

PIT FALLS

With no basic requirements set out in law on how a vehicle maintenance and repair workshop should specify an inspection pit, Kevin Swallow looks at cost-effective options, as well as health and safety best practice

For those who want to install an inspection pit, there are only two legal considerations. Firstly, do you have planning permission? And does the company installing the inspection pit adhere to BS EN 1090, 'Execution of steel structures and aluminium structures'? Waterproof steel inspection pits have replaced concrete pits, which would leak and require standing water to be pumped out. Concrete also cracks under the weight of heavy vehicles continually rolling over the top, giving it a shorter service life. Steel pits consist of sections welded together, designed like a barge.

Any inspection pit installed after 1 July 2014 must comply with the Construction Products Regulations and CE marking requirements, or the local trading standards authority can stop a business until the company has shown it complies with the regulations.

Pits tend to be custom-made, observes Jonathan Woodhead, business development manager at supplier Premier Pits. "The pits we provide to our customers are bespoke; every customer wants a different length and depth, to their own specification," he says. Typically, an installation team will dig the trench, then install and weld the pre-fabricated sections, requiring up to a week to complete the work.

There is no legal requirement to implement health and safety safeguards

when installing and then using an inspection pit. But the onus is on the vehicle maintenance and repair company to do a risk assessment for the inspection pit and put in safeguards (see also sidebar) to prevent the following:

- Falls into the pit
- Slips on access steps
- Fire or asphyxiation from a build-up of gases, vapours or fuel release
- Injury due to a vehicle or other objects falling on an employee in the pit
- Head injuries from contact with the vehicle over the pit.

A source of safety advice for pits is the IRTE's own Workshop Accreditation scheme (see also <https://is.gd/enuxix>). In the three years since it launched, more than 200 have been vetted. According to John Eastman, chair of the IRTE professional sector council, the assessor will provide feedback to the workshop if an inspection pit is not fit for purpose, and be told what steps it needs to take to gain an accreditation. He explains: "That could be access, the lighting, whether the pit is deep enough to work in underneath a vehicle, if there is enough safeguarding against people falling in, or if there is a tape or sign to serve as some form of



barrier." Promoting safety through best practice and accreditation schemes works, he says, as does retrospectively applying

Health and Safety Executive (HSE) guidelines after an incident – although, of course, that might be too late for an unfortunate accident victim.

A cautionary tale of just such an incident comes from south-east London. Earlier this year, Lewisham Council was fined £150,000 and had to pay £65,000 in costs after a visitor to its Wearside Service Centre suffered head injuries after falling into a vehicle inspection pit. The local authority was found guilty of failing to manage and control the risk of people falling into vehicle inspection pits, despite previously receiving advice from HSE to sort it out.

In response, it said that it has revised its visitor risk assessment, restricted workshop access and refurbished five pits to retrofit pit covers and guardrail systems to pit steps.

Several pit installers approached for this article said that best practice should include painting chevrons on the floor around the pit, and painting designated walkways on the floor at a

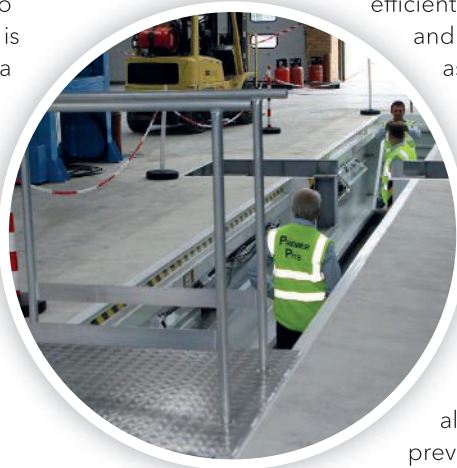


safe distance from an inspection pit.

A bigger investment would be to install full-length retractable covers that slide over the pit when it is not being used. As they are rigid enough to support the body weight of a person, they eliminate the fall risk, but are not always a practical solution. To keep the inspection pit floor clear, another option is to install equipment recesses for storing tools and equipment such as the waste oil drainer and oil/grease reels.

GOING UP

An alternative to going beneath the vehicle in a pit is to raise the vehicle up. Floor-mounted column lifts are suitable for working underneath vehicles, as well as replacing tyres, and can also help where there is limited access to a vehicle. They are also safer for petrol-fuelled vehicles than pits because of petrol's higher flash point (-43°C to ignite from a spark, compared to +52°C for diesel).



Steve Braund, marketing manager for West Midlands-based TotalKare, which sells column lifts, argues that inspection pits can be the wrong depth for working on components near the outside of the vehicle, such as steering joint kingpins.

For Keith Sims, the operations director at MAN dealer group HRVS, inspection pits are the way to go. "We have several sets of column lifts at our dealerships, but they require time to set up," he says. "The technicians use them mainly for repair and servicing work on coaches or where there might be an access issue if that vehicle went over a pit," Sims explains.

Whether working at floor level or below, an essential aspect of efficient work is lighting, and an essential aspect of lighting safety is the integrity of the fixture.

Steve Hunt, of Premier Pits, points out that lights need to be not only dust- and water-resistant, but also flameproof to prevent ignition. **TE**

The Health and Safety Executive's role is to enforce legislation laid out in the Health and Safety at Work Act 1974, Management Regulations (1999) and Work at Height Regulations (2005). These require employers to assess the health and safety risks to all their employees and to identify what they need to do to comply with their legal duties to prevent or control those risks and ensure their employees' health and safety. HSE offers guidance about the responsibilities a workshop should meet with an inspection pit (for example, <https://is.gd/dayuro> and <https://is.gd/ubufob>).

- **LIMIT ACCESS**
Restrict access to people who need to be there. Try to physically segregate inspection pit(s), modify the workshop layout or use signs and supervision to enforce the rules
- **BRIDGE THE PIT**
Install a moveable bridge across the pit with an open-sided handrail that can also be used as a safe platform for work
- **BARRIERS**
Use guard rails, chains or extendible barriers as flexible protection for workers near the pit edge
- **IMPROVE VISIBILITY**
Use pit lighting during working hours (see also <https://is.gd/igejaj>). Clearly mark pit edges, for example by painting alternating black and yellow bands
- **REDUCE THE RISK OF SLIPS AND TRIPS**
Use anti-slip material around the pit. Keep the area and the pit clear from obstructions, and deal with spillages immediately
- **ACCESS**
Provide at least one fixed entry/exit point with additional, separate, usable means of escape where needed, for example where escape may be blocked off by the parked vehicle, or for pits greater than 9m long
- **PREVENTING FIRE AND ASPHYXIATION**
Fuel and vapours that are heavier than air tend to sink to the bottom of a pit and pose a risk of fire or asphyxiation. So, avoid any hot work on or near any fuel tank or fuel line, including diesel systems. Store portable LPG-fuelled devices at a safe distance from the pit. Empty refrigerants before working on air-conditioning units. Only weld in a pit with effective exhaust ventilation. Do not leave vehicles idling over pits
- **FALLING OBJECTS**
Highlighted pit edges (approximately 150mm wide) are a useful guide for positioning vehicles; mirrors might also help. Drivers should also use a banksman where possible. Also, remove discarded or replaced parts. Do not leave tools or other items around the pit apron.