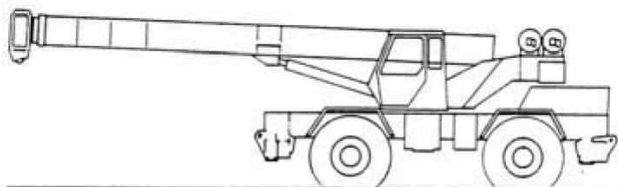


LORAIN[®] LRT 300D SERIES

rough terrain cranes
specifications



STANDARD BOOM EQUIPMENT

BOOM

32-81 ft. (9.75-24.69 m), three section, full power, self-proportioning boom. Single lever control. High-strength, four plate construction with sideplate 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 tip section, roller supported for ease of extension. Installs to main boom only.

AUXILIARY BOOM HEAD

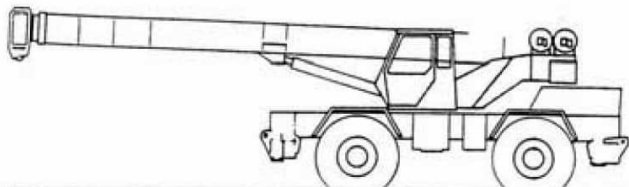
Removable auxiliary boom head has single metallic sheave mounted on an anti-friction bearing. Removable pin-type rope guard for quick reeving. Installs to main boom peak only.

HOOK BLOCK

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

HOOK & BALL

6.25 ton (5.7 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 operated to hold upperstructure at any desired degree of rotation. Brake is released by hand.

ANTI-TWO BLOCK SYSTEM

Anti-two block system with audio/visual 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, hinged tinted Lexan® skylight 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

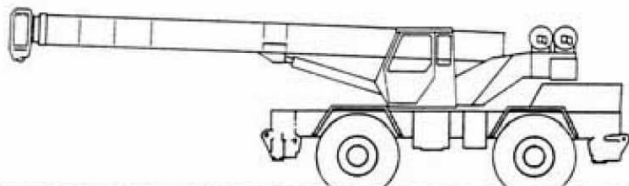
In-cab gauges include air pressure, bubble level, engine oil pressure, fuel, engine temperature, voltmeter, transmission temperature, and transmission oil pressure. Switches include ignition, engine stop, steering mode, and outrigger controls. Indicators include low air, high water temperature/low oil 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 audio 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 four-spool main valve for boom hoist, telescope, main winch, and main winch boost; and one single-spool valve for swing. Quick disconnects are provided for quick connection of pressure check gauges.

OPTIONAL EQUIPMENT

Auxiliary Winch • Winch Cable Rollers • Drum Rotation Indicators • 360° House Lock • Heater/Defroster • Air Conditioner • Tinted Safety Glass • Vandal and Scratch Resistant Glass • Tinted Vandal and Scratch Resistant Glass • Torsion 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 box-type construction with reinforcing cross members, a precision machined turntable mounting plate and integrally welded outrigger boxes. Decking has anti-skid surfaces, 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 tires):

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

Four-wheel: 22 ft. 6 in. (6.86 m)

TRANSMISSION

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

STANDARD CARRIER EQUIPMENT (continued)

OUTRIGGERS

POWERSPAN® out and down fully independent hydraulic outriggers extend 20 ft. 3 in. centerline to centerline. Easily removable steel floats, each with an area of 254 in² (1639 cm²), 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

16:00 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 in.² (8387 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 capability is 119 gpm (450 lpm). Includes pump disconnect.

Main and Auxiliary Winch Pump

59.5 gpm (225.2 lpm) @ 3,500 psi (246.1 kg/cm²)

Boom Hoist, Telescope Pump

38.5 gpm (145.7 lpm) @ 2750 psi (193.3 kg/cm²)

Power Steering, Outrigger 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 • Pintle Hook • Air Dryer • Fuel Water Separator • Clearance Lights.

