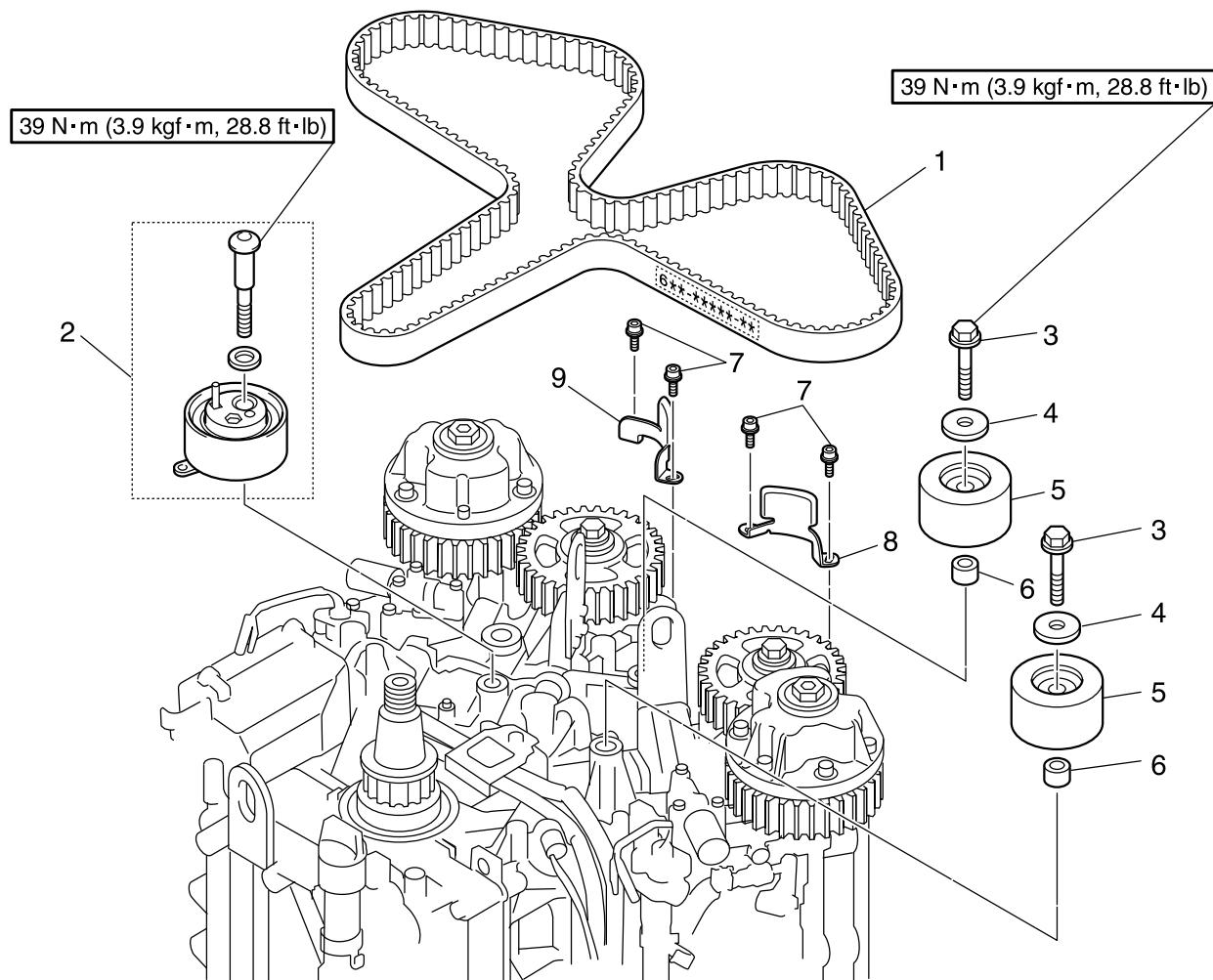




Timing belt



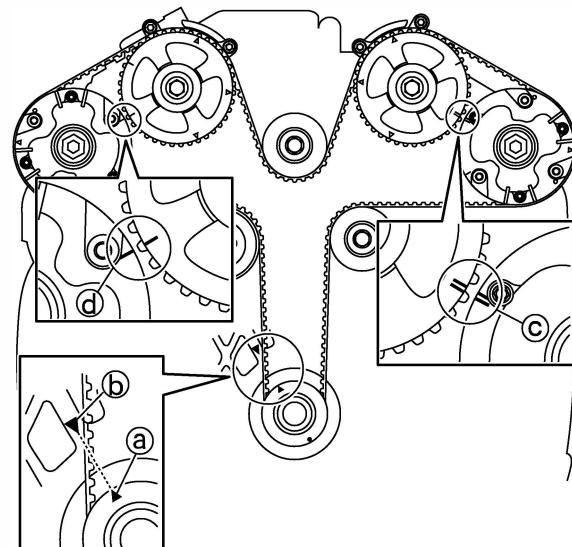
No.	Part name	Q'ty	Remarks
1	Timing belt	1	
2	Timing belt tensioner	1	
3	Bolt	2	M10 × 55 mm
4	Washer	2	
5	Pulley	2	
6	Collar	2	
7	Bolt	4	M6 × 14 mm
8	Guide (PORT)	1	
9	Guide (STBD)	1	

Removing the timing belt

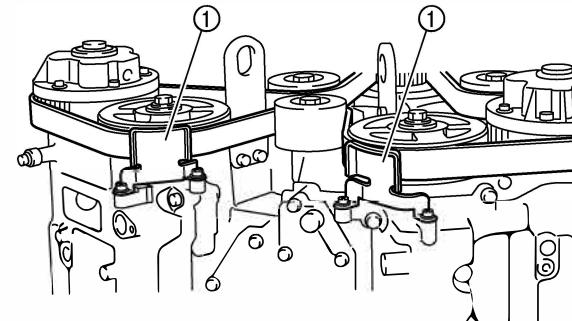
NOTICE

- When the timing belt is not installed, do not turn the crankshaft or driven sprockets. Otherwise, the pistons and valves or intake and exhaust valves could collide with each other and be damaged.
- Do not twist, turn inside out, or bend the timing belt beyond the maximum limit of 25.0 mm (1.0 in). Otherwise, the timing belt can be damaged.

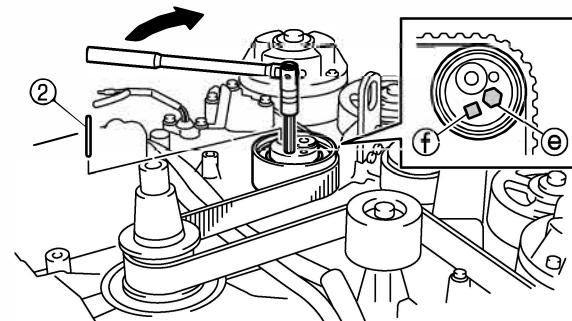
- Disconnect the air temperature sensor coupler, and then remove the blowby hose and intake silencer. See "Removing the intake silencer" (6-17).
- Remove the intake manifold (PORT). See "Removing the intake manifold" (6-17).
- Disconnect the quick connectors. See steps 3-5 in "Disconnecting the quick connector" (6-7).
- Remove the fuel hoses and fuel rail covers. See steps 2 and 3 in "Removing the fuel injector" (6-45).
- Remove the wiring harness guide. See steps 5-29 in "Removing the wiring harness" (7-20).
- Align the "▲" mark ① on the drive sprocket with the "▲" mark ② on the cylinder block.
- Check that the "II" marks ③ on the VCT assembly (PORT) and driven sprocket (PORT) are aligned, and check that the "I" marks ④ on the VCT assembly (STBD) and driven sprocket (STBD) are aligned.



- Remove the timing belt guides ①.



- Insert a hexagon wrench into the hole ②, turn the timing belt tensioner gradually clockwise, and then insert a ø5.0 mm (0.2 in) pin ③ into the hole ④.



