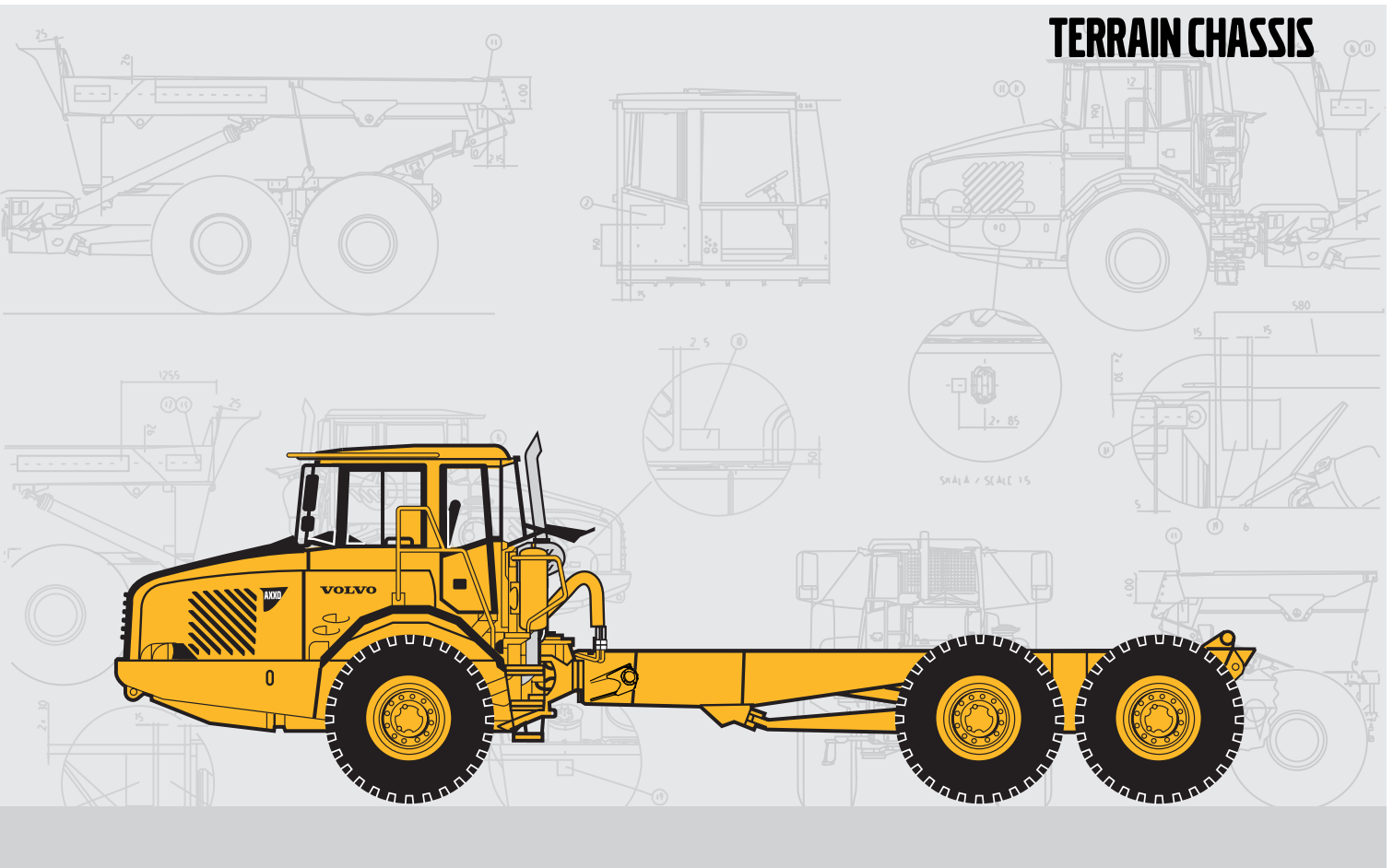


VOLVO ARTICULATED HAULER

A25D/A30D



- **Engine output:**
A25D s/n 13001-
SAE J1995, Gross 224 kW (305 hp)
SAE J1349, Net 222 kW (303 hp)
A30D s/n 12001-
SAE J1995, Gross 252 kW (343 hp)
SAE J1349, Net 251 kW (341 hp)
- **Load capacity:**
A25D: 28,0 t
A30D: 32,0 t
- **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 TC - A30D TC 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.....	40 l
Fuel tank.....	400 l
Cooling system	115 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 D9AAAE2*
Make, model	Volvo D9AABE2**
Max power at	35 r/s (2 100 r/min)
SAE J1995 Gross	224 kW (305 hp)
Flywheel power at	35 r/s (2 100 r/min)
SAE J1349 Net, DIN 6271***	223 kW (303 hp)
Max torque at	20 r/s (1 200 r/min)
SAE J1995 Gross	1 700 Nm
SAE J1349 Net, DIN 6271***	1 689 Nm
Displacement total	9,4 l

With fan operating at full speed, the flywheel power is 210 kW (285 hp) and maximum torque is 1 589 Nm which corresponds to DIN 70020.

A30D

Make, model	Volvo D9AAAE2*
Make, model	Volvo D9AADE2**
Max power at	31,7 r/s (1 900 r/min)
SAE J1995 Gross	252 kW (343 hp)
Flywheel power at	31,7 r/s (1 900 r/min)
SAE J1349 Net, DIN 6271***	251 kW (341 hp)
Max torque at	20 r/s (1 200 r/min)
SAE J1995 Gross	1 700 Nm
SAE J1349 Net, DIN 6271***	1 689 Nm
Displacement total	9,4 l

With fan operating at full speed, the flywheel power is 238 kW (324 hp) and maximum torque is 1 589 Nm which corresponds to DIN 70020.

*) Meets Europe (EU) step 2.

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

**) with fan at normal speed.

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	2,24 kW (80 A)
Starter motor	7 kW (9,4 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.

	A25D	A30D
Torque converter.....	2,37:1	2,37:1
Transmission, Volvo	PT 1562.....	PT 1562
Dropbox.....	IL 1	IL 1
Axles, Volvo	AH 56.....	AH 64

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.

