

QUICK CHANGES AT INLAND PORT

Paul Argent reports on one of the first port handlers in the UK that has been equipped with an OilQuick fully automatic quick coupler

One of the largest port operators in the UK and Ireland, Peel Ports, operates a handful of sites around their native north-west of England including the Port of Liverpool, the largest deep-water port in the region. While that is the firm's flagship site, the nearby Manchester Ship Canal also plays a key role in its operations.

The 36-mile seaway runs from the Mersey estuary right into the heart of Manchester. The five terminals along the route handle around 7.5 million tonnes of cargo a year.

Below and right: Jeel Port's Runcorn Docks is one of the first UK port operations to use an OilQuick fully automatic hitch on a material handler, in this case a Fuchs MHL380.

These terminals provide their clients and the region with a range of benefits, including reduced road congestion, a net reduction in carbon emissions and a more cost-effective solution to their material storage and handling requirements.

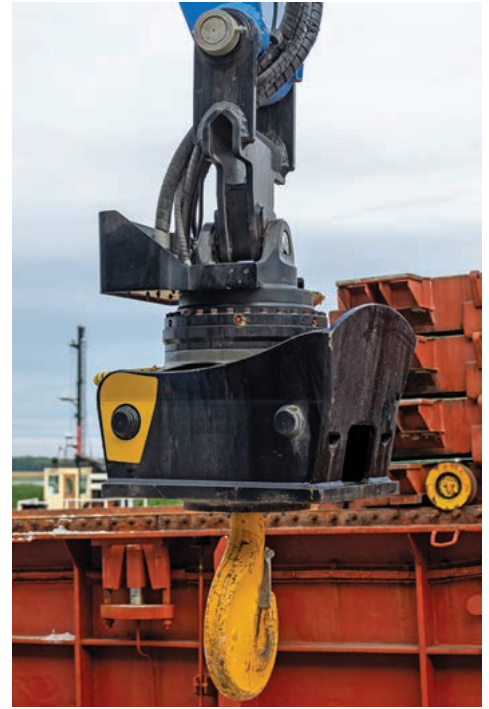
The terminal at Runcorn Docks, within easy reach of the motorway network, mainly handles bulk loose materials, but is increasingly being used for other cargo types. With rising tonnage coming through the ship canal terminal, Runcorn's varied fleet of material handling equipment was struggling to provide the stevedores with the most productive and safe working environment.

Terminal manager Kevin Richardson said, "When I arrived in post, my first job was to look at the

production and the costs associated with our material handling fleet. It was apparent that we could make long-term savings by investing in more modern, technologically advanced and fuel-efficient equipment. It could not only handle our incoming cargoes more efficiently, but could also offer us a more flexible approach to handling the variety of cargoes we see on a regular basis."



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Above, above left and above right: Swapping the clamshell bucket for a heavy-duty hook, lifting a skid-steer into the hold of the vessel and then reattaching the clamshell was completed in under five minutes.

→ NEW HANDLER

The result of Kevin’s recommendations was that approval was granted to make a substantial investment in a Terex Fuchs MHL380 wheeled material handler, supplied by dealer Blue Central. However, he also suggested a radical departure from the norm for UK port handlers, in the form of a fully automatic quick coupler, which would enable attachments to be changed in a quick and safe manner.

Kevin continued, “While the bulk of our cargoes are powders and aggregates, we handle a variety of materials including baled waste and coils. Our existing fleet of material handlers are all equipped with clamshell attachments, which are ideal for the day-to-day bulk materials. When it comes to different cargoes, we must swap attachments over.

“While we have time in between vessels to do this, it was a labour-intensive job, which included working at height to knock the pin out of the dipper stick. We also had to have another machine on hand to handle the pin, then there was the potential risk of environmental contamination when swapping hoses over.

“I had seen a solution from OilQuick used over in Europe, where attachments

can be swapped in seconds, with only the need for a banksman to guide the operator in. When we pitched this to the port's directors, they were initially sceptical, but on seeing footage of what it could do, were happy investing in one of the first OilQuick-equipped port handlers in the UK."

