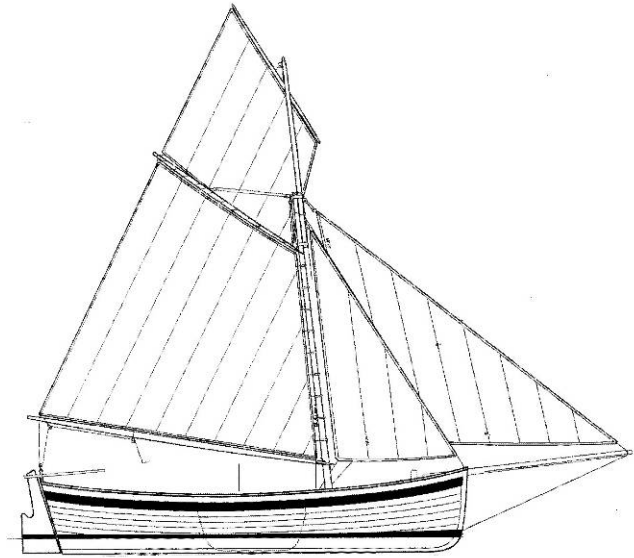


THE SHIP'S COMPANY OF PENETANGUISHENE



Crew Handbook



www.shipscompany.ca

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INTRODUCTION TO THE SHIP'S COMPANY

The Ship's Company of Penetanguishene was founded in 1999 and is a registered Not for Profit organization. It was founded by many of its current members as a platform to provide sail training, to promote traditional seamanship and to educate the public about the Royal Navy of 1812.

The members are comprised of many different backgrounds each providing their own expertise to the group, as well as their hard work and positive attitudes. The activities and capital projects of the Ships Company are funded mainly through its membership fees and member donations.

The first vessel of the Ship's Company's was the 14' Skiff "Revenge" built in the "Bitter End" clubhouse. It started from some magazine plans and Mark Simpson's vision of the little boat. The sail was made at Kingston Sail loft by our members with the help of Andy Soper. Revenge proved to be a great project for the Ship's Company producing a handy little craft and whetting everyone's appetite for a larger vessel.

Knot - a unit of speed, one knot=6,076 feet per hour

Leeward - downwind

List - the leaning of a boat to the side because of excess weight on that side

Mooring - an anchor or weight, permanently attached to the sea floor, with a buoy going to the surface, used to hold the boat in a certain area

Nun - a kind of navigational buoy

Point - to turn closer towards the wind (point up)

Port tack - sailing with the wind coming from the port side, with the boom on the starboard side

Privileged vessel - the ship with the right of way

Reach - sailing with a beam wind

Rhumb line - a straight line compass course between two points

Running - a point of sail, going directly downwind

Scull - moving the rudder back and forth in an attempt to move the boat forward

Starboard tack - a course with the wind coming from starboard and the boom on the port side

Trim - to adjust the sails, also the position of the sails

Tuning - the adjustment of the standing rigging, the sails and the hull to balance the boat for optimum performance

Wake - the swell caused by a boat passing through water

Whip, Whipping - To bind the strands of a line with a small cord. Winding twine or heavy thread around the end of a line to keep it from unravelling

Windward - upwind

Working Sheet - The sheet that is currently taught and in use to control a sail. The opposite of the lazy sheet.

Worm - The operation of passing a small line in a spiral between the lays of a rope, in preparation for parceling and serving. Rope is wormed, parceled and served to protect it from water which could rot it, or from chafing

