



QUADSTAR 1100
110 USt Lifting Capacity
Rough Terrain Crane
Datasheet
Imperial

QUADSTAR 1100



Features:

- ▶ Rated capacity:
110 USt @ 10 ft working radius
- ▶ Maximum boom length:
155 ft
- ▶ Maximum tip height:
164 ft

WORKS FOR YOU.™

Key

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Dimensions



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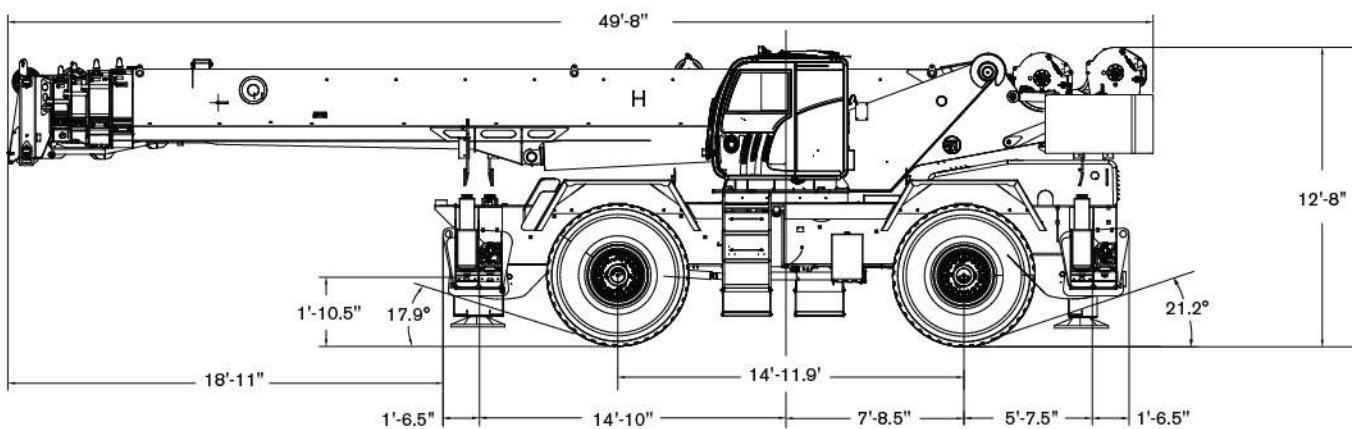
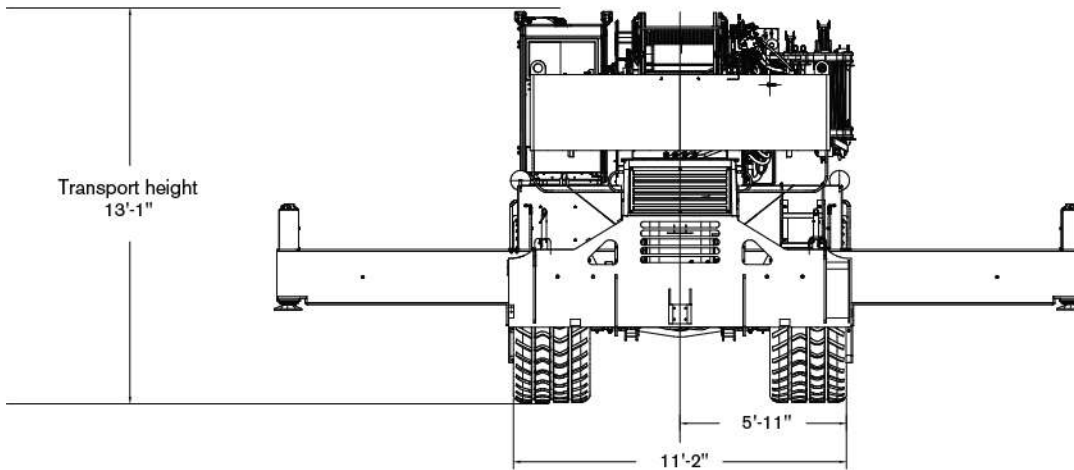
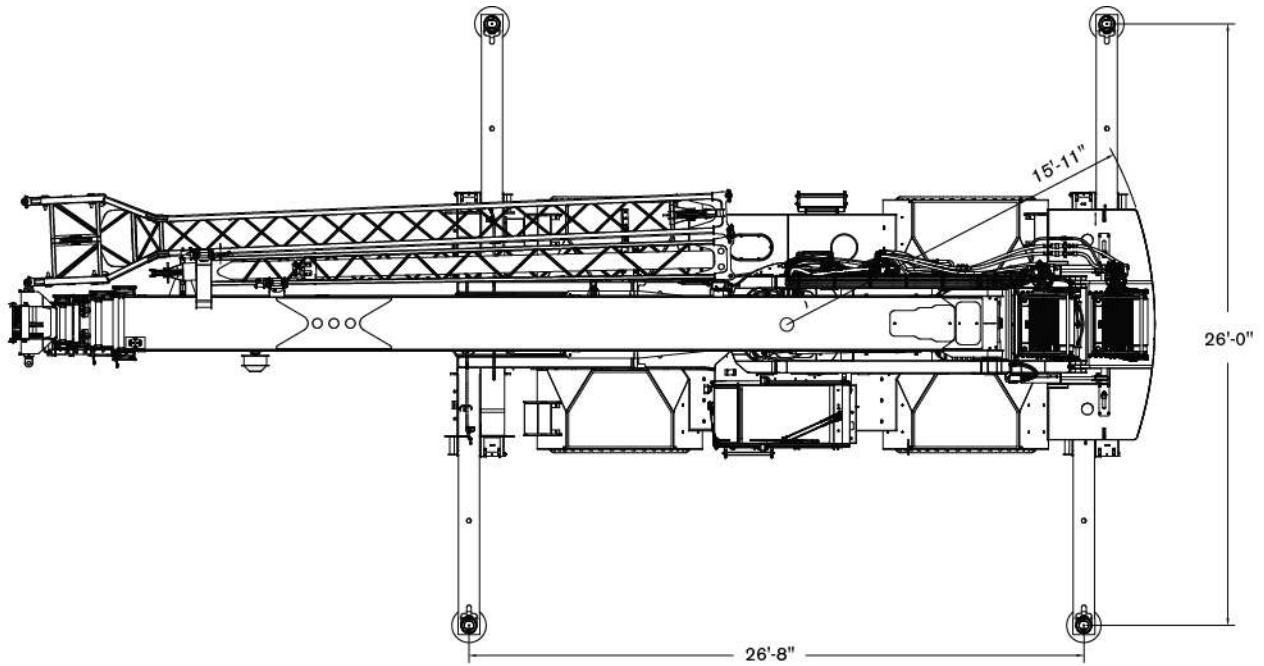
Technical description

Boom	22
Hoist, rope and hook	22, 23
Superstructure	23
Cab, controls, operator aids and load limiter / load indicator	24
Carrier, engine, drive-line and hydraulic system	24, 25
Vehicle performance	25
Tires	25
Other options	25

	Counterweight		General performance
	Main boom		Telescoping mode
	Boom length		Boom luffing angle
	Tip height		Working radius
	Boom with extension		Max. boom length with extension
	Main boom with aux head		Distance from the hook to the head sheave pin
	Slewing / Allowable slewing range		Slewing locked / Slewing locked at specified position
	Slewing brake		Slewing gears
	Outriggers / Lifting on outriggers (100/50/0% extended)		Lifting on wheels / Pick & Carry
	Main hoist		Auxiliary hoist
	Hoist speed		Rope length
	Rope - Standard / Optional		Max. line pull
	Rope diameter		Tire
	Hook block		Controls
	Cab		Engine
	Operator aids / Load limiter / Load indicator		Steering
	Mechanical transmission		Speed
	Hydraulics		Heating / Air conditioning
	Working temperature		Gradeability
	Lights		Gross vehicle weight
	Crane / Crane in standard configuration		Weight on front axle
	Crane without counterweight		Weight on rear axle

