VOLVO ARTICULATED HAULERS
A25D, A30D, A35D, A40D
Volvo haulers
- for higher productivity

Everyday, our haulers prove their power, flexibility and operational reliability on work sites all over the world. Now, we’ve developed the new generation of articulated haulers. The D-series, with increased payload and body capacities, can haul bigger loads, and faster – at a lower cost. Regardless of terrain and ground conditions, Volvo haulers are designed to ensure effectiveness through high availability – making your operation even more efficient.

The objective of Volvo’s machine development is to boost your productivity. That’s why we have developed our haulers even further and equipped them with new features that improve the efficiency of your operation. The comfortable operator environment is based on a proven cab design concept and suspension. In combination with new engines and transmission, it allows you to operate at higher average speeds. Our new patented Load & Dump brake and faster dumping hydraulics are just a couple of examples of how we’ve stepped up the pace and work capacity on loading and dumping sites.

**Faster dumping**
Gain time at the dumping site. The steering system makes it easy to position the hauler with great accuracy. The dumping system and the Load & Dump brake provide ease of operation, stability and effectiveness.

**Optimized work environment**
Keeps the operator going on long shifts. Good operator comfort means high productivity.

**Excellent off-road performance**
Takes you anywhere. Volvo haulers feature superior off-road characteristics.

**Higher availability**
For maximized uptime. Volvo haulers offer high availability. Service needs have been minimized.

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_Higher load capacity_
Haul even bigger loads. The dump body holds a bigger volume and load capacity has been increased.

_Safe downhill operation_
Easy to maintain speed downhill. The user-friendly retardation system facilitates control of the machine.

_Increased rimpull_
Faster uphill operation. Shifting is automatic, and the operator simply selects the most suitable drive combination.
Volvo haulers
-- for lower operating costs

All main components for our haulers are developed in-house by Volvo, for example, the drivetrain, frame, cab, electronics and software. This generates results: higher productivity, higher reliability and service friendliness. That's how we've been able to reduce the already low operating costs even more.

Better serviceability
Less downtime for service. The hauler concept is designed for optimal serviceability and access.

Minimized maintenance
Extended service interval times. Fewer oil and filter changes give higher availability, lower operating costs and reduced environmental impact. Automatic level checks and fewer lube points for more uptime.

Reliable
Maintain a high resale value. Long life components assure fewer repairs and a high second-hand value.

Durable
Minimizes drivetrain and tire wear. Various drive combinations give you flexibility: 6x4 drive on good ground conditions results in less tire wear and lower fuel consumption. 100% differential locks on all axles when operating off-road. Operator selectable on the move.

Fuel efficient
Save all the way. Volvo haulers have low fuel consumption -- in fact, the industry's lowest per hauled ton.
Volvo haulers
- for a high level of safety

Volvo haulers have excellent maneuverability, powerful steering and reliable brakes. Productivity increases, just like safety - in all stages of your operation. The D-series features Volvo’s frontrunner technology, automatically giving you overall peace of mind.

Improved access for service
Ease of servicing. Required maintenance work is reduced. Level checks are handled by the information system. Slip resistant surfaces and handrails provide easy and safe access to move around on the machine.

Enhanced visibility
Minimize blind spots. Volvo haulers are designed for good visibility around the machine.

Automatic emergency brake
Ensure secondary braking readiness. The automatic brake function helps provide for hauler safety.

Intelligent communication system
Machine work safety. The operator’s communication system warns the operator if, for example, the dump body is up and also indicates that the seat belt is unbuckled or the door is open.

Meet environmental requirements
Invest for the future. Volvo haulers fulfill current governing legislation with regards to emissions, external noise level and recycling.

Reduced waste
Reduce the amount of waste oil. Extended service intervals and fewer oil changes save limited resources.

Recycling
Prepared for recycling – from the beginning. The haulers are developed for recycling of components and oil.

Cleaner air
Save fuel. New engine with the industry’s lowest fuel consumption per hauled ton. Electronic engine controls help provide for lower emissions.
Volvo haulers offer a world-class operator's environment.

The foundation is the ergonomically designed cab with low sound levels, as well as the proven and simple yet comfortable front suspension. Rough operating conditions do not affect the operator's concentration and have no effect on the operator's performance during long shifts. Steering and braking have good reactions to the operator, similar to the steering feel of a truck.

