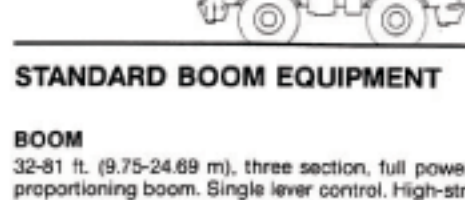


LORAIN LRT 300D SERIES

rough terrain cranes specifications



STANDARD BOOM EQUIPMENT

BOOM

32-81 ft. (9.75-24.69 m), single section, full power, self-positioning boom. Single lever control. High-strength, four plate construction with slideplate holes providing reduced weight. Anti-friction slide pads. Single boom hoist cylinder. All cylinders equipped with integral hold valves.

BOOM HEAD

Welded to third section of boom. Three or four metallic sheaves and two idler sheaves mounted on heavy duty, anti-friction bearings. Quick reeving boom head eliminates need to remove wedge and socket from rope. Provision made for side-stow jib mounting.

OPTIONAL BOOM EQUIPMENT

JIBS

32 ft. (9.75 m) side stow swing-on one-piece lattice type jib. Single metallic sheave mounted on anti-friction bearing. Installs to main boom only.

32-49 ft. (9.75-14.94 m) side stow swing-on lattice type jib. Single sheave mounted on anti-friction bearing. Jib is extendible to 49 ft. (14.94 m) by means of a 17 ft. (5.18 m) manual pull-out lip section, roller supported for ease of extension. Installs to main boom only.

AUXILIARY BOOM HEAD

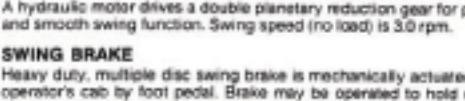
Removable auxiliary boom head has single metallic sheave mounted on an anti-friction bearing. Removable pin-type rope guard for quick reeving. Installs to main boom peak only.

HOOK BLOCK

Three or four metallic sheaves and hook latch. Quick reeving design.

HOOK & BALL

6.25 ton (5.67 mt) top swivel ball with hook and hook latch.



STANDARD UPPERSTRUCTURE EQUIPMENT

UPPERSTRUCTURE FRAME

All welded one-piece structure fabricated with high tensile strength alloy steel. Counterweight is bolted to frame.

TURNTABLE CONNECTION

Swing bearing is single row, ball-type, with internal teeth. The swing gear is bolted to revolving upperstructure and to carrier frame.

SWING

A hydraulic motor drives a double planetary reduction gear for precise and smooth swing function. Swing speed (no load) is 3.0 rpm.

SWING BRAKE

Heavy duty, multiple disc swing brake is mechanically actuated from operator's cab by foot pedal. Brake may be released to hold upperstructure at any desired degree of rotation. Brake is operated by hand.

ANTI-TWO BLOCK SYSTEM

Anti-two block system with audiovisual warning and automatic function disconnects.

OPERATOR'S CAB

Environmental cab with all steel construction, optimum visibility, safety glass throughout and rubber floor matting is mounted on vibration absorbing pads. The cab has a sliding door on the left side, sliding windows on the right side, slanted front windshield, slanted and removable front windshield. Acoustical foam padding insulates against sound and weather. The deluxe six-way adjustable operator's seat includes head and arm rests.

CONTROLS

All control levers and pedals are positioned for efficient operation. Hand-operated control levers include swing, boom telescope, boom hoist, single lever two-speed main winch, and hand throttle. Foot control pedals include boom raise, boom lower, accelerator and swing brake.

INSTRUMENTATION AND ACCESSORIES

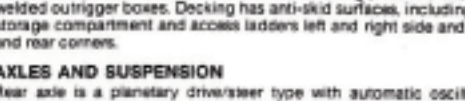
In-cab gauges include air pressure, bubble level, engine oil pressure, fuel, engine temperature, voltmeter, transmission temperature, and transmission oil pressure. Switches include ignition, engine stop, steering mode, and outrigger controls. Indicators include low air, high water temperature/low oil pressure audio/visual warning, high transmission temperature and two-block visual and audio monitors. Accessories include fire extinguisher, light package including headlights, tail lights, brake lights, directional signals, four-way hazard flashers, and back-up lights with auto pulsating back-up alarm; windshield washer/wiper; R.H. and L.H. rear view mirror; dash light; and seat belt.

