

# Laster & Bagger

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Ausgabe 6-2024

Modelle von Lastwagen, Baumaschinen und

Jubiläums-  
Ausgabe 15 Jahre

Bymo 1:50  
Tieflöffel  
für PC8000



Eigenbau 1:50

DAF 3600

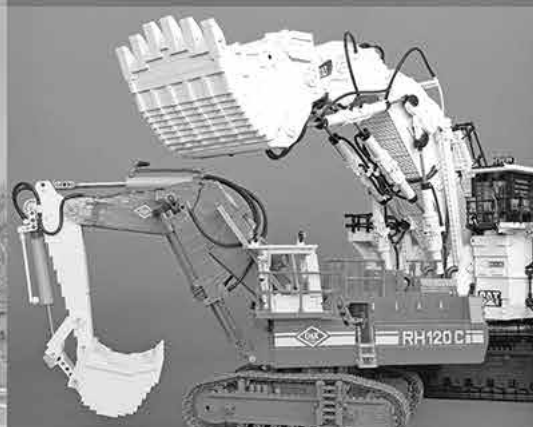
**English text**



Cavallino 1:50  
Neuer Modellhersteller

Sammlerporträt  
Beat Felber's Legomodelle

Diecast Masters 1:50  
Cat D5 Fire Dozer



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# Editorial



**Time to say thanks! I often think, 'How lucky I am to have the greatest team in the world around me'!**

## Thank you, boss!

When our children were younger, they found the idea fascinating that their father doesn't have a boss who tells him what to do. I would then explain to them that I don't have just one boss, but a thousand or more, namely the entire readership. After all, the boss assesses the employee's performance and ultimately pays the salary. In my case, the readers do that by buying the magazine if they like it and my performance is up to scratch.

For 15 years, the aim with every issue has been to make sure you like it. We are celebrating this small anniversary with a competition: in our competition, beautiful models are waiting to change hands – preferably before Christmas. So don't miss the deadline!

15 years is a long time and I also take the anniversary as an opportunity to say thank you. First and foremost, of course, to my numerous bosses, that is, all subscribers and readers for their loyalty – quite a few have been taking our magazine since the first issue. I would par-

ticularly like to thank all subscribers who generously round up the invoice amount.

What would a magazine be without its freelancers? They write, take photos and generously share their expertise with readers. I would also like to thank their families and partners, who often have the 'final say' in the texts, in the best sense of the word!

Last but not least, I would like to thank industry, as well as manufacturers, other advertisers and partners, because adverts and partnerships are an important mainstay of our magazine.

Finally, I would like to thank the employees of our printing company, who always give their best when printing and shipping.

I hope you will enjoy the following pages and remain my bosses for a long time to come.

Sincerely,

Daniel Wietlisbach

## Laster & Bagger online:

[www.lasterundbagger.net](http://www.lasterundbagger.net)

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# Beat Felber builds mining machines in 1:28.5 Lego as a model

by Daniel Wietlisbach

Beat Felber was born in 1979 and grew up with a sister, three years his junior, in a suburb of Olten. His father was originally a dental technician and is very skilled with his hands, but later moved to the quality assurance department of a chemical company. His mother taught home economics, which is why Beat took cooking lessons from her. His father spent a lot of time in the small workshop he had set up in the garage of the family home. There he restored, for example, the well-known Tinplate model of the three-axle Michigan crane on a truck chassis, which Beat had saved from the rubbish and brought home.

Shortly after his fourth birthday, the boy received his first Lego Technic construction set (Set 8030 from 1982) with the parts that were common at the time from his grandfather. It was a universal set from which various models could be built. Actually, the young designer was still too young, but with his father's help, various cars and vintage cars were created, as well as a crocodile locomotive, because his father was actually more interested in railways. 'The first technical construction kits were simpler,' Beat recalls, 'but the instructions were more complex.' The parts of the set followed the path of all Lego bricks and gradually found their way into various boxes (as an adult, Beat found the set unbuilt and

**With today's portrait, we dare to think outside the box and even leave 'our' scale. Beat Felber's models are worth it to us, because they are self-built, huge and made of Lego bricks, some of which are difficult to recognise ...**

in its original packaging and bought it for the memories). In any case, his enthusiasm for the Danish building blocks was awakened.

Beat realised early on that his father didn't really understand what he actually wanted, and released him from the building duties with the son. Thematically, the young collector was drawn to the three Lego worlds of 'Castles', 'Space' and 'City', for which he regularly received gifts. Over time, the building sets were converted, modified or completely dismantled, in keeping with the spirit of the creative toy. In their place, a city with a harbour, a castle, various cars and aeroplanes with an airport were created.

His sister Judith helped Beat to dismantle the models that were no longer needed, because the resource problems of all Lego collectors were already plaguing the young designer; there was a lack of components and, increasingly, of space. The children's room offered 12 m<sup>2</sup>, but had to accommodate a bed, wardrobe and desk, so the building site and the possibilities for setting up were naturally limited. If a part was mis-

sing and couldn't be found in any of the boxes, it was 'borrowed' from an already built model, which meant that the room was regularly cluttered with 'building ruins'. When his mother put all these wrecked models in Beat's bed, he knew it was time to clean up.

## School and education

Beat completed primary school and then switched to a scientific grammar school specialising in mathematics and natural sciences in the 8th grade. After passing his school-leaving certificate, he completed military training as a transmitter in electronic warfare in the Bernese Oberland.

After that, the collector began studying mechanical engineering at the ETH, but found it too theoretical, so after a year he started studying 'mechanical and industrial engineering' at the University of Applied Sciences. The practical focus of the course led, for example, to Beat spending twelve weeks working in a company for industrial robots and drive components for his dissertation. The specific project, which was ultimately

implemented, led to the first job for the newly graduated 'Ing. FH'. Beat stayed with the company for six years and only moved to a power plant operator in 2009, which was looking for engineers at the time.

During his studies, students had their own 'web space' where Beat was able to operate a website with its own address. There he showed his Lego models and soon attracted international attention; he received e-mails from like-minded people and fruitful contacts developed. At that time, various Lego builders operated such websites, but they were later replaced by social media channels. Today, there is a functioning Lego community on the Flickr.com image platform (see QR code).

Incidentally, Beat's enthusiasm for Lego never waned, but it continued to develop into a hobby. Of course, there was a time, especially in high school, when Beat kept his hobby to himself and didn't talk about it much, but he always saw it more as a 'different kind of modelling'.

### From toy to model

At the age of about 15, Beat started building excavators and construction machines based on pictures from his photo collection, but also from memories. Catalogues from other companies, such as Wedico for remote-controlled trucks or Kibri for cranes in 1:87, served as further sources of inspiration for Beat. He remained loyal to the building blocks, and now all-terrain vehicles and cranes were often created from the Lego Technic parts. In addition, his models were motorised and remote-controlled.

At some point – the collector can no longer remember exactly – he got his hands on the book 'Extreme Mi-

ning Machines' by Keith Haddock. It included a picture of the Marion 5760 'The Mountaineer', which Beat wanted to recreate. He was still living with his parents and when the huge excavator was finished, he was carried into the garden with his father's help to take pictures. The photos still exist, but for the model they marked the end of the line. Because transporting it back to the house seemed impossible, it was dismantled in the garden – which somehow recalls the fate of the original.

Of course, Lego itself does not go unnoticed by talented people like Beat, and so he received a request to recreate a Liebherr A314 mobile excavator. The model was to be exhibited as an eye-catcher together with the original at the Swiss toy fair Swisstoy. In addition, a building competition was announced at the fair, in which Beat was a jury member. In addition to the wheeled excavator, he was able to show two other Liebherr models from his collection, a T282 dump truck and the LTR1800, which he built with a luffing jib.

The chronic lack of space only eased when Beat was able to move into his first own apartment. Finally there was a 'Lego room'! Soon the first actual model was built there: the Marion 204-M 'Superfront' with its very complex articulation of the front

shovel via a kinematic system and eye-catching sheaves. It was precisely this complex functionality that fascinated him, and a Lego construction was an excellent way to make it tangible. Based on this model, the scale of all further models in the collection was set at 1:28.5. Interestingly, the diameter of the aforementioned sheaves, but also the width of the track chains, were exactly right, and, more importantly, the scale also worked for the other models.

The same applies to the new Mountaineer, which is now in the living room; it has been improved in various ways compared to the first model and its functions have been optimised. It was also built according to the standard that Beat has now defined for himself, according to which lego studs are only 'allowed' on surfaces that are anti-skid in the original. All other surfaces are covered by flat plates, which are therefore installed by the thousands.

