

XCR75_U

Rough Terrain Crane

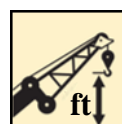
Technical Specifications



75UST



147.6ft



190ft

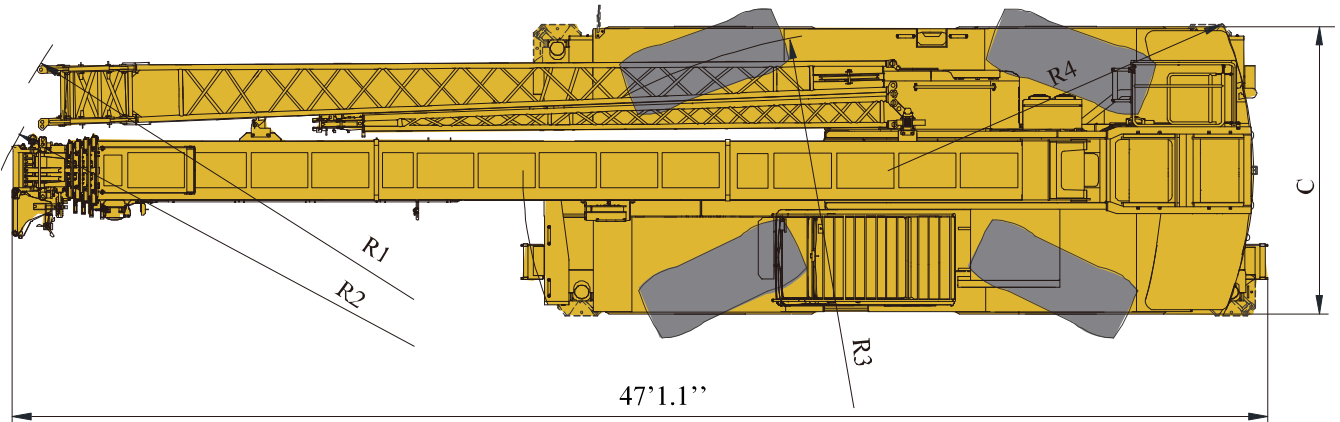
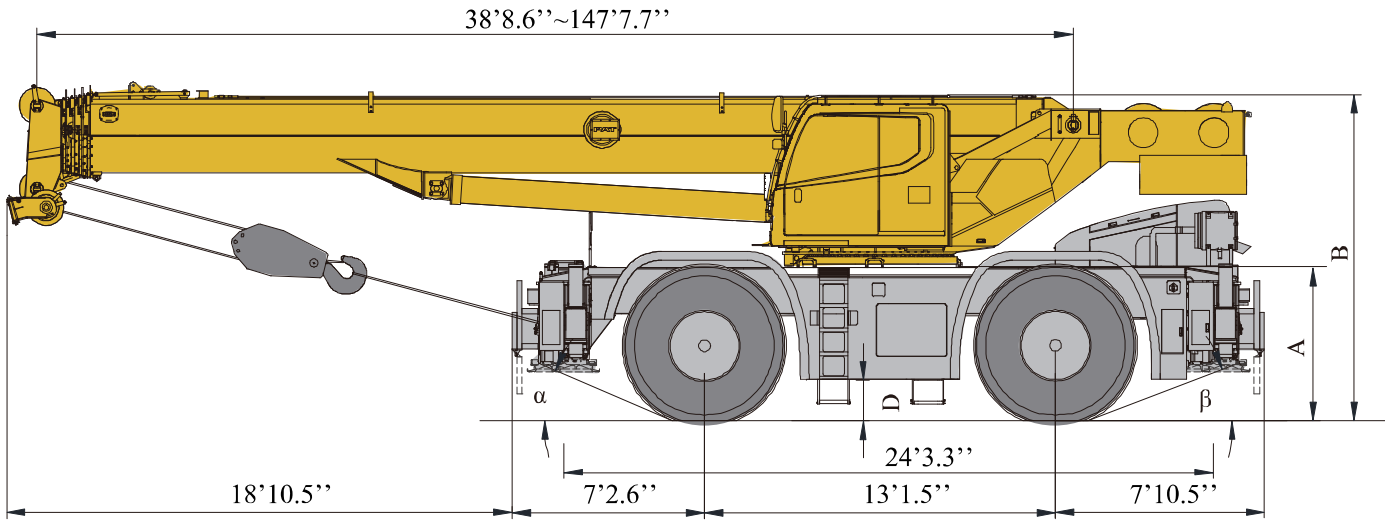