MAIN WINCH SPECIFICATIONS

Lorain built hydraulic winch 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)		
First layer	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 (4309 kg)	
DRUM DIMENSIONS	DRUM CAPACITY	
10.5 in (267 mm) drum diameter	Max. Storage: 899 ft. (274 m)	
20.9 in (531 mm) length	7th layer not working layer	
19.8 in (503 mm) flange dia.	Max Useable: 738 ft (225 m)*	
Cable: ½ in x 500 ft (15.9 mm x 137.2 m)	*Based on minimum flange height above top layer to comply with ANSI B30.5.	
Cable type: 6 x 19 IWRC-XIPS regular lay preformed		

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 338 fpm (103 m/min)
Max. line pull
First layer 10,100 lbs (4582 kg)

DRUM DIMENSIONS

10.5 in (267 mm) drum diameter
16.1 in (409 mm) length
17.8 in (452 mm) flange diameter
Cable: ½ in. x 500 ft. (12.7 mm x 152.4 m)
Cable type: 6x19 IWRC-XIPS regular lay preformed

DRUM CAPACITY

Max. storage: 815 ft (248 m)

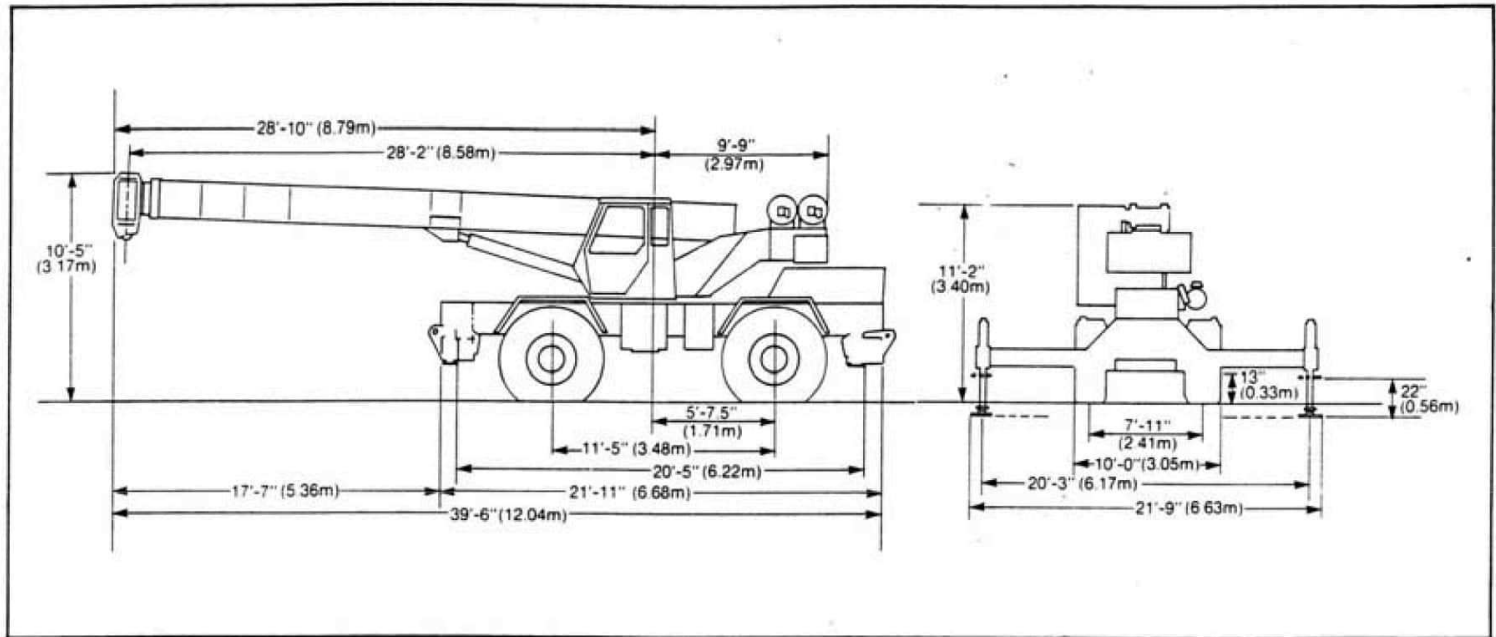
ENGINE SPECIFICATIONS

Make and Model	Cummins 6BT5.9
Type	6 cylinder
Bore and Stroke	4.02 x 4.72 in (102 x 120 mm)
Displacement	359 cu in (5.9 l)
Max. Gross Horsepower	160 hp (119 kw) @ 2500 rpm
Max. Gross Torque	396 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 16.00 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, 16.00 x 25 Tires	53,523	31,410	22,113	24 278	14 247	10 030
Add Options:						
32' (9.75 m) Swing-on Jib (Stowed)	+ 975	+1,487	- 512	+ 442	+ 674	- 232
32'-49' (9.75-14.94 m) Swing-on Jib (Stowed)	+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
Substitute:						
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.