The huge model was created in the Lego room on the second floor and was intended for display at an exhibition. However, the transport attempt ended in the living room on the ground floor, where the model finally remained – thanks in no small part to his tolerant partner, who also enjoys the hobby.

### The collector

Beat Felber (45) studied engineering and now works in a nuclear power plant as a systems administrator for ancillary systems in mechanical engineering.

In addition to Lego and mining, he is Beat Felber lives with his partner Cornelia Schärer in Döttingen and anyone who would like to visit him and his collection is welcome to contact him by email at [beat.felber@ggs.ch](mailto:beat.felber@ggs.ch).

### A question of colour

The fact that Lego models never cease to amaze us is also due to the unique networking of the community. For example, bricklink.com is a global database where hobby model builders and dealers can find each other. It lists, for example, all the Lego sets ever produced, complete with inventory lists. Using these lists, you can search for all the parts you need and insert them into the search mask. With a single click, you can find dealers or private collectors worldwide who have most of the parts you are looking for in stock, which considerably reduces the effort involved in ordering and the costs. If, in exceptional cases, a part is not available anywhere in the world, it can be put on a search list. The site has been so successful that it did not go unnoticed by Lego itself and was taken over. However, not everyone is happy about the fact that the manufacturer is now participating in the site.

Beat remained true to the topics of cable excavators and mining and so further large models in 1:28.5 were created. They are all driven and remote-controlled, because the model maker's primary aim in the hobby is to understand how they work. If he is particularly fascinated by an original and considers implementing it, it must first 'pass the killer question': Can the machine be implemented at all to scale in the grid of Lego bricks? The colour also plays a role and, finally, sufficient information must be available for implementation. These are mostly pictures from books and the internet. For the construction of the second Mountaineer, for example, pictures of the assembly of the original were available, which of course

simplified the construction. For modern machines, the data sheets are downloaded, scaled and printed. Beat is convinced that this is the only way to ensure that the proportions are implemented correctly.

After the excavators, matching dump trucks followed, then wheel loaders and finally the first bulldozer, the mighty Komatsu D575. Although CAD planning tools are available, Beat prefers to plan 'analogously' and starts construction early; his practical method of 'trial and error' quickly determines whether a process works. After all, software cannot simulate stability.

Beat also prefers analogue solutions when operating his models, where he can control the machine intuitively with joysticks. Digital sliders on a mobile phone display mean that you always look at the screen instead of watching the model. In terms of functionality, the Cat 6090 was the most elaborate model, with pneumatic hydraulic cylinders and even two remote-controlled folding ladders and LED work lights.

Most of the engines, however, were installed in the Mountaineer, which is not surprising. – installed in the Mountaineer: four travel and four slew motors, four for the hoist winch, two for the bucket advance, two for the bucket gate, two for the steering and two for the personnel elevator – a total of 18. Incidentally, one of the giant model's roof segments can be lifted off to reveal the true-to-life cab interior and a service crane.

Sometimes projects take a long time to mature, and at the moment the model builder is considering which machines would fit into the collection, as a common theme has almost automatically emerged: the largest representatives of the brands and

types. Ideas are currently revolving around a large Hitachi excavator, which would go well with the Lego orange, and a Terex dump truck in the former bilious green colour scheme would also be a great addition. However, certain parts are missing in this colour, because by no means all parts are available in all colours.

### Not just building

Perhaps the most important tool in this hobby is a suitable sorting cabinet, which occupies two walls up to waist height in the Lego room and has 135 drawers full of parts sorted by colour and application. The basic stock of parts is preferably bought by the sackful at trade fairs and on the internet, then sorted and put into the drawers. The largest of the 15 models currently in the collection stand on the sorting table, and we can show 11 of them.

You quickly realise that building is not the only aspect of the hobby. Organisation and networking are very important, and so, in 2007, after an appeal on the radio, enough enthusiasts quickly came together to found a Swiss association. Beat was a founding member of the 'Swiss Lego Users Group' (swisslug.ch), which aims to promote and exchange ideas among like-minded people. The regular meetings from the early days had to be abandoned due to the size of the association, which now has 200 members. Today, people meet in a relaxed atmosphere in regional groups of 10 to 15 members. However, the association is still present in various Swiss regions with several of its own exhibitions each year.

# Conversions by Patrick Kyburz based on WSI

## DAF 3600 Burgener

by René Tanner

The book 'DAF-Lastwagen in der Schweiz' (DAF trucks in Switzerland) is highly recommended for anyone who loves nostalgic commercial vehicles. The author Laurent Dircks, a native of the Netherlands and a truck mechanic at a DAF dealership in Switzerland, has done extensive research and written an extremely successful book about Swiss DAF trucks. Laurent is also the owner of a number of historic vehicles, including a DAF 2205 that he lovingly restored over a long period of time.

His book contains numerous pictures of vehicles in national and international traffic, including several that we had seen before. It was actually one of the pictures in the book that inspired Patrick to build this truck and trailer combination. He built the DAF so accurately that you can almost see it arriving in transit on the Weil motorway on its way to Basel Dreispitz after a hard week's long-distance haulage on Friday evening.

### On behalf of Nauta

In its heyday, Burgener's impressive DAF 3600 headed for the Port of Hamburg twice a week on the HaFraBa Line (Hanseatic Cities – Frankfurt – Basel) on behalf of the Basel-based Nauta forwarding company.

Bruno Burgener is a veteran of Swiss long-distance transport. He

**There are many things that can inspire you to build a model, for example a picture in a specialist book. That's how Bruno Burgener's heavy DAF 3600 caught Patrick Kyburz's eye and wouldn't let go ...**

began his career at the long-established company Georg Imhof Laufen, which no longer exists, driving a Berna 5DF on trips to Benelux and as far as the Middle East. He started his own business at Haldemann & Co. AG, which was based in Dreispitz, Basel, where my father also loaded his truck under his own flag. A Scania LBS 141, fully built by Schelling, was Bruno's first own combination, which he affectionately named 'Elsa'. Later, he added silver lorries with attractive blue waves, including a brutal Scania R 142 with a LAG semi-trailer.

The takeover of the Haldemann fleet increased his own fleet to 20 trucks, but this did not necessarily give Bruno Burgener carefree nights. For economic reasons, he eventually sold the entire fleet and kept only four of his own trucks with permanent drivers who had been working for him for years. Today, at the ripe old age of 73, Bruno is driving his 'last V8', as he says. A striking Scania R 730 in shades of blue, which has been rechristened 'Elsa'. He delivers to wholesalers for a fruit and vegetable wholesaler operating throughout

Switzerland. In addition to the 730, there are two other Scania R 410s in the wholesaler's service and as long as his drivers are still fulfilling orders, Bruno will also stay behind the wheel of his last V8.

### DAF 3300

With the DAF 3300, WSI has closed a gap in the truck model range that was previously only filled by the Lion-Toys 2800. Despite its age, the Lion-Toys model is an extremely successful version; depending on the modifications, the experienced model maker can build a quite impressive model, considering that it is already over 50 years old. Tekno appeared a little later with the 2800, but offers several variants and even the special 3200 can still be ordered in the parts shop and put together as you like. Whether as a long chassis with 6x2 boogie or as a 6x2 tractor unit with a flat or high roof – Tekno has something for everyone. WSI remains true to a rather Spartan line here, with standard 4x2 or 6x2 Tractor versions available for a relatively small budget. The appearance of the Torben

Rafn 3600 marks the first time that a long chassis has been used. Whether Tekno or WSI is better suited for conversion is something that each individual can decide for themselves.

## Authentic model making

Patrick chose the WSI 6X2 Space Cab tractor unit. A bold cut, across the chassis roughly in the middle, is required to stretch the crawler frame to the standard wheelbase of 4.80 metres or 96 mm using the appropriate brass profiles. The same profiles were also used for the substructure of the flatbed, making the model very stable.

A small toolbox was made for the right side, along with the silver holder for the fire extinguisher, which was mounted at an angle. On the left side, the two large diesel tanks fill the space between the front axle and the exhaust tubes. The snow chain holder behind the double axles com-

pletes the conversion of the chassis of the motor vehicle. The half-shell mudguards came from the basic model and were glued back on.

A wooden block forms the core of both flatbed superstructures. The detailed side fittings, stanchions, hinges and lattices were cut from plastic profiles and glued directly onto the wooden blocks.

