Laster & Bagger

Laster & Bagger

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Modelle von Lastwagen, Baumaschinen u... Kran...

Mit Wettbewerb

Universal Hobbies 1:50

Komatsu WA 475-10

Eigenbau 1:50

Volvo F89

English text

Conrad 1:50

Liebherr LTM 1110-5.1

Sammlerporträt

Thomas Stalder

CCM 1:48

Caterpillar D7G

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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".

Fantasy world

Our theme of models and dioramas continues in this issue of our magazine. Collector Thomas Stalder, whom I was privileged to visit for this issue, prefers to see his models in use rather than displayed in show cases. But instead of dioramas, Thomas has transformed his whole hobby room in to a fantasy world based on his own ideas. Additionally, he runs his 'own' freight hauling company and converts lorry models using a material I have never seen used before: cardboard. I won't tell you more but invite all readers to immerse themselves into his dream world, starting on page 6.

Dreaming would also be a good prescription against the current dearth of construction machine models which I predicted a year ago. The fact is that the Bauma was postponed for half a year and for that there will be no quick fix.

'It is what it is.' Apart from those coming from the three big ones like Caterpillar, Komatsu and Liebherr, scarcely any new models are being released. However, there can be no talk about a crisis because the model producers feel upbeat and are busy with a number of projects, however, it will fall, fall of 2022 until they reach collectors!

Wailing does not help; patience will be the collector's main virtue for the next few months. In this situation I am very fortunate to have the Laster & Bagger (Truck & Construction) authors who contribute many interesting stories and construction articles about our hobby to help us pass the time. Besides new models there are many other things to discover and to report on about the background of our hobby. My special thanks go out to our authors today.

As far as the lorry models are concerned, they are not tied to an exhibition which occurs in a three-year cycle and in this segment of the market we can expect many new models.

I would like to wish everybody a lot of enjoyment in reading the next 60 pages.

Daniel Wietlisbach

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Thomas Stalder built himself a fantasy world

Submerged

by Daniel Wietlisbach

Thomas Stalder has been fascinated by large vehicles since his childhood. He practices his model lorry hobby in his own way and we dive into his wonderful world ...

A few 1:50 lorries were neatly parked on the dinner table. He actually wanted to clear them off but his wife said that he should leave them there so that the collector's portrait would be completely authentic. His wife's tolerance for his hobby becomes even more relevant once you descend into his fantasy world in the basement.

But where does that passion come from? Thomas and his twin brother Daniel grew up in Langnau in the Emmental where his mother was a housewife and also worked in a grocery store. His father worked in the cheese business. Langnau is where the most famous of all Swiss cheeses starts its trip to all corners of the globe. Heavy refrigerated lorries with semi-trailers are a common sight on the streets and when the two boys visited their father's workplace they watched in awe as the giant wheels of Emmental cheese were loaded for shipment.

At the age of 10, Thomas was even able to ride in one of the lorries courtesy of the godfather of one of his school friends who was the manager of a transport company. The vehicle was a MAN and that is why even today the collector has a special relationship with the lorries that sport the Büssing-Lion logo.

At home, both brothers played passionately with their Siku vehicles; each had identical sets to hand. Even then the boys were not happy with how the models from Siku looked when new. They had to be painted according to the boys' imaginations and preferences. While his brother painted the vehicles in the colours of the then well-known Lucerne transportation company 'Transportus,' Thomas's lorries shined in the 'Wick Transporte' livery.

Unfortunately, the unrealistic superstructures overshadowed their play fun because the whole canvas superstructure had to be taken off in order to load a lorry. So, quite quickly the idea surfaced of building their own superstructures using the very strong packing cardboard that their father brought home from work. It was not long until the first Siku lorries with new superstructures and openable doors entered the vehicle fleet of the two freight haulers. Others from both fantasy and memory followed in quick succession, each built according to the modelers' personal tastes. Company logos and lettering were done with felt pens on the superstructures which were first painted.

In his brother's garret room was space enough to build a play layout on a piece of plywood set on the floor. Trees and buildings in 1:87 came from the model railway sector or were scratch-built by the youngsters from card stock. The different scales did not bother the boys in any way. They lettered the buildings after stores and companies known to them and they became destinations to which goods were delivered. They painted the roads in gray and made the road markings with a Tipp-Ex pen (European brand), a technique Thomas still uses today.

Using small strip wood from the hobby store, Daniel handmade pallets because there were not nearly enough of those from Siku on hand to handle the transport volume. They piled sugar cubes on the pallets and then the transports began.

The made-for-play landscape of their childhood resembles the small world that opens up to visitors upon entering Thomas's hobby basement. Of course, many of the techniques have since been fine-tuned and, while play with models has receded, the building of them has come to the forefront. The overall theme has stayed the same: mighty hauling lorries from his own imaginary company execute transports in a fantasy landscape.

Education

While his brother decided to train as a logistics specialist, Thomas did not want his hobby to become his profession. At 15 years of age, he could not yet decide which direction to take so he chose to train as merchandiser, a somewhat more generic apprenticeship. It was not a bad fit because the company in which he apprenticed was an advertising media center which received large amounts of printed material and, of course, all of it on lorries.

After his apprenticeship, the collector worked at the road traffic department where he issued driver's licenses and while there got his professional baccalaureate. He then changed over to work for the police where he laughingly recounts, "I collected the drivers' licenses that I had previously issued!" After a few more intermediary stations and further courses to become a Business Economist, Thomas worked at the EDA (Foreign Affairs) as a generalist in the HR department with a focus on apprenticeships.

Today, his studies finished, he works as a HR manager in the head office of the SRG (Swiss Radio and Television) as a specialist for adult learning.

Shortly after his apprenticeship he met his future wife, Andrea, and they married in 2014. During all these years of changes and personal development there were never any long breaks from the hobby which always remained his hobby of choice and place of retreat.

Model building

The big dream for both brothers was Scania lorries but it went unfulfilled by Siku for a very long time, however, after coming upon across a Tekno ad in a magazine for such a model there was no holding the brothers back. They pestered their mother for so long that she went and inquired about the models at the closest dealership. Finally, she took both 16-year-olds along to visit the site of their dreams. Thanks to their saved pocket money, two Scania R 144/530 promotional models crossed the store counter.

As soon as they returned home, they discarded the canvas superstructures and replaced them with home-built ones so that they could be played with nicely. But the enjoyment was lessened because the design of the steering for the models blocked the turning of the wheels which were locked because the model was designed to be a mainly static one.

An idea took root from this situation which is still in use today: disassemble the model completely and alter it with a new chassis and turning wheels from Siku. The chassis they made from several layers of the afor-mentioned heavy cardboard which became really solid and did not twist. Then they glued on the Siku axle holders with wheels followed by the mudguards, tanks and tool boxes, the sides and, finally, the cabin. Last came the upper structure which they also scratch-built. It did not matter that the wheels were too close together. At that time Siku models were in 1:55 scale. Nevertheless, great was their joy when the maker released the first lorry in 1:50. Finally, the wheel gauge was correct.

Model building today

With Thomas's growing hobby desires and with his hobby budget increasing because of his apprenticeship, more and more models from Tekno and WSI, and later on from Conrad, arrived in the fleet of the private hauling company. In particular, the bargain models of the

The Collector

Thomas Stalder (41) apprenticed as a merchandiser then continued taking various courses and today works in the Human Resources department at the head office of the Swiss Radio and Television Company (SRG). Besides his hobby he likes spending time with his family. He and his wife Andrea and daughter Lynn (2.5 years) live somewhere in Switzerland between Berne and Thun. He requests that those who would like to visit him and his collection make an appointment by email: tom.stalder80@bluewin.ch

'White Line' series and the spare part service from Tekno made conversions easier. More problematic was the search for axle stock and wheels from Siku. Finally, the collector personally checked with the people in Lüdenscheid and was able to order a large number of axle holders with axles and wheels as spare parts. The two-axle dolly model which was available separately was a very economical donor model. Unfortunately, both sources have now run dry and supplies will only last for a few more models. So far, a solution to the problem is not in sight. It would make no sense and be too costly to buy a complete model just to use only the wheels.

The idea for Thomas's own hauling company came about 20 years ago. The collector had heard the name 'BigTrans' 'somewhere' and he choose 'fire engine red' as his company colour. With the combination of yellow trim and a self-designed logo, the vehicles have a certain amount of flair and the collector still likes them, even today.

Naturally, over the years the construction methods have been refined; the super structures are now made from several layers of cardboard and so can be built much more realistically. The Siku wheels are no longer just added as is. The chromed rims are made with glued-on bits of aluminum foil which when pressed onto the rims show the impressions of the nuts beneath, and the wheel hubs get a dap of red paint as a final touch. By the way, the wheels are only changed out on the tractor units; semi-trailer and trailer chassis are often not touched. The vehicles are brush-painted by hand and even the yellow lines are added free-hand. The majority of the around 40-unit freight lorry combinations of BigTrans are from Scania and Volvo with the addition of some MAN, DAF and Mercedes-Benz lorries. As for a real-life freight-hauler, the owner always makes sure the fleet remains modern and up-to-date. New Volvo FH Facelifts are currently on order.

