

## Standard Equipment

|                                         |                                                                  |
|-----------------------------------------|------------------------------------------------------------------|
| <b>Cab:</b>                             | Retarder 'On'                                                    |
| Acoustic Lining                         | Transmission 'Check'                                             |
| Door Locks                              | Transmission Filter Restriction                                  |
| Floor Mat                               | Steering Filter Restriction                                      |
| ROPS Protection Body                    | Low Steering Pressure                                            |
| Cabguard ISO 3471 / SAE J1040           | Direction Indicators                                             |
| Heater and Defroster,                   | Low Air Pressure                                                 |
| Interior Light / Courtesy Light         | Hydraulic Filter Restriction                                     |
| Adjustable seat                         | Pressure                                                         |
| Seat, Passenger                         | Headlamps, Main Beam                                             |
| Seat Belts SAE J386                     | Warning Light Test                                               |
| Steering Column - adjustable            | <b>General:</b>                                                  |
| Sun Visor - full cab width              | Accumulator Steering                                             |
| Tinted Glass                            | Air Cleaners (2), two stage                                      |
| Utility Compartment                     | Body Heating, exhaust                                            |
| Windshield Wipers, 2 speed, and Washers | Body Hoist, Servo Actuated                                       |
| <b>Controls -</b>                       | Coolant Filter                                                   |
| Engine Test Switch                      | Diagnostic Pressure Test Points                                  |
| Engine Faults Codes Switch              | Downshift Inhibitor                                              |
| Automatic Transmission Shift            | Engine Management System                                         |
| Transmission Test Button                | Engine Pan Guard                                                 |
| Power/Economy Key Switch                | Exhaust Muffler                                                  |
| Manual Mode Key Switch                  | Fuel Sight Gauge                                                 |
| Retarder Control                        | Headlights - Quartz Halogen (4)                                  |
| Parking Switch                          | Horn, Dual Electric                                              |
| Wet/dry Brake Road Switch               | Mud Flaps                                                        |
| Main Beam and Dipped Beam Switch        | Operator Arm Guard                                               |
| Steering Warning Switch                 | Dual Brake System                                                |
| Block Switch                            | Parking Brake                                                    |
| Master Electrical Switch                | Secondary Brake System                                           |
| <b>Gauges - electric:</b>               | Rear View Mirrors                                                |
| Air Pressure                            | Wide-angle View Mirror                                           |
| Converter Temperature                   | Radiator, replaceable tube core                                  |
| Engine Coolant Temperature              | After Cooler                                                     |
| Engine Oil Pressure                     | Retarder, Transmission                                           |
| Speedometer/Odometer                    | Transmission Guard                                               |
| Tachometer/Hourmeter                    | Reverse Alarm                                                    |
| Transmission Oil Pressure               | Reversing Light - quartz halogen                                 |
| <b>Indicator Lights:</b>                | Rock Ejectors                                                    |
| Engine Oil Pressure                     | Security Kit                                                     |
| Engine Test                             | Separate Steering and Body Hoist Hydraulic Systems               |
| Engine no Working                       | Side, Tail, Stop, Direction Indicators and Hazard Warning Lights |
| Air Cleaner Restriction                 |                                                                  |
| Alternator Not Charging                 |                                                                  |
| Converter Drive                         |                                                                  |
| Automatic Lubrication System            |                                                                  |

## Optional Equipment

|                         |                               |
|-------------------------|-------------------------------|
| Body, Enlarged Capacity | Spillguard Extension, folding |
| Body Wear Plates        | Radio                         |
| Reversing Light         | Spillguard Extension, folding |
| Fast Fuel Adaptor       | Cold Protection curtain       |
| Engine Cold Start Kit   | Air Precleaner                |
| Fire Extinguish         | Battery Warm Coat             |

Specifications subject to change without notice.

## Weights

|                                              | kg            | lb            |
|----------------------------------------------|---------------|---------------|
| Chassis, with hoists                         | 25 180        | 55 511        |
| Body, standard                               | 8 800         | 19 400        |
| Net Weight                                   | 33 980        | 74 691        |
| <b>PAYLOAD, maximum</b>                      | <b>45 000</b> | <b>99 200</b> |
| Maximum Gross Weight*                        | 80 000        | 176 366       |
| FOR UNIT EQUIPPED WITH OPTIONAL HD ROCK BODY |               |               |
| Chassis, with hoists                         | 25 180        | 55 511        |
| Body, Heavy Duty, Rock                       | 10 300        | 22 708        |
| Net Weight                                   | 35 480        | 78 218        |
| <b>PAYLOAD, maximum</b>                      | <b>43 500</b> | <b>95 900</b> |
| Maximum Gross Weight*                        | 80 000        | 176 366       |

