1,100	1,135	1,250	1,150	1,090
20							970	1,010	1,030	970
22							650	715	825	825
24								590	635	635
26									525	525
28										425

*Fully retracted boom.

A6-829-015579D

DEFINED ARC OVER FRONT - PICK & CARRY CAPACITIES

Radius in Feet	Main Boom Length in Feet									
	*13	14	16	18	20	22	24	26	28	30
5	13,100	13,100								
6	10,250	10,250	9,400							
8	7,300	7,300	7,250	7,300	7,000	6,500	6,300			
10	5,920	5,920	5,910	5,900	5,800	5,600	5,500	5,400	5,300	5,200
12	4,920	4,920	4,970	4,970	4,960	4,900	4,720	4,690	4,600	4,500
14			4,270	4,270	4,270	4,220	4,010	4,000	3,900	3,850
16				3,600	3,720	3,650	3,670	3,650	3,550	3,450
18					3,100	3,280	3,250	3,225	3,200	3,150
20						2,670	2,900	2,875	2,850	2,800
22							2,500	2,500	2,525	2,550
24								2,040	2,150	2,290
26									1,840	2,010
28										1,680

*Fully retracted boom.

A6-829-015691E

Note: For machines equipped with an RCL system, double line lifting service is required for all main boom capacities. For machines not equipped with an RCL system, single part lifting service is permissible for capacities less than the permissible line pulls.

- Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
- Capacities are applicable to machines equipped with Denman 10.00 x 15TR (14 ply) tires at 110 psi cold inflation pressure and 10.00 x 15 (16 ply) or 36.00 x 11-15 (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 ft. 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 - 360°

10 FT. EXTENSION

Radius in Feet	Main Boom Length in Feet									
	*13	14	16	18	20	22	24	26	28	30
8	7,000	7,000								
10	6,440	6,440	6,430	6,400	5,800					
12	5,560	5,560	5,550	5,415	5,170	4,980	4,720			
14	5,500	5,500	5,220	5,000	4,700	4,570	4,360	5,430	5,200	4,850
16	5,000	5,000	4,675	4,685	4,100	3,900	3,730	4,800	4,770	4,500
18	4,500	4,500	4,120	4,490	4,370	4,260	3,450	4,300	4,295	4,250
20	4,050	4,050	4,000	4,200	4,090	3,970	3,850	3,160	3,600	3,500
22	3,480	3,480	3,600	3,370	3,700	3,550	3,520	2,900	2,825	2,800
24			3,310	3,045	3,045	2,870	3,160	2,730	2,560	2,500
26				2,680	2,735	2,715	2,680	2,490	2,490	2,350
28					2,410	2,450	2,420	2,260	2,200	2,100
30						2,170	2,115	1,975	1,950	1,925
32							1,900	1,815	1,800	1,750
34								1,500	1,600	1,600
36									1,400	1,400
38										1,300

*Fully retracted boom

A6-829-015628A

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads on outriggers in accordance with SAE J765.
2. 10 ft. boom extension may be used for single line lifting service only.
3. **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 10 ft. 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°.

10 FT. EXTENSION RATED LIFTING CAPACITIES IN POUNDS ON RUBBER STATIONARY-360°

Radius in Feet	Main Boom Length in Feet									
	*13	14	16	18	20	22	24	26	28	30
8	4,000	4,000								
10	3,250	3,250	3,050	2,430	2,250					
12	2,730	2,730	2,710	2,050	1,950	1,925	1,720			
14	1,940	1,940	1,875	1,715	1,570	1,500	1,450	1,390	1,350	1,290
16	1,630	1,630	1,580	1,390	1,340	1,215	1,165	1,200	1,120	1,110
18	1,310	1,310	1,300	1,190	1,070	1,015	1,000	980	910	800
20	1,070	1,070	1,040	1,015	950	790	850	760	740	690
22	880	880	870	850	780	790	795	720	660	650
24			690	715	720	680	680	480	500	470
26				525	570	590	570	465	470	465
28					470	490	490	410	350	390

*Fully retracted boom.

A6-829-015640B

DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet									
	*13	14	16	18	20	22	24	26	28	30
8	7,000	7,000								
10	6,500	6,500	6,300	5,600	4,900					
12	5,350	5,350	5,200	4,700	4,440	4,325	4,120			
14	5,300	5,300	5,175	3,920	3,910	3,750	3,500	3,580	3,475	3,250
16	4,870	4,870	4,600	3,500	3,325	3,260	3,200	3,150	3,050	3,025
18	3,650	3,650	4,100	3,120	3,020	2,910	2,900	2,725	2,675	2,600
20	3,250	3,250	3,175	2,810	2,700	2,575	2,550	2,450	2,420	2,320
22	2,850	2,850	2,860	2,460	2,420	2,410	2,300	2,230	2,170	2,100
24			2,450	2,250	2,220	2,190	2,060	2,050	1,975	1,900
26				1,870	1,875	1,880	1,900	1,875	1,790	1,600
28					1,750	1,740	1,650	1,630	1,625	1,500
30						1,570	1,600	1,590	1,550	1,400
32							1,400	1,390	1,370	1,300
34								1,230	1,210	1,200
36									1,080	1,080
38										950

*Fully retracted boom.

A6-829-015660B

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 75% of tipping loads on rubber in accordance with SAE J765.
2. 10 ft. boom extension may be used for single line lifting service only.
3. Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine.
4. Capacities are applicable to machines equipped with Denman 10.00 x 15TR (14 ply) tires at 110 psi cold inflation pressure and 10.00 x 15 (16 ply) mine lug tires at 115 psi cold inflation pressure.
5. Capacities are applicable only with machine on firm level surface.
6. 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.
7. **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.
8. No load stability on rubber 360° with 10 ft. extension installed:
 - a. Minimum boom angle for 30 ft. main boom = 45°
 - b. Maximum main boom length at 0° main boom angle = 19 ft.
9. When lifting loads the minimum allowable boom angle is 3°.

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WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

10 FT. FIXED BOOM EXTENSION WITH 24 FT. OR 30 FT. BOOM	
*Stowed -	114 lbs.
*Erected -	568 lbs.


*Reduction of main boom capacities

HOOKBLOCKS and HEADACHE BALLS:	
11 Ton, 1 Sheave	304 lbs.+
5 Ton Headache Ball	120 lbs.+


+Refer to rating plate for actual weight.

Load Distribution Chart for Carry Deck

CONTINENTAL ENGINE

1	3	2
1		2
1	OPERATOR COMPARTMENT	L. P. TANK

CUMMINS ENGINE

1	3	2
1		ENGINE HOOD
1	OPERATOR COMPARTMENT	

MAXIMUM ALLOWABLE LOAD

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 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)

MAXIMUM ALLOWABLE LOAD

AREA 1	34.0 sq. ft. (3.16 m ²)	8,500 lbs. (3856 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)
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.

▶ Low profile quick reeve boom nose design with single metallic sheave, hook block and anti-two block system



▶ Optional rated capacity limiter--four position operator selection "lifting condition" that constantly monitors actual lifting conditions

▶ Counterweight rotates within width of chassis -- zero tailswing



▶ Standard 24 ft. (7.3 m) three section full power boom;
Maximum tip height: 29 ft. (8.8 m)

▶ Optional 30 ft. (9.1 m) three section full power boom;
Maximum tip height: 35 ft. (10.7 m)

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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