



ROUGH TERRAIN CRANE RT230-1 XL

DATASHEET - IMPERIAL

RT 230-1 XL



Features:

- ▶ Rated capacity:
30 ton @ 10 ft working radius
- ▶ Maximum boom length:
100 ft
- ▶ Maximum tip height:
140 ft

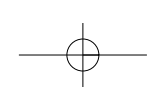
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RT 230-1 XL

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KEY

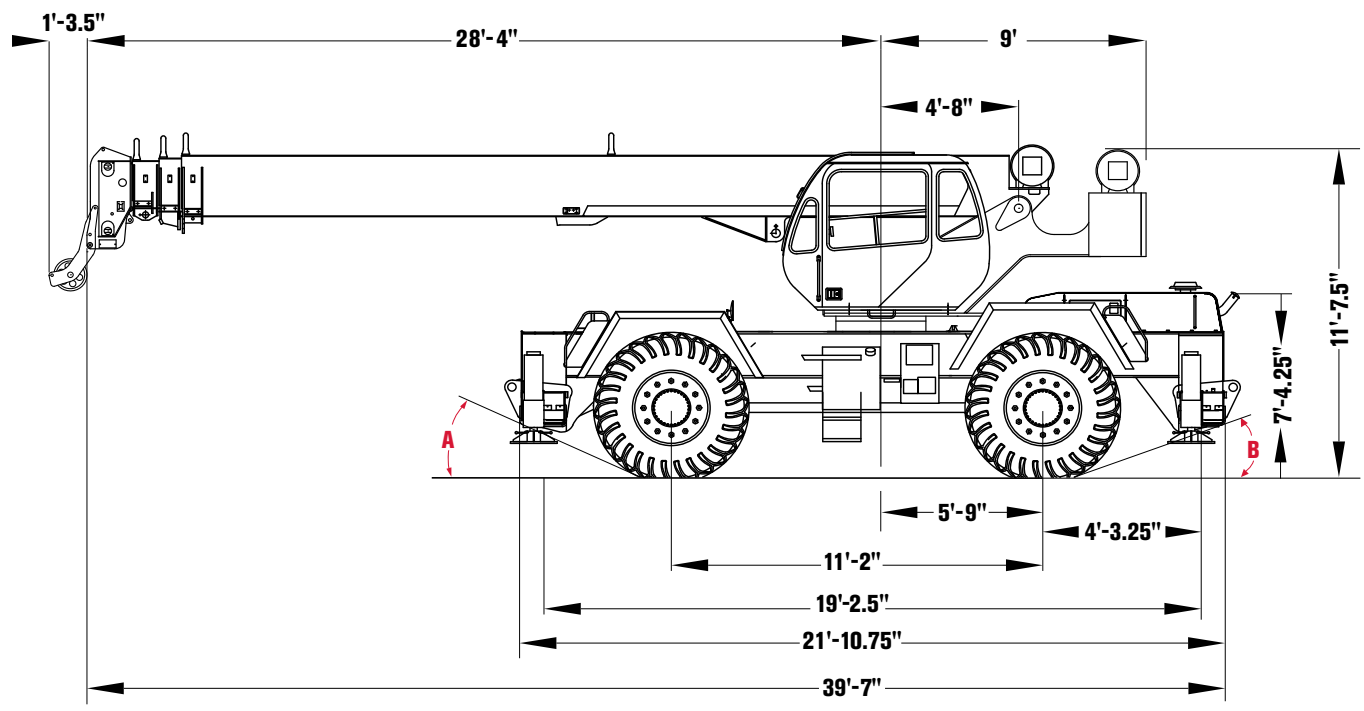
RT 230-1 XL

| | | | |
|--|------------------------------------------------------------|--|-------------------------------------------------------|
| | 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

