



NEW RELEASES: PLANT & CONSTRUCTION

The number of new products launched over the past couple of months aimed at construction equipment enthusiasts has been impressive. Here, Steven Downes rounds up the highlights

WSI has released details of the first model in a new range based on the Dutch Ginaf truck range, a company who are known for their rugged, robust and innovative tipper trucks. The first release is the five-axle, 50-ton X5250 TS in 1/50 scale, which features a tipping body with folding doors and pivoting rear tailgate. There's also functioning hydraulic steering of the rear-most axle, a Ginaf trademark, along with all the usual fine details that WSI have become known for. Further Ginaf models will be added to the range shortly.



Ros has released three new versions of the 1/50 scale Menzi Muck A91 all-terrain excavator, with two of those produced in a limited run of 1,000 pieces that is exclusive to FM Modellbau and only available from its website (www.fm-modellbau.ch).

Following on from the original release, the A91 4x4 Plus has an updated body design and features fully position-able legs which allow a multitude of posing possibilities, with 360 degree rotation of the upper body and an extending stick and functional boom with a tilting grading bucket. The A91 Mobil features a different undercarriage configuration from the 4x4 version with telescopically extending legs for the most extreme working conditions, with both original and updated body designs available. All three have finely detailed cab interiors and an opening engine panel. The photos show (left to right) the original A91 Mobil, the new design A91 4x4 Plus, and the new design A91 Mobil.



The first two new releases of the year from **Norscot** should be appearing at model dealers in the next month or so. The Caterpillar 24M grader is an imposing model with great functionality of the blade and mouldboard. Articulated steering of the chassis, walkways alongside the cab and a replicated cab interior are just some of the highlights. This is an update to the previously released 24H.

Meanwhile, the Cat 374D tracked excavator is a brand new casting, with linked metal tracks, fully functional mass excavation boom and stick, and cab guards added to the front and roof windows. Both models are 1/50 scale.



The first Australian-style truck model from **TWH**, the Drake swingwing trailer with Kenworth T908 (reviewed in the Autumn issue) sold out almost before the model had been produced, and this left many collectors without the opportunity to purchase one. Due to that popularity, a second production run has been made, with three brand new company liveries: Doolan's Heavy Haulage, Tenkate Plant Hire & Bulk Haulage, and Lampsons, along with re-runs of several of the original coloured models.



All new versions are available from the Drake online shop (www.thedrakeshop.com)





Conrad has recently released several company decoration versions of the Liebherr LTM1070-4.1 mobile crane, including the distinctive blue Hofmann and Wilden, while a new version of the Doll long timber transporter has been released in Rupp company colours with the new Mercedes Actros MP3 truck chassis, featuring an Epsilon loading crane, extending outriggers and a pile of very realistic-looking timber logs. Rounding out the new releases from Conrad is a set of 1/50 Sandvik figures, featuring two females, all dressed in Sandvik branded overalls. The figures are available from the Sandvik online shop (www.3pr.se/scalemodelshop)



The latest NZG set of Liebherr HTM804 concrete mixers with LTB telebelt discharge conveyors are now available, decorated in the Hastag and TBR company liveries and featuring a functional telebelt arm, rotating drum, pivoting discharge chute and steering front axles. Joining the mixers are three company-decorated versions of the 1/50 scale Liebherr A900C ZW road rail excavator, consisting of ETF, Sersa and Verhoeven (pictured) which come with both grading bucket and clamshell grab attachments, and a section of rail track.



VEHICLE REVIEWS

PLANT & CONSTRUCTION

Steven Downes looks in detail at some of the latest construction site trucks to hit the miniature market, focusing on those equipped with on-board cranes.

A number of new heavy haulage vehicles and trailers have been launched in recent months, with some rather interesting new and upgraded additions to various manufacturers' ranges unveiled at the IAA commercial vehicle show in Hannover at the end of last year. Announced back at

the London Toy Fair last January, Conrad's Mercedes Actros 8x4 prime mover with 100-tonne capacity ten-axle Goldhofer STZ-H10 trailer has now been released in 1/50 scale, and follows the Goldhofer vessel bed and STZ-H6 trailers released earlier last year.

