CHIRP Maritime FEEDBACK
Issue No:55 6/2019

Editorial

Welcome to the latest edition of Maritime FEEDBACK, which features a wide variety of interesting reports.

Several themes emerge from this edition, and perhaps the most obvious is the number of reports which feature machinery and technical issues. We learn about the dangers of removing heat protection, which should be quite obvious, and ways in which main engine failures can be prevented. MARPOL violations are covered, and rudder angle indicators appear again. We also see some more examples of very poor design and, sadly, these were mistakes which should have been obvious to anyone, even if they were not aware of the rules.

The role of the DPA also features in a number of reports, and it is disappointing to note that some reporters were afraid to bring violations to the attention of their DPA for fear of reprisals. This is a clear indication that some companies are not implementing their safety management system as intended by the ISM Code which is clearly unacceptable. Please report any such cases to us and we will do our best to publicise them and seek to prevent such behaviour in the future.

Poor communications are a feature of several reports, including poor communications between crew members and a Masters' inability to effectively communicate in English with people from the shore. There is also a case involving liferafts being secured inside the accommodation during heavy weather. This is clearly poor practice with life saving appliances not being immediately available should they be required.

One message that emerges is the need for realistic drills and crew discussions to prevent accidents and incidents. This is something which everyone can contribute towards, so if you are in any doubt do not be afraid to speak up – your questions may help to prevent accidents and save lives.

We hope you will find useful guidance in these pages and will consider reporting incidents which you witness. Our reporters make a significant contribution to safety at sea, and we are grateful to all of them.

Until next time, stay safe!

REPORTS ...

Removal of heat protection from machinery

OUTLINE: *CHIRP* has received several reports concerning removal of heat protection from engines including jacketed fuel lines, fuel pump covers and, in the report below, indicator cocks. This can lead to fuel spraying onto hot surfaces with a high risk of fire.

What the Reporter told us:

Recently, I noticed that indicator cock covers had been removed from the engine which was in an operational mode. When I questioned this, I was told that it was too troublesome and too hot to remove the cocks with the engine running. During my next watch, I noticed all the indicator cocks had been removed and hidden to prevent re-fitting. I attempted to raise the matter with the Company, but I did not receive a positive response. I am now reluctant to contact the DPA. I will continue to challenge this unsafe behaviour and amend the checklists to include the line "Fit Indicator Cock Covers". The next time there is an ISM audit or classification survey, the surveyors can see that it was a conscious decision to ignore using them.

CHIRP Comment

An unprotected indicator cock – non-compliant and a high-risk area for igniting a fire

The Maritime Advisory Board noted that this report highlights both technical and human element related issues. Primarily it demonstrates a cavalier and dangerous attitude towards safety from some quarters. It also demonstrates that such an attitude has repercussions – in this case the unwillingness of the reporter to approach the DPA, which is a significant issue. ***CHIRP*** has many examples where the attitude of others, whether deliberate or otherwise, deters personnel from approaching the DPA.

SUBMIT A REPORT –

CHIRP always protects the identity of our reporters. We are a confidential programme and, as such, we only keep reporters personal details for as long as we need to keep in contact with them.

ONLINE

Reports can be submitted online, through our secure encrypted online form.

https://www.chirpmaritime.org/submit-a-report/

BY EMAIL

Reports can be submitted online, through our secure encrypted online form.

reports@chirp.co.uk

From the technical viewpoint, indicator cocks are steel valves that are fitted to the cylinders of an engine. The valve is a direct link to the combustion space of each cylinder which allows compression and firing pressures to be taken from an engine in service for maintenance/ diagnostic purposes. Due to their nature, indicator cocks are extremely hot when the engine is in operation and need to have protection to avoid becoming a source of ignition from any fuel that may impinge upon the surface.

SOLAS Reg. II-2/15.2.10 states that "All surfaces with temperatures above 220°C which may be impinged as a result of a fuel system failure shall be properly insulated."

