

Dialing In Your Boat

Suggestions on how to track and monitor the gear and systems on your boat. Tips and Ideas to make boating more fun and enjoyable

Trawler  Fest.

BOAT SHOW - EDUCATIONAL EXPERIENCE - RENDEZVOUS

by Jeff Merrill, CPYB
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Racing sailboats led to this course

Trawlerfest

BOATSHOW • EDUCATION • RENDEZVOUS

Sunday October 3, 2021

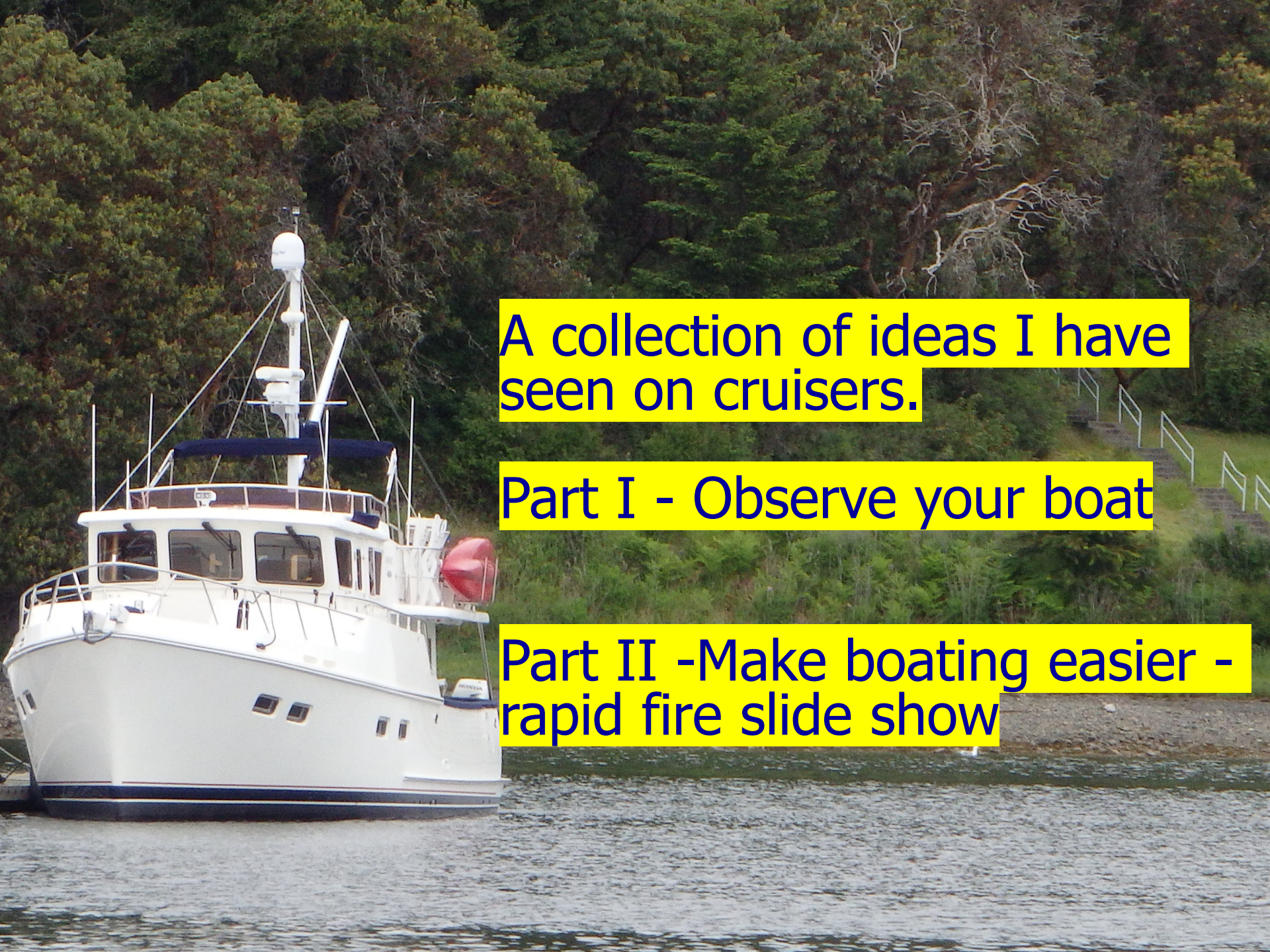
Pilothouse – Gauge Reference

My first power boat "AHA"





About me...30+ years of selling new and used cruising sailboats and trawlers and training owners. I've been on hundreds of boats and found some great ideas.



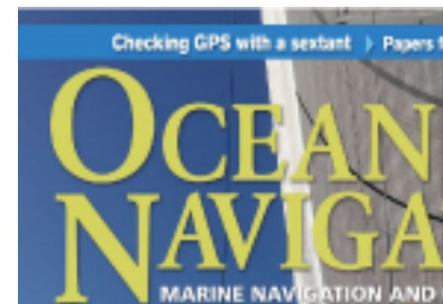
A collection of ideas I have seen on cruisers.

Part I - Observe your boat

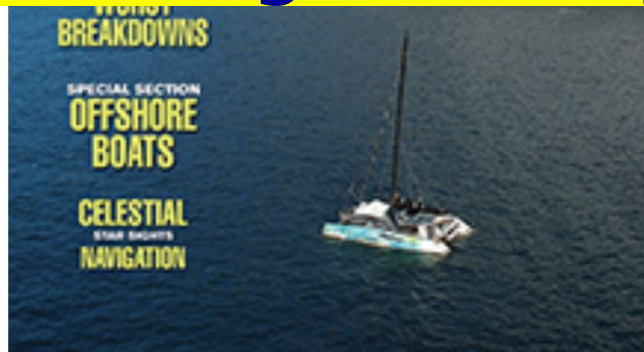
Part II - Make boating easier - rapid fire slide show



...ialing-In-Your-Trawler articles Jeff Merrill has written are available



Handout* A list of the articles I have written for Ocean Navigator magazine



Of course, a compass

Mar/Apr 2020

Enabling your boat to talk

Nov/Dec 2019

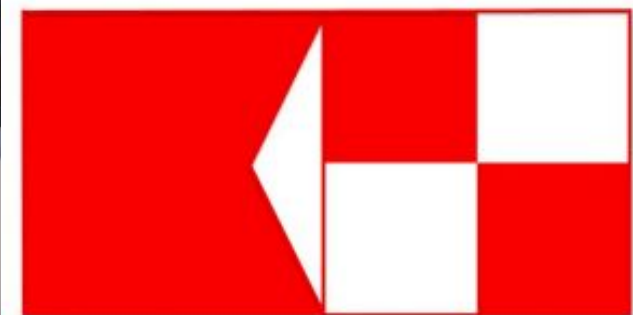
Ship's Papers

Jul/Aug 2019

Expert Instruction From The Brands You Trust.

Offshore Cruising: Preparing Craft & Crew

Preparation is key to successful cruising. Regardless of the size, make or model of your boat, understanding its critical systems and having a plan is crucial to keep your craft performing efficiently and safely. Join yacht broker, boatbuilder and TrawlerFest instructor Jeff Merrill in this exclusive online course designed to help you prepare yourself, your boat and your crew to get the most out of your offshore boating adventures.



Boaters University

▶ 1:04

YouTube videos



SKILL

TIP #2



Learn something from every boat

Every vessel has a
number of components
that require attention and
observation, we are all
“in the same boat”

Noticing details will help you monitor your systems and better understand your boat.

I will post this PowerPoint as a PDF and include the handouts on www.JMYS.com within a week.

Please interrupt with questions

HANDOUTS

- Summary Dialing in Your Trawler articles
- USCG inspection Vessel Safety Check
- Maintenance Log - Main Engine
- SDMC / JMYS Maintenance Guideline

As a yacht broker I know that eventually you will sell your boat. You want a reliable vessel, and Buyers want maintenance records



Do you keep your maintenance log up to date?

Your Boat is "alive"

Like your body, it make senses that regular
"CHECK-UPS" will keep your boat healthier



Unlike annual human medical exams, a trawler should have many inspections (hourly at first) to check systems





Be observant and pay attention

What can you do to keep track of things and make boating easier?

A photograph of a boat's dashboard area. The dashboard is dark grey and features several pieces of electronic equipment. On the left, there is a laptop computer. In the center, there is a speedometer and a tachometer. To the right, there are two large electronic displays, likely for navigation and engine monitoring. Above the dashboard, there are several windows and a radio. The background shows a marina with many boats.

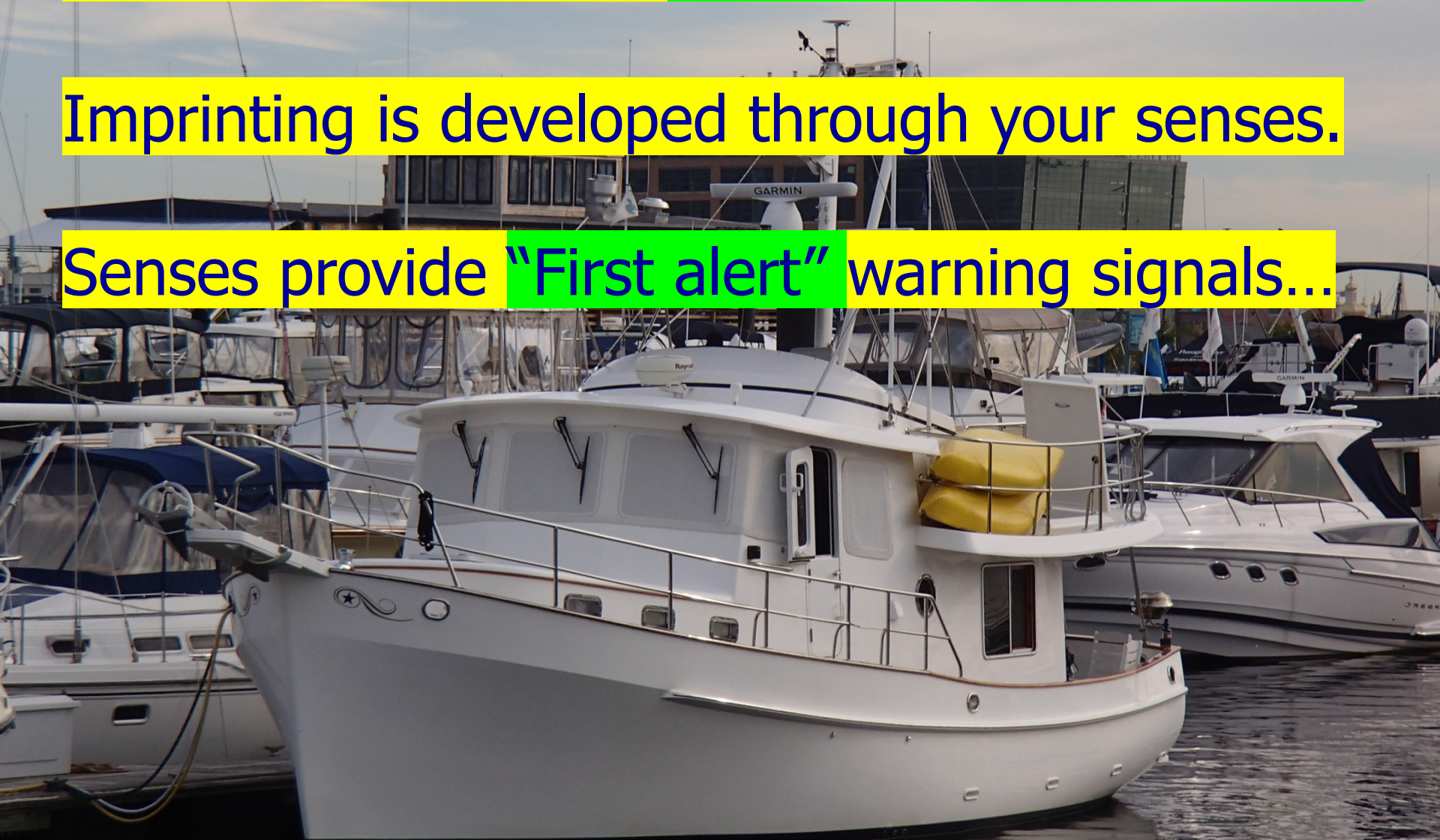
BASELINES

To track your boat you first have to establish baselines, and these initial impressions need to be cataloged so you can learn what the NORM is.

Boat "SENSES" – You are a diagnostic tool

Imprinting is developed through your senses.

Senses provide "First alert" warning signals...



A photograph of a boat on a lake at sunset. The sun is low on the horizon, creating a warm orange and yellow glow. The sky is filled with soft, wispy clouds. The water is calm with gentle ripples. A boat is visible in the distance, moving across the water. The text 'Sight/Vision' is overlaid in a yellow box, and a list of two bullet points is overlaid in another yellow box.

Sight/Vision

- Keen an eye on things...
- Visual observation is the most common way to notice if something is amiss.

