



RT80 PRODUCT GUIDE

Complies with ANSI B30.5

Rough Terrain Crane

82.5 ton lift capacity (75 metric ton) 126' main boom (38.5 m) 33' - 56' jib (10 - 17 m)



2 FEATURES

3 KEY/SYMBOLS

4-6 TECHNICAL DESCRIPTION

7 CRANE AND COMPONENT WEIGHTS

8 CRANE DIMENSIONS

WORKING RANGE DIAGRAM

10-17 LOAD CHARTS



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FEATURES



Formed boom made with highyield steel which reduces the operating weight of the boom and maximizes performance.



We chose the AxleTech brand axle because AxleTech offers the most reliable product on the market and has years of experience in manufacturing mobile crane axles.





Full vision operator cab is designed for maximum comfort and ease of operation.

The Dana transmission offers the latest technology for the diverse needs of off-road cranes.





The Cummins QSB 6.7 diesel engine is TIER-III compliant and is proven to have superior performance and durability.

Greer RCI 777 LMI (load moment indicator) delivers the industry's most reliable electronic monitoring system available.



STANDARD EQUIPMENT

- Formed boom
- Offsettable jib 0° 20° 40°
- Auxiliary winch
- Winch camera
- Auxiliary lifting sheave
- 80 ton hook block
- 6 ton hook ball
- Rotation resistant wire rope
- Deluxe tilt seat
- Air conditioner / Heater
- Work light package: boom, cab and super structure
- Revolving amber light
- AM/FM radio
- Battery disconnect switch
- Front and rear lift lugs

ANSI & CE certified



KEY/SYMBOLS

	Engine	p4	LMI	Load Moment Indicator (LMI)	p5
00	Transmission	p4		Max. boom length with jib ext.	p5
-	Axles	р4		Main boom	p6
1	Steering	р4		Main and auxiliary winches	p6
	Gradeability	p4	0	Winch camera	p6
O	Brakes	p4		Hook block	p6
0	Tires and wheels	p4	Š	Hook ball	p6
	Outrigger system (100%, 50%, 0% extended)	р4		Crane with counterweight	р7
	Hydraulic system	p5		Side stowed jib	р7
	Operator cab	р5		Distance from the hook to the head	p8
	Counterweight	p5	/	Tip height	р9
4	Swing	p5		Working radius	р9



TECHNICAL DESCRIPTION



ENGINE

USA Federal EPA / California ARB / European EU / Tier III emission rating.



TRANSMISSION

Dana powershift transmission - 6 speeds forward and 3 speeds reverse.



AXLES

Axletech front and rear steering axles with planetary reduction.

Front - Rigid mount.

Rear - Full floating rear axle. Automatic rear axle oscillating lock occurs when superstructure is swung 10° from centerline in either direction.



STEERING

Power steering with three independent modes.

Two-Wheel

Four-Wheel

Four-Wheel crab steer



GRADEABILITY

55% max. gradeability in 1st gear 4x4. 3.40% max. gradeability in 6th gear 4x2.



BRAKES

18.5 inches (470 mm) diameter disc brakes on all wheels hydraulically operated.



TIRES AND WHEELS

29.5 x 25 - 34 ply rating, earthmoving style tires. Steel disc wheels.



OUTRIGGER SYSTEM

Four independent horizontal beams and vertical jacks with integral holding valves, each independently controlled from operator cab.

100% - Fully extended outriggers

footprint 574 sq. ft. (53.3 sq. m).

50% - Mid position outriggers

0% - Fully retracted outriggers

Light weight steel, quick release outrigger pontoons.

Outrigger Span Length 24.2 ft. (7.4 m)

Width 23.9 ft. (7.3 m)



TECHNICAL DESCRIPTION



HYDRAULIC SYSTEM

PERMCO hydraulic pumps.

Gear pump for main and auxiliary winches, boom hoist and telescope cylinders.

Gear pump for steering.

Gear pump for outriggers and slewing.

264 gallon (1000 L) hydraulic reservoir with external sight and temperature gauge.

