

REMOVAL & INSTALLATION

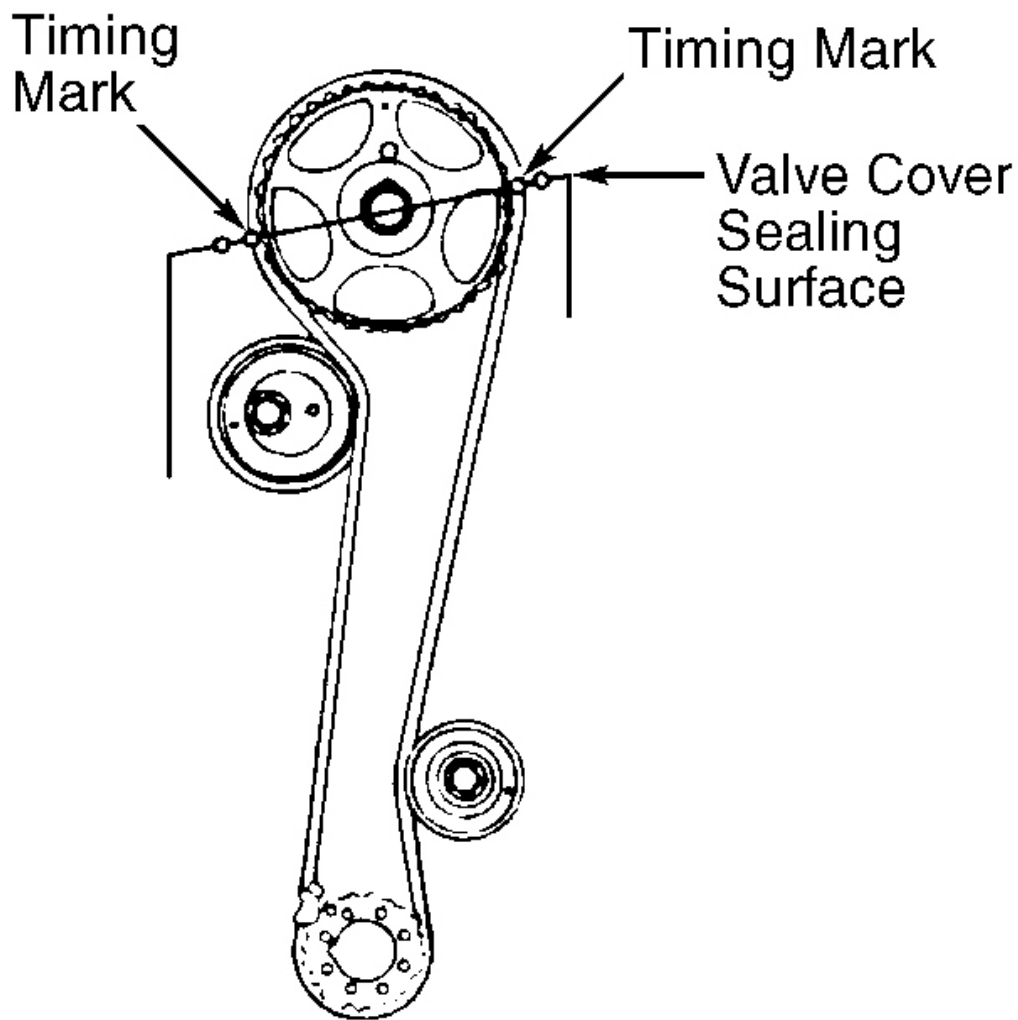
CAUTION: This application is an interference engine. Do not rotate camshaft or crankshaft when timing belt is removed, or engine damage may occur.

TIMING BELT

NOTE: On some models, engine is equipped with a timing belt and timing chain. Inspect timing chain when replacing timing belt.

Removal

1. Remove all drive belts and drive pulleys from crankshaft and water pump. Remove generator bolt, if necessary. Remove crankshaft pulley and water pump pulley.
2. Remove timing belt covers and gaskets, noting bolt lengths and locations. DO NOT rotate engine counterclockwise, as viewed from timing belt side of engine. Remove timing belt tensioner pulley.
3. Rotate engine clockwise to align all timing marks so No. 1 cylinder is at TDC of compression stroke. See **Fig. 1** . If reusing belt, place mark on timing belt to indicate direction of belt rotation. Remove timing belt.



