



FREE FLOW

At certain states of the tide the water on either side will be level and lock keepers may open both sets of gates to allow a free flow of water and traffic. Times of free flow will be on a board (see left). This information may also be on the internet or you can contact the lock office by phone or VHF. When free flow is in operation watch the lights and act accordingly (see above).



PREMIER	
Chichester Marina	
WIND	30/31
VISIBILITY	GOOD
SEA STATE	SLIGHT
WEATHER	CLEAR
FREEFLOW	
START	END
10:00	20:00
10:00	22:00
10:00	22:00

INTERNATIONAL PORT TRAFFIC SIGNALS

Lights	Main message
	Serious emergency – all vessels to stop or divert according to instructions
	Vessels shall not proceed <i>(Note: Some ports may use an exemption signal, as in 2a below)</i>
	Vessels may proceed. One-way traffic
	Vessels may proceed. Two-way traffic
	A vessel may proceed only when she has received specific orders to do so. <i>(Note: Some ports may use an exemption signal)</i>



1. The lock at Plymouth's Sutton Harbour benefits from floating pontoons. 2 Yellow plastic sheathed 'risers' and ready rigged lines, which the lock keeper will throw or hand. 3 The pontoon at Milford Haven is very handy, especially as there will be a lot of water coming your way.



4 Red lights against us as a yacht exits

The dos & don'ts of locks

Does your heartbeat step up a gear at the prospect of an unfamiliar lock? **Duncan Wells** takes you through handling your boat alone or short-handed and how to feel confident about tackling a lock.

Locks these days are generally quite a different prospect from what they used to be and range from the luxurious, where you tie up to a pontoon that rises up and down, such as at Port Solent, Sutton Harbour lock in Plymouth **Pic 1** or Portishead, to the more basic where you have to scramble up a slippery ladder with your lines and drop them over bollards at the top. Locks associated with marinas tend to be well appointed and even if they don't have pontoons, there will be lines set vertically at regular intervals along the lock walls, attached at top and bottom and called 'risers' **Pic 2**. There may also be ready rigged lines that the lock keepers throw or hand down to you. Above all with marina locks there will be plenty of lockside assistance. Some large commercial locks also cater for the leisure boater by providing the handy pontoon

option, like Milford Haven **Pic 3**. All locks are different though and a good piece of advice is to 'expect the unexpected'. However, we can do much to prepare ourselves in advance. First up, we can look up the detail in the almanac or pilot. This will tell us about the traffic signals in use. Locks that take commercial traffic will use the International Port Traffic Signals IPTS **Diag 1**, but there may be local variations, such as additional lights that are used to indicate 'free flow', so check. We took most of our photos at Premier Marinas' Chichester lock where they use a fairly straightforward Red for wait and Green for enter **Pic 4**. There will often be a waiting pontoon or buoys outside the lock and if the lock is associated with a marina

they will monitor Ch 80 for the UK, Ch 09 for France. Commercial locks will monitor the port channel, so set your radio to this in case they want to talk to you, otherwise follow the light signals or instructions.

Arriving at the lock
We arrived to find the lock gates closed, so we moored at the waiting pontoon. »



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5 If you arrive at the waiting pontoon first, go to the front. 6 Fendered up. 7 Follow the lockmaster's instructions.

If we are joining other waiting yachts, we will take our place at the back. If we are first we need to go to the front of the pontoon **Pic 5**. Of course if there are others waiting you can always check the procedure for the lock with them or if the pontoon is attached to the shore (indicated by two lights one above the other) you can go and have a look for yourself while you are waiting. Failing that, prepare for every eventuality and all will be revealed when you enter the lock. Above all, remember to

do exactly as the lock keeper asks. When things get busy as they do at 4 o'clock on a Sunday afternoon, he is trying to fill his lock to capacity and so, if he calls through a smaller yacht that arrived after you, he's just trying to fill a gap that is too small for you. He wants to get the maximum amount of traffic through in one sitting that he safely can, so we need to be relaxed and behave with courtesy – no pushing to the front of the queue. However, we must go to the front of the

lock if we are first in. The lock keeper will tell you where he wants you.

I have referred to the lock keeper as 'he', but the lock keeper could very well be a woman, so please take my 'he' to refer to both 'he' and 'she'. In fact the very nice lock keeper whom I met on the morning of our photo shoot was indeed an extremely charming young woman.

Prior to entering the lock we need to make sure we are fendered up on both sides **Pic 6**. The height of the fenders



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8, 9 Cill or sill warning. Switch off engine. Remember also to switch off radar, VHF and sound system. 10 The lock keeper will help you by throwing down a line – lifejackets are standard issue for all lock keepers these days, at all times. 11 Stern line in hand.

facing the lock wall will depend on whether we have a pontoon to lie alongside or whether we are up against the lock wall. The other side will require fenders at gunwale height to protect us from adjacent boats and them from us.

