



**bmc**  
**Tech Spec**

# **IC-250-3C**

## **Industrial Crane**

**18-Ton Max. Capacity**

- Rated Capacity Limiter ... Standard
- Capacity on Outriggers ... 36,000 lbs
- Pick and Carry Capacity ... up to 18,500 lbs
- Height ... 7' 11"
- Width ... 7' 10"
- Boom Rotation ... 360 Degree Continuous
- Sheave Height ... up to 79' 6"
- Horizontal Reach ... up to 70'
- Tight Turning Radius
- 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.

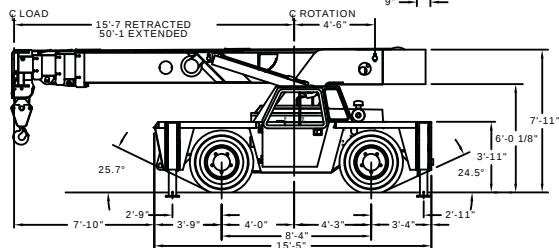
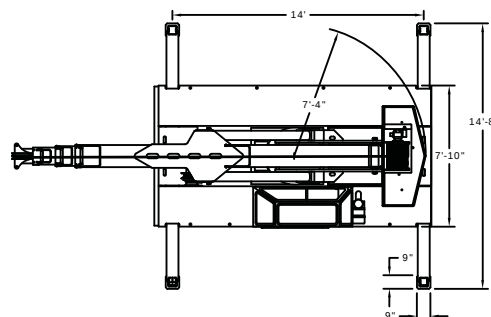
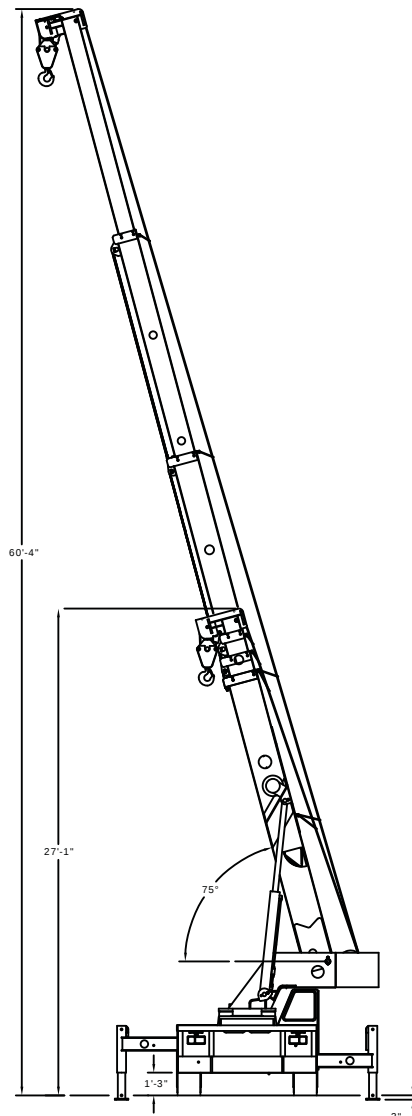
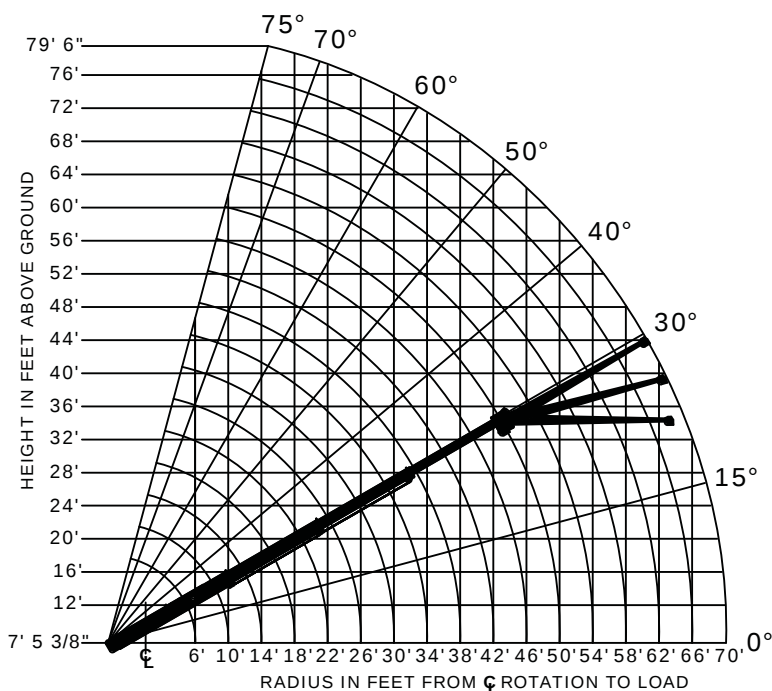
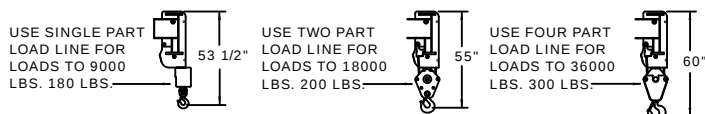




