

Document Title: Description	Function Group: 000	Information Type: Service Information	Date: 4/14/2026
Profile:			

Description

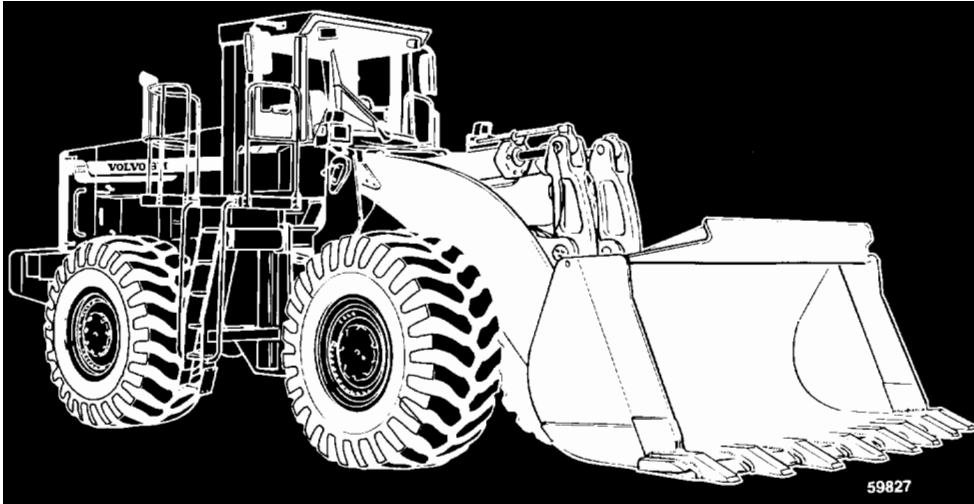


Figure 1

Loader L330C

L330C is a four-wheel drive wheel loader with articulated frame steering.

The engine is a straight, six-cylinder, direct-injection, diesel engine with a turbocharger and charge-air cooler (intercooler). The engine type designation is TD164KAE.

The transmission is a hydro mechanical transmission where all gears are in constant mesh and its designation is CLARK-HURTH C8421-H.

The torque converter is a single stage hydraulic torque converter fitted on the engine and then connected to the transmission via a propeller shaft. The designation of the torque converter is CLARK-HURTH C9672.

The axles have differential carrier assemblies of the "Spiral Bevel" type with helically cut gears on crown wheel and pinion shaft with a further ratio reduction in the hub reduction gears.

Front and rear axles have fully floating drive shafts and planetary hub reduction gears. The type designation for both front and rear axles is CLARK-HURTH 21D5568.

The brake system is an all-hydraulic, dual-circuit system. The axles are provided with a closed oil system for cooling the brake discs. There are six discs per wheel. The designation of the brake housings is CLARK-HURTH 26100LCB (liquid-cooled brakes).

The parking brake is a spring applied and hydraulically released disc brake fitted on the pinion shaft of the front axle.

The loader has articulated frame steering with a load-sensing hydrostatic system with two variable axial piston pumps which are prioritised to the steering as well as two double-acting hydraulic cylinders (steering cylinders).

The two steering pumps are fitted on the right side of the torque converter.

The hydraulic system is a load-sensing system which has four pumps, two for the working hydraulics and two steering pumps which, as mentioned above, give priority to the steering system with the aid of a priority valve.

The hydraulic pumps, which only supply the working hydraulics, are fitted on the left side of the torque converter. The system has two double-acting lifting cylinders and two double-acting bucket cylinders. The servo system is of the "closed centre" type.

The hydraulic oil tank is not pressurised.

For a more detailed description of the various systems, please see the respective Sections.

Sample manual. Download All 823 pages at:

<https://www.arepairmanual.com/downloads/l330c-volvo-wheel-loaders-service-manual/>

Document Title: Product Identification Plates	Function Group: 000	Information Type: Service Information	Date: 4/14/2026
Profile:			

Product Identification Plates

From the picture and the text below it can be seen which product identification plates should be found on the machine. When ordering spare parts and when making enquires per telephone or correspondence, the model designation and Product Identification Number, (PIN) should be stated.

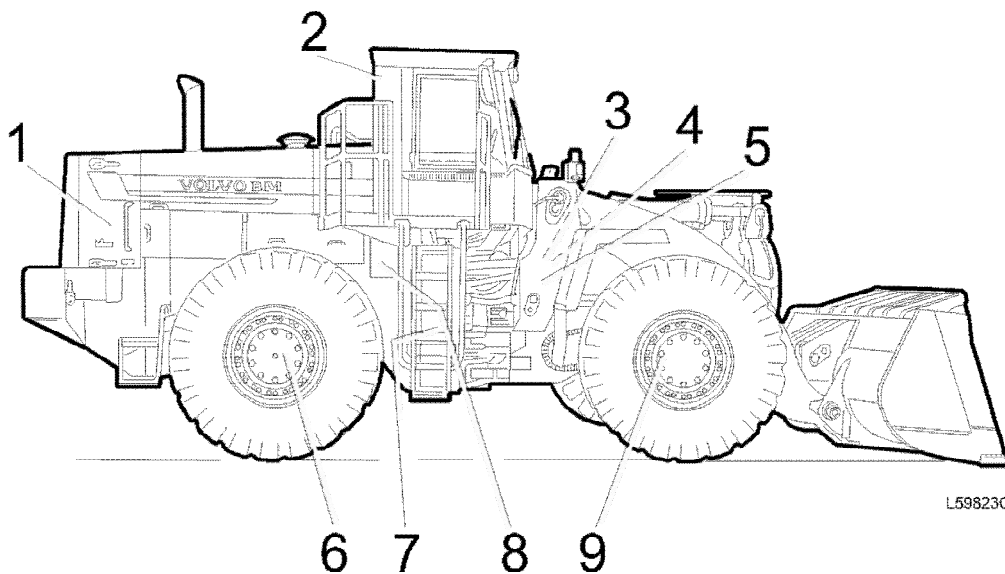


Figure 1

1 Engine

The engine type designation, part and serial numbers are stamped into the rear of the block face in front of the number one cylinder head.

