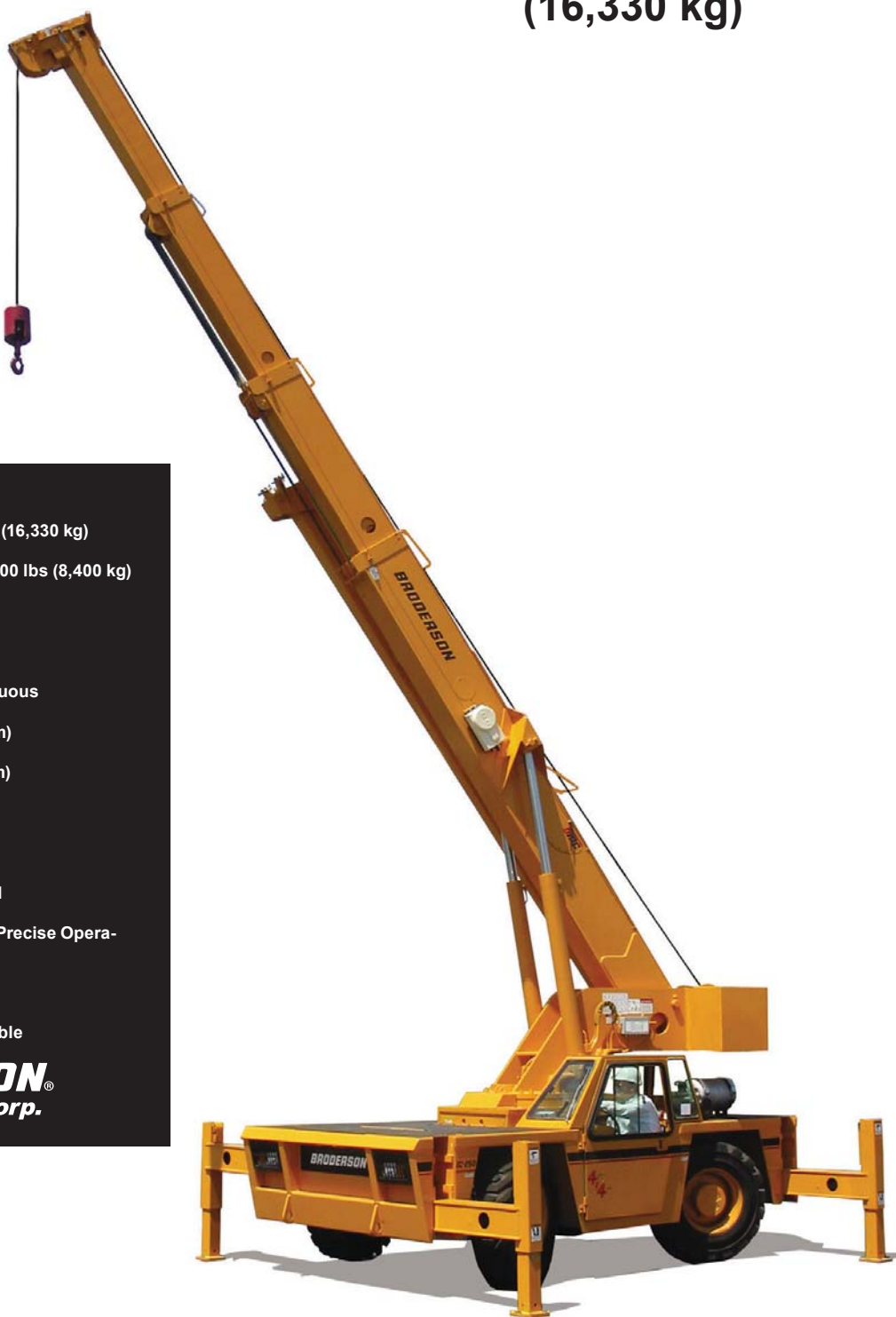


**bmc**  
**Tech Spec**

# **IC-250-3D**

## **Industrial Crane**

**18-Ton Max. Capacity**  
**(16,330 kg)**

