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IMPA position on Fall Arresters/Inertial Reel devices

Fall arresters are commonplace in the construction industry where working at height is involved. That sector has a poor safety record.

Fall arresters are also known by their method of operation, inertial reel systems, which are most commonly seen in everyday use in motor vehicle seat belts. In simple terms the drum or reel on which the line/band is rolled up on can rotate at slow speed, but when it is turned faster pawls or sprags move out under centrifugal force and cause the reel to halt.

IMPA receive regular requests for explanation as to why Pilots do not use these devices.
On the face of it, there could be benefits to Pilots should they fall from say a broken ladder. However, as with so much in our profession we work in a dynamic situation, and boarding is a typical example. In a typical boarding situation both pilot boat, and vessel being serviced, will be moving up and down by many metres, in a relatively random manner.

When boarding, if a Pilot is attached to an inertial reel whilst on the foredeck of a pilot boat, they risk a violent lift as the pilot boat descends into a trough. If the hook of the device is stowed at the bottom of the ladder to avoid this, then the Pilot has to spend time there, in a vulnerable position when he/she wishes to avoid the pilot boat, attaching the hook to their D-ring.

When disembarking it will not be possible for the pilot to jump off the ladder into the pilot boat as the reel device cannot distinguish that this is a planned event, and as with boarding, any movement by the pilot boat risks the Pilot being pulled violently “upwards” off its deck.

Pilots are also conscious that use of this system would involve the ship providing the device. Pilots know that about 20% of vessels cannot provide the very simplest piece of kit-viz a wood and rope ladder. The idea that Pilots would be attached to a mechanical device containing small metal parts, stowed on board with as much care as the pilot ladder, is not a prospect that enthuses.

Mechanical pilot hoists were proscribed in the 2012 amendments to SOLAS Chapter V for the very reason that they could not be trusted to operate correctly and safely.

Finally, there is considerable experience among Pilots of ladders being attached to handrails, ventilators and manifolds. There is no prospect that an inertial reel would be suitably attached to a strong deck fitting in all cases and there is a general belief too that the reel line would be another hazard rather than an aid to improve safety. The reels need to be carefully stored, inspected and certificated, none of which we know will happen.