

Document Title: <b>Description</b>	Function Group: <b>000</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

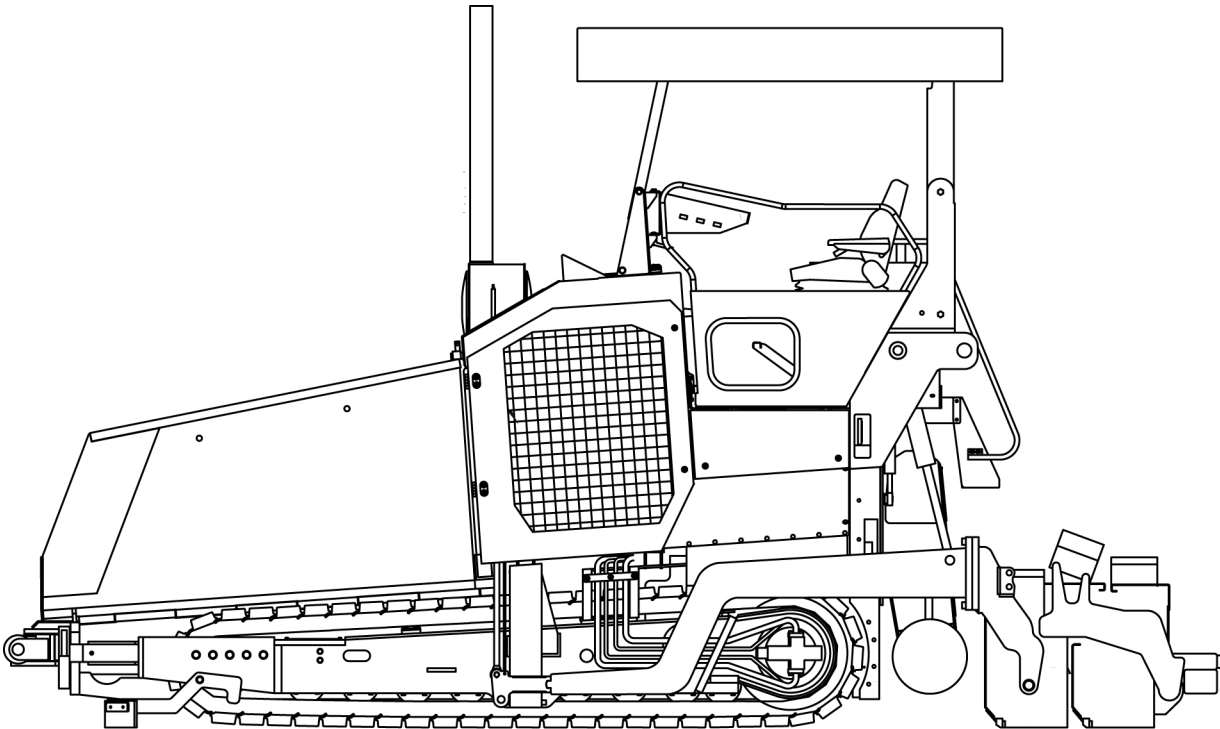
## Description

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			

The machine is designed for application of all types of graded asphalt aggregates, hydraulically bonded graded aggregates, graded ballast, sand or gravel.

The engine is a six-cylinder, four-stroke, V diesel engine with direct injection and water cooling.



V1093790

**Figure 1**  
General View

Document Title: <b>Standard tightening torques</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## Standard tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			

Tightening torques in the following tables refer to bolted joints with tensile strength according to the below. The tables should be regarded as general guidelines for tightening bolted joints where nothing else is specified.

**NOTE!**

Increase the values by 10% for flange bolt type U6FS. Bolts and nuts should be clean and lubricated with oil.

Surface coating		Coefficient of friction	
Non-electrolytic zinc plate coatings	ISO10683-FLZN/ZN/TL/480	0.08	
	ISO10683-FLZN/ZN/TL/720		
	(ISO10683) Geomet 500A	0.12	
Yellowish iridescent	ISO4042-A2C		
Electrolytic coating	ASTMF 1941 Fe/Zn5ANS	0.24	

