# ARTICULATED DUMP TRUCK



#### **Specifications**

 Maximum Payload
 28 tonne (30.9 tons)

 Heaped Capacity
 17.5 m³ (22.9 yd³)

 Gross Power
 276 kW (370 hp)

 Max. Gross Weight
 51,540 kg (113,626 lbs)

PLI Tier 4i A1100
PLI Tier 2 A1109

#### **Features**

- High powered, heavy-duty truck providing class leading performance and ability to go where others can't follow
- Outstanding fuel efficiency at over 12% (compared with Tier 3 TA300 in back-to-back testing)
- ▶ World class operator's environment
- Rigorously tested in extreme conditions for proven power, productivity and reliability
- Superior gradeability and higher top speeds increase production



# **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	9.3 litres (568 in³)
Bore x Stroke	130 x 140 mm (1.5 x 5.5 in)
Gross Power	276 kW (370 hp) @ 1800 rpm
Net Power	258 kW (345 hp) @ 2100 rpm
Maximum Torque	1 880 Nm (1 387 lbf ft) @ 1400 rpm
Gross Power rated	SAE J1995 Jun 90
Engine Emissions	Meets USA EPA Tier 4/CARB MOH 40 CFR 89 Tier 4 and proposed EUNRMM (non-road mobile machinery directive) stage 3
Electrical	24 volt electric start. 100A alternator. Two 12 volt 175 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 3 000 m (9 842 ft)

# 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.

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

# **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	99 19 · 1

# SUSPENSION

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

### 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.

Steering angle to either side	45°
Lock to lock turns, steering wheel	4
System pressure	241 bar (3 500 lbf/in²)
SAE Turning Radius	8 470 mm (27-9 ft/ins)
Clearing Radius	8 950 mm (29-4 ft/ins)

# **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) 1 000 Mpa (145 000 lbf/ in²) yield strength steel. Dual slope tailchute improves material ejection from body.

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

# 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	220 bar (3,200 lbf/in²)	Raise (loaded)	12 seconds
Pump output flow rate	4.9 liter/sec (77.6 gal/min)	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
Retarder	Engine compression brake is standard.

# CAPACITIES

Fuel Tank	370 liters (98 gal)
Hydraulic System (Steering & Body)	256 liters (68 gal)
Engine Crankcase	45 liters (11.8 gal)
Cooling System	48.8 liters (12.8 gal)
Transmission (incl. filters and cooler)	55 liters (14.5 gal)
Differential - Front & Rear (each)	22 liters (5.5 gal)
Differential - Centre	23 liters (6.0 gal)
Planetaries – (each)	7.5 liters (2.0 gal)
DEF System (Tier 4i only)	52 liters (13.7 gal)

# **TYRES AND WHEELS**

Tyres	Standard 23.5. Optional 750/65
Rims	Standard 25x19.50. For optional tyre, 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	128 kPa(18.5 psi)
Rear	54 kPa(7.8 psi)
Unloaded	
Front	180 kPa(26.1 psi)
Rear	172 kPa(24.9 psi)

# WEIGHTS

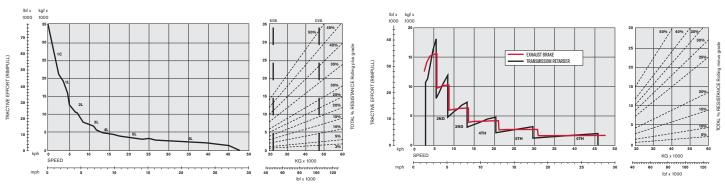
Net Distribution	
Front Axle	12,720 kg (28,042 lbs)
Bogie Axle, Leading	5,480 kg (12,081 lbs)
Bogie Axle, Trailing	5,340 kg (11,772 lbs)
Vehicle, Net	23,540 kg (51,896 lbs)
Payload	28,000 kg (61,730 lbs)
Gross Distribution	
Front Axle	17,788 kg (39,215 lbs)
Bogie Axle Leading	16,988 kg (37,452 lbs)
Bogie Axle Trailing	16,764 kg (36,958 lbs)
Vehicle Gross	51,540 kg (113,626 lbs)
Bare Chassis	17,555 kg (38,703 lbs)
Body	4,400 kg (9,700 lbs)
Hoists, pair	530 kg (1,170 lbs)

# **PERFORMANCE DATA**

Graphs based on 2% Rolling Resistance

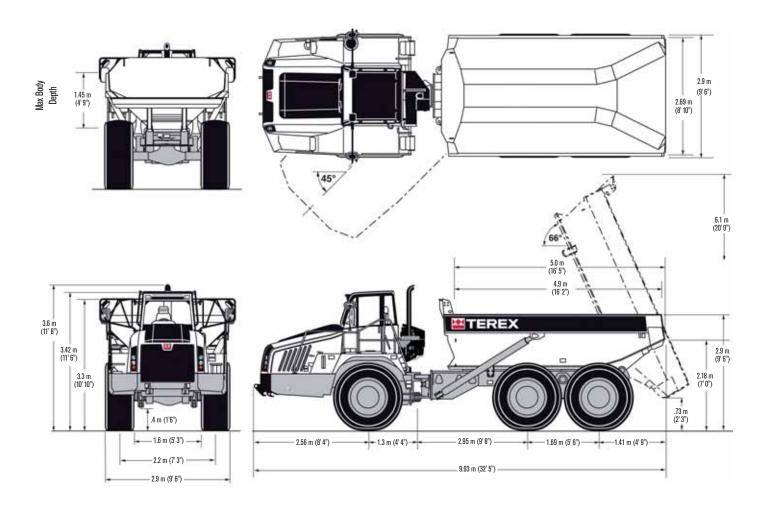
# **GRADEABILITY**

# **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	Wiper 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	Tyre Inflation Nitrogen
Hydraulic Oil Cooler	Exhaust Brake
Modulating Cooling Fans	

# **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 on Rear)	Side and Tail (LED)
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	Seat Heated
First Aid Kit	Tool Kit
Parking Brake Guard	

# www.terextrucks.com

Effective Date: July 2014. 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 Trucks makes no other warranty, express or implied. © 2014 Terex Trucks.

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