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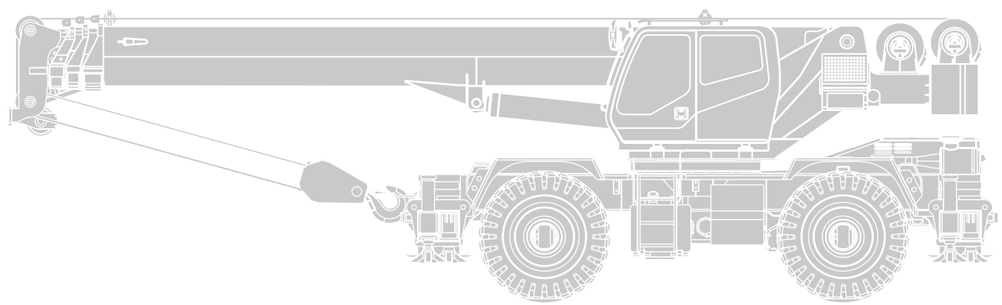
LOAD CHART MANUAL FOR RT75 ROUGH TERRAIN CRANE



ZOOMLION HEAVY INDUSTRY SCIENCE AND TECHNOLOGY CO.,LTD

Address:Quantang Indust=rial Park, 2nd Yuanda Road,
Changsha Economic and Technological Development
Zone, Hunan Province, China
Postcode: 410131
Website: www.zoomlion.com

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RT75 ROUGH TERRAIN CRANE

LOAD RATINGS

(0075611-002)

Edition 1
Dec..2013

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To owners, users and operators

Zoomlion Cranes appreciates your selection of the ZOOMLION Rough Terrain Crane for your application.

No one should operate the crane unless they read and understand the information in this manual.

When you follow the instructions in this manual, your crane can operate at MAXIMUM EFFICIENCY.

The operator must keep this manual in the cab of the crane.

If there is anything in the manual that you do not understand, speak with us. We (Zoomlion Cranes) are NOT responsible for damages from an operator who does not obey the instructions in the *OPERATOR'S MANUAL*.

The OPERATOR'S MANUAL is an important part of the crane. If the crane becomes the property of a different person, make sure that the manual stays in the cab of the crane.

THANK YOU!

Mobile Crane Branch Company of ZOOMLION Heavy Industry Science and Technology Co., Ltd.

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Safety

Hazard Indicators

DANGER, WARNING, CAUTION, ATTENTION, NOTE, and IMPORTANT labels are on signs and decals, and as you read this manual to show important instructions. In this manual, DANGER, WARNING, and CAUTION labels are before the paragraph or item to which they apply. ATTENTION, NOTE, and IMPORTANT follow the paragraph or item they apply to. The markers are as follows:

⚠ Danger

Refers to a dangerous situation which, if you do not prevent, will cause death or injury.

⚠ Warning

Refers to a possible dangerous situation which, if you do not prevent, could cause death or injury.

⚠ Caution

Refers to a possible dangerous situation which, if you do not prevent, may cause light or moderate injury.

Attention

Refers to a situation which, if you do not prevent, may cause property or equipment damage.

Note

Refers to a tip or hint in the operation instructions.

⚠ Important

Emphasizes the importance of the data in this manual.

This symbol shows a step or procedure that is not approved and can cause a dangerous situation.

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LOAD RATINGS FOR ROUGH TERRAIN CRANE

Chapter 1 Informational data

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1.1 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.

Table 01 – 1 Line Parts

MAXIMUM PERMISSIBLE HOIST LINE LOAD										
LINE PARTS	1	2	3	4	5	6	7	8	9	10
MAXIMUM PERMISSIBLE HOIST LINE LOAD (kg)	7500	15000	22500	30000	37500	45000	52500	60000	67500	75000
MAXIMUM PERMISSIBLE HOIST LINE LOAD (lbs)	16535	33069	49604	66139	82673	99208	115743	132277	148812	165347

Wire rope: 22NAT35(W)*K7+IWRC2160 （ 7/8″ROTATION RESISTANT 35(W)*K7 COMPACTED STRAND, GRADE 2160）

Weight: 200kg/100m(1.4LBS/FT) Minimum breaking strength: 42.3 T (41.2TONS)

1.2 TIRE INFLATION CHART

Table 01 – 2 Tire Inflation Chart

RECOMMENDED tire PRESSURE			
TIRE SIZE	**TIRE SIZE**	**TIRE SIZE**	**TIRE SIZE**
29.5×25-34PR	525kpa（77 PSI）	525kpa（77 PSI）	525kpa（77 PSI）

1.3 WEIGHTS

Table 01 – 3 Weights

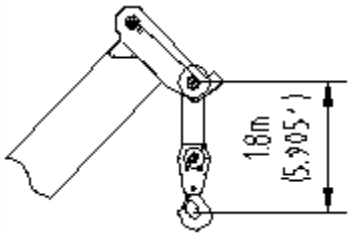
HOOK BLOCK WEIGHTS

Hook weight
Main hook weight: 650kg（1433 lbs）
Auxiliary hook weight: 135kg（298lbs）

MACHINE EQUIPMENT

1. COUNTERWEIGHT: 7500 kg（16535lbs）
2. OUTRIGGER SPREAD: 7.38 m（24.2 ft） from center of outrigger float to center of outrigger float across the longitudinal axis of the machine; 7.3 m（24.0 ft） from center of outrigger float to center of outrigger float across the transversal

DIMENSIONS ARE FOR MAIN HOOK AND AUXILIARY HOOKS



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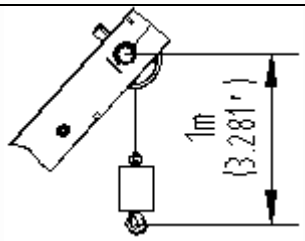
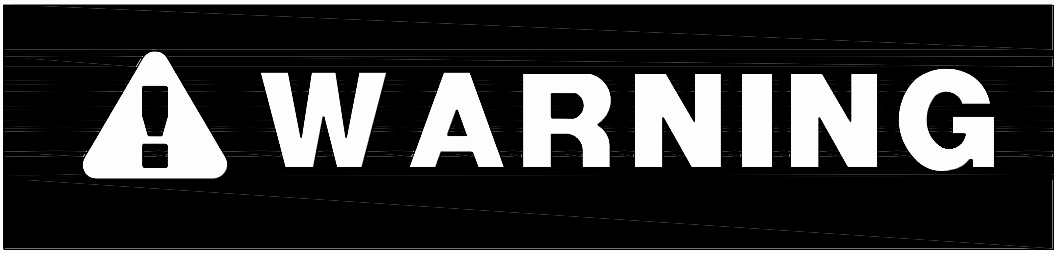
axis of the machine 3. Powered boom length 12.5 m （41.0 ft）retracted to 38.5 m （126.3 ft） extended 4. Crane height 3.8 m（12.5 ft）, length 14.9 m（48.9 ft）, width 3.4 m（11.2 ft）, wheelbase 4.15 m（13.6 ft）	

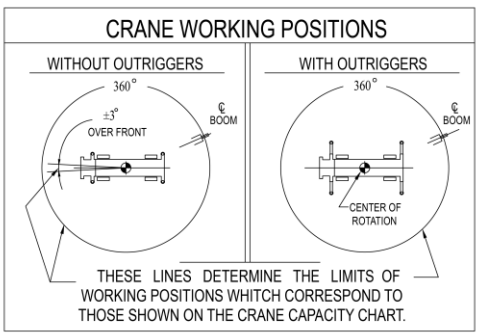


1.4 GENERAL

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 Manual* 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 fully understand the *Operator's Manual* for the crane.
4. This crane and its load ratings are in accordance with ASME/ANSI B30.5.

1.5 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. LOAD 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. EXTRA-CAUTION ZONE – Tipping can occur with some boom/jib combinations at

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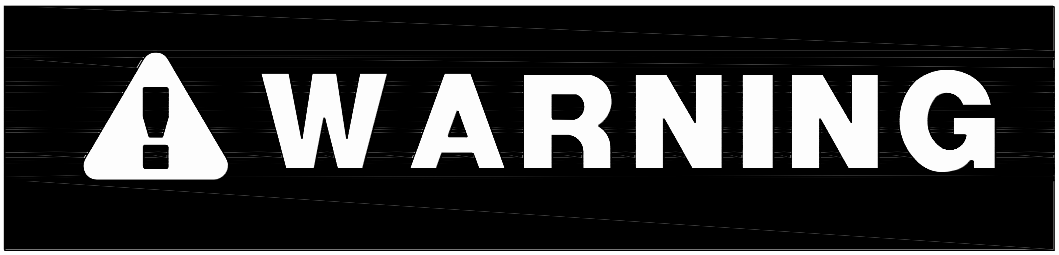
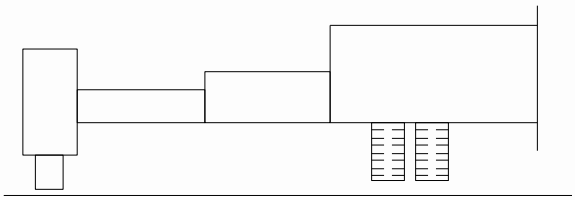
radii within this area without any load on the hook.

7. BOOM SIDE OF CRANE – The side of the crane over which the boom is positioned when in an OVER SIDE working position.



1.6 SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm and uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended / retracted, or in the case of partial extension ratings mechanically pinned in the appropriate position, and the tires raised 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. Consult appropriate section of the *Operator's Manual* for more exact description of hoist line reeving.
5. 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.
6. Properly maintained wire rope is essential for safe crane operation. Consult *Operator's Manual* for proper maintenance and inspection requirements.
7. 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.

