

RT 300 SERIES Rough Terrain Cranes



FEATURES

- 30-35 tons (27-32 mt) maximum lifting capacity
- 94 ft. (28.6 m) maximum boom length
- 147 ft. (44.8 m) maximum tip height
- Four-section full power, mechanically synchronized boom with single lever control
- Swingaway jib offsettable 0°, 15° or 30°
- Two-speed main and auxiliary winches
- Quick-reeving boom head and hook block
- Fully independent multi-position out and down outriggers
- Environmental operator's cab optimizes load visibility and productivity
- RCI 510 load system Rated Capacity Indicator
- Easy access for routine servicing of the engine, transmission, batteries, etc. provided by hinged lockable access doors.
- Easy to read load chart books include range diagrams
- 12-month or 2000 hours warranty, major weldments are 5-years or 10.000 hours

simple, available and cost effective[™]

Machines shown may have optional equipment.

TEREX RT 300 SERIES

Rough Terrain Cranes

RT 330 – 30 tons (27 mt) RT 335 – 35 tons (32 mt)

94 ft. (28.6 m) FOUR-SECTION, FULL-POWER, MECHANICALLY SYNCHRONIZED BOOM WITH SINGLE LEVER CONTROL

- High strength, four plate construction welded inside and out with embossed side plate holes to reduce weight and increase strength.
- Single boom hoist cylinder provides boom elevation of -5° to 76° for easier reeving changes and close radius operation.
- Quick-reeving boom head; no need to remove wedge from socket.
- 360° house lock standard

ENVIRONMENTAL OPERATOR'S CAB

- Rated Capacity Indicator (RCI) system including anti-two block system with automatic function disconnects.
- Deluxe six-way adjustable operator's seat has torsion bar suspension and adjustable head and arm rests.
- · Sound and weather insulated for comfort.
- Removable front window, hinged tinted glass skylight, and sliding right-hand window.
- Dash-mounted controls for swing, boom telescope, boom hoist, and single lever two-speed main winch; pedals for swing brake and boom hoist.
 Foot accelerator with hand throttle.
- Complete instrumentation.
 Environmentally-sealed rocker switches. Circuit breakers in cab.



 Box-type chassis construction with reinforcing cross members.

- Full power-shift transmission with integral torque converter; neutral start;
 6 speeds forward 3 reverse.
- Hydraulic four-wheel power steering for 2-wheel, 4-wheel or crab steer.
- Full air brakes with air dryer.
- Fully independent hydraulic outriggers may be utilized fully extended to 22 ft. (6.71 m), in their 1/2 extended position, or fully retracted.
- Tail swing only 9 ft. (2.74 m).
- Standard Cummins 6BT5.9 diesel engine.
- Easy access for routine servicing of the engine, transmission, batteries, etc. is provided by hinged lockable access doors without the need to unbolt access panels.
- Engine compartment access doors (4), and operators cab are all keyed alike.
- All outside compartments and fluid reservoir access doors/caps have lockable latches or are equipped with padlock hasps.
- · Standard 23.5R25 tires.
- Tachometer and rear axle centering light standard.

POWERFUL, TWO-SPEED WINCHES

- 533 fpm (162.5 m/min) maximum line speed, 15,639 lbs. (7093 kg) maximum line pull. Single lever control.
- Integral automatic brake.
- Electronic drum indicators.
- Grooved drum, tapered flanges, and spring loaded cable roller for improved spooling.

HIGH CAPACITY, DEPENDABLE HYDRAULIC SYSTEM

- Three gear pumps driven off the transmission. Combined system capability is 119 gpm (450 lpm).
- Hydraulic reservoir with 114 gal. (432 I) capacity and full flow oil filtration system.

OPTIONS INCLUDE:

- 32 ft. or 32 to 49 ft. (9.75 or 9.75 to 14.93 m) swing-on jib. Both offset 0°, 15° or 30°.
- Auxiliary winch with rope.
- · Heater/defroster, air conditioner.
- Cold weather starting aid.
- 21:00 x 25, 28 P.R. tires.
- CAT 3116 DITA diesel engine.

For more information, product demonstration, or details on purchase, lease and rental plans, please contact your local Terex Cranes Distributor.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty applicable to the particular product and sale. We make no other warranty, expressed or implied.



