

STERLING CRANE



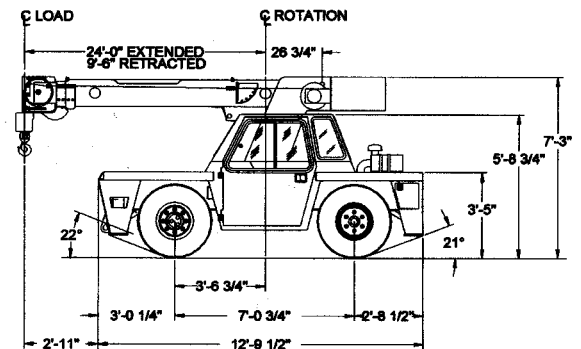
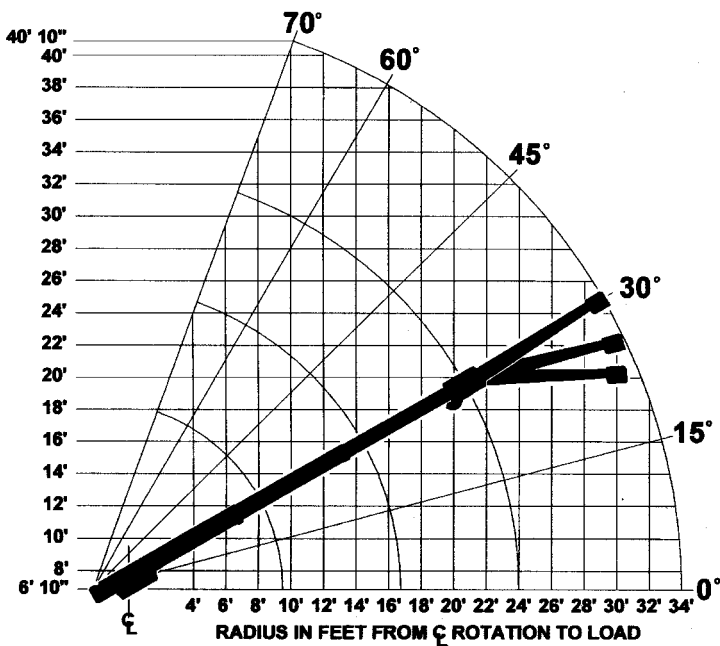
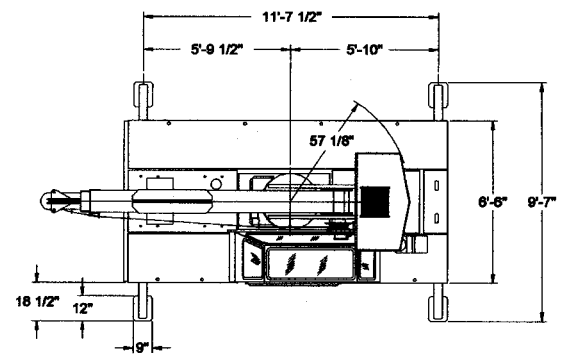
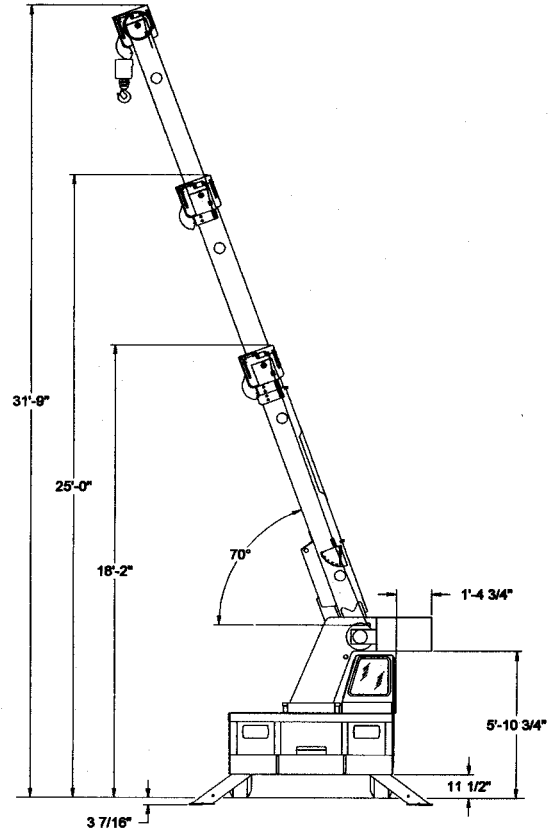
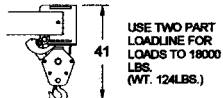
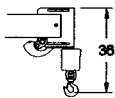
LIFTING CHARTS - Carry Decks

