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Ausgabe 3-2023

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Mit Wettbewerb

Conrad 1:50

Liebherr R 940

Eigenbau 1:50

Scania LBS76

English text

MSM 3D-Druck 1:50
Hamm GRW 18

Sammlerporträt
Kris Vögele

Diecast Masters 1:50
Caterpillar M318

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Editorial

I would like to give a heartfelt thank you to all subscribers who have voluntarily rounded up their subscription fees. You are making an important contribution towards "unbiased reporting".

Writer's block and ChatGPT

There is nothing as scary for an author as writer's block! Sitting in front of an empty document, the flickering screen becomes an insurmountable, barren desert and I feel as though I am back in the classroom just before writing an essay.

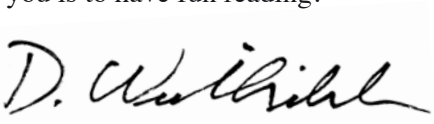
Essay? How did our daughter get a great grade on her essay just a while ago? With ChatGPT of course!

This 'artificial intelligence' can is given a request, for example, 'I need an editorial about the collecting of construction machines and lorries in 1:50 scale'.

The result is fascinating and I want to share the results, at least in part. 'The collecting of models in 1:50 scale is a hobby with many followers worldwide. The miniatures are made in great detail which makes them popular objects for collectors. They are made by renowned producers who guarantee a very high degree of exactness and adherence to details. With these models, collectors can build dioramas to express their passion for heavy construction machines and lorries. The models can also be used for pedagogical purposes, to demonstrate functions and features. Collecting is more than a hobby, it is an opportunity to honour the hard-working men and women employed in the construction and transport industry. It is the opportunity to preserve a part of history and to show how heavy machines and vehicles have developed over the years. With their extensive details and high accuracy, the models provide happiness and contentment for hours.'

Even though many of the points made here are well-known, the text is remarkable! In particular, 'honouring the hard working...' was not something of which I was acutely aware. But don't these women and men carry a little bit of a hero status for us as they sit behind levers and large steering wheels?

With this in mind, my wish is for you is to have fun reading!



Daniel Wietlisbach

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Kris Vögele collects Mining Models

Perfectionist

by Daniel Wietlisbach

Are A-levels required to operate excavators? Kris Vögele's professional career is unusual and his collection uncommon. Many rare models make a visit very worthwhile …

Kris Vögele was born in 1989 and grew up near Lake Zurich with two younger siblings, a brother, and a sister. His father worked as the second generation in his family's business, a well-known chain of clothing stores with 750 stores Europe-wide. His mother took care of the household and the kids. "We never lacked anything," Kris remembers. The family home was situated at the end of a peninsula. To reach it, it was necessary to pass Kibag which operated a works yard on the peninsula. The nearness to the construction company with its blue/grey machines made an impact on little Kris and the business had a magnetic attraction for him. Even as a nipper, he spent every free minute there, and when he found out about construction sites nearby, of course, he had to visit them. His interests were evident, so the youngster was invited onto the construction site once in a while. An absolute highlight was being allowed to steer an excavator with the help of the machine operator.

A friend from his father's youth operated a construction company and arranged for Kris to drive an excavator. When mother and son arrived at the construction site, an Åkerman H10 waited for the six-year-old machine operator. Kris's parents understood their son's passion and supported his wishes and undertakings.

His father often visited trade fairs with his son. These included the construction machine fair in Lucerne, in-house fairs at Amman (today Avesco), and Kuhn, among others. The family often spent their holidays abroad, in particular at a golf resort in Spain. But while the other family members practiced with the little white ball, Kris preferred to observe the excavator that was installing pipes. It did not matter where the trip's destination was, upon the approach to the airport landing strip, the youngster was already spying out construction sites that could be worth a visit.

Joal in his childhood

At home or abroad, Kris was always on the lookout for toy stores. These usually carried construction machine models. At the top of his wanted list then was Joal, a widely distributed brand whose models had a high degree of playability. At about age five, Kris was given his first excavator model, an Åkerman H7, and even then he wanted to have all variants of the same model for his machine fleet, if possible. Soon, a second H7 with a demolition hammer arrived.

His passion was well-known among all his relations and so he was gifted other models on many occasions. The more specialized knowledge the young boy acquired, the wider became his palette. Following excavators came wheel loaders, tracked loaders, dumpers, and later, bulldozers. For a long time, there was only Joal for Kris. Only after he discovered the shops at dealerships did he learn about the models from NZG and Conrad.

During the warmer times of the year, he liked to play in the sandbox with his friends. Kris was able to supply the whole vehicle fleet! He quickly decided who could or could not play with his valuable models. He wanted only the 'most careful machine operators for his company!'

When the weather was inclement, a 'huge' playroom was made available for all the kids. There they had lots of room to play and Kris operated an always-changing construction site in one corner. He

owned a whole box full of concrete system blocks, similar to Lego bricks. With approximately 1,000 pieces, he could build anything. A prerequisite was that the playroom did not have to be tidied up. Because of the very forgiving cork flooring in the room, the bits of concrete rubble or sand collected on construction sites didn't cause a problem. When one building was finished, the next one was started and so, over time, the construction site in the playroom grew to about five square meters. This kind of play only became problematic during hotel vacations when the soil in the flowerpots was the only opportunity for excavator work.

Those who think that Kris neglected his schoolwork are incorrect. Kris recognized the importance of education, probably because of a visit to a private school with his siblings. There, many excursions were part of the curriculum. These were undertaken to expand upon the basic instructional material. For all three children it was quite clear that after basic schooling, the grammar school (Gymnasium) was the next destination.

Work as holiday

At the age of 13, Kris no longer wanted to go on holiday with the family. Instead, he wanted to pursue his hobby and visit construction sites. His parents gave him permission on the condition that he found himself a holiday job to keep him out of trouble. Kris approached the Kibag workshop where he wanted to work for four weeks during the summer holidays. Doubtless, such a request from a Grammar school boy was unusual, but because he had been known there since he was a toddler, he was given the ok. The youngster was interested in everything. He not only helped with lorry and construction machine repairs but also in the metal work department and the paint shop.

His parents had secretly hoped that after four weeks Kris 'would have enough of it', but the opposite was the case. This kind of work was the most exciting kind of holiday, and the cherry on top was that he actually got paid for his work. He regularly organized holiday jobs for himself, not only at Kibag but also at the company which in earlier years had allowed him to steer the Åkerman H10. There he especially enjoyed the trust the owner gave him. One day, when Kris was just 14 years old, the owner gave him the keys to the excavator, not to practice on but for an actual job. Without time pressure and without suspecting it, his training as a machine operator had begun.

The more his skills improved, the more requests he got until it was not only on holidays but also on Saturdays and school-free afternoons that he sat in the excavator cabin. Because he could not yet drive himself, the construction company owner often picked him up personally. The young man was hungry for knowledge and was very well-informed about all construction machine innovations. This led to him being consulted on machine purchases and so, at just sixteen years of age, he was responsible for the acquisition of an excavator. The process provided him with an inside view of the basics of how to run a company and it became clear to him that he wanted to be an independent excavator operator. When he was 18 and still at Grammar school, he was able to purchase his first excavator with financial help from his father. The machine was a Cat 324D 'with all bells and whistles,' as he remembers, and it had a very distinctive metallic paint job.

Kris had organized a space in the Kibag works yard to park his excavator and when the machine was delivered, everyone present, up to

The collector

Kris Vögele learned how to operate an excavator during his Grammar school time. After his A levels he went independent with his own excavator and for the last five years has been employed as a machine operator. In addition to his collecting hobby, he likes to visit construction sites, trade exhibitions, and fairs.

He shares a flat with his mother on upper Lake Zurich. If you would like to visit him and his collection it would be best to contact him by email: krisvoegele@bluewin.ch

the managing director, admired it. It was immediately clear that the company needed that excavator so Kris rented it out to Kibag during the time he was still at Grammar School but after passing his A levels he naturally wanted to operate the machine himself.

As planned, he became independent and hired out himself and his machine. For ten years, up to 2018, he operated his own business but then he looked for a job in the industry. In 2021, in the middle of the Corona time, he changed jobs and since then has worked for a company in Central Switzerland operating a Volvo EWR150E short swing mobile excavator. Because the machine is used for special sites, the work is interesting and never boring.

Hobby

The journey from a child at play to a youthful collector continued. While the first Joal models were played with, the models from NZG, Conrad, and Norscot discovered later were too nice for such activity. At that time, the model maker was not important; it was the model of the desired machine such as Caterpillar, Liebherr, or Komatsu that took precedence. His love of variants has remained, and the same machine can be found several times in the display cases in a variety of paint schemes and with different equipment.

The changeable construction site on the playroom floor now appeared to Kris to be too full of compromises. This led him to make the first dioramas that he constructed with model train accessories. He purchased machines for his model building shop with the wages from his holiday jobs. With his drill press, he drilled out bolts and exchanged attachment tools. At age 14 Kris dared to tackle his first re-paint and lettering job creating a Volvo EC280 in the Kibag colour scheme; the rare Scoop model was the basis of the conversion.

