

 **TEREX | UNIT RIG**

Mining Trucks | 150 short ton (136 metric ton) Payload Capacity



MT 3300AC

MINING TRUCK

The TEREX Unit Rig MT 3300AC

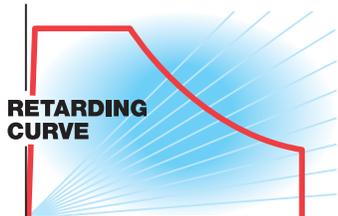


Is Specifically Designed For High-Volume Surface Mining.

AC Drive System

TEREX Unit Rig's MT 3300AC features the GE150AC™ drive system that can significantly reduce friction brake wear. This new drive system allows the truck to transition from full propel to 90% retard in less than two seconds, and the dynamic retarding controls truck speed down to less than one mile (1.6 km) per hour.

Using IGBT technology, the drive system is able to utilize a wide range of horsepower. The AC truck matches the demands of the most severe haul conditions and still maintains excellent service availability.

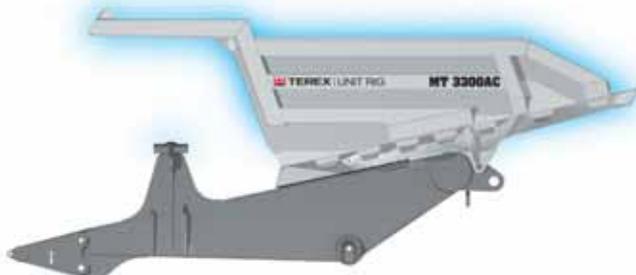


Durable Construction

A rugged, durably constructed frame is the key element to a long haul truck life. The MT 3300AC features a straight rail design to eliminate sources of stress concentration such as bends and breaks.

It boasts a double box section construction utilizing high-strength, low alloy, controlled rolled steel. This material simplifies welding procedures and reduces the chance of hydrogen embrittlement during welding.

A submerged arc welding process further reduces stress with full-penetration weld joints.

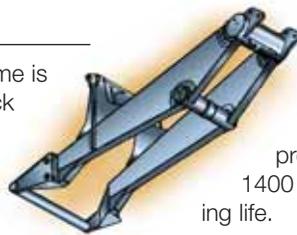


This process produces an increase in the endurance limit, which translates into a significant increase in the fatigue life of the weld joint.

The critical areas of the frame features deep section main rails to reduce stress which will increase the fatigue life of the frame.

The tubular center cross beam with integral hoist cylinder and axle box attachment eliminates torsional and eccentric loads associated with conventional designs. The axle box attachment features a replaceable bearing surface that is lubricated, sealed and integrated into the crossmember for easy access and maintenance.

The MT 3300AC axle box features a stress skin design that eliminates some internal structure and saves up to 1,000 lb (450 kg) of weight. And, the nose cone attachment uses a patented large two piece bearing, which reduces contact pressure on the bearing to less than 1400 psi (9 653 kPa) and extends bearing life.

