

SERVICE BULLETIN #119

RAVEN[®]

industries, inc.

18 December 1985

SUBJECT Welds on the lower frame of the Classic IX basket

APPLICABILITY On some S-66A Classic IX balloon systems delivered between May, 1980 and August, 1982 a number of welds were made to repair holes that were incorrectly drilled in the lower frame of the Classic IX basket. Baskets with serial numbers IW-102 thru IW-127 may contain one or more of these welds. In most cases the basket serial number will be indicated on the first page of the aircraft logbook. This can be verified by checking the number stamped in the lower frame at corner one on the under side of the basket.

PROBLEM A recent failure of one of these tubes indicated that the welding procedure which was used in these cases may have left impurities in the weld filler material. This may act as a stress concentrator in the weld resulting in stress cracking induced by fatigue.

CORRECTIVE ACTION All baskets listed above should be taken to a qualified airframe mechanic (FAA licensed airframe mechanics may be found at fixed wing aircraft maintenance facilities. Balloon repair stations may not possess the qualifications to perform these inspections) and inspected in accordance with the procedures set forth in this service bulletin. (See "PROCEDURE" for steps to be followed.) The enclosed card should be filled out by the mechanic performing the inspection and mailed to RAVEN. This must be accomplished prior to the next flight, but no later than January 31, 1986.

This inspection may not be performed by the owner but, must be performed by a qualified airframe mechanic who is able to perform the nondestructive testing as outlined below.

PROCEDURE The upper twelve inches of each end of the lower frames on the Classic IX basket should be visually inspected for the presence of an area which has been welded (See Figure 1). This will be characterized by an area which is approximately 3/8 of an inch in diameter which has been buffed down after welding. Also, the inside of the tube can be examined for the presence of a small weld bead approximately 1/4 inch in diameter.

If no evidence of a weld is found on any of the four ends, a logbook entry should be made to reflect this and the enclosed card should be completed and returned to RAVEN.

If a weld location(s) is found, a further inspection of the weld must be made. This will be done by performing a dye-penetrant inspection on the weld area (See Note). This inspection must be performed

as outlined in the "Airframe & Powerplant Mechanics General Handbook", AC 65-9A and "Nondestructive Testing in Aircraft", AC 43-3. During this inspection, any evidence of a porous weld or stress cracking should be noted.

If no porosity or stress cracking is noted in any weld area, a logbook entry should be made to reflect this and the enclosed card should be completed and returned to RAVEN.

If porosity or stress cracking is detected, RAVEN Ind. should be contacted immediately to obtain information and materials to repair the load frame. That contact should be made either by telephone (605-336-2750, HAB SALES) or the enclosed card depending on the urgency of performing the repair. The basket will be considered unairworthy until this repair has been performed.

NOTE-Alternate methods of performing the inspection include: 1. Radiographic inspection 2. Ultrasonic inspection 3. Eddy current testing. These methods are fully acceptable alternatives to dye penetrant inspection.

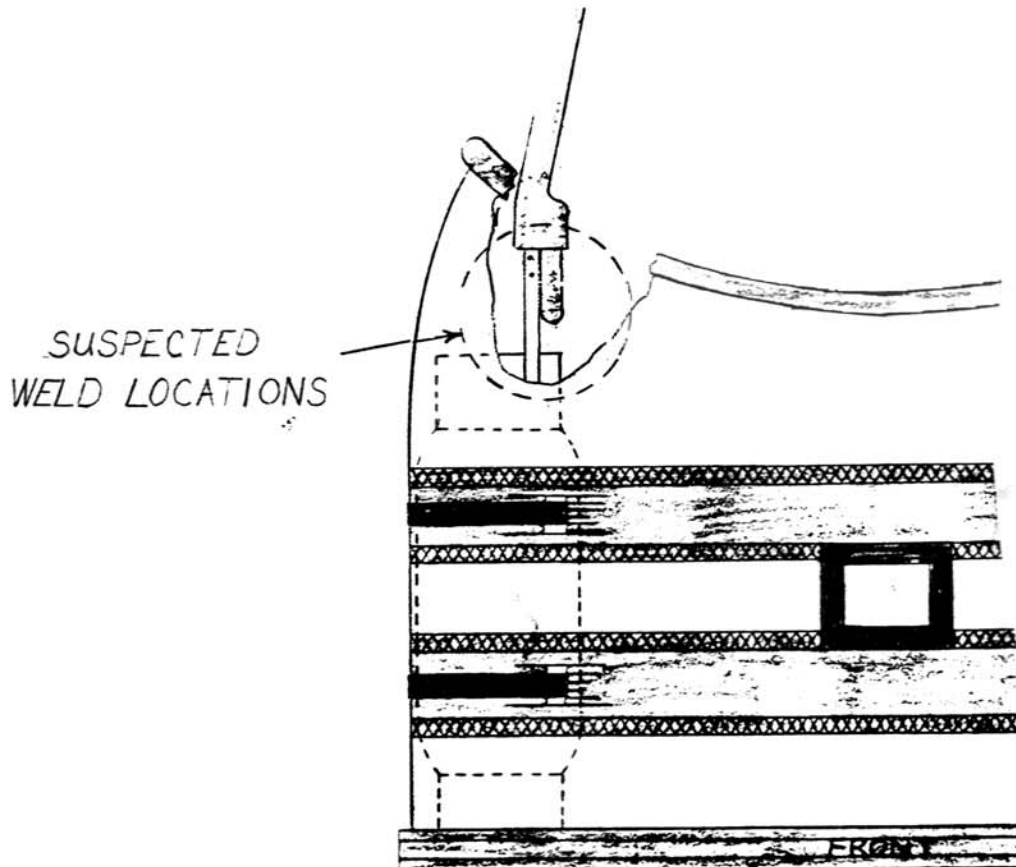


FIGURE 1