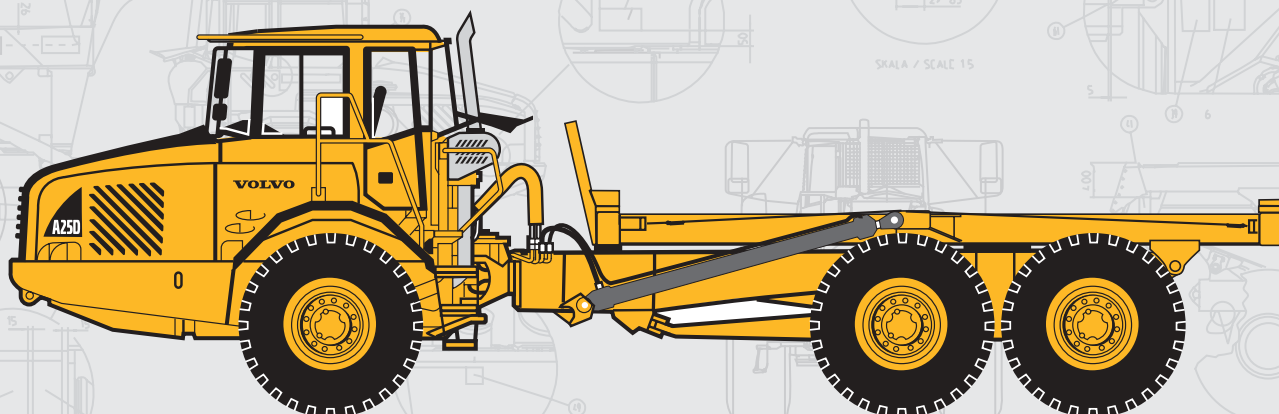


VOLVO ARTICULATED HAULER

A250

CONTAINER HAULER



- **Engine output:**
SAE J1995, Gross 228 kW (310 hp)
SAE J1349, Net 227 kW (309 hp)
- **Load capacity:**
24,0 t
- **Designed to handle 20 ft ISO container**
- **Dumping angle 60°**
- **Cab operated container lock**
- **Volvo cab**, designed for high operator visibility, ergonomics and comfort.
- **Reduced maintenance time**, no daily or weekly grease points.
- **Electronic Operator's Communication System**
- **Volvo high performance – low emission**, electronically controlled, direct injected, turbocharged, intercooled diesel engine.
- **Fully automatic planetary transmission**, electronically controlled.
- **Hydraulic retarder** integral in transmission.
- **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.**

VOLVO

The A25D Container Hauler in detail

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

Crankcase.....	38 l
Fuel tank	400 l
Cooling system	71 l
Transmission total	41 l
Dropbox.....	8,5 l
Axles, front/ rear	33 l
First bogie axle.....	34 l
Hydraulic tank	175 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: Exhaust retarder.

A25D

Make, model.....	Volvo D10BACE2*
Make, model	Volvo D10BADE2**
Max power at	33,3 r/s (2 000 r/min)
SAE J1995 Gross	228 kW (310 hp)
Flywheel power at	33,3 r/s (2 000 r/min)
SAE J1349 Net, DIN 6271***	227 kW (309 hp)
Max torque at	22,5 r/s (1 350 r/min)
SAE J1995 Gross	1 375 Nm
SAE J1349 Net, DIN 6271***	1 365 Nm
Displacement total	9,6 l

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

**) Meets Europe (EU) step 2.

***) with fan at normal speed.

With fan operating at full speed, the flywheel power is 214 kW (291 hp) and maximum torque is 1 276 Nm which corresponds to DIN 70020.

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.....	6,6 kW (9 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: Fully automatic planetary transmission with six forward gears and two reverse gears, with a built-in variable hydraulic retarder.

Dropbox: Volvo design, single-stage.

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.

Torque converter.....	2,37:1
Transmission, Volvo	PT 1560
Dropbox.....	IL 1
Axles, Volvo	AH 56

Speed:

Forward	
1	8 km/h
2	12 km/h
3	22 km/h
4	31 km/h
5	40 km/h
6	53 km/h
Reverse	
1	8 km/h
2	13 km/h

Brake system

Dual circuit system with air-hydraulic disc brakes. 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.

