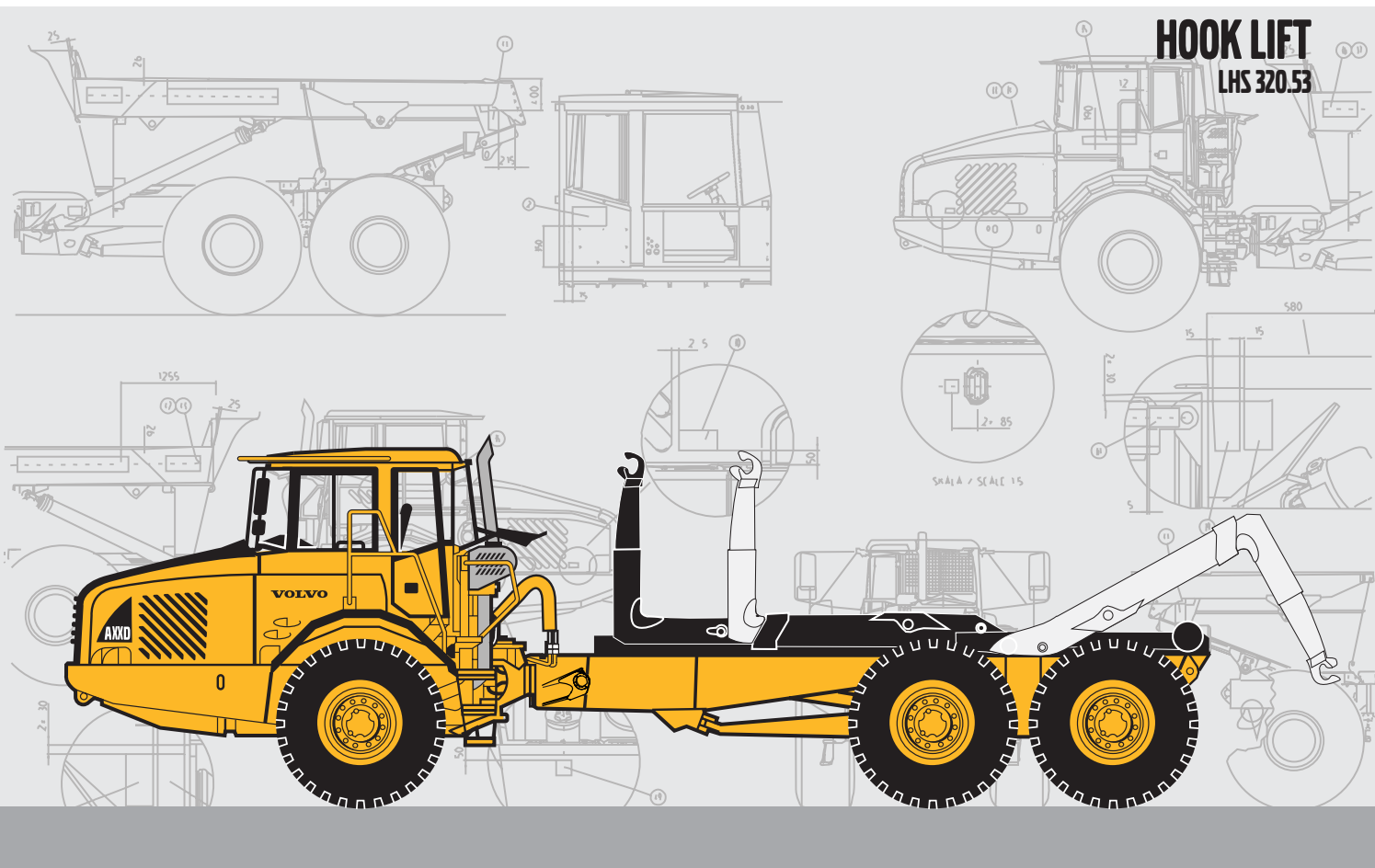


VOLVO ARTICULATED HAULER

A25D



- **Engine output:**
A25D:
SAE J1995, Gross 228 kW (310 hp)
SAE J1349, Net 227 kW (309 hp)
- **Load capacity: 22,0 t (body+payload)**
- **Designed to handle and transport platforms, containers and tanks.**
- **Standard Volvo A25D tractor, with a TC-54 chassis.**
- **Hook lift: Multilift LHS 320.53**
- **Volvo cab**, designed for high operator visibility, ergonomics and comfort.
- **Reduced maintenance time**, no daily or weekly grease points.
- **Electronic Operator's Communication System**
- **Volvo high performance – low emission**, electronically controlled, direct injected, turbocharged, intercooled diesel engine.
- **Fully automatic planetary transmission**, electronically controlled.
- **Hydraulic retarder** integral in transmission.
- **Dropbox with longitudinal differential lock**
- **100% lock-up differentials.** One longitudinal and three transverse differential locks.
- **Front axle with three-point suspension.**
- **Volvo terrain bogie**, individually oscillating axles and high ground clearance.
- **Volvo Load & Dump Brake.**

Limited Sales area:
Europe only

VOLVO

The A25D Hook Lift in detail

Service

The computerized information system monitors all fluid levels, minimizing daily and weekly service times.

Time to next service and the status of vital vehicle systems is shown to the operator on a display in the instrument panel.

Service accessibility: Fold-down front grill with access ladder to remote filter bank, located in front of engine.

Large, 90° opening hood for total engine access.

Remote drain hoses and swing-out radiator for easy cleaning.

Fill capacities

Crankcase.....	38 l
Fuel tank	400 l
Cooling system	71 l
Transmission total	41 l
Dropbox.....	8,5 l
Axles, front/ rear	33 l
First bogie axle.....	34 l
Hydraulic tank	175 l

Engine

