

# BAGGERMODELLE

Baumaschinenmodelle, Krane und Schwerlast

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Mit Wettbewerb

Motorart 1:50

## Volvo EC480E & A40G



# English text

Neu von Norscot 1:50  
Caterpillar 930K & 938K

Sammlerportrait  
Krane auf Reisen

Modellbau 1:50  
Meisterstück O&K RH 120C



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# Editorial

## Are you still collecting or are you already playing?

Only children play. Adults, and especially men, are teased or ridiculed when they engage in a play activity! But being at play has many proven positive aspects. To immerse oneself into another world helps our creativity and leads to solutions that are hidden to us in the daily humdrum of life!

Why then is functionality in the models for collectors so important? Being a bit provocative one might say that if they are purchased only to be placed into the display cabinets, they might as well be unmovable. Of course we want to be able to show off our models in different prototypically correct poses as in real life. The original idea of producing these collectable models was to give future purchasers of the real thing something tangible so that they could visualize how the machine would operate. But, let us be honest, who does not love it when it is possible to drive the model around on the table just like the original? With tracked models this is a special treat, a real highlight!

My desk, between keyboard and computer screen, is surrounded by

models that have been “driven”. A collector friend buys his models only at a dealer because there he is able to test several examples of the same model to find the one that provides the most authentic drive experience when compared to the prototype. Another friend told me in confidence, that when he is alone in the hobby room he has occasionally imitated engine noises to enhance his enjoyment.

That we like to play is reflected in the fact that quick change attachments and exchangeable tools for excavators and wheeled loaders is a subject for a new series of articles starting in this issue.

And finally, you can also play in a virtual world using the “Construction Simulator 2014”, a software program we introduce on page 28.

What kind of play experience do you prefer?

I would like to wish you fun and contentment. And, don't be embarrassed to play.



Daniel Wietlisbach

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# New on the market

## Motorart 1:50

In addition to the new items introduced on other pages, there were no fewer than six other new releases: from Volvo first of all are two wheeled loaders, the L150H and L180H. These have the tilting cabins, and cry out for a service scene to be modeled.

The P6820C surface finisher comes with metal tracks but the roof cannot be lowered and the EC300E is of the same quality as the new EC480E. From JCB come the 456ZX with quick changing tools and the VM115D road roller finished very nicely. A high degree of detailing including mostly separately-applied hand grips, great functionality and are made convincingly from metal castings. This is a great combination of construction and finish for all models.

## Wiking 1:87

Once more Wiking presents a number of re-designed, releases of old models in some nice colours. The heavy duty transport truck and trailer rig MAN 19.230 lettered for "Spedition Siefert", for example, that can be changed to become a saddle or trailer truck combination. Further models include a flat deck with stakes, a tractor trailer set with a Büssing BS 16 truck, a chemical transport truck and trailer with a MAN Pausbacke "Readymix", the rear dumping tractor trailer set with a Büssing 8000 for "Basaltschotter Erbach" as well as a MAN 415 with flat deck and truck crane "Schenker". An espe-

cially attractive set includes three Magirus Saturn truck models with different bodies: as a dumping bin truck in blue, high board flat deck in grey and low deck dumper in green.

## MSW 1:50

The model of the Liebherr LTC 1045-3.1 from Conrad is a limited, exclusive series in the attractive paint job for "Colonia", available from this dealer situated in Buchholz. ([www.msw-modelle.com](http://www.msw-modelle.com)).

## Brekina 1:87

Three nice new color variations reached us from the maker in Teningen (Germany). The finely-detailed Steyr 380/480 is newly available in a black/red/ silver colour combination with dumping bin as well as flat deck loaded with a cable roll for the fictitious construction firm of "Schwarz". To finish the trio is a dark blue VW T1 box delivery van lettered as a service vehicle for Hiab truck cranes of the firm Rostock & Raeger, situated in Koblenz.

## NZG 1:87/ 1:50

The Liebherr LHM500 mobile harbour crane is a very attractive machine, even in the smaller scale. The blue colour of "Wallman & Co" does suit it especially nicely.

## Tekno 1:50

The Scania R 8x4 with 2+4 low boy trailer combo in the colours

for "Käppeli" is an ideal companion for the construction machine models from NZG for the same outfit. The program offering loading goods is being expanded with loads for construction steel and steel wire bundles.

## Bush 1:87

The Weimar T174 is now newly available with a hook and chain and a weathered part of the Berlin wall with Graffiti on it, and in blue with log grappler for the paper mill "Gebr. Hartmann".

## Mammoet 1:50

The Kobelco CKE2500G has appeared in the shop of this Dutch heavy duty transport firm in its house colour ([www.mammoe-tstore.com](http://www.mammoe-tstore.com)). An in-depth look at this model will follow in a future issue.

## Herpa 1:87

Herpa has been busy continuing work on the Liebherr LR 1600/2. New from "Wasel", the MAN TGX XXL with a semi-low boy trailer and a loaded with a crane middle section and the MAN TGX XLX with a flatbed trailer and the SA-blocks as a load. Lettered for "Felbermayr" is the MAN XLX also loaded with a middle section of the crane and the Mercedes Actros with a high volume semi-trailer, and in the scenix series for Diorama builders comes the Mercedes Actros 8x4 heavy duty tractor trailer set with lights. In the

new orange colours of the in-house construction fleet comes the new hooded Scania concrete mixer and the Mercedes Actros Lowliner stake bed semi-trailer set. A new Mercedes Arocs dumper truck and trailer set is lettered for “Riwatrans”. The new MAN TGS M Euro 6 8x4 appears for the first time with a round-sided dumping bin in the in-house orange colour.

### WSI 1:50

Because of co-operation with the firm of Broshuis, WSI was able to obtain a new licence for producing models of low loaders in 1:50. Planned for this year are three and four-axle semi-low loaders and for the “100 Tonnen Range” modular concept trailer system, with the very innovative

single wheel suspension system of the Dutch maker.

### Norscot 1:50

After the version with the rather special looking ejector bin, the Caterpillar 740B is now also available with the standard version dumping bin. The bin is equipped with rubber mudguards made from real rubber and is capable of reaching the prototypically correct dumping angle. For other details about this model, please see our in-depth description of the Caterpillar 740B EJ in Baggermodelle 1-2013.

### Quarry Diecast 1:50

This Australian dealer is offering an exclusive set of model figures made by Conrad in the typical re-

flecting work clothing. Also new are two sets that can convert a Caterpillar D11 to the way the machine would have looked when new and just delivered during transport. The new transport boxes are very finely detailed and lettered.

### MCW 1:50

Steven Downes of Miniature Construction World is offering the Liebherr R 954C from Conrad in an exclusive limited series. It has narrow tracks, rock fall protection cage and a quick-change attachment in orange colour. Included with the model are some attachment tools: besides the shovel are a sorter/grappler, a demolition scissors and a concrete scissor set. (<http://miniature-construction-world.co.uk>).

