

Care and Maintenance of Safety Products

Safety at Sea 2005
US Naval Academy

Inflatable Life Jackets and Harnesses







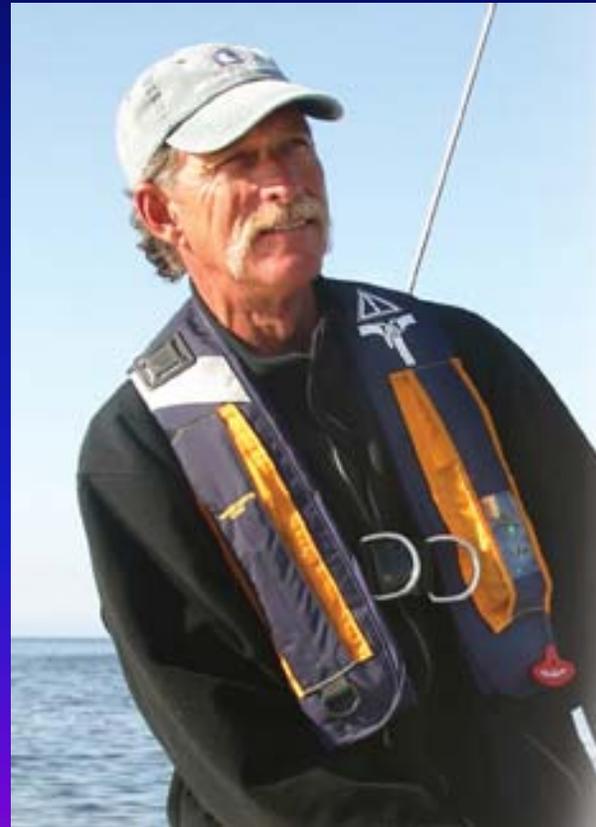






Different inflatables for different applications

- Buoyancy: 16, 24, 35 and 60lb.
- Harness, no harness, or belt pack
- Inflation: automatic, manual, or both













Inflatable Life Jackets

Prior to each trip or use

- Remove and inspect CO₂ cartridge
- Reinstall CO₂ cartridge
- Automatic or manual?
 - Check water sensing element

Different Inflators





Different Replacement Cylinders

Manual,
automatic, or
both?







HAMMAR MAT
Manual/Automatic Inflator
Replace if red
Use Code 1F





Inflatable Life Jackets

Six Month Checkup

- Replace water-activated bobbin (two years on yellow version)
- Check expiration date on other brands of inflator water sensors
- Inspect CO₂ cylinder
- Orally inflate life jacket; check in a few hours
- New bobbin, re-install CO₂ cylinder, repack.



38 Gram CO2 Cartridge
With 3/8" Threads

JERK TO INFLATE

STEARNS®
SECUMATIC® 3001
Auto/Manual Inflator
POSITORQUE



- Replace pill
- Close lever



PFD Rearming Kit 38MRP-1

For rearming the following
SOSPENDERS® rip-cord
inflatable PFD models only:

**38MSTD-1, 38MPRO
38MHAR-P-1, and
38MWB-1**

Equipped with HALKEY ROBERTS inflator

Contains:

One 38 gram CO2 cylinder
One green cap
Rearming instructions



38 GRAM CO2 FILLED
NOT HEAT
P/N 8612
WT 146.0
NON-FLAMM

LOT # U 98026



Manufactured by: Sporting Lives, Inc. • 1510 NW 17th St. • Fruitland, ID 83619

Notes on Inflatable Life Jackets

- Oral inflation pressure is about 0.6 psi
- Bladders are strong enough to withstand an oral inflation, plus CO₂, plus an additional 20% (11 psi) for at least 5 min
- One gram of CO₂ provides approximately 1 lb. of buoyancy

Fire Extinguishers



Fire extinguishers

- Inspect gauge
- Look in nozzle
- Invert extinguisher
- Label locations





POTTER-ROEMER
A MODEL OF SAFETY

INSTRUCTIONS

1. HOLD UPRIGHT. PULL AND PIN
2. START BACK 15 FEET
3. AIM AT BASE OF FIRE
4. SWEEP SIDE TO SIDE
5. COARSE LAYER, SWEEP SIDE TO SIDE