## WEIGHT DISTRIBUTION

|        | Front Axle | Rear Axle |
|--------|------------|-----------|
| Empty  | 48%        | 52%       |
| Loaded | 34%        | 66%       |

## Servic Data

| SERVICE CAPACITIES                | litres | (US gal) |
|-----------------------------------|--------|----------|
| Engine Crankcase and Filters      | 55     | (14.5)   |
| Transmission and Filters          | 68     | (18.0)   |
| Cooling System                    | 170    | (44.9)   |
| Fuel Tank                         | 470    | (125.0)  |
| Steering Hydraulic System (total) | 72     | (19.0)   |
| Steering Hydraulic Tank           | 61     | (16.0)   |
| Body Hydraulic System             | 258    | (68.0)   |
| Body Hydraulic and Tank           | 216    | (57.0)   |
| Planetaries (Total)               | 49     | (13.0)   |
| Differential                      | 47     | (12.4)   |
| Front Ride Strut (Each)           | 14     | (3.7)    |
| Rear Ride Strut (Each)            | 17     | (4.5)    |
| Power Take Off                    | 4      | (1.0)    |



## TR50D Off-Highway Rigid Truck

Cummins turbo charged, aftercooled engine

Smooth shifting, electronically-controlled transmission

Non-wearing hydrodynamic retardation

High visibility cab with de-luxe interior

Maximum Payload-45 tonne (50 US ton)

Maximum Gross Vehicle Weight-80 000 kg (176 366 lb)

Heaped Capacity- 27.5 m<sup>3</sup> (36 yd<sup>3</sup>)

Gross Power-389 kW (520 hp)



**Frame**

Fabricated Full box section frame with integral front bumper and closed loop crossmember. Crossmember and rear torque tube and tail seat connections with frame rails are high strength alloy castings.

**Engine**

Model / Model ..... Cummins QSX15- C  
 Type ..... 4 Cycle, Turbocharged/ After cooler  
 Gross Power @ 2 100 rev/ min ..... 389 kW (520 hp)  
 Net Power @ 2 100 rev/ min ..... 367 kW (490 hp)  
 Gross Power rated to SAE J1995 Jun 90.  
 Engine emission meets Tier 3 USAEPA / CARB MOH 40 CFR 89 and proposed EU non- road mobile machinery directive.  
 Maximum Torque ..... 2 440 Nm (1 800 lbf ft) @ 1 400 rev/min  
 Cylinders/ Configuration ..... 6 in line  
 Bore x Stroke ..... 137 x 169 mm (5.4 x 6.7 in)  
 Displacement ..... 15 litres (1 150 in<sup>3</sup>)  
 24 volt negative ground electrical system. Two 12 volt 165 Ah batteries with master disconnect switch. 9 kW starter. Neutral start. 70A alternator with integral voltage regulator.

**Transmission**

Allison M5620AR automatic electronic control with Soft Shift feature. Mounted mid-frame for ease of access. Integral torque converter and planetary gearing. Six speeds forward, two reverse. Automatic lock-up in all speed ranges. Downshift inhibitor. Hydraulic retarder.

| Speeds | Forward |      |      |      |      |      | Reverse |      |
|--------|---------|------|------|------|------|------|---------|------|
|        | 1st     | 2nd  | 3rd  | 4th  | 5th  | 6th  | R1      | R2   |
| Ratio  | 4.00    | 2.68 | 2.01 | 1.35 | 1.00 | 0.67 | 5.12    | 3.46 |
| km/h   | 11.3    | 16.8 | 22.4 | 33.4 | 45.2 | 65.0 | 7.1     | 12.9 |
| mile/h | 7.0     | 10.5 | 13.9 | 20.8 | 28.1 | 40.4 | 4.4     | 8.0  |

**Drive Axle**

TEREX heavy duty axle with single reduction spiral bevel gear differential, full floating axle shafts, and planetary reduction at each wheel.

|                      | Standard |
|----------------------|----------|
| Ratios: Differential | 3.15:    |
| Planetary            | 5.66: 1  |
| Total Reduction      | 17.83:1  |

**Suspension**

Front: TEREX manufactured kingpin strut-type independent front wheel suspension using self-contained, variable rate, nitrogen/oil cylinders.  
 Rear: TEREX variable rate nitrogen/oil cylinders with A-frame linkage and lateral stabilizer bar.

|                               |                 |
|-------------------------------|-----------------|
| Maximum Strut Stroke: Front   | 251 mm (9.9 in) |
| Rear                          | 182 mm (7.2 in) |
| Maximum Rear Axle Oscillation | ± 6.5 Degrees   |

**Tyres**

Standard: Front and Rear 21.00-35(36PR) E-4  
 Rim Width ..... 15 in  
 Consult tyre manufacturers for optimum tyre selection and correct t- km/h (ton-mile/h) capacity for application.

