• Engine output SAE J1349: Net 285 kW (382 hp) Gross 289 kW (387 hp)
• Load capacity: 32.5 t (36 sh tn)
• Designed to handle 20 ft ISO container or equivalent load with twist locus.
• 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.
• 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.
• Volvo Load & Dump Brake.
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 an integral variable hydraulic retarder.

**Dropbox**: Volvo design with high and low function.

**Axles**: 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.

<table>
<thead>
<tr>
<th>Torque converter</th>
<th>1.95:1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission</td>
<td>Volvo PT 1860</td>
</tr>
<tr>
<td>Dropbox</td>
<td>Volvo FL 852</td>
</tr>
<tr>
<td>Axles</td>
<td>Volvo AH 64</td>
</tr>
</tbody>
</table>

**Speeds**

<table>
<thead>
<tr>
<th>Gear</th>
<th>Speed (km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Forward</td>
<td>1 9 km/h (5.6 mile/h)</td>
</tr>
<tr>
<td></td>
<td>2 13 km/h (8.1 mile/h)</td>
</tr>
<tr>
<td></td>
<td>3 23 km/h (13.0 mile/h)</td>
</tr>
<tr>
<td></td>
<td>4 34 km/h (21.1 mile/h)</td>
</tr>
<tr>
<td></td>
<td>5 43 km/h (26.7 mile/h)</td>
</tr>
<tr>
<td></td>
<td>6 56 km/h (34.8 mile/h)</td>
</tr>
<tr>
<td>Reverse</td>
<td></td>
</tr>
<tr>
<td>Forward</td>
<td>1 8 km/h (5.0 mile/h)</td>
</tr>
<tr>
<td></td>
<td>2 14 km/h (8.7 mile/h)</td>
</tr>
<tr>
<td>Reverse</td>
<td></td>
</tr>
<tr>
<td>Forward</td>
<td>1 5 km/h (3.1 mile/h)</td>
</tr>
<tr>
<td></td>
<td>2 9 km/h (5.6 mile/h)</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>24 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery capacity</td>
<td>2x170 Ah</td>
</tr>
<tr>
<td>Alternator</td>
<td>1.54 kW (55 A)</td>
</tr>
<tr>
<td>Starter motor</td>
<td>7.2 kW (9.6 hp)</td>
</tr>
</tbody>
</table>

**SUSPENSION**

**Front axle**: Volvo’s unique three point suspension. One rubber spring with bottoming absorption on each side. Stabilizer. Three shock absorbers on each side. The front axle is suspended at three points, which results in oscillation needed in rough terrain. Requires no regular maintenance.

**Bogie**: Volvo’s unique terrain bogie, which permits individual oscillation between the axles. High axle displacement keeps the body level, retaining the load.
**BRAKE SYSTEM**

Dual circuit system with fully-hydraulic disc brakes. 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 on the propeller shaft, designed to hold a loaded machine on a grade up to 18%.
- **Compressor:** Gear driven by engine.
- **Retarder:** Hydraulic, infinitely variable, integral with transmission. Total retarding capability includes transmission retarder and VEB, see graph.

**HYDRAULIC SYSTEM**

- **Pumps:** Seven engine driven, variable displacement, load-sensing piston pumps driven by the flywheel PTO. Three pumps are tandem mounted. Load-sensing pumps consume power only when needed. One ground-dependent piston pump for supplemental steering mounted on the dropbox.
- **Filtration:** Two glass fiber filters with magnetic cores.

Pump capacity per pump:
- Engine dependent: 143 l/min (37.8 US gal/min)
- Ground dependent: 202 l/min (53.4 US gal/min)
- At shaft speed: 47.5 l/s (2850 l/min)
- Working pressure: 25 MPa (3628.4 psi)

**CAB**

Volvo cab: Tested and approved according to ROPS (ISO 3471 and SAE J1040) and FOPS (ISO 3449 and SAE J231) standards. Mounted on rubber pads which effectively reduce vibrations. Tilt/telescopic steering wheel. Overhead console for radio and storage. Dash-mounted operator information display.

- **Heater and defroster:** Filtered air and pressurized cab.
- **Operator’s seat:** Air suspended with flameproof upholstery. Extra seat for trainer.

