

Document Title: Volvo standard tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Volvo standard tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

The tightening torques in the following tables apply to bolts and nuts with tensile strength. The tables should be used as a general instruction for tightening bolts and nuts without specified values. The charts contains values for course thread bolts and nuts.

Torque values should be increased with $\approx 10\%$, for flange bolts.

All standard torques for bolts are without surface treatment.

The standard torque for bolts lubricated with oil should be reduced with 20% of the given value.

Standard tightening torque charts

Bolt size Metric Coarse Threads	Tensile strength 8.8		Tensile strength 10.9	
	(Nm)	(lbf ft)	(Nm)	(lbf ft)
M5	6	4	8	6
M6	10	7	14	11
M8	25	18	35	26
M10	50	37	70	52
M12	87	64	122	90
M14	139	103	195	144
M16	213	157	299	220
M18	293	216	413	305
M20	416	307	585	432
M24	719	530	1010	745
M27	1060	782	1490	1100
M30	1140	840	2025	1493
M36	2500	1844	3600	2653

Bolt size Inch SAE Coarse Threads	Tensile strength 5		Tensile strength 8	
	(lbf ft)	(Nm)	(lbf ft)	(Nm)
1/4	10	13,6	14	19
5/16	21	28,5	29	39,3
3/8	37	50,2	52	70
7/16	59	80	84	114
1/2	90	122	128	174
9/16	130	176	184	250
5/8	200	271	284	388
3/4	270	365	384	520
7/8	350	473	500	673
1	440	592	624	843
1 1/8	540	730	768	1040
1 1/4	650	880	928	1250
1 3/8	770	1040	1088	1460
1 1/2	900	1210	1248	1680
1 3/4	1040	1400	1448	1930
2	1200	1620	1668	2230
2 1/4	1400	1880	1928	2610
2 3/4	1600	2150	2208	2980
3	1800	2430	2496	3360
3 1/2	2100	2820	2880	3920
4	2400	3220	3264	4400
4 1/2	2700	3630	3648	4900
5	3000	4050	4032	5400
5 1/2	3300	4470	4416	5900
6	3600	4900	4800	6400
6 1/2	3900	5330	5184	6900
7	4200	5770	5568	7400
7 1/2	4500	6210	5952	7900
8	4800	6660	6336	8400
8 1/2	5100	7110	6720	8900
9	5400	7570	7104	9400
9 1/2	5700	8030	7488	9900
10	6000	8500	7872	10400
10 1/2	6300	8970	8256	10900
11	6600	9450	8640	11400
11 1/2	6900	9930	9024	11900
12	7200	10420	9408	12400
12 1/2	7500	10910	9792	12900
13	7800	11410	10176	13400
13 1/2	8100	11910	10560	13900
14	8400	12420	10944	14400
14 1/2	8700	12930	11328	14900
15	9000	13450	11712	15400
15 1/2	9300	13970	12096	15900
16	9600	14500	12480	16400
16 1/2	9900	15030	12864	16900
17	10200	15570	13248	17400
17 1/2	10500	16110	13632	17900
18	10800	16660	14016	18400
18 1/2	11100	17210	14400	18900
19	11400	17770	14784	19400
19 1/2	11700	18330	15168	19900
20	12000	18900	15552	20400
20 1/2	12300	19470	15936	20900
21	12600	20050	16320	21400
21 1/2	12900	20630	16704	21900
22	13200	21220	17088	22400
22 1/2	13500	21810	17472	22900
23	13800	22410	17856	23400
23 1/2	14100	23010	18240	23900
24	14400	23620	18624	24400
24 1/2	14700	24230	19008	24900
25	15000	24850	19392	25400
25 1/2	15300	25470	19776	25900
26	15600	26100	20160	26400
26 1/2	15900	26730	20544	26900
27	16200	27370	20928	27400
27 1/2	16500	28010	21312	27900
28	16800	28660	21696	28400
28 1/2	17100	29310	22080	28900
29	17400	29970	22464	29400
29 1/2	17700	30630	22848	29900
30	18000	31300	23232	30400
30 1/2	18300	31970	23616	30900
31	18600	32650	24000	31400
31 1/2	18900	33330	24384	31900
32	19200	34020	24768	32400
32 1/2	19500	34710	25152	32900
33	19800	35410	25536	33400
33 1/2	20100	36110	25920	33900
34	20400	36820	26304	34400
34 1/2	20700	37530	26688	34900
35	21000	38250	27072	35400
35 1/2	21300	38970	27456	35900
36	21600	39700	27840	36400