Passive safety

The new, well-designed cab is an award winner. It is built using high-strength steel and meets ROPS/FOPS standards. Operator awareness is enhanced with features such as indication of raised dump body, unbuckled seat belt and open door.

The instructor's seat is located so that the instructor has access to important controls (within easy reach).

The operator's position is high for optimal visibility, yet protected by the front plate of the dump body.

Active safety

Volvo's self-compensating, hydro-mechanical steering system gives an accurate feel for the road - similar to the steering feel of a truck.

The steering is stable at high speeds and powerful when operating in off-road conditions. The heavy-duty design of the system ensures consistent steering performance for the entire life of the machine.

These features make the Volvo steering system superior to all other systems on the market.

The rounded and sloped hood improves visibility for the operator.

Great cab to work in

It's easy to access the cab. Correctly sized and positioned cab steps and a wide-door opening without a threshold. The cab is sound-insulated, spacious and pleasant with a well-designed, modern and practical interior.

The cab features a centrally located operator's seat and large glass areas. In combination with well-placed cab pillars and large rear-view mirrors, it offers exceptional visibility all around the machine. Excellent visibility means less operator fatigue, higher productivity and a safe work area.

Well-placed and user-friendly controls, ergonomic operator's seat, tilt-tilt-telescopic steering wheel and an effective climate control system all contribute to maintaining high operator efficiency and long-term high productivity.

Clear information

The user-friendly operator's communication system provides simple and easy-to-understand information. The system registers and saves operating information during the work cycle. All information is displayed in order of importance. The reliable communication system helps to make maximum production possible even in severe operating conditions.

Practical interior

The cab's interior is characterized by excellent practical and ergonomic solutions, and it's easy to keep clean.

When lowered, the instructor's seat becomes a table, next to a convenient 24 volt outlet. There is plenty of storage space for a lunchbox or cooler. To keep the floor clear, the hauler is equipped with several storage compartments, inside and outside the cab.

Optional equipment

If you want to enhance the operator's environment further, there is a wide range of optional equipment, from sun visors and air conditioning to a rear vision system.

The three-point suspension allows the operator to sit straight and comfortably, even when operating over rough ground and uneven surfaces.

Volvo haulers shift smoothly, reducing operator fatigue.
Volvo’s articulated haulers are equipped with a well-matched drivetrain for optimal use of engine power, torque and rimpull. Correctly matched and Volvo-designed drivetrain components, specifically developed for hauler applications, provide outstanding performance, high productivity, low fuel consumption and ensure long machine life. With Volvo’s haulers, you can set the benchmark for the highest average speeds on a wide range of work sites and applications. Our proven hauler transmission is unique. It's developed and purpose-built to give maximum performance.

**Electronic engine control**

Volvo haulers are equipped with turbo-charged high-performance low-emission diesel engines featuring electronically controlled injection and intercooler. Cooling is thermostat controlled, with a variable speed fan that only runs when there's a cooling demand, which means optimal use of power and lower fuel consumption.

The engine is electronically controlled by the machine’s advanced electronic system. Downtime for service is minimized and uptime is maximized for high productivity.

**Optimal shifting quality**

Volvo’s automatic planetary transmission, Powertronic, gives high shifting quality. The transmission has been designed so that shifting takes place at the right time to optimize rimpull and fuel economy and to extend drivetrain life. The dropbox is also optimized for the hauler concept, giving high ground clearance under the hitch. Transmission cooling is controlled by demand.

**Power - when and where it's needed**

Volvo’s haulers are flexible machines. The operator can optimize drive combinations based on the ground conditions.

On good haul roads, you can select 6x4 drive, which reduces tire wear and fuel consumption since fewer drive components are engaged. Only Volvo gives operators the option of selecting 6x4 drive.

When operating in rough conditions, you can select 6x6 drive – and 100% differential locks on one or all axles. Volvo’s drive combinations and 100% differential locks have been field-proven for years and are extremely reliable. The operator can engage and disengage different drive combinations on the move. This is a distinct and important advantage, especially when ground conditions change, as they often do, between the haul road and the dumping site. We also equip our haulers with various tire options for different applications.

