

KOEHRING  
CRANES &  
EXCAVATORS

LORAIN

MODEL NO.

MCH 230E

HYDRAULIC CRANE

30 TON

P.C.S.A. CLASS 10 - 95

LOAD RATINGS

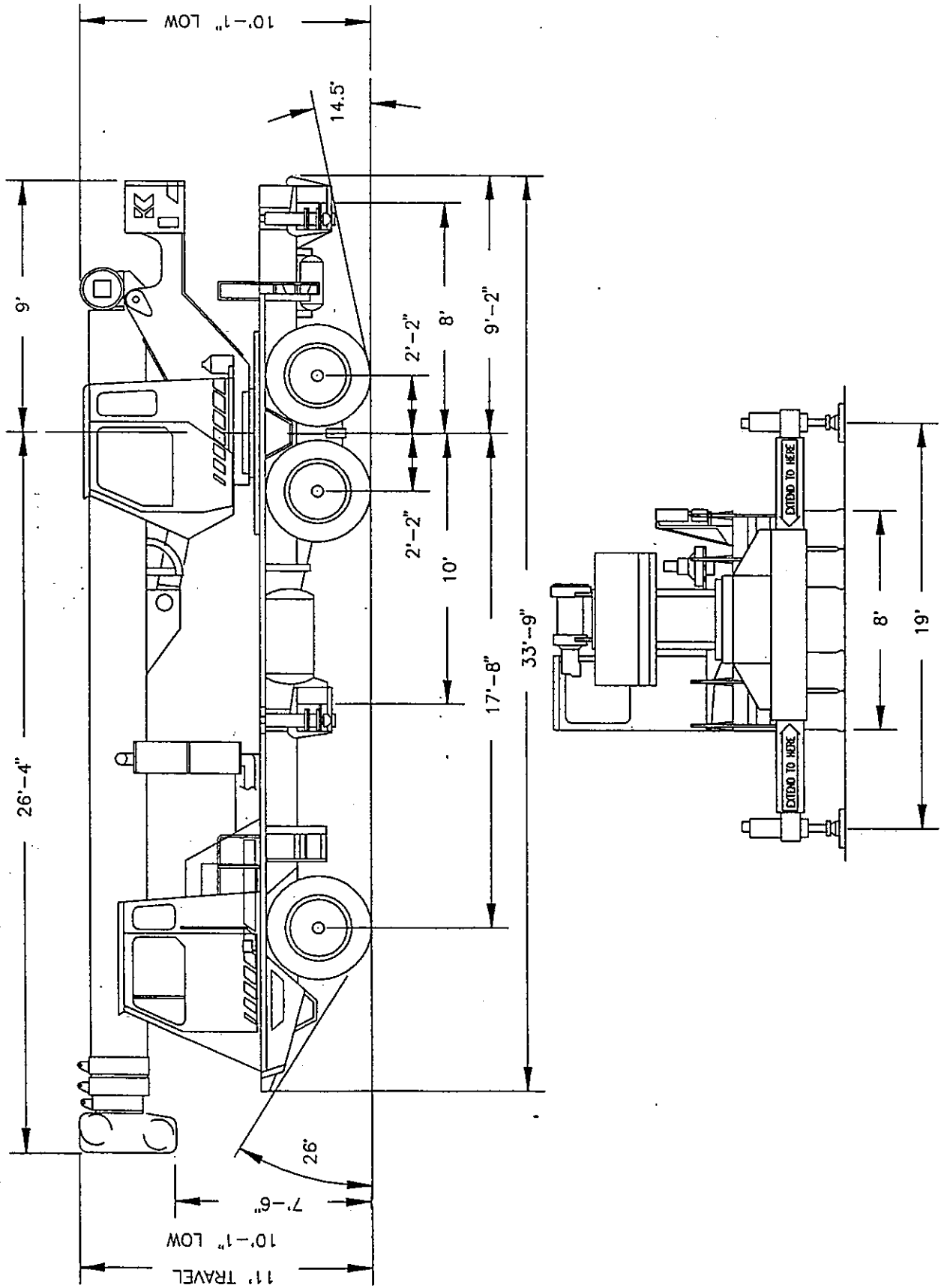
Do not operate this crane unless  
you have read and understood the  
information in this book.

This book must contain 19 pages.

DO NOT REMOVE THIS BOOK  
FROM THE CRANE

Part No. 12262-1086

# BASIC DIMENSIONS



# INFORMATIONAL DATA

## HOIST TACKLE CHART

This chart only represents the maximum permissible hoist line load per parts of line. You must refer to the proper lift charts for machine rated loads.

MAXIMUM PERMISSIBLE HOIST LINE LOAD							
LINE PARTS	1	2	3	4	5	6	7
MAX. LOAD	9,080	18,160	27,240	36,320	45,400	54,480	63,560
BOOM HEAD	2	3-D	2-3	1-4-D	2-3-4	2-3-4-D	1-2-3-4
HOOK BLOCK	D	3	3-D	1-4	2-3-D	2-3-4	2-3-4-D

WIRE ROPE: 5/8" ROTATION RESISTANT COMPACTED STRAND, 18X19  
OR 19X19 MINIMUM BREAKING STRENGTH - 22.7 TONS

5/8" 6X19 OR 6X37 IWRC IPS PREFORMED RIGHT  
REGULAR LAY MINIMUM BREAKING STRENGTH - 17.9 TONS

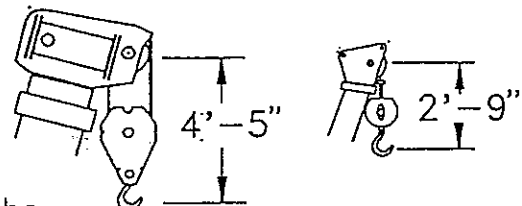
## TIRE INFLATION CHART

RECOMMENDED TIRE PRESSURE
SEE TIRE CHART ON SIDE WALL IN OPERATORS CAB.

## HOOK BLOCK WEIGHTS

HOOK BLOCK WEIGHTS	
HOOK & BALL _____	239 Lbs.
HOOK BLOCK (2 SHEAVE) _____	580 Lbs.
HOOK BLOCK (3 SHEAVE) _____	640 Lbs.
HOOK BLOCK (4 SHEAVE) _____	660 Lbs.

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



## MACHINE EQUIPMENT

### 1. COUNTERWEIGHT :

FRONT BOX.....	1850 Lbs.
W/AUX. WINCH .....	6100 Lbs.
W/O AUX. WINCH.....	7200 Lbs.

2. OUTRIGGER SPREAD 19ft - 0in. from center of outrigger float to center of outrigger float across the longitudinal axis of the machine.

3. Powered boom length 30ft. retracted to 94ft. extended.

4. Crane height 11ft., length 35ft.-4in., width 8ft..

## CLAMSHELL, MAGNET, AND CONCRETE BUCKET SERVICE

1. Maximum boom length for clamshell and magnet service is 50 feet.

2. Weight of clamshell or magnet, plus contents are not to exceed 6,000 pounds or 90% of rated lifting capacities, whichever is less. For concrete bucket operation, weight of bucket and load must not exceed 90% of rated lifting capacity.

## OUTRIGGER PAD LOADS

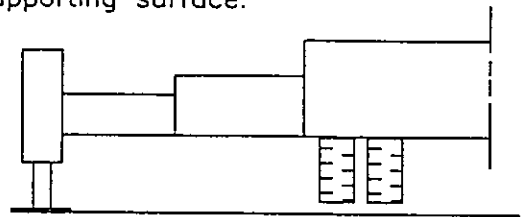
1. When lifting loads shown in these capacity charts, no single pad load will exceed 57,000 Lb.



