



Tech Spec

IC-80-G

**Four-Wheel Steering
to access those
hard to reach places**

- Rated Capacity Limiter ... Standard
- Capacity on Outriggers ... 18,000 lbs.
- 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'
- Tight Turning Radius
- 4-Wheel Steer ... Standard
- 4-Wheel Drive ... Optional
- Powershift Transmission ... Standard
- Fully Hydraulic Controls for Smooth Precise Operation
- Independent Outrigger Controls
- Dual Fuel Standard, Diesel Optional



bmc[®] BRODERSON[®]
Manufacturing Corp.
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IC-80-1G

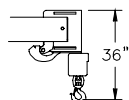
CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE				
RADIUS FEET	MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS			
	360° ROTATION		OVER FRONT	
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS
MAIN BOOM	5	9600	17000	11700
	6	7900	14500	10400
	8	5750	10250	8400
	10	4150	7700	6300
	12	3100	6550	4650
	14	2425	5550	3750
	16	2000	4650	3100
	18	1700	4100	2650
	20	1450	3550	2300
10' BOOM EXT.	22	1275	3200	2000
	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			
EXTENSION ANGLE	0°	30°	45°	60°
* 0°	2250	2600	3200	5000
† 15°	---	2400	2700	3500
† 30°	---	2250	2500	3000

* USE 0° FOR STRAIGHT BOOM EXTENSION.

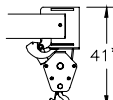
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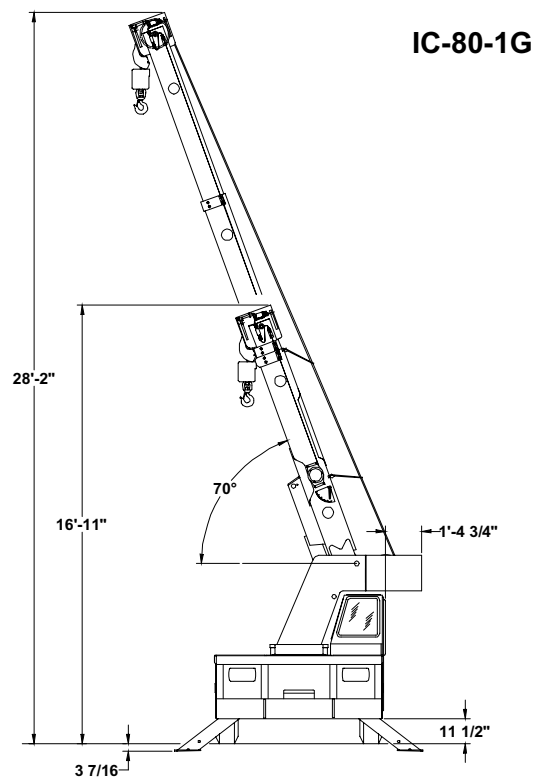
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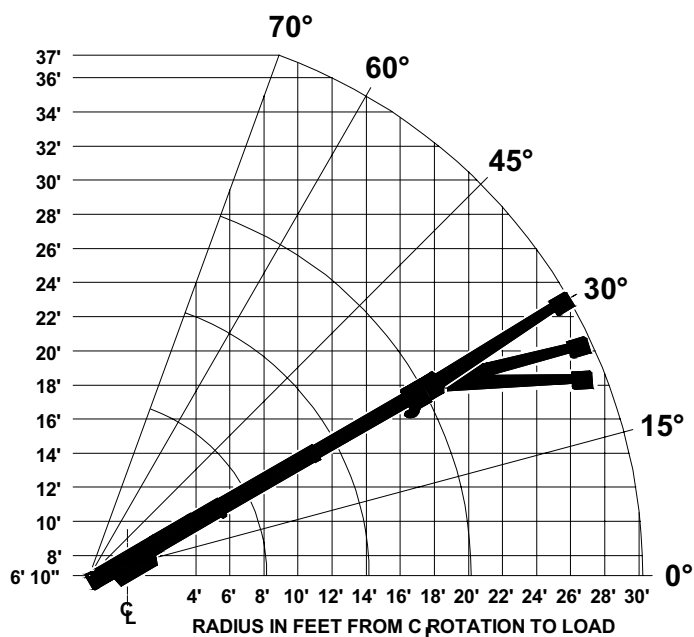
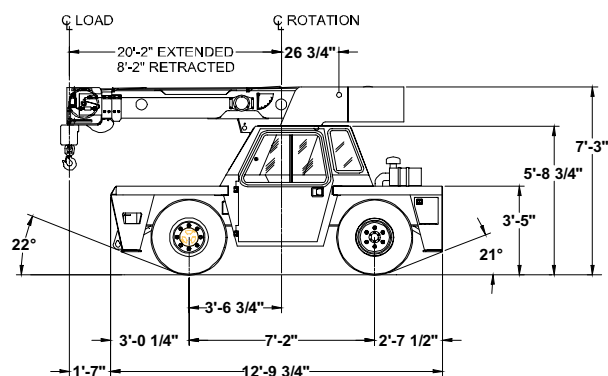
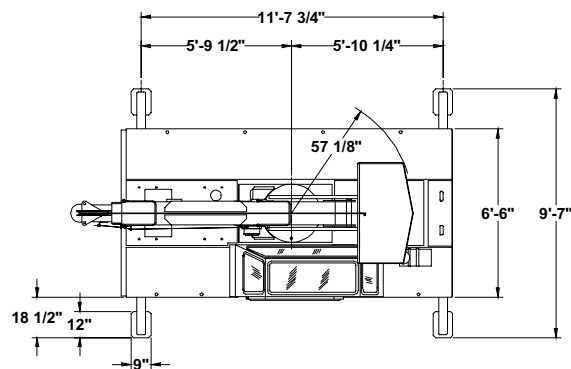
USE SINGLE PART
LOAD LINE FOR
LOADS TO 9000
LBS.
(WT. 90 LBS.)



