

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.

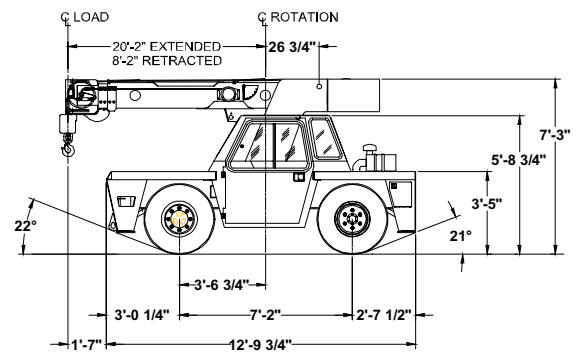
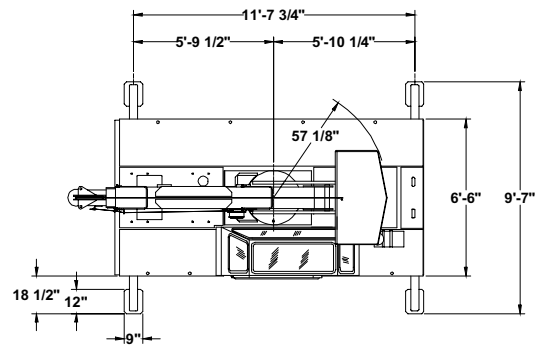
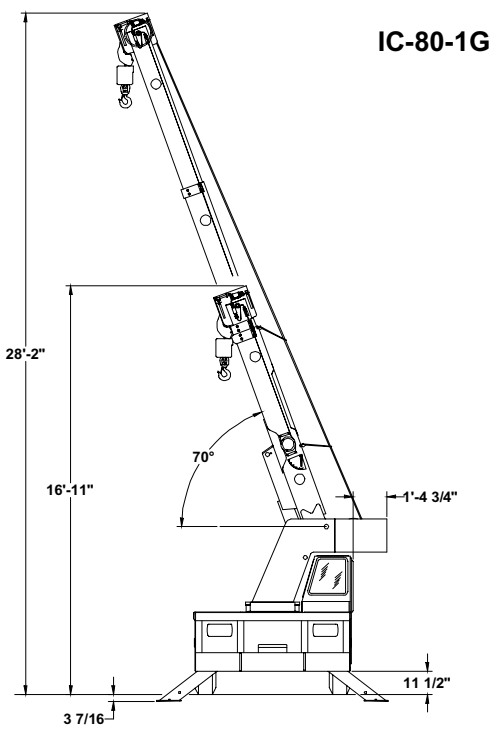
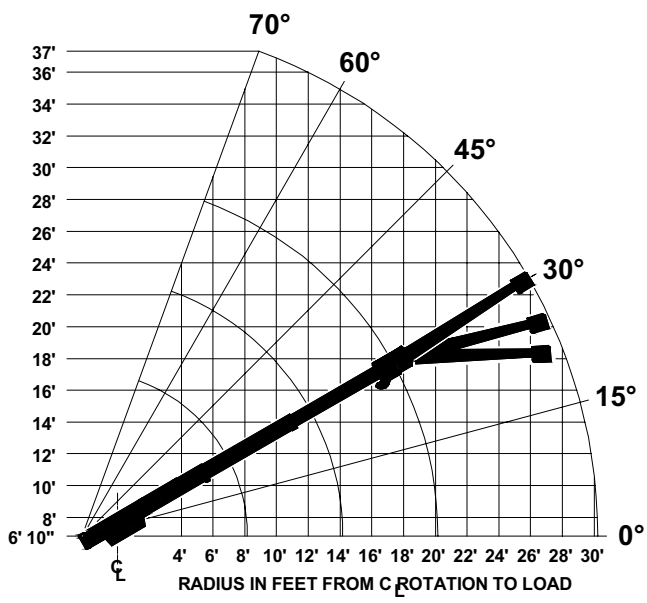
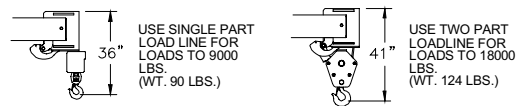
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IC-80-1G

CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE						
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	9600	17000	11700	18000	
	6	7900	14500	10400	14500	
	8	5750	10250	8400	10250	
	10	4150	7700	6300	7700	
	12	3100	6550	4650	6550	
	14	2425	5550	3750	5550	
	16	2000	4650	3100	4650	
	18	1700	4100	2650	4150	
	20	1450	3550	2300	3800	
	10' BOOM EXT.	22	1275	3200	2000	3000
24		1075	2800	1725	2800	
26		925	2500	1500	2600	
28		775	2200	1300	2400	
30		675	2000	1150	2250	
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.
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.