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Dimensions



	α	β	A	B	C	D	R1	R2	R3	R4
29.5R25	23°	21°	5'9.5"	12'3.6"	10'9.5"	1'6.7"	37'6.6"	36'10.8"	21'3.9"	13'9.4"

Technical specifications

		
Boom	1 basic boom and 4-telescoping sections, U-shape cross section welding structure. Double cylinder plus ropes telescoping mechanism. 6 pulleys on boom head are standard. Boom length:38.7ft ~ 147.6ft.	●
Jib	Two-section lattice structure. Three offset angles of 0° , 15° and 30° are available. It is stowed along the side of the boom. Jib length: 30.2ft ~ 52.5ft.	●
Frame	Made of high strength fine grained steel, welded torsion-resistant frame type construction with large cross-section, high load-bearing capacity.	●
Outrigger	4 outriggers, H-shaped arrangement, which are controlled by electrical and hydraulic and located at both sides of chassis frame.	●
Engine	QSB6.7, in line, six-cylinder water-cooled compression ignition diesel engine, manufactured by Cummins, with rated power of 260/2200(bhp/(r/min)), max. torque of 728/1500(lb.ft/(r/min)), U.S. EPA Tier emission standard compliant Fuel tank capacity: approx. 80.52gal	●
Transmission	6WG210, automatic transmission from ZF Germany, with 6 forward and 3 reverse gears	●
Axles	Both front and rear axles are for driving and steering, and the axles have features of great load bearing capacity	●
Suspensions	Front axle is rigidly connected with frame; rear axle is equipped with swing hydraulic suspensions, which have cushioning function when driving on roads; the rear suspension cylinder may be locked to rigid state so as to meet the requirement for travel with a load suspended, increasing operation stability.	●
Tires	4 specialized off-road, large bearing capacity. Tire specifications: 29.5R25.	●
Steering	Front axle independent steering, tight turning radius steering, crab walk steering and rear axle independent steering modes are available. The steering angle can be self-adjusted when changing mode.	●
Brakes	Service brake: double-circuit hydraulic disc brake, acting on all wheels. Automatically braking and alarm are available when the pressure in braking system is too low. Parking brake: spring-loaded brake, acting on front axles, hydraulic-released independent disc brake.	●
Hydraulic system	A dual-variable displacement pump, used for hoisting, elevating and telescoping operations, and a gear pump, used for slewing, outrigger, steering and braking operations; a load sensitive proportional multi-way change valve is used as main valve; an independent hydraulic oil radiator. Tank capacity: approx. 295.7gal.	●
Operating mode	Hydraulic controlled pilot operation system is equipped with two levers controlling the main movements of the crane, by which speed may be felt.	●
Electrical System	24 V DC, two sets of 12 V battery in series.	●
Main and auxiliary winch system	The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake and a balance valve equipped.	●
Slewing system	Single-row four-point ball contact slewing ring, driven by a hydraulic motor through planetary gear reducer, and with a normally closed brake fitted.	●
Operator's cab	Tiltable cab, with sliding door and adjustable seat equipped. It is equipped with safe glass and roof protective grille. Sun shade is available for windshield and roof window. Heater and air conditioner, radio, 12 V and 24 V DC outlets are standard.	●
Safety devices	Hydraulic balance valve, hydraulic relief valve, hydraulic double-way valve and LMI. Lowering limiter is equipped in winch to prevent rope over-releasing. Anti-two block is fitted on the boom head to prevent rope over-winding, 360° turntable locking device .	●
Counterweight	13889.1lb 19841.6lb. Two counterweight configurations of 0 t and 19841.6lb are available. (If the optional 19841.6lb slab is selected, the 13889.1lb standard slab will not be supplied.)	○
Hook Block	60USt hook block, 5.5USt hook block	●

Product parts list is as mentioned above. Please refer to the product quotation for specific parts.

Symbol explanation:

● —it means the standard configuration;

○ —it means the optional configuration.

