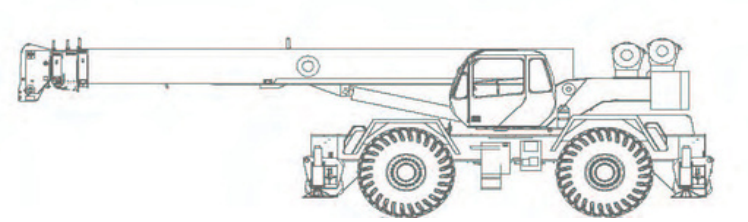
TEREX

# Rough Terrain Crane Specifications | RT600 Series Cranes |



## STANDARD BOOM EQUIPMENT

### BOOM
36-111' (10.67-33.53 m),four section full power boom.Telescoping is mechanically synchronized with single lever control.The synchronization system consists of a single telescope cylinder and high strength leaf chains to extend and retract the third section and the tip section.The boom is a high-strength four plate design,welded inside and out with anti-friction slide pads.Boom side plates are made with stamped impressions to reduce weight and increase strength.A single boom hoist cylinder provides for boom elevation of -4 to 76 degrees.Maximum tip height 115' (35.05 m).

### BOOM HEAD
Welded to fourth section of boom.Five or six nylon load sheaves and two idler sheaves mounted on heavy duty,anti friction bearings. Quick reeving boom head.Provisions made for side-stow jib mounting.

## OPTIONAL BOOM EQUIPMENT

### JIBS
32' (9.68 m) side stow swing-on one-piece lattice type jib.Single nylon sheave mounted on anti-friction bearing.Jib is offsettable at 0˚,15˚ or 30.Maximum tip height is 146' (44.50 m).

33-57' (10.15-17.30 m) side stow swing-on lattice type jib.Single nylon sheave mounted on anti-friction bearing.Jib is extendible to 57' (17.30 m) by means of a 25' (7.62 m) manual pull-out tip sec- tion,roller supported for ease of extension.Jib is offsettable at 0º, 15º,30º.Maximum tip height is 170' (51.82 m).

### AUXILIARY BOOM HEAD
Removable auxiliary boom head has single nylon sheave mounted on anti-friction bearing.Removable pin-type rope guard for quick reeving.Installs on main boom peak only.Removal is not required for jib use.

### HOOK BLOCK
Five metallic sheaves on anti-friction bearings with hook and hook latch.Quick reeving design does not require removal of wedge and socket form rope.

### HOOK AND BALL
12 ton (10.9 mt) top swivel ball with hook and hook latch.

TEREX

ROUGH TERRAIN CRANE

# RT600 SERIES

## STANDARD UPPERSTRUCTURE EQUIPMENT

### UPPERSTRUCTURE FRAME
All welded one-piece structure fabricated with high tensile strength alloy steel.Counterweight is bolted to frame.

### TURNTABLE CONNECTION
Swing bearing is a single row,ball type with internal teeth.The swing bearing is bolted to the revolving upperstructure and to the carrier frame.

### SWING
A hydraulic motor drives a double planetary reduction gear for precise and smooth swing function.Swing speed (no load) is 1.9 rpm.

### SWING BRAKE
Heavy duty multiple disc swing brake is mechanically actuated from operator's cab by foot pedal.Brake may be locked on or used as a momentary brake.A 360° house mechanical house lock is standard.

### RATED CAPACITY INDICATOR
Rated Capacity Indicator with visual and audible warning system and automatic function disconnects.Second generation pictographic display includes:boom radius,boom angle,boom length,allowable load,actual load,and percentage of allowable load registered by bar graph.Operator settable alarms provided for swing angle,boom length,boom angle,tip height,and work area exclusion zone.Anti-two block system includes audio/visual warning and automatic function disconnects.

### OPERATORS CAB
Environmental cab with all steel construction,optimum visibility,tinted safety glass throughout.and rubber floor matting is mounted on vibration absorbing pads.The cab has a sliding door on the left side. Framed sliding window on the right side,hinged tinted all glass skylight and removable front windshield to provide optimum visibility of the load open or closed.Acoustical foam padding insulates against sound and weather.The deluxe six-way adjustable seat is equipped with a mechanical suspension and includes head and arm rests.

### CONTROLS
Armrest mounted dual axis controls for winch(s),swing,and boom elevation.Winch rotation indication incorporated into control handles.Armrest swings up to improve access and egress.Vernier adjustable hand throttle included.Steering column mounted turn signal,wiper,and shift controls.Switches include ignition,engine stop, lights,horn,roof window wiper,defroster,steering mode,parking brake,outriggers,360˚ house lock,etc.Horn and winch speed shift switches are mounted in the levers.Foot control pedals include swing brake,boom telescope service brake and accelerator.

