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**Date** January 2017

**Replaces** Form CD111J  
**Dated** November 2011

The IC-80-J is a self-propelled Industrial Crane designed for in-plant lifting and material handling applications, with special features of low height, narrow width, short length, cargo deck, and standard 4-wheel steer and front-wheel drive. The chassis includes a frame, four independently controlled hydraulic outriggers, engine, torque converter, 4-speed powershift transmission, front planetary drive/steer and rear steer axles, fuel tank, hydraulic tank, control station, and full power steering. The boom assembly includes a hydraulic powered, continuous rotation turret, 3-section boom, hydraulic boom elevating cylinder, hydraulic boom telescoping cylinders, and hydraulic powered hoist. Rated Capacity Limiter is standard.

**IC-80-1J:**

3-section hydraulically extended boom with capacity of 18,000 pounds (8,160 kg) at a 5-foot load (1.5 m) load radius.

**IC-80-2J:**

3-section hydraulically extended boom with capacity of 18,000 pounds (8,160 kg) at a 5-foot load (1.5 m) radius.

**IC-80-3J:**

3-section hydraulically extended boom with capacity of 18,000 pounds (8,160 kg) at a 5-foot load (1.5 m) radius.

**GENERAL:**

**Length:**

IC-80-1J	14 feet, 6 inches (4.45 m)
IC-80-2J	15 feet, 10 inches (4.82 m)
IC-80-3J	17 feet, 10 inches (5.44 m)

**Width:**

6 feet, 6 inches (198 cm)

**Height:**

Overall	7 feet, 3 inches (220 cm)
Deck	41 inches (104 cm)

**Wheelbase:**

86 inches (218 cm)

**Ground Clearance:**

Chassis	11.5 inches (29 cm)
Minimum (muffler)	5.75 inches (14 cm)

**Angle of Approach:**

22 degrees

**Angle of Departure:**

21 degrees

**Outriggers:**

Spread	9 feet, 7 inches (290 cm)
Penetration	3.4 inches (86 mm)

**BOOM MOVEMENT:**

	<b>IC-80-1J</b>	<b>IC-80-2J</b>	<b>IC-80-3J</b>
Rotation	Continuous	Continuous	Continuous
Elevation	0° to 70°	0° to 70°	0° to 70°
Telescope	12 feet (366 cm) Hyd.	14.5 feet (442 cm) Hyd.	18.5 feet (564 cm) Hyd.

**BOOM SPEEDS:**

	<b>IC-80-1J</b>	<b>IC-80-2J</b>	<b>IC-80-3J</b>
Rotation	2 RPM	2 RPM	2 RPM
Elevation	12 seconds	12 seconds	12 seconds
Telescope	17 seconds	21 seconds	27 seconds

**Sheave Height: (Nominal)**

	<b>IC-80-1J</b>	<b>IC-80-2J</b>	<b>IC-80-3J</b>
W/O Boom Extension	28 feet, 2 inches (8.6 m)	31 feet, 9 inches (9.7 m)	37 feet, 5 inches (11.4 m)
With Boom Extension	37 feet, 5 inches (11.4 m)	41 feet (12.5 m)	46 feet, 8 inches (14.2 m)

**Horizontal Reach:**

	<b>IC-80-1J</b>	<b>IC-80-2J</b>	<b>IC-80-3J</b>
W/O Boom Extension	20 feet, 2 inches (6.1 m)	24 feet (7.3 m)	30 feet (9.1 m)
With Boom Extension	30 feet, 2 inches (9.2 m)	34 feet (10.3 m)	40 feet (12.1 m)

**Weight: (Nominal)**

	<b>IC-80-1J</b>	<b>IC-80-2J</b>	<b>IC-80-3J</b>
2-Wheel Drive*	16,200 pounds (7,350 kg)	16,400 pounds (7,440 kg)	16,750 pounds (7,600 kg)
Front Axle	7,325 pounds (3,325 kg)	7,650 pounds (3,470 kg)	8,325 pounds (3,775 kg)
Rear Axle	8,875 pounds (4,025 kg)	8,750 pounds (3,970 kg)	8,425 pounds (3,825 kg)

\*With GM 3.0L gasoline engine

**Steering:**

Turning Radius	11 feet, 2 inches (3.40 m) (4-Wheel Steer)
Aisle Width for 90° Turn	9 feet, 7 inches (2.92 m)
Steering Modes	Rear Steer, Round Steer, Crab Steer

**Road Speed**

22 mph (35.4 km/h)

**Drawbar Pull**

15,500 pounds 1 (7,030 kg)

**Gradeability**

63 percent<sup>1</sup> (32 degrees)

**Grade Limit**

15 percent<sup>1</sup> (8.5 degrees)

<sup>1</sup>Calculated values based on GM 3.0L Gasoline Engine. (Wheels may spin before these values are reached)

**ENGINE:**

**Standard Gasoline:**

**GM 3.0L EPA Tier II w/ Dual Fuel**

GM Model 3.0L industrial gasoline engine with multi-port electronic fuel injection, dual fuel, catalytic converter, and engine management system. Water cooled, 4-cylinder, 181 CID (3.0 L), bore 4.00 inches (102 mm), stroke 3.60 inches (91 mm), 59 HP (44 kW) at governed speed of 2,500 RPM. Maximum torque, 138 pounds-foot (187 Nm) at 1,600 RPM. Also includes special exhaust valves, seats, and valve rotators for use with LPG, 70-amp alternator, 17.6-gallon (66.6 L) fuel tank and 33-pounds (15 kg) LPG tank. High temperature and low oil pressure shutdown is included in engine management system. Throttle control switch for setting engine speed at 1,200 or 1,800 RPM.

**Optional Engines and Engine Accessories:**

**Diesel Engine:**

**Cummins B 3.3L Turbo, EPA Tier IV Interim**

Cummins B 3.3 turbo-charged diesel industrial engine. Water cooled, 4-cylinder, 199 CID (3.3 L), bore 3.74 inches (95 mm), stroke 4.53 inches (115 mm), 74 HP (55kW) at governed speed of 2,600 RPM. Maximum torque, 274 pounds-foot (371 Nm) at 1,600 RPM. 90-amp alternator included. 17.6-gallon (66.6 L) fuel tank. Net Weight: 180 pounds (82 kg).

**Spark Arrester Muffler:**

Spark arrester muffler used in addition to standard muffler. Net Weight: 10 pounds (5 kg).

**Engine Heater:**

Engine coolant heater installed with hoses in coolant system to circulate warm water through engine. Plugs into 120-volt AC extension cord. 1,500 watts.

**TRANSMISSION:**

**Standard:**

Powershift transmission with four 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 valves provide forward, neutral, reverse, and speed selection. Equipped with oil cooler and filter.

**STANDARD**

Transmission Gear	Forward or Reverse	Travel Speed MPH (km/h)	Drawbar Pull <sup>1</sup> Pounds (kg)
1st	5.72 : 1	4 (6)	15,500 (7,031)
2nd	3.23 : 1	7 (11)	8,700 (3,946)
3rd	1.77 : 1	13 (21)	4,600 (2,087)
4th	1.00 : 1	22 (35)	2,500 (1,134)

<sup>1</sup>Drawbar pull is calculated based on GM 3.0L gasoline engine.

