

*Survival*  
*Operations*  
*Specialist*

# *Life Raft Manual*

**INSPECTIONS SERVICING REPAIR  
PROCEDURES**



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## **Survival Operations Specialists**

*"From design to development, production to servicing, our 20 years experience and knowledge in the industry has earned us a reputation as a supplier of proven quality products"*

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## RECORD OF CHANGE TO SERVICE & REPAIR MANUAL.

Number	Signature	Date	Reason for change

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## INTRODUCTION

The following instructions are for the third party Inspection, Servicing and Repair of SOS Marine inflatable Life Rafts currently in service.

All instructions given here must be strictly adhered to whilst carrying out Inspections, Servicing and Repairs on SOS Marine Life Rafts.

All Inspections, Servicing and Repairs are to be carried out by suitably qualified organisations and personnel.

All modifications to Inspection, Servicing and Repair procedures must be approved by SOS Marine.

## **The Life Raft Features:**

- *Packed 500 x 320 x 160mm.*
- *Ultra light, weight only 8.3 kgs.*
- *Manually erected Canopy.*
- *Easy Maintenance. Self-contained disposable Co<sup>2</sup> inflation system.*
- *Durable 210D Nylon Fabric PU Laminated.*
- *Easy Boarding Manual/Auto-inflatable platform.*
- *Water pockets, a total 165 Litres of ballast water in three (3) pockets.*
- *Roomy. 0.96 square meter interior.*
- *Insulated Floor.*
- *SOLAS Reflective tape.*
- *SOLAS Lights.*
- *Survival aids.*
  1. *Drogue*
  2. *Flare Kit*
  3. *Safety Knife*
  4. *Hand Pump*
  5. *Water Bailer*
  6. *Water Sachet*
  7. *Space Blanket*
  8. *Signalling Mirror*
  9. *Life line with rescue Quoit*

## **Warning and Caution:**

- *The Life Raft contains compressed co<sup>2</sup> gas cylinder under high pressure. Do not expose to heat or flame handle accordingly.*
- *Dispose of cylinder only when empty, in accordance with local regulations.*
- *Ship this life raft in accordance with local transportation regulations for shipping a self-inflating life-saving appliance.*
- *This Life Raft is intended for use in emergency only. It is not a pleasure life raft for recreational use.*
- *Always wear approved inflatable life jacket when operating the life raft.*
- *Do not puncture or stab into the life raft valve.*
- *Your life raft is a piece of safety equipment, handle it with care.*
- *Inspection/servicing return to SOS Marine or qualified service centre.*

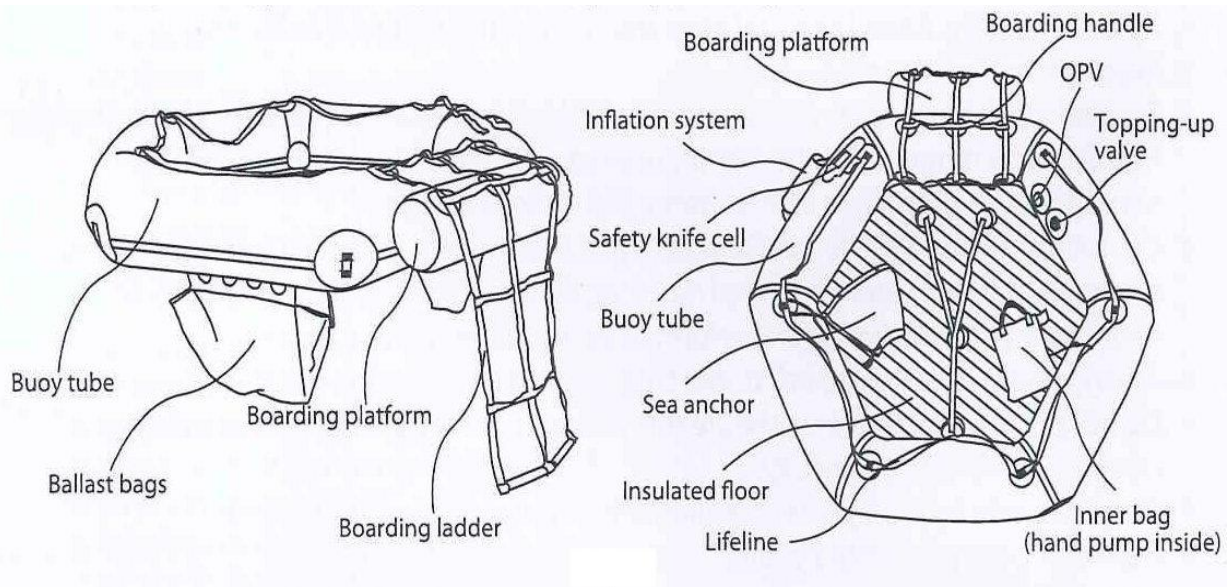
## SECTION 1

### **PRODUCT CONSTRUCTION:**

#### **1.0 Construction and Compositions.**

1.0.1 This life raft is constructed from lightweight coated PU Nylon Fabric.

1.0.2 This life raft composed of single buoyancy tube, insulated floor, boarding platform, ballast pockets boarding ladder, boarding handle, over pressure valve (OPV), topping-up valve, lifeline painter line, sea anchor, SOLAS light and hand pump and survival aids.(fig1)



(FIG1)

