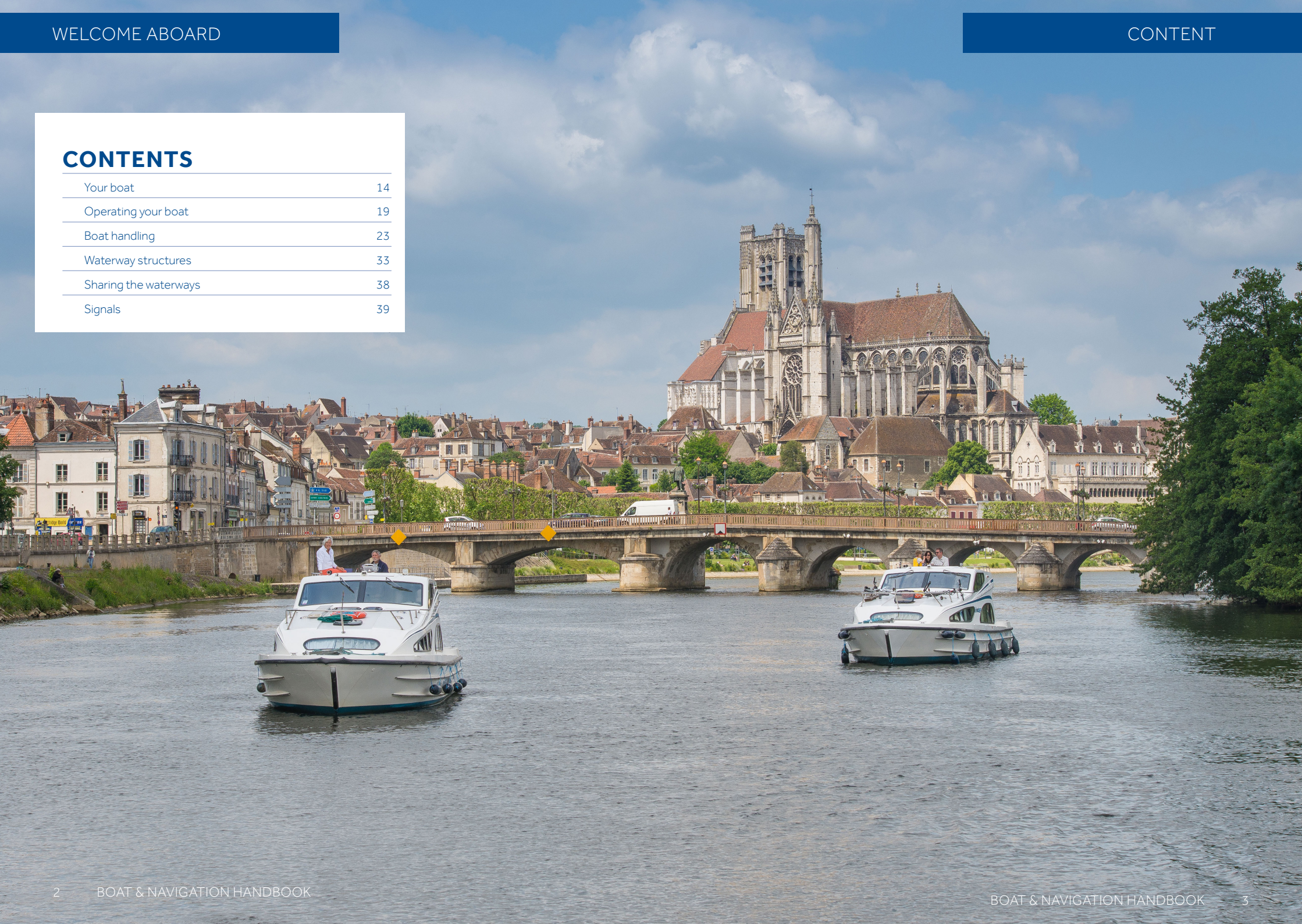
le boat
Who's on board?

BOAT & NAVIGATION
HANDBOOK

CONTENTS



YOUR BOAT

Every boat has a boat-specific user manual on board. This gives very clear explanations about all the main features of your boat and how they work. It is written in English, French, German. You will be shown this manual when you arrive and a member of the team will go through it with you in detail.

The details below are given to help you familiarise yourself with what you will need to know about living on a boat.

WATER

The water tanks have a capacity of between 500 and 1000 litres. This is sufficient for two to three days depending on the number of people on board and your water usage rate. We recommend you fill up the tank at every opportunity (water points are indicated in most cruising guides and are generally found in towns, marinas or canal sides where there are shore power facilities).

The water filler cap, which is round and blue, is situated on the deck on one side of your boat. You will find a water key on board to open the filler cap, as well as a 20 metre water hose. In some boat harbours you will be charged for drinking water.

An electrical pump distributes the water to the different taps. Once it is switched on, your pump will start up automatically every time you turn on a tap, and stop when you turn it off.

If your tank empties, switch the pump off otherwise it will continue to run and the impeller will be damaged. Also switch it off overnight and when you leave the boat.

Be careful not to fill the fuel tank with water by mistake.

HOT WATER

Hot water is produced by a heat exchanger which is part of the engine cooling system. The engine needs to run for about 1 hour to heat the water. It will remain hot for up to 2 hours after you stop the engine.

THE SHOWER

As you take your shower, waste water collects in a tray underneath the duck boards. Most do not empty themselves automatically and you will need to press the pump switch on the wall of the shower compartment after you have finished your shower. The capacity of the water tanks on your boat

is limited. Make sure you use as little water as possible each time you turn on the taps or take a shower.

YOUR BOAT

TOILETS

Our boats are equipped with three different types of marine toilets which operate as follows:

Flap type WC. Simply depress the foot pedal to open the flap in the bowl and operate the hand pump to flush as necessary.

Hand pump marine toilet. Switch the small handle at the top of the pump towards the right and pump until the water is clean, then switch it to the left and pump again to empty.

Electric saniflow toilets. Push the button several times.

To avoid any problems with marine toilets, you should ask all your crew members to respect the following basic rules:

- Put nothing into the bowl that could block the system.
- Use as little toilet paper as possible.
- Use plenty of water when flushing.

