

05-3200 Replacing and riveting timing chain

Preceding work:

Cylinder head covers removed (01-0500).

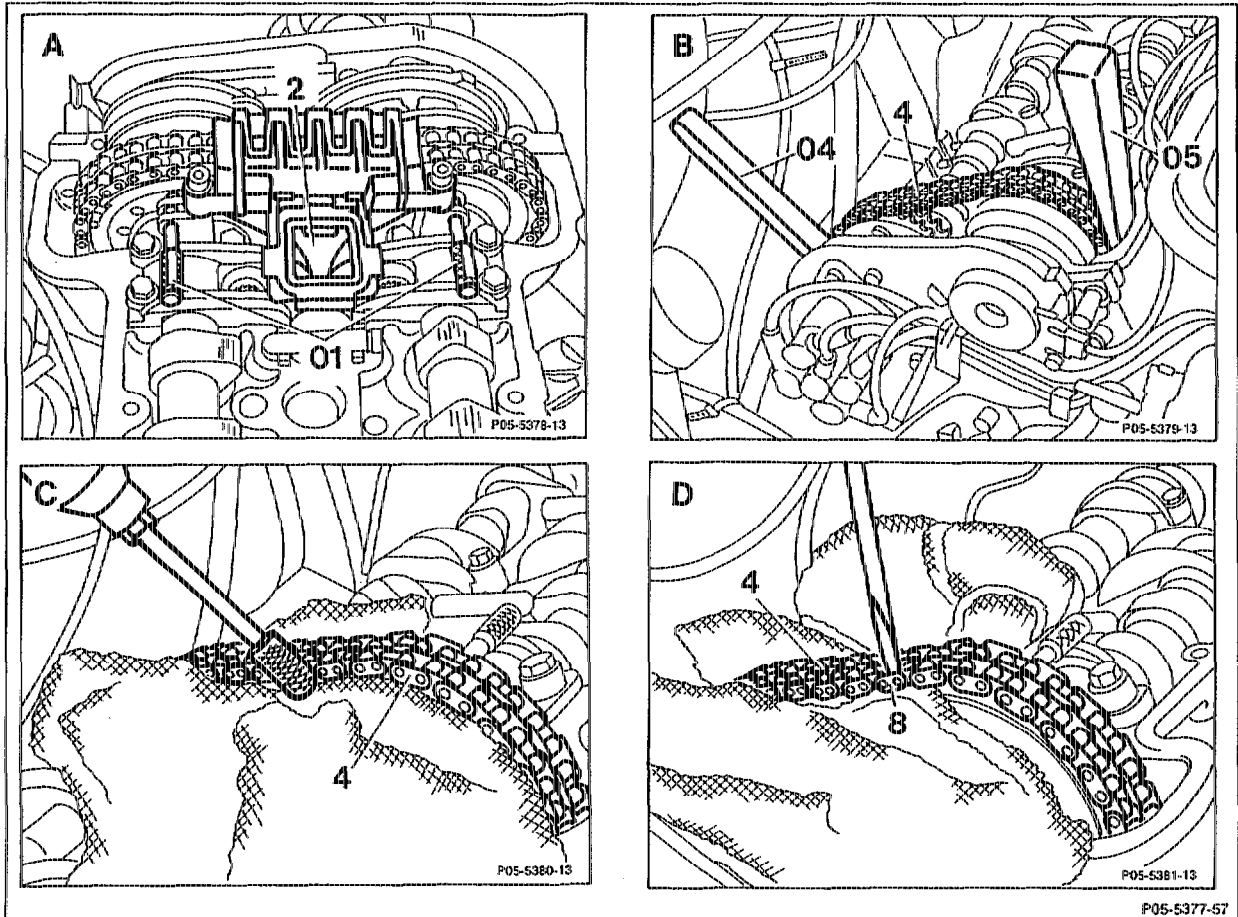
Viscous fan clutch removed (20-3120).

Spark plugs removed (15-1031).

