TEREX

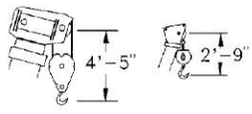
ROUGH TERRAIN CRANE

RT230XL

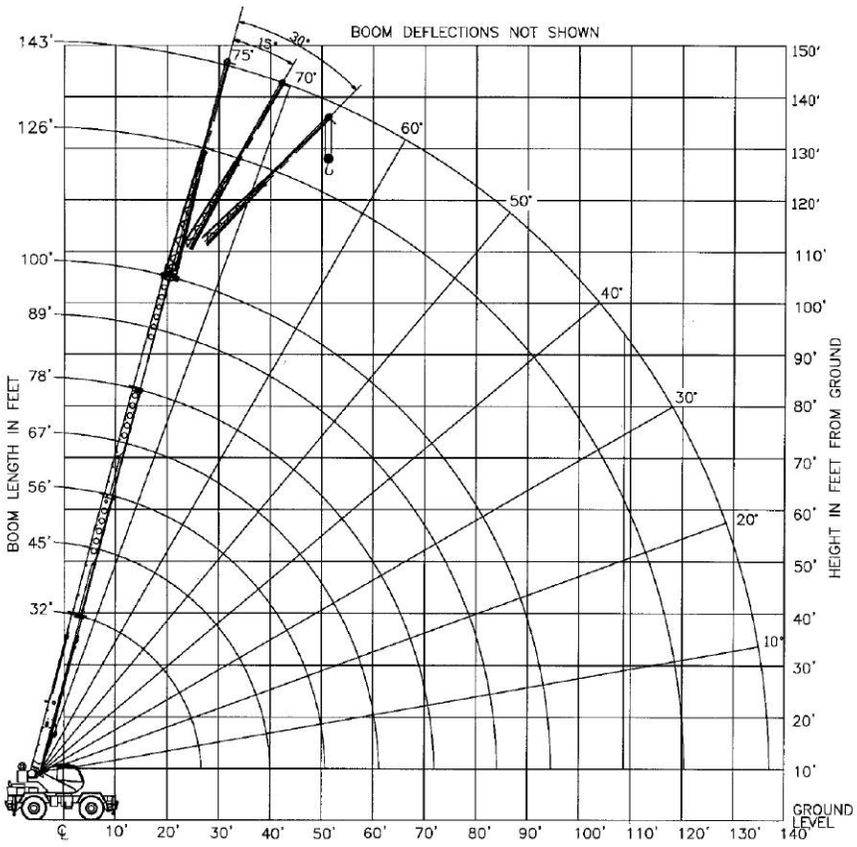
Range Diagram and Lifting Capacity | RT230XL

30 TON LIFTING CAPACITY

RANGE DIAGRAM 32' - 100' BOOM

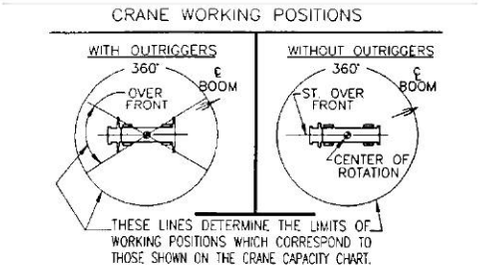


Dimensions are for largest factory furnished hook block and hook & ball, with anti-two block activated



COUNTER WEIGHT	W/AX. WINCH 8,900 LB W/O AX. WINCH 10,000 LB
BOOM LENGTH	32'-100'
OUTRIGGER SPREAD	19'
STABILITY PERCENTAGE	ON OUTRIGGERS 85% ON TIRES 75%
PCSA CLASS	10-105

CRANE WORKING CONDITIONS



REDUCTION IN MAIN BOOM CAPACITY

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

HOOK BLOCK WEIGHTS

Hook and ball	239 lb
Hook block (2 sheave)	680 lb
Hook block (3 sheave)	660 lb
Hook block (4 sheave)	660 lb

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ROUGH TERRAIN CRANE

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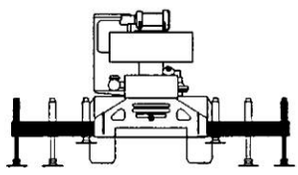
LIFTING CAPACITIES

