

Dialing In Your Trawler

Suggestions on how to track and monitor the gear and systems on your trawler / motor yacht



Trawler Fest
Baltimore, MD
September 28, 2019
by Jeff Merrill

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Welcome!

This is a collection of ideas and photos I have seen other trawler owners use that you should be able to apply to your own trawler.

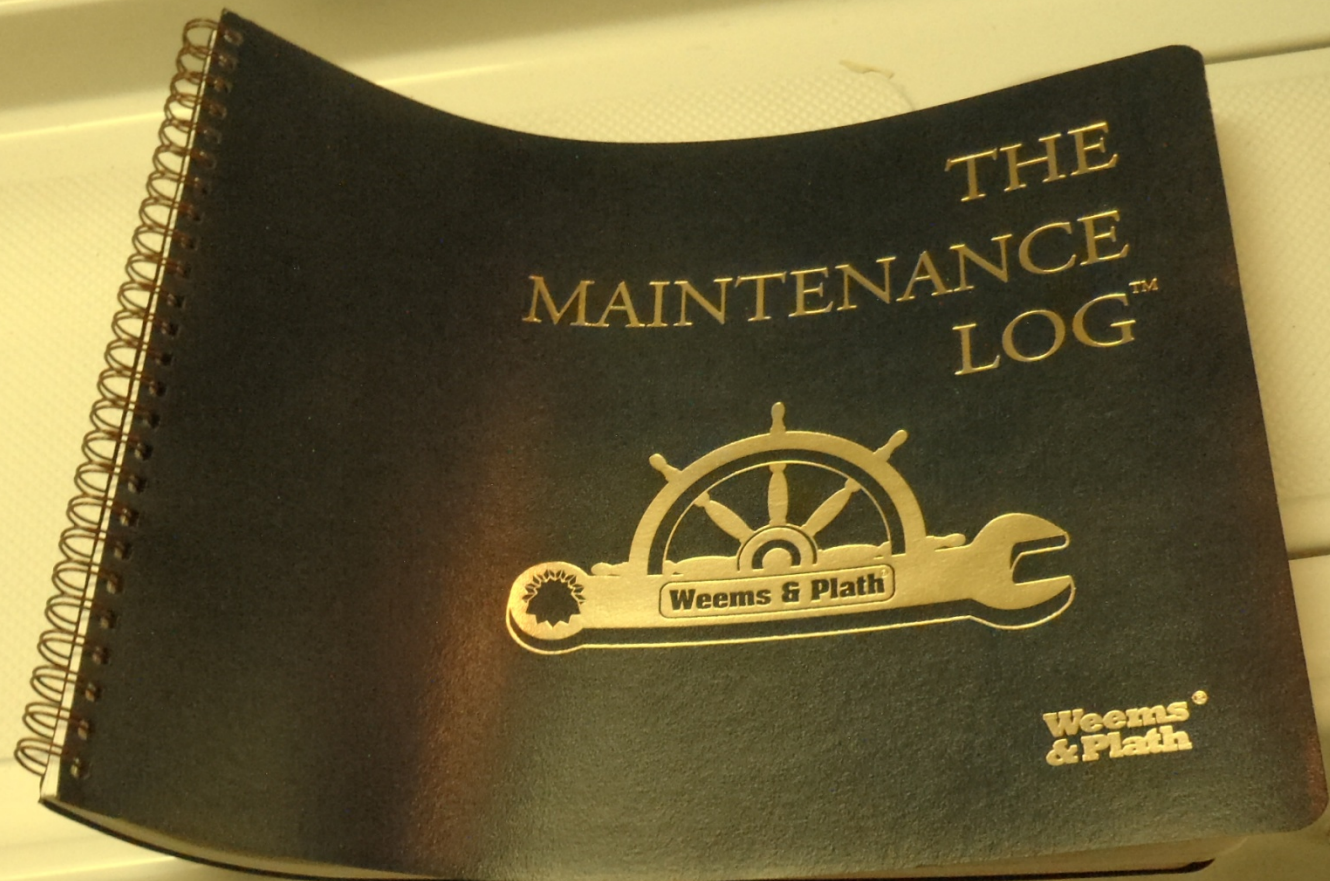


WARNING – I am a yacht broker!

20+ years of selling new and used trawlers and training owners. I've been on hundreds of boats and found some great ideas.



TODAY'S TAKE AWAY



Learn some new ideas, I welcome your suggestions.
Do you keep your maintenance log up to date?

Pick up something from every boat...

Every Trawler has a number of components that require attention and observation, we are all
"in the same boat"

Hold that thought...

Paying attention to details will help you monitor your systems and better understand your boat.

Please jot down questions so I can answer at the end, I may cover what you want to know.

Sign up to be notified when this is posted on
JMYS.com

HANDOUTS


- USCG inspection Vessel Safety Check
- Performance Chart – RPM, burn, range
- Main engine maintenance log
- Engine room temperature watch – N47
- Summary Dialing in Your Trawler articles
- SDMC / JMYS Maintenance

CHECK UPS

Your Trawler is “alive” (at the dock AND underway) and if you think of it that way and relate to your body it should make sense that regular “checkups” will help your boat run smoother.



Unlike annual human medical exams, a trawler should have many inspections (hourly at first) to keep track of operations.

A photograph of a boat's cockpit dashboard. The dashboard is black and features several electronic components. On the left, there is a laptop computer. In the center, there is a circular gauge and a digital display. To the right of the gauge, there are two large rectangular displays, likely for navigation or engine monitoring. Above the dashboard, there are three portholes or windows. A black coiled cable is hanging from the top left. A black device, possibly a GPS or chart plotter, is mounted on the wall to the right of the dashboard. The background shows a marina with many sailboats.

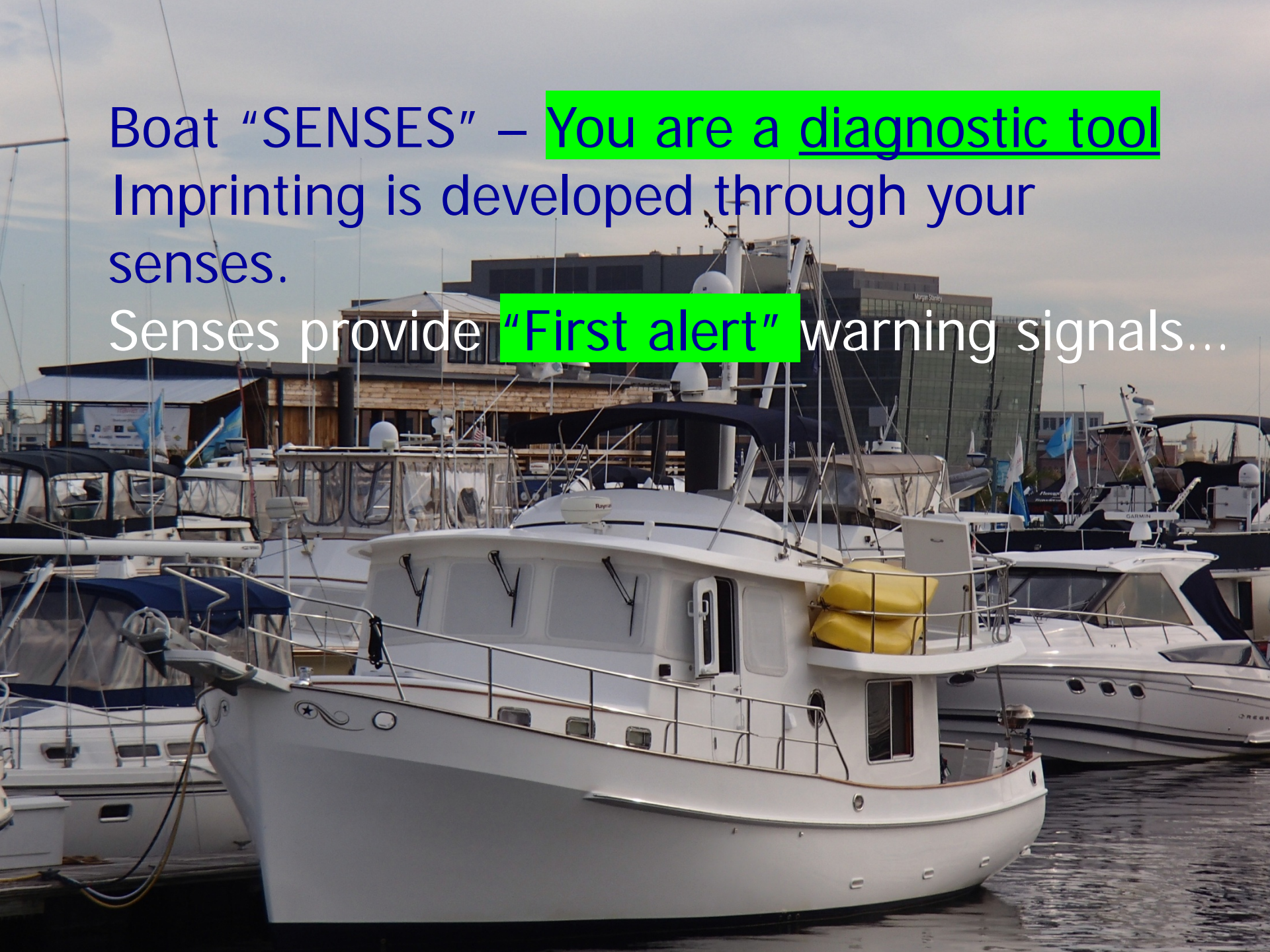
BASELINES

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...



Sight/Vision

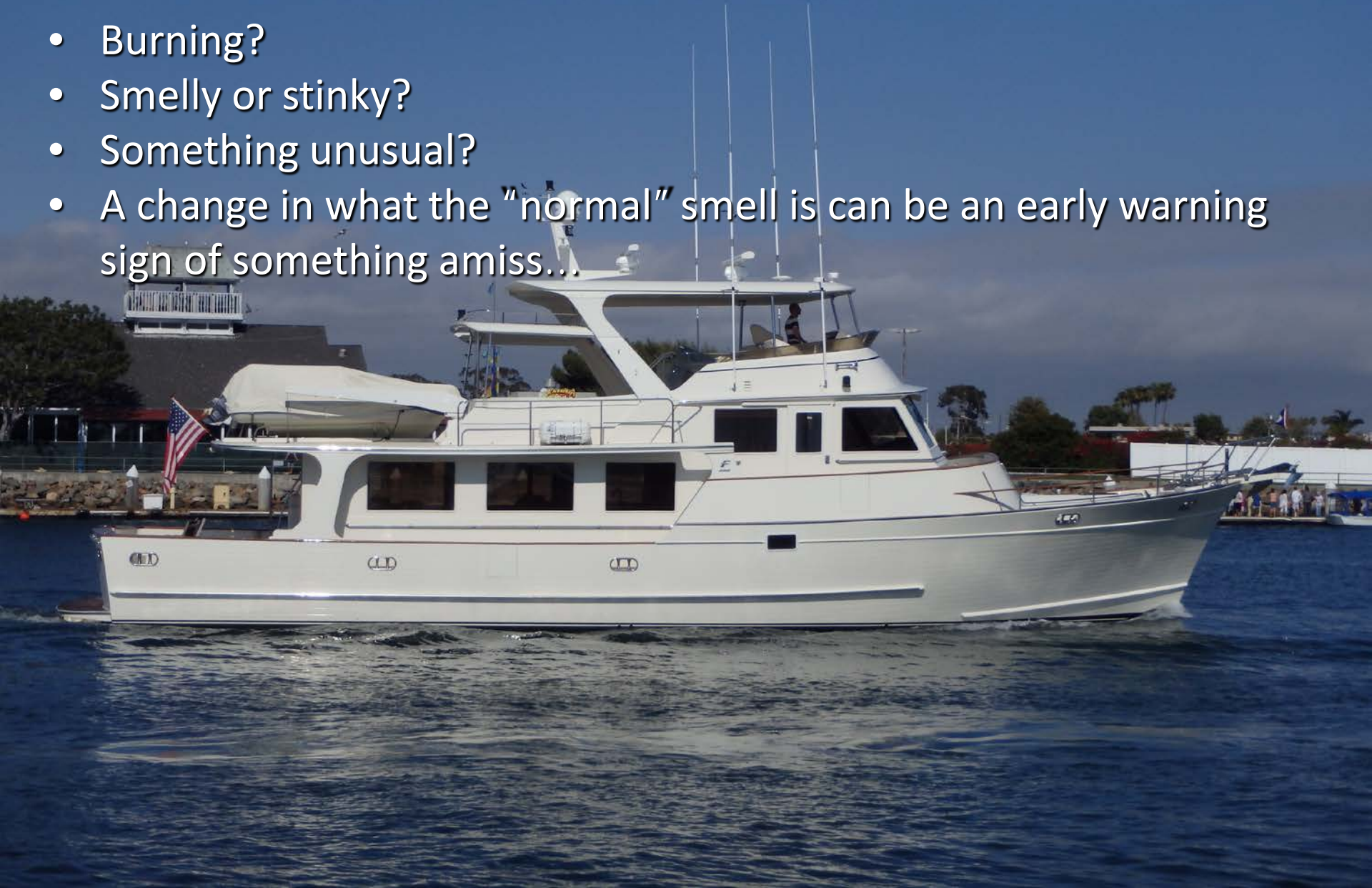
- We use our eyes as our primary means to process and understand information.
- At sea you may need prescription glasses, make sure you have a spare pair.
- You should have sun glasses.
- Protective goggles are a smart idea.
- Even magnifying lenses for small print on charts Binoculars or FLIR night vision.

Hearing

- New to you – pumps, beeps, clicks
- Alarms
- Vibrations
- High pitch
- Wear ear muffs in the engine room
- Buzzing outside
- Snap crackle pop = shrimp

Smell

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



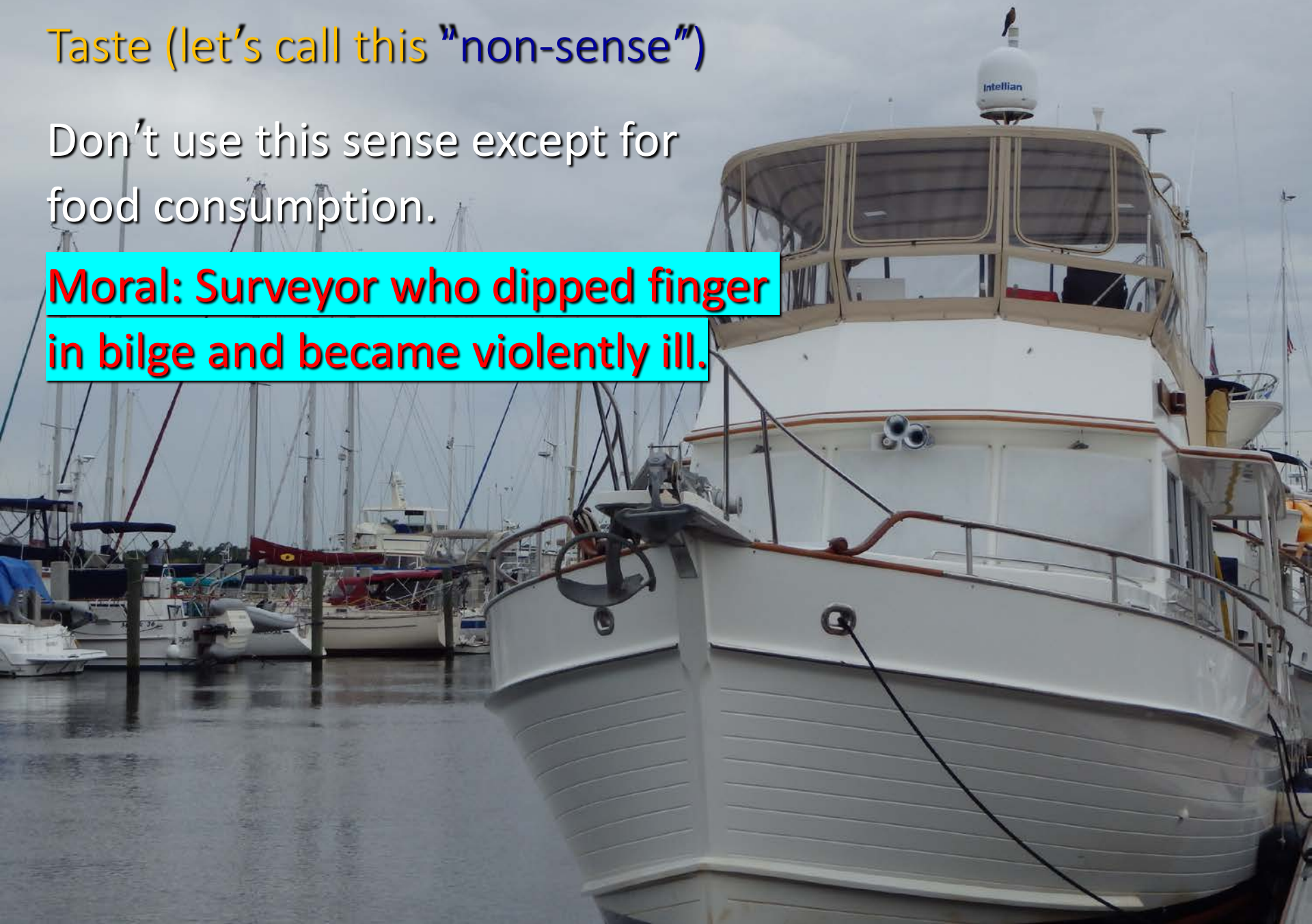
Touch (and what not to touch)

- Lots of hot parts – be careful of burns
- Fingers and Toes...
- Gloves – hot parts, sharp parts – paravane fish, even up to manage anchoring or handling dock lines (wood dock splinters)
- Shoes – windlass and chain

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

Don't use this sense except for food consumption.

Moral: Surveyor who dipped finger in bilge and became violently ill.





Common Sense

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

Understanding Your Boat

You need to become familiar with your boat to better understand it.

Your trawler is a finite space, there is no reason why you should not know what **EVERY** piece of equipment is and what the **NORMAL** operating condition should be.

GET YOUR TRAWLER ON TRACK

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

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



Tools – you will need Metric and Imperial; nut drivers, sockets, etc. Find key service items and keep that tool nearby!

