

SAFETY AT SEA FOR FISHERMEN

by

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David B. Thomson

The fishing industry capture sector has probably the worst industrial safety record of any major industry. In the United Kingdom, loss of life at sea fishing far exceeds that in coal mining which is considered to be one of the most dangerous of professions. An average of 15 men and 50 boats are lost each year in the U.K. This works out at about 0.1 percent of the fishermen work force and around 1.5 percent of the fishing fleet.

If these figures reflect the global situation, then from the world's commercial fleets the loss of life would average 500 men a year and vessels lost would be over 1 500. No comprehensive surveys have been conducted to date but that is probably a fair estimate for the industrial or well-developed fisheries.

But what of the world's small-scale or artisanal fishing fleets? There are now estimated to be some 12 million full-time fishermen with about 3 million boats in the small-scale fishing fleets of Asia, Africa, Latin America, Southeast Asia and Oceania. Loss of life on these vessels may well compare with the rate for commercial fleets, or even exceed it as the boats are often poorly equipped. If that is so then we may be losing some 12 000 men and 45 000 boats each year in accidents at sea, from the artisanal fleets. No detailed figures are available and these accidents are only reported when associated with major news items such as typhoons in the Philippines and tidal waves in Bangladesh.

Obviously, any measures that can be taken to reduce the loss of life or improve survival chances are well worthwhile and should be aggressively promoted by fishermen and governments alike.

Three United Nations Agencies take a special interest in safety at sea and related problems of fishermen. These are the International Maritime Organization, the International Labour Organization and the Food and Agriculture Organization. Their respective concerns overlap somewhat but can be broadly defined as:

IMO	-	Safety at Sea
ILO	-	Conditions of work for crewmen
FAO	-	Fishing activities and technologies

The bulk of the work of IMO and ILO concerns merchant shipping but in consultation with FAO and various government representatives they produce guidelines and conventions directed at fishing fleets also. Thus fishing boats must conform with international rules for the carrying of lights and signals and for procedures to follow for safe navigation and prevention of collisions.

Accn. # 1846
MFN: 435

When a government ratifies a convention or accepts a set of guidelines, it then instructs its marine department (or coastguard or fisheries) to incorporate the elements into national regulations and to see that these are enforced.

This works fairly well for large ships but becomes progressively difficult as one moves down in scale. This is because of the great variety of types of small boats, the fact that few of them can afford expensive innovations and the need to take local situations into account.

Because of that, most conventions related to fishing boat safety and certification do not have provisions for vessels under 25 gross registered tons. However, some governments have gone ahead and drafted guidelines which may eventually become compulsory on small fishing boats in their jurisdiction.

FAO is working closely with IMO and ILO to ensure that any recommendations on small fishing boats made to governments, are sensible, feasible and acceptable to the majority of these fishermen.

At the same time, FAO is working with small-scale fishermen all over the world to improve the performance of their vessels and to lessen dangers to life and limb where possible.

The Bay of Bengal Programme has had a long history of successful development of improved fishing craft. Similar programmes elsewhere under FAO field projects have improved the seaworthiness and performance of surf boats in Central America, pirogues in West Africa and sail/power fishing boats in the Pacific.

Some practical training programmes on safety at sea have been developed and carried out with good results. Some of the useful safety tips and innovations for small boat fishermen are summarized in an FAO/South Pacific Commission Manual (No. 28, 1987) from which the illustrations are drawn.

A great part of safety at sea relates to the condition of the vessel and its equipment. A well maintained, well equipped boat is less likely to be lost when dangers or bad weather are encountered. Many pieces of safety equipment may be used only once a year, but they should be carried on every trip and should be carefully checked on a regular basis. These include:

- A first aid kit
- Emergency rations (biscuits, glucose, drinking water, packed in airtight tins or cans)
- Tools and spare parts for the engine
- A signalling torch and batteries
- An oil lamp and oil
- A fire extinguisher (for larger or powered boats)
- One or more anchors and anchor lines
- A sea anchor
- A life line and life buoy or float
- An emergency sail (especially for powered craft)
- A magnetic compass
- A set of oars or paddles
- A whistle, bell or hooter
- A bucket for baling and/or catching water
- A pair of signalling flags

Equipment like the above, though relatively simple and not expensive can make the difference between survival and loss of life, or between safe return to port and drifting at sea for months on end. Many fishing boats have drifted across the ocean because of failure to carry an emergency sail, tools, oars or spare parts. Crews have suffered terribly through lack of elementary means to collect or store fresh water, or of basic food or medical supplies.

