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# Model 6430 Carrier Mounted Crane

**ON & OFF THE ROAD OR RAIL —  
REACHING NEW HEIGHTS  
AND WORKING HARDER THAN EVER.**



## LITTLE *Giant*

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with the railroad industry in producing hydraulic track cranes, rail  
dedicated cranes, truck mounted cranes and rough terrain material handlers.  
Little Giant cranes are working every day in every corner of the world and are  
known for their ease of maintenance and cost-effective design.



A Manitex International, Inc. Company



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# Model 6430 carrier Mounted Crane

## LOAD CHARTS

### 6430 CARRIER MOUNTED LOAD CHART (PCSA CLASS 15-133)

Boom Angle (FT)	Load Radius (FT)	Boom Length (FT)	ON OUTRIGGERS		ON OUTRIGGERS		ON TIRES	
			Over Rear	Over Side	Half Extended	Fully Retracted	Over Rear	Over Side
30°	10	75	61,300	60,000	43,700	27,500	36,800	27,600
	12	71	61,300	59,300	43,200	27,200	29,200	21,600
	15	65	61,300	55,600	40,500	25,500	22,100	16,100
	20	54	53,200	38,100	27,700	17,400	15,600	11,100
	25	41	36,500	26,700	19,400	12,200	12,000	8,400
	30	23	27,600	20,500	14,900	9,400	9,600	6,700
35°	10	77	61,300	60,000	43,700	27,500	36,500	27,400
	12	74	61,300	59,300	43,200	27,200	28,900	21,300
	15	69	61,300	55,600	40,500	25,500	21,900	15,900
	20	60	53,200	38,000	27,700	17,400	15,400	10,900
	25	50	36,500	26,500	19,300	12,100	11,800	8,200
	30	38	27,600	20,300	14,800	9,300	9,300	6,400
40°	15	71	61,300	55,600	40,500	25,500	21,800	15,800
	20	64	53,200	38,000	27,700	17,400	15,300	10,800
	25	55	36,500	26,500	19,300	12,100	11,700	8,000
	30	46	27,600	20,200	14,700	9,200	9,200	6,300
	35	35	22,100	16,100	11,700	7,300	7,600	5,100
	40	19	18,500	13,400	9,700	6,100	6,400	4,100
45°	15	74	55,600	55,600	40,500	25,500	21,700	15,700
	20	67	46,700	37,900	27,600	17,400	15,100	10,600
	25	60	32,700	26,400	19,200	12,100	11,500	7,900
	30	52	25,000	20,100	14,600	9,200	9,000	6,200
	35	43	20,000	16,000	11,600	7,300	7,400	4,900
	40	33	16,700	13,300	9,700	6,100	6,300	4,000
50°	45	18	14,200	11,200	8,100	5,100	5,300	3,300
	15	75	55,600	55,600	40,500	25,500	21,600	15,600
	20	69	46,600	37,800	27,500	17,300	15,000	10,500
	25	63	32,600	26,400	19,200	12,100	11,400	7,800
	30	56	24,900	20,000	14,500	9,100	8,900	6,100
	35	49	19,900	15,900	11,600	7,300	7,300	4,800
55°	40	41	16,600	13,300	9,700	6,100	6,200	3,900
	45	31	14,100	11,100	8,000	5,000	5,200	3,200
	50	17	12,200	9,600	7,000	4,400	4,500	2,700
	20	71	46,600	37,500	27,300	17,200		
	25	66	32,500	26,200	19,100	12,000		
	30	60	24,800	19,800	14,400	9,000		
60°	35	54	19,800	15,700	11,400	7,200		
	40	47	16,400	13,100	9,500	6,000		
	45	39	13,900	10,900	7,900	5,000		
	50	30	12,000	9,400	6,800	4,300		
	55	17	10,200	7,900	5,700	3,600		
	20	73	46,600	37,600	27,400	17,200		
65°	25	68	32,400	26,100	19,000	11,900		
	30	62	24,700	19,700	14,300	9,000		
	35	57	19,700	15,600	11,300	7,100		
	40	51	16,300	12,900	9,400	5,900		
	45	45	13,800	10,800	7,800	4,900		
	50	37	11,900	9,300	6,700	4,200		
70°	55	29	10,400	7,700	5,600	3,500		
	60	16	9,200	7,000	5,100	3,200		
	20	74	46,400	37,500	27,300	17,200		
	25	70	32,300	26,000	18,900	11,900		
	30	65	24,500	19,600	14,300	9,000		
	35	60	19,500	15,500	11,300	7,100		
75°	40	55	16,100	12,700	9,200	5,800		
	45	49	13,600	10,600	7,700	4,800		
	50	43	11,700	9,100	6,600	4,100		
	55	36	10,200	7,400	5,300	3,300		
	60	27	9,100	6,800	4,900	3,100		
	65	15	7,900	5,600	4,000	2,500		
80°	20	75	46,200	37,400	27,200	17,100		
	25	71	32,200	25,900	18,800	11,800		
	30	67	24,400	19,500	14,200	8,900		
	35	62	19,400	15,400	11,200	7,000		
	40	57	16,000	12,600	9,100	5,700		
	45	52	13,500	10,500	7,600	4,800		
85°	50	47	11,600	9,000	6,500	4,100		
	55	41	10,100	7,200	5,200	3,300		
	60	34	8,800	6,700	4,800	3,000		
	65	26	7,800	5,500	4,000	2,500		
	70	15	7,100	5,300	3,800	2,400		

