

This Service Bulletin replaces Service Bulletin 214-60, "Valve Stem Seals, Replace", D16F, (3.2007), publication number PV776-20179798.

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Valve Stem Seals, Replacement D16F

Valve Stem Seals, Replacement

This information covers the proper replacement procedure for the valve stem seals on the Volvo D16F engine with the rocker assembly removed.

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Note: Information is subject to change without notice. Illustrations are used for reference only and may differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

2149-03-03-01 Valve Stem Seals, Replacement

Rocker arm shaft removed

You must read and understand the precautions and guidelines in Service Information, group 20, "General Safety Practices, Engine" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

Special tools: 9990165, 9990210, 85112460, 88800014

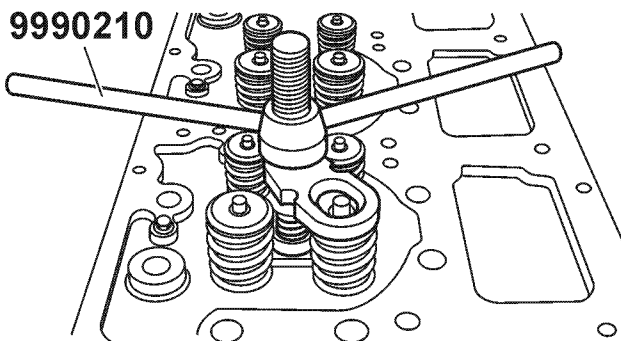
1

WARNING

Remove all cables from ground (negative) battery terminals to prevent personal injury from electrical shock.

Remove the unit injectors (See "Unit Injectors, Replacement" Group 23). Insert and screw tight tool 9990210 in the unit injector location.

9990210



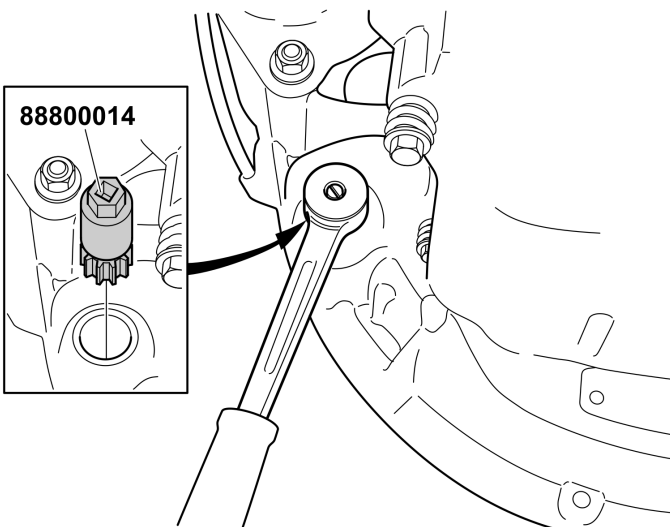
T2021211

2

Turn the engine crankshaft to top dead center (TDC) for the appropriate pair of cylinders.

Note: Pistons must be at TDC when the valves are released. This is so that the valves do not drop into the cylinder.

88800014



T2022960

3



Use protective goggles or eye injury could occur.

Press down the valve springs for the appropriate cylinder.
Use tool 9990210.

9990210

4

Remove the valve retainers and the valve springs.

5

Remove the old valve stem seals.

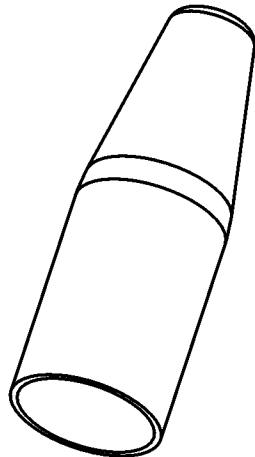
6

Using a clean cloth, thoroughly clean all engine oil off the
valve stem and valve guide.

7

Position the seal guide tool 9990165 on the valve stem.

9990165

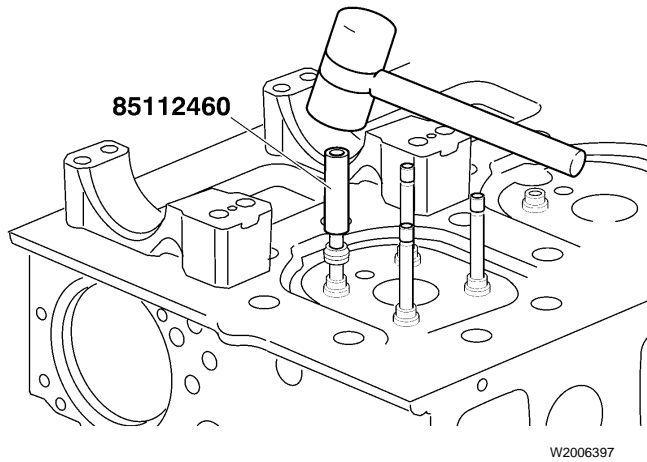


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8

Position the new valve stem seal onto the valve stem.

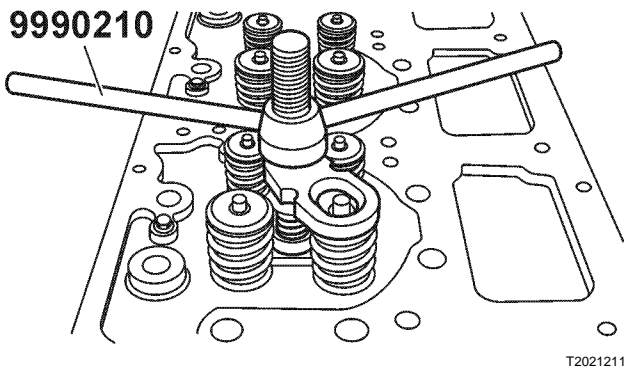
Note: The valve stem seal must be dry when installed.



9
Use tool 85112460 to install the valve stem seal into the valve guide.

Note: Ensure that the valve stem seal is pushed all the way down, so that the bottom of the seal is in contact with the surrounding valve guide.

85112460



10

WARNING

Use protective goggles or eye injury could occur.

Install the valve spring and valve retainers. Using a plastic or rubber hammer, carefully tap on the valve stem to insure that the retainers are positioned correctly.

9990210

11

WARNING

Fingers can be trapped in the camshaft gear and cause personal injury.

Move the valve spring compressor to the next cylinder for the appropriate cylinder pair and repeat the above procedure. Turn the engine so that the next cylinder pair is at TDC. Repeat the procedure. Continue with the final cylinder pair.

Note: Each piston must be at TDC when the valves are released. This is to prevent the valves from falling into the cylinder.

12

Install the unit injectors (See "Unit Injectors, Replacement" Group 23).

13

Install all previously removed cables to the ground (negative) battery terminals. Switch on the main switch.

14

Perform a functional check and check for leakage.