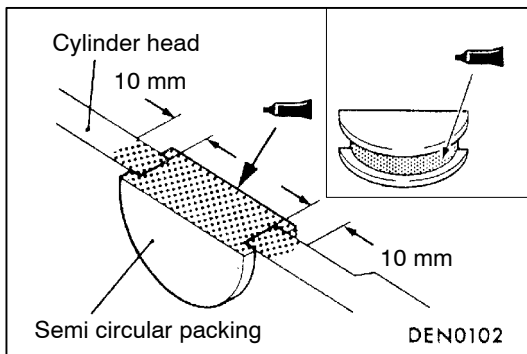


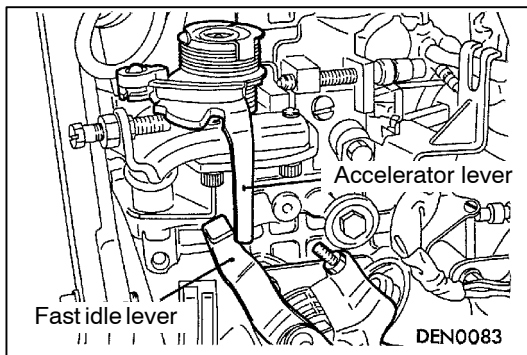
9. Measure the valve clearances at the places indicated by arrows in the illustration. If the clearance is not within the standard value, repeat steps 7 and 8 above.



10. Apply specified sealant to the section of the semi-circular packing shown in the illustration.

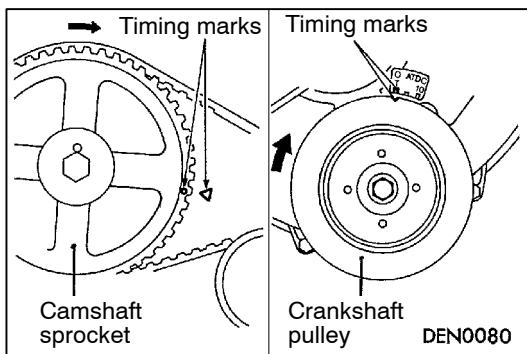
Specified sealant: 3M ATD Part No. 8660 or equivalent

11. Install the rocker cover.
12. Install the timing belt upper cover.

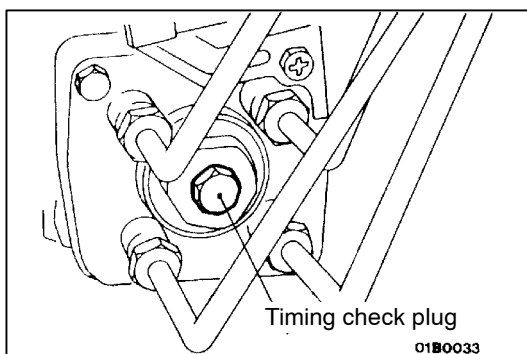


INJECTION TIMING CHECK AND ADJUSTMENT

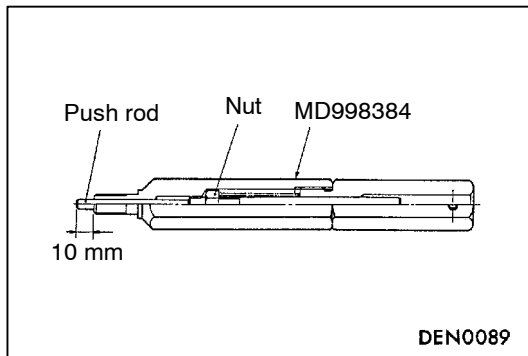
1. Warm up the engine and then check to be sure that the fast idle lever is separated from the accelerator lever.
2. Remove all of the glow plugs.
3. Remove the timing belt upper cover.



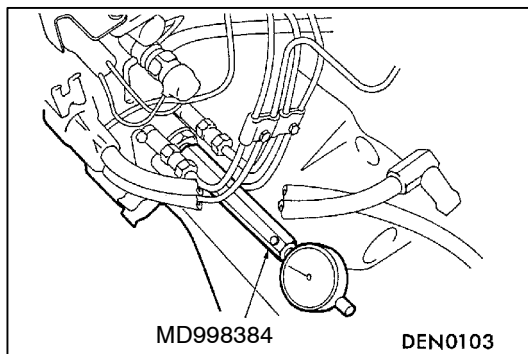
4. Align the timing marks of the camshaft sprocket and set the No. 1 cylinder to the top dead centre position.



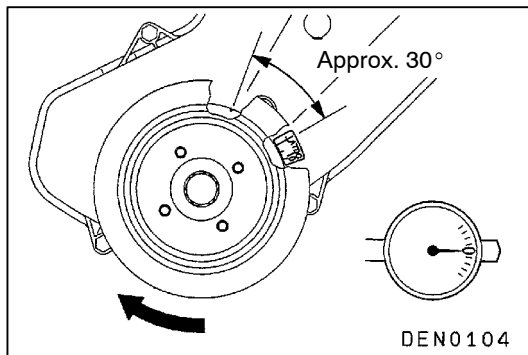
5. Remove the timing check plug at the rear of the injection pump.