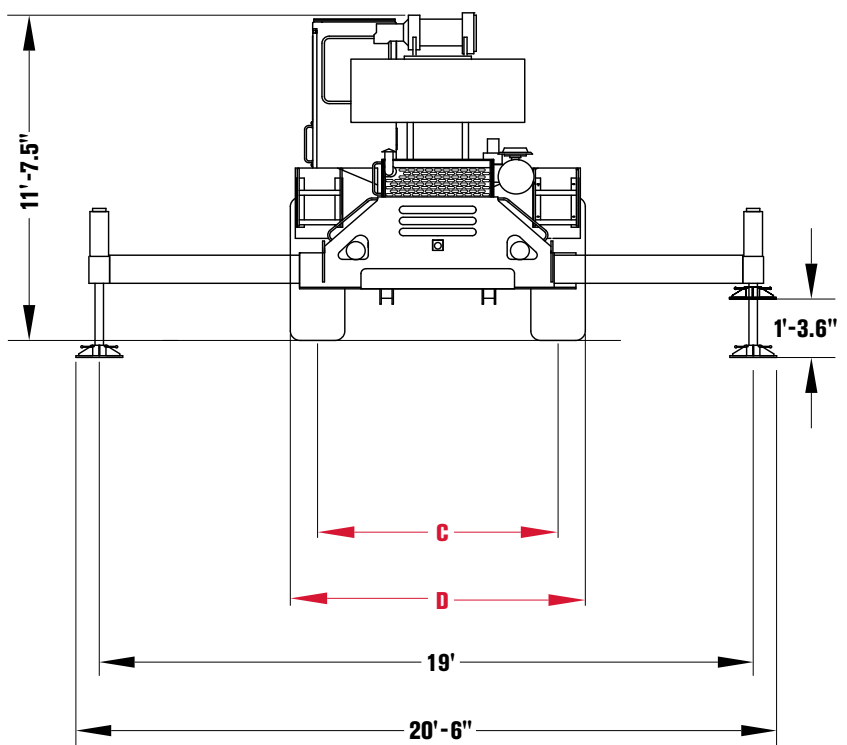
RT 230-1 XL



| Tire Variances | 16.00 x 25 | 20.5 x 25 |
|---------------------|------------|-----------|
| A (Approach Angle) | 25.1° | 25.1° |
| B (Departure Angle) | 23.1° | 23.1° |
| C (Tire Track) | 6'-7.5" | 6'-10.5" |
| D (Overall Width) | 8' | 8'-8" |

Note:
All heights are based on 16.00 x 25 tires.

| Outrigger Spread From Jack CL to Jack CL | |
|---------------------------------------------|---------|
| Fully Extended | 19' |
| Mid-Position | 13'-2" |
| Fully Retracted | 7'-4.5" |

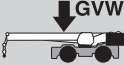
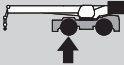
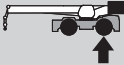
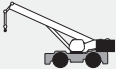











CRANE WEIGHTS

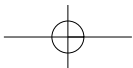
RT 230-1 XL

Approximate Weights

| | |  |  |  |
|-------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | | 55,930 lb | 28,972 lb | 26,958 lb |
| Add / Subtract for main optional equipment | | | | |
|  | 26 ft to 43 ft swing on jib stowed | + 1500 lb | + 2600 lb | - 1100 lb |
|  | Auxiliary boom head | + 100 lb | + 300 lb | - 200 lb |
|  | Auxiliary hoist* | + 115 lb | - 25 lb | + 140 lb |
|  | 4 sheaves, 30 T | + 655 lb | + 1071 lb | - 416 lb |
|  | 3 sheaves, 30 T | + 670 lb | + 1099 lb | - 429 lb |
|  | 2 sheaves, 25 T | + 682 lb | + 1117 lb | - 435 lb |
|  | 7 T Hookball | + 240 lb | + 290 lb | - 50 lb |

NOTE: Values are subject to 2% variation

* Weight includes rope

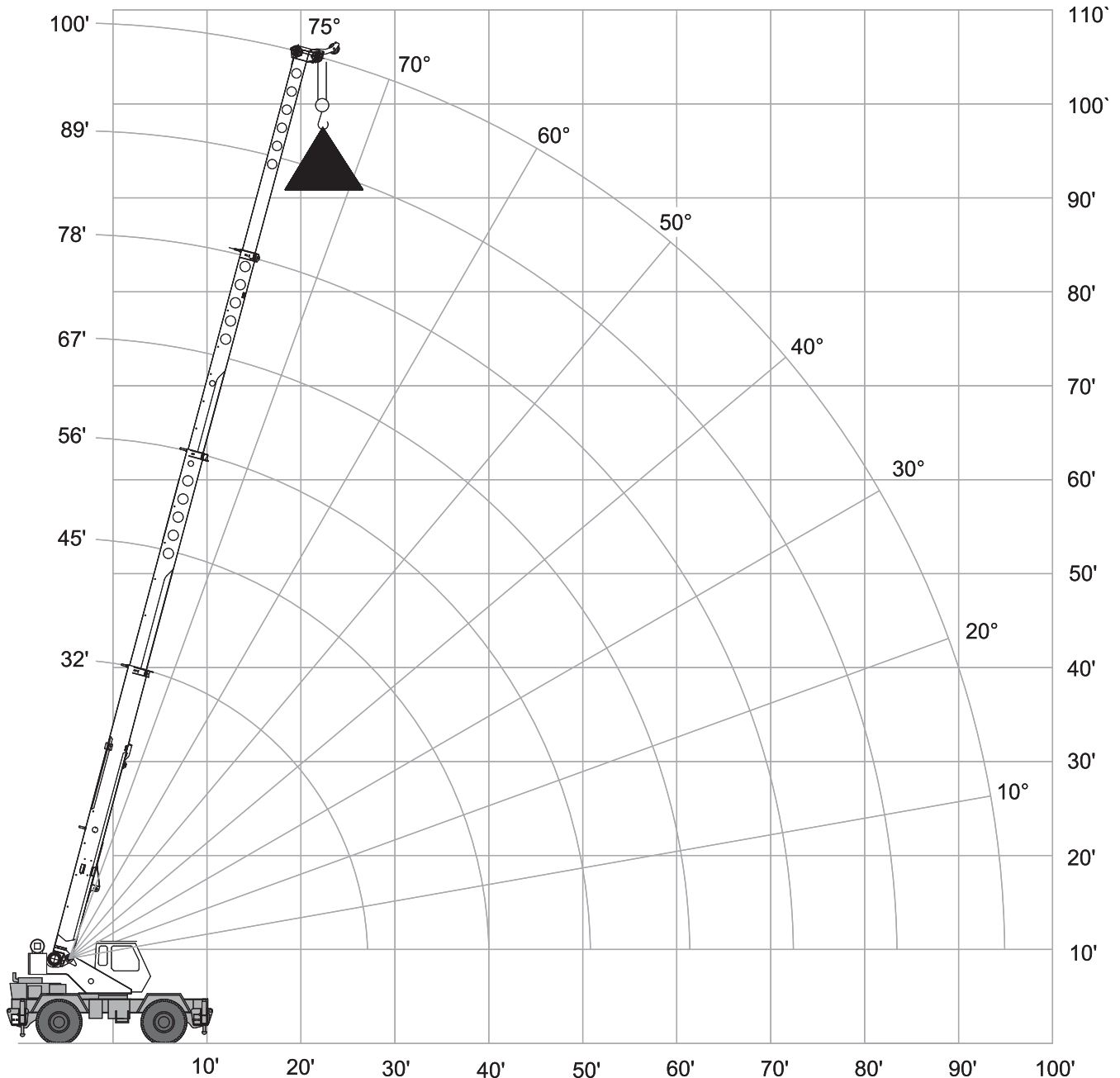
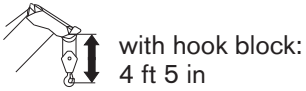
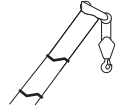




