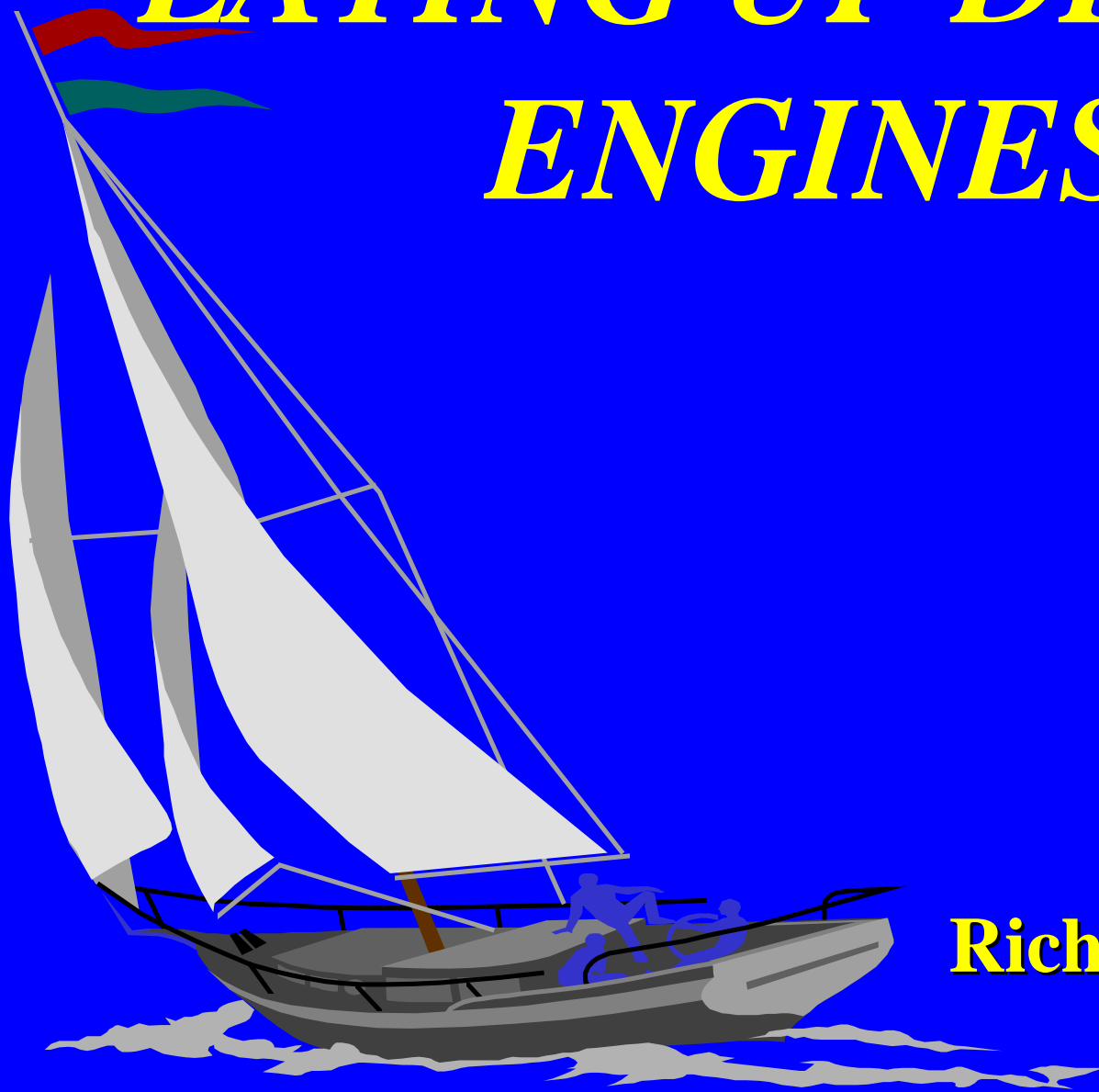


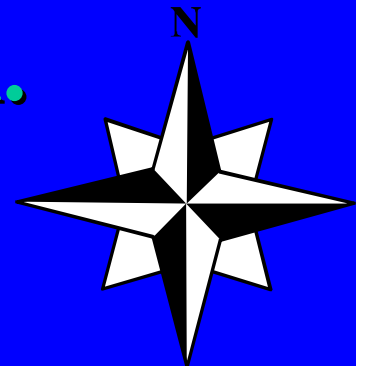
# *LAYING UP DIESEL ENGINES*



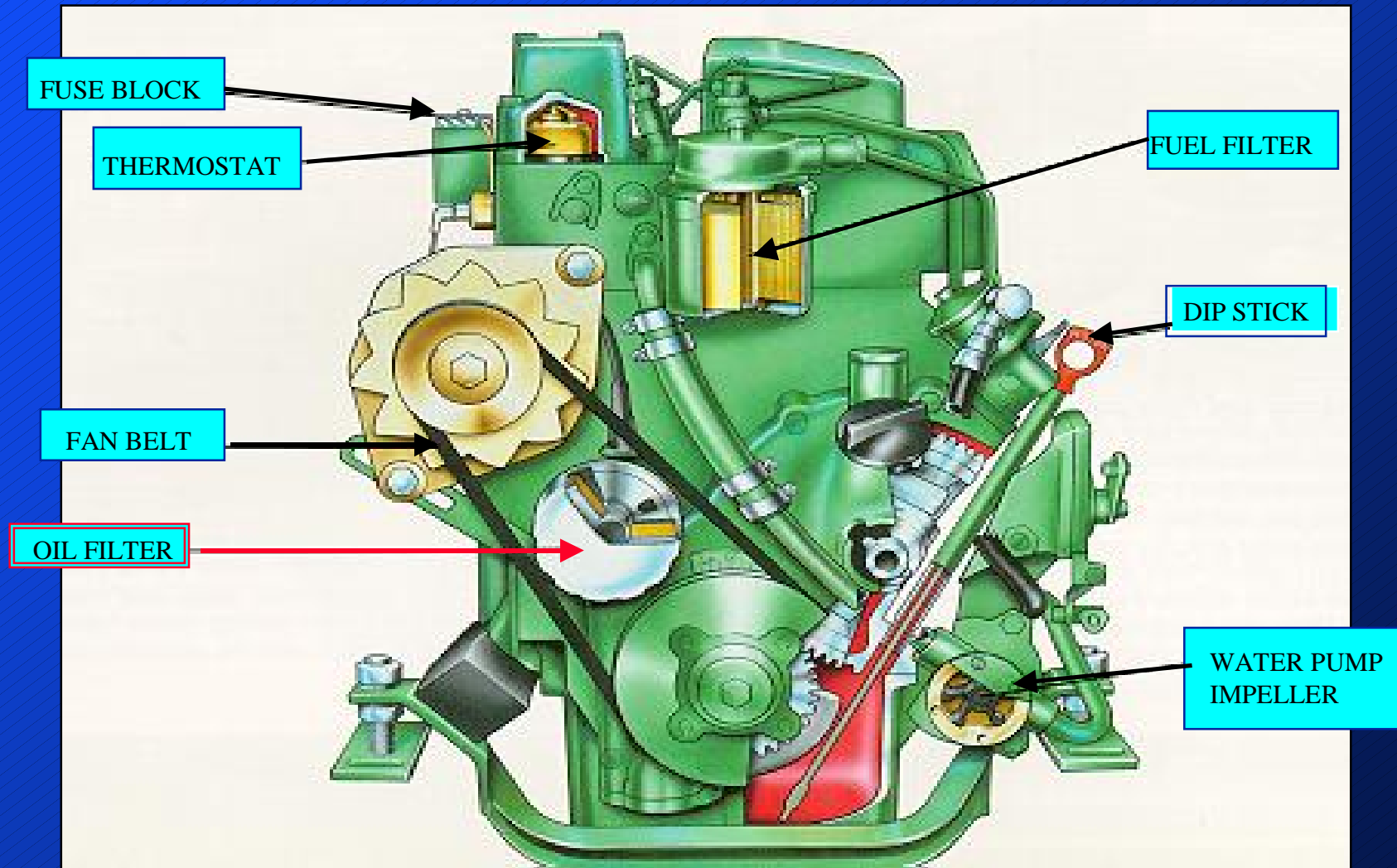
**Richard Magnay**

# AIM of PRESENTATION

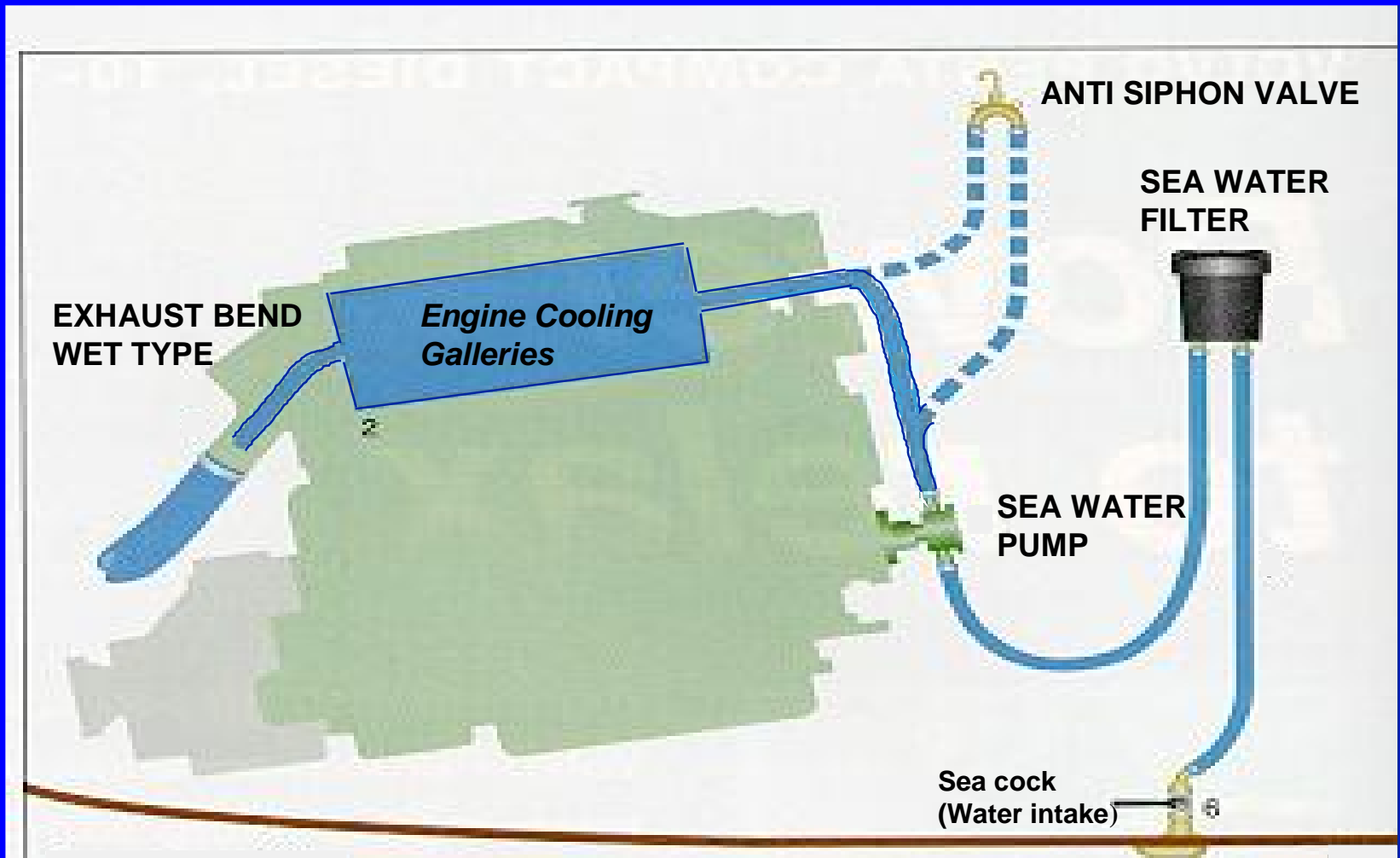
- **To enable you to Lay up and inhibit your Diesel Engine.**
- **Increase engine reliability.**
- **Save time and money next season.**



