

Part 2 – Fishing Vessels



I am very pleased to have been asked to write the introduction to the Fishing Vessels' section of this edition of the Safety Digest.

As a man who has earned his living from the sea for more than 40 years, I have always understood, with the utmost clarity, the potential for danger that our chosen environment can present to us and to our crews. We cannot afford to be unwary or ill prepared.

This edition covers – amongst other things – the dangers of fire, and no one who has experienced this onboard will be in any doubt about the speed with which things can get out of hand.

Complacency is our enemy, whether dealing with the risks of fire, stability, Rule of the Road or weather. The great and increasing assistance offered by modern technology should not lead us to imagine that the potential for danger is any less. The protection offered by common sense, careful attention to maintenance, proper training and awareness of the situation shines from the recommendations.

I commend them to you and wish you safe and profitable fishing.

A handwritten signature in black ink that reads "Alyn West". The signature is written in a cursive, flowing style. It is positioned over a faint, large background image of a fishing vessel on the water.



Alex West

Alex West has had extensive involvement with fishermen's organisations since 1970. Originally a pelagic skipper, Alex has since built up a strong commercial interest in the industry through vessel ownership. He is involved with S&S Co-operative (pelagic) and Westward Fishing Company (prawns, whitefish). Alex spent 36 years as a Director of the Scottish Pelagic Association, 5 of them as Chairman. Since 2004, he has served as President of the Scottish Fishermen's Federation and has also been on the board of the Scottish Fishermen's Organisation since 1978. He is a long-serving member of the Seafish Pelagic Advisory Committee and also serves on the board of Seafood Scotland.

Smoking Kills!



Narrative

After a short trip fishing for scallops, an under 10m fishing vessel returned to port around midday and moored outboard of another fishing vessel in port. The skipper and crewman spent some time sorting out the boat before going to a local pub.

In the early evening, the skipper left the crewman at the pub and went home to prepare for his evening job, working at a night club. During the evening, the crewman continued drinking, and at 0200 went to the club where the skipper was working. Both men were given a lift from the club at about 0430; the skipper went home, and the crewman returned to the fishing vessel as his usual shore accommodation was unavailable.

The crewman managed to climb down the quayside ladder and cross the boat alongside to his own fishing vessel where, using a spare key hidden on the boat, he entered the wheelhouse. He did not turn on any lights, leaving the vessel's main batteries isolated, but picked up the wheelhouse ashtray and descended into the small accommodation space in the dark. There, he partially undressed and sat on one of the bunks to smoke a cigarette.

As he smoked, the crewman either fell asleep or became unconscious, and his cigarette started a smouldering fire which burnt a small amount of the bunk's foam mattress and woodwork (see photograph). The crewman died without regaining consciousness as the fire consumed the oxygen in the space and gave off toxic fumes.

The owner boarded the fishing vessel later that morning, and smelt smoke as he opened the wheelhouse door. Taking the wheelhouse fire extinguisher, he first checked the engine room for fire before returning to the wheelhouse

and entering the accommodation space. He found the crewman in the smoke-filled accommodation space. There were no flames, the fire having burnt itself out during the night.

The Lessons

1. Neither the owner nor the skipper permitted smoking in the accommodation space, for good reason. However, perhaps due to the influence of alcohol, the crewman forgot this policy and paid the ultimate price.
2. A smoke alarm might well have prevented this tragic accident. A simple domestic fire alarm costs very little and merely requires a new battery periodically. Fitting a smoke alarm is easy, and it may well save you or your crew's life. It is intended that a smoke alarm will be required on all decked vessels covered by the revised Small Fishing Vessel Code to be issued in the future.
3. Where possible, use non-combustible materials on board your vessel, or materials which are resistant to ignition. They will reduce the chances of a fire starting, or, if one does start, will help prevent it spreading quickly.

Assumptions (Based on Scanty Information) Lead to Collision

Narrative

On a dark night, with good visibility, an 11 metre GRP fishing vessel was trawling when its skipper saw another vessel's lights, two white and both sidelights, fine on the port bow a few miles away. The skipper assumed this to be a power driven vessel, greater than 50 metres in length, and decided that, although a risk of collision existed, he would stand-on as there were obstructions/wrecks on the sea bed on his starboard side.

On the other vessel, the watchkeeper observed the fishing vessel, visually, at about the same time, fine to port showing trawling lights and a red sidelight. However, the vessel was, in fact, a 26 metre tug towing a 50 metre long, 18 metre wide barge on which the navigation lights had recently failed.

Both vessels had radar; although neither had ARPA facilities, no plots were made.

With a strong wind (force 6) on its starboard bow the tug, which was making some 4 knots into a strong tide, had its barge displaced on its port quarter; the length of tow was just less than 200 metres.