The cuboid of the Jumbo trailer is slightly higher. For this reason, it was provided with a milled groove in the longitudinal direction at the bottom. The groove has the width of the Tekno trailer chassis and ensures that the body is placed lower, true to the original. The jumbo wheels come from the Meusburger gooseneck semi trailer, which is why the tyres were a bit too small for the year of construction. Patrick finally found a few larger replacement tyres of unknown origin in his parts assortment, which fit perfectly on the Tekno rims. This gives a 'fuller' look and the trailer

now stands on correctly heavy tyres. Patrick used spray paint for the painting and had the decals made by René Kohli (lastwagen-modelle.ch), who measured them accurately and made them to fit perfectly. Patrick gives most of his exhibits a slight dirtying, which makes the models appear even more realistic. To do this, he applies a little diluted paint in the appropriate places, which requires a certain amount of patience.

During our last meeting, Bruno showed me a photo that had been taken by a Swiss tourist. It shows the DAF in its second working life in Ghana, and not much of its former glory remained. The Schwarzmüller flatbed had been removed and replaced with a local, heavier steel loading bridge, and a fourth running gear had been added. It was photographed again, looking worn and battered, on cellophane.

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# Tom's driving log

by Tom Blase

## The Lesson – or 'The Last Voyage' Part 2

The police officers tried to follow the Italian instructions of the rental car driver, but when he refused to leave the scene of the accident with the towing vehicle that had been called, they too became somewhat 'ill-tempered'. The good man claimed to have called a taxi to the scene, although the Waldlaubersheim truck stop was only two hundred metres behind us.

My details were taken and I got into my damaged Scania – I could have cried. After I started the engine, I was greeted by a number of safety and warning messages. I only had a third of my coolant left. I accelerated on the hard shoulder and drove the few kilometres to the A61 motorway descent, towards the Nahetal junction. Here the car went into 'rolling mode' anyway, and I was able to relieve the machine a little. After what felt like an eternity, I arrived at the

place where our replacement tractor was parked.

I re-hitched the semi trailer and packed a few important items and my bag. Dirk, my colleague in the workshop, took the wrecked car and drove it to his hall. He wanted to assess the full extent of the damage the next day. I drove my last round trip of the day with a feeling of sadness and anger. Mind you, it was my first 'real' accident in my 28 years at this company. My mood was at rock bottom and it was clear to me that I would spend the remaining three weeks of the year in other people's cars.

I had been feeling unwell for quite some time, and after contracting coronavirus just before the turn of the year, I developed problems with my shoulders, back and knee joints. My doctor ordered me to stop driving until February because she wanted

to find out what was wrong with me first. That day was my absolute low point...

My senior boss, my loyal companion, had passed away shortly before and was buried that day. I rushed directly from the doctor's office to his funeral and arrived just in time to say goodbye to my Erich. With tears in my eyes, I got through this difficult moment.

Days before, I was asked to completely empty my truck because it was going to be given to another colleague after repairs – they didn't know when I would be back. After 'my' truck was emptied, I cried my eyes out again and then drove home.

By the way, I never saw my Scania again – its new driver didn't notice (!) a large loss of coolant and ruined the machine. The truck was not repaired and sold.



# New attachment for Komatsu PC8000 Backhoe

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by Daniel Wietlisbach

Although excavators with loading shovels are the most common in open-cast mines, manufacturers also offer their large excavators with backhoe attachments. Since both the 6 and 11 series of the Komatsu PC8000 are still in Bymo's collection of moulds, both have been given the new attachment.

In the eyes of many collectors, backhoes are often the 'more beautiful' ones and therefore the first choice if they can choose. It is therefore not surprising that the PC8000-11 with backhoe was already sold out before it even went on sale. We therefore show the PC8000-6 with the new attachment, which is identical for both versions.

The boom, stick and bucket have been implemented to scale and also impress with their stable functionality. With the exception of the maxi-

**The model of the PC8000 has been with us almost since the first issue. In version 6, the model appeared in a completely new design in 2016, we showed version 11 in 2022, and the backhoe version is the most current variant...**

mum digging depth, the bucket can reach all prototypical positions and is held by the hydraulic cylinders. The boom and stick are engraved in great detail and designed as U-profiles, which are closed from below by precisely fitting plastic parts. The lower part of the boom, which can be walked on, is secured by a ladder and railings made of cast metal. All hydraulic lines are free-standing, delicate and detailed, made of sturdy wire; the screw heads can even be seen at the connections, and of course the pipework extends to the cylinder connections. The hydraulic cylin-

ders are also impressive and feature numerous correctly implemented details. All pins at the pivot points are coloured and thus almost invisible. A special highlight is the bucket, which consists of several metal castings. Nothing is missing, and the six individually attached teeth are the icing on the cake.

For a model critique of the basic machine with front shovel, please refer to the article in issue 1-2017. As usual, the matt paintwork and labelling are of the high quality expected of Bymo.

## DM fire-fighter in 1:50

# Cat D5 Fire Dozer

by Daniel Wietlisbach

The new designation of the Caterpillar dozer was already a topic in the last issue, with the D5K2 becoming the D3. A similar thing happened with the 'old' D6N, which became the D5 – with increased performance features. The new D5 weighs around 20 t, has an output of 127 kW (170 hp) and is a real all-rounder. The brochure is two pages longer than this magazine and describes four basic machines for earth-moving, waste disposal, forestry and firefighting, each of which can be individually configured with different attachments.

We found the original for the Diecast Masters model only on page 50 of the brochure; it is officially called 'D5 LGP-VPAT - Firefighting'. In this configuration, the Dozer weighs 22.62 t in operating weight. As a model of a current machine, it is delivered in the well-known tin box, and the packing slip indicates that the entire ROPS construction can simply be folded forward to insert Bob. The new D5 is pleasantly heavy in the hand, is not that small and is exactly to scale.

The track frames are precisely engraved and feature the correct number of indicated track and support wheels. The LGP metal single-link chain can be easily turned, and the sprocket and, in particular, the two idlers are slightly smaller in size due to the functionally oversized connecting bars between the links.

**Bulldozers for firefighting are not a new invention, but unfortunately they are more in demand than ever due to the increasing number of forest fires. Diecast Masters presents a model of the Cat D5 with fire protection equipment ...**

The hood is well done, it can be opened on both sides and shows the replica of the power unit. The hydraulic reversible fan is indicated in fluorescent orange – a special assembly of the fire engine version. The grill consists of a finely engraved plastic part and eight LED lights provide sufficient visibility even in smoke.

The area around the cab is reproduced in detail, all the hatches and hinges are indicated and the caps of all the diesel fuel tanks are painted black and are even mounted separately. The shovel holder with the shovel locked in place is particularly welcome, but the foldable ladder and the free-standing handles also make an impact. The winch and the clutch at the rear are reproduced true to the original. The cab can be accessed from either side through either of the two opening doors. The cab interior is beautifully detailed, which is not immediately apparent due to the black colour. However, the dark colour matches the original and is at least broken up by the Cat logo

on the seat back and the screen. The guard protection on both sides and at the rear is made of plastic and looks a bit rough; a more delicate design would be desirable here. The rollover protection is made of plastic, and the actually openwork protective grille above the hood is merely hinted at.

Let's move on to the VPAT blade, which has been reproduced in full working order despite its complex structure. The internally mounted push frame is reproduced in detail and operated by two hydraulic cylinders. Three others are used to move the blade. The two wire ropes to protect the hydraulic cylinders from falling branches are made of silver-coloured rubber. The mould of the blade is well done, but disappointing is the merely hinted at and not broken through spill guard, which should actually be a thing of the past for DM as well.

Colouring and printing are flawless and opaque, respectively; pressure points can be seen in the lettering. The 'Fire-Dozer' is not an everyday addition to any Dozer collection.

# GEM amphibious excavator undercarriage

## Remu Big Float E22

by Daniel Wietlisbach

Remu, founded in 1997, is headquartered in Ähtäri, Finland. The company manufactures excavator tools for recycling and earthmoving, such as screening or crusher buckets, as well as backfilling buckets for cable and pipeline construction. The products are manufactured in the company's own workshops on site, with 95% of production being exported worldwide.

Remu manufactures a unique tracked pontoon undercarriage called Big Float in four different sizes that transforms excavators from 8 to 35 tonnes into amphibious machines. The E22 is designed for excavators with an operating weight of 16 to 24 tonnes. In its basic version, the Big Float undercarriage is suitable for working on soft ground, in swamps and in shallow water. With additional side tanks, two propeller drives and anchor supports, the excavator becomes a fully fledged amphibious vehicle for use on open water. The distinctive yellow supports enable the machine to anchor itself to the lake floor at the job site.

The main areas of application for the Big Float include the dredging of waterways to prevent silting up, as well as the deepening and maintenance of shipping lanes and port facilities. Amphibious excavators are also versatile in flood protection and in cleanup operations after floods.