CRANE DIMENSIONS

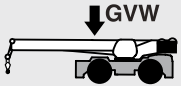
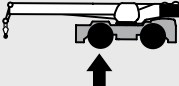
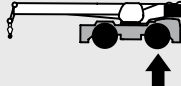
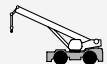
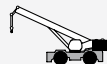








QUADSTAR 1100



CRANE WEIGHTS

QUADSTAR 1100

Approximate Weights

				
	Without counterweights	105,775 lb	79,912 lb	32,881 lb
	In standard configuration	130,495 lb	63,025 lb	67,489 lb
Add / Subtract for main crane configuration				
	Stowed aside the boom	+ 3,560 lb	+ 5,790 lb	- 2,230 lb
	Auxiliary boom head	+ 130 lb	+ 358 lb	- 228 lb
	Optional	+ 221 lb	- 50 lb	+ 271 lb
	With standard rope	+ 659 lb	- 253 lb	+ 912 lb
	With optional rope	+ 221 lb	- 97 lb	+ 318 lb
	7 sheaves, 110 USt hanging down from boom head	+ 2,120 lb	+ 3,569 lb	- 1,449 lb
	5 sheaves, 75 USt hanging down from boom head	+ 1,680 lb	+ 2,707 lb	- 1,099 lb
	Hook ball, 12 USt (in tool box)	+ 722 lb	+ 749 lb	- 27 lb

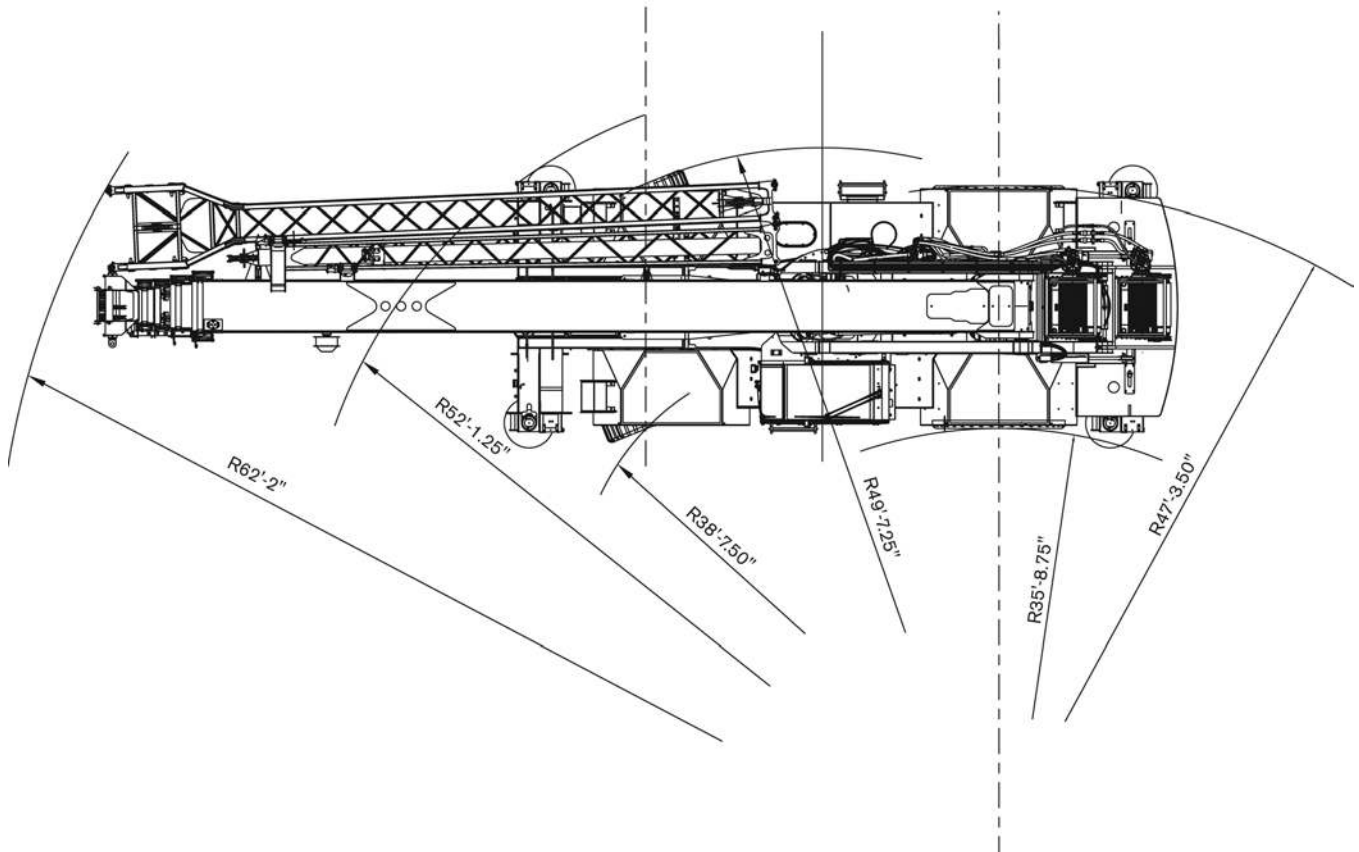
NOTE: Values are subject to 2% variation

For complete list of adds and subtracts refer to user manual.

