

Delivery Operations



August 5, 2014

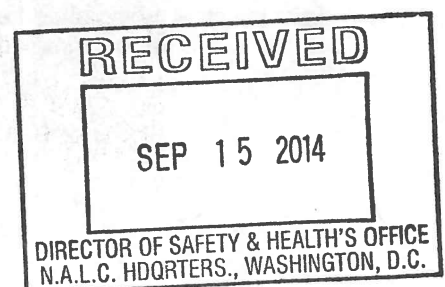
Manager, Vehicle Maintenance
Manager, Vehicle Maintenance Facility

SUBJECT: Vehicle Fire Prevention



In accordance with Vehicle Maintenance Bulletin (VMB-04-11) dated 04-11-2011; please inform Vehicles Engineering (Han.T.Dinh@usps.gov) about any and all vehicle fires as soon as possible. The vehicle must be towed to the Vehicle Maintenance Facility and securely covered so that as much of the vehicle fire event can be preserved for further fire investigation by Trident, Inc. currently under contract with USPS. In the event that a vehicle is salvageable it cannot be repaired until the investigation is completed by the investigation firm.

A copy of this memorandum is to be posted on a bulletin board at each Vehicle Maintenance Facility (VMF) and be retained for future reference. Additionally, this information must be provided to all VMF employees in the form of a safety talk and reviewed on an annual basis. A copy of this document is to be provided to all contractors who currently or may perform vehicle inspections.



BACKGROUND

An increase in vehicle fires has been experienced in the USPS fleet over the last year and a half. The increase of vehicle fires has primarily occurred in the right hand delivery trucks; particularly in Long Life Vehicles (LLVs). Most fires initiate from locations in and around the engine compartment and some have been linked to failed fuel system components.

The fuel system carries a greater potential for a fire than other vehicle systems. All fuel systems must be checked for leaks and deteriorated or worn components during each Preventive Maintenance Inspection (PMI).

There are three different fuel filters configurations currently authorized for the LLV:

- a. DAVCO #350241 system released in 1994 with a spin off type filter usually located under the left hand side of the body of the LLV.
- b. Wheeler Brothers with a fuel filter canister located closer to the front of the engine compartment. The modification was released in 1996; this system is now discontinued.
- c. General Motors (GM) original equipment LLV fuel filter configuration with a canister type fuel filter located at the back of the engine compartment.

Regardless of the system all components must be examined thoroughly during each PMI. Examination of the system components must show that they are in excellent condition. If there is any indication of cracks, corrosion or leakage the component must be replaced.

DAVCO Fuel Relocation Kit

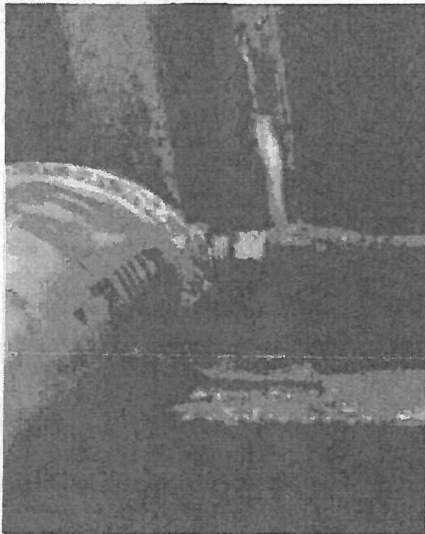
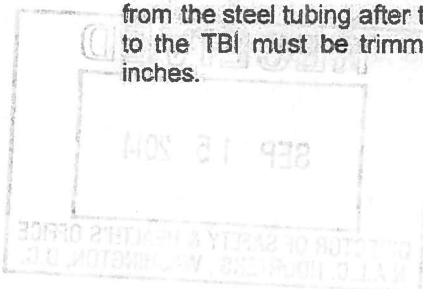


Figure 1 DAVCO Corroded Connector



Figure 2 Improper Fuel Line Routing

The connectors coming from the tank and going to the Throttle Body Injection (TBI) must be completely free of corrosion, see Figures 1 & 2 above. Additionally the flexible fuel line that goes from the steel tubing after the filter around the transmission case and into the tubing that connects to the TBI must be trimmed and routed tight avoiding any exhaust components by at least 3 inches.



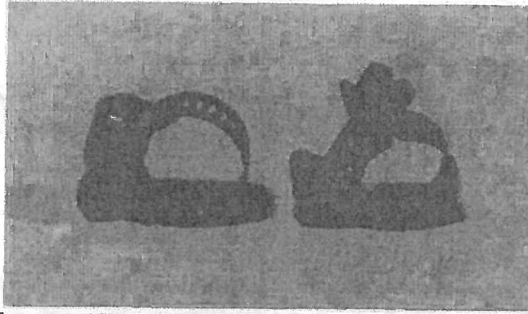


Figure 3 Worm Drive VS Barnes Fuel Line Clamp

The worm drive clamps supplied with the DAVCO kit have a specially sleeved liner that prevents pinch points. These clamps must be replaced if there is any corrosion or rust on them. The Barnes type fuel line clamp P/N 24154 & KP82709 (5/16" & 3/8" ID hose respectively) is a preferred replacement to the original worm drive clamps and should be used when replacing the worm drive clamp.