# IC-250-3C

| CAPACITIES ARE IN POUNDS AND APPLY TO OPERATION ON FIRM LEVEL SURFACE |                                                                  |                         |                                  |                               |                                   |      |      |      |      |
|-----------------------------------------------------------------------|------------------------------------------------------------------|-------------------------|----------------------------------|-------------------------------|-----------------------------------|------|------|------|------|
| LOAD<br>RADIUS<br>FEET                                                | MAIN BOOM                                                        |                         | MAIN BOOM OR BOOM EXTENSION      |                               |                                   |      |      |      |      |
|                                                                       | ON RUBBER<br>360° ROTATION                                       | ON RUBBER<br>OVER FRONT | O/R'S IN & DOWN<br>360° ROTATION | O/R'S IN & DOWN<br>OVER FRONT | O/R'S OUT & DOWN<br>360° ROTATION |      |      |      |      |
| 6                                                                     | 16400                                                            | 18500                   | 30000                            | 36000                         | 36000                             |      |      |      |      |
| 8                                                                     | 13000                                                            | 15000                   | 25050                            | 30400                         | 30400                             |      |      |      |      |
| 10                                                                    | 10800                                                            | 12350                   | 20300                            | 25000                         | 25000                             |      |      |      |      |
| 12                                                                    | 9000                                                             | 10450                   | 15500                            | 20800                         | 20800                             |      |      |      |      |
| 14                                                                    | 7550                                                             | 9000                    | 12000                            | 18700                         | 18700                             |      |      |      |      |
| 16                                                                    | 6450                                                             | 7800                    | 9700                             | 16700                         | 16700                             |      |      |      |      |
| 18                                                                    | 5600                                                             | 6850                    | 8150                             | 14900                         | 14900                             |      |      |      |      |
| 20                                                                    | 4800                                                             | 6100                    | 6900                             | 13500                         | 13500                             |      |      |      |      |
| 22                                                                    | 4150                                                             | 5400                    | 5900                             | 12100                         | 12100                             |      |      |      |      |
| 24                                                                    | 3600                                                             | 4650                    | 5000                             | 10900                         | 10900                             |      |      |      |      |
| 26                                                                    | 3100                                                             | 4000                    | 4200                             | 9850                          | 9850                              |      |      |      |      |
| 28                                                                    | 2700                                                             | 3500                    | 3600                             | 8950                          | 8950                              |      |      |      |      |
| 30                                                                    | 2350                                                             | 3050                    | 3050                             | 8200                          | 8200                              |      |      |      |      |
| 32                                                                    | 2000                                                             | 2650                    | 2650                             | 7500                          | 7500                              |      |      |      |      |
| 34                                                                    | 1750                                                             | 2300                    | 2300                             | 7150                          | 7000                              |      |      |      |      |
| 38                                                                    | 1300                                                             | 1750                    | 1750                             | 5950                          | 5650                              |      |      |      |      |
| 42                                                                    | 900                                                              | 1400                    | 1300                             | 5000                          | 4700                              |      |      |      |      |
| 46                                                                    | 600                                                              | 1100                    | 1000                             | 4250                          | 4000                              |      |      |      |      |
| 50                                                                    | 350                                                              | 900                     | 700                              | 3650                          | 3400                              |      |      |      |      |
| 54                                                                    | ----                                                             | ----                    | ----                             | ----                          | 3550                              |      |      |      |      |
| 58                                                                    | ----                                                             | ----                    | ----                             | ----                          | 3100                              |      |      |      |      |
| 62                                                                    | ----                                                             | ----                    | ----                             | ----                          | 2700                              |      |      |      |      |
| 66                                                                    | ----                                                             | ----                    | ----                             | ----                          | 2350                              |      |      |      |      |
| 70                                                                    | ----                                                             | ----                    | ----                             | ----                          | 2100                              |      |      |      |      |
| BOOM<br>EXT.<br>OFFSET<br>ANGLE                                       | 20 FOOT BOOM EXTENSION STRUCTURAL CAPACITIES- STRAIGHT OR OFFSET |                         |                                  |                               |                                   |      |      |      |      |
|                                                                       | MAIN BOOM ANGLE                                                  |                         |                                  |                               |                                   |      |      |      |      |
|                                                                       | 0°                                                               | 15°                     | 30°                              | 40°                           | 50°                               | 60°  | 70°  | 75°  |      |
|                                                                       | 0°                                                               | 2600                    | 2750                             | 3000                          | 3400                              | 4100 | 5100 | 6200 | 7000 |
|                                                                       | 15°                                                              | ---                     | 2500                             | 2600                          | 2700                              | 2900 | 3300 | 4300 | 4800 |
| 30°                                                                   | ---                                                              | ---                     | 2300                             | 2400                          | 2500                              | 2700 | 3200 | 3400 |      |

**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 BELOW  
BOLD LINE ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LIMITED BY  
STRUCTURAL OR HYDRAULIC CAPABILITY.