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.

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: One hollow rubber spring on each side. A cross stay provides the stability. Two shock absorbers on each side.

Bogie: Volvo's unique terrain bogie permits long suspension travel and independent wheel movement, keeps the rear frame level.

Cab

Volvo cab, ergonomically designed for high operator comfort and excellent visibility. Wide threshold-free door opening and ergonomic cab entrance. Insulating rubber pads to reduce vibrations. Tilt/ telescopic steering wheel. Overhead console for radio and storage. Dash-mounted Operator's Communication System. Storage bins.

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 operator's seat with flameproof upholstery. Retractable seat belt.

Sound level in cab, ISO 6396 74 dB (A)

Hydraulic system

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

Pumps: Four 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.....	140 l/min
Ground-dependent.....	142 l/min
at shaft speed	52,5 r/s (3 150 r/min)
Working pressure	25 MPa

Container frame

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

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

Tipping angle.....	60°
Tipping time with load	12 s
Lowering time.....	9 s

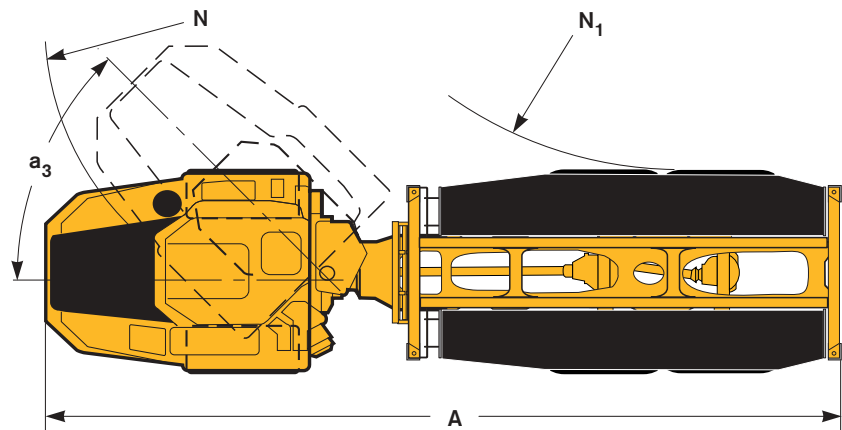
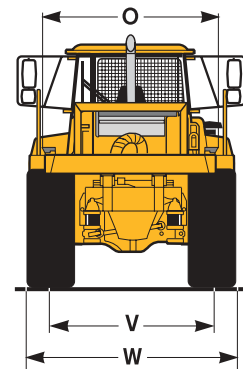
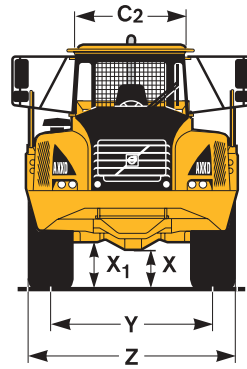
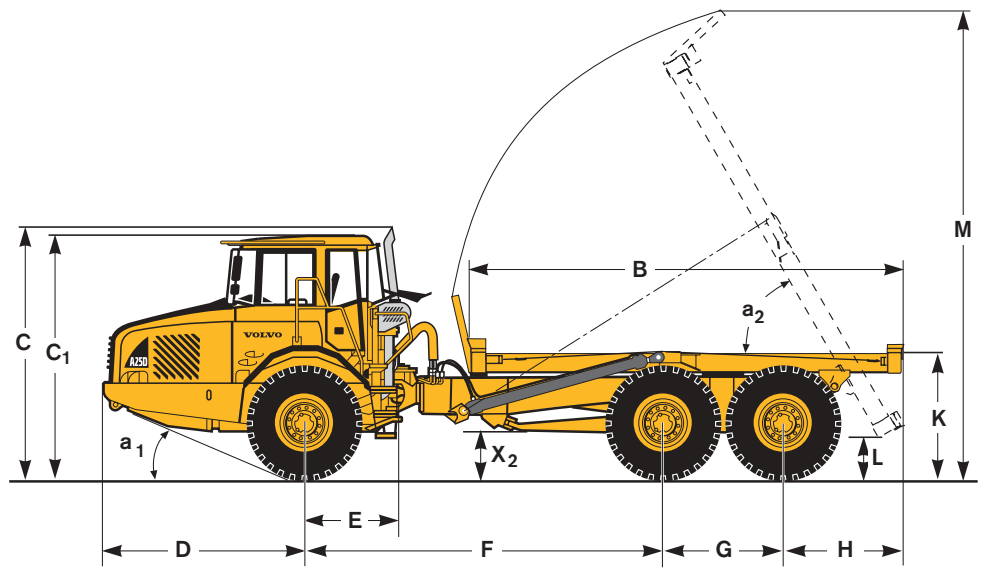
Weights		Ground Pressure		Load Capacity	
Operating weight includes all fluids and operator.		At 15% sinkage of unloaded radius and specified weights.		* Total weight including container.	
	A25D		A25D		A25D
Tires	23.5R25	Tires	23.5R25		
Operating weight unloaded		Unloaded		ISO Container 20ft	
Front	12 160 kg	Front	123 kPa	Load capacity*	24 000 kg
Rear	9 400 kg	Rear	48 kPa		
Total	21 560 kg	Loaded			
Payload	24 000 kg	Front	144 kPa		
Total weight		Rear	159 kPa		
Front	14 140 kg				
Rear	31 420 kg				
Total	45 560 kg				