Some years ago, a Sumatran fishing vessel which had neither compass nor sail, suffered an engine breakdown west of the Mentawai islands. The boat then drifted over 3 000 miles to Mozambique in S.E. Africa. Fortunately, the crew survived, but with a little emergency gear and some training, their voyage could have been much shorter.

The magnetic compass is a simple and relatively inexpensive piece of equipment which could be of considerable help to small boat fishermen. Very few of the three million artisanal fishing boats carry a compass. As a result of growing competition in coastal waters, many small fishing boats are having to fish offshore and out of sight of land. The compass could reduce their steaming time, improve their efficiency and economy, and reduce the danger of accidents or getting lost at sea.

Training in safety, seamanship and navigation can equip skippers and crews to meet with emergencies. Crews should be drilled in the actions to take when a man falls overboard, when someone is injured or when heavy seas threaten the boat. Basic instruction in first aid can enable fishermen to treat serious wounds at sea and to keep the injured person alive until he can receive proper medical attention ashore. How to rig and set a sea anchor, how to take a disabled boat in tow, and how to plug a leak are other vital subjects for training.

Survival training can prepare fishermen to cope with the rigours of an extended period at sea by enabling them to collect and conserve drinking water, to avoid heat exhaustion, dehydration or hypothermia. All fishermen should know how to revive the apparently drowned by artificial respiration and mouth to mouth resuscitation.

The FAO is encouraging governments and assisting fishermen's extension services to develop and provide training and advice on safety for fishermen and to make fishermen conscious of the need to invest time and effort in safety precautions and thus reduce the dangers they face in their calling.

A joint FAO/ILO/IMO international maritime training guide is available to fishermen's organizations and authorities to guide them on training and certification for fishermen. It contains sections on small fishing vessels and guidelines for safety at sea training for fishermen. "DOCUMENT FOR GUIDANCE ON FISHERMEN'S TRAINING AND CERTIFICATION", IMO, London, 1988.

List of Illustrations

(taken from the FAO IPC Handbook No. 28 1987)

1. Maintenance
2. Tools and spares
3. Avoid accidents
4. Treat minor cuts properly
5. Getting a hook out of a finger
6. First aid kit
7. Man overboard
8. Safety anchors
9. Distress signal (SOS)
10. Sea anchors
11. Coastal navigation
12. Alternative power
13. Tell someone your plans
14. Stay in the shade
15. Water collection