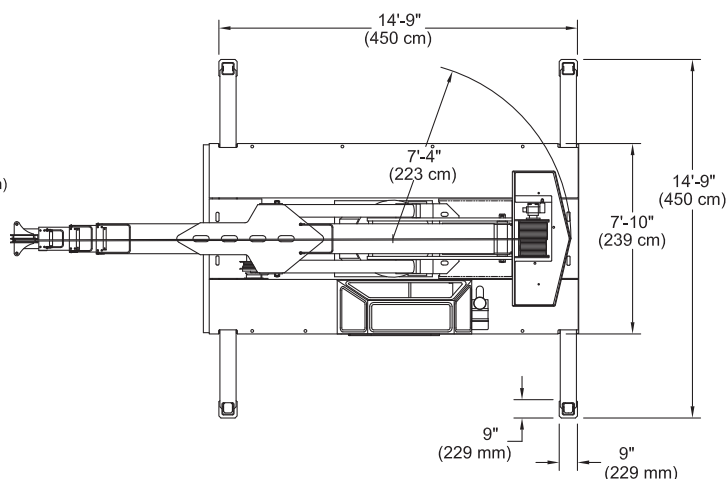
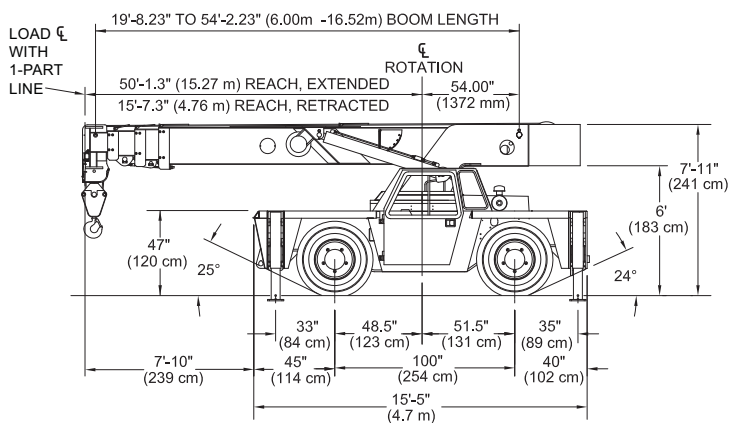
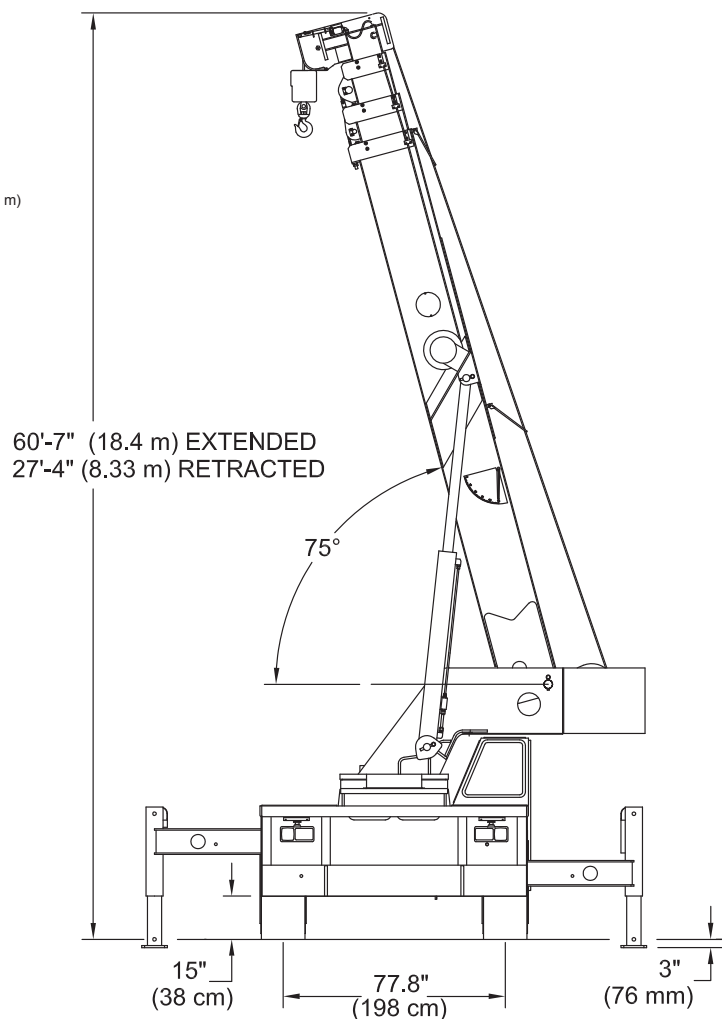
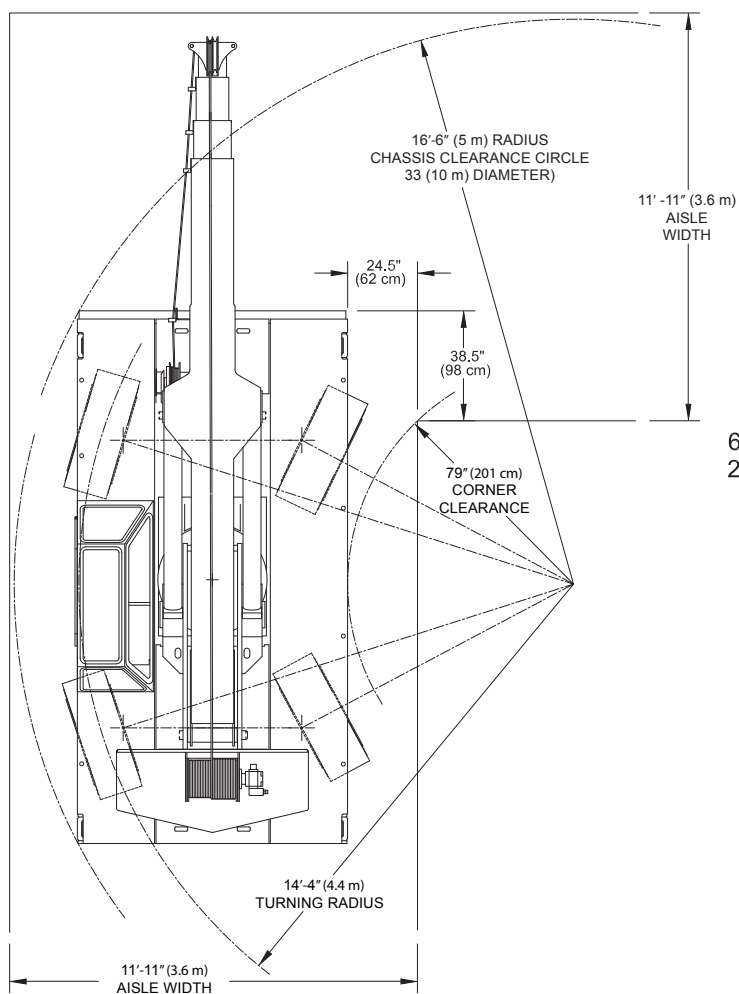