Before his last move in 2011, the collector sold around 50 models, about half of his collection. Shortly thereafter, at the home of his collector friend, Kari Feierabend, he discovered the mining theme. A key discovery. As a perfectionist, he particularly liked how far the manufacturers were able to push the limits of detailing, thanks to the size of the models. One of the first ones he purchased was the Bucyrus 495 from TWH; currently, 10 versions stand in his collection. The very large cable-operated excavators have become a really great passion of his although dumpers, blast hole drills, and other ‘auxiliary’ machines of the mining industry have not been forgotten.

Kris’s high standards are demanding. The collector certainly prefers a perfect but expensive model over a more ‘affordable’ model with fewer details which explains why there are models from TWH, KPS, RR-Models, CCM, and others in his collection. His favorite model? There are several: of course, the Bucyrus 8750 Walking Dragline, but also the P&H 4100A from EMD and the Terex RH400 in the colours of ‘CNRL’ made by KPS. Currently, he is on the lookout for an OHS model of the P&H 4100XPB in yellow. The collector’s most important quality is his patience which often has paid out during his searches. To date, there are about 700 models in 1:50 and a handful of 1:24s in his glass display cases and on solid wooden shelves. Mining models are heavy and if you have several versions, the weight adds up quickly.

Scania LBS 76 & Briab Interconsult silo semi-trailer

«Färdig Betong»

by René Tanner

I completed this remarkable model about twenty years ago. Just recently, on a social media site, I discovered some pictures of the original taken by the driver at that time ...

The only real difference between the original and the model was that an additional three-axle trailer was attached at the rear of the prototype. In 1965, this LBS train with a length of 32 meters and a total weight of 74 tons was legally on the road with a 40 km/h top speed restriction. The 'Bröderna Carlssons' from Karlstadt owned several silo combinations, among them this LBS as well as further seven-axle trailer combinations. Carlssons was on the road for the AB Färdig Betong.

Old passion

During the time I was building this model, the Internet was still in its infancy and was extremely slow. One had to dial in with a modem and large data files seemed to take a very long time to download. Social media sites like Facebook, Instagram, and Pinterest were not yet created. It was painstaking to assemble the sparse information which explains why I can no longer remember where I found the prototype for the LBS 76. Mellislastbilar, one of the first informative web pages for Scandinavian lorries had some very good, usable pictures available so it is very likely that it had a picture of this silo combination. Without one it would not have been possible to replicate the original realistically in model form.

My fascination with round silos as self-supporting structures in lorry construction has stayed with me since my childhood. My father drove an LB 76 with an Interconsult upper structure for the Kliba feed mill in Kaiseraugst. Because of some family snap-shots, I know that I once had a Tekno LS 75 with the two spherical silos and Interconsult lettering, but unfortunately, the set did not survive until the present. Many years later, after continuous and persistent questioning, I found exactly the same Scania again at Hobby-Franz in Basle. Access to the back part of the shop was behind a roll-away wall. There, Franz, himself a died-in-the-wool, slightly quirky collector, reached into the upper part of a shelf and miraculously managed to pull out exactly this Scania. When it came to the price he was he was very stubborn and he pulled the unimaginable sum of Sfr 450 out of my pocket. Overpriced or not, I did not care. I was finally in possession of this model again and it stands proudly in my display case. Currently, these original Tekno models from the early Denmark years trade for less than half of the price I paid.

But my passion for spherical silo semi-trailers has remained. I am currently completing my fourth spherical silo semi-trailer, this time with a Krupp V8 as a tractor lorry and chances are that others will follow.

Model construction

To describe how to build such a model verbally or on paper is almost impossible because I constantly made changes during construction. The upper structures are also very time-intensive to make. They require gluing, spackling, and sanding which all take a very long time. The spheres themselves can be found in well-stocked construction or hobby stores and are also found in gumball machines or as decorative gift items. If we look at the spheres as half-spheres, which is helpful, they give us a reference to the width of the chassis. Coming from the middle of the spheres I measured the width to establish

the width of the ancillary frame at the chassis. Having generated the radius, I cut out the templates accordingly. To allow room for the supporting frame, vertical cuts are made on the spheres with a hobby saw; this allows a smooth transition to the partially flat side walls and the unloading valves.

When I was building the Transconti (Trucks & Construction issue 2-2017), I cut the side supports on the trailer using a cardboard template and then cut the part out from 1.5 mm thick plastic sheet stock. Due to the tear-shaped middle silos on the LBS 76, single plates with the correct shapes had to be made. The greatest challenge with this method, more than two silos in a row, is that they have to line up perfectly so that they can be glued together exactly. On the semi-trailer, I rolled the individual spheres back and forth until they all lined up, then, using a piece of door frame to hold them steady, I glued them together with quick-setting glue. After the upper chassis was extensively spackled, sanded, and sanded again, I turned my attention to the details. I bent the 2.0 mm aluminum tube stock air lines into shape and made the fenders from aluminum sheet stock. Furthermore, I added a ladder that was scratch-built from brass parts and soldered together. I glued on both the running board and a customized rear-end beam. More detail parts added were the silo lid domes made from screw covers for assembling furniture, stowing lockers for the hoses, and turn-off valve wheels.

I enlarged the frame of the Heavy-Goods tractor lorry unit kit and glued on a new rear axle from a Scania T 112. New mudguards, a continuous running board as well as a compressor completed the chassis. On the cabin, I added a sun visor, air horns, and a lighted advertising board with brackets. Two pairs of ancillary front lights underneath the front bumper round out the changes. Painting the unit required exact masking for the different colours to be applied. The first coat was silver. This was followed by yellow and, finally, a smoky blue colour. In comparison to the common models of today, the Scania is a bit sparse on details and some are missing. If I would do it again today, I would change a few things around and build it differently. Nevertheless, the gigantic silo lorry and semi-trailer combination looks great. The only thing that I would definitely never use again is that particular clear lacquer as a final coat; it has yellowed a lot over the years.

Demolition excavator from Conrad in 1:50

Liebherr R 940

by Daniel Wietlisbach

On their website, Liebherr very modestly describes the R 940 as 'the smallest demolition excavator in our portfolio'! Conrad produced the model in a comprehensive set and presented it at the Bauma ...

With a working weight of between 48.7 and 63.9 tons and a working height of 23 meters (about nine floors tall), even the 'smallest' is not really small, even though the statement is actually correct. The R 940 demolition is the successor to the R 944 C and has everything that a de-construction machine should have today. The VH-HD lower chassis is hydraulically adjustable and the large counterweight assures a solid footing. The cabin not only tilts but it has a cab guard and also armoured glass in the front and roof windows. The R 940 is powered by a Liebherr D944 A7-25 four-cylinder 200 kW (272 hp) engine which complies with the exhaust protocols of step V.

The model from Conrad

In 2015, Conrad presented the probably best-ever model of a demolition excavator, the R 960. It has been released in many colour variations until recently. Following the announcement of the R 940 Demolition, the expectations of collectors were very high.

The new model arrives as part of a substantial set in a solid cardboard box and is easy to admire between two Styropor clamshell halves. Only the storage rack for the long boom made from seven metal parts has to be assembled and, thanks to the well-fitting parts and the included instructions, this process is problem free. Included in a separate little bay are the rearview mirrors and the two plastic bolts needed to attach the boom and tools.

The basic machine is made mainly of metal. It is heavy when held and, as expected, is exquisite. All measurements have been correctly transposed to scale, and the shape and proportions look great.

The telescoping lower chassis is massive. It does not sag in any position and gives the model a high degree of stability. Despite their size, the central frame and drives are nicely engraved and correctly show many details of the prototype. While the ten running wheels which are covered by the protective apron are only hinted at, the three support wheels were made as mock-ups. On the drive wheels, the screw heads and the Liebherr logo are visible. The sprung guide wheel keeps the track taut. The single-segment tracks with triple grouser track shoes were taken from Conrad's standard program, naturally with the correct width of 600 mm, when converted. The silver steps are separately attached plastic parts.

The upper chassis is mostly made up of colour-separated metal castings which are engraved true to the original and show several details. The air intake grilles are only hinted at and are only coloured in black on the right side. The engine hood, exhaust, air intake stack, handholds, and safety railings are separately attached parts. The cabin tilts prototypically by using a hydraulic cylinder which can hardly be seen. The tinted glass in the cabin shows all window dividers and rubber seals, correctly coloured in matt black. Looking through the windows, one can see the interior. The protective grille is made from plastic, happily with very fine rods. The work spotlights are not coloured nor do they have any glass.

In the middle of the upper chassis, there are 14 hydraulic lines leading to the boom where two lines lead to each lifting cylinder. The ten remaining lines go to the hook-up points for the two booms. To avoid plugging and unplugging, the same kind of solution as on the R 960 was chosen. Visually, the supply lines seem to go right through, a solution that is still very convincing.

Equipment

The 23 m demolition equipment is actually made up of the two-part 12.0 m boom, the 2.25 m connecting piece, and the 7.25 m stick. The boom parts are made from exactly fitting, hollow metal parts closed in at the bottom. The two front parts are full metal castings. All are very nicely engraved and the hollow bolts at the joints reflect the impression of the original very well. The red bolts for the storage racks are separately applied parts as is the fully functioning secure tie-down rod between the boom and stick for transport. True to the original, the two-tiered, free-standing hydraulic lines run, up to their endpoints at the cylinders where they are simply plugged in, something which is sometimes criticized. On the other hand, the hook-up locations and branching out of the lines are correct and modeled very convincingly. The silver and black colours are also convincing. At the stick end are four lines for the two hydraulic circuits that are designed for a variety of attachment tools.

