



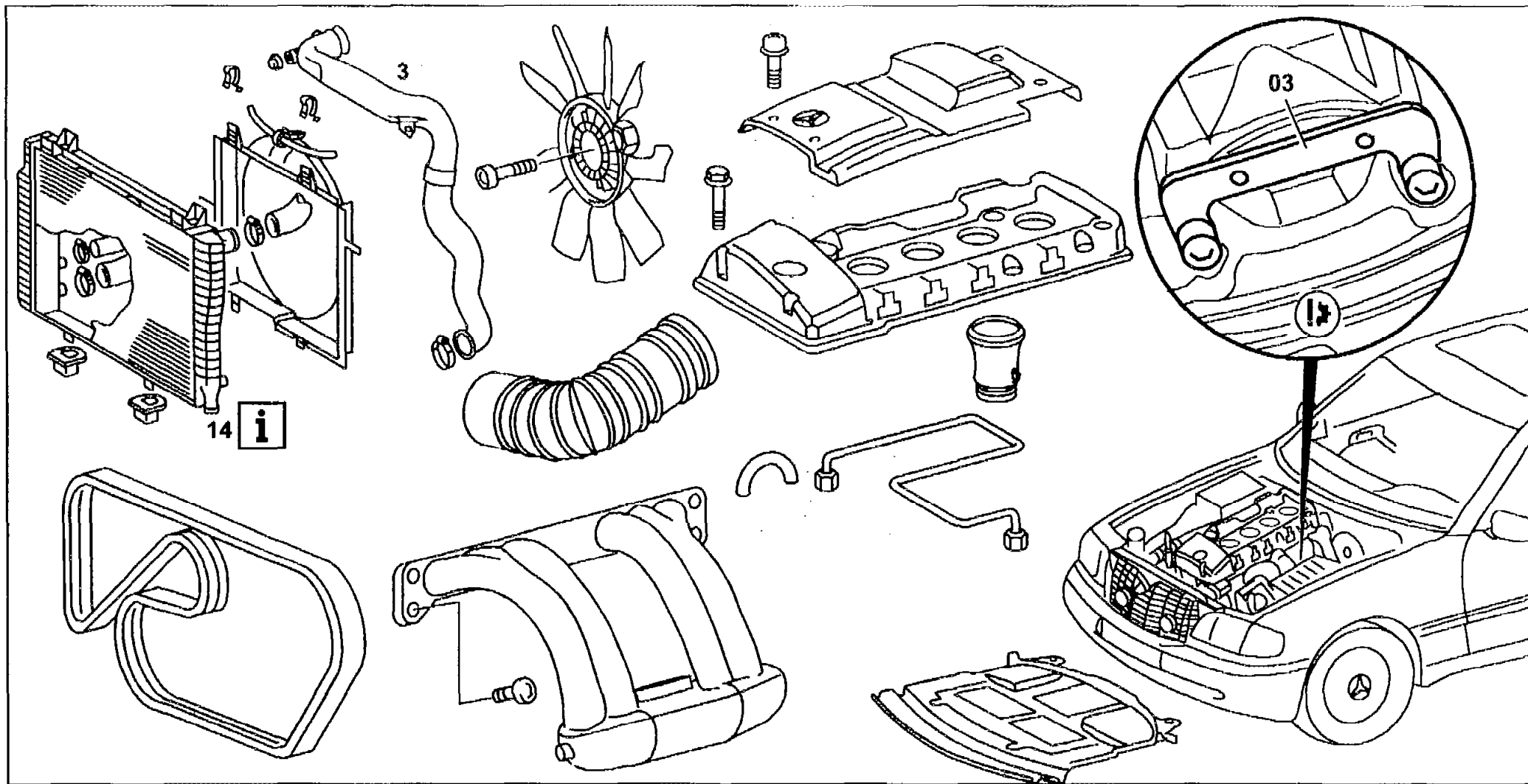
E7	AR01.40-P-8000HA	Removing, installing timing case cover	2.4.93
----	------------------	--	--------