Dimension s	Strength classes	Coefficient of friction					
		0.08		0.12		0.24	
		Tightening torque (Nm)	Tightening torques: (lbf ft)	Tightening torque (Nm)	Tightening torques: (lbf ft)	Tightening torque (Nm)	Tightening torques: (lbf ft)
M4	8.8	2.3	1.7	3	2.21	3.8	2.8
	10.9	3.3	2.43	4.6	3.39	5.5	4.06
	12.9	3.9	2.87	5.1	3.76	6.5	4.79
M5	8.8	4.4	3.24	5.9	4.35	7.5	5.53
	10.9	6.5	4.79	8.6	6.34	11	8.11
	12.9	7.6	5.61	10	7.37	12.9	9.51
M6	8.8	7.7	5.67	10.1	7.44	13	9.59
	10.9	11.3	8.33	14.9	10.98	19.1	14.09
	12.9	13.2	9.73	17.4	12.83	22.3	16.45
M7	8.8	12.6	9.29	16.8	12.39	21.8	16.08
	10.9	18.5	13.64	24.7	18.21	32	23.6
	12.9	21.6	15.93	28.9	21.31	37.5	27.66
M8	8.8	18.5	13.64	24.6	18.14	31.7	23.38
	10.9	27.2	20.06	36.1	26.62	46.4	34.22
	12.9	31.8	23.45	42.2	31.12	54.4	40.12
M10	8.8	36	26.55	48	35.4	62.8	46.32
	10.9	53	39.09	71	52.36	92.3	68.08

Sample manual. Download All 605 pages at:

<https://www.arepairmanual.com/downloads/abg9820-volvo-tracked-pavers-service-manual/>

M12	12.9	62	45.72	83	61.21	107	78.92
	8.8	63	46.46	84	61.95	108	79.66
	10.9	92	67.85	123	90.72	158.8	117.12
	12.9	108	79.65	144	106.20	185.5	136.82
M14	8.8	100	73.75	133	98.09	172.6	127.3
	10.9	146	107.68	195	143.82	252.9	186.53
	12.9	171	126.12	229	168.90	296.3	218.54
M16	8.8	153	112.84	206	151.93	268.6	198.11
	10.9	224	165.21	302	222.74	395.1	291.41
	12.9	262	193.24	354	261.09	462.5	341.12
M18	8.8	220	162.26	295	217.58	383.1	282.56
	10.9	314	231.59	421	310.51	546.5	403.08
	12.9	367	270.68	492	362.88	638.8	471.15
M20	8.8	308	227.16	415	306.08	542.8	400.35
	10.9	438	323.05	592	436.63	773.5	570.5
	12.9	513	378.36	692	510.39	904.6	667.2
M22	8.8	417	307.56	567	418.19	745.8	550.07
	10.9	595	438.84	807	595.21	1062.5	783.66
	12.9	696	513.34	945	696.99	1243.4	917.08
M24	8.8	529	390.17	714	526.61	933.2	688.29
	10.9	754	556.12	1017	750.1	1329.2	980.37
	12.9	882	650.52	1190	877.69	1555.4	1147.2
M27	8.8	772	569.39	1050	774.44	1382.8	1019.9
	10.9	1100	811.31	1496	1103.39	1969.8	1452.85
	12.9	1287	949.24	1750	1290.73	2304.9	1700
M30	8.8	1053	776.65	1428	1053.23	2090.8	1542.09
	10.9	1500	1106.34	2033	1499.46	2670.5	1969.66
	12.9	1755	1294.42	2380	1755.39	3125.5	2305.25

