2019 Analysis of Pilot Ladder Failings

Introduction
CHIRP Maritime has often mentioned that by far the greatest number of reports we receive relate to pilot ladders. Some of the more specific reports have been discussed in various editions of Maritime FEEDBACK, or have been the subject of Insight Articles, all of which may be found on our website www.chirpmaritime.org.

What on the face of it would appear to be the simple procedure of rigging a pilot ladder to facilitate embarkation and disembarkation has become one of the most dangerous aspects of a pilot’s life. Not only do pilots have to concern themselves with the complexities of their job, from manoeuvring huge vessels under challenging conditions, to routine port arrivals and departures; coping with defective vessel equipment; language difficulties and of course the unexpected emergency, but also they have to deal with what should be the relatively easy part of getting on and off the vessel. The perennial issue of pilot ladder failings is once again the subject of intense debate. Such has been the overwhelming number of reports received on this subject, CHIRP Maritime has decided to analyse the reports received, which are free from corporate interference and represent the view directly from the reporter.

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Many of the pilot ladder and combination ladder reports that CHIRP Maritime receives have recurrent themes, with the same latent failings appearing time and time again. It was therefore decided to produce an analysis of the reports in order to determine the areas in which deficiencies are occurring. The analysis is based upon 124 reports that CHIRP received in 2019. The reports were broken down...
into the main areas of concern with keywords being utilised to build up the picture of areas which required remedial action.

The following graphs show the results of the analysis, along with discussion points to supplement the findings. Each section of the pie graph shows the number of reports received for each deficient category, (shown in brackets), and the percentage of the sum total of the topic in question. As always, any feedback is appreciated, simply email CHIRP at mail@chirp.co.uk.

**Non-conforming ships by age and flag registry**
The first pie chart shows the vessels with ladder deficiencies that were constructed before the current SOLAS Chapter V Regulations in 2012, and those constructed since. The second chart highlights the vessels by flag state registration. Both charts equate to the sum total of the 124 reports that CHIRP received.

![Non Conforming Ships built before 2012 and those built after the 2012 SOLAS Regulations](chart)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ships built before 2012</td>
<td>62%</td>
<td>77</td>
</tr>
<tr>
<td>Ships built 2012 or later</td>
<td>38%</td>
<td>47</td>
</tr>
</tbody>
</table>

Figure 1 – Non-conforming ships by age.

Non-conforming ships by Flag State

<table>
<thead>
<tr>
<th>Flag State</th>
<th>Percentage</th>
<th>Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panama</td>
<td>23%</td>
<td>28</td>
</tr>
<tr>
<td>Mi</td>
<td>14%</td>
<td>17</td>
</tr>
<tr>
<td>Malta</td>
<td>9%</td>
<td>11</td>
</tr>
<tr>
<td>Bahamas</td>
<td>4%</td>
<td>5</td>
</tr>
<tr>
<td>Korea</td>
<td>3%</td>
<td>4</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>16%</td>
<td>20</td>
</tr>
<tr>
<td>Singapore</td>
<td>10%</td>
<td>12</td>
</tr>
<tr>
<td>Liberia</td>
<td>7%</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>14%</td>
<td>18</td>
</tr>
</tbody>
</table>

Figure 2 – Non-conforming ships by Flag State.

**Reports specific to pilot ladders**
The chart in Figure 3 shows deficiencies of pilot ladders, where a single ladder was utilised for pilot embarkation or disembarkation. CHIRP received 66 reports in this category, which detailed 99 specific deficiencies.

![Reports specific to pilot ladders](chart)

- **Step/chock loose and/or uneven**: 26%
- **Ladder ropes parted**: 15%
- **Spreaders non compliant**: 34%
- **Ladder rigged too high/low**: 1%
- **Poor condition**: 1%
- **Ladder not secured – held by crew/heavy object**: 2%
- **Shackles/bracket/bar supporting siderope**: 5%
- **Ladder construction incorrect/non compliant**: 5%
- **Ladder sideropes with splices**: 5%
- **Steps slippery/varnished**: 2%
- **Boarding obstructed by vessel equipment**: 5%

Figure 3 – Reports specific to pilot ladders.