Because BigTrans has long-term contracts with its customers, often the super structures are made in their house colours and with the customer's logos. Sometimes these are completely fictitious but very often they are real because this allows him to use readily available decals, most from decalprint.ch.

Even though play with the vehicles is no longer the main thing, all superstructures are functional to allow for loading and un-loading. BigTrans specialized in transporting bulk items like sawdust and hay and so has several vehicles with suction attachments and moving floors in its fleet.

In one of the next steps, creating and programming his own website is on the to-do list. In addition to the BigTrans combination sets, about another 60 international freight sets are in use complimented with many 1:43 model cars.

Instead of the collection being shown in the regular way in display cases, it comes alive in the fantasy world that Thomas is building in his hobby room. The vehicles are set on three levels of roads, parking spaces and service bays. There are hardly any limits to his imagination: in one corner cows are heard mooing, in the another is in a metropolis like New York with interlacing up and down streets.

The lowest level is really played with when the collector is visited by his two-year-old daughter Lynn who is already very interested in technological things.

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Volvo F89 with Fruehauf semi-trailer

Tsatsiki-Express

by René Tanner

In addition to the DAF 2800 previously introduced in issue 3-2017, I have in my collection two further Greeks that I have immortalized in model form; one of them is described in this issue and the third one may follow later on. The inspiration for the F89 was a picture from Dieter Stebner in the Transeuropa book, volume 1 ...

Why does someone build Greek lorries in model form, and in 1:50 scale? This question has been asked of me many times and, honestly, I do not know the answer. I follow my heart and what I feel like doing at the moment. It does not matter what one builds, the main thing is to work with one's hands, to have an artistic outlet, to get fulfillment from what one does and, finally, to focus on something. In the end, the results are up to everyone's individuality and personal preference.

Accepting that passion is a Muse who flits where it will, there are several projects sitting in my workshop waiting to be finished. They never really get completed in under five years because I simply have too many ideas buzzing around in my head.

Holiday memories

When we holidayed for the first time on Naxos, a small island south of Athens, I was very surprised to see how many lorries were at home on such a small island. While my girlfriend buried her head in a book whilst sitting on the beach, I rented a Vespa motor scooter to capture on camera the jewel I had spotted earlier. I was in luck; an aged 110er Scania as well as its well-maintained younger brother plus a cleaned 141er with canvas top were both parked in the front of a house. As I started to shoot, the owner came around the corner of the house. He was a little bit puzzled about the tourist wanting to photograph his lorries and we struck up a conversation. He spoke about his trips to the mainland where he picks up mostly agricultural products and building materials for the island and told me that the 141er is very quick and strong. The picture of the lash-up still hangs today in my workshop. In the meantime, I have down-loaded several other pictures of this Scania in different variations from the Internet. The last picture I found shows it with a shortened reefer box. The Greeks have always appreciated the brand with Gryphon logo.

I have always been fascinated by Greek lorries, partly because of the colourful and fantastic paint schemes but also because many of these imported vehicles have found their way down to the Aegean Sea, mostly from Scandinavia and other countries. Many of these imported lorries show clear signs of their earlier life. The original owners sold them when they found them no longer reliable enough. Once in Greece, however, they were given some coloured paint stripes and other accessories and were put back on the road for a few more years.

The model

From the early 70s and up until today, Dieter Stebner has photographed many long-distance lorries. Initially, his preferred hunting grounds were the customs clearance points in Basle. Later on, as a long-distance driver himself he photographed at rest stops and haulers' yards during trips.

He has an immense collection amongst which are several pictures of Greek lorries in his Trans Europe and Trans Orient books. Pictures from these books inspired me to build the Volvos shown here. The Volvo F89 model is really a hybrid made from a Corgi tractor lorry with an adapted interior from Tekno. There wasn't that much to change to make it fit together as the Tekno base plate with fenders and seats fitted like a glove into the Corgi cabin. Only the interior inside roof had to be made a little bit shorter. Several of the attached details came from my parts box. The roof rack was formed from 0.8 mm florist wire and inserted directly into the pre-drilled holes in the roof then glued in. The sun visor was made from a piece of 0.5 mm aluminum sheet stock first painted with a transparent blue paint then scraped off along its edge with a sharp knife blade. The wide radiator grille and the protruding lower grille came from an English F88-290. Since the English wanted to order right-hand steering F88s, the radiator had to be moved to the right because of the steering hydraulics. In consequence, the radiator is pushed forward slightly. A connoisseur recognizes this right away for the 290 hp version. With the stronger 290er engine built in instead of the 240er engine, the engine leans slightly to the left thus the oil pan is not quite straight. Optically, the F88 was matched to look like its bigger brother but, performance-wise, the 290er is a better and more flexible comrade.

Nevertheless, our 'Greek' is a 330 hp through and through with only a few differences. I detailed the chassis exactly with a large 800-litre diesel fuel tank to make it fit for long-distance drives and with half-shell mudguards made from 0.3 aluminum sheet stock. Colour wise, the Volvo was going to be exactly as in the picture from Dieter with the orange stripes which continue on the trailer denoting the unit for pure long-distance international traffic.

As bases for the 12 m long semi-trailers, I usually use a model from Lion Toys which are ideally suited for modifications and can be sourced for a relatively reasonable price. This one, made originally in the Dutch style as a Van Hool, was altered to a Fruehauf, broadly speaking. The oversized and chunky bogie axle assembly was milled off using a Minimot tool and replaced with a brass casting. The rear end was also removed and replaced with a new one made from U-shaped profiles and with punched-out aluminum discs as rear lights.

For the canvas top I selected a suitable cedar wood block and glued it on to the flat deck. Using plastic sheet stock parts and aluminum sheet stock, the side boards as well as the rabbet and hinges were made and glued on. The canvas pole frame was made the same way. The canvas tarpaulin was made from paper with the method already described in detail in an earlier issue.

The trailer is supposed to look heavily loaded and that is why there are several attached tool boxes. The larger ones are made from Lego bricks with new lids. Two further boxes as well as the water tanks on the left and right-hand sides are repurposed air tanks from my parts box. Spare wheel holder as well as the mudguards are newly made parts glued on and the beer barrel is a mood-setting detail often seen on earlier lorries.

The Greeks like their vehicles to be colourful, rather like their country's colours of blue and white, a paint scheme in which many holiday homes are adorned. So why not take a piece of home when one is on the road abroad? To contrast this, and to underline the effect even more, I choose green for the canvas with a separate diagonally-applied red stripe, and white customs seal lines. The red stripe was glued on after the painting of the canvas and patched where needed afterwards. The customs seal and grommets are dabbed on with a fine brush tip and the customs line is made from painter's sticky masking tape. I ordered the custom-made country license plates and Volvo decals some years ago.

Tinplate

MAN 10.212 F

by Robert Bretscher

Beginning in 1960, this MAN 10.212 F remote-controlled lorry was offered in Schuco's catalogue as # 6084 ...

Heinrich Müller founded the toy manufacturing company of Schreyer & Co together with Heinrich Schreyer, a former furniture merchant. But two years later the First World War began and they closed the business. Following the end of the war Schreyer left the company which then changed its name to the catchy 'Schuco'.

The very inventive producer delivered quality toys around the globe. In addition to many toy cars, thousands of ships, trains, air planes and dancing toy figures left the production site.

The electrically powered, remotely controlled 'MAN' shown here is one of these fantastic toys. The model made completely from tinplate offers many technological features with several control levers. Using a cogwheel system, the levers control the 'drive' and 'loading platform' functions for ultimate play enjoyment. As well as being controlled by hand, the model can be operated by remote control. In this mode the three 1.5 Volt batteries normally placed in the driver's cab are removed and then vehicle is powered by the batteries of the remote or with a 220/4.5 Volt Schuco Transformer. The MAN is always steered with an external cable remote steering wheel held by the person playing with the lorry and following along on foot. The steering wheel allows for a very large turning control allowing it to drive around obstacles without time-consuming back and forth maneuvering.

The real eye-popping feature of the lorry is the Meiller loading platform made from a white metal casting. It has two lever arms which allow the platform to transfer loads of up to 500 grams from the floor to the lorry deck. Admittedly, the dumping motion which deposits the freight at the end of the lifting cycle is a little rough.

The very extensive and well thought out construction of the model, particularly the cabin, and the all-round detailing proves that even back then, Schuco could amaze competitors with its models.

Wheel loader from Universal Hobbies in 1:50

Komatsu WA 475-10

by Daniel Wietlisbach

The new wheel loader model of the Komatsu 475-10 comes from totally new molds. We take a look at both the strong and weak parts of the newcomer ...

The Komatsu WA 475-10 is a medium-sized wheel loader with a working weight from 25.11 to 27.76 t. The advertising leaflet particularly promotes the increased capacity of their new buckets which is between 4.2 to 4.9 m^3. The machine is powered by a six-cylinder Komatsu SAA6D125E-7 engine which can produce 217 kW (295 hp).