Specifications A25D Container Hauler

Pos	Metric (mm)	Imperial (feet)
	A25D	A25D
A	11 153	36'7"
B	6 058	19'11"
C	3 428	11'3"
C*	3 373	11'1"
C ₁	3 318	10'11"
C ₁ *	3 263	10'8"
C ₂	1 768	5'10"
D	2 764	9'1"
E	1 210	4'0"
F	4 975	16'4"
G	1 670	5'6"
H	1 744	5'9"
K	1 790	5'10"
K*	1 684	5'6"
L	578	1'11"
L*	510	1'8"
M	6 594	21'8"
M*	6 429	21'1"
N	9 110	29'11"
N ₁	4 870	16'0"
O	2 566	8'5"
V	2 258	7'5"
W	2 859	9'5"
X	456	1'6"
X*	412	1'4"
X ₁	581	1'11"
X ₁ *	537	1'9"
X ₂	659	2'2"
X ₂ *	615	2'0"
Y	2 258	7'5"
Z	2 859	9'5"
a ₁	23,5°	23,5°
a ₂	60°	60°
a ₂ *	57,5°	57,5°
a ₃	45°	45°

Unloaded machine with 23.5R25
* Low version with 650/65R25





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
Rear-view mirrors
Secondary steering
Retractable 3-inch safety belt
Steering joint locking assembly
Dump body lock
Intermittent wiper control
Windshield washers

Comfort

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

Engine

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

Electrical system

55 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, single-stage
Hydraulic variable retarder
6x4 or 6x6 operator selectable drive modes
100% longitudinal differential lock
100% differential locks in all axles

Brakes

Air-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*
Sidemounted 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

23,5R25

Other

Air drier

(* Special Equipment)

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 engine stop
Delayed engine stop
Electric engine heater (120V or 240V)
Engine and cab heater, diesel **
Fuel filter heater, electrical, 24V **
Fast fuel filling system **

Electrical

Work lights, roof mounted
Work lights, rear-facing, fender-mounted
Work lights (distance lights) on cab roof **
Rotating beacon, collapsible mount
Rotating beacon, extra
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 **
Rear- and backup lights on cab roof **
Back up light, extra **
Cab heater, electrical **
Side mounted position lights on container frame**

Cab

Air suspended, electrically heated operator's seat
Rotating drivers seat 180° **
Seat cover **
Armrests prepared for joysticks **
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
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 **
Vandalism protection for cab windows **
Rear-view mirror, close up **
Lowered cab roof
Roof rack **

Container frame

Dumping angle limitation (hydraulic)**
Unlocking mechanism for tailgate (pneumatic) including controls**

Tires

750/65R25 (low version)

