

ENGINE 157, 278 in MODEL 212, 218

ENGINE 276 in MODEL 212, 218

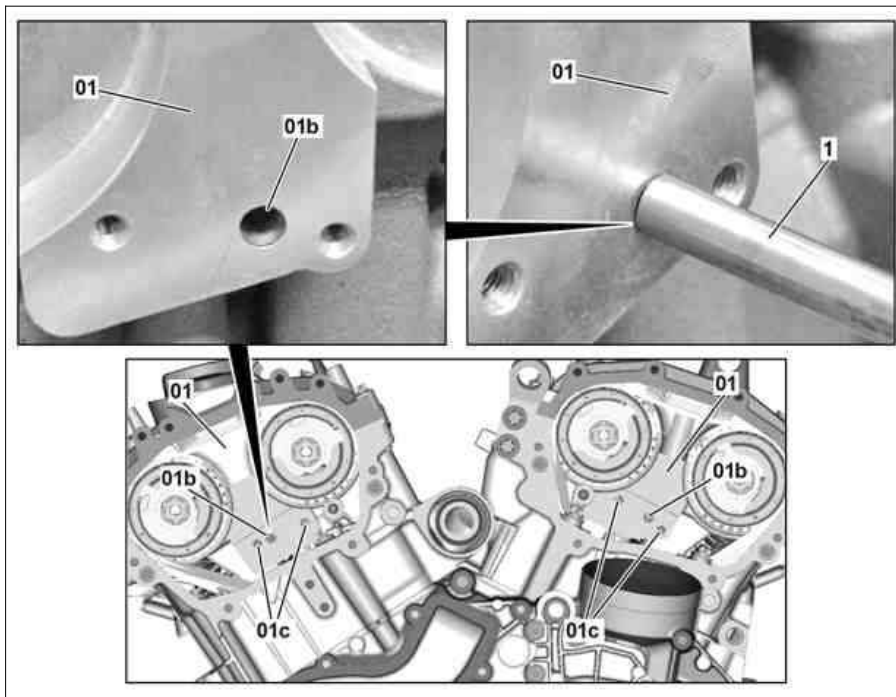
**Modification notes**

07.08.2013 Remove/install oil filter housing, added

Operation step 1, 13

**Shown on cylinder head with stepped hole**

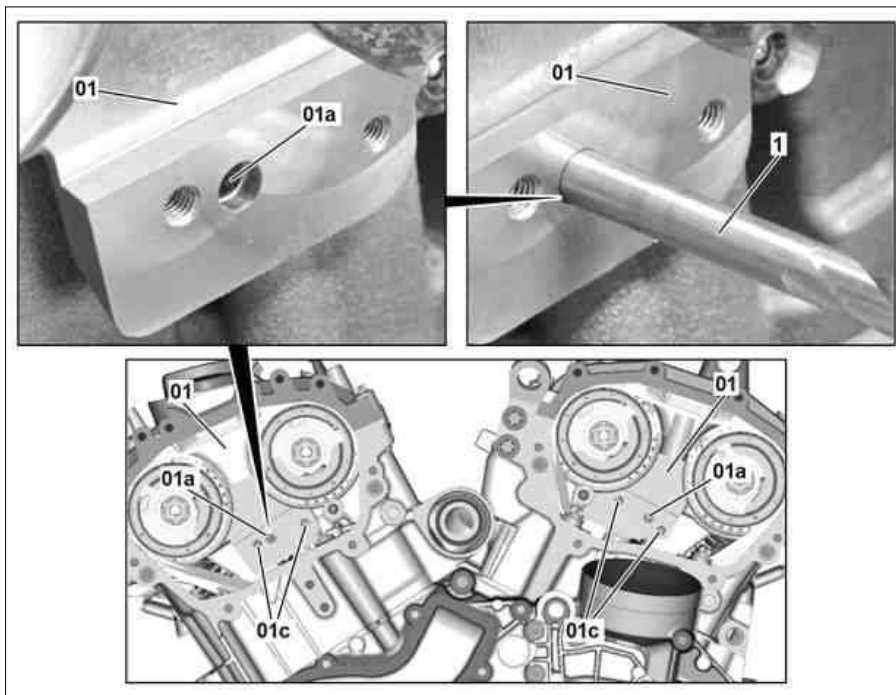
- 01 Cylinder head  
 01b Oil supply duct without stepped hole  
 01c Chain tensioner threaded hole  
 1 Bur shaft



