

RISK FOCUS: THE MASTER PILOT EXCHANGE

*Good communication and team
work during pilot operations*



NO SMOKING

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all the Club’s claims
over US\$100,000**

INTRODUCTION

The UK Club's Loss Prevention department has been analysing claims data for all claims dating back to 1987, producing reports detailing the patterns and trends found for the period.

'Human error' accounts for 58% of all the Club's claims over US\$100,000. 524 of these claims involved ships under pilotage. The breakdown of communications on the bridge has been identified as a major contributing factor in many of them.

The majority of these incidents include collisions, allisions, groundings (including pollution) and personal injury.

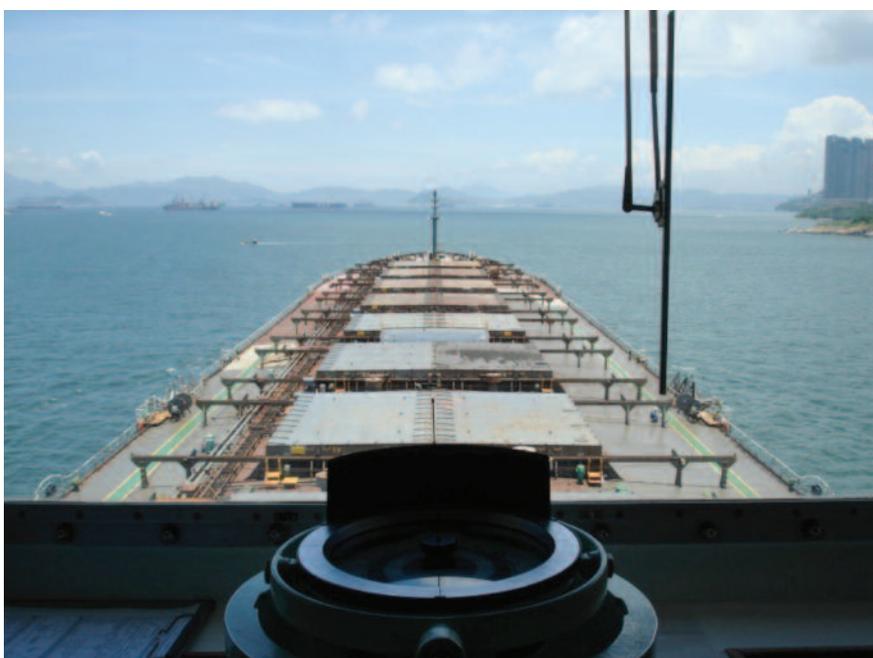
The average cost of these claims has been decreasing overall. However, the average annual cost to the Club from 1987 remains considerable at \$16 million. The following advice should serve as a reminder to Masters and their bridge teams as to the importance of good communication and team work during pilot operations.

THE FINAL PIECE OF THE PASSAGE PLAN?

When the mandatory berth to berth passage plan for a voyage is being prepared, it is often the information that is needed to complete the transit with the pilot onboard, to or from the berth, that is the most difficult to obtain in advance.

Even with the onboard sailing directions and port guides together with what may have been provided by the local agent, there will still be areas where further detail is required by the bridge team.

A master can be familiar with a port after frequent visits, but there will be many aspects that can only be properly completed when the pilot actually boards. That is the opportunity for the master to seek the information and advice that will fill in the missing gaps for the transit, manoeuvre, berth and tugs (if used).



There has been much discussion in the industry on the development of a port passage plan that can be provided to the master in advance of arrival, but it will be some time before it becomes standard practice, if ever. Every transit is different and the passage plan under pilotage must be considered a dynamic process and capable of being updated quickly as it is required.

There are times when the master may be asked to bring the vessel closer to the entrance to the port, perhaps due to bad weather or because the pilot is still on the way. Whatever the reason, one of the first considerations, if complying, is to ensure that there is still adequate time for the master/pilot exchange to be carried out.

The master pilot exchange is the missing piece of the passage plan puzzle and a crucial one.

Amongst other things, the bridge team will need to know the following:

The transit to and from the berth

- Route agreed with waypoints and courses, adequate charts
- Speed and timing for the transit
- Local weather and tidal conditions expected
- Vessel movements, any congestion off the berth
- Local traffic regulations to be complied with
- Depth limitations due to tide and/or squat
- Minimum depth on passage
- Local tidal data, heights, slack water and when the direction of flow changes
- Rate and direction of any currents
- Location of turning areas including those required for a berthing manoeuvre
- Abort points
- Emergency or standby anchorage areas

Tugs

- Number of tugs, their type and power?
- Time of arrival at the vessel?
- Where will the tugs be made fast?
- Ship's line or tug's line to be used?

The berth

- Any limitations such as the maximum/minimum size of vessel, number of bollards, fender capacity
- Turning areas are of sufficient size
- Available depth alongside at low water
- Any air draught restrictions
- Which is the first line ashore
- Will mooring boats assist
- Mooring plan
- Any berthing aids to assist in determining speed when manoeuvring
- Any berthing speed limits
- Time required to order pilot / tugs in an emergency
- Departure procedures for letting go moorings

With the pilot onboard it is the opportunity for the master and bridge team to confirm arrangements and ensure that they are satisfied with the planned transit and berthing/unberthing manoeuvre. This is the first and best opportunity to talk to the pilot and to clarify any issues that have been identified during the preparation of the onboard plan. However, it is important to prioritise this process so that the limited time available at the start of the pilotage can be addressed directly and less urgent matters discussed once on route.