RANGE DIAGRAM – MAIN BOOM

RT230-1 XL

Outriggers Fully Extended (100%)



LOAD CHART – MAIN BOOM

RT 230-1 XL



Outriggers Fully Extended (100%)

10,000 lbs

19 ft (100%)

360°

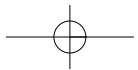
Standard ASME
B30.5

|  ft | Boom Length | | | | | | |  ft |
|-----------------------------------------------------------------------------------------|-------------|----------|----------|----------|----------|----------|----------|-------------------------------------------------------------------------------------------|
| | 32.29 ft | 44.79 ft | 55.79 ft | 66.79 ft | 77.79 ft | 88.79 ft | 99.79 ft | |
| lbs | lbs | lbs | lbs | lbs | lbs | lbs | lbs | lbs |
| 10 | 60,000 | 46,500 | | | | | | 10 |
| 12 | 48,900 | 45,100 | 43,000 | | | | | 12 |
| 15 | 42,500 | 39,100 | 37,100 | 35,700 | | | | 15 |
| 20 | 30,000 | 30,900 | 30,300 | 29,000 | 26,900 | | | 20 |
| 25 | 22,400 | 23,400 | 23,800 | 24,100 | 22,600 | 20,300 | 15,000 | 25 |
| 30 | 19,300 | 18,400 | 18,800 | 19,100 | 19,300 | 17,400 | 12,800 | 30 |
| 35 | | 13,800 | 14,300 | 14,500 | 14,700 | 14,800 | 11,100 | 35 |
| 40 | | 10,400 | 11,100 | 11,300 | 11,500 | 11,600 | 9,700 | 40 |
| 45 | | | 8,700 | 9,000 | 9,200 | 9,300 | 8,600 | 45 |
| 50 | | | 6,900 | 7,300 | 7,500 | 7,600 | 7,600 | 50 |
| 55 | | | | 5,900 | 6,100 | 6,200 | 6,300 | 55 |
| 60 | | | | 4,700 | 5,000 | 5,100 | 5,200 | 60 |
| 65 | | | | | 4,100 | 4,200 | 4,300 | 65 |
| 70 | | | | | 3,300 | 3,500 | 3,600 | 70 |
| 75 | | | | | | | 2,900 | 75 |
| 80 | | | | | | | 2,400 | 80 |
| 85 | | | | | | | 1,900 | 85 |
| 90 | | | | | | | 1,400 | 90 |
| 95 | | | | | | | 1,000 | 95 |

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.