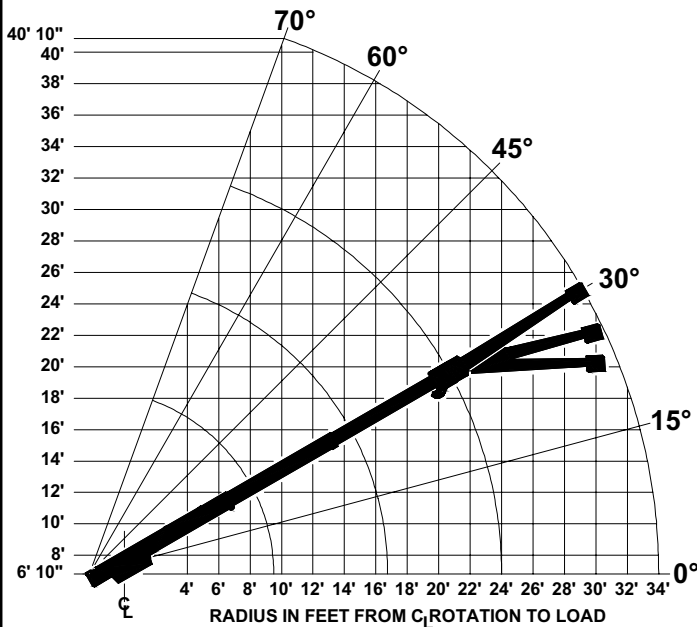
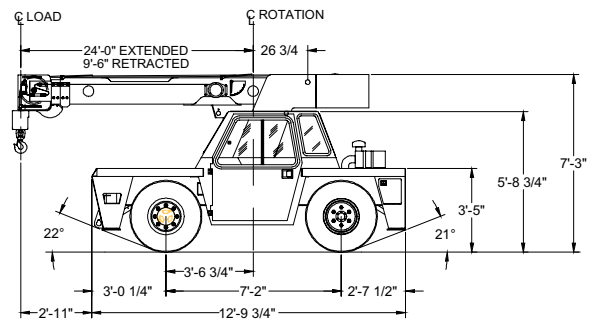
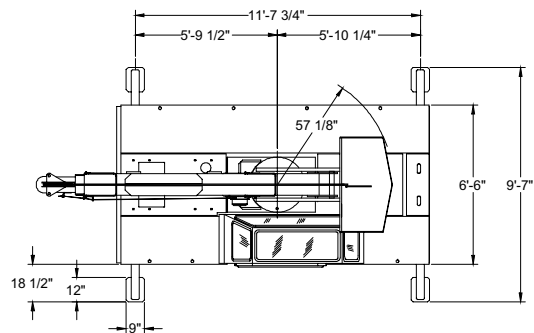
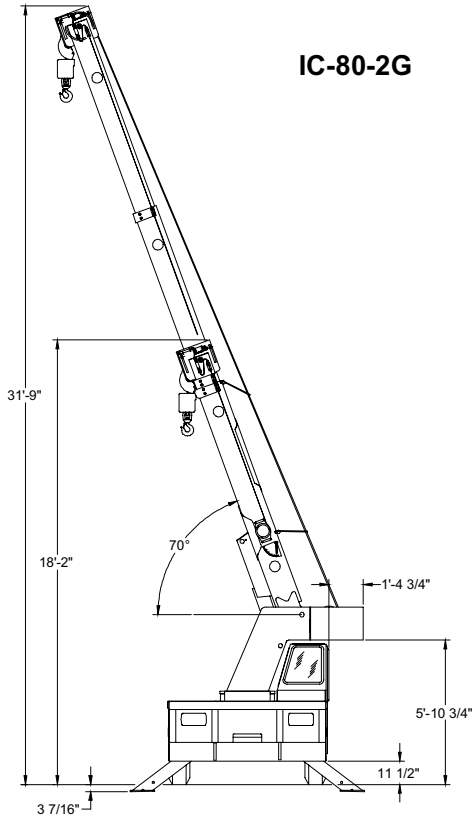
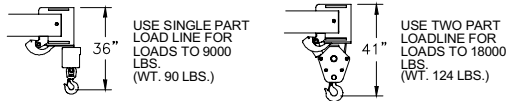