BELOW: Solidly constructed, with the sort of build quality expected from Conrad, the STZ-H10 has ten axles mounted to the frame. The front four can be locked in a raised position, and the front two also offer a degree of independent steering movement, as do the rear six axles, which are linked together to provide proportional steering and a little suspension motion with the simulated beam axles.

BELOW: The trailer frame is telescopically extendable to accommodate long loads, and this works smoothly with a floating transverse beam to support the load when extended. The deck is textured with painted wooden panels and holes where the supplied deck posts can be inserted, and there are small extending bars which pull out from the sides of the trailer deck to accommodate wider loads. For easy loading, a set of ramps is stored in the compartment on the underside of the trailer. These manually locate to the ridge on the rear of the trailer, where pull-down stabilisers keep the trailer steady.





BELOW: The Palfinger PK53002-SH is an amazingly well constructed crane, with two stage telescopic legs and jacks that fold down and extend to provide stability. The crane has a very realistic range of movement which accurately mimics the capability of the full sized crane, with both a winch and fixed hook offering different lifting capabilities. The telescopic boom has been authentically captured, with all the hydraulic pistons replicated and functional, which is no mean feat on such an intricate mechanism. It folds neatly into the width profile of the truck when not in use.



LEFT: The latest release from Conrad, exclusively for Palfinger, is a set of four truck chassis fitted with the Palfinger PK-53002-SH folding crane. Pictured here is the Mercedes Actros, but MAN, Volvo and Iveco versions are also available. The lengthy chassis has rear outriggers and a clever ball and socket connection method for the rear ballast box, which is removable to reveal a fifth wheel coupling allowing trailer hook-up. The cab castings are crisp, with good grille and panel detailing and a replicated interior. In addition, there's a steering front axle and tilting cab.



RIGHT/BELOW: The tractor unit has a replicated cab interior with self-fit radio antennas and rear view mirrors. A tilting cab reveals the engine block moulding, tanks and cooling system. The front two axles feature working steering with good moulded rubber tyres throughout, and the

BIG BEASTS IN MINIATURE

Steven Downes profiles one of the world's largest producers of the globe's biggest construction equipment, Liebherr – and looks at models of its machinery in miniature.

The Liebherr Group is a family-owned business that is involved in a diverse range of manufacturing businesses, ranging from domestic and commercial refrigeration to aerospace components, gear-cutting machines to materials handling equipment, and port machinery to a vast range of earthmoving and heavy lifting solutions. Its 29 manufacturing plants are located in 12 countries across four continents, with each one producing a specialist product line. The company is well known for its excellent model programme, and over the next two issues I'll be taking an in-depth look at this year's new additions.

The Colmar production site in France is where Liebherr's range of hydraulic excavators is manufactured, from the 20-tonne general-purpose machines up to the massive mining goliaths weighing up to 800 tonnes. Along with standard equipment, Liebherr produces some interesting designs for specialist applications, and the R944C tunnelling excavator is the latest machine to be modelled, in this case by NZG in 1/50 scale.

Weighing in at 43.5 tonnes, the R944C was introduced in 2007, and has a powerful six-cylinder D936L diesel engine generating 258hp. The rugged articulating boom design allows the machine to work in very tight confines, which is ideal for tunnelling work, and the engineering on the NZG model reflects all the features of the full sized machine perfectly.



The tracked undercarriage consists of individual metal track pads with dual grouser ridges and bolt fixing details cast into the surface of each pad. The track frames are tensioned, allowing the track to remain tight, but they can still be rotated. Silver-finished access steps are present on both sides, with a functioning dozer blade to give both stability and a firm footing when digging into the rock face. The tunnelling boom has been accurately captured and features fully realistic movement, while the attachment linkage has a quick coupler, allowing the two supplied work tools to be interchanged. The pivoting arm connected to the main boom can rotate to about





45 degrees on each side, allowing the full profile of the working tool to be demonstrated.

