



KOEHRING
CRANES &
EXCAVATORS

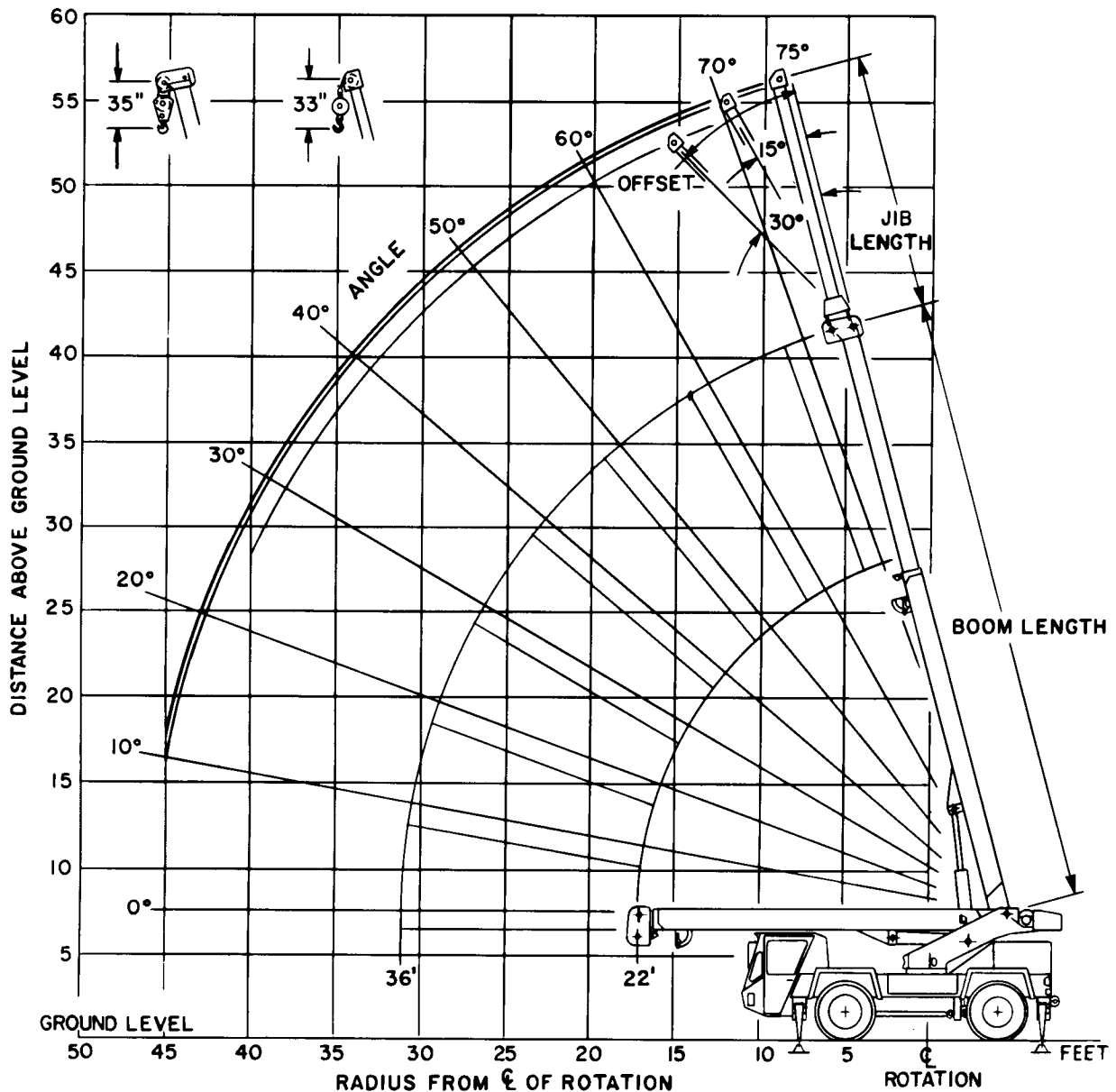
LORAIN[®] **LCD 150**

rough terrain crane
15 ton (13.6 mt) capacity

range diagrams &
capacity charts



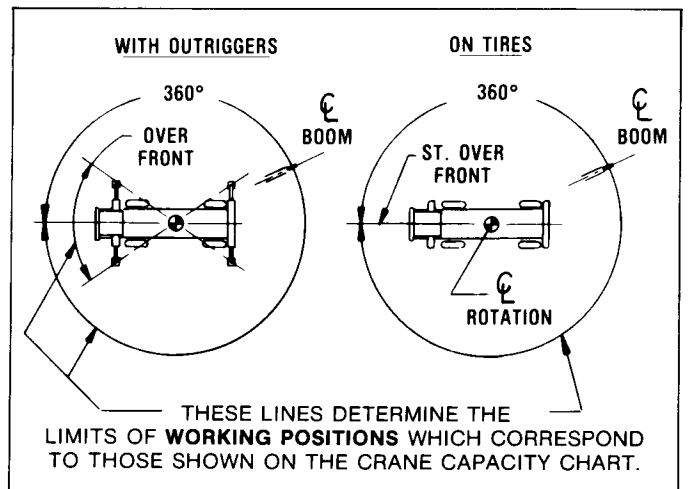
Range Diagram (22'-36' boom)



LCD 150 TURNING CIRCLES (22'-36' BOOM)

Turning Radius:	2-Wheel Steer	4-Wheel Steer
Left	31' 10.5"	18' 0.75"
Right	31' 4.5"	17' 8.50"
Curb Clearance Circle (Over 15.00 x 22.5 Tires)		
Left	65' 2"	37' 6.5"
Right	64' 5"	36' 10.0"
Machine Clearance Circle (Over Boom Head)		
Left	68' 2"	40' 6.19"
Left (Over Stowed Jib)	69' 7.5"	41' 11.75"
Right	67' 2"	39' 9.62"

CRANE WORKING POSITIONS



REDUCTION IN MAIN BOOM CAPACITY

All Jibs in Stowed Position	0 Lbs.
15' Jib Erected	500 Lbs.

HOOK BLOCK WEIGHTS

Hook & Ball	121 Lbs.
Hook Block (2 Sheave)	330 Lbs.

Capacity Charts — Pounds (22'-36' boom)

MODEL LCD 150

COUNTERWEIGHT	5,000 lbs	STABILITY PCT.	
BOOM LENGTH	22-36 ft	ON OUTRIGGERS	85%
OUTRIGGER SPREAD	12.42 ft	ON TIRES	75%

ON OUTRIGGERS

RADIUS	BOOM LENGTH 22 FT.			BOOM LENGTH 36 FT.			RADIUS
	⚡	FRONT	360°	⚡	FRONT	360°	
6	65	30,000*	30,000*				6
8	58	26,800*	26,800*	73	20,600*	20,600*	8