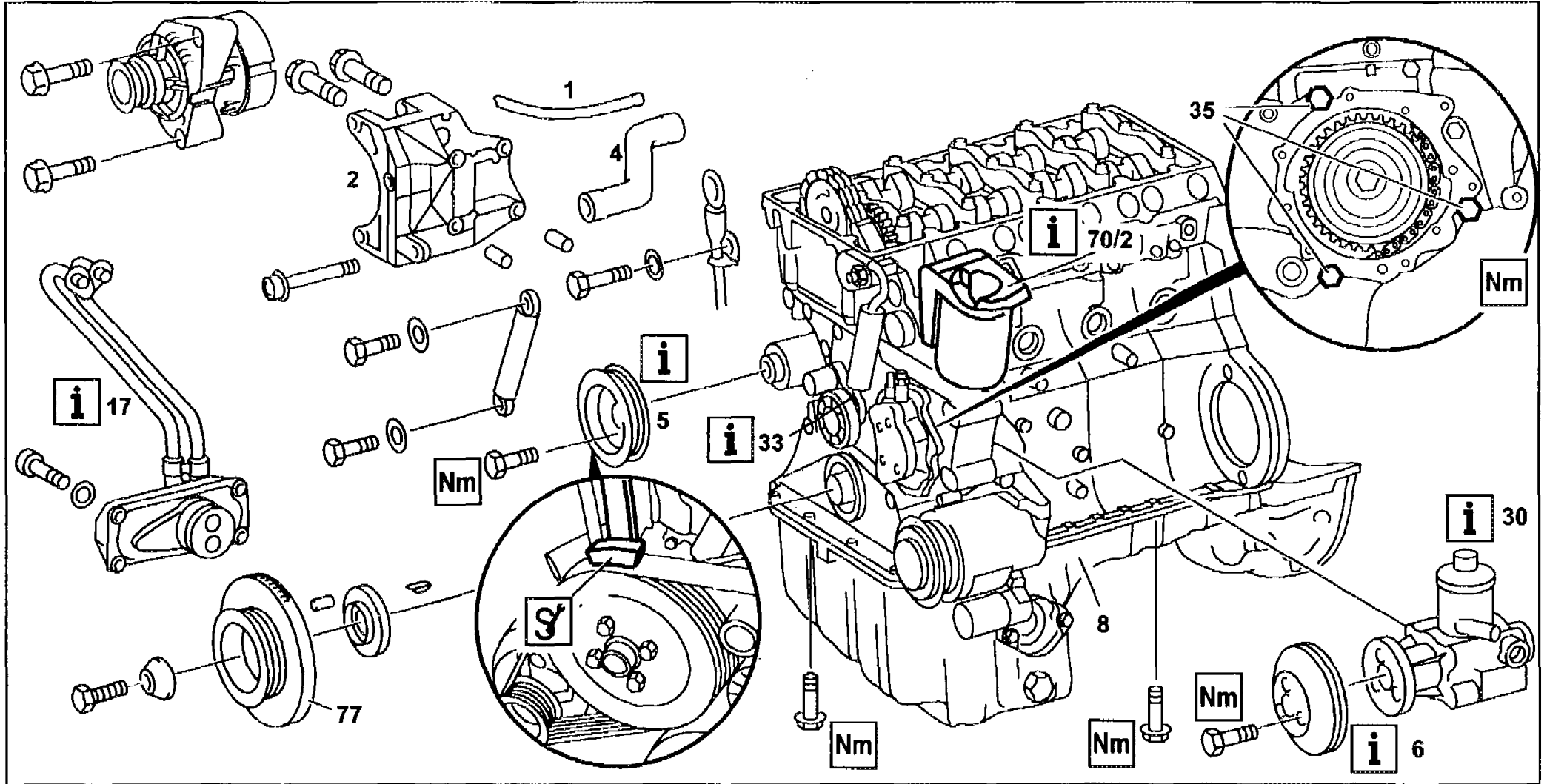
**ENGINE 605, 606.910 in MODEL 124**

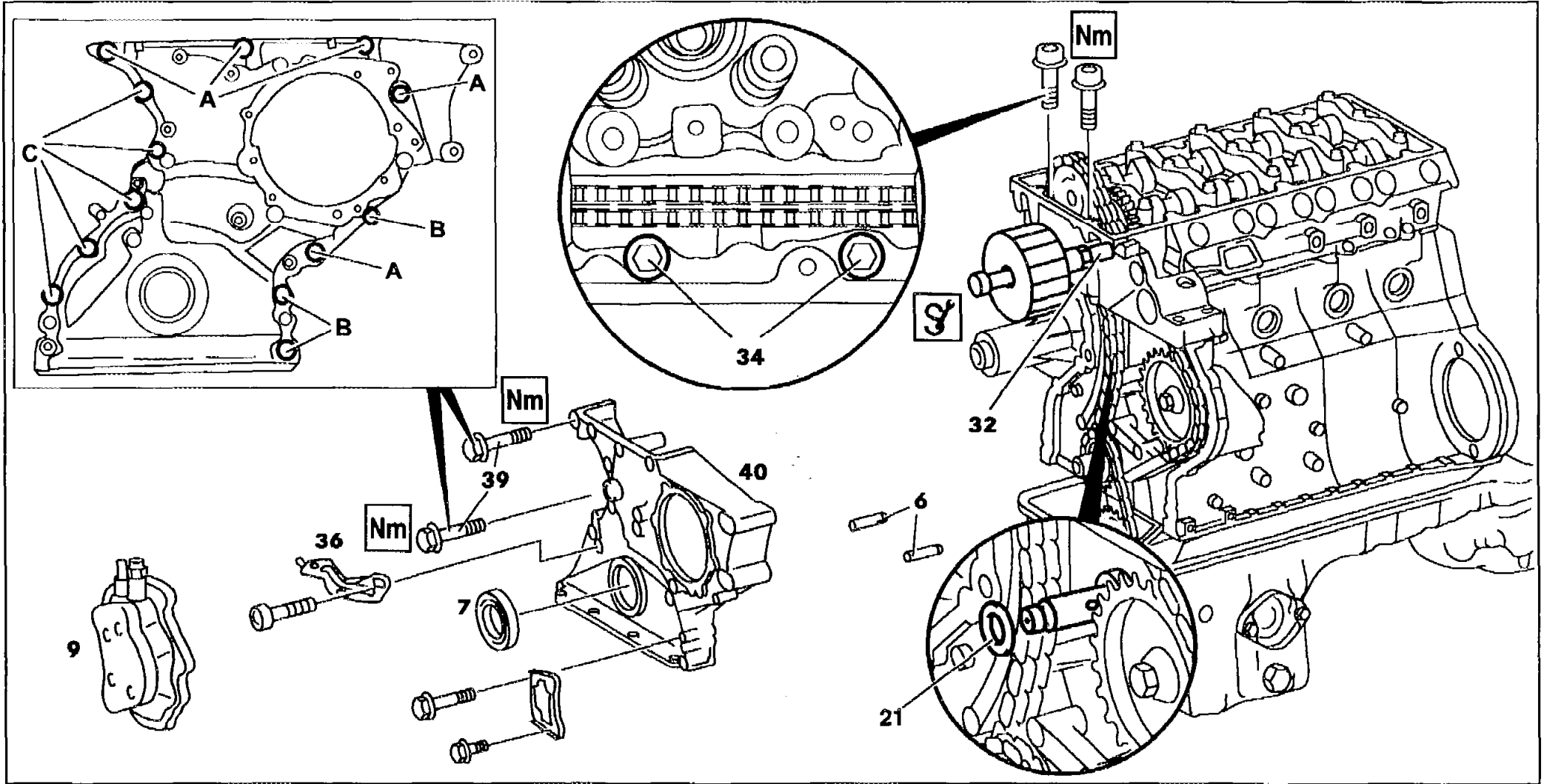
**ENGINE 606.961 in MODEL 140**

**ENGINE 604, 605 in MODEL 202**

**ENGINE 604, 605, 606.912 /962 in MODEL 210**















P01.40-0278-09












A Bolt + washer M6×60

B Bolt + washer M6×70

C Bolt + washer M6×40

 	Removing, installing		
1	Disconnect ground cable of battery		AR54.10-P-0003A
2.1	Remove charge air pipe (3)	Engine 605.960 in model 202 Engine 605.962 in model 210	AR09.41-P-1311H
3	Remove viscous fan clutch	Engine 605, 606 Engine 604	AR20.40-P-5660HB AR20.40-P-5660HA
4	Remove poly V-belt, install		AR13.22-P-1202HA
5.1	Remove radiator (14)	Model 124 with engine 606.910 Model 210 with engine 606.912 Model 210 with engine 606.962	AR20.20-P-3865HA AR20.20-P-3865HB
6.1	Remove belt pulleys of coolant pump (5) and power steering pump (6)	 except VDA pump: To slacken the bolts, fit on poly V-belt at the belt pulleys and attach counterholder.   	603 589 00 40 00 BA20.10-P-1001-01A BA46.30-P-1001-01A
7	Remove cylinder head cover, install		AR01.20-P-5014HA <b>J5</b>
