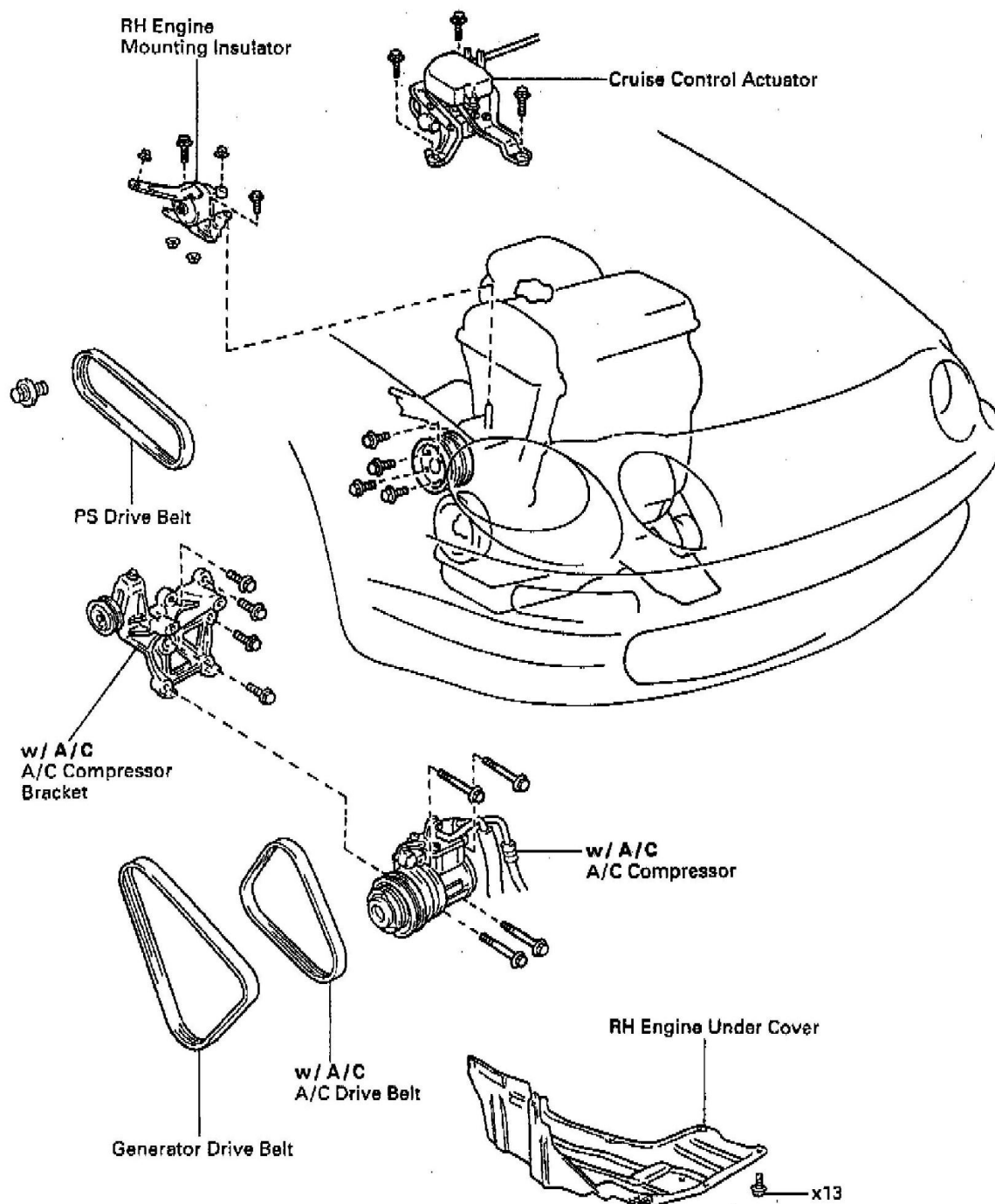
