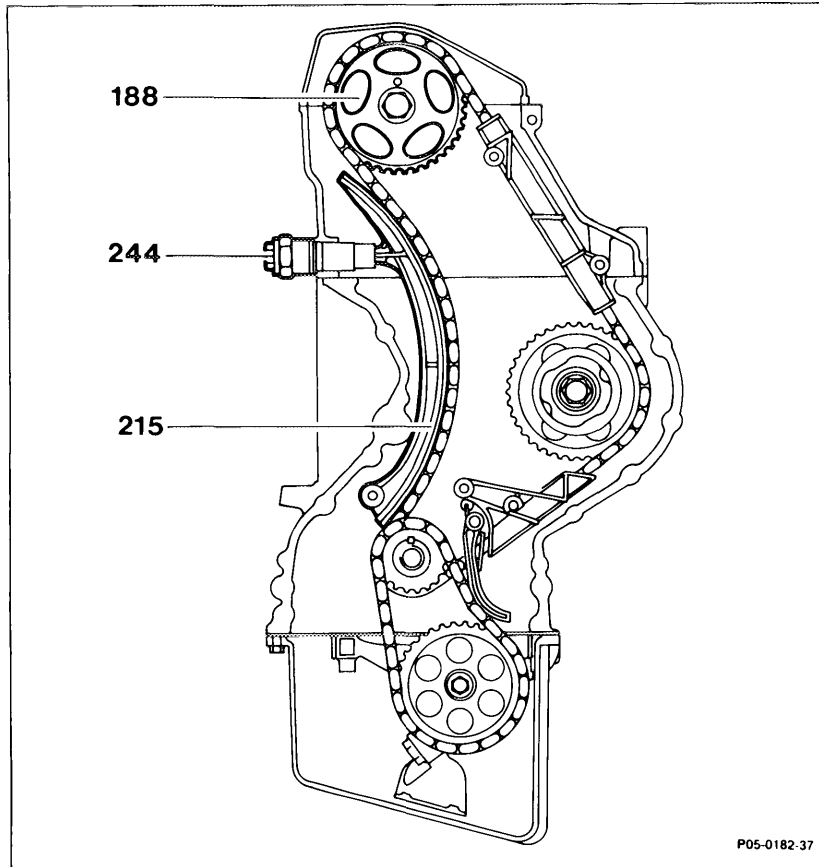


05-320 Renewal of timing chain

Preceding work:
 Cylinder head cover removed.
 Injection nozzles removed (07.1-230).
 Fan and fan shroud removed (20-312 or 20-335).

Operation No. of Operation Texts and Work Units,
 Standard Texts and Flat Rates 05-7601



Chain tensioner (244)	Remove and install (05-310).
Camshaft timing gear (188)	check for scores and pitting (Number 2).
Timing chain	separate, mount new timing chain with connecting link to the old timing chain, turn engine and raise old timing chain and detach (Numbers 3 - 5).

Caution!

The timing chain must remain in engagement on the camshaft and crankshaft gear as the engine is turned.

Timing chain insert connecting link from behind and rivet the link pins individually with assembly tool 000 589 58 43 00 (Numbers 6 - 10). Tightening torque of spindle 30 - 35 Nm.

Link pin rivet check (Number 11).

After installation turn crankshaft, check adjustment marking at TDC position (Number 13).

Note

Since 10/86 timing chains from an additional manufacturer have been fitted (Daido).

Identification: DID and 06BD on outer clip of the timing chain.

Production breakpoint: 10/86

Model	Engine	Engine end No.		Vehicle identification end No.	
		Manual transmission	Automatic transmission	A	F
124.133 124.193	603.960	-	005200-005645	351660- 358256	024286- 024446
126.125	603.961	-	006408-006754	290826- 293731	*
201.126	602.911	029125-029709	007079-007246	335707- 338278	287778- 291247
201.128	602.961	-	000107-000107	335707- 338278	*

* not recorded

Since 02/89 timing chains have increased clearance sleeves (Iwis Company).

Production breakpoint: 02/89

Model	Engine	Engine end No.		Vehicle identification end No.	
		Manual transmission	Automatic transmission	A	F
124.128	602.962	000008	001573	*	*
124.133 124.193	603.960	-	020941	*	*
201.126	602.911	074630	015102	*	*
201.128	602.961	-	005500	*	*

* not recorded

Since 09/89 timing chains (Daido Company) have been installed again.