1.7 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 Lift 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 Lift Charts 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

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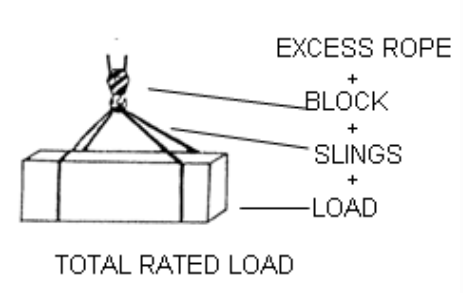
boom angle is insufficient to maintain rated radius.

5. All telescopic sections must be extended synchronically.

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.



7. When lifting over the jib, the weight of any hood block, slings, and auxiliary lifting devices at the boom head must be added to the load.

8. Rated lifting capacities are based on correct reeving. Deductions must be made for excessive reeving. Any reeving over the minimum required, (see Hoist Tackle Chart), is considered excessive and must be accounted for. Deduct for each meter of excessive wire rope before attempting to lift a load.

9. When jibs are erected but unused, add three (3) times the weight of jib, any hook block, slings, and auxiliary lifting devices at the jib head to the load (jib weight: 952 kg (2099 lbs)).

10. Rated loads do not exceed 85% on outriggers or 75% on tires, of the tipping load as determined by ASME/ANSI B30.5.

11. Rated loads are based on freely suspended loads. No attempt shall be made to drag a load horizontally on the ground in any direction.

12. 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 off loads, hazardous conditions, experience of personnel, two-machine lifts, traveling with loads, electric wires, etc, (side pull on boom or jib is hazardous). If wind speed is higher than the maximum permissible value (45 ft/s (13.8 m/s), grade 6) or it is fulminous during crane operation, stop working and completely retract the boom and place it on the boom support for traveling.

13. Load ratings are dependent upon the crane being maintained according to manufacturer's specifications.

14. It is recommended that load handling devices, including hooks, and hook blocks, be kept away from boom head at all times.

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LOAD RATINGS FOR ROUGH TERRAIN CRANE

Chapter 2 Lifts with outrigger beams fully extended

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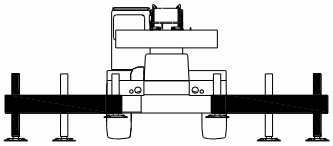
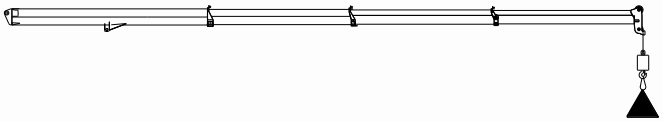
2.1 MAIN BOOM RATED LOADS

USE THIS CHART ONLY WHEN ALL OUTRIGGERS ARE FULLY EXTENDED





Rated loads on outriggers fully extended - 360° (Rated load unit: Kg)									
Working Radius (mm)	Boom Length (mm)								Working Radius (mm)
	12500	16214	19929	23643	27357	31071	34786	38500	
3000	75000	44860							3000
3500	75000	44860							3500
4000	68400	44860							4000
4500	61650	44860	34450						4500
5000	55950	44860	32950						5000
5500	51100	43550	31590	24700					5500
6000	46900	42050	30340	23750					6000
6500	43200	40650	29200	22850	19500				6500
7000	39990	39400	28150	22050	18850				7000
7500	35420	36350	27200	21300	18200	15740			7500
8000	30780	31650	26300	20600	17600	15240			8000
9000	24120	24890	24650	19350	16550	14350	12300		9000
10000	19590	20260	20550	18250	15590	13600	11700	10600	10000
11000		16900	17170	17250	14800	12850	11150	10150	11000
12000		14360	14610	14860	14050	12250	10600	9700	12000
14000		10800	10990	11210	11270	11150	9750	8450	14000
16000			8570	8750	8810	8970	8980	7400	16000
18000				7000	7050	7190	7200	6550	18000
20000				5700	5730	5850	5860	5850	20000
22000					4720	4820	4830	4920	22000
24000					3940	4000	4010	4090	24000
26000						3340	3330	3410	26000
28000						2810	2780	2840	28000
30000							2330	2370	30000
32000							1970	1970	32000
34000								1630	34000
36000								1370	36000

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Rated loads on outriggers fully extended - 360° (Rated load unit: lb)									
Working Radius (ft)	Boom Length (ft)								Working Radius (ft)
	41	53.2	65.4	77.6	89.8	101.9	114.1	126.3	
10	165000	98900							10
12	162250	98900							12
15	133760	98900	75350	58740					15
20	101510	91960	66330	51810	44220				20
25	75240	77250	59290	46530	39710	34320	29150		25
30	51400	53060	53740	42240	36080	31350	26840	24310	30
35		39400	40020	38720	33110	28820	24860	22660	35
40		30660	31220	31770	30580	26730	23210	21230	40
45		24660	25120	25610	25750	24860	21670	18920	45
50			20660	21090	21220	21580	20350	17050	50
55			17300	17640	17760	18100	18120	15510	55
60				14940	15040	15350	15370	14190	60
65				12780	12850	13130	13150	12980	65
70				11100	11060	11300	11330	11540	70
75					9590	9780	9800	10000	75
80					8390	8500	8510	8690	80
85						7410	7400	7560	85
90						6490	6450	6590	90
95							5630	5740	95
100							4920	4990	100
105							4340	4340	105
110								3760	110
115								3270	115

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SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm and uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended / retracted, or in the case of partial extension ratings mechanically pinned in the appropriated position, and the tyres raised free of the supporting surface.

OPERATION

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. NO 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. EXTRA-CAUTION ZONE – Tipping can occur with some boom/jib combinations at radii within this area without any load on the hook.
4. The boom angles shown on the Lift Charts give an approximation of the operation 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. 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. Rated lift ratings are based on correct reeving. Deductions must be made for excessive reeving. Any reeving over the minimum is considered excessive. Deduct for each foot of excessive wire rope before attempting to lift a load. See HOIST TACKLE CHART for rope information.
6. All telescopic sections must be extended synchronically.

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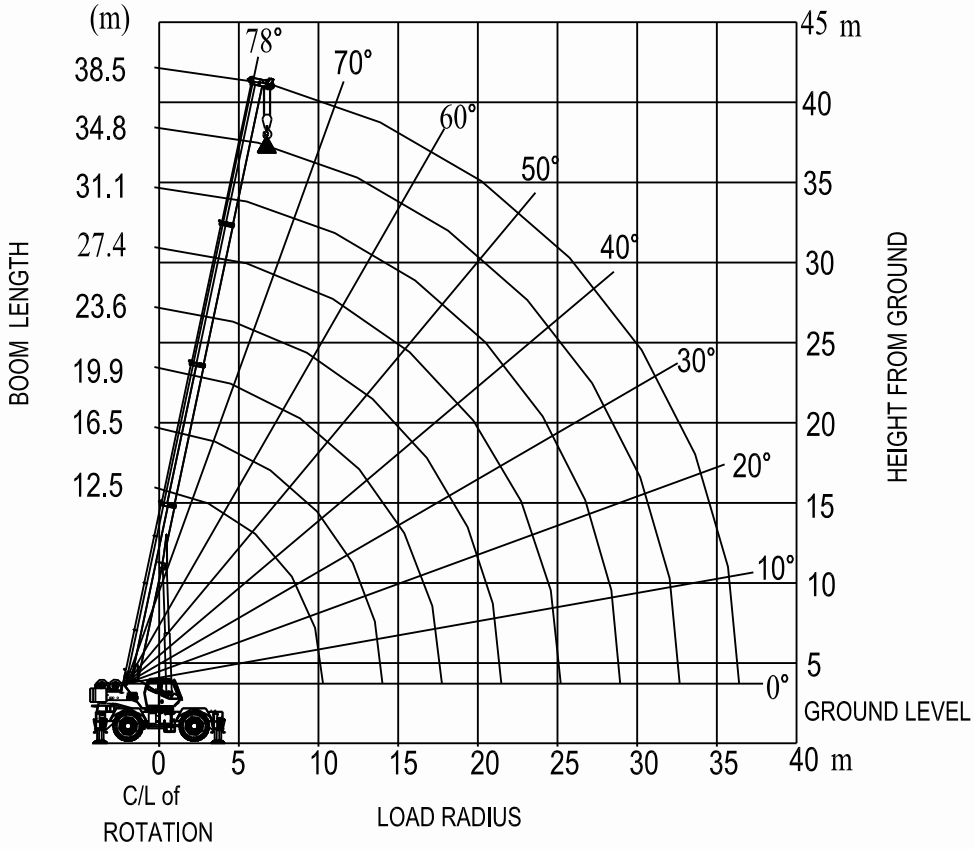
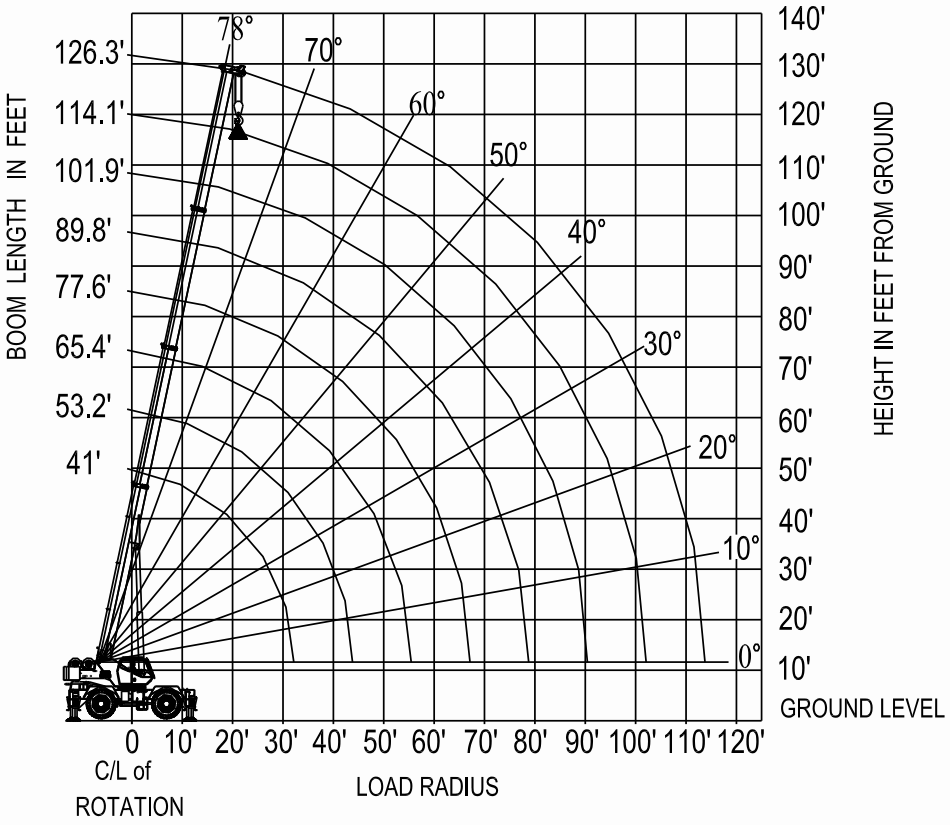
Lifts with outrigger beams fully extended