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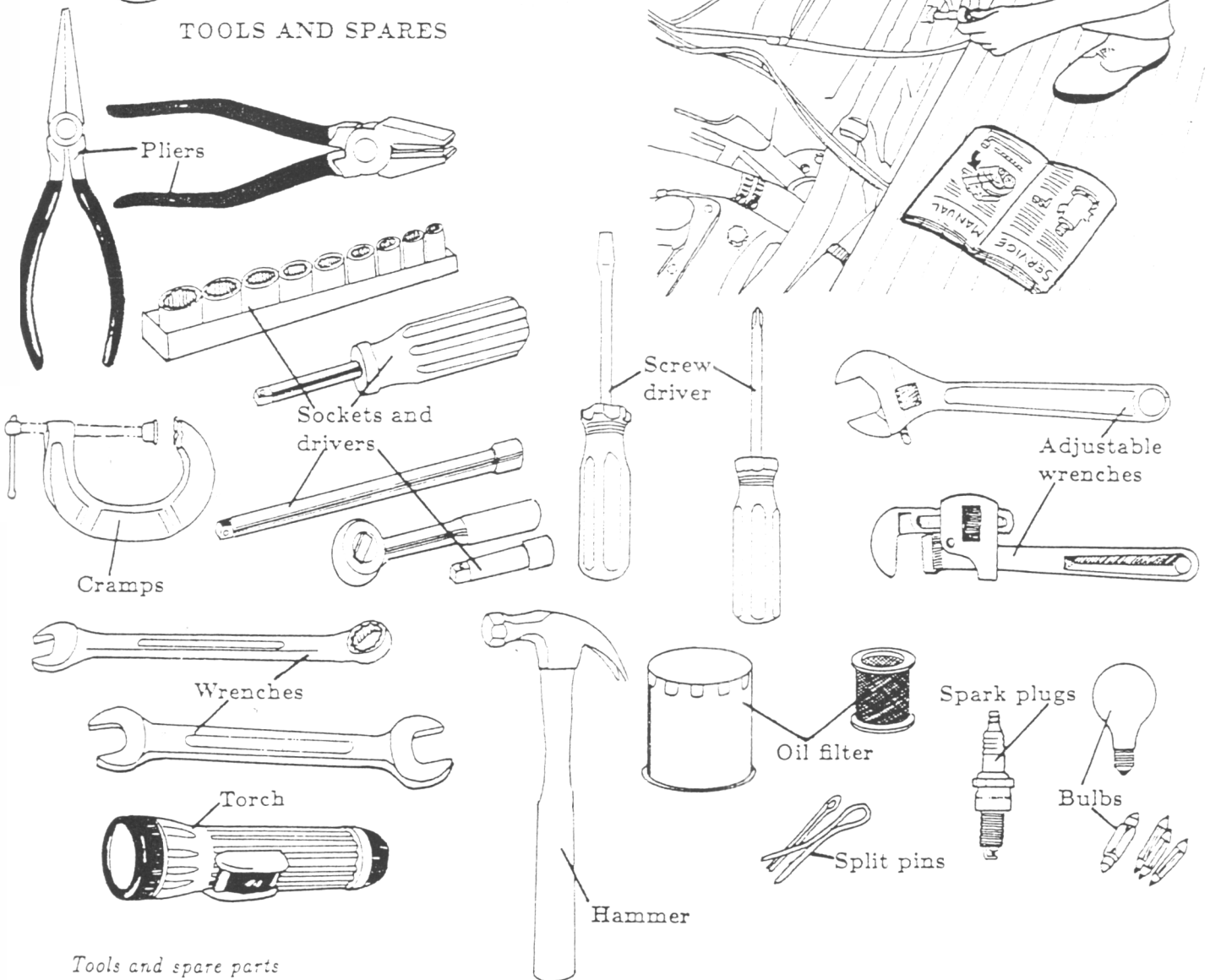
MAINTENANCE

