

## ***IC-400-B*** ***Industrial Crane***

Broderson's long reach 25 US ton capacity carry deck crane, the IC-400 provides heavy duty capacity to take care of all your long reach light and heavy duty lifting needs.

### ***Capacity***

50,000 lbs. (22,700 kg)

### ***Sheave Height***

99' (30.18 m)

### ***Horizontal Reach***

90' (27.43 m)

### ***Height***

9' 11" (2.96 m)

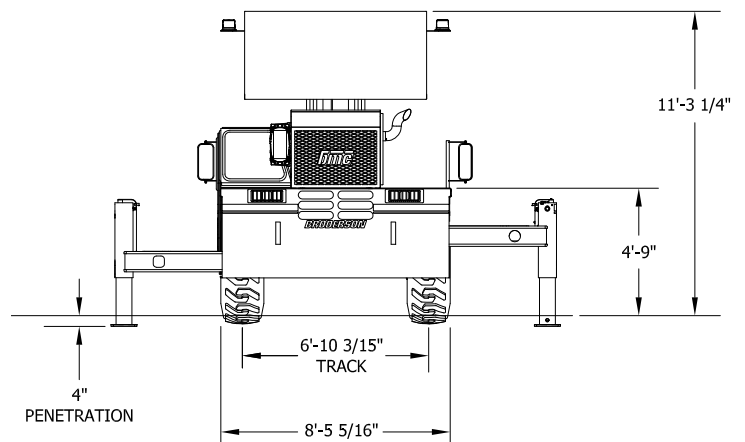
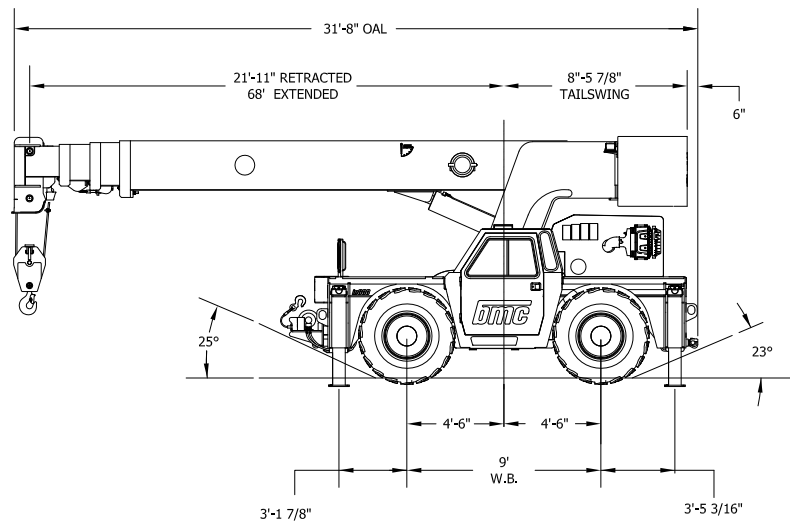
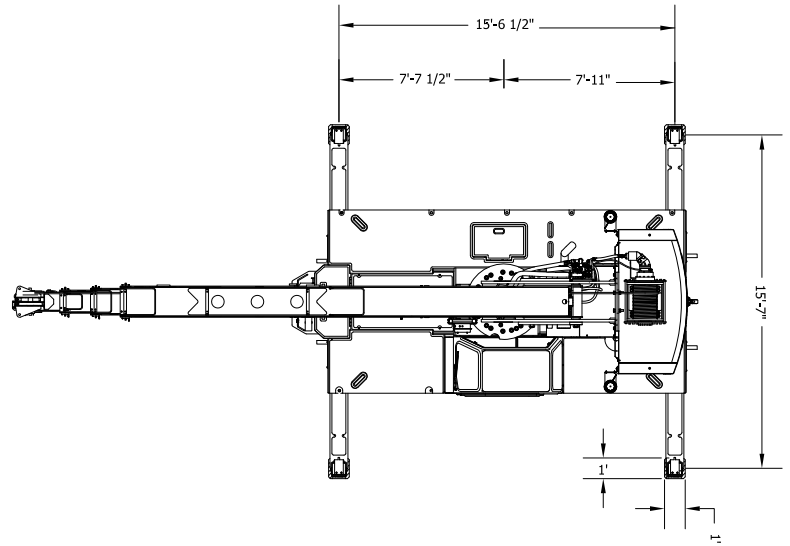
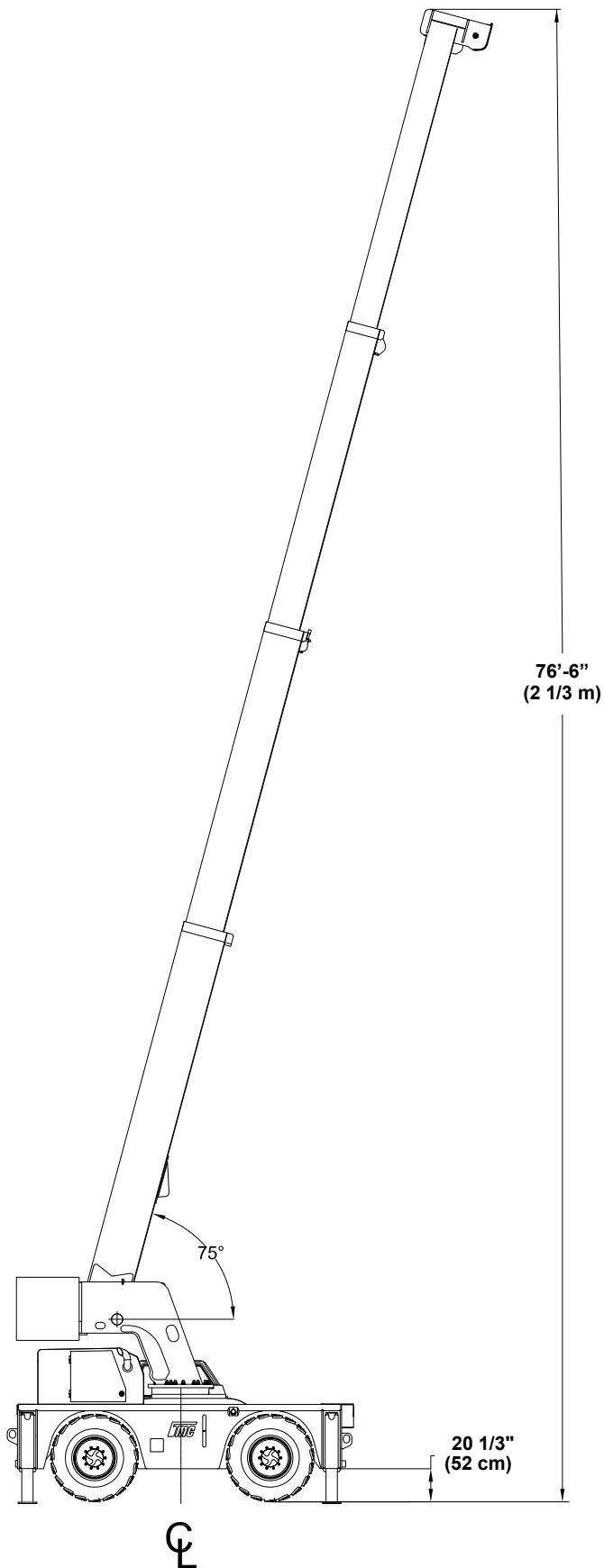
### ***Width***

