

**VOLVO**

**VOLVO ARTICULATED HAULERS**

**A35D, A40D**



[www.volvoce.com](http://www.volvoce.com)

## Quickspecs

	A35D	A40D
<b>Payload</b>	32,500 kg	37,000 kg
<b>Load Cap.</b>	20.0 m <sup>3</sup>	22.5 m <sup>3</sup>
<b>Gross Power</b>	289 kW	313 kW
<b>Net Power</b>	285 kW	309 kW
<b>Max Torque</b>	1,950 Nm	2,100 Nm
<b>Transmission</b>	Planetary	Planetary
<b>Tires Std.</b>	26.5R25	29.5R25
<b>Brakes (all wheels)</b>	Dry disc	Wet disc
<b>Retardation</b>	VEB Engine/hyd trans.	VEB Engine/hyd trans.
<b>GVW</b>	60,800 kg	68,270 kg

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## Features



### **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. Improves safety and productivity.



### **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. Improves serviceability.



### **Serviceability**

Reduced service downtime by more than 50%. No 10 or 50 hour-services. Scheduled greasing every 250 hours. 10-100 more productive hours per year.



### **Remote filters**

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

## Features



### Hood for easy access

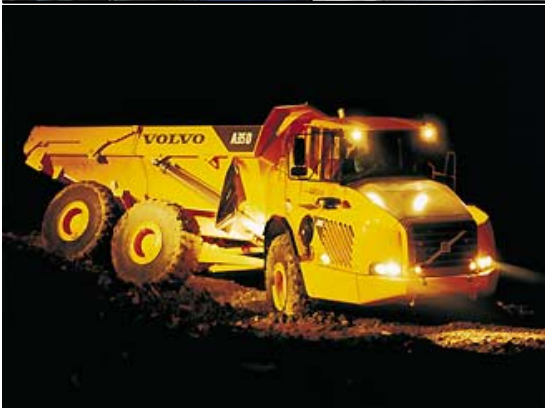
The hood which opens to 90 degrees provides easy access to the entire engine compartment and engine related components. It opens electro-hydraulically or with a manual pump if there is no electric power. Improves serviceability.



### 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.

Good visibility means improved safety and productivity.



### Lighting

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

Lessens the chance of damage.

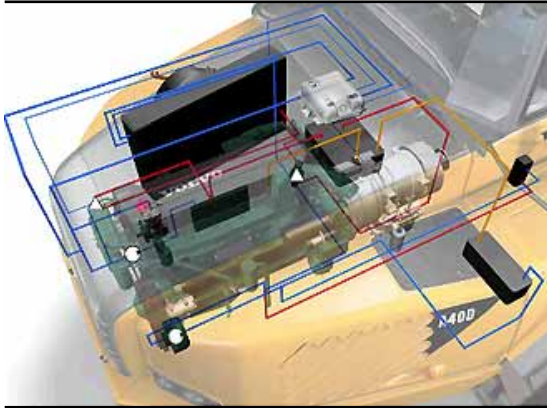


### Well-matched drivetrain

A total Volvo drive train designed specifically for the A35D-A40D. 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.



## Features



### Cooling system

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



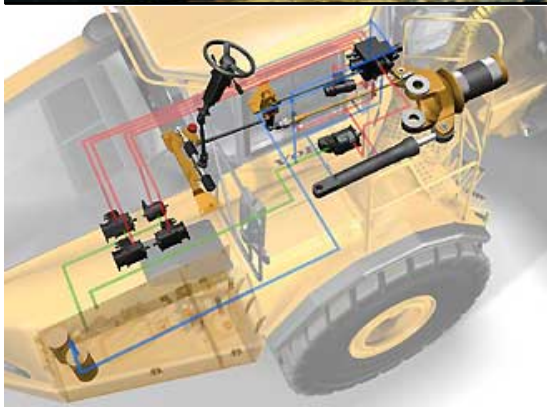
### Cab

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. Higher productivity thanks to improved operator comfort.



### Tires

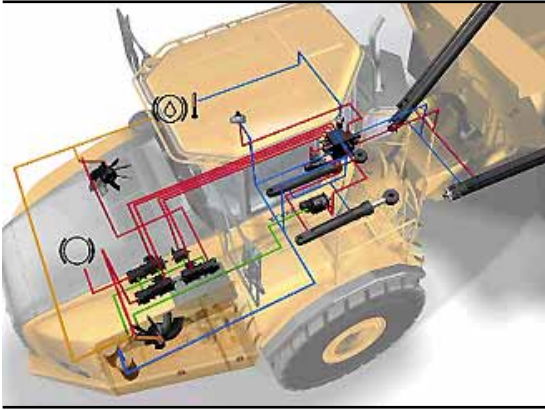
Tires on art haulers are vital components of the machine's suspension system and correct tire pressures must be maintained for maximum traction and comfort. All Volvo artics are designed using radial tires. The A35D uses 26.5R25 tires and the A40D 29.5R25 tires. Large and wide tires for good comfort, low ground bearing pressure and excellent terrain mobility.



