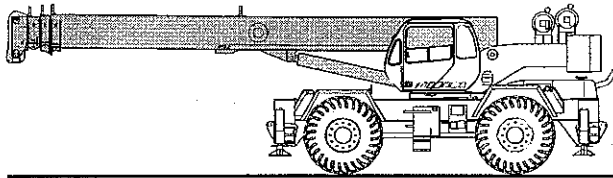




TEREX RT 500 SERIES

rough terrain crane
specifications



STANDARD BOOM EQUIPMENT

BOOM

35-110 ft. (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 ft. (35.05 m).

BOOM HEAD

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

OPTIONAL BOOM EQUIPMENT

JIBS

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

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

AUXILIARY BOOM HEAD

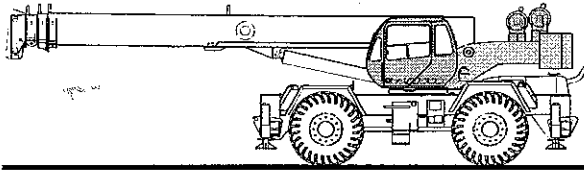
Removable auxiliary boom head has single metallic sheave mounted on anti-friction bearing. Removable pin-type rope guard for quick reeving. Installs on main boom peak only. Removal is not required for job use.

HOOK BLOCK

Five or six metallic sheaves on anti-friction bearings with hook and hook latch. Quick reeving design does not require removal of wedge and socket from rope.

HOOK & BALL

7 ton (6.3 mt) top swivel ball with hook and hook latch.



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 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 2.8 rpm.

SWING BRAKE

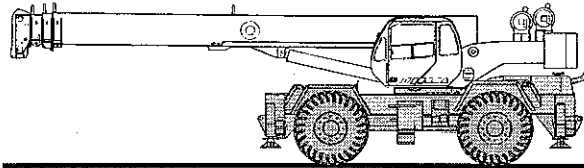
Heavy duty multiple disc swing brake is mechanically actuated from operator's cab by foot pedal. Brake may be locked on or used as a momentary brake. A 360° mechanical house lock is standard.

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.

OPERATOR'S 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



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 turntable 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 in (0.26 m) of total oscillation. Automatic oscillation lockouts 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.

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

All control levers and pedals are positioned for efficient operation. Hand operated control levers include swing, boom telescope, boom hoist, winch(s), 360° house lock, shift, and vernier adjustable hand throttle. Switches include ignition, engine stop, two-speed winch(s), lights, horn, windshield wipers, defroster, steering mode, parking brake, and outrigger controls. Foot control pedals include swing brake, boom raise, boom lower, service brakes and accelerator.

INSTRUMENTATION AND ACCESSORIES

In-cab gauges include air pressure, bubble level, tachometer, 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 audio/visual warning, low coolant audio/visual warning, hoist drum rotation indicator(s), and Rated Capacity Indicator. Accessories include fire extinguisher; light package including headlights, tail lights, 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 are mechanically operated and include one pressure compensated two spool valve for boom elevation and telescope, 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 • Heater/Defroster • Hydraulically powered Air Conditioner with or without hydraulic heater • LP or Diesel Heater/Defroster • Work Lights • Rotating Beacon

STEERING

Hydraulic four-wheel full 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.

Turning radius to center of outside tire.

	(standard tires)	(optional tires)
Two-wheel	40' 4" (12.3 m)	40' 0" (12.2 m)
Four-wheel	23' 4" (7.1 m)	23' 0" (7.0 m)

TRANSMISSION

Power-shift transmission with integral torque converter has neutral safety start, 6 speeds forward, and 3 speeds reverse provides wide ratio coverage. Automatic pulsating back-up alarm.

STANDARD CARRIER EQUIPMENT (continued)

MULTI-POSITION OUT & DOWN OUTRIGGERS

Fully independent hydraulic outriggers may be utilized fully extended to 22 ft. (6.71 m) centerline to centerline, in their 1/2 extended position, or fully retracted for maximum flexibility. Easily removable steel floats, each with an area of 254 in² (1639 cm²), 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 & TIRES

Disc type wheels with full tapered bead seat rim. 150.50 in (3.82 m) wheelbase.

TIRES

Wide earthmover (E3) style tread tires provide life and flotation.
26.50x25, 26 P.R. - std.
21.00x25, 28 P.R. opt.

SERVICE BRAKES

Split system air brakes on all four wheels; 20 1/4" x 4" (51.43x10.2 cm) wedge type drum brakes.

PARKING BRAKE

Front and rear axles equipped with spring-set, air-released emergency/parking chambers acting on service brakes.

