

## INSTALLATION SERVICE POINTS

### ►A◄ AUTO TENSIONER INSTALLATION

- (1) Use a press or vise to compress the push rod of the auto tensioner as slowly as possible. Then align pin hole A of the push rod with pin hole B of the tensioner cylinder.

#### Caution

1. Place the auto tensioner at a right angle to the pressing surface of the press or vise.
2. Push in the rod slowly to prevent the push rod from being damaged.

- (2) Insert setting pin or wire with a diameter of 1.4 mm (.06 in.) into the aligned pin holes.

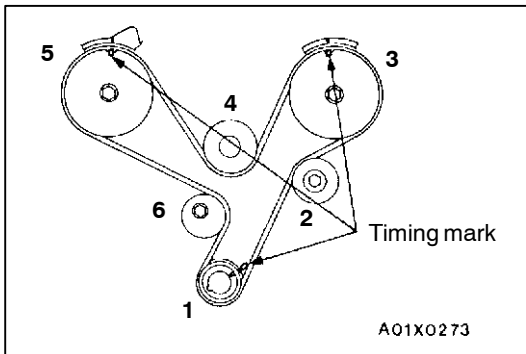
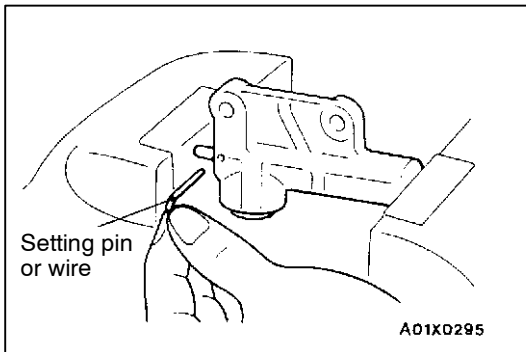
#### NOTE

The wire should be as stiff as possible (such as piano wire, etc.), and should be bent into the shape of an "L".

- (3) Install the auto tensioner to engine.

#### Caution

Leave the setting pin or wire installed in the auto tensioner.



### ►B◄ TIMING BELT INSTALLATION

- (1) Align the timing marks of each sprocket.

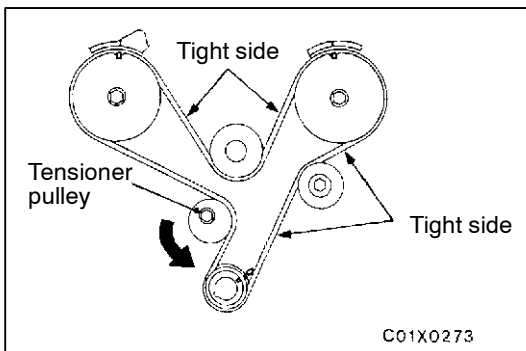
#### NOTE

At this time, No. 1 cylinder should be at the top dead center on compression stroke.

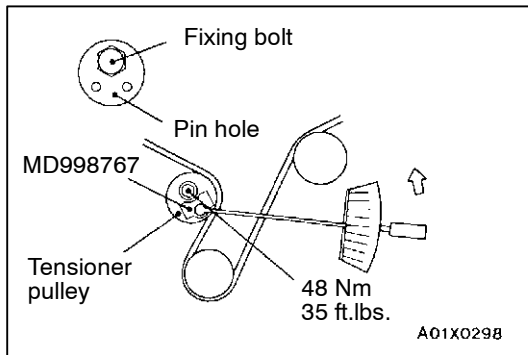
- (2) Use bulldog clips to fix the timing belt in the following procedure to prevent the belt from slacking.
  1. Crankshaft sprocket → 2. Idler pulley → 3. Front bank side camshaft sprocket → 4. Water pump pulley → 5. Rear bank side camshaft sprocket → 6. Tensioner pulley

#### Caution

Since the camshaft is turned by the reaction of valve spring, be careful not to get your fingers caught between the sprocket and timing belt.



- (3) Apply force counterclockwise to the camshaft sprocket on the rear side. When the tight side of the belt is fault, check that the timing marks are all aligned.
- (4) Gently raise the tensioner pulley as shown by the arrow, so that the belt does not sag, and temporarily tighten the center bolt.



