

COLT 2310, 2510, AND 2712 COMPACT TRACTORS

CHAPTER 6

VALVES AND CAMSHAFT

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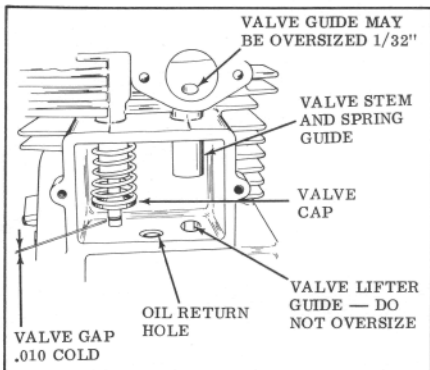


Figure 6-A-1

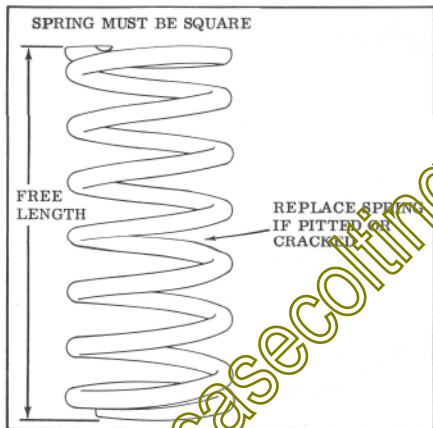


Figure 6-A-2

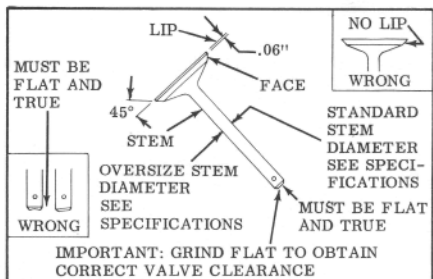


Figure 6-A-3

6-A-1 Valve gap .010, set when engine is cold. Rotate engine until valve lifters are at lowest point. Do not attempt to adjust exhaust valve clearance with the exhaust lifter on the compression relief mechanism or an inaccurate clearance will result.

Valve stem ends must be ground flat when adjusting valve gap. An uneven or concave end can cause abnormal wear to the valve train.

6-A-2 The outside of the valve stem guide also guides the valve spring. A valve spring cap is used only on the bottom of the spring. A pin through the valve stem retains the spring.

Use a step type reamer to enlarge valve guides if worn. Oversize valves are 1/32" larger in diameter than standard. See Paragraph 6-A-4.

The valve lifter guide is not to be enlarged, lifters with oversize stems are not available.

6-A-3 Valve springs should be replaced when an engine is overhauled. Weak valve springs will spoil the best overhaul job.

Valve spring free length should be checked. Comparing one spring with the other can be a quick check to notice any difference. If a difference is noticed, carefully measure free lengths and compression length and strength of each spring. See specifications, section 10-B-1.

Check valve spring free length, it should be 2.125 long on early production engines and 1.885 on later production models. If both ends are not parallel, replace with new springs.

6-A-4 Correct valve grinding procedures are essential to obtain a satisfactory result.

Face and seat angles must be accurate and the surfaces must be smooth; lapping is recommended.

A lip must be left on the valve head after re-facing. The valve without the lip would burn and distort very rapidly. See Fig. 6-A-3.

Use a "Vee" block and the flat side of a grindstone to grind for valve clearance. The end of the stem must be flat and true or abnormal wear will occur.

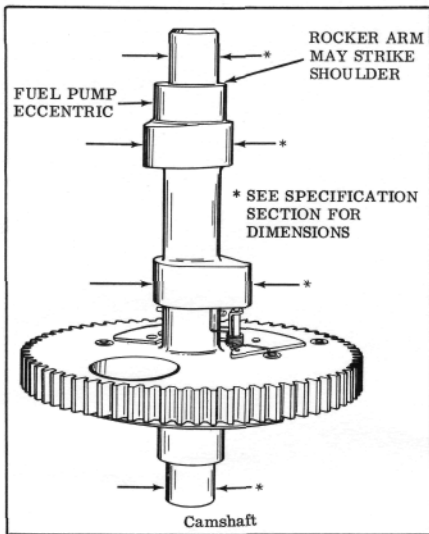


Figure 6-B-1

6-B-1 When servicing engines check the camshaft at the points indicated by the asterisks in Figure 6-B-1. Examine the gear teeth for wear and damage. See Specifications Section 10. **IMPORTANT:** For engines with mechanical fuel pump only — when cylinder cover, P.T.O. end or camshaft is removed; before reassembly, check to see that fuel pump rocker arm is riding on fuel pump eccentric. It may be necessary to remove fuel pump before installing camshaft. **CAUTION:** Damage to rocker arm may result if forced by pump eccentric shoulder. See Fig. 6-B-1.

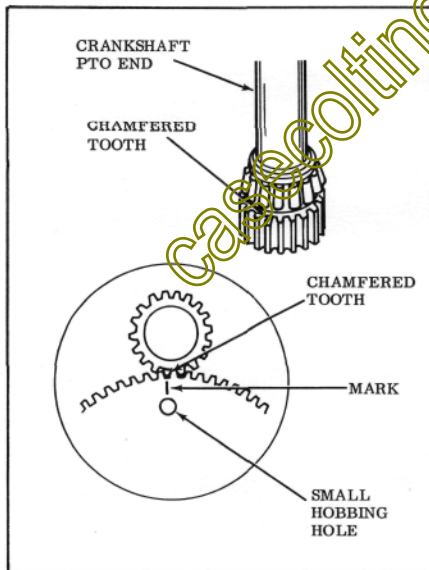


Figure 6-B-2

6-B-2 INSTA-MATIC EZEE-START COMPRESSION RELEASE. Clean the mechanism in a conventional parts cleaner and dry thoroughly. Individual component parts are not available as service replacement parts and cannot be obtained from the factory. New replacement camshafts with the compression relief mechanism are available.

6-B-3 VALVE TIMING - Match chamfered gear tooth on crankshaft with mark and hobbing hole on camshaft gear. See Figure 6-B-2.