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Fig. 20—Removing Vibration Damper Assembly

retainer and crankshaft oil slinger after seal has been in operation.

(5) Slide crankshaft oil slinger off end of crankshaft.

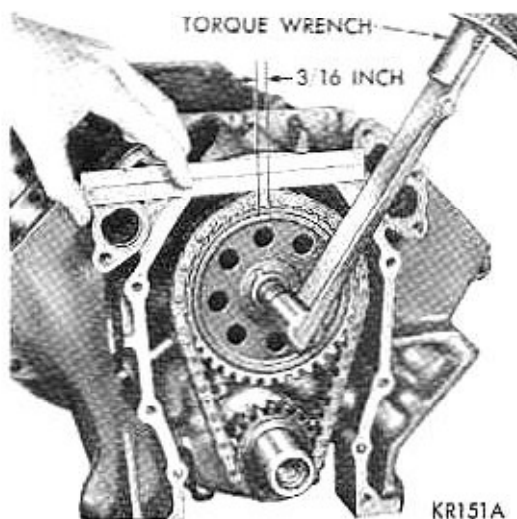
Measuring Timing Chain for Stretch

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

(2) Place a torque wrench and socket over camshaft sprocket attaching bolt and apply torque in the direction of crankshaft rotation to take up slack; 30 foot-pounds (with cylinder heads installed) or 15 foot-pounds (cylinder heads removed). **With torque applied to the camshaft sprocket bolt, crankshaft should not be permitted to move. It may be necessary to block crankshaft to prevent rotation.**

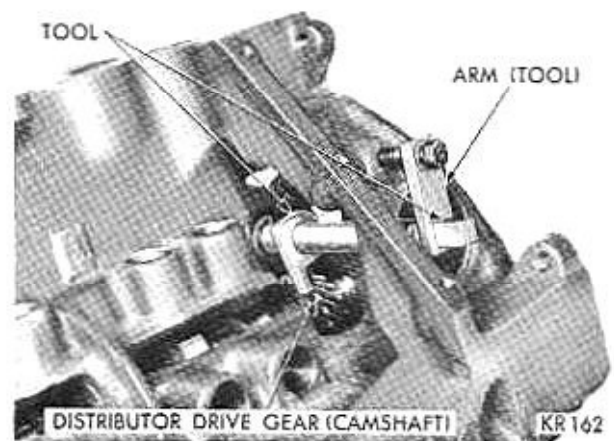
(3) Holding a scale with dimensional reading even with edge of a chain link, apply torque in the reverse direction 30 foot-pounds (with cylinder heads installed) or 15 foot-pounds (cylinder heads removed), and note amount of chain movement (Fig. 21).

(4) Install a new timing chain, if its movement exceeds $3/16$ inch.



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Fig. 21—Measuring Timing Chain Stretch



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Fig. 22—Camshaft Holding Tool C-3509

(5) If chain is satisfactory, slide crankshaft oil slinger over shaft and up against sprocket (flange away from sprocket).

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

When installing timing chain, use Tool C-3509 to prevent camshaft from contacting the welch plug in the rear of engine block. Remove distributor and oil pump-distributor drive gear. Locate tool against rear side of cam gear and attach tool with distributor retainer plate bolt (Fig. 22).

(7) Place camshaft sprocket and crankshaft sprocket on the bench with timing marks on exact imaginary center line through both camshaft and crankshaft sprocket bores.

(8) Place timing chain around both sprockets.

(9) Turn crankshaft and camshaft to line up with keyway location on crankshaft sprocket and dowel hole in camshaft sprocket.

(10) Lift sprockets and chain (keep sprockets tight against chain in position as described).

(11) Slide both sprockets evenly over their respective shafts.

(12) Use a straight edge to measure alignment of timing marks (Fig. 23).

(13) Install washer and camshaft sprocket bolt, tighten to 35 foot-pounds. Check to be sure that rear face of aluminum camshaft sprocket is flush with end of camshaft. Slide the crankshaft oil slinger over shaft and up against sprocket (flange away from sprocket).

Oil Seal Replacement (Cover Removed)

(1) Position remover screw of Tool C-3506 through case cover, inside of case cover up. Position remover blocks directly opposite each other, and force the angular lip between the neoprene and flange of seal retainer.

(2) Place washer and nut on remover screw. Tighten nut, forcing the blocks into the gap to a point