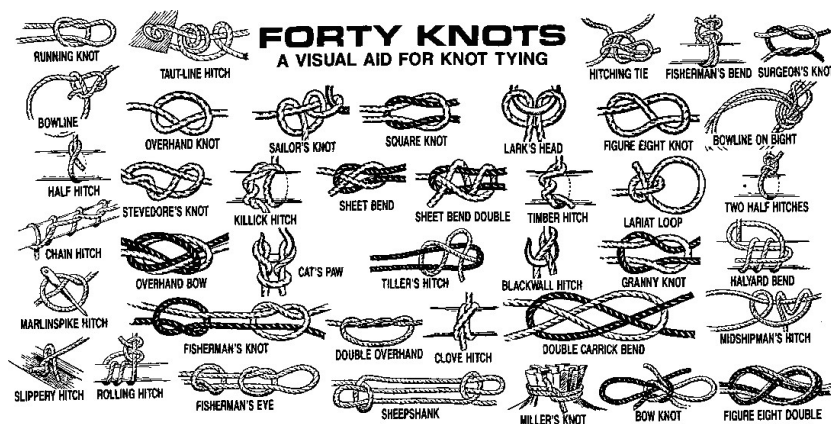


In 2000 the Ship's Company purchased an aluminum hull, of 26ft, saving it from the scrapper's torch. The hull, having served many years as a lifeboat, to the freighter 'Fort Chambly' had logged enough sea miles hanging in her davits to circumnavigate the globe and then some. It took a lot of work from dedicated volunteers, and in 2001 the newly named HMS Badger was launched. Her spars were made of local timber and she makes a fine looking gaff cutter. The 25 hp outboard and custom trailer were purchased with thanks to the Trillium Foundation. We continue to make improvements to Badger. Some of the more recent include interior wood cladding and a brand new square sail.

Once the Badger was completed members began looking for another project to keep them busy in the winter months. A 14' lifeboat hull was purchased with the goal of having a smaller more portable vessel that could be easily trailered and rigged on site. In 2005 the newly named "Kingfisher" was launched. Her red tanbark sails make her quite distinctive on the water. She can carry one swivel gun and is equipped with a very discreet electric motor.

In 2009, HMS Badger was invited to Halifax to participate in the 250th anniversary of the Naval Dockyard and the tall ship festival. Badger was a big hit, but her requirement of a crane for rigging started the Ship's Company thinking. A more portable vessel, to rival Badger in both size and appearance, would be ideal. Later that year, two fibreglass whaler hulls were purchased from Navy surplus.

One of the whalers was sold to the Sea Cadets, but the other was transformed into HMS Lynx. She was launched in 2012 to celebrate the bi-centennial of the War of 1812. She is a two masted schooner, carrying four sails and one swivel gun. She is a welcome addition to the Ship's Company's fleet.



THE SHIPS

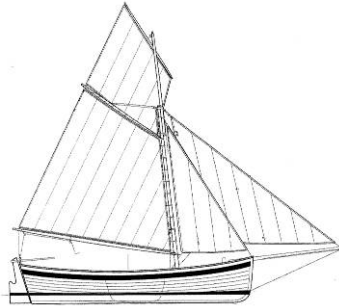
HMS Revenge

LOA: 14 ft
Draft: 8"
Beam: 2' 4"
Sail Area: 32 ft²
Rig type: Sprit rig
Rig Height: 14'
Hull Material: Wood



HMS Badger

LOA: 36 ft
Draft: 16" or 5'5"
Beam: 9'
Sail Area: 150 ft²
Rig Type: Cutter
Rig Height: 41'
Hull Material: Riveted Aluminum



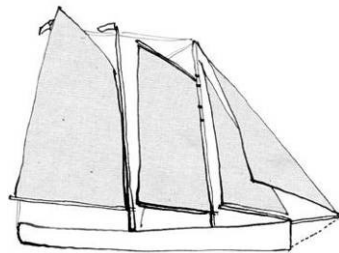
HMS Kingfisher

LOA: 18 ft
Draft: 16"
Beam: 4'
Sail Area: 75 ft²
Rig Type: Ketch
Rig Height: 19'
Hull Material: Riveted galvanized steel



HMS Lynx

LOA: 32
Draft: 2' or 5' 6"
Beam: 6'
Sail Area: 300 ft²
Rig Type: Schooner
Rig Height: 22'
Hull Material: Fibreglass



Dimensions

Beam - the width of the boat at its widest

Displacement - the weight of the water displaced by the boat

Draft - the depth of the boat at its lowest point, also the depth or fullness of the sail

Freeboard - the distance from the highest point of the hull to the water

Spared Length or LOA (length over all) – extreme length of the vessel spars included

Sailing Terms

Abeam - At right angles to, or beside, the boat

Aboard - On or in the boat

Aft - Toward the stern

Aground - When the hull or keel is against the ground

Aloft - overhead, above

Amidships - the middle of the boat

Apparent Wind - the direction of the wind as is relative to the speed and direction of the boat

Astern - behind the boat

Beam reach - a point of sail where the boat is sailing at a right angle to the wind

Bearing - a compass direction from one point to another

Bight - a loop of line or rope

Broach - to spin out of control, either causing or nearly causing a capsized.