8	Remove vacuum pump (9)	 Installation of vane cell pump (Barluk): Replace O-ring (21) at oil spray nozzle	AR43.05-P-1320A
9	Position cylinder 1 to TDC	 so that bracket for TDC sensor can be set when installing	

10	Install retaining lock (03) for crankshaft/ ring gear	⚠ Use M6×90 bolts otherwise the threads in the rear end cover will be damaged.	AR03.30-P-5000HA
11.1	Remove oil-water heat exchanger (17) at oil pan	On models with oil-water heat exchanger at oil pan.	AR18.30-P-3480HA
12	Remove vibration damper (77)		AR03.30-P-1600HA
13	Remove generator		AR15.40-P-5760EA
14	Remove support of generator (2)	⚙	001 589 76 09 00
15	Unscrew bolts of oil pan (8)	Nm i Unscrew bolts in the area of timing case cover; only slacken all other bolts of oil pan. Nm ⚙	BA01.45-P-1001-01A  BA01.45-P-1002-01A 001 589 76 09 00
16	Detach coolant hoses (1, 4) at front of cylinder head	i Inspect condition of coolant hoses and hose clips, replace if necessary.	WH58.30-Z-1001-06A  WH58.30-Z-1002-06A
17	Unbolt power steering pump (30)	i Attach to side of engine compartment with lines connected.	AR46.30-P-0500A
18	Unbolt fuel filter (70/2)	i Unbolt fuel filter with lines connected and place to the side.	
19	Remove guide rail pins (32) at cylinder head		AR01.30-P-5800-04A <b>O15</b>

		    <b>Installation:</b> coat top guide rail pins with sealant and knock into the cylinder head as far as the stop. Ensure the guide rail is correctly positioned in cylinder head.  Sealant optionally	116 589 20 33 00 116 589 01 34 00 605 589 00 33 00 BR00.45-Z-1014-01A BR00.45-Z-1010-01A
20	Remove poly V-belt tensioning device (33)	 Only if timing case cover replaced.	AR13.25-P-3200HA
21	Unscrew bolts of injection pump (35) at timing case cover	  <b>Installation:</b> check start of delivery.	BA07.02-P-1001-01A AD07.00-P-1464B
22	Unbolt bracket for TDC sensor (36)	 <b>Installation:</b> bolt on bracket so that the pointer is aligned with the TDC marking on vibration damper (77), if necessary ↓ Check setting of bracket of TDC sensor, correct if necessary	AR03.00-P-1101HA
23	Unscrew bolts (34) of cylinder head at timing case cover	 	116 589 03 07 00 BA01.40-P-1002-01A