**TORQUE CONVERTER:**

Stall torque ratio of 2.2:1. Attached to engine flywheel.

**FRONT AXLE:**

**Standard:**

Planetary drive axle with 11.625:1 ratio. Differential is "No Spin". Front axle is mounted rigidly to frame.

**REAR AXLE:**

**Standard:**

Drop-center axle beam casting with 1½ degree oscillation in either direction.

**STEERING:**

**Standard:**

Hydraulic steering unit with one double-rod cylinder on rear axle and one double-rod cylinder on front axle. Allows limited steering when engine is not running. 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:**

**Standard:**

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

**TIRES:**

10:00 x 15, 16-ply, highway type tread.

**Tire Options:**

**Solid Rubber Tires:**

8:25 x 15. These tires will reduce overall height and ground clearance by 1½ inches (3.8 cm). Net Weight: 400 pounds (181 kg).

**Foam Filling of Tires:**

10.00 x 15, All four tires foam filled. Net Weight: 900 pounds (408 kg).

**Spare Tire and Wheel Mounted:**

Highway Tread: 10.00 x 15, 16-ply, Bias: Net weight: 163 pounds (74 kg).

Mining and Industrial Tire: Net weight: 193 pounds (88 kg).

Mining and Industrial Tire: Non-Marking: Net weight: 193 pounds (88 kg).

**CHASSIS:**

**Standard:**

**Cargo Deck:**

Total Deck Area: 53 square feet (5 m<sup>2</sup>). A maximum of 14,000 pounds (6,350 kg) may be carried on the deck when centered over or between axles. Seven stake pockets are provided along edges of deck for 1.2-inch (3.1 cm) pipe stakes. Stakes furnished. Cargo decks have skid resistant coating. Heavy deck loads allowed at creep speed below 2 MPH (3.2 km/h) and less than 200 feet (61 m) in 30 minutes.

**Fire Extinguisher:**

1-A:10-BC, 2½ pound (1.1kg) dry chemical. Mounted in operator's compartment.

**Lifting Rings:**

Consists of four rings, one at each corner of the load deck, so sling can be attached for lifting crane. Rings hang below deck surface when not in use.

**Tie Downs:**

Two holes in the rear bumper (in conjunction with the pulling eyes) provide tie down locations for transporting crane by truck or cargo container.

**Steps:**

A step is located on each front corner providing access to deck area.

**Battery:**

Located behind door on left hand rear corner of chassis. Compartment available on right hand rear corner of chassis for second battery if necessary.

**Outriggers:**

Four hydraulic outriggers of box-beam construction. Independent controls for each outrigger. Hydraulic cylinders are equipped with direct-connected holding valves. Pad dimensions: 9 inches (23 cm) x 12 inches (30 cm).

**Pulling Eyes:**

Two heavy eyes in front bumper provide for attachment of hook block so main winch line can be used for pulling loads at or near floor level.

**Vandalism Protection:**

Lockable hood for protection of engine compartment.

**Accessory Storage Box:**

Consists of box under front deck plate for carrying sheave block and other items. Flush fitting cover is lockable. Storage box is 14 inches deep (35.6 cm) x 10.5 inches wide (26 cm) x 27 inches (68 cm) long.

**Headlight and Taillight Grilles:**

Consists of welded steel protective grilles for headlights and taillights. Easily removable for replacing bulbs.

**Chassis Options and Accessories:**

**Auxiliary Winch:**

Optional worm gear winch, mounted behind front bumper, with a lever control at the operator's console. Hydraulic powered to provide bare drum line pull of 5,000 pounds (2,260 kg) at 46 feet per minute (14 m/min). Winch drum is 3½ inches (90 mm) diameter by 11 inches (279 mm) long. This winch includes 75 feet (23 m) of 3/8 inch (9.5 mm) wire rope, hook and four-way roller guide. Net Weight: 100 pounds (45 kg).

**Pintle Hook - Rear:**

T-60-A Holland pintle hook mounted on rear frame member provides capacity for 2,000 lbs (900 kg) tongue

weight and 10,000 lbs (4,530 kg) trailer weight. Net Weight: 10 pounds (5 kg).

**Pintle Hook - Front:**

T-60-A Holland pintle hook mounted on front frame member. Provides same capacity as rear pintle hook. Net Weight: 25 pounds (11 kg).

**Rearview Mirrors:**

One right-hand and one left-hand mirror, 6 inches (152 mm) wide x 16 inches (406 mm) high, mounted on deck stakes. Pivot out of way when contacted by obstacle at side of deck. Net Weight: 12 pounds (5 kg).

**OPERATOR COMPARTMENT:**

**Standard:**

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

**Drum Rotation Indicator:**

Provides tactile feedback to operator when hoist drum is rotating. Feedback device attached to hoist control handle. Feedback is proportional to hoist speed.

**Operator's Compartment Options & Accessories:**

**Operator Guard (Not Available with Cab):**

Tubular steel weldment with heavy expanded steel mesh top section, bolts over the operator's compartment. Net Weight: 55 pounds (25 kg).

**All Weather Cab:**

Consists of rigid mounted canopy section and removable hinged door with safety glass. Rugged canopy structure with laminated glass front and top. Top glass is 3/8 inch thick. Door is equipped with a keyed lock to protect operator's station. Includes defroster fan, 24,000 BTU heater with two-speed fan, and 12V electric windshield wiper. There are sliding windows in the door and right-hand side. Dome light is included for operator's convenience. Net Weight: 215 pounds (98 kg).

**Cab Heater Only:**

Provides 24,000 BTU heater with two-speed fan for units without All Weather Cab. Net Weight: 12 pounds (5 kg).

**Windshield Washer:**

Provides reservoir, pump, and nozzle for windshield washer.

**Floor Mat:**

Vinyl mat with foam backing covers floor, front wall, and lower portion of right hand wall of operator's compartment.

**Deluxe Seat:**

Deluxe seat with upholstery springs provides additional operator comfort. Net Weight: 15 pounds (7 kg).

**Noise Reduction Kit - Cab:**

Includes rubber floor mats and control valve cover and side panels of foam-backed perforated vinyl for noise reduction. Net Weight: 13 pounds (6 kg).

**Air Conditioning:**

Complete system using R134a coolant has combination cooling and heating unit in cab. Net Weight: 125 pounds (57 kg).

**ELECTRICAL SYSTEM:**

**Standard:**

**12-Volt Battery:**

Gas Units: Group 27 with 540 CCA rating.

Diesel Units: Group 31 with 950 CCA rating.

**Instrument Group:**

Located at operator's station and includes fuel gauge, hourmeter and bubble level. Hourmeter records hours only during actual engine operation. 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, engine oil pressure, transmission temperature, and outriggers.

**Lighting Group:**

Consists of two 12V lamps, with high and low beams for driving; integral tail, brake and turn signal lights and backup lights in rear; front turn signals and emergency flasher switch at operator's station. 12V horn actuated by button located on shifting control.

