

BAGGERMODELLE

Baumaschinenmodelle, Krane und Schwerlast

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Mit Wettbewerb

English text

Neue Modelle von Liebherr
R 970SME



R 914 COMPACT
PR 736XL



Neu von Tonkin 1:50
Cat 994H & MT4400D AC

Sammlerportrait
Weniger ist mehr

Neu von WSI 1:50
Tadano ATF400G-6



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Editorial

Sexy licences.

“BMW drivers are considered to be sexy, VW drivers especially friendly, as are, surprisingly, the drivers of the rather mundane Opel cars”. I recently read this piece of informative news in a commuter newspaper. And it went on that “this is because of the success of the car marketing departments which have succeeded in selling not the product to interested customers, but the lifestyle connected with it”.

Can it be also the fault of marketing that some models are becoming very expensive through the sale of licences to the makers? There are already some cases where model projects have languished in the drawer rather than gracing dealers’ shelves, prevented from being produced because of the licencing cost? This story was told to me anonymously by a salesman of a large model producer (not construction machine models).

Let us remember back to where the first models came from. They were built not only as demonstration pieces but as well as advertisements for the original cars, trucks

and construction machines. They were designed to awaken a desire in the viewer to drive the original. Shouldn’t it therefore be in the interest of the manufacturer for as many models of its products as possible to be in distribution?

Of course, licences are not all bad: for example, because of the issue of licences, duplicate development of some models has been avoided. Were it not so, in a small hobby such as ours, disastrous consequences could threaten the very existence of a producer. The cost of the licence for designing a new model should be small or even eliminated. This would profit the whole of the hobby.

Many models are still able to conquer the “licencing hurdle” and we are privileged to introduce a few of them in the following pages.

With best regards,



Daniel Wietlisbach

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New on the market

NZG 1:50

For the sake of inclusivity, we show the Unimog U 430, here in the NZG in-house colours of blue and orange. The in-depth introduction to this model can be found on page 24. Also in the same colours for collectors, comes the new Mercedes-Benz Arocs 8x4 with a Meiller dumping bin.

A completely new development is the JCB 86 C-1. The compact excavator running on rubber tracks has been lovingly replicated and makes a nice, convincing scale model. The equipment is very detailed and also very functional. All hydraulic lines have been applied as separate pieces and even two extra circuits for attachments have been modeled up to the connection at the arm.

Also from new dies come the two Terex backhoe loaders, the TLB840 and TLB 890. The latter is different due to the telescoping arm for longer reach. Both models are convincing with their detailed look and high functionality, even though the lifting mechanism cannot reach the maximum dumping height. However, it works for loading the Unimog. The cabin is almost all glass which required full interior detail. This has been achieved and the results are excellent.

The US version of the Vögele MT 3000-2i Offset surface material supplier has been equipped with wider tracks and even with them is still a very well done model. After the takeover of the Terex wheeled loader manufacturing by Kaelble Atlas, the NZG model of the Terex

TL260 now shines proudly in the new owner's colors as the L260. Further color variations are the Liebherr R 916 Advanced "Gub-bels" from the Netherlands and the R 936 "M.Korz" from Enkenbach-Alsenborn near Kaiserslautern (Germany).

Motorart 1:50

The long-awaited model of the New Holland F 156.7A Grader pleases right from first glance. Unfortunately, it doesn't fulfill expectations based on earlier models of the same maker, especially where the detailing is concerned. The front axle and the opening doors, the rather simple, plain blade suspension and the rear ripping tooth attachment are all well engineered.

Tonkin 1:50

In addition to the mining machines, introduced elsewhere in this edition, two long awaited models have reached us. The MH3049 material handler comes in a set with two scrap grapples and a magnet. The parts are nicely engraved and the high metal content of the model ensures a good weight.

The all-rubber tires are convincingly modelled and the model has great functionality. The window in the cabin door however does not match the original.

The Cat D6R can be considered an all-round successful model. This is now the first model from Tonkin that runs on tracks and the drive unit with its smooth running tracks is a joy to use. The blade can

duplicate any and all movements of the prototype and even the rear ripping tooth attachment got the necessary attention to details. The hydraulic lines are modeled in their entirety and the hand grips are made of metal.

Wiking 1:87

Even in the "smaller" scale the mighty Kaelble KDV 22 E dump truck is an impressive model. The impression is underscored by the logo "300 PS" (300 hp) that has been added in raised lettering to the radiator grille and the new color scheme for "Heitkamp" is very attractive. Another new re-release of a classic truck is the Büssing 8000 tow truck in orange/blue colours. The Unimog U 400 with snow plow attachment, lettered in blue for the THW, is a more current model.

Herpa 1:87

Supplementary to our extensive coverage about the Liebherr LR 1600/2 from Herpa on pages 30 and 31, we are now able to show the complete set of the model in the color scheme of the heavy-duty transport firm "Mammoet". This limited release crane (complete with certificate) comes in the very popular design and will find many friends among collectors. With a further six sets, the Felbermayr version is now almost complete. Released were: the set with the 10 ballast weights, the Mercedes-Actros with the three crane hooks set, two Scania R'09 with the tip and reduction piece as well as lattice arm pieces in a set and finally two sets with two crane mast pieces each

for the S and L out rigger arms. The only set missing is the transport one with the footings on it.

Matching the very first version of the crane comes the new VW Crafter with a crew cabin and flatbed, lettered for “Wasel”. In order for scratch builders and kit bashers to design and build their own truck/trailer sets there are now the three-

axle Schmitz Cargo Bull dumping bin, the four-axle Goldhofer TU-4 low-boy trailer in red and the three axled lowboy trailer with goose neck with ramps in blue available. The set with four of each blue and white rear blinds with rear lights increases the way the new Goldhofer THP-SL axle lines can be configured.

Conrad 1:50

Three new trucks for the construction sector have been delivered by Conrad: the Mercedes-Benz MP03 8x4 with a Carnehl round bottom dumping bin in silver, the MAN TGS 6x4 Euro 5 with roll-off bin in the very pleasing colors of the “Steinleitner” gravel quarry,

Collector's guide

So that you do not miss any of the new model announcements, the latest releases are listed here in short form.

