



# Technical Circular

No.: 040/2025

Date: 18<sup>th</sup> December 2025

## **Subject: Incident & Casualties reported due to Fire in Engine Room**

1. This circular highlights the safety concerns arising from a fire incident reported on a ship during her dredging operations. The fire incident initiated by the failure of a fuel pressure gauge line, resulting in uncontrolled fuel spray that came into contact with high surface temperatures and caused ignition. The fire then spread rapidly through adjacent electrical cables and ultimately engulfed the engine control room.

The source of ignition was traced to the failure of a fuel pressure gauge line, which burst and sprayed fuel near the main engine exhaust manifold. Contact with high surface temperatures resulted in ignition, and the fire spread rapidly through adjacent electrical cables, eventually engulfing the ECR. The lapses in routine periodical maintenance, coupled with the failure to identify defects in the fuel line at an early stage, led to its continued use and ultimately resulted in failure.

2. This caused major damages to engine room machinery, the engine control room, and portions of the engine room hull structure, necessitating activation of the fixed CO<sub>2</sub> firefighting system for extinguishing the fire, followed by towing assistance to ensure the vessel's relocation to a safe area.
3. These incidents provide an opportunity to re-look at Safe Working Practices followed for critical operations on-board and Safety Management System implemented by Companies.
4. A few effective ways to prevent similar incidents in future could be:
  - a) Ensuring that the securing devices, valves & fittings of all piping system of essential machineries / critical operations are maintained in satisfactory condition and periodically inspected to ensure safe operation.
  - b) Maintaining satisfactory condition of High Pressure pipes and arrangement for protection of spray including shielding of all fuel and gauge lines.
  - c) Maintaining satisfactory condition of Lagging and anti-splash tapes on various exhaust systems and joints of valves and fuel oil pipeline joints.
  - d) Ensuring Cable conduits are maintained with proper fire-retardant sealing.
  - e) Ensuring that no unauthorized modifications / repairs are carried out onboard and any repairs carried out are only as per OEM recommendations with their supplied spares including compliance to original specifications and/or as-fitted/approved drawings.
  - f) Early identification and elimination of defects in the piping system especially fuel piping systems and compliance verified during company internal inspection and audits.
  - g) Safe working practices are followed at all times.



. This Technical Circular and the material contained in it is provided only for the purpose of supplying current information to the reader and not as an advice to be relied upon by any person.

. While we have taken utmost care to be as factual as possible, readers/ users are advised to verify the exact text and content of the Regulation from the original source/ issuing Authority.

5. Owners & Managers are to take note of above in order that corrective actions can be taken to avoid similar situations in future.

**Enclosure:** Nil.

---

Whilst the utmost care has been taken in the compilation of the Technical Information, neither Indian Register of Shipping, its affiliates and subsidiaries if any, nor any of its directors, officers, employees or agents assume any responsibility and shall not be liable to any person for any loss, damage or expense caused in any manner whatsoever by reliance on the information in this document.