Weights



Axle	1	2	Total weight
lb	53383.7	49537.8	102911.5 lbs (Optional 19841.6 lb counterweight)
	55688.7	41270.5	96959.2 lbs (Optional 13889.1lb counterweight)



Hook	No. of lines	Weight (lb)	Remarks
60USt	10	1106	Single hook
5.5USt	1	384.3	Single hook

Working Speeds



29.5 R 25



24.9

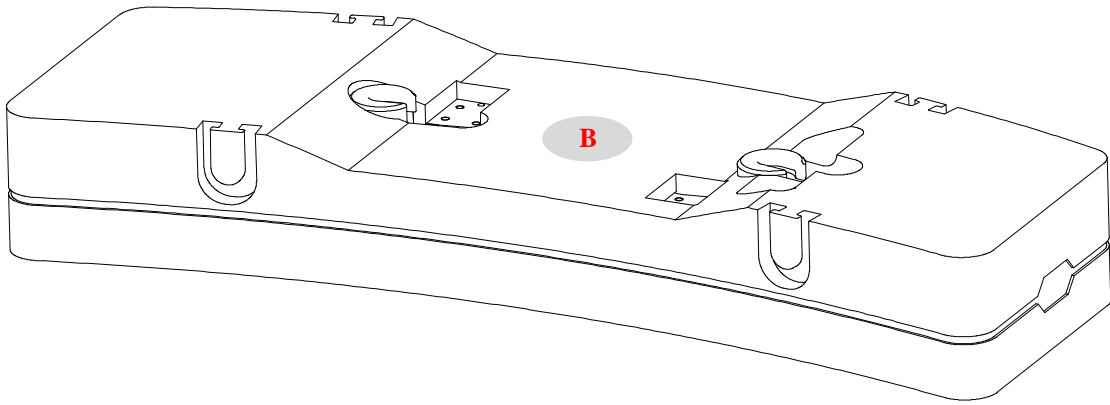
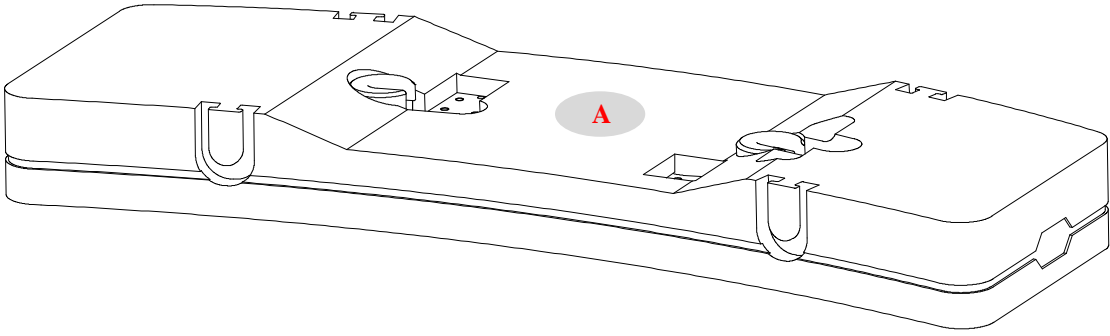


70%



Drive	Working speed	Max. single line pull	Rope diameter/ length
	0-492 ft/min, no load, 4th layer	13635.6lb	0.7086in/705.4ft
	0-328 ft/min, no load, 4th layer	13635.6lb	0.7086in/459.3ft
	0-2r/min		
	Approx. 50s for boom elevation from -1.5° to 80°		
	Approx. 90s for boom extension from 38.7ft to 147.6ft		

Counterweights

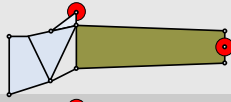


Counterweight	A	B (optional)
Size (L×W×H) ft	10.5×4.1×1.1	10.5×4.1×1.5
Weight lb	13889.1	19841.6

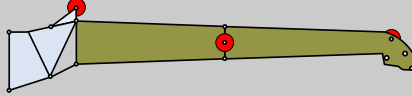
Working mode	0t	13889.1lb	19841.6lb (选配 optional)
Combinations	—	A	B

Boom / Jib combinations

Jib – 30.2ft



Jib – 52.5ft



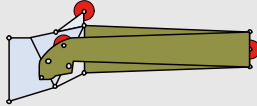
Component

Structure

Size (L×W×H) ft

(Weight lb)

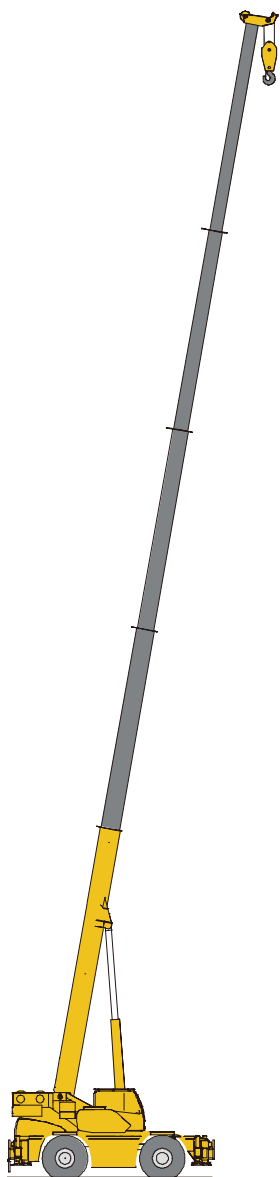
First and second jib section
assembly + Connecting bracket



