# Tech Spec



# IC-200-F

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# IC-200-3F

## **CRANE CAPACITY CHART** IC-200-3F

CAPACITIES IN POUNDS FOR OPERATION ON FIRM LEVEL SURFACE											
LOAD		MAIN BOOM ONLY			BOOM EXTENSION						
RADIUS	ON RU	BBER	ON OUTRIGGERS		C	ON RUBBER			ON OUTRIGGERS		
FEET	360°	FRONT	360°	FR	ONT	360	)°	FRONT	.	360°	FRONT
6	16000	16400	30000	30	000						
8	12500	13000	22400	22	400						
10	10000	10500	18500	18	500	750	0	7500		7500	7500
12	8040	8700	15700	15	700	750	0	7500		7500	7500
14	6500	7200	13500	13	500	750	0	7500		7500	7500
16	5330	6200	10800	10	800	614	0	7500		7500	7500
18	4450	5400	9560	9	560	501	0	6440		7500	7500
20	3720	4700	8550	8	550	420	0	5430		7500	7500
22	3140	4200	7700	7	700	358	0	4650		6850	6850
24	2680	3700	6980	6	980	308	0	4030		6250	6250
26	2300	3200	6300	6	350	266	0	3530		5750	5750
28	1980	2800	5550	5	800	229	0	3100		5300	5300
30	1700	2460	4830	5	320	199	0	2710		4920	4920
32	1470	2150	4200	4900		173	0	2400		4580	4580
34	1260	1850	3700	4520		151	0	2130		4270	4270
38	920	1300	2970	3	870	114	0	1680		3530	3760
42	640	950	2400	3:	340	840	)	1320		2960	3340
46	390	650	1840	2	890	600	)	1040		2440	2980
50	0	550	1750	2	520	410	)	800		2040	2630
54						0		600		1710	2290
58						0		430		1370	2000
62						0		290		1140	1740
66						0		0		930	1500
BOOM	BOOM EXTENSION - STRAIGHT OR OFFSET										
EXT.	MAIN BOOM ANGLE										
ANGLE	0°	15°	30°	30° 40		)°	50°			60°	70°
0°	3000	3100	3450	150 39		00 4650			6000	7500	
15°		3000	3000	300		00 3000			3700	5000	
30°			2500	500 25		00	2600			3100	3800

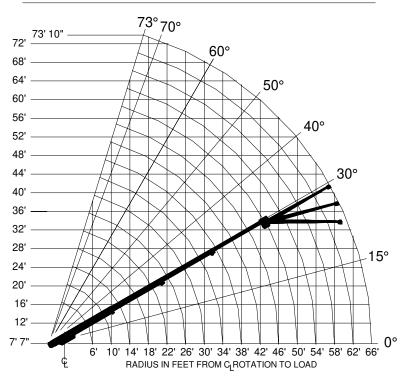
 $\underline{\text{CAUTION}} \ \ \text{BOOM EXTENSION LOADS MUST NOT EXCEED CAPACITIES IN ANGLE CHART AND LOAD RADIUS CHART.}$ 

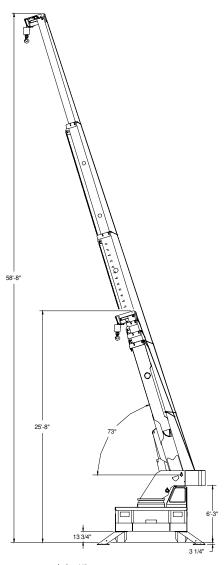
BOOM EXTENSION DEDUCT: 400 LBS. WHEN STOWED ON BASE BOOM; 800 LBS. IN WORK POSITION WITH LOAD ON MAIN BOOM.

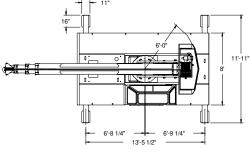
USE SINGLE PART LOAD LINE FOR LOADS TO 7500 LBS. (WT. 125 LBS.)

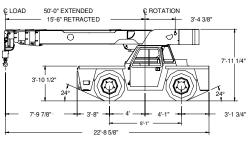
USE FOUR PART LOAD LINE FOR LOADS TO 30000 LBS. (WT. 210 LBS.)











#### **GENERAL:**

Weight:	IC-200-1F	IC-200-2F	IC-200-3F		
	27,300 lbs.	27,750 lbs.	30,150 lbs.		
Boom Movement:					
Rotation	Continuous	Continuous	Continuos		
Elevation	0º to 73º	0º to 73º	0º to 73º		
Extension	15' 4"	21' 0"	34' 6"		
Boom Speeds:					
Rotation	1.8 RPM	1.8 RPM	1.8 RPM		
Elevation	21 sec.	21 sec.	21 sec.		
Extension	26 sec.	35 sec.	53 sec.		
Gradeability:	75% (37 Degrees)				

Turning Radius: 13' 9"

ENGINE:	<b>Standard</b>	<b>Optional</b>
Make	GM	Cummins
Model	4.3L V-6	4BT3.9
Type	Gasoline	Turbo-Diesel
No. Cyl.	6	4
Displacement	262 CID	239 CID
HP @ Gov. Speed	110 H.P.	110 H.P.
<b>Fuel Tank Capacity</b>	30 Gallons	

## TRANSMISSION:

Powershift transmission with 4-speeds 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. Equipped with torque convertor and transmission oil cooler. Torque convertor has stall ratio of 2.2:1.

