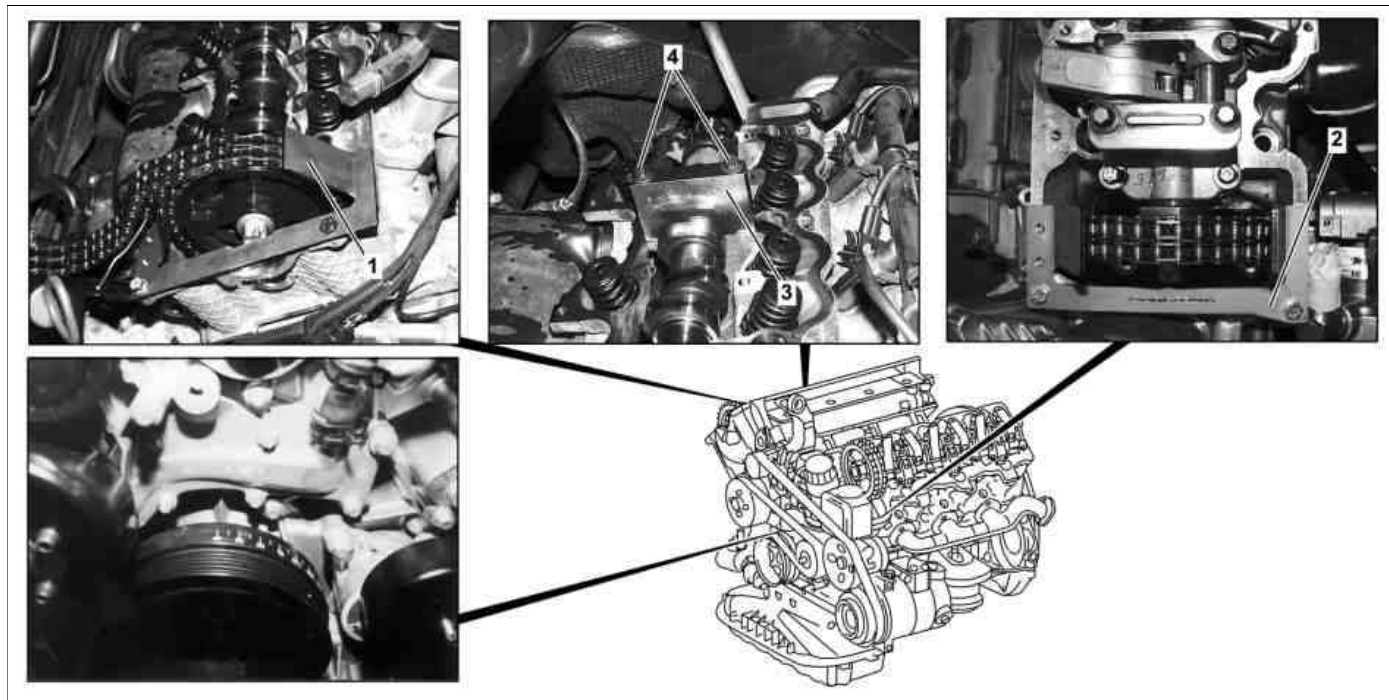


ENGINE 112, 113 / (except , 113.995)
Nur für Fahrzeuge mit Elektrolüfter



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

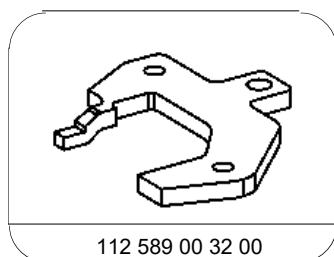
	Removing		
Danger!	Risk of explosion caused by oxyhydrogen gas. Risk of poisoning and caustic burns caused by swallowing battery acid. Risk of injury caused by burns to skin and eyes from battery acid or when handling damaged lead-acid batteries	No fire, sparks, open flames or smoking. Wear acid-resistant gloves, clothing and safety glasses. Only pour battery acid into suitable and appropriately marked containers.	AS54.10-Z-0001-01A
1	Disconnect battery ground cable	Do not connect quiescent current retention device otherwise this may cause damage to the control unit. Model 203 Models 129, 163, 170, 202, 208, 210 Model 209 Models 211.061/065/070 Model 215, 220 Model 230.474 /475 All models 463 except 463.241/248 with code 979. Model 463.241 with code 979 Model 463.248 with code 979 All models	AR54.10-P-0003P AR54.10-P-0003A AR54.10-P-0003Q AR54.10-P-0003T AR54.10-P-0003I AR54.10-P-0003R AR54.10-P-0003G AR54.10-P-0003PV AR54.10-P-0003PM AH54.10-P-0001-01A
Notes on battery 2 AP	Remove spark plugs Replace spark plugs	i 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 once spark plug of each cylinder. Model 163 Models 220, 230.474/ 475 Models 210, 208, 202 Models 203, 170, 209, 211 with engine 112 Models 209, 211 with engine 113	AP15.10-P-1580GH AP15.10-P-1580AB AP15.10-P-1580A
3	Remove cylinder head covers	Air filter mounted on vehicle Air filter mounted on engine	AR01.20-P-5014B AR01.20-P-5014BV
4.1	Remove fan shroud	i Not models 211.061/065/070, 230.475 Models 220, 230.474	AR20.40-P-6800AB
4.2	Remove electric fan	Model 170 Models 203, 209 Model 163.174	AR20.40-P-5000SV AR20.40-P-5000PV AR20.40-P-5000GH