The purpose of insulating hot surfaces is to prevent any flammable liquid from coming into contact with them, thereby minimising the risk of ignition. This should ensure that no exposed surface has a temperature above 220°C. The insulation material must be fit for purpose, i.e. made of non-combustible material with a non-oil absorbing surface. It is important to ensure proper insulation of flanges, **indicator cocks**, bolts and studs and other protruding parts. Even water-cooled exhaust manifolds may have flange connections with temperatures exceeding 220°C. Known trouble spots are;

- indicator valves (cocks)
- exhaust pipes from each cylinder
- exhaust manifold, in particular overlaps between steel sheets and lagging
- turbochargers, in particular flanges
- cut outs for pressure / temperature sensors, etc

CHIRP would highlight that it is good practice to have a regular thorough inspection of all equipment to ensure that any deficiencies may be rectified, and any potential sources of leakage identified. Searching for hot spots and insulation defects with infra-red thermal imaging equipment is also useful.

We encourage more reports of this nature since they demonstrate a hazard with a high potential for disaster.

REPORT ENDS

Main engine failures

OUTLINE: *CHIRP* has received several reports recently concerning main engines failing to start, and associated issues.

What the reporters told us:

- Two separate reports where the main engine failed to go astern during final approach to the berth.
- Fully laden log carrier departing port and heading to China. When pulled off the wharf with tugs, ME failed to start. Although the ME was tested in my presence when boarding, after the first unsuccessful attempt to start it the starting air pressure reading appeared too low. Vessel was brought back alongside with tugs and secured with moorings. After 1 hour of subsequent work/testing of ME the vessel sailed without further incident.
- Vessel drifting for more than thirty-six hours awaiting a berth. When instructed to proceed to the pilot boarding area there was an issue with the main engine fuel filters. As a result, the vessel was two and a half hours late. Main engine tested astern to the pilot's satisfaction before proceeding inwards. The Master said that the ship had been rolling, which may have resulted in air locks in the fuel oil system.
- Main Engine failed on departing port. Tug re-attached and steering maintained. Engines restored after approximately five minutes. Pilot informed that a sensor failure was the cause.
- When manoeuvring this vessel into port the main engines failed to start astern. The vessel was stopped, swung and berthed without the use of her main engine, using the two tugs and the starboard **anchor.**

Further Dialogue:

Regarding the last report, ***CHIRP*** queried whether the pilot knew whether the vessel had conducted pre-arrival engine tests and whether the use of an anchor was a standard procedure for berthing. This was the response. "The vessel came to the pilot station from her anchorage and as part of the pilot/ master exchange, I specifically asked if the engine has been tested astern, which the master confirmed it had. Anchors are cleared away as part of our pilotage procedures. In this case the starboard anchor was lowered to the waterline and made ready during the vessels swing in the basin, because I knew I did not have main engines available – I wanted another braking source in addition to the tugs. After numerous failed starts, the Captain stated that they needed more air and it would be two minutes. I continued to swing the vessel using the two tugs and prepared the anchor for use. During the astern approach to the berth, the captain said the engine was back online, but only for ahead movements, not astern. I tested the engine and it failed to start, from there I dredged the starboard anchor and used the tugs to finally berth the vessel."

CHIRP Comment

Having discussed this report the Maritime Advisory Board commented as follows;

Engineering Perspective:

Marine diesel engines can fail to start for any number of reasons, most of which are entirely predictable and therefore avoidable. Filters can become blocked, service and circulating pumps can fail, starting air pressures can drop.

Knowledge of equipment and systems cannot be guaranteed so simple tests are all that are required to prove equipment reliability and provide confidence to the Master and pilot when entering or leaving port.

When already under way, these procedures can be as simple as test starting any stopped engines and proving ahead and astern operation.

If the engine is to be shut down for a period of time, the Master should inform the bridge and engine room of the acceptable period of notice before the engines are required.

Longer readiness states will allow all circulating pumps to be stopped, starting air and fuel to be isolated from the engine, indicator cocks to be opened and turning gear to be engaged. A full testing procedure will be required to ensure the engine is fully ready.

The readiness state can be reduced through leaving the circulating pumps running and turning the engine

on turning gear every hour, and further reduced by using turning gear every 30mins, followed by kicking on air leaving only a test run on fuel should the engine be required in the intervening 30mins.