It is especially gratifying that the model is a completely new development. The opposite is true of the packaging from which the model must be liberated with its many wires securing it to a plastic plate. Additionally, the model can no longer be stored securely in the box. This really is a shame because the wheel loader which is made to scale gives a great overall impression. Although the front section is mainly metal, the rather low weight is due to the generally sparse use of metal in the model.

The wheels are exactly engraved and the rubber tires have the profile of the original. Both axles have are rigidly attached, the axle housings are detailed and the prop shaft is completely replicated. The large, plastic engine hood is detailed. The side fan guards are only printed on but the radiator grille is a very finely engraved detail which copies the look of the original very well. The individually-attached exhaust stack has an opening and the air intake is transparent and even is lettered. There are some free-standing handholds and the bolt of the trailer coupling is visible on the bumper. The mudguards have been modeled in two colours. On the left side is a finely detailed and lettered central lubrication plant. The safety railings are made from plastic as are all of the other details on the model.

Access to the cabin on both sides is by ladders with anti-skid surfaces on their steps. The cabin's glass fits flush, has extensive printed-on lettering and even includes the ultra-fine heating coil on the rear window. Many details like rear view mirrors, window wipers and handholds have been separately applied. The very detailed interior is modeled in two colours and the Komatsu logo is visible on the driver's seat.

A supply line at the articulated steering area is visible and the two steering cylinders allow for a sufficient turning radius. The front part of the unit is made of cast metal parts augmented by plastic details. The work spotlights have glass lenses and the pierced step at the cabin is a convincing detail. The equipment is made completely from metal. All hydraulic cylinders have the prototypically correct supply lines and the Z kinematic allows the shovel a functionality close to the original, therefore, it is a shame that the lifting gear considerably underreaches the tipping-out height of the original. The bucket is a single casting and has been modeled correctly.

The paint was applied perfectly and the colour demarcations are sharp. As we are used to from this maker, the lettering is very detailed.

At a glance

+ True to scale
+ Detailing
− High plastic content

CCM's 1:48 dozer has a military background

Caterpillar D7G

by Daniel Wietlisbach

'The bigger the better' is often heard in collector's circles even though smaller machines are also attractive in their own way. This has been proven by CCM with their current release of the D7G ...

The D7 was never on the list for the world's largest bulldozer and when released was already overshadowed by the D8. But, especially in the US, it got a good reputation as a reliable workhorse for the US forces in the three conflicts of the last century. In Korea and Vietnam and of course in the Second World War, mechanized units were often unable to move without the D7s there to smooth out the way forward. The machine was produced for the first time in 1938 but this dozer was continuously updated and further developed. It was talked about again when it became the D7E with diesel electric power and is available again as the D7 with diesel power.

The D7G appeared as the successor the D7F on construction sites around the world. The built-in Cat six-cylinder engine produces 200 hp and has a total weight of 15.3 tons. The many tool accessories available made the D7G a universally useful machine.

As usual, CCM released the D7G in several versions concurrently. As well as the standard one for earth moving with an S-blade and three-tooth rear ripping attachment, there is a variant for the logging industry with an A blade, rear cable winch and eye-catching protection bars over the engine hood; the basic machine is the same for both models. As usual, a certificate with serial number is included with each model.

The models arrive in the well-known, excellent packaging with Styropor inserts and feel pleasantly heavy in the hand. In comparison to the models made by CCM up until now, they look rather small even though they are good-size dozers. Size is relative, because, naturally the models are made correctly to 1:48 scale. The proportions of the model look great and the easy turning tracks invite the purchaser to drive a few circles on the table and so observe the play of the track chains.

The crawler frames are nicely engraved and show all the details of the original correctly whilst the springing of the idler sheave is precision-made so that the tracks run exactly straight from back to front. The true to-the original oscillating suspension of the drives worked faultlessly on our sample model; running and support sheaves turn freely.

The completely open engine compartment is nicely detailed. On the size-reduced D3306, all important components from the air filter over the turbo charger up to the dynamo are modeled; even the radiator grille for the cooler's ventilator can be seen. The radiator grille is not pierced but is very nicely engraved. A fearless model builder with lots of experience could paint the many holes in it with dark paint.

The open driver's platform with the massive roll-over protection bar has been very nicely replicated. The roll-over bar protects the separately-applied levers and pedals which, unfortunately, are made of plastic as are the handholds. The fittings and operation instructions are printed on. On the logging version, massive protective bars go all the way from the roll-over bar to the engine hood and at the rear there is also a photo-etched replica of the protection grille.

Equipment

The hydraulic cylinders for the blade adjustments have been modeled with free-standing supply

lines which hold the blade very stable in any position. The small cylinders tilt the straight S-blade; the right-hand one has prototypical hydraulic lines but allows for only 2 mm of play sideways. In addition, the chromed rod should actually be yellow. The exactly-engraved blade is made from metal. The A-blade has a completely different pushing frame which allows for the adjustment of the degree of pushing in three positions: straight, left or right. Adjustment is done by the fixed-in-place bolts on both sides, without any distracting screws. Being fixed in place, the bolts do not get lost.

The three-tooth ripper is functional; its ripping teeth are individually mounted but fixed rigidly in place and have supply lines modeled even though they are almost completely covered by the very conspicuous fenders. The cable winch of the logging version does not function but is modeled with a very finely-detailed plastic casing. Cable made from a black thread is spooled on to the drum of the winch. Classic yellow paint job the models has been faultlessly applied and the even the smallest lettering can still be read with a magnifier. It remains to be seen if the series of the CCM dozers will be extended to include the smaller models.

At a glance

+ Detailing
+ Choice of prototype
− Plastic railings

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Two-way excavator from NZG in 1:50

Liebherr A 922 Rail

by Daniel Wietlisbach

Under the heading of model updates comes the new model from NZG. Much of the model was taken over from the previous one with some specific changes in details carried out ...

It has now been five years since the release of the Liebherr A 922 from NZG, a time span that would leave signs of wear on most of the original machines. Even though the designation remains the same, some improvements to optimize it were made on the original two-way excavator. The appearance was updated and technology brought into compliance with the newest regulations.

These and other improvements are now also found on the NZG, so, correctly, it has received a new article #. The most obvious changes are in the design. Liebherr switched the colours of hydraulic cylinders and attachment tools from yellow to grey. The shape is also up-dated and here is the most important new feature for the collector: in addition to a ditching bucket, the model now includes an exact replica of a clamshell bucket/grappler. The bucket swivels and tilts, and has the prototypically-optimized floor to work in either mode (ZW). The completely new clamshell bucket is functional and convincingly detailed. Other changes are on the upper chassis where some components have been rearranged and/or new ones added. These signify the tightening of exhaust protocols but also increase the safety as evidenced by the new rear view camera.

The cabin has a further warning beacon, two horns and last, but not least, the design of the type designation has been adapted and several warning decals swapped or brought up to date.

Tool attachments in 1:50 from GEM

Metal accessories

by Daniel Wietlisbach

GEM (Gaz Evans Models) is now releasing prototypical models of tool attachments made from white metal castings ...

Eight years ago, supported by his girlfriend and business partner Lucinda Warner, Gaz Evans turned his hobby into a business. Up until the present, over 130 different articles have been released, all under license to the original producer. Gaz builds the masters for his models from plastic or prints them using 3D technology. A sub-contractor makes the white metal castings then Gaz and Lucinda clean and finish them. Among his offerings are also conversion parts for the industry. The engraving of all models is very precise, the applied paint is faultless and all are enhanced with fine lettering. The products are available from specialized dealers.

GPS receivers

GPS stands for Global Positioning System and is used in many applications. Its accuracy is such that this technique has been in use in the construction industry for quite a while.

For earth-moving work, GPS receivers are mounted directly on both ends of the blade and on excavators, normally on the rear end of the upper chassis. With an accuracy of ± 10 mm, such precision grading and excavation work is now possible that humans cannot surpass it.

Gaz Evans offers two different sets of GPS receivers. Set 1 contains two sets of poles for excavators, 2 each of 15 and 22 mm, plus some black wire from which the hook-up wires can be fashioned. The height of the upper chassis dictates the kind of receivers that need to be used because for transport reasons the poles must remain on the machine. Only a few holes need to be drilled to mount the receivers on the model: two each for the poles and cables. Also, the place on the receivers where the cable hook-up is simulated must be drilled out. The best way to proceed is to obtain a picture of the original.

Set 2 has all the parts to equip two bulldozers with GPS. Depending on what kind of blade is in use, the way the receivers are attached varies greatly. Here too, the advice is to study the original closely. The required spiral hook-up cables are included in the set.

SMP ST18 Tiltrotator

The Swedish Company SMP has developed and produced tool attachments since 1980. Two developed in house were a quick-change attachment in 1983 and the 'Swingotilt' Tiltrotator in 1985. Since 1987, the company has belonged to the Swedish Arema group of companies. There has been a dealership in the German town of Kempen since 1993. SMP is a synonym for 'Svet Maskin Produkter' (welded machine products).