STEERING RADII

QUADSTAR 1100

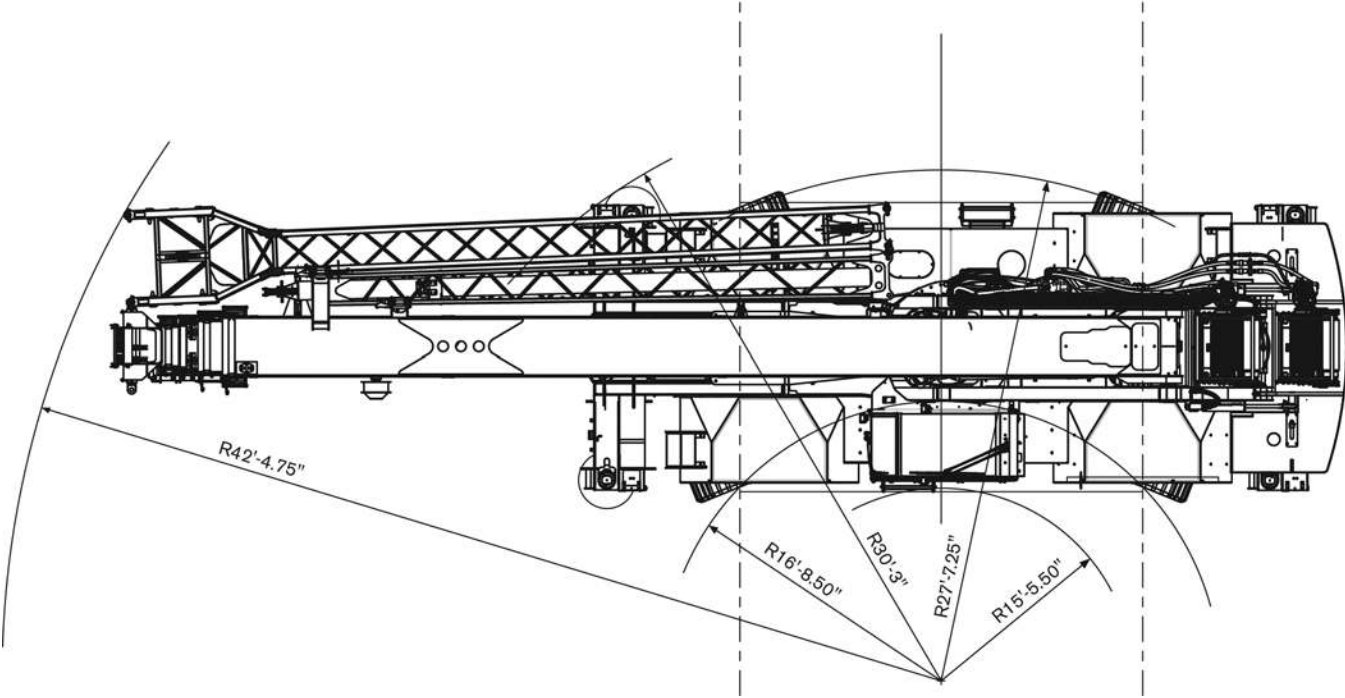
Two Wheel Steer



STEERING RADII

QUADSTAR 1100

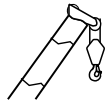
Four Wheel Steer



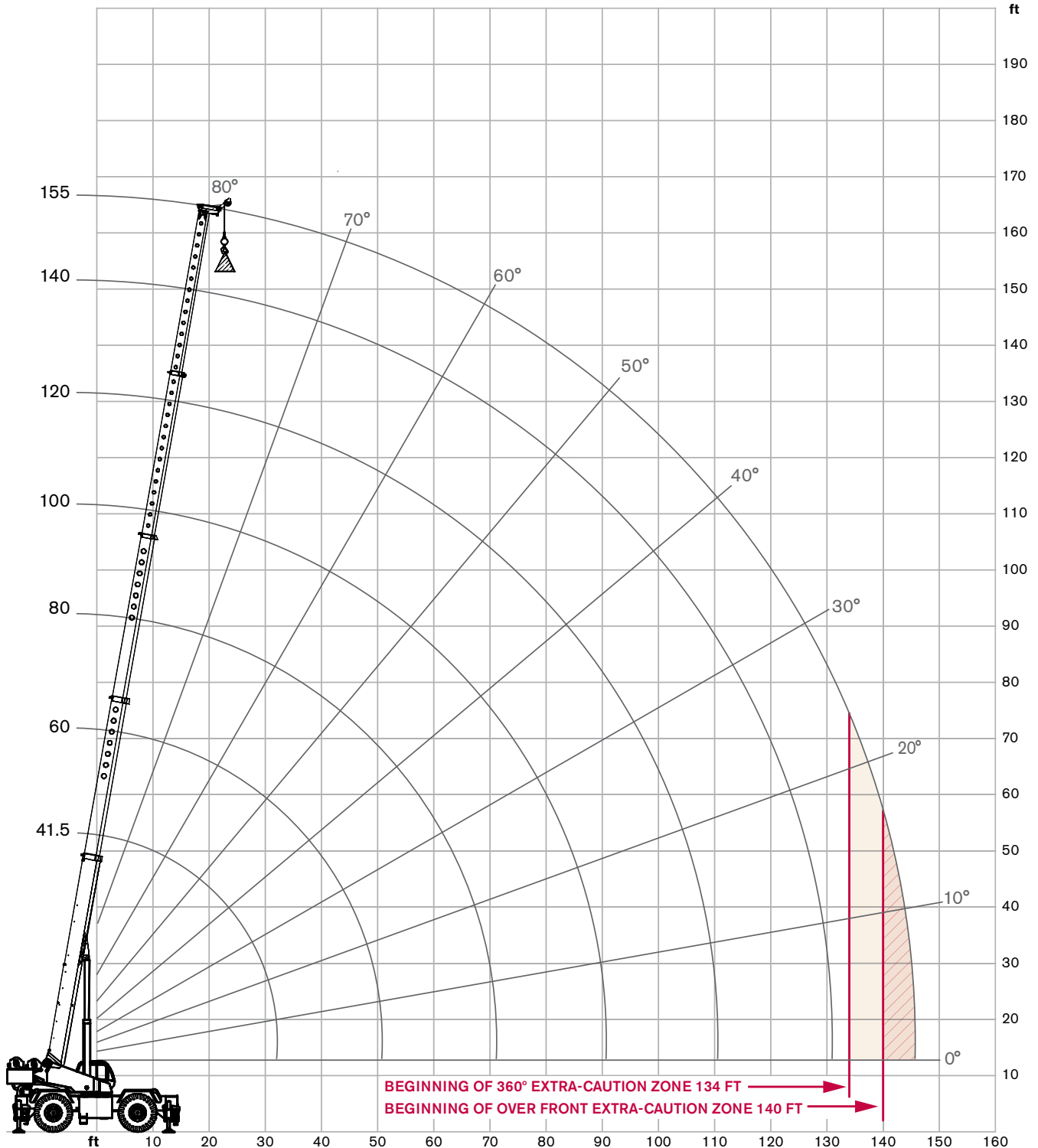
RANGE DIAGRAM - MAIN BOOM

QUADSTAR 1100

Outriggers Fully Extended (100%), Dual Mode




with hook block:
6 ft

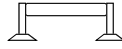



LOAD CHART- MAIN BOOM

QUADSTAR 1100

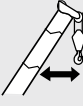

Outriggers Fully Extended (100%), Dual Mode

 22,600 lbs counterweight

 Outriggers extended 26 ft (100%)

 360 degree rotation

Standard ASME B30.5

	Boom Length							
	41.5 ft	60 ft	80 ft	100 ft	120 ft	140 ft	155 ft	
ft	lb	lb	lb	lb	lb	lb	lb	ft
10	220,000							10
12	199,600	150,000						12
15	169,500	150,000	107,200					15
20	131,900	130,200	105,500	85,000				20
25	105,900	104,300	88,000	71,400	60,900			25
30	86,800	89,500	75,100	60,900	52,700	42,800		30
35		66,600	60,400	53,100	45,800	39,400	30,000	35
40		52,400	46,300	46,600	40,600	35,600	26,800	40
45		42,200	36,600	39,100	36,000	31,800	25,200	45
50		34,300	32,800	31,900	32,200	28,800	23,600	50
55			29,900	26,400	28,000	26,000	22,000	55
60			26,600	22,000	23,600	23,500	20,400	60
65			22,800	20,000	20,000	21,100	18,700	65
70			19,500	18,400	17,000	18,100	17,200	70
75				17,000	14,600	15,600	15,900	75
80				15,800	13,100	13,500	14,100	80
85				14,300	12,100	12,500	12,300	85
90				12,500	11,200	11,600	10,700	90
95					10,500	10,700	9,300	95
100					9,800	9,800	8,000	100
105					8,600	8,700	6,900	105
110					7,500	7,700	5,900	110
115						6,800	5,000	115
120						5,900	4,200	120
125						5,100	3,500	125
130						4,300	2,800	130
135							2,100	135
140							1,500	140
145							900	145

Mode 1 Mode 2

Notes to lifting capacity

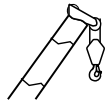
Lifting capacities do not exceed 85% of tipping load. Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings. Consult operation manual for further details.