If the toilet becomes blocked, fill the bowl using the shower or a bucket and pump vigorously.

WASTE WATER

All our boats have holding tanks which recover the waste water from the kitchen, showers and toilets. These tanks

are empty when you collect your boat and you don't have to worry about emptying them while you cruise.

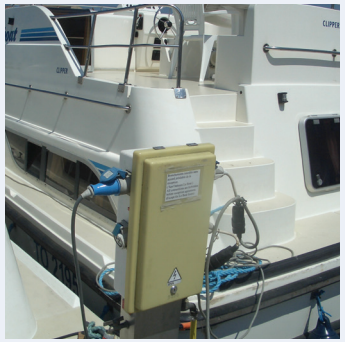
Each boat has a warning light on the dashboard which will tell you if the tank is nearly full. If this warning light comes on, please call the base team immediately. Do not use the shower or the toilets until the tank has been emptied.

THE BILGE PUMP

Every boat takes in a little water, generally via the stern gland. A pump placed near the stern turns on automatically if there is too much water in the bilges. It is controlled by a two-position switch: manual and automatic. Keep it on automatic.

Please note that an out of hours call to fix a blocked toilet will not be treated as an 'emergency'. A mechanic will be with you as soon as possible during working hours. If the toilet is blocked due to your negligence an additional fee will be charged.

Remember that the capacity of the batteries is limited and try to keep your consumption to a minimum. Avoid leaving lights switched on unnecessarily.



Remember to unplug the shore power cable before starting the engine and pulling away from the port. Lost or stolen shore power cables will be charged for.

ELECTRICITY

12V ELECTRICAL POWER

Electricity on board is provided by 12 volt batteries, recharged by the engine or by shore power. One battery is for starting, the other ones are for the domestic equipment. To ensure that the batteries remain properly charged the engine must run three to four hours each day (a little more for a boat equipped with an electric fridge or air cooling).

All boats are equipped with a 12 volt cigar-lighter type-plug. You can connect your adaptor lead for a mobile phone or any other low power equipment with the appropriate connection.

220V ELECTRICAL POWER

Some boats are equipped with 220 volt transformers for electric razors. You can plug in a mobile telephone charger or any other low power appliance but nothing else. Do not use them for hair dryers or irons.

SHORE POWER

Some boats can connect to a power point on the quay via a shore power cable. This provides 220V power to the boat's domestic equipment and recharges the batteries. Ports equipped with power points are shown in most cruising guides. We advise you to use them whenever possible to boost the boat's electrical system.

Some boats also allow the operation of 220V appliances such as laptops while you are cruising. High wattage appliances such as hairdryers and irons are not recommended for use while cruising.

BATTERY CUT-OFF SWITCHES

Two big red switches enable the batteries to be isolated (for example, in the event of a fire). In normal circumstances, don't touch them. If you have a general power failure on board, you should first check that they have not been switched off by mistake.

FUSES AND CIRCUIT BREAKER

These protect your boat's electrical circuits. In the event of a partial electrical failure you should first of all check the fuses or the circuit breakers. Your instructor will show you where they are situated on the boat.

REFRIGERATOR

Your boat is equipped, according to its size, with one or two refrigerators. Do not expect them to perform with the same efficiency as a household fridge. It is advisable not to overload them and to avoid opening the door unnecessarily.

The refrigerators are fed by the boat's domestic batteries. When the power supply goes below 11 volts they cut off automatically so as not to damage the batteries. If this happens you should recharge them by starting the engine or by connecting to shore power.

HEATING AND COOLING

Most of our boats are equipped with hot air heaters. They use the same diesel as the boat's engine but the heat is distributed by an electric fan system and will therefore consume energy. Never leave the heater on unnecessarily when you are away from your boat or during the night during the night. Depending on the model, your boat will also have cabin air-cooling or air-conditioning for use during warmer weather.

FUEL

Your tank will be filled before your departure, and this is normally sufficient for one week's cruising. For longer cruises, your instructor will indicate where you can refuel. Prior to departure your fuel gauge will be read so that fuel consumption can be calculated on your return

GAS

Your boat is fed by 13 kg gas bottles which are generally located outside the boat.

Never let gas escape inside the boat. Heavier than air, it accumulates in the bilges and can be very dangerous. If you suspect a leak, close the gas bottles, the battery cut-off switch and the main gas cut-off switch, turn off all electrical appliances (fridge, water pump, bilge pump, etc.) and do not let anyone smoke. Open all doors, windows, hatches, etc. to ventilate the cabins, evacuate the boat and call for assistance immediately.

SECURITY EQUIPMENT

FIRE EXTINGUISHERS & FIRE BLANKETS

Your boat is equipped with at least one fire extinguisher and one fire blanket. To avoid having to use them, you should respect basic fire safety advice and never leave a flame unattended and keep curtains or any other inflammable material away from the stove.

LIFE JACKETS

There is a life jacket on board for every passenger and smaller life jackets for children are available – please ask at reception before you depart. You are advised to wear a life jacket especially if you are not a confident swimmer and when going through a lock. (In certain regions, it is obligatory for everyone on board to wear a life jacket while going through locks – please consult your cruising guide).

Do not jump from the boat , step down!

When stepping from the boat onto the bank, remember it could be dangerous as rocks and roots are not visible. Ankles, knees, ribs, we already have a long list of accidents. Before stepping off the boat, make sure you will step into a safe area.

As Captain you are responsible for your crew and asking them to follow this safety rules.

OPERATING YOUR BOAT

The dashboards of our boats are very similar to those of a car but the control levers are different.

THE CONTROLS

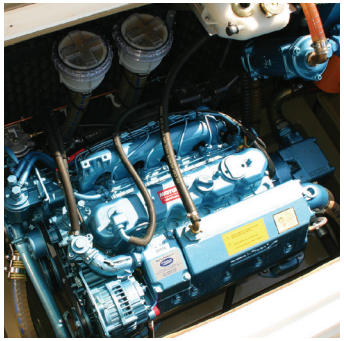
The control lever engages the propeller to move the boat forwards or backwards and to accelerate. This same lever, in the neutral position, also allows the engine to be revved without engaging the propeller (and so without the boat moving), which is useful for starting and heating the engine, or recharging the batteries.

