Document Title: **Machine view**	Function Group: **000**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Machine view

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

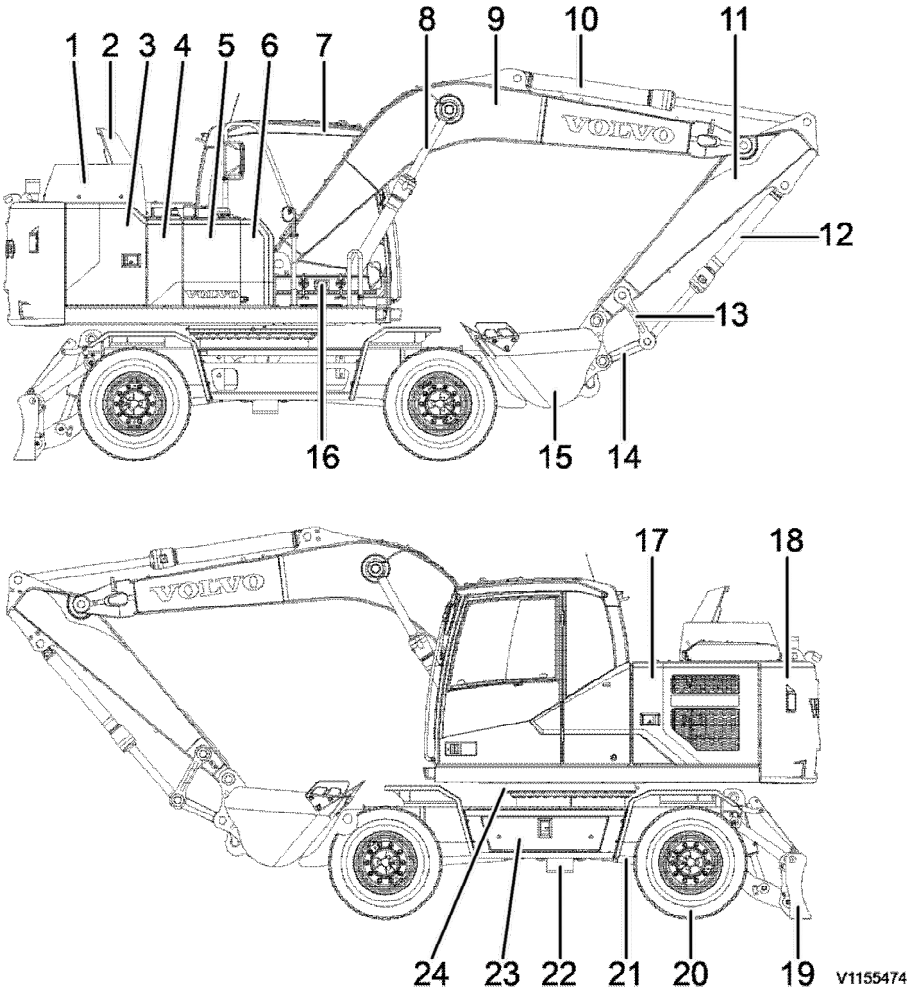


Figure 1
Component locations

1	Engine hood	13	Link
2	Muffler	14	Connecting rod
3	Side cover, right	15	Bucket
4	Hydraulic tank	16	Storage box for air compressor tank
5	Fuel tank	17	Side cover, left
6	AdBlue®/DEF tank	18	Counterweight

7	Operator cab	19	Dozer blade
8	Boom cylinder	20	Tyre
9	Boom	21	Propeller shaft
10	Dipper arm cylinder	22	Travel gearbox and motor
11	Dipper arm	23	Tool box
12	Bucket cylinder	24	Swing ring gear

Document Title: **Product plates**	Function Group: **000**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Product plates

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Please refer to the figure below to locate the product plate (1), engine plate (2), and attachment plates (3 and 4).
Always use the Product Identification Number (PIN) provided on the vehicle and/or engine plates for troubleshooting purposes and/or when ordering spare parts.