Type	Scale	Producer	Available at	Additional information
Sennebogen 5500 Starlifter «Wagenborg»	1:50	Conrad	Dealers	www.conrad-modelle.de
Sennebogen 5500 Starlifter «EMCC»	1:50	Conrad	Vinci Shop	www.webshop-vinci.com
Liebherr R 9800 «Thiess»	1:50	Conrad	Quarry Diecast	www.quarrydiecastmodels.com.au
Liebherr R 954 BV yellow	1:50	Conrad	Modell-ovp	www.modell-ovp.de
MAN TGX XXL Euro 6 4x2 red / green	1:50	Conrad	MAN Shop	man.logwin-logistics.com
MAN TGX XXL Euro 6 8x4 red	1:50	Conrad	MAN Shop	man.logwin-logistics.com
MAN TGS M Euro 6 / Carnehl dump truck blue	1:50	Conrad	MAN Shop	man.logwin-logistics.com
MAN TGS Euro 6 8x4 Bison wrecker black	1:50	Conrad	MAN Shop	man.logwin-logistics.com
MAN HAK 4x4 dump truck green / red	1:50	Conrad	MAN Shop	man.logwin-logistics.com
Mercedes MP03 4x2 half pipe dump truck «Fehlberger»	1:50	Conrad	Thommy's	www.baggermodelle.com
Mercedes Arocs 8x4 mixer «De Paola»	1:50	NZG	Dealers	www.nzg.de
Mercedes Actros 8x4 mixer «Merz»	1:50	NZG	Dealers	www.nzg.de
Mercedes Arocs 8x4 half pipe dump truck «Bub»	1:50	NZG	Dealers	www.nzg.de
Mercedes Arocs 6x4 dump truck blue and orange	1:50	NZG	Dealers	www.nzg.de
Komatsu WA 1200 white	1:50	NZG	Modell-ovp	www.modell-ovp.de
VW T5 Transporter «Eurovia» and «Granvia»	1:50	NZG	Vinci Shop	www.webshop-vinci.com
Scania R with crane and semi low loader «Wellauer»	1:50	Tekno	Dealers	www.tekno.nl
MAN TGX XXL / 3+5 low loader «West of Scotland»	1:50	Tekno	Dealers	www.tekno.nl
Load «sand» for Meiller semi dump truck	1:50	Tekno	Dealers	www.tekno.nl
Caterpillar 966K with black bucket	1:50	Tonkin	Dealers	www.tonkinreplicas.com
Nicolas Tractomas 8x8 tractor	1:50	Tonkin	Tii Shop	www.tii-shop.com
Tadano Faun ATF 400G-6 «Treffler»	1:50	WSI	Dealers	www.wsi-models.com
Tadano Faun ATF 70G-4 «Mediaco»	1:50	WSI	Dealers	www.wsi-models.com
Scania R Topline / boom transporter yellow	1:50	WSI	Dealers	www.wsi-models.com
Scania 141 / stone trailer «VSB Groep B.V.»	1:50	WSI	Dealers	www.wsi-models.com
Scania 111 / stone trailer «Huskens Grathem»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH4 GL XL / Nootboom low loader «van Harten»	1:50	WSI	Dealers	www.wsi-models.com
Mercedes MP3 L / boom transporter «Grohmann»	1:50	WSI	Dealers	www.wsi-models.com
DAF 2800 / flatbed trailer «Boterbloem»	1:50	WSI	Dealers	www.wsi-models.com
Mercedes Titan 8x6 / boom transporter «Roxu»	1:50	WSI	HTM	www.heavy-transport-models.de
MAN TGX XXL Euro 6 8x4 green / red and blue / red	1:87	Herpa	Dealers	www.herpa.de
VW Crafter «Wasel»	1:87	Herpa	Dealers	www.herpa.de
Liebherr R 954 «Riwatrans»	1:87	Herpa	Dealers	www.herpa.de
L-boom / S-boom Liebherr LR 1600/2 yellow	1:87	Herpa	Dealers	www.herpa.de
Load of sidewalk slabs on pallets and pipes on pallets	1:87	Herpa	Dealers	www.herpa.de
Two construction site containers grey	1:87	Herpa	Dealers	www.herpa.de
Mercedes Arocs 8x4 half pipe dump truck orange	1:87	Herpa	Dealers	www.herpa.de
Mercedes Actros / Trailer with containers orange	1:87	Herpa	Dealers	www.herpa.de

and the MAN HAK round hood 4x4 with the tilting flat deck in a light grey and red color scheme, a model that was built exclusively for MAN. Lastly, the Liebherr LTC 1045-3.1 now appears painted and lettered for the crane rental company "BKL".

b2b Replicas

This American distributor is releasing an inexpensive series of

construction site accessories all made with the 3-D printing process. They stand out because of their multi-colors. Some items even have built-in functionality. The details are available from 3000toys.com and other dealers.

Vinci 1:50

Exclusively available from the Vinci shop is the Hamm H13i compactor in the well-known color

scheme and lettering of Eurovia, the model that we introduced in detail in issue 6-2013. It is a very convincing looking model because of the fine replication of many details and the very real looking mock-up of the engine under the openable hood. As we are used to from NZG models, the paint job is faultless and the lettering is crisp and legible.

BAGGERMODELLE

The magazine for collectors of construction machine models, cranes and heavy haulage



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Multiple units of the same model

Less is more

by Daniel Wietlisbach

No fewer than 13 djb D300s and four djb 275s are neatly arranged in rows in his display case. “I would rather buy twenty times the same model with which I have a connection and also know that I can re-sell easily at a reasonable price, than one that will gather dust on a dealer’s shelf for the next ten years,” says Oliver Steck. The passionate collector belongs to the species: “Hobby was included with the crib”. This was because his grandfather was the owner of a construction company and his father operated a gravel pit. He has only scant memories of his grandfather’s business because he passed away when Oliver was only about three years old. However, he remembers vividly his first encounter with a construction machine: “The mighty IHC 560 Payloader, with its loud, unmistakable engine noise scared the heck out of me”. For a little tyke, only knee high to a grasshopper, a wheeled loader must have been gigantic. The encounter happened during a visit to a gravel quarry operated by a friend of his father; they sometimes worked together. To restore order and quietness, Oliver was given a model of a Liebherr 912B (Gescha 2820) as a gift. The model is still in existence today, but in his display case there are three

Oliver Steck is a name is synonymous with two shows, one in Sinsheim and the other in Ede in the Netherlands. There he shows off his extensive model conversions to interested visitors ...

newer models. It would not be the last model that came his way from the selfsame gravel pit operator; he was not interested in promotional models, real treasures for Oliver, at least, not until he himself had children of his own.

At the age of five years curiosity had overcome fear and he got his first ride on the Payloader, impressions from which left an indelible memory in his collecting history.

During his time at the Realschule, he was able to make contact with a pupil in a parallel class whose father worked at the well-known Liebherr dealership, Nagel. From him he was able to get a price list and so could order models. His pocket money was not enough for all his desires and so he decided that he would rather have two smaller machines than one larger one. This was a mistake, as he found out later. While the L 531 (Conrad 2887) as well as the LR 621 (Conrad 2802) were available through dealers for a long time, the R991 (Conrad 2833) was available for only a limited time. He found one

only a few years later at a swap meet but with an asking price of DM 500, it had become unaffordable for him.

Models from a Flea market

The time between 10 and 18 years of age, Oliver Steck calls his break from collecting. Then, once he got his hot, brand new driver’s licence, he was able to visit flea markets and swap meets. He discovered a model of the six-axle Liebherr LTM 1120 from Gescha (2072) on a stand at such a meet and he absolutely had to have it. It was at a time when the collectors’ market was still manageable and one bought what was on offer: everything from NZG and from Conrad and sometimes things from other makers, even if it was “only a fork lift”, the scale of the model was of secondary importance.

At the regularly occurring Toy Market in Ulm, model trains played the lead role. That led to aspiring construction model collectors gathering around the only table dedicated to their hobby. Like-minded

collectors made contact there, because the “great collectors of that time” pursued their hobby on the quiet and did not seek out publicity or other enthusiasts. For young and beginning collectors it was not easy to connect with them or even swap models, remembers Oliver Steck. At a model show in Stuttgart, the Collector discovered a special set on offer: “the three green ones”. Terex 72-71 Wheeled Loader, (Conrad 410) 82-50 crawler, (NZG 164) and TS-14 Scraper (Conrad 411) a very expensive buy, but one he could afford because he just finished his apprenticeship. On top of that, the chance of getting this particular set at a later date was almost nil. Many of the most sought-after models appeared during his ‘collecting break’ in the 80s and had to be bought at high prices by Oliver Steck. From today’s point of view, the prices at that time were too high; only the Internet and finally EBay made it possible to compare prices quickly and in uncomplicated form. Of the Liebherr R 911 there are now 12 examples in his collection, all purchased at acceptable prices but not all in pristine condition.

To date, the collection has between 1500 and 2000 models in it, but they have not been counted recently. The main focus of the coll-

ection is machines of around the 60t middle weight class. The collection is augmented by a few surface mining excavators, “they take too much room”. The collector has discontinued collecting cranes and has sold or swapped the ones he had. Now he concentrates his collecting efforts on “nice markets” that take up the room vacated by the cranes. For example, especially rare colour schemes on construction machines or the Brøyt Excavators: “nobody was interested in them earlier on”. The X4 is the rarest item in the collection; he would very much like to put the very rare yellow X4 beside it. At the moment, he is searching for a model of the Frisch 2820 Wheeled Dozer in yellow by ATM. Until he finds one, he is looking forward to the Caterpillar 983B from CCM in 1:48 that he has pre-ordered. It will join the 16 models of the 983 from NZG (140) that he already has in his collection.