36 1/2	21900	40430	28224	36900
37	22200	41170	28608	37400
37 1/2	22500	41910	28992	37900
38	22800	42660	29376	38400
38 1/2	23100	43410	29760	38900
39	23400	44170	30144	39400
39 1/2	23700	44930	30528	39900
40	24000	45700	30912	40400
40 1/2	24300	46470	31296	40900
41	24600	47250	31680	41400
41 1/2	24900	48030	32064	41900
42	25200	48820	32448	42400
42 1/2	25500	49610	32832	42900
43	25800	50410	33216	43400
43 1/2	26100	51210	33600	43900
44	26400	52020	33984	44400
44 1/2	26700	52830	34368	44900
45	27000	53640	34752	45400
45 1/2	27300	54450	35136	45900
46	27600	55270	35520	46400
46 1/2	27900	56090	35904	46900
47	28200	56910	36288	47400
47 1/2	28500	57730	36672	47900
48	28800	58560	37056	48400
48 1/2	29100	59390	37440	48900
49	29400	60230	37824	49400
49 1/2	29700	61070	38208	49900
50	30000	61910	38592	50400
50 1/2	30300	62760	38976	50900
51	30600	63610	39360	51400
51 1/2	30900	64460	39744	51900
52	31200	65320	40128	52400
52 1/2	31500	66180	40512	52900
53	31800	67050	40896	53400
53 1/2	32100	67910	41280	53900
54	32400	68780	41664	54400
54 1/2	32700	69650	42048	54900
55	33000	70530	42432	55400
55 1/2	33300	71410	42816	55900
56	33600	72300	43200	56400
56 1/2	33900	73190	43584	56900
57	34200	74090	43968	57400
57 1/2	34500	74990	44352	57900
58	34800	75890	44736	58400
58 1/2	35100	76790	45120	58900
59	35400	77700	45504	59400
59 1/2	35700	78610	45888	59900
60	36000	79520	46272	60400
60 1/2	36300	80430	46656	60900
61	36600	81350	47040	61400
61 1/2	36900	82260	47424	61900
62	37200	83180	47808	62400
62 1/2	37500	84090	48192	62900
63	37800	85010	48576	63400
63 1/2	38100	85930	48960	63900
64	38400	86850	49344	64400
64 1/2	38700	87770	49728	64900
65	39000	88700	50112	65400
65 1/2	39300	89620	50496	65900
66	39600	90550	50880	66400
66 1/2	39900	91470	51264	66900
67	40200	92400	51648	67400
67 1/2	40500	93320	52032	67900
68	40800	94250	52416	68400
68 1/2	41100	95170	52800	68900
69	41400	96100	53184	69400
69 1/2	41700	97020	53568	69900
70	42000	97950	53952	70400
70 1/2	42300	98870	54336	70900
71	42600	99800	54720	71400
71 1/2	42900	100720	55104	71900
72	43200	101650	55488	72400
72 1/2	43500	102570	55872	72900
73	43800	103500	56256	73400
73 1/2	44100	104420	56640	73900
74	44400	105350	57024	74400
74 1/2	44700	106270	57408	74900
75	45000	107200	57792	75400
75 1/2	45300	108120	58176	75900
76	45600	109050	58560	76400
76 1/2	45900	109970	58944	76900
77	46200	110900	59328	77400
77 1/2	46500	111820	59712	77900
78	46800	112750	60096	78400
78 1/2	47100	113670	60480	78900
79	47400	114600	60864	79400
79 1/2	47700	115520	61248	79900
80	48000	116450	61632	80400
80 1/2	48300	117370	62016	80900
81	48600	118300	62400	81400
81 1/2	48900	119220	62784	81900
82	49200	120150	63168	82400
82 1/2	49500	121070	63552	82900
83	49800	122000	63936	83400
83 1/2	50100	122920	64320	83900
84	50400	123850	64704	84400
84 1/2	50700	124770	65088	84900
85	51000	125700	65472	85400
85 1/2	51300	126620	65856	85900
86	51600	127550	66240	86400
86 1/2	51900	128470	66624	86900
87	52200	129400	67008	87400
87 1/2	52500	130320	67392	87900
88	52800	131250	67776	88400
88 1/2	53100	132170	68160	88900
89	53400	133100	68544	89400
89 1/2	53700	134020	68928	89900
90	54000	134950	69312	90400
90 1/2	54300	135870	69696	90900
91	54600	136800	70080	91400
91 1/2	54900	137720	70464	91900
92	55200	138650	70848	92400
92 1/2	55500	139570	71232	92900
93	55800	140500	71616	93400
93 1/2	56100	141420	72000	93900
94	56400			

