



TR45

RIGID DUMP TRUCK



Specifications

Max. Gross Weight	171,870 lbs (77,960 kg)
Gross Engine Power	525 hp (392 kW)
Max. Payload	45 tons (41 t)
Heaped Capacity	34 yd ³ (26 m ³)

Features

- Rugged construction for reliability and long life
- High capacity body with large target-area for easy loading
- Long life emission-certified engine with exceptional fuel economy
- Dual-retardation gives operator the choice of using the oil cooled disc brakes or the hydrodynamic retarder for faster haul times
- Steps and full size doors on both side of the cab offers ease of access
- High speed driveline (40.4 mph – 65 km/hr) for high production

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SPECIFICATIONS

Engine

Engine	Cummins QSK19-C525
Type	4 cycle, turbocharged / CAC
Gross power @ 2,100 rpm (SAE J1995)	525 hp (392 kW)
Net power @ 2,100 rpm	495 hp (370 kW)
Engine emission meets Tier III USA EPA/CARB MOH 40 CFR 89 and EU non-road mobile machinery directive. Stage 3.	
Maximum torque @ 1,300 rpm	1,775 lbf ft (2,441 Nm)
Cylinders/Configuration	6 in line
Bore x stroke	6.25 x 6.25 in (159 x 159 mm)
Displacement	1,150 in ³ (18.9 L)
24 volt negative ground electrical system. Two 12 volt 165 Ah batteries with master disconnect switch. 8.9 kW starter. Neutral start. 70A alternator with integral voltage regulator.	

Transmission

Allison M5610AR 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.

	Forward						Reverse	
Gear	1 st	2 nd	3 rd	4 th	5 th	6 th	R1	R2
Ration	4.00	2.68	2.01	1.35	1.00	0.67	5.12	3.46
mph	7.00	10.50	13.90	20.80	28.10	40.40	4.40	8.00
km/h	11.30	16.80	22.40	33.40	45.20	65.00	7.10	12.90

Frame

Full box section frame rails, integral front bumper, closed-loop cross-member and torque tubes of 42,000 lbf/in² (290 MPa) yield strength steel. Cross member connections are 95,000 lbf/in² (655 MPa) steel castings.

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 cylinder with A-frame linkage and lateral stabilizer bar.

Maximum strut stroke:		
	Front	9.9 in (251 mm)
	Rear	7.2 in (182 mm)

Maximum rear axle oscillation	± 6.5 Degrees
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Drive Axle

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

Ratios:	Standard	Optional
Differential	3.15:1	3.73:1
Planetary	5.66:1	5.66:1
Total Reduction	17.83:1	21.11:1



Tires

Standard:		
Front and rear	21:00 R 35 radial	Rim width 15"
Consult tire manufacturers for optimum tire selection and correct ton-mile/h (t-km/h) capacity for application. Tires subject to availability.		

Brakes

Service – All hydraulic brake system. 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 consistent braking response.

Front:	Dry disc, diameter	26 in (660 mm)
	Swept area, front, total	928 in ² (5,985 cm ²)
	Pad area, total	216 in ² (1,395 cm ²)

Rear: Terex multi-plate oil-immersed brakes continuously cooled by oil flow supplied by a tandem pump on engine power take-off, and passing through a high capacity oil/water heat exchanger. Brake packs are sealed from contamination and are self adjusting.

Friction discs	14 total
Diameter	25.5 in (648 mm)
Braking Surface, total	5,938 in ² (38,310 cm ²)
Cooling flow, maximum	146 gpm (553 Lpm)

Parking – application of rear brakes by springs in brake disc pack. Hydraulically released.

Retardation – modulated lever control of rear disc brakes or hydraulic retarder in transmission. 700 Hp (522 kw) continuous.

Secondary Brake System – push button solenoid control applies service and parking brakes. Automatically applies when engine is switched off. Parking brake applies should system pressure fall below a pre-determined level.

Brakes conform to ISO 3450, SAE J1473 Oct 90

Steering

Independent hydrostatic steering with closed-center 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 low pressure indicator light warns of system pressure below 1,200 psi (83 bar). Steering conforms to ISO 5010, (SAE J53).

Maximum Tire Steering Angle	39°
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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.

