- **Engine output:**
  - **A35D:**
    - SAE J1995, Gross 289 kW (393 hp)
    - SAE J1349, Net 285 kW (389 hp)
  - **A40D:**
    - SAE J1995, Gross 313 kW (426 hp)
    - SAE J1349, Net 309 kW (420 hp)

- **Body volume, heaped:**
  - **A35D:** 20.0 m³
  - **A40D:** 22.5 m³

- **Load capacity:**
  - **A35D:** 32.5 t
  - **A40D:** 37.0 t

- **Volvo cab,** designed for high operator visibility, ergonomics and comfort. Low profile cab for underground operation.

- **Reduced maintenance time** with no daily or weekly grease points.

- **Electronic Operator’s Communication System**

- **Volvo high performance — low emission** electronically controlled, direct injected, turbocharged, intercooled diesel engine.

- **Volvo Engine Brake, VEB**

- **Fully automatic planetary transmission,** electronically controlled.

- **Hydraulic retarder** integral in transmission.

- **Dropbox with high/low function** and 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.

- **Low profile body,** for underground operation

- **Volvo Load & Dump Brake.**
SAE J1995 Gross: 2 100 Nm
SAE J1995 Gross: 280 kW (381 hp)
Rated power at: 31,7 r/s (1 900 rpm)

The D12C engine is emission certified as a Family
2 and Europe (EU) step 2.

Displacement total: 12 l
SAE J1349 Net: 1 915 Nm
SAE J1995 Gross: 1 950 Nm
Max torque at: 20 r/s (1 200 r/min)
Flywheel power at: 30 r/s (1 800 r/min)
Max power at: 30 r/s (1 800 r/min)

Engine brake: VEB (Volvo Engine Brake) includes compression and exhaust brake.
A35D
Make, model: Volvo D12C ADE2**
Max power at: 30 r/s (1 800 r/min)
SAE J1995 Gross: 313 kW (426 hp)
Flywheel power at: 30 r/s (1 800 r/min)
Max torque at: 20 r/s (1 200 r/min)
SAE J1995 Gross: 2 100 Nm
Displacement total: 2 056 l

A40D
Make, model: Volvo D12C AAE2**
Max power at: 30 r/s (1 800 r/min)
SAE J1995 Gross: 320 kW (431 hp)
Flywheel power at: 30 r/s (1 800 r/min)
Max torque at: 20 r/s (1 200 r/min)
SAE J1995 Gross: 2 100 Nm
Displacement total: 2 056 l

A40D (With fan operating at full speed, the flywheel power is 277 kW (377 hp) and maximum torque is 1 860 Nm which corresponds to DIN 70020.)

Service brakes: Wet multiple disc brakes on all wheels.

Parking brake: Spring-applied disc brake on the propeller shaft, designed to hold a loaded machine on a grade up to 18%.

Bracket: Gear-driven by engine transmission.
Retarder: Hydrostatically driven, thermostatically controlled variable speed radiator fan consuming power only when needed.

Electrical system:
All cables, sockets and pins are identified.
Cables are enclosed in plastic conduit and secured to main frame.
Halogen lights. Prewired for options. Connectors meet IP67 standard for watertightness as necessary.

Voltage: 24 V
Battery capacity: 2x170 Ah
Alternator: 1,54 kW (55 A)
Starter motor: 7,2 kW (10 hp)

Driver train: 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.

Differential locks: One longitudinal and three transverse with 100% lock-up function. Separate dropbox oil cooling.
A40D: Automatic upshift low range to high range in 6th gear.

Axles: Volvo design with fully floating axle shafts and planetary type hub reductions.
Configuration: 6x4 or 6x6 drive, operator selectable on the move.

