

Tech Spec

4-Wheel Drive 4-Wheel Steer

- * Capacity on outriggers...16,000 lbs.
- * Pick and carry capacity up to...11,700 lbs.
- * Height...7' 3"
- * Width...6' 6"
- * Sheave height...up to 46'
- * Horizontal Reach...up to 40'
- * Tight turning radius...11' 8"
- * 4-Speed synchromesh transmission
- * Independent outrigger controls
- * 4-Wheel hydraulic internal wet disc brakes
- * Independent outrigger controls



IC-80-F

GENERAL:

Weight:	<u>IC-80-1F</u>	<u>IC-80-2F</u>	<u>IC-80-3F</u>
2-Wheel Steer	15,400 lbs.	15,600 lbs.	15,900 lbs.
4-Wheel Steer	15,600 lbs.	15,800 lbs.	16,100 lbs.
4-Wheel Drive	16,400 lbs.	16,600 lbs.	16,900 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:	<u>Standard</u>	<u>Optional</u>	<u>Optional</u>
(C/L of Outside Steering Wheel)	<u>2-Wheel Steer</u>	<u>4-Wheel Steer</u>	<u>4-Wheel Drive</u>
	15 ft. 4 in.	10 ft. 9 in.	11 ft. 8 in.

Aisle Width for 90° Turn:	11 ft. 0 in.	9 ft. 7 in.	9 ft. 9 in.
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ENGINE:	<u>Standard</u>	<u>Optional</u>
Make	Continental	Cummins
Model	TM27	4B3.9
Type	Gas	Diesel
No. Cyl.	4	4
Displacement	165 CID	239 CID
HP @ Gov. Speed	66	80
Fuel Tank Capacity:	20 Gallons	

TRANSMISSION:

2-Wheel Drive:

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 & speed selection. Equipped with oil cooler and filter. Torque converter has stall ratio of 2.2:1.

Gradeability 70 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	10,900 lbs.
Second	3.23:1	7 MPH	6,090 lbs.
Third	1.77:1	12 MPH	3,270 lbs.
Fourth	1.00:1	22 MPH	1,780 lbs.

TRANSMISSION: (Cont'd)

4-Wheel Drive:

Remote mounted synchromesh 4-speed. Forward, neutral and reverse control mounted on steering column. 4-speed control has side lever & push button knob for electric declutching. Can be shifted while in motion. Equipped with oil cooler and filter. Torque converter has stall ratio of 2.2:1.

Gradeability 72 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	4.29:1	5 MPH	11,500 lbs.
Second	2.66:1	8 MPH	7,070 lbs.
Third	1.41:1	15 MPH	3,670 lbs.
Fourth	0.77:1	27 MPH	1,930 lbs.

AXLES:

Front:

2-Wheel Steer:

Planetary drive axle with 11.98:1 ratio. Differential is "Limited Slip." Axle mounted rigidly to frame.

4-Wheel Steer:

Planetary drive/steer axle with 11.98:1 ratio. Differential is "Limited Slip." Axle mounted rigidly to frame.

Rear:

2-Wheel Drive:

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

4-Wheel Drive:

Planetary drive/steer axle with 11.98:1 ratio. Differential is "Limited Slip." 1-1/2 degree oscillation in either direction.

STEERING:

2-Wheel Steer:

Hydraulic steering unit with two cylinders attached to rear axle.

4-Wheel Steer:

Hydraulic steering unit with two 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 or four-wheel round steering.

BRAKES:	<u>2-Wheel Drive</u>	<u>4-Wheel Drive</u>
Front	Internal wet disc brakes	Internal wet disc brakes
Rear	Drum type	Internal wet disc brakes
Parking	Disc type	Disc type

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 200 feet in 30 minutes.

Fire Extinguisher:

1A:10B:C, 2-1/2 pound dry chemical. Mounted on dashboard.

Outriggers:

Four hydraulic outriggers of box beam construction with direct-connected holding valves. Independent controls for each outrigger. Each cylinder equipped with direct-connected holding valves. Outrigger pad dimension 9" x 12".

Accessory Storage Box:

Storage box located in front cargo deck.

OPERATOR COMPARTMENT:

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

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.

ELECTRICAL: (Cont'd)

Lighting Package:

One pair headlights with Hi and Low beams, back-up lights, integral tail, brake, front and rear turn signals & emergency flasher switch at operator's station. 12V horn actuated by button on shifting control.

Back-Up Alarm:

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

HYDRAULIC SYSTEM:

Tandem pump, direct-driven by engine crankshaft, rated at 17 & 32 GPM at rated RPM. Hydraulic oil tank capacity of 22 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.

IC-80-F

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

MODELS:

- IC-80-1F** Industrial Crane with
8'2"-20'2" Boom
- IC-80-2F** Industrial Crane with
9'6"-24' Boom
- IC-80-3F** Industrial Crane with
11'6"-30' Boom

ENGINE:

- LP Gas Fuel System**
Contains all necessary components for LP gas operations.
- Dual Fuel System**
Contains all necessary components to burn LP gas and gasoline.
- GM 3.0 L EFI Gasoline Engine**
with dual fuel
- Diesel Engine**
Cummins - 4B3.9
- 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.

AXLE & STEERING OPTIONS:

- 2-Wheel Steer & 2-Wheel Drive**
- 4-Wheel Steer & 2-Wheel Drive**
- 4-Wheel Steer & 4-Wheel Drive**

TIRE OPTIONS:

- Solid Rubber Tires:**
 - 8.25 x 15
 - 8.25 x 15 Non-Marking
- Mining & Industrial Tires**
 - 10.00 x 15 , 16-Ply Rating
- Foam Filling of Tires**
- Spare Tire & Wheel**
 - Highway Tread, 10.00 x 15
 - Mining & Industrial, 10.00 x 15

CHASSIS OPTIONS:

- Auxiliary Winch**
Mounted behind front bumper, hydraulically driven with control in operator's console.

CHASSIS OPTIONS: (Cont'd)

- Auxiliary Winch Plumbing**
Quick-connect fittings at front of chassis for front auxiliary winch previously listed.
- 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.
- Lifting Rings**
Lifting rings at each corner of cargo deck so sling can be attached for lifting crane.

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:

- Outrigger Alarm System**
Two-tone alarm is activated when "outrigger down" controls are operated.

CHASSIS OPTIONS: (Cont'd)

- 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 Work Lights and Beacons**
Boom work lights and amber rotating beacons installed.
- Boom Work Lights and Strobes**
Boom work lights and strobe lights installed.
- Work Lights**
Two work lights recessed in rear bumper.

Boom Structural Protection System:

- Important to understand fully the description of the Boom Structural Protection System described in the IC-80 Engineering Spec. This option is not intended to and will not replace an LMI.

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: (Two Types)**
 - Link Under Tip**
 - Nose Mount**
- Load Moment Indicator**
Warns operator of impending overload with audible and visual signals. Prevents overload by stopping boom functions that cause overloads.
- Load Indicator**
Includes 3-sheave load sensor on top of boom and readout box on top of instrument panel.

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