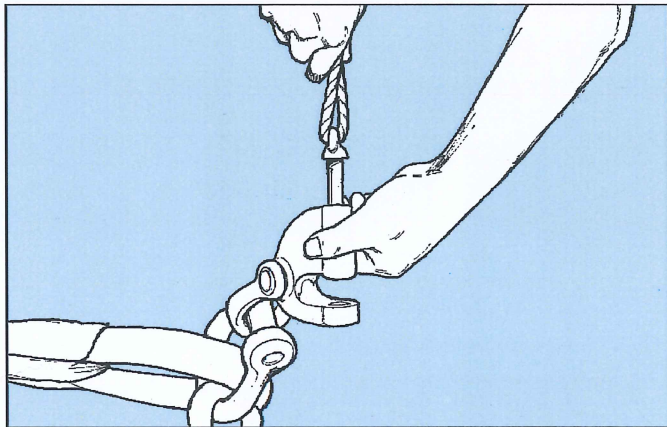


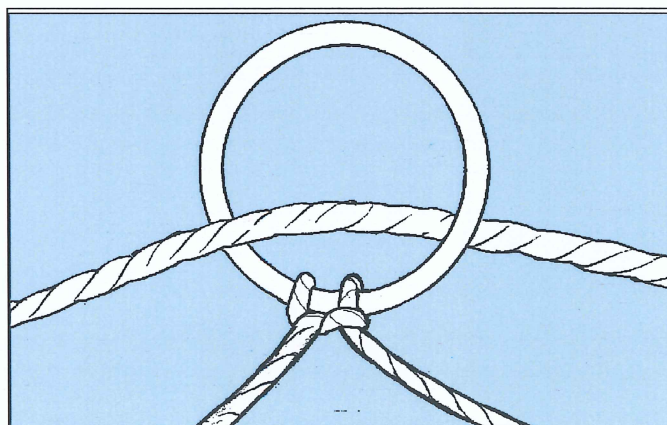
## Seine

Seining, including skiff work and beach operations, creates safety hazards. All seine crew **should** know their jobs and how to protect themselves from hazards.

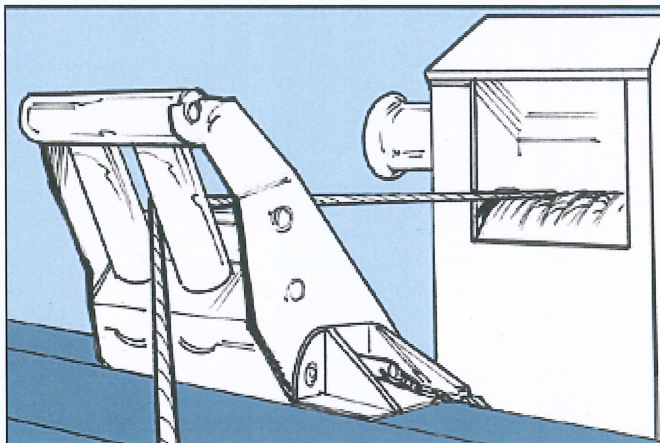
Safety steps and requirements for seine crew include the following:



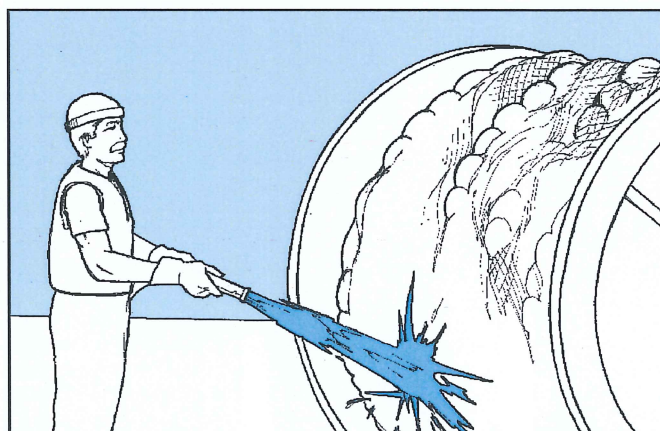
- Inspect all end-of-net hardware for sticking blondies (quick-release shackles), worn straps, loose shackle pins, and other defects. Broken hardware can create unexpected hazards such as lines whipping and/or breaking, or equipment striking the crew.



- Purse rings on seine nets **must** be secured to the middle of the ring strap. This prevents rings from falling and hitting crew when back hauling the net through the power block.

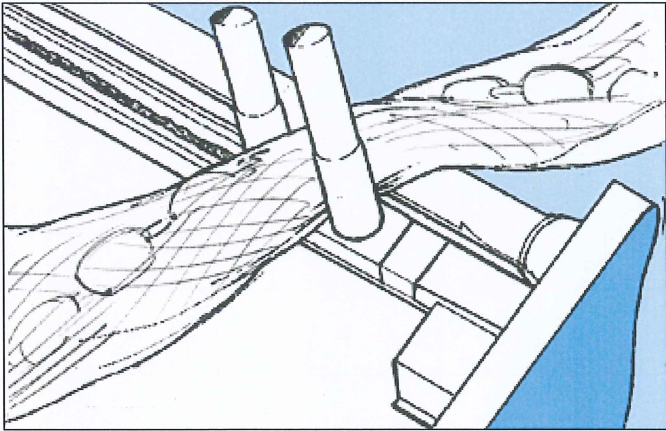


- Pursing winches and davit leads **must** be positioned to ensure proper spooling of the line onto the winch drum. If the line isn't spooled properly – for example, if it spools only on one side of the drum – it is more likely to backlash when being let out. When gear spools properly, it eliminates the need for crew members to direct the line, and increases the life of the line by reducing damage to it.