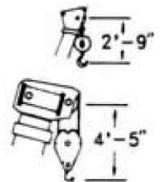
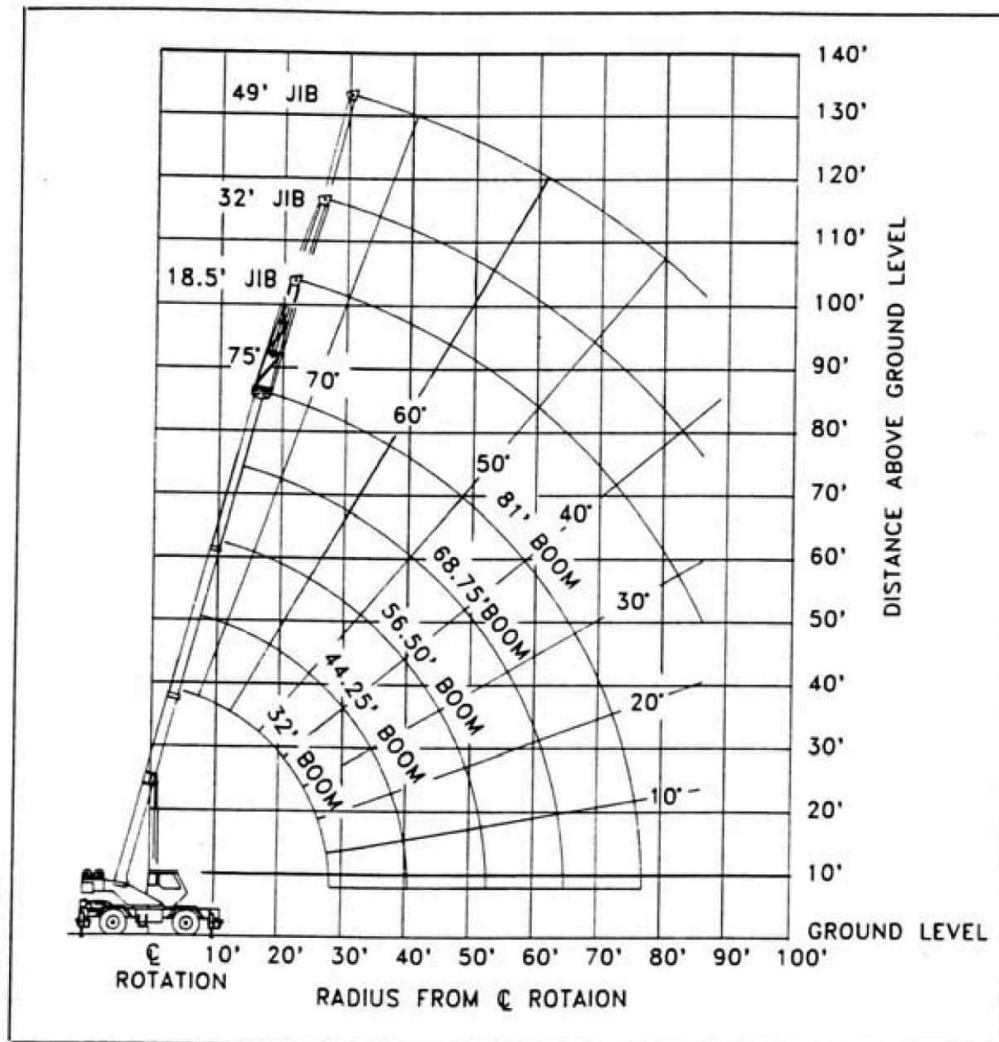
KOEHRING
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LORAIN LRT 300D SERIES

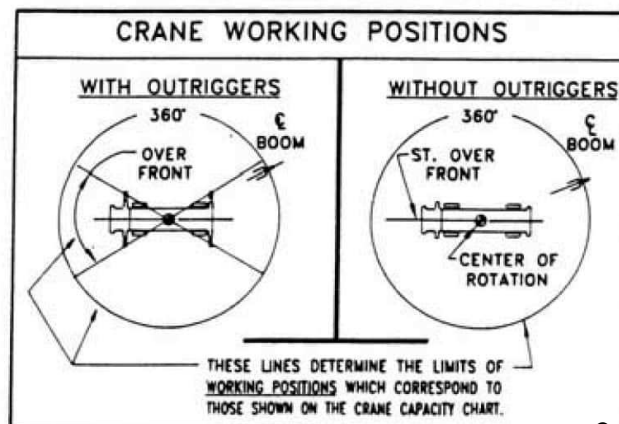
rough terrain hydraulic crane
35 ton capacity

range diagram &
capacity charts



DIMENSIONS ARE FOR
LARGEST KOEHRING
FURNISHED HOOK BLOCK
AND HEADACHE BALL.
WITH ANTI-TWO BLOCK
ACTIVATED.

