

VOLVO ARTICULATED HAULER

A35D, A40D



VOLVO

HIGH PRODUCTIVITY AT LOW COST

The possibility of maintaining high average speed, high load capacity and powerful dump hydraulics – all contribute to making Volvo one of the most productive articulated haulers on the market. The low fuel consumption, the hydraulic retardation system and the fact that Volvo's haulers need no daily or weekly service keep operating costs low. In short – high productivity at low cost.

Outstanding maneuvering characteristics

When it comes to effective hauling in rough terrain, Volvo A35D and A40D are hard to beat. The ingenious frame steering and frame joint are unsurpassed solutions for all types of transports where accessibility is the decisive factor. Together with Volvo's unique Hydro-Mechanical Self-Compensating Steering system, Volvo's articulated haulers offer outstanding operating and maneuvering characteristics, both on and off the road.

More effective work at lower cost

Volvo always strives for increased productivity. That's why our articulated haulers have high load capacity and high average speed. Both A35D and A40D have a well-adapted body volume for effective transport of big loads.

Our in-house developed engines, our patented Load & Dump brake, as well as the fast dump hydraulics, make it possible to pick up the pace on the worksite. This gives high-efficiency work cycles, and you can haul even more, even faster – for the lowest cost possible.

Key Features:

Adapted load capacity

The high body volume enables faster hauling of bigger loads.

High-efficiency dumping

The powerful and accurate dump system and the Load & Dump brake facilitate the dump cycle and reduces costs.

Higher rimpull

Higher rimpull means faster uphill runs; shifting is automatic, leaving the operator free to select the ideal drive mode for the terrain.

Simple and fast service

All service points are easily accessible, which simplifies service and reduces downtime.

Cost control

Volvo's various service, maintenance and repair agreements assist you with cost control.

Volvo – the safe choice

Safety is one of Volvo's core values. Already at the design and engineering stage, safety issues always have highest priority. It's all about safety for operators, machines and the environment.

Volvo – the reliable choice

When you choose an articulated hauler from Volvo, you choose a company and product you can trust.

Our global dealer network of well-trained service professionals minimizes downtime. Genuine spare parts and factory remanufactured genuine parts for repairs also contribute to shorten downtime. Volvo strives for the most cost-effective solutions during the machine's entire operating life.

Volvo – the environment-friendly choice

Care for the environment is another Volvo core value. That's why Volvo's haulers are designed for minimal environmental impact.

A safe and comfortable operator environment



High average speed and optimal performance



Fast and controlled dumping



Service-friendly and long service intervals





A PERFECT WORKPLACE

The most important thing in Volvo's articulated haulers is the operator. Despite all the technological development, only a pleased and effective operator can do justice to our productive haulers. And one condition for a satisfied operator is a good workplace. For many years, Volvo has been the market leader in operator environment and, with the award-winning cab in the A35D and A40D, we have solidified that position. It is a safe and comfortable workplace, which means that the operator can concentrate on effective operation from the beginning to the end of a long shift.

Spacious and ergonomical

The cab in A35D and A40D has more room than before. There's lots of interior space for lunch boxes, extra boots or other items the operator wants in the cab.

Adjustable tilt/telescopic steering wheel, and the ergonomically-designed, air-suspended seat is easily adjusted for optimal comfort. All controls are user-friendly and located within easy reach.

Always comfortable

Internal and external sound levels have been reduced to be the lowest in the industry. Volvo's proven and durable suspension eliminates impact on the operator. Together with our effective climate control system we offer the best operator comfort, regardless of the outside temperature.

Excellent overall visibility

The operator's seat is positioned in the center of the machine, and the operator sits up high for maximal visibility over the surroundings. Well-dimensioned rearview mirrors, large windows and well-placed cab pillars all combine to give excellent overall visibility, which is a prerequisite for both high safety and high productivity.



Informative instrument panel

The panel gives the operator a good overview of all important information. In this way, the operator can plan the work for optimal productivity and fuel consumption.

Clear information

The operator communication system gives the operator clear and easy-to-understand information throughout the work cycle.

Practical interior

The operator's seat can be lowered and used as a table, cab lights and a 24 V power outlet close by, as well as lots of storage space.