Speed:
Low gear forward: 5 km/h 6 km/h
6 km/h 7 km/h 8 km/h 9 km/h
14 km/h 15 km/h 16 km/h
20 km/h 24 km/h
24 km/h 31 km/h 35 km/h 41 km/h
Automatic upshift to 6th gear, High range: 55 km/h

High gear forward: 5 km/h 6 km/h
6 km/h 7 km/h 8 km/h 9 km/h
13 km/h 14 km/h 15 km/h
20 km/h 23 km/h 33 km/h
42 km/h 55 km/h

Low gear reverse:
1 2 3 4 5 6
5 km/h 6 km/h 7 km/h 8 km/h 9 km/h 10 km/h 11 km/h

High gear reverse:
1 2 3 4 5
8 km/h 9 km/h 10 km/h 11 km/h 12 km/h

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: The front suspension consists of one rubber spring, a stabilizer and three shock absorbers on each side.
Bogie: Volvo’s unique terrain bogie permits long suspension travel and independent wheel movement, keeps the body level, retaining the load.

Electrical system:
All cables, sockets and pins are identified.
Cables are enclosed in plastic conduit and secured to main frame.
Halogen lights.

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:
A35D
Crankcase: 50 l
Fuel tank: 480 l
Cooling system: 1 117 l
Transmission total: 48,5 l
Dropbox: 10,5 l
Per axle: 48 l
Brake cooling tank: 103 l
Hydraulic tank: 250 l

A40D
Crankcase: 50 l
Fuel tank: 480 l
Cooling system: 1 117 l
Transmission total: 48,5 l
Dropbox: 10,5 l
Per axle: 55 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.

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.

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Crankcase: 50 l
Fuel tank: 480 l
Cooling system: 1 117 l
Transmission total: 48,5 l
Dropbox: 10,5 l
Per axle: 55 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.
**Hydraulic system**

Load-sensing variable displacement piston pumps 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 secondary steering mounted on the dropbox.

**Filtration:** Through two fibreglass filters with magnetic cores.

**Pump capacity per pump:**
- Engine-dependent: 143 l/min
- Ground-dependent: 202 l/min at shaft speed 47.5 r/s (2850 r/min)
- Working pressure: 25 MPa

**Body**

Low profile body for underground operation.

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

**Body material:** Hardened and tempered steel body, flat plate design made of high-strength steel.

**Dump Cylinders:** Two single-stage double-acting cylinders.

| Front | 15 320 kg | 16 300 kg |
| Rear  | 12 980 kg | 14 970 kg |
| Total | 28 300 kg | 31 270 kg |

**Payload**

| Front | 32 500 kg | 37 000 kg |
| Rear  | 43 030 kg | 49 100 kg |
| Total | 60 800 kg | 68 270 kg |

**Weights**

Operating weight includes all fluids and operator at 15% sinkage of unloaded radius and specified weights.

<table>
<thead>
<tr>
<th>Tires</th>
<th>A35D</th>
<th>A40D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26.5R25</td>
<td>29.5R29**</td>
</tr>
</tbody>
</table>

**Ground Pressure**

Body volume according to SAE 2:1

<table>
<thead>
<tr>
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<th>A35D</th>
<th>A40D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26.5R25</td>
<td>775/65R29</td>
</tr>
<tr>
<td></td>
<td>29.5R29</td>
<td>875/65R29</td>
</tr>
</tbody>
</table>

**Load Capacity**

<table>
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<th>A40D</th>
</tr>
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<td></td>
<td>32 500 kg</td>
<td>37 000 kg</td>
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</table>

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**Cab**

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


**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 air suspension operator’s seat with flameproof upholstery. Retractable seat belt.

**Trainer seat:** Standard, with seat belt and backrest.

**Sound level in cab:** ISO 6395 72 dB (A) at max. speed 76 dB (A)
Instructions
Diagonal lines represent total resistance (grade % ± rolling resistance %). Charts based on 0% rolling resistance, standard tires and gearing, unless otherwise stated.

A. Find the diagonal line with the appropriate total resistance on the right-hand edge of the chart.
B. Follow the diagonal line downward until it intersects the actual machine weight line, NMW or GMW.
C. Draw a new line horizontally to the left from the point of intersection until the new line intersects the rimpull or retardation curve.
D. Read down for vehicle speed.

RIMPULL
1. Rimpull in metric ton. 2. Speed in km/h. 3. Machine weight in metric ton. 4. Grade in % + rolling resistance in %.