(Folded) : 32.1×2.8×4.1

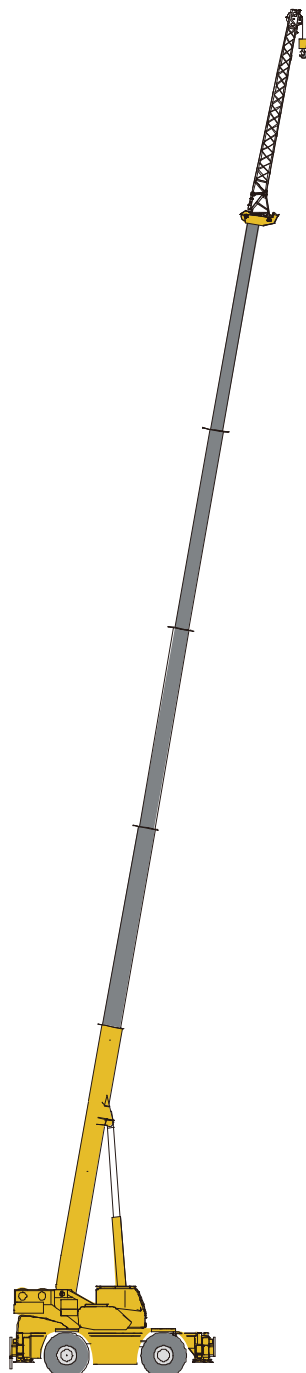
2054.7

Boom / Jib combinations



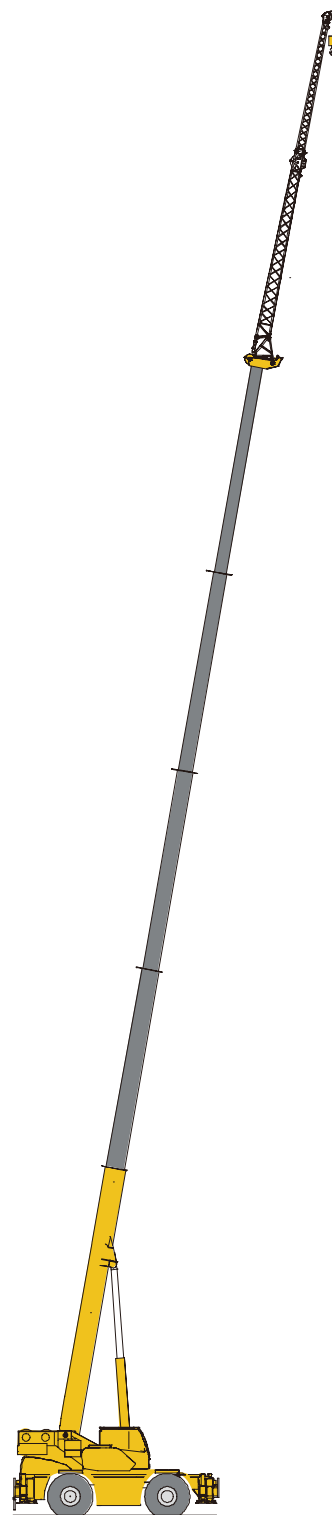
Telescopic boom

38.7ft~147.6ft



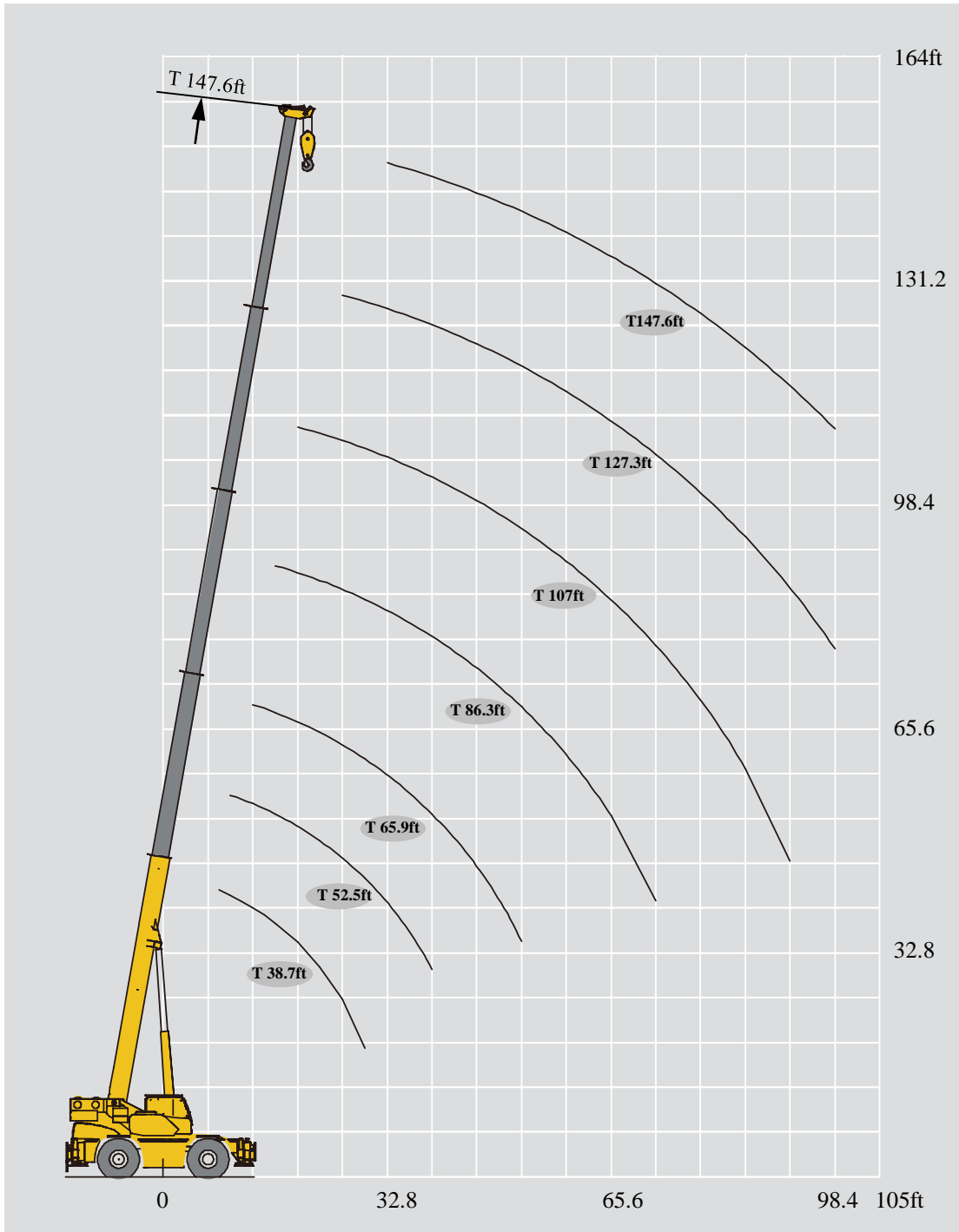
Telescopic boom + First jib section

147.6ft+30.2ft



Telescopic boom + First and second jib sections

147.6ft+52.5ft



Lifting Capacities

T 38.7~147.6ft

38.7~147.6ft



24.3ft × 24.3ft



360°



13889.1 lb



ASME B30.5 85% : lb

ft	38.7ft	52.5ft	65.9ft	72.8ft	107.0ft	127.3ft	147.6ft	59.1ft	79.7ft	100.1ft	120.4ft	72.8ft	93.2ft	113.5ft	134.2ft	ft
8.2	154323*															8.2
9.8	132277	93696						60627								9.8
11.5	121254	95901						61729								11.5
13.1	105822	99208	81571					62832	44092			59525				13.1
14.8	92594	92594	81571					62832	44092			59525				14.8
16.4	83776	83776	68343	59525				62832	44092			59525	46297			16.4
19.7	68343	68343	66139	59525	41888			62832	44092	27558		59525	46297			19.7
23.0	55116	55116	55116	59525	39242			55116	44092	29542		55116	46297	27558		23.0
26.2	46297	46297	46297	59525	38360	26455		46297	44092	29542		46297	46297	29321		26.2
