

Crew Manual

Contents

Waka Whanau Values..... 3

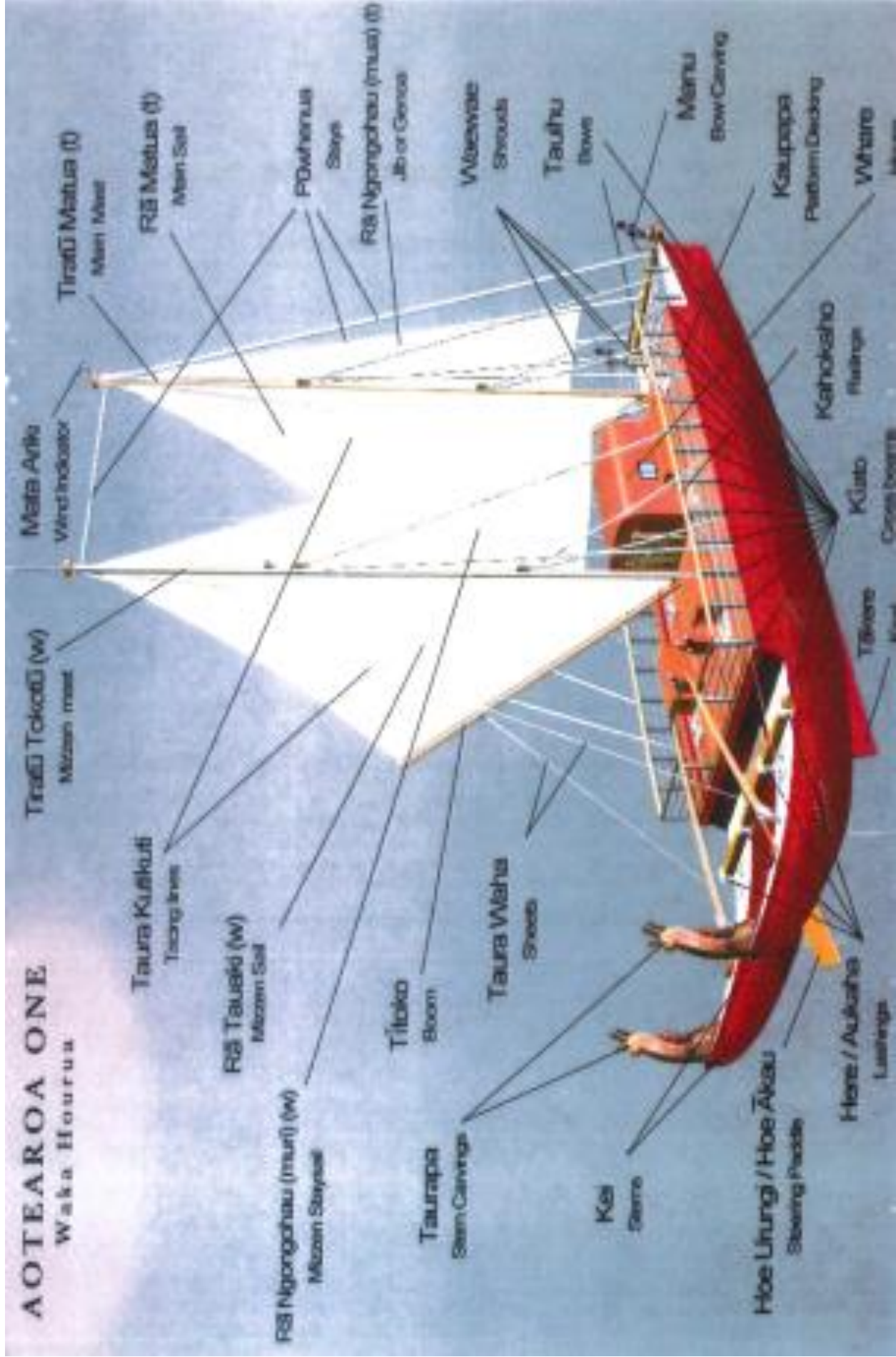
Waka Whanau Values

Core Values of the Whanau - Crew

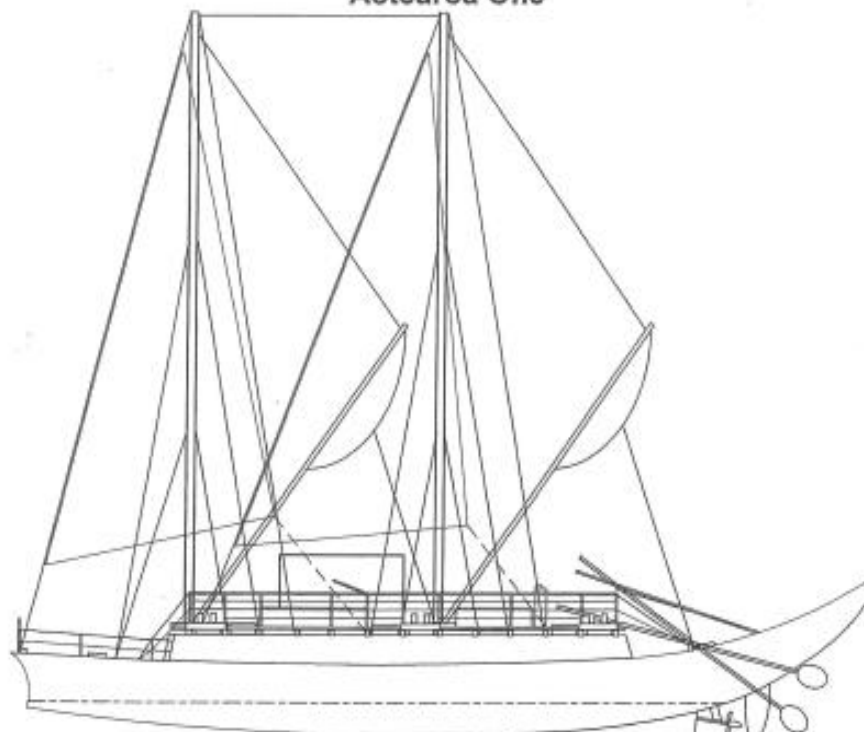
- **Wairuatanga / Aroha – Spirituality / Love**
- **Whanaungatanga – Belonging**
- **Rangatiratanga and Manaakitanga – Personal sovereignty, Kindness and generosity**
- **Kaitiakitanga – Stewardship, guardianship and caretaking in all that you are and do.**

AOTEAROA ONE

Waka Hourua



Aotearoa One



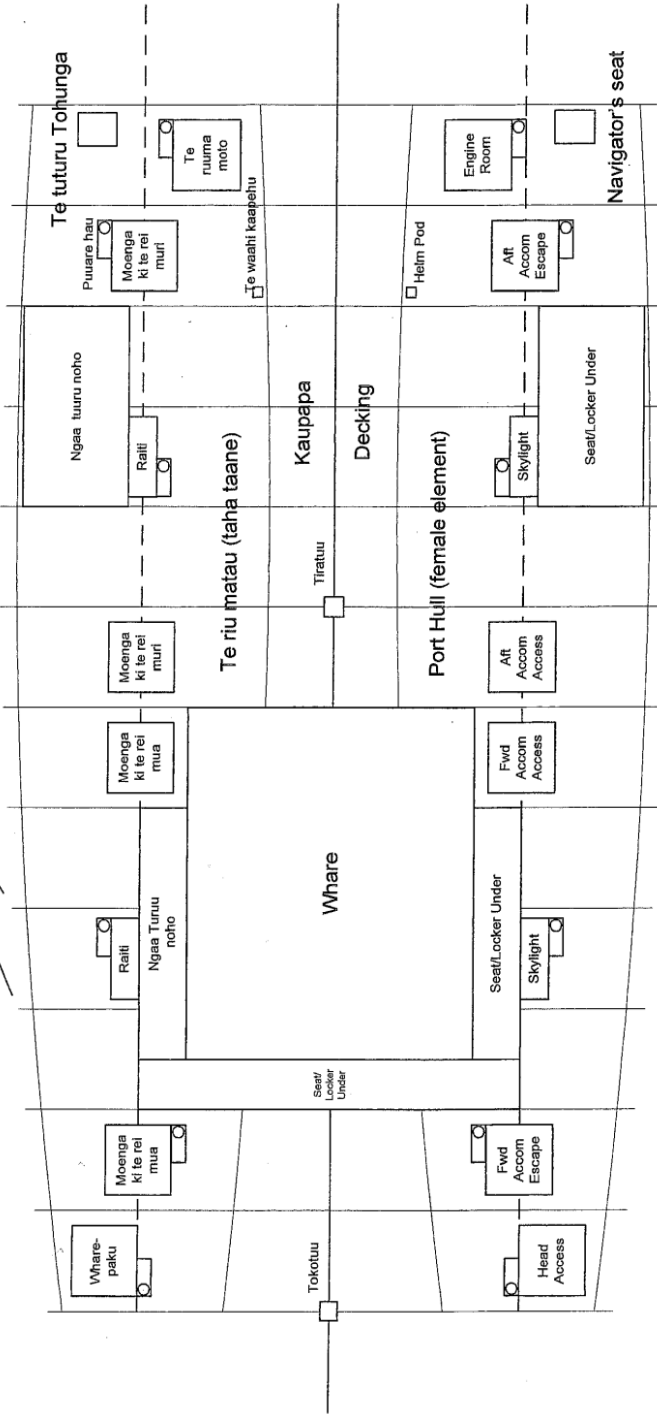
Specifications

Length:	24.2m
Waterline Length:	19.5m
Breadth:	7.2m
Draft:	1.1m
Total Sail Area:	176 sq m
Height from waterline:	18m
Capacity:	44 (+6 crew) Day, 15 (+6) Overnight
Engines:	Volvo 40hp x 2 (3 bladed folding propellers)
Fuel:	660 litres Diesel
Water:	1400 litres total
Tender:	4.5m Lancer Inflatable
Tender Outboard:	25hp 4 Stroke Yamaha with high thrust prop

Construction

Handrails:	Kauri
Stanchions, Fittings:	Stainless Steel
Deck:	
Mooring and MastCleats, Rubbing Strakes, Mast Steps, Spare Men,	
Working Deck Kiato (Beams):	Jarrah
Bow and Steering Hoe Kiato:	Laminated Jarrah and Kauri
Masts and Spars, Hoe (Oars):	Oregon
Steering Hoe (Oar) Blades:	Laminated strips, Oregon and Jarrah
Hulls:	2x 9mm Marine Ply under Fibreglass
Frames:	Kauri
Interiors:	Kauri, Marine Ply

Kiiaato (laku) (Te mana o nga hapuu)



Tau Ihu
Bows

Te Kei
Sterns

Waka Whanau/Crew Structure

Kaihautu - Captain

Captain for Aotearoa One is to be qualified with a minimum requirement of the, Skipper Restricted Limits Certificate (SRL), and experienced in sailing traditional wooden sailing vessels.

Has sole legal charge of the vessel.

Kai Whakaterere -Traditional Sailing Advisor / Navigator

Traditional Sailing Advisor assists the Ticketed Captain to co-management overall general operation, sailing, and passenger activity and so on, and this is organised with the particular group sailing, dependent on the purpose of the voyage for the passengers or trainees involved. Legal responsibility for the safety of the waka and personnel however, always remains with the ticketed Captain.

Toa - Watch Captain

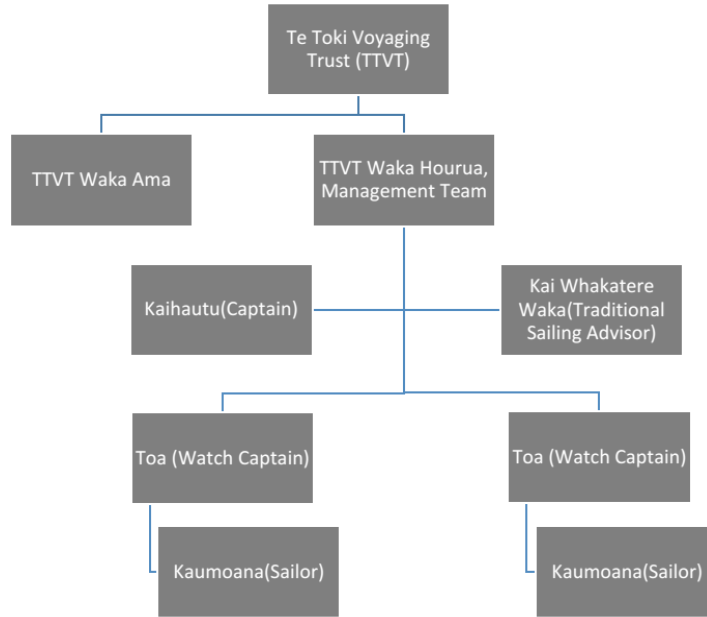
When not carrying a Kai Whakaterere and or when Captain is off watch, responsible for the waka and navigation as well as the fore person of a given watch.