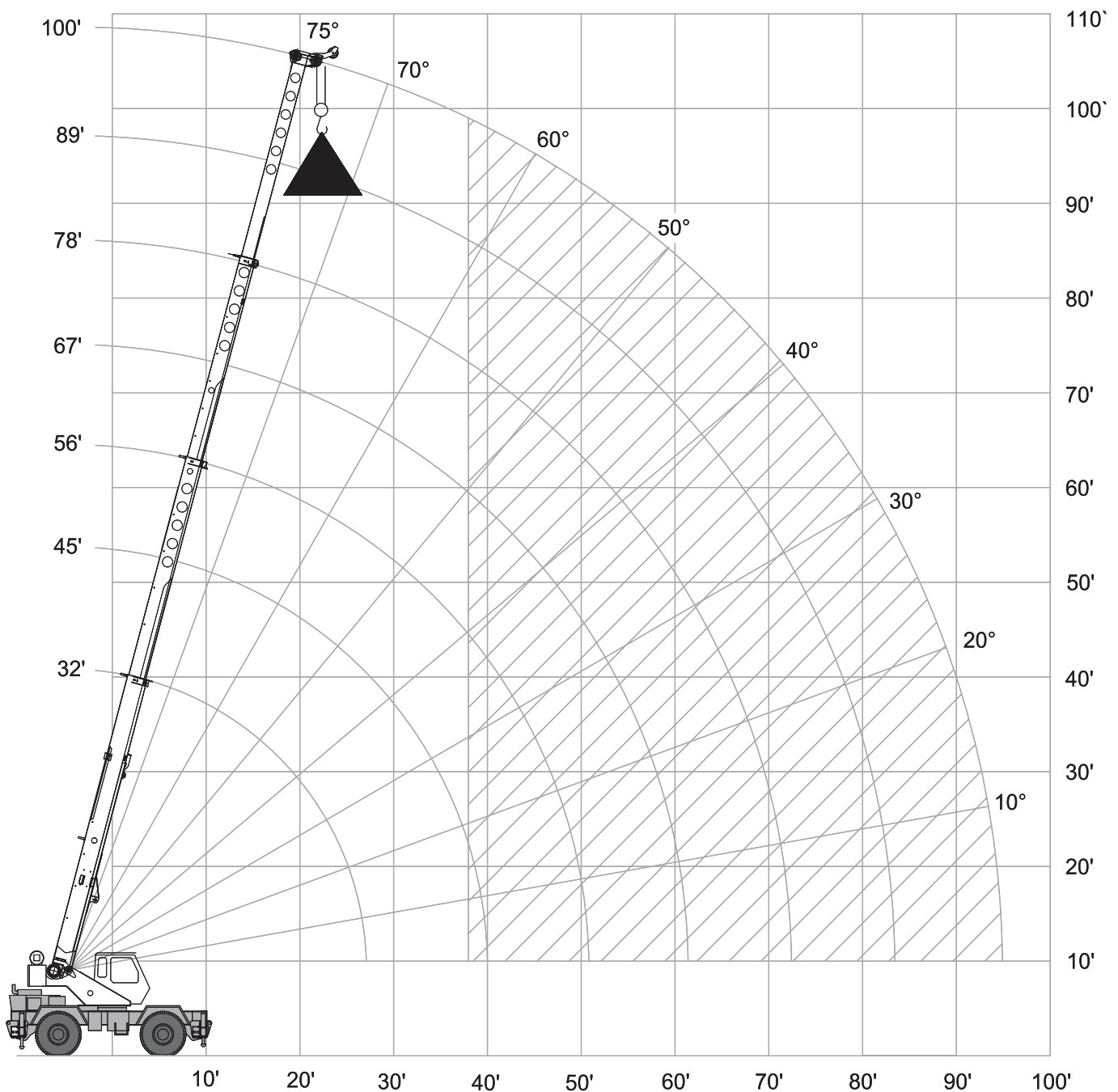
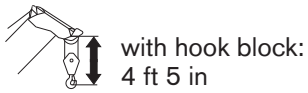
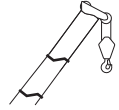




RANGE DIAGRAM – MAIN BOOM

RT230-1 XL

Outriggers Fully Retracted (0%)



LOAD CHART – MAIN BOOM

RT 230-1 XL



Outriggers Fully Retracted (0%)

10,000 lbs

7 ft 4.5 in (0%)

360°

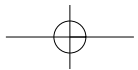
Standard ASME
B30.5

|  | Boom Length | | | | | | |  |
|-----------------------------------------------------------------------------------|-------------|----------|----------|----------|----------|----------|----------|-------------------------------------------------------------------------------------|
| | 32.29 ft | 44.79 ft | 55.79 ft | 66.79 ft | 77.79 ft | 88.79 ft | 99.79 ft | |
| ft | lbs | lbs | lbs | lbs | lbs | lbs | lbs | ft |
| 10 | 34,300 | 35,100 | | | | | | 10 |
| 12 | 24,500 | 25,300 | 25,700 | | | | | 12 |
| 15 | 16,200 | 17,100 | 17,500 | 17,700 | | | | 15 |
| 20 | 9,100 | 10,100 | 10,500 | 10,600 | 10,800 | | | 20 |
| 25 | 5,300 | 6,200 | 6,700 | 6,900 | 7,000 | 7,100 | 7,200 | 25 |
| 30 | 3,700 | 3,900 | 4,300 | 4,500 | 4,700 | 4,800 | 4,900 | 30 |
| 35 | | 2,200 | 2,600 | 2,900 | 3,100 | 3,200 | 3,300 | 35 |
| 40 | | 900 | 1,500 | 1,700 | 1,900 | 2,000 | 2,100 | 40 |
| 45 | | | | 800 | 1,000 | 1,100 | 1,300 | 45 |

