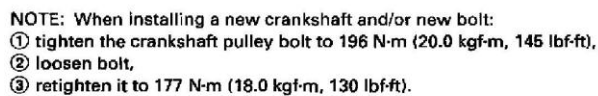




- Mark the direction of rotation on the belt before removing.
- Replace the rubber seals if there is oil leakage between the cylinder head and cover.
- Do not use the middle cover and lower cover for storing removed items. - Clean the middle cover and lower cover before installation.



- (1) tighten the crankshaft pulley bolt to 196 Nm (20.0 kgf.m, 145 ft. lbs.),
- (2) loosen bolt,

(3) retighten it to 177 Nm (18.0 kgf.m, 130 ft. lbs.).

Timing Belt: Service and Repair

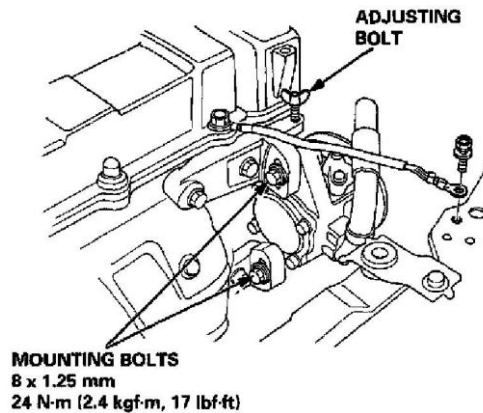
Removal and

Installation REMOVAL

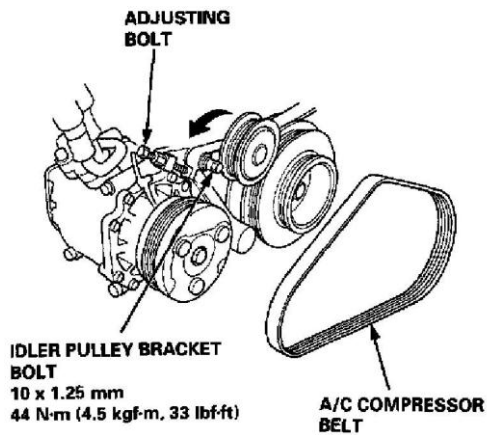
NOTE:

- Turn the crankshaft pulley so the No. 1 piston is at top dead center (TDC) before removing the belt.
- Inspect the water pump after removing the timing belt.

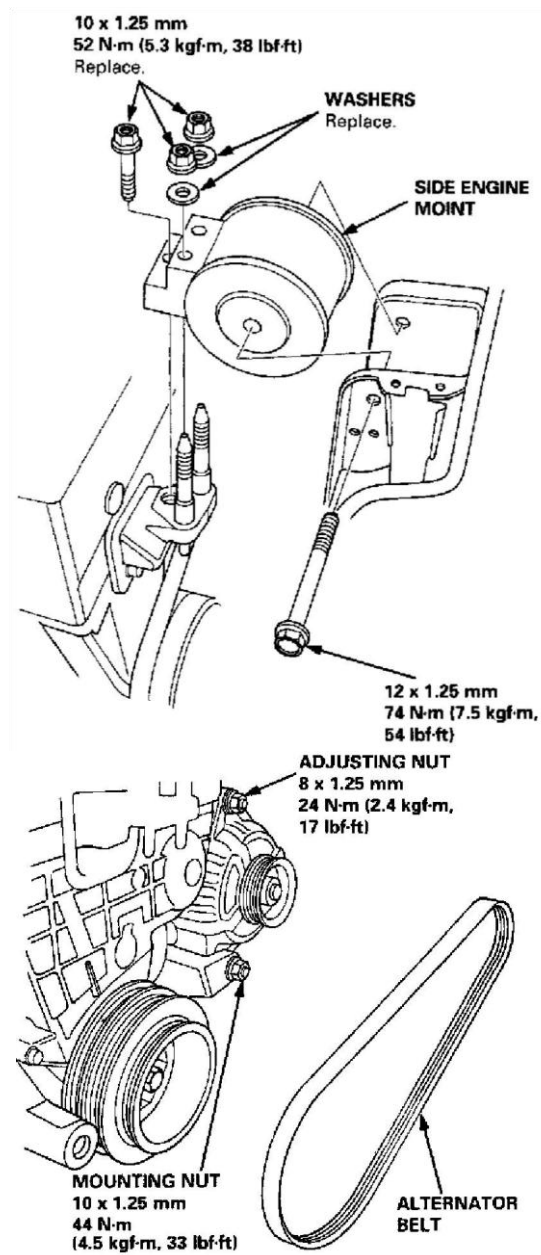
1. Remove the wheel well splash shield.



