

Document Title: <b>Product plates</b>	Function Group: <b>000</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Product plates

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

When ordering spare parts, and in all telephone enquiries or correspondence the model designation and the Product Identification Number (PIN) must always be quoted.

### Product plate

The product plate on the machine shows the manufacturer's name and address, model designation, PIN, machine weight, engine output, production year and year of delivery. There is also room for the CE mark. The plate is positioned under the boom on the superstructure frame.

### Models (General application)

Volvo Crawler excavators and Wheel excavators are available in different sizes from 5 ton to 95 ton. Some machines can be equipped with different Attachments, Demolition, High Reach Demolition, Pipe Layer, Rotating Pipelayer Kit machine and Dozer blade.

EC	Excavator Crawler	EW	Excavator Wheel
ECR	Excavator Crawler Short-Swing-Radius	AG	Agricultural machines
PL	Pipe Layer	FE	Feller Bunchers
L, LC	Long Crawler	NLD	Narrow Crawler Demolition
N, NC	Narrow Crawler	HR	High Reach Demolition
NL, NLC	Narrow Long Crawler	F, FX	Forestry Application
LM, LCM	Long Crawler Marsh	LD, LCD	Long Crawler Demolition
LR	Long Reach Boom & Arm	LC4	Long Crawler 4
LHDS	Long Crawler Heavy Duty Shanghai	LS	Long Crawler Shanghai
LHDC	Long Crawler Heavy Duty Changwon	NH	Narrow Heavy Duty
LRC4	Long Reach Crawler 4 (Boom & Arm)		

### Supplementary PIN plate (EU countries only)

V	C	E	E	C	3	5	C	C	0	0	0	1	2	3	4	5
A			B			C			D							

V1076896

Figure 1

Example of 17 digit PIN number on PIN plate

- A. World Manufacturing Code
- B. Machine description
- C. Check letters
- D. Serial number

Sample manual. Download All 2045 pages at:

The supplementary plate contains information about machine mass in kg, engine net power in Kw, manufacturing year, <https://www.arespairmanual.com/downloads/fc2924c-volvo-excavator-service-manual/>

Product: FC2924C Volvo Excavator Service Manual

Full Download: <https://www.arepairmanual.com/downloads/fc2924c-volvo-excavator-service-manual/>  
machine serial number and a CE-mark.

### Machine mass

The machine mass in kg on the supplementary PIN plate is based on:

- cab or canopy
- most used track type
- most usual bucket (without load)
- full fuel tank

For safety reasons, 103 % of the machine mass will be shown on the supplementary PIN plate.

### Engine

The engine product plate contains type designation and part and serial numbers and is positioned on the engine inside the rear engine cover on the right side of the machine.

### Attachment quick coupler

The attachment quick coupler nameplate is attached on the outside of the attachment quick coupler. (shows part number and weight)

### Bucket

The bucket nameplate is attached on the top of the bucket. (shows the bucket model order No, Serial number, bucket part number, rated capacity, weight, cutting width, tooth part number and adapted part number)

### Cab

The nameplate is attached on the inside of the cab and indicates the product number, serial number, model type, and weight.

Sample manual. Download All 2045 pages at:

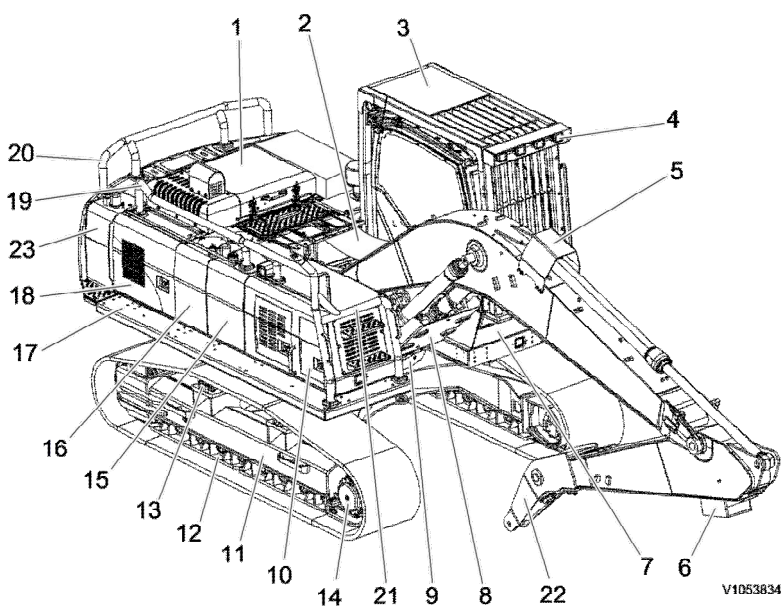
<https://www.arepairmanual.com/downloads/fc2924c-volvo-excavator-service-manual/>

