

 **TEREX CRANES**

TEREX
MODEL NO.
CD218
HYDRAULIC CRANE
18 TON

P.C.S.A. CLASS 12 - 60

LOAD RATINGS

85% OF STD. 85/75 LOAD CHART

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

This book must contain 9 pages.

**DO NOT REMOVE THIS BOOK
FROM THE CRANE**

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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	65,560
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 PERFORMED RIGHT
REGULAR LAY MINIMUM BREAKING STRENGTH - 17.9 TONS

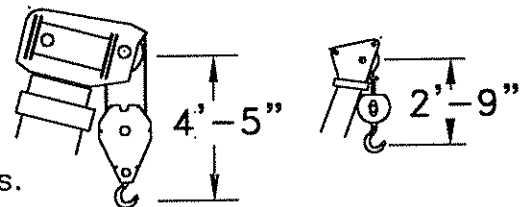
TIRE INFLATION CHART

RECOMMENDED TIRE PRESSURE				
TIRE SIZE	STATIONARY	CREEP	2 1/2 MPH	TRAVEL
20:50 X 25-24 PR	95 PSI	95 PSI	70 PSI	70 PSI

HOOK BLOCK WEIGHTS

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.

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



MACHINE EQUIPMENT

1. COUNTERWEIGHT :
 W/AUX. WINCH6100 Lbs.
 W/O AUX. WINCH.....7200 Lbs
2. OUTRIGGER SPREAD 14ft - 6in. from center of outrigger float to center of outrigger float across the longitudinal axis of the machine.
3. Powered boom length 28.7ft. retracted to 63.4ft. extended.
4. Crane height 11ft.-2in., length 35ft.-8in., width 8ft.-8in., Wheelbase 11ft.-2in..

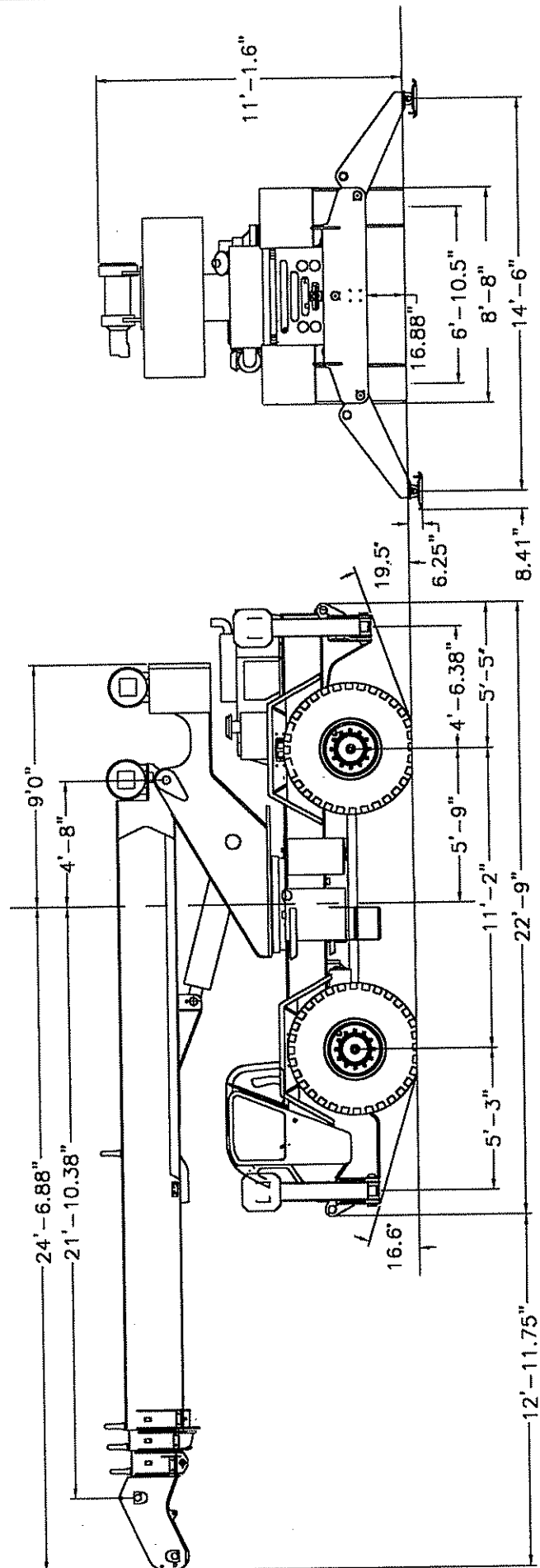
CLAMSHELL, MAGNET, AND CONCRETE BUCKET SERVICE

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 45,000 Lb.