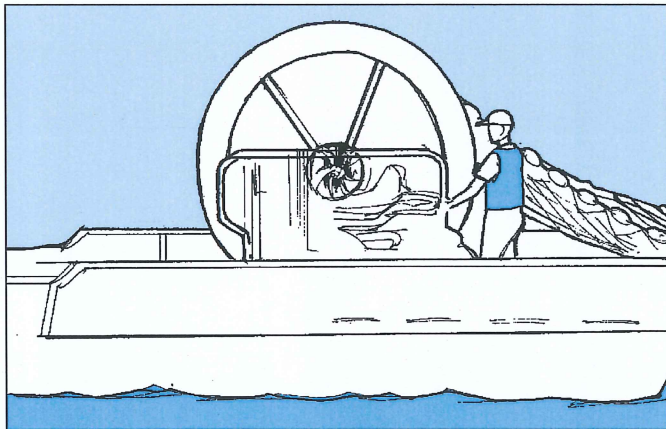


- Watch for backlashes when setting the net. When possible, clear backlashes with a deck hose instead of a broom handle or a deck brush. Using a hose keeps you well clear of the net.

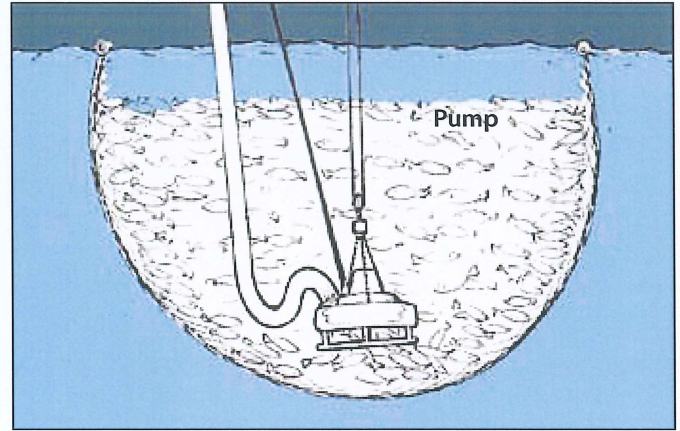




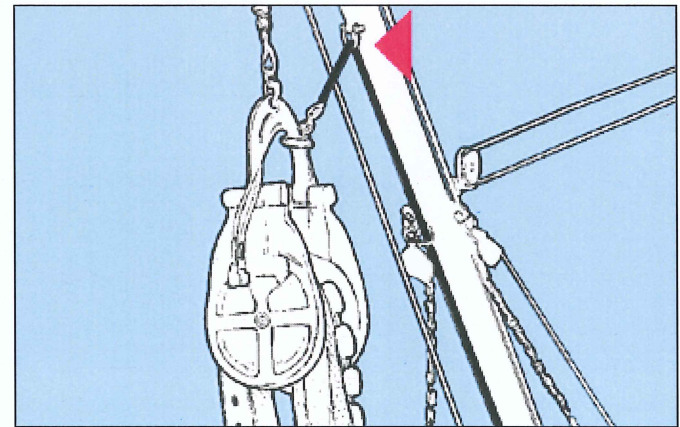
- Crew members **must** stay clear of stern spooling gear while it is operating. A major hazard is getting feet caught between the spooling roller cradle and the side of the boat. Add stop blocks to limit spooler travel to rails.



- The drum operator **must not** leave the controls while the drum is turning. Never attempt to remove the tow line hook or tuck the strap while the drum is turning. The drum operator needs to be able to stop the drum quickly in case of emergency. Consider hold-to-run controls.

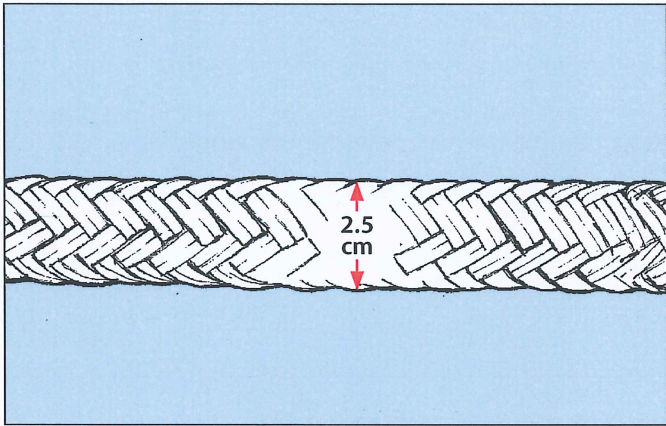


- When seining for herring or sardines, pumping gear **must** be able to pump fish from the bottom of the bunt while the net is set. Dying fish create deadweight that can cause stability problems. Always carry enough extensions to pump the bunt of large sets.

