



Document Title: Volvo standard tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Volvo standard tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F 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	340	460	484	655
1	410	550	584	790
1 1/8	500	670	704	950
1 1/4	590	795	834	1120
1 3/8	680	920	964	1300
1 1/2	770	1045	1094	1480
1 3/4	860	1165	1214	1660
2	950	1285	1334	1840
2 1/4	1140	1545	1604	2180
2 3/4	1330	1805	1874	2520
3	1520	2060	2144	2860
3 1/2	1810	2455	2514	3400
4	2100	2845	2984	4040
4 1/2	2390	3240	3254	4480
5	2680	3635	3524	4820
5 1/2	2970	4030	3794	5160
6	3260	4425	4064	5500
6 1/2	3550	4820	4334	5840
7	3840	5215	4604	6180
7 1/2	4130	5610	4874	6520
8	4420	6005	5144	6860
8 1/2	4710	6400	5414	7200
9	5000	6795	5684	7540
9 1/2	5290	7190	5954	7880
10	5580	7585	6224	8220
10 1/2	5870	7980	6494	8560
11	6160	8375	6764	8900
11 1/2	6450	8770	7034	9240
12	6740	9165	7304	9580
12 1/2	7030	9560	7574	9920
13	7320	9955	7844	10260
13 1/2	7610	10350	8114	10600
14	7900	10745	8384	10940
14 1/2	8190	11140	8654	11280
15	8480	11535	8924	11620
15 1/2	8770	11930	9194	11960
16	9060	12325	9464	12300
16 1/2	9350	12720	9734	12640
17	9640	13115	10004	12980
17 1/2	9930	13510	10274	13320
18	10220	13905	10544	13660
18 1/2	10510	14300	10814	14000
19	10800	14695	11084	14340
19 1/2	11090	15090	11354	14680
20	11380	15485	11624	15020
20 1/2	11670	15880	11894	15360
21	11960	16275	12164	15700
21 1/2	12250	16670	12434	16040
22	12540	17065	12704	16380
22 1/2	12830	17460	12974	16720
23	13120	17855	13244	17060
23 1/2	13410	18250	13514	17400
24	13700	18645	13784	17740
24 1/2	13990	19040	14054	18080
25	14280	19435	14324	18420
25 1/2	14570	19830	14594	18760
26	14860	20225	14864	19100
26 1/2	15150	20620	15134	19440
27	15440	21015	15404	19780
27 1/2	15730	21410	15674	20120
28	16020	21805	15944	20460
28 1/2	16310	22200	16214	20800
29	16600	22595	16484	21140
29 1/2	16890	22990	16754	21480
30	17180	23385	17024	21820
30 1/2	17470	23780	17294	22160
31	17760	24175	17564	22500
31 1/2	18050	24570	17834	22840
32	18340	24965	18104	23180
32 1/2	18630	25360	18374	23520
33	18920	25755	18644	23860
33 1/2	19210	26150	18914	24200
34	19500	26545	19184	24540
34 1/2	19790	26940	19454	24880
35	20080	27335	19724	25220
35 1/2	20370	27730	19994	25560
36	20660	28125	20264	25900
36 1/2	20950	28520	20534	26240
37	21240	28915	20804	26580
37 1/2	21530	29310	21074	26920
38	21820	29705	21344	27260
38 1/2	22110	30100	21614	27600
39	22400	30495	21884	27940
39 1/2	22690	30890	22154	28280
40	22980	31285	22424	28620
40 1/2	23270	31680	22694	28960
41	23560	32075	22964	29300
41 1/2	23850	32470	23234	29640
42	24140	32865	23504	30000
42 1/2	24430	33260	23774	30340
43	24720	33655	24044	30680
43 1/2	25010	34050	24314	31020
44	25300	34445	24584	31360
44 1/2	25590	34840	24854	31700
45	25880	35235	25124	32040
45 1/2	26170	35630	25394	32380