Hearing/Sound

New noises to identify:

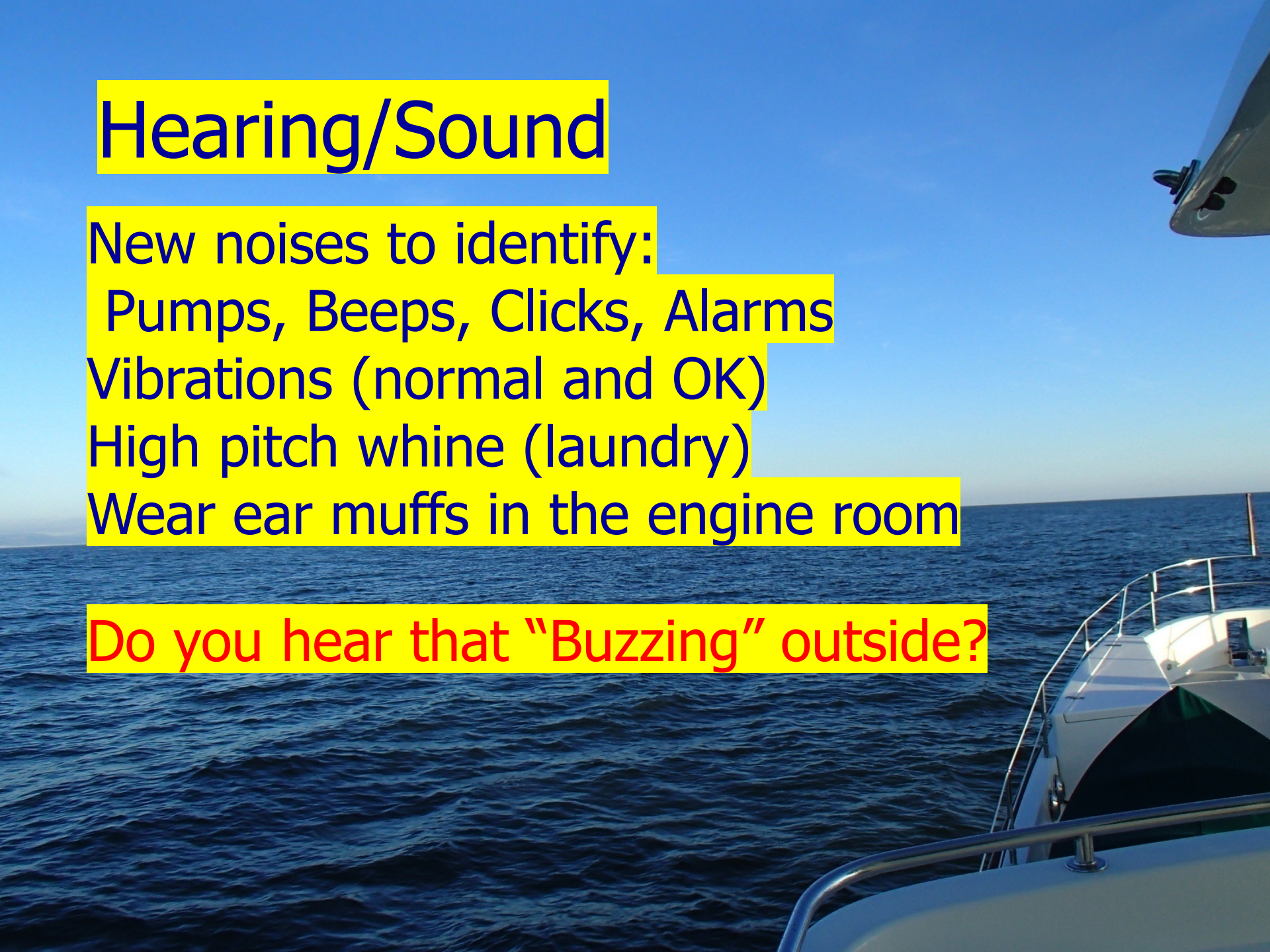
Pumps, Beeps, Clicks, Alarms

Vibrations (normal and OK)

High pitch whine (laundry)

Wear ear muffs in the engine room

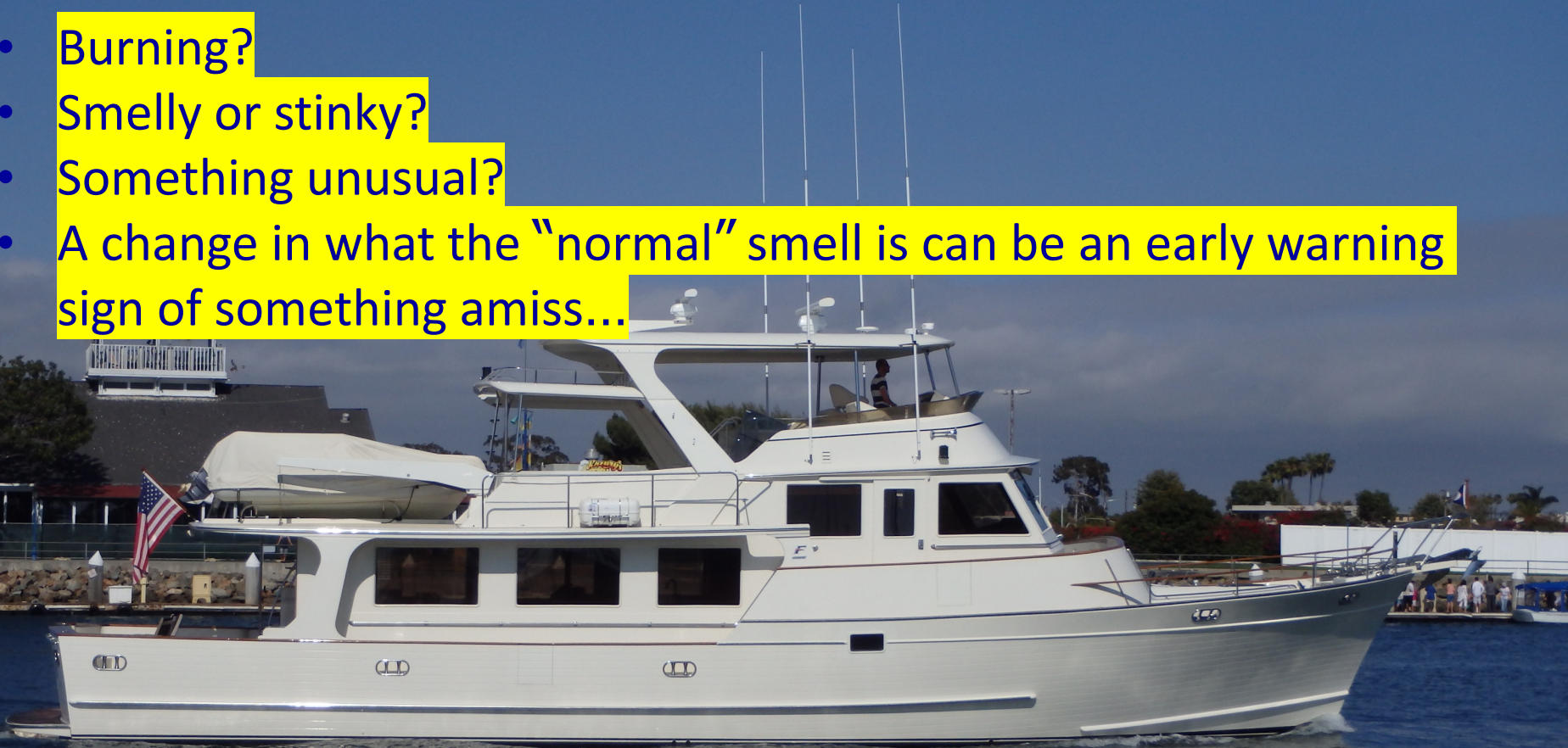
Do you hear that "Buzzing" outside?





Smell

- Burning?
- Smelly or stinky?
- Something unusual?
- A change in what the “normal” smell is can be an early warning sign of something amiss...



Touch (and what not to touch)

Machinery hot parts – be careful of burns

Gloves – anchoring and handling dock lines
(wood dock splinters)

Shoes on deck: hatch dogs, sure footing,
around windlass, anchor and chain

Taste (let's call this "non-sense")

Don't use this sense except for food consumption.

Story: Surveyor who dipped finger in bilge and became ill.





Common Sense

- You typically have time to think through a good solution, don't rush to judgement

5-year expiration...

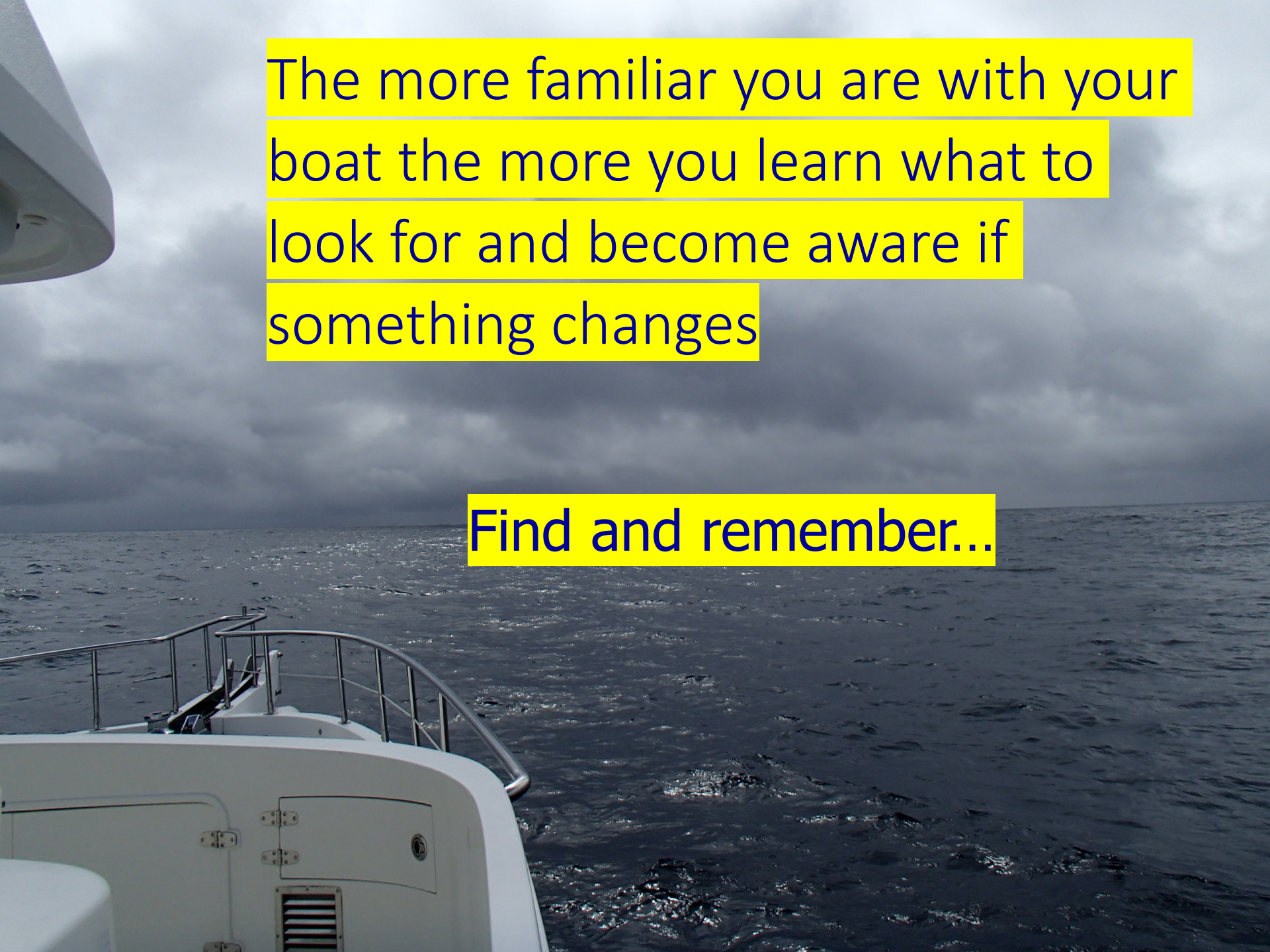


GET YOUR BOAT ON TRACK

Let's see what other boat owners do to stay on top of things.

Machinery with temperatures to monitor and many reminders or quick reference ideas.



A white boat is seen from a rear-quarter perspective, moving across a dark, choppy sea. The sky is filled with heavy, grey clouds. The boat's white hull and stainless steel railings are visible in the lower-left foreground. The water is dark with whitecaps, and the horizon is visible in the distance.

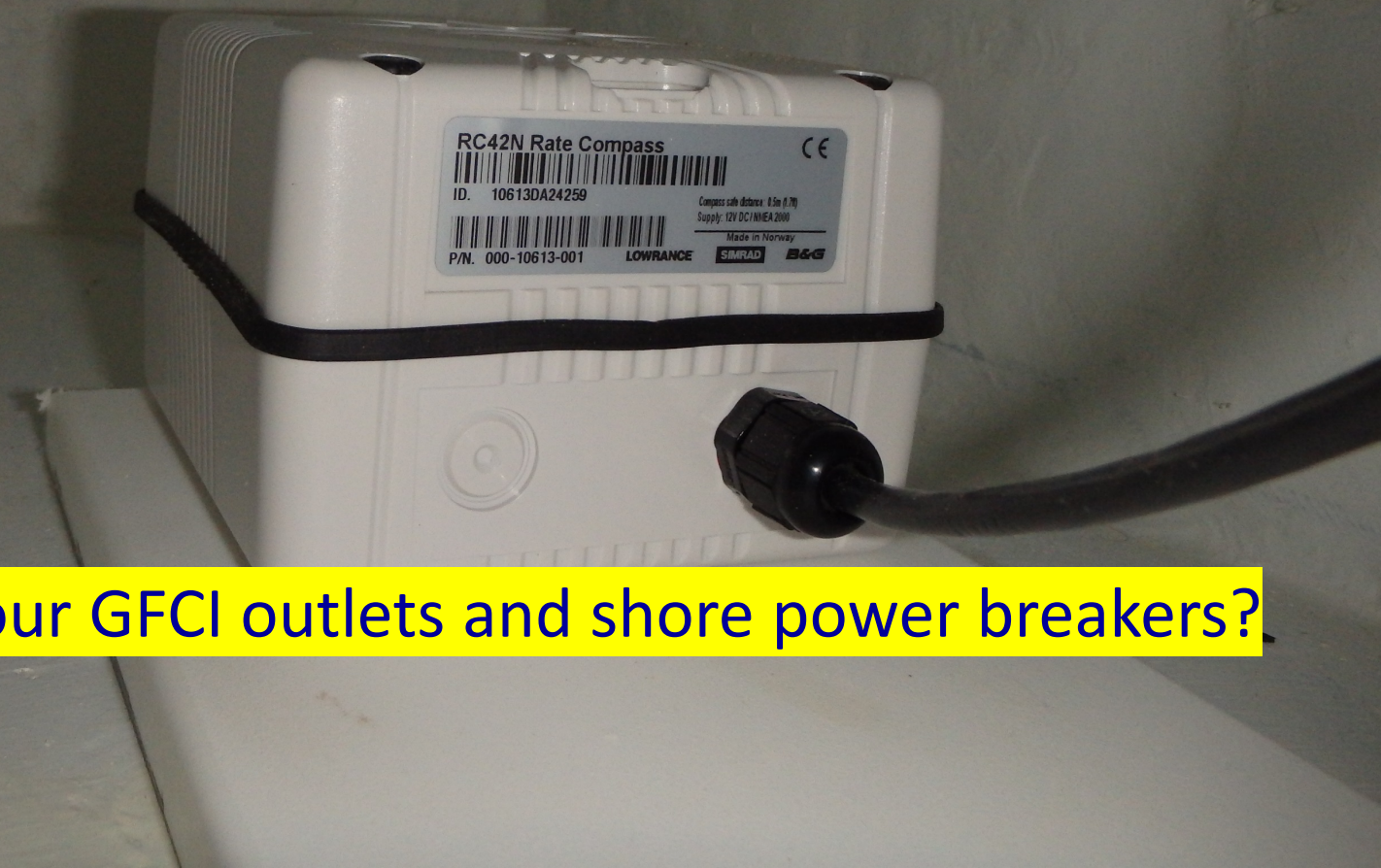
The more familiar you are with your
boat the more you learn what to
look for and become aware if
something changes

Find and remember...

Locate where things are installed

Anti siphon vents?

Where is your autopilot rate gain compass?



