

and the gasket surface with a feeler gauge. End clearance for both diesels is 0.0005-0.0075 in. and other V8s is 0.002-0.0065 in. If end clearance is excessive, check for scores in the cover that would bring the total clearance over specification.

6. Check gear side clearance by inserting the feeler gauge between the gear teeth and the side wall of the pump body. Clearance should be between 0.002-0.005 in.

7. Pack the inside of the pump completely with petroleum jelly. DO NOT use engine oil. The pump MUST be primed this way or it may not produce any oil pressure when the engine is started.

8. Install the cover screws and tighten alternately and evenly to 8 ft. lbs. (11 Nm).

9. Position the pressure regulator valve into the pump cover, closed end first, then install the spring and retaining pin.

➔ **When assembling the driveshaft extension to the drive shaft, the end of the extension nearest the washers must be inserted into the drive shaft.**

10. Insert the driveshaft extension through the opening in the main bearing cap and block until the shaft mates into the distributor drive gear.

11. Install the pump onto the rear main bearing cap and install the attaching bolts. Torque the bolts to 35 ft. lbs. (47 Nm).

12. Install the oil pan to the engine block.

## Crankshaft Damper

### REMOVAL & INSTALLATION

➔ See Figures 154, 155, 156 and 157

1. Disconnect the negative battery cable.
2. Loosen and remove the drive belts from the crankshaft damper.
3. If necessary for access, remove the fan and pulley assembly from the water pump.

➔ **Some early model vehicles are equipped with press fit pulleys and/or dampers. For a press fit component there is no retaining bolt to removed before using a puller to remove it from the crankshaft.**

4. If separate from the damper, remove the mounting bolts, then remove the crankshaft pulley from the damper.
5. Spray the damper bolt with penetrating oil and allow it to soak in for at least a few minutes. Loosen and remove the crankshaft damper bolt.

➔ **If damper bolt removal is difficult, various methods may be used to hold the crankshaft while loosening or tightening the bolt. One method involves installing a flywheel holding fixture. Another method which can be used on manual transmission vehicles is to have an assistant put the vehicle in gear and depress the brake pedal. A holding tool may be available for some dampers which threads into the pulley bolt holes. But most of all, allow the penetrating oil to do the work on loosening an old damper bolt and reapply oil, as necessary.**

6. Remove the damper from the end of the crankshaft using a suitable threaded damper puller, NOT a jawed-type puller which would most likely destroy the damper.

### \*\*WARNING

**The use of any other type of puller, such as a universal claw type which pulls on the outside of the hub, can destroy the balancer. The outside ring of the balancer is bonded in rubber to the hub. Pulling on the outside will break the bond.**

#### To install:

7. If removal of the damper was difficult, check the damper inner diameter and the crankshaft outer diameter for corrosion. A small amount of corrosion may be removed using steel wool, then the surface may be lubricated slightly with clean engine oil.

8. Coat the front cover seal contact edge of the damper lightly with clean engine oil, then install the damper on the end of the crankshaft. Do not hammer the damper into position, instead use a damper installation tool to slowly draw the hub into position. If the damper can be positioned far enough over the end of the crankshaft, the damper bolt may be used to draw it into position, but be careful that enough of the threads are in contact to prevent stripping the bolt or crankshaft.

9. Once the damper is fully seated, install and tighten the retaining bolt to specification.

10. If separate, install and secure the damper pulley.

11. If removed, install the fan and pulley to the water pump.

12. Install the drive belts to the crankshaft pulley, then adjust their tension.

13. Connect the negative battery cable.

## Timing Gear Cover

### REMOVAL & INSTALLATION

➔ See Figures 158, 159, 160, 161, 162, 163 and 164

#### Inline 6-Cylinder

1. Disconnect the negative battery cable.
2. For 1964-72 models, raise and support the vehicle safely using jackstands, then drain the engine oil and remove the oil pan.

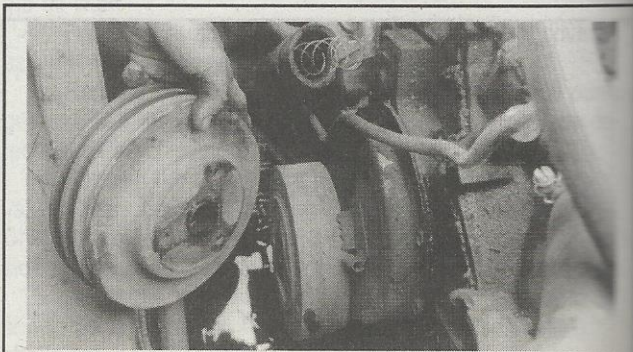


Fig. 154 Remove the pulley from the crankshaft damper