Production breakpoint: 09/89

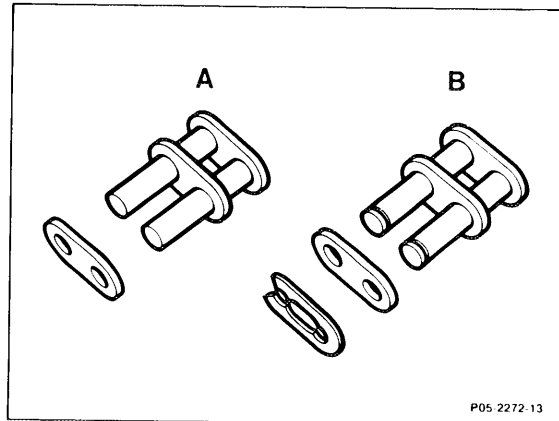
Model	Engine	Engine end No.		Vehicle identification end No.	
		Manual transmission	Automatic transmission	A/B	F
124.128	602.962	000071	002989	068356	*
124.133 124.193	603.960	-	023241	066158	122989
126.135	603.970	-	*	488196	*
201.126	602.911	082936	016428	533524	666204
201.128	602.961	000121	007042	*	667950

* not recorded

Repair timing chain

Only a riveted design of connecting link (A) is available for the timing chain. Design (B) is not to be used.

The outer clips of connecting link (A) are colored blue and its link pins have no grooves.

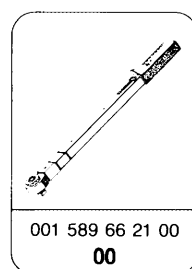
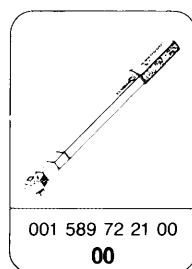
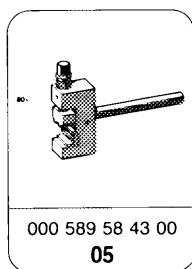


The outer clip of revised connecting link (A) must be pressed on and riveted with assembly tool 000 589 58 43 00.

The former assembly tool 000 589 57 43 00 for connecting link with stop spring (B) can be modified with the conversion kit 000 589 58 43 80.

Part No. of the assembly tool is to be changed to 000 589 58 43 00.

Special tools



Renewal

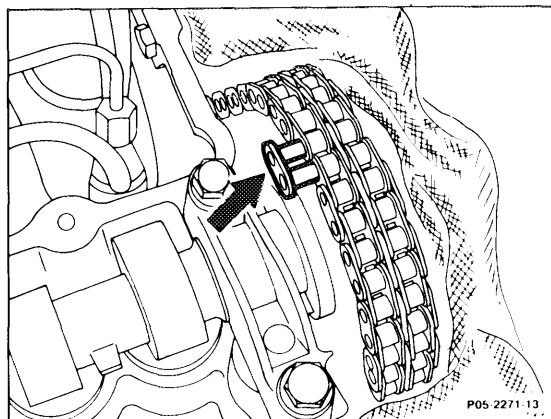
- 1 Remove chain tensioner (05-310).
- 2 Check camshaft timing gear for scores and pitting. Cover chain case with a cloth and grind off both link pins at a timing chain link.
- 3 Mount new timing chain with connecting link on the old timing chain.
- 4 Slowly turn crankshaft in the direction of rotation of the engine, while simultaneously raising the old timing chain until the connecting link is located at the uppermost position of the camshaft timing gear.
Pull out the released end of the old timing chain evenly, to match pulling on the new timing chain.

Caution!

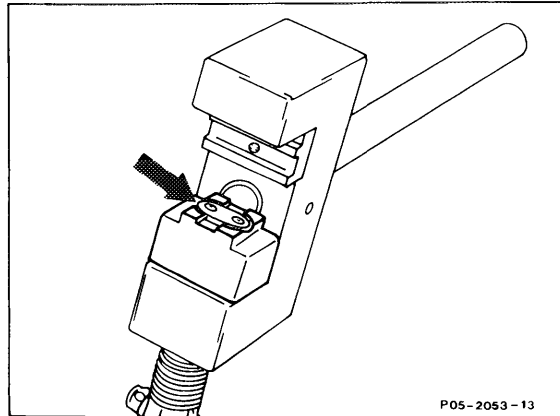
The timing chain must remain engaged with the camshaft and crankshaft gear while engine is turned.

