

Are your 2-post vehicle lifts safe to use?

July 2010



Helping you to understand potential gaps in your vehicle lift risk cover

In accordance with the industry, this factsheet outlines the key safeguards to vehicle lift operation and action.

If you are a user of 2-post vehicle lifts for motor vehicle repair, the risk of vehicles falling may be higher than you think. In recent years, there has been an increase in the number of incidents where vehicles have fallen from such lifts, often resulting in severe or fatal injuries.

To reduce the risk of vehicles falling from vehicle lifts it is important that users are fully aware of the safe procedures to be followed. This not only includes the safe day-to-day usage but also includes ensuring that the lift has been correctly installed, regularly maintained and thoroughly examined every 6 months.

Safeguards

In most cases, the information on the safe use, installation, servicing and maintenance of these lifts can be found in the lift manufacturer's operation and maintenance (O&M) manual. However, Zurich Engineering can provide a periodic in-service thorough examination service to help users comply with the requirements of LOLER 98.

A particular safeguard that is paramount to the safe operating procedure is for the user to carefully adjust the horizontal and vertical position of pick-up plates before elevating the vehicle, to ensure that the load is evenly distributed and securely supported.

Unfortunately, even if the user follows this safe system of work, an unacceptable risk of vehicles falling may still remain.

Even if a vehicle appears to be properly supported on the pads, removal of heavy items once the vehicle is elevated or the application of relatively high forces when using tools may significantly alter the centre of gravity and therefore the individual pad loading. If then the force exerted on any individual pad becomes too great or too small, and if there is any free play in the arms or the arm-locking mechanism, the pad may either be 'squeezed' out or else be free to move horizontally. If this movement is sufficiently large, the vehicle will no longer be fully supported and will effectively be balanced on just two or three of the pads.

Any subsequent horizontal or vertical load, generated by the use of a tool, for example, can cause the vehicle to fall from the lift.

In our view...

If you are planning to purchase 2-post vehicle lifts you should assess the risk rather than simply seek compliance.

This is not just a theoretical risk; it is a real issue.

Several incidents of vehicles falling from lifts due to this problem have occurred. Indeed, so serious is the issue that the HSE have issued a number of Sector Information Minutes in the last few years (SIM 03/2005/05, 03/2008/12 and 03/2010/02), highlighting the risks involved and the actions to be taken, and a further review is underway. These SIMs are freely available at <http://www.hse.gov.uk/mvr/issues.htm>

The Garage Equipment Association (GEA) has also recently issued guidance on the safe use of these lifts and we have included this for reference.

Just because a machine meets the requirements of the current standards for the design and manufacture of 2-post vehicle lifts, this does not mean that it will *always* be safe to use.

You should assess how the equipment is going to be used in practice. Remember, the risk reduction hierarchy places engineering control (i.e. robust design) over 'discipline' (i.e. using it carefully).

Appendix: GEA Important Safety Notice – Vehicle Lifts

08 December 2009

Recent incidents regarding vehicles falling from 2-post lifts

The Garage Equipment Association (GEA) constantly encourages the safe operation of vehicle lifting equipment. We have become aware of a number of incidents over recent years where vehicles have fallen from 2-post lifts. Some have resulted in vehicle damage, but others have involved serious injury and even death. Investigation of the circumstances has shown a number of different causes. Therefore to help prevent future incidents it's imperative that GEA members, lift owners and operators observe the following:

1. Lift operators must be properly trained and be made aware of all risks. Over recent years motor vehicles have grown larger, particularly 4-wheel drive variants, and correct positioning of vehicle on the lift is essential. Always follow the vehicle manufacturer's guidelines and if lifting on the vehicle body or chassis (wheel free) always use the vehicle manufacturer's recommend lifting points. Where a limited number of models are lifted, it may assist operators if positioning marks (e.g. for parking the vehicle) are made on the floor. Lifting pads must be positioned carefully and adjusted for height if necessary. Simply kicking them into place and hoping for the best is reckless.
2. It is important that the load is evenly distributed across all of the lifting points. Normally this will be achieved by using the vehicle manufacturer's recommend lifting points and this should be sufficient for general servicing work and inspection. However, the centre of gravity can alter significantly if heavy components (gear box, engine etc.) are removed. Such work should preferably be carried out using a 4-post lift, but if a 2-post lift has to be used, it would be sensible to use supplementary vehicle stands to support the raised vehicle.
3. 2-post vehicle lifts are equipped with arm-locking devices; it's essential that these devices are engaged when the vehicle is raised. Therefore operators should always check that the arm locks are maintained properly, show no signs of damage or deterioration to their locking teeth and become engaged properly during use. Check that the restraint gears are fully engaged – if gears have not fully engaged, lower the vehicle and gently move the arms forward and back until the gears fully lock into place. Never be tempted to deactivate safety devices – they are there for a reason.
4. Lifting pads must be in good condition, appropriate for the vehicle being lifted, and kept clean from oil and grease. A damaged or contaminated pad may allow the arm to move under pressure, thus allowing the vehicle being lifted to fall off the lift.
5. May we also remind owners of their maintenance and inspection responsibility under the PUWER and LOLER Regulations – vehicle lifts should be regularly serviced (maintained) by a competent engineer and undergo a thorough examination by a competent person every 6 months. Thorough examination is in addition to, not a substitute for, regular inspection and ongoing maintenance.

Please take time to check all is in order with your lift and ensure that operators have received training. For further advice or a list of GEA accredited lift engineers please visit the GEA website: www.gea.co.uk

Summary

The consequences of a vehicle falling from a vehicle lift can be costly and can result in serious or fatal injuries. To reduce the risk of this happening, we recommend that the lift must be designed, manufactured, installed, serviced and maintained correctly and, of course, used safely and thoroughly examined every 6 months by a competent person.

Any deficiencies in the above could create a gap in the coverage of risks which routine examination may not expose.

As well as providing a thorough examination service, Zurich Engineering can help you assess the risks and take action to improve the risks if necessary.

For more information

Should you require any further guidance, please contact John Graham, Senior Engineer, Zurich Engineering, 126 Hagley Road, Edgbaston, Birmingham B16 9PF.

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A public limited company incorporated in Ireland Registration No. 13460. UK branch registered in England and Wales Registration No. BR7985.

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