



1 - 877 - MAX - LIFT

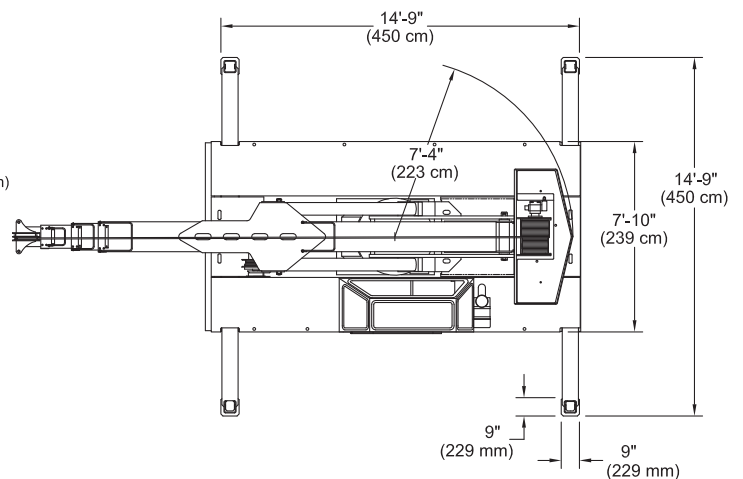
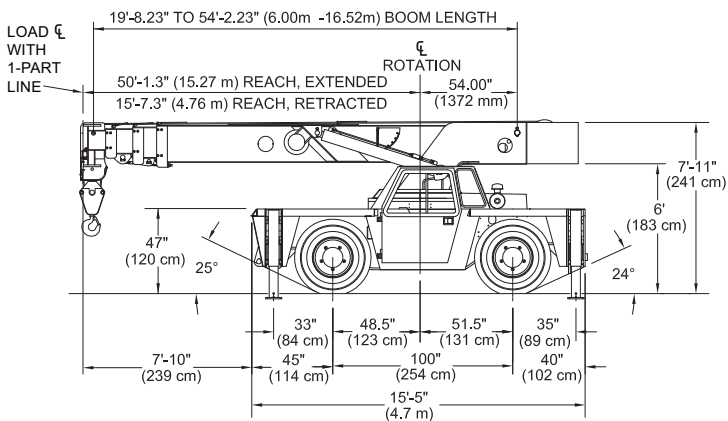
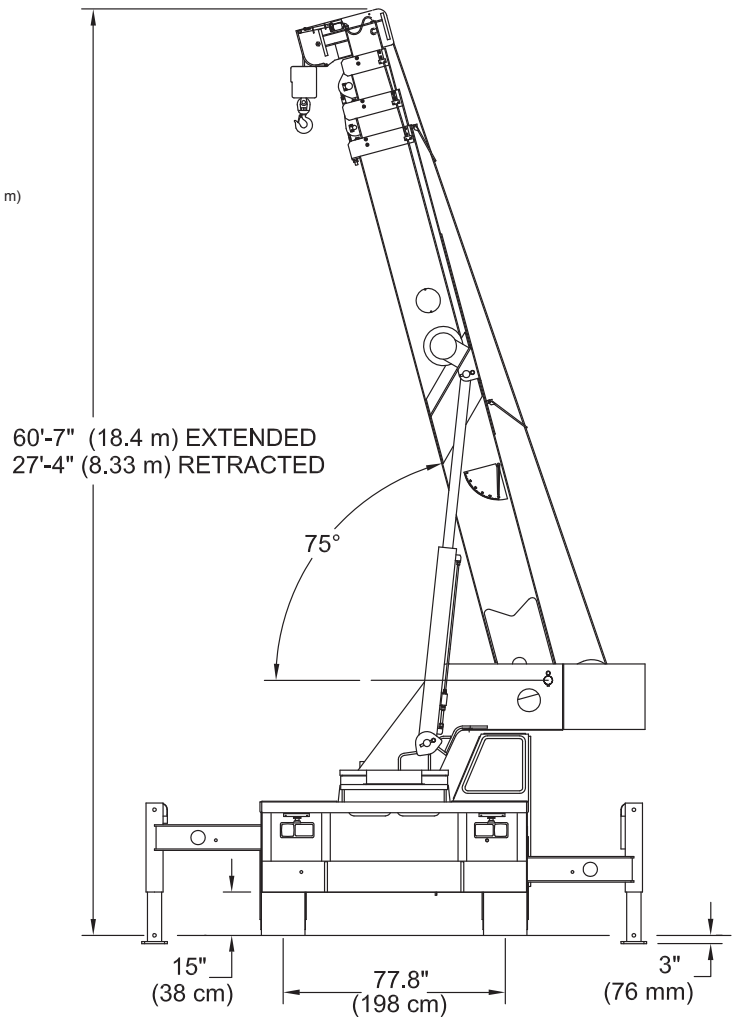
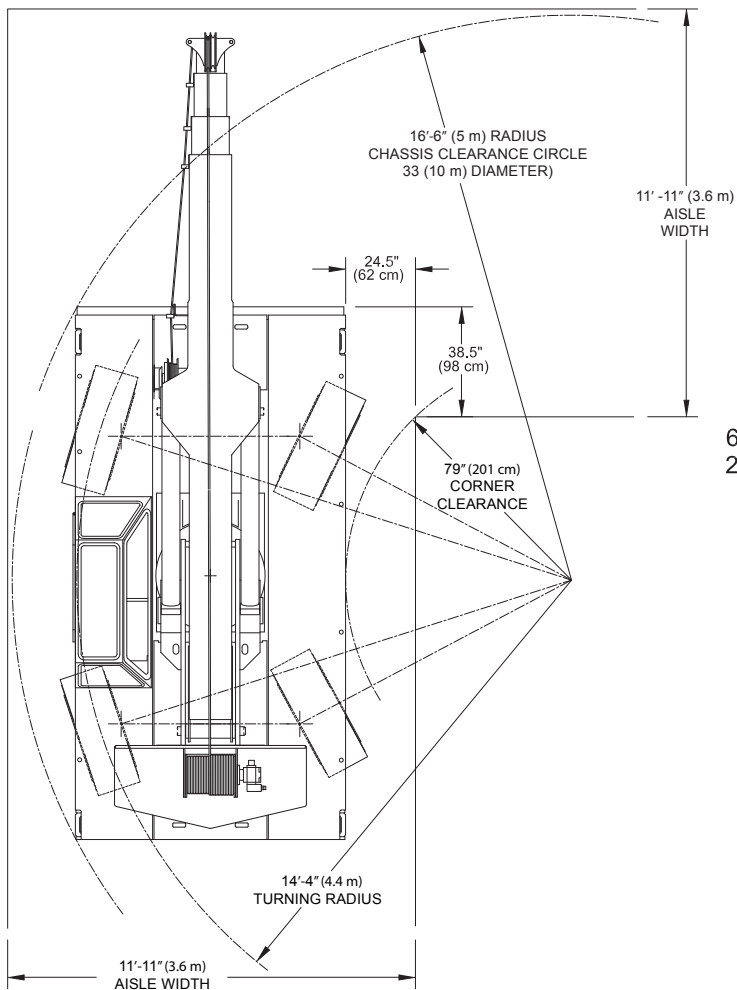
**18-Ton Max. Capacity**  
**(16,330 kg)**