Document Title: <b>Machine view, forestry</b>	Function Group: <b>000</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

### Machine view, forestry

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			



**Figure 1**

Heavy duty forestry

- |    |                            |    |                                      |
|----|----------------------------|----|--------------------------------------|
| 1  | Engine hood                | 13 | Upper roller                         |
| 2  | Swing room guard           | 14 | Track motor                          |
| 3  | Falling object guard (FOG) | 15 | Fuel tank                            |
| 4  | Lamp                       | 16 | Hydraulic tank                       |
| 5  | Arm cylinder guard         | 17 | Upper frame                          |
|    |                            |    | - Upper frame HDF                    |
|    |                            |    | - Upper frame with boom rise         |
|    |                            |    | - Upper frame with add fuel tank     |
|    |                            |    | - Upper frame with riser & fuel tank |
| 6  | Bucket cylinder guard      | 18 | Side door                            |
| 7  | Cab riser                  | 19 | Side protector guard                 |
| 8  | Boom cylinder guard        | 20 | Rear protector guard                 |
| 9  | Swing ring guard           | 21 | Front protector guard                |
| 10 | Tool box                   | 22 | Adapter stick                        |
|    |                            |    | - Upward                             |
|    |                            |    | - Straight                           |
|    |                            |    | - Downward                           |

- 11 HDF Lower frame High walker with HD component 23 Additional fuel tank
- 12 Track guard

Document Title: <b>Volvo standard tightening torques</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Volvo standard tightening torques

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
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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	180	244	254	345

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

### Hydraulic connections, general

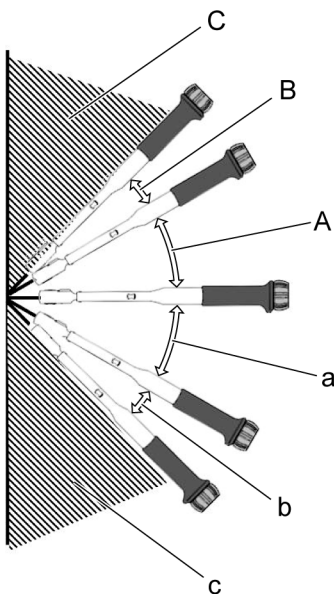
Before fitting pipe couplings, plugs and hoses:

- Make sure that the sealing surfaces are clean and free from pores or scratches.
- Check elastic seal rings for defects.
- Oil in threads, sealing surfaces and contact surfaces except for ORFS-connections (ORFS = O-Ring Face Seal).

### Applying Torque correction factor by tool angle

Tool angle	Correction factor	
	ORFS	Stud-end
Allowable tolerance	±10%	- 0%, +10%
±0° ~ ±30°	5% over torque	
±30° ~ ±45°	20% over torque	
±45°	NOT allowable	

