

Betts Industries, Inc.

1800 Pennsylvania Ave. West
Warren, PA 16365 U.S.A.

Engineering Bulletin 1-2000

Date: February 23, 2000

Subject: Replacement Kits to Upgrade 10" Fill PAF Style Pressure Relief Valves to Meet "Less Than One Liter Leakage" Requirements

49CFR180.405(h)(2) mandates for MC306 tanks, "replacement of any re-closing pressure relief valve must be capable of re-seating to a leak-tight condition after a pressure surge, and the volume of lading released may not exceed one liter."

If you have an MC306 specification tank with a 10" PAF style pressure relief fill that is not repairable, you must upgrade to a model that meets the "less than one liter" surge requirement.

Two PAF models are currently produced which meet the leakage requirements.

1. Model PAF 406-98 is intended for installation on DOT 406 tanks and can also be installed on MC306 tanks with some limitations. The airflow rating is 494,084 SCFH at 6.25 psig.
2. Model PAF 306-98 can be installed only on MC306 tanks. The airflow rating is 250,000 SCFH at 5.0 psig.

<p>WARNING When a pressure relief device is replaced, insure that the air flow rating of the replacement device meets or exceeds required emergency venting of the tank or compartment.</p>
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The following replacement kits are only applicable for use with PAF style 10" diameter collars that are welded in the shell of the tank. These replacement kits can not be used on 16" or 20" manholes.

Betts now offers a surge replacement kit for customers who have a 10" PAF fill welded in a tank and would like to update it to meet the surge requirement. In most situations, the strongback and fill cover can be removed and the surge replacement kit installed without requiring any hot work on the tank. By doing this, the fill will meet the less than a liter surge requirement of 49CFR180.405(h)(2). Certain limitations apply depending on the tank specification and model of PAF used. To determine which replacement kit is recommended for your particular situation, a chart is available on page three or call (814) 723-1250 to speak to a Betts' representative.

Replacement kits include a 10" surge sub-assembly with normal vent and a strongback with replaceable hinge pin and two cotter pins. The kit part number for a PAF 306-98 is FVA7513BXB and the kit part number for a PAF 406-98 is PPV7512BXB. A stainless strongback and/or optional gasket material can be specified.

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Engineering Bulletin 1-2000 (continued)

Directions for installation of replacement kit:

1. Remove existing strongback and cover. (Fig. 1) Do not remove latch. (Some models may require spot welds to be ground from the hinge pin to remove strongback. Use caution - do not damage lugs.)
2. Install replacement kit using supplied hinge pin and cotter pins. (Fig. 2)
3. Check assembly to verify proper operation.
 - a) Verify the fill cover opens and closes without binding.
 - b) Verify the fill cover lays flat on the seat in the closed position.
 - c) Verify the latch freely engages the strongback and closes with moderate force.
 - d) If the set pressure requires adjustments, please refer to "Instructions for Set Pressure Adjustment" included with replacement kit.

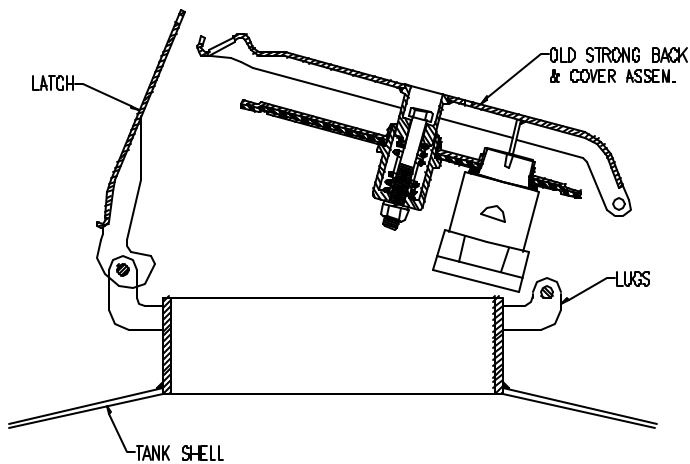


FIG. 1

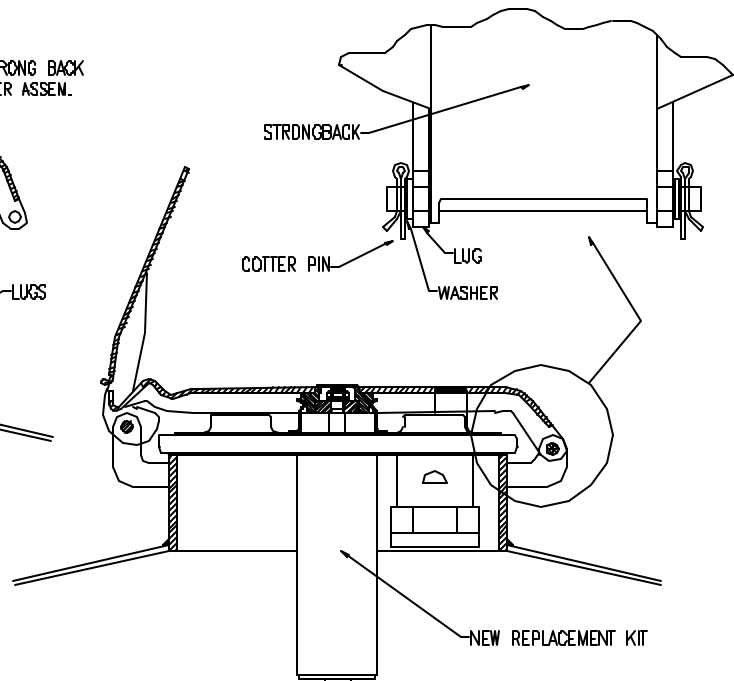
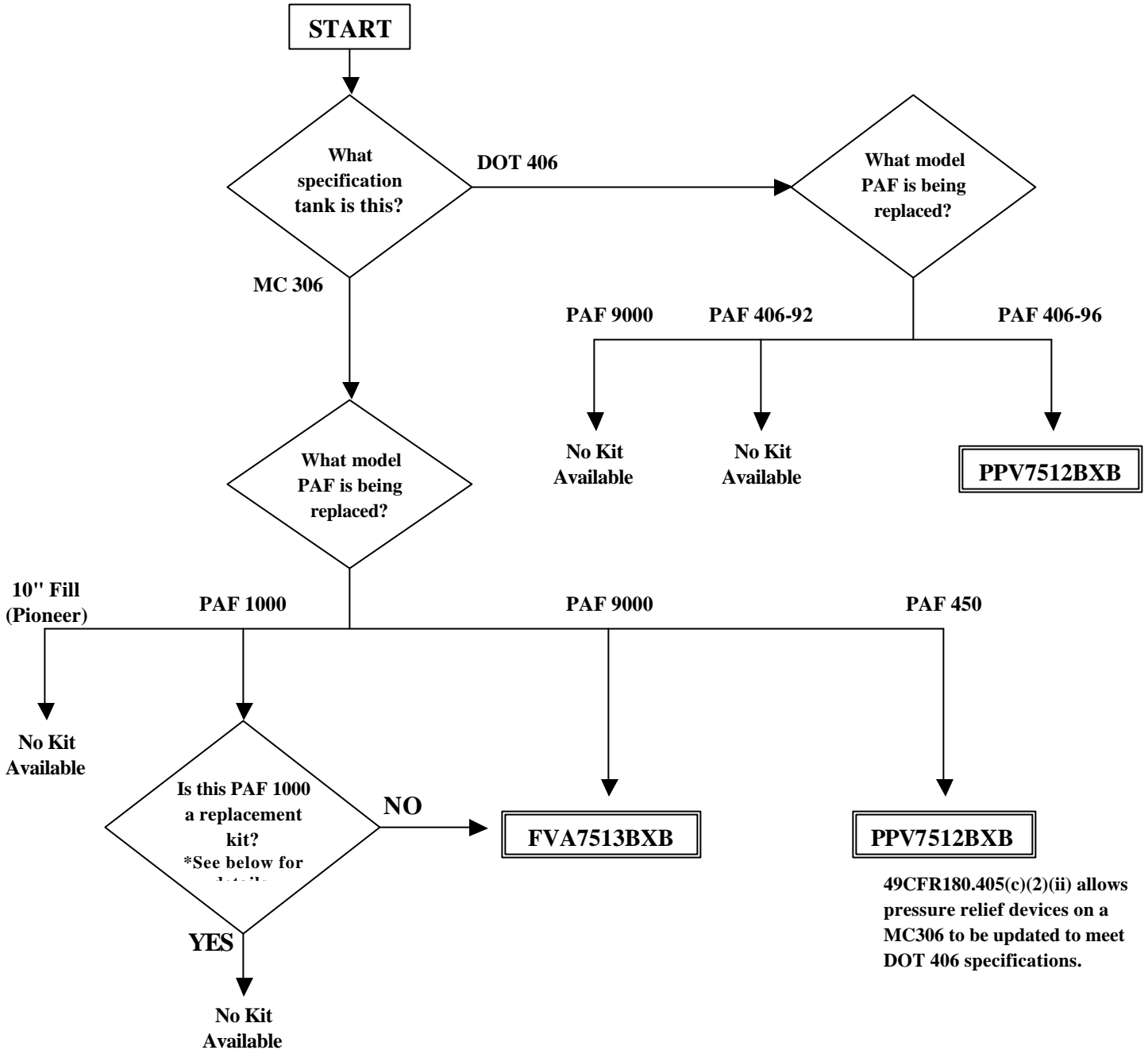


FIG. 2

If there are any problems with the fit of the replacement kit, check to insure the proper replacement kit has been installed. If there are any questions call Betts Industries, Inc. at (814) 723-1250.

Chart to Determine Correct PAF Surge Replacement Kit for 10" PAF Fills



* If the PAF 1000 is actually a modification kit that was installed in the past to upgrade a pioneer 10" fill to a PAF 1000, a replacement kit is NOT available. A rule of thumb to determine if the PAF 1000 is a modification kit would be if the strongback's hinge pin is replaceable but the latch's hinge pin is spot welded.