



A CIM Group company

# RAIL DEPOT & WORKSHOP EQUIPMENT

- RAILCAR LIFTING JACKS
- BOGIE/EQUIPMENT DROPS
- TRAVERSERS
- TURNTABLES
- BOGIE WORKSHOP MACHINES
- UNDER CAR EQUIPMENT HANDLING
- LASER MEASURING
- SANDBOX FILLING
- SHUNTERS
- EXHAUST EXTRACTION
- UNDER FLOOR WHEEL LATHES

**VISIT US AT  
RAILTEX 2021**

7-9 September  
The NEC, Birmingham  
**Stand D31**



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YOUR RAILWAY AND URBAN TRANSPORT PROJECTS  
OUR INTEGRATED SOLUTIONS

# Mechan

## Mechan Showcases Bespoke Skills



**M**echan – manufacturers of the ubiquitous yellow lifting jacks – will be back at this year’s Railtex/ Infrarail to show visitors the reliability and versatility of their wide range of rail depot maintenance equipment.

**Lindsey Mills, the Sheffield-based firm’s sales manager, said:** “After such a long break, we’re really looking forward to be exhibiting again. Railtex is the perfect opportunity to catch up with old friends, meet new colleagues and learn more about the impact Covid has had on the industry at large.”

Mechan is best-known for its flagship jacks, which grace some of the most advanced depots across the globe, and orders have remained strong throughout the pandemic, with interest growing in the newest addition to its range, a version designed specifically for the tram and light rail markets.

The firm has recently delivered one of its largest-ever orders of lifting jacks to London Underground’s Acton depot. A total of 44 ten-tonne units were installed, taking the overall number of jacks in use

at the facility to 68. They are housed in the site’s new train modification unit and in the first instance, will be used to assist with an ongoing project to reduce increasing maintenance costs and improve the reliability and efficiency of the Central line fleet.

The 44 new jacks have been designed to the same specification as 16 existing units supplied to Acton in 2017, with moving anvils and a base that allows them to be transported around the depot by pallet truck, for added versatility. Modifications to the older jacks were made last year, so they will all work in synchronisation, using the firm’s innovative control system. Wiring updates were also made to eight jacks supplied in 2015, so they too can be used with the latest order, if required.

Mechan’s control system is one of the most flexible and advanced on the market. Using a portable panel, synchronised chains of jacks can be set up, raised and lowered safely and efficiently by just one operator. This enables work on the underside of trains to take place at a comfortable height without decoupling, saving valuable servicing time. The remote handset has a full-colour touch screen that

provides constant feedback on the lift and inverter technology is used to produce power savings, compared to similar products.

The firm's cost-effective lightweight jacks retain all of the features that make Mechan products so revered by the industry, but have a lower lifting height to cater for the proximity of light cars to the rail. The jacks have a different base arrangement and built-in assembly for ease of movement around a depot and can be linked together in sets of any length.

## An Unrivalled Record for Traversers

One of Mechan's many strengths is its ability to create bespoke equipment that suits the unique needs of each client and the environmental constraints of depots.

This is perhaps best illustrated by the rail traversers it produces, which include the largest installation in the country at the Port of Felixstowe. Each traverser is built to order and incorporates the latest technology, ensuring it is adaptable enough to handle future trains that are expected to be longer than those in use today.

Mechan's latest installation is at the new £29 million Intermodal Rail Freight Terminal that is being constructed by main contractor, Winvic, for Prologis at its DIRFT logistics park in Northamptonshire. Known as DIRFT III, the 344-hectare project will include a state-of-the-art rail freight terminal. The traverser is situated outside the terminal building, at the end of 9km of new lines and will be used to move Class 66 locomotives in a perpendicular direction to the tracks, so they can return to service

after loading/unloading. This has allowed the terminal length to be shorter, as a head shunt isn't required.

Working closely with Winvic, Mechan designed the multi-rail traverser to suit the specific conditions at DIRFT III. It spans 28 metres, has a capacity of 140 tonnes and comprises an access platform, plus loco buffer to prevent trains overrunning.

## Innovative Bogie Drops

Bogie drops are another area in which the firm's specialist engineers can save depot operators time. Thanks to their innovative design, it is feasible to undertake a complete bogie change in just two hours. Like traversers, each bogie drop is made to the client's requirements, enabling complete bogies, wheelsets and other underfloor modules to be changed quickly at track level, whilst maintenance, inspections and cleaning can continue at the same time.

When a bogie needs changing, the vehicle is positioned centrally on the bridge section of the drop. Support beams spanning the pit are pushed into position and hydraulic jacks take the weight of the vehicle. The bridge section can then be lowered and traversed to the side and exchanged for a new bogie. Norwich's Crown Point depot is the

latest recipient of a custom-made bogie drop, which was installed earlier this year as part of the largescale development at the facility. It is being used to remove underframe equipment, including bogies, wheelsets, transformers and cooling units from the new Stadler and Bombardier (now Alstom) trains, introduced on Greater Anglia's intercity and Stanstead express services.

Mechan has worked closely with main contractor, Taylor Woodrow, to enable the depot to remain operational throughout the installation. The bogie drop was designed specifically to work with the Stadler vehicles, which have articulated bogies that sit between carriages, meaning the ends of two cars need supporting during removal. It has a roll over capacity of 75 tonnes and incorporates mini jacks that act as the body supports. Depot operator, Abellio, also specified automatic wheel stops and interlocked access gates as additional safety features, which were designed into the unit, drawing on past experience.

To find out more about Mechan's extensive range of depot maintenance equipment, speak to its Railtex team on **stand D31 in hall 12** of the NEC. To find out more about the firm's bespoke design services, telephone (0114) 257 0563, visit [www.mechan.co.uk](http://www.mechan.co.uk) or follow the firm on Twitter, [@mechanuk](https://twitter.com/mechanuk)

