



**bmc**  
*Tech Spec*

**IC-80-H**  
*Industrial Crane*

**18,000 lb Max. Capacity  
Available in 3 Boom  
Lengths**

- Rated Capacity Limiter ... Standard
- Capacity on Outriggers ... 18,000 lb
- Pick and Carry Capacity ... up to 11,700 lbs
- Height ... 7' 3"
- Width ... 6' 6"
- Boom Rotation ... 360 Degree Continuous
- Sheave Height ... up to 46'
- Horizontal Reach ... up to 40'
- 4-Wheel Steer ... Standard
- 4-Wheel Drive ... Optional
- Powershift Transmission ... Standard
- Fully Hydraulic Controls for Smooth Precise Operations
- Independent Outrigger Controls
- Dual Fuel or Diesel Available

**BRODERSON**  
Manufacturing Corp.





# IC-80-1H

| CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE |                                             |               |            |               |
|-----------------------------------------------------|---------------------------------------------|---------------|------------|---------------|
| RADIUS<br>FEET                                      | MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS |               |            |               |
|                                                     | 360° ROTATION                               |               | OVER FRONT |               |
|                                                     | ON RUBBER                                   | ON OUTRIGGERS | ON RUBBER  | ON OUTRIGGERS |
| MAIN BOOM                                           | 5                                           | 9600          | 17000      | 11700         |
|                                                     | 6                                           | 7900          | 14500      | 10400         |
|                                                     | 8                                           | 5750          | 10250      | 8400          |
|                                                     | 10                                          | 4150          | 7700       | 6300          |
|                                                     | 12                                          | 3100          | 6550       | 4650          |
|                                                     | 14                                          | 2425          | 5550       | 3750          |
|                                                     | 16                                          | 2000          | 4650       | 3100          |
|                                                     | 18                                          | 1700          | 4100       | 2650          |
|                                                     | 20                                          | 1450          | 3550       | 2300          |
|                                                     | 22                                          | 1275          | 3000       | 2000          |
| 10' BOOM EXT.                                       | 24                                          | 1075          | 2800       | 1725          |
|                                                     | 26                                          | 925           | 2500       | 1500          |
|                                                     | 28                                          | 775           | 2200       | 1300          |
|                                                     | 30                                          | 675           | 2000       | 1150          |
|                                                     | 10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET |               |            |               |
|                                                     | MAIN BOOM ANGLE                             |               |            |               |
|                                                     | ANGLE                                       | 0°            | 30°        | 45°           |
|                                                     | *† 0°                                       | 2250          | 2600       | 3200          |
|                                                     | † 15°                                       | ---           | 2400       | 2700          |
|                                                     | † 30°                                       | ---           | 2250       | 2500          |