Body hydraulic pump flow rate @ 2,100 rpm engine speed	60 gpm (227 Lpm)
Body raise / lower time	13 seconds / 9 seconds



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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 wear surfaces are high hardness (360-440BHN) abrasion resistant steel of yield strength 145,000 lbf/in² (1,000 MPa)

Thickness:	Floor	0.75 in (19 mm)
	Side	0.39 in (10 mm)
	Front, lower	0.39 in (10 mm)

ROPS cab guard SAE J1040 Feb 86. ISO 3471

Volumes:	Struck (SAE)	25.6 yd ³ (19.6 m ³)
	Heaped 2:1 (SAE)	34.0 yd ³ (26.0 m ³)

Service Capacities

Engine crankcase and filters	16.4 gal	(62.0 L)
Transmission and filters	18.0 gal	(68.0 L)
Cooling system	38.0 gal	(144.0 L)
Fuel tank	160.0 gal	(606.0 L)
Steering hydraulic tank	16.0 gal	(61.0 L)
Steering hydraulic system (total)	22.5 gal	(85.0 L)
Body hydraulic tank	57.0 gal	(216.0 L)
Body hydraulic and brake cooling system	97.0 gal	(368.0 L)
Planetaries (total)	17.4 gal	(66.0 L)
Differential	15.8 gal	(60.0 L)
Front ride strut (each)	3.7 gal	(14.0 L)
Rear ride strut (each)	4.5 gal	(17.0 L)
Power take off	1.0 gal	(4.0 L)

Weights

Chassis with hoists	61,365 lbs	(27,835 kg)
Body, standard	20,500 lbs	(9,300 kg)
Net Weight	81,870 lbs	(37,135 kg)
Payload, maximum	90,000 lbs	(40,825 kg)
Maximum Gross Weight*	171,870 lbs	(77,960 kg)

For Unit Equipped With Optional Heavy Duty Body:

Chassis, with hoists	61,365 lbs	(27,835 kg)
Body, heavy duty	20,500 lbs	(9,300 kg)
Net Weight	81,870 lbs	(37,135 kg)
Payload, maximum	90,000 lbs	(40,825 kg)
Maximum Gross Weight*	171,870 lbs	(77,960 kg)

*Maximum permissible gross vehicle weight with options, attachments, full fuel tank and payload.

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

STANDARD EQUIPMENT

General

Accumulator steering	Horn, dual electric, 117db (SAE J 1105)
Air cleaners (2), two stage	Mud flaps
Automatic transmission	Nitrogen inflated tires
Body down signal	Operator arm guard
Body heating, exhaust	Parking brake (all wheels)
Body hoist, servo actuated	Rear view mirrors - 4
Coolant filter	Transmission retarder or oil-cooled rear disc brakes
Diagnostic pressure test points	Retarder light - amber, rear
Downshift inhibitor	Reverse alarm
Dual brake system	Reversing light- quartz halogen
Electric start	Rock ejectors
Engine management system	Secondary brake system (all wheels)
Engine pan guard	Security kit
Exhaust muffler (body up)	Separate steering and body hoist hydraulic systems
Exhaust muffler, part time	Shed plates, rear tires
Fuel sight gauge	Side, tail, stop, direction indicators and hazard warning lights
Headlights - quartz halogen (4)	

Cab

Acoustic lining	Door lock
Air conditioner R 134A 18,500 BTU/hr (5.4 kW)	Floor mat
Armrest, operators door	Mug holder
FOPS protection (ISO 3449/SAE J 231)	Radio/cassette player
Heater and defroster (10.3 kW - 35,000 BTU/hr)	Seat, passenger
Interior light/courtesy light	Seat belts SAE J386
ROPS protection (body cabguard) (ISO 3471/ SAE J1040)	Steering column adjustable
Air suspension seat with high back, headrest and 4-point harness	Sun visor, full cab width
Window, electric - operators door	Tinted glass
Windshield wipers - 2 speed and washers	Utility compartment

Controls

Battery isolator	Power/economy key switch
Auto transmission shift	Manual mode key switch
Transmission test button	