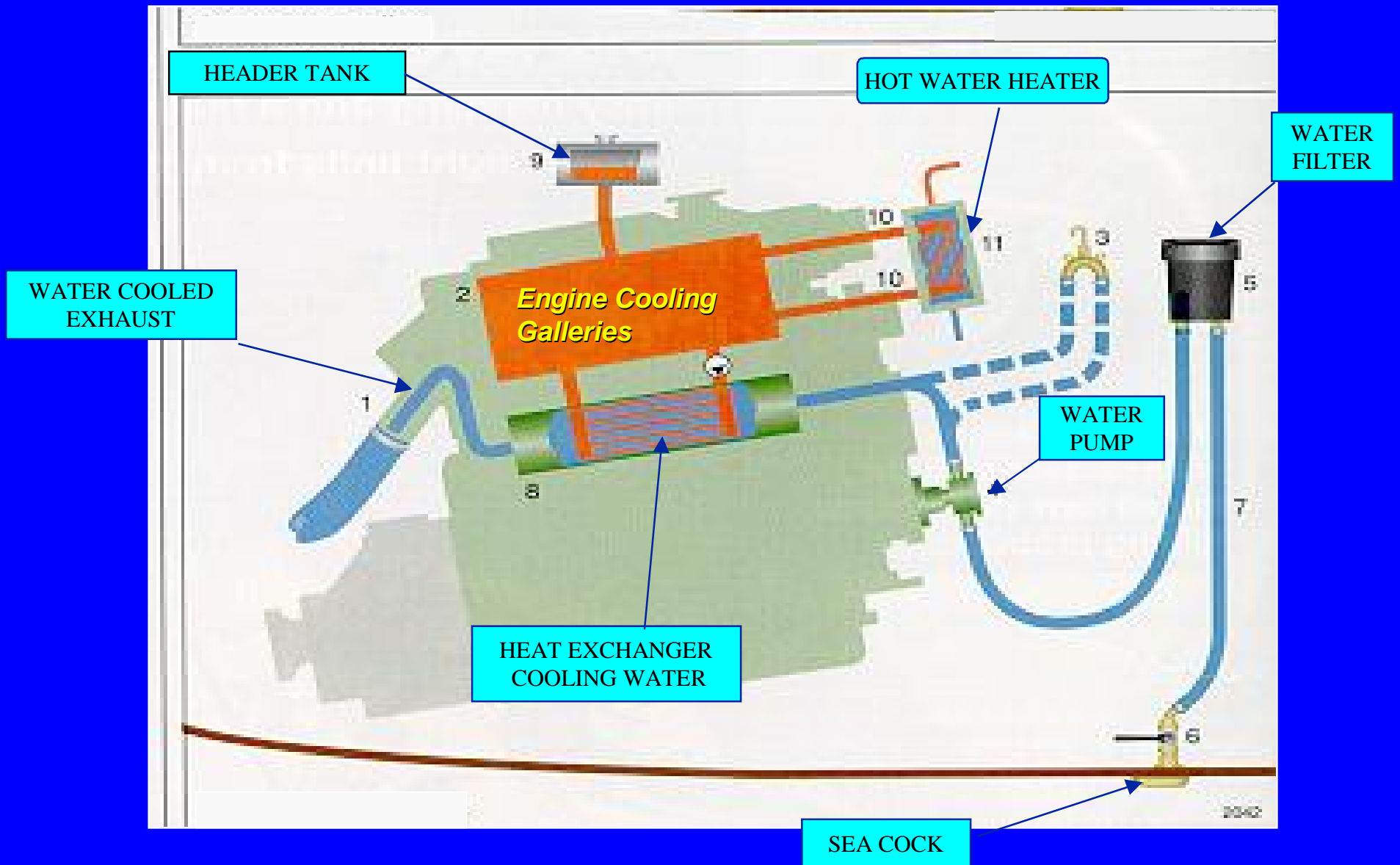
# Auxiliary Engine Layout



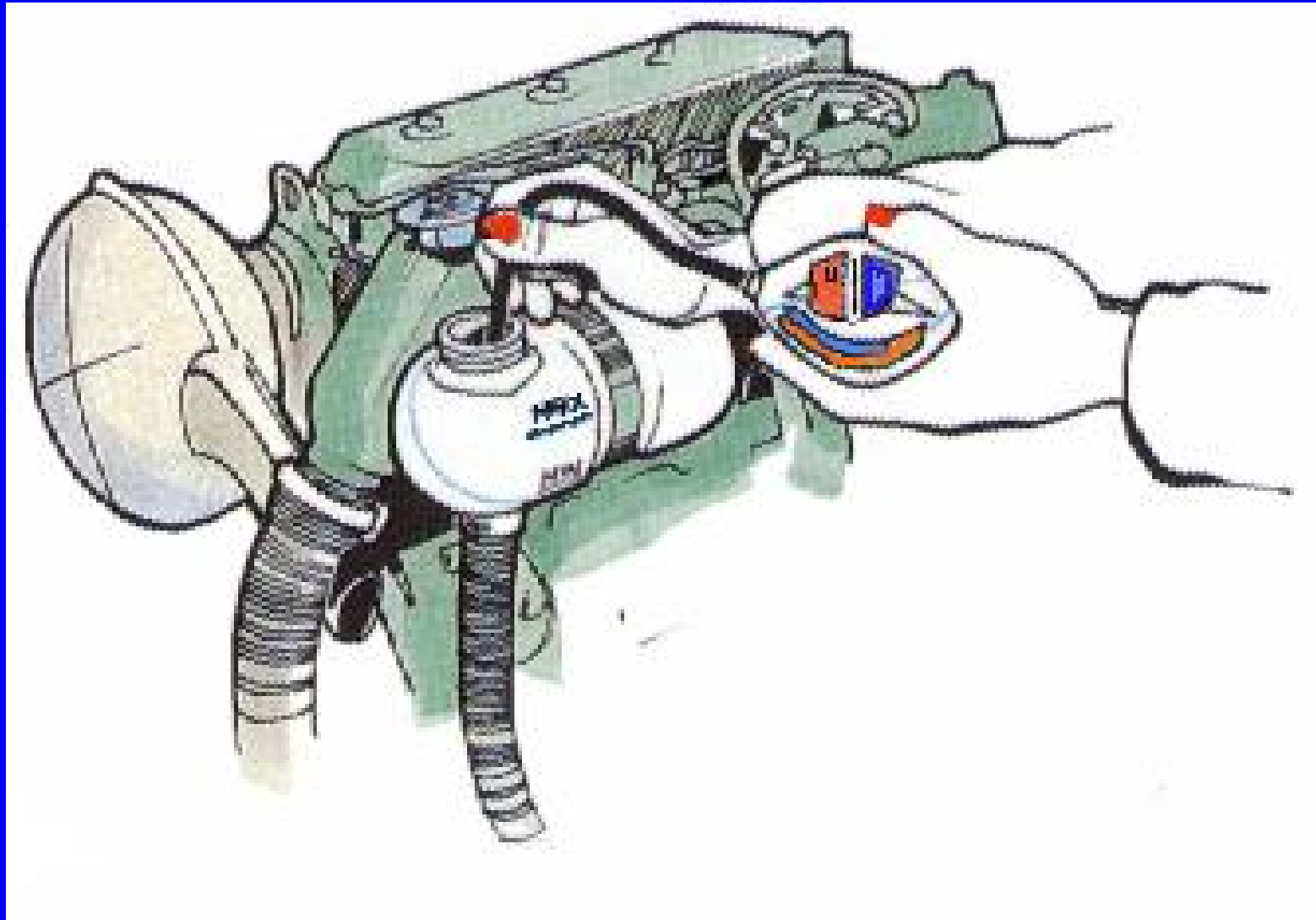
# SALT WATER COOLING



# FRESH WATER COOLING



# FRESH WATER COOLED ENGINES



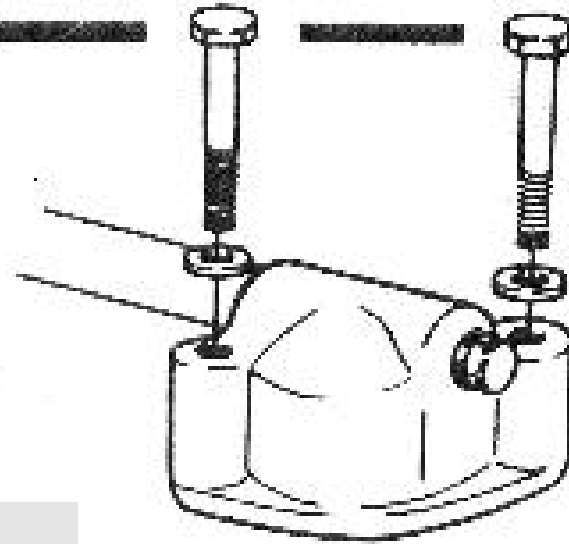
CHECK FREEZING POINT WITH GLYCOL METER

# THERMOSTAT

**SOME DIRECTED COOLED  
ENGINES MAY NEED THE  
THERMOSTAT REMOVING  
BEFORE FLUSHING OUT**



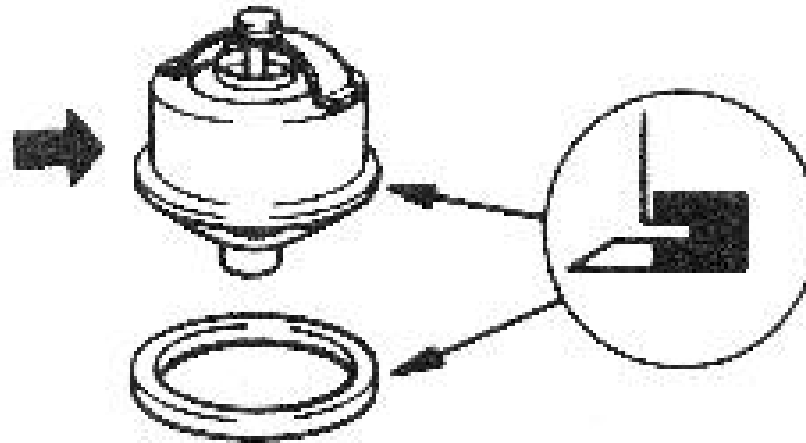