**Back-Up Alarm:**

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

**Outrigger Alarm System:**

112 dB alarm with alternating two-tone sound is actuated by a switch when the OUTRIGGER DOWN controls are operated.

**Optional Electrical Accessories:**

**Strobe Lights:**

Two yellow strobe lights, one on each side of turret weight box, for high visibility all around crane. Flash 60-120 times per minute. Each strobe draws only one-half amp. Includes operator controlled switch.

**Boom Work Lights:**

Two work lights, one on left side of boom to light boom tip, and one on right side of the turret to light ground under boom tip. Includes switch at operator's station. Net Weight: 10 pounds (5 kg)

**Work Light Rear:**

Two work lights recessed into rear bumper. Provides lighted work area to rear of machine.

**HYDRAULIC SYSTEM:**

**Standard:**

Tandem pump, direct-driven by engine crankshaft, delivers 16 GPM (61 L/min) at 2,600 PSI (179 bar) and 32 GPM (121 L/min) at 2,500 PSI (172 bar) at 2,500 RPM governed engine speed. System protected by relief valves, suction line strainer and 10-micron full-flow return line filter. 25-gallon (95 L) reservoir equipped with filler cap and breather element..

**BOOM ASSEMBLY:**

**Standard:**

Three-section, high strength steel construction, equipped with bearing pads for efficient support and extension. Double-acting hydraulic cylinders extend boom sections. Telescope cylinder and the boom elevation cylinder are equipped with direct-connected holding valves. Boom angle indicator on side of boom.

**BOOM ROTATION:**

**Standard:**

Heavy-duty bearing rotation gear with external teeth supports boom. Rotation is powered by hydraulic motor and worm gear drive. Rotation gearbox may be adjusted as wear occurs to minimize backlash. Boom is attached by high strength steel weldment.

**BOOM HOIST:**

**Standard:**

Turret-mounted, planetary gear hoist, is hydraulically powered to provide a bare-drum line pull of 10,000 lbs (4,536 kg) at a speed of 110 ft per minute (34 m/min). Hoist drum 9.75 inch (248 mm) diameter by 13 inches (330 mm) long. Provides even pull and long cable life. The hoist includes 125 feet (38 m) of 9/16-inch (14 mm) wire rope.

**BOOM ATTACHMENTS:**

**Standard:**

**Anti-Two-Block Device:**

Prevents damage to hoist rope and/or machine components from accidentally pulling sheave block or downhaul weight against boom tip. Consists of trip arm at boom tip which is moved upward by sheave block or downhaul weight as hook approaches boom tip. Trip arm actuates electric switch which is connected

through cable reel mounted on boom to solenoid dump valve in the hydraulic circuit. This valve will dump the HOIST RAISE, TELESCOPE EXTEND, BOOM LOWER, SWING LEFT, and SWING RIGHT circuits. No other circuits are affected. These circuits are returned to normal operation by operating the HOIST LOWER or TELESCOPE RETRACT control.

**Rated Capacity Limiter:**

Operator's aid that warns operator of impending overload with audible and visual signals. Has read-outs for load, boom angle, boom length and load radius. In the event of an overload, dumps the following boom functions: HOIST RAISE, TELESCOPE EXTEND, BOOM LOWER, SWING LEFT, and SWING RIGHT. These circuits are returned to normal by lowering load to a safe resting place with hoist or by retracting or raising boom to a shorter load radius. There is also an override switch under the dashboard.

**Sheave Block and Downhaul Weight:**

A 124-pound (56 kg) sheave block is provided for two-part line requirements. Block is shorter than normal, 21.5 inches (546 mm) from top to saddle of load hook. 10 inch (254 mm) O.D. sheave for 9/16 inch (14 mm) rope. Has swivel hook with safety latch. A 90-pound (41 kg) downhaul weight and swivel hook are also provided for single-part line.

**Optional Boom Attachments:**

**Boom Extension - 10 Ft (3 m):**

Provides 10 feet (3 m) of additional length for lifting loads with load line. Boom extension may be stowed alongside base boom section when not in use. Tip sheave, attaching brackets and pins included. Deduct 100 pounds (45 kg) from Capacity Chart when boom extension is in the stowed position. Includes switch for Anti-Two-Block. Net Weight: 300 pounds (136 kg).

**Boom Extension - 10 Ft (3m) Offset:**

Provides 15 feet of additional length for lifting loads with load line. Boom extension may be stowed alongside base boom section when not in use. Tip sheave, attaching brackets and pins included. Deduct 400 pounds (180 kg) from Capacity Chart when boom extension is in the stowed position. Includes trip arm for Anti-Two-Block device. Boom extension will tilt through three positions, in line, 15 degree offset and 30 degree offset. Net Weight: 670 pounds (304 kg).

**Boom Extension - 16 Feet (5 m) Offset, 3J:**

Has three settings: 0 degrees (in-line), 15 degrees offset and 30 degrees offset. Net Weight: 350 pounds (159 kg).

**Searcher Hook: (Nose Mount)**

5,000 pound capacity hook bracket is attached to the front of the boom tip with 4 pins through the boom extension attachment lugs. A hook with latch is pinned to the tip of the bracket. Net Weight: 41 pounds (19 kg).

Specifications subject to change without notice.

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

**BRODERSON<sup>®</sup>**  
**Manufacturing Corp.**  
14741 West 106th Street  
Lenexa, KS 66215 USA

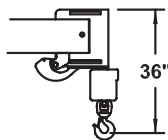
(913) 888-0606  
www.BMCcranes.com

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

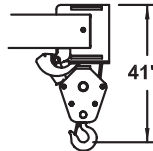


CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE					
LOAD RADIUS FEET	MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS				
	360° ROTATION		OVER FRONT		
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS	
MAIN BOOM	5	9600	17000	11700	18000
	6	7900	14500	10400	14500
	8	5750	10250	8400	10250
	10	4150	7700	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
	22	1275	3000	2000	3000
10' BOOM EXT.	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				
	EXT 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