Organises the watch, ensuring that it performs watch tasks as required; and whilst on duty watch members are rotated in good time through the different roles of responsibility: Helm, Look out General duties. Takes part in the mahi of the watch with Kaumoana, trains and supervises their efforts.

Kaumoana – Crew

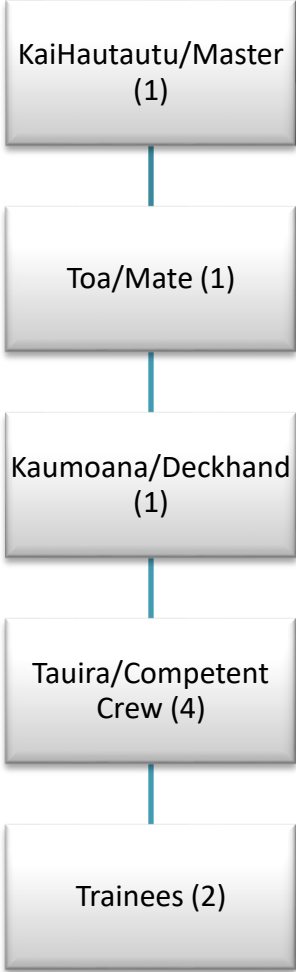
Carries out mahi of the watch under the instructions and supervision of the Toa.

Waka Crew Structure

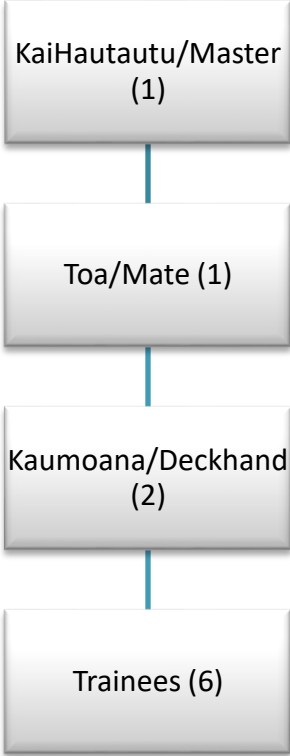


Harbour Sailing Manning

Option 1



Option 2



Nga

Tohutohu

Kupu for Commands

Sailing Commands

Standby	Tu mai
Make Ready	Kia rite
Are you ready?	Kua reri?
Ready	Ae / kau
Be quick	Kia tere
Hoist the sail	Ra ki runga
Drop the sail	Ra ki raro
Make Fast	Kia mau
Go	Tukua
Open the sail	Huakina te ra
Close the sail	Katia te ra

Sheet / Tricing Commands

Ease out on the sheet	Waha ki waho
Sheet in	Waha ki roto
Stop	Kaati
Keep going	Haere tonu
Ease on the tricing	Whakatika te kutikuti
Trim the sail	Whakatika te ra

Helm Commands

Go to Port	Taha mau
Go to Starboard	Taha matau
Go to Midships	Waenganui
Hard to Port	Taha ake mau
Hard to Starboard	Taha ake matau
Prepare to tack	Tu mai ki te whakatumuu
Tack	Whakatumuu
Prepare to gybe	Tu mai ki te whakahiku
Gybe	Whakahiku

Hoe

Steering paddle	Hoe Urungi
Tillers & Rudders	Hoe rua

Crew

Captain	Kaihautautu
Traditional Sailing Advisor/ Navigator	Kaiwhakatere

Watch Captain
Crew
Look out
Look out Standby
Helms person
Helm standby

Toa
Kaumona
Kai titiro tuatahi
Kai titiro tuarua
Kai Urungi
Kai Urungi Tuarua

Aotearoa Tuatahi

Waiata

Ka horo atu te ihu o te waka
I runga I ngangaru o Tangaroa
Rei mua rei muri
He Kaitiaki moana

Tu mai nga ra ki runga
Ra Matua, ra Tuaki huakina
Hutia nga taura
Hutia aki ki runga

Aotearoa x4 (wahine ma)
Aotearoa Tuatahi x4 (tane ma)

Puhia te hau o Tawhiri
Rangongo hau mua me muri
E tere ai te waka ki mua
Ki te kaupapa

Aotearoa x4 (wahine ma)
Aotearoa Tuatahi x4 (tane ma)

Waka Matauranga
Ngeri

Kaea: Ko wai raa? Ko wai raa?
Te katoa: Ko te waka Tuatahi e
x2
Kaea: Ko te aha?
Te Katoa: Ko te waka Ko te waka motuhake
Kaea: Ko te aha?
Te Katoa: Ko te waka Ko te waka maori
Kaea: No whea
Te Katoa: Ko te mana no ooku tupuna
Kaea: No whea
Te Katoa: I ruia mai i a Rarotonga
Tautika Tauheke Tau tonu mai nei ra!
Kaea: Tuu mai raa
Te Katoa: Tuu mai raa, Hara mai raa
Tikina mai I nga matauranga,
I nga matauranga tuku iho e
Kaea: Toia mai
Katoa: Hi
Kaea: Mauria mai
Katoa: Hi
Mauria mai ra e nga tupuranga
Ki te ako, Ki te mahi, ki te pupuritia
I nga taonga e
Kaea: Waka toi
Katoa: Aue hi
Kaea: Waka ramgatira
Katoa: Hi
Kaea: Waka whanaunga
Katoa: Ha
Waka kotahitanga I nga iwi e
Waka matauranga
Hi

Maa te Kahukura
He waiata ngahau, waiata tautoko

Kaaea: Rere tootika, rere pai,
Rere runga rawa raa ee

Katoa: Maa te Kahukura kaa rere te manu
Ka rere koe
Ka taae atu koe ki te taumata
Whakatau mai raa eee

Maa te Kahukura kaa rere te manu
(ma ngaa huruhuru ee..)
Ka rere koe
(rere runga rawa raa ee ..)
Ka taae atu koe ki te taumata
Whakatau mai raa eee

Mau ana taku aroha
Whai atu ki ngaa whetuu
Rere tootika rere pai
Rere runga rawa aa ee

Araura

Kia orana koe, Araura
Ehua tupunga, enua manea noku
Te noo nei au ki Aotearoa
Ma te maaraara I a koe, Araura

Utataki, Utataki e
Kua tapapa ia e te ui tupuna
Ehua ravarava, enua akaieie
Araura, Utataki enua

Oro mai ra, aere mai ra ki Araura
Enua manea, enua ruperupe noku e
Te noo nei au ki Aotearoa
Ma te maaraara ia koe Araura

Watch System

There are two watches on board of which the Toa / Watch Captain, who is an experienced crew member, is responsible for organizing the watch. Ensuring it carry out all assigned tasks

Each Watch is responsible for meals and clean up. The deck house is cleaned after every meal. The accommodation is cleaned daily, by the Watch located in that hull. This includes relevant wharepaku.

Both Watches are responsible for Night Watch if anchored. However, only one experienced or two inexperienced crew members are required to be up at any one time. The difference with Sailing Watches is that, for Sailing Watches the whole Watch is up and on duty for the entire time they are rostered on, day or night up is two hours.

For Night Anchor Watch the longest one person is expected to be up is one hour, and the longest two people are expected to be up is two hours. The Toa / Watch Captain is responsible for organizing this. The duties are rotated through the other members of the Watch, and then to the other Watch at Watch changeover. The Captain is on call all night.

Sailing Stations

Sailing Station	Duties / Sails	Watch
Mizzen	Helm, Lookout, Mizzen, Main Staysal	Duty Watch
Main	Main, Genoa or Jib, Main Staysail	Off Watch

The Main Staysail is handled by whichever Watch is free to deal with it, and is normally only hoisted during fine sailing days whilst sailing on a reach.

Normally on a long voyage; the Watch 'on duty' handles all manoeuvring and handling of sails. The 'of watch' will be resting below choice, or choose to be on deck, the Watch 'on duty' can make use of them.

The 'off' Watch on the Main Sailing Station should rest, when not required.

Emergency Muster Station

This is the physical location on the waka where the watch gathers to report when involved in an emergency procedure. When an emergency such as 'Person Overboard', 'Fire', 'Stand by to Abandon Ship', or just 'Emergency' are called, each crew member is to make their way to the muster station to be counted off by the Toa and reported to the Kaihautu, who will then issue instructions to be carried out by the Watch.

Watch	Emergency Muster Station
Tahi	Port Aft Seat Locker
Rua	Starboard Aft Seat Locker

Crew Training

Crew must meet the following minimum standard to be awarded the status of Kaumoana (trained crewmember):

- Able to swim for 300m unassisted.
- Able to stay afloat for 30 minutes unassisted.
- Able to complete an underwater exercise pulling a rope loop all the way over the body three times without taking a breath.
- Must have attended one induction (team building and testing), six days of sailing training or the equivalent, and three day sails (six hours sailing per day) and 7 days of maintenance.
- Training includes, waka familiarization, knots, lines and handling, sails and handling, emergency procedures and equipment, nautical terms, and commands,
- responsibilities and waka values, to ensure a supportive and positive environment, team building, awareness of hazards and how to report them, etc.
- New crew are mentored by experienced crew.

Non statutory procedures are developed and agreed by crew, with oversight and approval from the Captain. These are then written up for inclusion in the MTOP and in the Crew Manual.

Safety refreshers of equipment, locations and how to use, are held for crew who have not sailed for more four months.

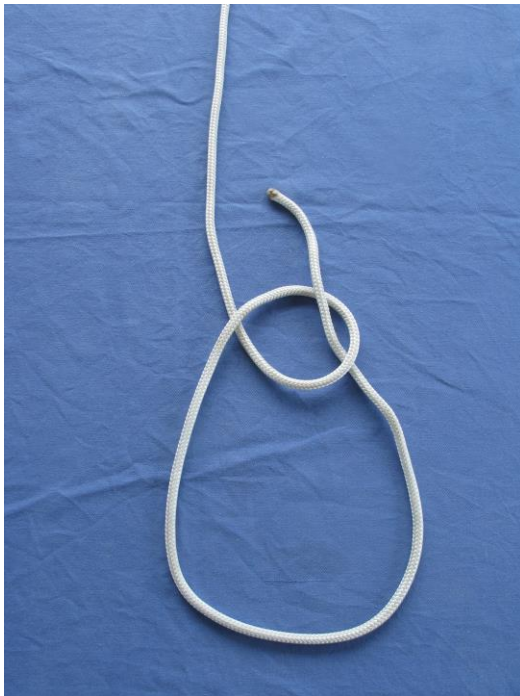
All training activities to be logged in to data base.

Knots

All knots have an effect on the strength of the line they are tied in, usually reducing it by a minimum of 30%! Always use the most appropriate knot for the job, and ensure the tail is as long as the knot itself, or larger.

Bowline

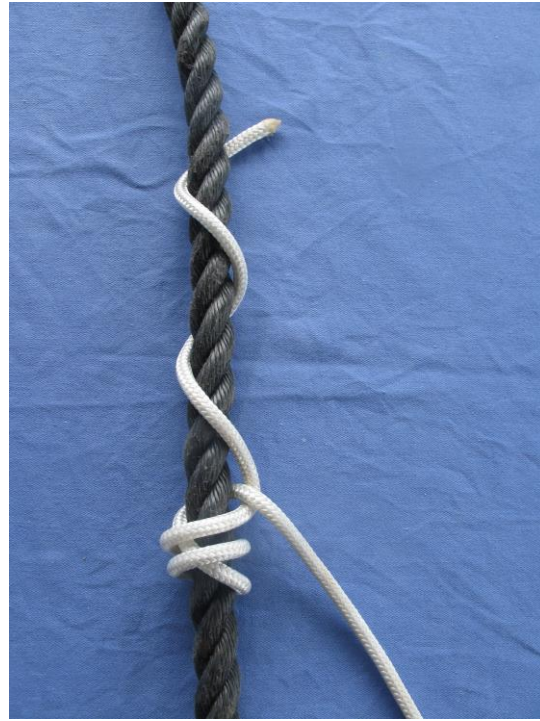
For tying a loop of fixed length. Commonly used at the ends of mooring lines to put over cleats. Useful for tying a line around someone as the loop doesn't tighten.



