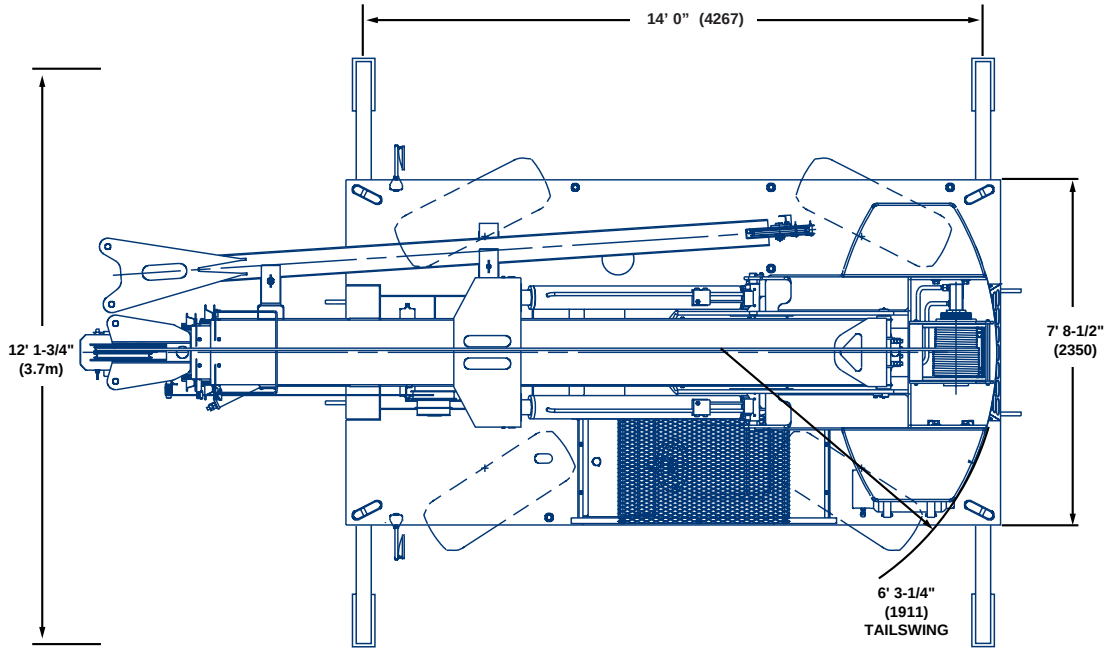
GROVE®

YB4415/YB4415XT

INDUSTRIAL CRANE

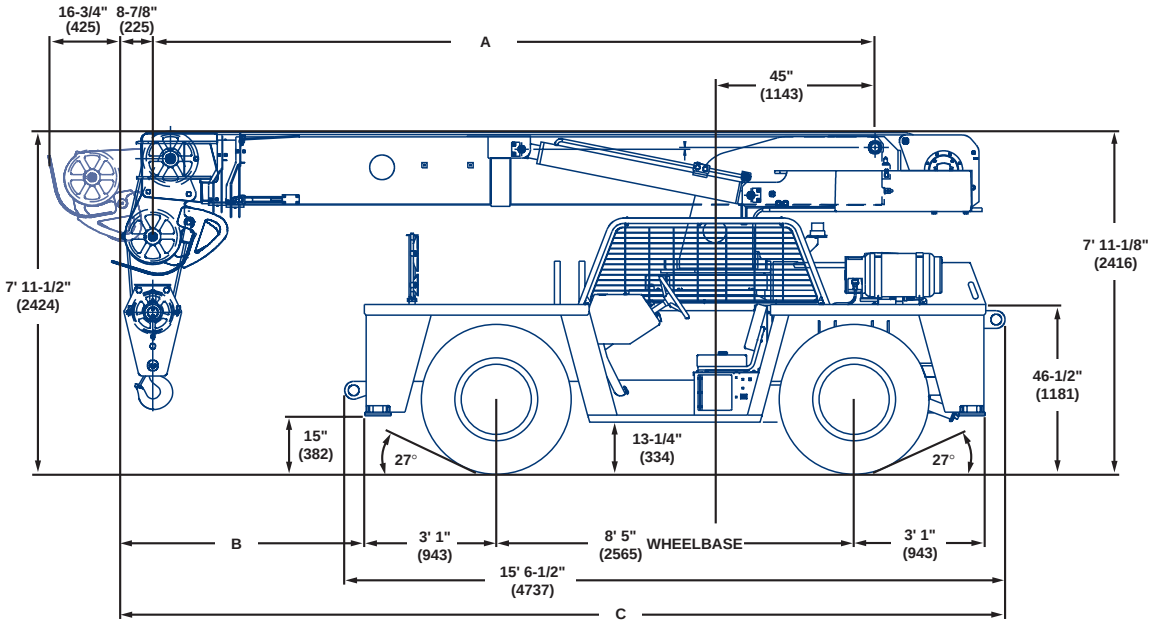
Dimensions

Turning Radius **20’ 11” (6.4m)** **2 Wheel Steer**
11’ 10-1/2” (3.6m) **4 Wheel Steer**



Note: ( ) Reference dimensions in mm

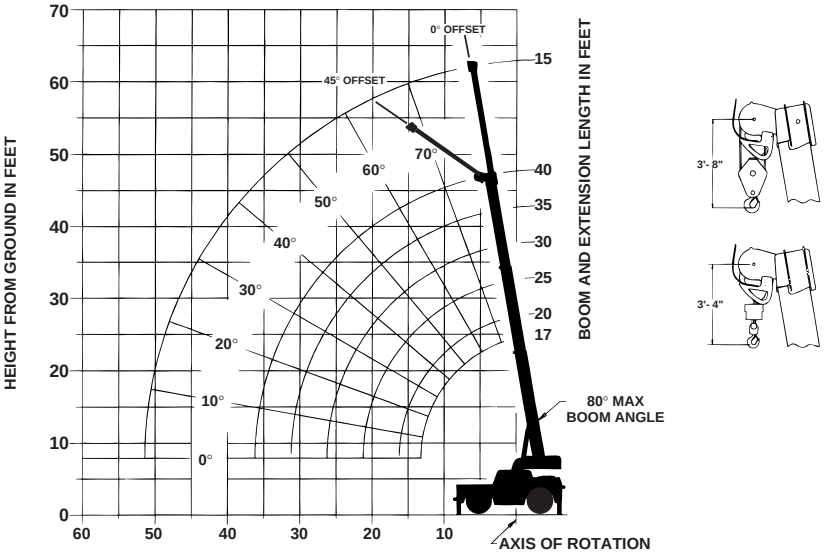
	40’ (12.2m) BOOM	52’ (15.6m) BOOM
A	17’ 0” (5182)	21’ 5” (6528)
B	5’ 3” (1603)	10’ 2” (3099)
C	20’ 9-5/8” (6340)	25’ 2-1/2” (7684)



WORKING WEIGHTS	40’ (12.2m) Boom	52’ (15.6m) Boom
Front Axle	11,900, (5398)	13,900 (6305)
Rear Axle	15,600 (7076)	14,850 (6736)
GVW	27,500 (12,474)	28,750 (13,041)

Working Range

D6-829-100760



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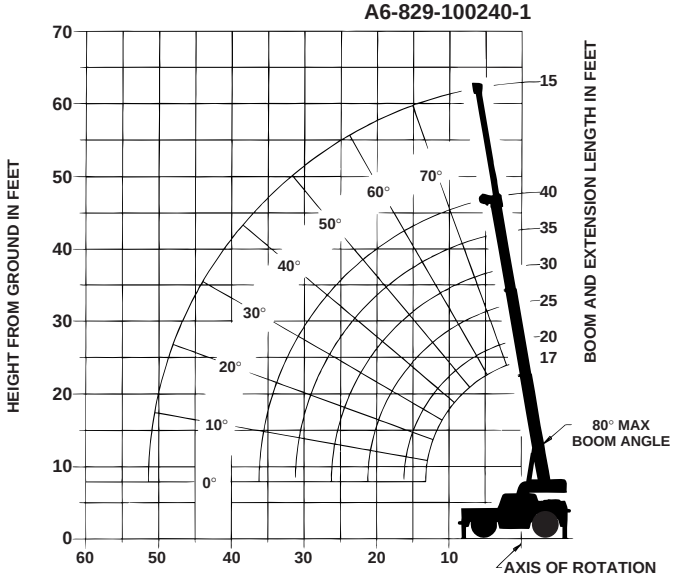

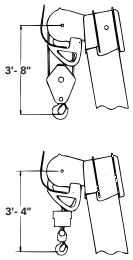

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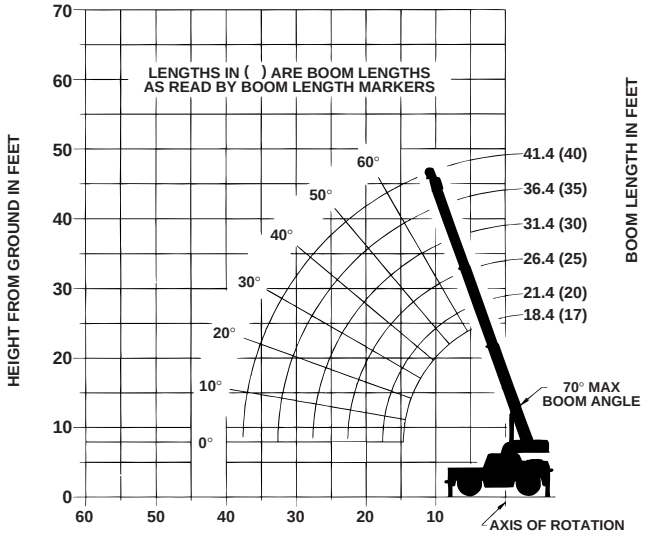
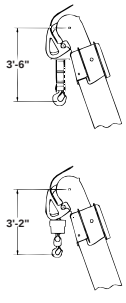




Superstructure Specifications

Boom
17 ft. - 40 ft. (5.1 m - 12.2 m) three-section full power boom.
Maximum tip height: 47 ft. (14.4 m).
Speeds: 32 seconds (ext.); 19 seconds (retract).