RC42N Rate Compass

CE

ID. 10613DA24259

Compass safe distance 8.5m (27ft)

Supply: 12V DC I/INEA 2000

Made in Norway

P/N. 000-10613-001

LOWRANCE

SIMRAD

B&G

How about your GFCI outlets and shore power breakers?

Temperatures to monitor



What other temperatures should you record?

- Stuffing box
- Engine coolant
- ER forward and aft bulkhead

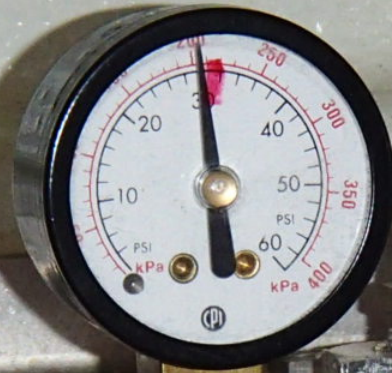


Analog "needle marks"



Mark normal needle position.

Do you have a bicycle pump?



RESERVOIR: MODEL No's. R-06, R-07, R-12

Use Aircraft Steering Fluid (HA5430) or a light viscosity hydraulic fluid. Do not use aircraft hydraulic fluid spec. MIL H-5606C, such as Shell Aero Fluid #41, Esso Univas N15, Chevron Aviation Aero HFA. Heavier Fluids such as automatic transmission fluid (Type III), may be added but will cause harder steering.

MAXIMUM RESERVOIR LEVEL

PRESSURE: 100 PSI

Example of "tide mark" level



Learn the "INS"...

OLD

↑ ↑ ↑ IN ↑ ↑ ↑ ↑

10
STBD
MAIN
ENG

RETURN FROM MOTORS

12
PORT
MAIN
ENG

RETURN FROM TRANSFER PUMP

29
FUEL

30
20KW
GEN



and OUTS...

To and From, Supply and Return



Get a Label Maker and use it!

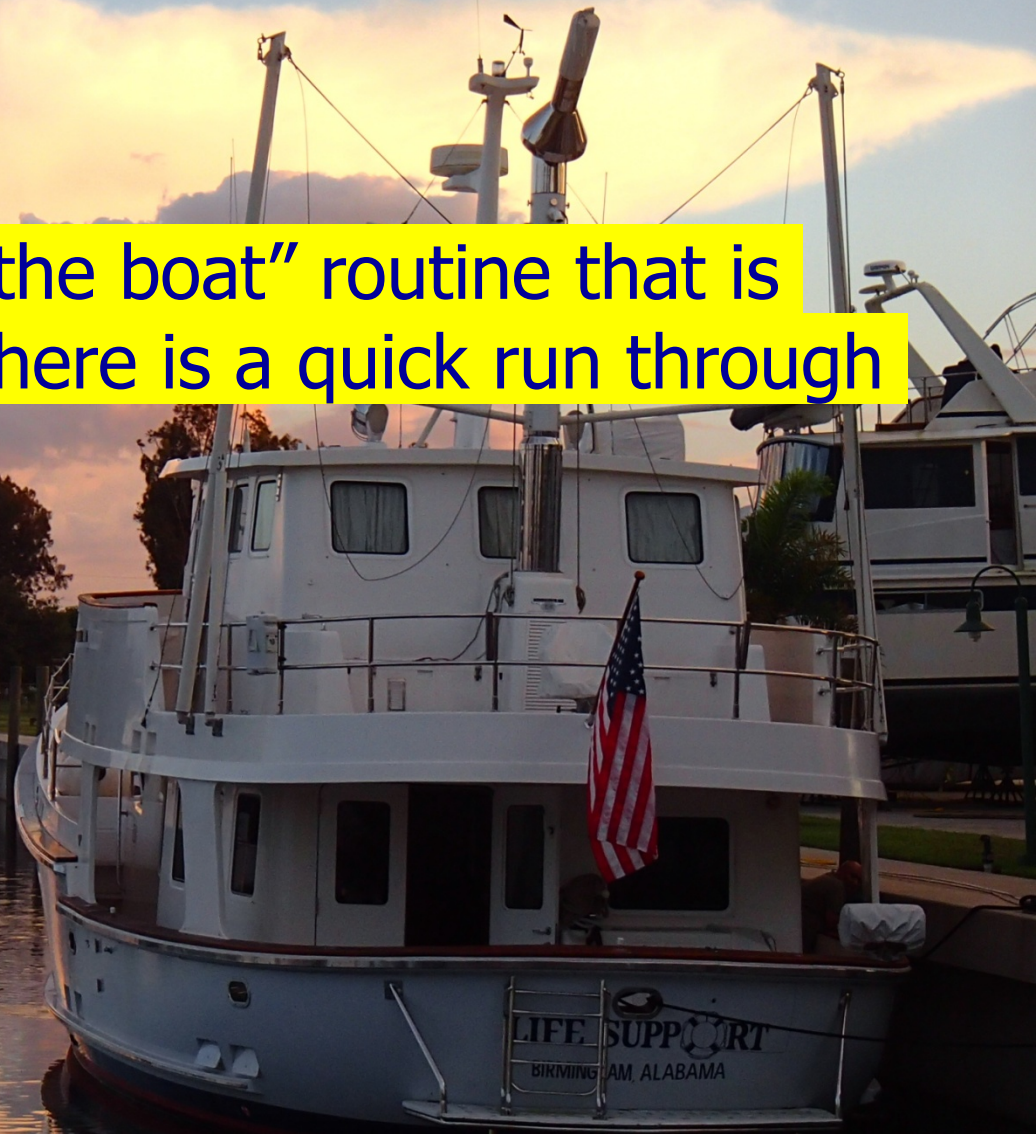


Bow Thruster ON/OFF



Routines

Develop a “return to the boat” routine that is the same each time, here is a quick run through of what I do.



At The Dock

Let's start by approaching your boat tied up at the dock. What should you look for?

Shore tower breaker still **ON**?
Shore power cord plugged **IN**? In the water?
Dock lines secure? Any chafing on lines?
Fenders properly positioned?

On Board

Can you be contacted
in an emergency?

Do you have a key for
access to the boat?



Emergency Contact Information

M/V Convexity

USCG #1186437

IN CASE OF EMERGENCY
CALL OR TEXT **415-420-8800**

BY APPROVED MANUFACTURER

Is your lazarette hatch lockable?



Combination lock box for key



Shoes off basket



Inside- My First Two Priorities

Electrical – Do I have shore power coming in and are my batteries charged?

Bilge – How much water do I have in the bilge?



AC IN = Good!



Ship Shape

Keeping things clean and tidy makes it easier to notice when something goes wrong

USCG Vessel Safety Check

Handout* This is a great way to make sure you are in compliance



There are several areas where you can
"Dial In"

Anchoring Ideas



Anchoring

Chain marking (HundRED)

Bitter end – line, cut away on deck



Hund-RED's

NORDHAVN N5725
ANCHOR CHAIN
COLOR KEY

WHITE	=	50 FT
RED	=	100 FT
RW	=	150 FT
RR	=	200 FT
RRW	=	250 FT
RRR	=	300 FT
RRRW	=	350 FT
RRRR	=	400 FT

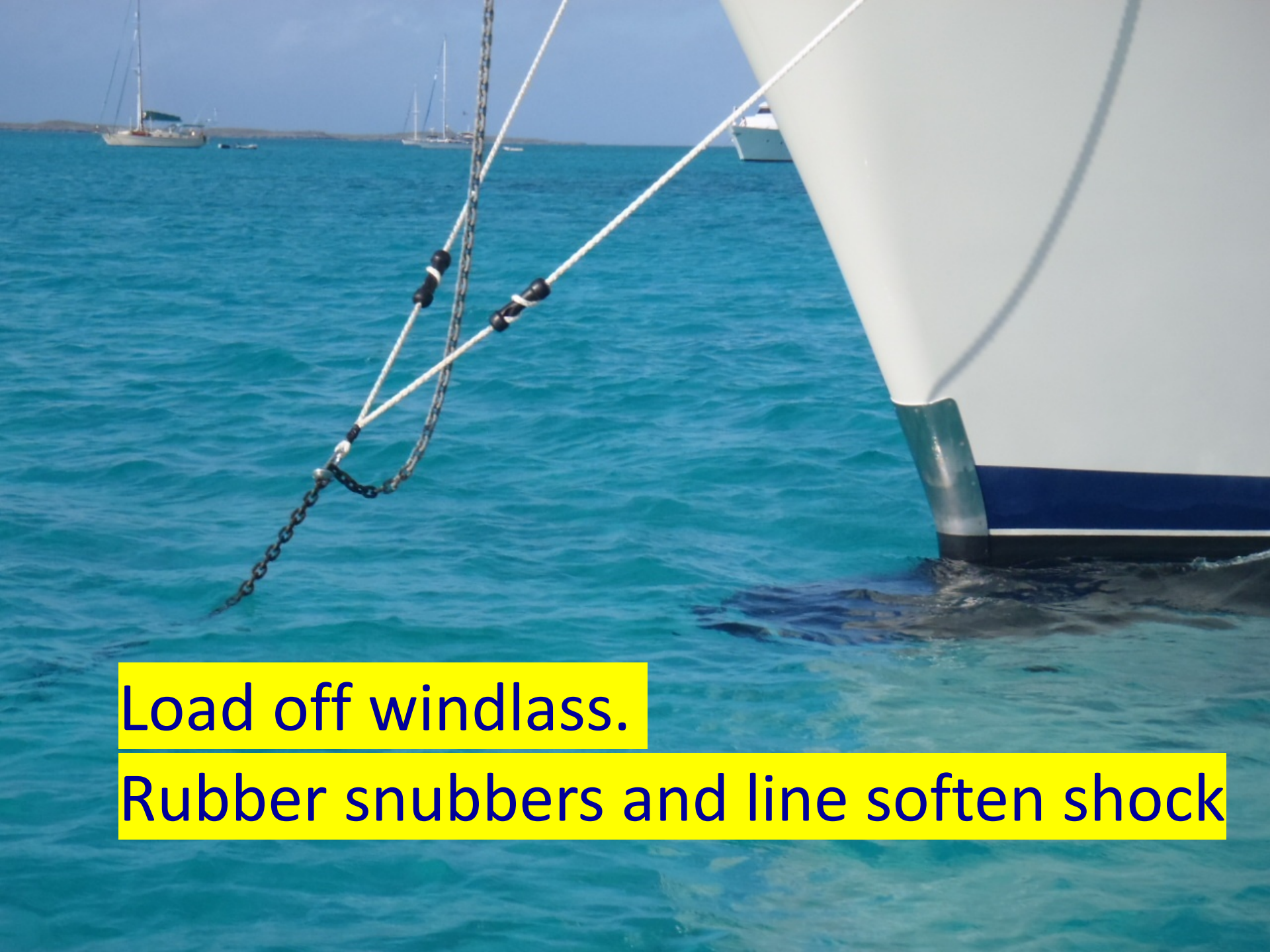
Color code summary right by windlass

WHITE	50'
RED	100'
WHITE	150'
GREEN	200'
WHITE	250'
RED	300'

RED
WHITE
GREEN
WHITE
RED

Anchor Bridle





Load off windlass.

Rubber snubbers and line soften shock



Stop Slop

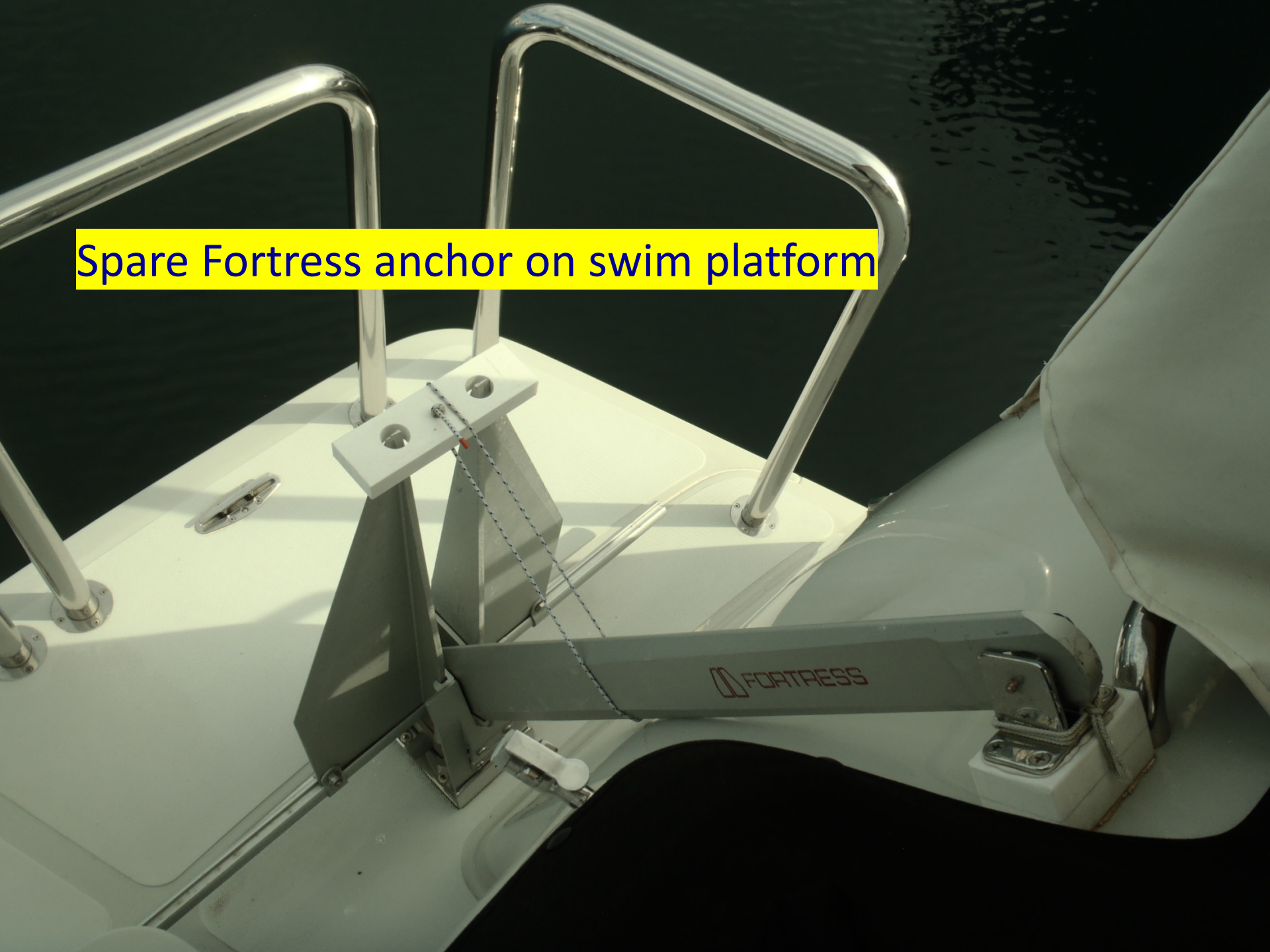
Chain tensioner, snug anchor on roller





Spare Fortress anchor on foredeck

Spare Fortress anchor on swim platform

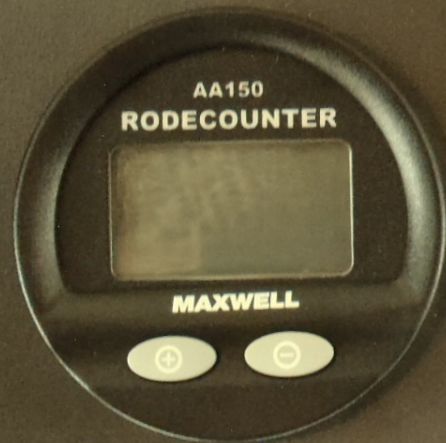


Chain color coding by windlass control



Last 50' feet or anchor at waterline.