HYDRAULIC CONTROL VALVES

Valves are mounted on the upperstructure and are easily accessible. Valves include one foot-pedal main valve for boom hoist, telescope, and swing. Quick disconnects are provided for quick connection of pressure check gauges.

OPTIONAL EQUIPMENT

Auxiliary Winch • Winch Cable Rollers • Drum Rotation Indicator • 360° House Lock • Heater/Defroster • Air Conditioner • Tinted Safety Glass • Vandal and Scratch Resistant Glass • Tinted Vandal and Scratch Resistant Glass • Torison Bar Suspension for Bucket Seat • Roof Window Electric Wiper • Tachometer • Work Lights • Load Moment Indicators.



STANDARD CARRIER EQUIPMENT

CARRIER CHASSIS

Chassis is Lorain designed and built with four-wheel drive and four-wheel steer (4x4x4). Has low-type construction with reinforcing cross members, a precision machined turntable mounting plate and integrally welded outrigger booms. Decking has anti-klid surface, including tool storage compartment and access ladders left and right side and front and rear corners.

AXLES AND SUSPENSION

Rear axle is a planetary drive/steer type with automatic oscillation lockouts that engage when the superstructure is swung 10° in either direction. Front axle is a planetary drive/steer type, rigid mounted to the frame for increased stability.

STEERING

Hydraulic four-wheel power steering for two-wheel, four-wheel, or crab steer is easily controlled by steering wheel.

TURNING RADIUS (standard tire)

Two-wheel: 38 ft. 0 in. (11.58 m)
Four-wheel: 22 ft. 0 in. (6.69 m)

TRANSMISSION

Full power-shift transmission with integral torque converter has neutral safety switch, 6 speeds forward, and 3 speeds reverse. Automatic pulsing backup alarm.

STANDARD CARRIER EQUIPMENT (continued)

OUTRIGGERS

PWRSPAN® out and down fully independent hydraulic outriggers extend 20 ft. 3 in. centerline to centerline. Easily removable steel floats, each with an area of 294 sq ft. (26.9 sq m), stow on the carrier frame. Complete controls and sight leveling bubble are located in the operator's cab.

WHEELS & TIRES

Disc type wheels with full tapered bead seat rim, 137 in. (3.48 m) wheelbase with full width fenders standard.

TIRES

18.00 x 25-28 P.R. (standard); 18.00 x 25-28 P.R. (optional); 23.50 x 25-20 P.R. (optional).

BRAKES

Air/hydraulic disc brakes on each wheel. Total brake area: 1300 sq in. (8367 cm²). The combination parking brake and emergency brake is a spring-applied, air released disc operating brake on the transmission output shaft. Parking brake automatically engages when ignition is switched off or switch in cab is manually actuated.

HYDRAULIC SYSTEM

HYDRAULIC PUMPS

Three gear type pumps, one single and two in tandem, driven off the transmission. Combined system capacity is 119 gpm (450 lpm). Includes pump disconnect.

Main and Auxiliary Winch Pump

59.5 gpm (225.2 lpm) @ 3,500 psi (241.5 kg/cm²)

Boom Hoist, Telescope Pump

38.5 gpm (146.7 lpm) @ 2750 psi (193.3 kg/cm²)

Power Steering, Outigger and Swing Pump

21 gpm (79.5 lpm) @ 2500 psi (175 kg/cm²)

FILTRATION

Full flow oil filtration system with bypass protection includes a removable 100 mesh (140 micron) suction screen-type filter and 5 micron replaceable return line filter.

HYDRAULIC RESERVOIR

All steel, welded construction with internal baffles and diffuser. Provides easy access to filters and is equipped with an external sight level gauge. The hydraulic tank is pressurized to aid in keeping out contaminants and in reducing potential pump cavitation. Capacity is 112 gal. (424 liters). Swing-away hydraulic oil cooler is standard.

OPTIONAL EQUIPMENT

Cold Weather Starting Aid • Immersion Heater • Rear Axle Centering Light • Plintie Hook • Air Dryer • Fuel Water Separator • Clearance Lights.

MAIN WINCH SPECIFICATIONS

Lorain built winch specifications with planetary reduction gearing provides two-speed operation with equal speeds for power up and down. Winch is equipped with an integral automatic brake.

