

STERLING CRANE

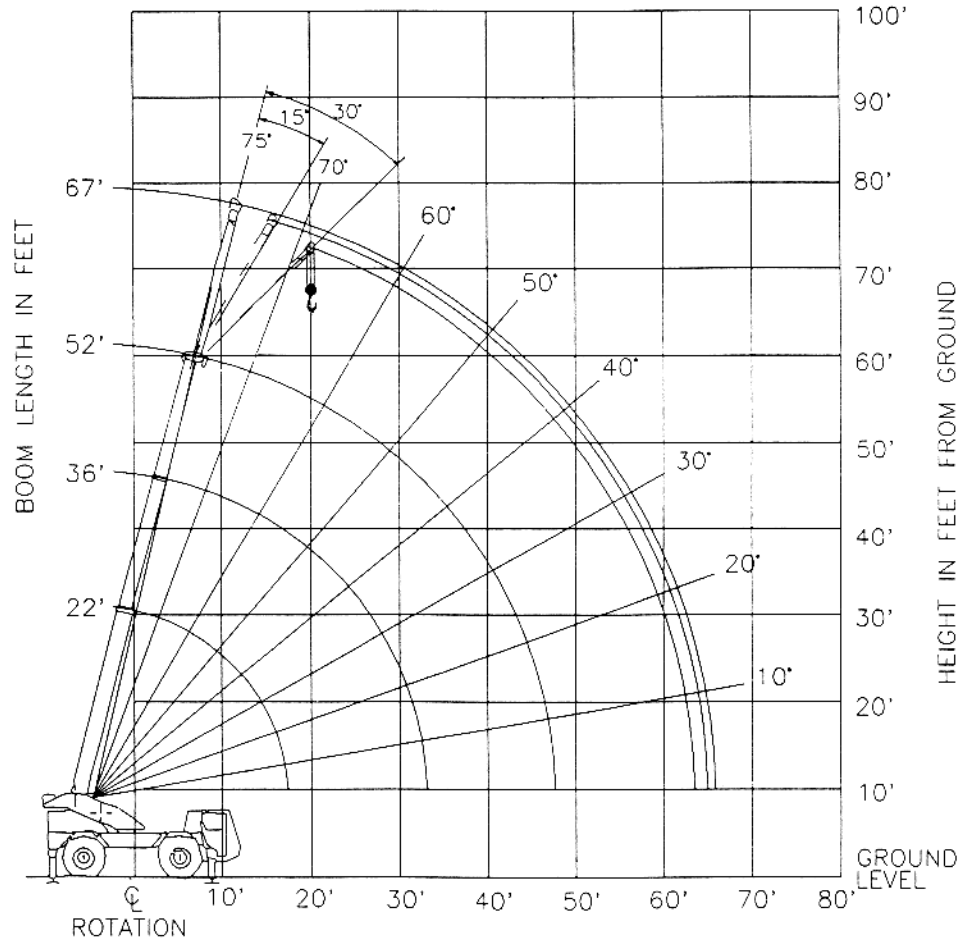


LIFTING CHARTS - Rough Terrain Cranes

TEREX MODEL CD118 - 18 TON CAPACITY

Range Diagram (22'-52' boom)

BOOM DEFLECTIONS NOT SHOWN

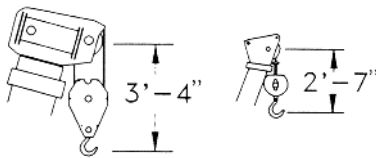


REDUCTION IN MAIN BOOM CAPACITY

All Jibs in Stowed Position	0 Lbs.
15' Jib Erected	500 Lbs.

HOOK BLOCK WEIGHTS

Hook & Ball	121 Lbs.
Hook Block (2 Sheave)	325 Lbs.
Hook Block (3 Sheave)	350 Lbs.

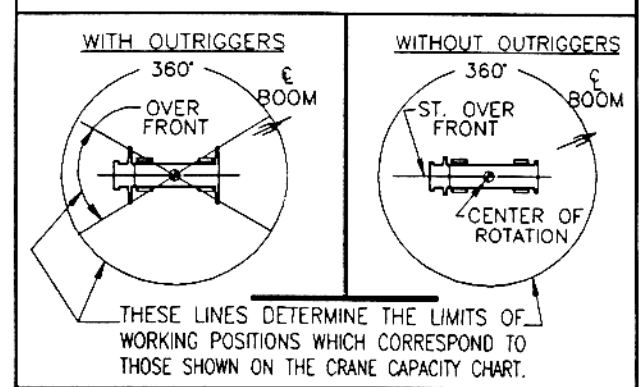


Dimensions are for largest factory furnished hook, block and hook & ball, with anti-two block activated.

CD 118 TURNING CIRCLES

	2-Wheel Steer	4-Wheel Steer
Turning Radius	22' 4"	14' 10.5"
Curb Clearance Circle (Over 15.00 x 22.5 Tires)	45' 11.5"	31' 0.5"
Machine Clearance Circle (Over Boom Head)	49' 0"	34' 2"
(Over Stowed Jib)	50' 7"	35' 9"

CRANE WORKING POSITIONS



STERLING CRANE

Lifting Capacities – Pounds (22'-52' boom)

COUNTERWEIGHT 5,000 LBS. STABILITY PERCENTAGE
 BOOM LENGTH 22-52 FT. ON OUTRIGGERS 85%
 OUTRIGGER SPREAD 12 FT 4.9 IN ON TIRE 75%
 PCSA CLASS 5-33