## 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
Liebherr LTC 1045-3.1 «Mammoet»	1:50	Conrad	Mammoet	<a href="http://www.mammoetstore.com">www.mammoetstore.com</a>
Liebherr LTC 1045-3.1 «Schatte»	1:50	Conrad	MSW-Modelle	<a href="http://www.msw-modelle.de">www.msw-modelle.de</a>
Liebherr LTC 1045-3.1 «Wiemann»	1:50	Conrad	MSW-Modelle	<a href="http://www.msw-modelle.de">www.msw-modelle.de</a>
Scania G tipper 10x4 / crane «Hagedorn»	1:50	Tekno	Dealers	<a href="http://www.tekno.nl">www.tekno.nl</a>
Scania 4 Torpedo 4x2 / tipping semitrailer «Bastiaansen»	1:50	Tekno	Dealers	<a href="http://www.tekno.nl">www.tekno.nl</a>
Scania R 6x2 wrecker «Henriks Lottum»	1:50	Tekno	Dealers	<a href="http://www.tekno.nl">www.tekno.nl</a>
Caterpillar 568 LL	1:50	Tonkin	Dealers	<a href="http://www.tonkinreplicas.eu">www.tonkinreplicas.eu</a>
Caterpillar 340D	1:50	Tonkin	Dealers	<a href="http://www.tonkinreplicas.eu">www.tonkinreplicas.eu</a>
MAN TGX 8x6 / Nootboom Euro PX 3+5 yellow	1:50	WSI	HTM	<a href="http://www.heavy-transport-models.de">www.heavy-transport-models.de</a>
Mercedes Actros 8x8 / Palfinger PK1500002 «Kibag»	1:50	WSI	HTM	<a href="http://www.heavy-transport-models.de">www.heavy-transport-models.de</a>
Liebherr LTM 1050-3.1 «Colonia»	1:50	WSI	MSW-Modelle	<a href="http://www.msw-modelle.de">www.msw-modelle.de</a>
Liebherr LTM 1500-8.1 «Mc Nally's»	1:50	WSI	Dealers	<a href="http://www.wsi-models.com">www.wsi-models.com</a>
Volvo FH 6x4 / ballastset and -trailer «Mc Nally's»	1:50	WSI	Dealers	<a href="http://www.wsi-models.com">www.wsi-models.com</a>
Volvo FH4 8x4 / Nootboom Euro PX 4 «Jelle Bijlsma»	1:50	WSI	Dealers	<a href="http://www.wsi-models.com">www.wsi-models.com</a>
GINAF 10x4 tipper «Stutvoet»	1:50	WSI	Dealers	<a href="http://www.wsi-models.com">www.wsi-models.com</a>
Tadano ATF 400G-6 «Wagenborg Nedlift»	1:50	WSI	Dealers	<a href="http://www.wsi-models.com">www.wsi-models.com</a>
Scania R / Nootboom Euro PX 3 «FTG»	1:50	WSI	Dealers	<a href="http://www.wsi-models.com">www.wsi-models.com</a>
Volvo FH4 GL XL / semi lowloader «L.A. v/d Heuvel»	1:50	WSI	Dealers	<a href="http://www.wsi-models.com">www.wsi-models.com</a>
Scania R / Palfinger PK65002SH «Van der Sluis»	1:50	WSI	Dealers	<a href="http://www.wsi-models.com">www.wsi-models.com</a>
Mercedes Arocs M 6x6 tipper orange «Winterdienst»	1:87	Herpa	Dealers	<a href="http://www.herpa.de">www.herpa.de</a>
MAN TGS L / flatbed / A-Bock LR 1600/2 «Felbermayr»	1:87	Herpa	Dealers	<a href="http://www.herpa.de">www.herpa.de</a>
Ballastset (10 pieces) LR 1600/2 «Felbermayr»	1:87	Herpa	Dealers	<a href="http://www.herpa.de">www.herpa.de</a>
Goldhofer TU3 blue	1:87	Herpa	Dealers	<a href="http://www.herpa.de">www.herpa.de</a>
Goldhofer axles THP-SL modul 3axles or 4axles blue	1:87	Herpa	Dealers	<a href="http://www.herpa.de">www.herpa.de</a>
Goldhofer Power-Pack blue	1:87	Herpa	Dealers	<a href="http://www.herpa.de">www.herpa.de</a>
USA set with 3 trucks and lowloaders «Mammoet»	1:87	Tonkin	Mammoet	<a href="http://www.mammoetstore.com">www.mammoetstore.com</a>

# Michael Compensis collects cranes in 1:87 scale

## On the road

by Daniel Wietlisbach

Michael Compensis built his first diorama, together with his father, at the age of six. The street-theme diorama had as its focal point the well-known Car Sales Room from Faller in 1:87. Especially interesting for the young collector were the car models from Herpa, then new to the market, because they had “real” rubber tires. Cars from Matchbox were not as good nor prototypically correct enough for him. Trucks did not feature in a major role at that time but, of course, a car transporter truck was essential. Even though Michael was allowed to help his older brother in the construction of the family model railroad, the scale cars were more fascinating for him.

Looking back, he realizes that a key moment in triggering his collecting and modeling interest of today came at age 13 when he was on a beach holiday. A highway pull-out, a mere 100 metres from the beach was the adventure for Michael. Instead of admiring the ocean and enjoying the waves and beach life, he preferred to watch the trucks come and go. It was the power, the engine noise, the exhaust fumes and the other distinctive smells that mesmerized him. After his holiday he wanted nothing more than to buy a model truck from Herpa. The DAF95 with a cube-type cab had special appeal for him. The model

**Being close to the originals, Michael Compensis had an early fascination with cranes. The setting up and taking down of the large mobile cranes holds a special attraction for him ...**

was immediately dis-assembled after the purchase and everything was re-painted. His previous modeling experience came from kits ranging through the Titanic, tanks and fighter planes. The new colour combination for his truck was pure fantasy, because even at this early stage he wanted to give his models an individual note. He got bored on the subject of transport trucks after about a year. How fortunate that just then Herpa released its first heavy-duty transport truck to the market. It was a MAN F2000 Evo and the icing on the cake was that the maker brought out the matching Goldhofer lowboy trailer in the same year. Michael Compensis started to get himself deeply involved in the theme of heavy duty transport. He found many tips for kit-bashing in the Herpa Magazine, today called “Der Mass:stab” (The scale).

### Cranes first of all

The longer Michael Compensis was involved with scale models, the greater his fascination for cranes grew. Using his bike he started to search out prototypes nearby and

ended up at the Nuremberg harbor. There, a regular event was the loading of large, heavy Siemens transformers into ships using mobile cranes. The young man was not interested as much in the actual lifting process as he was in the erecting and taking down of the cranes. To watch this spectacle in all its details, he spent every free minute at the harbor. Once in a while he even skipped classes to observe in detail the Liebherr LTM 1800 from Schmidbauer. Later on, Michael had permission to be driven to school by a friend of his older brother. He was able to talk him into leaving home one hour earlier and, before attending school, to make a detour to the harbor. Further trips to watch his favorite machines often led him to Baden-Württemberg, a destination he could reach by train. When Michael first spied the LTM 1800, he decided that he needed to build a model of it using the well-known Kibri Kit (13033) and, that it had to match exactly the original from Schmidbauer. The model took shape and when finished, included every detail, even the famous “Bibendum”, the small Michelin Man. Even then Michael

## Translation of pages 10 – 13

Compensis wanted to model the crane in transportation mode, including all lowboy trailers. Six lowboy trailers from Kibri and the same number of tractor truck units from Herpa were the basis for this undertaking and all had to be re-painted and have new lettering applied.

### Gottwald AK850

Schmidbauer became an important theme of his collection and in 2004 he first discovered the Gottwald AK850. This crane, built first in 1982, was introduced as the most powerful mobile crane in Europe. It had a carrying capacity of 850 t. This capability was increased in 1987 by the purchase of an addition, the Maxilift flying jib arm to 1100 t. Up until 2007, when the crane was sold to Australia, Michael Compensis visited the giant crane at its working sites all over Europe, except for two occasions that he missed! Once he was on holidays and the other time because of the long drive to France, a fact he confesses, he will “regret for ever more”. His “heart was broken”, as he continues the story, when news came that the AK850 was to be sold to Australia. He took one more trip to Schmidbauer, where they drove the crane out of its garage for him to take his final pictures.