#### **1.1 Buoyancy Tube and Boarding Platform:**

1.1.1 This life raft buoyancy tube is equipped with over pressure valve and topping-up valve.

1.1.2 The boarding platform is a separate air chamber which is connected with buoyancy tube through non-return valve.

1.1.3 SOLAS grade tape is located in a minimum of three (3) places on the upper side of the buoyancy chamber.

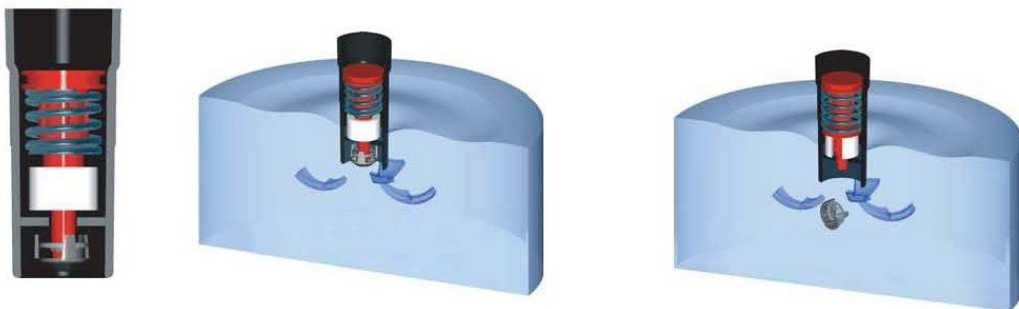
1.1.4 Two (2) Solas flashing signal light has been fitted on the upper side of the buoyancy chamber.(Turn off in day light hours)



- 1.1.5 The life raft is inflated with LBM Co<sup>2</sup> cylinder, the cylinder is non-rechargeable (use once only)
- 1.1.6 The painter line connect with the inflator tab, pull the painter line, the buoyancy tube will be inflated manually.

## 1.2 Inflation System:

- 1.2.1 Automatic Gas Inflation will occur when the life raft has been immersed in water. Pro-Sensor is fitted with the latest all weather cartridge with the added benefit of inhibiting the accidental ingress of moisture and water spray during hot humid or heavy stormy weather should not activate the inflation system



**NOTE:** If kept dry no service requirements for three (3) years on inflator cartridges from the date of manufacture.

- 1.2.2 The cartridge mechanism is a compressed high powered spring which is held by a paper element. When the paper element comes into contact with water it releases, the spring which pushes a plunger forward.
- 1.2.3 The plunger forces the cutter into the co<sup>2</sup> cylinder allowing the co<sup>2</sup> to travel through the co<sup>2</sup> gas hole in the inflator head and inflating the life raft.
- 1.2.4 Full buoyancy is normally reached in 60 seconds from activation.

## 1.3 Ballast Bag System:

- 1.3.1 The life raft shall be constructed with this system, when fully inflated and floating, it is stable in a seaway. The ballast system composed of three (3) water pockets.
- 1.3.2 These water pockets deploy underwater as the life raft inflates. They fill with water and help prevent the life raft capsizing, especially when the life raft is empty or lightly loaded.
- 1.3.3 Each water pocket volume is 55 litres.

## 1.4 Over Pressure Valve:

1.4.1 The life raft is equipped with an over pressure valve that releases excess Co<sup>2</sup> inflation gas and prevents the buoyancy tube from bursting.

## 1.5 Life Raft fitting and equipment:

1.5.1 The life raft is equipped with lifeline and quoit.

1.5.2 There is a floating safety knife in the knife pocket on the buoyancy tube.

1.5.3 There is a handle pump in inner bag in the life raft.

1.5.4 Your own choice of survival items can be put in the grab bag and attached to the webbing loop of outside valise.

1.5.5 The painter line is connected with firing point through towing ring. The breaking strength of the painter line is 1.5 KN, the length of the painter line is 9mtrs.

1.5.6 There is a sea anchor (Drogue) fixed at the floor of the life raft.

1.5.7 SOLAS grade reflective tape on upper buoyancy chamber.

1.5.8 SOLAS Light and Battery.

## 1.6 Valise:

1.6.1 The valise is made from UV PVC fabric.

1.6.2 The valise is marked with the information, showing how to operate and inflate the life raft (fig2) and (fig3) .



## SECTION 2

### OPERATING PROCEDURES:

#### 2.0 Life Raft Deployment:

- 2.0.1 Move the life raft from the stowage location to an open location to be deployed; pull down the **Velcro flap** on the PVC valise.
- 2.0.2 The painter line is secured with stainless steel snap hook to the back side of the Velcro flap.
- 2.0.3 If required pull out approximately 6 feet (2 meters) of the painter line and securely the painter line to the boat to prevent the life raft from drifting away.
- 2.0.4 Toss the life raft overboard into the water with the top of the valise facing up; the life raft will inflate automatically when immersed in water.
- 2.0.5 If the automatic inflation fails pull out about 9 meters of painter line and then give a hard and sharp pull to begin manual inflation.
- 2.0.6 Begin pulling out the remaining painter line packed in the life raft valise, extend it until taut and tight, this will require pulling out about 9 meters of painter line.
- 2.0.7 After pulling out all of the painter line give it a sharp and hard pull, this will activate manual inflation. If the life raft does not inflate, pull again harder, continue to pull harder until inflation occurs.

**Note:** A hard forceful pull of about 20 pounds (10kg) is needed to begin Inflation.

#### 2.1 Righting:

- 2.1.1 The life raft will almost always inflate right side-up if it is thrown into the water with the top of the valise facing up, occasionally the unoccupied life raft will inflate upside down or capsize due to wind or wave action.
- 2.1.2 If this occurs the life raft can be easily turn over by a person in the water. Always don a life jacket before entering the water.
- 2.1.3 Once in the water swim to the life raft and using the ladder stand, lean back using your weight on the bottom of the up turned life raft, in order to turn over.