BOOM DEFLECTIONS NOT SHOWN



BOOM DEFLECTIONS NOT SHOWN



Lift Height on Outriggers Fully Extended

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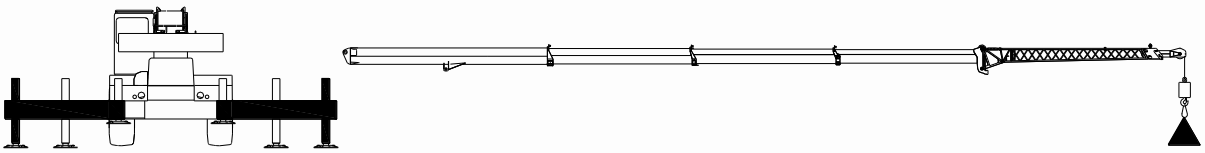
2.2 10 M (33 ft)JIB RATED LOADS

USE THIS CHART ONLY WHEN ALL OUTRIGGERS ARE FULLY EXTENDED

USE THIS CHART ONLY WHEN JIB SECTION 2 IS NOT PULLED OUT FROM JIB SECTION 1



10 m jib rated loads - 360° (Rated load unit: kg Working radius unit: mm)						
Boom Angle (°)	0° Offset		20° Offset		40° Offset	
	Working Radius (mm)	360° (kg)	Working Radius (mm)	360° (kg)	Working Radius (mm)	360°(kg)
76	9634	6000	12459	3050	14684	1990
74	11269	5800	14049	2850	16197	1890
72	12888	5600	15619	2700	17689	1850
70	14489	5050	17168	2550	19156	1800
68	16070	4500	18693	2450	20597	1750
66	17628	3990	20192	2350	22010	1700
64	19163	3600	21665	2250	23394	1650
62	20671	3250	23108	2150	24747	1650
60	22152	2950	24521	2050	26068	1600
58	23603	2700	25902	1990	27354	1600
56	25023	2450	27248	1940	28604	1550
54	26410	2250	28558	1850	29816	1550
52	27762	2100	29832	1800	30990	1500
50	29078	1890	31066	1650	32124	1500
48	30356	1750	32260	1550	33215	1450
46	31594	1630	33412	1450	34264	1350
44	32791	1440	34521	1350	35269	1300
42	33946	1270	35585	1210	36228	1180
40	35057	1120	36603	1070	37140	1040
38	36122	990	37574	940	38004	920

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33 ft jib rated loads - 360˚
(Rated load unit: lb Working radius unit: ft)

Boom Angle (º)	0º Offset		20º Offset		40º Offset	
	Working Radius (ft)	360º (lb)	Working Radius (ft)	360º (lb)	Working Radius (ft)	360º(lb)
76	31	13200	40	6710	48	4400
74	36	12780	46	6270	53	4180
72	42	12320	51	5940	58	4070
70	47	11110	56	5610	62	3960
68	52	9900	61	5390	67	3850
66	57	8800	66	5170	72	3740
64	62	7920	71	4950	76	3630
62	67	7150	75	4730	81	3630
60	72	6490	80	4510	85	3520
58	77	5940	84	4400	89	3520
56	82	5390	89	4290	93	3410
54	86	4950	93	4070	97	3410
52	91	4620	97	3960	101	3300
50	95	4180	101	3630	105	3300
48	99	3850	105	3410	108	3190
46	103	3590	109	3190	112	2970
44	107	3180	113	2970	115	2860
42	111	2810	116	2660	118	2600
40	115	2470	120	2350	121	2300
38	118	2180	123	2080	124	2040

Lifts with outrigger beams fully extended

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SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm and uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended / retracted, or in the case of partial extension ratings mechanically pinned in the appropriate position, and the tyres raised free of the supporting surface.

OPERATION

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. NO 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. EXTRA-CAUTION ZONE – Tipping can occur with some boom/jib combinations at radii within this area without any load on the hook.
4. The boom angles shown on the Lift Charts give an approximation of the operation 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. 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. Rated lift ratings are based on correct reeving. Deductions must be made for excessive reeving. Any reeving over the minimum is considered excessive. Deduct for each foot of excessive wire rope before attempting to lift a load. See HOIST TACKLE CHART for rope information.
6. When lifting over the jib, the weight of any hook block, slings, and any auxiliary lifting devices at the boom head must be added to the load.
7. For all boom lengths less than the maximum with the jib erected, the rated loads are determined by boom angle only in the appropriate column.
8. For all boom lengths less than the listed boom length, the rated load is to be determined by boom angle.

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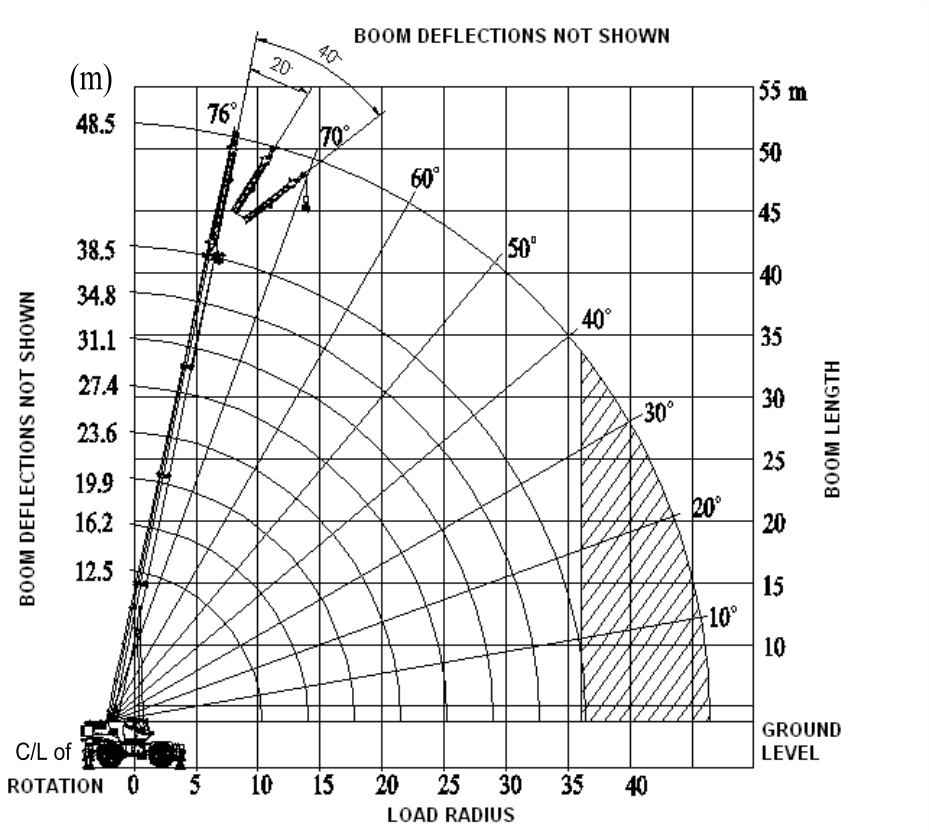
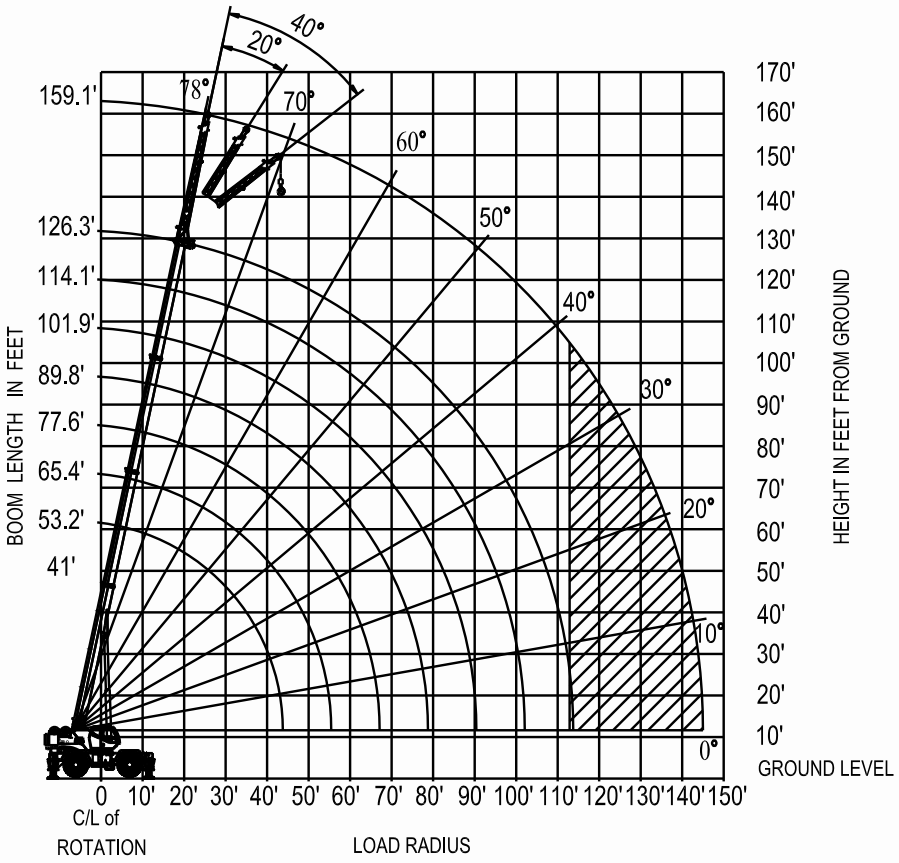