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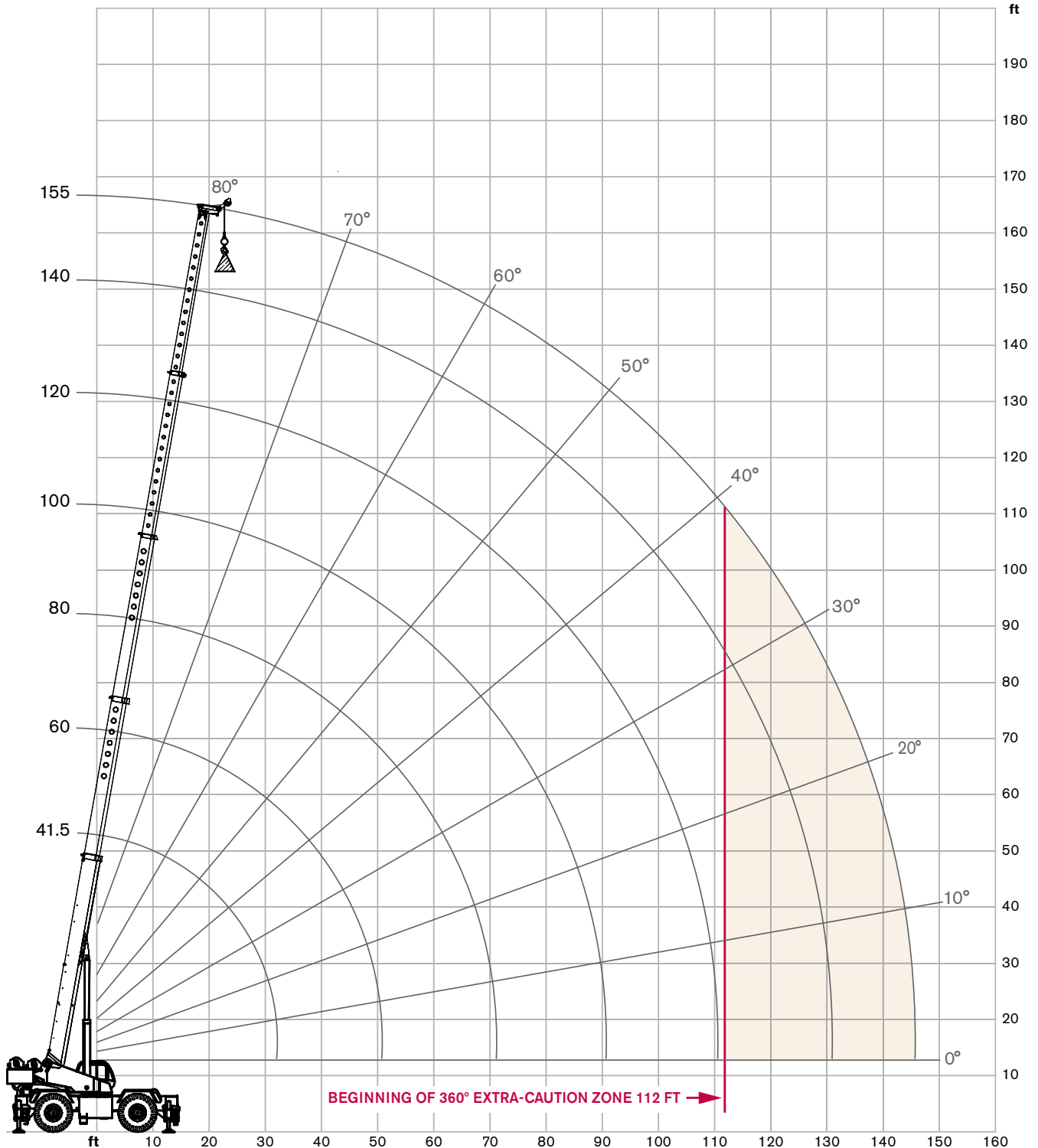
RANGE DIAGRAM - MAIN BOOM

QUADSTAR 1100

Outriggers Half Extended (50%), Dual Mode




with hook block:
6 ft

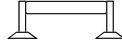



LOAD CHART- MAIN BOOM

QUADSTAR 1100

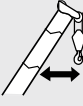

Outriggers Half Extended (50%), Dual Mode

 22,600 lbs counterweight

 Outriggers extended 13 ft (50%)

 360 degree rotation

Standard ASME B30.5

	Boom Length							
	41.5 ft	60 ft	80 ft	100 ft	120 ft	140 ft	155 ft	
ft	lb	lb	lb	lb	lb	lb	lb	ft
10	212,700							10
12	186,000	150,000						12
15	155,100	150,000	107,200					15
20	98,100	99,100	98,200	85,000				20
25	63,000	67,000	62,500	66,400	60,900			25
30	43,900	48,400	50,300	47,100	47,300	42,800		30
35		36,900	38,700	36,000	35,700	36,900	30,000	35
40		29,000	30,900	31,000	27,700	28,900	26,800	40
45		23,000	25,200	26,000	24,000	24,500	23,800	45
50		18,400	20,900	21,600	21,200	21,500	19,400	50
55			17,400	18,000	17,700	18,300	16,000	55
60			14,500	15,200	16,000	15,400	13,300	60
65			12,100	13,000	13,300	12,900	11,800	65
70			10,000	11,000	11,500	10,900	9,800	70
75				9,200	10,000	8,600	8,100	75
80				7,700	8,500	7,800	6,600	80
85				6,400	7,000	6,600	5,400	85
90				5,100	6,000	5,500	4,300	90
95					4,900	4,500	3,300	95
100					3,800	3,600	2,500	100
105					2,900	2,800	1,700	105
110					2,200	2,000		110

