

Fig. 440: View Of Crankshaft Position Sensor Reluctor Ring
Courtesy of GENERAL MOTORS CORP.

1. Remove the crankshaft position sensor reluctor ring.

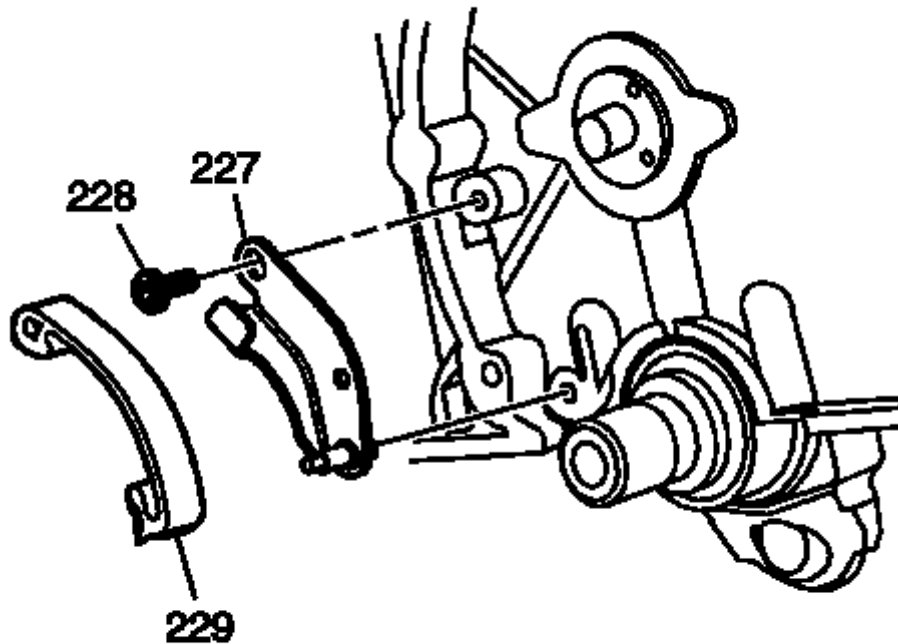


Fig. 441: View Of Timing Chain Tensioner Bracket, Bolt & Shoe
Courtesy of GENERAL MOTORS CORP.

2. Remove the timing chain tensioner shoe (229) using a downward motion.
3. Remove the timing chain tensioner bracket bolt and bracket (227 and 228).