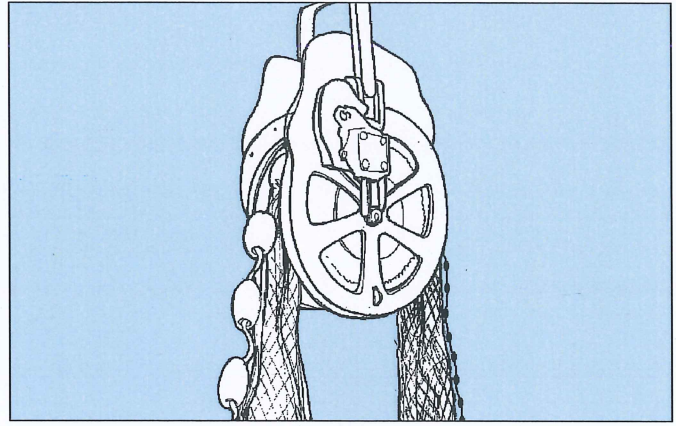


- Power blocks **must** be attached to an effective safety line when hanging above the deck.

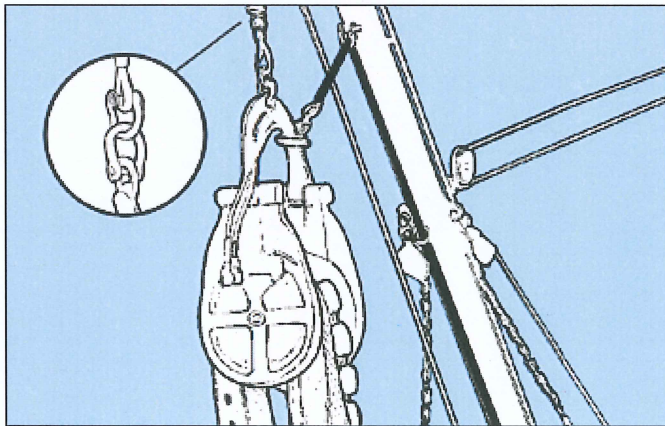




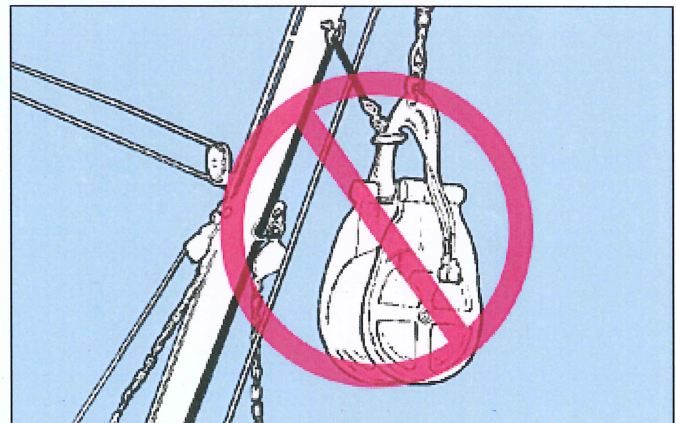
- Power block haul lines **must** have a diameter of at least 2.5 centimetres (1 inch) of double braid nylon or the equivalent. The capacity of the line **must** be rated to safely secure power blocks. Inspect rope regularly, looking for wear, cuts, variations in sizes, and discolouration.



- When working on or fleeting the seine, power block operators **should** watch for and warn the crew of lead lines dropping from the block. Wear a hard hat whenever there is an overhead hazard.



- Haul lines **must** be shackled to the power block. Use adequate shackles and regularly check their condition.



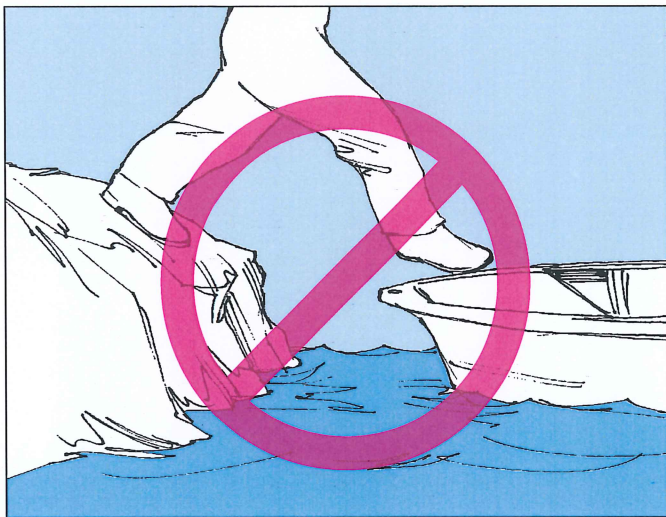
- Don't leave power blocks or heavy equipment hanging in the rigging when not in use. If a line snaps, gear or equipment could come crashing down on the crew.



