

VEHICLE REVIEWS

PLANT & CONSTRUCTION

Steven Downes casts his eye over the latest plant and construction models, including compactors, excavators, rollers and cranes from the likes of Liebherr, Volvo, Hamm and NZG.



Conrad has recently released several crane models in company liveries, including the Liebherr MK110 five-axle fast erecting construction crane in the distinctive Felbermayr livery. This features a three-section mast with functional erection mechanism, and 360-degree rotation of the upper structure with four twin-stage extending outriggers for stability. The trolley slides smoothly along the jib and the winch functions to raise and lower the hook block.

Following from the Hofmann version of the Liebherr LTM1070-4.1, a new MAN three-axle truck with Doll five-axle trailer has been released in the same company livery. The trailer features a removable, extending deck with optional loading ramps and proportionate steering of all five axles. Fans of the Eurovia-liveried models, meanwhile, have another to add to their collection in the form of the Liebherr R924 compact from Conrad, which has been painted in the distinctive white colour scheme.



Joining the MK110 is a Wiesbauer-liveried Terex AC100-4 mobile telescopic crane. This has finely-detailed wheel hubs with full steering of all four axles, coupled with a tilting cab, side-mounted luffing jib and individual counterweight ballast plates.



The latest releases from **NZG** include a pair of Hamm GRW280 rubber tyre compactors, one with a fully enclosed cab and the other with a ROPS canopy. Both models have opening engine compartments that reveal the replicated engine and cooling systems, while the front axle assemblies have functional steering and suspension mechanisms, which are executed well.



Small pivoting plastic cleaning bars have been added on all the rubber tyres, just like the full-sized machines. Both feature a fully-replicated cabin interior, with the operator's console and seat movable on the ROPS version, sliding from side to side and rotating to demonstrate the great level of vision on the full-sized machine.





Following with the company coloured theme, NZG has also released the Liebherr A924 wheeled excavator in the orange and grey colours of Wurzel-Bau, with a fully-functional digging boom and replicated Likufix quick coupler, complete with tilting grading bucket.

Meanwhile, the Franz Fischer version of the Liebherr L586 wheel loader has a distinctive green and red livery with silver graphics and logos.



The flagship Liebherr LTM11200-9.1 mobile crane has already been produced in a number of company versions, the latest of which is in the blue and yellow colours of the Havator company. The model features lots of detail and realism, with the functional boom lifting system a nice addition, as are the choice of two different heads depending on how the crane is configured (heavy lifting or high reach).



The 1/50 scale Volvo EC700C High Reach demolition excavator is now available from Motorart dealers. The model is a heavy one, with an all-metal boom incorporating a partially functional demolition pincer tool. The undercarriage has extending track frames with linked metal tracks, whilst the upper carriage has a tilting cab with full debris protection screens and two opening engine compartment covers.

Atlas Copco has commissioned two new drill rig models, which are being produced in China. The ROC L8 surface down-the-hole drill features rubber tracks with a detailed cab interior, crisply-cast body panels and a fully-functional drill boom and mast, complete with rod changer assembly. The range of movement of the drill boom has been captured well and the detail is very good throughout.



The Boomer twin boom underground drill is another interesting release. While not quite as detailed as the ROC, it has an articulating chassis with replicated cab interior and some good body detailing. The two drilling arms are partially functional but don't capture the full range of movement of the real machine. The charging basket is a nice addition and the paint finish on both models is good with crisp, tampon printed graphics. The models are currently only available direct from Atlas Copco and can be ordered through the firm's parts department.



WSI has released another liveried version of the Liebherr LTM1050-3.1 mobile crane, this time in the striking colours of Holler. Reviewed in the last issue, the model is exceptional, both in detail

and functionality, and the latest colour combination of red, blue and silver really does stand out. It gets my vote as my favourite of all the versions produced to date.

In recent years, the task of moving earth has become the preserve, in the main, of dozers, excavators and dump trucks. The towed scraper, though, would appear to be making a comeback.



There are several manufacturers of towed scrapers, with Reynolds, Bell, E-ject and Miskin among the major names. Given the reincarnation of the machines, it's perhaps no surprise that one enterprising model maker has now introduced a 1/50 scale replica of a towed scraper.

The **Miskin** D19 pull-type scraper, which in real life is a 12 foot wide model with a 19 yard bucket, has been produced in miniature by First Gear to accompany its recently-launched Case IH Steiger 485 HD tractor – and it makes a good looking combination.



