

Standard Equipment

Cab:	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,	Lowair 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	General:
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
Controls -	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
Gauges - electric:	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
Indicator Lights:	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
PAYLOAD, maximum	45 000	99 200
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
PAYLOAD, maximum	43 500	95 900
Maximum Gross Weight*	80 000	176 366

WEIGHT DISTRIBUTION

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

Service 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 m³ (36 yd³)

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 in³)
 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.

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 394cm² (216 in²)
 Rear Brakes: oil cooled, multiple disc, completely sealed from dirt and water.
 Braking Surface, total 47 151 cm² (7 308 in²)

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/in²). 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/ in²)
 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

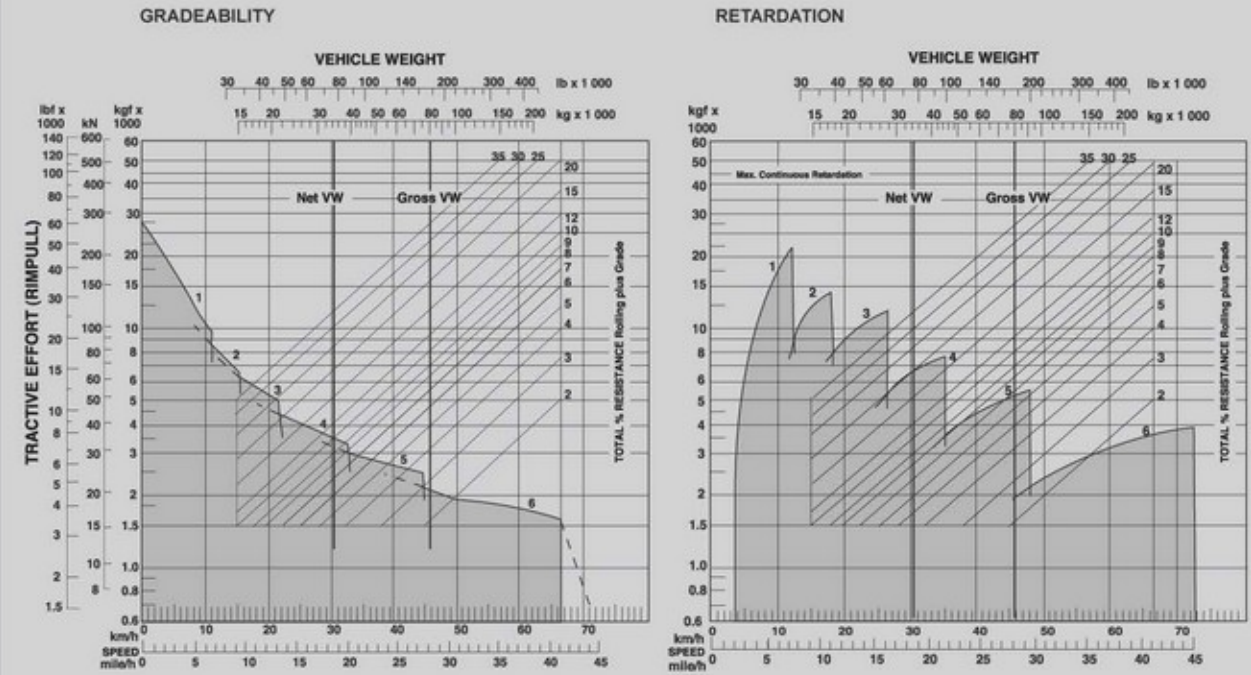
Body

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)

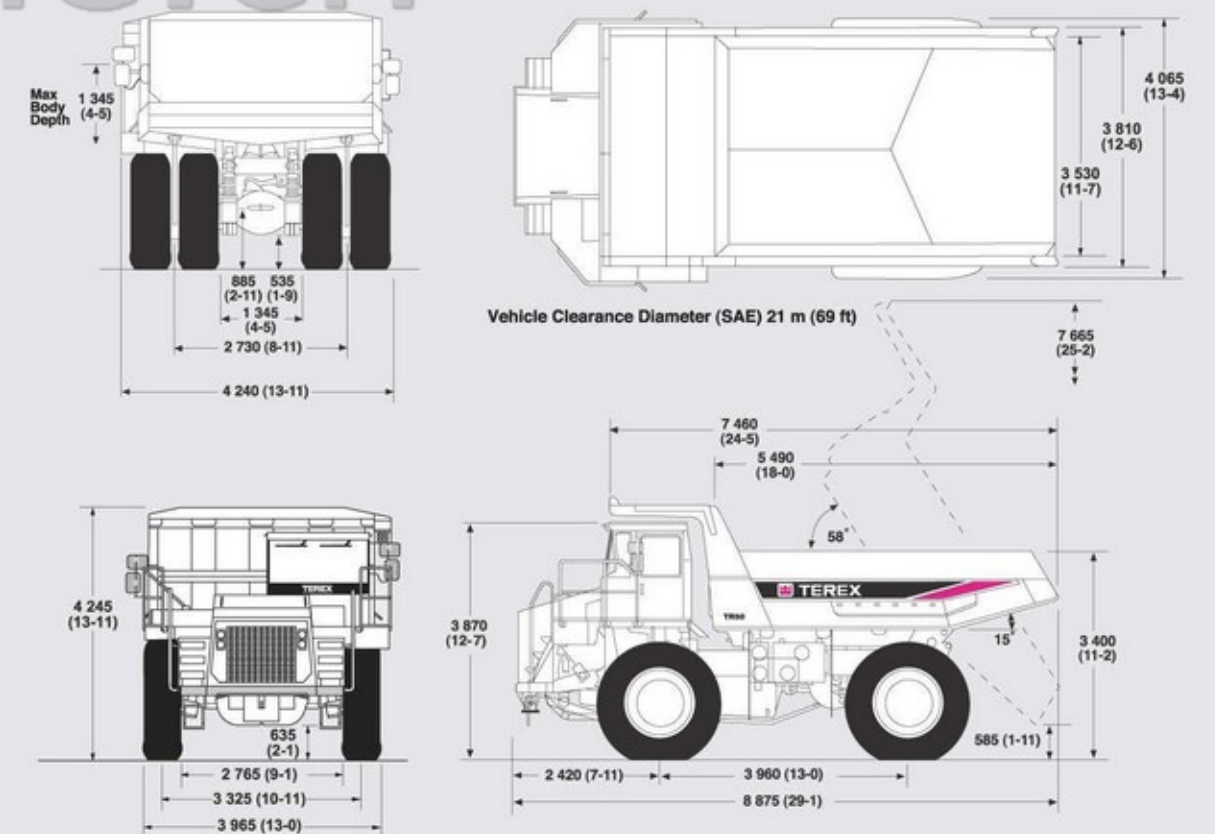
Struck (SAE)	21.5 m ³ (28.1yd ³)
Heaped 2: 1 (SAE)	27.5 m ³ (36.0yd ³)

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