

C1 FUEL INJECTION HYDROSTATIC LOCK SOLENOID

Some of you who have worked on FI units, or are somewhat familiar with them, are probably aware of the possibility that a hydrostatic lock can occur in a cylinder and cause significant damage to an engine.

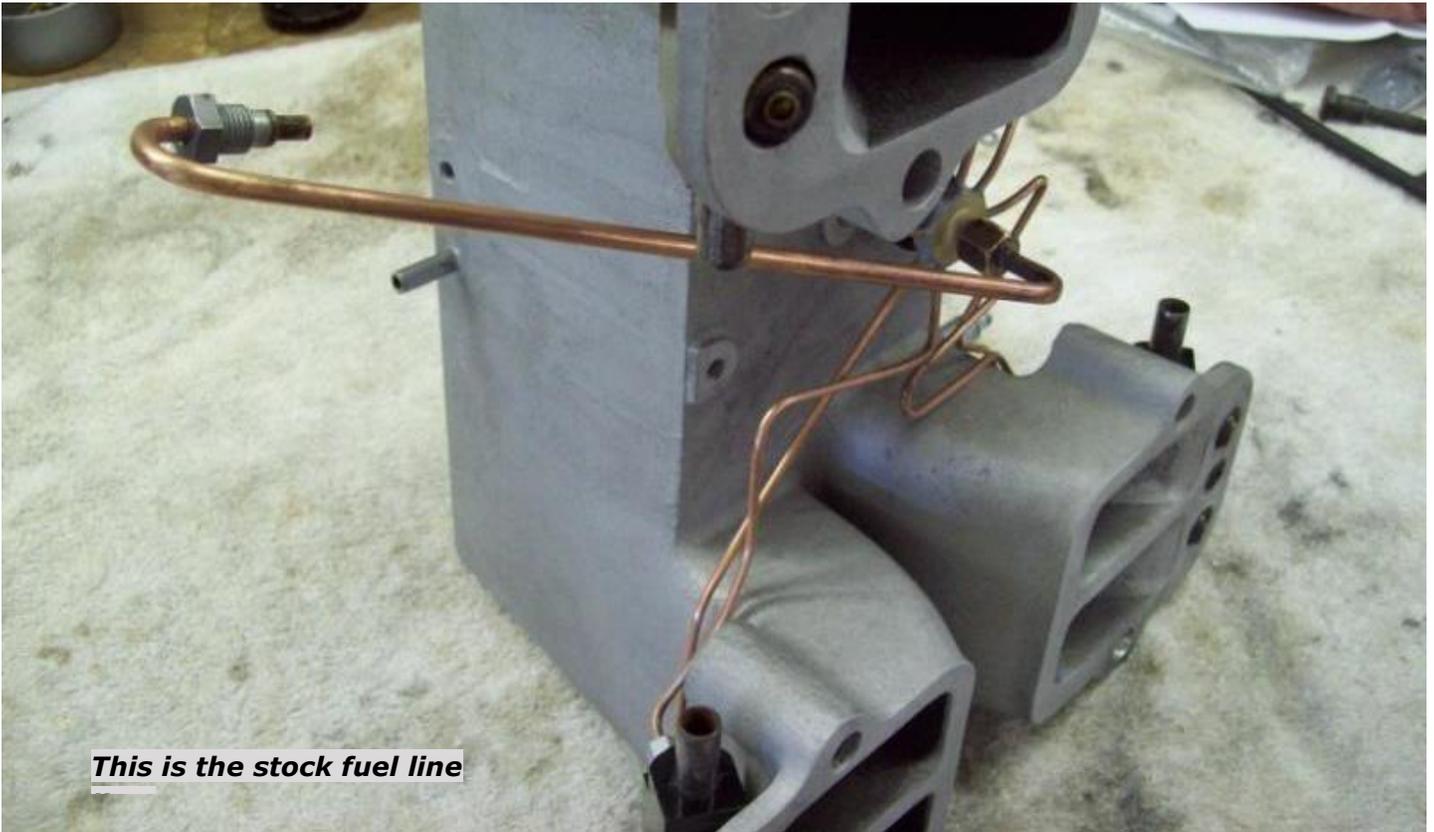
For engines with a Rochester fuel injection system, it is POSSIBLE for fuel to be siphoned out of the fuel meter bowl, into the fuel spider lines, through a nozzle(s) and puddle in a cylinder. When the engine is turned over and the piston comes to the top, SOMETHING has to give. Often it is a bent rod and/or worse damage occurs. Hydrostatic lock in an FI engine IS NOT a regular or frequent occurrence, but it has happened, and I have personally witnessed it happen in a few FI engines. My first witnessing of this was at the NCRS Natls at St. Louis in 1981. I had heard about it happening, but I saw it first-hand then. A guy rolled an immaculate 57 out of the trailer, started it and drove it to the parking spot (judging was done in the Holiday Inn parking lot that year). After the judging was over, he started it up to drive over to his trailer. As soon as it fired, there was an extremely audible knocking from the engine-----a rod was bent due to hydrostatic lock, due to fuel being siphoned from the FI unit (the EARLY units have NO anti-siphon check valve).

Beginning with the 1960 units, the fuel passage in the fuel meter was changed and an anti-siphon valve was incorporated. It is a VERY simple tiny check ball/seat. In time, after many years of use (or non-use), the ball may become stuck in the seat and does not perform its intended function, which is to prevent siphoning of fuel out of the fuel meter and into a cylinder.

Some of you may have installed the siphon breaker solenoid provided by John DeGregory, some of you may have heard of such a modification and some of you may not have a clue what I'm talking about. I'm just providing this information and pictures out of the kindness of my heart so that possibly a hydrostatic lock won't happen to someone here. When I rebuild a unit, I ALWAYS replace the stock anti-siphon check valve. But I also install one of John's solenoids.



This picture compares the STOCK fuel line between the fuel meter and the fuel spider with John's solenoid and fittings that is available from John. The stock fuel line is completely replaced with the solenoid and fittings available from John DeGregory. I STRONGLY recommend installing one.



This is the stock fuel line

This is the solenoid and fittings which replaces the stock line. Minor final bending/adjusting of the lines will be required for each FI unit. Electrical connections are ultra simple. One wire to ground, one wire to 12volts (12v side of ballast resistor).



Oh ya, for the non-believers here is a bent rod from a hydrostatic lock that occurred.



John, Jerry, and others that are rebuilding these primitive FI units and are knowledgeable about them, are NOT getting any younger. So you young whipper snappers that need to know about the intricacies of Rochester FI should take to heart all the information you can store about FI. 🇺🇸