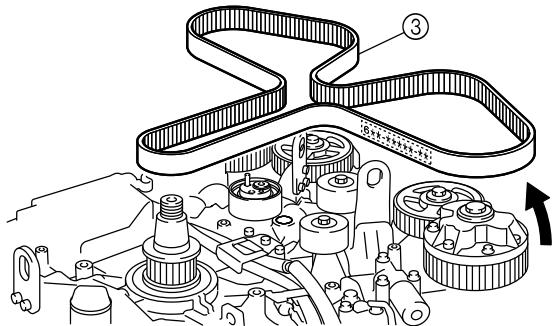
7

Vær veldig forsiktig når strammeren beveges med hexagon wrench.

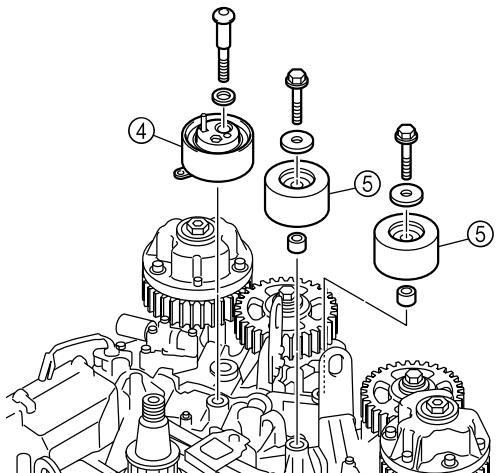
**TIP:** _____

- When turning the timing belt tensioner, apply a force of 15 N·m (1.5 kgf·m, 11.1 ft·lb) or less.
- Leave the pin inserted into the hole ⑥ of the timing belt tensioner until the timing belt is installed again.

10. Remove the timing belt ③ from the driven sprocket (PORT) or driven sprocket (STBD), and then remove it from the crankshaft.



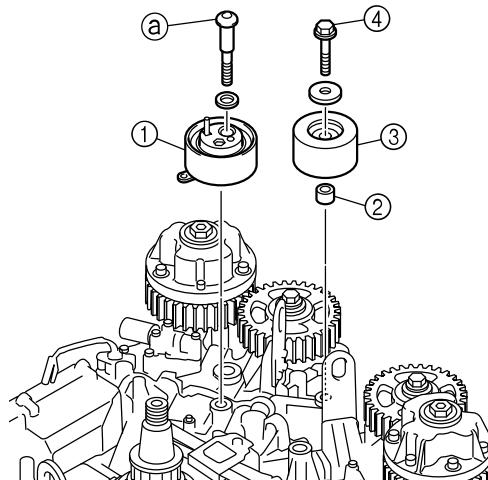
11. Remove the timing belt tensioner ④ and pulleys ⑤.

**Checking the timing belt**

- Check the interior and exterior of the timing belt. Replace if cracked, damaged, or worn.

Installing the timing belt

- Install the timing belt tensioner ①, collar ②, and pulley ③, and then tighten the timing belt tensioner bolt ④ and pulley bolt ④ to the specified torque.



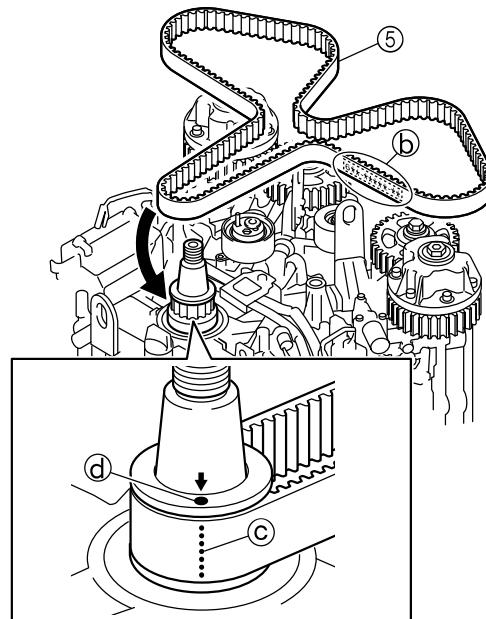
Timing belt tensioner bolt ④:

39 N·m (3.9 kgf·m, 28.8 ft·lb)

Pulley bolt ④:

39 N·m (3.9 kgf·m, 28.8 ft·lb)

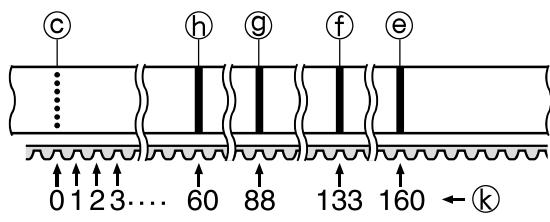
2. Install the timing belt ⑤ onto the crankshaft so that part number ⑥ is in the upright position and the belt position mark ⑦ is aligned with the “●” mark ⑧ on the crankshaft. **NOTICE:** Do not apply grease or oil to the timing belt.



