

Timber lorry hydraulic oil spills

We work in some of the most scenic parts of our country. These are often also areas of high environmental sensitivity.

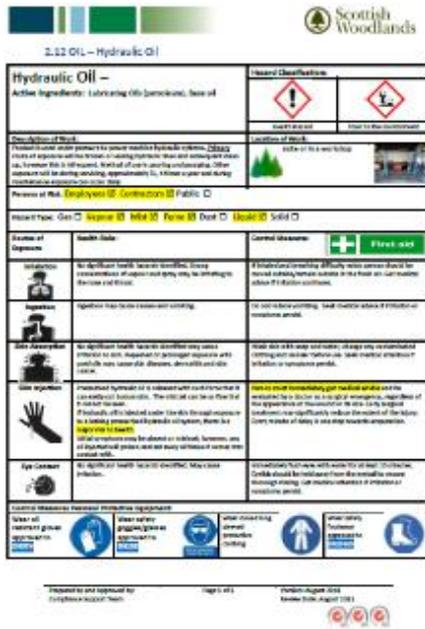
Integral to our heavy machineries function, are pressurised hydraulic oil systems. Timber lorries, due to the type of work they undertake are particularly susceptible to pressurised hydraulic oil leaks.

Worksite Planning

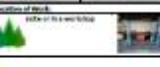
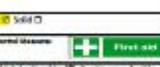
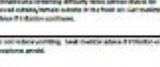
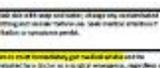
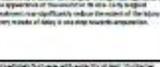
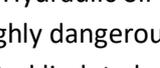
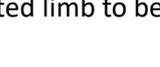
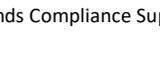
Plan the location of your timber stacks, where possible, to avoid proximity, a minimum of 10m or more, to watercourses or ground which slopes steeply down to a watercourse. As part of both our diffuse pollution control contingencies and as a protective measure against the transport of oil pollution, work to ensure you roadside drainage ditches are disconnected from watercourses.

Hydraulic Oil as a Hazard

Scottish Woodlands have produced a CoSHH assessment on hydraulic oil which details all the risks and controls associated with hydraulic oil use.



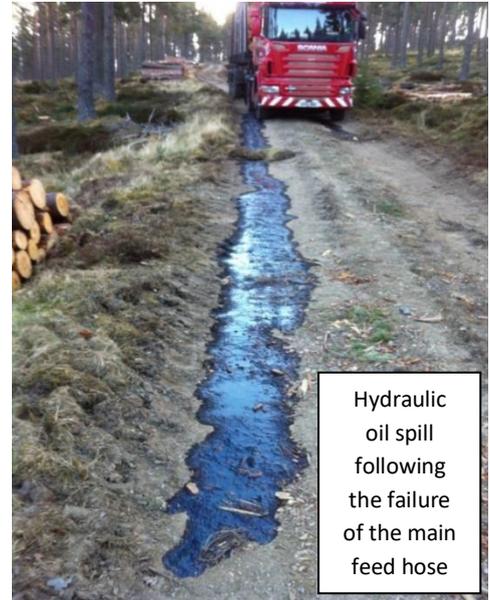
2.12 OIL - Hydraulic Oil

Hydraulic Oil -		Hazard Classifications	
Active ingredients: Lubricating oils (petroleum), base oil			
Precautionary statement: Avoid contact with skin. Avoid contact with eyes. Avoid contact with clothing. Avoid contact with water. Avoid contact with food and feed. Avoid contact with animals.			
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A copy of this has been distributed with this toolbox talk. Hydraulic oil is toxic to aquatic organisms and can cause severe human ill health if it contaminates drinking water supplies. This is why the most important thing is to prevent it entering a watercourse.

Never handle suspected leaking hydraulic hoses under pressure. A leaking high-pressure mist jet can be so fine it may not be seen by the human eye. They can be powerful enough to cut

and penetrate flesh. Hydraulic oil injected into the flesh in this way is highly dangerous, it is so corrosive it can require the affected limb to be amputated.



Hydraulic oil spill following the failure of the main feed hose



Main feed pipes from lorry drive unit to rest of the machine, if ruptured can spill up 100 litres a minute



Toxic to the environment



WARNING

SKIN INJECTION HAZARD. Protect hands and body from high pressure fluids.

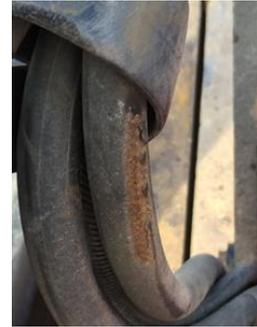
- Relieve pressure before disconnecting hydraulic or other lines and tighten all connections before applying pressure.
- In case of accidental skin injection, seek immediate "medical treatment".
- Failure to follow this warning can result in amputation or serious injury.

Regular checks and preventative maintenance

Regular inspections of the pipes will show up any fraying or wear on the rubber, exposing the elements of the pipe.