Conversions

As a professional in the metal working industry, Oliver Steck dared to modify models early on. When the big brother was working in the hobby room on his model train layout, Oliver joined him and spent the time soldering fine new brass

handrails for his construction machines with the good tools available to him. His alterations and conversions were first shown regularly at the Minibauma, at that time still in Nuremberg, where fans meet once a year and where he could make contact with other collectors. This led him to join a group that travels every year to the Model Show Europe in the Dutch City of Ede. Since his apprenticeship he has been an enthusiastic proponent of CNC milling and over the years has acquired a lot of skill in this area. His own, then still manually-operated milling machine, was used to produce his first piece, a quick-change attachment with ripping tooth for the Liebherr R 984C from Conrad (2914). His solid, functional, sandblasted and cleanly lacquered attachment models became icons among collectors. Since every part is still milled individually, no large series for the market is made or planned. Generally, the parts are made for his own use to modify models with a few made and sold to other collectors to increase the hobby budget. Oliver Steck likes to buy, for little outlay, models in bad condition that he can use for his own projects. This is how one of his best-known models was made, the Caterpillar 983 from the well-known NZG model. His most time-consuming alteration was inspired by a hobby friend. A Liebherr R 911 was modified so much that only the main die cast pieces were unaltered. Unfortunately, the model now resides in the display cabinet of a friend. Another very extensive modification was the Brøyt X4 with front scoop. He built it after he had given away the much-in-demand model from NZG (155) without realizing what a gem he had.

The Collector

Oliver Steck (44) is a Mechanical Engineer by trade but works today as a CNC milling specialist. Not surprising then that he uses that skill in his modeling. He also just finished his secondary educational goal as a Shaman Counsellor. He is a passionate table tennis player, motor bike rider and tomato grower.

He lives, together with his wife Margit and daughter Svenja-Tabea, in Holzheim near Ulm (Germany). He is willing to show off his collection to like-minded enthusiasts. To make contact: steckle6@gmx.de

Liebherr Models from WSI and NZG in 1:50

Series of new models

by Daniel Wietlisbach

Most models can find their origins in construction machine models ordered by the machine manufacturers as promotional items for prospective future customers. Therefore, the manufacturers have a big say in what is going to be developed. The Liebherr Company has an especially winning formula for this.

R 970 SME

The R970 SME (Super Mass Excavator) has been designed for use in quarry or large earth moving applications. Depending on the optional attachments chosen, the working weight runs between 76.7 and 78.6 t and the shovel capacity between 4.0 and 5.0 m³. The necessary power is delivered by the built-in Liebherr D 9508 A7 SCR V-8 engine that produces 330 kW (449 hp).

The excavator is true-to-scale and the heavy weight of the model points to a large metal content. Running, as well as support wheels are present in the correct numbers. The excavator model runs on realistic 750 mm wide twin web plates. The tracks are made from 44 (48 on the original) segments that are tightened so softly that the model “drives” very smoothly. The very visible gaps that occur between

Liebherr has developed into a guarantor of high quality new models ...

the segments as they pass over the drive and guide wheels are somewhat distracting.

The upper carriage is made from detailed metal castings that have been improved by numerous details. The nice photo-etched radiator grille on the right hand side is very convincing. A replica motor has been left off the model, a practice that is usual for models from Liebherr. All hand grabs, rails and rear view mirrors are metal as are the walks on the side. They are augmented with etched grilles. The tiny protection grilles over the spot lights are also very fine etchings – a real class act!

The cabin is an excellent transposition from the original and through the flush-fitting windows, the multi-color interior is seen. The very fine stone protection cage underlines the robust look of this machine that looks ready for any tough job. The machine is equipped with the 7.0 m long Monoblock arm, the 3.0 m long jib and the HDV backhoe bucket that has a capacity of 4.0 m³. While the excavator reaches all the original measurements in transport mode, the functionality at maximum depth reach and the dumping height is

only just acceptable. All equipment pieces are made from finely-engraved metal castings. As on the original, the stick is protected with a bottom flange re-enforcement and the lifting and bucket cylinders are shown with the optional cylinder protection gear. However, missing on the cylinders are the fitted screw unions that are very visible on the original. The hydraulic lines are completely free-standing on the boom and are painted correctly in silver. It is unfortunate that they are not very flexible as this tends to make them fragile and easily broken. The shovel is made from a single highly-detailed metal casting. The painting and lettering, including many tiny stick-on warning labels, are faultless. With the R 970 SME, WSI presents a very solid and nicely detailed excavator model. It is hoped that the front shovel version will follow soon.

R 914 compact

The R 914 is the smallest tracked excavator in the Liebherr Program. The machines in this classification weigh between 14.7 and 14.2 t and the backhoe shovels have a capacity of 0.17 up to 0.87 m³. The built-

in Deutz TDC 3.63L4 four cylinder engine produces 80kW (109 hp).

The R 914 is true-to-scale and has a high metal content. It reaches the prototypically correct transportation measurements. The under carriage is equipped with the optionally available dozing blade that functions. Great surprises are the “rubberized” track segments. They are made out of metal segments on the model and mirror the rubber patterns very well.

The upper carriage is made of two die cast metal pieces, finely engraved. It is enhanced with separately-applied detail parts. For example, the spot lights and the rear lights have been modeled using small, clear plastic parts. Compared to the R 970 SME the radiator grilles on the sides are only printed on, however at least in two colors. The cabin has been executed to the same high standard of the big brother.

The model is equipped with a 3.2 m boom, 2.45 m stick, quick-change adapter with loading hook and a metal swivel bucket. All hydraulic lines from the distribution point at the upper carriage up to the bucket are modeled and are free-standing. There is even a separate circuit for auxiliary attachments. The black lines are not flexible enough, but were not

damaged in the test. Unfortunately, the quick-change attachment is not compatible with buckets from other makers. The nice paint job and lettering are as great as on the R 970 SME. The R 914 compact leaves open the possibilities for other versions.

PR 736XL

Depending on the optional attachment, the weight of the Liebherr PR 736XL is between 20.2 and 24.6 t. The designation of XL for this mid-size dozer is to differentiate it from the L-version as it has a 440 mm longer chassis. The Liebherr four cylinder D 934 A7 engine used produces 150 kW (204 hp).

The model from NZG is made, in the main, of metal castings, as one expects. It has been replicated mostly to scale. However, because of the springs used at the guide wheels, the wheelbase is 4.0 mm too long. This means that the metal segment tracks reach dangerously close to the front of the pushing frame. The track is to the scale-equivalent width of 610 mm. The drive frames have engraved details and six freely-moving running wheels per side. The seventh is only hinted at in the frame; even on the original, it can barely be seen. Chassis, engine hood and fuel tank

are metal detail castings. The radiator grille is a separately-inserted detail casting and the air intake grilles are printed on in two colors that come very close to the look of the original.

The comfortable cabin is a bi-color metal part and has an air conditioning unit, rear view mirrors and spot lights from injection plastic as additional detailing applied. It also has four-photo etched window wipers. All of the plastic hand rails and grips are very fine. The PR 736XL is equipped with a semi U-blade and a three tooth ripping attachment. The blade has a high degree of functionality: in addition to the ability to three ways, left, right and dumping, it can be adjusted to three positions at the pushing frame. The hydraulic cylinders are nicely modeled and all hydraulic lines are made from flexible rubber. The metal ripping attachment at the rear is modeled very convincingly and is capable of reaching the correct ripping depth. Because of the short lifting cylinder it can be lifted only a limited distance. The paint and lettering are clean and crisp. Details like fuel tank lid, hand grip hollows and even screw heads are colored differently! We expect that the model will be available in the Liebherr-shop beginning in December.

