2-WHEEL DRIVE

- Capacity on outriggers...18,000 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
- 2-Wheel drive standard
- 4-Wheel steer standard
- 4-Wheel drive optional
- Powershift transmission
- Fully hydraulic controls for smooth precise operations
- Independent outrigger controls
* Capacity on outriggers...18,000 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
### IC-80-1F 8'-2" - 20'-2" Boom

**Main Boom Angle**

- **0°**
- **15°**
- **30°**
- **45°**
- **60°**
- **70°**

**10-Foot Boom Extension - Straight or Offset**

<table>
<thead>
<tr>
<th>Angle</th>
<th>0°</th>
<th>10°</th>
<th>30°</th>
<th>45°</th>
<th>60°</th>
<th>70°</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°</td>
<td>2250</td>
<td>2600</td>
<td>2800</td>
<td>3000</td>
<td>3200</td>
<td>3500</td>
</tr>
<tr>
<td>15°</td>
<td>2400</td>
<td>2700</td>
<td>2900</td>
<td>3200</td>
<td>3500</td>
<td>3800</td>
</tr>
<tr>
<td>30°</td>
<td>2500</td>
<td>2800</td>
<td>3000</td>
<td>3300</td>
<td>3600</td>
<td>3900</td>
</tr>
</tbody>
</table>

**Main Boom Extension Capacities in Pounds**

<table>
<thead>
<tr>
<th>Load Radius (feet)</th>
<th>0°</th>
<th>15°</th>
<th>30°</th>
<th>45°</th>
<th>60°</th>
<th>70°</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>17000</td>
<td>18000</td>
<td>19000</td>
<td>20000</td>
<td>21000</td>
<td>22000</td>
</tr>
<tr>
<td>6</td>
<td>14500</td>
<td>15500</td>
<td>16500</td>
<td>17500</td>
<td>18500</td>
<td>19500</td>
</tr>
<tr>
<td>8</td>
<td>10250</td>
<td>11250</td>
<td>12250</td>
<td>13250</td>
<td>14250</td>
<td>15250</td>
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<tr>
<td>10</td>
<td>7700</td>
<td>8700</td>
<td>9700</td>
<td>10700</td>
<td>11700</td>
<td>12700</td>
</tr>
<tr>
<td>12</td>
<td>6550</td>
<td>7550</td>
<td>8550</td>
<td>9550</td>
<td>10550</td>
<td>11550</td>
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<td>14</td>
<td>5550</td>
<td>6550</td>
<td>7550</td>
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<td>10550</td>
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<td>16</td>
<td>4650</td>
<td>5650</td>
<td>6650</td>
<td>7650</td>
<td>8650</td>
<td>9650</td>
</tr>
<tr>
<td>20</td>
<td>3650</td>
<td>4650</td>
<td>5650</td>
<td>6650</td>
<td>7650</td>
<td>8650</td>
</tr>
<tr>
<td>22</td>
<td>3000</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
<td>7000</td>
<td>8000</td>
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<td>24</td>
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<td>3750</td>
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<td>7750</td>
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<td>2450</td>
<td>3450</td>
<td>4450</td>
<td>5450</td>
<td>6450</td>
<td>7450</td>
</tr>
<tr>
<td>28</td>
<td>2150</td>
<td>3150</td>
<td>4150</td>
<td>5150</td>
<td>6150</td>
<td>7150</td>
</tr>
<tr>
<td>30</td>
<td>1950</td>
<td>2950</td>
<td>3950</td>
<td>4950</td>
<td>5950</td>
<td>6950</td>
</tr>
</tbody>
</table>

**Notes:**

- Use **0°** for straight boom extension.
- Use **0°, 15° or 30°** for offset boom extension.
- Boom extension loads must not exceed main boom capacity.

---

**Diagram:**

- **Load Line:**
  - Use single part load line for loads to 9000 lbs.
  - Use two part load line for loads to 18000 lbs.