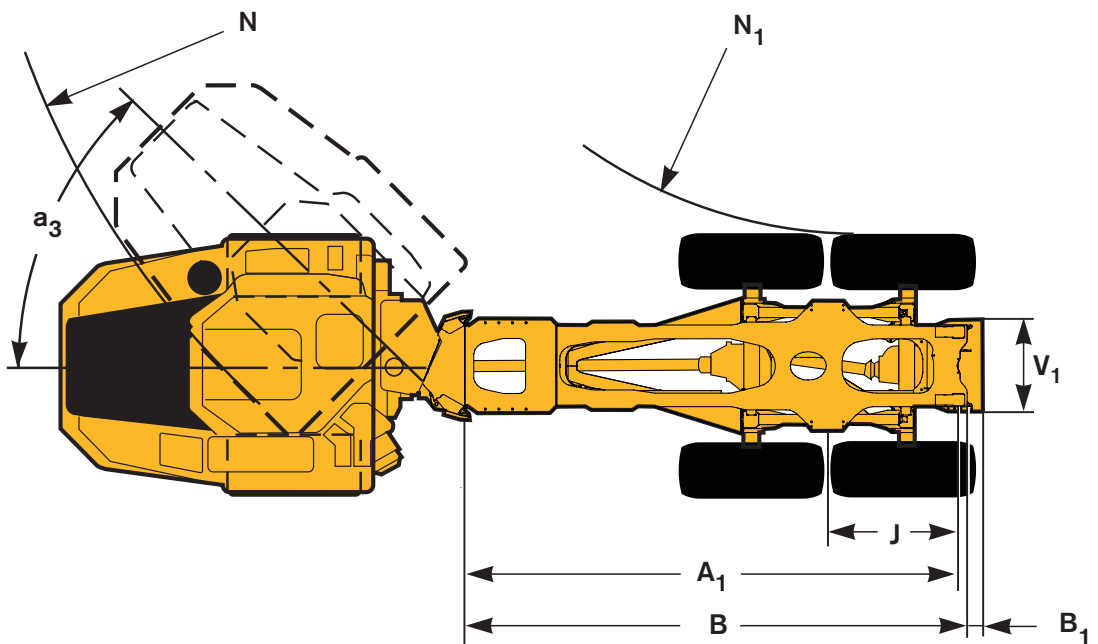
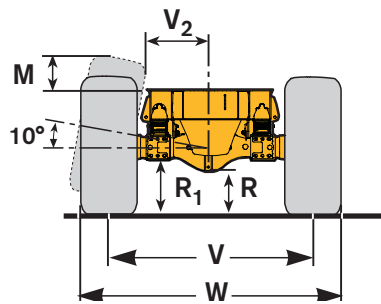
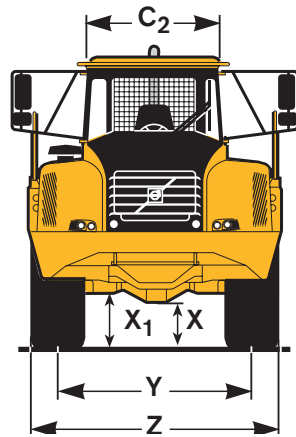
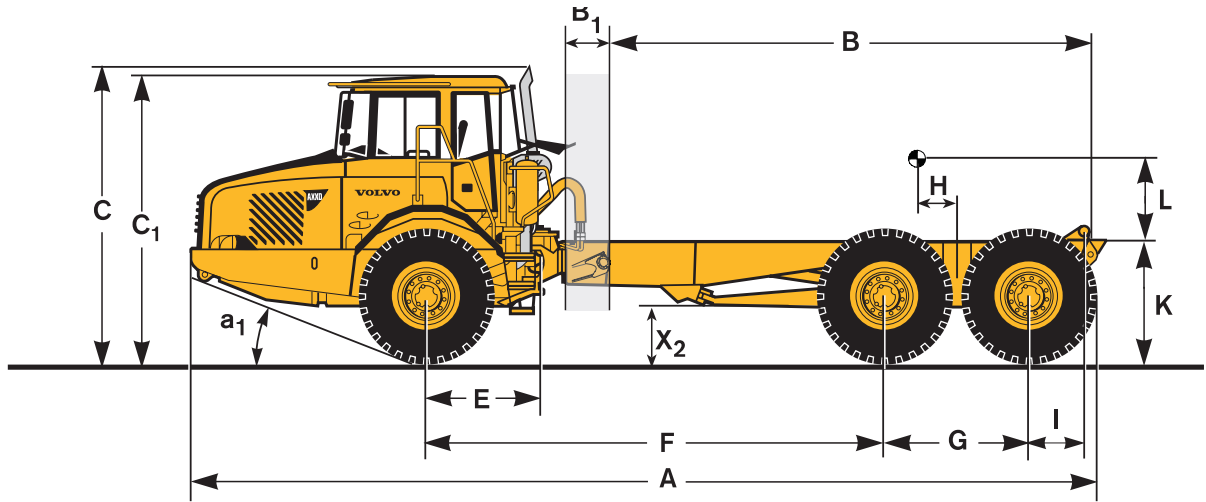
Pump capacity per pump:

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

Weights						Ground Pressure	
Operating weight includes all fluids and operator.						At 15% sinkage of unloaded radius and specified weights.	
	A25D TC42	A25D TC50	A25D TC52	A25D TC54	A25D TC59		A25D
Tires	23.5R25 650/65R25	23.5R25 650/65R25	23.5R25 650/65R25	23.5R25 650/65R25	23.5R25 650/65R25	Tires	23.5R25 650/65 R25
Operating weight unloaded						Unloaded	
Front	11 800 kg	11 980 kg	12 020 kg	12 070 kg	12 170 kg	Front	123 kPa
Rear	5 540 kg	5 660 kg	5 690 kg	5 720 kg	5 800 kg	Rear	48 kPa
Total	17 340 kg	17 640 kg	17 710 kg	17 790 kg	17 970 kg	Loaded	
Payload incl. superstructure	28 220 kg	27 920 kg	27 850 kg	27 770 kg	27 590 kg	Front	144 kPa
Total weight						Rear	159 kPa
Front	14 140 kg	14 140 kg	14 140 kg	14 140 kg	14 140 kg		
Rear	31 420 kg	31 420 kg	31 420 kg	31 420 kg	31 420 kg		
Total	45 560 kg	45 560 kg	45 560 kg	45 560 kg	45 560 kg		