TEREX dump truck TR50D

**Brakes**

Service-All hydraulic brake system control. Transmission mounted pressure compensating piston pump provides hydraulic pressure for brakes and steering. Independent circuits front and rear. Each circuit incorporates a nitrogen/hydraulic accumulator which stores energy to provide instant braking response.

Front Brakes: Dry Disc  
 Disc diameter ..... 711 mm (28 in)  
 Pad area, total ..... 1 394cm<sup>2</sup> (216 in<sup>2</sup>)  
 Rear Brakes: oil cooled, multiple disc, completely sealed from dirt and water.  
 Braking Surface, total ..... 47 151 cm<sup>2</sup> (7 308 in<sup>2</sup>)

PARKING-Rear brakes applied by spring loaded opposing piston on disc pack, hydraulically released.  
 RETARDATION-Modulated lever control of rear disc brakes or hydraulic retarder in transmission. 670 kW (900 hp) continuous retardation.  
 SECONDARY-Park push button solenoid control applies service and parking brakes. Automatically applies when engine is switched off. Parking brake applies when system pressure falls below a pre-determined level.  
 Brakes conform to ISO 3450, SAE J1473 OCT 90.

**Steering**

Independent hydrostatic steering with closed- centre steering valve, accumulator and pressure compensating piston pump. Accumulator provides uniform steering regardless of engine speed. In the event of loss of engine power it provides steering of approximately two lock-to-lock turns.  
 A lowpressure indicator light warns of system pressure below 83 bar (1 200 lbf/in<sup>2</sup>). Steering conforms to ISO 5010, SAE J53.  
 Steering conforms to ISO 5010, SAE J53.  
 Maximum Tyre Steering Angle ..... 39°

**Hoist**

Two body hoist cylinders are mounted between the frame rails. Cylinders are two-stage with power down in the second stage. The body hydraulic system is independent of the steering hydraulic system.  
 System Pressure ..... 190 bar (2 750 lbf/ in<sup>2</sup>)  
 Body Hydraulic Pump Flow Rate @ 2 100 rev/ min ..... 210 litre/ min (55.5 US gal/min)  
 Body Raise Time ..... 13 Seconds  
 Body Lower Time ..... 9 Seconds