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

LOAD RADIUS (FT)	BOOM LENGTH 22 FT			BOOM LENGTH 36 FT			BOOM LENGTH 52 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)	
5	75.0	36,000*	36,000*							5
6	64.5	30,000*	30,000*							6
8	58.4	28,400*	28,400*	71.3	26,500*	26,500*				8
10	51.9	23,100*	22,400*	67.9	23,200*	22,900*				10
12	44.6	18,800*	18,300*	64.4	19,200*	18,700*				12
15	31.0	14,500*	14,100*	58.8	14,900*	14,500*	69.0	15,000*	14,700*	15
18	**			52.9	12,000*	11,700*	65.4	12,100*	11,800*	18
20				48.7	10,500*	10,200*	62.9	10,700*	10,400*	20
25				36.4	7,900*	7,400*	56.4	8,000*	7,600*	25
30				17.5	6,100*	5,400*	49.4	6,300*	5,600*	30
35							41.4	5,000*	4,200*	35
40							31.8	3,900*	3,300*	40
45							17.9	3,100*	2,600*	45
50							**			50

**MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

BOOM LENGTH 22 FT			BOOM LENGTH 36 FT			BOOM LENGTH 52 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)
17.5	8,500*	8,500*	31.3	4,500*	4,500*	47.1	2,500*	2,300*

ON TIRES

RADIUS (FT)	MAX BOOM LENGTH (FT)	15:00 X 22.5 - 16PR				RADIUS (FT)
		STATIONARY		PICK & CARRY		
		360°	STRAIGHT OVER FRONT	CREEP	2.5 MPH	
6	22	15,500*				6
8	22	13,300*				8
10	22	10,300*	15,500*	12,300*	10,100*	10
12	36	8,300*	13,300*	10,500*	8,600*	12
15	36	6,300*	9,900*	8,500*	6,900*	15
18	52	4,900*	7,300*	7,000*	5,600*	18
20	52	4,000*	6,200*	6,200*	5,000*	20
25	52	2,700*	4,300*	4,300*	3,800*	25
30	52	2,000*	3,100*	3,100*	2,900*	30
35	52	1,400*	2,400*	2,400*	2,300*	35
40	52	1,000*	1,800*	1,800*	1,800*	40
45	52	700*	1,400*	1,400*	1,400*	45

Notes For On Tires Capacities:

- A. For Pick and Carry Operations, boom must be centered over the front of the machine.
- B. The load should be restrained from swinging.
- C. Creep Speed is crane movement of less than 200 ft. (61 m) in a 30 minute period and not exceeding 1.0 mph (1.6 km/h).
- D. Refer to General Notes for additional information.
- E. Without outriggers, never maneuver the boom beyond listed load radii for applicable tires used to ensure stability.

Notes For Jib Capacities:

- F. 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.
- G. For boom angles not shown, use the capacity of the next lower boom angle.
- H. Listed radii are for fully extended main boom only.

RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	2 1/2 MPH	TRAVEL
15:00 x 22.5 - 16PR	110 PSI	110 PSI	110 PSI	90 PSI

SIDE STOW JIB ON OUTRIGGERS

LOADED BOOM ANGLE (DEG)	15 FT OFFSETTABLE JIB						LOADED BOOM ANGLE (DEG)
	0° OFFSET		15° OFFSET		30° OFFSET		
	LOAD RADIUS (REF) (FT)	360° (LB)	LOAD RADIUS (REF) (FT)	360° (LB)	LOAD RADIUS (REF) (FT)	360° (LB)	
75	16'-2"	5,500*	18'-4"	4,100*	21'-1"	3,400*	75
73	18'-9"	5,500*	21'-1"	4,000*	23'-8"	3,400*	73
71	21'-2"	5,400*	23'-9"	3,800*	26'-1"	3,200*	71
68	24'-8"	5,400*	27'-5"	3,600*	29'-7"	3,100*	68
65	27'-11"	5,000*	30'-10"	3,500*	32'-10"	3,000*	65
62	31'-1"	4,700*	34'-0"	3,300*	35'-11"	2,900*	62
59	34'-1"	4,400*	37'-0"	3,200*	38'-9"	2,800*	59
55	37'-10"	4,000*	40'-4"	3,100*	41'-10"	2,700*	55
51	41'-5"	3,500*	43'-5"	3,100*	44'-10"	2,600*	51
47	44'-6"	3,000*	46'-5"	2,900*	47'-10"	2,600*	47
43	47'-5"	2,700*	49'-1"	2,600*	50'-5"	2,500*	43
38	51'-0"	2,300*	52'-3"	2,200*	53'-5"	2,200*	38
32	54'-4"	2,000*	56'-0"	1,900*	56'-4"	1,900*	32
25	57'-8"	1,800*	59'-0"	1,700*			25
17	61'-1"	1,500*	61'-3"	1,500*			17
0	63'-3"	1,400*					0

MAXIMUM PERMISSIBLE HOIST LINE LOAD

LINE PARTS	1	2	3	4	5	8
6X19 OR 6X37 ROPE	6,000	12,000	18,000	24,000	30,000	36,000
ROTATION RESISTANT ROPE	5,800	11,800	17,400	23,200	29,000	34,800
BOOM HEAD	1	1-D	1-2	1-2-D	1-2-3	1-2-3-D
HOOK BLOCK	D	1	1-D	1-2	1-2-D	1-2-3
WIRE ROPE: 1/2" ROTATION RESISTANT COMPACTED STRAND, 18X19 OR 19 X 19 MINIMUM BREAKING STRENGTH - 14.6 TONS						
1/2" 6X19 OR 6X37 IWRC IPS PREFORMED RIGHT REGULAR LAY MINIMUM BREAKING STRENGTH - 11.5 TONS						

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 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.

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).
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 at all times.
13. FOR TRUCK 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.