

IC-100-B ***Industrial Crane***

The IC-100-B is a self-propelled 10 US ton rated Industrial Carry Deck Crane designed for in-plant lifting and material handling applications. It is designed to incorporate the field proven features and demonstrated reliability of the Broderon IC-80 models with 10 US ton lift capacity and a longer boom.

Capacity

20,000 lbs (13,608 kg)

Sheave Height

59' 4" (15 m)
(with boom extension)

Horizontal Reach

43' (13.1 m)
(with boom extension)

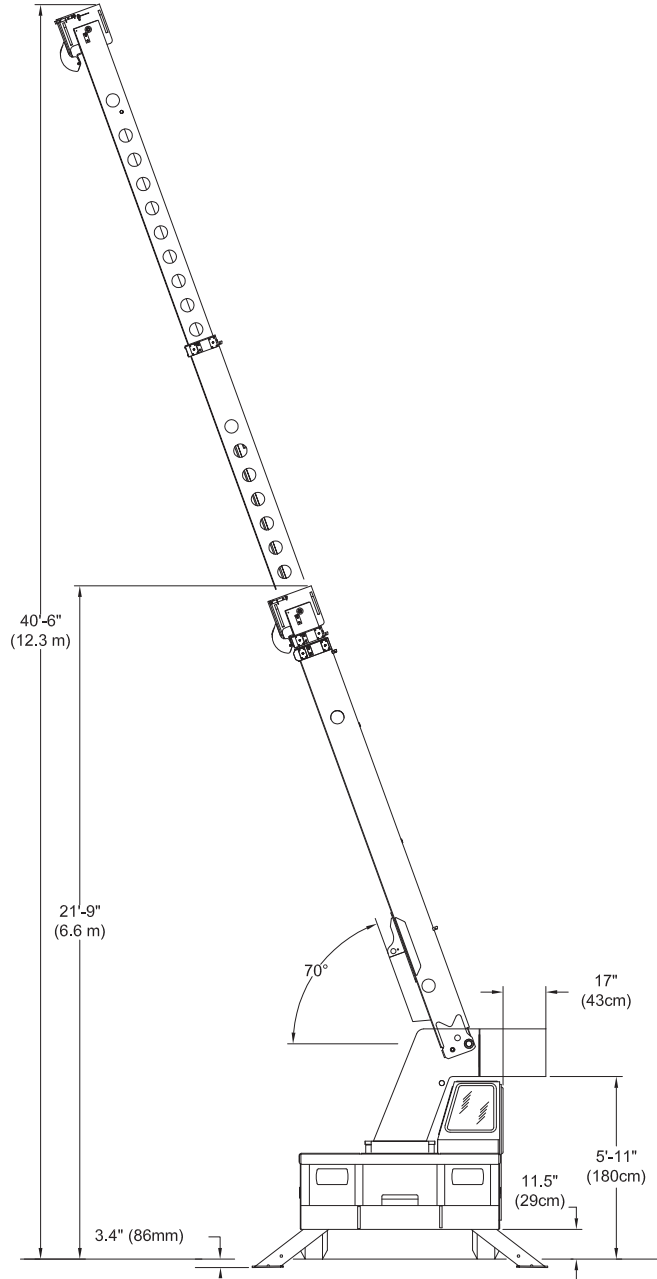
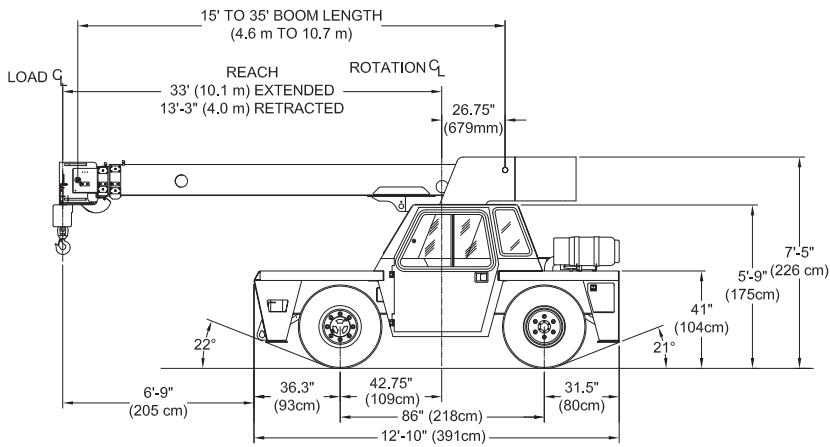
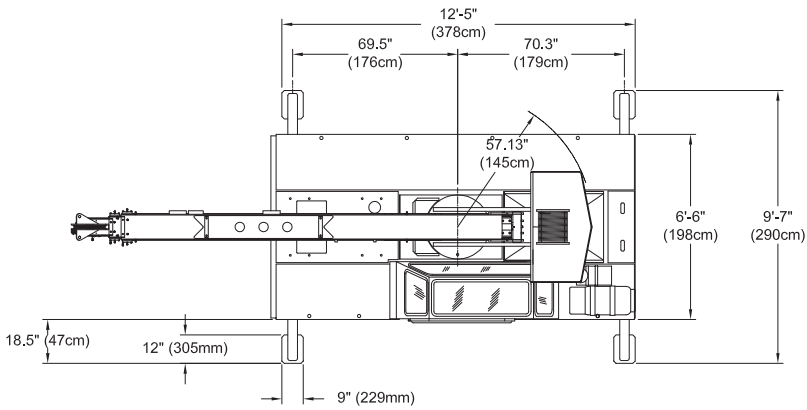
Height

