

BAGGERMODELLE

Baumaschinenmodelle, Krane und Schwerlast

Nummer 6-2015

Download English text at www.baggermodelle.net

Mit Wettbewerb



English text

Neu von NZG 1:87
Liebherr LHM 550

Sammlerporträt: Perfektionist Timo Scheffold

Neu von First Gear 1:50
Komatsu WA900-3



Editorial

A goodbye and a look ahead

It is with sadness that we have to say goodbye to an author that was with us right from the first hour. Albert Schmid went 37 times to his show cases, took out one of his cherished models to feature them as eye candy. He photographed them with great care and took pains to research the prototype and the model in great detail. Then he crafted an informative text to bring it all together. The amount of information often exceeded the available space and some edits to shorten the article were un-avoidable. When an article went back to Albert Schmid for his ok, it usually did not take long before the phone rang and he told me that: "the story can run that way".

With the article about the Euclid TC-12 from Black Rat something like an era has come to an end. I don't think it is presumptuous of me, when I am including the well wishes of all our readers, as I extend my thanks to Albert for his contribution to the magazine.

By the way, he will remain as a guest author on an ad hoc basis, if and when a new piece of eye candy

arrives in the Schmid collections, we will be the first ones to find out about it.

I would like to take the opportunity to encourage our readers to send me your ideas and proposals for our magazine. The best case scenario would be that an interesting article or a longer fruitful co-operation would ensue.

In any case, interesting themes to report about will certainly not diminish over the next while, for that the "Bauma Year" guarantees it. I have already been informed about the first new items, however at the same time also have been told that a flood of new items, like in 2013 is most likely not in the cards. Personally, I find this is not necessary as less is often more, and can be better absorbed by collector's budgets.

Now I hope you have fun reading this issue, and with the hobby!


Daniel Wietlisbach

BAGGERMODELLE online:

www.baggermodelle.net

www.facebook.com/baggermodelle

www.twitter.com/baggermodelle

www.youtube.com/baggermodelle

Timo Scheffold's conversions

Perfectionist

by Daniel Wietlisbach

Timo Scheffold's grandfather was a truck driver and Timo's father continued driving trucks as a hobby to counter balance his office job with an information technology business. Of course, Timo and his brother were always excited passengers when Dad was on the road with a dump truck. A key experience for Timo happened when he was four years old: "Grandfather's" civic engineering construction company re-built the street in front of their house. Of course, none of the trucks left the construction site without one of the Scheffold brothers on the passenger seat. Alongside these pleasures, every free minute was spent in the sand box playing with the robust Bruder toy machines.

For playing on the carpets inside, the small models from Siku were ideal. Enjoyment of playing with the miniature construction machines came from the grandparents who lived in the house next door. The two boys were allowed to play with the toy machines on the kitchen table. To increase the fun, Grandma poured cream of wheat granules as a loading medium right on the table top.

A dream was fulfilled when a set of three white Siku vehicles lettered for "Heitkamp" arrived. Included were a lowboy trailer with a Volvo truck, a Menck M500H as

Timo Scheffold is an enthusiastic equipment operator of a Cat 328D. He alters his models with the same enthusiasm ...

well as a Mercedes dump truck and trailer. By age 10, Timo dared to start converting and altering models and soon the vehicles in the set were shining in the new colors of "Max Wild" as he had seen them when he visited a bridge construction site with his grandfather. He used Revell paints and a brush, printed out the logos he found on the Internet and glued them to the models.

The first model

When Timo's father started to build 1:87 Kibri kits, he joined in too. He was 8 years old when he spied a Caterpillar 375 from Joal (Order # 189) beside the Kibri kits. This was the first excavator that could duplicate all functions of the original. But he had no idea at the time what kind of treasure he had found and purchased with his pocket money.

In 1998, Timo and his family visited the "Modellbau Süd" in Stuttgart for the first time. There he had his first encounter with the exciting models from NZG and Conrad. The Liebherr R 945BV with demolition equipment (Con-

rad 2907), shown at a booth as a first prototype, fascinated him especially. Once the model was displayed in the local hobby shop in all its splendor, there was no stopping. Timo went home and cajoled his parents for so long that they agreed to allow him to withdraw the necessary DM 150.- from his savings account and take the excavator home the same day.

He earned the money needed for his expensive hobby by delivering the newsletter of the village shop or by cleaning up his neighbor's workshop. For his birthday each October he also wished for gifts of money because every year in November a visit to Modellbau Süd was on the program. The great expansion of the Internet meant a new source of information and unequalled opportunities for purchases. His father kept a tight rein on these and made the final decisions about these purchases. Following the Liebherr R 954BV came the Demag AC 500, his first mobile crane. As a fan of Schmidbauer he took the model totally apart to re-paint it. As a perfectionist he was happy only after his third try, supported and motivated by his father.

At age 15, Timo specialized his collection on cranes and heavy duty transport models from Schmidbauer and Mammoet; most of these models are still in his collection today. In 2005 he attended the Minibauma for the first time as an exhibitor. He is now among the most faithful of attendees. Because there are no specialized dealerships in his neighborhood, the exhibition is the equivalent for Christmas for Timo.

Dream job as construction machine operator

Going against the wishes of his family, Timo undertook an apprenticeship as construction vehicle operator. He knew exactly what he wanted: Civic Engineering construction was his choice and he found a local employer, “Matthias Strobel”, in Pfullendorf. First experiences were as a temporary substitute on a Takeuchi TB135 Mini Excavator with 3.5 t capacity as well as on a Kramer 312SL four wheel loader. A miraculous incident made it possible to operate a 40 t excavator after only eight weeks of apprenticing. The Komatsu PC400LC-5 arrived one day earlier than expected and the operator assigned for it was still on

holiday. What an experience!

During the second year he was transferred to the specialized civic engineering section where as a “guide” he supported the operator of a Bauer BG15H. His second construction site was in the city centre of Constance where the Liebherr LRB 255 was used, the largest machine of the company where he apprenticed.

After finishing his apprenticeship, he was able to stay on with the company and in 2010 was given his first machine to operate on his own. The Komatsu PC340-6 was his pride and joy. He took such good care of it that after 600 hours of use it still looked like new. The shop foreman was very much surprised at this. His enthusiasm for machines was also noted by the Eberhard Company, where he has worked since 2011. First he was a “jumper” filling in on a variety of machines but after half a year he got his “own” Cat 328D, a machine he still operates today.

No model is left original

In 2004 Timo had already begun the conversion of models. At that time his father discovered the quick change attachment kits from CCM-Schwerlast. Models acquired first,

the Liebherr R 954 as well as the Cat 375, were equipped with it. The technique used for this was refined as it went along and after the quick change attachments came individually-placed hydraulic lines.

With the beginning of the apprenticeship came the desire to have at home in 1:50 some of the machines he worked on or had seen. The models did not have to be exactly as the original, and new ideas were and are constantly applied. For example, a Bauer BG24H from Brami was painted in the orange color of his apprenticing company as there was no model of the BG15H.

In 2012, when RefoTech came out with the conversion kits from Oilquick-quick change adaptors, Timo decided to change all his models to this system. Since then he has used about 30 quick change adaptors and owns about 80 excavator attachments. The majority of the models were also improved on, re-worked and now shine in the colors and lettering for “Eberhard”. “Among model builders there is a friendly competition”, explains Timo. “For each exposition we try to show better and improved models over the previous year”. And so he points out the differences between his “first” models and the current conversions however the observer just sees a marvelous collection. It has about 300 models in it with only about 10% still in the original condition.

At exhibitions, Timo often shows his models on larger dioramas. For the last four months they could be admired at the Excavator Museum Ebianum. For a few years now, the collecting of cranes in 1:50 and model building in 1:87 has been terminated due to a lack of time.

