Getting a lift in the US market

Big lift truck manufacturers are adopting different strategies for the industrial and container handling sectors in the North American market

North America has always presented a challenge for lift truck suppliers. On the one hand there is the potential of a large market but demand is spread across several industries and supporting the product across such a geographically large market is challenging. More recently, European suppliers have had to contend with a sharp fall in the value of the US dollar and some say that it has become less expensive to build a big truck in the US than in Europe.

Made in the USA

Hoist Liftruck Mfg, Inc manufactures lift trucks between 6.7t and 50t capacity and is a leading supplier in the US industrial market. The company is unusual in that president and owner Martin Flaska has over time acquired the rights to a complete range of industrial material handling products including the Silent Hoist, Crane, Autolift (including the former Yale) and Elwell-Parker products.

Having rationalised the range Hoist is focusing on five core product areas including cushion and pneumatic tyre lift trucks, a marina truck and electric powered trucks. Several of the products are complementary in the industrial market and hoist recently delivered a seven-machine coil handling system for a BHP Plant.

Flaska is committed to producing in the US and has moved production of all manufactured parts back to Hoist's own facility in Bedford Park, Illinois. He says standardisation and automation are vital to building competitively in the US and Hoist has recently completed a multi-million dollar investment fully automating its cutting and welding departments.

Automation is a general trend in US industry and, ironically, is actually reducing demand for fork handling at some of the major customers including steel mills.

With regard to components, everything needed for a lift truck can be sourced within a 150 mile radius of the factory. In fact, says Flaska, imported components are actually becoming less viable because of the falling dollar rate and rising shipping costs.It used to cost US$1800 for an import container but that has risen to as much as US$4500 - a wheel, for example, can now be made less expensively in the US than imported.

The downside of US production is high labour costs, but with a highly automated operation labour is the smallest component in Hoist's production costs.

Shorter lead times

Building in the US gives Hoist a significant advantage in delivery time and it can currently fill an order within eight weeks whereas some of its competitors are struggling to meet three month commitments. Parts are available within 24 hours and, in most cases, can be shipped the same day.

Hoist is currently building between 280 and 300 lift trucks annually. Its main machines in the industrial market are the P series pneumatic tyre machines in 22,000-100,000lb range. Flaska claims the P series is the most compact, heavy duty pneumatic lift truck in the industry.

Looking smart

Recently Europe-based manufacturers have increased their efforts in the US industrial handling market and they, like automotive manufacturers, market their machines as technically more advanced than North American-made products.

A Hoist P-series truck handling steel bar and (below) close-up of access arrangement

Aesthetically, the rounded designs of the frames and cabins help reinforce this image. Flaska says Hoist machines are just as well developed and designed to give service in the north American environment where operators simply do not take as good a care of machines. Rounded counterweights only make it easier to knock more paint off.

Along the side plates of the P series, Hoist has formed the machine to keep the stairs as low as possible as they lift to provide access to the drive train components to make access from the ground simple.With regard to cab design, Hoist's cab meets ANSI B56.1 FOPS operator protection standards and is fitted with tilt-steering, dual brake pedal and inching control and soft touch hydraulics.

All the glass is flat with rigid steel corner posts and Flaska says this is quite deliberate. Broken glass is relatively common and operators want to replace panes quickly using local glaziers. Curved glass is more expensive and has a much longer lead time.

As far as other aspects of design are concerned, Hoist has been using CANbus controls since 2000 and its hydraulic system consists of Rexroth axial piston pumps and the latest Parker hydraulics. Two modules control all the electronics and are easily accessible from within the cab and the main components of the machine can be monitored remotely.

RemoteTech

In June 2006 Hoist launched RemoteTech, a new diagnostics system on its entire range of lift trucks. RemoteTech monitors potential problems in the engine, transmission, autoshifting, hydraulics and filters. It also monitors shock, overloading and vehicle speed. The service provider can program standards such as maximum load capacity, speed limit and clogged filters and receive an email alert specifying the date, time and details of any event.

The alerts are sent via a J1939 CANbus modem. Armed with fault and event information, technicians can address the event remotely or schedule a service. The system also allows the service provider to reprogram, add or delete any of the standards from a remote location.

Looking ahead, Hoist is aware of the environmental pressures its customers are under, particularly in the stevedoring market, and how this will drive demand for alternative power. Hoist has delivered heavy trucks with LPG en-

New Zi-Co chain for FLTs

Chaintech (UK) Ltd, which supplies all kinds of leaf chain to the FLT replacement market, is to launch an improved version of its Zi-Co chain.The company is also now trading as Chaintech, with the tagline "the vital link for forklifts" to reflect its "leading position in the market."

Chaintech says it received positive industry feedback when it published the results of trials of its Zi-Co coated chain, designed specifically for hostile environments such as docksides and tanning and hide plants. "Our customer base now extends across Europe and in the last 12 months we have launched the Zi-Co chain and the new improved Zi-Co coating is on the way," said managing director David Hassan.