10	51	23,400*	22,300*	70	17,900*	17,900*	10
12	44	19,500*	18,900*	66	15,800*	15,800*	12
15	30	15,400*	14,900*	61	13,400*	13,400*	15
18				55	11,700*	11,700*	18
20				50	10,700*	10,700*	20
25				35	8,400*	7,600*	25
30				20	6,800*	5,700*	30

ON TIRES

RADIUS	MAX. ⚡	MIN. ⚡	15:00 x 22.5 - 16 PR				RADIUS
			STATIONARY		PICK & CARRY		
			360°	ST. OVER FRONT	CREEP	2.5 MPH	
6	73	66	15,400*				6
8	65	60	13,400*				8
10	62	54	10,600*	16,600*	13,400*	11,300*	10
12	60	47	8,700*	14,300*	11,600*	9,700*	12
15	56	35	6,700*	9,700*	9,500*	7,900*	15
18	51	0	5,000	7,200	7,200	6,600*	18
20	48	0	4,200	6,100	6,100	6,000*	20
25	43	0	3,000	4,400	4,400	4,400	25
30	39	0	2,200	3,400	3,400	3,400	30

Notes For On Tires Capacities:

- A. For Pick and Carry Operations, boom must be centered over the front of the machine.
- B. The load should be restrained from swinging.
- C. Creep Speed is crane movement of less than 200 ft. (61 m) in a 30 minute period and not exceeding 1.0 mph (1.6 km/h).
- D. Refer to General Notes for additional information.
- E. Without outriggers, never maneuver the boom beyond listed load radii for applicable tires used to ensure stability.

RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	2½ MPH	TRAVEL
15.00 x 22.5 - 16 PR	110 PSI	110 PSI	100 PSI	90 PSI

SIDE-STOW JIB

RADIUS	15 FT. JIB						RADIUS
	⚡	NO OFFSET	⚡	15° OFFSET	⚡		
					30° OFFSET		
12	75	6,200*					12
15	72	5,600*	75	4,400*			15
18	68	5,100*	71	4,100*			18
20	65	4,800*	69	3,900*	72	3,300*	20
25	58	4,200*	62	3,500*	65	3,100*	25
30	51	3,700*	55	3,300*	58	3,000*	30
35	42	3,300*	47	3,100*	50	2,900*	35
40	32	3,100*	37	2,900*	37	2,900*	40
45	16	2,900*	16	2,800*			45

Notes For Jib Capacities:

- F. 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.
- G. For boom angles not shown, use the capacity of the next lower boom angle.
- H. Listed radii are for fully extended main boom only.

MAXIMUM PERMISSIBLE HOIST LINE LOAD

LINE PARTS	1	2	3	4	5
MAX. LOAD	6,000	12,000	18,000	24,000	30,000
BOOM HEAD	1	1-D	1-2	1-2-D	1-2-3
HOOK BLOCK	D	1	1-D	1-2	1-2-D

WIRE ROPE: 6x19 Class, 23,000 lbs. Minimum Breaking Strength.
½" Diameter, I.P.S., I.W.R.C., Preformed

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.
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.