Easy entry and exit

Wide and threshold-free door opening for easy entry and exit.



OPTIMAL RIMPULL IN ALL APPLICATIONS

The drivetrain in Volvo's articulated haulers is incomparable. Every part of the drivetrain is developed in-house, which not only gives optimal rimpull but also results in higher operating reliability and considerably lower fuel consumption when compared to the competition. Our drivetrain also contributes to giving our machines longer service lives. With the A35D and A40D you can operate at the highest possible speeds in most applications and in the most extreme operating conditions. Volvo's proven transmission gives the hauler maximum performance during the entire haul cycle.

Optimal performance

Volvo's automatic Powertronic transmission brings maximum performance to your hauler. The transmission always shifts at exactly the right time and without rimpull loss.

The right power at the right time

Volvo's articulated haulers are the most flexible haulers on the market and give the operator full control to optimize the machine driveability for any operating condition.

For example, on good haul roads the operator can choose to operate with 6x4 drive to save fuel and reduce tire wear. None of our competitors offer this feature.

When operating in rough conditions, the operator selects 6x6 drive and 100% differential locks on one or all axles. Differential locks are selectable on the move, which is a great advantage when operating in varying ground conditions.

Electronic engine control

The turbocharged high-performance, low-emission diesel engine features electronically-controlled direct injection and intercooling. Cooling is controlled by demand, thus consuming only minimal power.

6x4 drive during fast hauling

Only Volvo gives the operator the choice of 6x4 drive, resulting in less tire wear and lower fuel consumption.

Powertronic gives optimal performance

Volvo's automatic Powertronic transmission gives optimal performance and comfort.

High torque at low engine speeds

Volvo's engines give high torque at low engine speeds, which means long engine life and low fuel consumption.

Low emissions

The electronically-controlled engine provides high power and effective combustion with low emissions.





ONE OF THE MOST PRODUCTIVE ARTICULATED HAULERS ON THE MARKET

Today, Volvo manufactures one of the most productive articulated haulers available on the market. There are many reasons for this, but three very important reasons include the unique brake system, the effective retardation system and the fast dump system. These features enable effective work even in the toughest conditions and help the operator keep up the pace without tiring.

Efficient brakes

The system has two separate circuits for maximum safety. Should the pressure drop in both circuits for some reason, the parking brake is activated automatically, acting as an emergency brake. The parking brake can hold a fully loaded machine on grades up to 18%.

Retardation system minimizes operating costs

Volvo A35D and A40D are equipped with a hydraulic retardation system built into the transmission. The retarder's fast response and high performance make it possible for the operator to operate at higher average speed throughout the work cycle. At the same time, wheel brake wear is minimized, which in turn reduces operating costs.

The foot-operated retardation system is user-friendly, effective and safe since the operator never has to let go of the steering wheel.

Fast and controlled dumping

With optimized pressure and oil flow, Volvo's double-acting hoist cylinders cut time at the dump site. A fully loaded body is hoisted in 12 seconds and lowered in 9 seconds – with complete control. The effective hydraulic system makes it possible to place the load exactly at the right place, even on downhill grades.

The machine's high ground clearance, the high placement of the dump joint and the body's shape give the machine the ability to dump the load over the dump edge, minimizing the need for dozers.

Volvo's unique and user-friendly Load & Dump brake gives both higher productivity and lower operating costs. The load unit's service brakes apply while the transmission is shifted to neutral simply by pressing a button during loading and dumping.



Optimized for effective loading

The load body is wide and open, and it's optimized for loading with excavators. The body's shape enables even load distribution.

Unique Load & Dump brake

Simply by pressing a button, the transmission is shifted to neutral, and all service brakes on the load unit are activated.

Dumping on downhill grades

Volvo's high-performance hydraulic system together with the double-acting singlestage hoist cylinders have all the power it takes to raise and lower the body on downhill grades.

Dump lever increases safety

Dumping and lowering of the body is controlled with the pilot-operated dump lever. The lever automatically moves to the hold position when, e.g., the operator leaves the seat.

