



GUIDE FOR INSPECTION, TESTING, REPAIR & STOWAGE OF LIFE SAVING EQUIPMENT

Subject: Duck Life Preservers / PFDs

Purpose: This guide is intended to educate company personnel who are tasked with the inspection, repair, testing and/or stowage of life saving equipment. This guide is not intended to limit the degree of thoroughness of any inspection, nor is it a substitute for good judgment.

General: An adequate inspection requires a knowledge of where to look and what to look for. With respect to lifesaving equipment, the inspector should look for deficiencies which could affect the usage for which the equipment is intended. When in the course of inspecting life saving equipment deficiencies are encountered, the inspector must determine what repairs or replacements are required to maintain the seaworthiness of the equipment. This calls for considerable discretion.

It is Ride The Ducks policy that all emergency and life saving equipment should be ready for use at all times during normal operations, therefore when in doubt:

- 1) Do not operate a Duck with questionable equipment.
- 2) Remove the questionable equipment from the Duck and replace with new.
- 3) Secure the questionable equipment in a location where it will not be mistaken as being approved for use.
- 4) Review the situation with company safety representative and/or supervisor to determine if to destroy or repair.

In an effort to support your decisions during these inspections consider the following:

- 1) Lifesaving equipment is required emergency equipment and must be maintained in safe and reasonable operating condition at all times.
- 2) The period of time involved before the next scheduled inspection of the equipment.
- 3) Whether the repair work involved is necessary to restore seaworthiness or is a maintenance measure to insure prolonged utilization of the equipment.
 - In the first case repair must be required.
 - In the second case the condition should be called to the attention of the local company safety representative or supervisor.

Click here: [SB-00-16-12](#) Onboard Lifesaving Equipment Check Sheet or See [Pg. 15](#)



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LIFE PRESERVERS

A. Stowage of Life Preservers

1. Life preservers should be thoroughly dry when stowed and should be provided with adequate ventilation.
2. Kept clear of storage areas where moisture accumulates.
3. Stowed away from excessive heat.
4. 39 passenger adult life preservers onboard.
5. 10 % child life preservers onboard.
6. A minimum of four (4) Infant life preservers onboard.
7. All required life preservers must be labeled with the vessels name.
8. Additionally needed life preservers may be labeled "RTD".
9. A minimum of two (2) crew vests, labeled "RTD" or with vessel name.
10. All should be properly secured with the designated yellow colored tabbed straps. Crew vests can be stowed at your discretion.
11. All securing straps should be secured the same direction.
12. The appropriate reflective tape should be properly installed.
13. Prior to operating season each life preserver should be thoroughly cleaned and kept clean as long as they are required to be in service.
14. Special consideration should be taken for life preservers that remain on Ducks that are kept outside during cold winter months. (Consider removing them during the off season or increase the inspection intervals.)

B. Inspection of Life Preservers

1. Two types Life Preservers are provided on the Ducks:
 - [Solid type one Jim Buoy Model #603](#)
 - [Soft type one Kent Model #8820](#)
2. In general the longer the life preserver has been in service, the more time-consuming is its examination.
3. Despite the mildew inhibitor treatment required for the cloth, webbing, tapes and thread of life preservers, certain areas of the envelope eventually will rot. This may take place over a long period of time or fairly rapidly under unfavorable conditions. More often than not, the most seriously affected surfaces of the envelope will appear stained, faded, or otherwise discolored. Questionable areas should be fingertip-tested by twisting with tips of fingers.
4. Common noted defective conditions:
 - Strap missing or partially ripped from jacket



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- Missing hardware, rigs and or clips
- Absence of proper markings showing the name of vessel
- Envelope is torn, gnawed or otherwise seriously perforated
- Crack when bent or hard/brittle when squeezed

C. Testing

1. Solid Jim Buoy model type life preservers should be subjected to the following testing and inspection:
 - a. By squeezing the life preserver check if the foam is hard or brittle. Pg. 6 [Squeeze Test](#)
 - b. Examine belts and give a quick hard pull on straps, hooks and buckles. Pg. 7 [Strap Test](#)
 - c. Spread open the bottom legs of the life preserver as if to demonstrate donning.
 - Pg. 8 [Bend Test Child PFD](#)
 - Pg. 9 [Bend Test Adult PFD](#)
 - d. Example of failed life preserver Pg. 10 [Test Failure](#)
2. Soft type Kent model life preservers should be subjected to the following testing and inspection:
 - a. By squeezing the life preserver check if the foam is hard or brittle Pg. 11 [Squeeze Test](#)
 - b. Examine belts and give a quick hard pull on straps, hooks and buckles. Pg. 12 [Strap Test](#)
 - c. Visually examine the cover fabric for excessive fading, weak or split covers. Compare fabric colors where its protected, under a body strap for example where fabric is not exposed to UV light against the fabric that is exposed. Pg. 13 [Cover Fabric Inspection](#)
 - e. Affected surfaces of the fabric that appear stained, faded, or otherwise discolored should be fingertip- pinch tested by twisting with tips of fingers. Pg 14 [Pinch Test](#)



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D. Repairs

1. Minor or emergency repairs to otherwise sound life preserver covers may be made as long as they are in otherwise satisfactory condition. Such repairs do not require the prior approval of the OCMI but must be acceptable to the local Coast Guard marine inspector. Satisfactorily repaired small holes and tears in the cover fabric ordinarily are acceptable. However, tears which would adversely affect strength are not acceptable. Strength affected life preservers should be destroyed.
2. Except in emergency, tapes or straps may not be repaired but may be replaced.