Volvo inline 6-cylinder, direct injected electronically controlled, turbocharged, intercooled 4-stroke low-emission diesel engine with wet replaceable cylinder liners.

Fan: Hydrostatically driven, thermostatically controlled variable speed radiator fan consuming power only when needed.

Engine brake: Exhaust retarder.

A25D

Make, model.....	Volvo D10BACE2*
Make, model	Volvo D10BADE2**
Max power at	33,3 r/s (2 000 r/min)
SAE J1995 Gross	228 kW (310 hp)
Flywheel power at	33,3 r/s (2 000 r/min)
SAE J1349 Net, DIN 6271***	227 kW (309 hp)
Max torque at	22,5 r/s (1 350 r/min)
SAE J1995 Gross	1 375 Nm
SAE J1349 Net, DIN 6271***	1 365 Nm
Displacement total	9,6 l

With fan operating at full speed, the flywheel power is 214 kW (291 hp) and maximum torque is 1 276 Nm which corresponds to DIN 70020.

*) Meets US (EPA) step 2, California (CARB) step 2 and Europe (EU) step 2.

**) Meets Europe (EU) step 2.

***) with fan at normal speed.

Electrical system

All cables, sockets and pins are identified. Cables are enclosed in plastic conduits and secured to main frame.

Halogen lights. Prewired for options.

Connectors meet IP67 standard for waterproofing as necessary.

Voltage	24 V
Battery capacity	2x170 Ah
Alternator.....	1,54 kW (55 A)
Starter motor.....	6,6 kW (9 hp)



Drivetrain

Volvo components, specifically designed for hauler applications.

Torque converter: Single-stage with free-wheeling stator and automatic lock-up on all gears.

Transmission: Fully automatic planetary transmission with six forward gears and two reverse gears, with a built-in variable hydraulic retarder.

Dropbox: Volvo design, single-stage.

Axles: Volvo design with fully floating axle shafts and planetary type hub reductions.

Differential locks: One longitudinal and three transverse with 100% lock-up function, operator selectable on the move.

Configuration: 6x4 or 6x6 drive, operator selectable on the move.