8' 6" (2.59 m)



# IC-400-B

## SPECIFICATIONS



## GENERAL

	ROTATION	ELEVATION	EXTENSION
<b>Boom Movement</b>	Continuous	0° to 75°	46'6" (14.17m)
<b>Weight Total</b>	54,900 lbs. (24,900 kg.)		
<b>Front Axle</b>	29,400 lbs. (13,330 kg.)		
<b>Rear Axle</b>	25,500 lbs. (11,570 kg.)		
<b>Gradeability</b>	70% (34°)		
<b>Turning Radius</b>	15' 10" (4.83 m)		

## ENGINE

<b>Make</b>	Cummins
<b>Model</b>	QSB4.5 (US EPA Tier 4F)
<b>Type</b>	Turbocharged-Diesel, charge air cooled
<b>Cylinder</b>	4
<b>Displacement</b>	4.5 L
<b>HP at Gov. Speed</b>	163 HP
<b>Fuel Tank Capacity</b>	80 gal.

## TRANSMISSION

**POWERSHIFT TRANSMISSION** with 6-speeds (2 range, 3 speeds/range) forward and reverse. Oil cooler and filter. Operator interface to shift and disconnect front axle for 2-wheel drive operation.

## FORWARD GEAR RATIOS &amp; SPEEDS

GEAR	RATIO	SPEED (MPH)
1st	8.93	2.1 (3.4 km/h)
2nd	4.63	4.0 (6.4 km/h)
3rd	1.70	10.5 (16.9 km/h)
4th	3.75	4.9 (7.9 km/h)
5th	1.94	9.2 (14.8 km/h)
6th	0.71	23.6 (38 km/h)

## REVERSE GEAR RATIOS &amp; SPEEDS

GEAR	RATIO	SPEED (MPH)
1st	8.93	2.7 (4.3 km/h)
2nd	4.63	6.3 (10.1 km/h)
3rd	1.70	15 (25.4 km/h)
4th	3.75	4.9 (7.9 km/h)
5th	1.94	9.2 (14.8 km/h)
6th	0.71	23.6 (38 km/h)

## AXLES

## FRONT

Planetary drive/steer front axle with 19:333 to 1.0 ratio. Differential equipped with "limited slip" feature. Front axle mounted rigidly to frame.

## REAR

Planetary drive/steer axle with 19:333 to 1.0 ratio. Rear axle is rigid mounted. Axle has a 30% limited slip-differential.

## STEERING

Hydraulic steering unit with one cylinder attached to each axle. Allows limited steering when engine is not running. A switch on the control panel is used to select rear-wheel steering, 4-wheel steering or crab steering. Electronic sensors and control box automatically align the steering after a new mode is selected.

## BRAKES

**Service:** 4-wheel hydraulic internal wet-disc brakes.

**Parking:** Internal wet disc, spring applied and hydraulically released and integral to the rear axle.

## TIRES

**Standard:**  
17.5 x 25, 20-ply rating, mud lug.

## CHASSIS

## CARGO DECK

**Total Deck Area:** 74 sq. ft. (6.94 m<sup>2</sup>) of deck area. 25,000 lbs. (11,340 kg) capacity on deck when load is centered over or between axles. Five deck stakes are provided along edge of deck for 1" (25mm) pipe stakes. Stakes furnished. Cargo decks have skid resistant coating.

## HEADLIGHT AND TAILLIGHT GRILLES

Steel protective grilles for headlights and taillights. Easily removable for replacing bulbs.

## OUTRIGGERS

Four hydraulic out and down outriggers of box beam construction. Hydraulic cylinders are equipped with direct-connected holding valves. Outrigger pad dimensions: 11.5" (29 cm) x 11.5" (29 cm).

## ACCESSORY STORAGE BOX

One side deck compartment and one front deck compartment.

## LIFTING RINGS

Lifting rings at each corner of cargo deck so sling can be attached for lifting crane. Rings hang below surface when not in use.

## OPERATOR COMPARTMENT

Provides one-position access to all chassis and crane functions. Includes adjustable operator's seat and seat belt, arm rests, and tilt steering column. Also includes access point to J1939 CAN Bus system.