Know your engine
Learn how to do
routine service
and maintenance



2

TOOLS AND SPARES

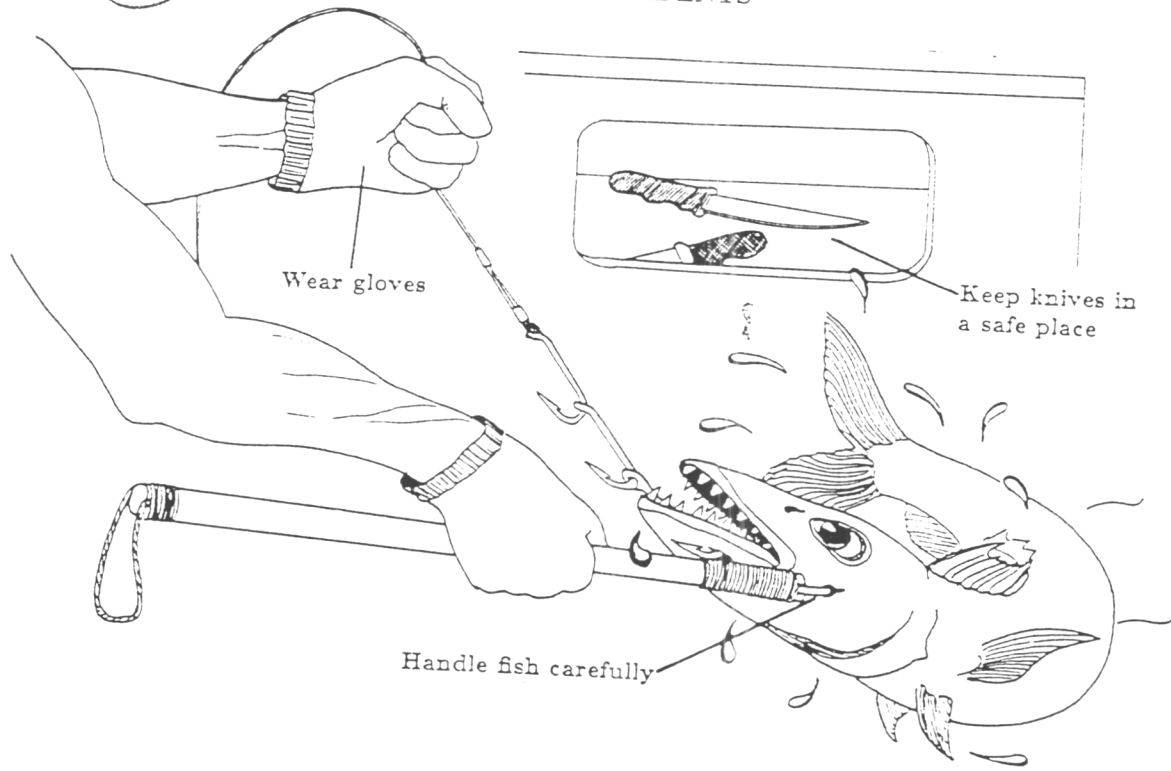


Tools and spare parts

Never leave shore without the tools and spare parts you will need to fix minor breakdowns. What you need depends on the engine you have but you should always be ready to cope with common problems such as blocked fuel lines, pumps and carburettors, dirty spark plugs, and dampness or salt water in the electrical system. Take an adequate range of spanners (wrenches), screwdrivers

3

AVOID ACCIDENTS

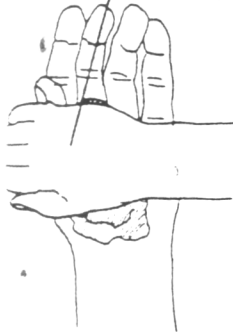


Fish slime is full of bacteria which can cause painful infections in even small knife cuts, hook scratches and line burns. These should always be washed in fresh water and then treated with antiseptic cream and covered using a bandaid or small bandage. Gloves should always be worn to prevent any dressings on the hands being pulled off.

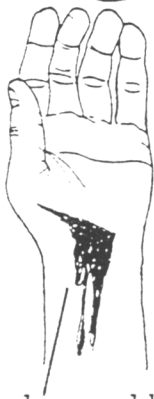
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TREAT MINOR CUTS PROPERLY

Apply pressure to stem bleeding



Wash away blood

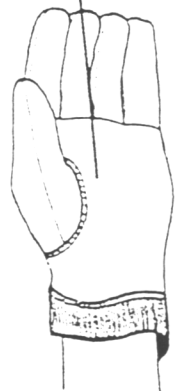


Apply antiseptic



Use tape or bandage to close wound and keep it clean

WEAR GLOVES!



Getting a hook out of a hand

If a barbed hook gets impaled in a finger, or anywhere else, it is usually extremely painful to pull it back out again. A less painful way to get it out is to push the hook right through the flesh until the point and barb stick out clearly. Then, using pliers or wire cutters, snip either the eye or the barbed point off the hook. This will allow it to be pulled out more easily. If the hook is too thick to be easily cut, gently file down the barb, or squeeze it shut using pliers, so that it offers less resistance to being pulled back out.