### Tool access angle



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**Figure 1**

Tool access angle

A: +0° ~ +30°

B: +30° ~ +45°

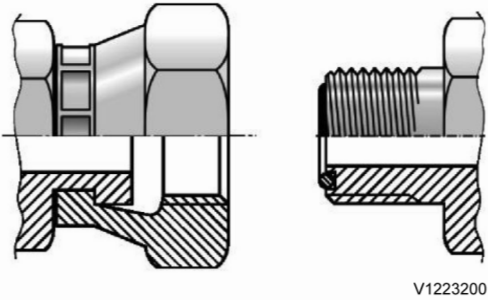
C: +45°

a: -0° ~ -30°

b: -30° ~ -45°

c: -45°

**ORFS female swivel fitting**

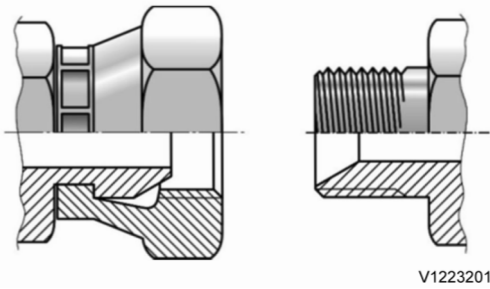


**Figure 2**

Thread s type	Assembl y position	Threads	Standard torque		±0° ~ ±30°		±30° ~ ±45°	
			(Nm)	(lbf ft)	(Nm)	(lbf ft)	(Nm)	(lbf ft)
UN- UNF	ORFS	UNF 9/16-18	29 ±3	21.4 ±2.2	30.5 ±3.1	22.1 ±2.2	36.5 ±3.7	26.9 ±2.7
		UN 11/16-16	44 ±4	32.5 ±3.0	46.2 ±4.6	34.1 ±3.4	55.4 ±5.5	40.9 ±4.1
		UN 13/16-16	63 ±6	46.5 ±4.4	66.2 ±6.6	48.8 ±4.9	79.4 ±7.9	58.6 ±5.9
		UNS 1-14	106 ±8	78.2 ±5.9	111.3 ±11.1	82.1 ±8.2	133.6 ±13.4	98.5 ±9.9
		UN 1 3/16-12	140 ±12	103.3 ±8.9	147.0 ±14.7	108.4 ±10.8	176.4 ±17.6	130.1 ±13.0
		UN 1 7/16-12	175 ±15	129.1 ±11.1	183.8 ±18.4	135.6 ±13.6	220.5 ±22.1	162.6 ±16.3
		UN 1 11/16-12	270 ±20	199.1 ±14.8	283.5 ±28.4	209.1 ±20.9	340.2 ±34.0	250.9 ±25.1
	Stud-end	UNF 7/16-20	21 +2.1	15.4 +1.5	22.1 +2.2	16.3 +1.6	26.5 +2.7	19.5 +2.0
		UNF 1/2-20	37 +3.7	27.3 +2.7	38.9 +3.9	28.7 +2.9	46.6 +4.7	34.4 +3.4
		UNF 9/16-18	47 +4.7	34.7 +3.5	49.4 +4.9	36.4 +3.6	59.2 +5.9	43.7 +4.4
		UNF 3/4-16	81 +8.1	59.7 +6.0	85.1 +8.5	62.8 +6.3	102.1 +10.2	75.3 +7.5
		UNF 7/8-14	141 +14.1	104.0 +10.4	148.1 +14.8	109.2 +10.9	177.7 +17.8	131.1 +13.1
		UN 1 1/16-12	189 +18.9	139.4 +13.9	198.5 +19.9	146.4 +14.6	238.1 +23.8	175.6 +17.6
		UN 1 5/16-12	284 +28.4	209.5 +21.0	298.2 +29.8	219.9 +22.0	357.8 +35.8	263.9 +26.4
UN 1 5/8-12	347 +34.7	255.9 +25.6	364.4 +36.4	268.8 +26.9	437.2 43.7	322.5 +32.3		

UN 1 7/8-12	425 +42.5	313.5 +31.4	446.3 +44.6	329.2 +32.9	535.5 +53.6	395.0 +39.5
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**G thread 30° cone female swivel fitting**



**Figure 3**

Thread s type	Assembl y position	Threads	Standard torque		±0° ~ ±30°		±30° ~ ±45°	
			(Nm)	(lbf ft)	(Nm)	(lbf ft)	(Nm)	(lbf ft)
PF	ORFS	G 1/4-19	25 ±2.5	18.4 ±1.8	26.3 ± 2.6	19.4 ±1.9	31.5 ±3.2	23.2 ±2.3
		G 3/8-19	49 ±4.9	36.1 ±3.6	51.5 ± 5.2	38.0 ±3.8	61.7 ±6.2	45.5 ±4.6
		G 1/2-14	59 ±5.9	43.5 ±4.4	62.0 ± 6.2	45.7 ±4.6	74.3 ±7.4	54.8 ±5.5
		G 3/4-11	119 ±11.9	87.8 ±8.8	125.0 ±12.5	92.2 ±9.2	149.9 ±15.0	110.6 ±11.1
		G 1-11	140 ±14	103.3 ±10.3	147.0 ±14.7	108.4 ±10.8	176.4 ±17.6	130.1 ±13.0
		G 1 1/4-11	173 ±17.3	127.6 ±12.8	181.7 ±18.2	134.0 ±13.4	218.0 ±21.8	160.8 ±16.1
		G 1 1/2-11	205 ±20.5	151.2 ±15.1	215.3 ±21.5	158.8 ±15.9	258.3 ±25.8	190.5 ±19.1
	Stud-end	G 1/8-19	22 +2.2	16.2 +1.6	23.1 +2.3	17.0 +1.7	27.7 +2.8	20.4 +2.0
		G 1/4-19	52 +5.2	38.4 +3.8	54.6 +5.5	40.3 +4.0	65.5 +6.6	48.3 +4.8
		G 3/8-19	85 +8.5	62.7 +6.3	89.3 +8.9	65.9 +6.6	107.1 +10.7	79.0 +7.9
		G 1/2-14	105 +10.5	77.4 +7.7	110.3 +11.0	81.4 +8.1	132.3 +13.2	97.6 +9.8
		G 3/4-11	210 +21	154.9 +15.5	220.5 +22.1	162.6 +16.3	264.6 +26.5	195.2 +19.5
		G 1-11	400 +40	295.0 +29.5	420.0 +42.0	309.8 +31.0	504.0 +50.4	371.7 +37.1
		G 1 1/4-11	525 +52.5	387.2 +38.7	551.3 +55.1	406.6 +40.7	661.5 +66.2	487.9 +48.8
G 1 1/2-11	630 +63.1	464.7 +46.5	661.5 +66.2	487.9 +48.8	793.8 +79.4	585.5 +58.6		