The back of the boom has silver-painted fixed piping leading to flexible hydraulic piping on the cylinders, and this looks very realistic throughout. The castings of the boom and arm have plenty of detail including lifting eyes and protective panels. Even the protection plates on the lift hydraulics have been added and, for extra realism, the bolt heads have been highlighted in silver.

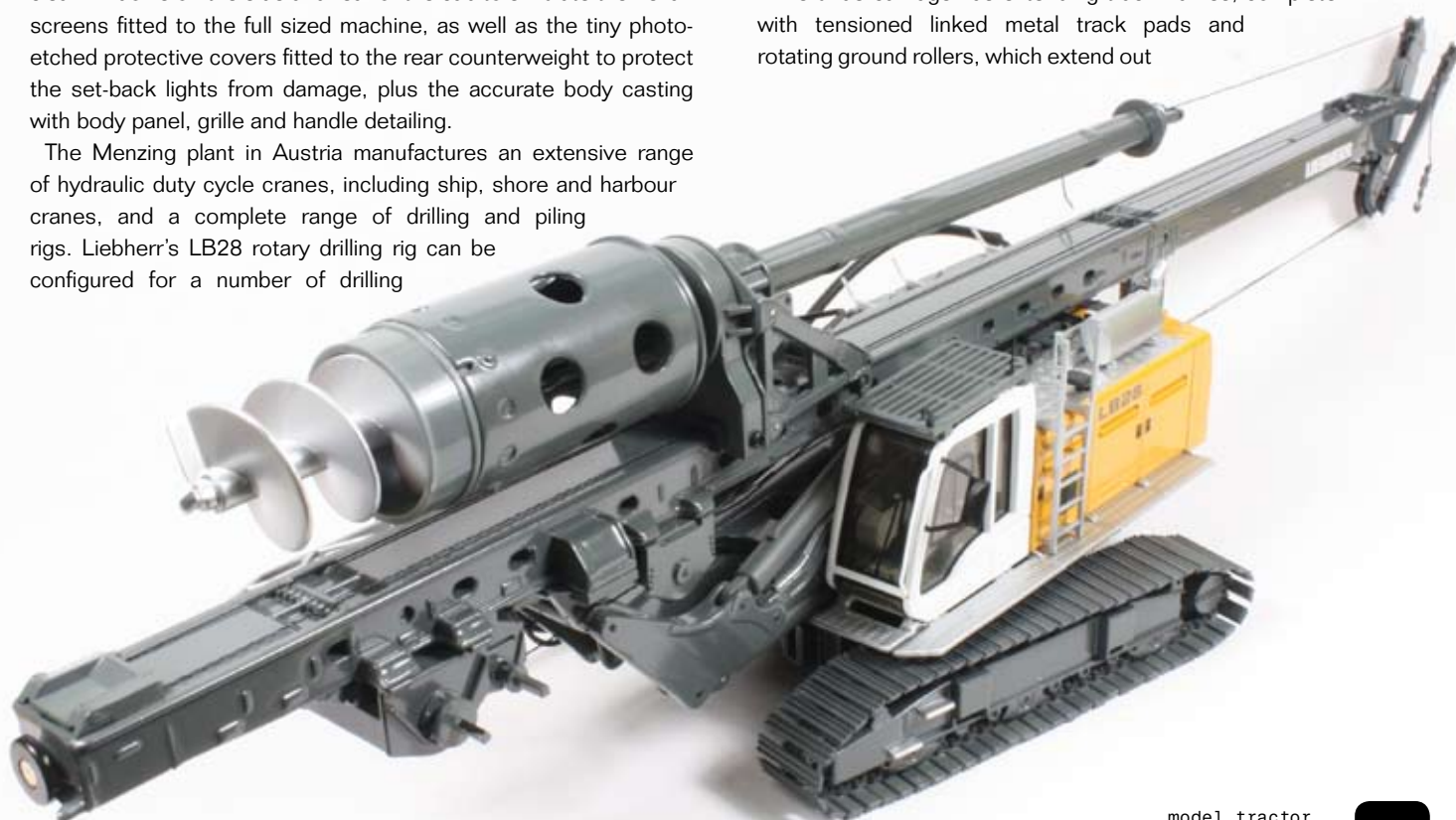
The open ROPS-style cab has been cast with an intricate front debris protection screen, complete with integrated roof lights, while the floor panel has a textured surface, with the operator's console featuring a seat with integrated arm rests and joystick controls. As usual, NZG's attention to detail is excellent, and includes the clear windows on the side and rear of the cab to simulate the Lexan screens fitted to the full sized machine, as well as the tiny photo-etched protective covers fitted to the rear counterweight to protect the set-back lights from damage, plus the accurate body casting with body panel, grille and handle detailing.