Some boats have dual controls (a steering position on the upper and lower decks). To change from one steering position to the other:

- stop the boat;
- ensure that the two throttle levers (external and internal)
- are in the neutral position;
- turn the transfer handle a quarter of a turn (Do not force the system: if it does not work, this is because one of the levers is not exactly in neutral).

Never change positions while the boat is moving.

Before leaving the quay, make sure that the control levers respond.



TO START THE ENGINE

Firstly disengage drive by pulling out the neutral button. Then push the throttle-lever forward about half-way.

Turn the ignition key clockwise to the preheat position and keep it there for 20 seconds.

Then turn the key to the next position (and push in) to start the engine. When the engine starts, throttle back straight away.

Check that the rev counter is functioning to ensure that the key is in the correct running position.

Come back into neutral. To engage drive the neutralising button must now be pushed in, and then you are ready to cast off.

TO STOP THE ENGINE

Except for a few cases, the starting key is not used to stop the engine. You must proceed as follows:

- Electric stop: press the button marked "Stop" then turn the key to the off position.
- Manual stop: pull out the stop handle, turn the key to the "off" position then push back the stop handle (if you do not do this you will be unable to restart the engine). Turn off the key.

THE ALARM

Every boat has a visual and audio alarm. If the latter sounds this can indicate that the oil pressure is too low or that the engine is overheating.

If the alarm comes on, stop immediately and call the base. Do not continue or you could seriously damage the engine.

THE PROPELLER

In order to function properly, a propeller needs to be in perfect condition. The biggest risk of damage is whilst coming alongside. To prevent this, avoid engaging it when the stern of the boat is in shallow water. If you see a branch or any other object and it is not too late to avoid it, go into neutral.

The propeller can collect weeds, plastic bags or various other objects such as a mooring rope left trailing behind.
If this happens the boat will slow down and the engine will vibrate. You can try to clear the propeller by alternatively passing from forward gear to backward gear a few times. If this does not work, the problem is more serious and you should call your departure base for instructions.

THE BOW THRUSTER

Some of our boats are equipped with bow thrusters, a propeller placed crosswise at the bows allowing easier sideways movement of the boat whilst manoeuvring.

Do not use the bow thruster when coming alongside if the bow is very close to the riverbed or bank.

Do not use it if the boat is moving forwards or backwards – only when it has stopped.

The bow thruster must not be used for more than 5 seconds at a time. It is only there to briefly assist manoeuvres and is not designed to be played with.

BREAKDOWNS AND REMEDIE

If something on board is not working, do not hesitate to call our breakdown service. However, there are some small incidents which you may be able to solve yourself. The following is a list of the most frequent problems and the appropriate remedies.

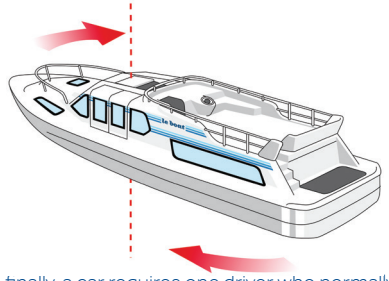
THE ENGINE WILL NOT TURN OVER	CHECK THE BATTERY CUT-OFF SWITCH.
THE ENGINE TURNS OVER BUT WILL NOT START	RE-START THE PRE-HEATING PROCEDURE. PUSH BACK THE ENGINE STOP HANDLE.
AFTER STARTING THE ENGINE THE ALTERNATOR WARNING LIGHT STAYS ON	ACCELERATE AND THE LIGHT SHOULD GO OUT.
THE ENGINE IS OVERHEATING	CHECK THAT WATER IS COMING OUT OF THE EXHAUST PIPE
SOME OF THE ELECTRICS DON'T WORK	START THE MOTOR TO RECHARGE THE BATTERIES AND TRY AGAIN. CHECK FUSES OR CIRCUIT BREAKERS.
NONE OF THE ELECTRIC SYSTEMS WORK	CHECK THE VOLT METRE. CHECK THE BATTERY CUT-OFF SWITCH.
THE WATER LEVEL IN THE BILGE IS HIGHER THAN IT SHOULD BE	CHECK THAT THE BILGE PUMP IS WORKING PROPERLY BY TURNING IT ON MANUALLY.
THE TOILET WATER PUMP IS NOT WORKING	IF THE BOWL IS EMPTY, FILL IT UP WITH THE SHOWER OR A BUCKET AND PUMP VIGOROUSLY.

BOAT HANDLING

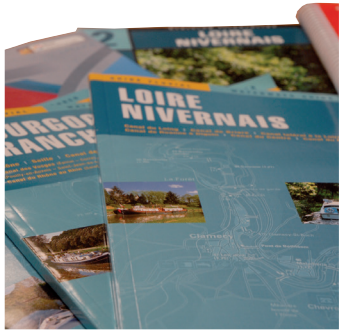
This section of the handbook looks at how to handle your boat on the water and how to go through a lock. This information will be covered when you have your practical boat handling demonstration. If you have any queries during your boat handling demonstration, please don't hesitate to ask!

ALTHOUGH DRIVING A BOAT IS A BIT LIKE DRIVING A CAR, THERE ARE SOME IMPORTANT DIFFERENCES!

- Your boat will be affected by both the river's current and the wind. Make sure you are aware of the effects they will have on you before setting out.
- A boat has no brakes so, to slow down or stop, you simply reverse the motor. It will take about four times its length to stop so prepare your manoeuvres well in advance.
- A boat is much heavier than a car (most of our boats weigh at least 7 tons), so it can do a lot of damage at a much slower speed. Take your time and carry out all manoeuvres slowly and deliberately. If you have the chance, watch a barge skipper handling his barge. He is never in a hurry.
- When a car changes direction, the back wheels follow the front ones. A boat, on the other hand, pivots on a point situated about one third back from the bow. When manoeuvring, always think of your stern.



- And finally, a car requires one driver who normally needs no help from his passengers. A boat requires a skipper and a crew. Before setting out, the captain should allocate tasks to everyone on board. And keep in mind that the captain is in sole charge of his vessel and his word is final.