46	26460	36025	25664	32720
46 1/2	26750	36420	25934	33060
47	27040	36815	26204	33400
47 1/2	27330	37210	26474	33740
48	27620	37605	26744	34080
48 1/2	27910	38000	27014	34420
49	28200	38395	27284	34760
49 1/2	28490	38790	27554	35100
50	28780	39185	27824	35440
50 1/2	29070	39580	28094	35780
51	29360	39975	28364	36120
51 1/2	29650	40370	28634	36460
52	29940	40765	28904	36800
52 1/2	30230	41160	29174	37140
53	30520	41555	29444	37480
53 1/2	30810	41950	29714	37820
54	31100	42345	29984	38160
54 1/2	31390	42740	30254	38500
55	31680	43135	30524	38840
55 1/2	31970	43530	30794	39180
56	32260	43925	31064	39520
56 1/2	32550	44320	31334	39860
57	32840	44715	31604	40200
57 1/2	33130	45110	31874	40540
58	33420	45505	32144	40880
58 1/2	33710	45900	32414	41220
59	34000	46295	32684	41560
59 1/2	34290	46690	32954	41900
60	34580	47085	33224	42240
60 1/2	34870	47480	33494	42580
61	35160	47875	33764	42920
61 1/2	35450	48270	34034	43260
62	35740	48665	34304	43600
62 1/2	36030	49060	34574	43940
63	36320	49455	34844	44280
63 1/2	36610	49850	35114	44620
64	36900	50245	35384	44960
64 1/2	37190	50640	35654	45300
65	37480	51035	35924	45640
65 1/2	37770	51430	36194	45980
66	38060	51825	36464	46320
66 1/2	38350	52220	36734	46660
67	38640	52615	37004	47000
67 1/2	38930	53010	37274	47340
68	39220	53405	37544	47680
68 1/2	39510	53800	37814	48020
69	39800	54195	38084	48360
69 1/2	40090	54590	38354	48700
70	40380	54985	38624	49040
70 1/2	40670	55380	38894	49380
71	40960	55775	39164	49720
71 1/2	41250	56170	39434	50060
72	41540	56565	39704	50400
72 1/2	41830	56960	39974	50740
73	42120	57355	40244	51080
73 1/2	42410	57750	40514	51420
74	42700	58145	40784	51760
74 1/2	42990	58540	41054	52100
75	43280	58935	41324	52440
75 1/2	43570	59330	41594	52780
76	43860	59725	41864	53120
76 1/2	44150	60120	42134	53460
77	44440	60515	42404	53800
77 1/2	44730	60910	42674	54140
78	45020	61305	42944	54480
78 1/2	45310	61700	43214	54820
79	45600	62095	43484	55160
79 1/2	45890	62490	43754	55500
80	46180	62885	44024	55840
80 1/2	46470	63280	44294	56180
81	46760	63675	44564	56520
81 1/2	47050	64070	44834	56860
82	47340	64465	45104	57200
82 1/2	47630	64860	45374	57540
83	47920	65255	45644	57880
83 1/2	48210	65650	45914	58220
84	48500	66045	46184	58560
84 1/2	48790	66440	46454	58900
85	49080	66835	46724	59240
85 1/2	49370	67230	46994	59580
86	49660	67625	47264	59920
86 1/2	49950	68020	47534	60260
87	50240	68415	47804	60600
87 1/2	50530	68810	48074	60940
88	50820	69205	48344	61280
88 1/2	51110	69600	48614	61620
89	51400	69995	48884	61960
89 1/2	51690	70390	49154	62300
90	51980	70785	49424	62640
90 1/2	52270	71180	49694	62980
91	52560	71575	49964	63320
91 1/2	52850	71970	50234	63660
92	53140	72365	50504	64000
92 1/2	53430	72760	50774	64340
93	53720	73155	51044	64680
93 1/2	54010	73550	51314	65020
94	54300	73945	51584	65360
94 1/2	54590	74340	5185	

