

New Drive Chain and Seal for Intermediate Shaft

Vehicle Type: **Boxster / Boxster S**

Model Year: **As of 1997 (V)**

Concern: **Drive chain and seal for intermediate shaft modified.**

Information: To reduce engine noise, the drive chain for the intermediate shaft (primary drive) has been changed from a roller-type chain to a tooth-type chain (figure 1). The changes were introduced into production on August 15th, 2000, as of engine numbers:

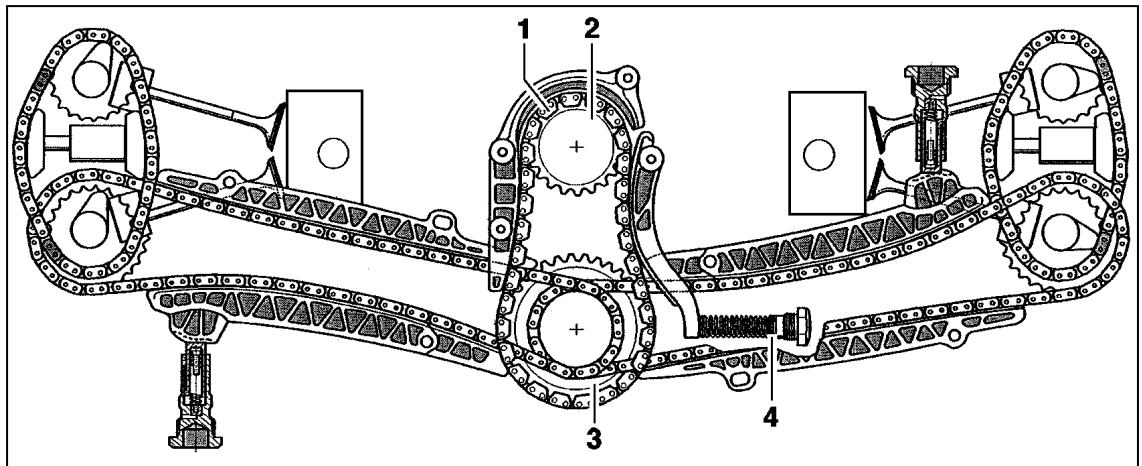
- M96.22 65 1 00501 2.7 liter
- M96.21 67 1 00501 3.2 liter

The sealing ring on the bearing flange for the intermediate shaft has been changed from an O-ring (figure 8) to a 4 mm wide sealing ring with three sealing lips (figure 9). The changes were introduced into production on September 12th, 2000, as of engine numbers:

- M96.22 65 1 02353 2.7 liter
- M96.21 67 1 02086 3.2 liter

Note: The new style seal, which includes a modified bearing flange, is to be used for repairs on earlier engines. The old style seal is no longer available.

Repair: **Camshaft drive:**



The following parts have been changed because of the conversion to the tooth-type chain for intermediate shaft drive:

- 1** - Drive chain for intermediate shaft
- 2** - Crankshaft
- 3** - Intermediate shaft
- 4** - Chain tensioner

Note: Roller-type chains remain in use for driving the camshafts.

Repair: After existing supplies of the previous parts have been used up, the new parts can be used as replacements for all Boxster engine types M96.20, M 96.22, and M96.21.

A mixed configuration is not permissible, as the parts are matched with each other. The previous chain tensioner, part No. 996 105 180 54, is still available and may continue to be used on engines that have the previous style drive chain installed.

New Version

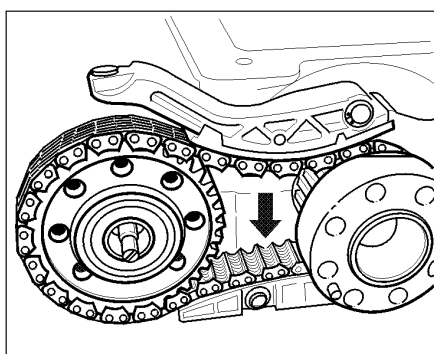
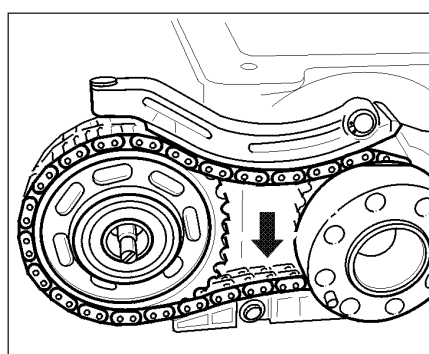
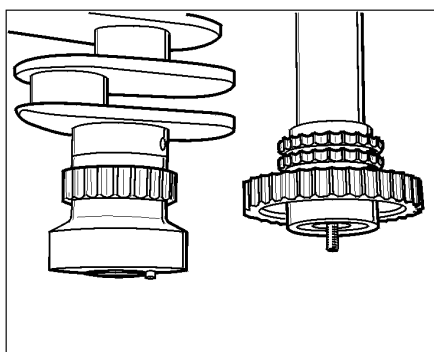