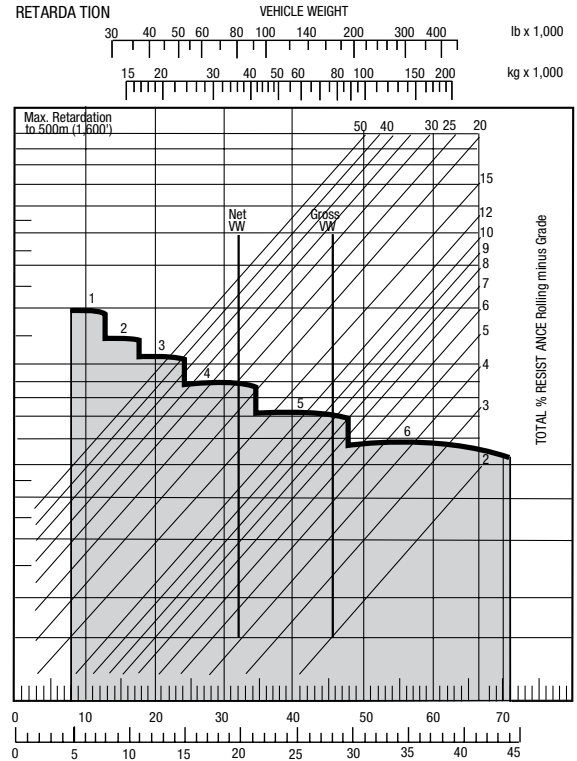
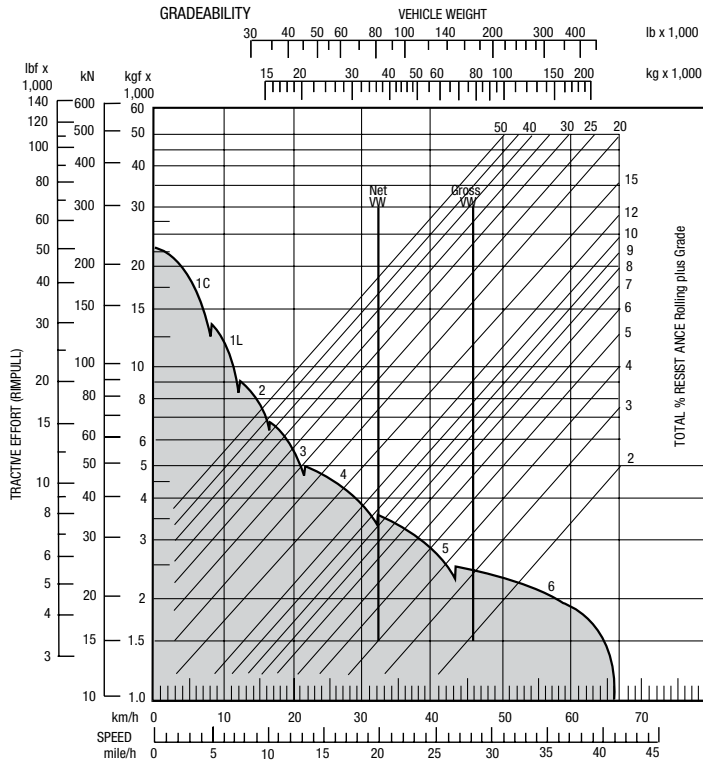
Gauges

Engine coolant temp	Speedometer/odometer
Engine oil pressure	Tach/hourmeter
Fuel	Transmission oil pressure

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PERFORMANCE DATA

Graphs Based On 0% Rolling Resistance



STANDARD EQUIPMENT

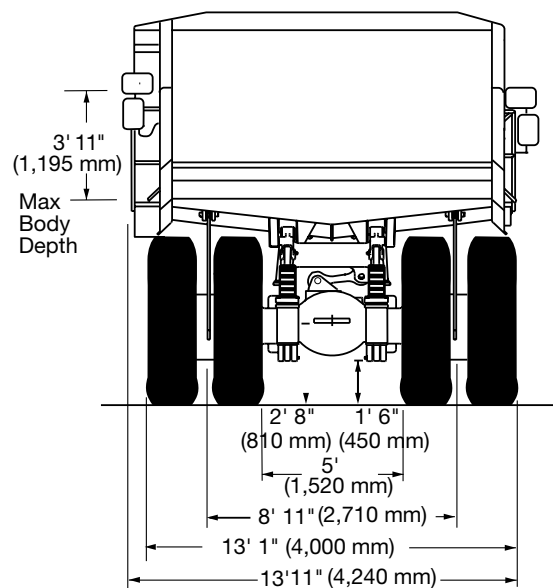
Indicator Lights Only

Air cleaner restriction	Headlamps, main beam
Alternator not charging	Parking brake on
Body up	Retarder on
Brake oil temp	Steering filter restriction
Converter drive	Transmission "check"
Coolant level	Transmission filter restriction
Coolant temp	Transmission manual mode
Direction indicators	Transmission oil temperature
Engine oil pressure	Warning light test
Rear view camera	

Indicator Lights & Alarm

Brake pressure, front & rear	Steering/brakes oil level
Steering pressure	Transmission "do not shift"





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OPTIONAL EQUIPMENT

General

Automatic lubrication	Differential, no spin	Fire extinguisher	Spillguard extension, folding
Beacon, flashing amber	Differential 3.73:1	Fire suppression system	Tachograph
Body, heavy duty	Engine pre-lube starter	Flashing strobe reverse light	Television monitor, rear view
Body, 40-ton (36.3t) payload	Exhaust muffler, full-time	Front brake pressure reduction selector & sensor	Oil drain kit, engine and transmission sumps
Cold start kit	Fan clutch	On-board weighing system	Fast fuel adapter
Body wear plates (floor, end, side and front protection)	Low Height Package 18:00 x 33 bias ply tires Body Struck (SAE) 22.5 yd ³ (17.2 m ³)	Custom options may be available upon request	

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Effective Date: April 2010. Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's Manual when using our equipment or to otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to our equipment is the standard written warranty applicable to the particular product and sale and Terex makes no other warranty, express or implied. Products and services listed may be trademarks, service marks, or trade names of Terex Corporation and/or its subsidiaries in the USA and other countries. All rights are reserved. Terex is a registered trademark of Terex Corporation in the USA and many other countries. © 2010 Terex Corporation.

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TR45 0410 PN109094

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