The superstructure and undercarriage

**With the model of the Remu Big Float E22 undercarriage, Gaz Evans brings an exotic machine genre into the spotlight. It can be used to transform excavator models into amphibious vehicles ...**

age can be assembled either at Remu or directly on site at the customer's premises, with the controls for slewing and the crawler track remaining in the cab unchanged. When retracted, the E22 has a minimum transport width of 3.50 m, while the maximum width is 5.50 m. With additional pontoons on both sides, the width increases to 8.34 m and the total length is 11.20 m. Because of these dimensions, upper structures with long-reach attachments are usually used.

### Model from GEM

Gaz Evans Models (GEM) is known for high-quality metal excavator tools, and with the Big Float E22, GEM has created the largest model in its range to date. It is well protected in bubble wrap and delivered in a cardboard box. Two yellow anchor supports, a slewing ring raiser, mounting screws and washers for excavator models from Caterpillar, Sumitomo and Kobelco are supplied in separate bags. The big float is very heavy, true to scale and even telescopic. Nevertheless, the weight should not hide the fact that it is made of relatively soft cast metal and

not of die-cast zinc; the model should therefore be handled with care. As a perfectionist, Gaz Evans tried to make the track chains movable, but in the end had to give up due to the delicacy of the chains.

For the assembly of the upper structure – we chose the very suitable Kobelco SK210LC from Conrad – it is best to pull the crawler frames off to the side of the central frame (they are not attached). In our case, the hole in the slewing ring elevation had to be widened to fit the Kobelco upper structure. As described in the illustrated instructions, this can be done by drilling or with a craft knife. At the latest now you should be aware of the softness of the material. The E22 was modelled in the maximum version with side pontoons, and the anchor supports can be carefully inserted from above into the designated openings; the gearing engages with the rotatable gears of the drive.

The moulds for all the elements are excellent and the high-quality metal casting shows the finest engravings. The two ship's propulsions are shown in openwork and mounted separately. The extremely filigree metal caterpillars are also convincing due

to their correct representation. They actually consist of individual links, which, however, had to be fixed, as already mentioned. The colouring is

perfectly executed, and the decals of the lettering are printed flawlessly.

The Remu Big Float E22 transforms models of long-reach exca-

vators into real eye-catchers. Gaz Evans has created a model of superb quality that would otherwise never have existed.

## Affordable lorry models in 1:50

# Cavallino

by Daniel Wietlisbach

Cavallino, ‘little horse’ in Italian, is a toy manufacturer that was founded in 1959 by Adriano Bertuletti in Bergamo. In 2003, the manufacturer began developing model cars. In 2009, it was acquired by Tematoys, and since 2022, the name Cavallino has replaced the old name Tematoys. Today, Cavallino combines various brand names under one roof, and many plastic vehicles and construction machines for playing outside come from there. The toys from the Mammoet shop also come from this company.

In 2022, Henry van Veenendaal, a former WSI employee, joined Cavallino and initiated a new line of 1:50 truck models. The first models were released in 2023 and presented at the International Toy Fair in Nuremberg in February this year. The newcomer aims to be a cheaper alternative to the established suppliers. Nevertheless, the models do not look ‘cheap’ and have a comparatively high metal content, like Tekno or WSI.

We received two models to test – a Scania S 4x2 with an ‘ETC’ silo trailer and a Volvo FH5 Globetrotter 6x2

**A high-quality tractor unit for under €100 – that’s what Cavallino promises with its new line. We wanted to know exactly...**

with a ‘van bentum’ curtain-side trailer. The models come well protected in a polystyrene box and secured by a transparent plastic shell for the collector. They can be removed from the packaging fully assembled and are heavy in the hand.

The cabins cannot be tilted, which means that the engine does not need to be reproduced. The chassis are cast in one piece and are identical for Volvo and Scania. Both models also have the same rims, which fit exactly into the tyres. The front axles are steerable without the wheels buckling; in fact, the steering mechanism makes a very trustworthy impression; in the 6x2 chassis, both steering axles are even connected. Mudguards, diesel fuel tanks, exhaust systems and other attachments differ on both models, true to the original. The fifth wheel coupling is compatible with WSI, but shows no structure at the top.

The mould of the cab is well done on both the Scania and the Volvo.

The cab shells consist, to put it simply, of three metal castings: mudguards with bumpers, engine bays with driver’s cab, and the roof. The horizontal division of the cabs allows for different versions, and the dividing lines are largely invisible. The fronts with the grill are inserted separately, finely engraved and appealing in their detailed design. The headlamps are made of several parts and are correctly glazed. All windows are separately applied and fit very well, there are no visible holding knobs. The Volvo’s windscreen and the area above the radiator, including handles and windshield whippers, form a transparent plastic part, which is very neatly painted and printed. Antennas, warning lights, additional headlights, sunvisors, fanfares and rear view mirrors are all separately mounted, the latter however not mirrored. The cab interiors consist of an unpainted black plastic insert with a steering wheel. The rear lights are printed in

colour, and the matching number plates have not been forgotten either.

The three-axle semi-trailers have correctly been given their own wheels. The curtain-sided semi-trailer is from Krone and has a higher plastic content, but is weighted and stabilised on the inside with metal parts. Mudguards, rear beam and underrun bumper are each made of a single plastic part. The rear lights, Krone logo and number plate are printed perfectly. The side curtain covers are flat with a matt surface, but show the closures in relief. The white printing of the forwarding company is not quite opaque, which is proba-

bly rather difficult to achieve on the dark blue background.

The silo trailer makes a much more delicate impression, which is certainly also related to the original. The chassis is at least partially open and is shown to good effect thanks to the tipping silo container. The compressed air tanks and other details are indicated in the area of the axle rods, and a single pipe can be found on the outside of the chassis frame. The tipping cylinder consists of five elements, the inner ones of which are chrome-plated. The diesel fuel tank consists essentially of two precisely fitting cast metal parts and is

attractively detailed at the top and at the rear. The separately mounted cover and pipework with correctly modelled hydraulic hose connections and valves are particularly pleasing.

The supports on both semi-trailers can be lowered and fixed. The paintwork and printing are flawless and support the high-quality impression of the models. The long list of announced colour variants on the Cavallino website shows that the new provider's concept has been well received by freight forwarders. The manufacturer saves costs primarily by standardising the chassis and reducing the level of detail.

## New flagship from Conrad: 1:50

# Liebherr LG 1750 SX

by Carsten Bengs

The model is based on the earlier LG 1750 and has been completely redesigned with many new details and new constructions – so that it can actually be considered a new model. It is delivered in two sturdy boxes and is built to scale; the 48-page manual helps with assembly. The chassis rolls on eight axle rods, all of which are steered; the steering angle is sufficient. In the prototype, the axles 1, 2, 4 and 6 are driven planetary axles. The massive outriggers are pre-assembled, but can be dismantled by removing the sturdy plastic bolt. Including outriggers, the vehicle weighs 96 t, without 48 t.

**Conrad presented the impressive Liebherr LG 1750 SX in Mammoet colours at the in-house exhibition. The heavy haulage company owns 10 LG 1750 cranes, some of which are equipped with the SX boom system for use in the construction of wind turbines...**

Small hydraulic cylinders fold out the swivelling struts up to a supporting width of 32 cm by 32 cm without, or 24 cm by 24 cm with a derrick. This corresponds to 16 m by 16 m or 12 m by 12 m in the real world.

The massive outrigger cylinders have an internal, invisible thread, gi-

ving them a high-quality appearance. Outriggers are mounted on the supports and keep the model absolutely stable on the crane mattresses (which weigh 7.8 t in the real crane). Small fold-out work platforms between the outriggers ensure safe working. At the rear of the vehicle, steps with fine

metal handrails allow easy access to the chassis. The small red fire extinguisher is also an eye-catcher. The number plate is not missing, nor are the rear lights.

The engine area features simulated engine coolers, a chrome-coloured exhaust tube, non-slip catwalks and a small ladder to the turntable. A 505 kW six-cylinder Liebherr diesel engine would provide sufficient power. The undercarriage cab is also finely detailed, with mirrors included for self-assembly.

The upper and undercarriage are connected by the Quick Connection, which Conrad has implemented fully functionally. Two metal teeth below the upper structure engage with the turntable on the undercarriage, ensuring a stable and secure connection. To unlock the turntable, simply press the button in the upper structure – a clever solution.

## Upper structure

The upper structure weighs 60.6 t and is loaded on a low-loader with the two enclosed transport frames, so realistic transport conditions can be achieved. The weight of the prototype can also be reduced by 18 t by dismantling the SA trestle and winch.

The two ballast consoles are hooked into the rear of the upper structure and ballasted with a maximum of nine ballast slabs each; this would correspond to 245 t of counterweight in the real crane. This can also be increased by 5 t due to the turntable extension, because it is then seated 2.6 m further back. The extension is usually mounted with a derrick and SX boom, but it can also be mounted on the main boom (S/SL) or on the main boom with a luffing jib (SW) and without a derrick boom.