Easily accessible (10 micron) cartridge style full flow filters with bypass protection.

Max. operating pressure: 30MPa (4351 psi, 300 bar).



OPERATOR CAB

Full vision operator cab designed for max. comfort. All steel fabrication with acoustical lining and tinted safety glass throughout. The cab has a sliding door on the left and a sliding window on the right with a swing-up skylight with retractable shade and wiper motor. Fully adjustable deluxe seat with tilt. Foot controls for boom telescope, service brake and engine throttle. Tilt steering.

Temperature control is provided by a hydraulically driven air conditioning unit. Easy view dashboard with gauges for all engine sensors and rocker switch outrigger controls. Standard amenities also include bubble level, dome light, left side rearview mirror, seat belt, travel swing lock and signal horn.



COUNTERWEIGHT

Single 16,535 lb (7500 kg) h	yd removable counterweight.
Length	10.2 ft. (3.1 m)
Width	3.4 ft. (1 m)
Height	2.8 ft. (0.8 m)



SWING

Bi-directional hydraulic swing drive with multi-disc wet brake and planetary reduction gearbox. Spring applied hydraulically released swing brake and 360° pneumatic positive swing lock.

Max. swing speed: 2 rpm.



LOAD MOMENT INDICATOR (LMI)

GREER RCI 777 LMI control system. Microguard graphic display load moment and anti-two block system with audiovisual warning and function limiter.

System displays the following information: crane configuration, boom length, boom angle, load radius, allowed capacity, actual load, and load percentage of allowed capacity.

System includes settable work parameters: min./max. boom length, min./max. boom angle, defined swing area.



MAX. BOOM LENGTH WITH JIB EXTENSION

33-56 ft. (10-17 m) jib consisting of 33 ft. (10 m) lattice side stow jib and 23 ft. (7 m) manual pull out section. Main jib is offsettable at 0°, 20° and 40°.

Max. tip height with 33 ft. (10 m) jib erected is 167.3 ft. (51 m).

Max. tip height with 33 ft. (10 m) jib + 23 ft. (7 m) fixed pullout extension is 189.6 ft. (57.8 m).



TECHNICAL DESCRIPTION



MAIN BOOM

Four section, full power, synchronized boom. Boom is constructed of high-yield steel. 5 sheave quick reeve boom tip with removable rope guards. Rope termination lugs on both sides of boom head. Auxiliary lifting sheave and manual angle indicator are included.

Fully extended boom length:	126 ft. (38.5 m).
Fully retracted boom length:	35 ft. (10.8 m).
Max. tip height, main boom:	. 135.2 ft. (41.2 m).
Max. tip height, jib erected / pullout	
retracted:	167.3 ft. (51 m).
Max. tip height, jib erected / pullout	
extended:	189.6 ft. (57.8 m).
Boom angle range (min./max.)	3° / + 78°.
Boom raising / lowering time	. 110 sec. / 55 sec.
Boom extension / retraction time	120 sec. / 77 sec.



MAIN AND AUXILIARY WINCHES

Standard two speed main and auxiliary hoists, each with planetary reduction and spring applied multi-disk wet brake.

Each hoist features:

Grooved drum lagging.

Hoist drum cable followers.

Max. permissible line pull: 19,842 lbs. (9000 kg) Winch speed: 0 - 407 ft./min. (0-124 m/min.)

Power up / power down.

Electronic drum rotation indicators.

Rope construction: 0.87 in. (22 mm) rotation resistant compacted strand.



WINCH CAMERA

Winch camera for viewing hoist operation.



HOOK BLOCK AND HOOK BALL

REMARKS:

- 1. The crane operator manual must be available in the operator cab at all times.
- 2. The crane operator manual must be referred to prior to operation.
- 3. The lifting capacities shown are for lifting operation only.
- 4. Crane standing on firm, level ground.
- 5. Rated lifting capacities shown do not exceed 85% of the tipping load.
- 6. The weights of the hook block, hook ball and any additional lifting devices (rigging, hoisting rope, etc.) are not calculated into the rated lifting capacity and must be deducted prior to operation.
- 7. For max. wind speeds please refer to the lift chart in the operator manual.
- 8. Working radius is measured from center of rotation to center of gravity of load.