Document Title: <b>Measurement conversion tables</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Measurement conversion tables

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C 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 <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>	Liter	in <sup>3</sup>	ft <sup>3</sup>	yd <sup>3</sup>
cm <sup>3</sup> = m liter	1	0.000001	0.001	0.061024	0.000035	0.000001
m <sup>3</sup>	1000000	1	1000	61024	35.315	1.30796
Liter	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 tonne(metric) = 1.1023 ton(US) = 0.9842 ton(UK)

## Pressure

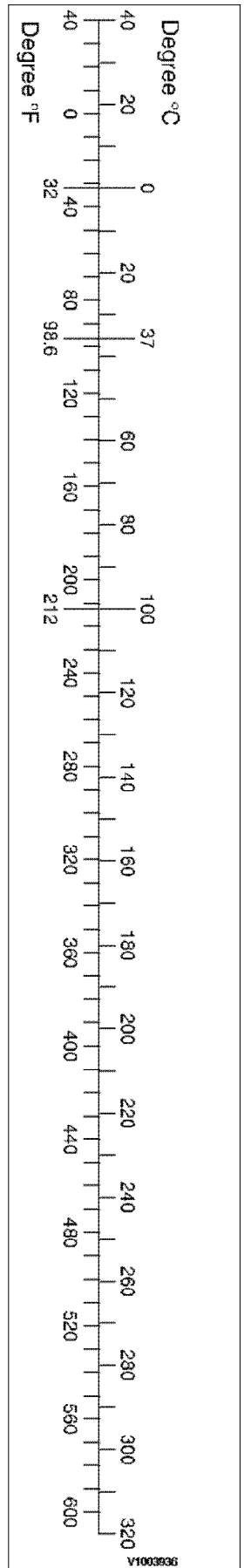
Unit	kgf/cm <sup>2</sup>	bar	Pa=N/m <sup>2</sup>	kPa	lbf/in <sup>2</sup>	lbf/ft <sup>2</sup>
kgf/cm <sup>2</sup>	1	0.98067	98066.5	98.0665	14.2233	2048.16
bar	1.01972	1	100000	100	14.5037	2088.6
Pa=N/m <sup>2</sup>	0.00001	0.001	1	0.001	0.00015	0.02086
kPa	0.01020	0.01	1000	1	0.14504	20.886
lbf/in <sup>2</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

1 kgf/cm<sup>2</sup> = 735.56 Torr(mmHg) = 0.96784 atm

## Approximate conversions

SI	Conversion	Non-SI	Conversion	SI
Unit	Factor	Unit	Factor	Unit
<b>Torque</b>				
newton meter (N·m)	x 10.2	= kgf·cm	x 0.8664	= (lbf·in)
newton meter (N·m)	x 0.74	= lb·ft	x 1.36	= N·m
newton meter (N·m)	x 0.102	= kgf·m	x 7.22	= (lbf·ft)
<b>Pressure (Pa = N/m<sup>2</sup>)</b>				
kilopascal (kPa)	x 4.0	= in. H <sub>2</sub> O	x 0.249	= kPa
kilopascal (kPa)	x 0.30	= in. Hg	x 3.38	= kPa
kilopascal (kPa)	x 0.145	= psi	x 6.89	= kPa
(bar)	x 14.5	= psi	x 0.069	= (bar)
(kgf/cm <sup>2</sup> )	x 14.22	= psi	x 0.070	= (kgf/cm <sup>2</sup> )
(newton/mm <sup>2</sup> )	x 145.04	= psi	x 0.069	= (bar)
megapascal (MPa)	x 145	= psi	x 0.00689	= MPa
<b>Power (W = J/s)</b>				
kilowatt (kW)	x 1.36	= PS (cv)	x 0.736	= kW
kilowatt (kW)	x 1.34	= HP	x 0.746	= kW
kilowatt (kW)	x 0.948	= Btu/s	x 1.055	= kW
watt (W)	x 0.74	= ft·lb/s	x 1.36	= W

