Twin Cam 88 and 88B Sprocket Bearing and Crankcase Part Information

There seems to be some confusion as to what combination of parts to use on the left side of Twin Cam 88 & 88B crankcases. The following information will help to clear this up:

Replacing Cases

All cases that are / have been ordered after the start of the 2003 model year are 2003 style crankcases (even if they are for 1999-2002 model year engines). The cases have been machined for the 2003 model year roller bearing assembly, positioning the left bearing closer to the centerline of the engine than in previous years. The 24004-03 Left (sprocket) Crankcase Bearing Assembly Kit's instruction sheet (J02580, REV 9-13-02), that comes with the new cases, has been updated to show a picture of the bearing set up and add clarity to the procedures involved, look for the February revision date.

Replacement of the crankcases on a 1999-2002 Twin Cam 88 or 88B engine requires the following parts to correctly assemble the original flywheels in the later crankcases:

- 1 Left (sprocket) Crankshaft Bearing Assembly Kit, which includes:
 - 1 Roller Bearing (part # 24604-00C)
 - 1 Inner Bearing Race (not sold separately)
 - 2 Service Thrust Washers (part # 8972)
 - 1 Bearing Retaining Ring (part # 35114-02)

Instruction Sheet J02580

- Sprocket Shaft (seal) Spacer, for the correct vehicle application part # 24038-03 for Dyna models part # 24008-03 for Touring models part # 24039-03 for Softail models
- 1 Oil Seal (part # 12068)

Replacing Flywheels

When replacing flywheels in 2003 model year Twin Cam 88 & 88B engines, the dash 03 part should be used. The 23904-03 & 23971-03 flywheel assemblies come with the race and one washer pressed on-- the 2nd washer will be needed after the crankcases are bolted together (see below).

If replacing flywheels on 1999-2002 Twin Cam 88 & 88B models, using the original 1999-2002 cases, use the 23957-99B or 23912-00A flywheels (which comes without the left side race and washer).

The flywheels can be interchanged as long as the correct bearing assembly set up is used.

Washers For Left Side Bearing

The new left side bearing (24604-00C) set-up uses <u>two washers</u>. One thrust washer is installed onto the sprocket shaft prior to race installation and is pressed up flat to the flywheel face by the inner-bearing race. The other thrust washer goes on the oil seal side of the bearing.

The thrust washers used in manufacturing (part # 8973, not sold) are flat, with no chamfer & not marked. These are used on -03, -99B and -00A Twin Cam 88 & 88B flywheel assemblies ONLY. The -03, -99B and -00A flywheels have an "undercut" on the shaft where it meets the wheels. On -99 & -00 original equipment flywheel assemblies and P&A stroker flywheel assemblies there is a radius / shoulder at that point. The service thrust washer (part # 8972) MUST be used on these flywheels as the washer has a chamfered edge that will set over the shoulder allowing it to set flat to the wheels. The opposite side of the washer is marked "OUT" and this mark is to face to the outside of the engine.

Note:

Part # 8973 is only used in manufacturing and cannot be ordered.

The chamfered service thrust washer (part # 8972) is compatible with and designed to work on all vintages of flywheels when they are being updated to the roller bearing application.