## ALL WEATHER CAB

Consists of rigid mounted canopy section and removable hinged door with safety glass. Rugged canopy structure with laminated glass front and top. Door is equipped with a keyed lock to protect operator's station. Includes defroster fan, dome light, heater with 2-speed fan and 12V electric windshield wiper and windshield washer, 12 volt power outlet. Emergency exit through rear window.

## CLIMATE CONTROL/OPERATOR COMFORT

Integrated heater and air conditioning standard.

## ELECTRONIC CONTROLS

Dual, two-axis joysticks provide control of boom motions and hoist. Triggers prevent inadvertent boom motion. Arming command push-button on panel, along with RH joystick, enable or disable the functions of joysticks in conjunction with seat switch or dead man switch. Push-button switch on LH panel separates boom function from outrigger functions.

## ELECTRICAL (12-VOLT SYSTEM)

## LIGHTING PACKAGE

One pair headlights with high and low beams; tail, brake and turn signal lights and back-up lights in rear; turn signals and emergency flasher switch at operator's station.

## INSTRUMENT PACKAGE

Located on the dashboard at the operator's station is the key pad for outrigger operation, an engine display unit, rocker switches for various functions, and indicator lights. Included with the engine display are simulated gages displaying real-time values for engine RPM, battery voltage, engine hours, fuel level, oil pressure, and coolant temperature. Additional warning lamps monitor vitals like engine status, low fuel, low battery, low oil pressure, and high hydraulic fluid temperature.

## BACK-UP ALARM

Provides pulsating sound from 102 dB alarm when transmission is in reverse.

## OUTRIGGER ALARM SYSTEM

Two-tone alarm is activated when "jack down" or "beam out" controls are operated.

## EMERGENCY STOP SWITCH

A two-position push button switch located on the top left-hand of the dash panel. Designed to stop the engine and shut down the hydraulic system.

## HYDRAULIC

**TWO PISTON PUMPS** mounted on and driven by the main transmission, delivers a combine flow of 103 GPM (390L / min) at 4,000 psi (275.8 bar) and 2600 engine rpm speed. System protected by relief valves, suction-line strainers, and a 150 gpm, 10-micron return-line filter.

## BOOM ASSEMBLY

Four-section, high-strength steel construction, with lubricant-filled bearing pads. Doubleacting hydraulic cylinders, equipped with a holding valve, extend and retract the second and third boom sections. Double runs of high strength leaf chain extend & retract the fourth section. Boom angle indicator included on left side of boom. Single hydraulic cylinder controls boom elevation. Lift cylinder equipped with mounted holding valves.

## BOOM ROTATION

Heavy-duty ball bearing rotation gear with external teeth. Rotation is powered by hydraulic motor and worm gear drive.

## BOOM HOIST

Turret Mounted/Hydraulic Powered Bare Drum Line Pull: 13,800 lbs. (6,520 kg) Wire Rope: 425 ft. (130 m) of 5/8" (16 mm) dia. Line Speed: sheave block for four-part line requirement. Downhaul weight and hook included — standard..

## ANTI-TWO-BLOCK DEVICE

Prevents damage to hoist rope and/or crane components from pulling load hook against tip.

## BRODERSON RATED CAPACITY LIMITER

Warns operator of impending overload with audible and visual signals, stopping boom functions that will cause overloads.

## FOUR-PART-LINE SHEAVE BLOCK

Double-sheave block for 4-part-line requirements. Downhaul weight and hook included as standard.

CONSULT THE IC-400-B ENGINEERING SPEC FOR ADDITIONAL INFORMATION.

### **Main Features**

#### **RATED CAPACITY LIMITER**

Broderson RCL Standard

#### **CAPACITY ON OUTRIGGERS**

50,000 lbs. (22,700 kg)

#### **PICK AND CARRY CAPACITY**

25,000 lbs. (11,340 kg)

#### **HEIGHT**

11'3" (3.43 m)

#### **WIDTH**

8' 6" (2.59 m)

#### **BOOM ROTATION**

360°

#### **SHEAVE HEIGHT**

up to 99' (30.18 m)

#### **HORIZONTAL REACH**

up to 90' (27.03 m)

#### **FOUR-WHEEL STEER**

Standard

#### **FOUR-WHEEL DRIVE**

Standard

#### **POWERSHIFT TRANSMISSION**

Standard

#### **TIGHT TURNING RADIUS**

#### **FULLY ELECTRONIC CONTROLS FOR SMOOTH, PRECISE OPERATIONS**

#### **INDEPENDENT OUTRIGGER CONTROLS**

3 Outrigger widths

### **Options**

#### **TIRE OPTIONS**

Spare tire and wheel

#### **CHASSIS OPTIONS**

##### **Auxiliary Winch**

Planetary gear winch mounted beneath chassis frame, with push-button control in operator's console.

##### **Pintle Hook**

Rear and/or front

##### **Rearview Mirrors**

One mounted on right-hand deck stake and one mounted on left-hand deck stake.

#### **OPERATOR COMPARTMENT**

##### **Floor Mat**

Vinyl mat with foam backing.

##### **Sun Visor**

Adjustable sun visor for reducing glare mounted in roof of cab.

##### **Noise Reduction Kit**

Includes floor mat, control valve cover and side panels of foam backed vinyl for noise reduction.

#### **ELECTRICAL OPTIONS**

##### **Strobe Lights**

Yellow LED strobe light mounted on each side of turret weight box

##### **Camera System**

4-camera video system to assist operator with hard-to-see viewpoints

##### **Boom Work Lights**

One LED worklight mounted to boom to light boom tip, and one work light mounted to turret to light ground under boom tip.

##### **RCL Light Bar**

3 color light bar for external indication of load status

#### **BOOM ATTACHMENTS:**

##### **Boom Extension**

20 ft. (6.1 m) offset. Boom stowable.

Boom extension is offsettable to 3 different positions; 0 degree (in-line), 15 degree and 30 degree offset. Maximum Sheave height is 99'3", and maximum reach is 90'.