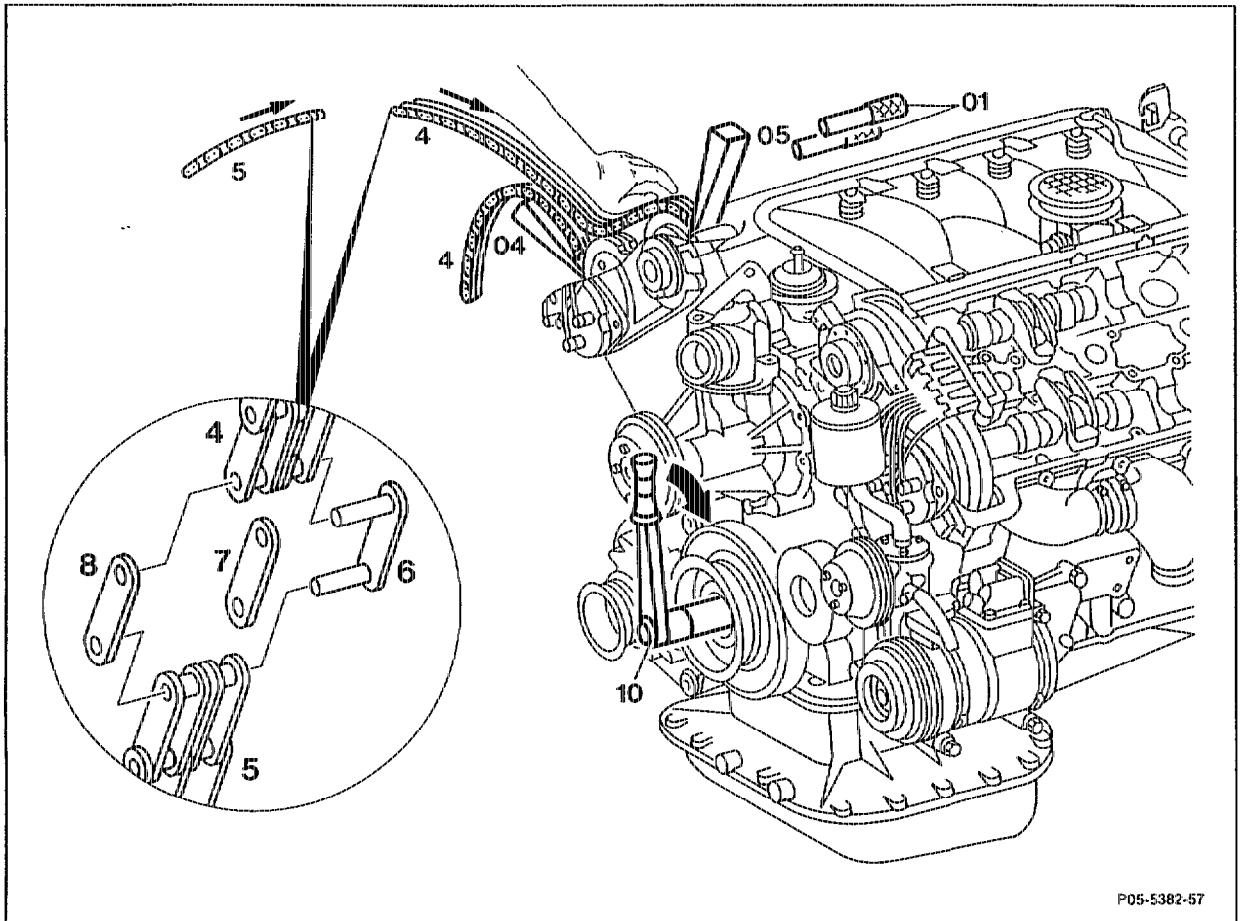
Operation no. of operation texts and work units or standard texts

and flat rates

05-7601



Piston of cylinder 1	set to 45° before ignition TDC.
Right cylinder head: inlet, exhaust camshafts	fix with pins (01) (Fig. A), special tool 111 589 01 15 00.
Chain tensioner	remove (05-3100).
Right guide rail (2) at top	remove, install (05-3350) (Fig. A).
Timing chain to camshaft sprockets	lock with wedges (04) and (05) at right cylinder head (Fig. B), special tool 110 589 03 59 00.
Chain housing	cover over with clean cloth.
Chain pin of timing chain (4) between inlet and exhaust camshaft sprockets	grind open (Fig. C).
Plate (8) of timing chain (4)	prise off with a screwdriver (Fig. D).
Ground-open double link	push out.