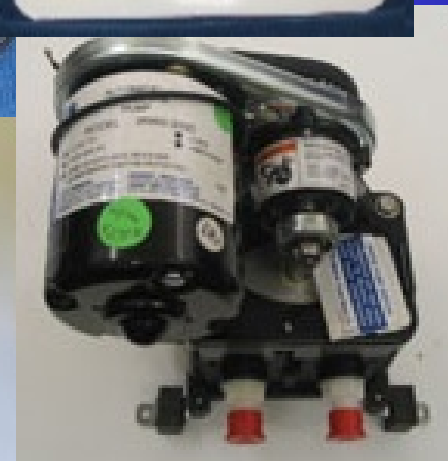


AllTimeTools.Com



Spare Parts and Service Manuals

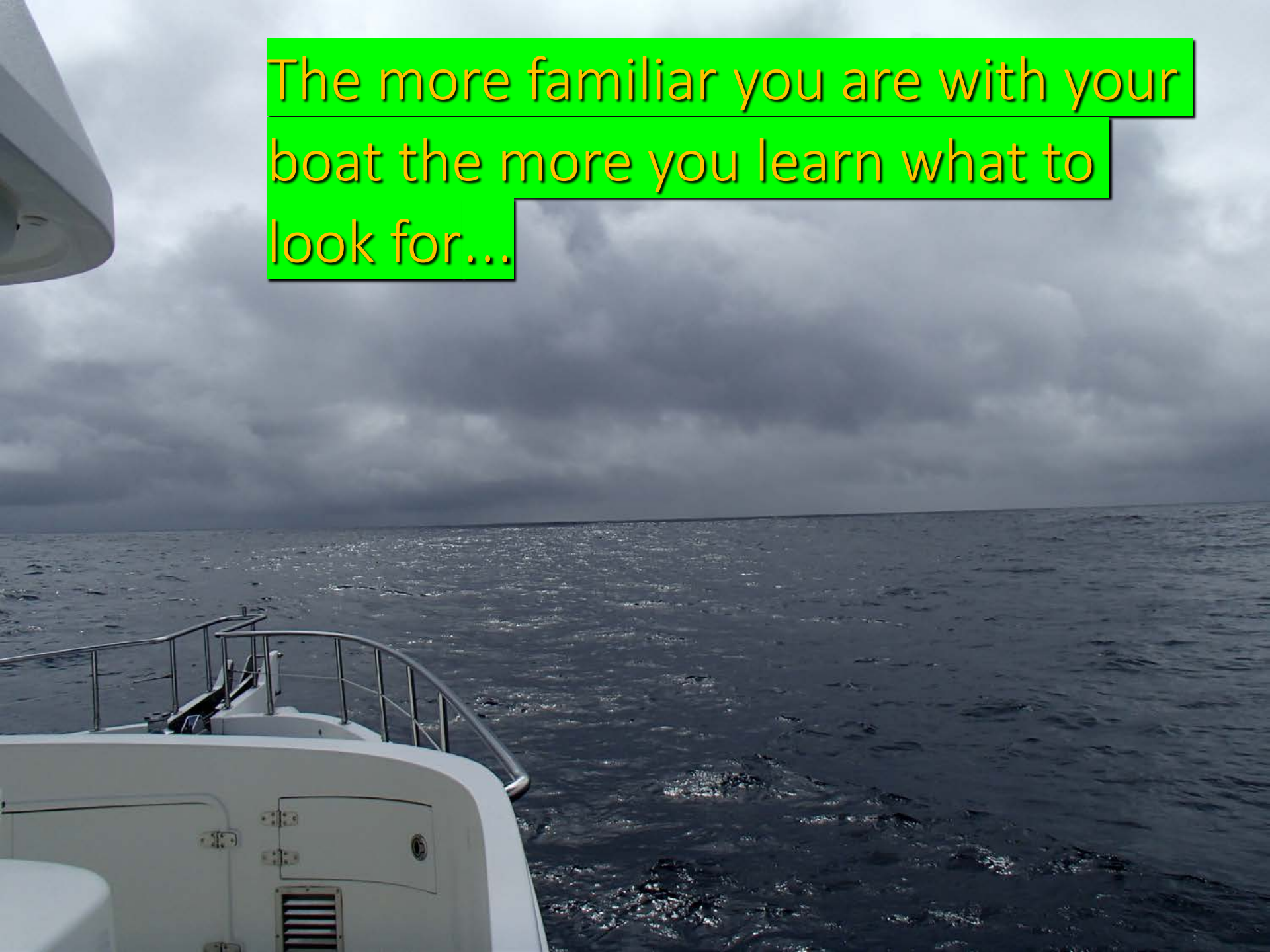
(When you get a spare replace the existing item)



Organize your manuals

- Keep them in organized bins
- Go online to get electronic PDF versions
- Keep a list of vendors with contact information – phone and email
- Manuals help with spare parts and service intervals

The more familiar you are with your
boat the more you learn what to
look for...



Where is your autopilot rate gain compass?

How about your GFCI outlets and shore power breakers?



Temperatures to monitor



What other temperatures should we record?

- Stuffing box
- Engine coolant
- ER forward and aft bulkhead
- Class input?



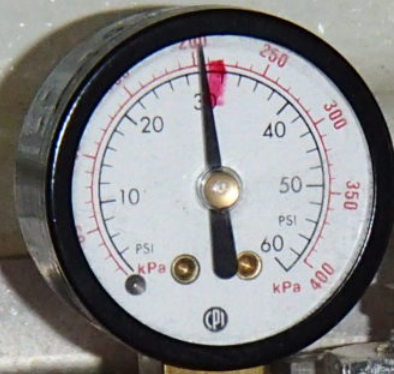
Example of "tide mark" level



Analog "needle marks"



Mark normal needle position.
Do you have a bicycle pump?



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

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

MAXIMUM RESERVOIR LEVEL

PRESSURE

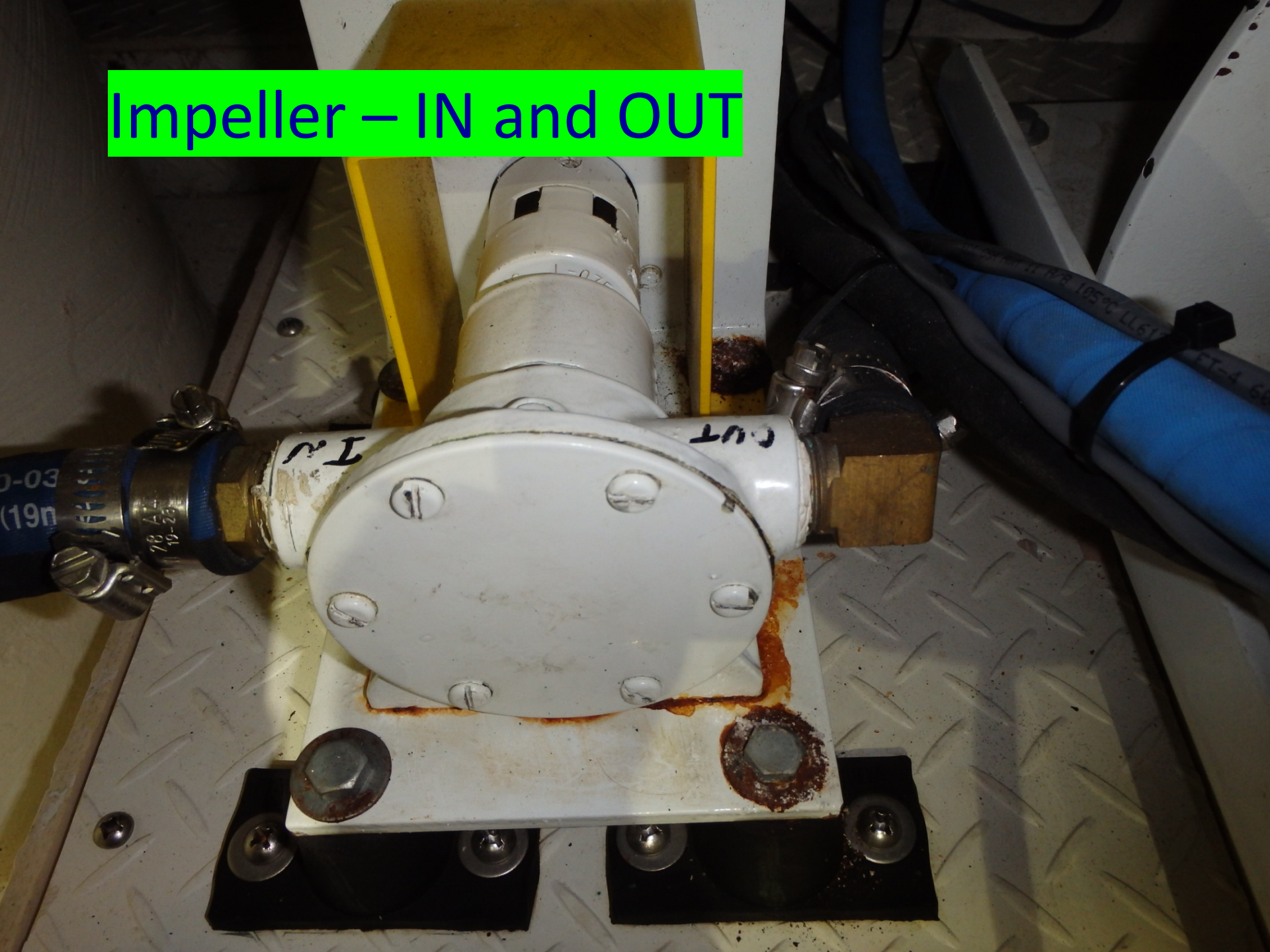
Know
your
flow...





Flow direction arrows

Impeller – IN and OUT



Learn the "INS"...

OLD

↑ ↑ ↑ IN ↑ ↑ ↑ ↑

10
STBD
MAIN
ENG

RETURN FROM MOTORS

12
PORT
MAIN
ENG

29

FUEL

RETURN FROM TRANSFER PUMP

#30

20KW
GEN



and OUTS...

To and From, Supply and Return



Get a Label Maker and use it!



Bow Thruster ON/OFF



CHECKLISTS

We all have fantastic memories, but give yourself some back up, create checklists!



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 trawler 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**

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?



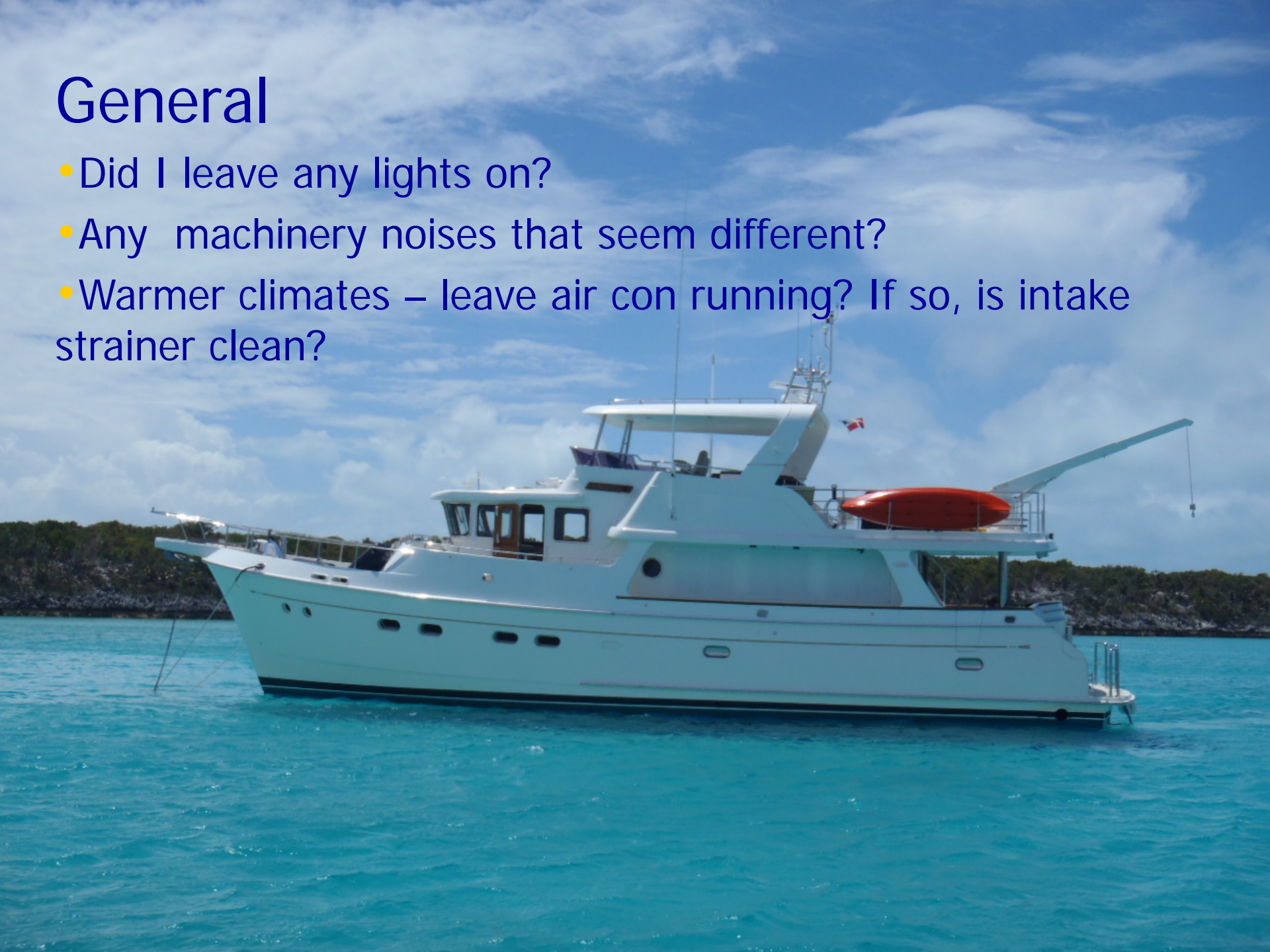
AC IN = Good!

Walk Through

- Anything out of place or different from last time on board?
- Port lights and hatches?
- Windows and Doors?
- Lockers and Drawers?

General

- Did I leave any lights on?
- Any machinery noises that seem different?
- Warmer climates – leave air con running? If so, is intake strainer clean?



Exterior

- All lines secure?
- All canvas covers in place
- Water in the tender?
- Anything out of place?

USCG Vessel Safety Check

- **See the handout*** This is a great way to make sure you are in compliance



Ship Shape

One common theme I have noticed – whether the owner is an artist, engineer, doctor or farmer – keeping things clean and tidy makes it easier to notice when something goes wrong

Performance

You need to understand how fast your boat will go at various RPM's and how much fuel you are burning to determine your range. **RPM performance handout***



RPM, Speed and fuel burn summary at helm

<u>BAGAN</u> Oct, 2002					Full Tanks 1970	
"NORMAL" SPEED & FUEL BURN					470 USGRsv. 1500	
(clean hull, quartering 15 kts. 5 ft. seas, full load, USG)						
RPM	STW	"S/L"	GPH	NM/GAL	Ultimate Range	Safe Range
1200	6.8	0.93	3.4	2.0	3,940	3,000
1300	7.5	1.03	4.2	1.8	3,518	2,679
1400	8.0	1.10	5.2	1.5	3,031	2,308
1500	8.5	1.17	6.2	1.4	2,701	2,056
1600	9.1	1.25	7.5	1.2	2,390	1,820
1700	9.7	1.33	9.0	1.1	2,123	1,617
1800	10.6	1.45	13.0	0.8	1,606	1,223
lwl=53.1 ft. ; sq rt =				7.29	(minus gen. set use)	

A photograph of a boat's cockpit dashboard, featuring a wooden finish and various electronic instruments. A green rectangular text box is superimposed over the upper portion of the image. The dashboard includes a steering wheel, a central display screen showing a white flower, and several analog and digital gauges. The background shows a marina at night with other boats visible through the windshield.

There are several areas where you can
"Dial In"

Anchoring Ideas



Anchoring

- Length of chain (flake for easy deployment)
- Chain marking (HundRED)
- Bitter end – line, cut away on deck
- Nav Com – anchor alarm settings
- Windlass – auto/manual, clutch, release bar
- Chain stoppers, take shock load off windlass

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'

Anchor Bridle





Load off windlass. Rubber snubbers and line soften shock



Stop Slop

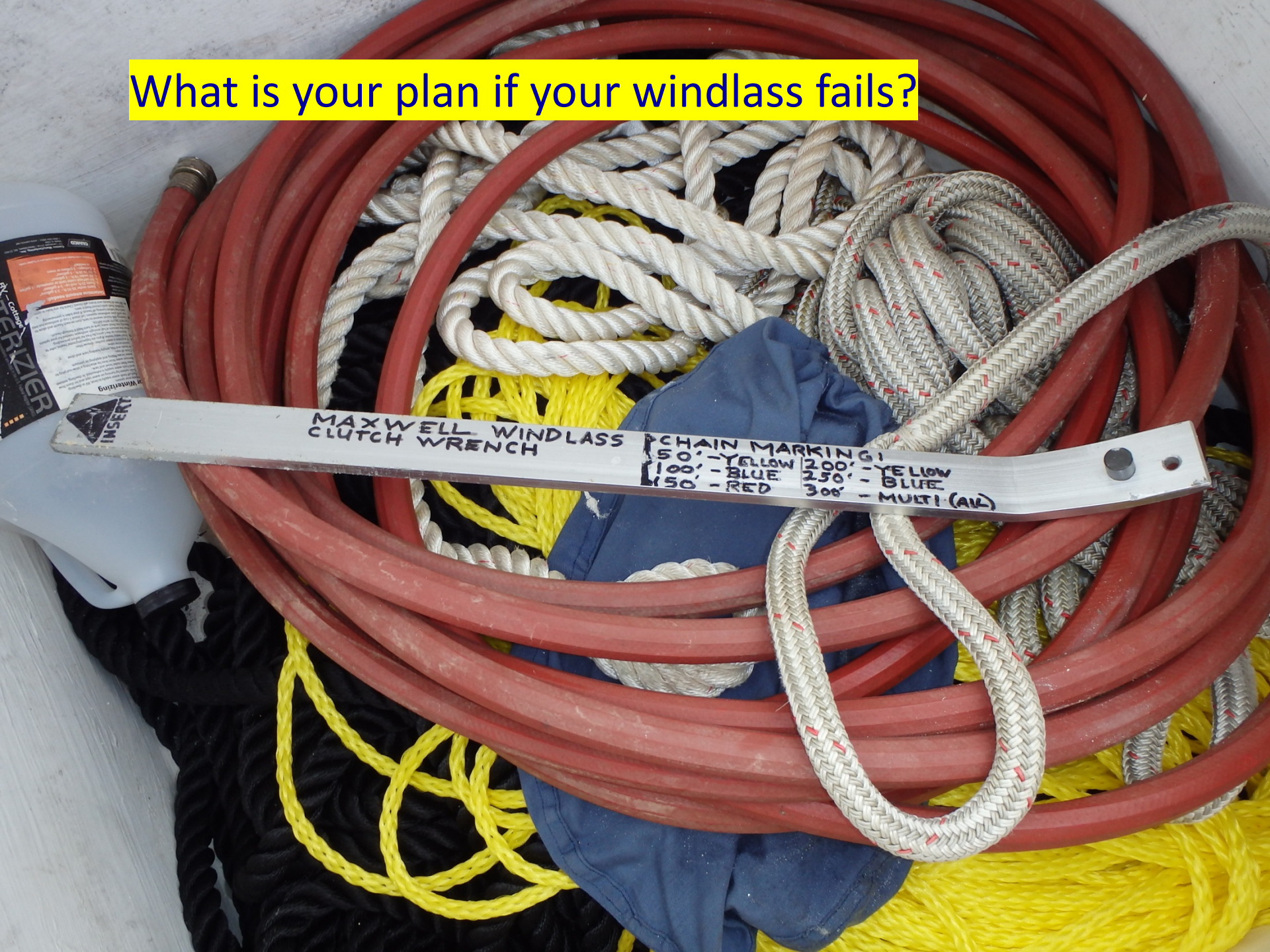
Handle, I'd tie a leash to this...



Chain tensioner, snug anchor on roller



What is your plan if your windlass fails?