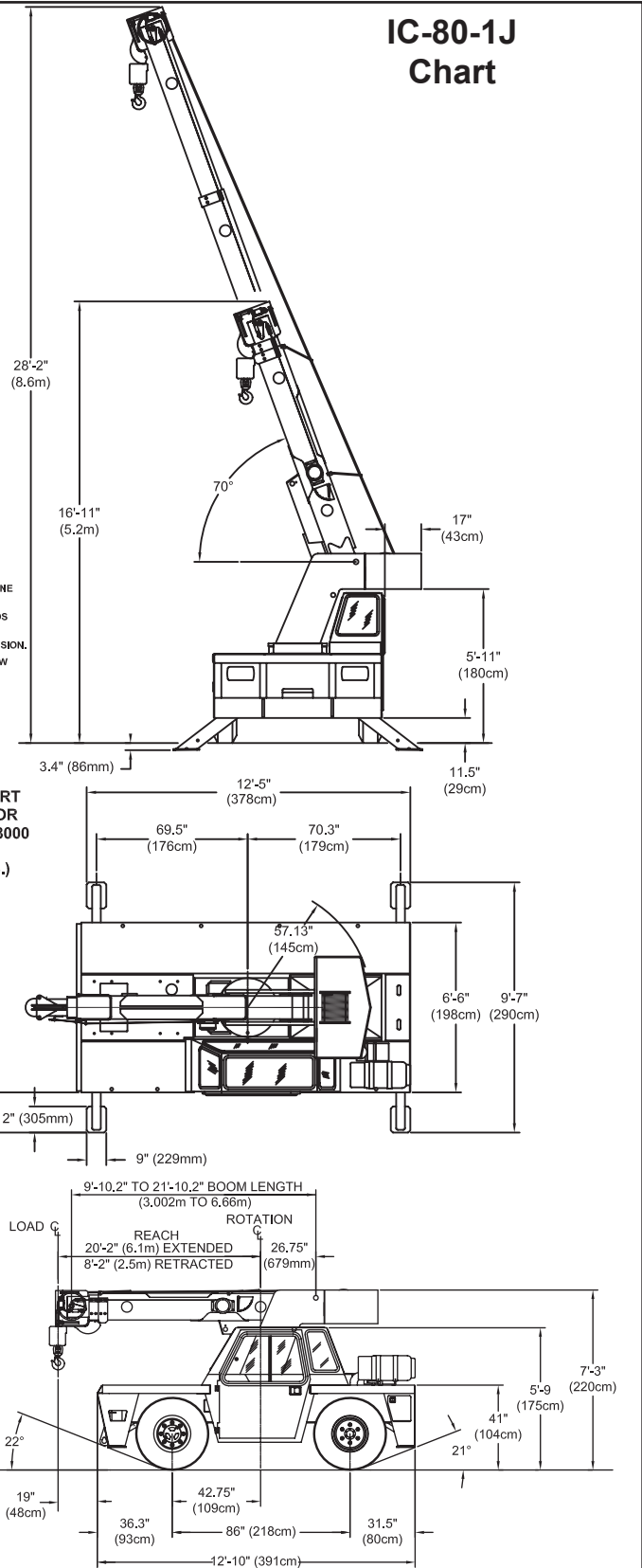
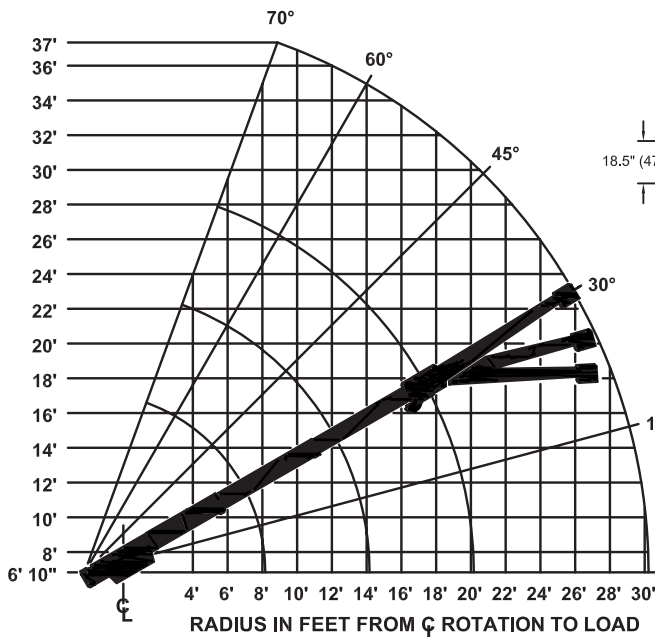
\*USE 0° FOR STRAIGHT BOOM EXTENSION. †USE 0°, 15° OR 30° FOR OFFSET BOOM EXTENSION.  
LOAD RADIUS IS THE HORIZONTAL DISTANCE FROM THE CENTER OF ROTATION OF THE UNLOADED CRANE TO THE VERTICAL LOAD LINE WITH THE LOAD APPLIED.  
EXCEEDING CAPACITY RATINGS OR APPLYING SIDE LOADS TO THE BOOM OR BOOM EXTENSION IS MISUSE, IS HAZARDOUS, AND VOIDS WARRANTY.  
**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.



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



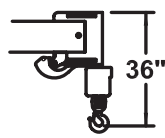
USE TWO PART LOADLINE FOR LOADS TO 18000 LBS. (WT. 124 LBS.)



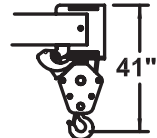


CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE						
LOAD RADIUS FEET	MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS					
	360° ROTATION		OVER FRONT			
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS		
<b>MAIN BOOM</b>	5	9500	17000	11600	18000	
	6	7800	14500	10200	14500	
	8	5650	10250	8250	10250	
	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	
	<b>10' BOOM EXT.</b>	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	
<b>10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET</b>						
<b>MAIN BOOM ANGLE</b>						
ANGLE		0°	30°	45°	60°	70°
*† 0°		2250	2600	3200	5000	7000
†15°		--	2400	2700	3500	4200
†30°	--	2250	2500	3000	3300	