2 Cab

The cab serial number, machine type, manufacturer's name and address, ROPS/FOPS numbers and max. machine weight are positioned on the rear right roof post inside the cab. The corresponding information for the ROPS frame is fitted on the outside of the left ROPS frame member.

3 Product Identification Plate

The Product Identification Plate shows the machine type, manufacturer's name and address and the Product Identification Number, PIN, for the complete machine (including model designation, engine manufacturer and serial number). The plate is fitted on the left side of the front frame.

4 Additional plate

The additional plate for the Product Identification Plate shows the machine weight, engine power, year of manufacture and has a space for the CE mark (only within EU/EEA) is positioned below the Product Identification Plate.

5 Primary marking

The PIN, model designation, engine manufacturer and serial number are stamped into the right-hand side of the front frame. (shows the same PIN number as on the product plate).

6 Rear axle

The rear drive axle identification marking is positioned towards the rear on top of the axle housing.

7 Transmission

The transmission product and serial numbers and information about the manufacturer are positioned at the rear end of the

transmission (to the left of the power transmission shaft).

8 Torque converter

The torque converter identification marking is positioned between the PTOs for pumps 1–4. Forward in the machine.

9 Front axle

The front drive axle identification marking is positioned centrally on the front of the axle housing.

Document Title: Brakes	Function Group: 030	Information Type: Service Information	Date: 4/14/2026
Profile:			

Brakes

Hydraulic oil pump (in common with servo system)

Type	Piston pump
Designation	PVE 19L-2-30-CVP-12
System pressure	21 MPa (210 bar) (3046 psi)

Hydraulic oil pump, cooling circuit

Type	Gear pump
Flow at 2000 rpm (33.3 r/s), per minute	37.7 litres (10 US gal)

Service brakes

Type	Dual circuit all-hydraulic multi-disc brakes provided with piston type accumulators
Number of brake discs per wheel	6
Minimum thickness, brake disc	9.14 mm (0.360 in)
Accumulators, number of	2
Accumulator capacity, each	4 litres (244 in ³)
Precharging pressure[1]	6.0 MPa (60 bar) (870 psi)
Working pressure (circuit pressure, max.)	6.5 MPa (65 bar) (943 psi)

Parking brake

Type	Hydraulically operated disc brake with diaphragm type accumulator
Make	Clark/Hurth
Brake disc thickness	11.4 mm (0.450 in)
P-brake, control pressure	21 MPa (210 bar) (3046 psi)
Accumulator, capacity	0.75 litre (46 in ³)
Precharging pressure, new accumulator	10 MPa (100 bar) (1450 psi)

[1]New accumulators must be precharged

Document Title: Engine	Function Group: 030	Information Type: Service Information	Date: 4/14/2026
Profile:			

Engine

General

Designation	TD 164 KAE
Flywheel output at 30 r/s (1800 rpm)	366 kW (498 hp) SAE J 1349 Net 366 kW (498 hp) ISO 9249 Net
Output gross at 30 r/s (1800 rpm)	370 kW (503 hp) SAE J 1349 Gross 341 kW (464 hp) DIN 70020
Torque at 16.6 r/s (1000 rpm)	2330 N m (1718 lbf ft) SAE J 1349 Net 2330 N m (1718 lbf ft) ISO 9249 Net 2370 N m (1718 lbf ft) DIN 70020
Number of cylinders	6
Cylinder bore	144.00 mm (5.669 in)
Stroke	165.00 mm (6.497 in)
Cylinder capacity, total	16.12 litres (983 in ³)
Compression ratio	17,5:1
Compression pressure at starter motor revolutions	3.04 MPa (30.4 bar) (441 psi)
Order of injection	1-5-3-6-2-4
Idling speed, low	850±50 rpm (14,2±0,8 r/s)
high	2070±50 rpm (34,5±0,8 r/s)
Valve clearance, cold engine, inlet valve	0.30 mm (0.012 in)
exhaust valve	0.60 mm (0.024 in)
Stall speed, torque converter	30–32 r/s (1820–1920 rpm)

Air cleaner

	Air cleaning in three stages cyclone cleaner–primary filter–secondary filter
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Lubrication system, general

Oil pressure	400 kPa (4.0 bar) (58 psi)
Oil pressure, idling, minimum	150 kPa (1.5 bar) (22 psi)

Fuel system

FEED PUMP	
Type	Piston pump
Designation	FP/KG 24 P 307
Feed pressure	130–180 kPa (1.3–1.8 bar) (19–26 psi)
INJECTION PUMP	
Type	In-line pump
Make	Bosch
Designation	PE 6 R 120/720 RS 1507

Injection timing	12 ±0.5° B.T.D.C.
INJECTORS	
Type	Multi-hole nozzle (7 holes)
Make	Bosch
Nozzle holder, design.	KBAL 116 S 75
Injectors, designation	DLLA 148 S 1272
Identification code	534
Opening pressure	23.5 MPa (235 bar) (3408 psi)
Setting pressure, for new spring	24.0 MPa (240 bar) (3481 psi)

Cold-starting device

Preheating element	In the inlet manifold
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Turbocharger

Designation	Garrett TV 75
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Charge-air cooler

Type	Water/air
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Cooling system

Type	Closed system
The radiator cap valve opens at	50 kPa (0.5 bar) (7.3 psi)

THERMOSTAT

Type	Piston-type thermostat
Number of	2
Begins to open at	82°C (180°F)
Fully open at	92°C (198°F)

COOLANT PUMP

Type	Gear driven centrifugal pump
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COOLING FAN PUMP

