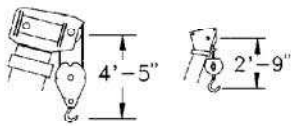


RT 230XL

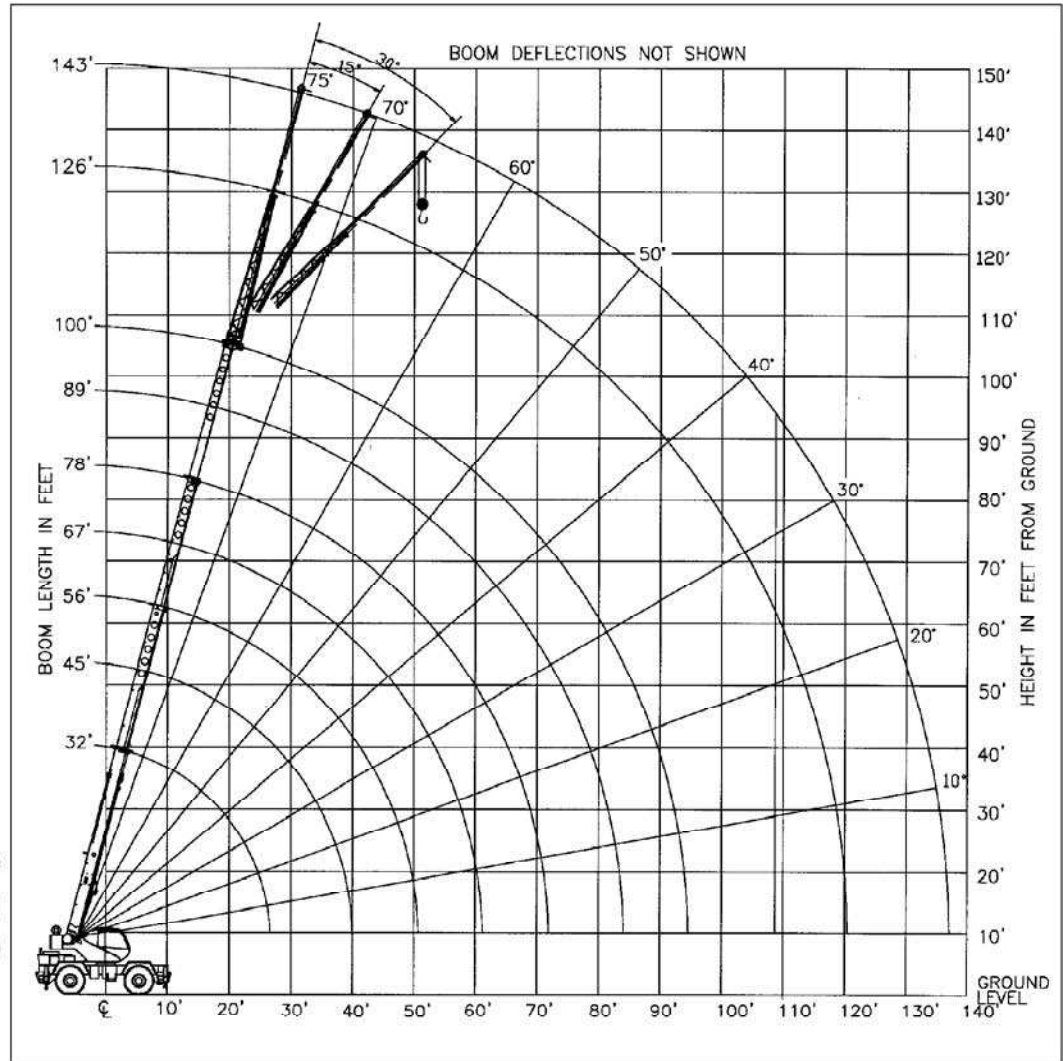
rough terrain crane
30 ton capacity

range diagram & lifting capacities

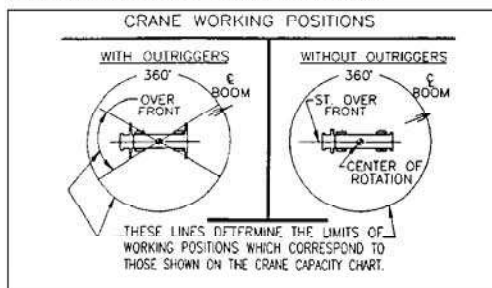


DIMENSIONS ARE FOR LARGEST FACTORY FURNISHED HOOK BLOCK AND HOOK & BALL, WITH ANTI-TWO BLOCK ACTIVATED

Range Diagram
(32' - 100' boom)



CRANE WORKING CONDITIONS



REDUCTION IN MAIN BOOM CAPACITY

All Jibs in Stowed Position	0 Lbs.
Aux. Boom in Head Sheave	100 Lbs.