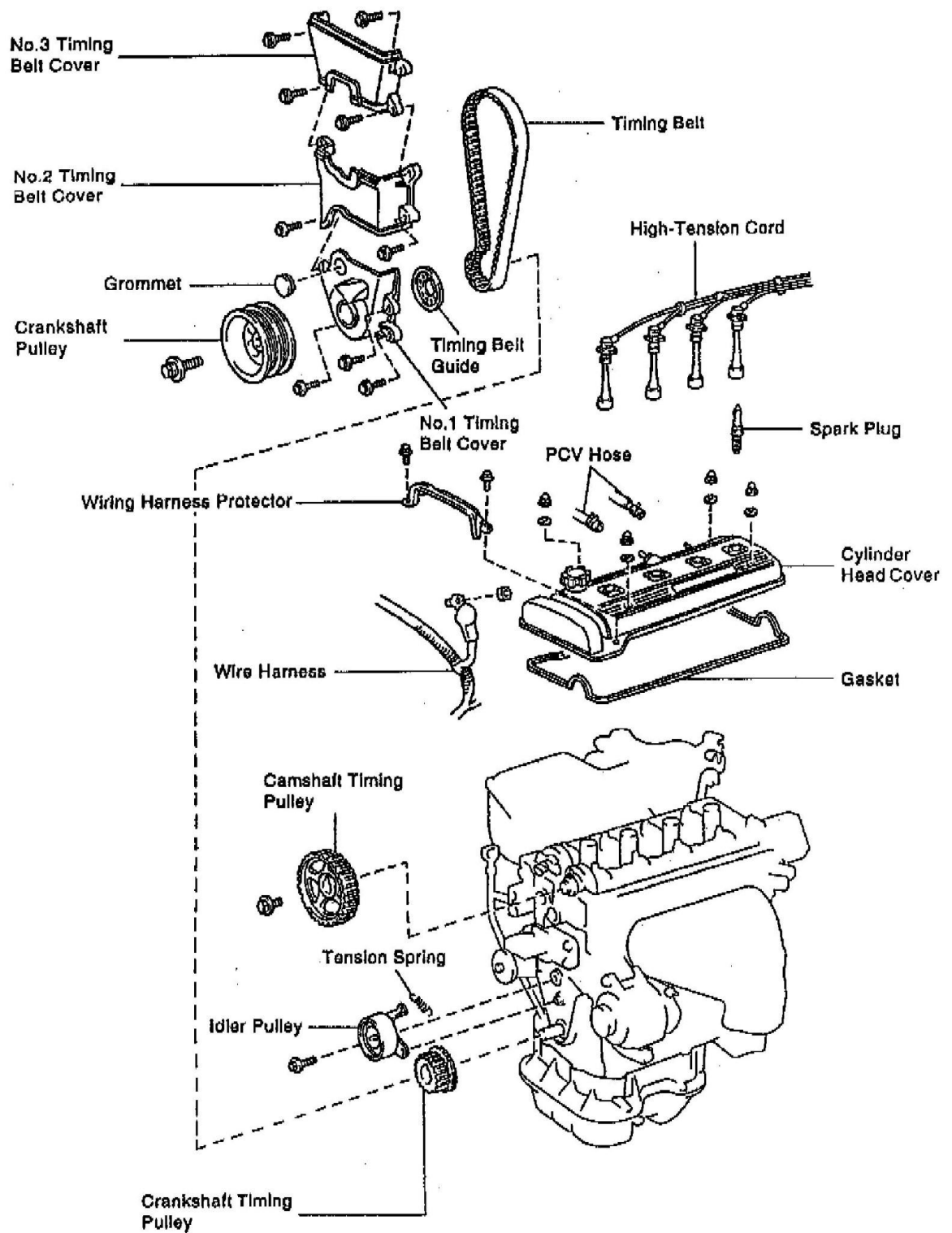




