**Engine output:**
- SAE J1995, Gross 289 kW (393 hp)
- SAE J1349, Net 285 kW (389 hp)

**Load capacity:**
- 32.5 t

**Designed to handle 20 ft ISO container.**

**Dumping angle 49°.**

**Cab operated container lock.**

**Volvo cab,** designed for high operator visibility, ergonomics and comfort.

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

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

**Hydraulic retarder** integral in transmission.

**Reduced maintenance time,** no daily or weekly grease points.

**Electronic Operator’s Communication System**

**Dropbox with 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.

**Volvo Load & Dump Brake.**
The A35D Container Hauler in detail

**Service**
The computerized information system monitors all fluid levels, minimizing daily and weekly service times.

**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**
- Crankcase: ........................................... 50 l
- Fuel tank ........................................ 480 l
- Cooling system ................................. 17 l
- Transmission total ............................. 48,5 l
- Dropbox .............................................. 10,5 l
- Per axle ............................................. 48 l
- Hydraulic tank ................................. 250 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 consuming power only when needed.

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

Make, model .................................... Volvo D12C ABE2
Make, model .................................... Volvo D12C ADE2

Max power at ...................................... 30 r/s (1 000 r/min) SAE J1995 Gross 280 kW (383 hp)
Flywheel power at .............................. 30 r/s (1 000 r/min) SAE J1349 Net, DIN 6271 285 kW (388 hp)
Max torque at ..................................... 20 r/s (1 200 r/min) SAE J1995 Gross 1 950 Nm
SAE J1349 Net, DIN 6271 1 915 Nm
Displacement total ................................... 1 212 l

*) Meets US (EPA) step 2, California (CARB) step 2 and Europe (EU) step 2.
**) Meets Europe (EU) step 2.
***) 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.

The D12C engine is emission certified as a Family Engine with the following output data:
- Rated power at ................................. 31,7 l (1 000 rpm) SAE J1995 Gross 280 kW (381 hp)
- Max torque at .................................. 20 r/s (1 200 r/min) SAE J1995 Gross 2100 Nm

**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 waterproofing as necessary.

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

**Drivetrain**
Volvo components, specifically designed for hauler applications.

**Torque converter:** Single-stage with free-wheeling stator and automatic lock-up on all gears.

**Transmission:** Electronically controlled, fully automatic planetary transmission with six forward gears and two reverse gears, with a built-in variable hydraulic retarder.

**Dropbox:** Volvo design with high and low function, power take-off and differential with 100% lock-up function. Separate dropbox oil cooling.

**Axes:** Volvo design with fully floating axle shafts and planetary type hub reductions.

**Differential locks:** One longitudinal and three transverse with 100% lock-up function, operator selectable on the move.

**Configuration:** 6x4 or 6x6 drive, operator selectable on the move.

Torque converter ........................................ 1,95:1
Transmission, Volvo ................................ PT 1862
Dropbox, Volvo ...................................... FL 992
Axes, Volvo ........................................... AH 64

**Speed:**
- Low gear forward .............................. 5 km/h
- Low gear reverse ............................... 8 km/h
- High gear forward ............................ 15 km/h
- High gear reverse ............................. 21 km/h
- Max 27 km/h
- Max 35 km/h

**High gear forward**
- 1 .............................................. 9 km/h
- 2 .............................................. 13 km/h
- 3 .............................................. 23 km/h
- 4 .............................................. 34 km/h
- 5 .............................................. 43 km/h
- 6 .............................................. 66 km/h

**Low gear reverse**
- 1 .............................................. 5 km/h
- 2 .............................................. 9 km/h
- High gear reverse ............................. 8 km/h
- 2 .............................................. 14 km/h

**Brake system**
Fully hydraulic brakes on all axles. Two circuits. Well protected components.

Meets ISO 3450 and SAE J1473 at total machine weight.

**Service brakes:** Dry discs on all wheels.

**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 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. Total retarding capability including transmission retarder and exhaust retarder, see graph.

**Volvo Engine Brake:** Standard. Operator selectable application together with service brakes or when accelerator pedal is released. Always engaged together with retarder. Total retarding capability including transmission retarder and engine brake, VEB, see graph.

**Steering system**
Hydromechanical self-compensating artedering for safe and accurate high-speed hauling. Fast acting, low effort steering with 3,4 turns lock-to-lock for slow speed maneuverability.

**Cylinders:** Two double-acting steering cylinders.

**Secondary steering:** Meets ISO 5010 at total machine weight.

**Steering angle:** ±45°

**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.

**Cab**

**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:** Fully adjustable, mechanically or air suspended operator’s seat with flameproof upholstery. Retractable seat belt.

**Trainer seat:** Standard, with seat belt and back rest.

**Sound level in cab:** ISO 6396 .. 72 dB (A) at max. speed .............................. 76 dB (A)
### 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 (2 850 r/min)
- Working pressure ........................................ 25 MPa

### Container frame

Each corner of the container frame is equipped with air operated container locks that are maneuvered from the cab.