Because of his love for this crane and the many fond memories bound up with it, the “Masterpiece” of the collector took shape. He decided to model the crane with its Maxilift flying jib attachment. This took 13 tractor-trailer sets to show it off in transportation mode. Because for the original, only a few tractor trailer sets were used, it takes three days to erect and take down the unit, thus providing enough time for several

### The Collector

Michael Compensis (26) was born in Nuremberg, studied at the “Fachhochschule München” in Munich, and stayed there after his studies were completed. There he works as a free-lance advertising photographer. In addition to collecting models, he also collects foldable Polaroid cameras, type SX70, from 1972 to 2005. On top of that, he is interested in the arts and of course, photography as an art form!

trips to the site. For the models, it took him three years to find all the different transportation sets prototypically correct for Schmidbauer. Using models from Herpa, Kibri and Albedo, slow and steady progress was made and all the lowboy tractor-trailer units were built. On the crane model itself, the lattice work had to be partially rebuilt as well, the flying jib was also partially scratch-built.

### Small Series Models and Scratch-built Items

There are two crane models from limited series runs that must be mentioned. The Liebherr LG 1200, a “kit” made by Dutch Jan Dorst in very limited number. The kit made mostly from CNC milled plastic parts. The set contained the main parts of the model; other parts had to be scratch-built by the purchaser. Just as unknown is a model of the Krupp 12GTT made by Unica. For this model however, the collector has built his own under carriage. A model of the Terex CC2400 is taking shape at the moment. This will be a completely scratch-built crane and, of course, it will be shown in transportation mode. Ready and already on a lowboy trailer, is the finished upper part to be followed by the driving units and all mast

pieces for the smallest possible erection height. Two further crane models were created on the basis of the same model from Kibri (10754 – Demag AC 665). The Demag AC200 from “Treffer” was discovered by the collector when a move to Munich for his studies was necessitated. The Demag AC400, in the colours of “Markewitsch” from his home town of Nuremberg intrigued him so much with its intricate support system that he just had to build a model of it. Another model, also all packed up and ready to transport on its own rig, is a Liebherr LTM 1500; this model was made from Kibri parts and many scratch-built parts. Again, the transportation firm is Schmidbauer, even if the green BF3 scout car hints at another firm. However, it is correct and corresponds in all details to the original. It is not surprising then, that with all these adaptations and scratch-built items (the main donor being Kibri Kits), a total of five moving boxes of parts have accumulated. By the way, only a very few models do not fit the main theme; for example, the heavy-duty transport set from Felbermayr is a perfect fit for the Gottwald AK850. Furthermore, there are a few construction machines that are superbly detailed scratch-built models, although they have only one purpose: being interesting loads!

# Volvo EC480E and 40G from Motorart in 1:50

## Team work

by Daniel Wietlisbach

The model of the EC480E is so new that no information of the original could be found at all. At Volvo, the EC480D is still being sold and from the E series, only the EC380E has been delivered so far.

We welcome Motorart's issue of a model of the newest generation of the EC480D only one year after its original release. The maker shows, after the somewhat flawed models shown at the Bauma 2013, it has managed to find its way back to producing models in the old quality.

The model of the 50t excavator feels nice and heavy when held. This comes from the high metal content used in its making. The lower carriage looks nice overall and the track carriers are fine engravings. In addition to the two support and nine running wheels, the propulsion wheels and guide wheels are also fully functional. They are equipped with springs however, they do not keep the tracks straight and tight, but let them hang down too much for a modern excavator. The freely-moving tracks are created using 51 triple segments that translate to 600 mm on the prototype. The massive upper carriage has basically two major parts, one being the base plate including the running boards and the other, the crane structure, both made completely from metal.

**Surprisingly, Volvo presented a model of the EC480E at the Conexpo in Las Vegas; the A40G had already been announced earlier at the Toy Fair ...**

Many details like anti-skid surfaces, air intakes, slits and grilles, service hatches and door handles as well as the centrally-located slewing engine are engraved. The Volvo logo on the counter-weight is, as on the original, made with raised lettering. Especially nice to see on the model are the fine metal handrails and safety rails, these are equipped with rear view mirrors made from a flexible plastic material. Air filters, exhaust, rear view camera and spot lights are separately-applied plastic parts. Traditionally, the engine cowl can be opened and shows off the multi-coloured engine including the very tiny Volvo logo engraved on it. The cabin housing the operator is also made from a cast, engraved metal piece. The

windows are imitated with a clear plastic casting that has the proper quarter partitioning, but it is not coloured in. The hand holds are metal. There are window wipers and a large arch spot light however, no rear view mirror for the operator. The interior of the cabin is nicely detailed but uni-coloured.

### Equipment

The EC480E is equipped with a 7.0 m long arm and a 3.35 m long jib, both nicely modeled. The lifting cylinders are completely modeled with all supply lines imitated, but without the screw connections. The almost too thin hydraulic lines on arm and jib are made from a flexible plastic and connect from

#### Volvo EC480E

- + High metal content
- + Detailing
- + Finish
- Outrigger arm function is limited

#### Volvo A40G

- + High metal content
- + Detailing
- + True to scale
- Rigid rear axles

the upper carriage to the appropriate cylinders. Fortunately, an additional hydraulic circuit is shown. While the jib has full functionality, the extension of the lifting cylinders is limited to such a degree that the arm does not reach the maximum height or depth. The shovel is made from a single casting and is an exactly engraved metal piece that is well detailed including the teeth. All bolts at the joint are coloured and do not detract in any way from the neatly-executed model. The paint job is very ornate; the Volvo grey shows up in either matt or silken gloss at the right spots, the very matt black on the air intakes gives it depth. The lettering is sharp and is legibly applied and even the yel-

low warning labels have not been forgotten.

### Volvo A 40G

Made from a completely new master, the scale model of Volvo's flagship A40G Dumper from Motorart is a very nice model. The same model without the changes is also available as A40F, because Volvo has them running concurrently. As we already looked at the "old" A40F in detail in issue 4-2013, we are just going to look at the major changes here.

At first glance, one recognizes the new dumper immediately by its bright orange hand railings. These are made throughout from metal.

It is nice to note that the rear view mirrors are also metal; this gives the model a higher value-for-money than last year's A40F. The photo-etched air intake grilles on both sides of the engine hood are excellent. The somewhat narrower tires are correct for the standard, while the earlier A40F had the optionally-available, wider tires. The fenders on the A40G are a bit broader. There are some rubber mud flaps on the dumper and the dumping degree is larger but still off by 15°. It is too bad that once again, the two rear axles are rigidly mounted thus making it impossible to imitate the oscillating movement of the original. Lettering and colour job are up to the same high level as the EC480E.

# BAGGERMODELLE

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



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## Cat 930K and 938K from Norscot in 1:50

# Small but great

by Daniel Wietlisbach

**Even smaller models have their appeal as the new Cat 930K and 938K from Norscot show ...**

Both models are made from the same moulds. When checking the models against the measurements of the prototype, it shows that they are correct for the 930K but not for the 938K.

The wheeled loaders are made mainly from metal castings and, in addition to their good looks, have a high degree of functionality. The lifting mechanism is capable of reaching the prototypical height, the dumping gradient is satisfactory and the degree of articulation for the body is correct for the 930K, however one would have wished for an oscillating rear axle. Included in the great functionality of the models are the quick-change attachment holders. It is hoped that they will survi-

ve the multiple tool changes without any damage.

The plain tires are well executed and are detailed even on the inner side! The models are equipped with the correct tires. The rear of the chassis is made mainly from two screwed-together metal casting with the exhaust and air filter attached separately. The cabin is also metal and has a detailed, black interior. Head lights, window wipers, rear view mirror hand rails and an all-round spot light as well as the access steps, made from fine plastic injection castings, round off the de-

tails. The articulated joint has been modeled with two hydraulic cylinders and the rather plain front part of the model has the lifting mechanism and the quick change attachment as per original. The very large rocker arm of the Z kinematic is correctly modeled. The metal shovel is remarkably thin and exactly cast and so is the set of forks that can be adjusted sideways. The clean lettering and clean paint coat round off the very well modeled 930K. The same goes for the larger brother, the 938K except for the wrong measurements.