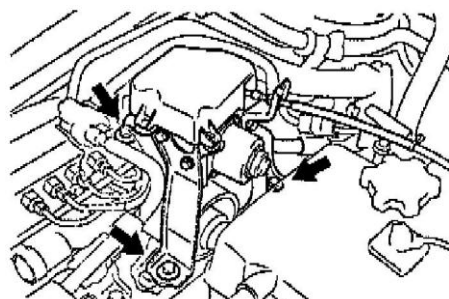
# Toyota Celica ST Sport Coupe L4- 1.8L DOHC MFI 1997

Timing Belt:  
Service and Repair Timing  
Belt Removal

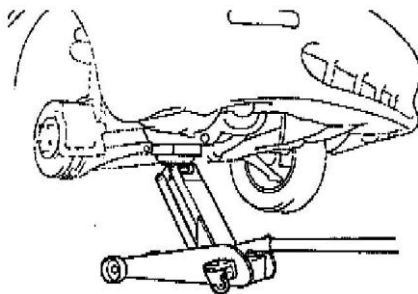




1. w/ Cruise control system: Remove cruise control actuator. (a) Disconnect the actuator connector.



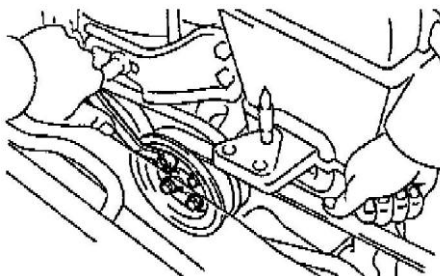
- (b) Remove the 3 bolts, and disconnect the actuator with the bracket.
- 2. Remove RH front wheel.
- 3. Remove RH engine under cover.



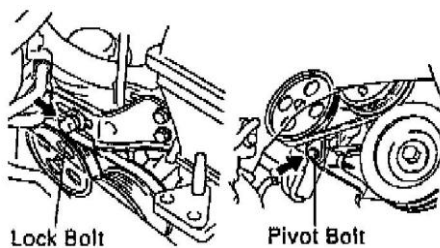
- 4. Slightly jack up engine.  
Raise the engine enough to remove the weight from the engine mounting on the right side.

NOTE: Place a wooden block between the jack and engine.

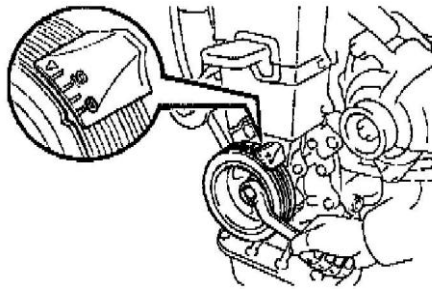
- 5. Remove RH engine mounting insulator.  
Remove the 2 bolts, 4 nuts and insulator.



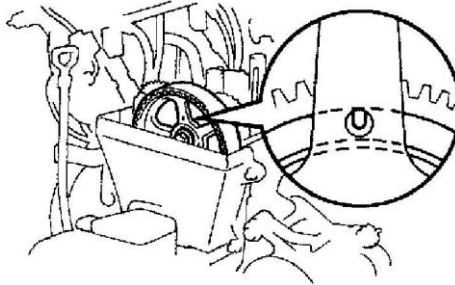
- 6. Loosen water pump pulley bolts.  
Stretch the belt tight and loosen the water pump pulley bolts.
- 7. Remove generator drive belt. Refer to Starting and Charging.
- 8. w/ A/C: Remove A/C compressor without disconnecting hoses.
- 9. w/ A/C: Remove A/C compressor mounting bracket.
- 10. Remove Power Steering (PS) pump drive belt.



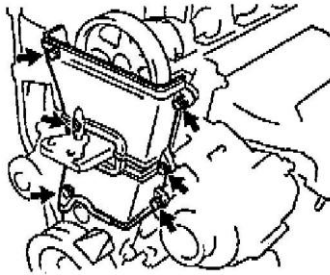
- (a) Loosen the pivot and lock bolts.
- (b) Swing PS pump toward the engine and remove the drive belt.
- 11. Disconnect water pump pulley.
- 12. Remove cylinder head cover.  
Remove the 4 cap nuts, seal washers, and cover and gasket.
- 13. Set No. 1 cylinder to Top Dead Center (TDC)/compression.