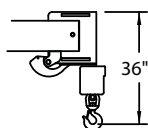
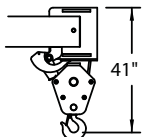
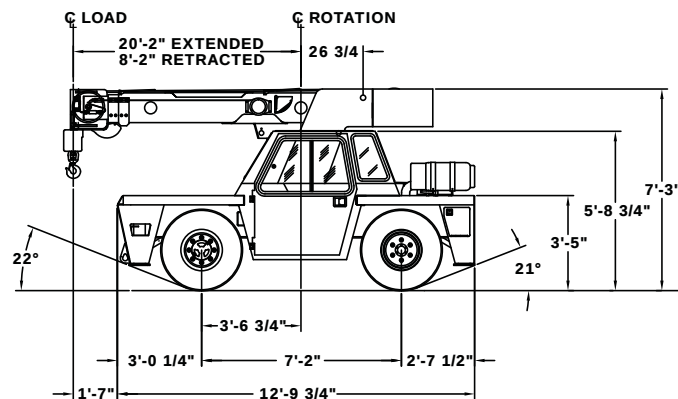
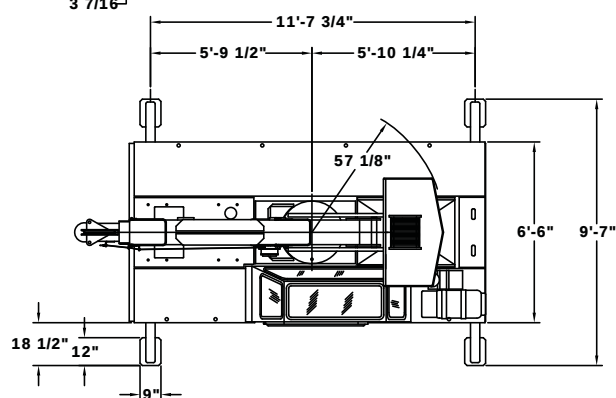
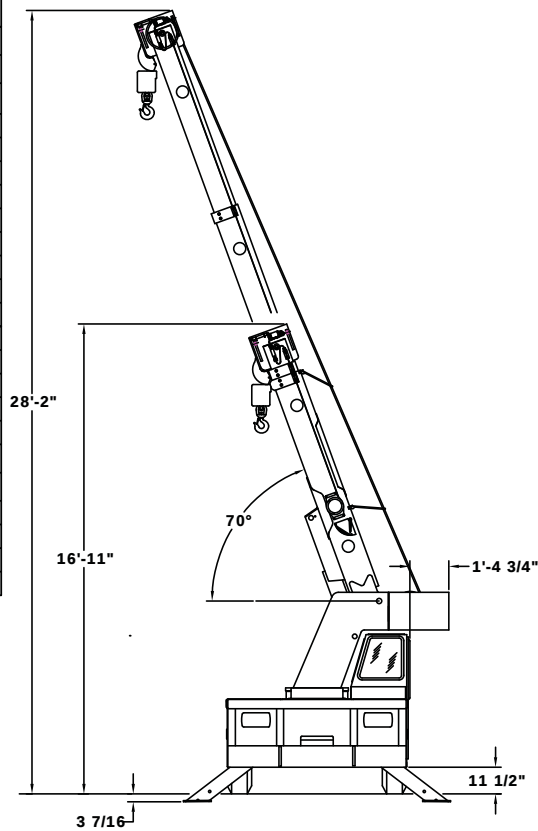
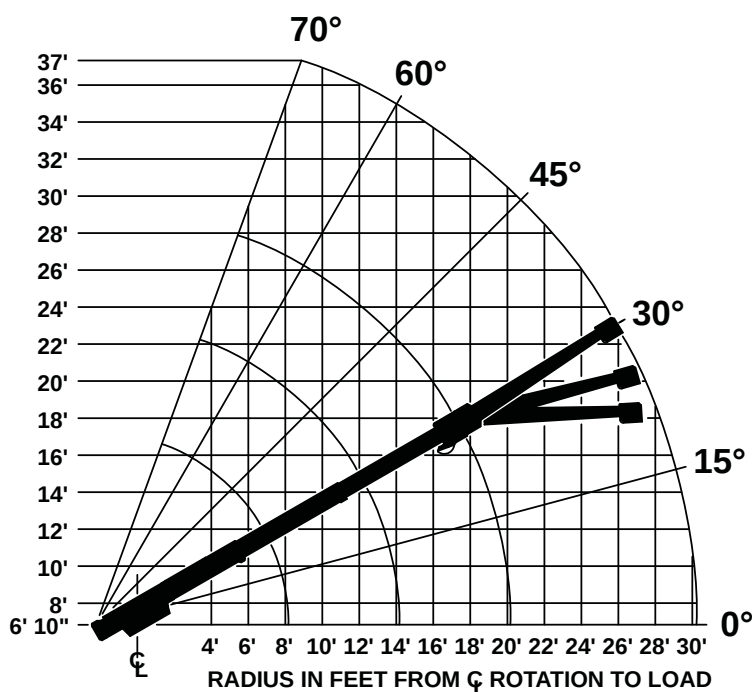
\* USE 0° FOR STRAIGHT BOOM EXTENSION.

† USE 0°, 15° OR 30° FOR OFFSET BOOM EXTENSION.

**CAUTION** BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY.  
DO NOT PICK & CARRY WITH LOADS ON BOOM EXTENSION.

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.

BOOM EXTENSION DEDUCT: 100 LBS WHEN STOWED ON BASE BOOM.