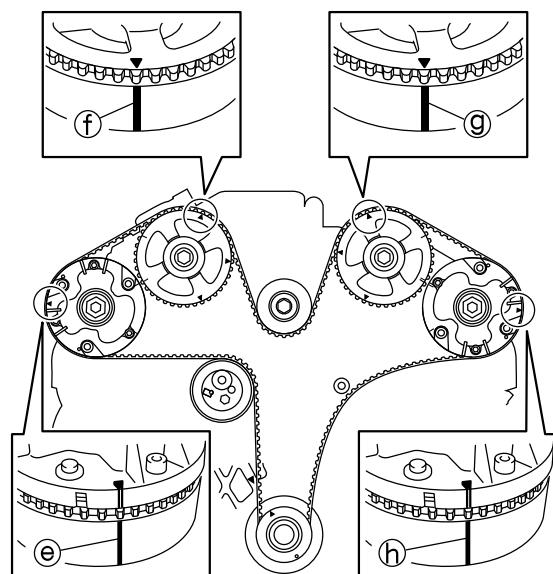
TIP:

Before installing the timing belt, make sure that the marks on the crankshaft and cylinder block are aligned. Also, make sure that the marks on the VCT assemblies and driven sprockets are aligned. See steps 6 and 7 in "Removing the timing belt" (7-38).

3. Install the timing belt onto the VCT assemblies and driven sprockets by aligning belt position marks **e**, **f**, **g**, and **h** with the "▲" marks in the order listed.

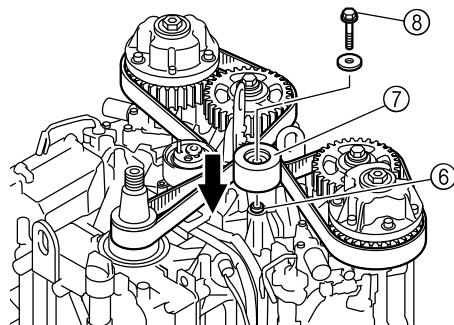


⑯ Belt teeth number



4. Install the collar **⑥**, push the timing belt inward using the pulley **⑦**, and then install the pulley. **NOTICE:** Make sure that the pulley **⑦** is installed properly onto the collar **⑥**.

5. Install the washer, and then tighten the pulley bolt **⑧** to the specified torque.



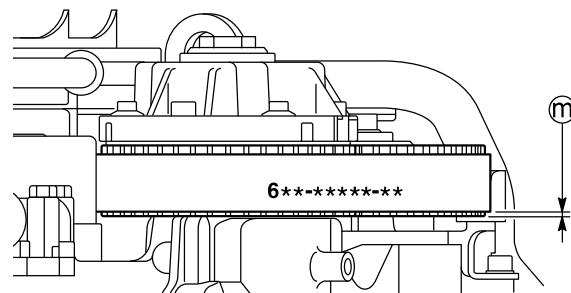
Pulley bolt ⑧:

39 N·m (3.9 kgf·m, 28.8 ft·lb)

TIP:

When installing the pulley, make sure to keep the belt position marks and the "▲" marks aligned as specified in step 3.

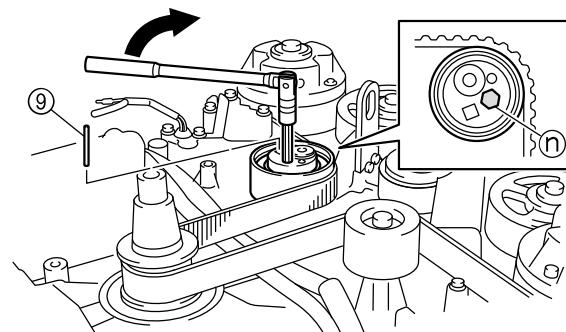
6. Adjust the timing belt installation height **⑯** to specification.