The Menzing plant in Austria manufactures an extensive range of hydraulic duty cycle cranes, including ship, shore and harbour cranes, and a complete range of drilling and piling rigs. Liebherr's LB28 rotary drilling rig can be configured for a number of drilling



tasks including Kelly drilling, continuous flight auger drilling, double rotary, soil mixing and drilling with partial or full displacement tools. Powered by a 469hp D846A7 diesel engine with a working weight of 96 tonnes, the machine is custom-designed for most drilling applications, and the 1/50 model from NZG has captured the features of the full sized machine very well.

The undercarriage has extending track frames, complete with tensioned linked metal track pads and rotating ground rollers, which extend out



to give the model good stability when posed in the working position, while also allowing the model to be posed in a transport configuration on the back of a low loader. The body casting is crisp with textured grilles and upper diamond plate pattern for added realism, complete with silver-highlighted protective panels to prevent damage to the bodywork by the ropes when the leader is lowered.

The leader can be fully posed, with adjustment allowing the inclination of the auger drill to be changed. This works well and is stiff enough to hold position, while the BA280 hydraulic rotary drill motor has intricate shock absorber spring detailing, with the twin drive motors and frame all replicated. The motor housing, complete with casing driver, slides along the leader with a Kelly bar and auger attached to the functional winch, allowing the drill tip to be raised and lowered by operating the winch drum with the supplied keys. Other nice touches are the flexible hydraulic lines and the addition of a protective frame on the side of the leader.

Liebherr has another Austrian factory at Telfs, where the entire range of crawler tractors, loaders and telescopic handlers are produced. The latest addition to the range is the 58-tonne RL64 pipe layer, which is based on the PR764 bulldozer chassis.

The 1/50 scale model of this, again from NZG, accurately captures the features and functionality of the machine, with a fully-working side-mounted boom and multi-sheave lift block with extending counterweight frame on the opposite side, complete with removable ballast blocks. The track frames have nine bottom rollers with tensioned linked metal tracks that have good ridge detailing.

This is the first Liebherr pipe layer model to feature a fully-enclosed cab, which has been accurately modelled with rear protective screen, roof window and a replicated interior. The rear winch assembly has an integrated towing bar with side rollers and a functional winch drum which is operated by rotating the motor housing on the side. The engine housing has authentic-looking printed grilles on the side and top surfaces, and there are small grab rails on both sides of the engine compartment, while the front grille has a textured finish. Also present are a rear view mirror and front-facing work lights. Towing hooks are integrated into the front bumper bar and flexible hydraulic lines are fitted to the main winch motor, which uses a small winding key to extend the rope.

For many years, Liebherr has been designing its own articulated haulers, and in April 2010 it unveiled the 30-tonne capacity TA230 ADT. With a 19 cubic metre dump body, the truck is powered by a 367hp six-cylinder Liebherr D936 L A6 turbo-charged diesel

engine with an electronically controlled automatic 8F/4R powershift transmission with an impressive 57km/hr top travel speed.

Being the first in a new product range, it was inevitable that a model would be commissioned to accompany the launch, and Conrad was chosen to produce a 1/50 replica. The model features many intricate details, including the rear suspension and transmission system, which have been authentically captured, allowing pivoting motion of the rear axles. The front axle also features the fully replicated rocker





arm hydro-pneumatic cushioning system, another demonstration of the high levels of engineering which go into these small replicas. The articulating frame has a good degree of turning motion, with flexible hydraulic and heating lines connected across the fully articulated hitch.