It is a damning indictment that 42% of the reports received highlight uneven steps, loose chocks, a ladder in poor condition or, in one case, the side ropes parting completely when weight was placed upon them prior to disembarkation. This
highlights a deficient safety culture and woefully poor quality of seamanship as well as indicating a complete disregard for the safety of the pilot who has to use the ladder. It should be noted that a small percentage of the uneven steps/chocks were in fact ladders that were relatively new and manufactured ashore. CHIRP is aware that in some cases this has been followed up by the port or national administration who have contacted the manufacturer(s) in question. The same applies to some of the pilot ladders which have been manufactured ashore and have arrived varnished.

Regarding the pie chart, one third of the reports highlight that side ropes are supported by shackles, a bar, or a bracket. SOLAS does not state how the side ropes are to be secured, but only mentions that the arrangement must be the same or greater strength than the side rope. Brackets or the equivalent may well be stronger than side ropes, but the load usually impacts upon the steps, seizings, or widgets. Thus, the weight of the ladder is now not supported by the side ropes and the arrangement becomes non-compliant. CHIRP notes that some classification societies and flag administrations have issued notifications that these arrangements are illegal on board their vessels.

A recurring theme in reports received is the lack of understanding as to how to properly rig a pilot ladder. Some pilots have reported to CHIRP that they see the bracket, bar or shackle arrangement as the lesser of two evils compared with the standard of seamanship observed where the pilot ladder side ropes are being “correctly” lashed to the vessels deck. The hitches used have been observed to be completely unsafe and the associated ropework sub-standard (Note that SOLAS 2012 is vague with respect to the actual securing).

CHIRP strongly believes that pilots should not be faced with “the lesser of two evils”, and that one hundred percent compliance with any pilot ladder rig should be the only acceptable expectation.

Thus, much of the foregoing comes down to safety culture, seamanship, training and supervision, both on board and ashore – there appears to be a long way to go in this respect. CHIRP strongly believes that pilots should not be faced with “the lesser of two evils”, and that one hundred percent compliance with any pilot ladder rig should be the only acceptable expectation.

### Reports specific to accommodation ladders

Figure 4 shows deficiencies related to accommodation ladders with 17 reports received and 29 separate deficiencies highlighted. Almost fifty percent of the reports relate to either the accommodation ladder itself and/or the pilot ladder, not being secured to the ships side as required by the 2012 SOLAS V regulations. Another significant slice of the pie describes the accommodation ladder itself being less than five metres above the waterline. Anything other than a light swell could cause damage to either the attending pilot vessel and/or the accommodation ladder itself.

The apparently repeated report of defective steps and chocks is explained by the fact that the reports highlighted this issue along with other deficiencies specific to accommodation ladders.

### Reports specific to “trap door” type combination rigs

Figure 5 shows deficiencies with respect to “trap door” type combination rigs. CHIRP received 25 reports related to these arrangements and the analysis shows a high number of deficiencies, namely 58. The reason for this is not at all surprising. It is almost universally impossible to rig a trapdoor arrangement that is one hundred percent compliant with the 2012 SOLAS V regulations.

The largest areas of failing are the pilot ladder being secured to the bottom of the accommodation ladder, the pilot ladder (often another ladder) not being attached to the ships side 1.5m above the accommodation ladder platform, and access and...
handholds being non-compliant – this is causing repeated difficulties for the pilots to make the transition from pilot ladder to accommodation ladder.

**Figure 5 – Reports specific to “trap door” type combination rigs.**

CHIRP queries all of the above but specifically the pilot ladder being secured to the bottom of the accommodation ladder. Photographic evidence often shows modifications having been made to accommodation ladders, and that lugs have been welded to the base of the ladder to allow a pilot ladder to be shackled on. Despite the fact that this is non-compliant with the regulations, CHIRP asks the question, “Who authorised these arrangements?”

The sooner these arrangements are either modified to ensure full compliance or are removed from service and banned altogether the better.

