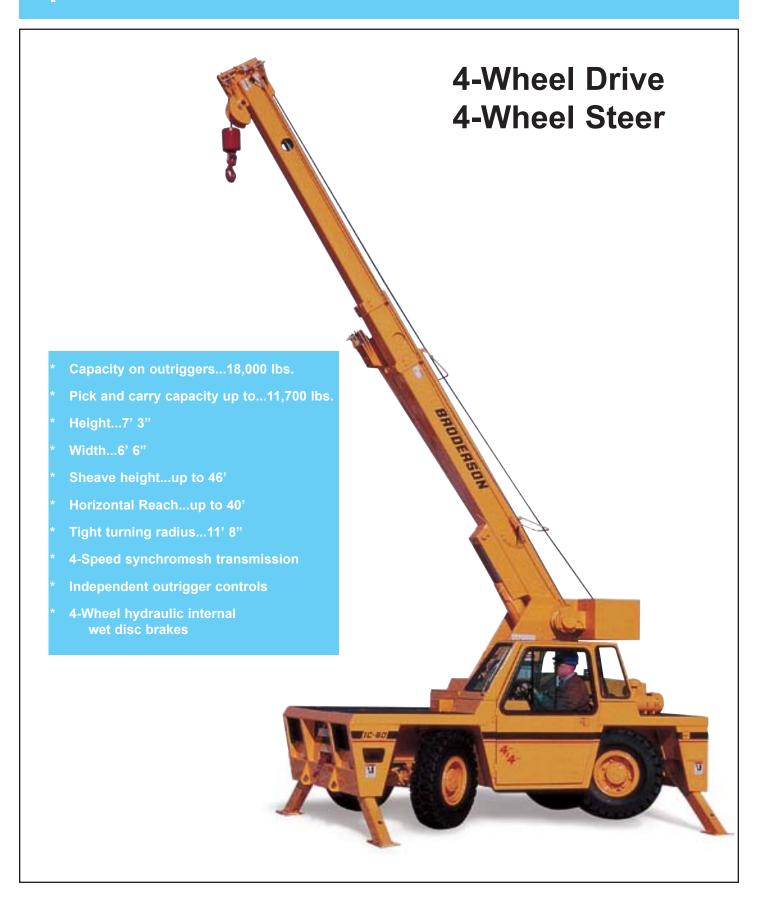
Tech Spec

IC-80-F



Tech Spec

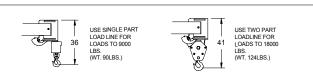


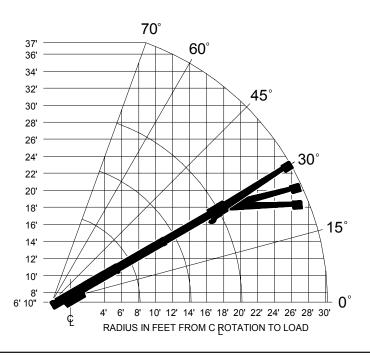
IC-80-1F

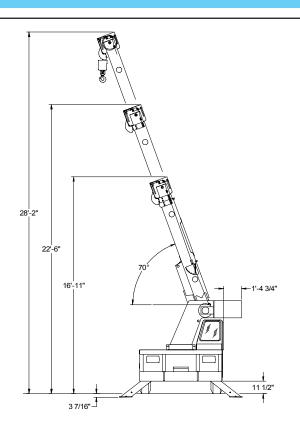
IC-80-1F 8'-2" - 20'-2" BOOM

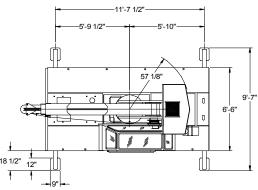
| | CAPA | CITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE | | | | | | |
|----------|-----------|---|---|------|------------|--------|----|------------|
| | LOAD | MAIN BOO | MAIN BOOM OR EXTENSION CAPACITIES IN POL | | | | | OUNDS |
| | RADIUS | 360 °ROTATION | | | OVER FRONT | | | NT |
| | FEET | ON RUBBER | ON OUTRIG | GERS | ON F | RUBBER | ON | OUTRIGGERS |
| | 5 | 9600 | 1700 | 0 | 1 | 1700 | | 18000 |
| | 6 | 7900 | 1450 | 0 | 10 | 0400 | | 14500 |
| _ ∑ | 8 | 5750 | 1025 | 0 | 8 | 400 | | 10250 |
| Ō | 10 | 4150 | 7700 |) | 6 | 300 | | 7700 |
| <u>m</u> | 12 | 3100 | 6550 |) | 4 | 650 | | 6550 |
| | 14 | 2425 | 5550 |) | 3 | 650 | | 5550 |