Stopper Knot

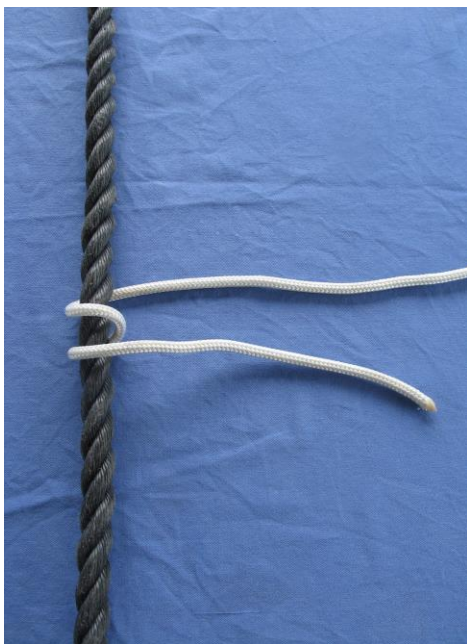
For securing the end of a line under tension temporarily (uses another smaller diameter line for the purpose). Commonly used to allow the end of the line under tension to be secured around a cleat. Also used when transferring a line under tension from one cleat to another. When extra safety is required in handling a line

under tension, this is a good knot to use.



Round Turn and Two Half Hitches

For tying the end of a line round a rail, ring etc. A good secure knot, often used to tie up a tender (small dinghy) to a larger vessel for towing. Very useful if the line used has to be eased out under control as the knot can be half undone and there is still a full turn (and a lot of friction) to allow good controlled easing of the line whilst it is still under tension.



Anchor Bend

Another, more secure version of the Round Turn and Two Half Hitches, this knot is used when the knot must not give way. The down side is that it can become very hard to undo after being subjected to a lot of tension. Commonly used, you guessed it, for tying an anchor to a line.



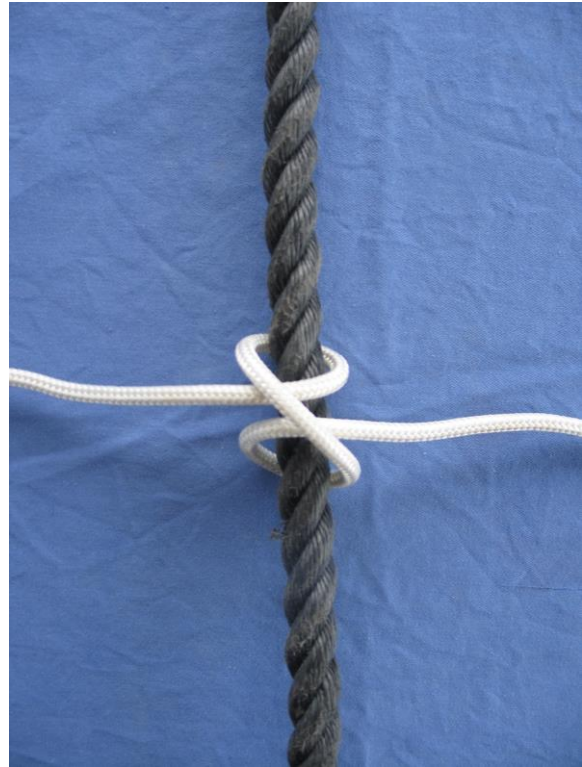
Sheet Bend

For tying two lines of different diameter together. The smaller line should always be tied around the larger, as shown. The larger diameter line should always take the shape of a simple loop (or “bight”). Very useful, and easy to undo.



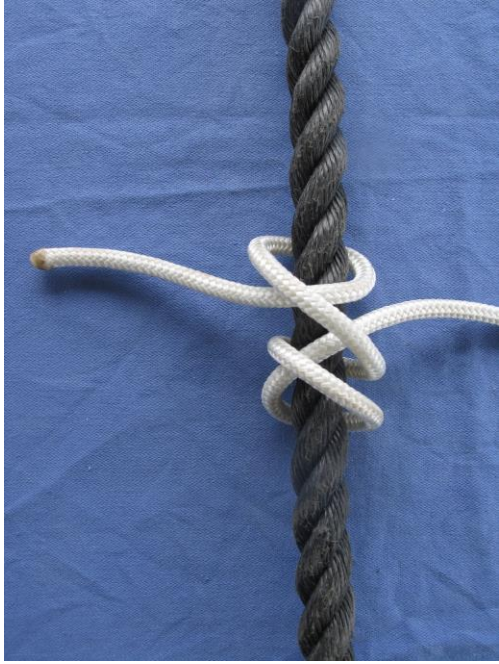
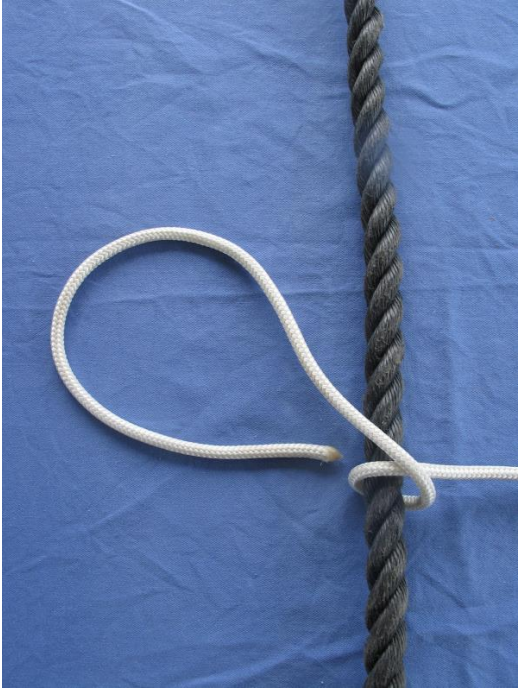
Clove Hitch

For securing the middle of a line. Should not be used for securing the end of a line. A clove hitch works best when there is tension on both sides, a sustained pull from one side can collapse the knot.



Rolling Hitch

A more involved version of the Clove hitch, this knot can be used for securing the end of a line to a rail when there is a pull off at an angle. The double turn around the rail should be on the side of the pull. Tied and then tightened properly, will prevent the line sliding along the rail.



Reef Knot

So called because it is most often used during reefing: reducing the area of a sail by tying down a portion of it. The reef knot should only ever be tied in lines of the same diameter, as in reefing where a line is passed around the excess sail and the knot tied in the two ends to secure it. Should never be used to tie two lines of unequal diameter, the smaller just needs enough tension and then will pull out.

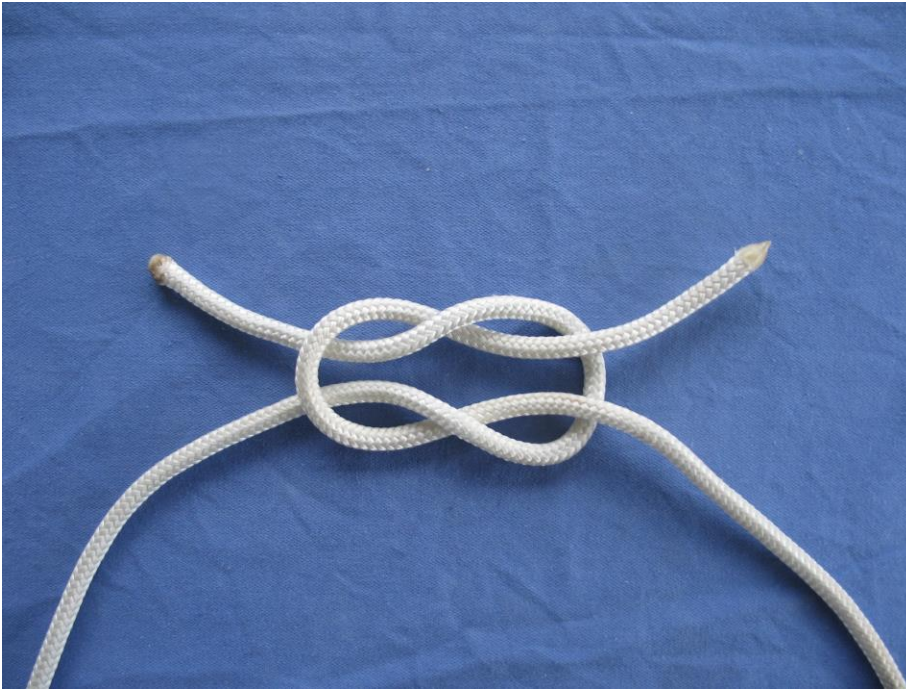
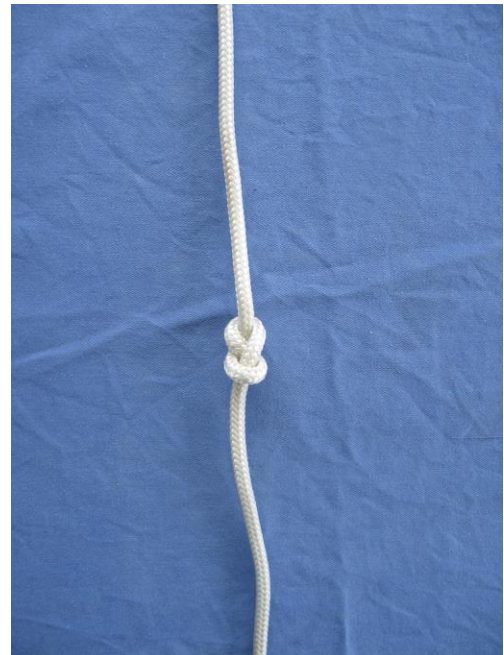


Figure of Eight

So called because that is what it looks like. Used to prevent a line sliding back through a block or hole. Sometimes called a stopper knot because it stops a line sliding, it should not be confused with the Stopper Knot listed above, which is used to secure another line.



Bowline on a Bight

Two loops tied together with one bowline. Useful when securing packages or lifting, or in emergency to send someone aloft into the rigging. Simple to tie, and very reliable.



Line Handling

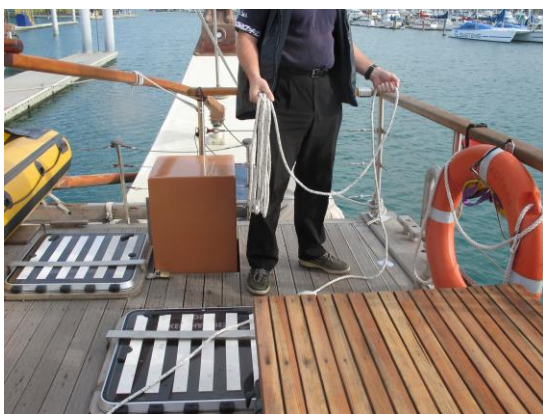
Coiling

For storing a line ready for use. Most 'Laid' ropes are right hand laid: ie: they twist up to the right. These naturally coil up better when coiled up clockwise. 'Braid' ropes, which are platted, can be coiled either way, but for ease of use and understanding, are better coiled clockwise just like 'Laid' ropes.



Short Throw

For throwing a distance of up to 8m approx. Ensure that the coil is as neat as possible with no overlapping loops, the fixed end is tied off, and the coil is held so that when thrown, it can naturally extend.





Long Throw

For throwing a distance greater than 8m approx. First, make a large coil, and then a small one. Both should be as neat as possible with no overlapping loops. Hold the large coil in one hand, and the small coil in the other; understanding that the small coil should probably be in your right hand if you are right handed. Ensure that the linking line between the coils does not overlap any of the loops in the coils ie: is free to run. Rehearse your throw one hand over the other, small coil travelling further and faster, to make sure the line cannot get caught up in anything and that the exit area is clear, then throw upwards at about 30 degrees to get the greatest distance.

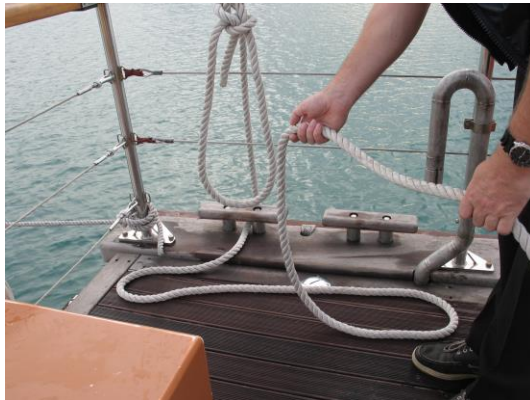




Preparing to Berth

This involves preparing the mooring lines, as briefed by the Kaihautu for berthing. First one end of each mooring line is lead through the middle of it's particular cleat outwards, then up and back over the handrail. A large bowline is then tied in the end. The other end, still on deck, and the remainder of the line is then coiled or flaked ready to run through the cleat.