# WARNING


## SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended and the tires free of the supporting surface.



3. Crane load ratings on tires depend on appropriate inflation pressure and the tire conditions. Caution must be exercised when increasing air pressures in tires. Consult Operator's Manual for precautions.
4. Use of jibs, lattice-type boom extensions, or fourth section pullouts extended is not permitted for pick and carry operations.
5. Consult appropriate section of the Operator's and Service Manual for more exact description of hoist line reeving.
6. 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.
7. Properly maintained wire rope is essential for safe crane operation. Consult Operator's Manual for proper maintenance and inspection requirements.
8. 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:

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.
2. When either radius or boom length, or both, are between listed values, the smaller of the two listed load ratings shall be used.
3. Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched  areas shown on range diagrams) as tipping can occur without a load on the hook.
4. 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.
5. Power telescoping boom sections must be extended equally.

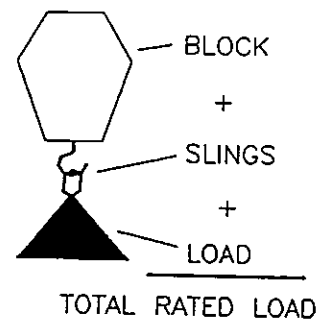


# WARNING

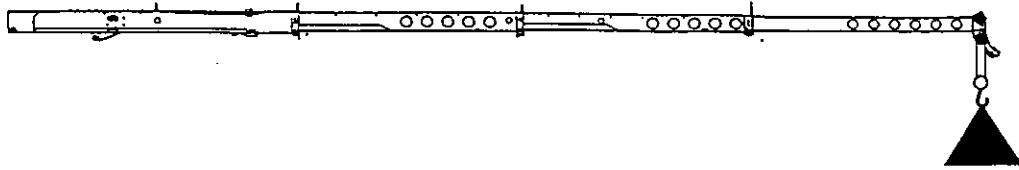
- Rated loads include the weight of hook block, slings, and auxiliary lifting devices. Their weights shall be subtracted from the listed rated load to obtain the net load that can be lifted.

When lifting over the jib the weight of any hook block, slings, and auxiliary lifting devices at the boom head must be added to the load.

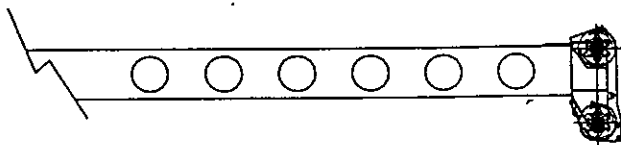
When jibs are erected but unused add two(2) times the weight of any hook block, slings, and auxiliary lifting devices at the jib head to the load.



- Rated loads do not exceed 85% on outriggers or 75% on tires, of the tipping load as determined by SAE Crane Stability Test Code J765a. Structural strength ratings in chart are indicated with an asterisk (\*).
- Rated loads are based on freely suspended loads. No attempt shall be made to drag a load horizontally on the ground in any direction.
- The user shall operate at reduced ratings to allow for adverse job conditions, such as: Soft or uneven ground, out of level conditions, high winds, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electric wires, etc. (side pull on boom or jib is hazardous). Derating of the cranes lifting capacity is required when wind speed exceeds 20 MPH. the center of the lifted load must never be allowed to move more than 4 feet off the center line of the base boom section due to the effects of wind, inertia, or any combination of the two.
- The maximum load which can be telescoped is not definable, because of variations in loadings and crane maintenance, but it is permissible to attempt retraction and extension if load ratings are not exceeded.
- Load ratings are dependent upon the crane being maintained according to manufacturer's specifications.
- It is recommended that load handling devices, including hooks, and hook blocks, be kept away from boom head at all times.
- FOR MCH'S ONLY: 360' capacities apply only to machines equipped with a front outrigger jack and all five (5) outrigger jacks properly set. If the front (5th) outrigger jack is not properly set, the work area is restricted to the over side and over rear areas as shown on the Crane Working Positions diagram. Use the 360' load ratings in the overside work areas.



RATED LOAD ON OUTRIGGERS											
LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360' (LB)	LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360' (LB)	LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360' (LB)
BOOM LENGTH 30 FT				BOOM LENGTH 39 FT				BOOM LENGTH 50 FT			
10.0	62.5	60000*	60000*	10.0	69.1	46500*	46500*				
12.0	58.1	45000*	45000*	12.0	65.9	42100*	42100*	12.0	71.4	39700*	39700*
15.0	51.0	39300*	39300*	15.0	60.9	36600*	36600*	15.0	67.7	34400*	34400*
20.0	37.0	29000*	29000*	20.0	51.9	29800*	29800*	20.0	61.4	28200*	28200*
25.0	13.2	21700*	21200	25.0	41.7	22500*	22300	25.0	54.5	23000*	22700
25.6	.0	20800*	20000	30.0	28.5	17600*	15600	30.0	47.0	18200*	16200
				34.3	.0	14400*	11800	35.0	38.4	14700*	12100
								40.0	27.6	12100*	9300
BOOM LENGTH 61 FT				BOOM LENGTH 72 FT				45.0	7.6	10000*	7200
								45.3	.0	9800*	7000
15.0	71.9	32800*	32800*					BOOM LENGTH 83 FT			
20.0	66.9	26800*	26800*	20.0	70.6	25700*	25700*				
25.0	61.6	22700*	22700*	25.0	66.3	21700*	21700*	25.0	69.6	18900*	18900*
30.0	56.1	18500*	16400	30.0	61.8	18700*	16600	30.0	65.9	15800*	15800*
35.0	50.2	15000*	12400	35.0	57.2	15200*	12500	35.0	62.0	13700*	12600
40.0	43.7	12400*	9600	40.0	52.3	12600*	9800	40.0	58.0	11900*	9900
45.0	36.2	10400*	7600	45.0	47.0	10800*	7800	45.0	53.8	10400*	7900
50.0	27.1	8700*	6000	50.0	41.2	9000*	6300	50.0	49.4	9100*	6400
55.0	12.8	7400*	4800	55.0	34.7	7600*	5100	55.0	44.6	7800*	5200
56.3	.0	7000*	4500	60.0	26.7	6500*	4100	60.0	39.4	6700*	4300
BOOM LENGTH 94 FT				65.0	15.3	5500*	3200	65.0	33.5	5700*	3400
				67.3	.0	5100*	2900	70.0	26.4	4900*	2800
25.0	72.1	15200*	15200*					75.0	16.8	4200*	2200
30.0	68.8	13000*	13000*					78.3	.0	3700*	1800
35.0	65.5	11300*	11300*								
40.0	62.1	9900*	9900*								
45.0	58.6	8700*	8000								
50.0	54.9	7800*	6500								
55.0	51.1	7000*	5300								
60.0	47.0	6300*	4300								
65.0	42.7	5700*	3600								
70.0	37.9	5000*	2900								
75.0	32.5	4300*	2300								
80.0	26.2	3700*	1800								
85.0	18.0	3200*	1400								
89.3	.0	2700*	1000								




