

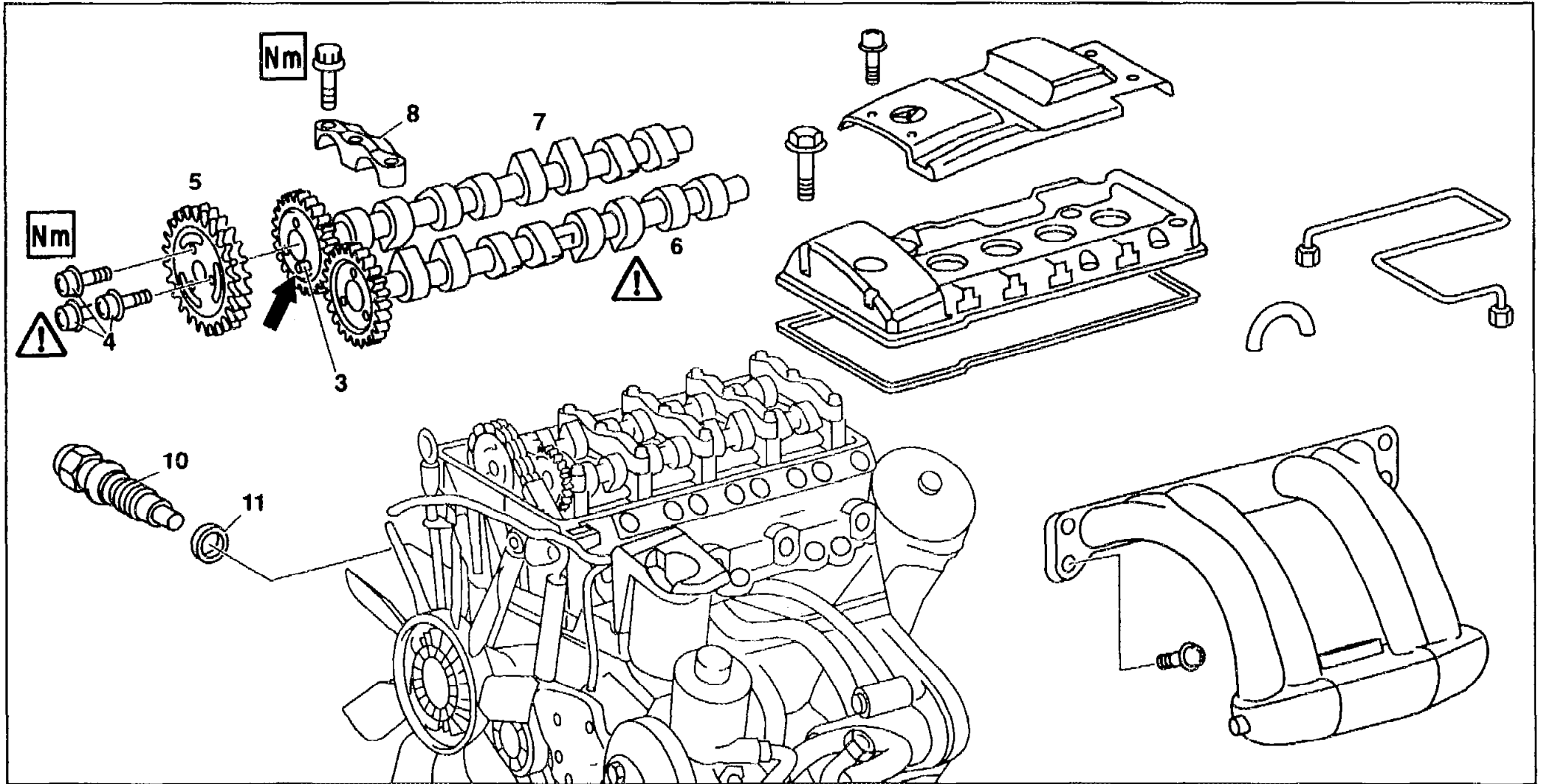
C3

AR05.20-P-6020HA

Adjusting basic position of camshafts

2.4.93


ENGINE 604, 605, 606 /

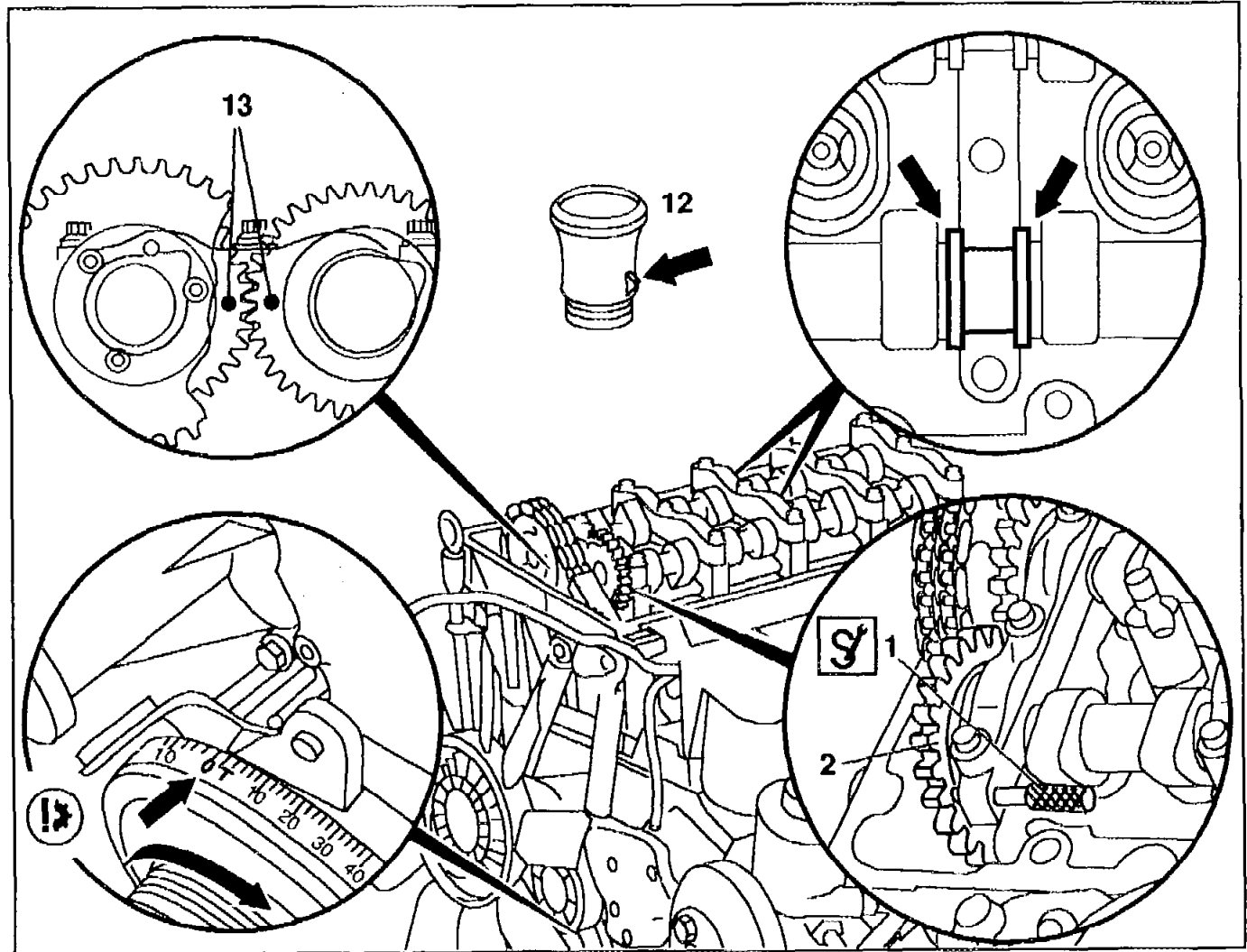




- 3 Dowel pin
- 4 Bolts of camshaft sprocket
- 5 Camshaft sprocket
- 6 Inlet camshaft
- 7 Exhaust camshaft

- 8 Camshaft bearing cap
- 10 Chain tensioner
- 11 Seal of chain tensioner

- 1  Retaining pin
- 2 Inlet camshaft sprocket
- 12 Bushes of shaft cover
- 13 Drillings











Modification notes

1.3.95	Technical modification: Bolts for attaching camshaft housing discontinued. The camshaft must be bolted to the cylinder head when performing repairs.	Operation 3	AR05.20-6020HA
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	Removing		
1	Remove chain tensioner (10)		AR05.10-P-7800HA M1
2	Detach camshaft gear (5) from exhaust camshaft (7), take off	Pay attention to dowel pin (3) (arrow). Take off camshaft gear (5) with timing chain fitted on	
3	Bolt camshaft housing to cylinder head	Engine 604, 605, 606 as of 09.94 The camshaft housing must be bolted to the cylinder head in order to avoid damage (leaks at seals between camshaft housing and cylinder head) when removing the camshafts.	AR05.20-P-6992-10A A16
BT	Bolts for attaching camshaft housing to cylinder head discontinued		BT05.20-P-0001-01A P17
4	Unbolt camshaft bearing caps	Pay attention to marking of camshaft bearing caps Engine 604 Engine 605	AR05.20-P-6992-05HA C16 AR05.20-P-6992-05HB D16