The collector

Timo Scheffold (25) is a construction vehicle operator by trade and works in Switzerland for Eberhard Bau AG. Alongside his passion for collecting, he is also a member of the local Fire Brigade and for the last 16 years has played percussion in the local music club and in a small brass band. He also owns a Fuchs 301 that he is restoring. He lives together with his grandparents and parents in the German town of Singen am Hohentwiel. Like minded collectors can contact him via Email: timo.scheffold@web.de

Cat 6020B from CCM in 1:48

Heavy Metal

by Daniel Wietlisbach

The 6020B is the first large excavator Caterpillar developed independently in Dortmund after the takeover of Bucyrus. The design phase had started during the Bucyrus time. The 224 t excavator is currently offered as a backhoe whose capacity is around 12m³. This makes it possible to load a dump truck of the 100 t class, the legendary Cat 777 for example, in four to five loading cycles. The built-in Cat C32 twelve cylinder engine produces 778 kW (1043 hp) and complies with the tier 2 exhaust protocol.

The model from CCM

The 6020B from CCM exudes high value at first look. The model has been built true to scale in all major measurements, even the lengths of the running tracks are correct to the millimeter thanks to the sprung tracks! The whole lower chassis is nicely detailed and behind the prototypically correct running wheel protection apron are the eight running wheels, true to the original. The housings for the propulsion motors are finely engraved and have the supply lines included. The length of the track with its 49 single links is an exact copy of the original.

The upper carriage is a special treat and the description of all the details would go beyond the

The Cat 6020B is CCM's largest 1:48 model so far, made using the die-casting process ...

limits of space available to describe them. All stairs and vents that are pierced on the prototype are pierced on the model. On the massive engine housing, five doors open affording a look at the detailed replication of the diesel engine. Many supply lines with prototypically correct connectors are on the different parts of the power plant. Even the door to the very roomy cabin can be opened and on the hand rest of the seat the Cat logo can be seen. The front part of the photo-etched floor is pierced. All safety rails and the separately-applied reflecting mirrors are made from solid metal parts.

The boom and arm are correctly modeled and are closed in below with a plastic cover part. The hydraulic lines are, as on the original, made from metal and flexible rubber where called for and all

the hook up and valves are correctly scaled and modeled. Very rich on details too are the hydraulic cylinders. Not only are the screw heads of the correct scale size but also the pivoting points for the arm and boom. The scale size rivets are almost not visible, however the 1:48 scale screw heads are!

What is possible in the die-casting of white metal parts is especially impressive when examining the bucket. It is made from one piece and is highly detailed. The equipment can be arrested comfortably in any position and the maximum height as well as the transporting height conform to the original. Only the maximum digging depth is underachieved by 30 mm. This is a minor matter and the only item that differs in measurement in model form from the original.

The paint job is faultless and the lettering is crisp and sharp. On the engine hood there are some very tiny, printed-on warning labels that give it a high degree of detailing. This model of the Caterpillar 6020B is, at this time, the best produced, large series mining excavator model today.

At a glance

- + True to scale
- + Detailing
- + Functionality
- + Metal content



Komatsu WA900-3 from First Gear in 1:50

If and when

by Daniel Wietlisbach

The original of the new model is designed for the resource industry and tips the scale at an impressive 107 t. The capacity of the shovel sits at 11.53 m³ with the Highlift option or 13.0 m³ without. The built-in Komatsu 12 cylinder SAA12V140E-3 engine produces 672 kW (914 hp) and a dump truck of the 100 t class can be filled in four loading cycles.

The new wheeled loader from First Gear feels heavy when held because all main components are metal. It is correct to scale when compared with all major measurements. The wheels look very convincing, even on the inner side, are fully engraved and the rubber tires have the original's profiles. The rear axle has sufficient play and it oscillates completely. The power train has been modeled in its entirety and is visible even in the articulated joint.

The massive engine hood is a one-piece casting with all the service hatches engraved. The very fine air circulating vents are printed on. Air filter, exhausts, rear lights and hand rails are plastic and separately applied. Unfortunately, the maker is economizing here in the wrong place.

Until a few years ago, First Gear could, unlike many others, produce a model with a mix of materials including plastic and etched parts to make first class mo-

With the Komatsu WA900-3, First Gear delivered a model that has led to some hot discussions regarding price versus value. Wanting to know, we looked at the model ...

dels. Especially, and the modelers could count on this, the handrails were scale thin and made from up to 90 % from metal. This would have been a better solution for a wheeled loader of this size, when considering the many safety railings required today and would have increased the value.

The radiator grille is a separately-inserted piece and has a nice three dimensional look to it. The cabin is a plastic casting and the roll protection is made of metal; both are convincingly modeled. The window gaskets are painted on in black and it has the two window wipers. The bi-color interior is nicely detailed. Behind the cab are an auxiliary cooling system as well as the central pump for the lubricating system.

The area around the articulated joint has been very convincingly modeled. The two hydraulic cy-

linders are there as well as the red, non-functioning, transport securing bar. A strand of eight supply lines ensures that the viewer's eye has something to engage with.

The front part of the vehicle is modeled prototypically correct and has work spot lights and a nice front axle. All of the three hydraulic cylinders have two additional and free-standing lines. The unembellished standard lifting arms and the Z-Kinematic with its massive swing have been modeled true to the original. Unfortunately, the functionality is not very convincing. It would be impossible for the WA900-3 to dump its load into a dump truck as it is about two scale meters short in its reach! On the other hand, the rock shovel, made from a very nicely engraved casting, is very well done. The overflow fence should have been pierced at the two outer segments, but that is not very obvious.

The paint job is very clean and the lettering is sharp and legible. No warning labels have been applied. The model was very kindly made available to us by Spiel+Modellkist'l.

At a glance

- + Detailing
- + True to scale
- Dumping height is too low
- Railings are made from plastic



Volvo L90H from Motorart in 1:50

Small loader

by Daniel Wietlisbach

The L90H is a multi-purpose machine that brings 17 t to the scale. It is designed to be used as a material transfer machine but can also be used on small construction sites. The D6J engine produced in house delivers 137 kW (186 hp).

The great thing about this middle-size model from Motorart is that it is made mainly from metal. It is true to scale. The rims are nicely engraved and have rubber tires that are true to the original. The front axle has been copied exactly and the rear axle has at least a minimal oscillating play. The power train is well visible except at the articulation joint where there is a big gaping void however, at least the 40° articulation degree can be achieved.

Motorart has transposed the Volvo L90H successfully into model form ...

The rear part of the machine is dominated by the massive engraved engine hood; below it the multi-colored mock-up of the engine can be seen. The air intakes on the sides are extremely fine photo etchings and the built-in trailer hitch has a separately-insertable bolt.

The almost completely glazed-in cabin has been modeled very well and all hand rails and the brackets for the rear view mirrors are made from solid wire. Lights, window wipers, door handles and a warning beacon complete the cabin

details. The steps on both sides are made from fine photo etchings.

On the front part of the machine only the side cowlings were modeled so that, when looking at the model from the front, an “empty crate” view is seen. Lifting cage and shovel have been modeled convincingly and are fully functional in all positions! A quick change attachment has not been planned for. The hydraulic cylinders are rather plainly modeled and do not have any supply lines.

Paint and lettering are faultless as we are used to from Motorart.

Liebherr LHM 550 from NZG in 1:87

Harbour Giant

by Michael Compensis

Liebherr developed the LHM mobile harbour cranes to optimize the efficient transfer of freight, containers and heavy loads in the maritime sector. They are constructed in the Austrian town of Nenzing. The Liebherr LHM 550 has a maximum carrying capacity of 144 t and a reach of 54 m making it ideal for working with ships of the so-called Post-Panamax class of ships on which it can even reach a row of 18 stacked containers!