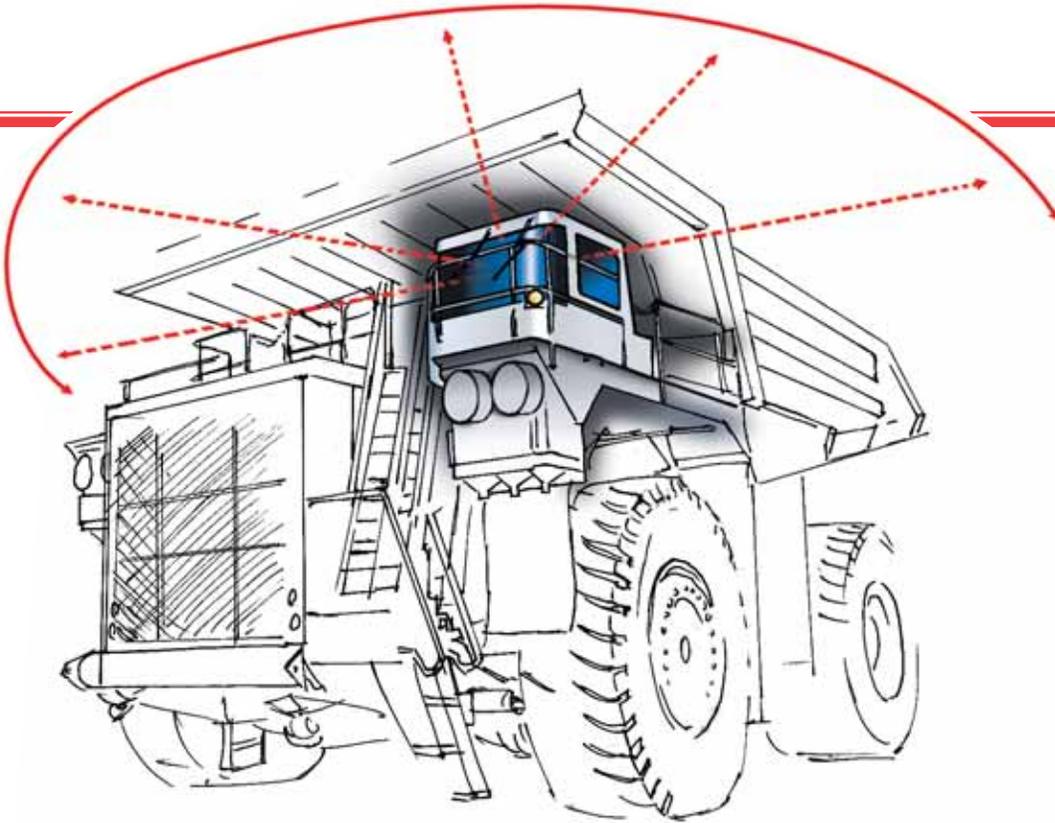


In addition, a panhard bar lateral support provides simple, easy to maintain lateral stabilization for the rear axle.

Solid Body

The MT 3300AC offers a horizontal bolster design which absorbs more impact energy for reduced body side damage. This unique design also simplifies construction, and saves up to 1,500 lb (680 kg) over conventional vertical bolster designs.

A patented floor bolster to dump body floor rail joint also eliminates a high stress area in the body construction and allows increased structural flexibility, thereby improving the fatigue life of the body.



Safe, Productive Environment

The TEREX Unit Rig integrated ROPS Cab provides a full 180 degrees of vision, and meets SAE J1040 requirements. The TEREX Unit Rig MT Series ROPS cab is designed for safe operation incorporating cab-under-floor protection from flying debris, and tailgate protection in the event of a truck collision.

The MT 3300AC cab features an efficient interior with room for two full size seats, back-lit

cab instrumentation to reduce eyestrain, and a pressurized and fresh air filtration system to reduce dust contamination and keep drivers comfortable and productive.

In addition, a sound abatement package reduces the noise level in the cab to a sound exposure L_{eq} (equivalent sound level) of less than 82 dB(A) when tested per ANSI/SAE J1166 MAY90.

Smooth Ride

The independent front beam axle provides the MT 3300AC with the smoothest ride in mining. The axle is pin connected to the main frame with four drag links and two suspensions plus a panhard rod for lateral stability. This arrangement reduces stress loads to the frame by 50 percent.

In addition all steering components are mounted directly to the front axle for simplicity with fewer moving parts. For ease of maintenance all components are easily accessible, and the oversized wheel bearings feature a projected life of 20,000 hours.

The independent front beam axle provides true tire tracking regardless of suspension stroke for improved handling, maneuverability, and

extended tire life. The king pin is located in close proximity to the tire center line to reduce tire scrubbing, and absorb steering forces.



MT 3300AC

150 short ton (136 metric ton) Payload



ENGINES AVAILABLE

Manufacturer	MTU/DDC	Cummins
Operating Cycle	4 Stroke Diesel	4 Stroke Diesel
Model	12 V 4000	QSK45
Number of Cylinders	12	12
Rated Power	1,725 hp (1286 kW), 1,875 hp (1 398 kW)	1600 hp (1193 kW), 1875 hp (1 398 kW)
*Flywheel HP	1,570 hp (1171 kW), 1,720 hp (1 283 kW)	1480 hp (1104 kW), 1720 hp (1 283 kW)
Weight Dry	13,325 lb (6 044 kg)	12,820 lb (5 814 kg)

*Flywheel hp is the rated horsepower at the engine flywheel minus the average accessory losses. Accessory losses include radiator fan and battery-charging alternator. Rating based on 500 ft (152 m) altitude @ 85°F (29°C) ambient temperature. No deration required up to 10,000 ft (3 048 m) for the Detroit Diesel.

GE150AC™ DRIVE SYSTEM

STANDARD

Alternator	GE GTA 22
Traction Motor	GEB23
Gear Ratio	28.8
Control	IGBT
Speed (Max) MPH (km/h)	40 (64)



NOTE: Drive system application depends on Gross Vehicle Weight, haul road grade and length, rolling resistance, engine HP and other parameters. Each application must be analyzed to ensure optimum truck specifications.



RETARDING

Electrical dynamic retarding with continuous rated blown grids. Reverse retarding standard.