Broad reach - a point of sail where the boat is sailing away from the wind, but not directly downwind

Buoy - an anchored float marking a position or for use as a mooring

By the Lee - sailing with the wind coming from behind and slightly to the side that the sails are on

Can - a kind of navigation buoy

Capsize - to turn a boat over

Chafe - damage to a line caused by rubbing against another object

Close hauled - a point of sail where the boat is sailing as close to the wind as possible

Close reach - a point of sail where the boat is sailing towards the wind but is not close hauled

Dock - the area a boat rests in when attached to a pier, also the act of taking the boat to the pier to secure it

Drift - the leeway, or movement of the boat, when not under power, or when being pushed sideways while under power

Fathom - a measurement relating to the depth of water, one fathom is 6 feet

Forward - toward the bow to the boat

Fouled - entangled or clogged

Head to Wind - the bow turned into the wind, sails luffing

Headway - forward motion

Helmsman - the member of the crew responsible for steering

Heel - the leeward lean of the boat caused by the winds action on the sails

In Irons - having turned onto the wind or lost the wind, stuck and unable to make headway

Ketch - a two-masted ship with a small mast mounted forward of the rudder post

Clew - the lower aft corner of a sail
Downhaul - a line, attached to the tack, that adjusts tension in the sail
Fairlead - a fitting used to change the direction of a line without chafing
Foot - the bottom part of a sail
Foremast - the forward mast of a boat with more than one mast
Foresail - the jib
Gimball - a device that suspends a compass so that it remains level
Gooseneck - a device that connects the boom to the mast
Ground Tackle - the anchor, chain and rode
Gunwale - the railing of the boat at deck level
Halyard - the line used to raise and lower the sail
Head - top of the sail
Headsail - a sail forward of the mast, a foresail
Headstay - a wire support line from the mast to the bow
Helm - the tiller or wheel, and surrounding area
Jib - a foresail, a triangle shaped sail forward of the mast
Keel - a fin down the centerline of the bottom of the hull
Lanyard - a line attached to any small object for the purpose of securing the object
Lazarette - spaces below the deck that are designed for storage
Leech - the back edge of a sail
Line - rope or cordage
Luff - the front edge of a sail, and the flapping in the wind of the front of the sail (luffing)
Mainsheet - the line that controls the main boom
Mizzen - the shorter mast behind the main mast on a ketch or yawl or other ship
Outhaul - the line that adjust tension along the foot of the sail along the boom
Painter - a line tied to the bow of a small boat for the purpose of securing it to a dock or to the shore
Pennant - a triangular flag
Port - the left side of the boat when looking forward
Rigging - the standing rigging is the mast and support lines, running rigging is the lines with which you adjust the sails
Rode - the line and chain that connect the anchor to the boat
Rudder - a fin under the stern of the boat used in steering
Sheave - the wheel of a block pulley
Sheet - a line used to control the sail
Shrouds - support wires for the mast
Spars - generally yards, masts, booms and sprits
Spreaders - struts used to hold the shrouds away from the mast
Spring line - docking lines that keep the boat from drifting forward and back
Starboard - the right side of the boat
Step - the frame that the bottom of the mast ends into
Stern - the back of the boat
Tiller - controls the rudder and is used for steering
Topping lift - a line that holds up the boom when it is not being used, also the line that controls the height of a spinnaker pole
Transom - the back, outer part of the stern
Traveler - a device that the mainsheet may be attached to which allows its position to be adjusted
Winch - a metal drum shaped device used to assist in trimming sails

UNIFORMS

Uniforms are not required by the Ship's Company, however, many of the events we participate in do require uniforms. The Navy, in the 1800's, didn't have an official naval uniform. The reason most sailors dressed alike was due to their limited resources. Pants were made from old sails and were therefore white canvas or cotton. The length of the leg depended on the specific time period, but all have button down fronts.