Securing a line to a Mooring Cleat

This normally involves putting a bowline onto a cleat in such a way that it is secure, but can readily be removed. The first method, for cleats that allow access through their middle, is to put the bight (loop) of the bowline through the middle of the cleat, and then back towards the direction of pull, and over that end of the cleat. In this position it doesn't matter if the mooring line pushes or pulls on the bowline- the bowline will tend to tighten on the cleat regardless.

Correct Method 1



Correct Method 2

Allowing for another mooring line.



This allows either mooring line to be removed whilst the other is under tension.

Incorrect Method



Making Fast a Mooring line

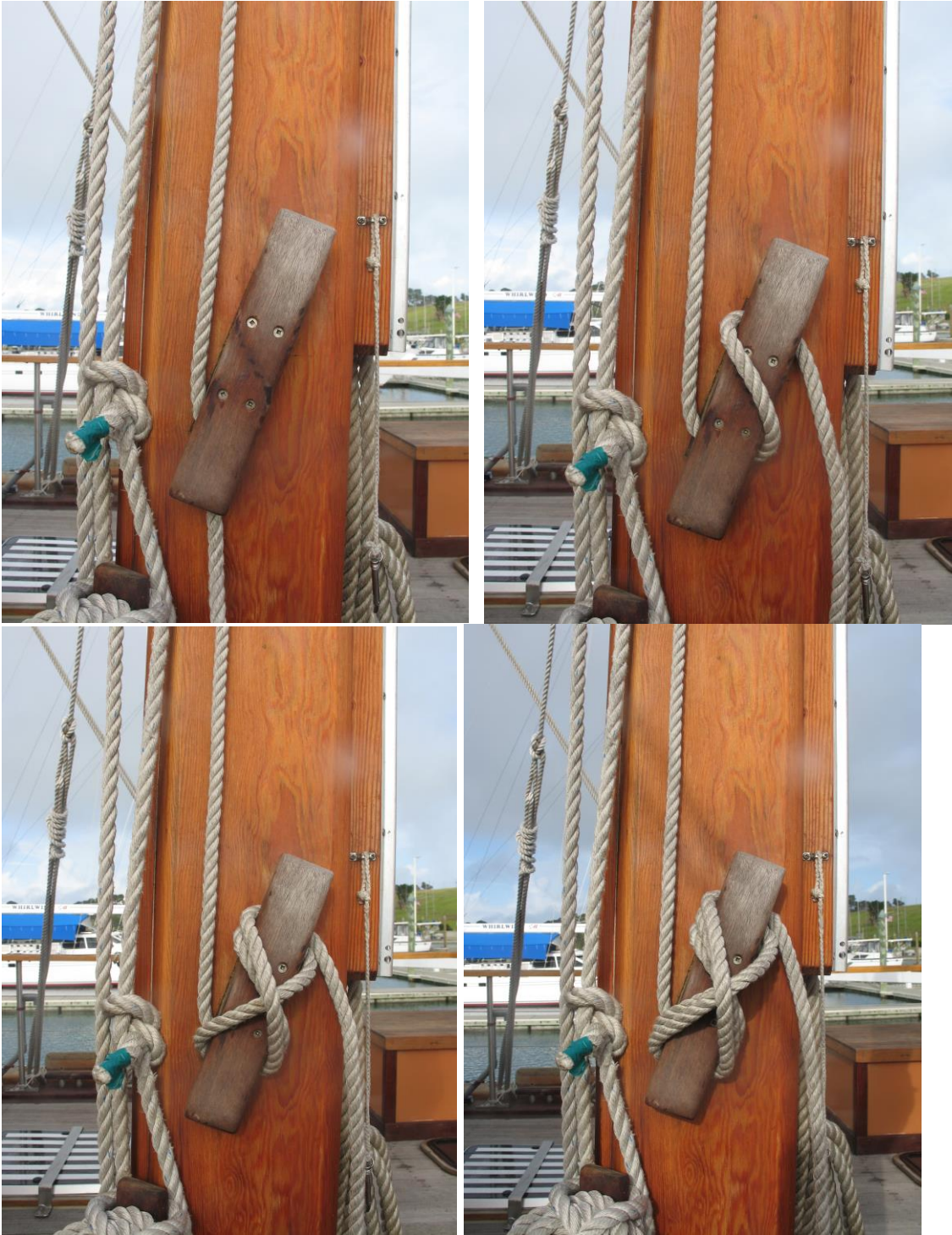
On board- the mooring line is set for length as the Rangatira directs, then made fast with three figures of eight, and the remaining line coiled and hitched to the handrail as shown. Extreme care should be taken when making fast under load, as a small movement of the waka can exert huge tension on the mooring lines.

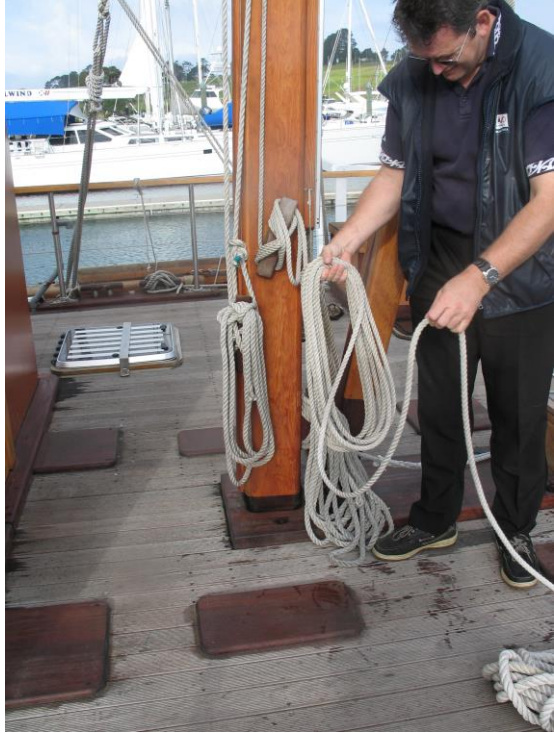


Making Fast onto a Cleat

Involves taking a line the long way around a cleat (or through the centre in the case of a mooring cleat) to prevent the line under tension crossing itself and jamming in place; then placing the line in three figures of eight on the cleat. Three figures of eight, with the corresponding amount of

friction, is all that is required to stop slippage. No locking hitches are required.







The following pictures demonstrate why a clear 'lead' to the cleat is so important. Whenever making fast to a cleat, the line should be taken the longest way first (or the path of least resistance or through the middle where that is possible).

Incorrect



Correct





Sail Handling

Ra Matua & Ra Tauaki (Main & Mizzen)

Standby to hoist.

Secure the tack as far down as possible, to the cleat at the bottom of the mast.

- From the head of the sail, load the slides into the track, making sure that they will all be in line with the luff once the sail is hoisted. If one is twisted, it will make life very difficult.
- Put the locking pin into the bottom of the track to prevent the slides from falling out. Make sure the little locking flap in the end is in position to prevent the pin from falling out.
- Secure the halyard to the head using a bowline tied very close to the head itself. Make sure the knot is properly tied and tightened and that the bowline has a decent tail.
- Secure the outhaul to the clew. Make sure the knot is properly tied tightened and that there is a good length of tail.
- From the head, run the halyard down and around the cleat on the other side of the mast, and then pull in the slack and make fast. This should pull the head down keeping the sail under control.
- From the clew, run the outhaul around the cleat on the bottom of the boom, and then pull in the slack and make fast.

Getting ready to hoist.

- Take the halyard from around the other side of the mast so that it is ready to run. Two people must be ready to hoist as fast as they can. When the halyard gets hard to pull, put a turn on the cleat and sweat and tail.
- .
- Take the outhaul from around the cleat underneath the boom so that it is ready to run. Two people must be ready to hoist as fast as they can, and then, when it gets hard to pull, sweat and tail the rest.

Hoisting.

- The halyard must be hauled up as fast as possible, and then sweated and tailed, until the luff is straight, and going to stay that way with the wind, before the halyard is made fast.
- The outhaul must be fed out until the sail is all the way up, and then pulled out as fast as possible. Sweated and tailed if necessary until the clew is right by the end of the boom, before the outhaul is made fast.

Opening the sail

- One person on each tricing line must be ready to ease with one turn around the cleat.
- A minimum of one person on each sheet must be ready to pull in as the tricing lines are eased.
- On the call from the Toa, the tricing lines should be eased by feeding the line into and around the cleats, whilst the sheets are pulled in. The Kaihautu, Kaiwhakatere or Toa will instruct on how the sheets are to be set.
- Line should be secured and tidied up after every trim.

Closing the sail

- Two people per tricing should be ready to haul in to close the sail once the command is given.
- One person per sheet should be ready to feed the sheets into and past the cleats to allow the sail to close. They should not allow any friction to occur through the cleat, unless necessary in strong winds to prevent the boom from swinging wildly from side to side. In very light conditions the sheets may be taken off the cleats.
- Once command has been given, the people on the sheets must feed the sheets through the cleats to prevent any friction. The people on the tricing lines must haul in as fast as possible until the command is given to stop.
-
- Once the Toa has called that the sails are closed, the people on the tricing lines should make fast.
- The people on the sheets must then pull in any slack, whilst centering the boom, and then making fast. The sheets should be tight enough to prevent any boom swing.

Hauling down the sail

- One person must be ready to feed out the halyard once the Toa has made the call.
- One person must be ready to feed out the outhaul.
- At least two people must be ready to pull down and gather in the sail.
- Once the Toa has made the call to pull the sail down, the person on the halyard and the person on the outhaul must feed out their lines as fast as they can without losing hold.
-
- The others must haul down and gather in the sail as fast as they can until the sail is all the way down.

- The command to have the sail struck (taken off), left ready to hoist or bagged.

Striking the sail

- The sail must be detached from the halyard and outhaul, and the tack released from its cleat.
- The lines should have the slack taken out and then made fast.
- The pin should be removed from the bottom of the rack and the sail removed from the track.
- Depending on what the Kaihautu or Kaiwhatare wants, the sail should either be folded for long term storage, or bundled as instructed for short term storage at the foot of the mast.

Ra Ngongohau Mua (Genoa or Jib)

Standby to hoist

- Secure the tack using the handy-billy, to the bottom of the centre stanchion on the bow kiato.
-
- Starting from the tack, attach each piston hank to the wire forestay so that when the sail is hoisted the luff will be straight.
- Secure the halyard to the head using a bowline tied very close to the head itself. Make sure the knot is properly tied and tightened and that there is the proper amount of tail for the knot.
-
- Run the downhaul through the block from the bottom, and then secure to the correct position on the sail, ensuring that it is not tangled with the sail or the halyard. Again a well tied and tightened bowline should be used.
- Once the downhaul has been secured to the sail, take out the slack at the other end and make fast to keep the sail under control.
- Secure the sheets to the clew using bowlines. Ensure the sheets are run so that they will not get tangled up in the rigging when the sail is trimmed or tacked.

Getting ready to hoist

- Two people should be ready on the halyard to haul up the sail as fast as they can, and when it gets hard, to sweat and tail it until the head of the sail is as far up the wire forestay as it can go.
- One person should be ready on each of the sheets to ease pull in as required.
- One person should be ready on the downhaul to feed it out as the sail goes up.
- One person, preferably two, should be ready on the handy-billy to pull it tight once the halyard is made fast.

Hoisting

- Once the Toa has given the call, those on the downhaul and the handy-billy, and possibly the

sheets as well, should be ready to feed out their lines to prevent any friction occurring until the sail is all the way up.

- Those on the Halyard should haul away as fast as they can, then sweat and tail if necessary, until the head of the sail is as far up the wire forestay as it can go. Then they should make fast.
- The person on the leeward sheet should pull in the sail until it stops flapping, and no more than that. The person on the windward sheet should make sure that enough of their sheet is eased out that the sail is not cupped. The Toa should make that call.
- The people on the handy-billy should then haul down until the luff is flat with no scallops, and then make fast. This does not need much effort at all in light winds!!
- It is important not to stretch the sail unless necessary in high winds.

Setting or trimming the sail

- More people should gather on the leeward sheet, and the sail pulled in until the wollies on both sides of the sail are flying in line each other towards the back of the sail. The Kaihautu, Kaiwhakatere or Toa will make that call.
- The person on the cleat should take great care not to get their fingers between the sheet and the cleat at any time. They may have to use one foot to push the sheet out far enough to cleat the rest.