R 970 SME

- + True to scale
- + Detailing
- + High metal content
- Hydraulic lines too ridged

R 914 compact

- + True to scale
- + Detailing
- + Simulated rubber tracks
- Non compatible quick coupler

PR 736XL

- + Choice of prototype
- + Detailing
- + Functionality
- Track frame too long

Cat 994H and MT4400D AC from Tonkin in 1:50

Successful Duo

by Daniel Wietlisbach

Back in 2013, Tonkin announced that the first model under their licencing agreement with Caterpillar would be the 994H. With this announcement, the name of Tonkin was spoken of everywhere. Now, after many other models, the flagship of the Caterpillar loaders has appeared. The mainly metal model is correct-to-scale and reaches the maximum dumping height of the original. The wheels have been finely engraved and are also detailed on the inside thus giving the model a convincing look, especially when the front scoop is lifted. This distracts from the rather Spartan detailing of the front axle. The tires have a prototypically correct profile, however, it is not very deep. The rear axle oscillates.

The massive rear of the machine is made of a very nice white metal casting that has been detailed with engraving. It is complemented with rear lights, work site spotlights, exhausts, ladder and stairs made from plastic injection parts. Especially worth mentioning are the metal safety railings that are very thin and look great. The metal cabin has a detailed interior; on the grey driver's seat one can even make out the Cat logo. Window wipers, rear view mirrors and warning lights

With these two mining machines, Tonkin presents the two largest models in its program. They are a well-matched pair ...

complete the cabin details. At the articulated joint, one can make out the details of the drive train, hydraulic cylinders and the associated lines, however they are not continued to the front part of the machine. The front part is dominated by the massive lifting rig. Tonkin has modeled the "Extended High Lift" version with a dumping height of over seven meters to match the height of the dumper bin that it is paired with. The arms of the lifting apparatus are true to the original. The two impressive swinging arms of the massive lifting mechanism are accurately modelled. The hydraulic cylinders, including their screw connections and supply lines, are nicely done. The rather small looking shovel matches the extended lifting rig and is made

from a single but finely engraved metal casting.

Caterpillar MT4400D AC

It takes seven loading cycles to fill the 220 t capacity bin of the MT4400D ACT. The model is based on the Terex Unit Rig MT4400AC from Bymo, released in 2008 with Tonkin acquiring the tooling. The wheels have been nicely modeled and the wheel centres of the rigid rear axle are a new and corrected casting. The turning radius of the front wheels is rather limited. While the massive main frame with a built-in old V12 engine (a V16 from Cat would have been correct) plus fuel and hydraulic lines have been taken over from the Bymo model, the electri-

Cat 994H

- + True to scale
- + Functionality
- Front axle

Cat MT 4400D AC

- + Metal railings
- + Photo-etched parts
- Dumping cylinders

cal parts called for new castings to replace the existing ones. Almost completely new is the platform with the cabin, which has a super finely-etched grille for the cooler that deals with the heat of the electrical breaking components. Beside it is the finely engraved box containing the electronic control components. The cabin is the same as on the Terex models, however, the window wipers are now a black

feature printed on the plastic glass. The etched radiator grille is superb; behind it one sees the cooling fan. The two rather chunky stairs, one fixed and one that folds down, give access to the platforms. On the other hand, the scale thin safety railings are very fine. The dumping bin has been taken over from the Bymo model. Caterpillar, however, uses ones made in house on their trucks. The yellow-lacquered, hydraulic

three-step cylinders are new. Here we would like to see the old two-step chromed ones as they look better. The dumping bin can be raised only to about 2/3 of the dumping height of the prototype. The mud flaps are made from soft rubber and the stone deflectors from fine chain. On both models, the paint is faultless and the lettering, as usual, is sharp and legible, down to the very tiny warning labels.

Komatsu GD655-5 from First Gear in 1:50

GPS inclusive

by Daniel Wietlisbach

The Komatsu GD655-5 is an impressive 18t machine equipped with a 4.32 m wide grading blade. The water-cooled six cylinder Komatsu SAA-6D107E engine produces 163 kW (218 hp) and conforms to the tier 3 and IIIa exhaust control protocols. The understated elegance, so typical for the construction of this genre of machine, has been replicated very nicely by First Gear. The required robustness and stability on this model is achieved by the use of many metal parts in its construction. This also gives the model a nice hefty feel. The wheels are very nicely engraved and the rubber tires have the prototypically correct profile. The front axle oscillates and is controlled as per original; with hydraulic cylinders and the wheel camber angle is adjustable. The tandem axles also oscillate but both sides are connected in such a way that single wheels cannot move by themselves.

The motor block is finely engraved and has wire hand grips. Details such as exhaust pipe, air filters, ladders and rear lights enhance the model. The fan is clearly visible behind the radiator grille. Through the almost completely glass cabin, the multi-colored interior can be seen with, of course, the required GPS control panel. Roof

GPS is used today for very precise construction. The new Grader from First Gear is therefore so equipped ...

antennae are a must. In addition, there are window wipers, rear view mirrors and spot lights made from plastic. The glass in the cabin is made from a one-piece clear injection plastic part with the window gaskets printed on. The very fine blade suspension gear is correct to the smallest details and is very functional. For example, the cog wheel used for the blade adjustment is not only modeled on the underside, but it has been made to turn in its stocks- impressive! Operated with the hydraulic cylinder, the blade can reach all maximum degrees of adjustment. The blade itself is finely engraved. Many supply and control lines have been modelled using flexible rubber parts. At the right side of the blade, mounted on a rod, is the somewhat too large GPS receiver. The tradi-

onal three tooth ripper attachment has been mounted at the rear however, the hydraulic cylinder for it has to make do without any hydraulic lines.

Coloring and lettering are crisp, without any faults. The air intake grilles on the side of the engine compartment are painted black, but never-the-less, it look very nice. As a very welcome addition, the set includes a figure with a GPS-Rover as well as a GPS-Base Station. Grader and figure with station are also available separately, and this is very commendable. The very large base plates are a bit distracting and make it very difficult to place them into a diorama. Here the diorama builder has to take saw and milling attachment in hand and make the necessary improvements.

The model at a glance

- + True to scale
- + Detailing
- + Functionality
- GPS-Receiver is too large

Tadano ATF400G-6 from WSI in 1:50

Convincing

by Carsten Bengs

WSI has succeeded in transposing all the measurements of the prototype in model form. The width and also the length of the outrigger arm are completely true-to-scale. All six axles have suspensions and move easily. The powertrain is also simulated in great detail. On the original, a 480 kW Mercedes engine is installed. On the engine hood the model has small hand grips and the radiator grilles are made from fine photo-etchings; skid plates and hinted-at ladders have not been forgotten.

The support braces are very stable and hold the model securely. As usual, crane mats are included with the model. The very nice lettering on the supports is visible in the different positions. The base of the support at 17 cm corresponds with the prototype's 8.5 m.

The massive upper carriage turns effortlessly. It is notable that the frame is made as a singular casting and so has decidedly more play, as with the LTM 1500. Finely modelled running boards, steps and handrails are included. Especially nice here are the photo-etched pieces on the sides and most especially, the cover on the exhaust pipe. Here you can even find the warning label, "do not enter". The crane is powered on the original by a 195 kW Mer-

The prototype of the AT-F400G-66 model could be admired on the Tadano stand at the 2013 Bauma. Now the model of the 400t crane has been released ...

cedes Benz engine that supplies ample power to the unit. The model as delivered, comes with the complete ballast block of 138 t attached, however the basis block is pre-mounted and it is difficult to change it to the smaller version on the prototype that would be 58 t. Included with the model are two wire rope loops, they can be used to simulate the mounting of the ballast very nicely. Hoses to the adjustable winch complete the details there. As with other crane models from WSI the Telescopic boom is made from aluminium parts and, accordingly, is light. This makes it possible for the model to remain stable and secure even while lifting heavy loads. To arrest the boom at the desired position, a metal cylinder with an

Allen screw has been provided. The already familiar telescoping positions of 46%, 92% or 100% for the boom are also used on the ATF400G-6. This makes it possible for the model to reach the height of 1.25 m at the wheel tip true to the original. The guying system for the boom is a "Power System" that is packaged separately from the model to be attached using the small screws included. Because of the folding down rack brackets that are included, it is an ideal candidate for a load on a low deck tractor trailer companion unit. The ATF 400G-6 comes with three kinds of blocks with hooks: one with nine dolly wheels (250 t), a single wheel one (40 t) and a single strand hook for 12,5 t. All wheels on the outrigger, guy system and hooks are metal and run very freely. WSI has used black wheels here; visually they look much better. The operation of the lifting winch has not been changed when compared to the LTM 1500 model and is a bit complicated to use due to the pre-locking that is counter-indicated to the

The model at a glance

- + True to scale
- + Detailing
- + Functionality boom
- Handling of drum

little key's pressure point direction. There is a sufficient supply of cable spooled on to the winch, however, it is not twist free. This makes it possible to lower the largest of the blocks right to the

ground using hooks. On the original that would not be possible.