*Optional Boom
21 ft. - 52 ft. (6.5 m - 15.6 m) three-section full power boom.
Maximum tip height: 59 ft. (18.0 m).
Speeds: 43 seconds (ext.); 25 seconds (retract).

*Fixed Boom Extension (non-offsettable)
15 ft. (4.6 m) swingaway extension w/single metallic sheave in point. Stows alongside base boom section for travel. Extends tip heights to 62 ft. (18.9 m) or 74 ft. (22.5 m) with the 40 ft. (12.2 m) and 52 ft. (15.6 m) booms respectively.

*Offsettable Boom Extension
15 ft. (4.6 m) swingaway extension w/single metallic sheave in point. Stows alongside base boom section for travel. Extends tip heights to 62 ft. (18.9 m) or 74 ft. (22.5 m) with the 40 ft. (12.2 m) and 52 ft. (15.6 m) booms respectively. Can be offset at 0° or 45° to increase up and over reach.

Boom Nose
Two (2) position low profile and quick reeve design with two metallic sheaves mounted on tapered roller bearings and quick removable pin-type rope guards. Head pivots forward (up) to the low profile position (1-2 parts of line only & max 70° boom elevation) for minimizing head space requirements or rearward (down) to the conventional position for maximum lifts that exceed 2 parts of line reeving or approximately 18,000 lbs. (8165 kg).

Boom Elevation
Twin double acting hydraulic cylinders with integral holding valves provide elevation from 0° to 80°. Mechanical boom angle indicator.
Speeds: 20 seconds (ext.) 14 seconds (retract).

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 (A2B) device assists the operator in the efficient operation of the unit. The RCL system 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. Hydraulic motor driven worm and gear reducer.
Maximum speed: 2.0 RPM.

Counterweight
4,300 lbs. (1950 kg) w/40 ft. (12.2 m) boom; 4,800 lbs. (2177 kg) w/52 ft. (15.6 m) boom; bolted to the turntable.

Hydraulic System
Three (3) section main gear pumps driven off torque converter through PTO.

Combined capacity: 75 GPM (285 LPM).

Maximum system operating pressure: 3,500 psi (241 bar).

Three valve banks mounted on top of dash panel with direct mechanical linkage low effort lever controls.

Return line type filter with full flow by-pass protection and service indicator. 10 micron rated replaceable cartridges.

54 gallon (205 L) reservoir with sight level gauge 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 - Model HP12-13G
Planetary reduction with automatic spring applied multi-wet-disc brake and grooved hoist drum. *Cable follower available.

Drum Dim. (Dia. x Lg.)	10.63” x 13.4” (270 mm x 341 mm)
Maximum Single Line Pull:	10,930 lbs. (4958 kg)
Maximum Single Line Speed:	134 - 178 FPM (41 - 54 m/min)
Maximum Permissible Single Line Pull:	
Standard Rope 5/8” (16 mm) (6 x 37 Class):	9,080 lbs. (3.5:1 FOS) (4119 kg)
*Optional Rope 5/8” (16 mm) (18 x 19 Class):	9,080 lbs. (5:1 FOS) (4119 kg)
Rope Length (Std.):	250 ft. (76.2 m) w/40 ft. (12.2 m) boom 310 ft. (94.5 m) w/52 ft. (15.6 m) boom
Maximum Rope Stowage:	374 ft. of 5/8” (114 m of 16 mm)
Usable:	269 ft. of 5/8” (82 m of 16 mm)

*Denotes optional equipment

Chassis Specifications

Frame
High strength alloy steel construction with integral outrigger housings; front/rear lifting, towing and tie down lugs and recessed lifting points in all four corners of deck top. Carry deck constructed of 1/4" (6 mm) thick plate steel w/surface area of 66 sq. ft. (6.1 m^2) and anti-skid deck treatment.

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 103 sq. in. (665 cm^2).
Maximum outrigger pad load: 26,539 lbs. (12 038 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.
Sight leveling bubbles located inside operator's compartment.
*Independent control of each individual beam is available.

Engine, Dual Fuel (Gas/LPG)
General Motors 4.3 L, six cylinder, dual fuel (LPG/gas) engine, 115 bhp (85 kW) (Gross) @ 2,500 RPM. 100 amp alternator.
Maximum torque: 275 ft. lbs. (373 Nm) @ 2,200 RPM.

*Engine, Diesel
Cummins 4BT3.9 L turbo-charged diesel, four cylinder, 110 bhp (82 kW) (Gross) @ 2,500 RPM. Maximum torque: 293 ft. lbs. (397 Nm) @ 1,500 RPM.

Operator's Control Station
The 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; hourmeter; sight level bubble and fire extinguisher. The dash panel includes engine oil pressure gauge; engine water temperature gauge; voltmeter; all critical engine monitoring instruments; engine/transmission A/V distress system; outrigger controls; *A2B warning indicators; parking/emergency brake toggle switch with warning light and hooded panel light. The dash panel also includes an RCL panel and RCL warning indicators when the machine is equipped with the *RCL. 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 galvannealed sheet metal structure replaces standard overhead canopy. Includes hot water forced air heater/defroster, safety glass throughout, hinged removable door, sliding left and right side glass for cross ventilation, door lock, electric windshield wiper/ washer, fixed skylight glass, circulating air fan, rear deck storage shelf area behind operator's seat.

Fuel Tank Capacity
46 gallon (175 L) all steel construction w/steel plate to guard against side impact damage.

Electrical System
One 12 V - maintenance free battery. 875 CCA. Includes standard 12 V remote slave receptacle wired directly to the starter to facilitate jump starting. Automotive type color coded fuses, number coded wiring and water tight connectors.

Drive
4 x 2 - Front axle drive only with planetary hubs and limited slip differential.
*4 x 4 (YB4415XT) - Front and rear drive/steer axles with planetary hubs and limited slip differentials.

Steering
All wheel (4 wheel), full hydraulic power via steering wheel permits two modes of operation: 2 wheel (rear only) or four-wheel coordinated. Inside dash-mounted selector switch to select steering mode.

Transmission
Remote mounted Clark 3 speed forward and reverse full powershift w/engine mounted torque converter and stalk type shift control mounted to the steering column. Controls permit quick and easy shuttle control between forward and reverse travel.

Axles
Front: Planetary drive/steer with internal multi-wet-disc brakes and limited slip differential.
Rear: (4 x 2) Fabricated steer axle with internal wet disc brakes.
(4x4 drive) Planetary drive/steer with internal wet disc brakes and limited slip differential.

Tires
Standard 385/65R22.5-18 PR tubeless radial traction tread.

Suspension
Front: Mounted rigid to frame.
Rear: Mounted on rubber blocks to permit oscillation for operation on semi-unimproved terrain.

Brakes
Hydraulic actuated internal wet-disc service brakes acting on all four wheels. A dash mounted toggle switch activates the dry disc parking brake on the transmission output yoke with a dash mounted warning light. Parking brake acts on both front wheels of 2 wheel drive models and on all 4 wheels of *4 wheel drive (XT) models.

Lights
Recessed mounted behind grill type frame cutouts and includes head, tail, turn signals, brake and 4-way hazard warning lights.

Maximum Speed
19 MPH (30 kph)

Gradeability (Theoretical)
75% (Based on 27,000 lbs. [12 247 kg] GVW).

*Tow Winch
Hydraulic winch mounted behind the front bumper area and operated from within the operator's compartment using the Swing/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 and 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, electronic combination two-tone back-up and outrigger motion alarm, front and rear running lights, tool stowage well, 15 ton (15 MT) capacity two sheave quick reeve hookblock, powertrain audio-visual distress warning system, 12 V remote slave receptacle for jump starting, R/S convex rearview mirror.

