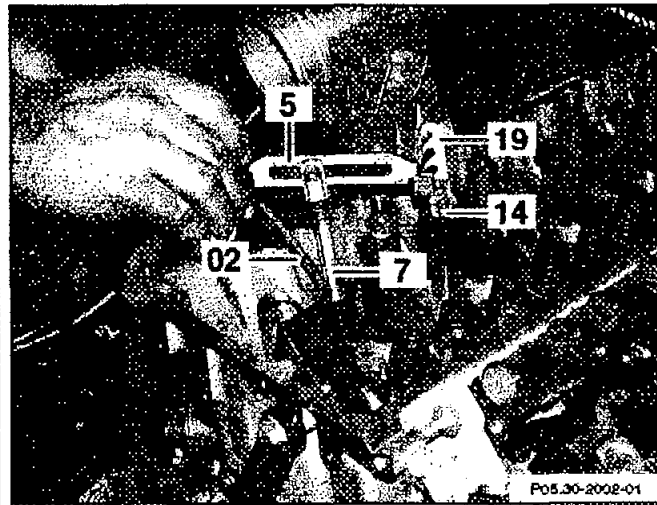


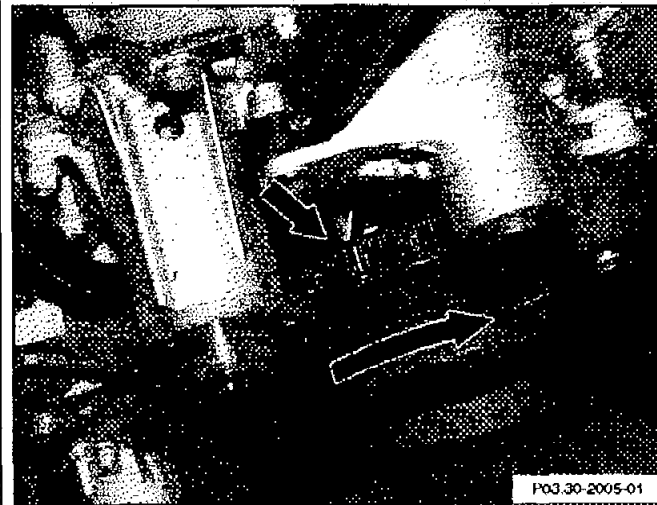
M4

AR05.30-P-3500HA

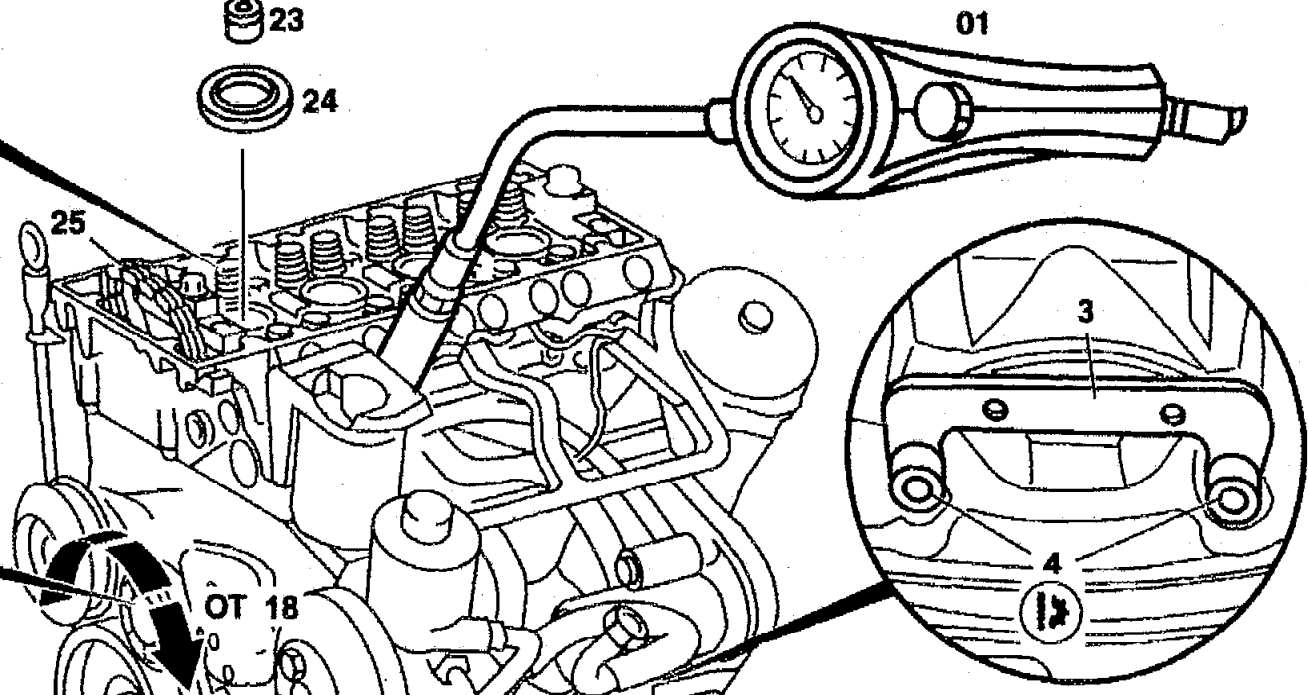
Removing, installing valve springs and/or valve stem seals**2.4.93*****ENGINE 605, 606.910 in MODEL 124******ENGINE 606.961 in MODEL 140******ENGINE 604, 605 in MODEL 202******ENGINE 604, 605, 606.912 /962 in MODEL 210******ENGINE 606.964 in MODEL 463***





