

**TIER 4 TA250** 

# ARTICULATED DUMP TRUCK



Maximum Payload Heaped Capacity Horsepower 27.5 tons (25 t) 20.3 yd<sup>3</sup> (15.5 m<sup>3</sup>) 311 hp (232 kW)

#### **Features**

- High powered, heavy-duty truck providing class leading performance and ability to go where others can't follow
- World class operator's environment
- One of the most fuel efficient trucks in the field
- Rigorously tested in extreme conditions for proven power, productivity and reliability
- Superior gradeability and higher top speeds increase production

### WORKS FOR YOU.

### **SPECIFICATIONS**

### ENGINE

Engine	Scania DC9	
Туре	5 cylinder, in-line, 4-cycle, direct injection diesel, water cooled, turbo charged w/ air to air charge cooling, electronic engine mgmt & engine exhaust brake	
Piston Displacement	567 in³ (9.3 L)	
Bore x Stroke	5.12 x 5.51 mm (130 x 140 in)	
Gross Power @ 1800 rpm	311 hp (232 kW)	
Net Power @ 2100 rpm	287 hp (214 kW)	
Max Torque @ 1400 rpm	1234 lbf ft (1673 Nm)	
Gross Power rated	SAE J1995 Jun 90	
Engine Emissions	US Tier 4i/EU Stage 3B. Variant available to meet US Tier 2/EU Stage 2.	
Electrical	24 volt electric start. 100A alternator. Two 12 volt 175 Ah batteries	
Air Cleaner	Dry-type air cleaner w/ safety element, auto dust ejector & restriction indicator	
Fan	Modulating fan reduces noise level and consumes engine power as required. Note: Net hp with fan clutch disengaged	
Altitude	9842 ft (3000 m)	

### **TRANSMISSION**

Transmission:

ZF 6WG 260 RPC. Fully automatic with manual over-ride and retarder.

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
Fully Laden	1	3.5 mph (5.6 km/h)	3.5 mph (5.6 km/h)
	2	5.3 mph (8.6 km/h)	8.3 mph (13.3 km/h)
	3	8.3 mph (13.3 km/h)	30.2 mph (18.8 km/h)
	4	12.8 mph (20.6 km/h)	
	5	30.2 mph (18.8 km/h)	
	6	50 mph (31 km/h)	

### AXLES

Type: 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: Axle is carried on the leading arms of a sub-frame which pivots on the main frame. Fully independent suspension available as an option.

Rear: Each axle is coupled to the frame by three rubber-bushed links with lateral restraint by a transverse link. Pivoting inter-axle balance beams equalize load on each rear axle. Suspension movement is cushioned by rubber/metal laminated compression units between each axle & underside of balance beam ends. Pivot points on leading & trailing links are rubber-bushed for minimum maintenance.

### 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.

### **STEERING**

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

Steering Angle to either side	45°
Lock to lock turns, steering wheel	4
System Pressure	3500 lbf/in² (241 bar)
SAE Turning Radius	27 ft 9 in (8470 mm)
Clearing Radius	29 ft 4 in (8950 mm)

### BODY

All-welded construction, fabricated from high hardness (min 360 BHN) 1000 Mpa (145000 lbf/in²) yield strength steel. Dual slope tailchute improves material ejection from body.

Plate thickness:	Floor and tailchute Sides Front	0.55 in (14.0 mm) 0.47 in (12.0 mm) 0.31 in (8.0 mm)
Volume:	Struck Heaped 2:1 (SAE)	16.4 yd³ (12.5 m³) 20.3 yd³ (15.5 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	3200 lbf/in <sup>2</sup> (220 bar)	
Pump output flow rate	77.6 gal/min (4.9 liter/sec)	
Raise (loaded)	12 seconds	
Lower	7.5 seconds	

### TIRES AND WHEELS

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

### BRAKES

All hydraulic braking systems with multi-plate 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	Exhaust brake and transmission retarder

### **CAPACITIES**

Fuel Tank	97.7 gal	370 L
Hydraulic System (Steering & Body)	67.2 gal	256 L
Engine Crankcase	11.8 gal	45 L
Cooling System	12.8 gal	48.8 L
Transmission (including filters and cooler)	12.9 gal	49 L
Differential - Front & Rear (each)	5.5 gal	21 L
Differential - Center	6.0 gal	23 L
Planetaries (each)	2.0 gal	7.5 L
DEF System*	13.7 gal	52 L

\*only applicable on Tier 4i model

## **STANDARD EQUIPMENT**

### **TIER 4 TA250**

### **GENERAL**

Articulation and Oscillation Lock	Mudflaps at Front and Center
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 Mgmt Systems	Tilting Cab for Maintenance
Engine Underguard	Tow Points, Front and Rear
Exhaust Muffler	Transmission Downshift Inhibitor
Handrails on Fenders	Transmission Oil Cooler
Horn, Electric 117db	Transmission Retarder
Hydraulic Filter Restriction Indicator	Transmission Sump Guard
Hydraulic Oil Cooler	Tire Inflation Nitrogen
Modulating Cooling Fans	Exhaust Brake
Mirror with Wide Angle	

### **OPERATOR CABIN**

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

### **OPTIONAL EQUIPMENT**

### **BODY OPTIONS**

 Body Side Extensions
 Spillguard Extension

 Heated Body
 Chain Operated Top Mounted Tailgate

 Liner Plates

#### **MIRRORS**

**Mirror Front Mounted** 

Mirrors Heated

### **WARNING LIGHTS & ALARMS**

Alternator Charging	Front Brake Accumulator Pressure
Body Up	Headlight High Beam
Differential Lock	Headlights Active
Direction Indicators	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