At first glance, the scraper looks very detailed with a mesh screen and crisply defined panels and framework, but on closer inspection most of this detail is static and non functional, which does let it down a little. The rear frame houses four large wheels fitted with tyres that have an accurately moulded tread pattern and the frame is mounted to the bowl with hydraulic cylinders which allow the bowl to be raised and lowered to simulate the method of filling the scraper box.

The pistons are loose and provide no resistance, but metal pins are provided with the model to keep the bowl raised to simulate the transport configuration.

Profiled in Model Tractor as one of our recent competition prizes, the Steiger 485HD tractor that partners the scraper model has some good detailing and the cab is very nicely replicated with position-able rear view mirrors.

The 485HD is similar to the standard agricultural version, but includes additions such as a metal towing rope, added weights on the front frame and an upgraded towing hitch. As with the agricultural version, the tractor's dual wheels can be removed if required.



The rear of the tractor has hook up points for the flexible hydraulic lines and a heavy-duty hitch where the scraper mounting connects. The use of hydraulics adds more realism to the model, and up

to three scrapers can be connected to each other, with linkages incorporated into the rear of the scraper frame allowing a good range of movement in both up and down and left to right direction.



CUSTOMISED CREATIONS PART IV

The fourth part of his series on customising construction models sees Steven Downes focusing on hammers, rakes and stick extensions for fitting to 360-degree excavators.



Most companies, when commissioning excavator models, base their requirements on the standard options and equipment, which usually means fitting a standard digging bucket. While several models have appeared with a hydraulic hammer, these are far from common, and yet the hammer is an essential piece of equipment in many operations.

Several custom builders have produced hammers over the years, and Nigel Paine is the latest, producing a range of five hammers which have been constructed from laser-cut parts, fully assembled and painted. The smallest will fit 20-25 tonne excavators while the 30-40 tonne hammer can be supplied with a saddle to fit the quick coupler of Norscot's Caterpillar 330D/336D excavator.

Rounding out the range is the HB4200 (45-60 tonne), HB5800 (60-90 tonne) and the largest hammer, the HB7000, with a saddle width of 16mm to fit 90-110 tonne carriers.

The laser-cut range has now been discontinued and replaced with a range of cast, white metal versions to fit numerous models.

The smallest in the range is a hammer for a 20 to 25 tonne carrier modelled on the Atlas Copco MB1700. Having a saddle width of 7mm, it will fit a number of 1/50 scale excavator models and is painted in yellow and black. The HB2500 (30-40 tonne), HB4200 (45-60 tonne), HB5800 (60-90 tonne) and HB7000 (90-110 tonne) are also available.





An alternative option for larger excavators is a new hydraulic hammer kit based on a Rammer design, which is cast in resin and comes in several parts, allowing it to be authentically painted before assembly. The kit consists of two saddles, allowing the hammer to be fitted to 100+ tonne carriers, and is a good match for the Caterpillar 5110B tracked excavator. The motor detailing adds to the level of realism and has been accurately replicated, as have the bolt fixing details around the saddle.



While buckets are the standard tool for land clearance, one alternative is a rake attachment. Consisting of tines which loosen up the ground, they make quick work of clearing tree roots and other debris.

There are two rake attachments on the market from Gaz Evans. The smallest is a four-tine version which has a saddle width of 7.5mm, while the larger five-tine version has a 10mm saddle which will fit 50+ tonne machines. Both rakes are cast in white metal and supplied unpainted.



Another interesting alternative for 20+ tonne excavators is a stick extension, typically used for a longer reach in ditch cleaning applications. An extension stick kit is now available from Gaz Evans for the Liebherr R916 excavator. This connects to the existing model's quick coupler, and comes complete with a grading bucket and quick coupler, allowing the original digging bucket to be used if required.



Assembly is relatively straightforward, and once painted and assembled the extension adds a totally different look to the model. It makes a great companion for the long reach boom kit, which has also been produced for the Liebherr R916. 🚜

CONTACTS

The laser-cut and white metal hammers featured here are produced by Nigel Paine (njpaine@btinternet.com), while the resin hammer, rakes and stick extension kits are available from Gaz Evans (gaz485@hotmail.co.uk/+44(0)1633 411646)



TINY TIMBER TACKLE



Deere 1270E wheeled harvester

Steven Downes takes a look at the range of miniature machinery replicas available for those interested in tree harvesting and general forestry equipment.

There are several companies that provide a range of equipment specially designed for the cutting and processing of various forms of timber, and one of the majors is probably better known for its farm machinery.

John Deere has been producing forestry equipment for some time now, and manufactures a range including harvesters for cutting, skidders for extraction and forwarders for moving timber out of the woods and to where it can be loaded onto trucks.