Torque converter.....	2,37:1
Transmission, Volvo	PT 1560
Dropbox.....	IL 1
Axles, Volvo	AH 56

Speed:

Forward	
1	8 km/h
2	12 km/h
3	22 km/h
4	31 km/h
5	40 km/h
6	53 km/h
Reverse	
1	8 km/h
2	13 km/h

Brake system

Dual circuit system with air-hydraulic disc brakes. Meets ISO 3450 and SAE J1473 at total machine weight.

Service brakes: Dry discs on all wheels.

Circuit division: One circuit for front axle and one for bogie axles.

Parking brake: Spring-applied disc brake on the propeller shaft, designed to hold a loaded machine on a grade up to 18%. When the parking brake is applied, the longitudinal differential is locked.

Compressor: Gear-driven by engine transmission.

Retarder: Hydraulic, infinitely variable, integrated in transmission.

Total retarding capability including transmission retarder and exhaust retarder, see graph.

Steering system

Hydromechanical self-compensating articulated steering for safe and accurate high-speed hauling. Fast acting, low effort steering with 3,4 turns lock-to-lock for slow speed maneuverability.

Cylinders: Two double-acting steering cylinders.

Secondary steering: Meets ISO 5010 at total machine weight.

Steering angle: ±45°

Suspension

Volvo's unique maintenance-free 3-point suspension system. The axles are suspended at three points, which results in independent movement needed in rough terrain.

Front axle: One hollow rubber spring on each side. A cross stay provides the stability. Two shock absorbers on each side.

Bogie: Volvo's unique terrain bogie permits long suspension travel and independent wheel movement, keeps the rear frame level.

Cab

Volvo cab, ergonomically designed for high operator comfort and excellent visibility.

Wide threshold-free door opening and ergonomic cab entrance. Insulating rubber pads to reduce vibrations. Tilt/ telescopic steering wheel. Overhead console for radio and storage. Dash-mounted Operator's Communication System. Storage bins.

Standard: ROPS/FOPS tested and approved. (ISO 3471, SAE J1040) / (ISO 3449, SAE J231) standards.

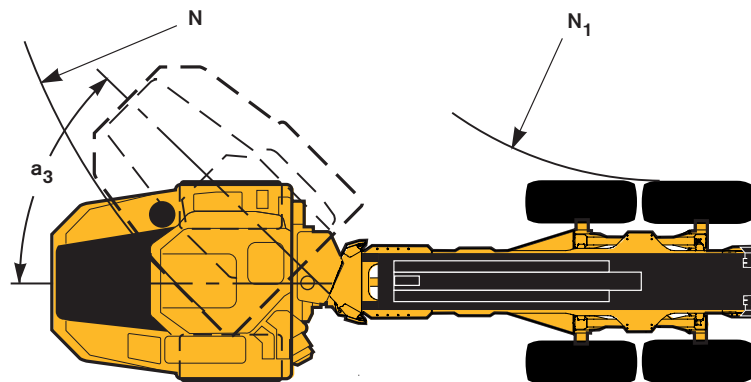
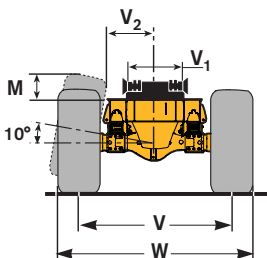
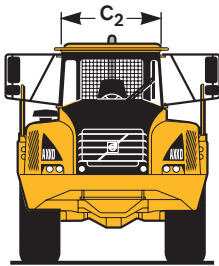
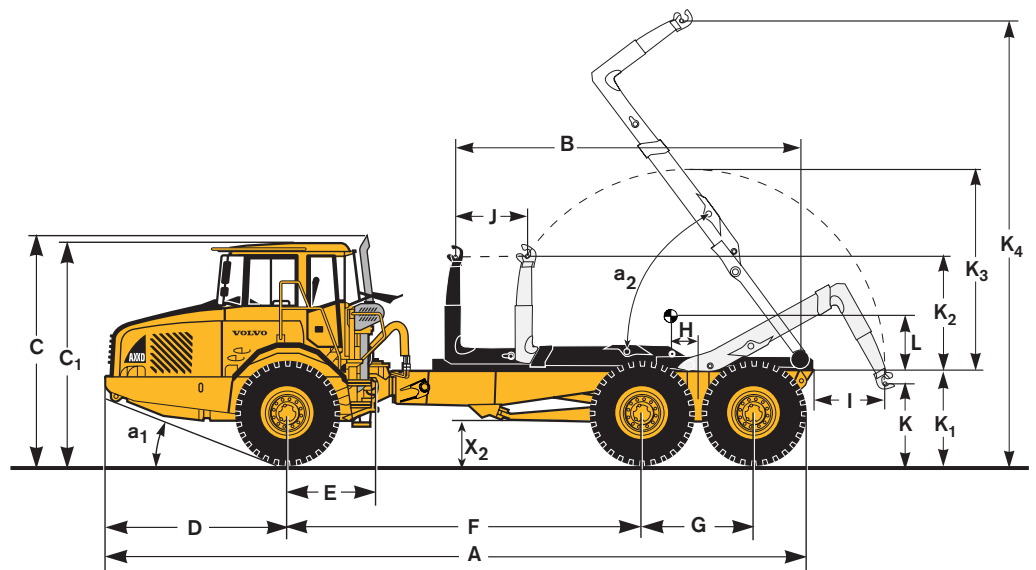
Heater and defroster: Filtered fresh air, four-speed fan and pressurized cab to maintain a clean operating environment. Multi-level air outlets and separate defroster vents for all windows.