USE SINGLE PART  
LOAD LINE FOR  
LOADS TO 9000  
LBS.  
(WT. 90 LBS.)USE TWO PART  
LOADLINE FOR  
LOADS TO 18000  
LBS.  
(WT. 124 LBS.)



# IC-80-2H

| CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE |                                             |               |               |            |               |
|-----------------------------------------------------|---------------------------------------------|---------------|---------------|------------|---------------|
|                                                     | LOAD RADIUS                                 | 360° ROTATION |               | OVER FRONT |               |
|                                                     | FEET                                        | ON RUBBER     | ON OUTRIGGERS | ON RUBBER  | ON OUTRIGGERS |
|                                                     | FEET                                        | ON RUBBER     | ON OUTRIGGERS | ON RUBBER  | ON OUTRIGGERS |
| MAIN BOOM                                           | 5                                           | 9500          | 17000         | 11600      | 18000         |
|                                                     | 6                                           | 7800          | 14500         | 10200      | 14500         |
|                                                     | 8                                           | 5650          | 10250         | 8250       | 10250         |
|                                                     | 10                                          | 4000          | 7700          | 6200       | 7700          |
|                                                     | 12                                          | 3000          | 6550          | 4650       | 6550          |
|                                                     | 14                                          | 2350          | 5550          | 3650       | 5550          |
|                                                     | 16                                          | 1900          | 4550          | 2950       | 4550          |
|                                                     | 18                                          | 1600          | 3950          | 2500       | 4050          |
|                                                     | 20                                          | 1350          | 3350          | 2150       | 3650          |
|                                                     | 22                                          | 1150          | 2950          | 1850       | 3300          |
|                                                     | 24                                          | 1000          | 2550          | 1650       | 3100          |
|                                                     | 26                                          | 850           | 2450          | 1450       | 2750          |
| 10' BOOM EXT.                                       | 28                                          | 725           | 2175          | 1275       | 2500          |
|                                                     | 30                                          | 625           | 1900          | 1125       | 2300          |
|                                                     | 32                                          | 525           | 1725          | 1000       | 2100          |
|                                                     | 34                                          | 425           | 1500          | 900        | 1950          |
|                                                     | 10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET |               |               |            |               |
|                                                     | MAIN BOOM ANGLE                             |               |               |            |               |
|                                                     | ANGLE                                       | 0°            | 30°           | 45°        | 60°           |
|                                                     | *† 0°                                       | 2250          | 2600          | 3200       | 5000          |
|                                                     | †15°                                        | ---           | 2400          | 2700       | 3500          |
|                                                     | †30°                                        | ---           | 2250          | 2500       | 3000          |
|                                                     | ---                                         | ---           | ---           | ---        | ---           |
|                                                     | ---                                         | ---           | ---           | ---        | ---           |
|                                                     | ---                                         | ---           | ---           | ---        | ---           |
|                                                     | ---                                         | ---           | ---           | ---        | ---           |
|                                                     | ---                                         | ---           | ---           | ---        | ---           |