All specifications are subject to change.



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Chart continued on next page

**6430 CARRIER MOUNTED LOAD CHARTS (Cont.)**

Boom Angle (FT)	Load Radius (FT)	Boom Angle (°)	ON OUTRIGGERS	
			Over Rear	Over Side
75'	20	76	43,500	36,900
	25	72	32,000	25,700
	30	68	24,300	19,300
	35	64	19,200	15,200
	40	60	15,800	12,400
	45	55	13,300	10,300
	50	50	11,400	8,800
	55	45	9,800	7,000
	60	40	8,600	6,500
	65	33	7,600	5,400
80'	25	74	31,900	25,600
	30	72	14,200	19,200
	35	68	19,100	15,100
	40	64	15,700	12,300
	45	60	13,200	10,200
	50	55	11,300	8,700
	55	50	9,600	6,900
	60	45	8,500	6,400
	65	40	7,400	5,200
	70	33	6,700	4,900
85'	25	75	31,800	25,500
	30	71	24,100	19,100
	35	67	19,000	15,000
	40	64	15,600	12,200
	45	60	13,100	10,100
	50	56	11,200	8,500
	55	52	9,500	6,800
	60	47	8,400	6,300
	65	42	7,300	5,100
	70	37	6,600	4,800
90'	25	75	31,800	25,500
	30	72	22,100	17,200
	35	69	17,400	13,400
	40	65	14,200	10,800
	45	62	11,900	8,900
	50	58	10,100	7,400
	55	54	8,500	5,800
	60	50	7,500	5,400
	65	46	6,500	4,300
	70	41	5,800	4,000

1. All operators and support personnel shall read and fully understand manufacturer furnished operator's manual, latest applicable American National Standards Institute (ANSI) Safety Standards for Cranes, and any applicable federal, state, or local safety regulations before operating machine. Crane and load ratings comply with ANSI and Power Crane & Shovel Association (PCSA) Standards.

2. High gantry must be fully raised and pinned in position when lifting. Pin gantry in lowered position for **OVER-THE-ROAD** travel only!

3. All "ON OUTRIGGER" lifts shall be made with outrigger beams fully extended and with jacks extended to fully support and level machine (tires off supporting surface). Additional structural blocking may be required for some applications.

4. All ratings where shaded text appears are based on structural strength of machine. All other ratings do not exceed 85% of tipping load "ON OUTRIGGERS" and 75% of tipping "ON TIRES" with machine stable on firm ground.

5. **DO NOT EXCEED** crane load ratings. When load radius or boom angle are between listed values, use the smaller load rating. **DO NOT ATTEMPT TO TIP MACHINE TO DETERMINE ALLOWABLE LOADS.**

6. Weights of hook blocks, bucket, slings, and all other load handling devices are not accounted for in the load chart. The load handling devices must be considered as part of the load.