Optional equipment

The body can be adapted to a wide range of loads with optional equipment, including tailgates, upper side extensions, body heating and front spillguard.



OPTIMAL STABILITY AND OUTSTANDING MANEUVERING CAPABILITY

Volvo's articulated haulers are built for tough real-life conditions. They can operate at high speed even on the most challenging haul routes, and they work effectively on the roughest, hard-to-reach load and dump sites. Volvo's unique steering system and innovative bogie suspension gives the hauler the best possible traction, so the operator stays in complete control.

By far, the best steering system on the market

Volvo's unique Hydro-Mechanical Self-Compensating Steering system gives a unique feel for the road, only comparable to that steady automotive-type feel. Volvo's unique steering system has a feedback rod that senses and acts to neutralize external forces for stable operating control, and the steering angle is always the same for a given steering wheel position. These features make Volvo's steering system superior to other systems on the market and give the operator complete control of the machine. Steering is very stable even at high speeds, and it's also very powerful in off-road operation. Simply put, the system makes operating Volvo's articulated haulers both safer and easier.

Unbeatable off-road performance

Volvo's innovative and unique bogie suspension gives our haulers unbeatable off-road performance with good ground contact on all the wheels. It is maintenance-free and built using only components with very long life. The straddle-mounted bogie beam minimizes stresses on the frame.

Maintenance-free wheel suspension

Volvo's proven three-point suspension is just as uncomplicated as it is effective. It gives good ground contact, even at high speeds, in rough operating conditions. The system is completely maintenance-free, which further reduces operating costs.





Key Features

- Volvo's unique Hydro-Mechanical Self-Compensating Steering system
- Volvo's innovative bogie suspension with straddle-mounted bogie beam
- Volvo's proven, maintenance-free three-point suspension



NO DAILY SERVICE REQUIRED

Our aim is to increase time for productive work, and that's why we have minimized service needs for our articulated haulers. Service stops should be few and short. That's why there's no daily or weekly servicing needed for the A35D and A40D! With lifetime-lubed bearings on steering cylinders and steering joints, as well as monitored checks of oil and fluid levels, we have reduced service needs to an absolute minimum.

Service-friendly

Volvo's articulated haulers reduce the need for daily and weekly service and maintenance. Scheduled greasing is only needed every 250 hours!

There are only a few service points, and servicing is easy – that means reduced downtime. All filters are easy to reach, the engine hood can be opened a full 90°, and the swing-out front grill makes it easy to access service points on the engine. Longer service intervals give simpler maintenance and more time for productive work.

Safe service

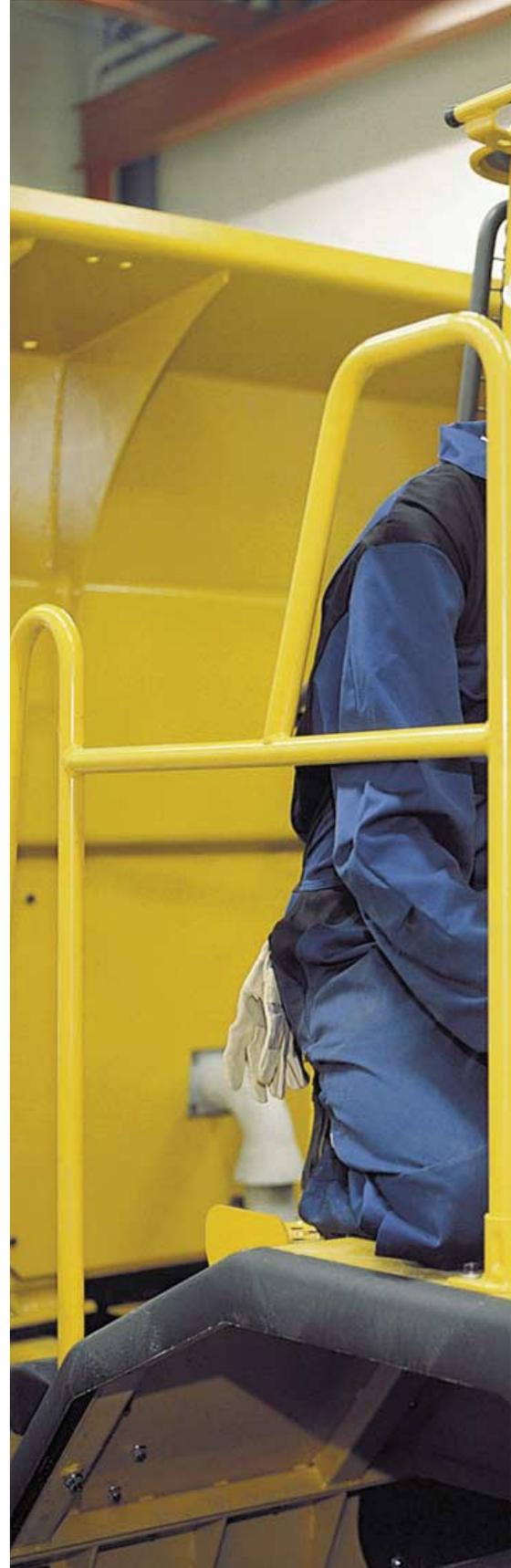
In order to increase safety, all service on the A35D and A40D is performed comfortably and safely at ground level or, when necessary, from easily accessed and sturdy platforms. There are anti-slip surfaces all around the cab, and along the roof there are handrails, making it easy to clean the windows.