### 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.

## Features



### 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. Lowers operating costs.



### Frame

Frames are manufactured from high strength steel with high torsional rigidity for reduced weight and high strength. The hitch absorbs torsional stress. Heavy-duty front and rear frames designed for severe stress.



### 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 12 secs. up/ 10 secs. down. Strong hydraulic system enables dumping the load exactly where needed.



### Brakes

Multiple wet disc 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. Designed for maximum safety and long service life.



## Features



### Body

The ribless body is made of Hardox 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 and long overhang make it possible to dump into a hopper or over an edge. Productivity is improved by the design of the body and its flexibility in being able to dump the load exactly where needed.



### 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.

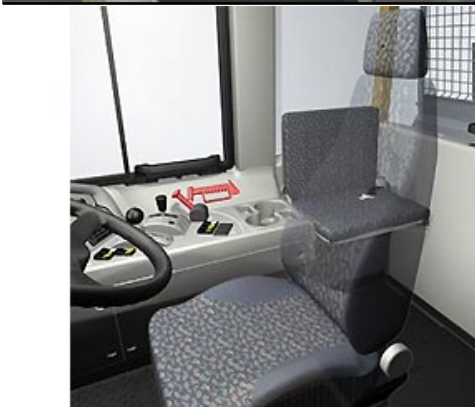
Comfortable operator's environment for high productivity.



### 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.



### Operator seat

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

Optimized working position for the operator, less fatigue.

## Features



### Safety

Safety is built into the A35D 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.

Less risk of slipping and falling.



### 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.



### 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.

### 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%.





## Features



### 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.



### 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.



### 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.

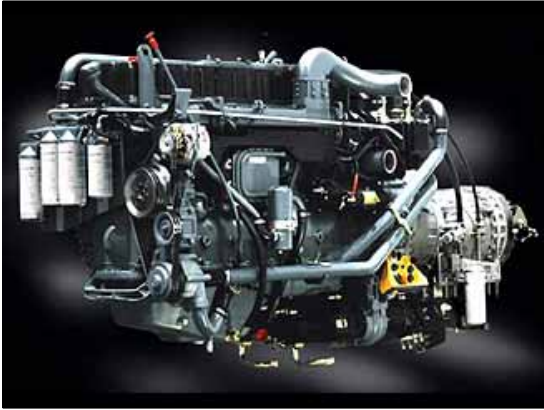


### Operator communication system (Contronics)

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

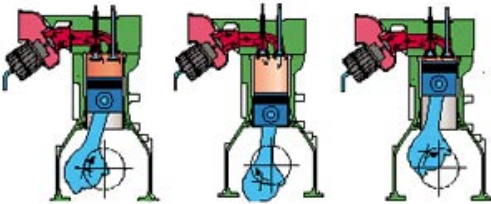
## Features



### **Volvo diesel engine**

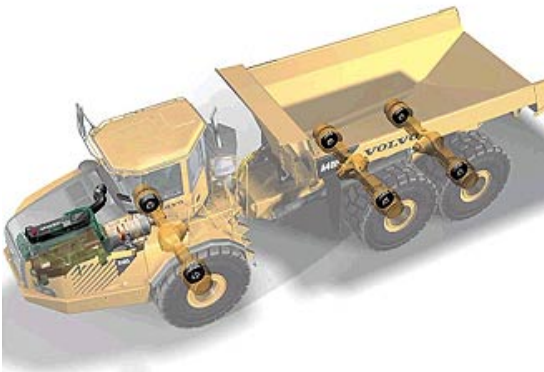
Electronically controlled Volvo diesel engine, 732 cu. in. (12 liter) giving high torque at low RPM, reacting quickly to the accelerator. Delivers high power with low fuel consumption and low emissions.

Power and torque adapted to suit hauler applications.



### **Volvo engine brake**

The Volvo Engine Brake (VEB) is Volvo-developed and patent-protected with high performance. Consists of an engine compression brake and an EPG (Exhaust Pressure Governor) exhaust brake using both the exhaust and compression engine strokes. Heat generated by the VEB is vented out the exhaust pipe and cooled by the engine cooling 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.

Less service brake wear, reduced operating cost and easy to use.

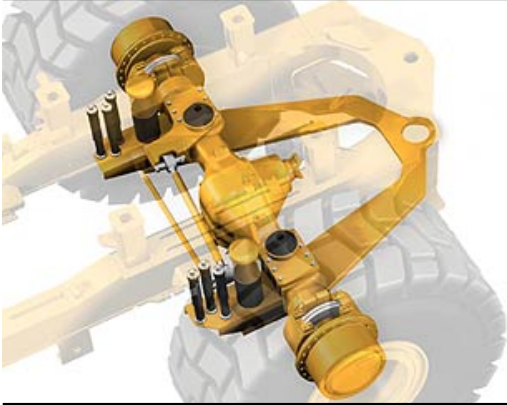


### **Volvo transmission**

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.