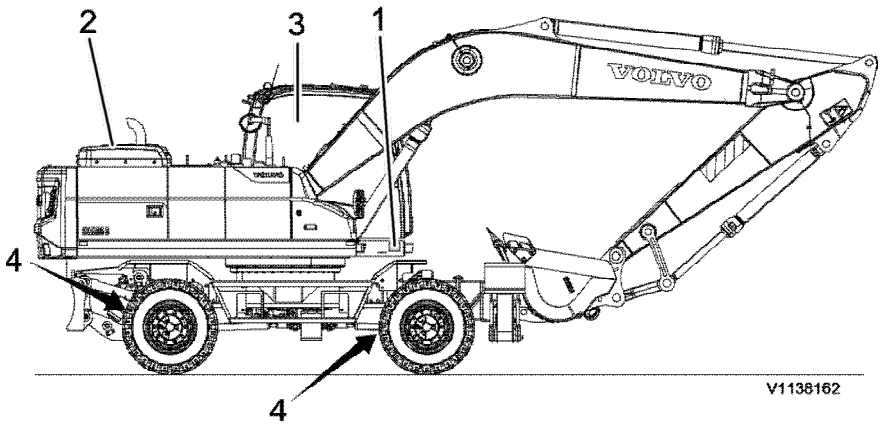


Figure 1

1. Product plate

This plate with **P**roduct **I**dentification **N**umber, **PIN**, for the complete machine indicates the model designation, serial number and when applicable, machine weight, engine power, manufacturing year and CE approval. The plate is positioned on the right side of the upper frame.

Models (General application)
Volvo Crawler excavators and Wheel Excavator 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)

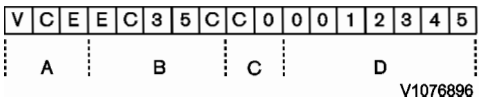


Figure 2

Example of 17 digit PIN number on PIN plate

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

2. Engine

The engine type designation, part and serial numbers are stamped on the top of valve cover.

3. Cab

The nameplate is attached on the inside of the cab and contains information about product number, machine model, cab serial number, ROPS/TOPS certification number, maximum machine mass and international standard.

4. Axles

The nameplates are attached on the front axle and rear axle, and contain information about the part number, model type and serial number.

Document Title: **Volvo standard tightening torques**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Volvo standard tightening torques

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E 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 ≈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

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

Tool access angle

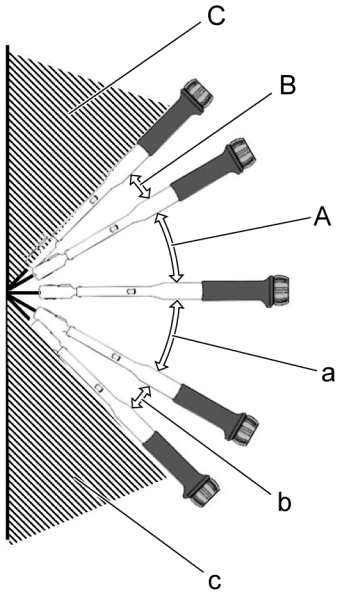


Figure 1
Tool access angle

A: +0˚ ~ +30˚

B: +30˚ ~ +45˚

C: +45˚

a: -0˚ ~ -30˚

b: -30˚ ~ -45˚

c: -45˚

ORFS female swivel fitting

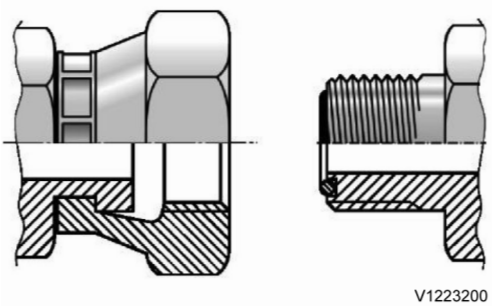


Figure 2

Threads type	Assembly 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

G thread 30˚ cone female swivel fitting

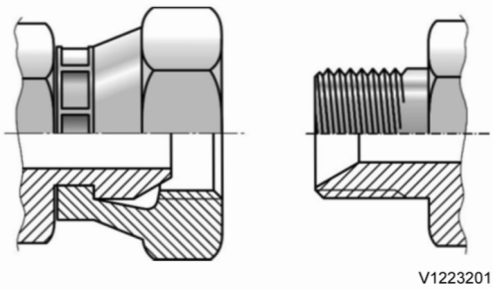


Figure 3

Threads type	Assembly 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: **Measurement conversion tables**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Measurement conversion tables

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E 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 $mile^2$ = 259 ha = 2.59 km^2							

Volume

Unit	**cm^3 = cc**	**m^3**	**Liter**	**in^3**	**ft^3**	**yd^3**
cm^3 = m liter	1	0.000001	0.001	0.061024	0.000035	0.000001
m^3	1000000	1	1000	61024	35.315	1.30796
Liter	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 cm^3 = 231 in^3 = 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)					