PERFORMANCE	LO-RANGE	HI-RANGE
Max. line speed (no load)	177 fpm (54 m/min)	293 fpm (89 m/min)
Fifth layer	257 fpm (78 m/min)	426 fpm (130 m/min)
Max. line pull — First layer	14,000 lbs (6350 kg)	
Permissible line pull	9,500 lbs (4300 kg)	
DRUM DIMENSIONS	DRUM CAPACITY	
18.5 in (267 mm) drum diameter	Max. Storage: 850 ft. (274 m)	
20.9 in (531 mm) length	7th layer not working layer	
18.8 in (480 mm) flange dia.	Max. Usable: 738 ft. (225 m)*	
Cable: 5/8 in x 80 ft (15.8 mm x 137.2 m)		
Code type: 6 x 19 IWRC-3XPS		
Regulatory label conforming	*Based on minimum flange height above top layer to comply with ANSI B30.5.	

OPTIONAL AUXILIARY WINCH

Lorain hydraulic winch, power up and down, equal speed, planetary reduction with integral automatic brake.

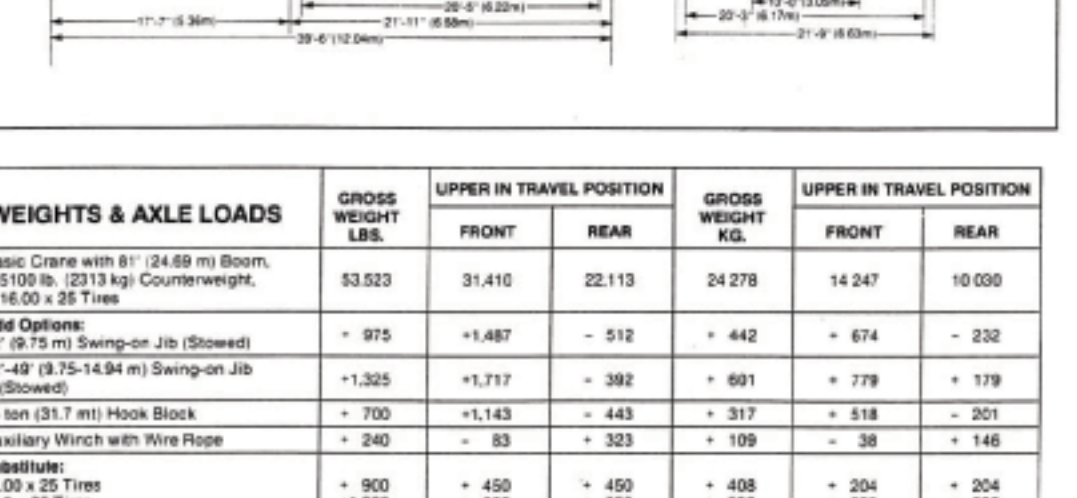
PERFORMANCE	Max. line speed (no load)
Fifth layer	336 fpm (103 m/min)
Max. line pull	10,100 lbs (4582 kg)
First layer	13,100 lbs (5944 kg)
DRUM DIMENSIONS	
10.5 in (267 mm) drum diameter	
16.1 in (408 mm) length	
17.8 in (452 mm) flange diameter	
Cable: 5/8 in x 500 ft. (12.7 mm x 152.4 m)	
Code type: 6 x 19 IWRC-3XPS regular lay preferred	
DRUM CAPACITY	
Max. storage: 815 ft. (248 m)	

ENGINE SPECIFICATIONS

Make and Model	Cummins 6BT5.9
Type	6 cylinder
Bore and Stroke	4.02 x 4.72 in (102 x 120 mm)
Displacement	369 cu in (5.9 l)
Max. Gross Horsepower	150 hp (119 kw) @ 2500 rpm
Max. Gross Torque	395 lbs-ft/1700 rpm
Net Horsepower	144 hp (107 kw) @ 2500 rpm
Aspiration	turbocharged
Air Filter	dry type
Electrical System	12 volt
Alternator	102 amp
Battery	(2) 12V-1250 C.C.A.
Fuel Capacity	50 gal (189 l)

GENERAL DIMENSIONS

NOTE: Dimensions given assume the boom is fully retracted in travel position and 18.00 x 25 tires.



