

SB-10054709-2390

CATERPILLAR

Service Information System

Shutdown SIS

Previous Screen

Welcome: chrismk2

◀ Product: NO EQUIPMENT SELECTED
Model: NO EQUIPMENT SELECTED
Configuration: NO EQUIPMENT SELECTED

Special Instruction

Procedure to Repair Misplaced Valve Bridge{7000}

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Procedure to Repair Misplaced Valve Bridge{7000}

SMCS - 7000

On Highway Truck:

CT660 (S/N: TGA1-UP; TGD1-UP; TJD1-UP; TEJ1-UP; TRK1-UP; TKL1-UP; TEM1-UP; TEP1-UP; TGR1-UP; TGS1-UP; TJS1-UP; TGT1-UP; TGW1-UP; TSW1-UP; TEY1-UP; TSY1-UP; TEZ1-UP; TGZ1-UP)

Introduction

This document includes instructions for testing and repairing the misplaced valve bridge on the engines that are listed above. Do not perform any procedure in this publication or order any parts until you understand the information that is contained in this publication.

Safety



Do not operate or work on this machine unless you have read and understand the instructions and warnings in the Operation and Maintenance Manuals. Failure to follow the instructions or heed the warnings could result in injury or death. Contact your Cat dealer for replacement manuals. Proper care is your responsibility.



Accidental engine starting can cause injury or death to personnel working on the equipment.

To avoid accidental engine starting, disconnect the battery cable from the negative (-) battery terminal. Completely tape all metal surfaces of the disconnected battery cable end in order to prevent contact with other metal surfaces which could activate the engine electrical system.

Place a Do Not Operate tag at the Start/Stop switch location to inform personnel that the equipment is being worked on.

Required Parts

Table 1

Qty	Part Number	Description
1	383-7438 ⁽¹⁾	Cylinder Head Gasket for CT-13 head
1	383-7439 ⁽¹⁾	Cylinder Head Gasket for CT-11 head
1	386-2550	Cylinder Head Kit
1	382-9567	Cylinder Head Kit

⁽¹⁾ Depending on the engine size you will need a head gasket for a CT-13 or a CT-11. Order the part number that relates to your engine size.

Test Procedure

If idle or drivability misfire conditions exist, with an "ACTIVE" Cylinder Misfire DTC logged on vehicle health report. Perform the following tests to confirm that the cylinders are at fault:

- Relative compression
- Multiple cylinder cutout test

If unrelated additional DTC's are found, the DTC's will either be addressed during or after the following repair procedure using the appropriate procedure for the specific code or codes.

Repair Instructions

If a valve bridge is found misplaced, one of the two processes will be followed:

1. 1) Machines with less than 50,000 total miles.
 - a. Reinstall the valve bridge.
 - b. Perform the valve lash adjustment procedure.
 - c. Document steps that have been taken.
 - d. Validate that ALL repairs are complete.
 - e. Release the unit back to customer.
2. Machines with more than 50,000 total miles.
 - a. Review the repair data. If a cylinder head has been replaced in previous 20,000 total miles for the same issue, review the previous repair and consult with your technical communicator.

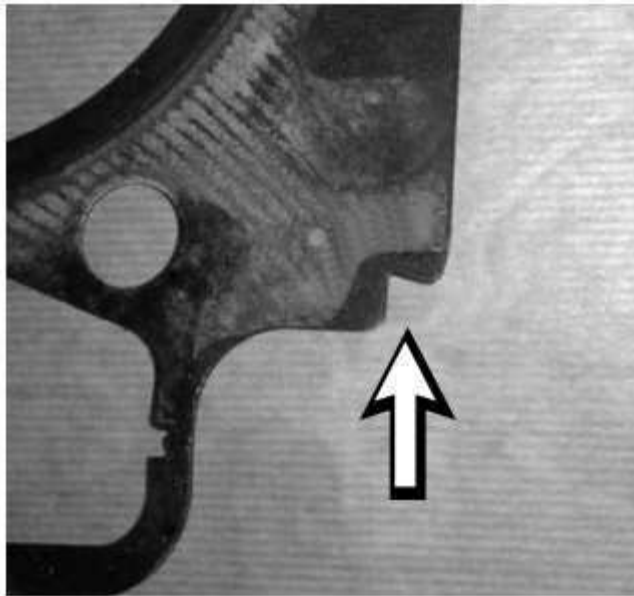


Illustration 1

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13L

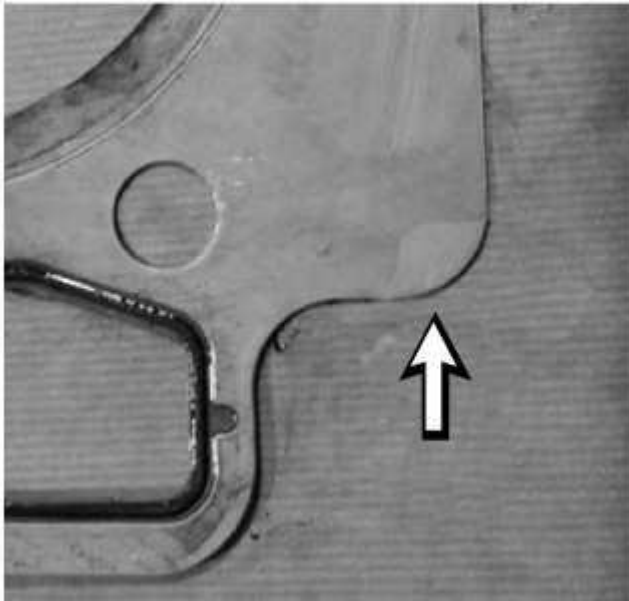


Illustration 2

g03432541

11L head gasket

head gasket

- b. Order the following parts **CRITICAL TRUCK DOWN**: cylinder head, cylinder head removal kit, cylinder head gasket (11 and 13 gaskets are different) and six fuel injector seal kits.

