STROMBERG CARBURETOR ISSUES AND LINKAGE TIMING

A big issue with the SII carburetors is the timing of the linkage between the primary and secondary butterfiles. The gasket/insulator thickness between the carburetors and the manifold is critical since the linkage between the carburetor and the secondary manifold is not adjustable. Our suppliers only sell the SIII (C.33060) insulation block for the SII (C.28697) application and it won't work right. The proper spacing is .200" and the SIII insulation block is .225" thick. This is enough to keep the carburetor butterflies from opening all the way.

The best way to check the throttle plate timing is to look through the carburetors (damper raised or removed) and work the throttle. If the insulator block (spacing between the carburetor and the manifold) is too thick, the carburetor butterfly won't open all the way and if it's too thin, the secondary butterfly won't open all the way and the carburetors have trouble returning to idle. Both butterflies should be exactly horizontal when the gas pedal is to the floor. Both butterflies need to be completely closed at the same time (at idle) and fully open (horizontal) at the same time (foot to the floor).

Since the linkage is not adjustable the only geometry that controls the timing is the spacers behind the carburetors. The timing is set for a .200" spacer (insulator block plus gaskets). Unfortunately the original spacer for the SII has not been available for many years. So the usual suppliers sell the SIII spacer (or insulation block with no gaskets) for the SII application. The SIII spacer is .225 thick which screws up the timing and noticeably changes up the performance.

What some have ended up doing is grinding the SIII insulator blocks to .200' thick and skipping the gaskets that are supposed to go on either side them. This seems to work fine.

Something else to check for a complete return to idle is the springs on the secondary butterflies. On early cars this is a coiled spring that goes on the butterfly shaft. On later cars there is a bracket on the back of each carburetor, attached behind the secondary manifold on the lower two studs, that has a separate linear return spring that attaches to the secondary linkage. Sometimes these are left off or are put on wrong. In addition make sure the return spring on the throttle pedal is not broken. This is a simple spring located in the top of the pedal housing.

Another thing that affects a complete return to idle is the decal valve (throttle bypass valve). If the valve diaphragm is rotten (very common), the car will have trouble idling. This diaphragm does not come with any of the kits I know of and usually must be purchased separately.

One more thing is the damper diaphragm. These things have a tendency to crack and thus create an air leak in the damper, thus screwing up idle.

Lastly, the jet needle is biased and thus rubs. After 100k miles or so the needles should be replaced as the profile will have been adversely affected.

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