Can you disconnect from bitter end?



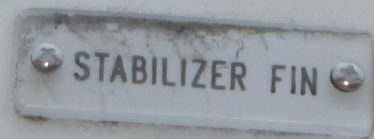
ANCHOR CHAIN
1st WHITE AT 40'
WHITE MARK EVERY 50'
LAST 50' PAINTED RED



Folding pad eye for clipping on fenders



Mark your fins for haul out



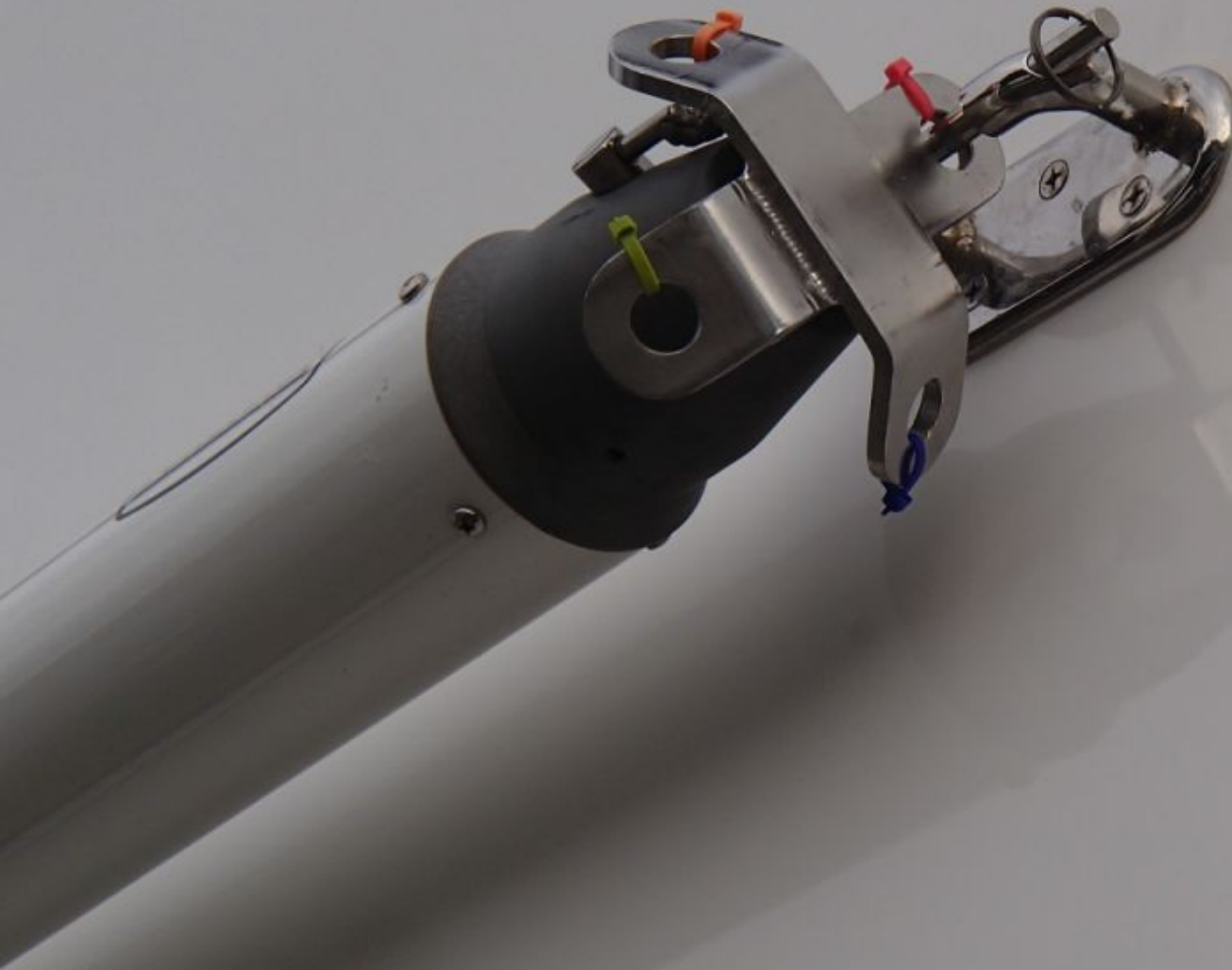
Deck and Dinghy Tips



Secure outside deck lockers



Flopper stopper – color code line attachments



Reflective tape on flopper pole



Dinghy launch with crane – level gauge



A white crane is mounted on a grey boat deck. The crane has a cylindrical base with two black vertical marks. A yellow text box is overlaid on the image. In the background, a white boat cabin with a steering wheel is visible.

Mark crane pick up to simplify line-up at return

Boom winch lines can be marked with a Sharpie –
Amsteel or Dyneema





Outboard skid plate

Docking Tips

- Dock lines – color code red/green
- Extra lines and chafe protection
- Surge areas – chain on cleats
- Fenders – clips on hull, fender boards
- Inflatable fenders (need air pressure)
- Fender hooks
- Shore power connections – secure?

Color markings or numbering of dock lines

Dock Lines
Short – White whipping
Medium – Red whipping
Long – Black whipping

Fender Boards



Boat Hook Ready!



Shore Water: Filter Before Adding To Tanks



Hardware store cartridges
sediment removal, charcoal –
remove impurities



Water
softener

The background of the slide is a photograph of a boat's deck at sunset. The sky is a gradient of blue and orange, with the sun low on the horizon. The water is dark with some ripples. In the foreground, there is a metal railing and some equipment on the deck. The text is overlaid on this image in yellow and red boxes.

Main Engine Maintenance Log **Handout** - Nordhavn 55*

This example is for a main engine. I recommend you create an individual log for all major components: Sails, Transmissions, Generator, Windlass, Crane, Watermaker, Stabilizers, etc.

Maintenance Log - Records

Note all purchases and upgrades

Track oil changes and all service repairs

This is an important record and sales tool when you are ready to sell your boat

Handout*

**Steve D'Antonio and
Jeff Merrill Maintenance List**

PART TWO

IDEAS THAT YOU CAN USE ON YOUR BOAT



by Jeff Merrill, CPYB
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A photograph taken from the deck of a boat, looking out over a body of water towards a suspension bridge at sunset. The sky is filled with dramatic, dark clouds, and the sun is low on the horizon, creating a golden glow. The bridge's cables and towers are visible in the distance. The boat's railing and part of its structure are in the foreground on the left.

I hope you will say...

That's a good idea!

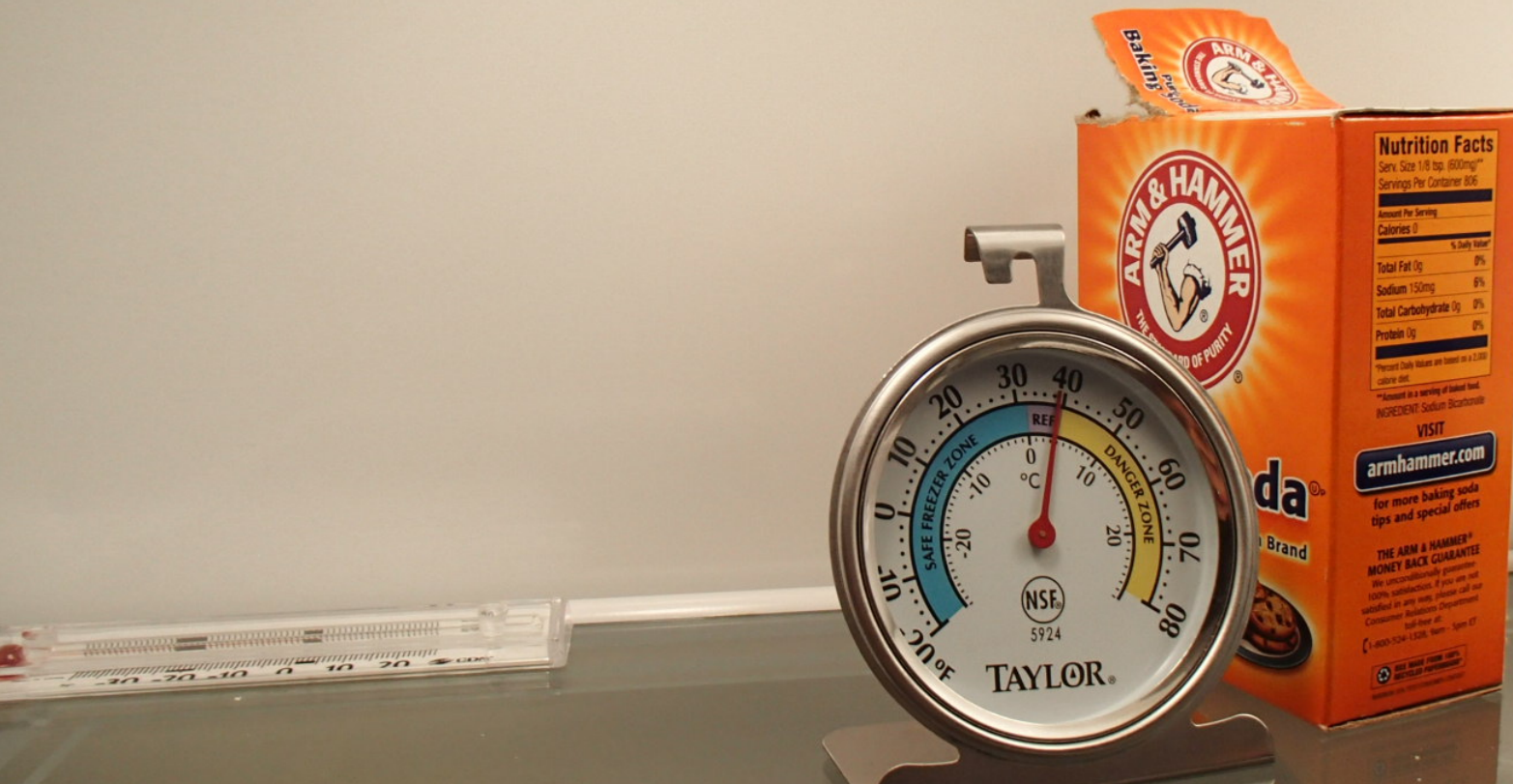
Clear plastic protects wood surfaces



Refrigerator organization – bars and tubs



Thermometer and baking soda in refrigerator



Story - leave boat, ice cube test...

Shelf levels create more storage space





Soft rubber mesh protects

Peg system for plates and bowls



Kadey-Krogen peg system for
pots and pans





Organized home style drawer caddy



Clear tubs for storage



Storage bins "Lock and Lock"



Really Useful Boxes



Loose Parts Bin (you'll identify where it goes later)





Dust buster small vacuum

(Kelp flies story)

Swiffer Sweeper Vacs are great for wood floors



Squeegee and Shower Spray

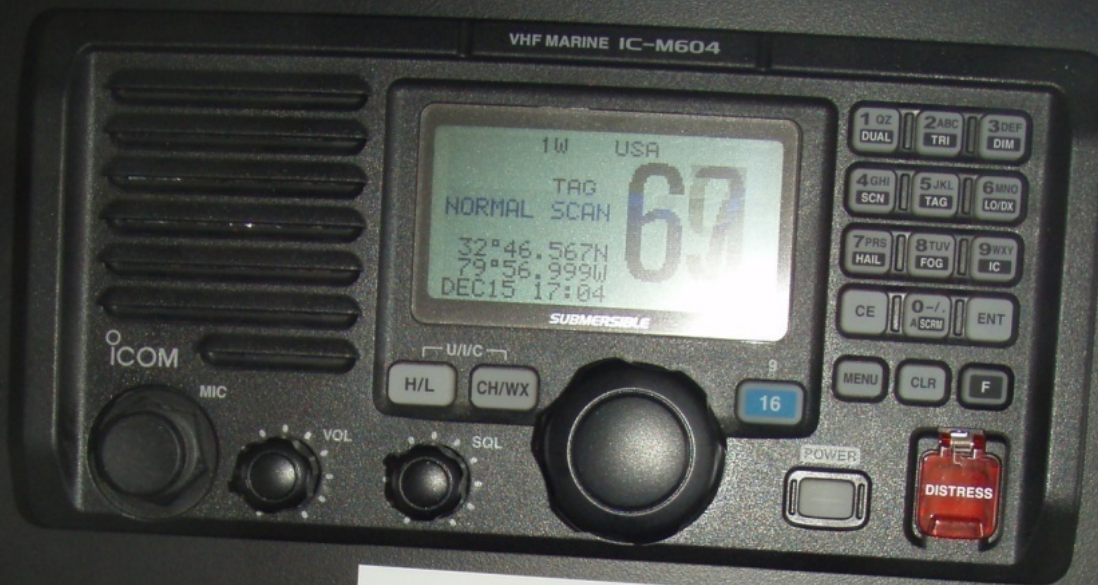


Suction cup caddy



Helm area suggestions





WDE 4988

VHF call sign label





Keep your display screens clean

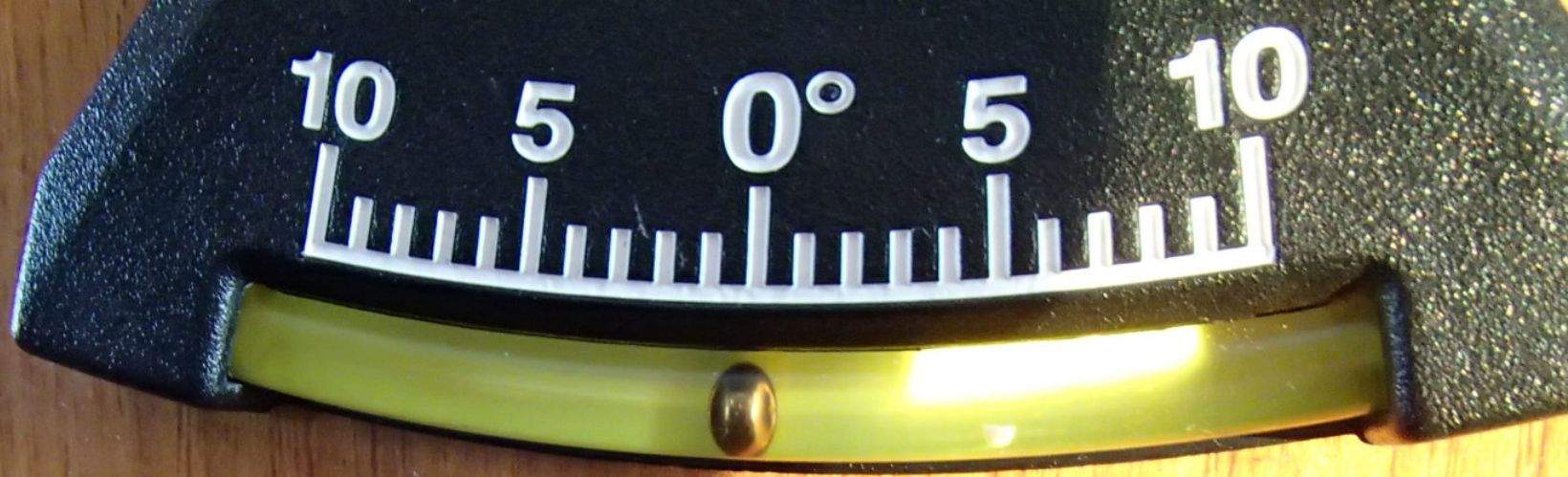
- SET 2200 RPM ON WING ENGINE
- PRESS "START" (GREEN) ON BOW THRUSTER KEYPAD; pump will whine and discharge stb'd. side, aft
- PRESS "STOP" (RED) ON KEYPAD WHEN BILGE IS EMPTY; Repeat as necessary while locating water entry.