Product: L60E Volvo Wheel Loaders Service Manual

Full Download: <https://www.arepairmanual.com/downloads/l60e-volvo-wheel-loaders-service-manual/>

3/4	320	434	451	612
7/8	515	700	728	988
1	775	1052	1091	1480
1 1/8	953	1290	1545	2100
1 1/4	1344	1823	2180	2960
1 3/8	1600	2170	2650	3600
1 1/2	2000	2714	3200	4340

Sample manual. Download All 2071 pages at:

<https://www.arepairmanual.com/downloads/l60e-volvo-wheel-loaders-service-manual/>

Document Title: Lubrication specifications	Function Group: system, 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Lubrication system, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Lubrication system	
Oil pressure maximum warm engine, high idling speed	450–500 kPa (4.5–5 bar) (65–72 psi)
Min. oil pressure, hot engine, low idling speed	60 kPa (0.6 bar) (8.7 psi)

Document Title: Fuel system, tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Fuel system, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

NOTICE

Regarding bolted joints which are not listed here, see "Volvo standard tightening torques"

Fuel rail, attaching bolts	30 Nm (22 lbf ft)
Electrical cables, attaching bolts	1.4 ±0.1 Nm (1.03 lbf ft)
Fuel delivery line (between fuel rail and injector)	25 Nm (18.4 lbf ft)
Injector, yoke	
Step 1:	5 Nm (3.7 lbf ft)
Step 2:	120° ±5 °
Fuel control valve (FCV)	30 Nm (22 lbf ft)
Return line to control valve	39 Nm (28.8 lbf ft)
Fuel feed filter, attaching bolts	30 Nm (22 lbf ft)
Feed line to control valve (from fuel filter)	49 Nm (39.1 lbf ft)
Feed pipe (on control valve)	34 Nm (25.1 lbf ft)
High-pressure pump, attaching bolts	
Step 1:	10 Nm (7.4 lbf ft)
Step 2:	50 Nm (36.9 lbf ft)
Safety valve (PRV), fuel rail	100 Nm (73.8 lbf ft)
High-pressure sensor, fuel rail	70 Nm (51.6 lbf ft)

Document Title: Thermostat, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Thermostat, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Cooling system	
Thermostat starts to open at	83 °C (181.4 °F)
Thermostat fully open at	95 °C (203 °F)

Document Title: Engine, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Engine, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

General

Number of cylinders	6
Cylinder bore	98 mm (3.86 in)
Stroke	126 mm (4.96 in)
Displacement	5.70 litres (1.51 US gal)
Injection order	1-5-3-6-2-4
Low idle	700 ±50 rpm
High idle (run out speed)	
L60F	2370 ±25 rpm
L70F	2360 ±25 rpm
L90F	2360 ±25 rpm
Weight, engine	600 kg (1323 lbs)

Stall speed torque converter⁽¹⁾

L60F ⁽²⁾	
HTE110C (22717)	2090–2200 rpm
HTE110 (22560)	2090–2200 rpm
L70F ⁽²⁾	
HTE120C (22719)	2080–2200 rpm
HTE120B (22701)	2080–2200 rpm
HTE120 (22561)	2080–2200 rpm
L90F ⁽²⁾	
HTE125 (22562)	2030–2170 rpm

(1) Shall be performed on gear 2, APS-mode service (manual), and without using the hydraulics.

(2) The transmission part number can be found in the machine card in PROSIS.

Document Title: Valve mechanism, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Valve system specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Valve mechanism	
Valve arrangement	Top valves with IEGR-rocker arm
Inlet valves	To zero clearance, then 75° counter-clockwise
Exhaust valves	To zero clearance, then 120° counter-clockwise

IEGR-unit	
Adjusting screw	To zero clearance, then 144° counter-clockwise

Document Title: Engine, capacities	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Engine, capacities

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

NOTICE

Stated capacity applies when changing, unless otherwise stated.

