

Document Title: Volvo standard tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/18/2026
Profile: L70F Volvo			

Volvo standard tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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	280	380
3/4	300	407	420	568
7/8	450	610	630	847
1	650	874	900	1214
1 1/8	950	1296	1320	1771
1 1/4	1250	1718	1750	2338
1 3/8	1600	2268	2300	3093
1 1/2	2000	2898	2950	4013
1 3/4	2400	3518	3580	4813
2	2900	4248	4320	5813
2 1/4	3500	5078	5160	7013
2 3/4	4200	5908	6000	8213
3	5000	6908	7000	9513
3 1/4	5800	8008	8100	10913
3 1/2	6500	9008	9100	12413
4	7500	10508	10600	14313
4 1/2	8500	12008	12100	16513
5	9500	13508	13600	18813
5 1/2	11000	15508	15600	21513
6	13000	18508	18600	25813
6 1/2	15000	21008	21100	29013
7	17000	24008	24100	32813
7 1/2	19000	27008	27100	37013
8	21000	30008	30100	41513
9	24000	34008	34100	46513
10	27000	38008	38100	52013
11	30000	42008	42100	58013
12	33000	46008	46100	64513
14	39000	54008	54100	78013
16	45000	62008	62100	90013
18	51000	70008	70100	103013
20	58000	80008	80100	118013
22	65000	90008	90100	133013
24	72000	100008	100100	148013
27	84000	120008	120100	175013
30	95000	140008	140100	202013
36	125000	180008	180100	265013
42	155000	220008	220100	328013
48	185000	260008	260100	390013
54	210000	300008	300100	445013
60	240000	340008	340100	500013
66	270000	380008	380100	560013
72	300000	420008	420100	620013
78	330000	460008	460100	680013
84	360000	500008	500100	740013
90	390000	540008	540100	800013
96	420000	580008	580100	860013
102	450000	620008	620100	920013
108	480000	660008	660100	980013
114	510000	700008	700100	1040013
120	540000	740008	740100	1100013
126	570000	780008	780100	1160013
132	600000	820008	820100	1220013
138	630000	860008	860100	1280013
144	660000	900008	900100	1340013
150	690000	940008	940100	1400013
156	720000	980008	980100	1460013
162	750000	1020008	1020100	1520013
168	780000	1060008	1060100	1580013
174	810000	1100008	1100100	1640013
180	840000	1140008	1140100	1700013
186	870000	1180008	1180100	1760013
192	900000	1220008	1220100	1820013
198	930000	1260008	1260100	1880013
204	960000	1300008	1300100	1940013
210	990000	1340008	1340100	2000013
216	1020000	1380008	1380100	2060013
222	1050000	1420008	1420100	2120013
228	1080000	1460008	1460100	2180013
234	1110000	1500008	1500100	2240013
240	1140000	1540008	1540100	2300013
246	1170000	1580008	1580100	2360013
252	1200000	1620008	1620100	2420013
258	1230000	1660008	1660100	2480013
264	1260000	1700008	1700100	2540013
270	1290000	1740008	1740100	2600013
276	1320000	1780008	1780100	2660013
282	1350000	1820008	1820100	2720013
288	1380000	1860008	1860100	2780013
294	1410000	1900008	1900100	2840013
300	1440000	1940008	1940100	2900013
306	1470000	1980008	1980100	2960013
312	1500000	2020008	2020100	3020013
318	1530000	2060008	2060100	3080013
324	1560000	2100008	2100100	3140013
330	1590000	2140008	2140100	3200013
336	1620000	2180008	2180100	3260013
342	1650000	2220008	2220100	3320013
348	1680000	2260008	2260100	3380013
354	1710000	2300008	2300100	3440013
360	1740000	2340008	2340100	3500013
366	1770000	2380008	2380100	3560013
372	1800000	2420008	2420100	3620013
378	1830000	2460008	2460100	3680013
384	1860000	2500008	2500100	3740013
390	1890000	2540008	2540100	3800013
396	1920000	2580008	2580100	3860013
402	1950000	2620008	2620100	3920013
408	1980000	2660008	2660100	3980013
414	2010000	2700008	2700100	4040013
420	2040000	2740008	2740100	4100013
426	2070000	2780008	2780100	4160013
432	2100000	2820008	2820100	4220013
438	2130000	2860008	2860100	4280013
444	2160000	2900008	2900100	4340013
450	2190000	2940008	2940100	4400013
456	2220000	2980008	2980100	4460013
462	2250000	3020008	3020100	4520013
468	2280000	3060008	3060100	4580013
474	2310000	3100008	3100100	4640013
480	2340000	3140008	3140100	4700013
486	2370000	3180008	3180100	4760013
492	2400000	3220008	3220100	4820013
498	2430000	3260008	3260100	4880013
504	2460000	3300008	3300100	4940013
510	2490000	3340008	3340100	5000013
516	2520000	3380008	3380100	5060013
522	2550000	3420008	3420100	5120013
528	2580000	3460008	3460100	5180013
534	2610000	3500008	3500100	5240013
540	2640000	3540008	3540100	5300013
546	2670000	3580008	3580100	5360013
552	2700000	3620008	3620100	5420013
558	2730000	3660008	3660100	5480013
564	2760000	3700008	3700100	5540013
570	2790000	3740008	3740100	5600013
576	2820000	3780008	3780100	5660013
582	2850000	3820008	3820100	5720013
588	2880000	3860008	3860100	5780013
594	2910000	3900008	3900100	5840013
600	2940000	3940008	3940100	5900013
606	2970000	3980008	3980100	5960013
612	3000000	4020008	4020100	6020013
618	3030000	4060008	4060100	6080013
624	3060000	4100008	4100100	6140013
630	3090000	4140008	4140100	6200013
636	3120000	4180008	4180100	6260013
642	3150000	4220008	4220100	6320013
648	3180000	4260008	4260100	6380013
654	3210000	4300008	4300100	6440013
660	3240000	4340008	4340100	6500013
666	3270000	4380008	4380100	6560013
672	3300000	4420008	4420100	6620013
678	3330000	4460008	4460100	6680013
684	3360000	4500008	4500100	6740013
690	3390000	4540008	4540100	6800013
696	3420000	4580008	4580100	6860013
702	3450000	4620008	4620100	6920013
708	3480000	4660008	4660100	6980013
714	3510000	4700008	4700100	7040013
720	3540000	4740008	4740100	7100013
726	3570000	4780008	4780100	7160013
732	3600000	4820008	4820100	7220013
738	3630000	4860008	4860100	7280013
744	3660000	4900008	4900100	7340013
750	3690000	4940008	4940100	7400013
756	3720000	4980008	4980100	7460013
762	3750000	5020008	5020100	7520013
768	3780000	5060008	5060100	7580013
774	3810000	5100008	5100100	7640013
780	3840000	5140008	5140100	7700013
786	3870000	5180008	5180100	7760013
792	3900000	5220008	5220100	7820013
798	3930000	5260008	5260100	7880013
804	3960000	5300008	5300100	7940013
810	3990000	5340008	5340100	8000013
816	4020000	5380008	5380100	8060013
822	4050000	5420008	5420100	8120013
828	4080000	5460008	5460100	8180013
834	4110000	5500008	5500100	8240013
840	4140000	5540008	5540100	8300013
846	4170000	5580008	5580100	8360013
852	4200000	5620008	5620100	8420013
858	4230000	5660008	5660100	8480013
864	4260000	5700008	5700100	8540013
870	4290000	5740008	5740100	8600013
876	4320000	5780008	5780100	8660013
882	4350000	5820008	5820100	8720013
888	4380000	5860008	58601	