Type	Variable piston pump (electrically controlled)
Displacement, max.	45 cm ³ (2.7 in ³)
Working pressure (max.)	21.0 MPa (210 bar) (3046 psi)
Stand-by pressure	2.0 MPa (20 bar) (290 psi)

COOLING FAN

Type	Hydraulic motor
Displacement	45 cm ³ (2.7 in ³)

Document Title: Hydraulic system	Function Group: 030	Information Type: Service Information	Date: 4/14/2026
Profile:			

Hydraulic system

General

Type	Servo-controlled type "closed centre"
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Hydraulic pump

Type	Axial piston pump (dual)
Designation	PVH 98C-LCF-35-10-C21V-31
Flow at 30.0 r/s (1800 rpm) and 10 MPa (100 bar) (1450 psi) pressure per minute	713 litres (188 US gal)
Working pressure, low idling	21-21.5 MPa (210-215 bar) (3046-3118 psi)

Control valve

Designation	KMLS300
Shock valve, for tilting forward (at piston rod end)	24.0 MPa (240 bar) (3481 psi)[1]
Shock valve, for tilting rearward (at piston end)	25.5 MPa (255 bar) (3698 psi)[2]
Shock valve, when lifting	32.0 MPa (320 bar) (4641 psi)[3]

Control valve 3rd function or 3rd/4th function

Max. working pressure 3rd function	21 MPa (210 bar) (3046 psi)
Max. working pressure 4th function	21 MPa (210 bar) (3046 psi)
Shock pressure 3rd function	23 MPa (230 bar) (3336 psi)
Shock pressure 4th function	23 MPa (230 bar) (3336 psi)

Servo valve

Designation	PCL-402-6-H2
Working pressure	2.8-3.5 MPa (28-35 bar) (406-508 psi)

Lifting cylinder

Type	Double-acting
Piston rod diameter	120 mm (4.72 in)
Inside diameter/stroke	230/1168 mm (9.06/45.98 in)

Tilting cylinder

Type	Double-acting
Piston rod diameter	90 mm (3.54 in)
Inside diameter/stroke	190/808 mm (7.48/31.81 in)

Operating times (approximate times) at max. engine speed

Lifting, without load	approx. 8.1 seconds
Lowering, without load	approx. 5.9 seconds
Lowering, floating position without load	approx. 5.9 seconds
Forward tilting, with load	approx. 3.0 seconds

Operating times at 1800 rpm

Lifting time without load	8.5–9.5 second
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SEPARATE ATTACHMENT LOCKING

Servo pressure	2.8–3.5 MPa (28–35 bar) (406–508 psi)
Raised pressure (brake pressure)	20.0–21.0 MPa (200–210 bar) (2902–3047 psi)

BOOM SUSPENSION SYSTEM

Accumulator, precharging pressure, one on the right	2.0 MPa (20 bar) (290 psi)
Accumulator, precharging pressure, two on the left	6.0 MPa (60 bar) (870 psi)

The pressures 2.0 MPa (290 psi) and 6.0 MPa (870 psi) respectively is a minimum respective maximum value for the charging pressure.

The suspension properties can be individually adapted to the customer's wishes by changing the precharging pressure of the accumulator(s) from 2.0 MPa (290 psi) up to 6.0 MPa (870 psi).

[1]Dynamic

[2]Dynamic

[3]Dynamic

Document Title: Power transmission	Function Group: 030	Information Type: Service Information	Date: 4/14/2026
Profile:			

Power transmission

Transmission

Type	Hydro-mechanical
Make	Clark/Hurth
Designation	8421H
Number of gears (speeds)	4 forward, 3 rearward
Gear-shifting system	APS (Automatic Power Shift)

Torque converter

Type	Single stage
Make	Clark/Hurth
Designation	C9672
Torque multiplication, when stalling	2,292:1
Torque converter safety valve	0,89 MPa (8,9 bar) (129 psi)

Oil pressure, at high idling speed and neutral position

Main pressure/clutch pressure	1.24–1.51 MPa (12.4–15.1 bar) (180–219 psi)
Lubricating oil pressure	0.09–0.20 MPa (0.9–2.0 bar) (13–29 psi)
Torque converter pressure, out	0.37–0.54 MPa (3.7–5.4 bar) (54–78 psi)

Speed range (tyres 35/65–33)

	Forward	Rearward
1st	6,6 km/h (4,1 mph)	6,6 km/h (4,1 mph)
2nd	11,7 km/h (7,2 mph)	11,7 km/h (7,3 mph)
3rd	19,9 km/h (12,4 mph)	20,0 km/h (12,4 mph)
4th	34,2 km/h (21,3 mph)	

Drive axles

Type	Fully floating drive shafts with hub reduction gears of the planetary gear type
Make	Clark/Hurth
Designation, front	21D5568
rear	21D5568
Differential, gear ratio, front	4,857:1
Differential, gear ratio, rear	4,857:1
Differential lock, front axle and rear axle, type	"Limited slip"
operation	Automatic

Document Title: Specifications	Function Group: 030	Information Type: Service Information	Date: 4/14/2026
Profile:			

Specifications

	kg	lb
Engine	1430	3153
Transmission	1300	2867
Hydraulic oil pumps (each side)	140	309
Torque converter	360	794
Control valve, 2 pcs, (each)	60	132
Front axle	3132	6906
Rear axle	3600	7398
Support bearing	85	187
Front frame	3990	8798
Rear frame	3980	8776
Radiator together with fan and fan motor	515	1136
Lifting cylinder	460	1014
Tilting cylinder	310	684
Steering cylinder	70	154
Cab	770	1698
ROPS Frame	770	1698
Fuel tank, without fuel	315	695
Hydraulic oil tank	240	529
Counterweight (standard)	3432	7568
Extra counterweights, inner and outer, each	520	1147

Document Title: Steering system	Function Group: 030	Information Type: Service Information	Date: 4/14/2026
Profile:			

