

Technical Bulletin

NUMBER 39 2012

Escape from engine rooms

Engine rooms by their very design are hazard areas for all sorts of reasons to the unwary or unfamiliar – automatically starting machinery, loud noises, loud alarms, poorly indicated or signposted escape routes, blind areas that will lead you into a place with no exit, etc.

Engine room – emergency escape routes

It is suggested that engine room emergency escape doors and exit routes should be highlighted more clearly using fluorescent colour such as 'day glo' orange or yellow or painting the door with 'tiger stripes'. Whatever paint is used it should be a water based paint rather than an oil based paint so as not to affect the properties of the class 'A' fire doors that are always fitted to the engine room exits.

A point never to forget is that any door that leads you out from the engine room is effectively an 'emergency exit'.

Well marked doors on a new vessel



Another point to remember is that some ladders in an engine room lead only to half decks where measurement equipment or gauges are located and these areas may not lead to an escape route – i.e. it is a 'blind alley', therefore mark them as such, with a conspicuous NO EXIT sign.

Good use of 'tiger stripes'



In the event of the engine room being filled with smoke, even light smoke, the escape routes and doors from the engine room may be obscured and therefore they should be more clearly indicated. *You cannot see a white door against a white bulkhead!*

We would also suggest large yellow arrows be painted on the floor plates indicating the nearest escape route. These suggestions are not for the engineers – who probably know their way around blind folded – but for the many 'visitors', Port State Control inspectors, USCG, vetting oil major inspectors, classification surveyors or indeed for newly-joined crewmembers to facilitate their knowledge of the quickest way out.

These can be simple arrows



or a little more inventive

The most common escape route is the vertical trunking from various levels in the engine room usually located forward and leading onto the open deck or right aft from the stern tube area up to the airlock doors between the engine room and the steering flat door. Wherever the emergency escape(s) are located there are several safety items that should be located inside the vertical trunking.

This door if it leads on to the open upper deck should never be locked from the inside or worse from the

Pad eye, shackle, single block and rope: A five (5) point 'full body' harness would be attached at the bottom of the rescue rope



inside and outside to satisfy some perceived requirement of the ISPS Code. This exit can easily be secured using a plastic tie wrap or a numbered seal or even a paper seal – so long as it is 'verifiably secure' this will satisfy the ISPS Code at level one. Of course above this at level two or three or in high risk areas, (HRA) or known piracy areas, then other measures will require to be taken but under normal circumstances the plastic seal should suffice – 'safety first' not 'security first'.

Escape trunk – note the protective insulation



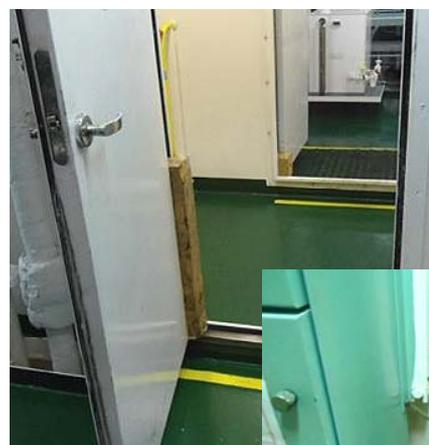
Photoluminescent tape around the handle will highlight in the dark



Also if this exit door is locked then safe entry into the bottom of engine room will be compromised. The temperature in the engine room soars during a fire, it is after all a steel box, and temperatures in excess of 300° Celsius are not unusual if the fire has taken hold after about 30 minutes or so. At these sorts of temperatures the human body, even with full protection, cannot survive. Far better to enter with full protection (fireman's outfit) and a self-contained breathing apparatus (SCBA) – the size of the trunking is designed for this very occurrence and the engine room side of the trunking is protected by 150 mm (6 inch) insulation. The temperature in the trunking will be relatively cool, at say 100° Celsius.

Engine room / Steering flat doors

The fire door(s) between the engine room and steering gear compartment is a very important Class 'A' fire door and must remain closed at all times, otherwise it may be impossible to escape if the emergency escape from the aft engine room passes through this area and it would be impossible to locally start or prime the emergency fire pump – normally fitted in this location. The Club has issued a Technical Bulletin Nr. 25/2007 covering this item.



Both fire doors wedged open with wooden blocks – bad practice

Fire doors lashed open

