

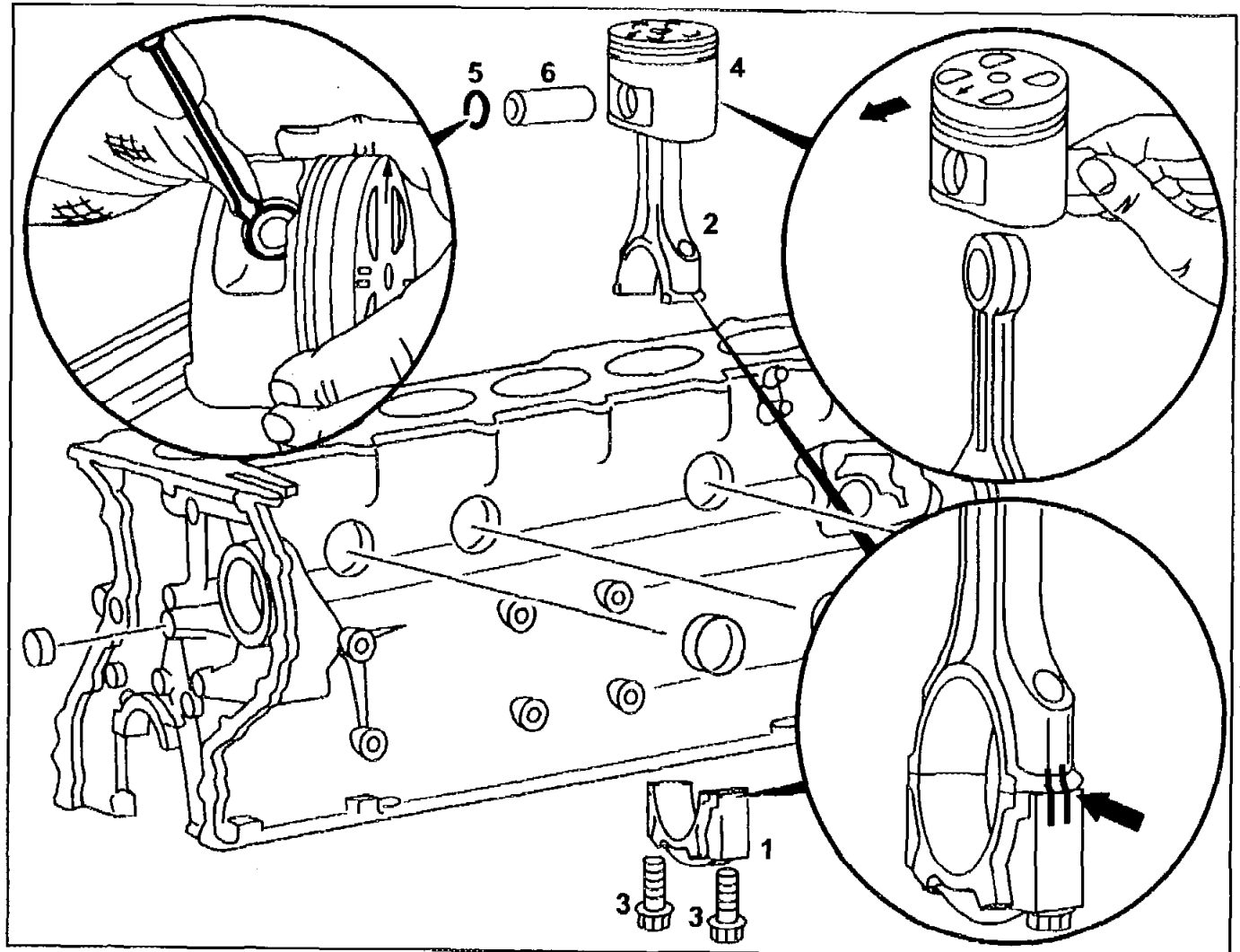
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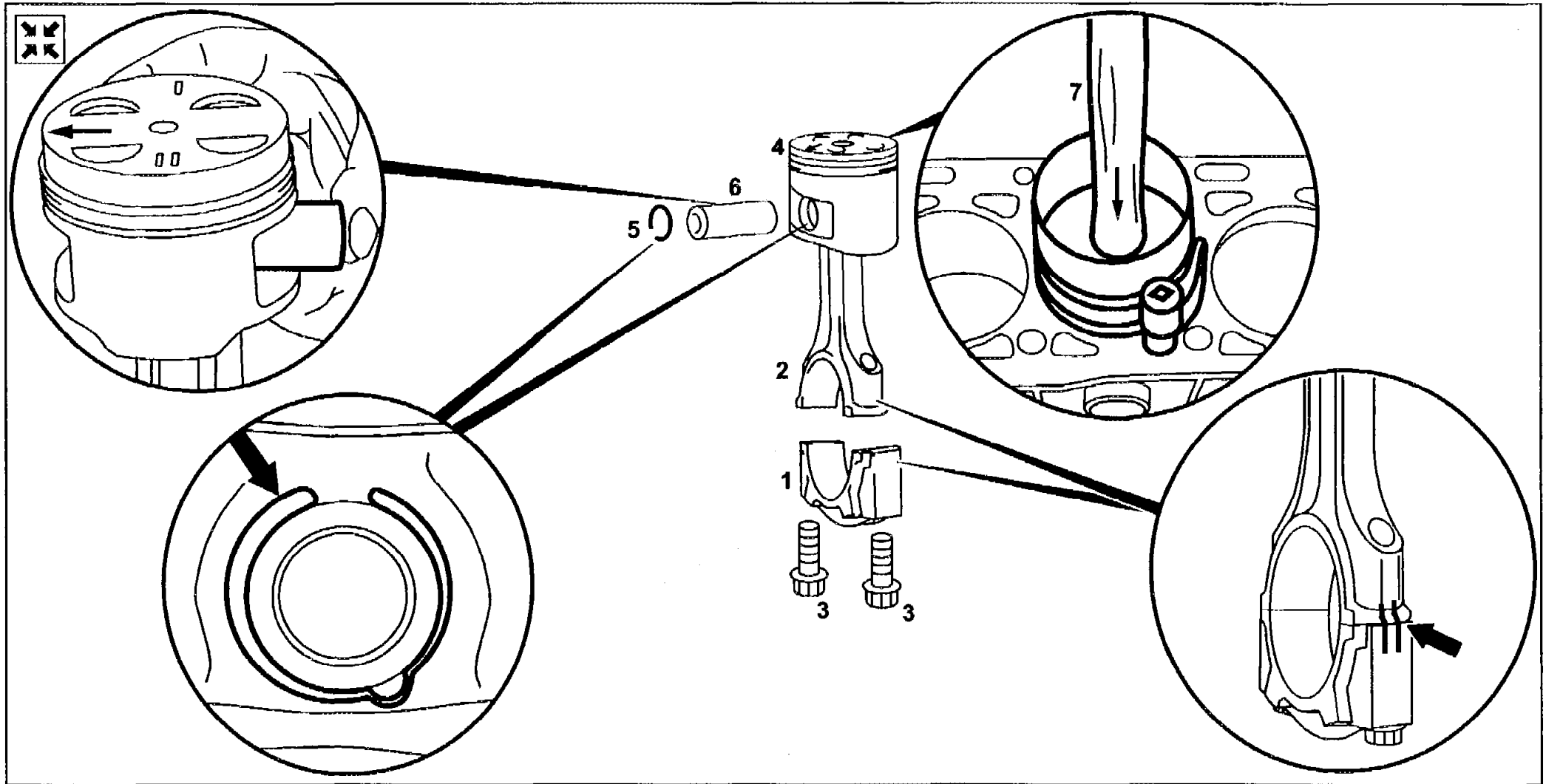
AR03.10-P-7021B