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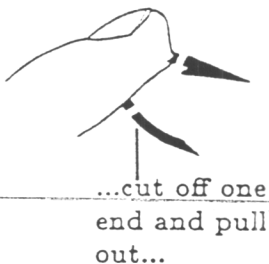
GETTING A HOOK OUT OF A FINGER

If hook gets stuck in hand...



...you have to push it right through...

...then, either...



...cut off one end and pull out...

...or, file the barb off



...or squeeze it shut using pliers...

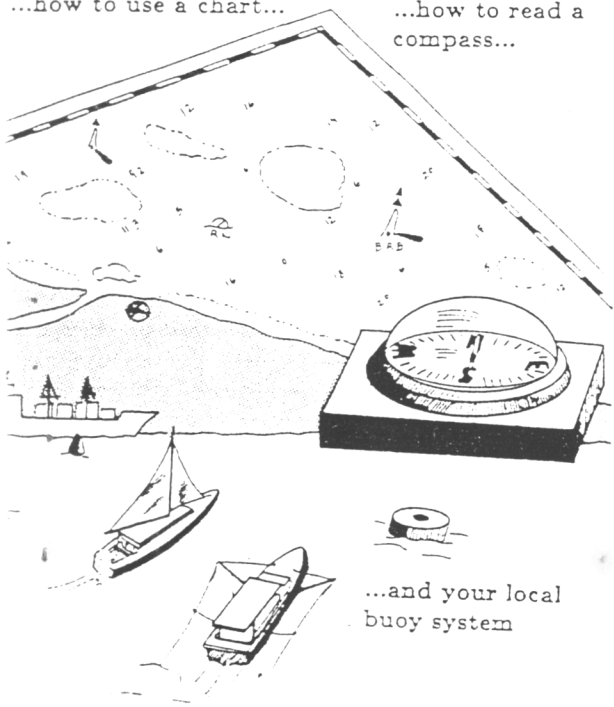


...then pull out

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COASTAL NAVIGATION

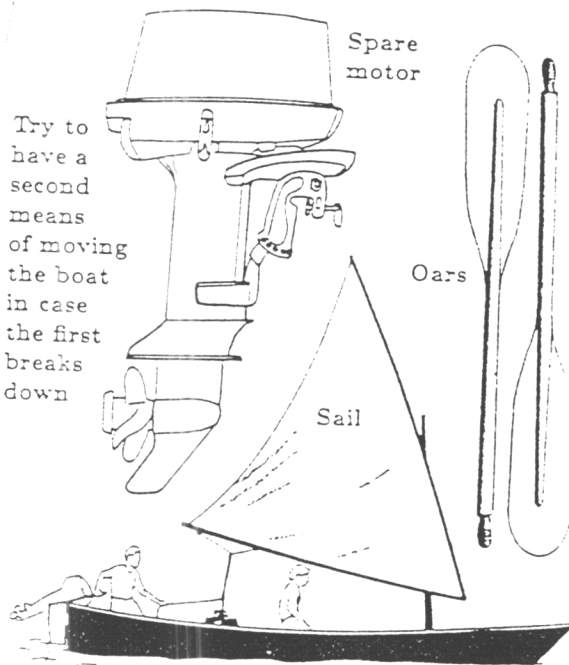
Learn
...how to use a chart...
...how to read a compass...



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ALTERNATIVE POWER

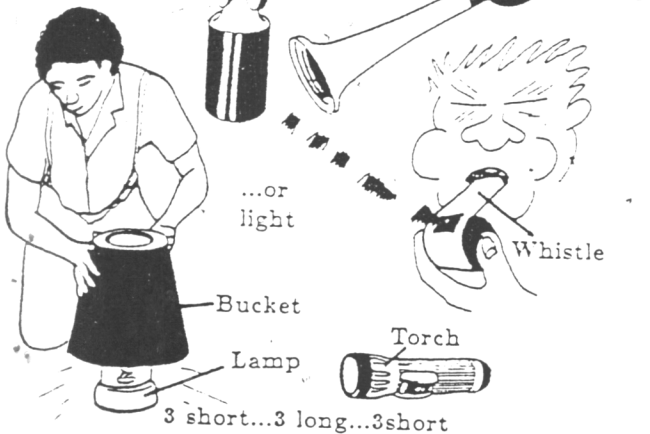
Try to have a second means of moving the boat in case the first breaks down