*Optional Equipment
* Worklight package - consists of three 12V, ball mounted, manually adjustable worklights (2-cab/canopy mounted and 1 boom mounted)
* 360° amber flashing light wired to ignition switch
* Ether injection & block heater cold weather starting kit (less canister) for diesel only
* Engine block heater only (Dual Fuel Engine)
* Pintle hooks front/rear
* Carry deck posts
* Spark arrestor muffler(s) (Dual Fuel only)
* Sound suppression package for under 90 dBa cab noise levels
* Dual rearview west coast mirrors
* Hydraulic system oil cooler
* Quick Reeve Overhaul weight with 5 ton (4.5 MT) hook
* Engine tachometer, dash mounted
* Deluxe operator's fabric seat w/spring suspension and dual armrests

*Denotes optional equipment

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

17 FT. - 40 FT. BOOM

Radius in Feet	Main Boom Length in Feet					
	***17** (18.4)	***20** (21.4)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)
6	30,000	28,950	28,200	27,850	27,650	
8	28,050	28,100	28,150	27,800	26,400	23,750
10	23,000	23,100	23,150	23,200	22,450	20,650
12	18,100	18,250	18,350	18,450	18,500	17,550
14		14,750	14,850	14,900	14,950	14,950
16		12,300	12,450	12,450	12,500	12,500
18			10,600	10,650	10,700	10,700
20			9,070	9,070	9,070	9,070
22				7,760	7,760	7,760
24				6,740	6,740	6,740
26				5,930	5,930	5,930
28					5,260	5,260
30					4,710	4,710
32						4,240
34						3,840
36						3,490
Minimum boom angle (°) for indicated length (no load)						0
Maximum boom length (ft.) at 0 degree boom angle (no load)						40
Lifting Capacity at Zero Degree Boom Angle On Outriggers Fully Extended 360°						
Boom Angle	Main Boom Length in Feet					
	***17** (18.4)	***20** (21.4)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)
0°	9,080 (13.3)	8,100 (16.3)	5,940 (21.3)	4,600 (26.3)	3,720 (31.3)	3,070 (36.3)

Note: ( ) Reference radii in feet. (Applicable to boom nose sheaves in down position only.)

A6-829-100221B

*Boom length varies between boom nose sheaves in down position (in bold), or up & out position (in parenthesis).

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.
3. With boom nose sheaves down (in lower position), single, 2-part or 4-part line may be used. With boom nose sheaves up and out (low profile position), single or 2-part line may be used, with maximum boom angle limited to 70°.

RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - 360°

Radius in Feet	Main Boom Length in Feet					
	***17** (18.4)	***20** (21.4)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)
6	14,700	14,700	14,700	14,700	14,700	
8	11,500	11,500	11,500	11,500	11,500	11,500
10	8,930	8,930	9,050	9,050	9,050	9,050
12	6,900	7,020	7,020	7,020	7,020	7,020
14		5,400	5,540	5,620	5,680	5,780
16		4,320	4,510	4,540	4,600	4,600
18			3,600	3,740	3,850	3,850
20			2,990	3,120	3,150	3,200
22				2,590	2,650	2,650
24				2,110	2,170	2,200
26				1,740	1,820	1,820
28					1,440	1,560
30					1,280	1,280
32						1,060
34						860
36						770
Minimum boom angle (°) for indicated length (no load)						0
Maximum boom length (ft.) at 0 degree boom angle (no load)						40

Lifting Capacity at Zero Degree Boom Angle On Rubber 360°

Boom Angle	Main Boom Length in Feet					
	***17** (18.4)	***20** (21.4)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)
0°	5,990 (13.3)	4,230 (16.3)	2,430 (21.3)	1,680 (26.3)	1,130 (31.3)	770 (36.3)

Note: ( ) Reference radii in feet. (Applicable to boom nose sheaves in down position only.)

A6-829-100222B

*Boom length varies between boom nose sheaves in down position (in bold), or up & out position (in parenthesis).

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 385/65R22.5 (J) Firestone T839 tires at 140 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 m.p.h. 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.

7. With boom nose sheaves down (in lower position), single, 2-part or 4-part line may be used. With boom nose sheaves up and out (low profile position), single or 2-part line may be used, with maximum boom angle limited to 70°.

PICK & CARRY AND STATIONARY - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet					
	***17** (18.4)	***20** (21.4)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)
6	18,700	18,700	18,700	18,700	18,700	
8	15,050	15,050	15,050	15,050	15,050	15,050
10	12,500	12,500	12,500	12,500	12,500	12,500
12	10,600	10,600	10,600	10,600	10,600	10,600
14		9,190	9,190	9,190	9,190	9,190
16		8,040	8,040	8,040	8,040	8,040
18			6,870	6,870	6,870	6,870
20			5,760	5,760	5,760	5,760
22				4,910	4,910	4,910
24				4,250	4,250	4,250
26				3,620	3,710	3,710
28					3,270	3,270
30					2,800	2,880
32						2,580
34						2,110
36						1,620
Minimum boom angle (°) for indicated length (no load)						0
Maximum boom length (ft.) at 0 degree boom angle (no load)						40

Lifting Capacity at Zero Degree Boom Angle On Rubber - Defined Arc and Pick & Carry

Boom Angle	Main Boom Length in Feet					
	***17** (18.4)	***20** (21.4)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)
0°	9,690 (13.3)	7,920 (16.3)	5,210 (21.3)	3,610 (26.3)	2,630 (31.3)	1,520 (36.3)

Note: ( ) Reference radii in feet. (Applicable to boom nose sheaves in down position only.)

A6-829-100223B

*Boom length varies between boom nose sheaves in down position (in bold), or up & out position (in parenthesis).

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.

15 FT. EXTENSION
RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
6	9,080	9,080	9,080	9,080		
8	9,080	9,080	9,080	9,080	9,080	9,080
10	8,850	9,080	9,080	9,080	9,080	9,080
12	7,860	8,450	9,080	9,080	9,080	9,080
14	7,060	7,610	8,480	9,080	9,080	9,080
16	6,410	6,590	7,730	9,080	9,080	8,900
18	5,870	6,340	7,100	8,390	8,330	8,090
20	5,410	5,850	6,570	7,750	7,640	7,420
22	5,020	5,440	6,110	7,260	7,040	6,840
24	4,680	5,070	5,710	6,720	6,530	6,340
26	4,380	4,760	5,360	6,140	6,070	5,900
28	3,740	4,380	5,050	5,480	5,480	5,480
30		4,190	4,770	4,930	4,930	4,930
32			4,410	4,470	4,470	4,470
34			3,790	4,070	4,070	4,070
36			2,730	3,730	3,730	3,730
38				3,420	3,420	3,420
40				3,160	3,160	3,160
45					2,610	2,610
50						2,190

Lifting Capacity at Three Degree Boom Angle
On Outriggers Fully Extended - 360°

Boom Angle	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
3°	2,700 (29)	2,450 (32)	1,990 (37)	1,560 (42)	1,240 (47)	1,000 (52)

Note: ( ) Ref. radii in feet.

A6-829-100224D

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. 15 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 fully extended 360° with 15 ft. extension installed:
   a. Minimum boom angle for 40 ft. main boom = 0°
   b. Maximum main boom length at 0° main boom angle = 40 ft.
6. When lifting loads the minimum allowable boom angle is 3°.

15 FT. EXTENSION
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY 360°

Radius in Feet	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
6	8,070	8,070	8,070	**8,070		
8	8,070	8,070	8,070	8,070	**7,550	
10	8,070	8,070	8,070	8,070	7,550	7,040
12	7,850	7,840	7,710	7,710	7,550	7,040
14	6,400	6,300	6,200	6,000	5,890	5,890
16	5,250	5,130	5,030	5,030	5,030	5,030
18	4,470	4,420	4,420	4,420	4,310	4,210
20	3,790	3,790	3,650	3,650	3,620	3,590
22	3,260	3,260	3,120	3,120	3,010	3,010
24	2,820	2,760	2,640	2,610	2,610	2,570
26	2,460	2,430	2,340	2,300	2,300	2,300
28	2,170	2,100	2,040	1,980	1,980	1,980
30		1,880	1,820	1,720	1,690	1,690
32			1,560	1,530	1,470	1,440
34			1,390	1,330	1,250	1,250
36			1,150	1,150	1,060	1,060
38				960	880	880
40				830	700	700
45					520	520

Lifting Capacity at Three Degree Boom Angle On Rubber Stationary - 360°

Boom Angle	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	
3°	2,110 (29)	1,760 (32)	1,100 (37)	750 (42)	490 (47)	

** This capacity based on maximum boom angle.
Note: ( ) Ref. radii in feet.

A6-829-100225D

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. 15 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 15 ft. extension installed:
   a. Minimum boom angle for 40 ft. main boom = 30°
   b. Maximum main boom length at 0° main boom angle = 35 ft.
9. When lifting loads the minimum allowable boom angle is 3°.

