

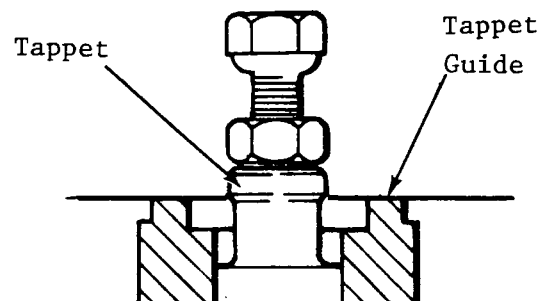
VALVE CAM TIMING

A small quantity of early 1980 Sportster engines were produced with incorrect front exhaust cam gear timing. Most of the suspect engines occur within the range of crankcase identification numbers 780-213-041 to 780-211-001, although some earlier engines are also affected. The valve timing was corrected on most engines, within the above range, before leaving the factory, and such engines were identified with an orange dot on the gear case cover generator boss.

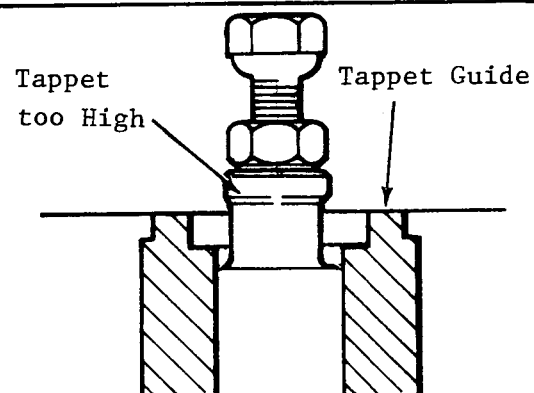
If you suspect poor engine performance caused by incorrect valve timing on engines within this range of crankcase numbers, please check the front exhaust valve timing according to the following procedure and correct as instructed. (It is not necessary to remove gear cover to check timing).

WARNING - Disconnect battery prior to any engine service.

1. Remove spark plugs and flywheel timing hole plug.
2. Remove front exhaust push rod cover keeper and slide cover up so tappet can be observed.
3. Rotate flywheels so that rear cylinder piston is at top of compression stroke and front cylinder timing mark is exactly centered in timing inspection hole in crankcase.
4. Observe height of tappet above top surface of guide and compare with tappet positions shown in diagrams.
5. If tappet position indicates timing is not correct, remove gear case cover and advance or retard front exhaust gear one tooth to correct.
6. Block out incorrect timing mark and remark gear in correct location for future reference.

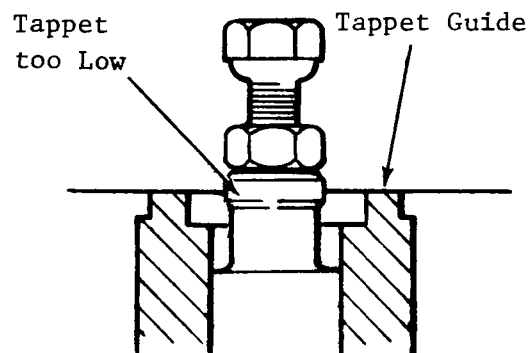


CAM TIMING CORRECT



CAM TIMING INCORRECT

Remove gear case cover.
Remove F.E. cam gear and reinstall
one tooth counterclockwise



CAM TIMING INCORRECT

Remove gear case cover.
Remove F.E. cam gear and
reinstall one tooth clockwise

[illegible]