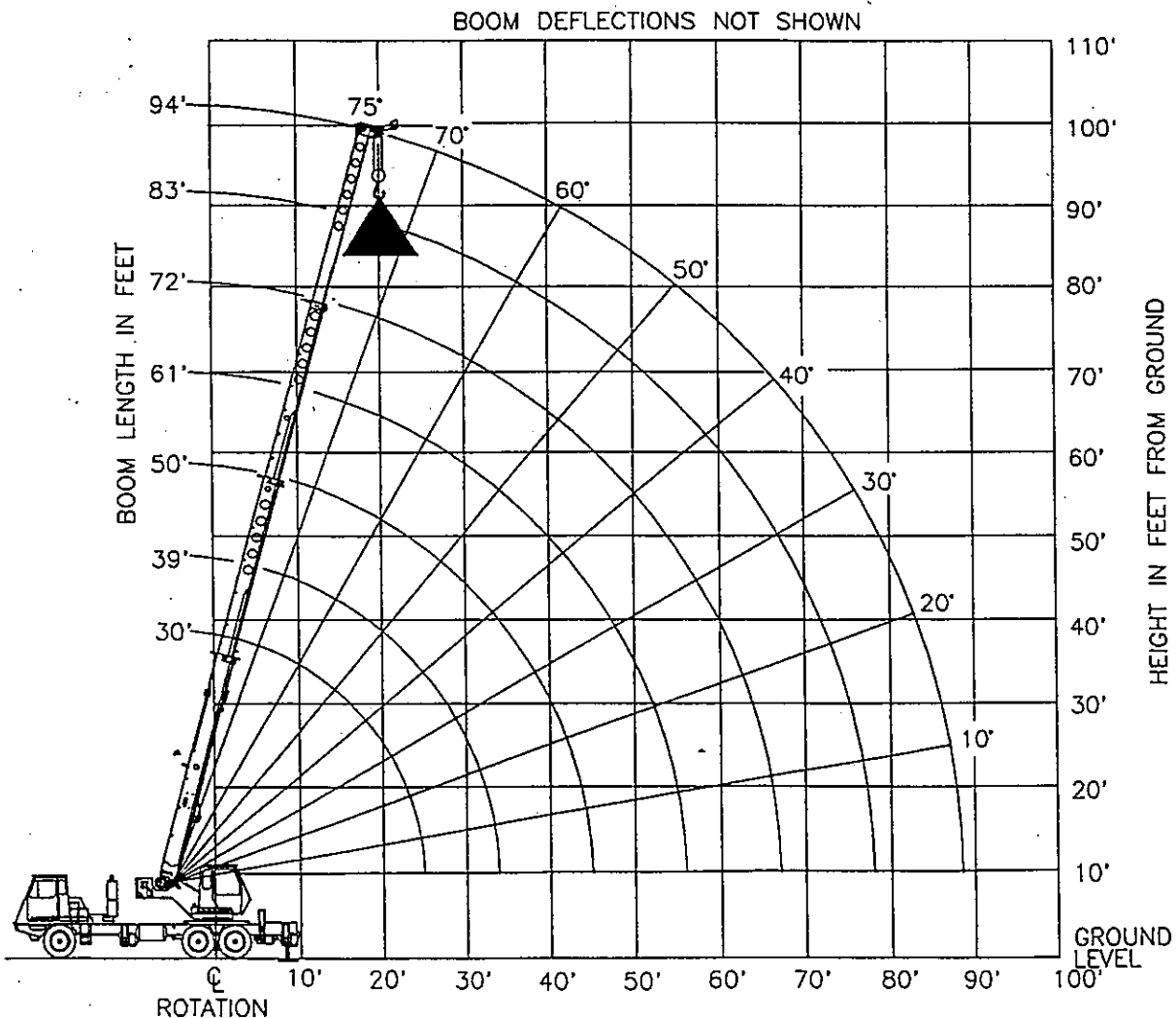
Add 100Lbs to the chart values if the AUX BOOM HEAD SHEAVE is NOT ERECTED.

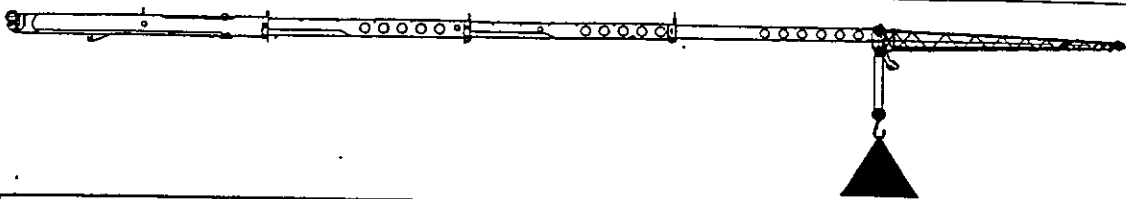
SET-UP:

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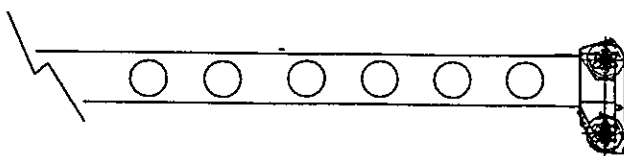
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5. Power telescoping boom sections must be extended equally.





RATED LOAD ON OUTRIGGERS											
LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360' (LB)	LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360' (LB)	LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360' (LB)
BOOM LENGTH 30 FT				BOOM LENGTH 39 FT				BOOM LENGTH 50 FT			
10.0	62.5	58500*	58500*	10.0	69.1	45200*	45200*				
12.0	58.1	43500*	43500*	12.0	65.9	40500*	40500*	12.0	71.4	38100*	38100*
15.0	51.0	37900*	37900*	15.0	60.9	35100*	35100*	15.0	67.7	32800*	32800*
20.0	37.0	27300*	27300*	20.0	51.9	27900*	27900*	20.0	61.4	26800*	26800*
25.0	13.2	20200*	19200	25.0	41.7	20800*	20000	25.0	54.5	21200*	20600
25.6	.0	19300*	18000	30.0	28.5	16100*	13700	30.0	47.0	16500*	14200
				34.3	.0	12900*	10000	35.0	38.4	13100*	10300
								40.0	27.6	9000*	7600
BOOM LENGTH 61 FT				BOOM LENGTH 72 FT				45.0	7.6	7000*	5600
								45.3	.0	6900*	5400
15.0	71.9	31200*	31200*					BOOM LENGTH 83 FT			
20.0	66.9	25300*	25300*	20.0	70.6	24200*	24200*				
25.0	61.6	21300*	20900	25.0	66.3	20200*	20200*	25.0	69.6	18900*	18900*
30.0	56.1	16700*	14500	30.0	61.8	16900*	14700	30.0	65.9	15800*	14800
35.0	50.2	13300*	10500	35.0	57.2	13500*	10700	35.0	62.0	13600*	10900
40.0	43.7	10800*	7900	40.0	52.3	11000*	8000	40.0	58.0	11100*	8200
45.0	36.2	8800*	5900	45.0	47.0	9000*	6100	45.0	53.8	9100*	6200
50.0	27.1	7200*	4500	50.0	41.2	7400*	4600	50.0	49.4	7500*	4800
55.0	12.8	5900	3300	55.0	34.7	6100*	3500	55.0	44.6	6200*	3600
56.3	.0	5500	2900	60.0	26.7	5000*	2600	60.0	39.4	5100*	2700
BOOM LENGTH 94 FT				65.0	15.3	4000*	1800	65.0	33.5	4200*	1900
				67.3	.0	3600*	1400	70.0	26.4	3400*	1300
25.0	72.1	15200*	15200*					75.0	16.8	2700*	
30.0	68.8	13000*	13000*					78.3	.0	2200*	
35.0	65.5	11300*	11000								
40.0	62.1	9900*	8300								
45.0	58.6	8700*	6300								
50.0	54.9	7600*	4900								
55.0	51.1	6300*	3700								
60.0	47.0	5200*	2800								
65.0	42.7	4300*	2000								
70.0	37.9	3500*	1400								
75.0	32.5	2800*	800								
80.0	26.2	2200*									
85.0	18.0	1700*									
89.3	0.0	1200*									



Add 100Lbs to the chart values if the AUX BOOM HEAD SHEAVE is NOT ERECTED.