15 FT. EXTENSION
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
6	8,070	8,070	8,070	**8,070		
8	8,070	8,070	8,070	8,070	7,550	
10	8,070	8,070	8,070	8,070	7,550	7,550
12	7,850	8,070	8,070	8,070	7,550	7,550
14	7,060	7,610	8,070	8,070	7,550	7,550
16	6,410	6,590	7,730	8,070	7,550	7,550
18	5,870	6,340	7,100	7,760	7,550	7,550
20	5,410	5,850	6,520	6,520	6,520	6,520
22	5,020	5,440	5,580	5,580	5,580	5,580
24	4,680	4,840	4,840	4,840	4,840	4,840
26	4,240	4,240	4,240	4,240	4,240	4,240
28	3,740	3,750	3,750	3,750	3,750	3,750
30		3,330	3,330	3,330	3,330	3,330
32			2,980	2,980	2,980	2,980
34			2,680	2,680	2,680	2,680
36			2,410	2,410	2,410	2,410
38				2,180	2,180	2,180
40				1,970	1,970	1,970
45					1,550	1,550
50						1,220

Lifting Capacity at Three Degree Boom Angle On Rubber - Defined Arc Over Front

Boom Angle	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
3°	2,700 (29)	2,450 (32)	1,990 (37)	1,560 (42)	1,240 (47)	1,000 (52)

** This capacity based on maximum boom angle.
Note: ( ) Ref. radii in feet.

A6-829-100226D

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. 15 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 15 ft. extension installed:
   a. Minimum boom angle for 40 ft. main boom = 40°
   b. Maximum main boom length at 0° main boom angle = 30 ft.
9. When lifting loads the minimum allowable boom angle is 3°.

15 FT. OFFSETTABLE EXTENSION AT 0° OFFSET RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
6	9,080	9,080	9,080	9,080		
8	9,080	9,080	9,080	9,080	9,080	*9,080
10	8,180	8,820	9,080	9,080	9,080	9,080
12	7,240	7,830	8,760	9,080	9,080	9,080
14	6,500	7,030	7,890	8,690	9,080	9,080
16	5,840	6,390	7,170	7,920	8,630	9,080
18	5,200	5,780	6,580	7,280	7,940	8,560
20	4,700	5,210	6,070	6,730	7,350	7,940
22	4,270	4,740	5,520	6,260	6,840	7,400
24	3,910	4,340	5,060	5,780	6,400	6,940
26	3,600	4,000	4,660	5,310	6,000	6,460
28	3,330	3,700	4,320	4,940	5,480	5,480
30		3,440	4,020	4,600	4,930	4,930
32			3,760	4,300	4,470	4,470
34			3,530	4,040	4,070	4,070
36			3,310	3,730	3,730	3,730
38				3,380	3,380	3,380
40				3,080	3,080	3,080
45					2,460	2,460
50						1,980

Lifting Capacity at Three Degree Boom Angle On Outriggers Fully Extended - 360¡

Boom Angle	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
3°	3,260 (29)	3,260 (32)	3,260 (37)	2,810 (42)	2,250 (47)	1,820 (52)

Note: ( ) Ref. radii in feet.
*This capacity based on maximum boom angle.

A6-829-100724

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. 15 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 fully extended 360° with 15 ft. extension installed at 0° offset:
   a. Minimum boom angle for 40 ft. main boom = 0°
   b. Maximum main boom length at 0° main boom angle = 40 ft.
6. When lifting loads the minimum allowable boom angle is 3° at 0° offset.

15 FT. OFFSETTABLE EXTENSION AT 45° OFFSET RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
12	4,310					
14	4,140	4,210	4,300			
16	4,000	4,070	4,170	4,240	4,300	
18	3,890	3,950	4,050	4,130	4,200	4,260
20	3,810	3,860	3,960	4,040	4,110	4,170
22	3,740	3,800	3,880	3,960	4,030	4,090
24		3,740	3,820	3,890	3,960	4,020
26			3,780	3,830	3,900	3,960
28			3,720	3,790	3,850	3,900
30				3,760	3,810	3,850
32					3,780	3,820
34					3,740	3,790
36					3,710	3,730
38						3,380

Lifting Capacity at Forty Eight Degree Boom Angle On Outriggers Fully Extended - 360°

Boom Angle	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
48° **	3,710 (23.5)	3,710 (25.7)	3,710 (29.2)	3,710 (32.7)	3,670 (36.3)	3,110 (39.8)

Note: ( ) Ref. radii in feet.
** Radii are with the extension at horizontal.

A6-829-100725

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. 15 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 fully extended 360° with 15 ft. extension installed at 45° offset:
   a. Minimum boom angle for 40 ft. main boom = 45°
   b. Maximum main boom length at 45° main boom angle = 40 ft.
6. When lifting loads the minimum allowable boom angle is 48° at 45° offset.

15 FT. OFFSETTABLE EXTENSION AT 0° OFFSET
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY 360°

Radius in Feet	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
6	8,070	8,070	8,070	*8,070		
8	8,070	8,070	8,070	8,070	*7,550	
10	8,070	8,070	8,070	8,070	7,550	7,040
12	7,240	7,710	7,710	7,710	7,550	7,040
14	6,400	6,300	6,200	6,000	5,780	5,780
16	4,970	4,920	4,920	4,620	4,570	4,570
18	4,170	4,170	4,120	3,900	3,900	3,860
20	3,660	3,660	3,440	3,390	3,390	3,180
22	3,110	3,060	2,960	2,790	2,680	2,680
24	2,680	2,580	2,490	2,430	2,330	2,330
26	2,330	2,280	2,160	2,000	2,000	2,000
28	2,070	2,050	2,040	1,910	1,810	1,700
30		1,810	1,750	1,610	1,560	1,440
32			1,440	1,390	1,340	1,230
34			1,260	1,190	1,080	1,030
36			1,110	1,060	950	950
38				860	810	690
40				830	700	600

Lifting Capacity at Three Degree Boom Angle On Rubber - 360°

Boom Angle	Main Boom Length in Feet					
	17	**20**	**25**	**30**		
3°	1,940 (29)	1,660 (32)	1,080 (37)	750 (42)		

Note: ( ) Ref. radii in feet.
*This capacity based on maximum boom angle.

A6-829-100726

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. 15 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 15 ft. extension installed at 0° offset:
   a. Minimum boom angle for 40 ft. main boom = 38°; for 35 ft. main boom = 20°
   b. Maximum main boom length at 0° main boom angle = 30 ft.
9. When lifting loads the minimum allowable boom angle is 3° at 0° offset.

15 FT. OFFSETTABLE EXTENSION AT 45° OFFSET
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY 360°

Radius in Feet	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
12	4,310					
14	4,140	4,210	4,300			
16	4,000	4,070	4,170	4,240	*4,300	
18	3,890	3,950	4,050	4,130	4,200	4,260
20	3,700	3,700	3,700	3,700	3,700	3,700
22	3,160	3,160	3,160	3,160	3,160	3,160
24		2,730	2,730	2,730	2,730	2,730
26			2,370	2,370	2,370	2,370
28			2,070	2,070	2,030	2,030
30				1,760	1,760	1,760
32				1,570	1,570	1,570
34					1,320	1,270
36						1,040
38						860

Lifting Capacity at Forty Eight Degree Boom Angle On Rubber - 360°

Boom Angle	Main Boom Length in Feet					
	17	**20**	**25**	**30**	**35**	**40**
48° **	2,830 (23.5)	2,425 (25.7)	1,920 (29.2)	1,530 (32.7)	1,100 (36.3)	670 (39.8)

Note: ( ) Ref. radii in feet.
* This capacity based on maximum boom angle.
** Radii are with the extension at horizontal.

A6-829-100727

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. 15 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 15 ft. extension installed at 45° offset:
   a. Minimum boom angle for 40 ft. main boom = 45°
   b. Maximum main boom length at 45° main boom angle = 40 ft.
9. When lifting loads the minimum allowable boom angle is 48° at 45° offset.