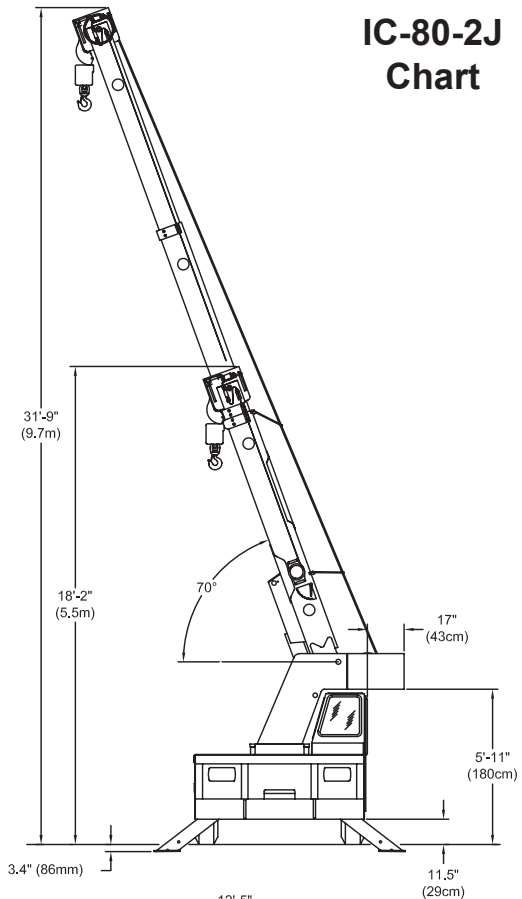
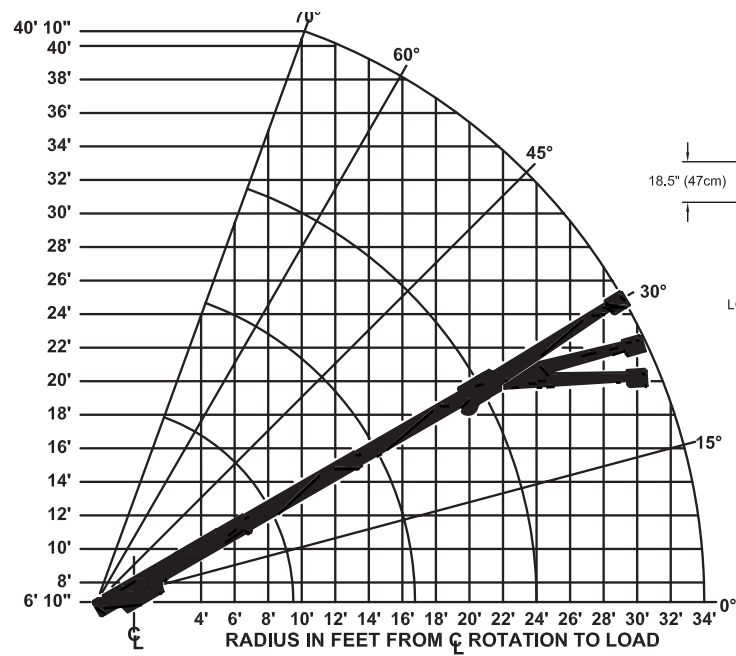
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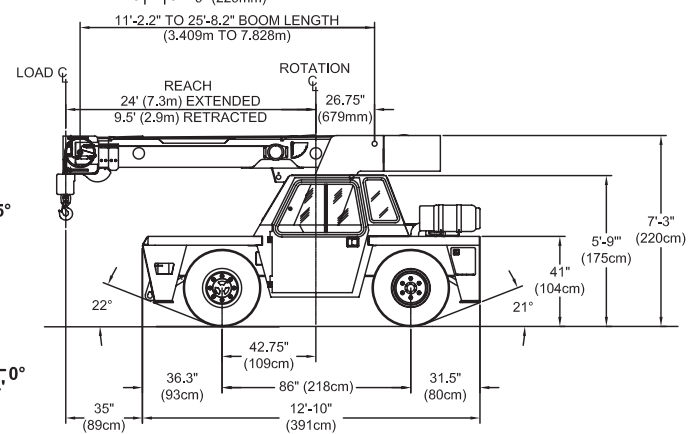
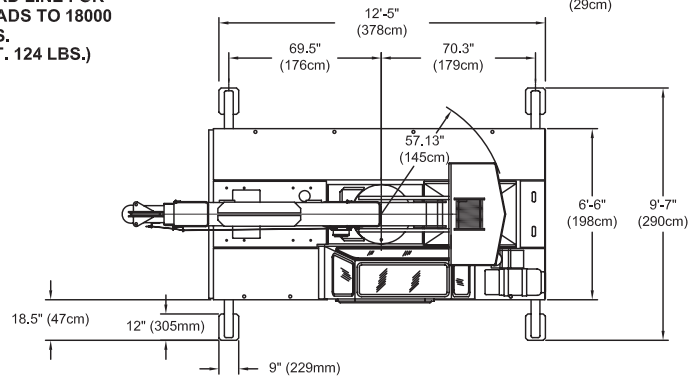
USE SINGLE PART LOAD LINE FOR LOADS TO 9000 LBS. (WT. 90 LBS.)



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



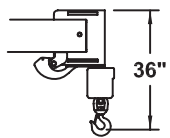
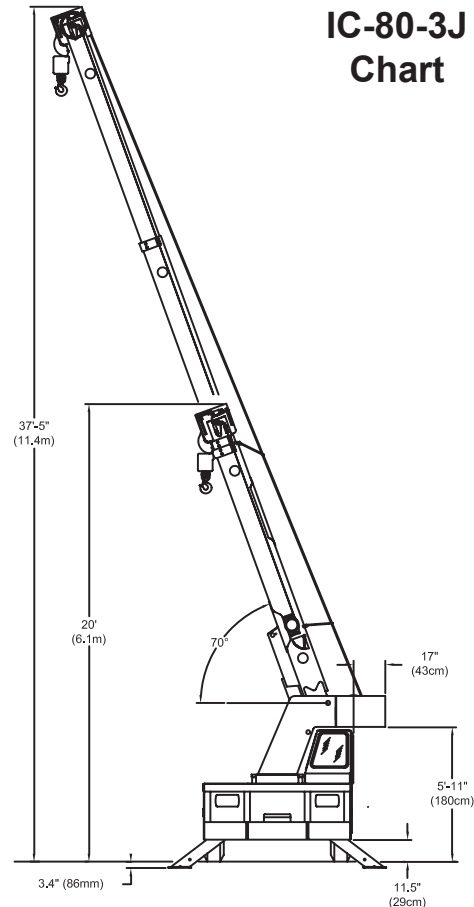
**IC-80-2J**  
**Chart**



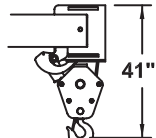
## IC-80-3J Chart

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	
10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET					
BOOM EXTENSION ANGLE	MAIN BOOM ANGLE				
	0°	30°	45°	60°	70°
*† 0°	2250	2600	3200	5000	7000
†15°	***	2400	2700	3500	4200
†30°	***	2250	2500	3000	3300

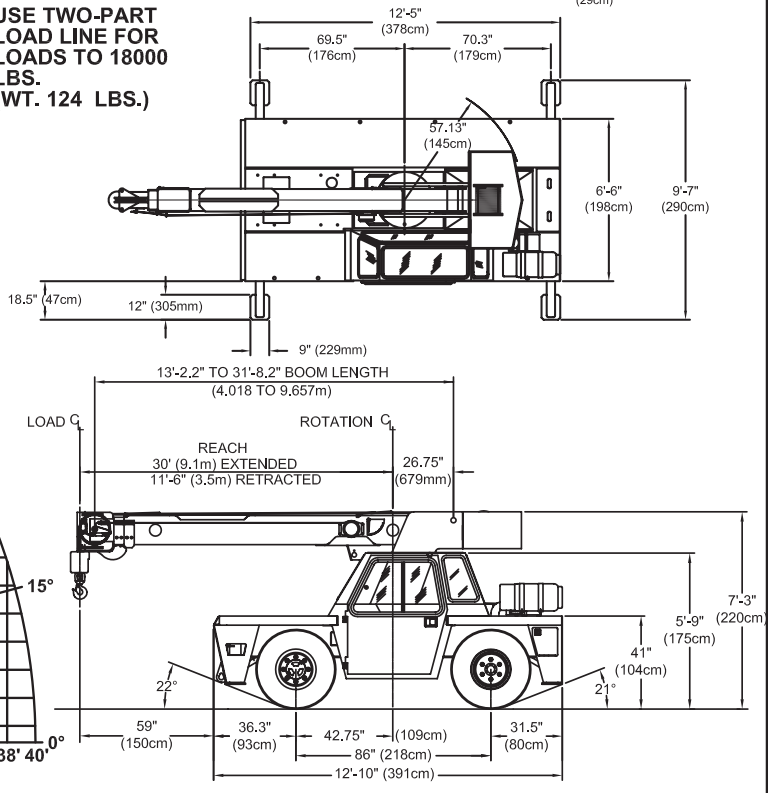
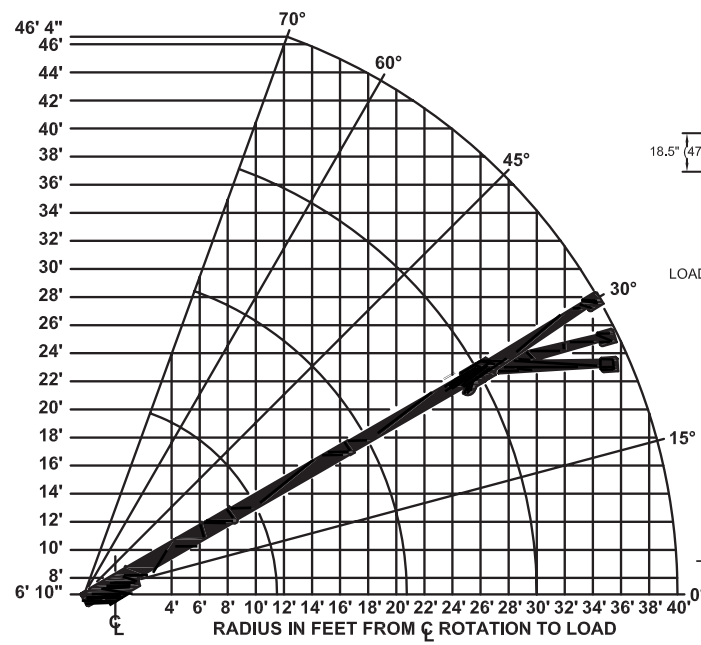
\*USE 0° FOR STRAIGHT BOOM EXTENSION. †USE 0°, 15° OR 30° FOR OFFSET BOOM EXTENSION.  
LOAD RADIUS IS THE HORIZONTAL DISTANCE FROM THE CENTER OF ROTATION OF THE UNLOADED CRANE TO THE VERTICAL LOAD LINE WITH THE LOAD APPLIED.  
EXCEEDING CAPACITY RATINGS OR APPLYING SIDE LOADS TO THE BOOM OR BOOM EXTENSION IS MISUSE, IS HAZARDOUS, AND VOIDS WARRANTY.  
**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.