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 32'			BOOM LENGTH 45'			BOOM LENGTH 56'			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)	
10	64.8	60,000*	60,000*	72.2	46,600*	46,600*				10
12	60.7	49,000*	49,000*	69.5	45,200*	45,200*	73.7	43,100*	43,100*	12
15	54.3	42,600*	42,600*	65.3	39,200*	39,200*	70.4	37,200*	37,200*	15
20	42.0	30,100*	30,100*	57.9	40,000*	40,000*	64.8	30,400*	30,400*	20
25	25.1	22,500*	22,500*	49.8	23,500*	23,500*	58.9	23,900*	23,900*	25
30				40.6	18,500*	18,500*	52.6	18,900*	18,900*	30
35				29.0	14,800*	13,900	45.7	15,300*	14,400	35
40				5.7	11,800	10,500	37.9	12,500	11,200	40
45							28.2	9,900	8,800	45
50							12.6	8,000	7,000	50
55										55
60										60
65										65
70										70
75										75
80										80
85										85
90										90
95										95

USE THESE CHARTS ONLY WHEN ALL OUTRIGGERS ARE FULLY EXTENDED



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RT230XL

LIFTING CAPACITIES

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ON OUTRIGGERS - FULLY EXTENDED

LOAD RADIUS (FT)	BOOM LENGTH 67'			BOOM LENGTH 78'			BOOM LENGTH 89'			BOOM LENGTH 100'			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)	
10													10
12													12
15	73.7	35,800*	35,800*										15
20	69.2	29,100*	29,100*	72.3	27,000*	27,000*							20
25	64.5	24,200*	24,200*	68.3	22,700*	22,700*	71.1	20,400*	20,400*	73.3	15,100*	15,100*	25
30	59.6	19,200*	19,200*	64.3	19,400*	19,400*	67.7	17,500*	17,500*	70.3	12,900*	12,900*	30
35	54.4	15,600*	14,600	60.1	15,800*	14,800	64.1	15,000*	14,900	67.2	11,200*	11,200*	35
40	48.9	12,700	11,400	55.7	12,900	11,600	60.5	13,000	11,700	64.0	9,800*	9,800*	40
45	42.8	10,300	9,100	51.1	10,400	9,300	56.6	10,500	9,400	60.7	8,700*	8,700*	45
50	35.9	8,400	7,400	46.1	8,600	7,600	52.7	8,700	7,700	57.4	7,800*	7,700	50
55	27.6	6,900	6,000	40.7	7,100	6,200	48.4	7,200	6,300	53.9	7,000*	6,400	55
60	15.4	5,600	4,800	34.5	5,900	5,100	43.9	6,000	5,200	50.2	6,100	5,300	60
65				27.2	4,900	4,200	39.0	5,100	4,300	46.3	5,200	4,400	65
70				17.1	4,000	3,400	33.4	4,200	3,600	42.1	4,400	3,700	70
75							26.9	3,500	2,900	37.6	3,600	3,000	75
80							18.2	2,900	2,300	32.5	3,000	2,500	80
85										26.6	2,500	2,000	85
90										19.0	2,000	1,500	90
95										3.5	1,600	1,100	95

**MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

BOOM LENGTH 32'			BOOM LENGTH 45'			BOOM LENGTH 56'			BOOM LENGTH 67'			BOOM LENGTH 78'			BOOM LENGTH 89'			BOOM LENGTH 100'		
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)
27.6	19,400*	19,400*	40.1	11.700*	10,400	51.1	7,600	6,600	62.1	5,100	4,400	73.1	3,500	2,900	84.1	2,400	1,900	95.1	1,600	1,100