The very extensive set fits excavators from 14 to 18 tons and includes four different buckets as well as the Tiltrotator ST18. The exactly replicated rotator is fully functional; it tilts and turns using hydraulic cylinders. It is also very pleasing to look at with its precise paint job and detailed lettering. The width of the receiving pad is 7.5 mm.

Among the buckets are two of different widths with three or five teeth, a sifting bucket with five teeth as well as a grading bucket with a flat bottom. All four are made from precision white metal castings. The pierced sifting bucket is especially nice; here too the logos have been nicely applied.

The buckets can also be directly attached to the jib, the attachment pad width again is 7.5 mm and the necessary bolts to do this are included with the set.

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A classic lorry from Fire Replicas in 1:50

Mack B-81

by Daniel Wietlisbach

Fire Replicas is already releasing the second 'civic' model for connoisseurs ...

A year ago, we were privileged to introduce the model of the Autocar DC-100T in these pages. It was the first model by this producer not related to the 'fire brigade vehicle.' With the Mack B, they now offer a further tractor lorry in their customary high precision finish. Thanks to the distribution by NZG, these models are also readily available in Europe, however, the small series of only 60 pieces for each colour sells out very quickly. There are six different paint schemes available for the Mack, all very tastefully chosen. The Mack B series was introduced in 1953 as a replacement for the A series and the B-81SX was the most powerful version available. 'S' stood for the 4x6 drive and the 'X' for the extra heavy-duty chassis for the toughest work situations. The built-in Thermodyne 14.2 liter V8 engine was capable of delivering 250 hp (190 kW). This configuration was widely used in the US for concrete mixers and dumping lorries. It was a common sight on US construction sites in the 50s and 60s. As usual, the model's main components are made from resin castings and are detailed with especially fine photo-etched parts. Also, as is customary, the wheels do not turn but are very nicely detailed. The shapely form of the cabin and chassis have been nicely copied in model form. All chromed lettering of the original has been replicated from etched nickel silver sheet stock and are glued on. There are three supply lines, including the hook-ups at the rear of the cabin.

Translation of page 27

Tom's truck log

by Tom Blase

The river pilot taxi in the Middle Rheine River Valley or, burlesques on the B9

Some of my round trips require the use of the Rhine ferry between Bingen and Rüdesheim. It is always a nice change and gives me a bit of a holiday spirit; I am privileged to work while others are relaxing but have to pay for the pleasure!

My father drove the trips through the Middle Rheine Valley in the early 60s when he drove to the Koblenz/Neuweid area to load cinder blocks. It became especially entertaining and profitable when near St. Goar a man stood at the side of the Bundesstrasse 9 and waved inconspicuously with a rolled-up newspaper. It was clear that he was one of the many Rhine river pilots who did duty on the 'mountain stretch' of the Rhine and offered their services to Rhine barge owners (Partikuliereren (Ger)) and other ship operators. Before the shipping channel between the Binger Loch (The hole at Bingen) and the Loreley near St. Goar had been widened, strong currents dominated the area in the so-called mountain stretch. Strong currents plus dangerous cliffs lurked under the water surface. Towards the end of the 1970s, with the dredging the

river, the blasting of most of the rock barriers and also the introduction of radar, the work of the pilots slowly came to an end.

In the earlier years, ship operators who wanted to use the services of a pilot, hoisted the pilot flag and then one of the locally experienced men boarded the vessel. From Bingen on the ships were escorted down the valley until they reached St. Goar.

There, the good pilot was collected by the 'pilot's bus' and driven back to Bingen but he had to wait until there were at least four more of his colleagues waiting to make the drive economically viable. Sometimes, if one was the first person waiting, it could take between one and one and a half hours until the bus could leave.

My father's Krupp had a bench seat so there was room enough to offer two pilots a lift to Bingen without any problems. It was an unwritten law that everyone given a lift left one Deutsche Mark in the ashtray.

The pilot guilds forbade their members to stop cars or trucks by hitch-hiking. For this reason, the pilots though of a small ruse: the trick with the rolled-up newspaper. Since all pilots who sat in the master's chairs in the ship's cabins and steered the vessel down the Rhine were independent contractors, a quick trip back to Bingen meant money in the bank because every pilot managed to get in two more trips down the river every working day.

A classic win-win situation: the pilots earned more money and the Mark pieces accumulated in the ashtray of the Krupp. And the mood in the cabin of my father's lorry was entertaining. Ah, the good old days in the Middle Rhine Valley!

A new crane in 1:50 from Conrad

Liebherr LTM 1110-5.1

by Carsten Bengs

As an April surprise, Conrad's new Liebherr LTM 1110-5.1 appeared as a beautiful model. Following a long interval, the maker from Kalchreuth once again presented us with a very well executed model of a Liebherr five-axle crane ...

Conrad's model is as robust as usual and with many nice details. Support base and height have been correctly reproduced. The many pictures in the included instructions help with the uncomplicated assembly of the model.

The five-axle under carriage with drive train is convincingly replicated. The prop shaft runs below the model to all the wheels which run very easily; all axles have sufficient turning radius. Very nicely done are the realistic-looking mudflaps because they are made from a soft rubber material. The lower chassis has an anti-skid surface. On each side are two ladders which can turn and then fold down. At the rear is a box with hinted-at underlay timbers and tools and it is very nice that the box is removable.

The area around the single-engine crane compartment has been very lavishly designed. Behind the cabin, the-hinted at radiator grille is easily recognizable. The exhaust is chrome coloured and surrounded with perforated sheeting. Here on the prototype, a Liebherr 400 kW Diesel engine ensures that sufficient power is available.

The driver's cabin has some small steps; mirrors have to be applied separately by the collector. Unfortunately, the front window wipers are only printed on, not

separately applied. The option of securing the hook during driving has been made possible for the first time by Conrad.

The support technology challenges have been very well solved by using support legs with internal threads. The bottom plates on the foot of the support legs remain with the crane during travel, stowed away in a space-saving area on the sides. All supports are very stable and ensure a solid and safe stand for the model.

The upper chassis of the crane turns very easily. Behind the cabin there is a metal railing giving access to the upper carriage. The rear safety railing beside the cabin folds down. The cabin tilts and has a small step for ease of access. During work, it can be pushed in and out of the way in a space-saving mode under the cabin where it also is stowed during transport. Window wipers and spotlights which are not printed on round out the details. The interior is very convincingly modeled giving value to the crane.

A counterweight block which carries a maximum of 29 t is attached to the rear of the cabin. It is possible to simulate all kinds of ballast variations on the model. The Liebherr logo is very nicely integrated into the cast of the topmost ballast segment. Beside the winches we find some warning beacons.

The six-segment telescoping arm extends to a maximum of 1.26 m at top sheave height corresponding to 60 m on the prototype. It has been made from white metal castings and so the proportions, especially the uppermost segments, do not look like the original.

All telescoping sections can be set to the prototypically correct steps (50%, 90% and 100%) and securely arrested at those positions. The metal hold-down device for the cable has been replicated. With the additional flying jib tip, the model even can reach 1.62 m height at top sheave.

Conrad's outrigger cylinder is fully functional; the plastic cylinder has a nut which allows it to be adjusted securely, with continuously variable adjustment.

The model has the three-sheave block with hook which came from an earlier LTM 1200 model. The single hook used for operating with the tip installed is securely moored at the lower chassis.

What is especially exciting on the LTM 1110-5.1 is the very detailed lettering that Conrad has applied. Type designation and warning labels can be found on the lower and upper carriages, even the support legs have been numbered. Overall, with the LTM 1110-5.1 Conrad has given us a super replica of this crane first introduced at the 2019 Bauma. Details and functions are convincingly done and the lettering especially scores high.

At a glance

+ Functionality
+ Ballast
+ Detailed lettering
− Dimensions of the upper most telescoping segments

58 years on the road, part I

Beck Transport AG

by Erich Urweider

Some observers may have noticed lorries from the Beck Transport AG in Switzerland. The company's house colour has always been green, but always a little bit different. From a universal green it went to metallic green and today the upper chassis parts are black-green the cabins being black-olive ...

Hans Beck grew up on his father's farm. His father owned several acres of land and in addition to dairy farming grew agricultural products and some grape vines.

The overall farm was quite small in size so Hans Beck quickly realized that the parent's farm was too small to continue to survive which is why, after completing his educational training, he immigrated to Canada and became a lumberjack. Because the life of a lumberjack did not match his expectations, he returned to Switzerland after a few years. He planned to buy a lorry without any idea of how to pay for it. The banks wanted securities which Hans was unable to provide. At that time it was not easy to start a company. In 1963, thanks to his father-in-law who guaranteed the loan for him, Beck was able to purchase his first lorry from Willi Knorr in Amriswil. The first vehicle was a green MAN 770 tipper lorry with trailer. Since his father-in-law was the guarantor for his loan, every month Hans had to make sure that he had the money to pay for it.

