

Document Title: Volvo standard tightening torques	Function Group: 030	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

Volvo standard tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 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	474	500	673
1	430	581	616	833
1 1/8	550	743	784	1063
1 1/4	670	905	956	1293
1 3/8	790	1067	1128	1533
1 1/2	910	1229	1296	1773
1 3/4	1030	1391	1464	2013
2	1150	1553	1632	2253
2 1/4	1370	1861	1968	2703
2 3/4	1590	2169	2304	3153
3	1810	2477	2640	3603
3 1/2	2030	2785	2976	4053
4	2250	3093	3312	4503
4 1/2	2470	3401	3648	4953
5	2690	3709	3984	5403
5 1/2	2910	4017	4320	5853
6	3130	4325	4656	6303
6 1/2	3350	4633	4992	6753
7	3570	4941	5328	7203
7 1/2	3790	5249	5664	7653
8	4010	5557	6000	8103
8 1/2	4230	5865	6336	8553
9	4450	6173	6672	9003
9 1/2	4670	6481	7008	9453
10	4890	6789	7344	9903
10 1/2	5110	7097	7680	10353
11	5330	7405	8016	10803
11 1/2	5550	7713	8352	11253
12	5770	8021	8688	11703
12 1/2	5990	8329	9024	12153
13	6210	8637	9360	12603
13 1/2	6430	8945	9696	13053
14	6650	9253	10032	13503
14 1/2	6870	9561	10368	13953
15	7090	9869	10704	14403
15 1/2	7310	10177	11040	14853
16	7530	10485	11376	15303
16 1/2	7750	10793	11712	15753
17	7970	11101	12048	16203
17 1/2	8190	11409	12384	16653
18	8410	11717	12720	17103
18 1/2	8630	12025	13056	17553
19	8850	12333	13392	18003
19 1/2	9070	12641	13728	18453
20	9290	12949	14064	18903
20 1/2	9510	13257	14400	19353
21	9730	13565	14736	19803
21 1/2	9950	13873	15072	20253
22	10170	14181	15408	20703
22 1/2	10390	14489	15744	21153
23	10610	14797	16080	21603
23 1/2	10830	15105	16416	22053
24	11050	15413	16752	22503
24 1/2	11270	15721	17088	22953
25	11490	16029	17424	23403
25 1/2	11710	16337	17760	23853
26	11930	16645	18096	24303
26 1/2	12150	16953	18432	24753
27	12370	17261	18768	25203
27 1/2	12590	17569	19104	25653
28	12810	17877	19440	26103
28 1/2	13030	18185	19776	26553
29	13250	18493	20112	27003
29 1/2	13470	18801	20448	27453
30	13690	19109	20784	27903
30 1/2	13910	19417	21120	28353
31	14130	19725	21456	28803
31 1/2	14350	20033	21792	29253
32	14570	20341	22128	29703
32 1/2	14790	20649	22464	30153
33	15010	20957	22800	30603
33 1/2	15230	21265	23136	31053
34	15450	21573	23472	31503
34 1/2	15670	21881	23808	31953
35	15890	22189	24144	32403
35 1/2	16110	22497	24480	32853
36	16330	22805	24816	33303
36 1/2	16550	23113	25152	33753
37	16770	23421	25488	34203
37 1/2	16990	23729	25824	34653
38	17210	24037	26160	35103
38 1/2	17430	24345	26496	35553
39	17650	24653	26832	36003
39 1/2	17870	24961	27168	36453
40	18090	25269	27504	36903
40 1/2	18310	25577	27840	37353
41	18530	25885	28176	37803
41 1/2	18750	26193	28512	38253
42	18970	26501	28848	38703
42 1/2	19190	26809	29184	39153
43	19410	27117	29520	39603
43 1/2	19630	27425	29856	40053
44	19850	27733	30192	40503
44 1/2	20070	28041	30528	40953
45	20290	28349	30864	41403
45 1/2	20510	28657	31200	41853
46	20730	28965	31536	42303
46 1/2	20950	29273	31872	42753
47	21170	29581	32208	43203
47 1/2	21390	29889	32544	43653
48	21610	30197	32880	44103
48 1/2	21830	30505	33216	44553
49	22050	30813	33552	45003
49 1/2	22270	31121	33888	45453
50	22490	31429	34224	45903
50 1/2	22710	31737	34560	46353
51	22930	32045	34896	46803
51 1/2	23150	32353	35232	47253
52	23370	32661	35568	47703
52 1/2	23590	32969	35904	48153
53	23810	33277	36240	48603
53 1/2	24030	33585	36576	49053
54	24250	33893	36912	49503
54 1/2	24470	34201	37248	49953
55	24690	34509	37584	50403
55 1/2	24910	34817	37920	50853
56	25130	35125	38256	51303
56 1/2	25350	35433	38592	51753
57	25570	35741	38928	52203
57 1/2	25790	36049	39264	52653
58	26010	36357	39600	53103
58 1/2	26230	36665	39936	53553
59	26450	36973	40272	54003
59 1/2	26670	37281	40608	54453
60	26890	37589	40944	54903
60 1/2	27110	37897	41280	55353
61	27330	38205	41616	55803
61 1/2	27550	38513	41952	56253
62	27770	38821	42288	56703
62 1/2	27990	39129	42624	57153
63	28210	39437	42960	57603
63 1/2	28430	39745	43296	58053
64	28650	40053	43632	58503
64 1/2	28870	40361	43968	58953
65	29090	40669	44304	59403
65 1/2	29310	40977	44640	59853
66	29530	41285	44976	60303
66 1/2	29750	41593	45312	60753
67	29970	41901	45648	61203
67 1/2	30190	42209	45984	61653
68	30410	42517	46320	62103
68 1/2	30630	42825	46656	62553
69	30850	43133	46992	63003
69 1/2	31070	43441	47328	63453
70	31290	43749	47664	63903
70 1/2	31510	44057	48000	64353
71	31730	44365	48336	64803
71 1/2	31950	44673	48672	65253
72	32170	44981	49008	65703
72 1/2	32390	45289	49344	66153
73	32610	45597	49680	66603
73 1/2	32830	45905	50016	67053
74	33050	46213	50352	67503
74 1/2	33270	46521	50688	67953
75	33490	46829	51024	68403
75 1/2	33710	47137	51360	68853
76	33930	47445	51696	69303
76 1/2	34150	47753	52032	69753
77	34370	48061	52368	70203
77 1/2	34590	48369	52704	70653
78	34810	48677	53040	71103
78 1/2	35030	48985	53376	71553
79	35250	49293	53712	72003
79 1/2	35470	49601	54048	72453
80	35690	49909	54384	72903
80 1/2	35910	50217	54720	73353
81	36130	50525	55056	73803
81 1/2	36350	50833	55392	74253
82	36570	51141	55728	74703
82 1/2	36790	51449	56064	75153
83	37010	51757	56400	75603
83 1/2	37230	52065	56736	76053
84	37450	52373	57072	76503
84 1/2	37670	52681	57408	76953
85	37890	52989	57744	77403
85 1/2	38110	53297	58080	77853
86	38330	53605	58416	78303
86 1/2	38550	53913	58752	78753
87	38770	54221	59088	79203
87 1/2	38990	54529	59424	79653
88	39210	54837	59760	80103
88 1/2	39430	55145	60096	80553
89	39650	55453	60432	81003
89 1/2	39870	55761	60768	81453
90	40090	56069	61104	81903
90 1/2	40310	56377	61440	82353
91	40530	56685	61776	82803
91 1/2	40750	56993	62112	83253
92	40970	57301	62448	83703
92 1/2	41190	57609	62784	84153
93	41410	57917	63120	84603
93 1/2	41630	58225	63456	85053
94	41850	58533	63792	85503
94 1/2	42070	58841		

Product: L105 Volvo Wheel Loaders Service Manual

Full Download: <https://www.arepairmanual.com/downloads/l105-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 1344 pages at:

<https://www.arepairmanual.com/downloads/l105-volvo-wheel-loaders-service-manual/>