BOOM DEFLECTIONS NOT SHOWN



Lift Height on Jib Section 1 Erected

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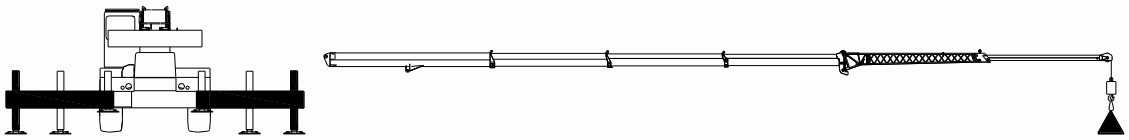
2.3 17 M(56 ft) JIB RATED LOADS

USE THIS CHART ONLY WHEN ALL OUTRIGGERS ARE FULLY EXTENDED

USE THIS CHART WHEN JIB SECTION 2 IS PULLED OUT FROM JIB SECTION 1



17 m jib rated loads - 360° (Rated load unit: kg Working radius unit: mm)						
Boom Angle (°)	0° Offset		20° Offset		40° Offset	
	Working Radius (mm)	360° (kg)	Working Radius (mm)	360° (kg)	Working Radius (mm)	360° (kg)
76	11327	3500	16372	1650	20345	1050
74	13198	3350	18162	1550	21999	990
72	15051	3000	19927	1450	23623	990
70	16883	2700	21666	1400	25216	940
68	18691	2450	23375	1300	26775	900
66	20475	2250	25053	1250	28300	900
64	22230	2100	26699	1200	29787	850
62	23956	1940	28309	1150	31235	850
60	25651	1800	29882	1100	32643	800
58	27311	1700	31416	1050	34009	800
56	28936	1550	32909	990	35330	800
54	30523	1500	34360	940	36606	750
52	32070	1400	35766	940	37835	750
50	33576	1250	37126	900	39015	750
48	35038	1150	38438	850	40145	750
46	36455	1050	39701	850	41224	700
44	37825	940	40913	800	42249	700
42	39146	900	42073	750	43221	650
40	40417	800	43179	650	44138	650
38	41636	750	44229	600	44998	600

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56 ft jib rated loads - 360° (Rated load unit: lb Working radius unit: ft)						
Boom Angle (°)	0° Offset		20° Offset		40° Offset	
	Working Radius (ft)	360° (lb)	Working Radius (ft)	360° (lb)	Working Radius (ft)	360° (lb)
76	37	7710	53	3630	66	2310
74	43	7370	59	3410	72	2200
72	49	6600	65	3190	77	2200
70	55	5940	71	3080	82	2090
68	61	5390	76	2860	87	1980
66	67	4950	82	2750	92	1980
64	72	4620	87	2640	97	1870
62	78	4290	92	2530	102	1870
60	84	3960	98	2420	107	1760
58	89	3740	103	2310	111	1760
56	94	3410	107	2200	115	1760
54	100	3300	112	2090	120	1650
52	105	3080	117	2090	124	1650
50	110	2750	121	1980	128	1650
48	114	2530	126	1870	131	1650
46	119	2310	130	1870	135	1540
44	124	2090	134	1760	138	1540
42	128	1980	138	1650	141	1430
40	132	1760	141	1430	144	1430
38	136	1650	145	1320	147	1320

SET-UP

a) Crane load ratings are based on the crane being leveled and standing on a firm and uniform supporting surface.

b) Crane load ratings on outriggers are based on all outriggers beams being fully extended / retracted, or in the case of partial extension ratings mechanically pinned in the appropriate position, and the tyres raised free of the supporting surface.

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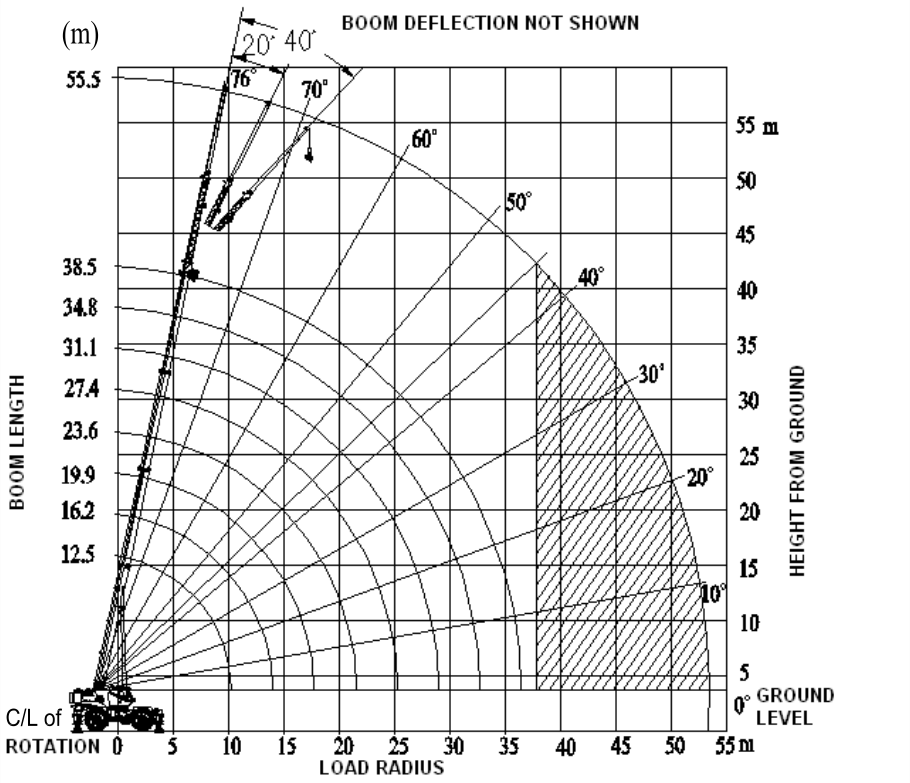
OPERATION

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. NO 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. EXTRA-CAUTION ZONE – Tipping can occur with some boom/jib combinations at radii within this area without any load on the hook.
4. The boom angles shown on the Lift Chart give an approximation of the operation 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. 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. Rated lift ratings are based on correct reeving. Deductions must be made for excessive reeving. Any reeving over the minimum is considered excessive. Deduct for each foot of excessive wire rope before attempting to lift a load. See HOIST TACKLE CHART for rope information.
6. When lifting over the jib, the weight of any hook block, slings, and any auxiliary lifting devices at the boom head must be added to the load.
7. For all boom lengths less than the maximum with the jib erected, the rated loads are determined by boom angle only in the appropriate column.
8. For all boom lengths less than the listed boom length, the rated load is to be determined by boom angle.



