ENGINE GOVERNING SYSTEMS

KT275 & KT276

Bearing Retainer Kits for the Bosch P3000 and P7000 Series Pumps

GOVERNORS AMERICA CORP.

INTRODUCTION

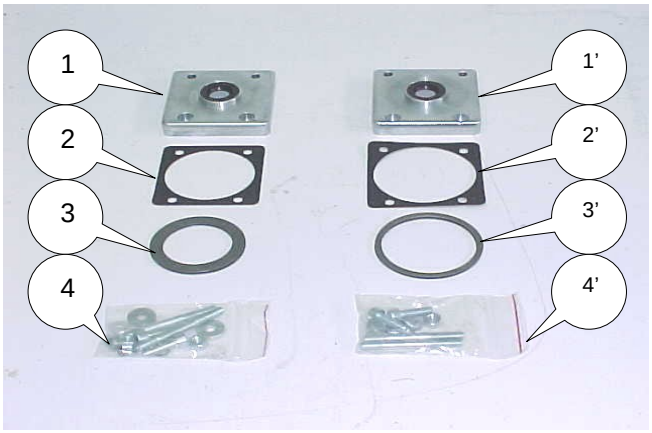
Before installing the Bearing Retainer Kits KT275 or KT276 on the Bosch Fuel Pump, the existing mechanical governor must be removed. It is **Strongly Recommended** that a qualified Bosch Fuel Pump Service Facility removes the mechanical governor assembly.

Once the mechanical governor assembly has been completely removed, clean the surface of the pump face of all remaining gasket material. Polish the surface if scratched. If present, remove the pump oil drain plug between the fuel rack and the camshaft.

The Bearing Retainer Kit performs the following two functions:

1. Retains the fuel pump camshaft bearing in position.
2. Provides an oil-proof seal for the lower part of the injection pump, that would have originally been sealed by the rear main housing of the mechanical governor.

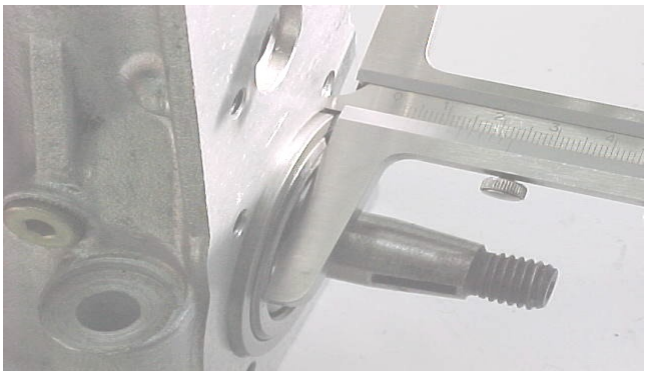
Depending upon the fuel pump model, check to ensure that the following items are included in the kits shown below.



KT275 P3000	Description	KT276 P7000	Qty.
1	Bearing Retainer Plate	1'	1 pc.
2	Pump Sealing Gasket	2'	1 pc.
3	Bearing Shimming Kit	3'	1 kit
4	Screw Mounting Kit	4'	1 kit

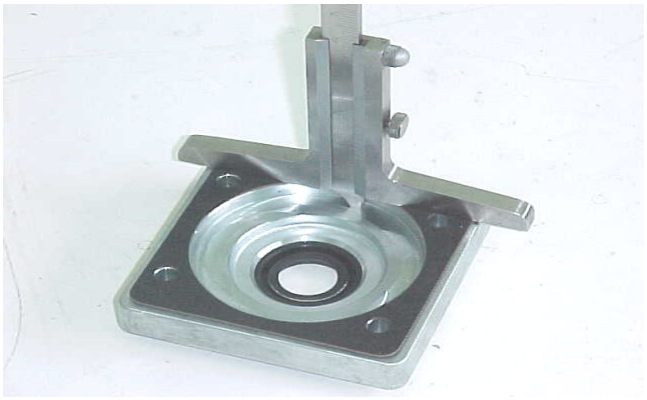
INSTALLATION

Using a depth gauge, measure the distance that the camshaft bearing protrudes from the pump face.



Record this depth as dimension **"A"**. This will be used to determine the required thickness of the clearance shims.

Using a depth gauge, measure the depth from the inner face on the bearing retainer plate to the top of the sealing gasket.



Record this depth as dimension **"B"**. The dimension in the bearing retainer plate will be larger than the bearing dimension **"A"** on the fuel pump.