Product: L150F Volvo Wheel Loaders Service Manual

Full Download: <https://www.arepairmanual.com/downloads/l150f-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 2273 pages at:

<https://www.arepairmanual.com/downloads/l150f-volvo-wheel-loaders-service-manual/>

Document Title: Valve mechanism, tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Valve mechanism, tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Lock nut, valve adjusting screw	60 ±10°
Lock nut, double rocker arm	25 ±3 Nm (18 ±2 lbf ft)
Drain nipple, double rocker arm	6 ±1 Nm (4.4 ±0.7 lbf ft)
Control valve, IEGR	21 ±1 Nm (15 ±1 lbf ft)

Document Title: Lubrication specifications	Function Group: system, 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Lubrication system, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Lubrication system	
Oil pressure, operating rpm	300–600 kPa (44–87 psi)
Oil pressure min. low idle, warm engine	70–110 kPa (10–16 psi)

Document Title: Fuel system, tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Fuel system, tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Bolt, yoke, unit injector.	
First tightening:	
step 1	20 Nm (14.8 lbf ft)
step 2	60°
Bolt, yoke, unit injector (new copper sleeve or new cylinder head) .	
First tightening:	
step 1	20 Nm (14.8 lbf ft)
step 2	180°
Loosen the bolt for the unit injector's attaching yoke before the second tightening.	
Second tightening:	
step 1	20 Nm (14.8 lbf ft)
step 2	60°
Lock nut for adjusting screw, unit injector	52 Nm (38.4 lbf ft)
Banjo screw, fuel hose	
M10	12 ±2 Nm (8.8 ±1.5 lbf ft)
M12	20 ±3 Nm (14.8 ±2.2 lbf ft)
M14	35 ±5 Nm (25.8 ±3.7 lbf ft)
M16	40 ±5 Nm (29.5 ±3.7 lbf ft)

Document Title: Engine, specifications	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Engine, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

General

Number of cylinders	6
Cylinder bore	131 mm (5.16 in)
Stroke	150 mm (5.91 in)
Displacement	12.13 litres (3.20 US gal)
Injection order	1-5-3-6-2-4
Low idle	725 rpm
High idle (run out speed)	
L150F	2040 rpm
L180F	2060 rpm
L220F	2080 rpm
Weight, engine	1220 kg (2690 lbs)

Stall speed torque converter⁽¹⁾

L150F ⁽²⁾	
HTL220 (22573)	1740–1830 rpm
HTE210 (22565)	1750–1840 rpm
L180F, L180F HL ⁽²⁾	
HTL220 (22573)	1790–1880 rpm
HTE220 (22554)	1780–1870 rpm
L220F ⁽²⁾	
HTL305 (22571)	1820–1900 rpm
HTE305 (22580)	1780–1880 rpm
HTE305 (22566)	1810–1900 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: 4/9/2026
Profile: L150F Volvo			

Valve system, specification

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Valve mechanism	
Inlet valves, valve clearance	0.20 mm
Exhaust valves (IEGR), valve clearance	0.70 mm
Clearance between double rocker arm and base circle on camshaft.	Measure with gauge 88820003

Clearance measured between double rocker arm and base circle on camshaft.

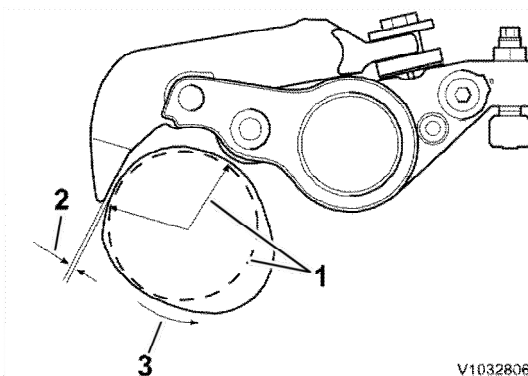


Figure 1

Checking clearance between double rocker arm and base circle

1. Base circle
2. Clearance
3. Camshaft's rotational direction

Checking and adjusting interval double rocker arm

Checking and adjustment, if needed, of the double rocker arm's clearance shall take place after 1000 hours. Thereafter together with [Valves, adjusting](#) every 4000 hours.

Document Title: Engine, capacities	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Engine, capacities

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

NOTICE

Stated capacity applies when changing, unless otherwise stated.

Engine	
Engine oil, total	49 l (12.9 US gal)
Engine oil when changing, incl. filter	42 l (11.1 US gal)

Document Title: Valve mechanism, double rocker arm	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Valve mechanism, double rocker arm

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Valve mechanism	
Inlet valves, valve clearance	0.20 mm
Exhaust valves (IEGR), valve clearance	0.70 mm
Clearance between double rocker arm and base circle on camshaft.	Measure with gauge 88820003

Clearance measured between double rocker arm and base circle on camshaft.

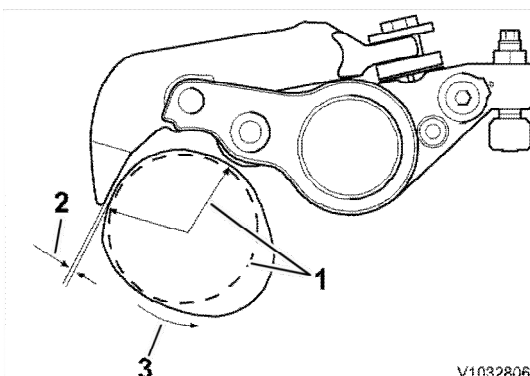


Figure 1

Checking clearance between double rocker arm and base circle

1. Base circle
2. Clearance
3. Camshaft's rotational direction

Checking and adjusting interval double rocker arm

Checking and adjustment, if needed, of the double rocker arm's clearance shall take place after 1000 hours. Thereafter together with [Valves, adjusting](#) every 4000 hours.

