

- (12) Install covers and coil wire to distributor.
- (13) Install air cleaner.
- (14) Road test vehicle.

## VALVE TIMING

(1) Rotate crankshaft until No. 6 exhaust valve is closing and No. 6 intake valve is opening. Install a dial indicator so that indicator pointer contacts valve spring retainer on No. 1 intake valve parallel to the axis of the valve stem.

(2) Turn No. 1 intake adjusting screw in one complete turn to remove the lash. Adjust dial indicator to zero. Rotate crankshaft clockwise (normal running direction) until valve has lifted .029 inch. The timing of the crankshaft pulley should now read from 12 degrees before top dead center to dead center. Read-just lash.

(3) If reading is not within specified limits:

- (a) Inspect sprocket index marks.
- (b) Inspect timing chain for wear.
- (c) Inspect accuracy of "DC" mark on timing indicator.

## TIMING CHAIN COVER, OIL SEAL AND CHAIN

### Cover Removal

- (1) Drain cooling system.
- (2) Remove radiator and fan.
- (3) Install Tool C-3732A and pull vibration damper assembly off end of crankshaft (Fig. 17).
- (4) Loosen oil pan bolts to allow clearance and remove chain case cover and gasket.

### Measuring Timing Chain for Stretch

(1) Place a scale next to the timing chain so that any movement of the chain may be measured.

(2) Place a torque wrench and socket over the camshaft sprocket lock bolt and apply torque in the direction of crankshaft rotation to take up slack; 30

foot-pounds (cylinder head installed) or 15 foot-pounds (cylinder head removed). **With torque applied to the camshaft sprocket bolt, crankshaft should not be permitted to move. It may be necessary to block the crankshaft to prevent rotation.**

(3) Holding a scale with dimensional reading even with the edge of a chain link, apply torque in the reverse direction 30 foot-pounds (cylinder head installed) or 15 foot-pounds (cylinder head removed) and note the amount of chain movement (Fig. 18).

(4) If chain movement exceeds 1/8 inch, install a new timing chain.

(5) If chain is not satisfactory, remove camshaft sprocket attaching bolt and remove timing chain with camshaft sprocket.

(6) Turn crankshaft to line up the centerline of camshaft and crankshaft with the timing mark on crankshaft sprocket.

(7) Install camshaft sprocket and timing chain.

(8) Line up timing marks on the sprockets with the centerline of crankshaft and camshaft (Fig. 19).

(9) Tighten camshaft sprocket lock bolt to 35 foot-pounds.

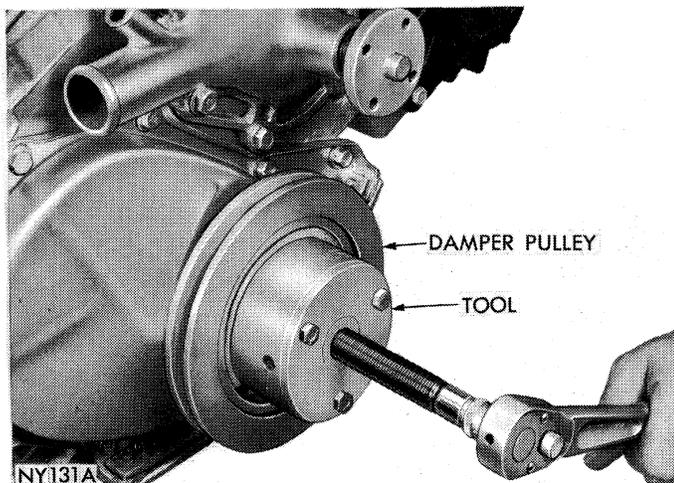
### Oil Seal Removal (Cover Removed)

(1) Using a drift and hammer tap lightly at several places around the seal case to deform the oil seal case inward.

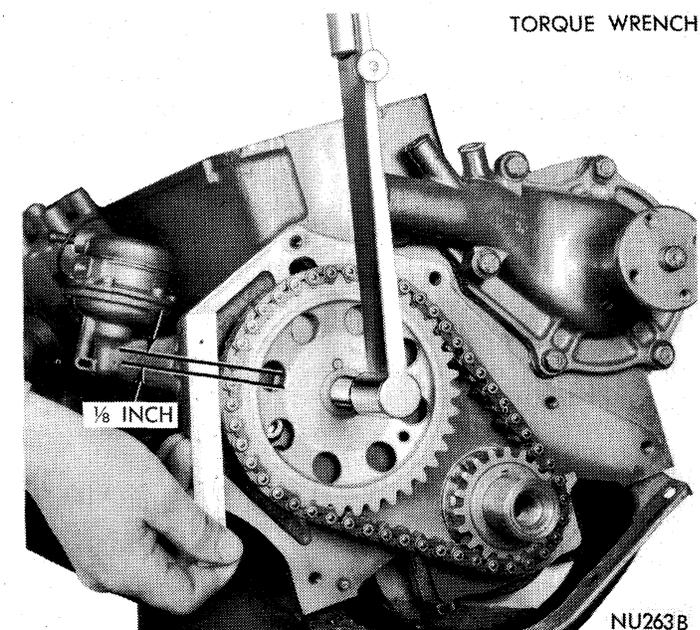
(2) Engage the seal case with vise grips. Twist and pull on the vise grips at several places around the seal case for removal.

(3) Insert installing screw through the installing plate, part of Tool C-3506.

(4) Insert the installing screw with the plate



**Fig. 17—Removing Vibration Damper Assembly with Tool C-3732A**



**Fig. 18—Measuring Timing Chain Wear and Stretch**