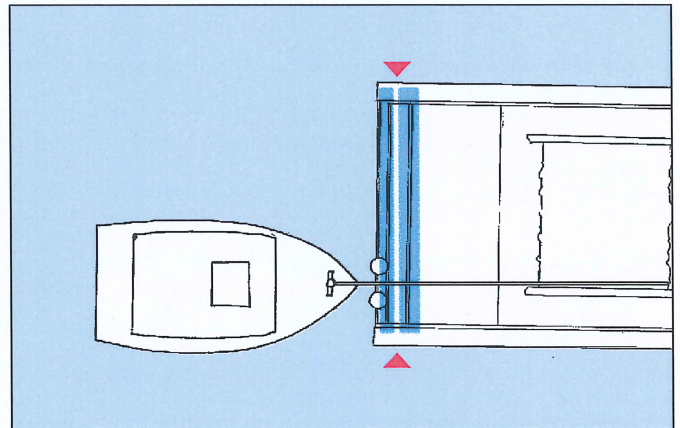
Safety steps and requirements for working on seine skiffs include the following:



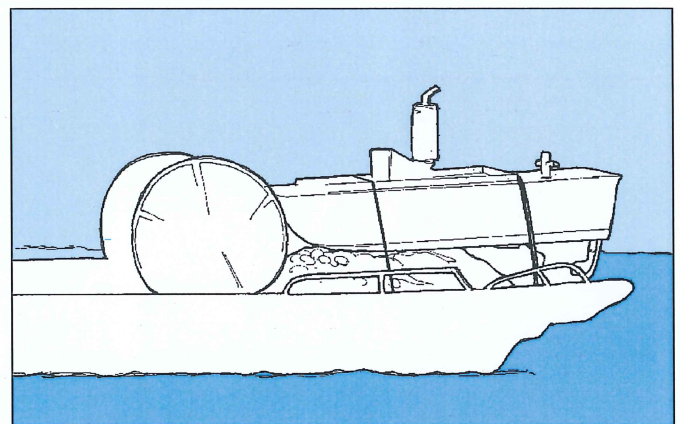
- Crew **must** wear a life jacket or personal flotation device in a skiff.



- Avoid jumping into a skiff. It's too easy to lose your balance, slip, or fall.

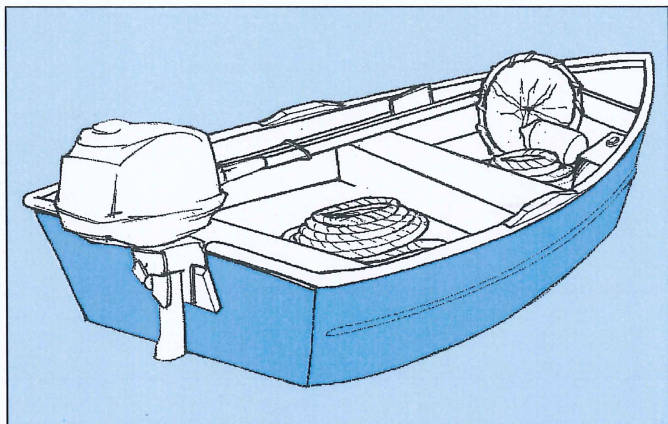


- When climbing in or out of a skiff, stay clear of the pinch points between the skiff and the main vessel.

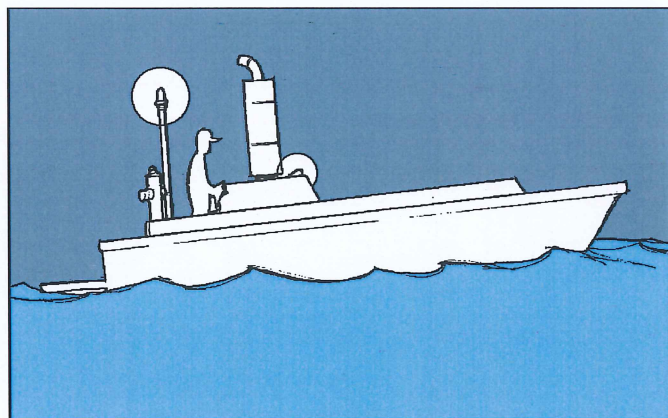


- If a skiff is being carried on deck, secure it so it won't shift and hit crew members, damage equipment, or cause stability problems. Secure the skiff with a nylon strap that can be easily cut if necessary. Ensure the painter line runs under the drum while the skiff is secured or being towed.
- When skiff crew are being towed in the skiff, the master **must** make sure effective communication exists between the main vessel and the skiff.





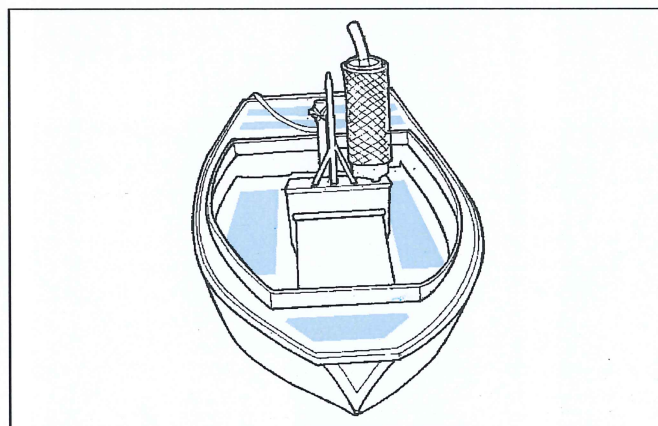
- Keep oar locks and oars in the dead skiff and organize and safely stow all gear.



- Make sure the power skiff has proper navigation lights for night use.

