McCULLOCH

SERVICE BULLETIN #1142

SUBJECT: FUEL CAP VENT SPRINGS

MODEL 1-52, 1-62, 1-72, 1-75, 1-82, 1-85, 1-92 DATE 8/31/61

The fuel tank pressure relief vent valve in Fuel Cap Assembly, P/N 55934, is controlled by a spring which is acted on by fuel tank pressure. When fuel tank pressure exceeds the spring pressure, the spring is compressed and the excess pressure bleeds through the fuel cap vent passage. When tank pressure drops below spring pressure, the spring returns to normal, closing off the fuel cap vent passage.

A spring that is too weak will permit constant venting or spilling of gas through the fuel cap vent. A spring that is too strong will not permit proper venting through the fuel cap and will force fuel to the carburetor with sufficient force to unseat the needle valve. The result is engine flooding and fuel accumulation in the airbox.

Field reports have been received of both conditions.

To remedy carburetor flooding caused by a too strong vent valve spring, a new Vent Valve Spring, P/N 58384, providing fuel tank pressure relief at a lower pressure, is available for service replacement in the fuel cap assembly. Present production fuel caps use this lower pressure vent valve spring, while earlier fuel caps have a stronger spring installed. Use or need for the lower pressure vent valve spring depends on several operating conditions such as area, ambient temperature, and/or altitude.

When a chain saw engine has a carburetor flooding problem, the pressure relief vent valve spring should be examined. Remove the vent valve outlet fitting, identified by its sintered metal top, from the fuel cap assembly. Turn the fuel cap upside down and tap lightly to remove the rubber valve, phenolic disc, and the valve spring. Measure the free or uncompressed spring length to determine which spring is installed in the fuel cap assembly. The lower pressure spring has a free length of 0.350-inch (.890cm) while the higher pressure spring will have a free length of 0.450-inch (1.143cm) (see figure 1).



FIGURE 1

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If the fuel cap vent valve spring is the long or higher pressure spring, replace it with the lower pressure Vent Valve Spring, P/N 58384. Be sure the vent valve spring, phenolic disc and rubber valve are in correct order, in the fuel cap, before reinstalling the vent outlet fitting (see figure 2).

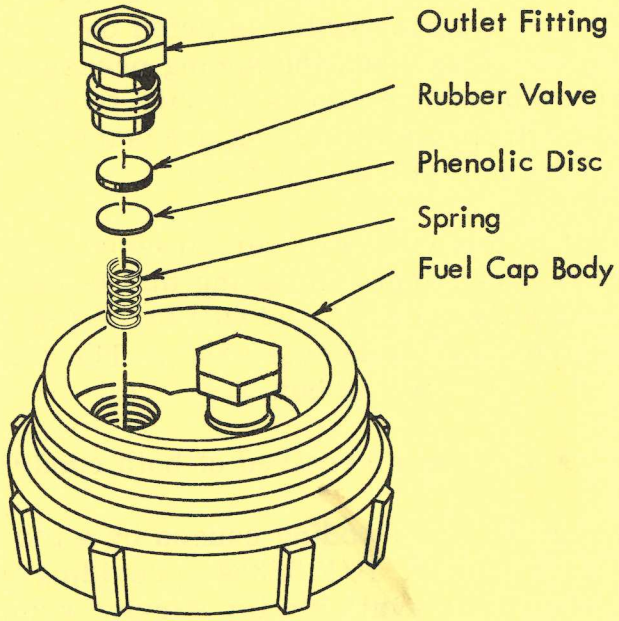


FIGURE 2