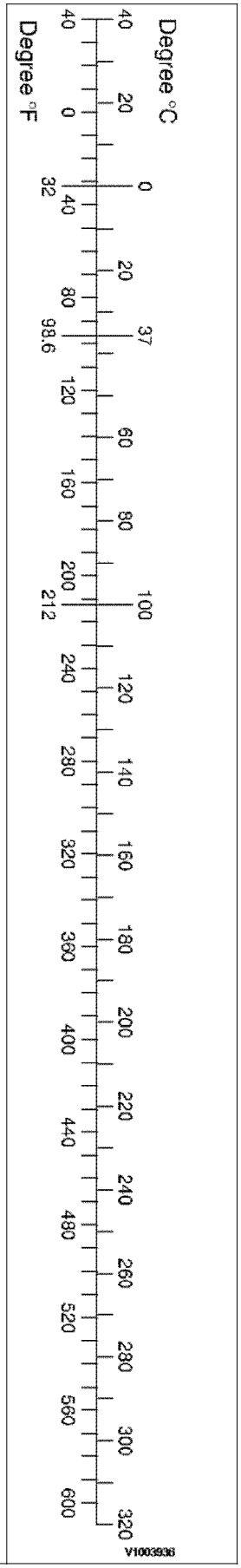
Pressure

Unit	**kgf/cm²**	**bar**	**Pa=N/m²**	**kPa**	**lbf/in²**	**lbf/ft²**
kgf/cm²	1	0.98067	98066.5	98.0665	14.2233	2048.16
bar	1.01972	1	100000	100	14.5037	2088.6
Pa=N/m²	0.00001	0.001	1	0.001	0.00015	0.02086
kPa	0.01020	0.01	1000	1	0.14504	20.886
lbf/in²	0.07032	0.0689	6894.76	6.89476	1	144
lbf/ft²	0.00047	0.00047	47.88028	0.04788	0.00694	1
1 kgf/cm² = 735.56 Torr(mmHg) = 0.96784 atm						

Approximate conversions

SI	Conversion	Non-SI	Conversion	SI
Unit	Factor	Unit	Factor	Unit
Torque				
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)
Pressure (Pa = N/m²)				
kilopascal (kPa)	x 4.0	= in. H_2O	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/cm²)	x 14.22	= psi	x 0.070	= (kgf/cm²)
(newton/mm²)	x 145.04	= psi	x 0.069	= (bar)
megapascal (MPa)	x 145	= psi	x 0.00689	= MPa
Power (W = J/s)				
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

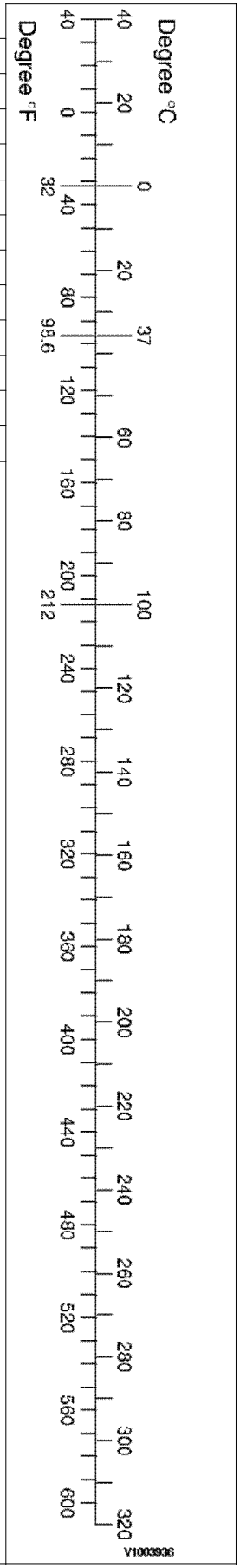


Approximate conversions

SI	Conversion	Non-SI	Conversion	SI
Unit	Factor	Unit	Factor	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 sec² (m/s²)	x 3.28	= ft/s²	x 0.305	= m/s²
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 (dm³/min)	x 0.264	= US gal/min x 3.785		= liter/min

Note: ( ) non-si unit



Document Title: **Tightening torque, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Tightening torque, specifications

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Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Front axle and Rear axle, tightening torque

Front axle mounting, tightening torque

Front axle + Lower frame	885 ±88.3 Nm (90.2 ±9 kgf m) (655 ±65 lbf ft)
Nut + Wheel	599~608 Nm (61~62 kgf m) (443~450 lbf ft) Be careful for rotating direction in installing tire, and refer to the figure of tread pattern.
Carrier housing Axle housing (LH, RH)	See Front axle, specification.
Weight	
NOTE! Apply loctite #277 or 609 on screws.	

Rear axle mounting, tightening torque

Nut + Wheel	599~608 Nm (61~62 kgf m) (443~450 lbf ft) Be careful for rotating direction in installing tire, and refer to the figure of tread pattern.
Carrier housing Axle housing (LH, RH)	See Rear axle, specification.
Weight	
NOTE! Apply loctite #277 or 609 on screws.	