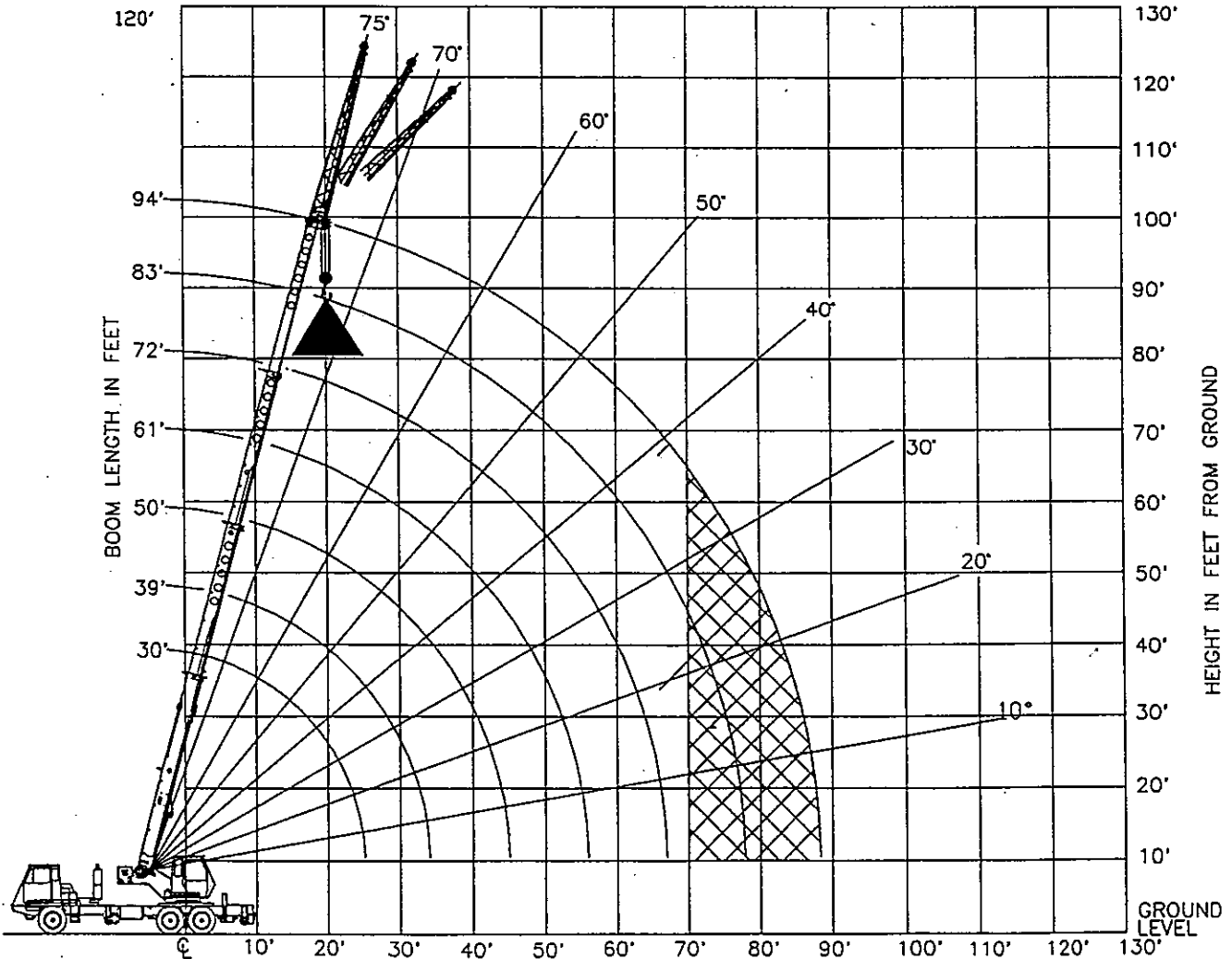
**SET-UP:**

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2. Crane load ratings on outriggers are based on all outrigger beams being fully extended and the tires raised free of the supporting surface.

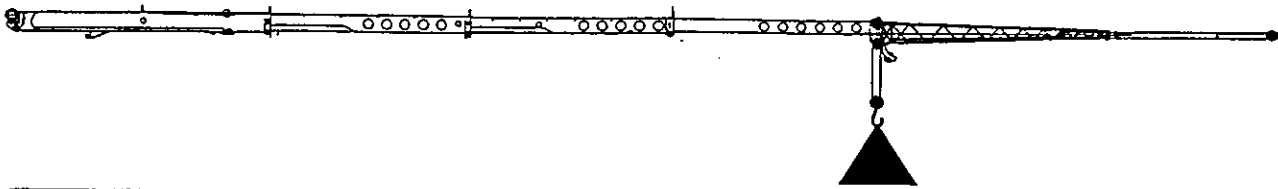
**OPERATION:**

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4. 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.
5. Power telescoping boom sections must be extended equally.

BOOM DEFLECTIONS NOT SHOWN

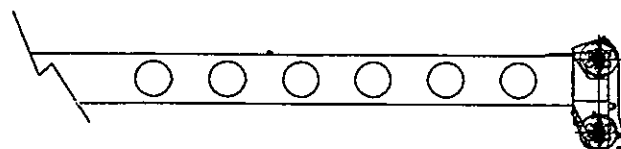


NO LOAD SIDE STABILITY LIMIT 70ft →



RATED LOAD ON OUTRIGGERS

LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360° (LB)	LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360° (LB)	LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER REAR (LB)	360° (LB)
BOOM LENGTH 30 FT				BOOM LENGTH 39 FT				BOOM LENGTH 50 FT			
10.0	62.5	58100*	58100*	10.0	69.1	44800*	44800*				
12.0	58.1	43100*	43100*	12.0	65.9	40100*	40100*	12.0	71.4	37800*	37800*
15.0	51.0	37600*	37600*	15.0	60.9	34800*	34800*	15.0	67.7	32500*	32500*
20.0	37.0	26900*	26900*	20.0	51.9	27500*	27500*	20.0	61.4	26500*	26500*
25.0	13.2	19800*	18700	25.0	41.7	20500*	19600	25.0	54.5	20900*	20200
25.6	.0	19000*	17600	30.0	28.5	15800*	13300	30.0	47.0	16200*	13900
				34.3	.0	12700*	9700	35.0	38.4	12900*	10000
								40.0	27.6	10300*	7300
BOOM LENGTH 61 FT				BOOM LENGTH 72 FT				45.0	7.6	8300*	5400
								45.3	.0	8100*	5200
15.0	71.9	31000*	31000*					BOOM LENGTH 83 FT			
20.0	66.9	25000*	25000*	20.0	70.6	24000*	24000*				
25.0	61.6	21000*	20500	25.0	66.3	20000*	20000*	25.0	69.6	18900*	18900*
30.0	56.1	16500*	14200	30.0	61.8	16700*	14400	30.0	65.9	15800*	14600
35.0	50.2	13100*	10300	35.0	57.2	13300*	10500	35.0	62.0	13400*	10600
40.0	43.7	10600*	7600	40.0	52.3	10800*	7800	40.0	58.0	10900*	8000
45.0	36.2	8600*	5700	45.0	47.0	8800*	5900	45.0	53.8	8900*	6100
50.0	27.1	7000*	4300	50.0	41.2	7200*	4500	50.0	49.4	7400*	4600
55.0	12.8	5700*	3100	55.0	34.7	5900*	3300	55.0	44.6	6100*	3500
56.3	.0	5400*	2800	60.0	26.7	4900*	2400	60.0	39.4	5000*	2600
BOOM LENGTH 94 FT				65.0	15.3	3900*	1600	65.0	33.5	4100*	1800
				67.3	.0	3500*	1300	70.0	26.4	3300*	1200
25.0	72.1	15200*	15200*					75.0	16.8	2600*	
30.0	68.8	13000*	13000*					78.3	.0	2100*	
35.0	65.5	11300*	10800								
40.0	62.1	9900*	8100								
45.0	58.6	8700*	6200								
50.0	54.9	7500*	4700								
55.0	51.1	6200*	3600								
60.0	47.0	5100*	2600								
65.0	42.7	4200*	1900								
70.0	37.9	3400*	1300								
75.0	32.5	2700*	700								
80.0	26.2	2100*									
85.0	18.0	1600*									
89.3	.0	1100*									




Add 100Lbs to the chart values if the AUX BOOM HEAD SHEAVE is NOT ERECTED.