Steering system

General

Type	Load-sensing hydrostatic
Steering arc	±35°
Number of steering wheel turns, total	3.5 turns
Time for steering, end position–end position, low idling	3.6 seconds
Time for steering, end position–end position, high idling	2.5 seconds

Hydraulic pump

Type	Axial piston pump
Designation	PVH 98C–LCF–35–10–C21V–31
Working pressure max. at high idling	21.5 MPa (215 bar) (3118 psi)
Flow at 30.0 r/s (1800 rpm) and at 10 MPa (100 bar) pressure, two pumps, per minute	356 litres (94 US gal)
Stand-by pressure	2.8–3.5 MPa (28–35 bar)

Steering valve

Type	Closed centre
Designation	OSPLX630–LS

Flow amplifier

Designation	OSQB–4
Shock valve, number of	2 pcs
Shock valve, opening pressure	26 MPa (260 bar) (3771 psi)

Steering cylinder

Type	Double-acting
Piston rod diameter	70 mm (2.756 in)
Inside diameter/stroke	125/493 mm (4.921/19.410 in)

Document Title: Tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/14/2026
Profile:			

Tightening torques

Important! For bolted joints which are not listed here, see Volvo BM Standard tightening torques.

Engine

See also separate Service Manual for the engine

	N m	kgf m	lbf ft
Fan attaching bolts	90	9,0	66
Fan shaft nut	100	10	74
Engine–engine mounting	220	22	162
Engine mounting–frame	350	35	258

Torque converter

	N m	kgf m	lbf ft
Torque converter housing–engine	60	6,0	44

Transmission

See also Separate Service Manual for the transmission

	N m	kgf m	lbf ft
Transmission mounting–frame	1100	110	811
Transmission–transmission mounting	1500	150	1106

Front axle

	N m	kgf m	lbf ft
Support bearing–frame	1100	110	811

Propeller shafts

	N m	kgf m	lbf ft
Drive flanges, propeller shafts	155	15,5	114

Wheels

	N m	kgf m	lbf ft
Wheel bolts	850	85	627

Brake system

	N m	kgf m	lbf ft
Brake pump attaching bolts	90	9,0	66

Steering system

	N m	kgf m	lbf ft
Steering wheel nut	28,4	2,8	21
Bolts in lock plate for pin, 19.05 mm (0.750 in)	450	45	332
Bolts in lock plate for pin, 22.22 mm (0.875 in)	720	72	531

Frame

	N m	kgf m	lbf ft
Radiator-frame	720	72	531
Counterweight	4000	400	2950

Cab

	N m	kgf m	lbf ft
Cab (front and rear)-frame	410	41	302
Engine hood	85	8,5	63
ROPS roll-over bar bolts	2155	215	1589

Hydraulic system

	N m	kgf m	lbf ft
Bucket pin locking	740	74	546
Attaching bolts and nuts for pumps	90	9,0	66
Hydraulic oil tank attaching bolts	220	22	163

AMOUNT OF REFRIGERANT

AC, amount of refrigerant, R134a	2.3–2.4 kg (5.1–5.3 lb)
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Document Title: VOLVO BM standard tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/14/2026
Profile:			

VOLVO BM standard tightening torques

The tightening torques in the following tables apply to bolts with a tensile strength as shown below. The tables are to be considered as a general instruction for the tightening torque of nuts and bolts when no other torque is stated.

NOTE!

For flanged bolts type U6FS the values should be increased by 10 %.

Nut and bolts should be cleaned and lubricated with oil.

TENSILE STRENGTH 8.8

Metric coarse and fine threads

Thread	Nm	kgf.m	lb.ft
M6	10±2	1,0±0,2	7,4±1,5
M8	24±5	2,4±0,5	18±3,5
M10	48±10	4,8±1,0	35±7,4
M12	85±18	8,5±1,8	63±13,0
M14	140±25	14,0±2,5	103±18,0
M16	220±45	22,0±4,5	160±33,0
M20	430±85	43,0±8,5	320±63,0
M24	740±150	74,0±15,0	550±110,0

TENSILE STRENGTH 10.9

Metric coarse and fine threads

Thread	Nm	kgf.m	lb.ft
M6	12±2	1,2±0,2	9±1,5
M8	30±5	3,0±0,5	22±3,5
M10	60±10	6,0±1,0	44±7,5
M12	105±20	10,5±2,0	78±14,5
M14	175±30	17,5±3,0	130±22
M16	275±45	27,5±4,5	204±33
M20	540±90	54,0±9,0	400±66
M24	805±160	80,5±16,0	594±118

UNC threads

Thread	Nm	kgf.m	lb.ft
1/4"	9±2	0,9±0,2	6,6±1,5
5/16"	18±4	1,8±0,4	13±3,0
3/8"	33±8	3,3±0,8	24±5,9
7/16"	54±14	5,4±1,4	40±10

1/2"	80±20	8,0±2,0	59±15
9/16"	120±30	12,0±3,0	89±22
5/8"	170±40	17,0±4,0	130±30
3/4"	300±70	30,0±7,0	220±52
7/8"	485±115	48,5±11,5	360±85
1"	725±175	72,5±17,5	530±130

Document Title: Time Guide	Function Group: 070	Information Type: Service Information	Date: 4/14/2026
Profile:			

Time Guide

Regarding: L330C

16 Lubricants, fuels and other liquids

Op.no.	Time (h)	Operation
16234	2	Hydraulic oil tank, changing oil and filter excl. cleaning tank
16236	3	Hydraulic oil tank, changing oil and filter incl. cleaning tank
16238	2	Transmission, changing oil and filter and cleaning suction strainer
16259	3	Axles, changing oil