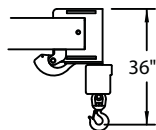
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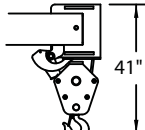
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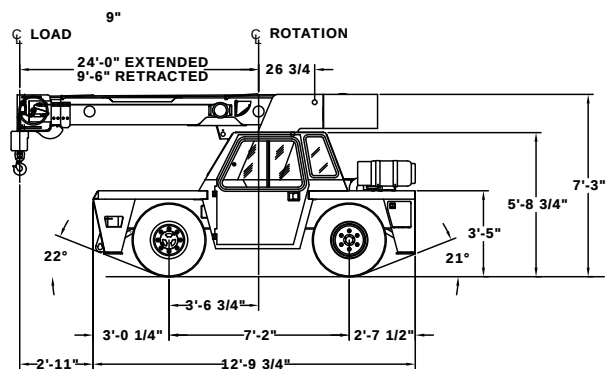
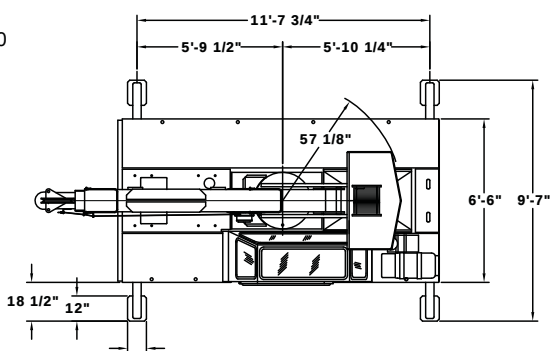
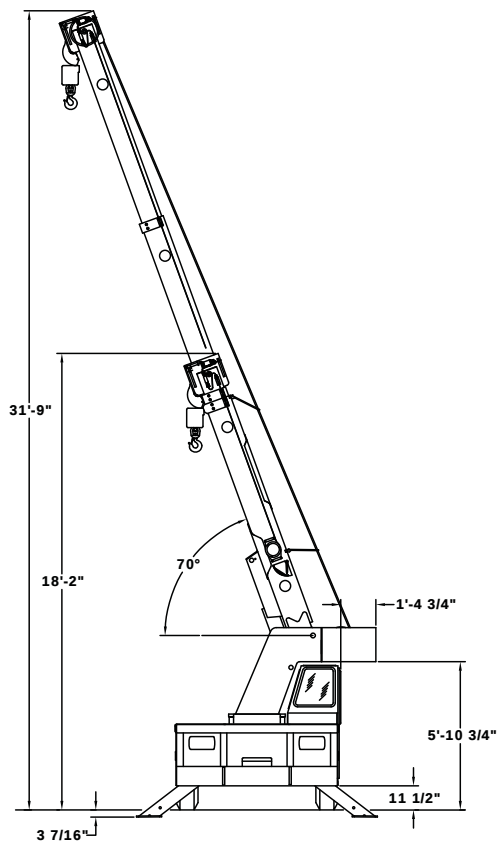
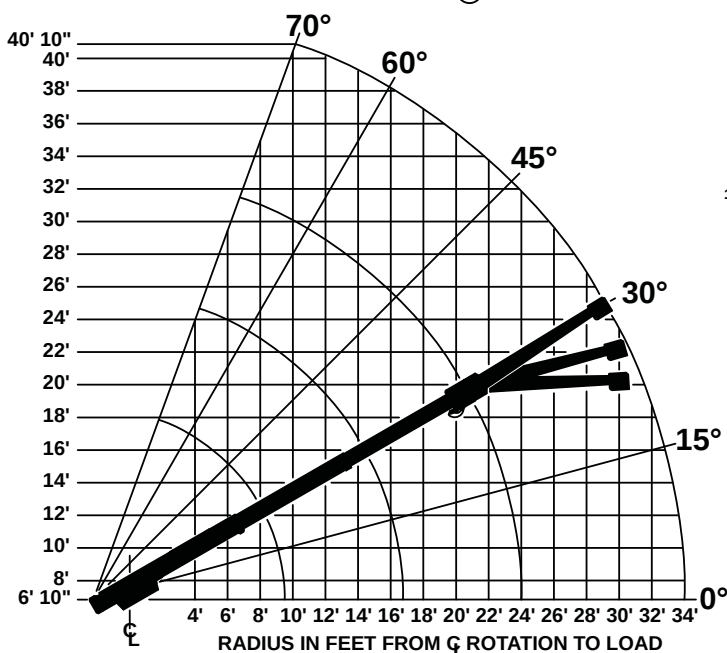
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LOADS TO 9000  
LBS.  
(WT. 90 LBS.)



USE TWO PART  
LOADLINE FOR  
LOADS TO 18000  
LBS.  
(WT. 124 LBS.)