- 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.

| <u>Gear</u> | <u>Travel Speed</u> | <u>Drawbar &amp; Pull*</u> |
|-------------|---------------------|----------------------------|
| 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®.

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**Manufacturing Corp.**

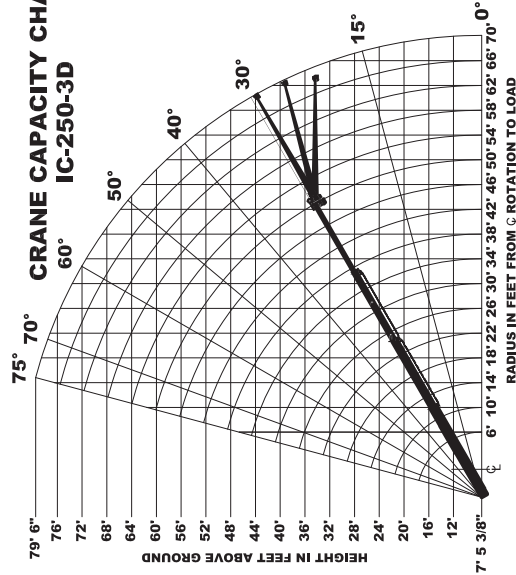
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Dimensions and values shown are  
for reference purposes only.  
Specifications subject to change.



