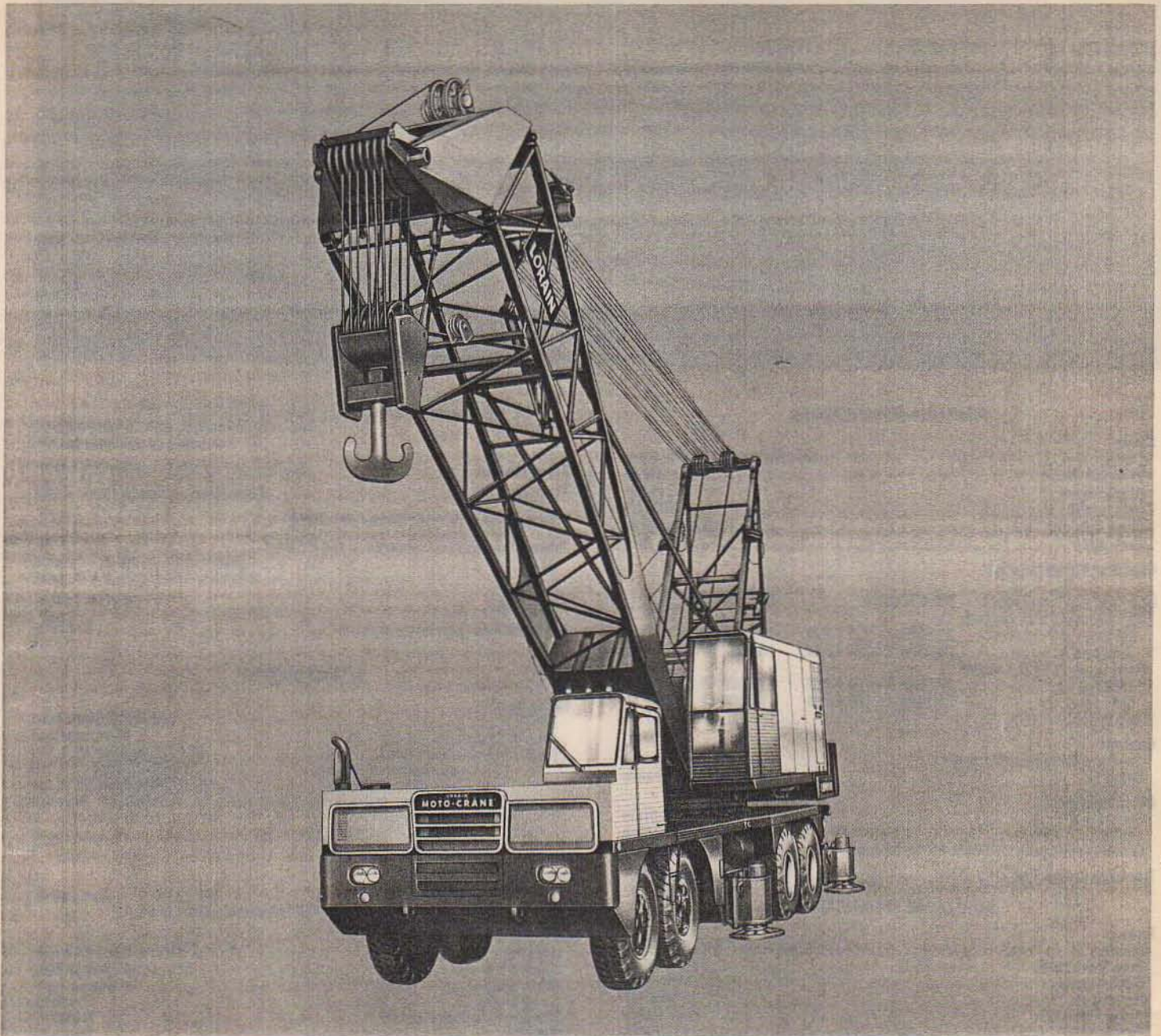


VALUE IS OUR FIRST SPECIFICATION

LORAIN[®] MC-7120

**MOTO-CRANE[®]
SPECIFICATIONS
8X4**



TANDEM DRUM DESIGN for outstanding cable capacity.

ALL-GEAR DRIVE . . . sealed and lubricated by forced, filtered oil.

HYDRAULIC SWING . . . independent precision control.

ONE-PIECE TURNABLE BED AND SIDE FRAMES . . . maximum strength, perfect shaft alignment.

