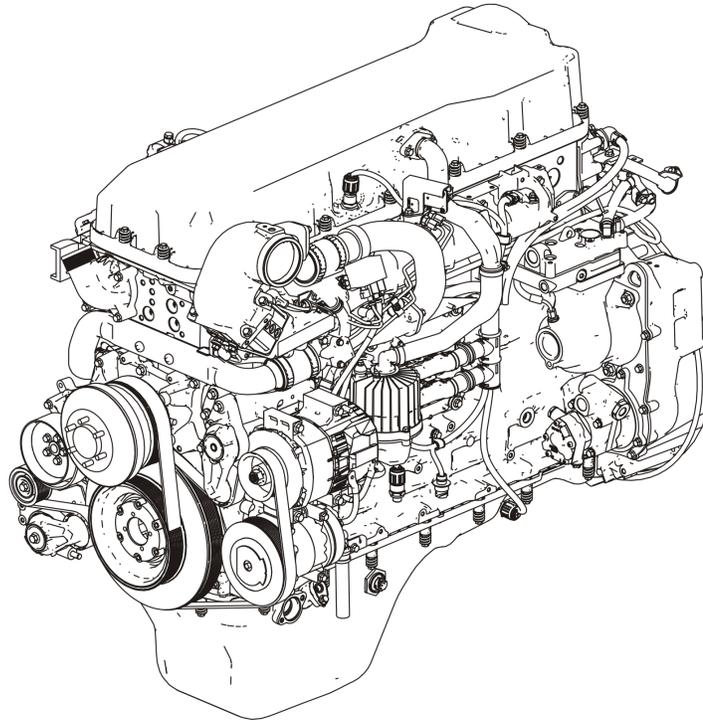


This Service Bulletin replaces SB 213-63, "Cylinder Liner and Piston, Wear Check" dated (9.2007), publication no. PV776-20122885.

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## Cylinder Liner and Piston, Wear Check D11F, D13F, D16F

### Cylinder Liner and Piston, Wear Check



W2005866

This information covers cylinder liner wear checking on the Volvo D11F, D13F, and D16F engines.

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

# Service Procedures

## 2131-06-04-01

### Cylinder Liner and Piston, Wear Check

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.

Thoroughly clean the cylinder liners and pistons before inspecting and measuring. To thoroughly check for cracks, remove the cylinder liner from the cylinder block. Mark the position of the cylinder liner in the cylinder block before removing it so it can be installed in the same position during assembly.

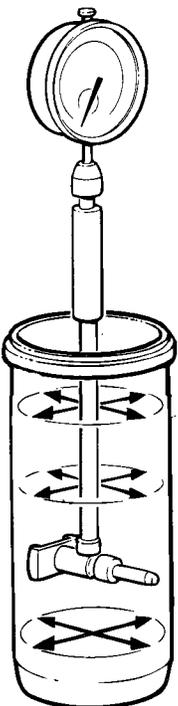
## Cylinder Liner

### 1

Check the cylinder liner for cracks, paying special attention to the liner collar. The magnesium powder method can be used for checking.

### 2

Measure the cylinder liner wear with a cylinder bore gauge. To find out the exact amount of wear, calibrate the cylinder bore gauge with a gauge ring or micrometer. The original bore size of the cylinder liner can be used as a reference measurement.



**3**

Measure the cylinder liner at Top Dead Center (TDC), at Bottom Dead Center (BDC) and at a couple of positions in between. At each point, measure in the direction of engine crosswise and of engine lengthwise.

**4**

If wear is greater than 0.45–0.50 mm (0.018–0.020 inch), use a complete liner kit (cylinder liner, piston, piston rings, piston pin, and cylinder liner seals). Also consider engine oil consumption to determine when to replace the cylinder liner.

**Note:** Pistons and cylinder liners are available from stock only as matched pairs and should not be mixed.

## Piston

**1**

Replace pistons that have deep scratches in the piston skirt, a cracked or damaged piston ring land, worn ring grooves or a damaged snap-ring groove.