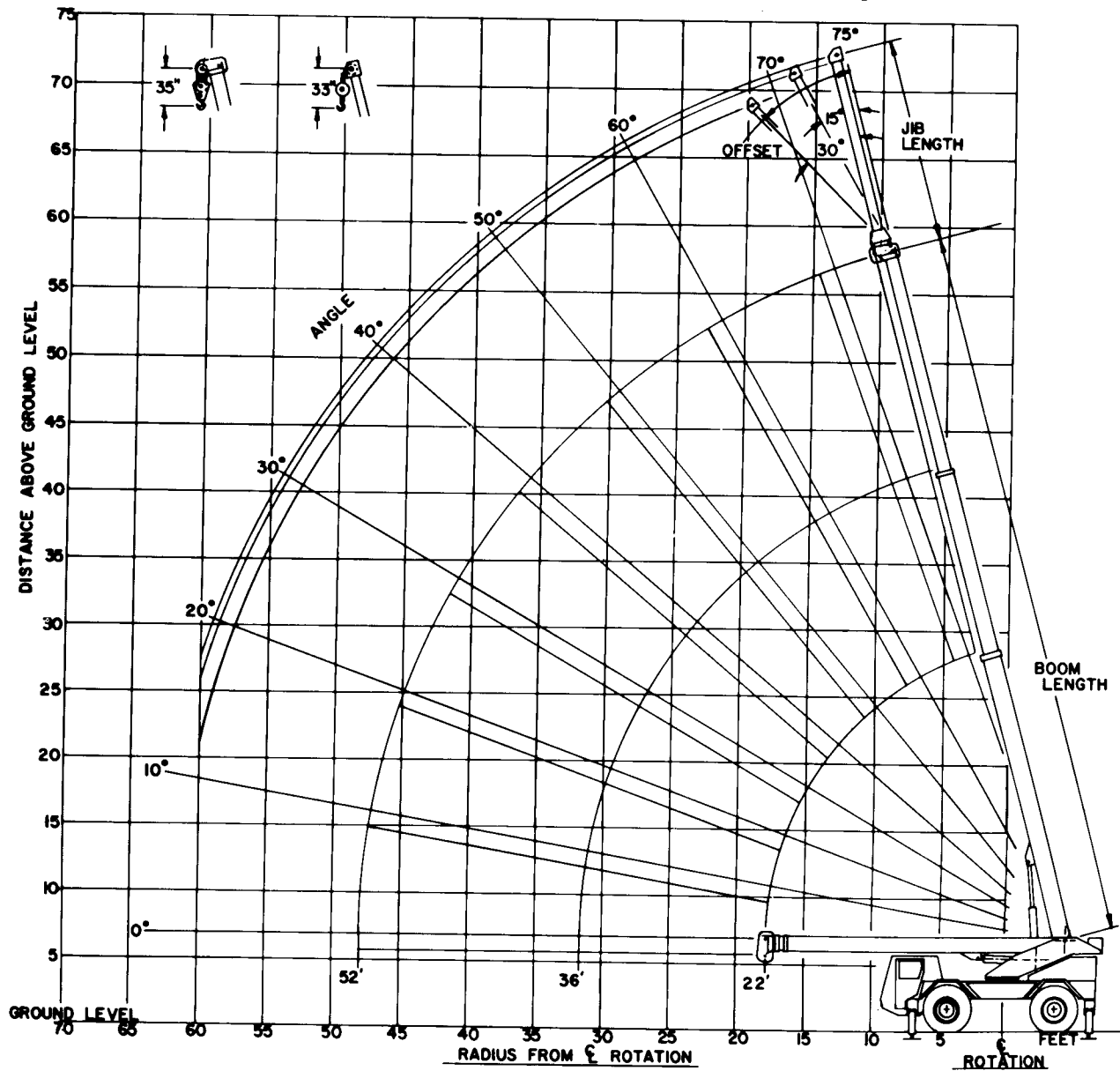
SET-UP

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.
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

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.
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.

Range Diagram (22'-52' boom)



LCD 150 TURNING CIRCLES (22'-52' BOOM)

Turning Radius:	2- Wheel Steer	4- Wheel Steer
Left	31' 10.5"	18' 0.75"
Right	31' 4.5"	17' 8.50"
Curb Clearance Circle (Over 15.00 x 22.5 Tires)		
Left	65' 2"	37' 6.5"
Right	64' 5"	36' 10.0"
Machine Clearance Circle (Over Boom Head)		
Left	68' 3"	40' 7.5"
Left (Over Stowed Jib)	69' 8.5"	42' 1.0"
Right	67' 3"	39' 11"

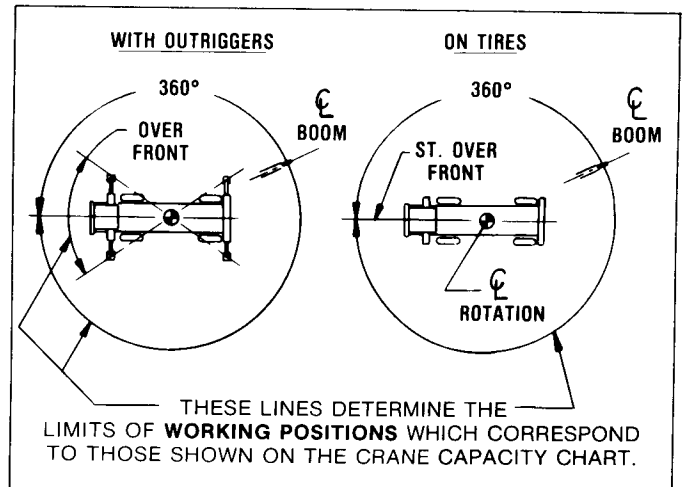
REDUCTION IN MAIN BOOM CAPACITY

All Jibs in Stowed Position	0 Lbs.
15' Jib Erected	500 Lbs.

HOOK BLOCK WEIGHTS

Hook & Ball	121 Lbs.
Hook Block (2 Sheave)	330 Lbs.