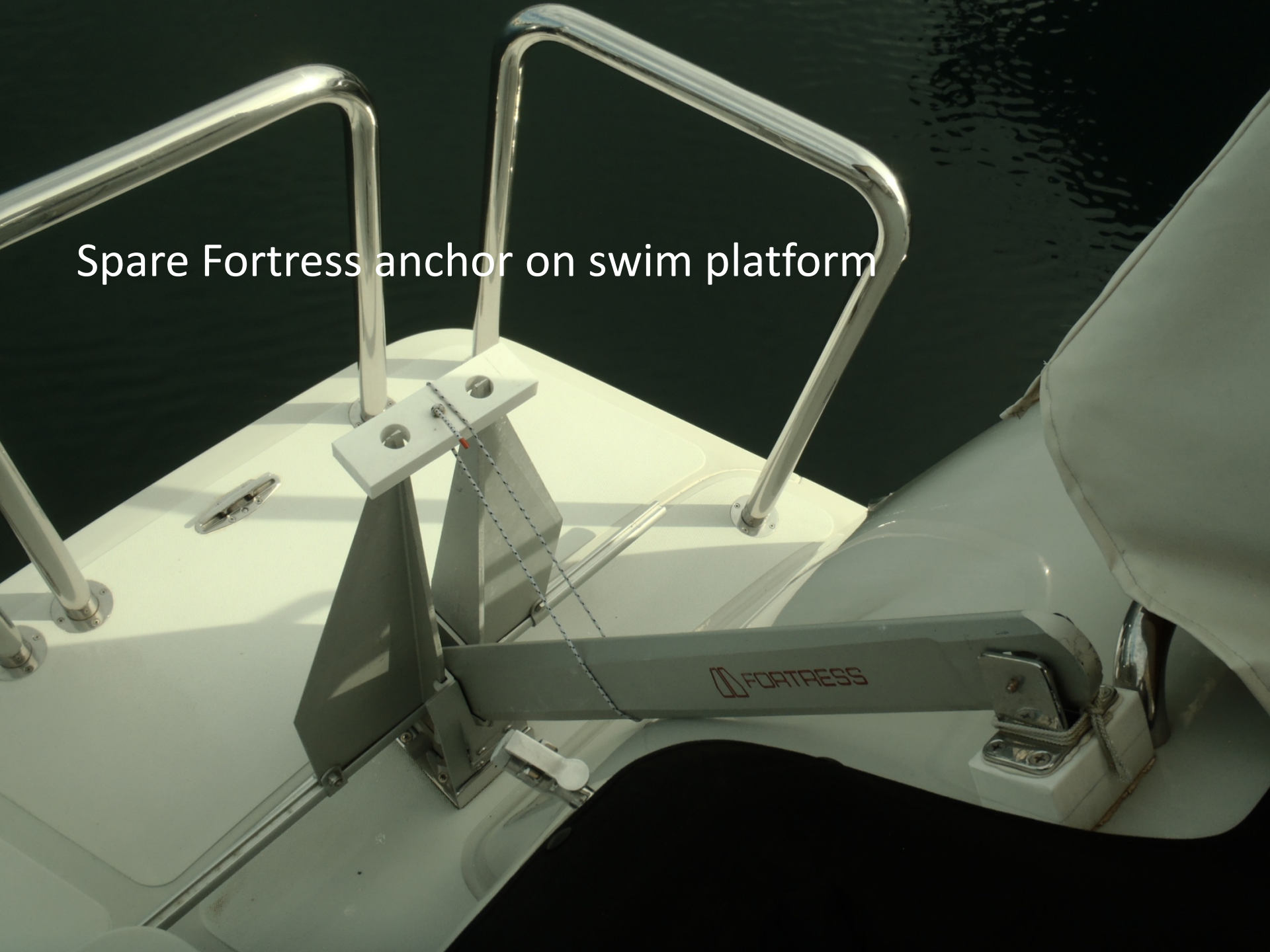
MAXWELL WINDLASS
CLUTCH WRENCH

CHAIN MARKING	
50' - YELLOW	200' - YELLOW
100' - BLUE	250' - BLUE
150' - RED	300' - MULTI (ALL)



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?





FIN

Hull ideas



Folding pad eye for clipping on fenders



Mark your fins for haul out



↑
DO NOT TOUCH! MOVING
EXTREME DANGER! KEEP AWAY!
↓

STABILIZER FINS
EXTREME DANGER! KEEP AWAY!
FINS MOVE WITHOUT WARNING
↓



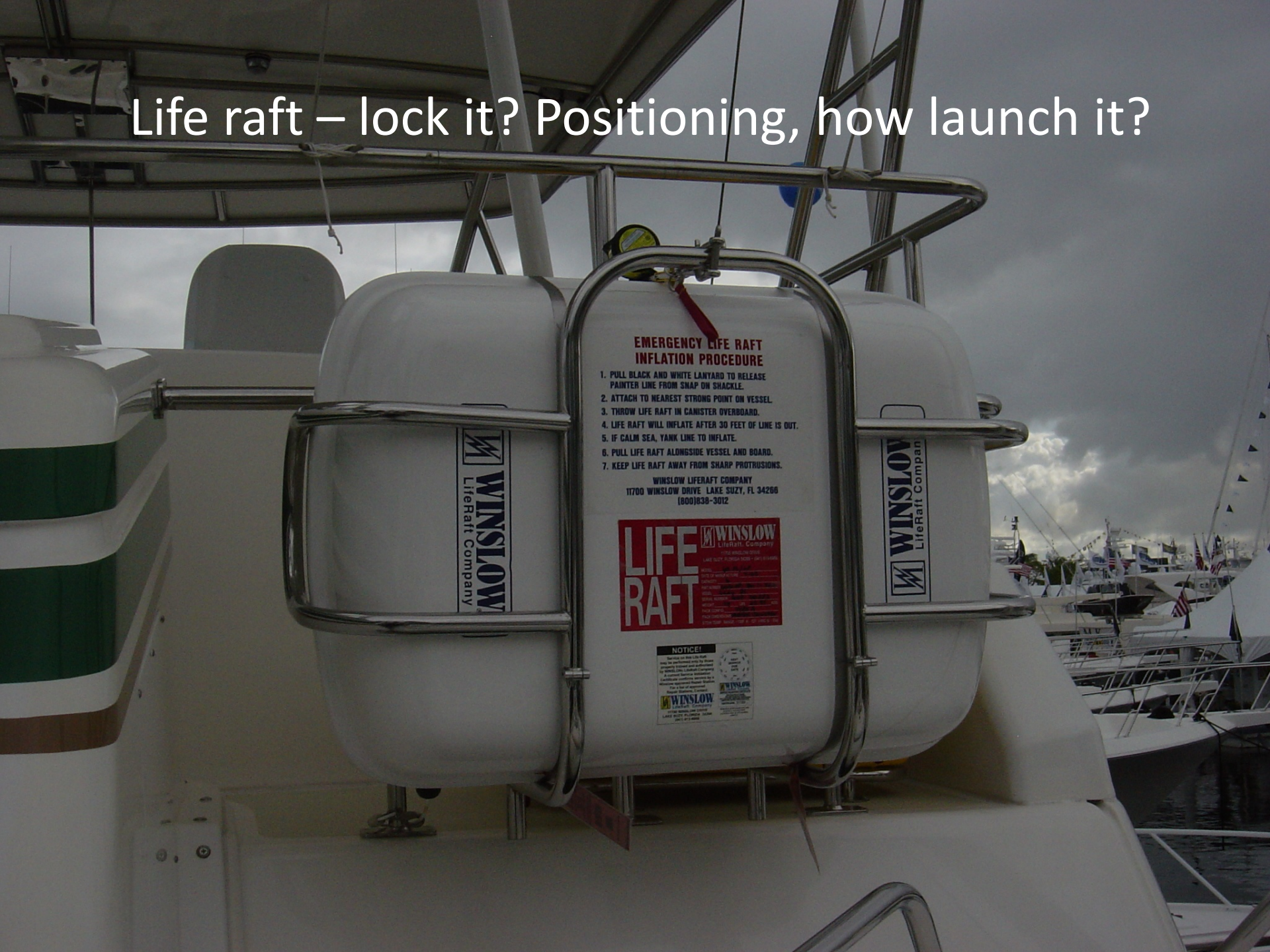
Deck and Dinghy Tips



Secure outside deck lockers



Life raft – lock it? Positioning, how launch it?



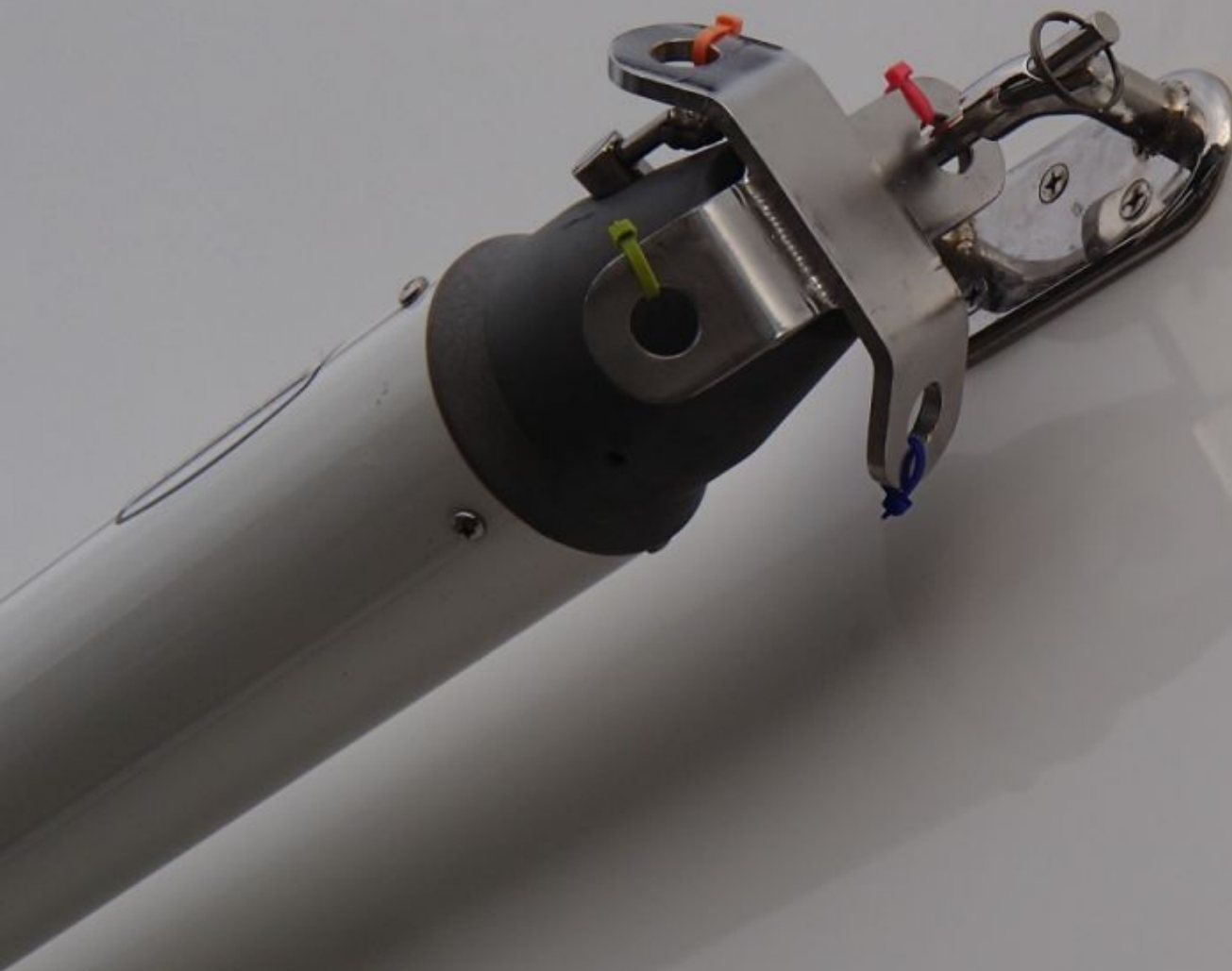
EMERGENCY LIFE RAFT INFLATION PROCEDURE

1. PULL BLACK AND WHITE LANYARD TO RELEASE PAINTER LINE FROM SNAP ON SHACKLE.
2. ATTACH TO NEAREST STRONG POINT ON VESSEL.
3. THROW LIFE RAFT IN CANISTER OVERBOARD.
4. LIFE RAFT WILL INFLATE AFTER 30 FEET OF LINE IS OUT.
5. IF CALM SEA, YANK LINE TO INFLATE.
6. PULL LIFE RAFT ALONGSIDE VESSEL AND BOARD.
7. KEEP LIFE RAFT AWAY FROM SHARP PROTRUSIONS.

WINSLOW LIFERAFT COMPANY
11700 WINSLOW DRIVE LAKE SUZY, FL 34206
(800)838-3012



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 deck. The crane has a cylindrical base with three vertical black alignment marks. White lines are painted on the deck to indicate the crane's position. In the background, a steering wheel and other ship equipment are visible.

Mark crane pick up to simplify line-up at return

Center crane and pick up/return rotation



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



Dinghy Cover Opening





Outboard skid plate

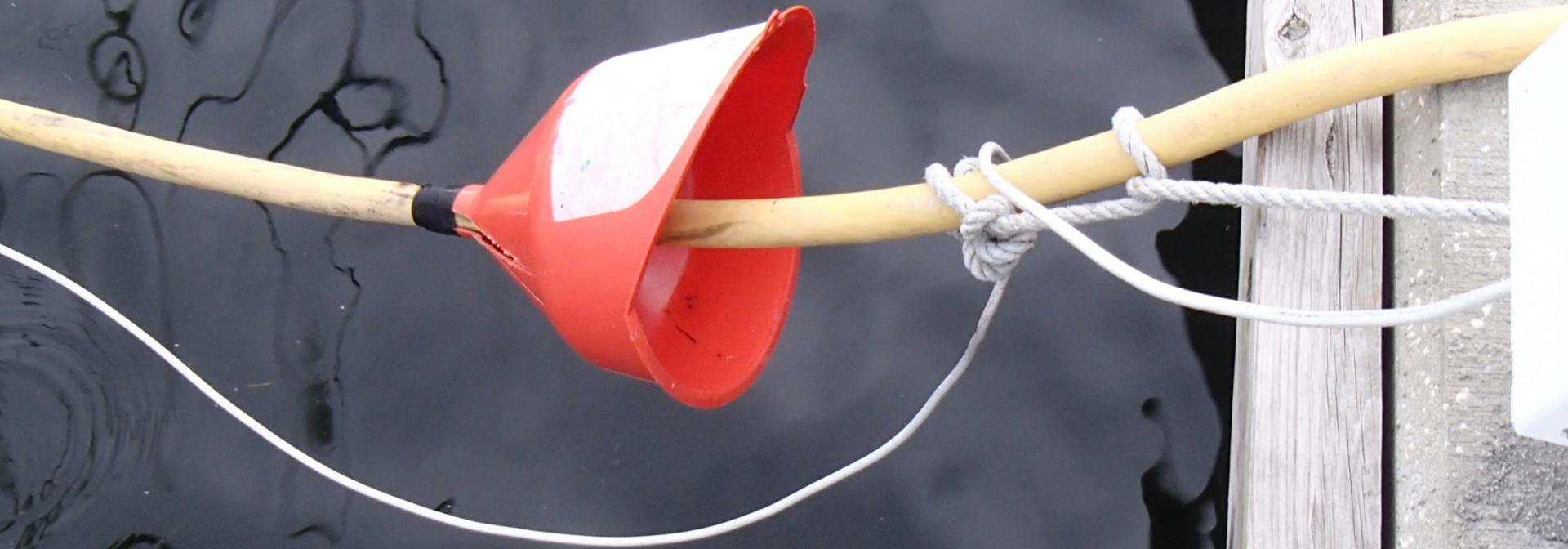
Dock Tips

- 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

Simple rodent guard



Power cord tied off to stay out of water

Keep lines coiled and ready to go





Loop around horn (chafe protection)





MB 3



Fender Boards



Boat Hook Ready!





Canvas wrap and snap



Inflatable Fenders, Fender Hooks



Sailboat Traveler track for fenders



Line Snubbers and Chafe Guards



Shore Water: Filter Before Adding To Tanks



Hardware store cartridges
sediment removal, charcoal
– remove impurities





Water
softener

Maintenance Log - Records

- Note any repairs or upgrades
- Track oil changes and all other service, repairs
- This is an important record and sales tool when you are ready to sell your boat

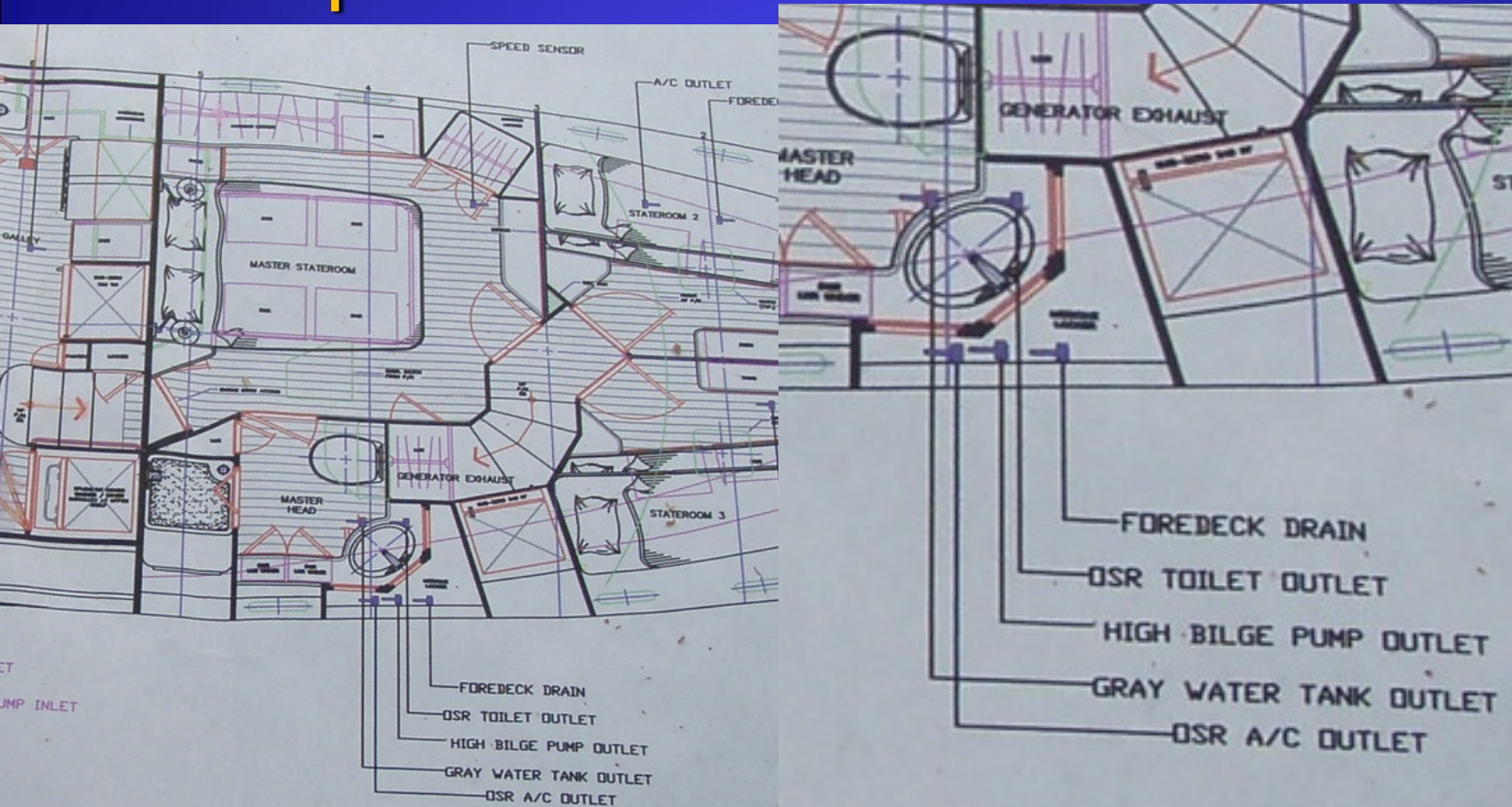
Main Engine Maintenance Log

See handout Nordhavn 55*

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

Through hull Map

Example from Nordhavn 52 *Dirona*



N5263

SEACOCK/THRU-HULL LOCATION DWG

A close-up photograph of a wooden boat seat. The seat has a dark red cushion with a gold-colored diamond pattern. A red webbing strap is attached to the side of the seat. The background shows the wooden hull of the boat.