The electronically controlled transmission allows the Volvo haulers to maintain high and constant speed during shifting.
Brakes and retarder
- increase productivity and reduce costs

Volvo haulers have service brakes on all wheels, and are not dependent on drivetrain components during braking. A40D is equipped with fully sealed, oil-cooled wet disc brakes, while the other hauler models are equipped with dry disc brakes. Fully sealed wet brakes are available as optional equipment for the A35D. The brake system has two separate circuits. If the pressure in both circuits should fail at the same time, the automatic emergency brake function is activated through application of the parking brake.

User-friendly retardation system
All Volvo haulers have a hydraulic retarder integrated in the transmission.

The retarder’s quick response and good sustained braking action makes it easier for the operator to run the hauler with optimum average speed throughout the cycle, at the same time reducing wear on the service brakes.

The foot-operated system is a user-friendly and effective alternative, allowing the operator to keep both hands on the steering wheel.

In the A35D and A40D, the retarder works together with a Volvo-patented engine brake: VEB (Volvo Engine Brake). The A25D and A30D are equipped with an exhaust retarder.

Unique Load & Dump brake
The new generation of Volvo’s articulated haulers feature the new and Volvo-patented load and dump brake. With the single press of a button, the transmission is shifted to neutral and all load unit service brakes are activated.

The brakes are released automatically when the gearshift control lever is moved past the neutral position once again.

Braking force with retardation system

* VOLVO  
* competitor
Frames and suspension
- Ensure stability and maneuverability

The steering, drivetrain, frame components and the machine’s centers of gravity are designed to work together. The combination allows our haulers to operate with high stability and control at high average speeds, even on long and difficult haul routes. The high ground clearance, the robust steel construction of the underbody and skid plates, as well as excellent bogie movement mean that our haulers can handle the roughest and hardest-to-reach loading and dumping sites. The frame design of the previous hauler generation has been improved with bearings of new design that minimize or eliminate lubrication needs.

Heavy-duty suspension
All axles have a maintenance-free three-point suspension. Three-point suspension makes it possible for each axle to move independently in rough operating conditions, which gives less stress on the frame, optimal ground contact and rim pull while the body remains level.

The well-functioning, reliable and proven design with rubber springs and shock absorbers provide very good operator comfort.

Volvo’s proven bogie system, well-known for its reliability and long suspension stroke, is at work under the load unit. The bogie system is centered around a heavy-duty bogie member rubber bushing.

Rugged frame
The underside of the machine has no fragile plastic parts or exposed joints. It’s made of steel right through. All components, even the vulnerable rear cross stay are well-protected either above or in the frame construction.

The reliable three-point suspension consists of heavy-duty components. A simple and durable design that gives a comfortable smooth ride.
High-efficiency dumping
When dumping, the shape of the load body promotes release of the load and ensures that it ejects far beyond the rear wheels. The machine’s high ground clearance, high placement of the dump hinge and the shape of the load body make it possible to run the machine forward with the body up, without displacing the dumped material or contact with the dump edge when dumping over an edge. The need for dozers on the dumping site is minimized.

The new dumping hydraulics with higher pressure and greater oil flow have reduced dumping times. The two powerful double-acting hoist cylinders quickly lift and lower a full load with optimal control.

Optional equipment
The load body can be adapted to different materials with optional equipment such as tailgates, body side extensions, body heating and extra front spill guard.
The new haulers have stepped into the future, where the demand for minimized service and reduced service downtime is becoming more important. When you operate Volvo haulers, the daily service requirements are reduced by using monitored oil and fluid level checks as well as new types of bearings. We have succeeded in reducing the service needs to a low level.

**Coordination advantages**
At pace with the ever-increasing environmental requirements, electronics are making their way into the machines – and we’ve used that to the greatest extent.

By coordinating electronic development for the machines, we have attained several advantages: Volvo has one system, whereas others are forced to handle and maintain several different systems. Volvo’s system can read off various machine data, which allows direct analyses of machine operation and quick diagnostics. Performance of Volvo haulers is optimized due to communication between components.

Since other Volvo CE products and Volvo trucks also use these systems, component coordination and experience are great advantages.

**Easy access for service**
Volvo haulers feature new and practical solutions, like the easily accessed filters and better accessibility around the engine. These are just a couple of all the improvements we’ve introduced to make the Volvo D-series the world’s most service-friendly hauler!

Required service points have good access, and servicing is easy from conveniently located service platforms or from the ground level. Slip-resistant material around the cab and handrails along the cab roof facilitate work, such as washing windshields and side windows.