Deere has commissioned a number of die-cast model replicas of its forestry line-up, most of which are produced in 1/50 scale by Ertl, although others, notably Siku, have also produced JD timber machinery.

Timber harvesters can both fell a tree and process it in the same operation, typically cutting the tree into exacting lengths and removing (de-limbing) the branches in one smooth operation. Ertl has produced several different harvester models, including the Deere 1270E wheeled harvester, which has some intricate details and is solidly built and assembled. The articulating steering is functional but limited, although it has suspension on the front axles and a small degree of rotation on the articulation joint allowing the model to be displayed on uneven ground.

The cab rotates about 90 degrees on each side of the centre

point, and hydraulics beneath the cab allow it to tilt and pivot to remain horizontal, simulating the cab levelling system on the full sized machine. The cab interior has been executed well, with a large amount of clear glazing showing the fully-replicated interior.

At the rear, there are two opening engine covers which reveal a detailed 9.0-litre Powertech Plus engine, cooling system and hydraulic tank. The harvesting head has been replicated well, with operating log holders featuring rotating rollers and pivoting arms. The harvesting head can also pivot like the real thing, and has all the hydraulic hose detail, while the CH7 parallel boom is fully functional and can be extended, raised, lowered and rotated by about 90 degrees to each side. To top it off, the saw blade is also reproduced and folds out from its housing.

The Deere 2954D 'Processor' features a highly-detailed Waratah cutting head which has rotating drive wheels and folding grapples with armoured flexible hydraulic piping and a tilt and rotate frame connected to the stick. Among the nice features on the model are the three opening engine doors, which reveal the replicated Deere 6068H engine and cooling components within. This is one of Ertl's 'High Detail' series of models, and the opening doors really do add to its overall appeal, as do the freely rotating and individually linked metal tracks.



Deere 2954D Processor
with Waratah head

The latest harvester release from Ertl is the 909K tracked harvester, again fitted with a Waratah brand HTH624C tree harvesting head. This is another interesting addition to the John Deere forestry fleet and has some good detailing including the hydraulically adjustable frame linkage to the upper structure, which has a good degree of pivoting movement, allowing the model to be realistically posed to demonstrate the machine's hill climbing abilities. As with the 2954D, there are two opening side engine covers on the model, whilst the entire main engine housing pivots to the side to reveal the complete interior, with modelled powerplant and fire extinguishing system. The large and spacious cab has been authentically replicated, right down to the vertical safety bars and work lights integrated into the cab roof.



Deere 959K Tracked Feller
Buncher

Deere 909K
Tracked Harvester



The 959K tracked feller buncher shares the same upper structure as the 909K harvester, with two opening side doors and tilting engine cover revealing a six-cylinder Deere 6090H engine. The undercarriage also uses same casting, with tilting mechanism and linked metal tracks.

Main difference is the 8.4m reach boom configuration, which has a detailed plastic FR24B feller buncher head that both pivots and





rotates with the stick linkage, allowing the head to be positioned in a number of configurations. The arms on the buncher unit pivot, and a plastic rotating cutting disc with cast teeth is mounted into the base.

The feller buncher head can also be used with a wheeled carrier, which is similar to a wheel loader but with smaller arms. The top of the range 843K, an update to the 843J with a revised body shape and different panel details, is the latest variant of the 1/50 scale version, with large rubber tyres that have a solid moulded tread pattern. There is a fully-articulating chassis, tilting cab and functional loader arms where the FD22B buncher head is connected.

Deere 843K Wheeled Feller Buncher



There's no rotational movement of the head as there is with the 959K, but the linkage allows the head to be tilted to discharge the log load while the gripper arms pivot and the toothed cutting disc rotates. The cab has been constructed well and demonstrates the added protection for the operator with panelled glass windows and printed safety screens.

Once the timber has been cut, it needs to be transported out of the forest to the staging area where it can be loaded onto trucks for transport. The prime job of the skidder is to move the cut logs quickly and efficiently by dragging them out of the woods, and this can be achieved using either a cable or a grapple. Several grapple versions of John Deere skidders have been produced by Ertl, including the yellow 648G and green and yellow 748H.

The real machines both have a hydraulic grapple which opens to accommodate the load, and can raise it off the ground, and this is well modelled on the Ertl versions. Both use an articulating chassis with front mounted dozer blades and large tyres to give a surefooted grip on the rough and uneven forest floor. The 748H model has the edge on detailing, with opening side engine panels that reveal the plastic moulding of the Tier III engine block and cooling systems within.