17 General

17202	4	Warranty inspection 100 hours, according to service programme
17204	11	Warranty inspection 1000 hours, according to service programme
17307	1,75	Maintenance service, every 250 hours
17310	3	Maintenance service, every 500 hours
17312	8	Maintenance service, every 1000 hours
17314	11	Maintenance service, every 2000 hours

21 Engine, general

21070	10	Engine, removing
21071	55	Engine removed, general overhaul
21072	10	Engine, fitting
21702	7	Sump gasket, replacing incl cleaning oil strainer

23 Fuel system, general

23301	0,5	Fuel system, bleeding
23410	4,5	Fuel tank, replacing
23601	0,25	Idling speed, checking and adjusting
23602	0,25	Stall speed, checking
23630	2	Injection timing, checking and adjusting
23631	1,25	Injection timing adjuster, checking
23644	1	Injection timing, checking

25 Inlet and exhaust systems

25220	2	Silencer, replacing
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26 Cooling system

26108	10	Radiator, replacing
26202	3,5	Coolant pump, replacing
26203	2	Coolant pump (intercooler), replacing
26304	1	Fan motor, checking working pressure
26305	1,5	Fan motor, adjusting working pressure

27 Engine control

27323	0,5	Electrical engine shut down, check and adjusting
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31 Battery and mounting parts

31101	0,5	Batteries, checking charging capacity
31102	1	Batteries, replacing
31103	0,5	Main switch, replacing

33 Starting system, general

33118	1,25	Starter motor, replacing
33401	0,5	Starter lock, replacing

35 Lighting

35202	0,75	Headlights, adjusting against wall or screen
35224	0,75	Head lamp assy, replacing one incl adjusting
35316	0,5	Rear lamp, replacing one
35318	0,25	Rear lamp, replacing glass or bulb
35656	0,5	Work lighting, replacing one head lamp assy
35657	0,5	Work lighting, replacing one insert

36 Other electrical equipment, general

36102	0,25	Flasher unit, replacing relay
36110	0,75	Flasher switch, replacing
36117	0,25	Flasher lamp, replacing glass or bulb
36202	0,25	Horn, replacing
36216	0,75	Horn switch, replacing
36301	0,5	Windscreen wiper rear, replacing motor
36302	1	Windscreen wiper front, replacing motor
36303	0,75	Windscreen wiper, replacing switch
36304	0,25	Windscreen flusher pump, replacing
36404	0,25	Switch, replacing
36408	0,25	Brake light switch, replacing
36720	0,5	ECU, replacing
36721	0,5	CU 8, replacing

42 Transmission, general

42102	1	Hydraulic transmission, check oil pressure
42118	34	Converter, replacing
42170	18	Transmission, removing
42172	18	Transmission, fitting
42176	5,5	Clutch disk, replacing in machine, 1:st and 2:nd
42180	3	Clutch discs, forward - reverse or 3rd - 4th, changing in machine
42181	8	Clutch drum bearings, 1st or 2nd, changing in machine
42182	6	Clutch drum bearings, forward, reverse, 3rd or 4th, changing in machine

45 Propeller shaft incl. bearings and mounting

45103	4	Midmont bearing removed, reconditioning
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46 Drive axles, general

461	Null	Front axle
46106	15	Hub shaft, replacing one side
46107	9	Hub bearing, replacing
46111	16	Centre gear , removing and fitting
46141	11	Hub retainer removed, reconditioning
46143	9	Hub, replacing seal
463	Null	Rear axle
46301	13	Axle, replacing
46302	6	Axle, removing
46303	7	Axle, fitting
46306	15	Hub shaft, replacing one side
46307	9	Hub bearing, replacing
46311	18	Centre gear, removing and fitting
46341	11	Hub retainer removed, reconditioning
46343	9	Hub, replacing seal

51 Wheel brake, all

516	Null	Front axle
51601	0,5	Brake linings, checking wear
51604	12	Brake discs, replacing on both sides
517	Null	Rear axle
51701	0,5	Brake linings, checking wear
51704	12	Brake disc, replacing both sides

52 Hydraulic brake system

52001	0,5	Brake system, checking function, hydraulic
52002	0,5	Brake system, checking function,

		retardation
52004	1,5	Brake system, adjusting unloading pressure
52005	0,5	Brake system, check and adjusting pressure in circuit
52704	5	Hydraulic pump, replacing
52710	1,5	Accumulator, check and adjusting
52711	1	Accumulator, reconditioning

55 Parking brake incl.control system

55002	0,5	Parking brake, adjusting
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64 Steering

64506	6	Steering cylinder, replacing
64528	1,25	Steering system, checking and adjusting working pressure
64554	4,5	Steering cylinder, replacing link bearings
64577	4	Steering cylinder removed, reconditioning incl replacing bearings
64581	1,5	Steering valve removed, reconditioning
64582	2	Steering valve, replacing
64589	4	Flow amplifier, replacing

74 Frame joint, general

74105	0,75	Frame joint, checking clearance
74136	27	Frame joint, replacing bearings

75 Axle suspension, general

75201	22	Axle bridge, replacing
75501	1	Axle suspension, measuring axial and radial clearanse
75502	2,5	Axle suspension, adjusting axial clearance
75503	25	Axle suspension, replacing bushes and seals

77 Wheel, Tyre, Hub, Crawler/Track

77101	2,5	Wheel, removing and fitting
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86 Protective equipment