# THERMOSTAT



**SEAWATER COOLED  
60°C - 64°C**

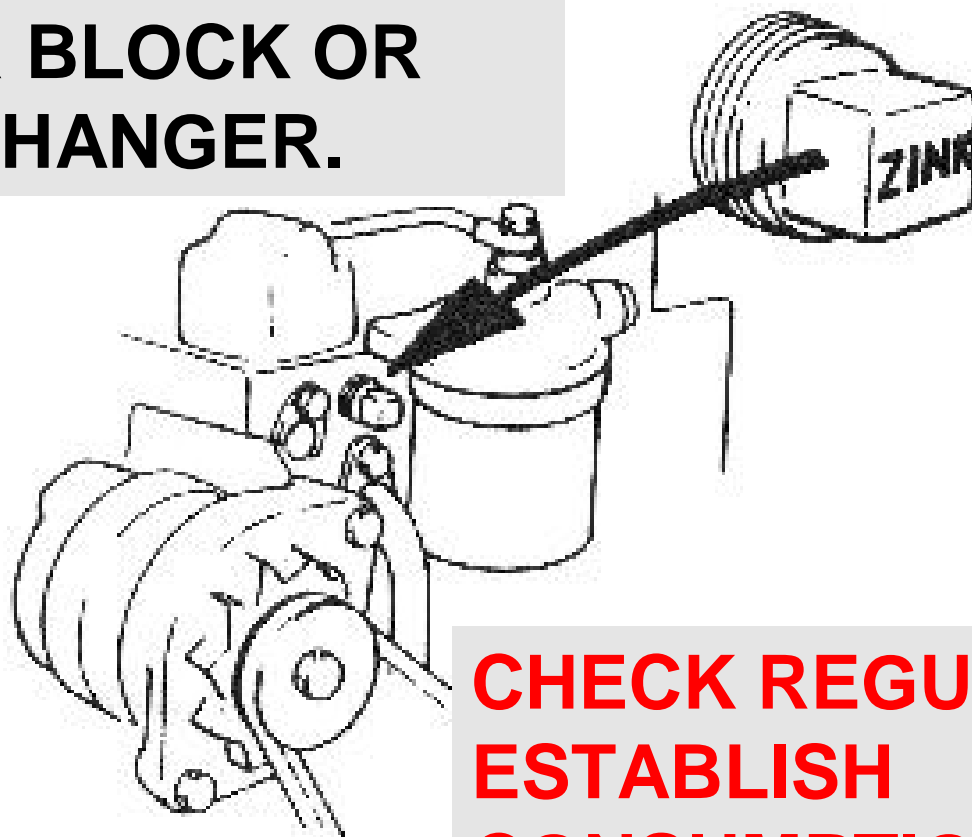
**FRESH WATER 74°C -  
87°C**

**VOLVO  
ENGINES MUST  
HAVE THE  
RUBBER  
GASKET FITTED  
CORRECTLY**



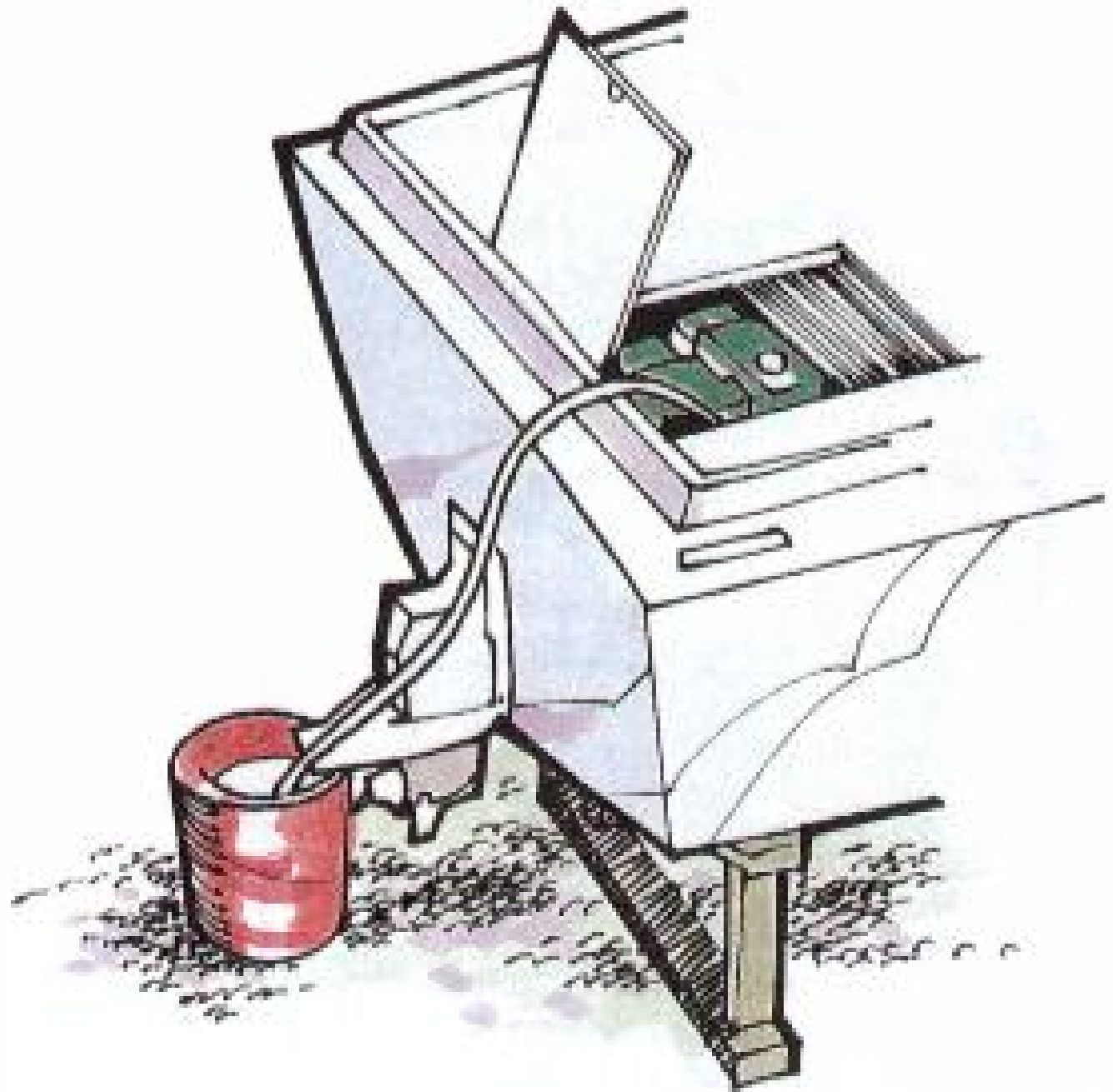
# ZINC ANODE

**RENEW ZINC ANODE IN  
CYLINDER BLOCK OR  
HEAT EXCHANGER.**



**CHECK REGULARLY TO  
ESTABLISH  
CONSUMPTION RATE.**

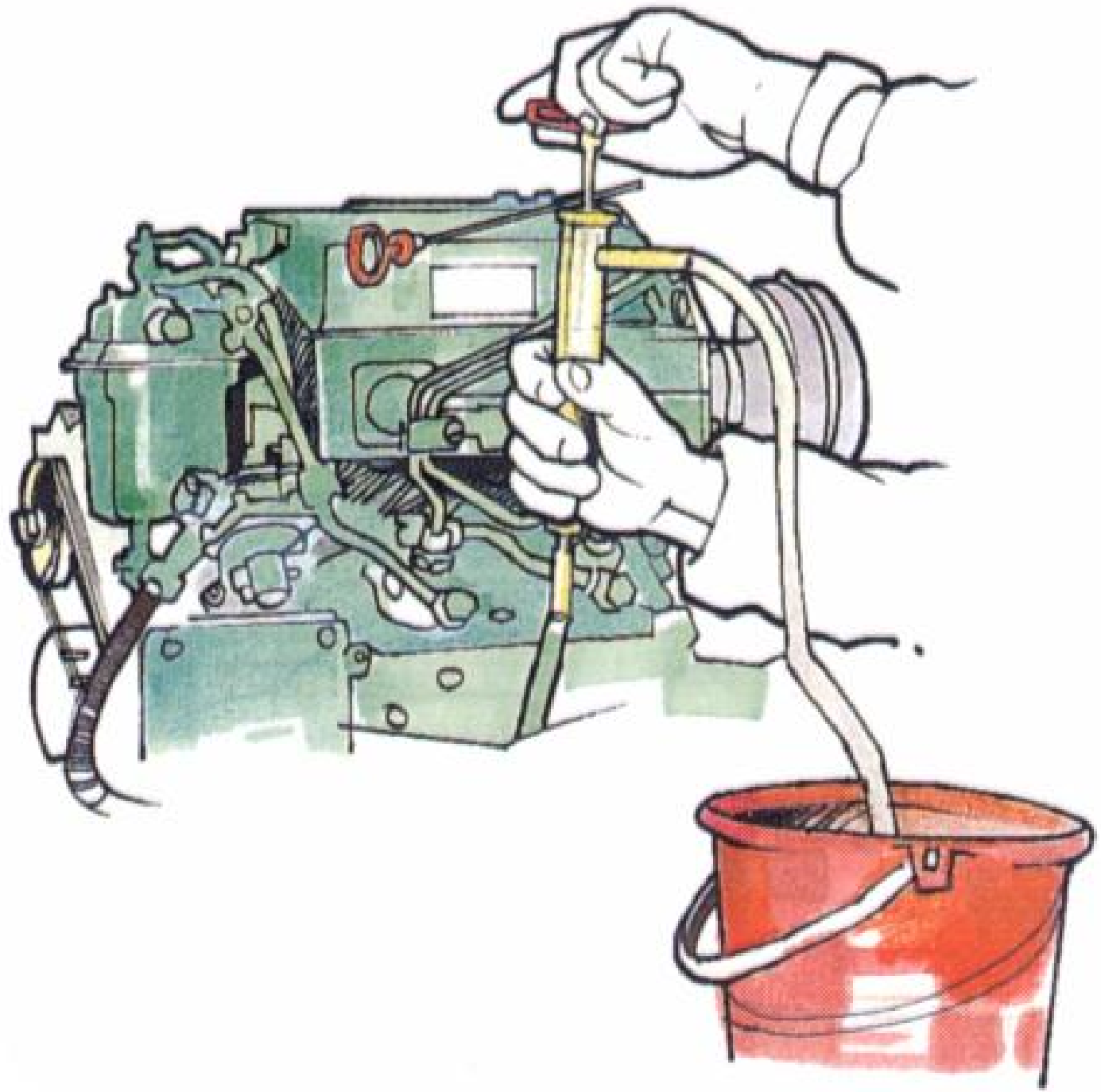