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'SOS' SIGNAL

Made with sound... Airhorn Hooter



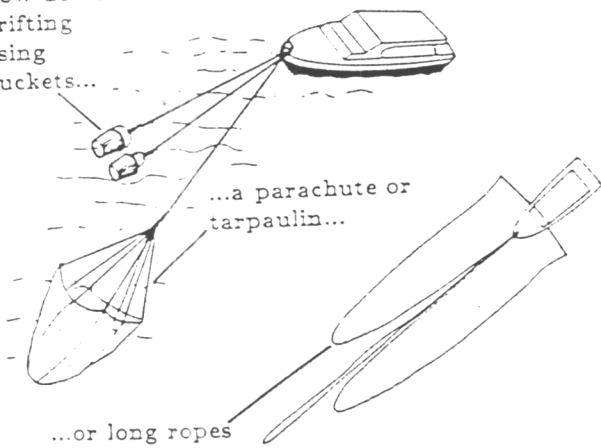
3 short...3 long...3short

●●● ——— ●●●
Dot Dot Dot Dash Dash Dash Dot Dot Dot

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SEA ANCHORS

For deep water slow down drifting using buckets...



Anchors and sea anchors

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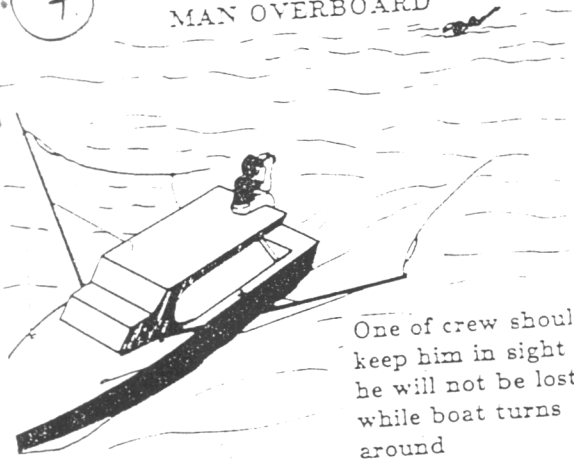
TELL SOMEONE YOUR PLANS...

...then they know where to look if you dont come home



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MAN OVERBOARD

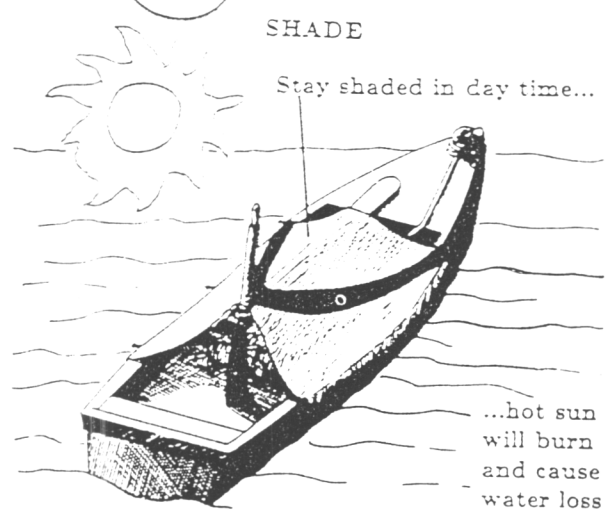


One of crew should keep him in sight so he will not be lost while boat turns around

