

Technical Service Bulletin

SINGLE PERSON LIFE RAFT, Inspection limit on floor patches.

ISSUE DATE:	September 26, 2014	TSB NUMBER	TSB-14-007
--------------------	--------------------	-------------------	------------

HAZARD / URGENCY RATING	
	DANGER – Injury possible if TSB not observed or followed
	WARNING – Product damage possible if TSB not observed or followed
X	CAUTION – Essential issue affecting operation, service, or parts
	INFORMATIONAL – Advisory which may be of interest

APPLICATION:

This Technical Service Bulletin (TSB) covers the floor inspection of Single person life raft manufactured under the following part numbers:

6152 - Liferaft, 1XL

SUMMARY:

This technical Service Bulletin defines the inspection limit for floor patch failures on the single person life raft. All 1XL life rafts have an inflated floor to insulate the occupant from cold water. The purpose of these floor patches is to connect the 2 layers of fabrics used to build the floor in order to create flat, comfortable and stable floor.

Floor patch failures can occur but they are not essential to the functionality of the raft. However, patch failure will affect the shape and the total volume of the floor.

In order to maintain the overall performance of the single person life raft, a limit is now set on floor patch failure. The floor inspection is now defined by the three acceptance criteria presented below. For any conditions other than these three scenarios, the raft must be removed from service and returned to an approved maintenance facility for repair.

The acceptance criteria are:

1. One floor patch failure is acceptable anywhere on the floor
2. Failure of two floor patches is acceptable with a minimum of 2 good patches in between
3. A maximum of 3 failed floor patches is acceptable for the whole floor, with a minimum of 2 good floor patches between each failure.



Figure 1: Single Person life raft

IMPACT:

If the inspection limits on floor patches are not respected, the change in floor volume and shape increase the stress on the remaining dimple patches. This increases hoop stress is trying to tear the floor patch apart in peel. In the case of too many failed patches with a floor inflated at 1 psi, the remaining floor patches might fail one after the other because of the hoop stress increase.

ACTION:

During periodic inspection, properly inspect the floor of the life raft and verify the integrity of all floor patches. There are 3 acceptance criteria on floor patch failure, any other conditions will fail the inspection and the raft must be removed from service and returned to an approved maintenance facility for floor repair.

- Acceptance criteria 1 (Refer to figure 2)
One floor patch failure is acceptable anywhere on the floor



Figure 2: Acceptance criteria 1 – One floor patch failure

TULMAR

- Acceptance criteria 2 (Refer to figure 3)
Failure of two floor patches is acceptable with a minimum of 2 good patches in between.



Figure 3: Acceptance criteria 2 – 2 patch failures with 2 good patches in between.

- Acceptance criteria 3 (Refer to figure 4)
A maximum of 3 failed floor patches is acceptable with a minimum of 2 good floor patches between each failure.



Figure 4: Acceptance criteria 3 – Maximum of 3 patch failures with 2 good patches in between each failure

CONTACT:

Please contact Tulmar Customer Service Department at (613) 632-1282 ext 228 or by e-mail to military@tulmar.com.