29.5	40345	41226	40785	55116	37479	25353		40785	43668	29631		40785	45636	29321		29.5
32.8		34172	33290	46297	36376	24692	20503	38360	40124	27384	11023	37038	38801	29236		32.8
39.4		23369	22487	40785	25794	22487	19401	27117	28660	23724	11023	25794	27558	26279		39.4
45.9			15873	37038	19180	20723	18739	20283	21605	21216	18801	18960	20503	21605	14330	45.9
52.5			11023	25794	14550	16094	16755		16976	17196	16594	14330	15873	16755	17416	52.5
59.1				18960	11464	12787	13448		13448	13889	14330	11023	12566	13448	13889	59.1
65.6				14330	9039	10141	10803		10803	11464	12125		9921	10803	11464	65.6
72.2				11023	7055	7716	8818			9480	10141		7496	8818	9259	72.2
78.7					5071	5952	7055			7937	8598		5732	7055	7716	78.7
85.3					3748	4630	5291			6614	7055			5512	5952	85.3
91.9					2646	3527	4189				5952			4409	4850	91.9
98.4						2646	3307				4630			3086	3748	98.4
2 nd	0	50%	100%	100%	100%	100%	100%	0%	0%	0%	0%	50%	50%	50%	50%	2 nd
3 rd	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%	3 rd
4 th	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%	4 th
5 th	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%	5 th