**Range
Diagram
(32'-81' boom)**



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

LRT 300D SERIES

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



CAPACITY: 35 TON
COUNTERWEIGHT:
W/AUX. WINCH 4300 lb.
W/O AUX. WINCH 5100 lb.
BOOM LENGTH 32-81 ft.

OUTRIGGER SPREAD 20 ft. 3 in.
STABILITY PCT.
ON OUTRIGGERS 85%
ON TIRES 75%
PCSA CLASS 10-117

ON OUTRIGGERS

ON OUTRIGGERS																
R A D I U S	BOOM LENGTH 32'			BOOM LENGTH 44.25'			BOOM LENGTH 56.50'			BOOM LENGTH 68.75'			BOOM LENGTH 81'			R A D I U S
	°	FRONT	360°	°	FRONT	360°	°	FRONT	360°	°	FRONT	360°	°	FRONT	360°	
10	65	70,000*	70,000*	73	70,000*	70,000*										10
12	61	62,800*	62,800*	70	63,200*	63,200*	75	52,000*	52,000*							12
15	55	49,800*	49,800*	65	50,200*	50,200*	72	45,800*	45,800*	75	31,200*	31,200*				15
20	43	36,400*	36,400*	58	36,900*	36,900*	66	37,100*	37,100*	71	25,900*	25,900*	75	21,000*	21,000*	20
25	27	28,200*	27,700	50	28,700*	28,200	61	28,900*	28,400	66	22,000*	22,000*	72	17,700*	17,700*	25
30				41	21,800	19,900	55	22,000	20,100	62	19,200*	19,200*	67	15,400*	15,400*	30
35				30	16,400	14,900	48	16,600	15,200	57	16,800	15,300	63	13,400*	13,400*	35
40				9	12,800	11,600	40	13,100	11,900	52	13,200	12,000	59	11,900*	11,900*	40
45							31	10,500	9,500	47	10,700	9,600	55	10,600*	9,700	45
50							19	8,600	7,700	40	8,800	7,900	50	8,800	7,900	50
55										33	7,300	6,500	46	7,400	6,600	55
60										24	6,100	5,400	40	6,200	5,500	60
65													34	5,200	4,600	65
70													26	4,400	3,800	70
75													16	3,700	3,100	75

ON TIRES

ON TIRES												
R A D I U S	M A X	M I N	18:00 X 25-28 PR				23.50 X 25-20 PR				R A D I U S	
			STATIONARY		PICK & CARRY		STATIONARY		PICK & CARRY			
					CREEP 2.5 MPH				CREEP 2.5 MPH			
					360'	ST. OVER FRONT	360'	ST. OVER FRONT	360'	ST. OVER FRONT		360'
10	75	67	24,000	51,800*	40,000*	28,400*	24,700	43,000*	32,800*	22,600*	10	
12	75	63	18,900	45,400*	35,000*	24,600*	20,200	37,600*	28,500*	19,500*	12	
15	75	57	13,500	28,500	28,500	20,300*	14,600	27,400	23,600*	15,800*	15	
20	75	45	8,100	16,300	16,300	15,200*	9,000	16,500	16,500	11,600*	20	
25	75	29	5,100	10,800	10,800	10,800	5,700	10,900	10,900	8,700*	25	
30	74	0	3,100	7,600	7,600	7,600	3,700	7,700	7,700	6,600*	30	
35	69	0	2,100	5,800	5,800	5,800	2,500	5,800	5,800	5,200*	35	
40	61	0	1,300	4,400	4,400	4,400	1,700	4,500	4,500	4,100*	40	
45	56	0		3,400	3,400	3,400	1,200	3,400	3,400	3,300*	45	
50	52	0		2,500	2,500	2,500		2,700	2,700	2,500*	50	
55	46	0		1,900	1,900	1,900		2,000	2,000	1,900*	55	
60	41	0		1,500	1,500	1,500		1,500	1,500	1,400*	60	
65	33	0		1,100	1,100	1,100		1,100	1,100		65	

REDUCTION IN MAIN BOOM CAPACITY

ALL JIBS IN STOWED POSITION 0 Lbs.