Figure 2, Tooth Type Chain

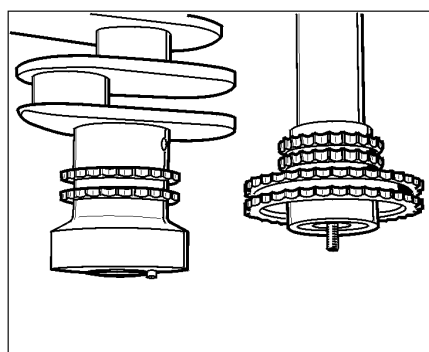
Previous Version



**Figure 3, Roller Type Chain
No Longer Available**

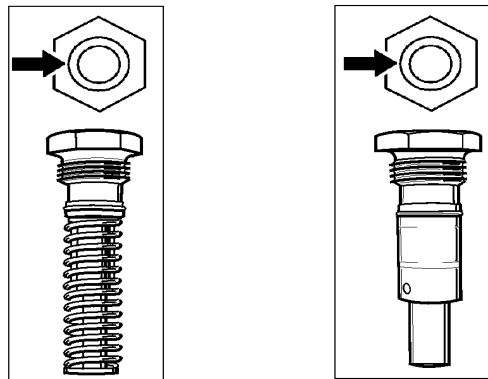


**Figure 4
Crankshaft & Intermediate Shaft**



**Figure 5
Crankshaft & Intermediate Shaft
No Longer Available**

Repair: The marking on the head of the chain tensioner is unchanged (1-ring, arrow).



New intermediate shaft seal.

There is a wider groove in the intermediate shaft to accommodate the new sealing ring. The new sealing ring is rectangular (previously: O-ring) and approx. 4 mm wide on the sealing surface (arrow, figure 9).

The new sealing ring is an integral part of the bearing flange and cannot be individually replaced.

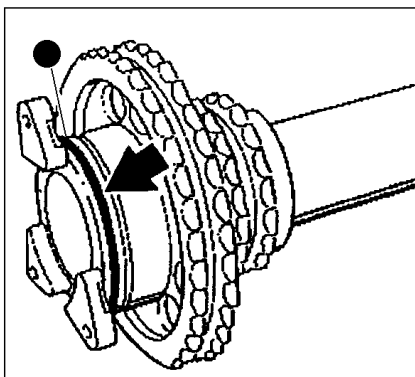


Figure 8, Previous Version Seal

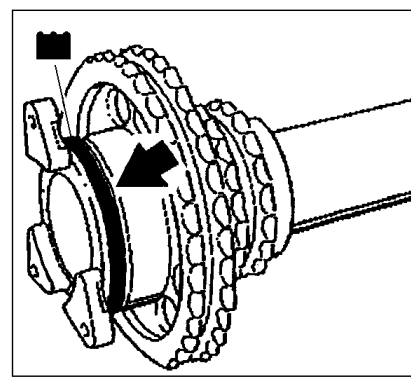


Figure 9, New Version Seal

The new intermediate shaft-bearing flange with rectangular sealing ring is available for repairs on all engines (1997 to present) with a roller-type or tooth-type chain. The new bearing flange (part number, 996 105 017 01) is available only with the sealing ring fitted. The sealing ring cannot be replaced individually. The previous bearing flange with O-ring must no longer be installed.

Parts Information:	Part Number	Description
	996 105 171 56	New style tooth-type chain
	996 105 171 55	Previous style roller-type chain - no longer available
	996 105 901 01	New style intermediate shaft with bearing cover. Includes 996 105 017 01
	996 105 015 63	Previous style intermediate shaft - no longer available
	996 102 011 56	New style crankshaft for M96.22 (2.7 l) and M96.21 (3.2l)
	996 102 011 57	Previous style crankshaft for M96.22 (2.7 l) and M96.21 (3.2 l) - no longer available
	996 102 011 07	New style crankshaft for M96.20 (2.5 l)
	996 102 011 06	Previous style crankshaft for M96.20 (2.5 l)
	996 105 180 55	New style chain tensioner
	996 105 180 54	Previous style chain tensioner - still available
	996 105 017 01	New intermediate shaft-bearing flange with sealing ring. Previous style bearing flange - not available as individual part
	999 707 391 40	Previous style O-ring - no longer available

- Literature:
- 911 Carrera (996) Technical Manual, Group 1, Repair:
 - 13 49 37 - Disassembling and assembling crankshaft and intermediate shaft
 - 15 23 19 - Removing and installing bearing flange (sealing ring) for intermediate shaft - engine installed
- Technical Information: No. 11/99 - Micro-encapsulated screws on the engine.

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