With the ATF400G-6, WSI has transposed the flagship from Tadano perfectly into model form. The model also convinces in the

category of lettering, as it is sharp and legible. Especially impressive is the set of tweezers that is included; these makes the first assembly session so much easier.

Translation of page 24

Unimog U 400 from NZG in 1:50

Little Helper

by Daniel Wietlisbach

In 1049, after the end of the war, Boehringer Werkzeugmaschinen developed the Unimog (Universal Motor Gerät) for the agricultural sector. After the takeover by Mercedes-Benz in 1951, the Unimog rose in recognition under the star brand. The newest version, U 430, has been designed as an off-road loadable vehicle with permanent four wheel drive. The built-in motor, an OM 936, produces 220kW (299hp) and complies with the Euro VI exhaust control norms.

The model of the U 430 was released in blue and orange and in a limited series lettered for the Vinci Group. This worldwide conglomerate employs the vehicle in maintaining highways in the south of France, therefore it has a decal that says "ASF" (Auto routes du

Who does not know it? The Unimog has achieved a legendary reputation, and now it is available as an up-to-date version in model form ...

Sud de la France) on the door. This is because since 2006, Vinci has maintained 4,386 km or 50% of all French highways. The true-to-scale model with its breathtaking turning radius makes the original proud! Seen from below, we see that the four wheel drive and all that relates to it has been modeled. The cabin form has been replicated very well and the flush-fitting windows make it look even better. The very visible, finely-detailed interior of the cabin is in two colors. There are many separately-applied detail parts that range from win-

dow wipers to rear view mirrors. Spot lights and the license plate of the original, down to the Mercedes Star on the hood round off the details. At the site of the front bumper we find a plate for mounting accessories, drive shafts and further connections for accessories. It is a shame that the small dumping bin is ridged and inoperatable. Given that possibility, the way the model could be used would have increased exponentially. At least there is a trailer hitch. The paint job is great, and the extensive lettering is sharp and legible.

Eye candy

Terex MT 5500

by Albert Schmid

At the end of the 90s, Unit Rig made the decision to join the competition in the already established King Class of Mining Dump Trucks. The maker, located in Tulsa, Oklahoma, was pioneer in the industry, with a long tradition of producing machines with ever larger load records. For example, in 1968, the legendary Lectra Haul M200 achieved a loading capacity of 200 sht. The diesel electric MT 5500 AC from Unit Rig, now part of the Terex Group, was introduced for the first time at the Minexpo 2000 in Las Vegas. The impressive total weight of the machine is 544 t, made up of the vehicle weight of 217 t and a load of 327 t (360 sht total). It could reach a maximum speed of 65 km/h. For engines, the choice was between a 2700 hp Cummins QSK60 and the just-as-powerful MTU diesel four stroke engine. The AC power system was made from a generator with brushless wheel hub motors and was de-

The Terex MT 5500 from Unit Rig was, after the Liebherr T282 and Caterpillar 797, the third machine in the exclusive 360 sht class of ultra large dump trucks ...

veloped by General Atomics. Since 2008 the MT 6300 AC has been offered as re-designed version of the MT 5500. Its loading capacity was increased to 363 t (400 sht). Despite an extensive research effort, we were not able to ascertain the exact number of units produced. According to unconfirmed industry sources the figure was around 50 units.

In 2003 OHS (Outram Hire & Sales) began making the limited edition of exactly 50 units of the brass Terex MT 5500 in 1:50 scale. The firm's founder, Richard Outram from England surprised us with an incomparably high quality dumper model. Since OHS models were sub-contracted to diverse model makers, it was no longer possible to find out who produced this high-

ly detailed model with its steerable front axle. It was built in two editions. The first one, with the article number 508, had, as on the original, a short protective roof that extended over the driver's cabin. Too short, as practical tests confirmed. The necessary extension of the roof protection was made on the prototype and lead to an excellent second edition including the change (article # 508.1). Besides the somewhat less-than-convincing functionality of the dumping cylinders, OHS was successful in building an overwhelmingly impressive model.

By the way, because of the takeover of Bucyrus by Caterpillar in 2011, Unit Rig has finally also landed at Caterpillar. For Unit Rig this means a hoped for "yellow" future!

Tinplate

Gama Dump truck 501

by Robert Bretscher

During the time immediately after the war, many trucks were seen daily on the streets of Germany. Many thousands of tons of rubble had to be removed and many new houses needed to be built. For these and other jobs a large fleet of dump trucks was busy for a long time. It is not a surprise therefore, that truck driver was the dream job of many young boys at the time. Coinciding with this, the very well-known toy tinplate maker, Gama, situated in Fürth (Germany) was able to introduce this extra ordinary truck to the market.

Alone, all the technical data included in the original prospectus points to a very special vehicle: empty weight 1.57 kg, load capacity 5 kg (capacity of the motor to still work with this load), total length 380 mm, width 142 mm, height 150 mm, ground clearance 20 mm.

To make playing with this truck even more interesting, Gama chose a construction method that allows the whole truck to be dis-assembled into its parts. A very well thought out instruction manual was included with the toy. It showed the young boys how a real truck is construc-

This very impressive side dumper with the article number 501, was produced in 1950. With this model, Gama created a toy that boys' dreams were made of ...

ted. The battery (included with the model) that operated the electrical circuits for the front and rear lights and the horn was explained so the child could learn about electricity and plus and minus poles.

The model is propelled by a strong clockwork mechanism with gear box. As per original, the transmission of the power from the motor to the rear axle employs a real drive shaft that is connected to the engine with a drive plate. The truck is, in the main, operated from the driver's cab. For this the roof of the cabin has to be taken off. When it is off, one can see the large steering wheel, the gear shift for forwards and backwards as well the switches for the front and rear lights. And, don't forget the electric horn that could be activated by pushing down on the centre of the steering wheel. The dashboard was executed very nicely and, in

line with the time in history, was comprised of lithographed, round instruments on the panel.

The loading bin is mounted on two cross beams and is kept on site by four plugs. To empty the bin sideways, two of the plugs have to be removed and only then can the hand crank be used at the rear of the truck. Of course, it is possible to take off the side walls to facilitate a quicker removal of the load.

For a long time in the 1950s, this "truck of all trucks" was the dream of all boys and hopes were high of finding it under the Christmas tree.

For the majority however, that dream remained only a dream as family fathers at the time had other worries and priorities. Some are able to fulfill their dream today if they can find a Gama LKW # 501 at Toy Fairs or Swap Meets were they are sometimes offered to collectors at high prices.