Broderson Cranes are manufactured to ISO 9001:2015 certified standards and have a market leading reputation for quality and reliability. Broderson Cranes are engineered for operating efficiency and are easy to operate and maintain.

An extensive network of full-service dealers offer parts and service support by factory-trained technicians.

For additional options or special equipment not listed, please consult your dealer salesperson or contact **Broderson Manufacturing Corp.**

**BRODERSON<sup>®</sup>**  
**Manufacturing Corp.**

14741 West 106th Street  
Lenexa, KS 66215 USA

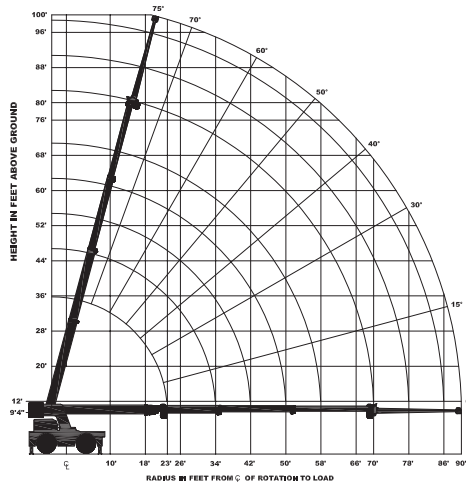
**(913) 888-0606**  
**www.BMCcranes.com**

Dimensions and values  
shown are for reference  
purposes only.  
Specifications subject  
to change.



# Load Chart US Standard

## IC-400-B Industrial Crane



In and Down 360 capacities apply when operating over the sides or rear with beams at less than full extension.

For boom lengths between columns, use the next longer boom length column. For load radii between rows, use the next longest load radius row.

Load radius is the horizontal distance from the center of rotation of the unloaded crane to the vertical load line with load applied.

CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE									
LOAD RADIUS FEET	MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS								
	360° ROTATION				OVER FRONT				
	ON RUBBER	OUTRIGGERS OUT & DOWN	OUTRIGGERS MID & DOWN	OUTRIGGERS IN & DOWN	ON RUBBER	ON OUTRIGGERS			
MAIN BOOM	8	17000	50000	47500	42000	24400	50000		
	10	13200	42000	38000	28300	20300	42000		
	12	10500	36000	31800	20600	17200	36000		
	14	8500	35100	27300	16000	14700	35100		
	16	6900	30100	23500	12800	12700	30100		
	18	5600	23600	20300	10600	11100	23600		
	20	4600	21100	17200	8800	9400	21100		
	22	3700	19000	14400	7400	7900	19000		
	24	3000	17100	11800	6300	6600	17100		
	26	2300	15400	10600	5300	5600	14800		
	28	1800	13300	8700	4600	4800	12900		
	30	1300	12200	7600	3900	4100	11800		
	32	1100	11200	7000	3300	3600	11200		
	36	700	9100	5400	2300	2800	8900		
	40	----	7400	4300	1600	2200	7400		
	42	----	6800	3900	1300	2000	6800		
	44	----	6200	3400	1100	1800	6100		
	48	----	5400	2900	700	1400	5300		
	52	----	4700	2600	----	1100	4700		
	54	----	4400	2400	----	1000	4400		
EXT	56	----	4400	2400	----	900	4400		
	60	----	4100	2000	----	---	4000		
	64	----	3600	1600	----	---	3600		
	68	----	3200	1300	----	---	3200		
	72	----	2800	----	----	---	2700		
	76	----	2400	----	----	---	2300		
	80	----	2100	----	----	---	2100		
	84	----	1900	----	----	----	1900		
BOOM EXT.	88	----	1500	----	----	----	1500		
	BOOM EXT. OFFSET ANGLE	20-FOOT BOOM EXTENSION CAPACITIES							
		MAIN BOOM ANGLE							
		0°	15°	30°	40°	50°	60°	70°	75°
		0°	2600	2750	3000	3400	4100	5100	6200
15°	---	2500	2600	2700	2900	3300	4300	4800	
30°	---	---	2300	2400	2500	2700	3200	3400	

CAPACITIES ON OUTRIGGERS ARE 85% OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75% OF TIPPING LOADS. CAPACITIES BELOW BOLD LINE ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPABILITY.

HYDRAULIC FUNCTIONS OPERATE AT MID-RANGE SPEED ON RUBBER OR IF CRANE IS NOT LEVEL.

BOOM EXTENSION MAY NOT LIFT LOADS ON RUBBER.

CAUTION: BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY. LOAD RADII BELOW DOUBLE LINES REQUIRE BOOM EXTENSION. DO NOT POSITION BOOM AT LOAD RADII WHERE "—" CAPACITIES ARE SHOWN. EXCEEDING CAPACITY RATINGS OR APPLYING SIDE LOADS TO THE BOOM OR BOOM EXTENSION IS MISUSE, HAZARDOUS, AND VOIDS WARRANTY.

**Page** 1 of 11  
**Date** January 2017

**Replaces** Form LD114A  
**Dated** June 2014

The IC-400-3A is a self-propelled Industrial Crane designed for lifting and material handling, with special features of self-loading cargo decks, 4-wheel steer, and 4-wheel drive. The basic unit consists of a chassis and hydraulic boom assembly. The chassis includes a frame, four hydraulic independently controlled outriggers, engine, 6-speed transmission, front steering-driving axle and rear steering-driving axle, fuel tank, hydraulic oil tank, control station, three-mode full-power steering, power brakes, all weather cab and lighting package. The boom assembly includes a hydraulic powered continuous rotation turret, 5-section telescopic boom, hydraulic boom elevation cylinders, hydraulic boom telescope cylinders and hydraulic powered planetary gear hoist. Rated Capacity Limiter is standard.

**IC-400-3A:**

5-section hydraulically extended boom with capacity of 50,000 pounds (22,700 kg) at an 8-foot (2.4 m) load radius. Horizontal reach of 64 feet (19.51 m) and vertical reach of 75 feet 3 inches (22.95 m).

**GENERAL:**

**Length:**  
Overall 27 feet 4 inches (8.32m)  
Chassis 18 feet 0 inches (5.49m)

**Width:** 8 feet 6 inches (2.59m)

**Height:**  
Overall 9 feet 11 inches (2.96m)  
Deck 56.5 inches (1.44m)

**Wheelbase:** 108 inches (2.74m)

**Ground Clearance:**  
Chassis 16.6 inches (42cm)  
Minimum (Tailpipe) 13.8 inches (35cm)

**Angle of Approach:** 26 degrees

**Angle of Departure:** 23 degrees

**Outriggers:**  
Spread 16 feet 0 inches (4.88m)  
Penetration 4.5 inches (114mm)

**Boom Movement:**  
Rotation Continuous  
Elevation 0 to 75 degrees  
Telescope 46 feet 6 inches (14.17m)

**Boom Speeds:**  
Rotation 0.7 RPM  
Elevation 30 seconds  
Telescope 56 seconds

**Hoist Line Speeds:**  
Low-Speed Mode 123 ft/min (37 m/min)  
High-Speed Mode 300 ft/min (91 m/mn)



<b>Extension:</b>	<b>W/O Boom Extension</b>	<b>With Boom Extension</b>
Sheave Height (Nominal):	75 feet 4 inches (22.95m)	95 feet 0 inches (28.96m)
Horizontal Reach:	64 feet 6 inches (19.51m)	84 feet 6 inches (25.76m)
<b>Weight:</b>		
Total	54,900 pounds (24,900kg)	
Front Axle	24,900 pounds (13,330kg)	
Rear Axle	25,500 pounds (11,570kg)	
<b>Turning Radius:</b> (4-Wheel Steering)	15 feet 10 inches (4.87m)	
<b>Aisle Width for 90° Turn:</b>	12 feet 7 inches (3.84m)	
<b>Steering Modes:</b>	Rear Steer, Round Steer, Crab Steer	
<b>Road Speed:</b>	25 MPH (40.2kph)	
<b>Drawbar Pull:</b>	30,000 pounds* (13,600kg)	
<b>Gradeability:</b>	70 percent* (34 degrees)	
<i>*Calculated, wheels spin below these values in 2-wheel drive.</i>		
<b>Grade Limit:</b>	19 percent (11 degrees)	

## ENGINE:

### Standard:

#### Cummins QSB4.5L Turbo, EPA Tier 3

Cummins Model QSB4.5 diesel engine, turbocharged, charge air cooled, four cylinder, 4.5 liter (275 CID). U.S. EPA Tier 3 certified. Bore 4.21 inches (107mm), stroke 4.88 inches (124mm). Rated 160 hp (119 kw) at 2,500 rpm. 460 foot pounds (624 Nm) maximum torque at 1,500 rpm. 95 amp alternator. Oil capacity, 11.6 quarts (11 L). Coolant capacity, 14 quarts (13.2 L). Electronic controls for three engine speeds during crane operation - 700, 1200 or 1800 rpm. Protection system shuts down engine when coolant is too hot or oil pressure is too low. Charge air cooler, grid heater and engine block heater which plugs into 120 volt AC extension cord are included. Tier 3 engines require the use of Low Sulfur Diesel (LSD) that meets the EPA defined sulfur content of 500 parts per million (ppm). Tier 3 engines may also use Ultra Low Sulfur Diesel (ULSD) fuel that meets the EPA defined sulfur content of 15 ppm.

### Spark Arrestor Muffler:

Spark arrester muffler used in addition to standard muffler. Net Weight: 10 pounds (4.5 kg)

## TRANSMISSION:

### Standard:

Funk Manufacturing Co. Model 2000 powershift transmission with 6 forward speeds and 3 reverse. Provides full powershifts at maximum engine speed in all gears. All shifting is done with a single lever electrical control in the operator compartment. The transmission includes an automatic rear axle disconnect for two-wheel drive in speeds 4, 5 and 6 in forward and speed 3 in reverse. The other speeds are four-wheel drive. A torque converter with a stall torque ratio of 2.40:1 attaches directly to engine flywheel to drive transmission. Equipped with oil cooler and filter.

Forward gear ratios and speeds:

GEAR	RATIO	SPEED
1st	8.20	2.7 mph (4.3 km/h)
2nd	4.64	4.8 mph (7.7 km/h)
3rd	3.53	6.3 mph (10.1 km/h)
4th	2.00	11 mph (18 km/h)
5th	1.41	15 mph (25 km/h)
6th	0.80	23 mph (37 km/h)

Reverse gear ratios and speeds:

GEAR	RATIO	SPEED
1st	8.20	2.7 mph (4.3 km/h)
2nd	3.53	6.3 mph (10.1 km/h)
3rd	1.41	15 mph (25.4 km/h)

**FRONT AXLE:**

**Standard:**

AxleTech planetary driving-steering axle with 16.42 to 1 ratio. Rigid mounted on front. Axle has limited-slip differential.

**REAR AXLE:**

**Standard:**

AxleTech planetary driving-steering axle with 16.42 to 1 ratio. Rear axle is mounted with rubber elements to allow oscillation. Axle is not available with no-spin or limited-slip differential.

**BRAKES:**

**Standard:**

Service brakes are four-wheel hydraulic disc brakes 18.48 inch (46.9cm) diameter disc at each wheel. System includes two 0.5 gallon (1.9L) accumulators, unloading valve, and brake malfunction warning light. Parking brake is disc-type, spring applied, and hydraulically released. Mounted on front drive shaft at transmission.