The way the boom fits when assembled is excellent; the plastic bolt inserts easily and holds everything stable.

This also goes for the so-called 'stick boom' of the backhoe attachment that can be prototypically attached in two positions, either fully extended or slightly bent. The quality of the final product regarding the choice of material, shape, detailing, and hydraulic lines replicates the demolition boom exactly.

Neither boom has a quick coupler attachment. Tools are clipped on and held with a plastic bolt. The concrete crusher, sorter/grappler, and bucket were taken over from the larger R 960 and fit this machine without any compromises. The teeth of the concrete crusher are

At a glance

+ Set contents
+ Metal content
+ Functionality

built like a clamp. With its rather high clamping force, the original is able to lift items, however, the model cannot be shown empty or with open jaws. The biter and sorter/grappler rotate 360°. The clamshell halves are made from pierced metal. The engraved details of the single parts are as convincingly replicated as the backhoe bucket with its five teeth and wearing plates.

The applied colour tone is an excellent match and because of the well-fitted attachment parts of the boom, there is no danger of chipping of paint. The cleanly-applied lettering is legible. Overall, it can be said that the R 940 Demolition is a worthy successor to the larger R 960.

Mobilbagger from Diecast Masters in 1:50

Caterpillar M318

by Daniel Wietlisbach

The successor of the M318F has been released. Diecast Masters even thought to include a quick coupler on this finely detailed model ...

The Cat M318 of the new generation reaches a maximum working weight of 19.95 t and the manufacturer promises 10% savings on the running costs as well as on emissions. The service costs are lowered because all service areas can be reached from the level ground thus simplifying all of the maintenance work. Available for the 5,205 mm adjustable boom are several matching sticks that make the machine truly versatile. The Caterpillar C 4.4 four-cylinder engine produces 129 kW (174 hp) and fulfills the requirements of the EU step V exhaust controls. Its top speed is 35 km/h.

As with all models of current prototypes, the M318 comes packaged in the well-known tin box. Well protected, the model can be removed easily from its foam cradle. To the great enjoyment of the collector, the set includes Bob, a humus bucket, and a sorter/grappler attachment. The backhoe bucket is already attached. The proportions have been transposed correctly and all measurements correspond to the originals.

The lower chassis was taken over from the M318F; its wheels stand firmly and do not kink; the front axle is steerable, even though the turning radius is small. The rims fit exactly into the profiled tires and the excavator rolls smoothly. The drive train is hinted at. Two functional supports are mounted at the front and there is a moveable blade at the rear.

The upper chassis is very detailed and the engravings are true to the original. All gaps are correct and the handles of the service doors are also engraved. One such door on each side opens and allows a view of the engine compartment. On the right-hand side, the door which consists of several parts is extensively painted. The hinges do not distract here as they are painted to blend in and they close the doors very snugly. Exhaust, GPS receiver, handholds, rear-view mirrors, work lights, and many other separately attached detail parts complete the upper chassis. The hydraulic valve is covered with a metal plate that has a fine anti-skid surface.

Roll-over protection is integrated into the cabin frame. The cabin itself is made of metal and the window glazing fits very flush on all sides. The roof with its slightly tinted window lifts off for the insertion of operator Bob. Through the open door, the detailed, multicolour interior is visible. The safety lever is painted yellow and Cat logos can be seen at the appropriate places. Window wipers, work spotlights, hand grip, rearview mirror, and an

orange warning beacon complete the outside details.

The equipment consists of a 5,205 mm adjustable boom and a 2,500 mm stick. The excavator can be put into transport mode and has no problems reaching all maximum distances while digging depth and cutting-in height are even surpassed by several millimeters. The shape has been well replicated on both and their undersides are closed with flush-fitting covers. The hydraulic lines are made from black rubber and are modeled to run all the way. Only on the boom are they partially integrated into the casting which does not keep up with the current standards. To partially compensate for this, two further hydraulic circuits are included which is very fitting for a mobile excavator. The hydraulic cylinders are well-designed. On the lines, DM uses the simplified plug-in system; thanks to its black coloring this hardly distracts. Of course, the quick coupler and the three tools included are very welcome. While the two buckets are likable because of their finely engraved details, the grappler/sorter scores high with its very fine lettering. Without a doubt, it would be even better if the two clam shells were actually pierced.

The applied paint is faultless and not too thick. The lettering is sharp and legible and it is nice that the yellow warning labels are almost completely duplicated in all areas.

At a glance

+ Metal content
+ Functionality
+ Detailing

From the 3D printer at MSM in 1:50

Hamm GRW 18

by Daniel Wietlisbach

The GRW 18 is probably the first serially produced 1:50 construction machine model ...

The Hamm GRW 18 was successfully produced for a breathtaking 55 years. Released in 1965 as the first rubber wheel road roller from Hamm, it caused a stir even internally, because 'How can you roll a road with rubber wheels?' Incredibly, 7,000 units were produced until production ceased in 2020. In the last few years, they were mainly destined for developing countries where a simpler technology was demanded and the exhaust controls were laxer. The last GRW 18 was destined for Saudi Arabia.

The working weight of the rubber-wheeled road roller is 14.44 t, and the fully ballasted maximum weight is around 28.00 t with each wheel carrying a weight of 3.5 t. The built-in Deutz four-cylinder engine produces 85kW (115 hp).

MSM (Mountain Scale Manufacturing) of Andreas Eberle from Triesenberg in the Principality of Liechtenstein, is also a success story, but it is shorter and smaller. It began with 1:50 3D-printed accessories for construction site diorama builders. The first model released was a construction site container from which a whole system was developed. Then followed construction site tanks, freight items, crane mats, tilt rotators, and safety barriers for construction sites.

To produce these items, the well-known FDM 3D technology is used. The raw material comes on spools and looks like thick spaghetti. The printer melts the plastic and prints the model in layers.

Andreas Eberle's model of the GWR 18 was created on his own initiative, but he was able to rely on the active support from Hamm. In this manner, a correct-to-scale model

was created. As far as we know, it is the first construction machine model to be 3D-printed in a large series! The limits of this technology were only reached with the tires which are made of rubber.

At MSM, the correct colour of the end product is already used in the printing. Further painting is not required, however, this requires that the parts have to be sorted according to colour when they are printed which takes 48 hours per model! According to the maker, the biggest challenge was to find the optimal compromise for the detailing. 'As much as possible without destabilizing the model. Exploration of the ideal wall thickness and the possible turning radius was especially laborious.'

The model is lighter than a comparable metal one but still feels very pleasant when held. The wheels turn smoothly and are mounted at the front to turn in pairs. The rims show all the details and fit very snugly into the rubber tires which have raised, complete lettering on them. The chassis has all the main details. Inwardly offset steps, lids for ballasting, lifting rings as well as brackets for the mirrors are included with the model. The anti-skid surfaces on both sides of the cabin have been correctly replicated and help hide the printed layers, especially in the front area. Despite the minimum thickness chosen, these layers are unavoidable. Whether they detract too much from the overall impression of the model is left for everyone to decide. Based on the photos included on these pages, we find that they do not provide a distraction.

All major details on the cabin are present and easily recognized. The separately attached side handholds are made from a relatively breakproof plastic material. The upper ones were printed at the same time as the roof but are also free-standing. Raised rubber seals on the windows are hinted at. The glass for the cabin is a separate clear plastic part inserted behind the window frames. True to the original, the black interior shows both workplaces of the operator. The roll-over bar behind the cabin is also a printed part.

While logos, type designations, and the work spotlights are decals made by Decalprint.ch, the covers of the fuel and water tanks were picked out in silver by hand brushing them.

In conclusion: MSM has shown a deft hand in choosing the type of model. The long production span makes this model just as interesting for historic construction model collectors as for those who are interested in current machines. The FDM printing process delivers solid and stable model parts but has its limits because of the visible layers. It is, however, a real alternative for models that will be never produced because of the high cost of white metal casting and production numbers. It is hoped that further models will follow suit.

At a glance

+ Choice of model
+ True to scale
– Visible layers of the printed medium, due to technical limitations

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Druck D+L Printpartner GmbH, D-46395 Bocholt

English translation
Daniel von Kaenel, Canada, Steven Downes (sjd), UK

Erscheinungsweise / Bezug
Laster & Bagger erscheint alle zwei Monate – 6 Ausgaben pro Jahr. Bezug über Abonnemente, den Fachhandel und Bahnhofbuchhandel.

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Imprint

Bankverbindung
Schweiz: PC-Konto IBAN CH83 0900 0000 6015 5685 9
Deutschland: Postbank Leipzig, BLZ 860 100 90
IBAN DE86 8601 0090 0332 3049 03

ISSN 2504-0405

Are you familiar with this one?
Recognize this lorry and win a model ...!

by Remo Stoll

Ready for export, this hood forward lorry sat looking rather forlorn on a dealer's lot. Loaded and piled high with several excavator buckets, it looks ahead to an uncertain future. Before the lorry was taken to the export dealer, the built-in six-cylinder engine burned diesel fuel during its use in agricultural work. Today it would be at least 59 years old.

Recognize the lorry? Please send us the exact designation by the deadline on June the 10th, 2023. We will hold a draw to select the winners if there are several correct submissions. Please note that only entries with complete mailing address information can be considered so that we can correctly mail out the models that have been won.