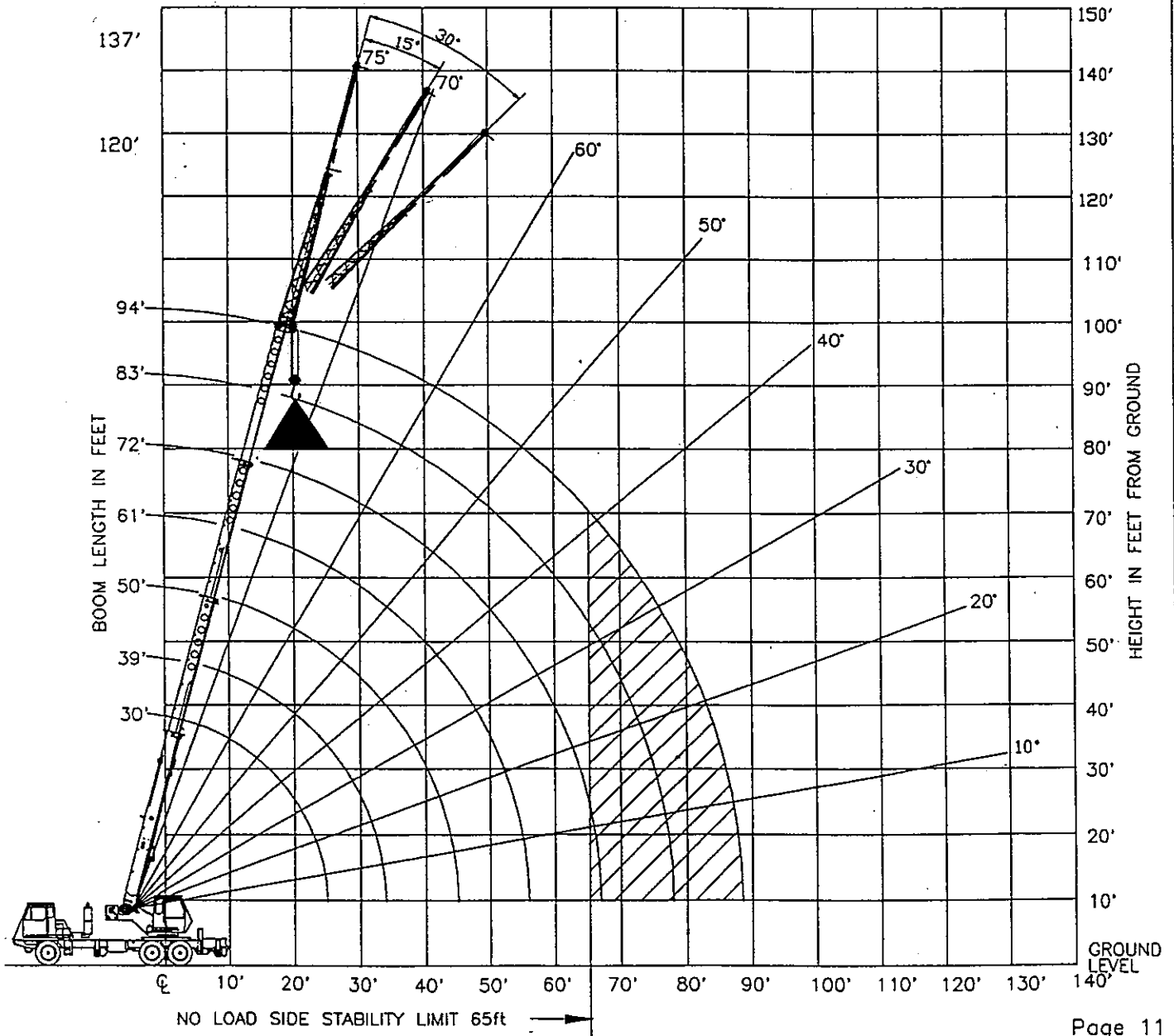
SET-UP:

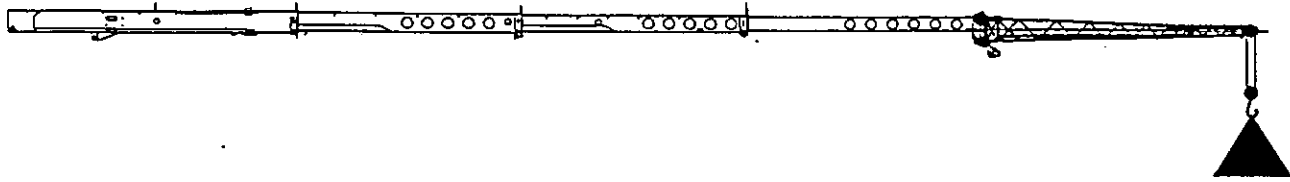
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OPERATION:

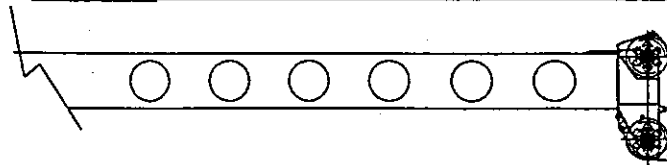
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5. Power telescoping boom sections must be extended equally.

BOOM DEFLECTIONS NOT SHOWN





26 FT OFFSET JIB									
LOADED BOOM ANGLE (DEG)	0' OFFSET			15' OFFSET			30' OFFSET		
	LOAD RADIUS (FT) (REF)	360' (LB)	OVER REAR (LB)	LOAD RADIUS (FT) (REF)	360' (LB)	OVER REAR (LB)	LOAD RADIUS (FT) (REF)	360' (LB)	OVER REAR (LB)
75	34'-11"	9,000 *	9,000 *	40'-2"	7,300 *	7,300 *	45'-0"	5,500 *	5,500 *
73	38'-8"	8,500 *	8,500 *	44'-2"	6,700 *	6,700 *	48'-9"	5,200 *	5,200 *
71	43'-2"	8,000 *	8,000 *	48'-6"	6,200 *	6,200 *	53'-2"	4,900 *	4,900 *
68	48'-10"	7,200 *	7,200 *	53'-9"	5,600 *	5,600 *	57'-10"	4,500 *	4,500 *
65	54'-6"	6,200 *	6,200 *	59'-7"	5,000 *	5,000 *	63'-7"	4,000 *	4,000 *
62	59'-8"	5,400 *	5,400 *	64'-2"	4,500 *	4,500 *	67'-11"	3,600 *	3,600 *
59	64'-9"	4,800 *	4,800 *	69'-6"	4,000 *	4,000 *	73'-2"	3,300 *	3,300 *
55	71'-4"	4,100 *	4,100 *	75'-11"	3,500 *	3,500 *	78'-6"	2,900 *	2,900 *
51	76'-11"	2,800	3,500 *	81'-1"	2,900	3,100 *	83'-11"	2,700 *	2,700 *
47	83'-0"	2,200	3,000 *	86'-9"	2,300	2,800 *	89'-3"	2,200	2,400 *
43	88'-0"	1,800	2,600 *	91'-5"	1,900	2,500 *	93'-3"	1,800	2,300 *
38	94'-4"	1,200	2,000 *	97'-3"	1,400	2,000 *	98'-7"	1,300	1,900 *
32	101'-6"		1,700 *	103'-10"	1,000	1,800 *	104'-5"		1,700 *
25	105'-1"		1,400 *	110'-11"		1,500 *			
17	110'-4"		1,200 *	116'-1"		1,300 *			
0	114'-10"		1,100 *						