7. Reduce ratings appropriately for wind conditions, speed of operation, soft or uneven supporting surfaces, etc.

**CAUTION**

**IN WIND OVER 30 MPH, CEASE OPERATION; POSITION BOOM AWAY FROM WIND AND LOWER BOOM BELOW 60°. IN WIND OVER 50 MPH, LOWER BOOM TO GROUND, OR, SECURE IN POSITION.**

8. Load ratings apply to this machine only as originally manufactured and equipped. Unauthorized modification or optional equipment may reduce load capacity. Please consult Little Giant **BEFORE** modification or use of optional equipment not covered in this chart.

9. **DO NOT LIFT** over front of machine.

10. These load ratings are for lift service only. Consult and adhere to appropriate load ratings chart for other applications (clamshell, dragline, magnet, etc.)

**WARNING**

Pick and carry load ratings are limited to 60% of "ON TIRES - OVER REAR" lifts. Pick and carry operations shall be made using 50' of boom, or less, at the lowest possible boom angle.

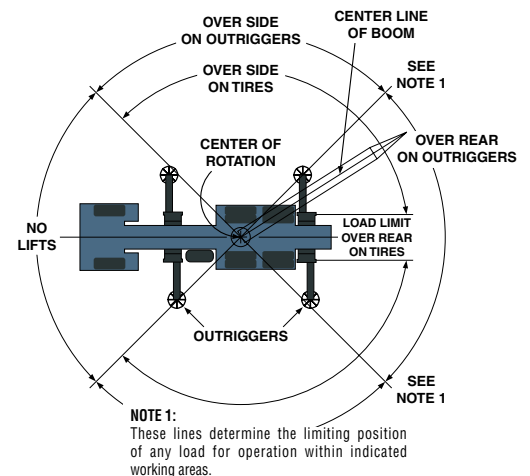
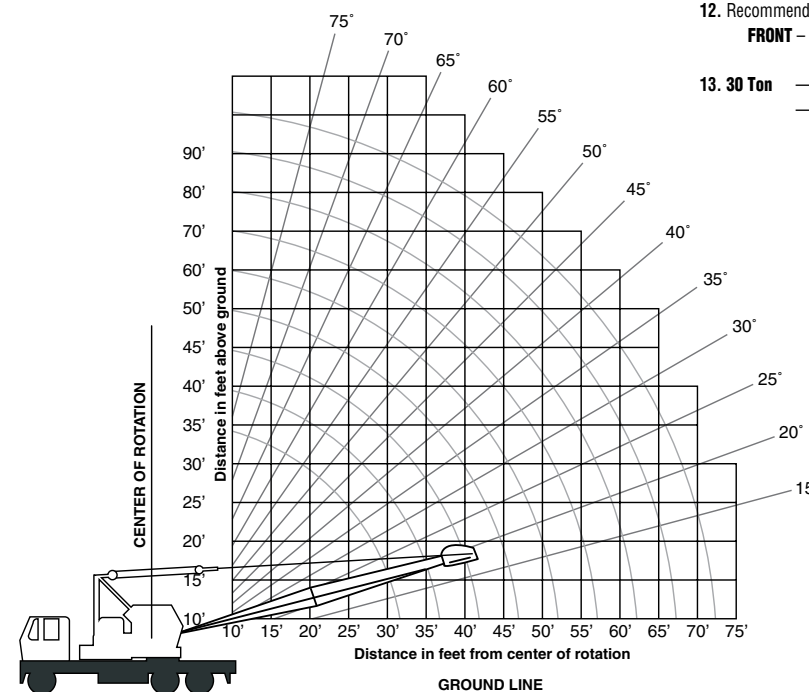
11. Load shall be restrained from swinging and shall be positioned as close to the ground as possible over the rear along the carrier's lengthwise centerline. **DO NOT** exceed 3 MPH (5 Km/h) travel speed using smooth starts and stops. Other crane operations **SHALL NOT** be permitted when transporting a load.

12. Recommended tire sizes and inflation pressures are:

**FRONT** - 445/65R22.5 @ 105 P.S.I.

**REAR** - 12R22.5 @ 105 PSI.

13. **30 Ton** — 3 Sheave Hook Block (Light Weight) = 390 lbs.  
— 3 Sheave Hook Block (Medium Weight) = 596 lbs.