Here you can challenge your expertise. Recognize the machine and win a model ...

the model number on a post card by mail. Of course we also accept email submissions (contact information is on page 42). The contest ends December 15th, 2014. We will hold a draw if there are more correct answers than prizes. This time the winners will receive

one of the following prizes: a set with the Actros 8x4 with a loading crane and a Nooteboom ASD40 in the Liebherr yellow from Fritze's Modellbörse/NZG, the MAN TGX XXL 33.480 Euro 6 6x4 with a five-axle low-boy trailer and the Volvo L180H from Motorart

by Remo Stoll

It is not a real giant with its weight of only 14.5 t but, for a small re-loading site it is the ideal size. This wheeled loader is used for the loading of wood chips and therefore has an oversized light load shovel attached. It is still road worthy and therefore in relatively good condition.

Recognized? Then send us the exact manufacturer's name and

Solution from BAGGERMODELLE 5-2014

The Grader was an EH540 from O&K, as some readers correctly recognized it. A draw decided the winners from among the many correct entries. The winners are Sven Ullrich from Kempten (Germany) who won the new Sennebogen 860M from NZG, Franz-Jakob Kolbeck from Furth im Wald (Germany) who won the Komatsu PC210LC-10 from Universal Hobbies and Bernd Dorner from Neuhaus (Germany) won the Volvo L60G in the limited US/Canada paint scheme. Our heartfelt congratulations to all winners!

Attachment parts from the 3D-Printer HFmodels

by Daniel Wietlisbach

Since the collector's portrait from *Baggermodelle* issue 5-2013, Fritz Hanisch from Vienna has become well-known among our readers.

Fritz Hanisch was a fan of the 3-D printing technique from its very beginning. First he used the new technologies for his own model projects but very quickly he filled the demand for other collectors, using the name HFmodels ...

Drilling attachments

Using drilling grab, chisel tip and tubing machinery, holes for wells, pile driving and related projects are accomplished. Especially in deep depths, a drilling grab attachment is a better choice than a large diameter twisting auger.

The models from HFmodels are for so-called free fall grab. They are designed to work in this manner: the attachment is dropped into the pit in order for the grab to "bite" into the material at the bottom of the drilled hole. Using a ball-shaped, wheel-controlled grab is not recommended, as the rigging for this is very extensive. The free fall grab is closed with the closing line; if in free fall mode, the weight of the attachment and a spring for this purpose are designed to do this. It has been designed very solidly because of the impact at the bottom of the shaft.

Should the ground be unyielding, it is necessary to switch to the drilling chisel attachment. Because it falls from a great height, the chisel hits the ground with tre-

mendous force thus smashing the material at the bottom of the shaft. To survive this rough, heavy-duty use, the drilling chisels are built accordingly. After a sufficient quantity of material has been dislodged, the grab is used again to remove the spoil from the shaft. On the original, the grab can reach depths of over 100 m with a shaft diameter of up to 3,800 mm. This makes them compatible with several cable-operated excavators, for example the Menck M90 (1,200 mm), the Liebherr HS 843 (1,500 mm) or the HS883/885 for 2,000 mm diameter shafts. Matching machines for the installation of pipes into the shaft are the Leffer/Liebherr VRM15000. The 1,500 mm

pipe diameter attachment set for the LRB 255 is included in the set. The LRB 255 also offers an extension for the HFmodels. The HiMo-Bo Leffer VRM2000 has been produced for the 2000 mm openings. The 1200 mm attachment is especially made to match the model of the Bauer BG24H from Brami and compliments that model most excellently. All models are available in kit form or ready-to-install version in grey or Liebherr yellow.

RDV and RSV lances

Pressure shakers and vibrators are ways to improve the quality of the soil on site. In both applications, the end effect is the addition of gravel material thru the implement leading to the compacting of the soil sub-strata.

When using the pressure shaking compacting process (Rüttelverstopfverdichtung RSV) the material to be added, mostly ballast gravel, is fed through the hollow interior of the lance, exiting at the

Contact

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head and is then pressure shaken into the surrounding ground, compacting it. More material is constantly fed in using a funnel at the top of the lance.

Using the vibration compacting method (Rütteldruckverdichtung, RDV), the material used to compact the soil is fed from the outside of the shaft, usually by a wheeled loader, and is then dispersed by the vibrating action of the lance.

The method chosen depends a lot on the condition of the ground and what the guidelines for improving the soil sub-strata are. RDV and RSV lances are available from HFmodels in a variety of lengths. Lances up to 9 m are ideal to be used as attachment for hydraulic excavators (matching Liebherr adjustment outrigger arms

are available in model form from Refo-Tech). The longer lances are designed to work with pile drivers, for example the ABI TM12/15 pile driver from Conrad or as the direct attachment to cable-controlled excavators. Adapters for the attachment to frames and pile drivers and hydraulic excavators are also available.

Wrecking balls

These are available in the weight classes of 0.8 t, 1.5 t, 2.5 t, 3.5 t, 4.5 t, 5.5 t, 6.6 t, 7.8 t and 10t. This makes them compatible to excavators from the Fuchs 118 up to the Manitowoc 4100W. There are available in either plastic or steel but, of course, the steel ones keep the ropes taut.

Dragline buckets

The brand new drag line buckets are of the Hendrix type “HS”, the heaviest line of shovels in the Hendrix program. At the time of writing they are available as 4, 6, 8, 10 and 13 cu. yd. capacity, which converts to 3.06, 4.58, 6.11, 7.64, and 9.93 m³. That means they are suited for large drag line excavators starting at the HS 883/885 class and up. The 10 cu.yd. shovel, for example, is the ideal bucket to use for the Manitowoc 4100W, if using a shorter boom. An extension of the existing drag line bucket program is possible at any time and plans are in hand to do this in the future. All necessary parts for the shovels, including attachment chains, are in the kits.

Liebherr LR 1600/2 from Herpa in 1:87

Complete!

by Michael Compensis

The prototype of this crane is a top seller and is in use worldwide by many construction firms. Herpa kept up an unrelenting degree of suspense and hype by releasing over a period of a year and a half, segments of the crane loaded on low-boy tractor-trailer set in the color combinations of both Wasel and Felbermayr. This way the collectors were included and encouraged in helping to finance the whole crane project. Now both the variations lettered and painted for the above firms and a neutral Liebherr variation have been delivered. A Mammoet variant has been announced. Compared to the Wasel and Felbermayr versions, the neutral crane model comes in a set as a partially-assembled crane without the transport vehicles. For example, the A-frame has been attached but has not yet been rigged. The main outrigger arm made from the footings, two S and two L mast pieces, the reduction gear and dolly wheel head (including all dolly wheels) is pre-assembled, only needing to be connected at one side, and then equipped with the very fine support struts. The latter are made with connectors and their two runners, while only simulated, look very convincing. The very thin and fine hand rails have to be mounted on the track chas-

In 2013, ten years after the 1:87 LTM 1045/1 was released, the new model was announced. Crane collectors have been waiting with baited breath to get their hands on the Herpa LR1600/2 ...

sis top. Because of the detailing on their sides, the tracks are rigid and have a metal core as does the lower chassis frame. By the way, the excellently modeled ballast plates, made from fine metal castings, are also usable for the modern variation of Kibri's LTM1800/LG 1550. They are nicely lacquered and the lettering is very sharp. Compared to the original that has a 7.5 t as well as 10.0 t ballast plate when in use, Herpa has modeled only the heavier plate version. It is therefore not possible to use the crane 100% prototypically correctly for many firms. It is unfortunate that the color tone of the ballast does not match exactly the color of the plastic injection parts. The block heads for 125 t, 300 t and 600 t carrying capacity are also made from metal. These correspond in detail to the original. The hooks have been made so that they can turn, however, on the larger block heads they cannot be made to move sideways. Less obvious is that the A-Frame was built with only 11 instead of

the prototypically correct, 17 dolly wheels. When all the rigging has been added, this is not an obviously glaring mistake and it makes the rigging of the model somewhat easier for the modeller. The rigging is made easier by a wedge-shaped rigging jig that is clamped between the A-Frame and the upper carriage thus making it possible to keep the cables taut at all times! This jig would also be very helpful if the completely rigged model was to be shown at an exhibition. The winches are self-arresting; they are designed to do this even when they are operated using the small Phillips Screw driver that is included with the set. It is regrettable that access to the winches at the upper

The model at a glance

- + Detailing
- + Metal ballast
- + Rigging jig
- Drilled holes in upper carriage

carriage is through large drilled holes; even two of the ballast plates have large holes drilled into them. The connection of the outrigger arm segments with chunky looking clips is unusual. These connect the arm segments securely but it is questionable as to how many times they would survive the erecting and breaking down of the arm. The alternate eye bolt connectors included with the Wasel and Felbermayr

models are not included, therefore, the yellow crane cannot be shown in transportation mode! That it is possible to use bolts as connectors for masts was already proved by Kibri in 80s with the model of the Gottwald AK850-103. The operator's cabin on the upper carriage is nicely detailed and correct when compared with the original. The interior of the cabin is very well transposed from the prototype

and the glazing is made from a single plastic glass piece on which the black window gaskets have been printed. As on the real thing, the cabin tilts and swings sideways. Until now, the model has been available only with a heavy or light main mast. It would be desirable that footings and headers for flying jibs, jib arms and needle point outriggers be available.