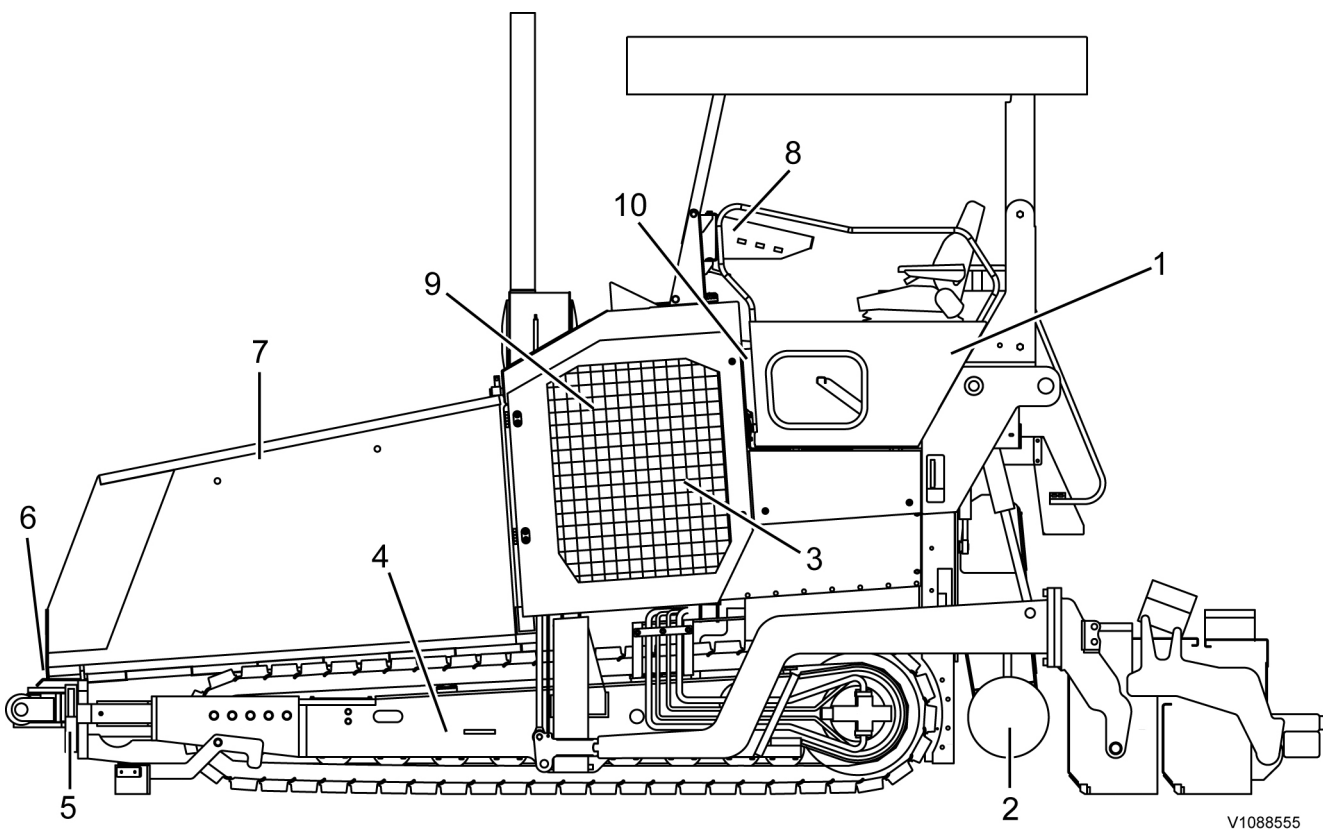
UNC threads, coarse pitch	Nm	lbf ft
1/4"	9 ±2	6.6 ±1.5
5/16"	18 ±4	13 ±3.0
3/8"	33 ±8	24 ±5.9
7/16"	54 ±14	40 ±10
1/2"	80 ±20	59 ±15
9/16"	120 ±30	89 ±22
5/8"	170 ±40	130 ±30
3/4"	300 ±70	220 ±52
7/8"	485 ±115	360 ±85
1"	725 ±175	530 ±130

Document Title: <b>Component locations</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## Component locations

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			



**Figure 1**  
Machine view

Position	Description
1	Superstructure
2	Auger
3	Hydraulic
4	Propulsion System
5	Frame
6	Conveyors
7	Hopper

8	Control panel
9	Drive
10	Electrics

Document Title: <b>Conversion tables</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## Conversion tables

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			

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

1 ha = 100 a - 1 mile<sup>2</sup> = 259 ha = 2.59 km<sup>2</sup>

### Volume

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

1 gal (US) = 3785.41 cm<sup>3</sup> = 231 in<sup>3</sup> = 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 <sup>2</sup>	bar	Pa=N/m <sup>2</sup>	kPa	lbf/in <sup>2</sup>	lbf/ft <sup>2</sup>
kp/cm <sup>2</sup>	1	0.98067	98066.5	98.0665	14.2233	2048.16
bar	1.01972	1	100000	100	14.5037	2088.6
Pa=N/m <sup>2</sup>	0.00001	0.001	1	0.001	0.00015	0.02086
kPa	0.01020	0.01	1000	1	0.14504	20.886
lbf/in <sup>2</sup>	0.07032	0.0689	6894.76	6.89476	1	144
lbf/ft <sup>2</sup>	0.00047	0.00047	47.88028	0.04788	0.00694	1