# IC-80-3H

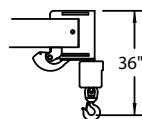
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|-----------------------------------------------------|----------------|---------------------------------------------|---------------|------------|---------------|-----|
|                                                     | LOAD<br>RADIUS | MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS |               |            |               |     |
|                                                     |                | 360° ROTATION                               |               | OVER FRONT |               |     |
|                                                     | FEET           | ON RUBBER                                   | ON OUTRIGGERS | ON RUBBER  | ON OUTRIGGERS |     |
| MAIN BOOM                                           | 5              | 9400                                        | 17000         | 11400      | 18000         |     |
|                                                     | 6              | 7550                                        | 14000         | 10000      | 14000         |     |
|                                                     | 8              | 5600                                        | 10000         | 8100       | 10000         |     |
|                                                     | 10             | 4300                                        | 7700          | 6100       | 7700          |     |
|                                                     | 12             | 3200                                        | 6100          | 4450       | 6100          |     |
|                                                     | 14             | 2550                                        | 5200          | 3400       | 5200          |     |
|                                                     | 16             | 2050                                        | 4400          | 2700       | 4400          |     |
|                                                     | 18             | 1650                                        | 3900          | 2200       | 3900          |     |
|                                                     | 20             | 1350                                        | 3400          | 1800       | 3400          |     |
|                                                     | 22             | 1150                                        | 3050          | 1550       | 3050          |     |
|                                                     | 24             | 1000                                        | 2750          | 1350       | 2800          |     |
|                                                     | 26             | 850                                         | 2450          | 1200       | 2550          |     |
|                                                     | 28             | 750                                         | 2200          | 1100       | 2350          |     |
| 30                                                  | 650            | 1950                                        | 1000          | 2150       |               |     |
| 10' BOOM EXT.                                       | 32             | 450                                         | 1750          | 900        | 1950          |     |
|                                                     | 34             | 350                                         | 1600          | 800        | 1800          |     |
|                                                     | 36             | 250                                         | 1450          | 700        | 1650          |     |
|                                                     | 38             | 200                                         | 1300          | 600        | 1500          |     |
|                                                     | 40             | 150                                         | 1150          | 500        | 1400          |     |
|                                                     | BOOM           | 10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET |               |            |               |     |
|                                                     | EXTENSION      | MAIN BOOM ANGLE                             |               |            |               |     |
|                                                     | ANGLE          | 0°                                          | 30°           | 45°        | 60°           | 70° |
| *10°                                                | 2250           | 2600                                        | 3200          | 5000       | 7000          |     |
| 15°                                                 | ---            | 2400                                        | 2700          | 3500       | 4200          |     |
| 30°                                                 | ---            | 2250                                        | 2500          | 3000       | 3300          |     |

\* USE 0° FOR STRAIGHT BOOM EXTENSION.