---

**Dimensions:**

- **Main Boom:**
  - 8'-2" to 20'-2"
  - Retracted: 5'-0" to 9'-7"
  - Extended: 20'-2" to 28'-2"

- **Outriggers:**
  - 6'-6" to 16'-11"

- **Rubber:**
  - 5'-10" to 21°
  - 9'-7" to 37°

**Radius in Feet from C Rotation to Load: 0° to 30°**

**Load Line:**

- Use single part load line for loads to 9000 lbs.
- Use two part load line for loads to 18000 lbs.
**IC-80-2F 9'-6" - 24'-0" BOOM**

### Capacities Apply to Operation on Firm Level Surface

<table>
<thead>
<tr>
<th>Load Radius (Feet)</th>
<th>Main Boom or Extension Capacities in Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On Rubber</td>
</tr>
<tr>
<td>5</td>
<td>9500</td>
</tr>
<tr>
<td>6</td>
<td>7800</td>
</tr>
<tr>
<td>8</td>
<td>5500</td>
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<tr>
<td>10</td>
<td>3900</td>
</tr>
<tr>
<td>12</td>
<td>2900</td>
</tr>
<tr>
<td>14</td>
<td>2300</td>
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<tr>
<td>16</td>
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<td>18</td>
<td>1550</td>
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<tr>
<td>20</td>
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<td>22</td>
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<td>30</td>
<td>600</td>
</tr>
<tr>
<td>32</td>
<td>500</td>
</tr>
<tr>
<td>34</td>
<td>425</td>
</tr>
</tbody>
</table>

### 10-Foot Boom Extension - Straight or Offset

<table>
<thead>
<tr>
<th>Boom Extension Angle</th>
<th>0°</th>
<th>30°</th>
<th>45°</th>
<th>60°</th>
<th>70°</th>
</tr>
</thead>
<tbody>
<tr>
<td>10'-0&quot;</td>
<td>2500</td>
<td>2600</td>
<td>3200</td>
<td>5000</td>
<td>7000</td>
</tr>
<tr>
<td>10'-15&quot;</td>
<td>2400</td>
<td>2700</td>
<td>3500</td>
<td>4200</td>
<td></td>
</tr>
<tr>
<td>10'-30&quot;</td>
<td>2250</td>
<td>2500</td>
<td>3000</td>
<td>3300</td>
<td></td>
</tr>
</tbody>
</table>

*Use 0° for straight boom extension. Use 0°, 15° or 30° for offset boom extension. Boom extension loads must not exceed main boom capacity.*

---

*Use single part load line for loads to 9000 lbs. (WT. 80LBS.)

*Use two part load line for loads to 18000 lbs. (WT. 160LBS.)*

---

**Radius in Feet from C Load to Load**

**Rotation**

**Extended 5'-4" Retracted**

---

**Diagram**

---

**Notes**

- Dimensions and capacities are approximate and subject to variation.
- Always consult the manufacturer's specifications for the most accurate information.
- Use caution when operating in off-level conditions or during heavy load operations.

---

**IC-80-2F**
IC-80-3F  11'-6" - 30'-0" BOOM

CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE

<table>
<thead>
<tr>
<th>LOAD RADIUS (FEET)</th>
<th>MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>360° ROTATION</td>
</tr>
<tr>
<td></td>
<td>ON RUBBER</td>
</tr>
<tr>
<td>5</td>
<td>9400</td>
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<tr>
<td>6</td>
<td>7550</td>
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<td>5250</td>
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<tr>
<td>10</td>
<td>3600</td>
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<tr>
<td>12</td>
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<td>14</td>
<td>2050</td>
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<tr>
<td>16</td>
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<td>36</td>
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<tr>
<td>38</td>
<td>150</td>
</tr>
<tr>
<td>40</td>
<td>0</td>
</tr>
</tbody>
</table>

10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET

<table>
<thead>
<tr>
<th>MAIN BOOM ANGLE (DEGREES)</th>
<th>0°</th>
<th>15°</th>
<th>30°</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAD RADIUS (FEET)</td>
<td>10</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>0°</td>
<td>2250</td>
<td>2400</td>
<td>2700</td>
</tr>
<tr>
<td>15°</td>
<td>2050</td>
<td>2250</td>
<td>2550</td>
</tr>
<tr>
<td>30°</td>
<td>1850</td>
<td>2050</td>
<td>2350</td>
</tr>
</tbody>
</table>

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

BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY.

**USE TWO PART LOAD LINE FOR LOADS TO 18000 LBS.**

**USE SINGLE PART LOAD LINE FOR LOADS TO 9000 LBS.**

**USE 0° FOR STRAIGHT BOOM EXTENSION.**

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

**BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY.**

Diagram and Load Table

- Use of single or two-part load lines for loads.
- Main boom angle specifications.
- Diagram showing boom extension and load calculations.

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

- Load radius and corresponding capacities.
- Angle and extension effects on load capacity.

**IC-80-3F  11'-6" - 30'-0" BOOM**

- Load radius and corresponding capacities.
- Main boom and extension capacities.
- Use of single or two-part load lines.