Propeller shaft, Transfer gear box & Travel motor mounting, tightening torque

Propeller shaft + Front axle	63.7 ±5.9 Nm (6.5 ±0.6 kgf m) (46.9 ±4.3 lbf ft)
Propeller shaft (Front axle & Rear axle)	Fill the area of spline until small quantity of grease comes out through air vent hole. When grease is compressed.
Bracket (gear box) + Lower frame	512 ±51 Nm (52.2 ±5.21 kgf m) (376.9 ±37.6 lbf ft)
Bracket + Transfer gear box	431 ±43.2 Nm (43.9 ±4.4 kgf m) (319 ±32 lbf ft) See Transfer gearbox, description.
Travel motor + Transfer gear box	262 ±26.5 Nm (26.7 ±2.7 kgf m) (193 ±19.5 lbf ft)
Weight (Front Propeller shaft)	19 kg (42 lbs)
Weight (Rear Propeller shaft)	16 kg (35 lbs)
NOTE!	

Apply loctite #277 or 609 on screws.

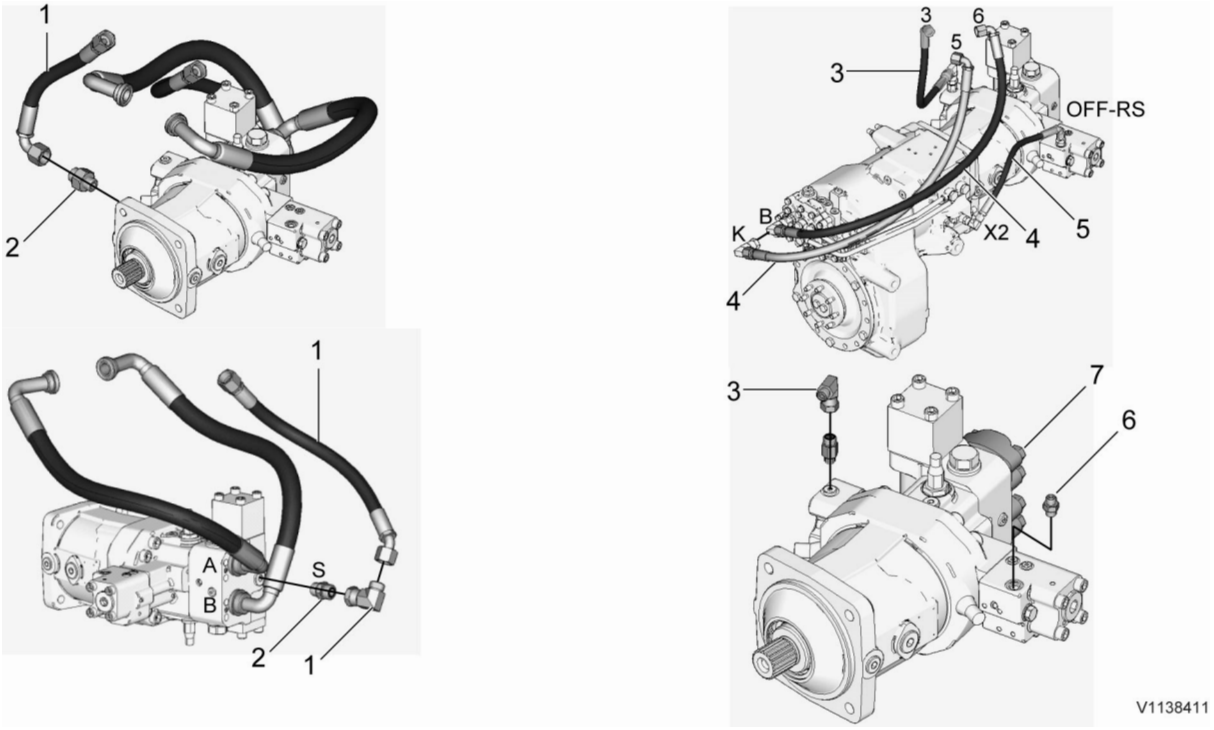

Figure 1
Hose, travel motor

Travel motor hydraulic hoses, Tightening torque

1	120 ±12 Nm (12.2 ±1.2 kgf m) (88 ±8.7 lbf ft)
2	141 ±14 Nm (14.4 ±1.4 kgf m) (104 ±10 lbf ft)
3	36 ±3.9 Nm (3.7 ±0.4 kgf m) (27 ±2.9 lbf ft)
4	55 ±5.9 Nm (5.6 ±0.6 kgf m) (40 ±4.3 lbf ft)
5	25 ±2.9 Nm (2.5±0.3 kgf m) (18 ±2.2 lbf ft)
6	49 ±4.9 Nm (5.0±0.5 kgf m) (36 ±3.6 lbf ft)
7	176 ±18 Nm (17.9±1.8 kgf m) (129 ±13 lbf ft)

