## DEVELON

# Articulated Dump Truck



#### Engine

Make	Scania
Model	DC09
Number of cylinders	5
Rated power, gross (hp per ISO 3046)	375 hp (276 kW) @ 2100 rpm
Rated power, net (hp per ISO 9249)	367 hp (269.9 kW) @ 2100 rpm
Max. torque, gross (ISO 3046)	1381 ft.·lb. (1873 Nm) @ 1300 rpm
Displacement	568 in. <sup>3</sup> (9.3 L)
Bore and stroke	5.1 in. x 5.5 in (130 mm x 140 mm)
Starter	24 V, 8 hp (6 kW)
Battery	2 x 12 V, 105 AH
Alternator	24 V, 100 amp
Air cleaner	Double elements

#### **Hydraulics**

Main pumps	77.7 gpm (294 L/min.)
Relief pressure (main)	4061 psi (286 kg/cm²)
Emergency steer pump	13.2 gpm (50 L/min.)
System pressure (steering)	3046 psi (214 kg/cm²)

#### **Travel Speeds**

Travel speed – forward (8)	3.7 / 5 / 6.8 / 9.9 / 14.3 / 19.9 / 28 / 34.2 mph (6 / 8 / 11 / 16 / 23 / 32 / 45 / 55 km/h)
Travel speed – reverse (4)	3.7 / 5 / 6.8 / 9.9 mph (6 / 8 / 11 / 16 km/h)

#### Environment

Sound level (2000/14/EC)	107 dB(A)
Cabin sound level (ISO 6396)	71 dB(A)

#### **Refill Capacities**

Fuel tank	95.1 gal. (360 L)
DEF tank	18.5 gal. (70 L)
Cooling system (radiator capacity)	11.9 gal. (45 L)
Engine oil	9.2 gal. (35 L)
Transmission	17.7 gal. (67 L)
Front differential	2.5 gal. (9.4 L)
Rear differential	Included in tandem
Front hub (2)	2.5 gal. (9.6 L)
Tandem housing (2)	40.9 gal. (155 L)
Rear hub (4)	Included in tandem
Hydraulic system	25.1 gal. (95 L)

#### Body

-		
Body volume (2:1)		23.3 yd³ (17.8 m³)
Body dumping time		Up: 12s / Down: 10s
Level conseits.	with tailgate	18.6 yd³ (14.2 m³)
Level capacity –	without tailgate	17.8 yd³ (13.6 m³)
Heaped capacity with tailgate without tailga	with tailgate	23.3 yd³ (17.8 m³)
	without tailgate	22 yd³ (16.8 m³)
Density index		2809 lb./yd³ (1667 kg/m³)

#### **Hydraulic Cylinders**

Body tilt (2) bore x stroke	4.5 in. x 90.2 in. (115 mm x 2290 mm)
Steering (2) bore x stroke	3.9 in. x 20.3 in. (100 mm x 515 mm)

The piston rods and cylinder bodies are made of high-strength steel. A shock-absorbing mechanism is fitted in at the base and rod end of the lift and bucket cylinders and the rod end of the steering cylinders to ensure shock-free operation and extended piston life.

NOTE: Where applicable, dimensions are in accordance with Society of Automotive Engineers (SAE) and ISO standards. Specifications and design are subject to change without notice. All dimensions are given for DEVELON articulated dump trucks equipped with standard tracks and the standard front as listed. Pictures of DEVELON articulated dump trucks may show other than standard equipment. All dimensions are shown in inches. Respective metric dimensions are enclosed by parentheses. DEVELON equipment is manufactured with a Quality Management System that is in compliance with ISO 9001:2008.

### **Features**



#### Suspension

- Front: semi-independent, self-leveling hydro-gas suspension
- Rear: free-swinging tandem housing

#### **Articulation Hinge and Steering**

- Articulation hinge with forward-mounted turning ring
- Steering cylinders (two): double-acting
- Steering approved according to ISO 5010
- Maximum steering angle: 45°
- Ground-driven emergency steering pump

#### Driveline

- Full-time 6×6 drive: two transverse differentials, one longitudinal
- Front and rear axle transverse differential: limited-slip diff lock with 45% locking ratio
- Inter-axle longitudinal differential:
- Torque-proportioning differential: integrated into ZF transmission
- Torque distribution: 1/3 to the front axle, 2/3 to the rear axle, 100% lockable
- Tandem housing: gear driven, free-swinging

Provides equal drive to rear wheels and ensures the best possible ground contact – whatever the ground conditions.