P01.30-2427-06

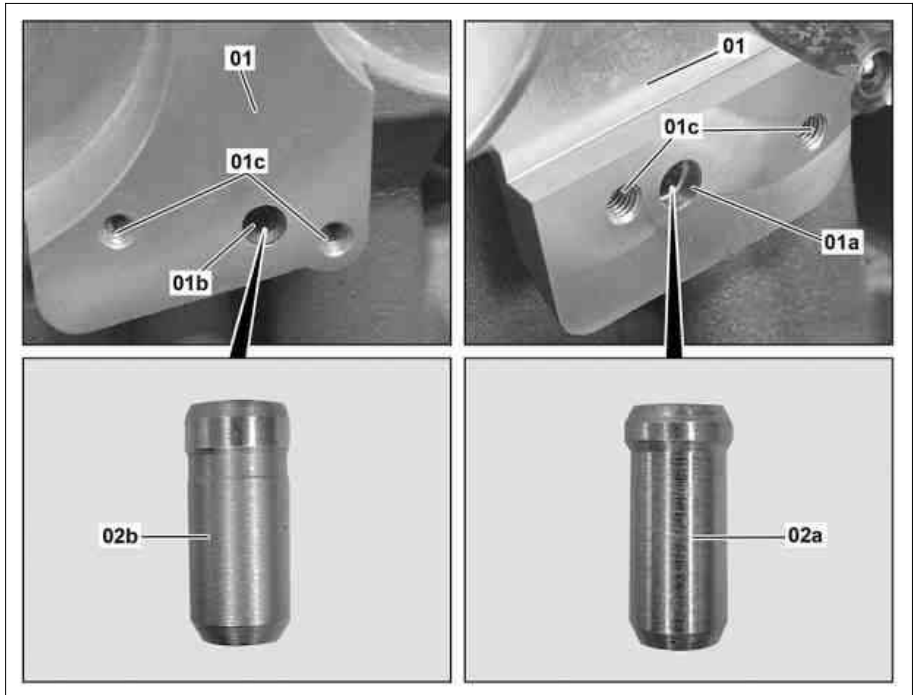
**Shown on cylinder head without stepped hole**

- 01 Cylinder head  
 01a Oil supply duct with stepped hole  
 01c Chain tensioner threaded hole  
 1 Bur shaft



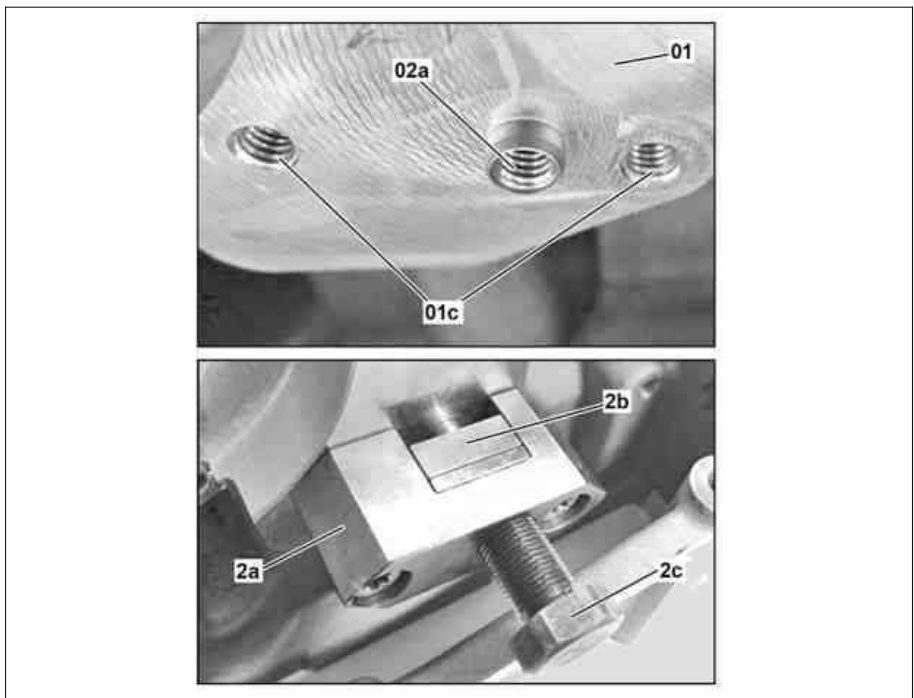
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- 01 Cylinder head
- 01a Oil supply duct with stepped hole
- 01b Oil supply duct without stepped hole
- 01c Chain tensioner threaded hole
- 02a Check valve for cylinder head with stepped hole
- 02b Check valve for cylinder head without stepped hole