Get control of your profitability and efficiency

When you choose a Volvo articulated hauler, you also share in all of Volvo's knowledge and experience with construction equipment. With Volvo you always have the ability to easily gather a vast amount of information, which gives you fast diagnosis and immediate analysis of machine operation.

Our follow-up system, Matris, gives you fast and easy control of the machine and costs. Matris provides you with detailed reports and analyses of the machine's operating history, giving you the opportunity to continuously check and correct your operating methods. This means lower costs for maintenance and repairs, as well as longer machine life.

Our user-friendly system PROSIS gives you fast access to necessary information about spare parts on CD. PROSIS contains parts catalogs and service information for the vast majority of products from Volvo Construction Equipment.





Commonality of components

A lot of spare parts are the same for different Volvo machines, which contributes to good service and maintenance economy.

Available spare parts

Volvo's global organization enables fast distribution of spare parts, wherever you are.

Highly-trained service technicians

Throughout the world there are dealers with competent technicians trained by Volvo.

Advantageous service agreements

Volvo offers optional service tools and a wide range of advantageous service and support agreements.



THE VOLVO A35D AND A40D IN DETAIL

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.

Serviceability

1 No daily or weekly service

The Contronic 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.

2 Excellent serviceability

Swing down front service platform with access ladder to remote filter bank, located in front of engine. Grouped engine filters and remote mounted drains reduce service time. Large, 90° opening hood for total engine access.

Productivity and Performance

3 High-performance, low-emission engine

The Volvo inline 6-cylinder, direct injected, electronically-controlled, turbocharged and intercooled 4-stroke diesel engine generates high torque at low rpm for quick response and low exhaust emissions that meet existing requirements.

4 High-capacity cooling system

Power and fuel saving, hydraulically driven, side mounted variable speed fan consumes power only when needed.

5 Brakes and Retarder

Dual-circuit, fully hydraulic brakes with enclosed, forced oil-cooled multiple disc brakes on all wheels for maximum safety. Separate brake cooling for each axle. An easy-to-use, variable hydraulic transmission retarder reduces service brake wear and operating cost.

6 Volvo drivetrain

Correctly matched, Volvo-designed components, specifically developed for hauler applications. Low power losses and long service life.

7 Purpose-built dropbox

Optimized rimpull and speed in all operating conditions. Good ground clearance.

8 Volvo's unique Self-Compensating Hydro-Mechanical Steering

Easy high-speed driving and steering accuracy promoting productivity. Fast acting, powerful steering with 3,4 turns lock-to-lock for slow speed maneuverability in rough conditions.

9 State-of-the-art hydraulic system

Variable displacement piston pumps consume power only as required. One ground-dependent piston pump for secondary steering mounted on the dropbox.

10 Rotating hitch

Rotating hitch and articulated steering provides good traction, off-road mobility and less stress on the frames in tough applications. High-positioned hitch provides superior clearance and stability.