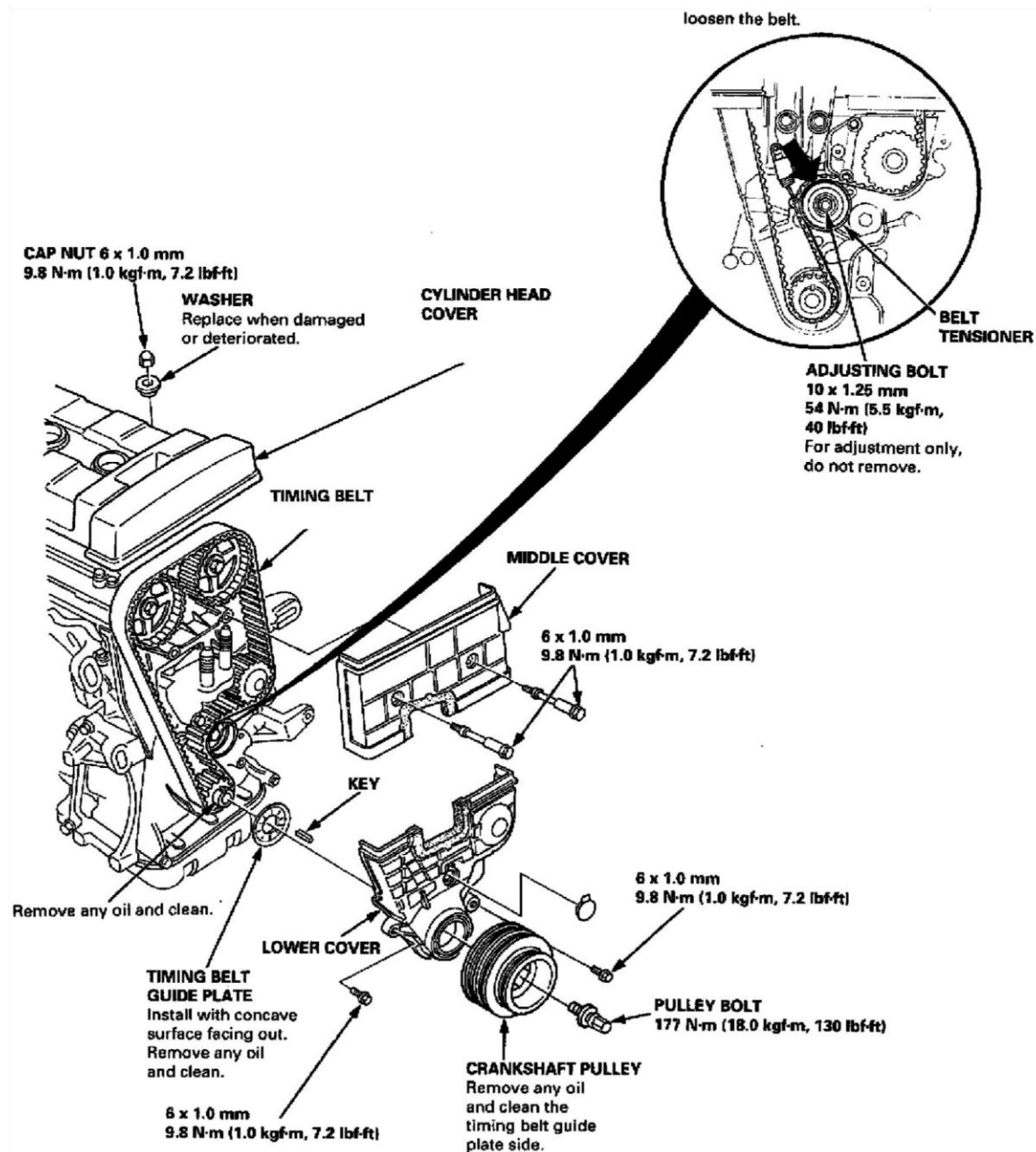
2. Loosen the adjusting bolt and mounting bolts, then remove the power steering (P/S) pump belt.