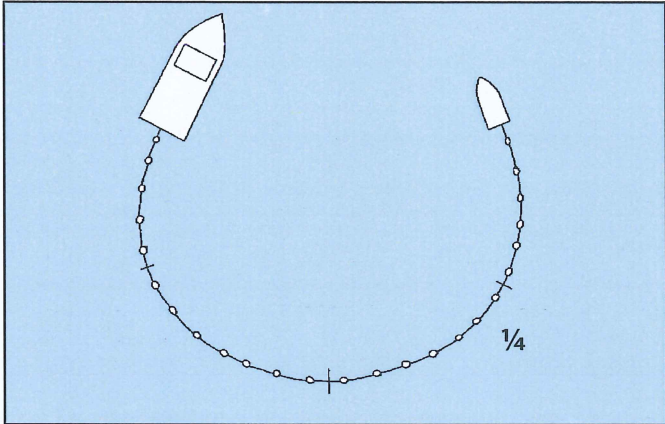


- Don't smoke around the gas tank of a skiff with a gas-powered outboard. Be aware that sparks from welding torches or open batteries could ignite gas fumes, resulting in a fire or explosion.

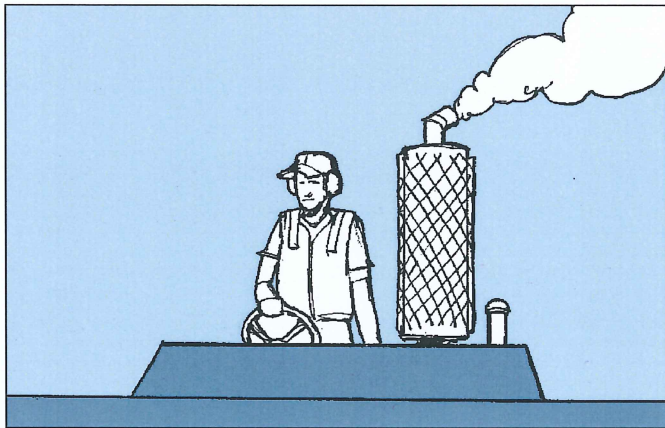


- Decks and floors **must** be non-skid, where practical, and the rails and sides of the skiff **must** be free of snags that can catch the net.





- Skiffs **must** be operated so that the skiff won't capsize from a backlash in the net. For example, when setting with a power skiff, make sure at least one-quarter of the net is in the water to act as a shock absorber before turning the skiff to tow.



- In a power skiff, the exhaust system **must** be shielded to prevent burns and **must** direct exhaust away from the crew.

### Other seining safety steps

When towing the seine:

- Use a good, strong strap to secure the tow end of the seine. If the strap breaks, the tow hook could come flying back aboard.

When closing up:

- Stay clear of the running line. If the line snaps, it could cause serious injury if it strikes crew.

After closing up:

- Avoid taking the skiff under a tensioned tow line.
- Use coordination and care to get the second person back aboard the seine vessel safely. Competent skiff handling and timing with the swell are essential.

When using the stern ramp:

- Keep clear of the spooling gear and the pinch point between the ramp and the bulwarks.

At the end of the set:

- Stow the tow hook so it can't get caught in the net during the next set.

### Beachline operations

Beachline operations can be very dangerous. Each tie-up presents its own set of potential hazards, which will vary according to tide and terrain conditions, and setting procedures. For example, when working with very strong tides, there is always a danger that the beachline will break. Other hazards may include slipping or tripping on rocks, falling from heights, or getting struck by a beachline.

Because of the potential for injury, crew who tie up to the beach **must** be trained and adequately supervised. Never put a crew member without experience or training on the beach. Beach crew **must** know how to:

- Assess tie-ups
- Communicate with the skiff (e.g., use hand and sound signals)
- Attach beachline straps
- Tie and untie proper knots
- Safely cut lines or straps



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Beach crew **must** wear gloves to prevent cuts from barnacles, and appropriate boots to prevent slipping on seaweed or slippery rocks. Beach crew **must** carry a knife to cut the beachline or the strap, if necessary.

### Other safety steps for the beach crew

When going ashore:

- Plan ahead. Scout the shoreline for good tie-up sites – and how you'll get to them.
- Partially lower the stern ramp, if the vessel has one, so the beach crew can get into the skiff more easily.
- Ensure the skiff is clear of the seine boat before throwing the sea anchor into the water. Otherwise, if the painter doesn't release immediately, the seine could be set over the skiff and crew.
- Getting the beach person to shore often requires proper skiff handling and timing with the swell.
- Avoid carrying a beachline over your shoulder. If the net backlashes, you could be pulled back and fall.
- Use knots that can handle the strain, if you have to join two lengths of beachline. For example, if the extension has no spliced eye, use two bowline knots or a double sheet bend (cat's paw.) Or use a double cat's paw to tie the plain end of the main beachline to the eyed end of the extension.

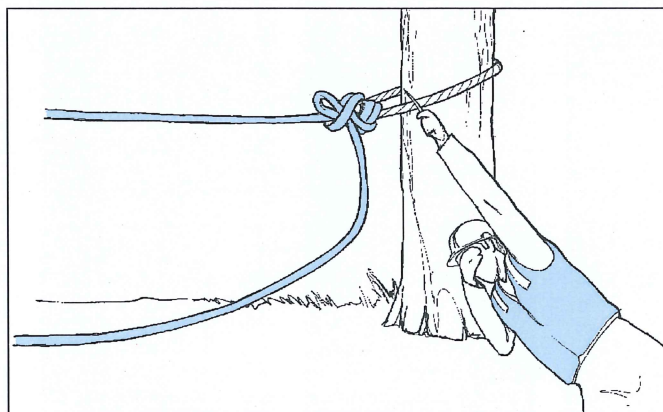
When tying up:

- Avoid tying the knot directly to a tree, where practical. Tie it to a strap. Cutting the strap is generally safer than cutting the beachline.
- Don't use straps left on trees from previous years. They may be rotten and more likely to break.

