GENERAL COOLING SYSTEM SERVICING (Cont.)

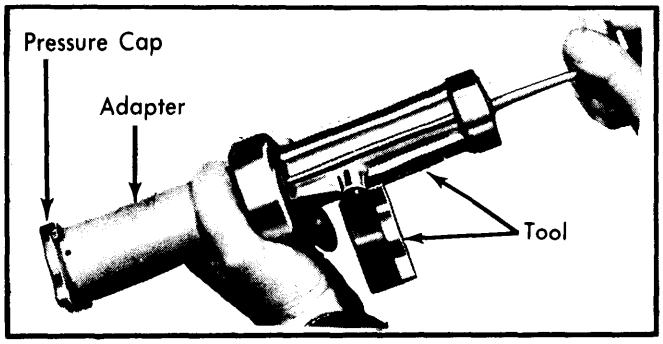

Fig. 2 Testing Pressure Cap

Cooling System —With engine not running, wipe radiator filler neck seat clean. Fill radiator to correct level. Attach tester to radiator and pump until pressure is at upper limit of radiator rating. If pressure drops, inspect for external leaks. If no leaks are apparent, detach tester and run engine until normal operating temperature is obtained. Reattach tester and pump to about seven psi. Race engine, if needle on dial fluctuates it indicates a combustion leak.

CAUTION — *Pressure may build up fast. Release any excess pressure above the upper limit of pressure cap specifications or cooling system damage may result.*

If needle does not fluctuate, race engine a few more times and check for water at tail pipe. Excessive water would indicate a faulty head gasket, cracked block or cylinder head near exhaust ports. Next, remove oil dipstick and if water globules appear in the oil, a serious internal leak is indicated.

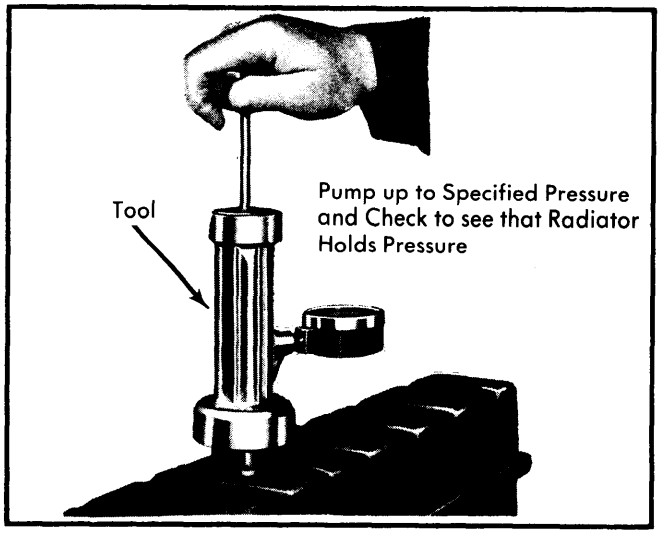

Fig. 3 Pressure Testing Cooling System

ANTI-FREEZE CONCENTRATION

Test anti-freeze concentration using a suitable anti-freeze tester. The tester should have a temperature compensating feature, as failing to take temperature into consideration could cause an error as large as 30°F. Follow tester manufacturer's instructions for correct use of tester.

COOLANT RECOVERY SYSTEMS

American Motors
Chrysler Corp.
Ford Motor Co.
General Motors

DESCRIPTION

A coolant recovery system differs from other cooling systems in that an overflow bottle is connected to the radiator overflow hose. The overflow bottle is transparent or translucent to permit checking of coolant level without removing radiator cap. No adjustment or test is required except keeping vent hole or hose clean and checking pressure relief of radiator cap.

OPERATION

As coolant temperature rises and pressure in system exceeds pressure relief valve of radiator cap, due to expansion of coolant, excess coolant flows into overflow bottle. As engine cools and coolant contracts, vacuum is formed in system, drawing coolant, stored in overflow bottle, back into radiator. As a result, in a properly maintained cooling system, the only coolant losses will be through evaporation.

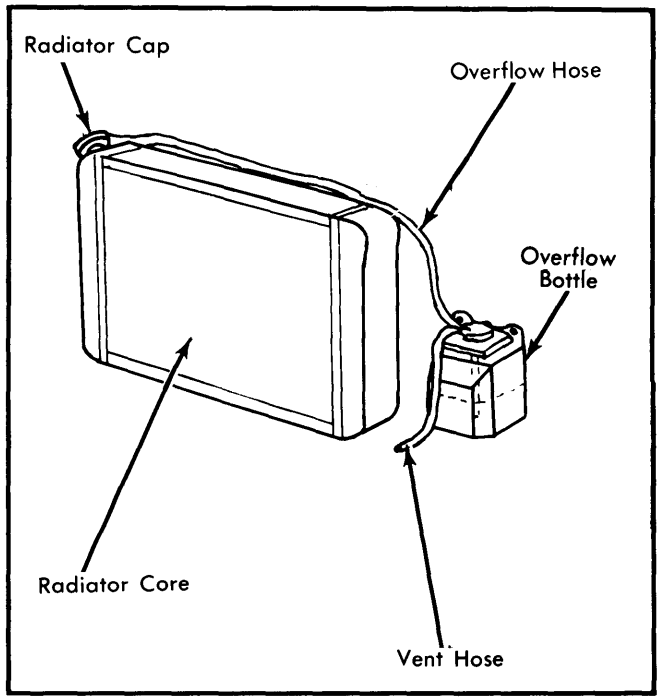

Fig. 4 Coolant Recovery System

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