



Valve Recession Indicator for Caterpillar G3400 Natural Gas Engines

The AERA Technical Committee offers the following information regarding a valve recession indicator tool for Caterpillar G3400 natural gas engines. This tool is very valuable in helping to determine possible engine failure during regular maintenance. The tool is suggested for use whenever the overhead is being inspected.

Engines affected:

- G3406** (Serial Number: 4FD; 1RK; KAR; 5NW)
- G3408** (Serial Number: 6NB; 6RJ)
- G3408C** (Serial Number: 3WR; 8YR; 6FW; BAZ)
- G3412** (Serial Number: 7DB; 3NK; KAP)
- G3412C** (Serial Number: 6ZM; 5KR; 9RR; 8LW)

A tool kit is currently available for measuring the valve recession on G3400 Engines. The Caterpillar 213-9285 Valve Recession Tool Kit can be used to determine the actual wear of the valve and the valve seat. This tool can be used to check the valve recession without removing the rocker arms, which saves time.

- Large center hole in support assembly provides clearance for spark plug tube on engines with Magneto and CDIS ignition systems
- Slots in support assembly allow access to valve rotator on either side of rocker arm
- Small magnets in legs of base assembly hold it in place while taking measurements

This new tool group can be used to measure a change in the distance between the top of the valve rotator and the top deck of the cylinder head. An increase in the measured distance is a result of valve recession. The initial measurement should be made at the first service interval for a new engine.

Periodically at scheduled service intervals, continue to measure the valve recession. These measurements will allow you to keep a record of the change in the valve recession.

When the valve recession has grown to approximately .070" (1.700 MM), a top end overhaul should be scheduled. The maximum allowable valve recession .090" (2.300 MM) before engine reliability will be compromised.



The 213-9285 kit includes the items that follow:

Item Part Number Description

- 213-9285 Valve Recession Tool Kit

Included with 213-9285

- 4C-3975 Case
- 213-9198 Valve Recession Tool Group (Not Serviced)
- NEEG2946 Decal
- NEHS0851 Tool Operating Manual

Included with 213-9198 (not serviced individually)

1. 158-5080 Dial Indicator
2. 5P-4814 Collet As — Clamp
3. 213-9193 Base Assembly
4. 230-5826 Support Assembly
5. 213-9192 Rod Assembly
6. 9S-8903 Point

The individual components of this group are identified in the Figure 1 below.

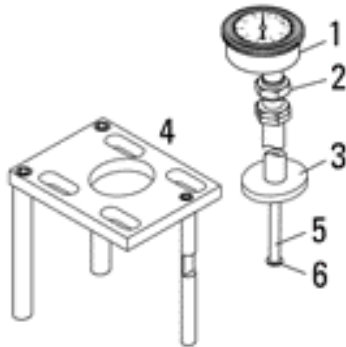


Figure 1. Valve Recession Tool Group 213-9198