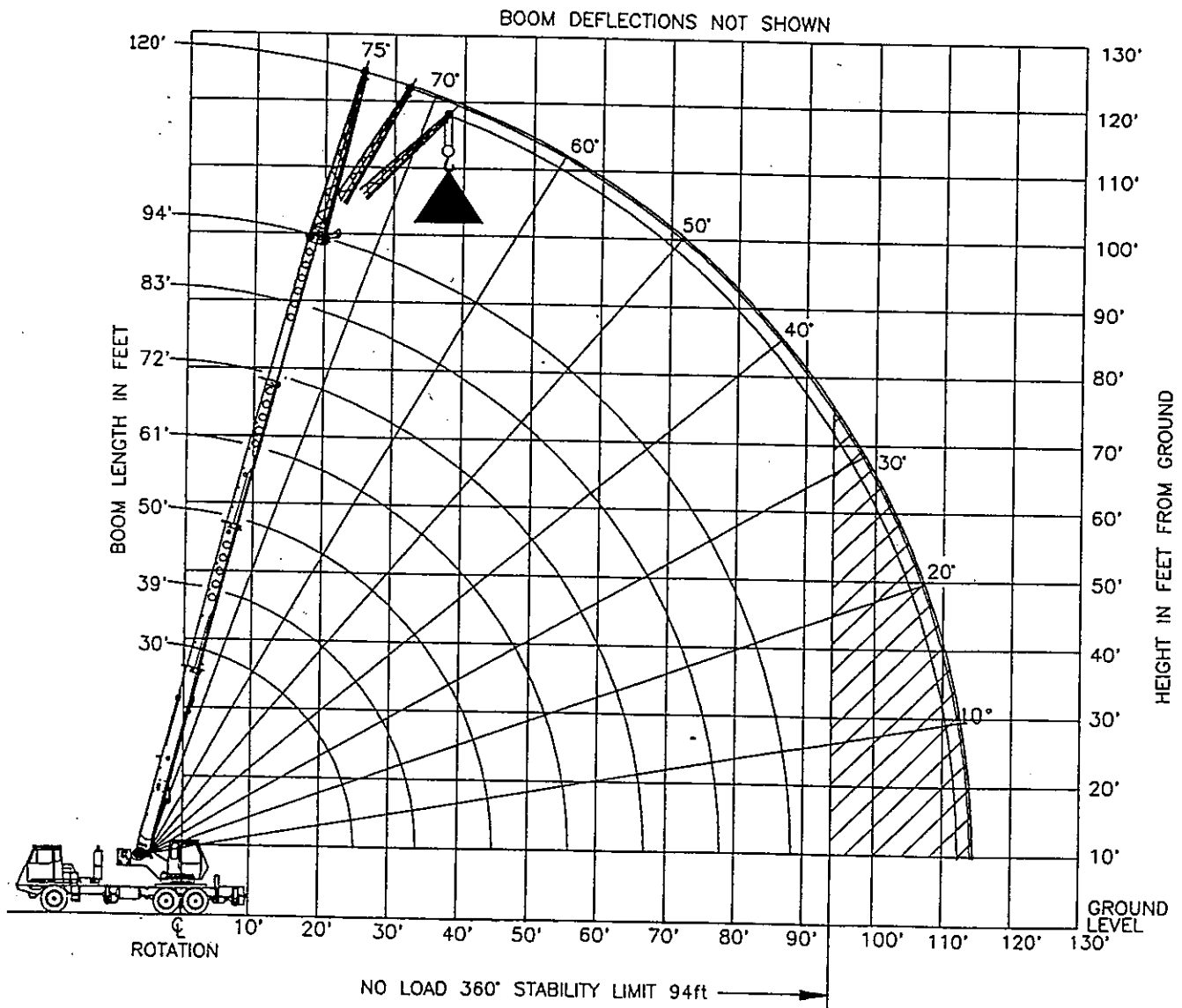
Add 100Lbs to the chart values if the AUX BOOM HEAD SHEAVE is NOT ERECTED.

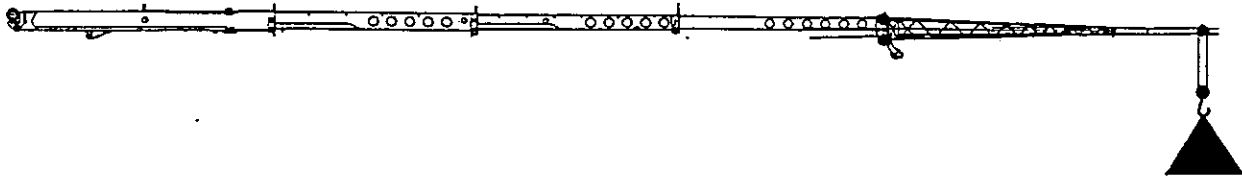
#### SET-UP:

1. Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended and the tires raised free of the supporting surface.

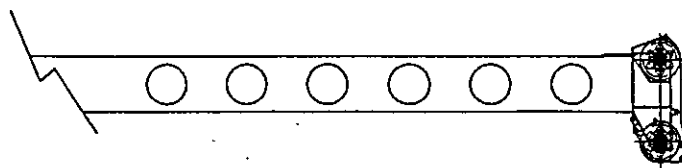
OPERATION:

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.
2. When either radius or boom angle, or both, are between listed values, the smaller of the two listed load ratings shall be used.
3. Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched  areas shown on range diagrams) as tipping can occur without a load on the hook.
4. The boom angles shown on the Capacity Chart give an approximation of the operating radius for a fully extended boom. 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.
5. Power telescoping boom sections must be extended equally.
6. For all boom lengths less than the maximum with the jib erected, the rated loads are determined by boom angle only in the appropriate column.
7. For boom angles not shown, use the capacity of the next lower angle.
8. Listed radii are for fully extended boom only.





35.5 FT OFFSET JIB									
LOADED BOOM ANGLE (DEG)	0° OFFSET			15° OFFSET			30° OFFSET		
	LOAD RADIUS (FT) (REF)	360° (LB)	OVER REAR (LB)	LOAD RADIUS (FT) (REF)	360° (LB)	OVER REAR (LB)	LOAD RADIUS (FT) (REF)	360° (LB)	OVER REAR (LB)
75	36'-4"	8,000 *	8,000 *	45'-5"	5,600 *	5,600 *	52'-6"	4,000 *	4,000 *
73	41'-9"	7,900 *	7,900 *	49'-8"	5,300 *	5,300 *	56'-6"	3,800 *	3,800 *
71	46'-8"	7,800 *	7,800 *	54'-7"	5,000 *	5,000 *	61'-10"	3,700 *	3,700 *
68	52'-1"	7,400 *	7,400 *	59'-10"	4,700 *	4,700 *	66'-8"	3,500 *	3,500 *
65	58'-11"	6,400 *	6,400 *	65'-8"	4,400 *	4,400 *	73'-1"	3,400 *	3,400 *
62	64'-3"	5,100	5,600 *	71'-6"	4,100 *	4,100 *	78'-7"	3,300 *	3,300 *
59	70'-6"	4,300	4,900 *	77'-4"	3,900 *	3,900 *	84'-2"	3,200 *	3,200 *
55	75'-6"	3,300	4,100 *	83'-10"	3,200	3,700 *	89'-9"	3,100	3,100 *
51	82'-2"	2,800	3,600 *	90'-8"	2,700	3,200 *	95'-3"	2,400	2,900 *
47	88'-6"	2,200	3,100 *	95'-10"	2,200	2,800 *	100'-6"	2,100	2,600 *
43	94'-1"	1,800	2,700 *	102'-6"	1,800	2,500 *	104'-11"	1,700	2,300 *
38	100'-6"	1,200	2,300 *	107'-5"	1,200	2,100 *	110'-5"	1,200	2,100 *
32	106'-6"		2,000 *	114'-1"	800	1,800 *	116'-3"	900	1,800 *
25	113'-10"		1,700 *	119'-2"		1,600 *			
17	121'-2"		1,400 *	121'-4"		1,400 *			
0	124'-9"		1,300 *						




Add 100Lbs to the chart values if the AUX BOOM HEAD SHEAVE is NOT ERECTED.

