

Vehicle lifts come in a range of shapes and sizes; some offer more accessibility while others incur more upfront costs. Ben Spencer weighs up the pros and cons of scissor lifts, four-post lifts and two-post lifts and in-ground lifts



SIFTING THROUGH LIFTS

Within Maha UK's range, a typical four-post lift has a single hydraulic cylinder under one of the two platforms which are bolted to a pair of cross members. The cylinder is connected to the top of each post by cables via a series of pulleys and, as it extends, it pulls on the cables which raises the platforms with the cross members. The hydraulic scissor lift essentially serves as two independent platforms with no cross members, up to two cylinders in each platform that push the platform up via a scissor mechanism.

Louis Tunmore, Maha UK workshop

equipment specialist, reveals that the company's Duo CM 5.0 U scissor lift is "designed for extensive use and actually has fewer parts to wear when compared to a four-post lift, where you have cables and pulleys".

In terms of capacities, most modern four-post lifts from Maha are available at four tonnes while its scissor lifts are rated at 4.2t or five tonnes.

Stertil Koni offers its own versions of both products. National accounts manager Simon Laffoley states that the Skylift scissor lift, pictured above, is more suitable for congested workshops because there are no posts in the way, but the four-post lift is the cheaper option.

Skylift has slightly more freedom under the platform than the four-post lift because there are no posts in the way and offers increased safety with independent locking active after the platform raises 90mm from floor level.

Meanwhile, the four-post lift can be parked on locks located in each post to prevent any inadvertent lowering. Skylift is rated at 20 tonnes, 25 tonnes and 35 tonnes, compared to the four-post lift capacities of 12 tonnes, 17.5 tonnes and 25 tonnes. Both machines require a jacking beam that runs on the inner rails to enable wheel-free access.

POST HASTE

According to Tunmore, Maha UK's four post Carlift II 4.0 W lift, pictured below, also costs less to produce than an in-ground hydraulic lift or scissor lift. However, the posts are "located to the side", meaning they require more space than a scissor lift.

The Carlift lifts vehicles up to four tonnes and comes with a runway that is adjustable independent of the cross beam to enable wheel alignment. Extra reinforced plates are welded onto the runway to aid stability.

While the lifting capacities of scissor lifts have the edge over four-post lifts, the opposite is the case in Totalkare's portfolio. The firm's marketing manager Steve Braund confirms that the hydraulic Y-Mech scissor lift can lift 25,000kg or



CARRYING OUT INSPECTIONS

Under UK legislation, thorough examinations of lifting equipment and accessories should be undertaken every six months. Those rules are LOLER - Lifting Operations and Lifting Equipment Regulations 1998 - and PUWER - Provision and Use of Work Equipment Regulations 1998. An examination requires visual inspection and functional checks and should be performed by a competent person, although that role is open to interpretation. Both Maha UK and Stertil Koni's technicians are factory trained and GEA (Garage Equipment Association) certified.

35,000kg compared to the four-post, which offers capacities of 8,000kg, 12,000kg, 16,000kg, 20,000kg, 25,000kg and 33,000kg

Which vehicle lift should a workshop choose? Braund says the decision depends on the customer's requirements. "The Y-Mech lift differs from a heavy-duty four-post lift in that the lifting mechanism is directly underneath the platforms, meaning its footprint is potentially less depending on the length of platform required. This can be a key factor in a workshop manager's buying decision if space is at a premium for them."

TWO-POST PERKS

Aside from the pros and cons of scissor lifts and four-post lifts, workshops can also opt for two-post products. Tunmore claims that some older versions would have a large baseplate containing chains, pipes or steel cables for propulsion or regulation, which would create a trip hazard as it gets in the way of tool trolleys and transmission jacks. However, this is no longer the case with Maha's Ma Star 3.5 A 2-Post lift, a product that features stable torsion-resistant columns of rolled H-section steel, and lifts cars and vans of up to 3.5 tonnes. It comes with 45° rotated columns that allow a wide opening angle for vehicle doors.

"We are baseless and have synchronised motors on both pillars; this is by means of a small communication cable which can either be buried, or in an overhead hoop," adds Tunmore.

Meanwhile, Totalkare's two-post offering, pictured below, lifts from the chassis, giving access to the underside of the vehicle, wheel and associated operations without needing support stands. It is aimed at companies with a large fleet of vans that require regular repair and maintenance work.

Two-post lifts are theoretically



vulnerable to the risk of the lifted vehicle overturning, since their weight may not always be spread evenly between the left and right sides. To ensure that overturning can't happen, Totalkare two-post lifts have wire ropes attached between both lift arms to keep them operating in a synchronised manner, regardless of the vehicle's lateral balance.

LAYING THE IN-GROUND WORK

Another option available in Stertil's range is the in-ground Diamondlift, pictured above, which has a lifting capacity of 15,000kg or 16,000kg per piston. Each ram lifts the axle of the vehicle, with the most popular options being a 2- or 3-ram configuration.

Laffoley recognises that this product can be initially expensive, especially if a customer opts for the telescopic ram over the straight ram version. "You don't have to dig down as deep because the

ram will compress in the pit, so you can have a pit that's not as deep."

Costs aside, Laffoley compares the process to installing a pit. "If you can imagine, dig a hole out and then you drop a cassette into it, and then fill in the concrete back to the floor level. It's simple to install, once you've got the formed pit to drop the bits into but it just takes a little bit more work initially."

From Tunmore's perspective, there is an initial expense involved in the groundwork. "We supply a steel cassette that is cast into the concrete from the beginning, and you have to make sure there is no water ingress into it. So the expense is with the bit that is in the ground before we even deliver a lift to site."

In particular, Maha's ZS Square II 3.5 S and installation frame with cover for flush-fitted swing arms can be completely driven over at any angle when not in use.

While each solution comes with its own distinct selling points, the priorities of each workshop will be different. Whether workers favour flexibility or more cost-effective products, the range of lifts to meet individual needs will most likely continue to grow. [TE](#)



MOBILE VS IN-SITU

In a separate comparison, Laffoley of Stertil Koni points out that wireless mobile column lifts allow workers to take the vehicle outside, an option that is not available with in-situ lifts. Tunmore at Maha UK elaborates further by stating that the mobile solution lift enables different combinations of vehicles within the same workshop. For example, a worker may want to lift two axles and leave one to do work on. "You can lift with them and put axle stands under various components on the truck, so you can leave it hanging and work on different components."