* The lifting load with a * followed is available only when the boom sheave block is used together with the single top, with 13 parts of line.

Lifting Capacities

T 38.7~147.6ft

38.7~147.6ft

24.3ft × 24.3ft

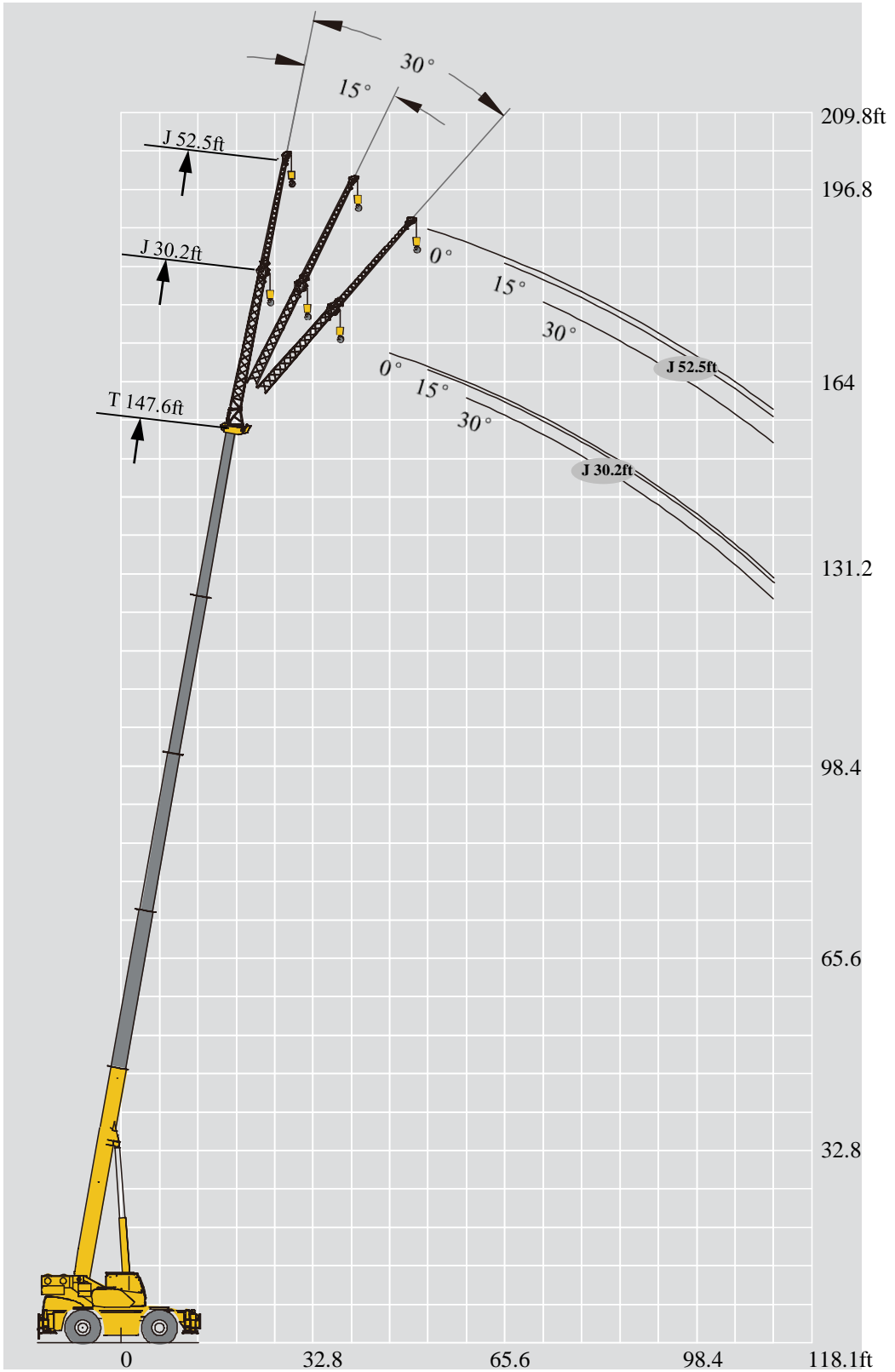
360°

19841.6 lb






ASME B30.5 85% : lb

ft	38.7ft	52.5ft	65.9ft	72.8ft	107.0ft	127.3ft	147.6ft	59.1ft	79.7ft	100.1ft	120.4ft	72.8ft	93.2ft	113.5ft	134.2ft	ft
8.2	154323*															8.2
9.8	132277	93696						60627								9.8
11.5	121254	95901						61729								11.5
13.1	110231	99208	81571					62832	44092			59525				13.1
14.8	101413	94799	81571					62832	44092			59525				14.8
16.4	88185	88185	73855	59525				62832	44092			59525	46297			16.4
19.7	73855	73414	69446	59525	41888			62832	44092	27558		59525	46297			19.7
23.0	60627	60627	60407	59525	39242			60627	44092	29542		59525	46297	27558		23.0
26.2	51809	51809	50706	59525	38360	26455		51809	44092	29542		52911	46297	29321		26.2
29.5	44092	44092	44092	59525	37479	25353		44092	43651	29542		44092	45636	29321		29.5
32.8		39022	38140	52911	36376	24692	20503	38801	40785	27337	11023	39683	37258	29321		32.8
39.4		27117	26235	44092	29101	22487	19401	30644	32187	23810	11023	29542	31085	26235		39.4
45.9			18960	39683	22708	21385	18739	23149	24692	21164	18739	22046	23589	23369	14330	45.9
52.5			13889	29542	17637	18519	17196		19401	18960	16535	16976	18298	19180	17637	52.5
59.1				22046	13889	14771	14550		15653	16535	14771	13228	14550	15432	16094	59.1
65.6				16976	11023	11905	12566		12787	13669	13228		11684	12566	13228	65.6
72.2				13228	8818	9700	10362			11464	11905		9480	10362	11023	72.2
