

**bmc**  
Tech Spec

**MAXIM**  
1-877-MAX-LIFT

**IC-250-3D**  
Industrial Crane

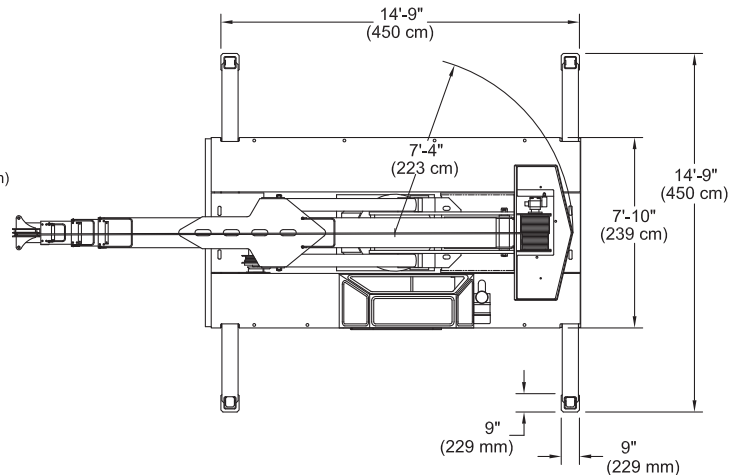
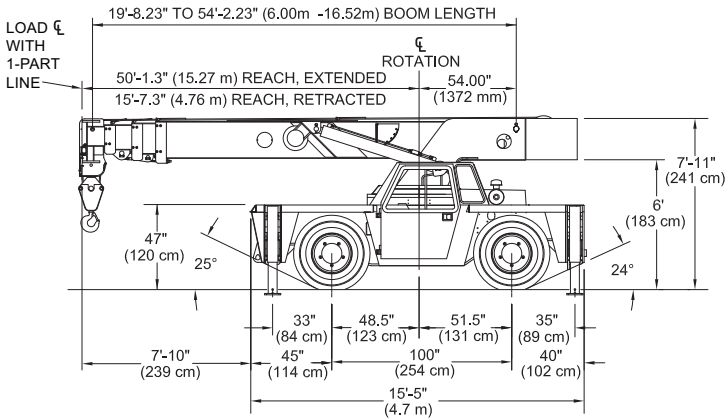
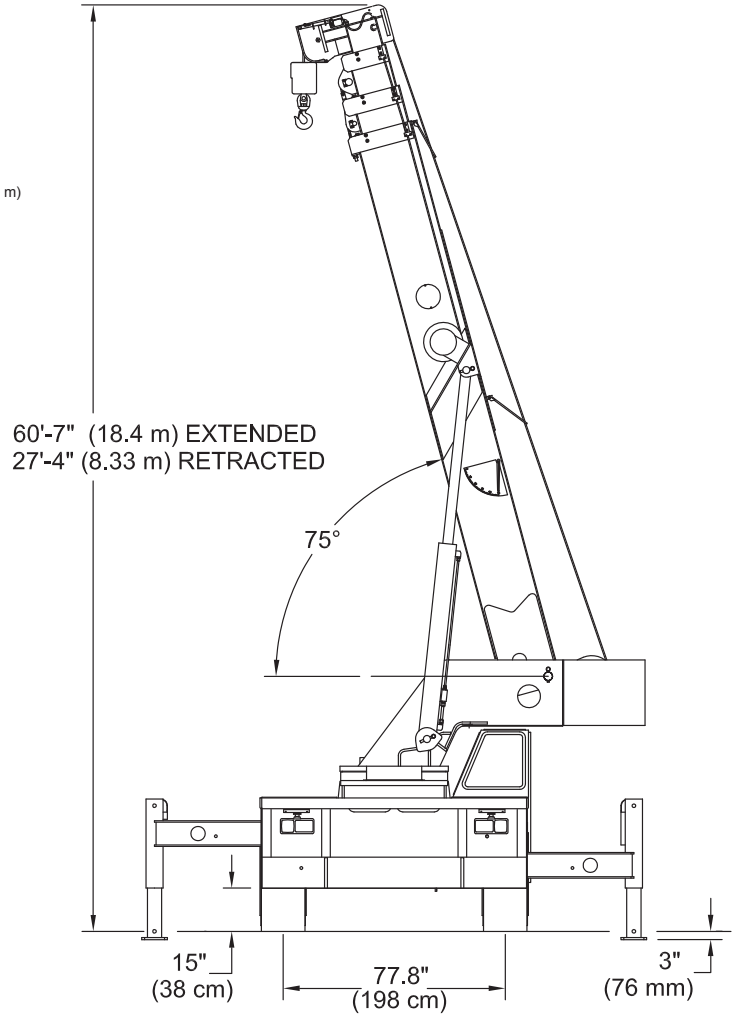
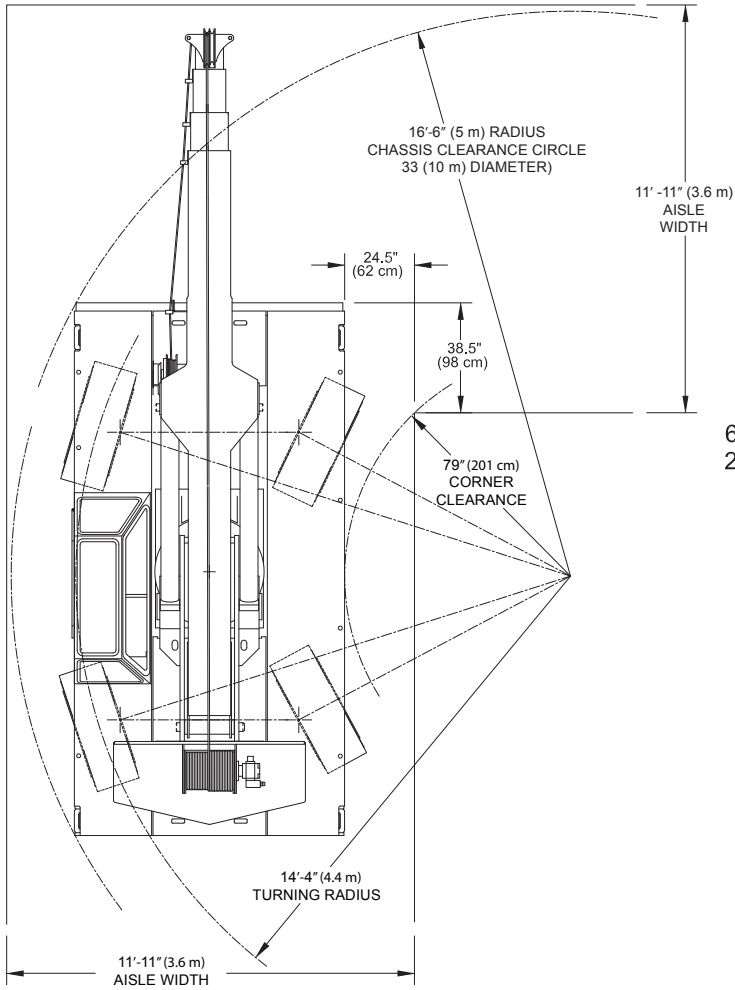
**18-Ton Max. Capacity  
(16,330 kg)**