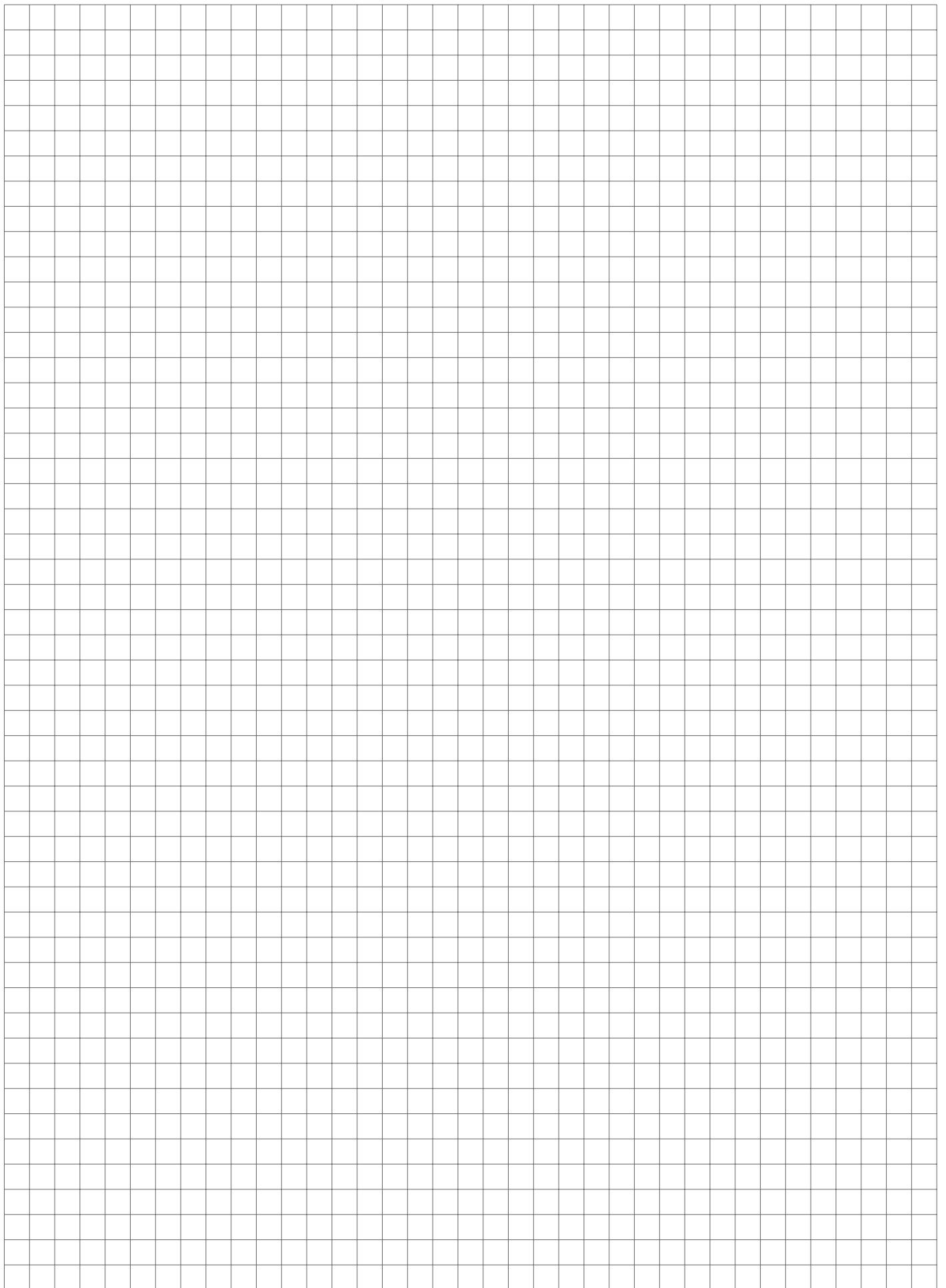
External

Belly plates for trailer A-frame**
Rubber mud flaps and rubber guards for bogie**

Other

Synthetic hydraulic oil (biologically degradable)
Arctic oil kit
Toolbox
Non-skid chain modification, front unit **
Non-skid chain storing hooks **

(** 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

Ref. No 21 1 669 4165 English
Sweden 2003-04 ART
Volvo Växjö