



RAISING EXPECTATIONS

Connectivity, autonomy and innovative electronic technologies are changing the automotive world at an increasingly rapid pace. This is partly in response to changing customer demand, but also to meet updated legislation, particularly in regard to crane safety. Dan Gilkes reports

The lorry loader industry, though without doubt a mature sector of the overall truck business, is no stranger to product development and innovative thinking. While much of this is productivity driven, safe operation has also benefited from technological developments.

Palfinger's recently launched HPSC-Plus LOAD is a stability control system with an additional load detection module. It optimises the crane's performance depending on the load remaining on the truck, which can act as extra ballast and extend its range. The available working range also depends on the truck's inclination. The system automatically calculates the maximum load for the situation, optimising performance and ensuring safe lifting. The LOAD module is the first in a kit that can be used to tailor the existing stability control system to

individual operations. Palfinger will add two further modules: HPSC-Plus FSTAB, which boosts performance at very low stabiliser widths and high vehicle loads; and HPSC-Plus GEOM, which takes into account the length of the extension system when calculating stability.

Hiab is also boosting the technology within its crane range, introducing HiConnect across its lorry loaders, initially as a retrofit to some existing loader cranes and Multilift demountables, but after March 2018 as standard on all new cranes. Many truck operators will be used to the flow of real-time data from vehicles, through telematics packages, but the addition of operating information from the crane will add to their control of individual vehicle use and of the fleet as a whole.

Rogier van der Linde, Hiab's managing director for the UK and Ireland, says: "This will give lots of data: time switched on, number of

levers operated, time and location of operation, fault codes, dangerous operation, service information and predictive servicing based on operational times. It will also provide emergency signals if the operator is trying to leave a site with the boom up, or the legs not stowed."

Hiab reports that trials began last March with five UK partners, including plumbing merchant Grafton Merchanting GB and builders' merchant Travis Perkins. Andrew Hollingsworth, fleet technical manager at Travis Perkins, comments: "We want this on all cranes, especially when something goes wrong. Obviously, downtime is a big issue to us because we only have a nine-hour operating window within each day to make deliveries to our customers."

Hiab's HiVision system, launched in 2016, takes crane operation a step further, allowing a forestry crane

in brief

e-Crane

Hiab's ePTO is an electro-hydraulic drive system to power crane use independent of the truck engine. The crane vehicle is driven to site on its normal diesel engine, but when it arrives the engine is switched off and the crane is operated silently via the ePTO. Its 40kWh capacity is said to be sufficient for an average day of crane use. The battery is charged when the truck is not in use, or can be support-charged on site, when a suitable electrical supply is available. A standard transmission power take-off is also fitted as a back-up.

Smartphone support

ALLMI has launched a smartphone and tablet app, available for Apple and Android, that accesses ALLMI training courses, guidance documents, good practice and safe-use videos, plus several tools for site work. It can calculate vertical loads placed on stabiliser legs, determine pad sizes required for a particular lifting operation, and do other tasks.

New crane type

The latest technological developments may not appeal to all customers. To meet the needs of customers looking for a more straightforward crane, Palfinger distributor TH White has also introduced the first model in its BM range. Designed primarily for builders' merchants, the first model, BM26, is a lift-and-place model that has been specifically built for 26-tonne, three-axle delivery trucks. The 13.9 tonne-metre crane can deliver a 1.6-tonne load to 8m radius, for example.



operator to work from within the truck cab using virtual reality goggles, controllers and connected cameras, to improve safety and operating conditions for the driver (above). The increasing use of connectivity means that it may even be possible to operate lorry loaders remotely in the future.

"Why does the truck driver have to operate the crane?" says van der Linde. "With Wi-Fi, someone at distance could do the job. That's what we are looking at now for autonomous vehicles."

SERVICE DEVELOPMENTS

As the technology incorporated into lorry loader control systems grows, it will inevitably lead more customers to their supplying dealer or manufacturer's agent for service and repair. Indeed, Palfinger importer TH White has recently invested heavily in its Devizes head office facility, opening 10 new workshop bays in September and promising to add a new paint facility in the first quarter of 2018.

Hiab is also focusing on its service and back-up offering, and the company

will open additional service centres of its own. "Around 80% of our sales are direct, but 90% of the service is by authorised service centres," declares van der Linde. "That's where we are investing heavily. We've acquired our service partner in the Midlands; we'll be opening a centre on the M11 for the London area; and we are planning to have a site in the West, too. There are 130 service vans in our network, but only 10 of our own. By the end of the year we will have 30-40 of our own vans and four or five workshops. We are aiming for 30-40% in-house service."

FURTHER INFORMATION

Fully loaded – <https://is.gd/kugofa>

CPA Crane Interest Group –

<https://is.gd/juyota>

EXTRA CHECKS COMING

Starting from May 2018, mobile cranes based on HGV chassis, and some other kinds of engineering plant, including breakdown vehicles and road construction vehicles, will be required to undergo annual testing.

According to the latest DfT guidance, the truck does not need an official test until the first renewal of its vehicle excise duty after May 2018 and before May 2019. During the interim, however, operators will be required to have additional records available for review by authorities, including the date and outcome of the latest inspection.

For larger, bespoke mobile cranes, the Crane Interest Group of UK construction industry group the Construction Plant-hire Association is producing voluntary guidance that mirrors the HGV scheme.

The proposal, which will go out for consultation next month, requires an annual inspection by a competent and independent person, whether employed by the crane operator or from a third party. The inspection would cover the same scope as per the DVSA's HGV Inspection Manual, allowing for certain derogations owing to their size and weight. The guidance covers legal requirements, inspection management, inspection personnel, information for roadworthiness inspectors, and inspection procedures and requirements.

It should not be too much of a shock; under LOLER 1988 (Lifting Operations and Lifting Equipment Regulations), cranes should be inspected by a competent person every 12 months.