# Liebherr R 922 Litronic from Conrad in 1:50

## Nicely done!

by Daniel Wietlisbach

The R 922 Litronic is a team player in the 20 t class of excavators and only at first glance looks like the “brother” of the A 920 Litronic, a model which was introduced in our 5-2013 issue. The R 922 Litronic is powered by a Liebherr D 834 A7 four cylinder engine with the cylinders arranged in a row. It can produce 143 hp (105 kW) and qualifies under the emission control step IIIB. The back hoe shovel capacity is between 0.55 m<sup>3</sup> and 1.43 m<sup>3</sup>.

Because of the distinctive differences between the two models, Conrad had to completely re-design all parts and to add a few details. The excavator does not disappoint the collector because it has a large amount of metal cast parts and overall, is true to scale.

The prototype for the lower chassis is the LC under carriage with a standard track width of 2380 mm on the original. It has 8 running and two support wheels and together with the track carriers are cast on as dummies. The driving wheel is finely engraved and even has the Liebherr logo engraved on it. It is lightly sprung thus enabling the tracks to turn smoothly and effortlessly. The metal tracks, consisting of 37 units with the standard three-part segments from Conrad's standard program, look a bit coarse. The

**The excellent R 922 Litronic model rounds out Liebherr's model program. This good looking model from Conrad will have found its way into many collections by now ...**

maker should re-think this decision; with the ever-increasing degree of fine detailing of its models, it would make sense to include individually-designed tracks for each model.

The well-proportioned upper carriage is made from two die cast metal castings upon which are many engraved details that include the nice, deeply-engraved air intake slits on the engine cover. Separately-applied detail parts include the plastic air intake manifold and hand grabs as well as the chromed exhaust pipe. The honeycomb lattice grilles for the engine room are two- color, printed-on stickers that come close to the look of the original. Counter to our statement in our Toy Fair report, the cabin was not taken from the A 920. The cabin for

this new model is now also made out of a metal casting. The glass part for it that fits snugly and has been slightly tinted is a plastic casting that has the gasket and window dividers printed on and looks just like the prototype! The only wish unfulfilled is that we would have liked the window wipers as a separate piece and not just printed on. An antenna, hand rails and rear view mirror complete the cabin.

### Equipment

The model excavator is equipped with the 5.40 m long Monoblock outrigger arm and a 2.70 m jib, both nicely done. The hydraulic and supply lines are modeled quite nicely. On the outrigger arm the lower part is cast on and painted silver. The lines that are more visible on the upper part of the arm are separately-added plastic scale, silver-colored lines and flexible black rubber lines. Unfortunately, there is no additional hydraulic circuit modeled. The hydraulic cylinders are without the bolt detail but have free-standing lines

### The models at a glance

- + True to scale
- + Functionality
- + High metal content
- Coarse tracks

and are true to the prototype. The quick change attachment is the same as on the A 920 and so the clam shell bucket from it fits the R 922 which is a plus for collectors who play with their models. For this reason, in particular, a tilting bucket shovel would have been a very welcome addition

instead of the front back hoe shovel of the new model. The functionality of this equipment supports most of the desired uses for the model, especially when showing the model in transport mode. Only the maximum excavating depth of 25 mm cannot be reached.

The coloring of the model is clean, as usual, and covers well without hiding any of the details. Likewise the lettering on the outrigger arm, but on the upper carriage some pressure points can be seen.



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## Tinplate

# Biller 745-1

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by Robert Bretscher

At first glance, the twin axle, cable-operated clam shell excavator looks almost perfect. It is hard to believe that at the time it was made, the innovative maker of these toys had to cut some corners and reduce features in order to keep up with the imports from the Far East flooding the toy market. Compared to the predecessor model that we introduced in our issue 5-2013, the lower chassis of this model came with only two axles instead of the four on the earlier version. Also, the steel bottom plate, on to which the motor for the winch was screwed, was replaced by a tinplate one.

Despite these changes, the impressive cable-operated clam shell excavator from the 50s can still provide a lot of fun play. All basic functions of the first model were taken over intact, even though the model was no longer powered by the strong motor used in the Billerbahn engines. The very nicely prin-

**This great, colorful excavator with the production number 745-1, was made by Hans Biller's famous Nuremberg Patent Toy maker factory ...**

ted-on windows and doors show that the maker took great care in designing the looks of the model. Even the rivets on the upper part are hinted at with rows of small blue and black dots. The control levers can be found at the stern of the model. The left lever controls the engine for lifting of the bucket and the right lever controls the opening and closing of the clam shell bucket. As per prototype, the opened clam shell bucket can be dropped from a height so that it can "dig" into the sand. When the clockwork mechanism is fully wound, it is possible to have about 10 operational movements. A unique feature on this model is that the key used to wind the mechanism is fixed to the model. With this cautionary in-

vention the winding up of the motor could be guaranteed. A lost key was no longer an issue and so Hans Biller was able to prevent many a tear or unwelcome play interruption due to a key buried somewhere the in sand.

As it was possible to transport this model on a Billerbahn railway car, the designer beveled the upper sides of the model so that it would fit through a railway tunnel.

The Patent Toy Tin Plate factory, founded in Nuremberg in 1937 by Hans Biller, was known for its elegant design and the technically superior engineered functions of its construction machines and contractors' railway models. Many of these toys can still be found in the homes of Tin Plate Lovers today.

## Eye Candy

# LeTourneau LW 30

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by Albert Schmid

One of the outstanding engineers was Ralph H. Kress, who moved from the Dart Truck Company to LeTourneau Westinghouse (later Wabco) in 1955 and thus construction machine history was made.

As the lead engineer, he was responsible for developing a completely new rigid frame dump truck with a capacity of 30 sht (27 metric tons) that had no comparison. As first in the so-called Haulpak series came the LW 30 built in Peoria, Illinois and introduced to the market in December of 1956. The experts were amazed. By disregarding the usual construction method (truck construction) LeTourneau Westinghouse surprised everyone with some revolutionary new construction techniques, for example, a new frame construction with shorter wheel base and large wheels. Added to that was a V-shaped dumping bin with the ideal centre of gravity in the middle of the vehicle. A one-person dri-

## **LeTourneau Westinghouse LW 30, a legendary “ancestor” for all of today’s rigid frame dump trucks ...**

ver cabin moved far to the left and placed over the engine, had a tilted front window and a hydro pneumatic “Hydair” suspension for added driver comfort. The vehicle, weighing about 46 t, was propelled by a Cummins V-8 Turbo Diesel engine that produced 380 hp and could reach a top speed of over 60 km/h. In 1959, followed the LW32 that was load-optimized. The successive further development of the Haulpak-series led to a lightning-quick world-wide proliferation. During this phase many load records were set. Today the rear dumper is produced as a resin casting model with the name “Wabco 35” (MiM 50032) in 1:50 by Dan Models in Rumania. For many years now the model maker, Dan Silvestru, from the administrative

district of Prahova has been responsible for numerous, spectacular historic military resin models, heavy duty transport and construction machines. The very delicately-built Wabco 35 impresses by its surfeit of detailing. Significant for Wabco are the typically-pierced front cooler grills and glass-like front head lights. The steering is non-functional but from the driving wheel to the gear train and gear shaft every detail has been modeled. About 60 pieces of the Wabco 35 model have been built; a special series was even in the colorful design of Jean Lefebvre (Vinci). By the way, the “genes” of the constructor of the LW30, Ralph H. Kress, can be found without any doubt, in any of today’s modern rigid frame dumpers.