Flexible fuel line can be worn or heat stressed and in many cases damage will not be readily observable unless it is physically flexed; see figures 4 & 5 below.



Figure 4 Outside Fuel Line Cracking

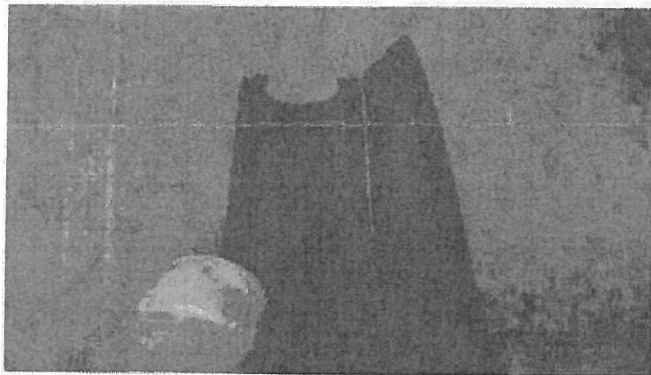


Figure 5 Inside Fuel Line Cracking

When flexible fuel lines exhibit any deterioration they must be replaced with a suitable fuel line hose such as Dayco (P/N 80063, 80064 and 80065) or Goodyear SAE 30R7 type hoses.

Warning: Goodyear Instagrip and some Parker type hoses are air hoses and cannot perform the duties of a fuel line hose and will leak and cause a fire- assure that you are using fuel line hose rated at a minimum of 50 psi.

Wheeler Brothers Fuel Filter Relocation Kit

This kit is primarily comprised of Original Equipment Manufacturer (OEM) components along with some custom built parts. When discontinued parts require replacement, this system must be converted back to the original design.

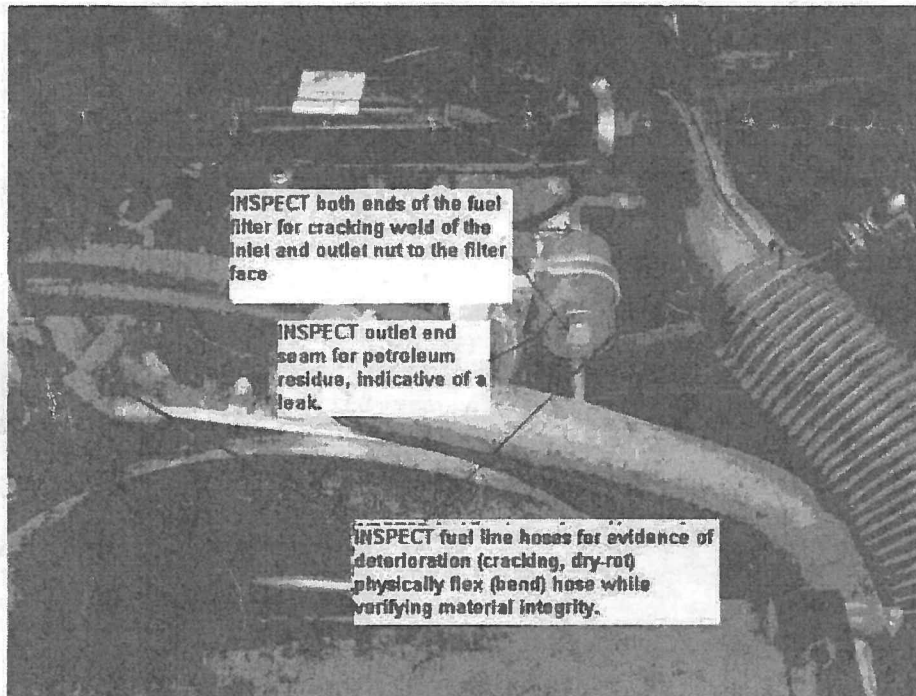


Figure 6 Wheeler Bros Fuel Filter Relocation Kit

GM Original Equipment

The GM original equipment configuration is similar to the DAVCO kit where flexible lines are routed close to exhaust components. Additionally, the canister type fuel filter is in a difficult spot to access and care must be taken to prevent cross threading or damage to O-rings. O-rings must be replaced during each filter change.



Figure 7 GM Original Equipment

The rubber return (USPS P/N 15590313) and supply (USPS P/N 15531858) hoses under the fuel filter are virtually hidden from view (see figure 7). The hoses must be physically flexed to gauge deterioration. The return hose configuration is common with all three fuel filter kits.

In addition to the concerns highlighted in the three systems; any steel tubing or connectors that have visible rust must be replaced.

Inspection Requirements

- All vehicle fuel components must be thoroughly inspected during each PMI.
- Contractors required to perform PMIs must be provided the same guidelines as VMFs for performing PMIs and the fuel inspection requirements.
- Replace O-rings when replacing the fuel filter or removing other connectors with O-rings.
- Replace any fuel system component that exhibits wear or corrosion.

Handwritten signature of Philip F. Knoll, Jr.

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