TEREX®

RT 110

110 USt Lifting Capacity
Rough Terrain Crane
Datasheet
Imperial

RT 110

Features:

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

WORKS FOR YOU.™

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Technical description

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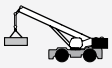
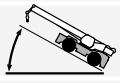
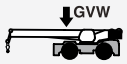
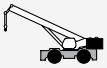
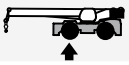
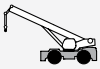
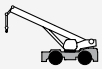
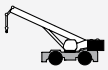
KEY

	Counterweight		General performance
	Main boom		Telescoping mode
	Boom length		Working radius
	Tip height		Max. boom length with extension
	Boom with extension		Distance from the hook to the head sheave pin
	Main boom with aux head		Hook ball
	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 WEIGHTS

Approximate Weights

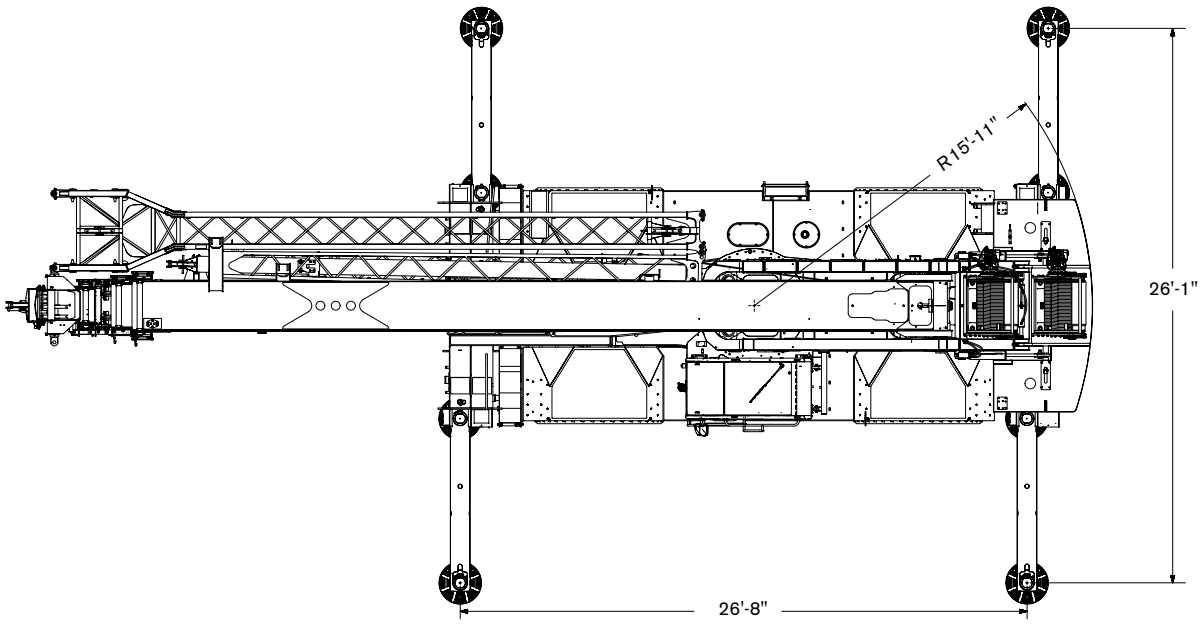
		GVW		
	Without counterweights	104,264 lb	73,690 lb	30,574 lb
	In standard configuration	125,424 lb	58,012 lb	67,412 lb
	Add / Subtract for main crane configuration			
	Stowed aside the boom	+ 3,560 lb	+ 5,790 lb	– 2,230 lb
	Auxiliary boom head	+ 208 lb	+ 575 lb	– 367 lb
	Optional	+ 221 lb	– 50 lb	+ 271 lb
	With standard rope	+ 659 lb	– 253 lb	+ 912 lb
	With optional rope	+ 880 lb	– 350 lb	+ 1,230 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