Webbing tab for quick thru-hull reminder

← DECK DRAIN
THRU HULL UNDER
HERE



Exercise
and PVC
pipe for
leverage

CLOSE
↓

Through hull labels, close direction



Some Interior Suggestions



Clear plastic protects wood surfaces

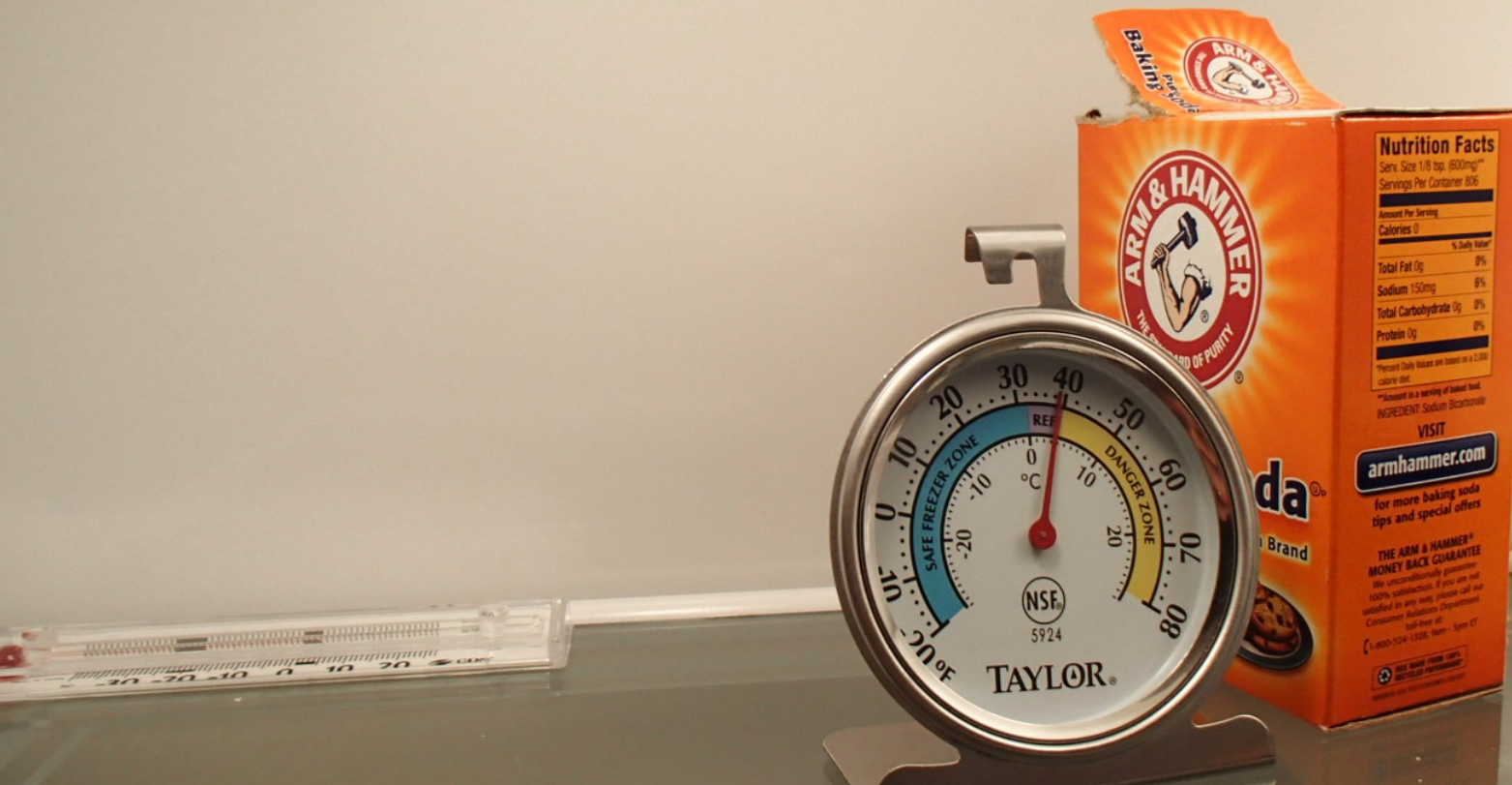


Refrigerator organization – bars and tubs





Thermometer and baking soda in refrigerator



Story - leave boat, ice cube test...

Refrigerator door lock

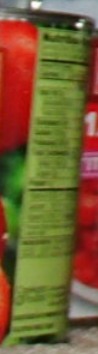




Ready for rocking and rolling at sea?

Shelf levels create more storage space







Soft rubber mesh protects

The image shows a metal wire rack used for storing dishes. On the top shelf, there are several black plates. A stack of black plates is on the left, and a single black plate is on the right. A white mesh mat is placed under the single black plate on the right. On the bottom shelf, there are several red bowls. A stack of red bowls is on the left, and a single red bowl is on the right. A white mesh mat is placed under the single red bowl on the right. The mesh mats are made of a soft rubber material and have a white, woven texture. The text 'Soft rubber mesh protects' is overlaid in the center of the image.

Peg system for plates and bowls



Kadey-Krogen peg system for
pots and pans





Acrylic base with permanent pegs



Stem ware protection





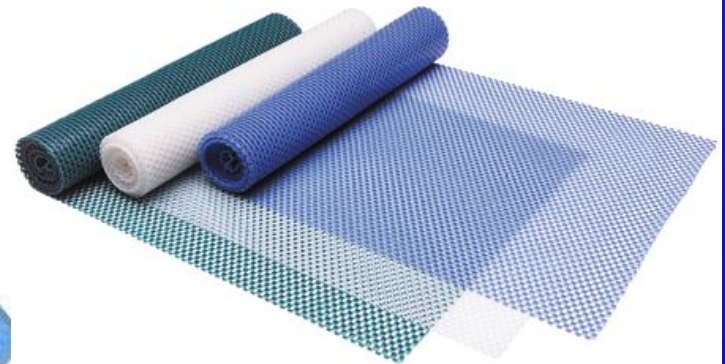
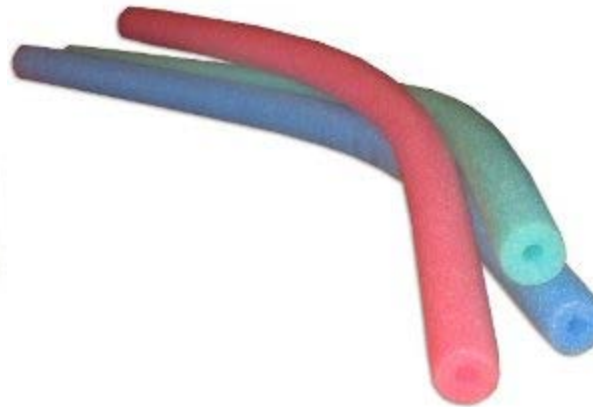
A white plastic drawer caddy is shown, filled with various office supplies. The caddy has several compartments of different sizes. In the top left, there's a small compartment with a label that says "Organized home style drawer caddy". Below this, there are compartments holding pens, pencils, and a stapler. The caddy is placed on a wooden surface.

Label Under Cushion Boards



Stop things from "rattling"

- Soft items to wedge lockers and line drawers
"Nerf" football, bubble wrap, Noodles, Liners



Ready for sea

You need to have a plan to stow everything when you set out to sea!



Clear tubs for storage



Storage bins "Lock and Lock"



Really Useful Boxes



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



Dust pan





Dust buster small vacuum

(Kelp flies story)

Swiffer Sweeper Vacs are great for wood floors



Squeegee and Shower Spray



Shower drain cover



Suction cup caddy



3M adhesive mounting



Head essentials



Toilet treatment and holding tanks (non chemical bioactive formula)



Zaal

No Flex
Digestor



Special toilet paper is not a bad idea –
Single ply, biodegradable, fast dissolving, ultra soft...



Black Water holding tank valve lock

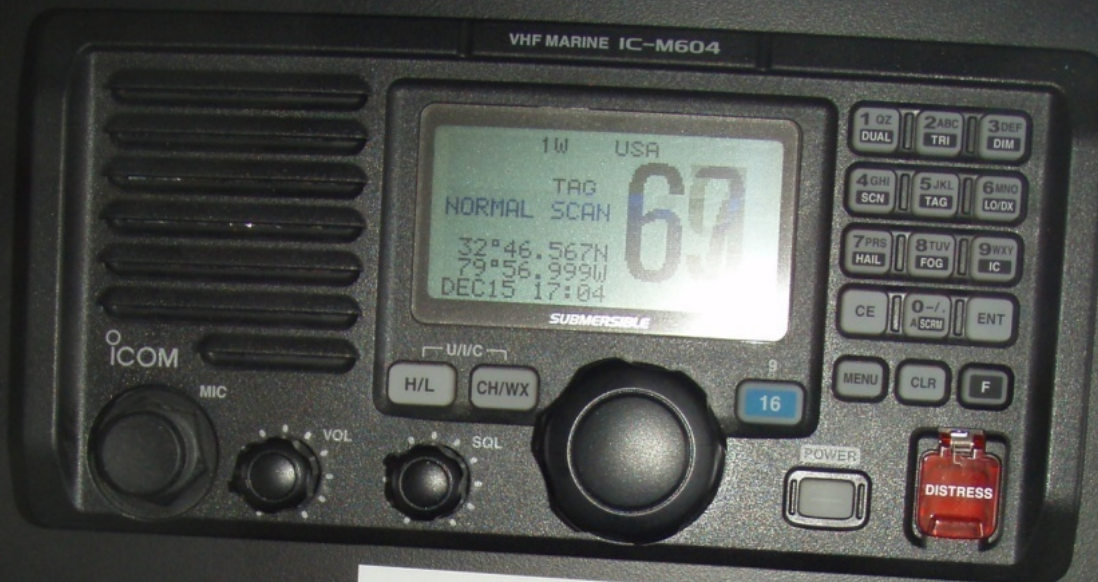


Carbon Monoxide, Smoke Detector/Fire Alarms



Pilothouse Suggestions





WDE 4988

VHF call sign label



Pilothouse – mark your gauges



4408 (MRTD)
Rev. 1-2000

- above hydraulics breaker, protected switch)
- 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"





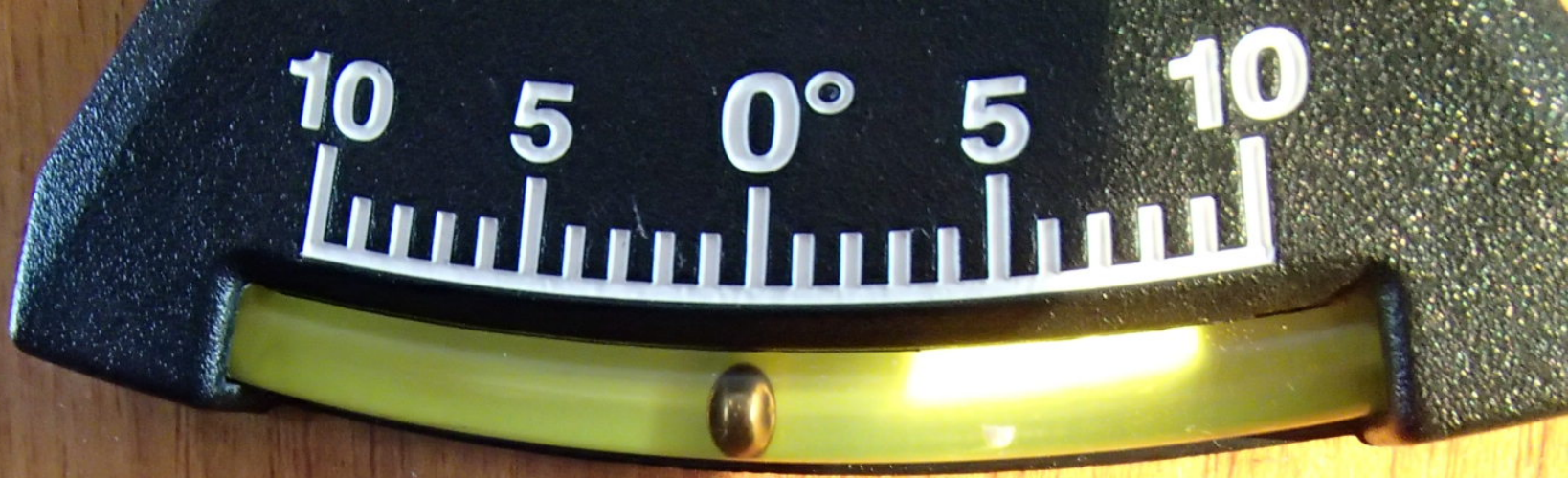
Keep your display screens clean

rain.x for windshields



Aquapel





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

LOA, Beam, Draft, Bridge clearance

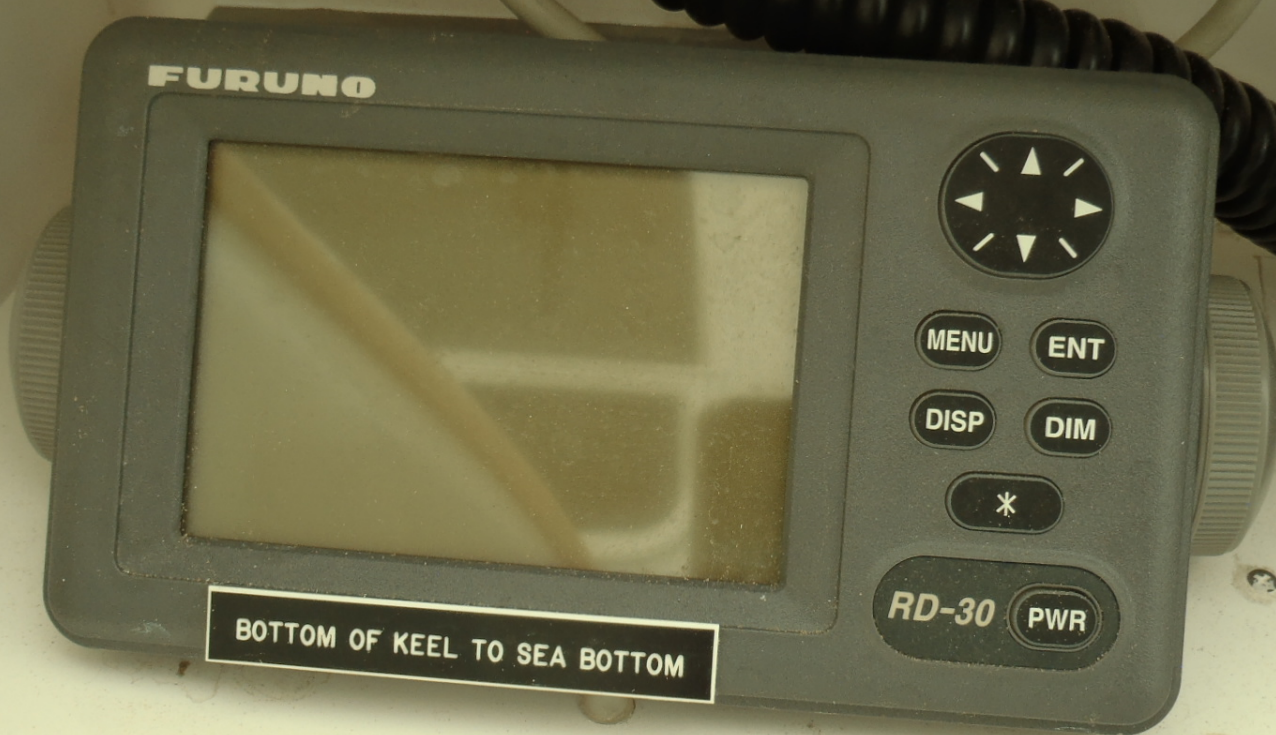
GRAY PEARL

LOA	61'
BEAM	18'
DRAFT	6'
AIR DRAFT	31'

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

1 SHORT-ALTERING TO STBD
2 SHORT-ALTERING TO PORT
3 SHORT-BACKING ASTERN
5 SHORT-ATTENTION or DAN

HORN

WINDSHIELD WIPERS

2 LONG, 1 SHORT-PASS YOUR STBD
2 LONG, 2 SHORT-PASS YOUR PORT
1 LONG, 1 SHORT, 1 LONG, 1 SHORT-AGREED

START

STOP

BATTERY

MOTOR

OVERID



I tape to segment electrical panel

Color code dots – ON/OFF – Day/Night





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



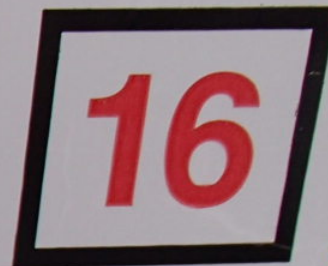
MAYDAY procedure

To Broadcast a MAYDAY.

- a) Make sure bottom RIGHT RADIO-602 is on
- b) Turn SQL all the way to the left
- c) Turn volume right until you hear static
- d) Lift the RED cover, Press the button for 5 seconds
- e) When talking, use correct microphone (center)
- f) Press push to talk button, wait 1 second speak slowly
- g) Say Mayday Mayday Mayday
- h) Say three times "Strickly for Fun"
- i) Whiskey Delta Bravo niner, zero five eight.
- j) get GPS location off GPS top above the radio
- k) Say latitude ## degrees ## minutes, decimal # north
- l) Longitude ## degrees, ## minutes decimal # West.
- m) State problem and requested help.
- n) The boat is 50 feet long, white with blue canvas.
- o) This is Strickly for Fun OVER
- p) Wait one second then release push to talk button.
- q) Repeat every minute till acknowledgement.

EMERGENCY RADIO CALL PROCEDURES

1. MAKE SURE RADIO IS ON
2. ON DSC RADIOS, LIFT COVER AND PRESS DISTRESS BUTTON FOR 5 SECONDS AND RELEASE
3. VERIFY RADIO HAS SWITCHED TO CHANNEL 16 AND GO TO STEP 5
4. ON NON-DSC RADIOS, CHANGE TO CHANNEL 16
5. PRESS AND HOLD TRANSMIT BUTTON
6. CLEARLY SAY: "**MAYDAY MAYDAY MAYDAY**"
7. ALSO GIVE: ☐ VESSEL NAME AND/OR DESCRIPTION
☐ POSITION AND/OR LOCATION
☐ NATURE OF EMERGENCY
☐ NUMBER OF PEOPLE ON BOARD
8. RELEASE TRANSMIT BUTTON
9. WAIT 30 SECONDS — IF NO RESPONSE, REPEAT "**MAYDAY**" CALL.



VHF-FM

HAVE ALL PERSONS PUT ON LIFE JACKETS

* Intentional hoax calls are an offense and subject to prosecution.