Fast acceleration and better fuel economy.

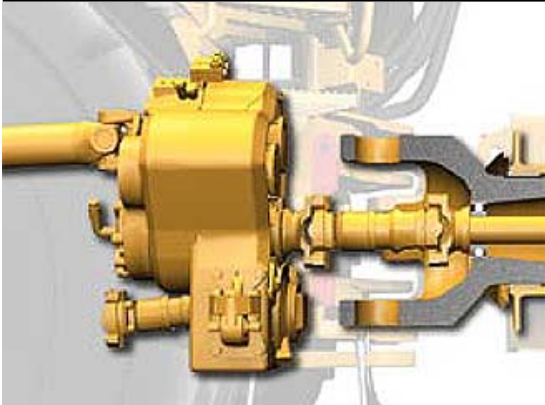
## Features



### Front suspension

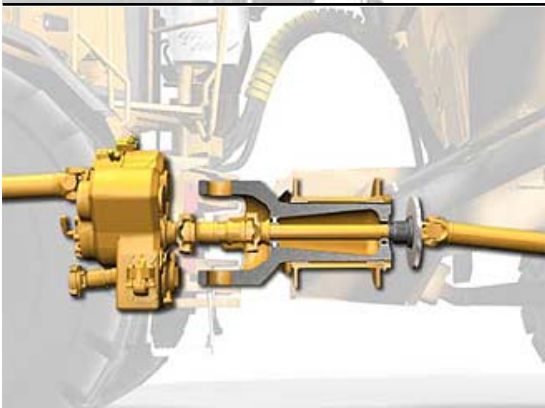
Three point mounting allows independent wheel movement for high-speed hauling over uneven terrain. Simple, tested design. Maintenance free system for low operating costs.

High operator comfort reduces fatigue for high production.



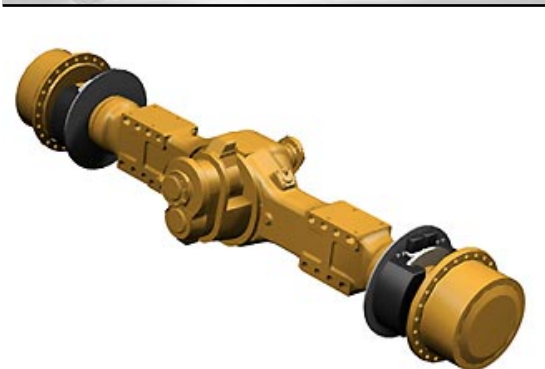
### Volvo dropbox

Specially built with rear output higher than front permits high ground clearance at hitch and improved stability. Longitudinal differential with lockup reduces power losses, tire wear and fuel consumption and improves traction and off-road performance. High/Low ranges for optimized rimpull and speed in all conditions.



### Hitch

Rotating hitch gives superb off-road mobility and eliminates frame twist. High hitch placement maximizes stability. Oil bath lubrication with replaceable wear rings minimizes service. The combination of the hitch and articulated steering provides good traction and terrain negotiability during difficult applications.



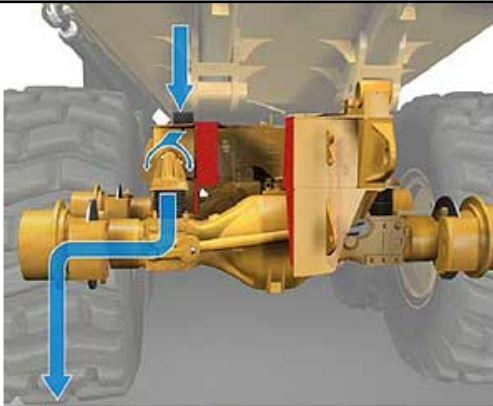
### Volvo axles

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.

Long service life.



# Features



## Bogie beam suspension

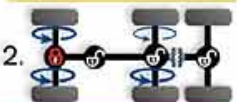
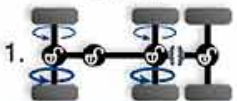
The unique bogie beam design has long travel and allows individual wheel movement maintaining good ground contact for superior off-road performance. Maintenance-free with long component life. Keeps the body level and the material in the body. A smooth floating ride for high operator comfort, improving productivity.



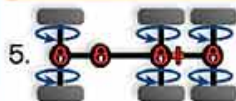
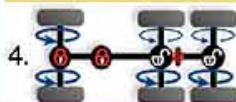
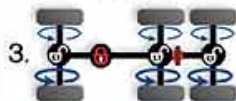
## Remote drains

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. Improves serviceability.

### 6X4



### 6X6



## Drive combinations

Five operating modes. A choice between 4- and 6-wheel drive (6X4 and 6X6) is available. 4-wheel drive is used in good operating conditions and one of the 6X6 modes is used under difficult conditions. The 4-wheel drive reduces fuel consumption, tire wear and drivetrain wear. The 6x6 is for tough/difficult operating conditions and on steep grades. Differential locks can be engaged and disengaged on the go.

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