Document Title: Conversion tables	Function Group: 030	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

Conversion tables

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			

Length

Unit	cm	m	km	in	ft	yd	mile
cm	1	0.01	0.00001	0.3937	0.03281	0.01094	0.000006
m	100	1	0.001	39.37	3.2808	1.0936	0.00062
km	100000	1000	1	39370.7	3280.8	1093.6	0.62137
in	2.54	0.0254	0.000025	1	0.08333	0.02777	0.000015
ft	30.48	0.3048	0.000304	12	1	0.3333	0.000189
yd	91.44	0.9144	0.000914	36	3	1	0.000568
mile	160930	1609.3	1.6093	63360	5280	1760	1

1 mm = 0.1 cm - 1 mm = 0.001 m

Area

Unit	cm ²	m ²	km ²	a	ft ²	yd ²	in ²
cm ²	1	0.0001	-	0.000001	0.001076	0.000012	0.155000
m ²	10000	1	0.000001	0.01	10.764	1.1958	1550.000
km ²	-	1000000	1	10000	1076400	1195800	-
a	0.01	100	0.0001	1	1076.4	119.58	-
ft ²	-	0.092903	-	0.000929	1	0.1111	144.000
yd ²	-	0.83613	-	0.008361	9	1	1296.00
in ²	6.4516	0.000645	-	-	0.006943	0.000771	1

1 ha = 100 a - 1 mile² = 259 ha = 2.59 km²

Volume

Unit	cm ³ = cc	m ³	l	in ³	ft ³	yd ³
cm ³ = ml	1	0.000001	0.001	0.061024	0.000035	0.000001
m ³	1000000	1	1000	61024	35.315	1.30796
dm ³ (l)	1000	0.001	1	61.024	0.035315	0.001308
in ³	16.387	0.000016	0.01638	1	0.000578	0.000021
ft ³	28316.8	0.028317	28.317	1728	1	0.03704
yd ³	764529.8	0.76453	764.53	46656	27	1

1 gal (US) = 3785.41 cm³ = 231 in³ = 0.83267 gal (UK)

Weight

Unit	g	kg	t	oz	lb
g	1	0.001	0.000001	0.03527	0.0022
kg	1000	1	0.001	35.273	2.20459
t	1000000	1000	1	35273	2204.59
oz	28.3495	0.02835	0.000028	1	0.0625
lb	453.592	0.45359	0.000454	16	1

1 ton (metric) = 1.1023 ton (US) = 0.9842 ton (UK)

Pressure

Unit	kp/cm ²	bar	Pa=N/m ²	kPa	lbf/in ²	lbf/ft ²
kp/cm ²	1	0.98067	98066.5	98.0665	14.2233	2048.16
bar	1.01972	1	100000	100	14.5037	2088.6
Pa=N/m ²	0.00001	0.001	1	0.001	0.00015	0.02086
kPa	0.01020	0.01	1000	1	0.14504	20.886
lbf/in ²	0.07032	0.0689	6894.76	6.89476	1	144
lbf/ft ²	0.00047	0.00047	47.88028	0.04788	0.00694	1

kg/cm² = 735.56 Dry (mmHg) = 0.96784 atm

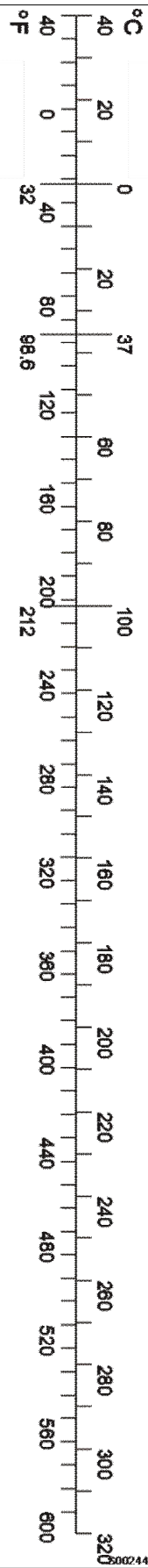
Unit explanations

Unit	abbreviation
Newton meter	Nm
Kilopoundmeter	kpm
Kilopascal	kPa
Megapascal	MPa
Kilowatt	kW
kilojoule	kJ
British thermal unit	Btu
Calorie	ca

Approx. conversion

SI unit	Conversion factor	Non SI	Conversion factor	SI
Torque				
Nm	x10.2	=kg/cm	x0.8664	=lb in
Nm	x0.74	=lbf-ft	x1.36	=Nm
Nm	x0.102	=kg/m	x7.22	=lbft
Pressure (Pa = N/m²)				
kPa	x4.0	=in.H ₂ O	x0.249	=kPa
kPa	x0.30	=in.Hg	x3.38	=kPa
kPa	x0.145	=psi	x6.89	=kPa
bar	x14.5	=psi	x0.069	=bar
kp/cm ²	x14.22	=psi	x0.070	=kp/cm ²
N/mm ²	x145.04	=psi	x0.069	=bar
MPa	x145	=psi	x0.00689	=MPa
Power (W = J/s)				
kW	x1.36	=hp(cv)	x0.736	=kW

kW	x1.34	= bhp	x0.746	= kW
kW	x0.948	= Btu/s	x1.055	= kW
W	x0.74	= ft-lb/s	x1.36	= W
Energy (J = Nm)				
kJ	x0.948	= Btu	x1.055	= kJ
J	x0.239	= calorie	x4.19	= J
Speed and acceleration				
m/s ²	x3.28	= ft/s ²	x0.305	= m/s ²
m/s	x3.28	= ft/s	x0.305	= m/s
km/h	x0.62	= mph	x1.61	= km/h
Horsepower/torque				
Bhp x5252 rpm = TQ (lb-ft)			TQ x rpm 5252 = bhp	
Temperature				
$^{\circ}\text{C} = (^{\circ}\text{F} - 32) / 1.8$			$^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$	
Flow factor				
l/min (dm ³ /min)	x0.264	= US gal/min	x3.785	= liter/min



Document Title: Fuel system, specifications	Function Group: 030	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

Fuel system, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			

Injectors	
Type	Multi-hole nozzle (6 holes)
Opening pressure	Variable, checked 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 (7977 ± 725 psi)

Fuel rail, pressure [1]	
Start (starter motor)	31.5 ± 3 MPa (4569 ± 435 psi)
Low idle	41.7 ± 3 MPa (6048 ± 435 psi)
High idle	77.3 ± 3 MPa (11211 ± 435 psi)
Stall speed	102.2 ± 3 MPa (14823 ± 435 psi)
Pressure relief valve (PRV) open, low idle	70 ± 5 MPa (10153 ± 725 psi)

Fuel control valve's (FCV) output pressure[2]	
Start (starter motor)	0.06 ± 0.02 MPa (8,7 ± 2,9 psi)
Low idle	0.08 ± 0.02 MPa (11,6 ± 2,9 psi)
High idle	0.10 ± 0.02 MPa (14,5 ± 2,9 psi)
Stall speed	0.13 ± 0.02 MPa (18,9 ± 2,9 psi)
Without control (open circuit FCV), low idle	0.45 ± 0.02 MPa (65,3 ± 2,9 psi)

Fuel feed pump	
Type	Rotor
Feed pressure at 780 rpm to max rpm	0.5 ± 0.7 MPa (72,5 ± 101,5 psi)

[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: Lubrication specifications	Function Group: system, 030	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

Lubrication system, specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			

Lubrication system	
Oil pressure maximum warm engine, high idling speed	0.4-0.5 MPa (58-72 psi)
Oil pressure minimum warm engine, low idling speed	0.06 MPa (8.7 psi)

Document Title: Engine, tighten torques	Function Group: 030	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

Engine, tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			

NOTICE

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

Engine mounting	Tightening torque
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)