Having a multi-purpose vehicle, Hans could accept a great variety of jobs. Located in Beck's home canton, the Thur riverbank amelioration project of 1963 was a very welcome job. For this project, earth and stone walls were created on both sides of the river so that in case of high-water runoff, the adjacent villages would be protected from flooding. Hans Beck remembers that he and another independent drivers would start working well before sunrise every day and stop only after the last trip at night when it became too dark to see properly. The trips were demanding; there was no autobahn and the lorry and trailer sets had to make several trips daily moving painfully slowly through the very narrow village roads to the canton of Grisons where the stones that were used to stabilize the banks of the Thur River were quarried. Despite all this work, the river flooded seriously in 1978 because the dams could not cope with the pressure of the high water. After this, the Thur riverbank amelioration project was planned anew, this time, however, without the help of Beck who had gotten his foot into International Freight traffic by then. Shortly after the tipping lorry,

Beck purchased a second MAN, this time a cab-over tractor lorry, the 770F. Additionally, he purchased a single-axle semi-trailer. Now he was ready for long-distance trips which seemed to be more interesting than the endless dumping trips. He was told by his backers and banks that he was completely crazy and his wife remembers that it was a difficult time. Sometimes she did not know how she was going to pay all the bills at the end of the month. But, somehow they always managed in the end.

Already by 1964 an ÖAF of the heavy F series joint the fleet. It too was purchased second hand. An additional semi-trailer was also purchased so that it was now possible to offer international long-distance freight transports with two vehicles. As one of the first brand-new lorries, a Berliet TR250, was acquired. At the same time, the

site in Kreuzlingen, with its own customs office was opened to offer international customs handling office at the German border. Still today, this part of the company is an important pillar of the business. Beginning in 1967, a T1 VW bus was used for urgent air cargo transports. It's over-height canvas top took some getting used to. Hans Beck increased his fleet in 1968 with a Henschel F 191; a bit later, an F 193 was purchased which by then already sported the Hanomag-Henschel logo.

Since Beck now owned a few vehicles, he went to see the Saurer factory in Arbon because it was closer to him than any other lorry maker. Because he had never owned a Saurer before, and was not willing to put down one third of the purchase price right at the signing of the sales contract, no sales agreement could be reached and he stayed with buying out-of-country lorry brands.

The extension in Amlikon

In 1965, Hans Beck was able to purchase the site in Amlikon. There was a generously sized plot behind the house on which he could park his articulated lorry sets over the weekends. Then in 1970, he purchased a quick-assembly vehicle shed, made in the US, which was stored, broken down in parts, near Airport Zürich. Such sheds were standard issue at the time and were often used. Since they were mass produced in the US, they were even cheaper than a classic, purpose-built Swiss shed. Finally, thanks to the new shed, merchandise could be stored in a dry place or transferred between vehicles. It was situated about 15 km from the border. Despite the closeness, it had one big disadvantage: under Swiss law, driving lorries with a total weight of 40 t was only allowed in a 10 km wide strip at the country's borders. So, in theory, if you came home fully loaded from Europe, you were not allowed to proceed past the permitted distance. Because of this, there were often some unwelcome encounters with the police close to the company's location. Often this happened on Saturdays when the vehicles came home to be serviced.

(Continued in issue 5-2021)

Northwest Engineering Company

by Matthew E. Folsom & Mario J. Torres, published by Buffalo Road Imports,
size 21.5 x 28 cm, 220 Pages,
English language book,
soft bound,
ISBN 978-0-9843442-4-6

Following the book about the history of the Northwest Engineering Company from Green Bay, Wisconsin and the two photo collections, volume 1 (1920-1940) and volume 2 (1941-1966), comes volume 3, the final instalment. This volume looks at the hydraulic excavators produced from 1967 until the end of production in 1990. With a bucket volume of 7.3 m3, the 1982-built model 190-DA was the largest front bucket cable-operated excavator ever built. A hydraulic cylinder emptied the bucket. In 1969, Northwest presented their first hydraulic excavator, the 30-DH. The largest one was the 107 t 100-DH which they produced from 1976 until 1982. (up)

LMG O&K Krane, Radlader & Schiffe

by Carsten Bengs, published by Podszun Verlag,
181 pages, size 21 x 28 cm,
540 illustrations, hardcover,
ISBN 978-3-86133-989-2

Two new books have arrived 20 years after the last O&K book from Carsten Bengs. Today we take a look at the two of them: the first volume about cranes, wheel loaders and ships and the second volume about surface mining equipment from Lübeck. The predecessor of the Lübecker Maschinenbau Gesellschaft (LMG) goes back to 1833. In the beginning there were bucket chain excavators and steam engines. 1901 saw the advent of the ship building and LMG and O&K created a syndicate in 1911. They produced bucket wheel excavators from 1935 onward. Chapter 2 looks at the ship building business, chapter 3 concentrates on wheel loaders, chapter 4 the ship cranes and chapter 5 describes mobile cranes. (up)

Drahtseil-Schwertransporte im Gebirge

by Michael Müller, published by Podszun Verlag,
size 21 x 28 cm, 168 pages,
ca. 440 pictures, hard cover,
ISBN 978-3-86133-986-1

The second volume on the theme of heavy-duty transports of cable wire in the mountains has many inspiring situations for the model builder. It really doesn't matter if one is interested in historic or the most modern technology. As well as the usual suspects some lesser-known companies are included amongst those who transported wire cable for mountain railways so that they could begin operations. The techniques used for these transports are as multi-faceted as are the cable car ropeways in the Alps. Those who are interested in heavy-duty transports in the mountains will be well served with this book. However, one should not wait too long before ordering it as the first one has become a sought-after volume. (eu)

Geschichte der Seecontainer

by Ulrich Cramer, published by Podszun Verlag,
size 21 x 28 cm, 136 Pages,
290 illustrations, hard cover,
ISBN 978-3-86133-981-6

Today, a container comes off the production line at the container factories in China every three minutes. The triumphant victory march of these standardized transport containers is very strongly tied to globalisation and China's economic rise. How the sea containers were developed and, in the end, succeeded and were accepted over the protests of the stevedores, is described by Ulrich Kramer from his firsthand vantage point. After all, he spent his whole working life developing them. This book is more for fans of technologically-themed histories. In addition to the development of the containers, the history of the BDF, German Freight, Long Distance Traffic) swap body system is touched on. (eu)

The largest universal excavator from Hamburg

Menck M 251

by Ulf Böge

Even today, the universal excavators from Menck & Hambrock are afforded an extraordinary cult status. And, for very good reason …

This company from Hamburg was the first in Germany to concentrate on the development and construction of dragline excavators. Beginning in 1900, Menck & Hambrock were successfully producing steam-powered front bucket excavators. It took them another 55 years until the M 251, then the largest 'construction site drag line excavator', was introduced to the trade.

Like many manufacturers during the Second World War, Menck & Hambrock had suffered great damage. More than half of the factory site in the Hamburg town quarter of Altona were destroyed. At the same time, the demand for construction machines, especially excavators, for the long-awaited re-construction work was growing. In 1946, using remaining pieces and spare parts, the first 'Nachkriegsbagger' (post war excavators) were assembled. And slowly the construction and design department started to work again. As a symbolic sign of the new beginning, the new types of excavators received a nomenclature combination of letters and numbers denoting the bucket capacity in cubic meters for the first time. This was also the case in 1950 on the then largest universal excavator, the M 250, which had been especially designed for large earth-moving applications. Menck was able to sell around 40 units before 1955 when the re-developed M 251 type was introduced.

With its 80-t working weight, this new excavator was a very impressive construction machine and would build on the success of its predecessor. For it 'the contortion free and un-bendable welded steel construction of the upper carriage' was designed to be especially robust. The transmission of power from the engine to the winch system was done by cog wheels which ran in a closed-in oil pan. An overload protection for the engine as well as the winch system was ensured by a surface slip clutch on the slewing gear box shaft. For extra heavy work situations an optional torque converter could be built in.

Diesel or electric

A powerful 12-cylinder diesel engine with 245 hp or, alternatively, an electric motor with 166 hp could be installed as a power source. Until 1962, the under carriage of the M 251 had four running wheels on each side on which the excavator was able to move at a speed of about one kilometer per hour. After that, an optional five-axle chassis was available which further increased the footprint of the excavator while reducing pressure on the ground. Additionally, wider track shoes were available. A proven detail which the developers of the M 251 were able to take over from the large Menck quarry excavators was the patented slewing connection between upper and lower carriage which had a slewing ring with a tilt sill and moveable middle bearing.

The usual tool attachments for a universal excavator were also available for the M 251. A version as a high-rise crane was available. However, in most cases the excavator was supposed to come with a front scoop bucket as well as the lattice mast outrigger arm. For this, in addition to a variety of grappler attachments, so-called 'Record' buckets were available. Up until 1964 Menck called its drag buckets 'Record buckets,' thus an accordingly equipped M 251 was a drag bucket excavator which could be purchased with the maximum boom length of 28 m. According to the technical description, for this configuration, longer cables were necessary therefore special order

'abnormal winches' were required. At the outrigger base plate, the drag line ran over rope-protecting large angled sheaves which had special profiles. The drag line bucket had a set of 'teeth' made from manganese high carbon steel; its largest size was able to contain up to 3.2 m3. Such a full drag line bucket could quickly weigh up to 8.9 t! In order not to lose its balance, the M 251 had two ballast boxes with 14 tons of counterweight ballast in them. In addition, there was the 5.5 t ballast block with the Menck logo on it. Well balanced and secure, the drag line bucket arm could then be extended to 33 m. Digging depths of up to 17 m were also possible. 'Whether all of the excavator's capabilities can be realized depends upon the composition of the ground and the know-how of the operator,' wrote Menck at the time in the instruction manual for the operator. The driver had sufficient technological support to make slewing and boom manoeuvers independent of each other because of the separated slewing mechanism.