If immediate readiness is required, the engine should be kicked over ahead and astern on fuel every 30 minutes with the engine ready to be passed to bridge control immediately if required.

Routine tasks need to be maintained even with an engine shut down, Sumps still need to be checked with many engines having a "running" and "stopped" level which should be adhered to. Additionally, weather conditions should be considered because rough weather can cause confusing oil level readings such that a low oil level might not be identified by engineers and this might prevent an engine start when required. Rough seas can result in dirt and debris being stirred up and drawn into fuel and lubricating systems which in turn may cause filters to block more rapidly than usual.

It is essential that system checks are carried out during readiness state routines or when starting an engine. Are filter differential indicators showing green? Are system pressures and temperatures correct? This information can be recorded in the movement book providing a log for the next engineer who has to conduct the readiness routine.

A check list will ensure common practice between personnel, either due to crew rotation or simply a watch change over and will prevent complacency. The simple act of leaving a starting air bottle supply valve closed may allow a test start of an engine due to the residual pressure in the system but will not allow future engine starts when the Master tries to manoeuvre the ship.

Finally, good communication between the Master, bridge officers and engineers will ensure everyone knows what they have to do and when. Early communication of any issues with the machinery will allow the Master to assess the situation and take the corresponding corrective action.

Nautical Perspective - good seamanship responses to engine failure

- Mitigating the risk of a machinery failure lies generally with the Engineering Department. But mitigating its effects on safe navigation rests squarely with the Bridge and Deck teams, in the spirit of the 'ordinary practice of seamen'.
- In terms of planning and preparation, routine 'good seamanship' precautions for the loss of ship's engines should include:
  - having a proper pilotage plan for every approach to port, berthing, unberthing and departure. This should include intentions for tug usage, and should incorporate 'escape' options at various points, based on a clear understanding of the weather and tidal conditions, and the available room for manoeuvre
  - briefing that plan well in advance to all personnel and departments involved
  - (even where a tug is not normally used, it is a wise precaution to have lines and manpower available to take one quickly in emergency)
  - having at least one anchor ready for letting go whenever in pilotage waters
  - thoroughly testing communications (both equipment and procedures) between bridge, engine control room and relevant parts-of-ship
  - proceeding at a speed slow enough for an effective response (manoeuvre, anchor etc.) to take effect
  - rigorously enforcing the ship's watertight integrity
- Classic 'good seamanship' responses in the event of actual engine failure will depend overwhelmingly on the prevailing spatial, resource and environmental conditions. Considerations should include;
  - if sea-room allows, turning immediately away from the nearest point of impact
  - employing tug assistance
  - deploying anchor(s) to check the way and inhibit drift/leeway
  - if a collision and/or grounding is inevitable, opting always for the least damaging impact aspect
  - minimising the high risk to personnel from ropes/lines under strain.
- Occasional table-top discussions among deck, engine and bridge teams can greatly help reinforce awareness of the risk of engine failure, and of the seamanship options available for its mitigation.

REPORT ENDS

Incident at a Conventional Buoy Mooring (CBM) system

OUTLINE: A report highlighting the importance of proper communication between all parties during mooring operations.

What the Reporter told us:

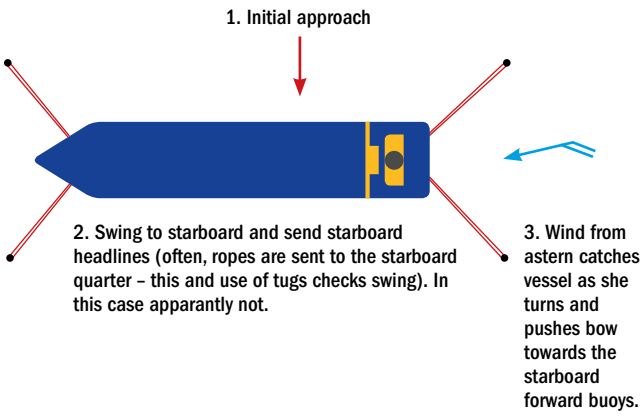
The vessel was mooring at a CBM during daylight, with four crew manning the forward mooring station. Two starboard headlines had been sent and were secured to a mooring buoy. A tug was made fast at the centre lead aft (while no tug was provided forward). At the time of the incident, the vessel was being swung to starboard into position, prior to sending the port headlines. Astern propulsion was used to counter the wind, which was blowing from astern, and causing the vessel to drift closer to the forward starboard mooring buoy. At the forward mooring station, winches for the starboard headlines remained in gear, but as the vessel moved astern, they were not paid out quickly enough. As a result of the vessel moving astern, excessive tension was applied on the two headlines, which unfortunately caused both to part in quick succession.