Removing, and installing pistons


23.4.96

ENGINE 604, 605, 606














P03.10-0224-09

	<p>Removing</p>		
<p>1.1</p>	<p>Remove engine</p>	<p>Model 463 with engine 606.964</p>	<p>AR01.10-P-2400GG</p>
<p>2</p>	<p>Remove cylinder head</p>	<p>Model 124, 140, 202, 210</p>	<p>AR01.30-P-5800HA</p>



		Model 463 with engine 606.964	AR01.30-P-5800GG
3	Remove oil sump	Engine 604, 605 in model 124 Engine 604, 605 in model 202 Engine 605, 606 in model 210 Engine 606.961 in model 140 Engine 604 in model 210	AR01.45-P-7500HA AR01.45-P-7500C AR01.45-P-7500D
		Engine 606.964 in model 210	AR01.45-P-7500GG
4	Remove oil pump		AR18.10-P-6020HA
5	Remove oil baffle plate		
6	Unbolt conrod bearing cap (1)	 Conrod (2) and conrod bearing cap (1) are marked together (arrow)	
7	Lift conrod (2) up and out together with piston (4)	 If the pistons are worn, the arrows indicating direction of travel may no longer be visible because of coking; remove coking in order to make direction of travel arrow visible	
8	Use a screwdriver to press out piston pin retainer (5)	 Do not damage pistons; use a clean rag as a base	
9	Press out piston pin (6)		
	Installing		
10	Oil piston pin (6) and conrod bush		