kg/cm<sup>2</sup> = 735.56 Dry (mmHg) = 0.96784 atm

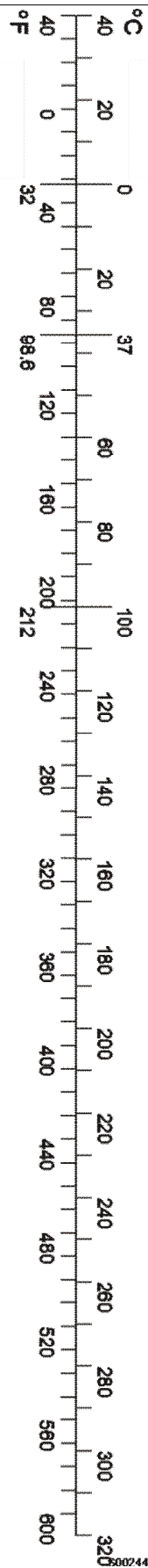
### Unit explanations

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

### Approx. conversion

SI unit	Conversion factor	Non SI	Conversion factor	SI
<b>Torque</b>				
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
<b>Pressure (Pa = N/m<sup>2</sup>)</b>				
kPa	x4.0	=in.H <sub>2</sub> 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 <sup>2</sup>	x14.22	=psi	x0.070	=kp/cm <sup>2</sup>
N/mm <sup>2</sup>	x145.04	=psi	x0.069	=bar
MPa	x145	=psi	x0.00689	=MPa
<b>Power (W = J/s)</b>				
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 <sup>2</sup>	x3.28	= ft/s <sup>2</sup>	x0.305	= m/s <sup>2</sup>
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 <sup>3</sup> /min)	x0.264	= US gal/min	x3.785	= liter/min



Document Title: <b>Transporting the machine</b>	Function Group: <b>050</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## Machine, transporting

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			

### **WARNING**

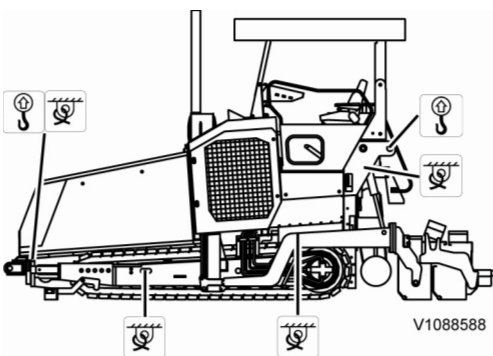
If the machine is to be driven from a loading dock onto the platform of a truck trailer or railway car, make sure that the vehicle is securely braked, for example, wheels blocked. Make sure that there is no risk that the vehicle cannot roll over or sway in a dangerous manner when the machine is driven on.

- Raise auger to top position.
- Move the screed into the transport position and lock it in the transport attachment.
- Drive machine onto transport vehicle.

#### **NOTE!**

Drive straight onto the transport vehicle so that the machine cannot slip sideways from the ramp.

- Lower screed onto transport vehicle.
- Turn off the engine.
- Remove main control panel and external control panels and store securely.
- Flap down the all-weather roof.
- Withdraw battery isolation switch.
- Lash machine securely to transport vehicle.



**Figure 1**

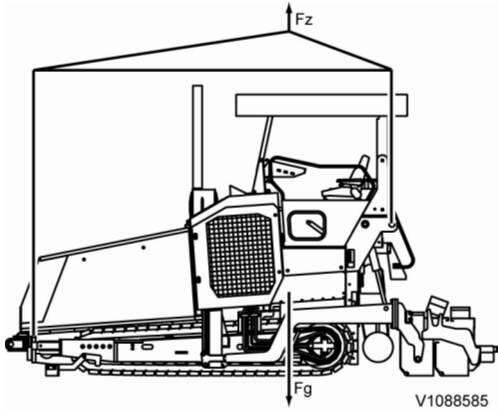
Lashing points

Secure (lash) the machine to the loading platform of the transport vehicle so it cannot tip over or roll away.



Marker plate for lashing

**Lifting of machine**



**Figure 2**

Lifting of machine

To raise the machine, use the stop points provided. Stop points: see picture.



Marking plate - Load/lift

$F_g$  = centre of gravity

Document Title: <b>Operation numbers for additional work</b>	Function Group: <b>070</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>Tracked Pavers (PAT)</b>			

## Operation numbers for additional work

Showing Selected Profile

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: <b>Lubricants, service capacities and intervals</b>	Function Group: <b>160</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

[Go back to Index Page](#)

## Lubricants, service capacities and intervals

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813	Hameln	20812	760005

Description	Used for	Quantity	Specification	VOLVO Part no.	Change intervals
Engine oil	Engine	34 litres	SAE 10W-40 ACEA E6 / E7	11988175	every 500 hours
Hydraulic oil	Hydraulic system	180 litres	HVLP 100, DIN 51524-3	RM80635402	every 1000 hours
Transmission oil	Travel gearbox	10.5 litres	Shell Spirax MB90 <b>Do not use limited slip (LS) transmission oil!</b>	RM13923131	Warranty inspection, first 100 operating hours every 1000 hours
	Pump distributor gear	6.7 litres			
	Conveyor gears	3 litres			
Grease	Vibration bearings Tamper Auger bearings Conveyor bearings remaining grease points	as required	Volvo high temperature grease	RM80795826	-
Fuel	Engine (fuel tank)	as required	CEN EN 590 DIN 51601 BS 2869: A1; A2 ASTM D975-88: 1-D, 2-D NATO Code: F54. F-75	-	-
Coolant	Engine (radiator)	45 litres	BASF Glysantin G48 Antifreeze protection to -35 °C <b>NOTE!</b> Do not mix coolants! Use Volvo VCS	RM56246853	every 2000 hours

Coolant only for  
complete fresh fill.

