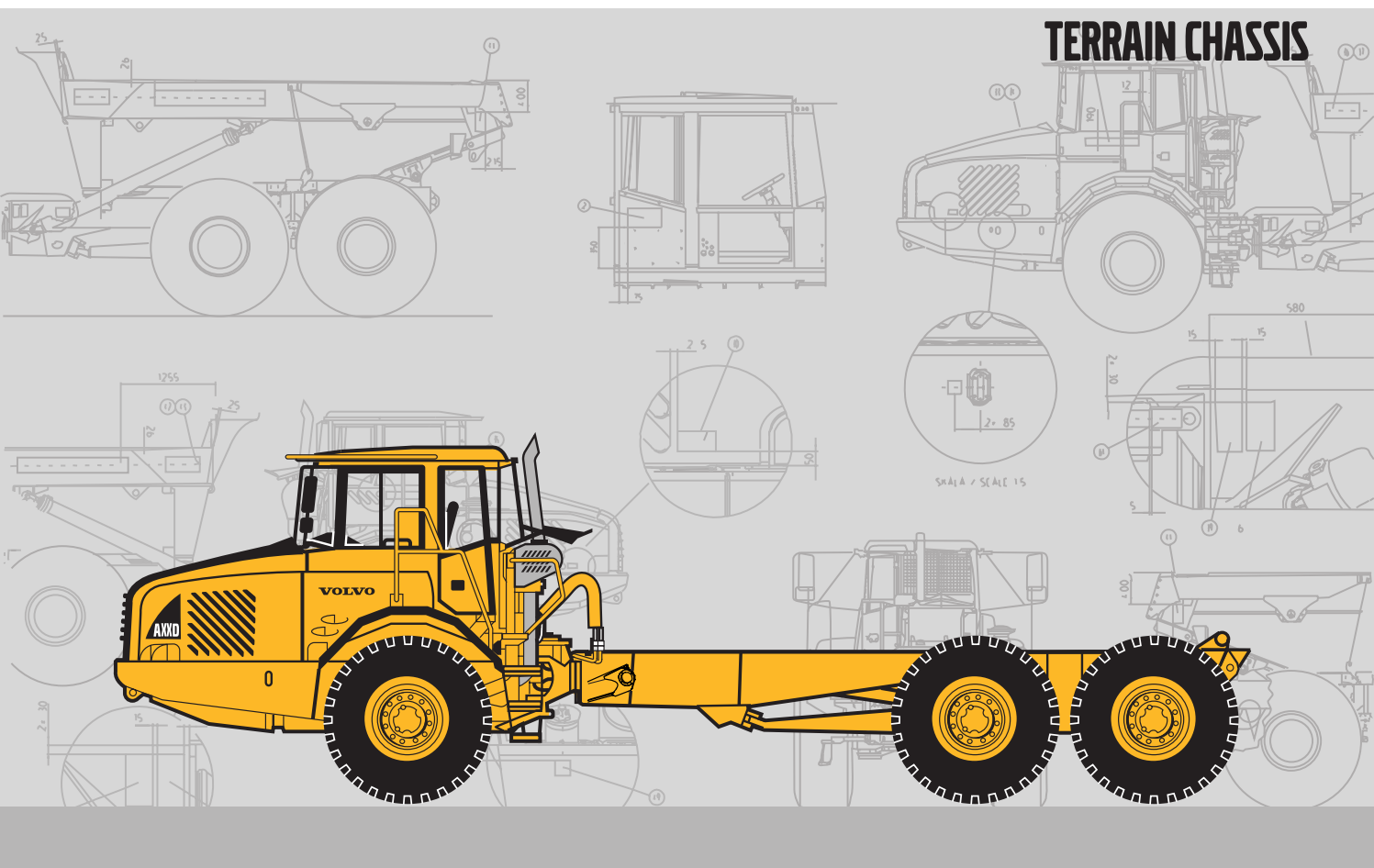


**VOLVO ARTICULATED HAULER**

# A25D/A30D



• **Engine output:**

**A25D:**

SAE J1995, Gross 228 kW (310 hp)

SAE J1349, Net 227 kW (309 hp)

**A30D:**

SAE J1995, Gross 242 kW (329 hp)

SAE J1349, Net 241 kW (328 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.....	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

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.

