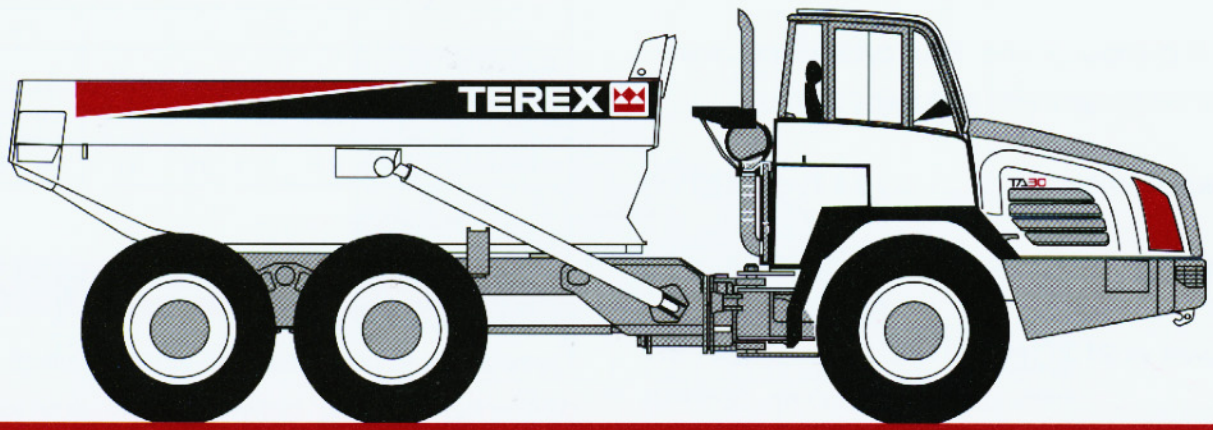
TEREX

TA30



- High power, high torque, emission-certified engine for maximum performance
- Automatic transmission with manual over-ride for optimum shifting
- Automatic limited slip differentials in each axle for superior traction
- Refined, quiet cab for greater operator comfort
- Maximum Payload - 28 tonne (30.9 US ton)
- Heaped Capacity - 17.5m^3 (22.9 yd^3)
- Gross Power - 261 kW (350 hp)

Form No. 828 OCT 2002

FRAME

Front and rear frames are all-welded high grade steel fabrications with rectangular box-section beams forming the main side and cross members. Inter-frame oscillation is provided by a large diameter cylindrical coupling which houses nylon bushings. Frames articulate 45° to either side for steering by means of two widely-spaced pivot pins in back-to-back sealed taper roller bearings.

ENGINE

Make/Model .....Cummins QSM11

Type .....6 cylinder, in line, Four cycle diesel, water-cooled, turbocharged with air to air cooling.

Piston Displacement .....10.8 litres (660 in^3)

Bore x Stroke.....125 x 147 mm (4.92 x 5.79 in)

Gross Power at 2100 rev/min .....261 kW
.....(350 hp, 355 PS)

Net Power at 2100 rev/min .248 kW (333 hp, 338 PS)

Maximum Torque .....1776 Nm (1 310 lbf ft)
.....at 1400 rev/min

Gross Power rated to SAE J1995 Jun 90.

Engine emission meets USA EPA Tier 2 /CARB MOH 40 CFR 89 Tier 2 and EU NRMM (non-road mobile machinery directive) Tier 2.

24 volt electric start. 70A alternator. Two 12 volt 175 Ah batteries.

Dry-type air cleaner with safety element, automatic dust ejector and restriction indicator.

Modulating fan reduces noise level and consumes engine power only when required.

TRANSMISSION

ZF 6WG 310 RPC Fully automatic with manual override.

The transmission assembly consists of a torque converter close-coupled to a countershaft-type gearbox with integral output transfer gearing. Automatic shifting throughout the range, with kick-down feature. Lockup in all forward gears. A torque-proportioning output differential transmits drive permanently to front and rear axles. This differential may be locked by the driver for use in difficult conditions. Standard integral hydraulic retarder which is automatically operated should the engine overspeed.