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Caterpillar 336E with Scrap scissors

A change of tools

by Urs Peyer

Since the outrigger arms of the 336D and the 336E are almost identical, the possibility exists to change the S365C scrap scissor attachment from the slightly aged model of the 336D to the newer 336E.

Disassembly

The scrap scissors are attached with two bolts. On both the black and the yellow ones we remove the pressed-in bit with a drill and then push out the bolts with a bolt driver. The black bolt will be required again to mount the attachment. To make handling easier, it is recommended to dismantle the arm of the 336E by removing all the screws, so that the outrigger arm becomes a single piece. (Be careful when removing so not to damage the handrails on the right side of the upper carriage!). The bolt between the arm and the stick is drilled and pushed out and put aside as we need it later on. The hydraulic lines attached to the arm need to be trimmed off as close as

It does not always have to be a large upgrading project. In particular, the interested beginner can start gathering valuable experiences by undertaking the change of attachments ...

possible to the bucket lifting cylinder. To remove the piston rod of the jib cylinder, the two arm halves that are pressed together have to be carefully pried apart just until the piston rod can be taken off. For this step use a screwdriver. Careful! Start with the smallest you have plus a hammer.

Assembly

To re-connect the two hydraulic lines of the bucket cylinder, drill

two 1 mm holes at the rotating ring of the scrap scissors. The scrap scissors are a little bit wider than the bucket, therefore a few 10ths of a millimeter need to be filed off (see picture 2). The scrap scissors and the hydraulic lines can now be attached at the arm using the saved bolts. The piston rod cylinder at the jib has to be drilled out to the diameter of the black bolt and then they too can be re-attached. Lastly, the hydraulic lines at the top are now inserted into the drilled holes.

Material used

Basis models

Caterpillar 336E Hybrid from Norscot
Caterpillar S365C from Cat 336D from Norscot

Rock protection cage

www.refo-tech.de or www.janhildebrand.de

New Medias

Frituur Zorro vol.4

By Theo Barten and Maarten Swarts, Narwal publishing. 140 pages, 175 pictures, black and white, twin languages-Dutch/English. 21.5 x 28.5 cm, hard cover, ISBN 978-90-817110-2-9
www.frituurzorro.nl

In this their fourth and last installment, the authors present army vehicles of the Second World War that after 1945 were re-purposed for civilian uses. The pictures date from campaigns that were undertaken in the 70s. Even though many of the vehicles were sitting out of service, a surprisingly large number were still in daily use, and it was not unusual to find them employed by construction companies. The pictures of the cranes from Coles of three-axle trucks, three-axle Scammel as recovery vehicles, and a Tatra 141 with a 40t low-boy trailer and last, but not least, the unforgettable Diamond T 969 with a vehicle recovery attachment, as crane chassis and as a dumper, are especially beautiful. (dw)

Perfekt bis ins Detail

By Emmanuel Nouaillier, published by Verlag VGB and Klartext, 160 pages, 260 pictures. 24.0 x 29.0 cm, hard cover, bound. ISBN 978-3-8375-1163-5

For diorama builders and dreamers, the book of the perfectionist Emmanuel Nouaillier is a 'must read'. The author is, without a doubt, one of the best in this genre. At almost every picture the viewer asks himself: "Prototype or model?" 95% of the pictures are models. Nouaillier's speciality is tenement court yards and the landscape around them, in 1:87 scale. The author is very forthcoming in describing how he achieves the unique results. They are transposable, of course, into any scale. Not to forget, he mentions that it took years of experience to reach this kind of quality modeling. (dw)

Schwertransporte & Autokrane 2015

Published by Verlag Podszun, 12 pages. Format A3, 30 x 42 cm. The Calendarium is on the bottom of the page, ISBN 978-3-86133-727-0

For the first time, the heavy duty calendar from the publishers Verlag Podszun is produced in the larger A3 format, printed on a thick picture print paper. For every month, there are one to three interesting heavy duty transport or crane action pictures of the best known German companies of this kind: Baumann, Kübler, Colonia, Bohnet and DB Schenker, to mention only a few. Transported goods are, for example: concrete ties, oversized steel construction pieces, a Caterpillar 775F, a ship, a locomotive, the nacelle of a wind turbine and a drilling attachment. Loads that are lifted by a crane are machine parts and a gas turbine. The attractive wand calendar also has room for your own memo's, appointments and notes. (dw)

Kalender Schwertransporte 2015

Self-published by Erich Urweider, month by month calendar with 13 pages, format A3, 42 x 30 cm, Calendarium at the bottom of the page. Can be ordered directly from: erich@urweider.com

Erich Urweider is a freelance photographer and author for a variety of trade publications that have heavy duty transport and trucks as a main focus. Among others, he is also responsible for the year books of the publisher "Verlag Podszun". Under his own banner he has now released a calendar with his best heavy duty transport pictures. The pictures have been chosen with great care; no picture has a "busy" background that could distract from the interesting transports features. Shown in the main are many of the well-known Swiss Transportation Companies, for example Friderici with a 3+5 special low boy trailer loaded with a boiler and a wind turbine nacelle, Affolter with a transport that has the parts of a container crane or Zaugg with a ship for lake Thun! (dw)

Road construction in 1:50 part IV

Safety first!

by Markus Lindner

The safety and protection protocols can be found in the StVO (Strassenverkehrsordnung Road - Traffic Law) for Germany; especially important there are the RSA-95 (Richtlinien fuer die Sicherung von Arbeitsstellen an Strassen-Guidelines for the securing of road work construction sites); these can be found at (www.rsa-95.de). In Switzerland the corresponding information is at (http://www.admin.ch/ch/d/sr/c741_21.html). In the next chapter we will introduce you to the most important safety and security elements at a road construction site.

Barriers

For many long years, the so called “Absperrschranken” or barriers were the main safety installation on construction sites. The RSA prescribes the minimum height requirements for a barrier plank, when securing a work site from a foot path or bike lane, at 10 cm height compared to a minimum height of 25 cm when securing a road lane. All barriers used should have a red/white alternating paint. To securely erect the barriers, the planks must sit on legs with ballasted foot plates. Now, only these are now allowed replacing the previous metal barrier legs. These kind

Safety barriers and security measures are an important part of road construction sites ...

of stands for barriers are available from NZG (506/03). The planks, in the required scale size, are easily made from Polystyrol and can be finished with printed red and white self-sticking labels made by the modeller on his computer. The red and white warning band contained in the NZG set is not legal for use in securing a construction site, however it is permitted to secure secondary locations within the construction site.

Work places and construction site fencing

When there are excavations in progress on a site a barrier is no longer allowable. A combination of a 25 cm upper plank and a lower 10 cm plank with a wire mesh in between was the first step in developing a metal construction site fence that today has been mostly replaced with a plastic mesh fencing installation. These yellow or white fences are used on nearly every road construction site today. They are available as a 1:50 kit from Zapf (www.zapf-modelbau.de) that includes the matching foot plates.