15 FT. OFFSETTABLE EXTENSION AT 0° OFFSET
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet					
	17	20	25	30	35	40
6	8,070	8,070	8,070	*8,070		
8	8,070	8,070	8,070	8,070	7,550	
10	8,070	8,070	8,070	8,070	7,550	7,550
12	7,240	7,830	8,070	8,070	7,550	7,550
14	6,500	7,030	7,890	8,070	7,550	7,550
16	5,840	6,390	7,170	7,920	7,550	7,550
18	5,200	5,780	6,580	7,280	7,550	7,550
20	4,700	5,210	6,070	6,520	6,520	6,520
22	4,270	4,740	5,520	5,580	5,580	5,580
24	3,910	4,340	4,840	4,840	4,840	4,840
26	3,600	4,000	4,240	4,240	4,240	4,240
28	3,330	3,700	3,750	3,750	3,750	3,750
30		3,300	3,300	3,300	3,300	3,300
32			2,930	2,930	2,930	2,930
34			2,600	2,600	2,600	2,600
36			2,320	2,320	2,320	2,320
38				2,070	2,070	2,070
40				1,850	1,850	1,850
45					1,400	1,400
50						1,050

Lifting Capacity at Three Degree Boom Angle
On Rubber - Defined Arc Over Front

Boom Angle	Main Boom Length in Feet					
	17	20	25	30	35	40
3°	2,700 (29)	2,450 (32)	1,990 (37)	1,560 (42)	1,240 (47)	930 (52)

Note: ( ) Ref. radii in feet.
*This capacity based on maximum boom angle.

A6-829-100728

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. 15 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 (defined arc) with 15 ft. extension installed at 0° offset:
   a. Minimum boom angle for 40 ft. main boom = 0°
   b. Maximum main boom length at 0° main boom angle = 40 ft.
9. When lifting loads the minimum allowable boom angle is 3° at 0° offset.

15 FT. OFFSETTABLE EXTENSION AT 45° OFFSET
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet					
	17	20	25	30	35	40
12	4,310					
14	4,140	4,210	4,300			
16	4,000	4,070	4,170	4,240	4,300	
18	3,890	3,950	4,050	4,130	4,200	4,260
20	3,810	3,860	3,960	4,040	4,110	4,170
22	3,740	3,800	3,880	3,960	4,030	4,090
24		3,740	3,820	3,890	3,960	4,020
26			3,780	3,830	3,900	3,960
28			3,720	3,750	3,750	3,750
30				3,310	3,310	3,310
32				2,930	2,930	2,930
34					2,610	2,610
36						2,320
38						2,080

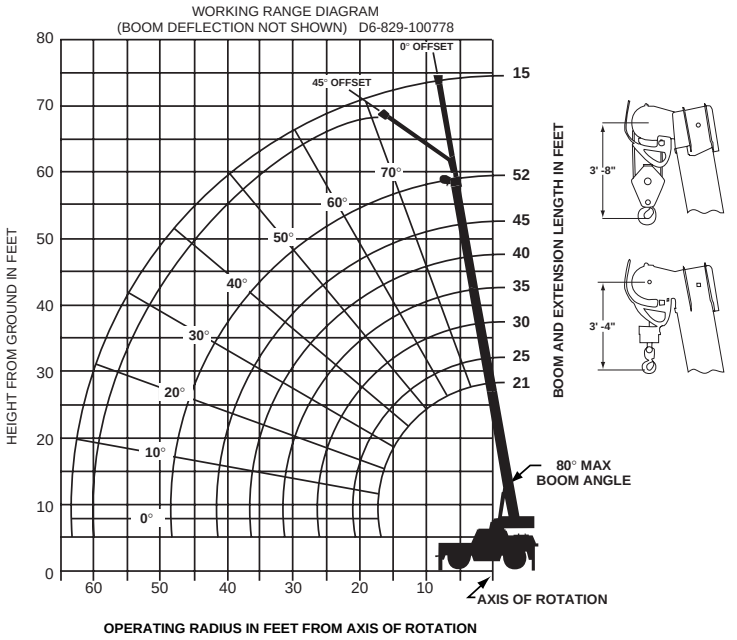
Lifting Capacity at Forty Eight Degree Boom Angle
On Rubber - Defined Arc Over Front

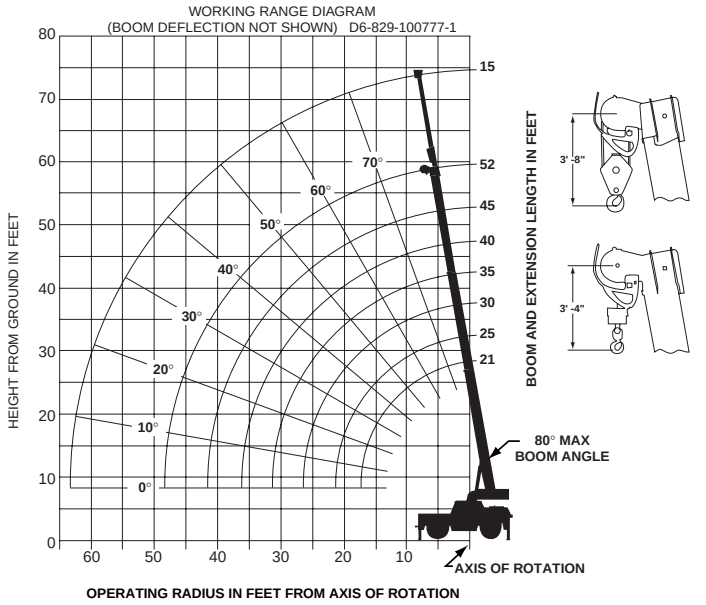
Boom Angle	Main Boom Length in Feet					
	17	20	25	30	35	40
48° **	3,710 (23.5)	3,710 (25.7)	3,470 (29.2)	2,810 (32.7)	2,280 (36.3)	1,880 (39.8)

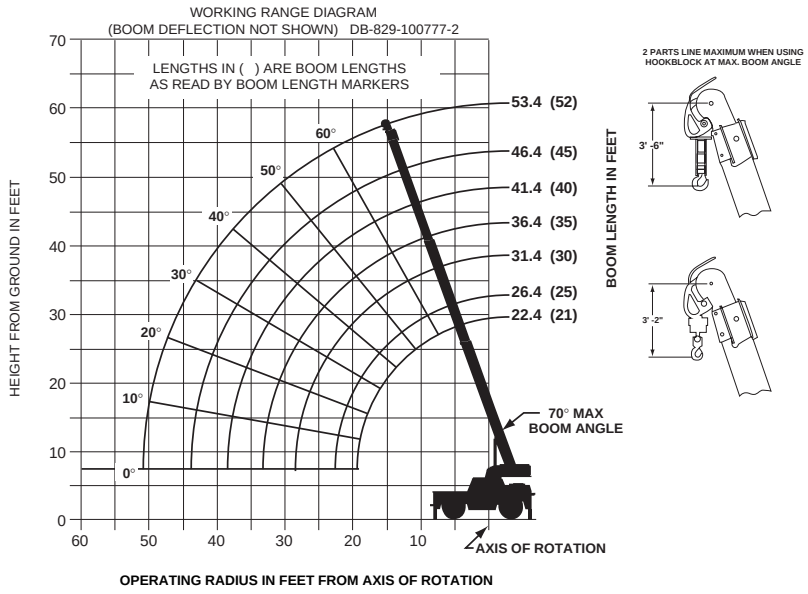
Note: ( ) Ref. radii in feet.
** Radii are with the extension at horizontal.

A6-829-100729

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. 15 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 (defined arc) with 15 ft. extension installed at 45° offset:
   a. Minimum boom angle for 40 ft. main boom = 45°
   b. Maximum main boom length at 45° main boom angle = 40 ft.
9. When lifting loads the minimum allowable boom angle is 48° at 45° offset.


WORKING RANGE DIAGRAM
(BOOM DEFLECTION NOT SHOWN) D6-829-100778
HEIGHT FROM GROUND IN FEET
0° OFFSET
45° OFFSET
70°
60°
50°
40°
30°
20°
10°
0°
15
52
45
40
35
30
25
21
BOOM AND EXTENSION LENGTH IN FEET
3' -8"
3' -4"
80° MAX
BOOM ANGLE
AXIS OF ROTATION
OPERATING RADIUS IN FEET FROM AXIS OF ROTATION


WORKING RANGE DIAGRAM
(BOOM DEFLECTION NOT SHOWN) D6-829-100777-1
HEIGHT FROM GROUND IN FEET
70°
60°
50°
40°
30°
20°
10°
0°
15
52
45
40
35
30
25
21
BOOM AND EXTENSION LENGTH IN FEET
3' -8"
3' -4"
80° MAX
BOOM ANGLE
AXIS OF ROTATION
OPERATING RADIUS IN FEET FROM AXIS OF ROTATION


WORKING RANGE DIAGRAM
(BOOM DEFLECTION NOT SHOWN) DB-829-100777-2
LENGTHS IN ( ) ARE BOOM LENGTHS
AS READ BY BOOM LENGTH MARKERS
HEIGHT FROM GROUND IN FEET
60°
50°
40°
30°
20°
10°
0°
53.4 (52)
46.4 (45)
41.4 (40)
36.4 (35)
31.4 (30)
26.4 (25)
22.4 (21)
2 PARTS LINE MAXIMUM WHEN USING
HOOKBLOCK AT MAX. BOOM ANGLE
BOOM LENGTH IN FEET
3' -6"
3' -2"
70° MAX
BOOM ANGLE
AXIS OF ROTATION
OPERATING RADIUS IN FEET FROM AXIS OF ROTATION