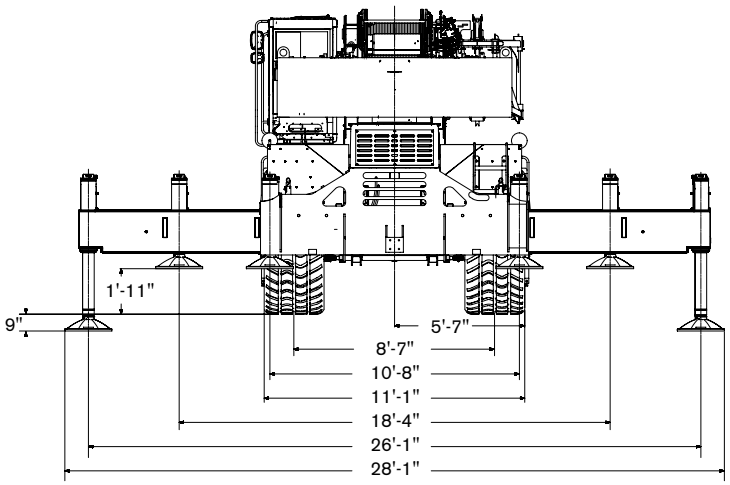
NOTE: Values are subject to 2% variation

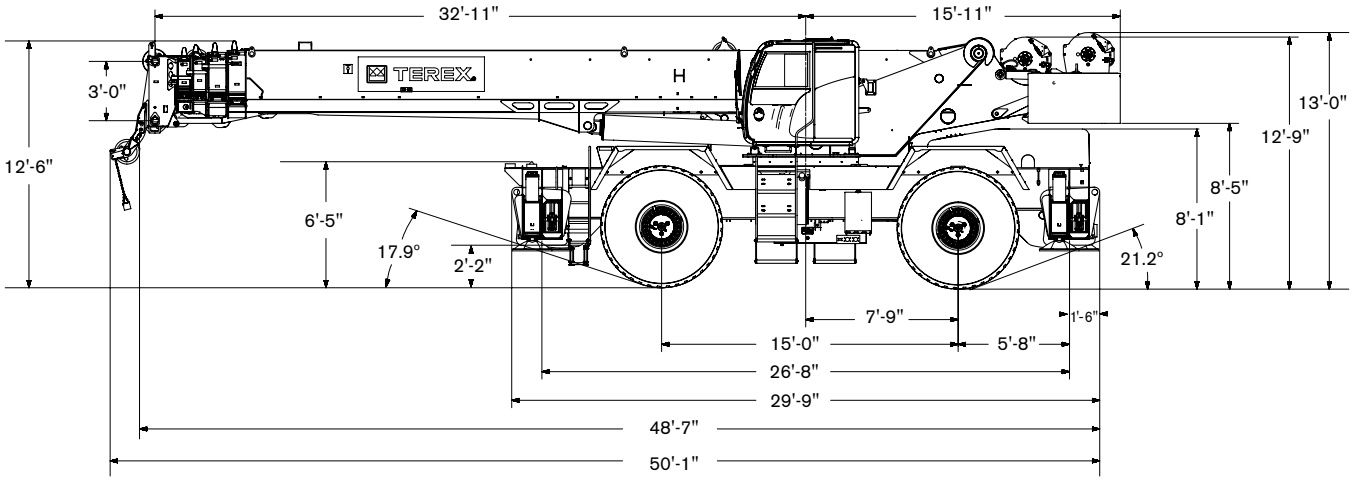
For complete list of adds and subtracts refer to user manual.