Mode 1 | Mode 2

Notes to lifting capacity

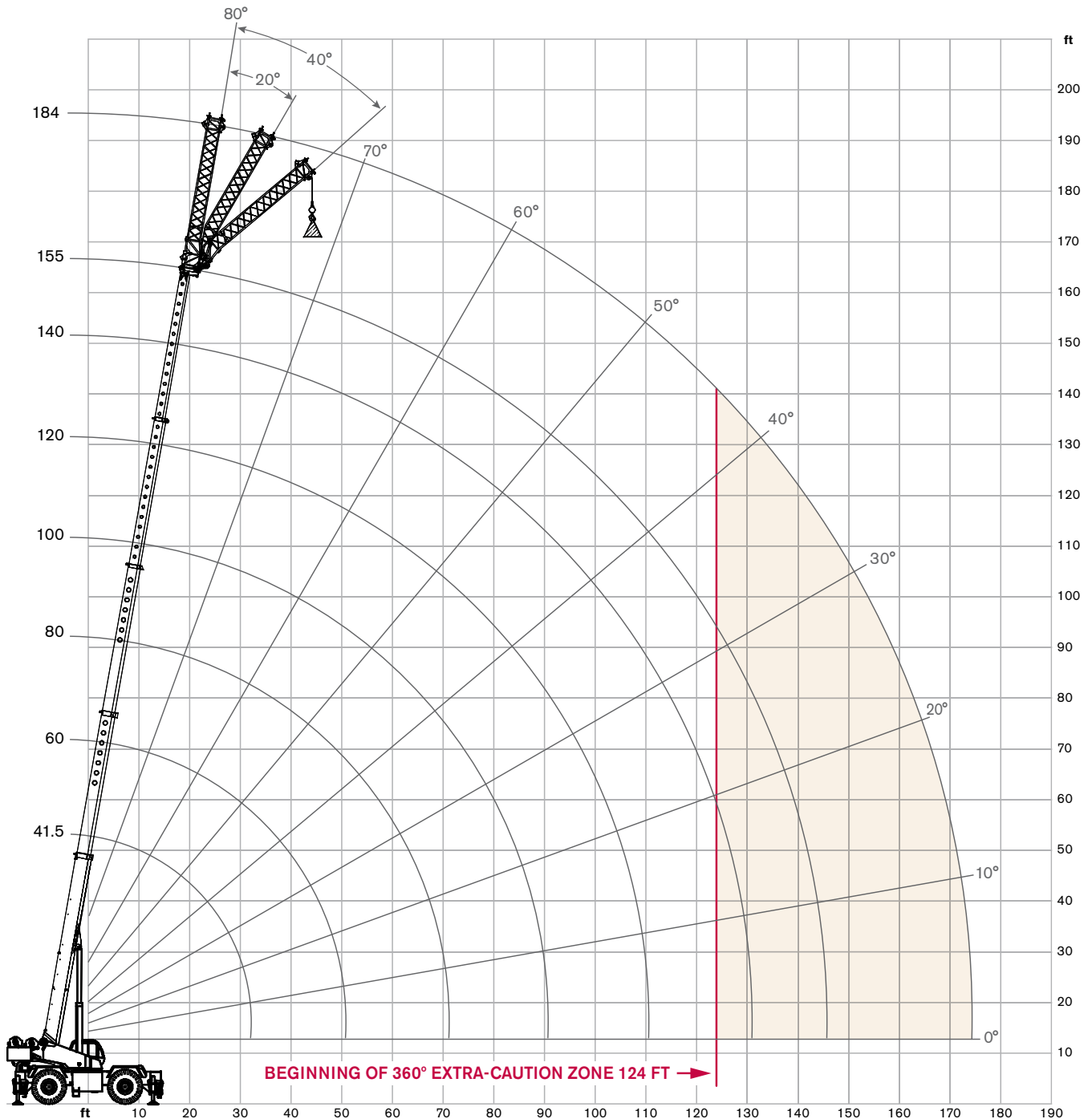
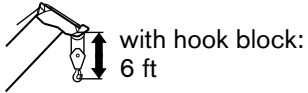
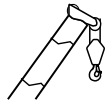
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RANGE DIAGRAM - MAIN BOOM

QUADSTAR 1100


With Jib, 28.8 ft offset





LOAD CHART- MAIN BOOM

QUADSTAR 1100




With Jib, 28.8 ft offset

 22,600 lbs counterweight

 Outriggers extended 26 ft (100%)

 360 degree rotation

Standard ASME B30.5

28.8 ft Offsettable Jib					
0° Offset		20° Offset		40° Offset	
 Radius (ft)	lbs	 Radius (ft)	lbs	 Radius (ft)	lbs
49	16,100	59	15,000	66	12,200
57	15,200	66	13,300	72	11,500
64	14,500	73	11,800	77	10,700
71	12,900	79	10,800	83	9,800
81	11,000	88	9,400	91	8,700
90	9,600	96	8,400	99	7,800
98	8,500	104	7,500	106	7,200
106	7,600	111	6,900	113	6,500
115	6,700	120	6,100	122	5,800
124	5,600	129	5,100	131	5,000
133	4,200	136	3,900	138	3,900
138	3,400	141	3,100		
148	2,000	151	1,900		
156	1,000	159	1,000		

Notes to lifting capacity

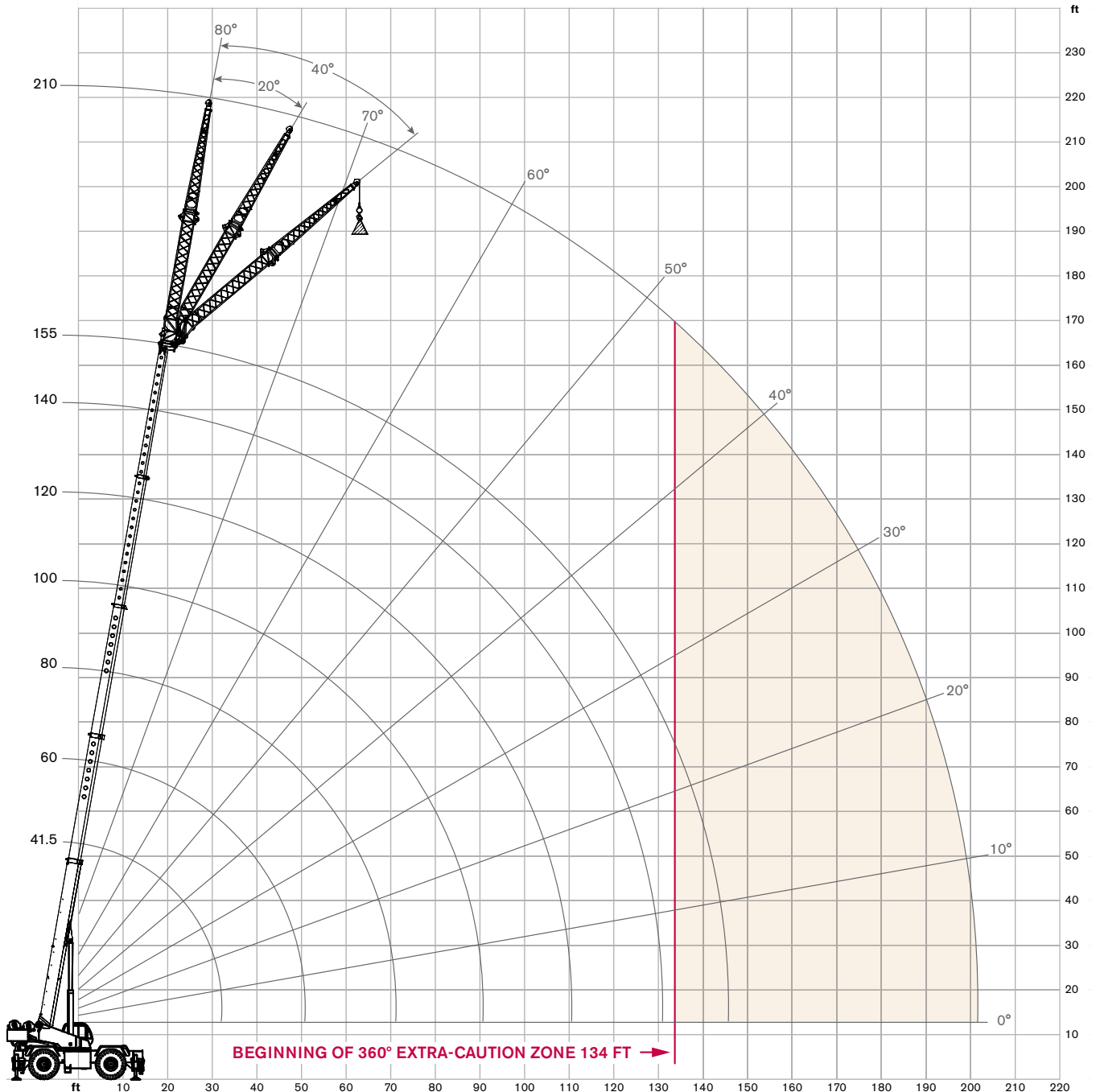
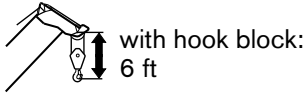
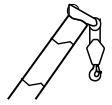
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RANGE DIAGRAM - MAIN BOOM

