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The United States Marine Safety Association ("USMSA") is comprised of companies and individuals who design and/or manufacture marine safety equipment, service and/or sell safety equipment, or provide training in the use of such equipment. The Association is dedicated to promoting the highest possible marine safety standards and creating widespread awareness in the use of marine safety equipment.

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IMMERSION SUITS

STEARNS[®]

CARE AND INSPECTION GUIDE



U.S. MARINE SAFETY ASSOCIATION

TIMING

Inspection is suggested before every voyage or at least quarterly.

SEVEN STEP

INSPECTION PROCESS

1. Check closures on storage bag, as well as general condition. Wax closure snaps on bag for ease of opening. Ensure Donning Instructions are legible. Be sure bag, size, and manufacturer of suit labeling are correct.
2. Lay suit on a flat clean surface. Visually check seams and remainder of the suit, inside and out, for damages. Small rips, tears, or punctures can be repaired by an authorized repair station. Major tears, rips, punctures and chemical or heat burns must be inspected and repaired by the suit manufacturer. Make sure suit is dry inside and out before storage.



MORE COLD FACTS

Be aware that cold water (less than 90 degrees Fahrenheit) can lower your body temperature. This is called Hypothermia. If your body temperature falls too low, you may be unable to swim, or hold onto floating objects. Further cold water exposure could result in unconsciousness and drowning.

Even if you are wearing a Personal Flotation Device (PFD), your body can cool down 25 times faster in cold water than in air. A Cold Water Immersion Suit helps reduce the rate your body is cooling in cold water.

Water temperature, clothing, body size, amount of body fat and movement in the water all play a part in cold water survival. Thin people cool faster than large people. Children cool faster than adults.

Immersion Suits can help you stay alive longer in cold water. They can let you float without using energy and they help protect your body from cold water.

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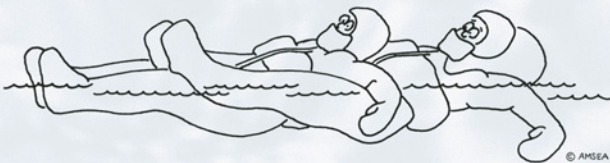
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COLD WATER SURVIVAL

When you are in cold water, do not swim unless you are sure you can reach a nearby boat, fellow survivor, or floating object. If you must swim, swim on your back to keep your face out of the water.

If a nearby floating object is large, pull yourself up on it. The more your body is out of water, it will lessen heat loss, increase survival time, and you will be more visible for rescue.

If there are others in the water, and conditions permit, swim in tandem with a companion. Keeping survivors together improves moral, and makes a larger visible target increasing the chance of rescue.



3. The zipper used in an immersion suit is designed to provide a water tight seal. It is important that regular maintenance practices be performed.
 - A) Visually check zipper for wear, damage, corrosion and cleanliness. If zipper shows any signs of wear or damage, remove the immersion suit from service and have a factory authorized repair facility inspect the suit. Debris and foreign matter can be removed by using a soft bristle brush and fresh water.
 - B) Check zipper by sliding up and down with a steady straight pull to check for ease of operation. If zipper is non-functional or difficult to close, remove the immersion suit from service and have a factory authorized repair facility inspect the suit.
 - C) Regular lubrication of the inner and outer zipper is essential. Only use a lubricant recommended by the manufacturer. Use of grease or non-approved lubricants can harm the zipper or suit.
4. Check head support/buoyancy ring for obvious damage and ensure that it is properly attached. Check inflation hose for kinks, deterioration or leaks. See that the lock screw is in open position. Head support/buoyancy ring should be inflated and tested for leaks using one of the following two methods.
 - A) Orally inflate the bladder until firm then immerse in water looking for air bubbles. If bubbles are present, remove immersion suit from service and contact the manufacturer or a factory authorized repair facility

OR

 - B) Orally inflate until firm, let stand for 24 hours and check for firmness. If leaks are detected, remove immersion suit from service and contact the manufacturer or a factory authorized repair facility.



Make sure the locking ring is screwed away from the mouthpiece of the immersion suit inflator, so you can blow air into the suit's bladder.

5. Check reflective tape. Replace if necessary. For best adhesion, repair should be completed by a factory authorized repair station.
6. Check whistle for audio function and ease of accessibility.
7. Be sure an approved distress marker light with an unexpired battery is firmly attached to the suit.

5.



6.



7.



4. Holding the zipper below the slider with one hand, fully close the zipper by firmly pulling straight up on the lanyard with the other hand. Secure the flap over the face/mouth.
5. Enter water feet first while protecting your airways with your hands

WARNINGS:

Do not inflate the air bladder until you are in the water to prevent damage or injury.

There is a risk of entrapment in submerged vessel compartments due to suit buoyancy.

Jumping into the water is a last resort. Ease/lower yourself into the water if possible.



Insert other arm and close zipper and face flap. Adjust wrist and ankle bands to fit.



Enter water feet first covering your airways.

DONNING INSTRUCTIONS

Your life may depend on your ability to quickly don your immersion suit in an emergency. It makes sense to have practiced beforehand. Monthly practice should reduce your donning time from minutes to seconds.

1. Remove suit from storage bag.
2. You should practice donning the suit, feet first, while lying or sitting on the deck. Vessel movement or list will often prevent donning the suit in a standing position.
3. Place your weaker arm into the sleeve of the immersion suit. Then using your free hand, reach up and place the immersion suit hood over your head. Then place your strong arm into the sleeve of the immersion suit.



Remove suit from bag



Pull on as you would a pair of coveralls



Insert arm into suit and adjust hood over head

CLEANING

Washing: In no case should the suit be drycleaned or exposed to any chemical solvents or cleaners. The suit should be handwashed with mild detergent and rinsed thoroughly with plenty of fresh water. Stains can be cleaned by gently rubbing with a soft bristle brush.

Drying: Hang suit inside out on large wooden hanger in a cool (65-75 degrees Fahrenheit), dry and well ventilated area. Do not expose to sunlight or direct heat. Following the drying of the interior of the suit, it should be reversed to completely dry the outside. When the suit has thoroughly dried, it can be returned to the bag by following steps 1 to 4 for Storage Instructions.

CERTIFIED

REPAIR FACILITY

Immersion suit manufacturers recommend a complete inspection of your immersion suit by a certified inspection and repair facility at intervals not exceeding every 2 years. Immersion suits 5 years old should be inspected annually.

Please contact your immersion suit manufacturer for a listing of certified repair facilities.

STORAGE

1. Lay suit out on flat, clean surface with arms out. Make sure zipper is fully open and the lock screw on the inflatable tube is in the open position.
2. Roll suit, feet first, up to the chin area making sure not to crease the head support/buoyancy ring or inflatable tubes. Tuck face flap into neck area to prevent Velcro® from attaching to suit while in storage.
3. Fold arms over rolled up legs and across chest.
4. Tuck hood into the roll and place in storage bag. Secure the bag closures. Be sure suit is stored in clean, dry area and is immediately accessible in case of emergency. Do not compress the suit in storage as it may result in loss of buoyancy and thermal protection.

NOTE:

Storage recommendations vary between manufacturers. Consult your suit manufacturer for additional information.



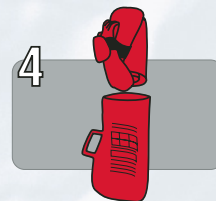
Lay suit out on flat, clean surface with arms out. Make sure zipper is fully open and the lock screw on the inflatable oral tube is in the open position.



Roll suit, feet first, up to the chin area making sure not to crease the head support/buoyancy ring or inflatable tubes.



Fold arms over rolled up legs and across chest.



Tuck hood into the roll and place in storage bag. Secure the bag closures.