3. Loosen the adjusting bolt and idler pulley bracket bolt, then remove the air conditioning (A/C) compressor belt.



4. Loosen the adjusting nut and mounting nut, then remove the alternator belt.
5. Remove the cruise control actuator.
6. Remove the side engine mount.



7. Remove the cylinder head cover.
8. Remove the pulley bolt and crankshaft pulley.
9. Remove the middle cover and the lower cover.

NOTE:

- Do not use the middle cover and lower cover for storing removed items. - Clean the middle cover and lower cover before installation.

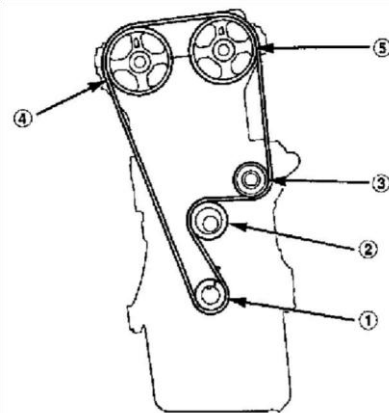
10. Loosen the adjusting bolt 180°.
11. Push the tensioner to remove tension from the timing belt, then retighten the bolt.
12. Remove the timing belt from the pulleys.

NOTE: Replace the camshaft and crankshaft seals if there are signs of oil leakage.

INSTALLATION

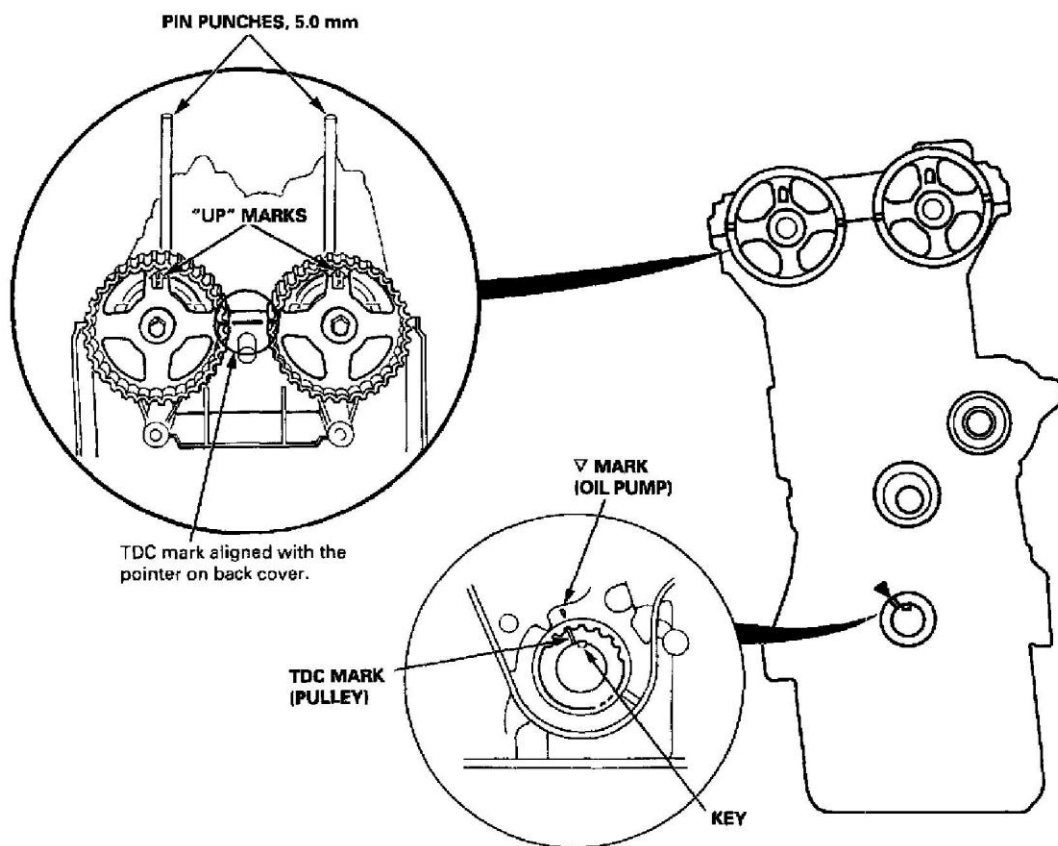
Install the timing belt in the reverse order of removal. Only key points are described here.

