

SAFETY ALERT



FIRE TRAPS TRUCK DRIVER

INCIDENT

A truck driver was trapped when flames surrounded the drivers cab of a 100-tonne capacity truck. Due to the quick action of fellow drivers, he was not seriously injured.

CIRCUMSTANCES

Whilst he was lowering the tray a fire occurred which quickly surrounded the driver's cabin, blocking off both means of escape. He shut down the engine but the fire did not reduce in intensity. He placed his shirt over his head to protect himself from the smoke and heat.

Other truck drivers in the vicinity used five hand held fire extinguishers to put the fire out.

INVESTIGATION

- (a) The hydraulic hose from the tray lift cylinder had burst, spraying oil over the hot turbocharger, the tray and all sides of the driver's cab.
- (b) Although the engine had been stopped, the weight of the tray on the hoist cylinder caused oil to continue spraying out and feeding the fire.
- (c) There was a significant possibility of serious burn injuries to the truck driver because of a lack of effective engineering barriers as follows:-
 - Hydraulic hoses were not in good condition
 - A fixed fire extinguishing system had not been installed.
 - The fibreglass engine cover provided additional fuel to the fire because it was not fire resistant. This contributed to preventing use of the second means of escape. The fire was more intense on the engine side of the driver's cabin.
 - Shielding had not been fitted around the exhaust turbochargers.
 - Oil leaks were evident at a number of locations on the vehicle.
 - The engine shut down system operated successfully although it was not fail-safe.
- (d) A number of "soft barriers" to risk were effective. In particular:-
 - The driver stayed in his cab and shut down the engine.
 - Quick response by other operators in using hand held fire extinguishers to quench the fire.

Report No: SA 04 02

File No: 288950000

Date: 16 January 2004

Prepared by: W J Koppe Ph (02) 4275 9306 or 0417 241 466
and D Ivanovic Ph (02) 4275 9311 or 0418 424 779

SAFETY ALERT



RECOMMENDATIONS

- (a) Provide effective engineering barriers to minimise risk from fires on large vehicles.
- (b) Use an appropriate risk analysis process to identify the appropriate engineering barriers, consider:-
 - Automatic fire suppression systems which also shut down the engine system, after an appropriate delay, to suit the type of vehicle/equipment
 - Use of fire resistant engine covers
 - Adopting a rigorous hydraulic hose management system which includes detailed discard criteria, use of factors of safety considerably over 4 to 1 and attention to location and restraint of hoses.
 - Use of appropriate shields around turbochargers
 - Regularly cleaning and examination of engines to facilitate identification and repair of oil leaks
 - Ensuring engine shut down systems are fail safe (Do not need electric power to stop engine)
- (c) Implement a process to progressively comply with MDG15 – Guidelines for Surface Mobile and Transportable Equipment for Use in Mines.
- (d) Improve drivers' daily check sheets to include the involvement of supervision.

R Regan
ASSISTANT DIRECTOR SAFETY OPERATIONS



Fire Traps Truck Driver

- Burnt oil all over cab, windows and handrails