IC-80-2G

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	
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	
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°	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.
CAUTION BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY. DO NOT PICK & CARRY WITH LOADS ON BOOM EXTENSION.
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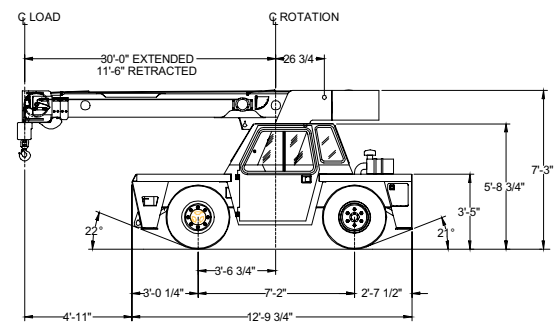
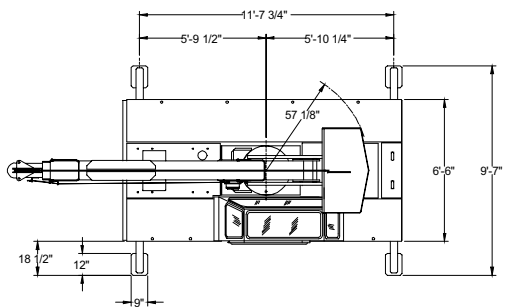
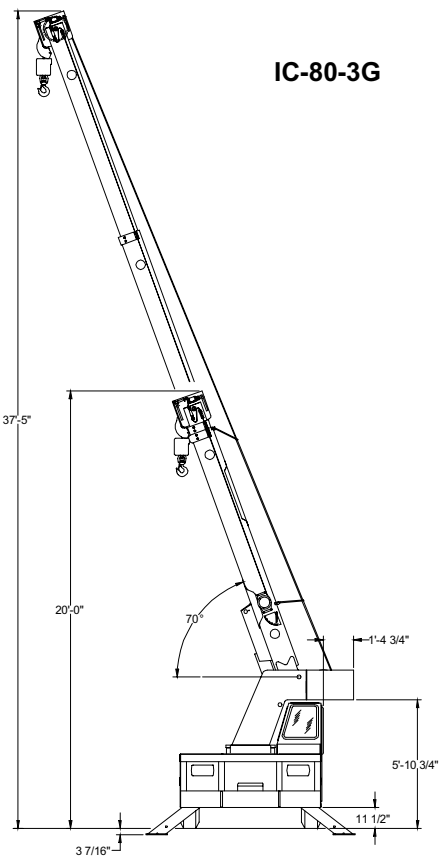
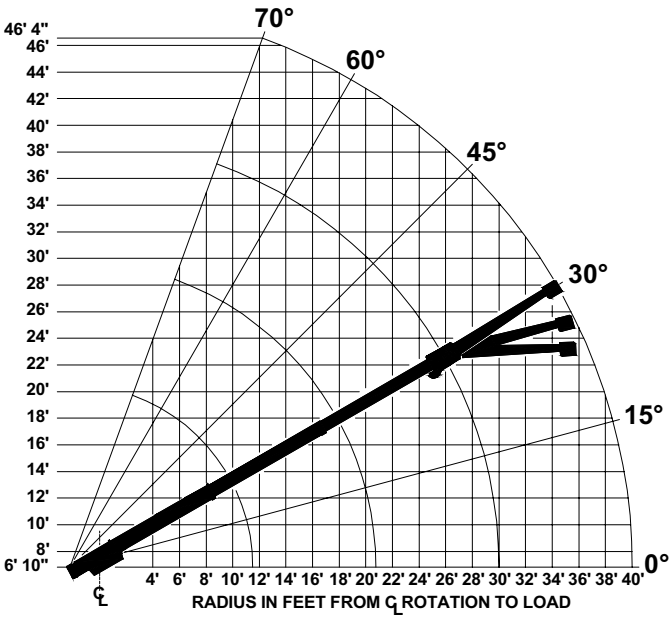
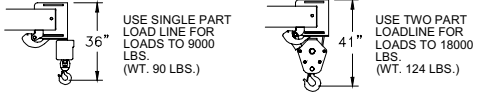
IC-80-3G