Operator's seat: Adjustable operator's seat with flameproof upholstery. Retractable seat belt.

Sound level in cab, ISO 6396 74 dB (A)

Dimensions		
A25D TC54		
Pos	Tires 23.5R25	Tires 650/65R25
A	10 610	10 556
B	5 340	5 340
C	3 428	3 381
C ₁	3 318	3 271
C ₂	1 768	1 768
D	2 764	2 764
E	1 210	1 210
F	5 375	5 375
G	1 670	1 670
H	463	463
I	1 144	1 144
J	1 100	1 100
K	1 200	1 153
K ₁	1 400	1 353
K ₂	1 770	1 770
K ₃	3 119	3 119
K ₄	6 830	6 783
L	937	937
M	365	315
N	9 670	9 685
N ₁	5 270	5 255
V	2 258	2 258
V ₁	1 070	1 070
V ₂	720	705
W	2 859	2 888
X ₂	659	612
a ₁	23.5°	22.5°
a ₂	53°	53°
a ₃	45°	45°
Unloaded machine		

Weights		Ground Pressure	
Operating weight includes all fluids and operator.		At 15% sinkage of unloaded radius and specified weights.	
	A25D TC54, LHS 320.53		A25D TC54, LHS 320.53
Tires	23.5R25 - 650/65R25	Tires	23.5R25 - 650/65 R25
Operating weight unloaded		Unloaded	
Front	12 800 kg	Front	129 kPa
Rear	7 840 kg	Rear	40 kPa
Total	20 640 kg	Loaded	
Payload incl. body	22 000 kg	Front	144 kPa
Total weight		Rear	144 kPa
Front	14 140 kg		
Rear	28 500 kg		
Total	42 640 kg		



Hydraulic system

Load-sensing variable displacement piston pumps consume power only when needed.

Pumps: Four engine-driven variable displacement, load-sensing piston pumps, driven by the flywheel PTO. One ground-dependent piston pump for secondary steering mounted on the dropbox.

Filter: One fibreglass filter with magnetic core.

Pump capacity per pump:

Engine-dependent..... 140 l/min
 Ground-dependent 142 l/min
 at shaft speed 52,5 r/s (3 150 r/min)
 Working pressure..... 25 MPa

Body standards

SMS 3021 Lifting eye 1450 mm above ground.