Document Title: Fuel feed pump, specifications	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Fuel feed pump, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Fuel feed pump	
Type	Gear-driven pump
Feed pressure	300–350 kPa (44–51 psi) at low idling speed min. 350 kPa (51 psi) at over 1000 rpm

Document Title: Engine management system	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Engine management system

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Sensor distance		
Camshaft		0.3–1.0 mm (0.118-0.039 in)
Flywheel		0.75–2.1 mm (0.0295-0.0827 in)

Document Title: Thermostat, specifications	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Thermostat, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Thermostat	
Type	Piston thermostat
Number of thermostats	1
Begins to open at	82 °C (180 °F)
Fully open at	91 °C (196 °F)
Opening pressure	50 kPa (7.3 psi)

Document Title: Cooling system, volume	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Cooling system, volume

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Cooling system, total	60 l (16 US gal)
Cooling system, when changing	44 l (12 US gal)

Document Title: Temperature limits for cooling fan speed, specifications.	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Temperature limits for cooling fan speed, specifications.

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F 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: 4/9/2026
Profile: L150F Volvo			

Cooling fan rpm, specifications

Showing Selected Profile

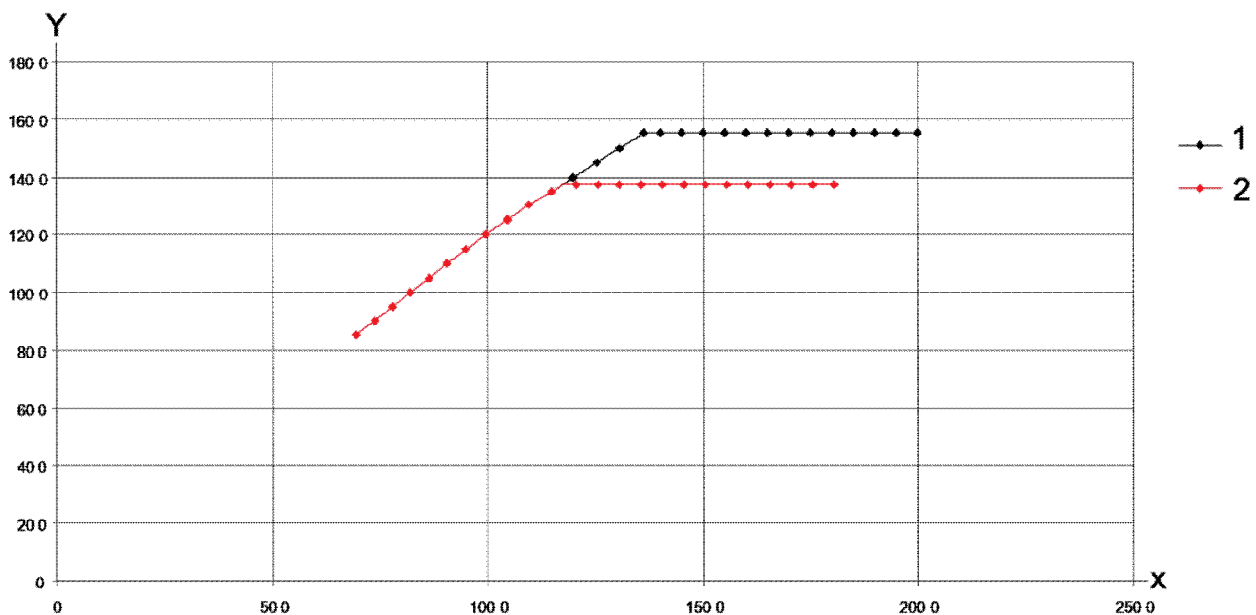
Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

VCADS Pro parameter GDR is used to set max. cooling fan speed by selecting sound reduction level (A, B, or C) depending on the demands for cooling of engine, charge-air, transmission, and hydraulic oil.