P05.30-2002-01






P03.30-2005-01













P05.30-2001-09






 	<p>Removing, installing</p>		
<p>1</p>	<p>Remove camshaft housing</p>		<p>AR05.20-P-6995HA F4</p>

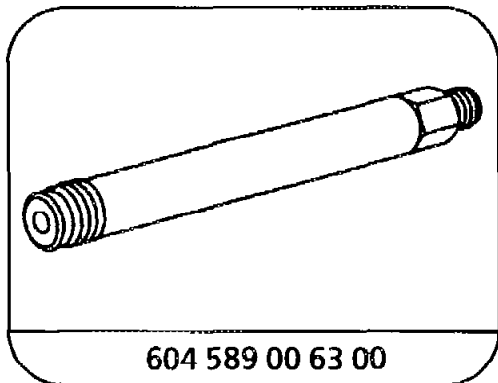


2  WF	Attach graduated scale to vibration damper Graduated scale for vibration damper	 Attach graduated scale in pin at vibration damper	WF58.50-P-0330-03A F18
3	Install assembly tool for valves at cylinder head	 To do this, screw retaining fork (14) (M7×60) with hinged fork (19) into hole of camshaft housing attachment at cylinder head	

4	Rotate piston of cylinder to be tested to TDC	<p>i Rotate engine at crankshaft; hold timing chain (25) up for this step so that it does not jam.</p> <p>Piston at "TDC" in the case of marking index on vibration of</p> <p>Engine 604 TDC cylinders 1 and 4, 180° cylinders 2 and 3</p> <p>Engine 605 TDC cylinder 1, 72° cylinder 2, 144° cylinder 4, 216° cylinder 5, 288° cylinder 3</p> <p>Engine 606 TDC cylinders 1 and 6 120° cylinders 2 and 4 240° cylinders 3 and 5</p> <p>i Installation: ensure that the colored markings on timing chain and camshaft sprocket are again aligned after installing the camshafts.</p>	
5	Install retaining lock (3) for crankshaft / ring gear	According to TDC setting of cylinder to be tested to prevent crankshaft or piston being turned on	AR03.30-P-5000HA

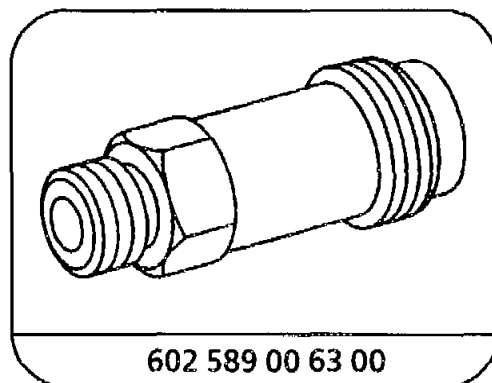
		<p> Use bolts (4) M6×90 otherwise the threads in the rear end cover will be damaged</p>	
<p>6</p>	<p>Connect cylinder leaktightness tester (01) to the cylinder to be tested</p>	<p> Pressurize cylinder to approx. 5 bar</p> <p> Connector</p> <p> Connector</p> <p> Connector</p> <p> Cylinder leaktightness tester</p> <p> Connection M22×1.5 mm / R1/4" for injection nozzle</p>	<p>AR01.00-P-1300-01HA H16</p> <p>604 589 00 63 00</p> <p>604 589 00 63 00</p> <p>602 589 00 25 00</p> <p>WH58.30-Z-1030-05A</p> <p>WH58.30-Z-1002-05A</p>
<p>7</p>	<p>Remove valve springs (22)</p>	<p>Attach detent depresser (5) with lever handle and thrust piece (7) into hinged bearing (19) for this step.</p> <p>Align thrust piece (7) vertically to valve spring (22).</p> <p>Compress valve spring (22) and remove valve collets (20) with magnetic pin, magnetic finger or tweezers.</p> <p> Valves must not strike the piston crown</p> <p> Magnetic pin (02)</p> <p> Magnetic finger</p>	<p>210 589 00 40 00</p> <p>116 589 06 63 00</p>

		 Tweezers	WH58.30-Z-1002-02A
8	Remove valve stem seals (23) with pliers	<p> Inspect valve stems for burrs, deburr if necessary. Inspect bottom valve spring retainer (24) for pitting, replace if necessary.</p> <p> Pliers</p> <p> Installation: oil valve stem seals. Press on valve stem seals with assembly drift by hand</p> <p> Assembly drift</p>	<p>606 589 00 37 00</p> <p>604 589 00 43 00</p>
9	Install in the reverse order		