- Make sure you have enough slack in the line to give you time to tie the knot. Beachlines often need to be tied quickly, but don't rush. Working too quickly invites accidents.
- Never put your hand through a loop when forming the next knot. If the line tightens, you could hurt your hand or lose a finger in the bight.
- Stay out of the hazard area between the tie-up point and the vessel. And always use safe knots with enough length to protect yourself from potential beachline whip.

When releasing the beach knot:

- Make sure you are clear of the beachline. Keep the line ahead of you.
- Reduce the tension on the running line, when appropriate. The master **should** coordinate with the winch operator to minimize the tension on the running line when the beach person is releasing the beach knot.

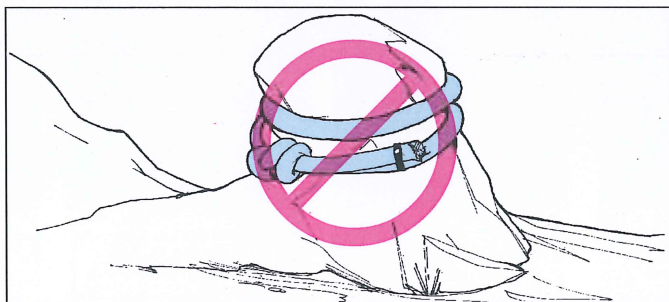


- Protect yourself when cutting a strap or beachline:
  - Keep your head, body, legs, and feet away from where the line will be cut.
  - Cover or close your eyes to protect them from pieces of flying rope.



## Tying to a tree

If you have to tie a beachline directly to a tree, make sure that the first wrap around the trunk is going in the right direction – that is, so that the last wrap will fly off the tree away from you. A line that is wrapped around the tree in the wrong direction can kill you.

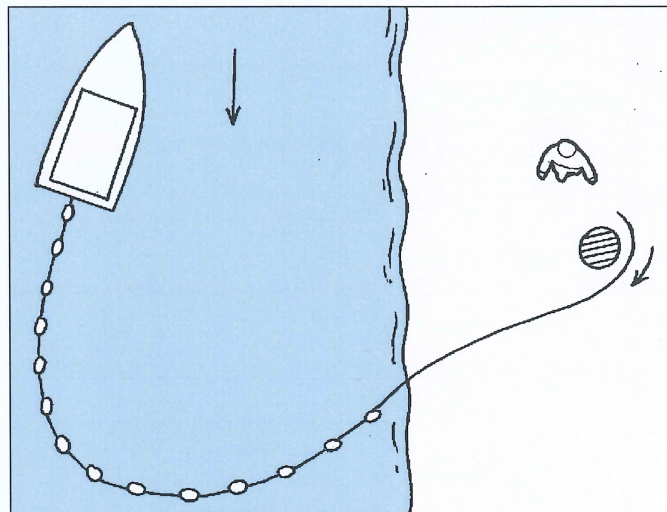


Never wrap a strap twice around a rock or stump. It is dangerous to cut a “double strap” – the strap may whip and cause serious injury.

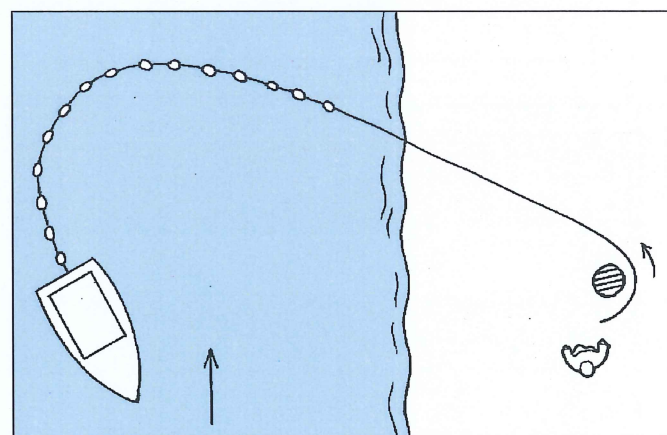
## Working in the dark

Fishing quotas have changed the fishery, and night fishing is not as prevalent as it once was. If beach crew do have to tie up in the dark, proper lighting is required. It is not safe for beach crew to use only a flashlight to guide themselves over the shore. It may be steep, rocky, or covered with seaweed. Beachline operations **must not** be done unless the following steps are followed:

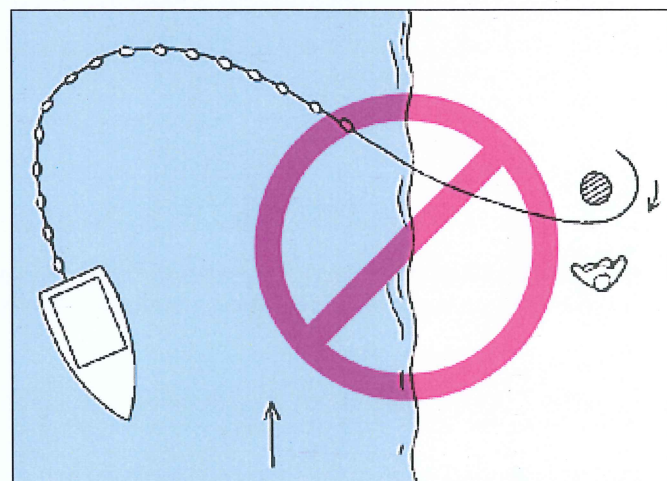
- All crew are trained in “dark set” procedures.
- The seine boat can provide enough light to the work area.
- Skiff crew wear high-visibility clothing as well as the required lifejacket or personal flotation device.
- Effective communication (using hand, light, or air-horn signals) is in place between the beach crew and the seine boat.