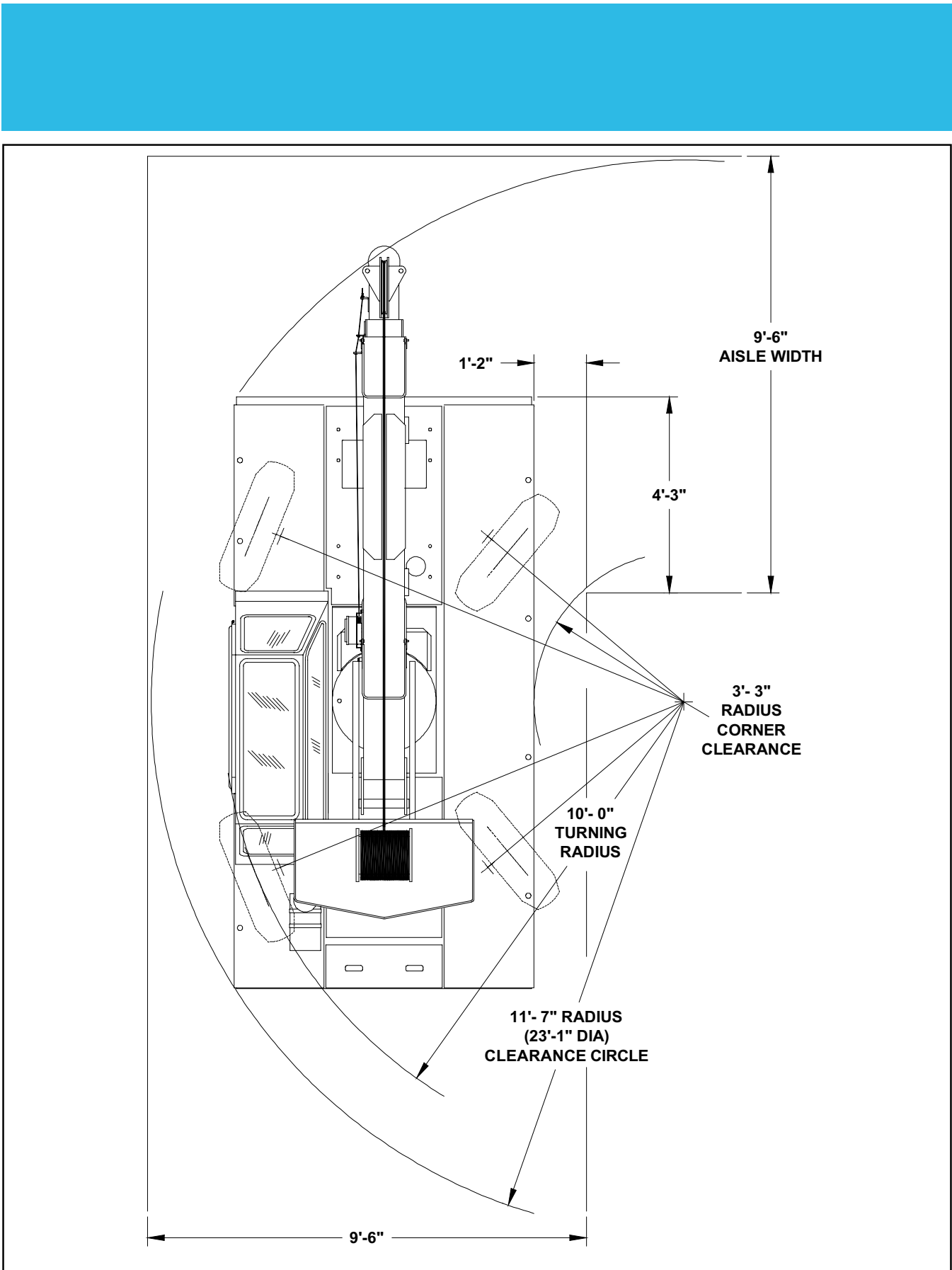
CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE

LOAD RADIUS FEET	MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS				
	360° ROTATION		OVER FRONT		
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS	
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	
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

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IC-80-G

GENERAL:

Weight:	IC-80-1G	IC-80-2G	IC-80-3G
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.

Aisle Width for 90° Turn: 9 ft. 6 in.

ENGINE:

	Standard	Optional
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

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.

Gear	Forward/Reverse Gear Ratios	Travel Speed	Drawbar Pull
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.

	Forward/Reverse Gear	Travel Gear Ratios	Travel Speed	Drawbar Pull
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

4-Wheel Drive

Internal wet disc brakes

Rear Drum type

Internal wet disc brakes

Parking Disc type

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.