Binocular rack



Organize dash console for convenient access to gear

Drink holders

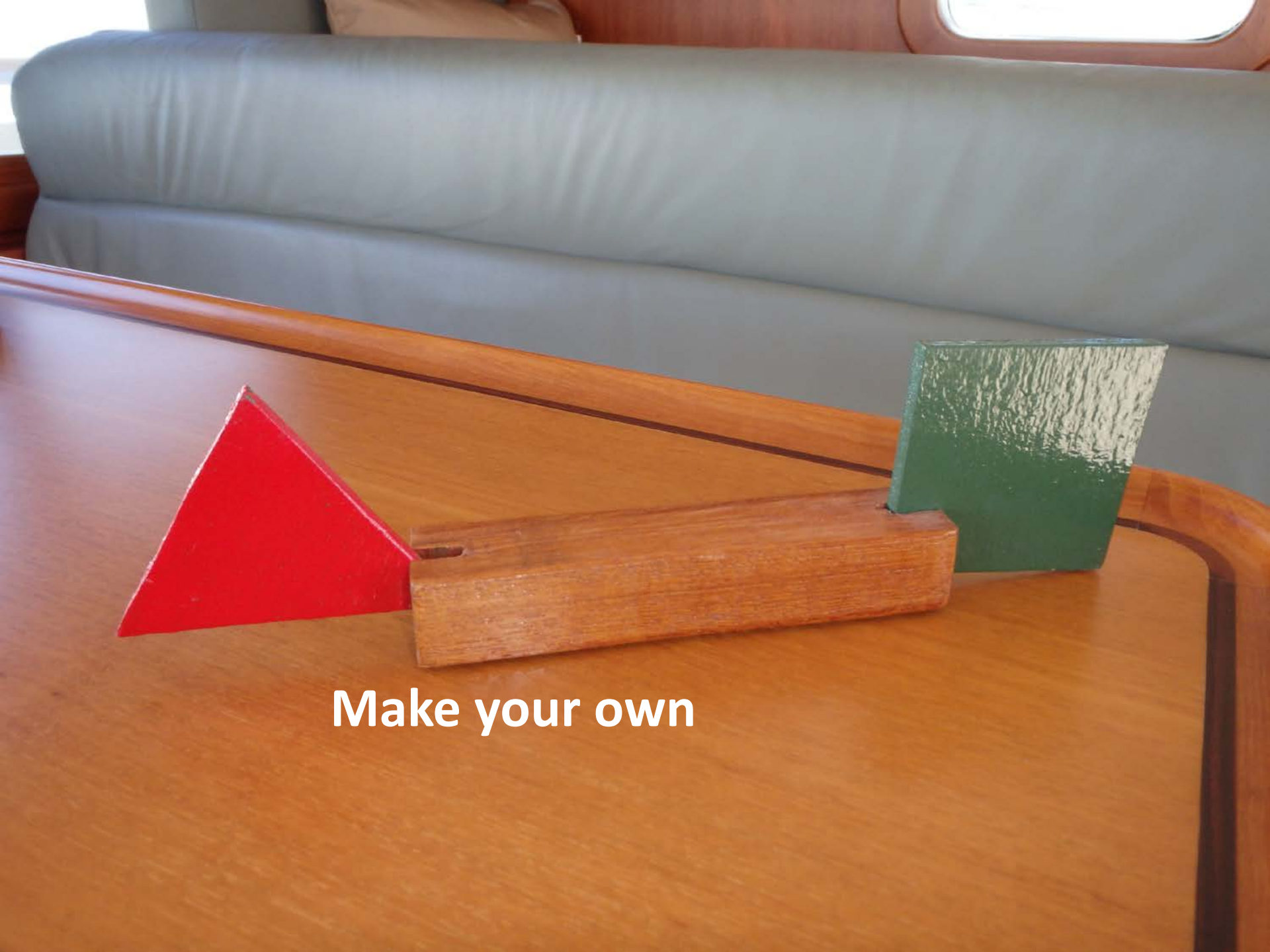




Portable caddy for
important “stuff”

Channel buoy reminder
Easily reversible!





Make your own

When you depart,
leave yourself a reminder...

Thru Hull Closed !!

Gen
Viking
Water Maker

Start Charger - OFF

Engine Room



Engine room "must haves"

- Ear muffs
- Working gloves
- Temperature gun
- Flash light
- Knee pads
- Proper tools for adjustments
- Trash Can
- Tapered wooden plugs
- Open pipe for thru hull leverage
- Duct tape
- Paper towels
- Dry erase board and pen

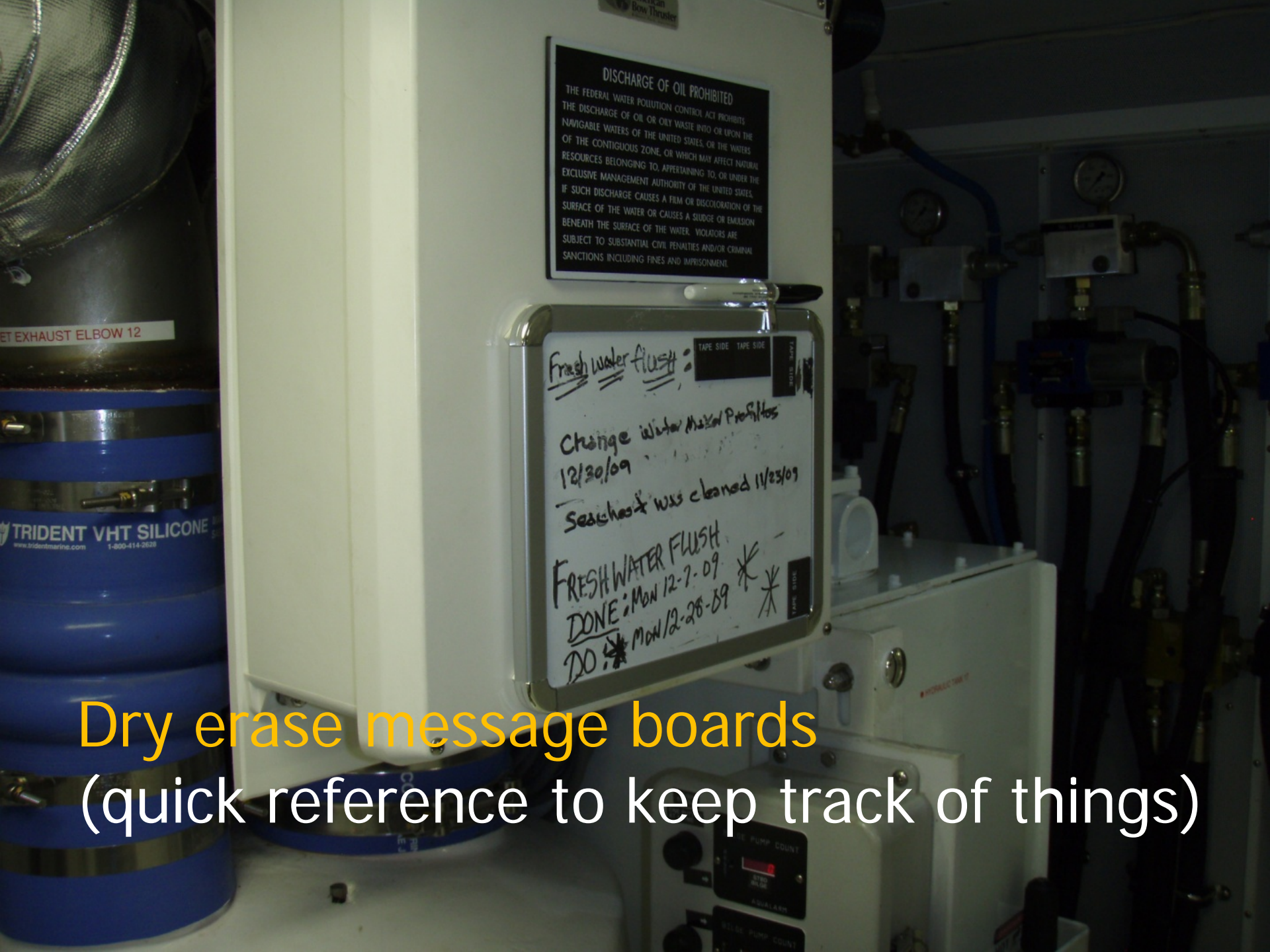
Ear Muffs – Noise Cancelling

a must for the engine room get two pair



Infrared Temperature Gun





DISCHARGE OF OIL PROHIBITED
THE FEDERAL WATER POLLUTION CONTROL ACT PROHIBITS
THE DISCHARGE OF OIL OR OILY WASTE INTO OR UPON THE
NAVIGABLE WATERS OF THE UNITED STATES, OR THE WATERS
OF THE CONTIGUOUS ZONE, OR WHICH MAY AFFECT NATURAL
RESOURCES BELONGING TO, APPERTAINING TO, OR UNDER THE
EXCLUSIVE MANAGEMENT AUTHORITY OF THE UNITED STATES.
IF SUCH DISCHARGE CAUSES A FIRM OR DISCOLORATION OF THE
SURFACE OF THE WATER OR CAUSES A SLUDGE OR EMULSION
BENEATH THE SURFACE OF THE WATER. VIOLATORS ARE
SUBJECT TO SUBSTANTIAL CIVIL PENALTIES AND/OR CRIMINAL
SANCTIONS INCLUDING FINES AND IMPRISONMENT.

Fresh Water Flush : TAPE SIDE TAPE SIDE
Change Water Makers Profiles
12/30/09
Seachest & was cleaned 11/23/09
FRESH WATER FLUSH
DONE: MON 12-7-09 *
DO: MON 12-28-09 * *

Dry erase message boards
(quick reference to keep track of things)

ALL 3 RAW WATER IMPELLERS AND ALL BELTS CHECKED JULY 2004

27 OCT. 2004

FUEL MANAGEMENT

NOTE :

- ENGINES SET UP TO RUN OFF STARBOARD FUEL TANK.
- WING ENGINE RUNS OFF DAY TANK.
- PORT SIDE M.E. RACOR IS NEW - READY TO USE.

Fuel management...

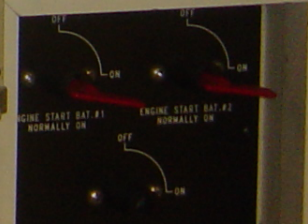
FWD PORT 310	FWD STBD 320
E.R. PORT 670	E.R. STBD 650
FULL TANKS 980	970

1950

DIPSTICK $1/8" = 1QT$



Definition
boat (bōt),
- a hole in the sun
of the water, into v
money is throw



Level gauge in ER for fuel trim





Trash Bin

The image shows a white trash bin with a black hose attached to a white container labeled 'NORTHERN LIGHTS'. The bin is situated in a white, enclosed space, possibly a laboratory or a small room. The bin has a white lid and a white plastic bag is visible inside. The container has a red and white logo that reads 'NORTHERN LIGHTS' with a lightning bolt symbol. The background features a white wall with a grid of small holes and a white door frame.

Engine Room Inspection

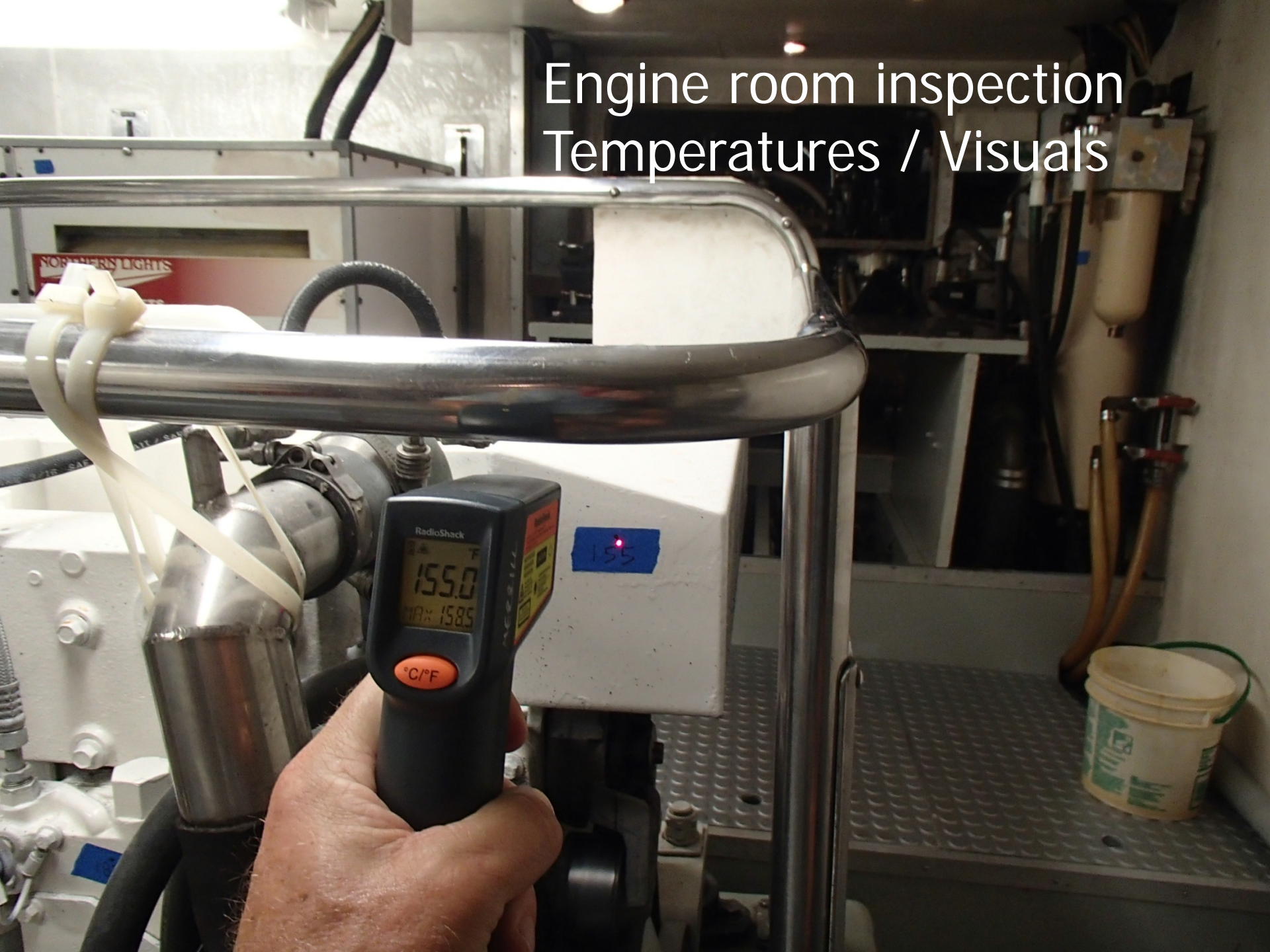


ER: What to Check

(Trip to ER two part
Ocean Navigator articles series)

- Inspect Fuel valves
- Bilge water level
- Temperature of stuffing box
- Under Engine Drips? Belt Chafe?
- Racor vacuum gauges