This time the winners will receive a prize chosen from these models: the Liebherr LTM 1120-4.1 'Bauma' in 1:87 from WSI, the Mercedes-Benz Arocs 8x4 with Meiller tipping bin in blue from NZG, and the Mann GRW 18 from MSM.

The solution from Trucks & Construction 2-2023

The Grader shown hard at work was a John Deere 570-A. And the winners are Dietmar Reichelt from Berlin (D) who won the Cat D5 from Diecast Masters, Markus Thalmann from Wil (CH) who won the Vögele Super 1900-5i, and Wolfgang Werner from Salzgitter (D) whose prize was the Hino Profia SS 6x4 from Ken Kraft.

Our very heartfelt congratulations to all the winners!

Material handler from Conrad in 1:50

Sennebogen 824G

by Daniel Wietlisbach

The stand of Sennebogen provides a bright dap of colour at any Bauma and is hard to miss. Shown at the last Bauma were the new material handlers of the G series, among other machines ...

Thanks to the modular system in use, each Sennebogen machine is customized to suit the customer's needs, as usual. Depending on the equipment attached, the working weight of the 824G varies between 24.0 and 26.3 t, and the maximum reach, with the longest boom and stick combination, is 12.0 m. The built-in Cummins B 45 four-cylinder engine produces 118 kW and conforms to the Step V exhaust regulations.

The model from Conrad

The Sennebogen 824G was the only new model at the Bauma stand. It arrives in the well-known, practical, space-saving package with the four parts for the safety railings as well as the rear-view mirror contained in a plastic bag. Constructed mostly of metal, the model feels pleasantly hefty in the hand. The proportions look great and all measurements have been correctly replicated. The excavator model sits securely on the MP21 lower chassis which was taken over from the 818E. Rims and wheel hubs are exactly engraved and sit very flush in the new tires that are made from a soft rubber material and have a profile like the original. The steerable oscillating axle is suspended and the drive train is free-standing. At the front, the model has two adjustable supports, walkways, and access stairs with non-skid surfaces. All parts are finely engraved, including the blade and its kinematic at the other end of the lower chassis. Toolboxes and steps at the sides are picked out in silver.

The very plain design of the upper chassis shows a few details and is augmented with an exhaust stack and air filter plant which look just like the hot-dip galvanized ones of the prototype. The raised Sennebogen logo at the end is painted black, just like on the original, and the metal safety railings are to be inserted into the pre-drilled holes. At the front, there is a small platform and ladder over which the upper chassis can be reached.

The 'Maxcab' lifts upwards to the same height as the original, and the lifting kinematic with its hydraulic cylinder is correctly and functionally modeled. Although the hollow bolts used are a little larger than on the original they do not detract from the overall look. The rubber band, which has the supply lines that run from the kinematic to the cabin looks very nice. Well copied to scale, the cabin itself has flush-fitting glazing with cast-on raised rubber seals and door handle. The window wiper is printed on. Too bad that the cabin side panel is a different shade of green. The bi-colour has been exactly replicated.

The 824G is equipped with the new 6.5 m boom and the already-known 3.8 m stick which was taken over from the 818E. Both are of metal and have tight-fitting covers underneath to close them in. The hydraulic lines, a single rubber part, run correctly from the distribution valve on the upper chassis to the attachment tool's hydraulic cylinder hook-up valve and to the hook-ups of the sorter/grabber tool and include the lines running to the bottom of the boom. The adjustable protection loop at the end of the boom and three work spotlights round out

At a glance

+ Metal content
+ Functionality
+ True to scale

the details of the equipment. The tool attached comes in the shape of the well-known sorter/grabber attachment and has been fixed permanently to the unit. Both halves of the plastic grabber are pierced and attached to each other so that they function.

The paint has been cleanly applied, and colour separation lines have been mostly avoided by cleverly choosing the parts. The air intake grilles on the left and right are painted grey. The printed-on lettering is very sharp and legible, and the yellow warning labels further enhance the model's finish.

Small lorry from Marge Models in 1:50

Mercedes-Benz Atego

by Daniel Wietlisbach

Omnipresent on our roads, lorries for the light distribution delivery service know no superlatives ...

The Atego from Mercedes-Benz has been a reliable companion in the distribution traffic. In 1998 it superseded the LK series which was constructed for 'only' 14 years. Right from the outset, the Atego was offered with four different cabs and several wheelbases. In 2004, the first face-lift changed the look of the cabin and approached the look of the Actros that was released a year before. Among other things, the indicator lights were enlarged and the radiator grille adapted. The second generation, called the 'new Atego', was introduced in 2013 and the engines now conform to the exhaust controls according to Euro 6.

The lorry is available with two different engines in a variety of performance classes. The four-cylinder 5.1-liter OM 934 produces between 115 and 170 kW, and the six-cylinder 7.7-liter OM 936 between 175 and 220 kW. The total allowable weight fluctuates between 6.5 and 15.0 tons. Single and multiple-spring suspension to reduce weight are standard issues for the Atego, but for better comfort, the chassis can also be ordered with steel or air suspension. Currently, four cabins are available: the S-cabin Classic, the Classic Extended, the L-cabin Classic Space, and Big Space with a 40 cm higher interior with the option of one or even two berths.

Model producer Marge Models from the Netherlands made a name for itself with agricultural models in the traditional 1:32 scale and a few years back surprised us with commercial vehicles in the same scale. The 1:50 Atego is an exception in their offerings. The background to this was that the maker of the original needed a model in several different paint schemes and lettering to be given away as promotional items. Nevertheless, the model did not need to hide its light under a bushel.

It arrives in a neutral box without any lettering and is kept safe in a Styropor box between two clear plastic clamshells. The heavy Atego with all metal main components exudes quality. The overall impression is that of a finely detailed scale model with excellent proportions. The chassis version chosen from the original has been modeled true to that with the 4,760 mm wheelbase. Drive shaft, axles with suspensions, brake cylinders, and compressed air tanks are all present and correct as are the tanks, the spare wheel, and the exhaust cleaning plant. The engine block is simulated at the bottom and the steerable front axle is made in such a way that the wheels stand exactly vertical while at the same time allowing a maximum turning radius. The rims are finely engraved and the front tires with original profile are different from those at the rear.

The cabin version chosen is the S-

cabin Classic which is the smallest and probably the most common version because it would be rare to have a bed available for daily distribution service. The design of the shape is very well executed and the very flush-fitting windows include rubber gaskets. Combined with the bumper, the lower part of the fenders is one complete engraved part. Front lights and indicators are detailed. Steps, radiator grille, and Mercedes star are all separately attached as are are the window wipers, sun visor, and all mirrors. The cabin interior is very nice and finished in several colours; it is completely lined on the inside. There is a Mercedes star on the steering wheel, and the dashboard instrumentation is printed on.

The cargo box is a metal casting that has a raised engraved door with handle and lock detail. The non-functional liftgate at the rear from Dhollandia is exactly modeled and the hydraulic lifting mechanisms have been replicated very finely in scale size. On the right side is the covered control box with the printed-on logo of the maker.

Paint and lettering are first class. In addition to the version shown here, the model is also available lettered for Verhoek in blue, for DHL in yellow, and, as mentioned above, in neutral white for the model builder who wants their Atego to have its own special look.

At a glance

+ Shape design
+ Metal content
+ Detailing

Crawler crane from NZG in 1:50

Liebherr LR 11000

by Carsten Bengs

The gigantic Liebherr crawler crane LR 11000 from NZG was definitely among the Bauma 2022 model highlights. This impressive model is very detailed ...

The huge model of the Liebherr LR 11000 comes in the SL8F2 configuration which means it has a boom system designed for the construction of wind turbines. Its boom can extend up to 108 m and it has a fixed lattice tip. Functionality and adherence to details are perfect and NZG has replicated the measurements correctly.

Four bolts on each side connect the middle part to the massive crawler track carriers. Here NZG has chosen small realistic-looking plastic rings to secure them. Installation supports to lift the unit from the low-deck trailer are found on all sides and, of course, the little support plates are also included.

All support and guide wheels move freely and the four crawler track drives are modeled in detail. On top of that, one side is sprung to keep the tension on the tracks. The central ballast of 130 t is added to the main frame and attached with little screws; NZG includes the matching screwdriver with the model.

All running boards on the lower chassis are of high quality and made from perforated plate stock. The fine, cast white metal handrails are mounted on to the lower carriage so that during assembly the workers have safe access to the machine. Some small ladders round out the details.

Since the SL8F2 configuration does not have a small derrick to assist in assembling the long boom,

additional support legs are necessary. Small bolts attach these to the lower carriage. The support feet can be extended easily by turning the threads out so that the erection of the boom can be shown realistically.

The detailed upper structure also has similar metal bolts with plastic safety rings and is fastened to the slewing mechanism's main frame. The two ballast consoles are attached to the upper carriage with four tiny screws. On the original, 24 ballast slabs make up the 250 t slewing ring counterweight ballast. In the slewing ring frame extension, there are a further six slabs with a total of 80 t. All ballast slabs have little eyelets to make the assembly of the ballast easy.

The diesel engine sits in the middle. On the prototype, the engine is a 500-kW strong, eight-cylinder Liebherr. Exhaust pipes and covers have been modeled very well. The tilting operator's cabin has a detailed interior. Mirrors and window wipers are included. It is easy to make out the three slewing motors mounted on the slewing ring frame. The realistic-looking walkways on the upper carriage are also made from perforated fine metal sheet stock.