Document Title: <b>Lubricants, service capacities and intervals</b>	Function Group: <b>160</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

[Go back to Index Page](#)

## Lubricants, service capacities and intervals

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813	Hameln	760006	999999

All quantity data are approximate and may vary according to machine, even within the same series. After changing or topping up operating fluids, check fill levels and correct where necessary.

**Special requirements apply to the conversion to biodegradable hydraulic oil.**

Please contact your dealer if you have any questions or would like further information on oils, lubricants and extreme exterior temperatures.

### Engine oil

Used for	Oil grade	Change intervals (Sulphur content in the fuel)			Quantity
		0 - 3000 ppm	3000 - 5000 ppm	5000 - 10000 ppm	
Engine	Volvo Ultra Diesel Engine Oil VDS-3	every 500 hours	every 250 hours	every 125 hours	34 litres (2,074.8 in <sup>3</sup> )
	Volvo Super Diesel Engine Oil VDS-2				
	ACEA: E9 API: CJ-4	every 250 hours	every 125 hours	every 75 hours	
	VDS-2 plus ACEA-E7 VDS-2 plus API CI-4 or CH-4				

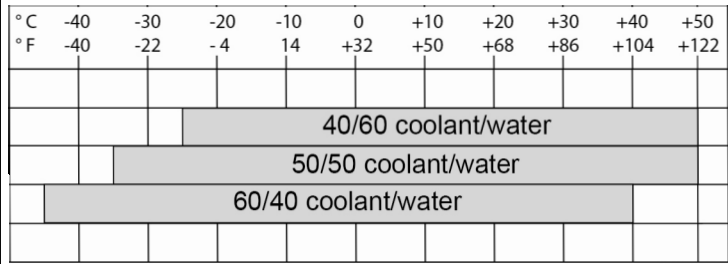
Recommended viscosities at varying ambient temperatures	° C									
	-30	-20	-10	0	+10	+20	+30	+40	+50	+60
	° F									
	-22	-4	+14	+32	+50	+68	+86	+104	+122	+140
				SAE 15W-40						
			SAE 10W-40							
		SAE 5W-30								
		SAE 5W-40								
				SAE 30						
					SAE 40					

V1140503

**Figure 1**



**Recommended mixing ratios at varying ambient temperatures**



**Figure 4**

**All-weather roof**

Used for	Viscosity	Change interval	Quantity
All-weather roof pump	SAE 15W-40	every 3000 hours	0.25 litres (15 in <sup>3</sup> )

**Grease**

Used for	Quality	Change interval	Quantity
Auger bearings	Volvo high temperature grease	—	As required
Conveyor bearings			
Remaining grease points			

**Fuel**

Used for	Quality	Change interval	Quantity
Engine (fuel tank)	DIN EN 590 DIN 51601 BS2869: A1, A2 ASTM D975-88: 1-D, 2-D NATO Code F-54, F-75	—	—

Document Title: <b>Alternative fuels</b>	Function Group: <b>160</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>Tracked Pavers (PAT)</b>			

## Alternative fuels

Showing Selected Profile

**This statement is only valid for Volvo branded engines.**

Hydro-treated vegetable oil (HVO) and fatty acid methyl ester (FAME) biodiesel are both made from renewable raw materials such as vegetable oils and animal fats, but they are chemically processed in different ways.

### Hydro-treated vegetable oil (HVO)

HVO is created using a chemical process called hydro-treating. Hydro-treating creates an oxygen-free hydrocarbon product that is very similar to distillate diesel fuel and is well suited for use in diesel engines. HVO fuels complying with the CEN diesel fuel standard EN 590:2013 or with the European Fuel Quality Directive 98/70/EC are approved for use in all Volvo Construction Equipment diesel engines with no changes to maintenance intervals. Paraffinic diesel fuels complying with the CEN standard EN 15940 may be used in all machines operating outside the European Union and for EU-certified engines up to the emission level Stage IV. These fuels may also be used for the EU-certified D11, D13 and D16 engines meeting the emission level Stage V.

### Biodiesel

Biodiesel is a product made from renewable resources such as vegetable oils or animal fat. Biodiesel that has been chemically processed into fatty acid methyl ester (FAME) can be blended with distillate diesel fuel and used in some diesel engines. Unblended biodiesel is referred to as B100 because it is 100% biodiesel.

Rapeseed methyl ester (RME) is the most common type of FAME used in Europe. Soy methyl ester (SME) and sunflower oil methyl ester (SOME) are the most common types of FAME used in the US.