WEIGHTS & AXLE LOADS	GROSS WEIGHT LBS.	UPPER IN TRAVEL POSITION		GROSS WEIGHT KG.	UPPER IN TRAVEL POSITION	
		FRONT	REAR		FRONT	REAR
Basic Crane with 81' (24.69 m) Boom, 5100 lb. (2313 kg) Counterweight, 18.00 x 25 Tires	53,523	31,410	22,113	24,278	14,247	10,030
Add Options:						
32' (9.75 m) Swing-on Jib (Shown)	+ 975	+ 1,487	- 512	+ 442	+ 674	- 232
32'-49' (9.75-14.94 m) Swing-on Jib (Shown)	+ 1,325	+ 1,717	- 392	+ 601	+ 779	+ 179
35 ton (31.7 mt) Hook Block	+ 700	+ 1,143	- 443	+ 317	+ 518	- 201
Auxiliary Winch with Wire Rope	+ 240	- 83	+ 323	+ 109	- 38	+ 146
Subtotal:						
18.00 x 25 Tires	+ 900	+ 450	+ 450	+ 408	+ 204	+ 204
23.5 x 25 Tires	+ 1,300	+ 650	+ 650	+ 590	+ 295	+ 295

NOTE: Weights are for Lorain supplied equipment and subject to 2% variation due to manufacturing tolerances.

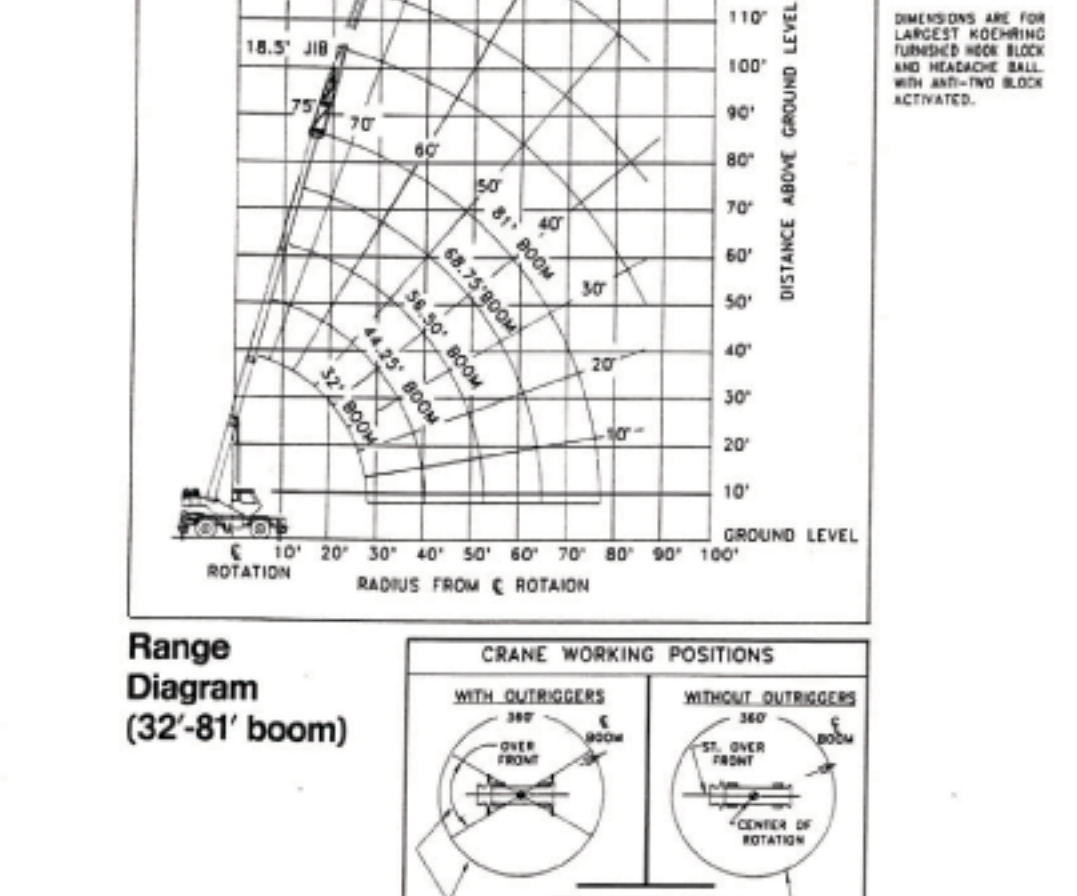
WE RESERVE THE RIGHT TO AMEND THESE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE. THE ONLY WARRANTY APPLICABLE IS OUR STANDARD WRITTEN WARRANTY APPLICABLE TO THE PARTICULAR PRODUCT AND SALE. WE MAKE NO OTHER WARRANTY, EXPRESSED OR IMPLIED.



LORAIN LRT 300D SERIES

rough terrain crane

35 ton capacity range diagram & capacity charts



Capacity Charts — Pounds (32'-81' boom)

IMPORTANT: This specification sheet is not to be used as a load carrying chart in the machine as data may be subject to change.