Quick reference "norms"



WGER

MAIN



LOA 61 FT
BEAM 17 FT
DRAFT 6 FT
HEIGHT 24 FT
ANCHOR MARKS 25 FT

LOA, Beam, Draft, Bridge clearance

M.V. JODA

DRAFT	5.0'	1.525 m
LOA	48.5'	14.75 m
BEAM	16.75'	5.10 m
DISPL.	56,200 lbs	
WATER	540 USG	2,044 L
FUEL	1,038 USG	3,945 L
MAST	30' 4"	9.2 m

What depth are you reading?



Inland, River reminders

1 WHISTLE

HEAD ON PORT TO PORT

OVERTAKING BOAT PUTTING SLOWER BOAT TO PORT

2 WHISTLES

HEAD ON STBD TO STBD

OVERTAKING BOAT PUTTING SLOWER BOAT TO STBD

Detail tape to segment electrical panel



Color code dots – ON/OFF – Day/Night



DEPTH SOL



WIND SPEED



WEATHER FAX



HOLDING TANK PUMP



GRAY WATER PUMP

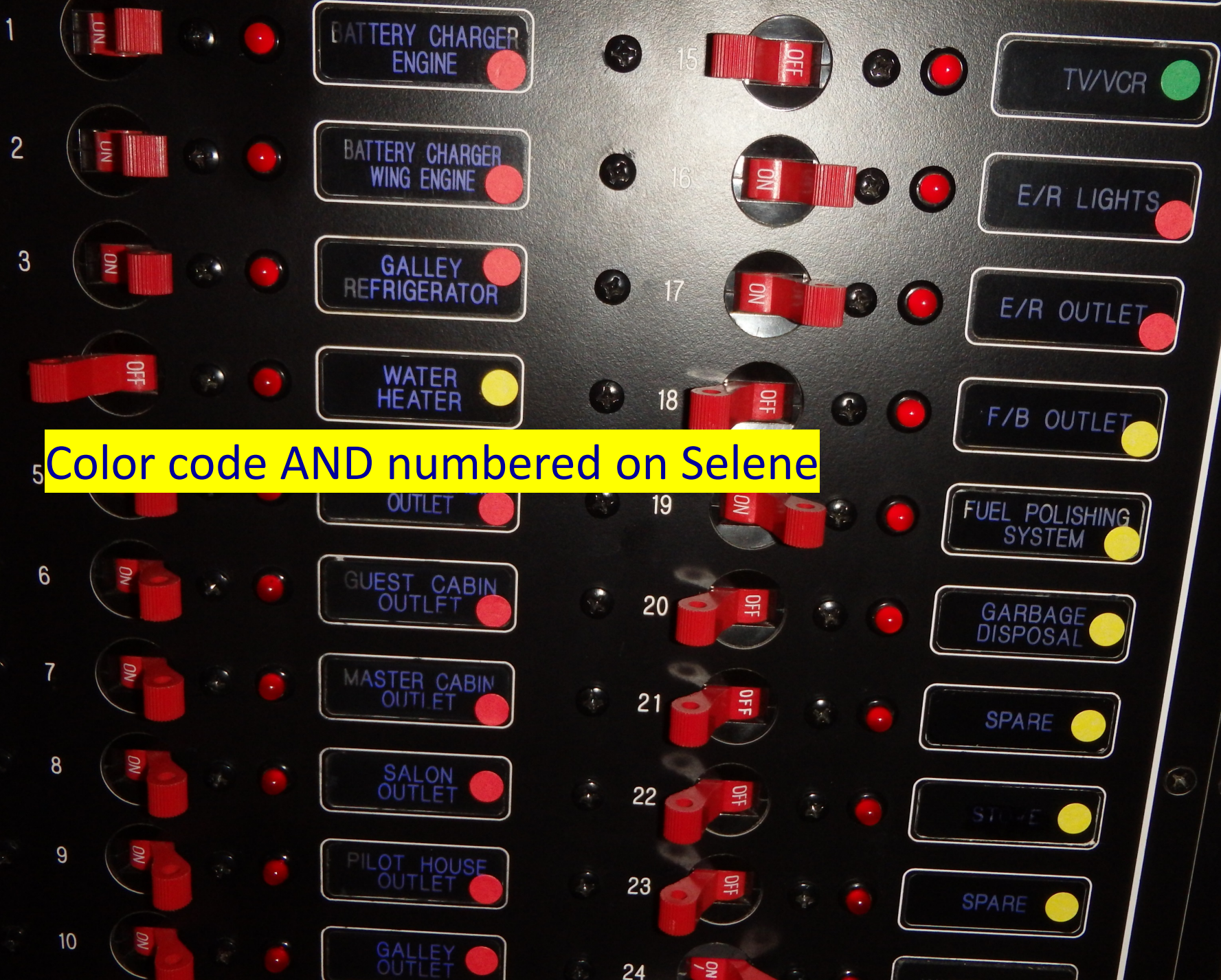
BILGE PUMP

AUTO/MANUAL

UAL

HOLDING TANK

1/4



Color code AND numbered on Selene

Toggle guards on "permanent" breakers

INVERTER

FWD

AMIDSHIPS

TS AFT

ETS PILOT HOUSE

NE ROOM LIGHTS

/STEREO

4V CHARGER



GALLEY FRIDGE/FREEZE

EXHAUST STACK COOLING

P/H CHEST FREEZER

WASH COMPACTOR

MICROWAVE / SALON TV

STOVE TOP IGNITER

GARBAGE DISPOSAL

WATERMAKER

E / ROOM BLOWERS





Binocular rack

Drink holders



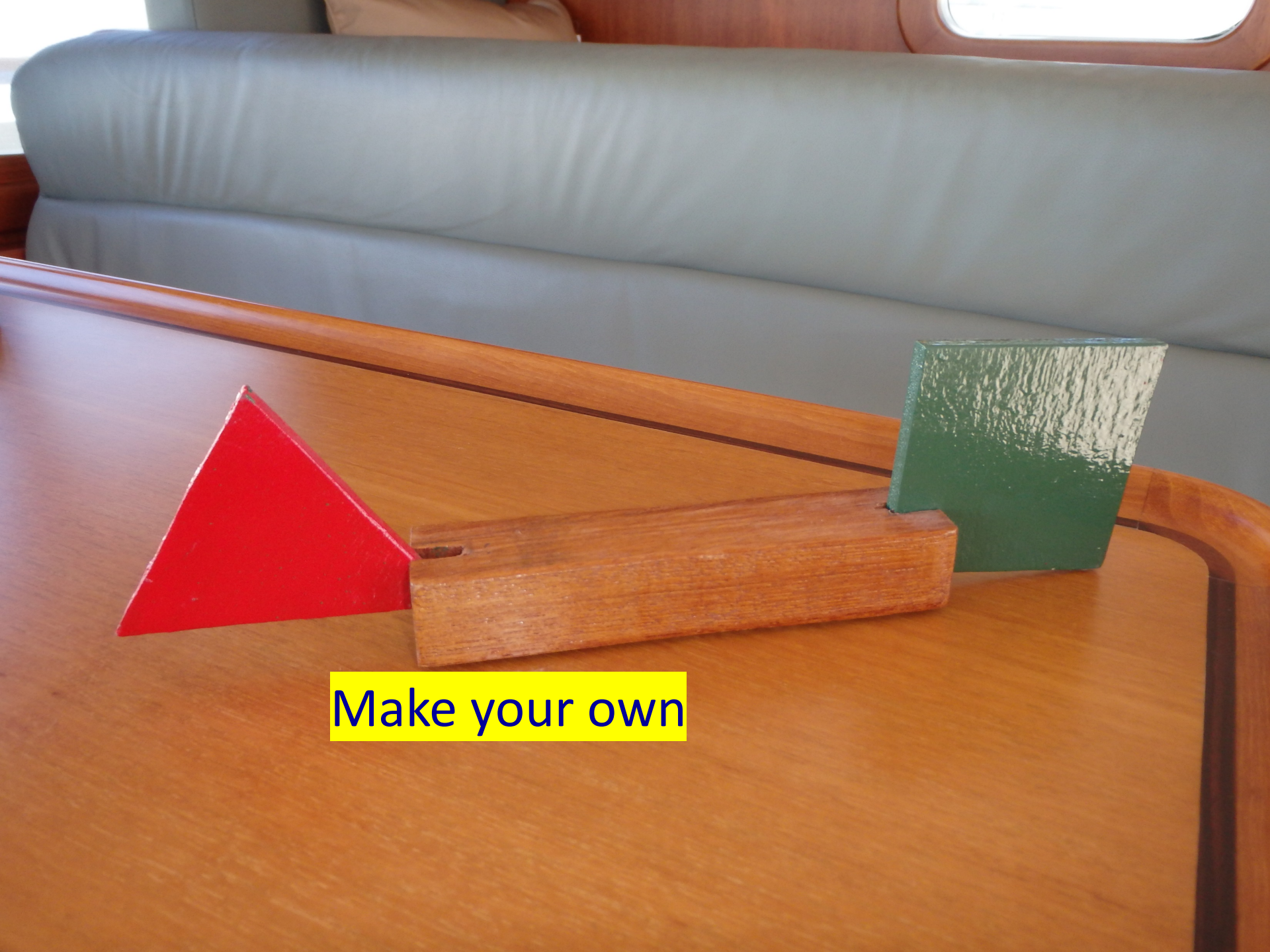


Portable caddy for important “stuff”

Channel buoy reminder

Easily reversible!





Make your own

When you depart,

leave yourself a reminder...

Three Hull Closed !!

Gen

Wing

Water Maker

Start Charger - OFF

A man wearing a blue short-sleeved shirt with a white floral pattern, khaki shorts, and red ear protection is working on a white boat engine. He is using a white cloth to clean a metal rail. The engine room is filled with various pipes, hoses, and mechanical components. A yellow banner with blue text is overlaid on the image.

