



Document Title: Volvo standard tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Volvo standard tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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	387
3/4	270	365	384	520
7/8	350	473	500	674
1	430	581	600	817
1 1/8	550	743	770	1047
1 1/4	670	905	940	1277
1 3/8	800	1080	1120	1517
1 1/2	950	1285	1330	1797
1 3/4	1100	1490	1550	2097
2	1300	1770	1840	2517
2 1/4	1550	2090	2170	2977
2 3/4	1800	2430	2520	3417
3	2050	2770	2870	3897
3 1/2	2350	3180	3290	4447
4	2650	3580	3620	4947
4 1/2	2950	3990	4070	5497
5	3250	4390	4520	6047
5 1/2	3550	4790	4970	6697
6	3850	5190	5420	7347
6 1/2	4150	5590	5870	7997
7	4450	5990	6320	8647
7 1/2	4750	6390	6770	9297
8	5050	6790	7220	9947
8 1/2	5350	7190	7670	10597
9	5650	7590	8120	11247
9 1/2	5950	7990	8570	11897
10	6250	8390	9020	12547
10 1/2	6550	8790	9470	13197
11	6850	9190	9920	13847
11 1/2	7150	9590	10370	14497
12	7450	9990	10820	15147
12 1/2	7750	10390	11270	15797
13	8050	10790	11720	16447
13 1/2	8350	11190	12170	17097
14	8650	11590	12620	17747
14 1/2	8950	11990	13070	18397
15	9250	12390	13520	19047
15 1/2	9550	12790	13970	19697
16	9850	13190	14420	20347
16 1/2	10150	13590	14870	20997
17	10450	13990	15320	21647
17 1/2	10750	14390	15770	22297
18	11050	14790	16220	22947
18 1/2	11350	15190	16670	23597
19	11650	15590	17120	24247
19 1/2	11950	15990	17570	24897
20	12250	16390	18020	25547
20 1/2	12550	16790	18470	26197
21	12850	17190	18920	26847
21 1/2	13150	17590	19370	27497
22	13450	17990	19820	28147
22 1/2	13750	18390	20270	28797
23	14050	18790	20720	29447
23 1/2	14350	19190	21170	30097
24	14650	19590	21620	30747
24 1/2	14950	19990	22070	31397
25	15250	20390	22520	32047
25 1/2	15550	20790	22970	32697
26	15850	21190	23420	33347
26 1/2	16150	21590	23870	33997
27	16450	21990	24320	34647
27 1/2	16750	22390	24770	35297
28	17050	22790	25220	35947
28 1/2	17350	23190	25670	36597
29	17650	23590	26120	37247
29 1/2	17950	23990	26570	37897
30	18250	24390	27020	38547
30 1/2	18550	24790	27470	39197
31	18850	25190	27920	39847
31 1/2	19150	25590	28370	40497
32	19450	25990	28820	41147
32 1/2	19750	26390	29270	41797
33	20050	26790	29720	42447
33 1/2	20350	27190	30170	43097
34	20650	27590	30620	43747
34 1/2	20950	27990	31070	44397
35	21250	28390	31520	45047
35 1/2	21550	28790	31970	45697
36	21850	29190	32420	46347
36 1/2	22150	29590	32870	46997
37	22450	29990	33320	47647
37 1/2	22750	30390	33770	48297
38	23050	30790	34220	48947
38 1/2	23350	31190	34670	49597
39	23650	31590	35120	50247
39 1/2	23950	31990	35570	50897
40	24250	32390	36020	51547
40 1/2	24550	32790	36470	52197
41	24850	33190	36920	52847
41 1/2	25150	33590	37370	53497
42	25450	33990	37820	54147
42 1/2	25750	34390	38270	54797
43	26050	34790	38720	55447
43 1/2	26350	35190	39170	56097
44	26650	35590	39620	56747
44 1/2	26950	35990	40070	57397
45	27250	36390	40520	58047