Proceed into the lock until you are where the lock keeper wants you **Pic 7**. Keep an eye out for warning signs for sills that you need to avoid **Pic 8** and be mindful of other signs **Pic 9**. If there are pontoons then set a bow line and a stern line for a start. Then, if the rise or fall in the lock will be significant, which will mean a lot of water rushing about, or if your boat is big and heavy, play safe by setting up springs. If the lock has its own ready rigged lines, then one for the bow **Pic 10** and one for the stern will be fine. Take the line under a cleat, take a turn and hold it in your hands **Pic 11**. If there are no ready rigged lines you will need to throw your lines to the lockside where helpers will slip them round a bollard and return them to you. At worst you may have to climb a slippery weed adorned ladder and do all this yourself.

There can be any manner of chains, ropes or slatting that you can hang on to when you arrive. Or you may arrive in the lock and see nothing to which you can hang on to. This will be because they are going to throw the ready rigged lines down to you, which, in some of the deep French locks, can land with quite a thud on the deck.

Although we never know exactly what to expect in an unfamiliar lock, we always know that if we are to use our own lines they will need to be long, so be sure to have spare ropes standing by, in case. ➔

Hey big Fender

Fendering up: Down to the water and up a fraction is the rule for the fender height on Dorothy Lee for the side we are going to berth to a standard pontoon and gunwale height for the other side to protect us from any other boat that may be next door. Setting the fenders correctly is always an issue especially when you are entering an unfamiliar marina or port. Yarmouth on the Isle of Wight is a classic: You arrive fendered up to go starboard to on a pontoon and the berthing master who greets you at the entrance announces that he would like you port to rafted up to that Bavaria

over there. The tide is racing furiously, the Wightlink ferry is about to depart, others are backed up behind you trying to get into the harbour and you have to re-set your lines and fenders. Nightmare. Well, here's a tip. On Dorothy Lee a fender that is set for standard pontoon height **Pic 12**, will if brought from outboard, under the lower guard wire and up over the top guard wire, sit perfectly to protect the gunwhale **Pic 13**. So if we set three fenders for pontoon height both sides we can instantly convert these to gunwale height. The mooring lines of course have to be swapped over but this is fairly straightforward. Have a look and see if there is a simple system of

going from pontoon to gunwale height by flipping the fender in, over, round, or through your guard wires. **Pic 14**. There's that fender in situ protecting the gunwale and it can equally be flipped back to protect the topsides from nudging a pontoon.



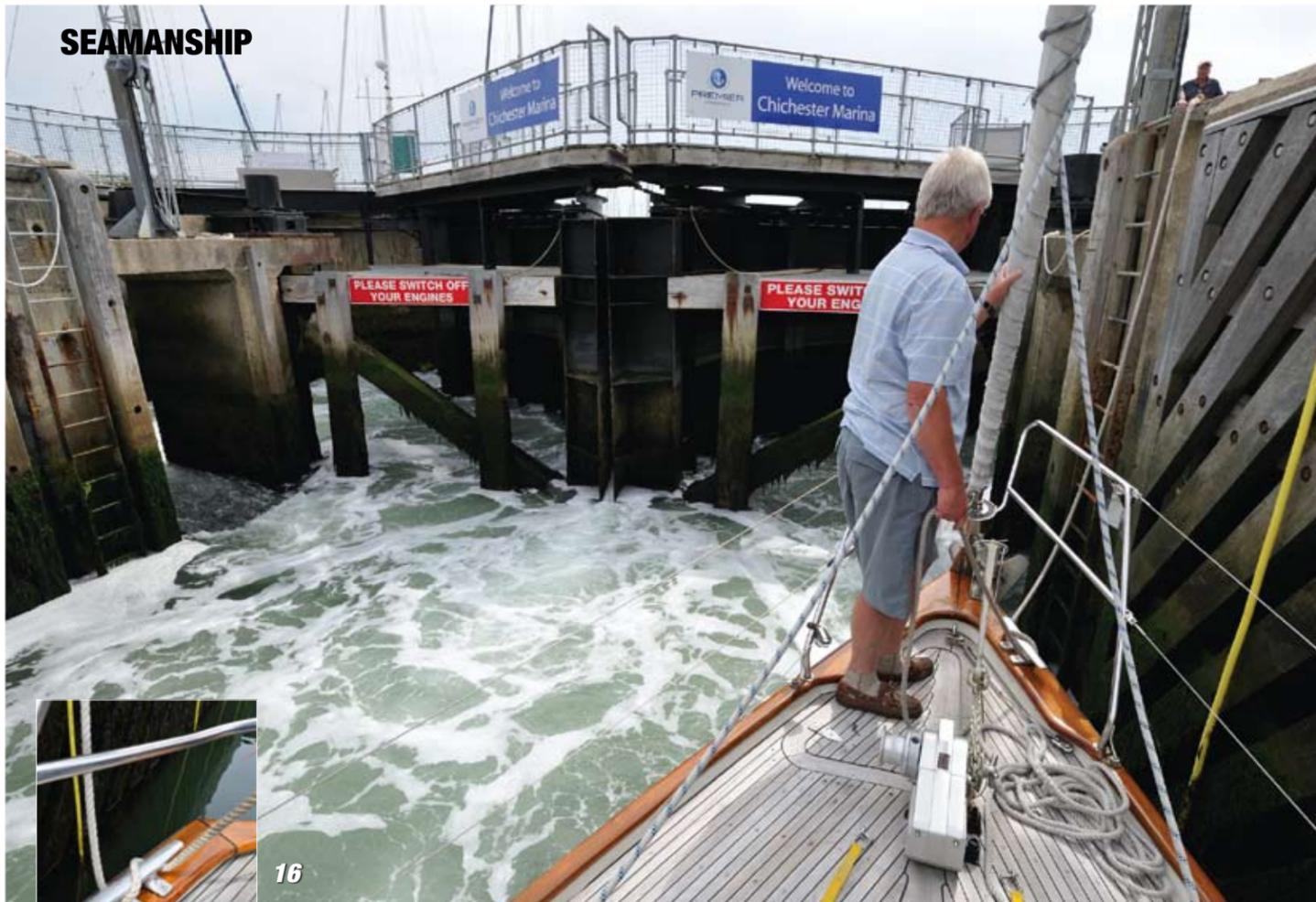
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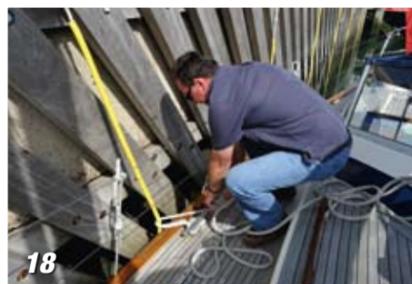
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15 Round the cleat ready to take up the slack. 16 Somewhere between a gentle flow and whitewater rafting. 17 Midship line round the 'riser'. 18 Back and under the cleat. 19 This singlehander can manage with one stern line while keeping the bow in by holding on. 20 The lock keeper in his control room.