## **2.2 Boarding:**

- 2.2.1 After the life raft has inflated pull the life raft back towards the vessel by pulling in the painter line, and try to board the life raft. If possible you should avoid entering the water.
- 2.2.2 If you cannot climb from the vessel into the life raft you should enter the water and swim to the life raft climbing ramp marked "BOARD HERE" and climb over the buoyancy tube and pull yourself into the life raft by grasping the handles and lifeline provided about the life raft.
- 2.2.3 When the life raft is inflated the lights will be switched on automatically. These lights can be turn off during daylight. This will help to conserve battery power.

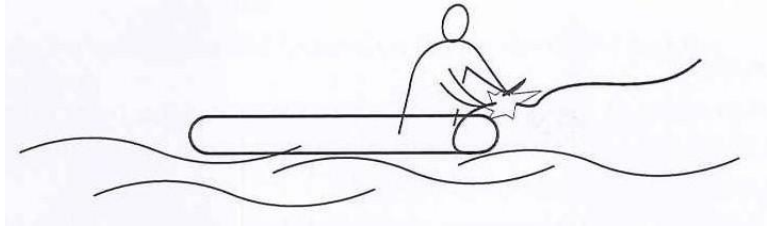
## **2.3 Immediate Action Checklist:**

- 2.3.1 After boarding the life raft and cast-off take the following immediate actions.
- 2.3.2 Salvage any floating equipment.
- 2.3.3 Check the life raft for proper inflation. The life raft should be firm but not drum tight, if soft inflate more with hand pump.
- 2.3.4 Sit low on the life raft floor with your back towards the buoyancy tube.
- 2.3.5 Bail out any water that has entered the life raft.
- 2.3.6 Keep sharp items out of pockets and away from the buoyancy tube and floor.
- 2.3.7 Inventory and secure any lose gear including grab bags and emergency radio transmitters, signal flares etc if available.
- 2.3.8 Activate any emergency radio beacons if available.
- 2.3.9 Make a calm estimate of your situation and plan your course of action carefully.
- 2.3.10 Keep calm and do not move around unnecessarily.

## **2.4 Casting-off:**

- 2.4.1 Locate the knife pocket attached to the buoyancy tube near the inflation cylinder.
- 2.4.2 Locate the painter line that is still securing the life raft to the vessel.

2.4.3 When deemed ready to cast off from your vessel, cut the painter line with the safety knife (fig4).

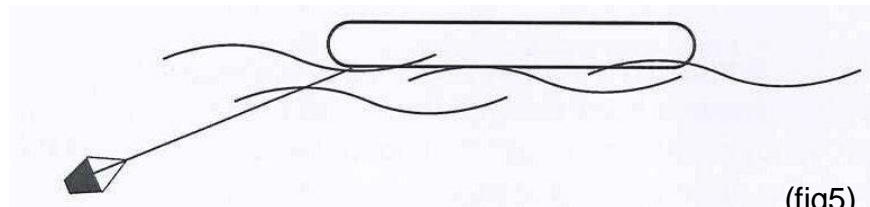


(fig4)

## 2.5 Sea Anchor:

2.5.1 The sea anchor line is attached to the webbing on the buoyancy, after boarding if not already deployed cast off the sea anchor.

2.5.2 The sea anchor will aid in the stability and prevent the life raft from drifting out of the search area (fig5).



(fig5)

## 2.6 Pump Inflation:

2.6.2 Attach the pump valve adapter to the topping-up valve, by screwing the pump adapter into the valve clockwise until the adapter snaps into place. Valve will open automatically (fig6)

2.6.3 Inflate by applying pumping action to the hand pump until full inflation is achieved.

**NOTE:** The buoyancy tube will lose air on hot days through the pressure relief valve, and will need topping up at night when the temperature is cooler.

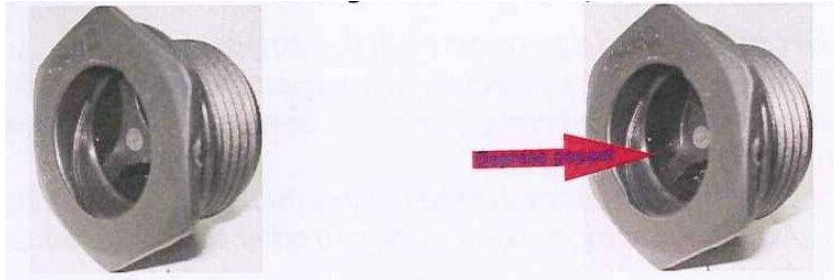
2.6.4 Remove pump from the valve by unscrewing the adapter from the topping-up valve until the adapter unsnaps out of place, the valve will close automatically.



(fig6)

## 2.7 Deflation:

- 2.7.2 Locate the topping-up valve on the buoyancy tube.
- 2.7.3 Depress the spring loaded poppet at the centre of the topping-up valve with your fingers (fig7).
- 2.7.4 Once the desired amount of gas is removed, release the pressure from the centre spring and the valve will close automatically.



(fig7)

## 2.8 Canopy: (Optional)

- 2.8.1 The manually erected canopy comes with a orally inflation arch tube for support.
- 2.8.2 After inflation clip each end of the arch tube to the opposite side to the life raft buoyancy tube webbing support patch.
- 2.8.3 Stretch the canopy over the buoyancy on each side, making sure the zipper door opening is on the boarding end of the life raft.
- 2.8.4 Unzip the canopy door for ventilation or for spotting rescue craft.

## 2.9 Storage Requirements:

- 2.9.1 Store the life raft in a dry, well ventilated area. It must not be subjected to extremes of temperature above + 60°C or below -30°C. Do not expose the life raft to bright sunlight for extended periods when not in use.
- 2.9.2 It should not be stored in compressed or cramped conditions which may cause damage or deterioration. It is crucial that the life raft is stored correctly at all times when not in use in order to protect the internal components.
- 2.9.3 If the storage conditions are met, the life raft can remain in storage between maintenance periods.

