TIMING CHAIN & SPROCKETS

NOTE: Check timing chain deflection (stretch) before removal to determine component wear.

Inspection

1. Remove timing chain cover. See **TIMING CHAIN COVER** . Turn crankshaft clockwise until camshaft sprocket and crankshaft sprocket timing marks are aligned. See **Fig. 7** . Mark top link on timing chain.
2. Using an assistant, apply 15 ft. lbs. (20 N.m) of torque using torque wrench in clockwise direction. Place a machinist's scale above timing chain, and note location of marked link on scale. Apply 15 ft. lbs. (20 N.m) of torque in counterclockwise direction while measuring marked link movement. If movement exceeds .12" (3.175 mm), replace timing chain and sprockets.

Removal

Disconnect negative battery cable. Remove timing chain cover. See **TIMING CHAIN COVER** . Position No. 1 piston on TDC of compression stroke. See **Fig. 7** . Check alignment of camshaft and crankshaft sprocket timing marks. Check timing chain deflection. See **INSPECTION** . Remove camshaft sprocket retaining bolt and washer. Slide sprockets and timing chain forward and remove as an assembly.

CAUTION: DO NOT replace camshaft sprocket retaining bolt with standard bolt. Original camshaft bolt has a drilled oil passage.

Installation

1. Ensure No. 1 piston is still at TDC of compression stroke. Assemble timing chain and sprockets so sprocket timing marks are aligned. See **Fig. 7** . Install chain and sprockets as an assembly. Lubricate timing chain and sprockets with engine oil.
2. Apply RTV sealer to damper keyway. To complete installation, reverse removal procedure. Tighten bolts and nuts to specification. See **TORQUE SPECIFICATIONS** .

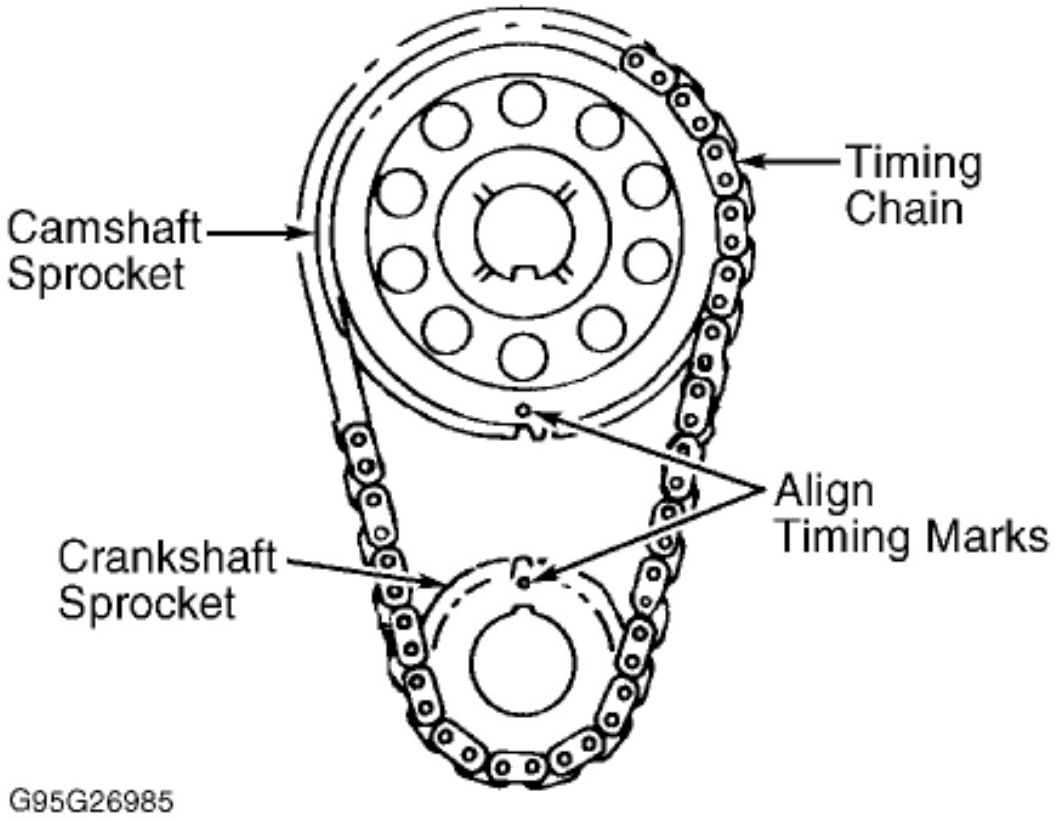

Fig. 7: Aligning Sprocket Timing Marks
Courtesy of FORD MOTOR CO.