



L-790 CRAWLER

SPECIFICATIONS

TURNTABLE SPECIFICATIONS

Power	
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:	First Layer	Full Drum
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	First Layer	Full Drum
Line Pulls and Speeds:		
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.
Turntable Connection	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.

Crawler Travel Speeds (Available in both directions)

Low Travel Speed	0 to .6 M.P.H.
High Travel Speed	1.2 M.P.H.
Gradeability	70%

Crawler Tread-Travel Lock

Crawler Controls	Hydraulically operated multiple disc brake.
	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

Crane Boom — 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*

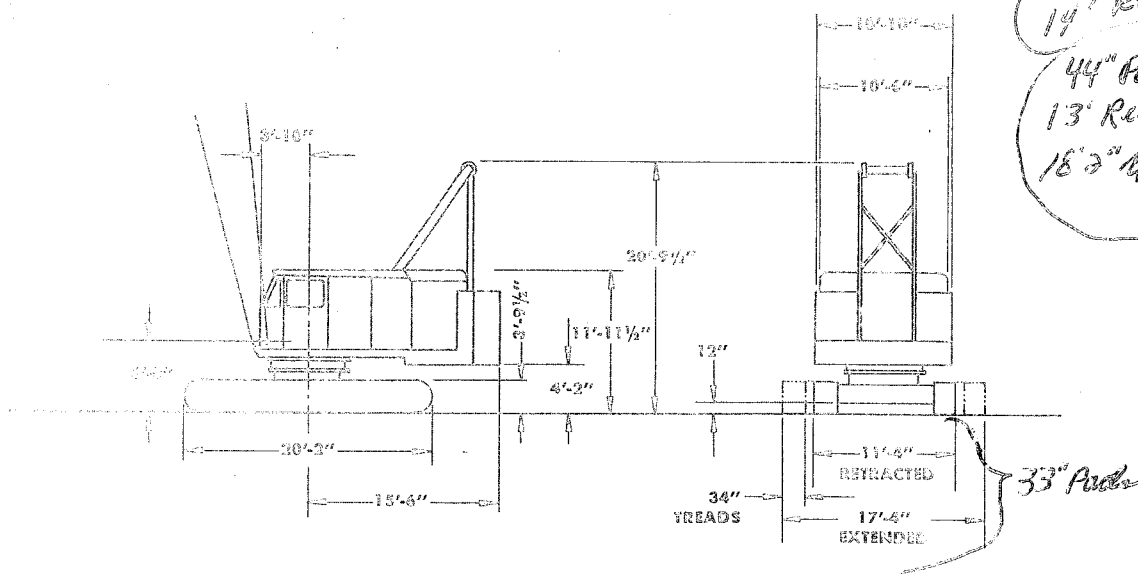
Weights: (Approximate Shipping Weights for Standard Equipped Machines with Basic Boom, No Extra Equipment)

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.



CRANE SPECIFICATION



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. Do not exceed the rated capacities when lifting over a corner.
3. 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 SOFT GROUND LOADS THE USER is expected to make the adjustment for the particular job conditions such as soft or uneven ground, wind load, machine, side loads, roughness of the surface, etc. The user should consult the manufacturer's manual for more information. The user should also consult the manufacturer's manual for more information.
- 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, dragline and clamshell service.
- 1i. The total weight of hoist plus load must not exceed 80% of rated lifting capacities with standard counterweights—counterweights listed in Column D, up to a maximum of 25,000 lbs. for dragline service and 10,000 lbs. for clamshell service.
- 1j. The total weight of hoist plus load must not exceed 80% of rated lifting capacities with standard counterweights—counterweights listed in Column D, up to a maximum of 25,000 lbs. for dragline service and 10,000 lbs. for clamshell service.