Shirts were loose with a collar. Colour varied and patterns were generally solid, striped or checked.

Socks may be solid or striped and came in any colour, however, red is usually reserved for gun crew.

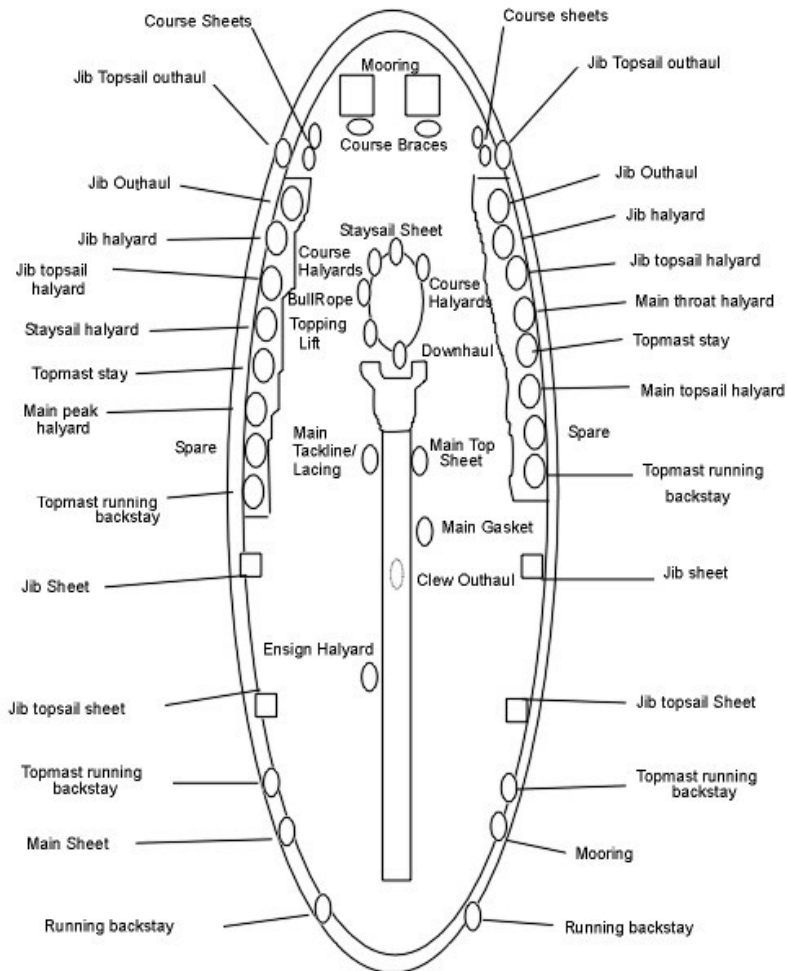
Shoes were black with a buckle.

Most sailors would carry a knife with the tip broken off (to discourage fights on board) and a marlin spike. A rope lanyard is attached to the knife and spike. These were held in a sheath, usually leather. This would hang from the sailor's belt which was either leather or rope.

Any additional flourishes are encouraged. Sailors loved shiny things and bright colours as this showed wealth. Others made most of their belongings themselves with any material they could get their hands on. Some would whittle buttons out of old cheese.

If you want a uniform, ask Ship's Company members. We make some things ourselves while others are tailor made locally. One company that specializes in period clothing can be found at www.jas-townsend.com.

HMS BADGER PIN PLAN



SAILING TERMINOLOGY

Commands

About Ship - The order to tack the ship

Belay - to make secure

Cast Off - to release lines holding boat to shore or mooring, to release sheets

Ease - to loosen or let out

Furl - to fold or roll a sail and secure it to its main support

Hard Alee - the command given to inform the crew that the helm is being turned quickly to leeward, turning the boat windward

Heave To - to stop a boat and maintain position (with some leeway) by balancing rudder and sail to prevent forward movement, a boat stopped this way is "hove to"

Helms alee - the command to have the tiller pushed to leeward causing the boat to head into the wind

Helm Down - order given to have the tiller pulled down wind, causing boat to head to windward