The model from NZG

Even in the small scale of 1:87 the size of the crane is huge. The massive central column and the finely-cast lattice mast can that separates into two parts prototypically are a joy to look at. The model scores big by having extensive printed-on lettering and being highly detailed in comparison to previous NZG models. All cast parts are finely engraved and the necessary detail parts such as lights, mirrors, exhaust plant, stairs and railings are close to the original. The supports for the stairs on the chassis and upper carriage are even pierced as on the prototype. The railings however appear to be too coarse, but are pushing the limits of what is possible in white

With the LHM 550, NZG delivered an impressive model of a harbour crane that is interesting for heavy duty transport collectors and the wider construction machine collecting community ...

metal casting. The many ladders even sport protective cages that are made from photo-etched parts. Unfortunately, the steps are oversized which detracts from the fine appearance and beg the question of why the ladders were not photo-etched as well. The beautiful looking chassis with its neat profiled tires, silver coloured rims and the detailed single steering knuckles are familiar to us from the somewhat smaller LHM 500 from the same maker. Unfortunately too, the model of the LHM 550 has only a single hook supplied; a clamshell to load freight items or a container lift frame are missing. This does not distract overly from a great looking model in a display case but on a diorama it limits versatility and is not as useable as the

original. But how many of us have a container ship of the Post-Panamax class in 1:87 scale at home?

LHM at Spedition Kübler

Spedition Kübler operates a harbour in Mannheim where goods from the south of Germany and surrounding countries are sorted and readied for loading. Kübler also operates a scheduled weekly barge trip to exporting ports. The old portal cranes for the loading of wind turbine parts had a 150 t lifting limit however, the space was inadequate and the portal crane to slow. The second-hand LHM 500 with better sight lines for loading and a very precise operating system was purchased in Antwerp. With it, the heavy duty transport company can now service large storage sites.

At a glance

- + Detailing
- + Very stable
- missing loading attachments



Saurer M8 from AFM in 1:48

One of a kind

by Daniel Wietlisbach

The Saurer M8 was developed by the Swiss Army as a pulling tractor as well as a crew and material transporter for the artillery. The tractor had a total empty weight of 7.4 t and could carry 3.5 t for a total of 10.5 t. The six cylinder diesel engine, Saurer CT1DM, produced 100 hp (73.5 kW). The special design feature of the 8 x 8 truck was the central frame that made possible what was until then unheard of, the oscillation of single axles. This allowed the truck to be used in almost any off road condition. Between 1942 and 1944, the Saurer M8 was produced in two series and a total of 78 units were delivered to the army. The decommissioning began in 1976. The smaller brother, the Saurer M6 6x6, even reached the remarkable number of 455 units produced.

The prototype of the M8 was completed in 1940; all axles on it were steerable, a feature not included on the serial model. Welte-Furrer, one of the largest crane and heavy duty transport firms in Switzerland, found in this machine the perfect solution for the transport contracts it had from Swiss heavy machine industries. The few existing pictures show the combination with

The model of the Saurer M8 is a throwback to a time when heavy duty transporting was an adventure and was sometimes dangerous ...

low-boy trailers loaded with transformers and other machinery for the hydroelectric power station construction. These transports usually began with special low-slung freight cars on rails and proceeded to the road for the last segment of the trip. The most spectacular trip may have been a transport of a transformer to Algeria! The support vehicle was a Saurer 4CM 4x4 with 120 hp. One has to imagine this transport through the war-scarred southern part of Europe at the time!

The M8 from Welte-Furrer has been preserved and belongs to a private collector today, but it no longer has the original paint job.

The resin cast model

Since AFM Modellbau (afm-modellbau.ch) already has ready-to-roll resin cast models of the Saurer M6 and M8 in its program, it was almost a given for them to produce the unique Welte-Furrer. For this conversation, the main change was that the tarp-covered deck of the

army model had to be exchanged to a flat deck with low side walls. All models are made individually by hand and incorporate a wealth of brass and silver photo-etched parts.

Since there are only black and white pictures of the original, to ascertain the correct color scheme was a difficult challenge. What is known is that the truck had two different paint jobs when working for Welte-Furrer. The older, darker version with lighter lettering is assumed to have been painted in the grey army color; later on the vehicle was re-painted and lettered in black.

Either version can be custom ordered from AFM. Other options available are: cabin open or closed with a tarp, wheels turned in or wheels in a straight line. Options are also available for what is visible on the flat deck of the truck. The basic version has only a spare wheel and one tool box. The vehicle shown here has a car jack, oil drum, tool box, a wooden box with the W-F logo on it, a tarp bundled up and tied together, a shovel, chains, wire rope and gui-

de wheels. The guide wheels were used when the load was shifted using the attached winch.

The crated-in cylinder on the road-roller dollies is a fantasy, a unique piece, created by the owner

of AFM Alfred Friedli because he did not want the tractor to “stand alone without work to do”. With this he underscores his willingness to offer a prototypical transport team later on. Furthermore,

the Algerian transport mentioned earlier using the Saurer 4CM (also based on an Army truck), will be also one of the future projects from AFM.

BAGGERMODELLE

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



The only magazine for men that you don't have to hide!

www.baggermodelle.net

Yes, I would like to subscribe to BAGGERMODELLE magazine (printed version only in German language) from the next issue (6 issues per year). **Special offer for subscribers of digital magazine Construction Modeller** (Please send us bill of App Store, Google Play or Kiosk to redaktion@baggermodelle.net):

€ 42.– (Germany, Austria)

€ 48.– (other countries)

Subscription renews automatically after one year, without cancellation.

First Name _____

Last Name _____

Street Address _____

City / Zip _____

Country _____

Date _____

Signature _____

Eye candy

Euclid TC-12

by Albert Schmid

At the beginning of the 50s GM (General Motors Corporation) decided to develop earth moving machines. They took the first step with the gigantic TC-12 bulldozer. So as not to have to start at zero in their ambitious design process, they hired away two engineers from Caterpillar and gave them the lead for the project. At the same time the Euclid Road Machinery Company was hitting the road in search of a strong partner. On September the 30th, 1953 they sold their construction machine program to GM. This led to including the Euclid engineers in the development for the TC-12. Because of the dimensions and the fact that there was no engine powerful enough at the time, the concept of “twin power” was developed. Real technical innovations even today are the two symmetrical halves, divided longitudinally around the countershaft gear and sprocket, and the oscillating frame. Using a motion link attached to the front parts of the split frame halves it was possible to adjust them up to 180 mm and so achieve optimum traction. As power plants for the two TC-12 prototypes, two 365 hp GM 6-71 six cylinder, two stroke, diesel engines were used. Unusual and “new” were the rear mounted radiators. Using two Torqmatic torque converters coupled with

The Euclid TC-12 twin engine tracked dozer was a legend in the original, and so is the 1:50 model from Black-Rat ...

three gear Allison Powershifts, each set of tracks was powered by one engine. After many modifications and both prototypes of the 27 t without blade or rear ripper, the production of 10 pre-series machines began for a new test phase. For the TC-12 Pusher Dozer, an outside mounted hydraulic blade operation system was planned. The earth moving version of the dozer got a cable-operated blade after a massive re-enforcement of the front part of the machine. In 1955 the time had finally come for GM to introduce the green Euclid TC-12 to the public. There were many reasons to astonish the experts because the 43 t, 388 hp dozer was the strongest bulldozer in the world. Right off the bat it was a sales hit. By the end of production in 1974, a total of 863 units were built. Of that number, beginning in 1968, 104 units were delivered with the new designation of Terex 82-80. During its 19 years of production the TC-12/ 82-80 was continuously given more power until it reached 476 hp.