**Dump Cylinders:** Two single-stage double-acting cylinders.
- Tipping angle .............................................. 49°
- Tipping time with load .............................. 8 s
- Lowering time ............................................ 8 s

### Weights

<table>
<thead>
<tr>
<th></th>
<th>A35D</th>
<th>A35D</th>
<th>A35D</th>
</tr>
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<tr>
<td>Tires</td>
<td>26.5 R25</td>
<td>23.5R25</td>
<td>775/65R29</td>
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<td>Operating weight</td>
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<tr>
<td>Unloaded</td>
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<td></td>
</tr>
<tr>
<td>Front</td>
<td>15 120 kg</td>
<td>128 kPa</td>
<td>107 kPa</td>
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<tr>
<td>Rear</td>
<td>10 830 kg</td>
<td>46 kPa</td>
<td>38 kPa</td>
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<tr>
<td>Total</td>
<td>25 950 kg</td>
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<tr>
<td>Payload</td>
<td>32 500 kg</td>
<td>139 kPa</td>
<td>116 kPa</td>
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<tr>
<td>Total weight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>16 440 kg</td>
<td>178 kPa</td>
<td>148 kPa</td>
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<tr>
<td>Rear</td>
<td>42 000 kg</td>
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<tr>
<td>Total</td>
<td>58 440 kg</td>
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</table>

* A35D with tires 775/65R29, add 100 kg/ axle

### Ground Pressure

<table>
<thead>
<tr>
<th></th>
<th>A35D</th>
<th>A35D</th>
<th>A35D</th>
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<tr>
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<tr>
<td>Front</td>
<td>128 kPa</td>
<td>107 kPa</td>
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<tr>
<td>Rear</td>
<td>46 kPa</td>
<td>38 kPa</td>
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<tr>
<td>Loaded</td>
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</tr>
<tr>
<td>Front</td>
<td>139 kPa</td>
<td>116 kPa</td>
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<tr>
<td>Rear</td>
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</table>

### Load Capacity

Load capacity 32 500 kg

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<table>
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<tr>
<th>Tires</th>
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<tbody>
<tr>
<td>Operating weight includes all fluids and operator.</td>
<td>A35D</td>
<td>A35D</td>
<td>A35D</td>
</tr>
</tbody>
</table>

At 15% sinkage of unloaded radius and specified weights. Total weight including container.
### Specifications A35D Container Hauler

<table>
<thead>
<tr>
<th>Pos</th>
<th>Metric (mm)</th>
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<td>V</td>
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<tr>
<td>V⁺</td>
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<tr>
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<tr>
<td>X₁</td>
<td>606</td>
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<tr>
<td>X₂</td>
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<tr>
<td>Y</td>
<td>2515</td>
</tr>
<tr>
<td>Y⁺</td>
<td>2625</td>
</tr>
<tr>
<td>Z</td>
<td>3208</td>
</tr>
<tr>
<td>Z⁺</td>
<td>3410</td>
</tr>
<tr>
<td>a₁</td>
<td>29⁺</td>
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<tr>
<td>a₂</td>
<td>49⁺</td>
</tr>
<tr>
<td>a₃</td>
<td>45⁺</td>
</tr>
</tbody>
</table>

*) with optional 775/65R29 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

**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 backrest and retractable seat belt

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

**Electrical system**
- Alternator, 55 A
- Battery disconnect switch
- Electrical outlets, 24V in cab
- Lights:
  - 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

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

**Container frame**
- Container frame for 20' ISO container with remote controlled container locks
- Headboard for container frame
- Container corner guidings
- Side mounted dumping cylinders
- Tail light mounted in the back of the container frame
- Roof mounted beacon (red) indicating "container lock open"
- Hydraulic lock to prevent dumping container if not all container locks are engaged

**Tires**
- 26.5R25

**Other**
- Air drier
- Tool box

OPTIONAL EQUIPMENT

**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
- Extra air cleaner, oil bath type
- External emergency stop
- Delayed engine stop
- Engine coolant pre-heater (120V or 240V)
- Engine and cab heater, diesel **
- Fast fuel filling system
- Precleaner (Sy-klene) **

**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 charger **
- Jump start connection, NATO **
- Back up light, extra **
- Cab heater, electrical **
- Hazard light when reversing **

**Side mounted position lights on container frame **
- Voltage converter 24V to 12V, 20 amp **
- Rear Vision system, color (Intec) **
- Battery main switch located in cab **

**Cab**
- Heated, mechanically or air suspended, fully adjustable operator’s seat
- 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)
- Window tint film
- Precleaner (Sy-klene) **

**Brakes**
- Fully hydraulic, forced oil-cooled wet disc brakes
- Brake guards

**Container frame**
- Dumping angle limitation (hydraulic) **
- Unlocking mechanism for tailgate (air) including controls **
- Side inclination angle indicator for rear frame **

**Tires**
- 775/65R29

**External**
- Mudguard wideners (for 775/65R29 tires)
- Rear mudflaps and rubber guards over bogie **
- Belly plates for trailer A-stay **

**Other**
- Synthetic hydraulic oil (biologically degradable)
- Arctic oil kit

(** 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.

VOLVO

Construction Equipment