SETTING OFF

PLAN YOUR DAY'S CRUISING

Use your navigation guide and maps to plan your day's cruising. Most show kilometre points to enable you to calculate the distances and have a table giving you cruising times between the main ports. Cruising at no more than 6km/hr you should aim for around 4 to 5 hours cruising each day.

START THE ENGINES!

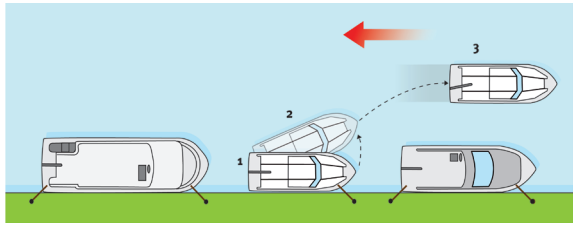
- Before leaving your mooring:
- check that the throttle lever is in neutral and that the button for engaging the propeller is not out.
- if your boat has dual steering positions, ensure that the one you want to use is the one selected.
- start the engine.
- make sure that all loose items on the deck cannot be blown o ff or knocked off by low branches. Bicycles must be attached firmly to the railings by their anti-theft devices.
- ask your crew to cast off and bring the lines back on board.

GETTING UNDER-WAY

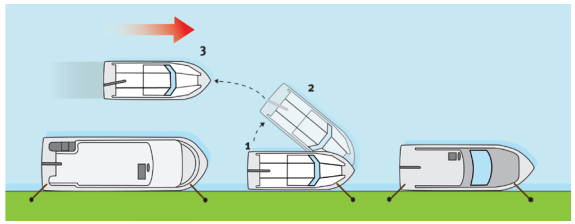
LEAVING THE QUAY

Firstly observe the wind and current conditions. See if the strongest of the two comes from the front or the rear of the boat.

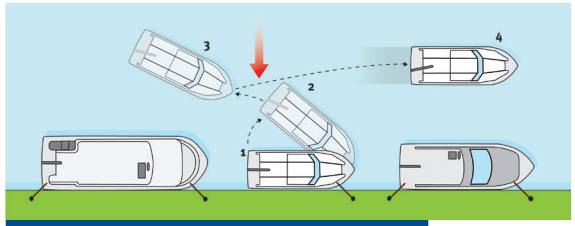
If the boat is moored facing the wind or the current, cast off the front line first, then push the front of the boat towards the middle of the river. Engage forward gear.



If the wind or current are pushing against the rear of the boat, the manoeuvre is slightly more delicate. Cast off the rear first, then push the rear of the boat away from the bank to free it. Move to the middle of the river/canal in reverse gear before changing to forward gear.



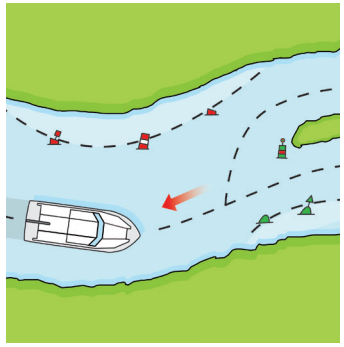
If the boat is stuck to the quay because of very strong wind, let go the rear line and engage forward gear. Whilst manoeuvring, the front remains tied on, but ready to be cast off. The driver turns the wheel sharply towards the quay while accelerating a little. When the rear has moved out from the quay, one of the crew members casts off the front line and the driver brings the boat to the middle of the river in reverse gear.



THE NAVIGABLE CHANNEL

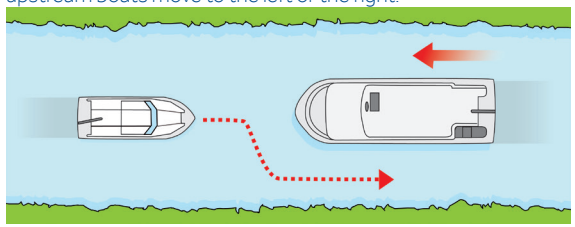
On a river and sometimes on a canal, the navigable channel is indicated by coloured buoys. The rule is simple: a boat going upstream should leave the red buoys on its left and the green (or black) buoys on its right.

A boat going downstream (i.e. going down towards the sea or going down a set of locks), should leave the green (or black) buoys on its left and the red buoys on its right.



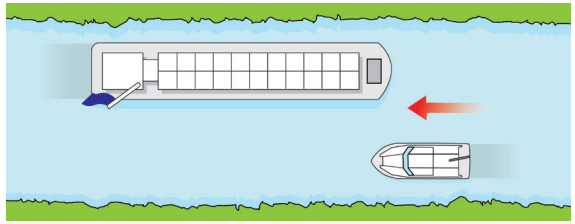
TWO BOATS CROSSING

Normally to pass an oncoming boat, you must move to the right hand side of the channel, but a downstream boat always has priority over an upstream boat. When the waterway is wide enough, boats going downstream stay in the middle and upstream boats move to the left or the right.



On the Continent, the skipper of a commercial barge going upstream who wishes to stay on their left bank and pass on your right side will display on their right hand side

- during the day, a blue flag;
- during the night, a white flashing light.



OVERTAKING

You can overtake a boat in front of you on either side as long as the manoeuvre presents no danger. On a narrow waterway, it is usual to pass on the left-hand side. The boat being overtaken should slow down and, if necessary, go aside to leave room for the overtaking boat. If the waterway is wide and the manoeuvre presents no great problem, you do not need to announce your intentions. If the channel is narrow and you would like the boat being overtaken to go to one side, you should use the horn signals provided for in the navigation rules

— — ▪ I want to overtake to the right of you.

— — ▪ ▪ I want to overtake to the left of you.

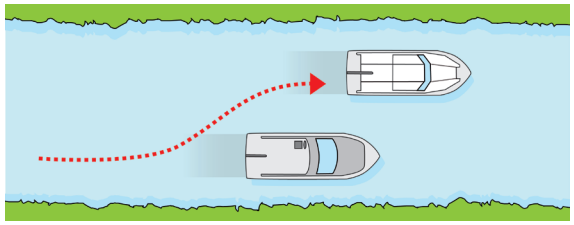
If it is not possible to overtake on the side requested but possible on the other side, the boat being overtaken should reply as follows:

▪ you can overtake to the left of me.