TEREX

ROUGH TERRAIN CRANE

RT230XL

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

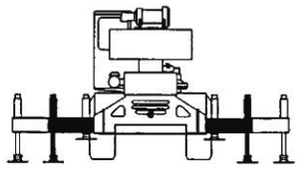
ON OUTRIGGERS - MID POSITION

LOAD RADIUS (FT)	BOOM LENGTH 32'		BOOM LENGTH 45'		BOOM LENGTH 56'		BOOM LENGTH 67'		BOOM LENGTH 78'		BOOM LENGTH 89'		BOOM LENGTH 100'		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)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	
10	64.8	60,000*	72.2	46,600*											10
12	60.7	49,000*	69.5	45,200*	73.7	43,100*									12
15	54.3	42,000*	65.3	39,200*	70.4	37,200*	73.7	35,800*							15
20	42.0	23,600	57.9	24,600	64.8	25,000	69.2	25,200	72.3	25,400					20
25	25.1	15,100	49.8	16,300	56.9	16,600	64.5	16,900	68.3	17,000	71.1	17,100	73.3	15,100*	25
30			40.6	11,400	52.6	11,900	59.6	12,100	64.3	12,200	67.7	12,300	70.3	12,400	30
35			29.0	8,200	45.7	8,700	54.4	8,900	60.1	9,100	64.1	9,200	67.2	9,300	35
40			5.7	5,800	37.9	6,400	48.9	6,700	55.7	6,900	60.5	7,000	64.0	7,100	40
45					28.2	4,700	42.8	5,100	51.1	5,300	56.6	5,400	60.7	5,400	45
50					12.6	3,400	35.9	3,800	46.1	4,000	52.7	4,100	57.4	4,200	50
55							27.6	2,700	40.7	3,000	48.4	3,100	53.9	3,200	55
60							15.4	1,900	34.5	2,100	43.9	2,300	50.2	2,400	60
65									27.2	1,400	39.0	1,600	46.3	1,700	65

**MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

BOOM LENGTH 32'		BOOM LENGTH 45'		BOOM LENGTH 56'		BOOM LENGTH 67'		BOOM LENGTH 78'		BOOM LENGTH 89'		BOOM LENGTH 100'	
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)
27.6	12,100	40.1	5,700	51.1	3,100	62.1	1,500						

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



TEREX

ROUGH TERRAIN CRANE

RT230XL

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

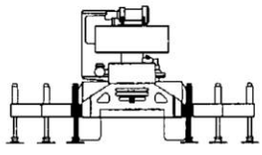
ON OUTRIGGERS - RETRACTED

LOAD RADIUS (FT)	BOOM LENGTH 32'		BOOM LENGTH 45'		BOOM LENGTH 56'		BOOM LENGTH 67'		BOOM LENGTH 78'		BOOM LENGTH 89'		BOOM LENGTH 100'		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)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	
10	64.8	34,400	72.2	35,200											10
12	60.7	24,600	69.5	25,400	73.7	25,800									12
15	54.3	16,300	65.3	17,200	70.4	17,600	73.7	17,800							15
20	42.0	9,200	57.9	10,200	64.8	10,600	69.2	10,700	72.3	10,900					20
25	25.1	5,400	49.8	6,300	58.9	6,800	64.5	7,000	68.3	7,100	71.1	7,200	73.3	7,300	25
30			40.6	4,000	52.6	4,400	59.6	4,600	64.3	4,800	67.7	4,900	70.3	5,000	30
35			29.0	2,300	45.7	2,700	54.4	3,000	60.1	3,200	64.1	3,300	67.2	3,400	35
40			5.7	1,000	37.9	1,600	48.9	1,800	55.7	2,000	60.5	2,100	64.0	2,200	40
45							42.8	900	51.1	1,100	56.6	1,200	60.7	1,400	45

**MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

BOOM LENGTH 32'		BOOM LENGTH 45'		BOOM LENGTH 56'		BOOM LENGTH 67'		BOOM LENGTH 78'		BOOM LENGTH 89'		BOOM LENGTH 100'	
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)
27.6	3,800	40.1	900										