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In the lock

The golden rules when entering a lock are no tying off, no making fast, no locking hitches and no trailing lines in the water. It's obvious to say it, but if the length of your bow and stern line will be changing continually throughout the lift or drop of water, we do not want to make them fast to any cleat. We need to take them round the cleat and then to hold them **Pic 15** so we can take them in or ease them off. We've all heard stories about boats

suspended from the bollards and hanging on the lock wall and we don't want to join that club. We will, however, need to hang on tight to our lines as the sluice gates open to fill the lock. This experience can be anything from the most relaxed and gentle swirling of water to what can only be described as the equivalent of whitewater rafting **Pic 16**. Holding your position is important. We don't want our stern, for example, to crash into that 'can opener' of an anchor on the bow roller of the boat astern, which is leaping and rearing alarmingly. And don't forget to keep lines on board – nothing in the water – they'll inevitably get foul of something. So far we have talked about locks from a short-handed point of view – the two of us. What can we do if we are singlehanded? If we have plastic sheathed 'risers' we can take a very short line from



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21 Driving against a stern line only ... 22 ... a temporary means of attachment to the pontoon before setting bow and stern lines and springs. 23 That'll be 2.3m depth then.

our midship cleat, round the riser **Pic 17** and back aboard and that will hold us **Pic 18**. As long as it is tight we can't twist too far away from the wall. I'd be wary of running a midships line around a chain, which one often sees in locks, because of the chance that the rope might snag on the links, leaving you with a potentially tricky situation that could easily be avoided.

Another way is to take a line thrown from above under the bow cleat and back to the cockpit, along with the stern line round its cleat. Mind you, the bow line might not be long enough for this and the yacht basin at Chichester said that the lock keeper often helped singlehanders by taking a bow line from them and handling that while the skipper handled the stern line **Pic 19**. If you have the slippery ladder option, a short line from the midship cleat to the ladder to hold you while you slip your own bow and stern lines onto the lock side above will probably do, but remember to release the midship line holding you to the ladder before the lock keeper opens the sluices **Pic 20**.

Exposed entrances

You will encounter locks with entrances that are exposed to cross winds and cross tides and you will have to deal with these in the same way that you would if you were entering a harbour or marina or coming into a berth. Once in the lock, all will be calm as you will be protected. Unless the wind is rushing into the lock. If this is the case then it is very important to get the stern line attached first, as soon as you have arrived at your position in the

lock. If you attach the bow line first you will find that the wind will push the stern out and you will be sideways across the lock – embarrassing. Attaching the stern line first is just like using a stern spring **Pic 21** where you arrive at a pontoon and, with the mooring warp set at the stern cleat, slip a bight over or make fast to a cleat on the pontoon and then drive against it **Pic 22** and you will lie alongside.

As an aside it is not the best spring system to use if the wind is blowing off the pontoon, because you will need more revs to stay alongside.

That's locks for you. They're not so difficult and there is a lot of friendly help available from the lock keeper and

his helpers. They also keep you posted with depths in the approaches and in the locks with digital displays just like you get at harbour and marina sills **Pic 23**. So ultimately, with all this help, there's no excuse for getting it wrong.

Thank you to Premier Marinas and Graham Bristow and his team at Chichester. We had a great time and it provided us with a very welcome refreshment on mastering the dreaded lock.

About the Author
Duncan Wells is an RYA Instructor and Principal of Westview Sailing.