11 Heavy-duty axles

Purpose built Volvo design with fully floating axle shafts, planetary type hub reductions and 100% dog clutch type diff. lock.

12 6x4 or 6x6 with five operating modes

Five easy-to-use drive combinations for every type of operating condition increases off-road mobility, reduces fuel consumption, driveline and tire wear. Operator-selectable on the move.

13 High-strength steel 400 HB body

Flat plate design with high chute and tipping joint with 70° or greater dump angle promotes load retention and ejection.

14 Maintenance free suspensions

Front axle has independent wheel movement via a 3-point mounting system, consisting of rubber springs and shock absorbers.

Rear bogie beam is straddle mounted with two A-frames, gives large wheel movement, low frame stress and keeps the body level, retaining the load. Low pivot point enhances stability.

15 Volvo Load & Dump brake

The Volvo patented "Load and Dump brake" function maximizes ergonomics and enhances productivity. When positioning the articulated hauler for loading or dumping, the operator only needs to press a single button to automatically apply the trailer brakes and shift the transmission to neutral.

Low operating cost

All main components for our haulers are developed in-house by Volvo, including the drivetrain, frame, cab, electronics and software. This generates results: higher productivity, higher reliability and service friendliness. All working together to reduce operating cost.



Operator Comfort and Safety

16 Excellent operator environment

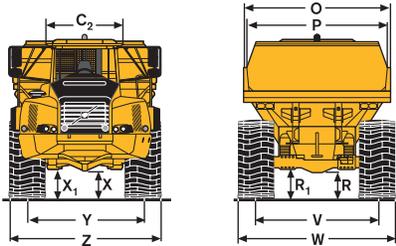
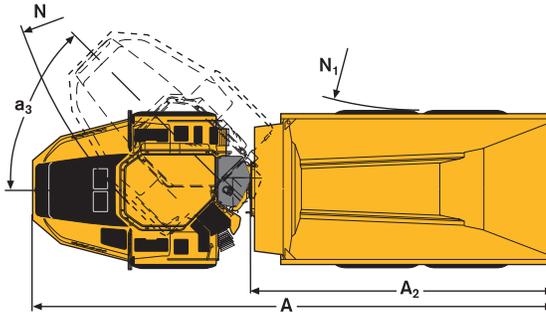
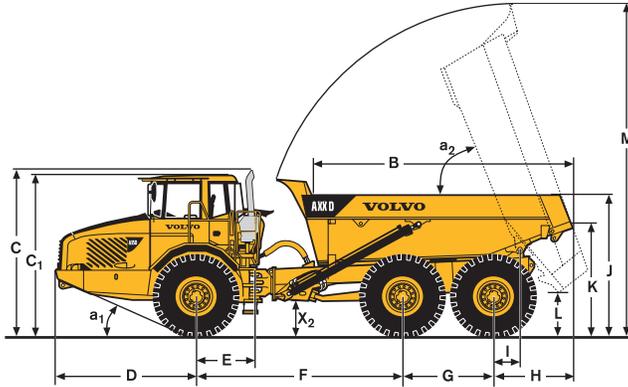
The Volvo cab is a safe, comfortable, efficient and ROPS/FOPS certified operator environment, ergonomically-designed for high operator comfort and excellent unobstructed wide angle forward view. Wide threshold-free door opening and ergonomic cab entrance. Operator positioned above the front axle and in the center of the machine, together with the spacious and comfortable cab contributes to high productivity from the beginning to end of the shift.

Ergonomically-positioned controls, air-conditioning, adjustable operators seat with retractable seat belt and tilt/telescopic steering wheel for reduced operator fatigue and high safety. Filtered fresh air, four-speed fan and pressurized cab to maintain a clean operating environment.

17 Operator communication system

The user-friendly operator's communication system provides simple and easy-to-understand information. All vital machine functions are constantly monitored, and specific system information is displayed if a problem occurs. Service technicians can increase their diagnostic efficiency by using the Contronic service display or Matris software to download operating information stored in the Contronic system.