32'-49' SIDE STOW
JIB ERECTED
STINGER RETRACTED 2440 Lbs.

32'-49' SIDE STOW
JIB ERECTED
STINGER EXTENDED 2810 Lbs.

HOOKE BLOCK WEIGHTS

HOOKE & BALL 121 Lbs.
HOOKE BLOCK (3 SHEAVE) 650 Lbs.
HOOKE BLOCK (4 SHEAVE) 700 Lbs.

SIDE STOW JIB ON OUTRIGGERS

SIDE VIEW OF CRANE					
RADIUS (REF)	MAX. BOOM & 32' JIB		RADIUS (REF)	MAX. BOOM & 49' JIB	
	113'			130'	
	360°		360°		
75	29.0	9400*	34.0	5300*	75
73	33.0	9100*	38.5	4900*	73
70	38.5	8700*	45.5	4500*	70
67	44.5	8300*	52.5	4200*	67
64	50.0	7700*	59.0	3900*	64
61	55.0	7000*	65.0	3600*	61
58	60.0	6100	70.5	3300*	58
55	64.5	5200	76.0	3100*	55
52	69.0	4500	81.5	2900*	52
49	73.5	3900	86.5	2700*	49
46	77.5	3400	91.5	2600*	46
43	81.5	3000	95.5	2300	43
40	85.0	2600	100.0	2100	40
36	90.0	2200	105.0	1700	36
31	95.0	1800	111.0	1400	31
25	100.5	1400	116.5	1100	25
18	105.0	1200			18

RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	2 1/2 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 HOIST LINE 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	70,000
AUX. HOIST	7,600	15,200	22,800	30,400	38,000	45,600	53,200	60,800
BOOM HEAD	2	2-D	2-3	1-2-D	1-2-3	1-2-3-D	1-2-3-4	1-2-3-4-8
HOOKE BLOCK	0	2	2-D	1-2	1-2-D	1-2-3	1-2-3-D	1-2-3-4
MAIN & OPT. AUX. HOIST LINE 5/8" DIA. 6x19 OR 6x37 IWRC, IPS, REG LAY PREFORMED WIRE ROPE MINIMUM BREAKING STRENGTH - 17.9 TONS MAXIMUM PERMISSIBLE PULL - 10,228 Lbs.				AUX. HOIST LINE 1/2" DIA. 6x19 OR 6x37 IWRC, XIPS, REG LAY PREFORMED WIRE ROPE MINIMUM BREAKING STRENGTH - 13.3 TONS MAXIMUM PERMISSIBLE LINE PULL - 7,600 Lbs.				

NOTES FOR ON TIRES CAPACITIES

- FOR PICK AND CARRY OPERATIONS, BOOM MUST BE CENTERED OVER THE FRONT OF THE CRANE WITH SWING BRAKE LOCKED OR WITH MECHANICAL SWING LOCK ENGAGED, IF SO EQUIPPED. USE MINIMUM BOOM POINT HEIGHT AND KEEP LOAD CLOSE TO GROUND SURFACE.
- THE LOAD SHOULD BE RESTRAINED FROM SWINGING. NO ON TIRE OPERATION WITH JIB ERECTED.
- WITHOUT OUTRIGGERS, NEVER MANEUVER THE BOOM BEYOND LISTED LOAD RADII FOR APPLICABLE TIRES USED TO ENSURE STABILITY.
- CREEP SPEED IS CRANE MOVEMENT OF LESS THAN 200 FT. (61m) IN 30 MINUTE PERIOD AND NOT EXCEEDING 1.0 mph (1.6 km/H).
- REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION.

NOTES FOR JIB CAPACITIES

- FOR ALL BOOM LENGTHS LESS THAN THE MAXIMUM WITH A JIB ERECTED, THE RATED LOADS ARE DETERMINED BY BOOM ANGLE ONLY IN THE APPROPRIATE COLUMN.

- FOR BOOM ANGLE NOT SHOWN, USE THE CAPACITY OF THE NEXT LOWER BOOM ANGLE.

- LISTED RADII ARE FOR FULLY EXTENDED BOOM ONLY.