24	Remove timing case cover (40)	<p><b>i</b> Installation: <b>Nm</b> Pay attention to length of bolts!</p> <p><b>(X)</b> Do not damage cylinder head gasket and gasket of oil pan. Replace gasket if damaged! ↓</p> <p>Remove cylinder head, install</p> <p>Remove oil pan ↓</p> <p>Remove oil pan engine 604, 605 in model 202, engine 605, 606 in model 124</p> <p>Remove oil pan engine 605, 606 in model 210, engine 606.961 in model 140</p> <p>Remove oil pan engine 604 in model 210</p> <p><b>i</b> Inspect front crankshaft radial seal, if necessary according to condition ↓</p> <p>Replace front cranshaft radial seal. Pay attention to dowel sleeves (6).</p>	<p>BA01.40-P-1001-01A</p> <p>AR01.30-P-5800HA <b>P5</b></p> <p>AR01.45-P-7500HA <b>J10</b></p> <p>AR01.45-P-7500C <b>B11</b></p> <p>AR01.45-P-7500D <b>O11</b></p> <p>AR03.20-P-3000HA</p>
25	Clean sealing surfaces on timing case cover and crankcase	<p><b>i</b> Coat with sealant</p> <p><b>i</b> Sealant optionally</p>	<p>BR00.45-Z-1014-01A</p> <p>BR00.45-Z-1010-01A</p>
26	Install in the reverse order		
27	Fill cooling system		AR20.00-P-1142HW





<p><b>⚠ Danger!</b></p> <p>28</p>	<p><b>Risk of accident as a result of vehicle starting off when engine running. Risk of injury as a result of bruises and burns if you insert your hands into engine when it is being started or when it is running.</b></p> <p>Run engine and inspect for leaks</p>	<p>Secure vehicle to prevent it starting off. Wear closed and close-fitting work clothes. Do not grasp hot or rotating parts.</p>	<p>AS00.00-Z-0005-01A      <b>J17</b></p>
-----------------------------------	--	---	---

**Nm** Crankcase, timing case cover, end cover

Number	Designation	Engine		604, 605, 606
BA01.40-P-1001-01A	Bolt of timing case cover to crankcase	M6	Nm	10
		M8	Nm	-
BA01.40-P-1002-01A	Bolt of cylinder head to timing case cover	Nm		25

**Nm** Oil pan

Number	Designation			Engine 604, 605, 606
BA01.45-P-1001-01A	Bolts of oil pan to crankcase	M6	Nm	10
		M8	Nm	25
		M10	Nm	-
BA01.45-P-1002-01A	Bolts of transmission bell to oil pan	Nm		40

**Nm** Injection pump, unit pump, high pressure pump

Number	Designation		Engine 603.971	Engine 604	Engine 605 except 605.911	Engine 606 except 606.910
BA07.02-P-1001-01A	Injection pump flange	Nm	20	20	20	20

**Nm** Coolant pump, coolant thermostat

Number	Designation			Engine 604, 605, 606
BA20.10-P-1001-01A	Bolt of belt pulley to coolant pump	Nm		10

**Nm** Power steering pump

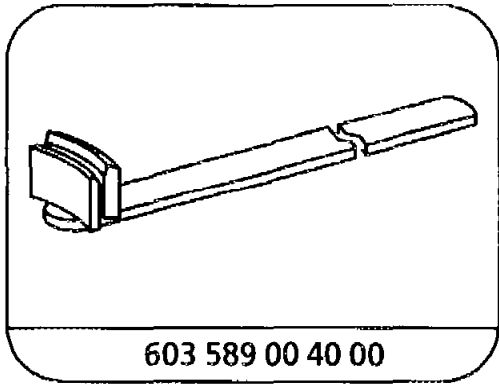
Number	Designation		Model 124	Model 140
BA46.30-P-1001-01A	Bolt to belt pulley	Nm	30	30

**Nm** Power steering pump

Number	Designation		Model 202.018/020/022/ 023/024/025/028/078/ 080/082/083/085/120/ 121/122/125/128/180/ 182/188
BA46.30-P-1001-01A	Bolt to belt pulley	Nm	30

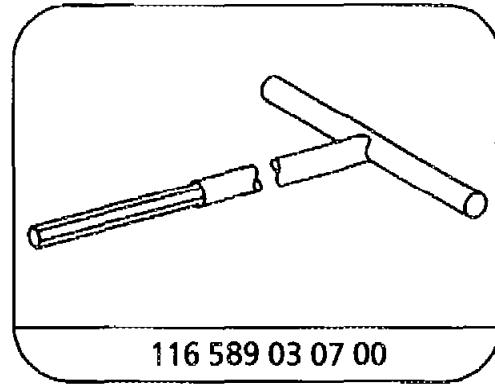
**Nm** Power steering pump

Number	Designation		Model 210.003/004/010/ 015/017/020/025/035/ 037/045/053/055/072/ 210/215/217/225/235/ 237/245/272/610/617
BA46.30-P-1001-01A	Boit to belt pulley	Nm	30