78.7					7055	7937	8598			9700	9921		7716	8598	9259	78.7
85.3					5071	6393	7055			8157	8378			7055	7716	85.3
91.9					3968	5291	5952				7275			5952	6393	91.9
98.4						3968	4850				6173			4850	5512	98.4
2 nd	0	50%	100%	100%	100%	100%	100%	0%	0%	0%	0%	50%	50%	50%	50%	2 nd
3 rd	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%	3 rd
4 th	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%	4 th
5 th	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%	5 th

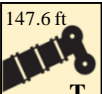

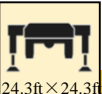


* The lifting load with a * followed is available only when the boom sheave block is used together with the single top, with 13 parts of line.



ASME B30.5 85% : lb

    				
147.6ft + 30.2ft				
ft	0°	15°	30°	ft
45.9	10582			45.9
52.5	10362	6834		52.5
59.1	9921	6614	5291	59.1
65.6	8598	6614	5071	65.6
72.2	7937	5952	4850	72.2
78.7	6173	5732	4630	78.7
85.3	4850	5512	4409	85.3
91.9	3748	4189	4189	91.9
98.4	2866	3307	3748	98.4
105.0		2425	2646	105.0

ASME B30.5 85% : lb

    				
147.6ft + 52.5ft				
ft	0°	15°	30°	ft
52.5	6393			52.5
59.1	6173			59.1
65.6	5732	4189		65.6
72.2	5512	3968	2866	72.2
78.7	5071	3527	2866	78.7
85.3	4630	3307	2646	85.3
91.9	4189	3086	2646	91.9
98.4	3748	2866	2646	98.4
105.0	2866	2646	2425	105.0

ASME B30.5 85% : lb















ft	147.6ft + 30.2ft			ft
	0°	15°	30°	
45.9	10582			45.9
52.5	10362	6834		52.5
59.1	9921	6614	5291	59.1
65.6	8598	6614	5071	65.6
72.2	8378	5952	4850	72.2
78.7	7716	5732	4630	78.7
85.3	6173	5512	4409	85.3
91.9	4850	5071	4189	91.9
98.4	3968	4409	3968	98.4
105.0	3086	3527	3748	105.0
111.5	2205	2646	2866	111.5

