

Hoist throws its hat into the tractor ring

nounced that it will be entering the terminal tractor market this year, building its own design at its plant in East Chicago, Indiana. It aims to have the first machines available for delivery from 1 August.

The move comes on the heels of Hoist relocating its production facilities from Bedford Park, Illinois, to neighbouring Indiana, where it acquired a large 550,000 ft² facility in 2016

The East Chicago facility is six times larger than Bedford Park, and, in return for tax credits and other incentives, the State of Indiana and the City of East Chicago are looking to Hoist to expand the workforce from around 300 to 500 by 2022. Hoist also builds lift trucks for Toyota Material Handling USA, Inc, but a wider expansion of the product portfolio was always on the cards.

Made in the USA

Hoist leans heavily on the 'Made in USA' label on its lift trucks when competing against imported brands, but this will not be a differentiator in terminal tractors. Kalmar Ottawa, Capacity, TICO and Autocar all have the Made in USA label on their 4x2 machines, while Terberg is the main imported marque, with a presence in the much smaller 4x4 niche.

Hoist did not make detailed specification sheets available at this stage, but, in response to questions, told World Cargo News it will be offering both DOT (on-road)

and off-road options for the HoistT-Series. Within the 4x2 sector, the US domestic market is divided into lighter machines for trailer handling at logistics facilities and distribution centres heavier machines with a higher GCW for the ports and intermodal sectors. Hoist, however, is planning only one ca-pacity option, but will be offering both a diesel engine and an electric-powered model, with the electric machine called the TE-Series.

In the power train, the DOT machine will have a 200 hp Cummins ISB 6.7-litre engine, and the off-road version the 173 hp Cummins QSB 6.7L, both in Tier IV Final versions. The transmission will be from Allison 3500, with Axle Tech axles, and suspension components from Hendrickson, in keeping with Hoist's philosophy to source entirely from

Moves in natural gas

Natural gas is shaping up as an important fuel for terminal tractors in the coming years. Last month, TICO an-nounced it is working with Illinoisbased engine manufacturer Power Solutions International, Inc (PSI) on a new terminal tractor prototype being tested by TICO with PSI's 8.8-litre CNG (compressed natural gas) engine. PSI's natural gas engines are based on a mass-produced General Motors engine platform.

This month, PSI took a US\$60M

investment from Weichai America Corp, a fully owned subsidiary of China's Weichai Power Co Ltd. Weichai is the largest car parts and power system conglomerate in China, specialising in manufacturing diesel engines. It supplies, among others, China National Heavy Duty Truck Group (CNHTC), which makes the Sinotruk HOVA terminal tractor, and the HOWO heavy truck that are common in Chinese ports.

LNG (liquefied natural gas) is

set to play an increasing role in the large truck and tractor fleets found at China's ports, partly in response to government initiatives to improve air quality. Earlier this year CNHTC signed a long-term cooperation agreement with Jinzhou Port Group, which operates over 400 CN-HTC machines running on LNG. In Shanghai, the port authority has just taken delivery of 160 Sinotruk LNG-powered HOWO 8x4 dump trucks for construction purposes

The terminal tractor market could be in for a shake-up as a fifth player with big ambitions enters the US market

components manufactured in the US.

The durability of the chassis is an important feature in the US market. In particular, it plays a key role in the used val-ue of the machine. Kalmar Ottawa had issues using Chinese-built chassis, and recently switched from a box construction to a domestically sourced bolted C-Section, in an effort to improve quality and longevity. Hoist did not comment on its design, other than to say it will be using a modularly constructed frame

that includes integrated mounts for all major components, and a "patent-pend-ing four-point vertical lift mechanism that distributes the load evenly to reduce stress on the entire chassis".

Hoist is also looking for an advantage in the drive train, where it is using a "military grade AxleTech drive axle. Ratios have been optimised to utilise the entire rear range, improving both trac-tive effort and efficiencies when compared to competitors' performance"



A graphic of the new Hoist T-Series terminal tractor

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The US domestic market is full of options for tractors, on everything from cab height, paint and tyres to a dual seat, galvanised chassis, air suspension and different wheel base lengths. Hoist is not looking to offer a full match, at least at this stage. "For our optional features, we've streamlined and simplified the process, based on customer input," a Hoist spokesperson told WorldCargo Neus. "We have limited options, as our standard truck includes a myriad of premium features by default at a comparable price tag

to competitors with lesser offerings. An example of this is our standard full air ride seat."

This approach also extends to the suspension, where the Hoist T-Series is claiming an "industry first true air ride front and rear suspension. The Hendrickson suspension not only provides superior comfort, but also improved handling as well as reduced maintenance". Other standard features include a 72 x 24-inch sliding rear door, digital instrumentation with stereo, premium HVAC and docu-

ment/pen/clipboard storage.

Hoist is planning to enter the market with a bang, with a dedicated manufacturing line turning out terminal tractors in serial production, and a nationwide dealer network covering all 50 states.

Going electric

As noted above, Hoist is also planning to launch an electric version of its tractor later in the year. Speaking at a press conference at ProMat 2017 in Chicago this month, Stu Jacover, vice

president, strategy and development at Hoist, said its design will be a significant step forward for the US market. Currently available electric machines, he added, are using Chinese components and cost twice as much as a diesel machine. "We think that is a non-starter," he said, and Hoist is planning to introduce a "domestically sourced and reasonably priced product".

Electric tractor sales in the US remain low, but some monentum is building. This month, Orange EV announced that Rail Management Services (RMS) has placed a follow-on order for another nine of its T-Series pure electric terminal trucks. These are not to be confused with the Hoist T-Series, and are built on a Kalmar machine.

RMS, one of the largest rail intermodal yard operators in the US, purchased its first Orange EV truck in July 2016 for use at a rail yard in Chicago. Ed Morgenthaler, vice president of maintenance, safety, legal and operations for RMS, said the machine performed well.

"We put the Orange EV truck in Chicago at one of our toughest ramps. It's one of the larger facilities in the country and has been active for decades making the terrain harsh on hostlers," said Morgenthaler. "The Chicago winters also play an important role in it being a difficult location. Frankly, I was surprised. I didn't expect the truck to be as reliable as it is."

The new tractors will replace existing diesel units, with five being deployed at the same Chicago rail yard, and four at another site in New York. "Although we had hiccups at first, the Orange EV guys got right on it and quickly rectified the situation," continued Morgenthaler. "The New York sites are also difficult environments, with lots of snow, ice, and rough ramps, but after the Chicago pilot. I feel confident that the trucks will be very reliable."

Mike Saxton, Orange EV chief commercial officer, said: "RMS has done an incredibly thorough job of evaluating and understanding our technology — why and how to use it — while making us better in the process. Our goal with RMS and all customers is to ensure that Orange EV trucks deliver the promised value in a complete electric truck solution that does the job while making

economic sense. It's gratifying that 75% of our fleets have re-ordered within six months of receiving their first Orange EV truck."

For some time now, there have been rumours of a sale or consolidation in the US market, often involving Terberg making an acquisition, but a deal has yet to emerge. Another company that could be on the acquisition trail, however, is Capacity's parent, REV Group, formerly Allied Specialty Vehicles.

REV recently became a listed company, and, in its first quar-terly earnings call, executives said REV is targeting further acquisitions as it looks to consolidate the specialty vehicle sector, which encompasses fire trucks, ambulances, RVs and special applications like terminal tractors. REV now owns 26 vehicle manufacturers serving commercial, emergency and recreation mar kets, and an executive noted that there are as many as 100 potential acquisition targets. Whether this includes another supplier in terminal tractors is unknown.

The Capacity factory in Longview, Texas, is currently being expanded to accommodate production of REV's ElDorado Mobility vehicle products, in addition to Capacity tractors and LayMor sweepers.

Terberg expanding

In Europe, Terberg is also expand-ing into other sectors. As a group, Terberg has practically doubled in size following last year's purse by Terberg Environn of Coventry, UK-based RCV (refuse collection/compaction hicle) maker Dennis Eagle (DE) from Spanish RCV specialist Ros Roca. This deal brought together DE and Terberg Matec under the name Terberg RosRoca Group Ltd. Both DE and Ros Roca are important customers for Terberg Matec bin-lifts, and there are other commercial links. Ros Roca affiliate HS Fahrzeugbau distributes Terberg bin-lifts in Germany, while Terberg is Ros Roca's distributor in the Benelux and Poland.

In the tractor market, last year Terberg booked a large order for 117 x RT283 4x4 ro-ro tractors from C.RO Ports, part of CLdN RoRo, as fleet expansion units for its operations in Rotterdam, Purfleet, Killingholme and Zeebrugge. These machines are used intensively, working 3,000-4,000 hours per year, and are often used with cassette translifters with double-stacked containers.

ble-stacked containers.
Reitan Distribution, a distribution and warehousing company in
Horsens, Denmark, has switched
to electric drive for its new tractors from Terberg. Three YT202EV machines with a pneumatically operated trailer locking system
have been supplied through NC
Nielsen, which arranged a site
visit for Reitan to a DC operator
in the Netherlands with a fleet of
Terberg electric tractors.

Reitan has to be ready with around 120 road trailers for dispatch every weekday morning, and the main benefit of the electric vehicles is that they run much more quietly, which is a significant plus for its night hours shunting work.

Mafi 'Z' Factor

A recent development from Mafi is the R 332 Z.This is based on its R 332 ro-ro tractor model, but is aimed at transporting bulky, heavy loads on a drawbar in heavy industry, such as steelmaking, for coils, steel slabs, etc. A ballast weight dimensioned according to the payload is mounted on the rear axle of the vehicle, and transfers the necessary traction of the rear wheels to the ground. For easy handling, brake hoses and electrical connection hoses are

There is a choice of trailer couplings suited for different payloads. The tractor can be equipped with a fixed or detachable ballast weight, and is also available with an elevating fifth wheel. The detachable ballast weight can be parked in a separate frame stand, while the tractor with fifth wheel can also be used for shunting semi-trailers.

Mafi has thus widened choice for customers in heavy industry, as it already offers the HD 445 elevating fifth wheel tractor for transporting very heavy loads in steel mills, foundries, seaports and other industries. For added flexibility, this model can be adapted to transport hydraulic lifting trailers (e.g. slag pot stillages) and drawbar trailers.

New robust fifth wheel

SAF-Holland has launched a new Holland FW35TT terminal tractor fifth wheel. "Over 50 years ago, Holland was the first to introduce a fifth wheel specifically engineered for terminal tractors. Today, we are pleased to bring the Holland FW35TT fifth wheel to the terminal tractor market," said Ron Froese, director of sales, Powered Vehicle Products. "It's specifically designed to excel in demanding yard operations, where fifth wheels couple and uncouple more times in an hour than some on-highway tractors do in a month."

Capacity has been increased to 80,000 lb by using a top plate cast with a higher-strength steel alloy and increased plate thickness, while the kingpin area has a more robust throat structure with added reinforcement at the entire contact area.

The FW35TT also features Holland's Twin-Lock systems, designed to prevent coupling delay and kingpin bounce-out. To improve maintenance, the twin lock jaws are secured with easy-to-remove pins, and can be replaced in less than 15 minutes, the pocket liners are grease-free units that can be

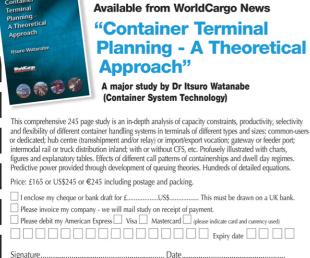
replaced in seconds, and a new front skirt spring retainer makes for easy yoke shaft replacement.

For driver convenience, an integrated automatic secondary lock eliminates the need for a manual handle for activation. "A new integrated lock-down mode adds an unprecedented level of coupling security by automatically activating when a driver releases the trailer parking brakes," said Holland.

"The new double-acting air cylinder holds the lock mechanism in the closed position until the driver re-engages the trailer parking brakes and activates the in-cab release to unlock the fifth wheel. This new lock-down mode automatically prevents the FW35TT from being accidentally uncoupled."

The new Holland FW35TT terminal tractor fifth wheel





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