The entire upper structure is surrounded by catwalks, which have a realistic anti-slip surface and zinc handrails. In addition, the catwalk on the cab side has been redesigned in the Mammoet version and includes the access ladder in a realistic manner; it is folded up during lifting operations. The tiltable driver's cab corresponds to the current version with joysticks, seat and screens.

## Boom

A breathtaking fifteen different boom configurations in different lengths can be realised with the LG 1750 SX. The base model in the first box includes the SDWB configuration, i.e. a heavy main boom (S), derrick boom (D), luffing jib (W) and derrick ballast (B). The second box includes the SX boom with additional boom sections, the F2 wind turbine jib and a small derrick ballast pallet.

The SX boom is assembled from two or three 6 m wide sections (SX2 or SX3) and up to six 3.5 m wide intermediate sections (SX). The wider lattice sections increase the lateral stability of the boom, which results in better load capacities. The SX2 or SX3 sections consist of two halves. During transport, all segments remain within the 3.5 m transport width; this can also be demonstrated on the model.

All intermediate sections have new catwalks made of thin perforated plate, which are connected to the individual segments via small hooks and look very high quality. Even small ladders have been integrated into the intermediate sections; the silver ladders in the SX2 and SX3 segments are particularly impressive! All lattice mast elements are securely bolted

with the typical Conrad plastic bolts. For assembly, it is recommended to first assemble the boom on the ground – as with the real thing – and erect it with the help of a second person.

The pictures show the SX2D4F2B assembly variant, which reaches a maximum length of 165 m in the real world. However, it was set up in a significantly shorter form for the pictures; it would not be used in this way in the real assembly of wind turbines.

Conrad uses the familiar plastic bracing on the model and has even recreated the small joints between the derrick and SX booms and the sideways superlift made of thin steel cable in a high-quality manner. The ZA-boom between the SX boom and the boom bracing is also included.

Conrad has developed the derrick ballast from scratch and it is now modelled on the Variotray. The maximum derrick ballast of 400 t is often only necessary to erect the boom, which can be up to 165 m long. For this reason, a smaller one is bolted to the derrick ballast pallet, which remains on the crane after erection and is usually sufficient for the lifts. The large pallet, on the other hand, remains in place for erection – eliminating the need for expensive and time-consuming adjustment of the counterweight using an auxiliary crane. Metal handrails are included for self-assembly and the anti-slip surfaces also look high-quality.

The LG 1750 SX is delivered with three hook blocks, the 300 t hook and the 600 t double hook, as well as a new double hook specially designed for wind power operations. The 600 t hook is also modular and can be converted into a 312 t hook; the side weights can also be removed.

The new 150 t hook block is designed for a maximum load capacity

of 160 t and features massive side weights. These are necessary to ensure that the hook actually lowers when it is empty, due to the empty weight of the hoist rope. All sheaves on the model are made of black metal and turn smoothly; this is particularly important for the SA-frame due to the rope friction.

The F2 wind turbine tower was also completely redesigned. It can be

assembled in 24 cm (12 m) or with an intermediate piece in 30 cm (15 m). The backwards sideways superlifts are also new and are connected with small plastic links, which are then attached to the lattice segments. In addition, the jib can be used in two-hook operation, so that an auxiliary hook for smaller loads or a personnel basket can be used via the lower winch in the pivot section; however,

the one supplied seems to be rather too small.

With the LG 1750 SX Mammoet, Conrad presents a highly detailed model that meets even the highest expectations in terms of functionality. The variety of assembly options and the new features are absolutely inspiring. And the typical black and red of Mammoet look great on the model.

# 15 years of Laster & Bagger Anniversary

by Daniel Wietlisbach

Actually, issue 5-2024 already marked the completion of the 15th year, but we are celebrating the actual birthday with this issue. I still remember the small celebration with authors and helpers when we started the collector's magazine adventure with a lot of enthusiasm. It is probably no exaggeration to describe the time back then as the 'golden years of our hobby'. In the noughties, new manufacturers appeared on the scene and the internet made it much easier to obtain information about new models. All manufacturers presented their new products at the International Toy Fair, and historic models were produced in editions of 2,500 and sold out within two years.

What was still missing was a trade journal, and because, in addition to model making, making magazines was and still is a passion of mine,

**The first issue of 'Baggermodelle', the predecessor of 'Laster & Bagger', came out in November 2009, so many of our readers have known the magazine for 15 years. Time for a brief retrospective and an anniversary competition with great prizes...**

I started developing a concept and collecting ideas in 2006. This was followed by discussions with potential authors, and in February 2009, on the occasion of the International Toy Fair, with all the manufacturers. I showed a sample magazine, still without any real text, and was met with open ears and interest. We even got the go-ahead for the first cover model, which we were allowed to present exclusively as the first medium – what a great start in times of the rapidly growing internet!

It was the Liebherr LTM 11200-9.1 from NZG, and I still have a special relationship with it today – the trust of the manufacturer and industry showed right from the start that our new product was taken seriously and welcomed. At that time, the magazine comprised 44 pages and exclusively covered 'construction machine models, cranes and heavy haulage', as the subtitle promised. The magazine was well received and developed satisfactorily within the niche it served.

The fact that from around 2015 the number of new models, collectors and thus also our readership declined required us to take a step forward – an expansion of the subject area was an obvious solution. The greatest similarities were found among collectors of model trucks and model builders. Not only did the 1:50 scale fit the bill, but there was and is no construction site that could function without trucks. After more than seven

years or 43 issues, the first edition of 'Trucks & Excavators' was published in January 2017. The scope of the magazine grew to 60 pages to cover the additional topics. The model-making section was also stretched by the truck models, because there are real artists in this field among truck enthusiasts.

Finally, model-making also came to the rescue of many when the Covid-19 virus hit. When public life

was largely paralysed in 2020, many hobby rooms were brought to life at the same time. Some collectors remembered work they had started or ventured into new projects.

And although no one talks about the golden years anymore, they are still 'silver' compared to the beginnings of our hobby in the 80s.

### Anniversary competition

To thank our readers for their many years of loyalty, we are celebrating the anniversary with a unique competition. Many manufacturers spontaneously provided first-class prizes in the form of models – for which we would like to express our heartfelt thanks!

Anyone who has read the text carefully can easily work out the competition question: How many pages, including this issue, do all the issues of 'Baggermodelle' and 'Laster & Bagger' published to date comprise in total? Here's a hint: it's several thousand!

Participation is possible either by e-mail or postcard. The closing date for entries is 10 December and the prizes will be sent directly to the winners by the manufacturers, so with a little luck they will reach them before Christmas. The following 24 models have been donated as prizes, which we list in alphabetical order by the donors. There is no first or last prize, the prizes will be awarded in the order of the draw.

#### **Bymo**

- Komatsu PC8000
- Bauer RTG RG21T (4 prizes)

#### **Cavallino**

- Scania S 4x2 «Over Transport»

#### **Conrad**

- Liebherr R 945 Multi-User
- Delmag RH 18/200 green

#### **Conrad**

- Büffel B90 «60 Jahre Conrad»
- Potain MDT 809 «Vinci» 1:87

#### **Diecast Masters**

- Caterpillar 395
- Caterpillar D10

#### **Nooteboom**

- Euro PX 4+2 with Scania S Highline 10x4 «Nooteboom»

#### **NZG**

- Liebherr R 9600 bachoe
- Vögele Super 1900-5
- Yanmar B110W (new design)

#### **Tekno**

- Scania S Highline 4x2 «GS Transporte»
- Scania S Highline 4x2 «D'Angelo Huracan»

#### **TMC**

- Hitachi ZX890LCH-7
- Hitachi ZX490LCH-6
- Hitachi ZX300LCH-7

#### **WSI**

- Volvo A60H Dumper
- Tadano ATF 70G-4 «Feuerwehr»
- Scania S Highline 4x2 «Kirscht»



## Trucks from Vilmer

# Made in Denmark

by Hans-Jakob Bärlocher

Vilmer was a Danish manufacturer of model trucks and cars. From 1952 to 1971, the company produced vehicles in 1:43rd and 1:50th scale. However, it was overshadowed from the outset by its competitor Tekno, which had a much larger output.

In 1965, Vilmer left the car division and concentrated on 1:50 scale trucks; the models of Volvo Haubern, Mercedes-Benz torpedo round noses, Chevrolet, Ford Thames Trader and Bedford were available with a variety of bodies.