Hoist - to raise aloft

Jibe - a change of tack while going downwind; wear ship

Pinch - to sail as close as possible towards the wind

Ready about - prepare to come about

Reef - to reduce the size of a sail

Shake out - to release a reefed sail and hoist the sail aloft

Stow - to put away

Tack - the front, lower corner of the sail, also course with the wind coming from the side of the boat, also to change course by turning into the wind so that the wind comes from the other side of the boat

Weigh Anchor - To raise anchor in preparation for departure

Ship Parts

Anchor - An object designed to grip the ground, under a body of water, to hold the boat in a selected area

Backstay - a support wire that runs from the top of the mast to the stern

Ballast - weight in the lower portion of a boat, used to add stability

Boom Vang - a line that adjusts downward tension on the boom

Boom - the horizontal spar which the foot of a sail is attached to

Bolt Rope - a rope sewn into the luff of a sail for use in attaching to the standing rigging

Bowspirt - a spar extending forward from the bow

Bow - the front of the boat

Breast line - a docking line going at approximately a right angle from the boat to the dock

Bilge - the lowest part of a boat, designed to collect water that enters the boat

Block - a pulley

Boat Hook - a device designed to catch a line when coming alongside a pier or mooring

Centerboard - a fin shaped, often removable, board that extends from the bottom of the boat as a keel

Chainplates - metal plates bolted to the boat which standing rigging is attached to

Cleat - a fitting used to secure a line to

LINES AND KNOTS

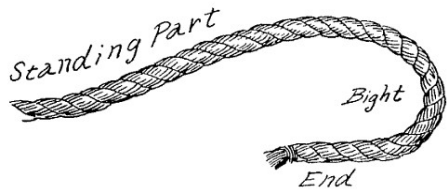


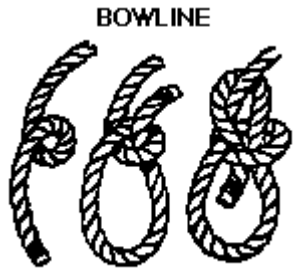
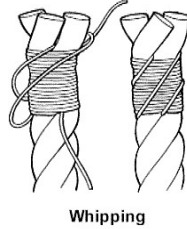
FIG. 3.—Parts of rope.



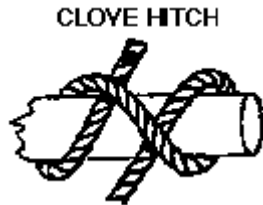
FIG. 108.—Eye splice.



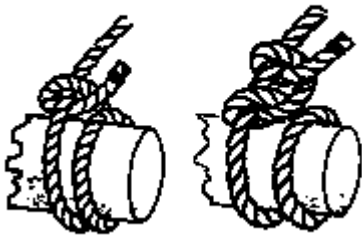
FIG. 106 D.—Short splice (continued).