Although there was no injury to the crew on this occasion, it vividly highlights the inadequate communication between the bridge and the forward mooring teams.

Lessons Learned:

- To highlight the need for open and continuous communication between the bridge and mooring stations, this should be fully discussed during the pre-mooring toolbox talk and risk assessment meeting.
- For situational awareness, the bridge team should ALWAYS notify the mooring stations of any intended actions. Similarly, both mooring stations should also provide a continuous status report for the bridge team's awareness.

CHIRP, Centaur House, Ancells Business Park, Ancells Road, Fleet, GU51 2UJ, United Kingdom reports@chirp.co.uk Tel: +44 (0) 1252 378947



Schematic of a Conventional Buoy Mooring system

CHIRP Comment

Having discussed this report, the Maritime Advisory Board agreed that a lack of communication was central to this incident and that all aspects of the intended operation including hazards should have been covered at the pre-mooring meeting.

Mooring to a CBM requires extreme precision and timing in order to safely conduct the operation. All personnel should be fully aware of the requirements. Sometimes an anchor may be used to effect a turn. This requires a minimum of two people at the anchor station, the windlass operator and the officer in charge. If we now add winchmen running lines to the buoys we are rapidly running out of available personnel. Therefore, it can be seen that it is easy to become distracted or preoccupied with one particular task and not keep a full overview of the situation.

And what of the tug? The prevailing weather conditions should have made it clear that the tug would be required to pull astern to check the vessel. In addition, the pull (if on the starboard quarter) could have checked the natural transverse thrust caused by the astern movement.

Above all, if control of the operation had been lost, then releasing the headlines and steaming out may have been the better option.

REPORT ENDS

Communications issues – do you fully understand what is being said?

OUTLINE: A vessel was the subject of two reports, the former being a pilot ladder deficiency but there was also a communications issue when trying to address the deficiency. The communications issue led to a near grounding.

What the Reporter told us:

Recently, whilst climbing a pilot ladder on an inbound bulk carrier, I noticed that the ladder was well-worn with very loose chocks. After berthing, I informed the master, however with his very poor English I am not convinced that he fully understood. I also experienced difficulties in explaining various matters during the inbound pilotage.

Prior to disembarking alongside, I was concerned about the condition of the gangway, the ropes running through the stanchions at the top platform appeared in poor condition. A lot of fibre came off the ropes as they were pulled through the stanchion rings, indicating possible degradation of the ropes.

Five days later in an inner anchorage, whilst a severe wind warning was in place, the same vessel was dragging anchor towards a headland. The local signal station had been monitoring the vessel and advised them they were dragging. They responded that they were holding position using the engine. When asked if they needed assistance, they declined the offer.

Having completed its discharge, the vessel was at anchor waiting to re-load. At the time of anchoring the forecast did not include a severe wind warning. However, the master was advised to closely monitor the position and to rapidly get the vessel underway should the vessel start to drag anchor. During the afternoon I became aware of a severe wind warning. As we were due to have other ship movements, consideration was given to shifting this vessels' position. However, the wind halted operations in the port and so these decisions were deferred to the following day. The ships' agent was requested to "advise the master to closely monitor their position overnight and have the main engine available at short notice, which should include an engineer on duty". The signal station also advised the ship of this message and monitored the ship closely at my request.

Later, I was called by the signal station and informed that the ship was dragging. I checked the position of the vessel and called the vessel using my home VHF. I advised the master to heave up his anchor and get underway, to move NE towards the middle of the harbour, and that a pilot would be dispatched to his vessel.