Weights						Ground Pressure	
Operating weight includes all fluids and operator.						At 15% sinkage of unloaded radius and specified weights.	
	A30D TC42	A30D TC50	A30D TC52	A30D TC54	A30D TC59		A30D TC
Tires	750/65R25	750/65R25	750/65R25	750/65R25	750/65R25	Tires	750/65R25
Operating weight unloaded						Unloaded	
Front	12 020 kg	12 2000 kg	12 240 kg	12 290 kg	12 390 kg	Front	101 kPa
Rear	5 980 kg	6 100 kg	6 130 kg	6 1600 kg	6 240 kg	Rear	43 kPa
Total	18 000 kg	18 300 kg	18 370 kg	18 450 kg	18 630 kg	Loaded	
Payload incl. superstructure	33 060 kg	32 760 kg	32 690 kg	32 610 kg	32 430 kg	Front	121 kPa
Total weight						Rear	146 kPa
Front	14 990 kg	14 990 kg	14 990 kg	14 990 kg	14 990 kg		
Rear	36 070 kg	36 070 kg	36 070 kg	36 070 kg	36 070 kg		
Total	51 060 kg	51 060 kg	51 060 kg	51 060 kg	51 060 kg		
Optional 23.5R25 tires, reduces weight /axle with 220 kg and increases payload with 660 kg.							

Specifications A25D TC - A30D TC



Pos	A25D TC Unloaded machine with 23.5R25					A25D TC Unloaded machine with 650/65R25				
	TC42	TC50	TC52	TC54	TC59	TC42	TC50	TC52	TC54	TC59
A	9 410	10 210	10 410	10 610	11 110	9 356	10 156	10 356	10 556	11 056
A ₁	4 420	5 220	5 420	5 620	6 120	4 420	5 220	5 420	5 620	6 120
B	4 520	5 320	5 520	5 720	6 220	4 520	5 320	5 520	5 720	6 220
B ₁	170	170	170	170	170	170	170	170	170	170
B ₂	500	500	500	500	500	500	500	500	500	500
C	3 428	3 428	3 428	3 428	3 428	3 381	3 381	3 381	3 381	3 381
C ₁	3 318	3 318	3 318	3 318	3 318	3 271	3 271	3 271	3 271	3 271
C ₂	1 768	1 768	1 768	1 768	1 768	1 768	1 768	1 768	1 768	1 768
D	2 764	2 764	2 764	2 764	2 764	2 764	2 764	2 764	2 764	2 764
E	1 210	1 210	1 210	1 210	1 210	1 210	1 210	1 210	1 210	1 210
F	4 175	4 975	5 175	5 375	5 875	4 175	4 975	5 175	5 375	5 875
G	1 670	1 670	1 670	1 670	1 670	1 670	1 670	1 670	1 670	1 670
H	410	450	455	465	475	410	450	455	465	475
I	835	835	835	835	835	835	835	835	835	835
J	1 444	1 444	1 444	1 444	1 444	1 444	1 444	1 444	1 444	1 444
K	1 400	1 400	1 400	1 400	1 400	1 353	1 353	1 353	1 353	1 353
L	940	940	940	940	940	940	940	940	940	940
M	365	365	365	365	365	315	315	315	315	315
N	7 980	9 110	9 390	9 670	10 360	7 995	9 125	9 405	9 685	10 375
N ₁	4 070	4 870	5 070	5 270	5 770	4 055	4 855	5 055	5 255	5 755
V	2 258	2 258	2 258	2 258	2 258	2 258	2 258	2 258	2 258	2 258
V ₁	974	974	974	974	974	974	974	974	974	974
V ₂	720	720	720	720	720	705	705	705	705	705
W	2 859	2 859	2 859	2 859	2 859	2 888	2 888	2 888	2 888	2 888
X ₂	659	659	659	659	659	705	705	705	705	705
a ₁	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°
a ₃	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°