Fully compliant trap-door arrangements such as three-sided trap door rigs are noted to be few and far between. The general view is that the sooner these arrangements are either modified to full compliance or are removed from service and banned altogether the better. CHIRP fully agrees with this sentiment but assesses that such a change will need to be mandated in clear language to avoid misinterpretation.

**Reports specific to manrope deficiencies**

CHIRP received 37 reports where manropes were specifically mentioned, and 45 deficiencies were highlighted. Almost half of the deficiencies related to the incorrect rigging of the manropes. Notwithstanding the nature of the other deficiencies reported, all of the failings came down to a basic lack of seamanship, supervision, safety culture and training. This is one area where any change to pilot ladder regulation is unnecessary – all of the deficiencies can be addressed on board to ensure that manropes are rigged correctly.

**Figure 6 – Reports specific to manropes deficiencies.**

The whole chart demonstrates a lack of understanding as to what the manropes are used for, and this requires the urgent attention of vessels crews and their managers ashore in order to rectify the problem.

**Sundry equipment deficiencies**

The final chart in Figure 7 describes sundry deficiencies with the equipment. 47 reports were received, and 53 separate deficiencies were noted.

**Figure 7 – Sundry equipment deficiencies.**

The largest area of failing were the deck fittings (or more correctly lack of) for side ropes and manropes. The deficiencies were noted for both pre 2012 and current SOLAS vessels. As noted earlier, all vessels have had ample time since the introduction of the current regulations to rectify any failings, so the question has to be asked why they have
not done so? There is much more to be done by flag administrations, their recognised inspection organisations, port state control, and shipping companies in order to rectify this area.

Incorrect retrieval lines – often called tripping lines – accounted for almost one third of the reports, where the line was rigged in such a manner that it could become fouled upon the attending pilot launch or obstruct the safe access to the ladder for the pilot. The majority of failings were that the line led aft and not forward – also the line was rigged below the bottom spreader. All totally avoidable with a little care and attention.

CHIRP also highlights the ship side issue where there was no 6m gap in the rubbing bar to allow for safe access for the pilot boat. The vessels concerned were new – one on her maiden voyage – so who allowed them to be constructed in this non-compliant manner? CHIRP often highlights safety culture on board, but this is an example of poor safety culture ashore and a disregard for construction regulations.

Finally, the lighting issues and lifebuoy issues might charitably be attributed to carelessness, or it might be down to a poor safety culture. There is however absolutely no excuse for a responsible officer not being in attendance during the embarkation or disembarkation of a pilot. This highlights a disregard for the safety of any pilot boarding operation and/or exposes deficiencies in crew manning.

Summary
Overall, the analysis makes depressing reading for any maritime pilot who has had his or her life needlessly endangered when encountering these arrangements. The diagrams show an unacceptable disregard of the 2012 SOLAS Regulations and the accompanying IMO Assembly Resolution A27-1045. They also indicate a low level of awareness and poor seamanship standards, all of which are very much avoidable should shipping managers, port state control, classification societies and flag state administrations intervene and “walk the walk” rather than turning a blind eye to the problem.

CHIRP Maritime intends to follow up with further analyses once sufficient reports have been received in order to determine whether the deficiencies above have been addressed and where the future focus of the maritime sector should be in order to ensure maritime pilot safety.

In conclusion, a clear picture has emerged of the principal failings relating to the rigging of pilot ladders. Apart from the questionable quality of some new ladders – CHIRP queries how these products are deemed acceptable at the manufacturing stage – there is also the issue of seamanship. This leads to some uncomfortable conclusions about the quality of training and supervision at the basic level of a seafarer’s skill and the quality control among ship managers.

CHIRP Maritime asks whether the quality of seamanship exposed by the reports meets the minimum standard expected from a competent professional? If the answer is YES, then the accepted low standard of competency and the training process must be questioned. If the answer is NO, then there is a very poor on-board safety culture in place which the ship operator has not correctly monitored or chooses to accept. Either way, the situation is unacceptable and such poor regard and understanding of professional standards and safety culture continues to expose pilots to unacceptable and unnecessary levels of danger.

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