# Gottwald AMK 71-52 from Himobo in 1:50

## Leopard line-up

by Carsten Bengs

Gottwald mobile cranes are legendary, in particular for their “Leo” series from the 80s with its unique double cabin. They are the predecessors of today’s city cranes.

Many pictures and conversations with a driver who accompanied the crane for many years were used in the research required to produce this model of the 70 t crane.

Due to the large amount of metal used in the making, the model is massive. The model rolls on five axles, all of them steerable; the turning radius is adequate. Himobo has modelled the power train, including axles, very nicely. There are warning stickers at the stern and bow as well as simulated spotlights and flashers. A trailer hitch and warning beacon finish of the details.

The engine hood with air filter can be made out at the rear. The prototype had a 257 kW Mercedes Benz Diesel engine installed. The radiator grille is a nicely-done detail part. Access to the lower chassis was made possible by some finely-cast steps that have been picked out in silver to make them more visible. Additionally, small ladders have been attached to the sides of the lower chassis. Four support struts give the model a stable base; these have hidden, inside threads. The swing out beams have warning markers

**The model of the AMK 71-52 from Himobo comes painted in the Mairitsch color scheme and in red and black versions in addition to the Franz Bracht version shown here (exclusive to MSW Modelle) ...**

added. The prototypical, real wood crane mats are a very nice idea. During road transport they are lashed securely to the side of the chassis, a common practice at the time. Small Gottwald stickers can be found on both sides as can as hand grips. Typical for the Leo series was the distinctive double cabin, one for the operation of the crane and the other one for driving the unit on the road. Here, of course, we find window wipers as well as handholds and a fully-detailed interior. The window gaskets are painted on and the cabin door sports a decal for Franz Bracht. Installed on the upper carriage was

a 107 kW strong, Mercedes Benz engine. The radiator grille, air filter and an exhaust pipe attached on the side are readily recognizable. Small mirrors included in the small detail parts bag have to be inserted into the corresponding holes on the model. The crane arm has four telescoping segments and the wire rope guide wheels are hinted at. Typical for Gottwald was the angled pulley head that was very distinctive and recognizable from far away. This brand signature of the former crane builder from Düsseldorf has been successfully replicated on the model. A metal cylinder holds the arm secure, and can be fixed in any place by an Allen screw and key. The screw should not be used too frequently as it is prone to wear out with over-use. The hydraulic line is modelled on the cylinder and the other fine supply lines are cast on. However, the outrigger arm is too small to reach the maximum line height of the original. All line dolly

### The models at a glance

- + Choice of prototype
- + Adherence to detail
- + Crane mats
- Arm does not reach max. height

wheels at the head are aluminium and run freely. The “Gottwald” typical silhouette has been modeled and of course the model is created so that it swivels freely. It is shown with three dolly wheels and, using

the standard hook, would be capable of lifting loads of up to 40 t.

In conclusion it can be said that Himobo has created an impressive model with the AMK 71-52 of the Leo series. It gives an insight into

the innovative crane concept of the 80s. Functionality and adherence to details are great and all this without a commission from the industry. A detailed data sheet is available.

## Caterpillar tracked loader 941 from NZG in 1:24

# Loader for any occasion

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by Thomas Wilk

The NZG pre-production model of the Caterpillar 941 with the serial number 103 was produced first in 1968 and is very rare. It was produced for only a year and had no driver's cabin. The most obvious difference with this model is the smaller bucket shovel with black lacquered teeth. The rear of the shovel on this model, above the deflection arms for the shovel kinematic, has a small indentation that is also visible inside the shovel. The bottom of the shovel is shorter by 8 mm (36 mm when measured with teeth) than any other shovel used. This means that the shovel side pieces are also shorter. The eight, cast-on teeth are a bit broader and flatter but are otherwise correct in number when compared to the original. Further very interesting

**From 1968 onwards the 70 hp Caterpillar 941 was found on countless construction sites around the globe. At the same time, NZG produced its first, very detailed 1:24 model ...**

details for this model are the operating levers for the shovel and for the power shift transmission that controls the tracks. These were made from small nails, with heads painted black, placed in small consoles left and right of the driver's seat. On later models, these were part of the casting and nails were no longer used. The driver figure with blue overalls and yellow construction hat is a further detail of the model. The model fascinated young boys of that time and even

today increases the heart rate of today's collectors.

The complete lifting mechanism, including the pivoting arms, has been modelled. It is possible to reach a prototypical dumping height of 2.59 m in scale, and to make all prototypical movements of the shovel. The sticker for the split radiator grille with the drilled holes showing is an excellent replication as is the prototypically correct lettering of the model. The four, plastic, work-illuminating

spot lights round out the total picture of the model. For the time, it was an almost-perfect model that was true-to-scale and had high play value.

### Promotional model in parts

There are only a few examples left of the pre-production series with small shovel in collector's display cases and they rarely appear at swap meets. The 800 g models from NZG are now over 45 years old and many hard days working in the back yard sand box have taken their toll on many of them. Most affected or damaged were the running gear, rubber tracks and shovel, so that today hardly any models can be found in good or mint condition. Most of the 37,500 models produced of the #103 were made for the second version with a larger shovel and cast-on operation levers. Only the third issue of the series in 1969 was produced with a Zeppelin operator's cabin. This model was sent out as a gag by the Importers Zeppelin Metallwerke in five separate mailings. The Zeppelin cabin then was presented in person to the prospective buyer by a sales rep. Since the first tracked loaders and other construction machines in the 60s were delivered

without a cabin, every Caterpillar dealer had to contract out someone to build them for the dealership.

The Swiss Caterpillar dealer at that time, Ulrich Ammann AG situated in Langenthal, Switzerland (today Avesco), listened to the wishes of collectors and issued another small series of the model in the old Caterpillar yellow. The models were carefully and lovingly unpacked by apprentices and the Ammann logo was glued to the lifting mechanism and the diesel fuel tank; after that they were carefully repacked for sale to future customers. The pre-production series of the Cat 941 were also made with the Zeppelin logo (large Z and the silhouette of the Graf Zeppelin Air ship), correctly and nicely lettered giving the model a very distinctive look.

By mounting a counterweight at the rear, the driving behavior and the balance of the whole model was greatly improved, especially with a load in the shovel; this also improved the performance of all running gear parts such as driving and guiding wheels. On this model, NZG has reproduced this detail in miniature remarkably well. Even the towing hitch with its drilled-out holes was reproduced. A further highlight on the detail side is the dashboard that now in-

cludes five round gauges on which one can even detect the indicator hands.

### A new article number

The NZG model of the Caterpillar 941 with the article # 108 was produced between 1993 and 2000. It was released in different versions but always with the Zeppelin operator's cabin. A total of 32,800 units were produced. All models were delivered with the larger shovel and cast-on operating levers and until 1993 were painted in the "old" Caterpillar color. Between 1994 and 2000, the paint scheme changed to the newer, slightly darker yellow. Also the two rubber tracks were now black and improved the appearance of the model. The rest of the details and castings were taken over from the previous series.

From 1999 until 2001, NZG produced the Cat 941 model with the yellow single segment tracks. These came from the Caterpillar D7 model in 1:24, the driving wheel and the pierced guide wheels were also taken from there. Further versions followed with black metal tracks and the model of the year that was painted golden and was produced until 2004.



# Attachments from Gaz Evans in 1:50 scale

## More options

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from Steven Downes

He would often visit a local farm where he had his first Introduction to diggers, sitting on a Massey Ferguson 135 with rear mounted backhoe. Luckily for him, a local plant hire company had their yard directly behind his home so after school, he would frequently call in where he would be seen practicing on a JCB 5c and JCB3. When he reached the age of 17, he began driving plant equipment for real, his first machine being a Ford H45. Over the last 33 years, he has operated a wide variety of excavators for a number of companies, the latest of which was the Cuddy Group who specialise in demolition throughout the UK.