## **2.10 Servicing every Two Years:**

2.10.1 The buoyancy component of this life Raft should be serviced a minimum of once every two (2) years. Return the life raft to SOS Marine or its agent for complete and authorised annual servicing and repairs.

**Note:** Do not intend to do servicing by yourself. This device must be serviced by SOS Marine or its agent.

*The point of contact for service bookings is Ron Smith. Email: ron@sosmarine.com.au*

## **SECTION 3**

### **3.0 General Service Inspection:**

#### **3.1 Inspections are to be conducted in a room suitable for the task:**

- 3.1.1 Inspections are to be conducted in a clean dry area suitable for the task, the room to carry out servicing should be fully enclosed and should be large enough to lay the life raft out for test. Floor should be smooth to ensure that no damage to the fabric on the life rafts.
- 3.1.2 The temperature and humidity must be sufficiently controlled with no direct sunlight on the service area.
- 3.1.3 Open the life raft and remove from valise, then lay flat face up.

### **3.2 Co2 Cylinder:**

- 3.2.1 Unscrew the cylinder in an anti-clockwise direction and remove the co<sup>2</sup> Cylinder from the firing head and ensure rubber gas seal disc is intact. Inspect the cylinder for signs of damage, corrosion, pitting and thread damage. (Then weigh the cylinder) The cylinder weight should match the Gross Weight (GW) stamped on the cylinder.
- 3.2.2 The Gross Weight (GW) when weighing can be + but not – when weighing the Co<sup>2</sup> cylinder.
- 3.2.3 If the cylinder is damaged or the weight is less than the (GW), the cylinder must be condemned and replaced.
- 3.2.4 The co<sup>2</sup> mark weight allowance is 0.520kg on the cylinder.
- 3.2.5 Co<sup>2</sup> cylinder is disposable (none rechargeable cylinder)



**WARNING**  
**Gas cylinders are dangerous goods and to be kept away from children.**  
**Gas cylinders are not to be misused.**

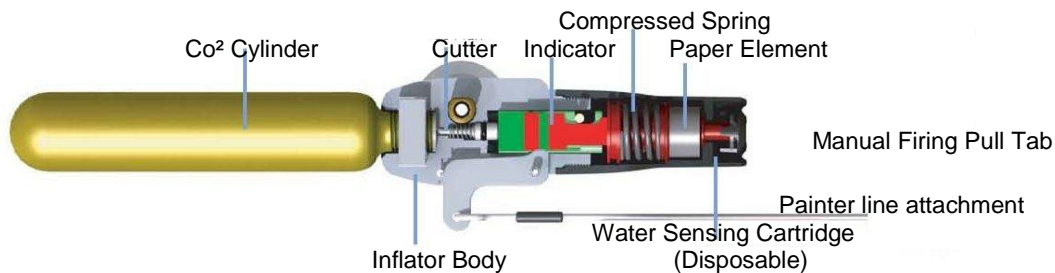
### 3.3 Firing Head:

3.3.1 Inspect the firing head for damage, corrosion or stripped of thread or cross-threading. Inspect the rubber seating disc for damage. Check the function of the firing head by moving the operating lever freely through its full length of travel. The arm will click into place, when the operating lever is fully located into its recess in the inflation mechanism.



**Before Re-Arming:** Check that the cutter pin will drop below the rubber seating gasket, and the expired sensor cartridge has been removed.

#### Automatic Pro Sensor



3.3.2 When the automatic inflator system has fired automatically the inflator system turns to red sensing the cartridge has activated and the Co<sup>2</sup> cylinder has been pierced.





### **3.4 Buoyancy:**

- 3.4.1 Carefully inspect the buoyancy chamber for any signs of damage, wear, deterioration or contamination by oils, lubricants or other contaminating substances that may cause damage to the buoyancy chamber, isolate for repair any life raft that shows these symptoms.

### **3.5 Pressure Relief Valve:**

- 3.5.1 Inspect the relief valve for any signs of damage or cracks, check the function of the valve for its operation, check the spring and the rubber seal for contamination.
- 3.5.2 The pressure relief valve operates when the buoyancy chamber has been over inflated or compressed when inflated preventing damage to the buoyancy chamber at 1.7–2.0 psi.
- 3.5.3 Leave for a test period for 15 minutes and check to see if the valve has closed.

### **3.6 Identification:**

- 3.6.1 Inspect all stencil marking and labels that the lettering is clear and legible, Inspect all reflective tape strips to ensure they are firmly attached and not dull or unreflective.

### **3.7 Fittings:**

- 3.7.1 Inspect all Metal fittings for signs of Damage, Cracking, Distortion and Corrosion. Isolate for repair, any life raft that shows these symptoms.

### **3.8 Light and Battery:**

- 3.8.1 Inspect the light and battery for any signs of damage or cracking and ensure that the light is firmly attached to the buoyancy chamber. Check the expiry date stamp of the battery to ensure the light will be still serviceable by the next inspection period. If the battery will be “out of date” before the next inspection, discard and replace the battery.

#### **Water activated Light:**

- 3.8.2 **(Water Test)** Test the light function by wetting the two water contacts of the activating terminals for two to five seconds. The light should illuminate brightly and start flashing within this time it is considered serviceable. Dry the end of the lead immediately after test is complete. If light is dull and doubt exists over the serviceability of the light, it is to be considered unserviceable and discard and replace.

- 3.8.3 **(Clip Test)** Test the light function by placing a clip across the two water contacts of the activating terminals for two to five seconds, if the light illuminates brightly within this time it is considered serviceable. If light is dull and doubt exists over the serviceability of the light, it is to be considered unserviceable and discard and replace.

### 3.9 Valise:

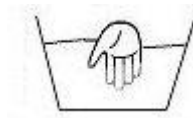
- 3.9.1 Examine valise for damage and contamination and all components for security of attachment. Inspect the hook and loop fastening tapes to ensure they have sufficient holding qualities.