BRODERSON MODEL IC-80-2F/3F - 9 TON CAPACITY

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

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	9500	17000	11600	18000	
6	7800	14500	10200	14500	
8	5500	10250	8250	10250	
10	3900	7700	6200	7700	
12	2900	6550	4550	6550	
14	2300	5550	3550	5550	
16	1850	4550	2850	4550	
18	1550	3950	2400	4050	
20	1300	3250	2050	3650	
22	1100	2875	1750	3300	
24	925	2475	1550	3100	
26	850	2250	1350	2750	
28	700	2000	1175	2500	
30	600	1775	1025	2300	
32	500	1625	900	2100	
34	425	1400	800	1950	
10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET					
MAIN BOOM ANGLE					
ANGLE	0°	30°	45°	60°	70°
* 0°	2250	2600	3200	5000	7000
15°	—	2400	2700	3500	4200
130°	—	2250	2500	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.



STERLING CRANE

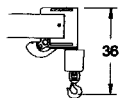
IC-80-3F 11'-6" - 30'-0" BOOM

CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE

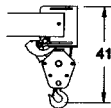
LOAD RADIUS FEET	MAIN BOOM OR EXTENSION CAPACITIES IN POUNDS			
	360° ROTATION		OVER FRONT	
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS
5	9400	17000	11400	18000
6	7550	14000	10000	14000
8	5250	10000	8100	10000
10	3600	7700	6100	7700
12	2650	6100	4450	6100
14	2050	5200	3400	5200
16	1600	4400	2700	4400
18	1250	3650	2200	3600
20	1050	3050	1800	3400
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
40	100	1000	400	1400

10' BOOM EXT. ANGLE	10-FOOT BOOM EXTENSION - STRAIGHT OR OFFSET MAIN BOOM ANGLE				
	0°	30°	45°	60°	70°
	* 1 0°	2250	2600	3200	5000
1 15°	—	2400	2700	3500	4200
1 30°	—	2250	2500	3000	3300