VERY LOW WEIGHT for its rating, for better roadability.

NEW LORAIN DESIGNED SUPER-STRUCTURE.

LORAIN—DESIGNED AND BUILT CARRIER . . . 8 x 4, box frame chassis, planetary axles.

OFFSET BOOM PEAK . . . Open throat. Maximum under-the-load clearance. No spreader bars needed.

HAMMERHEAD BOOM PEAK . . . for short boom, maximum lifts.

LONG TAPERED BOOM PEAK . . . available for maximum reaches, capacities.

POWER LOAD LOWERING . . . available on both hoist drums.

EXCLUSIVE SQUARE TUBULAR-CHORD BOOM . . . round tubular lacing . . . aircraft-type alloy steel . . . long-lived, light weight, sturdy.

POWRSPAN OUTRIGGERS . . . set in seconds, precise leveling, plus straight down motion.

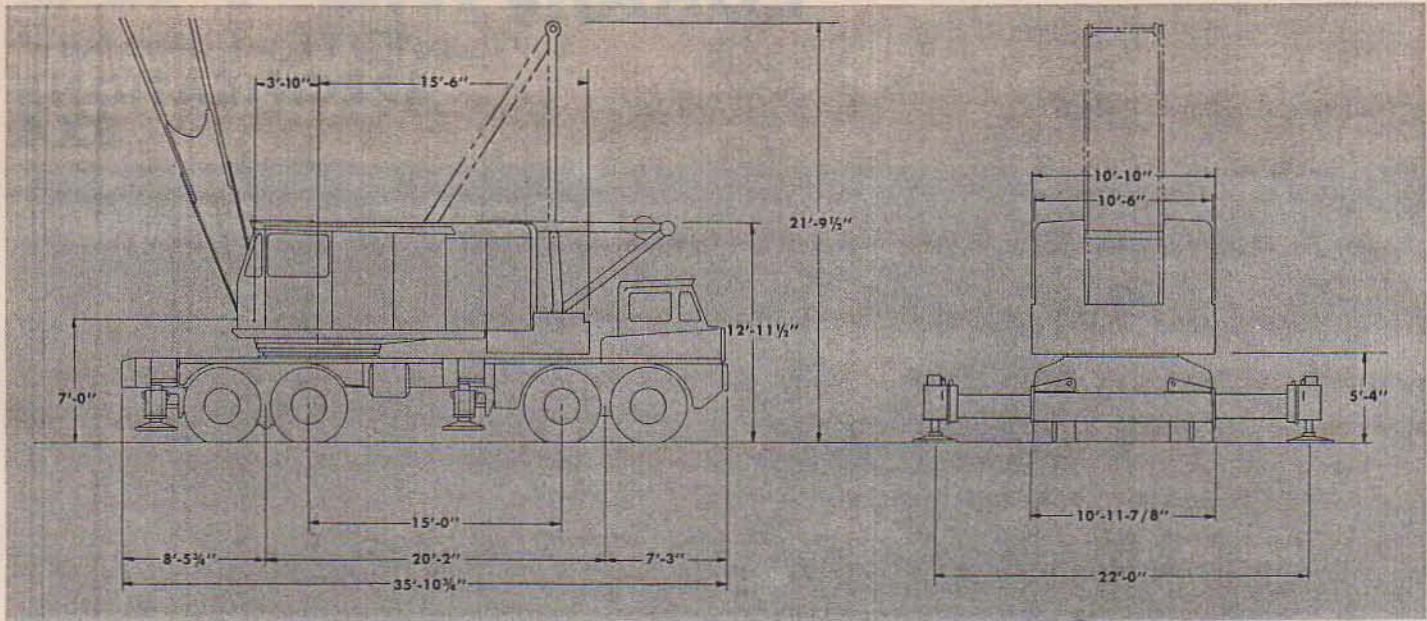
EXCLUSIVE SHEAR-BALL[®] TURNABLE CONNECTION . . . 10-year written warranty.

BIG, DUAL DRUM BOOM HOIST . . . metered air controls.

RETARDER . . . for precision work . . . standard.

TORQUE CONVERTER . . . standard.