## Gear Ratio:

First	5.72:1	Second	3.23:1
Third	1.77:1	Fourth	1.00:1

#### **AXLES:**

#### Front Axle:

Planetary drive/steer front axle with 15.78 to 1.0 ratio. Differential equipped with "limited slip" feature. Front axle mounted rigidly to frame.

Gear	Travel Speed	Drawbar Pull*
First	3 MPH	19,000*
Second	6 MPH	10,000*
Third	11 MPH	5,700*
Fourth	20 MPH	3,000*

\*Drawbar pull is calculated for GM 4.3L engine.

## Rear Axle:

#### Standard (2-Wheel Drive):

Steering axle with 1-1/2 degree oscillation in either direction.

#### Optional (4-Wheel Drive):

Planetary drive/steer axle with 24.98 to 1.0 ratio. Differential is not "limited slip" in rear axle. 1-1/2 degree oscillation in either direction. Axle ratio compatible with 4-wheel drive transmission output for front axle match. Transmission equipped with electro-hydraulic control for shifting between 2-wheel drive and 4-wheel drive.

#### STEERING:

Full hydraulic steering unit with two 3-inch cylinders attached to each axle. Allows limited steering when engine is not running. A switch on the control panel is used to select rear-wheel steering, four-wheel steering or crab steering. Electronic sensors and control box automatically align the steering when a new mode is selected.

#### **BRAKES:**

**Service:** Split-system, 4-wheel hydraulic-boosted multiple-plate

wet disc brakes.

Parking: Hand lever actuated disc-type parking brake on transmission.

**TIRES:** 15x22.5, 16-ply rating.

## **OPERATOR COMPARTMENT:**

Provides one-position access to all chassis and crane functions. Includes adjustable operator's seat, retracting seat belts, fire extinguisher and bubble level.

## CHASSIS:

#### Cargo Deck:

72 square feet of deck area. 17,000 lbs. capacity on deck when load is centered over or between axles. Steps located on front corners.

#### Lifting Rings

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

#### Outriggers:

Four hydraulic outriggers of box beam construction with direct-connected holding valves. Independent controls for each outrigger. Outrigger pad dimension: 11" x 16".

## **Accessory Storage Box:**

Storage box is 14" deep x 10-1/2" long x 36-1/2" wide, located in front cargo deck.

#### **ELECTRICAL:**

#### 12 Volt System

#### Lighting Package:

One pair headlights with high and low beams, tail, brake and turn signal lights and back-up lights in rear, front turn signals and emergency flasher switch at operator's station.

#### Instrument Package:

Fuel, ammeter, oil pressure, water temperature and transmission oil temperature gauges. All gauges are lighted. Hourmeter records hours only during actual engine operation. Also included are warning lights for low transmission pressure, turn signals, high beams, hazard lights, park brake and four-wheel drive.

#### Back-Up Alarm:

Provides pulsating sound when transmission is in reverse.

## **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 29 and 34 GPM at rated RPM. Hydraulic oil tank capacity of 54 gallons.

#### **BOOM ASSEMBLY:**

Three or four section boom assembly equipped with bearing pads, doubleacting hydraulic cylinders with direct-connected holding valves and 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 100 FPM. Includes downhaul weight, swivel hook and sheave block for 4-part line and 240 ft. of 1/2" hoist rope.

#### Anti-Two-Block Device:

Prevents damage to hoist rope and/or crane components from pulling load hook against tip.

#### Sheave Block, Four Part Line

Double sheave block for 4-part line requirements.

#### **Rated Capacity Limiter**

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

Listed below are brief descriptions of each option available for the IC-200-F Industrial Crane. Consult the IC-200-F Engineering Spec for additional information on each option.

#### MODEL:

IC-200-1F Industrial Crane with 12' 8"-28' 0" Boom

IC-200-2F Industrial Crane with 15' 2"-36' 2" Boom

IC-200-3F Industrial Crane with 15' 6"-50' 0" Boom

#### **ENGINE OPTIONS:**

#### **Diesel Engine**

Cummins Turbo-4BT3.9

#### Spark Arrester Muffler

Installed in addition to std. muffler.

#### **Catalytic Convertor**

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

#### TIRE OPTIONS:

**Non-Marking Tires** 

Foam Filling of Tires

Spare Tire & Wheel

## **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 over Operator Guard, for inclement weather operations.

#### **Operator Guard Door**

Hinged door covers operator compartment side opening.

#### **All Weather Cab**

Rigid-mounted canopy section and 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 Only**

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 cover and side panels of foam backed vinyl for noise reduction.

## **Air Conditioning**

Air Conditioner with R 134 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.

#### **BOOM ATTACHMENTS:**

Boom Extension, 15 Ft.
Boom stowable.

# Boom Extension, 15 Ft., Offsettable (2F Only)

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

## Boom Extension, 16 Ft., Offsettable (3F Only)

Same as above except the boom extension is 16 ft.

#### **Sheave Block - Two-Part Line**

Searcher Hook:

**Nose Mount** 

Should you, as an end user, require an option or special equipment on your IC-200-F that is not listed on our sales literature, please contact your dealer salesperson or the factory to receive a special quoted price.