

TIMING CHAIN

Removal

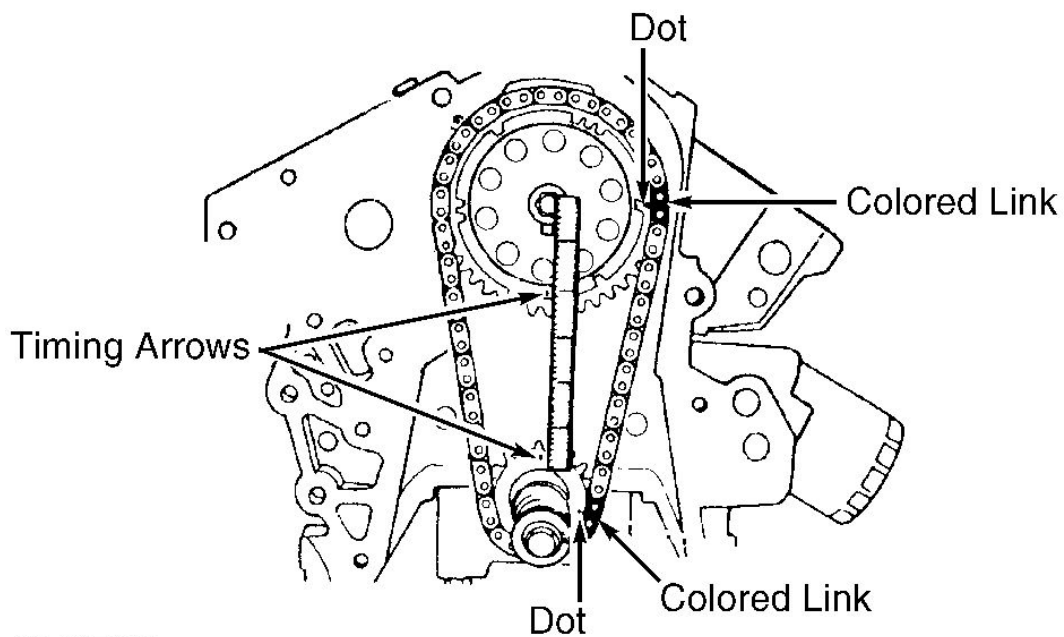
1. Remove timing chain cover. See **TIMING CHAIN COVER** . Check timing chain stretch to determine if timing chain replacement is required.

NOTE: **When applying torque on camshaft sprocket bolt, DO NOT allow crankshaft to move. If necessary, hold crankshaft.**

2. Position measuring scale near link on timing chain at camshaft sprocket so movement can be measured. Place torque wrench on camshaft sprocket bolt. The proper amount of torque must be applied on camshaft sprocket bolt in normal direction of engine rotation. Apply 30 ft. lbs. (41 N.m) torque with cylinder heads installed or 15 ft. lbs. (20 N.m) torque with cylinder heads removed. Note reading on measuring scale.
3. Apply same amount of torque in opposite direction. Note amount of timing chain movement on measuring scale. Replace timing chain if movement exceeds 1/8" (3.17 mm).
4. To remove timing chain, rotate crankshaft so timing arrows are aligned. See **Fig. 9** . Remove camshaft sprocket bolt, washer, camshaft sprocket and timing chain. Using puller, remove crankshaft sprocket from crankshaft (if necessary).

Installation

1. Install crankshaft sprocket on crankshaft with timing arrow facing outward (if removed). Ensure crankshaft sprocket is fully seated on crankshaft. Rotate crankshaft so timing arrow on crankshaft sprocket is at 12 o'clock position.
2. Install timing chain on camshaft sprocket so colored link on timing chain aligns with dot on camshaft sprocket. See **Fig. 9** . Position camshaft sprocket so timing arrow is at 6 o'clock position.
3. Install timing chain on crankshaft sprocket so colored link on timing chain aligns with dot on crankshaft sprocket. See **Fig. 9** .
4. Install camshaft sprocket on camshaft. Ensure timing arrows, dots and colored links are properly positioned. See **Fig. 9** . Install washer and camshaft sprocket bolt. Tighten camshaft sprocket bolt to specification. See **TORQUE SPECIFICATIONS** .
5. Rotate crankshaft 2 full revolutions. Ensure timing arrows, dots and colored links are properly positioned. Ensure camshaft end play is within specification. See **CAMSHAFT SPECIFICATIONS** table under ENGINE SPECIFICATIONS.
6. If camshaft end play is not within specification, replace camshaft thrust plate, located between camshaft sprocket and camshaft. To install remaining components, reverse removal procedure.



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Fig. 9: Aligning Timing Arrows, Dots & Colored Links
Courtesy of CHRYSLER CORP.