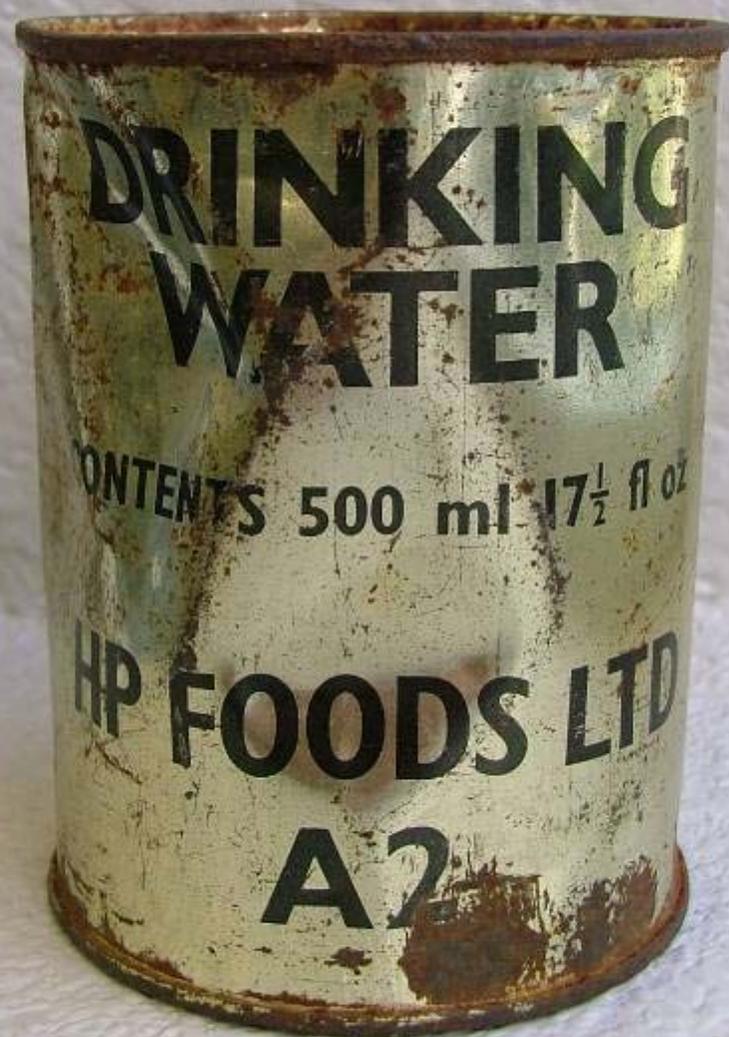
Life Rafts



Life Rafts

- Annual inspection
- Store in dry location when not needed
- Keep valise life rafts dry
- Make sure the tether is made fast to the boat
- Can you get the life raft on deck?
- Establish an Abandon Ship plan and review with crew

A good
reason to
repack your
raft
regularly...



Flares and Signals

- Replace flares 42 months from date of manufacture
- Keep in waterproof container
- Understand how to ignite flare; demonstrate technique to crew
- Keep expired SOLAS flares for up to 10 years as extras