86001	3	Roll-over bar ROPS, fitting
86002	2,5	Roll-over bar ROPS, removing

91 Working hydraulic and servo system

91111	10	Oil cooler, replacing
91138	11	Hydraulic oil tank, replacing
91209	1,5	Shock valve, tilt function, checking and

		adjusting
91210	1	Shock valve, lowering function, checking and adjusting
91211	1,25	Shock valve lift function, adjusting
91218	1,5	Back-up valve, checking opening pressure
91219	0,75	Shock valve removed, checking
91303	3,5	Oil pump, checking and adjusting standby pressure
91304	3	Oil pump, checking and adjusting working pressure
91309	28	Oil pumps, replacing all
91320	2	Hydraulic oil pumps , balancing/ adjusting
91454	1,75	Servo valve, adjusting control
91455	0,5	Servo pressure, checking and adjusting
91457	0,25	Servo pressure, check
91460	5	Servo pump, replacing
91463	2	Servo pressure, checking by spool valve in control valve
91601	0,75	Boom suspension system, checking function
91602	1,75	Accumulator, check and adjusting
91603	1	Accumulator, reconditioning
91604	1,75	Boom suspension system, checking closing pressure
91605	1,25	Boom suspension system, checking opening pressure

94 Unit for load handling

94502	7	Lift frame, replacing bearing in lower bucket- or implement attachment
94504	5,5	Lift cylinder, replacing
94505	6,5	Lift cylinder, repacking in machine
94508	3,5	Tilt cylinder, replacing
94509	4,5	Tilt cylinder, repacking in machine
94513	7	Lift cylinder, rear bearing replacing
94514	3	Lift cylinder, front bearing replacing
94524	5,5	Tilt cylinder, replacing bearing in machine "E-F"
94566	2,5	Tilt link, replacing "GH"
94567	1,75	Tilt link removed, replacing bearings "GH"
94568	5	Tilt arm, replacing bearing "GDF"

Document Title: Drawings of tools (E-tools) which can be made in your own workshop	Function Group: 080	Information Type: Service Information	Date: 4/14/2026
Profile:			

Drawings of tools (E-tools) which can be made in your own workshop

The measurements on the drawings are given in mm, unless otherwise stated (1 mm = 0.03937 in).

E 1034 Nipple

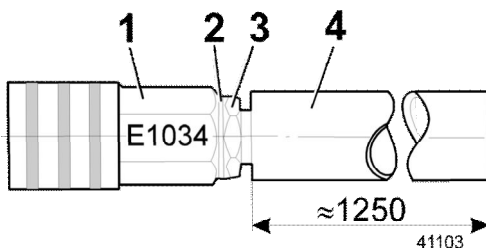


Figure 1

1. TEMA, 3/8"R – 1800 – N
2. Fibre washer, Ø 17 mm
3. TEMA, 3/8"R 1816
4. Hose, 5/8"

E 1667 Lifting yoke

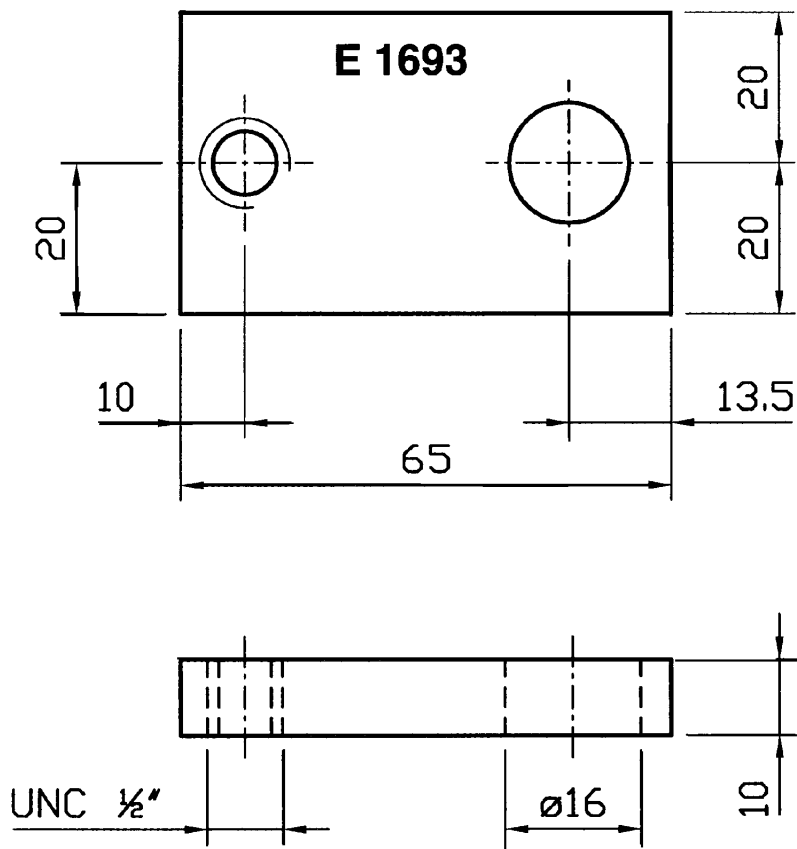


Figure 3

Document Title: Towing	Function Group: 100	Information Type: Service Information	Date: 4/14/2026
Profile:			

Towing

If the machine, after recovery, must be towed to a workshop, use a towbar connected to the towing device as described above, or a wire rope attached to the towing eyes inside the front axle attachment on the frame

If the brakes do not function (the engine cannot be started), a towbar should always be used.

The towing vehicle must always be at least as heavy as the towed vehicle and have sufficient engine and braking capacity to be able to pull and brake both vehicles on any up or down hill encountered on the way.

The towing distance should always be as short as possible, otherwise the transmission may be damaged.

If the towing distance is longer than 10 km (6 miles) and/or if the speed is higher than 10 km/h (6 mph) both the front and rear propeller shafts must be removed, alternatively, the machine should be transported on a trailer.

After recovering/towing

Before the towbar or wire rope are removed after recovering/towing, the following safety measures should be taken:

- Place the machine on level ground.
- Apply the parking brake.
- Block the wheels in order to prevent the machine from beginning to roll.

