

Fig. 2: Cylinder Head Bolt Removal & Installation Sequence Courtesy of VOLVO CARS OF NORTH AMERICA.

FLYWHEEL ASSEMBLY

The flywheel must be aligned properly or the engine will not start. Install flywheel (manual transmission) or drive plate (automatic transmission). Turn crankshaft to top dead center position for cylinder No. 1. Position flywheel/drive plate on crankshaft so that pin A is 15° below horizontal position. See **Fig. 3**.

1986 Volvo 244 GL

2.3L 4-CYL (B230F) & 2.3L 4-CYL TURBO (B230FT) 1985-88 Engines - 2.3L & 2.3L Turbo 4-Cylinder

NOTE: There are two pins. DO NOT choose the wrong one.

Install new bolts. Apply sealing compound, P/N 1 161 056-5, to bolt threads. Torque to 50 ft.lbs. (70 N.m). Use gear selector 5112 to lock flywheel.

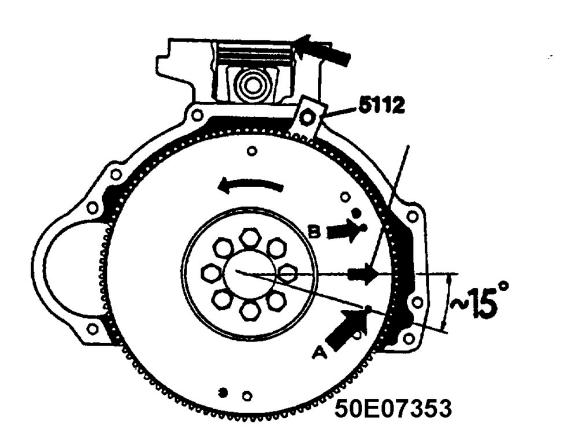


Fig. 3: Flywheel/Drive Plate
Courtesy of VOLVO CARS OF NORTH AMERICA

Automatic Transmission

Note position of base plates. The outer plates must be turned with edge outwards.

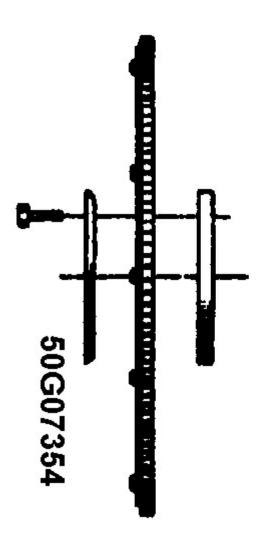


Fig. 4: Flywheel/Drive Plate Courtesy of VOLVO CARS OF NORTH AMERICA

Manual Transmission

Install clutch and pressure plate. Use centering drift 5111. Tighten bolts crosswise, and a couple of turns at a time, to avoid stress fractures.

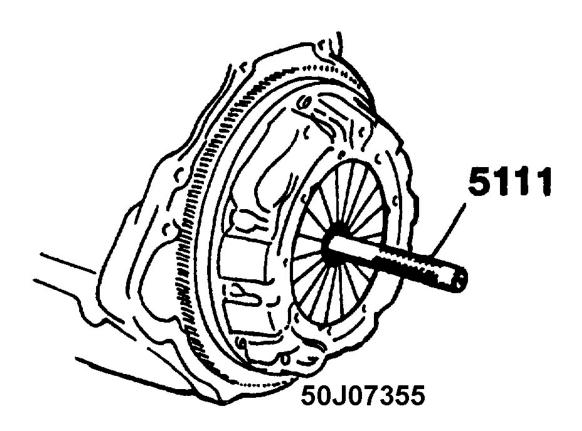


Fig. 5: Centering Drift 5111
Courtesy of VOLVO CARS OF NORTH AMERICA

Remove gear selector 5112. See Fig. 3.

TIMING BELT

CAUTION: Ensure timing marks are aligned prior to removing timing belt. DO NOT rotate crankshaft or camshaft when timing belt is removed or valves may contact the pistons.