The quickest option was to divert a pilot from an outbound vessel. Once onboard, the pilot found the vessel was not underway and was only about 1 cable from grounding. The master had shortened the cable from 7 to 5 shackles but had not attempted to get underway or recover his anchor. Due to language issues, it appeared that the master had not fully understood the earlier instructions to get underway and had not developed a plan to deal with the situation. The pilot who boarded found the situation very challenging but eventually managed to drive the vessel away from the nearby shore and also recovered the anchor. Re-anchoring was considered but winds of 50-60 knots were experienced and so the vessel was taken out of the port.

There are a number of factors that contributed to this serious situation, and not all are attributable to the ship. With the benefit of hindsight, I am reviewing my own decisions. Having berthed the vessel, I reported a deficient pilot ladder and raised concerns about the poor understanding of English by the master, which I now feel may have significantly contributed to the vessel's near grounding.

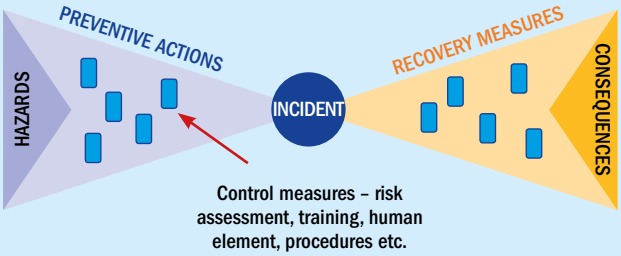
CHIRP Comment

The Maritime Advisory Board commented that the reports highlight several issues.

With respect to communications, SOLAS V Regulation 14.4 states that "*English shall be used on the bridge as the working language for bridge-to-bridge and bridge-to-shore safety communications as well as for communications on board between the pilot and bridge watchkeeping personnel, unless those directly involved in the communication speak a common language other than English.*" The report clearly indicates that the knowledge of the English language by the bridge team was insufficient for them to fully understand what was being requested of them. (Human Element – Communications).

The report highlights a potential cultural issue on board – a vessel's personnel tend to respond in a certain manner depending on their background. It can be inferred that both culture and communications have led to a suspicion that pilotage was not being effectively monitored and that bridge team management was poor. (Human Element – culture, competence, complacency, alerting, situational awareness and teamwork).

The self-criticism by the reporter is a very good point – not everything may have been attributable to the ship. Perhaps in hindsight, the inner anchorage may not have been the best place to anchor if weather conditions were subject to sudden change. A suggested learning point is to consider how pilots, port authorities and VTS manage these situations and how they could have controlled things better. The bow tie diagram illustrates the issue.



Bow tie diagram highlighting prevention of threats on the left-hand side to avoid recovery measures and consequences on the right

REPORT ENDS

Hours of rest violations.

OUTLINE: *CHIRP* has received several reports concerning the pressure that some seafarers are placed under with respect to hours of work, hours of rest, and fatigue. One such example is given below.

What the Reporter told us:

The vessel in question constantly violates the rest hours requirements, and this is ongoing despite having been warned previously by the national regulator and nearly having the vessel's Document of Compliance withdrawn. This is entirely due to commercial pressure from the company - the master is constantly under pressure from the company over the telephone because they never make their demands in writing. He only wants to do his best and to keep his job as do all of us.

Currently one of the vessel's masters has handed in his resignation based on commercial pressure, having been bullied by the management when he objected to their practices.

How long can this abuse of rest hours which leads to fatigue continue? How long will the Masters' overriding authority under SOLAS be abused? How long until an accident or incident occurs with its root cause being commercial pressure? On this vessel the shore-side management could not care less.

CHIRP offered to take this to the vessel's national administration, at which point correspondence ceased. It was considered that, on this basis, any report to the DPA would prove ineffective.

CHIRP Comment

CHIRP would like to hear of any other issues with fatigue, hours of rest, or harassment by company management. If it is difficult for you to discuss these matters with your Company, then we can approach them on your behalf (in confidence). If there remains a problem, we can again in confidence approach Port State Control and/or the flag administration. All mariners should be aware however that if you feel forced to falsify the Hours of Rest, then this will result in PSC and Administrations being unable to prove your complaint since records will show exactly what the company wish them to see.