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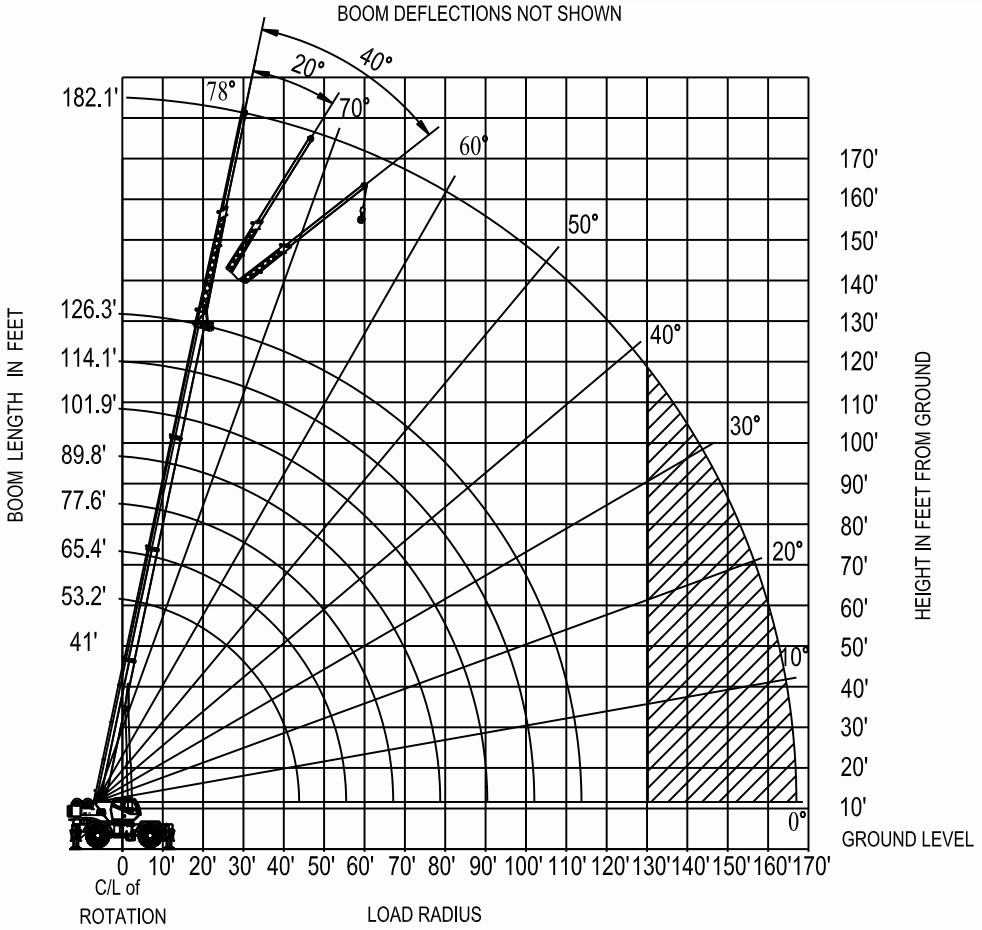

Lift Height on Jib Section 2 Erected

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ZOOMLION

LOAD RATINGS FOR ROUGH TERRAIN CRANE

Chapter 3 Lifts with outrigger beams at mid-position

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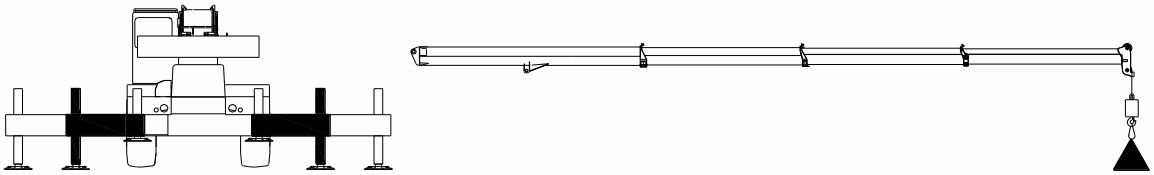
3.1 MAIN BOOM RATED LOADS

USE THIS CHART WHEN ALL OUTRIGGERS ARE PINNED IN THE MID-POSITION



Rated loads on outriggers pinned in mid-position - 360° (Rated load unit: kg)									
Working Radius (mm)	Boom Length (mm)								Working Radius (mm)
	12500	16214	19929	23643	27357	31071	34786	38500	
3000	75000	44860							3000
3500	68800	44860							3500
4000	61100	44860							4000
4500	54750	44860	34450						4500
5000	44400	44860	32950						5000
5500	35960	36910	31590	24700					5500
6000	29980	30850	30340	23750					6000
6500	25530	26340	26640	22850	19500				6500
7000	22090	22850	23140	22050	18850				7000
7500	19340	20070	20350	20630	18200	15740			7500
8000	17110	17800	18070	18350	17600	15240			8000
9000	13690	14330	14590	14840	14890	14350	12300		9000
10000	11220	11800	12040	12290	12340	12530	11700	10600	10000
11000		9870	10110	10340	10390	10570	10580	10150	11000
12000		8360	8590	8810	8860	9040	9040	9120	12000
14000		6190	6360	6560	6620	6770	6780	6870	14000
16000			4830	4990	5050	5190	5200	5300	16000
18000				3850	3890	4030	4040	4130	18000
20000				3000	3020	3140	3150	3240	20000
22000					2340	2440	2450	2540	22000
24000					1820	1880	1890	1970	24000
26000						1430	1430	1500	26000
28000						1080	1050	1110	28000

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Rated loads on outriggers pinned in mid-position - 360° (Rated load unit: lb)									
Working Radius (ft)	Boom Length (ft)								Working Radius (ft)
	41	53.2	65.4	77.6	89.8	101.9	114.1	126.3	
10	165000	98900							10
12	145640	98900							12
15	118690	98900	75350	58740					15
20	63870	65760	66330	51810	44220				20
25	41290	42870	43470	44100	39710	34320	29150		25
30	29240	30620	31180	31750	31860	31350	26840	24310	30
35		23010	23540	24060	24180	24570	24590	22660	35
40		17850	18340	18820	18940	19310	19330	19500	40
45		14180	14590	15030	15150	15500	15520	15720	45
50			11780	12170	12290	12620	12640	12850	50
55			9630	9940	10050	10360	10380	10600	55
60				8170	8260	8550	8570	8790	60
65				6750	6810	7070	7090	7300	65
70				5650	5620	5840	5860	6060	70
75					4630	4810	4830	5010	75
80					3840	3940	3950	4120	80
85						3200	3190	3340	85
90						2570	2540	2670	90

SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm and uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended / retracted, or partial extension ratings mechanically pinned in the appropriated position, and the tyres raised free of the supporting surface.

OPERATION

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. NO 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. EXTRA-CAUTION ZONE – Tipping can occur with some boom/jib combinations at radii within this area without any load on the hook.
4. The boom angles shown on the Lift Charts give an approximation of the operation 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.

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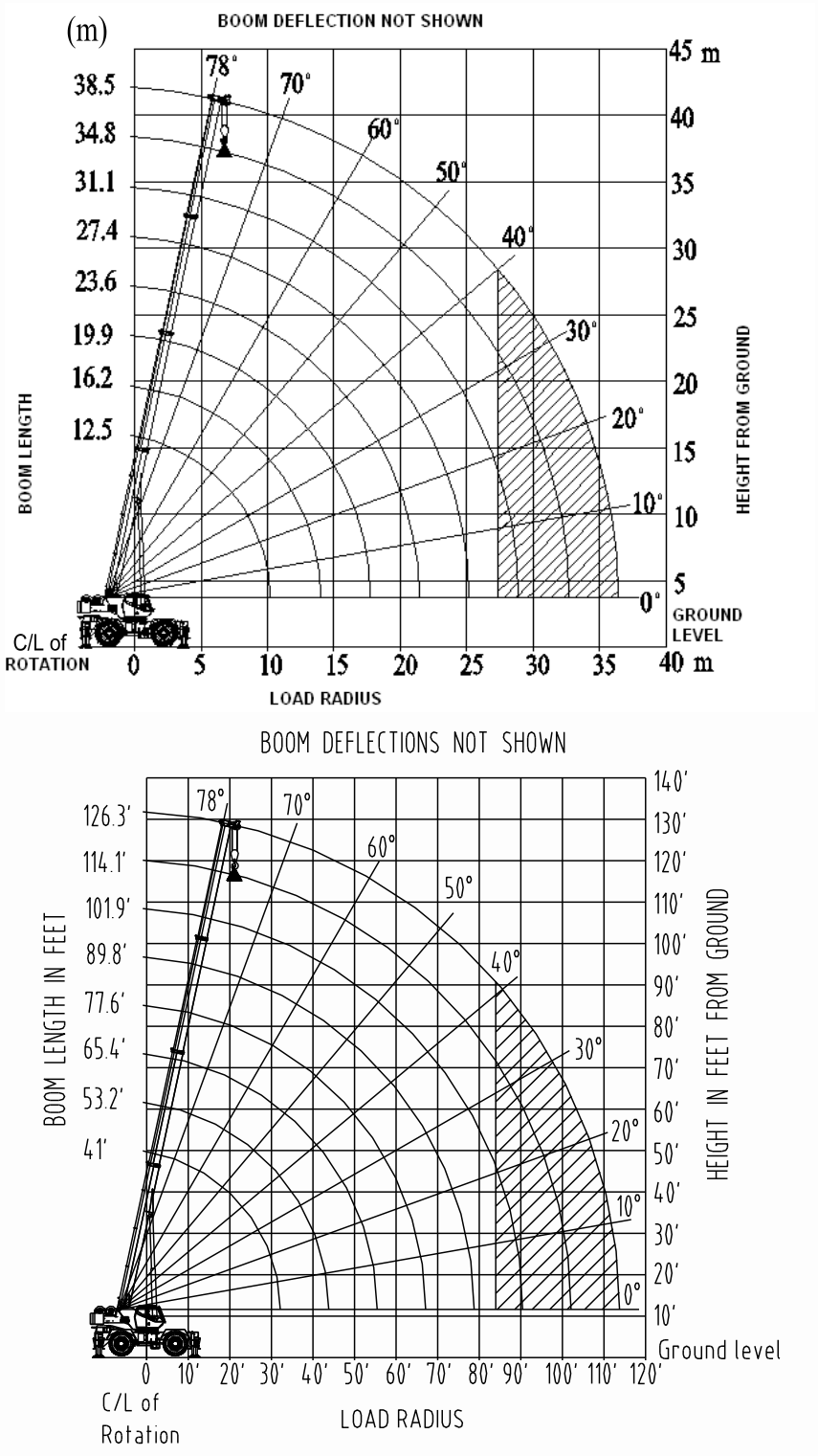
5. Rated Loads include the weight of hook block, slings and auxiliary lifting devices. Their weights shall be subtracted from the listed rated load to obtain the net load that can be lifted. Rated lifting capacities are based on correct reeving. Deductions must be made for excessive reeving. Any reeving over the minimum is considered excessive. Deduct for each foot of excessive wire rope before attempting to lift a load. See HOIST TACKLE CHART for rope information.