### GAUGES

Body Dump 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 Low Beam
Reverse Warning	2 Halogen Headlamps High Beam

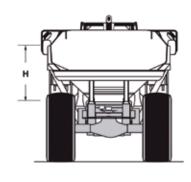
### LIGHTS

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	Hydraulic Oil Cooler

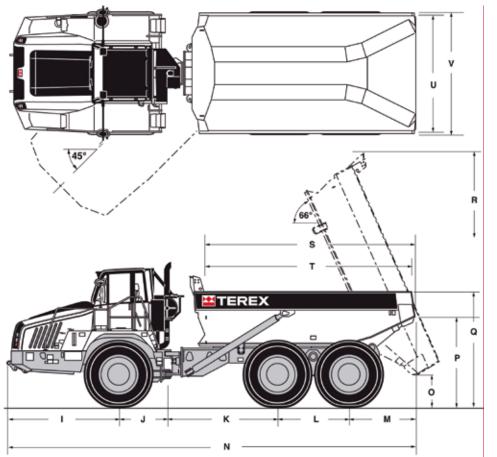
### DIMENSIONS



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### **MEASUREMENTS**

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Α	11 ft 1 in	3376 mm
В	11 ft 2 in	3420 mm
C	10 ft 3 in	3120 mm
D	1 ft 6 in	405 mm
E	5 ft 3 in	1580 mm
F	7 ft 2 in	2200 mm
G	9 ft 6 in	2895 mm
H	4 ft 1 in	1240 mm
I	8 ft 4 in	2575 mm
J	4 ft 4 in	1310 mm
К	9 ft 8 in	2945 mm
L	5 ft 6 in	1690 mm
М	4 ft 9 in	1410 mm
N	32 ft 5 in	9930 mm
0	2 ft 3 in	725 mm
Р	7 ft 2 in	2175 mm
Q	8 ft 11 in	2740 mm
R	19 ft 9 in	6015 mm
S	16 ft 5 in	5000 mm
T	16 ft 2 in	4930 mm
U	8 ft 10 in	2685 mm
V	9 ft 6 in	2895 mm

### **WEIGHTS**

Net Distribution				
Front Axle	27977 lbs	12690 kg		
Bogie Axle, Leading	11834 lbs	5370 kg		
Bogie Axle, Trailing	11462 lbs	5199 kg		
Vehicle, Net	51277 lbs	23259 kg		
Payload	55115 lbs	25000 kg		
Gross Distribution				
Front Axle	37141 lbs	16847 kg		
Bogie Axle, Leading	35516 lbs	16110 kg		
Bogie Axle, Trailing	35023 lbs	15886 kg		
Vehicle Gross	106393 lbs	48259 kg		
Bare Chassis	38213 lbs	17335 kg		
Body	9040 lbs	4100 kg		
Hoists, pair	1170 lbs	530 kg		

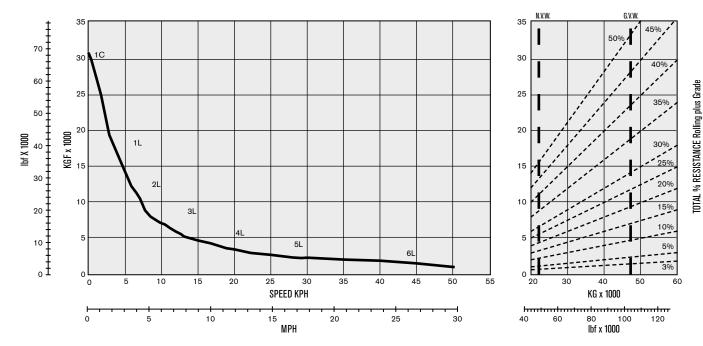
### **GROUND PRESSURE**

These figures are at 15% shrinkage of unloaded radius and specified weights using				
Tires	23.5 R25			
Unloaded Loaded			ded	
Front	18.4 psi	127 kPa	22.3 psi	161 kPa
Rear	7.8 psi	54 kPa	22.9 psi	158 kPa

### **TIER 4 TA250**

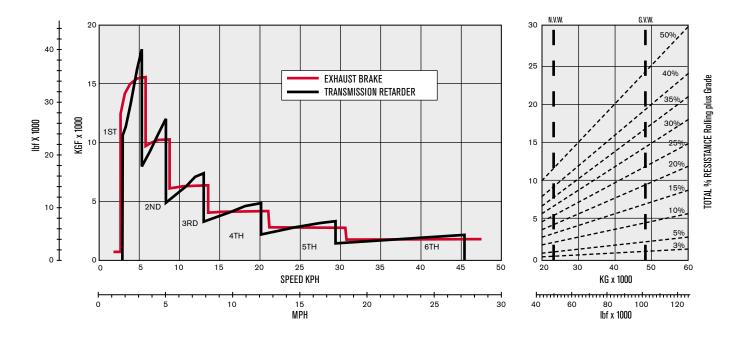
### GRADEABILITY

Unit equipped with 23.5 R25 tires. Graphs based on 2% Rolling Resistance.



#### **RETARDATION**

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



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Effective Date: August 2011. 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. © 2011 Terex Corporation.

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