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

21 FT. - 52 FT. BOOM

Radius in Feet	Main Boom Length in Feet						
	***21** (22.8)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)	***45** (46.4)	***52** (53.4)
6	30,000	25,450	25,100	24,900	**24,200		
8	27,600	25,450	25,100	24,900	24,200	**21,800	
10	22,350	22,450	22,550	22,600	22,650	21,800	**18,500
12	18,200	18,300	18,400	18,500	18,500	18,550	18,300
14	15,150	15,250	15,300	15,400	15,400	15,450	15,500
16	12,550	12,700	12,750	12,800	12,850	12,900	12,900
18		10,750	10,850	10,900	10,950	10,950	11,000
20		9,270	9,400	9,450	9,490	9,500	9,500
22			8,090	8,090	8,090	8,090	8,090
24			7,000	7,000	7,000	7,000	7,000
26			6,130	6,130	6,130	6,130	6,130
28				5,410	5,410	5,410	5,410
30				4,820	4,820	4,820	4,820
32					4,310	4,310	4,310
34					3,880	3,880	3,880
36					3,510	3,510	3,510
38						3,180	3,180
40						2,890	2,890
44							2,410
48							2,020
Minimum boom angle (0°) for indicated length (no load)							0
Maximum boom length (ft.) at 0° boom angle (no load)							52

Lifting Capacity at Zero Degree Boom Angle On Outriggers Fully Extended 360°

Boom Angle	Main Boom Length in Feet						
	***21** (22.8)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)	***45** (46.4)	***52** (53.4)
0°	7,190 (17.7)	5,970 (21.3)	4,740 (26.3)	3,850 (31.3)	3,170 (36.3)	2,630 (41.3)	1,990 (48.3)

Note: ( ) Reference radii in feet. (Applicable to boom nose sheaves in down position only.)

A6-829-100745

*Boom length varies between boom nose sheaves in down position (in bold), or up & out position (in parenthesis).

**Capacity based on maximum boom angle.

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.
3. With boom nose sheaves down (in lower position), single, 2-part or 4-part line may be used. With boom nose sheaves up and out (low profile position), single or 2-part line may be used, with maximum boom angle limited to 70°.

RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - 360°

Radius in Feet	Main Boom Length in Feet						
	***21** (22.8)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)	***45** (46.4)	***52** (53.4)
6	16,400	16,400	16,400	16,400	**16,400		
8	11,900	11,900	11,900	11,900	11,900	**11,900	
10	9,190	9,190	9,190	9,190	9,190	9,190	**9,150
12	7,350	7,350	7,350	7,350	7,350	7,350	7,270
14	5,540	5,690	5,690	5,690	5,690	5,740	5,740
16	4,360	4,360	4,360	4,360	4,360	4,360	4,360
18		3,750	3,750	3,750	3,750	3,750	3,750
20		3,000	3,000	3,000	3,000	3,000	3,000
22			2,590	2,590	2,590	2,590	2,590
24			2,030	2,030	2,030	2,030	2,030
26			1,790	1,790	1,790	1,790	1,790
28				1,500	1,500	1,500	1,500
30				1,290	1,290	1,290	1,290
32					1,170	1,170	1,170
34					820	820	820
Minimum boom angle (0°) for indicated length (no load)						24	38
Maximum boom length (ft.) at 0° boom angle (no load)						40	

Lifting Capacity at Zero Degree Boom Angle On Rubber 360°

Boom Angle	Main Boom Length in Feet						
	***21** (22.8)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)		
0°	3,700 (17.7)	2,660 (21.3)	1,600 (26.3)	1,050 (31.3)	640 (36.3)		

Note: ( ) Reference radii in feet. (Applicable to boom nose sheaves in down position only.)

A6-829-100746A

*Boom length varies between boom nose sheaves in down position (in bold), or up & out position (in parenthesis).

**Capacity based on maximum boom angle.

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 385/65R22.5 (J) Firestone T839 tires at 140 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 m.p.h. 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.

7. With boom nose sheaves down (in lower position), single, 2-part or 4-part line may be used. With boom nose sheaves up and out (low profile position), single or 2-part line may be used, with maximum boom angle limited to 70°.

RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

PICK & CARRY AND STATIONARY - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet						
	***21** (22.8)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)	***45** (46.4)	***52** (53.4)
6	19,350	19,350	19,350	19,350	**19,350		
8	15,500	15,500	15,500	15,500	15,500	**15,500	
10	12,800	12,800	12,800	12,800	12,800	12,800	**12,800
12	10,800	10,800	10,800	10,800	10,800	10,800	10,800
14	9,310	9,310	9,310	9,310	9,310	9,310	9,310
16	8,100	8,100	8,100	8,100	8,100	8,100	8,100
18		7,070	7,070	7,070	7,070	7,070	7,070
20		6,150	6,150	6,150	6,150	6,150	6,150
22			5,230	5,230	5,230	5,230	5,230
24			4,500	4,500	4,500	4,500	4,500
26			3,910	3,910	3,910	3,910	3,910
28				3,430	3,430	3,430	3,430
30				3,020	3,020	3,020	3,020
32					2,680	2,680	2,680
34					2,380	2,380	2,380
36					2,120	2,120	2,120
38						1,890	1,890
40						1,690	1,690
44							1,350
48							1,070
Minimum boom angle (0°) for indicated length (no load)							0
Maximum boom length (ft.) at 0° boom angle (no load)							52

Lifting Capacity at Zero Degree Boom Angle On Rubber - Defined Arc and Pick & Carry

Boom Angle	Main Boom Length in Feet						
	***21** (22.8)	***25** (26.4)	***30** (31.4)	***35** (36.4)	***40** (41.4)	***45** (46.4)	***52** (53.4)
0°	7,190 (17.7)	5,550 (21.3)	3,850 (26.3)	2,800 (31.3)	2,090 (36.3)	1,580 (41.3)	1,060 (48.3)

Note: ( ) Reference radii in feet. (Applicable to boom nose sheaves in down position only.)

A6-829-100747

*Boom length varies between boom nose sheaves in down position (in bold), or up & out position (in parenthesis).

**Capacity based on maximum 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.

15 FT. EXTENSION
RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet						
	21	25	30	35	40	45	52
6	9,080	9,080	9,080	9,080			
8	9,080	9,080	9,080	9,080			
10	9,080	9,080	9,080	9,080	9,080	9,080	
12	8,370	9,080	9,080	9,080	9,080	9,080	9,080
14	7,510	8,150	8,780	9,080	9,080	9,080	9,080
16	6,810	7,400	8,060	8,410	8,630	8,980	9,080
18	6,220	6,770	7,440	7,810	8,050	8,430	8,480
20	5,630	6,240	6,920	7,500	7,770	7,940	8,030
22	5,110	5,690	6,430	7,030	7,320	7,510	7,630
24	4,680	5,210	5,820	6,180	6,460	7,120	7,270
26	4,310	4,800	5,490	5,840	6,320	6,760	6,760
28	4,000	4,450	5,090	5,730	5,980	5,980	5,980
30	3,720	4,140	4,740	5,330	5,330	5,330	5,330
32	3,470	3,870	4,430	4,780	4,780	4,780	4,780
34		3,630	4,160	4,310	4,310	4,310	4,310
36		3,410	3,900	3,900	3,900	3,900	3,900
38			3,540	3,540	3,540	3,540	3,540
40			3,230	3,230	3,230	3,230	3,230
45				2,590	2,590	2,590	2,590
50					2,090	2,090	2,090
55						1,690	1,690
60							1,370
Minimum boom angle (°) for indicated length (no load)							0
Maximum boom length (ft.) at 0° boom angle (no load)							52

Lifting Capacity at Three Degree Boom Angle On Outriggers Fully Extended - 360°

Boom Angle	Main Boom Length in Feet						
	21	25	30	35	40	45	
3°	3,210 (33.4)	3,210 (37)	2,950 (42)	2,370 (47)	1,920 (52)	1,550 (57)	1,150 (64)

Note: ( ) Ref. radii in feet.

A6-829-100754

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. 15 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. When lifting loads the minimum allowable boom angle is 3°.