Engine room inspection Temperatures / Visuals

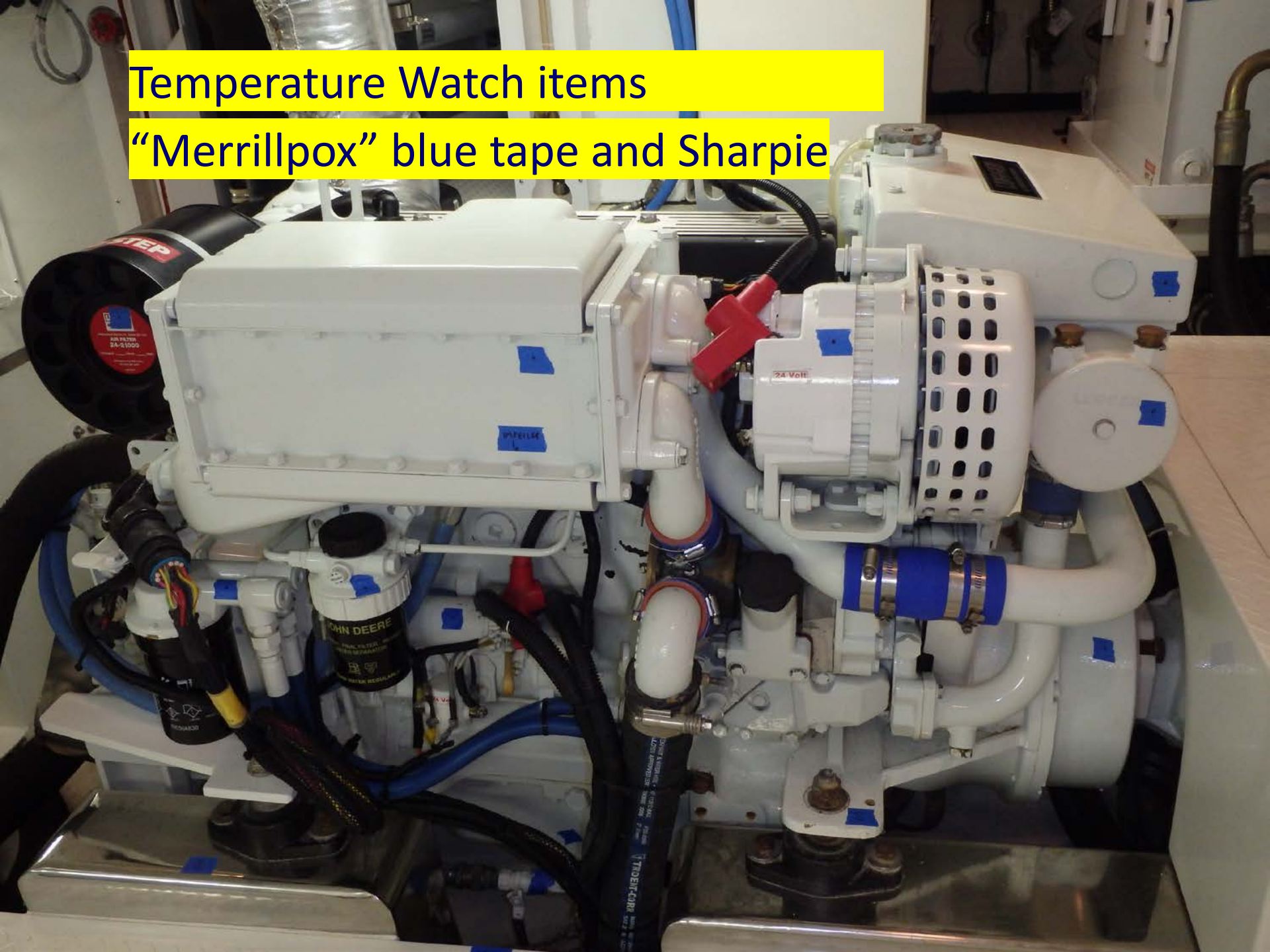


Mark single point to shoot



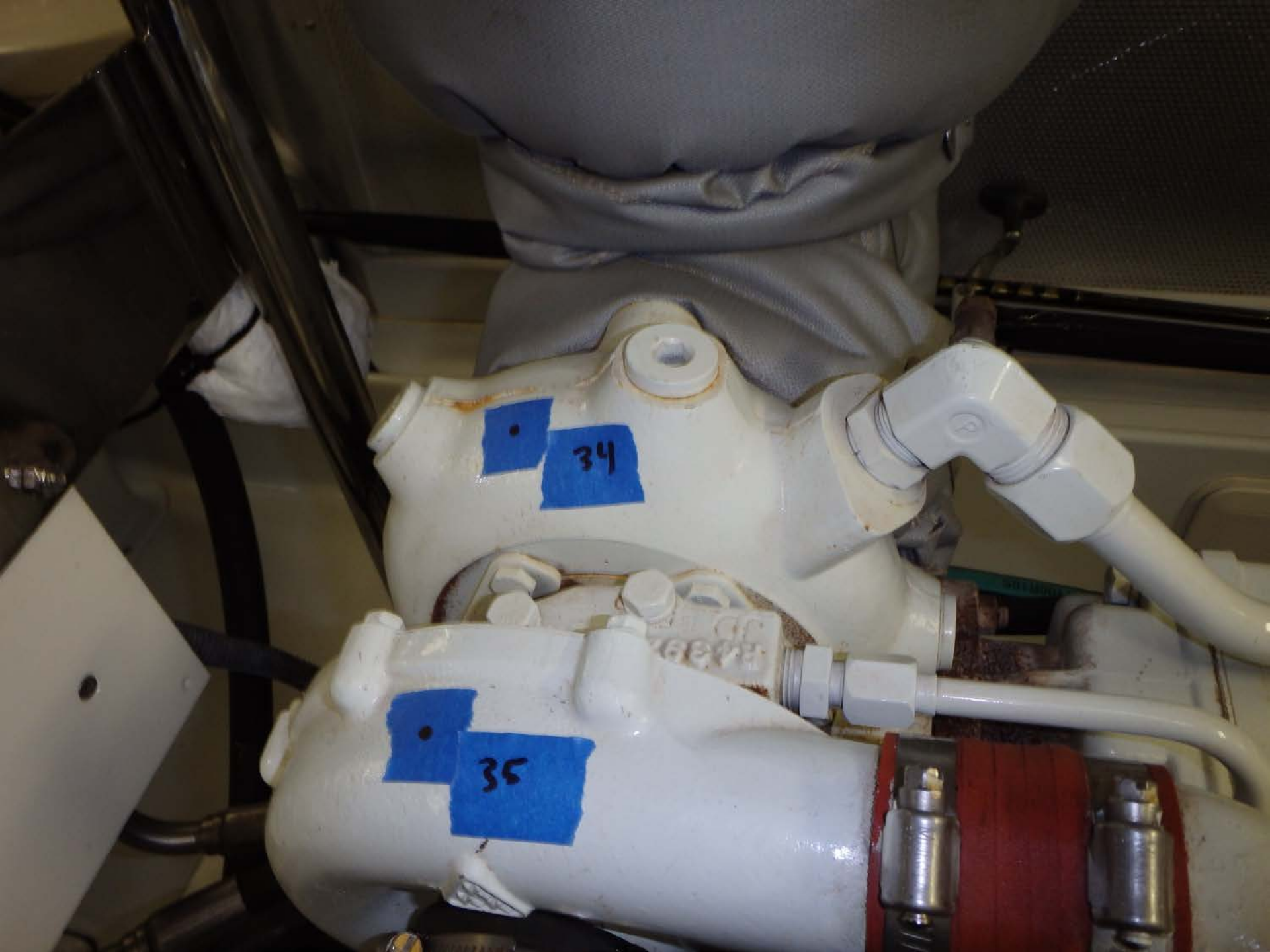
Temperature Watch items

“Merrillpox” blue tape and Sharpie



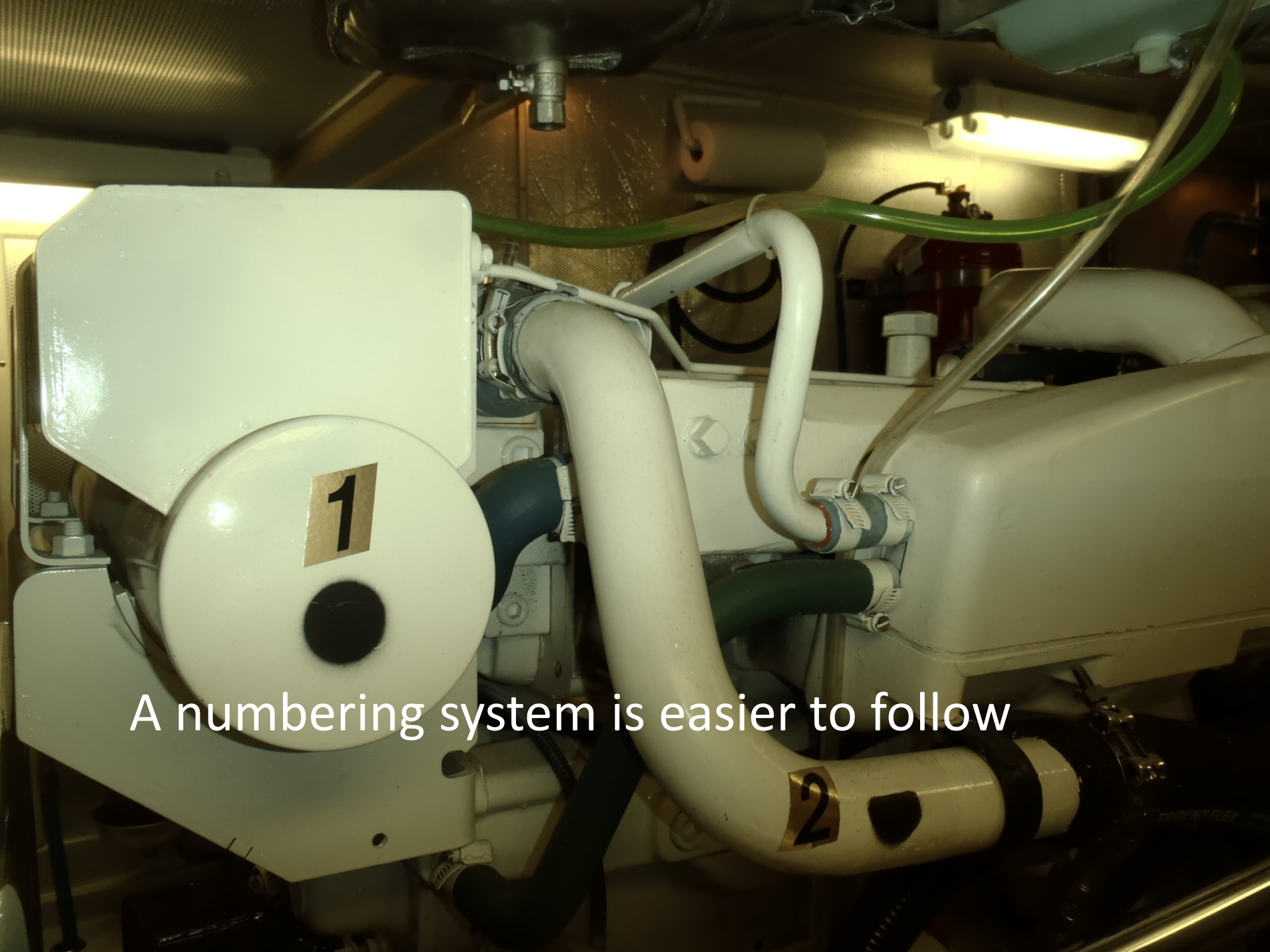
Hold Gun 2 – 6" away





Visual inspection “(*)” Eye

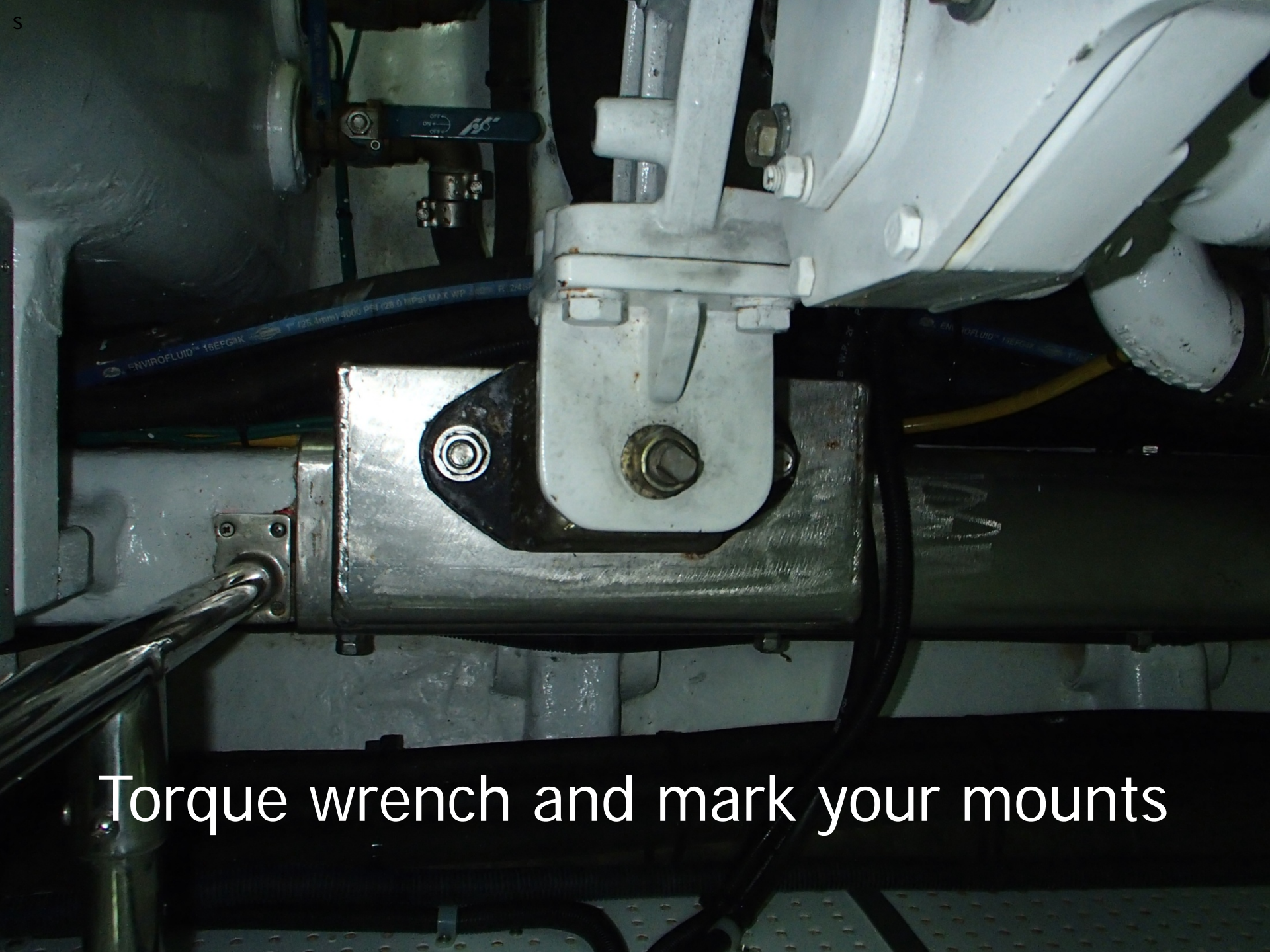




A numbering system is easier to follow

ER: Keep it clean! Make it easy to find small problems early before they escalate

- Look for belt chafe
- Monitor your temperatures – targets
- Drips, leaks, changes?
- Engine mounts torqued and marked?
- Fuel sight glasses – open to check.



Torque wrench and mark your mounts



engine
13
mounts



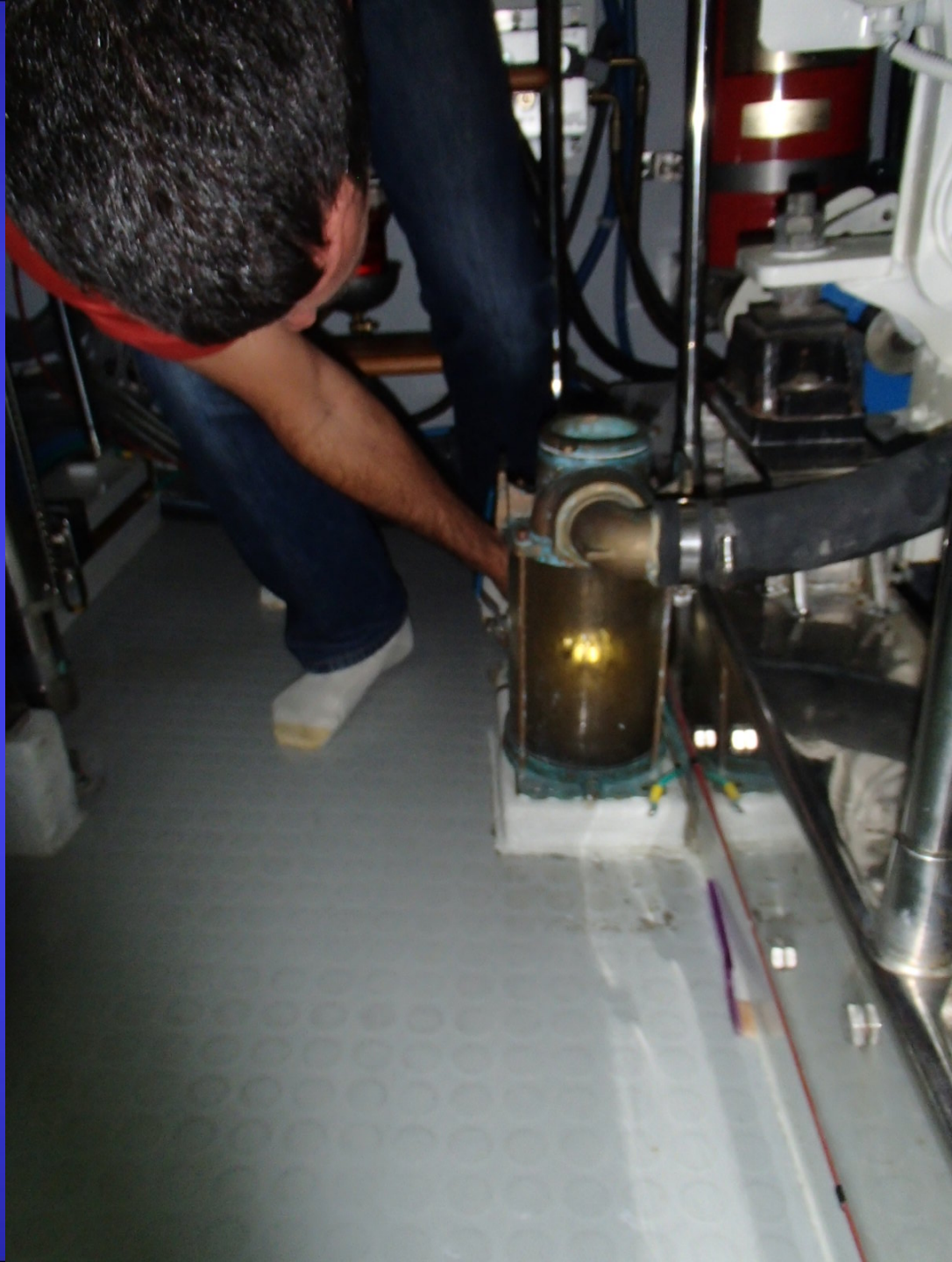
Bilge
16
Level

SNUGGED DOWN
ALL ENGINE MOUNT.

13 SEPT 13

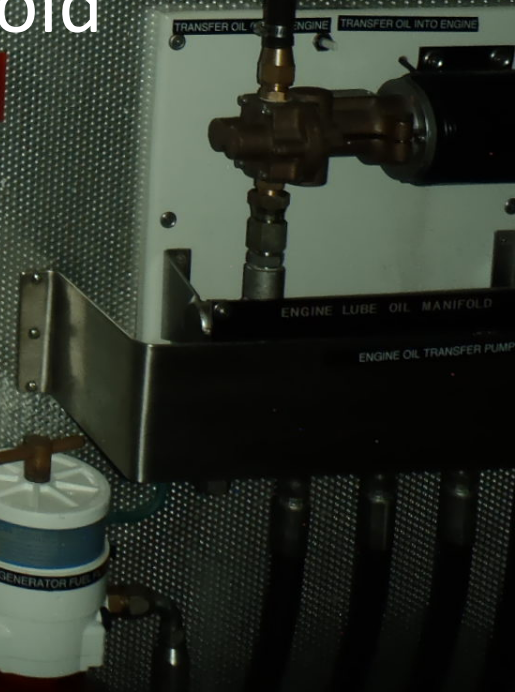
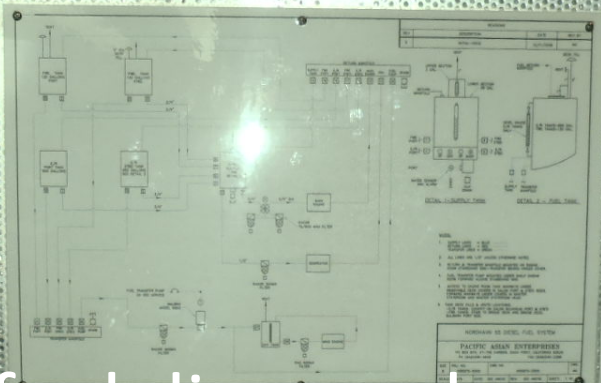
3/4" WRENCH.