6. All telescopic sections must be extended synchronously.



Lift Height on Outriggers Pinned in the Mid-position

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ZOOMLION

LOAD RATINGS FOR ROUGH TERRAIN CRANE

Chapter 4 Lifts with outrigger beams fully retracted

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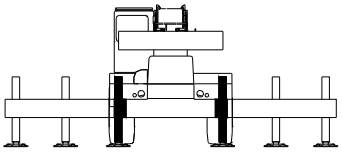
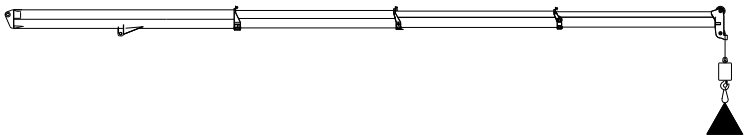
4.1 MAIN BOOM RATED LOADS

USE THIS CHART WHEN ALL OUTRIGGERS ARE FULLY RETRACTED





Rated loads on outriggers are fully retracted - 360° (Rated load unit: kg)									
Working Radius (mm)	Boom Length (mm)								Working Radius (mm)
	12500	16214	19929	23643	27357	31071	34786	38500	
3000	51050	44860							3000
3500	37080	38020							3500
4000	28670	29510							4000
4500	23060	23840	24080						4500
5000	19060	19780	20020						5000
5500	16050	16740	16970	17240					5500
6000	13710	14370	14600	14860					6000
6500	11840	12480	12710	12950	12980				6500
7000	10310	10930	11150	11390	11430				7000
7500	9040	9640	9860	10100	10130	10310			7500
8000	7970	8550	8770	9000	9040	9210			8000
9000	6260	6810	7020	7250	7290	7460	7460		9000
10000	4980	5480	5690	5910	5950	6110	6120	6190	10000
11000		4440	4650	4850	4900	5060	5060	5130	11000
12000		3600	3800	4000	4050	4200	4210	4280	12000
14000		2380	2540	2710	2760	2910	2920	3000	14000
16000			1640	1800	1840	1980	1990	2070	16000
18000				1110	1150	1280	1290	1380	18000

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Rated loads on outriggers are fully retracted - 360° (Rated load unit: lb)									
Working Radius (ft)	Boom Length (ft)								Working Radius (ft)
	41	53.2	65.4	77.6	89.8	101.9	114.1	126.3	
10	108510	98900							10
12	74820	76810							12
15	49300	50980	51520	52150					15
20	29310	30750	31260	31810	31870				20
25	19300	20600	21090	21600	21680	22070	22070		25
30	13330	14510	14990	15470	15570	15930	15940	16100	30
35		10470	10930	11390	11490	11850	11850	12010	35
40		7620	8060	8490	8590	8930	8940	9090	40
45		5540	5920	6320	6430	6750	6770	6940	45
50			4290	4650	4760	5060	5080	5270	50
55			3040	3330	3430	3720	3740	3940	55
60				2280	2360	2630	2650	2850	60

SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm and uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended / retracted, or partial extension ratings mechanically pinned in the appropriated position, and the tyres raised free of the supporting surface.

OPERATION

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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. EXTRA-CAUTION ZONE – Tipping can occur with some boom/jib combinations at radii within this area without any load on the hook.
4. The boom angles shown on the Lift Charts give an approximation of the operation 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. 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. Rated lifting capacities are based on correct reeving. Deductions must be made for excessive reeving. Any reeving over the minimum is considered excessive. Deduct for each foot of excessive wire rope before attempting to lift a load. See HOIST TACKLE CHART for rope information.

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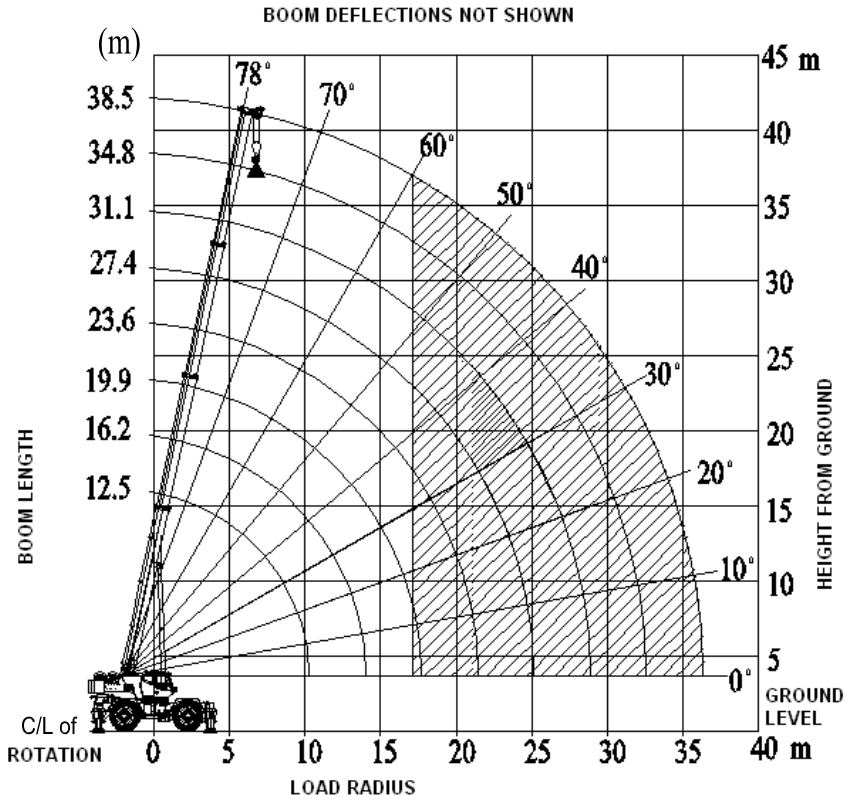
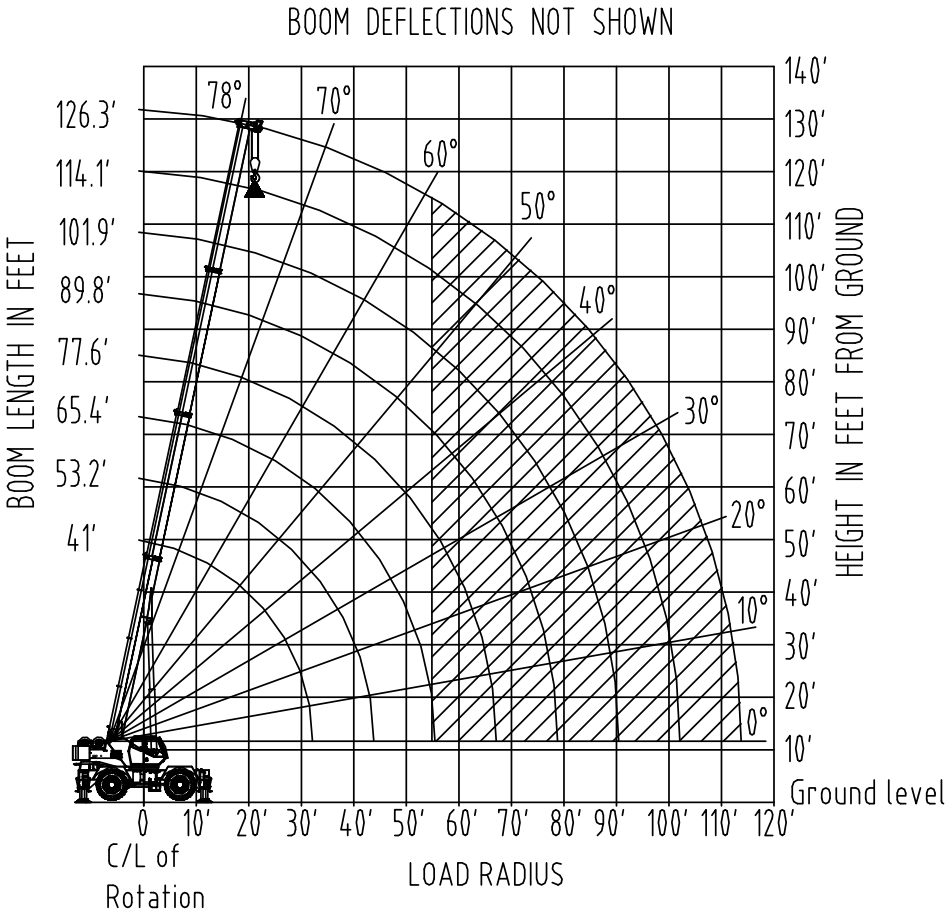
6. All telescopic sections must be extended synchronously.