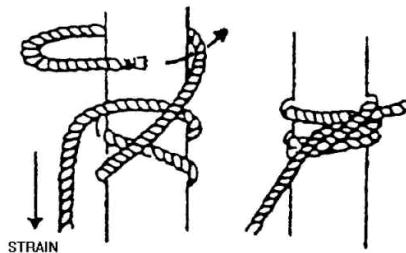
STEP 1 STEP 2 FINISHED KNOT



ROUND TURN AND TWO HALF HITCHES

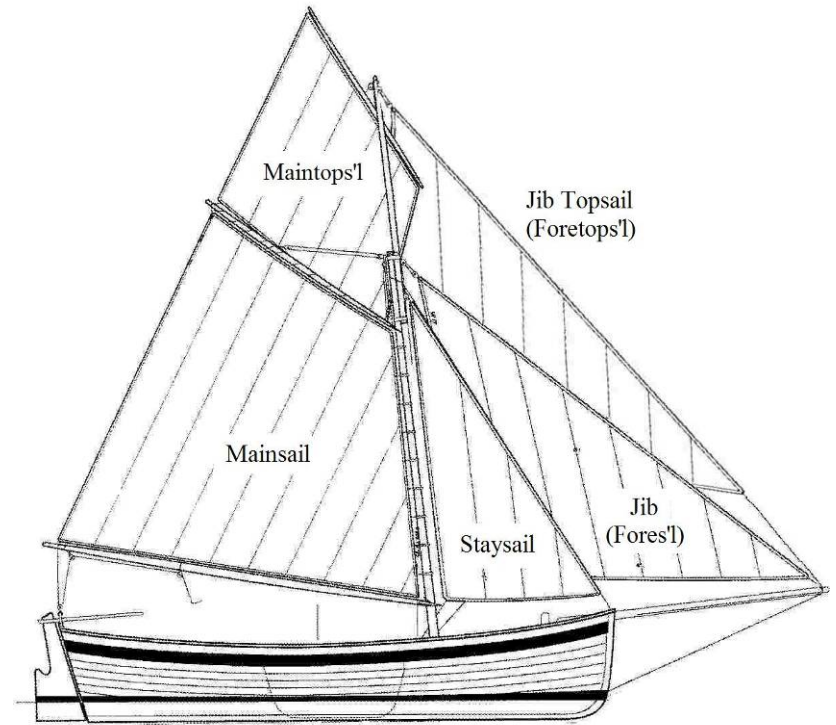


STEP 1 FINISHED KNOT



ROLLING HITCH

BADGER SAIL PLAN

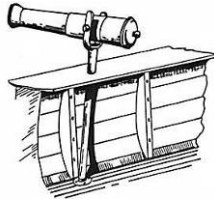


Not shown: Split Course – port and starboard

ARMAMENT

HMS Badger is equipped with two swivel guns and one chase gun on the bow.

"Swivel gun" - This was usually a small caliber cannon or short barreled musket, mounted on some sort of swivel, and used mostly as an anti-personnel weapon. They were mounted on the ship's rails and bulwarks mostly fore and aft and sometimes up in the masts or rigging to provide raking fire down upon the enemy. They fired various types of projectiles, as did all cannons, but were most effective against flesh when loaded with shot.



The chase long gun or cannon was usually mounted on a four wheeled carriage to allow for freedom of movement to the needed position on deck. The Royal Navy usually avoided the destruction of enemy ships, preferring to capture them, put prize crews aboard, bring them back to England, and there sell them.



Bar, Chain and Expanding Shot

There were innumerable examples of these projectiles. All were designed to damage ships' rigging, small boats or any unfortunate sailor who happened to get in the way. They date from the 17th century.



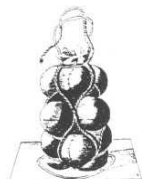
Bar Shot



Expanding Shot



Chain Shot



Grape Shot

ROWING COMMANDS

TOSS OARS – Raise oars vertically with blades fore and aft. Start raising oars from aft and work forward. Try and raise your oar at the same time as the person beside you. Now is a good time to put on your grommet.

OARS – Lower oars to gunwale and connect grommet to thole pin. Blades should be parallel to water.

STANDBY TO PULL (MAKE WAY/GIVE WAY) TOGETHER – Turn blade perpendicular to water.

PULL (MAKE WAY) TOGETHER – Start rowing. Watch the oarsmen in the seat sbrd aft and try to keep pace with them.

EASY ALL – Slow down your pace and don't pull as hard on your oar. Continue watching lead oar.

HOLD WATER – The brakes. Put your oar in the water and hold it in position to stop the ships forward momentum. Brace yourself.

BACK WATER – Reversed. Row oars in opposite direction; pushing the oar instead of pulling.

OARS – Complete one more stroke and leave your oar out of the water. Turn blade parallel to the water.

LAY ON YOUR OARS – Bring your oar inboard so that the handle of your oar is resting on the opposite gunwale. This is a resting position.

STANDBY TO TOSS OARS – You should be in an 'OARS' position. Remove your grommet from the thole pin.

TOSS OARS – Lower the handle of your oar to the deck and use your foot to steady it. Raise the oar to a vertical position. This should be done in unison with all the other oars.

BOAT OARS – Lower your oars into the boat starting from forward. Blades should be aft. Don't forget to collect your grommet.

General Notes:

Most commands will be preceded by a 'standby to' command to give you time to prepare.

Some commands will be given 'side' specific, example; **PORT SIDE MAKE WAY, STBD SIDE BACK WATER**. In this case know what side you're on and follow the oarsman in the sternmost seat on your side.

Badger is equipped with an outboard so our main goal of rowing is coordination rather than speed. It's all about looking good out there.