This report also demonstrates that if correspondence is discontinued, there is little we can do to assist. In order for us to help you, you need to help us and provide evidence for the maritime authorities to work with.

REPORT ENDS

MARPOL – environmental violations and concerns

OUTLINE: *CHIRP* continues to receive many reports relating to MARPOL. One report below details concerns with grey water, with the other highlighting a potential pollution scenario.

What the Reporter told us (1):

Our vessel transferred a quantity of bilge water from the engine room bottom plates to the grey water tank using an air pump. The bilge water was not treated, nor was the event recorded in the oil record book. The grey water tank was subsequently discharged to sea as normal grey water, which of course by-passed the oily water separator.

Further Dialogue:

With the consent of the reporter ***CHIRP*** wrote to the DPA of the company and received the following detailed response:

We are aware of the case you refer to, and we have recently completed an extensive investigation into the

matter. Our investigation has concluded that in the case witnessed by your reporter, an amount of fresh water from a leaking laundry pipe was indeed pumped from the tank top into a greywater tank. However, as soon as the Chief Engineer became aware, the greywater tank was immediately isolated.

The grey water tank in question had not been emptied since well before the incident date, hence nothing was pumped overboard. The tank content was later delivered to a shore facility as oily bilge water. Our investigation pointed out several corrective actions, one of them being a Safety Bulletin for discussion and circulation to all fleet vessels. This stated inter alia;

- MARPOL regulation 1.33 states *Oily bilge water means water which may be contaminated by oil resulting from things such as leakage or maintenance work in machinery spaces. Any liquid entering the bilge system including bilge wells, bilge piping, tank top or bilge holding tanks is considered oily bilge water*.
- Any water collected from tank tops must be considered and handled as bilge
- All crew are obligated to comply with MARPOL and to report any incident and unsafe act/condition to their supervisor immediately when noticed.
- Any incident (accident, near-accident and non-conformity) and unsafe act/condition (hazard observation) must be reported for follow-up.
- All personnel are reminded to take "time out for safety" to properly plan before any operation is conducted and "stop the job" if you see and/or are in doubt as to the successful outcome of any operation.
- Any person that considers work to be unsafe has the authority and duty to temporarily stop it, and report to the proper authority onboard. No retribution will follow a stop work action initiated in good faith even if it is deemed unnecessary.

What the Reporter told us (2):

During maintenance on a diesel generator, the low temperature cooler was removed for cleaning, but the SW supply isolation valve failed to hold. With the cooler already removed, sea water was able to flood into the engine room. The bilge level reached 0.3m before a decision was made to operate a pump to reduce the flood level and prevent damage to other machinery. Additional isolations were made to stop the water entering the space. Bilge water mixed with floodwater was pumped directly to sea. On reflection, it was realised that the threat posed to the ship from the flood was less than the potential impact of releasing contaminated water to the sea and the floodwater should have been held onboard in the bilge holding tank before being discharged through the separator.

CHIRP Comment

Notwithstanding the differences in opinion between reporter and company in the first report, the message as stated in the company bullet points is clear. MARPOL must be complied with, and all water from E/R bottom plates or tank tops must be considered as bilge water and treated accordingly through the oily water separator.

The second report highlights a concern for protection of the environment - albeit in hindsight. It also highlights the subtle difference between an emergency and a situation where saving the vessel overrides MARPOL (which was not the case in this instance).

***CHIRP* is becoming increasing aware that regulations prohibiting discharge (such as within special areas) is having a knock-on effect so that a vessel's capacity to hold all of its bilge, waste oil or grey water is becoming increasingly strained. Designers take note! We would like to hear more about these issues for further debate.**

REPORT ENDS

I'm not going to board until you rig a compliant ladder

OUTLINE: Two reports describing how pilot boarding was suspended until satisfactory arrangements were provided.

What the Reporters told us:

- Accommodation ladder did not have safety stanchions rigged on bottom platform and ship had only partially rigged the safety ropes. Suspended pilot boarding for 15 minutes for crew to rectify deficiency and make safe. Crew had poor communication skills and did not appear to understand what was required to provide safe pilot transfer arrangements.
- Before embarking at the pilot station, a pilot noticed that the combination ladder was not secure to ship's side. Vessel was turned around for corrective actions which entailed securing pilot ladder and gangway with magnets which were available on request.