The private model maker, Black Rat Collections from England ensured a fitting “memorial” of the legendary dozer. The driving force behind Black Rat is the New Ze-

aland collector, Bruce Rolston who has lived in England since 1972. Commencing in 1980, Bruce contracted a specialist British model maker now and then to build single models only for his extensive collection. Since 2001, small exclusive series of 10 up to a maximum of 50 pieces have been made. These went to a hand-picked small circle of clients. The heavy, hand-made and superbly built model is made almost completely from white metal castings and etched brass parts. The two frame halves, the blade and the rear ripper move in a limited way however and the metal tracks, painted in two colors are fully operational. The drivers open cabin is very rich on details including operating levers, pedals and armatures. The hydraulic lines and also the cables for the blade make the model look very convincing.

By the way, the replacement of the TC-12, later the Terex 82-80, as the world’s most powerful bulldozer happened in 1970 with the HD-41 from Allis-Chalmers, in all aspects a more powerful machine. The trophy for the world’s most powerful bulldozer was held by Allis-Chalmers for only six years.

Correctly loading construction machines in 1:50 Loaded safely!

by Thorge Clever

There is a well-known saying that there is nothing in this world that hasn't been done before. Of course, once in a while a 10 t excavator will be transported on a lowboy with 60 t capacity (for example as a returning load) or somewhere a huge construction machine with a large overhang is transported almost bending the trailer so it scrapes the road. A collector could follow his fantasies and then anything goes.

However, those that want to follow the European standards and rules when it comes to loading their vehicles should continue reading.

Generally, a planning session is called for at the beginning. In it, the route is planned and what kind of challenges it brings considered. For example, the maximum height restrictions for loads on Swiss Highways are 4.30 m and in the EU the allowable axle loads are 10.0 t for fixed axles and 12.0 t for oscillating axles. Furthermore, the route planned has to be checked for bottlenecks where special steering capabilities might be called for.

After these considerations, the selection of an appropriate transporting vehicle has to be made. If the machine for transport is capable of driving itself onto the trailer, appropriate ramps or a detachable low-bed trailer is re-

What could be nicer than to load a beautiful lowboy tractor trailer unit with an equally nice construction machine model? We are going to show you how to correctly tie everything down ...

quired. Of course, the weight of the machine dictates the loading capacity of the transport vehicle. Now it has to be checked whether the chosen vehicle can negotiate the proposed route and also if it is below or at the maximum height. This again will dictate the choice of vehicle, lowboy or flat deck trailer, and if the load is dispersed evenly over the axles and does not overload them.

The last step in the preparation is a loading simulation and axle load calculation using a computer program that the maker of the particular trailer provides. At the same time, the lashing forces are calculated and the tie down possibilities on the load are checked.

A bit of theory

Basically, any model load is close to realistic if one matches approximately the loading capacity of the trailer with the weight of the load. A rough way of establishing the net loading capacity of a model: multiply the number

of axles by six and so arrive at a pretty realistic loading weight. If one wants to be perfect and find out exactly what that capacity is, then this can be researched on the Internet where the makers give the capacities of their vehicles. Then make up the correct combinations for the loads. Often one sees construction machines loaded on to a truck. This is only legal if the total weight of truck plus machine does not exceed 40.0 t. If it is greater, the transport would have to be broken down and transported by several trucks or in several trips.

Once the machine is loaded, it has to be tied down correctly and have the correct warning signs posted. The calculations on the prototype are endlessly complicated. Vertical and horizontal angles have to be taken into consideration as well as the suitability of existing loops, hooks and other tie-downs. No wonder there are many books of hundreds of pages written on this subject. (For those who want to learn about the correct tie down methods in use, I would recom-

mend purchasing a book on the subject, issued for industry use).

The loading of a model

The following tips are quite sufficient for a close-to-real transport in model form. In original form, they probably would still be stopped, fined and issued a stop proceeding order. The following basic principle has to be taken into consideration in any case: the load must be secured to prevent movement in any direction. According to the law of the braking force, a load has to be secured against the centrifugal force towards the front by 0.8 g, against the force backwards 0.5 g and when the machine is in danger of tipping sideways an additional force of 0.7 g has to be taken into account. ($g = m/s^2 = \text{Gravity}$). For example, an excavator weighing 25,000 kg is: 25.000 daN weight. So, the gravity it has to resist is calculated as $25.000 \times 0.8 = 20.000$ kg against the pressure from the front, which would take a lot of chains. Fortunately, we can deduct the friction force of the load on the loading platform. Depending on the surface this can be different. Anybody can understand that oily me-

tal glides more easily on metal than do rubber wheels on a dry wooden floor. If one wants to know it for sure, many tabulations are required.

By using rubber mats as an antiskid device, the whole equation becomes much simpler. These antiskid mats made from recycled rubber have known force reduction rates that can be used in the calculations. However, this assumes that the wheels or tracks and platform surface are clean. But this should be the case with our models. The antiskid mats take up to 0.4 the force of gravity. So if our imaginary excavator now sits on these mats, then chains of 8000 kg capacity are enough. (8000 kg to the front, 5000 kg to the rear and 5000 kg to both sides). The standard capacity for chains is 8.0 t where they are applied in a straight line; if they are used on an angle, their capacity decreases accordingly.

As a model builder, I would secure the excavator with four 8.0 t chains sitting on antiskid mats, two to the front and two to the rear, all of them diagonally. Important too is where the chains are secured. They cannot just be hooked on to an edge somewhere on the trailer. The

trailer should have suitable lashing rings. Very nice examples of this can be seen on the model of a Nelson 3x3x3 lowboy by the American Sword Model maker.

The same goes for the load. Never attach the tie down chains to the track segments. When the unit is braking it could happen that the excavator rolls slightly forward and the chains could come loose. Every maker of construction machines includes lashing rings between the track carriers. This makes a diagonal tie down easy. If the holding brake or the transport locks are faulty then the upper carriage of the excavator also has to be secured so that it cannot turn during transport. If there are any hydraulic lines that protrude higher than the maximum height allowed, then they have to be tied-down with tie down straps otherwise scouring on bridge ceilings could become costly.

Our excavator now sits safely on our transport model. In the next instalment we show the identification of the load for those that are oversize, over wide, plus the scratch building of tie-down chains. Of course, everything is documented with new loading examples.

Lowboy

One of the nicest examples can be found in the original, here transporting a Liebherr R 944 Tunnel (NZG) on a Scania truck with lowboy trailer rig (Tekno). The tie-down chains are attached to the stir up steps, a compromise because chains can only be attached to screwed-on parts if they are lettered accordingly. The tie down belts are from Tekno. The pictures of the original show further examples: attachment of the hooks at the drive as well as an alternative tie-down example for a bulldozer blade.

Crawler deck

If the excavator is too high, a crawler deck (WSI) may be used. The chassis then sits on a pile of massive wooden sleepers. The Cat 349E from CCM unfortunately has some tie-down loops of very thick metal so that again the steps had to be used. To prevent the tracks from touching the ground they are tightened by inserting a piece of metal pipe; on the model we use a piece of $\varnothing 1.5$ mm brass wire.

Tinplate

MAN dump truck

by Robert Bretscher

At this time it was usual that toy companies located in Nuremberg would release models constructed mainly of tinplate. Therefore it raised a few eyebrows when this plastic truck model showed up on dealers' shelves. It was not long until the sleek new dump truck won over the doubters and convinced them to buy the item. It looked very authentic and had many technical features and was built upon a solid steel, sprung chassis. The cabin for the operator is attached to the chassis and has a nicely-designed interior with two figures sitting close together. This conforms to the practices at the time and the drivers sport the appropriate caps. One almost overlooks the very decorative, printed-on tinplate dashboard. Not to be overlooked on the other hand is the oversized

This highly detailed MAN dump truck was released by the tinplate factory of Blechspielzeugfabrik K. Arnold in 1955. It had the article #3500 ...

steering wheel. The clockwork engine which powers the truck is located prototypically under the engine hood and also powers the front axle of the truck.