The assembly boom has individual metal sheaves. With a few exceptions, these turn very easily. Considering the rolling resistance of the 38-strand guying, this is especially important. The initial reeving is well explained in the instructions, but it should be done peacefully and without time pressure. The hydraulic cylinder for the self-assembly of the crawler track units is also modeled but has no function.

The LR11000 comes with the SL8F2 boom system consisting of a total of ten 12.0 m large S segments and two 6.0 m segments connected with screws and nuts. Here, NZG uses thicker screws which makes the boom system look more valuable.

All segments have photo-etched running boards and the matching handrails on the base folding piece are also included. The fixed tip can be attached in two lengths; here too all sheaves run freely.

Overall, the model reaches a height of over 2.5 m. For these pictures, it was not assembled to the full height and so would probably not be used like this. A further four segments would need to be inserted in order to achieve the full boom length. The best place to assemble the boom, like on the original, is on the floor (ground, in the original). When it comes time to lift the assembled boom, the help of a second person is highly recommended.

The guying of the model has been made very realistically and is completely constructed without any plastic parts. As on the original, the guying wires are attached by screwing on the little end loops. All components are connected with the familiar NZG tool and small screws.

The huge model comes with three hook blocks. The main hook block has three hooks. For the pictures, the hooks were rigged up twice with four strands each. In that particular version, it is possible to lift 182 t. Because of the two winches, the wire rope hoist on the original is higher. Synchronization for this is done electronically. The single hook and block is designed to lift 68 t. Furthermore, a simple hook for 23 t is included. Both can be used as auxiliary hooks on the F boom. When extended to 21 m, the 108 m boom is capable of lifting a 193 t wind turbine with a 115 m hub height.

As well as the very cleanly applied paint job, the letter is also outstanding. There are even warning labels on the additional supports and on the upper carriage.

NZG has perfectly replicated the original LR 11000 in model form. It scores high on detailing and at the same time, has a high degree of functionality. One can only wait with bated breath to see what the future will bring regarding additional expansion sets. The model stands ready for them.

At a glance

+ Functionality and detailing
+ Handrails and walkways
+ Power boom system SL8F2

Translation of page 33

Truck-mounted forklift from Tekno

Terberg Kinglifter

by Daniel Wietlisbach

The dainty model of the Terberg Kinglifter is not the first truck-mounted forklift from Tekno in 1:50 but currently, it is the finely detailed one ...

A truck-mounted forklift saves time for the driver because he does not have to wait for a forklift driver to show up. Also designed for off-road work environments, the Terberg Kinglifter is very well suited for deliveries to construction sites or for farming, especially in the optional, powered third-wheel configuration. The three different models have lifting capabilities of between 1,500 and 2,500 kg and lifting reach heights of 2.80 to 4.05 m. The machines weigh from 1,280 to 2,290 kg. The built-in Yanmar diesel engine produces from 27 to 38 hp and fulfills the Euro V exhaust protocol.

The model rolls on wheels that are true to the original. In addition, the large wheel at the rear is steerable. The chassis, upper chassis, and lifting frame are all made from metal which improves the stability of the model. There are numerous exactly engraved details. At the rear are all the lights and the single step. The floor with pedals has a tiny, perfect anti-skid surface. The steering wheel and seat are individually attached and all levers and the control panel have been replicated. The roll-over-protection construction is made from plastic but is very finely made and is even pierced near the roof. An inserted window on the roof provides protection from above. A warning beacon and three front lights complete the work environment. The lifting frame can be extended two-fold and the forks of the lift reach the maximum height of 2.75 m.

To attach the unit to all kinds of semi-trailers, trailers, and lorries, three brackets with differing height screw-on plates are included. A new rear-end beam with brake lights and license plate are also included.

Between farm and field with Wiking in 1:32

MAN Agrar

by Daniel Wietlisbach

Continuing industrialization of agriculture led to the development of tractor lorries, and not only by MAN. Wiking has now released the suitable model in 1:32 ...

At the last Agritechnica Hannover fair in November, MAN introduced the new agriculture lorry. It is based on a 500 hp TGS tractor lorry and has four-wheel drive. The producer looked closely at a construction technique that allowed for reduced weight of the end product. This was possible for the chassis, engine, and drive train. Additionally, the suspension and axles were designed to have high clearance, and the wide tires guarantee the spread of the machine's weight over a wider surface. The lorry is licensed as an agricultural and forestry tractor and MAN designed it for transport challenges between the fields and farm.

The model from Wiking augments the high-quality program of agricultural machines in 1:32 scale. It was made in the well-known mixed media of white metal castings and plastic materials. The metal chassis and cabin give the tractor lorry its heavy weight. Proportions and shape are well done and, at first glance, the lines running to the rims and tires are very noticeable. Once the machine is on the fields, pressure in the tires is reduced thus increasing the footprint of the tires and reducing the impact on the ground. Additionally, the wide single tires with off-road profiles support the effort to minimize ground impact.

The chassis was correctly modeled and, in accord with the scale, is finely detailed. From the engine over the gearbox and the drive shafts, the whole propulsion system has been replicated. The front axle can be steered although only in a very limited way. Tanks, compressed air containers, battery boxes, and exhaust scrubbing plant were correctly modeled. Exhaust goes up directly behind the cabin, and a functioning lever locks the fifth wheel coupling. A standard trailer coupling is also present but has no supply lines.

The shape of the cabin is a good copy of the original. The cabin tilts and the doors and radiator grill open. Unfortunately, the grill doesn't close completely which results in a gap on the side near the doors detracting from the overall look. Very nice and correct are the separately attached front lights. The glass is very flush fitting and other than at the rear window, no holding studs are visible. All footboards are individually mounted and the rear-view mirrors have glued-on reflecting foil. The doors close very snuggly and when open allow a view of the detailed interior that is painted in many colours. The dashboard has printed-on detail and on the steering wheel, the roaring Büssing Lion logo is easy to discern. The tractor lorry is available in black, white, green, and red. Whether a road version will become available is not clear because of the adaptation that would be required.

Semi-trailers

Two agricultural semi-trailers matching the MAN Agrar have been released. They are the Krampe Bandit conveyer belt trailer SB II 30/1070 and the Kotte Garant tank semi-trailer (TSA) 30.000. Both are licensed for the transport of agricultural goods on public roads and are explicitly designed for the tractor lorry. The bottom of the Krampe Bandit has a conveyor belt, making it possible to empty it without tipping. The metal upper chassis of the Wiking model is exactly engraved and runs on three sprung axles with wide agriculture tires. The floor, painted in a matt black, is supposed to be the conveyor belt.

At a glance

+ Functionality
+ Detailing
+ Choice of colours

The rear flap is movable and the top has a small opening with a sliding lid to facilitate a partial discharge of the load.

As hinted at in the designation, the tank semi-trailer capacity of 30 m^3 is designed for quick transport of farm manure (liquid manure) between farm and fields; it runs on normal road tires. The front axle can be lifted and to increase manoeuverability, the rear one is steerable; each axle is sprung. Both features have been correctly replicated on the model. As on the original, the self-supporting tank is made of plastic and augmented with a multitude of details. The steering lines, and the transparent pipe which indicates the filling level are nice to see at the front. At the rear are ancillary motors, the pipes of the pump, and the vacuum technology for filling the tank. The Krampe Bandit is offered in black and red, and the Kotte Garant is in black, silver, and green. The paint application and lettering on all models are faultless.

On the road for over fifty years

Martin Brunner Transport AG

by Eric Urweider

'Doesn't exist, is not available' has always posed a challenge to Martin Brunner Transport AG. They have always searched for solutions be it today for bulky, heavy loads, or earlier for timber or wood chip loads ...

In 1969, Martin Brunner laid the cornerstone for Martin Brunner Transport AG when he and his wife Doris went independent. He bet all his money on one card and bought a second-hand Fiat 643N lorry and trailer set for SFr. 50'000. The engine had 160 hp and the total weight of the combination was 26 tons. Martin was able to pay part of the price in cash and the rest he paid in installments over time. Timber dealer Sigrist, in Hochdorf, who sold the truck provided work for the lorry and trailer combo right away, therefore, the new business took off immediately. The goods transported were mainly timber and wood chips. A tipper trailer set from Magirus-Deutz joined the fleet only a year later. Wanting to profit from the construction boom of the 70s, Martin Brunner bought yet another Magirus-Deutz dumper with trailer in 1972.

Good advice is expensive

The oil crisis arrived soon afterward, causing the construction industry's collapse. This forced the company to offer transports outside of Switzerland, in particular to the Middle East countries of Saudi Arabia, Iraq, and Kuwait, plus other destinations that needed supplies of western goods. Each trip promised a good return: Sfr. 25'000 was worth a lot more then than today. Martin Brunner drove to the Orient, sometimes with a convoy of several vehicles, while his wife Doris dispatched transports, took care of their three kids, and generally kept the home fires burning. A tour-de-force of a spouse for whom Martin Brunner remains thankful today. The trips to the Orient were undertaken until the Iranian Revolution of 1979 which caused transport prices to fall conti-

nually. The last trip netted only about Sfr. 14'000, a reduction of Sfr. 9'000 in only six years. Competition from the Eastern Bloc grew increasingly stronger and all the while, operating costs increased.