CHIRP Comment

The Maritime Advisory Board highlights the potential for vessels to be refused a pilot with consequential delays and cost implications. One member advised that a vessel was refused a pilot for departure until a new ladder was purchased, with the consequential cost of 4 tugs to shift the vessel on and off a layby berth.

REPORT ENDS

Non-compliant by design

OUTLINE: Two reports – one highlighting a new vessel that is non-compliant with SOLAS, the other describing how an overboard discharge was situated in close proximity to the pilot boarding station.

What the Reporter told us (1):

When disembarking from this new passenger vessel (built in 2018), the pilot boat was caught momentarily on the ship's belting which caused it to dislodge the pilot boat's fendering. As the sea conditions were slight it was not a

serious problem. However, in heavier seas it could have caused damage to the pilot boat or resulted in the pilot boat suddenly heeling if its belting was caught above or below that of the ship.

The gap in the ship's belting was estimated to be approximately 1 metre, significantly less than the requirements of IMO Resolution A1045(27) which states "*Where rubbing bands or other constructional features might prevent the safe approach of a pilot boat, these should be cut back to provide at least 6 metres of unobstructed ship's side.*" See photo below. There are currently a series of new builds joining the fleet, and online images indicate they are all configured in the same way.

New build passenger vessel – and non-compliant

CHIRP Comment

The vessel in question should be compliant with all the relevant rules and regulations. Naval architects, classification societies and flag administrations should consider how they assess all legislation that comes from IMO in order to make new builds fully compliant. Note that the vessel is a 2018 new build and the IMO resolution was issued in 2011. *CHIRP* has addressed this topic before in FEEDBACK 46 – page 3. Same company, different ship, different part of the world and different reporter.

What the Reporter told us (2):

During a pilot boarding operation, the pilot noticed water falling from a discharge adjacent to the boarding position. As the water stopped flowing, he assumed the deck party had blocked the scupper. The pilot commenced boarding but shortly thereafter another stream of water fell from the same discharge onto the pilot. The risk was closely monitored, and boarding effected without further incident.

When on board, the pilot tried to explain the situation to the responsible officer who failed to understand the seriousness of the risk. The water was on deck and it appears that the vessel's rolling motion led to the intermittent discharge.

Further Dialogue:

CHIRP contacted the vessels DPA who responded positively as follows;

We have investigated the reported incident and discovered that the crew had recently washed the deck, including the pilot embarkation area, with fresh water. During the pilot's embarkation, as a result of the vessel turning, the vessel heeled causing water to flow through the scupper.

Therefore, in order to avoid re-occurrence of such an incident, we have instructed all our company's vessels to ensure that the pilot embarkation is clear of any water accumulation and also to ensure that no water can drain from the scuppers during pilot boarding/ disembarking.

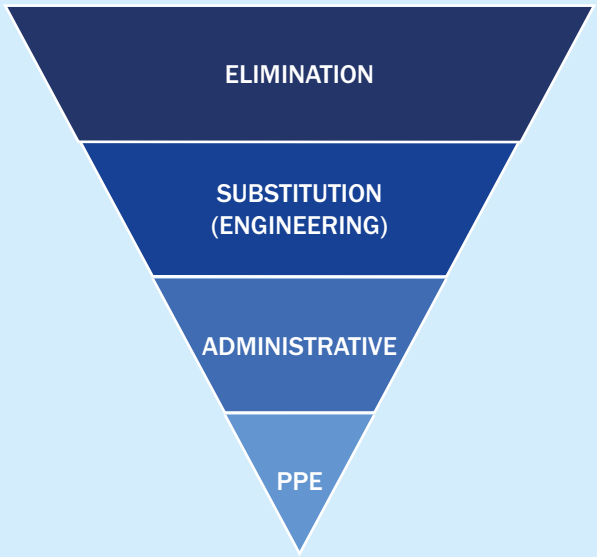
CHIRP Comment

SOLAS V 23 Regulation 3.3.1.1 states that pilot transfer arrangements are to be clear of any "*possible discharges from the ship*" The presence of a discharge pipe in close proximity to the pilot boarding station is a design fault in the vessel. Such faults often only come to light when a vessel becomes operational and it is left to the crew to deal with. Fitting a scupper plug prior to each pilot operation would be an easy solution.