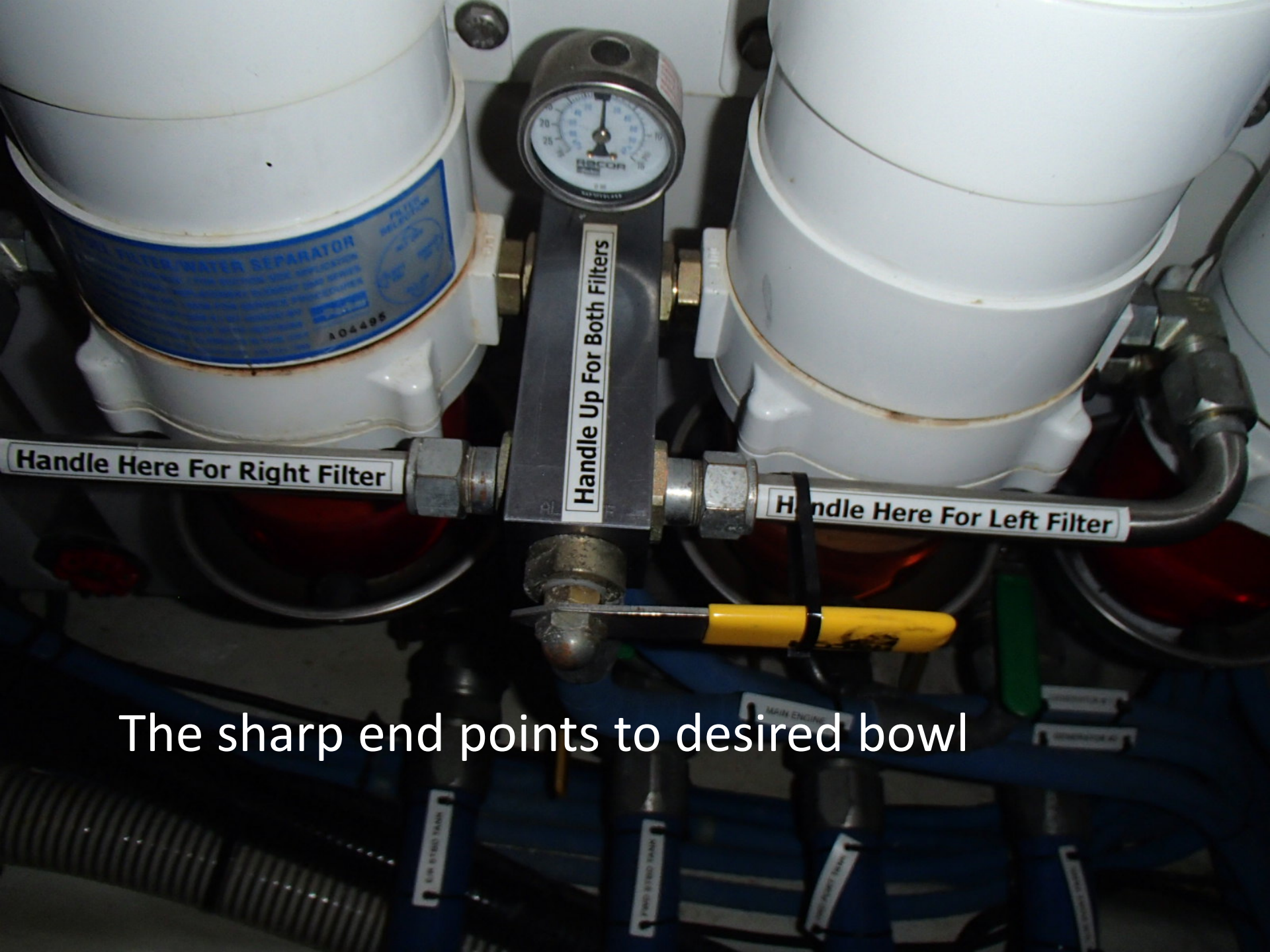
Check Strainers



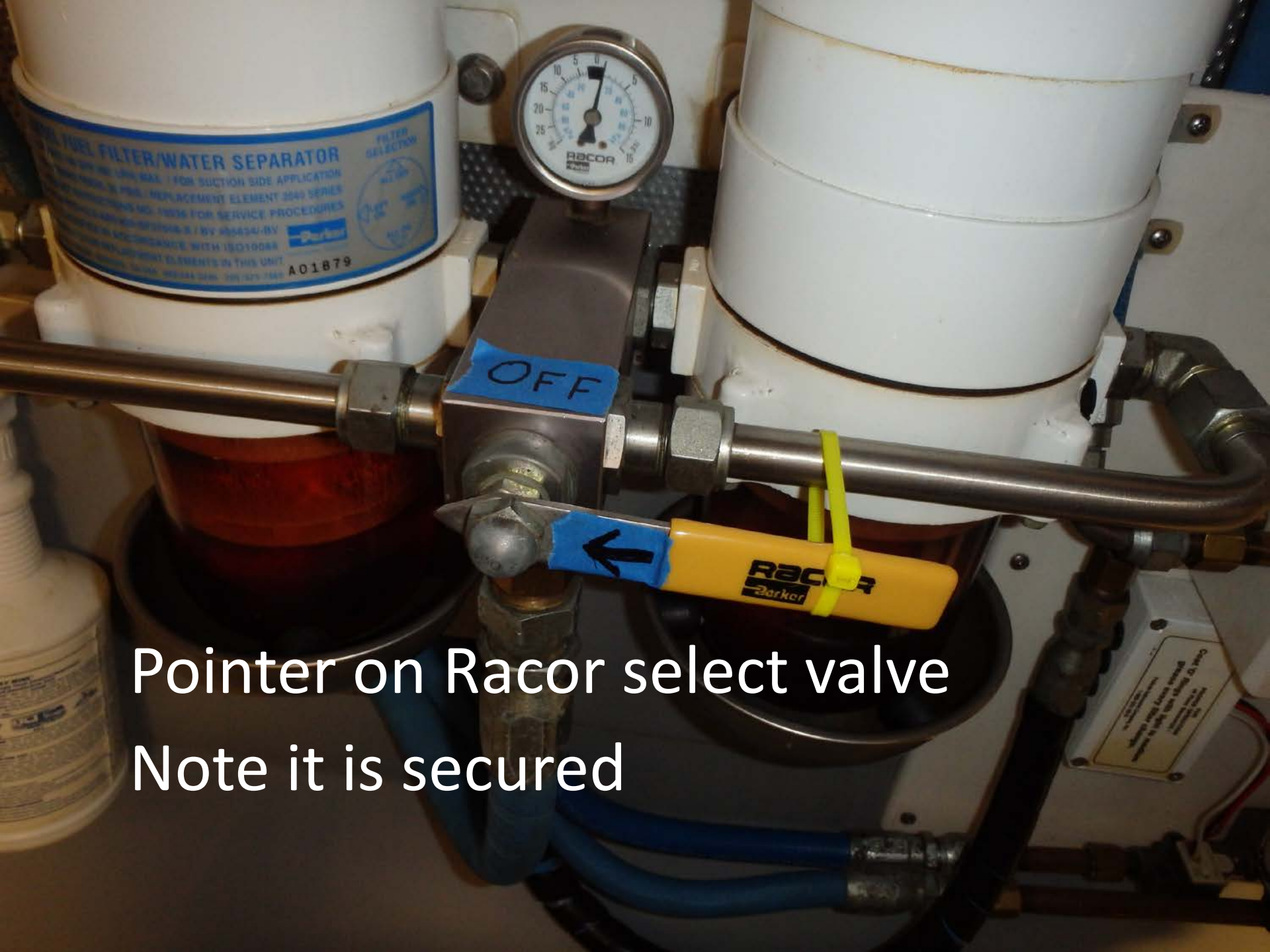
STBD

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

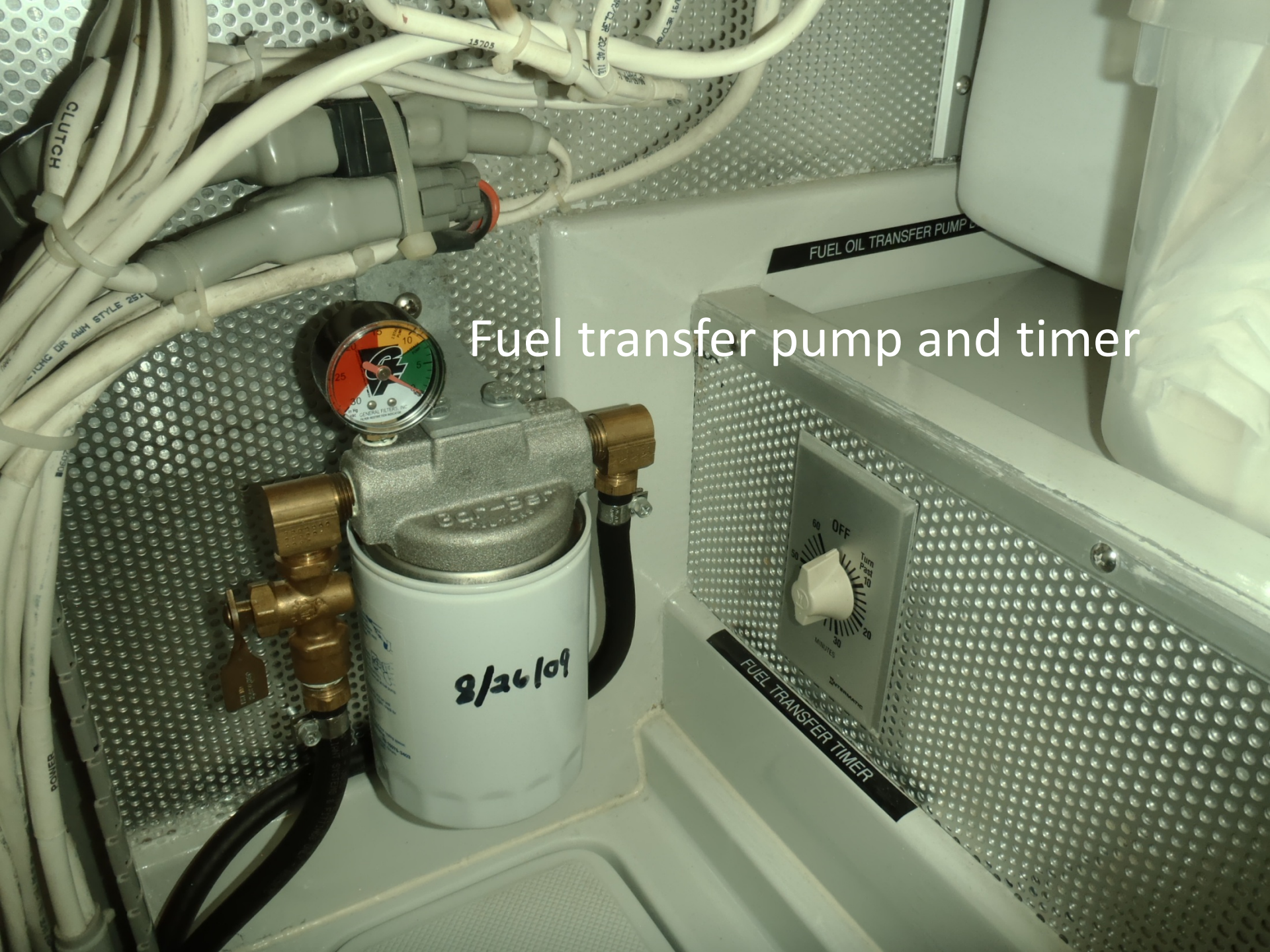


Change annually or at hour interval



Replacements sized and hours noted





Fuel transfer pump and timer

Racor pet cock drains



Label "To" and "From" on your manifolds



Color code multiple tank valves



Pipe cleaners on connections help identify leaks





Keep Sight Gauge Valves Closed

The image shows a white, rectangular industrial sight gauge. On the left side, there is a red, handwheel-style valve with a circular pattern of holes. The gauge is mounted on a white panel. A red warning label with white text is affixed to the panel, reading 'Keep Sight Gauge Valves Closed'. The background is dark and indistinct.

Nail polish or red Sharpie to mark Zincs





Mark fuel filter for bleeding

22 •

WARNING
ON ANY ENGINE WITH AN
CONTROLLED FUEL SYSTEM

FUEL FILTER
SEPARATOR
51005

NORTHERN


UG

FILTER @ 1700 HRS
14 APRIL 2015

LUGGE
NORTHERN



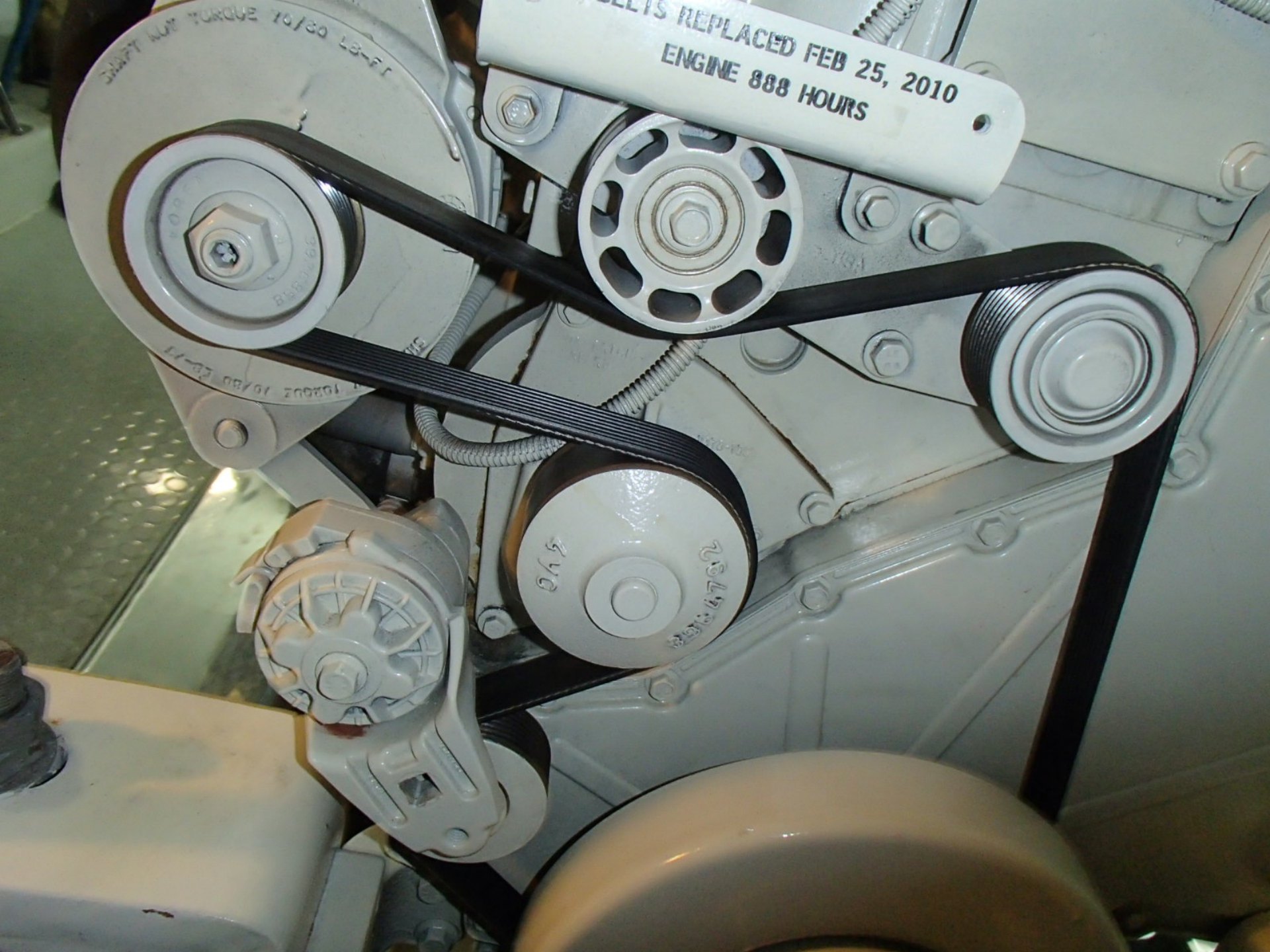
And primer lever

A white cylindrical tank, possibly a nitrogen cylinder, is shown with a leaking valve at its base. The valve is surrounded by a large, dark, circular puddle of liquid, with a smaller, lighter-colored puddle extending along the base of the tank. The tank is resting on a white diamond plate floor. In the background, a black hose is connected to the tank, and a white label with black text is visible. The label includes instructions for use and safety warnings. The text on the label is: "USE DRY NITROGEN (N2) ONLY! (50 PSI) 1. BEFORE INSTALLING, CHECK FOR LEAKS. 2. INSTEAD OF OIL CHANGING, OIL FILLS. 3. CALL FOR SERVICE WITH EXHAUSTOR." The text is arranged in a circular pattern around the valve. The overall scene suggests a maintenance or safety issue with the tank.

Potential trouble, will yours drain?

Install a drain valve






BELTS REPLACED FEB 25, 2010
ENGINE 888 HOURS

SHAFT NUT TORQUE 10/30 LB-FT

10/30 LB-FT

849

254792

A white mesh storage hammock is mounted on a white wall using two circular metal brackets. The hammock is filled with various items, including a light-colored cloth, a green and white patterned cloth, and a red cloth. A small white label with text is attached to the mesh. To the left, a black rectangular sign is partially visible. Below the hammock, a white cylindrical object with a brown handle is visible. The background wall is white and has some rivets. The overall scene is dimly lit.

Storage hammock

Hydraulic Oil – note level

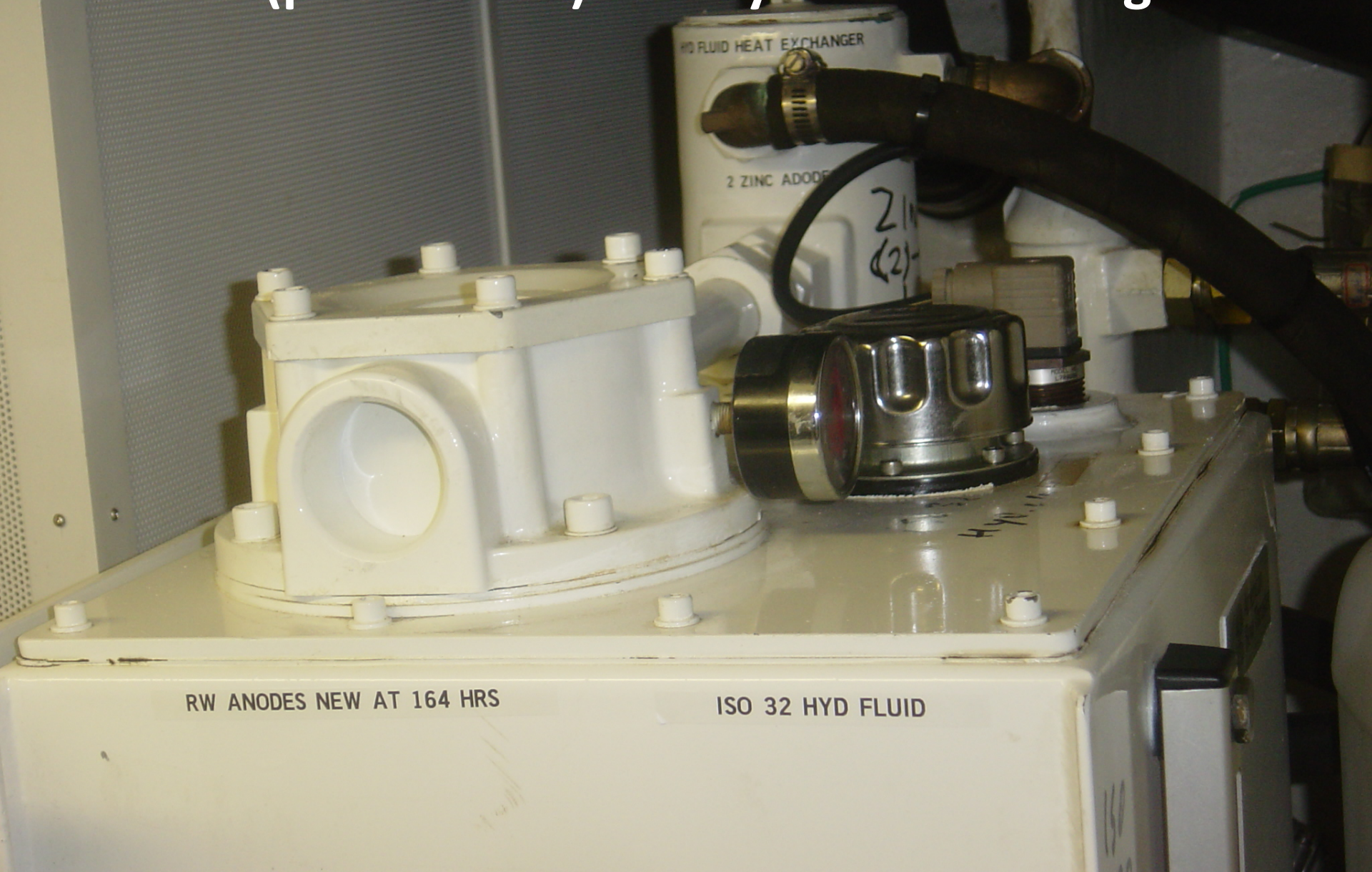


FULL



← LEVEL

Anodes (pencil zincs) and hydraulic oil weight





Coolant over flow catcher

A clear plastic bottle with a red cap and a blue base, used for coolant overflow recovery, sitting on a metal surface next to a machine. The bottle has volume markings (400, 500, 600, 700) and is partially filled with a clear liquid. A metal tube is inserted into the red cap. The bottle is positioned on a metal surface, likely a workbench or machine base, next to a white machine component. The background shows various mechanical parts and a blue handle.