	STD
Grids	9 Element
Maximum Continuous Rating	2,700 hp (2 011 kW)

SUSPENSION

Four nitrogen-over-oil cylindrical suspension struts provide maximum driver comfort and are interchangeable left to right, keeping inventory cost low. Upper and lower suspension attachment points to the frame are clevis and pin connected, providing rugged reliability and easy maintenance.

The rear axle incorporates a clevis and pin lateral stabilizer link to insure true tire tracking and maximize truck performance.

All suspensions are easily adaptable to the payload weigh system accessory.

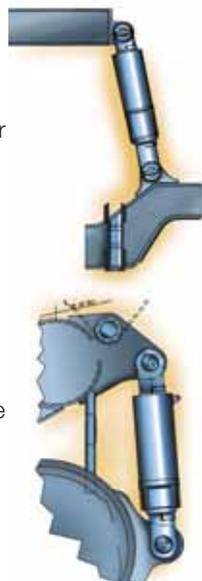
Front Strut:

Stroke: 12 inch (304 mm)

Rear Strut:

Stroke: 7-1/4 inch (184 mm)

Rear Axle Oscillation: ± 6.5°



BRAKE SYSTEMS

Hydraulic brake actuation system features: fully modulated service brakes (foot operated), fully modulated secondary brake (hand operated), loading brake and spring apply, hydraulically released parking brake. Hydraulic pressure is supplied by accumulators (3) charged by a pressure compensated piston pump.

Option: Service brakes automatically applied when accumulator pressure drops below 1400 psi (9 600 kPa).

Front Brakes — 39 inch (990 mm) single disc – 3 calipers.

Rear Brakes — 20-1/8 inch (511 mm) dual disc – 1 caliper/disc.

Parking Brakes — Manual actuated by switch on instrument panel.

Braking System meets the requirements of SAE/ISO 3450.



STEERING SYSTEM

Full-time, closed center, load-sensing system operating two double-acting cylinders, supplied by accumulators that are replenished by a pressure-compensated piston pump. Auxiliary steering supplied by accumulators and meets SAE J1511/ISO 5010.



Minimum turning radius (SAE): 41 feet (12.5 m)



SERVICE CAPACITIES

	U.S. Gallons	Liter
Fuel	600	2271
Hydraulic system	215	813
Engine oil*	58	220
Wheel Motor	5/wheel (B23)	19
Cooling system*	120	454

*Based on MTU/DDC 12 V 4000 engine.



SUPERSTRUCTURE

Rugged one piece "I" beam construction featuring a closed bottom to provide cab-under-floor protection for the operator and to protect critical components from road damage and mud damage. Top access to engine, piping and electrical wiring for easy maintenance access. Deck components located to optimize driver visibility.



FRAME

Completely computer aided designed utilizing special alloy steel, double box section construction. Center cross member incorporates wrap around spherical axle box nose cone connection.

Continuous frame rail beams with deep section in critical area along with ROPS supports for rugged dependable service.



DUMP BODY

Horizontal bolster deep vee design with flat floor and a 45° dumping angle. Standard rock body incorporates 3/4 inch (19 mm) bottom plate with 3/8 inch (10 mm) sides and 1/2 inch (13 mm) front plate. Dump body heating available as an accessory.

Struck (SAE) — 77 yd³ (59 m³)

Heaped (SAE 2:1) — 118 yd³ (90 m³)

Optional bodies available based on material density and payload rating. Liner and tailgate accessories also available.



CAB

The integral ROPS (Rollover Protective Structure) cab accommodates two full size seats. Features deluxe interior, tinted safety glass, curved wind- shield for added field of view, tilt and



telescopic steering wheel, heater and defroster, pressurized and filtered intake air for driver comfort. ROPS meets SAE J1040 MAY94 criteria, and the MT Series also features tailgate protection to protect the operator in the event of a truck collision. The High Productivity Cab correctly maintained and assembled provides a sound exposure L_{eq} (equivalent sound level) of less than 82dB(A) when tested per ANSI/SAE J1166 MAY90 with doors and windows closed, meeting both U.S. OSHA and MSHA occupational noise criteria for operator weighted sound exposure level.



TIRES

Rock, Deep Tread type tubeless

33.00 R 51

Rim size: 24.00 x 51

Option: 36.00 R 51

Rim size: 26.00 x 51



HYDRAULIC SYSTEM

Hoist: Manually-operated pilot system controlling a hoist valve, operating two double-acting telescoping two-stage cylinders.



Hydraulic fluid is supplied by a single section gear pump, delivering 120 gpm (454 l/minute).

Power up loaded 20 seconds

Power down 9 seconds

Remote dump quick disconnects are standard.