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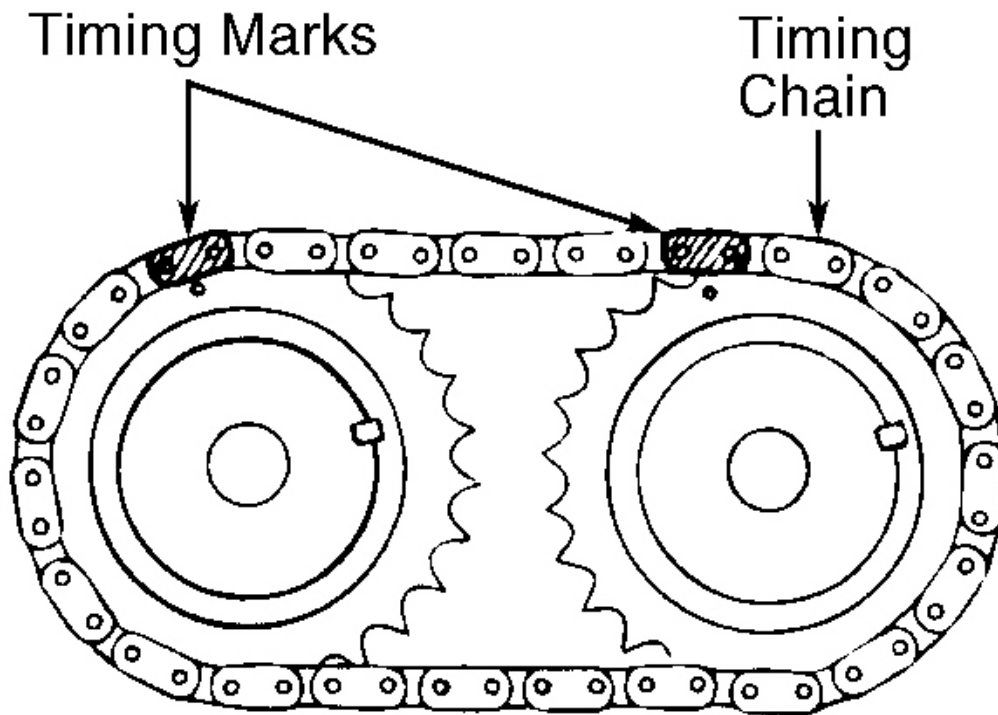
Fig. 1: Aligning Timing Belt Marks
Courtesy of HYUNDAI MOTOR CO.

Inspection

Check belt teeth for cracks, damage, and oil contamination. Inspect all sprockets for damage. Check tensioner pulley and idler pulley for grease leakage and worn bearings. Replace components if damaged.

Installation

1. Ensure camshaft and crankshaft timing marks are still aligned. Outer marks on sprockets should be aligned with rocker cover surface. Verify timing chain timing mark alignment, if necessary. See **Fig. 2** . Install timing belt tensioner pulley. Install timing belt. If reusing old belt, ensure belt is installed in original direction of rotation.
2. Loosen timing belt tensioner bolt, allowing tensioner pulley to contact belt. Tighten timing belt tensioner pulley bolt. Rotate crankshaft one turn clockwise. Realign camshaft and crankshaft timing marks.
3. Adjust timing belt tension until .15-.24" (4-6 mm) deflection is present midway between idler pulley and camshaft sprocket, with a force of 4.4 lbs. (2 kg) applied to belt.
4. Rotate engine clockwise 2 revolutions. Ensure timing marks are still aligned and proper belt tension still exists. Install timing belt covers. Install crankshaft pulley. To complete installation, reverse removal procedure. Adjust drive belt to proper tension.



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Fig. 2: Aligning Timing Chain Marks
Courtesy of HYUNDAI MOTOR CO.