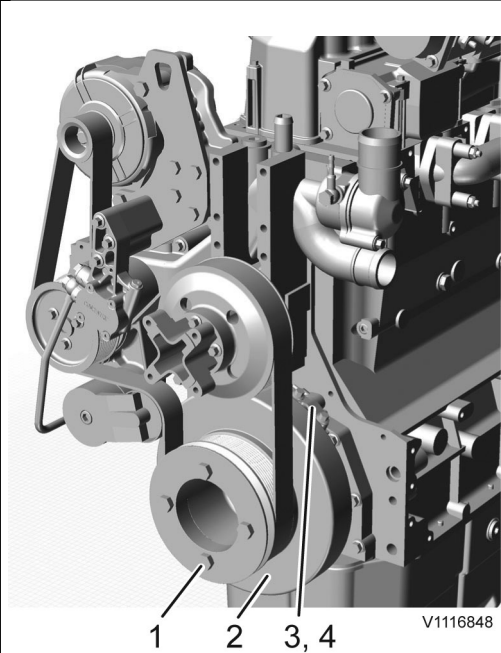
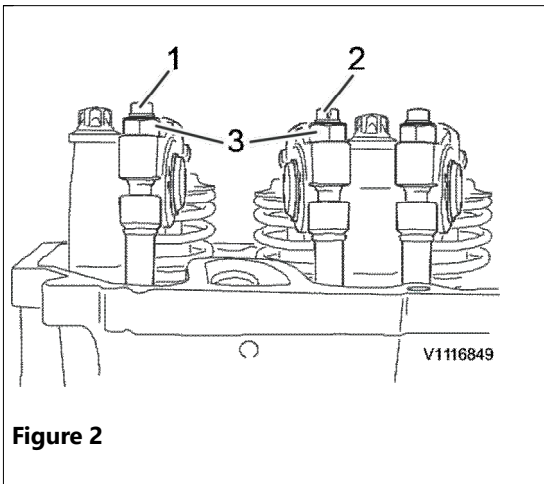
Engine	Pos	Description	Tightening torque
 <p>V1116848</p>	1	Belt pulley: step 1 Belt pulley: step 2, angle tightening Belt pulley: step 3, angle tightening	40 Nm (33 lbf ft) 60° 60°
	2	Vibration damper	70 Nm (52 lbf ft)
	3	Connector ED, centre bolt	3.5 ±0.5 Nm (2.6 ±0.4 lbf ft)
	4	Speed (rpm) sensor crankshaft, holder	9 Nm (6.6 lbf ft)

Figure 1

Valve mechanism	Pos	Description	Tightening torque
	1	Inlet valves	To zero clearance, then 90° counter-clockwise
	2	Exhaust valves	To zero clearance, then



3	Lock nut, valve adjusting screw	150° counter-clockwise 20 ±2 Nm (14.8 ±1.5 lbf ft)
	Valve cover	13 Nm (9.6 lbf ft)

Oil sump	Tightening torque
Mounting bolts	30 ±3 (22 ±2 lbf ft)
<p>NOTE! Apply sealing compound in an even bead, thickness approx. 3.5 mm, to the sealing surface on the oil sump. See example in figure</p>	



Figure 3
Sealing compound on oil sump

Document Title: Operation numbers for additional work	Function Group: 070	Information Type: Service Information	Date: 4/6/2026
Profile: Wheel Loaders (WLO)			

Operation numbers for additional work

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These operations can be used to identify work that is not included in the time guide or described in the methods in the Service Manual. When these operations are used, a description of the work that has been performed must be provided.

Other work related to engine

Op. no. 070-210

This operation can be used when work has been done related to the engine and function group 2 when no applicable method description was available. When this operation is used, additional information is required:

- Description of work that has been done

Other work related to electrical system

Op. no. 070-310

This operation can be used when work has been done related to the electrical system and function group 3 when no applicable method description was available. When this operation is used, additional information is required:

- Description of work that has been done

Other work related to transmission, gearbox, travel motor, swing motor

Op. no. 070-410

This operation can be used when work has been done related to the transmission, gearbox, travel motor or swing motor and function group 4 when no applicable method description was available. When this operation is used, additional information is required:

- Description of work that has been done

Other work related to drive axle

Op. no. 070-470

This operation can be used when work has been done related to the drive axle and function group 46 when no applicable method description was available. When this operation is used, additional information is required:

- Description of required work that have been done

Other work related to brake system

Op. no. 070-510

This operation can be used when work has been done related to the brake system and function group 5 when no applicable

method description was available. When this operation is used, additional information is required:

- Description of work that has been done

Other work related to steering system

Op. no. 070-610

This operation can be used when work has been done related to the steering system and function group 6 when no applicable method description was available. When this operation is used, additional information is required:

- Description of work that has been done

Other work related to frame link, axle suspension

Op. no. 070-710

This operation can be used when work has been done related to the frame link, axle suspension and other parts related to function group 7 when no applicable method description was available. When this operation is used, additional information is required:

- Description of work that has been done

Other work related to cab, air conditioning

Op. no. 070-810

This operation can be used when work has been done related to the cab, air conditioning and other parts related to function group 8 when no applicable method description was available. When this operation is used, additional information is required:

- Description of work that has been done

Other work related to hydraulic system

Op. no. 070-910

This operation can be used when work has been done related to the hydraulic system and other parts related to function group 9 when no applicable method description was available. When this operation is used, additional information is required:

- Description of work that has been done

Document Title: E 1708, Checking point	Function Group: 080	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

E 1708, Checking point

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			

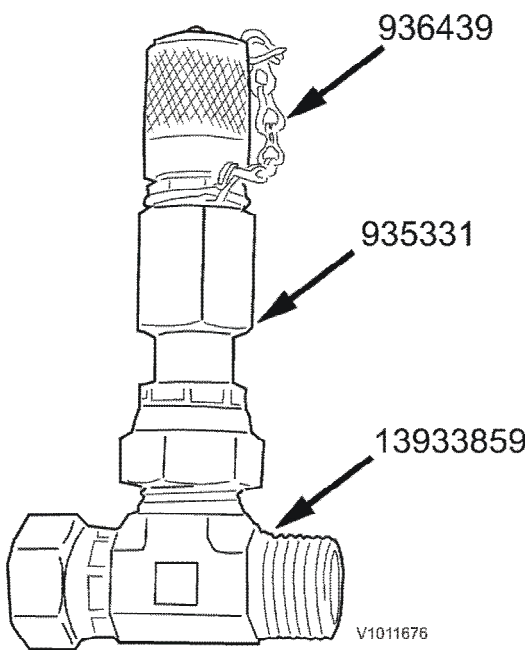


Figure 1

Document Title: E-2001	Function Group: 080	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

