

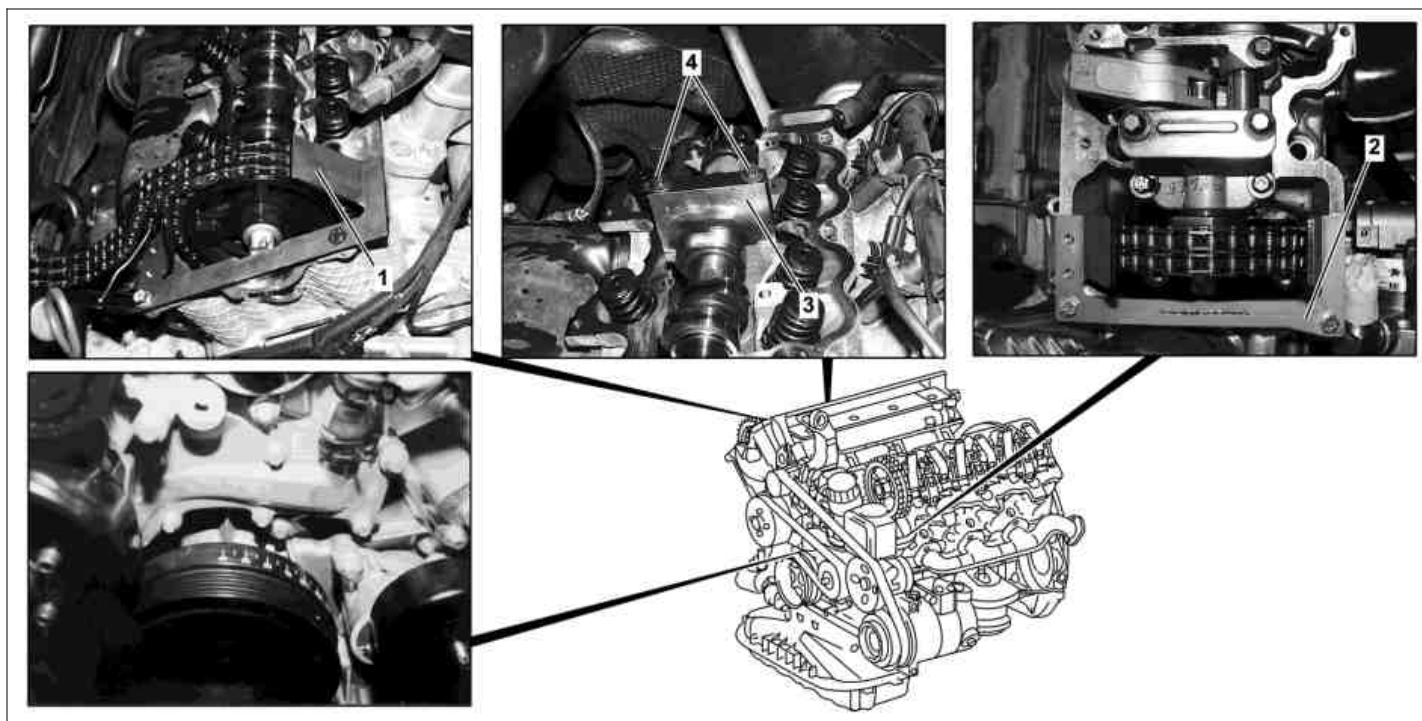
ENGINE 112

ENGINE 112.945 in MODEL 463.209 /232 /233 /244 /245 /250

ENGINE 113.962 in MODEL 463.206 /240 /241 /247 /248 /249 /254

ENGINE 113.982 in MODEL 463.243 /246

ENGINE 113 (except 113.995) in MODEL 129, 163, 202, 203, 208, 209, 210, 211, 215, 220, 230



P05.10-2035-09


















1 Retainer for timing chain (right)

2 Locking device for timing chain (left)

3 Locking bush for camshaft (right)

4 Torx screws

	Removing		
Danger!	Risk of explosion caused by oxyhydrogen gas. Risk of poisoning and caustic burns caused by swallowing battery acid. Risk of injury caused by burns to skin and eyes from battery acid or when handling damaged lead-acid batteries	No fire, sparks, open flames or smoking. Wear acid-resistant gloves, clothing and safety glasses. Only pour battery acid into suitable and appropriately marked containers.	AS54.10-Z-0001-01A
	Notes on battery	All models.	AH54.10-P-0001-01A
1	Disconnect ground cable	Model 463 except code (979) Special protection version Model 463.241 with code (979) Special protection version. Model 463.248 with code 979 Models 129, 208, 210.	AR54.10-P-0003G AR54.10-P-0003PV AR54.10-P-0003PM AR54.10-P-0003A
2	Remove spark plugs Replace spark plugs	To ensure that the engine can be easily cranked when drawing in the timing chain, and to avoid the timing chain jumping across. Remove only one spark plug at each cylinder. Model 463. Model 129. Models 202, 208, 210 with engine 112. Models 163.	AP15.10-P-1580GA AP15.10-P-1580A AP15.10-P-1580GH
3	Remove cylinder head covers	Air filter located at vehicle side. Air filter located on engine side.	AR01.20-P-5014B AR01.20-P-5014BV
4	Remove viscous-drive fan.	Right-hand thread!	AR20.40-P-5660C
5	Remove fan shroud	On model 163 unscrew bolts at bottom of fan shroud. Model 463.	AR20.40-P-6800V