▪ ▪ you can overtake to the right of me.

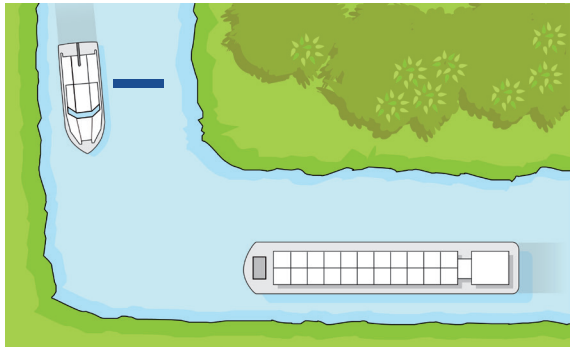
If overtaking is impossible, the boat in front should give 5 short signals.

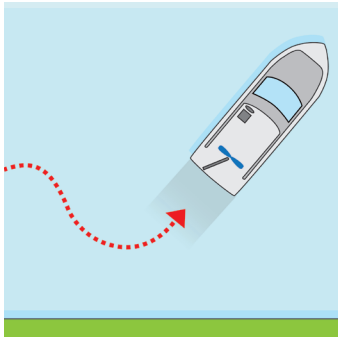
▪ ▪ ▪ ▪ ▪ overtaking impossible.

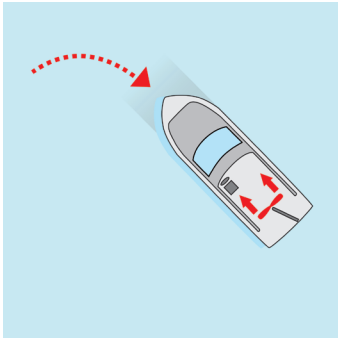


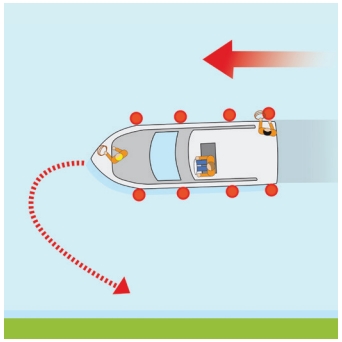
BLIND BENDS

In certain tight bends, you should announce your presence with one long blast of your horn.





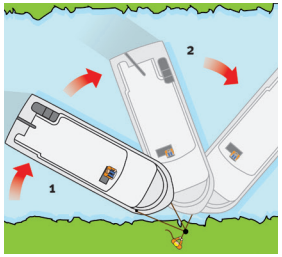


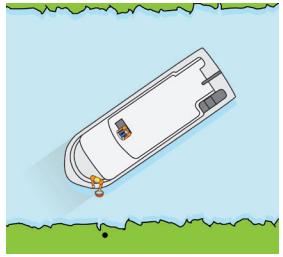


HOW TO TURN AROUND

Choose an area sufficiently wide. Slow down whilst keeping in forward gear. Turn the wheel and accelerate sharply to swing the stern around. Before reaching the opposite bank, stop the boat by going into reverse. The boat will continue to pivot with the momentum. When it stops turning, give another forward thrust and so on until the manoeuvre is completed.

In a very narrow section of water, there is another simple method you can use. Slowly approach a clear section of the bank and put a member of the crew ashore with the forward mooring line. With the bow held fast, accelerate gently in forward gear pushing against the bank. The stern will come slowly away from the bank. Turn sufficiently to enable you to move off in the other direction.





MOORING

Choose your mooring place to avoid being too close to locks, bridges, etc.

When approaching the bank, check that the chosen area does not conceal any hidden danger such as a tree stump,

a large submerged rock or stone or anything else that could damage the hull.

On a river, always moor into the current, even if you have to turn around.

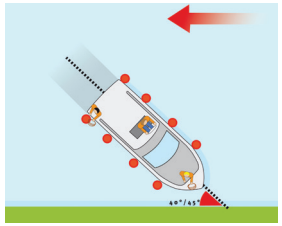
Make sure that there is sufficient water under the boat in case the level goes down over night. Also ensure that the mooring lines are not too tight.

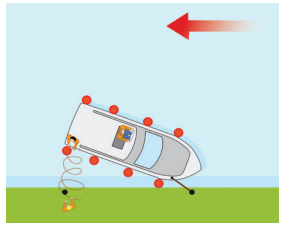
If you have any doubt, moor your bow to the bank and stretch a rope from the stern to the bow on the far side of the boat to keep the stern away from the bank

BOAT HANDLING

MOORING PARALLEL TO THE QUAY

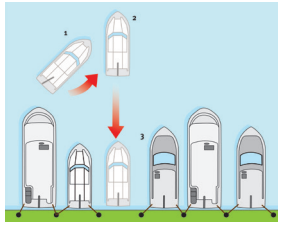
To moor alongside a quay, place one crew member at each mooring line, forward and aft. Approach the quay slowly, keeping the bow into the wind or current; the boat should form an angle of around 45° with the bank. When you are two to three metres away, slow down by going into reverse. As soon as the bow touches, a crew member should jump ashore and make fast. The stern can then be pulled in by hand.

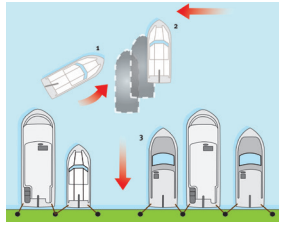


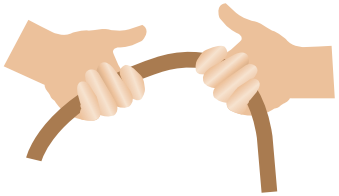


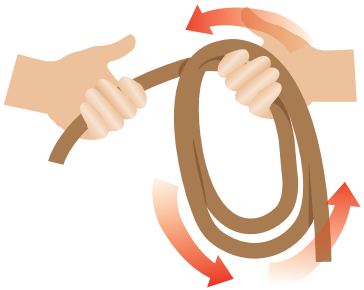
MOORING WITH THE REAR OF YOUR BOAT TO THE QUAY

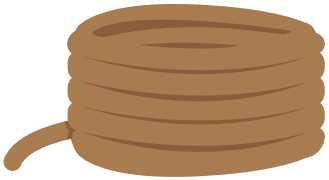
This manoeuvre can be particularly difficult, especially if there is a strong wind or current. It is important to come in forward, as close as possible to the place you wish to moor. Turn around making sure you allow for wind or current, and finish in reverse gear. If necessary, a crew member should get off to help the manoeuvre.