**POWER  
BOATS,  
MAY BE  
TREATED  
IN A  
SIMILAR  
WAY.**



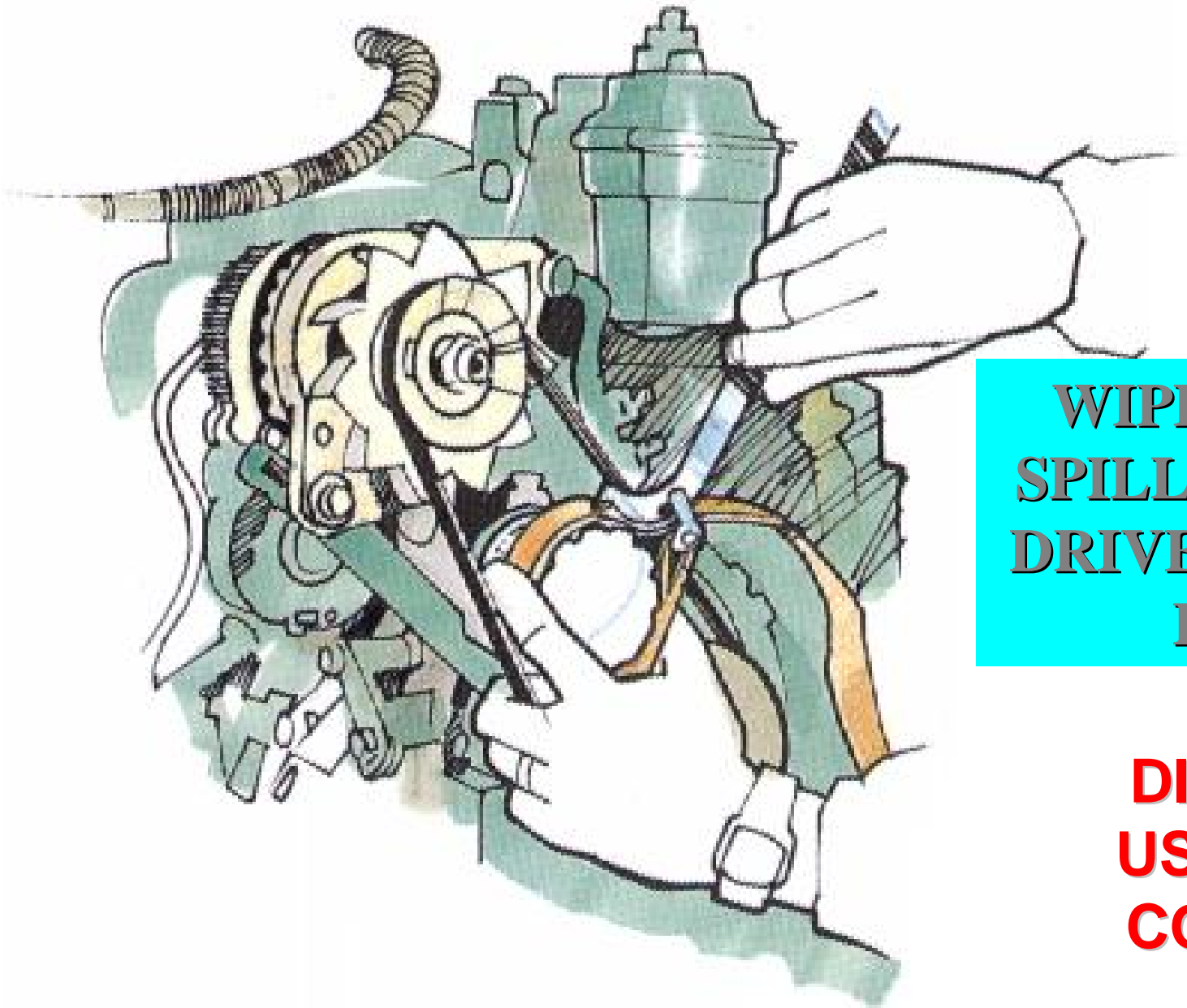
**PUMP OUT  
THE DIRTY  
OIL WHEN IT  
IS HOT.**

**REMEMBER  
TO USE  
SOME THICK  
GLOVES as  
IT WILL BE  
VERY HOT.**

**This chap  
will end up  
with burnt  
hands.**



# REMOVE OIL FILTER WITH STRAP OR CHAIN WRENCH



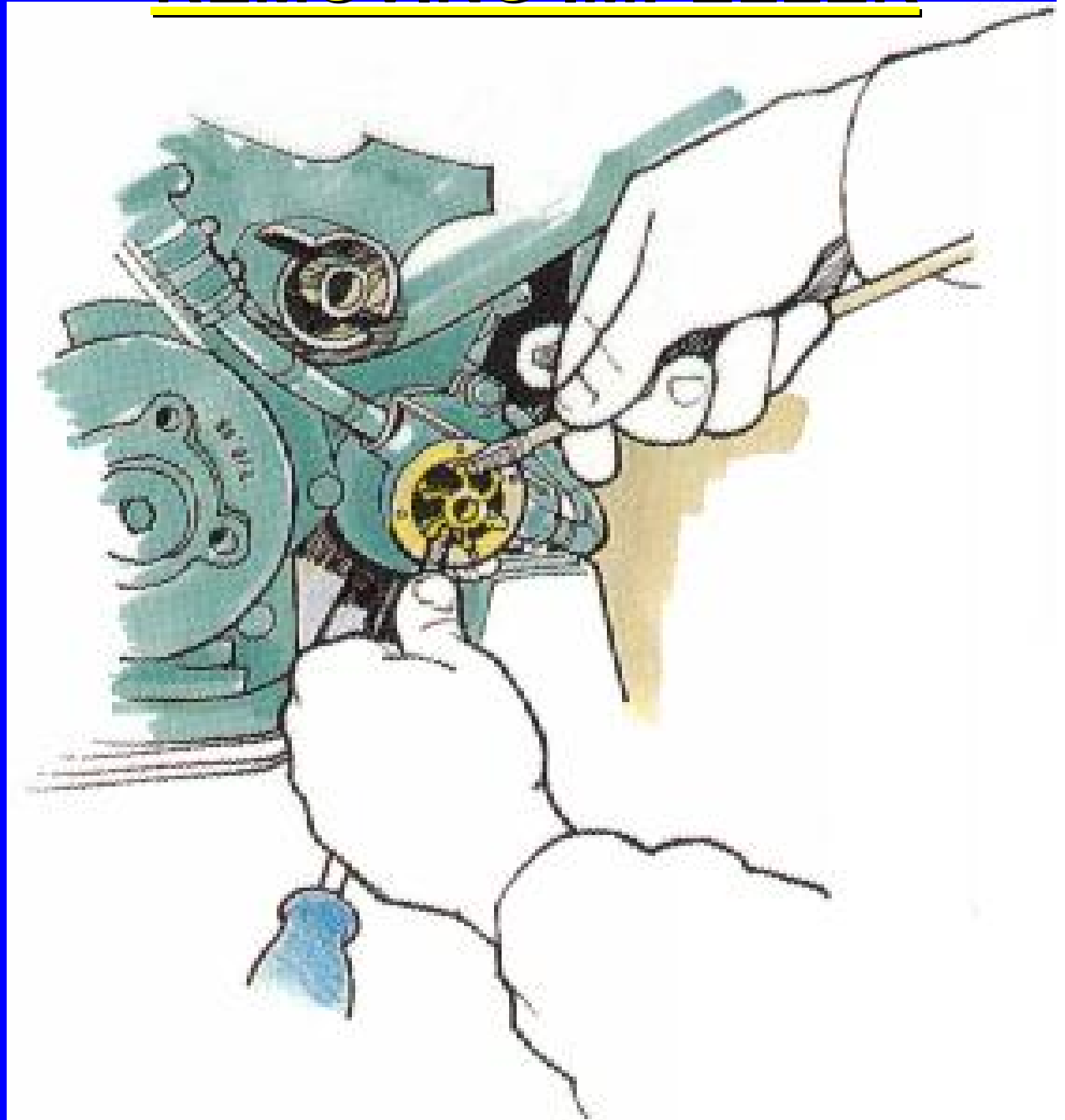
**WIPE ANY OIL  
SPILLAGE FROM  
DRIVE BELT AND  