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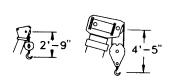
TC-500-1 ©Terex Cranes, Inc. 2001 Litho in U.S.A. 10U501T34



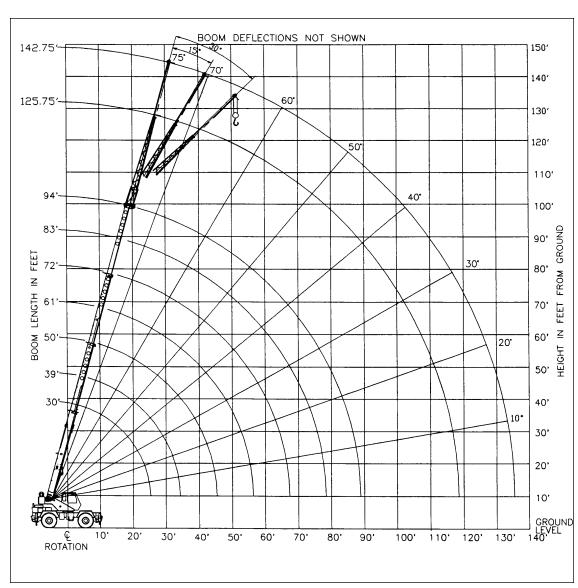
RT 335

rough terrain crane 35 ton capacity

range diagram & lifting capacities

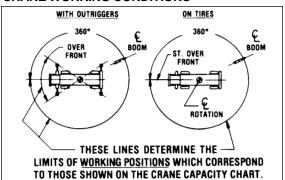


DIMENSIONS ARE FOR LARGEST FACTORY FURNISHED HOOK BLOCK AND HEADACHE BALL, WITH ANTI-BLOCK ACTIVATED



Range Diagram (30' - 94' boom)

CRANE WORKING CONDITIONS



REDUCTION IN MAIN BOOM CAPACITY

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

HOOK BLOCK WEIGHTS

Hook & Ball	239 Lbs.
Hook Block (3 Sheave)	670 Lbs.
Hook Block (4 Sheave)	690 Lbs.

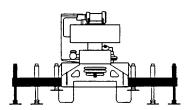
COUNTERWEIGHT:
W/AUX. WINCH 8900 LBS.
W/O AUX. WINCH 10,000 LBS.
BOOM LENGTH 30-94 FT.
OUTRIGGER SPREAD 22 FT.

STABILITY PERCENTAGE ON OUTRIGGERS 85% ON TIRES 75% PCSA CLASS 10-156

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

	BOOI	M LENGTH	30 FT	ВОО	M LENGTH	39 FT	BOO	M LENGTH	50 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)	LOAD RADIUS (FT)
10	63.0	70,000*	70,000*	69.4	46,600*	46,600*				10
12	58.5	60,800*	60,800*	66.2	46,600*	46,600*	71.7	46,600*	46,600*	12
15	51.4	50,600*	50,600*	61.2	46,600*	46,600*	68.0	44,300*	44,300*	15
20	37.4	36,100*	36,100*	52.3	36,900*	36,900*	61.6	37,500*	37,500*	20
25	13.7	27,300*	27,300*	42.0	28,200*	28,200*	54.8	28,800*	28,800*	25
30	**			28.8	22,300*	22,300*	47.3	22,900*	22,900*	30
35				**			38.7	18,800*	18,800*	35
40							27.9	15,600*	15,600*	40
45							7.9	13,100*	13,100*	45
50							**			50
55										55
60										60
65										65
70										70
75										75
80										80
85										85
90										90



USE THESE CHARTS
ONLY WHEN ALL OUTRIGGERS ARE FULLY
EXTENDED

	BOOI	M LENGTH	61 FT	воо	M LENGTH	72 FT	BOOM	M LENGTH	83 FT	воо	M LENGTH	94 FT	
LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)									
10													10
12													12
15	72.1	38,100*	38,100*										15
20	67.1	33,000*	33,000*	70.8	27,400*	27,400*							20
25	61.9	27,900*	27,900*	66.5	23,100*	23,100*	69.8	21,800*	21,800*	72.2	17,500*	17,500*	25
30	56.3	23,300*	23,300*	62.0	19,900*	19,900*	66.0	18,300*	18,300*	69.0	15,000*	15,000*	30
35	50.4	19,100*	19,100*	57.4	17,400*	17,400*	62.2	15,900*	15,900*	65.7	13,100*	13,100*	35
40	43.9	16,000*	16,000*	52.5	15,400*	15,400*	58.1	13,800*	13,800*	62.2	11,500*	11,500*	40
45	36.5	13,500*	13,500*	47.2	13,800*	13,800*	53.9	12,100*	12,100*	58.7	10,100*	10,100*	45
50	27.3	11,500*	11,500*	41.4	11,800*	11,800*	49.5	10,900*	10,900*	55.1	9,000*	9,000*	50
55	13.0	9,900*	9,900*	34.8	10,200*	10,200*	44.7	9,700*	9,700*	51.2	8,200*	8,200*	55
60	**			26.9	8,800*	8,800*	39.5	8,800*	8,800*	47.2	7,300*	7,300*	60
65				15.5	7,700*	7,700	33.6	7,900*	7,800	42.8	6,600*	6,600*	65
70				**			26.6	6,900	6,800	38.0	6,000*	6,000*	70
75							17.0	5,900	5,800	32.7	5,500*	5,500*	75
80							**			26.4	5,000*	5,000*	80
85										18.1	4,600	4,500	85
90										**			90

** MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

	BOOM LENGTH 30 FT BOOM LENG		BOOM LENGTH 39 FT		BOOM LENGTH 50 FT		воо	BOOM LENGTH 61 FT		BOOM LENGTH 72 FT		BOOM LENGTH 83 FT			BOOM LENGTH 94 FT						
RAI	DAD DIUS	OVER FRONT	360°	LOAD RADIUS	OVER FRONT	360°	LOAD RADIUS	OVER FRONT	360°	LOAD RADIUS		360°	LOAD RADIUS		360°	LOAD RADIUS	OVER FRONT	360°	LOAD RADIUS	OVER FRONT	360°
(1	FT)	(LB)	(LB)	(FT)	(LB)	(LB)	(FT)	(LB)	(LB)	(FT)	(LB)	(LB)	(FT)	(LB)	(LB)	(FT)	(LB)	(LB)	(FT)	(LB)	(LB)
2	5.6	26.300*	26.300*	34.3	18.500*	18.500*	45.3	12.900*	12.900*	56.3	9.500*	9.500*	67.3	7.200*	7.100	78.3	5.300	5.200	89.3	4.000	3,900

W/O AUX. WINCH 10,000 LBS. BOOM LENGTH 30-94 FT. OUTRIGGER SPREAD 22 FT.

COUNTERWEIGHT:

W/AUX. WINCH 8900 LBS.

STABILITY PERCENTAGE ON OUTRIGGERS 85% ON TIRES 75% PCSA CLASS 10-156

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

	BOOM LE	ENGTH 30 FT	BOOM LE	ENGTH 39 FT	BOOM L	ENGTH 50 FT	
LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOAD RADIUS (FT)
10	63.0	70,000*	69.4	46,600*			10
12	58.5	60,800*	66.2	46,600*	71.7	46,600*	12
15	51.4	50,600*	61.2	46,600*	68.0	44,300*	15
20	37.4	33,000	52.3	33,800	61.6	34,300	20
25	13.7	21,200	42.0	22,400	54.8	22,800	25
30	**		28.8	15,900	47.3	16,500	30
35			**		38.7	12,500	35
40					27.9	9,600	40
45					7.9	7,400	45
50					**		50
55							55
60							60
65							65
70							70
75							75
80							80
85							85
90							90

75							75		
80							80		
85							85		
90							90		
	1						1		
	BOOM L	ENGTH 61 FT	BOOM L	ENGTH 72 FT	BOOM L	ENGTH 83 FT	BOOM L	ENGTH 94 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)	LOAD RADIUS (FT)
10									10
12									12
15	72.1	38,100*							15
20	67.1	33,000*	70.8	27,400*					20
25	61.9	23,100	66.5	23,100*	69.8	21,800*	72.2	17,500*	25
30	56.3	16,800	62.0	17,000	66.0	17,100	69.0	15,000*	30
35	50.4	12,800	57.4	12,900	62.2	13,100	65.7	13,100*	35
40	43.9	10,000	52.5	10,200	58.1	10,300	62.2	10,400	40
45	36.5	7,900	47.2	8,100	53.9	8,300	58.7	8,300	45
50	27.3	6,300	41.4	6,600	49.5	6,700	55.1	6,800	50
55	13.0	5,000	34.8	5,300	44.7	5,500	51.2	5,600	55
60	**		26.9	4,300	39.5	4,500	47.2	4,600	60
65			15.5	3,400	33.6	3,600	42.8	3,700	65
70			**		26.6	2,900	38.0	3,000	70
75					17.0	2,300	32.7	2,400	75
80					**		26.4	1,900	80

30

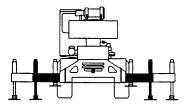
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*	* MAXIN	IUM CAI	PACITY A	AT 0 DEG	REE BO	OM ANG	BLE							
	BOOM LEN	NGTH 30 FT	BOOM LEN	IGTH 39 FT	BOOM LEN	NGTH 50 FT	BOOM LEN	IGTH 61 FT	BOOM LEN	IGTH 72 FT	BOOM LEN	IGTH 83 FT	BOOM LEN	IGTH 94 FT
	LOAD		LOAD		LOAD		LOAD		LOAD		LOAD		LOAD	
	RADIUS	360°												
	(FT)	(LB)												
- [25.6	20 100	34.3	12 100	45.3	7 300	56.3	4 700	67.3	3 000	78.3	1 900	89.3	1 000