NOTE: Clean the middle cover and lower cover before installation.

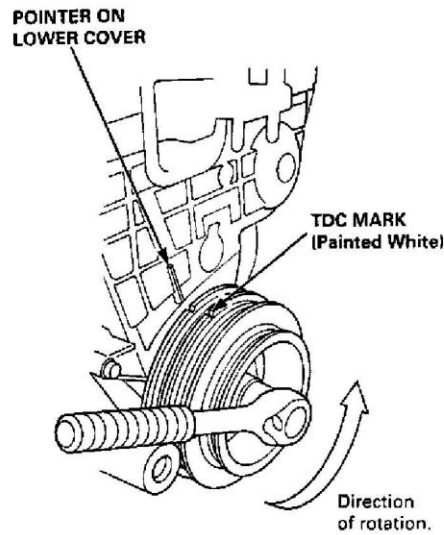


1. Position the crankshaft and the camshaft pulleys as shown before installing the timing belt.
 - A. Set the crankshaft so that the No. 1 piston is at top dead center (TDC) . Align the groove on the teeth side of the timing belt drive pulley to the V pointer on the oil pump.
 - B. Align the TDC marks on intake and exhaust pulleys.

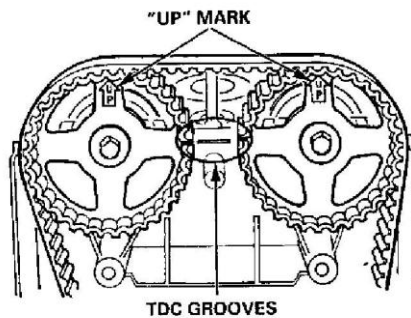
NOTE: To set the camshafts at TDC position for No. 1 piston, align the holes in the camshafts with the holes in No. 1 camshaft holders and insert 5.0 mm pin punches in the holes.



2. Install the timing belt tightly in the sequence shown.
 - (1) Timing belt drive pulley (crankshaft) -> (2) Adjusting pulley -> (3) Water pump pulley -> (4) Exhaust camshaft pulleys -> (5) Intake camshaft pulley.
3. Loosen and retighten the adjusting bolt to tension the belt.
4. Remove the pin punches.
5. Rotate the crankshaft about 4 to 6 turns counterclockwise so that the belt positions on the pulleys.
6. Adjust the timing belt tension.



Crankshaft Pulley



Camshaft Pulley

7. Check the crankshaft pulley and the camshaft pulleys at TDC.
8. If a camshaft pulley is not positioned at TDC , remove the timing belt and adjust the positioning, then reinstall the timing belt.

NOTE: Refer to timing belt removal.