Date of Manufacture: 1996-09

Date of Expiration: 2000-03

Lot No.: 76LJ3

AS

EPIRBs

Emergency
Position
Indicating
Radio
Beacons



EPRIBs

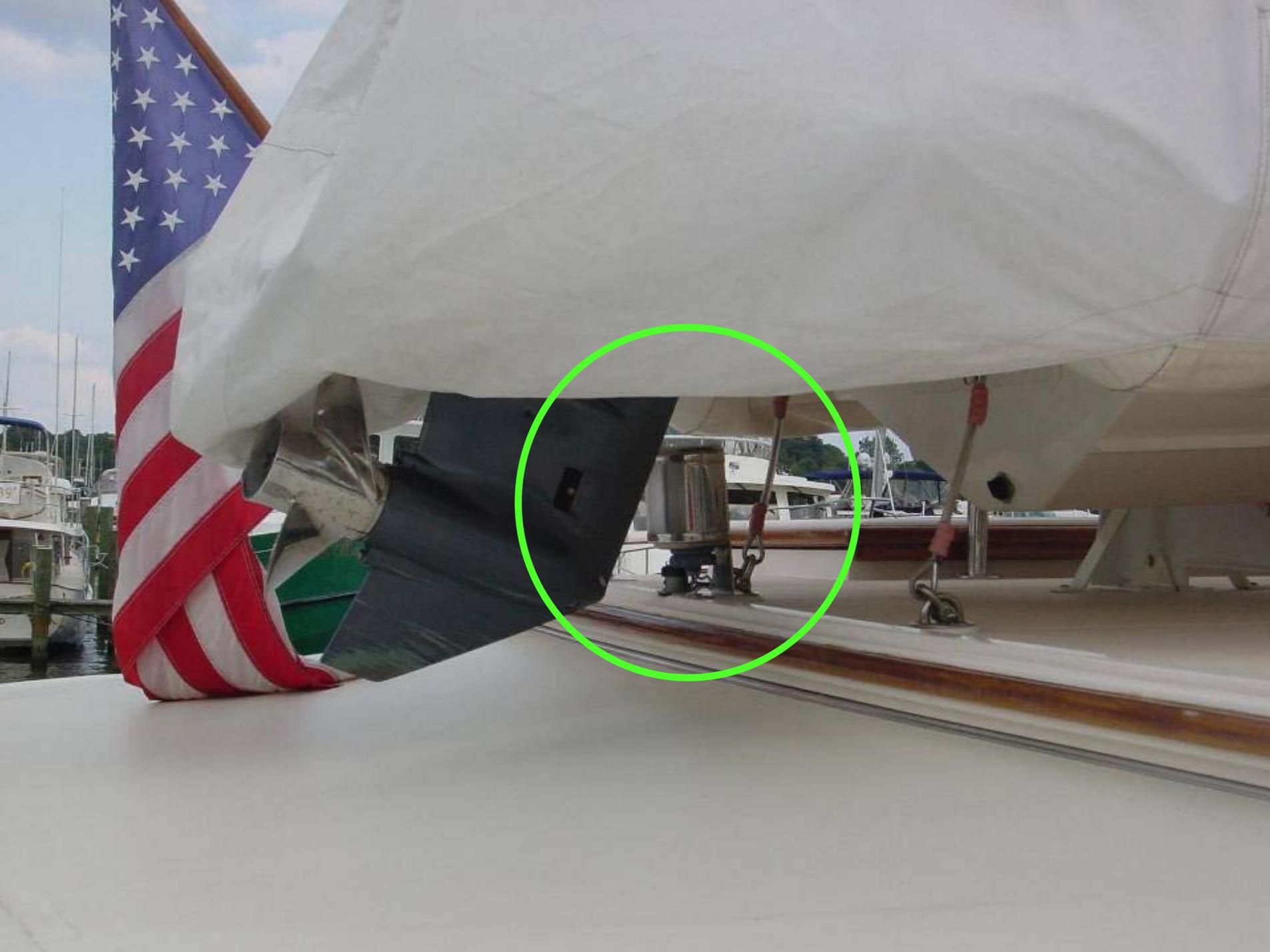
- Register : www.sarsat.noaa.gov
- Battery age (~5 yr)
- Hydro release (~2 yr)
- Self-test feature
 - 406 MHz units can be tested at any time
 - 121.5MHz units: test for <3 seconds in first 5 min of hour.
Tune radio to 97.5MHz.

Emergency Navigation Lights









Emergency Navigation Lts

- Must meet COLREGs for vessel
- How to attach?
 - No duct tape
- How are they powered?
 - Cat 1 requires separate power source

Lifesling



Lifesling

- Fake line
- Bitter end is made fast
- Lifting tackle
 - two-blocked
 - line faked in storage bag

Man Overboard Module



Man Overboard Module

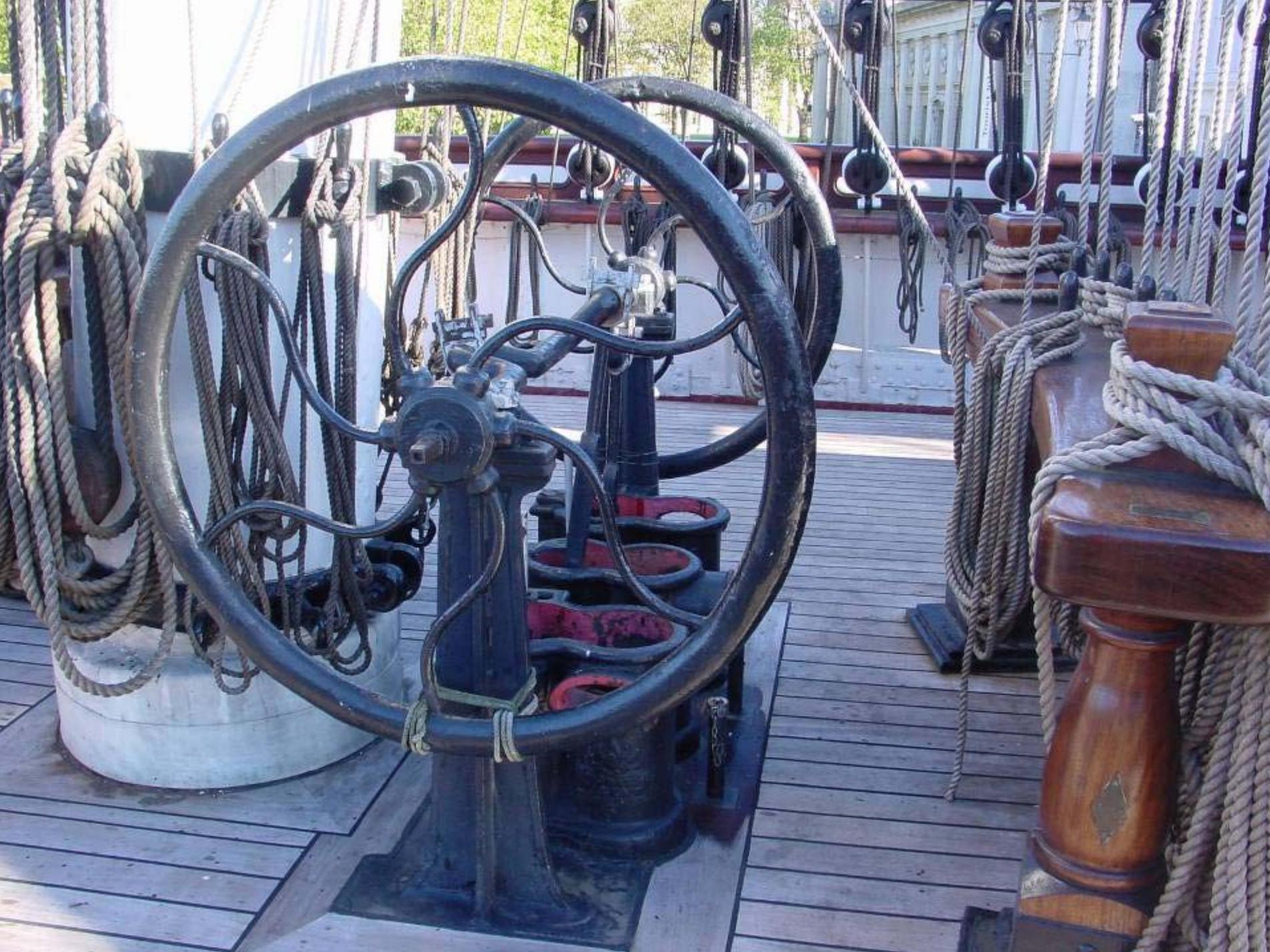
- Inspected within two years
- Inspect launching pin
- UV deterioration while packed

Marking of gear

- Floating items should have vessel name
 - Life raft
 - Life jackets
 - COB gear
 - EPIRB
 - Cushions

Dewatering Pumps







Bilge Pumps

- Install a strainer
- Pump body is accessible
- Short hoses
- Alarm sensor for flooding?
- Pump handles

Anchors and Rode



Anchors and Rode

- “Mouse” shackles
 - Monel wire or nylon wire ties
- Prepare a fairlead for chafe reduction on bow and stern
 - Snatch block? Removable bow fairlead?
- Dealing with disassembled anchors
- Fake line
- Store anchors and rodes securely
- Make bitter end fast

