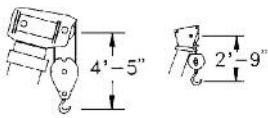


# Range Diagram and Lifting Capacity | RT345-1XL

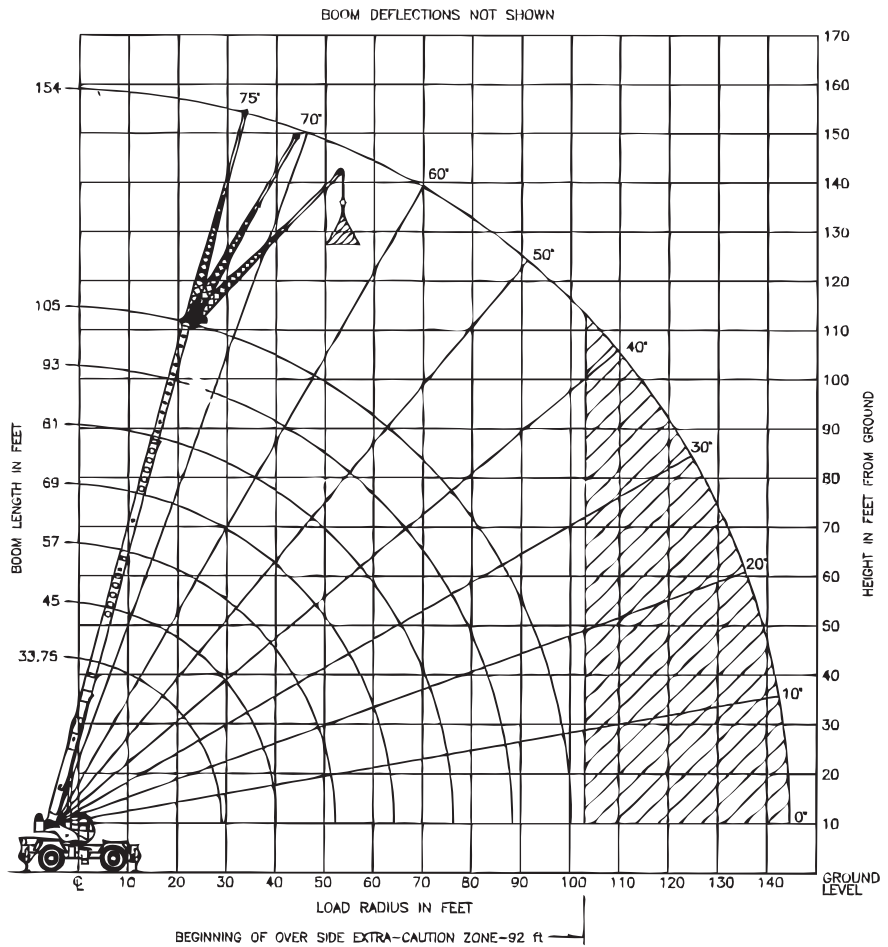
## 45 TON LIFTING CAPACITY

### RANGE DIAGRAM 33.75' - 105' BOOM

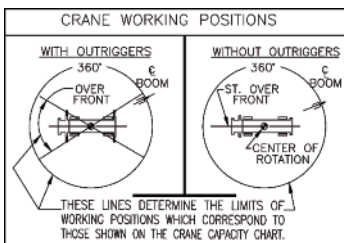


DIMENSIONS ARE FOR LARGEST FACTORY FURNISHED HOOK BLOCK AND HOOK & BALL, WITH ANTI-TWO BLOCK ACTIVATED

<b>COUNTER WEIGHT</b>	W/AUX. WINCH 11,900 LB W/O AUX. WINCH 13,000 LB
<b>BOOM LENGTH</b>	33.75'-105'
<b>OUTRIGGER SPREAD</b>	22'
<b>STABILITY PERCENTAGE</b>	ON OUTRIGGERS 85% ON TIRES 75%
<b>PCSA CLASS</b>	9-169