*For a right-hand or starboard-side set*



*For a left-hand or port-side set*

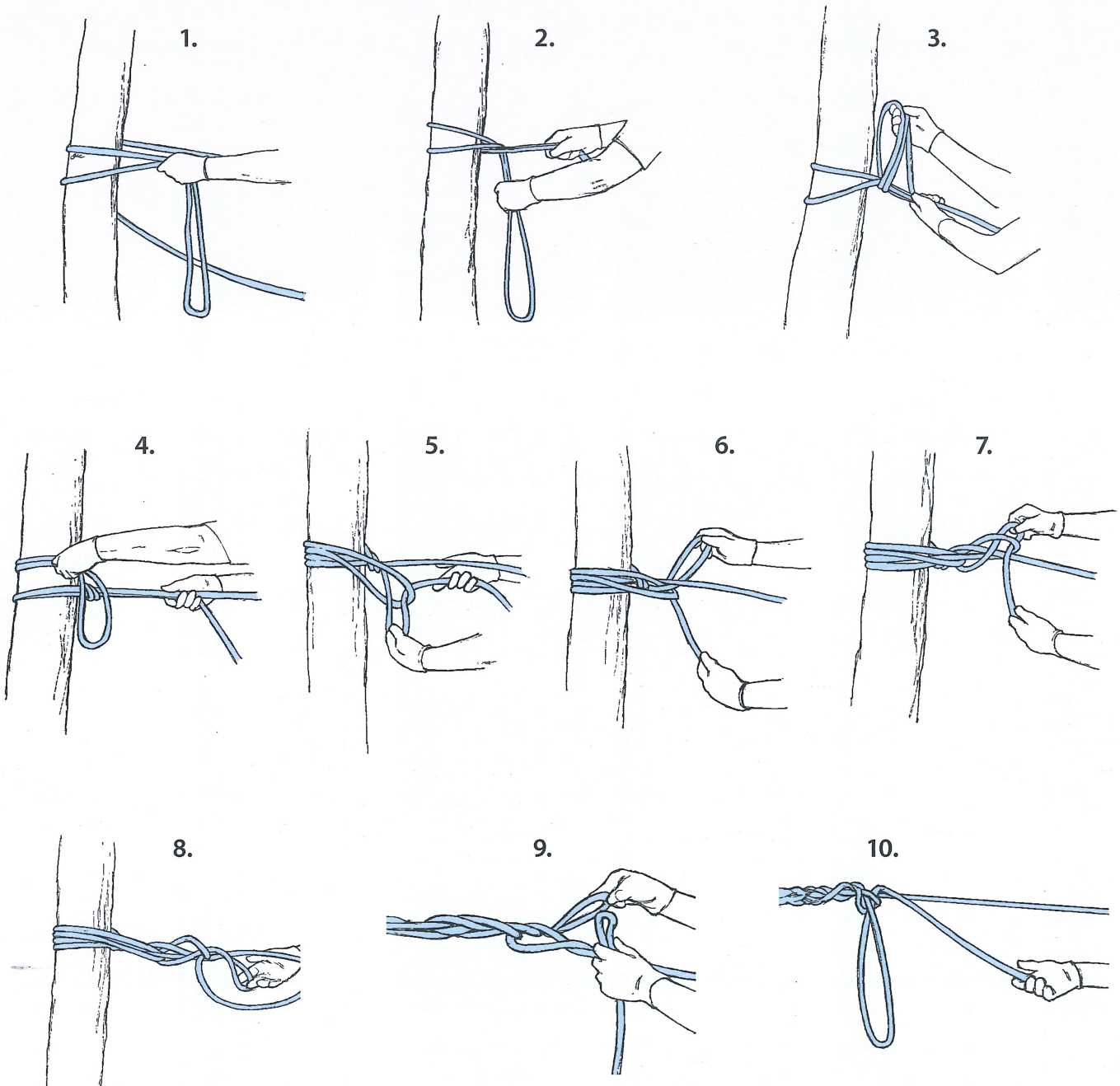


*Wrong way to tie to a tree*



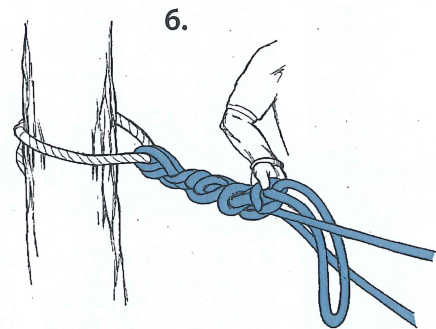
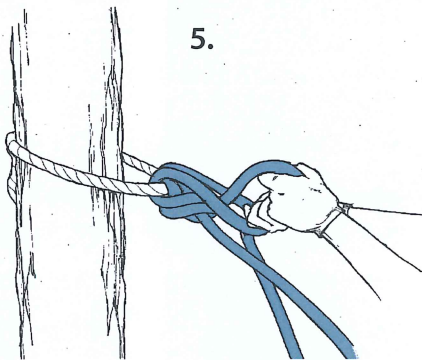
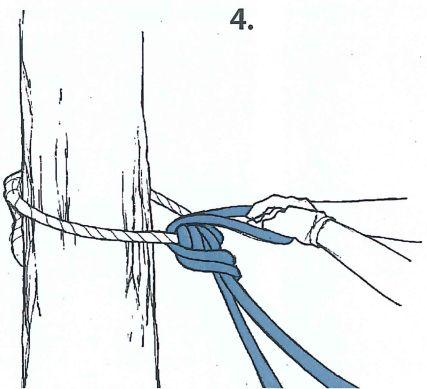
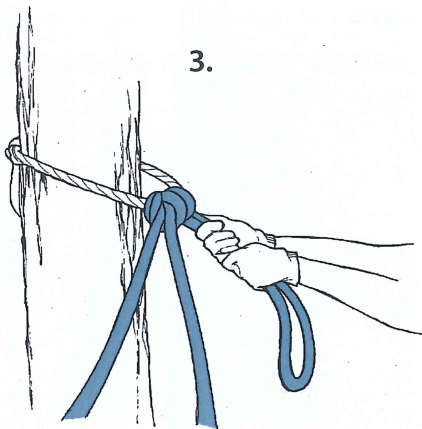
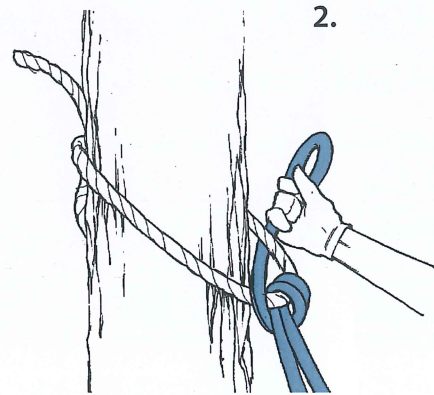
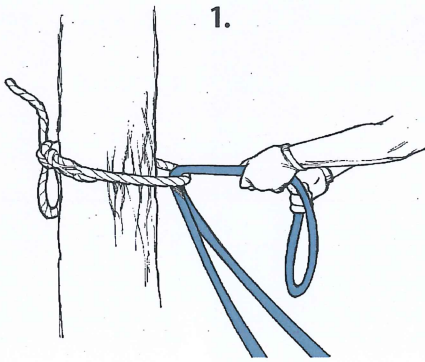
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If it's necessary to tie to a tree, choose the right knot for different variables such as tide conditions, vessel towing power, and the location of the tie-up site. The following is an example of a basic knot used for tying to a tree.





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- When using a strap for a large tree, stump, or rock, make sure the strap is strong enough to handle the strong forces during the set. Keep a wide selection of straps in the skiff that will fit different sizes of trees and rocks. The following is an example of how to tie a safe, all-purpose strap knot.





## Brailing procedures

When brailing, consider your vessel's limitations, weather and sea conditions, and the weight in your net. Always err on the side of safety when judging how much is in your net.

Like any activity in commercial fishing, brailing has its hazards. Stay clear of the brailer when it's swinging. Avoid the pinch points between the brailer and the vessel, and between the handle and the drum stand.



A typical crew set-up is one person on the brailer handle, one person on the rail to assist, one person on the brailer trip wire, and one at the controls.

Make sure all crew know the proper brailing procedures for your vessel.

### Typical brailing procedures

1. Ensure the brailer and all the lifting apparatus are designed and maintained in a condition capable of withstanding the lifts.
2. With the corks suspended from the brailing boom, drum up the net removing all the slack from the web. Make sure the spooling gear is in the correct position on the setting side.