**WIRE ROPE RECOMMENDATIONS: 5/8" - 6X19 Class - 6X25 FW, PRF, RRL, XIP, IWTC Wire Rope**

PARTS OF LINE	1	2	3	4	5	6
MAX. HOOK LOAD	11,500	23,000	34,500	46,000	57,500	69,000



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# Model 6430 carrier Mounted Crane SPECIFICATIONS

## Tough, Durable and Hard-Working.

Tough, durable and hard-working are just some of the attributes of this carrier mounted 30-ton lattice boom crane. With two strong Cummins power plants that are Tier 3 rated, this custom crane, made in the USA, has mix-and-match crane sections from 5' to 20', easy-to-handle controls which are smooth and safe, unmatched efficiency and maintenance-free operation to handle the tough jobs of lifting, dredging, pile-driving, clamshell applications and even magnet scrap handling jobs.

The **Little Giant 6430** is designed and manufactured to the same high standards that have made the Little Giant Crane Corporation a world leader for more than five decades. These cranes are built to last. Little Giant also offers a Rebuild Program.

- All custom built
- Sliding upper door
- Sealed wiring and terminals
- Case hardened bolts
- Load moment indicators - radio controlled (optional)
- Shot blasted before its painted
- Proper grab handles and steps
- Remote grease zerks on turn table
- Polished aluminum diamond plated carrier
- Main fuse panel on carrier
- LED lighting
- Fast assembly-disassembly capabilities
- Lightweight modular components for ease of transport

## UPPER SPECIFICATIONS

### ENGINE

- Cummins QSB-4.5-Tier 3
- 160 HP (119kw) @ 2,200 RPM
- 460 lb/ft. torque (624Nm) @ 1,500 RPM
- \*OPTIONAL ENGINES AVAILABLE\***

### MASTER CLUTCH

Disconnected Clutch for Cold Weather Starting

### MAIN DRIVE

Variable Speed, Hydrostatically Controlled

### TURNTABLE

Ball Bearing, Single Row, bolted to Upper Structure and Carrier for Easy Removal

### CONTROLS

Air, Variable Control, Adjustable for Self-Centering or Lock-In Operation

### THROTTLE

Variable Speed, Hand - Optional Foot Throttle

### SWING SPEED

5 RPM

### LINE SPEED

198 FPM

### LINE PULL

13,000 lbs. with 12" Drum

### DRUM CLUTCHES

Two Shoe, Internal Expanding, Air Operated,  
21-3/4" Dia. x 3" Wide

### DRUM BRAKES

External Contracting, Band Type,  
25" Dia. x 4" Wide

### POWER LOAD LOWERING

Both Drums

### BOOM HOIST

Power Up & Power Down, independent of ALL other functions

### GANTRY

Telescoping High Gantry

### STANDARD FEATURES

Frame Mounted Boom Backstops, Automatic Boom Hoist Kickout, Boom Angle Indicator, Pendant Cable Suspension, Signal Horn, Tool Box, Fire Extinguisher, Anti-Two Block Warning, Triple Sheave Boom Point

## CARRIER SPECIFICATIONS

### GVWR

68,000 lbs. Capacity

### BASIC WEIGHT

61,000 lbs. complete machine weight including 1 boom foot section and 1 boom tip section and 175 lb. operator

### FRAME

18" Formed Triple Box Beam

### ENGINE

- Cummins Diesel QSC 8.3
- 260 HP @ 2400 RPM
- Peak Torque 660 lb/ft @ 1300 RPM
- \*OPTIONAL DIESEL ENGINES AVAILABLE\*

### COOLING SYSTEM

Coolant Capacity - 33 qt., Centrifugal Pump, Belt Driven,  
Fin & Tube Radiator, Anti-Freeze

### ELECTRICAL

12 Volt with 100 Amp Alternator, Heavy Duty Battery, Head Lights, Parking Lights,

Combination Stop & Tail Lights, Horn, Turning Signals, 4-Way Flasher, Dome Light, 2-Speed Electric Windshield Wiper