## A30D

Make, model .....	Volvo D10BAAE2*
Make, model .....	Volvo D10BABE2**
Max power at .....	33,3 r/s (2 000 r/min)
SAE J1995 Gross .....	242 kW (329 hp)
Flywheel power at .....	33,3 r/s (2 000 r/min)
SAE J1349 Net, DIN 6271*** .....	241 kW (328 hp)
Max torque at .....	22,5 r/s (1 350 r/min)
SAE J1995 Gross .....	1 420 Nm
SAE J1349 Net, DIN 6271*** .....	1 410 Nm
Displacement total .....	9,6 l

With fan operating at full speed, the flywheel power is 228 kW (310 hp) and maximum torque is 1 321 Nm which corresponds to DIN 70020.

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

\*\*) Meets 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.....	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.

	A25D	A30D
Torque converter.....	2,37:1	2,37:1
Transmission, Volvo .....	PT 1560	PT 1560
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.

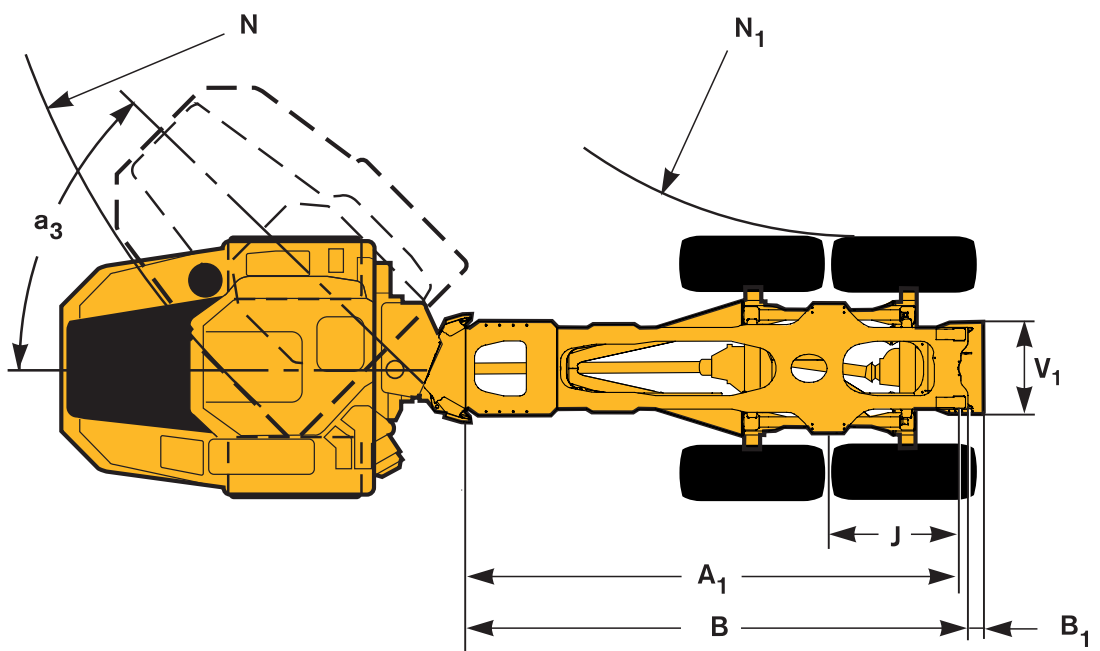
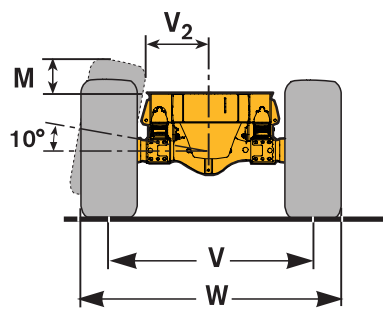
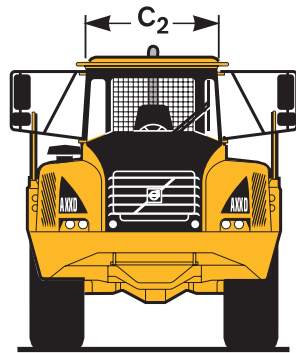
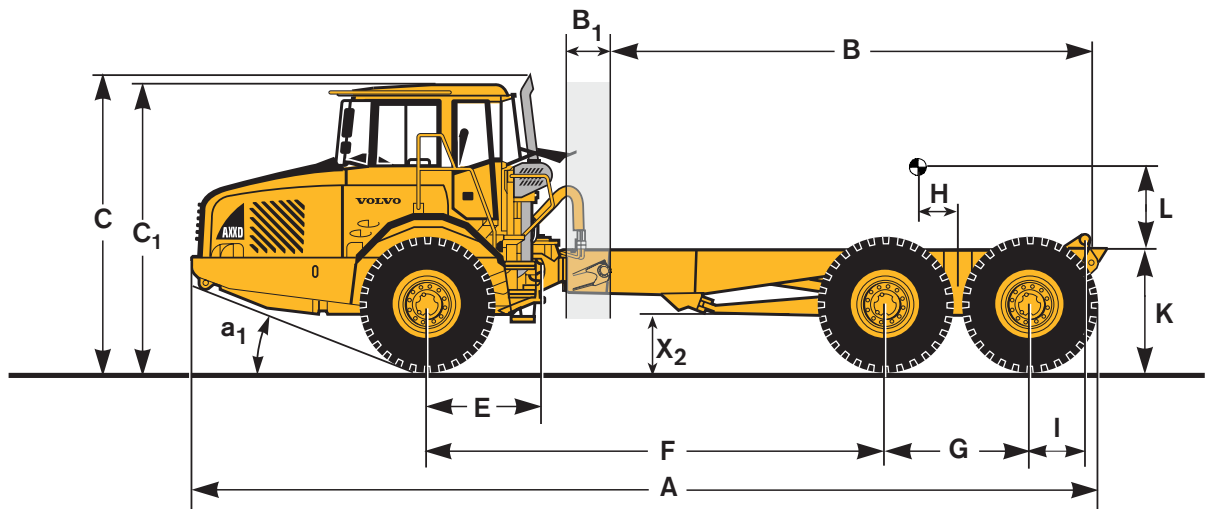
## Pump capacity per pump:

