## SERVICE BULLETIN

HARLEY-DAVIDSON

COMPANY

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M-860

November 12, 1982

## SERVICE INFORMATION — XL MODELS

### Cam Gear Shaft End Play

Camshaft shims (Part No. 6769 and 6770) used to control maximum cam gear shaft end play have been discontinued in production engines.

Engineering testing has determined that an increase in the maximum allowable cam gear shaft end play does not contribute to an increase in noise nor does it prove to be detrimental to component operation.

When reassembling engines after service or repair, it is not necessary to reinstall camshaft shims. Cam gear shaft end play should be measured following the procedure in the latest applicable Service Manual. Observe the minimum end play specifications of .005 in. for all cam gears, except rear intake which is .004 in. minimum end play. It is not necessary to measure maximum cam gear shaft end play.

# New Finish To Cylinder/Cylinder Head Gasket Surfaces

See Figure 1. The gasket surface of cylinders and cylinder heads has been improved with a new finish implemented in production. The finish has an appearance similar to grooves of a phonograph record. The soft copper head gasket conforms to the finish and prevents oil

leakage at the oil return passages. Cylinder head bolt torque is unchanged (55-65 ft-lbs).

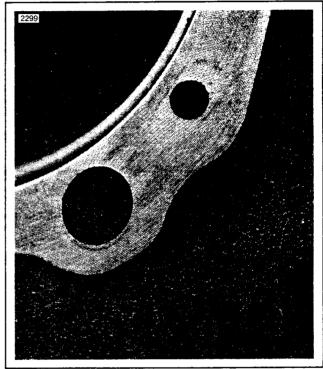


Figure 1. Cylinder Head Gasket Surface

ROUTING:	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	 	MECHANIC NO. 2	MECHANIC NO. 3	MECHANIC NO. 4	RETURN THIS TO:
INITIAL HERE								

### **Gerotor Oil Pump**

#### **Design Modification**

See Figure 2. Early 1983 and earlier gerotor pump gears had chamfered outer edges. Late 1983 oil pump assemblies contain different gerotor gears that do not have chamfered top and bottom outer diameters. Late 1983 pump bodies and covers have an under-cut or relief as shown to provide the necessary clearances.

These modifications limit interchangeability to the following:

- Either early style or late style gerotor gears may be used with late style (under-cut) oil pump bodies and covers.
- 2. Only early style chamfered gerotor gears may be used with early style oil pump bodies and covers.

#### **WARNING**

Use of late style gerotor gears in early style oil pump

bodies and covers could cause the oil pump to bind.

#### Ignition Module Plugs — 1983

Ignition module plugs are new to prevent intermixing of 1983 ignition components with earlier Magnavox modules and sensors.

See Figure 3. To perform module and sensor checks of 1983 components fabricate a jumper cable as shown. The parts needed are:

	PART NO.	QTY.
Pin connectors	74539-83	3
Socket connectors	72028-83	3
Socket housing	72051-83	1
Pin housing	74521-83	1
Wire ring terminals	9857	3
18 gauge insulated wire (4 ft.)		
Electrical tape		

Refer to the applicable Service Manual for ignition module and sensor checks.

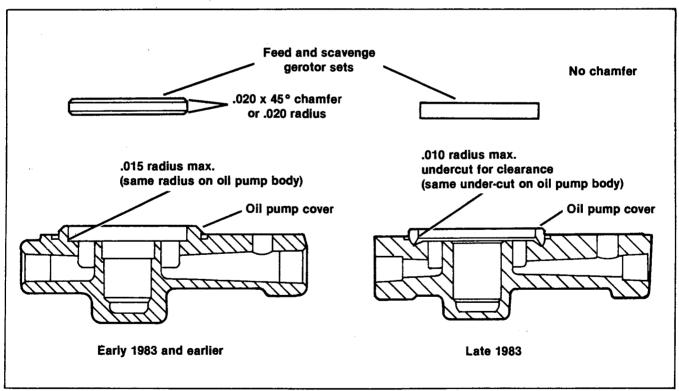


Figure 2. Gerotor Oil Pump

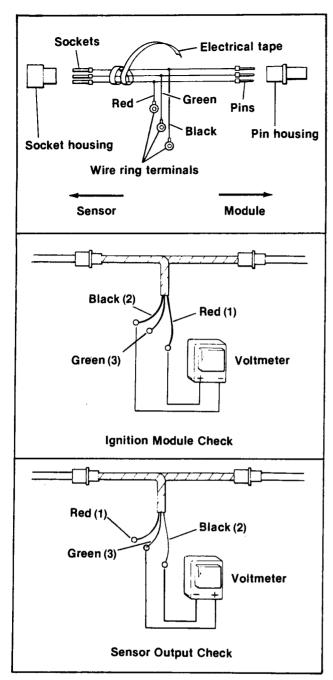


Figure 3. Fabricating and Using Jumper Cables — 1983 XL Models