7' 5" (2.26 m)

Width

6' 6" (2 m)





IC-100-B

GENERAL SPECIFICATIONS



GENERAL

	ROTATION	ELEVATION	EXTENSION
Boom Movement	Continuous	0° to 70°	20' (6.1 m)
Boom Speeds	2 RPM.	12 sec.	30 sec.
Weight Total	17,520 lbs. (7,950 kg.)		
Turning Radius	C/L of outside steering wheel: 11' 2" (3.4m) Aisle Width for 90° Turn: 9'7" (2.92m)		
Gradeability	57% (30°)		

ENGINE

Make	GM	Kubota
Model	3.0 EFI*	V3307 (Tier 4F)
Type	Gas, Fuel Dual	Diesel
Cylinder	4	4
Displacement	181 CID (3L)	199 CID (3.33L)
HP @ Gov. Speed	59HP (44 kW)	74HP (55.4 kW)
Fuel Tank Capacity	17.6 gal. (66.6L)	17.6 gal. (66.6L)

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.

Transmission Gear	Forward/Reverse	Speed	Drawbar Pull
First	5.72 : 1	4 MPH (6 km/h)	9,500 lbs. (4,300 kg.)
Second	3.23 : 1	7 MPH (11 km/h)	5,500 lbs. (2,500 kg.)
Third	1.77 : 1	13 MPH (21 km/h)	3,000 lbs. (1,300 kg.)
Fourth	1.00 : 1	22 MPH (31 km/h)	1,800 lbs. (800 kg.)

Drawbar pull is calculated based on GM 3.0L gasoline engine.

AXLES

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

REAR
2-Wheel Drive:
Axle with 1-1/2° oscillation in either direction.

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

Four-wheel hydraulic.
Wet disc brakes are on the front and rear axles.
Parking brake is disc type.

TIRES

2-WHEEL DRIVE
10.00 x 15, 16-ply rating, Highway Type Tread.

CHASSIS

CARGO DECK
53 square feet (5 m²) of deck area. A maximum of 14,000 lb. (6,350 kg) capacity on deck when load is centered over or between axles. A storage box is located in front cargo deck. Steps located on front corners. Heavy deck loads allowed at creep speed below 2 MPH (3.2 km/h) and less than 200 feet (61 m) 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 inches (23 cm.) x 12 inches (30 cm.)

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 gauge 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.

LIGHTING PACKAGE

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 102 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

TANDEM PUMP, direct-driven by engine crankshaft, rated at 16 & 32 GPM at rated RPM (61 L/min & 121 L/min). Hydraulic oil tank capacity of 25 gallons (95 L).