- 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 m<sup>2</sup>) 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.

14741 West 106th Street

Lenexa, KS 66215 USA

Tel (913) 888-0606

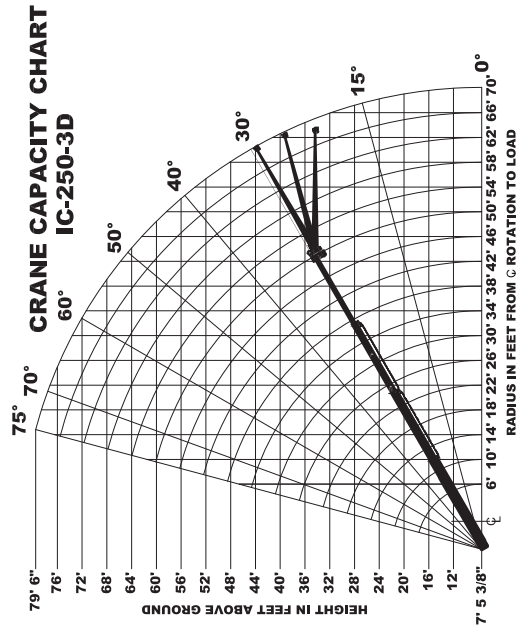
Fax (913) 888-8431

www.bmccranes.com

Dimensions and values shown are for reference purposes only.