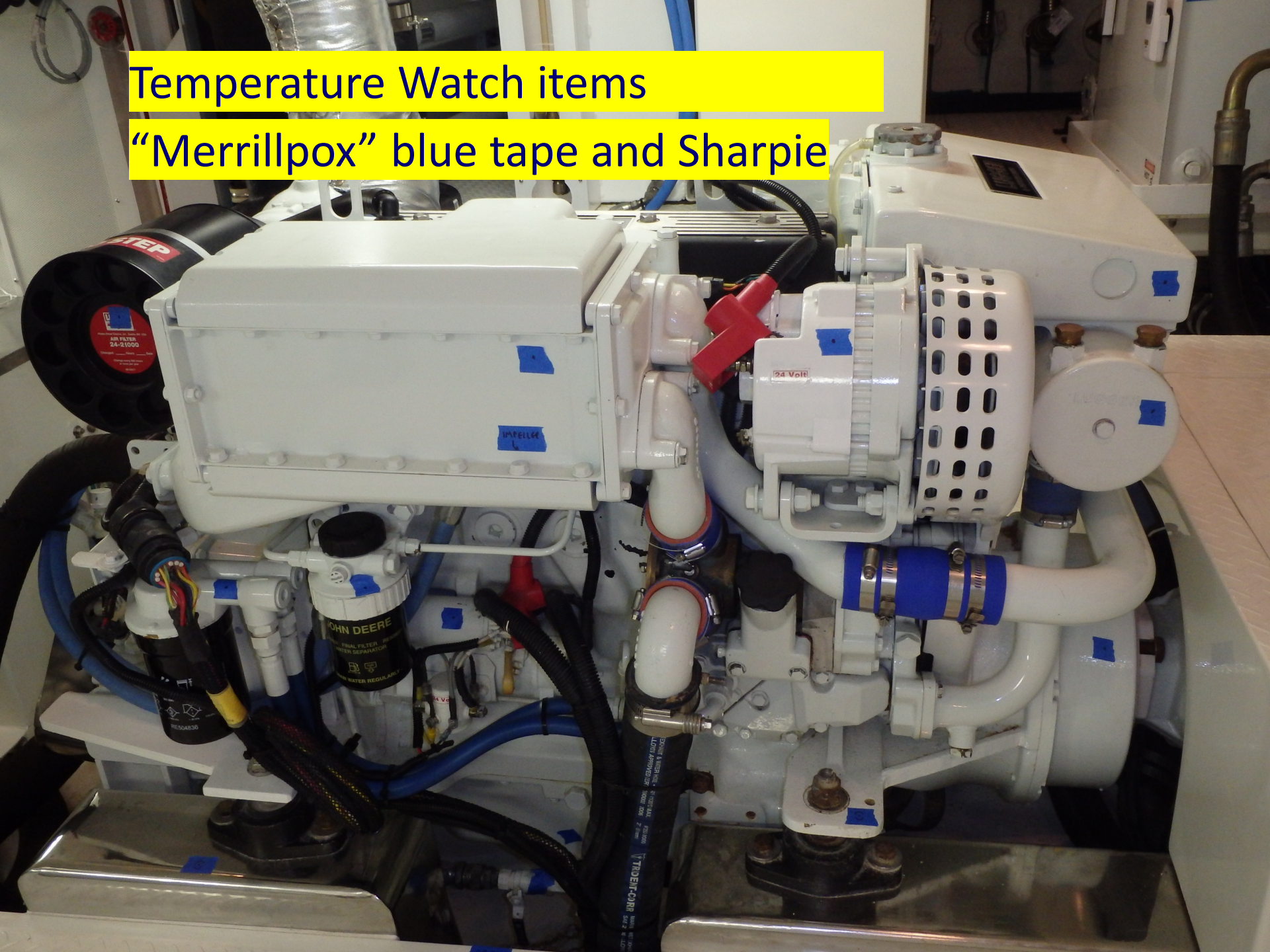
Engine Room Inspection Tips

Infrared Temperature Gun



Temperature Watch items

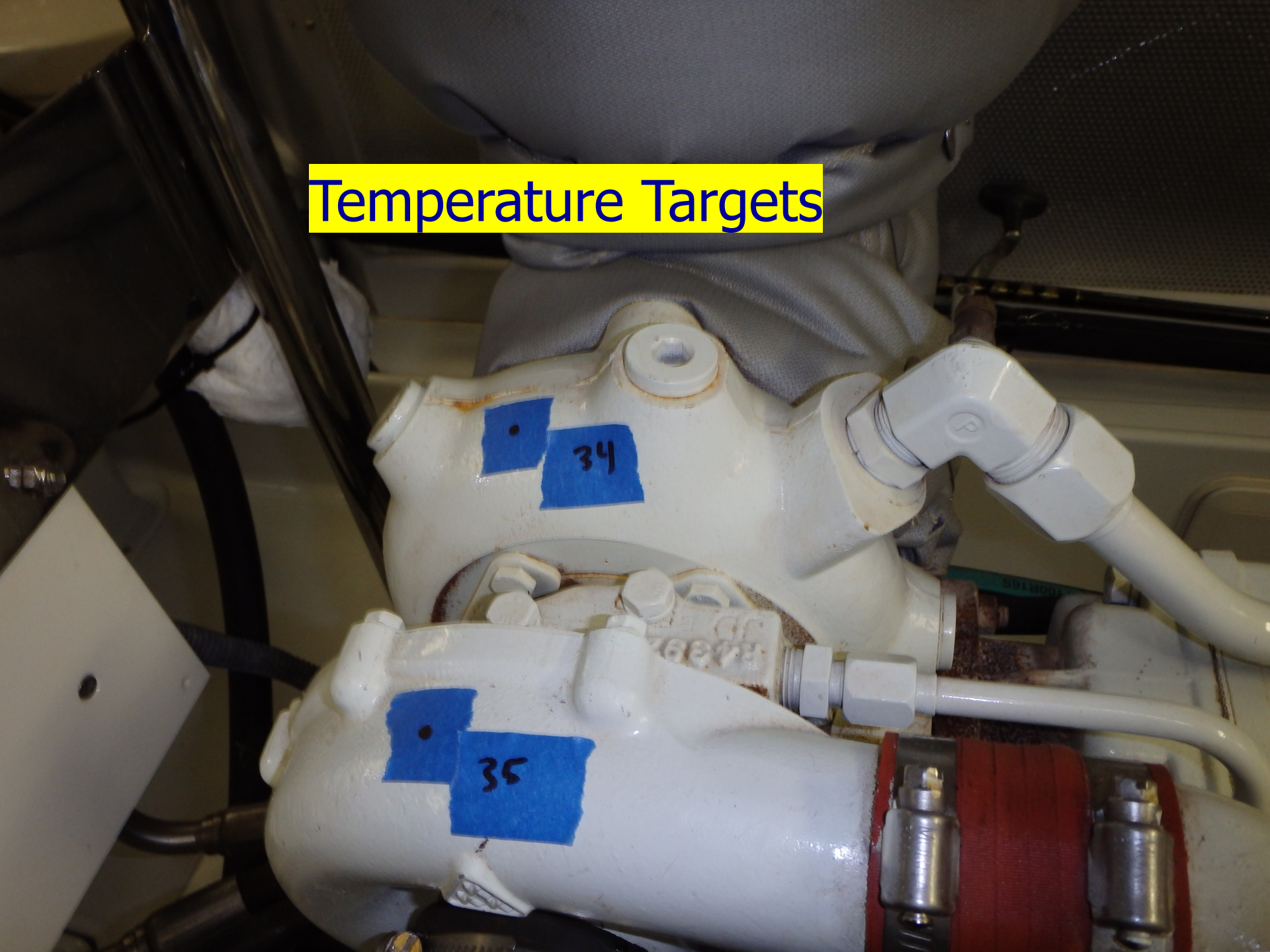
“Merrillpox” blue tape and Sharpie



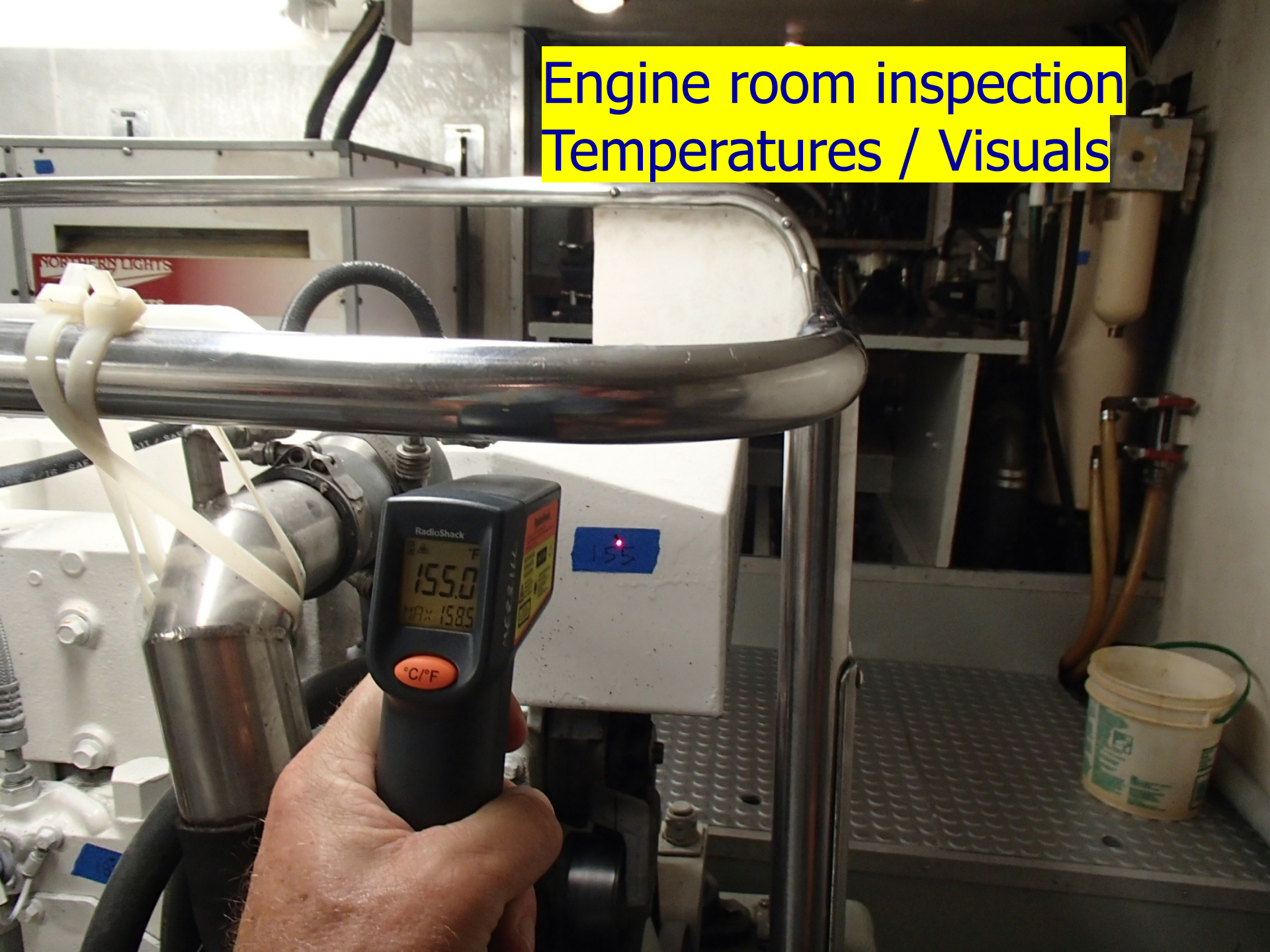
Mark single point to shoot



Temperature Targets



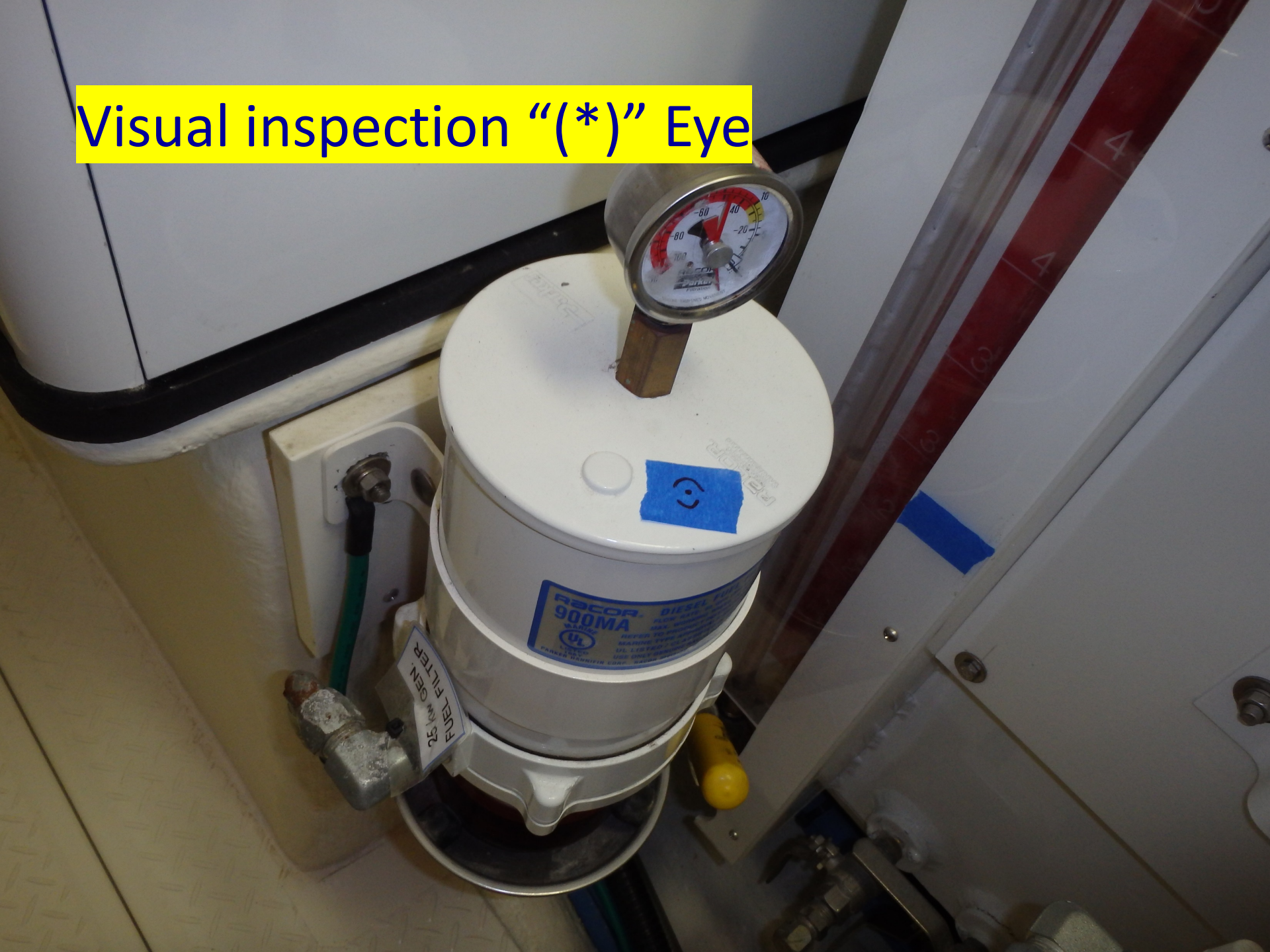
Engine room inspection Temperatures / Visuals