The dump body has been fitted with a functioning tailgate, which is pinned in place and uses flexible plastic bars to operate as the body is raised. This is a nice addition on the model and works very well, with the body able to tip to a very good and realistic height. The tailgate on the real truck is anodised with a silver finish, and this is nicely captured on the model. Finishing off the body are the stiff black mudguards, which have a slight flex in them that again adds to the realism. The front of the model accurately captures the rugged looks of the real truck, with the main driving lights integrated into the front bumper and protected by photo-etched grilles while the textured front and side grilles also look good.

There are flexible access steps on both sides of the frame, with more steps integrated into the side panels, featuring a diamond plate surface texture. Self-fit safety railings and poles, complete with integrated rear view mirrors, are supplied in the box and fit snugly into the holes in the casting on both sides of the cab. The roof-mounted amber beacons and scaled plastic grab rail running round the top of the cab add to the realism, with a mesh screen fixed over the rear window. The cab interior has been replicated, as is typical of Conrad, and is visible through the clear glazed windows. A further nice addition is the photo-etched cooling jacket fitted over the exhaust stack.

As an example of how quickly design and development move on, a new version of the model has recently appeared, which has a totally new front end, reflecting the updated body design of the full sized truck since its launch. The revised casting has more pronounced side panel lines, with a reshaped smooth front grille and cast handle detailing.



CUSTOMISED CREATIONS PART II



A long reach kit can be easily added to the Liebherr R954C excavator

In the second part of his series on customising construction models, Steven Downes looks at the boom kits currently available for converting standard excavators into long reach versions.

Extractors fitted with long reach booms are mainly seen where the extra length aids the application, such as the clearing of waterways, shore defence work and gravel extraction. Of the major manufacturers of 360-degree excavators, most offer long reach packages in their ranges.

Unlike swapping attachments, fitting custom booms is a little trickier, as the original boom needs to be removed from the base model. The hydraulic cylinders from the original model are typically re-

used, so care needs to be taken when removing the rivets and pins from the original parts. The best option is to drill out the original rivets using a suitably-sized drill bit, the aim being to remove the lip on the rivet without making the hole any bigger, so that the rivet will eventually fall out.



The dismantled base model and the white metal parts shown alongside the assembled/painted R954C with added pipe work and Brian Blackman general purpose digging bucket



Scratch-built piping on the back of the boom and stick, complete with flexible piping and small metal ferrules for extra detail



The show model at Portrush was this Britains Massey Ferguson complete with weathered look as shown here. We weren't sure if it would be suitable for power harrowing in snow or on some particularly stony ground.

While some pipe detail may have been added to the castings, it is possible to scratch-build additional pipe work by using reference

pictures, and this is highlighted in the pictures here.

The kit for the Liebherr R954C is easy to assemble and uses the original hydraulics from the base model. I have scratch-built the piping on the back of the boom from plastic mounting strips that have been drilled to accommodate the routing of the pipe work, which is single gauge wire that can be found in any local hobby store. A piece of flexible hose is supplied in the kit, along with a metal rod,

The kit for the Liebherr R984C is very impressive, and comes complete with a detailed white metal digging bucket, bucket linkage and the authentically shaped boom support mouldings. For added detailing, the walkways on the sides of the body have been painted grey (RAL 7043) to more accurately match the full sized machine, while piping has been added to the model, with silver paint used to simulate the connection valves. While a bucket is supplied with the kit, the bucket removed from the Liebherr R954C is a realistic size for the long reach and fits the stick perfectly. 🚜



Painted in appliance white from Halfords, which is a very close colour match to the base model, the Liebherr R984C with long reach kit makes an imposing alternative configuration



CONTACTS

Kits are now available to fit a number of replicas, including the Liebherr models pictured here, as well as the Cat 320D/323D, Cat 330D/336D and the Liebherr R916/Liebherr A924/Liebherr R944C. All the kits are produced and sold by Gaz Evans, who can be contacted at gaz485@hotmail.co.uk or +44(0)1633 411646.