### INSTRUMENTATION AND ACCESSORIES
In-cab gauges include air pressure,bubble level,engine oil pressure, fuel,engine temperature,voltmeter,transmission temperature,and transmission oil pressure.Indicators include low air,high water temperature,low oil pressure,high transmission temperature,and low coolant level audio/visual warning,hoist drum rotation indicator(s), and Rated Capacity Indicator.Accessories include fire extinguisher; light package including headlights,tail light,brake lights,directional signals,four-way hazard flashers,dome light,and back-up lights with audible back-up alarm; windshield washer/wiper; skylight wiper; R.H.and L.H.rear view mirrors; dash lights; and seat belt. Circuit breakers protect electrical circuits.

### HYDRAULIC CONTROL VALVES
Valves are mounted on the rear of the upperstructure and are easily accessible.Valves have electric/hydraulic operators and include one pressure compensated two spool valve for main and auxiliary winch, and one single spool valve for swing.Quick disconnects are provided for ease of installation of pressure check gauges.

### OPTIONAL EQUIPMENT
Auxiliary Winch,Single axis armrest mounted controllers CLP Heater/Defroster,Hydraulically powered Air conditioner with or without hydraulic header,Diesel Heater/ Defroster,Work Lights,Rotating Beacon.

## STANDARD CARRIER EQUIPMENT

### CARRIER CHASSIS
Chassis is Terex designed with four-wheel drive and four-wheel steer (4x4x4).Has box-type construction with reinforcing cross members,a precision machined turn table mounting plate and integrally welded outrigger boxes.Decking has anti-skid surfaces,including between the frame rails lockable front tool storage compartment,and access steps and handles on the left and right sides and on all four corners.

### AXLES AND SUSPENSION
Rear axle is a planetary drive/steer type with 10.5' (.26 m) of total oscillation. Automatic oscillation lockouts that engage when the superstructure is swung 10˚in either direction.Front axle is a planetary drive/steer type,rigid mounted to the frame for increased stability.

### STEERING
Hydraulic four-wheel power steering for two-wheel,four-wheel coordinated, or four-wheel crab steer is easily controlled by steering wheel.A rear axle centering light is provided.

### TRANSMISSION
Range shift type power-shift transmission with integral torque converter provides six speeds forward and six speed reverse with neutral safety start.Four wheel drive engages automatically with low range and two wheel drive with high range.Automatic pulsating back-up alarm.

| | Turning Radius: (to CL of outside tire) | Curb Clearance Radius |
|---|---|---|
| Two-wheel: | 41' 7" (12.7 m) | 43' 2" (13.2 m) |
| Four-wheel: | 22' 10" (7.0 m) | 24' 7" (7.5 m) |

TEREX

ROUGH TERRAIN CRANE

# RT600 SERIES

## STANDARD CARRIER EQUIPMENT (CONTINUED)

### MULTI-POSITION OUT AND DOWN OUTRIGGERS

Fully independent hydraulic outriggers may be utilized fully extended to 24' (7.32 m) centerline to centerline,in their 1/2 extended position,or fully retracted for maximum flexibility.Easily removable Almag floats,each with an area of 254 $in^2$(1639 $cm^2$),stow on the outrigger boxes at their point of use. Complete controls and a sight leveling bubble are located in the operator's cab.

### WHEELS AND TIRES

Disc type wheels with full tapered bead seat rim.157.56" (4 m) wheelbase.

### TIRES

Wide earthmover (E3) style tread tires provide life and flotation.29.50 x 25, 28 P.R.-std.

### SERVICE BRAKES

Split system air over hydraulic 18.5" (470 mm) diameter disc dual caliper brakes on all wheels.

### PARKING BRAKE

Front axle equipped with spring-set,air released parking brake.

### OPTIONAL EQUIPMENT

Immersion Heater,Pintle Hook,Clearance Lights,Independent Rear Wheel Steer,Four Mode Rear Wheel Steer,20,000 lb line pull front mounted winch.

## HYDRAULIC SYSTEM

### HYDRAULIC PUMPS

Threegear type pumps,one singleand two in tandem ,driven off the transmission.Combined system capability is 113 gpm (428 lpm).Includes pump disconnect on winch pump.

**Main and Auxiliary Winch Pump**
- 52.7 gpm (199.5 lpm) @ 4,500 psi (316.4 $kg/cm^2$)

**Boom Hoist and Telescope Pump**
- 37.3 gpm (141.2 lpm) @ 3,500 psi (246.1 $kg/cm^2$)

**Power Steering,Outrigger and Swing Pump**
- 18.7 gpm (70.8 lpm) @ 3,500 psi (246.1 $kg/cm^2$)

### FILTRATION

Full flow oil filtration system with bypass protection includes a removable 60 mesh (250 micron) suction screen-type filter and five micron replaceable return line filter.

