

SAFETY GUIDANCE FOR SMALL BOAT PASSAGE OF THE RIVER MERSEY



These Guidance notes have been produced in consultation with:

Maritime and Coastguard Agency
Inland Waterways Association
Royal Yachting Association

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Guidance for Small Boat Passage of the River Mersey

These notes are for the benefit of skippers of Inland Waterway Craft who wish to make the passage between Brunswick Lock, Liverpool South Docks and the Manchester Ship Canal at Eastham, and for seagoing craft visiting the inland waterways.

The general content should also be of interest to local boat owners, particularly those venturing onto the River Mersey for the first time.

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1. The Passage - General

The passage between Liverpool South Docks and Eastham Locks is often "not recommended" for inland waterway craft, particularly canal narrow boats. A safe passage is, however, perfectly feasible for boats which are suitably prepared and equipped for a short sea voyage and with skippers or crew members with appropriate experience and local knowledge, or with an authorised Liverpool Pilot.

The River Mersey has a large tidal range, over 10.2m at Liverpool, with stream rates of up to 7 knots. The flows are complex and sea conditions can be dangerous to small craft, especially in the Eastham Channel when the wind is against the tide. Canal and river craft are strongly advised to avoid spring tides when the tidal stream rates are greatest.

There should always be at least two persons onboard able to control the vessel.

The essential requirement for a safe passage is good weather, therefore, study the weather forecasts and regard wind Force 3 as a maximum. Wait and seek advice before locking out if doubtful. Look at the direction of the wind in relation to the tide, wind and tide in the same direction can help make for a smooth sea, whereas in opposite directions conditions can become unpleasant or even unsafe, especially for narrow boats.

The movements of all vessels in the River Mersey are governed by the International Regulations for Preventing Collisions At Sea (the "collision regulations") a copy of which is an essential part of your equipment. They are available from HMSO, the RYA, or Chart Agents. You must be aware of your statutory duties under the "collision regulations", and navigate accordingly.

You will be navigating in areas where there may be many movements of ships and other craft of all sizes and limitations. Of particular note are: the Cammell Lairds dry dock entrances, the Tranmere Oil Stages and the QEII dock at Eastham.

To ensure the safety of navigation of all vessels and craft in the River Mersey, the buoyed channels must be recognised as "narrow channels" in the context of the "collision regulations". The attention of all users is therefore drawn to the provisions of rule 9 of the regulations. Commercial ships are often constrained by their draft due to the narrow confines of the navigable channel combined with their relatively deep draft, and are severely restricted in their ability to deviate from the course they are following. All small craft mariners on this passage should take full account of the "collision regulations" as they apply to narrow channels and vessels constrained by their draft.

Remember: "A vessel of less than 20m in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway." In effect the whole passage between Brunswick Lock and Eastham Locks is conducted within a "narrow channel or fairway."

2. Preparation and Equipment

Plan your passage fully and with care.

Although the regulations requiring the formulation of a passage plan apply to small craft proceeding to sea, small craft skippers should adhere to the voyage planning principles when navigating in categorised waters such as the River Mersey.

Planning your passage is an essential part of preparation for the voyage. The following should particularly be taken into account when planning any boating trip:

Weather: Before you start your trip, check the weather forecast and get regular updates if you are planning to be out for any length of time.

Tides: Check the tidal predictions for your trip and ensure that they fit with what you are planning to do. It may be vital to know when the tide turns, or what the depth of water will be at a specific place and time. Carry a copy of the local Tide Tables.

Day or Night? Establish the times of Sunset and Sunrise and remember you are required by law to display appropriate lights (as defined in the “collision regulations”) when on the water during the hours of darkness. However this passage is **not recommended** during the hours of darkness or during periods of restricted visibility.

Limitations of your vessel: Consider carefully if your boat is up to the trip and ensure that you have sufficient safety equipment and stores with you.

Navigational Dangers: Make sure that you are familiar with any navigational dangers you may encounter during your boating trip. This generally means checking an up to date chart and a current pilot book or almanac. Have charts for the area corrected up to date and study them.

Contingency Plan: Always have a contingency plan. Before you go consider areas of safety, where you can take refuge should conditions deteriorate, or if you suffer an accident or injury. Bear in mind that any electronic equipment including GPS can be vulnerable and could fail. It is sensible and good practice to use all available aids to navigation, modern and traditional, and not be over reliant on any one, particularly GPS.