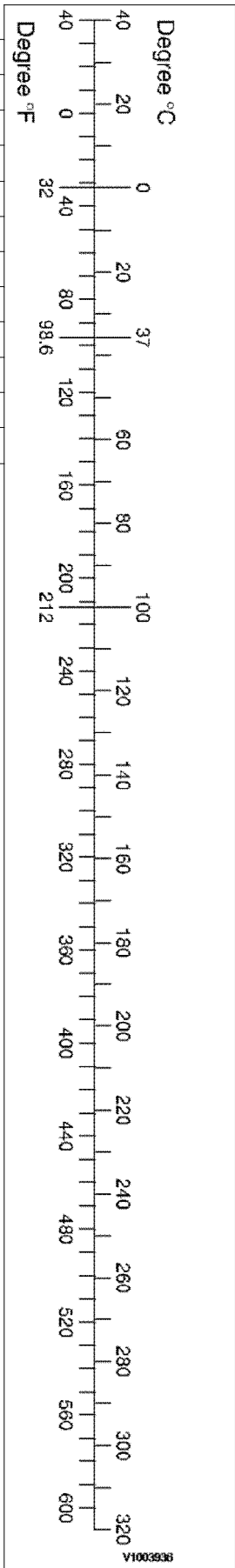
Note: ( ) non-si unit



**Approximate conversions**

SI Unit	Conversion Factor	Non-SI Unit	Conversion Factor	SI Unit

Energy (J = N·m)				
kilojoule (kJ)	x 0.948	= Btu	x 1.055	= kJ
joule (J)	x 0.239	= calorie	x 4.19	= J
Velocity and Acceleration				
meter per sec <sup>2</sup> (m/s <sup>2</sup> )	x 3.28	= ft/s <sup>2</sup>	x 0.305	= m/s <sup>2</sup>
meter per sec (m/s)	x 3.28	= ft/s	x 0.305	= m/s
kilometer per hour (km/h)	x 0.62	= mph	x 1.61	= km/h
Horse power/torque				
BHP x 5252 rpm = TQ (lb-ft)			TQ x rpm 5252 = B.H.P.	
Temperature				
°C = (°F - 32) / 1.8		°F = (°C x 1.8) + 32		
Flow Rate				
liter/min (dm <sup>3</sup> /min)	x 0.264	= US gal/min x 3.785		= liter/min
Note: ( ) non-si unit				



Document Title: <b>Engine, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Engine, specifications

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Valid for serial numbers			
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### Specifications

Item	Unit	Specifications
Engine model	-	D7E EBE3
Type	-	4-stroke, 6-cylinder, water cooled, vertical in line, direct injection, turbocharged and air to air aftercooled diesel engine
Fuel injection system	-	V-ACT (Volvo Advanced Combustion Technology)
Number of cylinder	-	6, vertical in-line
Displacement	cc (US gal)	7146 (1.9)
Bore x stroke	mm (in)	108 x 130 (3.86 x 5.12 )
Rotational direction		Facing flywheel, counterclockwise
Compression ratio	-	18:1
Injection order	-	1-5-3-6-2-4 (No.1 starts from flywheel side)
Maximum power (Net)	kW (HP) / rpm	125 (168) / 1800
Maximum torque (Net)	Nm (lbf ft) / rpm	870 (642) / 1350
Low idle	rpm	800
Tier 3 emission certifications		US EPA40 CFR: parts 9.86 and 89 CARB EU 97/68/EC ECE R24-3

Document Title: <b>Engine, weight</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
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## Engine, weights

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<b>Valid for serial numbers</b>			
<b>Model</b>	<b>Production site</b>	<b>Serial number start</b>	<b>Serial number stop</b>
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Engine, dry, approx.	780 kg (1720 lbs)
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Document Title: <b>Valve clearance, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Valve system specifications

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

### Valve clearance

Valve clearance, inlet (on cold engine)	90°
Valve clearance, exhaust (on cold engine)	150°
Clearance between control piston and rocker arm	144°

Document Title: <b>Flywheel, weight</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Flywheel, weight

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>
FC2924C Volvo			

Flywheel, approx.	55 kg (112 lbs)
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Document Title: <b>Lubrication specifications</b>	Function Group: <b>system, 030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Lubrication system, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

Oil temperature, normal	80 °C (176 °F)
Oil temperature, max.	125 °C (257 °F)
Oil pressure, > 1100 rpm	0.45 MPa (4.5 bar, 65 psi)
Oil pressure, low idle	0.08 MPa (0.8 bar, 11.6 psi)
Pressure regulating valve, opening pressure	0.4 ±0.04 MPa (4 ±0.4 bar, 58 ±5.8 psi)
Overflow valve, opening pressure	0.25 ±0.05 MPa (2.5 ±0.5 bar, 36.2 ±7.3 psi)