BASIC DIMENSIONS





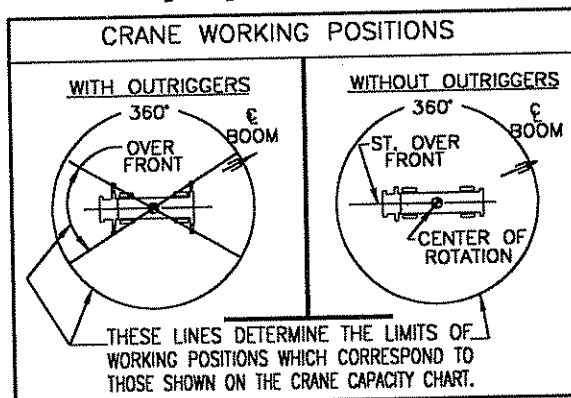
WARNING

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 J-765A, SAE METHOD OF TEST FOR CRANE STRUCTURE J1063 AND APPLICABLE SAFETY CODE FOR CRANES, DERRICKS AND HOIST, 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 the 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 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.

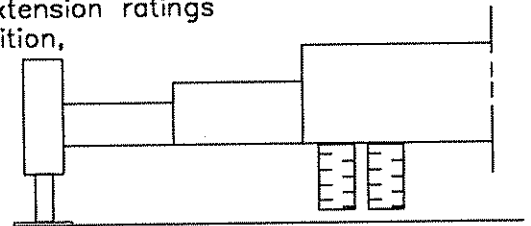




WARNING


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, 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.

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.

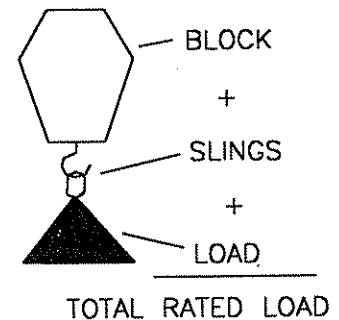


WARNING

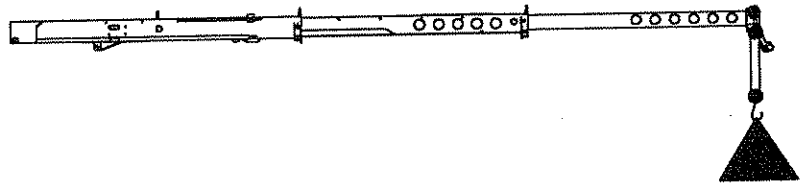
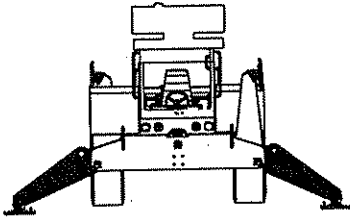
6. Rated loads include the weight of hook block, slings, and auxiliary lifting devices. Their weights shall be subtracted from the listed rated load to obtain the net load that can be lifted.

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.

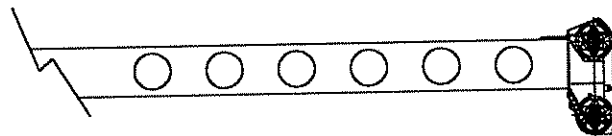
When jibs are erected but unused add two(2) times the weight of any hook block, slings, and auxiliary lifting devices at the jib head to the load.