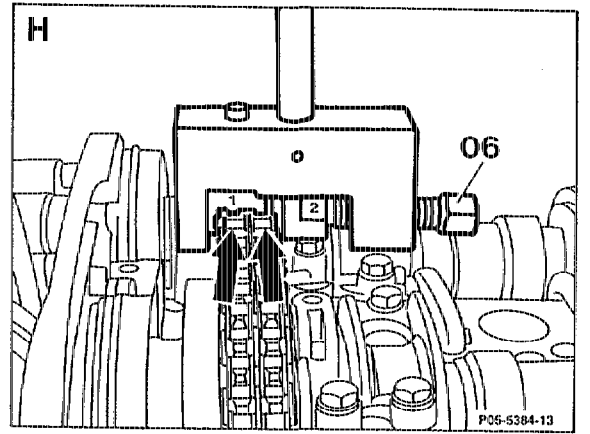
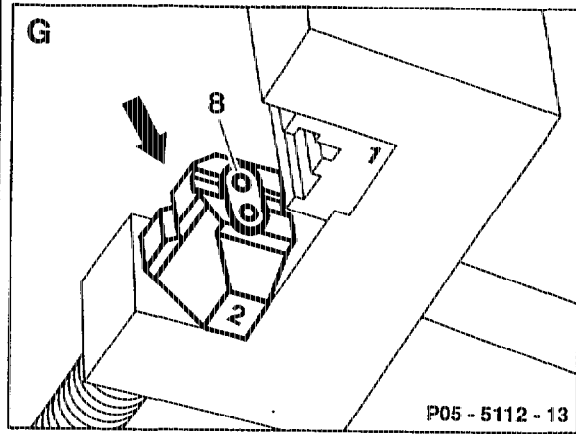
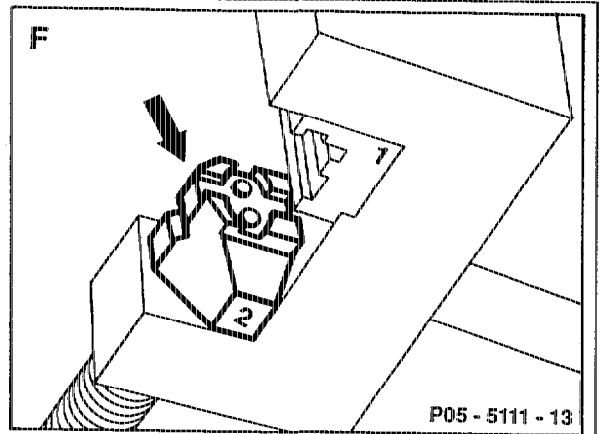
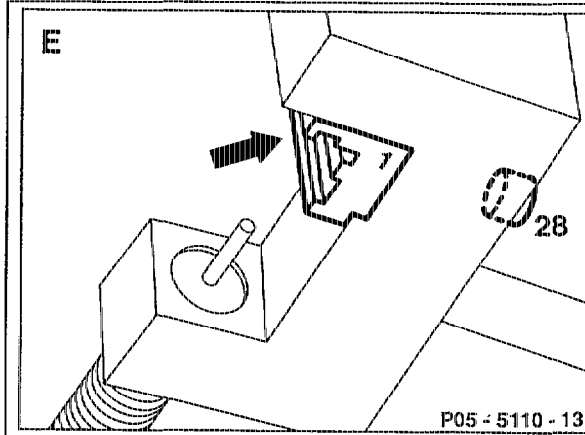


P05-5382-57

- | | |
|--|--|
| <p>New timing chain (5)</p> <p>Pins (01)</p> <p>Wedge (5) at inlet camshaft</p> <p>Wedge (04) at exhaust camshaft sprocket</p> <p>Crankshaft</p> | <p>connect to old timing chain (4) with riveted link (6) and middle plate (7) (thickness 1.6 mm) and ground open outer plate (8).</p> <p>remove.</p> <p>remove, holding timing chain meshed at inlet and exhaust camshaft sprockets by hand when performing this step.</p> <p>slacken slightly.</p> <p>rotate in direction of rotation of engine with wrench socket (10); hold timing chain (4) or (5) meshed at inlet and exhaust camshaft sprockets when performing this step.</p> |
| <p>⚠</p> | |
| <p>New timing chain (5)</p> <p>End (4) of timing chain which has become free ..</p> <p>Crankshaft</p> | <p>pull in.</p> <p>pull out of chain housing.</p> <p>rotate sufficiently until the ends of the new timing chain (5) can be connected with the riveted link.</p> |

Timing chain to camshaft sprockets
 New timing chain (5)

fix with wedges (04) and (05).
 connect with link (6) and center plate (7).