MOORING LINES

- Once used, each rope should be carefully coiled and placed on the deck, ready for to be thrown (see left). This is most important. Tangled ropes can cause accidents.
- Never leave the lines trailing in the water, even if they float, they can be drawn into the propeller.
- Remove any knots before they become too tight to untie. Knots can prevent lines running freely at an inconvenient moment.

RUNNING AGROUND

Use the boat hook to check around the perimeter of the boat and If you are aground on mud or sand, try to free yourself by going in reverse, positioning the heaviest crew member at the bow. If this does not work stop trying and contact the base.

If the riverbed is rocky or you detect any other hard obstacles, do not attempt anything; simply contact your departure base.

Never ask for, or accept a tow from another boat, unless a member of the Le Boat team is present

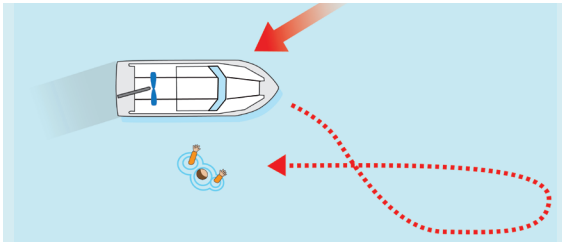
If your boat begins to take in water, go towards the nearest bank, try to reduce the leak with towels, pillows or cloths (anything will do) and call us. Remember that the bucket on the boat is compulsory and can, in this case, be very useful as a bailer.

BOAT HANDLING

WHAT TO DO IF SOMEONE FALLS IN THE WATER

Turn towards the person in the water to keep the propeller away from him then put the engine in neutral. Throw a line or a life buoy. Move away far enough to be able to turn round and come back on the windward side. Put the engine into neutral as you approach; avoid going into reverse.

All our boats are equipped with swimming ladders but if the bank is close enough, it may be easier for the person to climb out on the bank before getting back on board.



If one of your crew falls into a lock, you should first of all ensure that they are not crushed by your boat or any other boat in the lock:

- tighten the lines fore and aft and ask the other boats in the lock to do the same thing.
- stop the motor.
- throw a life buoy or a line to the person in the water.
- in a manual lock, warn the lock-keeper and help him close the sluice gates; in an automatic lock, stop the locking procedure by pushing the red emergency button or pulling on the red bar.
- help the person out of the water via the ladder in the lock wall or the boat's swimming ladder.

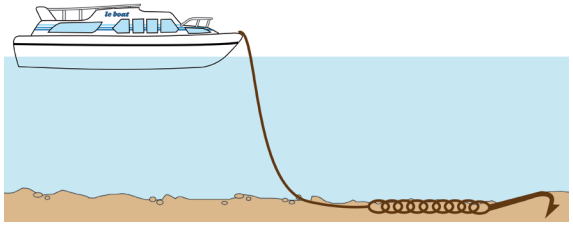
THE BOAT HOOK

Thanks to its plastic hook, the boat hook is used to pull your boat towards a quay or a bank. Do not use the boat hook while the boat is at cruising speed, it should be virtually at a standstill.

THE ANCHOR

Your boat is equipped with an anchor attached to the boat by a rope and ten metres of chain. On a canal it is forbidden to use it but on a river, for example, in the event of a motor breakdown, it can be very useful. Leave a good length of chain on the bottom; it is the weight of the chain that will stop your boat moving.

To recover your anchor easily, all you need to do is go ahead slowly towards it while a crew member at the bow hauls in the chain.



SOME USEFUL KNOTS

All marine knots have their uses, but at least three are indispensable on the inland waterways.

A. The cleat knot: All you need to do is pass the cord in a figure of eight around the cleat. The last loop can be reversed to block the rope.

B. Round turn and two half hitches: the best knot for mooring a boat and the easiest to untie.

C. The clove hitch: this knot is particularly useful if you want to moor to a tree or a post. It is two reversed half- hitches. Its hold is extremely strong.

D. The bow line: this knot is used to make a loop in the end of a rope without splicing. It is a useful knot but needs some practise.

WEIRS

Some locks are situated very close to weirs and it is important to keep well away from them. Make sure as you approach these locks that you go directly to the mooring area with mooring lines ready. Check that your anchor is also ready to be used if necessary. Never use your dinghy or swim near a weir.

BRIDGES

Often only one arch of the bridge is suitable to pass through. Follow the signs and check the map before proceeding.

Always pass through the centre of the arch as the pylons are usually wider under the water.

On the canals the old bridges are often very low and present a danger both for crew members and for the tables and umbrellas placed on the top deck. These bridges and the height available are shown in your Waterway Map.

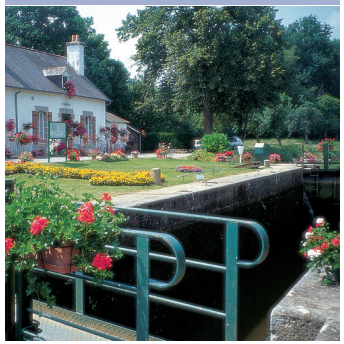
When approaching a lifting bridge or a turning bridge, stop well in advance to wait for it to be opened.

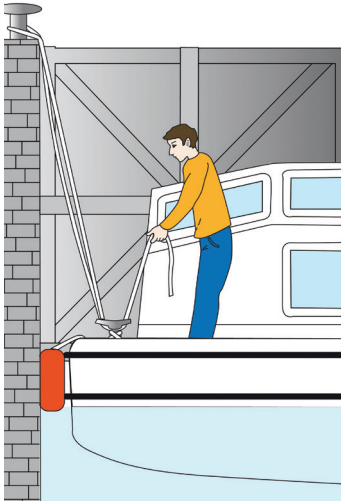
LOCKS

Depending on the region you are in, locks may be manually operated, electrically operated or automatic, but whatever the system, the manoeuvres are always much the same.