Product: L70F Volvo Wheel Loaders Service Manual

Full Download: <https://www.arepairmanual.com/downloads/l70f-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 2084 pages at:

<https://www.arepairmanual.com/downloads/l70f-volvo-wheel-loaders-service-manual/>

Document Title: Lubrication specifications	Function Group: system, 030	Information Type: Service Information	Date: 4/18/2026
Profile: L70F Volvo			

Lubrication system, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Fuel system, tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Thermostat, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Engine, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo	Arvika	24001	29999

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: 4/18/2026
Profile: L70F Volvo			

Valve system specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Engine, capacities

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Fuel system, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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	73.9 ±3 MPa (739 ±30 bar)
Stall speed	104.7 ±3 MPa (1047 ±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 (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: 4/18/2026
Profile: L70F Volvo			

Fuel tank, volume

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Fuel feed pump, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

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: 4/18/2026
Profile: L70F Volvo			

Lighting, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Thermostat, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Cooling system, capacity

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Temperature limits for cooling fan speed, specifications.

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

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: 4/18/2026
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Cooling fan rpm, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

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: 4/18/2026
Profile: L70F Volvo			

Engine, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

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: 4/18/2026
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Turbocharger, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

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: 4/18/2026
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Battery, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F 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: 4/18/2026
Profile: L70F Volvo			

Electrical system, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

Electrical system	
System voltage	24 V

Document Title: Preheating, specifications	Function Group: 030	Information Type: Service Information	Date: 4/18/2026
Profile: L70F Volvo			

Preheating, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

Preheating coil	
Output	4 kW

Document Title: Alternator 80 A, specification	Function Group: 030	Information Type: Service Information	Date: 4/18/2026
Profile: L70F Volvo			

Alternator 80 A, specification

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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	motor,	Function Group: 030	Information Type: Service Information	Date: 4/18/2026
Profile: L70F Volvo				

Starter motor, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

Starter motor	
Output	5.5 kW

Document Title: Front and rear axles, tightening torque	Function Group: 030	Information Type: Service Information	Date: 4/18/2026
Profile: L70F 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
L70F 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: 4/18/2026
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Rear axle, tightening torque

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F 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: 4/18/2026
Profile: L70F Volvo			

Front and rear axles, specifications

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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: 4/18/2026
Profile: L70F Volvo			

Front axle, capacity

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Valid for serial numbers			
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L70F Volvo			

Note. Given capacity applies when changing unless otherwise indicated.

Front axle	
Amount of oil, including hub reductions	35.0 dm ³ (litres) (7,7 US gal)

Document Title: Rear axle, volume	Function Group: 030	Information Type: Service Information	Date: 4/18/2026
Profile: L70F Volvo			

Rear axle, capacity

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L70F Volvo			

Note: Indicated replacement capacity where no other capacity is specified.

Rear axle	
Rear axle, including hub reduction	27.0 dm ³ (litres) (5.9 US gal)