CAUTION: 35 TON COUNTERWEIGHT; 18/AUX. WINCH 4300 LB. W/0/AUX. WINCH 5200 LB. BOOM LENGTH 32-81 FT.

OUTRIGGER SPREAD 20 FT. 3 IN. STABILITY PCT. ON OUTRIGGERS 85% ON TIEED 75% PCSA CLASS 10-11T

ON OUTRIGGERS

R A D I U S	BOOM LENGTH 32'		BOOM LENGTH 44.25'		BOOM LENGTH 56.50'		BOOM LENGTH 66.75'		BOOM LENGTH 81'		R A D I U S
	FRONT	360°	FRONT	360°	FRONT	360°	FRONT	360°	FRONT	360°	
10	12	12	12	12	12	12	12	12	12	12	10
15	18	18	18	18	18	18	18	18	18	18	15
20	24	24	24	24	24	24	24	24	24	24	20
25	30	30	30	30	30	30	30	30	30	30	25
30	36	36	36	36	36	36	36	36	36	36	30
35	42	42	42	42	42	42	42	42	42	42	35
40	48	48	48	48	48	48	48	48	48	48	40
45	54	54	54	54	54	54	54	54	54	54	45
50	60	60	60	60	60	60	60	60	60	60	50
55	66	66	66	66	66	66	66	66	66	66	55
60	72	72	72	72	72	72	72	72	72	72	60
65	78	78	78	78	78	78	78	78	78	78	65
70	84	84	84	84	84	84	84	84	84	84	70

ON TIRES

W E I G H T	18.00 X 25-28 PR	23.50 X 25-20 PR	W E I G H T	18.00 X 25-28 PR	23.50 X 25-20 PR
STATIONARY	STATIONARY	STATIONARY	STATIONARY	STATIONARY	STATIONARY
10	12	12	12	12	12
15	18	18	18	18	18
20	24	24	24	24	24
25	30	30	30	30	30
30	36	36	36	36	36
35	42	42	42	42	42
40	48	48	48	48	48
45	54	54	54	54	54
50	60	60	60	60	60
55	66	66	66	66	66
60	72	72	72	72	72
65	78	78	78	78	78
70	84	84	84	84	84

REDUCTION IN MAIN BOOM CAPACITY

ALL JIBS IN STOWED POSITION 0 LBS.

32'-49" SIDE STOW JIB ERRECTED STINGER RETRACTED 2440 LBS.

32'-49" SIDE STOW JIB ERRECTED 2810 LBS.

HOOK BLOCK WEIGHTS

HOOK & BALL 121 LBS.
HOOK BLOCK (3 SHEAVES) 480 LBS.
HOOK BLOCK (4 SHEAVES) 700 LBS.

RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	3% MPH	TRAVEL
18.00 X 25-28 PR	100 PSI	100 PSI	80 PSI	70 PSI
23.50 X 25-20 PR	70 PSI	70 PSI	55 PSI	50 PSI

MAXIMUM PERMISSIBLE LOAD

LINE PARTS	1	2	3	4	5	6	7	8
MAIN HOIST	9,700	19,400	29,100	38,800	48,500	58,200	67,900	77,600
AUX. HOIST	7,800	15,600	23,400	31,200	39,000	46,800	54,600	62,400
BOOM HEAD	3	2-1	2-3	1-2	1-2	1-2	1-2	1-2
HOOK BLOCK	3	2-1	2-3	1-2	1-2	1-2	1-2	1-2

NOTES FOR JOB CAPACITIES

1. FOR COLOR AND SAFETY OPERATIONS, BOOM MUST BE COLORED YELLOW. COLOR OF CRANE WITH STRONG BRASS LOCKED OFF WITH MECHANICAL SWING LOCK DISCONNECT. IF SO EQUIPPED, USE GREENE BROWN POINT HEAVY AND KEEP 100 FEET TO SWING SURFACE.

2. THE LOAD SHOULD BE RESTRAINED FROM SWINGING SIDE TO SIDE, FORWARD AND BACK.

3. WITHOUT OUTRIGGERS, CHECK WHETHER THE BOOM BEYOND LISTED LOAD RATES FOR APPLICABLE TIRES USED TO INSURE STABILITY.

4. CHECK SPEED IS CRANE EQUIPPED WITH SPEED LIMITER. SPEED IS 1.0 MPH (1.6 km/h).

5. REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION.