

Technical Service Bulletin

**1XL - ONE PERSON LIFE RAFT, ORAL INFLATION SYSTEMS,
809RT CRIMP RING TESTING**

ISSUE DATE:	February 28, 2012	TSB NUMBER	TSB-12-001 Rev A
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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 applies to all TUL One Person Life Rafts, Type 1XL, NSN 4220-21-846-5885, Tulmar Safety Systems p/n 6152.

SUMMARY:

On inspection, the integrity of the oral inflation valve crimp ring attachment should be verified to ensure security of the valve to the hose. When the crimp ring installation is found to be faulty, a new ring should be installed and tested prior to release of the life raft for service. An Oral Tube Crimping Kit is available from Tulmar Safety Systems to carry out the testing and installation of oral tube crimping rings.

IMPACT:

The testing and inspection of the Oral Valve Crimp Ring **is critical** as the inflation of the buoyancy chamber will be compromised if this oral tube assembly fails. During oral inflation, a loose crimp may cause the oral inflation valve to become separated from the inflation tube. As a consequence, the raft buoyancy tube or inflatable floor will completely deflate.

ACTION:

As part of the service inspection of the raft, perform a pull test of the two crimp rings installed on oral inflation tubes shown in Figure A and B. Directions for carrying out the test are included in Annex A. The crimp ring must securely hold the oral inflation valve in the inflation tube when a minimum of 30 lbs of pulling force is applied to the end of the valve. All crimp rings installed on oral inflation tubes must be tested.



Warning: Do not apply more than 40lbs of load. Damage to the components may occur.

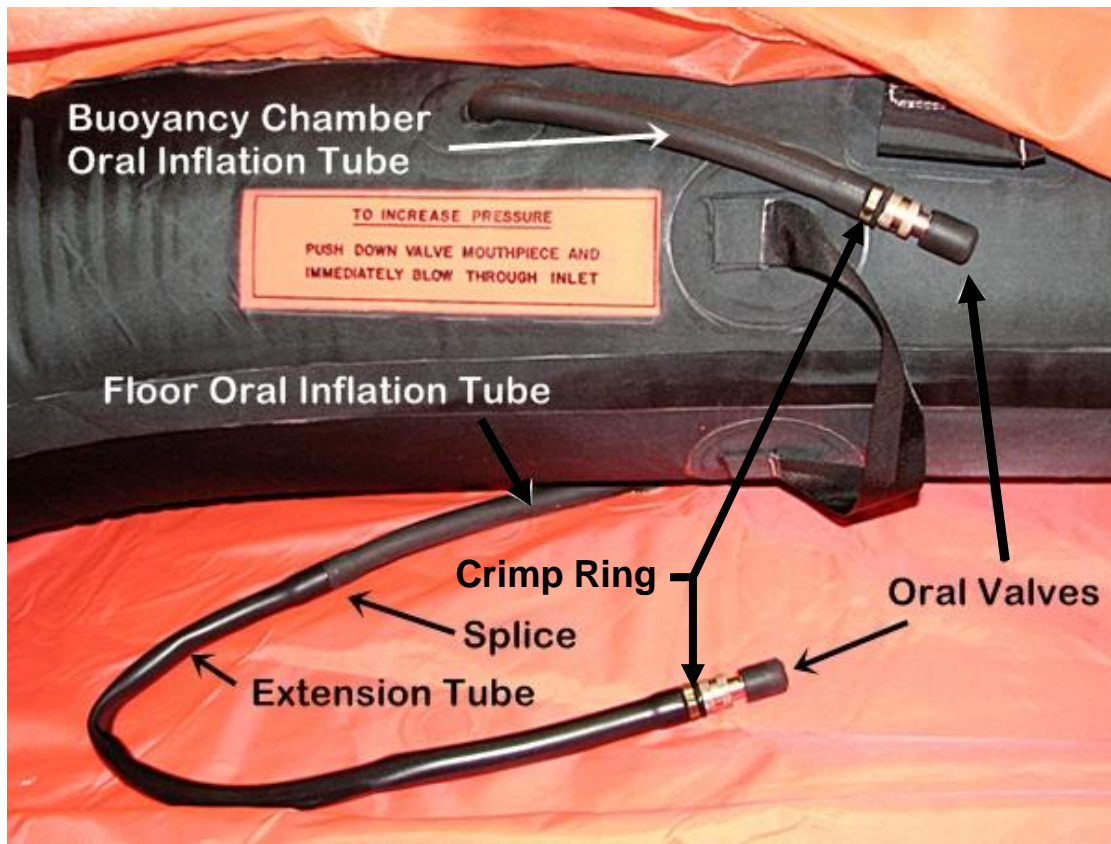


Figure A, 1XL Oral Inflation System

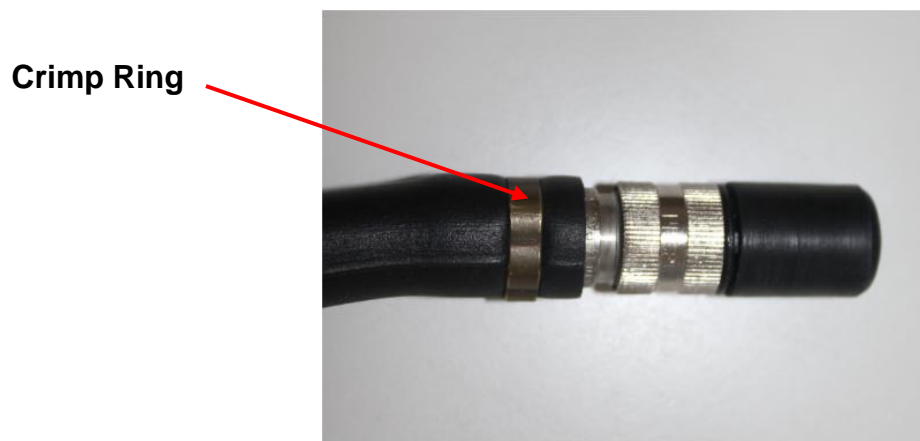


Figure B, Oral Valve with Crimp Ring

TEST EQUIPMENT

An Oral Tube Crimping Kit is available from Tulmar Safety Systems Inc. The kit includes a pulling tool for crimp testing and a crimping tool with set of crimping dies for crimp ring installation.

DESCRIPTION	P/N & SOURCE	REMARKS
Oral Tube Crimping Kit	P/N 5681-100 Tulmar Safety Systems Inc 1123 Cameron Street, Hawkesbury, ON, K6A 2B8 T. 613 632 1282 F. 613 632 2030	Kit Contents: - Pulling Tool - Crimping Tool - Crimping Die Set - Carrying Case - Operating Instructions
Strain Gauge	Any commercially available load cell or strain gauge may be used.	Instrument must be of range and scale to clearly display minimum required pull force of 30 lbs.

TESTING AND CRIMPING INSTRUCTIONS:

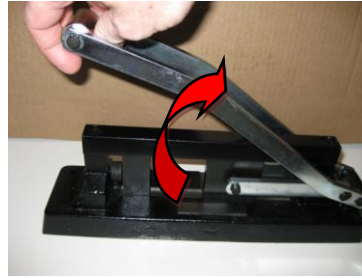
Pulling Test

- Insert oral valve assembly into the pulling tool. Oral valve locking ring must be in the locked position away from the tube.
- Hold the oral tube firmly below the crimp ring using a secure holding device. Make sure the surface of the oral tube will not be damaged by the holding device.
- Attach any commercially available load cell or scale (not included in this kit) into the red eyebolt.
- Gently pull on the load cell or scale either by hand or by using a pulling aid. Stop pulling when 30 lbs of force is reached (4% deviation or 1.1 lbs is permissible).
- Inspect the oral valve for any sign of disengagement. If any disengagement, partial or complete is detected, the oral valve must be reinstalled and properly crimped using the crimper tool.

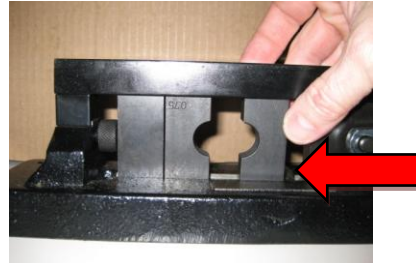


Crimping Instructions

a) Move lever of the crimper tool upwards to allow the two-part crimping die to be inserted into the die holder.



b) Insert the two-piece crimping die into the crimper tool.



c) Insert the oral valve into the oral valve tube with crimp ring in place.



d) Insert oral valve / tube assembly into the crimper tool positioning it so that the crimp ring is centered in the die assembly.



e) Move crimper tool lever down until it stops completely.



f) Lift the handle back up and remove oral valve / tube assembly from the crimper tool.



CONTACT:

For further information, please call Tulmar Repair & Overhaul Manager at 613-632-1282