Specifications subject to change.





USE SINGLE PART LOAD LINE FOR LOADS TO 9000 LBS., WT. 100 LBS.

USE TWO PART LOAD LINE FOR LOADS TO 18000 LBS., WT. 200 LBS.

USE FOUR PART LOAD LINE FOR LOADS TO 36000 LBS., WT. 300 LBS.

LOAD HOOKS, DOWNHAUL WEIGHTS, HOOK BLOCKS AND OTHER LOAD HANDLING DEVICES EXCEPT HOIST ROPE SHALL BE CONSIDERED PART OF THE LOAD.

LOAD RADIUS FEET	CAPACITIES ARE IN POUNDS AND APPLY TO OPERATION ON FIRM LEVEL SURFACE			
	ON RUBBER 360° ROTATION	ON RUBBER OVER FRONT 360° ROTATION	OIR'S IN & DOWN 360° ROTATION	OIR'S IN & DOWN OIR'S OUT & DOWN 360° ROTATION
6	16400	18500	30000	35000
8	13000	15000	25000	30400
10	10800	12350	20500	25000
12	9200	10600	17500	21500
14	7850	9000	15100	18700
16	6450	7850	13000	16700
18	5600	6850	11400	14900
20	4800	6100	10000	13500
22	4150	5400	8800	12100
24	3600	4800	7800	10900
26	3100	4300	7000	9850
28	2700	3900	6300	8950
30	2350	3550	5700	8200
32	2000	3250	5200	7500
34	1700	2950	4800	6900
36	1400	2700	4400	6400
38	1200	2500	4100	6000
40	1000	2300	3800	5650
42	900	2150	3500	5300
44	800	2000	3300	5000
46	700	1850	3100	4700
48	600	1700	2900	4400
50	500	1550	2700	4100
52	450	1450	2550	3850
54	400	1350	2400	3600
56	350	1250	2250	3350
58	300	1150	2100	3100
60	250	1050	1950	2850
62	200	950	1800	2600
64	150	850	1650	2350
66	100	750	1500	2100
68	50	650	1350	1850
70	0	550	1200	1600

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 75% OF TIPPING LOADS. CAPACITIES ON BELOW SOLID LINE 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 BOOM CENTERED OVER THE FRONT. PICK AND CARRY CAPACITIES ARE FOR SMOOTH LEVEL PAVED SURFACE.

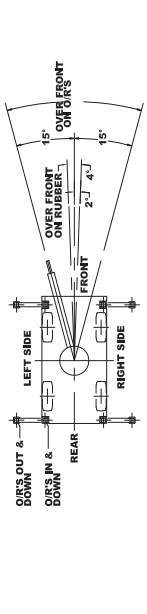
THE BOOMS ON THIS UNIT ARE ALL STEEL AND HAVE NO LINE VOLTAGE RATING - NO ELECTRICAL INSULATION VALUE.

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.

- OPERATION:
1. 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-HWRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 31,500 LBS.

APPROVED TRESS, OTR 38E65D23.5, 16 PLY - 120 PSI TORQUE WHEEL NUTS TO 500 FT. LBS. (THESE CONDITIONS MUST BE MAINTAINED TO HANDLE RATED LOADS ON THIS CRANE)

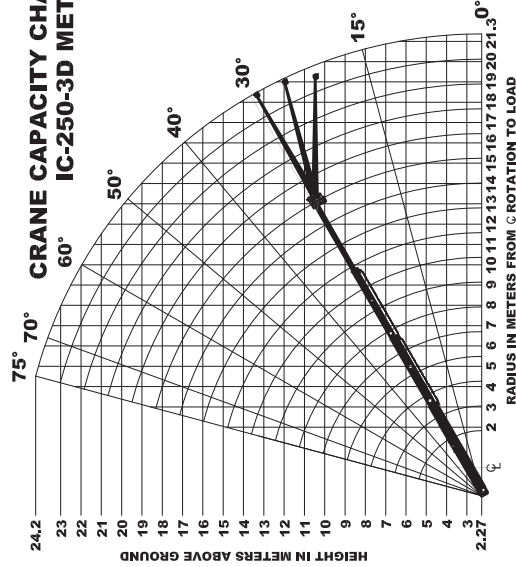
MODEL NO. SERIAL NO. DATE OF MFR.