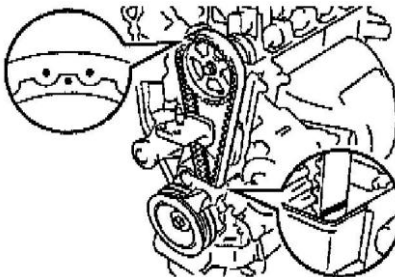
- (a) Turn the crankshaft pulley and align its groove with the timing mark "0" of the No. 1 timing belt cover.



- (b) Check that the hole of the camshaft timing pulley is aligned with the timing mark of the bearing cap. If not, turn the crankshaft one revolution (360°).

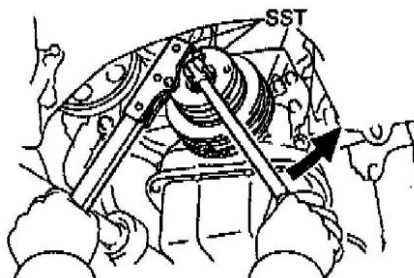


14. Remove No. 3 and No. 2 timing belt covers. Remove the 6 bolts and timing belt covers.

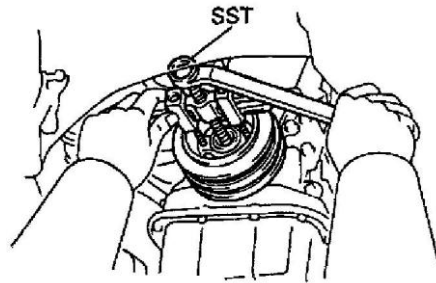


NOTE (When re-using timing belt): Place matchmarks on the timing belt to match the end of the No. 1 timing belt cover.

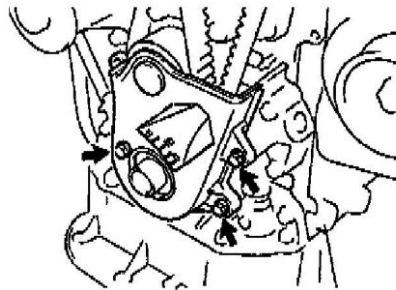
15. Remove crankshaft pulley.



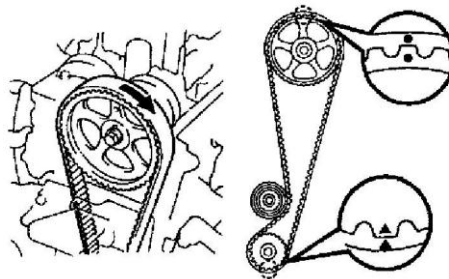
- (a) Using Special Service Tool (SST) Crankshaft Pulley Holding Tool # 09213 - 54015 and Companion Flange Holding Tool # 09330 - 00021 or equivalents, remove the pulley bolt.



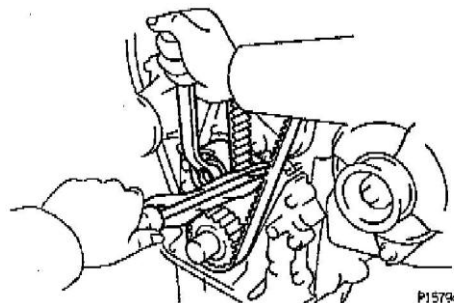
- (b) Using SST Puller C Set # 09950 - 50010 (Hanger 150 # 09951 - 05010, Slide Arm # 09952 - 05010, Center Bolt 150 # 09953 - 05020, Claw No. 3 # 09954 - 05030) or equivalents, remove the pulley.



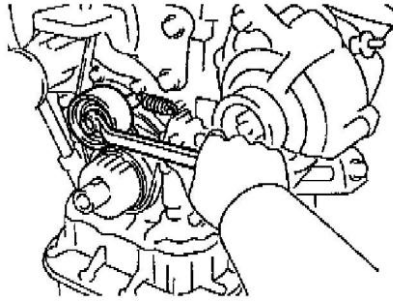
16. Remove No. 1 timing belt covers.  
Remove the 3 bolts and timing belt covers.  
17. Remove timing belt guide.  
18. Remove timing belt.