E-2001

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			

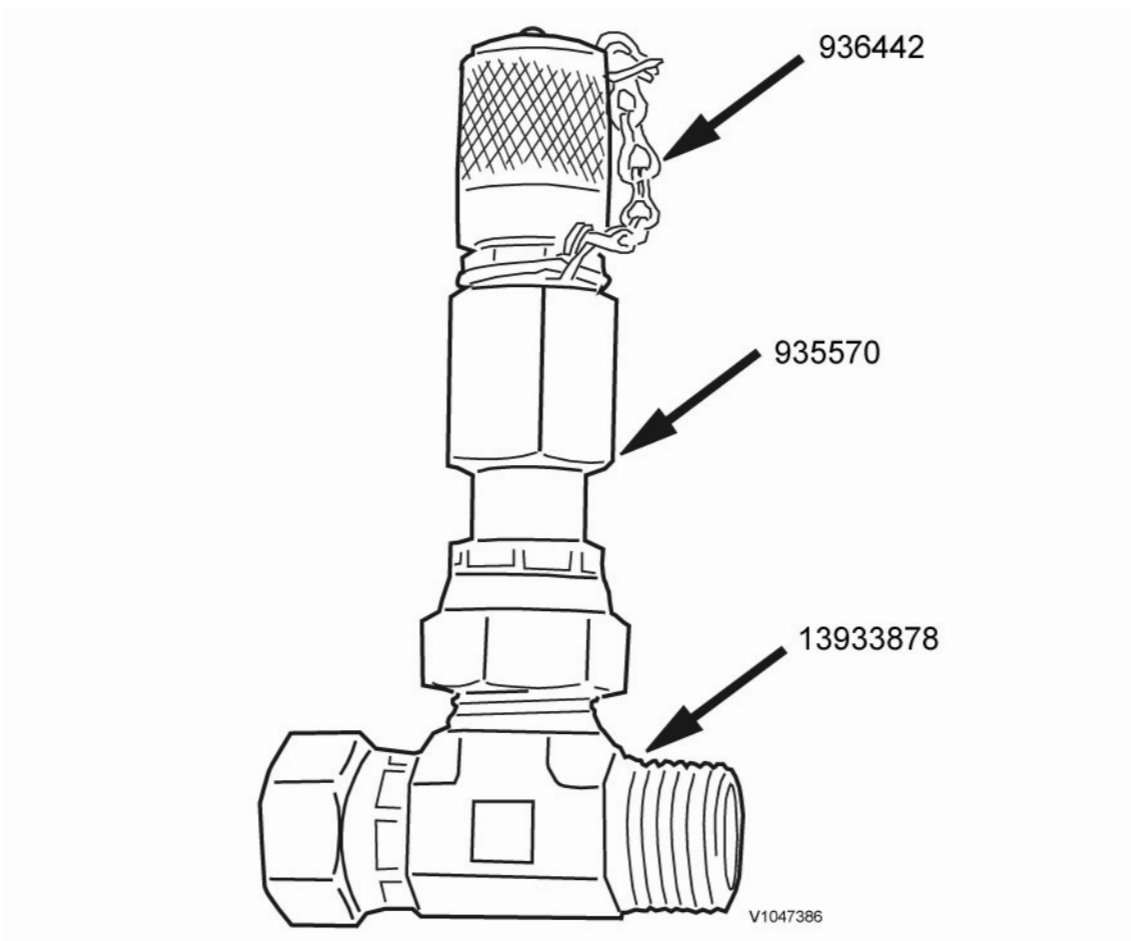


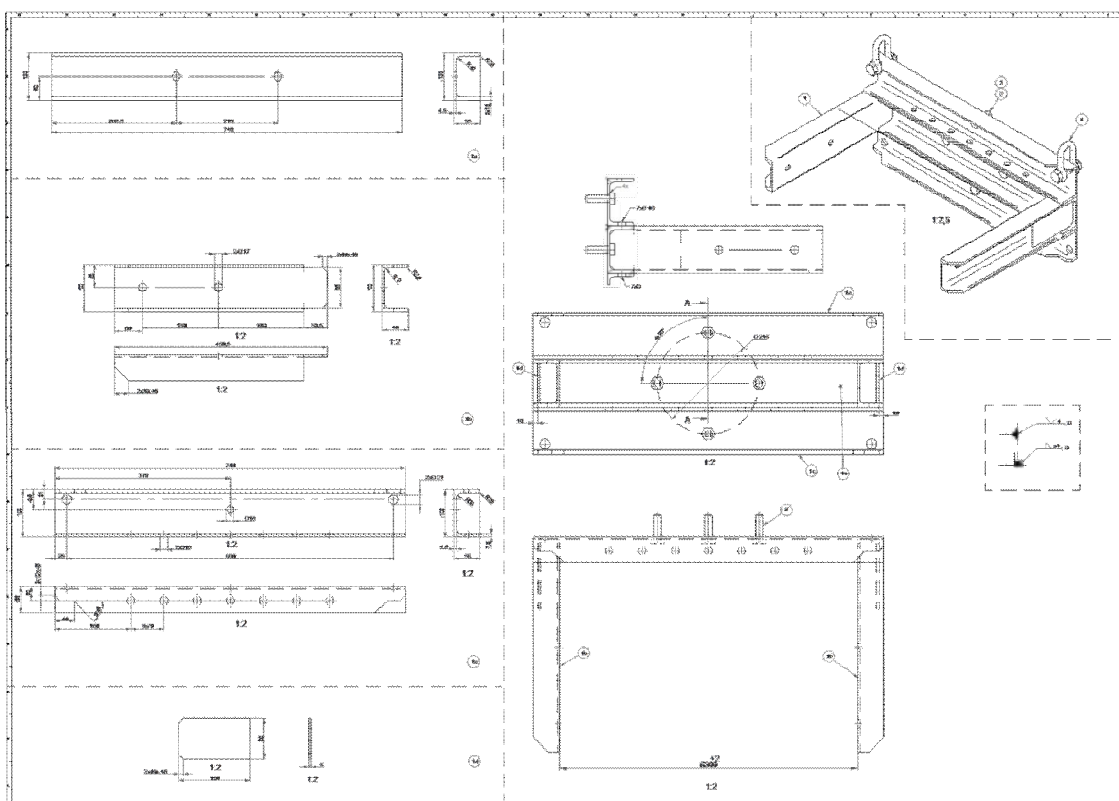
Figure 1

Document Title: E-2008	Function Group: 080	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

E-2008

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			



V1110027

Figure 1

Pos. in Fig. 1	Quantity	Part number	Material	Comments
4	2	A831320		Shackle
3	4			M6M M16
2	4			M6S M16x15
1d	2		2142-01	Flat-nose pliers 90x5
1c	2		S355 J2	UPE 100
1b	2		S355 J2	UPE 100
1a	1		S355 J2	UPE 100

Document Title: 9993807 Lifting tool user instructions	Function Group: 080	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

9993807 Lifting tool user instructions

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			

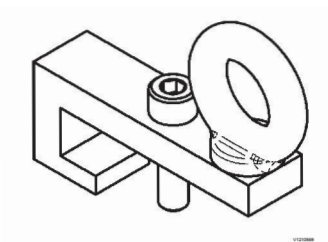


Figure 1

9993807 Lifting tool

Instructions

This instruction is a guide on how to use and maintain the lifting tool correctly. The instructions must be studied carefully by the personnel concerned before the lifting tool can be put into use.

The instructions must always be available to the personnel maintaining and using the lifting tool daily.

It is also important to:

- Keep the instructions and other applicable documents during the entire lifetime of the lifting tool.
- Pass the instructions to other owners or users of the lifting tool.
- Update the instructions with additions or changes made by the manufacturer.

Pay careful attention to information about warnings mentioned in the instructions and found on the warning signs on the lifting tools. If this information is not observed, severe personal injuries and equipment damage can arise.

Responsibility

The instructions describe the authorized method to use the lifting tool.

The lifting tool may only be used by personnel with adequate technical training or corresponding professional experience and in consultation with the manufacturer.

If the instructions have not been followed, the manufacturer is not responsible for personal injuries or damage to equipment.

Marking

Do not remove or make machine labels or other labels unreadable.

The lifting tool is marked with a CE mark, which means that it is designed, manufactured and described in accordance with EC Machinery Directive 2006/42/EC.

Warning decals and CE mark on lifting tool must be clearly visible. If a part provided with warning decals or CE mark is changed, a new warning decal and CE mark must be mounted in the same place. Defective decals and CE marks must be replaced immediately.



V1141218

Figure 2

CE-marking

Manufacturer

Company: Volvo Construction Equipment AB

Address: CE-46840, RLA 0301

Postal address: 631 85 Eskilstuna, Sweden

Rebuilding

If the lifting tool is rebuilt or supplemented with other parts without permission by the manufacturer, the CE marking does not include this part. If such rebuilding or added parts changes the function of the lifting tool, the CE marking in its entirety is no longer valid. After rebuilding, it is important that the instructions are supplemented with the necessary illustrations, photos and texts.

NOTE!

If not explicitly stated otherwise, always assume this instruction reference the use of two 9993807 Lifting tools.

Intended usage

The lifting toll specified in this document is only intended for lifting torque converters with a maximum weight of 100 kg. Intended users are appointed and trained personnel, the lifting gear is not intended to be used by unauthorised or underage personnel.

To fulfil the requirements for intended use, the user must follow all instructions and maintenance directions written by the manufacturer.

Technical data

Type designation: lifting tool for torque converter

Maximum load, lifting tool x 2: 100 kg (220 lb)

Mass, lifting tool x 2 with shackles and chain slings: 5 kg (11 lb)

Test factor for static testing (for lifting tools): 1.5

Safety information

Limits of use

The lifting tools may only be used for the intended purpose. All other use is forbidden.

