Preventing fires – truck driver guidance

Inspections at start-up

- 1. Start the engine.
- 2. Walk around and observe that the suspensions are inflated.
- 3. Check that all the tyres are inflated.
- **4.** Check there's no smell of smoke. If there is, investigate it and resolve the situation.
- 5. Look for oil leaks.
- **6.** Look for product leaks in cargo, especially when transporting dangerous goods.
- 7. Check that the trailer electrical connectors are in place and locked.
- **8.** Check that the product hoses when fitted are restrained.
- **9.** Listen for belt squeals. Slipping belts are unacceptable.

Driving off

- **1.** Do a brake check and assess whether the deceleration is adequate.
- 2. If the truck has a trailer-brake control, apply it to check that the trailer brakes are working and releasing.

After driving, at a break

- 1. Feel the hub for abnormal temperatures.
- **2.** Look for oil, fuel and product leaks. Resolve the leaks before proceeding.
- **3.** Feel the tyres for hot surface temperatures. Look for tyre rubs.

On the road

- Don't ignore flickering lights or gauges.
 An electrical short-circuit on a main cable is probably occurring. Stop, investigate and report.
- 2. Don't ignore the smell or sight of smoke. Wisps of smoke from a wheel-end are probably a sign of a hot tyre. If you stop, the tyre might catch fire because windage cooling has stopped, but driving on at speed could also result in fire. Therefore, the best strategy is to stop. If there is a known supply

- of water close by, drive slowly to it. Use the water to cool the tyre. Call the fire brigade as soon as smoke is confirmed, even if the vehicle is still moving.
- 3. Loss of engine power may indicate turbocharger failure. Don't drive on with a failed turbocharger. An internal oil fire will eventually occur.
- 4. Don't ignore a fuel trail on the road from the vehicle in front. Leaking diesel fuel can eventually get onto a hot exhaust. Try to contact the driver using the radio.



Rubbing electrical cables caused disturbance to the lights, which alerted the driver to a problem. Photo: Peter Hart/Hartwood Consulting



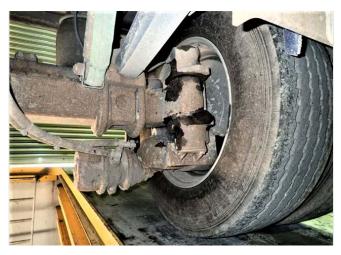
An engine bay after a fuel fire.

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Fuel leaks from injector tubes should never be ignored. Above and below: Sections of high-pressure fuel line. The green arrow indicates where fuel would leak from. Photos: Peter Hart/Hartwood Consulting





Look for road-strike damage to brake actuators. Photo: Peter Hart/Hartwood Consulting

Notes

- 1. Don't stand in front of a smoking or burning tyre: the internal air is being heated and the pressure will be rising. The tyre may rupture and debris can harm people close by, particularly if it is an outer tyre. If you can, stay behind vehicle features and strong metal covers when close to a hot (smoking) tyre or suspected wheel-end failure. Ask bystanders to stay well away.
- 2. A dry chemical fire extinguisher is unlikely to stop a tyre fire because it does not remove heat from the tyre and the brake drum. A water extinguisher or a garden water supply (if available) will be more effective. Use soft drink or any other non-flammable liquid you have if you don't have water.
- 3. If you don't have any suitable liquid, use the dry-chem extinguisher. It may be effective for leaking wheel oil seal fires, which sometimes occur when a disc brake gets extremely hot.
- 4. Running on a flat or partly inflated tyre can cause heating of the tyre sidewall.

 Occasionally the rubber will pyrolise but not catch fire until the cooling air flow stops. Lots of water is usually necessary to extinguish a tyre fire.
- 5. If the engine loses power, there could be a fuel problem, or the turbocharger might have failed. Whatever the cause, stop and investigate. Driving on with a failed turbocharger is dangerous and can result in an engine bay fire.