- Number of exits: 2
- Internal sound level, ISO 6394: 72 dB (A)
- and at max speed: 76 dB (A)

**CONTAINER FRAME**

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

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

- Dumping angle: 49°
- Dumping time with load: 8 s
- Lowering time: 6 s

**WEIGHTS**

Operating weight includes all fluids and operator. Standard machine. If equipped with 800/65R29 add 100 kg (220 lb) per axle.

- **Operating weight** with tires 26.5 R 25:
  - Unloaded:
    - Front: 15 120 kg (33 333 lb)
    - Rear: 10 830 kg (23 876 lb)
    - Total: 25 950 kg (57 210 lb)
  - Payload: 32 500 kg (71 649 lb)
  - Total: 58 440 kg (128 838 lb)

**GROUND PRESSURE**

At 15% sinkage of unloaded radius and specified weights.

- With tires 26.5 R 25, 800/65R29:
  - Unloaded:
    - Front: 128 kPa (18.6 psi) 107 kPa (15.5 psi)
    - Rear: 46 kPa (6.7 psi) 38 kPa (5.5 psi)
  - Loaded:
    - Front: 139 kPa (20.2 psi) 116 kPa (16.8 psi)
    - Rear: 178 kPa (25.8 psi) 148 kPa (21.5 psi)
RIMPULL & RETARDATION  Volvo A35D Container Hauler

INSTRUCTIONS
Diagonal lines represent total resistance (grade % plus rolling resistance %).
Charts based on 0% rolling resistance, standard tires and gearing, unless otherwise stated.
In the retardation chart the diagonal lines represent the “total resistance” as well, which is the grade in % minus the rolling resistance in %.
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.
LOAD CAPACITY

Load capacity ............... 32 500 kg (36 sh tn)*

ISO Container 20 ft

* Total weight of container and payload.
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
- Rearview mirrors
- Retractable 3 inch seat belt
- Secondary steering
- Steering joint locking assembly
- Dump body lock
- Windshield wipers with intermittent
- Windshield washers

Electrical system
- Alternator
- Battery disconnect switch
- Electrical outlets, 24V socket for lunch cooler
- Lights:
  - Headlights
  - Parking lights
  - Direction indicators
  - Rear lights
  - Reverse lights
  - Brake lights
  - Cab lighting
  - Instrument lighting

Operator information interface
- Gauges:
  - Speedometer
  - Tachometer
  - Brake pressure
  - Fuel
  - Transmission oil temperature
- Pilot lamps for all switches
- Warning lamps grouped and easy to read
- Central warning (3 levels) for vital functions
- Central positioned information display:
  - Automatic pre-start checks
  - Operating information, easy-to-find menu
  - Trouble shooting diagnostics
  - Hour meter
  - Clock
  - Machine settings

Engine
- Direct injected, electronically-controlled
- Turbocharged, intercooled
- Volvo Engine Brake (VEB)
- Remote oil drainage plug
- Remote oil filters ease of access
- Preheater for easier cold starts

Drivetrain
- Automatic transmission
- Torque converter with automatic lock-up
- Drop box with high/low gear
- Hydraulic variable retarder
- 6x4 or 6x6 operator selectable drive modes
- Longitudinal differential lock
- 100% differential locks in all axles

Brakes
- Fully-hydraulic disc brakes
- Two circuit brake system
- 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

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

Engine
- Extra air cleaner
- Engine engine heater (120V or 240V)
- External emergency engine stop
- Delayed engine stop

Electrical
- Work lights, roof-mounted
- Work lights, reverse, fender-mounted
- Rotating beacon, collapsible mount
- Anti-theft system (prevents engine start)
- Head lights for left hand side traffic

Cab
- Electrically heated rearview mirrors
- Air-conditioning
- Radio installation kit
- Radio
- Cable kit for cab heater (120V or 240V)
- Solar guard film, side windows

Safety
- Fire extinguisher and first aid kit
- Reverse alarm
- Rear vision system

External
- Belly plates for trailer A-stay
- Rear mudflaps

Container frame
- Dumping angle limitation (hydraulic)
- Unlocking mechanism for tailgate (air) including controls

Tires
- 800/65R29

Other
- Synthetic hydraulic oil (biologically degradeable)
- Arctic oil kit

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.

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