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SHADE

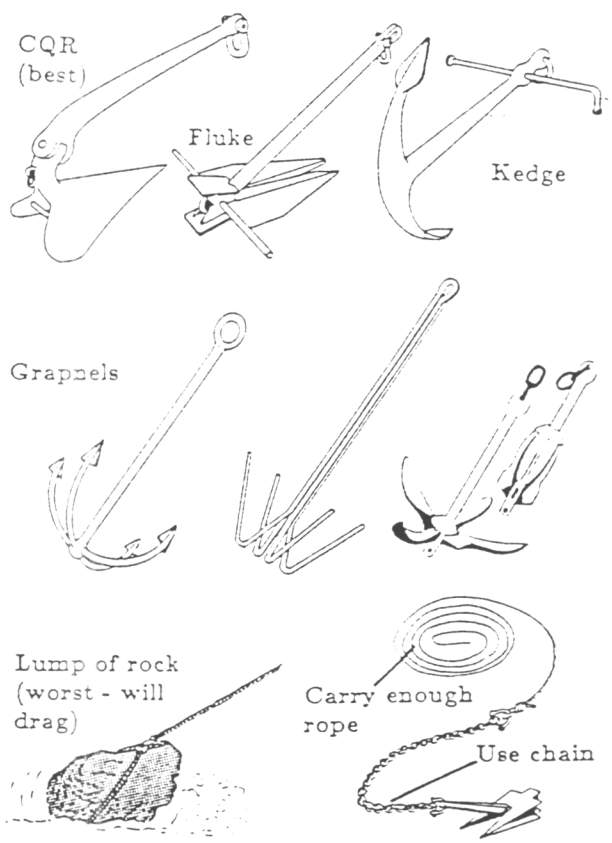
Stay shaded in day time...



...hot sun will burn and cause water loss

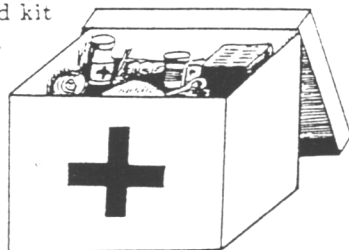
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SAFETY ANCHORS



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Every boat should have a first aid kit with ...



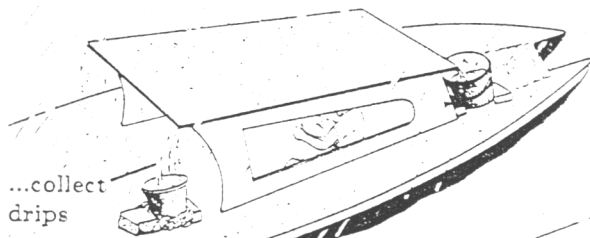
FIRST AID KIT



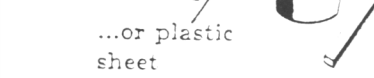
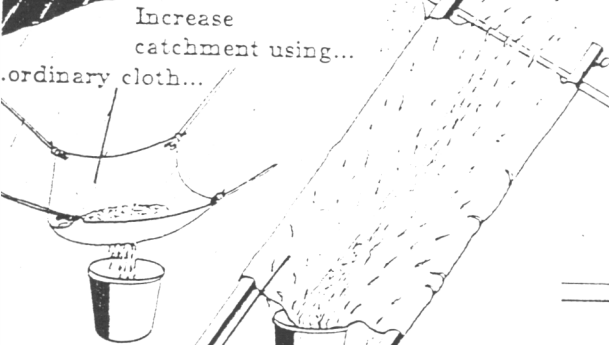
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WATER COLLECTION

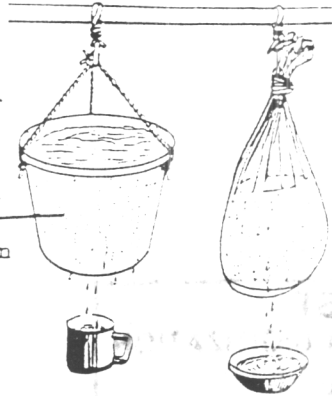
When it rains...



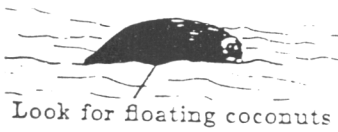
Use a cloth to collect condensation from windows



A bucket or bag of sea water will collect fresh water condensation at night



Water (not blood) from sharks belly is not very salty



Look for floating coconuts

Water collection