BILGE**

**DISPOSE OF  
USED FILTER  
CORRECTLY**

## REMOVING IMPELLER

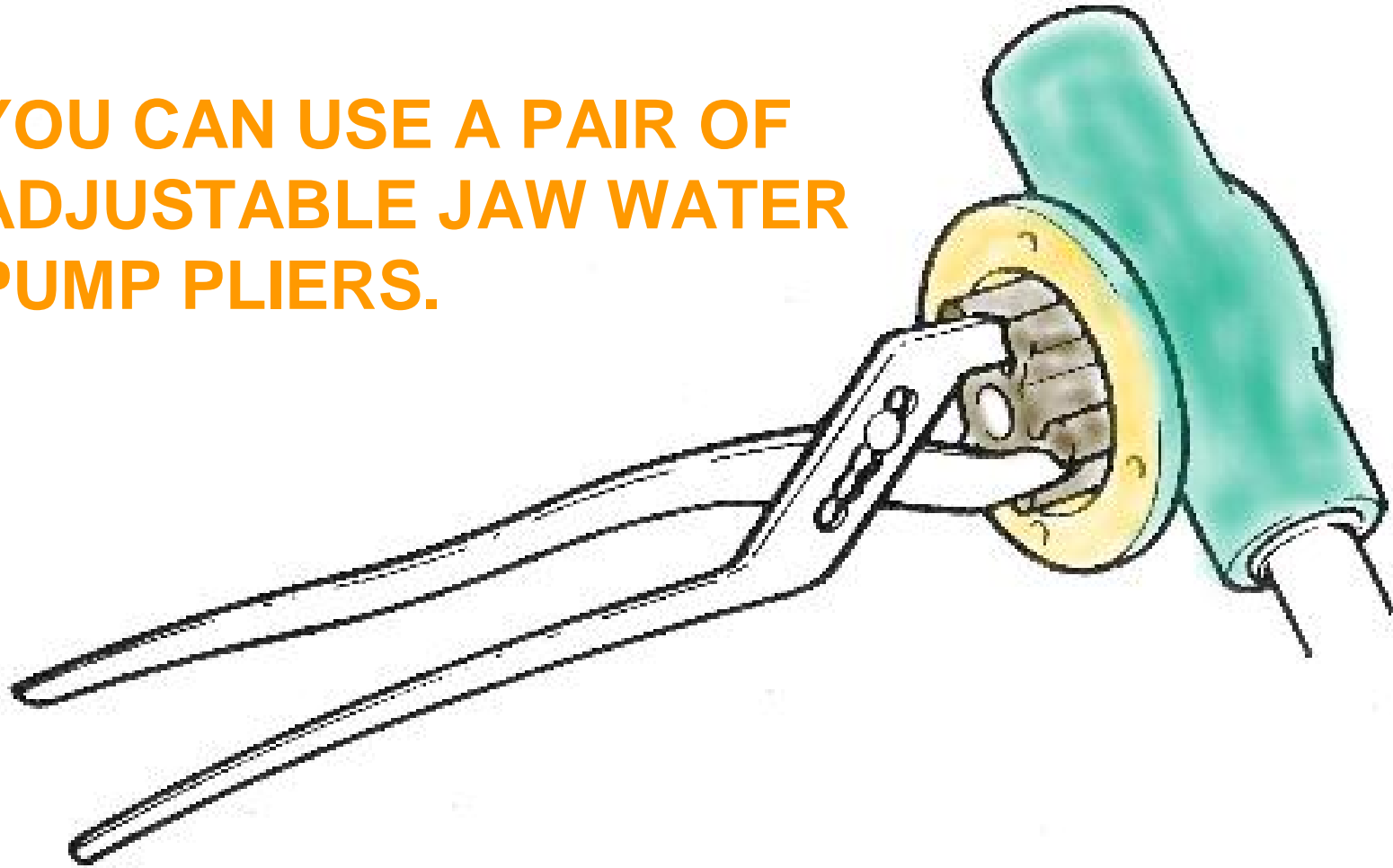
**WRAP  
INSULATING  
TAPE AROUND  
THE BLADE OF  
YOUR  
SCREWDRIVERS  
AND GENTLY  
LEVER THE  
IMPELLER OUT.**

**AVOID  
DAMAGING THE  
PUMP HOUSING  
OR THE  
IMPELLER.**



# REMOVING IMPELLER

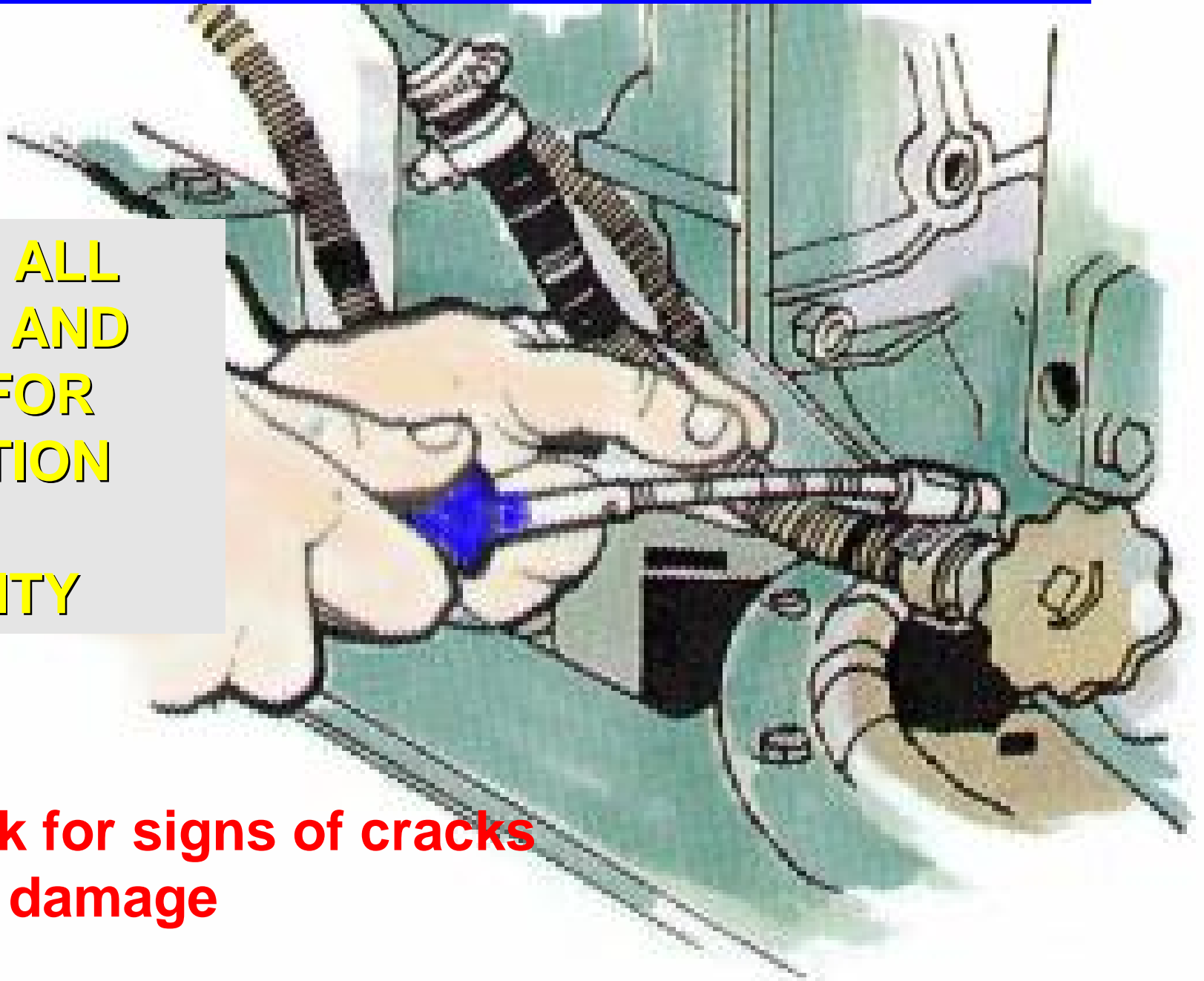
YOU CAN USE A PAIR OF  
ADJUSTABLE JAW WATER  
PUMP PLIERS.