Bearing Retainer Plate Installation Procedure

Use this procedure to determine the required thickness of the bearing shims, and allowing for compression of the retainer plate sealing gasket. This will be dimension **"D"**.

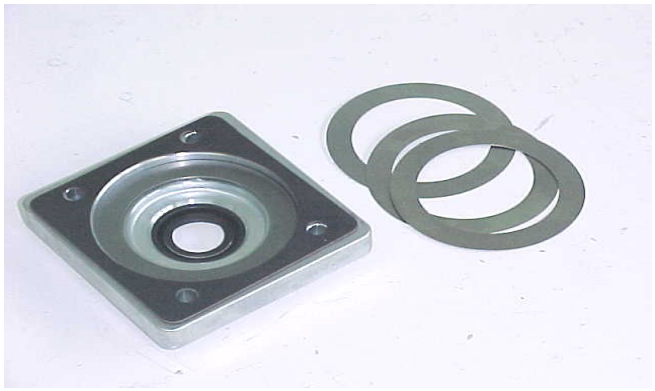
Refer to the following example.

Dimension “A” = 5.20 mm
Dimension “B” = 6.93 mm
Dimension “C” = 0.85 mm (uncompressed thickness of the sealing gasket).

The thickness of the bearing shims plus allowing for gasket compression is determined as follows.
Dim. “B” – Dim. “A” – Dim. “C” = Dim. “D”
6.93 mm - 5.20 mm - 0.85 mm = 0.88 mm

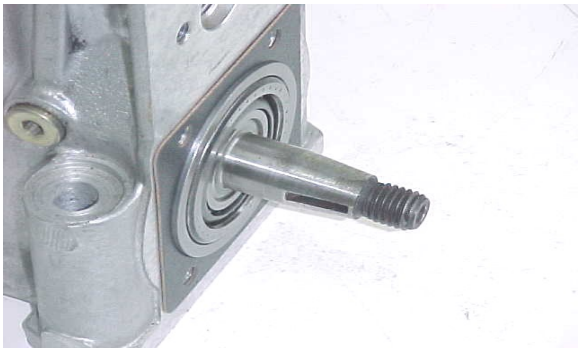
Use a set of vernier calipers and select from the bearing shims (2 x .004 [.102], 2 x .005 [.127], 2 x .007 [.178], 1 x .020 [.508]) until the required total shim thickness (Dim. D) is achieved.

Insert the shims into the counter bore the bearing support plate.



Hold the shims in the plate with the application of a small amount of grease.

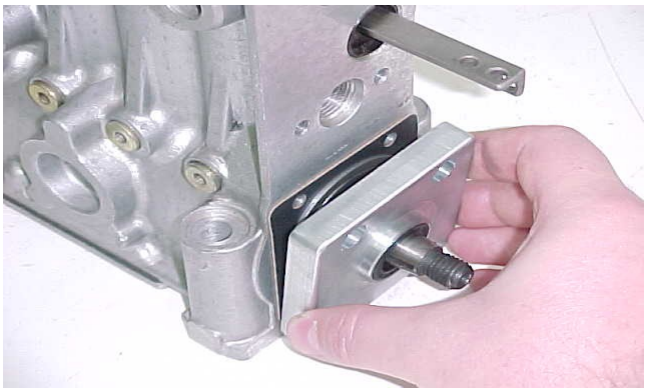
Insert the sealing gasket over the camshaft bearing. Before installing the bearing cover plate, visual inspect the fuel pump camshaft and check for any score marks, scratches or dents. If any of the above imperfections are found, remove them with a metal polishing block. When clean, apply a small amount of grease to the camshaft. Align holes on gasket/plate up to the mounting holes on the fuel pump.



WARNING

Failing to remove imperfections on the camshaft may result in damage to the shaft seal on the bearing retainer plate.

Carefully slide the bearing retainer plate assembly over the camshaft.



When installing the retainer plate assembly avoid the shaft seal coming into contact with the camshaft keyway channel by carefully pushing the plate away from the keyway, and then sliding the retainer plate into position.

Install the two M6 studs in the lower mounting holes of the pump. Thread the shorter ends of the studs into the fuel pump. When installing the M6 studs apply a small amount of Loctite 242 thread locking compound to the stud thread.

Use the two M6 socket head bolts and two M6 spring retaining washers. Install the bolts and spring washers in the upper mounting holes. Lightly hand-tighten the M6 bolts using a 5 mm Allen wrench.

See the actuator technical publication for further instructions.