

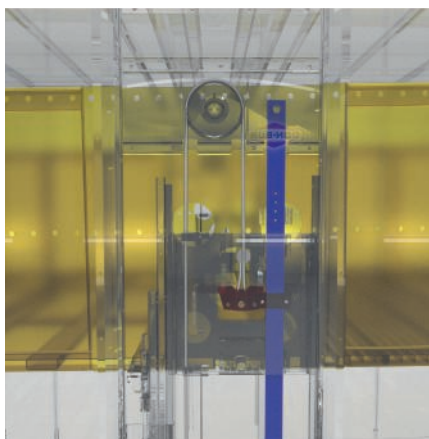
DOUBLE THE DUTY?

The maintenance requirements of lifting deck trailers go far beyond the checks and servicing needs of standard vans or curtainsiders. Options are available for both outsourced and in-house maintenance, reports Will Dalrymple

Just as trucks are required to have an annual examination for roadworthiness, so too are semi-trailers. Although the exact checks are changing this May - as the EU Roadworthiness Directive (2014/45) comes into force (see links, p22) - broadly speaking they cover running gear, including brakes, wheels, suspension and landing legs.

Trouble is, this doesn't include anything above the chassis. So if an operator contracts out maintenance, its service may not be enough to meet either minimum legal requirements, or the minimum standard of maintenance to preserve the lifting deck mechanism itself. That could be true even if the third party guarantees compliance with DVSA recommendations and traffic commissioners' recommendations.

"What we normally find is that service providers will do the trailer bit, but then they won't necessarily give the double deck the attention that it deserves. It's incredibly important that a double deck is maintained in the correct manner," emphasises Darren Holland, Tiger Trailers sales director. "It's not just about



saving money; it's about the health and safety side of things as well."

First, as the deck is classified by law as lifting equipment, it comes under the purview of LOLER and/or PUWER (see links). The former requires an annual 'statutory thorough examination' by a competent person to document any safety-related issues for rectification (six-monthly if it lifts people). Compliance with PUWER regulations involves an annual load test as well.

Second, maintenance must go beyond inspection and testing. For

Marshall Fleet Solutions, lifting decks require the same kind of care as a more common trailer accessory. Contract director Norman Highnam says: "In our minds these are very big tail-lifts, and we do treat them with that respect."

As the lifting mechanism of a double-deck trailer deck is not only bigger, it is more complicated, too - and operators will find that its maintenance needs are that much greater, explains marketing manager Richard Owens of trailer manufacturer Don-Bur. He says: "What they might find then is that they get rope wear. They might start to get rust in the ropes. The hydraulic fluid is more viscous than it should be. There are a number of things that could start to deteriorate over a lengthy period. And if they are not maintained, they will break."

Don-Bur's lifting deck mechanism employs two of the commonly used component sets in these trailers (highlighted above, in a computer image displaying other trailer structures as transparent). The lifting deck itself dangles from a net made of wire ropes, which weave around the corners and under the floor of the trailer to terminate

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Norman Highnam

on the end of a hydraulic ram. When this is pushed by the force of pressurised oil, it extends, tugging on the ropes, which in turn raise the deck. Some lifting deck designs rely instead on hydraulic rams pushing directly on the deck supports.

Because they rely on the smooth flow of oil for efficient operation, hydraulic systems require filter replacements, as well as an oil change, every three years, notes Owens. The seals might also require inspection and replacement. Levelling valves, if used to balance out the lift of multiple hydraulic jacks, might also require calibration. Other parts that will eventually need changing include the wear pads guiding the travel of the deck inside the trailer body, and pulley bearings in rope systems, at an interval of two to four years, according to Highnam at Marshall Fleet Solutions. (On the other hand, Tiger Trailers says that as the four-ram hydraulic system employed in its lifting decks is a closed loop, its only service requirement is an inspection and light grease of the cylinders.)

The wire ropes themselves need regular greasing to ward off corrosion, which could reduce their flexibility, as they bend in multiple directions around the pulley system through every lift or lowering cycle; that could lead to cracking. Even with regular maintenance (pictured), they are likely to require replacement after between five-10 years, according to Owens. He recommends rope inspection and lubrication every 13 weeks. Northern Ireland's SDC recommends a visual check and greasing every 10 weeks.

HOW TO DO IT

According to SDC, large operators with good workshops and trained personnel would be able to carry out these checks on their own; it also provides a detailed user guide with a new unit. Adds Jimmy Dorrian, SDC engineering manager: “Anyone that is in the business of



servicing tail-lifts on a large scale, and is capable of carrying out routine LOLER and rope inspections, will also be capable of servicing a lifting deck trailer.”

Don-Bur not only offers its own trailer service package, which Owens estimates is taken up by about 25% of new customers, but also provides either one- or two-day courses of training for service technicians, at either intermediate or advanced levels. This service is offered at its Stoke depot.

Tiger Trailers is covering customers' needs by donning both belt and braces. First, it has factory-trained a group of 50 mobile service companies that it has certified to work on its trailers. And it also employs two Tiger 24/7 service technicians for remote repair work.

Marshall Fleet Solutions operates a fleet of about 130 field service engineers that perform maintenance tasks at distribution centre VMUs (vehicle maintenance units). However, rope inspections or rope changes are more often carried out at its central Aldridge, West Midlands location, which has a specialised competence.


Highnam explains that Marshall's 10 years of maintaining double-decks

has produced a standard method. That means, in particular: two engineers for a rope service, every service performed in a workshop with a pit, and use of only OEM-recommended lubricants.

He explains that it's a two-technician job because, in order for one of them to reach the entire length of the rope from ram head to sliders at the rear of the trailer, it must be played out by the deck's movement, so the other engineer must work the controls, which are either inside the trailer, or attached to a wander lead. As to the second point, he says that it has seen engineers in the past jacking up lifting deck trailers in the yard because of a lack of working room underneath the trailers to access the rope run areas. As

the trailers are long and very heavy, jacking up is an awkward and risky procedure, and if done improperly imperils the engineer underneath.

Servicing hydraulic cylinders also requires two Marshall engineers, one to inspect it and one to operate it, according to an internal engineering review completed in March. Explains Highnam: “If you want to see how each ram is operating, if you want to see if there are any cracks or movements in the body, you need to be standing there watching it as the trailer is going through its full cycle.”

Adds the contracts director: “We're looking on the basis of safety, of course, because we are conscious that these decks weigh a lot and we don't want anybody injured.” 

FURTHER INFORMATION

Trailer inspection requirements – <https://is.gd/ulikiq>

LOLER and PUWER statutory inspection guidance – <https://is.gd/ekoyoj>