After installation, adjust the tension of each belt.

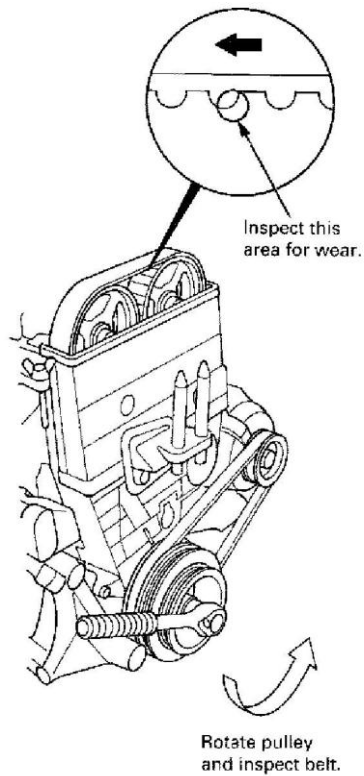
- See alternator belt tension adjustment.
- See A/C compressor belt tension adjustment. -
See P/S pump belt tension adjustment.

Timing Belt: Service and Repair

Inspection and Adjustment

INSPECTION

1. Remove the cylinder head cover.



2. Inspect the timing belt for cracks and oil or coolant soaking.

NOTE:

- Replace the belt if oil or coolant soaked.
- Remove any oil or solvent that gets on the belt.

3. After inspecting, retorque the crankshaft pulley bolt to 177 Nm (18.0 kgf.m, 130 ft. lbs.).

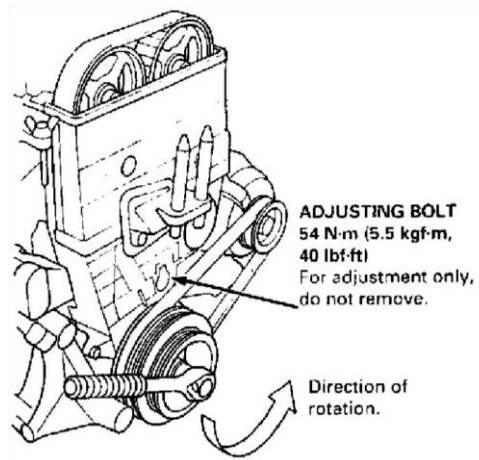
CAUTION: Always adjust timing belt tension with the engine cold.

NOTE:

- The tensioner is spring-loaded to apply proper tension to the belt automatically after making the following adjustment.
- Always rotate the crankshaft counterclockwise when viewed from the pulley side. Rotating it clockwise may result in improper adjustment of the belt tension.