Courtesy of CraneMarket

General Notes

GENERAL

- 1 Review Operator's Manual prior to operating this crane
- 2 Crane load ratings as determined by boom length, radius, and boom angle apply to this crane only as originally manufactured and equipped. **THEY ARE MAXIMUM LOAD RATINGS.**
- 3 This crane and its load ratings are in accordance with Power Crane & Shovel Association Standard No. 4, SAE Crane Load Stability Test Code J-765a, SAE Method of Test for Crane Structure J1063 and Safety Code for Cranes, Derricks and Hoists, ANSI B30.5-1982
- 4 Improperly operated or maintained equipment can be dangerous. The operator and other personnel should read and fully understand the Operator's Manual furnished by the manufacturer before operating or maintaining this crane. Rules for safe operation of equipment should be adhered to at all times. If either Manuals or a lift chart are missing, these should be ordered by crane serial number through the distributor
- 5 Operators and supervisors must fully understand Safety Standards for Mobile Hydraulic Cranes ANSI B30.5 or latest, and be familiar with Federal, State, and local safety regulations

SET-UP

- 6 Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
- 7 Crane load ratings on outriggers are based on all outrigger beams fully extended and the tires raised free of the supporting surface.
- 8 Crane load ratings on tires depend on appropriate inflation pressure and tire conditions. Caution must be exercised when increasing air pressures in tires. Consult Operator's Manual for precautions.
- 9 Use of jibs, lattice-type boom extension, or fourth section pullout extended is not permitted for pick and carry operations.
- 10 Consult appropriate section of the Operator's and Service Manual for more exact description of hoist line reeving.
- 11 The use of more parts of line than required by the load may result in having insufficient rope to allow the hook block to reach the ground.
- 12 Properly maintained wire rope is essential to safe crane operation. Consult Operator's Manual for proper maintenance and inspection requirements.
- 13 When spin-resistant wire rope is used, the allowable rope loading shall be the breaking strength divided by five (5) unless otherwise specified by the wire rope manufacturer.

OPERATION

- 14 Crane load ratings must not be exceeded. **DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.**
- 15 Crane load ratings are for lift crane service. Applications for other than lift crane (clamshell and magnet) are permitted. Due to significant variation in materials and applications, consult factory for optimum capability

- 16 Weight of hooks, hook blocks, slings and all other load handling devices must be considered part of the load to be handled and must be subtracted from the load ratings to obtain the allowable load to be lifted.
- 17 Crane load ratings are based on freely suspended loads. **SIDE LOAD ON BOOM OR JIB IS EXTREMELY DANGEROUS**
- 18 Practical working loads depend on the supporting surface, wind velocity, pendulum action, jerking or sudden stopping of loads, hazardous surroundings, experience of personnel and proper operation, tire inflation, tire condition, traveling with loads, multiple crane lifts, proximity of electrical wires, etc. Appropriate reduction of load ratings must be made for these and any other conditions which may affect practical working loads.
- 19 Crane load ratings with an asterick (*) beside them are based on the crane's structure strength. All other ratings are based on stability and do not exceed the specified percentage of tipping load as determined by SAE Crane Stability Test Code J-765a
- 20 When either radius or boom length, or both, are between listed values, the smaller of the two load ratings shall be used
- 21 Do not operate at longer radii than those listed on the applicable load rating chart as tipping can occur without a load on the hook.
- 22 Power telescoping boom sections must be extended equally
- 23 Load ratings are dependent upon the crane being maintained according to manufacturer's specifications
- 24 The maximum load which may be telescoped is limited by boom angle, hydraulic pressure, boom lubrication, etc. It is safe to attempt to extend and retract within the limits to the capacity chart.
- 25 It is recommended that load handling devices, including hooks and hook blocks, be kept away from boom head at all times
- 26 The boom angles shown on the capacity chart give an approximation of the operating radius for a specified boom length. The boom angle, before loading, should be greater to account for boom deflection. It may be necessary to retract the boom if maximum boom angle is insufficient to maintain rated radius
- 27 For MCH carrier-mounted cranes only 360° capacities apply only to machine equipped with front outrigger jack with all five (5) outrigger jacks properly set. For 360° lift capacities, use Over Side capacity chart.

DEFINITIONS

28. Operating Radius: The horizontal distance from the axis of rotation before loading to the center of the vertical hoist line or tackle with a load applied.
29. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist rope
30. Side Load: Horizontal force applied to the lifted load either on the ground or in the air.
31. Working Area: Areas measured in a circular arc around the centerline of rotation as shown on the working area diagram