**STEERING:**

**Standard:**

Hydraulic steering unit with two 3.5 inch (8.9cm) cylinders attached to each axle. Allows limited steering when engine is not running. A switch on the control panel is used to select rear-wheel steering, 4-wheel steering or crab steering. Electronic sensors and control box automatically align the steering when a new mode is selected. Steering wheel and electronically controlled selector valve control 3-mode steering.

**TIRES:**

**Standard:**

17.5 x 25, 20-ply rating, mud lug.

**Tire Options:**

**Spare Wheel and Tire:**

Standard Size: Extra wheel with 17.5 x 25, 20-ply rating tire mounted, ready for service. Order left hand or right hand. Net Weight: 530 pounds (240kg)

**CHASSIS:**

**Standard:**

**Cargo Deck:**

Total Deck Area: 74 Square Feet (6.94m<sup>2</sup>). Front deck 96.5" (2.45m) X 69.6" (1.77m), RH side deck 203.7" (5.17m) X 29.4" (75cm). A maximum of 20,000 pounds (9,100kg) may be carried on the deck when centered over or between axles. Six stake pockets are provided along edges of deck for 1-inch (25mm) pipe stakes. Stakes furnished. Cargo decks have skid resistant coating.

**Headlight and Taillight Grilles:**

Steel protective grilles for headlights and taillights. Easily removable for replacing bulbs.



**Outriggers:**

Four hydraulic out-and-down outriggers of box-beam construction. Independent controls for each outrigger. Hydraulic cylinders are equipped with direct-connected holding valves. Pad dimensions: 11.5 inches (29cm) x 11 inches (29cm).

**Pulling Eyes:**

Two heavy eyes on front bumper provide for attachment of hook block so main winch line can be used for pulling loads at or near floor level. Also for anchoring tag lines from load on hook. Two heavy duty eyes on rear bumper allow dragging or towing a load.

**Tie Downs:**

Pulling eyes also provide tie down locations for transporting crane.

**Accessory Storage Box:**

Consists of a hinged front deck plate which serves as a lockable cover, and box for carrying downhaul weight and other items. Storage box is 14" (35cm) deep x 10.25" (26cm) long x 68" (1.7m) wide.

**Sheave Block Storage Box:**

Recessed area in left-rear deck behind cab for stowing sheave block. Sheave block is stored with the hook on top for easy lifting and lowering into storage box. Includes pin assembly for securing sheave block.

**Lifting Rings:**

Consists of four rings, one at each corner of the load deck, so sling can be attached for lifting crane. Rings hang below deck surface when not in use

**Sliding Hood:**

Allows improved access to engine with boom centered over the front of machine. Engine fluid levels can be checked without starting engine and swinging boom.

**Optional Chassis Accessories:**

**Auxiliary Winch:**

Optional planetary gear winch, mounted on front outrigger bumper, with a single lever control in the operator compartment. Hydraulic powered to provide bare drum line pull of 15,000 lbs. (6800kg) at 40 ft/min (9m/min) line speed on the fourth layer. Winch drum is 4.75" (12cm) diameter by 9" (23cm) long. Includes 125 feet (38.1m) of 9/16 inch (14mm) diameter 6x36 EIP-RRL-IWRC wire rope, minimum breaking force 33,600 pounds (150kN). Also includes 10,000 lb (4500kg) eye hook. A pintle hook is recommended for two-parting the line with a sheave block (pintle hook and sheave block not included). Winch is mounted to heavy-duty bracket with hook storage feature. Net Weight: 580 pounds (265kg)

**Pintle Hook - Rear:**

T-60-AOL Holland pintle hook mounted on rear frame member, provides capacity for 6,000 pound (2,700kg) tongue weight and 30,000 pound (13,600kg) trailer weight. Net Weight: 15 pounds (7 kg)

**Pintle Hook - Front:**

T-60-AOL Holland pintle hook mounted on front frame member, provides same capacity as rear pintle hook. Net Weight: 15 pounds (7kg)

**Rearview Mirrors:**

One right-hand and one left-hand mirror, 6" (152mm) wide x 16" (406mm) high, mounted on deck stakes. Pivot out of way when contacted by obstacle at side of deck. Net Weight: 12 pounds (5.4kg)

**OPERATOR'S COMPARTMENT:**

**Standard:**

Operator control station provides one-position access to all chassis and crane functions. Includes adjustable operator's seat and seat belt, arm rests and tilt steering column. Also includes access point to J1939 CAN Bus System.

**Drum Rotation Indicator:**

Provides tactile feedback to operator when hoist drum is rotating. Feedback device attached to hoist control handle. Feedback is proportional to hoist speed.

**All Weather Cab:**

Consists of rigid mounted canopy section with safety glass and removable hinged door. Door is equipped with a keyed lock to protect operator's station. Includes defroster fan, dome light, heater with 2-speed fan, 12V electric windshield wiper, 12-volt power outlet. There are sliding windows in the door and right-hand side. Emergency Exit through rear window.

**Air Conditioning:**

Provides factory system using R134a refrigerant. Compact AC unit mounted in operator area, fan cooled condenser

mounted on hood and belt driven compressor with magnetic clutch driven by engine.

**Electronic Controls:**

Dual two-axis joysticks provide control of boom motions and hoist. Triggers prevent inadvertent boom motion. Key pad on dash controls outrigger functions. Rocker switch separates boom function from outrigger functions.

**Operator's Compartment Accessories:**

**Floor Mat:**

Vinyl mat with foam backing covers floor, front wall and under seat compartment of operator's compartment.

Net Weight: 5 pounds (2kg)

**Noise Reduction Kit - Cab:**

Includes vinyl floor mats and side panels of foam-backed, perforated vinyl for noise reduction.

Net Weight: 15 pounds (7 kg)

**Sun Visor:**

Adjustable sun visor for reducing glare, mounted in roof of cab. Net Weight: 5 lbs. (2 kg)

**ELECTRICAL SYSTEM - Standard 12 Volt DC:**

**Standard:**

**Battery:**

Diesel Units: Group 49 with 850 CCA rating.