### HYDRAULIC RESERVOIR

All steel,welded construction with internal baffles and diffuser.Provides easy access to filters and is equipped with an external sight level gauge.The hydraulic tank is pressurized to aid in keeping out contaminants and in reducing potential pump cavitation.Capacity is 116 gal (439 L).Hydraulic oil cooler is standard.

### MAIN WINCH SPECIFICATIONS

Hydraulic winchwith bent axis pistonmotor and planetary reduction gearing provides two-speed operation with equal speeds for power up and down. Winch is equipped with an integral automatic brake,grooved drum,tapered flanges,standard cable roller on drum,and electronic rotation indicator.

| Performance | Lo-Range | HI-Range |
|---|---|---|
| Max. line speed (no load) First layer | 187 fpm (57 m/min) | 300 fpm (91.4 m/min) |
| Fifth layer | 269 fpm (82 m/min) | 431 fpm (131.4 m/min) |
| Max.line pull-first layer | 18,450 lb (8,369 kg) | 10,002 lb (4 537 kg) |
| Max.line pull-fifth layer | 12,845 lb (5 826 kg) | 6,963 lb (3 158 kg) |
| Permissible line pull | 13,800 lb (6 260 kg) | |

**Drum Dimensions**
- 13" (330 mm) drum diameter
- 20.16" (512 mm) length
- 12.5" (546 mm) flange dia.

**Drum Capacity**
Max.Storage:561' (171 m)
Max.Useable:561' (171 m)*

- Cable:3/4" x 600' (19 mm x 182.9 m)
- Cable type:3/4" (19 mm) 6 x 19 IWRC XIPS,right regular lay,performed.
- Min.breaking strength 29.4 tons (26.6 mt)

*Based on minimum flange height above top layer to comply with ANSI B30.5

### OPTIONAL AUXILIARY WINCH

Hydraulic two-speedwinchwith bent axis pistonmotor,equal speed power up and down,planetary reduction with integral automatic brake,grooved drum with tapered flanges,drum roller,and rotation indicator.

**Performance**

| | |
|---|---|
| Max.line speed (no load) Fifth layer | 431 fpm (131.4 m/min) |
| Max.line pull First layer | 18,450 lb (8 369 kg) |

**Drum Dimensions and Capacity** (Same as main winch)

### OPTIONAL HOIST LINE

**Main winch and optional auxiliary winch**3/4" (19 mm) rotation resistant compacted strand 34 x 7 grade 1960.Min.breaking strength 34.5 tons (31.7 mt).

### ENGINE SPECIFICATIONS

Make and Model,Cummins QSB-215 (300 hp)

| | |
|---|---|
| Type | 6 cylinder |
| Bore and Stroke | 4.02 x 4.72" (102 x 120 mm) |
| Displacement | 359 $in^3$(5.9 L) |
| Rated HP | 215 hp (160 kw) @ 2500 rpm |
| Max.Gross HP | 255 hp (168 kw) @ 2300 rpm |
| Max.Gross Torque | 655 lb • ft (888 N•m) @ 1500 rpm |
| Aspiration | Turbocharged & charge air cooled |
| Air filter | dry type |
| Electrical System | 12 volt |
| Alternator | 102 amp |
| Battery | (2) 12V-1900 C.C.A. |
| Fuel Capacity | 50 gal (189 L) |

### PERFORMANCE (STANDARD ENGINE)

| Trans-mission Forward Gear | Drive | Max. Speed | Max. Tractive Effort | Grade-ability @ Stall |
|---|---|---|---|---|
| 1 | 4-wheel | 1.9 mph (3.1 kph) | 86,330 lb (39 159 kg) | 127.6% |
| 2 | | 3.8 mph (6.1 kph) | 41,547 lb (18 845 kg) | 48.5% |
| 3 | 4-wheel | 9.6 mph (15.4 kph) | 15,220 lb (6 904 kg) | 34.7% |
| 4 | | 5.2 mph (8.4 kph) | 29,686 lb (13 465 kg) | 18% |
| 5 | 4-wheel | 10.3 mph (16.6 kph) | 14,260 lb (6 468 kg) | 12% |
| 6 | | 23.4 mph (37.7 kph) | 5,211 lb (2 364 kg) | 5.9% |
| | 2-wheel | | | |
| | 2-wheel | | | |