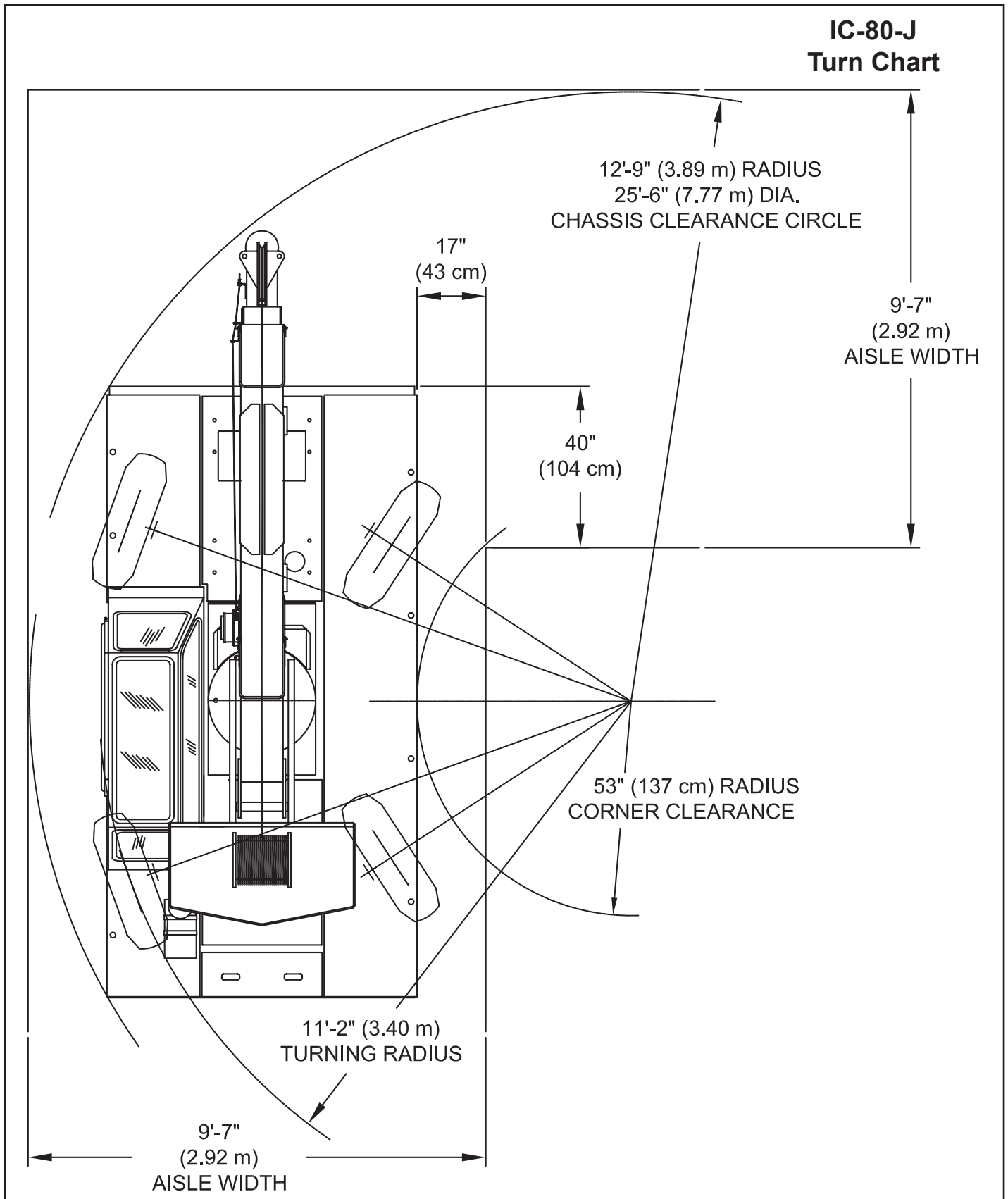


USE SINGLE-PART LOAD LINE FOR LOADS TO 9000 LBS. (WT. 90 LBS.)



USE TWO-PART LOAD LINE FOR LOADS TO 18000 LBS. (WT. 124 LBS.)