**Lighting Group:**

Consists of two 12V-lamps, with high and low beams for driving; tail, brake and turn signal lights and backup lights in rear; front turn signals and emergency flasher switch at operator's station. 12V horn actuated by button located on turn signal lever.

**Dash Display:**

In-dash LCD screen shows engine data including RPMs, coolant temperature, battery voltage, fuel level, engine oil pressure, percent of engine max load, boost pressure for the turbo, and rate of fuel consumption. Display also shows time and hourmeter. Hourmeter only records during actual engine operation. Display can also show engine fault codes and control system faults. Screen also indicates hydraulic oil temperature. During crane set up, it shows crane level-sensor data similar to a bubble level. Also included are lights for engine warning, engine shutdown, hoist high-speed mode, mid-range hydraulic speed (reduced speed mode), and hoist minimum wrap (if equipped.)

**Indicator Lights:**

Located at operator's station, includes warning lights for transmission filter, control faults, and emergency-stop. Also includes indicator lights for turn signals, high beams, hazard lights, crane levelness, parking brake, boom enable, and 4-wheel drive/2-wheel drive.

**Back-Up Alarm:**

Provides pulsating sound from a 102 dB alarm when ignition is on and transmission is in reverse. Conforms to SAE J994B.

**Outrigger Alarm System:**

102 dB alarm with alternating two-tone sound is actuated when the OUTRIGGER DOWN, OUTRIGGER BEAMS OUT or OUTRIGGER BEAMS IN controls are operated.

**Emergency Stop Switch:**

A two-position push button switch located on the top left-hand side of the dash panel. Designed to stop the engine and shut down the hydraulic system.

**Optional Electrical Accessories:**

**Strobe Lights:**

Two yellow strobe lights, one on each side of counterweight, for high visibility all around crane. Flashes 60-120 times per minute. Includes operator controlled switch. Net Weight: 15 pounds (7 kg)

**Boom Work Lights:**

Two halogen work lights, one on left side of boom to light boom tip, and one on right side of the turret to light ground under boom tip. Includes switch at operator's station. Net Weight: 10 pounds (5 kg)

**Rear Work Lights:**

Two halogen flood lights mounted between the grille bars in the rear bumper. Includes switch at the operator station. Net Weight: 10 pounds (5 kg)

**Camera System:**

Four cameras mounted about the crane and connected to a display in the cab. Two cameras are positioned to monitor the right-side outrigger foot location. One camera is located to view the wire rope on the hoist drum, monitoring rope spooling. Once camera is located on the rear bumper to aid in backing up. Display automatically switches to outrigger cameras when outrigger controls are activated. Display automatically switches to back-up camera when transmission is out of neutral. Operator may also manually select camera views. Equipped with automatic compensation for low-light conditions. Net Weight: 20 pounds (9 kg)

**HYDRAULIC SYSTEM:**

**Standard:**

Triple gear pump, mounted on and driven by the main transmission, delivers 13, 25 and 40 gpm (53, 106 and 151 L/min) at 3,000 psi (207 bar) and 2,500 rpm engine speed. System protected by relief valves, 100 mesh suction-line strainer and two 10 micron return-line filters.

**Hydraulic Reservoir:**

81 gallon (307 L) capacity, equipped with 10 micron breather filter on top and oil level gauge on side. Oil level gauge is visible by lifting up second hinged panel on the front deck behind the accessory storage box.

**BOOM ASSEMBLY:**

**Standard:**

Five-section, high strength steel construction, equipped with lubricant filled bearing pads for efficient support and extension. Double-acting hydraulic cylinders extend and retract the second, third, and fourth stages. Double runs of high-strength leaf chain extend and retract the fifth stage. The second stage extends first and retracts last, controlled by a sequence valve, a solenoid valve, and a proximity switch. The chain system telescopes the third, fourth, and fifth stages proportionally. The telescope cylinders and the double-acting boom elevation cylinders are equipped with cylinder-mounted holding valves. Boom angle indicator is provided on the left side of the boom.

**BOOM ROTATION:**

**Standard:**

Heavy-duty bearing rotation gear with external teeth supports boom. Rotation is powered by hydraulic motor and worm gear drive. Rotation gearbox may be adjusted as wear occurs to minimize backlash. Boom is attached by steel turret weldment.

**BOOM HOIST:**

Hydraulically-powered turret-mounted planetary gear hoist. Low-speed mode provides a bare-drum line pull of 17,850 pounds (8,100 kg) and a speed of 123 feet per minute (37 m/min). High-speed mode provides a bare-drum line pull of 7,400 pounds (3,350 kg) and a speed of 300 feet per minute (91 m/min). Hoist drum is 10-5/8 inch (270 mm) diameter by 17-1/8 inch (435 mm) long.

**Boom Attachments:**

**Standard:**

**Wire Rope:**

At least 370 feet (113 m) of 5/8 inch (16 mm) diameter wire rope, 6 X 36-EEIP-RRL-IWRC, minimum 43, 750 pounds (195 kN) breaking strength.

**Downhaul Weight & Hook:**

Downhaul weight and 14,000 pound (6350 kg) rated swivel hook to use with wedge socket on 5/8 inch (16 mm) load line. Specially designed to work with the anti-two-block system and to clamp the dead end of the rope. Weight: 180 pounds (82 kg)

**Anti-Two-Block Device:**

Prevents damage to hoist rope and/or machine components from accidentally pulling sheave block or downhaul weight against boom tip. Consists of trip arm at boom tip which is moved upward by sheave block or downhaul weight as hook approaches boom tip. Trip arm actuates electric switch which is connected through cable reel mounted on boom to solenoid dump valve control system. This system will stop HOIST RAISE, TELESCOPE EXTEND, BOOM LOWER, SWING LEFT and SWING RIGHT circuits. No other circuits are affected. These circuits are returned to normal operation by operating the HOIST LOWER or TELESCOPE RETRACT control.

