SERVICE BULLETIN: # FSI-SB-1005 rev (1)`

DATE: 02-07 00

SUBJECT: ALL CONTAINER GROMMETS

STATUS: MANDATORY

BACKGROUND:

Following a recent fatality and subsequent investigation, Fliteline Systems, Inc. determined that the following additional service bulletin be issued concerning the depth to which grommets used on Reflex harness/container systems are set. During the deployment of a main parachute equipped with Vectran suspension lines, one suspension line became trapped under the edge of a stainless steel roll rim size zero grommet located on the main container number two (top) closing flap. This condition caused the main canopy to remain connected to the jumper after a cut away was performed. The reserve parachute deployment assembly became entangled with the still trailing main parachute and the reserve canopy never deployed from its free bag.

INSPECTION:

Visually inspect all grommets in both the main and reserve container for proper seating. Any found to be raised to the point that a feeler gauge of .010 (10/1000 of an inch) can be inserted under the edge should be considered suspect and re-set. Any grommets that allow a feeler gauge of .020 (20/1000's of an inch) to be inserted under the edge need to be replaced. To be compliant with this bulletin, grommet inspection and re-setting/replacement for both main and reserve containers must be accomplished and the following procedure must be performed on the main container number two (top) flap.

COMPLIANCE DATE:

This bulletin must be complied with before the next use.

REQUIREMENT:

The Main container number two (top) flap size zero stainless steel long shank grommet must be removed and a type 17 webbing (MIL-W-4088) "gasket" placed behind the fabric on the underside of the flap prior to a new grommet of the same type being installed. Additionally the new grommet must be installed with the washer facing in to the main container (on the

underside of the flap). If the repairman so chooses he/she can substitute type 17 (MIL-W-4088) for type 7(MIL-W-4088) or type 9 (MIL-W-4088) webbing processed in the same manner as outlined in the procedure section of this document. This however, will necessitate opening the seam that secures the plastic inside the flap. If this method is chosen a 308 straight stitch sewing machine will need to be employed to re stitch the seam using size "e" thread at 7 to 11 stitches per inch and back sewn at each end. Additionally it may be necessary to remove the reserve canopy from its container to perform this work. This will depend on the size of the harness/container and reserve that is packed in to it.

APPLICABILITY:

All Reflex harness/containers manufactured before January 31 2000 excluding serial numbers 1765, 1769,1771 and 1775.

REPAIRMAN:

Senior or Master rigger

MATERIALS REQUIRED:

1 ½" length of type 17 webbing (MIL-W-4088)(scissors cut) or 1 ½ " length of type 7 (MIL-W-4088) or type 9 (MIL-W-4088) (scissors cut) if using the sewing machine/open seam method.

1 stainless steel long shank roll rim grommet

TOOLS REQUIRED:

Size zero grommet punch ¼" diameter

Size zero grommet setting tool

Screwdriver with a 4" shaft and 3/16 blade width

8" length wire cutters (dykes). These may not be needed (see procedure for details).

Set of standard (inches) feeler gauges including at least .010 to .020 (10/1000" to 20/1000")

PROCEDURE:

Remove the stainless steel grommet in the following manner: Position the number two (top) main container flap on a solid surface with the

washer side of the grommet facing up. Using a screwdriver with a 4" shaft and 3/16"-blade width and a hammer, dent the grommet washer/shank joint radically at four equal points as shown in figure one. This will allow the joint to separate at the dents. The washer can be further depressed from the shank flange by making four additional dents between and at 90 degrees to the original ones as shown in figure two. This will allow enough room to insert the screwdriver blade under the flange of the Shank. Use caution at this step as careless blows can result in the screwdriver blade slipping off the edge of the washer and damaging the flap fabric and plastic. Begin to pry the shank flange up and away from the washer moving around in a circle until the entire flange is near vertical. Next insert the screwdriver blade under the washer and pry it up as far as it will go, working around the washer in a circular manner. If the washer does not separate completely at this point it will need to be pried off the remainder of the shank using 8" wire cutters. This grommet removal procedure will be used to remove any other grommets that will allow a feeler gauge of .020 (20/1000 of an inch) under the edge. Once the grommet has been successfully removed inspect the plastic inside the flap for damage. Next prepare the 1 ½ length of type 17 (scissors cut) by punching a ¼" size hole in the center of the webbing using the grommet punch.

With the underside of the flap facing up, use the screwdriver to lift the fabric up and away from the plastic. This will allow for easy insertion of the 1 ½ " piece of type 17. Roll the piece of type 17 lengthwise (like a cigarette) and carefully insert it under the fabric and on top of the plastic. Using the screwdriver, unroll the type 17 inside the flap and position it so that the pre-punched hole is directly inline with the existing holes in the plastic and fabric. Insert a new long shank stainless steel roll rim grommet from the upper (top) side of the flap so that it passes through all of the lined up holes. Place the washer of the grommet over the shank then place the shank (face side) of the grommet in the base of the setting tool. Next insert the male portion of the tool through the washer side of the grommet. Begin to set the grommet so that the shank flattens out to form a tight seal against the washer. When the grommet is sufficiently compressed (rolled over), remove the setting tool and inspect the grommet for potential damage. Next check the grommet for depth by trying to insert a feeler gauge of .010 (10/1000 of an inch) under the edges of both the washer and "face " sides.
If a gap is present the grommet will need to be further set in the same manner, be careful to avoid over-striking the grommet as damage may occur. Continue this process until the grommet is compressed to the point that the feeler gauge cannot be inserted under the edge of either the washer or shank (face) sides.

The finished assembly should look like figure three. Sign and date the packing data card with the notation that the AD has been complied with. Repair persons are required to maintain a log of all Reflex serial numbers to which this procedure has been successfully completed and to submit a copy of this list to Fliteline Systems

within sixty days. Fliteline Systems will send out repair kits consisting of type 17 webbing and size zero stainless steel grommets free of charge to any repair person who requests one. Additionally, Fliteline Systems will perform the work at the factory if the customer so desires. Please call for shipping details if this method is chosen to comply with this bulletin.

COMPLIANCE DATE: IMMEDIATELY

AUTHORITY:

MICK W. COTTLE, VICE PRESIDENT

Fliteline Systems Inc

570 Central Avenue, Suite I-1

Lake Elsinore, CA92530

USA

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