## SECTION 4

### 4.0 Testing and Maintenance:

#### 4.1 Cleaning after Immersion in Salt Water:

Rinsing Life Raft Assembly:

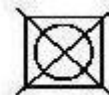
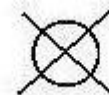
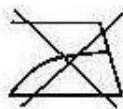


**NOTE:** Hand Wash (ONLY)

- 4.1.1.1 After immersion in salt water the life raft assembly must be rinsed in fresh water. Avoid water ingress into the topping-up valve and the inflation manifold when cleaning.
- 4.1.1.2 Oil and stains should be removed by washing with acid-free soap and rinsed thoroughly in fresh water.
- 4.1.1.3 Do not use Chlorine bleaches or washing detergents.
- 4.1.1.4 Allow to dry naturally.(Keep out of direct sunlight)

**NOTE:** When life raft assembly is completely dry it must be subjected to the full maintenance procedure.

**DO NOT**



**CAUTION**

**DO NOT** wash in washing machine or spin or tumble dry.  
**Do NOT** use other than recommended solvents or cleaning agents

## **4.2 Maintenance Schedule:**

- 4.2.1 After the life raft has dried, a full service must be performed, including a pressure inflation test.
- 4.2.2 The buoyancy component of this life raft must be subjected to full maintenance checks every two (2) years. Details of maintenance checks must be recorded on the relative documents signed by an approved testing technician.

## **4.3 Testing (Service Requirements):**

- 4.3.1 Inspections are to be conducted in a clean dry area suitable for the task, the room to carry out servicing should be fully enclosed and should be large enough to lay the life raft out for test.
- 4.3.2 Floor should be smooth to ensure that no damage to the fabric on the Life rafts.
- 4.3.3 Temperature and humidity must be sufficiently controlled with no direct sunlight on the service area.

## **4.4 Pressure Test:**

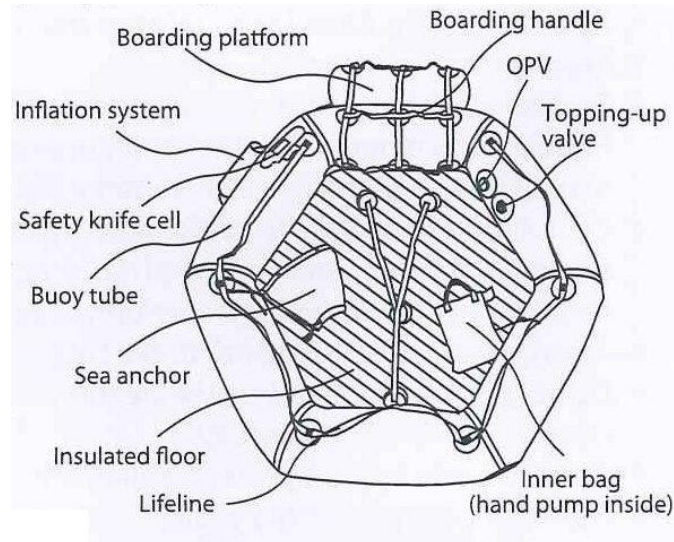
### **4.4.1 The following equipment in general:**

- 4.4.1.1 Inflation adaptor.
- 4.4.1.2 Pressure regulator box.
- 4.4.1.3 Digital Manometer.

## **4.5 Testing Buoyancy Chamber:**

**NOTE:** Testing must be conducted under stable temperature conditions.

- 4.5.1 Using an air supply regulated to not less than 1.15 psi (7 kpa) and not more than 1.5 psi (10 kpa), inflate the buoyancy chamber through the topping-up inflation valve (fig8).
- 4.5.2 Inflate until the over pressure valve vents and that it assumes it's normal shape (firm).
- 4.5.3 After inflation, listen at the over pressure inflation valve and the firing head, for any sign of air escaping the chamber.



(fig8)

- 4.5.4 If air is escaping from the firing head, isolate the life raft for repair.
- 4.5.5 If air is escaping from the topping-up inflation valve, isolate and condemn as not repairable.
- 4.5.6 If air is escaping from high-frequency welded sealed seam, the join of the Boarding chamber isolated and condemned as not repairable.
- 4.5.7 The buoyancy chamber must remain inflated for a period of not less than Twelve (12) hours.
- 4.5.8 After the minimum inflation period has passed, inspect the buoyancy chamber for signs of deflation.
- 4.5.9 The buoyancy chamber shall be deemed to have passed inspection when no discernible or obvious signs of deflation are evident.
- 4.5.10 Where obvious or significant leakage has occurred, it is to be repaired and the buoyancy chamber is to be re-inflated and tested a second time.

#### **4.6 Buoyancy Chamber:** (FAILS AFTER TEST)

- 4.6.1 Examine buoyancy chamber for damage and contamination.
- 4.6.2 Examine all integrity of welded seams.
- 4.6.3 Examine the topping-up valve and the gas inflation valve (manifold).
- 4.6.4 Examine the gas inflation valve (**refer Para. 4.7.1**)

## 4.7 Automatic Inflation Valve:

### 4.7.1 REPAIR PROCEDURE.

- 4.7.1.1 Remove the chrome securing nut securing the automatic operating head to the valve stem manifold, using a 9/16 tube spanner. Then remove inflator mechanism from valve stem manifold, inspect the valve stem for damage.
- 4.7.1.2 Inspect the inflator mechanism valve for damage, if required discard Lower/upper O Ring washer seals and replace.
- 4.7.1.3 Using the split pin tool unscrew Schrader valve in an anti-clockwise direction from valve stem, discard and replace.(if required)
- 4.7.1.4 Taking care not to over tighten in a clockwise direction, screw the new Schrader valve into the valve stem.
- 4.7.1.5 Pull down the manual inflator operating lever and observe the movement of the co<sup>2</sup> piercing pin. Ensure that the pin rises and falls during the travels, the sensor will show green and both lever and pin returns freely.
- 4.7.1.6 Place manual operating lever in cocked position. Fit inflator valve over valve stem making sure that it is in the correct position.
- 4.7.1.7 Fit chrome nut securing inflation mechanism to valve stem manifold, Torque load nut to 3.0Nm using 9/16 tube spanner.
- 4.7.1.8 Ensure the operating lever is fully located into its recess in the inflator valve, the arm will click into place, thereby preventing the arm to move.
- 4.7.1.9 If required fit new Co<sup>2</sup> cylinder O Ring washer seal into the firing head.

## 4.8 Operational:

**NOTE:** The unit also provides the added benefit of detecting if the Co<sup>2</sup> Cylinder has been pierced and the automatic cartridge has activated. The indicator sensor turns to **RED** eradicating the possibility of accidentally fitting a pierced gas cylinder or inflation cartridge.

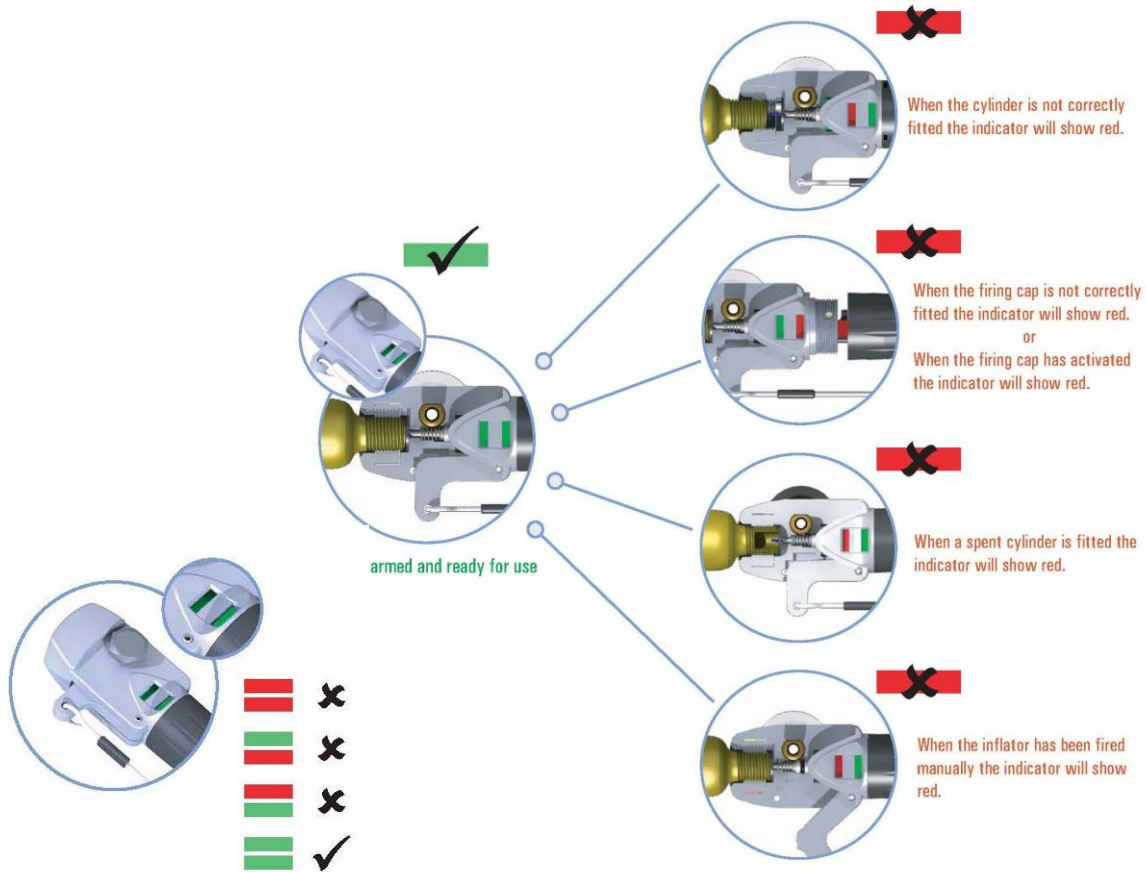
### SERVICE INDICATOR:

**GREEN** Unit is Operational. **RED**  and Service Unit.



 The system will show  when the product is correctly changed.

**WARNING**  
**If the Chamber has been inflated by the gas cylinder,**  
**Take care not to inhale the expelled CO<sub>2</sub> gas.**



The automatic Pro-Sensor is fitted with the latest all weather cartridge with the added benefit of inhibiting the accidental ingress of moisture and water spray, during hot humid or stormy weather.

#### 4.9 Technical Data:

##### Bladder Assembly:

- 4.9.1 Buoyancy Spanish yellow, 210 Denier Nylon single-side polyurethane coated air and water with ultraviolet resistance. All seams and fitting points are high-frequency welded and air tight.

**4.9.2 SOLAS LIGHT & BATTERY:**

Red Light

Water- activated flashing light with manual override.