Engine	
Engine oil, total	21 litres (5.6 US gal)
Engine oil when changing, incl. filter	20 litres (5.3 US gal)

Document Title: Fuel system, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Fuel system, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Injectors	
Type	Multi-hole nozzle (6 holes)
Opening pressure	Variable, controlled through mapping
Order of injection	1-5-3-6-2-4

High-pressure fuel pumps	
Quantity	2
Output pump pressure, low idle	55 ±5 MPa (550 ±50 bar) (7977 ± 725 psi)

Fuel rail, pressure [1]	
Start (starter motor)	31.4 ±3 MPa (314 ±30 bar)
Low idle	41.3 ±3 MPa (413 ±30 bar)
High idle	73.6 ±3 MPa (736 ±30 bar)
Stall speed	100.4 ±3 MPa (1004 ±30 bar)
Pressure relief valve (PRV) open, low idle	70 ±5 MPa (700 ±50 bar)

Fuel control valve's (FCV) output pressure[2]	
Start (starter motor)	0.06 ±0.02 MPa (0.6 ±0.2 bar)
Low idle	0.08 ±0.02 MPa (0.8 ±0.2 bar)
High idle	0.10 ±0.02 MPa (1.0 ±0.2 bar)
Stall speed	0.13 ±0.02 MPa (1.3 ±0.2 bar)
Without control (e.g., in case of open circuit FCV), low idle	0.45 ±0.02 MPa (4.5 ±0.2 bar)

[1]Values are a measured average value and shall be used as a guideline value when checking, e.g., the fuel control valve (FCV)

[2]Values are a measured average value and shall be used as a guideline value when checking, e.g., the fuel control valve (FCV)

Document Title: Fuel tank, volume	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Fuel tank, volume

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Fuel tank	
Capacity, total	224 l (59.2 US gal)
Volume, usable	219 l (57.9 US gal)

Document Title: Fuel feed pump, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Fuel feed pump, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
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Fuel feed pump	
Type	Rotor pump
Feed pressure	450–600 kPa (4,5–6,0 bar) (65.3–87.0 psi)

Document Title: Lighting, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Lighting, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Bulbs	Watt	Socket
Headlights, low beams	70	PX 26D (H7)
Headlights, high beams	70	PK 22S (H3)
Parking light, front	4	BA 9s
Parking light, rear	10	BA 15s
Tail lights	10	BA 15s
Brake lights	21	BA 15s
Direction indicators, rear	21	BA 15s
Direction indicators, side	21	BA 15s
Running lights	—	—
Cab light	10	BA 15s
Switches with guide lights	1.2	W 2x 4.6 d
Work lights, front halogen	70	PK 22 s (H3)
Working lights, rear halogen	70	PK 22 s (H3)

Document Title: Thermostat, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Thermostat, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Cooling system	
Thermostat starts to open at	83 °C (181.4 °F)
Thermostat fully open at	95 °C (203 °F)

Document Title: Cooling system, volume	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Cooling system, capacity

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Coolant, when changing, incl. filter	30 l (7.9 US gal)
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Document Title: Temperature limits for cooling fan speed, specifications.	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
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Temperature limits for cooling fan speed, specifications.

Showing Selected Profile

Valid for serial numbers			
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Signals from the different sensors vary linearly between 0.0 and 1.0 depending on the temperature. The cooling fan signal with the highest value controls the requested cooling fan speed. If the engine speed is below 800 rpm, the value for the charge air will be 0 = 45 °C (113 °F)

System	Temperature interval
Coolant flowing out of the radiator	70–80 °C (158–176 °F)
Hydraulic system when the thermostat has opened, see Thermostat specifications	70–95 °C (158–203 °F)
Axles front and rear when the engine thermostat has opened, see Thermostat specifications	90–133 °C (194–271.4 °F)
Transmission	90–105 °C (194–221 °F)
Engine	85–95 °C (185–203 °F)
Charge air when induction air temperature is 25 °C (77 °F) or lower	45–60 °C (113–140 °F)
Charge air when induction air temperature is above 25 °C (77 °F)	Induction air temperature = T T+20 °C to T+35 °C (T+68 °F to T+95 °F)

Document Title: Cooling fan rpm, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
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Cooling fan rpm, specifications

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Valid for serial numbers			
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The VCADS Pro parameter GDR is used for setting the maximum cooling fan speed by selecting sound reduction level (A, B or C), depending on the requirements for cooling of engine, charge air, timing gears and hydraulic oil.