Today's construction fences are made from 2.0 m high and 3.5 m wide modular units in a zinc

metal tubing frame with a metal mesh welded to the frame. A suggested way to build these yourself has already been described in issue X-20. The necessary foot plates can be made out of Polystyrol or brass. A construction fence situated in a traffic area must have additional security installations. It is always augmented with barriers and flashing warning lights.

Guide Beacons

Guide Beacons are used to direct the traffic past a road construction site. They are usually one or two-sided, measuring 1000 x 250 mm and are striped red and white. Also used now are the so-called arrow beacons and beacons with horizontal stripes (used on sidewalks and bike lanes). Additionally, there are smaller guide beacons for special situations as well as larger ones of 2000 x 250 mm and 2500 x 500 mm.

Zapf Models carries a kit of the standard size guide beacons, complete with the footings. Alternatively, one can scratch-build these from Polystyrol; this way the different sizes are easy transferred into model form.

Traffic cones and lane dividers

For short term warning and securing of a workplace, for temporary use or at the scene of an accident, the traffic cone can be used. A typical use of the cones is when lines are painted on a road surface. Red/White cones are available in 1:50 from Conrad (99823/0).

To separate road lanes from each other, lane dividers made from plastic, steel or concrete are used. They are also used as temporary curbs to mark the side of the lane and to protect buildings or other installations. Red/White plastic dividers can be found by the piece in the Conrad Program (99824/0) or alternatively from Siku in its accessory shop at www.siku.de. They also are packaged in a set of 12 with the Mercedes Atego (3534). Concrete dividers are easy to make from Balsa wood cut to size, sanded and painted.

Warning Lights

Warning lights are as obligatory at a construction site as is the traffic sign with the little man with a shovel on it (traffic sign #123). The most important ones are the battery-operated directional spotlights (permanent lights), types WL1 and WL2. These are used universally for securing a site lengthwise or in its width. They are designed in such a way that they can be attached to warning beacons or construction site fencing, scaffolding or barriers. Depending on the situation they are used in, they have to show both sides with a yellow orange light or a red light on one

side only. For both cases the diameter of the light is 180 mm.

In any application that is not on a road, for example sidewalks and bike paths, the 360° round spotlight WL8 is permitted for use. Warning lights in 1:50 scale must be scratch-built. For the lenses, so called 4mm Hotfix Glass crystals, found in craft shops, can be used; these were originally designed to be ironed on clothes. The foot piece with the battery container is a piece of 3 mm thick Polystyrol. Ideally, a 1.5 mm hole should be drilled in the middle to allow flexibility when installing the light on fences or barricades. For the double-sided WL2, two of these crystals are glued back-to-back.

Traffic signs

The erecting of traffic signs is governed by the “Strassenverkehrsordnung” (Street Traffic Ordinance). The minimum prescribed size is size 2 (diameter of 600 mm or with a length of each side of the triangle of 900 mm). On roads with traffic of more than 80 km/h, size 3 (°750 mm) must be used. The height of the sign measured from foot to the sign face is a minimum of 2 m. Secure installation at the site is achieved by the use of a square profile as post, and the use of two(!) bottom plates, category K1. Large signs or combination of signs have special erecting rules.

Traffic signs are scratch-built relatively quickly and easily. Find the signs on the internet, scale them to the right size and print them on a thick smooth paper then paint the back of the paper in a silver-grey color. Make the sign posts from 1 mm Polystyrol or brass square pro-

file piece. Glue the cut-out sign on to the base. The foot plates are a bit more involved; these can be made from scraps of Polystyrol and have to be drilled out to receive the completed traffic signs. Alternatively, one could use surplus plates from construction barrier kits.

Traffic lights

Temporary and transportable traffic lights, also known as “Baustellenampel” or construction site light signals, are used everywhere when traffic has to use one lane alternatively. Such a set of lights is available from NZG (506-18). The installation of such a light is required on the blocked traffic lane at a distance of 0 to 10 m from the first warning beacon at the right hand edge of the lane and, in the opposite direction at a distance of 20 to 30 m from the end of the lengthwise barrier, if possible beside the lane of traffic. If it is only possible to install the traffic lights in the lane of traffic, additional warning light beacons must be used to secure the traffic lights.

Temporary road markings

At road construction sites the existing white road markings supplanted by orange ones. These cross out the white markings and give temporary directions using arrows or other symbols. For this, self-sticking marking tape in a width of 12 or 15 cm is used. In model form this can be simulated by using plastic tape that has a good stickiness, for example insulating tape in a width of 2.4 or 3.0 mm. Further examples for the use of safety installations can be found on page 42.

Our partner page

Red Stones from Bonomi

In the area around Varese in Italy, the long-established Bonomi Company harvests the red Varese Porphyry stone in its own quarry operation using both traditional and modern methods. Bonomi is a

sub-contractor of the Fiorini AG. Among the machines in use are a Perlini Dump Truck, a Michigan 75 wheeled loader and a PMI 825 Excavator. The main products that Bonomi makes are cobble stones

and plates in all sizes. This summer we procured a large quantity of cobble stones for the campus grounds of the University of Konstanz. The material has a unique pinkish tint to it.

Tram track removal in Berne

For the fourth time this year, Eberhard Bau AG was able to secure a contract for the removal of 308m of double tram tracks in Berne, working as a contractor for Hans Weibel AG. For this job, a 95t Caterpillar 385C was used. Because the de-construction of the tracks is usually done underneath existing catenary lines, the 385C was equipped with the

short, 1.8m long arm and an ultra-short stick. A very specialized and patented rail slicing attachment was used. The 385C pulls the slicer with toy-like ease through the road surface and the top concrete layer. The now-exposed piece of rail appears at the rear of the slicer and can be broken into pieces every six metres with a kinking motion.

Shortly before 9:00 am, after almost three hours of work, the rail slicer has been taken off the 385C and the machine has been loaded to be transported off site. After the large excavator has finished its work, six Weibel Excavators of 25 to 30 t class start to clear the site, removing old rail, road surface and concrete rubble and loading it to be carted away.

News in brief

Vermeer T1255 Commander

This machine can be best compared with a gigantic chain saw. The Vermeer T 1255, owned by the German Company Schotterteufel, dug its first ditch through some chalk rock in the vicinity of Ulm in Germany. To drag the 4.9 m long and 760 mm wide sword through the rock out cropping a working weight of 99.8 t and for power a Caterpillar engine producing 447 kW (600 hp). To remove a flatter section of rock a 40 t heavy milling drum is available. The first time the machine was adapted from a milling (terrain leveler) to a ditch cutting milling attachment took about two weeks. (up)

Terex Superlift 3800

The Victor Baumann GmbH company's new tracked Terex Superlift 3800 with lattice mast started its career with a spectacular job. For this, the team at the company rigged the crane in a SSL-configuration with a heavy, 48 m long main arm and a 36 m long Superlift Mast. The upper carriage counter weight was 165 t, the Superlift counterweight was set at 320 t. With this rigging, the Superlift 3800 was optimally prepared to lift the three parts of a huge press, with a total weight of 470 t, reaching 26 m in a safe and efficient way. The crane with a load capacity of 650 t can absorb a maximum load torque of 8484 mt. (up)

Caterpillar 824K and 826K

Based on the 980M wheeled loader, Caterpillar presented the 34.0 t heavy wheeled dozer 824K and the garbage compacter 826K with a working capacity of 40.9 this September. As a propulsion system, each unit is equipped with a C 15 engine that produces 302kW (405 hp). The engine is available in two versions: for either exhaust control protocol step IV or IIIa. If the wheeled dozer is used in a support role in surface mining situations, the capacity of the blade is 5.0 m³. If wood chips have to be moved, the capacity sits at 16.2 m³. To compact the garbage better, the 862K is available with three different sizes of compaction rollers. (up)

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