| × | 16 | 1975 | 4650 |) | 3 | 000 | | 4650 |
| - | 18 | 1625 | 3950 |) | 2 | 500 | | 4150 |
| | 20 | 1400 | 3550 |) | 2 | 150 | | 3800 |
| | 22 | 1275 | 3000 |) | 1 | 900 | | 3000 |
| | 24 | 1075 | 2750 |) | 1 | 650 | | 2800 |
| ا نا | 26 | 925 | 2450 |) | 1 | 425 | | 2600 |
| \times | 28 | 775 | 2150 |) | 1 | 250 | | 2400 |
| Ш ∑ | 30 | 675 | 1950 |) | 1 | 100 | | 2250 |
| 0 | BOOM | 10-FOOT I | 10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET | | | | | FFSET |
| 0 | EXTENSION | | MAIN BOOM ANGLE | | | | | |
| 0, B | ANGLE | 0° | 30° | 45 | 5° | 60° | | 70° |
| ~ | * † 0° | 2250 | 2600 | 32 | 00 | 5000 | | 7000 |
| | †15° | | 2400 | 27 | 00 | 3500 | | 4200 |
| | †30° | | 2250 | 25 | 00 | 3000 | | 3300 |

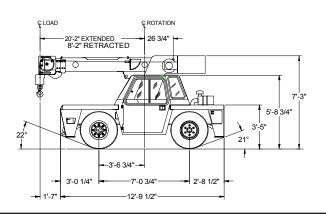
- * USE 0° FOR STRAIGHT BOOM EXTENSION.
- [†] USE 0°, 15° OR 30° FOR OFFSET BOOM EXTENSION. BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY.











