

# L-790 CRAWLER

## SPECIFICATIONS

### TURNTABLE SPECIFICATIONS

<b>Power</b>	
Diesel .....	GM6-71 TC, 6 cyl.
Bore and Stroke .....	4 1/4 in. x 5 in.
Displacement .....	426 cu. in.
Horsepower .....	193 H.P.
Power Take-Off .....	Torque Converter
Fuel Tank .....	75 gals.

### OPERATING CHARACTERISTICS

#### Crane, Clamshell

Line Pulls and Line Speeds:	<b>First Layer</b>	<b>Full Drum</b>
Rear Drum	25" P.D. Lagging-30,177 # @ 157 F.P.M.	23,670 # @ 201 F.P.M.
Front Drum	25" P.D. Lagging-29,561 # @ 157 F.P.M.	23,186 # @ 201 F.P.M.

#### Dragline

Line Pulls and Speeds:	<b>First Layer</b>	<b>Full Drum</b>
Rear Drum	25" P.D. Lagging - 30,177 # @ 157 F.P.M.	23,670 # @ 201 F.P.M.
Front Drum	20" P.D. Lagging - 36,951 # @ 126 F.P.M.	24,437 # @ 190 F.P.M.
Rear Drum	25" P.D. Lagging - 63,975 # @ at converter stall	
Front Drum	20" P.D. Lagging - 78,337 # @ at converter stall	
Swing Speed .....	0-4 R.P.M.	

#### Controls

Hoist and Derricking Clutches .....	Metered Air
Swing .....	Independent Hydraulic

#### Other Equipment

Boom Hoist .....	Dual Drum, Spur Gear Driven
Boom Operation .....	Derricking, Lowering, by Air-Operated Clutch
Gantry .....	Power Operated Back Hitch
Counterweight, (with Hydraulic Kit for Removal) .....	19,000 & 29,000 lbs.
<b>Turntable Connection</b> .....	Internal Gear Shear-Ball

### CRAWLER SPECIFICATIONS

Overall Length .....	20'-2"
Overall Width Retracted .....	11'-4"
Overall Width Extended .....	17'-4"
Tread Shoe Width .....	34 inch
Tread Bearing Area .....	14,280 sq. in.
Tread Shoe Width (opt.) .....	44 inch
Tread Bearing Area .....	18,500 sq. in.
<b>Crawler Travel Speeds</b> (Available in both directions)	
Low Travel Speed .....	0 to .6 M.P.H.
High Travel Speed .....	1.2 M.P.H.
Gradeability .....	70%
<b>Crawler Tread-Travel Lock</b> .....	Hydraulically operated multiple disc brake.
<b>Crawler Controls</b> .....	Full hydraulic control of travel, steer and brakes.
	Hydraulic motors on each side frame drive each track independently.
	Oil-bath-enclosed reduction. — planetary final drive.

### BOOM EQUIPMENT

<b>Crane Boom</b> — For lifting crane with offset, long tapered and hammerhead boom	
Design .....	Square-Tubular-Chord
Basic Length — Offset Boom Peak .....	40 ft.; 15-ft. top, 25-ft. base
Long Tapered Boom Peak .....	60 ft.; 35-ft. top, 25-ft. base
Hammerhead Boom Peak .....	28 ft.; 3-ft. top, 25-ft. base
Type of Connection .....	Pin-Connected
Number of Hoist Line Sheaves at Boom Head on Anti-Friction Bearings	
Offset .....	5
Long Tapered .....	5
Hammerhead .....	5
(Additional Sheave Available for Offset and Hammerhead Tips)	
Derricking and Lowering .....	Power
Boom Hoist Drums .....	2
Harness Extending Cylinder .....	Available

#### Jib

Two-Piece* Pin-Connected Type .....	30 ft.
*Extendible with 10-ft. and 20-ft. Center Sections to 60 ft.	

#### Lifting Crane Component

Laggings .....	Two, 25 in. P.D. Full Width
Floating Harness .....	16 Parts of Line
Swing Brake .....	External Contracting Shoe Brake
Boom Stops .....	Telescopic Type
Power Load Lowering (both hoist drums) .....	Available
Third Drum .....	Available
High Speed Hoist .....	Available

