VOLVO ARTICULATED HAULERS

A25D4X4



Quickspecs

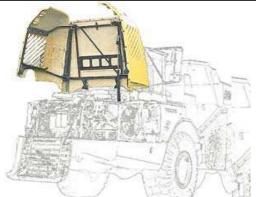
	A25D 4x4
Payload	24,000 kg
Load Cap.	13.0 m3
Gross Power	228 kW *
Net Power	227 kW **
Max Torque	1,375 Nm ***
Transmission	Planetary
Tires Std.	23.5R25 (front), 29.5R25 (rear)
Brakes (all wheels)	Dry disc
Retardation	Exhaust Engine/hyd trans
GVW	43,500 kg

^{*} SAE J1995 gross ** SAE J1349 net *** SAE J1995 gross at 22.5 r/s (1,350 r/min)



Front grill

The lockable front swing-down grill with built-in steps provides easy access to the filter bank. Supplied with the front grill is a drain hose that connects to remote drain points.



Hood for easy access

The hood which opens to 90 degrees provides easy access to the entire engine compartment and engine related components. It opens electro-hydraulically or with a manual pump if there is no electric power.



Mirrors

Obstruction-free rearview mirrors with a wide angle mirror provides a wide field of view for maximum safety when backing allowing high reverse speeds.



Remote drains

Remote drain points for engine oil, hydraulic oil and fuel are located for easy access using the drain hose, without opening any panels or hoods.



Serviceability

Reduced service downtime by more than 50%. No 10 or 50 hour-services. Scheduled greasing every 250 hours.



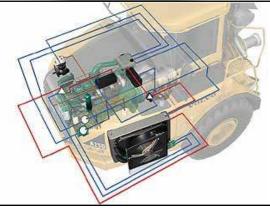
Visibility

The new three piece rounded hood provides the operator with great all-round visibility but particularly improves the close-up visibility. Vision to the rear is very good, thanks to the large, symmetrically placed rearview mirrors. With improved visibility there is less risk of tire damage.



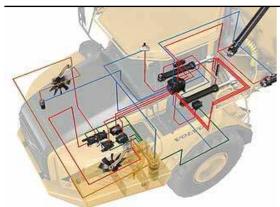
Cab

The operator's seat located directly above the front axle, in the center of the machine, minimizing operator movements. The cab is easy to enter and exit thanks to wide and angled steps and a wide door opening that is flush with the floor.



Cooling system

Remote mounted radiator and intercooler with thermostatically controlled variable speed hydraulic fan motors consuming power only when needed. On the right is the engine air-to-air intercooler and the A/C condenser and on the left is the engine radiator.



Hydraulic system

Engine-dependent load-sensing variable displacement piston pumps in a closed-center hydraulic system delivering the required volume and pressure to the tipping, steering and cooling systems only when needed. Reduces heat and fuel consumption with very low losses due to circulation.



Steering system

Volvo's self-compensating hydro-mechanical steering system. A feedback rod neutralizes external forces to maintain directional stability. The steering angle is always the same for a given steering wheel position. Volvo is the only manufacturer using this sophisticated rack and pinion steering system. Good steering feel and stability.



Climate control

The climate control unit has a high capacity for effective heating, cooling and ventilation. Air is continuously filtered. The cab is overpressured to help keep dust out. A/C is standard. Comfortable operator's environment for high productivity.



Dashboard

A large dashboard allows the operator to monitor critical functions. The levers and switches are ergonomically laid out for ease of operation.

Easily understood with minimal operator training.



Dump lever

Pilot operated tip lever has four positions to control the dumping and lowering of the body. The lever automatically moves to the hold position when the operator leaves the seat, or the ignition switch is OFF and a warning is displayed when driving in the hold position. Automatic to hold position prevents the body from lowering providing high operator safety.



Instructor's seat

The instructor's seat is strategically positioned to access all controls needed for safe operator training. The instructor seat has a retractable seat belt.

The instructor has a good over-all-view of what the operator does to simplify training.



Load and dump brake

When the hauler is in position for loading or unloading, the operator presses the load and dump brake button that automatically applies full service brakes to the bogie axles and puts the transmission in neutral. When the transmission lever is shifted through neutral the brakes are released and the gear is engaged.



Operator communication system (CONTRONICS)

The display unit gives the operator information on the engine, transmission, hydraulics, axles/brakes, electrical and service. Specific system information is displayed if a problem occurs or by using the key pad. Three levels of warnings. Automatic pre-start checks, productivity information. All vital machine functions are constantly monitored and the operator is kept informed.



Operator seat

The fully adjustable air suspension operator seat provides comfortable seating positions.

Optimized working position for the operator, less fatigue.



Parking brake

The parking brake is an air-released, spring-applied disc brake on the driveshaft behind the hitch. The longitudinal diff-lock is always applied together with the parking brake to get braking effect on two axles. Automatically applied if brake pressure fails in both brake circuits. The parking brake can hold a loaded machine on grades up to 18%.



Spacious cab

The spacious cab is developed with ergonomics in mind, focusing on the operator's comfort. Safe and user-friendly controls. Low noise levels, inside and outside.