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



IC-80-1G





IC-80-2G

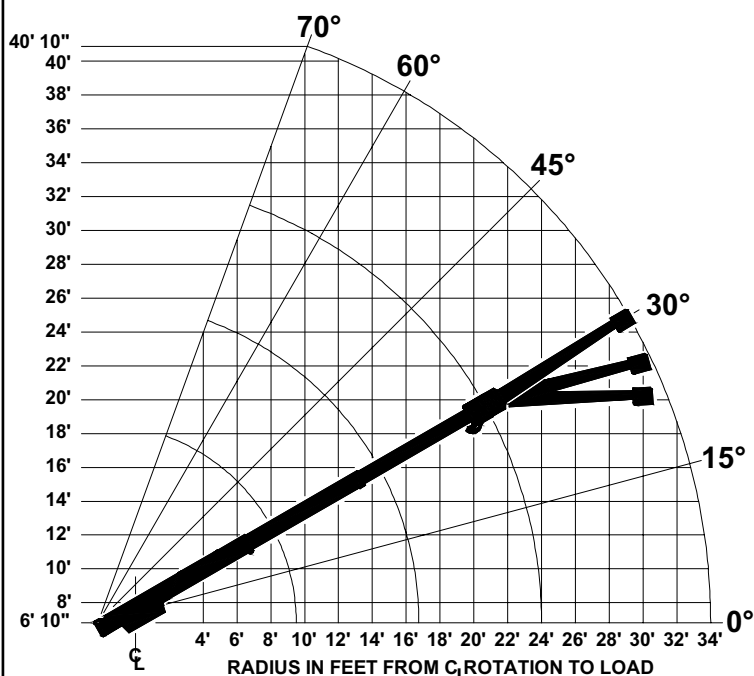
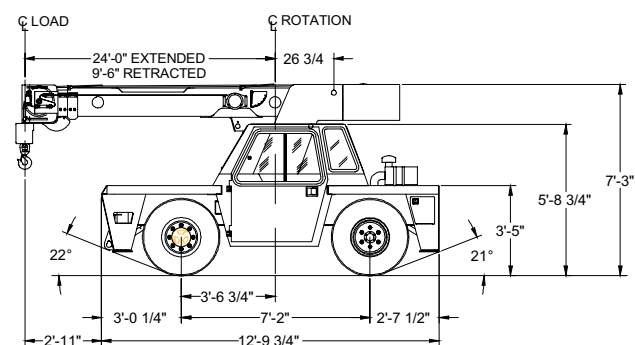
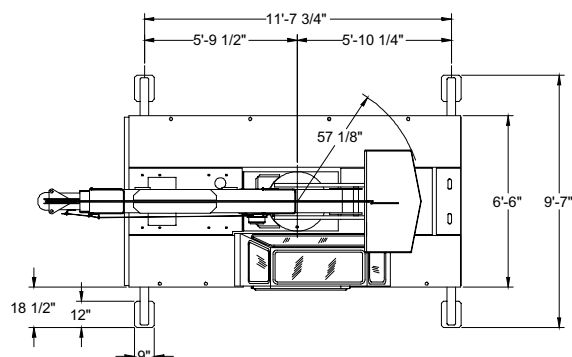
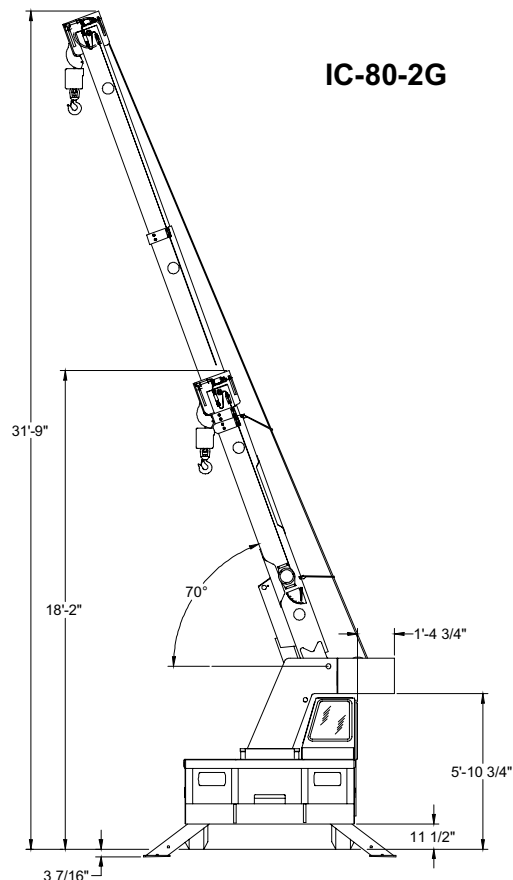
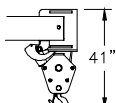
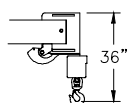
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	360° ROTATION		OVER FRONT	
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS
MAIN BOOM	5	9500	17000	11600
	6	7800	14500	10200
	8	5650	10250	8250
	10	4000	7700	6200
	12	3000	6550	4650
	14	2350	5550	3650
	16	1900	4550	2950
	18	1600	3950	2500
	20	1350	3350	2150
	22	1150	2950	1850
	24	1000	2550	1650
	26	850	2450	1450
10' BOOM EXT.	28	725	2175	1275
	30	625	1900	1125
	32	525	1725	1000
	34	425	1500	900
	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.