- Rated Capacity Limiter ... Standard
- Capacity on Outriggers ... 36,000 lbs (16,330 kg)
- Pick and Carry Capacity ... up to 18,500 lbs (8,400 kg)
- Height ... 7' 11" (2.41 m)
- Width ... 7' 10" (2.39 m)
- Boom Rotation ... 360 Degree Continuous
- Sheave Height ... up to 79' 6" (24.23 m)
- Horizontal Reach ... up to 70' (21.36 m)
- 4-Wheel Steer ... Standard
- 4-Wheel Drive ... Optional
- Powershift Transmission ... Standard
- Fully Hydraulic Controls for Smooth Precise Operations
- Independent Outrigger Controls
- Diesel or LPG Fueled Engines Available

**BRODERSON**  
**Manufacturing Corp.**



# IC-250-3D



# IC-250-3D

## Specifications

### GENERAL:

<b>Boom Movement:</b>	<b>Rotation</b>	<b>Elevation</b>	<b>Extension*</b>
	Continuous	0° to 75°	34.5" (10.52m)
<b>Boom Speeds:</b>	1.3 RPM	22sec	41sec
<b>Weight:</b>			
Total	37,700lbs (17100kg)		
Front Axle	17,100 (7800 kg)		
Rear Axle	20,600 (9300 kg)		
<b>Gradeability:</b>	64 percent (33°)		
<b>Turning Radius:</b>	14.3" (4.37m)		

### ENGINE:

<b>Make</b>	<b>Cummins</b>	<b>GM</b>
<b>Model</b>	QSB3.3L Tier 4i	5.7 L V-8
<b>Type</b>	Turbocharged Diesel	LPG
<b>No. Cyl.</b>	4	8
<b>Displacement</b>	3.3L	5.7L
<b>HP @ Gov. Speed</b>	100 H.P. (75 kW)	135 H.P. (101 kW)
<b>Fuel Tank Capacity</b>	30 Gal (114 L)	Dual 43lb. (19.5 kW)

### TRANSMISSION:

Powershift transmission with 4-speeds forward & reverse. Provides power shifts at any engine speed in any gear. All shifting is done with a single lever electrical control mounted on the steering column. Multiple-disc clutch packs operated by solenoid valves provide reverse, neutral, forward and speed selection. Equipped with torque converter and transmission oil cooler.