QUADSTAR 1100


With Jib, 54.9 ft offset





LOAD CHART- MAIN BOOM

QUADSTAR 1100




With Jib, 54.9 ft offset

 22,600 lbs counterweight

 Outriggers extended 26 ft (100%)

 360 degree rotation

Standard ASME B30.5

54.9 ft Offsettable Jib					
0° Offset		20° Offset		40° Offset	
 Radius (ft)	lbs	 Radius (ft)	lbs	 Radius (ft)	lbs
55	8,700	73	6,900	87	5,600
63	8,200	80	6,500	93	5,300
71	7,700	87	6,200	99	5,000
79	7,300	94	5,800	106	4,700
91	6,500	105	5,100	114	4,300
103	5,900	116	4,600	123	3,900
114	5,200	126	4,100	131	3,500
125	4,500	135	3,600	139	3,100
136	3,700	145	3,100	149	2,600
145	3,100	154	2,600	158	2,200
154	2,200	161	1,900	167	1,700
159	1,400	167	1,300		

Notes to lifting capacity

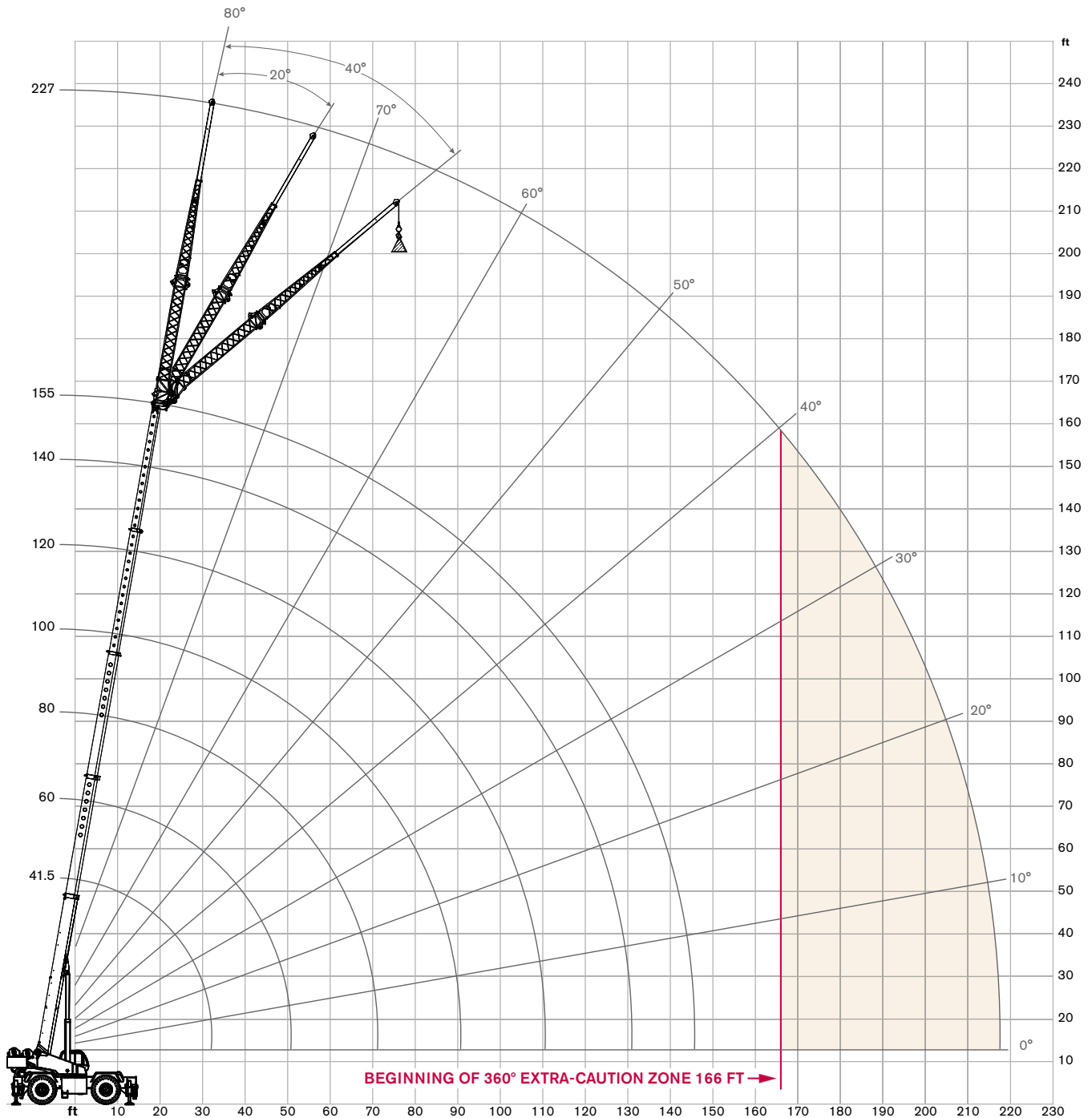
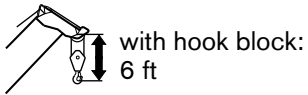
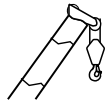
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RANGE DIAGRAM - MAIN BOOM

QUADSTAR 1100


With Jib, 72.1 ft offset

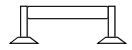



LOAD CHART- MAIN BOOM

QUADSTAR 1100




With Jib, 72.1 ft offset

 22,600 lbs counterweight

 Outriggers extended 26 ft (100%)

 360 degree rotation

Standard ASME B30.5

72.1 ft Offsettable Jib					
0° Offset		20° Offset		40° Offset	
 Radius (ft)	lbs	 Radius (ft)	lbs	 Radius (ft)	lbs
61	6,700	84	5,100	102	4,000
70	6,300	93	4,700	108	3,800
79	5,900	100	4,500	114	3,600
88	5,500	107	4,200	120	3,400
100	5,000	118	3,800	129	3,100
113	4,500	129	3,400	138	2,800
124	4,000	139	3,000	146	2,500
135	3,500	149	2,700	153	2,300
148	3,000	161	2,200	163	2,000
159	2,500	171	1,800	172	1,700
169	1,700	179	1,400	181	1,300
175	1,100				