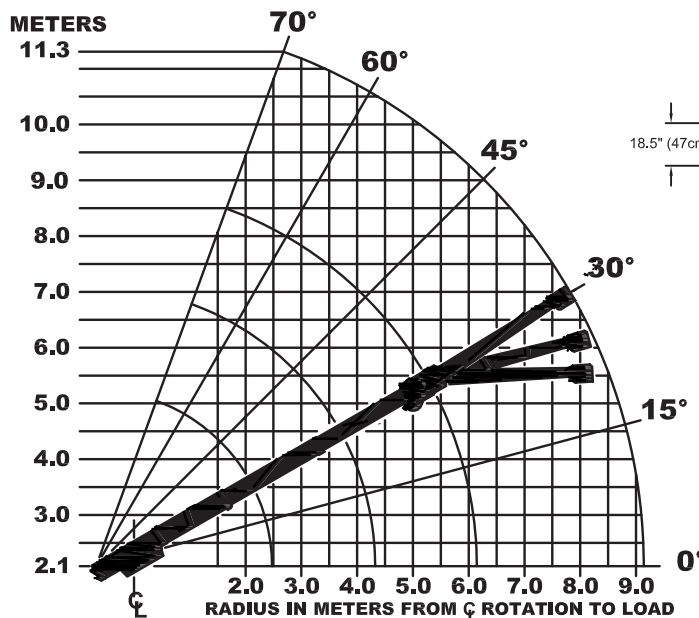
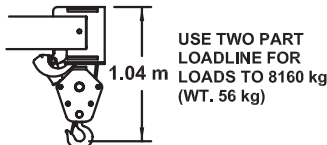
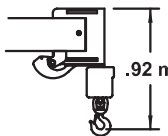




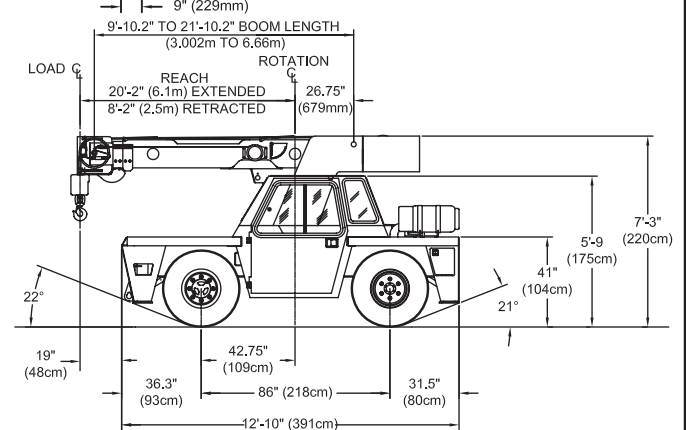
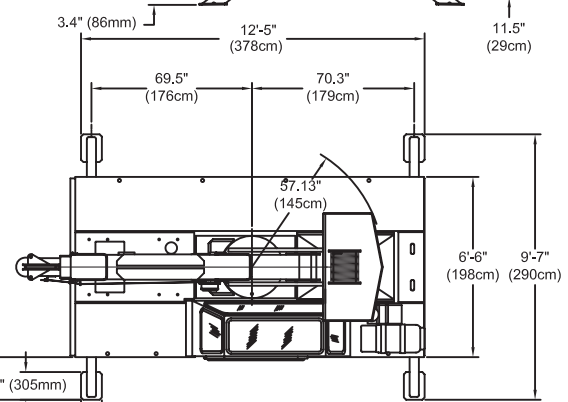
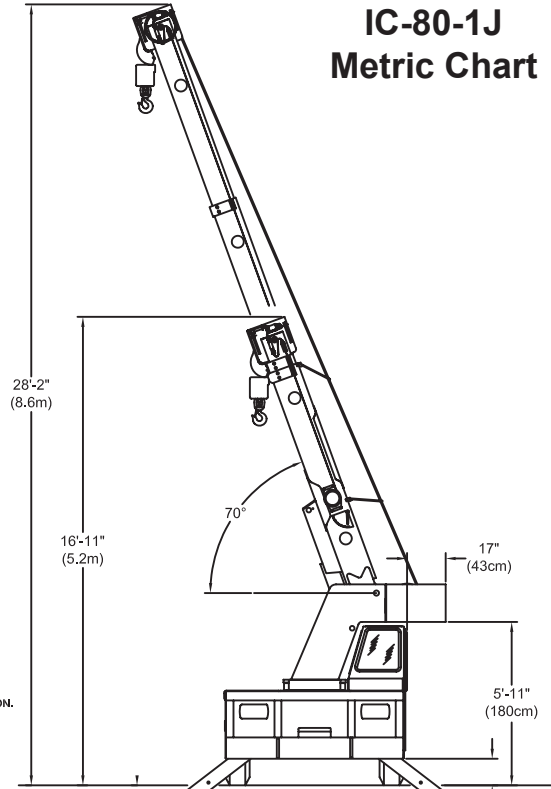
**CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE**

LOAD RADIUS METERS	MAIN BOOM OR EXTENSION CAPACITIES IN KILOGRAMS				
	360° ROTATION		OVER FRONT		
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS	
<b>MAIN BOOM</b>					
1.5	4350	7710	5300	8160	
2.0	3290	5980	4460	5980	
2.5	2520	4480	3710	4480	
3.0	1920	3540	2930	3540	
3.5	1500	3090	2260	3090	
4.0	1210	2710	1850	2710	
4.5	1010	2350	1580	2350	
5.0	870	2050	1360	2050	
5.5	760	1850	1190	1870	
6.0	670	1640	1060	1750	
<b>3 M BOOM EXT.</b>					
6.5	600	1390	950	1390	
7.0	530	1310	840	1310	
8.0	410	1110	660	1160	
9.1	300	900	520	1020	
BOOM EXTENSION - 3 METER BOOM EXTENSION - STRAIGHT OR OFFSET					
MAIN BOOM ANGLE					
ANGLE	0°	30°	45°	60°	70°
*† 0°	1020	1180	1450	2260	3170
†15°	—	1090	1220	1580	1900
†30°	—	1020	1130	1360	1490

\*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 VOID'S WARRANTY.  
**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.