P01.30-2429-06

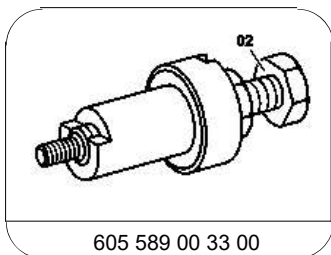
- 01 Cylinder head
- 01c Chain tensioner threaded hole
- 02a Check valve for cylinder head with stepped hole
- 2a Press-in tool basic carrier
- 2b Installer
- 2c Press-in bolt



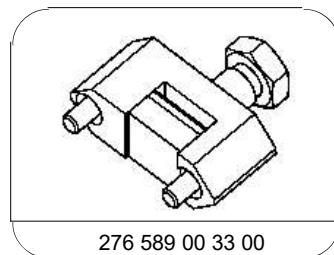
P01.30-2430-06

	<b>Remove</b>		
1	Remove oil filter housing	ENGINE 157, 278	<a href="#">AR18.20-P-3471ELB</a>
2	Remove chain tensioner	ENGINE 276 Engine 157, 278	<a href="#">AR05.10-P-7800EL</a> <a href="#">AR05.10-P-7800ELB</a>
3	Cover chain shaft with rags	<b>i</b> Cover chain shaft with rags in such a way that no parts can fall in.	
4	Pull check valve (02a or 02b) out of the cylinder head using an extractor	<b>⚠</b> Set the thread length of the extractor to a residual length of about 4 mm with shims and a nut M6 before disassembly of the check valve (02a or 02b). Damage will occur to the check valve (02a or 02b) otherwise and therefore breakage of the valve body, which leads to more difficult removal of the check valve (02a or 02b).	

		<p>⚠ The check valve (02a or 02b) will be destroyed during disassembly and cannot be used again. Engine damage will occur when reusing the check valve (02a or 02b) due to inner damage on the valve body.</p> <p>🔧 Puller</p>	*605589003300
	<b>Clean</b>		
5	Clean oil supply duct (01a or 01b) in the cylinder head (01)		
	<b>Check</b>		
6	Check the oil supply duct (01a or 01b) on the cylinder head (01) with the bur shaft (1) of a 8.0 mm drill bit	<p>⚠ Only check the oil supply duct (01a or 01b) with the bur shaft (1). Damage will occur on the oil supply duct (01a or 01b) otherwise and therefore engine damage will occur.</p> <p><b>i</b> If the bur shaft (1) can be inserted into the oil supply duct (01a) then it is a cylinder head (01) with a stepped hole (see picture 2). If the bur shaft (1) cannot be inserted into the oil supply duct (01a) then there is a cylinder head (01) without a stepped hole installed (see picture 1).</p>	
	<b>Install</b>		
7 BT	Press the check valve (02a or 02b) by hand into the oil supply duct (01a or 01b) Cylinder head changed	<p><b>i</b> The closed side of the check valve (02a or 02b) points with the ball to the rear and the open side with the thread points to the front in the direction of the chain tensioner.</p>	BT01.30-P-0004-01MM
8	Mount the press-in tool at the chain tensioner threaded holes (01c) on the cylinder head (01)	<p>⚠ Do not exceed a tightening torque of 5 Nm. Damage will occur to the cylinder head (01) otherwise.</p> <p><b>i</b> The press-in tool consists of the press-in tool basic carrier (2a), the installer (2b) and the press-in screw (2c).</p> <p>🔧 Press-in tool</p>	*276589003300
9	Press check valve (02a or 02b) into the cylinder head (01) using the press-in tool	<p><b>i</b> Press check valve (02a or 02b) into the oil supply duct (01a or 01b) in the cylinder head (01) using the press-in screw (2c) of the press-in tool.</p> <p><b>i</b> For correct assembly the check valve (02a or 02b) must sit flush in the cylinder head (01) and must not project out.</p>	
10	Disassemble press-in tool		
11	Remove rags from chain shaft	<p><b>i</b> Remove rags in such a way that no parts or dirt particles which are on the rags can fall into the chain shaft.</p>	
12	Install chain tensioner	ENGINE 276 Engine 157, 278	AR05.10-P-7800EL AR05.10-P-7800ELB
13	Install oil filter housing	ENGINE 157, 278	AR18.20-P-3471ELB



Puller



Press-in tool