Hauling down the sail

- One person should be ready to feed out the halyard as fast as possible without losing hold.
- Two people should be ready to haul on the downhaul as fast as they can until the sail is all the way down.
- One person on the leeward sheet should be ready to ease the sheet if required to let the sail come all the way down.
- Once the Toa has made the call, the sheet should be eased slightly, but not enough then flap.
- The halyard should be fed out as fast as possible without losing control.
- The down haul should be hauled in as fast as possible until the sail is all the way down, and then made fast.
- The Kaihautu or Kaiwhakatere will make the call to put a lashing on or not. If the sail is only to be going to be down for a short time, no lashing will be required.

Striking the sail

- The halyard should be detached from the head of the sail, and then, as further piston hanks are detached from the wire forestay from the top down, the head should be pulled back along the sidedeck to the main deck, to keep the sail under control. The halyard should be secured back to the mast.
- The downhaul should be released from the sail and then secured to its block at the bottom of the stanchion, as it is reached amongst the piston hanks being released.
- Once the tack has been released from the handy-billy, the tack and bunt (middle) of the sail should be taken back along the side deck to the head and clew.
- The sheets should then be released and coiled up.

- The sail should either be folded or stuffed into the bag, according to the instructions from the Kaiwhakaterere or Kaihautu.

Ra Ngongohau Muri (Mizzen Staysail)

As per Ra Ngongohau Mua except that the Mizzen Stay must be rigged first.

To rig Mizzen Stay

- The windward sheet on the Main should be detached from the block at deck level, and both ends brought forward and made fast to the bottom of the boom.
- Remove Mizzen Stay from stowed position starboard side aft.
- Walk it forward to its working position ensuring that it does not get tangled in other rigging, and lash it up tight to the Tie located on the Main Mast step forward of the Windlass.

To operate Ra Matua (Main) whilst Ra Ngongohau Mua (Mizzen Staysail) is up

- The Kaihautu will give instructions on what they want to happen in each instance, but generally the boom should be triced up, the leeward sheet should be rigged and the slack taken out before the windward sheet is detached and secured to the bottom of the boom as above, each time the waka takes the wind over the opposite hull.
- The tricing lines should then be eased out whilst the leeward sheet is taken in, and then made fast.

Maneuvering

Tu mai ki te Whakatuumu (Stand by to tack)

- Two people should be ready on each windward sheet before the waka is tacked, ready to haul in according to the instructions from the Kaihautu.
- One person per leeward sheet should be ready to release and ease or feed out as required during the tack.
- There should be at least one person out aft on the windward side ready to haul in the mizzen sheet as required.

Whakatuumu (Tack)

- Once the Kaihautu has given the call, and the waka starts to swing into the wind, the mizzen should be hauled in as hard as possible to the windward side to help swing the waka. The slack should be taken out of the leeward sheet, without pulling the boom back at all, then both sheets should be made fast.
- The Main and Mizzen sheets should be released and fed as required so the sails bring themselves across.
- The Jib or Genoa should be held on the leeward sheet to backwind it, and help push the waka around.
- Upon the call of the Kaihautu, the Jib Genoa sheet should be released and the other hauled in.
- The Kaihautu or Kaiwhakaterere will give instructions regarding each sheet until the waka settles down on the new course and they are happy.
- All lines should be made fast and tidied up.

Tu mai ki te Whakahiku (Stand by to Gybe)

- Two people should be ready on each windward sheet before the waka is gybed, ready to haul in according to the instructions from the Kaiwhakaterere or Kaihautu.
- One person per leeward sheet should be ready to release and ease or feed out as required.
- There should be at least one person out aft on the windward side ready to haul in the mizzen sheet as required.

Whakahiku (Gybe)

- Once the call is given all sails should be hauled in as hard as possible to the centre and the sheets made fast.
- Once the sails have filled on the other side the sheets should be eased out as per the instructions of Kaihautu until the waka settles down on the new course and they are happy.
- All lines should then be properly secured and tidied up.

Toa Safety Checklist

Daysail

- Introductions
- Muster Station and need to muster there quickly in an emergency to be counted off and be ready to do the mahi.
- No smoking, No alcohol, No drugs, No chewing gum or lolly wrappers anywhere on the waka
- Recording devices, especially cameras are encouraged. Turn off mobile phones.

- Walking around the deck, look out for ventilators, skylights, mauri box, hatches and lines. Lines under foot almost guaranteed to fall. Safe to walk on skylights and hatches.
- Procedure for using a hatch, only open when in use. Shut immediately after entry or exit. When coming up, place hand in the centre of the hatch and open all the way before coming up and out. Shut immediately.
- Working Deck Area. Stay inside this area unless wearing crew type life jacket and given permission, crew member must be with person at all times. Working deck area is defined as the area inside of the wooden hand rails and tiller cross bar.
- Must seek permission from Kaihautu to enter engine room.
- Stay in front of steering pods to avoid getting caught up
- Man Overboard Procedure, concentrating on what they should do if they see someone go over the side. Look, point with whole arm and yell Man Overboard like crazy until they are sure they have been heard. Move to keep the person in sight. Do not brief them on what should happen afterwards- crew should do all the other requirements such as putting a Lifebuoy over the side etc etc.
- Show them where the lifejackets are and demonstrate how to wear them. Welcome to wear one whenever they like, must wear one if instructed.
- Lifebuoys and Danbuoys, locations. Intention is to show them that they are safe on board, not to show them how to use. Do not show them the Smoke Float or Man Overboard Liferaft
- Point out that there is a Dry Powder Fire Extinguisher in each compartment and show them where they are from the deck.
- Demonstrate how to use a mooring cleat on an unoccupied cleat. Three figures of eight, through the centre, how to do up, no locking hitch, neat coil afterwards. How to take off the ease, how to stay safe by keeping hands well back and ensuring that fingers do not get between cleat and line at any time. Commands: pull, take up, take up the slack, make fast, ease, let go. Ensure that they understand that they are to let go if the tension is getting too much and they are concerned about their own safety. Tell them we would rather fix equipment than have them need medical care.

-

In the Whare:

- Show them the gas shut off valve in the Whare and how the stove works. Point out that they are not to leave the gas stove or hot water califont unattended when in use. In an emergency they are to be switched off and the gas shut off valve closed before the person concerned should muster. This must occur even if in the middle of cooking.
 - Show them the Fire Blanket, CO2 and Dry Powder fire extinguisher.
 - Show them the VHR Radio and EPIRBS. Point out where the instructions to operate them are.
 - Show them the Yello MOB button on the GPS/Chart Plotter. Do not show them the one on the other GPS.
 - Need to get out of mahi going on in nav area of for preparatoin of food.
 - No fiddling with the electronics in the nav area or on the steering pods.
- Outside again:
- If they need to use Wharepaku, then they need to talk to a member of the crew who will show them what to do.
 - They have the right to yell STOP if there is something going on whilst handling sails which they

feel is going to be, or already is dangerous. Problem will be sorted and then process will continue.

- Answer any questions they have as they ask them. Do not explain how to use any other items of equipment, just what they are for.
- Muster and inform Kaihautu ready for mahi.

Overnight:

1-19 Plus below

- Train each other in the use of the Wharepaku. Stress that they do not touch the big valve, only the small one, and they must leave it off once they have finished... Stress also that they MUST ask for help as and when they first need it. We need to stay on top of any problems, not leave them for others to find worse later on.
- They have the right to yell STOP if there is something going on whilst handling sails which they feel is going to be, or already is dangerous. Problem will be sorted and then process will continue.
- Answer any questions they have as they ask them. Do not explain how to use any other items of equipment, just what they are for.
- Check with the Kaihautu to see if sail training should occur before leaving the berth. If the weather is fine, this unlikely, otherwise go through the process with them with hands on lines, of pretending to hoist the sail, open it, trim it (moving the sail from side to side), close it, and bring it down. This is only required for Main and Mizzen. Do not go through the process of hoisting the Genoa or Mizzen Staysail.
- Muster and inform Kaihautu ready for mahi.

Passenger Briefing

All passengers are given

Basic Pontoon Safety brief before going through locked pontoon gate.

- All passengers under the age of 14 are to be fitted with PFD's
 -
 - Demonstration on how to safely board the vessel (crew to assist all passengers)
- Prior to departure*
- Mihi Whakatau/Welcome, Introductions
 - Trip description
 - Safety brief
 - Lifejacket location
 - Hazards
 - Person overboard

- Fire
- LPG
- Muster stations
- All children under 14 to be 1:1 supervised
- No Running
- Ask who can't swim – especially children, Non-swimmers into lifejackets when on deck, optional for adults
- Garbage brief
- No smoking, alcohol or drugs on board
- Stay within the rails & forward of the pods
- In the event of an emergency obey the instructions of the Captain & crew.
- Cast off Brief
 - All passengers to be seated & quiet
- Karakia for departure

WARNING SIGNS



RESTLESSNESS



BLINKING FREQUENTLY



YAWNING



EXCESSIVE SPEED CHANGES



BRAKING TOO LATE



FORGETTING LAST KMS



DROWSINESS



CENTRE-LINE DRIFT

MINIMISE RISK



PRIORITISE SLEEP

Make sure you get enough sleep regularly.



SNACK LIGHTLY

Choose light, fresh foods. Avoid fatty, sugary or carbohydrate-filled options.



TAKE A BREAK

Take a break from driving at least every two hours.



POWER NAP

Nap for no more than 20 minutes for best effect.



DRIVE AT NATURAL TIMES

Drive during times that you're usually awake.



STAY HYDRATED

Drinking water helps keep you alert.



CHECK YOUR MEDICATION

Be sure they won't affect your alertness on the road.



SHARE THE DRIVING

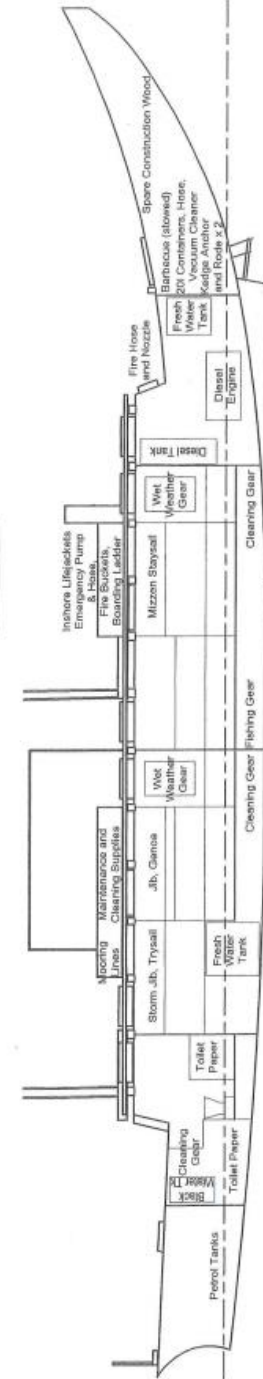
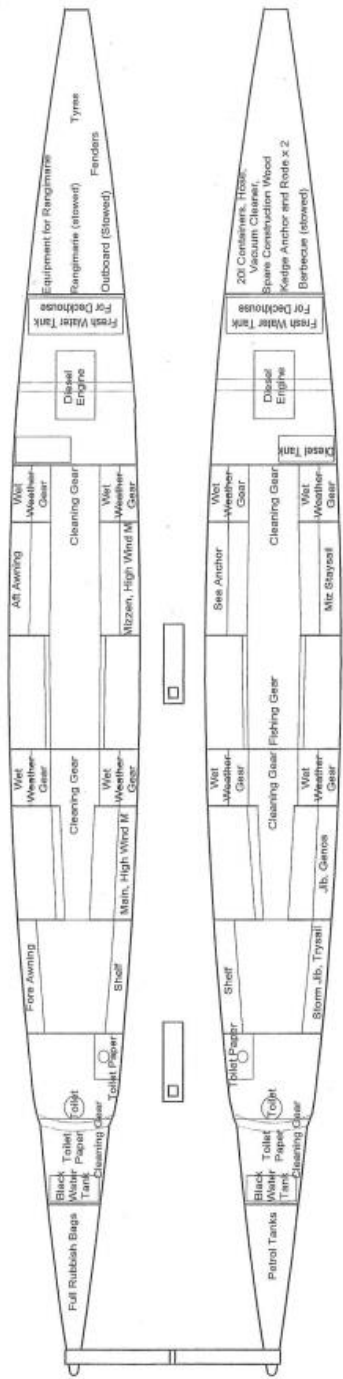
Swap drivers if possible.



AVOID ALCOHOL

Any alcohol at all will increase your risk, so avoid it.

FATIGUE



Emergency Procedures

Man Overboard

If you witness someone going overboard:

- Keep your eyes on them, DON'T lose sight of them.
- Yell: “MAN OVERBOARD” and keep yelling until you know other crew members have heard
- (At the same time as #2) Point with your whole arm at the person in the water.
- Move as you need to, to keep the person overboard in view.
- Do NOT go to your muster station.