		Engine 606	AR05.20-P-6992-05HC F16
5	Remove inlet and exhaust camshafts (6, 7)		
6	Remove bushes of shaft cover (12)		
	Installing		
7	Install bushes of shaft cover (12)	<p>Replace seals.</p> <p>The lug on the bush of the shaft cover (arrow) must be aligned with the guide notch in the camshaft housing</p>	
8	Install inlet and exhaust camshafts (6, 7)	<p> The camshafts are very sensitive to fracturing. Ensure that they are installed free of stress</p> <p>Oil bucket tappets and camshaft bearing points. Check that bucket tappets operate freely.</p> <p>Pay attention to matching of camshafts! The camshaft code numbers are indicated on the thrust collar of the axial bearing.</p> <p>Align inlet and exhaust camshafts at the axial bearing (arrows).</p> <p>Install camshafts so that the two holes (13) in the camshaft sprockets are opposite each other and the markings of camshaft (arrows) and camshaft bearing caps are aligned.</p>	BE05.20-P-1001-01A



9	Install camshaft bearing caps	<p>Pay attention to marking of camshaft bearing caps!</p> <p>Engine 604</p> <p>Engine 605</p> <p>Engine 606</p> <p> Install camshaft bearing caps (8) at the same point in the reverse order. Tighten bearing cap bolts evenly in steps each of one turn.</p>	<p>AR05.20-P-6992-05HA C16</p> <p>AR05.20-P-6992-05HB D16</p> <p>AR05.20-P-6992-05HC F16</p> <p>BA05.20-P-1002-01A</p>
10	Lock inlet camshaft (6)	<p>Insert the retaining pin (1) through camshaft bearing cap 1 into the hole in the inlet camshaft gear (2). When the inlet camshaft is blocked, the piston of cylinder 1 must be at ignition TDC.</p>	
		<p></p>	111 589 03 15 00
11	Fit camshaft gear (5) onto exhaust camshaft (7)	<p>  Installing: Replace bolts of camshaft gear (4).</p> <p>Pay attention to dowel pin (3) (arrow). Fit on camshaft gear (5) with timing chain fitted.</p>	BA05.20-P-1001-01A
12	Install chain tensioner (10)	Replace seal of chain tensioner (11)	AR05.10-P-7800HA M1
13	Fit parts to engine	After assembling, check start of delivery of injection pump ↓	



		Model 124 with engine 605, 606 Model 202 with engine 604, 605 Model 210 with engine 604, 605, 606 See Diagnosis Manual Engine Volume 1.1 <input type="checkbox"/> B4 Model 463 with engine 606.964 See Diagnosis Manual Cross-Country Vehicles Engine	RA07.8244
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Camshaft code numbers

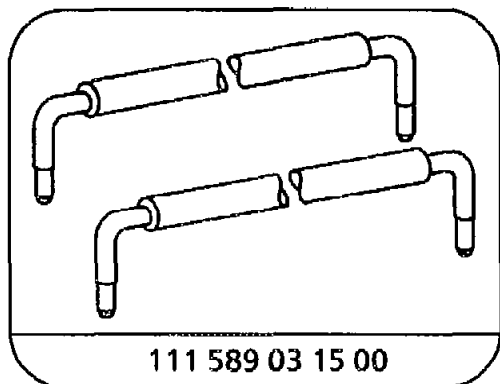
Number	Designation	Engine 604	Engine 605.910/ 911/912	Engine 606.910/ 912	
BE05.20-P-1001-01A	Camshaft code numbers	Inlet	11	11	08
		Exhaust	10	08	07

Camshaft code numbers

Number	Designation	Engine 605.960/ 962	Engine 606.961/ 962/964	
BE05.20-P-1001-01A	Camshaft code numbers	Inlet	14	11
		Exhaust	08	07

**Nm** Camshaft

Number	Designation	Engine
		604, 605, 606
BA05.20-P-1001-01A	Bolts of camshaft gear	Nm 18
BA05.20-P-1002-01A	Bolts of camshaft bearing caps	Nm 15



Fixing pin