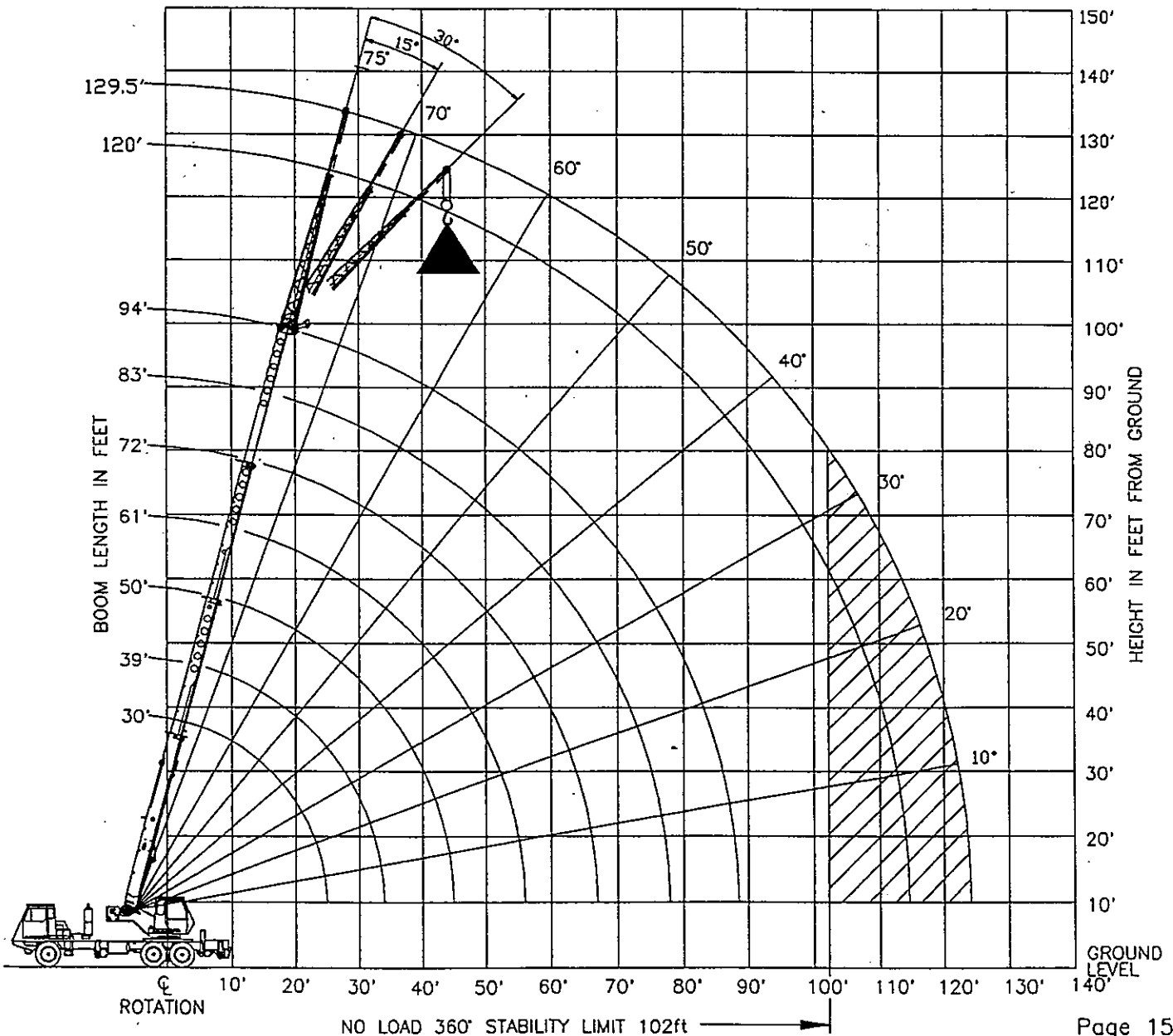
SET-UP:

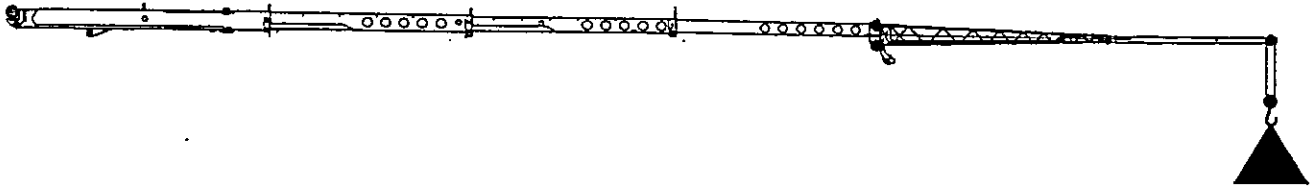
1. Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended and the tires raised free of the supporting surface.

OPERATION:

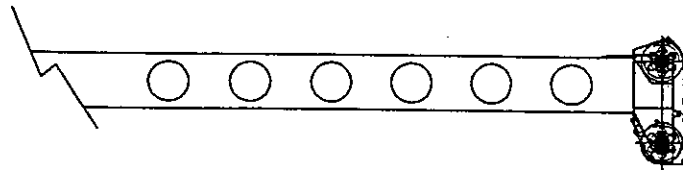
1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.
2. When either radius or boom angle, or both, are between listed values, the smaller of the two listed load ratings shall be used.
3. Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched  areas shown on range diagrams) as tipping can occur without a load on the hook.
4. The boom angles shown on the Capacity Chart give an approximation of the operating radius for a fully extended boom. 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.
5. Power telescoping boom sections must be extended equally.
6. For all boom lengths less than the maximum with the jib erected, the rated loads are determined by boom angle only in the appropriate column.
7. For boom angles not shown, use the capacity of the next lower angle.
8. Listed radii are for fully extended boom only.

BOOM DEFLECTIONS NOT SHOWN





43 FT OFFSET JIB									
LOADED BOOM ANGLE (DEG)	0' OFFSET			15' OFFSET			30' OFFSET		
	LOAD RADIUS (FT) (REF)	360° (LB)	OVER REAR (LB)	LOAD RADIUS (FT) (REF)	360° (LB)	OVER REAR (LB)	LOAD RADIUS (FT) (REF)	360° (LB)	OVER REAR (LB)
75	39'-11"	5,000 *	5,000 *	49'-6"	3,300 *	3,300 *	57'-7"	2,400 *	2,400 *
73	45'-1"	4,800 *	4,800 *	54'-1"	3,100 *	3,100 *	61'-9"	2,300 *	2,300 *
71	50'-6"	4,600 *	4,600 *	59'-5"	2,900 *	2,900 *	66'-11"	2,300 *	2,300 *
68	56'-5"	4,300 *	4,300 *	64'-8"	2,700 *	2,700 *	71'-10"	2,200 *	2,200 *
65	64'-2"	3,900 *	3,900 *	72'-3"	2,500 *	2,500 *	78'-10"	2,200 *	2,200 *
62	69'-7"	3,500 *	3,500 *	77'-4"	2,400 *	2,400 *	83'-6"	2,100 *	2,100 *
59	76'-0"	3,200 *	3,200 *	83'-6"	2,300 *	2,300 *	89'-3"	2,100 *	2,100 *
55	83'-2"	2,800 *	2,800 *	90'-1"	2,200 *	2,200 *	95'-0"	2,100 *	2,100 *
51	89'-10"	2,500	2,600 *	96'-5"	2,200 *	2,200 *	100'-7"	1,900	2,000 *
47	96'-2"	2,000	2,400 *	101'-2"	1,800	2,100 *	105'-9"	1,600	2,000 *
43	102'-0"	1,500	2,300 *	105'-11"	1,400	2,100 *	110'-7"	1,400	1,900 *
38	108'-11"	1,100	2,100 *	111'-11"	1,100	1,900 *	116'-2"	1,100	1,800 *
32	114'-1"		1,800 *	118'-7"		1,700 *	122'-4"		1,600 *
25	121'-1"		1,500 *	123'-10"		1,400 *			
17	128'-0"		1,300 *	128'-8"		1,300 *			
0	132'-0"		1,100 *						




Add 100Lbs to the chart values if the AUX BOOM HEAD SHEAVE is NOT ERECTED.

