

Check fishing gear for wear and tear

In March 1997, a fisherman on a side-dragger in the scallop fishery was struck in the head by the frame of a falling drag. He sustained a laceration to his skull and has permanently lost a significant amount of sight in his left eye. The chafing and subsequent failure of a 3/4" nylon line on the becket of a tail block was the cause of this injury. This article will discuss how to look for wear and tear on fishing equipment.

The responsibility for the maintenance and safe function of all equipment onboard lies with the owner or the captain when the owner is not materially present.

In the fishing industry, fishing gear and equipment ranges from simple to complex on boats from outboard size to 140' trawlers. In all fisheries, the conditions that cause wear and tear are the same: rust and corrosion, friction, vibration, load stress, deterioration, improper use, and poor maintenance.

The fishing environment itself is hard on all types of gear. Chains, cables, ropes,

and lines are vulnerable and should be inspected throughout their length for rusting, wear, and deterioration.

After paying special attention to those areas receiving the most stress, the captain should double check that the material is appropriate for the use to which it is applied and is rated for the load it bears. Replacements must be with components designed for the job.

Shackles and hooks should be checked for thinning, cable clips for wear and proper mounting, and chain plates for rust and corrosion. Blocks should be greased to reduce friction, and turnbuckles should operate easily. Bolts used to mount heavy equipment to the deck are prone to rust and corrosion. Power blocks and heavy rigging that is not in use should be removed to prevent potential injury to the crew.

It is easy to forget that the vibration of a running engine is also a source of friction and wear. Similarly, even at anchor, rigging components are rubbing

and chafing in response to wave and wind action.

How did the above-mentioned injury happen? How could it have been prevented? The two-wire scallop dragging gear involved in this potentially fatal injury is common in eastern Maine. The practice of emptying the drag on board after hoisting it from the water and suspending it above the deck frequently results in the drag being positioned directly above crew members.

In situations where the crew is in danger of being struck by rigging, life-safety critical rigging is a necessity, and it should be checked frequently. On this scallop dragger, the tail block was suspended from the high point of the rigging by a 3/4" nylon line that was passed through the becket of the tail block and knotted. The edges of the becket had chafed the line to the point of failure.

In this case, the proper rigging technique should have been to create an eyesplice around a protective thimble. This technique helps maintain the strength of the line, protects it from chafing, and probably would have prevented this accident.

Information for this article was taken from the Safety Alert on Life-Safety

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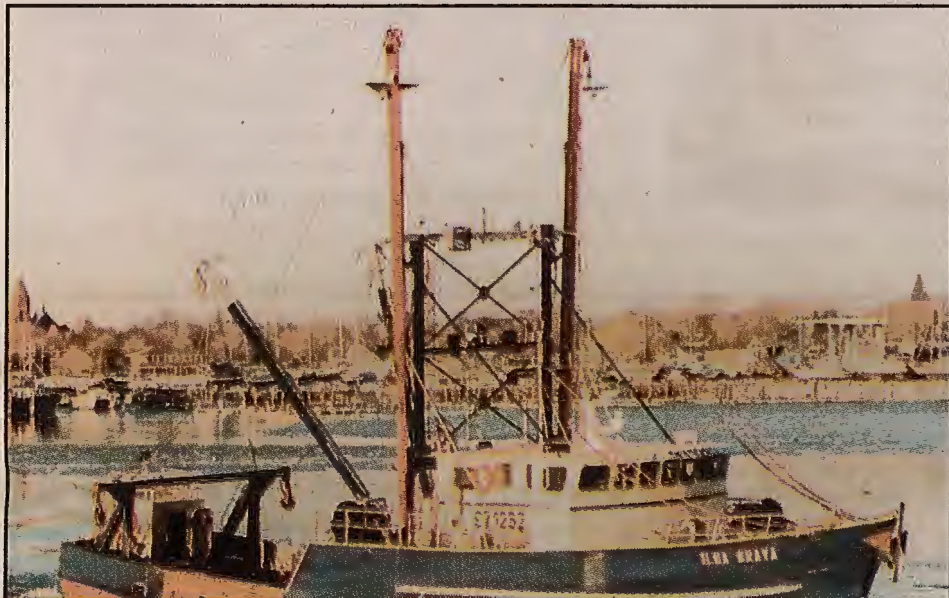
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Critical Rigging and the report of injury onboard the fishing vessel Franny Ellen, both developed by the Marine Safety Office of the US Coast Guard in Portland, and from *Gearing Up for Safety: Safe Work Practices for Commercial Fishing in British Columbia*, produced by the Workers Compensation Board of British Columbia. ■

FISH SAFE:

- Check rigging for friction points;
- Protect rope and line against chafing using a thimble where appropriate;
- Lubricate moving parts;
- Use splices in place of knots to retain strength;
- Keep chemicals away from rigging components;
- Employ life-safety critical rigging when heavy equipment is suspended above the crew; and
- Replace components early with materials appropriate for the task and rated for the load.