18.1

1,400

85 90



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

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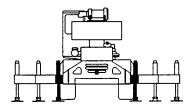
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COUNTERWEIGHT:
W/AUX. WINCH 8900 LBS.
W/O AUX. WINCH 10,000 LBS.
BOOM LENGTH 30-94 FT.
OUTRIGGER SPREAD 22 FT.

STABILITY PERCENTAGE ON OUTRIGGERS 85% ON TIRES 75% PCSA CLASS 10-156

ON OUTRIGGERS - RETRACTED

	BOOM L	ENGTH 30 FT	BOOM L	ENGTH 39 FT	BOOM L	ENGTH 50 FT	
LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOADED BOOM ANGLE (DEG)	360° (LB)	LOAD RADIUS (FT)
10	63.0	51,000	69.4	46,600*			10
12	58.5	35,800	66.2	36,500	71.7	37,100	12
15	51.4	23,800	61.2	24,500	68.0	25,000	15
20	37.4	14,000	52.3	14,800	61.6	15,300	20
25	13.7	8,800	42.0	9,800	54.8	10,400	25
30	**		28.8	6,700	47.3	7,300	30
35			**		38.7	5,200	35
40					27.9	3,700	40
45					7.9	2,400	45
50					**		50
55							55
60							60



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

	BOOM L	ENGTH 61 FT	BOOM L	ENGTH 72 FT	BOOM L	ENGTH 83 FT	BOOM L	ENGTH 94 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)	LOAD RADIUS (FT)
10									10
12									12
15	72.1	25,300							15
20	67.1	15,600	70.8	15,800					20
25	61.9	10,600	66.5	10,800	69.8	10,900	72.2	11,000	25
30	56.3	7,600	62.0	7,800	66.0	7,900	69.0	8,000	30
35	50.4	5,500	57.4	5,700	62.2	5,800	65.7	5,900	35
40	43.9	4,000	52.5	4,200	58.1	4,400	62.2	4,500	40
45	36.5	2,900	47.2	3,100	53.9	3,300	58.7	3,400	45
50	27.3	2,000	41.4	2,200	49.5	2,400	55.1	2,500	50
55	13.0	1,200	34.8	1,500	44.7	1,700	51.2	1,800	55
60	**		26.9	900	39.5	1,100	47.2	1,200	60

** MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

BOOM LEN	IGTH 30 FT	BOOM LEN	IGTH 39 FT	BOOM LENGTH 50 FT		BOOM LENGTH 61 FT		BOOM LENGTH 72 FT		BOOM LEN	IGTH 83 FT	BOOM LENGTH 94 FT	
LOAD		LOAD		LOAD		LOAD		LOAD		LOAD		LOAD	
RADIUS	360°	RADIUS	360°	RADIUS	360°	RADIUS	360°	RADIUS	360°	RADIUS	360°	RADIUS	360°
(FT)	(LB)	(FT)	(LB)	(FT)	(LB)	(FT)	(LB)	(FT)	(LB)	(FT)	(LB)	(FT)	(LB)
25.6	8,200	34.3	4,700	45.3	2,300	56.3	1,000						

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COUNTERWEIGHT:
W/AUX. WINCH 8900 LBS.
W/O AUX. WINCH 10,000 LBS.
BOOM LENGTH 30-94 FT.
OUTRIGGER SPREAD 22 FT.