**Spare parts and service contracts**
Volvo is the frontrunner when it comes to worldwide service. One of the great challenges we face is training mechanics and supporting them with an organization for quick distribution of spare parts.

At Volvo, we put considerable effort and work into coordinating components between the different machine types, all to minimize the amount of parts.

We also offer special tools as well as service and support contracts.
The A25D – A30D in detail

**Service**
The A25D and A30D are designed with a focus on operator comfort and efficiency. The Cab, designed for high operator visibility, ergonomics, and comfort, includes air conditioning, a luxurious operator’s seat with flameproof upholstery, and an overhead console for radio and storage. The hydromechanical self-compensating articulated steering system offers precise control at high speeds, ensuring safe and accurate maneuvering. The fully automatic planetary transmission with six forward gears and two reverse gears, along with an integral variable hydraulic retarder, provides smooth acceleration and efficient torque management.

**Engine**
Volvo inline 6-cylinder, direct injected electronic control, turbocharged, intercooled 4-cylinder low emission diesel engine with wet replaceable cylinder liners. The engine power is 228 kW (310 hp) and maximum torque is 1321 Nm which corresponds to DIN 70020.

**Transmission**
Transmission: Volvo, 18-speed manual or automatic with overdrive. An integral variable hydraulic retarder is included for smooth and efficient downshifting.

**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.

**Brake System**
Dual circuit system with air hydraulic disc brakes. Complies with ISO 4396 and SAE J1473 at total machine weight. Service brakes: Dry discs on all wheels. Circuit design: One circuit for front side and one for bogie axles.

**Suspension System**
Volvo’s unique terrain bogie permits 6x4 or 6x6 drive, operator’s seat with flameproof upholstery. Retractable seat belt. Internal sound level, ISO 6396 74 dB (A).

**Electrical System**
Battery: 2x170 Ah Alternator: 1.54 kW (55 A) Starter motor: 6.6 kW (9 hp). Electrical system complies with SAE J1349. Ground dependent power is 228 kW (310 hp) and maximum torque is 1321 Nm which corresponds to DIN 70020.

**Hydraulic System**
Load-sensing variable displacement piston pumps that consume power only when needed.

**Cabin**
Volvo’s unique cab design integrates the icy cold, dry climate, and rugged terrain, providing a comfortable and functional environment for the operator. The spacious and ergonomic design includes an operator’s seat with flameproof upholstery, a luxurious overhead console for radio and storage, and storage bins.

**Drivetrain**
The drivetrain is designed for maximum efficiency and durability. The engine power is 228 kW (310 hp) and maximum torque is 1321 Nm which corresponds to DIN 70020.

**Electrical System**
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**Drivetrain**
The drivetrain is designed for maximum efficiency and durability. The engine power is 228 kW (310 hp) and maximum torque is 1321 Nm which corresponds to DIN 70020.
The A35D - 40D in detail

Service
The computerized information system monitors all fluid levels, maintaining 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 banks, located in front of engine. Large, "90°" opening hood for total engine access. Removable drain hoses and swing out radiator for easy cleaning.

Fill capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>A35D</th>
<th>A40D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolant</td>
<td>30 l</td>
<td>30 l</td>
</tr>
<tr>
<td>Fuel</td>
<td>40 l</td>
<td>40 l</td>
</tr>
<tr>
<td>Oil</td>
<td>10 l</td>
<td>10 l</td>
</tr>
<tr>
<td>Per axle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake cooling tank</td>
<td>10 l</td>
<td>10 l</td>
</tr>
<tr>
<td>Hybrid 250 l</td>
<td>250 l</td>
<td></td>
</tr>
</tbody>
</table>

Engine
Volvo inline 6-cylinder, direct injected electronic controlled, turbocharged, intercooled 4-cycle low emission diesel with wet replaceable cylinder liners.

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

Engine brake: VEB (Volvo Engine Brake) includes compression and exhaust brake.

A35D: Make, model: Volvo D12C ADE2** Make, model: Volvo D12C ADE2**

A40D: Make, model: Volvo D12C ADE2** Make, model: Volvo D12C ADE2**

A35D: Max power at 30 r/s (1 800 r/min) SAE J1349 Net, DIN 6271***

A40D: Max power at 30 r/s (1 800 r/min) SAE J1995 Gross, DIN 6271***

Max power at 30 r/s (1 800 r/min) SAE J1349 Net, DIN 6271***

A35D: Automatic upshift low range to high range in 6th gear.