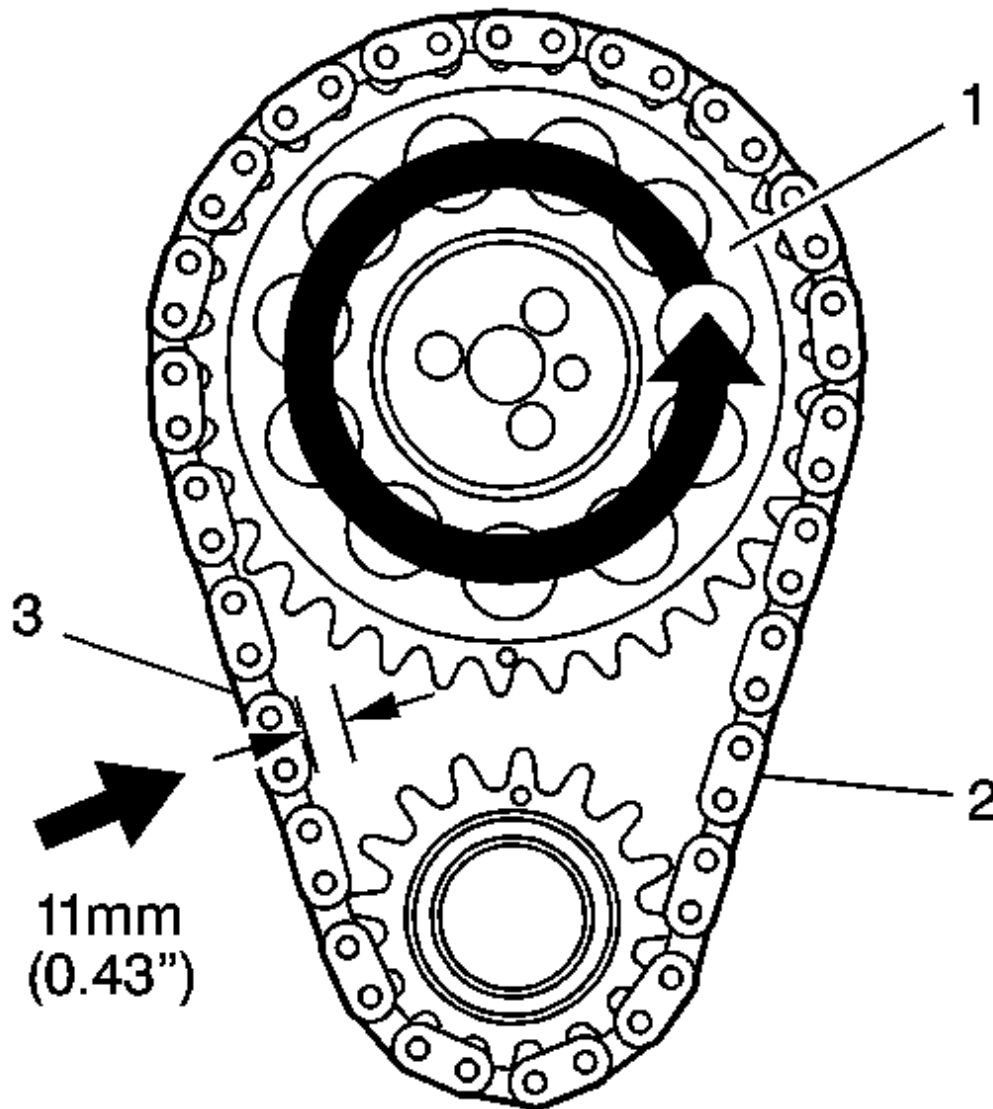


Fig. 442: Measuring Camshaft Timing Chain Free Play
Courtesy of GENERAL MOTORS CORP.

4. Check the camshaft timing chain free play.
 - A. Rotate the camshaft sprocket (1) counterclockwise until all slack is removed from the camshaft timing chain (2).
 - B. Measure the free play on the slack side (3) of the camshaft timing chain.

If the camshaft timing chain can be moved side to side in excess of 11 mm (0.43 in), replacement of the camshaft timing chain and the sprockets is recommended during assembly.