If you hear “MAN OVERBOARD” and you are the closest to any life ring or floatable object:

- Get life ring/floatable object overboard
- Make sure the watch captain has heard you.
- Go to your muster station.

If you hear “MAN OVERBOARD” and you are in, or closest to the Deckhouse:

- Go to GPS unit and push the 'Man Overboard' button
- Yell: “GPS BUTTON PUSHED”
- Go to your muster station

If you are on the helm and you hear “MAN OVERBOARD”

- Be ready for the Watch Officer's instructions and carry them out.
- Stay on the helm, but make sure the Toa knows you are there.

Otherwise if you hear “MAN OVERBOARD”

- If you do not already have it on, put on the protective gear you have close to hand as quickly as possible
- Quickly put on your lifejacket
- Go to your muster station, ready to work

At the Muster Station:

- Watch Captain (Toa) make sure that all of the watch are present (or accounted for- Man Overboard Watcher for example) and wearing appropriate safety equipment/protective clothing.
- Watch Captain (Toa) inform Captain
- a) if anyone is missing and who they are, and what they were wearing
- b) if anyone is busy (eg: Man Overboard Observer)
- c) that all other members of the watch are present d) if anyone does not have appropriate safety equipment/protective clothing.

All crew to take instructions from Captain (Kaihautu) first, Watch Captain (Toa) second in that order of priority.

Fire

If you find a fire:

- Yell “FIRE” until you are sure other members of the crew have heard.
- Decide if you can fight it with the methods immediately available (if in doubt: you CAN'T)
- EITHER fight the fire, OR leave the compartment and tightly close the hatches.
- Inform the Captain (Kaihautu) Watch Captain (Kaiwhakahaere) of the situation telling them a) where the fire is b) what is burning c) how big it is d) if there is any danger for someone who may go down to fight the fire.
- Go to your muster station.

If you hear “FIRE” and you are on the helm:

- Ask your watch officer for instructions.
- Carry them out.

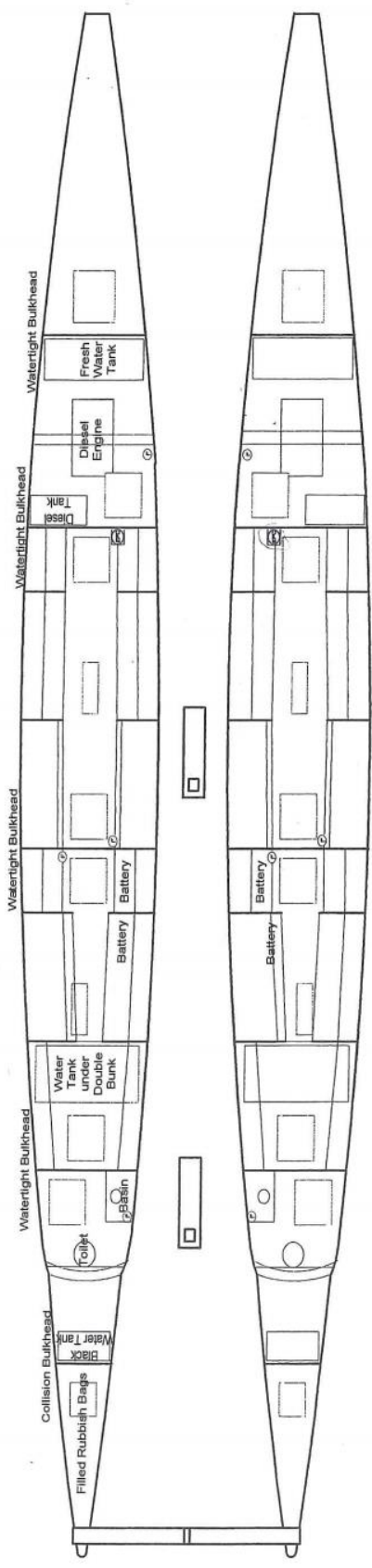
Otherwise if you hear “FIRE”

- If you do not already have it on, grab what protective gear you have close to hand.
- Grab your lifejacket.
- Go to the muster station as quick as you can and report.
- Put on your protective gear and lifejacket and get ready to work

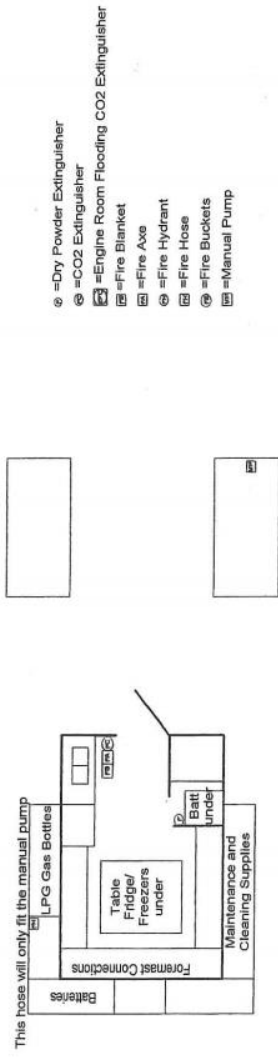
At the Muster Station:

- Watch Captain's (Toa) make sure that all of the watch are present (or accounted for- find for example), and putting on the protective gear they have. NO ONE is to go back down into the hulls without permission/instruction from the Captain (Kaihautu).
- Watch Captain (Toa) inform Captain (Kaihautu) a) if anyone is missing and who they are, and what they were wearing b) if anyone is busy (eg: fire finder) c) that all other members of the watch are present d) if anyone does not have appropriate safety equipment/protective clothing.

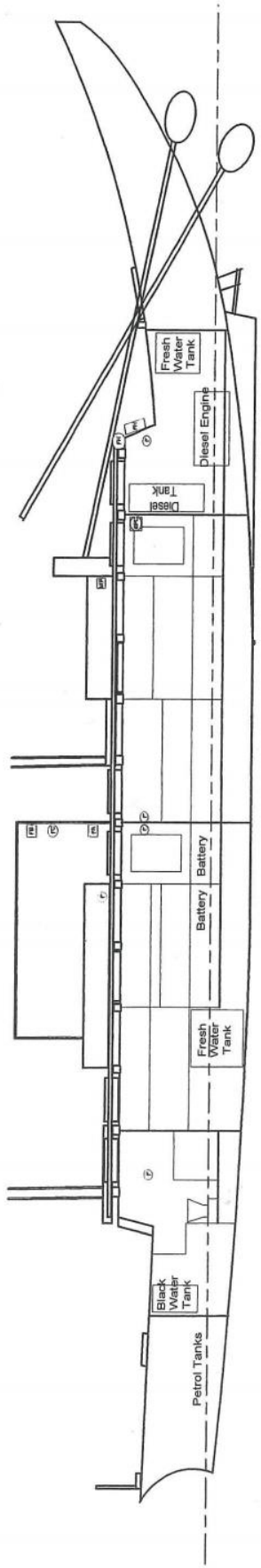
All crew to take instructions from Captain (Kaihautu) first, Watch Captain (Toa) second in that order of priority.



Fire Fighting Equipment Locations



- ⊗ = Dry Powder Extinguisher
- ⊕ = CO2 Extinguisher
- ⊠ = Engine Room Flooding CO2 Extinguisher
- ⊡ = Fire Blanket
- ⊢ = Fire Axe
- ⊣ = Fire Hydrant
- ⊤ = Fire Hose
- ⊥ = Fire Buckets
- ⊦ = Manual Pump



Engine Room Fire

If a fire is found in an engine room:

- The person finding the fire shall the “Fire” Procedure by yelling out to other crew members.
- That person must then decide if they can fight the fire with the Dry Powder extinguisher in the engine room. If not or if in doubt, they are to get out and seal the hatch behind them. If they can, they should do so, and let the Kaihauatu or Toa know as soon as the fire is out.
- If in the event the Fire cannot be fought in the engine room, the Kaihauatu is to assign someone to fight the fire, and if necessary continue the safe navigation of the vessel.
- The person responsible for fighting the fire should then follow the following procedure:
- Check that the hatch is fully sealed down.
- Close the relevant engine room air intake (the handle for each is on the inside of each air intake / seat).
- Turn off the engine (using the key and holding it over to the left until the engine stops).
- Pull the fuel stop cord (Large washer just underneath and forward of the air intake handle).
- Ensure no one is in the engine room by checking the results of the muster.
- Leave someone in charge of ensuring that no one else goes down into the engine room.
- Go to the relevant engine room CO2 flooding system fire extinguisher.
- Open the protective cover.
- Place valve handle “A” in line with the pipe underneath.
- Pull ring “B” until the plastic safety is broken and the pin comes out of the handles.
- Check with the person up top “OK to Flood?”
- Once the person up top checks that nothing has changed and no one has gone into the engine room in the meantime, they can confirm “OK to Flood!”. Yell “Flooding” and squeeze the handles until they latch together. CO2 is forced into engine room.
- Check that the fire is out through transparent hatch. Use barrier booling if necessary against hull and decks until cool.
- Open hatch and check that the fire is out.
- Open air intake. Force air through engine room by means of a wind sock or something similar until all smoke has cleared and enough air has gone through that the whole engine room has been ventilated.
- Person responsible to go down under the observation of the person up top to check the fire is out. They are to stay down for only a short time.
- If the fire is out, they must determine what caused the fire, and ensure prevention of re-occurrence.
- If possible, the fuel cut off valve should be reset, and the engine restarted. This will circulate the air in the engine room and confirm if there are any lasting problems or not.
- If there are any lasting problems due to the fire, the engine should be shut down, the fuel cut off pulled and the engine room sealed. Arrangements should be made to immediately return to a

berth using only the other engine, to allow urgent repairs.

Other Emergencies

If you hear “(?) - THIS IS AN EMERGENCY, ALL HANDS ON DECK” and you are on the helm:

- Be ready to obey your watch captain's instructions
- Carry them out.

If you hear “(?) - THIS IS AN EMERGENCY, ALL HANDS ON DECK” and you are on lookout:

- Go to your muster station.
- Make sure your Toa counts you present.
- Inform your Toa that you are returning to Lookout.
- Return to your station.

Otherwise if you hear “(?) - THIS IS AN EMERGENCY, ALL HANDS ON DECK”,

- If you do not already have it on, put on the protective clothing you have close to hand as quickly as possible.
- Put on your lifejacket
- Go to your muster station, ready to work.

At the Muster Station:

- Watch Captains (Toa) make sure that all of the watch are present (or accounted for) and wearing appropriate safety equipment/protective clothing.
- Watch Captains (Toa) inform Captain (Kaihautu) a) if anyone is missing and who they are, and what they were wearing b) if anyone is busy c) that all other members of the watch are present d) if anyone does not have appropriate safety equipment/protective clothing.

All crew to take instructions from Captain (Kaihautu) first, Watch Captain (Toa) second, in that order of priority.

Stand by to Abandon Ship

Captain (Kaihautu) or someone acting in that capacity is the ONLY PERSON who can give the order: “STANDBY TO ABANDON SHIP”

If you hear : “STAND BY TO ABANDON SHIP” and you are on deck:

- Go to your muster station. THIS IS FOR ALL ON BOARD. The only possible exception is the person on the helm, IF still required.

If you hear: “STAND BY TO ABANDON SHIP” and you are off watch down below:

- Quickly put on all of your protective clothing.
- Quickly put on your lifejacket.
- Go to your muster station, ready to work.

At the Muster Station:

- Watch Captains (Toa) make sure that all of the watch are present and wearing appropriate safety equipment/protective clothing. NO EXCEPTIONS-EVERYONE ON BOARD MUST BE PRESENT – ready to leave Haunui.
- Watch Captains (Toa) inform Captian (Kaihautu) a) if anyone is missing and who they are, and what they were wearing b) that all other members of the watch are present c) if anyone does not have appropriate safety equipment/protective clothing.

All crew to take instructions from Captian (Kaihautu) first, Watch Captian (Toa) second, in that order of priority.

Overdue Vessel Procedure

Skipper to text nominated person ashore ETA.

Once secure alongside berth skipper to text nominated person ashore to inform.

If the vessel is overdue or misses a scheduled call in time, a nominated person ashore will do the following:

- If more than 20 minutes late, try to contact the vessel by mobile telephone.
- If there is no answer then, try again in 5 minutes.
- If there is still no answer, attempt to make contact via other means such as through other operators known to be in the area, the marina office or harbour master.
- If there is still no contact with the vessel, call the Coastguard and/or Maritime Radio. Check with them to see if updates have been made or if the vessel can be contacted via VHF. If unable to raise the Coastguard or Maritime Radio, go to step 5.
- If concerns for the safety of the vessel still exist, call 111 and ask for the Police. Advise them of the situation and follow their instructions.