	Forward						Reverse		
Gear	1	2	3	4	5	6	1	2	3
km/h	5.6	8.7	13.6	21.1	31.0	51.0	5.6	13.6	31.0
mile/h	3.5	5.4	8.5	13.1	19.3	31.7	3.5	8.5	19.3

AXLES

Three axles in permanent all-wheel drive (6 x 6) with differential coupling between each axle to prevent driveline wind-up. Heavy duty axles with fully-floating axle shafts and outboard planetary reduction gearing.

Automatic limited slip differentials in each axle. Leading rear axle incorporates a through-drive differential to transmit drive to the rearmost axle. This differential and the transmission output differential are locked simultaneously using one switch selected by the driver.

Differential ratio 3.44:1

Planetary reduction 6.35:1

Overall Drivetrain reduction 21.85:1

TYRES AND WHEELS

Tyres: Standard 23.5 R 25 two star radial. Optional 750/65 R25

Rims: Standard 25 x 19.50. For optional tyre, 2[illegible]x 22.00

Wheels: .5-piece earthmover rims with 12 stud fixing

SUSPENSION

Front: Axle is carried on the leading arms of a sub-frame which pivots on the main frame. Suspension by rubber elements with four heavy duty hydraulic dampers.

Rear: Each axle is coupled to the frame by three rubber-bushed links with lateral restraint by a transverse link. Pivoting inter-axle balance beams equalise load on each rear axle. Suspension movement is cushioned by rubber/metal laminated compression units between each axle and underside of balance beam ends.

Pivot points on leading and trailing links are rubber-bushed and maintenance-free.

BRAKES

All hydraulic braking system with dry disc on each wheel with double heavy-duty calipers per disc. Independent circuits for front and rear brake systems.

Parking: Spring-applied, hydraulic - released disc on rear driveline.

Secondary: Secondary brake control actuates service and parking brakes.

Brake system conforms to ISO 3450, SAE J1473.

Retardation: Hydrodynamic type in transmission.

STEERING

Hydrostatic power steering by two double-acting cushioned steering cylinders with pressure supplied by a variable displacement / load sensing piston pump. Secondary steering pressure is provided by a ground driven pump mounted on the transmission. An audible alarm and warning light indicates should the secondary system activate.

System conforms to ISO 5010, SAE J53

Steering components are protected by advanced full flow filtration on the return line.

Steering angle to either side.....45°

Lock to lock turns, steering wheel.....4

System pressure.....241 bar (3 500 lbf/in²)

HOIST

Two single-stage, double-acting hoist cylinders, cushioned at both ends of stroke. Variable displacement / load sensing piston pump driven from power take-off on transmission. Full flow return line filtration. Full electro-hydraulic hoist control, with electronic detent in power down.

System pressure.....220 bar (3 200 lbf/in²)

Pump output flow rate 4.9 litre/sec (77.6 US gal/min)

Raise time, loaded 12 sec. Power down 7.5 sec.

BODY

All welded construction, fabricated from high hardness (min. 360 BHN) 1 000 MPa (145 000 lbf/in²) yield strength steel.

Dual slope tailchute improves material ejection from body.

Plate thicknesses: .....Floor and tailchute 14 mm (0.55 in)

Sides.....12 mm (0.47 in)

Front.....8 mm (0.31 in)

Volume: Struck (SAE) .....13.8 m³ (18.0 yd³)

Heaped 2:1 (SAE).....17.5 m³ (22.9 yd³)

STANDARD EQUIPMENT

Cab:
- Air Conditioner 8kW
- Cigar Lighter, 24v
- Coathook
- Engine Diagnostic Facility
- Heater and Demister 9.5kW
- Hydraulic Diagnostic Facility RS232
- Inspection Lamp Socket, 24v
- Insulation, Thermal and Acoustic
- Interior Light
- Mirrors, Rear View, 4
- Mug Holder
- Radio/Cassette
- ROPS/FOPS Protection
  - ISO 3471/3449
  - SAE J1040 Apr 88/J231
- Seat Belts, Retractable J386
- Seat, Operator, air suspension, high back, headrest and adjustable armrests
- Seat, Passenger
- Steering Wheel, tilt / telescopic
- Storage Compartment
- Sun Blind
- Tinted Glass
- Transmission Visual Display Unit
- Window Protection Grille, rear
- Wiper and Washer, front and rear windows