Cooling fan	
Basic speed	400 rpm
Speed at pressure test	1700 rpm

GDR	Max. fan speed at high idling	Description
A	1200 rpm	Low sound level
B	1400 rpm	Standard cooling
C	1800 rpm	Maximal cooling

Document Title: Engine, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
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Engine, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
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NOTICE

Regarding bolted joints which are not listed here, see “Volvo standard tightening torques”

Engine mounting	
Engine member – Frame	160 Nm (118 lbf ft) +60°
Flywheel housing – Hydraulic transmission	60 Nm (44 lbf ft)
Front engine mount, rubber pads – engine member	85 Nm (63 lbf ft)
Front engine mount, rubber pads – engine mount	85 Nm (63 lbf ft)
Front engine mount, rubber pads – engine block	275 Nm (202 lbf ft)
Engine	
Valve cover	13 Nm (9.6 lbf ft)
IEGR-unit	30 Nm (22 lbf ft)
Lock nut, valve adjusting screw	20 ±2 Nm (14.8 ±1.5 lbf ft)
Lock nut, adjusting screw on IEGR-unit	20 Nm (14.8 lbf ft)
Belt pulley: step 1	40 Nm (33 lbf ft)
Belt pulley: step 2, angle tightening	60°
Belt pulley: step 3, angle tightening	60°
Vibration damper	70 Nm (52 lbf ft)
Connector ED, centre bolt	3.5 ±0.5 Nm (2.6 ±0.4 lbf ft)
Speed (rpm) sensor crankshaft, holder	9 Nm (6.6 lbf ft)

Document Title: Turbocharger, tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Turbocharger, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
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Stud bolt	40 ±4 Nm (30 ±3 lbf ft)
Nut	10 ±1 Nm (7.4 ±0.7 lbf ft)
Oil pressure pipe, attaching bolts	39 Nm (29 lbf ft)
Return pipe, attaching bolts	20 Nm (15 lbf ft)

Document Title: Battery, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
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Battery, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Battery	
Total	2 batteries connected in series
Voltage	12 V
Battery capacity	110 Ah

Charge level	Voltage
Fully charged battery	12.78 V
Charge within 24 hours at	12.54 V
Minimum charge to store machine for 30 days	12.64 V

Document Title: Battery, weight	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Battery, weight

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
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Battery	
Weight, incl. electrolyte	21.5 kg (47.4 lb)

Document Title: Electrical specifications	Function Group: system, 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Electrical system, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Electrical system	
System voltage	24 V

Document Title: Preheating, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Preheating, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Preheating coil	
Output	4 kW

Document Title: Alternator 80 A, specification	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Alternator 80 A, specification

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Alternator, 80 amp with regulator	
Type	Alternating current
Output (rated output)	2280 W
Voltage, at +20 °C (68 °F)	28.3 ± 0.3 V
Current, maximum	80 A
Resistance across rotor winding	8.0 ± 0.4 Ω
Resistance in stator winding	0.1 Ω

Document Title: Starter specifications	Function Group: motor, 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Starter motor, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Starter motor	
Output	5.5 kW

Document Title: Front and rear axles, tightening torque	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

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Front axle, tightening torque

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

NOTE!

For bolted joints not indicated here, see Volvo standard tightening torques.

Tightening torques are indicated in **Nm and (lbf ft)**.

	AWB15 (L60F)	AWB25 (L70F, L90F)
Cover hub reduction	310 ±20 (288 ±14)	310 ±20 (288 ±14)
Shift fork	19 ±11 (14 ±8.1)	-
Shaft for shift fork	27 ±3 (19.9 ±2.2)	-
Crown wheel	132.5 ±12.5 (97.7 ±9.2)	205 ±15 (151 ±11)
Pinion nut	500 ±20 (369 ±14)	1300 ±100 (959 ±74)
Hub retainer	310 ±20 (288 ±14)	310 ±20 (288 ±14)
Rolling resistance of new bearings:	Noted value at bearing contact (take-up) plus 24 ±3 Nm (18 ±2 lbf ft)	Noted value at bearing contact (take-up) plus 24 ±3 Nm (18 ±2 lbf ft)
Rolling resistance, run-in bearings	Noted value at bearing contact (take-up) plus 6 ±1 Nm (4 ±1 lbf ft)	Noted value at bearing contact (take-up) plus 6 ±1 Nm (4 ±1 lbf ft)
Hub nut	2250 ±250 (1660 ±184)	3000 ±500 (2212 ±369)
Hub cover	45 ±5 (33 ±3.5)	45 ±5 (33 ±3.5)
Differential lock switch	-	27 ±3 (20 ±2)
Differential lock: Stop bolt	30 ±3 (22 ±2.2)	-
Cover	27 ±3 (20 ±2.2)	-
Impeller	12 ±2 (8.9 ±1.4)	12 ±2 (8.9 ±1.4)
Lock nut for adjusting brake clearance	67.5 ±17.5 (49.8 ±12.9)	90 ±10 (66 ±7)
Temperature sensor	-	40 ±10 (29.5 ±7)
Drain plugs and filler plugs	80 ±10 (59 ±7)	-
Plug for suction line, external cooling	-	80 ±10 (59 ±7)
Plugs for external cooling	-	50 ±10 (37 ±7)
Plugs for brake connection and diff. lock connection	-	25 ±5 (18 ±3.5)
Brake wear indicator: Nipple	45 ±5 (33 ±3.5)	45 ±5 (33 ±3.5)
Cover	25 ±5 (18 ±3.5)	25 ±5 (18 ±3.5)
Bleeder nipple	30 ±5 (22 ±3.5)	30 ±5 (22 ±3.5)