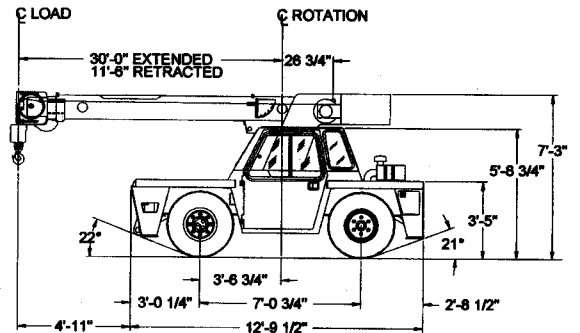
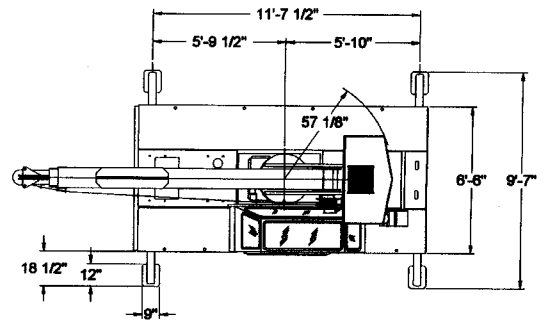
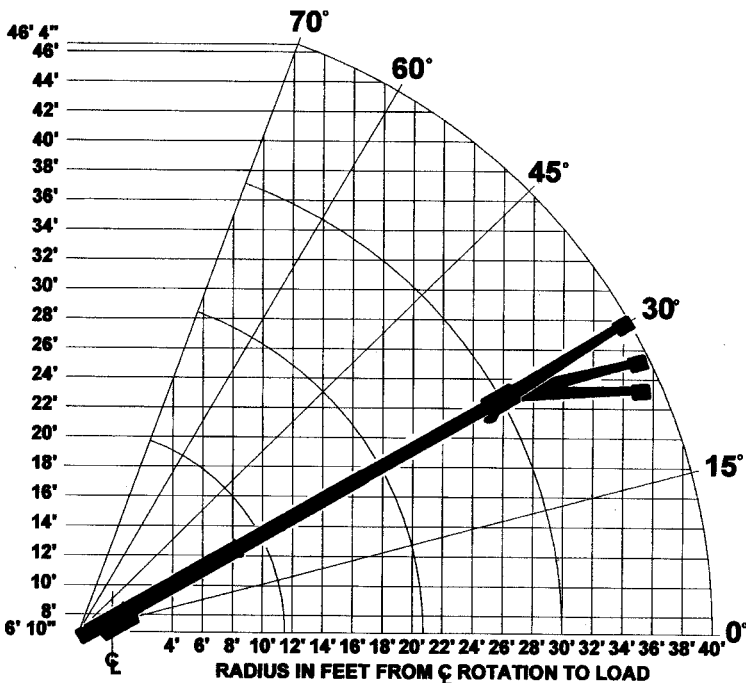
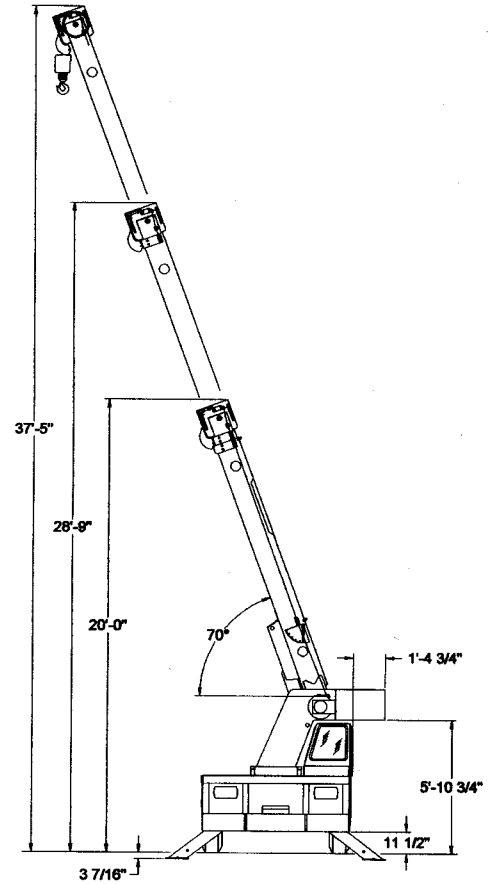
* USE 0° FOR STRAIGHT BOOM EXTENSION.
 † USE 0°, 15° OR 30° FOR OFFSET BOOM EXTENSION.
 BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY.



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



USE TWO PART LOAD LINE FOR LOADS TO 16000 LBS. (WT. 124LBS.)



STERLING CRANE

GENERAL:

Weight:	IC-80-1F	IC-80-2F	IC-80-3F
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:

	IC-80-1F	IC-80-2F	IC-80-3F
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:

	IC-80-1F	IC-80-2F	IC-80-3F
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	Optional
(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:	IC-80-1F	IC-80-2F	IC-80-3F
	11 ft. 0 in.	9 ft. 7 in.	9 ft. 9 in.

ENGINE:	Standard	Optional
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.

Gear	Forward/Reverse Gear Ratios	Travel Speed	Drawbar Pull
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.

Gear	Forward/Reverse Gear Ratios	Travel Speed	Drawbar Pull
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.

STERLING CRANE

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.

STERLING CRANE

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.