E. Inspection verification

1. To determine the service life of your life preservers it is recommended that you record the date of each life preservers inspection. Also record the date in which new life preservers have been installed and/or when replaced.



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USCG Lifesaving Equipment Inspection

A. 46 CFR 176.808 - Lifesaving

1. At each initial and subsequent inspection for certification of a vessel, the owner or managing operator shall be prepared to conduct tests and have the vessel ready for inspection of lifesaving equipment and systems, including the following:
 - a. Inspected each lifejacket, work vest and marine buoyant device.
 - b. Each item of lifesaving equipment determined by the marine inspector to not be in the serviceable condition must be repaired or replaced.
 - c. Each item of lifesaving equipment with an expiration date in it must be replaced if the expiration date has passed.
 - d. The owner or managing operator shall destroy, in the presence of the marine inspector, each lifejacket, other personal flotation device, and other lifesaving device found to be defective and incapable of repair.
 - e. At each initial and subsequent inspection of a vessel, the vessel must be equipped with an adult size lifejacket for each person authorized. The vessel must also be equipped with child size life jackets equal to at least:
 1. 10 percent of the maximum number of passengers permitted to be carried unless children are prohibited from being carried aboard the vessel; or
 2. 5 percent of the maximum number of passengers permitted to be carried of all extended size lifejackets are provided.
 - f. Life Jackets, work vests, and marine buoyant devices may be marked with the date and marine inspection zone to indicate that they have been inspected and found to be in serviceable condition by a marine inspector.



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- g. At each initial and subsequent inspection for certification, the marine inspector may require that an abandon ship or man overboard drill be held under simulated emergency conditions specified by the inspector.

SQUEEZE TEST



Squeeze the life preserver to ensure the foam is not hard or brittle



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STRAP TEST





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Give a quick hard pull on straps, hooks and buckles

BEND TEST CHILD PFD



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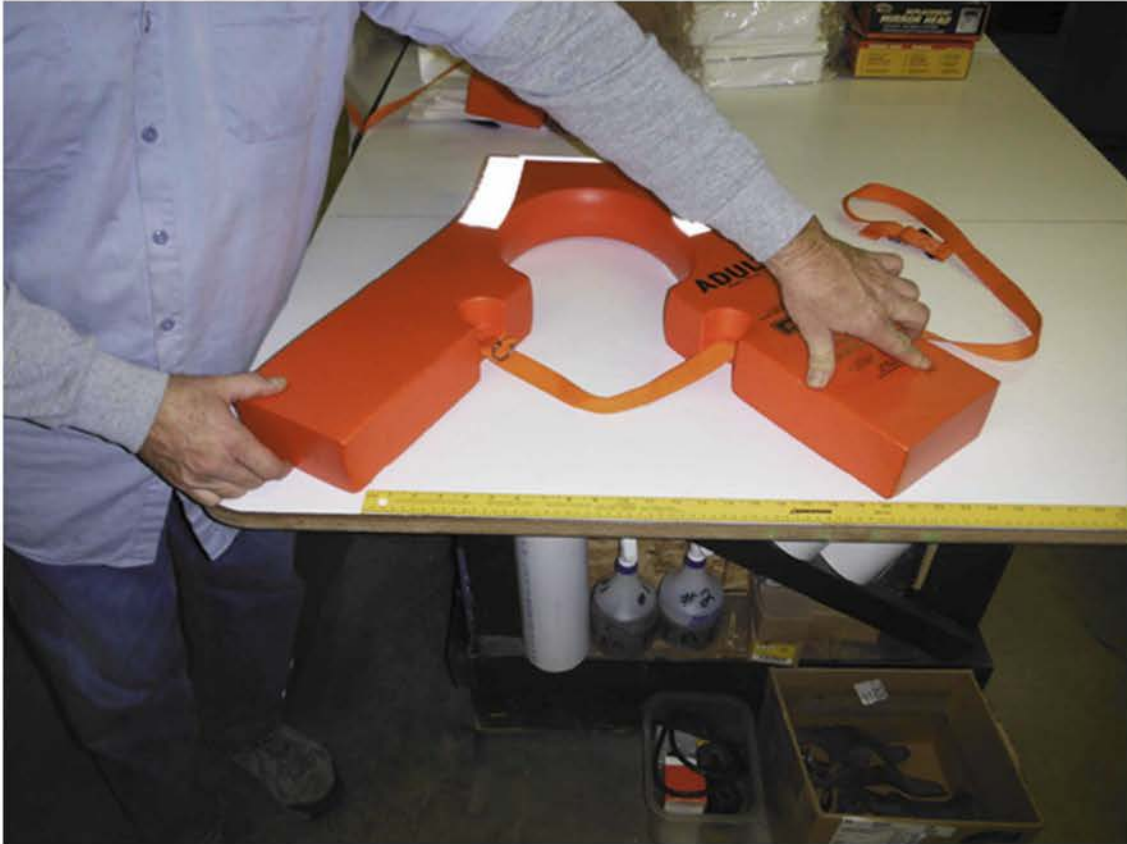


The Child's Life Preserver should be capable of bending outward 12 inches without causing cracking or failure

BEND TEST ADULT PFD



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The Adults Life Preserver should be capable of bending outward 20 inches without causing cracking or failure

TEST FAILURE



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Failed Life Preservers must be cut up and permanently discarded

SQUEEZE TEST



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Squeeze the life preserver to ensure the foam is not hard or brittle

STRAP TEST



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Give a quick hard pull on straps, hooks and buckles

COVER FABRIC INSPECTION



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Look for tears in cover



Look under UV protected areas for original color



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PINCH TEST



Pinch and twist discolored fabric areas to ensure it cannot be torn