Personal Safety: Always wear lifejackets of an approved type taking full account of any associated hazards. Cold water shock and rough water severely reduce a person’s ability to stay afloat, so always wear lifejackets of an approved type to extend survival time and improve the chances of being rescued. A boarding ladder should be provided to assist in retrieval of persons from the water.

Radar Reflectors: All pleasure vessels are required to carry a radar reflector if practicable. These should be mounted as high as possible for maximum detection range.

Information ashore: Before you commence the passage talk to the Port of Liverpool VTS (Mersey Radio) and the Manchester Ship Canal Port Control (Eastham Port Control). Make sure someone knows your plans and knows what to do should they become concerned for your well being. The Coastguard Voluntary Safety Identification Scheme (CG66) is free and easy to join. It is **essential** that arrangements for Eastham Locks are confirmed before commencing on a passage to the Manchester Ship Canal. (section 9)

Steering Equipment: Make sure that your steering system is in good order. If hydraulic, confirm that oil levels are correct, there is no leakage and the system is purged of air.

Engine performance: Ensure your engine is in good working order. Boats are immobilized by engine failure more often than by any other cause. (Remember on this passage the water you are upon is not stationary as in a canal, it will be moving over the ground at anything up to 7 knots on spring tides. If your engine fails you will be carried along by the tidal stream with little or no control of your boat.) It is recommended that **fuel tanks are purged** to remove sludge or water, and then refilled whilst preparing your boat for passage.

Engines should be checked for reliability and fuel filters cleaned. Water and sludge that lurks harmlessly at the bottom of your fuel tanks when you are on calm canals will be remixed with fuel when your boat starts to move in a seaway, which frequently leads to fuel system blockages and/or failures.

Engine room ventilators or air intakes near the waterline should be made watertight and suitable alternative ventilation arranged. Since passage can be choppy, inland waterway craft with forward cockpits should **use spray sheets or covers to prevent entry of water, forward cockpit scuppers may need to be blocked.**

You may encounter a significant swell during your passage particularly to seaward of the Brombro Buoy and when crossing the river when you may be beam on to the swell. If you do not make any provision to stop the ingress of water when the craft is pitching or rolling heavily there is a danger that the cabin could become swamped thus making the vessel unstable leading to probable capsize and sinking. Drainage ports on most narrow boats would not be able to clear the forward cockpit with the vessel pitching in a moderate swell and water entering each time the bow is immersed.

3. Safety Equipment needed:

Lifejackets fitted with lights for all onboard. Those wholly dependent on oral inflation should be worn partially inflated.

Radar reflector fitted as high as practicable

A Lifebuoy with smoke/light signal attached is needed somewhere aft within easy reach of the helmsman. In addition a **30 metre buoyant line or approved rescue quoits** or similar device should be kept handy.

Distress Flares. Small craft, within three miles of shore, should carry **two red hand flares and two orange smoke signals.**

Sound Signals and Lights All craft are required by law to have a means of giving **sound signals and to display adequate navigation lights** when on this passage between sunset and sunrise, or in conditions of restricted visibility.

Bilge Pump and a hand bailer. Water Resistant Torch
Engine Tool Kit FIRST AID KIT
Fuel and Water Filters

Fire Fighting Equipment appropriate to your vessel. Guidance is published in the British Waterways Boat Safety Specification or in Safety on the Sea obtainable from the Maritime and Coastguard Agency. (MCA)

4. Mooring equipment required

Anchor. Big is best! Have an anchor that is too large rather than too small. One heavy anchor should hold better than two small ones. Remember, though, when testing its weight in a dry clean chandlery that it will feel very different when in use in wet and breezy conditions. All anchors work best if the pull on them is close to horizontal. A nylon rope (the warp) absorbs shock, but a length of chain next to the anchor is required to resist chafe and to keep the pull on the anchor close to horizontal. A suitable minimum length of chain and warp would be 6 x the maximum depth expected at your anchorage, comprising of a boats length of chain and the remainder a suitable rope (12mm or 14mm diameter nylon rope, or other of equivalent breaking load should suffice).

If in doubt about the amount of warp and chain consult the RYA or MCA for further advice.

In any event err on the side of caution and have too much rather than too little chain and warp. During the passage you might spend some time at anchor or aground over low water.