Cooling fan	
Basic speed	400 rpm
Speed (rpm) at pressure test	1200 rpm

GDR	Max. cooling fan speed (rpm) at high idle	Description
A	1200 rpm	Low sound level
B	1200 rpm	Standard cooling
C	1500 rpm [1]	Maximal cooling

Cooling fan speed vs. engine speed at request for max. cooling fan speed



V1082172

Figure 1

1. Without axle oil cooling
2. With axle oil cooling

X = Engine speed (rpm)

Y = Fan speed (rpm)

[1]1350 rpm if axle oil cooling is installed

Document Title: Engine, specifications	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Engine, tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

NOTICE

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

Engine	
Engine member – Frame	220 Nm (220 lbf ft)
Flywheel housing – Hydraulic transmission	54 Nm (40 lbf ft)
Rubber damper – Member	85 Nm (63 lbf ft)
Rubber damper – Engine bracket	140 Nm (103 lbf ft)

Document Title: Valve cover, tightening torque	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Valve cover, tightening torque

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

NOTICE

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

Valve cover	
Valve cover, retaining bolts	20 Nm (14.8 lbf ft)
Stud bolt, valve cover	30 Nm (22.1 lbf ft)

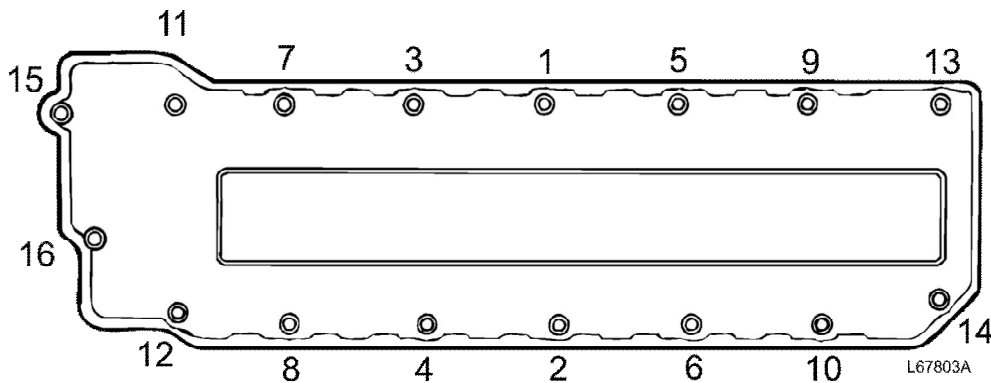


Figure 1
Tightening sequence, valve cover

Document Title: Rocker arm shaft, tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Rocker arm shaft, tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Camshaft and rocker arm shaft

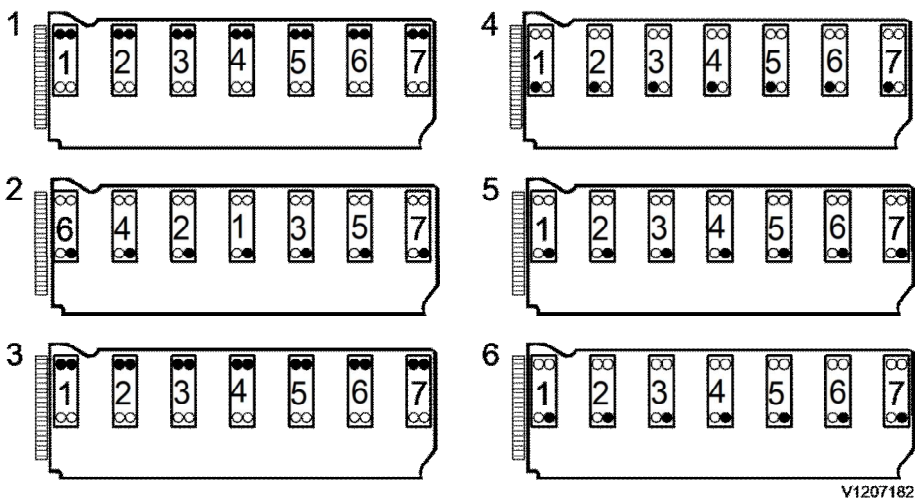


Figure 1

Step 1: Tighten the bolts in numerical order according to the figure	15 ±5 Nm (12 ±4 lbf ft)
Step 2: Tighten the bolts in numerical order according to the figure NOTE! Tighten the bolts in steps to ensure that the rocker arm shaft comes down without bending.	60 ±5 Nm (44 ±4 lbf ft)
Step 3: Angle-tighten the bolts in numerical order according to the figure	90° ±5°
Step 4: Tighten + angle-tighten the bolts in numerical order according to the figure	15 ±5 Nm (12 ±4 lbf ft) + 120° ±5°
Step 5	Loosen the bolts
Step 6: Tighten + angle-tighten the bolts in numerical order according to the figure	15 ±5 Nm (12 ±4 lbf ft) + 120° ±5°