**IC-250-3D**

**BRODERSON MANUFACTURING CORP.**  
LENEXA, KANSAS

65400924

**75° 70° 60° 50° 40° 30° 15° 0°**  
**CRANE CAPACITY CHART**  
**IC-250-3D METRIC**



**USE SINGLE PART LOAD LINE FOR LOADS TO 4080 kg WT 82 kg**

**USE TWO PART LOAD LINE FOR LOADS TO 8160 kg WT 91 kg**

**USE FOUR PART LOAD LINE FOR LOADS TO 16330 kg WT 136 kg**

**LOAD HOOKS, DOWNHAUL WEIGHTS, HOOK BLOCKS AND OTHER LOAD HANDLING DEVICES EXCEPT HOIST ROPE SHALL BE CONSIDERED PART OF THE LOAD.**

LOAD RADIUS METERS	MAIN BOOM		MAIN BOOM OR BOOM EXTENSION		MAIN BOOM OR BOOM EXTENSION	
	ON RUBBER OVER FRONT	360° ROTATION	O/R'S IN & DOWN OVER FRONT	O/R'S IN & DOWN O/R'S OUT & DOWN	360° ROTATION	360° ROTATION
1.8	7440	8400	13600	16330	16330	16330
2.0	6900	7880	12950	15900	15900	15900
2.5	5790	6680	11120	13540	13540	13540
3.0	4920	5720	9570	11740	11740	11740
3.5	4280	4930	8250	9770	9770	9770
4.0	3680	4350	6940	8880	8880	8880
4.5	3210	3860	6030	8130	8130	8130
5.0	2840	3440	5320	7460	7460	7460
6.0	2230	2820	4220	6220	6220	6220
7.0	1760	2280	3340	5210	5210	5210
8.0	1380	1780	2620	4410	4410	4410
9.0	1100	1430	2080	3800	3800	3800
10.0	860	1130	1630	3330	3330	3330
11.0	680	900	1300	2960	2960	2960
12.0	540	740	1080	2640	2640	2640
13.0	430	610	900	2340	2340	2340
14.0	360	510	760	2100	2100	2100
15.0	300	430	650	1880	1880	1880
16.0	250	370	560	1680	1680	1680
17.0	210	320	490	1500	1500	1500
18.0	180	280	430	1350	1350	1350
19.0	150	240	380	1220	1220	1220
20.0	130	210	340	1110	1110	1110
21.3	110	180	300	1000	1000	1000
21.3	100	170	290	950	950	950

**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 ROLLERS ARE 50% OF TIPPING LOADS. CAPACITIES BELOW BOLD LINE ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPABILITY.**

DECK CAPACITY 7700kg WITH EMPTY BOOM RETRACTED OVER FRONT. DECK LOAD MUST BE CENTERED BEHIND FRONT AXLE. SPEED MUST BE LESS THAN 3.2 km/h. MAXIMUM TRAVEL 60 m IN 30 MINUTES ON SMOOTH PAVEMENT.

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

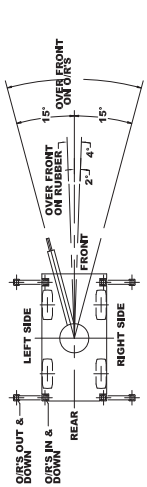
THE BOOMS ON THIS UNIT ARE ALL STEEL AND HAVE NO LINE VOLTAGE RATING - NO ELECTRICAL INSULATION VALUE.

MAXIMUM HYDRAULIC PRESSURE 207 BAR

BOOM EXTENSION DUCT 220 kg WHEN STOWED ON BASE BOOM.

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

1. 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 14.3 mm DIA. & X 3-EIP-RRL-HIRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 140 kN.

APPROVED TIBES, OTR 38E16S22.5, 15 PLY, 525 kPa.

TORQUE WHEEL NUTS TO 680 Nm (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**

65400930