Document Title: <b>Fuel specifications</b>	Function Group: <b>pressure, 030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Fuel pressure, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

Fuel feed pressure	
Minimum pressure in engine starting condition	0.35 ±0.05 MPa, 51 ±7 psi, 3.5 ±0.5 bar
Minimum pressure in engine running condition	0.6 ±0.05 MPa, 87 ±7 psi, 6.0 ±0.5 bar
Maximum pressure in the pump pressure relive valve	1.15 ±0.15 MPa, 167 ±22 psi, 11.5 ±1.5 bar

Fuel control unit (FCU) pressure	
Pressure in engine starting condition	0.07 ±0.04 MPa, 10 ±6 psi, 0.7±0.4 bar
Pressure without load in engine running condition	0.1 ±0.01 MPa, 15 ±2 psi, 1 ±0.1 bar
Pressure with load in engine running condition	0.09–0.21 MPa, 13–31 psi, 0.9–2.1 bar
Pressure without regulation in engine running condition	0.45 ±0.02 MPa, 65 ±3 psi, 4.5 ±0.2 bar

High pressure fuel pump output pressure at testing condition	
Output pressure	55 ±5 MPa, 7979 ±725 psi, 550 ±50 bar

Fuel rail pressure	
Pressure in engine starting condition	30 ±5 MPa, 4352 ±725 psi, 300 ±50 bar (at charge air pressure 0 MPa, 0 psi, 0 bar)
Pressure with rail PRV open in running conditions	70 ±5 MPa, 10153 ±725 psi, 700 ±50 bar
Pressure with <b>load above 60%</b> in engine running condition	80–150 MPa, 11606–21762 psi, 800–1500 bar (at charge air pressure 0.05–0.25 MPa, 7.3–36.3 psi, 0.5–2.5 bar)

Document Title: <b>Fuel system, tightening torques</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Fuel system, tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

### **NOTICE**

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

Fuel rail, attaching bolts	30 Nm (22 lbf ft)
Electrical cables, attaching bolts	1.4 ±0.1 Nm (1.03 lbf ft)
Fuel delivery line (between fuel rail and injector)	
Step 1:	10 Nm (7.4 lbf ft)
Step 2:	60°+15°
Injector, yoke	
Step 1:	5 Nm (3.7 lbf ft)
Step 2:	120°+5°
Fuel control valve (FCV)	30 Nm (22 lbf ft)
Return line to control valve	39 Nm (28.8 lbf ft)
Fuel feed filter, attaching bolts	30 Nm (22 lbf ft)
Feed line to control valve (from fuel filter)	49 Nm (39.1 lbf ft)
Feed pipe (on control valve)	34 Nm (25.1 lbf ft)
High-pressure pump, attaching bolts	
Step 1:	10 Nm (7.4 lbf ft)
Step 2:	50 Nm (36.9 lbf ft)
Safety valve (PRV), fuel rail	100 Nm (73.8 lbf ft)
High-pressure sensor, fuel rail	70 Nm (51.6 lbf ft)

Document Title: <b>Fuel feed pump, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Fuel feed pump, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

Fuel feed pump	
Type	Rotor pump
Feed pressure	500 – 700 kPa (5.0 – 7.0 bar) (72.5 – 101.5 psi) at 780 max. rpm

Document Title: <b>Fuel tank, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Fuel tank, specifications

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>
FC2924C Volvo			

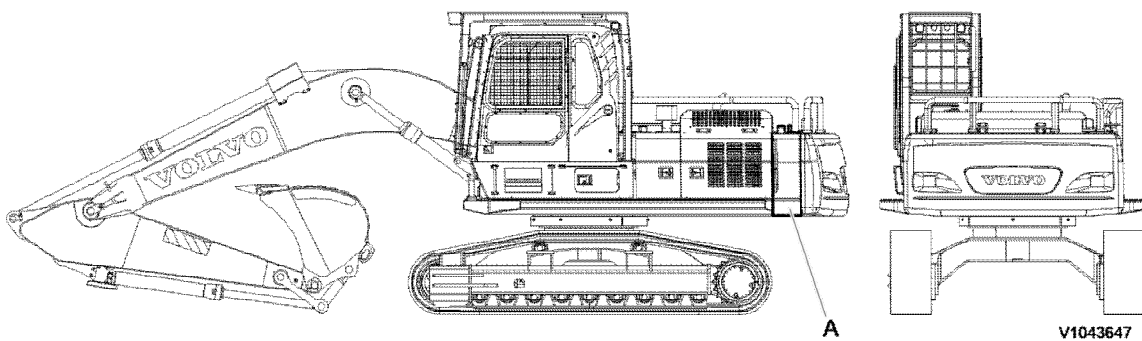
<b>Fuel tank</b>	
Volume	470 liter (124 US gal)
Weight	174 kg (384 lbs)