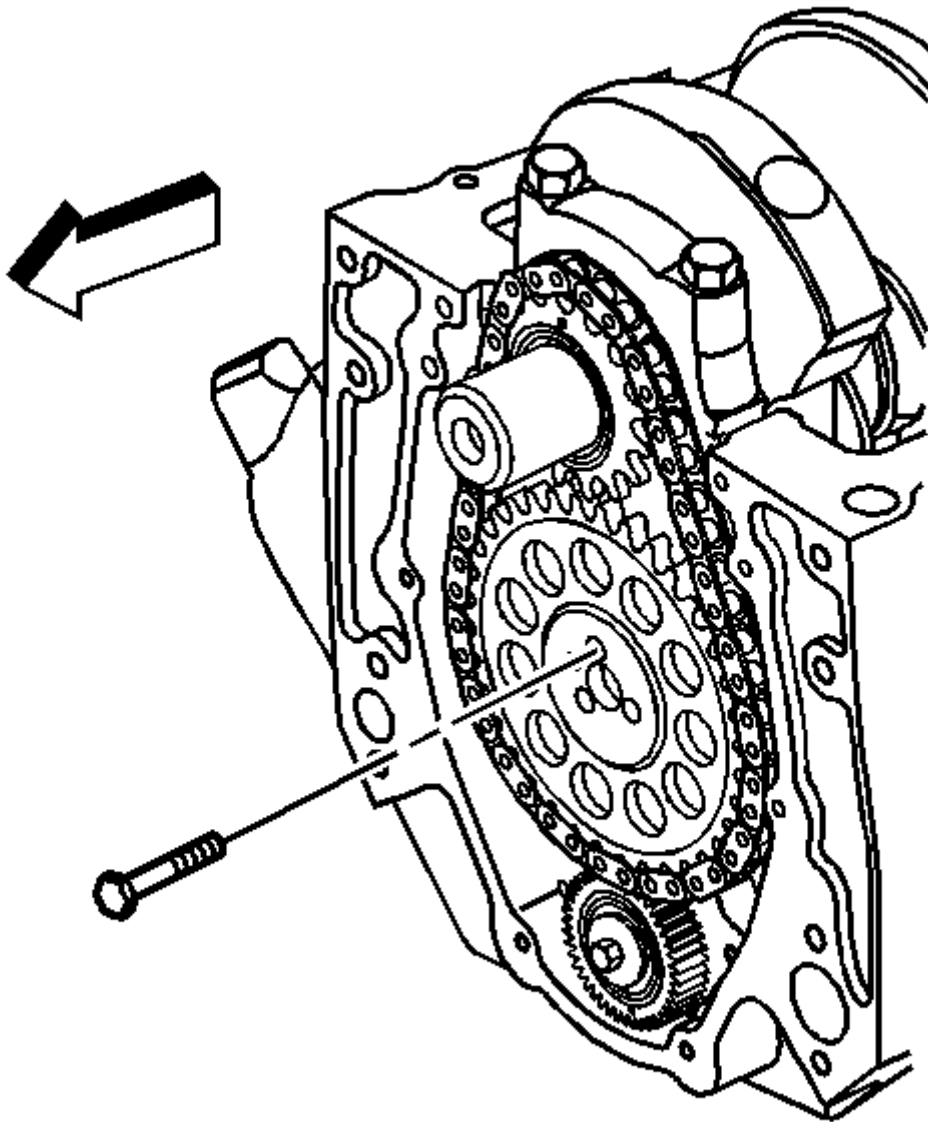


Fig. 443: Locating Camshaft Sprocket Bolts
Courtesy of GENERAL MOTORS CORP.