Lift Height on Outriggers Fully Retracted

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ZOOMLION

LOAD RATINGS FOR ROUGH TERRAIN CRANE

Chapter 5 Lifts on tires

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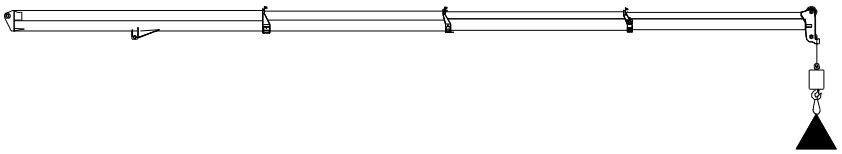
5.1 MAIN BOOM RATED LOADS



Rated loads on tires (Rated load unit: kg)								
Boom Length of 10800 mm					Boom Length of 15440 mm			
Working Radius (mm)	Boom Angle (°)	360 (°)	Stationary over Front	Pick & Carry	Boom Angle (°)	360 (°)	Stationary over Front	Pick & Carry
3000	66.82	17360	27250	20200	74.15	17900	27520	20600
3500	63.79	14830	24200	17830	72.18	15360	24650	18250
4000	60.67	12800	21710	15890	70.18	13300	22150	16350
4500	57.43	11150	19580	14260	68.16	11700	20040	14710
5000	54.05	9790	17780	12850	66.10	10290	18210	13330
5500	50.48	8670	16220	11700	64.00	9140	16690	12120
6000	46.69	7670	14920	10640	61.86	8160	15350	11070
6500	42.61	6850	13560	9690	59.67	7320	14160	10140
7000	38.11	6110	11890	8920	57.42	6600	12460	9330
7500	33.01	5320	10520	8200	55.11	5850	11060	8630
8000	26.90	4620	9380	7510	52.72	5130	9900	7970
8500	18.51	4020	8420	6960	50.24	4500	8920	7390
9000	0	3720	7940	6690	47.66	3960	8080	6850
9500					44.96	3490	7350	6330
10000					42.11	3070	6710	5690
10500					39.07	2700	6160	5130
11000					35.79	2370	5660	4640
11500					32.19	2080	5220	4200
12000					28.13	1810	4830	3810
12500					23.33	1570	4470	3460
13000					17.05	1360	4160	3150
13500					0	1240	3940	2940

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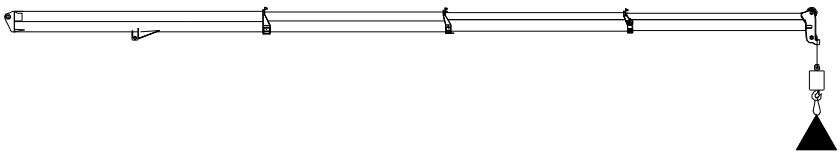

Rated loads on tires (Rated load unit: kg)								
Boom Length of 20080 mm					Boom Length of 24720 mm			
Working Radius (mm)	Boom Angle (º)	360 (º)	Stationary over Front	Pick & Carry	Boom Angle (º)	360 (º)	Stationary over Front	Pick & Carry
3000	77.91							
3500	76.44							
4000	74.95							
4500	73.45	11970	20280	14950				
5000	71.93	10630	18500	13570				
5500	70.41	9460	16950	12370				
6000	68.86	8460	15580	11350	73.02	8750	15790	11560
6500	67.30	7610	14420	10390	71.79	7890	14610	10640
7000	65.71	6880	12800	9620	70.55	7150	13070	9800
7500	64.11	6170	11390	8860	69.30	6420	11650	9080
8000	62.48	5430	10210	8230	68.04	5680	10460	8440
8500	60.82	4800	9220	7640	66.77	5040	9460	7840
9000	59.13	4250	8370	7090	65.48	4490	8600	7330
9500	57.41	3770	7630	6600	64.18	4000	7860	6830
10000	55.66	3350	6980	5960	62.86	3570	7210	6180
10500	53.86	2970	6420	5390	61.53	3190	6630	5610
11000	52.01	2630	5910	4890	60.18	2840	6120	5100
11500	50.12	2320	5460	4440	58.81	2530	5660	4640
12000	48.16	2050	5060	4030	57.41	2250	5250	4230
12500	46.14	1800	4690	3670	56.00	2000	4880	3860
13000	44.04	1570	4360	3340	54.55	1760	4550	3530
13500	41.85	1360	4060	3040	53.08	1550	4240	3220
14000	39.55	1170	3780	2760	51.58	1350	3960	2940
14500	37.13		3530	2510	50.04	1170	3700	2680
15000	34.55		3300	2280	48.47		3460	2440
15500	31.77		3080	2060	46.85		3240	2220
16000	28.72		2880	1870	45.19		3040	2020
16500	25.31		2700	1690	43.47		2850	1830
17000	21.33		2540	1520	41.70		2670	1650
17500	16.31		2380	1370	39.85		2500	1490
18000	7.94		2250	1250	37.93		2350	1330
18500	0		2250	1250	35.91		2210	1190

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Rated loads on tires (Rated load unit: lb)								
Boom Length of 35 ft					Boom Length of 51 ft			
Working Radius (ft)	Boom Angle (°)	360 (°)	Stationary over Front	Pick & Carry	Boom Angle (°)	360 (°)	Stationary over Front	Pick & Carry
10	66.54	37620	59290	43890	73.97	38720	60170	44770
12	62.82	31160	51470	37880	71.56	32270	52360	38720
15	56.96	24080	42530	30930	67.87	25260	43510	31900
20	45.94	16540	32280	23000	61.45	17610	33220	23920
25	31.66	11320	22500	17620	54.54	12470	23680	18570
30	0	8200	17480	14720	46.90	8410	17290	14820
35					38.00	5700	13170	10920
40					26.40	3790	10310	8080
45					0	2720	8680	6470
Boom Length of 66 ft					Boom Length of 81 ft			
Working Radius (ft)	Boom Angle (°)	360 (°)	Stationary over Front	Pick & Carry	Working Radius (ft)	Boom Angle (°)	360 (°)	Stationary over Front
10								
12								
15	73.24	25950	44020	32410				
20	68.57	18270	33820	24520	72.78	18790	34270	24980
25	63.72	13160	24390	19160	69.00	13720	24960	19630
30	58.65	9040	17920	15330	65.11	9560	18430	15740
35	53.25	6270	13730	11480	61.08	6750	14200	11950
40	47.40	4290	10810	8560	56.87	4740	11240	9000
45	40.88	2810	8660	6420	52.44	3220	9060	6810
50	33.25	1670	7030	4790	47.70	2040	7380	5140
55	23.30		5750	3520	42.54	1110	6060	3820
60			4970	2760	36.78		4990	2760
65					30.02		4120	1890

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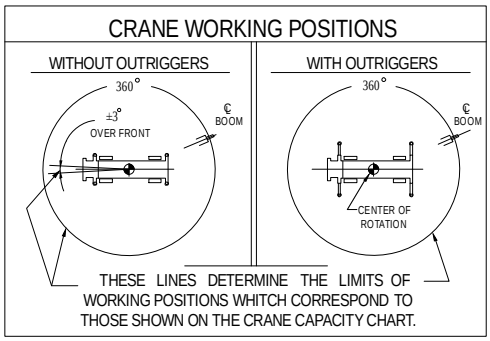
SET-UP

1. Crane load ratings are based on the crane being levelec and standing on a firm and uniform supporting surface.
2. Crane load ratings on tires depend on appropriate inflation pressure and tire condition. Caution must be exercised when increasing air pressures in tires. Consult *Operator's Manual* for precautions.
3. Use of jib is not permitted for pick-and-carry operations.



SET-UP

1. 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.
2. The load should be restrained from swinging. No on tire operation with jib erected.

OPERATION

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. NO 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 *Lift Chart* as tipping can occur without a load on the hook.
4. All telescopic sections must be extended synchronously.
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 61 m (200ft) in 30-minutes period and not exceeding 1.6 KM/H (1MPH).

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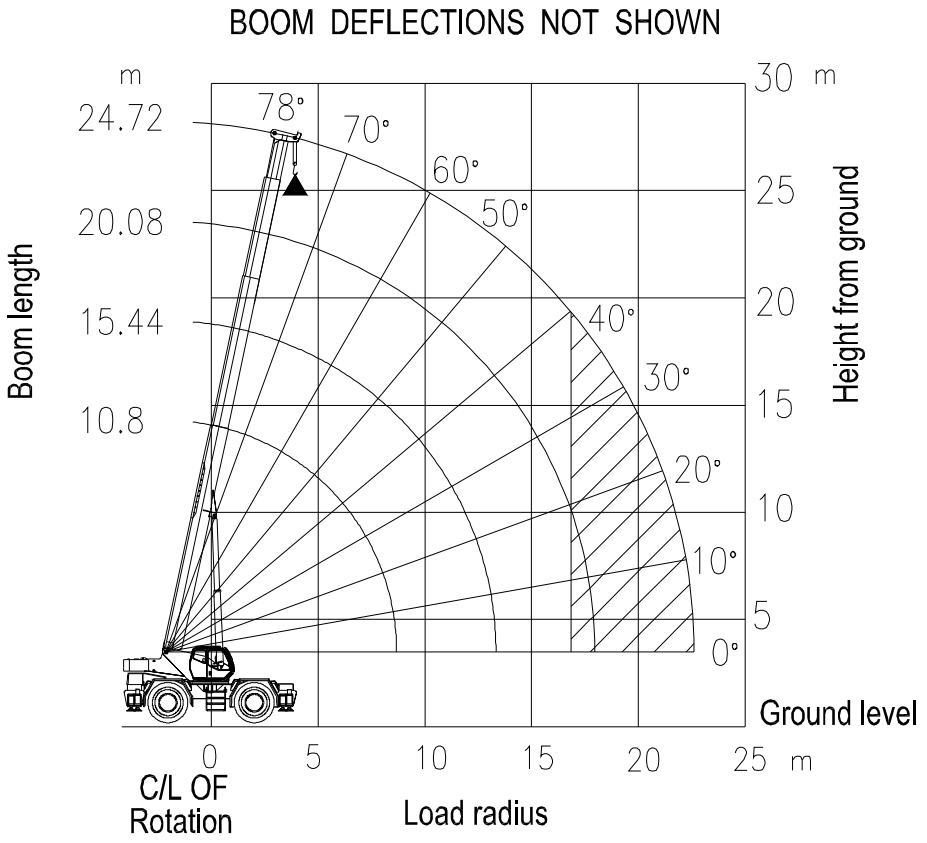