7

Timing belt installation height ⑯:
2.0 mm (0.08 in)

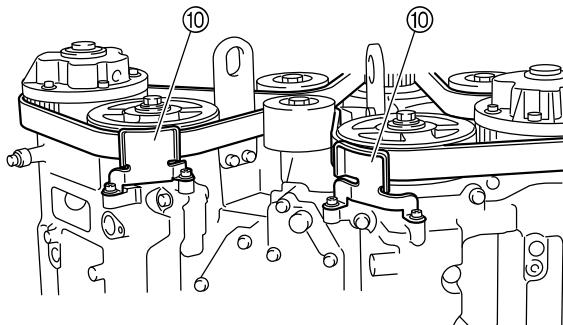
7. Insert a hexagon wrench into the hole **⑪**, turn the timing belt tensioner gradually clockwise, remove the pin **⑨**, and then return the timing belt tensioner slowly.



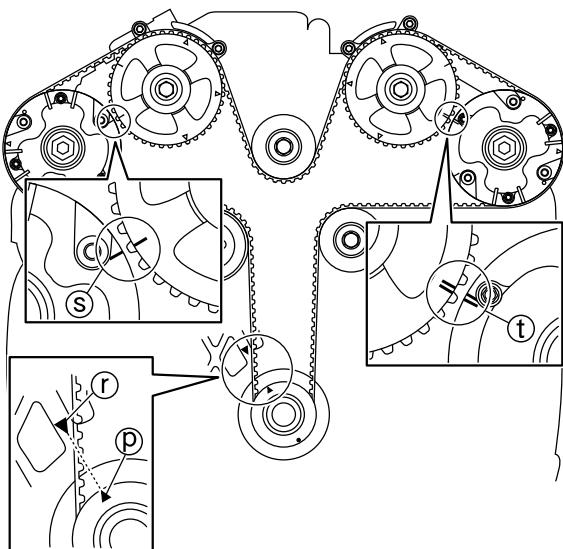
**TIP:**

- When turning the timing belt tensioner, apply a force of 15 N·m (1.5 kgf·m, 11.1 ft·lb) or less.
- Make sure that the belt position marks are aligned with the “▲” marks. See steps 6 and 7 in “Removing the timing belt” (7-38).

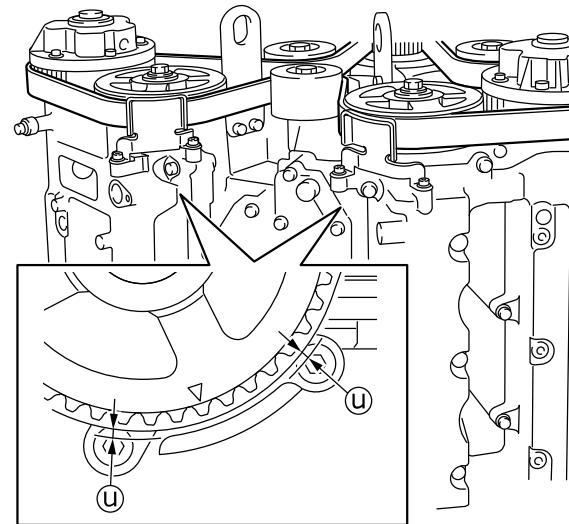
8. Install the timing belt guides ⑩.



9. Turn the crankshaft clockwise 2 full turns until the marks ① and ② are aligned, and then check that the marks ③ and ④ on the VCT assemblies and driven sprockets are aligned.



10. Adjust the timing belt guide clearance ⑥.



Timing belt guide clearance ⑥:

0.5–1.5 mm (0.02–0.06 in)

- Install the wiring harness guide. See steps 13–37 in “Installing the wiring harness” (7-23).
- Install the fuel hoses and fuel rail covers. See steps 7 and 9 in “Installing the fuel injector” (6-46).
- Connect the quick connectors. See “Connecting the quick connector” (6-8).
- Install the intake manifold (PORT). See “Installing the intake manifold” (6-18).
- Install the intake silencer, and then connect the air temperature sensor coupler and blowby hose. See “Installing the intake silencer” (6-19).