DIN 30277 Lifting eye 1570 mm above ground. (Europe)

Chem Lifting eye 1575 mm above ground. (UK and Ireland)

STANDARD EQUIPMENT

Safety

ROPS/ FOPS protected cab
Service platform for ease of service
Anti-slip material on hood and fenders
Hazard lights
Horn
Protective grille for rear window
Rear-view mirrors
Secondary steering
Retractable 3-inch safety belt
Steering joint locking assembly
Dump body lock
Windshield wipers with interval function
Windshield washers

Comfort

Tilt/telescopic steering wheel
Cab heater with filtered fresh air and defroster
Overhead console for radio and storage
Sun visor
Tinted glass
Can holder /storage tray
Cigarette lighter
Ashtray
Space for lunch cooler
Storage box

Engine

Direct injected, electronically controlled
Turbocharged, intercooled
Remote oil drain plug
Remote oil filters, for ease of access
Preheater for easier cold starts

Electrical system

55 A alternator
Battery disconnect switch
Extra 24 V socket for lunch cooler

Lights:

- Headlights
- Parking lights
- Direction indicators
- Rear lights
- Back-up lights
- Brake lights
- Cab lighting
- Instrument lighting

Operator information interface

Gauges:

- Speedometer
 - Tachometer
 - Brake pressure
 - Fuel
 - Transmission oil temperature
- Pilot lights for all switches
Warning lights grouped and easy to read

Central positioned information display:

- Automatic pre-start checks
- Operation information, easy-to-find menu
- Troubleshooting diagnostics
- Hour meter
- Clock
- Machine settings

Drivetrain

Automatic transmission
Torque converter with automatic lock-up
Dropbox, single-stage
Hydraulic variable retarder
6x4 or 6x6 operator selectable drive modes
100% longitudinal differential lock
100% differential locks in all axles

Brakes

Air-hydraulic disc brakes
Two circuit brake system
Parking brake on prop shaft

Tires

A25D: 23,5R25

Other

Air drier

(* Special Standard Equipment)

OPTIONAL EQUIPMENT

Safety

Fire-extinguisher and first aid kit
Hitch oscillating brake **

Service and maintenance

Tool kit with tire inflation unit
Electrical hood opening

Engine

Extra air cleaner, heavy-duty
Extra air cleaner, oil bath type
External emergency engine stop
Delayed engine stop
Electric engine heater (120V or 240V)
Engine and cab heater, diesel **
Fuel filter heater, electrical, 24V **
Fast fuel filling system **

Electrical

Work lights, roof mounted
Work lights, rear-facing, fender-mounted
Work lights (distance lights) on cab roof **
Rotating beacon, collapsible mount
Rotating beacon, extra
Back-up alarm
Rear vision system
Anti-theft system (prevents engine start)
Headlights for left-hand traffic
Alternator, heavy-duty 80 A
Battery charger **
Jump start connection, NATO **
Back up light, extra **
Cab heater, electrical **

Cab

Air suspended, electrically heated operator's seat
Rotating drivers seat 180° **
Seat cover **
Armrests prepared for joysticks **
Instructor seat with seat belt
Electrically heated rear-view mirrors
Air conditioning
Radio installation kit
Radio
Cable kit for cab heater (120V or 240V)
Window tint film
Stick steering system for reverse travelling **
Steering wheel for reverse travelling **
Throttle pedal for reverse travelling **
Brake pedal for reverse travelling **
Rear-view mirrors for reverse travelling **
Exhaust pipe moved for reverse travelling **
Washer and wiper for rear window **
Vandalism protection for cab windows **
Rear-view mirror, close up **
Lowered cab roof
Roof rack **

External

Mud flaps in front of bogie **
Mud flaps behind bogie **
Mud flaps over/behind bogie **
Frame extension, rear end, 170 mm **
Belly plates for trailer A-stay **
Increased bogie axle distance, 50mm **
Additional front bumper (rubber)

Hydraulic

Booster system, 35MPa **

Tires

A25D: 650/65R25

Other

Synthetic hydraulic oil (biologically degradable)
Arctic oil kit
Toolbox
Dumping angle limitation (hydraulic) **
Non-skid chain modification, front unit **
Non-skid chain storing hooks **

(** Special Optional Equipment)

Under our policy of continual product improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VOLVO

Construction Equipment

Ref. No 21 2 669 4174 English
Sweden 2003-04 ART
Volvo Växjö