WARNING: Operating this machine with heavier loads than the capacities listed is strictly prohibited.



CRANE AND COMPONENT WEIGHTS

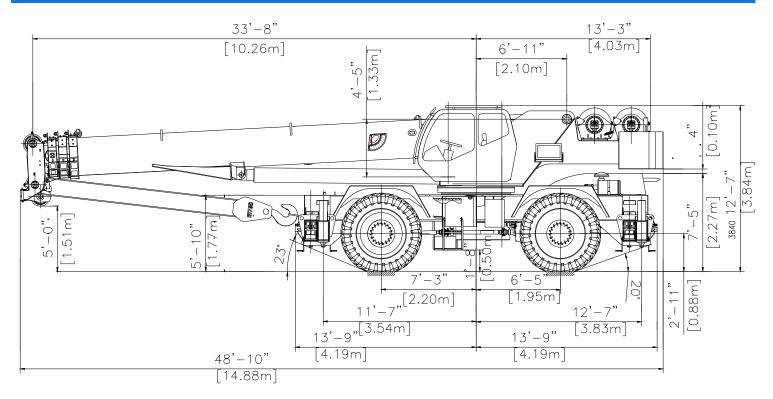
	CRANE OPERATING WEIGHTS							
Gross Vehicle Weight			Front A	kle Load	Rear Axle Load			
	lb	kg	lb	kg	lb	kg		
Crane with ctwt.	110,230	49,999	57,320	25,999	52,910	23,999		

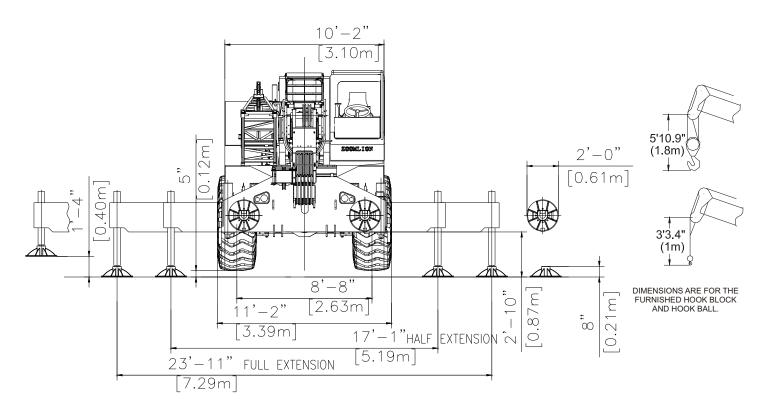
	DEDUCTIONS FOR LOAD HANDLING						
	lb	kg		lb	kg		
Jib stowed aside boom	2,099	952	5 sheave 80 ton hook block	1,650	748		
Auxiliary head	168	76	6 ton hook ball	283	128		