OPTIONAL EQUIPMENT

Cold Weather Starting Aid • Immersion Heater • Pintle Hook • Clearance Lights • Independent Rear or Four Mode Rear Wheel Steer • 20,000 lb (9072 kg) line pull front mounted winch

HYDRAULIC SYSTEM

HYDRAULIC PUMPS

Three gear type pumps, one single and two in tandem, driven off the transmission. Combined system capability is 119 gpm (450 lpm). Includes pump disconnect on tandem pump.

Main and Auxiliary Winch Pump

59.5 gpm (225.2 lpm) @ 3,500 psi (246.1 kg/cm²)

Boom Hoist, Telescope Pump

38.5 gpm (145.7 lpm) @ 3,500 psi (246.1 kg/cm²)

Power Steering, Outrigger and Swing Pump

21 gpm (79.5 lpm) @ 2,500 psi (175 kg/cm²)

FILTRATION

Full flow oil filtration system with bypass protection includes a removable 60 mesh (250 micron) suction screen-type filter and 5 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 112 gal (424 liters). Hydraulic oil cooler is standard.

MAIN WINCH SPECIFICATIONS

Hydraulic winch with bent axis piston motor and planetary reduction gearing provides 2-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 an electronic drum rotation indicator.

PERFORMANCE

Max. line speed (no load)

	LO-RANGE	HI-RANGE
First layer	184 fpm (56.1 m/min)	369 fpm (112.5 m/min)
Fifth layer	266 fpm (81.1 m/min)	533 fpm (162.5 m/min)

Max. line pull-first layer 15,639 lbs (7093 kg) 7,298 lbs (3310 kg)

Max. line pull-first layer 10,827 lbs (4911 kg) 5,052 lbs (2291 kg)

Permissible line pull 11,250 lbs (5102 kg)

DRUM DIMENSIONS

10.62 in (270 mm) drum diameter
22.42 in (570 mm) length
20.0 in (508 mm) flange dia.
Cable: 5/8 in. x 500 ft (16 mm x 152.4 m)
Cable type: 5/8 in. (16 mm) 6 x 19 IWRC, XIPS, right regular lay, preformed.

DRUM CAPACITY

Max. Storage: 939 ft (286.2 m)
7th layer not a working layer
Max. Useable: 772 ft (235.3 m)*

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

OPTIONAL AUX. WINCH

Hydraulic 2-speed winch with bent axis piston motor, 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 533 fpm (162.5 m/min)

Max. line pull

First layer 15,639 lbs (7,093 kg)

Drum Dimensions and Capacity

(Same as main winch)

OPTIONAL HOIST LINE

MAIN WINCH AND OPTIONAL AUXILIARY WINCH
5/8" (16 mm) rotation resistant compacted strand 34 x 7. Min. breaking strength 28.21 tons (25.59 mt).

ENGINE SPECIFICATIONS

Make and Model	Cummins 6BTA5.9	Caterpillar 3116 DITA
Type	6 cylinder	6 cylinder
Bore and Stroke	4.02 x 4.72 in (102x120 mm)	4.12 x 5.0 in (105x127 mm)
Displacement	359 cu in (5.9 l)	402 cu in (6.6 l)
Gross HP	174 hp (130 kw) @ 2500 rpm	175 hp (130 kw) @ 2400 rpm
Gross Torque	480 lb•ft (651 N•m) @ 1500 rpm	482 lb•ft (654 N•m) @ 1450 rpm
Aspiration	turbocharged & aftercooled	turbocharged & aftercooled
Air Filter	dry type	dry type
Electrical System	12 volt	12 volt
Alternator	102 amp	115 amp
Battery	(2) 12V-1600 CCA	(2) 12V-1600 CCA
Fuel Capacity	50 gal (189 l)	50 gal (189 l)

PERFORMANCE (Standard Engine)