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 11,500 lbs (5,200 kg) at a speed of 100 FPM (30.5 m/min). Includes down-haul weight, swivel hook & sheave block for 2-part line and 140 ft (43 m) of 9/16" (14 mm) 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.

DRUM ROTATION INDICATOR

Provides visible feedback to operator when hoist drum is rotating.

CONSULT THE IC-100-B ENGINEERING SPEC FOR ADDITIONAL INFORMATION.

Main Features

RATED CAPACITY LIMITER
Standard

CAPACITY ON OUTRIGGERS
20,000 lbs. (9,000 kg)

PICK AND CARRY CAPACITY
up to 11,200 lbs. (5,091 kg)

HEIGHT
7' 5" (2.26 m)

WIDTH
6' 6" (2.0 m)

BOOM ROTATION
360° Continuous

SHEAVE HEIGHT
up to 49' 4" (15 m)

HORIZONTAL REACH
up to 33' 0" (10 m)

4-WHEEL STEER
Standard

4-WHEEL DRIVE
Optional

POWERSHIFT TRANSMISSION
Standard

**FULLY HYDRAULIC CONTROLS FOR
SMOOTH, PRECISE OPERATIONS**

**INDEPENDENT OUTRIGGER
CONTROLS**

ENGINE OPTIONS

Spark Arrester Muffler

Installed in addition to standard muffler

Catalytic Converter

Reduces engine emissions

Engine Heater

Coolant heater installed to circulate warm water through engine. Plugs into 120 volt AC, 1,500 watts

TIRE OPTIONS

Mining & Industrial

11 x 15 , 120 lbs. (57 kg.)

Mining & Industrial Non-Marking

10 x 15 , 120 lbs. (57 kg.)

Solid Rubber Tires

8.25 x 15

Foam Filled Tires

All four 400 lbs. (181 kg.)

Spare Tire & Wheel

Mounted

CHASSIS

Auxiliary Winch

Mounted behind front bumper, hydraulically driven with controls.

Pintle Hook:

Pintle Hook, Rear

Pintle Hook, Front

Rearview Mirrors

One mounted on right & left-hand deck stake

OPERATOR COMPARTMENT

Operator Guard

Tubular steel weldment with heavy expanded steel mesh top section.

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

Options

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.

Deluxe 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

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.

RCL Light Bar

3 color light bar for external indication of load status

BOOM ATTACHMENTS

Boom Extension

10ft. (3m), Boom stowable.

Boom Extension

10ft. (3m), Offsettable.

Same as above item, except boom extension is offsettable to 3 different positions; 0° (inline), 15° and 30° offset.

Searcher Hook

Nose Mount

Broderson Cranes are manufactured to ISO 9001:2015 certified standards and have a market leading reputation for quality and reliability. Broderson Cranes are engineered for operating efficiency and are easy to operate and maintain.

An extensive network of full-service dealers offer parts and service support by factory-trained technicians.

For additional options or special equipment not listed, please consult your dealer salesperson or contact Broderson Manufacturing Corp.

BRODERSON[®]
Manufacturing Corp.
14741 West 106th Street
Lenexa, KS 66215 USA

(913) 888-0606
www.BMCCranes.com

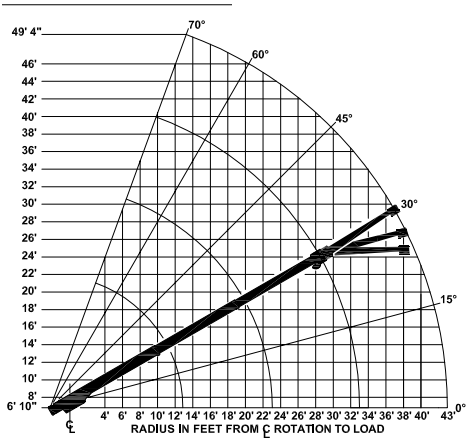
Dimensions and values shown
are for reference purposes
only. Specifications subject
to change.



BMC[®] BRODERSON[®] Manufacturing Corp.