Pos	A30D TC Unloaded machine with 750/65R25					A30D TC Unloaded machine with 23.5R25				
	TC42	TC50	TC52	TC54	TC59	TC42	TC50	TC52	TC54	TC59
A	9 410	10 210	10 410	10 610	11 110	9 410	10 210	10 410	10 610	11 110
A ₁	4 420	5 220	5 420	5 620	6 120	4 420	5 220	5 420	5 620	6 120
B	4 520	5 320	5 520	5 720	6 220	4 520	5 320	5 520	5 720	6 220
B ₁	170	170	170	170	170	170	170	170	170	170
B ₂	500	500	500	500	500	500	500	500	500	500
C	3 428	3 428	3 428	3 428	3 428	3 428	3 428	3 428	3 428	3 428
C ₁	3 318	3 318	3 318	3 318	3 318	3 318	3 318	3 318	3 318	3 318
C ₂	1 768	1 768	1 768	1 768	1 768	1 768	1 768	1 768	1 768	1 768
D	2 764	2 764	2 764	2 764	2 764	2 764	2 764	2 764	2 764	2 764
E	1 210	1 210	1 210	1 210	1 210	1 210	1 210	1 210	1 210	1 210
F	4 175	4 975	5 175	5 375	5 875	4 175	4 975	5 175	5 375	5 875
G	1 670	1 670	1 670	1 670	1 670	1 670	1 670	1 670	1 670	1 670
H	410	450	455	465	475	410	450	455	465	475
I	835	835	835	835	835	835	835	835	835	835
J	1 444	1 444	1 444	1 444	1 444	1 444	1 444	1 444	1 444	1 444
K	1 400	1 400	1 400	1 400	1 400	1 400	1 400	1 400	1 400	1 400
L	1 005	1 005	1 005	1 005	1 005	1 005	1 005	1 005	1 005	1 005
M	380	380	380	380	380	365	365	365	365	365
N	8 021	9 151	9 431	9 711	10 401	7 980	9 110	9 390	9 670	10 360
N ₁	4 029	4 829	5 029	5 229	5 729	4 070	4 870	5 070	5 270	5 770
V	2 216	2 216	2 216	2 216	2 216	2 258	2 258	2 258	2 258	2 258
V ₁	974	974	974	974	974	974	974	974	974	974
V ₂	615	615	615	615	615	720	720	720	720	720
W	2 941	2 941	2 941	2 941	2 941	2 859	2 859	2 859	2 859	2 859
X ₂	659	659	659	659	659	659	659	659	659	659
a ₁	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°
a ₃	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°

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
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

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
Drop box, 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

Tires

A25D: 23,5R25
A30D: 750/65R25

Other

Air drier

(* Special Standard Equipment)

OPTIONAL EQUIPMENT

Safety

Fire-extinguisher and first aid kit
Hitch oscillating brake **

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
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 **
Rear- and backup lights on cab roof **
Back up light, extra **
Cab heater, electrical **

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 **

External

Mud flaps in front of bogie **
Mud flaps behind bogie **
Mud flaps over/behind bogie **
Frame extension, rear end, 170 mm **
Belly plates for trailer A-stay **
Increased bogie axle distance, 50mm **
Additional front bumper (rubber)

Hydraulic

Booster system, 28MPa **
Booster system, 35MPa **
Hydraulic tank, extra, 300 l **

Attachments

Standard body (material density: 1,6 ton/m³)
Body with sight hole in head board (Twin Steer) **
Light Material body (0,9 ton/m³) **
Container frame, no dumping function (20' ISO) **
Container frame with dumping function (20' ISO) **
Flat loading platform without dumping function **
Frame substructure with dumping function for misc. attachments, combined with TC50 frame extension **
Timber Hauler body and trailer **
Water tank **
Fifth wheel **
Hook lift system **

