

# 1973 - 1974 Corvette: Service Bulletin: Engine Overheat Due to Blocked Coolant Passage in the Cylinder Head

**Subject:** Engine Overheat Due to Blocked Coolant Passage in the Cylinder Head

**Model and Year:** All Small Block V-8 Engines

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TO: ALL CHEVROLET DEALERS

A small number of 350 and 400 cubic inch displacement V-8 engines were built before 9/24/73 (0924) with a coolant blockage in the cylinder head resulting in an overheat condition. A 1974 casting process change has resulted in a possible blockage of the coolant exit port in cylinder head casting No. 333882 (casting number appears on the top of the cylinder head beneath the rocker cover). This cylinder head is common to all 1974 small block V-8 engines, except for those used in C-K30 and 50 thru 60 series trucks.

As of 10/1/73, at all assembly plants, engine assemblies that were built before 9/24/73 and were not installed in vehicles have been inspected for the blockage and identified by a white, circular (1" dia.), paint mark appearing on the front of the engine block below the date stamp, or on the inlet manifold near the thermostat housing.

A blocked coolant passage should show up in the first five (5) to ten (10) minutes of engine operation, and it is recommended new units be run for that period during new car preparation. If an engine overheat condition is encountered, the following probe inspection should be made to determine if the coolant passage is blocked.

1. Remove the thermostat housing and thermostat.
2. Insert the oil level gauge (dipstick) into the thermostat port thru the inlet manifold coolant passage and into the cylinder head (refer to the illustration on page 3).
3. Work the dipstick into the cylinder head as far as possible by carefully rotating and pushing the handle with one hand while guiding the blade with the other hand.
4. If at least seven (7) inches of the dipstick is inserted past the edge of the thermostat port, there is no blockage.
5. Remove the dipstick and repeat the test for the other cylinder head.
6. If a blockage is present, it will occur at a depth of approximately five and one half (5-1/2) to six (6) inches from the edge of the thermostat port.
7. The blocked coolant port can be repaired by removing the inlet manifold and knocking out

the casting flash in the blocked water passage with a suitable tool. Take care not to damage the oil drain boss. The particles of flashing that fall into the water jacket do not have to be removed. If the blockage cannot be removed, the cylinder head should be replaced.

8. If no blockage is found, look for other causes for overheat condition.

NOTE: As of 10/1/73, all General Motors Parts Division locations have inspected their stock of 1974 350 and 400 C.I.D. service engine assemblies and cylinder head assemblies for the blocked coolant port. Service cylinder head assemblies, No. 6260856 and No. 6260858, received by dealerships before 10/1/73 should be inspected for the blockage before they are used. Refer to the illustration to determine the location of the possible coolant port blockage.

#### NEW INLET MANIFOLD SIDE GASKET USAGE FOR 1974

1974 inlet manifold side gasket usage has been changed for 350 and 400 cubic inch displacement V-8 engines with a four (4) barrel carburetor. Gaskets with a restricted crossover port are used on both the right hand and left hand side of the inlet manifold. 350 and 400 cubic inch displacement engines with a two (2) barrel carburetor still use a restricted gasket for the right hand application and an open gasket for the left hand. the correct inlet manifold side gaskets can be obtained in the following gasket units.

ENGINE

INLET MANIFOLD  
GASKET UNITS

CYLINDER HEAD  
GASKET UNITS

350/2-BBL.	6258833	6258831
350/4-BBL.	345195	345196
400/2-BBL.	6258833	6258830
400/4-BBL.	345195	345197

Chevrolet Motor Division  
General Motors Corporation

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