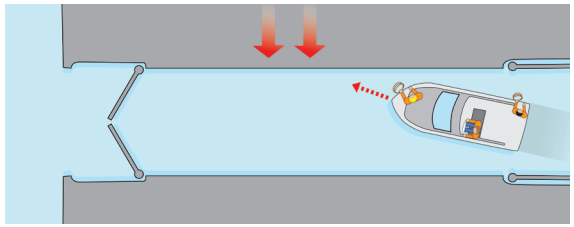
- When approaching a lock, stay at least 100 metres short to enable a boat coming out of the chamber sufficient room to manoeuvre.
- If there are several boats waiting, each one should go into the lock in the order of arrival. Official boats (navigation service, fire boats or customs vessels) as well as duly authorised passenger boats have priority over leisure craft. You should also let commercial barges go ahead of you.
- The lock-keeper is sole in charge of his lock. You must at all times follow his instructions.

The skipper should warn his crew members when approaching a low bridge. Remember to lower your parasol and Biminis if you have one.





- Going into an empty lock, moor, if possible on the windward side. Your departure will be all the easier as the wind will



Stay at a good distance from the lock gates: too close to the upstream gates in a descending lock, and your rudder could sit on the sill. In an ascending lock, the bow could get caught in the gate's beams... with disastrous consequences!

Put the ropes through the rings or around the bollards on the lock surface and bring them back to the boat with one turn around the cleat (see left). A crew member on each line then holds the boat tight against the lock wall.

Never tie off your lines in a lock, going up or down, as you risk 'hanging' your boat and causing serious damage and/or injury.

MANUAL LOCKS

Despite the various different projects to mechanise locks on the tourist waterways, you will still come across many manually operated locks.

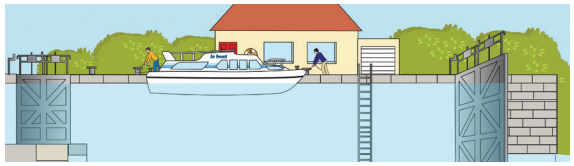
In most of these a lock-keeper is present to carry out the manoeuvres. Nevertheless, you should put at least one crew member ashore to help him. The day is long for a busy lock-keeper, especially in summer, and your help will be greatly appreciated.

You should also respect his working hours and beware that he can close the lock a few minutes before the official closing time if he thinks that by letting you through he will be late for lunch. Be patient and do not attempt to operate the lock yourself.

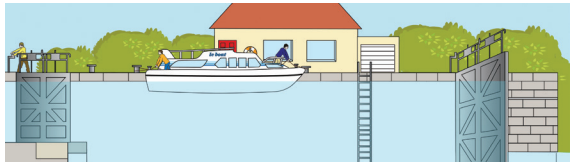
The sluices, which enable the lock to fill or empty, are opened and closed using crank shafts or handles. They can be dangerous and you should never handle them unless authorised by the lock-keeper, or when a lock is user-operated. Never allow a child to handle them. Open the sluice gates gradually; the sudden intake of water can make it difficult to keep the boat steady. Once the intake of water is calmer, you can open them fully. Ensure the sluices are fully open before you open the lock gates, as in some regions, the lock doors will not open unless they are.

GOING DOWN

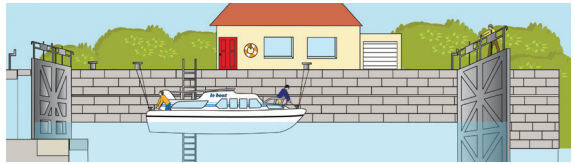
Enter slowly and stop as far as possible from the upstream gates. Moor using your rear and forward lines, passing tthem around the lock bollards and back to the boat so that they can be recovered easily when you leave. Do not tie off the rope or you run the risk of hanging your boat up in the lock.



One crew member closes one gate on the upstream side. He must then wait until the two gates are completely shut before opening the downstream sluice gate, otherwise the current will close them violently.



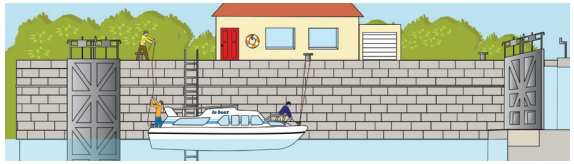
As the boat goes down, one person on each line holds the boat tight against the lock wall. If there are only two of you aboard, the stern line can be handled from the lock surface.



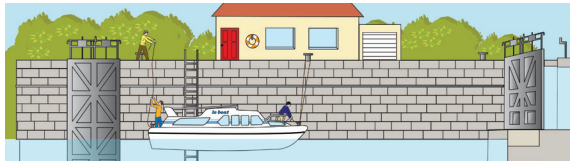
Once the lock is empty, the crew member opens one of the gates and the lock-keeper the other. Wait until the water has reached its level and do not force the gates. Once the gates are open, go slowly out of the lock. The crew member on shore can rejoin the boat via the pontoon downstream from the lock.

GOING UP

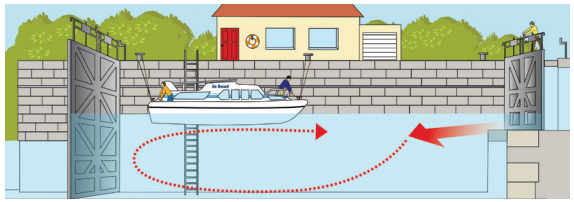
One crew member goes up onto the lock surface to take the lines. Enter slowly and stop as far as possible from the gates. If you are alone in the lock, stay about two thirds back from the upstream gates. Pass the forward and rear lines around the bollards and bring them back to the boat.



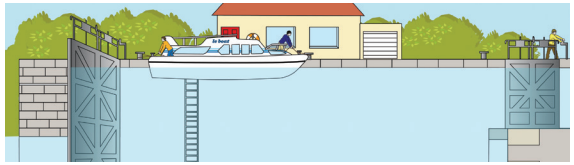
The crew member closes one gate; the lock-keeper closes the other. If you are only two aboard, the rear line can be handled from the lock surface.