SPECIFICATIONS



Load Capacity		
	A35D	A40D
Standard Body		
Load capacity	32 500 kg 36 sh tn	37 000 kg 41 sh tn
Body, struck	15,2 m ³ 19.9 yd³	16,9 m ³ 22.1 yd³
Body, heaped	20,0 m ³ 26.2 yd³	22,5 m ³ 29.4 yd³
With overhung tailgate		
Body, struck	15,5 m ³ 20.3 yd³	17,2 m ³ 22.5 yd³
Body, heaped	20,7 m ³ 27.1 yd³	23,2 m ³ 30.3 yd³

Body volume according to SAE 2:1

Weights		
	A35D	A40D
Tires	26,5R25*	29,5R25**
Operating weight unloaded		
Front	15 320 kg 33 775 lb	16 300 kg 35 935 lb
Rear	12 980 kg 28 616 lb	14 970 kg 33 003 lb
Total	28 300 kg 62 391 lb	31 270 kg 68 938 lb
Payload	32 500 kg 71 650 lb	37 000 kg 81 571 lb
Total weight		
Front	17 770 kg 39 176 lb	19 170 kg 42 263 lb
Rear	43 030 kg 94 865 lb	49 100 kg 108 247 lb
Total	60 800 kg 134 041 lb	68 270 kg 150 509 lb

Operating weight includes all fluids and operator
 *) A35D with tires 775/65R29, add 200 kg
(441 lb)/ axle
 **) A40D with tires 875/65R29, add 300 kg
(661 lb)/ axle

Pos	Metric (mm)		Imperial (Feet)	
	A35D	A40D	A35D	A40D
A	11 178	11 287	36'8"	37'0"
A ₂	6 224	6 428	20'5"	21'1"
B	5 527	5 730	18'2"	18'10"
C	3 681	3 746	12'1"	12'3"
C ₁	3 560	3 626	11'8"	11'11"
C ₂	1 768	1 768	5'10"	5'10"
C ₃	3 987	4 093	13'1"	13'5"
D	3 103	3 103	10'2"	10'2"
E	1 275	1 275	4'2"	4'2"
F	4 501	4 448	14'9"	14'7"
G	1 820	1 940	6'0"	6'4"
H	1 754	1 796	5'9"	5'11"
I	725	638	2'5"	2'1"
J	2 912	3 075	9'7"	10'1"
K	2 302	2 492	7'7"	8'2"
L	915	906	3'0"	3'0"
M	7 242	7 384	23'9"	24'3"
N	8 720	8 863	28'7"	29'1"
N ₁	4 397	4 238	14'5"	13'11"
O	3 103	3 268	10'2"	10'9"
P	2 870	3 078	9'5"	10'1"
R	584	654	1'11"	2'2"
R ₁	670	751	2'2"	2'6"
U	3 528	3 590	11'7"	11'9"
V	2 515	2 636	8'3"	8'8"
V*	2 625	-----	8'7"	-----
W	3 208	3 432	10'6"	11'3"
W*)**	3 410	3 570	11'2"	11'9"
X	572	617	1'11"	2'2"
X ₁	606	639	1'0"	2'1"
X ₂	720	765	2'4"	2'6"
Y	2 515	2 636	8'3"	8'8"
Y*	2 625	-----	8'7"	-----
Z	3 208	3 432	10'6"	11'3"
Z*)**	3 410	3 570	11'2"	11'9"
a ₁	23°	25°	23°	25°
a ₂	70°	70°	70°	70°
a ₃	45°	45°	45°	45°

A35D: Unloaded machine with 26,5R25

A40D: Unloaded machine with 29,5R29

*) A35D with optional 775/65R29 tires

**) A40D with optional 875/65R29 tires

Body material		
Front	8 mm	(0.31")
Sides	12 mm	(0.47")
Bottom	14 mm	(0.55")
Chute	16 mm	(0.63")
Yield strength	1000 N/mm ²	(145000 psi)
Tensile strength	1250 N/mm ²	(181000 psi)
Hardness	400 HB	