Document Title: Tightening torques, cooling fan	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Tightening torques, cooling fan

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Engine		
	Nm	lbf ft
Nut, fan hub	185 ±30	136 ±22

Document Title: Battery, specifications	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Battery, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Battery	
Total	2 batteries connected in series
Voltage	12 V
Battery capacity	140 Ah

Charge level	Voltage
Fully charged battery	12.78 V
Charge within 24 hours	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: 4/9/2026
Profile: L150F Volvo			

Battery, weight

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Battery	
Weight, incl. electrolyte	40.3 kg (89 lb)

Document Title: Electrical specifications	Function Group: system, 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Electrical system, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Electrical system	
System voltage	24 V

Document Title: Preheating, specifications	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Preheating, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Preheating coil	
Output	4 kW

Document Title: Alternator 80 A, specification	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Alternator 80 A, specification

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F 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: 4/9/2026
Profile: L150F Volvo			

Starter motor, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Starter motor	
Output	7 kW

Document Title: Front and rear axles, tightening torque	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Front and rear axles, tightening torque

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

NOTICE

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

Front and rear axles, tightening torques, AWB40B, AWB40C	
Front axle — frame	1200–1400 Nm (885–1033 lbf ft)
Rear axle suspension – frame	726–884 Nm (533–649 lbf ft)
Level and drain plugs	70–90 Nm (52–66 lbf ft)
Temperature sensor	30–50 Nm (22–37 lbf ft)
Final drive (differential carrier assembly)	
Pinion bearing sleeve	180 - 220 Nm (133–162 lbf ft)
Crown wheel, differential housing	280–300 Nm (210–220 lbf ft)
Bearing caps	460–500 Nm (339–368 lbf ft)
Pinion nut	2000–2500 Nm (1475–1844 lbf ft)
Adjusting nuts for differential bearings	80 Nm (59 lbf ft) + 2–3 notches
Bolts for lock plate	24–30 Nm (18–22 lbf ft)
Final drive (differential carrier assembly) – axle housing	290–330 Nm (215–245 lbf ft)
Differential lock	
Differential lock, lock bolt	27–33 Nm (20–25 lbf ft)
Differential lock, lock nut	24–30 Nm (18–22 lbf ft)
Differential lock, cover	24–30 Nm (18–22 lbf ft)
Hub reduction	
Hub nut, rolling torque, initial value for calculating adjusting shims	26–34 Nm (19–25 lbf ft)
New bearings	7–9 Nm (5–7 lbf ft)
Run-in bearings	
Hub – planet carrier, inner nut	2500–3000 Nm (1845–2215 lbf ft)
Hub – Planet carrier, outer nut	400–800 Nm (295–590 lbf ft)
Hub carrier – axle housing	290–330 Nm (215–245 lbf ft)
Wear indicator, nipple	40–50 Nm (30–37 lbf ft)
Wear indicator, cover	20–30 Nm (15–22 lbf ft)
Breather valve, brakes	20–30 Nm (15–22 lbf ft)
Bleeder nipple	25–35 Nm (18–26 lbf ft)
Adjusting screw for brake clearance	80–100 Nm (60–75 lbf ft)
Centre cover	40–50 Nm (30–37 lbf ft)

Document Title: Front and rear axles, specifications	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Front and rear axles, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F 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 and rear axles, volume	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Front and rear axles, volume

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Front axle	
Total capacity, incl. hub reduction gears	49 litres (12.9 US gal)
Capacity when changing, incl. hub reduction gears	47 litres (12.4 US gal)

Rear axle	
Total capacity, incl. hub reduction gears	59 litres (15.6 US gal)
Capacity when changing, incl. hub reduction gears	57 litres (15.1 US gal)



Document Title: Hydraulic transmission, capacity	Function Group: 030	Information Type: Service Information	Date: 4/9/2026
Profile: L150F Volvo			

Hydraulic transmission, capacity

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L150F Volvo			

Transmission, volume	
Amount of oil, when changing incl. filter	42 litres (11 US gal)
Total capacity	50 litres (13.2 US gal)