TRANSPORT - Hydraulic fire in dump truck

WHAT HAPPENED

A Volvo 40 tonne dumper truck (contract company owned) was operating in a quarry, bringing chalk from the point of excavation to the stockpile. The dump truck was completing this routine operation and was tipping the load to stockpile. When pulling away, the driver smelt & observed smoke through the vents on the sides of the vehicle bonnet. As the driver lent forwards to take a closer look from his cab, he immediately noted flames being emitted from the engine compartment. The driver stopped the truck and exited his cab. The flames very quicky established themselves, resulting in significant damage to the dump truck. The local Fire Service were called and attended site to extinguish the flames. The vehicle was positioned well away from other mobile plant and buildings, ensuring no spread of the fire.



KEY FINDINGS

- After the fire was extinguished, a trail of hydraulic oil was seen behind the dump truck and back towards the stockpile.
- It is thought a hydraulic pipe split and sprayed hot oil onto a hot engine which then ignited.
- The contractor carries out daily vehicle checks and records were shown to be complete as part of the investigation. In addition, regular 63 point checks & servicing are completed by authorised maintenance engineers in accordance with the manufacturer's recommendations. Nothing had been seen that could suggest a pipe failure was imminent. Post incident, all mobile plant was re-inspected & no defects were found.
- All site emergency procedures were followed correctly. The driver recognised the dangers, quickly immobilised the vehicle and exited to safety, warning all other personnel in the area, as per his training.

Image shows trail of hydraulic oil



LEARNING POINTS / ACTIONS TAKEN

- Are daily checks completed to mobile plant and are these inspections thorough and documented?
- Do procedures cover how to deal with a vehicle fire and are personnel trained in these procedures?
- Do personnel understand the dangers associated with hydraulic oil fires and do site procedures deal with this hazard suitably?
- Where hydraulic systems are part of a fixed asset, is there fire detection and an **auto shutdown system** installed to activate on detection of fire? Automatic fire suppression should be considered in high risk areas.
- A fire can very quickly develop into a very serious incident. Make sure your workplace is protected and all team members are trained in emergency procedures.

LOCATION:	**QUARRY**	**ALERT STATUS:**	**Normal**
ACTIVITY:	**TRANSPORT & LOGISTICS / DELIVERY**	**DATE ISSUED:**	**18/09/2023 15:47:27**
SUB ACTIVITY:	**DRIVER TRAINING**	**INCIDENT No:**	**03667**