Filtration: High-pressure units with 6 micron (nominal) filtration and environmentally disposable elements. Hydraulic tank outlet contains a strainer with 100 mesh screening.

Component Box: Hydraulic gauges and quick disconnect test points are standard.

Hydraulic Tank: The 149 gallon (564 liter) tank is pressurized to provide longer pump life.



ELECTRICAL SYSTEM

24 Volt system powered by six (6) twelve (12) volt batteries (3 series pairs in parallel). Battery isolation switch standard.

Alternator: 24 Volt, 100 amp output

Lighting: 24 Volt

Starter: 24 Volt



WEIGHTS

MT 3300AC with 33R51 tires

AXLE	EMPTY		LOADED	
	lb	kg	lb	kg
Front	131,026	59 422	183,967	83 432
Rear	117,874	53 458	364,933	165 502
TOTAL	248,900	112 880	548,900	248 934

Weight based on standard truck configuration with 50% fuel
Nominal GW is 548,900 lb (248 934 kg).

MT 3300AC with 36R51 tires

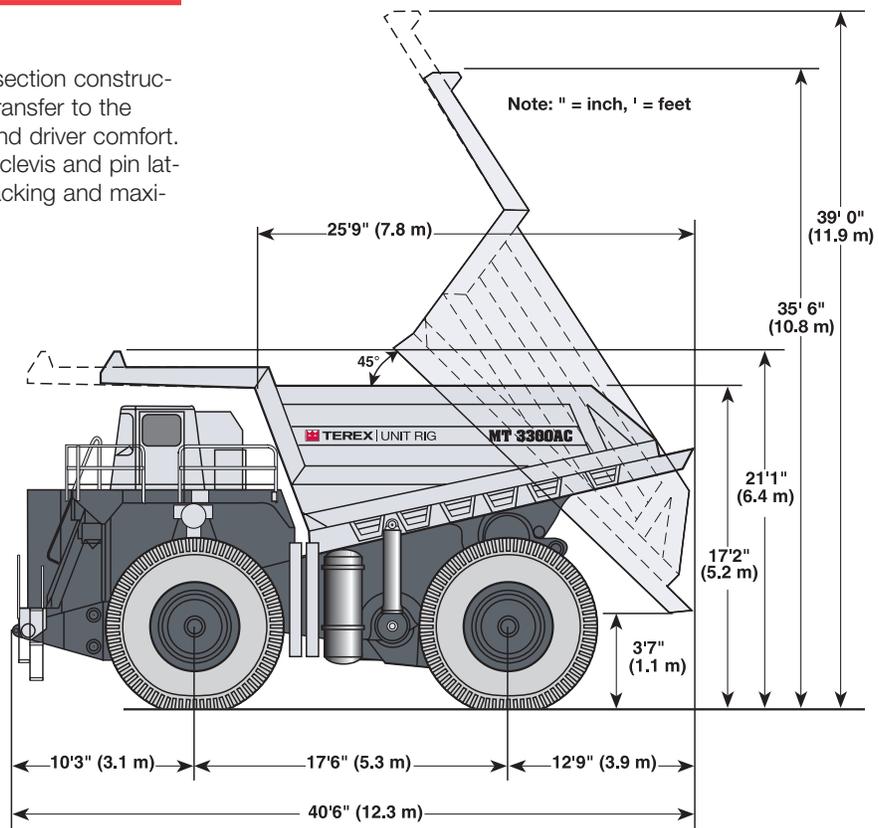
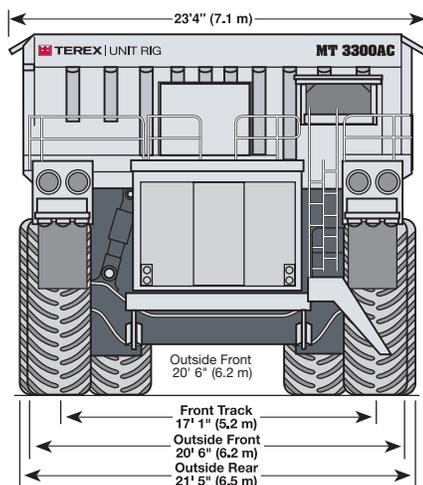
AXLE	EMPTY		LOADED	
	lb	kg	lb	kg
Front	134,237	59 891	186,011	84 359
Rear	120,763	54 757	368,989	167 342
Total	255,000	114 648	555,000	251 701

Weight based on standard truck configuration with 50% fuel
Nominal GW is 555,000 lb (251 701 kg).