### CRANE WORKING CONDITIONS



### REDUCTION IN MAIN BOOM CAPACITY

All jib in stowed position	0 lb
Aux. boom in head sheave	100 lb

### HOOK BLOCK WEIGHTS

Hook and ball	239 lb
Hook block (3 sheave)	670 lb
Hook block (4 sheave)	690 lb

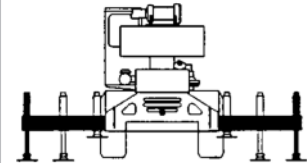


**LIFTING CAPACITIES** CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

**ON OUTRIGGERS - FULLY EXTENDED**

LOAD RADIUS (FT)	BOOM LENGTH 33.75'			BOOM LENGTH 45'			BOOM LENGTH 57'			LOAD RADIUS (FT)
	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	
9	68.1	90,000	90,000							9
10	66.0	64,400	64,400	72.3	46,500	46,500				10
12	62.1	58,000	58,000	69.6	46,500	46,500	74.0	46,500	46,500	12
15	56.1	50,700	50,700	65.4	46,500	46,500	70.8	44,500	44,500	15
20	44.8	40,400	40,400	58.1	38,800	38,800	65.4	36,400	36,400	20
25	30.2	30,600	30,600	50.1	31,600	31,600	59.7	31,000	31,000	25
30				40.9	25,000	25,000	53.6	25,600	25,600	30
35				29.5	20,300	20,300	46.9	20,900	20,900	35
40				8.4	16,700	16,700	39.4	17,400	17,400	40
45							30.4	14,700	14,700	45
50							17.5	12,400	12,400	50
55										55
60										60
65										65
70										70
75										75
80										80
85										85
90										90
95										95
100										100
105										105

**USE THESE CHARTS ONLY WHEN ALL OUTRIGGERS ARE FULLY EXTENDED**



LOAD RADIUS (FT)	BOOM LENGTH 69'			BOOM LENGTH 81'			BOOM LENGTH 93'			BOOM LENGTH 105'			LOAD RADIUS (FT)
	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	
9													9
10													10
12													12
15	74.3	41,600	41,600										15
20	69.9	34,800	34,800	73.0	30,660	30,660							20
25	65.4	29,400	29,400	69.2	26,000	26,000	72.0	23,400	23,400				25
30	60.7	25,600	25,600	65.4	22,500	22,500	68.7	20,300	20,300	71.3	18,600	18,600	30
35	55.8	21,300	21,300	61.4	19,600	19,600	65.4	17,700	17,700	68.4	16,200	16,200	35
40	50.5	17,800	17,800	57.3	17,400	17,400	61.9	15,600	15,600	65.4	14,400	14,400	40
45	44.8	15,100	15,100	52.9	15,300	15,300	58.3	14,100	14,100	62.3	12,900	12,900	45
50	38.4	12,900	12,900	48.3	13,100	13,100	54.6	12,600	12,600	59.2	11,600	11,600	50
55	31.0	11,100	11,100	43.3	11,300	11,300	50.7	11,500	11,500	55.9	10,400	10,400	55
60	21.3	9,500	9,500	37.7	9,800	9,800	46.6	10,000	9,900	52.5	9,500	9,500	60
65				31.4	8,500	8,400	42.1	8,700	8,500	49.0	8,800	8,600	65
70				23.5	7,400	7,200	37.2	7,600	7,300	45.2	7,800	7,400	70
75				11.1	6,500	6,100	31.7	6,700	6,300	41.2	6,800	6,400	75
80							25.1	5,800	5,500	36.8	6,000	5,600	80
85							16.0	5,000	4,700	31.9	5,200	4,800	85
90										26.2	4,500	4,200	90
95										18.9	3,900	3,600	95
100										5.2	3,300	3,100	100
105													105

**\*\*MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE**

BOOM LENGTH 33.75 FT			BOOM LENGTH 45 FT			BOOM LENGTH 57 FT			BOOM LENGTH 69 FT			BOOM LENGTH 81 FT			BOOM LENGTH 93 FT			BOOM LENGTH 105 FT		
LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)
29.1	24,800	24,800	40.3	16,400	16,400	52.3	11,500	11,500	64.3	8,300	8,200	76.3	6,200	5,800	88.3	4,500	4,200	100.3	3,300	3,300