As far as is possible, the pilot needs to be part of the bridge team not outside it, but also has to get on with the vital task of familiarising him/herself with the immediate situation, checking and setting radars, headings and speed and getting in contact with the port control, berth/terminal and tugs.

The co-operation of the master and bridge team includes confirmation of the language to be used throughout so that helm and engine orders can be quickly and properly acknowledged and carried out.

The pilot will be familiar with most types of vessel and what to expect in ballast or loaded condition, however, no two ships behave in the same way, even sister vessels. It is therefore important to familiarise the pilot as quickly as possible of any manoeuvring features which might be unusual, vessel-specific or unexpected. It is also essential that the pilot is told immediately if there are any difficulties for the helmsman in maintaining the heading or delays with engine movements.

In the first instance, the pilot will want to confirm the draught of the vessel and the trim, this will give him a first appreciation of how the vessel will be expected to respond to the wheel and what under keel clearance will be encountered on passage. For example, some vessels with even a slight trim by the head do not steer as easily as one on even keel or with stern trim.

An accurately completed pilot card gives the pilot all the essential basic information to build his own picture for the passage and any manoeuvres that will be carried out. It can then be supplemented in discussion with the master/bridge team.

For the master, access to a local chart, perhaps due to recent changes in the port, additional hydrographic information or inadequate scale of the chart onboard may be a priority. With advance communication with the local agent, these are issues that can be resolved before arrival.

It should not take long to confirm the route to be taken, the areas of least depth, which might require a reduction in speed and positions where the vessel might be anchored in an emergency, or turned around if the passage has to be aborted. The pilot will need to know what squat to expect on passage.

If there are areas where the direction of the current is not in line with the channel and the bridge team is informed in advance, then they are prepared for what might appear to be unusual helm orders or courses to steer. This avoids unnecessary questions at what might be a critical part of the passage.

It is important that both the master and pilot are both clear about the status of the vessel and the planned passage. It is not the time to rely on assumptions, expectations can be very different to reality.



Is the engine room functioning as well as it should be?

For example; the pilot must know of any particular issues with the engines. It might take a long time to change between ahead and astern, or the vessel must be slowed down over a prolonged period to ensure that steerage can be maintained. There may only be a very limited number of engine starts and the transverse thrust when going astern may not be as normally expected. When warned in advance, the pilot can make due allowance as the berthing or unberthing manoeuvre is planned.

However competent the pilot is, the bridge team must monitor the progress of the vessel on the chart or Ecdis. A pilot should never mind being asked questions about the position of the vessel in the channel or unexpected depth soundings.



Always be aware of where the tug is

During any pilotage transit, the anchors should be ready to be used in the shortest possible time. However, when there are tugs located at the bow it should never be forgotten to ensure that they are confirmed as being clear first, even in an emergency.

When tugs are to be used, the master must be satisfied that those provided have sufficient power to manoeuvre the vessel and also know what types they are. It is important to know when using more than one tug whether they are similar in their manoeuvring characteristics and have the same, or different power.

Different tug types and power matches are not unusual, but this must be taken into consideration when planning any passage and allowed for. A different method of positioning the tugs on the vessel may be necessary and perhaps a manoeuvre will have to be undertaken in a different area or more time allowed and/or space for a turn to be carried out. The method of dealing with those issues should be a matter for discussion, so that there is no misunderstanding of the proposed procedure.

The master should also consider whether ship's lines should be used to make the tugs fast. There are occasions where it might be necessary, but generally it is preferable to use the tugs equipment, particularly on larger vessels.



Not all tugs are the same, or as effective

The instructions given to a tug by the pilot are often in a different language to that used onboard. It is up to the master to ensure that the pilot at least provides an overview of how the tugs will be used without expecting a word by word translation of every conversation. If it feels like the speed of approaching the berth or going alongside is too high it probably is, and those concerns should be passed to the pilot so that action can be taken by using the engine and/or tugs moved into position to start to slow the vessel down.

Although the pilot is expected to be the local expert, it is possible that he/she might not have manoeuvred a vessel of the same type or size before. It cannot be assumed that the pilot knows everything, but the more that information is exchanged the more effectively the transit and manoeuvre will be carried out. It should also be remembered that the pilot has not only gained personal knowledge and experience whilst working at the port, but also has access to that of all the other pilots and that is considerable back-up for any pilot.

The master should have information about the berth from the agent, however, the pilot should be able to provide more practical detail. That will include whether line handling boats will be used, which lines to be put ashore first, the configuration of the mooring lines and whether the anchor will be required.

In the end, during any pilotage transit, the key should be to prioritise efficient and timely communication to ensure a safe passage and not the overloading of the bridge team and pilot with unnecessary information and questions.

Solis Marine Consultants is very pleased to be working together with the UK P&I Club to highlight some of the practical aspects of the pilot/master exchange which is a critical part of any passage for the master and bridge team. In the preparation of this focus document, Solis' consultant mariners have used their extensive in-house experience of pilotage and command to draw attention to areas of transits where advance planning and asking the right questions should help to ensure a safe passage to or from port.(www.solis-marine.com).

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