Lifting hooks must be equipped with a self-locking hook.

Shackles should be used for connecting the tools.

Lifting sling and straps should be marked with lifting capacity.

All accessories for the lift must have sufficient lifting capacity.

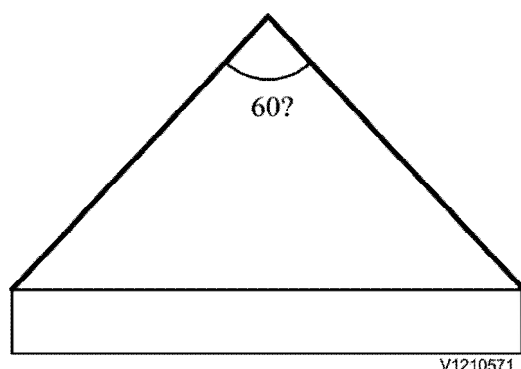


Figure 3

Max lift-angle

Maximum lift angles must not exceed 60°.

Handling

To meet the requirements for intended use, the user must observe all user and maintenance instructions prescribed by the manufacturer.

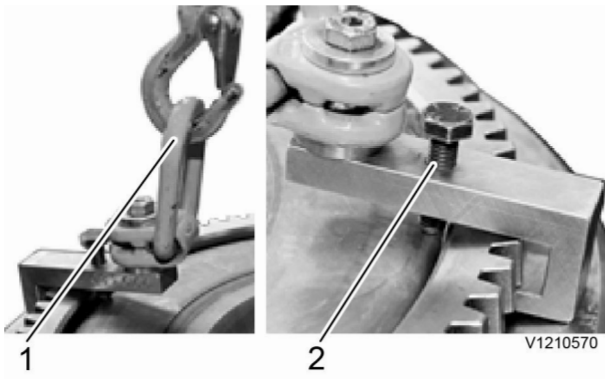


Figure 4

1. **Lifting equipment**
 Use lifting sling with sufficient lifting capacity, 100 kg (220 lb).
 Always use lifting hooks equipped with a self-locking hook.
 Use shackles with sufficient lifting capacity, 100 kg (220 lb).
2. **Bolts**
 Position the lifting tool under gear ring and tighten the bolts.
 Tighten until the lifting tool is unable to move independently of the gear ring.

Intended user

The lifting device is intended to be used by trained personnel, it is not intended to be used by unauthorized or underage personnel.

Conditions and preparatory measures

Lifting tool with damaged parts must not be used.

Before lifting, check that the lifting tool does not have indications of cracks or deformations.

Maintenance

Maintenance must be performed by person with appropriate technical training or equivalent professional experience and in consultation with the manufacturer.

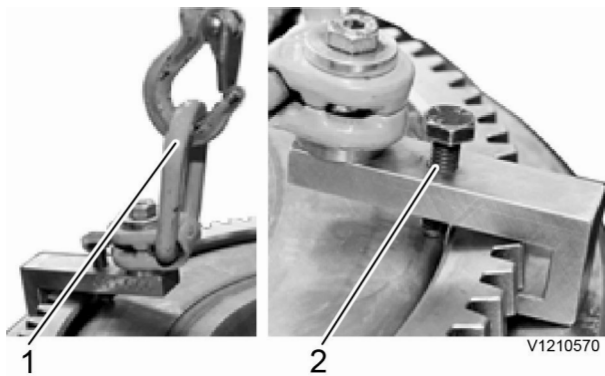


Figure 5

Detail/interval	Control/oversight
1 Shackles. Annual check.	Check that shackles does no have visible defects, cracks or deformations.
2 9993807 Lifting tool. Annual check.	Check that the lifting tool with threads and bolt does no have visible defects, cracks or deformations.

General

A defective lifting tool must be replaced.

Workplace

Protective shoes must be used.

The workplace should be kept free from equipment that can cause slipping or tripping risks.

The lifting tool is intended to be used in a workshop environment, outdoor usage is forbidden.

Continuous supervision

The lifting tool must be subjected to continuous supervision before use.

- Check for cracks.
- Check if the lifting tool is bent or deformed.
- Check that threaded screws and bolts are intact and do not have indications of breakage or deformation.

Document Title: 11668007 Lifting tool user instructions	Function Group: 080	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

11668007 Lifting tool user instructions

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			



V1210648

Figure 1
11668007 lifting tool

Instructions

This instruction is a guide on how to use and maintain the lifting tool correctly. The instructions must be studied carefully by the personnel concerned before the lifting tool can be put into use.

The instructions must always be available to the personnel maintaining and using the lifting tool daily.

It is also important to:

- Keep the instructions and other applicable documents during the entire lifetime of the lifting tool.
- Pass the instructions to other owners or users of the lifting tool.
- Update the instructions with additions or changes made by the manufacturer.

Pay careful attention to information about warnings mentioned in the instructions and found on the warning signs on the lifting tools. If this information is not observed, severe personal injuries and equipment damage can arise.

Responsibility

The instructions describe the authorized method to use the lifting tool.

The lifting tool may only be used by personnel with adequate technical training or corresponding professional experience and in consultation with the manufacturer.

If the instructions have not been followed, the manufacturer is not responsible for personal injuries or damage to

equipment.

Marking

Do not remove or make machine labels or other labels unreadable.

The lifting tool is marked with a CE mark, which means that it is designed, manufactured and described in accordance with EC Machinery Directive 2006/42/EC.

Warning decals and CE mark on lifting tool must be clearly visible. If a part provided with warning decals or CE mark is changed, a new warning decal and CE mark must be mounted in the same place. Defective decals and CE marks must be replaced immediately.

Manufacturer

Company: BM Lindahl AB

Address: Älmedal 6

Postal address: 364 33 Åseda, Sweden

Rebuilding

If the lifting tool is rebuilt or supplemented with other parts without permission by the manufacturer, the CE marking does not include this part. If such rebuilding or added parts changes the function of the lifting tool, the CE marking in its entirety is no longer valid. After rebuilding, it is important that the instructions are supplemented with the necessary illustrations, photos and texts.

Intended usage

11668007 Lifting tool consists of stand, lifting jack, extensions and locking pins.

Intended users are appointed and trained personnel, the lifting tool is not intended to be used by unauthorized or underage personnel.

To fulfil the requirements for intended use, the user must follow all instructions and maintenance directions written by the manufacturer.

The lifting tool is only intended for lifting Volvo Wheel Loaders and Volvo Articulated Haulers. Maximum load: 15 000 kg (33 070 lb).

Technical data

Type designation: lifting tool

Maximum load: 15 000 kg (33 070 lb), with two 11668007 lifting tools: 30 000 kg (66 140 lbs)

Mass: 78 kg (172 lb)

Test factor for static testing: For lifting tools and manually operated machines: 1.5. For other machines: 1.25

Height: 500–800 mm (19.7–31.5 in), with extensions: 600–900 mm (23.6–35.4 in)

Safety information

Limits of use

The lifting tools may only be used for the intended purpose. All other use is forbidden.

For Volvo Wheel Loaders, the lifting tool is only intended to lift the rear axle.



V1071600

Always secured loads with safety pins. To stay under raised load without locking pins, is associated with life danger.



V1071600

To prevent breakage and sliding, the lifting tool must always be used with a vertical load.

To prevent oblique loads, always use two 11668007 lifting tools.

Handling

To meet the requirements for intended use, the user must observe all user and maintenance instructions prescribed by the manufacturer.