CRANE DIMENSIONS

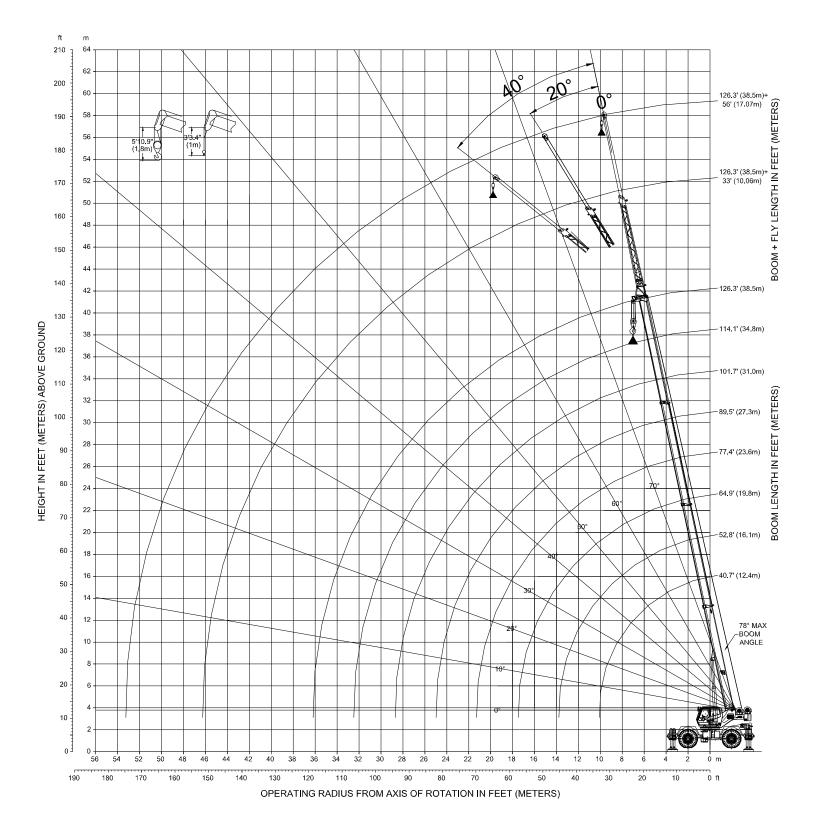








WORKING RANGE DIAGRAM







	FULLY 16,500 lbs. ctwt.	EXTENDED OUTRI 22.6 ft. x 2		OOM CAPACITY ANSI B30.5	85%
		BOOM LENG	TH IN FEET		
RADIUS	40.6 FT	53 FT	65 FT	78 FT	RADIUS
ft.					ft.
10	165344	110009			10
15	135141	117284	96120	78704	15
20	110009	101852	80908	67019	20
25	78993	78256	69665	57981	25
30	54652	55117	54284	50705	30
35	40838	41700	41561	40538	35
40	31925	32961	33137	32657	40
45		26863	27160	26991	45
50			22676	22705	50
55			19228	19367	55
60				16682	60
65				14495	65



<u></u>	FULLY 16,500 lbs. ctwt.	Y EXTENDED OUTF 22.6 ft. x	RIGGERS - MAIN BOC 22.6 ft. AN	M CAPACITY ISI B30.5	85%
		BOOM LEN	GTH IN FEET		
RADIUS	90 FT	102 FT	115 FT	126.3 FT	RADIUS
ft.					ft.
15	66578				15
20	57981	49162	41887		20
25	50485	43651	37698	32407	25
30	44533	38580	33951	29541	30
35	39180	33951	29982	26896	35
40	31881	30203	26675	23810	40
45	26528	25816	23810	21164	45
50	22447	21997	21371	18959	50
55	19242	18964	18534	17196	55
60	16680	16490	16193	15653	60
65	14541	14444	14257	14037	65
70	12760	12751	12615	12454	70
75	11252	11272	11201	11098	75
80	9976	10002	9991	9914	80
85		8902	8911	8898	85
90		7948	7965	7972	90
95		7178	7130	7145	95
100			6389	6407	100
105			5734	5745	105
110			5425	5152	110
115				4619	115



	MID I 16,500 lbs. ctwt.		GGERS - MAIN BO c 22.6 ft.	OM CAPACITY ANSI B30.5	85%
		BOOM LE	NGTH IN FEET		
RADIUS	40.6 FT	53 FT	65 FT	78 FT	RADIUS
ft.					ft.
10	165344	110009			10
15	126843	117284	96120	78704	15
20	68419	67529	65132	61096	20
25	44960	45432	44702	42954	25
30	32310	33342	33186	32396	30
35		25571	25778	25467	35
40		16312	20611	20580	40
45			16810	16944	45
50			13893	14129	50
55			11592	11892	55
60				10062	60
65				8547	65