DIMENSIONS AND SPECIFICATIONS...8X4...D-17A BOOM



TURNTABLE SPECIFICATIONS

Power		
Diesel	Cummins N-743-C-1-TC, 6 cyl.	
Bore and Stroke	5 1/2 in. x 6 in.	
Displacement	743 cu. in.	
Horsepower	210 H.P.	
Power Take-Off	Torque Converter	
Fuel Tank	75 gals.	

Operating Characteristics

Line Pulls and Line Speeds:	Hand Throttle	Foot Throttle
Rear Drum 31" P.D. Lagging		
1st Layer	22,660# @ 210 F.P.M.	17,830# @ 310 F.P.M.
3rd Layer	20,360# @ 234 F.P.M.	16,000# @ 345 F.P.M.
Front Drum 25" P.D. Lagging		
1st Layer	27,550# @ 169 F.P.M.	21,680# @ 250 F.P.M.
3rd Layer	24,150# @ 193 F.P.M.	19,000# @ 280 F.P.M.
Swing Speed	0-4 R.P.M.	

Controls

Hoist and Derricking Clutches	Metered Air
Swing	Independent Hydraulic

Other Equipment

Boom Hoist	Dual Drum
Gantry	Power Operated Back Hitch
Counterweight (with Hydraulic Kit for Removal)	22,000 lbs.

Turntable Connection Internal Gear Shear-Ball®

MOTO-CRANE SPECIFICATIONS

Power		
Diesel	Cummins, NTC-335, 6 cyl.	
Bore and Stroke	5 1/2 in. x 6 in.	
Displacement	855 cu. in.	
Horsepower	335 H.P.	
Power Take-Off	Plate Clutch	
Fuel Tank	120 gals.	

Transmissions

Main	11 Speeds
Auxiliary	3 Speeds
Speeds Forward	33
Speeds Reverse	6

Speeds: Low-low 0.7 M.P.H. High-high 38.0 M.P.H.

Outriggers POWRSPAN, Hydraulically Operated, Complete with Floats.

Rear Bogie

Axles (Planetary) Double Reduction Gear Drive
First reduction through hypoid gears; final reduction through planetary wheel

hubs; high-traction differentials. Interaxle differentials with lockout.
Mounting Two axles in tandem, with "through-drive", mounted on equalizer beams.

Front Tandem Two non-driving axles on equalizer beams

Steering Centralized, Hydraulic Power Assist

Turning Radius (to Front Corner of Vehicle) 60 ft.

Brakes (Spring-set for Emergency and Parking) Air

Rear 4 Brakes; 20 1/4 in. dia. x 7 in. wide

Front 4 Brakes; 17 1/4 in. dia. x 4 in. wide

Tires (Tube) 14:00 x 24, 18 P.R.

Guide Rails for undocking turntable Available

BOOM EQUIPMENT

Crane Boom	
Design	Square-Tubular-Chord
Type of Connection	Pin-Connected
Basic Length—Offset Boom	40 ft; 25-ft. base 15 ft. top
Hammerhead Boom	28 ft; 25-ft. base, 3 ft. top
Long Tapered Boom	60 ft; 25-ft. base, 35 ft. top
Number of Hoist Line Sheaves at Boom Head on Anti-Friction Bearings	
Offset Boom	6
Hammerhead Boom	6
Long Tapered Boom	5

Jib

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

Lifting Crane Component

Lagging	31 in. and 25 in. P.D. Full Width
Floating Harness	16 Parts of Line
Boom Stops	Telescopic Type
Swing Brake	Standard
Harness Extending Cylinder	Standard
Retarder	Standard
Power Load Lowering Both Hoist Drums	Available
Third Drum	Available
High Speed Hoist	Available

APPROXIMATE SHIPPING WEIGHTS*

Standard Equipped Machines with Basic Boom	
Lifting Crane (Offset Boom)	147,405 lbs.
*Total weight of unit may be reduced 22,000 lbs. by taking off removable counterweight for road travel—(hydraulic removal kit included). Additional reductions may be made by removal of outrigger boxes and beams and undocking turntable.	

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.