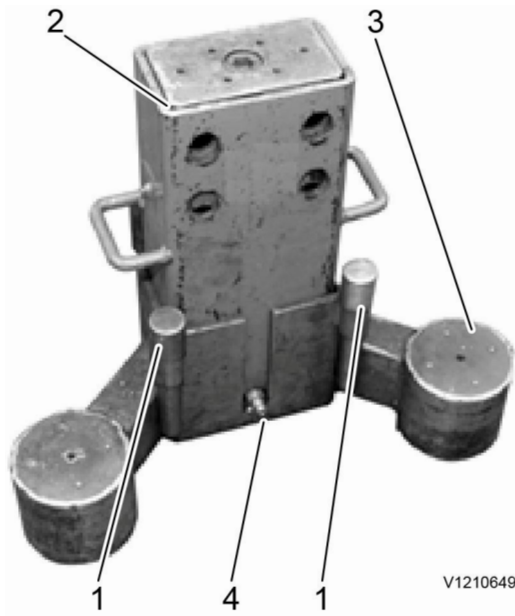


Figure 2

Pre use check

1. **Safety pins**
Make sure that safety pins are supplied along with the lifting tool.
Check that the safety pins are intact and do not have indications of breakage or deformation.
2. **Inner and outer lifting beam**
Check that the beam with pin holes is intact and do not have indications of breakage or deformation.
3. **Support legs**
The lifting tool has three support legs.
Check that the stand is intact and does not have indications of breakage or deformation.
4. **Connection nipple**
Connection nipple for pneumatic pump.

Pneumatic pump

Check that pneumatic pump with hose kit and couplings does not have indications of breakage or deformation. Always replace defective units.

Intended user

The lifting device is intended to be use by trained personnel, it is not intended to be used by unauthorized or underage personnel.

Conditions and preparatory measures

Lifting tool with damaged parts must not be used.



V1071600 Make sure that there are no people in the vicinity who may be at risk when operating this lifting tool.

Lifting



V1071600 Never stay under raised load with the safety pins disconnected.

1. **Steering linkage lock**
Lock steering linkage with steering linkage lock.
If an articulated hauler is being lifted, place body support.
Connect stops.
2. **Assemble**
Place the lifting jack into the stand.
Make sure the nipple fits in the groove.
3. **Place the lifting tool**

Place the lifting tool under wheel axle lifting point.

If needed, connect extensions.

Connect pneumatic pump to the respective nipple on the lifting tools.

To ensure a parallel lift, lower the lifting tools to their lower end point.

Start the pneumatic pump (pumps) and lift to the desired level.

4. **Safety pins**

Connect all safety pins. Make sure that all safety pins are fully inserted.

Lower until the load rests on the safety pins.



Figure 3

Lowering

1. **Steering linkage lock**

Remove steering linkage lock.

Remove stops.

2. **Remove safety pins**

Lift the load with the lifting tools to release the safety pins.

Remove all safety pins and place the safety pins at their designed holders on the lifting tools.

3. **Lower the load**

Lower the load.

Lower the lifting tools to their lower end point.

Make sure that the lifting tools are lowered parallel to avoid uneven weight distribution.

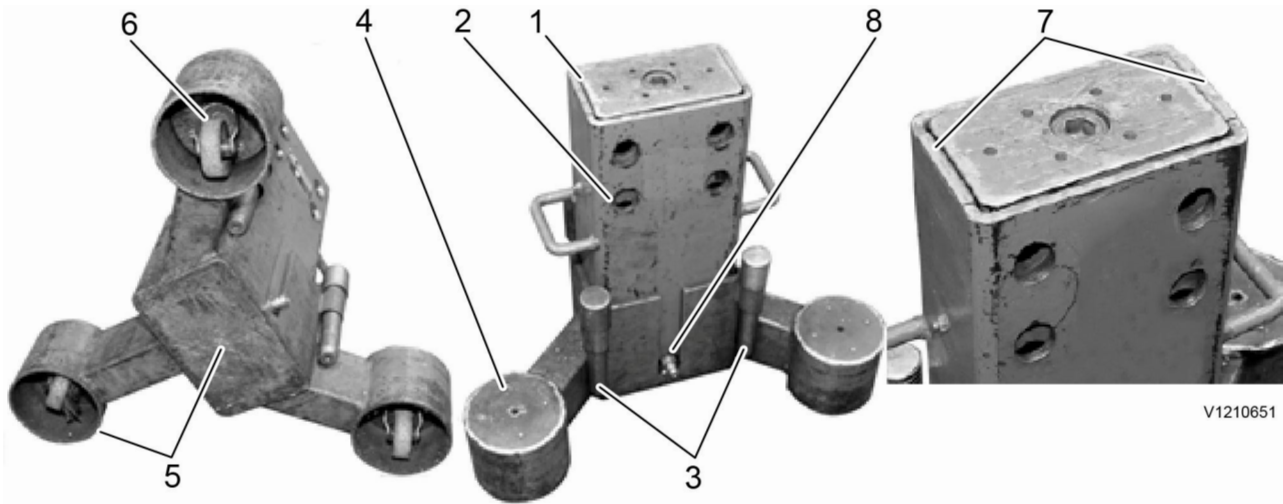
4. **Remove pump and lifting tool**

Disconnect the pneumatic pump (pumps) from the nipples on the lifting tools.

Remove the lifting tool and place it at the designated location.

Maintenance

Maintenance must be performed by person with appropriate technical training or equivalent professional experience and in consultation with the manufacturer.



V1210651

Figure 4

Detail/interval	Control/oversight
1. Inner and outer beam Before use.	Check that beams are intact and does not have indications of breakage or deformation.
2. Pin holes, inner and outer beam Before use.	Check that all holes in beams are intact and does not have indications of breakage or deformation.
3. Pins Before use.	Check that all pins are intact and does not have indications of breakage or deformation. Before lifting, make sure that no pins are missing.
4. Support legs Before use.	Check that the support legs are intact and does not have indications of breakage or deformation.
5. Supporting surfaces Monthly check.	Check that all supporting areas are intact and does not have indications of breakage or deformation.
6. Castor As needed.	Replaced as needed.
7. Friction plate Annual check or as needed.	Lift the inner beam to its upper end point. Grease the friction plates and lower the beam to its lower end point to disperse the grease.
8. Quick coupling Before use.	Check that the quick coupling is clean. Clean dirty quick coupling with cloth. Protect quick coupling with plastic cover.

General

A defective lifting tool must be replaced.

Workplace

Protective shoes must be used.

The workplace should be kept free from equipment that can cause slipping or tripping risks.

The lifting tool is intended to be used in a workshop environment, outdoor usage is forbidden.

The lifting tool is intended to be used on a level and stable surface.

Leaked or spilled hydraulic oil should be taken care of immediately with an absorbent to prevent slipping. The supplier/ manufacturers product sheet regarding safe handling of hydraulic oil must be followed.

Continuous supervision

The lifting tool must be subjected to continuous supervision before use.

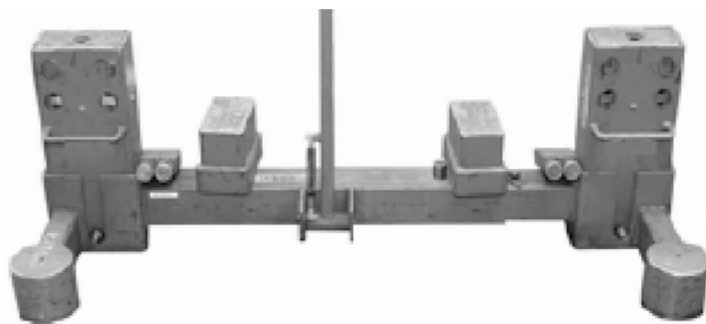
- Check for cracks.
- Check if the lifting tool is bent or deformed.
- Make sure that quick couplings are clean.

Document Title: 11668008 Lifting tool user instructions	Function Group: 080	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

11668008 Lifting tool user instructions

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			



V1210596

Figure 1
11668008 lifting tool

Instructions

This instruction is a guide on how to use and maintain the lifting tool correctly. The instructions must be studied carefully by the personnel concerned before the lifting tool can be put into use.

The instructions must always be available to the personnel maintaining and using the lifting tool daily.

It is also important to:

- Keep the instructions and other applicable documents during the entire lifetime of the lifting tool.
- Pass the instructions to other owners or users of the lifting tool.
- Update the instructions with additions or changes made by the manufacturer.