Turn off in daylight hours)

Weight: 90grammes Visibility: 2.2km

Duration: 8 hours Battery Life: 5 years

4.9.3 SOLAS grade reflective tape is located in a minimum of 3 places on the upper side of the buoyancy chamber.

4.9.4 Automatic/Manual Inflation System is United Moulders Limited  
Manifold Brass UMO 1655/A  
Automatic Pro Sensor Inflator Valve ½  
Automatic Pro Sensor Inflator Cartridge

4.9.5 Boarding inflatable platform.

4.9.6 Manually erected canopy. (Optional)

4.9.7 Three 165ltr water pockets.

4.9.8 Painter Line nine (9) mtrs.

4.9.9 Room for each person 0.96 square meter interior.

4.9.10 Sea Anchor.(Drogue)

4.9.11 Weight including bottle approx 8.3 kgs.

4.9.12 Topping up pump.

4.9.13 Cylinder co<sup>2</sup> 0.520kg disposable (none rechargeable cylinder)

**NOTE:** Fit only cylinders that the weight is compatible with the weight indicated to use on the life raft.

**WARNING**

**If the buoyancy has been inflated by the gas  
Cylinder,**

**Take care not to inhale the expelled CO<sub>2</sub> gas.**

## SECTION 5

### 5.0 Repairs:

**NOTE:** Only small holes and tears in the buoyancy chamber and floor are to be repaired, it should be returned to SOS Marine for assessment and or replaced.

Only use genuine SOS Marine supplied materials.

5.0.1 See limits of repair as detailed at Para 5.1

5.0.2 Replacement of components as detailed in Para 5.2

### 5.1 Patching Limits:

5.1.1 Repairs to the life raft are limited to patching of small holes or tears on the buoyancy chamber and floor.

**NOTE:** Life Rafts are to be replaced if the following damage is discovered during inspection or testing:

- 5.1.1.1 Holes or tears on the webbing and attachments.
- 5.1.1.2 Holes or tears on the welded seam.
- 5.1.1.3 Over pressure Valve.
- 5.1.1.4 Topping up Valve.
- 5.1.1.5 Damage to the welded attachment points.
- 5.1.1.6 Exposed to extremes of (UV) sunlight temperatures.

### 5.2 Replacements:

5.2.1 The following items are to be repaired by replacements only:

- 5.2.1.1 Co<sup>2</sup> Cylinder.
- 5.2.1.2 SOLAS Light.
- 5.2.1.3 Painter Line.
- 5.2.1.4 Automatic operating Valve.
- 5.2.1.5 Schrader Valve.

- 5.2.1.6 Life Raft Valise.
- 5.2.1.7 Sea Anchor (Drogue)
- 5.2.1.8 Life Line & rubber ring (Quoit)
- 5.2.1.9 Safety Knife.
- 5.2.1.10 SOLAS reflective Tape.
- 5.2.1.11 Hand Pump & bag.
- 5.2.1.12 Spare survival aid bag.

### **5.3 Replacement of SOLAS Reflective Tape:**

- 5.3.1 Removal of reflective tape; remove easily by peeling back the damage tape.
- 5.3.2 Clean the surface of the buoyancy and remove any glue or primer residue.
- 5.3.3 Use a template to mark the area where the tape is to be placed.
- 5.3.4 Clean with a dry cloth before applying the Primer to the marked area.
- 5.3.5 Apply the reflective tape by peeling back the protective film. The tape should be 50mm wide with corners rounded to the surface of the buoyancy within the marked area.
- 5.3.6 Using a hand roller remove all creases and air bubbles for maximum adhesion being careful not to scratch the surface of the tape.
- 5.3.7 Check for full contact after application.

### **5.4 SOLAS Light Assembly Replacement:**

- 5.4.1 Replace light if damaged/non-operational.
- 5.4.2 Refer to testing in Light/Battery in Para 3.8.

### **5.5 Valise Assembly:**

- 5.5.1 A damaged or suspect valise assembly must be repaired or replaced.

## 5.6 Refurbishment:

- 5.6.1 After successful testing of the buoyancy chamber, the life raft is to be re-fitted with serviceable and/or new components in accordance with inspection procedures above, and the appropriate stamping, marking and recording.
- 5.6.2 The service carried out is in accordance with the applicable service Manual.
- 5.6.3 The life raft is then to be repacked and stored in a cool, dry place until returned to the customer.

## SECTION 6



Refer to manufacturer's instructions to repack the life raft correctly.

## 6.0 Folding and Packing:

### 6.0.1 Preparation Prior to Repacking:

- 6.0.1.1 No inflatable life raft component shall be repacked into its' valise until a full inspection has been carried out.
- 6.0.1.2 When the life raft inflatable buoyancy component has been deemed serviceable complete the following operations.
- 6.0.1.3 Lift the insulated floor Velcro attached and fill out the service record.

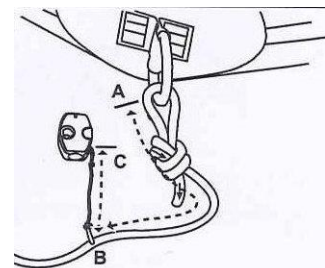
## 6.1 Repacking Instructions:

**NOTE:** Incorrect packing, fitting of incorrect components may result in failure to operate or inflate properly.

6.1.1 Extract air/gas by squeezing out all residual air from the buoyancy with vacuum pump, until the buoyancy is flat and crinkled, via the depressed deflation valve.

6.1.2 Pull the life raft into shape, by laying it out face up on packing bench for re-packing.

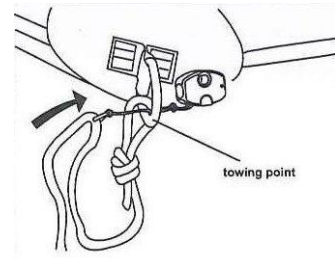
6.1.3 Connect the end of the painter line to the D ring towing point with a Bowline Knot and stitch and tape the end to secure.



6.1.4 The toggle line must be a distance of 20cm from the D ring as in A to B and that the toggle line to the valve is 10cm long as in from B to C.



6.1.5 Loop the painter line through the D ring and secure the inflation valve to the Manifold as in procedure 4.7 automatic or manual Inflation Valve.