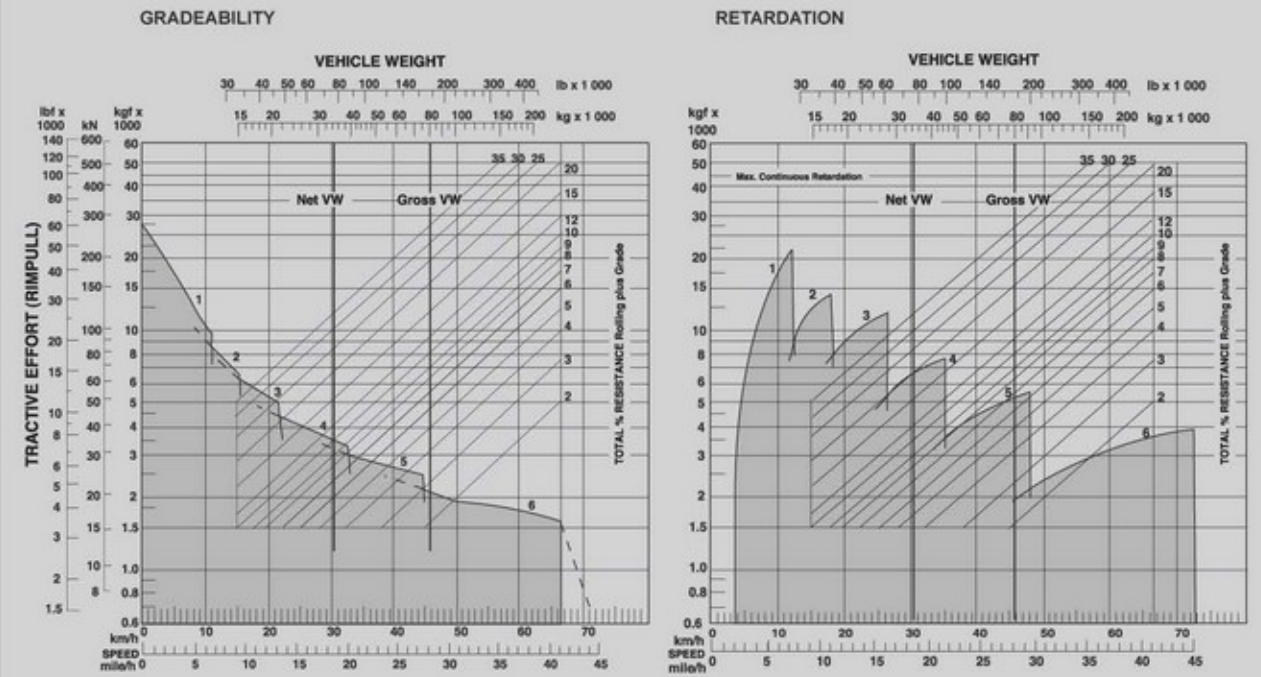
**Body**

Longitudinal 'V' type floor with integral transverse box-section stiffeners. The body is exhaust heated and rests on resilient impact absorption pads full time exhaust is optional.  
 Body floor wear surfaces are high hardness abrasion resistant steel of yield strength.  
 ROPS Cabguard SAE J1040 Feb 86. ISO 3471  
 Thickness: Floor ..... 15 mm (0.59 in)

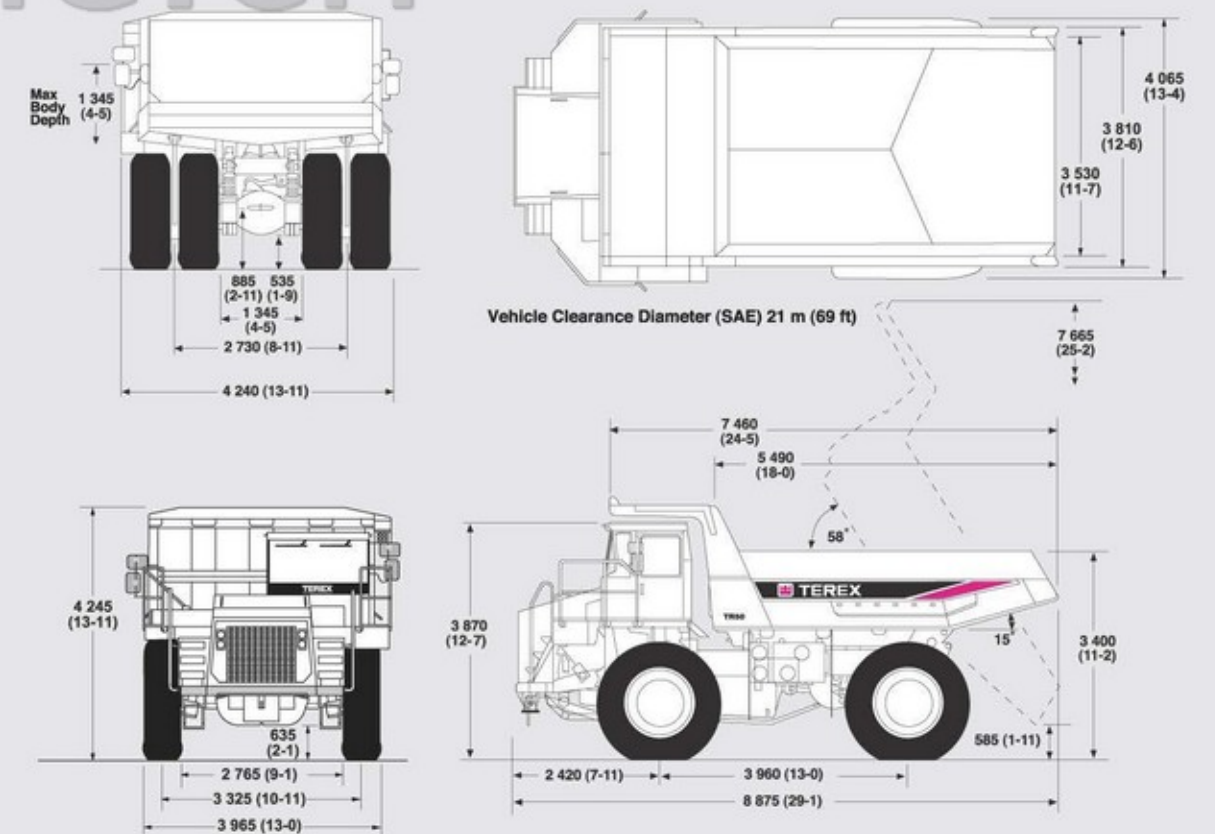
|                   |                                            |
|-------------------|--------------------------------------------|
| Struck (SAE)      | 21.5 m <sup>3</sup> (28.1yd <sup>3</sup> ) |
| Heaped 2: 1 (SAE) | 27.5 m <sup>3</sup> (36.0yd <sup>3</sup> ) |

**Performance Data**

Graphs based on 0% Rolling Resistance.



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



TEREX dump truck TR50D