Although use of FAME biodiesel is now a legal requirement in some markets, it is not as suitable for use in diesel engines as conventional diesel fuel or HVO (hydro-treated vegetable oil).

### Biodiesel fuel requirements

The FAME biodiesel blends specified in the table below are approved for use if:

- The biodiesel is pre-blended by the fuel supplier
- The biodiesel used in the blend conforms to EN14214 or ASTM D6751
- The distillate fuel used in the blend meets fuel sulphur requirements
- The distillate fuel used in the blend conforms to EN590 or ASTM D975
- B1-B5 biodiesel blends conform to EN590 or ASTM D975
- B6-B7 biodiesel blends conform to EN590 or ASTM D7467
- B8-B20 biodiesel blends conform to EN16709(B20) or ASTM D7467

Engine emission designation	Engine size	Acceptable blend
EU Stage II / US Tier 2 * EU Stage IIIA / US Tier 3 * EU Stage IIIB / US Tier 4 interim EU Stage IV / US Tier 4 final EU Stage V	Below D4 / 4 litres	Up to B7
EU Stage II / US Tier 2 * EU Stage IIIA / US Tier 3 * EU Stage IIIB / US Tier 4 interim EU Stage IV / US Tier 4 final	D4–D8	Up to B7
EU Stage II / US Tier 2 * EU Stage IIIA / US Tier 3 * US Tier 4 final, special North America arrangement **	D9–D16	Up to B20
EU Stage IIIB / US Tier 4 interim EU Stage IV / US Tier 4 final	D11–D16	Up to B10

EU Stage IIIB / US Tier 4 interim, equipped with High Sulphur Fuel Conversion Kit (only available in unregulated markets)	D4–D16	Up to B20
EU Stage IV / US Tier 4 final, equipped with High Sulphur Fuel Conversion Kit (only available in unregulated markets)		
EU Stage V	D4–D16	Up to B7
<p>* As Tier 2 and Tier 3 emissions regulations ended in 2005 and 2010 respectively, engines produced since then typically <b>meet Stage II / Stage IIIA regulations</b>, allowing their sale in less regulated markets.</p> <p>** With additional restrictions and special operating conditions, equipment used in North America may operate on B20 diesel.</p>		

#### NOTE!

Failures directly caused by the use of poor quality biofuel, or any other fuel not conforming to standards, are not factory defects and the manufacturer's warranty does not apply.

#### Maintenance interval requirements

Additional service actions and shorter maintenance intervals are mandatory when using biodiesel blends above B10.

<b>Every 10 hours</b>
<ul style="list-style-type: none"> <li><input type="radio"/> Check the engine oil and change if it rises above the maximum fill level</li> <li><input type="radio"/> Inspect the fuel system components and replace as necessary</li> </ul>
<b>Half of original interval</b>
<ul style="list-style-type: none"> <li><input type="radio"/> Change the engine oil and filter</li> <li><input type="radio"/> Replace the fuel filter(s)</li> </ul>
<b>Every year, regardless of operating hours</b>
<ul style="list-style-type: none"> <li><input type="radio"/> Change the engine oil and filter</li> <li><input type="radio"/> Clean the fuel tank</li> </ul>

#### Effects of biodiesel on engine oil

Using biodiesel can lead to increased oil dilution. Use engine oil analysis tools frequently to check for fuel dilution and monitor engine oil condition. Check the engine oil level daily. Always change the engine oil if the oil level rises above the maximum fill level.

#### Effects of biodiesel on fuel systems

Biodiesel dissolves and loosens some fuel system deposits. During the initial conversion to biodiesel, loosened deposits will travel to the fuel filters and require more frequent fuel filter replacements. Start with new fuel filters when using biodiesel for the first time.

Biodiesel is aggressive to some materials used in fuel system components. Inspect seals, hoses, rubber and plastic components every 10 hours. Repair or replace any components that are damaged, softened or leaking. Clean biodiesel from painted surfaces immediately to prevent paint damage.

Biodiesel is more sensitive to bacteria and water contamination than distillate diesel fuel.

- Use as much fuel as possible before refilling the fuel tank in order to prevent bacteria growth if a machine is in regular use, e.g. regularly uses up a tank of fuel within a week. In climates where condensation is a risk, or when the machine is working for short durations, keep the fuel tank full.
- Do not use biodiesel in machines with low utilization or operating time.
- Do not store machines for more than 4 weeks without flushing biodiesel out of the fuel system by operating the machine through at least one full tank of distillate diesel fuel.
- Always follow the manufacturer's storage recommendations and "best-before" dates for each delivery of biodiesel.

#### Effects of biodiesel on exhaust aftertreatment systems

Biodiesel leaves higher levels of ash in diesel particulate filters and may require more frequent diesel particulate filter (DPF) regeneration and cleaning. Biodiesel can cause deviations in temperatures and functionality of the DPF burner and may cause fault codes or errors.