Having initially identified a problem, the pilot failed to positively confirm that the discharge had been stopped before commencing his climb and will undoubtedly not make the same mistake again.

The observation that the responsible officer apparently failed to understand the potential for a serious incident is of concern.

Hierarchy of controls to mitigate hazards



Eliminate the hazard – New builds need the assistance of shipyards, naval architects and regulators to achieve this.

Design out the issues so that all potential discharges or the pilot boarding area are moved elswhere

Ensure checklists, and training regimes are fit for purpose. Ensure manpower demands are realistic.

Ensure sufficient, suitable and viable equipment is available onboard and personnel are trained in its use.

Note that the crew related issues are at the bottom of the triangle.

REPORT ENDS

Heavy weather checklists – life rafts

OUTLINE: A disturbing report from a ship's crew member concerning non-availability of life rafts.

What the Reporters told us:

Whilst transiting the North Atlantic in very rough weather, all of the vessel's life rafts were secured inside the accommodation. This resulted in the freefall lifeboat being the only equipment immediately available in the event of having to abandon ship.

Further Dialogue:

The reporter declined to name the vessel or company for fear of reprisals/loss of job. The life rafts were moved inside the accommodation on the direct instructions of the master after the vessel received a severe weather warning from the company. There was a severe weather check list as part of the SMS, but there was no reference to securing life rafts inside the accommodation.

CHIRP Comment

The Maritime Advisory Board noted that this was a terrible practice – life rafts will not float free in the accommodation. They have a purpose, which is of course abandonment, and thus need to be effectively secured on deck.

The fact that there was a severe weather checklist suggests a level of competence and integrity on the part of the company, but is it fit for purpose or just a 'tick box' exercise? When the ship's crew are so worried about reprisals that they will not notify either the master or the DPA, there is something wrong with the culture onboard and within the company. In this case the self-monitoring function of the DPA has broken down.

***CHIRP* highlights this question to all mariners. How best can you ensure the integrity of your Life Saving Appliances to ensure they are ready for use in any emergency?**

REPORT ENDS

Correspondence received

Rudder angle indicators

OUTLINE: Follow-up correspondence to an article in Maritime FEEDBACK 51

What the Reporter told us:

I experienced a near collision due to rudder angle discrepancy. The vessel was approaching an anchorage at dead slow speed with a following flood tide, and we applied port helm to clear an anchored vessel ahead. The rudder angle indicator clearly showed port helm applied, and later hard port helm, but the ship did not respond. Collision appeared to be inevitable with the other vessel close to starboard. We put the helm hard to starboard and the ship responded immediately, clearing the other vessel. We then anchored.

The steering gear was not the conventional dual ram type, but a "rotary vane" type. Close inspection did not reveal any way to determine the actual rudder angle. Management were advised, and subsequently we found almost invisible alignment markings showing a discrepancy which we were able to re-adjust. After making adjustments, I was still unable to confirm the rudder angle. Further investigation proved that the bridge rudder angle indicator did not actually show the rudder angle, but the helm angle – misleading at best.

Lessons Learned:

- On any ship, ascertain how the rudder angle indicator actually works, and if it is only acting as a helm indicator inform management, requesting modification.

CHIRP Comment

There is an increasing reliance on technology and therefore a need to validate all instruments on board. A helm indicator is not a rudder angle indicator which records actual feedback. It is vital that personnel confirm the actual angle displayed on the rudder in the steering gear matches what is shown on helm or rudder indicators. In addition, a rudder angle indicator is a Class requirement and must be accurate to +/- 1°.

REPORT ENDS

We are grateful to the sponsors of the ***CHIRP* Maritime** programme. They are:

The Corporation of Trinity House

The UK P&I Club

TT Club Mutual Insurance Ltd

Seafarer's Trust

Witherbys

The Britannia Steam Ship Insurance Association Ltd

International Foundaton for Aids to Navigation (IFAN)

Lloyd's Register Foundation

Seafarers UK