Travel motor hose

Component	Port	Component	Port
Turning joint	5A	Travel gear box	K
	B		B
	C	Travel motor	X
Travel gear box	OFF-RS		X2

Travel motor hose

Component	Port	Component	Port
Turning joint	K	Travel motor	S
	P		T1
	H		A
	J		B

Steering and Suspension (locking) cylinder mounting, tightening torque

Suspension (locking) cylinder + Lower frame	885 ±88.3 Nm (90.2 ±9 kgf m) (655 ±65 lbf ft)
Suspension (locking) cylinder + Axle	262 ±26.5 Nm (26.7 ±2.7 kgf m) (194 ±20 lbf ft)
Weight	43 kg (95 lbs)
NOTE! Apply loctite #277 or 609 on screws.	

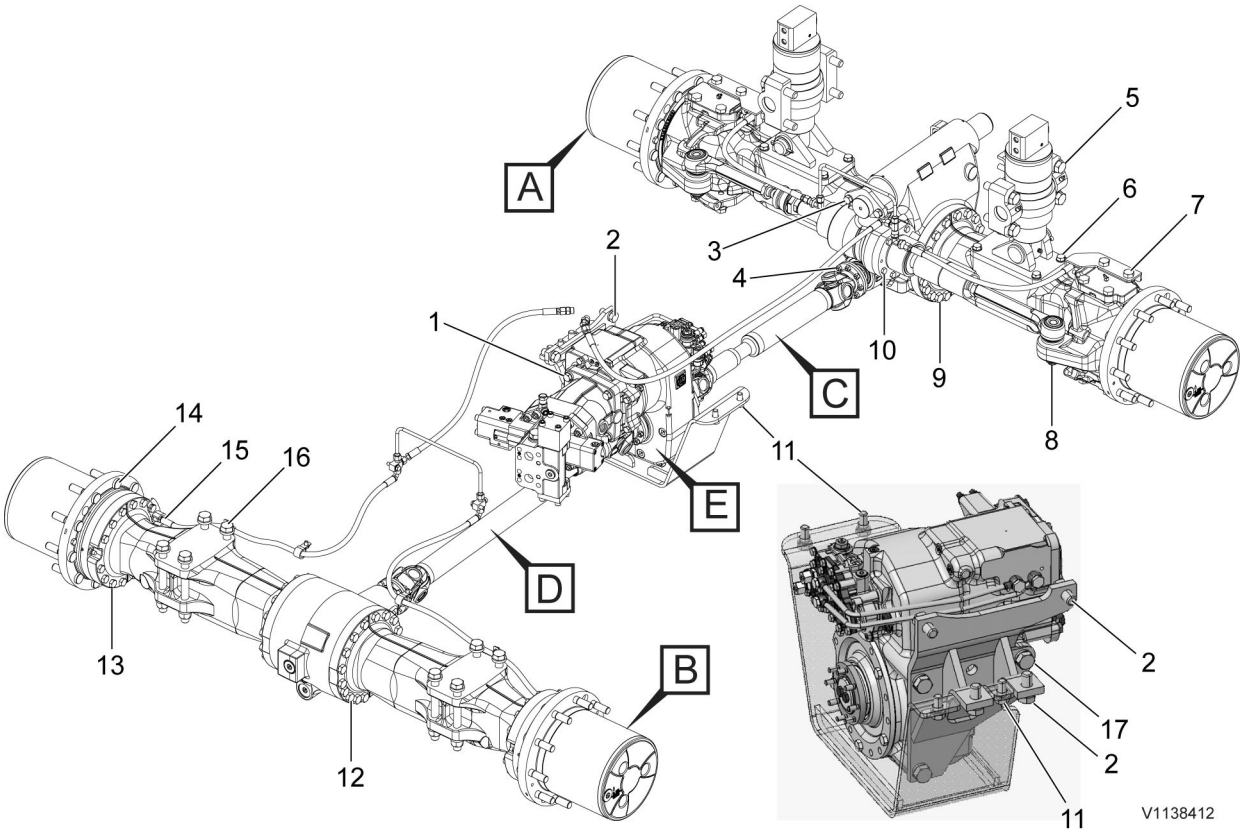

Figure 2
A: Front axle, B: Rear axle C: Propeller shaft (Front), D: Propeller shaft (Rear), E: Transfer gear box
NOTE!
Apply loctite #277 or 609 on screws.