Notes to lifting capacity

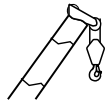
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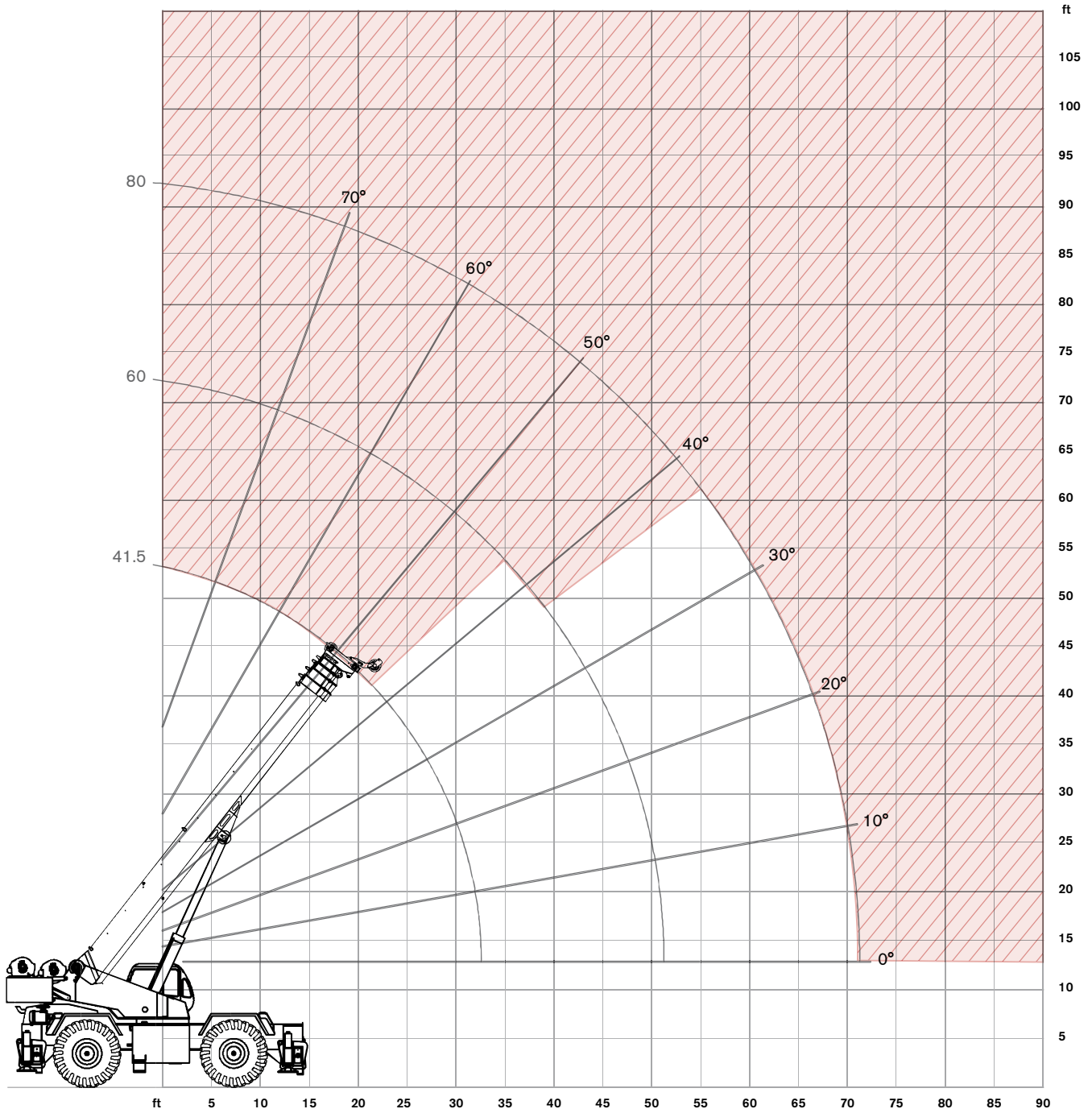
RANGE DIAGRAM - MAIN BOOM

QUADSTAR 1100

On Tires




with hook block:
6 ft





LOAD CHART- MAIN BOOM

QUADSTAR 1100

On Tires

 22,600 lbs counterweight

 360 degree rotation

 On tires
29.5 R25

Standard ASME
B30.5

Boom		Travel Speed Boom straight over front		
Radius	Length	0 mph	Creep	2.5 mph
ft	lb	lb	lb	lb
20	41.5	56,800	41,500	27,900
25	41.5	45,000	32,000	20,500
30	41.5	30,600	24,900	14,800
35	60	25,600	20,600	11,300
40	60	21,500	18,800	10,900
45	60	18,000	15,300	8,200
50	60	15,100	12,300	5,700
55	80	12,700	11,300	4,900
60	80	10,600	10,100	4,500
65	80	8,900	8,300	3,100
70	80	7,400	6,700	1,800

Notes to lifting capacity

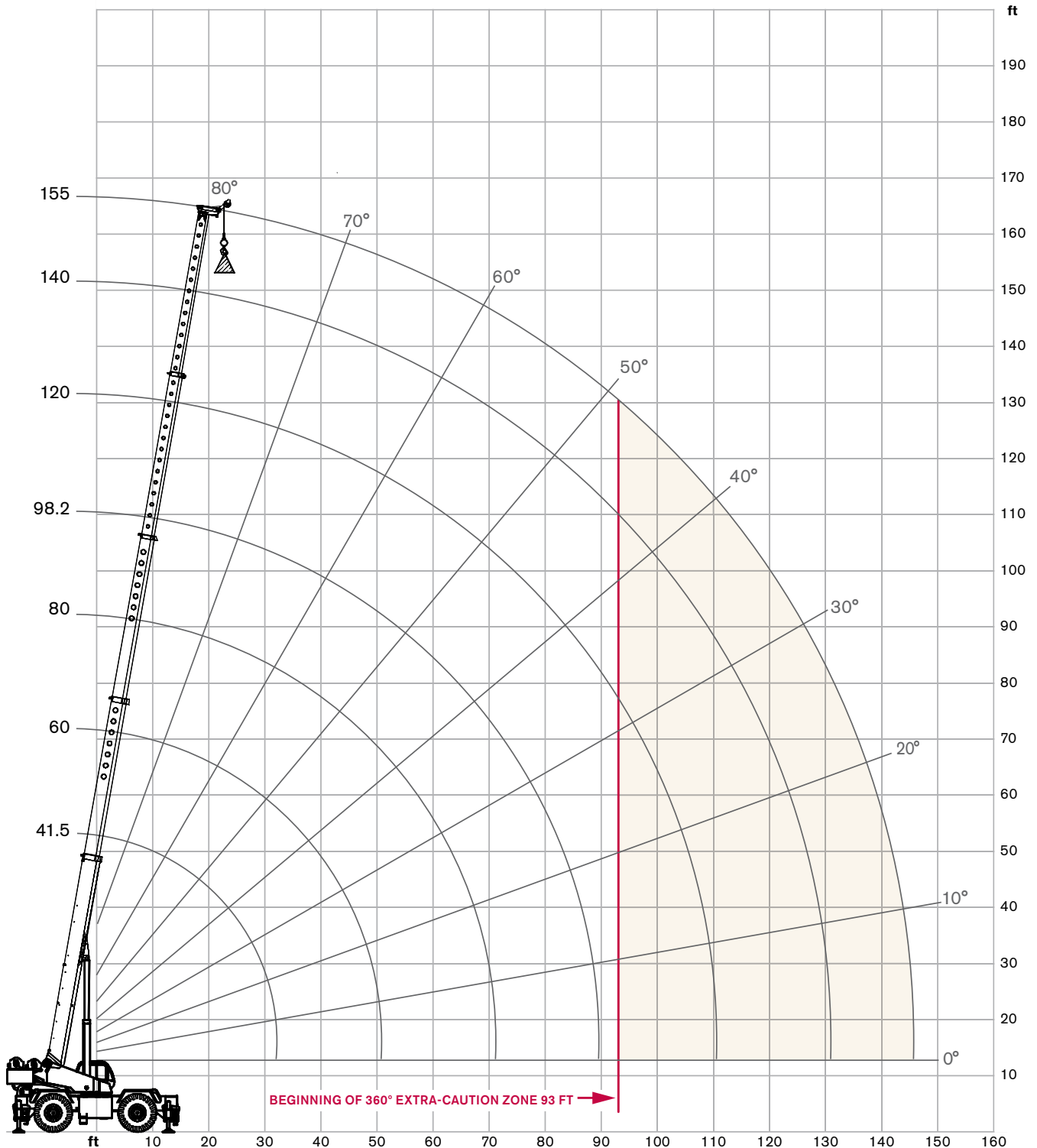
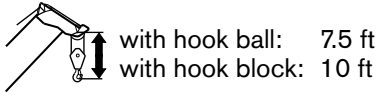
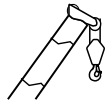
Lifting capacities do not exceed 75% of tipping load. Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings. Consult operation manual for further details.