Overall, on the M 251 a lot of thought had been given to the operator during the design stage. The machine had the comfortable, small, Menck shifting levers and the driver sat in the cabin which had safety glass windows where engine and winch were separated by a sound isolating wall. A hot air heating system, independent of the engine, ensured a comfortable room. Of course, all these refinements came at a price with Menck asking around 260'000 DM for this excavator in 1965. Together with the successor M 260 model introduced in 1966, a total of 80 units were sold up until 1972. With the fully hydraulic M 750 H then under design, Menck wanted to offer yet another excavator in this performance class. Unfortunately, the plans came to naught because of the sudden closing of the company in 1978. However, the idea lived on because this excavator would mark the beginning of the very successful line of Liebherr hydraulic cable-operated excavators.

Landfill dozer conversion

Cat D7E WD

by Urs Peyer

A 3D-printed conversion kit makes it possible to build a so-called 'Garbage dozer' using the D7E as a starting point. A clear case for our conversion specialist …

Caterpillar, Komatsu and other producers make models of 'landfill dozers.' Here in Europe, they are now rarely in use but on huge landfill sites in the US and other places in the world they can still be found working alongside articulated garbage compactors. Caterpillar has built them since model D6. Compared to a standard dozer, the first thing that catches the eye is the huge overflow protection grille on the blade. The whole rear of the dozer is covered in cladding. As well as a towing coupling there is also a so-called 'striker bar', a kind of scraper which prevents metal parts from being pulled up by the tracks and then damaging the diesel fuel tank. To service the area, the cladding opens like a closet. The D7E WH Landfill Dozer, shortly to be replaced by the new D7, brings around 31 t to the scale.

As with the Ford F-250 conversion in the last issue, here too it was the American Jay Roltgen who produced the 3-D conversion kit which I used for this project. According to current information, Jay wants to open his own Online-Shop soon. The kit contains two parts: the overflow protection fence and the

rear cladding. They are designed to fit the D7E model which was produced for the first time by Norscot. To make the conversion kit project more interesting, the newer D7E with the angled blade from Diecast Masters has been used, however, some of the parts from the older D7E are also required.

Dis-assembly

The blade is removed by loosening the screws on the push frame arms. Attention must be given not to damage the hydraulic hoses because most of them will be re-used. By loosening a further two screws, the engine housing and the cabin platform can be removed. The black radiator cowling and the plugged-in hydraulic line hook-ups must be carefully removed by pushing them out with a pin punch. I was able to remove the rear winch by drilling out the rivets holding it. I completely drilled out the first (only hinted-at) ø 1.6 mm hole for the rear ripper attachment and also carefully removed the valve block for the winch.

The rear end drive of the new D7E, being only plugged in place, makes it possible to optimize it in the construction of our conversion. I loosened the cover on the sprocket with a craft knife. The unfortunate breaking of both bolts during this step did not turn out to be a catastrophe at the end. I carefully pulled out the inserted bolt under the cover with a pair of side cutting pliers and drilled out the hole of the bolt with a ø 2.0 mm drill bit so that a ø 2.0 mm rod could be pushed through both rear end drives. Great care has to be taken in order for the drilled hole to be exactly horizontal (picture 2).

The blade of the older D7E could be taken off in just the same way as on the new one. All rivets on this blade needed drilling out.

Assembly

'Of course,' the 3-D printed part for the rear cladding did not fit between the rear ripping attachment brackets as designed. This means that about 0.5 mm on the inside of the brackets had to be filed off. The rear cover was positioned flush at the top and below in such a way that between striker bar and grouser plate around 1 mm space is left. The middle hole of the ripping attachment bracket was drilled out and the cladding secured with two bolts. Taking advantage of working at the rear, I drilled out the towing eyelet at the rear cladding with a ø 0.8 mm drill (picture 3).

Since both of the bolts from the covering for the rear end drives were broken off, an appropriate ø 2.0 mm ABS plastic rod was glued into the drill hole (picture 2). The covering was not glued to the sprocket which made the re-mounting of the crawler tracks easier.

The push frame arms were cut to be flush where they form an almost three-quarter-round metal part and are attached to the crawler frame. I replaced them with a 2.0 mm long tube (ø 4.0 mm). Instead of using the screws from the model, I attached two pushing arms on the frame with two hexagonal screws; optionally, turned, scratch-made bolts could be used (pictures 4 and 5).

I took the tilting cylinder from the newer D7E for the right-side pushing arm. The rigid connection to the blade on the left side remained. At the connecting part between lifting cylinders, the two rocker arms that stabilize the blade had to be filed down by 0.5 mm (picture 6). In order to attach the connecting piece to the overflow protection grille, I drilled an appropriately deep hole to receive the bolt (picture 7).

To guide the hydraulic lines prototypically correctly at the backside of the blade, I attached a 12 mm long ABS profile (2.5 x 4.0 mm). It receives the two hydraulic lines of the tilting cylinder as well as those from the radiator cover. For this, I drilled two ø 1.0 mm holes at both ends. Only after the whole model conversion had been painted was it possible to attach the part with a ø 1.0 mm rivet (pictures 6 and 9). Because the conversion kit is designed to fit the older D7E from Norscot, in the end the lifting cylinder had to be taken from it because as the newer one is too wide at the end (picture 8).

In order to use up leftover parts, it is possible to attach the rear winch and the angled blade to the older D7E.

Material list

ABS profile	2.5 x 4.0 mm
ABS tubes	ø 4.0 mm and 1.6 mm
Brass rod	ø 2.0 mm
Brass screw	2 x M 1.6 mm with hexagon head

Do you know this construction machine? Recognize it and win a model!

by Remo Stoll

It gave me a great deal of pleasure to see this old-timer still at work. Its job was to move the larger rocks from a field to the forest border. This dumper, made between 1976 and 1979 belonged to the earlier types of this genre of machines and was only the second type of 6x4 made by this builder.

Recognize the machine? Please send us the exact name and type designations. The contest deadline is August 15th, 2021. We will hold a draw to select winners if there are more correct answers than prizes. Please note that only entries with complete mailing address information can be considered so that we can mail the prizes out correctly.

This time the winners will receive exclusively only brand-new items from this issue: the Liebherr A 922 Rail from NZG, the MAN TGS 6x4 Winter service/ Municipal vehicle from Conrad or the Cat D11 in 1:87 from Die-cast Masters.

Solution from Trucks & Construction 3-2021

The crane lorry in question was a Scania LA82, ex Swedish Army. The winners this time are: Thomas Scholz from Lüdenscheid, who won the Liebherr TA 230 from Conrad; Markus Thalmann from Wil/ZH, who won the Komatsu PW 148-10 'Black Edition' from Universal Hobbies; Jürgen Precht from Stockelsdorf, who won the Amman ARS 110 roller from USK. Congratulations to all the winners!

The green ones from Ulm

Cranes by Reich

by Wilfried Schreiber

In 1954, in Ulm a.d. Donau, Wilhelm Reich founded the company which bears his name. It produced stationary mixers, conveyor belts, construction site elevators, construction site accessories and cranes ...

The first cranes built at the Reich factory were those with luffing jibs, as was usual at that time in Germany. The type designations which denoted total reach maximum carrying capacity were either 13/650 or 16/875. However, these cranes differentiated themselves from their competitors by the gearbox which ran in a sealed oil bath. They also had helical gearing for the lifting mechanism in combination with the then newly-invented slewing rings which ran on ball bearings.

At the end of the 50s and the beginning of the 60s, the designation of the successor models changed to types F9 up to F40. Among these appeared, for the first time, F 17 and F 26 cranes with telescoping towers a conical tapered inner tower. The new N and L series followed after the mid-60s; some telescoped and on other models the tower was folded on the sides to make transport possible. The N series were again luffing jib cranes like the second-largest N33/40 shown here. The L series at that time had the first two self-erecting cranes with trolley, L6 having a sideways folding-down tower and L 10/12 and L 12/14 both with telescoping towers. Just like the luffing jib cranes, these had gravel ballast boxes and could be transported like trailers on an axle with a steered trailing tail wheel.

But, in 1970 came a breakthrough for the shiny green cranes with the red or orange cabins would which slowly displace the luffing jib cranes with adjustable outrigger arm: the new L and RS series. These types already had concrete slabs as ballast and were the real quick erection cranes of their period.