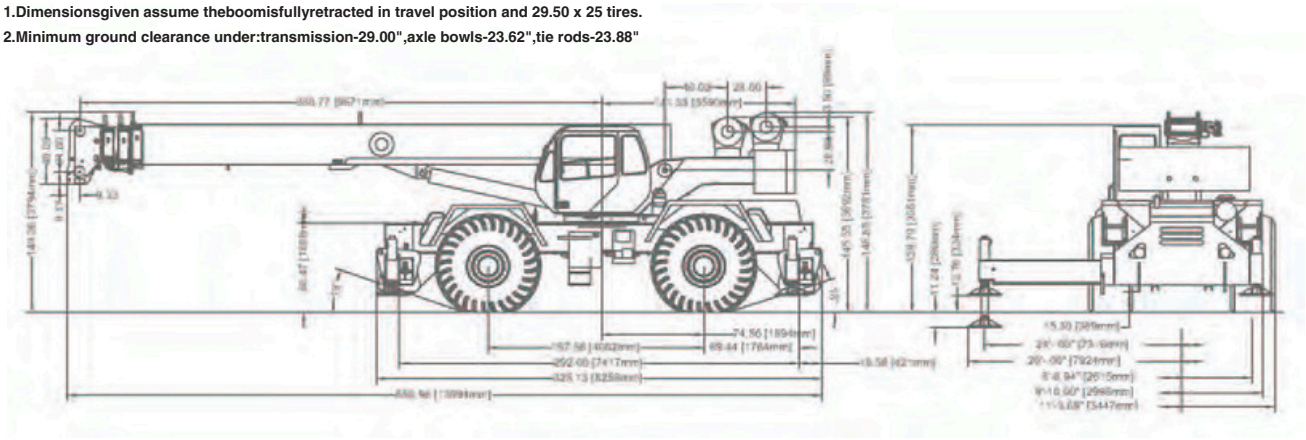
All performance data is based on a gross vehicle weight of 86,000 lb (39 009 kg) 29.5x25 tires,4x4 drive.Performance may vary due to engine performance.Gradeability data is theoretical and is limited by tire slip,machine stability,or oil pan design.

TEREX

## GENERAL DIMENSIONS

1.Dimensionsgiven assume theboomisfullyretracted in travel position and 29.50 x 25 tires.

2.Minimum ground clearance under:transmission-29.00",axle bowls-23.62",tie rods-23.88"



| WEIGHTS & AXLE LOADS | GROSS WEIGHT LB | UPPER FACING FRONT | | GROSS WEIGHT KG | UPPER FACING FRONT | |
|---|---|---|---|---|---|---|
| | | FRONT | REAR | | FRONT | REAR |
| Basic crane with 14,200 lb (6 440 kg) counterweight | 85,694 | 45,238 | 40,456 | 38 870 | 20 520 | 18 350 |
| Add Options: | | | | | | |
| 32' (9.68 m) Swing-on Jib (Stowed) | + 1,270 | + 2,205 | - 935 | + 576 | + 1 000 | - 424 |
| 33'-57' (10.15-17.30 m) Swing-on Jib (Stowed) Axillary Boom Head | + 2,170 | + 3,580 | - 1,410 | + 984 | + 1 624 | - 640 |
| Auxiliary Winch with Wire Rope,Controls,Etc. | + 125 | + 365 | - 240 | + 57 | + 166 | - 109 |
| 75 T (68.0 mt) 5-Sheave Hook Block | + 584 | - 30 | + 614 | + 265 | - 14 | + 279 |
| 60 T (54.4 mt) 5-Sheave Hook Block | + 1,04 | + 1,971 | - 931 | + 472 | + 894 | - 422 |
| 20 T (18.1 mt) I-Sheave Hook Block | + 0 | + 2,233 | - 1,029 | + 546 | + 1 013 | - 467 |
| 12 T (19.9 mt) Hook and Ball (In tool box) | + 1,20 | + 936 | - 366 | + 259 | + 425 | - 166 |
| Pintle Hook: | + 4 | + 443 | - 24 | + 190 | + 201 | - 11 |
| Front | 570 + 419 45 | + 60 | - 15 | + 20 | + 27 | - 7 |
| Rear | + 45 | - 25 | + 70 | + 20 | - 11 | + 31 |
| Substitute: | + 98 | - 17 | + 115 | + 44 | - 8 | + 52 |
| 600' of 34x7 class spin resistant wire rope | | | | | | |

Note:Weights are for Terex supplied equipment and are subject to 2% variation due to manufacturing tolerances.

**Bigge Crane and Rigging Co.**
10700 Bigge Avenue
San Leandro, CA 94577
Phone: (888) 337-BIGGE or (510) 638-8100
Fax: (510) 639-4053
Email: info@bigge.com
Web site: www.bigge.com