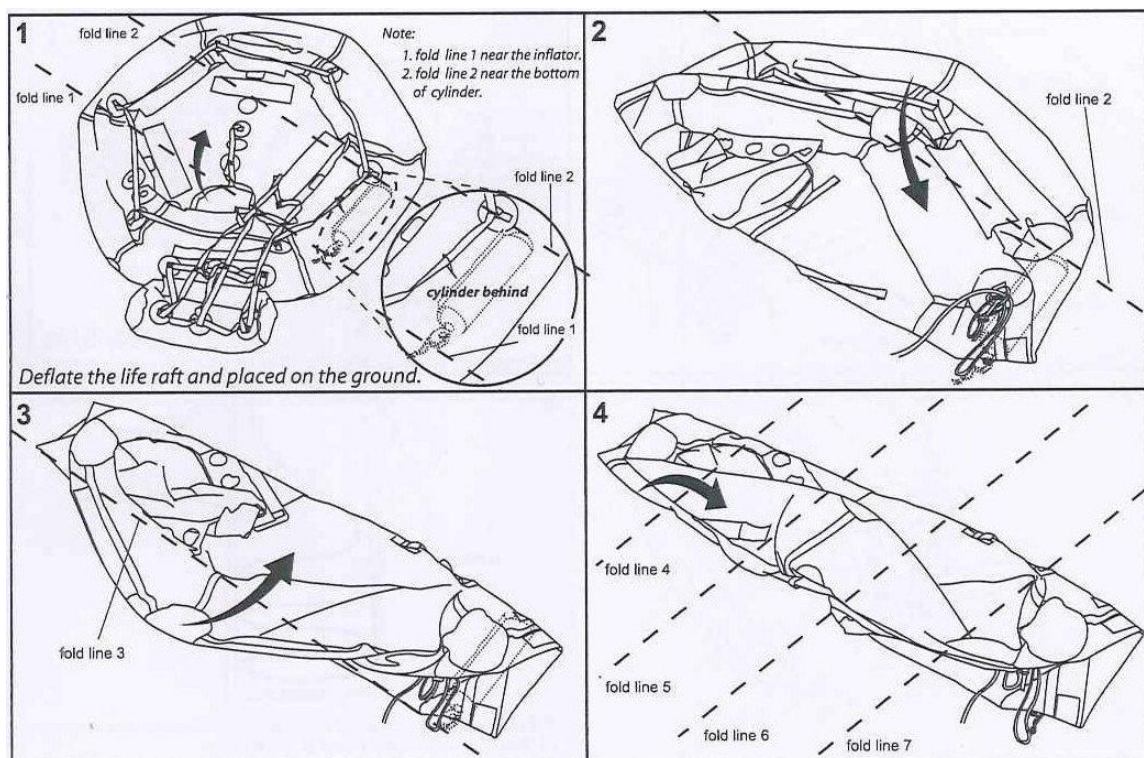
6.1.6 Put the cylinder into the Neoprene bag and close the Velcro tape.

**NOTE:** Do not screw the cylinder onto the inflator valve at this stage to avoid accidentally firing the co<sup>2</sup> cylinder during repacking procedure.

6.1.7 Make sure that all life saving items are in their place before re-packing.

6.1.8 Before re-packing: Inspect to ensure co<sup>2</sup> cylinder and automatic valve and manual pull safety arm are all in place and that the valve inflation line is connected to the painter line through the stainless steel D ring towing point.

6.1.9 Fold the deflated life raft starting at the sides and fold inwards to the width of the valise, then make the narrow folds as in the diagram (fig9) down to the co<sup>2</sup> cylinder.

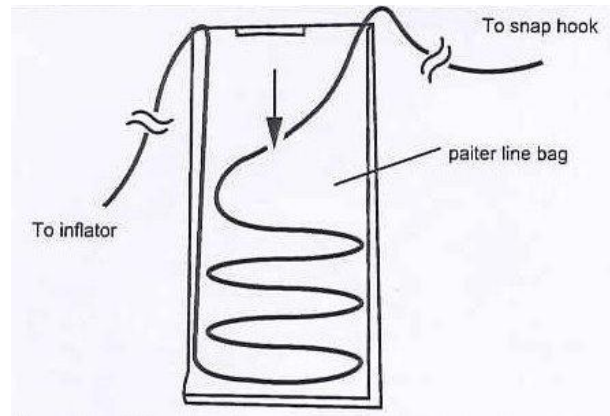


(fig9)

6.1.10 Connect the cylinder to the inflation valve, and then insert the folded life raft into the valise, making sure the painter line isn't snagged.

6.1.11 Make sure you put the painter line into painter line bag section by section so that it will not foul when paying out.

6.1.12 Painter line bag to lay flat with the valise making sure that the line will not be snagged on the life raft then close the hook and loop pile together on the valise.



6.1.13 Connect the painter line snap hook to the Velcro patch and secure to the Valise making sure that the line isn't tangled.

6.1.14 **Tidy:** Bring into shape the folded life raft too presents a neat appearance in the valise.

6.1.15 Life raft is ready to use.

## APPENDIX 1

### 1.0 SPARE PARTS.

#### 1.0.1 Water Activated SOLAS Flashing Light

The SOLAS light is activated upon immersion in water and can be turned off during daylight.

Product Number: SOS-5470



#### 1.0.2 Cylinder and automatic Inflation Cartridge

Product Number: **SOS-5550kit**



#### 1.0.3 Auto Inflator

Product Number: **SOS-6101A**

**IMPORTANT: This inflator can ONLY be fitted with UML Valve.**



#### 1.0.4 Drogue/Sea Anchor

Product Number: **SOS-5376-1**





*“From Design to Development, Production to Servicing, our 25 years experience and knowledge in the industry has earned us a reputation as a supplier of proven quality products”.*

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