**Diagram and Load Table**

- Diagram showing boom extension and load calculations.
- Use of single or two-part load lines for loads.
- Main boom angle specifications.

**Specifications**

- Load capacity calculations based on angle and radius.
- Use of single or two-part load lines for loads.
- Main boom angle specifications.
GENERAL:

Weight:
- IC-80-1F: 15,730 lbs.
- IC-80-2F: 15,930 lbs.
- IC-80-3F: 16,230 lbs.

- 4-Wheel Steer: 15,730 lbs.
- 4-Wheel Drive: 16,430 lbs.

Boom Movement:
- Rotation: Continuous (IC-80-1F), Continuous (IC-80-2F), Continuous (IC-80-3F)
- Elevation: 0° to 70° (IC-80-1F), 0° to 70° (IC-80-2F), 0° to 70° (IC-80-3F)
- Extension: 12 ft. (IC-80-1F), 14 ft. 6 in. (IC-80-2F), 18 ft. 6 in. (IC-80-3F)

Boom Speeds:
- Rotation: 2.0 RPM (IC-80-1F), 2.0 RPM (IC-80-2F), 2.0 RPM (IC-80-3F)
- Elevation: 10.0 sec. (IC-80-1F), 10.0 sec. (IC-80-2F), 10.0 sec. (IC-80-3F)
- Extension: 17.0 sec. (IC-80-1F), 21.0 sec. (IC-80-2F), 27.0 sec. (IC-80-3F)

Turning Radius:
- Standard: 10 ft. 9 in. (IC-80-1F), 11 ft. 8 in. (IC-80-2F)
- Optional: 4-Wheel Steer: 11 ft. 8 in. (IC-80-1F), 4-Wheel Drive: 9 ft. 8 in. (IC-80-2F)

Aisle Width for 90° Turn:
- 9 ft. 7 in. (IC-80-1F), 9 ft. 9 in. (IC-80-2F)

ENGINE:

Make: GM Cummins
Model: 3.0 EFI* 4B3.9
Type: Gas Diesel
No. Cyl.: 4
Displacement: 181 CID 239 CID
HP @ Gov. Speed: 69 80
Fuel Tank Capacity: 20 Gallons
* Electronic Fuel Injection with Dual Fuel

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.

<table>
<thead>
<tr>
<th>Gear</th>
<th>Forward/Reverse Gear Ratios</th>
<th>Travel Speed</th>
<th>Drawbar Pull</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>5.72:1</td>
<td>4 MPH</td>
<td>10,900 lbs.</td>
</tr>
<tr>
<td>Second</td>
<td>3.23:1</td>
<td>7 MPH</td>
<td>6,090 lbs.</td>
</tr>
<tr>
<td>Third</td>
<td>1.77:1</td>
<td>12 MPH</td>
<td>3,270 lbs.</td>
</tr>
<tr>
<td>Fourth</td>
<td>1.00:1</td>
<td>22 MPH</td>
<td>1,780 lbs.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Gear</th>
<th>Forward/Reverse Gear Ratios</th>
<th>Travel Speed</th>
<th>Drawbar Pull</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>4.29:1</td>
<td>5 MPH</td>
<td>11,500 lbs.</td>
</tr>
<tr>
<td>Second</td>
<td>2.66:1</td>
<td>8 MPH</td>
<td>7,070 lbs.</td>
</tr>
<tr>
<td>Third</td>
<td>1.41:1</td>
<td>15 MPH</td>
<td>3,670 lbs.</td>
</tr>
<tr>
<td>Fourth</td>
<td>0.77:1</td>
<td>27 MPH</td>
<td>1,930 lbs.</td>
</tr>
</tbody>
</table>

AXLES:

Front:

Rear:
2-Wheel Drive:
Axle with 1-1/2 degree oscillation in either direction.

4-Wheel Drive:

STEERING:
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:

2-Wheel Drive:
Front: Internal wet disc brakes
Rear: Drum type
Parking: Disc type

4-Wheel Drive:
Front: Internal wet disc brakes
Rear: Internal wet disc brakes
Parking: 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.

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.

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 & 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 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.

Sheave Block, Two-Part:
Single sheave block for 2-part line requirements.

Rated Capacity Limiter:
Warms operator of impending overload with audible and visual signals. Prevents overload by stopping boom functions that cause overloads.
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:
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. (Diesel Only)

AXLE & STEERING OPTIONS:
4-Wheel Steer & 4-Wheel Drive

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
8.25 x 15 Non-Marking
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-F that is not listed on our sales literature, please contact your dealer salesperson or the factory to receive a special quoted price.