A40D: Automatic upshift low range to high range in 6th gear.

Battery capacity: 2x170 Ah

Voltage: 24 V

Alternator: 1,54 kW (55 A)

Starter motor: 7,2 kW (10 hp)

Hydraulic system

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

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

Pumps: One circuit for front axle and selectable on the move.

Cylinders: 40D in detail

Pumps:
Pumps that consume power only when needed.

Hydraulic system

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

Pumps: One circuit for front axle and selectable on the move.

Cylinders: 40D in detail

Suspension

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

Front axle: The front suspension consists of one rubber spring, a stabilizer and three shock absorbers on each side.

Bogie: Volvo’s unique tandem bogie permits long suspension travel and independent wheel movement, keeps the body level, retaining the load.

Hydraulic system

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

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

Filtration: Through two glass fiber filters with magnetic cores.

Battery capacity: 2x170 Ah

Voltage: 24 V

Alternator: 1,54 kW (55 A)

Starter motor: 7,2 kW (10 hp)

Hydraulic system

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

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Cab

Volvo cab, designed for high operator visibility, ergonomics and comfort. Volvo’s unique tandem bogie permits long suspension travel and independent wheel movement, keeps the body level, retaining the load.

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STANDARD EQUIPMENT A35D - A40D

Sensitivity
- ROPS/FOPS cab
- Anti-slip material on fenders and hood
- Dump body lock
- Heated flashers
- Handrails on fenders
- Horn
- Protective grille for rear window
- Rear-view mirrors
- Retractable 3 inch wide side belt
- Secondary steering
- Steering joint locking assembly
- Windshield wipers or intermittent
- Windshield washers

Comfort
- Top telescopic steering wheel
- Aircon
- Cab heater with filtered fresh air and defroster
- Can holder / storage tray
- Cigarette lighter
- Heated and air suspended fully adjustable operator’s seat
- Instrument lighting
- Overhead console for radio and storage
- Space for lunch cooler
- Storage box
- Sun visor, front windows
- Tinted glass

Engine
- Direct injected, electronically controlled
- Volvo Engine Brake, VEB
- Coolant filter
- Intercooler, air-to-air cooler
- Remote oil filter for ease of access
- Pto shaft
- Remote oil drainage plug and hose
- Preheater for easier cold starts

Torque converter with automatic lock-up
- Variable hydraulic transmission retarder
- Drive train: High torque range
- Cab or flat floor operator selectable drive modes
- 100% longitudinal differential lock
- 100% differentials in all axles

Brakes
- Two circuit, fully hydraulic disc brakes on all axles
- Volvo Engine Brake (VEB) activation in brake pedal

Tires
- A35D: 24,5R25
- A40D: 29,5R25

Other
- Air filter
- Tool box

OPTIONAL EQUIPMENT A35D - A40D

(Standard on certain markets)

Sensitivity
- Fire extinguisher and first aid kit

Service and maintenance
- Tool kit with tire inflation unit
- Electrical hood opening

Engine
- Engine coolant pre heater (120V or 240V)
- External water-cooling system
- Extra engine air cleaner
- Delayed engine stop

Electrical
- Anti-rollback system (prevents engine over)
- Headlights for left hand traffic
- Rear alarm system
- Reverse alarm
- Rotating beacon, collapsible mount
- Work lights, forward, roof mounted
- Work lights, rearward, fender mounted

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 machines.
Volvo Construction Equipment is one of the world’s leading manufacturers of construction machines, with a product range encompassing wheel loaders, excavators, articulated haulers, motor graders and more.

The tasks they face vary considerably, but they all share one vital feature: technology which helps man to perform better, safely, efficiently and with care of the environment. We refer to it as Technology on Human Terms.

The sheer width of the product range means it is always possible to choose exactly the right machine and attachment for the job. Each machine also comes with the quality, continuity and security which is represented by the Volvo name. The strength of the service and parts organizations; the security of always having immediate access to leading-edge research and technical development are part of the Volvo name. A machine from Volvo meets the very highest demands in all kinds of jobs, under all conditions, the world over.

Volvo Construction Equipment develops, manufactures and markets construction equipment. We are a Volvo company with production facilities on four continents and a market presence in over 100 countries.

For more information please visit our website: www.volvo.com

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