Biodiesel exhaust gas is aggressive to some materials used in selective catalytic reduction systems (SCR) and may require more frequent cleaning, repairing or replacing of SCR parts.

**Effects of biodiesel on cold weather operation**

Biodiesel has a high viscosity at temperatures below 0 °C (32 °F) and may cause problems starting the engine. Use a fuel heater or park machines in a heated building if possible.

**Effects of biodiesel on engine performance**

Biodiesel B100 has about 8% lower energy density compared to regular diesel fuel. Blends equal or lower than B20 have a small impact on engine performance.

**Effects of biodiesel on emissions compliance**

Engines are certified to comply with U.S. EPA, California and EU emissions standards based upon the use of test fuels with specifications established by these regulatory agencies. Alternative fuels, including biodiesel, that are not substantially similar to the required test fuels may adversely affect engine emissions compliance. As a result, Volvo does not warrant that the engine will conform to applicable Federal or California and EU emissions limits when operated on, or having previously being operated on, biodiesel or other alternative fuels that are not substantially similar to specified test fuels used for certification, nor if biodiesel / regular diesel is used in blends that exceed the recommendations.

However, the use of biodiesel up to a maximum of 20% (B20) in and of itself, will not affect the manufacturer's mechanical warranty as to engine or emissions system, provided the bio fuel used in the blend conforms to the applicable standards and the additional steps outlined herein are followed.

Document Title: <b>Coolant</b>	Function Group: <b>160</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## Coolant

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			

To avoid damage to the engine from frost, corrosion and cavitation, it is very important to treat the coolant liquid appropriately and check it. The following mixing ratio is recommended when concentrated coolant and clean water are used:

Anti-freeze protection to	Proportion of concentrated coolant	Water proportion
-22 °C	min. 35%	65%
-28 °C	40%	60%
-35 °C	max.45%	55%

The water quality is very important for the treatment of the coolant and must show the following properties:

Properties	min.	max.
pH-value at 20°C	6.5	8.5
Chloride-ion content (mg/dm <sup>3</sup> )	—	100
Sulphate-ion content (mg/dm <sup>3</sup> )	—	100
Total hardness	3	12

In the event of deviations of the values, the water must be treated in line with the admissible values. In the case of any uncertainty regarding the water quality, a fully mixed coolant must be used.

Document Title: <b>Arrival Inspection, according to Inspection Programme</b>	Function Group: <b>171</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>Tracked Pavers (PAT)</b>			

## **Arrival Inspection, according to Inspection Programme**

**Op nbr 171-001**

**Total procedure time (hr): 0.80**

1. This Inspection Programme can be found as a PDF file in the document library in PROSIS.

Document Title: <b>Delivery Inspection, according to Inspection Programme</b>	Function Group: <b>171</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>Tracked Pavers (PAT)</b>			

## **Delivery Inspection, according to Inspection Programme**

**Op nbr 171-002**

**Total procedure time (hr): 1.75**

1. This Inspection Programme can be found as a PDF file in the document library in PROSIS.

Document Title: <b>Maintenance of Stored Machines, according to Inspection Programme</b>	Function Group: <b>171</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>Tracked Pavers (PAT)</b>			

## **Maintenance of Stored Machines, according to Inspection Programme**

**Op nbr 171-003**

**Total procedure time (hr): 2.50**

1. This Inspection Programme can be found as a PDF file in the document library in PROSIS.

Document Title: <b>Warranty inspection, 100 hours</b>	Function Group: <b>172</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## Warranty inspection 100 hours

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			

### Op nbr 172-002

1. Move the machine to service position 1, see [Service positions, overview](#).
2. Pump distributor gear, change oil, see [Transmission, changing oil](#).
3. Travel gearbox, change oil, see [Travel gearbox oil, draining](#) and [Travel gearbox oil, filling](#).
4. Auger, drive chain, check tension, see [Auger drive chain, checking](#).
5. Conveyor belt gear, change oil, see [Conveyor planetary gear, changing oil](#).
6. Belt, generator screed heating, check see [Belt, checking](#).
7. Replace hydraulic oil filter, levelling, see [Hydraulic oil filter levelling, changing](#).
8. Change hydraulic oil filter, conveyor belt, see [Hydraulic oil filter conveyor, changing](#)
9. Replace hydraulic oil filter feed circuit, see [Hydraulic oil filter feeder circuit, changing](#).
10. Replace hydraulic oil filter return flow, see [Hydraulic oil return filter, replacing](#).