The models shown on these pages were far ahead of their time in terms of design, detailing and functionality and did not have to hide from the models offered by Tekno at the same time. The running gear is spring-actuated, the hoods and cab doors can be opened, and the interior is equipped with seats and a steering

**Vilmer is a now largely forgotten manufacturer of model cars that, like Tekno, produced in Denmark. Collector Hans-Jakob Bärlocher sheds light on the interesting history...**

wheel. The cab interior, dummy engine and grill are made of plastic, and the headlamps can be mounted separately. The play factor was high, because that's what the models were designed for.

Unfortunately, Vilmer had to be closed in 1971 for economic reasons. The moulds for the Volvo models were sold to Chico Toys in Colombia, because the Swedish truck manufacturer already had an extensive dealer network in South America at the time. Unfortunately, the quality of the models from Chico Toys was very poor, and many were destroyed by zinc corrosion because poor me-

tal alloys were used. The model of the Mercedes-Benz torpedo round-nosed tank also had a second life. The moulds ended up with the Portuguese manufacturer Metosul, which continued to produce it. The models are identical to those from Vilmer. Unfortunately, nothing is known about how the moulds got from Vilmer to Metosul. Around 1990, Metosul also had to stop production.

Today, models from Vilmer and the two post-production companies have become very rare and can only be found from time to time at exchanges.

## End of production line

# Mengele HM 1035

by Ulf Böge

The excavator market in Germany experienced unprecedented growth after the Second World War. Countless companies, large and small, tried to profit from the economic miracle. Many of them came from the agricultural machinery sector and now offered their products to the construction industry as well. One of these players was Karl Mengele from Günzburg, whose hydraulic excavators played an important role in the industry until 1978, but are almost forgotten today.

### Starting with manure cranes

The first Mengele cable excavators were developed from yard handling equipment and so-called manure cranes, which were marketed under the name ‘Automaticus’. These small machines, driven by electric, petrol or diesel engines, formed the basis for the first Mengele cable excavator with the impressive name ‘Herkules’. From 1957, the company entered the construction industry with it, initially mainly in southern Germany.

As early as 1960, Mengele introduced the further developed M 30, which was sold in considerable numbers in Europe until its production was discontinued in 1971 (MK 30). Until then, the excavator programme was quite modest: in addition to the L 12 loading device and a cable excavator (M 40) purchased from

**The HM 1035, a powerful wheeled excavator from 1977, marked the pinnacle of construction machinery development at Mengele. The company ceased production as early as 1978 and focused on agriculture ...**

the competitor Gross in Schwäbisch-Gmünd, Mengele offered only a few options. In 1966, the company ventured into the emerging hydraulic excavator market. The basic model M 30 was equipped with a hydraulic boom supplied by the French manufacturer Snav. This is how the MH 30 came into being – the first hydraulic excavator from Mengele.

### Breakthrough with hydraulic excavators

Mengele achieved a breakthrough with the HM and HR 450 hydraulic excavators, which were developed from scratch and sold throughout Germany from 1969/1970. Development picked up speed, and in 1971 the HM and HR 1020 models were followed by the newly developed HM and HR 1030 models. The 20-tonne HR 1040 crawler excavator was the largest of the ‘athletes’, as the excavators were called, while the smallest excavator, the HM 1010, weighed around 9 tonnes.

In 1976, the product range was revised again, and the models HM and

HR 1013, 1024 and 1035 appeared. These machines had two powerful lifting cylinders, a square-shaped cab with large windows and an upper structure that sloped slightly towards the rear. The HM 1035, weighing around 16.9 tonnes, was the most powerful wheeled excavator from the construction machinery division in Günzburg. It could easily keep up with the German competitors of the time, such as Atlas, Liebherr, O&K, Fuchs, MF-Hanomag and Eder.

### Modern and powerful

The HM 1035 was powered either by a Deutz F 5 L 912 with 87 hp or – in the exotic tropical version – by an F 6 L 912 with 95 hp, consuming around 15 litres of diesel fuel per hour. The hydraulic system consisted of a high-performance pump with two axial piston units and a total power control, which generated a maximum operating pressure of 280 bar and a delivery rate of 2 x 130 litres. The models in this series were the only Mengele excavators that already had a modern servo control for the

cross levers. The wheeled excavator was steered by the ZF front axle, which also served as a pendulum support. Additional stability was provided by optional two- or four-point outriggers or a dozer blade.

### Versatile attachments

The HM 1035 was designed as a ‘combination unit’ and offered a wide range of attachment options. Five different dipper sticks were available in lengths from 1,400 to 3,400 mm, along with ten different backhoes. The four-position, mechanical, two-piece boom could be equipped with an additional neck cylinder to increase manoeuvrability – ideal for sewer construction. This design of boom was an early version of the hydraulic boom that only later became popular with other manufacturers.

In addition to the usual equipment variants, there were also special options that were less in demand but still interesting. For example, the HM 1035 could be equipped with a loading shovel and used as a mobile front-shovel excavator. In addition, a hydraulically folding luffing jib could transform the excavator into a mobile crane that could reach a hook height of around 20 metres with a lattice boom. With additional load-lifting devices and telescopic handles, the HM 1035 was transformed into an efficient machine for material handling, including scrap and timber.

### The end of an era

Despite its impressive machines, from 1978 the construction machinery division apparently no longer fitted with the strategy of the family-owned company, which increasingly wanted to focus on agriculture. A generational change in management probably also contributed to this realignment. In the long term, the agricultural machinery business promised more success than the ailing construction industry. The special-purpose vehicle manufacturer Faun, on the other hand, saw things differently and expanded its construction machinery division after previously taking over the production of wheel loaders and

graders from Frisch. Mengele’s hydraulic excavators were a perfect fit for the range, so production was moved from Günzburg to Neunkirchen. The HM 1035 continued to be produced in the same mould as the FM 1035 until 1986.

Mengele initially continued its strategy in the agricultural machinery sector, but was forced to sell the business in 1991 for economic reasons. After several unsuccessful takeover attempts, the long history of Mengele finally came to an end in 2011. The takeover by O&K in 1986 also spelled the end for Faun construction machinery. Although the machines had become widespread, production was discontinued.

### Elephant in the room

The name Mengele is not only associated with machines from Günzburg, but also represents a dark side of German history. Nevertheless, a distinction must be made between the company, its products and the people associated with it. Today, the company deals with this past sensitively, but in the past it was different. By 1949, Mengele was once again employing over 2,000 staff and was one of the largest manufacturers of agricultural machinery in the newly-formed Federal Republic of Germany. At the time, hardly anyone was interested in the fact that Adolf Hitler had visited the company’s factory 15 years earlier or that a member of the Mengele family had been capable of horrific acts without ever being held to account.

# Homemade model of a real Brummer in 1:48

## Büssing 8000 S13

by Hans Witte

Of course, the DAF 2600 and 2000DO are among my favourites, but I have also built some exotic vehicles over the years. I prefer to choose models from the respective country, such as the Italian Fiat ‘Millepiedi’ or the Spanish Pegaso Cabezon. But a classic German lorry also has its charms for me, such as the Büssing BS20 S2 articulated lorry from the Laster & Bagger 4-2023 magazine.

Under the imposing hood of the 8000 S13 was a large 13-litre six-cylinder diesel engine that produced 180 hp at the particularly low speed of 1600 rpm. The gear box had five gears, with the fifth being the so-called overdrive, which was particularly useful when driving empty; the top speed was then 61 km/h. The 8000 S13 was produced from 1952 to 1957. The weight and length restrictions announced by Federal Minister Seeböhm meant the end of the long and heavy German truck-trailer combinations. Ultimately, these restrictions were only partially implemented because Germany had to adapt to European legislation. But from that point on, almost all models sold in the heaviest long-haul class were fitted with a front-steer truck cab.

### Long wait

I strictly adhere to the 1:50 scale for my models because I want to be able to place all miniatures next to

**In the 1950s, the 8000 S13 was the heaviest long-distance truck in the Büssing range and was very popular with drivers. Building the trailer was a bit of an adventure ...**

each other in the display case without any disturbing differences in scale. Admittedly, sometimes an Asam kit in 1:48 scale is allowed, but that is really the exception. I don't want any miniatures in 1:43 scale, no matter how beautiful they are. When I came across this beautiful Büssing from Schuco years ago, I hesitated for a while. I immediately realised that it was not, as stated on the box, a 1:43 scale model. I estimated the Büssing to be around 1:48 and thus it was just within my tolerance range.

After the purchase, however, the Büssing waited for its fate in its box for years until I started looking for a classic German trailer for one of my MAN Pausbacke projects. My friend Arjan van der Sande drew my attention to a 1:48 resin kit from Wespe in Romania: the ‘German 3-axle Heavy Trailer’ with the order number PWES48105. Arjan was also interested in such a heavy three-axle trailer and so we ordered two. I thought that this trailer might be very suitable for the Büssing 8000, so we took the risk.