Document Title: Towing/recovering	Function Group: 100	Information Type: Service Information	Date: 4/14/2026
Profile:			

Towing/recovering

Measures for towing/recovering

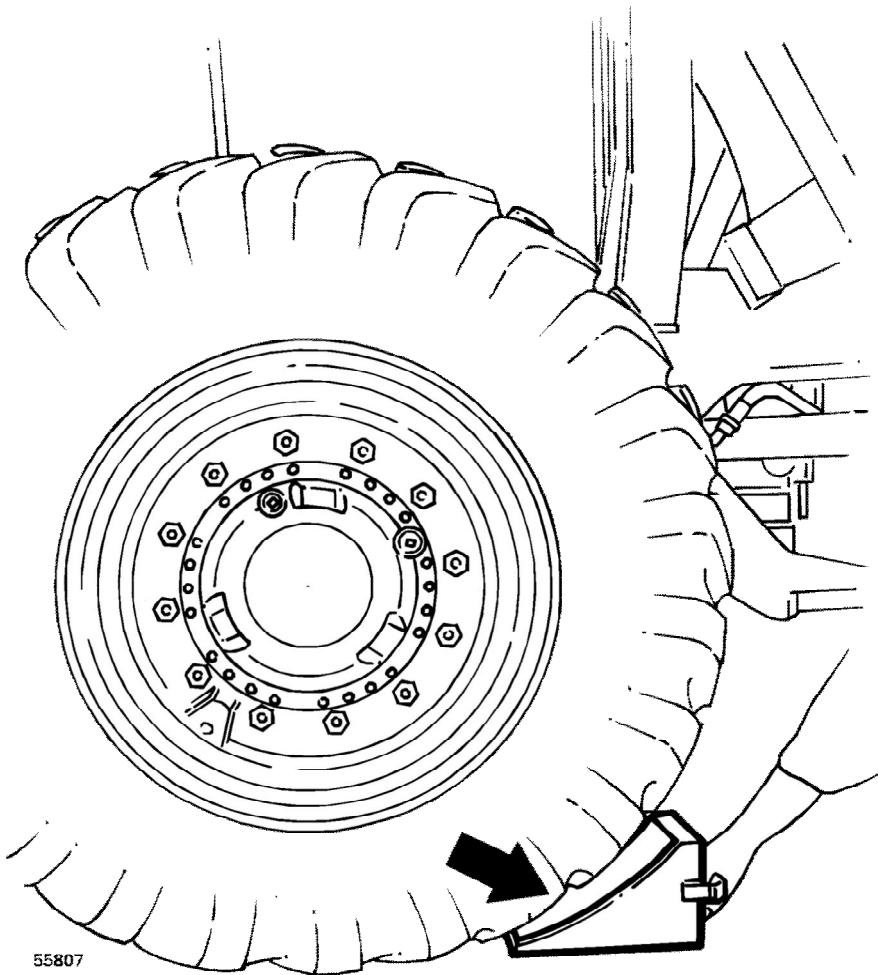
If it is possible, before towing/recovering, the engine should be started so as to be able to operate the brake and steering functions satisfactorily.

When towing the gear selector control should be in the neutral position.

It is not possible to start the engine by towing the machine.

! WARNING

Before measures for towing or recovering are initiated, the parking brake must be applied and the wheels blocked in order to prevent the machine from starting to roll. The greatest care must be exercised during work with towing/recovering in order to avoid injuries or at worst, fatalities.



55807

Figure 1

Blocking wheels

RECOVERING

! WARNING

If the engine cannot be started:

As the brake and steering functions will be limited in this situation, towing the machine may only be done in an emergency, absolutely the shortest possible distance and under the supervision of personnel trained for this purpose. If possible, transport the machine on a trailer.

Use towbar in order to tow the machine to a suitable place or trafficable road. The towbar should be connected to the towing device according to Fig.

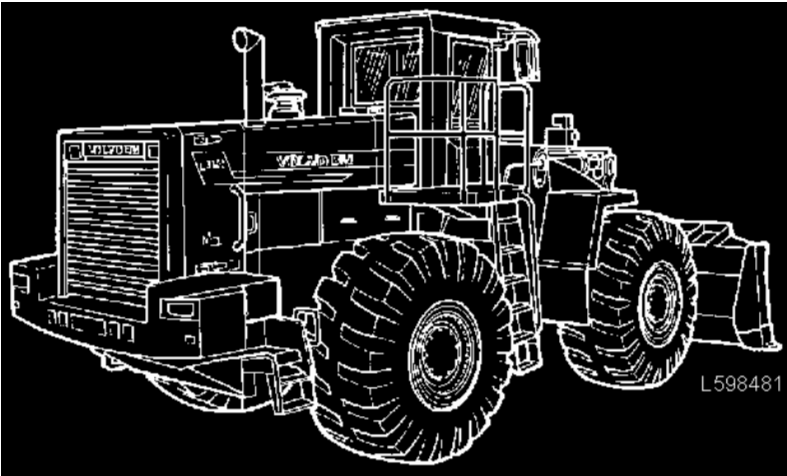


Figure 2
Towing device



The lifting eyes must not be used for recovering.

Document Title: Electric welding	Function Group: 170	Information Type: Service Information	Date: 4/14/2026
Profile:			

Electric welding

Before carrying out electric welding on the machine or attachments connected to the machine, the battery disconnect switch must be turned off or the battery earth lead disconnected.

Connect the welding unit as close as possible to the point of welding.

Document Title: A few simple rules for batteries	Function Group: 191	Information Type: Service Information	Date: 4/14/2026
Profile:			

A few simple rules for batteries

- Batteries give off explosive gases. Never smoke around any batteries.