**Rated Capacity Limiter:**

Operational aid that warns operator of impending overload with audible and visual signals. Has read-outs for load, boom angle, boom length and load radius. In the event of an overload, blocks the following boom functions: HOIST RAISE, TELESCOPE EXTEND, BOOM LOWER, SWING LEFT and SWING RIGHT. These circuits are returned to normal by lowering load to a safe resting place with hoist or by retracting or raising boom to a shorter load radius. System may also be used to temporarily set a warning at operator-defined maximum load radius or maximum tip height. There is a key-operated override switch under the dashboard.

**Four-Part-Line Sheave Block:**

Double sheave block for four-part-line requirements. 12-inch (305 mm) OD sheaves for 5/8 inch (16 mm) diameter wire rope. Swivel hook with safety latch. 530 pound (240 kg) weight provides positive overhaul. Includes bar on top to actuate trip arm of Anti-Two-Block Device.

**Optional Boom Attachments:**

**Boom Extension - 20 Ft. (6.1 m) Offset:**

Provides 20 feet (6.1 m) of additional length for lifting loads with load line. Boom extension may be stowed alongside base boom section when not in use. Tip sheave, attaching brackets and pins included. Deduct 500 pounds (220 kg) from Capacity Chart when boom extension is in the stowed position. Includes trip arm for Anti-Two-Block Device. Boom extension will tilt through three positions: in-line, 15 degree offset and 30 degree offset. Net Weight: 775 pounds (350 kg)

**RCL with Swing Encoder:**

Allows the operator to temporarily set a warning at operator-defined swing positions. Includes a sensor in the slip ring to detect swing position.

**Minimum Wrap Cut-out System:**

Hoist cut-out system designed to prevent accidental unspooling of rope from hoist drum. HOIST LOWER stops when only 3-5 wraps are left on drum. Indicator light on dash alerts operator.

Specifications subject to change without notice.

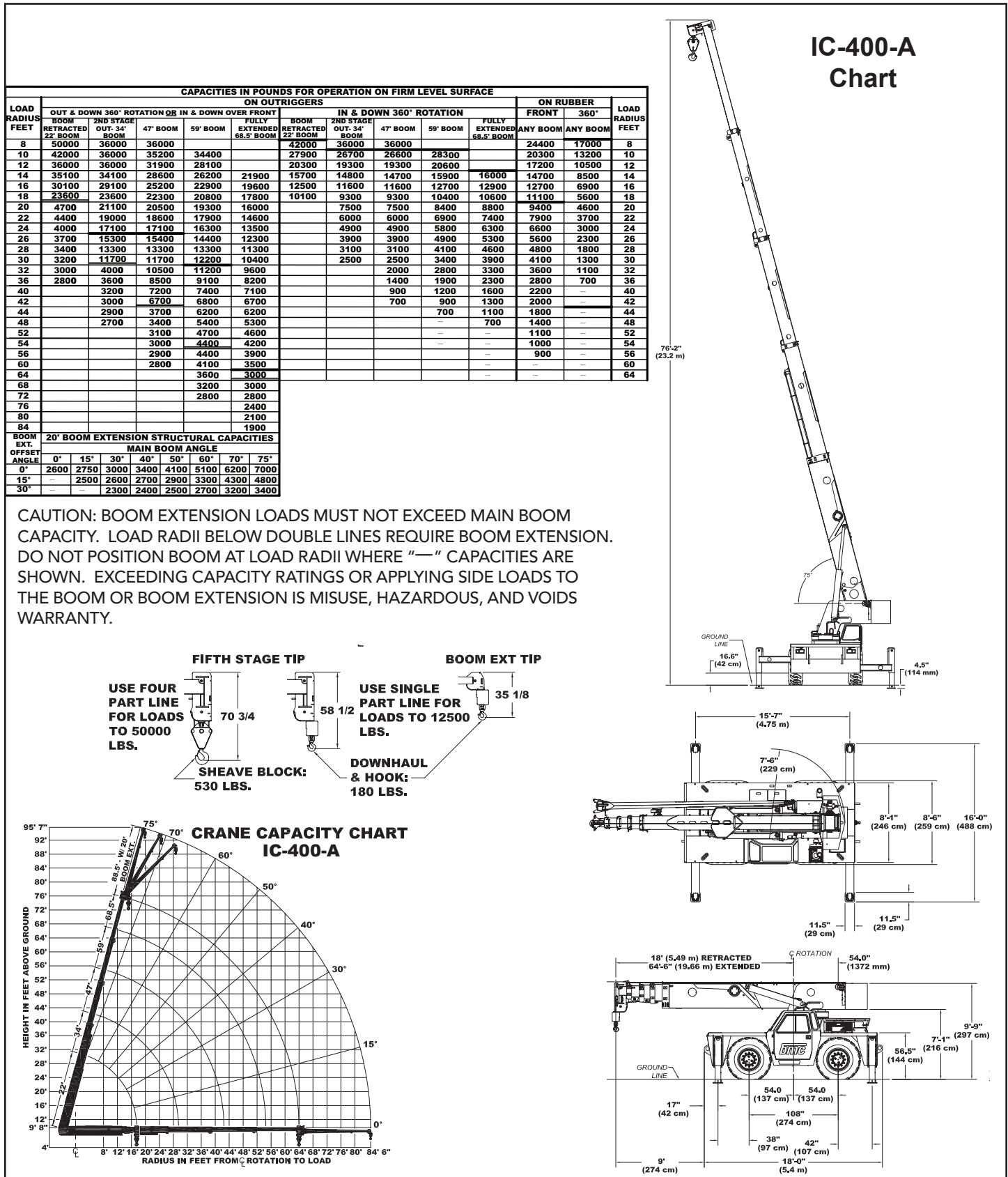
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*Dimensions and values shown  
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## IC-400-A Turn Chart