Gauges:
- Fuel Level
- Hourmeter
- Speedometer/Odometer
- Tachometer
- Transmission Temperature
- Water Temperature

Indicator Lights:
- Turn Signals
- Headlight High Beam

Audible Alarm:
- Brakes Tractor, Low Pressure
- Brakes Trailer, Low Pressure
- Engine Stop
- Transmission stop
- Steering, Low Pressure

Warning Lights:
- Alternator Charging
- Body Up
- Brake Pressure - Front and Rear
- Diff. Locks 'On'
- Engine Check
- Engine 'Stop'
- Maintenance Engine
- Parking Brake 'On'
- Steering Pressure
- Transmission 'Stop'

General:
- Air Filter, Dual Element with Restriction Indicator
- Articulation Locking Bar and Oscillation Lock Pin
- Battery Master Switch
- Body Prop
- Brake Splash Guards
- Diagnostic Test Points
- Downshift Inhibitor
- Engine Underguard, hinged
- Fan, Modulating
- Headlamp Guards
- Horn, Electronic
- Lights:
  - Headlamps, 4, Halogen.
  - Work Lights, Roof Mounted, Side, Tail, Stop, Reverse.
  - Hazard Warning and Direction Indicators
- Light Guards, Rear
- Mudflaps, Front
- Neutral Start Interlock
- Pivot Protection Guard
- Retarder, transmission
- Reverse Alarm, audible J994
- Security Kit
- Servo Body Hoist
- Tow Points, front and rear
- Transmission Oil Cooler, with Modulating Fan
- Transmission Sump Guard
- Tyre Inflation, nitrogen (6 tyres)

OPTIONAL EQUIPMENT

Body Options:
- Exhaust Heating
- Liner Plates
- Side Extensions
- Spillguard Extension
- Tailgate–Scissor chain operated
- Tailgate–Underhinged

Cold Start Kit
Engine Brakes (Jacobs)
Fast Fuel Adaptor
Fire Extinguisher
First Aid Kit
Lights:
- Beacon, flashing
- Fog, rear
- Reverse, flashing
- Working, rear facing

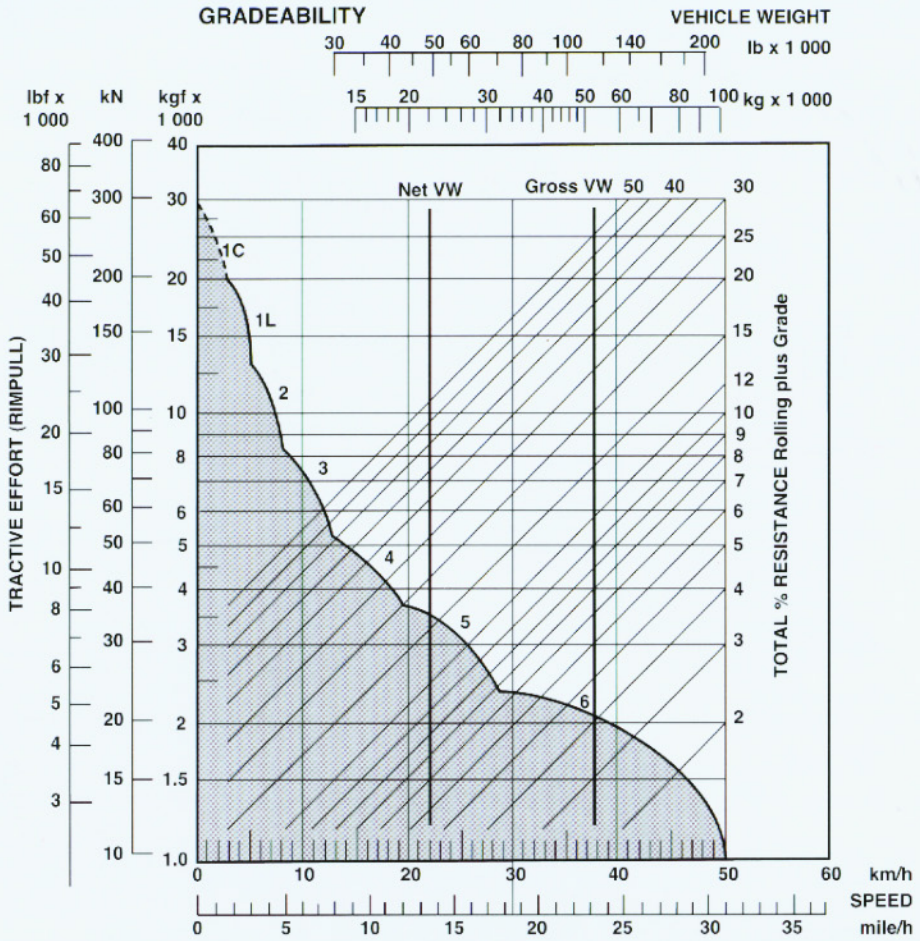
Mirror, front mounted
Mirror, Safety (with wide angle)
Mirrors, heated
Mud Flaps, in front of leading rear wheels
Parking Brake Guard
Seat heated
Television Monitor, rear view
Tool Kit, Hand
Tyres, 750/65 R25