45 1/2	27550	36790	40970	58697
46	27850	37190	41420	59347
46 1/2	28150	37590	41870	59997
47	28450	37990	42320	60647
47 1/2	28750	38390	42770	61297
48	29050	38790	43220	61947
48 1/2	29350	39190	43670	62597
49	29650	39590	44120	63247
49 1/2	29950	39990	44570	63897
50	30250	40390	45020	64547
50 1/2	30550	40790	45470	65197
51	30850	41190	45920	65847
51 1/2	31150	41590	46370	66497
52	31450	41990	46820	67147
52 1/2	31750	42390	47270	67797
53	32050	42790	47720	68447
53 1/2	32350	43190	48170	69097
54	32650	43590	48620	69747
54 1/2	32950	43990	49070	70397
55	33250	44390	49520	71047
55 1/2	33550	44790	49970	71697
56	33850	45190	50420	72347
56 1/2	34150	45590	50870	72997
57	34450	45990	51320	73647
57 1/2	34750	46390	51770	74297
58	35050	46790	52220	74947
58 1/2	35350	47190	52670	75597
59	35650	47590	53120	76247
59 1/2	35950	47990	53570	76897
60	36250	48390	54020	77547
60 1/2	36550	48790	54470	78197
61	36850	49190	54920	78847
61 1/2	37150	49590	55370	79497
62	37450	49990	55820	80147
62 1/2	37750	50390	56270	80797
63	38050	50790	56720	81447
63 1/2	38350	51190	57170	82097
64	38650	51590	57620	82747
64 1/2	38950	51990	58070	83397
65	39250	52390	58520	84047
65 1/2	39550	52790	58970	84697
66	39850	53190	59420	85347
66 1/2	40150	53590	59870	85997
67	40450	53990	60320	86647
67 1/2	40750	54390	60770	87297
68	41050	54790	61220	87947
68 1/2	41350	55190	61670	88597
69	41650	55590	62120	89247
69 1/2	41950	55990	62570	89897
70	42250	56390	63020	90547
70 1/2	42550	56790	63470	91197
71	42850	57190	63920	91847
71 1/2	43150	57590	64370	92497
72	43450	57990	64820	93147
72 1/2	43750	58390	65270	93797
73	44050	58790	65720	94447
73 1/2	44350	59190	66170	95097
74	44650	59590	66620	95747
74 1/2	44950	59990	67070	96397
75	45250	60390	67520	97047
75 1/2	45550	60790	67970	97697
76	45850	61190	68420	98347
76 1/2	46150	61590	68870	98997
77	46450	61990	69320	99647
77 1/2	46750	62390	69770	100297
78	47050	62790	70220	100947
78 1/2	47350	63190	70670	101597
79	47650	63590	71120	102247
79 1/2	47950	63990	71570	102897
80	48250	64390	72020	103547
80 1/2	48550	64790	72470	104197
81	48850	65190	72920	104847
81 1/2	49150	65590	73370	105497
82	49450	65990	73820	106147
82 1/2	49750	66390	74270	106797
83	50050	66790	74720	107447
83 1/2	50350	67190	75170	108097
84	50650	67590	75620	108747
84 1/2	50950	67990	76070	109397
85	51250	68390	76520	110047
85 1/2	51550	68790	76970	110697
86	51850	69190	77420	111347
86 1/2	52150	69590	77870	111997
87	52450	69990	78320	112647
87 1/2	52750	70390	78770	113297
88	53050	70790	79220	113947
88 1/2	53350	71190	79670	114597
89	53650	71590	80120	115247
89 1/2	53950	71990	80570	115897
90	54250	72390	81020	116547
90 1/2	54550	72790	81470	117197
91	54850	73190	81920	117847
91 1/2	55150	73590	82370	118497
92	55450	73990	82820	119147
92 1/2	55750	74390	83270	119797
93	56050	74790	83720	120447
93 1/2	56350	75190	84170	121097
94	56650	75590</		