As the vessels drew closer, the skipper of the fishing vessel, which was making about 3 knots, lost sight of the other vessel's green sidelight and assumed that it had altered course to starboard to avoid collision. Meanwhile, on the tug, the bearing of the fishing vessel was observed to be opening to port and an assumption was made that no risk of collision existed.

The skipper of the fishing vessel next sighted the other vessel as it came abeam on the port side. When he saw its working deck illuminated with a floodlight, he realised, for the first time, that it was a tug and that it could be towing something!

The skipper altered course by 10 degrees to starboard before altering back to port, as he did not wish to pull his trawl gear too far off track. Shortly after this the skipper noticed the vessel's speed reducing and instinctively put the engine astern. The vessel was then pushed across, first to port and then to starboard, just before the vessel started to list heavily to port to an angle of 30 degrees. The skipper reports that the port gunwale was under the water and that water reached the level of the fish hatch.

At no time did the skipper see the barge with which his vessel had undoubtedly collided. The fishing vessel, probably now trapped under the port "bow" of the barge, began to make sternway and then came free of the barge and returned to the upright. Electrical power was initially lost as the batteries had shifted. However, the skipper reacted very well to the situation; he checked the compartments for water ingress, using a torch strategically positioned for such emergency situations, and then rigged an emergency supply connector and restored some electrical power.

The vessel remained seaworthy, despite damage to its starboard bow (see photograph). The skipper called the coastguard by mobile phone, as power was not initially restored to the VHF; he calmly reported his position, that he had just been in collision with something he had not seen, and that he could see a tug steaming away from the scene. The coastguard then called out the local lifeboat to escort the fishing vessel, under its own power, back to its home port.

The coastguard then called the tug, who responded immediately and stated that they had assumed the fishing vessel had passed safely, albeit closely, down the side of the tow. Another vessel in the area, monitoring this conversation, volunteered to stand-by the fishing vessel until the lifeboat arrived. The tug was then allowed to resume its voyage.



Photographs showing bow damage



The Lessons

1. The assessment of risk of collision on both vessels was poor as both made assumptions based on scanty information. The International Regulations for Preventing Collisions at Sea, Rule 7, identifies the correct way to assess risk of collision. If both vessels had complied with this Rule the accident could have been avoided.
2. The lookouts kept by both vessels failed to enable a full appraisal of the situation and of the risk of collision, (Rule 5). It is important to ensure that as much information as possible is gathered from the lookout, in this case had both vessels scrutinised each other with binoculars, they might have realised that their initial assumptions were not reliable and that an earlier alteration of course was required by both vessels.
3. The tug could and should have warned local shipping via a “Securité” VHF broadcast when the navigation lights on the tow failed. Vessels should consider the use of such broadcasts if they have information which could be of significance to other vessels in their immediate vicinity.
4. The tug could have elected to show the lights and shapes for a vessel “restricted in her ability to manoeuvre” as the size of the barge and adverse weather conditions did restrict the tug’s ability to deviate readily from its course [Rule 3 (g) refers]. The display of these lights would have facilitated a more thorough assessment of the situation by the fishing vessel by alerting it to the fact that this was not a normal power driven vessel as the skipper assumed.
5. The skipper of the fishing vessel reacted well to a potentially dangerous situation. The fact that he knew the location of his emergency torch and then quickly restored electrical power to his vessel, shows the value of being prepared and becoming very familiar with what to do in an emergency on your vessel.
6. The master of the vessel which volunteered to stand-by the damaged fishing vessel demonstrated the best traditions of good seamanship.

Fire at Sea – Be Prepared, Be Trained – It Could Be You Next



Narrative

Two fishing vessels from the same port caught fire while at sea within a few weeks of one another. One vessel burnt out and sank; the other's wheelhouse and mess room were destroyed.

Fortunately, in both accidents, the crews were able to abandon ship into a liferaft and were later rescued unharmed. The survivors of both accidents all remarked on the extremely fast spread of the fires and that they only had time to save themselves by abandoning ship. That there were no fatalities from either accident, can be partially attributed to the fact that both of the skippers had attended sea survival and fire-fighting training courses, and were able to

react very well in the short time available to them when disaster struck.

On one vessel, the skipper had the presence of mind to grab a portable VHF set from the burning wheelhouse before abandoning ship. He was then able to make a "Mayday" call from the liferaft, which had been quickly and efficiently released from the wheelhouse top by the crew, who were familiar with the procedures required.

On the other vessel, the spread of the fire was even quicker, and the skipper did well to broadcast a "Mayday" call from the wheelhouse before assisting the crew (who were all asleep when he called them from the cabin) in launching the liferaft.

One fire probably started in the galley/cooker area; the other might have been caused by an electric cabling fault. In both cases, however,

the speed of fire spread and the damage incurred means that the exact causes will probably never be known.