Power To Haul



FLEET ADDITION - *Ilha Brava* is a boat new to the growing fleet of Carlos Rafael in New Bedford. Named after the Cape Verde island where Rafael's wife, Conceicao, is from, *Ilha Brava* is Portuguese for "Island of the Brave." Originally named *Nita H*, the vessel was built at Brevard Shipyard in Cape Canaveral, FL in 1990 and worked out of a number of different ports under different ownership, mostly shrimping out of Seattle, WA, Cape Canaveral, FL, and Freeport TX, where Rafael found her.

The 96'x22'x16' *Ilha Brava* was repowered with a 850 hp Caterpillar 398 with a Twin Disc 5.9:1 marine gear turning a 74"x56"x4 bronze open wheel-type propeller on a 6" stainless steel shaft. Auxiliary power includes two 3304 Cats, one rated at 100 kw and the other at 45 kw. The diesel power was all installed in house.

The hydraulic system was set up by Pine Hill Equipment Inc. of Westport, MA and includes a Pullmaster complement of two H30 towing winches, two H12 cargo winches, and two H10 outrigger winches to handle the 45' outriggers. The electronics are all new, and were provided and set up by Tomtronics of New Bedford. There are redundant systems on just about everything. New Bedford Ship Supply and Luzo Fishing Gear supplied blocks, tackle, gear, and miscellaneous supplies. *Ilha Brava* fishes two 15' Blue Fleet Welding scallop dredges. Scallops are shucked in port and starboard shucking stations situated beneath the raised wheelhouse, as well as at the captain's cutting station in the starboard side of the wheelhouse. Scallops are raised to the wheelhouse by a winch.

Rafael's fleet now includes up to five scallopers and 13 fish dragners. Recent acquisitions include *Lady Patricia*, formerly the fish dragger *Lutador I*, and *Vila Nova do Corvo*, an eastern rig scalloper formerly named the *Georgie J*. Shawn Machie captains the *Ilha Brava* on 10-15 day trips with a crew of six.

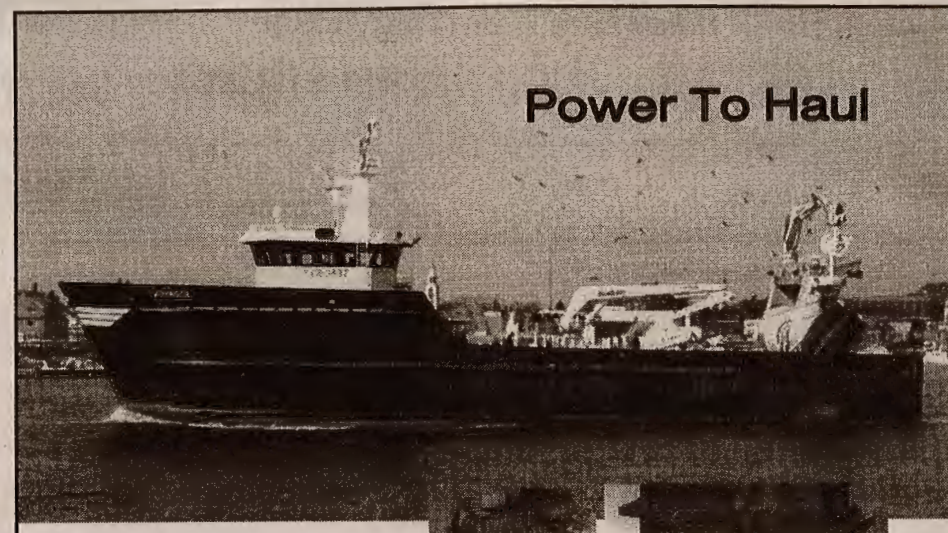
Steven Kennedy

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