STABILITY PERCENTAGE ON OUTRIGGERS 85% ON TIRES 75% PCSA CLASS 10-156

ON TIRES

	MAX		23.5	R25			21:00 X	25-28PR		
	воом			PICK &	CARRY			PICK &	CARRY	j
RADIUS	LENGTH	STATIO	ONARY	CREEP	2.5 MPH	STATIO	ONARY	CREEP	2.5 MPH	RADIUS
(FT)	(FT)	360°	STRAIG	HT OVER	FRONT	360°	STRAIG	HT OVER	FRONT	(FT)
10	30	30,900	63,700*	46,700*	39,000*	30,500	73,700*	56,000*	47,400*	10
12	30	24,900	55,500	40,600*	33,800*	25,400	64,500*	48,900*	41,200*	12
15	39	19,100	43,100	33,600*	27,800*	18,900	46,800	40,700*	34,100*	15
20	39	12,400	24,600	24,600	20,900*	11,600	24,900	24,900	24,900	20
25	50	8,400	16,400	16,400	16,100	7,600	16,500	16,500	16,500	25
30	50	5,600	12,500	12,500	12,500	5,200	12,600	12,600	12,600	30
35	50	4,300	9,600	9,600	9,600	3,900	9,600	9,600	9,600	35
40	61	3,000	7,500	7,500	7,500	2,800	7,600	7,600	7,600	40
45	61	2,300	6,100	6,100	6,100	2,100	6,200	6,200	6,200	45
50	61	1,600	5,000	5,000	5,000	1,400	5,200	5,200	5,200	50
55	61		4,300	4,300	4,300		4,300	4,300	4,300	55
60	72		3,500	3,500	3,500		3,600	3,600	3,600	60
65	72		2,800	2,800	2,800		2,800	2,800	2,800	65
70	83		2,200	2,200	2,200		2,200	2,200	2,200	70
75	83		1,800	1,800	1,800		1,900	1,900	1,900	75
80	94		1,500	1,500	1,500		1,500	1,500	1,500	80

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 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.

SIDE STOW JIB ON FULLY EXTENDED OUTRIGGERS

	32 FT OFFSETTABLE JIB						49 FT OFFSETTABLE JIB						
	0° OFFSET 15° OFFSET		FSET	30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET			
LOADED BOOM ANGLE (DEG)	LOAD RADIUS (REF) (FT)	360° (LB)	LOADED BOOM ANGLE (DEG)										
75	38	9,100*	46	7,700*	52	5,900*	41	5,100*	55	3,400*	62	2,700*	75
73	42	8,600*	49	7,300*	55	5,800*	47	4,800*	59	3,300*	68	2,700*	73
71	45	8,200*	52	7,000*	58	5,600*	52	4,500*	64	3,200*	73	2,600*	71
68	50	7,800*	58	6,200*	63	5,100*	60	4,100*	70	3,000*	79	2,500*	68
65	56	6,700*	63	5,500*	68	4,600*	66	3,800*	76	2,900*	84	2,500*	65
62	61	5,900*	68	4,900*	73	4,200*	71	3,600*	81	2,800*	88	2,400*	62
59	66	5,200*	73	4,400*	77	3,800*	77	3,400*	86	2,700*	93	2,400*	59
55	73	4,400*	79	3,900*	83	3,400*	84	3,100*	93	2,600*	99	2,300*	55
51	79	3,800*	85	3,400*	88	3,100*	91	2,900*	99	2,500*	105	2,300*	51
47	86	3,300*	91	3,000*	94	2,800*	100	2,800*	106	2,400*	110	2,200*	47
43	92	2,900*	97	2,700*	99	2,500*	109	2,400*	112	2,200*	116	2,000*	43
38	100	2,400*	103	2,300*	105	2,200*	116	2,100*	119	1,900*	122	1,800*	38
32	106	2,100*	109	2,000*	110	1,900*	122	1,800*	126	1,600*	127	1,500*	32
25	113	1,700*	114	1,700*			129	1,500*	131	1,400*			25
17	118	1,500*	118	1,500*			133	1,300*	135	1,200*			17
0	121	1200*					138	1,000*					0

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.

MAX. PERMISSIBLE HOIST LOAD

LINE PARTS	1	2	3	4	5	6	7	8
MAX. LOAD	9,080	18,160	27,240	36,320	45,400	54,480	65,560	72,640
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
HOOK BLOCK	D	3	3-D	1-4	2-3-D	2-3-4	2-3-4-D	1-2-3-4

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

RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	2 1/2 MPH	TRAVEL
23.5R25-**	94 PSI	94 PSI	94 PSI	76 PSI
21.00 X 25-28 PR	85 PSI	85 PSI	85 PSI	65 PSI

GENERAL NOTES

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 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 REGULA-TIONS, AND SOCIETY OF MECHANICAL ENGINEERS (ASME) SAFETY STANDARDS FOR CRANES.
- 4. This crane and its load ratings are in accordance with POWER CRANE & SHOVELASSOCIATION, 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.
- 4. 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 an 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.
- 4. 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 outriggers 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.
- 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.
- 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.
- 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 <u>not</u> 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.
- 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.

WE RESERVE THE RIGHT TO AMEND THESE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE. THE ONLY WARRANTY APPLICABLE IS OUR STANDARD WRITTEN WARRANTY APPLICABLE TO THE PARTICULAR PRODUCT AND SALE. WE MAKE NO OTHER WARRANTY, EXPRESSED OR IMPLIED.

MITEREX CRANES

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