Product: L180F Volvo Wheel Loaders Service Manual

Full Download: <https://www.arepairmanual.com/downloads/l180f-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 2253 pages at:

<https://www.arepairmanual.com/downloads/l180f-volvo-wheel-loaders-service-manual/>

Document Title: Valve mechanism, tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Valve mechanism, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Lubrication system, specifications

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Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Fuel system, tightening torques

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Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Engine, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Valve system, specification

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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.

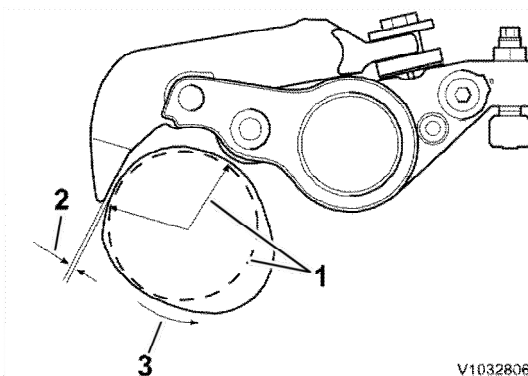


Figure 1

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: 4/10/2026
Profile: L180F Volvo			

Engine, capacities

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Valve mechanism, double rocker arm

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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.

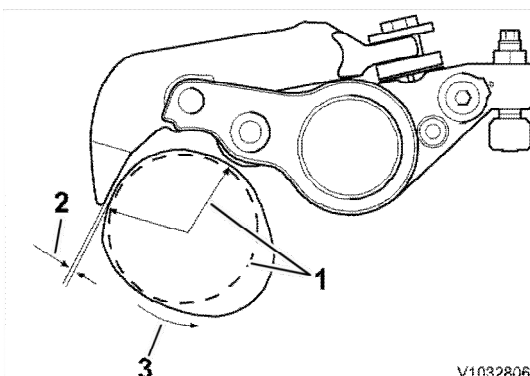


Figure 1

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: 4/10/2026
Profile: L180F Volvo			

Fuel feed pump, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: Thermostat, specifications	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Thermostat, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Cooling system, volume

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Temperature limits for cooling fan speed, specifications.

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Cooling fan rpm, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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	1400 rpm

GDR	Max. cooling fan speed (rpm) at high idle	Description
A	1280 rpm	Low sound level
B	1400 rpm [1]	Standard cooling
C	1500 rpm [2]	Maximal cooling

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

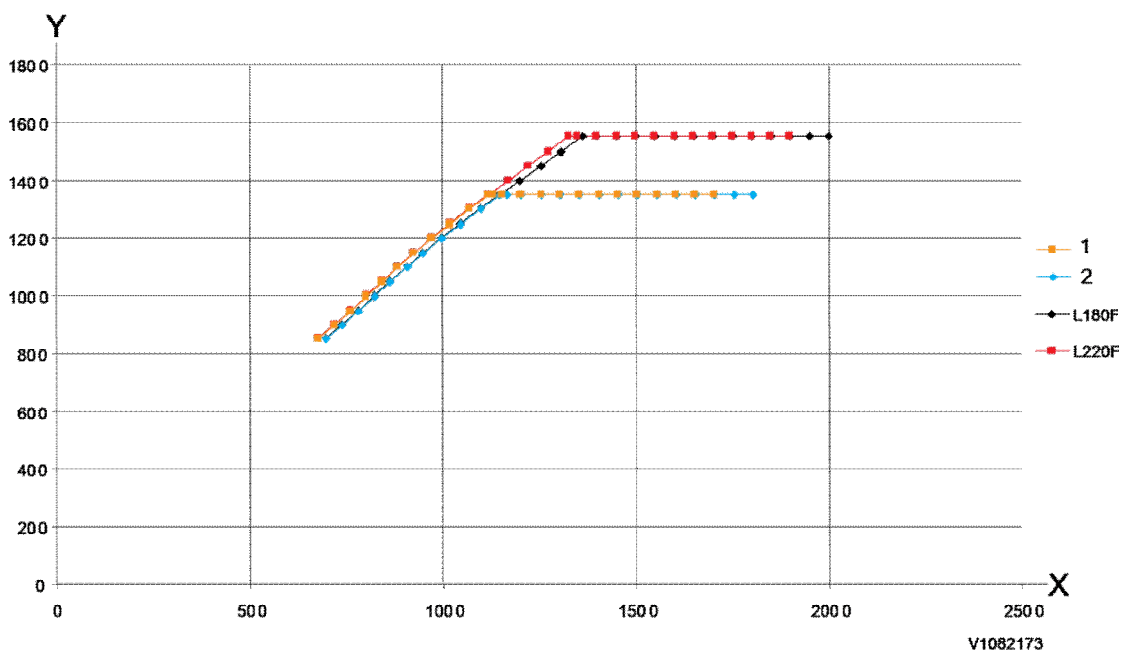


Figure 1

1. L220F with axle oil cooling
2. L180F with axle oil cooling

X = Engine speed (rpm)

Y = Fan speed (rpm)

[1]1350 rpm if axle oil cooler is installed

[2]1350 rpm if axle oil cooling is installed

Document Title: Engine, specifications	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Engine, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
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Valve cover, tightening torque

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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)

