CASE STUDY

OISD/CS/2026-27/E&P/07 **Date: 20.05.2026**

INTRODUCTION

Title: Fatal incident at offshore vessel working with fixed unmanned platform
Location: Offshore
Outcome: Fatal injury.

BRIEF OF INCIDENT

On 13 April 2026, a fatal incident occurred onboard offshore vessel during cargo handling operations at the fixed unmanned platform using the platform-mounted crane. The vessel was not equipped with a dynamic positioning system (for holding position).

The operation was being carried out using the 2-ton auxiliary hoist under normal weather conditions. Four lifts were completed successfully and thereafter, during the fifth lift, an unintended upward movement of the idle main block caused it to strike the boom tip sheaves. The main hoist wire rope immediately failed, causing the main block to fall onto the vessel deck and fatally injuring a rigger engaged in rigging operations.

Figure I – Incident site area

OBSERVATIONS/ SHORTCOMINGS

- The crane was operated without adequate pre-use verification and functional testing of the safety-critical Anti-Two-Block (A2B) system of the main hoist prior to commencement of lifting operations. The alarm system in the crane operator cabin was not functional.

- The modified dual-joystick crane control system lacked engineering interlocks to prevent unintended simultaneous operation of blocks & boom, increasing the risk of operator error and unsafe operations.
- Adequate training, familiarization, and competency validation of the crane operator for operation of the modified dual-joystick crane system were not evident, including refresher training and handling of abnormal operating scenarios.
- Revamping work was carried out in 2019 by OEM which included installation of two dual-joystick control system in place of old four-lever function system. No Management of Change (MoC) records were available for this change.

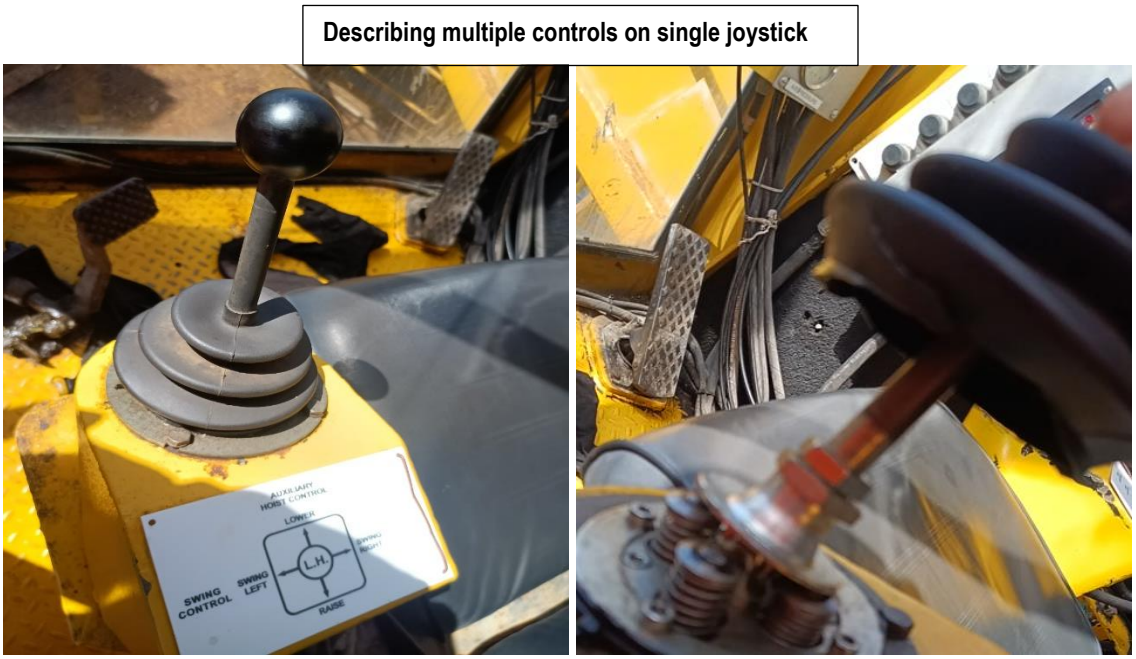

Figure II – Dual-joystick control system of crane

ROOT CAUSE OF THE INCIDENT

- The Anti-Two-Blocking (A-2-B) system and alarm system of the crane were non-functional, as evident from operator interaction.
- The dual-joystick system lacked any preventive interlock/barrier against unintended simultaneous movement. During boom lowering, inadvertent activation of the main hoist caused the main block to strike the sheave assembly at the boom tip, leading to wire rope failure and fall of the block onto the vessel.
- Crane operators had not received adequate training specific to the modified dual-joystick crane system, and competency verification was found inadequate, adversely affecting safe crane operation.

Figure III – Main Anti-Two Block

RECOMMENDATIONS

- Strengthen verification and testing of safety-critical crane systems –
  a) Verification of mandatory documented functional testing of A2B systems, limit switches, overload protection systems, and other safety devices prior to commencement crane operations.
  b) Develop standardized pre-use inspection checklists aligned with OISD-RP-205 and OEM recommendations.
  c) Periodic audits (by respective OEM) of pre-operational crane safety checks and safety systems.
- Introducing engineering safeguards and interlocks/barriers in crane control systems with help of OEM which will prevent unintended movement of main, auxiliary hoist & boom during the crane operation (through appropriate risk assessment and MOC procedure). Assess ergonomic suitability and human-factor engineering aspects of dual-joystick configurations. Install alarms, visual indicators, to minimize inadvertent joystick operation.
- Enhance competency assurance framework for crane operators- O&M contractors shall deploy crane operators only after they acquire specialized training for cranes having dual-joystick and multi-hoist control systems. O&M contractor to conduct periodic competency assessments, abnormal scenario training for crane operators.
- Management of change (MOC) shall be conducted for revamping/modification of cranes and equipment as it is a systematic way to handle changes, to deal effectively with the change in process, operation, facility, procedure, technology, training and personnel.

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