USE THESE CHARTS WHEN ALL OUTRIGGER BEAMS ARE NOT IN EITHER THE MID OR FULLY EXTENDED POSITION



TEREX

ROUGH TERRAIN CRANE

RT230XL

LIFTING CAPACITIES

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SIDE STOW JIB ON FULLY EXTENDED OUTRIGGERS

LOADED BOOM ANGLE (DEG)	26' OFFSETTABLE JIB						43' OFFSETTABLE JIB						LOADED BOOM ANGLE (DEG)
	0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET		
	LOAD RADIUS (REF) (FT)	360° (LB)	LOAD RADIUS (REF) (FT)	360° (LB)	LOAD RADIUS (REF) (FT)	360° (LB)	LOAD RADIUS (REF) (FT)	360° (LB)	LOAD RADIUS (REF) (FT)	360° (LB)	LOAD RADIUS (REF) (FT)	360° (LB)	
75	37	9,100*	43	7,400*	47	5,600*	41	5,100*	51	3,400*	59	2,700*	75
73	41	8,600*	46	6,800*	51	5,300*	46	4,800*	56	3,300*	63	2,700*	73
71	44	8,100*	50	6,300*	55	5,000*	51	4,500*	61	3,200*	67	2,600*	71
68	50	7,300*	55	5,600*	60	4,500*	58	4,100*	67	3,000*	74	2,500*	68
65	56	6,300*	60	5,100*	65	4,100*	64	3,800*	74	2,900*	80	2,500*	65
62	61	5,500*	65	4,500	70	3,700*	70	3,600*	79	2,800*	85	2,400*	62
59	66	4,000	70	3,900	74	3,300	76	3,400*	85	2,700*	90	2,400*	59
55	73	3,100	77	3,200	80	2,800	83	2,900	91	2,600*	96	2,300*	55
51	80	2,500	84	2,600	86	2,300	90	2,300	98	2,100	102	2,000	51
47	86	2,000	90	2,000	92	1,800	98	1,900	106	1,700	108	1,600	47
43	93	1,500	96	1,500	98	1,400	106	1,400	112	1,300	114	1,200	43
38	100	1,000	102	1,000	103	1,000	115	1,000	119	900			38

Notes For Jib Capacities:

A. For ail 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.

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LIFTING CAPACITIES

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ON TIRES

RADIUS (FT)	MAX BOOM LENGTH (FT)	16:00 X 25-28 PR				20:50 X 25-24 PR			
		STATIONARY		PICK & CARRY CREEP	PICK & CARRY 2.5 MPH	STATIONARY		PICK & CARRY CREEP	PICK & CARRY 2.5 MPH
		360°	STRAIGHT OVER FRONT			360°	STRAIGHT OVER FRONT		
10	32	27,700*	44,100	35,800*	26,200*	26,700*	43,800*	34,400*	23,400*
12	32	20,600*	37,700	30,700*	22,200*	20,000*	37,900*	29,500'	19,800'
15	32	14,500	27,900	25,000*	17,800*	14,000	30,300*	24,000*	15,700*
20	45	8,100	17,600	17,600	12,800*	8,200	17,500	17,500	11,100*
25	45	5,400	11,200	11,200	9,300*	5,400	11,100	11,100	7,900*
30	45	3,400	8,000	8,000	6,900*	3,500	7,800	7,800	5,700*
35	56	2,000	6,100	6,100	5,500*	2,200	6,000	6,000	4,400*
40	56	1,300	4,800	4,800	4,300*	1,400	4,600	4,600	3,400*
45	56		3,800	3,800	3,400*	800	3,600	3,600	2,600*
50	67		2,900	2,700	2,700*		2,800	2,800	1,900*
55	67		2,100	2,100	2,100		2,100	2,100	1,400*
60	67		1,500	1,500	1,500		1,500	1,500	900*

Notes For 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' (61 m) in a 30 minute period and not exceeding 1.0 mph (1.6 km/h).
E. Refer to General Notes for additional information.

RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	2 1/2 MPH	TRAVEL
16:00 X 25-28PR	115 PSI	115 PSI	95 PSI	95 PSI
20:50 X 25-24PR	95 PSI	95 PSI	70 PSI	70 PSI

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

TEREX

General Notes | RT200XL

GENERAL

1. 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.
2. 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.
3. These warnings to 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.
4. 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

1. 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.
2. 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.
3. WORKING AREA - Areas measured in a circular arc about the centerline of rotation as shown in the diagram.
4. FREELY SUSPENDED LOAD - Load hanging free with no direct external force applied except by the hoist rope.
5. SIDE LOAD - Horizontal force applied to he lifted load either on the ground or in the air.
6. 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.
7. BOOM SIDE OF CRANE - The side of the crane over which the boom is positions when in OVER SIDE working position.

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 or in the case of partial extension ratings mechanically pinned in the appropriate position, 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 save 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.
9. 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

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.)
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.
6. 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.
7. 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 (*).
8. Rated loads are based on freely suspended loads. No attempt shall be made to drag a load horizontally on the ground in any direction.
9. 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 then 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 there section boom, or 4' for a four section boom."
10. 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.
11. Load ratings are dependent upon the crane being maintained according to manufacturer's specifications.
12. It is recommended that load handling devices, including hooks, and hook blocks, be kept away from boom head at all times.
13. 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 ares as shown on the Crane Working Positions diagram. Use the 360° load ratings in the overside work areas.
14. Do not lift with outrigger beams positioned between the fully extended and intermediate (pinned) positions.
15. Truck Cranes not equipped with equalizing (bogie) 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

1. Maximum boom length for clamshell and magnet service is 50'.
2. 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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