#### Clamshell Equipment

Laggings .....	Two, 25 in. P.D. Full Width
Tagline .....	Rudomatic

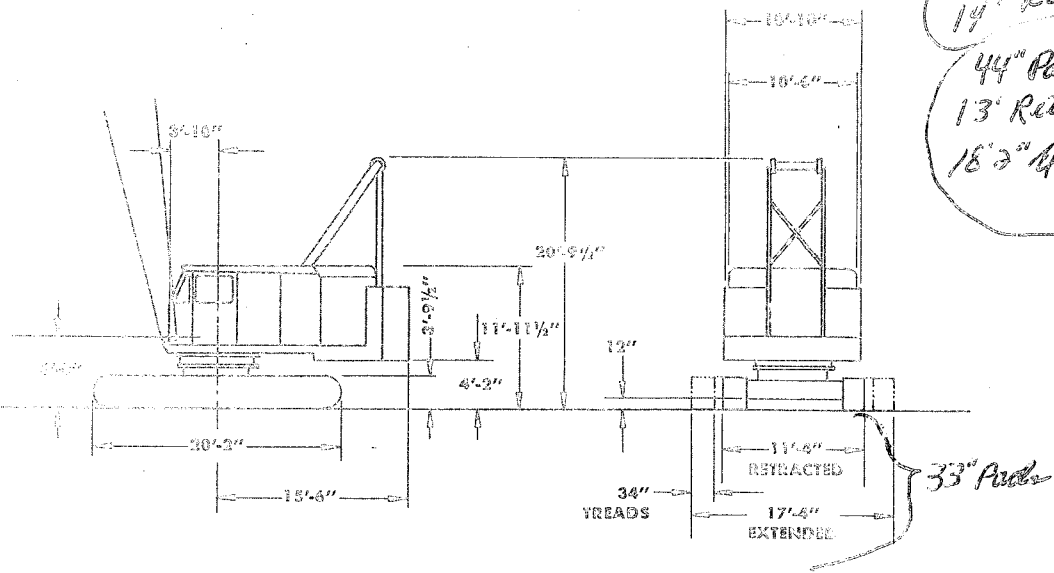
#### Dragline Equipment

Laggings .....	Hoist 25 in. P.D. — Drag 20 in. P.D. Full Width
Fairlead .....	Full Revolving Type, with Front Rollers (Anti-Friction Bearings Throughout)
2-22 in. P.D. Single Centralized Hoist Line Sheaves on Anti-Friction Bearings on Long Tapered Boom Peak .....	Standard

### APPROXIMATE SHIPPING WEIGHTS\*

Weights: (Approximate Shipping Weights for Standard Equipped Machines with Basic Boom, No Extra Equipment)	
Lifting Crane .....	169,000
Lifting Crane and Clamshell .....	170,000
Lifting Crane and Dragline .....	174,000
Weight of unit may be reduced 48,000 lbs. by taking off removable counterweights — (hydraulic removal kit standard). Additional reductions may be made by removal of side frames with treads and driving mechanism, 40,000 lbs.	

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. **We Make No Other Warranty, Expressed Or Implied.**



REVIEW THE FOLLOWING NOTES BEFORE USING THIS SPECIFICATION TO DETERMINE ALLOWABLE BOOM LENGTHS, RADIUS AND WEIGHT OF LOAD IN POUNDS PERTAIN TO THIS MACHINE AS ORIGINALLY MANUFACTURED AND EQUIPPED.

NOTES:

2. The rated loads (Column A & C) as determined by boom length, radius and weight of load apply to this machine as originally manufactured and equipped and as mounted on a Lorain manufactured L-790 crawler. **THEY ARE MAXIMUM** lifting capacities and comply with standards of the Power Crane & Shovel Association as issued by the U.S. Department of Commerce Commercial Standard CS90-58 and the SAE Crane Load Stability Test Code J765.
- 1a. **DO NOT TIP** the machine to determine the allowable loads. Rated load should not be exceeded. Rated loads are based on 75% and 85% of stability except where identified with bold face type in which case they are based on machinery and structural strength.
- 1b. The rated loads (Column B and D) do not exceed 85% stability.
- 1c. All rated loads are based on the machine being on a firm, level and uniform supporting surface. Before lifting at, or near, rated loads, the machine should be leveled with a commercial level in two directions. For **SWAY WINDING LOADS** THE BOOM is expected to follow the instructions for its application. Job conditions such as soft or uneven ground, wind load, load height, side loads, counterweight, etc. should be taken into account. If the machine is to be used in any other manner, the rated loads should be reduced accordingly.

by the manufacturer BEFORE operating this machine, and Rules for Safe Operation of equipment should be adhered to at all times. Operators and supervisors should also acquaint themselves with Standard Safety Codes for Cranes, Derricks and Hoists, ASA-B 30.2-1943 (R-1952).

- 1e. All lifting must be done with gantry erected. When working conditions will not permit erected gantry, consult Lorain for proper capacity chart.
- 1f. Boom over 170 ft. long requires mast in addition to erected gantry. Mast with erected gantry may also be used with boom lengths of 170 ft. and under.
- 1g. Maximum counterweight suitable for lifting crane service only. **CRAWLERS MUST BE FULLY EXTENDED.**
- 1h. Standard counterweight suitable for lifting crane, derrick and gin/shovel service.
- 1i. The total weight of hoist plus load must not exceed 80% of rated lifting capacities with standard counterweights—provided indicated in Column D, up to a maximum of 15,000 lbs. for derrick service and 10,000 lbs. for gin/shovel service.
- 1j. When the machine is used for lifting of heavy loads, the rated loads should be reduced accordingly.