#### Gear Ratio

First	5.72:1	Third	1.77:1
Second	3.23:1	Fourth	1.00:1

### AXLES:

#### Front Axle:

Planetary drive/steer front axle with 15.78 to 1.0 ratio. Differential equipped with "limited slip" feature. Front axle mounted rigidly to frame.

Gear	Travel Speed	Drawbar & Pull*
First	3	18,100lbs (8200 kg)
Second	5	10,600lbs (4800 kg)
Third	10	6,000lbs (2700 kg)
Fourth	18	3,200lbs (1450 kg)

\*Drawbar pull is calculated for QSB3.3L Tier 4i Diesel Engine

#### Rear Axle:

##### Standard (2-Wheel Drive):

Steering axle with 1½° oscillation in either direction.

##### Optional (4-Wheel Drive):

Planetary drive/steer axle with 24.98 to 1.0 ratio. Differential is not "limited slip" in rear axle. 1½° oscillation in either direction. Axle ratio compatible with 4WD transmission rear output ratio to match front axle speed.

### STEERING:

Hydraulic steering unit with two 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 or four-wheel (round) steering or crab steering.

### BRAKES:

Service: Split-system, 4-wheel hydraulic-boosted multiple-plate wet disc brakes.

Parking: Hand lever actuated disc-type parking brake on transmission.

### TIRES:

**Standard** - 385/65 D22.5, 16-ply high traction on/off road tread.

### CHASSIS:

#### CARGO DECK:

80 Square feet (7.4 m2) of deck area. 17,000 lbs. (7,700 kg) capacity on deck when load is centered over or between axles.

#### Headlight & Taillight Grilles

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

#### OUTRIGGERS:

Four hydraulic out & down outriggers of box beam construction with direct-connected holding valves. Independent controls for each outrigger. Outrigger pad dimension 9" (23 cm) x 9" (23 cm)

#### ACCESSORY STORAGE BOX:

Storage box is 14" (35 cm) deep x 12½" (32 cm) long x 36 ½" (93 cm) wide, located in front cargo deck.

#### Lifting Rings

Lifting rings at each corner of cargo deck so sling can be attached for lifting crane.

### OPERATOR COMPARTMENT:

Provides one-position access to all chassis and crane controls. Includes adjustable operator's seat, retracting seat belt, fire extinguisher, and bubble level.

### ELECTRICAL:

#### 12 Volt System

##### Lighting Package:

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.

#### Instrument Package

Fuel gauge and hourmeter which records hours only during actual engine operation. Also included are warning lights for low oil and transmission pressure, check engine, high coolant and transmission temperature, turn signals, high beams, hazard lights, parking brake and four-wheel drive.

#### Back-Up Alarm

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

#### Outrigger Alarm System:

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

### HYDRAULIC SYSTEM:

Tandem pump, direct-driven by engine, delivers 30 GPM (113L/min) at rated RPM. 54-gallon capacity.

### BOOM ASSEMBLY:

Four-section boom assembly equipped with bearing pads, doubleacting hydraulic cylinder & chain system telescopes booms proportionally. Telescope & boom elevation cylinders equipped with cylinder-mounted holding valves. Boom angle indicator on each side of boom.

### Boom Rotation:

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

### Boom Hoist:

Turret-mounted planetary gear hoist, is hydraulically powered to provide a bare-drum line pull of 12,000 lbs (5440 kg) and a speed of 100 fpm (30 m/min), includes 320 feet (97 m) of 9/16 inch (14 mm) wire rope, 170 pound (77 kg) downhaul weight, swivel hook, sheave block for 4-part line.

### Anti-Two-Block Device:

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

### Rated Capacity Limiter:

Warns operator of impending overload with audible & visual signals. Prevents overload by stopping boom functions that cause overloads.



# IC-250-3D

## Options

Listed below are brief descriptions of options available for this product.  
Consult the IC-250-3D Engineering Spec for additional information.

### MODEL:

IC-250-3D Industrial Crane

### ENGINE OPTIONS:

#### Spark Arrester Muffler

Installed in addition to std. muffler.