Fortunately, some larger construction projects such as the Sihlbrugg-Gisikon and Sursee-Lucerne highway projects came online in the region. The focus of the business changed back to transport for which a tipper lorry was a prerequisite. The cargo transport side of the company increased in parallel. One positive effect of the cargo transports was that they already knew the Planzer family fairly well and so were able to make some trips abroad for them. From about the middle of the 70s onwards, one or more vehicles ran constantly for Planzer. These lorries had the same livery and lettering as all the other Planzer vehicles. This cooperation ended only after the turn of the century when complete rail freight cars ran from Berlin to Pratteln and later on, from Gotha to Villeneuve.

Special transports

At the end of the 70s, Martin Brunner recognized that there was a market gap in the Lucerne region for special and heavy-duty transports.

When he observed that out-of-canton companies like Piatti, Günthard, and others were active in Lucerne, Brunner started to build up his business with heavy-duty and special transports. Often, Martin Brunner walked alone along the proposed transportation routes to see if it was possible for vehicles to pass. His drivers were unanimous amongst themselves saying that "When the chief says it is possible, you can be 90% sure that it is!" For the remaining 10%, the skills of the drivers were called upon.

While its competitors still used trailers and usually had to carry several spare tires, Brunner was the first to use semi-trailers with ramps. With a semi-trailer and tractor lorry, one was more flexible, and the loading and unloading process was much faster and less harmful to the tires. The Brun and Cavag (today Creabeton) companies made pre-cast concrete sections that required special vehicles to transport them. Depending on the shape and size of the pre-fabricated parts, suitable transport cradles had to be built; sometimes these were very elaborate. Specialized Inloader semi-trailers, as used today, had not yet been invented thus inclined trestles were often constructed to keep the elements on the low-deck trailer within the legal limits. The drawback of these special constructions was that they required significant space on the company site.

The first works yard

Land was found in Emmen to park lorries, trailers, and transport aids. The works yard began operation in 1982. From then on, the business grew as customers' needs dictated. The first double-deck telescoping semi-trailer was acquired. As often happened, competitors groused that this unit could not run in Switzerland and once again prophesized the company's demise, which of course did not happen.

Growth at any price was never the goal. In 1998, the firm was made into a family share company. In the same year, they took over the Ulrich Inwil Company with its five lorries and five drivers. The space in Emmen became increasingly short. In 2000, the current location of Bodenhof 12 in Lucerne/ Littau was purchased and the company moved to it in 2001. The newly constructed head office with workshop, social rooms, and office space was ready in 2011.

Since the company continued to grow and space again became an issue, it became necessary to add an extension. Once again an external works yard had to be created which, in 2015, resulted in part of the vehicles being parked in Rothenburg.

Heavier, larger

The first low-deck trailer of 1980 was a four-axle semi-trailer pulled by a three-axle trailer. Because of the transport of ever-larger pre-cast elements and machinery, this combination approached its limitations fairly quickly which resulted in the purchase of a six-axle semi-trailer that could be extended to transport the dragline excavator of the time. One of the most important required features was that it could be loaded from the side. For several different reasons, this most basic method of loading is done infrequently nowadays. Max Roth, the salesman from Goldhofer, had a special relationship with Martin Brunner and often arrived at the right time with the right innovation created by 'out of the box' thinking. This was most beneficial to the company.

At the turn of the millennium, a new tractor lorry based on a MAN F2000 was acquired for heavy-duty transports. The performance of the machine was not up to expectations. In 2010 it was replaced by a Mercedes-Benz Actros MP3 purchased from Goldhofer together with an 11-axle unit. In order to transport the demolition excavators of the large-

volume customer Aregger from Buttisholz, an additional flat deck trailer was in order. While it was possible to transport the Komatsu PC1250, with overhanging but strapped-on tracks, the gigantic A-Rex excavator could only be transported on a flat deck. The height of the load was always a bit of an issue, but with the total height of 4.4 m, passage beneath highway overpasses was possible.

Succession

Once Martin Brunner started to decrease his workload and hired a general manager, his son Marcel Brunner took over the reins of Martin Brunner Transport AG as General Manager in 2020. Daughter Claudia Storz-Brunner acts as the chairperson of the board and looks after marketing and process optimization. The company is still healthy today and offers a great variety of transport solutions in special, heavy-duty transports, has mobile crane lorries, and offers international transports. The company was also a participant in the project group for haulage that requires transport exception permits and escorts (ATB) and was among the first to offer heavy-duty transport escorts in Switzerland.

Tom's driving log

by Tom Blase

The flour monster – or, "Just give the little lad a few stickers."

Some time ago, my buddy Lukas bought yet another Old-timer lorry. It is a Mercedes 2222 with a Spitzer silo upper chassis designed for the transport of flour. We lovingly christened the precious piece 'the flour monster'.

It not only brought back memories of the animal feed silo model which Kibri released in the 70s but also allowed me to think back to the International Automobil (vehicle) Exhibition of 1979.

The company for which my father drove owned mostly silo lorries and a new silo was bought for the company at almost every IAA. From my very early years, I was allowed to ride along with the two bosses as well as four older and very experienced drivers. In this circle, I always had an unforgettable day.

We never lacked food or drink. Breakfast was had at the Spitzer Silo stand lunch at Kässbohrer and later in the afternoon coffee and cake were consumed at Interconsult. At every stand, the sales staff took great pains to keep the potential customer and his drivers in a good mood. There were some small presents for me too: hats, pins, and, at Kässbohrer even a pocket knife with the distinctive logo of the company from Ulm.

My eyes almost popped out of my head at the Spitzer stand where I got my first silo kit from Kibri. I could almost not believe my luck.

While I was ignored at the large lorry makers' stands when I asked for some stickers or leaflets, usually one of 'our' drivers came along and said: "Just give the little lad a few stickers and one of each leaflet too." After this was repeated a few times, I would have two large carrier bags stuffed with the most fantastic information material.

At the stand of a company that sold fifth-wheel coupling hardware a large basket of carabiner hooks (used to secure the fifth wheel) stood on the counter. I took one of those along too.

A few minutes later, one of the drivers complained that his pants were sliding down but we didn't give it much thought.

Shortly thereafter he asked if anyone could lend him a belt. "Horst, you have a belt, what do you want with a second one?" someone asked. Horst replied: "Er, the carabiner hooks are so heavy." The little incident was quickly explained. He had asked the host at the stand if he was allowed to take something out of the basket too. The lady behind the counter smiled at him and told him to help himself. The contents of the basket fit exactly into his four pants pockets!

He sulked a bit when walking away saying, "Next time I will wear my bib-style cords. At least those don't slide down."

Models by Peter Veicht

Demag BL323

by Robert Bretscher

Peter Veicht probably created this impressive 1:50 scale model after returning from a family holiday abroad ...

Now and then, and not quite by chance, I spent part of my holidays in the vicinity of Peter Veicht's holiday let. The 'excavator excursions' that we made together are the best memories I have of that time. Peter knew all the hidey holes and corners where some lonely veterans could still be found. Often we found some old machines that still were decorated with the company signs of the previous owners. The sometimes-harsh changes made to the Old Timers made us gape in disbelief. There were some cable-operated machines that had very little in common with the originals. Sometimes, booms and equipment from other construction machines were rudimentarily attached. Particularly interesting for us were the almost antique cable-operated excavators swimming on pontoons. From the additional counterweights to the drive trains, everything had been swapped out or added to. Perhaps it is not surprising that in his model building Veicht used a discovered original as a prototype and modeled it accordingly.

The Demag BL323 with the blue, non-conforming front bucket introduced here is a good example. Peter Veicht made the complete model by soldering together copper and brass sheet stock. It is fully functional, except for the undercarriage. In addition to the front bucket, the model came with a lattice mast and an additional winch. With that and some assembly, it can be turned into a dragline bucket or grappler version. The crank on the right-hand side operates the lifting cable drum, and using the knob on the roof the boom can be moved into the desired position. The movement of the bucket is made stepless by hand.

To make it possible to discharge small amounts of the scooped-up material into smaller tipping skips, the front bucket sports an ingenious pendulum slide gate. The upper carriage, with the typical boxy upper structure of the 50s, excels with several raised modeled partitions in the engine area making the simulated vents on both sides especially noticeable.

The cabin with its sliding door and the open front window was carefully replicated, despite the maker's somewhat sparsely equipped workshop. Furthermore, a blind window is placed on each side to leave the dank and often grimy engine room dark. On the roof, right behind the boom winch, is a fictitious flap, followed by a longer exhaust pipe. Typical for the Demag BL323, are the running boards with railings and access ladders all around the bottom of the upper carriage. The model gains authenticity with its many danger labels and company logos. As a further comment, this excavator undercarriage, built by Peter Veicht in the 80s, mainly from cardboard and wood parts, has stood the ravages of time very well. And last, but not least, a good patina just goes with a hard-working machine, and that is always evident on Veicht's handmade models.

Scratch-built in 1:25

Menck SR85

by Holdi Langendorf

We found that the scratch-built model of the Menck SR85 was so impressive that, for once, we left our 'comfort zone' of 1:50 ready-to-use models to venture into the larger scale ...

Ever since my youth, I have had a soft spot for construction machines, especially unusual ones. At an early age, I noticed a machine that belonged to a rather unknown species. Who had ever heard of a scrape dozer, a machine that was rarely seen in daily use? The vehicle was seen only occasionally on construction sites and so I lost track of it at that time. In those pre-Internet days, it was hard to find any information about it.