For over 30 years, OilQuick has been at the forefront of developing heavy-duty quick-hitches that include automatic hydraulic hose couplings. At first sight, such a hitch could be viewed as eye-wateringly expensive. However, as many firms in the UK demolition industry have discovered, the savings they generate pay back the investment in a remarkably short time.

There are direct savings associated with a dramatic reduction in hose and attachment damage, which pales into insignificance with the overall cost of the downtime to repair such damage. There are also significant productivity and safety benefits by having the ability to swap the attachment from the safety of the cab in a matter of seconds.

OilQuick UK's general manager Steve Parker suggested an OQC65 coupler, which would bring additional cost benefits to the operation. The OQC unit is suspended from the material handler's dipper stick with a standard hanger, but also includes an integrated 360-degree rotator, doing away with the need to specify attachments with a rotator mechanism.

Kevin said, "With the rotator built into the hitch, we can now have a range of attachments available for the Fuchs that will cost us less to purchase and maintain. This will further reduce our operating costs for this machine over its lifetime, which could be anything up to 10 years on this site. Although we are looking into swapping machines on a more regimental basis, in order to keep maintenance costs low and residuals as high as possible."

SITE VISIT

With an operating weight of around 70 tonnes, the MHL380 has been specified with 22m working equipment, allowing the material handler to easily discharge the typical vessels that arrive at the inland port each day.

At the time of our visit, a cargo of 2500 tonnes of fine sand from France, destined for a glass-making factory, was being unloaded. With a spell of dry weather on the cards, it was all hands on deck to unload the material as quickly as possible. Using a fleet of eight-wheeler tippers to ferry the precious sand from the quayside to one of the port's dry stores, the new Fuchs material handler was scheduled to complete the task in just half a shift.

The mid-morning break saw the first opportunity to use the OilQuick hitch that

day. The Ardennes clamshell bucket was quickly replaced by a 15-tonne rated lifting hook. This was used to deliver a JCB skid-steer loader into the bowels of the vessel, to start cleaning the sand from the inaccessible parts of its hold, after which the clamshell was reattached. This whole process took less than five minutes.

It is unrealistic to calculate the theoretical cost savings of this one process, compared to the time it would have taken to perform using traditional methods, without cutting corners when it comes to safety. However, with the ever-present threat of rain in the north-west of England, together with a sea-going vessel being tied up longer than is absolutely necessary, it can probably be measured in thousands, not hundreds, of pounds – a fact that has not gone unnoticed by existing and potential clients of Peel Ports.

USER FEEDBACK

The addition of the OilQuick-equipped Fuchs has been welcomed by the stevedores working at Runcorn Docks, as it makes their lives a little easier and a lot safer when it comes to attachment changeovers.

In conclusion, Kevin said, "We all want to go home to our families in one piece. It was something of a hard-fought battle to win our board's approval for the OilQuick, as it was a relatively unknown bit of kit for ports in the UK. But having seen it in action, they can now see the benefits it brings to long-term health and safety.

"We have been very pleased with the way Blue Central and OilQuick UK have approached our requirements and are very happy with the productivity of the package they have supplied to us."

Right and below: The new OilQuick-equipped 70-tonne class Fuchs MHL380 material handler has significantly improved productivity and safety at this inland port.



OILQUICK COMMENTS

OilQuick UK's Steve Parker said, "Once the operators get fully proficient at changing attachments with the OilQuick, the changeovers can be achieved in around 30 seconds. Having the ability to drop the clamshell and put on a dedicated lifting hook ensures the skid-steer is lifted safely and securely at all times. The OilQuick is a sturdy unit, having been developed in the demolition industry, it will easily handle the application at Runcorn."

In the cab of the Fuchs, there is OilQuick's OQ LockSupport monitor, which provides the operator with real time data on the pin and locking cylinder position. If securely connected, it fully activates the machine's hydraulics, if not it issues visual and audible warnings. This system also records all relevant details of the last 32 attachment changeovers.