As a child, Gaz was a keen modeller, building various plane and tank kits and while these were done from parts, he later began custom work to change the models here and there. The first boom he worked on was the result of a bet with a fellow work colleague, and he was challenged to produce a replica HRD boom. Despite being way oversized for the base model at hand, this first attempt led to more and more model ideas which eventually led to the range of booms currently offered. His first foray into white metal casting came about when he had a part-

### **The interest in earthmoving equipment began at an early age for Gaz Evans ...**

nership with Eric Piozak, initially casting a range of Labounty scrap shears in resin, the prototypes of which were developed by Eric. The resin material proved too flexible and brittle for the shears so Gaz invested in white metal casting equipment, something which is still on standby today although most of the new items are sent for casting using a specialist company from Gaz's hand crafted sample.

#### **Boom Kits**

For a number of years, Gaz has produced some rather interesting boom combinations, featuring some of the more unusual designs for more specialist duties and these booms help to transform a standard excavator into something a little more unusual and unique. Initially, the booms were fairly basic with no finer details like hydraulic hoses. As the popularity of the booms increased, he started to add more details, initially by casting the hydraulic pipe work into the back of the boom and on some of his recent booms, pipe hangers have been cast into the parts al-

lowing the collector to add piping which is raised from the surface, looking much more realistic. Each kit contains all the parts needed for assembly including lengths of plastic and metal pipe, flexible hoses, connecting pins and, for some kits, additional hydraulic cylinders with white metal end caps. All other parts are re-used from the base model. Currently, no instructions are included so the collector needs to be fairly good with drilling, painting and assembly. For the Cat 320D coal shovel, a small number were available fully built and assembled and this was one of the catalysts leading to the range of fully built items which have grown recently, with more time spent developing new projects while trying to keep all the built models in stock.

#### **Arden Demolition Tools**

The first of these was a range of Arden demolition tools consisting of the large AS-070R scrap shear which features a 360 degree rotation of the body and opening jaw which has the cutting blade detail-

ling replicated. Two versions are available, one for stick mounting and one for boom mounting allowing the shear to fit a number of different models. This was followed by a large CU5000CB concrete shear which again has 360 degree rotation of the body and opening jaws which accurately replicate the contours of the full sized attachment. The latest addition to the Arden range is the smaller AS-027R scrap shear which is perfect for smaller excavators in the 20-35 ton range, again available in either stick or boom mount. Painted in authentic colours with decals, the models are all produced from factory drawings and approved by Arden.

### **Gjerstad Buckets**

Gjerstad is a manufacturer of heavy duty digging buckets for excavators and wheel loaders with

a focus on excellent ground penetration and long life. The Xtreme bucket for 70+ ton excavators is the first produced for the company, again finished in authentic colours with painted decoration and able to be fitted to the Hitachi ZX870 or Caterpillar 374D as an alternative to the stock bucket. The popularity of the Xtreme bucket led to the development of a bucket and ripper set, complete with quick coupler which will fit models in the 50 ton range. Currently in development is a set of two buckets and coupler for 20+ ton excavators.

### **Xcentric Ripper**

The Xcentric ripper is a specialist attachment which is fast becoming a popular alternative to the hydraulic hammer in certain applications. The first 1:50th scale replica in the series is the XR50 which has been hand modelled from original facto-

ry drawings and features a slightly oscillating ripper shank and good surface detailing of the housing, complete with indented XR50 designation. Designed to work with 50+ ton machines, the model has been specifically developed to fit the Liebherr R954C with quick coupler while it can also be pinned into place on a number of different models. The inside surfaces of the hanger are raised allowing light filing to increase the distance to allow the XR50 to fit models with slightly wider stick dimensions. The replica has been produced in both the blue / grey and yellow / black colour combinations and is supplied fully painted and decaled up. In development is the bigger brother, the XR80 which is suitable for excavators in the 70+ ton range and should be available soon while the XR20 is also planned later this year for 20+ ton excavator models.

## Construction Simulator 2014

# Construction as a game

---

by Janusch Mazurek

### **This construction simulator leads the list of favorite downloads in the AppStore ...**

The Construction Simulator 2014, available from the AppStore since last fall, has all the bells and whistles that increase a man's heart beat. The simulation specialist located in Mönchengladbach, Germany offers a huge simulation with heavy duty equipment such as excavators, trucks, cranes and road rollers.

The first start takes a while to get going, because the world of the contractor is a big one. We enter a profile and we are off! Hans-Peter, the last worker remaining welcomes us and tells us that we are here to take over the firm from our uncle and that time should have been earlier. So, just little bit like in real life. This should not hold us back however and we are good to go.

'Hape' explains every machine or truck and offers a small tutorial on how it works. However, at the beginning not all machines and trucks are at our disposal. We need to earn the necessary cash to buy the machines we want by making small deliveries and doing excava-

tion work. Depending on how large your stable of machines is, there are the matching construction contracts available for us to earn more money. Part of the jobs can even be sub-contracted.

Once we have enough money and are able to acquire the sought-after municipal licences, then we can dare to get involved in a mega project. However, for such a licence one needs a lot of experience, a large machine park and enough money. When we finally have the licence in our pocket we can put in our bid for the new Municipal Swimming pool or the new Library.

We can drive or transport any machine that has wheels or tracks, from the simple dumping truck to flat beds up to heavy duty transport trucks. For excavations we can use small or large excavators or wheeled loaders. And for large and heavy loads there is a flat deck

truck with mounted crane or even the fast deployment crane. Enough jobs to use every vehicle or machine are available. The animations for 14 different vehicles are excellent and look like the prototypes from Liebherr, MAN or Still. The totally 3D Construction Simulator application is a challenge for iPad and iPhone, but hesitates only occasionally. The game is also available for Android devices, as a computer game for Mac and PC and is under constant development.

In conclusion

He who thinks, 'great here I can drive around, dig up some dirt and that is it', will be happy to know that there are additional modules available for download. Then once other town sites become available to us, new contracts and challenges will await. And who does not want to rise from an apprentice to a construction magnate?

# Remo's old Iron



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

in the hunt for the right answer. Recognized? Then send us the exact manufacturer's name and the model number on a post card by mail. We also accept email submissions (contact information is on page 42). The contest ends 15th June 2014. Should there be more correct answers than prizes

a draw will be held. This time the winners will receive one of the following prizes: The brand new Volvo EC480E from Motorart, the Liebherr R 936 Litronic in black for "HMT" from NZG or the MAN TGS M 6x4 Euro 6 with a Meiller three-way dumper from Conrad.

by Remo Stoll

Freshly washed and perhaps just waiting for the next job, this bulldozer sits raring to go on a construction site. Very soon it will look much whiter because it will be applying lime to improve the soil on site. But watch out to all those who know this dozer with lettering! Something is not quite right here, just a small hint to help

## Solution from BAGGERMODELLE 2-2014

The dumper is a Euclid R-15. Again, we had to hold a draw to decide the winners. The following lucky entrants have won: Thomas Teubel from Berlin (D) the Liebherr R 916 classic "Toy Fair Edition 2014" from NZG, Markus Vertacnik from Bochum (D) the Goldhofer lowboy boiler transport trailer with a MAN TGX XXL "Felbermayr" from Conrad and Philipp Hirsch from Hartmannsdorf (D) the New Holland W300C from Motorart.

We congratulate all the winners!

## Extec C12 as a kit from MLM in 1:87

# Mobile Crusher

by Michael Compensis

When the model is observed closely, the similarity to the prototype C12 is apparent. Extec offered this before being taken over by Sandvik, thus this kit can be built prototypically correct as the yellow Extec version or, by making small changes here and there, in the orange/beige Sandvik version.