7. Rated loads do not exceed 85% of 85% on outriggers or 85% of 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 TRUCKS 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 FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	OVER FRONT (LB)	360° (LB)
BOOM LENGTH 28.73 FT				BOOM LENGTH 36.40 FT				BOOM LENGTH 45.40 FT			
10.0	59.5	36000*	36000*	10.0	66.4	36000*	36000*	10.0	71.3	36000*	36000*
12.0	54.7	36000*	36000*	12.0	62.9	35105*	35105*	12.0	68.6	33150*	33150*
14.0	49.6	33830*	32555*	14.0	59.3	32130*	32130*	14.0	65.8	30175*	30175*
16.0	44.2	29155*	28135*	16.0	55.5	29240*	28220*	16.0	63.0	27795*	27795*
18.0	38.1	25500*	23205	18.0	51.6	25585*	23375	18.0	60.2	25670*	23460
20.0	31.0	22610*	19125	20.0	47.5	22695*	19295	20.0	57.2	22780*	19380
22.0	22.0	20230*	16150	22.0	43.0	20315*	16320	22.0	54.1	20400*	16405
24.0	3.9	18190*	13855	24.0	38.2	18360*	14110	24.0	51.0	18445*	14195
24.1	.0	18105*	13685	26.0	32.7	16745*	12325	26.0	47.6	16830*	12410
				28.0	26.3	15300*	10795	28.0	44.1	15385*	10965
				30.0	17.9	14025*	9605	30.0	40.3	14110*	9775
				31.7	.0	13005*	8670	32.0	36.2	13005*	8755
BOOM LENGTH 54.40 FT				BOOM LENGTH 63.40 FT				34.0	31.7	12070*	7905
12.0	72.2	31790*	31790*	14.0	73.0	27795*	27795*	36.0	26.5	11220*	7140
14.0	70.0	28815*	28815*	16.0	71.1	25415*	25415*	38.0	20.1	10455*	6545
16.0	67.8	26435*	26435*	18.0	69.1	23460*	23460*	40.0	10.4	9775*	5950
18.0	65.5	24480*	23545	20.0	67.2	21845*	19550	40.7	.0	9520*	5780
20.0	63.1	22780*	19465	22.0	65.2	20485*	16575				
22.0	60.7	20485*	16490	24.0	63.2	18530*	14280				
24.0	58.3	18530*	14195	26.0	61.1	16915*	12495				
26.0	55.8	16830*	12410	28.0	59.1	15470*	11050				
28.0	53.2	15385*	11050	30.0	56.9	14195*	9860				
30.0	50.5	14195*	9860	32.0	54.7	13090*	8840				
32.0	47.7	13090*	8840	34.0	52.5	12155*	7990				
34.0	44.8	12155*	7990	36.0	50.2	11305*	7310				
36.0	41.7	11305*	7225	38.0	47.8	10540*	6630				
38.0	38.4	10540*	6630	40.0	45.3	9860*	6120				
40.0	34.9	9860*	6035	42.0	42.7	9265*	5610				
42.0	31.0	9265*	5525	44.0	39.9	8670*	5185				
44.0	26.6	8670*	5100	46.0	37.0	8160*	4760				
46.0	21.4	8160*	4675	48.0	33.9	7735*	4420				
48.0	14.6	7650*	4335	50.0	30.5	7310*	4080				
49.7	.0	7225*	4080	52.0	26.7	6800	3825				
				54.0	22.4	6375	3485				
				56.0	17.0	6035	3230				
				58.0	8.8	5610	3060				
				58.7	.0	5440	2890				



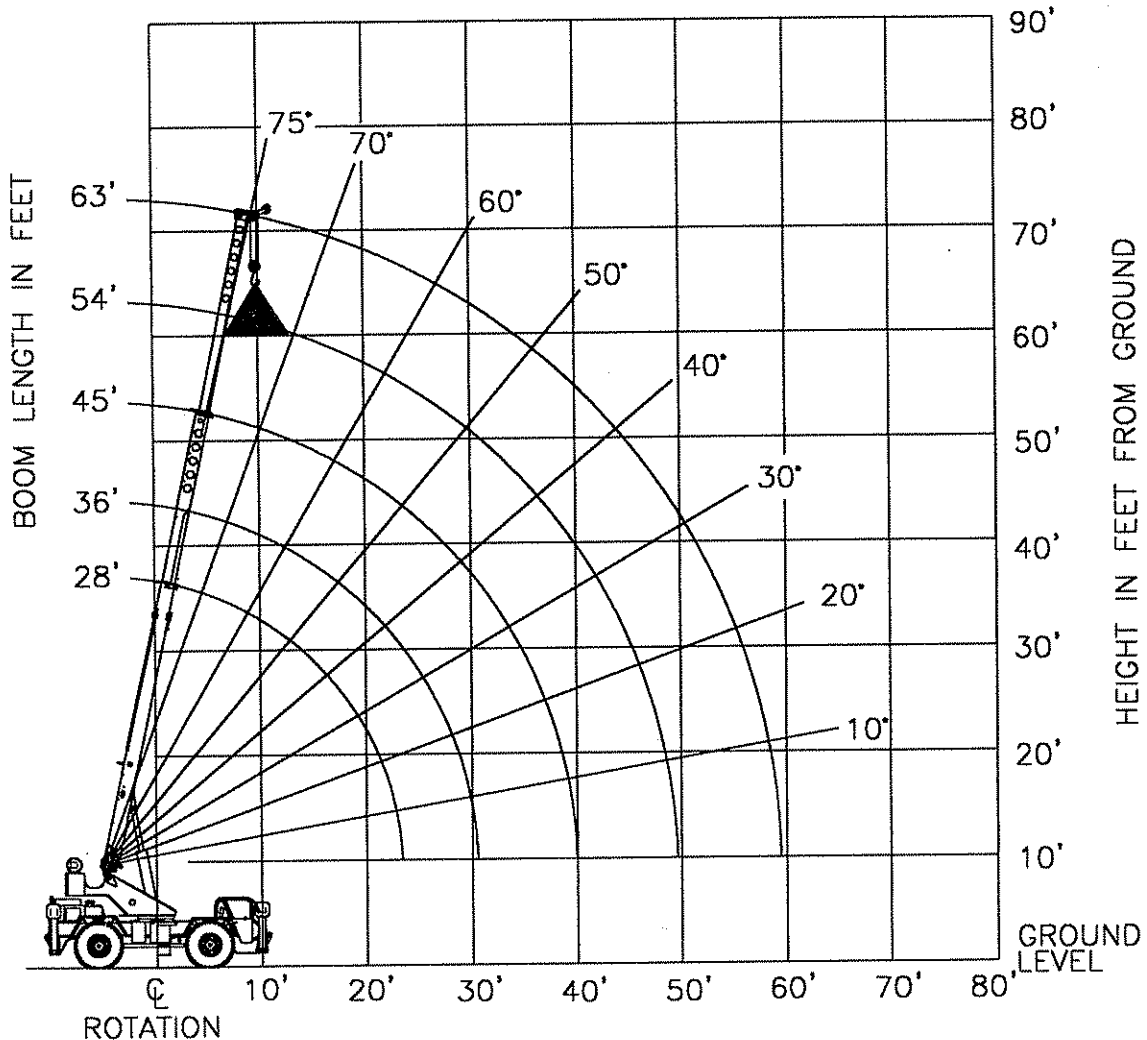
SET-UP:

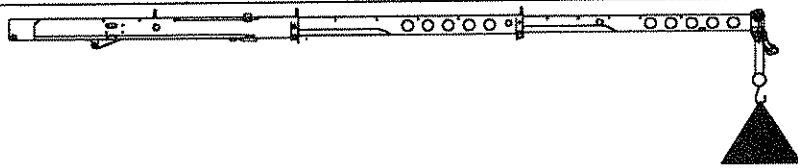
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OPERATION:

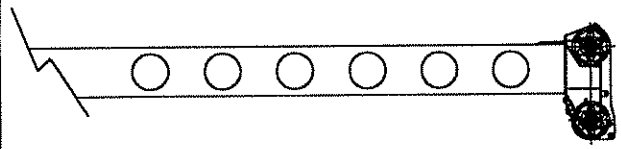
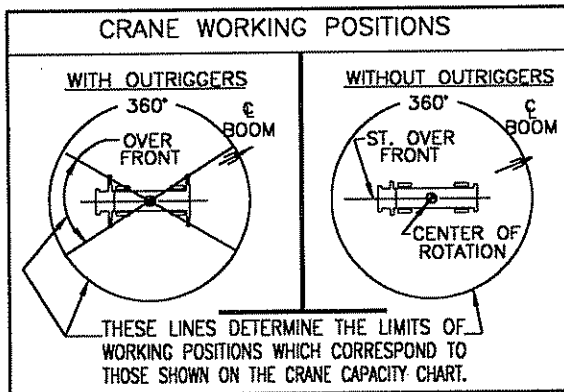
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5. Power telescoping boom sections must be extended equally.

BOOM DEFLECTIONS NOT SHOWN





ON TIRES					
RADIUS (FT)	MAX BOOM LENGTH (FT)	20.5 X 25-24PR			
		STATIONARY		PICK & CARRY	
				CREEP	2.5 MPH
		360°	STRAIGHT OVER FRONT		
10	34	20145	36000	30940*	21165*
12	34	14365	27625	26945*	18360*
14	34	10965	21165	21165	16150*
16	43	8295	16475	16475	14365*
18	43	7480	13855	13855	12835*
20	43	6290	11730	11730	11560*
22	43	5185	10200	10200	10200
24	43	4420	8925	8925	8925
26	54	3825	7820	7820	7820
28	54	3400	6885	6885	6885
30	54	2890	6035	6035	6035
32	54	2550	5440	5440	5440
34	54	2210	4930	4930	4930
36	63	1955	4420	4420	4420
38	63	1700	3995	3995	3995
40	63	1445	3655	3655	3655
42	63	1275	3400	3400	3400
44	63	1105	3060	3060	3060
46	63	935	2805	2805	2805
48	63	850	2550	2550	2550
50	63	765	2380	2380	2380
52	63		2125	2125	2125
54	63		1955	1955	1955
56	63		1785	1785	1785
58	63		1615	1615	1615