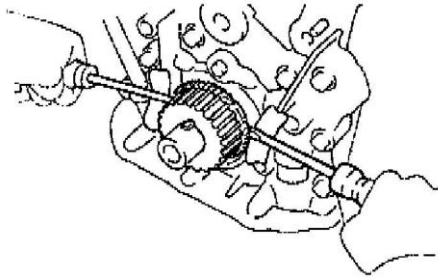
NOTE: If reusing the timing belt, draw a direction arrow on the belt (in the direction of engine revolution), and place matchmarks on the pulleys and belt as shown in the illustration.



- (a) Loosen the mounting bolt of the idler pulley and shift pulley toward the left as far as it will go and then temporarily tighten it. (b) Remove the belt.

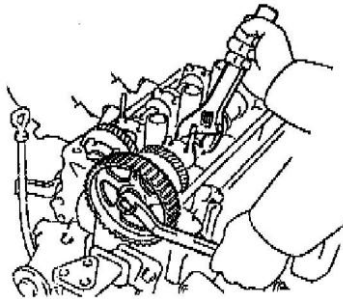


19. Remove idler pulley and tension spring.  
Remove the bolt, pulley and tension spring.



20. Remove crankshaft timing pulley.  
If the pulley cannot be removed by hand, use 2 screwdrivers.

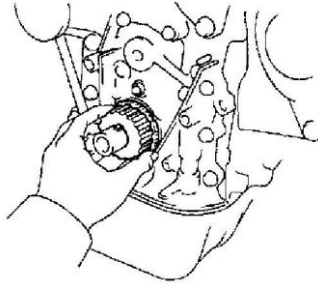
CAUTION: Position shop rags as shown to prevent damage.



21. Remove camshaft timing pulley.  
Hold the hexagonal head wrench portion of the camshaft with a wrench, and remove the bolt and timing pulley.

CAUTION: Be careful not to damage the cylinder head with the wrench.

## Timing Belt: Service and Repair Timing Belt Installation

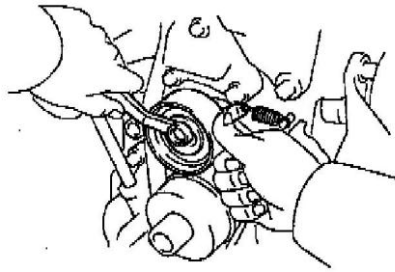


1. Install camshaft timing pulley.

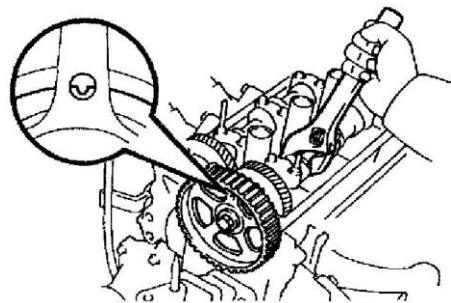
NOTE: Align the camshaft knock pin with the knock pin groove of the pulley, and slide the timing pulley on the camshaft.

Torque: 59 Nm (43 ft. lbs. )

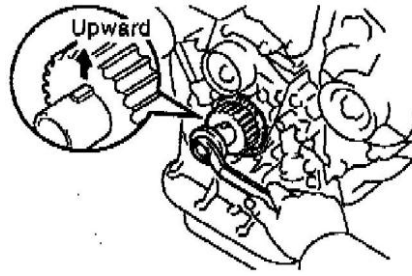
2. Install crankshaft timing pulley.
  - (a) Align the pulley set key with the key groove of the pulley.
  - (b) Slide the timing pulley on the crankshaft, facing the flange side inward.



3. Temporarily install idler pulley and tension spring.
  - (a) Install the idler pulley with the bolt. Do not tighten the bolt yet.
  - (b) Install the tension spring.
  - (c) Push the pulley toward the left as far as it will go and tighten the bolt.
4. Set No. 1 cylinder to Top Dead Center (TDC)/compression.