CRANE DIMENSIONS

RT 110

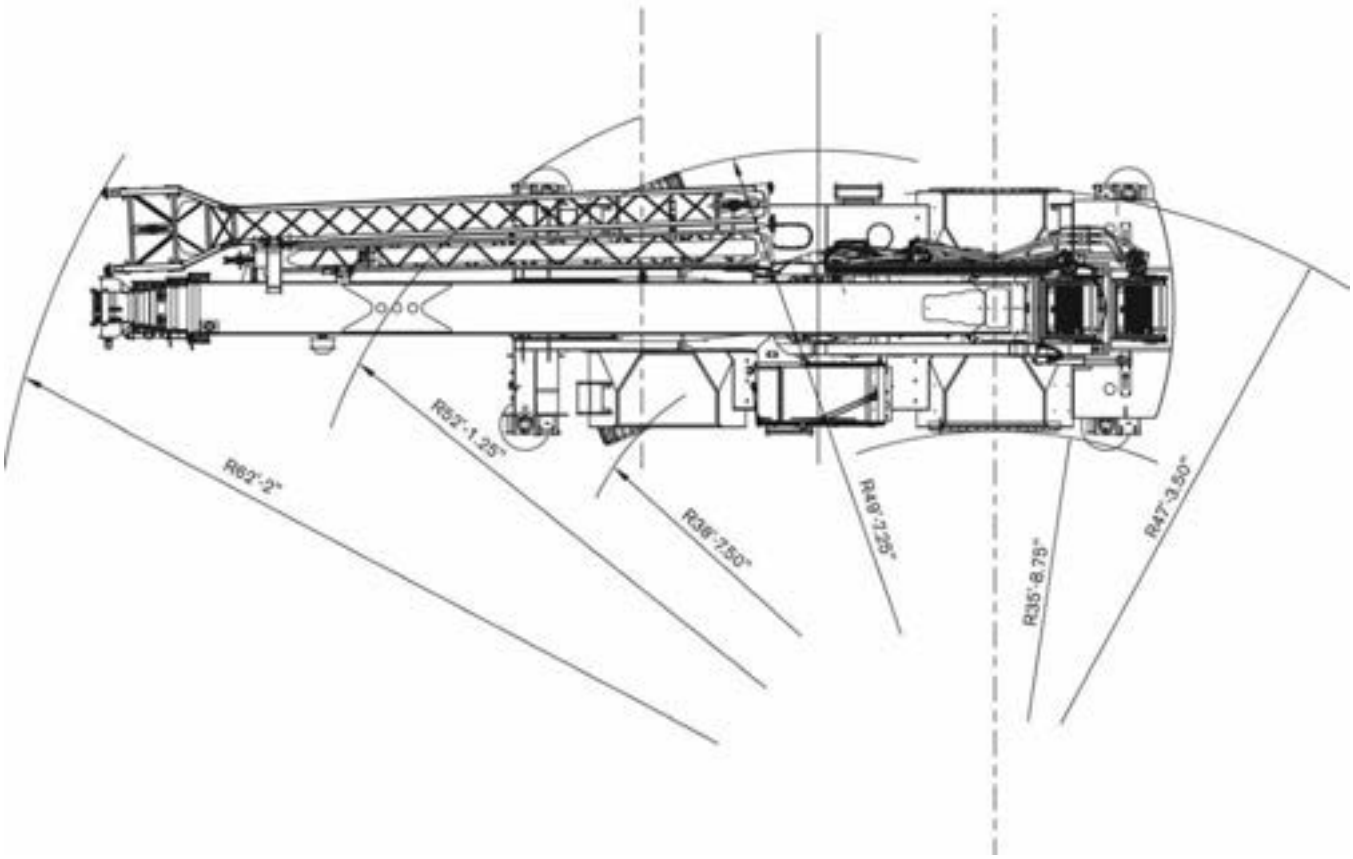






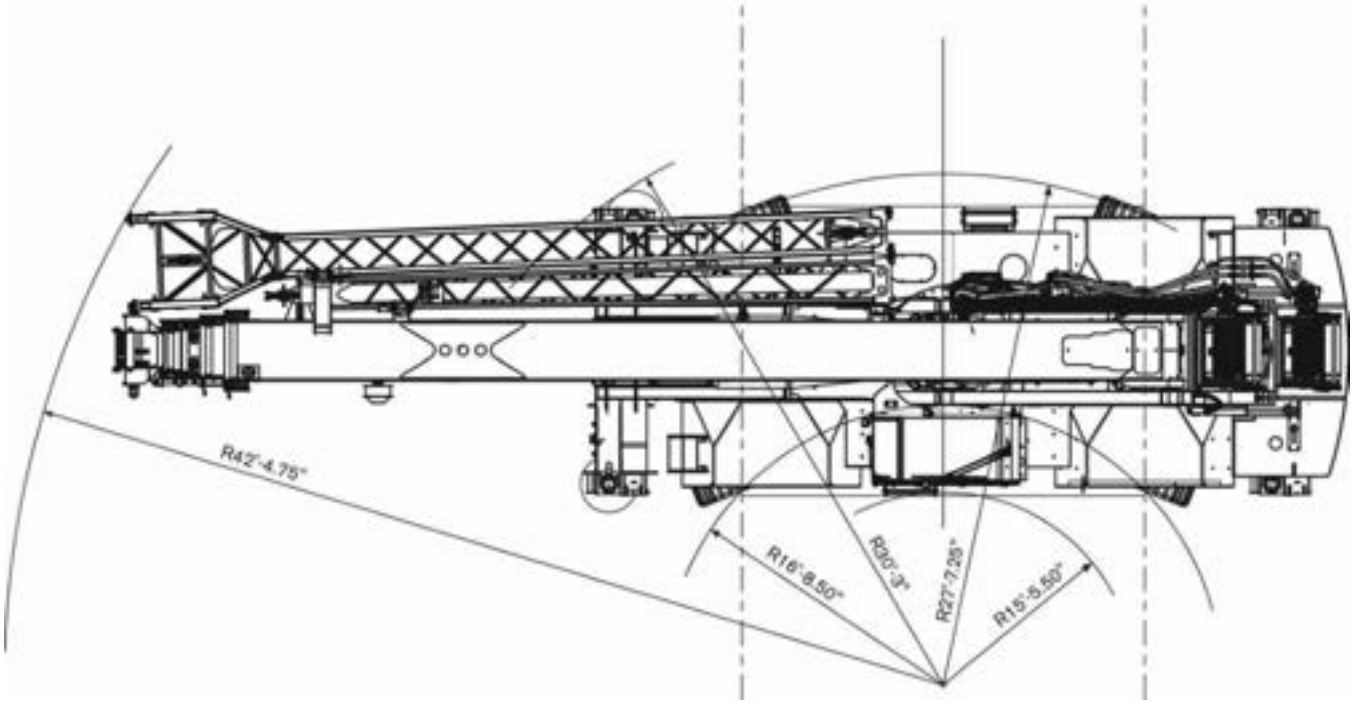
STEERING RADII

Two Wheel Steer



STEERING RADII

Four Wheel Steer

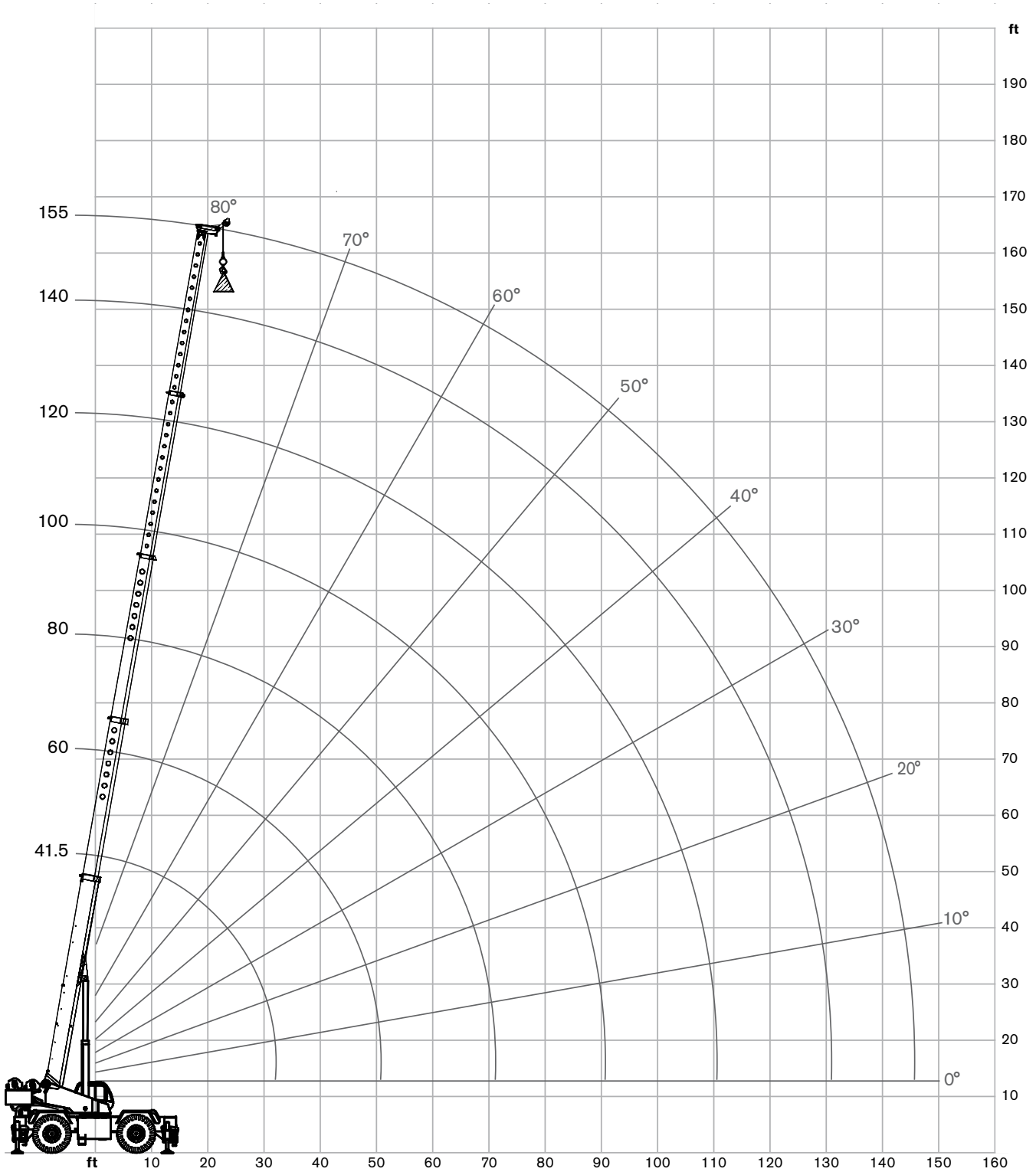


RANGE DIAGRAM - MAIN BOOM

Outriggers Fully Extended (100%), Dual Mode

RT 110

with hook block:
6 ft

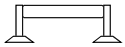


LOAD CHART - MAIN BOOM

RT 110

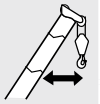
Outriggers Fully Extended (100%), Dual Mode

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	107,100					15
20	131,900	133,100	105,500	85,000				20
25	105,900	106,900	88,000	71,400	60,900			25