Coolant overflow recovery



DELO 400 15W-40

4 GALLONS

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



IMPELLER
10/5/11 2494

RAW WATER PUMP
10/5/11 2494

Generator Oil 15W-40 8.2Q 7.9L

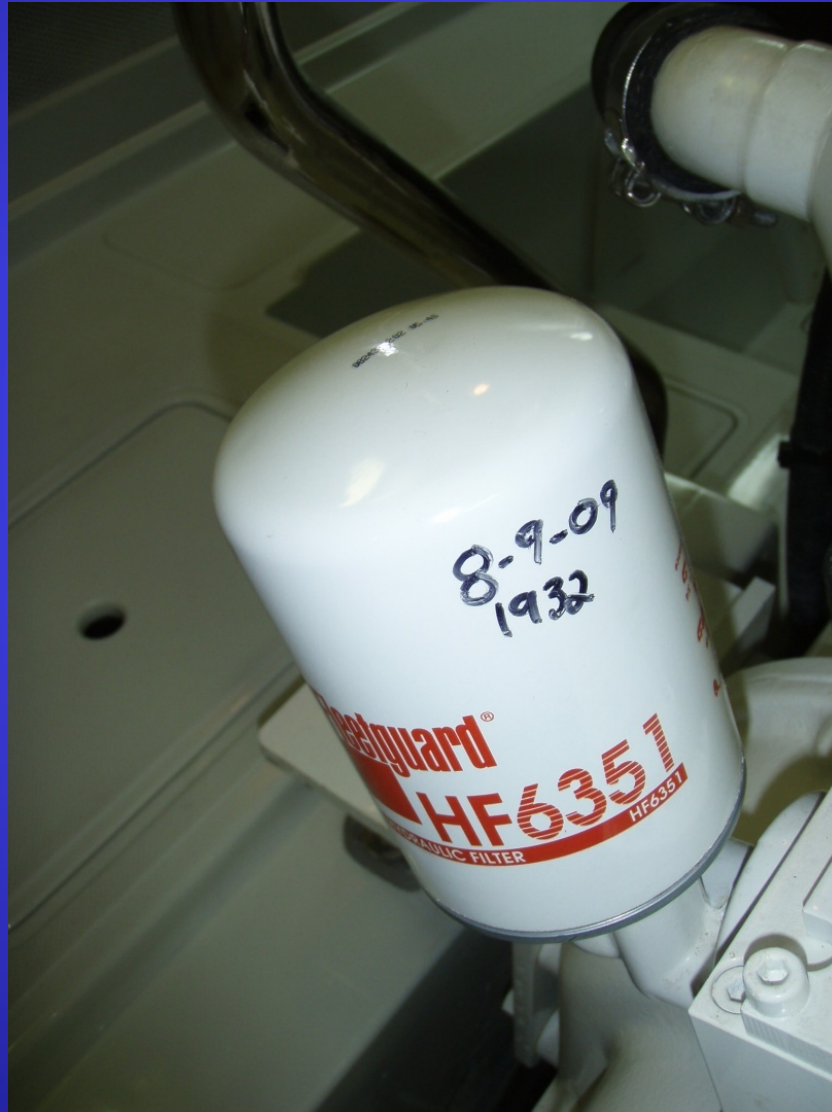
Allen Wrench In Tool Bag

30W



↑
Fill

Label filters for next change






Righty Tightly, Lefty Loosey

Impeller – temp and rotation





The image shows three fuse blocks mounted on a white panel. Each block is labeled with its function and fuse rating. The left block is for the Bilge Pump (50A), the middle for the Stbd. Eng. Isolator (60A), and the right for the Port Eng. Isolator (60A). A yellow pipe runs horizontally across the top, and black corrugated hoses are connected to the bottom of each fuse block. A red text box at the bottom reads 'Identify fuses, carry spares'.

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

Secure spare fuse near active one



Stuffing box temp, drips?



Stuffing box wrench caddy





Cleaning
spray
bottles
ready



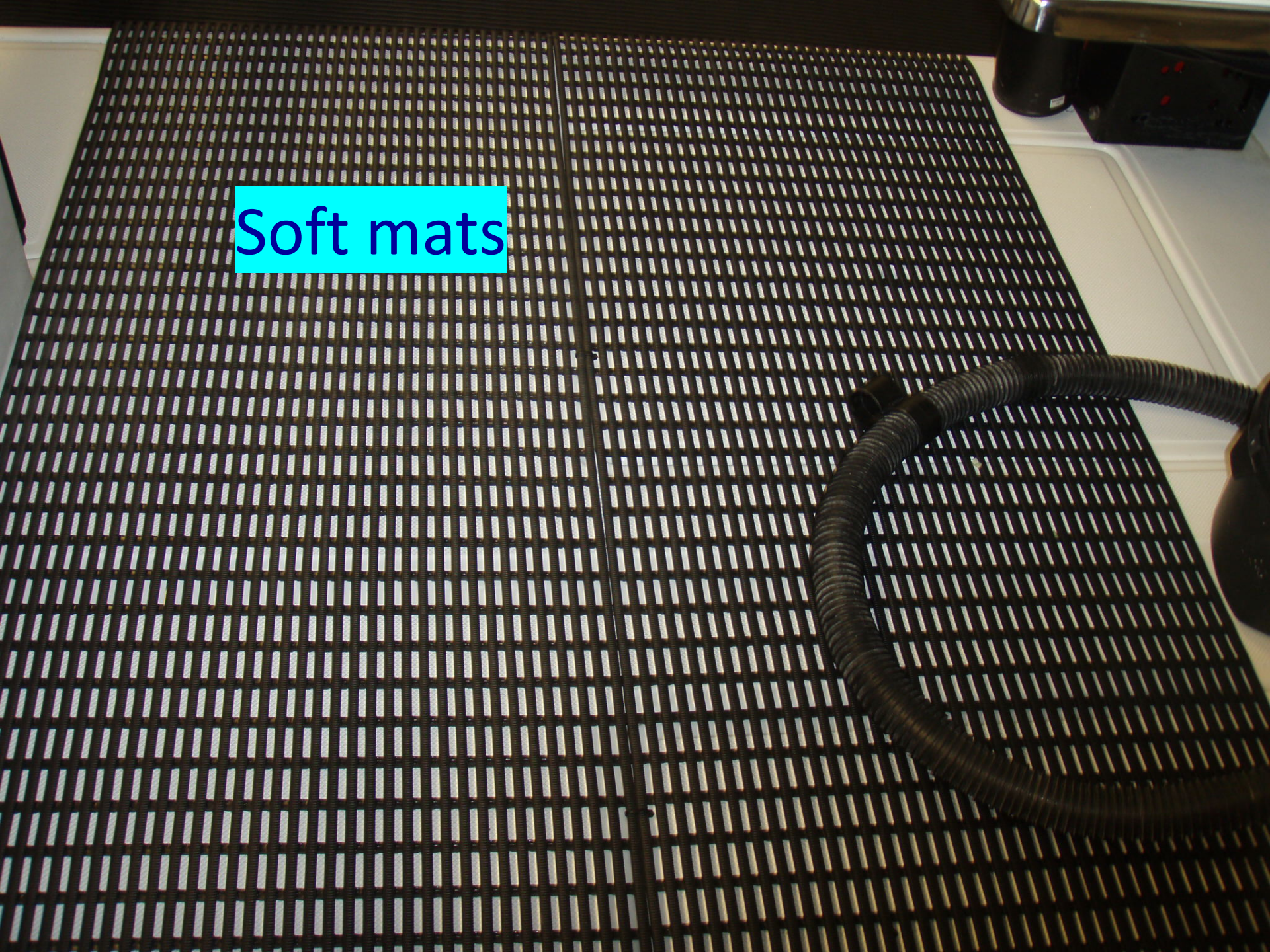


Fresh water tap and bucket

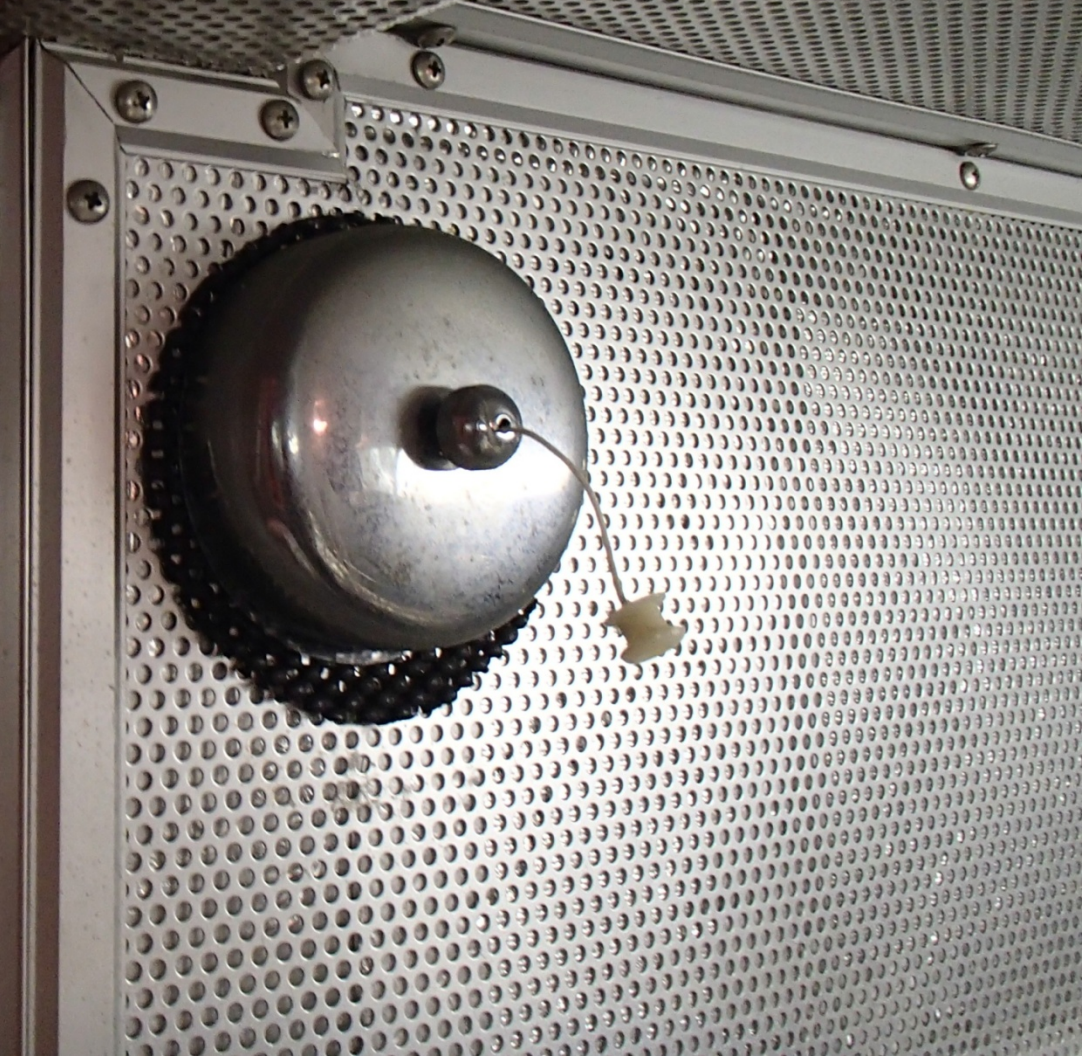


Cleaning product shelf

Soft mats



Engine room temp and clothes line





Air circulation fans – move air/air flow

Engine Room Bilge Tips

Plug leaks, absorb oil






Suction mesh bag for through hull bungs



Zippered pillow bag for engine diapers

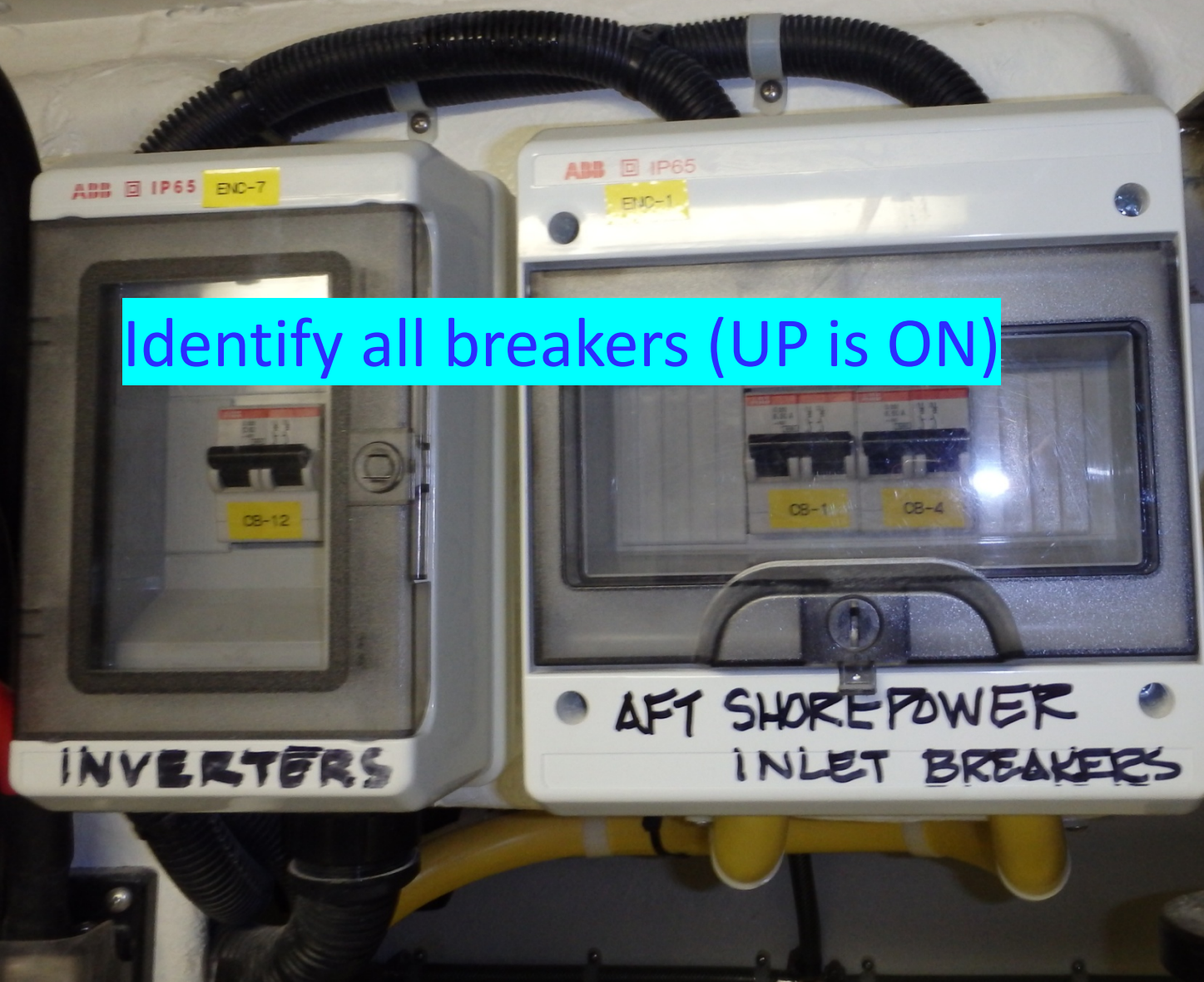


Strive for a clean, dry bilge

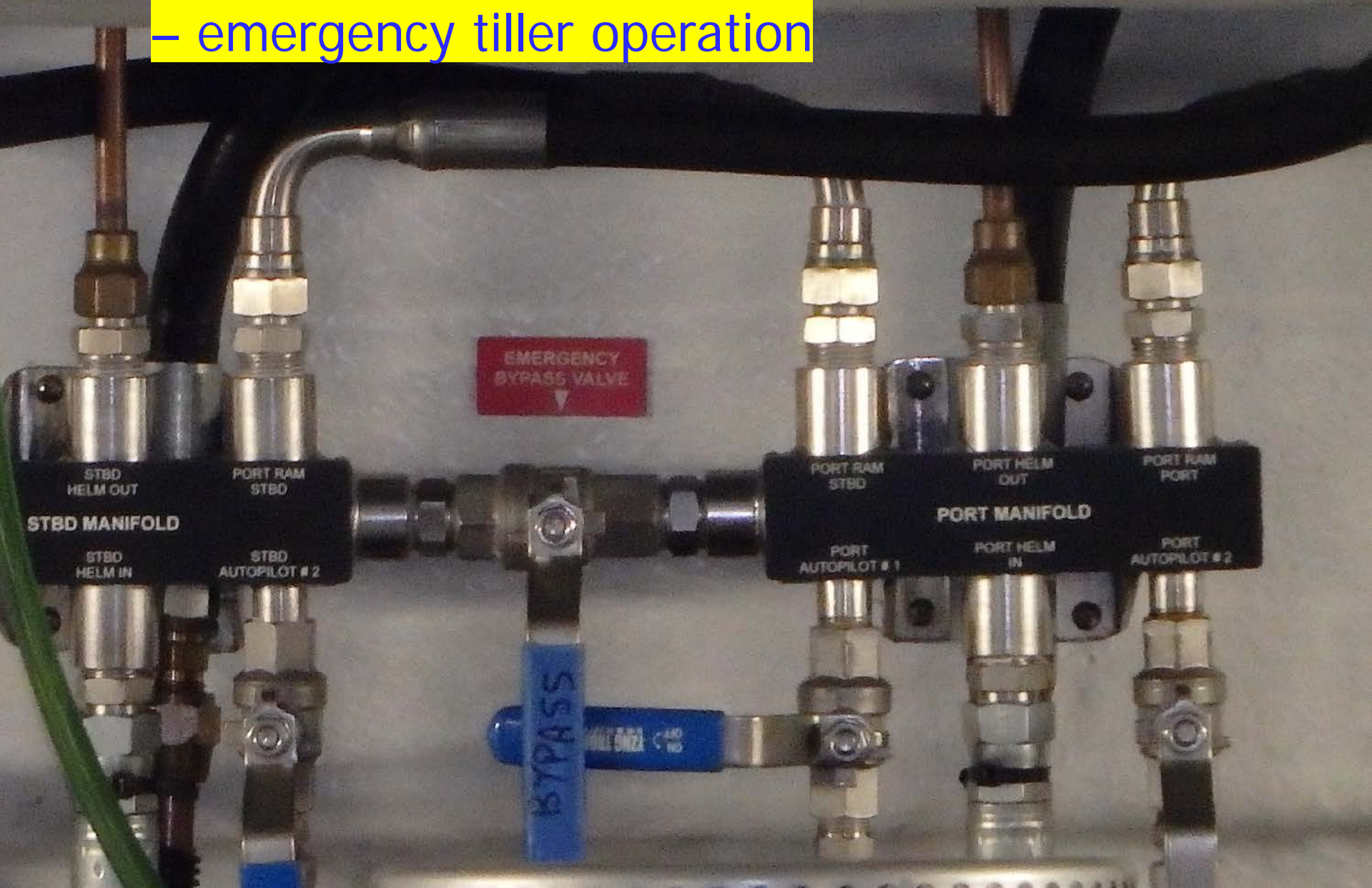
Wet Vacuum



Identify all breakers (UP is ON)



Steering manifold – bypass valve – emergency tiller operation



Night lights



Questions? Other ideas?

SDMC / JMYS Maintenance sheet*

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

A full-page background image of a sunset over the ocean. The sun is a bright, glowing orb on the horizon, casting a shimmering path of light across the dark, choppy water. The sky is filled with large, billowing clouds that are illuminated from below, giving them a warm, orange and yellow glow. The overall scene is serene and majestic.

Thank you!

Please fill out the sign-up sheet

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