

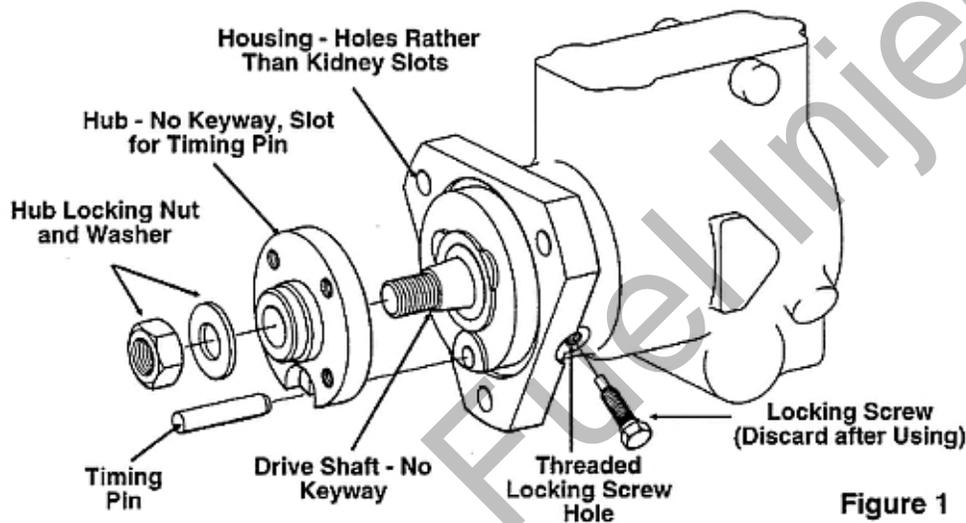
## **STANADYNE DB4 MODEL PUMP for PERKINS**

### **SUBJECT: LOCKED DRIVE SHAFT TIMING**

As a means of improving the installation timing accuracy as well as preventing unauthorized timing adjustments, Stanadyne has developed a locked drive shaft timing feature for Perkins DB4 pumps. The system consists of the following features and is pictured in Figure 1.

### **PUMP HOUSING**

The locked shaft timing pump housing has holes rather than the traditional "kidney" slots for the pump-to-engine mounting bolts. This is designed to prevent unauthorized pump to engine timing adjustments. The housing also has a hole in the face of the flange to accept a timing pin. A threaded hole in the neck of the housing located between the drive shaft seals is used as a drive shaft locking screw hole during the pump timing procedure.



**Figure 1**

### **DRIVE SHAFT**

The drive shaft used with the locked shaft timing arrangement also has no keyway on the tapered portion allowing the drive hub to be located on the shaft in any position.

### **DRIVE HUB**

A new drive hub with a slot designed to accept a timing pin but without a keyway on the tapered inside diameter allows accurate location of the hub on the drive shaft during the timing procedure.

**IMPORTANT:** If a drive shaft hub is removed from the drive shaft, the specific reinstallation steps require special tools. When the pump is installed on the engine, a timing pin (provided by the engine manufacturer) is used to properly align the hub with the housing while the gear is attached to the hub.