Pleasant environment, less fatigue for the operator, and high productivity.



Storage

A lockable storage compartment in the overhead console and a large compartment, with two cup holders in the right console. Beneath the instructor's seat is a 24 volt outlet and room for a cooler. When the backrest is folded down, it can be used as a table.

Gear can be safely stored.



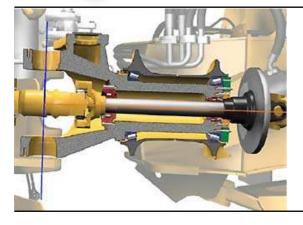
Exhaust retarder

Consists of an EPG (Exhaust Pressure Governor) exhaust brake using the engine exhaust strokes. Continuous use is available because the heat generated by the exhaust retrder is vented out the exhaust pipe. (small circle: exhaust retarder, large circle: transmission retarder)



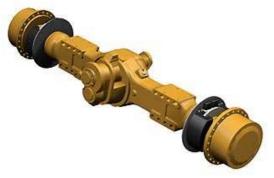
Front suspension

Three point mounting allows independent wheel movement for high-speed hauling over uneven terrain. Simple, tested design. Maintenance free system for low operating costs.



Hitch

Rotating hitch gives superb off-road mobility and eliminates frame twist. High hitch placement maximizes stability. Maintenance-free with tapered roller bearings.



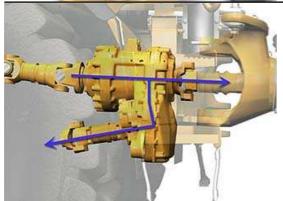
Volvo axles

Heavy-duty axle housings with fully-floating axle half-shafts increase reliability. Heavy-duty hub reductions ensure long service life on other drive train components. Differential locks give superior off-road mobility.



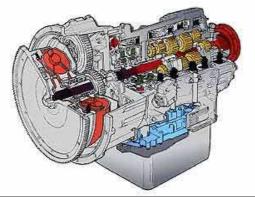
Volvo diesel engine

Electronically controlled Volvo diesel engine, 10 liter (610 cu. in.) giving high torque at low RPM, reacting quickly to the accelerator. Delivers high power with low fuel consumption and low emissions.



Volvo dropbox

Specially built with rear output higher than front permits high ground clearance at hitch and improved stability. Single stage in-line designwith longitudinal differential with 100% lockup reduces power losses, tire wear and fuel consumption and improves traction and off-road performance.



Volvo transmission

Fully automatic planetary transmission with low power loss and long service life. Safety functions to decrease risk of operator error and abuse. Torque converter with lockup.



Dump cylinders

Double-acting, single-stage tilt cylinders powerful enough so that the body may be raised and lowered on a downgrade. Strong hydraulics can dump a full load after backing up an upgrade. Dumping times: 7 sec up / 7 sec down. Strong hydraulic system enables dumping the load exactly where needed.



Tires for traction and comfort

Tires on artic haulers are vital components of the machine's suspension system and correct tire pressures must be maintained for maximum traction and comfort. All Volvo artics are designed using radial tires.



Body

The ribless body is made of HB 400 steel to withstand impact loading. Normally, wear plates are not needed. A low loading height makes it easy to load and a high tipping joint that gives a large ground clerance with raised body. This together with a long overhang make it possible to dump into a hopper or over an edge.



Liahts

Halogen headlights up high and away from the dirt. Rear brake lights are more rugged LED type for longer life and are well protected.



Well-matched drive train

A total Volvo drive train designed specifically for the A25D 4x4. A high performance, low emission engine perfectly matched to the transmission, dropbox and axles. Low losses throughout the drive train, getting the power to the wheels.



Safety

Safety is built into the A25D 4x4 from the start which is most noticeable in the small details. For example the robust handrails and the slip-resistant surfaces in the cab entrance and other places where one may step. The cab is ROPS / FOPS approved.



Brakes

Dry all-wheel disc brakes brakes with performance that, by a broad margin, fulfills all known brake standards. Dual-circuit system for maximum safety. Parking brake automatically applies if brake pressure fails in both circuits. Very maintenance friendly system.



Hydraulic transmission retarder

A variable hydraulic transmission retarder is standard equipment consisting of two opposing impellers inside the transmission with braking effort provided when filled with oil. Heat is effectively absorbed by the vehicle cooling system so the retarder is continuously usable.



Turn around system (optional)

Turns 180 degrees in 25 seconds. A width of 9.5 m (31 ft.) is needed to turn the machine 180 degrees in a 3-step operation. The turn-around system is hydraulically operated from the operator's seat and raises the unloaded trailer unit, thus enabling the steering hydraulics to swing through 90 degrees.



Remote filters

The engine oil and fuel and coolant filters are easily accessible after opening the front grill.



Frame

Frames are manufactured from high strength steel with high torsional rigidity for reduced weight and high strength. The hitch absorbs torsional stress.



Drive combinations

Four wheel drive. Five operating modes. One longitudinal and two transverse differential locks with 100% lock-up function. Differential locks can be engaged and disengaged on the go.