Engine Start and Shut Down Procedures

Engine Start

Check each engine room and iff necessary correct:

- Throttle/Gear levers in Neutral.
- Engine oil level.
- Fuel level
- Fuel filter bowl clear of contaminants.
- Engine coolant level in header tank.
- Condition of hoses and connections.
- Condition and tension of belts.
- Shaft is clear of possible obstructions.
- Bilges clear and clean (a little water is OK, just not anywhere near machinery.)
- All items in engine room secured for sea.
- Seawater cooling intake valve open.
- Seawater 'Jabsco' Pump intake valve open.
- Sea/Bilge Crossover valve set to sea.
- Hydrant Overboard discharge valve set to Hydrant.
- Overboard discharge valve set to Hydrant.
- Exhaust valve open.
- Vent open
- Fuel shut off valve open.
- Check position of large alternator field coil switch-up is on, down is off, should normally be switched on (up).
- Start battery switch on Emergency parallel switch off (unless required.)
- Throttle/gear levers operate throughout their range and follow function on other station is working.
- Throttle/gear levers set to Neutral.
- Engine instruments indicate 12+V when engine key switch is turned to on, do not take switch to engine turn-over position, all other instruments indicate 0.
- Propellers are free of obstruction.
- Other vessels in vicinity warned of intention to operate engines alongside.
- Mooring lines are hardened up to restrict movement under power.
- On portside set of engine controls, pull throttles out sideways to keep engines in neutral, and ease throttles forward to slow ahead position.

Start engine using engine key switch

Check and if necessary switch off engine and correct.

- Cooling water discharge from exhaust.
- Engine oil pressure 60 psi approx.
- Engine instruments indicate charging voltage 13-14V is being generated.
- Operation of engines and controls both for forward in gear and reverse.
- Propeller opens and operates it should. There should be no vibration.

Warm up engine under load, in forward gear at just above idle speed for at least 5 minutes.

- Check the engine coolant temperature 85-90 in normal operation after about 15 minutes operation.

Do not operate the engine for long periods in neutral or idle.

Shut Down

- If possible warm down engine, as for warm up, for at least 5 minutes.
- Set throttle/gear levers to neutral.
- Turn and hold key switch all the way anticlockwise until engine is stopped.
- If anchoring for the night, ensure throttle/gear levers set to neutral and engine ready to start.
- If securing before leaving the vessel, go backwards through Engine Start Procedure from #20 to and including #11, using opposite actions.

ANCHOR BALL AND MOTORING TRIANGLE

	
The line and pulley set up for the ball/triangle is found tied to the front handrail to the starboard side of the main mast	



The anchor ball and triangle can be found in the starboard front deck box



Slide the two pieces of the

ball/triangle together then tie the line through the holes at each end finished with a bowline at each end.



Hoist the ball/triangle up as high as possible



Secure the line to the hand

rail

Lower the ball/tringle

Un-tie the line from the ball/tringle, Dismantle and place it back into the deck starboard front deck box. Ensure you secure the line back how you found it tied to the handrail



ANCHOR WINCH

Safety before operating

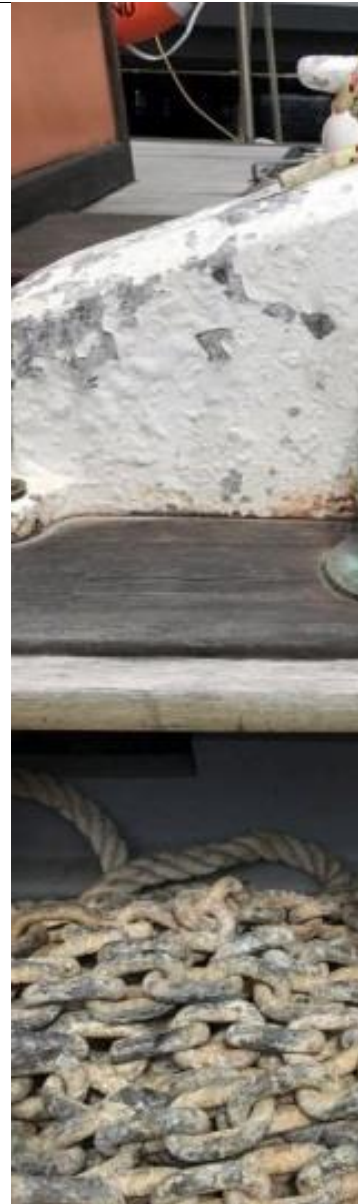
Winch controls



Anchor Deployment

Before operations ensure the anchor is free of obstruction (remove the safety line holding the anchor) and open the deck hatch next to winch

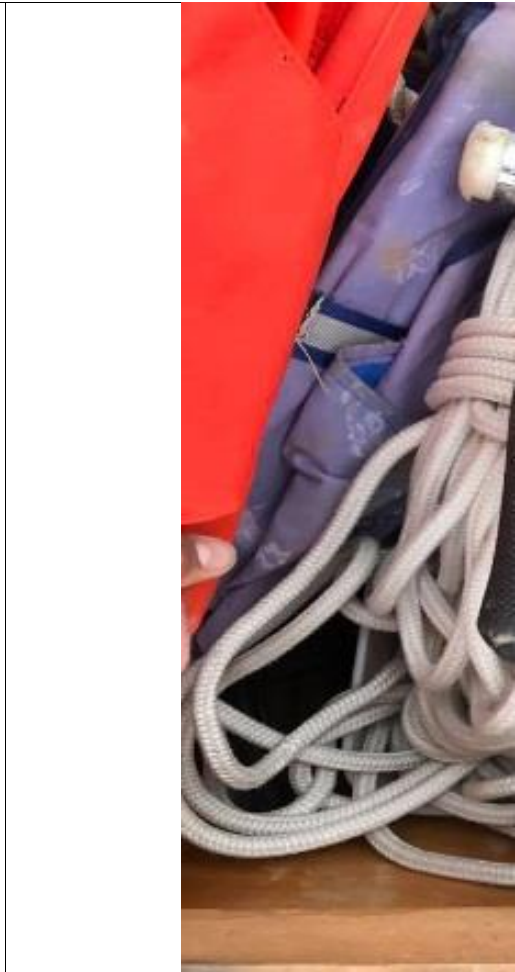
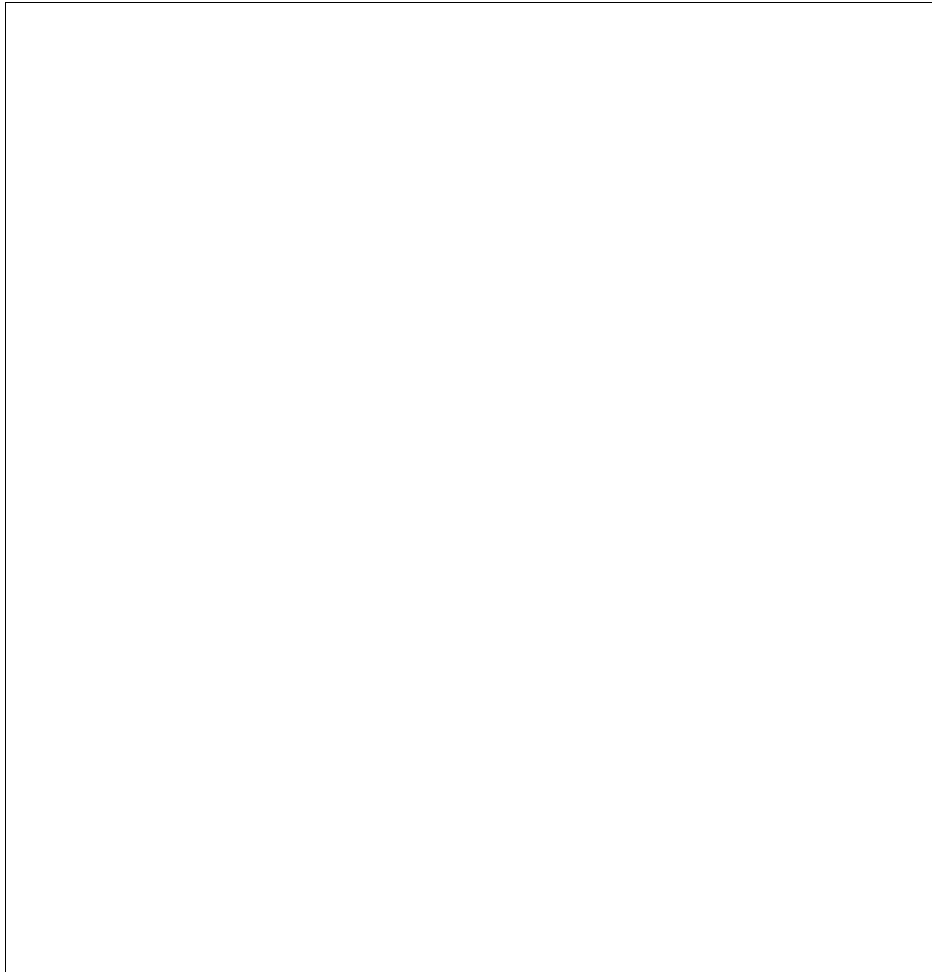
and check the chain and rope are lead fairly



There are two options for using the winch for anchor deployment, power down and freefall

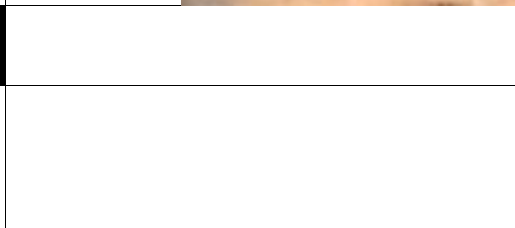
Freefall can be 6 times faster than power down. The winch can be operated in a free-fall mode by manually loosening the clutch, which lets the gypsy spin freely

The removable winch handle is found in the front centre deck box along with a nylon head hammer to help with loosening and or tightening.



At Anchor

After you have successfully deployed the anchor and it has set, you need to use the anchor/towing bridal to isolate the load from the winch





Anchor Retrieval

Step one is to start the engines. Next slowly motor up to the anchor thereby relieving the load on the bridal allowing you to pull in the slack and remove bridal set up. Once the boat is over the anchor put the engine in neutral and hold position

Ensure the manual clutch release has been tightened and gypsy drive is engaged. Now raise the anchor vertically until its safe on the bow roller. Pulling the anchor vertically or even slightly ahead helps overturn the anchor and break it free

When raising anchor ensure the rope and chain is flaked evenly in the locker ready to be deployed at next anchorage

Not recommended

The most common mistake, when raising the anchor is to pull the boat up to the anchor with the winch. This technique will actually dig the anchor in further and will put great strain on the winch motor which it is not designed for. By motoring up to the anchor and pulling in the slack as you go, you will get to the anchor break out point with the chain vertical which helps break the anchor free

Winch Loads

The load on the winch will steadily increase as the tension in the ground tackle increases. Just before the anchor breaks free the winch sustains its maximum current draw and may be as high as 2-3 times the rated current. If the anchor becomes fouled take the load on the chain-stopper and use the boat to break it loose and then resume retrieval. Once the anchor has broken out, the winch hauls the anchor vertically back to the boat

BAR CROSSING

Extreme caution must be exercised when crossing bars

Conditions prevailing on a bar or in river approaches may cause unusually sudden steep and often breaking seas.

Conditions change quickly and unpredictably.

Be aware that a rapid change in conditions might prevent a safe return to harbour, so ensure the vessel has adequate reserve fuel and provisions to enable the vessel to remain at sea and/or divert to another port.

The skipper's experience and the vessel stability should be taken into account when a bar crossing is considered

However, no amount of experience or boat stability makes crossing a bar SAFE when the conditions are marginal or adverse.

No situation warrants taking the risk, so if in doubt "STAY OUT".

Obtain a current report on the prevailing bar conditions from the harbourmaster or, if unavailable, another responsible person

Weather

Wind strength & direction

Tidal height, strength & direction

Areas of broken water

Area of clear water for safe passage

Effective communication must be established before attempting a crossing between the skipper and Harbourmaster (if unavailable) Responsible person.

In the interests of safety and manoeuvrability, ensure the preceding vessel is well clear of the bar before proceeding.

Ensure that

All deck openings, hatches and doors are securely closed

Freeing ports should be checked that they are clear and operating

Loose gear on deck should be secured

Everyone on board is awake & dressed appropriately

Lifesaving equipment is easily accessible and ready for immediate use

Every person should wear a lifejacket or personal flotation device (PFD) of an appropriate size, particularly children.