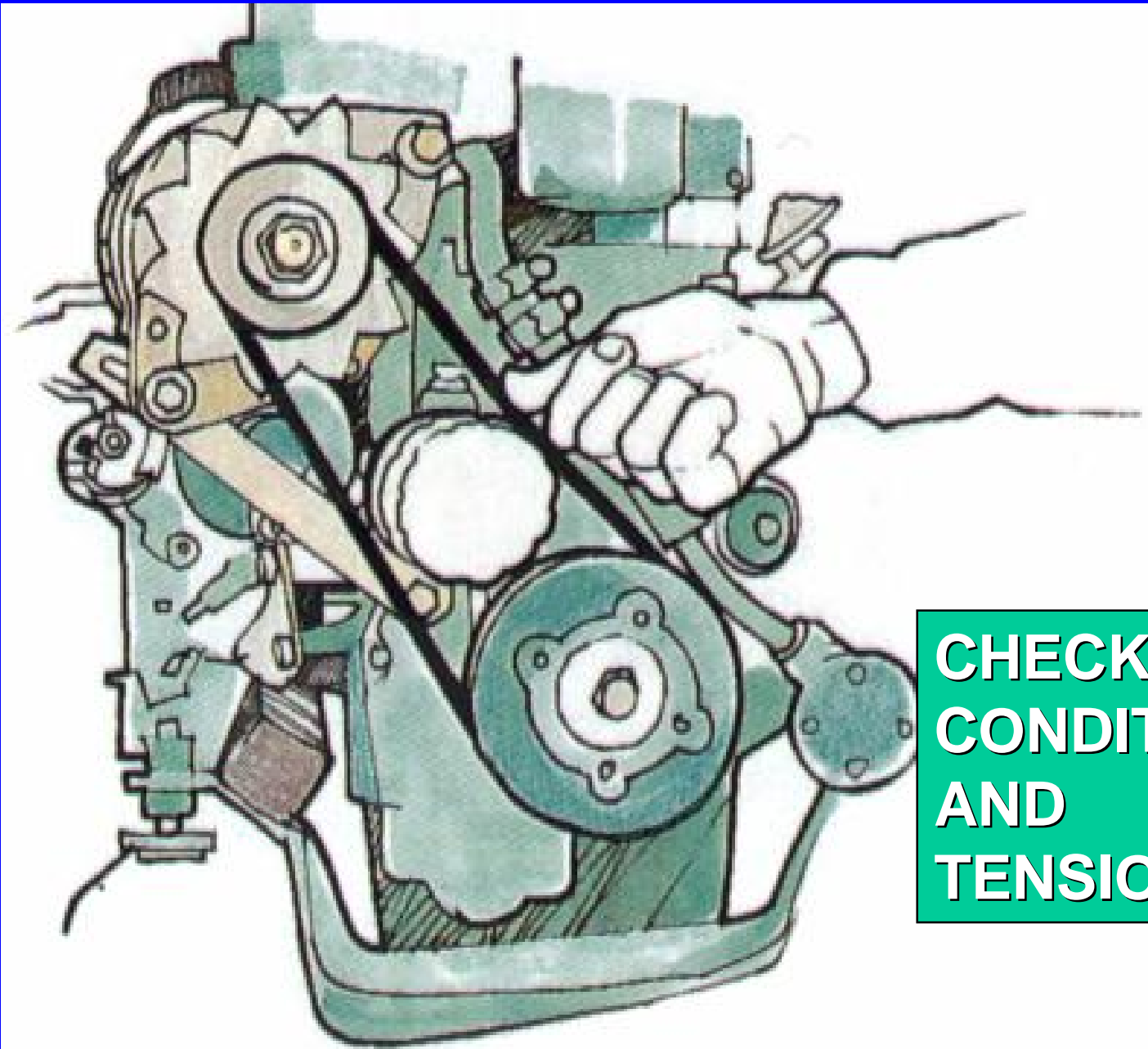
# COOLING WATER & EXHAUST HOSES

**CHECK ALL  
HOSES AND  
CLIPS FOR  
CONDITION  
AND  
SECURITY**

**Look for signs of cracks  
and damage**



# **GENERATOR AND PUMP BELT ADJUSTMENT**

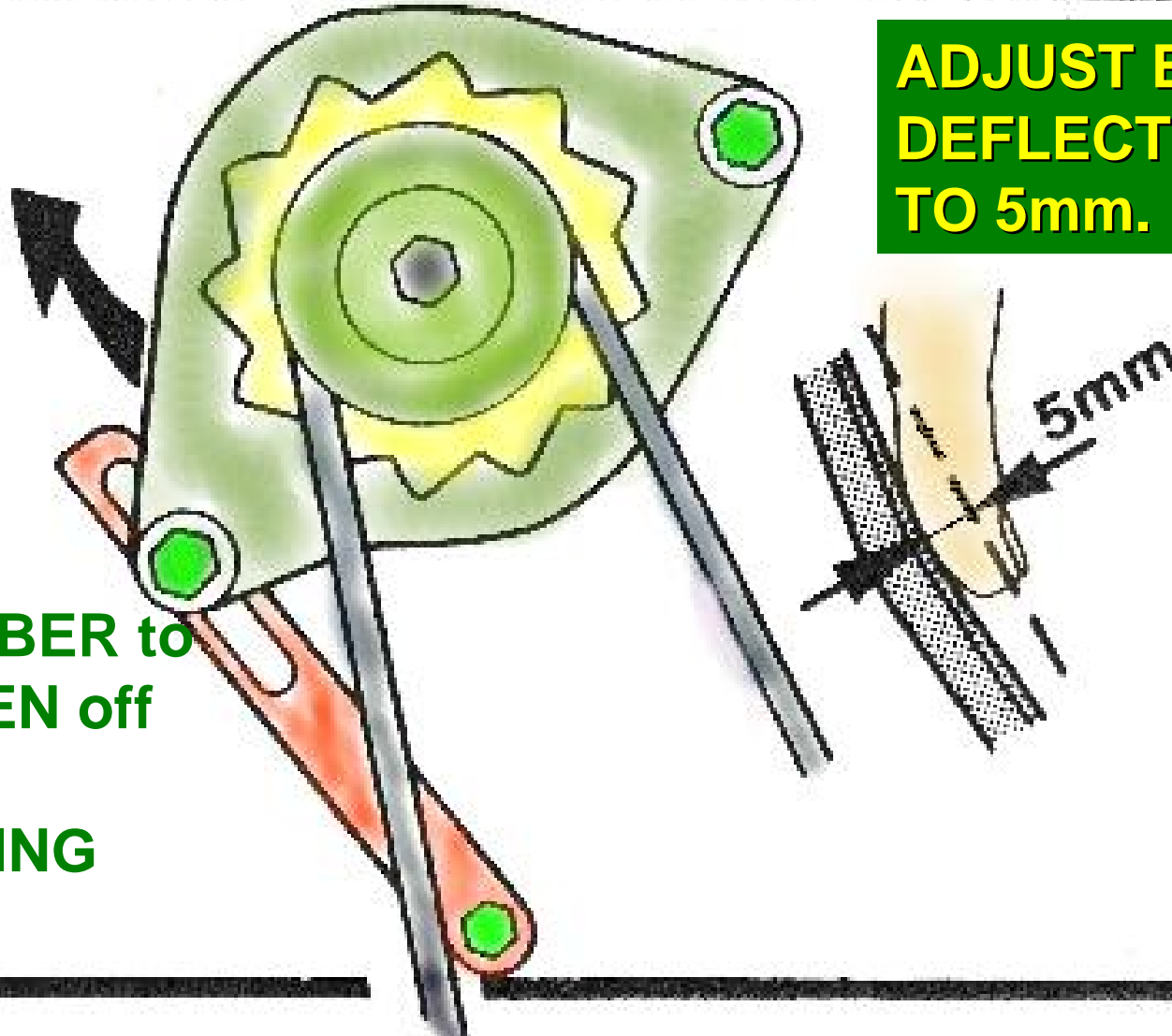


**CHECK BELT  
CONDITION  
AND  
TENSION**

# GENERATOR AND PUMP BELT ADJUSTMENT

ADJUST BELT  
DEFLECTION  
TO 5mm.

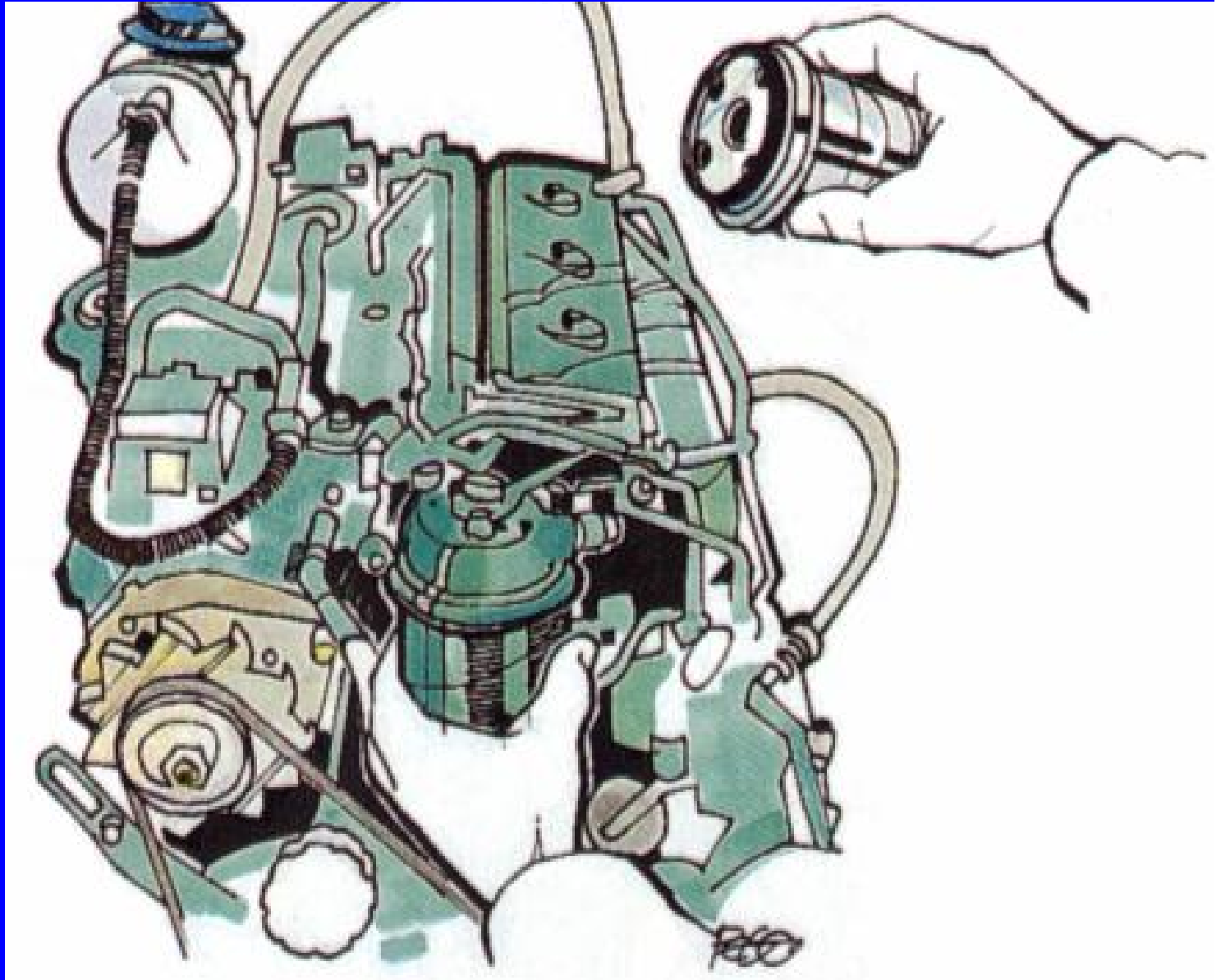
REMEMBER to  
SLACKEN off  
all the  
MOUNTING  
BOLTS