The limited issue series is made up of over a 100 single parts with different materials used where MLM (Marcus Langer Modelbau) decided that with them optimal appearance could be achieved. This means that in the kit are some cast resin parts in addition to a couple of etched frets, milled Polystyrol parts and profiles, metal springs, steel axles and several peel-and-stick foil sheets. From the scratch-builders box, a few round profile bits and tires from the large release series have to be added. Unfortunately, a decal sheet for the lettering is not included with the kit. The dolly that is included with the model for the road transportation of the machine is prototypically correct allowing it to function just the way a trailer with a goose neck and hitch is towed by a three or even four-axle truck. Especially nicely executed is the pierced “Extec” logo at the rear of the

**MLM is selling its first model of a Breaker in 1:87 as a “Mobile Breaker”. This new offering will be of interest not only for earth-moving fans but also for aficionados of the heavy-duty transportation genre ...**

dolly; it contributes much to the interesting picture the model makes in transportation mode. However, the front part that is coupled to the machine to be transported needs major surgery in order to adjust it to the original look.

### High fitting accuracy

The construction of the limited issue series, breaker model kit is straight forward when compared to others. The parts have to be cleaned off, and de-grated. The removal of excess material like sprues or chimneys formed at the casting process, is not required with the extremely fine castings from MLM. Also, the parts did not have to be cleaned and de-greased but are ready to paint without any priming. In addition to the extremely well-fitting parts, there are additional lugs and holes that help to position the parts correctly on the model. The parts that are of a different color on the

later design model, like the radiator grille, are included as separate parts in the kit so that extensive taping before spraying the model is eliminated. Only the drilled holes on the milled lower chassis that are designed to hold the resin track guiding parts do not match correctly and have to be re-drilled. The most difficult part of assembling the kit is attaching the finely-etched tracks to the track carrier. These are a bit larger than scale but still give an overall very pleasing look to the finished model. Unfortunately, the way the individual track segments were drawn and then etched resulted in a small mistake. The length of the tracks is correctly calculated, however the total length is just a bit too short to fit cleanly around the track carrier and there remains an unsightly gap at the end. If this gap is placed on one of the lower places, for example under a driving wheel, the small gap can be filled with a scrap piece from

the etching fret making it almost disappear after painting. That the tracks then become un-operational but look better does not disturb the majority of modellers.

### Super structure variants

With a couple of drilled holes, many parts such as the receiving hopper, can be made to move. Because the eyelets on many of the parts become very small and are prone to break, it is recommended that the decision on how to model the breaker, either in transport or in working mode, be made right at the beginning. The receiving hopper on the model, as on the original, rests on eight springs and is moveable! Inserted into the hopper is a two-step, pre-sifting grate made from a finely-etched

part that allows a look down to the bottom of the hopper. The sifted material ejected on to a side conveyor belt on the original, is also shown on the model. A special feature incorporated by the maker for the finishing of the conveyor belts is unique. The fine rubber bands of the original conveyor belt have been modeled by using exactly-cut, matt black adhesive films. The same goes for the ma-

gnetic material removing head which is included as a separate piece. With a few shackles found on the etching frets and some additional scale chain (for example from Weinert) it is possible to hang the magnetic head over the belt as on the prototype. The author decided to build the model in transportation mode. The decals were made on his own printer as described in issue 6-2012. The original Extec colour can be matched closely using the RAL 1033 “Dahliengelb” (Dahlia yellow).

By selecting the single components of the kit with the finely milled hollow lower chassis frame, the many fine resin detail parts and last, but not least, the many etched parts, a model can be built that is miles ahead of the already available ready-to-run model!

#### The models at a glance

- + Choice of prototype
- + Very clean casting parts
- + Detailing with etched parts
- Tracks are too short

## O&K RH 120C from Urs Peyer in 1:50

# A Masterpiece

---

by Urs Peyer

Large backhoe shovel excavators fascinate the builder more than the ordinary front shovel excavator. The reason for this might be that the backhoe-equipped excavators look bigger, and also at the time it seemed that only front shovel excavators for large excavators were offered in the construction model market. Notable exceptions were the Liebherr R991 and the Poclair CK1000. The first modification attempt was a conversion of a front shovel to back hoe of the O&K RH30C. A somewhat simplified version of the first backhoe-equipped RH120C followed shortly afterwards. The size increased with the Demag H485. A bit smaller were the Demag H135S, RH30E, RH200 and the Cat 6130. A really big O&K fan managed to talk him into selling the RH120C and RH200. That led logically to building two new back hoes. Pictures, brochures and his own drawings were available so that towards the end of the 90s, a second new back hoe scoop for the RH120C was available. The project for the RH200 was no longer necessary because the Terex O&K RH340 with back hoe was released. This model set a milestone as far as detailing was concerned. The question then arose as to whether to finely detail the arm and back

**Every model builder has his own very personal masterpiece. Modification specialist Urs Peyer shows off his RH120C and explains how he went about creating it ...**

hoe attachment for the RH120C or to detail the whole excavator to the same degree.

By 2005 a new structure over the engine room containing the air filter intake housing and the exhaust plant emerged. The existing railings were taken off and re-installed at the edge just as on the original. The twin segment tracks used are made by OHS; these and a modification kit for the RH30E front scoop excavator were purchased at the Model Show Europe in Holland. By the way, from a contact at the same show the new decals were obtained for the RH120C. On the model from Conrad were more hand railings that were not up to snuff. Since the soldering of new hand railings is not for everybody, it became clear that someone had to be found who knew how to use a soldering iron. An opportunity did come along to swap some hard-to-find books for instructions on how to solder the railings and so, new railings were made for the engine room, the out rigger arm and finally on and around the cabin. Around that time the “fatal”

idea came to convert the upper carriage so that it can be assembled in modules as per original. Those familiar with the model know that besides the engine hood and the cabin, the remainder is one solid die cast piece! The consequence of this idea then was to build a completely new frame for the upper carriage, including a new base attachment for the arm and for all upper carriage components. Since it is known that Urs Peyer prefers to use ABS plastic profiles and sheet stock, some concerns were voiced that the weight of the metal modules left would over-tax the new ABS plastic frame. The solution was to include some Aluminium profiles in the lower part of the upper carriage ABS frame. The upper carriage can now be dis-assembled into eight different parts: frame, counter-weight, engine and pump module, oil cooler, cabin raiser, cabin platform with access to the engine module left and right. The upshot of the whole modification was that the only piece that was not altered in any way was the glazing for the operator’s cabin!

# Building roads in 1:50, Part I

# Room to roam

# for your models

by Markus Lindner

As a demonstration project we will model a country road scene and a short piece of cobblestone surface in an industrial area. This allows us to display a great variety of models in different situations.

## The planning

The modeling of roads and the related infrastructure is copied from the prototype. We follow the standard cross-sections, set down by the regulatory bodies. This should be recognizable by the modeller and viewers alike. For example, a few weeks ago in Germany new guidelines (RAL) were adopted and published. They define the cross-sections according to traffic density and the allowable speed on the road.

As our Diorama shows an existing road, the “Regelquerschnitt RQ 9.5 nach RAS-Q” or cross-section regulation RQ 9.5 section RAS-Q, applies for us. These are the measurements for country roads with up to 15,000 vehicles daily. When we translate the measurements in to 1:50 we get a width of 13 cm and a verge of 3 cm on

**Until now we have not touched an important part of building Dioramas. It concerns the building of roads and how to model road construction scenes ...**

each side. The two traffic lanes are separated from each other by a centre guide line and the edge of the lanes are marked with a solid white line. We chose a diorama size of 125 x 80 cm, on which to plan the road. The road itself is not straight but runs in a large curved radius. This length is required to enable us to run heavy duty transport sets once in a while.

Anyone who wants to build a road in a populated area, can find all the necessary measurements in “Richtlinien für die Anlage von Stadtstrassen (RaSt 06), or “Guidelines for the construction of town roads (RaSt 06)”.