30	86,800	80,800	75,100	60,900	52,700	42,800		30
35		66,600	59,300	53,100	45,800	39,400	30,000	35
40		49,800	45,500	46,600	40,600	35,600	26,800	40
45		40,000	36,300	38,600	36,000	31,800	25,200	45
50		32,400	32,800	31,600	32,200	28,800	23,600	50
55			29,900	26,200	27,800	26,000	22,000	55
60			26,100	22,000	23,500	23,500	20,400	60
65			22,500	20,000	20,000	21,100	18,700	65
70			19,300	18,400	17,200	18,200	17,200	70
75				17,000	14,800	15,800	15,600	75
80				15,100	13,100	13,800	13,500	80
85				13,200	12,100	12,500	11,800	85
90				11,500	11,200	11,500	10,200	90
95					10,200	10,100	8,900	95
100					8,900	8,900	7,700	100
105					7,800	7,800	6,600	105
110					6,700	6,800	5,700	110
115						6,000	4,800	115
120						5,100	4,000	120
125						4,300	3,300	125
130						3,600	2,600	130
135							2,000	135
140							1,400	140
145							800	145

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.

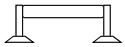
Note: Data published herein is intended as a guide only and shall not be construed to warrant applicability for lifting purposes. Crane operation is subject to the computer charts and operation manual both supplied with the crane.

LOAD CHART - MAIN BOOM

RT 110

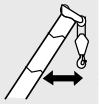
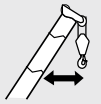
Outriggers Half Extended (50%), Dual Mode