Only two years ago, triggered by some photographs, my memory of the scrape dozer was re-awoken and my excitement grew. An ambitious model collector or builder likes to have their favorite model in their collection, therefore, I searched high and low for a 1:25 scale model. My search was not crowned with success because the few models available are only offered in smaller scales. What to do? Obviously, a scratch-built model was required! As a newly-minted pensioner, I had time on my hands and so dared to give it a go.

When making a model that runs on wheels, tires usually provide the biggest challenge, and so it was for the tracks of my project's running gear. As far as construction machines with tracks in 1:25, only the kit for a D8H from Matchbox/amt was available. Careful measurement of the running gear revealed exact alignment with the Menck SR85 scrape dozer thus the SR85 became the prototype for my project. There were enough pictures on the internet but only a few measurements and even fewer detailed photographs. Only after I was able to make contact with a former scraper dozer operator was I able to get the highly desired prototype data and detail information.

The SR85, of which I made a scale model, was produced by Menck & Hambrock from 1969 onwards. The original weighed 20 tons, had a bucket content of 8.5 m^3, was 3.70 meters in height, and was capable of achieving 14 km/h (see also Truck & Construction 6-2022).

From the prototype to the model

As a first step, I made a scale drawing with rough details. After that, I built the running gears of the Cat D8H according to the instructions included in the box. To use them in their original condition was out of the question as they required great modification. The track links had to be partially sanded down and given new grouser plates with screw heads. The idler wheels got a new outside surface, and one of the running wheels was removed. A new bracket for the cross-beam was fashioned on the inside.

The body, made piece by piece from Evergreen styrene profiles had to be shaped and improved several times and finally completely rebuilt because I had received some new and more detailed drawings in the meantime. Ah, the life of a modeler has many challenges.

Then I completed the engine room for which I used a six-cylinder engine from a lorry model. I shortened it somewhat but it still turned out to be a bit too big when compared to the prototype, however, in the end, it was a good compromise. The hydraulic plant got all the original hook-ups and lines. Overall, I made a total of 14 lines for the seven cylinders. The chaotic look of the lines on the model corresponds almost completely with the original. The fan guard with the many horizontal slits at the rear was made from a tube of mustard! I did not want to hide the detailed motor. My solution was to make it openable by giving one side of the engine hood some hinges that I found in the ship modeling sector.

The other side had to remain closed so as not interfere with the ascending ladder on that side.

The next step was to make the operator's cabin with all the details of the real interior. I gave it an opening door and the sliding roof hatch that the driver used to gain entry to the cabin. Hinges were also installed to allow for tilting the cabin.

The replication of the rear wall of the bucket and the front flap was the greatest challenge of the project. I had to re-construct them several times so that the mechanism was fully functional. The scale replica of the model is now completely moveable and all workings can be simulated. The connections from the front thrust blade to the hydraulic cylinder were another great challenge because I needed to construct several small track segments.

The track carriers are connected to the engine with a cross-pipe member beneath the engine. The complete vehicle is supported by two hydraulic cylinders over the tracks. Here, I had to work very exactly so that the vehicle remains completely stable when empty or when lowered and does not suddenly collapse by itself.

Paint

Once everything was finished, it was time for painting. Since I have been specializing for years in the weathering of vehicles, I wanted to depict the scraper dozer as no longer in service and in run-down condition. Following a grey primer coat, I applied a coat of rust paint followed by yellow construction paint. All the paints were matt. The strongly rust-affected areas got another coat of rust paint into which I pressed some real rust particles. After the paint had dried, I removed most of the rust with sandpaper. I also sanded off the yellow construction paint so that the rust and the original colour would show. Finally, I gave the rusty parts additional rust tone variations in several different shades. The final touch was the small diorama that I built to show the tracked scraper dozer at work.

In conclusion, I can say my model probably is the only one of a scraper dozer in 1:25 scale in existence. Then again, which other model builder would go to such extremes to build a replica of a construction machine?

The model builder

Holdi Langendorf is a retired banker. He has built plastic models for over 50 years specializing in building construction machines, dioramas, and weathering in several scales but mainly in 1:25, and has published several articles for 'Model Magazine'. Over the last 40 years, his models have been admired at many shows, mainly in Northern Germany. He became very well known for his scratch-built sewer and stormwater drain lids which can give a diorama just that little bit extra. The Scraper Dozer is his second completely scratch-built vehicle; the first one was a Demag V70 Industrial crane in 1:25.

Tunnel construction in 1:50 – last part

Mühlbergtunnel

by Markus Lindner

The main road running through it has been installed, the road surface applied, and the only thing left is the finishing work …

Before the tunnel could be opened to traffic, a whole slew of work was still required including the construction of a hard shoulder, the application of pavement lines as well as the attachment of signs and guide rails. Special attention had to be paid to the traffic security installations like safety lights, emergency phones, speakers for emergency announcements, and a light board positioned over the tunnel entrances to warn motorists of dangerous road situations or maintenance work in the tunnel.

Most of the large construction machines have disappeared from the construction site as they are no longer required. Little machines like lifting platforms or small transporters are used to get material and workers to the construction sites along the tunnel. Finishing touches to the scenery remain to be done. The construction worker's camp has been dismantled, and the large installations like the concrete mixing plant and the workshop have also been taken down and put in storage for future projects.

Finally, the whole technical side of the tunnel equipment has been completed on time ready to be handed over to the operators. The official opening with a celebratory party follows, as is customary. Representatives of the local government and the Ministry of Transport are in attendance.

Immediately following the official opening of the tunnel, a reduction of through traffic, especially that of heavy trucks, is instantly felt in the community of Neukirch. The community breathes a sigh of relief.

The newly gained freedom from the burden of heavy traffic will provide new opportunities for the village: re-design of the community center and visioning more sustainable living. Perhaps we will see one or the other project here in the future in a similar form.

In conclusion

With this issue, the diorama project has now ended. The first pictures appeared in issue 3-2021. We have been going alongside this project for the past two years. For a real tunnel construction site, this would be a record in construction time. When building models, we can compress the timeline for some of the steps a bit.

Note that a whole lot of work was required before the first pictures could be taken. Construction had already begun on the diorama in the summer of 2020. Like in real life, the planning of such a project took even longer. The first sketches for a tunnel construction site were created during a return train journey from the 2015 Bauma! During the following years, the ideas 'matured' before the actual real planning began.

To successfully create the diorama, three things were the deciding factors. First, the necessity to completely plan all construction steps up to and including the finished tunnel before building, including everything in the planning process. Second, dividing all the action onto several, individual 'play spaces': the tunnel portal, the construction camp, the day storage yard, the 'to-be-filled in quarry', and the inside of the tunnel bore, each an individual diorama which made it possible to tackle such a large project without having to fill a whole gymnasium space. And finally, it is an art to concentrate on showing interesting and important parts of the whole, to cut or insert scenes, to leave out some of the surroundings or things that are further away leaving these to the imagination of the viewer.

At the end of such a process, one is rewarded with a project that allows one to set in the scene a great number and variety of models, besides the typical tunnel construction machines. Overall, more than 100 1:50 models of every kind and colour were used during the whole project.

Our partner page

Caterpillar 775G tipper

The Porphyry Works Detzeln (PWD) operates a quarry in the southern part of the Black Forest. In 2022, the PWD team quarried 300,000 t of grey gneiss and red porphyry stone. The blasted-out stones are loaded by a Liebherr R 980 SME backhoe excavator onto a Caterpillar 775F rigid frame tipper. It came time to replace the dumper after its eleven hard-working years. Even though a Volvo A60H was tested after the 2019 Bauma, the choice fell once again to a rigid frame tipper lorry. The new Caterpillar 775G has a carrying capacity of 64 t, or 42.2 m^3. To move the total weight of 111 t efficiently from the loading site to the crusher, an exhaust regulations step V engine with 27-liter displacement, 4269 Nm of torque, and a power output of 578 kW or 785 hp is built in.

The current standby truck, a Caterpillar 775B, will spend its retirement at the Ebianum. As soon as a suitable site is found, it will be displayed alongside the Caterpillar 245 excavator.

Hugelshofer expands its electric lorry fleet

The Hugelshofer transport and logistics company in Frauenfeld has always put great emphasis on sustainability. Thus, in the framework of 'ASTAG-we go green', it has voluntarily pledged to reduce its CO_2 emission by 50% by 2030. To reach this goal, a comprehensive concept of electric mobility was compiled. It not only covers the expansion of the electrically-operated lorry fleet but also the necessary infrastructure like a loading station and the production of sustainably-produced solar energy. At the moment, among the tractor lorries with semi-trailers, and swap-body tractor-trailer combinations with a total weight of 40 tons, six electric lorries are in use. Their battery capacities range from 550 to 900 kilowatt hours making it possible to operate in the range of 300 to 550 km without recharging. Because of many positive experiences, Hugelshofer continues to expand its electric lorry fleet.

New on the market

NZG 1:64

The 1:64 scale could be called the scale in the middle, between the smaller 1:87 and the larger 1:50 models. The models use less space than the larger ones, and because of their mostly metal construction are of high quality. They have been given many small details. Nevertheless, this particular model scale has never really taken off in Europe and even overseas they are not in a pole position. However, they are trending in the US and in China and so it is no surprise that the model comes from the Chinese producer Kengfai. The choice of a car transporter is clever because Schuco started to produce car models in the same scale a few years ago.