### ►C◄ TIMING BELT TENSION ADJUSTMENT

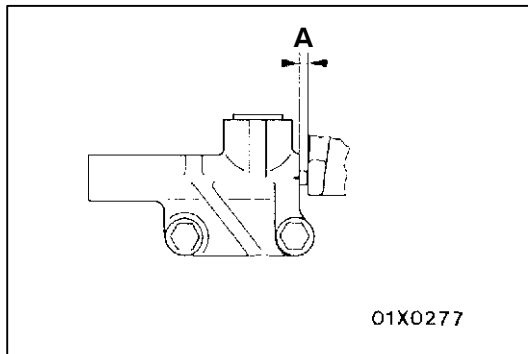
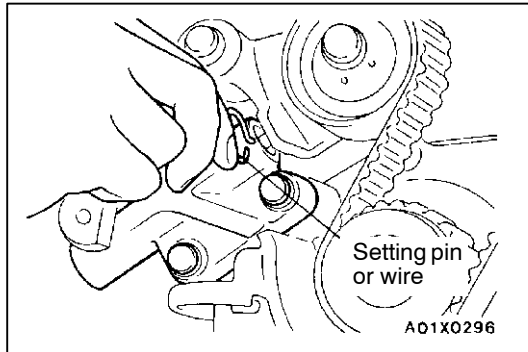
- (1) Turn the crankshaft a 1/4 turn counterclockwise, and then turn it clockwise to the position where the timing marks are aligned.
- (2) Loosen the center bolt of the tensioner pulley. Use the special tool and a torque wrench to apply tension to the timing belt as shown in the illustration. Then tighten center bolt to the specified torque.

#### Caution

**When tightening the bolt, make sure that the tensioner pulley shaft doesn't rotate with the bolt.**

**Specified torque: 4.4 Nm (3.3 ft.lbs.) [tensional torque]**

- (3) Pull out the auto tensioner setting pin or wire. At this time, check that the setting pin or wire can be pulled out easily. Turn the crankshaft clockwise 2 turns and hold it for 5 minutes or more. Then check again that the auto tensioner setting pin or wire can be pulled or inserted easily.



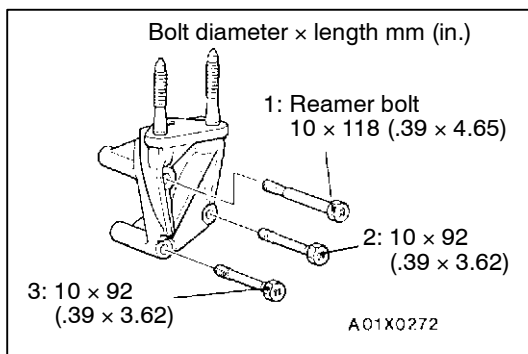
#### NOTE

Even if the setting pin or wire cannot be easily inserted, then it is satisfactory if the auto tensioner rod projection is within the standard value.

**Standard value (A): 3.8 - 4.5 mm (.149 - .177 in.)**

If it is not within the standard value, repeat the operations in steps 1. to 3.

- (4) Check again that each of the sprocket timing marks is aligned.

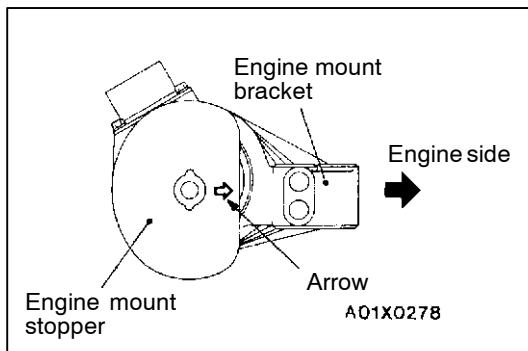


### ►D◄ ENGINE SUPPORT BRACKET INSTALLATION

Since the engine support bracket mounting bolts differ in size depending on their locations, install them in the numbered sequence shown in the figure.

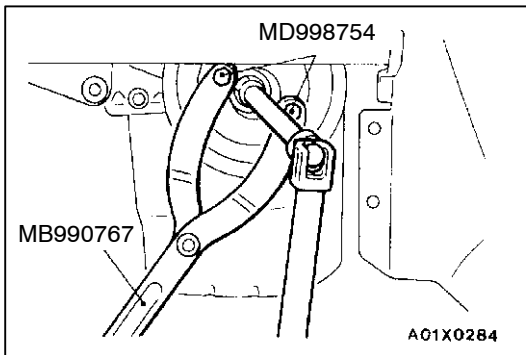
#### Caution

**When installing the reamer bolt, tighten it slowly while spraying lubricant on the reamer area.**



### ►E◄ ENGINE MOUNT BRACKET INSTALLATION

Attach the engine mount bracket so that the arrow mark on the engine mount stopper is in the direction as shown in the illustration.

**►F◄ CRANKSHAFT PULLEY INSTALLATION****Caution**

Use only the specified special tools, or the pulley damper could be damaged.

**INSPECTION****AUTO TENSIONER**

- Check the auto tensioner for leaks.
- Check the push rod for cracks.