# ARTICULATED DUMP TRUCK

**TIER 4F TA300** 



#### **Specifications**

Maximum Payload Heaped Capacity Gross Power

30.9 tons (28 tonne) 22.9 yd<sup>3</sup> (17.5 m<sup>3</sup>) 370 hp (276 kW)



#### **Features**

- Class leading rim pull / tractive effort providing the ability to go where others can't follow
- World class Scania engine providing industry-leading fuel efficiency
- Latest generation Selective Catalytic Reduction (SCR) combined with Exhaust Gas Regeneration (EGR) technology to meet US EPA Tier 4 Final
- Does not require a diesel particulate filter (DPF), reducing maintenance and fuel consumption

# **SPECIFICATIONS**

## **ENGINE**

Engine	Scania DC9
Туре	5 cylinder, in-line, four cycle, water cooled, turbocharged with air to air charge cooling, direct injection, electronic engine management
Piston Displacement	568 in <sup>3</sup> (9.3 litres)
Bore x Stroke	5.1 x 5.5 in (130 x 140 mm)
Gross Power	370 hp (276 kW) @ 1,800 rpm
Net Power	345 hp (258 kW) @ 2,100 rpm
Maximum Torque	1,387 lbf ft (1,880 Nm) @ 1,400 rpm
Gross Power rated	SAE J1995 Jun 90
Engine Emissions	US EPA Tier 4 Final / EU Stage 4
Electrical	24 volt electric start. 100A alternator. Two 12 volt 180 Ah batteries
Air Cleaner	Dry-type air cleaner with safety element, automatic dust ejector and restriction indicator
Fan	Modulating fan reduces noise level and consumes engine power as required. Note: Net hp with fan clutch disengaged
Altitude	Electronic derate 9.842 ft (3.000 m)

## TRANSMISSION

ZF 6WG 310 RPC Fully automatic with manual over-ride

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 traction conditions. Auto slip sensing traction as standard. On-board diagnostics provide performance and operational functionality.

Speeds	Gear	Forward	Reverse
mph (km/h)	1	3.4 (5.6)	3.4 (5.6)
	2	5.3 (8.6)	8.3 (13.3)
	3	8.3 (13.3)	18.8 (30.2)
	4	12.8 (20.6)	
	5	18.8 (30.2)	
	6	31 (50)	

#### AXLES

Heavy duty axles with fully floating axle shafts and outboard planetary reduction gearing. The three axles are in permanent all-wheel drive (6x6) with a differential coupling between the front and rear axles. All three axles also have hydraulically actuated multiplate transverse diff-lock differentials for 100% cross-axle lock up. The inter-axle and cross-axle diff locks are controlled by the operator, and can be actuated when required in poor traction conditions.

Differential ratio	3.875 : 1
Planetary reduction	5.71 : 1
Overall Drivetrain reduction	22.12 : 1

## SUSPENSION

Front	Fully independent suspension and wheel movment is provided by a Double wishbone
	design. This is coupled with 4 x hydraulic damners/coil over springs.

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 lam-inated compression units between each axle and underside of balance beam ends. Pivot points on leading and trailing links are rubber-bushed and maintenance-free.

## **STEERING**

Rear

Hydrostatic power steering by two double-acting cushioned steering cylinders with pressure supplied by a variable displacement / load sensing piston pump. An audible alarm and warning light indicates should the second system activate.

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Steering angle to either side	45°
Lock to lock turns, steering wheel	4
System pressure	3,500 lbf/in <sup>2</sup> (241 bar)
SAE Turning Radius	27-9 ft/ins (8,470 mm)
Clearing Radius	29-4 ft/ins (8,950 mm)

## 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 articulated 45° to either side for steering by means of two widely-spaced pivot pins in back-to-back sealed taper roller bearings.

## BODY

All-welded construction,	fabricated from high hardness (min 360 BHN) 145,000 lbf/in <sup>2</sup>	
(1,000 Mpa) yield streng	th steel. Dual slope tailchute improves material ejection from body	y.