### CLUTCH

15" Dia. Two Plate, Dry Disc with Vibration Dampener

### TRANSMISSION:

Fuller Model RTO-11909MLL

#### Ratios:

LL1 - 26.08 1st - 7.41 5th - 1.95  
L - 16.03 2nd - 5.23 6th - 1.38  
LL2 - 11.85 3rd - 3.79 7th - 1.00  
4th - 2.77 8th - 0.73

#### Reverse Ratios:

LL - 25.22  
L - 15.76  
H - 4.15

### FRONT AXLE

Eaton EFA22T5, 22,000 lb. Capacity

### REAR AXLE

Eaton DS463P, 46,000 lb. Rating, Single Reduction, Internal Differential, Cab Controlled Differential Lockout on Intermediate Axle

### SUSPENSION FRONT

**Front:** Semi-Elliptic, Alloy Steel Leaf, 3" Wide x 53-15/16" Long, 9 Leaves per Spring with 5 Leaf Auxiliary Spring.

**Rear:** Little Giant, Hendrickson Type includes Torque Rods and Equalizer Beams

### BRAKES

**Service:** Air, All Wheels

**Parking:** Spring Loaded, Both Rear Axles

### WHEELS / TIRES

Budd, 10-Hole Disc Type

**Rear:** (8) 12R22.5  
Load Range H - Dual Wheels  
Or (4) 445/65R22.5  
Load Range L

**Front:** (2) 425/65R22.5  
load Range L - Single

### STEERING

Full Power Steering - Ross Model TAS85

### STANDARD ITEMS

Out and Down Hydraulic Outriggers  
Back-up alarm



All specifications are subject to change.



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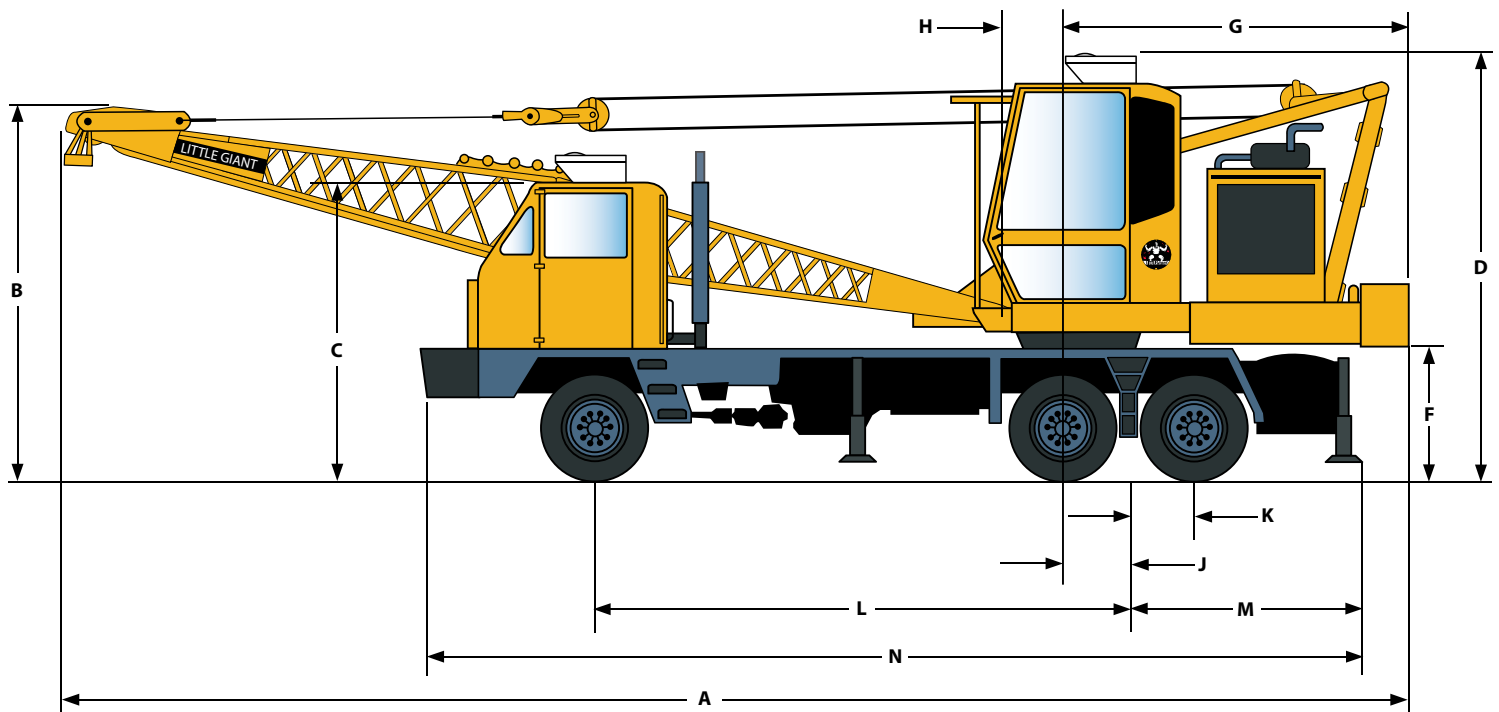