#### Engine Heater for LPG Engine

Engine coolant heater is installed to circulate warm water through engine, plugs into 120 volt AC.

### AXLE & STEERING OPTIONS:

#### 4-Wheel Steer & 2-Wheel Drive

#### 4-Wheel Steer & 4-Wheel Drive

### TIRE OPTIONS:

#### Non-Marking Tires

#### Foam Filling of Tires

#### Spare Tire & Wheel

### CHASSIS OPTIONS:

#### Auxiliary Winch

Mounted behind the front bumper, hydraulically driven with control in operator's console.

#### Pintle Hook:

#### Pintle Hook, Rear

#### Pintle Hook, Front

#### Rearview Mirrors

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

#### Outrigger Shoes

Steel outrigger shoes, 18" (46 cm) x 18" (46 cm) octagonal shape with storage posts on rear bumper.

### OPERATOR COMPARTMENT OPTIONS:

#### Operator Guard

Tubular steel weldment with heavy expanded steel mesh top section.

#### All Weather Cab

Rigid-mounted canopy section and removable hinged door. Includes heater, electric windshield wiper, one sliding glass window in the door & one in the right side of canopy. Defroster fan & dome light included.

#### Cab Heater Only

Heater with two-speed fan for units without All Weather Cab.

#### Windshield Washer

Includes reservoir, pump and nozzle.

#### Floor Mat

Vinyl mat with foam backing.

#### Operator Suspension Seat

Small suspension built in to provide additional operator comfort.

Deluxe seat upholstery springs provide additional operator comfort.

#### Noise Reduction Kit

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

#### Air Conditioning

Air Conditioner with R134A coolant.

### ELECTRICAL OPTIONS:

#### Strobe Lights

Two yellow strobe lights mounted on each side of turret weight box.

#### Boom Work Lights

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

#### Work Lights - Rear

Two work lights recessed in rear bumper.

### 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.

#### Sheave Block - Two Part Line

#### Searcher Hook:

#### Nose Mount

Should you require an option or special equipment not listed please consult your dealer salesperson or BMC®.

**BRODERSON®**  
Manufacturing Corp.

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Lenexa, KS 66215 USA

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www.bmccranes.com

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



# IC-250-3D

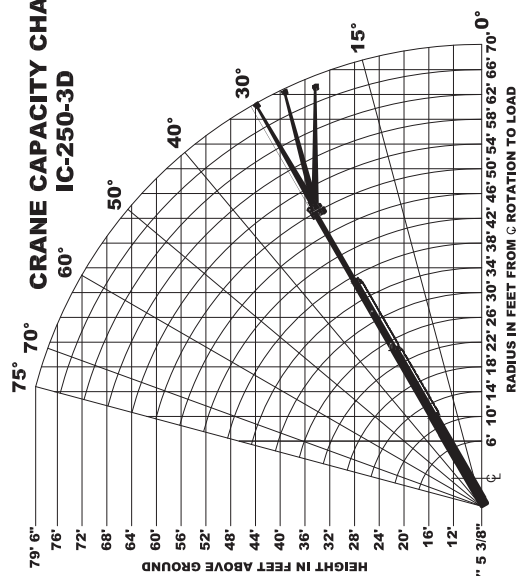
## Industrial Crane

# bmc®

## Load Chart

### CRANE CAPACITY CHART

#### IC-250-3D



LOAD RADIUS FEET	CAPACITIES ARE IN POUNDS AND APPLY TO OPERATION ON FIRM LEVEL SURFACE			
	MAIN BOOM		MAIN BOOM OR BOOM EXTENSION	
	ON RUBBER	OVER FRONT	OIR'S IN & DOWN	OIR'S OUT & DOWN
6	16400	18500	30000	35000
8	13000	15000	25000	30400
10	10800	12350	20500	25000
12	9100	10500	17500	20500
14	7850	9000	15100	17700
16	6850	7800	13000	15700
18	6000	6850	11400	13900
20	5300	6100	10000	12400
22	4750	5400	8800	11100
24	4250	4800	7800	9900
26	3800	4300	7000	8900
28	3350	3850	6300	8000
30	2950	3400	5700	7200
32	2600	3000	5200	6500
34	2250	2650	4750	5900
36	1950	2300	4350	5350
38	1700	2000	4000	4850
40	1450	1750	3650	4400
42	1250	1500	3300	4000
44	1100	1300	3000	3650
46	950	1100	2700	3300
48	800	950	2400	3000
50	650	800	2100	2700
52	500	650	1800	2400
54	350	500	1500	2100
56	200	350	1200	1800
58	150	250	900	1400
60	100	150	600	1000
62	50	75	300	500
64	25	37	150	250
66	12	18	75	125
68	6	9	37	62
70	3	4	18	31
72	1	2	9	15
74	0	0	0	0
76	0	0	0	0
78	0	0	0	0
80	0	0	0	0
82	0	0	0	0
84	0	0	0	0
86	0	0	0	0
88	0	0	0	0
90	0	0	0	0
92	0	0	0	0
94	0	0	0	0
96	0	0	0	0
98	0	0	0	0
100	0	0	0	0