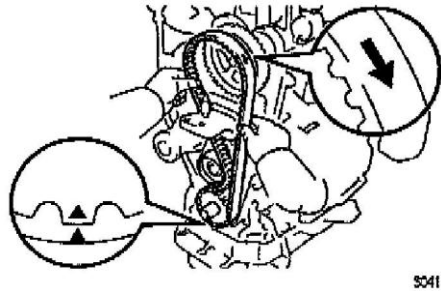


- (a) Turn the hexagonal wrench head portion of the camshaft, and align the hole of the camshaft timing pulley with the timing mark of the bearing cap.



- (b) Using the crankshaft pulley bolt, turn the crankshaft and align the timing marks of the crankshaft timing pulley and oil pump body.

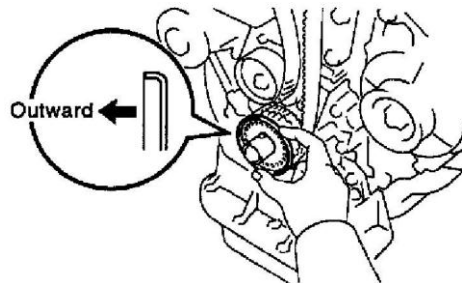
5. Install timing belt.



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- (a) Install the timing belt on the crankshaft timing pulley.

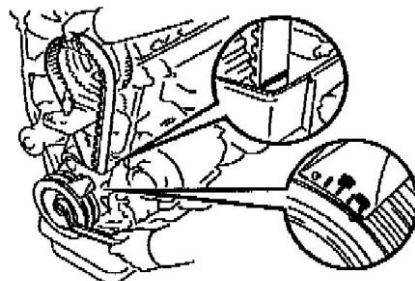
NOTE (When re-using timing belt): Align the points marked during removal, and install the belt with the arrow pointing in the direction of engine revolution.



- (b) Install the timing belt guide, facing the cup side outward.  
 (c) Install the No. 1 timing belt cover with the 3 bolts.  
 Torque: 7.4 Nm (65 inch lbs. )  
 (d) Temporarily install the crankshaft pulley with the pulley bolt.  
 (e) Turn the crankshaft pulley, and align its groove with the timing mark "0" of the No. 1 timing belt cover.

NOTE (When re-using timing belt):

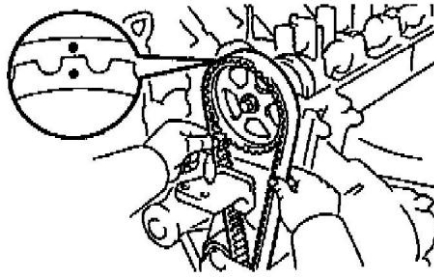
- ^ Support the timing belt, so that the meshing of the crankshaft timing pulley and timing belt does not shift.



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- ^ Check that the matchmark on the timing belt matches the end of No. 1 timing belt cover.

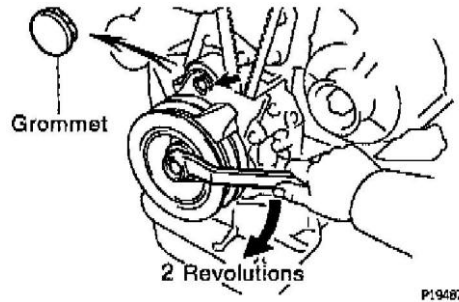




^ Align the matchmarks of the timing belt and camshaft timing pulley.

(f) Install the timing belt, checking the tension between the crankshaft timing pulley and camshaft timing pulley.

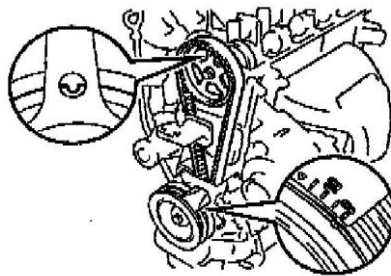
6. Check valve timing and timing belt tension.