The maker paid special attention to the dumping mechanism. Using a spring-supported lever, a worm gear is used to start the actual dumping mechanism of the bin. The purposely long-lasting process with its worm gear has been fully copied from the original. Furthermore, several separately-attached detail parts can be spotted all around the dumper giving this Arnold model a life-like look. The

diesel tank including filler cap, the very nicely formed fenders, the very cleverly placed spare tire under the truck bed, the sets of lamps front and rear, running boards for the cabin as well as correct vehicle plate show how much care went into the production of the model. Even a functioning trailer hitch is there because Arnold had the matching trailer in its program. In closing it only remains to mention that the nicely profiled rubber tires, twinned at the rear match the vehicle very well. They make the vehicle look "en miniature" just like the real thing.

**Kranfahrzeuge:
Lade-und Autokrane**

By Michael Schauer, published by Verlag Podszun, 133 pages, 310 pictures, hard cover, 28 x 21 cm, ISBN 978-3-86133-770-6

The author, well known from his five volumes of "Moderne Liebherr Mobilkrane" (modern Liebherr mobile cranes), shows only a few mobile cranes in this tome. The main focus of his book is on truck mounted cranes from Palfinger, Atlas, Fassi and others. Sorted by companies, with most working in the background of the larger cranes on construction sites are shown as work horses in interesting situations. The book shows mostly crane-mounted trucks from Franz Bracht to Wasel and a few European ones like Aguado in Spain. The trucks shown are mostly the flat deck variety. Some lowboy truck and trailer combos for specialized transports are included but the focus is the attached crane. (dw)

**Historische
Baustellen 2016**

Published by Podszun Verlag, 13 pages, format is A3 vertical, 30 x 42 cm, Spiral binding

The new monthly calendar shows construction sites from the decades of the last century. The oldest picture is from the 1930s and shows an excavation without machinery, but using a lot of man power with shovels and horse powered wagons. This makes the 20 year younger Weserhütte W12 look modern. The O&K RH 60 two decades later was at the time the largest hydraulic excavator worldwide. On an earth moving site in 1965, the mighty Caterpillar 657 Scraper can be seen and on another page a P&H 320 with a drag line shovel is loading a three axle Mercedes round hood truck. Road construction and pictures of steam and diesel road rollers as well as surface finishing machines are included too. (dw)

Franz Bracht 2016

Published by Podszun Verlag, 13 pages, format A3 vertical, 30 x 42 cm

On each of the monthly pages there are two to three pictures, presenting interesting and extraordinary situations of mobile and tracked cranes at work. (dw)

Colonia 2016

Published by Podszun Verlag, 13 pages, format A3 vertical, 30 x 42 cm

The Colonia Company offers, besides cranes also heavy duty transports. A nice selection of both sectors can be found on the 13 pages, sometimes several pictures on a page. The most spectacular one for sure is the erecting of a container bridge with six cranes. (dw)

Schwertransporte

2016 By Erich Urweider, self-published, Monthly calendar, format A3, 14 pages high quality paper 300 g/m², to order contact erich@urweider.com, www.urweider.com or call +41 (0)62 897 17 19

Again for the coming year, Erich Urweider is offering his well-known calendar with pictures of heavy-duty transports. The specialist writer and photographer shows pictures of well and lesser known Swiss transport companies like Keller + Hess, Emil Egger, JMS-Risi and Feldmann. But it also shows an international transport of a wind turbine tower section by Rijkssen Rhenen. The diverse items transported range from excavators to machine parts, transformers, a wooden beam and a railway carriage. On the last page the background information for all 12 pictures can be found, especially the weight of the load. (dw).

Completely scratch built models in 1:50 scale

Pieces of art

by Robert Bretscher

The cable remote controlled 71-RB excavator miniature, powered by six tiny but strong electro motors is something special and becomes crystal clear upon opening the very carefully packaged miniatures with their detailed instruction booklet and holding them in one's hands. It has to be said that never before have there been such models that are exact 1:50 copies. All machinery parts and details have been copied and made completely from scratch from brass, right down to the tool boxes. So it is not surprising that even the tiny engine fan and the spot light function fully without any problems. The talented builder even undertook a 500 km out-of-country trip to a functioning 71-RB machine. There he took a few drops of the lubricating oil from the real machine and then used the oil to fill the oil sump of the 1:50 scaled-down six cylinder Cummins engine. It is hard to believe, but with a scale oil level measuring stick it is possible to check the oil level in the model.

To make playing with the model even more attractive, the two track units of the lower chassis can be removed by loosening four screws so as to be transported separately on a heavy duty transport trailer. At the same time, the two specially-

The models of the Bucyrus 71-RB were just completed in a very limited series. They were built by a very gifted model maker ...

made driving tracks and the slewing mechanism of the upper chassis can be admired. The model can be powered by a separate 220/4.5 Volt power pack or for outside use there is a battery compartment for three 1.5 Volt batteries in the control pack.

As one expects, the model performs flawlessly and all functions can be controlled independent of each other.

The slewing movement of the excavator is as smooth as silk, so that a full bucket can be positioned for discharging exactly above a dump truck. Some of the detail solution and statistics are very impressive, to say the least! Over 2'400 separate hand-made parts were used to build each model. For the track segments alone of the whole series over 40'000 holes were drilled. For the chain drive operating the tracks, 4'600 single chain segments were milled and joined. The Plexiglas windows built into the model all sit in a perfectly-fitting, tiny white metal frame. The speed of winches, slewing mechanism and track are all true to scale and

correspond to the original. The radiator grilles are moveable and some of the folding and sliding doors have working locks.

The lattice mast variation has a longer track driving system, a high A frame and the lattice mast can be extended, with additional parts, up to 84 cm (42 m in the original). The boom head alone is made up from more than 100 scratch-built brass parts. The lattice mast segments are connected with metal outrigger cables and secured with splint-secured cable locks. The walkway made up from very finely-etched checker plate is secured with metal railings. A stabilizer, designed for use when in grappler mode is fully functional and is mounted at the boom. Either a four dolly wheel hook block or a 3.5 m³ capacity drag line shovel can be mounted.

The front shovel has the short track base and a lower A frame. The brakes on the shovel for the flap are made to function as per the original. A tiny, handmade steel spring (length 3.0 mm) ma-

kes it possible to operate the flap. The kickback protection is made from scale lumber and so is the walkway while the stanchions and wire are metal.

Ruston Bucyrus 10-RB

The very limited series of a set of three 10-RB with ladder type outrigger arm, front shovel or backhoe have been offered painted in the special colours of a construction company at home in central Switzerland. Especially worth mentioning is the lightly-modified cabin. Ruston Bucyrus was offering these as replacements for the old square operator's cabins. This made it possible for construction firms to take this up-dated cabin and replace the old one on the old platform without having to make any further modifications to the machine. Using original plans and on-the-spot measurements of the original, the models were made using only brass and metal parts. The chassis and the drive is very smooth because of the metal drive and guide wheels. All functions of

the original can be done manually on the model.

Ruston Bucyrus 30-RB

About 18 years ago, Ruston Bucyrus 30-RB brass models with lattice mast were made, either as a drag shovel or crane version. The outrigger arm could be ordered with a length of 12 and 24 meter. The delicately-made front shovel version that appeared shortly after the lattice mast version was a special treat. All doors and service flaps could be opened. The interior of the excavator with its highly-detailed and exactly-positioned operating levers was perfectly replicated. Even the tool box with operating lid and contents was placed on the left side of the cabin just as on the prototype.