Axle, tightening torque

1	262 ±26.5 Nm (26.7 ±2.7 kgf m) (194 ±20 lbf ft)
2	512 ±51 Nm (52.2 ±5.21 kgf m) (376.9 ±37.6 lbf ft)
3	262 ±26.5 Nm (26.7 ±2.7 kgf m) (194 ±20 lbf ft)
4	63.7 ±6.9 Nm (6.5 ±0.7 kgf m) (46.9 ±5.1 lbf ft)
5	885 ±88.3 Nm (90.2 ±9 kgf m) (655 ±65 lbf ft)
6	262 ±26.5 Nm (26.7 ±2.7 kgf m) (194 ±20 lbf ft)
7	560 ±56 Nm (57.1 ±5.7 kgf m) (412.3 ±41.2 lbf ft)
8	262 ±26.5 Nm (26.7 ±2.7 kgf m) (194 ±20 lbf ft)
9	66.7 ~ 74.5 Nm (6.8 ~ 7.6 kgf m) (49.1 ~ 54.9 lbf ft)
10	66.7 ~ 74.5 Nm (6.8 ~ 7.6 kgf m) (49.1 ~ 54.9 lbf ft)
11	262 ±26.5 Nm (26.7 ±2.7 kgf m) (194 ±20 lbf ft)
12	66.7 ~ 74.5 Nm (6.8 ~ 7.6 kgf m) (49.1 ~ 54.9 lbf ft)
13	66.7 ~ 74.5 Nm (6.8 ~ 7.6 kgf m) (49.1 ~ 54.9 lbf ft)
14	599~608 Nm (61~62 kgf m) (443~450 lbf ft)
15	49 ±4.9 Nm (5.0 ±0.5 kgf m) (36.1 ±3.6 lbf ft)

16	885 ±88.3 Nm (90.2 ±9 kgf m) (655 ±65 lbf ft)
17	430.5 ±43.1 Nm (43.9 ±4.4 kgf m) (316.9 ±31.8 lbf ft)

Document Title: **Transfer gearbox, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Transfer gearbox, specifications

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Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Transfer gearbox, specifications

Item	**Unit**	**Specification**
Input torque	Nm (lbf ft)	770 (570)
Output torque		3750 (2775)
Gear ratio (1st/2nd)	-	4.87/1.2
Input speed	rpm	4200
Installation	-	Direct vertical
Lubrication oil	-	See Operators manual
Gear oil capacity	litres (US gal)	2.5 (0.7)
Weight	kg (lbs)	135 (298)

Document Title: **Front axle, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Front axle, specifications

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Designation	**MS-E 3050**
Oil quantity: differential Oil quantity: wheel hub (planetary gear)	9.0 l (2.38 US gal) 2.4 l (0.63 US gal)
Oil quantity: total	13.8 l (3.65 US gal)
Weight (with oil)	550 kg (1213 lb)
Max. inner steering angle	31.0°

Document Title: **Tightening torque, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Tightening torque, specifications

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Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Swing ring gear, tightening torque, (Nm (kgf m) (lbf ft)

Outer race (swing ring gear) + upper frame mounting bolts	262 ±26.5 (26.7 ±2.7) (193.3 ±19.5)
Lower frame + inner race (swing ring gear) mounting bolts	262 ±26.5 (26.7 ±2.7) (193.3 ±19.5)

NOTE!
Apply Loctite #275 or equivalent locking fluid

Document Title: **Swing ring gear, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Swing ring gear, specifications

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Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Specifications

Item		**Unit**	**Specification**
Type		–	Ball bearing with internal gear
Number of teeth		EA	98
EP 2 Grease (swing ring gear bath)		kg (Litres)	9 (10)
Weight		kg (lb)	192 (423.3)
Outer diameter		mm (in)	1195 (47.0)
Height		mm (in)	90 (3.5)
Bearing	Material	–	SUJ– 2
	Outer diameter of ball	mm (in)	28.575 (1.125)
	Number of ball	EA	110
Grease quantity swing ring and pinion (approx.)		1 kg (2.2 lb)	See operator manual

Document Title: **Brake system, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Brake system, specifications

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Brake system, specifications

Item	Unit	Specification
Service brake valve supply pressure	MPa (kgf cm^2) (psi) (bar)	14.7 (150) (2130) (147)
Service brake valve output pressure		7.8 (80) (1137.9) (78)
Weight, Service brake valve assembly	kg (lbs)	(4.2) (9.3)

Document Title: **Brake accumulator, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Brake accumulator, specifications

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Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Standard accumulator factory assembled are not refillable.
Accumulators for aftermarket need to be refilled with special tool kit:
11666135 Gas filling kit

Quantity	2
Pre-charge pressure, min.	50 bar (725.2 psi)
Gas	Nitrogen (N2)
Capacity	1 L (0.246 gal)
Weight (1 accumulator)	approx. 3.6 kg (7.94 lb)