The Scania 730S V8 is extremely finely made and the shape of the cabin has been replicated very well. The many very fine, photo-etched and embossed metal sheets enhance the look. The radiator grille alone is made up of nine honeycomb grille sections, sometimes only 1.0 mm wide. This can't even be found on

Collector's guide

Here is a list in short form of all the new construction and heavy haulage models announced since our last issue. For truck transport models we recommend that you consult the newsletters of the manufacturers.

Type	Scale	Maker	Available from	Infos
Komatsu PC8000-6 Backhoe	1:50	Bymo	Dealers	www.spiel-modellkistl.de
Bauer MC96 diaphragm wall cutter «Botte»	1:50	Bymo	Dealers	www.spiel-modellkistl.de
Bauer MC96 diaphragm wall grab «Malcolm»	1:50	Bymo	Dealers	www.spiel-modellkistl.de
Liebherr R 922 Compact with two buckets «Korz»	1:50	Conrad	Dealers	www.conrad-modelle.de
Liebherr R 940 Demolition «Saredi»	1:50	Conrad	Dealers	www.conrad-modelle.de
Liebherr R 924 with two buckets «Brodbeck»	1:50	Conrad	Exklusiv	www.fmb-shop.de
Tadano GT-1200XL-2	1:50	IMC	Dealers	www.imcmodels.eu
MB Arocs 6x4 / semi lowloader «Leenaerts Born»	1:50	IMC	Dealers	www.imcmodels.eu
Liebherr A 918 «Richard Schulz»	1:50	NZG	Dealers	fmb-shop.de
MB Arocs 8x4 Meiller dump truck red metallic	1:50	NZG	Dealers	www.nzg.de
Hitachi ZX135US-7	1:50	Replicars	Dealers	—
Link-Belt 355 X4S	1:50	Replicars	Dealers	www.shoplbxco.com
Scania S580 6x2 / semi lowloader «Jan Mues»	1:50	Tekno	Dealers	www.tekno.nl
Scania 142H 6x4 «Truck & Kranjanst AB»	1:50	Tekno	Dealers	www.tekno.nl
Scania 143 6x4 / stone trailer «Jan Serne»	1:50	Tekno	Dealers	www.tekno.nl
Renault T-High 6x4 «Friderici»	1:50	Tekno	Dealers	www.tekno.nl
DAF 2800 4x2 / flatbed semi-trailer «Torben Rafn»	1:50	Tekno	Dealers	www.tekno.nl
Liebherr LTM 1750-9.1 «Riga Mainz»	1:50	WSI	Dealers	www.wsi-models.com
Liebherr LTM 1650-8.1 «Bok Seng»	1:50	WSI	Dealers	www.wsi-models.com
Liebherr LTM 1090-4.2 «Hess»	1:50	WSI	Dealers	www.wsi-models.com
Liebherr MK 140 «Wiesbauer»	1:50	WSI	Dealers	www.wsi-models.com
Liebherr R 9150, new design	1:50	WSI	Dealers	www.wsi-models.com
Scania R6 8x4 / Nooteboom Pendel-X «Trinks»	1:50	WSI	Dealers	www.wsi-models.com
Scania R 10x4 / Palfinger / flatbed «Havator»	1:50	WSI	Dealers	www.wsi-models.com
Scania S 8x4 / Nooteboom Euro-PX «Van de Wetering»	1:50	WSI	Dealers	www.wsi-models.com
Scania R 6x2 / flatbed semi-trailer «Fredstad»	1:50	WSI	Dealers	www.wsi-models.com
Scania R 6x4 / semi lowloader «Lasting & Transport Alta»	1:50	WSI	Dealers	www.wsi-models.com
Scania R 6x4 / halfpipe semi-trailer «Kibag»	1:50	WSI	Dealers	www.wsi-models.com
Scania R 6x4 / tipper semi-trailer «Van Dalen»	1:50	WSI	Dealers	www.wsi-models.com
Scania 143E 8x4 / Euro lowloader «Tage E. Nielsen»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH5 6x2 / semi lowloader «Torben Rafn»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH5 8x2 / Palfinger crane / flatbed «Kranringen»	1:50	WSI	Dealers	www.wsi-models.com
Volvo FH4 8x4 «Haugen»	1:50	WSI	Dealers	www.wsi-models.com
DAF XF 8x2 / Fassi 1100 / ballast box «Braanker»	1:50	WSI	Dealers	www.wsi-models.com
MB Sprinter BF3 «Van der Vlist Deutschland»	1:50	WSI	Dealers	www.wsi-models.com

larger scales! Where detailing and finishing is concerned, this model can compete easily with models constructed 1:50. The trailer has a surprisingly high degree of functionality and here too are many photo-etched parts such as on the extendable ramps. The upper transport deck can be arrested in several positions. Bolts and wheel chokes are included. Because the tiny hydraulic cylinders are incapable of holding the metal upper deck in place for display purposes, which is understandable, a plastic clip is included as seen in the picture.

The Scania is available as a tractor lorry in white or black as well as the car transporter semi-trailer in silver grey and metallic turquoise. Currently, it is not known if further models are coming. Considering the finish and quality of the described unit, future models are deserved.

PowerTrac 1:50

Just before our publishing deadline, we received this colourful rainbow of these classic Swiss commercial vehicles. The Saurer D330B 8x4 tipper was made from resin casting, bespoke by the specialist dealer and producer PowerTrac in the canton of Thurgau. The driver's cabin allows for several variants and we will take a closer, unbiased look at these very nice lorries in our next issue.

News in brief

DAF completes its offerings for the construction sector

A whole slew of new tractor lorries with two powered axles is now available from DAF, XD, XF, XG, and XG+. The tandem axles offer carrying weights of between 19 and 26 tons per axle, excellent driving response, and optimal traction with high payloads. Also available is a heavy-duty tractor unit as an 8x4 version. Additionally, there are the XFC and XDC as 4x2 variants and also the variants of XD and XF which are not off-road capable but are built especially rugged for use in the construction trade, for example. The combination is made up of a cabin from the XDC or XFC series and a road chassis thus combining the best of both worlds. Furthermore, an 8x2 chassis is available for it. Several different steering versions are possible. (eu)

Volvo EC500 Next Generation

On the opening day of the Conexpo 2023, Volvo revealed the first excavator of the new generation, its EC500. This excavator of the 50-ton class will replace the very successful EX480E. Like Caterpillar, Volvo no longer uses letters to designate the series which explains why the new excavator is plainly designated as the EC500. In addition to the new operator's cabin, the new Generation features many assist and safety systems such as the Smart View that recognizes obstacles. Quicker work cycles and improved fuel economy help to save costs. The production of the EC500 is scheduled to begin in the fourth quarter of 2023 and the availability of the machine is limited to certain countries. (up)

Scheuerle SPMT Power Hoss

Forty years ago, Willy Scheuerle introduced the first SPMT that became an unrivaled success story. The technology of the Self-Propelled Modular Transporter allows the largest and heaviest loads to be moved and has become a generic term in the industry. Representing the TII construction series, Scheuerle showed two Power Hoss Models, each with two axles, at the Conexpo in Las Vegas. The Power Hoss Models are available with 2, 4, or 6 axles and can move up to 330-ton loads. Should the load be greater or more voluminous, it is possible to couple the modules together using Plug and Play, even though they are not mechanically connected. Thanks to the simple steering system and integrated Power Pack, a straight-forward instruction session is enough for the operator to move the unit safely. Nowadays Friderici owns four of these SMPS. (eu)

Komatsu PC230F-1 Forestry excavator

During the Conexpo in Las Vegas, Komatsu America showed the P230F Forestry Processor, among many other pieces of equipment. This robust, 30.6 t excavator is especially designed and includes a special cultivation processor attachment for the stripping of branches and felling of trees. Thanks to the re-enforced slewing drive and a work radius of almost 9 m, even heavier trees can be processed. To give the machine sufficient power, a 147 kW 197 hp strong Komatsu engine from the PC290-11 is used. It conforms to Tier 4 final exhaust protocol. The special forestry cabin has a 32 mm thick front window screen. (up)

Brandt BMH40A material handler excavator

The Canadian John-Deere Dealer Brandt from Regina in the Province of Saskatchewan, presented, during the Conexpo 2023 in Las Vegas the mobile BMH40A material handler excavator of the 40 ton class. To build this excavator, the engineers of Brandt Manufactured Products used the proven components from John Deere. The BMH40A therefor is the only material handling excavator designed and built in North America. The mobile excavator excels with fast work cycles and a built-in energy recovering system. The attached boom can reach up to 16 m and has a working weight of 38.7 t. (up)

New Arocs for Ludwigsburg

The fire fighters of Ludwigsburg decided to add a Mercedes-Benz Arocs 3743 Swap Bodies tractor lorry with crane. The versatile vehicle has a hook system that can cope with several roll-off container systems, for example AB-respiratory protection and AB technical assistance. ‘Florian Ludwigsburg 1/65-1’ the official call name, is not only universally usable because of its swapping container capabilities but the cable winch at the front of the Palfinger crane makes the vehicle even more flexible. To manoeuver in the inner city, the steerable and relievable trailing axle is indispensable. Furthermore, the vehicle is equipped according to ADR regulations and the spring accumulator is also active on the 9-ton front axle. (eu)