<u></u>	MID 16,500 lbs. ctwt.	MID POSITION OUTRIGGERS - MAIN BOOM CAPACITY lbs. ctwt. 15.8 ft. x 22.6 ft. ANSI B30.5						
	BOOM LENGTH IN FEET							
RADIUS	90 FT	102 FT	115 FT	126.3 FT	RADIUS			
ft.					ft.			
15	66578				15			
20	56861	49162	41887		20			
25	40862	38336	35716	32407	25			
30	31252	29780	28051	26775	30			
35	24868	23990	22881	21869	35			
40	20289	19753	19032	18366	40			
45	16823	16517	16060	15615	45			
50	14127	13970	13688	13388	50			
55	11964	11911	11744	11543	55			
60	10207	10207	10121	10000	60			
65	8724	8779	8759	8690	65			
70	7471	7579	7593	7562	70			
75	6402	6528	6583	6590	75			
80	5483	5615	5708	5730	80			
85		4819	4925	4985	85			
90		4118	4233	4308	90			
95		3525	3618	3699	95			
100			3064	3153	100			
105			2571	2657	105			
110				2209	110			
115				1801	115			



	FULLY 16,500 lbs. ctwt.		TRIGGERS - MAIN B 22.6 ft. A	OOM CAPACITY NSI B30.5	85%
		BOOM LEN	IGTH IN FEET		
RADIUS	40.6 FT	53 FT	65 FT	78 FT	RADIUS
ft.					ft.
10	118188	110009			10
15	54934	54301	51784	48309	15
20	33441	34120	33455	32127	20
25	22619	23675	23688	23205	25
30	16107	17295	17626	17544	30
35		13009	13532	13622	35
40		9912	10531	10765	40
45		7579	8239	8585	45
50			6433	6843	50
55			4980	5425	55
60				4250	60
65				3261	65



	FULLY R 16,500 lbs. ctwt.		OUTRIGGERS - MAIN . x 22.6 ft.	N BOOM CAPACITY ANSI B30.5	85%
		воом і	LENGTH IN FEET		
RADIUS	90 FT	102 FT	115 FT	126.3 FT	RADIUS
ft.					ft.
15	44905				15
20	30516	28682	26764		20
25	22425	21360	20190	19345	25
30	17176	16585	15827	15245	30
35	13507	13203	12749	12302	35
40	10783	10648	10395	10126	40
45	8668	8653	8534	8384	45
50	7006	7050	7024	6953	50
55	5648	5734	5772	5752	55
60	4511	4636	4713	4738	60
65	3545	3710	3814	3869	65
70	2716	2910	3038	3115	70
75	2000	2211	2361	2456	75
80			1768	1874	80



0	16,500 kg. ctwt.	ON TIRES BOOM CENTERED ANSI B30.5 85%		OVE	R FRONT
		BOOM LENG	TH IN FEET		
RADIUS	40.6 FT	53 FT	65 FT	78 FT	RADIUS
ft.					ft.
10	91049	88845			10
15	69885	68563	67240	65917	15
20	47684	48204	47153	44540	20
25	31866	32782	32647	31589	25
30	22950	23987	24216	23814	30
35		18304	18702	18627	35
40		14330	14815	14920	40
45		11404	11927	12142	45
50			9700	9981	50
55			7931	8253	55
60				6838	60
65				5662	65



0	16,500 kg. ctwt.	ON TIRES BOOM CENTERED ANSI B30.5 85%		OVER FRONT	
BOOM LENGTH IN FEET					
RADIUS	90 FT	102 FT	115 FT	126.3 FT	RADIUS
ft.					ft.
15	61976				15
20	41166	37372	34645		20
25	29959	27620	25955	24702	25
30	22974	21554	20397	19520	30
35	18205	17356	16507	15887	35
40	14737	14234	13670	13207	40
45	12100	11811	11440	11136	45
50	10033	9886	9648	9449	50
55	8371	8318	8171	8044	55
60	6998	7013	6939	6875	60
65	5850	5914	5894	5868	65
70	4876	4974	5000	4997	70
75	4037	4163	4225	4242	75
80	3312	3453	3539	3576	80
85		2828	2934	2997	85
90			2395	2465	90



LOCATIONS



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