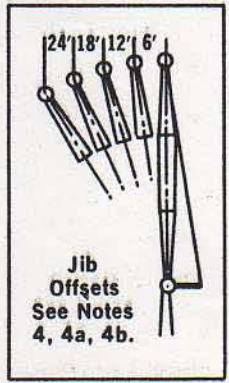
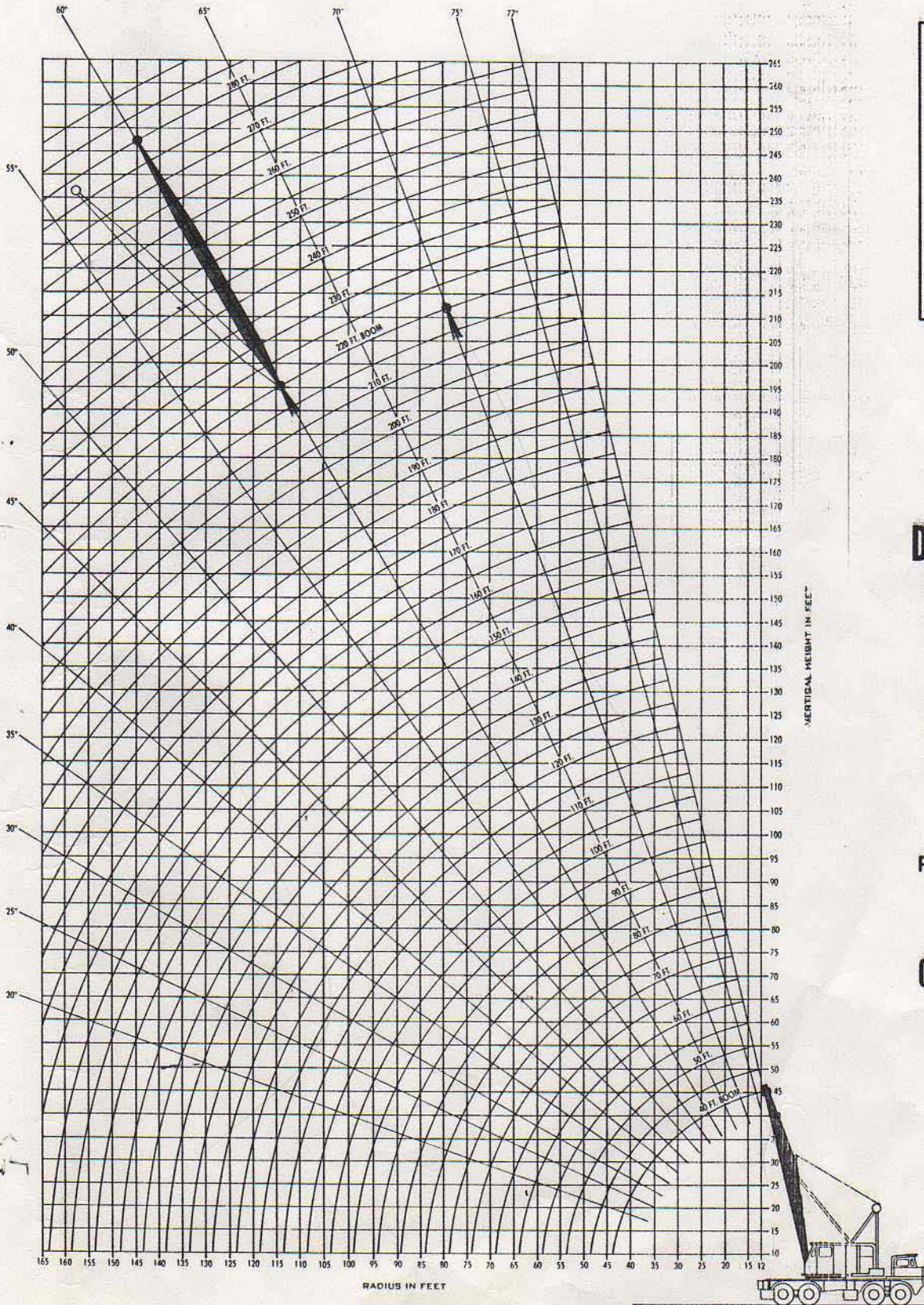


Koehring
Lorain Division
Lorain, Ohio 44055

VALUE IS OUR FIRST SPECIFICATION

LORAIN® MC-7120

MOTO-CRANE®
LIFTING CAPACITIES
AND WORKING RANGES



D-17A BOOM WORKING RANGES MC-7120 8X4

P.C.S.A. 12-548

OFFSET BOOM
PEAK

NOTES

1. The rated loads as determined by boom length, radius and weight of load in pounds pertain to this machine as originally manufactured and equipped, and as mounted on a Lorain manufactured MC-7120 8 x 4 Carrier. **THEY ARE MAXIMUM** lifting capacities. The rated loads are in accordance with standards of 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 loads should not be exceeded. Rated loads are based on 85% of stability except where identified with bold face type in which case they are based on machinery and structural strength.