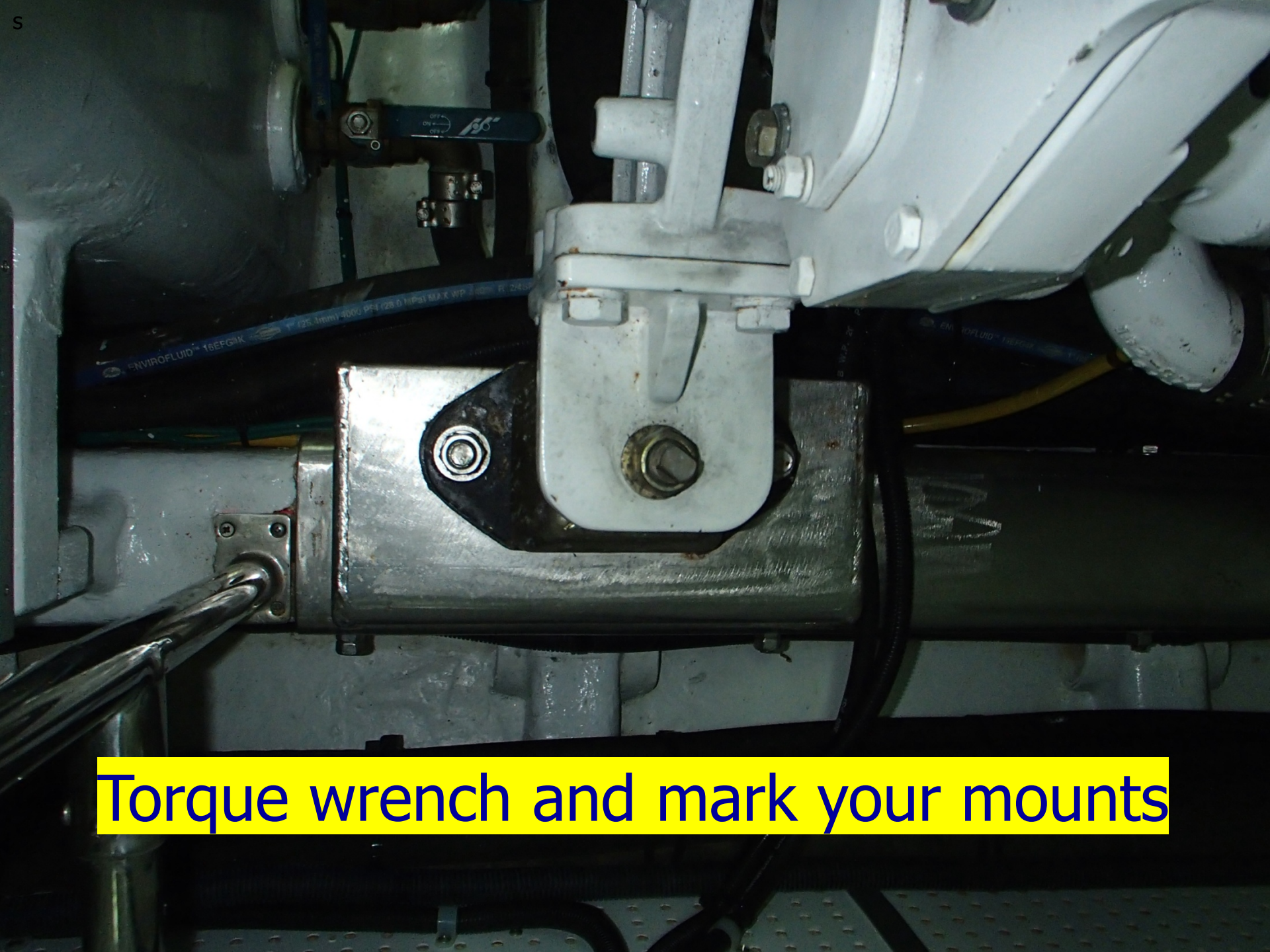


Hold Gun 2 – 6" away



Visual inspection “(*)” Eye





Torque wrench and mark your mounts

engine
13
mounts



Bilge
16
Level

PRODUCTS

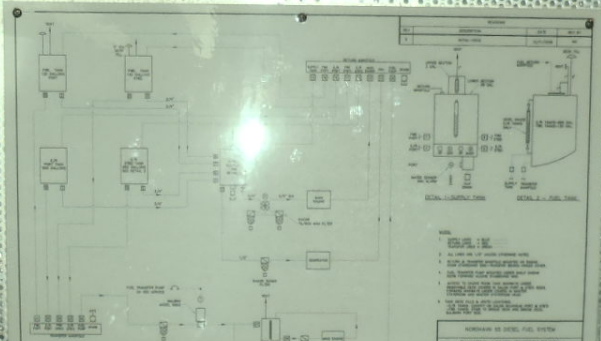
CLARK

SNUGGED DOWN
ALL ENGINE MOUNT.

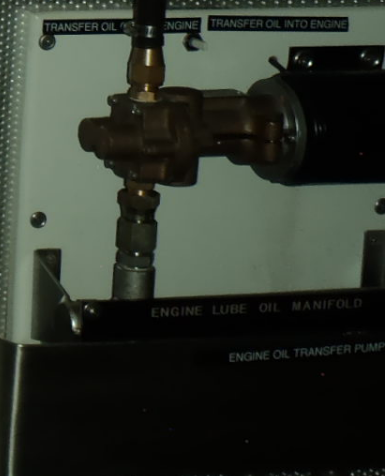
13 SEPT 13

3/4" WRENCH.

STBD

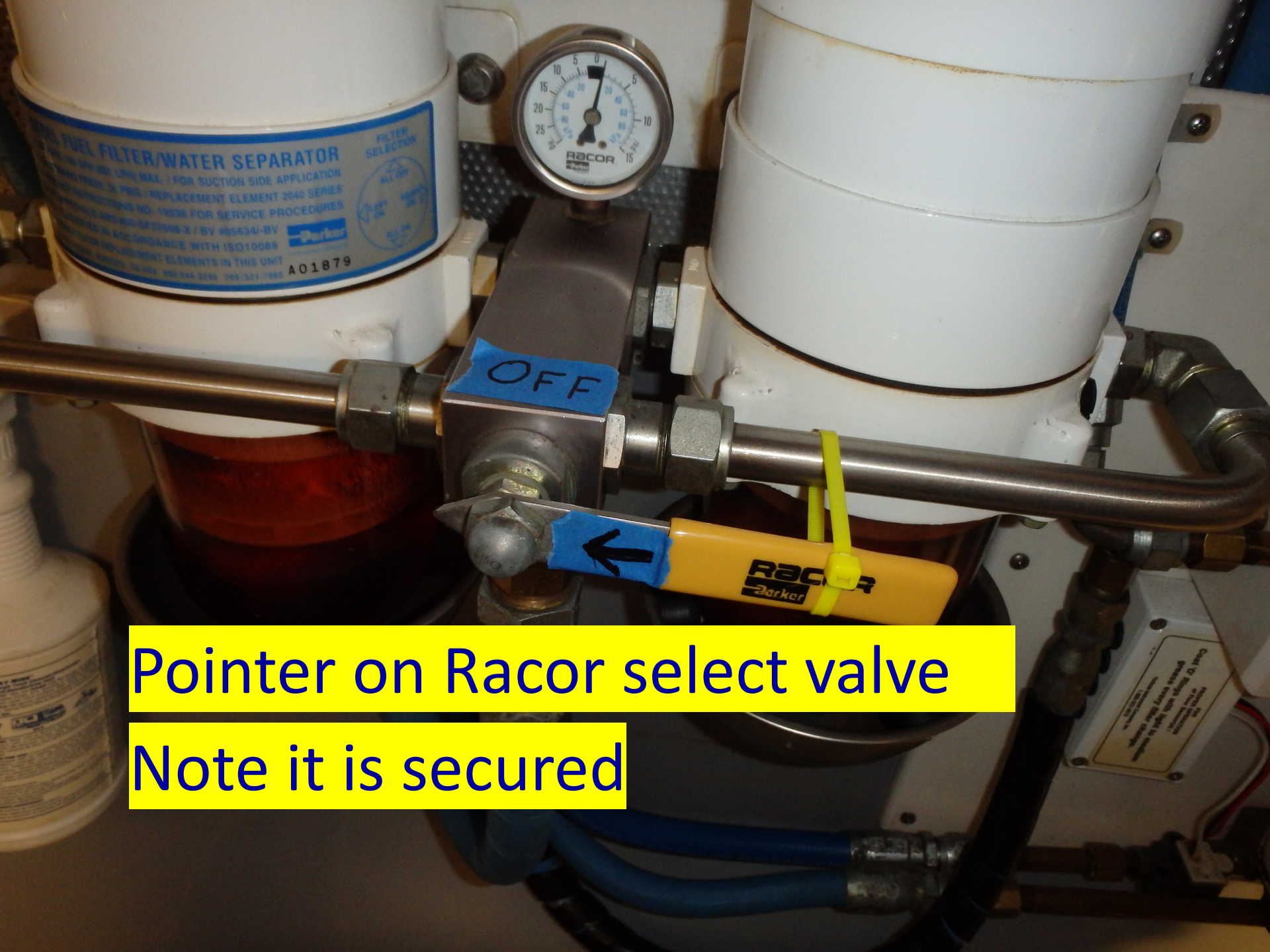


Laminated fuel diagram by manifold





The sharp end points to desired bowl



Pointer on Racor select valve

Note it is secured

Velcro straps so valve handle isn't bumped



Replacements sized and hours noted



MARINE WET EXHAUST & WATER HOSE • 250°F (120°C) MAX.
SAE J2006 • LLOYDS APPROVED CERT. 02/69902 2904

#250-1120
1-1/2" (38mm)

TRIDENT-FLEX



MARINE WET EXHAUST & WATER HOSE • 250°F (120°C) MAX.
SAE J2006 • LLOYDS APPROVED CERT. 02/69902 2904

TRIDENT-FLEX

#250-1120
1-1/2" (38mm)

Color code multiple tank valves



Nail polish or red Sharpie to mark Zincs





Mark fuel filter for bleeding

WARNING
ON ANY ENGINE WITH AN
CONTROLLED FUEL SYSTEM

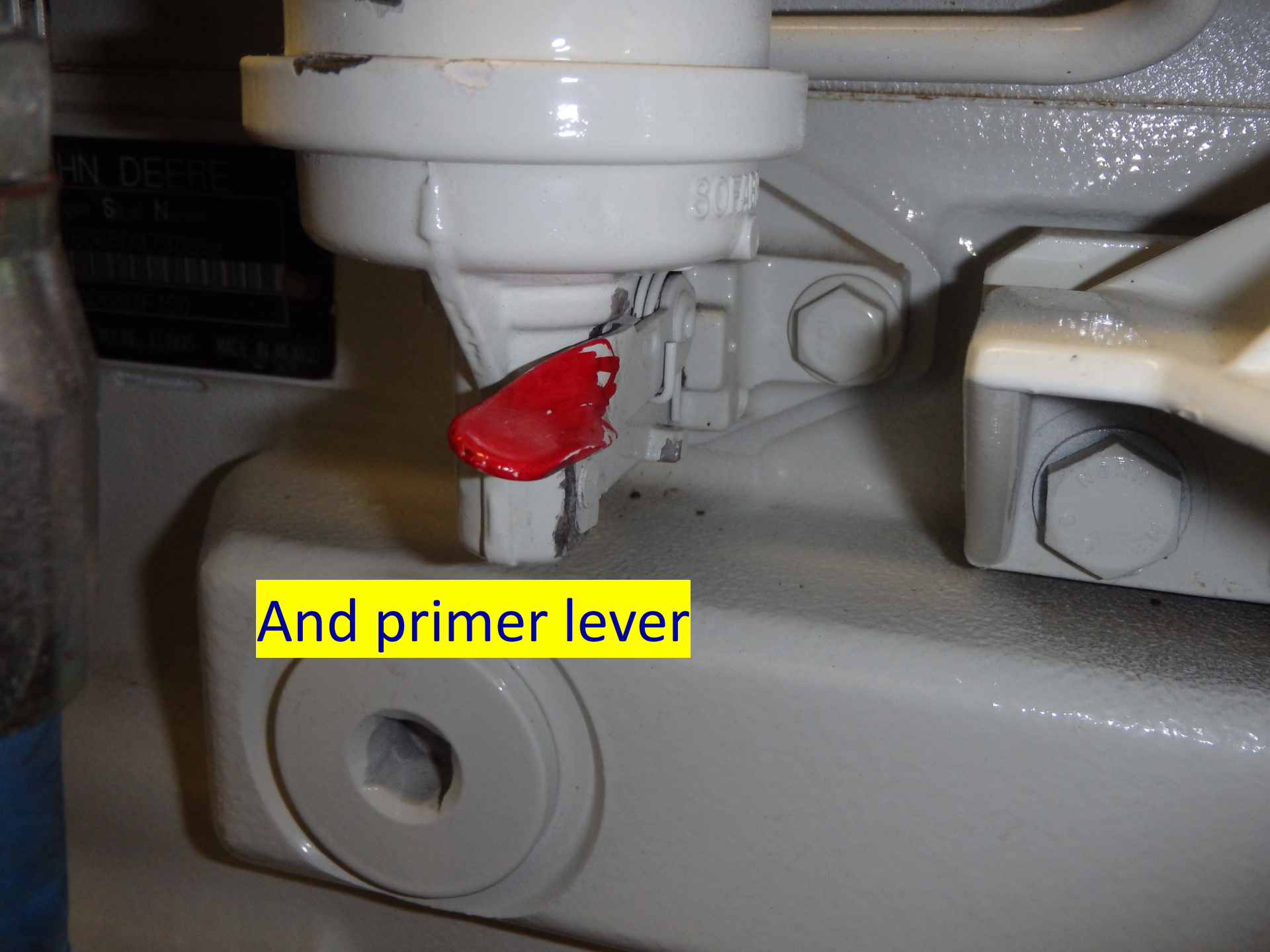
FUEL FILTER
SEPARATOR
51005

NORTHERN

JG

FILTER @ 1700 HRS
14 APRIL 2015

LUGGE
NORTHERN



And primer lever

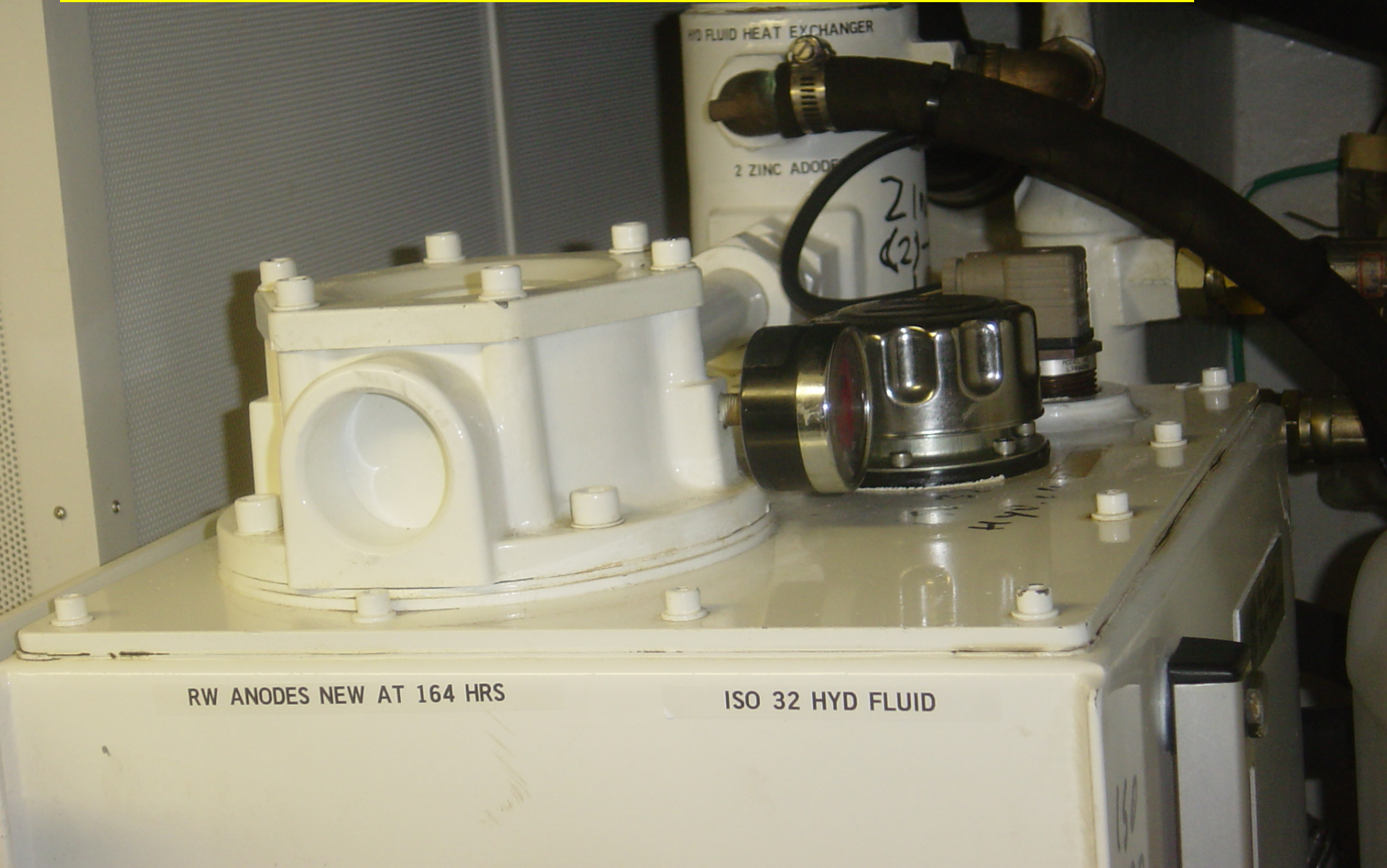
Potential trouble, will yours drain?