ASME B30.5 85% : lb

ft	147.6ft + 52.5ft			ft
	0°	15°	30°	
45.9	6393			45.9
52.5	6173			52.5
59.1	5732	4189		59.1
65.6	5512	3968	2866	65.6
72.2	5071	3527	2866	72.2
78.7	4630	3307	2646	78.7
85.3	4189	3086	2646	85.3
91.9	3968	2866	2646	91.9
98.4	3748	2646	2425	98.4
105.0	3086	2646	2425	105.0

Description of Symbols

Symbol Glossary

	Outriggers		Axle
	Radius		Driving speed
	Boom angle		Grade ability
	Boom length		Tires
	Hook block		Counterweight
	360° rotation		Superstructure
	Winch		Rough terrain crane

Crane Specific Symbols

	Boom		Jib
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Table of Main Technical Parameters

Category	Item	Unit	Parameter	Allowance	
Dimensions	Outline size (length×width×height)	ft	47.1×10.8×12.3	±1%	
	Wheel base	ft	13.1	±1%	
	Track (Front/ Rear)	ft	8.3/8.3	±1%	
	Front/ Rear overhang	ft	7.2/7.9	±1%	
	Front/ Rear extension	ft	18.8	±1%	
Weight	Total vehicle mass in travel configuration	lb	96959.2 (13889.1lb counterweight)	102911.5 (19841.6lb counterweight)	±3%
	Axle load	1st axle	lb	55688.7	±3%
		2nd axle	lb	41270.5	49537.8
Power	Engine model	—	QSB6.7		—
	Engine rated power/rpm	bhp/(r/min)	260/2000		—
	Engine rated torque/rpm	lb.ft/(r/min)	728/1500		—
Travel	Max. travel speed	mph	≥24.9		—
	Min. turning diameter	ft	≤42.7		—
	Min. ground clearance	ft	1.6		±1%
	Approach angle	°	23		±1°
	Departure angle	°	21		±1°
	Braking distance (at 14.91mph)	ft	≤29.5		—
	Max. grade ability	%	≥70		—

Table of Main Technical Parameters

Category	Item		Unit	Parameter	Allowance	
Main performance	Max. total rated lifting capacity		lb	154323	±5%	
	Min. rated working radius		ft	8.2	±1%	
	Turning radius at turntable tail	Counterweight	ft	13.8	±1%	
	Max. load moment	Base boom	ft·lb	1496218	±5%	
		Fully-extended boom	ft·lb	902038	±5%	
	Outrigger span	Longitudinal	ft	24.3	±1%	
		Lateral	ft	24.3	±1%	
	Hoist height	Base boom	ft	42	±1%	
		Fully-extended boom	ft	148.6	±1%	
		Fully-extended boom + Jib	ft	190	±1%	
	Boom length	Base boom	ft	38.7	±1%	
		Fully-extended boom	ft	147.6	±1%	
		Fully-extended boom + Jib	ft	200	±1%	
Jib offset angle			°	0°、15°、30°	—	
Working speed	Boom raising time		s	≤50	—	
	Boom fully extending time		s	≤90	—	
	Max. slewing speed		r/min	≥2	—	
	Outrigger extending and retracting time	Outrigger beam	Retracting	s	≤20	—
			Extending	s	≤35	—
		Outrigger jack	Retracting	s	≤30	—
			Extending	s	≤35	—
	Hoisting speed (single line, 4th layer, no load)	Main winch	fpm	≥492	—	
Auxiliary winch		fpm	≥328	—		

Notes

1. The total rated loads given in the rated load charts are the maximum lifting capacity when the crane is set up on firm and level ground, which includes the weight of the hook block and slings. The weight of above-mentioned devices should be deducted from the rated lifting load.
2. The working radius shown in the rated load charts is the radius when the load is lifted off the ground, and it is the actual value including loaded boom deflection. Take boom deflection into consideration before beginning a lifting operation.
3. A lifting operation is permissible only when the wind force is below grade 5 (instantaneous wind speed is 46.2ft/s, wind pressure is 142.2psi).
4. Before beginning lifting operation, the operator should know the weight of the load to be lifted and its working range, and then select proper working conditions. Never operate the crane beyond the limit shown in the chart. Use the lower value from the chart when the boom length or working radius is between the range of values.
5. Observe the boom angle limit. Never operate the crane with the boom angle beyond the recommended limit even if a load is not being carried. Otherwise, the crane will tip.
6. The boom should be extended according to the telescoping code shown by digits, which means the percentage of boom sections extended.



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