- 5 Detach old timing chain and connect the ends of the new timing chain with a connecting link. Secure ends of chain on camshaft timing gear with wire.

- 6 Insert connecting link in the timing chain from behind (arrow).



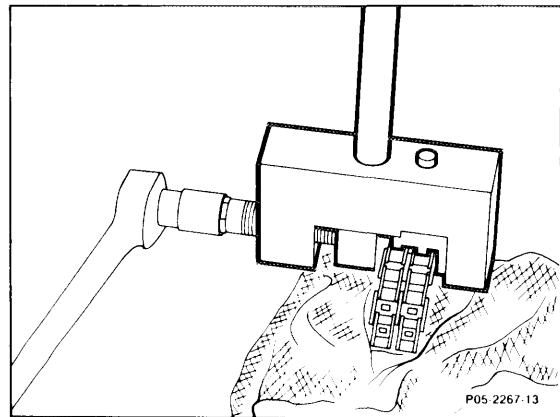
7 Place loose enclosed outer clip of the connecting link (with the IWIS marking stamped on) in assembly tool 000 589 58 43 00 (arrow). The outer clip is retained magnetically.



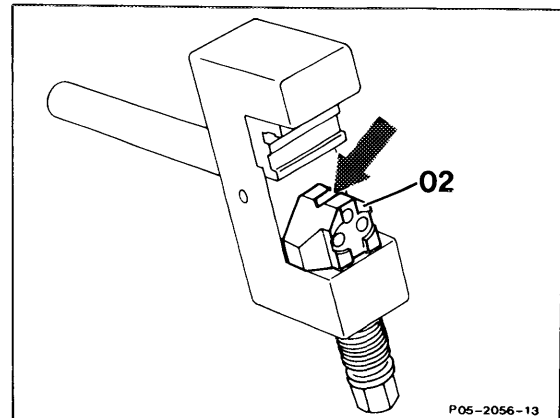
8 Put assembly tool 000 589 58 43 00 on connecting link and press on clip up to the stop.

Caution!

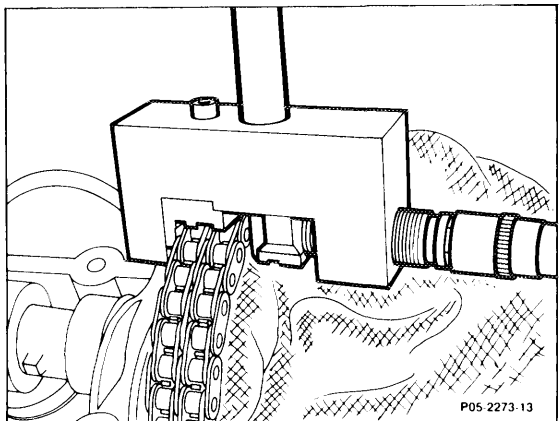
Put clip on so that both rivet pins engage.



9 Turn punch (02) of assembly tool 000 589 58 43 00 so that the notch (arrow) points forwards.

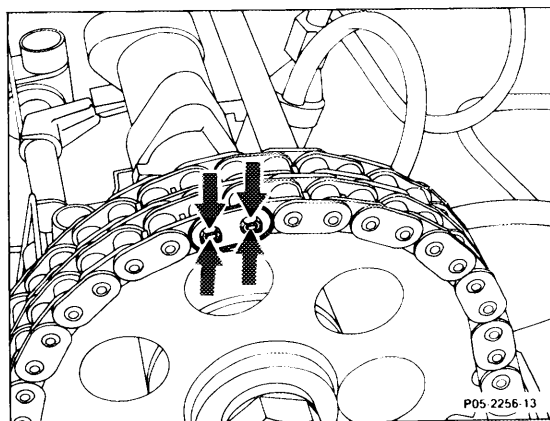


10 Place assembly tool exactly over the center of the pins. Rivet the connecting link pins individually, whilst tightening spindle to approx. 30 - 35 Nm (Reference value).



11 Check link pin rivet, if necessary re-rivet (arrows).

12 Install chain tensioner (05-310).



13 Turn crankshaft and check adjustment marking at TDC position of engine.

Note

If adjustment markings do not align, the camshaft timing (05-215) and start of delivery of the injection pump (07.1-111) must be checked.