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Plate thickness:	Floor and tailchute	0.55 in (14.0 mm)
	Sides	0.47 in (12.0 mm)
	Front	0.31 in (8.0 mm)
Volume:	Struck	18.0 yd³ (13.8 m³)
	Heaped 2:1 (SAE)	22.9 vd³ (17.5 m³)

## HOIST

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

System pressure	3,200 lbf/in <sup>2</sup> (220 bar)	Raise (loaded)	12 seconds
Pump output flow rate	1.29 gal/sec (4.9 liter/sec)	Lower	7.5 seconds

## BRAKES

All hydraulic braking systems with multiplate sealed and oil cooled brake packs at each wheel. 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
Rotardor	Engine exhaust hrake is standard

## CAPACITIES

Fuel Tank	98 gal (370 liters)
Hydraulic System (Steering & Body)	68 gal (256 liters)
Engine Crankcase	11.8 gal (45 liters)
Cooling System	12.8 gal (48.8 liters)
Transmission (incl. filters and cooler)	14.5 gal (55 liters)
Differential - Front & Rear (each)	5.5 gal (22 liters)
Differential - Centre	6.0 gal (23 liters)
Planetaries – (each)	2.0 gal (7.5 liters)
DEF System	9.8 gal (38 liters)

## TIRES AND WHEELS

Tires	Standard 23.5. Optional 750/65
Rims	Standard 25x19.50. For optional tire, 25x22.00
Wheels	3-piece earthmover rims with 12 stud fixing

## **GROUND PRESSURE**

These figures are at 15% shrinkage of unloaded radius and specified weights using: Tires  $23.5\ R25$ 

Unloaded	
Front	18.5 psi(128 kPa)
Rear	7.8 psi(54 kPa)
Loaded	
Front	26.1 psi (180 kPa)
Rear	24.9 psi (172 kPa)

#### WFIGHTS

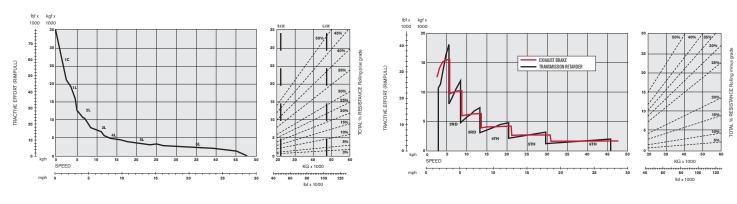
Net Distribution	
Front Axle	27,955 lbs (12,680 kg)
Bogie Axle, Leading	12,875 lbs (5,840 kg)
Bogie Axle, Trailing	12,522 lbs (5,680 kg)
Vehicle, Net	53,352 lbs (24,200 kg)
Payload	61,730 lbs (28,000 kg)
Gross Distribution	
Front Axle	32,849 lbs (14,900 kg)
Bogie Axle Leading	40,609 lbs (18,420 kg)
Bogie Axle Trailing	40,565 lbs (18,400 kg)
Vehicle Gross	115,081 lbs (52,200 kg)
Bare Chassis	38,703 lbs (17,555 kg)
Body	8,325 lbs (3,776 kg)
Hoists, pair	1.170 lbs (530 kg)

# **PERFORMANCE DATA**

Graphs based on 2% Rolling Resistance

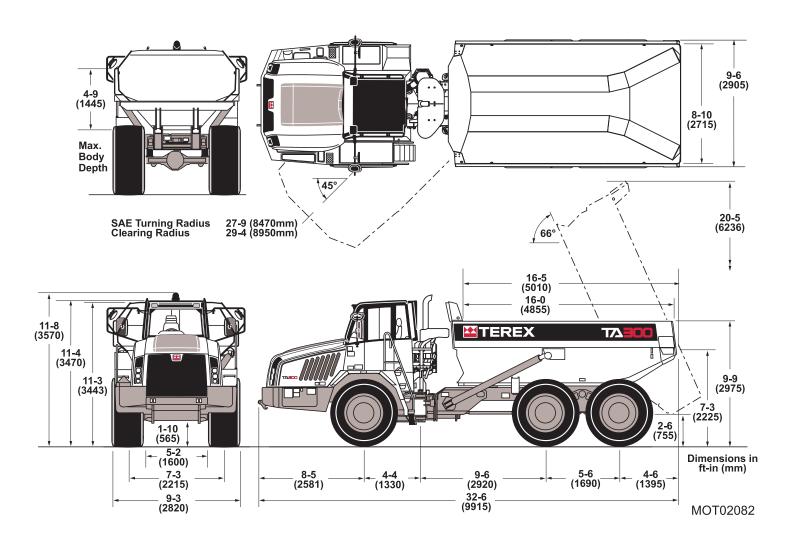
## **GRADEABILITY**

## **RETARDATION**



Instructions: From intersection of vehicle weight with percentage resistance line read across to determine maximum gear attainable, and then downwards for vehicle speed.