Document Title: <b>Additional fuel tank, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

### Additional fuel tank, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			



**Figure 1**  
Additional fuel tank

#### Capacities

Oils and other liquids	Capacities	Weight
Additional fuel tank (A)	650 litres (171.7 US gal)	576 kg (1270 lbs)
Additional fuel tank for junction	5 litres (1.3 US gal)	18 kg (40 lbs)

Document Title: <b>Fuel filler pump, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Fuel filler pump, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

### Specifications

	<b>35 LPM</b>	<b>50 LPM + auto shut-off</b>
Rated voltage	24 V	24 V
Output flow	35 liter/min (9.2 gal/min) at 3 m head	50 liter/min (13.2 gal/min) at 3 m head

Document Title: <b>Cooling specifications</b>	Function Group: <b>system, 030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Cooling system, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

### Specifications

Item		Unit	Specifications
Radiator	Core size (W × H × D)	mm	607.5 × 800 × 145.5
		in	23.9 × 31.5 × 5.7
Hydraulic oil cooler	Core size (W × H × D)	mm	701.4 × 469 × 115.4
		inch	27.6 × 18.5 × 4.5
Charge air cooler	Core size (W × H × D)	mm	235.5 × 805 × 145.4
		inch	9.3 × 31.7 × 5.7
Complete cooling system weight (dry)		kg (lb)	66.2 (146)

Document Title: <b>Coolant pump, thermostat, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Coolant pump, thermostat, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

Coolant pump, type	Belt-driven centrifugal pump
Thermostat, type	Piston thermostat
Quantity	1
Coolant thermostat begins to open at	83 °C (181 °F)
Coolant thermostat fully open at	95 °C (203 °F)
Coolant thermostat stroke distance	8 mm (0.32 in)

Document Title: <b>Engine - Pump control, specification</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Engine - Pump control, specification

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

### Except North America

Mode	Engine speed control switch			Power valve current (mA)	Max pump input torque, kgf m (lbf ft)	Power valve 2nd pressure, MPa (psi)	Power, kW (HP)	
	Switch steps	Engine speed (rpm) No-load / Load						
Power maximum	P	9	1900 / above 1800		210 / variable	67.6 (488.1)	0.31 (45.5)	125 (168)
Heavy	H		1800 / above 1700					
General	G1	8	1700 / above 1600		320 / variable	60.8 (439.0)	0.95 (138.0)	
	G2	7	1600 / above 1500					
	G3	6	1500 / above 1400					
Fine	F1	5	1400 / -		500	47.3 (341.5)	2.34 (340.0)	
	F2		1300 / -					
	F3		1200 / -					
Idle	I1	2	1000 / -		630	-	3.2 (465.1)	
	I2		800 / -					

### North America

Mode	Engine speed control switch			Power valve current (mA)	Max pump input torque, kgf m (lbf ft)	Power valve 2nd pressure, MPa (psi)	Power, kW (HP)	
	Switch steps	Engine speed (rpm) No-load / Load						
Heavy	H	9	1900 / above 1800		210 / variable	67.6 (488.1)	0.31 (45.5)	125 (168)
General	G1	8	1800 / above 1700		260 / variable	64.2 (463.5)	0.61 (88.2)	
	G2	7	1700 / above 1600		320 / variable	60.8 (439.0)	0.95 (138.0)	
	G3	6	1600 / above 1500					
Fine	F1	5	1500 / -		500	47.3 (341.5)	2.34 (340.0)	
	F2		1400 / -					
	F3		1300 / -					
Idle	I1	2	1000 / -		630	-	3.2 (465.1)	
	I2		800 / -					

Document Title: <b>Engine speed control switch, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Engine speed control switch, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

Item	Specification
Power supply	DC 24 V
Duty	10 - 90% 5V
Type	PWM signal generator

Document Title: <b>Electrical specifications</b>	Function Group: <b>system, 030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

## Electrical system, specifications

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>
FC2924C Volvo			

<b>Electrical system</b>	
System voltage	24 V

Document Title: <b>Engine control unit E-ECU, specifications</b>	Function Group: <b>030</b>	Information Type: <b>Service Information</b>	Date: <b>3/28/2026</b>
Profile: <b>FC2924C Volvo</b>			