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# Model 6430 carrier Mounted Crane

## DIMENSIONS



Description	U.S.	Metric	Description	U.S.	Metric
<b>A</b> Overall length with 30' Boom	43' 9"	13.34m	<b>I</b> Height of Boom Foot Pin Above Grade	6' 3"	1.91m
<b>B</b> Height of Boom in Travel Position	11' 7"	3.53m	<b>J</b> Bogie Center to Center of Rotation	2' 3"	.69m
<b>C</b> Maximum Height of Carrier Cab Above Grade	9' 1"	2.77m	<b>K</b> Rear Tandem to Bogie Center	2' 2"	.66m
<b>D</b> Maximum Travel Height	12' 10"	3.91m	<b>L</b> Front Axle Center to Bogie Center	17' 5"	5.31m
<b>E</b> Maximum Height with Raised Gantry	15' 8"	4.78m	<b>M</b> Bogie Center to Rear Extreme	8' 10"	2.69m
<b>F</b> Distance Under Counterweight to Grade	4' 8"	1.42m	<b>N</b> Carrier Length	29' 0"	8.34m
<b>G</b> Maximum Swing Clearance	10' 10"	3.30m	<b>O</b> Overall width for travel	8' 6"	2.59m
<b>H</b> Boom Foot Pin to Center of Rotation	2' 4"	.71m	<b>P</b> **Weight	61,000 lbs.	27669 kg

\*\* Overall weight of machine with 1 boom foot section, 1 boom tip section and 175 lb. operator: 61,000 lbs.

All specifications are subject to change.

## OPTIONS FOR MODEL 6430 CARRIER MOUNTED CRANE

### Carrier Mounted 30-Ton Crane with 305 HP QSC Cummins Engine in Carrier and a 160 HP Cummins QSB-4.5-Tier 3 Engine in the Upper

- 5' Boom Extension w/Pendent Cables
- 10' Boom Extension w/Pendant Cables
- 20' Boom Extension w/ Pendant Cables
- Full Revolving Fairlead
- Boom Tip Fairlead
- LSI Load Moment System
- A-2-B Load Monitor
- Drum Rotation Indicators (both drums)
- Anti-Vandal Kit for Carrier and Upper
- Allison Automatic Transmission (model RDS3500)
- 6X6 Carrier Drive (manual transmission only)
- Spare Tire (ea.)
- Axle Differential Lock - Driver Controlled
- 10 Ton Hook Block (1 sheave)
- 25 Ton Hook Block (2 sheave)
- 30 Ton Hook Block (3 sheave)
- 3rd Drum Winch (hydraulic drive)
- Air Conditioner – Upper Cab
- Air Conditioner – Carrier Cab
- Tagline – Single Barrel
- Electro- Magnet 10KW Generator w/Tagline & Controls
- 40" Magnet
- 1/2 Yard Clam Bucket
- 5/8 Yard Dragline Bucket
- 1 Yard Dragline Bucket
- Upper Cab Controlled Outriggers

**NOTE:** For Clamshell and Dragline applications you will need to order a Revolving Fairlead, Boom Tip Fairlead, and a Tagline.



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