Giporec R150C rock crusher

In co-operation with the crusher specialist, Bruno Bieri (see collector's portrait in issue 1-2012), who organized the original plans needed to build the Gipo-

rec R150C, the fully-functioning electric powered model in 1:50 scale was made. No less than four electro motors transport the material from the intake chute to the crushers and then to the exit flap and on to the running conveyor belt which then deposits it on a pile outside the machine. The crushing system on the model is simulated by a heavy brass cylinder that rotates at high speed. Kitty litter is an ideal material to use to simulate the stones.

Stationary sifting plant

An electric powered sifting plant that can produce amazing results in 1:50 scale is indeed a rare model. In combination with the Giporec R150C and the 71-RB they complement each other to set up a complete gravel quarry in a sand box or a very realistic diorama setting. It makes it possible to achieve a very prototypical playing situation. The control and batteries are hidden in a small wooden hut. The actual sorting of the material begins when a small shovel full of material of different sizes is dumped into the funnel. The sifting begins immediately and the two material sizes are separated and deposited in a 90 degree angle on two separate piles or into a waiting truck. It is hard to believe how quickly a mountain of mixed size material is sifted and separated.

The model builder

The model builder of these fine miniatures is Herbert Marfurt. Trained as road builder, he has worked for the last 35 years as a construction machine operator, mainly on Ruston Bucyrus cable-controlled excavators. This developed into a real passion for these machines, going so far that when he was changing employers the 30 t excavator had to go with him! This fascination finally led to Herbert Marfurt to decide that he was going to build a model of these excavator, true to scale down to the last rivet. The models introduced here show his love and passion for model making of the highest standards. It is hard to believe, that when in the shop class during his 8th grade he was sent home as being "incapable". Herbert Marfurt and his wife Sylvia live in the central part of Switzerland.

Special infrastructure construction Berlin part V

Sheet piling and foundation piles

by Markus Lindner

A sheet piling wall is a wall that is made up from individual (steel) pilings. These are installed into the soil by driving or vibrating them. The individual segments of the piles are designed with a tongue and groove profile which lock them together very tightly. When installing the piles, each is guided into place by carefully inserting it into the groove of the previous one. The piles come in lengths of 6 to 30 m and have different kinds of profiles. Measurements and profiles can be found in the producers' catalogues. Compared to other products, the sheet piling method is very cost efficient as at the end of the construction most of the piles can be recovered and re-used. It also does not require a very extensive construction site set up. Since such walls are almost watertight, they are ideal for situations where the construction pit is below the water table or right into the water. They can also be used to build permanent walls for canals, locks and quay walls.

As a "soft" installation howe-

The sheet piling installation is the last installment in our series about special civic engineering situations for securing construction pit sides ...

ver, they are limited by the depth of the construction pit or by the anchoring or stiffening that has to be applied to keep them stable. Installation using a pile driver or vibrating head is only limited if the ground directly adjacent to the construction site is already built on and could be damaged by this method.

The technique behind the machines

The installation of piles is done using a pile driver or a driver with a vibrating head. The required driving or high frequency vibrating heads are installed on a driving frame, a vertical guide that is built on a carrying vehicle. This also has the necessary hydraulic supply system to operate the unit.

In addition to the guided vibrator heads, such heads can also

be attached to either a cable-controlled excavator with a separate hydraulic supply system or to a hydraulic excavator; these options are used for low depths and quick installations. Vibrators are also generally used to pull piles out after use.

Sheet piling wall in model form

If one wants to model a construction pit in a 1:50 scale diorama, there are a few different options available: Schulcz (Schulcz.de) has a ready-to-use plastic sheet piling wall segment, however the measurements of the pilings do not correspond to any known used profiles so its use is limited to perhaps 1:87 and smaller to make it look believable. It is possible to fold your own from cardboard. Especially good for

this is a thin but solid construction card board (120 -180 g) with a smooth surface. Brass sheet bent in a brake could be used to make the sheet pilings. The company of Alfer offers in its metal catalogue a so-called sheet piling profile. This matches quite closely in measurements to the commonly-used Larssen-Profiles. These profiles are available in some hardware stores in 1 m length and from Alfer-Online-shop. Unfortunately, the triple-bent profiles are a bit unusual looking but despite this drawback they look quite good once the wall has been assembled. It is also good for simulating an installation in progress. The best glue to use for these profiles is liquid nails construction glue. Color them with the very realistic-looking rust solution from Modern Options (see issue 6-2013). To show how the wall is installed, the first step is to cut a deep groove into the styropor base of the diorama. The depth and width depends on the profiles we want to use for this purpose. As a last note: in the near future Bymo plans to sell sets of profiles that are now included with the RTG RG21T model.

Models

Pile drivers, high frequency vibrators and the matching carriers are niche products for the model making companies. Worth a mention are the newly re-released RTG RG21T from Bymo and the Liebherr LRB 255 from NZG. In the Conrad program we can find the ABI TM16 on a Sennebogen carrier. Found only second hand is the ABI model on a Zeppelin carrier.

Even with this limited offering Conrad has machines of several size classes and so permits us to model construction sites from the smallest canalization project to mega construction sites.

Piles

Ramming or displacement piles are an interesting alternative for the stabilization of a foundation in a construction project. This technique is easy and convincingly copied in model scale form. Today, pre-made piles are made from concrete or are cast in steel. They are driven into the ground by pile drivers mostly mounted on a carrier. The length of the pile is usually limited by

the frame height of the pile driver. However, so-called coupling piles, made up from several parts, can be made to suit the required depth. Because of the resulting ground shaking, ramming the piles in is not allowed for inner city sites. Because of this, it is not shown on the Berlin diorama. This method is typically used on industrial sites, bridges or even wind turbines.

Concrete piles in model form can be easily made from MDF or other scale wood products. The sharpened tip of the pile does not make it easier to insert when compared to a flat tip, but it makes it easier to start and set it more precisely on site. In the accessory set for the Liebherr LRB 255 carrier there is a matching hydraulic free fall driver hammer head so that a model simulation is easy to create.

As an alternative way to insert the pilings, the set also contains a belt vibrator head. This is used to insert so-called column formers that are then filled with reinforced concrete. After setting of the concrete, the formers are pulled and re-used. This is also a method that is easy to duplicate on another diorama.


Remo's old iron



by Remo Stoll

This excavator was manufactured in Turin, Italy. It is a large representative of the original maker. The cabin and the rest of the machine was designed by Pinnifarina and still looks futuristic even today. But it was a bit unpractical during day-to-day use. The massive protection cage hints at an earlier life in a quarry or in a demolition situation.

Recognized? Then send us the exact manufacturer's name and the model number on a postcard by mail. Of course, we also accept email submissions (contact information is on page 42). The contest ends on 15th December, 2015. We will hold a draw if there be more correct answers than prizes.

This time the winners will receive one of the following prizes: Komatsu WA900-3, the huge loader from First Gear, The Liebherr R 936 "dechant" from NZG as well as the MAN TGS with a Bucher Cityfant 6000 "Senn" from Conrad. 

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



Solution from Construction Modeller 5-2015



The rubber wheeled road roller was a Schweizer Steck PW9-H. A draw had to be held to decide the winners: Hermann Utz from Schönsee (D) who won the ex-

clusive «Daher» XL Set with two Mercedes Actros 6x6 and 8x6 with ballast flat deck and two Scheuerle Intercombi 4+5 dollies from Heavy Transport Models, Roman Dolny from Thun (CH) the JCB 540-200 Loadall from Motorart and Tino Wilde from Crimmitschau (D) the brand new Unimog U 5000 in blue.

Congratulations to all the winners!