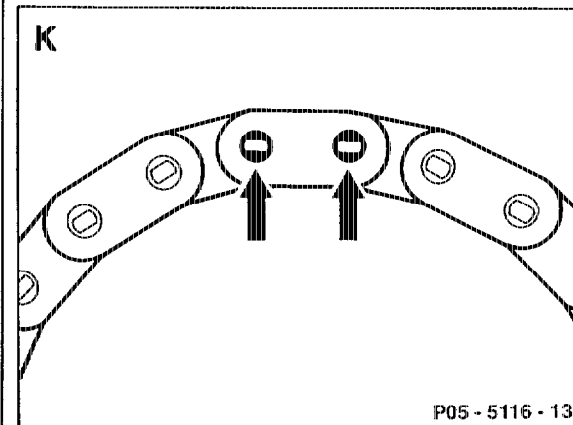
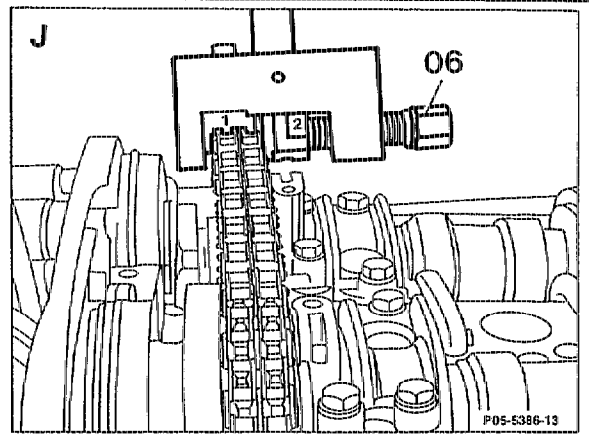
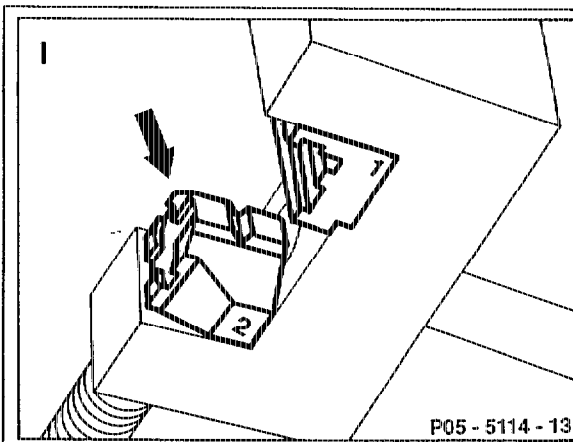
Jaws for duplex roller chain with number 1
 Moving thrust piece (arrow) for simplex
 roller chain with number 2
 Outer plate (8) (thickness 1.2mm)
 Webs (arrows)
 Spindle (06)

insert into fitting tool and screw on with screw
 (28) (Fig. E).
 insert into fitting tool (Fig. F).
 insert into moving thrust piece (Fig. G).
 fit onto roller at riveted link.
 screw in until tight resistance.

Note

When screwing in, ensure that the pins of the
 riveted link are inserted into the holes of the
 outer plate (8).
 remove.

Insertion tool



P05-5385-57

Moving thrust piece (arrow) with number 2	.....	turn over (riveted section) (Fig. I).
Fitting tool	.....	position exactly over center of pin (Fig. J).
Spindle (06)	.....	tighten to 30 Nm (Fig. J).
Pins of riveted link (6)	.....	rivet individually (Fig. J).
Riveting (arrows)	.....	examine, re-rivet if necessary (Fig. K).
Basic position of camshafts	.....	set (05-2240).
Chain tensioner	.....	install (05-3100).
Basic position of camshafts	.....	check (05-2230).

Special tools