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RANGE DIAGRAM - MAIN BOOM

QUADSTAR 1100


Without Counterweight





LOAD CHART- MAIN BOOM

QUADSTAR 1100

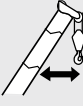

Without Counterweight

 0 lbs counterweight

 Outriggers extended 26 ft (100%)

 360 degree rotation

Standard ASME B30.5

	Boom Length							
	41.5 ft	60 ft	80 ft	100 ft	120 ft	140 ft	155 ft	
ft	lb	lb	lb	lb	lb	lb	lb	ft
10	214,200							10
12	187,700	110,000						12
15	156,500	110,000	77,500					15
20	119,700	99,100	67,800	53,100				20
25	84,100	88,900	59,400	47,300	37,700			25
30	54,300	59,300	51,600	41,200	34,300	33,700		30
35		42,800	45,000	36,000	30,000	30,600	30,000	35
40		32,400	34,900	31,900	26,900	27,500	26,800	40
45		25,100	27,200	28,400	24,000	24,500	25,200	45
50		19,400	21,900	23,000	21,500	22,000	21,100	50
55			17,800	18,900	18,600	18,500	17,100	55
60			14,600	15,700	15,400	15,300	13,900	60
65			11,900	13,100	12,800	12,700	11,300	65
70			9,500	10,900	10,700	10,500	9,200	70
75				9,100	8,900	8,800	7,500	75
80				7,600	7,300	7,200	6,000	80
85				6,100	6,000	5,900	4,700	85
90				4,800	4,800	4,800	3,500	90
95					3,800	3,600	2,500	95
100					2,900	2,600	1,700	100
105					2,000	1,700	900	105
110					1,100	900		110

Notes to lifting capacity











Lifting capacities do not exceed 85% of tipping load. Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings. Consult operation manual for further details.

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TECHNICAL DESCRIPTION

QUADSTAR 1100

Boom

Standard configuration:	
	5 sections full power
	Mode 1: Optimized for best capacity on longer radius
	Mode 2: Optimized for best capacity on short radius
	Min. / Max. 41.5 ft / 155 ft
	Maximum tip height main boom 164 ft
	Boom elevation angle range (min. / max.) -3° / 80°
	Boom raising / lowering time 70 s / 100 s
	Boom extension / retraction time 130 s / 100 s
Optional configuration:	
	Single sheave Tip height - boom fully retracted / boom fully extended 54 ft / 165 ft
	Lattice style, side stow, bi-fold Pullout extension 28.8 ft / 54.9 ft Angular offsets 17.2 ft 0°, 20° and 40°
	With one jibs section 184 ft With two jibs sections 210 ft With two jibs sections and pullout 227 ft
	With one jibs section 193 ft With two jibs sections 218 ft With two jibs sections and pullout 235 ft

Hoist, Rope and Hook

Standard configuration:	
	Two speeds Grooved drum Storage capacity 1,239 ft
	Maximum without load 453 ft/min
	XIPS, IWRC, Right Regular Lay
	3/4 in
	850 ft
	Minimum breaking strength 58,800 lbs Maximum line pull permissible 16,800 lbs

Optional configuration:



Two speeds
Grooved drum
Storage capacity

1,239 ft



Maximum without load

453 ft / min



Type: XIPS, IWRC, Right Regular Lay
35 x 7 rotation resistant compacted strand



3/4 in



850 ft



Minimum breaking strength
Maximum line pull permissible

84,000 lbs
16,800 lbs



Top swivel hook ball with latch
5 metallic sheaves
7 metallic sheaves

12 USt
75 USt
110 USt

Superstructure

Standard configuration:



Weight
Pinned to frame and hydraulically mounted / removed

12.4 USt



Non stop
Maximum rotation speed without load

360°
1.5 rpm



Hydraulic motor
Planetary reducer



Foot actuated pedal - provides variable braking force

Travel Lock - 2 position or 360° house lock

Cab, Controls, Operator aids and Load limiter / Load indicator

Standard configuration:



Sliding door on the left side
 Sliding window on the left side and rear
 Hinged, tinted all glass skylight
 Six way adjustable seat
 18° tiltable cab
 Working lights
 Signal lights indicating LMI-load



Armrest mounted dual axis electro-proportional joysticks
 Controls for hoist and hoist rotation indicator, slewing, boom elevation, boom telescoping
 Foot controls for swing brake and engine throttle
 Steering wheel column mounted controls for gear shifting
 Dashboard mounted switches for steering mode, outriggers



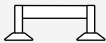
Graphic interface for rated capacity indicator



Standard HVAC, flameless heat

Carrier, Engine, Drive-line and Hydraulic system

Standard configuration:



Hydraulic, independent extension:

100% extended outrigger footprint area	693.3 ft ²
50% extended outrigger footprint area	483.9 ft ²
0% extended outrigger footprint area	283.3 ft ²
Floating ground bearings diameters (area)	24 in (452 in ²)
Single outrigger jack extending and retracting time	20 s
Single outrigger beam extending and retracting time	8 s

Access steps to the deck from any side




Cummins QSB6.7 6 cylinders

Rated power	260 hp @ 2,200 rpm
Maximum gross torque	728 ft-lb @ 1,500 rpm




Intake: turbocharger with intercooler
 Fuel type Diesel
 Fuel tank capacity 80 gallons




6 x 6 powershift transmission with torque converter
 Selectable four-wheel drive (low range)
 Rigid mounted front axle
 Oscillating mounted rear axle
 Automatic rear axles oscillation lock when superstructure is swung by 10° from centerline in either directions
 Pneumatic service brakes

	3 mode hydraulic power steering	
	Front wheel mode - minimum steering curb clearance radius	50.1 ft
	All wheels cocentric steering mode - minimum steering curb clearance radius	28.2 ft
Optional configuration:		
	Piston pump for main and auxiliary winch	
	Piston pump for boom hoisting and telescoping	
	Gear pump for steering, outriggers and slewing	
	Hydraulic oil tank capacity	304 gallons
	Hydraulic oil filters	5 µm
	Engine oil heater	
	Hydraulic oil heater	
	Battery heater	
	Low temperature fluids	

Vehicle performance

Standard configuration:		
	Maximum in 1 st gear	55%
	Maximum in 6 th gear	2%
	Maximum (6 th gear)	18.7 mph
	Maximum	+ 125° F
	Minimum	-20° F

Tires

Standard configuration:		
	Wide tread - Earth mover pattern (E3)	29.5 R25

Other options

Revolving amber light (One light mounted on the cab)
Yellow strobe light (One light mounted on the cab - used in place of revolving amber light)
Work light package (Lights mounted on the base of the boom and superstructure)
Tire inflation kit
Mirror for viewing hoist
Battery disconnect switch
Front and/or rear pintle hook

QUADSTAR 1100

Effective Date: April 2013. Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's Manual when using our equipment or to otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to our equipment is the standard written warranty applicable to the particular product and sale and Terex makes no other warranty, express or implied. Products and services listed may be trademarks, service marks or trade-names of Terex Corporation and/or its subsidiaries in the USA and other countries. All rights are reserved. Terex® is a registered trademark of Terex Corporation in the USA and many other countries. Copyright 2013 Terex Corporation.

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