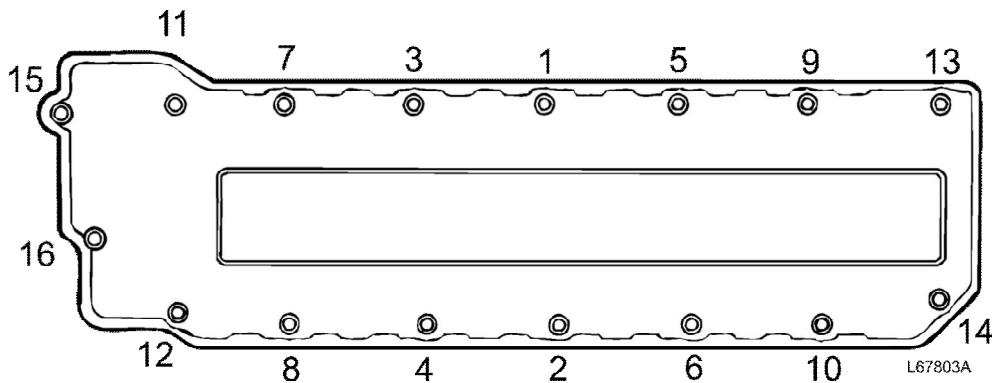


Figure 1
Tightening sequence, valve cover

Document Title: Rocker arm shaft, tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Rocker arm shaft, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F Volvo			

Camshaft and rocker arm shaft

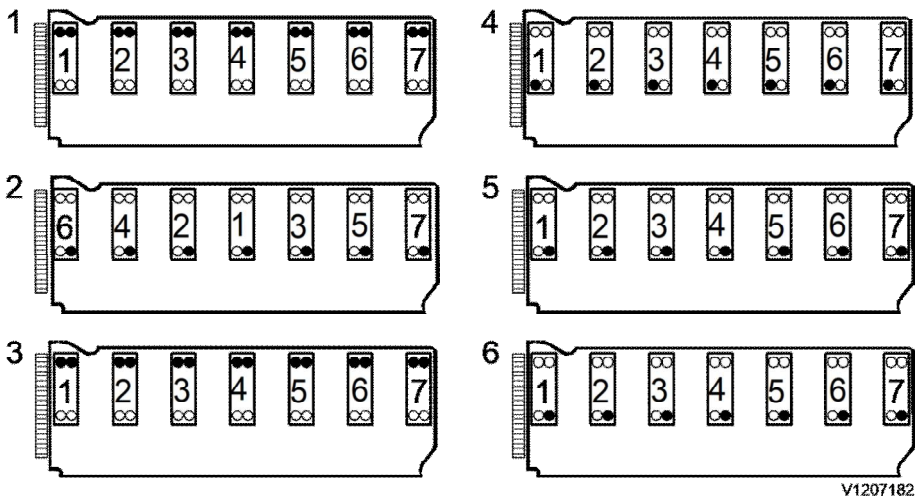


Figure 1

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: 4/10/2026
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Tightening torques, cooling fan

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F Volvo			

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

Document Title: Battery, specifications	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Battery, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Battery, weight

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F Volvo			

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

Document Title: Electrical specifications	Function Group: system, 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Electrical system, specifications

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Model	Production site	Serial number start	Serial number stop
L180F Volvo			

Electrical system	
System voltage	24 V

Document Title: Preheating, specifications	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Preheating, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F Volvo			

Preheating coil	
Output	4 kW

Document Title: Alternator 80 A, specification	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Alternator 80 A, specification

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo				

Starter motor, specifications

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Model	Production site	Serial number start	Serial number stop
L180F Volvo			

Starter motor	
Output	7 kW

Document Title: Front and rear axles, tightening torque	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

Front and rear axles, tightening torque

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

[Go back to Index Page](#)

Front and rear axles, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F Volvo			

Drive axles	
Type	Fully floating half shafts with planetary gear hub reductions
Make	Volvo
Designation:	
front	AWB40B
rear	AWB40B
Differential lock, front axle	Dog clutch

Document Title: Front and rear axles, specifications	Function Group: 030	Information Type: Service Information	Date: 4/10/2026
Profile: L180F Volvo			

[Go back to Index Page](#)

Front and rear axles, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Front and rear axles, volume

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F 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: 4/10/2026
Profile: L180F Volvo			

Hydraulic transmission, capacity

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L180F Volvo			

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