Personal Safety Gear



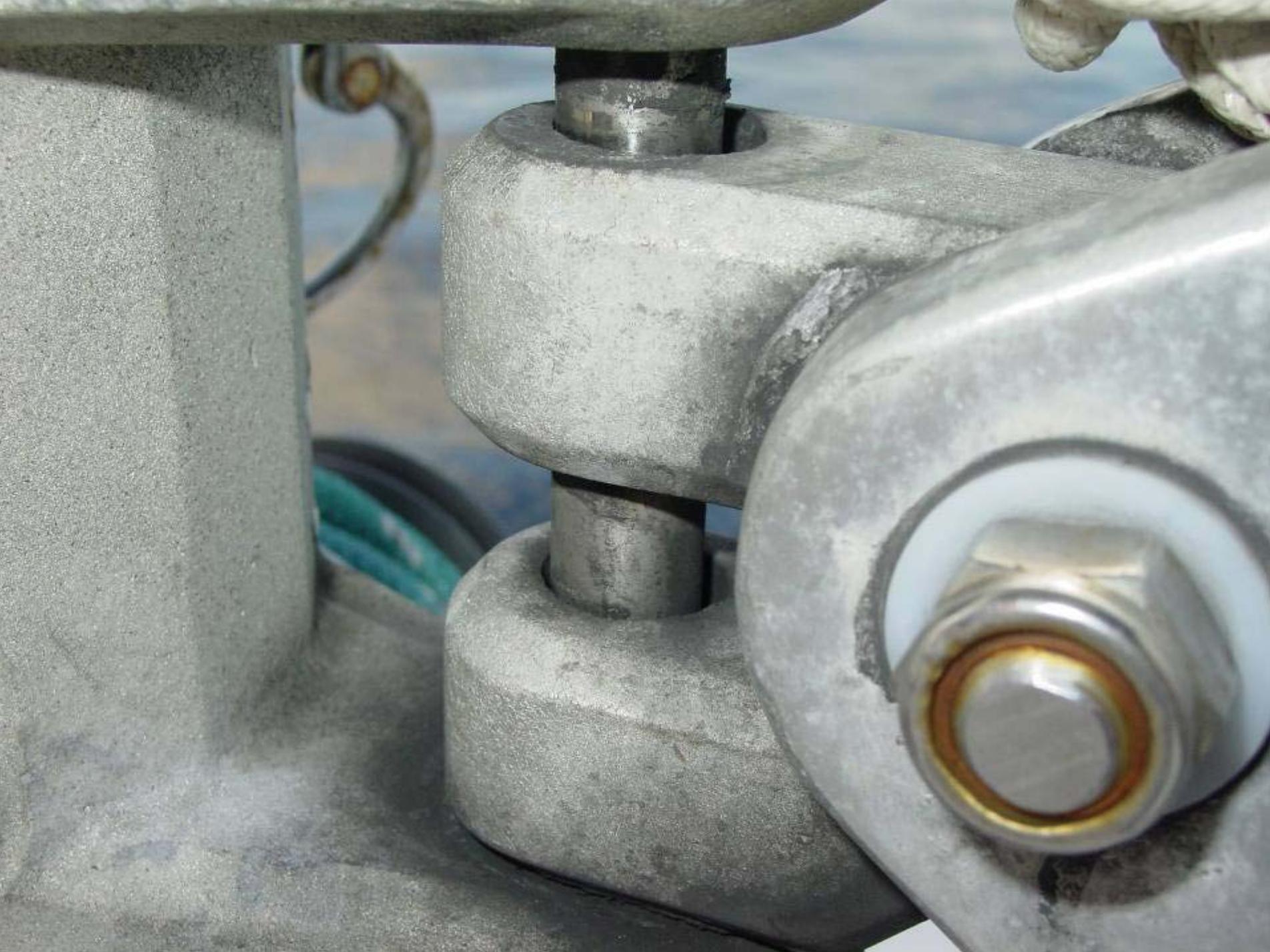
Personal Safety Gear

- Replace batteries in strobes, flashlights, headlights every six months; use lithium or alkaline batteries
- Inspect zipper sliders for corrosion; replace with plastic versions if possible
- Inspect knives for corrosion and sharpness
- Add fanny pack or pouch on PFD to store small items
 - Strobe
 - Knife
 - Headlight
 - Light sticks



A close-up photograph of boat rigging hardware. Two stainless steel cables are shown, each secured with a stainless steel shackle. The cables are wrapped with white tape at the shackle points. The background is a deep blue, rippling sea. The text "What should you check while underway?" is overlaid in white on the right side of the image.

What should
you check while
underway?



Underway

- Rigging pins in place and undistorted
- Standing wires not fractured
- Gooseneck and vang attachments tight
- Running rigging not unduly chafed
- Shackles seized when appropriate
- Avoid rings in clevis pins
- Hourly check of wear points

Underway, cont.

- Bilge level check and log book entry
- Record battery level (Ah) hourly
- Shaft Log inspection
- Engine checks
 - Oil level
 - Coolant level
 - Fuel filter water and sediment



Good preparation will keep you from
having to use this phone...



(Golden Gate Bridge,
mid-span)

and will insure that you enjoy
the ride...



...to a well deserved party at
the finish line