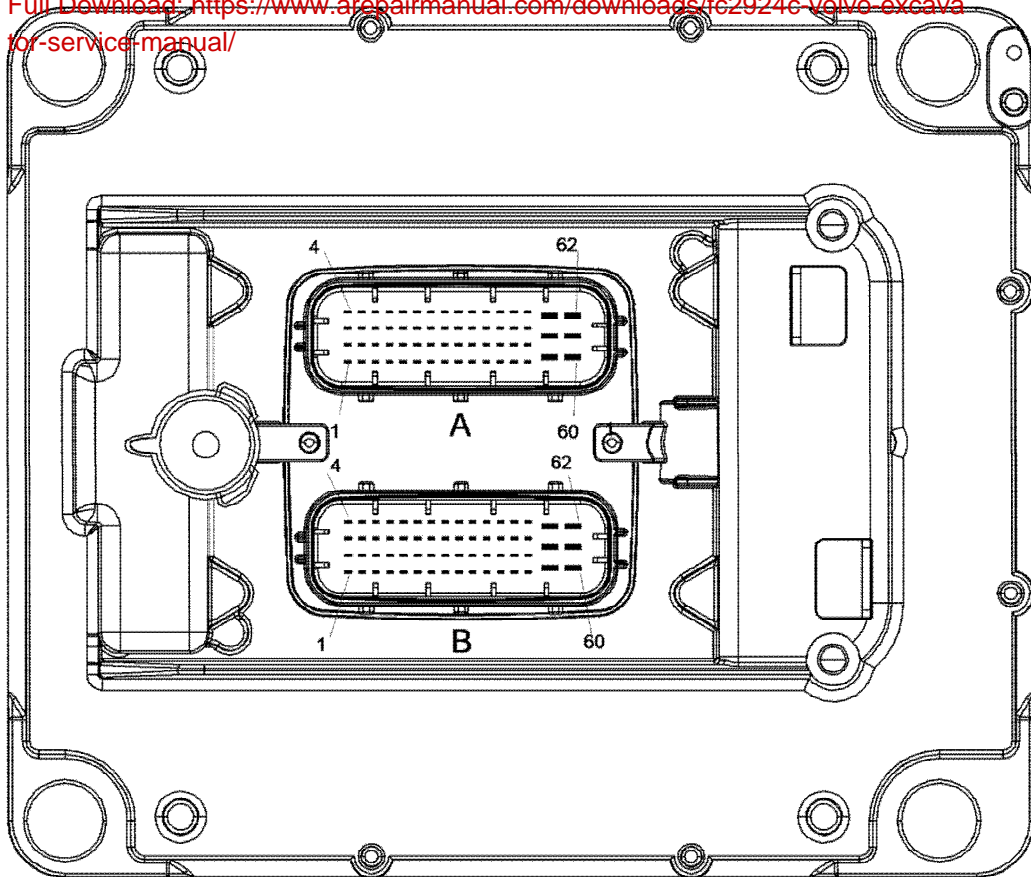
## Engine control unit E-ECU, specifications

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
FC2924C Volvo			

### E-ECU pin, specifications

No	Description	No	Description
A7	Feed to sensor (5 V)	B3	Engine oil level, low
A11	Signal ground to sensor	B4	Engine oil level, high
A12	Actuator MPROP common rail	B7	Preheating diagnostics coil
A15	Ambient filter ground	B8	Water in fuel, signal
A16	Actuator MPROP common rail ground	B10	Switch ground
A19	Rail pressure sensor	B11	Engine oil pressure, signal
A22	Boost pressure signal	B15	Emergency switch (IVS)
A29	Air cleaner indicator	B16	Fuel pressure, signal
A31	Oil temperature signal	B17	Feed to sensor
A33	SAE J1587 B information bus	B18	Signal ground to sensor
A34	SAE J1587 A information bus	B23	Coolant level, signal
A36	Injector cylinder 6	B25	Preheating relay (coil)
A37	Engine crank speed, plus (+)	B27	Coolant temperature, engine, signal
A38	Engine crank speed, minus (-)	B30	Solenoid valve for on / off
A40	Injector cylinder 5	B31	Ambient air temperature sensor
A44	Injector cylinder 4	B51	SAE J1937 H control bus
A45	Engine camshaft speed, plus (+)	B55	SAE J1937 HL control bus
A47	Boost temperature, signal	B57	Voltage feed (ECU supply)
A48	Injector cylinder 3	B58	ECU ground
A52	Injector cylinder 2	B59	ECU ground
A56	Injector cylinder 1	B60	Voltage feed (ECU supply)
A57	ECU ground	B61	ECU ground
A59	Injector cylinder 1 ~ 3 (sv) — ground		
A60	Injector cylinder 4 ~ 6 (sv) — ground		



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**Figure 1**  
E-ECU, connectors

- 
- |   |                          |
|---|--------------------------|
| A | 62 pin Tyco Connector, A |
| B | 62 pin Tyco Connector, B |