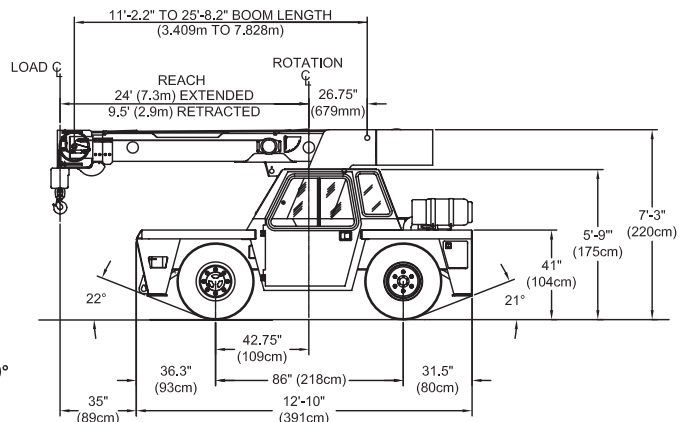
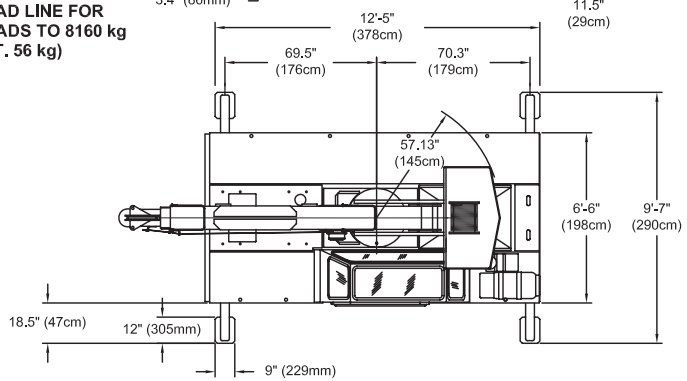
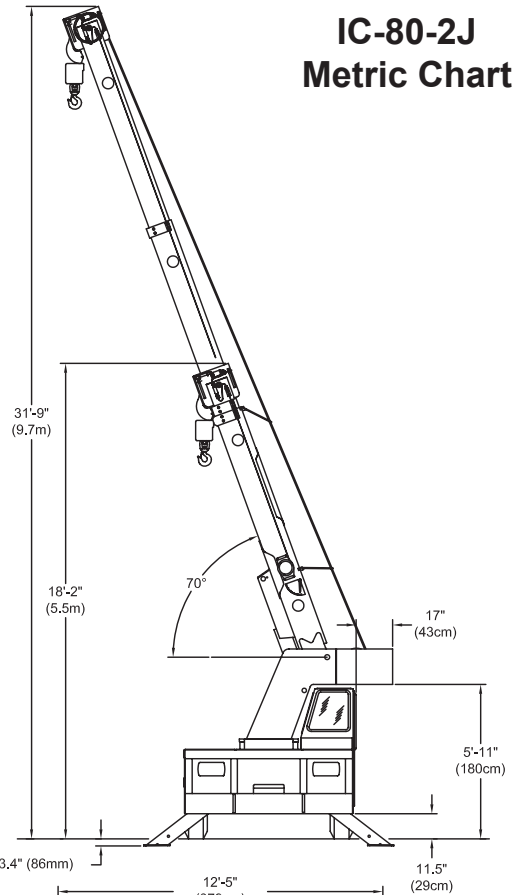
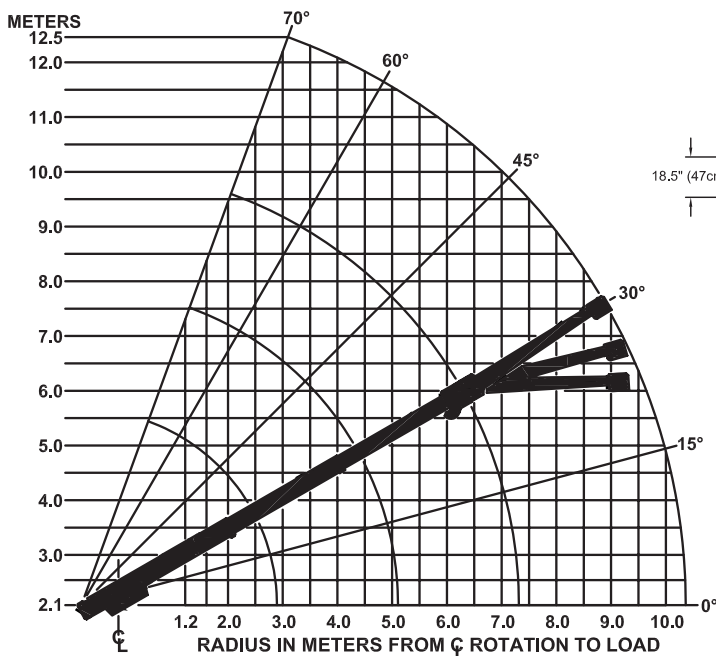
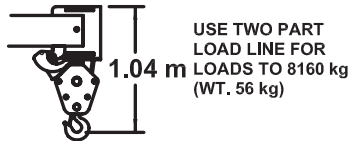
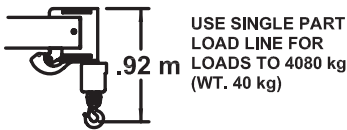


## IC-80-1J Metric Chart



CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE					
LOAD RADIUS METERS	360° ROTATION				
	ON RUBBER		ON OUTRIGGERS		
1.5	4310	7710	5260	8160	
2.0	3250	5990	4380	5990	
2.5	2480	4480	3640	4500	
3.0	1860	3540	2870	3540	
3.5	1460	3090	2260	3090	
4.0	1170	2720	1830	2720	
4.5	980	2340	1520	2340	
5.0	830	2000	1290	2000	
5.5	720	1780	1130	1830	
6.0	630	1560	1000	1680	
6.5	550	1400	880	1550	
7.3	450	1150	750	1400	
8.0	380	1100	650	1230	
9.0	290	890	530	1060	
10.0	220	740	430	920	
10.4	190	680	410	880	
3 METER BOOM EXTENSION - STRAIGHT OR OFFSET					
MAIN BOOM ANGLE					
ANGLE	0°	30°	45°	60°	70°
*† 0°	1020	1180	1450	2260	3170
† 15°	---	1090	1220	1580	1900
† 30°	---	1020	1130	1360	1490

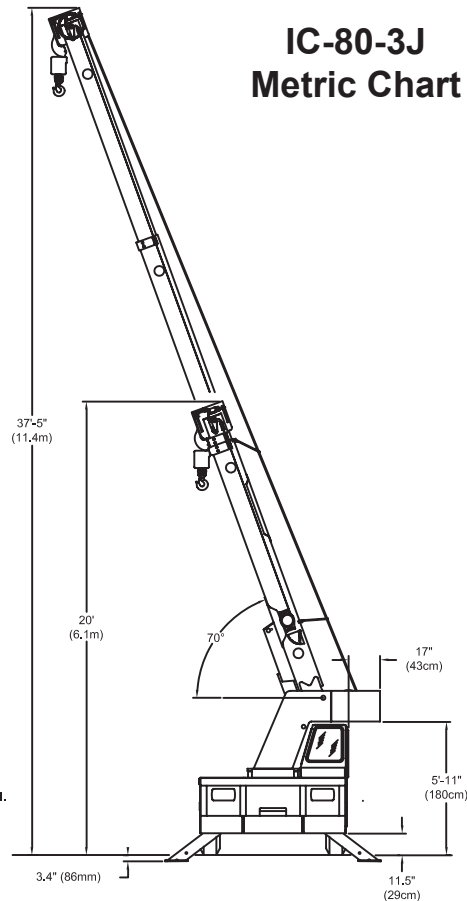
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**CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE**

LOAD RADIUS METERS	MAIN BOOM OR EXTENSION CAPACITIES IN KILOGRAMS					
	360° ROTATION		OVER FRONT			
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS		
1.5	4260	7710	5170	8160		
2.0	3140	5790	4290	5790		
2.5	2470	4400	3580	4400		
3.0	1990	3560	2830	3560		
3.5	1560	2910	2180	2910		
4.0	1270	2520	1720	2520		
4.5	1060	2210	1400	2210		
5.0	890	1950	1170	1950		
5.5	740	1760	990	1760		
6.0	630	1570	840	1570		
6.5	540	1430	730	1430		
7.0	480	1320	650	1330		
7.5	430	1200	580	1230		
8.0	380	1090	530	1140		
8.5	340	1000	500	1070		
9.0	290	910	460	990		
10.0	180	760	390	850		
11.0	110	650	310	740		
12.2	60	520	220	630		
3 m BOOM EXT.	3 METER BOOM EXTENSION - STRAIGHT OR OFFSET					
	MAIN BOOM ANGLE					
	ANGLE	0°	30°	45°	60°	70°
	*† 0°	1020	1180	1450	2260	3170
15°	---	1090	1220	1580	1900	
30°	---	1020	1130	1360	1490	

## IC-80-3J Metric Chart



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