### Building the trailer

Unfortunately, the kit turned out to be a disappointment. The super-

structure and many other parts were crooked and did not fit well. Nevertheless, the workmanship and detailing of the parts was quite good, so I still wanted to try to build something nice out of the kit.

The superstructure was so crooked that not even a bath in hot water helped; actually, it was the secret tip for bent resin parts. So I took a wooden block, like the ones I often use as cores for my tarpaulin superstructures, and screwed the superstructure to it from below; no fewer than six wood screws were needed to straighten the superstructure.

The trailer was largely built upside down. The chassis was glued to the loading floor and weights were placed on it while the glue was drying to ensure it was aligned exactly. To correct the distortion of the turntable with the front axle, it was reinforced with a solid washer that also imitates the turntable. After I had soldered a new pull rod made of brass U-profile, the turntable was provided with new and stable plastic eyelets in which the drawbar was attached. The wheels and tyres are also made of resin, and they were also quite warped and the tyres did not fit properly on the rims. After gluing them on, I glued an ad-

ditional ring of silver wire around all the edges of the rims. This imitates the wide rim ring with the so-called spring ring that was common at the time, which also makes the wheels look a little better. When the trailer was finally standing straight on its wheels, I started to build it up. All the other small, fragile and self-made parts of the trailer's substructure were made later.

To make the canvas structures as realistic as possible, the trailer's wooden block was filed straight on the sides but pointed at the top. At the same time, the base for the superstructure was built on the towing vehicle in the same style, but with plastic plates and 0.8 mm floral wire for the arches on the roof. The tarpaulin was created from paper towels. The slightly rough surface of the grey paper comes surprisingly close to the appearance of heavy canvas, which was used for tarpaulins at the time, especially after painting.

I wanted to recreate a heavy, sagging tarpaulin, which is why I glued a kind of padding made from rolled and flattened paper strips in the lower area. After that, the head and rear walls of the convertible top were glued to the structure, with sufficient overlap to prevent unsightly gaps later on under the roof and side panels. The tarpaulins were glued with slightly diluted wood glue; at critical points, contact adhesive was used to ensure better adhesion to the relatively smooth surface of the plastic. The folds were worked into the paper by hand, and on the roof the tarpaulin was pressed on as well as possible so that it would sag nicely between the arches. An additional layer of paper was glued on at the points where the tarpaulin sections overlap and at the transitions. To achieve an invisible

transition, the paper was not cut at these points, but torn off. After a layer of diluted white glue, the tarpaulin was basically finished and I turned the trailer over again to add the smaller details to the chassis.

### Chassis detailing

The mudguards over the tandem axles were quite straight, but I added new supports made of brass wire to fix the straight mould. The mudguards of the front axle were unusable, so I made new ones out of aluminium sheet. Some self-made details on the trailer's chassis are the holders for the rear lights and the wheel chocks, which were hooked into brackets made of brass wire behind the tandem axles. The central brake valve was added to the turntable and, of course, the lever to set the brake command in the correct position: empty, half full, full or release. The single-line brake system was still in use until the mid-1960s, so that a single brake hose to the motor vehicle was sufficient. I made this out of thin electric wire from which the copper core was removed. The electric cable for the lighting was made from a thinner wire.

### Towing vehicle and paintwork

On the motor vehicle, the round fuel tank was replaced by a larger, elongated one and a spare wheel carrier made of iron wire was attached next to it. On the left-hand side, I mounted a storage box and hooked a tow bar into two hooks under the body. A small, typical detail is the searchlight on the centre pillar between the windscreens, which could be moved by a handle inside the cab. Since I didn't want to risk damaging

the Büssing when repainting it, I mixed the colours for the chassis and superstructure myself as accurately as possible from Humbrol and Revell paints. The trailer was sprayed, while on the motor vehicle only the new parts were touched up with a brush.

The tarpaulin was painted matt grey with a brush and then brown paper buckles were added. Then I drilled 110 holes and glued the eyelets for the TIR cord into them. To ensure that the eyelets were evenly spaced, I drew a template and stuck it on the side panels. The eyelets were bent out of silver wire, and the TIR cord was made of thin thread that had previously been pulled through an iron-coloured dye bath. This stiffened the thread and made it lint-free. Drilling the holes and bending just as many eyelets meant a lot of work, but in the end the customs seal is a feast for the eyes and contributes to the true-to-life appearance of the Büssing.

In real life, the 8000 S13 was a real monster, and it was also when it stood with my other models. Not particularly disturbing, but the difference in scale could not be hidden. It therefore did not stand in the display case for long. During a visit from model-making friends from Switzerland, one of them fell head over heels in love with the big truck, and since then he has been looking after it and taking care of it.

In the meantime, I had already started working on my MAN 'Dicker Deutscher' (fat German), for which I took the superstructure and a three-axle trailer from NZG. The MAN will be a typical truck and trailer set in exact 1:50 scale, and I will show it here later.

## German crane manufacturers – Part II

# Reconstruction

by Wilfried Schreiber

The Kaiser company was founded in 1910 in St. Ingbert an der Saar and was one of the best-known manufacturers at the time. The company later moved to Oberlahnstein on the Rhine and was henceforth called Kaiser and Schlaudecker and finally Otto Kaiser KG. The manufacturer's first construction crane was a medium-range tower crane on a mobile gantry. The luffing jib was adjusted by means of a hoist winch and fixed in the cabin by bolting to a multi-hole lug. Later, self-erecting luffing jib cranes with two winches (the TK 18 is shown here) or with a luffing jib, which were also offered with a telescopic tower, followed. In the picture we see the TK 40-54, which already had a telescopic tower.

In the 1960s, the top-slewing climbing cranes HBK were developed. Their speciality was the centrally folding trolley jib. By raising jib part 1 while jib part 2 remained horizontal, a higher hook height could be achieved in a short time – with a mobile trolley. This system was ideal for the construction of cooling towers and was copied by Liebherr and Peiner in the 1970s. The picture shows an example of the HBK 50. In parallel with the HBK cranes, top-slewing climbing cranes HBS were built, which only had a horizontal trolley jib. At the end of the 1970s, Kaiser was taken over by Elba, which, however, ceased crane production in

**As in the first part, we will be presenting further German construction crane manufacturers and their products in alphabetical order. They played a major role in the crane industry during and after the reconstruction of Germany...**

1989 because its main focus was on mixer and concrete pumps.

Another manufacturer that has disappeared from the crane scene was Peiner, which was formed in 1953 from the cooperation between the engineering firm TAX in Munich and Norddeutsche Maschinen- und Schrauben AG in Peine. The rearward-sloping tower top was typical of these self-erecting cranes and later also of many top slewing cranes. In the early 1960s, maritime cranes and later container handling cranes – including mobile ones – were added to the product range. During this time, Peiner also developed the first top slewing climbing cranes with a trolley jib from the E series. The manufacturer conquered the overseas market through the company Pecco (Peiner Electric Crane Cooperation), which was founded there, since only diesel-powered high-rise cranes had been used there until then. In the area of underslewing luffing jib cranes, the new TN cranes followed the previous T series. They had a climbing device at the base of the tower,

with which tower sections could be climbed and thus significantly higher hook heights could be achieved. As a specialist in heavy cranes, Peiner developed the M and MK series specifically for power plant construction. The company added the SMK series of fast-erecting trolley cranes at the end of the 1970s with the acquisition of crane builder Wetzel. The new and highly successful SN and SK series of top-slewing cranes followed in 1982 and 1983. Unfortunately, parts of the HTS plant, which was last based in Trier, were acquired by the Terex Group, which then ceased crane production in Germany.

Another forward-thinking crane manufacturer was Wilhelm Reich in Ulm an der Donau. The company was founded in 1920 and also manufactured stationary mixing plants, transport mixers and concrete pumps. In 1954, it manufactured the first underslewing jib crane to feature a ball slewing ring instead of the open roller slewing ring with kingpin connection that was still common at the time. In addition, the switchable,

closed hoist and jib gearboxes with helical gearing ran in an oil bath.

These were the types 13/650, 16/875 and 20/1300, the first number indicating the maximum radius and the second the maximum lifting capacity. They were transported under the undercarriage by trucks like a semi-trailer using a turntable and a trailing axle. They were soon followed by bottom-slewing luffing jib cranes with a telescopic tower and an expanding strut undercarriage, which was the trend-setter in the mid-1950s and has proven itself to this day. The cranes were called Form 17 and Form 26. At the same time, the smaller cranes continued to develop by making the towers partially collapsible and foldable to the side for shorter transport lengths. They had a rear wheel and could be towed like a trailer (e.g. Form 9, Form 10

or Form N 10/12). The N 12/14 and Form 20, newly developed in 1965, already had a telescopic tower. As early as the beginning of the 1960s, Reich was one of the first to develop an absolutely unusual underslewing small trolley crane (e.g. L 10/12 and L 12/14 ).