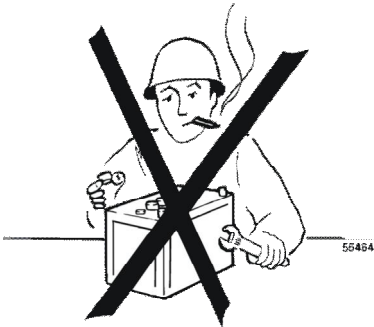


Figure 1

- The electrolyte causes burns to the skin and is corrosive.
- Begin by disconnecting the earth lead in order to remove a battery. To reduce the risk of sparks which can cause fire, always connect the earth lead last when fitting a battery.
- Never tilt a battery in any direction, otherwise the battery electrolyte may leak out.
- When charging batteries, follow the instructions on the next page.
- When using a spare battery to aid the starting of the engine, follow the instructions on the next page.
- Do not connect a discharged battery in series with a fully charged one, otherwise the current surge can cause the batteries to explode.
- Make sure that metal objects (such as tools, rings, watch straps etc.) do not come into contact with battery terminals. There is a risk of injury and fire. Always re-fit the pole stud and terminal protections to the batteries.
- Batteries contain substances dangerous to the environment. They must therefore, when subject to disposal, be treated according to local and national regulations.

Document Title: A few simple rules of safety	Function Group: 191	Information Type: Service Information	Date: 4/14/2026
Profile:			

A few simple rules of safety

Before operating

■ Apply the rules given in the Operator's Instruction Manual to the operation of the machine. Therefore read what has to be done before you take your place in the operator's seat and start operating the machine!

A few important rules are given below:



L50385-1

Figure 1

- Faults or defects which affect the safety must be remedied as soon as possible.
- Read all plates and instructions which are fitted on the machine and given in the Operator's Instruction Manual before you begin to operate or service the machine. Each of the instructions contain important information about safety, handling and service of the machine.
- Always wear a hard hat, safety glasses, gloves, protective shoes and other protective articles when the work so requires.
- Before starting the engine indoors, make sure that the extraction capacity of the ventilation system is sufficient. The machine is provided with a diesel engine and the exhaust gasses may be dangerous to your health. Therefore, make sure of good ventilation and avoid running the engine more than necessary where the ventilation is inadequate.
- Always sit in the seat when starting the engine.
- When cleaning the outside of the cab windows, use a long-handled rubber scraper or brush.
- Before putting the machine to work, make sure it is operational, that is, all faults which may cause an accident must first be rectified.
- Use the hip-type seat belt during all operation.

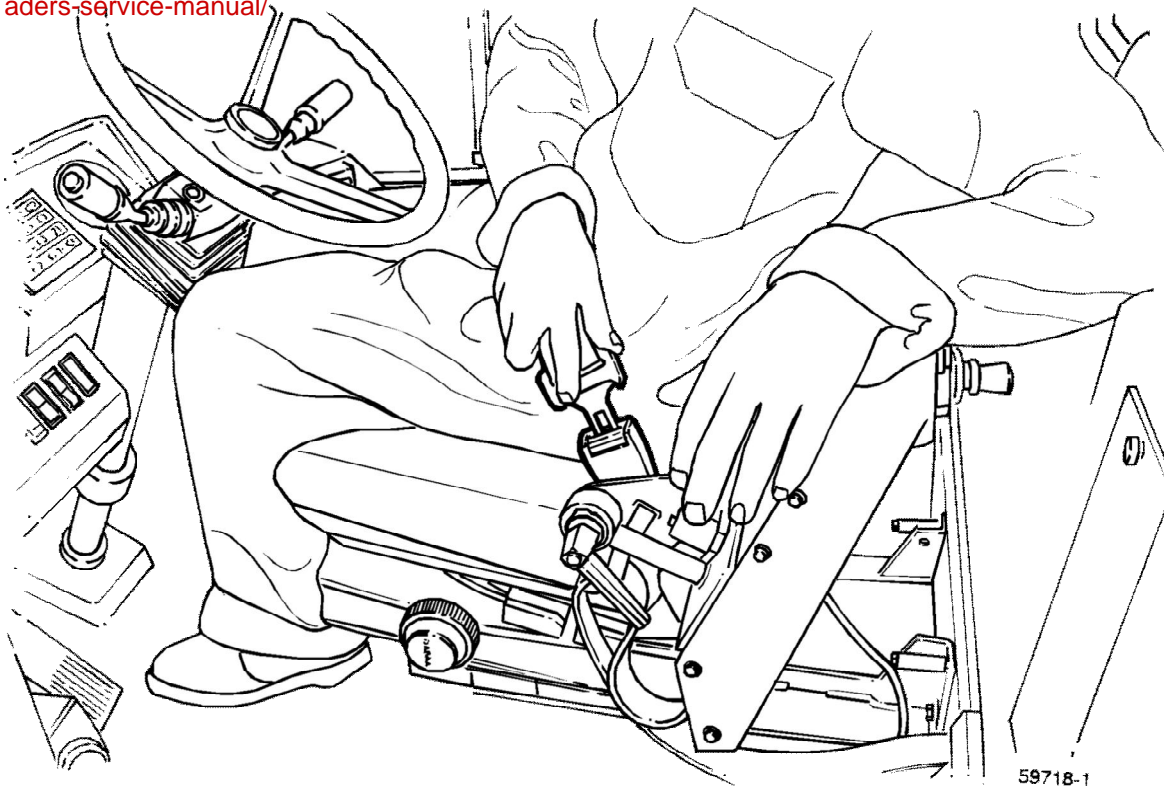


Figure 2

- Make a control lamp test before starting the engine by turning the ignition key to position I, see the Operator's Instruction Manual.
- Carry out all prescribed safety checks.

⚠ CAUTION

The machine should be in the service position when the checks are carried out. Service Position[Invalid linktarget]

- Never drive the machine while under influence of alcohol, medicine or other drugs.
- Do not operate the machine for long periods without ventilation or with a fully closed cab without having the fan running (to avoid lack of oxygen).
- When servicing the machine and for instance when changing bulbs, a ladder may have to be used to stand on.
- When you are entering or leaving the machine, always face the machine and use the steps and hand holds. Always use both hands and one foot or both feet and one hand. Do not jump!