5	Position engine to 40° after TDC of first cylinder.	Engine must not be cranked backwards. 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 The copper plates of the timing chain must be aligned with the scribe marks on the camshaft sprockets. Owing to the unevenly long paths of the timing chain it may be necessary to crank the engine as many as 14 times till the copper plates get aligned with the scribe marks on the camshaft sprockets. On vehicles equipped with an air pump, the combination valve must be unbolted before the right locking plate is inserted. Installation: Replace combination valve gasket. Nm Locating plate Locating plate Engines 112, 113	AR05.20-P-6020AU *BA09.20-P-1001-01D *112589003200 *112589013200 GF05.10-P-9611-01C
GF	Timing chain drive - general		
6	Remove chain tensioner	Models 163.174, 215, 220 Models 170, 202, 203, 208.365/465 Models 209, 210, 211061/065/070 Model 230.474 with engine 113.992	AR05.10-P-7800CA
7	Remove camshaft position sensor		AR15.10-P-2000A
8	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.	
9	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
10	Install holding bush (3) onto camshaft on right	Only insert bolts (4) until they make contact. Holding bush	*112589054000
11	Bolt on holding devices (1, 2) for timing chain at right and left cylinder heads	Retainer	*112589044000
12	Disconnect timing chain	Cover over timing case recess with a clean cloth. Parts which have dropped into the timing case recess, must be removed. To pull out the old timing chain, connect the old chain to the new timing chain.	AR05.10-P-7601-01AV
	Install		
13	Draw in new timing chain	Pull in the new timing chain by turning the crankshaft in its standard direction of rotation. Assembly links Case	AR05.10-P-7601-04AV *602589024000 *602589009800
14	Remove retaining devices (1, 2) for timing chain at right and left cylinder head	Retainer	*112589044000
15	Rivet new timing chain		AR05.10-P-7601-02AV
16	Crank engine in direction of rotation		
17	Check timing of engine		AR05.10-P-6858V
18	Take off holding bush (3) on right camshaft	Holding bush	*112589054000
19	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
20	Install camshaft position sensor		AR15.10-P-2000A
21	Installing chain tensioner	Models 163.174, 215, 220 Models 170, 202, 203, 208.365/465 Models 209, 210, 211061/065/070 Model 230.474 with engine 113.992	AR05.10-P-7800CA
22.1	Install fan shroud	Not model 211.061/065/070, 230.475 Models 220, 230.474	AR20.40-P-6800AB
22.2	Install electric fan	Model 170 Models 203, 209 Model 163.174	AR20.40-P-5000SV AR20.40-P-5000PV AR20.40-P-5000GH
23	Install cylinder head covers	Air filter located at vehicle side. Air filter located on engine side.	AR01.20-P-5014B AR01.20-P-5014BV
24	Install spark plugs		

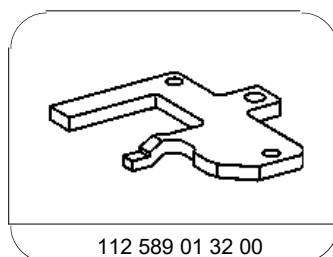
 AP	Replace spark plugs	Models 220, 230.474/ 475 Models 210, 208, 202 Models 170, 203, 209, 211 with engine 112 Models 209, 211 with engine 113 Model 163	AP15.10-P-1580AB AP15.10-P-1580A AP15.10-P-1580GH
25	Connect ground cable	Model 203 Models 129, 163, 170, 202, 208, 210 Model 209 Models 211.061/065/070 Model 215, 220 Model 230.474 /475 All models 463 except 463.241/248 with code 979 Model 463.241 with code 979 Model 463.248 with code 979	AR54.10-P-0003P AR54.10-P-0003A AR54.10-P-0003Q AR61.20-P-1105T AR54.10-P-0003I AR54.10-P-0003R AR54.10-P-0003G AR54.10-P-0003PV AR54.10-P-0003PM
 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	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
26	Run engine and inspect for leaks		

Intake manifold

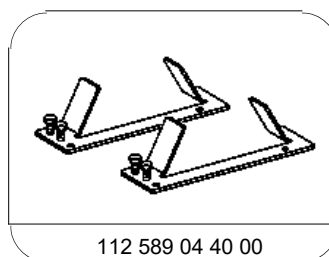
Number	Designation	Engines 112, 113
BA09.20-P-1001-01D	Bolt, intake manifold to cylinder head M8 Nm	20



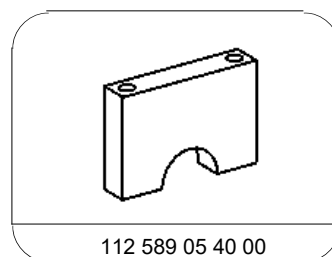
Locating plate



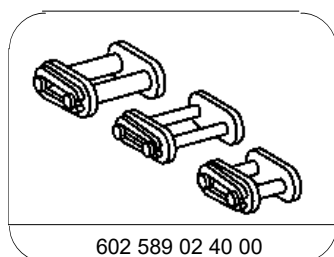
Locating plate



Retainer



Holding bush



Assembly links



Case