11	Assemble pistons (4) and conrods (2)	 Install piston with arrow facing in direction of travel. The marking and the retaining slots in the conrod should be positioned on the left (at inlet side).	
12	Push in piston pin (6) by hand		
13	Insert piston pin retainer (5) into the groove (arrow) at piston		
14	Oil cleaned cylinder bores, conrod bearing journals, conrod bearing shells and pistons (4)	 Do not mix up top and bottom conrod bearing shells	
15	Fit on tensioning strap (7) for piston rings and tension		000 589 04 14 00
16	Install piston (4) with arrow pointing in direction of travel		
17	Inspect conrod bolts		AR03.10-P-6111-01A A15 BE03.10-P-1001-03A
18	Bolt on conrod bearing caps (1)	 Attach conrod bearing caps (1) and conrod (2) with the markings (arrows) facing each other 	BA03.10-P-1001-01B
19	Rotate crankshaft and check for clearance		AR03.10-P-6111-02A K14
20	Install oil baffle plate		AR03.10-P-7021-01A B15



21	Install oil pump		AR18.10-P-6020HA
22	Install oil sump	<p>Engine 604, 605 in model 124 Engine 604, 605 in model 202</p> <p>Engine 605, 606 in model 210 Engine 606.961 in model 140</p> <p>Engine 604 in model 210</p> <p>Engine 606.964 in model 463</p>	<p>AR01.45-P-7500HA</p> <p>AR01.45-P-7500C</p> <p>AR01.45-P-7500D</p> <p>AR01.45-P-7500GG</p>
23	Measure piston projection	<p>i Depending on piston projection, install cylinder head gasket with standard thickness or cylinder head gasket with repair thickness (1.85 mm thick)</p>	<p>AR03.10-P-7041-01A C15</p> <p>BE03.10-P-1001-02B</p> <p>BE03.10-P-1002-02B</p>
24	Install cylinder head	<p>Model 124, 140, 202, 210</p> <p>Model 463 with engine 606.964</p>	<p>AR01.30-P-5800HA</p> <p>AR01.30-P-5800GG</p>
25.1	Install engine	Model 463 with engine 606.964	AR01.10-P-2400GG

**Test data of pistons**

Number	Designation	Engine 604.910/912	Engine 604.915/917	Engine 605.91/96
BE03.10-P-1001-02B	Piston projection (a) with new crankcase	mm 0.735–0.965	0.785–1.015	0.785–1.015
	Fig. see	AR03.10-P-7041-02A	AR03.10-P-7041-02A	AR03.10-P-7041-02A
BE03.10-P-1002-02B	Piston projection (a) with machined crankcase	mm 0.835–1.015	0.985–1.215	0.985–1.215
	Fig. see	AR03.10-P-7041-02A	AR03.10-P-7041-02A	AR03.10-P-7041-02A

Test data of pistons

Number	Designation	Engine 606.91/96
BE03.10-P-1001-02B	Piston projection (a) with new crankcase	mm 0.785–1.015
	Fig. see	AR03.10-P-7041-02A
BE03.10-P-1002-02B	Piston projection (a) with machined crankcase	mm 0.985–1.215
	Fig. see	AR03.10-P-7041-02A

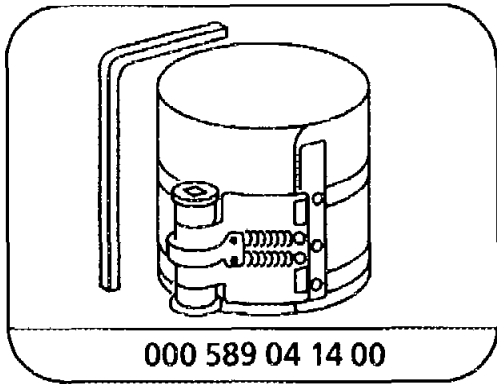


Test data of conrod bolts

Number	Designation	Engine 604, 605, 606			
BE03.10-P-1001-03A	Conrod bolts	Thread \emptyset	M	9×1	
		Shank length	when new	mm	51.7–52.3
			max.	mm	52.9
		part no.			111 038 00 71

Nm Conrod

Number	Designation	Engine 604, 605, 606		
BA03.10-P-1001-01B	Conrod bolt (stretch shank)	Initial torque	Nm	40
		Tightening angle	$^{\circ} \sphericalangle$	90



Clamping strap