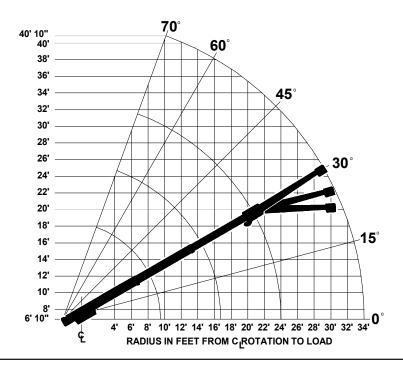
IC-80-2F

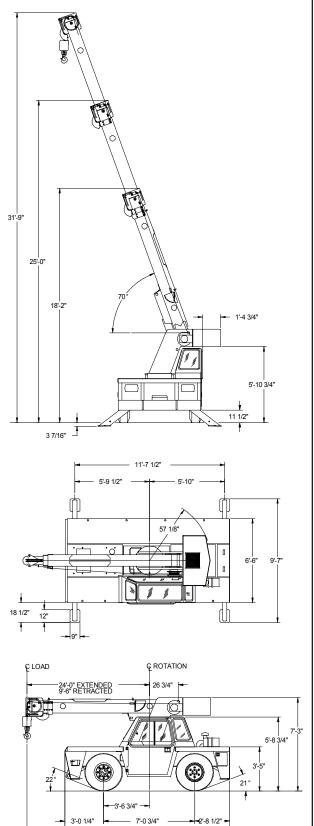
IC-80-2F 9'-6" - 24'-0" BOOM

| | CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE | | | | | | | |
|-------|---|---|-----------------|------|------------|-------|----|------------|
| | LOAD | MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS | | | | | | |
| | RADIUS | 360 °ROTATION | | | OVER FRONT | | | NT |
| | FEET | ON RUBBER | ON OUTRIGO | SERS | ON F | UBBER | ON | OUTRIGGERS |
| | 5 | 9500 | 1700 | 0 | 1 | 1600 | | 18000 |
| | 6 | 7800 | 1450 | 0 | 10 |)200 | | 14500 |
| _ | 8 | 5500 | 1025 | 0 | 8 | 250 | | 10250 |
| 0 | 10 | 3900 | 7700 |) | 6 | 200 | | 7700 |
| ВО | 12 | 2900 | 6550 |) | 4 | 550 | | 6550 |
| | 14 | 2300 | 5550 |) | 3 | 550 | | 5550 |
| A I N | 16 | 1850 | 4550 |) | 2 | 850 | | 4550 |
| Σ | 18 | 1550 | 3950 |) | 2 | 400 | | 4050 |
| | 20 | 1300 | 3250 |) | 2 | 050 | | 3650 |
| | 22 | 1100 | 2875 | | 1 | 750 | | 3300 |
| | 24 | 925 | 2475 | 5 | 1 | 550 | | 3100 |
| | 26 | 850 | 2250 |) | 1 | 350 | | 2750 |
| | 28 | 700 | 2000 |) | 1 | 175 | | 2500 |
| l | 30 | 600 | 1775 | 5 | 1 | 025 | | 2300 |
| l × | 32 | 500 | 1625 | 5 | • | 900 | | 2100 |
| Ш | 34 | 425 | 1400 |) | - | 300 | | 1950 |
| _ ∑ | воом | 10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET | | | | FFSET | | |
| ō | EXTENSION | | MAIN BOOM ANGLE | | | | | |
| - B | ANGLE | 0° | 30° | 45 | 5° | 60° | | 70° |
| 1 0' | * † 0° | 2250 | 2600 | 320 | 00 | 5000 | | 7000 |
| | †15° | | 2400 | 27 | 00 | 3500 | | 4200 |
| | †30° | | 2250 | 25 | 00 | 3000 | | 3300 |

- * USE 0° FOR STRAIGHT BOOM EXTENSION.
 † USE 0°, 15° OR 30° FOR OFFSET BOOM EXTENSION. BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY.







— 12'-9 1/2"