Bushing for diff. lock	-	112.5 ±37.5 (83 ±27)
Breather valve, brakes	25 ±5 (18 ±3.5)	25 ±5 (18 ±3.5)
Brake adjusting bolt, nut	67.5 ±17.5 (49.8 ±12.9)	-
Front axle, attaching bolts	600 ±50 (440 ±35)	1100 ±100 (810 ±75)

Document Title: Front and rear axles, tightening torque	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

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Rear axle, tightening torque

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

NOTE!

For bolted joints not indicated here, see Volvo standard tightening torques.

Tightening torques are indicated in Nm and (lbf ft).

	AWB15 (L60F)	AWB20 (70F, L90F)
Casing halves	310 ±20 (288 ±14)	310 ±20 (288 ±14)
Shift fork	19 ±11 (14 ±8.1)	-
Crown wheel	132.5 ±12.5 (97.7 ±9.2)	132.5 ±12.5 (97.7 ±9.2)
Pinion nut	500 ±20 (369 ±14)	1300 ±100 (959 ±74)
Hub retainer	310 ±20 (288 ±14)	310 ±20 (288 ±14)
Rolling resistance of new bearings:	Noted value at bearing contact (take-up) plus 24 ±3 Nm (18 ±2 lbf ft)	Noted value at bearing contact (take-up) plus 24 ±3 Nm (18 ±2 lbf ft)
Rolling resistance, run-in bearings	Noted value at bearing contact (take-up) plus 6 ±1 Nm (4 ±1 lbf ft)	Noted value at bearing contact (take-up) plus 6 ±1 Nm (4 ±1 lbf ft)
Hub nuts	2250 ±250 (1660 ±184)	2250 ±250 (1660 ±184)
Hub cover	45 ±5 (33 ±3.5)	45 ±5 (33 ±3.5)
Differential lock: Stop bolt	30 ±3 (22 ±2.2)	-
Cover	27 ±3 (20 ±2.2)	-
Impeller	12 ±2 (8.9 ±1.4)	12 ±2 (8.9 ±1.4)
Lock nut for adjusting brake clearance	-	67.5 ±17.5 (49.8 ±12.9)
Temperature sensor	-	40 ±10 (29.5 ±7)
Drain plugs and filler plugs	80 ±10 (59 ±7)	-
Plug for suction line, external cooling	-	80 ±10 (59 ±7)
Plug for external cooling	-	50 ±10 (37 ±7)
Plug for brake	-	25 ±5 (18 ±3.5)
Brake wear indicator: Nipple	45 ±5 (33 ±3.5)	45 ±5 (33 ±3.5)
Cover	25 ±5 (18 ±3.5)	25 ±5 (18 ±3.5)
Bleeder nipple	30 ±5 (22 ±3.5)	30 ±5 (22 ±3.5)
Breather valve, brakes	25 ±5 (18 ±3.5)	25 ±5 (18 ±3.5)
Brake adjusting bolt, nut	67.5 ±17.5 (49.8 ±12.9)	-

Document Title: Front and rear axles, specifications	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Front and rear axles, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Oil, type	See Recommended lubricants, oils
Oil level: Max. min.	Lower edge of filler hole 5 mm (0.2 inch) below filler hole

Document Title: Front axle, volume	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Front axle, capacity

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Note. Given capacity applies when changing unless otherwise indicated.

Front axle	
Oil capacity, incl hub reduction gears	24.0 dm ³ (6.4 US gal)

Document Title: Rear axle, volume	Function Group: 030	Information Type: Service Information	Date: 4/16/2026
Profile: L60F Volvo			

Rear axle, capacity

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L60F Volvo			

Note. Given capacity applies when changing unless otherwise indicated.

Rear axle	
Oil capacity, incl hub reduction gears	24.0 dm ³ (6.4 US gal)