Document Title: <b>Lubrication</b>	Function Group: <b>1731</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

[Go back to Index Page](#)

## Lubrication

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813	Hameln	760000	760011

### NOTE!

Follow the service intervals and quantities in the lubrication plan precisely.

#### Every 10 operating hours / daily

Assembly	Number of grease nipples	Quantity
Conveyor belt idler wheels	2	Until lubricant emerges.
Conveyor belt drive shaft, left/right	3	Until lubricant emerges.
Auger case seal, basic auger	2	Until lubricant emerges.
Auger outer bearing, basic auger	2	Until lubricant emerges.
Auger centre bearing, basic auger	1	Until lubricant emerges.
Auger outer bearing at operating width of more than 5.5 m	1 (per bearing of the mounted extension)	Until lubricant emerges.

#### Every 500 operating hours / six-monthly

Assembly	Number of grease nipples	Quantity
Outrigger for grade controller	Grease sliding surfaces evenly	

Document Title: <b>Lubrication</b>	Function Group: <b>1731</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

[Go back to Index Page](#)

## Lubrication

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813	Hameln	760012	769999

### NOTE!

Follow the service intervals and quantities in the lubrication plan precisely.

#### Every 10 operating hours / daily

Assembly	Number of grease nipples	Quantity
Conveyor belt idler wheels	2	until lubricant emerges.
Conveyor drive shaft left, right	3	until lubricant emerges.
Auger case seal, basic auger	2	until lubricant emerges.
Auger outer bearing, basic auger	2	until lubricant emerges.
Auger centre bearing, basic auger	1	until lubricant emerges.
Auger outer bearing at operating width of more than 5.5 m	1 (per bearing of the mounted extension)	until lubricant emerges.

#### Every 500 operating hours / six-monthly

Assembly	Number of grease nipples	Quantity
Travelling gear idler	1 (per idler)	until lubricant emerges.
Outrigger for grade controller	Grease sliding surfaces evenly	

Document Title: <b>Washing, external cleaning</b>	Function Group: <b>1731</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## Washing, external cleaning

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			

### Op nbr 170-001

**NOTE!**

When using high pressure cleaners, ensure that no water or vapour comes into contact with electrical components or the control system. Do not use aggressive cleaners which could cause damage to painted surfaces.

1. Remove heavy soiling mechanically by brushing and sweeping. Clean the machine thoroughly with water. Use paint-friendly cleaners.
2. After washing, allow the engine to warm up. This will dry the engine components and electrical connections more quickly.
3. After cleaning: lubricate according to lubrication plan, see [Lubrication](#).

Document Title: <b>Bolted joints, check tightening torque</b>	Function Group: <b>1731</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## **Bolted joints, check tightening torque**

Showing Selected Profile

<b>Valid for serial numbers</b>			
<b>Model</b>	<b>Production site</b>	<b>Serial number start</b>	<b>Serial number stop</b>
ABG9820 Volvo PID:80774813			

### **Op nbr**

This is part of another procedure

Check machine during all maintenance work for loosened nuts or threaded connections and tighten with the appropriate tightening torque. Replace loosened self-locking nuts as required.

Document Title: <b>Maintenance service, as required</b>	Function Group: <b>173</b>	Information Type: <b>Service Information</b>	Date: <b>4/29/2026</b>
Profile: <b>ABG9820 Volvo PID:80774813</b>			

## Maintenance service, as required

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
ABG9820 Volvo PID:80774813			

### Op nbr 173-001

1. Move the machine to service position 1, see [Service position 1](#).
2. Clean engine air filter, primary filter when corresponding message appears on operator's console, see [Engine air cleaner primary filter, cleaning and replacing](#).
3. Fuel tank, clean inlet strainer, see [Fuel tank strainer, cleaning](#).
4. Drain water separator (fuel prefilter) when corresponding message appears on operator's console, see [Water separator](#).
5. Check coolant level if the corresponding message appears on the control panel, see [Coolant level, checking](#).
6. Replace sound insulation, insulating mats, see [Sound insulation](#).
7. Conveyor belt, change shaft covers, see [Conveyor belt covers](#).
8. Conveyor belt, change drive chain, see [Conveyor drive chain, removing](#) and [Conveyor drive chain, installing](#).
9. Change bearing guard of centre worm gear; see [Bearing protector](#).
10. Tighten conveyor belt, see [Conveyor tension, checking](#) and [Conveyor tension, adjusting](#).
11. Auger, tighten drive chain, see [Auger drive chain, checking](#) and [Auger drive chain, adjusting](#).
12. Hydraulics, change return filter if corresponding indicator is shown on filter, see [Hydraulic oil return filter, replacing](#).
13. Change hydraulic filters, conveyor belt if corresponding indicator is shown on filter, see [Hydraulic oil filter conveyor, changing](#).