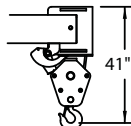
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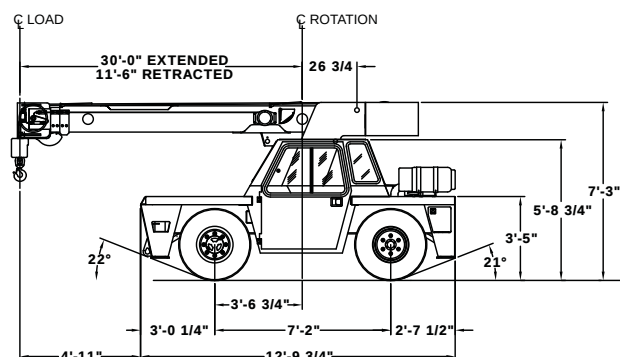
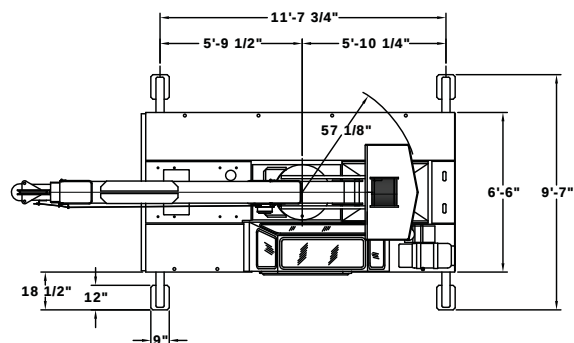
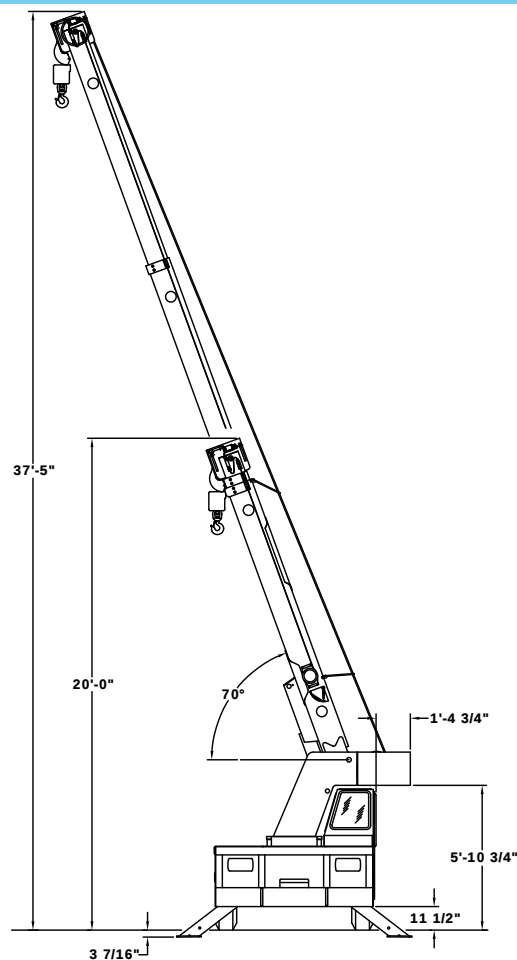
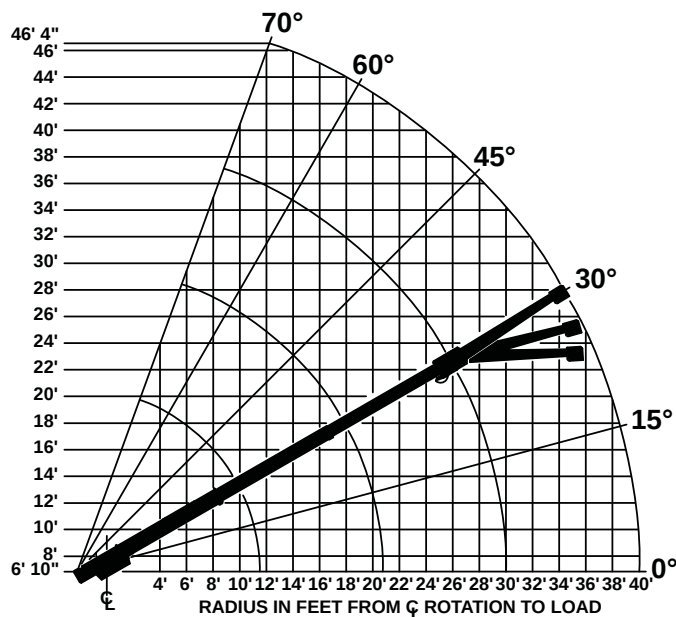
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BOOM EXTENSION DEDUCT: 100 LBS WHEN STOWED ON BASE BOOM.



USE SINGLE PART  
LOAD LINE FOR  
LOADS TO 9000  
LBS.  
(WT. 90 LBS.)



USE TWO PART  
LOADLINE FOR  
LOADS TO 18000  
LBS.  
(WT. 124 LBS.)





# IC-80-H

## Specifications

### GENERAL:

|                                 |                 |                 |                 |
|---------------------------------|-----------------|-----------------|-----------------|
| <b>Weight:</b>                  | <b>IC-80-1H</b> | <b>IC-80-2H</b> | <b>IC-80-3H</b> |
| 4-Wheel Steer                   | 16,150 lb       | 16,350 lb       | 16,750 lb       |
| 4-Wheel Drive                   | 17,000 lb       | 17,200 lb       | 17,600 lb       |
| <b>Boom Movement:</b>           |                 |                 |                 |
| Rotation                        | Continuous      | Continuous      | Continuous      |
| Elevation                       | 0° to 70°       | 0° to 70°       | 0° to 70°       |
| Extension                       | 12 ft.          | 14 ft. 6 in.    | 18 ft. 6 in.    |
| <b>Boom Speeds:</b>             |                 |                 |                 |
| Rotation                        | 2.0 RPM         | 2.0 RPM         | 2.0 RPM         |
| Elevation                       | 10.0 sec.       | 10.0 sec.       | 10.0 sec.       |
| Extension                       | 17.0 sec.       | 21.0 sec.       | 27.0 sec.       |
| <b>Turning Radius:</b>          |                 |                 |                 |
| (C/L of Outside Steering Wheel) |                 | 10 ft. 0 in.    |                 |
| Aisle Width for 90° Turn:       |                 | 9 ft. 6 in.     |                 |