Approaches should be made at a moderate speed in order that a skipper might increase or slacken speed in order to steer out of trouble.

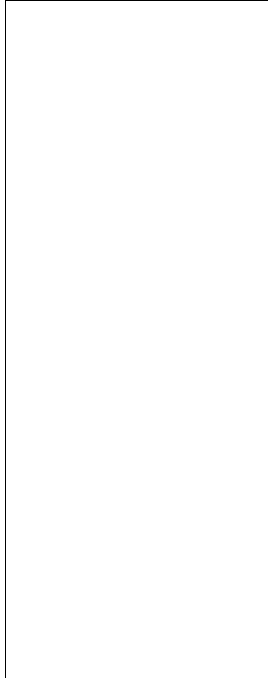
A lookout watching astern should be posted to keep the helmsman informed of the approach of dangerous building swells.

Once across the bar, the skipper should confirm successful crossing with the
(if unavailable)

(A “responsible person” is a person with relevant experience and/or expertise, in whom the skipper has confidence, who is accountable for the provision of advice regarding local bar conditions).

BILGE PUMP

Start the engine	<i>Follow start up procedure</i>
Operate pump from raw water pickup to fire hydrant to ensure water flow (prime pump)	<i>Follow fire hose procedure</i>
Toilet pickup is located in the floor cavity of the compartment below the ladder	
Aft accommodation pickup is located in the floor cavity of the compartment below the forward ladder	



Forward accommodation pickup is located in the floor cavity of the compartment below the aft ladder



Engine room pickup is located aft of the sea suction strainer as shown





Open cross feed
valve hatch



Remove blanking
cap

Ensure the three
way valve is in
the position
shown in the
photo provided
(for starboard
bilge use only,
turn valve in

opposite direction
for port side bilge
system)



Ensure the valve
to desired
compartment is
open for complete
priming of the
system



Engine room valve

Note:
The engine bilge valve is located next to the foot plate
The accommodation and toilet bilge valves are located under the outside edge of the deck, inside the gunnel



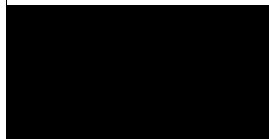
Aft accommodation valve



Forward accommodation valve



Toilet valve



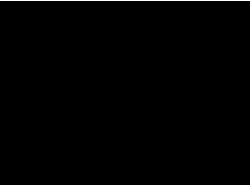
Ensure the pump is pumping water from sea suction pipe to the hydrant

Turn pump valve to the position shown, so water from primed system is drawn into the pump



Have a second person stand by in the compartment being pumped throughout the operation to confirm suction

When the water level lowers below the pickup open all bilge valves to clear the bilge system



Return the pump valve to the position shown, so water is drawn from the sea suction again to flush out bilge water from

system.



Shut down engine

Follow engine shut down procedure

As the height of the pickup strainers restricts the amount of water that is removed, manual pumping is required. So using the small portable bilge pump remove the remainder of water using a sponge to finish off.

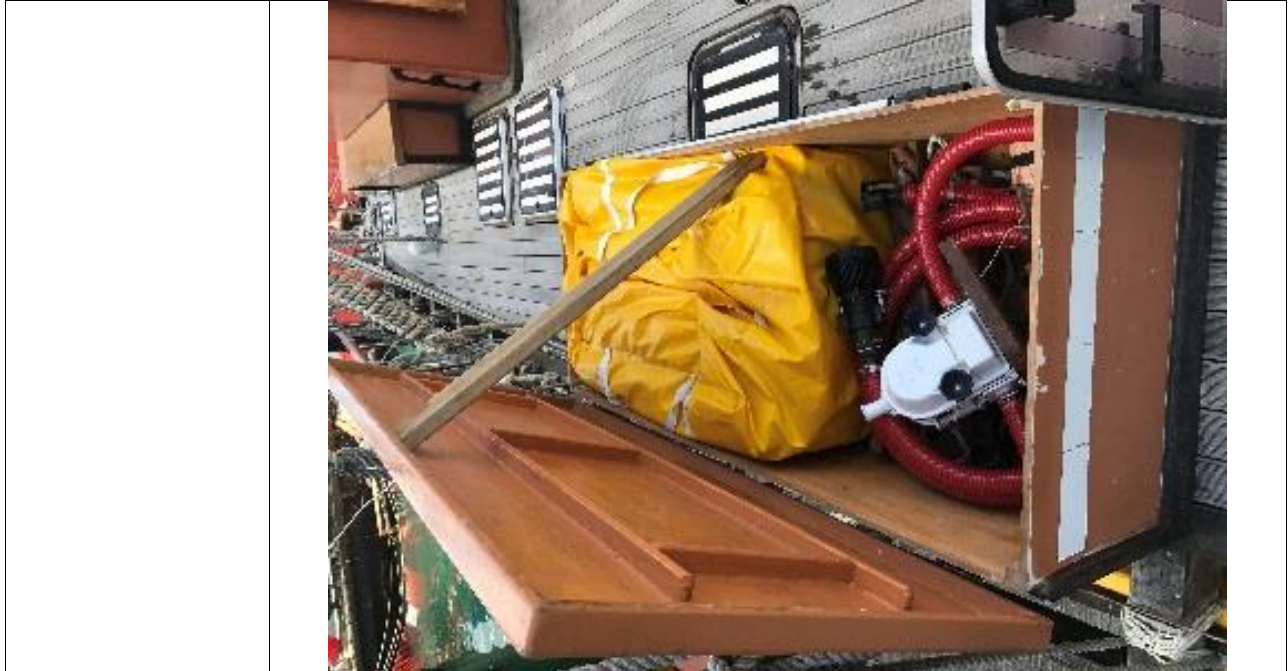


If practicable leave the floor

cavity covers
open as well as
the main hatch
covers to air the
compartment out
till dry

If the bilge pump
system was to
fail, use the
manual bilge
pump system
located in the port
side deck box
next to the life
jackets





CONTROLLED BEACHING

For safety of the vessel, maintenance, loading and or unloading passengers/cargo, and or ceremonial purposes

Select the beaching site carefully consider

The contour and nature of the sea bed.

very soft mud, stone & rock should be avoided as the vessel may become stuck or damaged (refer to charts)

If any obstructions/obstacles are present

pipes, cable, rocks & other vessels (refer to charts)

Locals knowledge on preferred beaching site

Check details of current tidal

Height

Direction

Times of high water and low water

Check the direction of the prevailing winds forecasted which will influence the number of

anchors needed (beaching leeward of the wind is advised)

Brief the crew on
Procedures
Rolls and responsibilities

Prepare vessel

Ample lengths of lines to be secured to vessel, flaked and ready to deploy

Establish the type of anchor (in accordance to the nature of sea bed) and how many are needed

Bow bridle rigged

All shackles in use are locked off with wire ties and or cable ties

Attach buoys to each submerged anchor to identify location when set

If beaching is planned for a period of time establish a secondary site to beach if conditions change

Approach the beach line at 90°

Beach approximately 1-2 hours after high water (to ensure sufficient water to re-float)

If unable to beach around this time period set the vessel at safe distance from expected high water mark, then adjust on the next tide.

Stop engines prior to making contact (cooling water intake protection)

Ensure first stern anchor is dropped at an appropriate distance from beaching site to allow sufficient lay of the anchor line enabling maximum anchor purchase

Lay out additional anchors fore and aft depending on weather conditions

tidal height, strength & direction

wind direction & strength

Establish a watch and brief watch keepers on any of the risks present

Attempt to re-float as soon as the vessel reaches flotation draft

Bleed cooling systems when re starting the engine

Use anchors to kedge the vessel off of the beach

If manoeuvrability is restricted due to submerged obstructions and or other vessels (if practical)

have people in the water to help guide the vessel safely away from shore

EMERGENCY STEERAGE

Spare lengths of timber are carried which can be lashed to remainder of tiller arm and restore operation

Partial tiller arm can still be operation individually

There are a number of ways to steer the vessel without the tiller/rudder

Propellers

e.g. going forward on the port prop and leaving the starboard prop in neutral will turn the vessel to starboard and/or vice versa

(Engaging the starboard prop in reverse will turn the vessel quicker)

Sails

E.g. Sheetting the mizzen in will steer the vessel up wind, sheetting the mizzen out will steer the vessel down wind.

Sheetting the main in will steer the vessel down vessel and, sheetting the main out will steer the vessel into the wind

FIRE HOSE

*Hose
prep for
use*

Start up the engine

follow start up procedure

Remove the hose from the hose storage box located at the stern of the vessel

directly aft
of the engine
room hatch



Starting with
rolling out
the hose
ensuring that
it is lead
fairly along
the deck
stern to bow,
without
twists and or
kinks





Once the hose has been run check the nozzle is in the open position so that pressure does not build up when pump is engaged



Just above the hose storage box will be a hydrant port with a cap connected to it



Remove the cap by disengaging the locking pins and insert the hose end and re-engage the locking pins






Have a
person hold
the hose
nozzle

standing-by for when the pump is engaged and pressure is applied to the hose



Check that the valves from the pump up to the hydrant is open and the valve to the raw water pick up is also open

	 A close-up photograph of a fire pump mechanism. A yellow lever is visible, attached to a metal component. To the right, a wooden board is labeled "Fire Pump" in black marker. The pump is mounted on a concrete base.
<p>Engage the lever located and labelled on the side of the hydrant pump</p>	



***Hose prep
for storage***

Dis-Engage the pump lever and let the hose run itself out before removing the hose from the hydrant







Remove the hose from the hydrant and replace the cap back and lock it into place





Starting from the nozzle end of the hose, begin to roll it up at an elevated position to let the remaining water drains out, ensure there is no twists in the hose



When the hose is rolled and drained store it back in the box



Shut down the engine

follow shut down procedure

LPG

Stowage of LPG bottles

LPG bottles are stowed on the starboard side, where deck lockers



Before
operating

LPG
system

Ensure the regulator hose is tightly fitted to the bottle to be used (left to tighten) and open the main valve of the bottle a 'half' turn to assist with a quick shut off



Located left side of the oven (inside the where), is the safety isolation valve as shown. Ensure the valve is in the

open
position
then the
LPG
system is
ready for
use



When
finished
with

oven,
close the
isolation
valve and
then
purge the
line by
opening
an
element
control
again,
ensuring
to turn
element
control
handle off
afterward



Shutting down LPG system

Turn off
the main
valve on
the bottle
and purge
the line
by
opening
the
isolation
valve and
an
element
control,
ensuring
to turn

element
control
handle off
afterward



LADDER

Ladder Storage

The ladder
is stowed
in the port
side aft
deck
locker,
under the
manual

bilge
pump



***Securing
the
ladder***

The ladder can be secured to the two foremost deck cleats, port &

starboard side of the bow, or to the two aft most deck cleats, port and starboard side of stern using a round turn and two half hitches, as shown in the picture opposite.

For a shorter ladder set up cew sometimes use the fore deck / bow



In this instance the ladder is attached to the port side stern, aftmost deck cleats.

Once the lines are secured to the cleats, lower the ladder down

carefully
so as not
to knock
against the
hull



SWIMMING PROCEEDURE

Safety Briefing

Inform passengers of

- Conditions e.g. Currents etc.
- Safety lines and Buoys rigged alongside vessel
- Safe use of ladder

- Signals for assistance
- The appointed On Board and In Water look out (crew member)
- The PFD's available if needed
- 1st sounding of the conch, signalling 5mins till all aboard
- 2nd sounding of the conch, signalling all should aboard
- 3 soundings of the conch, signalling emergency return to vessel

Swimmers names to be written on white board prior to entering water and ticked off on return.

Count swimmers into and out of water

If needed a second lookout to be appointed

Nobody in the water until the engines are off.

PASSENGER BRIEF PROCEDURE

All passengers are given

Basic Pontoon Safety brief before going through locked pontoon gate.

- All passengers under the age of 14 are to be fitted with PFD's
- Demonstration on how to safely board the vessel (crew to assist all passengers)

Prior to departure

- Mihi Whakatau/Welcome, Introductions
- Trip description
- Safety brief
 - Lifejacket location
 - Hazards
 - Person overboard
 - Fire
 - LPG
 - Muster stations
 - All children under 14 to be 1:1 supervised
 - No Running
 - Ask who can't swim – especially children, Non-swimmers into lifejackets when on deck, optional for adults
 - Garbage brief
 - No smoking, alcohol or drugs on board
 - Stay within the rails & forward of the pods
- In the event of an emergency obey the instructions of the Captain & crew.
- Cast off Brief
 - All passengers to be seated & quiet
- Karakia for departure