



DATE: 1-Aug-13

**BULLETIN NUMBER: 269** 

**SUBJECT:** Ethanol Induced Vapor Lock

MODEL(S) AFFECTED: All 4-Cylinder Low-CO Gasoline Gensets

**DETAIL:** We have received reports from the field that in high ambient temperature operating conditions, in conjunction with the use of fuel containing ethanol, vapor lock may occur on 4-cylinder low-CO gasoline gensets.

In an effort to help address this potential problem, we are implementing a new, improved low pressure fuel pump that performs better in high heat conditions. This new pump will become standard equipment on new production 4-cylinder models and a field retrofit kit will be made available for units in service as soon as possible. The kit will be offered at a nominal price. It will not be provided at no cost. Vapor lock is not a warrantable failure and the offering of this fuel pump kit provides an enhancement to performance.

In <u>extremely high</u> ambient temperature operating conditions, in addition to the improved performance low pressure fuel pump, accompanying this bulletin are instructions outlining the proper installation of a fuel return line between the genset and its fuel tank. The requirement for and the installation of a fuel return line are at the sole discretion of the owner/operator. It is the responsibility of the owner/operator that the installer follow any requirements set forth by the United States Coast Guard, or any other governing body having requirements that apply to the particular application.



## 8.0-14.0 SBEG, 20.0-22.5 SBEG/A FUEL RETURN LINE INSTALLATION PROCEDURE





Before working on the engine or generator, be sure to completely STOP the engine and allow engine to fully cool down if it is hot. Also ensure the generator compartment is evacuated of all vapor/fumes. Disconnect NEGATIVE Battery terminal. Stay away from all moving parts. Always wear proper safety equipment.

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<u>For multi-tank systems</u>: The fuel supply and return valve MUST be configured in a fail-safe manner such that fuel can only be returned to the same tank from which it was drawn.



- 1. Locate the Schrader valve that is installed on the fuel cell. The fuel cell is located under the starter motor.
- 2. Insure that there is no residual fuel pressure by hooking up a bleeder gauge and relieving residual pressure.
- 3. Remove the Schrader valve using a 7/16" wrench, socket or other appropriate method. Use caution not to get debris in fuel cell.



- 4. Leave the 1/8 NPT elbow in place to re-use for fuel return hose connection. NPT threads should be sealed with Loctite 565 or equivalent when assembled. NOTE: Return fuel MUST go to the same fuel tank from which it was drawn.
- 5. All fuel return lines, fittings, etc. should be of the proper construction and installation and must meet all applicable governing agency requirements.