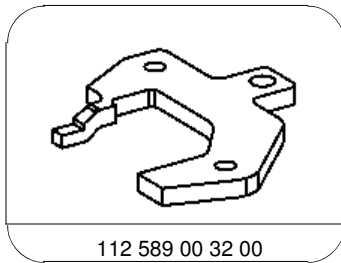
6	Position engine at a 40° crank angle before ignition TDC of cylinder 1.	<p> Engine must not be cranked back. The notches of the camshafts must be pointing in the direction of the inner V. It must be possible to easily insert the two locking plates. If this is not possible: ↓ Set the basic position of camshafts.</p> <p> The copper tabs of the timing chain must be aligned with the markings on the camshaft sprockets. Because of the unevenly long travel of the timing chain it may be necessary to crank the engine as much as 14 times until the copper tabs are aligned with the markings on the camshaft sprockets. On vehicles equipped with an air pump, the combination valve must be unbolted before the right locking plate is inserted.</p> <p>Installation: Replace Gasket of combination valve.</p> <p> Nm</p> <p> Locating plate</p> <p> Locating plate</p>	<p>AR05.20-P-6020AU</p> <p>*BA09.20-P-1001-01D</p> <p>*112589003200</p> <p>*112589013200</p> <p>GF05.10-P-9611-01C</p>
 GF	Timing chain drive - general		
7	Remove chain tensioner		AR05.10-P-7800C
8	Remove camshaft position sensor		AR15.10-P-2000A
9	Crank engine in direction of rotation until the link for separating the timing chain is easily accessible	 The separation point for the timing chain is one link down from the copper tab (right). See new timing chain.	
10	Remove camshaft bearing bridge on right	Engine 112, 113. Engine 113.960 with Code (479) cylinder shutoff.	AR05.20-P-7103AU AR05.20-P-7103AV
11	Install holding bush (3) onto camshaft on right	 Insert bolts (4) only until they make contact.	*112589054000
12	Bolt on holding devices (1, 2) for timing chain at right and left cylinder heads		*112589044000
13	Separate timing chain	 Parts which have dropped into the timing case recess, must be removed. Cover over timing case recess with a clean cloth.	AR05.10-P-7601-01AV
		 Connect old timing chain to new timing chain before pulling out.	
	Installing		
14	Draw in new timing chain	 Pull in the new timing chain by turning the crankshaft in its standard direction of rotation.	AR05.10-P-7601-04AV
15	Remove retaining devices (1, 2) for timing chain at right and left cylinder head		*112589044000
16	Rivet new timing chain		AR05.10-P-7601-02AV
17	Crank engine in direction of rotation		
18	Check timing of engine		AR05.10-P-6858V
19	Take off holding bush (3) on right camshaft		*112589054000
20	Install camshaft bearing bridge on right	Engines 112, 113. Engine 113.960 with code (479) Cylinder shutoff.	AR05.20-P-7103AU AR05.20-P-7103AV
21	Install camshaft position sensor		AR15.10-P-2000A
22	Installing chain tensioner		AR05.10-P-7800C
23	Install fan shroud	Model 463.	AR20.40-P-6800V
24	Install viscous-drive fan	 Right-hand thread!	AR20.40-P-5660C
25	Install cylinder head covers	Air filter located at vehicle side. Air filter located on engine side.	AR01.20-P-5014B AR01.20-P-5014BV
 AP	Install spark plugs Replace spark plugs	Model 463. Model 129. Models 202, 208, 210 with engine 112. Models 163.	AP15.10-P-1580GA AP15.10-P-1580A AP15.10-P-1580GH
27	Connect ground cable	Model 463 except code (979) Special protection version	AR54.10-P-0003G

		Models 463.241 with code (979) Special protection version. Model 463.248 with code 979 Models 129, 208, 210.	AR54.10-P-0003PV AR54.10-P-0003PM AR54.10-P-0003A
⚠ Danger!	Risk of accident caused by vehicle starting off by itself when engine is running. Risk of injury caused by contusions and burns during starting procedure or when working near the running engine Run engine and inspect for leaks	Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not grasp hot or rotating parts.	AS00.00-Z-0005-01A

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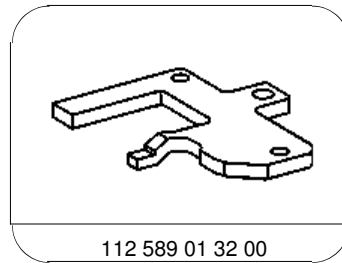
Nm Intake manifold

Number	Designation	Engines 112, 113
BA09.20-P-1001-01D	Bolt, intake manifold to cylinder head M8 Nm	20



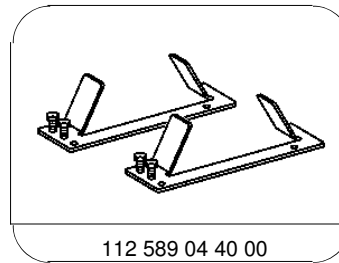
112 589 00 32 00

Locating plate



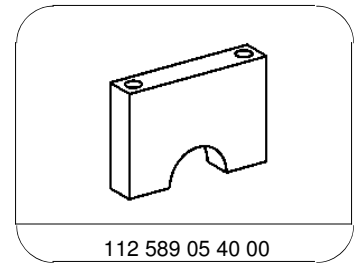
112 589 01 32 00

Locating plate



112 589 04 40 00

Retainer



112 589 05 40 00

Holding bush