## **DIMENSIONS**



## STANDARD SPECIFICATION

## **CAB AND OPERATOR**

Air Conditioning	Mug Holder
Air Filter Restriction Indicator	Rear Vision Camera/Monitor
Auxillary Power Outlets 12V & 24V	ROPS/FOPS Protection ISO3471/3449
CD/Tuner/MP3 Connectivity	Seat Belts Retractable J386
Coat Hook	Seat, Operator, Air Suspension, High Back, Headrest and Adjustable Armrests
Engine/Transmission/Hydraulic Diagnostic Facility	Seat, Trainer
Heating, Ventilation & Air Conditioning System (HVAC)	Steering Wheel, tilt/telescopic
Insulation, Thermal and Acoustic	Storage Compartment
Interior Light	Sun Visor (Internal)
Mirror Rear View (4)	Tinted Glass
Window Protection Grille Rear	Winer and Washer Front and Rear Windows

## WARNING LIGHTS & AUDIBLE ALARM

Alternator Charging	Front Brake Accumulator Pressure
Body Up	Headlight High Beam
Differential Lock	Headlights Active
Direction Indicator	Hydraulic Oil Level Low
Engine Air Filter Change	Low Fuel
Engine 'CHECK'	Parking Brake
Engine Coolant Level Low	Rear Brake Accumulator Pressure
Engine Oil Pressure Low	Secondary Steering
Engine Over-speed Active	Transmission Check
Engine 'STOP'	Transmission High Oil Temperature
Exhaust Brake	Transmission Retarder

## **GENERAL**

Articulation and Oscillation Lock	Mudflaps at Front and Centre
Battery Master Switch	Neutral Start Interlock
Body Prop	Pivot Protection Guard
Brakes Fully Hydraulic Dual Circuit System	Rear Light Guards
Diagnostic Pressure Test Points	Reverse Alarm Audible J994
Differential Locks	Secondary Steering
Electronic Assisted Body Hoist Control	Security Kit
Engine/Transmission/Hydraulic Electronic Mangement Systems	Tilting Cab for Maintenance
Engine Underguard	Tow Points, Front and Rear
Exhaust Muffler	Transmission Downshift Inhibitor
Independent Suspension	Transmission Oil Cooler
Handrails on Fenders	Transmission Retarder
Horn, Electric 117db	Transmission Sump Guard
Hydraulic Filter Restriction Indicator	Tire Inflation Nitrogen
Hydraulic Oil Cooler	Exhaust Brake

## **GAUGES**

Body Tip Counter	Hourmeter
DEF Level Gauge (T4 variant only)	Hydraulic oil Temperature
DEF Level Warning (T4 variant only)	Speedometer/Digital Odometer/Tripmeter
Engine Coolant Temperature	Tachometer
Fuel Consumption/Usage	Transmission Oil Temperature
Fuel Level	

#### LIGHTS

Direction and Hazard Warning Indicators (LED	Side and Tail (LED)
on Rear)	
Front Working Lights, Roof Mounted	2 Halogen Headlamps Dipped Beam
Reverse Warning	2 Halogen Headlamps Main Beam

# **OPTIONAL EQUIPMENT**

## **BODY OPTIONS**

Body Side Extensions	Spillguard Extension
Heated Body	Top Tailgate
Liner Plates	

#### **MIRRORS**

Mirror Front Mounted	Mirrors Heated
Mirror with Wide Angle	

## LIGHTS

Beacon Flashing	Rear Working Lights, Roof Mounted
Fog Rear	Reverse Flashing

## **OTHER OPTIONS**

Automatic Lubrication	Payload Monitoring System
Fire Extinguisher	Heated Cushion
First Aid Kit	Tool Kit
Parking Brake Guard	Reverse Alarm White Noise

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#### **Terex Trucks Americas**

**Modulating Cooling Fans** 

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