#### **Brake System**

- · Dual circuit braking system acting on all six wheels
- Approved according to ISO 3450
- All hydraulic-operated brakes with enclosed oil-cooled wet multiple discs on four hubs (braking force distributed to two hubs by tandem gear wheels)
- Spring actuated hydraulic released parking brake, mounted on driveline shaft
- Maximum gradient, parking brake: 15°
- · Automatic transmission retarder as standard

#### Cab

- Approved to ROPS/FOPS standards (ISO 3471/ISO 3449)
- Low interior sound level: 71 dB(A) (ISO 6395)
- External sound level: 107 dB(A) (ISO 6396)
- Cab centrally located on rubber mountings
- Hand and arm vibrations less than 2.5 ms<sup>2</sup> (ISO 5349-2)
- Whole body vibration less than 0.5 ms<sup>2</sup> (ISO 2631-1)
- Superior visibility for safer operation
- Superior operating controls location
- Adjustable suspended operator seat
- Adjustable steering column
- Climate control heater and air conditioning
- Tilting for service access
- All-around hand rails



## **Technical Specifications**

#### **Dimensions**

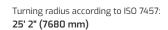
Gross weight		112877 lb. (51200 kg)
Net weight		51147 lb. (23200 kg)
Payload		61729 lb. (28000 kg)
Empty weight distribution	front axle	28131 lb. (12760 kg)
	rear axle	23016 lb. (10440 kg)
	front/rear	55% / 45%
Loaded weight distribution	front axle	34992 lb. (15872 kg)
	rear axle	77885 lb. (35328 kg)
	front/rear	31% / 69%

#### **Ground Pressures**

Empty front axle rear axle	front axle	15.8 psi (1.11 kg/cm²)
	7.0 psi (0.49 kg/cm²)	
Loaded	front axle	19.7 psi (1.39 kg/cm²)
	rear axle	23.6 psi (1.66 kg/cm²)

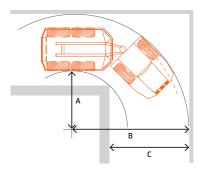
#### Power to Weight Ratio

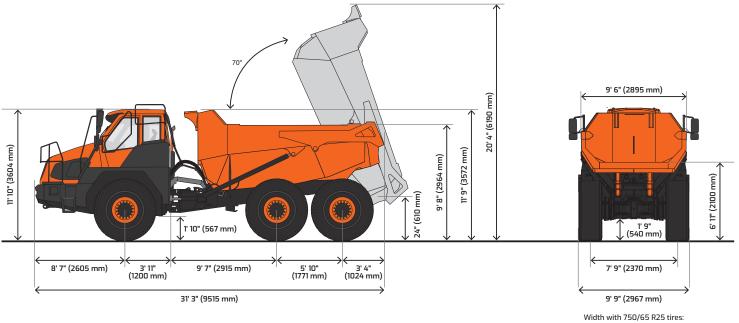
Empty	14.16 hp/tn (11.64 kW/t)
Loaded	6.41 hp/tn (5.27 kW/t)



A = 13' 1" (3995 mm) B = 26' 4" (8030 mm)

C = 17' 4" (5280 mm)





3208 mm

## **Standard & Optional Equipment**

Standard • Optional

#### Engine

Emissions, T4 (EPA)	
High-pressure common-rail (HPCR)	
Cooled exhaust gas recirculation (CEGR)	
Exhaust brake	
Selective catalyst reduction (SCR)	
Diesel exhaust fluid (DEF)	
Fuel filter with water separator	
Coolant recovery tank	
Dual element dry-type air filter with evacuator	
Electronic engine control (ECU)	
Cool-down mode	
Diesel-powered coolant heater	
Block heater (110 V)	٠

#### Hydraulic

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Variable displacement axial piston pump	
Cooling fan – hydraulic, variable speed	
Emergency steering pump (ground driven) – variable displacement radial piston	•

#### **Electrical**

System voltage – 24 V	
Alternator – 24 V, 100 amp	
2 x 12 V batteries, 140 AH reserve capacity	
Blade-type fuse panel	
Lights, work (halogen): front & rear	•
Lights, work (LED): front & rear	•
Lights, stop, tail & direction indicators	
Rotating beacon	•
Hour meter	
Rearview camera	
Laptop service port	
Self-diagnostics system	
Emergency shutdown switch	