SET-UP:

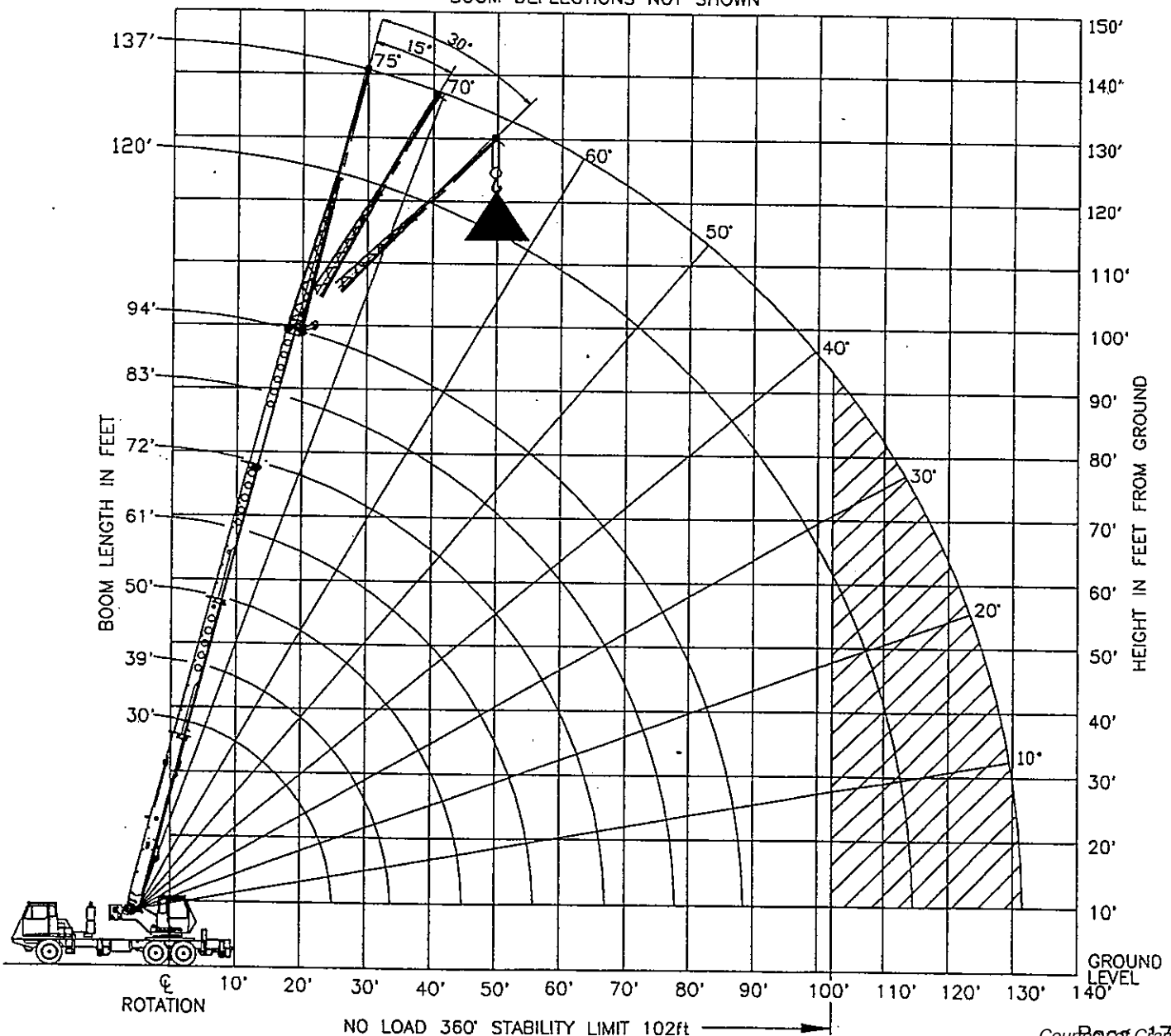
1. Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended and the tires raised free of the supporting surface.

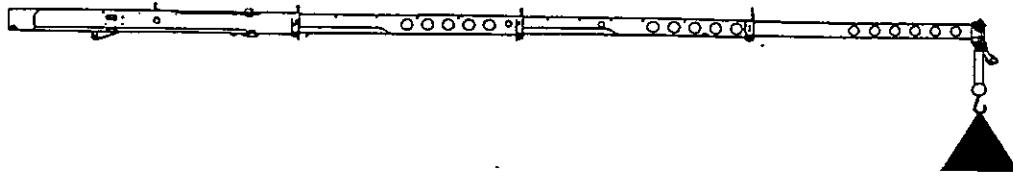


OPERATION:

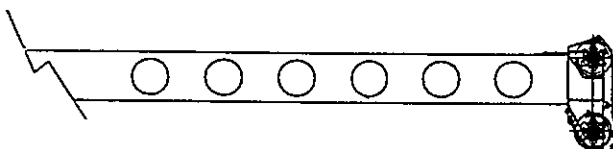
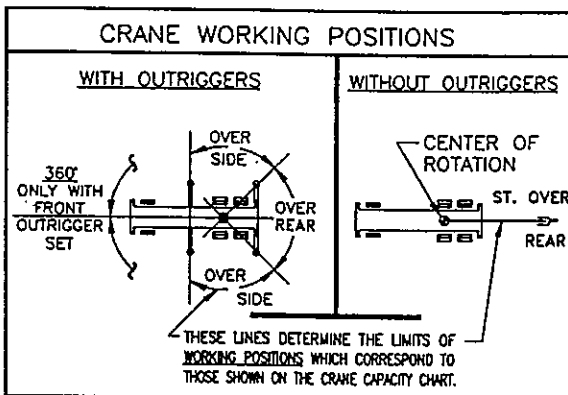
1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.
2. When either radius or boom angle, or both, are between listed values, the smaller of the two listed load ratings shall be used.
3. Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched  areas shown on range diagrams) as tipping can occur without a load on the hook.
4. The boom angles shown on the Capacity Chart give an approximation of the operating radius for a fully extended boom. 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.
5. Power telescoping boom sections must be extended equally.
6. For all boom lengths less than the maximum with the jib erected, the rated loads are determined by boom angle only in the appropriate column.
7. For boom angles not shown, use the capacity of the next lower angle.
8. Listed radii are for fully extended boom only.

BOOM DEFLECTIONS NOT SHOWN





ON TIRES		
RADIUS (FT)	MAX BOOM LENGTH (FT)	BOOM STRAIGHT OVER REAR 0 TO 2 1/2 MPH
10	30	19,500
12	30	15,700
15	39	12,200
20	39	8,200
25	50	5,000
30	50	3,200
35	50	2,100
40	50	1,400



Add 100Lbs to the chart values if the AUX BOOM HEAD SHEAVE is NOT ERECTED.

**SET-UP:**

1. Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
2. Crane load ratings on tires depend on appropriate inflation pressure and tire condition. Caution must be exercised when increasing air pressures in tires. Consult Operator's Manual for precautions.
3. Use of jibs, lattice-type boom extensions, or fourth section pullout extended is not permitted for pick and carry operations.

4. For pick and carry operations, boom must be centered over the rear of the crane with swing brake and lock engaged. Use minimum boom point height and keep load close to ground surface. Travel must be on smooth level surface.
5. The load should be restrained from swinging. No on tire operation with jib erected.

OPERATION:

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.
2. When radius is between listed values the smaller of the two listed load ratings shall be used.
3. Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched areas shown on range diagrams) as tipping can occur without a load on the hook.
4. Power telescoping boom sections must be extended equally.
5. Without outriggers, never maneuver the boom beyond listed load radii for applicable tires used to ensure stability.
6. Creep speed is crane movement of less than 200 ft. (61m) in 30 minute period and not exceeding 1.0 mph (1.6km/h).

BOOM DEFLECTIONS NOT SHOWN