A35D / D12
Rimpull

RETARDATION PERFORMANCE (Hydraulic retarder and VEB)
1. Braking effort in metric ton. 2. Speed in km/h. 3. Machine weight in metric ton. 4. Grade in % – rolling resistance in %.

A35D
Low range Max. retarding performance
High range Max. retarding performance
Continuous
RIMPULL

1. Rimpull in metric ton.
2. Speed in km/h.
4. Grade in % + rolling resistance in %.

Instructions
Diagonal lines represent total resistance (grade % ± rolling resistance %). Charts based on 0% rolling resistance, standard tires and gearing, unless otherwise stated.

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RETARDATION PERFORMANCE (Hydraulic retarder and VEB)

1. Braking effort in metric ton.
2. Speed in km/h.
4. Grade in % – rolling resistance in %.
## Specifications A35D - A40D Low Profile

<table>
<thead>
<tr>
<th>Pos</th>
<th>Metric (mm)</th>
<th>Imperial (Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A35D</td>
<td>A40D</td>
</tr>
</tbody>
</table>
| A   | 11 178 | 11 287 | 38'6" | 37'0"
| A2  | 6 224  | 6 428  | 20'5" | 21'1"
| B   | 5 527  | 5 730  | 18'2" | 18'10"
| C1  | 3 290  | 3 356  | 10'10"| 11'0"
| 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" | 14'9"
| G   | 1 820  | 1 940  | 6'0"  | 6'4"
| H   | 1 754  | 1 796  | 5'9"  | 5'11"
| I   | 725    | 638    | 23"   | 23"
| J   | 912    | 970    | 30"   | 30"
| K   | 2 302  | 2 492  | 7'7"  | 7'7"
| L   | 915    | 906    | 30"   | 30"
| M   | 6 896  | 6 961  | 22'7" | 22'10"
| N   | 8 720  | 8 663  | 28'7" | 29'1"
| N1  | 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"
| R1  | 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" | 2'0"
| X1  | 606    | 639    | 1'12" | 2'1"
| X2  | 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"
| a1  | 23°   | 25°    | 23°   | 25°
| a2  | 70°   | 70°    | 70°   | 70°
| a3  | 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
### STANDARD EQUIPMENT

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

**Electrical system**
- Alternator, 55 A
- Battery disconnect switch
- Electrical outlets, 24V in cab
  - Headlights
  - Parking lights
  - Direction indicators
  - Rear lights
  - Back-up lights
  - Brake lights
  - Cab lighting
  - Instrument lighting
  - Pilot lights for all switches

**Operator information interface**
- Gauges:
  - Speedometer
  - Tachometer
  - Brake pressure
  - Fuel
  - Transmission oil temperature
- Warning lamps 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

**Cab**
- Low profile cab for underground operation

### ELECTRICAL SYSTEM

- Alternator, 55 A
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**Cab**
- Low profile cab for underground operation

### OPTIONAL EQUIPMENT

**Safety**
- Fire extinguisher and first aid kit
- Tool kit with tire inflation unit
- Electrical hood opening

**Engine**
- Direct injected, electronically controlled Volvo Engine Brake, VEB
  - Turbocharged
  - Intercooler, air-to-air cooler
  - Remote oil drain plug
  - Remote oil filters, for ease of access
  - Preheater for easier cold starts
  - Coolant filter

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

**Cab**
- Rotating drivers seat 180°
- Seat cover
- Instructor seat with seat belt
- Electrically heated rear-view mirrors
- Air conditioning
- Radio installation kit
- Radio
- Cable kit for cab heater (120V or 240V)
- 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

**Brakes**
- A35D: Fully hydraulic, forced oil-cooled wet disc brakes

**External**
- Rear mudflaps
- Additional front bumper (rubber)

**Body**
- Body with sight hole in head board (Twin Steer)
- Body exhaust heating kit
- Overhung tailgate, wire operated
- Wear plates, kit delivery

**Tires**
- A35D: 26,5R25
- A40D: 29,5R25

**Other**
- Air drier
- Tool box

(* * 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.