#### **Controls**

controts	
Adjustable steering column - Tilting - Telescoping	•
Throttle pedal (accelerator)	•
Brake pedal	•
Gear selector ("trip-tonic")	
Body hoist lever	
Adjustable hydrodynamic retarder lever	
Switches, console-mounted - Key switch - Parking brake	•
Buttons & indicator lights, keypad - Parking lights - Main lights - Engine pre-heater - Hazard lights - Rear axle differential lock - Inter-axle differential lock - Retarder control - Fuel heater - Heated seat - Heated seat - Heated mirrors - Rear work lights - Rotating beacon - Work lights - Interior cabin light	•

#### Cabin

Cabin	
Steel, all-weather & sound-suppressed	
ROPS (ISO 3471)	
FOPS (ISO 3449)	
Front window with wiper/washer	
Rear window	
Tinted safety glass	
Visor, retractable	
Adjustable sliding side door window	
Defrost	
Lockable doors	
Seat - Air suspension - 2" (51 mm) seat belt - Adjustable height & recline - Adjustable fore/aft - Adjustable armrests	•
Seat, heated	•
Instructor's seat, folding	
Storage for operator's manuals	
Mirror, interior rearview, exterior (2)	
Mirror, exterior, heated	•
Fully adjustable HVAC	
Multi-function LCD player	
Cigarette lighter	
AM/FM stereo with CD player & MP3 port	-
Speakers (2)	
Antenna	
Space for cooler box	
Storage	•
Power socket, 12 V	
Beverage holder	
Interior light	
Guard, rear window	
Cab tiliting system	•

#### **Display Monitor & Warnings**

Buzzer - Brake system - Parking brake		-
Gauges - Fuel level - DEF level - Engine coolant temperature - Transmission oil temperature - Retarder oil temperature - Payload meter - Gradient meter - Engine rpm	- Speedometer - Transmission gear indicator - Battery voltage - Digital clock - Trip meter - Hour meter - Foul consumption	•
Warning & indicator lights - Seat belt - Error code - SCR warning - Check engine - Engine oil pressure - Engine oil pressure - Radiator coolant level & temperature - Air filter - Fuel level - DEF level - Uights (high, main, work, beacon)	Direction signal Emergency steering Transmission mode Transmission lock-up Transmission gear indicator Retarder oil temperature Retarder brake Lubrication system Body down Parking brake indicator Payload indicator	•
Payload indicator, external		

#### Frame & Suspension

Articulation hinge	•
Steering cylinder, double-acting (2) – cushion, retracting	
Turning ring, forward-mounted	•
Towing hook, front & rear	•
Sloping rear frame	•
Independent, hydro-gas cylinder with pressure accumulators	•
Tires, radial 23.5 R25 (Techking)	•
Tires, radial 23.5 R25 (various brands)	•
Tires, radial 750/65R25 (various brands)	٠
Tire pressure monitoring (certain tires only)	•

#### Driveline

Transmission, automatic – electronic shift control
Torque converter lock-up clutch
6x6 drive, full-time
Tandem rear bogey – gear-driven, free-swinging
Driveline interaxle differential – 1/3 front, 2/3 rear, torque divider, 100% locking ratio
Front axle transverse differential – limited-slip, 45% locking ratio
Rear axle transverse differential (1) – limited-slip, 45% locking ratio
Rear axle transverse differential (1) – clutch-engaged, torque-dependent locking ratio
Automatic hydrodynamic transmission retarder
Automatic engine brake
Braking system, dual circuit
Hydraulic, wet multiple discs – 4 (front & mid wheels)
Parking brake, spring-applied hydraulic release – driveshaft mounted

#### Body

Body, high-tensile Hb400 steel	
Body (none)	•
Lifting cylinder, double-acting (2) – cushion, extending	
Tailgate, scissor type	
Tailgate (none)	•
Spill guard on front of body	
Body heating kit	
Body heating	
Body lining, standard	•
Body lining, full	•
Side extensions	•

#### Other

Automatic lubrication system	
Handrails & service steps	
Skid-resistant steps & service platforms	
Body lift support	
Fire extinguisher	•
First aid kit	•
Manuals - Operation & Maintenance - Parts - AEM Safety Manual	•
DEVELON Fleet Management	
Vandalism protection - Lockable panels - Lockable fluid fill points	•
Toolkit	•
Fast fill	•
Mud flaps	-

## Powered by Innovation

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