Long mooring lines are required (25m) with a large eye that can be passed over a bollard.

5. Sources of Weather information

Mersey Radio tel: 0151 949 6095 provide a taped weather forecast updated twice daily for the Port of Liverpool

BBC Radio 4 shipping forecast for sea area Irish Sea (Inshore - Great Orme to Mull of Galloway)

The internet – suggested sites: www.bbc.co.uk or www.meto.gov.uk

Marinecall (Premium Rate) service – tel: 09068 500549 or fax: 09065 300259

Liverpool Coastguard broadcasts local weather forecasts from 0130hrs UTC (GMT) at three hourly intervals on channel 23 84 & 86(after a preliminary announcement on Ch. 16)

6. British Waterways Boat Safety Scheme & Licensing

All craft should be aware that British Waterways Boat Safety Scheme. For all users on longer than 28 day licenses **FULL** boat safety certification is required. For short term users, i.e. those on passage or a brief visit with a maximum license term of 28 days, craft will be subject to checks under the Dangerous Boat Check List. £1 million third party insurance cover is mandatory for craft using the waterways. BW staff or authorized agents will wish to see a copy of the original insurance certificate before issuing a short term license. If you have any questions regarding the Boat Safety Scheme or Insurance, please contact the Waterway Office at Wigan 01942 405700

7. Insurance

Most insurance companies of inland waterway craft make provision for those making tideway passages between one waterway and another. Salvage cover should be included on your policy. (Both Harbour Authorities have Statutory Powers to remove wrecks and obstructions, the bills for which may be expensive - up to £1 million)

Check with your insurance company and ensure that you are fully covered.

Prior notice of passage outside Inland Waters may be required.

Is it a condition of your insurance that a licensed Pilot be engaged?

8. Making contact with the Coastguard

HM COASTGUARD operate a free Yacht and Boat Safety Scheme with the aim of providing the Maritime Rescue Centre with up to date vessel information. These forms, called CG66, can be obtained by post from Liverpool Coastguard. Telephone 0151 931 3341 or downloaded from www.mca.gov.uk/cg66

Liverpool Coastguard should be contacted before you sail.

They are always pleased to talk to small craft sailors, and can offer sound advice on local hazards, safety equipment, weather and sea conditions, and many more important aspects of going afloat.

The Coastguard maintains a 24 hour distress and calling watch on marine band VHF Channel 16 and on the DSC channel 70.

When passing a TR (Transit Report) to the Coastguard, or requesting routine information, call

“Liverpool Coastguard” on VHF Channel 16, you will then be asked to change to VHF Channel 23, 84 or 86. Be prepared to pass the following information:

Port of departure, port of destination, expected time of arrival and the number of persons onboard.

You may be asked to spell the name of your boat so that it can be matched to a CG66, and **don't forget to inform them should you change your plans or your destination.**

Mobile phones may be used, but these **should not** be a substitute for a VHF marine band radio. If you do use a mobile phone, **inform both Mersey Radio (Liverpool VTS) and MSC Port Control (Eastham) of your number, and put it on your CG66**, call to inform them that you have safely reached your destination.

Some means of external communication is essential, both for operational and safety reasons.

Liverpool Coastguard can be contacted on **0151 931 3341 for all routine enquiries or dial 999 and ask for the Coastguard in an EMERGENCY.**

The Maritime and Coastguard Agency now offer information by telephone on **0870 600 6505**, by e-mail at infoline@mcga.gov.uk and on their website at <http://www.mcga.gov.uk>

9. The Passage – Liverpool South Docks to Eastham Locks.

Small craft departing Brunswick Lock will normally be able to enter the river 2 hours either side of High Water Liverpool (Alfred Lock).

Eastham locks must be booked in advance and only operate 4 hours either side of high Water Eastham.

Contact **Eastham Port Control (tel: 0151 327 4638)**

There are special restrictions and requirements for small craft wishing to use the Manchester Ship Canal. These regulations can be found in Appendix 1

All movements within the Liverpool South Docks are managed by the Harbour Manager. When transiting the South Docks System all craft are to comply with the Rules of Navigation a copy of which is enclosed within the booking information pack.

Arrangements for Brunswick Lock are to be made in advance with Liverpool Marina Tel: 0151 707 6777.