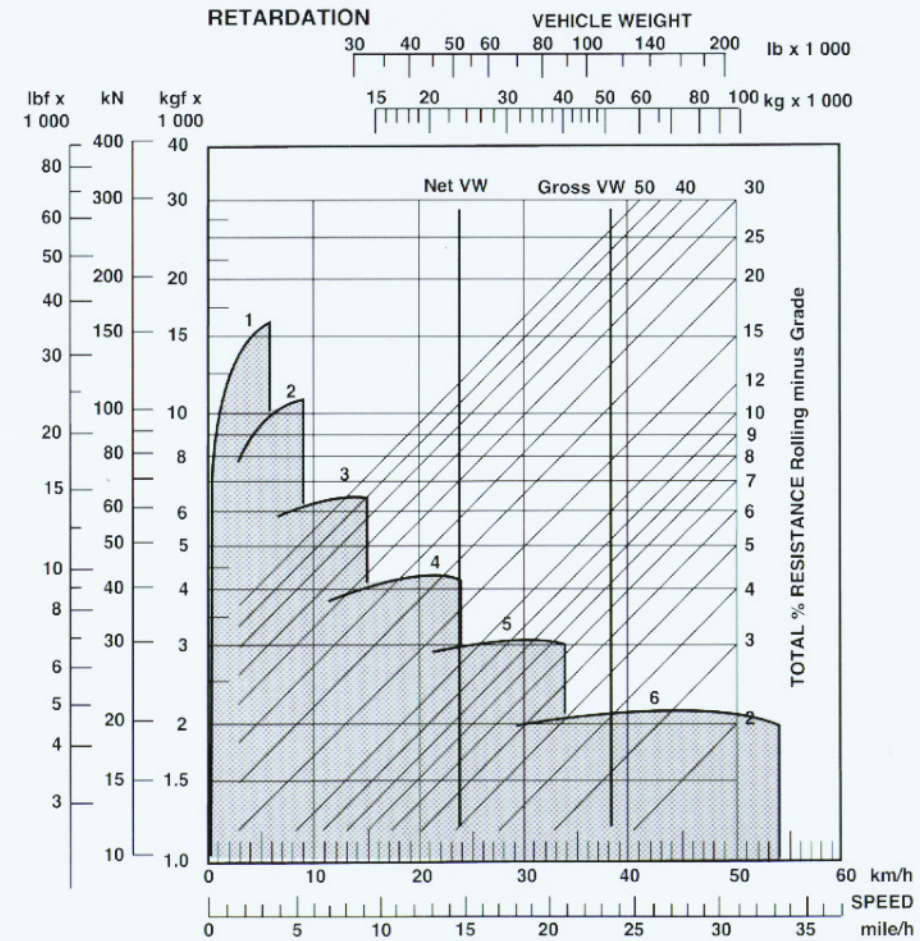
SERVICE DATA

Fuel Tank	390 litres (103.0 US gal)
Hydraulic System (steering & body)	202 litres (53.4 US gal)
Engine Crankcase	41 litres (10.8 US gal)
Cooling System	54 litres (14.3 US gal)
Transmission (inc filters and cooler)	54 litres (14.3 US ga
Differentials - Front & Rear (each)	17 litres (4.5 US gal)
Differential - Centre	18.5 litres (4.9 US gal)
Planetaries (each)	3 litres (0.8 US gal)

