

CIRCUIT BREAKER AND IGNITION TIMING - SPRINT

For best engine performance on 1967 and 1968 Sprint models it is most important to set ignition timing with circuit breaker cam in the advanced position which is 35° (1/4 in.) before piston top center.

This was previously explained in Service Bulletin No. 554 with instructions for setting this timing.

Due to an inconsistent amount of circuit breaker cam retard on some motorcycles it is now also necessary that you check the ignition timing in the retarded cam position to make sure that it is between 5° and 10° before piston top center. This retarded cam timing is necessary to produce smooth idling to prevent engine misfiring and stopping.

RECOMMENDATION

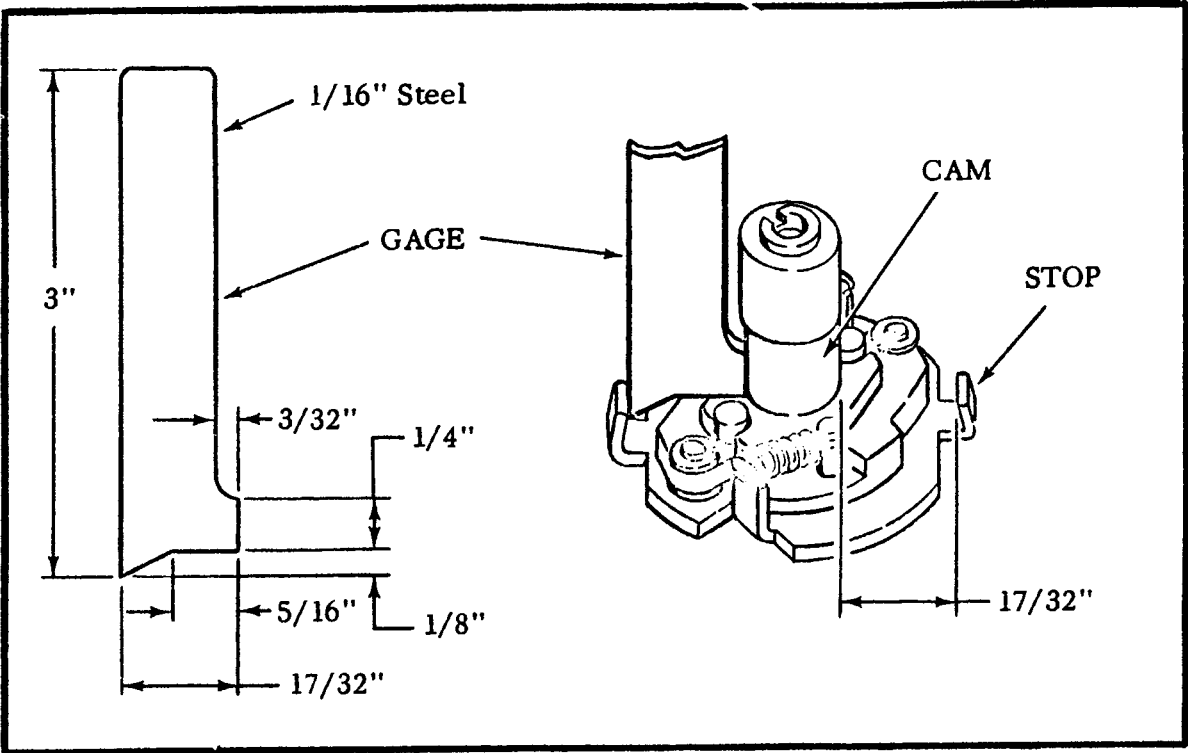
Check ignition timing in both advanced cam (35° B. T. C.) position and retarded cam (5° to 10° B. T. C.) position on all Model H and SS Sprints below engine serial No. 68SS 6850. This includes those now in your stock, on future deliveries, or those already delivered to your customers. It will not be necessary to check timing on 1968 Sprints above serial No. 6850 unless there is a rider complaint of poor idling or lack of power, because a more close control is now provided on amount of cam retard in manufacturing. Also check timing on 1967 Sprints where there is this same complaint.

There are two methods for checking timing, either one of which can be used for checking advanced and retarded timing. The preferred method shows the timing while the engine is running with a degree wheel attached to the generator armature shaft, using a strobe timing light. Both methods are described in detail in your 1968 Sprint Service Manual, Section 5F.

If after setting the advanced timing to 35° B. T. C. at 4500 engine RPM, the retarded timing does not fall within 5° to 10° B. T. C. at 1200 engine RPM (Idle Speed), it will be necessary to remove circuit breaker cover and base plate and bend flyweight stops inward to reduce the amount of spark advance. The stops should be bent an equal amount (approximately 1/8 inch) so that the distance between each stop and the round section at the base of the cam is 17/32 in. (.530). Measurement is shown in diagram on next page.

Note: A convenient gage can be made of a thin piece of flat stock made to dimensions as shown in diagram.

Bending stops inward toward cam retards advanced timing, Therefore the advanced (35° B. T. C.) timing must be readjusted by shifting circuit breaker plate counterclockwise to a new position.



Use strobe timing light and degree plate indicator to recheck timing after circuit breaker plate is reassembled and tightened down.

TIMING INFORMATION

1967 - 1968 SPRINT	ADVANCED TIMING	RETARDED TIMING
	35° B. T. C. @ 4500 RPM	5° to 10° B. T. C. @1200 RPM

- CRANKSHAFT DEGREE INDICATOR TOOL Part No. 95860-67P
- PISTON POSITION GAGE Part No. 95883-67
- STROBE TIMING LIGHT Sun No. PTL-45
(Order from Sun Electric Corp.
Harlem and Avondale
Chicago, Illinois 60631)