Deere 648G Skidder



Deere 748H Skidder

An alternative to dragging the logs out of the forest is to collect them on a specially designed carrier. This is the job of the forwarder, which is an articulated carrier with integrated loading boom allowing it to collect the tree trunks and load them efficiently before transporting them out of the forest area to the staging zone.

Deere 1110E Forwarder



Ertl has produced a very good model of the John Deere 1110E forwarder, which is highly detailed throughout with some nice touches. The articulating steering is limited

but working, with suspension on the front and rear axles allowing the model to be displayed on an uneven surface, demonstrating the excellent manoeuvrability of the real machine. On the real machine, the cab rotates and tilts, allowing it to face almost any direction so the driver always has an excellent view of the work area. This has been accurately captured on the model, as has the interior which features all the controls and internal panel detailing.

The 12-tonne rated capacity CF5 loading boom features a three-stage telescopic stick, allowing a good reach for the small, functional grapple. A nice addition is the simulated armoured hydraulic hoses, which really add to the level of realism. Up front, the engine can be accessed under an opening engine cover which reveals the powerplant within, while a folding access ladder is mounted to the frame along with a functional dozer blade.

Once the timber has been extracted from the forest, it is arranged and sorted in a staging area before being transported. This is where the log loader comes into action. In John Deere's case, their 2954D swing machine is based on the same chassis as the 2954D processor, but has a raised cab to offer a better view for the operator and a different boom configuration allowing a good reach for stacking the timber.

The heel and grapple attachment has been accurately modelled with opening jaws and head rotation, complete with armoured



Deere 2954D
Log Loader

hydraulic hose lines. Opening engine panels reveal the replicated engine within, and the hinged cab allows the model's height to be reduced to imitate the real machine's transport configuration. The undercarriage is rather basic, but has linked metal tracks which rotate freely and give the model a more realistic appearance.

Once the timber has been harvested and sorted, it needs to be transported from the forest to the processing plants, which may be hundreds of miles away. This requires a dedicated truck-based solution, depending on the size and length of the timber being transported.

Small timber logs can be transported on customised flatbed trailers, and Corgi has released several models based on a flatbed trailer design with cold cast log loads. These look fairly good with the log load blocks cast in a single piece with structural support and tie down chains all cast into the surface and highlighted with paint. These then sit on the standard flatbed which has been released in both Derek Marston and Steve Swain liveries.

For larger loads, manufacturers have designed bespoke



solutions. German trailer maker Doll Fahrzeugbau AG produces a number of solutions for the transportation of timber, from the short timber truck bodies and towed trailers to the long timber dollies. Conrad has produced several 1/50 models from the Doll product range, including two versions of the long timber transporter. Available in both Mercedes Actros and MAN chassis configurations, the long timber transporter consists of a two-axle dolly which has a turntable mechanism linked to steering wheels allowing the model to replicate the tight turning ability of the full sized rig. There are some good details including large hydraulic fluid tank, access steps on both sides of the chassis and a metal protection frame behind the cab. The design of the rear frame allows the two-axle dolly to be carried on the back when not in use and contoured wheel rests have been integrated into the chassis frame to accommodate this.

The Palfinger Epsilon E250L loading crane fitted to the chassis allows the truck to self-load the logs and the crane boom has been fully replicated on the model with stiff hydraulics allowing the crane to be realistically posed for loading or folded to rest above the cab. The lower mounting structure has integrated stabilisers which extend out from the chassis incorporating pull-out jacking pads to offer better stability, just like on the full sized truck. Both versions feature a replicated cab interior and require the rear view mirrors to be fitted. Fully loaded, the model is an impressive length and the logs supplied are the most realistic load I think I have seen



Doll long timber transporters



with a model. They have been roughed up to simulate the cuts and abrasions that would occur as the logs are de-limbed, with colour and texture that gives them an authentic appearance.

The latest release from Conrad is the Doll short timber transporter with twin-axle towed trailer, which is based on a Mercedes Actros chassis. The Palfinger Epsilon M1202 loading crane has been very intricately captured and is fully functional, folding tightly into the storage position when not in use and doubling over on itself when operating in loading mode. The three section telescopic stick houses the log grapple which is suitably stiff to operate and can hold a couple of logs securely, allowing numerous posing possibilities.

The towed trailer has great panel detailing, with a textured diamond pattern and freely rotating wheels with 360 degree rotation of the front axle for extra tight turning. Up front, the Actros MP3 cab has been authentically captured with the detailed grille casting with chromed logo prominent across the front, while the bumper houses main driving and sidelights with amber indicators integrated into the ends. Silver highlighted access steps, which have a textured anti-slip surface, finish off the detailing nicely. As with the long timber transporters, the model is supplied with realistic wooden logs in different diameters. 