### ENGINE:

|                                                                                                 |          |                     |
|-------------------------------------------------------------------------------------------------|----------|---------------------|
| Make                                                                                            | GM       | Cummins             |
| Model                                                                                           | 3.0 EFI* | QSB 3.3L EPA Tier 3 |
| Type                                                                                            | Gas      | Diesel              |
| No. Cyl.                                                                                        | 4        | 4                   |
| Displacement                                                                                    | 1.81 CID | 199 CID             |
| HP @ Gov. Speed                                                                                 | 69       | 85                  |
| *Electronic Fuel Injection with Dual Fuel, US EPA & CARB Certified for 2005 Emissions Standards |          |                     |
| Fuel Tank Capacity: 20 Gallons                                                                  |          |                     |

### TRANSMISSION:

Powershift transmission with 4-speeds in forward & reverse. Provides powershifts 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 valve provide forward, neutral, reverse and speed selection. Equipped with oil cooler and filter. Torque converter has stall ratio of 2.2:1. Gradeability 63 percent.

| Forward/Reverse Travel |             |        |           |
|------------------------|-------------|--------|-----------|
| Drawbar                | Gear Ratios | Speed  | Pull      |
| Gear                   |             |        |           |
| First                  | 5.72:1      | 4 MPH  | 10,500 lb |
| Second                 | 3.23:1      | 7 MPH  | 6,000 lb  |
| Third                  | 1.77:1      | 13 MPH | 3,200 lb  |
| Fourth                 | 1.00:1      | 22 MPH | 1,800 lb  |

### AXLES:

#### Front:

Planetary drive/steer axle with 11.625:1 axle ratio. Differential is "No-Spin." Axle mounted rigidly to frame.

#### Optional 4-Wheel Drive

Planetary drive/steer axle with integral drop box input 11.625:1 axle ratio. Differential is "No-Spin." Mining and Industrial tires standard.

#### Rear:

##### 2-Wheel Drive:

Axle with 1-1/2° oscillation in either direction.

##### Optional 4-Wheel Drive:

Planetary drive/steer axle with 11.625:1 axle ratio. Differential is "Limited Slip." 1-1/2° oscillation degree in either direction.

| Forward/Reverse |             | Travel | Drawbar   |
|-----------------|-------------|--------|-----------|
| Gear            | Gear Ratios | Speed  | Pull      |
| First           | 5.72:1      | 3 MPH  | 12,300 lb |
| Second          | 3.23:1      | 6 MPH  | 7,000 lb  |
| Third           | 1.77:1      | 11 MPH | 3,800 lb  |
| Fourth          | 1.00:1      | 20 MPH | 2,200 lb  |

### STEERING:

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

### BRAKES:

|         | <b>2-Wheel Drive</b> | <b>4-Wheel Drive</b> |
|---------|----------------------|----------------------|
| Front   | Internal wet disc    | Internal wet disc    |
| Rear    | Drum type            | Internal wet disc    |
| Parking | Disc type            | Disc type            |

### TIRES:

2-Wheel Drive 10.00 x 15, load range H bias, 16-ply rating.  
4-Wheel Drive 36 X 11-15, Mining & Industrial, 16 ply rating.

### CHASSIS:

#### Cargo Deck:

53 square feet of deck area. 14,000 lbs. capacity on deck when load is centered over or between axles.<sup>1</sup> A storage box is located in front cargo deck. Steps located on front corners.

1. 14,000 pounds allowed at creep speed of 2 MPH and 200 feet maximum in 30 minutes.