New on the market

NZG 1:50

The maker from Nuremberg is releasing some colourful new items this fall. The exact and detail-rich replica of the Mercedes-Benz Arocs appears in no fewer than six variations at the same time: with a 4x8 chassis in black as a half pipe dumper, in red and in yellow complete with Meiller dumping bin as well as a 6x4 chassis in yellow; as a three and four-axle version the new construction dump truck comes in white and as a set with a matching Nooteboom ASD40 low-boy trailer; the Liebherr R 936 with a quick change attachment shines in red lettered for “hoch-und ingenieurbau gmbh dechant”; the VW T5 with crew cab is newly available in the paint schemes and lettering of “Max Bögl” and “Strabag”. Not shown here are the two versions with tarps in orange and white that are also now available. Because of a lack of pre-production reservations, the Wirtgen W250i “SSO” and the Liebherr A 914 “Frauenrath” will not be produced.

GMTS 1:50

As we already announced in a report in our last issue, the Dolberg D 200 has been re-released with a diorama. This time it has white window gaskets. The “Golden Oldies” series is getting better and better as the newly-released two-axle truck with dumping trailer proves. For the first time in this series the rear flap on the trailer operates and even the supports can be extended out. While the chassis

for the dumping bin is kept rather simple, the dumping bin itself is finely engraved. The Scania 140 tractor truck has been modeled with many details and matches the trailer really well. Also very impressive is the three-axle dumping trailer. It discharges on both sides. Both models are again available in many different colors.

Conrad 1:50

Two extremely attractive heavy duty combinations from Kalchreuth have reached us. Driving for “Nolte” is the MAN TGX XLX 8x4 with the six axle telescoping Goldhofer STZ-H6 trailer. It has 16 removable stakes and loading ramps that can be adapted to individual requirements. At first looking like the same truck is the set for “Hofmann”. It is differentiated by the front bumper, roof-mounted air conditioner and a smaller heavy duty shoring tower. The already familiar three and four-axle Goldhofer trailer modules are augmented by the new pipe adapter which is height adjustable by a hydraulic system. This makes it possible to transport wind turbine tower parts, for example. A wealth of accessories is included for the rear unit but unfortunately there is no instruction leaflet.

Wiking 1:87

Under the heading of “model maintenance”, three new models have been released using old dies. The VW Polo now is on the road

lettered for the “Bölling” construction company, the Magirus Saturn dump truck is now available in turquoise and red, and the Unimog U 1700 now comes in a set with a tarp and three-axle construction trailer with crane and loaded with construction materials. The black and red set is lettered for “Eisen-und Stahlhandel A.G.” Common to all the new models are the color-accentuated details beginning with the makers’ logos, with door handles, front and rear lights and finally, the appropriately colored window and door gaskets.

Bush 1:87

The finely detailed Unimog U 430 is now available in another color variation. The green paint scheme supposedly underlines agricultural use. At the same time it re-awakens memories of the semi-official construction firm, “Schwarz Bau”.

Herpa 1:87

The Volvo FH16 heavy duty tractor introduced in the last issue is now available with the very intricately-printed artwork on the cabin for the Austrian heavy duty transport firm of “Rachbauer”. Its trailer is four three-axle Goldhofer THP-SL modules with a goose neck. The latter can now also be ordered in blue. In a new set, three heavy duty shoring towers for the Mercedes-Benz Actros STL are offered in a neutral white. Not shown are two similar sets however, they

match the Volvo FH Globetrotter and the Volvo FH Globetrotter XL cabins.

Siku 1:87/ 1:50

The Liebherr T 264 is a huge machine even in 1:87 scale. It has now been made in model form in the usual robust way of Siku. The question is: will the mining dump truck remain in the Siku program? It will depend on whether the matching loading machine will be available; a Liebherr mining excavator would be a great thing. In the classic construction machine scale a further version of the Mercedes-Benz Zetros with a tarp covering has been released but it morphs

into a full dump truck with operating rear flap once the tarp is taken off. The Mercedes-Benz Sprinter from Versalift has been newly released with a fully-extendable working platform that reaches an impressive height. The cabin and rear doors can be opened as well as one of the side doors. Both models impress with their high play value and sufficient functionality.

Edition Atlas 1:43

Under the name “Police Cars” Edition, Atlas has started a series of police cars from many different countries. Just released is the VW 1200 bug with a Hamburg license plate. Finally, a support vehicle for

heavy duty transports of the 1970s. Since the bug is a rather small car and because of its rounded off corners looks even smaller, the difference in scale is hardly noticeable.

Motorart 1: 50

Graders are the theme of the new items from the Swedish maker. The Case 856C AWD is a color variation of the New Holland F156.7. However, the Case model is noticeably better detailed. The same cannot be said for the new Volvo G960C, unfortunately due to clearly visible glue joints, details that fall off and the non-adjustable wheel camber.

NEW Construction Modeller



Fully-translated, digital English version of BAGGERMODELLE magazine.

Get your copy today:

For Apple iOS please download our „BAGGERMODELLE“ App from App Store

For Android please get the „Keosk“ App from Google play and search for „Construction Modeller“

For PC please visit keosk.de and search for „Construction Modeller“

For direct links visit our website www.constructionmodeller.com Or Facebook www.facebook.com/constructionmodeller

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	Maker	Available from	Info
Liebherr LTR 1100 «Sarens»	1:50	Conrad	Sarens	www.sarensshop.com
Liebherr LTR 1100 «Hartinger»	1:50	Conrad	Dealers	www.conrad-modelle.de
Mercedes LAK 2624 6x4 dumper green / dark red	1:50	Conrad	Dealers	www.conrad-modelle.de
Mercedes LAK 1624 4x4 dump truck and trailer dark red	1:50	Conrad	Dealers	www.conrad-modelle.de
MAN TGS Euro 5 / Moser tipper «Schwab»	1:50	Conrad	Dealers	www.conrad-modelle.de
MAN TGX 8x4 with ballast box	1:50	Conrad	Collett	www.collett.co.uk
Liebherr LTM 11200-9.1 «MIC Group» and «Chi Deh»	1:50	NZG	Dealers	www.nzg.de
Scania R roll off container tractor trailer set «Holzhausen»	1:50	Tekno	Dealers	www.tekno.nl
Volvo FH04 / Goldhofer XLE 3+5 «Felbermayr»	1:50	Tekno	Dealers	www.tekno.nl
DAF Euro 6 XF / Goldhofer STZ-VL «Manners»	1:50	Tekno	Dealers	www.tekno.nl
2 axles dolly for tractor trailer sets	1:50	Tekno	Dealers	www.tekno.nl
Liebherr R 970 «Giorgetti»	1:50	WSI	Dealers	www.wsi-models.com
Liebherr LTM 1050-3.1 «Mediaco»	1:50	WSI	Dealers	www.wsi-models.com
Tadano Faun ATF 70G-4 «Schot»	1:50	WSI	Dealers	www.wsi-models.com
Scania R143 6x4 / Broshuis semi-lowboy «Boterbloem»	1:50	WSI	Dealers	www.wsi-models.com
Scania R 8x4 flat bed / Fassi loading crane «Nordic Crane»	1:50	WSI	Dealers	www.wsi-models.com
Scania R6 wrecker 8x4 «T.J. Berning»	1:50	WSI	Dealers	www.wsi-models.com
Scania 141 6x4 tractor unit «Lommerts»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH4 8x4 / Broshuis semi-lowboy trailer «L.A.W. Tol»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH4 6x4 / semi-lowboy trailer «Doumen»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH3 10x4 / semi-lowboy trailer «Arjen Kandt»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH4 6x4 / Nootboom Euro-PX 4 axles «Zürcher»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH4 4x2 / 3 axle dumping trailer «P. de Leersnijder»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH4 4x2 / 3 axle dumping trailer «Addor»	1:50	WSI	Dealers	www.wsi-models.com
Mercedes-Benz MP3 L 6x4 / Broshuis 100 t «Giorgetti»	1:50	WSI	Dealers	www.wsi-models.com
Mercedes-Benz Actros 6x4 / Broshuis SL 100 t 7 axles «BKV»	1:50	WSI	Dealers	www.wsi-models.com
Mercedes-Benz Actros 6x2 / stone trailer «Martens»	1:50	WSI	Dealers	www.wsi-models.com
MAN TGS L 8x4 flat bed / Fassi loading crane «Eberhard»	1:50	WSI	Dealers	www.wsi-models.com
FTF FS 6x4 / stone trailer 3 axles «Hendriks Lobith»	1:50	WSI	Dealers	www.wsi-models.com
Set Liebherr LTM 1250-5.1 / 2 guide cars «Sarens»	1:87	Tonkin EU	Sarens	www.sarensshop.com
Mercedes-Benz Actros 6x2 «Baumann»	1:87	Herpa	Fritzes Modellbörse	fmb-shop.de
Nootboom ballast railer 6 axles «Baumann»	1:87	Herpa	Fritzes Modellbörse	fmb-shop.de
Volvo FH 8x4 / low boy trailer/ tower load «Schwandner»	1:87	Herpa	Dealers	www.herpa.de
Mercedes-Benz Arocs 6x4 semi-lowboy trailer «Wasel»	1:87	Herpa	Dealers	www.herpa.de
MAN TGS M flat deck tractor trailer set / crane/ load red	1:87	Herpa	Dealers	www.herpa.de
MAN TGX XXL 8x4 / Pendel X «Timmerhaus»	1:87	Herpa	Dealers	www.herpa.de
MAN TGS M 6x2 / Goldhofer TU3 / fork lift «Feuerwehr»	1:87	Herpa	Dealers	www.herpa.de
Nootboom ballast trailer 6 axles white	1:87	Herpa	Dealers	www.herpa.de
4 axle telescoping trailer blue/red	1:87	Herpa	Dealers	www.herpa.de
5 axle low-boy trailer yellow	1:87	Herpa	Dealers	www.herpa.de
3 axle low-boy trailer green	1:87	Herpa	Dealers	www.herpa.de
Carnehl half pipe tractor trailer set silver/red	1:87	Herpa	Dealers	www.herpa.de