# FUEL SYSTEM:

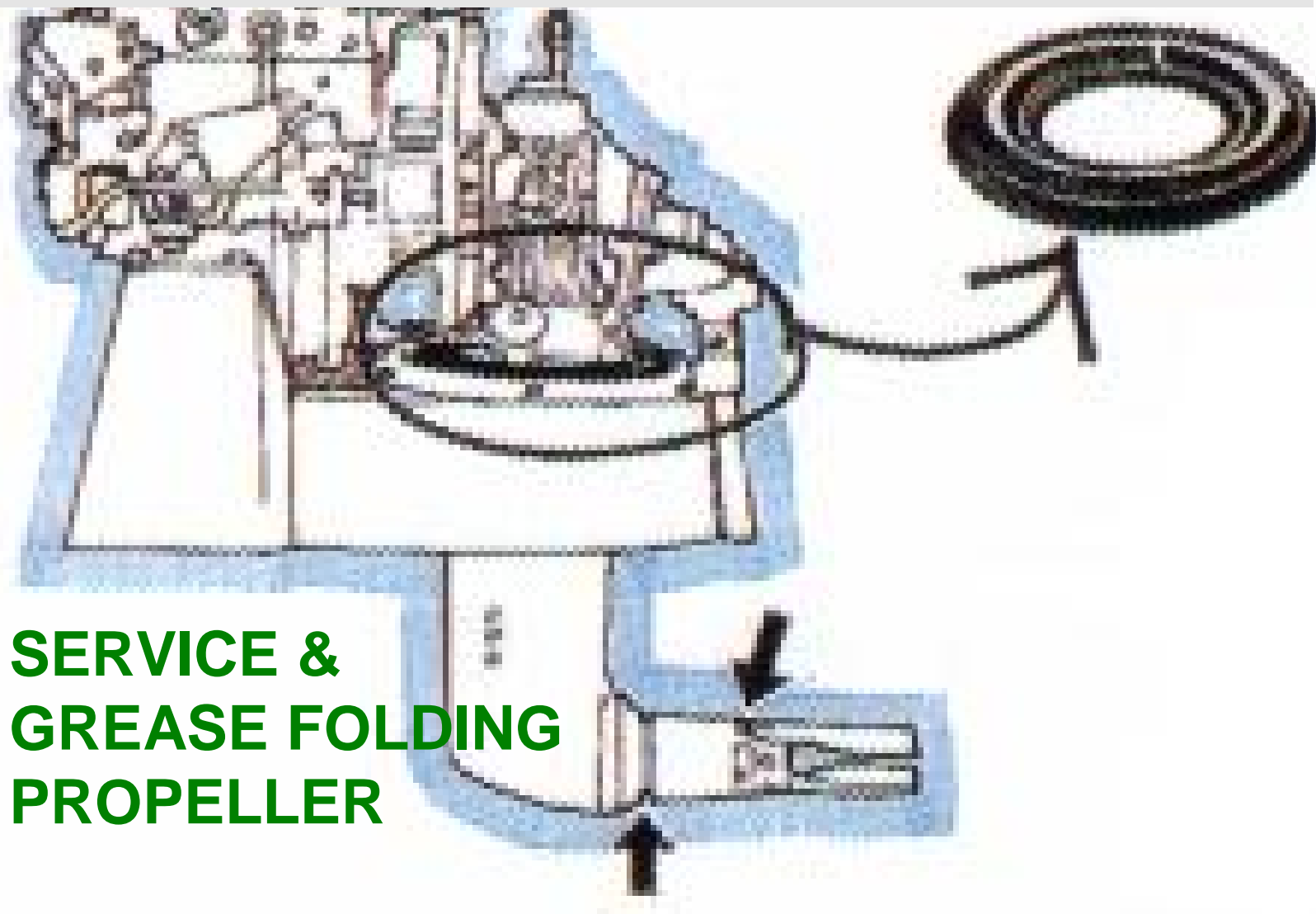
keep dirt and water out of system.

1. Fill the fuel tank.
2. Clean water Trap and Fuel pump strainer.
3. Change the filter if required.



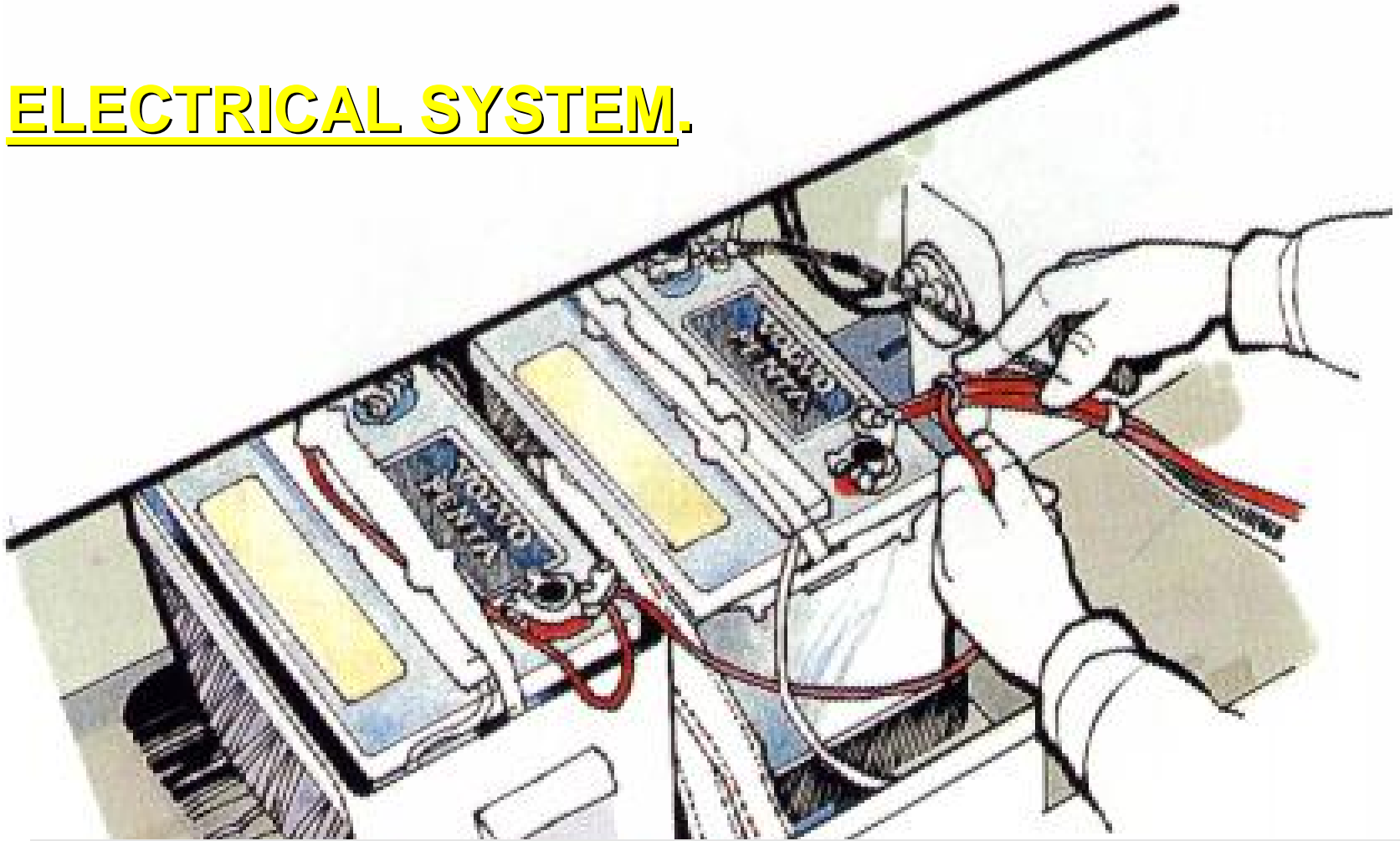
## SAILDRIVE SEAL:-

**INSPECT FOR CONDITION & REPLACE  
EVERY SEVENTH YEAR**



**SERVICE &  
GREASE FOLDING  
PROPELLER**

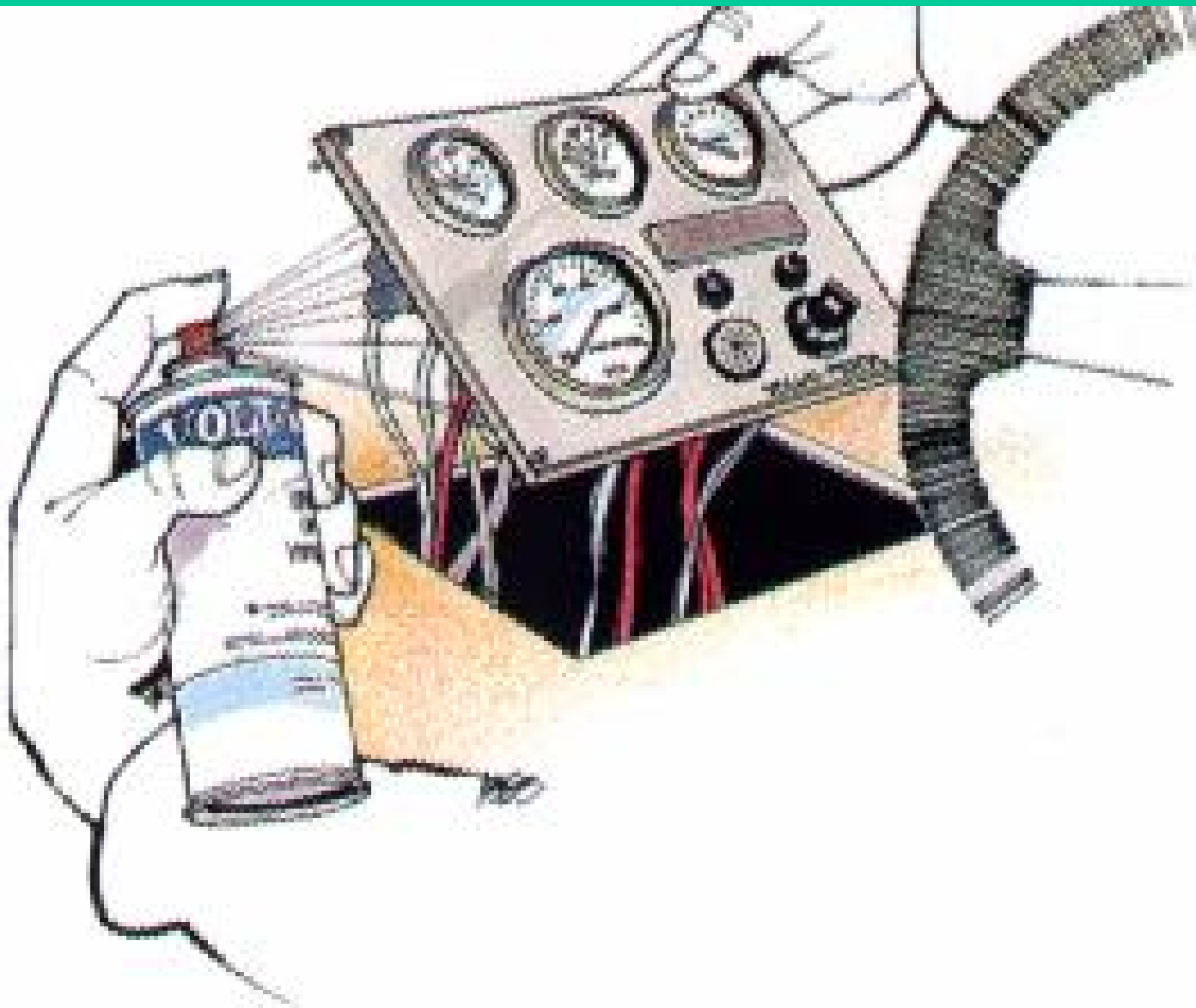
## ELECTRICAL SYSTEM.