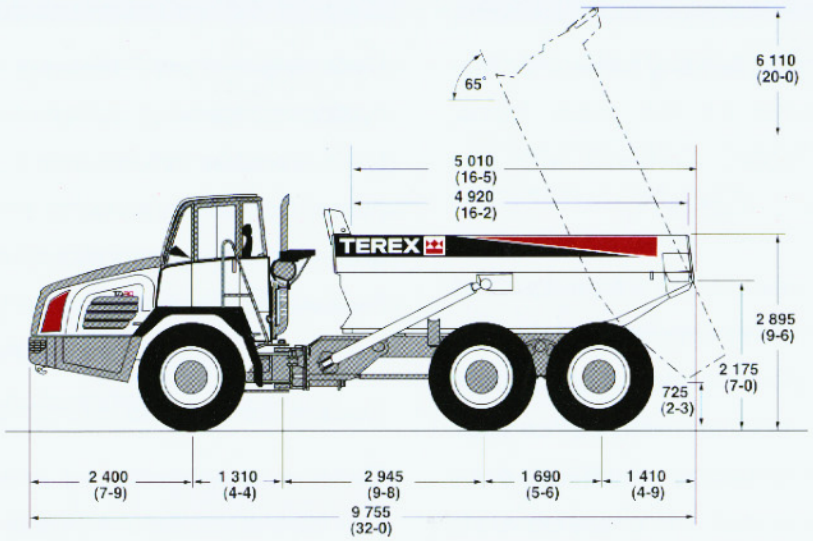
Performance Data

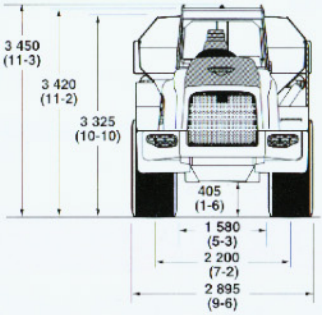
Unit equipped with 23.5 R 25 tyres
Graphs based on 2% Rolling Resistance

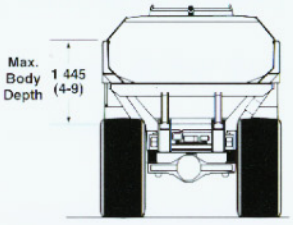


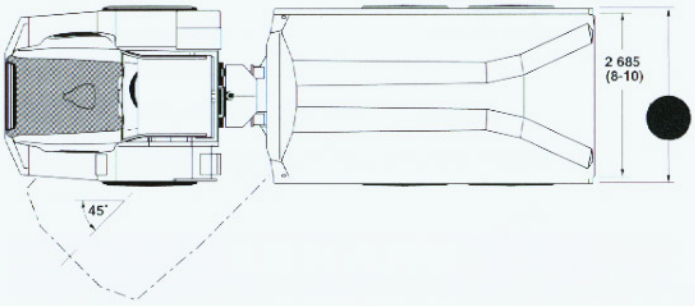


Instructions: From intersection of Vehicle Weight with Percentage Resistance line read across to determine maximum Gear attainable, and then downwards for Speed.









SAE Turning Radius 8 470mm (27-9)
Clearing Radius 8 950mm (29-4)

WEIGHTS

Standard unit	kg	lb
Net Distribution		
Front Axle	11 720	25 840
Bogie Axle Leading	5 300	11 685
Bogie Axle Trailing	5 400	11 905
Vehicle, Net	**22 420**	**49 430**
Payload	**28 000**	**61 730**
Gross Distribution		
Front Axle	16 800	37 040
Bogie Axle Leading	16 720	36 860
Bogie Axle Trailing	16 900	37 360
Vehicle Gross	**50 420**	**111 160**
Bare Chassis	17 490	38 560
Body	4 400	9 700
Hoists, pair	530	1 170

DISTRIBUTOR:

TEREX