

Near-miss: Contained hydraulic oil spillages from cranes

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A member has reported a number of incidents in which there have been contained hydraulic oil spillages on deck.

What happened?

Three were hydraulic hose failures and the fourth, a hydraulic tank failure. In all four cases there was no pollution and the oil spillages were contained and cleaned up both quickly and effectively by the crew.

Following a spate of external hydraulic hose failures, our member introduced an increase in external hose inspections and proactive hose replacements. These measures appear to have been effective.

The three hydraulic hose failures all occurred on vessel cranes at the point at which the flexible hoses span the pedestal bearing. This is a weak area for flexible hydraulic hoses due to the nature of the working movement of the crane – chafing and stress to the hoses is much more likely in these areas than in other areas. These hoses are often covered by a protective guard.

It is important that whilst conducting your pre-use and planned maintenance inspections that this guard is occasionally moved to ensure a thorough check of the hoses and the ferrules can be made. Although from the outside a hose can look in good condition, it can sometimes deteriorate from the inside out – damage can appear overnight in some cases. This stresses the need to complete pre-use checks of all hydraulics before beginning an operation.

Our member provides a useful guide to checking hydraulic hoses and fittings:

- Fastenings -Inspect all fastenings and fittings for corrosion and correct connection.
- Feel -Wearing dry gloves, run your hand over all the fastenings and hoses, feel for signs of any hydraulic leaks or damage.
- Faults -Visually inspect the hoses for faults or blemishes including any lumps, scars or signs of colour deterioration or internal corrosion.
- Free -Are all hoses free from constraint or abrasion? Do the hoses need to move in operation – are they free to be able to do this?
- Forward planning -How old are the hoses or fastenings? Does the replacement date need to be bought forward? Can any preventative measures be taken to prevent deterioration – installing protective guards

or additional fixings or supports?

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