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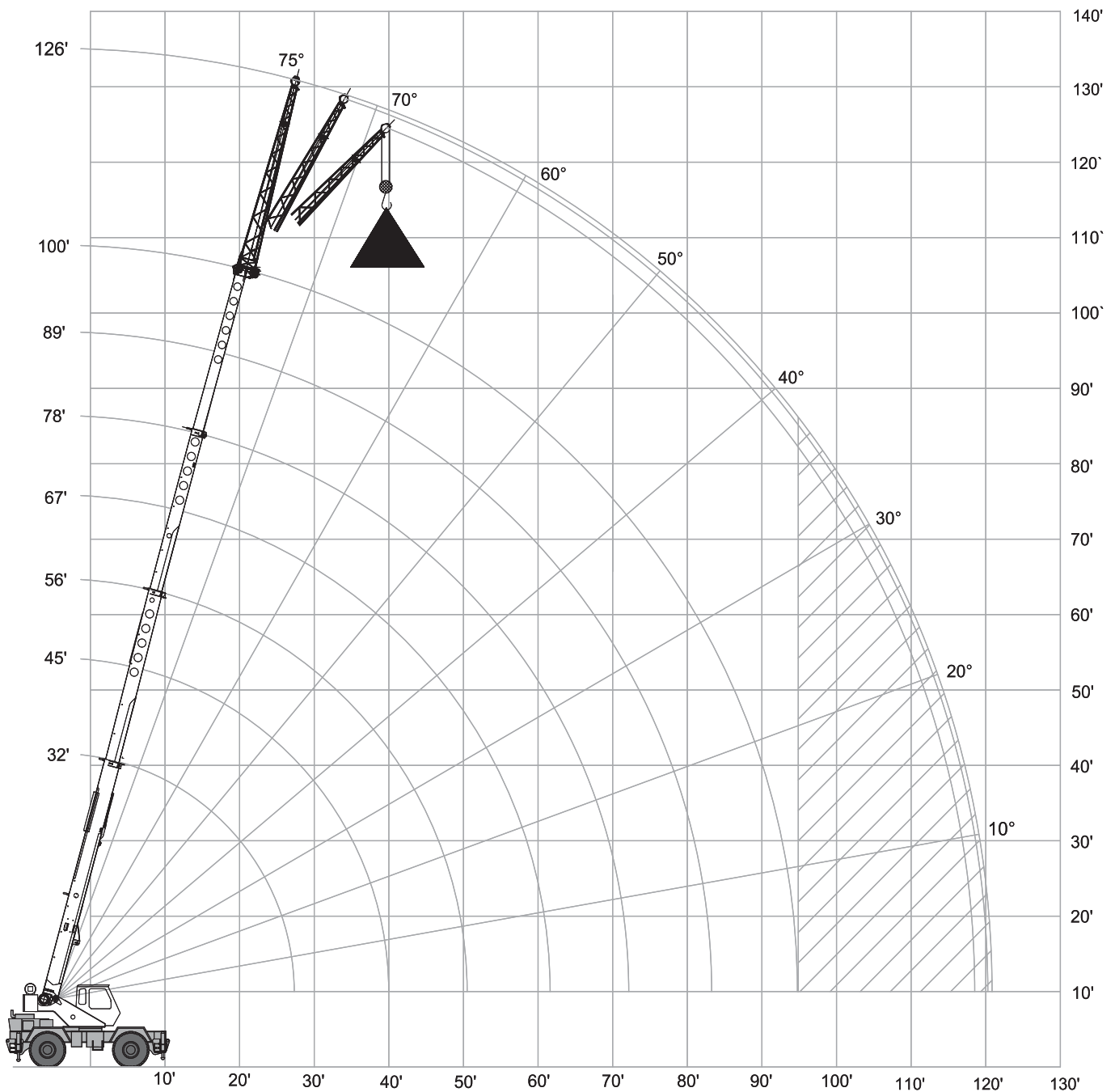
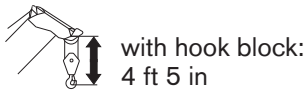
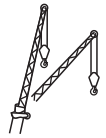




RANGE DIAGRAM – MAIN BOOM

RT230-1 XL

With Jib, 26 ft offset



LOAD CHART – MAIN BOOM

RT 230-1 XL

With Jib, 26 ft offset

10,000 lbs

19 ft (100%)

360°

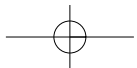
Standard ASME
B30.5

| 26 ft Offsettable Jib | | | | | |
|--------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------|-------|
| 0° | | 15° | | 30° | |
|  ft | lbs |  ft | lbs |  ft | lbs |
| 37 | 9,000 | 43 | 7,300 | 47 | 5,500 |
| 41 | 8,500 | 46 | 6,700 | 51 | 5,200 |
| 44 | 8,000 | 50 | 6,200 | 55 | 4,900 |
| 50 | 7,200 | 55 | 5,500 | 60 | 4,400 |
| 56 | 6,200 | 60 | 5,000 | 65 | 4,000 |
| 61 | 5,400 | 65 | 4,400 | 70 | 3,600 |
| 66 | 3,900 | 70 | 3,800 | 74 | 3,200 |
| 73 | 3,000 | 77 | 3,100 | 80 | 2,700 |
| 80 | 2,400 | 84 | 2,500 | 86 | 2,200 |
| 86 | 1,900 | 90 | 1,900 | 92 | 1,700 |
| 93 | 1,400 | 96 | 1,400 | 98 | 1,300 |
| 100 | 900 | 102 | 900 | 103 | 900 |