15 FT. EXTENSION
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY 360°

Radius in Feet	Main Boom Length in Feet						
	21	25	30	35	40	45	52
6	9,080	9,080	**9,080				
8	9,080	9,080	9,080	**9,080			
10	9,080	9,080	9,080	9,080	9,080		
12	7,970	7,970	7,970	7,910	7,860	7,860	
14	6,600	6,600	6,480	6,480	6,330	6,330	6,220
16	5,480	5,380	5,330	5,280	5,280	5,230	5,180
18	4,670	4,550	4,520	4,520	4,520	4,340	4,340
20	3,950	3,830	3,700	3,700	3,650	3,650	3,600
22	3,370	3,270	3,210	3,210	3,110	3,110	3,110
24	2,880	2,850	2,750	2,700	2,600	2,550	2,450
26	2,510	2,410	2,360	2,250	2,200	2,200	2,150
28	2,160	2,160	2,040	1,940	1,890	1,890	1,790
30	1,890	1,840	1,740	1,690	1,580	1,580	1,580
32	1,640	1,580	1,430	1,430	1,370	1,370	1,370
34		1,370	1,300	1,220	1,170	1,120	1,120
36		1,230	1,120	1,070	970	920	920
Minimum boom angle (°) for indicated length (no load)				31	38	44	50
Maximum boom length (ft.) at 0° boom angle (no load)				30			

Lifting Capacity at Three Degree Boom Angle On Rubber Stationary - 360°

Boom Angle	Main Boom Length in Feet						
	21	25					
3°	1,510 (33.4)	1,130 (37)					

Note: ( ) Ref. radii in feet..
**This capacity based on maximum boom angle.

A6-829-100755A

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. 15 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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. When lifting loads the minimum allowable boom angle is 3°.

15 FT. EXTENSION
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet						
	21	25	30	35	40	45	52
6	9,080	9,080	9,080	**9,080			
8	9,080	9,080	9,080	9,080			
10	9,080	9,080	9,080	9,080	9,080	**9,080	
12	8,370	9,080	9,080	9,080	9,080	9,080	**9,080
14	7,510	8,150	8,780	9,080	9,080	9,080	9,080
16	6,810	7,400	8,060	8,410	8,600	8,600	8,600
18	6,220	6,770	7,440	7,600	7,600	7,600	7,600
20	5,630	6,240	6,760	6,760	6,760	6,760	6,760
22	5,110	5,690	5,910	5,910	5,910	5,910	5,910
24	4,680	5,110	5,110	5,110	5,110	5,110	5,110
26	4,310	4,450	4,450	4,450	4,450	4,450	4,450
28	3,920	3,920	3,920	3,920	3,920	3,920	3,920
30	3,470	3,470	3,470	3,470	3,470	3,470	3,470
32	3,080	3,080	3,080	3,080	3,080	3,080	3,080
34		2,750	2,750	2,750	2,750	2,750	2,750
36		2,460	2,460	2,460	2,460	2,460	2,460
38			2,210	2,210	2,210	2,210	2,210
40			1,990	1,990	1,990	1,990	1,990
45				1,530	1,530	1,530	1,530
50					1,170	1,170	1,170
55						880	880
	Minimum boom angle (°) for indicated length (no load)						0
	Maximum boom length (ft.) at 0° boom angle (no load)						52

Lifting Capacity at Three Degree Boom Angle On Rubber - Defined Arc Over Front

Boom Angle	Main Boom Length in Feet						
	21	25	30	35	40	45	
3°	2,850 (33.4)	2,330 (37)	1,790 (42)	1,370 (47)	1,050 (52)	780 (57)	

**This capacity is based upon maximum boom angle.
Note: ( ) Ref. radii in feet.

A6-829-100756

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. 15 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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. When lifting loads the minimum allowable boom angle is 3°.

15 FT. OFFSETTABLE EXTENSION AT 0° OFFSET
RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
6	9,080	9,080	*9,080				
8	9,080	9,080	9,080	9,080			
10	9,080	9,080	9,080	9,080	9,080	*9,080	
12	8,370	9,080	9,080	9,080	9,080	9,080	*9,080
14	7,510	8,150	8,780	9,080	9,080	9,080	9,080
16	6,810	7,400	8,060	8,410	8,630	8,980	9,080
18	6,160	6,770	7,440	7,810	8,050	8,430	8,480
20	5,550	6,180	6,920	7,500	7,770	7,940	8,030
22	5,050	5,620	6,430	7,030	7,320	7,510	7,630
24	4,620	5,150	5,820	6,180	6,460	7,120	7,270
26	4,260	4,740	5,420	5,840	6,320	6,600	6,580
28	3,940	4,390	5,020	5,650	5,830	5,830	5,830
30	3,670	4,090	4,670	5,180	5,180	5,180	5,180
32	3,420	3,820	4,370	4,630	4,630	4,630	4,630
34		3,580	4,100	4,160	4,160	4,160	4,160
36		3,370	3,750	3,750	3,750	3,750	3,750
38			3,400	3,400	3,400	3,400	3,400
40			3,080	3,080	3,080	3,080	3,080
45				2,440	2,440	2,440	2,440
50					1,940	1,940	1,940
55						1,550	1,550
60							1,220

Lifting Capacity at Three Degree Boom Angle
On Outriggers Fully Extended - 360°

Boom Angle	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
3°	3,210 (33.4)	3,210 (37)	2,800 (42)	2,230 (47)	1,770 (52)	1,410 (57)	1,010 (64)

Note: ( ) Ref. radii in feet.
*This capacity based on maximum boom angle.

A6-829-100748A

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. 15 ft. offsettable 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 fully extended 360° with 15 ft. offsettable extension installed at 0° offset:
   a. Minimum boom angle for 52 ft. main boom = 0°
   b. Maximum main boom length at 0° main boom angle = 52 ft.
6. When lifting loads the minimum allowable boom angle is 3° at 0° offset.

15 FT. OFFSETTABLE EXTENSION AT 45° OFFSET
RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
12	4,450	*4,500					
14	4,280	4,350	*4,420	*4,480			
16	4,140	4,210	4,290	4,360	*4,420	*4,460	
18	4,020	4,090	4,180	4,250	4,310	4,360	4,420
20	3,920	3,990	4,080	4,150	4,220	4,270	4,330
22	3,850	3,910	3,990	4,070	4,130	4,190	4,260
24	3,800	3,850	3,920	3,990	4,060	4,120	4,180
26	3,710	3,800	3,860	3,930	3,990	4,050	4,120
28		3,730	3,820	3,870	3,930	3,990	4,060
30			3,780	3,830	3,880	3,940	4,000
32			3,710	3,800	3,840	3,890	3,950
34				3,750	3,810	3,850	3,910
36				2,930	3,750	3,750	3,750
38					3,400	3,400	3,400
40						3,080	3,080
45							2,440

Lifting Capacity at Forty Eight Degree Boom Angle
On Outriggers Fully Extended - 360°

Boom Angle	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
48° **	3,710 (26.7)	3,710 (29.2)	3,630 (32.7)	2,810 (36.3)	2,180 (39.8)	1,680 (43.3)	1,130 (48.3)

Note: ( ) Ref. radii in feet.
*This capacity based on maximum boom angle.
**Radii are with extension at horizontal.

A6-829-100749A

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. 15 ft. offsettable 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 fully extended 360° with 15 ft. offsettable extension installed at 45° offset:
   a. Minimum boom angle for 52 ft. main boom = 45°
   b. Maximum main boom length at 45° main boom angle = 52 ft.
6. When lifting loads the minimum allowable boom angle is 48° at 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.

15 FT. OFFSETTABLE EXTENSION AT 0° OFFSET
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY 360°

Radius in Feet	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
6	9,080	9,080	*9,080				
8	9,080	9,080	9,080	*9,080			
10	9,080	9,080	9,080	9,080	9,080		
12	7,970	7,970	7,910	7,910	7,860	7,860	
14	6,360	6,360	6,360	6,360	6,220	6,220	*6,220
16	5,280	5,280	5,180	5,180	5,180	5,180	5,180
18	4,350	4,350	4,350	4,350	4,150	4,100	4,000
20	3,770	3,720	3,620	3,500	3,450	3,450	3,330
22	3,230	3,130	3,020	2,910	2,910	2,830	2,780
24	2,730	2,680	2,570	2,520	2,470	2,370	2,370
26	2,420	2,310	2,210	2,160	2,110	2,010	2,010
28	2,060	2,010	1,960	1,840	1,730	1,730	1,730
30	1,820	1,690	1,590	1,540	1,490	1,490	1,490
32	1,580	1,470	1,350	1,300	1,240	1,240	1,240
34		1,250	1,190	1,120	1,120	1,010	1,010
36		1,100	1,040	920	920	810	810

Lifting Capacity at Three Degree Boom Angle
On Rubber - 360°

Boom Angle	Main Boom Length in Feet						
	21	**25**					
3°	1,430 (33.4)	1,090 (37)					

Note: ( ) Ref. radii in feet. A6-829-100750A
*This capacity based on maximum boom angle.

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. 15 ft. offsettable 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 15 ft. offsettable extension installed at 0° offset:
   a. Minimum boom angle for 52 ft. main boom = 50°; for 45 ft. main boom = 43°; for 40 ft. main boom = 37°; for 35 ft. main boom = 29°
   b. Maximum main boom length at 0° main boom angle = 30 ft.
9. When lifting loads the minimum allowable boom angle is 3° at 0° offset.