3. Make sure the lead line is out of the water.
4. Strap the net at the stern roller. Hook the boom tip single fall into the strap and position it around the stern roller.
5. Back off the drum to take the weight on the strap, and raise the single fall to create a pocket for brailing amidships.
6. Dry up the slack web and secure it to the rail. If using a hydraulic roller, be sure crew are clear before turning the roller so there is no possibility of injury. If using a strap and single fall, make sure weight is not left on the boom. Tie the strap to the rail to keep a lower centre of gravity.
7. Strap the web off at the rail from the boom end of the single fall. Lower the single fall while drumming in excess slack web to keep a low centre of gravity, while moving the spoolers to the opposite side of the vessel to help maintain an even keel.
8. Brail fish. At a minimum, masters **must** establish safe drying up procedures that cover: communicating on deck; coordinating crew activities; securing the net; hoisting fleets; and jettisoning the set if the vessel is endangered.
9. When brailing is done, stow and secure the brailer and replace the hatch covers.
10. Release the corks and web. When all crew are clear of possible entanglement, give the "all clear" and return all the web and corks to the water.
11. Release the net end and drum the net in.

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### Tips from fishermen:

- Make sure you have a procedure in case you have an emergency release of a set.
- Don't bury the tow strap when drumming in the net.
- Make sure all crew know how to shut off the hydraulics in an emergency.
- Always wake up the skipper if unsure of anything while on the watch.
- Make sure all controls are identified as to their use.
- Close watertight doors and portholes when drying up to prevent down-flooding.
- Don't leave heavy weights suspended from booms. Strap the seine to a cleat on deck to relieve weight from the boom.
- When fishing is over, lower the boom and lift the davits inboard.