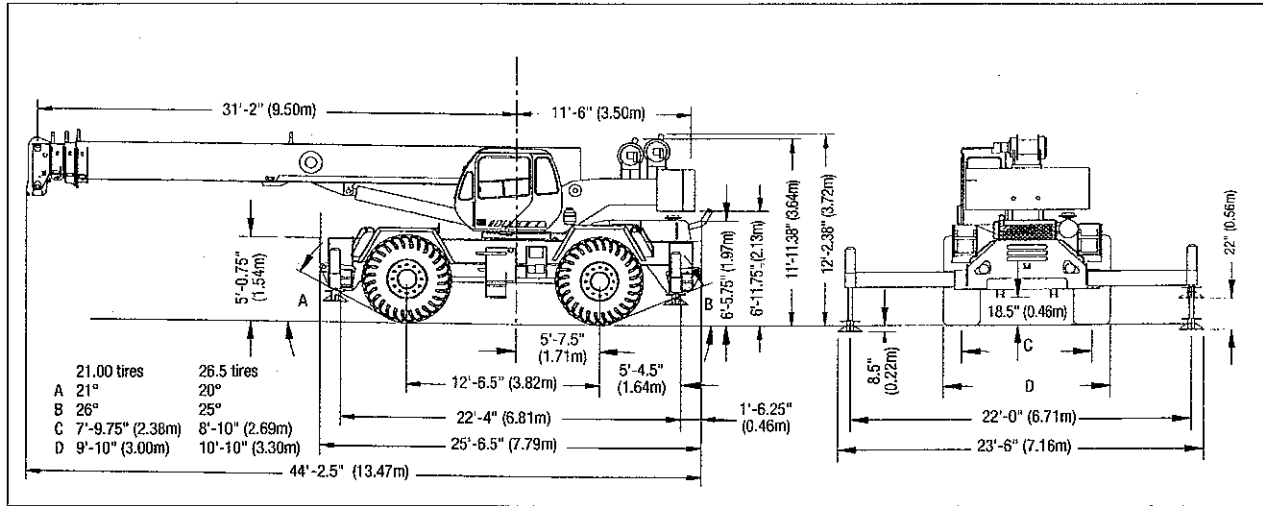
Transmission Gear	Forward Drive	Maximum Speed	Maximum Tractive Effort	Gradeability @ Stall
1	4-wheel	2.4 mph 3.9 km/h	60,538 lbs 27,460 kg	127.6%
2	4-wheel	4.2 mph 6.8 km/h	34,255 lbs 15,538 kg	48.5%
3	4-wheel	5.6 mph 9.0 km/h	26,061 lbs 11,821 kg	34.7%
4	2-wheel	9.8 mph 15.8 km/h	14,765 lbs 6697 kg	18.0%
5	2-wheel	13.9 mph 22.4 km/h	10,410 lbs 4722 kg	12.0%
6	2-wheel	24.1 mph 38.8 km/h	5,960 lbs 2703 kg	5.9%

All performance data is based on a gross vehicle weight of 75,000 lbs (34,014 kg), 26.5x25 tires, 4x4 drive. Performance may vary due to engine performance. Gradeability data is theoretical and is limited by tire slip, stability, or oil pan design.

GENERAL DIMENSIONS

NOTES:

- Dimensions given assume the boom is fully retracted in travel position and 26.50x25 tires.
- Minimum ground clearance under:
 - transmission - 25.25"
 - axle bowls - 22.25"
 - tie rods - 25.5"



WEIGHTS & AXLE LOADS	GROSS WEIGHT LBS.	UPPER FACING FRONT		GROSS WEIGHT KG.	UPPER FACING FRONT	
		FRONT	REAR		FRONT	REAR
Basic Crane with 14,200 lb. (6440 kg) Counterweight	76,832	40,040	36,792	34,850	18,162	16,688
Add Options:						
32' (9.68 m) Swing-on jib (Stowed)	+ 1,260	+2,130	- 870	+ 572	+ 966	- 394
33'-57' (10.15-17.30 m) Swing-On Jib (Stowed)	+ 2,160	+3,600	-1,440	+ 980	+ 1,633	- 653
Auxiliary Boom Head	+ 100	+ 300	- 230	+ 45	+ 136	- 91
Auxiliary Winch Controls and Plumbing Only	+ 75	+ 0	+ 75	+ 34	+ 0	+ 34
Aux. Winch with Wire Rope, Controls, Etc.	+ 264	- 60	+ 204	+ 120	- 27	+ 93
50T (45.3 mt) 6-Sheave Hook Block	+ 755	+1,130	- 375	+ 342	+ 512	- 170
50T (45.3 mt) 5-Sheave Hook Block	+ 723	+1,080	- 357	+ 328	+ 490	- 162
22T (20 mt) 2-Sheave Hook Block	+ 580	+ 870	- 290	+ 263	+ 395	- 132
6.25T Hook and Ball (In tool box)	+ 240	+ 290	- 50	+ 109	+ 130	- 21
Pintle Hook:						
Front	+ 45	+ 60	- 15	+ 20	+ 27	- 7
Rear	+ 45	- 25	+ 70	+ 20	- 11	+ 31
Substitute:						
21.00 x 25.28 PR Tires	- 400	- 200	- 200	- 182	- 91	- 91
500' of 34x7 class spin resistant wire rope	+ 65	- 42	+ 107	+ 30	+ 19	+ 49

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

WE RESERVE THE RIGHT TO AMEND THESE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE. THE ONLY WARRANTY APPLICABLE IS OUR STANDARD WRITTEN WARRANTY APPLICABLE TO THE PARTICULAR PRODUCT AND SALE. WE MAKE NO OTHER WARRANTY, EXPRESSED OR IMPLIED.

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