Exposure to UV and 'wet and freeze' limits the working life of all hydraulic hoses. The cost of replacing a hydraulic hose in the workshop during planned maintenance is much less than the cost of replacing it after it has failed on site, with the machine being stood down and unable to work, the mechanic travelling to the site and the additional costs of cleaning up any spill, and the risk of damaging the environment and potentially costly fines.

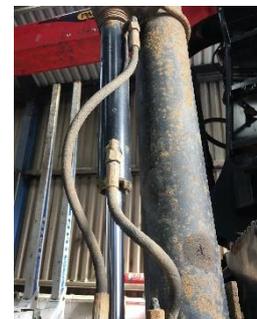
Consider changing your exposed hydraulic pipes proactively every 2.5 – 3 years.



If one of the pipes burst in the jib extension, consider replacing the parallel pipe, it is likely to have been damaged or degraded to the same extent as the failed one.

The hoses on the crane, due to their location, often wear and take knocks when the crane is bedded into the load. If these pipes or fittings go, they can lose oil in the region of 15 litres per minute.

The hydraulic pipe sheath cover which encloses the hydraulic pipes up the side of the crane king post and the spiral guards over the exposed loops, help to protect the pipes but reduce visibility for checking for wear and tear. They can however, to an extent, contain the oil if a pipe bursts and prevent oil from spraying out.



Hoses and fittings on the stabilising ram

The hydraulic hoses to the stabilising rams operate at a lower pressure, in the region of 10 litres per minute. While the rate of leakage is much less than other parts of the system, because of their location they are much more difficult to see.



General
Emergency Preparedness
 Oil spillage kits are required to absorb spillages and leaks of diesel, hydraulic oils and lubricants. All plant and machinery operating on worksites will require an emergency oil spillage kit to be present on site and available to be deployed if an accidental spill occurs. The contents and size of the kit will vary according to the type of machine.

Routine Maintenance
 Machine operators should plan routine maintenance to contain any oil within drip trays or similar equipment. Additional oil absorbent materials should be brought onto site when maintenance is planned so as not to deplete emergency supplies.

Site Planning
 When planning the job be aware of the sensitivities such as water supplies and fishing rivers. Gain some knowledge of where drains go so that you can react quickly in the right place if there is an incident. On sensitive sites it may be advisable to put in place pollution prevention measures such as oil absorbent booms in ditches or roadside drains before the job begins as these can buy you valuable time in the event of an accidental spill or pipe burst. Plan this in conjunction with your silt management plan for the site.

Ensure there is adequate provision of emergency spill kits in all machines and at the retuelling point. Check the main site spillage kit frequently.

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Page 1 of 7
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Typical Emergency Spill Kit Contents

Forest Machine Kit

- 25 x Pads 400 x 520mm
- 1 x Cushion 550 x 350 x 100mm
- 4 x Socks 1.2m x 75mm
- 1 x Dammit Slab 225 x 200mm
- 1 x Disposal Bag/Tie
- 1 x Goggles

Space-saver Cab Kit

- 15 x Pads 400 x 520mm
- 2 x Socks 1.2m x 75mm
- 1 x Dammit Slab 225 x 200mm
- 1 x Disposal Bag/Tie
- 1 x Goggles

Main Site Kit (suggested minimum)

- 100 x Pads 400 x 520mm
- 2 x Cushions 550 x 350 x 100mm
- 4 x Mid Booms 3m x 125mm
- 10 x Socks 1.2m x 75mm
- 4 x Dammit Mats 650 x 450mm
- 1 x Dammit Slab 225 x 200mm
- 10 x Timber Stakes 25mm x 25mm x 600mm
- 2 x Disposal Bag/Tie
- 2 x PPE Kits (Goggles & Goggles)

Timber Lorry or Low Loader Kit

- 75 x Pads 400 x 520mm
- 2 x Cushions 550 x 350 x 100mm
- 4 x Socks 1.2m x 75mm
- 1 x Dammit Slab 225 x 200mm
- 2 x Disposal Bag/Tie
- 1 x PPE Kits (Goggles & Goggles)

Oil spill response

Keep a full spill kit in your lorry in an easily accessible place and regularly check this to ensure it is complete. Ensure you are trained in how to use it. The majority of oil spills can be contained and cleaned up quickly with no wider environmental impacts. If you have a major spill, the containment and clean up capacity of your kit will quickly be exhausted. Contact your FWM and they will organise additional resources and help.

Timber Lorry Spill Kit

- 75 x Pads 400 x 520mm
- 2 x Cushions 550 x 350 x 100mm
- 4 x Socks 1.2 x 75mm
- 1 x Dammit Slab 225 x 200mm
- 2 x Disposal Bag/Tie
- 1 x PPE Kit

Scottish Woodlands **Guide 6.10 Oil Spillage Kits and Incident Response** gives detailed guidance on how to plan to minimise the incidence and impact of oil spills and how to respond and control any clean up any should they occur. The Guide can be used for reference, and as the basis of a worksite toolbox talk, with an attendance sheet,

in itself. A copy of this has been distributed with this toolbox talk.

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Created by, Scottish Woodlands Compliance Support Team