IC-80-3F

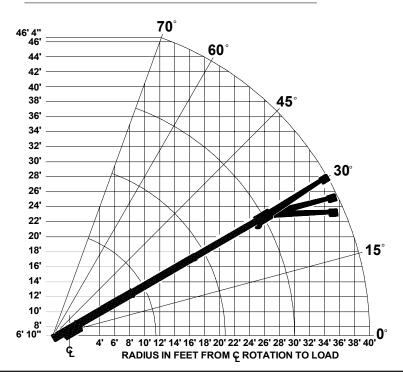
IC-80-3F 11'-6" - 30'-0" BOOM

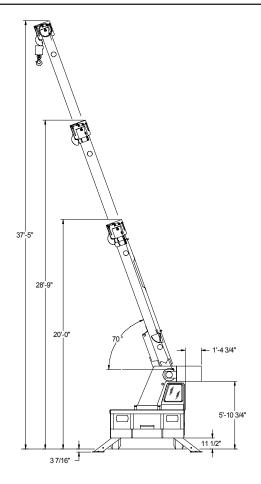
| | CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE | | | | | | | |
|------|---|--|------------|---------------------------|-----|------------------------|--------|------------|
| | LOAD | MAIN BOOM OR EXTENSION CAPACITIES IN POUND | | | | | POUNDS | |
| | RADIUS | 360 °ROTATION | | OVER FRONT | | NT | | |
| | FEET | ON RUBBER | ON OUTRIGO | GERS | ONF | RUBBER | ON | OUTRIGGERS |
| | 5 | 9400 | 1700 | 0 | 1 | 1400 | | 18000 |
| | 6 | 7550 | 1400 | 0 | 1 | 0000 | | 14000 |
| | 8 | 5250 | 1000 | 0 | 8 | 3100 | | 10000 |
| | 10 | 3600 | 7700 |) | 6 | 3100 | | 7700 |
| Σ | 12 | 2650 | 6100 |) | 4 | 1450 | | 6100 |
| 0 | 14 | 2050 | 5200 |) | 3 | 3400 | | 5200 |
| ВО | 16 | 1600 | 4400 |) | 2 | 2700 | | 4400 |
| Z | 18 | 1250 | 3650 |) | 2 | 2200 | | 3900 |
| ⋖ | 20 | 1050 | 3050 |) | • | 1800 | | 3400 |
| Σ | 22 | 850 | 2650 |) | • | 1550 | | 3050 |
| | 24 | 750 | 2300 |) | | 1350 | | 2800 |
| | 26 | 650 | 2050 |) | , | 1150 | | 2550 |
| | 28 | 550 | 1850 |) | • | 1000 | | 2350 |
| | 30 | 450 | 1650 |) | | 900 | | 2150 |
| | 32 | 350 | 1550 |) | | 750 | | 1950 |
| | 34 | 250 | 1400 |) | | 650 | | 1800 |
| | 36 | 200 | 1250 |) | | 550 | | 1650 |
| × | 38 | 150 | 1100 |) | | 450 | | 1500 |
| П Е | 40 | 100 | 1000 | | | 400 | | 1400 |
| ΜO | воом | 10-FOOT B | | OM EXTENSION MAIN BOOM | | N - STRAIGHT OR OFFSET | | DFFSET |
| 0 | EXTENSION | | MAIN | | | SLE | | |
| 0' B | ANGLE | 0° | 30° | 45 | 5° | 60° | | 70° |
| 10 | *†0° | 2250 | 2600 | 32 | 00 | 5000 | | 7000 |
| | †15° | | 2400 | 27 | 00 | 3500 | | 4200 |
| | †30° | | 2250 | 25 | 00 | 3000 | | 3300 |

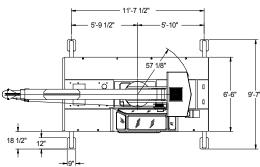
- * USE 0° FOR STRAIGHT BOOM EXTENSION.
 1 USE 0°, 15° OR 30° FOR OFFSET BOOM EXTENSION.

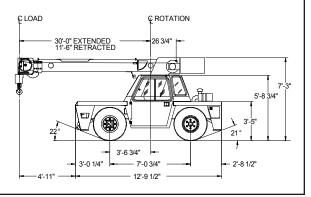
BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY.











IC-80-F

GENERAL:

| Neight: | IC-80-1F | IC-80-2F | IC-80-3F |
|---------------|-------------|-------------|-------------|
| 4-Wheel Steer | 15,730 lbs. | 15,930 lbs. | 16,230 lbs. |
| 4-Wheel Drive | 16,430 lbs. | 16,630 lbs. | 16,930 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: | Standard | Optional |
|------------------------|---------------|---------------|
| (C/L of Outside | 4-Wheel Steer | 4-Wheel Drive |
| Steering Wheel) | 10 ft. 9 in. | 11 ft. 8 in. |

Aisle Width for

90° Turn: 9 ft. 7 in. 9 ft. 9 in.

| ENGINE: | Standard | Optional |
|-----------------|-----------------|-----------------|
| Make | GM | Cummins |
| Model | 3.0 EFI* | 4B3.9 |
| Туре | Gas | Diesel |
| No. Cyl. | 4 | 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.

| Forward/Reverse | | Travel | Drawbar |
|-----------------|--------------------|--------------|-------------|
| <u>Gear</u> | Gear Ratios | Speed | <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.

| Fo | rward/Reverse | Travel | Drawbar |
|-------------|--------------------|--------------|-------------|
| <u>Gear</u> | Gear Ratios | Speed | <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:

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:

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: Front | 2-Wheel Drive Internal wet disc brakes | 4-Wheel Drive 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.

Tech Spec

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:

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

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:

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 require an option or special & 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, 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.