



Jack of all grades

Trucks, vans and public service vehicles continue to become more and more sophisticated with every model upgrade. As a result, workshops are often required to invest in repair, maintenance and test equipment that can monitor, check and fix these advanced components. Therefore, the amount of computational power required for onboard diagnostics, safety systems, telematics security technologies is a given on today's commercial vehicles. As a result, test sites around the country need to continually invest in the right test and maintenance equipment to keep these components going.

However, in the case of more manual – almost basic – work, there remain some tried-and-tested items that are still the best ones for the job. Workshop jacks fit firmly under this banner. They might be tools that haven't been revolutionised since their original inception, but there has still been an evolution to make them

With a wealth of advanced technology in today's vehicle workshops, it can be easy to forget how important the more basic items are. For example, John Challen argues the case of the humble jack

better. In a nod to health and safety, these workshop items have become safer, stronger and easier for operators to use.

And one look at the range of supplier Gemco, for example, will show that it is not a case of 'one size fits all'. There are currently 11 items available on the garage equipment and maintenance company's website that fall under the 'workshop jacks' banner. Everything from the Majorlift VTJ2000 vertical transmission jack (rated to 2-tonnes) through a hub and caliper removal item to no fewer than six trolley jacks.

At the lighter end of the market is the likes of the AC Hydraulic DK13HLQ – a 1.3 tonne trolley jack that offers a minimum height of 80mm and formed of high-strength steel. It comes with a quick-lift pedal for easy reach of the lifting point as well as a manual 'dead man's release' for safer lowering. Another option is the RH136 from Rodcraft, which offers a minimum height of 90mm and an achievable height of 358mm. Weighing 14.3kg, it can lift up to 1.5 tonnes and has two pump pistons for a faster lifting stroke. Bigger still is the 5t-capacity DK50HLQ, pictured on p24.

TROLLEY JACKS

Going up the trolley jack spectrum, Rodcraft offers the RH310, which can lift up to 10 tonnes, making it suitable for many truck models. A hydraulic system onboard with a pump level allows autonomous operation without the need for compressed air. It also has a foot pedal for a fast approach to the vehicle being worked on. The comparable item

“There is plenty of life left in the jack family. No advanced form of technology that takes their place is likely to appear anytime soon”

offered by AC Hydraulic is the DK100Q – there is also a DK120Q, which handles up to 12 tonnes. Both have a low minimum height of 150mm and there is the option to fit the jacks with pneumatic tyres for improved manoeuvrability. Like the other options, the heavy duty jacks have a quick release pedal for easier reach, a manual dead man’s release and a built-in safety overload valve.

For heavier items still, there is the ATJ30-1H from Rodcraft. This air-hydraulic jack has the ability to lift 30 tonnes up to 772mm. Designed to access lifting points on low chassis trucks and buses, this jack offers a triple sealing system and chromed piston. Joystick controls make the jack easy to use, while the piston sits on a large base for added stability.

OTHER FLOOR OPTIONS

Moving away from the humble trolley jack are other variations on the jack theme to have been developed over time. One example of a popular item from Majorlift for component removal and installation is the FTJ1000 – or floor transmission jack. For operations that require a low clearance, the FTJ1000 has been around since 2001, but has been updated and enhanced over the past two decades.

Used in garages where no pit facilities are available – or where there is low roof clearance – the FTJ1000 is simple to operate. The design of the jack enables accurate positioning under the vehicle, making it well suited to the removing and fitting transmissions.

The pump-operated handle can be turned through 360° for flexibility and enables the jack to be operated by one technician. In addition, the FTJ1000 offers a two-way tilt flexibility, where the adjustable lifting head tilts through a 70° arc, adding to the level of precision when positioning the jack on the item

to be moved. The FTJ1000 supports a weight of one tonne on any of the four load points.

Reinforcing the structural rigidity of the unit, there are four castor wheels that help spread the load over a wide area. This setup also enables improved manoeuvrability when supporting a full load or when moving the jack over uneven surfaces.

IN THE PITS

Meanwhile, there are other types of jacking equipment that are popular workshop additions. Vehicle lift jacking beams, for example, can be installed within a pit or put to use by roadside recovery service operatives dealing with breakdowns.

A series of air-operated and hand operated options are available. Auto Workshop Equipment Services, for example, offers Majorlift air operated items rated at 2-tonnes, 2.8-tonnes, 4-tonnes and 6-tonnes. Hand operated options also from Majorlift are the same, apart from the 6-tonne rated item.

The 2- and 2.8-tonne rated models feature an extra-wide top beam that extends to 1,700mm for greater safety and stability for the vehicle being lifted. Further safety elements for all models include hose burst and pressure release valves and a finger guard that complies with the European machinery directive.

Other advantages of the air jacks are what Majorlift claims to be a quiet pump.

This device, says the

manufacturer, improves performance, reduces noise and further improves operational reliability.

Majorlift also markets pit-mounted commercial jacks, which can handle up to 40 tonnes of commercial vehicle. There are a number of hand- and air-operated options in the range, from the MPJ12 (air) and HPJ12 (hand), which handle 12-tonnes, to the MPJ20 and HPJ20 (20 tonnes) right up to the MPJ40 (40 tonnes). All models feature twin ram operation for increased stability, efficiency and safety. The rams slide transversely, enabling easy positioning as well as flexibility, as the two rams can be used in tandem or independently.

For improved longevity, all these jacks go through a patented surface engineering process to extend their working life. These treatments develop iron nitride surface compound layers to toughen the surface and resist rust. According to Majorlift, the nitrogen-enriched zone can improve yield and fatigue strength by as much as three or fourfold.

Away from the pit, there are similar commercial jacks that are designed to be mounted on lifts. Again – in the case of the Majorlift items – they have twin ram operation and have also undergone the same surface engineering as the pit-mounted items. The products in this range are rated for lifting between eight and 20 tonnes, depending on the model.

In addition, Majorlift has designed a sliding frame beam with adjustable width for use on lifts with adjustable platforms. As a result, vehicles with different tracks can be serviced on the same lift.

As it is clear to see from the sheer range and scope of the products featured, there is plenty of life left in the jack family. No advanced form of technology that takes their place is likely to appear anytime soon. **TE**