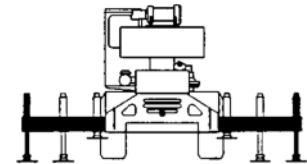


**LIFTING CAPACITIES** CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

## SIDE STOW JIB ON FULLY EXTENDED OUTRIGGERS

LOADED BOOM ANGLE (DEG)	RATED ON OUTRIGGERS WITH 32 FT OFFSETABLE JIB						RATED ON OUTRIGGERS WITH 49 FT OFFSETABLE JIB						LOADED BOOM ANGLE (DEG)
	0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET		
	LOAD RADIUS (REF) (FT)	LOAD RADIUS (REF) (LB)	LOAD RADIUS (REF) (FT)	LOAD RADIUS (REF) (LB)	LOAD RADIUS (REF) (FT)	LOAD RADIUS (REF) (LB)	LOAD RADIUS (REF) (FT)	LOAD RADIUS (REF) (LB)	LOAD RADIUS (REF) (FT)	LOAD RADIUS (REF) (LB)	LOAD RADIUS (REF) (FT)	LOAD RADIUS (REF) (LB)	
75	49	9,100	59	8,300	65	6,400	65	4,900	62	3,200	65	2,500	75
73	50	8,700	60	8,000	66	6,200	67	4,600	67	3,100	70	2,500	73
71	51	8,300	62	7,600	68	6,100	68	4,300	72	3,000	75	2,400	71
68	59	7,700	68	7,200	73	5,800	75	3,900	79	2,800	82	2,300	68
65	66	7,100	74	6,900	78	5,700	81	3,600	86	2,700	89	2,300	65
62	72	6,500	79	6,500	83	5,500	87	3,400	92	2,600	96	2,200	62
59	78	6,000	84	5,900	88	5,300	92	3,200	98	2,500	102	2,200	59
55	86	5,200	91	4,900	94	4,500	99	2,900	106	2,400	109	2,100	55
51	92	4,400	97	4,100	100	3,800	106	2,700	112	2,300	116	2,100	51
47	97	3,600	103	3,300	105	3,200	113	2,600	119	2,200	121	2,000	47
43	103	2,900	108	2,700	109	2,600	119	2,500	124	2,100	127	2,000	43
38	109	2,200	114	2,000	115	2,000	126	2,000	131	1,900	132	1,700	38
32	116	1,500	121	1,500	120	1,500	133	1,500	137	1,500	136	1,300	32
25	123	1,000	127	1,100	126	1,100	141	1,100	142	1,100	140	900	25

**USE THESE CHARTS ONLY WHEN ALL OUTRIGGERS ARE FULLY EXTENDED**



**Notes For Jib Capacities:**

- A. 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.
- B. For boom angle not shown, use the capacity of the next lower boom angle.
- C. Listed radii are for extended main boom only.

## ON TIRES

RADIUS (FT)	MAX BOOM LENGTH (FT)	26.5 X 25-26 PR			
		PICK & CARRY			
		STATIONARY	CREEP	2.5 MPH	
		360°	STRAIGHT OVER FRONT		
10	33.75	34,200	64,500*	48,600*	40,600*
12	33.75	28,300	56,200*	42,100*	33,300
15	45	21,300	46,800*	34,800*	28,700*
20	45	13,100	30,300	26,400*	21,500*
25	45	8,300	20,300	20,300	16,500*
30	45	5,700	14,600	14,600	12,900*
35	57	4,100	11,200	11,200	10,700*
40	57	3,000	8,700	8,700	8,700
45	57	2,200	7,000	7,000	7,000
50	69	1,500	5,700	5,700	5,700
55	69		4,600	4,600	4,600
60	81		3,800	3,800	3,800
65	81		2,900	2,900	2,900
70	81		2,100	2,100	2,100
75	93		1,300	1,300	1,300

**Notes For On Tire Capacities:**

- A. For Pick and Carry operations, boom must be centered over the front of the crane with swing brake and lock engaged. Use minimum boom point height and keep load close to ground surface.
- B. The load should be restrained from swinging. NO ON TIRE OPERATION WITH JIB ERECTED.
- C. Without outriggers, never maneuver the boom beyond listed load radii for applicable tires to ensure stability.
- D. Creep speed is crane movement of less than 200' (61m) in a 30 minute period and not exceeding 1.0 mph (1.6 km/h).
- E. Refer General Notes for additional information.

## RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	2 1/2 MPH	TRAVEL
26.5 x 25-26 PR	65 PSI	65 PSI	65 PSI	50 PSI

## MAXIMUM PERMISSIBLE HOIST LINE LOAD

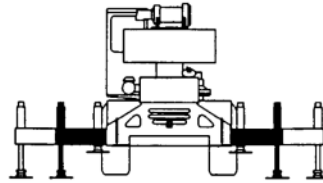
LINE PARTS	1	2	3	4	5	6	7	8	9	10
MAX. LOAD	9,080	18,160	27,240	36,320	45,400	54,480	63,560	72,640	80,000	80,000
BOOM HEAD	2	3-D	2-3	1-4-D	2-3-4	2-3-4-D	1-2-3-4	1-2-3-4-D	1-2-3-4-5	1-2-3-4-5-D
HOOK BLOCK	0	3	3-D	1-4	2-3-D	2-3-4	2-3-4-D	1-2-3-4	1-2-3-4-D	1-2-3-4-5
WIRE ROPE: 5/8" ROTATION RESISTANT COMPACTED STRAND, 18X19 OR 19X19 MINIMUM BREAKING STRENGTH - 22.7 TONS										
5/8" 6X19 OR 6X37 IWPC IPS PREFORMED RIGHT REGULAR LAY MINIMUM BREAKING STRENGTH - 17.9 TONS										

**LIFTING CAPACITIES** CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

**ON OUTRIGGERS - MID POSITION**

LOAD RADIUS (FT)	BOOM LENGTH 33.75 FT		BOOM LENGTH 45 FT		BOOM LENGTH 57 FT		LOAD RADIUS (FT)
	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	
9	68.1	80,000					9
10	66.0	64,400	72.3	46,500			10
12	62.1	58,000	69.6	46,500	74.0	46,500	12
15	56.1	50,700	65.4	46,500	70.8	44,500	15
20	44.8	36,600	58.1	37,500	65.4	36,400	20
25	30.2	23,700	50.1	24,700	59.7	25,200	25
30			40.9	17,700	53.6	18,200	30
35			29.5	13,100	46.9	13,700	35
40			8.4	9,800	39.4	10,600	40
45					30.4	8,200	45
50					17.5	6,400	50
55						5,600	55
60							60
65							65
70							70

**USE THESE CHARTS ONLY WHEN ALL OUTRIGGERS ARE PINNED IN MID POSITION**



LOAD RADIUS (FT)	BOOM LENGTH 69 FT		BOOM LENGTH 81 FT		BOOM LENGTH 93 FT		BOOM LENGTH 105 FT		LOAD RADIUS (FT)
	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	
9									9
10									10
12									12
15	74.3	41,600							15
20	69.9	34,800	73.0	30,600					20
25	65.4	25,500	69.2	25,700	72.0	23,400			25
30	60.7	18,400	65.4	18,600	68.7	18,800	71.3	18,600	30
35	55.8	10,900	61.4	14,200	65.4	14,300	68.4	14,400	35
40	50.5	8,600	57.3	11,100	61.9	11,200	65.4	11,300	40
45	44.8	6,900	52.9	8,800	58.3	8,900	62.3	9,000	45
50	38.4	5,400	48.3	7,100	54.6	7,200	59.2	7,300	50
55	31.0	4,300	43.3	5,700	50.7	5,800	55.9	5,900	55
60			37.7	4,600	46.6	4,700	52.5	4,800	60
65			31.4	3,600	42.1	3,800	49.0	3,900	65
70			23.5	2,800	37.2	3,000	45.2	3,100	70
75			11.1	2,100	31.7	2,300	41.2	2,500	75
80					25.1	1,800	36.8	1,900	80
85					16.0	1,200	31.9	1,400	85
90									90