## The base

For this diorama we also use a Styrofoam base as with the previous dioramas, sourced from the usual insulation material available at building centres. A great advantage of this raw material is the ease

with which it can be worked on; it is possible to cut the road profile right into the board. On country roads away from populated areas, the surface water runs off into the ditches on the side of the roads due to the elevated cross section. Storm sewers are usually no existent. The verge and ditches were routed out using a small, V-shaped router bit. A further 5 mm was removed from the surrounding landscape. After that the final shaping was done with rasps and rough-grade sandpaper. The cross section was also shaped using these tools. A slight rise at the rear was fashioned from scrap foam pieces.

## The road surface

The choice for a surface was the most common asphalt covering found on roads of this kind. To simulate this in model form, a variety of materials can be used. Well-known and often used are the



1:87, ready-made streets available from model railroad shops, however these are not available in 1:50 scale. They have printed-on centre side lines and are great for straight roads but are hard to use for curves. Another drawback is that at junctions and crossings, the gaps between the pre-made roads show and are not very nice. Even the colour of these roads is not realistic.

The advantage of using Styrofoam is that after the sanding, the street surface area comes very close to a model road surface. All that is missing is a covering coat of acrylic paint in a matching grey colour. This is readily available in any hobby shop. Here it is important to mix the right shade as an asphalt surface is not black; depending on the age of the surface has more of a greyish tint to it.

If the base that has been selected is wood, then a fine grade of sandpaper can be used to simulate the road surface, but it will have to be painted as mentioned before. A product called 'street paint', available from many model railway accessory makers, gives good results. Relatively new on the market are the

so-called Structural Pastes from Noch (#60824). These are ready-to-use, are properly coloured and can be applied with a spatula or broad brush. The complete set contains colours for asphalt, concrete and earth surfaces.

### Street markings

The application of street markings is subject to the appropriate regulations. For our project we have to apply only the centre and verge markings. These are best pre-marked with a thin pencil line. On curved roads a French curve is useful. The final markings on a hard surface are applied with a white oil pencil (Polychromos) or, on a soft, giving surface, with a white colouring pencil. For complicated markings such as can be found on models depicting a road in populated areas, or in cities, it is advisable to use a template for direction arrows, stop lines, zebra crossings and the like. This is best made out of thin plastic or cardboard. For 1:87 there are ready-made markings available, but nothing is commercially available for 1:50.

### Damage to road surfaces

During the frost season, some streets pay a heavy toll with pot holes and cracks that have to be fixed every spring. In addition, if the road had to be dug up to install new pipes or cables, the covered-in trenches have to be patched up. The older the street surface is, the more damage is visible making it look more like a quilt than a smooth surface. Naturally, these features must be copied for our model road. Here, the Styrofoam surface we used shows its versatility. Fresh damage can be created easily using a box cutter or chisel. The base of deep pot holes is filled with gravel. Patched-up sections are cut out in a rectangular shape. To fill these holes we use the Structural Past from Noch taking care to make sure that the fill in is darker in colour than the existing road surface.

In the second part of the series we will discuss the construction of cobbled roads as well as the further detailing and landscaping of our diorama.

# New Media

## Culemeyer-Fahrzeuge    Lincoln's Excavators

Published by Udo Kandler,  
Verlag Eisenbahn Kurier,  
144 pages, 223 pictures,  
30 x 21 cm  
ISBN: 978-3-88255-242-3

The Ruston-Bucyrus Years  
1970 - 1985,  
by Peter Robinson, published  
by Roundoak, 335 pages,  
English, hard cover,  
ISBN 978-1-871565-58-4

As the subtitle says:  
"Road rollers and tractors  
used regularly in heavy  
duty transports on the Ger-  
man Reichsbahn". The  
book tells the story of the  
famous road rollers from  
their introduction into the  
service in 1933 until the  
end of the Second World  
War in 1945. The "Cule-  
meyer" was marketed by  
the DR as a "portable si-  
ding for your business",  
but quickly developed to  
be a standard for heavy  
duty transports. It is in-  
teresting to note that the  
Deutsche Reichsbahn be-  
came a player in heavy  
duty transport and not only  
because they had access  
to the 50t capacity, steam-  
operated railroad cranes  
which were used when  
needed to do the heavy  
lifting. Among the items  
transported were ships,  
huge boilers, and, during  
the war U boats. The trac-  
tor units were all from Ka-  
elble, they have an equally  
large exposure in this new  
book. (dw)

Peter Robinson closes  
the series chronicling  
the story of the cable-  
operated excavators and  
construction machines  
of Ruston-Bucyrus. With  
the help of pictures, tech-  
nical drawings and detail  
photographs, the largest  
cable-operated excava-  
tors like the 71-BR are  
introduced. Further chap-  
ters talk about the mobi-  
le Bucyrus lattice cranes  
and the later Hydrocrane,  
Telescope cranes, and  
the huge 195-B front  
shovel excavator. With a  
shovel capacity of 8 m<sup>3</sup>,  
the latter was the largest  
cable-operated excavator  
built by Ruston Bucyrus.  
In the sector of Walking  
Draglines, the six 1260-  
Ws with capacities of up  
to 30 m<sup>3</sup> were the largest  
built. (up)

## Our partner page

### Evaluation of the new wheeled loader

We introduced our two new loaders in the last two issues. Before we ordered the new machines we looked at three machines from different makers at the Bauma 2013 and compared them. The dealers for Volvo, Doosan and Caterpillar made it possible to test their

machines at some of their clients' places. All three of the loaders had features that we really liked. However, when the decision was finally made, price was not the only consideration. Part of the decision for the purchase of a Caterpillar 980K was that we already had a

variety of other machines from this maker and were very happy with the service they provided us. All our machines are included in an Easy-Service package from Avesco that guarantees a uniform quality of service.

### Airport Zurich: Re-surfacing of runway 14/32

The ARGE operation "Mid-nightspeed" began in the night of the 16th to 17th of March with the re-surfacing of runway 14/32. The 3150 x 60 m concrete runway strip was partially replaced by installing a 22.5 m wide strip with asphalt. Every evening after the takeoff of the last flight around 10:00 p.m., an armada of construction machines revved up their engines and

began the de-construction of the 300 mm thick concrete slab. Over two hours, two Cat 385Cs with specially adapted lifters, loaded the concrete slabs into eight articulated dump trucks-around 1300t each night. After the completion of the de-construction work, a surface grinder removed 60 -70 mm of the underlying stabilizing compacted sub-structure. After laying

the cable protectors for the runway lights the asphalt, stored until needed in a hangar, was applied using a GPS-steered Cat D6N bulldozer. To finish, a wearing course was applied by two surface finishing machines. Everything had to be swept clean and ready by 6 a.m. for the first plane that landed only one hour later.

# News in brief

## Postscripts from the Las Vegas Conexpo 2014

Caterpillar replaces the proven 328D LCR short radius excavator with the new 335F LCR having a maximum working weight of 39.9 t. With only a 178 mm overhang at the rear and a lifting capacity of 18.3 t it is capable of laying even the heaviest of canalisation pipes without blocking traffic in the other lane.

In the genre of material transfer excavators, Caterpillar showed the 37.6 t MH3037.

Thanks to new engines, the 627H Scraper becomes the 627K with a carrying capacity of around 26.2 t or 18.3 m<sup>3</sup>. To move the loaded Scraper, engine power available at the front is 304 kW and at the rear 216 kW.

One of the first machines from Liebherr with a new engine conforming to emission controls step IV is the new PR736 Bulldozer. Three different driving versions are available: Standard (L) with long track segments of up to 610 mm, XL with segments up to 985 mm and LGP. This varies the working weight from 21.8 t up to 22.9 t.

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