The first of the L series was the L 22/28 which had a very long lower chassis with two cross beams that folded out. On the end of the beams were the trolley's rail wheels. These had to be swung out for operation on the track which was not always easy to do. If the crane was operated stationary, these beams remained unfolded and the crane stood on four small, stumpy folded-out legs with adjustable jack screws (see pictures). The outrigger arm was in two parts and had to be folded sideways which required a lot of space. Due to these reasons, the crane was modified in 1972 to have a spreader beam chassis which was also usable for other crane types of this series. Transporting axles could be bolted on to each end. The outrigger arm was lowered frontally from the crane.

On this basis were produced the larger brothers of the crane, the L 27/34, 30RS30, 40RS60 and 50RS80. The later ones had a special feature which allowed for additional tower pieces to be added to the lower part of the tower to increase the overall height, measured at the hook. For example, on the 50RS80 it was 41 m. The maximum extension of the arm was 40 m at which distance it could still lift 1500 kg.

The L 13 was the smallest self-erecting crane of that epoch and was a successor to earlier self-erecting cranes with gravel ballast boxes, the L 6, L 10/12 and L 12/14 (see picture). Like the first top slewing cranes from Reich, the R 350 and R402, the L 13 was built under license from the Italian crane producer Comedil. The last self-developed crane from Reich was the top slewing RSTK. With it, crane production at Reich ended at the beginning of the 80s.

They still distributed cranes with the RS designation under license from PKZ but only built their own concrete mixers, concrete pumps and stationary mixing plants until the whole factory eventually closed down completely. A few of the former construction designers from Reich changed over to Liebherr in the neighbouring village of Biberach where their excellent crane designing know-how was very welcome.

Models

The models shown in the pictures are plastic models in 1:50 scale. The N 33/40 and the L 22/28 are co-productions from Lothar Unfried and the author. R 402 and L 13 were built by Lothar Unfried. The 40RS60 was built by Ralf Bömichen and the L 27/34 is a 3D print from Tobias Schmidt who has been offering small series of construction cranes in 1:50. All models are as functional as the original.

Tunnel construction in 1:50 – part II

Mühlbergtunnel

by Markus Lindner

Having demonstrated how the construction site at the tunnel portal was cleared and readied, the work to excavate and secure the approach cut sides can now begin …

The approach cut is located in the area in front of the tunnel portal where the road is located. It is not high and solid enough to be underground in a tunnel. Especially of note is the way in which the construction pit sides are secured against slips. Securing the site with shotcrete is a common method, especially for tunnels in mountainous regions. However, for tunnels in towns and environs the more common civic engineering solutions are the slotted and bored wall piles. In the end, the decisions for which method to use is governed by geological aspects of the site and the actual local situation.

In the case of the south portal of the Mühlbergtunnel, quite a common method is employed: the approach cut is excavated down to the bedrock and the sides are secured with a tied-back shot concrete wall with re-bar. The actual approach section is situated in a depression of the landscape which has been filled up over time with high clay content rubble and marl. Here, the construction site must be secured over a longer distance with a parallel-running drilled pole wall. The work to erect this wall is among the first civic work that has to be undertaken and was made possible by the preparation of the site as described in the last installment. The most important machine in use is a Bauer BG 24H rotary drill rig (Bymo) with Kelly equipment. Using this, the poles are driven down into the predrilled holes in the ground. The walls of the drill holes are lined with pipes to prevent to collapse. The pipes matching the machine were scratch-built from electrical conduit of suitable diameter and its feet and rims are made from milled plastic parts.

The spoil from the drilling process is carted away with a wheel loader or, as shown here, with an excavator and compact dumper. The concrete poles are armed with re-enforcing bar cages. How to build these was described in previous issue. Inserting them could be done with a pile driver attached to the auxiliary winch of the drill

rig. To speed up construction a much quicker way is to use another machine for the lifting thus allowing the drill rig to advance to the next hole. Here, a Sennebogen 613 excavator on tracks (Ros) is used. It also comes into play for the concreting in of the poles being used to position the chutes for the pouring of the concrete for the poles. When the work on the concrete poles has progressed further southwards from the portal, the work on securing the sides of the cut with spraycrete can commence.

For the dry spraycrete method it is necessary to have the following machinery on site: a concrete silo with mixing plant from M-Tech (a conversion using the Conrad M-Tec silo model) and a powerful compressor like the XAVS 448 from Atlas-Copco (scratch-built from plastic) which is transported on a roll-off platform to where it is needed.

The subcontractor doing the actual work has decided to use a walking excavator to handle the spraycrete manipulator for the concreting job which, considering the many rocks in this difficult terrain, is well-though-out choice.

The model of the Morath spraycrete manipulator was also scratch built from milled plastic parts and some metal details found in my spares box.

Quick setting repair mortar as can be found in any home improvement store is used to model the spraycrete securing the side. The mats that are needed to give the spraycrete something to adhere to are fiberglass patches such as used in dry walling, painted rusty brown.

The spraycrete layer is then secured with anchor bolts deeply inserted into the rock beneath the mats. For this, the excavator employs a drill carriage attachment which I also made from milled plastic parts following a prototype by Comacchio.

For now, that is all about the special civic engineering machinery used in the approach cut. We will dedicate the next installment to equipping the construction camp which runs and grows parallel to the ongoing construction.

Our partner page

Cross-cut saw for above-ground stone mining

To open a new section in our quarry, we had to change our mining method. After visiting several other quarry operations and observing the various machines in use, we decided on a cross-cut saw from the Fantini company. The blade arm has a length of 5 meters which allows for cuts up to a depth of 4.8 m. We ordered the machine from Italy following its arrival on the specified date we put it into service. Our Cat 345 positions the saw at the place where a new cut is to begin. After the length of the blade arm cut is complete, the machine lifts itself up using its own hydraulic cylinder and pushes the underneath slide-along track forward. This allows for independent work. So far, we are very happy with the system and performance of this machine.

Excavator for EbiMIK

Four heavy-duty transports were necessary to transport the 93-t Sennebogen 865E Hybrid from Bavaria to Switzerland. The 865 of the E-Series is a new material-handling machine based on the proven 860E model. Environmentally friendly operation of the excavator is accomplished with an electric motor which produces 250 kW of power. A 20 m long cable and a motorized cable drum allow for a secure power supply and sufficient moving room along the designated track. The machine is equipped with a 5.4 m wide tracked chassis, a 12.3 m long 'Banana boom' and a 9 m long grappler jib. The 865E at EbiMIK will pre-sort the delivered mixed deconstruction rubble. At the same time the Sennebogen excavator will feed the 75 t Sizer which crushes the mixed waste into rough chunks. Beginning in September 2021, the new construction waste recycling center of EbiMIK in Oberglatt near Zürich will process mixed construction waste into high-quality, high-value secondary raw products with the help of robotic technology thus setting a milestone in the recycling economy.

New on the market

Conrad 1:50

The new MAN TGS has just been released as a 6x4 municipal vehicle for winter use; one can almost speak of a set because the equipment that comes with the lorry is very extensive. The functionality is also very high: on the spreader attachment the actual spreader and ladder fold down and the auger is