CRANE CAPACITY CHART  
IC-250-3D



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<br>RADIUS<br>FEET | CAPACITIES ARE IN POUNDS AND APPLY TO OPERATION ON FIRM LEVEL SURFACE |                         |                                  |                               |
|------------------------|-----------------------------------------------------------------------|-------------------------|----------------------------------|-------------------------------|
|                        | MAIN BOOM                                                             |                         | MAIN BOOM OR BOOM EXTENSION      |                               |
|                        | ON RUBBER<br>360° ROTATION                                            | ON RUBBER<br>OVER FRONT | OIR'S IN & DOWN<br>360° ROTATION | OIR'S IN & DOWN<br>OVER FRONT |
| 6                      | 16400                                                                 | 18500                   | 30000                            | 35000                         |
| 8                      | 13000                                                                 | 15000                   | 25000                            | 30400                         |
| 10                     | 10800                                                                 | 12350                   | 20500                            | 25000                         |
| 12                     | 9000                                                                  | 10300                   | 17000                            | 20500                         |
| 14                     | 7550                                                                  | 9000                    | 14500                            | 17700                         |
| 16                     | 6450                                                                  | 7800                    | 12500                            | 15200                         |
| 18                     | 5600                                                                  | 6850                    | 10900                            | 13500                         |
| 20                     | 4800                                                                  | 6100                    | 9400                             | 12100                         |
| 22                     | 4150                                                                  | 5400                    | 8000                             | 10900                         |
| 24                     | 3600                                                                  | 4650                    | 6800                             | 9850                          |
| 26                     | 3100                                                                  | 4000                    | 5800                             | 8950                          |
| 28                     | 2700                                                                  | 3500                    | 5000                             | 8200                          |
| 30                     | 2350                                                                  | 3050                    | 4300                             | 7500                          |
| 32                     | 2000                                                                  | 2650                    | 3700                             | 6850                          |
| 34                     | 1700                                                                  | 2300                    | 3200                             | 6250                          |
| 36                     | 1400                                                                  | 1950                    | 2700                             | 5650                          |
| 38                     | 1150                                                                  | 1650                    | 2300                             | 5050                          |
| 40                     | 900                                                                   | 1300                    | 1900                             | 4450                          |
| 42                     | 600                                                                   | 1000                    | 1500                             | 3850                          |
| 44                     | 350                                                                   | 700                     | 1000                             | 3250                          |
| 46                     | 1100                                                                  | 4250                    | 4250                             | 2700                          |
| 48                     | 1100                                                                  | 4250                    | 4250                             | 2350                          |
| 50                     | 1100                                                                  | 4250                    | 4250                             | 2100                          |
| 52                     | 1100                                                                  | 4250                    | 4250                             | 1850                          |
| 54                     | 1100                                                                  | 4250                    | 4250                             | 1600                          |
| 56                     | 1100                                                                  | 4250                    | 4250                             | 1350                          |
| 58                     | 1100                                                                  | 4250                    | 4250                             | 1100                          |
| 60                     | 1100                                                                  | 4250                    | 4250                             | 850                           |
| 62                     | 1100                                                                  | 4250                    | 4250                             | 600                           |
| 64                     | 1100                                                                  | 4250                    | 4250                             | 350                           |
| 66                     | 1100                                                                  | 4250                    | 4250                             | 100                           |
| 68                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 70                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 72                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 74                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 76                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 78                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 80                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 82                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 84                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 86                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 88                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 90                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 92                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 94                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 96                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 98                     | 1100                                                                  | 4250                    | 4250                             | 0                             |
| 100                    | 1100                                                                  | 4250                    | 4250                             | 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 RUBBER 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  
CRANE WITH MAXIMUM CAPACITY 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.

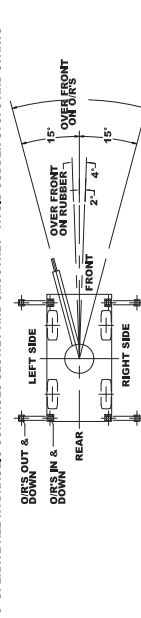
MAXIMUM HYDRAULIC PRESSURE 3000 PSI.

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. 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 31,500 LBS.

APPROVED TRESS. OTR 38E6SD22.5, 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