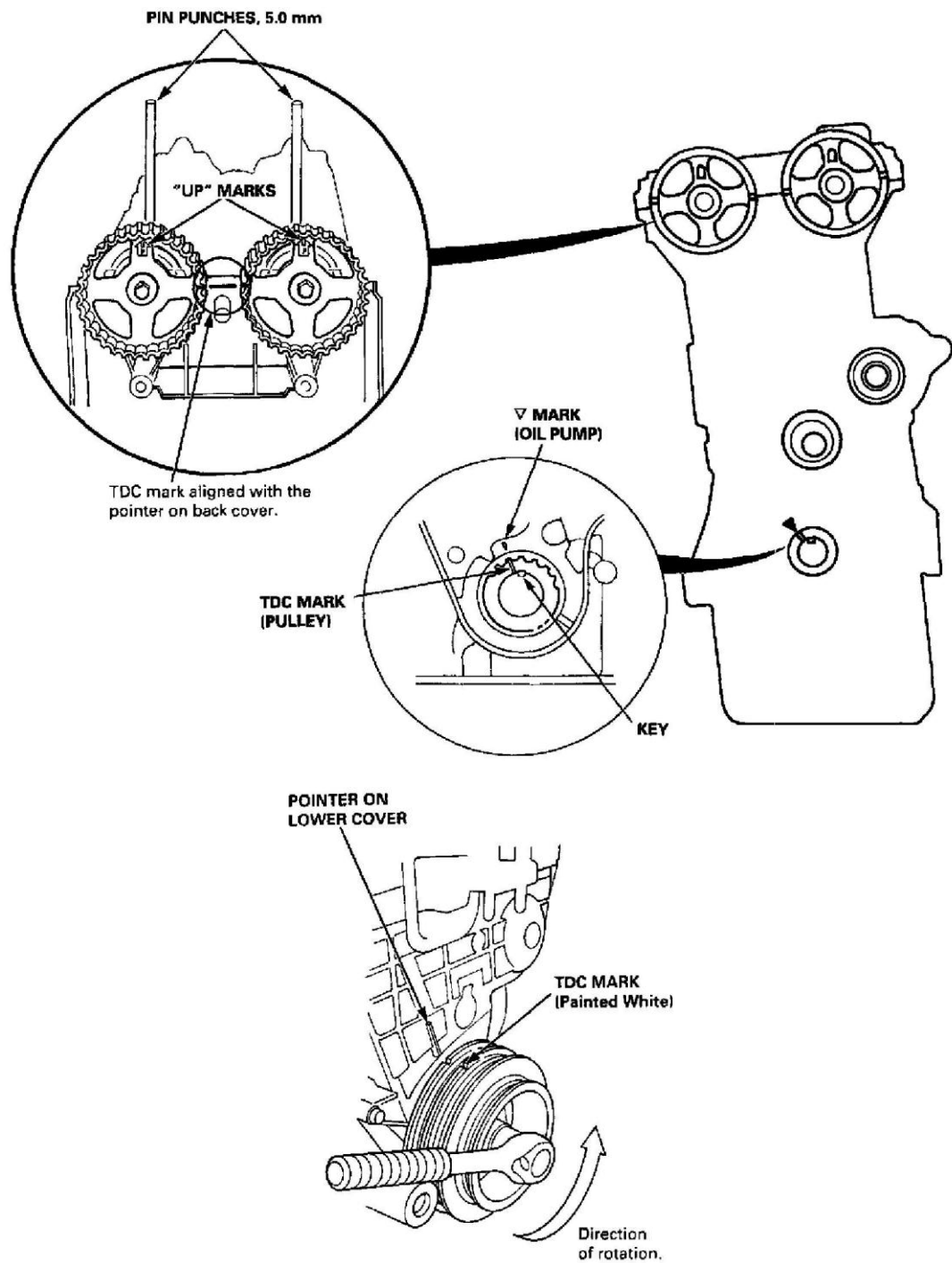
TENSION ADJUSTMENT

1. Remove the cylinder head cover.
2. Set the No. 1 piston at TDC .
3. Rotate the crankshaft five to six revolutions to set the belt.
4. Set the No. 1 piston at TDC .

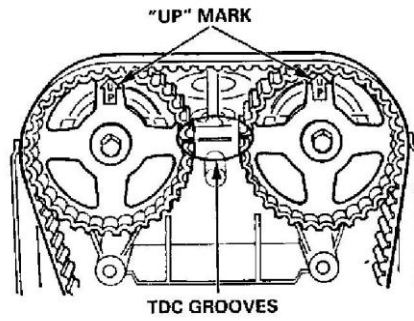


5. Loosen the adjusting bolt 1/2 turn (180°) only.
6. Rotate the crankshaft counterclockwise 3-teeth on the camshaft pulley.
7. Tighten the adjusting bolt to the specified torque.
8. After adjusting, retorque the crankshaft pulley bolt to 177 Nm (18.0 kgf.m, 130 ft. lbs.).

Timing Component Alignment Marks: Locations



Crankshaft Pulley



Camshaft Pulley

CAUTION: Incorrect removal or installation of the timing belt can result in damage to internal engine components.

For complete Timing Belt Removal and Installation information: See: Timing Belt/Service and Repair