Notes to lifting capacity

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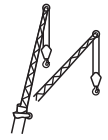
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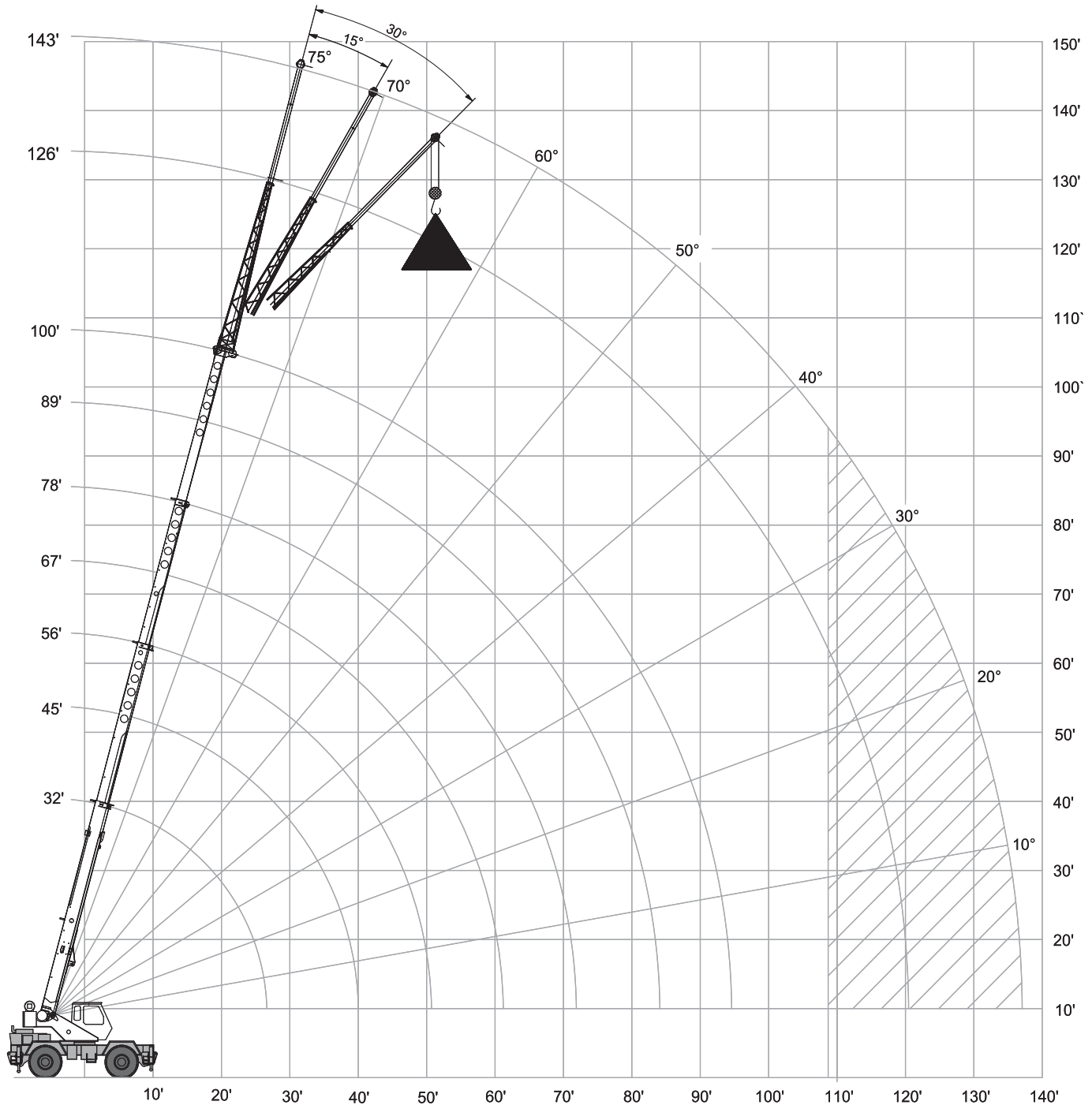
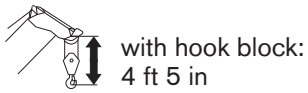


RANGE DIAGRAM – MAIN BOOM

RT230-1 XL



With Jib, 43 ft offset





LOAD CHART – MAIN BOOM

RT 230-1 XL




With Jib, 43 ft offset

 10,000 lbs

 19 ft (100%)

 360°

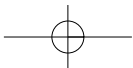
Standard ASME
B30.5

| 43 ft Offsettable Jib | | | | | |
|--------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------|-------|
| 0° | | 15° | | 30° | |
|  ft | lbs |  ft | lbs |  ft | lbs |
| 41 | 5,000 | 51 | 3,300 | 59 | 2,600 |
| 46 | 4,700 | 56 | 3,200 | 63 | 2,600 |
| 51 | 4,400 | 61 | 3,100 | 67 | 2,500 |
| 58 | 4,000 | 67 | 2,900 | 74 | 2,400 |
| 64 | 3,700 | 74 | 2,800 | 80 | 2,400 |
| 70 | 3,500 | 79 | 2,700 | 85 | 2,300 |
| 76 | 3,300 | 85 | 2,600 | 90 | 2,300 |
| 83 | 2,800 | 91 | 2,500 | 96 | 2,200 |
| 90 | 2,200 | 98 | 2,000 | 102 | 1,900 |
| 98 | 1,800 | 106 | 1,600 | 108 | 1,500 |
| 106 | 1,300 | 112 | 1,200 | 114 | 1,100 |
| 115 | 900 | 119 | 800 | | |