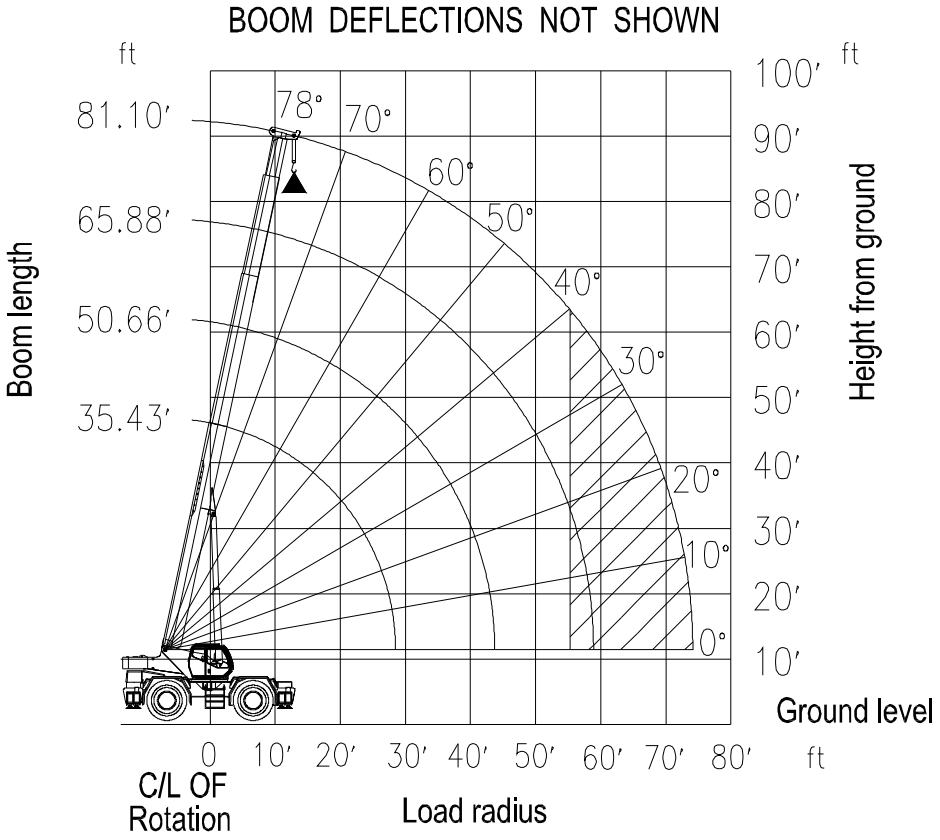

Lift Heigth on Tires

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Rated loads on tires (Rated load unit: lb)									
Working Radius (ft)	Boom Length of89.8 ft								
	Boom Angle (°)	360 (°)	Stationary over Front	Pick & Carry					
20	74.4	22830	44220	34350					
25	71.0	16400	35070	26910					
30	67.6	11070	25600	21510					
35	64.0	7500	19550	16450					
40	60.3	4930	15360	12260					
45	56.5	3010	12290	9190					
50	52.5	——	9940	6850					
55	48.3	——	8100	5010					
60	43.7	——	6630	3540					
65	38.6	——	5420	2340					
70	32.9	——	4430	——					
75	26.0	——	3610	——					
80	16.4	——	2950	——					

SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm and uniform supporting surface.
2. Crane load ratings on tires depend on appropriate inflation pressure and tire condition. Caution must be exercised when increasing air pressures in tires. Consult *Operator's Manual* for precautions.
3. Use of jib is not permitted for pick-and-carry operations.

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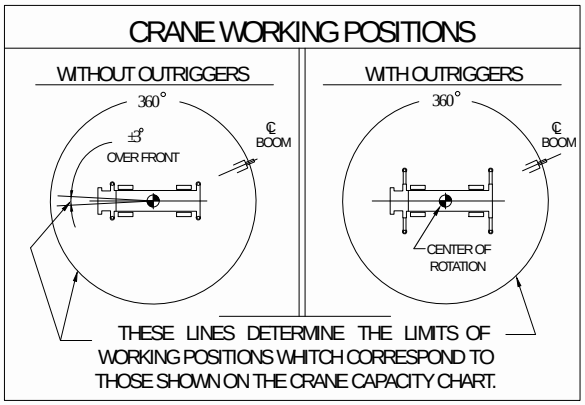
SET-UP

1. 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.
2. The load should be restrained from swinging. No on tire operation with jib erected.

OPERATION

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. NO 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 *Lift Chart* as tipping can occur without a load on the hook.
4. All telescopic sections must be extended synchronously.
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 61 m in 30-minutes period and not exceeding 1.6 KM/H.



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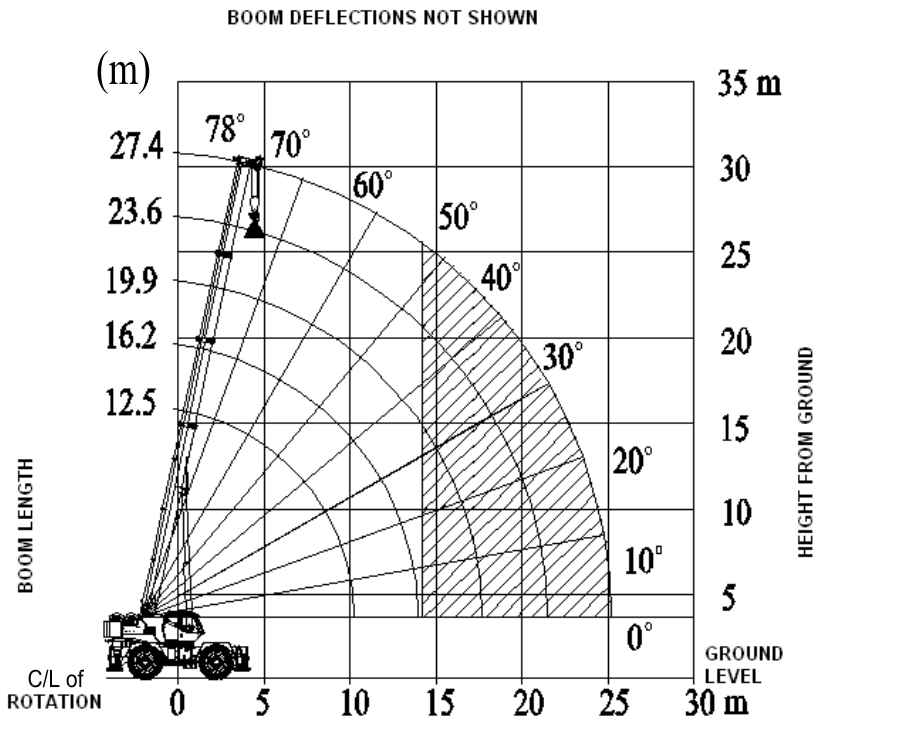

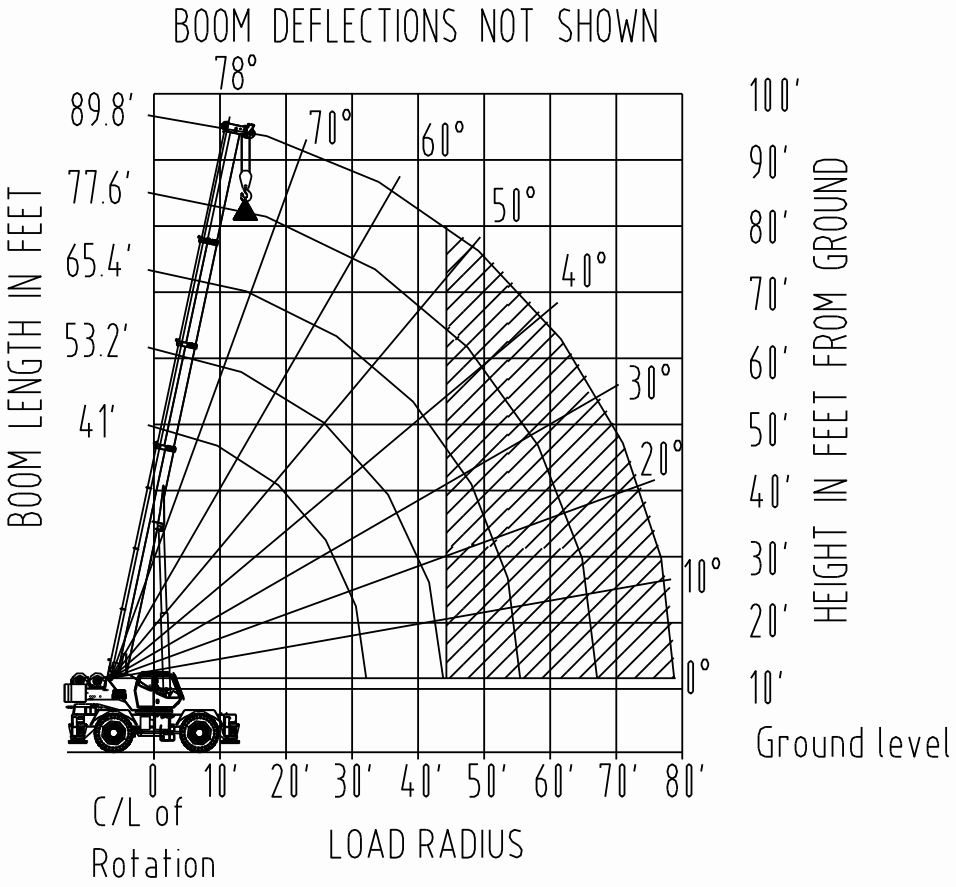

Lift Heigth on Tires