New Pattern/Type Oil Seals - All Models

Information:
A new type of seal is used on the R100GS at the rear main crankshaft and at the gear box output shaft. On K models the same pattern is used at the alternator drive flange.

In the future this new pattern seal will be used at other sealing points.

Since the new pattern is not widely known, the following is some basic information:

![New pattern and previous pattern](image)

Compared with the sharp-edged, spring-loaded seal lip on old versions, the new seal has only one lip, which is turned inwards and applies the contact pressure by its own flexibility.

The sealing lip is made of PTFE (Teflon), which is noted for its resistance to high temperatures, low wear, and low friction, as well as its ability to seal.

Installation:
As delivered, the sealing lip is not pre-shaped (see drawing). If the shaft is rounded or chamfered sufficiently, the seal can be pushed on. If the shaft is not rounded or chamfered, you must pre-shape the seal prior to installation. The desired shape can usually be obtained by pushing the seal onto the drift to install it.

![Delivered condition](image)
Important: Make certain that the spiral formed on the sealing lip is not damaged. This new seal will seat in rapidly if installed dry.

As with conventional seals, the new ones are manufactured in a number of different patterns, with additional dust trap lips and shaped to fit various types of housings.

Installation Instructions:

Alternator Drive Flange Seal - K Models:
The seal is pre-shaped as it is placed on the assembly arbor. After installation, the drive flange can easily be installed.

R100GS Gear Box Output Seal:
This seal must always be pre-shaped before installation, or else the sealing lip will be damaged by the speedometer drive gear.
Important:

The new type seal is only used on the R100GS (swing arm with no oil). If this seal is used on models with oil in the swing arm (PFO - P100RT), the oil will transfer from the swing arm into the gear box.

The vent passage in the gearbox cover at the seal area must be blocked with 3 bord 1207E on all R100GS models.

Rear Main Crankshaft Seal:

The seal is pre-shaped when fitted on the installation arbor. However, use caution and ensure that the spiral on the sealing lip is not damaged.

Very truly yours,

BMW OF NORTH AMERICA, INC.