Ground Pressure				
	A35D		A40D	
	26,5R25	775/65R29	29,5R25	875/65R29
Unloaded				
Front	128 kPa (18.6 psi)	110 kPa (16.0 psi)	115 kPa (16.7 psi)	100 kPa (14.5 psi)
Rear	54 kPa (7.8 psi)	46 kPa (6.7 psi)	53 kPa (7.7 psi)	47 kPa (6.8 psi)
Loaded				
Front	149 kPa (21.6 psi)	128 kPa (18.6 psi)	135 kPa (19.6 psi)	118 kPa (17.1 psi)
Rear	180 kPa (26.1 psi)	153 kPa (22.2 psi)	172 kPa (24.9 psi)	150 kPa (21.8 psi)

At 15% sinkage of unloaded radius and specified weights.

Speed		
Forward, low gear		
1	6 km/h	(4.0 mph)
2	9 km/h	(6.0 mph)
3	16 km/h	(10.0 mph)
4	24 km/h	(15.0 mph)
5	31 km/h	(19.0 mph)
6	41 km/h	(25.0 mph)
Automatic upshift to 6th gear, High range		
6	55 km/h	(34.0 mph)
Forward, high gear		
1	9 km/h	(6.0 mph)
2	13 km/h	(8.0 mph)
3	23 km/h	(14.0 mph)
4	33 km/h	(20.0 mph)
5	42 km/h	(26.0 mph)
6	55 km/h	(34.0 mph)
Reverse, low gear		
1	6 km/h	(4.0 mph)
2	10 km/h	(6.0 mph)
Reverse, high gear		
1	8 km/h	(5.0 mph)
2	14 km/h	(9.0 mph)

Engine

The D12D engine is emission certified as a Family Engine with the following output data:
 Rated power at 31,7 r/s (1 900 rpm)
 SAE J1995 Gross 280 kW (375 hp)
 Max. torque at 20 r/s (1 200 r/min)
 SAE J1995 Gross 2100 Nm (1549 lb ft)

A35D

Make, model	Volvo D12D AAE2*/AAE3**
Max. power at	30 r/s (1 800 r/min)
SAE J1995 Gross	289 kW (387 hp)
Flywheel power at	30 r/s (1 800 r/min)
SAE J1349 Net, DIN 6271***	285 kW (382 hp)
Max. torque at	20 r/s (1 200 r/min)
SAE J1995 Gross	1 950 Nm (1 438 lb ft)
SAE J1349 Net, DIN 6271***	1 915 Nm (1 412 lb ft)
Displacement total	12 l (732 in ³)

With fan operating at full speed, the flywheel power is 277 kW (371 hp) and maximum torque is 1 860 Nm (1372 lb ft) which corresponds to DIN 70020.

	A35D		A40D	
	Litre	(US gal)	Litre	(US gal)
Crankcase	50	(13.2)	50	(13.2)
Fuel tank	480	(126.8)	480	(126.8)
Cooling system	117	(30.9)	117	(30.9)
Transmission total	48,5	(12.8)	48,5	(12.8)
Dropbox	10,5	(2.8)	10,5	(2.8)
Axles, front/ rear	48	(12.7)	55	(14.5)
Brake cooling tank	- - -	- - -	103	(27.2)
Hydraulic tank	250	(66.0)	250	(66.0)

A40DD

Make, model	Volvo D12D ABE2*/ABE3**	
Max. power at	30 r/s (1 800 r/min)	
SAE J1995 Gross	313 kW (419 hp)	
Flywheel power at	30 r/s (1 800 r/min)	
SAE J1349 Net, DIN 6271***	309 kW (414 hp)	
Max. torque at	20 r/s (1 200 r/min)	
SAE J1995 Gross	2 100 Nm (1549 lb ft)	
SAE J1349 Net, DIN 6271***	2 056 Nm (1517 lb ft)	
Displacement total	12 l (732 in ³)	

With fan operating at full speed, the flywheel power is 301 kW (403 hp) and maximum torque is 2 010 Nm (1 483 lb ft) which corresponds to DIN 70020.

*) Meets US (EPA) tier 2, California (CARB) tier 2 and Europe (EU) step 2.
 **) Meets US (EPA) tier 3
 ***) with fan at normal speed.

Engine brake: Exhaust retarder.