Zi-Co (a zinc-coated chain with a PTFE lubricant) was originally introduced on smaller FLTs but has now been extended to medium and heavy machines. In corrosive environments such as docks, says Hassan, chains often have to be replaced within 12-18 months, long before their normal wear life would warrant. Zi-Co chain is more expensive to buy, but has been shown to last much longer and it also leads to reduced truck downtime because it does not seize up.

UK-based Chaintech has over 15 years experience servicing the FLT replacement market,as well as hoist and conveyor applications. It says that its database of trucks, model numbers and OEM part numbers leads the industry and enables the customer services team to identify the correct chain for any unit.

This takes the burden away from the service manager and improves the accuracy and consistency of chain supply, so reducing downtime for each unit.

The company holds a comprehensive range of chains, stocking 0.5-in to 3-in pitch chains. Stock items are delivered next day in the UK and Ireland and on the second day across Europe. ❑

gines but Flaska says that warranty claims were too high. He sees more potential in CNG engines that should be on the market by 2009-10.

The view from Kansas

Kalmar is looking to increase market share in the industrial market and has expanded production at its Ottawa, Kansas facility. The US-built range now covers the DCE90-180 (9-18t) models and production has increased from 19 units in 2005 to around 90 this year. Jack Sawrey, director of operations in Ottawa, said that by September the facility was completing two units a week and this will increase to three by January. The dealer network has grown from 21 at 29 locations to 29 dealers at 177 locations, with a heavy concentration in the central and eastern states. The most popular model so far has been the 36,000lb capacity machine.

Two reasons why Kalmar decided to begin assembling lift trucks in the US were to get lead times down and reduce currency exposure. An argument could have been mounted for a coastal location close to one of the main markets that could serve the container handling market as well, but Ottawa is better placed for the industrial market. Using an existing facility also keeps costs down.

Assembly takes place in the old tractor chassis fabrication and welding area and Kalmar has not had to expand the footprint of the factory. Some staff previously engaged in cutting and welding tractor chassis (work now outsourced) have been redeployed to lift truck assembly and Kalmar has not had to increase its production headcount significantly. It has, however, expanded the parts warehouse to cope with more inventory and build a test ramp to certify the machine.

The first machines were assembled from kits imported from Sweden but Kalmar is trying to source as many components locally as possible. Chassis are now built locally and masts are sourced from Canada. By early 2007 most components will be sourced locally and more are being added all the time. Sawrey adds that this does not require any design or specification changes and that all new parts must still meet Lungby's specifications.

While the prospects appear good for domestic lift truck production it remains a different story in the container handler market. Kalmar says at this stage it has no intention to build container handlers in the US. Although it acquired the design for a container handler with Silent Hoist, Hoist has stayed clear of the port market where Flaska says the selling margins are just too thin. Imported machines are, of course, designed for a global market and this can create problems in North America where the operating and service environment is vastly different from Europe.

Taylor gets heavy

Taylor Machine Works is a long-established player in port and industrial markets and vice president Robert Taylor says that the company is currently building around 25 heavy container stackers a year.

In the reach stacker sector, Taylor has for some time marketed machines built in Italy by CVS Ferrari but it has also had a larger design of its own aimed mainly at rail intermodal applications. This year the company has updated this design and Taylor believes there is demand in the market for a bigger, "heavy duty" machine without having to go to an extended wheelbase. The machine is marketed as the TS-1068, a 45t machine with second track rail capacity. It is designed for 1M cycles travelling with a load, equivalent to 15 years of service in the North American market.

The TS-1068 is built on a 275in (6.985m) wheelbase and is fitted with stabilisers as standard. With the stabilisers

A Linde C4531 reach stacker

Ro-ro FLT from Wiggins

California-based Wiggins Lift Company, which focuses on custom-design FLTs, recently completed delivery of three W520Y RoRo FLTs to MTC in the Port of Baltimore, Maryland. The machines were delivered in record time to meet MTC's tight schedule.

Although aimed primarily at MTC's ro-ro operation at Dundalk Marine Terminal, the FLTs are capable of a number of additional applications, especially in the handling of steel products and project cargoes. They are fitted with a removable counterweight and a quick disconnect carriage. The rating is 52,000lbs-36in load centre (26t-0.9m), or 18t-0.9m when the counterweight is removed.

In light mode, the FLTs can be lifted into the hatch of vessels with average capacity ships gear or a dockside crane. The quick disconnect carriage is a time saving feature when changing lift attachments as well as bringing overall weight down for lifting if required.

A single stage mast and a low profile cab provide maximum operator visibility and comfort while maintaining an overall lift truck height of just under 110ins. The design of the mast provides a clear view of the load at an overall lift height of 63ins and free lift of 48ins.

The compact design has an overall length of 220ins and a wheel base of 130ins, allowing a reduced turning radius (205ins) and flexibility in the tight confines of the decks of ro-ro vessels. MTC's operators can reach in for cargo stowed in areas providing limited space where other lift trucks cannot.

The power train comprises a 205 hp Cummins turbo diesel engine, a Funk power shift transmission and a Deere front drive axle with inboard, hydraulically actuated wet disc brakes. ❑