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IC-80-3G

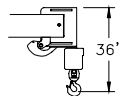
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	360° ROTATION		OVER FRONT		
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS	
MAIN BOOM	5	9400	17000	11400	18000
	6	7550	14000	10000	14000
	8	5600	10000	8100	10000
	10	4300	7700	6100	7700
	12	3200	6100	4450	6100
	14	2550	5200	3400	5200
	16	2050	4400	2700	4400
	18	1650	3900	2200	3900
	20	1350	3400	1800	3400
	22	1150	3050	1550	3050
10' BOOM EXT.	24	1000	2750	1350	2800
	26	850	2450	1200	2550
	28	750	2200	1100	2350
	30	650	1950	1000	2150
	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 EXTENSION	10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET			
	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.

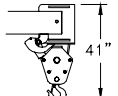
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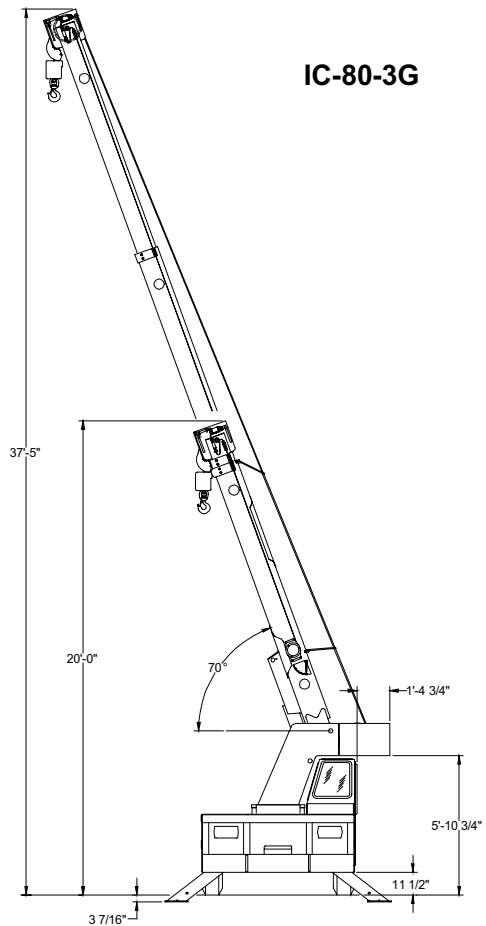
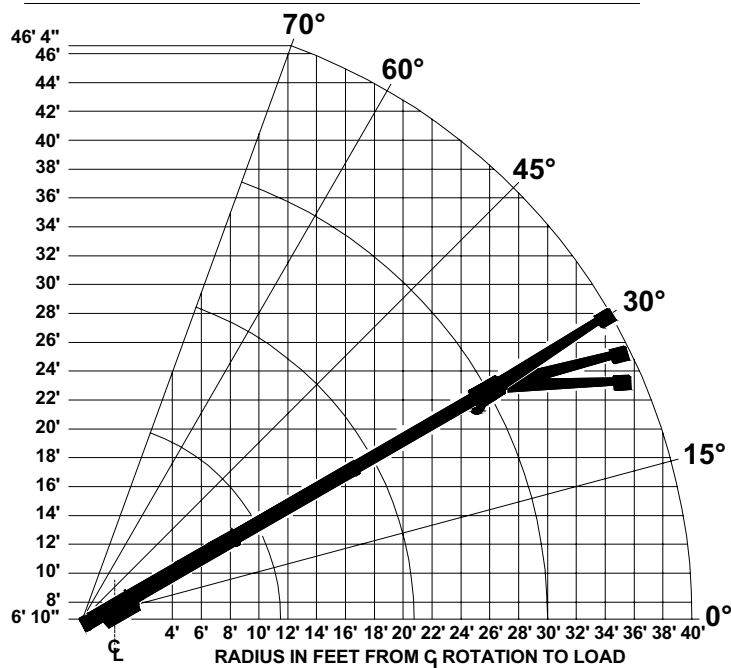
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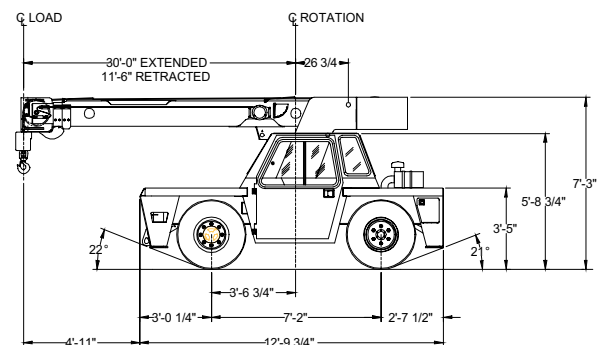
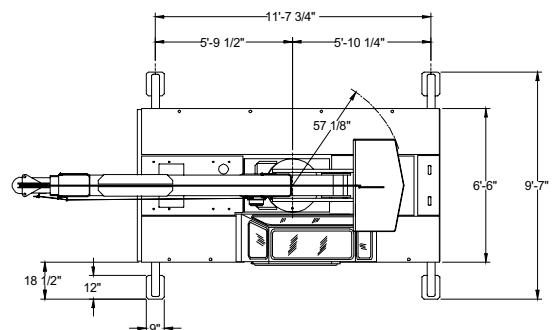
USE SINGLE PART
LOAD LINE FOR
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(WT. 90 LBS.)