BEAM FRONT AXLE

A drop-center beam axle features box section construction for long service life, reduced load transfer to the frame during turns, improved stability and driver comfort. Both front and rear axles incorporate a clevis and pin lateral stabilizing link to ensure true tire tracking and maximize truck performance.



OPTIMIZE MINING PRODUCTIVITY

NUMBER OF PASSES						
	RH 90C 13.1 yd ³ 10.0 m ³	RH 120-E 19.6 yd ³ 15.0 m ³	RH 170 23.5 yd ³ 18.0 m ³	RH 200 34.0 yd ³ 26.0 m ³	RH 340 44.5 yd ³ 34.0 m ³	RH 400 59.0 yd ³ 45 m ³
 MT 3000 120 ton, 109 t	6	4	3-4			
 MT 3300 MT 3300AC 150 ton, 136 t	7-8	5	4-5	3		
 MT 3600B 170 ton, 154 t 190 ton, 172 t		6-7	5-6	3-4	3	
 MT 3700AC MT 3700B 190 ton, 172 t 205 ton, 186 t		7	6	4	3	
 MT 4400 MT 4400AC 240 ton, 217 t 260 ton, 236 t			6-7	4-5	3-4	3
 MT 5500 MT 5900AC 360 ton, 326 t				7	5-6	4

Rear dump load based on loose material, 3,030 lb/yd³ (1800 kg/m³) material, 100% bucket fill factor, standard rock bucket.

Note: ton = short ton, t = metric ton

Actual passes may vary with the mining conditions, such as material, blasting, face height, etc.

Standard and Optional Equipment

STANDARD INSTRUMENTATION GROUP

Air cleaner restriction gauges
Engine oil pressure gauge
Engine start/stop switch
Engine tachometer
Engine water temperature gauge
Fuel gauge
Hand brake control
Headlight/taillight switch
High/low beam indicator and switch
Hour meter
Load brake switch
Park brake switch
Speedometer w/odometer
Stairway light switch
Steering wheel tilt/telescopic
Turn indicators lights and lever
Voltmeter
Warning indicator light and/or buzzer
 Brake drag warning
 Check engine
 Electrical system fault
 High hydraulic temperature
 Low blower pressure
 Low brake pressure
 Low fuel level
 Low hydraulic oil level
 Low steering pressure
 Stop engine
Windshield washer switch
Windshield wiper switch

STANDARD SERVICE GROUP

Air cleaner rock shields
Automatic lubrication (Lincoln)

Centralized terminal board locations
Converter 24 Volt to 12 Volt,
 25 amp capacity
Donaldson dry air cleaners
Four (4) halogen headlights (high/low beam)
Front wheel fenders and mud guards
Fuel tank sight gauge
Hinged dash panels
Hydraulic component box gauges
Hydraulic test ports
Minimized wiring connections
Rock ejectors
Super bore tire inflation valves

STANDARD EQUIPMENT

Access ladder
Accumulators (brake system)
Automatic auxiliary steering (accumulator)
Auxiliary dumping connections
Back-up warning alarm
Cab air conditioning
Clearance lights & turn signals
Deck hand rails
Dry disc brakes (hydraulic actuated)
Dry break fueling
Dump body lock up cable
Engine service ladder (left & right side)
Fire suppressant bottle – 20 lb. (9.1 kg)
High capacity radiator
Horn – front
Keylock master switch
Parking brake
Radiator fan guard
Rear lights:
 Two (2) Amber (dynamic retarding)
 Two (2) Red (service brakes)
 Two (2) White (back-up)

Rear view mirrors (left & right)
Reverse hoist interlock
Rollover protective structure (ROPS)
Seat belts w/shoulder strap
Service light group:
 Axlebox
 Hydraulic component box
 Under hood
Skid resistant deck top
Stairway light
Windshield washer – electric
Windshield wiper w/intermittent operation

ACCESSORIES

Body liners
Brake auto apply (1400 psi, 9 600 kPa)
Canopy extension
Central service group:
 Autolube reservoir fill
 Engine oil evacuation
 Engine oil fill
 Hydraulic oil tank fill
 Hydraulic oil tank evacuation
 Radiator fill
Engine hotstart (cold weather)
Engine idle/shutdown
Fire suppressant system
Fuel heater (cold weather)
High efficiency body
Hubodometer
Manual power supply
 (DC powered pump/motor combination)
 Supplies steering and brakes
Engine prelube
Tailgate
WEBASTO engine heater
Weigh system (TRIPS) w/ or w/o lights

Specifications subject to change without notice or obligation. The photographs and drawings in this brochure are for illustrative purposes only. Some items shown may be optional at extra cost. MT 3300AC is protected by one or more U.S. patents, foreign patents or patents pending.



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