Load Chart US Standard

IC-100-B Industrial Crane

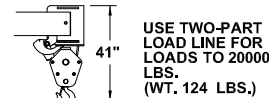
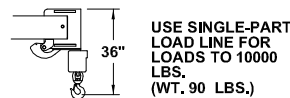


CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE					
LOAD RADIUS FEET	MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS				
	360° ROTATION		OVER FRONT		
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS	
MAIN BOOM	5	9400	17000	11200	20000
	6	8000	14800	9900	15600
	8	6000	11200	7900	11200
	10	4500	8700	6600	8700
	12	3400	6900	5300	6900
	14	2700	5900	4100	5900
	16	2100	5100	3200	5100
	18	1700	4400	2600	4500
	20	1400	3700	2200	4000
	22	1100	3100	1900	3500
	24	1000	2700	1600	3200
	26	800	2500	1400	2900
	30	600	2000	1100	2400
	33	500	1700	1000	1900
10' BOOM EXT.	34	400	1600	800	1900
	36	300	1400	700	1800
	38	200	1300	600	1700
	40	200	1100	600	1600
	43	---	900	500	1500
	BOOM	10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET			
	EXTENSION	MAIN BOOM ANGLE			
ANGLE	0°	30°	45°	60°	70°
*† 0°	2250	2600	3200	5000	7000
†15°	---	2400	2700	3500	4200
†30°	---	2250	2500	3000	3300

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

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.



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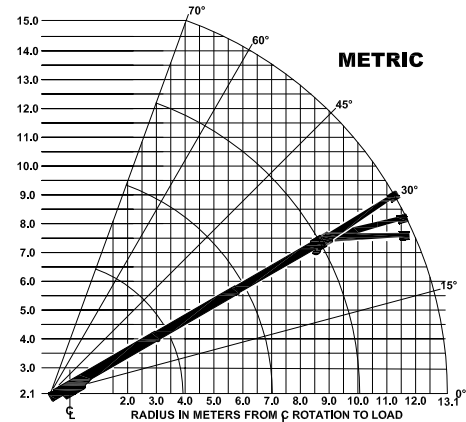
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CAUTION: BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY. BOOM EXTENSIONS CAN BE USED ON RUBBER WHEN CRANE IS STATIONARY. DO NOT PICK AND CARRY WITH BOOM EXTENSION DEPLOYED.

CAPACITIES ON OUTRIGGERS ARE 85% OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75% OF TIPPING LOADS. CAPACITIES ON IN & DOWN OUTRIGGERS ARE LESS THAN 85% OF TIPPING LOADS. CAPACITIES BELOW BOLD LINE ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LIMITED BY STRUCTURAL OR HYDRAULIC

Load Chart Metric

IC-100-B Industrial Crane

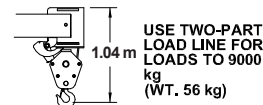
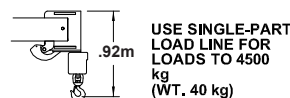


CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE					
LOAD RADIUS METERS	MAIN BOOM OR EXTENSION CAPACITIES IN KILOGRAMS				
	360° ROTATION		OVER FRONT		
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS	
MAIN BOOM	1.5	4200	7700	5100	9000
	2.0	3300	6200	4200	6400
	2.5	2600	4900	3500	4900
	3.0	2100	4000	3000	4000
	3.5	1600	3300	2500	3300
	4.0	1300	2800	2100	2800
	5.0	900	2200	1400	2200
	5.5	700	2000	1200	2000
	6.0	600	1700	1000	1800
	7.0	400	1300	800	1500
	7.5	400	1200	700	1400
	8.0	300	1100	600	1300
	9.0	300	900	500	1100
10.1	200	700	400	800	
3 m BOOM EXT.	10.5	100	700	300	800
	11.0	100	600	300	800
	11.5	100	600	200	700
	12.0	---	500	200	700
	13.1	---	400	200	700
BOOM EXTENSION - 3 METER BOOM EXTENSION - STRAIGHT OR OFFSET					
MAIN BOOM ANGLE					
ANGLE	0°	30°	45°	60°	70°
*† 0°	1000	1200	1400	2200	3200
†15°	---	1100	1200	1600	1900
†30°	---	1000	1100	1300	1500

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

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

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