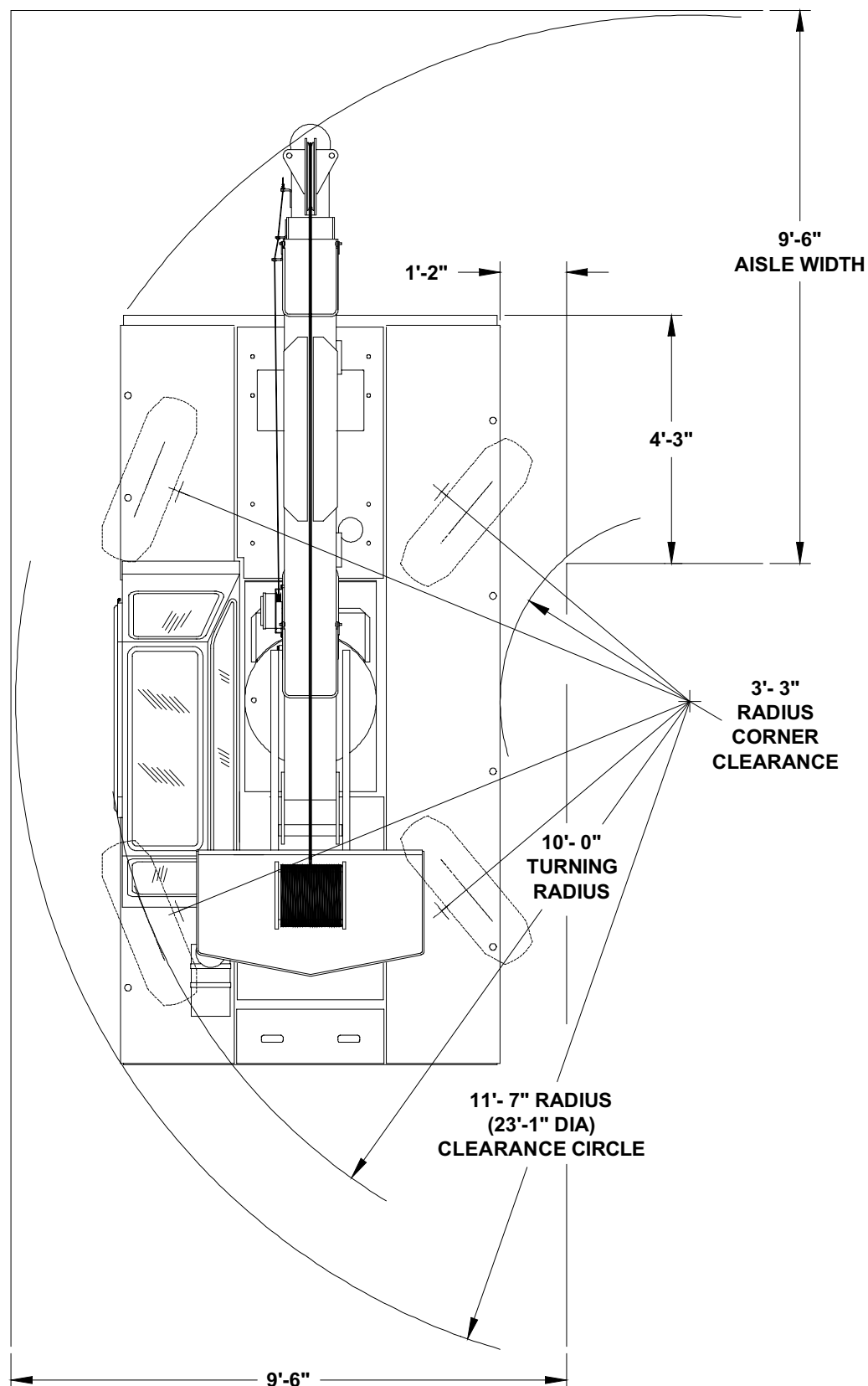


USE TWO PART
LOADLINE FOR
LOADS TO 18000
LBS.
(WT. 124 LBS.)



IC-80-3G







IC-80-G

GENERAL:

Weight:	<u>IC-80-1G</u>	<u>IC-80-2G</u>	<u>IC-80-3G</u>
4-Wheel Steer	16,060 lbs.	16,260 lbs.	16,660 lbs.
4-Wheel Drive	16,660 lbs.	16,860 lbs.	17,260 lbs.

Boom Movement:

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.

Boom Speeds:

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.

Turning Radius:

(C/L of Outside Steering Wheel)	10 ft. 0 in.
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Aisle Width for 90° Turn:	9 ft. 6 in.
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ENGINE:

	<u>Standard</u>	<u>Optional</u>
Make	GM	Cummins
Model	3.0 EFI*	4B4.5-C**
Type	Gas	Diesel
No. Cyl.	4	4
Displacement	181 CID	275 CID
HP @ Gov. Speed	69	80

* Electronic Fuel Injection with Dual Fuel, US EPA & CARB Certified for 2005 emissions standards.