**REMOVE BATTERY, AND CHARGE EVERY TWO MONTHS.(A Flat batteries will freeze)**

**CLEAN TERMINALS AND CABLE ENDS..**

# SPRAY ALL CONNECTION POINTS



# INHIBITING MIXTURE

**FRESH  
WATER**

**50/50**

**ANTIFREEZE  
WITH SOLUBLE  
OIL**

**Remember to mix  
up 5 ltr sufficient  
for auxiliary engine  
beforehand.**



# INHIBITING SEA WATER COOLED ENGINES

**1. FLUSH AWAY  
SLUDGE AND SALT  
THAT COULD  
CAUSE RUSTING  
WITH FRESH  
WATER.**

**2. FINALLY FLUSH  
WITH MIXTURE OF  
WATER,  
ANTIFREEZE &  
SOLUBLE OIL.**



**LEAVE IN SYSTEM FOR  
PROTECTION AGAINST  
CORROSION & FROST.**

**CHECK BELOW BEFORE STARTING ENGINE**



**Remember, What Goes In Must Come Out.**

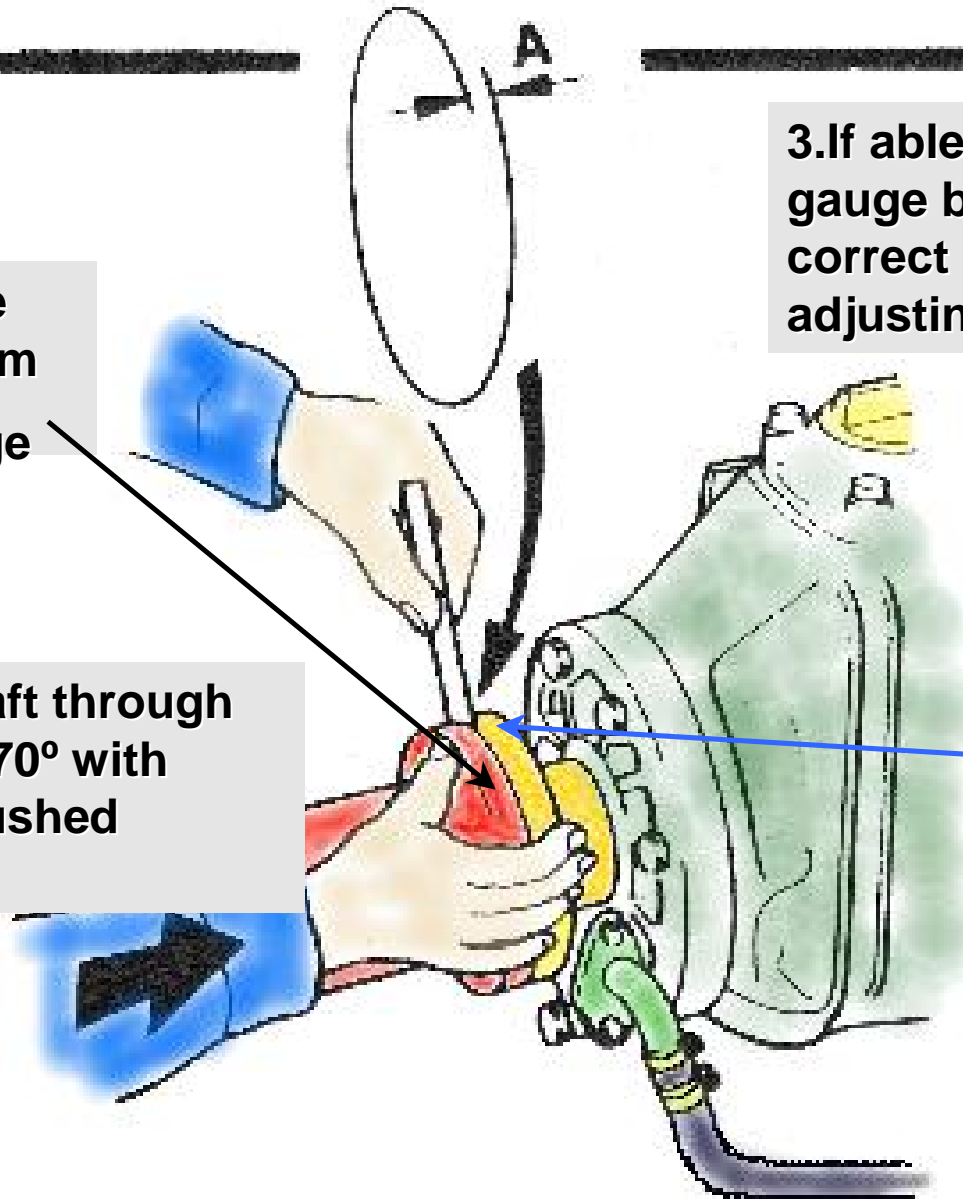
# ANNUALLY CHECK SHAFT ALIGNMENT AFTER LAUNCHING.

1. Remove Screws From Shaft Flange

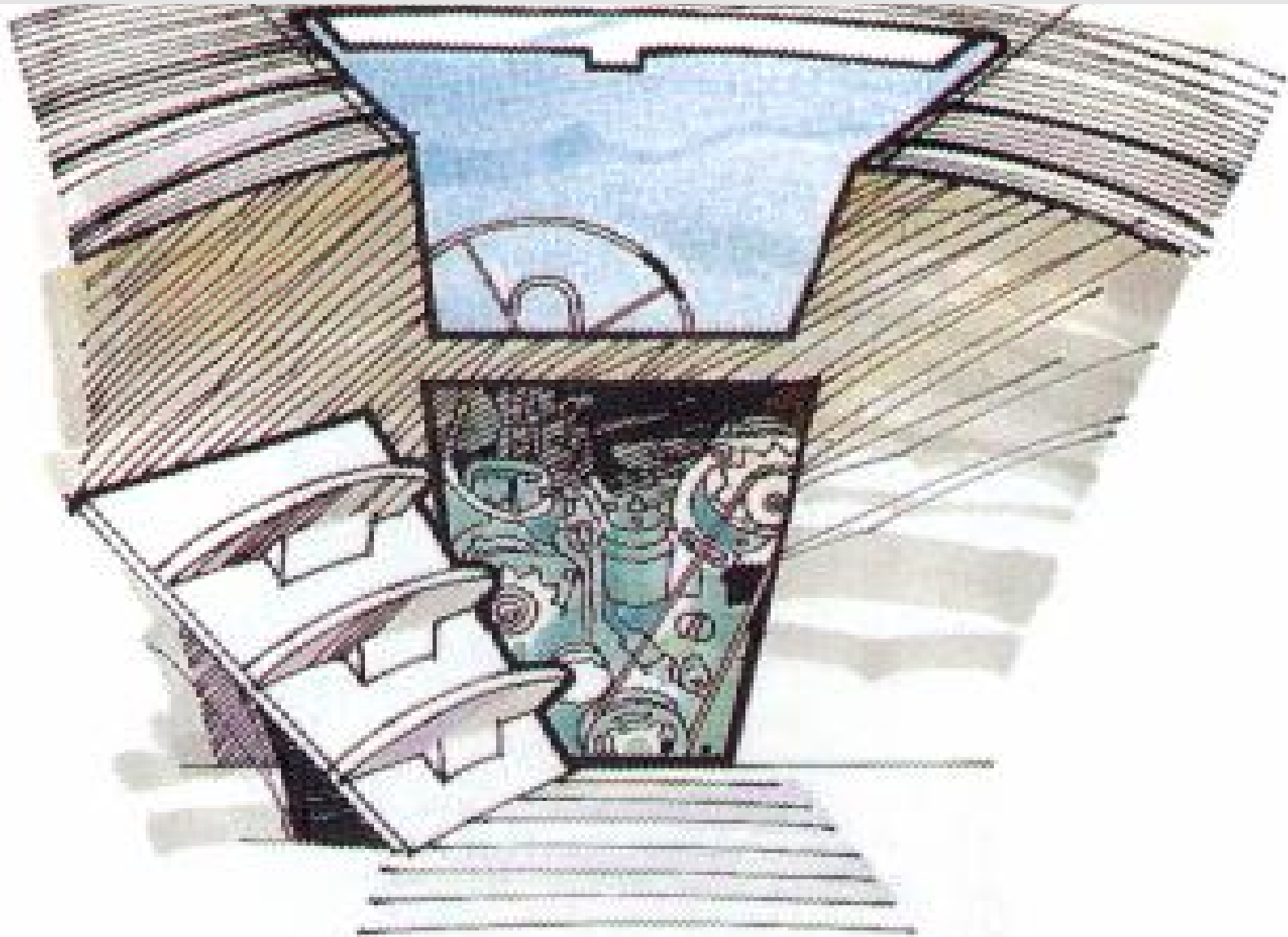
2. Turn the shaft through 90°, 180° and 270° with shaft flange pushed forward.

3. If able to insert feeler gauge between flanges, correct misalignment by adjusting engine mountings

Use a 0.10 mm (0.004") Feeler gauge



**REMEMBER TO ENSURE ADEQUATE VENTILATION  
THROUGHOUT THE BOAT, TO PREVENT  
CONDENSATION.**



FINALLY PUT TO BED FOR THE WINTER.



AND LOOK FORWARD TO NEXT SEASON.