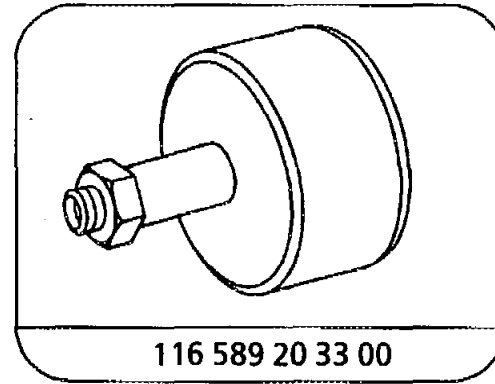
603 589 00 40 00

Counterholder



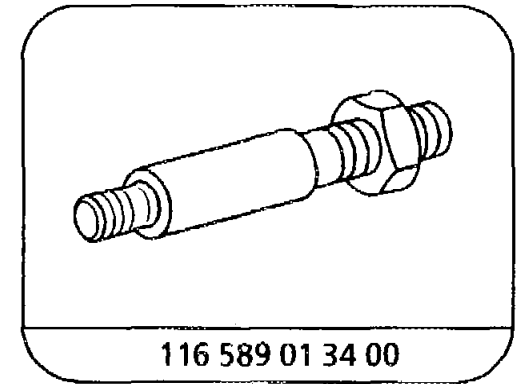
116 589 03 07 00

T hexagon socket wrench



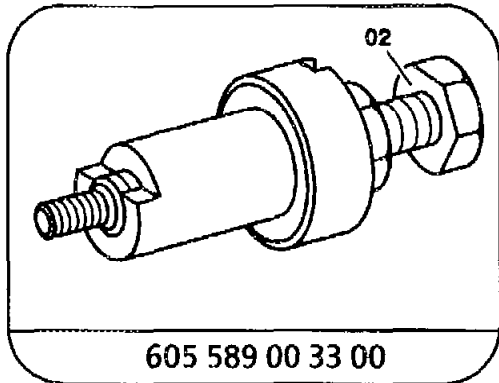
116 589 20 33 00

Impact extractor



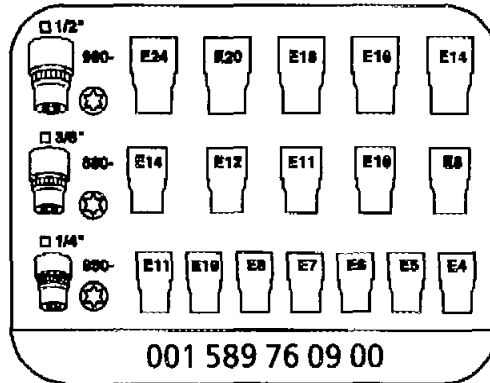
116 589 01 34 00

Threaded bolt



605 589 00 33 00

Extractor



001 589 76 09 00

External torx set

**Commercially available tools**

Number	Designation	Make (e.g.)	Order number
WH58.30-Z-1001-06A	6 mm wrench hexagon on flexible shaft for hose clips with worm drive	Hazet Güldenwerther Bahnhofstraße 25-28 D-42857 Remscheid	426-6
WH58.30-Z-1002-06A	7 mm wrench hexagon on flexible shaft for hose clips with worm drive	Hazet Güldenwerther Bahnhofstraße 25-28 D-42857 Remscheid	426-7
WH58.30-Z-1004-06A	3/4" internal to 1/2" external square adapter	Hazet Güldenwerther Bahnhofstraße 25-28 D-42857 Remscheid	1058-2

**Repair products**

Number	Designation	Order number
BR00.45-Z-1010-01A	Loctite 574 sealant (50 ml)	001 989 89 20 10
BR00.45-Z-1014-01A	Omnifit FD 3041 sealant (50 ml)	002 989 47 20 10