If he has permission, the crewman helps the lock-keeper open the sluice gates. A crewman aboard handles the front line and another the rear line. In a small lock, as soon as the sluices are opened, a circular current will push the boat towards the upstream gates. To keep the boat still, the two lines must be kept tight during the whole manoeuvre.



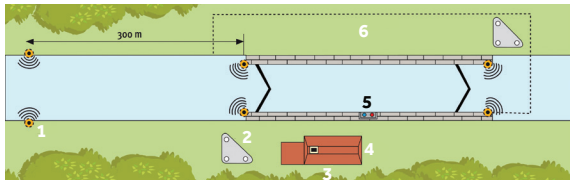
When the lock is full, the lock-keeper opens one gate; the crew member opens the other and goes aboard. The boat is driven slowly out of the lock.



AUTOMATIC LOCKS

Little by little manual locks are being replaced by automatic locks operating without the help of a lock-keeper. These locks are set in motion in several different ways:

- A pole placed on a suspended cable above a canal:
  - slow down just before the pole.
  - turn right a quarter of a turn.
  - wait at a distance until the lights indicate that the lock is ready.
- An automatic detector placed on the bank:
  - pass the detector very slowly to give it time to register the presence of your boat.



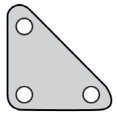
1. Advance radar detection 2. Traffic lights
3. Control cabin 4. Intercom 5. Blue pull wire (lift), red pull wire (pull down in case of accident or false manoeuvre)
6. Lock entrance detector: radar, pole, loop, or photoelectric.

- An electronic control unit that will be given to you as you enter a lock chain:
  - When you come close to the lock, press the button once only or the system will register several boats.
- A card that will be given to you as you enter a series of automatic locks. These locks are fast and easy (no handles to turn), but you are solely in charge of the manoeuvre and, as such, you must be all the more careful to ensure the safety of your boat and its occupants:
  - all these locks have an emergency stop system which closes the sluices. Be ready, with the other members of the crew, to use it.
  - make sure at all times that the ropes cannot be caught in the gaps between the stones in the lock wall.
  - do not stop your boat between the detection system and the lock.
  - once the gates are open, go out of the lock immediately.

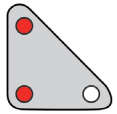
FLIGHTS OF LOCKS

In certain areas locks are organised in chains. This means that when you go through one lock, the next one is being automatically prepared for you. For obvious reasons you should warn the navigation service staff if you have to stop in the middle of a chain of locks.

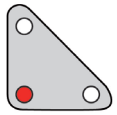
LOCK SIGNALS



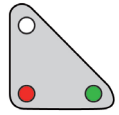
No light: *lock out of order*



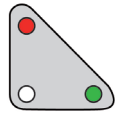
No entry: *lock out of order, telephone*



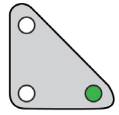
No entry: *lock in use*



No access: *lock preparing for your entry*



Enter at your own risk *(normal mooring not possible)*



Enter lock immediately

TUNNELS

Tunnels do not present any particular problem but you must respect the following rules:

- it is forbidden to moor in a tunnel or in the approach cutting. Once you are under way, do not stop.
- put on your navigation lights as you go through.
- turn off your gas cooker and any other flame. Smoke in the confined space of a tunnel can be very dangerous.
- in the event of a breakdown or other incident, you can walk out of the tunnel using the footway.
- note the available height and stay in the middle of the boat as you go through.

SIGNS AND SIGNALS

If you are sometimes tempted to sound your horn to greet another boat, remember that on a navigable waterway specific horn signals exist so that you can announce your intentions. You will find these signals on the back cover; learn to use them as they may be useful in the event of a difficult manoeuvre or limited visibility.

On the back cover you will also find all the warning signs most frequently seen on inland waterways. Signs indicating restrictions or obligations are in red and black on a white background. Signs giving information are generally blue or green. Locks and bridges have their own special signs and lights.

SHARING THE WATERWAYS

During your cruise, you will share the waterways with many other users. These may include commercial barges, fishermen, sailors, bathers and riverside land owners. There is room for everyone as long as you observe the basic rules of courtesy:
keep your distance from fishermen and slow down when approaching them.

- always pass slowly and at a good distance from moored boats.
- some banks are private so do not stop and go ashore just anywhere.
- respect speed limits. To ensure you are not going too fast, glance at your wake, your wash must not be breaking against the bank.
- do not push ahead of a commercial barge if by doing so you will delay it at the next lock. Remember the barge skipper is working and his time is precious.
- occasionally on rivers you will go past youngsters in canoes, sailing boats and rowing skiffs. Stay well clear of them as they are often quite inexperienced.

PROHIBITION

Do not go beyond this point

Closed section

Passing and crossing forbidden

Overtaking forbidden

Overtaking forbidden for convoys

Forbidden to remain in area indicated

Anchoring forbidden

Mooring forbidden

Turning forbidden

Forbidden to create wash

OBLIGATION

Take direction of arrow

Turn towards side of channel indicated

Stay on side of channel indicated

Obligation to stop in certain circumstances

Maximum speed allowed km/h

Sound your horn

Be especially careful

RESTRICTION

Depth limited

Height above water level limited

Width limited

Channel is situated 40m from bank

INFORMATION

End of restriction or obligation

Authorisation to proceed

Boats coming out

Electric cable crossing

Ferry crossing with cable

Mooring allowed

Anchoring allowed

Mooring allowed

Turning point indicated

Main waterway, secondary waterway

Drinking water

Water ski zone

Telephone

LOCKS

Out of service Lock closed

Prepare to enter

Enter

BRIDGES

Passage forbidden

Forbidden to pass outside area indicated

Pass, no opposing traffic

Pass, traffic in both directions

BUOYS

Buoy right side (going upstream)

Stakes right bank (going upstream)

Buoy left side (going upstream)

Stakes left bank (going upstream)

Dividing buoy

HORN SIGNALS

(4 seconds) Attention

(1 second) I am coming towards starboard

I am coming towards port

I am going into reverse

I am out of control

Danger of collision

I want to overtake on your starboard

I want to overtake on your port

Do not overtake

I am going to turn to starboard

I am going to turn to port