Tires

A25D: 650/65R25
A30D: 23,5R25

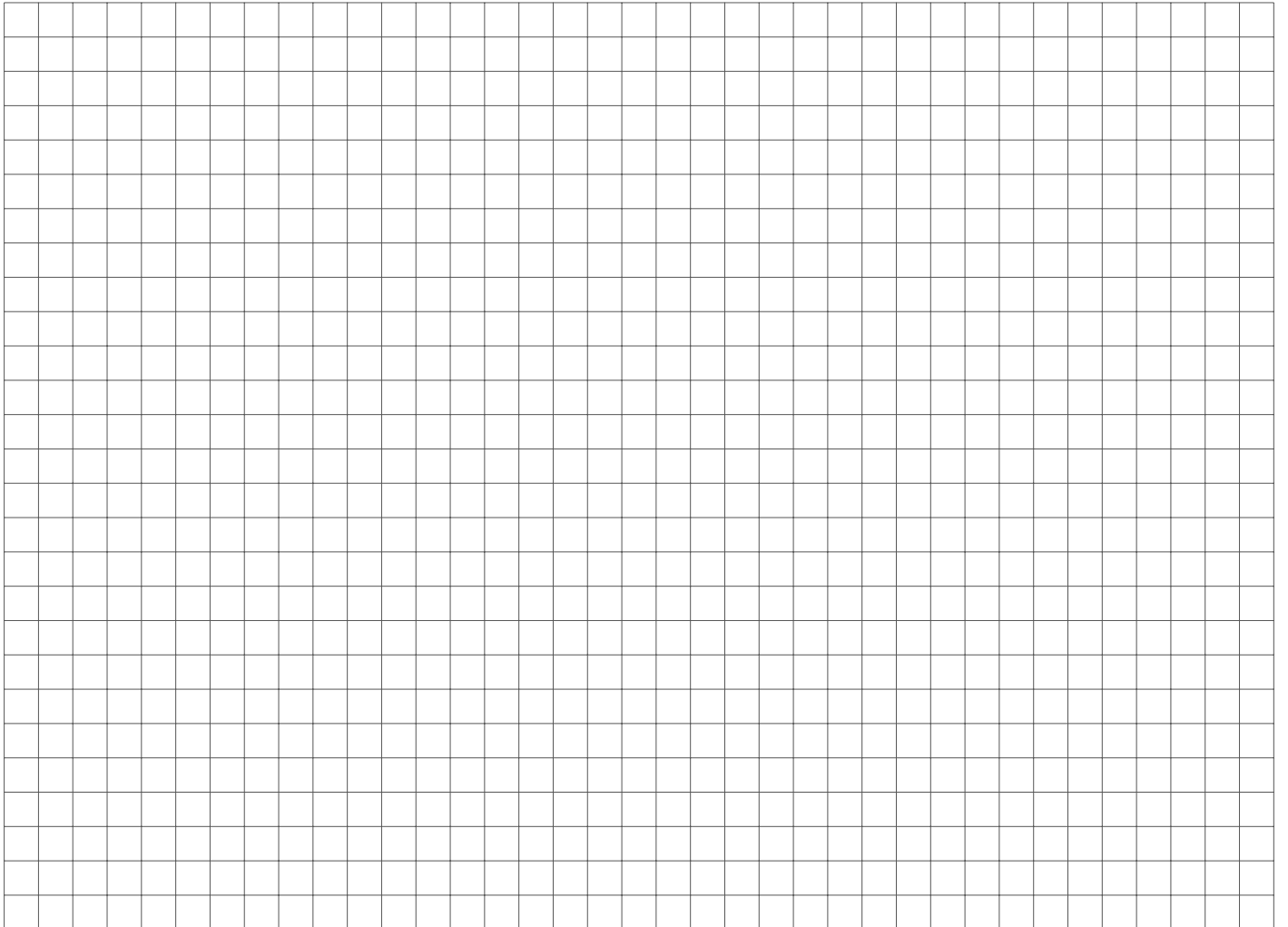
Other

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

Rear Frame

TC 50 Extension **
TC 52 Extension **
TC 54 Extension **
TC 59 Extension **

(** 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 3 669 4163 English
Sweden 2003-11 ART
Volvo Växjö