**\*\*MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE**

BOOM LENGTH 33.75 FT		BOOM LENGTH 45 FT		BOOM LENGTH 57 FT		BOOM LENGTH 69 FT		BOOM LENGTH 81 FT		BOOM LENGTH 93 FT		BOOM LENGTH 105 FT	
LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)
29.1	17,300	40.3	9,600	52.3	5,600	64.3	3,400	76.3	1,900	--	--	--	--







# TEREX®

## General Notes | RT300 Series

### GENERAL

- Rated loads as shown on Lift Charts pertain to this machine as originally manufactured and equipped. Modifications to the machine or use of optional equipment or other than that specified can result in a reduction of capacity.
- Construction equipment can be hazardous if improperly operated or maintained. Operation and maintenance of this machine shall be in compliance with the information in the Operator's, Parts and Safety Manuals supplied with this machine. If These manuals are missing, order replacements from the manufacturer through your distributor.
- These warnings do not constitute all of the operating conditions for the crane. The operator and job site supervision must read the OPERATORS MANUAL, CIMA SAFETY MANUAL, APPLICABLE OSHA REGULATIONS, AND SOCIETY OF MECHANICAL ENGINEERS (ASME) SAFETY STANDINGS FOR CRANES.
- This crane and its load ratings are in accordance with POWER CRANE & SHOVEL ASSOCIATION, STANDARD NO.4 SAE CRANE LOAD STABILITY TEST CODE J765A, SAE METHOD OF TEST FOR CRANE STRUCTURE J1063 AND APPLICABLE SAFETY CODE FOR CRANES, DERRICKS AND HOISTS, ASME/ANSI B30.5

### DEFINITIONS

- LOAD 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.
- LOADED BOOM ANGLE** - It is the angle between the boom base section and the horizontal, after lifting the rated load at the rated radius. The boom angle before loading should be greater to account for deflections. The loaded boom angle combined with boom length give only an approximation of the operating radius.
- WORKING AREA** - Areas measured in a circular arc about the centerline of rotation as shown in the diagram.
- FREELY SUSPENDED LOAD** - Load hanging free with no direct external force applied except by the hoist rope.
- SIDE LOAD** - Horizontal force applied to the lifted load either on the ground or in the air.
- NO LOAD STABILITY LIMIT** - The stability limit radius shown on the range diagrams is the radius beyond which it is not permitted to position the boom, when the boom angle is less than the minimum shown on the applicable load chart, because the machine can overturn without any load.
- BOOM SIDE OF CRANE** - The side of the crane over which the boom is positioned when in OVER SIDE working position.

### SET-UP

- Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
- Crane load ratings on outriggers are based on all outrigger beams being fully extended or in the case of partial extension ratings mechanically pinned in the appropriate position, and the tires free of the supporting surface.
- 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.
- Use of jibs, lattice-type boom extensions, or fourth section pullouts extended is not permitted for pick and carry operations.
- Consult appropriate section of the Operator's and Service Manual for more exact description of hoist line reeving.
- 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.
- Properly maintained wire rope is essential for safe crane operation. Consult Operator's Manual for proper maintenance and inspection requirements.
- 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.
- Do not elevate the boom above 60° unless the boom is positioned in-line with the crane's chassis or the outrigger are extended. Failure to observe this warning may result in loss of stability.

### OPERATION

- CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.**
- When either radius or boom length, or both, are between listed values, the smaller of the two listed load ratings shall be used.
- Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched areas shown on range diagrams.)
- 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.
- Power telescoping boom sections must be extended equally.
- 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 3" off the center line of the base boom section due to the effects of wind, inertia, or any combination of the two.  
\*\*\*Use 2' off the center line of the base boom for a two section boom, 3' for a three section boom, or 4' for a four section boom.
- 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 TRUCK CRANES 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.
- Do not lift with outrigger beams positioned between the fully extended and intermediate (pinned) positions.
- Truck Cranes not equipped with equalizing (bogies) beams between the rear axles may not be used for lifting "on tires". Truck Cranes equipped with equalizing beams and rear air suspension should "dump" the air before lifting "on tires".

### CLAMSHELL, MAGNET, AND CONCRETE BUCKET SERVICE

- Maximum boom length for clamshell and magnet service is 50'.
- Weight of clamshell or magnet, plus contents are not to exceed 6,000 lb 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.

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