On leaving Brunswick Lock, traffic, weather and tide permitting, cross the river and follow the charted channel to Eastham. It may be the case that you will not reach Eastham on a single tide. It may therefore be necessary to wait over the low water period for the next flood tide. Although it is possible to anchor in Middle Deep it is safer to wait in that area before proceeding up the Eastham Channel on a flood tide Contact **"Mersey Radio" on Channel 12 VHF** on entering the River and again when entering the Eastham Channel, together with Eastham Port Control. Information will be passed regarding commercial vessels and advice will be given on your movements prior to entering the Eastham Channel.

Movement of commercial shipping into and out of the Ship Canal dictates what can and cannot be achieved on any specific tide.

At times small craft may be required to pass through the lock chamber with commercial shipping.

Please note that the entrance to the Eastham Channel is in the vicinity of the Tranmere Oil Stages. The vessels using these stages are very large and deep drafted. They are extremely restricted in their ability to manoeuvre and small craft MUST keep clear.

10. The Passage – Eastham Locks to Liverpool South Docks

Persons intending to travel to or from The Manchester Ship Canal should obtain a copy of “Pleasure Craft Transit Rules for the Ship Canal” from the Harbour Masters Office or Manchester Ship Canal web site before navigating on the Ship Canal. This publication is updated regularly and provides all the information needed in respect of communications, licensing, berthing and navigation on the Ship Canal and within the harbour area.

Vessels leaving Eastham Locks should obtain details of traffic in the River Mersey by VHF radio from Eastham Port Controller (Ch 7) or Mersey Radio (Liverpool VTS) (Ch 12) before proceeding into the river. Thereafter they are required to report their position to Mersey Radio on passing Brombro Buoy.

The distance between Eastham Locks and Brunswick Lock is 4 nautical miles. Craft may need to wait over the low water period. The recommended waiting position is in Middle deep (NB: Middle Deep is mid river and can be dangerous with winds over force 3.)

If you choose to remain in the River Mersey seek advice from Mersey Radio as to the best position (allowing for weather and the craft’s construction) to anchor. Plan your passage to arrive off Brunswick Lock **No earlier** than 2 hour before High Water and **No later** than 1½ hours after High Water Liverpool (Alfred Lock).

Call “**Liverpool Marina**” on **VHF Channel 37** or by Mobile Phone as soon as possible after leaving Eastham. Keep the Brunswick Lock Keeper advised of your ETA.

11. Useful Telephone Numbers and VHF Stations

British Waterways – Canning Dock

Marine Band Radio: **VHF CHANNEL 37 - “CANNING DOCK” (when manned only)**

Telephones: Dock Office: **0151 709 6558**

(Mon – Thur 0830 – 1700, Fri 0830 – 1630)

(Answerphones outside listed hours)

British Waterways - Waterway Office Wigan 01942 405700

Port of Liverpool - Liverpool

Marine Band Radio : **VHF CHANNEL 12 “MERSEY RADIO”**

Telephones : **Liverpool VTS 0151 949 6134** (24 Hours)

Manchester Ship Canal

Marine Band Radio: Port Control **VHF CHANNEL 7 “EASTHAM PORT CONTROL”**

Telephones: **Eastham Port Control 0151 327 4638**

Liverpool Marina

Telephone: **0151 707 6777**

Pilotage Services

Telephones:

Port of Liverpool (Canning ~ Eastham) **0151 949 6131/33**

Manchester Ship Canal (Ship Canal) **0151 327 1233**

Liverpool Coastguard

Marine Band Radio: **VHF Channel 16 “Liverpool Coastguard”**

Telephone: **0151 321 3341**

12. Notes

i) Local Notices to Mariners (NTMs)

Both Port Authorities publish NTMs giving up to date information on changes to Navigation Aids, Dangers to Navigation etc.

Check with the Port Authorities who have control of the areas covered by your proposed passage to obtain such information.

ii) Waiting over Low Water

After much deliberation and investigation on the part of the Port of Liverpool the advice for Small Craft waiting over the Low Water period prior to passage up the Eastham Channel to the Ship Canal should be to wait in the Middle Deep (weather permitting). Alternatively you could anchor in Middle Deep but be aware that the anchorage can be dangerous with winds over force 3. Check the Weather Forecast before anchoring. Craft are advised to remain afloat at anchor rather than to take the ground.