#### Outriggers:

Four hydraulic outriggers of box beam construction. Independent controls for each outrigger. Each cylinder equipped with direct-connected holding valves. Outrigger pad dimension 9"x12".

#### Lifting Rings:

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

### OPERATOR COMPARTMENT:

Operator's control station provides one-position access to all operating functions. Includes adjustable operator's seat, retracting seat belt, fire extinguisher and bubble level.

### ELECTRICAL:

#### 12 Volt System

##### Instrument Package:

Includes fuel and hourmeter. Also included are, warning lights for low oil and transmission pressure, turn signal, high beams, hazard lights, parking brake, hydraulic oil temperature, battery, check engine, stop engine, coolant temperature, outriggers and optional 4-wheel drive.

##### Lighting Package:

One pair headlights with Hi and Low beams, back-up lights, integral tail, brake, front and rear turn signals and emergency flasher switch at operator's station. 12V horn actuated by button on shifting control.

##### Back-Up Alarm:

Provides pulsating sound from 97 dB alarm when transmission is in reverse. Conforms to SAE J994b.

##### Outrigger Alarm System:

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

### HYDRAULIC SYSTEM:

Tandem pump, direct-driven by engine crankshaft, rated at 17 & 32 GPM at rated RPM. Hydraulic oil tank capacity of 25 gallons.

### BOOM ASSEMBLY:

Three-section boom assembly equipped with bearing pads, double-acting hydraulic cylinders with direct-connected 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 and worm gear drive.

### Boom Hoist:

Turret mounted planetary gear hoist hydraulically powered with a bare drum line pull of 10,000 lb at a line speed of 110 FPM. Includes downhaul weight, swivel hook & sheave block for 2-part line and 125 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.

### Sheave Block, Two-Part:

Single sheave block for 2-part line requirements.

### Rated Capacity Limiter:

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



# IC-80-H

## Options

Listed below are brief descriptions of options available for this product.  
Consult the IC-80-H Engineering Spec for additional information.

### MODELS:

- IC-80-1H Industrial Crane** with  
8'2"-20'2" Boom Reach
- IC-80-2H Industrial Crane** with  
9'6"-24' Boom Reach
- IC-80-3H Industrial Crane** with  
11'6"-30' Boom Reach

### ENGINE:

- Spark Arrester Muffler**  
Installed in addition to std. muffler.
- Catalytic Converter**  
Reduces engine emissions.
- Engine Heater**  
Engine coolant heater installed to circulate warm water through engine. Plugs into 120 volt AC.

### TIRE OPTIONS:

- Mining & Industrial Tires**
- 36 x 11-15, 16-Ply Rating
- 36 x 11-15, Non Marking
- Solid Rubber Tires, 8.25 x 15**
- Foam Filling of Tires**
- Spare Tire & Wheel**
- Radial
- Bias
- Mining & Industrial, 36 x 11-15
- Mining & Industrial, Non Marking

### CHASSIS OPTIONS:

- Auxiliary Winch**  
Mounted behind front bumper, hydraulically driven with control in operator's console.
- Pintle Hook:**
- Pintle Hook, Rear
- Pintle Hook, Front
- Headlight and Taillight Grilles**  
Welded steel protective grilles for headlights and taillights.
- Rearview Mirrors**  
One mounted on right-hand deck stake and one mounted on left-hand deck stake.

### OPERATOR COMPARTMENT OPTIONS:

- Operator Guard**  
Tubular steel weldment with heavy expanded steel mesh top section.
- Operator Guard Cover**  
Clear vinyl cover which goes over Operator Guard, for inclement weather operations.
- All-Weather Cab**  
Rigid-mounted canopy section & 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**  
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 and side panels of foam backed vinyl for noise reduction.
- Air Conditioning**  
Air Conditioner with R134 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, 10 Foot**  
Boom stowable.
- Boom Extension, 10 Foot, Offsettable**  
Same as above item, except the boom extension is offsettable to 3 different positions; 0 degrees (inline), 15 degrees and 30 degrees offset.
- 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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[www.bmccranes.com](http://www.bmccranes.com)

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