The last underslung luffing jib cranes that Reich built until the mid-1970s were the N 33/40 and N 36/42. These had a welded tubular lattice construction as a telescopic tower. They were eventually replaced by the very successful L and RS quick-assembly trolley crane lines, which were developed at the beginning of the same decade. Unlike their predecessors, they had concrete ballast instead of gravel. The 50RS80, with a 40 m radius and a lifting capacity of 1500 kg, was the largest self-erecting crane on the market at the time. It

achieved a maximum hook height of 41 m by climbing tower sections at the base; this technique is still used today in the construction of self-erecting cranes.

In the top slewing crane sector, Reich offered two trolley-climbing cranes, the R350 and R404 models, although these were actually produced under licence by Comedil in Italy. By contrast, the RSTK series, a top-slewing self-erecting crane that could be transported on a trailer, was developed in-house in the late 1970s. After crane production was discontinued in the early 1980s, quick-erecting cranes from Pekazett were sold under licence in the company's own name and with its own type designations. Production of mixing plants and concrete pumps continued for a few years longer.

## Our partner page

### pusher boat and material handling excavator

If a construction site cannot be reached by land, the new push boat is responsible for supplies. pontoons are used to transport construction materials or machinery. It was first used on the Rhine near Rheinfelden. The push boat, built in Switzerland, is 9.5 m long and 3.5 m wide. Despite an operating weight of 12 t, the

draught is only 55 cm. Two C7.1 Caterpillar engines, each with an engine output of 205 kW / 278 hp, provide sufficient thrust.

The new Caterpillar MH3260 is used for material handling at the BodenAnnahmeZentrum in Oberglatt (BAZO). The material handling excavator weighs 65.2 tonnes, has a

reach of around 14 metres and is the first of its kind in Switzerland. STC shortened the stick and equipped it with a bucket kinematics and a full hydraulic quick coupler from Oil-Quick (OQ80). This also allows attachments such as clamshell buckets, scrap magnets or concrete crushers to be operated.

### Translation of pages 54 – 55

## New on the market

### IAA – 1:50 New releases, especially of WSI

Trucks with electric drive, were the big topic in Hanover, as was to be expected. However, this was less the case with the models, where only DAF presented the XB FA electric 4x2 with a box body in white from WSI in 1:50. WSI also dominated the model releases with updates for various brands.

Above all, DAF, where a new generation of the XB / XF / XG series has been introduced after only three years. The main difference between the trucks, known as the MY25 series, can be found in the mould of the minimally adapted grill. After the golden colour scheme of the last series, the new models are presented in a bright metallic red – except for the aforementioned e-truck. The models are available from DAF dealers.

Palfinger has updated PK135.002 and PK165.002, which are now called PK 1350 TEC and PK 1650

TEC, and have new colour schemes and labels. They are available on four-axle trucks in very attractive colours and all the major brands: Volvo, Scania, Mercedes and MAN.

The new Manoovr was available for the first time at the Nooteboom stand, in two versions: a five-axle with ramps and Scania R 6x4, and a seven-axle with a three-axle dolly and Actros MP5 SLT 8x4. We will be presenting the latter in detail in the next issue.

Last but not least, WSI is working on a model of a Knapen sliding floor semi trailer. The chassis will be designed so that all axle variants can be reproduced.

Conrad also delivered new items to the IAA, which included four attractive colour variants that can all be found in the MAN shop.

### WSI 1:50

The Dutch are working on the historic DAF 95XF cab. It will be

available in all three versions: Comfort Cab, Space Cab and Super Space Cab. The original appeared in 1997 as the successor to the DAF 95, and it was more than just an update, with 80% of the truck being redesigned. In 1998, the 95XF received the prestigious Truck of the Year award. The typical side panel is also planned, along with various spoilers. At the same time, the model of the DAF XF95 already in the programme is being revised. In addition to the Comfort Cab, various panels and spoilers are also available.

### NZG

All change in October – at least at NZG, where the Nuremberg-based company has given itself a complete makeover. The new logo is light and airy, while also emphasising the company's tradition. While the new look is, of course, primarily visible, the service for collectors will continue to be a top priority; for example,



the area for downloading assembly instructions has been retained.

### Conrad 1:50

In a survey on social media, the manufacturer wanted to find out whether the new design of the Liebherr 630 EC H 40 model should be reissued. The survey caused quite

a stir with 515 likes and over 150 mostly positive comments on Facebook. At the time of going to press, no decision had yet been made.

### Siku 1:50 / 1/87 / Blister

The toy manufacturer is providing variety with new colours on familiar models. In 1:50, the Actros truck mi-

xer now comes in yellow with a red-light grey mixing drum. In 1:87, the Scania truck mixer is now white-blue and in blister packs.

## News in brief

### Liebherr PR 776 G8 bulldozer

At the Minexpo, Liebherr presented the G8 version of its largest bulldozer, the PR 776, in the 70-tonne class. Thanks to its intelligent drive and hydraulic system, the mining dozer offers improved efficiency and constant engine output. The combination of hydrostatic travel drive and the 12-cylinder engine with 24.2 litre displacement enables an average hourly fuel consumption of 38 litres, which Liebherr claims is the lowest in the 70-tonne class. In addition, the driver assistance systems further increase the engine output and efficiency, giving the PR 776 G8 a class-leading efficiency. (up)

### Phoenix from the ashes

The Tatra Phoenix has been a joint venture with DAF from the outset. The engines and cabs of the vehicles come from DAF, while Tatra builds the chassis. The central tube frame is particularly advantageous in heavy terrain, which is why it is not surprising that Tatra trucks are usually delivered as all-wheel drive vehicles.

In addition to standard vehicles, Tatra can also build 8x8 all-wheel drive vehicles. Because DAF has revised the cabin of its construction vehicle series, the Tatra vehicles are now also getting the new DAF XDC cabin. Likewise, camera mirrors and the excellent Corner View system are now also available for Tatra. (eu)

### Cat 798 AC with DET system

Caterpillar transported its largest dump truck to the Minexpo 2024. The 798 AC on display has a payload of 372 t and impresses with a new cab shell and other improvements. With the Dynamic Energy Transfer System (DET), Caterpillar presented an alternative to the trolley system for electrically powered dump trucks. Instead of using a pantograph and an overhead line, the DET system works with a laterally mounted pantograph that glides on a rail along the road. As with the trolley system, diesel-electric dump trucks can be operated with almost zero emissions or the batteries of fully electric dump trucks (see Hitachi tipper on the left) can be charged. (up)

## Translation of pages 56 – 57

### Hitachi EH4000AC-5

Alongside the EX5600-7 electric mining excavator in the 550-tonne class, Hitachi Construction Machinery presented the new EH4000AC-5 dump truck with a payload of 221 tonnes at the Minexpo in Las Vegas. In the same class, there is the fully electric EH4000AC-3 Battery. This dump truck is powered by a combination of a trolley system, which draws electricity from an overhead line, and a built-in battery from ABB. The dynamic charging system reduces the weight of the battery and enables continuous operation. The prototype is working in a copper mine in Africa. (up)

### Back to the roots

The Navistar brand, which belongs to the Traton Group, is becoming International Motors. Along with a new logo, there is diesel technology from Scania, also a group member. The re-branding step is noteworthy because the brand was already called International once. It was created from the agricultural machinery group found-

ed by McCormick, which later went down in the history books as International Harvester (IH) and produced not only trucks but also construction machinery, tractors and other agricultural machinery. According to the company, the renaming is intended to pave the way for a change in strategy. The company wants to become a solution provider, which should also include spare parts, maintenance, financing, connectivity and charging infrastructure. (eu)

### **Fully electric through Europe**

Mercedes-Benz Trucks was on a 15,000 km round trip through Europe with two close-to-production prototypes of the eActros 600, which was named International Truck of the Year at the IAA. The trucks, which weighed 40 tonnes at a time, were charged only at public charging stations. The meticulously prepared journey took seven weeks. It proved that it is technically possible, even

though the public charging infrastructure still has the greatest need for improvement. In addition to the North Cape, the northernmost point of Europe, the route also went to Tarifa, the southernmost point. The aim was to gain long-term experience on a wide range of routes. The high battery capacity of 600 kWh and the resulting reach of approx. 500 km helped to bridge gaps in the charging infrastructure. (eu)