If through a combination of circumstances you need to remain in the River Mersey other than moored seek advice from Mersey Radio as to the best position (allowing for weather and the craft's construction) to anchor.

(Note: It is **not** recommended that vessels remain in the River Mersey.)

Appendices:

1) Manchester Ship Canal Company - Pleasure Craft Transit Rules for the Ship Canal

Provided to give guidance to Small Craft when navigating in the Ship Canal

2) Safety Guidance checklist - Provided as a quick means of checking that all relevant points discussed in this document have been considered.

Every care has been taken in the compilation of this safety guidance but it must be emphasized that the notes only give general advice, and that the skipper is responsible for the safety of his craft and all aboard.

The publishers cannot be held responsible for any incident that may occur on the passage.

3) Chartlet of the River Mersey – Provided as reference only and not to be used for navigation

Appendix 1

The Manchester Ship Canal Company

Marine Operations Administration Buildings, Queen Elizabeth II Dock,
Eastham Locks, Eastham, South Wirral CH62 0BB

Tel: 0151 327 1461 Fax: 0151 327 6278

website:www.shipcanal.co.uk e-mail: mail@shipcanal.co.uk

Manchester Ship Canal

PLEASURE CRAFT TRANSIT RULES FOR THE SHIP CANAL

Please note for every transit made on the Manchester Ship Canal by Pleasure Craft the following four conditions must be complied with:-

1. Completed Application Form with the Certificate of Seaworthiness section completed by a surveyor from our approved list or a surveyor who has the Qualifications stated on the Form.
2. Copy of Craft Insurance.
3. Transit Fee (Payment by Cheque Only).
4. Mobile Phone Number during Canal Transit(VHF Equipment Advantageous).

All the above paperwork must be received at the Harbour Master's Offices at Eastham, at least 48 hours before the planned canal transit.

N.B. No Hire Boats or Shared Ownership Boats are allowed on the Canal.

For Craft transiting to Manchester, please supply details of Air Draught if relevant.

Should your Craft stop overnight at Ellesmere Port, additional fees will be levied.

All Craft arriving from sea, must Contact the Port Operations Control Room when passing Bromborough to allow Control to assess the Traffic Situation.

No Movements are to be made without the permission of the Port Operations Control Room.

Captain S.F. Gallimore

Harbour Master

19th April 2009

SAFETY GUIDANCE CHECKLIST

Planning - Do you hold the following (Y or N)

River Mersey Chart (Admiralty No.1951)	"Collision Regulations"
Tide Tables	£1 Million Third Party Insurance
Suitable Passage Insurance (Inc. Salvage)	Plan of the Manchester Ship Canal

Preparation - General (Y or N) Additional for Narrow boats (Y or N)

Is your Engine reliable	Have you covered the forward cockpit?
Have your fuel tanks been purged	Are the forward cockpit scuppers blocked
Have you cleaned or replaced filters	Are Eng Room vents near waterline watertight
Do you carry appropriate tools	Have you made alternative venting arrangements?
Do you carry essential spares	Have you secured loose objects
Do you have sufficient fuel	Do you have appropriate Navigation Lights?
Have you an operational Bilge Pump	

Do you carry - (Y or N?)

Lifejackets for all onboard	An Anchor with chain and warp
A Lifebuoy Aft - Fitted with smoke/light signal	long mooring lines (25m)
30m Buoyant Line or Approved Rescue Quits	A hand bailer
Two Red hand flares	First Aid Kit
Two Orange Smoke signals	Appropriate Fire Fighting Equipment
Water resistant Torch	Suitable sound signalling equipment
Radar Reflector	

Communications - (Y or N)

Do you carry a marine band VHF	Do you have Channels 7,12,13 23,37, 67 & 73, 84,86
Do you carry a mobile phone	Do Liverpool & Eastham have your Tel. No.

Passage - General

Have you notified MRCC Liverpool of your planned passage & number of persons onboard?
Have you obtained a suitable weather forecast to cover the whole passage period?
Are you a member of the MCA's Yacht and Boat Safety Scheme?



THE MERSEY DOCKS AND HARBOUR COMPANY

CAPT. S. F. GALLIMORE
Harbour Master

BRUNSWICK ENTRANCE to EASTHAM LOCKS

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Not to Scale

CAUTION

Not to be used for navigation