Our partner page

125th anniversary of the Bärlocher quarry

The Bärlocher quarry celebrated its 125th anniversary on the 28th August. 270 invited guests from near and far responded to the invitation and attended. Tours of the quarry and the production site started at 4pm. Later there was a ceremony followed by

an enjoyable evening with food and drink. The visitors were impressed by the cable saw and the other machinery used to mine the sand stone.

Founder Felix Bärlocher started the company in 1890. Before that he operated a transport com-

pany but using horse and wagon, typical at the time. Over the following years, many crisis had to be overcome. Today Bärlocher AG is among the leading natural stone producers in Switzerland.

Flood protection and re-naturalization of the Bünz River

Flooding in recent years has shown that the flood protection in the Bünz River Valley is not sufficient. Situated between Wohlen and Waltenschwil the center piece of the planned measures is the construction of a high water overflow basin holding 590'000 m³. The construction contract was given to the HSWB 2015 consortium, made up

of wsb AG and the Eberhard Bau AG. The construction will be completed in about two years.

The project entails construction of a 350 m long traverse dam as well as a 585 m long side dam. The dam is 15 m wide at the base and rises an average of 2 m over the terrain. To complete these, a total of 36'000 m³ of soil had to be moved. Before the

beginning of the damming project the Bünz River is being re-naturalized over a length of about 800 m. The river edge now has banks inclining in different degrees. This makes it possible for the water to find its natural way through the riverbed. Suitable plantings and building measures secure the river banks.

News in brief

Caterpillar 325F L CR

The 335F and the 325F are all successors of the large short rear overhang Caterpillar 328D and 321D. While the 335F L CR brings 38.4 t to the scale, the maximum working weight for the 325F L CR is near 26 t. The built-in C4.4 Caterpillar engine produces 122 kW (166 hp) and conforms to the step IV exhaust protocol of the EU. As well as the 5.7 m long standard outrigger arm for Europe, a VA articulated arm is also available. With a rear radius of 1720 mm and 700 mm wide track segments, the overhang at the rear is only 180 mm when pivoting. The new cabin design with integrated ROPS has the same comfort level as a standard cabin. (up)

Liebherr R 980 SME

Liebherr is selling two of its R 980 SME excavators to the German Schwenk Zement Company. The R 980 is the heavier version of the R 976. And it is the successor to the R 974C. SME stands for Super Mass Excavator and has a short 7.2 m arm and the shorter 3.3 m jib and a big shovel bucket that in this case holds 6.5 m³. Depending on equipment options, the R 980 brings up to 97.8 t to the scale. As a propulsion system, it has a Liebherr V8 engine compliant to exhaust protocol step IIIB and produces 420 kW (571 hp). The two quarry excavators are to load the 775G dump trucks with a 42.2 m³ or 65 t capacity. The R 980 SME is the largest excavator in the yellow construction line from Liebherr and is about 10 t lighter than the smallest mining excavator R 9100. (up)

Tadano ATF600

Tadano presented this new company flagship, the ATF 600G-8 this June in Nuremberg. The crane has a lifting capacity of 600 t and has a world new invention feature. The usual guying has been dispensed with and replaced with the revolutionary new "Triple-Boom System". Two additional telescoping pipes beside the outrigger arm ensure for a superior amount of bending and torsional stiffness. This makes helper cranes and crane convoys superfluous and this new system allows for the problem-free operation of the crane in city locations that have narrow building canyons. (pd)

BAGGERMODELLE

U1-publishing GmbH
Postfach 135
CH-3322 Schönbühl
+41 (0)78 601 74 44
www.baggermodelle.net
redaktion@baggermodelle.net

Redaktion Daniel Wietlisbach (dw)

Ständige freie Mitarbeiter

Carsten Bengs (cb), Robert Bretscher, Michael Compensis, Markus Lindner, Urs Peyer (up), Albert Schmid, Remo Stoll, Fredy Tschumi (ft), Thomas Wilk (tw)

English translation

Daniel von Kaenel, Canada, Steven Downes, UK

Druck D+L Printpartner GmbH, D-46395 Bocholt

Erscheinungsweise / Bezug

Baggermodelle erscheint alle zwei Monate - 6 Ausgaben pro Jahr. Bezug ausschliesslich über Abonnemente und den Fachhandel.

Das Jahresabo kostet CHF 72.- / € 52.- (Schweiz, Deutschland und Österreich) / € 58.- (übrige Länder). Die Rechnungsstellung erfolgt für ein Jahr. Schriftliche Kündigung spätestens acht Wochen vor Ablauf des Abonnements, ansonsten erfolgt automatische Verlängerung für ein weiteres Bezugsjahr. Preis Einzelheft Fr. 14.- / € 9.50 (CH, D, A) / € 10.50 (übrige Länder).

Impressum

Bankverbindung

Schweiz: PC-Konto 60-155685-9
Deutschland: Postbank Leipzig
Konto 332 304 903, BLZ 860 100 90

Copyright Nachdruck, Reproduktion oder sonstige Vervielfältigung – auch auszugsweise und auf elektronischen Datenträgern – nur mit schriftlicher Genehmigung des Verlags. Namentlich gekennzeichnete Artikel geben nicht die Meinung der Redaktion wieder.

Haftung Sämtliche Angaben (technische und sonstige Daten, Preise, Namen, Termine u.ä.) ohne Gewähr.

ISSN 1663-764X