

FIX-N-FAX #64

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

No. 64

Equipment Standard

Mandatory Compliance

Date: December 1982

In-Tank Electric Fuel Pump, Ground Circuit Equipment Standard

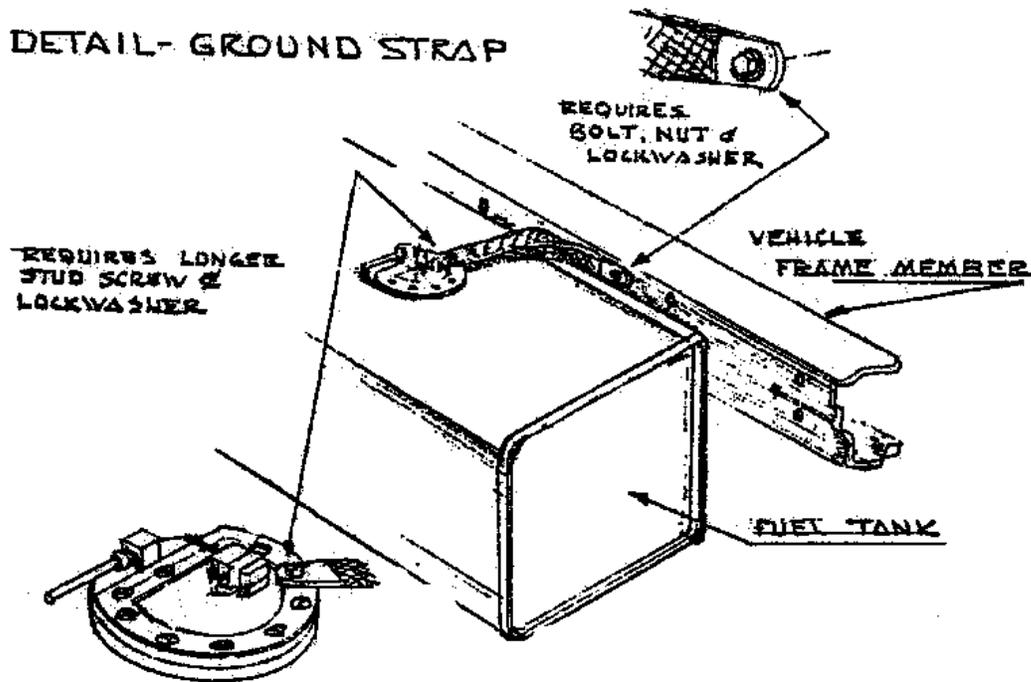
An inadequate ground circuit between fuel tank and vehicle main frame can cause arcing when cap is removed, while fuel pump is operating. The round path follows the cap retention chain and arcs to body where cap makes contact.

Further research indicates a poor ground circuit is causing premature pump motor failures and malfunctions, especially in high ambient temperatures when resistance is greater.

Upon receipt of this Fix-N-Fax, all vehicles using fuel systems which include in-tank electric pumps are to have heavy-duty ground straps installed between pump adapter flange and vehicle main frame or body channel. It is important that good contact be made at both terminal points.

The following illustration provides a typical example for detail.

DETAIL- GROUND STRAP



ELECTRIC FUEL PUMP

NOTE: BOTH TERMINALS SURFACES MUST BE FREE OF RUST, CORROSION OR PAINT- METAL TO METAL CONTACT

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FUEL SHUT-OFF VALVES

Certain models of fire engines have a mechanical fuel shut-off valve in the gas line between fuel tank and filter or pump. All fire engines, plus other equipment where spillage occurs when servicing filter or pump, should be so equipped. Valves should be large enough to avoid restricting normal fuel flow.

(see FIX-N-FAX INDEX)