Document Title: **Axle locking cylinder, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Pivot axle lock cylinder, specifications

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Axle locking (suspension) cylinder, specifications

Item		**Unit**	**Specifications**
Maximum working pressure		MPa (kgf / cm^2) (psi)	39.2 (400) (5685.5)
Number of cylinder (Front-Left & Right)		EA	2
Cylinder length	Maximum stroke	mm (inch)	135 (5.31)
	Maximum stroke		271.5 (10.7)

Document Title: **Tyre, specifications**	Function Group: **030**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

Tyre, specifications

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

Tire, specification

Specification	**Thread pattern**	**Air pressure**	**Tire weight**
9.0 × 20 - 14PR	HS653	68.6 Nm (7.0 kgf cm²) (100 psi)	35 kg (77 lbs)
Tire valve type	**Wheel rim size**	**Wheel nut tightening torque**	
TR175A	7.00 × 20	See Tightening torque, specifications	

NOTE!
Pay attention to thread pattern when assembly. Apply grease between ring and flange for easy assembly.

NOTE!
Always use a safety cage in figure to inflate tire or add after servicing for your safety.

Document Title: **Operation numbers for additional work**	Function Group: **070**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **Excavators (EXC)**			

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. Hhen 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: **NET 8940-00190 Travel motor guide pin**	Function Group: **080**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

NET 8940-00190 Travel motor guide pin

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Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

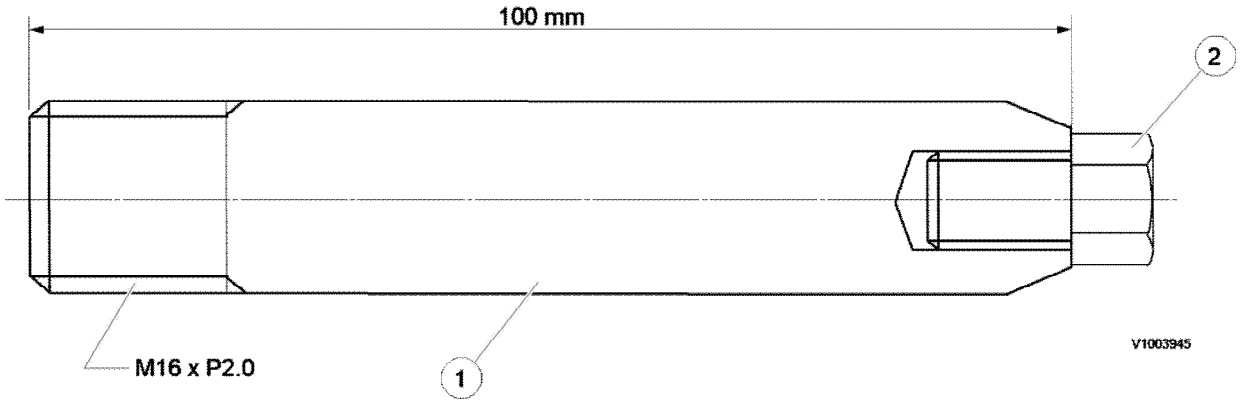

Figure 1
Travel motor guide pin

Item	Quantity	Name	Remark
1	2	Guide bar	SAE 4130 (25 ~ 35 HRC)
2	2	Screw	M8 × 16

Document Title:	Function Group:	Information Type:	Date:
NET 8940-00200 Replace tool for the remote control valve joint	**080**	**Service Information**	**3/23/2026**
Profile: **EW140E Volvo**			