The Lessons

1. Ensure that everyone on board has attended the requisite statutory training courses in fire-fighting, sea survival and first-aid. These accidents, and the fact that no lives were lost, demonstrate the importance of fishermen attending these courses.
2. Ensure that everyone on board is very familiar with the emergency equipment carried: both location and use. Both these skippers had ensured that their crews knew where the safety gear was and how to use it.
3. The galley stove provides an obvious source of ignition. Ensure that this is only for heating up food and drink – and not the boat!
4. The insulation of electrical wiring should be checked at regular intervals. It is almost impossible to visually inspect wiring on board any vessel, and the only way to ensure it is in good condition is to have it tested by a professional. It is worth the cost!

“Invited Back On Board”



Narrative

In the early hours of the morning while on watch in the wheelhouse, the skipper of a 20m wooden fishing trawler smelled smoke coming up through the engine room control panel. The engine room smoke alarm activated, but the boat was towing hard against the tide and the skipper thought it likely to be caused by heat and exhaust from the turbocharger. A few minutes later, the smell grew stronger and the skipper called the mate from the shelter deck to investigate. The mate went below and, shortly after, the skipper decided to follow him.

The mate went into the engine room and saw an orange glow near the deck, in the area of the main batteries. He and the skipper set off two fire extinguishers, but were beaten back by thick smoke. They closed down the engine room ventilation openings on the upper deck and tried to operate the emergency fuel shut

off valves. One worked, but the other was very stiff and did not shut correctly. The skipper tried the main engine stop button, but this did not work either, so he reduced engine speed and engaged the hydraulics to try and stall the engine. The engine kept running and was finally stalled by fouling the propeller with a rope thrown over the stern. With the engine stopped, the mate operated the CO₂ drench system.

Smoke now filled the wheelhouse, having risen through unsealed conduits and wiring looms between the engine room and wheelhouse control panel. The skipper had to stand outside and use the radio through an open window to send a “Mayday” signal. The mate switched over to the emergency power supply, but could not isolate the main batteries. The crew put on lifejackets and immersion suits, and then launched the liferaft. Before climbing down to the liferaft, the skipper and mate attempted to rig a towing bridle forward, but

were prevented by dense smoke escaping from the shelter deck through a missing hatch cover.

The crew abandoned the burning fishing vessel safely, using the liferaft to transfer to a nearby fishing vessel which had responded to the “Mayday”. Despite their ordeal, the crew were all safe and well. Soon afterwards, an offshore supply vessel arrived on scene and began to fight the fire with a powerful foam monitor.

As daylight approached, the smoke appeared to have died down, and the master of the supply vessel suggested to the skipper that he return to his boat to see if the fire was out and to check for damage. Only a few hours had passed since the fire started, and the coastguard advised that no-one should go back on board because the fire could re-ignite or the boat capsize as a result of the water used to fight the fire. The supply vessel was keen to assist, and offered to tow the fishing boat back to port. Soon after, it launched the Fast Rescue Craft (FRC) to collect the skipper and mate from the other fishing vessel. The deckhands were then transferred and the other fishing boat was released by the coastguard.

The master of the supply vessel repeated his suggestion of the skipper going back on board the fishing vessel. Weather conditions were good and the smoke had almost gone. The skipper agreed, and he and the mate went across in the FRC, still wearing their immersion

suits and carrying a torch and portable VHF radio. With the FRC standing by, they began to look over the boat.

Smoke from the wheelhouse had dispersed, and down below, the galley appeared undamaged. The mate entered the cabin and saw where fire had damaged the starboard side. He went forward to the engine room door and cracked it open. Thick smoke and noxious gases escaped and the skipper pulled him clear. They waited on the upper deck for a few minutes and then returned to the engine room. The smoke had cleared, and the mate was able to enter the engine room. He heard a crackle and then saw a glow of fire in the far corner.

The skipper and mate evacuated to the upper deck and managed to rig a tow as the fire escalated. The fishing gear was cut away and the crew returned to the supply vessel in the FRC.

Over the next few hours, the supply vessel fought the fire and towed the fishing vessel clear of sub-sea pipelines in the area, until satisfied that the fire was finally extinguished. Soon afterwards, the tow was passed to another fishing vessel and the supply vessel returned to standby duties.

For a while all seemed well, with the boat having a small list and sitting only slightly lower in the water than usual. However, in the early hours of the following morning she broke her tow and sank.

The Lessons

1. Electrical systems and insulation material should be checked carefully to minimise the risk of fire.
2. Emergency engine and fuel system shut down methods should be tested regularly and repaired if they do not operate correctly.
3. Engine rooms should be checked to ensure that they can be fully closed down in a fire situation to prevent smoke spreading and to give CO₂ drench systems the maximum chance of success.
4. Do not put yourself back into danger by returning to the scene of a fire too soon. Re-opening a compartment causes air to enter, which may then allow a fire to re-ignite. Engine room fires may require many hours to cool before re-entry can safely be made. Compartment re-entry should be made by properly trained firefighters with the correct fire fighting equipment and breathing apparatus.