# IC-250-3C

## Specifications

**GENERAL:**

|                        |                                             |                               |                             |
|------------------------|---------------------------------------------|-------------------------------|-----------------------------|
| <b>Boom Movement:</b>  | <b>Rotation</b><br>Continuous               | <b>Elevation</b><br>0° to 75° | <b>Extension*</b><br>34' 6" |
| <b>Boom Speeds:</b>    | 2.0 RPM<br>*(with synchronized hoist cable) | 24 sec.                       | 53 sec.                     |
| <b>Weight:</b>         |                                             |                               |                             |
| Total                  | 37,700 lbs.                                 |                               |                             |
| Front Axle             | 17,400 lbs.                                 |                               |                             |
| Rear Axle              | 20,300 lbs.                                 |                               |                             |
| <b>Gradeability:</b>   | 64%                                         |                               |                             |
| <b>Turning Radius:</b> | 14' 4"                                      |                               |                             |

**ENGINE:**

|                           |                     |                    |
|---------------------------|---------------------|--------------------|
| <b>Make</b>               | <b>Cummins</b>      | <b>GM</b>          |
| <b>Model</b>              | QSB3.3L             | 5.7L               |
| <b>Type</b>               | Turbocharged-Diesel | LPG (Woodward)     |
| <b>No. Cyl.</b>           | 4                   | 8                  |
| <b>Displacement</b>       | 3.3L                | 5.7L               |
| <b>HP @ Gov. Speed</b>    | 99 H.P.             | 135 H.P.           |
|                           | US EPA Tier 3       | US EPA Tier 2      |
| <b>Fuel Tank Capacity</b> | 30 Gallons          | 2-43 lbs LPG tanks |

**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. Equipped with torque converter & transmission oil cooler. Torque converter has stall ratio of 2.2:1.

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.

|             |                     |                      |
|-------------|---------------------|----------------------|
| <b>Gear</b> | <b>Travel Speed</b> | <b>Drawbar Pull*</b> |
| First       | 3 MPH               | 18,600*              |
| Second      | 5 MPH               | 10,700*              |
| Third       | 10 MPH              | 5,800*               |
| Fourth      | 18 MPH              | 3,100*               |

\*Drawbar pull is calculated.

**Rear Axle:****Standard (2-Wheel Drive):**

Steering axle with 1-1/2 degree 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. 1-1/2 degree oscillation in either direction. Axle ratio compatible with 4-wheel drive transmission output for front axle match. Transmission equipped with electro-hydraulic control for shifting between 2-wheel drive & 4-wheel drive.

**STEERING:**

Hydraulic steering unit with two cylinders attached to each axle. Rear axle is the primary steer. An electric switch on the operator's compartment is used to select rear-wheel steering, four-wheel steering round steer or crab steering. Electronic sensors & control box automatically align the steering when a new mode is selected.

**BRAKES:**

Service: Split-system, 4-wheel hydraulic-boosted multiple-plate wet disc brakes.  
Parking: Hand lever actuated disc-type parking brake on transmission.

**TIRES:**

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

**CHASSIS:****CARGO DECK:**

80 sq. ft. of deck area. 17,000 lbs. 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" x 9".

**ACCESSORY STORAGE BOX:**

Storage box is 14" deep x 12-1/2" long x 36-1/2" 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 & crane functions. Includes adjustable operator's seat, retracting seat belts, fire extinguisher & bubble level.

**ELECTRICAL:****12 Volt System****Lighting Package:**

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

**Instrument Package:**

Fuel gauge and hourmeter records hours only during engine operations. Also includes warning lights for low oil and transmission pressure, check engine, high coolant and transmission temperature, turn signals, high beams, hazard lights, park brake & four-wheel drive.

**Back-Up Alarm:**

Provides pulsating sound from 97dB alarm when transmission is in reverse.

**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 crankshaft, rated at 29 & 34 GPM at rated RPM. Hydraulic oil tank capacity of 54 gallons.

**BOOM ASSEMBLY:**

Four-section boom assembly equipped with bearing pads, double-acting hydraulic cylinder & chain system telescopes booms proportionally. Telescope & boom elevation cylinders equipped with cylinder-mounted holding valves. Boom angle indicator on left hand 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 hydraulically powered with a bare drum line pull of 12,000 lbs. & a line speed of 100 FPM. Includes downhaul weight, swivel hook & sheave block for 4-part line & 320 ft. of 9/16" hoist rope.

**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-250-3C

## Options

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

### MODEL:

IC-250-3C Industrial Crane with  
15' 7"-50' 1" Boom

### ENGINE OPTIONS:

#### Spark Arrester Muffler

Installed in addition to std. muffler.

#### Catalytic Converter

Reduces engine emissions.

#### Engine Heater

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 x 18 in. octagonal shape with storage posts on rear bumper.

### OPERATOR COMPARTMENT OPTIONS:

#### Operator Guard

Tubular steel weldment with heavy expanded steel mesh top section.

#### Operator Guard Cover

Clear vinyl cover over Operator Guard, for inclement weather.

#### 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

Provides 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 R 134 coolant.

### ELECTRICAL OPTIONS:

#### Strobe Lights

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

#### Boom Work Lights

One work light 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., 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®**

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Dimensions and values shown are  
for reference purposes only.

Specifications subject to change.