NET 8940-00200 Replace tool for the remote control valve joint

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

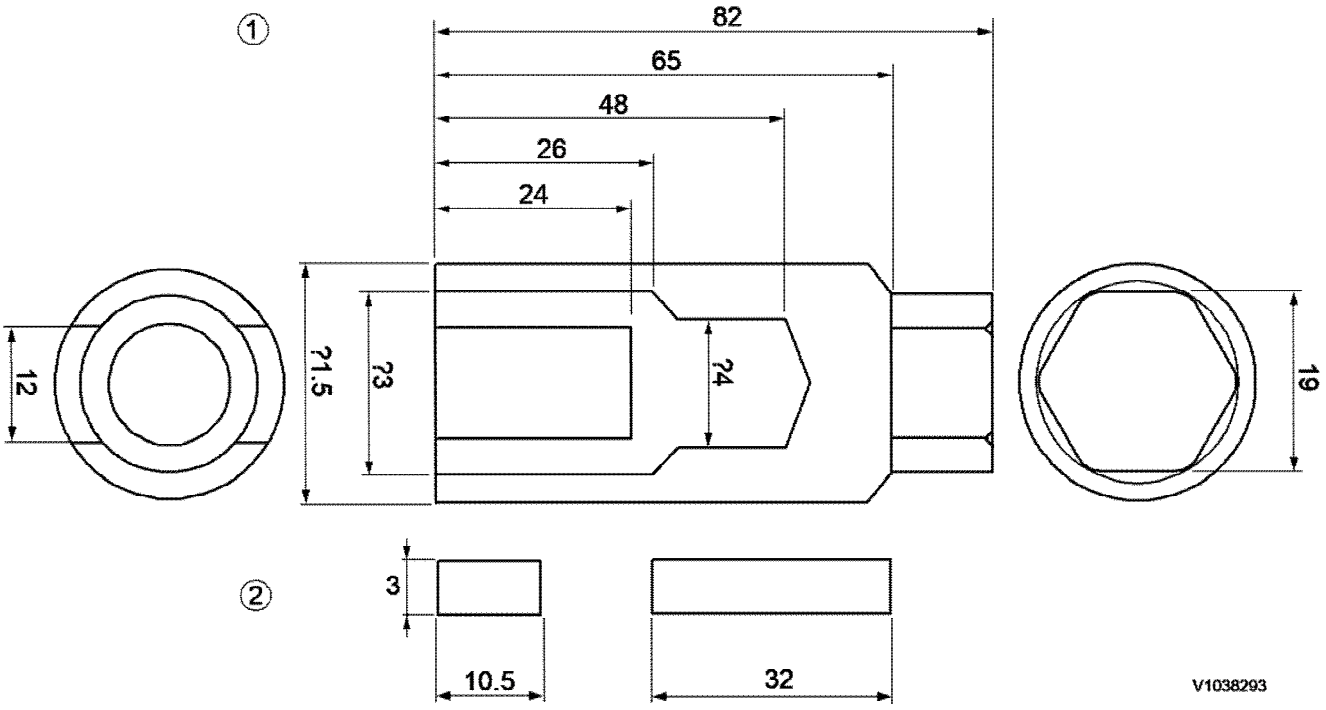

Figure 1
Replace tool for the remote control valve joint

Item	Quantity	Name	Remark
1	1	Socket	SAE 4130 (QT)
2	1	Stop plate	SAE 4130 (QT)

Document Title: **E-tools, NET 8940-00310 Replace tool for the swing ring gear**	Function Group: **080**	Information Type: **Service Information**	Date: **3/23/2026**
Profile: **EW140E Volvo**			

E-tools, NET 8940-00310 Replace tool for the swing ring gear

Showing Selected Profile

Valid for serial numbers			
Model	**Production site**	**Serial number start**	**Serial number stop**
EW140E Volvo			

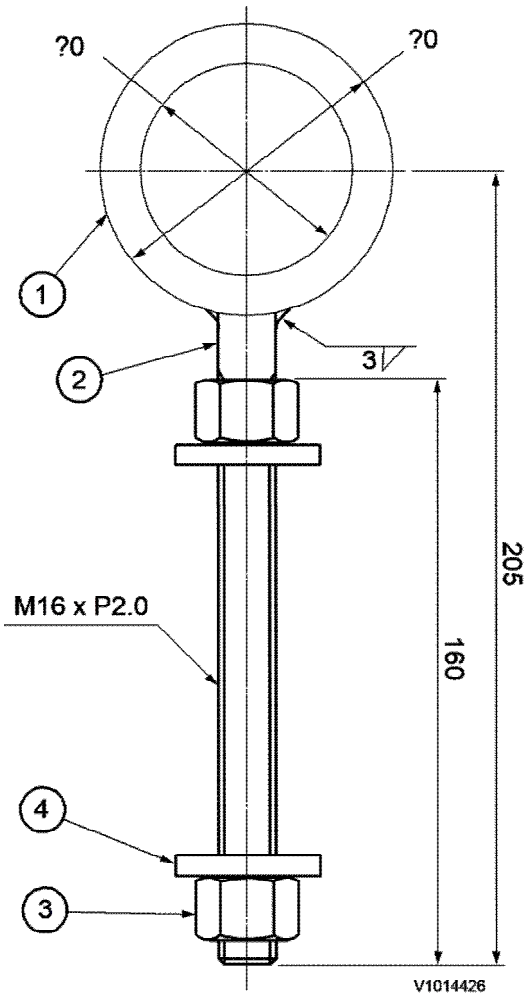

Figure 1
Replace tool for the swing ring gear

Item	Quantity	Name	Remark
1	2	Ring	SAE 1045 (QT)
2	2	Round bar φ16	SAE 1045 (QT)
3	4	Nut	M16

4	4	Washer φ16 × φ35 × 10 t	