Notes to lifting capacity

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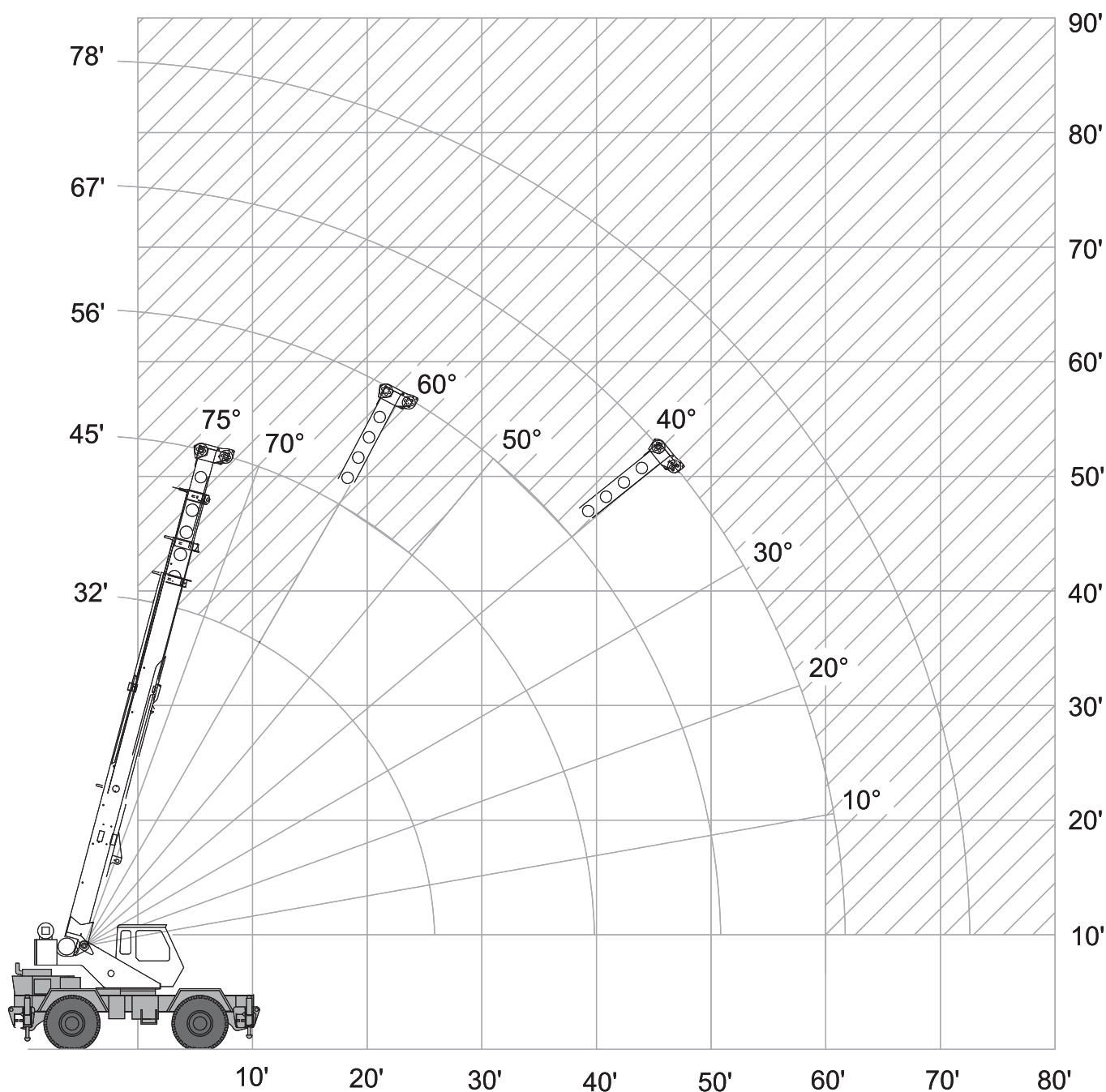
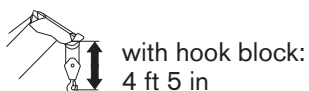
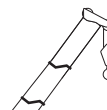




RANGE DIAGRAM – MAIN BOOM

RT230-1 XL

On Tires



LOAD CHART – MAIN BOOM

RT 230-1 XL

On Tires

10,000 lbs

360°

On tires
20.50 x 25-24 PR

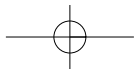
Standard ASME
B30.5

| Boom | | Travel Speed Boom straight over front | | |
|--------|--------|------------------------------------------|--------|---------|
| Radius | Length | 0 mph | Creep | 2.5 mph |
| ft | ft | lbs | lbs | lbs |
| 10 | 32 | 26,600 | 34,300 | 23,300 |
| 12 | 32 | 19,900 | 29,400 | 19,700 |
| 15 | 32 | 13,900 | 23,900 | 15,600 |
| 20 | 45 | 8,100 | 17,400 | 11,000 |
| 25 | 45 | 5,300 | 11,000 | 7,800 |
| 30 | 45 | 3,400 | 7,700 | 5,600 |
| 35 | 56 | 2,100 | 5,900 | 4,300 |
| 40 | 56 | 1,300 | 4,500 | 3,300 |
| 45 | 56 | 700 | 3,500 | 2,500 |
| 50 | 67 | | 2,700 | 1,800 |
| 55 | 67 | | 2,000 | 1,300 |
| 60 | 67 | | 1,400 | 800 |