CRANE WORKING POSITIONS



Capacity Charts — Pounds

(22'-52' boom)

MODEL LCD 150

COUNTERWEIGHT	5,000 lbs	STABILITY PCT.	
BOOM LENGTH	22-52 ft	ON OUTRIGGERS	85%
OUTRIGGER SPREAD	12.42 ft	ON TIRES	75%

ON OUTRIGGERS

RADIUS	BOOM LENGTH 22 FT.			BOOM LENGTH 36 FT.			BOOM LENGTH 52 FT.			RADIUS
	∠	FRONT	360°	∠	FRONT	360°	∠	FRONT	360°	
6	65	30,000*	30,000*							6
8	58	27,500*	27,500*	73	25,500*	25,500*				8
10	51	23,600*	22,700*	70	22,300*	22,300*				10
12	44	19,200*	18,600*	66	19,400*	18,800*				12
15	31	14,800*	14,400*	61	15,000*	14,600*	72	15,000*	14,700*	15
18				55	12,100*	11,800*	68	12,100*	11,900*	18
20				50	10,700*	10,400*	65	10,700*	10,500*	20
25				36	8,000*	7,400*	59	8,100*	7,500*	25
30				21	6,300*	5,400*	52	6,400*	5,500*	30
35							44	5,200*	4,200*	35
40							35	4,100*	3,300*	40
45							22	3,300*	2,700*	45

ON TIRES

RADIUS	MAX. ∠	MIN. ∠	15:00 x 22.5 - 16 PR				RADIUS
			STATIONARY		PICK & CARRY		
			360°	ST. OVER FRONT	CREEP	2.5 MPH	
6	73	66	15,500*				6
8	65	60	13,300*				8
10	62	54	10,300*	15,500*	12,300*	10,100*	10
12	60	47	8,300*	13,300*	10,500*	8,600*	12
15	56	35	6,300*	9,900	8,500*	6,900*	15
18	51	0	4,900	7,300	7,000*	5,600*	18
20	48	0	4,000	6,200	6,200	5,000*	20
25	43	0	2,700	4,300	4,300	3,800*	25
30	39	0	2,000	3,100	3,100	2,900*	30
35	36	0	1,400	2,400	2,400	2,300*	35
40	32	0	1,000	1,800	1,800	1,800	40
45	20	0	700	1,400	1,400	1,400	45

Notes For On Tires Capacities:

- A. For Pick and Carry Operations, boom must be centered over the front of the machine.
- B. The load should be restrained from swinging.
- C. Creep Speed is crane movement of less than 200 ft. (61 m) in a 30 minute period and not exceeding 1.0 mph (1.6 km/h).
- D. Refer to General Notes for additional information.
- E. Without outriggers, never maneuver the boom beyond listed load radii for applicable tires used to ensure stability.

RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	2½ MPH	TRAVEL
15.00 x 22.5 - 16 PR	110 PSI	110 PSI	100 PSI	90 PSI

SIDE-STOW JIB

RADIUS	15 FT. JIB						RADIUS
	∠	NO OFFSET	∠	15° OFFSET	∠	30° OFFSET	
20	72	5,500*	74	4,100*			20
25	67	5,100*	70	3,800*	73	3,400*	25
30	62	4,500*	65	3,500*	68	3,100*	30
35	57	4,100*	60	3,300*	62	2,900*	35
40	52	3,500*	54	3,100*	57	2,700*	40
45	46	2,800	49	2,900	51	2,600*	45
50	40	2,300	42	2,300	44	2,400	50
55	32	1,800	34	1,900	35	1,900	55
60	21	1,500	23	1,500			60

Notes For Jib Capacities:

- F. 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.
- G. For boom angles not shown, use the capacity of the next lower boom angle.
- H. Listed radii are for fully extended main boom only.

MAXIMUM PERMISSIBLE HOIST LINE LOAD

LINE PARTS	1	2	3	4	5
MAX. LOAD	6,000	12,000	18,000	24,000	30,000
BOOM HEAD	1	1-D	1-2	1-2-D	1-2-3
HOOK BLOCK	D	1	1-D	1-2	1-2-D

WIRE ROPE: 6x19 Class, 23,000 lbs. Minimum Breaking Strength.
½" Diameter, I.P.S., I.W.R.C., Preformed

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.



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