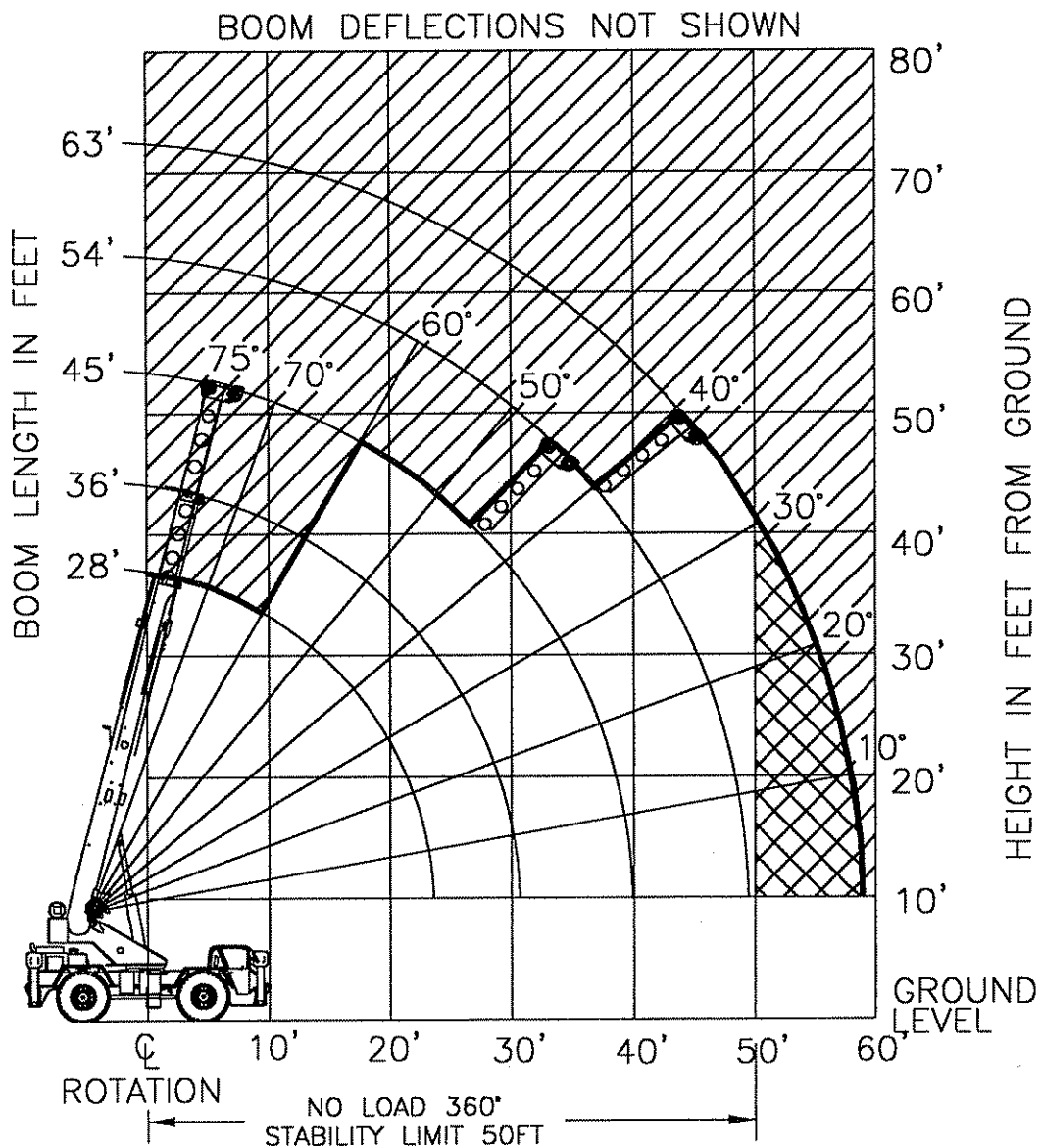
SET-UP:

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 conditions. 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. Part No. 12262-1266

4. For pick and carry operations, boom must be centered over the front of the crane with swing and brake 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).



**Built in
Waverly, Iowa
U.S.A.**

 **TEREX CRANES**
Waverly, Iowa 50677