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

<b>Weights</b>						<b>Ground Pressure</b>	
Operating weight includes all fluids and operator.						At 15% sinkage of unloaded radius and specified weights.	
	<b>A25D TC42</b>	<b>A25D TC50</b>	<b>A25D TC52</b>	<b>A25D TC54</b>	<b>A25D TC59</b>		<b>A25D</b>
<b>Tires</b>	23.5R25 650/65R25	23.5R25 650/65R25	23.5R25 650/65R25	23.5R25 650/65R25	23.5R25 650/65R25	<b>Tires</b>	23.5R25 650/65 R25
<b>Operating weight unloaded</b>						<b>Unloaded</b>	
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	<b>Loaded</b>	
Payload incl. superstructure	28 220 kg	27 920 kg	27 850 kg	27 770 kg	27 590 kg	Front	144 kPa
<b>Total weight</b>						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		

<b>Weights</b>						<b>Ground Pressure</b>	
Operating weight includes all fluids and operator.						At 15% sinkage of unloaded radius and specified weights.	
	<b>A30D TC42</b>	<b>A30D TC50</b>	<b>A30D TC52</b>	<b>A30D TC54</b>	<b>A30D TC59</b>		<b>A30D TC</b>
<b>Tires</b>	750/65R25	750/65R25	750/65R25	750/65R25	750/65R25	<b>Tires</b>	750/65R25
<b>Operating weight unloaded</b>						<b>Unloaded</b>	
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	<b>Loaded</b>	
Payload incl. superstructure	33 060 kg	32 760 kg	32 690 kg	32 610 kg	32 430 kg	Front	121 kPa
<b>Total weight</b>						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 <sub>1</sub>	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 <sub>1</sub>	170	170	170	170	170	170	170	170	170	170
B <sub>2</sub>	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 <sub>1</sub>	3 318	3 318	3 318	3 318	3 318	3 271	3 271	3 271	3 271	3 271
C <sub>2</sub>	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 <sub>1</sub>	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 <sub>1</sub>	974	974	974	974	974	974	974	974	974	974
V <sub>2</sub>	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 <sub>2</sub>	659	659	659	659	659	705	705	705	705	705
a <sub>1</sub>	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°
a <sub>3</sub>	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 <sub>1</sub>	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 <sub>1</sub>	170	170	170	170	170	170	170	170	170	170
B <sub>2</sub>	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 <sub>1</sub>	3 318	3 318	3 318	3 318	3 318	3 318	3 318	3 318	3 318	3 318
C <sub>2</sub>	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 <sub>1</sub>	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 <sub>1</sub>	974	974	974	974	974	974	974	974	974	974
V <sub>2</sub>	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 <sub>2</sub>	659	659	659	659	659	659	659	659	659	659
a <sub>1</sub>	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°	23.5°
a <sub>3</sub>	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 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  
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/m<sup>3</sup>)  
Body with sight hole in head board (Twin Steer) \*\*  
Light Material body (0,9 ton/m<sup>3</sup>) \*\*  
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 \*\*

### 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 2 669 4163 English  
Sweden 2003-04 ART  
Volvo Växjö