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 water-proofing as necessary.

Voltage	24 V
Battery capacity	2x170 Ah
Alternator	2,24 kW (80 A)
Starter motor	7,2 kW (10 hp)

Drivetrain

	A35D	A40D
Torque converter	1,95:1	1,95:1
Transmission, Volvo	PT 1860	PT 1860
Dropbox	FL 992	FL 1002
Axles, Volvo	AH 64	AH 71

Brake system

A35D: Fully hydraulic, dry disc brakes on all wheels. Two circuits. Well protected components. Complies with ISO 3450 and SAE J1473 at total machine weight.

A40D: Fully hydraulic, wet multiple disc brakes with enclosed, forced oil-cooled multiple discs on all wheels. Two circuits. Separate brake cooling for each axle. Complies with ISO 3450 and SAE J1473 at total machine weight.

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 of 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.

Steering system

Cylinders: Two double-acting steering cylinders.

Supplementary steering: Complies with ISO 5010 at total machine weight.

Steering angle: 3,4 steering wheel turns lock-to-lock, ±45°

Cab

ROPS/FOPS approved: according to (ISO 3471, SAE J1040) / (ISO 3449, SAE J231) standards.

Sound level in cab: ISO 6396 72 dB (A)

Hydraulic system

Pumps: Six 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	143 l/min (37.8 US gpm)
Ground-dependent	202 l/min (53.4 US gpm)
at shaft speed	47.5 r/s (2 850 rpm)
Working pressure	25 MPa (3626 psi)

Body/Dumping

Load and dump brake: With the engine running, the service brakes on the rear axle are applied and transmission is shifted to neutral.

Dumping Cylinders: Two single stage double-acting cylinders.

Tipping angle	70°
Tipping time with load	12 s
Lowering time	10 s

EQUIPMENT

The Volvo A35D - A40D 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
Rearview mirrors
Retractable 3-inch safety belt
Secondary steering
Steering joint locking assembly
Dump body lock
Windshield wipers with interval function
Windshield washers
Handrails on fenders
Reverse alarm

Comfort

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

Engine

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

Electrical system

80 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 warning (3 levels) for all vital functions

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 with high/low range
Hydraulic variable retarder
6x4 or 6x6 operator selectable drive modes
100% longitudinal differential lock
100% differential locks in all axles

Brakes

A35D
Two circuit, fully hydraulic disc brakes on all axles.
A40D
Two circuit, fully hydraulic brakes with enclosed, forced oil-cooled multiple discs on all axles. Separate brake cooling for each axle.

Exhaust retarder activation in brake pedal
Parking brake on prop shaft

Body

Body prepared for exhaust heating
Load and Dump brake

Tires

A35D: 26.5R25
A40D: 29.5R25

External

Rear mudflaps

Other

Air drier
Tool box
Electrical hood opening

The Volvo A35D - A40D Optional Equipment

(Standard in certain markets)

Safety

Fire-extinguisher and first aid kit

Service and maintenance

Tool kit with tire inflation unit
Electrical hood opening

Engine

Extra air cleaner, heavy-duty
Electric engine heater (120V or 240V)
External emergency engine stop
Delayed engine stop

Electrical

Work lights, roof mounted
Work lights, rear-facing, fender-mounted
Rotating beacon, collapsible mount
Back-up alarm
Rear vision system
Anti-theft system (prevents engine start)
Headlights for left-hand traffic

Cab

Heated, mechanically or air suspended, fully adjustable operator's seat
Electrically heated rearview mirrors
Cable kit for cab heater (120V or 240V)
Window tint film

Brakes

A35D: Fully hydraulic, forced oil-cooled wet disc brakes
Brake guards

Body

Body exhaust heating kit
Extra front spillguard
Overhung tailgate, wire operated
Wear plates, kit delivery

Tires

A35D: 775/65R29
A40D: 875/65R29

External

A40D: Mudguard wideners (for 875/65R29)

Other

Synthetic hydraulic oil (biologically degradable)
Artic oil kit



Volvo Construction Equipment is different. It's designed, built and supported in a different way. That difference comes from our 170-year engineering heritage. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different – **More care. Built In.**



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