LOAD RADIUS IS THE HORIZONTAL DISTANCE FROM THE CENTER OF ROTATION OF THE UNLOADED CRANE TO THE VERTICAL LOAD LINE WITH THE LOAD APPLIED.

EXCEEDING CAPACITY RATINGS OR APPLYING SIDE LOADS TO THE BOOM OR BOOM EXTENSION IS MISUSE, IS HAZARDOUS, AND VOIDS WARRANTY.

CAUTION: BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY. BOOM EXTENSION MAY ONLY CARRY LOADS WITH OUTRIGGERS DOWN.

CAPACITIES ON OUTRIGGERS OUT & DOWN ARE 85% OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75% OF TIPPING LOADS. CAPACITIES ON WHEELS ARE 100% OF TIPPING LOADS. CAPACITIES ON TRACKS ARE 100% OF TIPPING LOADS. CAPACITIES ON RAILS ARE 100% OF TIPPING LOADS. CAPACITIES ON OTHER SURFACES ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPABILITY.

DECK CAPACITY 17000 LBS. WITH EMPTY BOOM RETRACTED OVER FRONT. DECK LOAD MUST BE CENTERED BEHIND FRONT AXLE. SPEED MUST BE LESS THAN 2 MPH. MAXIMUM TRAVEL 200 FT. IN 30 MINUTES ON SMOOTH PAVEMENT.

PICK AND CARRY WITH THE SHORTEST PRACTICAL BOOM, CENTERED OVER THE FRONT. OPERATE WITH THE SHORTEST PRACTICAL BOOM, CENTERED OVER THE FRONT. PICK AND CARRY CAPACITIES ARE FOR SMOOTH LEVEL PAVED SURFACE.

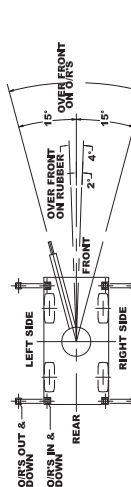
THE BOOMS ON THIS UNIT ARE ALL STEEL AND HAVE NO LINE VOLTAGE RATING - NO ELECTRICAL INSULATION VALUE.

MAXIMUM HYDRAULIC PRESSURE 3000 PSI.

BOOM EXTENSION DEDUCT 500 LBS. WHEN STOWED ON BASE BOOM.

ENSURE ANTI-TWO-BLOCK SWITCH IS FUNCTIONAL AFTER DEPLOYING OR STOWING BOOM EXTENSION.

1. READ AND UNDERSTAND OPERATION MANUAL BEFORE OPERATING CRANE.
2. CHECK LEVEL OF HYDRAULIC OIL AND ENGINE OIL DAILY.
3. CHECK UNIT FOR VISIBLE DEFECTS AND LOOSE PARTS.
4. SET VEHICLE PARK BRAKE SECURELY.
5. EXTEND OUTRIGGERS TO SOLID FOOTING AND LEVEL CRANE.
6. OPERATE ALL HYDRAULIC CONTROLS SLOWLY AND SMOOTHLY. AVOID SUDDEN STOPS AND STARTS.



THE LOAD HOIST LINE ON THIS UNIT MUST BE 9/16" DIA. 6 X 36-EP-RRL-WRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 31,300 LBS.

APPROVED TRESS. OTR 38E6SD23.5, 15 PLY - 120 PSI

TORQUE WHEEL NUTS TO 500 FT. LBS. (THESE CONDITIONS MUST BE MAINTAINED TO HANDLE RATED LOADS ON THIS CRANE)

MODEL NO.	SERIAL NO.	DATE OF MFR.
IC-250-3D		

**BRODERSON MANUFACTURING CORP.**  
LENEXA, KANSAS  
65400924