**Tier II CARB & US EPA Tier II Emissions Certified

Fuel Tank Capacity:	20 Gallons
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TRANSMISSION:

Powershift transmission with 4-speeds in forward and 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.

	<u>Forward/Reverse</u>	<u>Travel</u>	<u>Drawbar</u>
<u>Gear</u>	<u>Gear Ratios</u>	<u>Speed</u>	<u>Pull</u>
First	5.72:1	4 MPH	10,500 lbs.
Second	3.23:1	6 MPH	6,000 lbs.
Third	1.77:1	12 MPH	3,200 lbs.
Fourth	1.00:1	20 MPH	1,800 lbs.

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." Only available with mining and industrial tires.

Rear:

2-Wheel Drive:

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

Optional 4-Wheel Drive:

Planetary drive/steer axle with 11.625/1 axle ratio. Differential is "Limited Slip." Oscillation is 1-1/2 degree in either direction. Only available with mining and industrial tires.

	<u>Forward/Reverse</u>	<u>Travel</u>	<u>Drawbar</u>
<u>Gear</u>	<u>Gear Ratios</u>	<u>Speed</u>	<u>Pull</u>
First	5.72:1	3 MPH	12,300 lbs.
Second	3.23:1	5 MPH	7,000 lbs.
Third	1.77:1	10 MPH	3,800 lbs.
Fourth	1.00:1	17 MPH	2,200 lbs.

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: 2-Wheel Drive

Front Internal wet disc brakes

Rear Drum type

Parking Disc type

4-Wheel Drive

Internal wet disc brakes

Internal wet disc brakes

Disc type



Tech Spec

TIRES:

2-Wheel Drive 10.00 x 15, load range J radial, highway type tread.

4-Wheel Drive 10.00 X 15, mining & industrial, 16 ply rating.

CHASSIS:

Cargo Deck:

64 square feet of deck area.* 14,000 lbs. 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.

* 54 Square feet with Cummins engine.

**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".

Accessory Storage Box:

Storage box 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:

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:

Fuel, ammeter, oil pressure, water temperature, transmission oil temperature gauges & hourmeter. Also included are warning lights for low transmission pressure, turn signal, high beams, hazard lights, parking brake & 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.

ELECTRICAL: (Cont'd)

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 lbs. 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-G

Listed below are brief descriptions of each option available for the IC-80-G Industrial Cranes.
Consult the IC-80-G Engineering Spec for additional information on each option.

MODELS:

IC-80-1G Industrial Crane with
8'2"-20'2" Boom Reach

IC-80-2G Industrial Crane with
9'6"-24' Boom Reach

IC-80-3G Industrial Crane with
11'6"-30' Boom Reach

ENGINE:

Diesel Engine

Cummins - B4.5-C

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.

Ether Injection System

Ether starting aid controlled by switch in operator compartment and injects ether directly into intake manifold.

Engine Shut Down Gauges

Shuts engine off when high water temperature or low engine oil pressure occurs. (Diesel Only)

AXLE & STEERING OPTIONS:

4-Wheel Steer & 2-Wheel Drive

4-Wheel Steer & 4-Wheel Drive
(Diesel Engine Only)

TIRE OPTIONS:

Mining & Industrial Tires

10.00 x 15, 16-Ply Rating

10.00 x 15, Non Marking

Solid Rubber Tires, 8.25 x 15

Foam Filling of Tires

Spare Tire & Wheel

Highway Tread, 10.00 x 15

Mining & Industrial, 10.00 x 15

Mining & Industrial, Non Marking

CHASSIS OPTIONS:

Auxiliary Winch

Mounted behind front bumper, hydraulically driven with control in operator's console.

CHASSIS OPTIONS: (Cont'd)

Pintle Hook:

Pintle Hook, Rear

Pintle Hook, Front

Headlight and Taillight Grilles

Welded steel protective grilles for headlights and taillights.

Rear Work Light Grilles

Protective grilles for worklights.

Rearview Mirrors

One mounted on right-hand deck stake & 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.

Operator Guard Door

Hinged door covers operator compartment side opening.

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.

Amber Rotating Beacons

Amber rotating beacon 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, as an end user, require an option or special equipment on your IC-80-G that is not listed on our sales literature, please contact your dealer salesperson or the factory to receive a special quoted price.

BMC[®] BRODERSON[®]
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