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	210,000							10
12	183,500	150,000						12
15	152,700	150,000	107,100					15
20	101,500	99,700	99,800	85,000				20
25	65,100	69,100	63,800	66,700	60,900			25
30	45,300	49,800	51,600	47,500	49,300	42,800		30
35		37,900	40,900	36,000	37,300	38,500	30,000	35
40		29,700	32,700	31,900	29,200	30,400	26,800	40
45		23,500	26,800	26,700	24,000	24,500	24,800	45
50		18,700	22,300	22,200	21,500	21,700	20,400	50
55			18,700	18,700	18,400	18,200	16,900	55
60			15,700	15,900	15,600	15,400	14,200	60
65			13,200	13,600	13,300	13,100	11,900	65
70			11,000	11,500	11,300	11,200	9,900	70
75				9,800	9,700	9,500	8,300	75
80				8,300	8,200	8,100	6,900	80
85				7,000	7,000	6,900	5,700	85
90				5,700	5,800	5,800	4,600	90
95					4,800	4,900	3,600	95
100					3,900	4,000	2,800	100
105					3,100	3,200	2,000	105
110					2,300	2,400		110
115						1,800		115

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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LOAD CHART - MAIN BOOM

RT 110

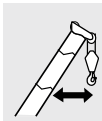
Outriggers Retracted (0%), Dual Mode

22,600 lbs counterweight

Outriggers extended 10.7 ft (0%)

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	166,000							10
12	118,000	120,000						12
15	80,300	83,800	80,900					15
20	49,400	52,900	56,000	53,100				20
25	33,100	37,100	39,800	39,700	37,700			25
30	23,000	27,200	30,000	29,900	29,500	29,400		30
35		20,500	23,400	23,300	23,000	22,800	21,500	35
40		15,500	18,700	18,600	18,200	18,100	16,800	40
45		11,800	14,900	15,000	14,700	14,500	13,300	45
50		8,700	12,000	12,200	11,900	11,800	10,500	50
55			9,600	9,900	9,700	9,500	8,300	55
60			7,700	8,000	7,800	7,700	6,500	60
65			6,000	6,300	6,200	6,200	4,900	65
70			4,500	5,000	4,900	4,900	3,600	70
75				3,800	3,700	3,700	2,400	75
80				2,700	2,700	2,700		80
85				1,800	1,800	1,800		85

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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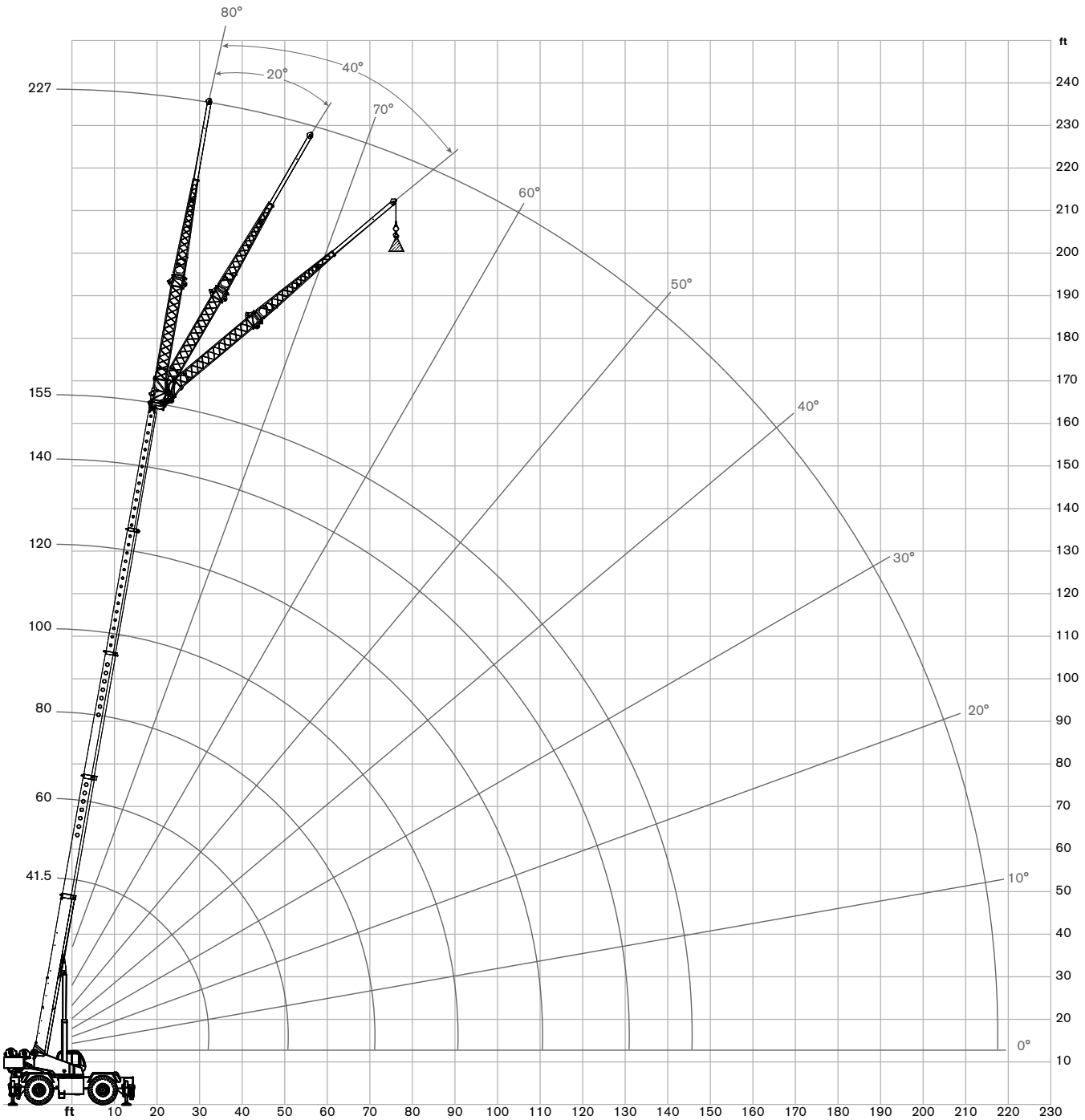
RANGE DIAGRAM - MAIN BOOM