Pay careful attention to information about warnings mentioned in the instructions and found on the warning signs on the lifting tools. If this information is not observed, severe personal injuries and equipment damage can arise.

Responsibility

The instructions describe the authorized method to use the lifting tool.

The lifting tool may only be used by personnel with adequate technical training or corresponding professional experience and in consultation with the manufacturer.

If the instructions have not been followed, the manufacturer is not responsible for personal injuries or damage to equipment.

Marking

Do not remove or make machine labels or other labels unreadable.

The lifting tool is marked with a CE mark, which means that it is designed, manufactured and described in accordance with EC Machinery Directive 2006/42/EC.

Warning decals and CE mark on lifting tool must be clearly visible. If a part provided with warning decals or CE mark is changed, a new warning decal and CE mark must be mounted in the same place. Defective decals and CE marks must be

replaced immediately.



V1141218

Figure 2

CE-marking

Manufacturer

Company: BM Lindahl AB

Address: Ålmedal 6

Postal address: 364 33 Åseda, Sweden

Rebuilding

If the lifting tool is rebuilt or supplemented with other parts without permission by the manufacturer, the CE marking does not include this part. If such rebuilding or added parts changes the function of the lifting tool, the CE marking in its entirety is no longer valid. After rebuilding, it is important that the instructions are supplemented with the necessary illustrations, photos and texts.

Intended usage

11668008 lifting tool consists of stand, lifting jack, extensions and locking pins.

Intended users are appointed and trained personnel, the lifting tool is not intended to be used by unauthorized or underage personnel.

To fulfil the requirements for intended use, the user must follow all instructions and maintenance directions written by the manufacturer.

Technical data

Type designation: lifting tool

Maximum load: 30 000 kg (66 140 lb)

Mass: 117 kg (257.9 lb)

Test factor for static testing: For lifting tools and manually operated machines: 1.5. For other machines: 1.25

Height: 500–800 mm (19.7–31.5 in), with extensions: 600–900 mm (23.6–35.4 in)

Safety information

Limits of use

The lifting tools may only be used for the intended purpose. All other use is forbidden.

The lifting tool is only intended for lifting Volvo Wheel Loaders and Volvo Articulated Haulers. Maximum load: 30 000 kg (66 140 lb).

For Volvo Wheel Loaders, the lifting tool is only intended to lift the rear axle.



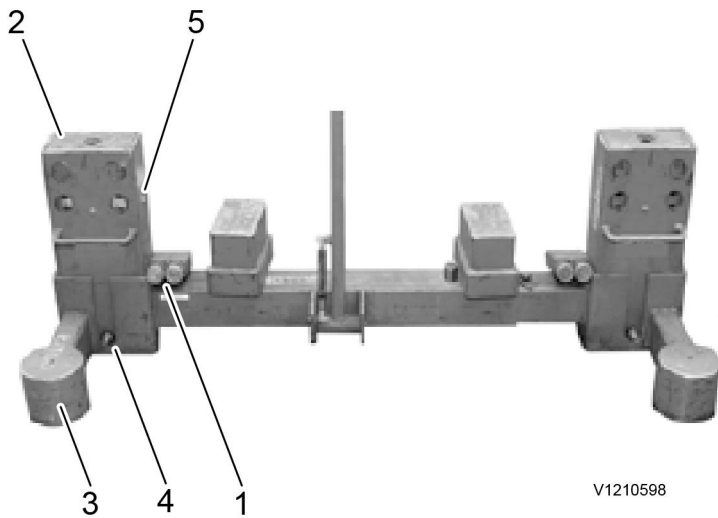
V1071600 Always secured loads with safety pins. To stay under raised load without locking pins, is associated with life danger.



V1071600 Make sure that there are no people in the vicinity who may be at risk when operating this lifting tool.

Handling

To meet the requirements for intended use, the user must observe all user and maintenance instructions prescribed by the manufacturer.



V1210598

Figure 3

Pre use check

1. **Safety pins**
Make sure that safety pins are supplied along with the lifting tool.
Check that safety pins are intact and do not have indications of breakage or deformation.
2. **Inner and outer lifting beam**
Check that the beams with pin holes are intact and do not have indications of breakage or deformation.
3. **Support legs**
The lifting tool with double stand has four support legs.
Check that the stand is intact and does not have indications of breakage or deformation.
4. **Connection nipple**
Connection nipple for pneumatic pump.
5. **Mounting point**
Mounting point for friction plate, 4 per unit.

Pneumatic pump

Check that pneumatic pump with hose kit and couplings does not have indications of breakage or deformation. Always replace defective units.

Adjust width

Adjust the lifting tool to fit the axle lifting points.

Intended user

The lifting device is intended to be used by trained personnel, it is not intended to be used by unauthorized or underage personnel.

Conditions and preparatory measures

Lifting tool with damaged parts must not be used.

Lifting



V1071600 Never stay under a raised load with the safety pins disconnected.

1. **Steering linkage lock**
Lock steering linkage with steering linkage lock.
If an articulated hauler is being lifted, place body support.
Connect stops.
2. **Place the lifting tool**
Place the lifting tool under wheel axle lifting points.
If needed, connect extensions.
Connect pneumatic pump to the respective nipple on the lifting tool.
To ensure a parallel lift, lower the lifting tool to its lower end point.
Start the pneumatic pump and lift to the desired level.

3. **Safety pins**

Connect all safety pins. Make sure that all safety pins are fully inserted.
Lower until the load rests on the safety pins.

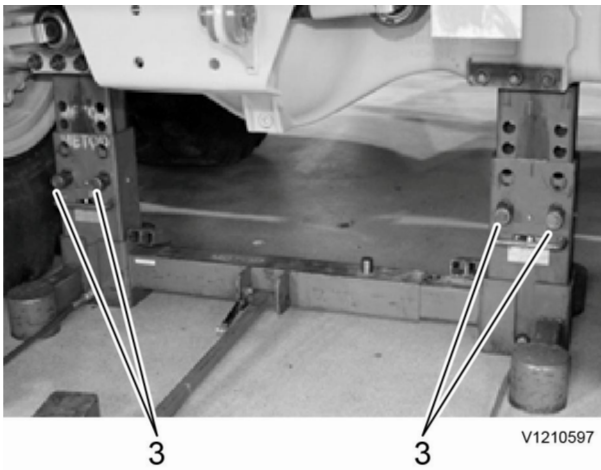


Figure 4

Lowering

1. **Steering linkage lock**
Remove steering linkage lock.
Remove stops.
2. **Remove safety pins**
Lift the load with the lifting tool to release the safety pins.
Remove all safety pins and place the safety pins at their designed holders on the lifting tool.
3. **Lower the load**
Lower the load.
Lower the lifting tool to its lower end point.
Make sure that the lifting tool is lowered parallel to avoid uneven weight distribution.
4. **Remove pump and lifting tool**
Disconnect the pneumatic pump from the nipples on the lifting tool.
Remove the lifting tool and place it at the designated location.

Maintenance

Maintenance must be performed by person with appropriate technical training or equivalent professional experience and in consultation with the manufacturer.