15 FT. OFFSETTABLE EXTENSION AT 45° OFFSET
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY 360°

Radius in Feet	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
12	*4,450	*4,500					
14	4,280	4,350	*4,420	*4,480			
16	4,140	4,210	4,290	4,360	*4,420		
18	4,020	4,090	4,180	4,250	4,310	*4,360	
20	3,860	3,860	3,860	3,860	3,860	3,860	*3,860
22	3,290	3,290	3,290	3,290	3,290	3,290	3,290
24	2,820	2,820	2,820	2,820	2,820	2,820	2,820
26	2,430	2,430	2,430	2,430	2,430	2,430	2,430
28		2,100	2,100	2,100	2,100	2,100	2,100
30			1,820	1,820	1,820	1,820	1,820
32			1,580	1,580	1,580	1,580	1,580
34				1,360	1,360	1,360	1,360
36				1,110	1,110	1,110	1,110
38					1,000	930	930

Lifting Capacity at Forty Eight Degree Boom Angle
On Rubber - 360°

Boom Angle	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**		
48° **	2,310 (26.7)	1,930 (29.2)	1,500 (32.7)	1,060 (36.3)	770 (39.8)		

Note: ( ) Ref. radii in feet. A6-829-100751A
*This capacity based on maximum boom angle.
** Radii are with the extension at horizontal.

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. 15 ft. offsettable 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 15 ft. offsettable extension installed at 45° offset:
   a. Minimum boom angle for 52 ft. main boom = 56°
   b. Maximum main boom length at 45° main boom angle = 45 ft.
9. When lifting loads the minimum allowable boom angle is 48° at 45° offset.

15 FT. OFFSETTABLE EXTENSION AT 0° OFFSET
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
6	9,080	9,080	*9,080				
8	9,080	9,080	9,080	9,080			
10	9,080	9,080	9,080	9,080	9,080		
12	8,370	9,080	9,080	9,080	9,080	9,080	*9,080
14	7,510	8,150	8,780	9,080	9,080	9,080	9,080
16	6,810	7,400	8,060	8,170	8,170	8,170	8,170
18	6,160	6,770	7,330	7,330	7,330	7,330	7,330
20	5,550	6,180	6,590	6,590	6,590	6,590	6,590
22	5,050	5,620	5,720	5,720	5,720	5,720	5,720
24	4,620	4,920	4,920	4,920	4,920	4,920	4,920
26	4,260	4,280	4,280	4,280	4,280	4,280	4,280
28	3,750	3,750	3,750	3,750	3,750	3,750	3,750
30	3,310	3,310	3,310	3,310	3,310	3,310	3,310
32	2,930	2,930	2,930	2,930	2,930	2,930	2,930
34		2,600	2,600	2,600	2,600	2,600	2,600
36		2,320	2,320	2,320	2,320	2,320	2,320
38			2,070	2,070	2,070	2,070	2,070
40			1,850	1,850	1,850	1,850	1,850
45				1,400	1,400	1,400	1,400
50					1,040	1,040	1,040

Lifting Capacity at Three Degree Boom Angle On Rubber - Defined Arc Over Front

Boom Angle	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	
3°	2,700 (33.4)	2,190 (37)	1,650 (42)	1,240 (47)	920 (52)	620 (57)	

Note: ( ) Ref. radii in feet. A6-829-100752A
*This capacity based on maximum boom angle.

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. 15 ft. offsettable 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 (defined arc) with 15 ft. offsettable extension installed at 0° offset:
   a. Minimum boom angle for 52 ft. main boom = 21°
   b. Maximum main boom length at 0° main boom angle = 45 ft.
9. When lifting loads the minimum allowable boom angle is 3° at 0° offset.

15 FT. OFFSETTABLE EXTENSION AT 45° OFFSET
RATED LIFTING CAPACITIES IN POUNDS ON RUBBER

STATIONARY - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
12	4,450	*4,500					
14	4,280	4,350	*4,420	*4,480			
16	4,140	4,210	4,290	4,360	*4,420		
18	4,020	4,090	4,180	4,250	4,310	4,360	
20	3,920	3,990	4,080	4,150	4,220	4,270	4,330
22	3,850	3,910	3,990	4,070	4,130	4,190	4,260
24	3,800	3,850	3,920	3,990	4,060	4,120	4,180
26	3,710	3,800	3,860	3,930	3,990	4,050	4,120
28		3,730	3,750	3,750	3,750	3,750	3,750
30			3,310	3,310	3,310	3,310	3,310
32			2,930	2,930	2,930	2,930	2,930
34				2,600	2,600	2,600	2,600
36				2,320	2,320	2,320	2,320
38					2,070	2,070	2,070
40						1,850	1,850
45							1,400

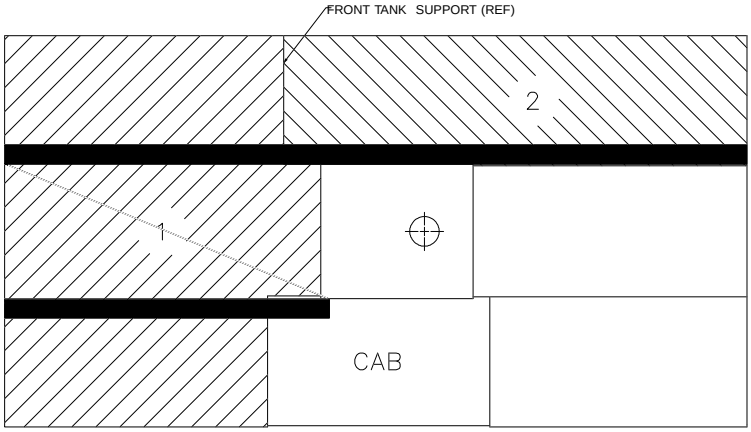
Lifting Capacity at Forty Eight Degree Boom Angle On Rubber - Defined Arc Over Front

Boom Angle	Main Boom Length in Feet						
	21	**25**	**30**	**35**	**40**	**45**	**52**
48° **	3,710 (26.7)	3,480 (29.2)	2,810 (32.7)	2,280 (36.3)	1,870 (39.8)	1,540 (43.3)	1,130 (48.3)

Note: ( ) Ref. radii in feet. A6-829-100753A
* This capacity based on maximum boom angle.
** Radii are with the extension at horizontal.

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. 15 ft. offsettable 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. Pick and carry lifting NOT permitted.
4. Capacities are applicable to machines equipped with 385/65R22.5 (J) Firestone T839 tires at 140 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 (defined arc) with 15 ft. offsettable extension installed at 45° offset:
   a. Minimum boom angle for 52 ft. main boom = 45°
   b. Maximum main boom length at 45° main boom angle = 52 ft.
9. When lifting loads the minimum allowable boom angle is 48° at 45° offset.

LOAD DISTRIBUTION CHART FOR CARRY DECK



Maximum Allowable Uniformly Distributed Load

AREA 1	
43.2 sq. ft. / 4.01 m^2	13,195 lb. / 5,985 kg
AREA 2	
23.1 sq. ft. / 2.15 m^2	6,805 lb. / 3,087 kg
TOTAL	
66.3 sq. ft. / 6.16 m^2	20,000 lb. / 9,072 kg

1. Maximum travel speed with any or all loads - 2.5 MPH (4.0 km/h)
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 may be used.
5. Lifting is not permitted when carry deck is loaded except for loading and unloading carry deck.
6. Rated pick and carry loads may be transported on deck area 1 provided the load is cribbed directly on the frame rails.

LINE PULLS AND REEVING INFORMATION

HOISTS	CABLE SPECS.	PERMISSIBLE LINE PULLS	NOMINAL CABLE LENGTH
Main Model PD12C	5/8 in. (16 mm) 18x19 Class Rotation Resistant Min. Breaking Strength 45,400 lbs.	9,080 lbs.	250 ft. (40' boom) 310 ft. (52' boom)
Main Model PD12C	5/8 in. (16 mm) 6x37 Class EIPS, IWRC Special Flexible Min. Breaking Strength 41,200 lbs.	9,080 lbs.	250 ft. (40' boom) 310 ft. (52' boom)

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

40 FT. MAIN BOOM	
15' FIXED (NON-OFFSETTABLE)	
Erected	870 lb.
Stowed	85 lb.
15' OFFSETTABLE	
Erected	1420 lb.
Stowed	260 lb.
52 FT. MAIN BOOM	
15' FIXED (NON-OFFSETTABLE)	
Erected	870 lb.
Stowed	160 lb.
15' OFFSETTABLE	
Erected	1420 lb.
Stowed	350 lb.

HOOKBLOCKS and HEADACHE BALLS:	
16.5 ton (15 MT) 2 Sheave (w/o quick reeve)	240 lb.
16.5 ton (15 MT), 2 Sheave (w/quick reeve)	241 lb.
11 ton (10 MT), 1 Sheave (w/quick reeve)	204 lb.
5 ton Overhaul Ball (w/ quick reeve)	148 lb.

+Refer to rating plate for actual weight.

When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Grove furnished equipment.

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.

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