HOOK BLOCK WEIGHTS

Hook & Ball	239 Lbs.
Hook Block (2 Sheave)	680 Lbs.
Hook Block (3 Sheave)	660 Lbs.
Hook Block (4 Sheave)	660 Lbs.

Lifting Capacities – Pounds (32’ – 100’ boom)

MODEL RT 230XL

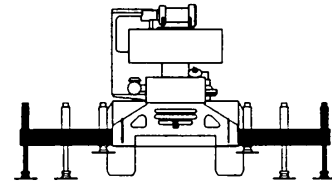
COUNTERWEIGHT:
 W/AUX. WINCH 8900 LBS.
 W/O AUX. WINCH 10,000 LBS.
 BOOM LENGTH 32-100 FT.
 OUTRIGGER SPREAD 19 FT.

STABILITY PERCENTAGE
 ON OUTRIGGERS 85%
 ON TIRES 75%
 PCSA CLASS 10-105

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 FT			BOOM LENGTH 45 FT			BOOM LENGTH 56 FT			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**

ON OUTRIGGERS - FULLY EXTENDED

LOAD RADIUS (FT)	BOOM LENGTH 67 FT			BOOM LENGTH 78 FT			BOOM LENGTH 89 FT			BOOM LENGTH 100 FT			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 FT			BOOM LENGTH 45 FT			BOOM LENGTH 56 FT			BOOM LENGTH 67 FT			BOOM LENGTH 78 FT			BOOM LENGTH 89 FT			BOOM LENGTH 100 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)
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

Lifting Capacities – Pounds (32’ – 100’ boom)

MODEL RT 230XL

COUNTERWEIGHT: W/AUX. WINCH 8900 LBS.
 W/O AUX. WINCH 10,000 LBS.
 BOOM LENGTH 32-100 FT.
 OUTRIGGER SPREAD 19 FT.

STABILITY PERCENTAGE
 ON OUTRIGGERS 85%
 ON TIRES 75%
 PCSA CLASS 10-105

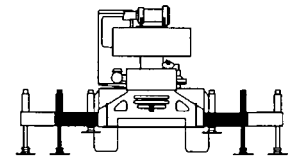
CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

ON OUTRIGGERS - MID POSITION

LOAD RADIUS (FT)	BOOM LENGTH 32 FT		BOOM LENGTH 45 FT		BOOM LENGTH 56 FT		BOOM LENGTH 67 FT		BOOM LENGTH 78 FT		BOOM LENGTH 89 FT		BOOM LENGTH 100 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)	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	58.9	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	45
50							12.6	3,400	35.9	3,800	46.1	4,000	52.7	4,100	50
55									27.6	2,700	40.7	3,000	48.4	3,100	55
60									15.4	1,900	34.5	2,100	43.9	2,300	60
65											27.2	1,400	39.0	1,600	65

** MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

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



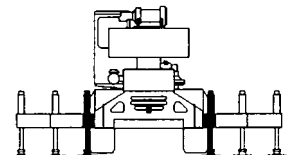
USE THESE CHARTS ONLY WHEN ALL OUTRIGGERS ARE PINNED IN MID POSITION

ON OUTRIGGERS - RETRACTED

LOAD RADIUS (FT)	BOOM LENGTH 32 FT		BOOM LENGTH 45 FT		BOOM LENGTH 56 FT		BOOM LENGTH 67 FT		BOOM LENGTH 78 FT		BOOM LENGTH 89 FT		BOOM LENGTH 100 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)	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	45

** MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

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



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

Lifting Capacities – Pounds (32' – 100' boom)

MODEL RT 230XL

COUNTERWEIGHT:
W/AUX. WINCH 8900 LBS.
W/O AUX. WINCH 10,000 LBS.
BOOM LENGTH 32-100 FT.
OUTRIGGER SPREAD 19 FT.

STABILITY PERCENTAGE
ON OUTRIGGERS 85%
ON TIRES 75%
PCSA CLASS 10-105

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

NOTES FOR ON TIRE CAPACITIES

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

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						

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

GENERAL NOTES

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 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 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 STANDARDS 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 center-line 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 the 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 positioned when in an 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 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.
9. Do not elevate the boom above 60° unless the boom is positioned in-line with the crane's chassis or the outriggers 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 than 3* feet off the center line of the base boom section due to the effects of wind, inertia, or any combination of the two.
**Use 2 feet off the center line of the base boom for a two section boom, 3 feet for a three section boom, or 4 feet 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 areas 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 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.