Install a drain valve



Anodes (pencil zincs) and hydraulic oil weight





Coolant over flow catcher



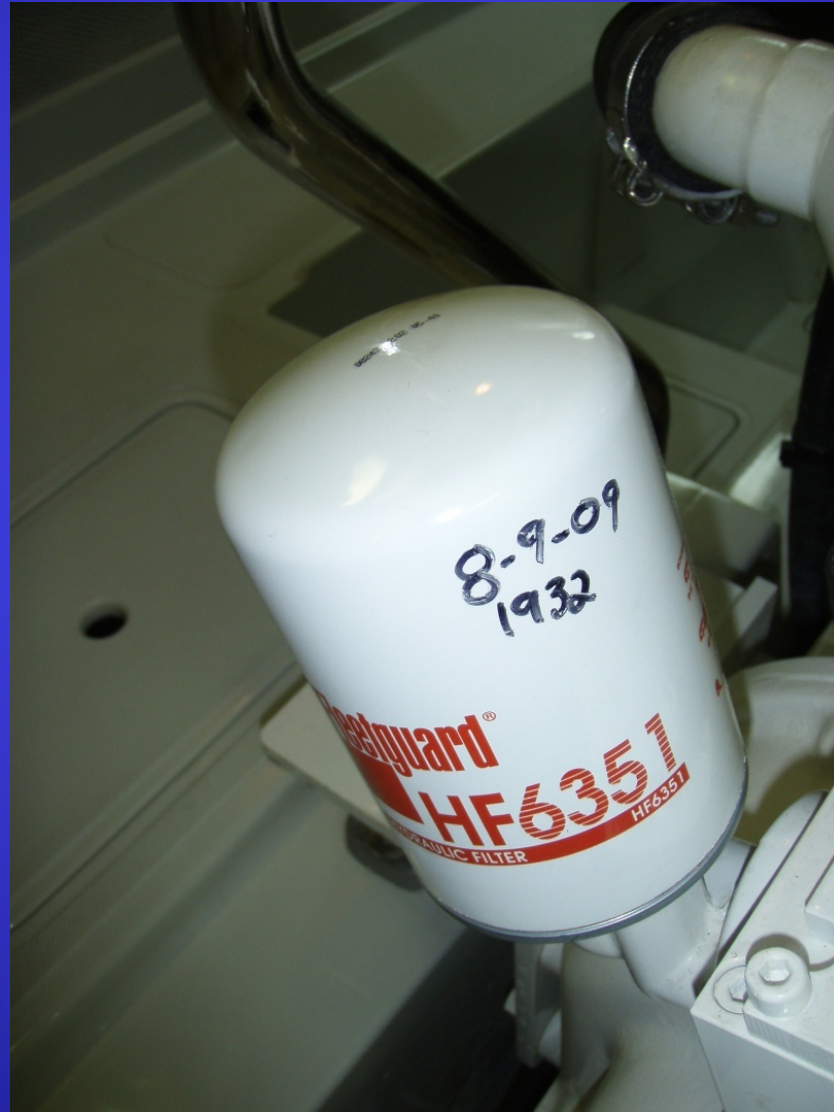
DELO 400 15W-40

4 GALLONS

Brand of oil, viscosity weight and quantity.
Make it easy!

ATTENTION
OPEN DURING FILL

Label filters to track changes



BILGE PUMP
POWER SOURCE
(50A FUSE)

FROM STBD. ENG.
ISOLATOR TO
CHARGE HOUSE
BANK (60A FUSE)

FROM PORT ENG.
ISOLATOR TO
CHARGE HOUSE
BANK (60A FUSE)

Identify fuses, carry spares

POR

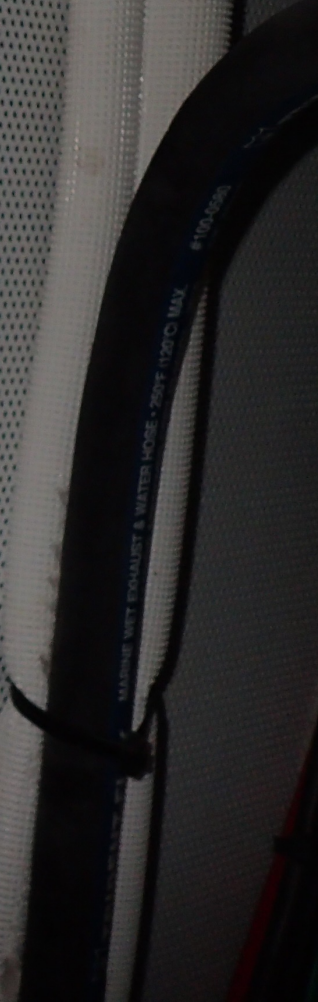
Secure spare fuse near active one





FUSE

HOUSE BATTERY FUSE



Stuffing box wrench caddy





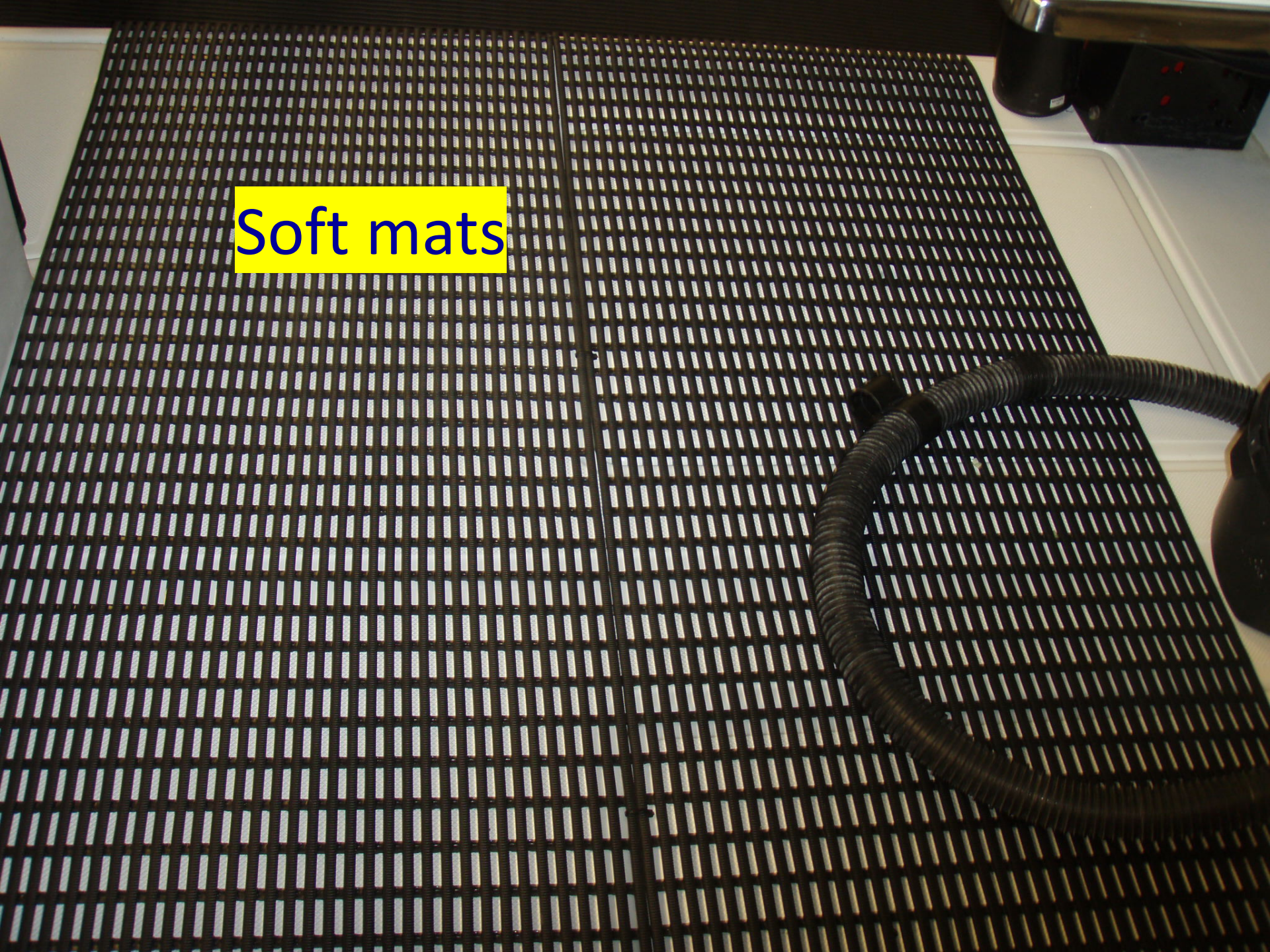
Cleaning
spray
bottles
ready



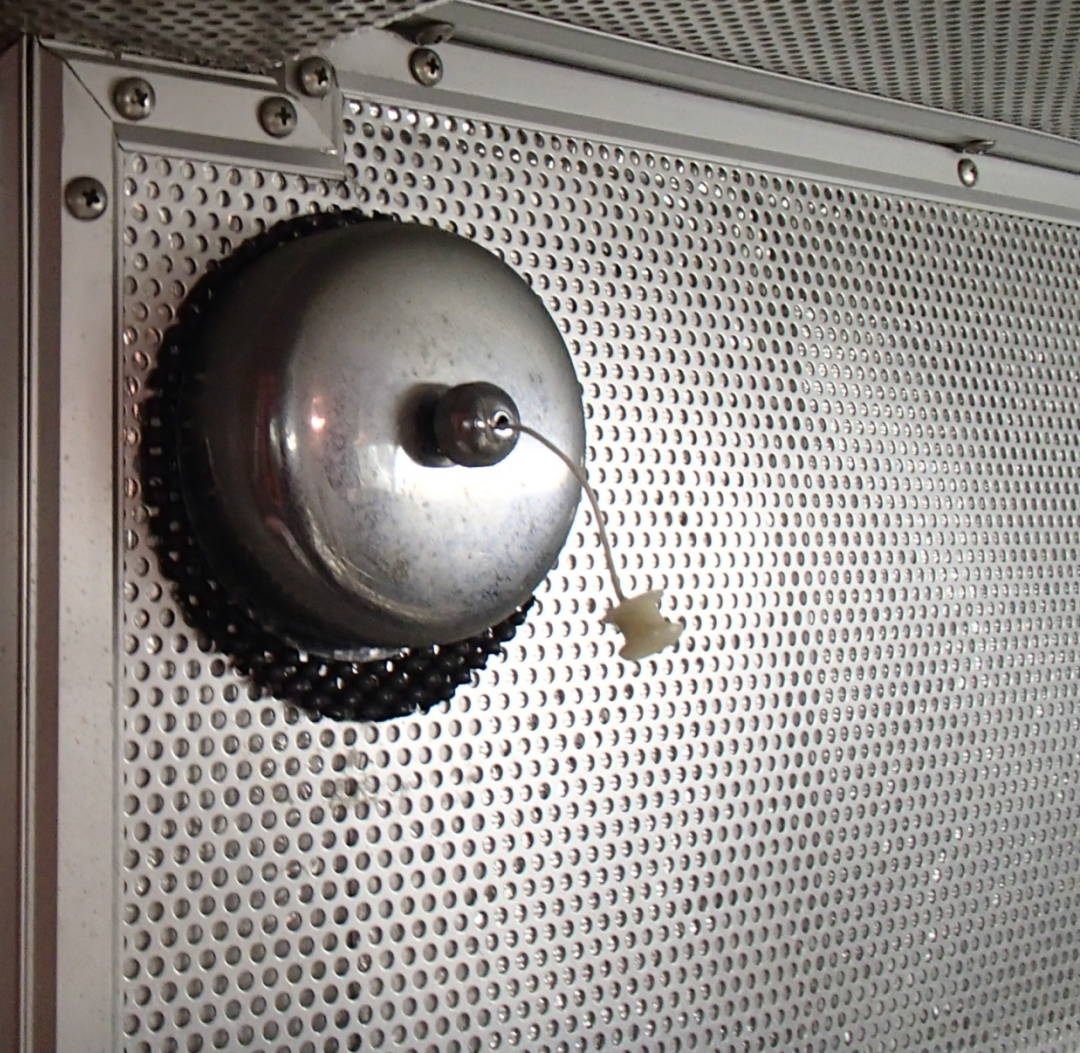
A blue plastic bucket is shown with a silver tap attached to its rim. The tap has a circular handle and a spout. The bucket is placed next to a metal mesh screen, likely part of a water filtration system. The text "Fresh water tap and bucket" is overlaid on the bucket in a yellow box.

Fresh water tap and bucket

Soft mats



Engine room temp and clothes line





Cleaning product shelf

A blue, textured mesh bag is shown against a white background. The bag has a central black button and three grommets (two on the top edge, one on the left side). The bag is slightly wrinkled and appears to be made of a durable, woven material. A yellow text box is overlaid on the center of the bag.

Suction mesh bag for through hull bungs



Zippered pillow bag for engine diapers

Get out there and have fun!



A sunset over a body of water, with a boat's railing visible in the foreground. The sky is dark with some clouds, and the water reflects the low sun. The text is overlaid on this background.

Questions? Other ideas?

PS - I am always on the hunt looking for other ideas, if you have any recommendations please let me know.

Email : Jeff@JMYS.com

A sunset over the ocean with a yellow text box. The sun is low on the horizon, casting a golden glow across the sky and water. The sky is filled with scattered clouds, some of which are illuminated by the setting sun. The water in the foreground is dark with small waves.

Thank you!

See you at the Stuart TrawlerFest
March, 2022

Dial-In-Your-Trawler series PDF on www.JMYS.com