Note: The difference between the 11L gasket and the 13L Gasket are displayed in Illustrations 2 and 1

- c. Remove the cylinder head for replacement then perform **Piston Protrusion** check as outlined in Service Manual, UENR1845.
- d. Reuse the Cam Bearings unless the bearings are damaged.

Tech Tips

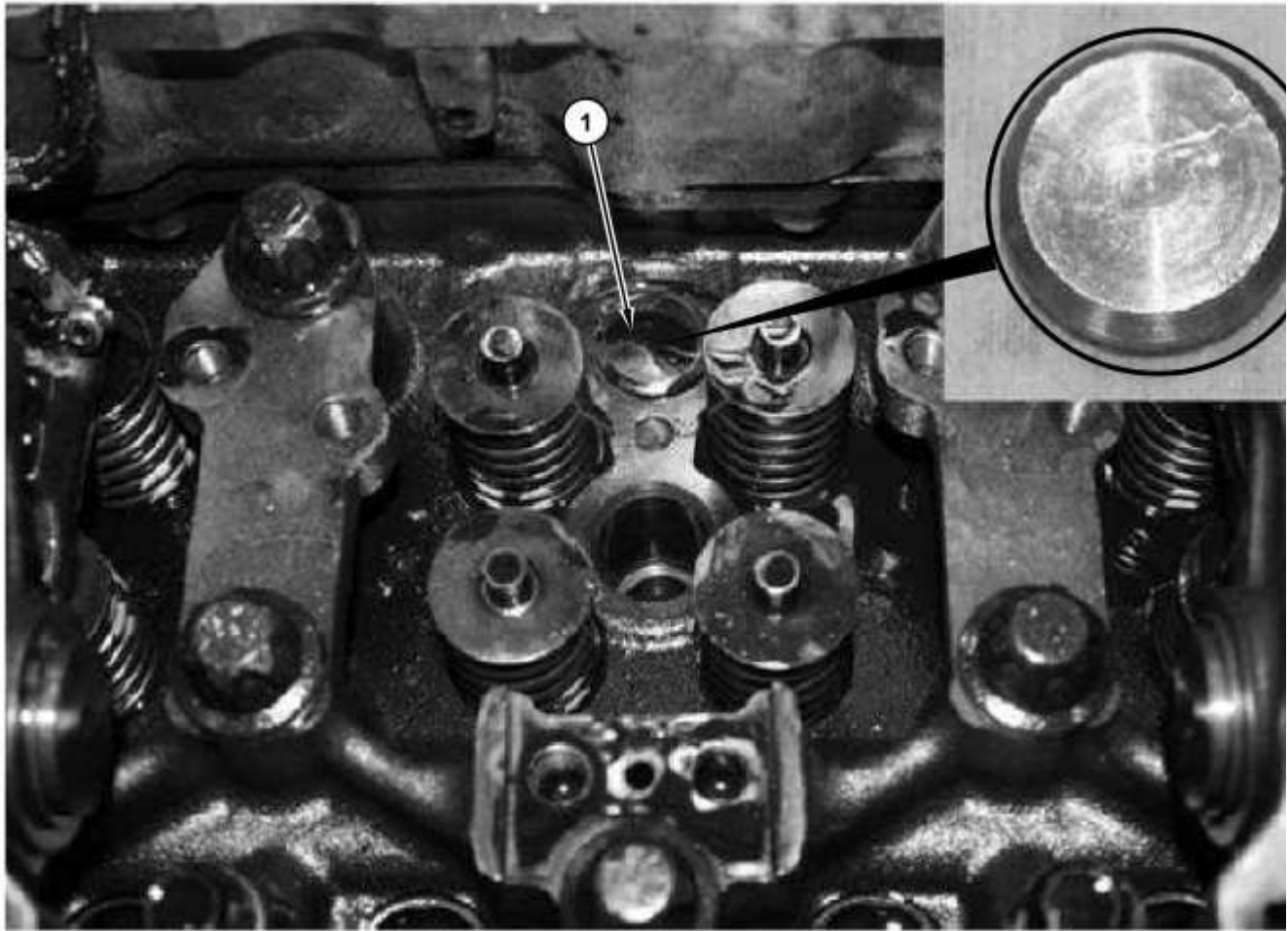


Illustration 3

g03.

(1) Injector hold down spacer

1. Transfer the six injector hold down spacer pucks (1) beneath the injector hold downs over to the new head. Refer to Illustration 3
2. Compare new and old head gaskets. An 11L head gasket on a 13L engine will stop the engine from turning over once the head is torqued down since the bore size is smaller than a 13L piston.
 - a. 11L gasket does NOT have a notch at the RR corner of the cylinder head gasket. Refer to Illustration 2.
 - b. 13L gasket does have a notch at the RR corner of the cylinder head gasket Refer to Illustration 1.
3. Time the cam gear per the service manual.

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