Removal

- 1. Disconnect negative battery cable. Loosen adjustments and remove all drive belts and water pump pulley. Remove fan, preheater hose (below fan shroud) and fan shroud.
- 2. Using center bolt on crankshaft, rotate crankshaft so that mark on camshaft pulley aligns with timing mark on inner timing belt cover, and crankshaft pulley mark aligns with TDC mark on timing belt cover.
- 3. Remove nut and washer from belt tensioner. Install Crankshaft Holder (5284) on crankshaft pulley and belt tensioner stud. Install nut on stud. Remove crankshaft center bolt, crankshaft pulley and lower timing belt cover. Ensure timing marks are aligned. See **Fig. 6**.

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NOTE: If timing belt is to be reused, place reference mark on timing belt to indicate direction of rotation prior to removal.

- 4. Place mark on timing belt to indicate direction of belt rotation. Loosen belt tensioner nut one turn. Pull on timing belt to compress belt tensioner spring. Tighten belt tensioner nut.
- 5. Install a 3 mm drill bit through hole of belt tensioner bolt to lock belt tensioner spring in place. Remove timing belt from camshaft sprocket. If camshaft sprocket requires removal, using Holder (5034), hold camshaft and remove sprocket retaining bolt. Remove sprocket and spacer washer.

Inspection

Check belt teeth for cracks, damage or oil contamination. Inspect all sprockets for damage. Check belt tensioner for roughness in rotation. Replace components if damaged.

Installation

- 1. Install belt tensioner if previously removed. Ensure all timing marks are aligned. See **Fig. 6**.
- 2. Timing belt has 2 lines on outer side of belt which should fit toward crankshaft marks. Install belt over crankshaft sprocket first, then over intermediate shaft. Stretch belt on tension side and fit over camshaft sprocket. Slide back of belt onto belt tensioner.
- 3. Loosen nut on belt tensioner to permit spring tension to act against drive belt. Tighten belt tensioner nut. Ensure all timing marks are aligned. To install remaining components, reverse removal procedure.

CAUTION: Timing belt must be readjusted once engine has reached normal operating temperature.

4. Operate engine to normal operating temperature. Remove plug from front timing belt cover. Loosen belt tensioner bolt one turn and allow belt tensioner spring to apply pressure on timing belt. This will readjust timing belt to allow for belt stretch. Tighten belt tensioner nut. Install rubber plug.

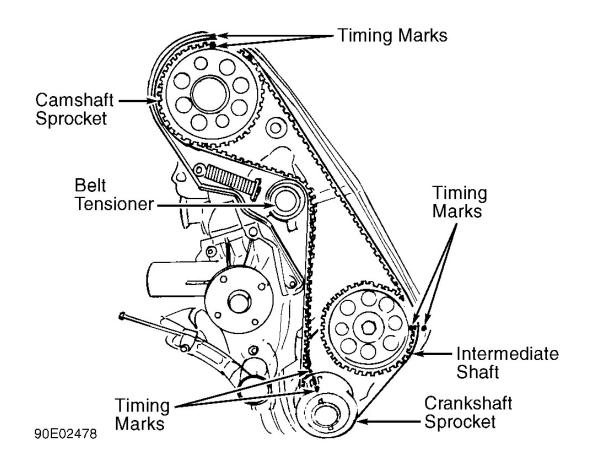


Fig. 6: Aligning Timing Marks
Courtesy of VOLVO CARS OF NORTH AMERICA.

FRONT COVER SEAL (CRANKSHAFT & INTERMEDIATE SHAFT)

Removal

Remove timing belt. See **TIMING BELT** under CAMSHAFT in this article. To remove intermediate shaft seal, remove intermediate shaft sprocket and inner timing belt cover. Pry seal from front cover. To remove crankshaft seal, remove sprocket and pry seal from front cover.

Installation

Coat seals and seal seating area with grease. Install seal using proper sleeve. Use Sleeve (5025) for intermediate shaft seal or (5283) for crankshaft seal. To install remaining components, reverse removal procedure.

INTERMEDIATE SHAFT

Removal