(a) Remove the grommet and loosen the timing belt idler pulley mounting bolt. (b) Turn the crankshaft pulley 2 revolutions from TDC to TDC.

Turn the crankshaft pulley 2

CAUTION: Always turn the crankshaft clockwise.



(c) Check that each pulley aligns with the marks as shown in the illustration.

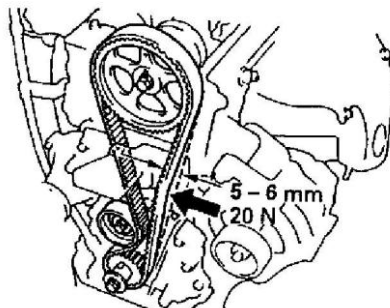
If the timing marks do not align, remove the timing belt and reinstall it.

(d) Tighten the timing belt idler pulley mounting bolt.

Torque: 37 Nm (27 ft. lbs.)

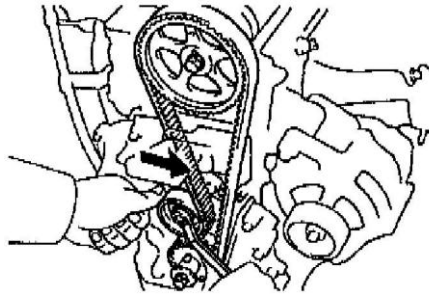
(e) Install the grommet to the No. 1 timing belt cover.

7. Check timing belt deflection.



Check that there is belt deflection at the position indicated in the illustration.

Belt deflection: At 20 N (4.4 lbs.): 5 - 6 mm (0.20 - 0.24 inch)



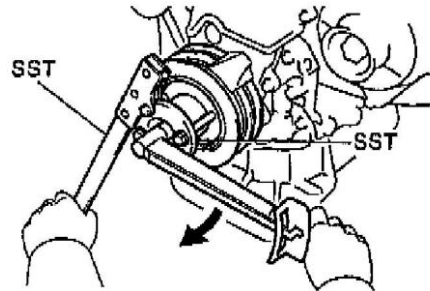
If the deflection is not as specified, readjust with the idler pulley.

8. Install No. 2 and No. 3 timing belt covers.

Torque: 7.4 Nm (65 inch lbs. )

9. Install crankshaft pulley.

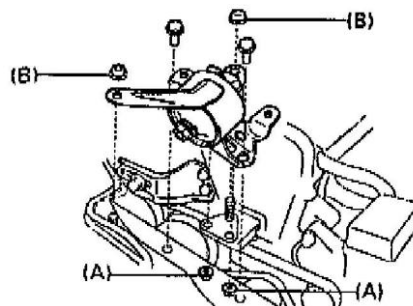
- (a) Align the pulley set key with the key groove of the pulley, and slide on the pulley.



- (b) Using Special Service Tool (SST) Crankshaft Pulley Holding Tool # 09213 - 54015, Companion Flange Holding Tool # 09330 - 00021 or equivalents, install the pulley bolt.

Torque: 118 Nm (87 ft. lbs. )

10. Install cylinder head cover.
11. Install water pump pulley and Power Steering (PS) pump.
12. PS pump drive belt.
13. w/ A/C: Install A/C compressor mounting bracket.  
Torque: 47 Nm (35 ft. lbs. )
14. w/ A/C: Install A/C compressor. Refer to Heating and Air Conditioning.
15. Install generator drive belt. Refer to Starting and Charging.
16. Tighten water pump pulley bolts. Torque: 9.3 Nm (82 inch lbs.)



17. Install RH engine mounting insulator.

Install the mounting insulator with the 2 bolts and 4 nuts.

Torque:

Bolt: 64 Nm (47 ft. lbs. )

Nut A: 52 Nm (38 ft. lbs. )

Nut B: 28

Nm (21 ft. lbs. ) 18.

Install RH

engine under cover.

19. Install RH front wheel.

20. w/ Cruise control system: Install cruise control actuator.