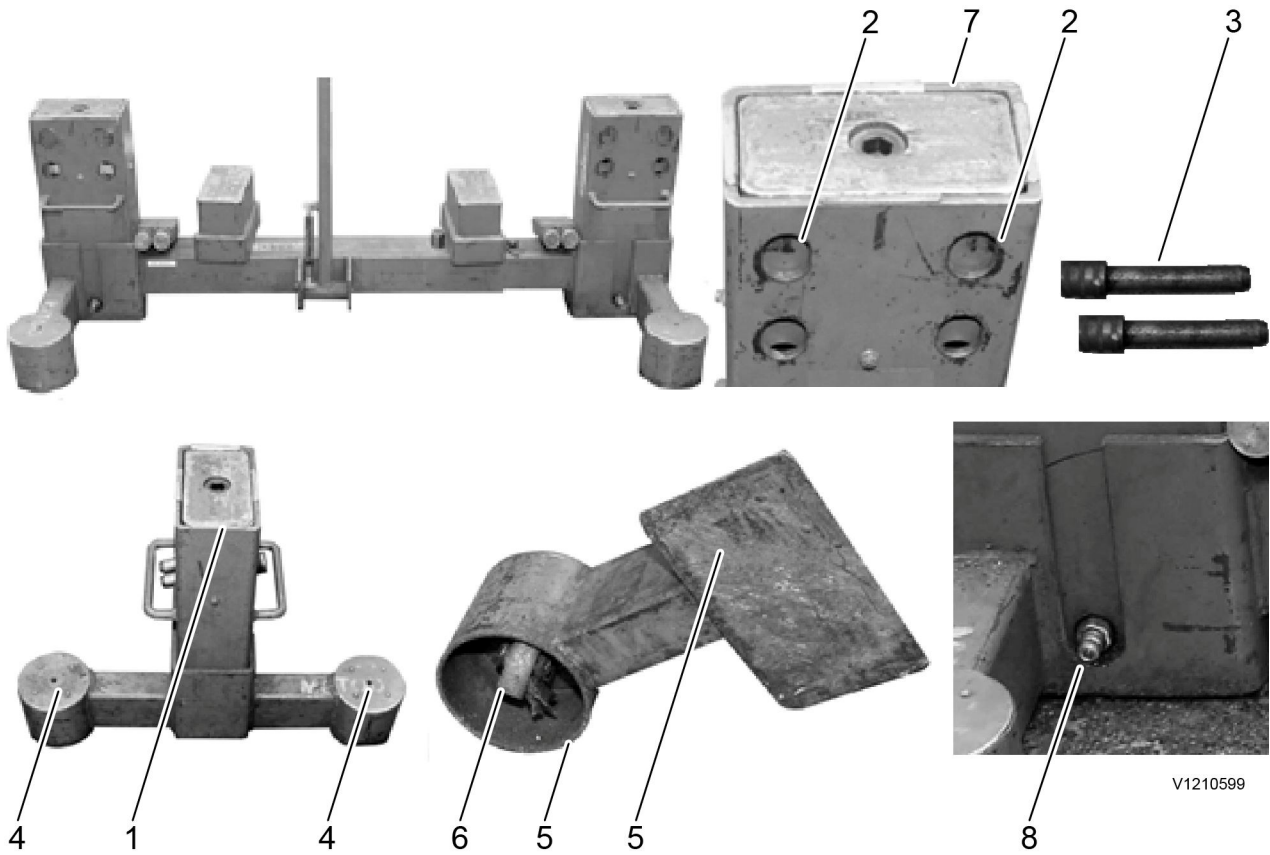


Figure 5

Detail/interval	Control/oversight
1. Inner and outer beam Annual check.	Check that beams are intact and does not have indications of breakage or deformation.
2. Pin holes, inner and outer beam Annual check.	Check that all holes in beams are intact and does not have indications of breakage or deformation.
3. Pins Annual check.	Check that all pins are intact and does not have indications of breakage or deformation. Before lifting, make sure that no pins are missing.
4. Support legs Annual check.	Check that the support legs are intact and does not have indications of breakage or deformation.
5. Supporting surfaces Annual check.	Check that all supporting areas are intact and does not have indications of breakage or deformation.
6. Castor Annual check or as needed.	Check that castors support the weight of the lifting tools. If the castors are broken, they must be replaced.
7. Friction plate Every six months or as needed.	Lift the inner beam to its upper end point. Grease the friction plates and lower the beam to its lower end point to disperse the grease.
8. Quick coupling Before use.	Check that the quick coupling is clean. Clean dirty quick coupling with cloth. Protect quick coupling with plastic cover.

General

A defective lifting tool must be replaced.

Workplace

Protective shoes must be used.

The workplace should be kept free from equipment that can cause slipping or tripping risks.

The lifting tool is intended to be used in a workshop environment, outdoor usage is forbidden.

The lifting tool is intended to be used on a level and stable surface.

Leaked or spilled hydraulic oil should be taken care of immediately with an absorbent to prevent slipping. The supplier/ manufacturer's product sheet regarding safe handling of hydraulic oil must be followed.

Continuous supervision

The lifting tool must be subjected to continuous supervision before use.

- Check for cracks.
- Check if the lifting tool is bent or deformed.
- Make sure that quick couplings are clean.

Document Title: 88830822 Lifting tool user instructions	Function Group: 080	Information Type: Service Information	Date: 4/6/2026
Profile: L105 Volvo			

88830822 Lifting tool user instructions

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L105 Volvo			

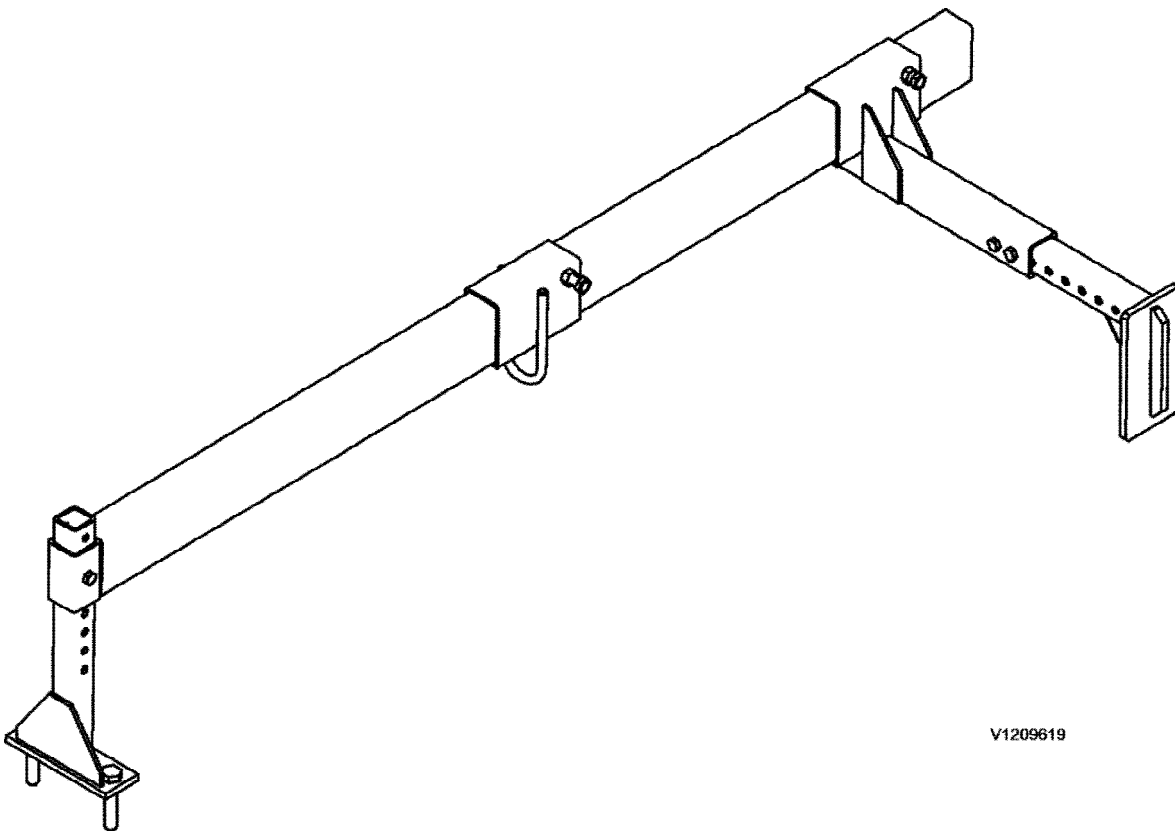


Figure 1
88830244 Lifting tool

Instructions

This instruction is a guide on how to use and maintain the lifting tool correctly. The instructions must be studied carefully by the personnel concerned before the lifting tool can be put into use.

The instructions must always be available to the personnel maintaining and using the lifting tool daily.

It is also important to:

- Keep the instructions and other applicable documents during the entire lifetime of the lifting tool.
- Pass the instructions to other owners or users of the lifting tool.
- Update the instructions with additions or changes made by the manufacturer.