RT 110

With Jib, 72.1 ft offset

with hook block:
6 ft



LOAD CHART - MAIN BOOM

RT 110

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

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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LOAD CHART - MAIN BOOM

RT 110

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

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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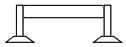
LOAD CHART - MAIN BOOM

RT 110

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

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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LOAD CHART - MAIN BOOM

RT 110

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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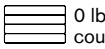
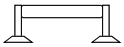
LOAD CHART - MAIN BOOM

RT 110

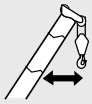
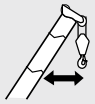
Without Counterweight

 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	215,800							10
12	189,300	110,000						12
15	158,200	110,000	77,500					15
20	121,500	99,100	67,800	53,100				20
25	73,200	78,400	59,400	47,300	37,700			25
30	47,100	52,000	51,600	41,200	34,300	33,700		30
35		37,500	41,100	36,000	30,000	30,600	30,000	35
40		28,300	31,700	31,600	26,900	27,500	26,800	40
45		21,900	25,200	25,100	24,000	24,500	23,100	45
50		16,800	20,500	20,400	20,000	19,900	18,400	50
55			16,800	16,800	16,400	16,300	14,900	55
60			13,900	14,000	13,600	13,500	12,100	60
65			11,500	11,700	11,300	11,200	9,900	65
70			9,400	9,700	9,400	9,300	8,000	70
75				8,100	7,900	7,700	6,500	75
80				6,700	6,500	6,400	5,100	80
85				5,500	5,300	5,200	4,000	85
90				4,300	4,300	4,200	3,000	90
95					3,400	3,300	2,100	95
100					2,600	2,500	1,300	100
105					1,800	1,800	600	105
110					1,000	1,200		110
115						600		115

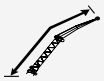
Notes to lifting capacity

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.

Note: Data published herein is intended as a guide only and shall not be construed to warrant applicability for lifting purposes. Crane operation is subject to the computer charts and operation manual both supplied with the crane.