1b. 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 SAFE WORKING LOADS THE USER** is expected to make due allowances for his particular job conditions such as: Soft or uneven ground, out of level conditions, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, etc. Side pull on boom or jib is extremely dangerous. **CAUTION:** The operator and other personnel should fully read and acquaint themselves with Operator Manual furnished 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).

1c. Do not exceed the "over-the-rear" capacities when lifting over a corner.

1d. Use blocking under front tires or front part of carrier frame if boom and/or load is to be moved forward of front outrigger.

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. Intermediate suspension required for booms 220 ft. and over.

The total weight of bucket plus load must not exceed 80% of the rated "without outriggers" lifting capacities up to a maximum of 15000 lbs. for dragline service and 18000 lbs. for clamshell service.

1i. More than one part hoist line must be used on any boom when lifting radius is less than 20 ft.

2. Load handling devices are part of the load. For jibs, see Notes 4, 4a and 4b.

3. Maximum length of main boom 220 Ft.

4. Jibs may be used straight or goosenecked. 30 ft. jib is of two-piece design and may be extended to 60 ft. length with center sections. The following data applies.

Lgth.	Radius	Max. Lgth. of Boom Including Jib	Maximum Lifting Capacity (Lbs.) Offset From Extended Centerline of Boom					Weight Of Jib And Backstays
			0 Ft.	6 Ft.	12 Ft.	18 Ft.	24 Ft.	
30 Ft.	Up thru 60' Over 60'	250 Ft.	30000	25000	22000			1700 lbs.
			20000	17000	15000			
40 Ft.	Up thru 60' Over 60'	260 Ft.	21000	18000	16000	10000		2100 lbs.
			14000	12000	11000	8000		
50 Ft.	Up thru 60' Over 60'	270 Ft.	15000	13000	12000	9000	8000	2350 lbs.
			10000	9000	8000	7000	6000	
60 Ft.	Up thru 60' Over 60'	280 Ft.	12000	11000	10000	8000	7000	2550 lbs.
			8000	7500	7000	6000	5000	

4a. Capacities for jibs are the same as for the boom length which is equal to the length of main boom plus jib, but in no case may they exceed the capacities shown above.

4b. With jib installed, lifting capacities over the main boom head must be reduced as follows:
 1800 lbs. for 30 ft. jib
 2400 lbs. for 40 ft. jib
 2750 lbs. for 50 ft. jib
 3000 lbs. for 60 ft. jib

5. With gantry erected (21 ft. 9½ in. overall height), the following maximum lengths may be carried* over back without outriggers:
 160 ft. boom without jib
 140 ft. boom and 30 ft. jib
 120 ft. boom and 50 ft. jib
 110 ft. boom and 60 ft. jib

*For straight back and forward movement, remove 10 ft. of boom from that specified for conditions which require maneuverability.

5a. With gantry lowered or gantry lowered and mast pinned to the base section (12 ft. 11½ in. overall height), the following maximum boom lengths may be carried over the back without outriggers:
 110 ft. boom without jib
 80 ft. boom and 30 ft. jib
 70 ft. boom and 60 ft. jib

6. With outriggers set and mast and gantry erected, the following maximum boom lengths may be raised unassisted, from the horizontal over the rear:
 220 ft. boom without jib
 200 ft. boom and 30 ft. jib
 190 ft. boom and 60 ft. jib

6a. For boom and jib combinations longer than shown in Note 6, and up to 220 ft. boom and 60 ft. jib, rear aux. outriggers are required.

6b. When working with boom lengths that require auxiliary outriggers for erection, do not exceed the radii as shown on crane lifting capacity chart.

6c. The rear hinged auxiliary outrigger beams are to be used only when raising or lowering long booms. They are never to be used or placed under load during hoisting operations.

7. Minimum number of parts of hoist line to be determined by dividing the load to be lifted by 20000 lbs. for ¾ in. hoist cable with breaking strength of 39.8 tons.

8. To handle rated lifting capacities, mast, gantry and floating harness required with 1¾" swaged pendants with breaking strength of 96 tons and 16 parts of 5/8" derricking cable with breaking strength of 19.6 tons.



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