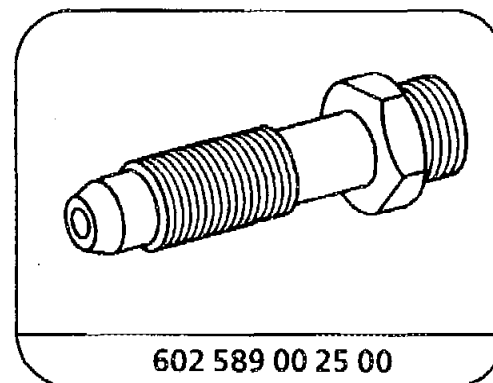
604 589 00 63 00

Connector



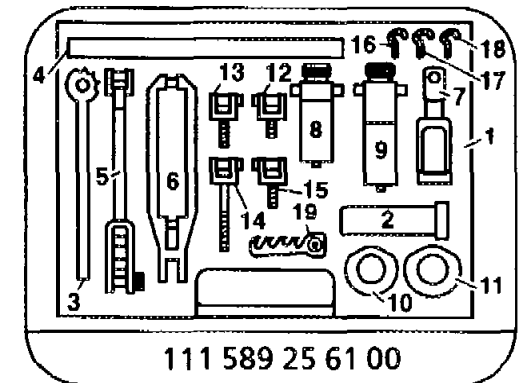
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Connector



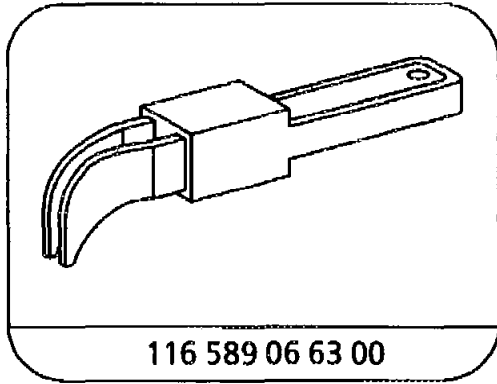
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Adapter



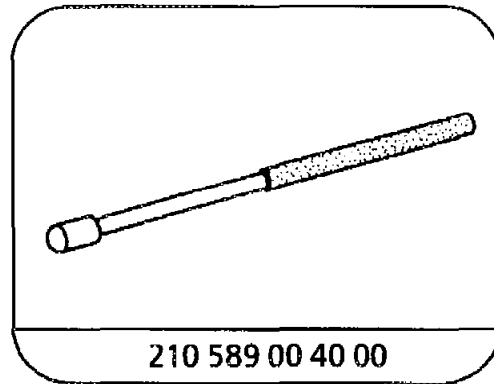
111 589 25 61 00

Valve assembly tools case



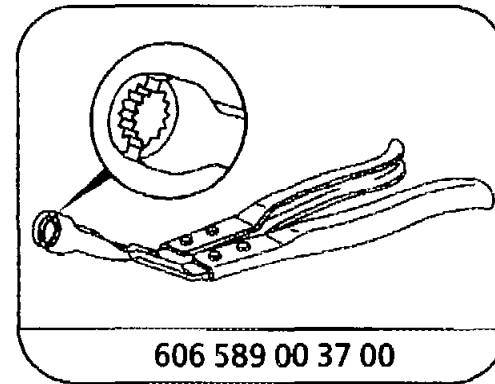
116 589 06 63 00

Magnetic finger



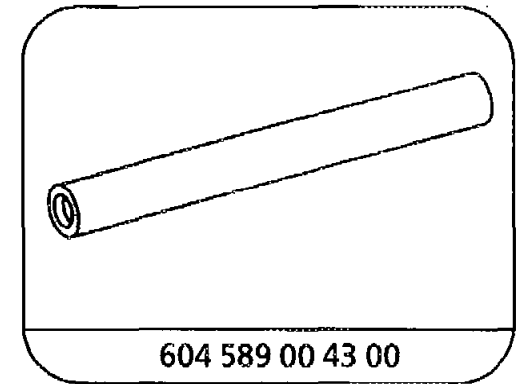
210 589 00 40 00

Magnetic pin



606 589 00 37 00

Pliers



604 589 00 43 00

Drift

Commercially available tools

Number	Designation	Make (e.g.)	Order number
WH58.30-Z-1002-02A	Straight tweezers 160 mm with rounded tips	Stahlwille Eduard Wille GmbH & Co Lindenallee 27 D-42331 Wuppertal12	77500001
WH58.30-Z-1030-05A	Cylinder leaktightness tester	Bosch	0 681 001 901 EFAW 210 A
WH58.30-Z-1002-05A	Connection M22×1.5 mm / R1/4" for injection nozzle	Bosch	604 589 06 63 00