TECHNICAL DESCRIPTION

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.) Boom raising / lowering time Boom extension / retraction time	-3° / 80° 70 s / 100 s 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 Angular offsets	28.8 ft / 54.9 ft 17.2 ft 0°, 20° and 40°
 With one jibs section With two jibs sections With two jibs sections and pullout	184 ft 210 ft 227 ft
With one jibs section With two jibs sections With two jibs sections and pullout	193 ft 218 ft 235 ft

Hoist, Rope and Hook

Standard configuration:	
Two speeds Grooved drum Storage capacity	 853 ft
Maximum without load	453 ft/min
XIPS, IWRC, Right Regular Lay	
	3/4 in
	850 ft
Minimum breaking strength Maximum line pull permissible	58,800 lbs 16,800 lbs

TECHNICAL DESCRIPTION

RT 110

Optional configuration:

Two speeds Grooved drum Storage capacity	 853 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

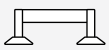
Armrest mounted dual axis electro-proportional joysticks
Controls for hoist and hoist rotation indicator, slewing, boom elevation, boom telescoping
Foot controls for swing brake, service brake and engine throttle
Steering wheel column mounted controls for gear shifting
Dashboard mounted switches for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

IC-1 control system
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 ft²
50% extended outrigger footprint area	483.9 ft²
0% extended outrigger footprint area	283.3 ft²
Floating ground bearings diamters (area)	24 in (452 in²)
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	730 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

4 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
All wheels crab steering mode	
Rear wheel steering mode (optional)	

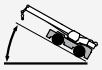
Piston pump for main and auxiliary winch	
Piston pump for boom hoisting and telescoping	
Gear pump for steering, outriggers and slewing	
Hydraulic oil tank capacity	304 gallons
Hydraulic oil filters	5 µm

Optional configuration:

Engine oil heater
Hydraulic oil heater
Battery heater
Low temperature fluids
Rear wheel steering mode

Vehicle performance

Standard configuration:



Maximum in 1st gear	55%
Maximum in 6th gear	2%

Maximum (6th 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

DTI

DEMAG TECH INSIDE

When Quality & Reliability Meet Innovation.

We combine two strong crane brands, Terex and Demag, known for quality and reliability and worldwide service.

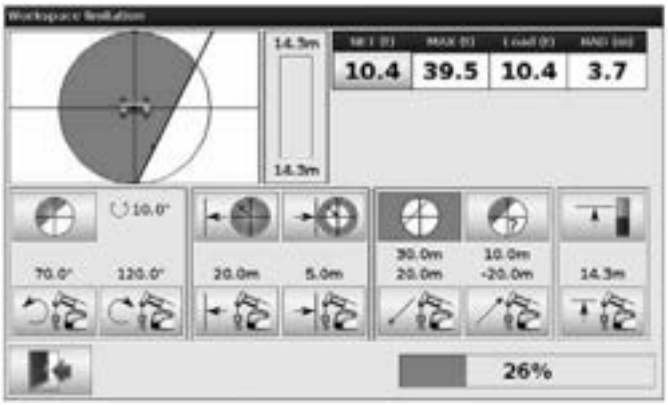
Associating the two brands gives us the unique opportunity to capitalize on the technological innovation of Demag. With "**Demag Tech Inside**", we put the power of innovation to work for you as your Terex crane now incorporates Demag components and technology.

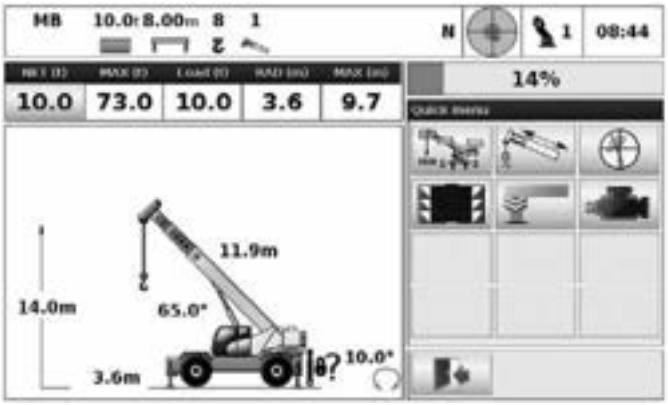
With "**Demag Tech Inside**", we bring performance and productivity to another level: the Terex RT 110 features the **Demag IC-1 control system**, designed specifically for ease of use in the RT market.

Available in 17 languages, the Demag IC-1 control system can be monitored on a color touch screen for intuitive use. Proven on the Demag cranes, the IC-1 control system brings improved quality and reliability as well as easy cross training between product lines. Its advanced diagnostics allow easy service.

With "**Demag Tech Inside**", we support you on the road to success.

This is Terex Cranes.





DEMAG TECH INSIDE

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Notes

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