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
Caterpillar 6060 in two versions	1:50	CCM	Dealers	www.ccmodels.com
Liebherr MK88 «Spiegl»	1:50	Conrad	Dealers	www.conrad-modelle.de
Faymonville Combimax set, new logos	1:50	Conrad	Dealers	www.conrad-modelle.de
Kobelco SK135SR-7 for Japan	1:50	Conrad	Dealers	—
Liebherr R960 demolition «Avenir Deconstruction»	1:50	Conrad	Exklusiv	www.giftmodels.it
Demarec demolition multi system set	1:50	Demarec	Dealers	www.fmb-shop.de
Mack B-61 4x2, resine, 5 different colours	1:50	Fire Replicas	Dealers	www.nzg.de
Mack R 4x2 dump truck, resine, 5 different colours	1:50	Fire Replicas	Dealers	www.nzg.de
Liebherr LTM 1250-5.1 «Megalift»	1:50	IMC	Dealers	www.imcmodels.eu
Demag AC 700-9 «Ponticelli», «Aertssen»	1:50	IMC	Dealers	www.imcmodels.eu
Demag AC 250-5 «H.N. Krane», «Markewitsch»	1:50	IMC	Dealers	www.imcmodels.eu
Demag AC 45 City «Radek Malina»	1:50	IMC	Dealers	www.imcmodels.eu
MB Arocs 8x4 / ballast box «Hegmann»	1:50	IMC	Dealers	www.imcmodels.eu
MB Actros 6x4 / lowloader «H.N. Krane», «Schoones»	1:50	IMC	Dealers	www.imcmodels.eu
MB Actros 6x2 / Nooteboom OSDS «Westdijk»	1:50	IMC	Dealers	www.imcmodels.eu
MB Actros 8x4 SLT «Richter»	1:50	IMC	Dealers	www.imcmodels.eu
MB Actros 6x4 / Nooteboom MCOS «SE Levage»	1:50	IMC	Dealers	www.imcmodels.eu
MB Actros 6x4 / Nooteboom MCOS «Nooteboom»	1:50	IMC	Nooteboom	www.nooteboomshop.com
Scania 144 6x4 «Mc Fadyens»	1:50	Tekno	Dealers	www.tekno.nl
Scania R 4x2 / stone trailer «Verheul»	1:50	Tekno	Dealers	www.tekno.nl
Mack F700 6x4 / ballast box «Doornbos»	1:50	Tekno	Dealers	www.tekno.nl
Iveco S-Way 6x4 / low loader «Universal»	1:50	Tekno	Dealers	www.tekno.nl
Liebherr LTM 1750-9.1 «Havator», «Johnson & Young»	1:50	WSI	Dealers	www.wsi-collectors.com
Liebherr LTM 1500-8.1 «Huationg»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania R 8x2 / Fassi 1100 «Affolter»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania R 6x2 / Palfinger PK 92002 SH «Aaltonen»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania R 8x4 / Palfinger PK 92002 SH «Ørjan Orra»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania R5 10x4 / Palfinger / flat bed «Jenniskens»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania R 8x4 / Broshuis SL 100 «Felbermayr»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania R5 6x4 / semi low loader «Zwagerman»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania 143M 6x2 / stone trailer «van Klooster»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania S 6x2 / truck transporter «Geurts Trucks»	1:50	WSI	Dealers	www.wsi-collectors.com
Scania 500S 6x2 / stone trailer «Gebr. Henken»	1:50	WSI	Dealers	www.wsi-collectors.com
Volvo FH4 6x4 / Nooteboom Euro-PX «J. Thygesen»	1:50	WSI	Dealers	www.wsi-collectors.com
Volvo FH4 6x4 / low loader «Pedersen», «Transport Service AS»	1:50	WSI	Dealers	www.wsi-collectors.com
MB Actros MP3 8x8 / Palfinger / ballast «Mammoet»	1:50	WSI	Dealers	www.wsi-collectors.com
MB Actros MP3 8x8 SLT «Megatranz»	1:50	WSI	Dealers	www.wsi-collectors.com
MB Actros MP4 6x6 / Nooteboom MCO-PX «Zwissig»	1:50	WSI	Dealers	www.wsi-collectors.com
Renault T 8x4 / Palfinger / flat bed semi trailer «O'Neill»	1:50	WSI	Dealers	www.wsi-collectors.com
Renault T 6x4 / Nooteboom Euro-PX «Friderici», «J26»	1:50	WSI	Dealers	www.wsi-collectors.com
DAF XF 4x2 / stone trailer «M. Way»	1:50	WSI	Dealers	www.wsi-collectors.com
FTF F Serie 6x4 / stone trailer «Berns»	1:50	WSI	Dealers	www.wsi-collectors.com
VW BF3 «Flossdorf»	1:50	WSI	Dealers	www.wsi-collectors.com
Volvo FH4 6x2 / Nooteboom Euro-PX «Mammoet»	1:50	WSI	Mammoet	store.mammoet.com
Renault T 6x4 / Nooteboom Euro-PX «Karsten Olesen»	1:50	WSI	Nooteboom	www.nooteboomshop.com

visible under the cover. Hydraulic cylinders position the snowplow. Both the spreader and the plow are removable so that the vehicle with its attached loading crane may be used during summer time. The first and last axle are steerable and the trailer coupling at the rear makes it possible to use the lorry to pull trailers.

Diecast Masters 1:87

The supplier for Caterpillar models has not forgotten the friends of 1:87 scale. The D11 of the new generation was especially anticipated. The model runs on detailed rubber tracks and has been augmented with many free-standing details. The mighty blade is adjustable and is particularly nice with its pierced overflow protection fence. The three-tooth ripping attachment at the rear has been simply but correctly made and reaches an acceptable ripping depth. The paint is very cleanly applied and the new, printed-on logos are very sharp. Now we look forward eagerly to the Cat 6060. The model of the Cat 336 looks almost diminutive beside the dozer but it has no reason to avoid shining a light upon its features. The very nicely executed modeling of the design shape augmented with dainty-looking handholds, rear view mirror and finely printed-on lettering give it the current look, even though the hydraulic lines are missing. Our friend Bob operates both machines.

GEM 1:50

The 8.12 t HDG 820 demolition and sorting grabber from Hydraram is designed for use on excavators of 80 to 140 t. For optimum protection of the hydraulic components, they are integrated into the attachment protected with a metal casing below. The very exactly-made model from GEM (see also the article of pages 24/25) is fully functional. The grabbing clam shells are pierced. Their workmanship is very clean and the hydraulic cylinders are visible from above. Painted in the original's colours, these grabbers also make and ideal freight item because of their size. The attachment pad is 12.0 mm wide; bolts for mounting are included.

Kobelco Fanshop

The Kobelco Fanshop has a surprise exclusively for all readers of Laster & Bagger (Truck & Construction) this summer. Those who order models or other merchandise from the shop by July 30th, will receive a 5% discount. Mailing costs are excluded from this offer. To receive this discount, enter the 'Bagger5%' code at the checkout. (www.kobelcofanshop.com)

News in brief

Iveco T-Way introduced

The Iveco T-Way was introduced on April 28th as a successor to the legendary Iveco Trakker construction vehicle. The chassis is available from a 4x2 up to an 8x8 configuration with power options up to 510 hp. Also available is a version with hydrostatic front-wheel drive which allows for a larger payload, with good traction. The 'T' from T-Way stands for tough. Iveco promises that the T-Way lorry is up to any challenge and it cuts a good figure on any construction site, even one with the most difficult terrain. At the same time, the lorry is said to be very safe; as well as helpful assistance programs, there are disc brakes on all wheels. The driver-friendly cabin is available as the small Active Day (AD) or as large Active Time (AT) versions. With the presentation of the vehicle during a Live-Stream event, the renewal of the Way heavy-duty lorries from Iveco is now complete. (eu)

New DAF XF, XG and XG+

Just before our publishing deadline, DAF released the news of the construction series XF (picture), XG and XG+. For optimal aerodynamic shape and therefore most economical fuel consumption, the new cabin grew forwards by 16 cm and was lowered by 7.5 cm. A change in the EU law to lower CO_2 emissions made this extension possible thus profiting the XG series. The series offers the new Top cabin which differs from the XF by being

33 cm longer at the rear, and higher by 12.5 to 22 cm. Besides the new grille and a larger windshield, the new front lights and the turning window on the co-driver side are noteworthy. The design of the sides picks up the lines of the front and the changed rear view mirror shells complete the new look. (eu)

Caterpillar 992

53 years ago, Caterpillar introduced the first large wheel loader, the 992A, for the quarrying and pit mining industry. A new version of the most-sold large wheel loader became available at the beginning of the year. The new 992 version with its 106 t of working weight is almost twice the weight of the A version. Noticeable is the return from a Monoboom to the proven, two-part lifting gear. The bucket capacity for quarrying is around 23.1 t. With this bucket, it takes four loading cycles to fill a 777G. The new C32B engine has a displacement of 32.1 liters and conforms to the EU exhaust control step V. It produces 607 kW (814 hp). The result of several field tests was that the ratio between payload and fuel consumption had improved by 48%. (up)

Liebherr T 274

Following the 645-t R 9600, Liebherr is now releasing another pit mining lorry, the T 274 which is capable of a 305-t payload. The new rigid frame tipper closes the gap between the T 264 (240 t payload) and the large T 284 with a 363-t capacity. The diesel-electric engine is capable of generating a massive 3,650 hp. The mining operator has the choice between a 20-cylinder MTU engine with 2720 kW and a 16-cylinder MTU with 2400 kW. To lower the emissions of this huge engine, the Trolley-Assistant System developed by Liebherr is available. Driving the lorry with overhead wiring has been very successful with the 38 T 284 lorries currently using it. (up)

Komatsu PC5500-11

After the PC4000 (Minexpo 2016) and the PC7000 (Bauma 2019) the PC5500 is now the third mining excavator from Düsseldorf on which an update to Series 11 has been made. Depending on the equipment attached, the operating weight ranges between 533 and 552 t. The loading capacity of the front or backhoe buckets is around 29 m^3. Each of the two 12-cylinder engines from Komatsu complies with the newest exhaust control regulations and produces 940 kW (1233 hp). Since the former Demag H455 S morphed into the PC5500, Komatsu Mining Germany has been able to sell 179 units of the giant excavator. Combined, these units have clocked around 7.8 million work hours. (up)

Mercedes-Benz GenH2 Truck

Following Mercedes-Benz's announcement of the GenH2 hydrogen lorry, the vehicle is now driving the test circuit. It will be tested on public roads later this year and tryout trips for customers are scheduled to begin in 2023. Martin Daum, CEO of Daimler Truck AG, stated that the tests with the GenH2 Truck had a successful start.

The goals are to have a range of 1,000 km or more without refueling stops. The focus of the test series are now continuous operation, variable weather and road conditions as well as specific manoeuvers with the vehicle. Since it is a completely new concept vehicle, all the new components must be thoroughly tested. Because Daimler wants to use liquid hydrogen, a range of new systems had to be designed. Currently, the GenH2 Truck is temporarily operating with hydrogen gas. (eu)