6. Before installation of special tool, make sure that push rod is protruding by 10 mm. Protrusion of push rod can be adjusted with an inner nut.
7. Connect the dial gauge to the special tool.



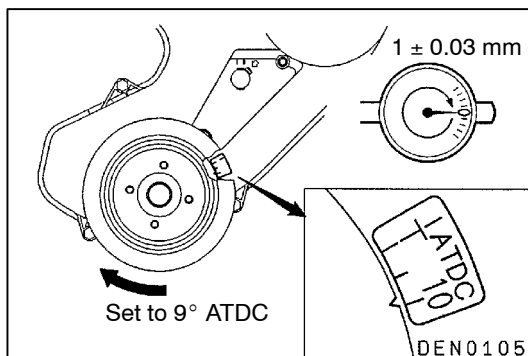
8. Install the special tool to the check plug at the rear of the injection pump.



9. Turn the crankshaft clockwise to move the No. 1 cylinder approximately 30° before compression top dead centre.
10. Set the needle of the dial gauge to 0.
11. Check that the needle doesn't move even if the crankshaft is turned slightly (2 - 3°) in both clockwise and counterclockwise direction.

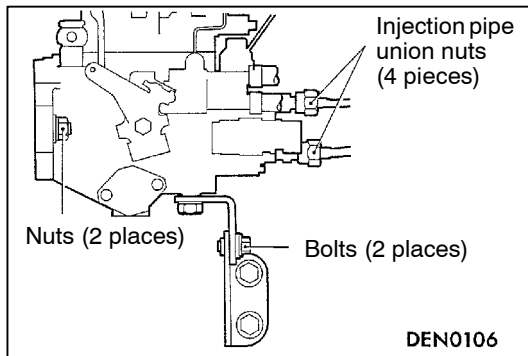
NOTE

If the needle moves, the notch is not positioned properly, so once again move the No. 1 cylinder approximately 30° before compression top dead centre.



12. Turn the crankshaft clockwise to align the No. 1 cylinder to 9° ATDC.
13. Check that the value indicated on the dial gauge is at the standard value.

Standard value: 1 ± 0.03 mm



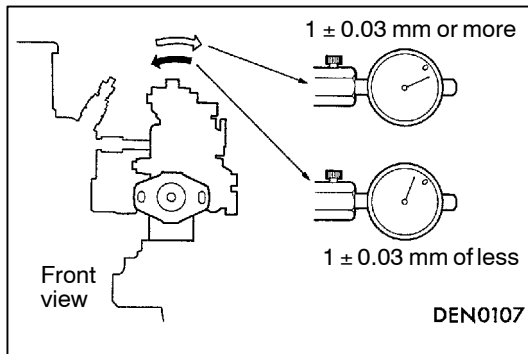
14. If the needle is outside the standard value, adjust the injection timing by the following procedure.

- (1) Loosen the injection pipe union nuts (4 places) on the injection pump. (Do not remove the union nuts.)

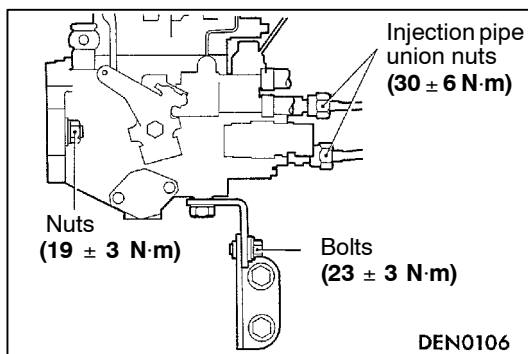
Caution

When loosening the nuts, hold the delivery valve holders with a spanner so that they don't turn at the same time.

- (2) Loosen the upper mounting nuts and the lower mounting bolts of the injection pump. (Do not remove the nut and bolt.)



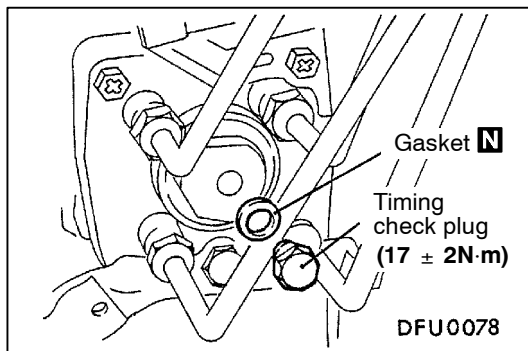
- (3) Tilt the injection pump to the left and right and adjust the needle on the dial gauge so that the display value is uniform.
- (4) Provisionally tighten the mounting nut and bolt of the injection pump.
- (5) Repeat steps 9 - 13 to check if the adjustment has been made correctly.



- (6) Tighten the mounting nuts and bolts to the specified torque.
- (7) Tighten the injection pump union nuts to the specified torque.

Caution

When tightening the nuts, hold the delivery valve holders with a spanner so that they don't turn at the same time.



15. Remove the special tool.
16. Install a new gasket to the timing check plug.
17. Tighten the timing check plug to the specified torque.