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

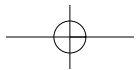
RT 230-1 XL

Boom

| | | |
|-------------------------------------------------------------------------------------|-----------------------------------------------|----------------------|
| Standard configuration: | | |
|  | 4 sections hydraulic actuated boom | |
|  | Full power mechanically synchronized | |
|  | Min. / Max. | 32 ft / 100 ft |
|  | Boom elevation angle range (min. / max.) | -4° / 76° |
| Optional configuration: | | |
|  | Single sheave | |
|  | One section, side stowable Angular offsets | 0, 15 and 30 degrees |
|  | With one section jib | 120 ft |
| | With two section jib | 147 ft |

Hoist, Rope and Hook


| | | |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Standard configuration: | | |
|  | Grooved drum Storage capacity | 598 ft |
|  | Two speed ratios Without load in 6th layer (low range / high range) Without load in 1st layer (low range / high range) | 297 ft/min / 475 ft/min 205 ft/min / 329 ft/min |
|  | 6 x 19 IWRC XIPS, right regular lay, preformed | |
|  | | 5/8 in |
|  | | 479 ft |
|  | Max. line pull; 1st layer low-range | 35,800 lbs |
| | Max. line pull permissible | 9,000 lbs |








TECHNICAL DESCRIPTION




RT 230-1 XL

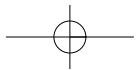
| Optional configuration: | | |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------|
|  | Hook and ball 2 sheaves 3 sheaves 4 sheaves | 7 ton 25 ton 30 ton 30 ton |
|  | Grooved drum Storage capacity | 598 ft |
|  | Without load in 6th layer (low range / high range) Without load in 1st layer (low range / high range) | 205 ft/min / 329 ft/min 297 ft/min / 475 ft/min |
|  | Rotation resistant compacted strand 18 x 19 or 19 x 19 | |
|  | | 5/8 in |
|  | | 479 ft |
|  | Minimum breaking strength Max. line pull permissible | 35,800 lbs 9,000 lbs |

Superstructure

| Standard configuration: | | |
|-------------------------------------------------------------------------------------|----------------------------------------------------|---------------|
|  | Non stop Maximum rotation speed without load | 360° 3 rpm |
|  | Hydraulic motor Planetary reducer | |
|  | 360° house lock Manually actuated by foot pedal | |


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

| Standard configuration: | | |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | Sliding door Tinted safety glass throughout Six way adjustable seat | |
|  | Armrest mounted dual axis electro-proportional joysticks Steering wheel column with gear selector on the left and directional light selector on the right Dashboard mounted switches for outrigger operation | |
|  | Graphic interface for load indicator | |








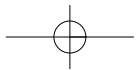
TECHNICAL DESCRIPTION

RT 230-1 XL

| Optional configuration: | |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------|
|  | Heater Air conditioner Work lights Rotating beacon |

Carrier, Engine, Drive-line and Hydraulic system

| Standard configuration: | |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Hydraulic, independent extension: Diameter of outrigger pads24 in Area of outrigger pads254 in² |
|  | Cummins QSB4.5 4 cylinders Rated power130 hp @ 2,300 rpm Maximum gross torque459 ft·lb @ 1,500 rpm Intake: turbocharger with intercooler Fuel typeDiesel Fuel tank capacity50 gallons |
|  | 6 x 6 powershift transmission with integral torque converter Full time 4WD (Four-Wheel Drive) Rigid mounted front axle Oscillating rear axle Differential lock on front axle and rear axle Rear axle oscillation lock – manual or automatic actuation Air-over-hydraulic disc brakes Parking brake on front axle Hydraulic oil cooler on carrier |
|  | Hydraulic power steering Front wheel steering Four wheel steering concentric Four wheel steering crab Optional rear wheel steering package |
|  | Hydraulic Pumps: Tandem pumps: Boom lift / Telescope39 gal/min @ 3,500 psi Power steering / Outriggers and Swing21 gal/min @ 2,500 psi Single pump: Main and auxiliary hoist pump53 gal/min @ 3,500 psi |
| | Hydraulic oil reservoir capacity94 gallons Hydraulic oil suction filter250 microns Hydraulic oil return filter5 microns |

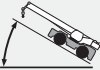







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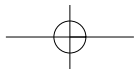
RT 230-1 XL

Vehicle performance

| | | |
|-----------------------------------------------------------------------------------|------------------------------|----------|
| Standard configuration: | | |
|  | Max. in 1 st gear | 112.34 % |
| | Max. in 6 th gear | 3.77 % |
|  | Max. (6 th gear) | 24.5 mph |

Tires

| | | |
|-----------------------------------------------------------------------------------|-------------------------------------|------------------|
| Standard configuration: | | |
|  | Wide tread earth mover pattern (E3) | 20.5 x 25-24 PR |
| Optional configuration: | | |
|  | Wide tread earth mover pattern (E3) | 16.00 x 25-28 PR |





RT 230-1 XL





RT 230-1 XL



RT 230-1 XL

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Effective Date: October 2010.

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