5. Remove the camshaft sprocket bolts.

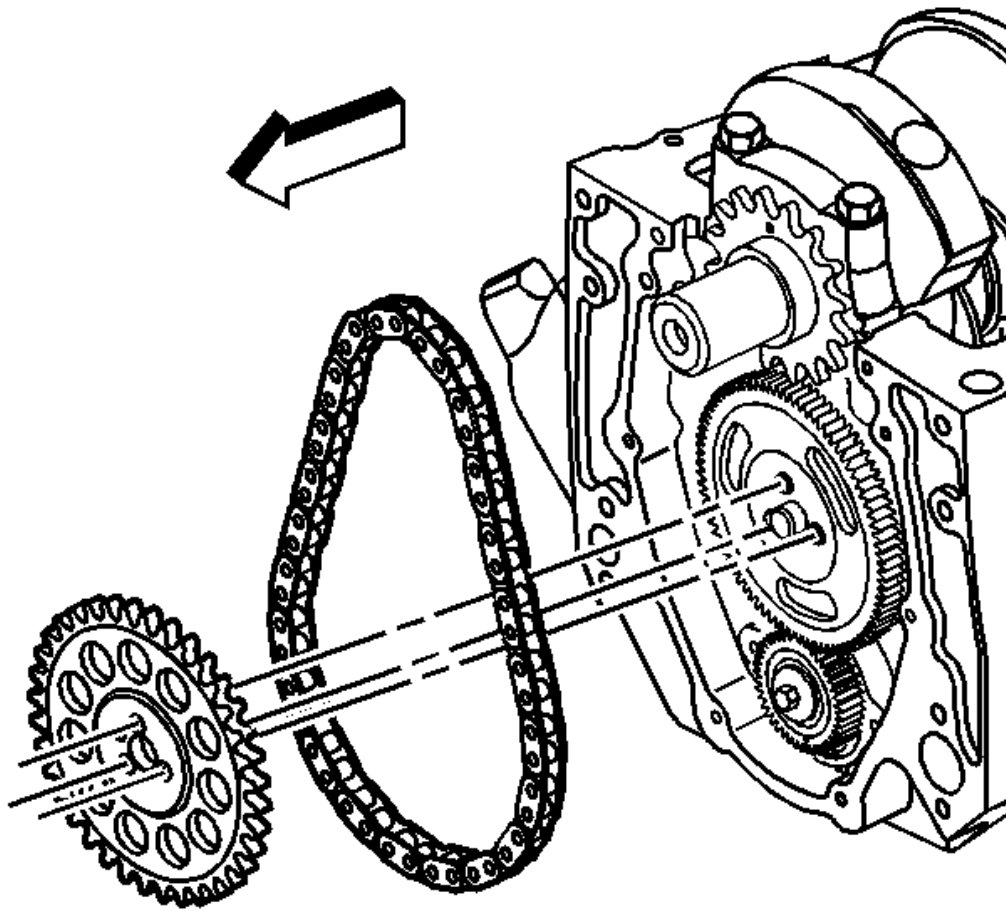


Fig. 444: View Of Camshaft Sprocket & Camshaft Timing Chain
Courtesy of GENERAL MOTORS CORP.

6. Remove the camshaft sprocket and the camshaft timing chain.

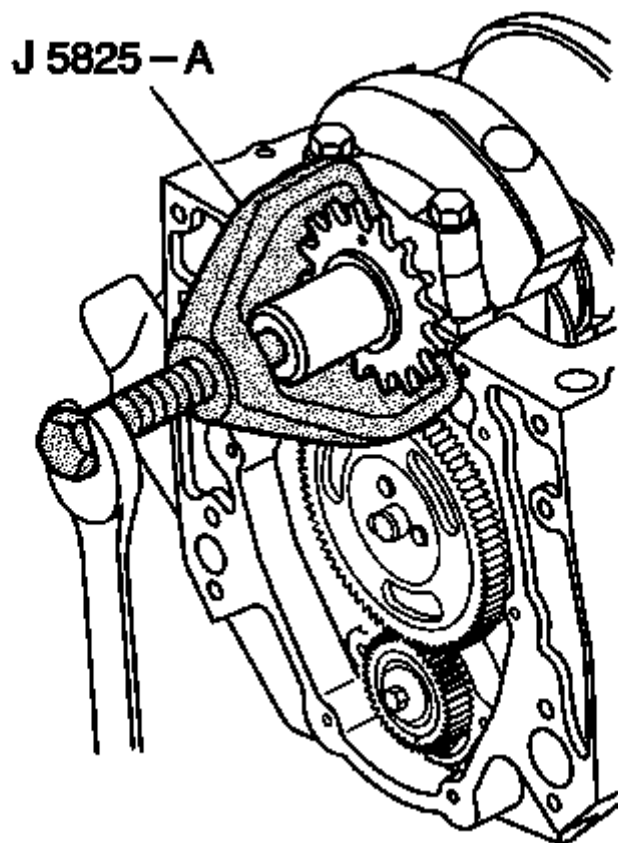


Fig. 445: Removing Crankshaft Sprocket
Courtesy of GENERAL MOTORS CORP.

CAUTION: Refer to Safety Glasses Caution in Cautions and Notices.

7. Remove the crankshaft sprocket using the **J 5825-A** .