Laster & Bagger

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Mit Wettbewerb

TMC 1:50

## Hitachi ZX 690LCH & ZW 180

Eigenbau 1:50

## Volvo F725

**English text**

**WSI 1:50**
**Volvo R100E**

**Sammlerporträt: Kunterbunte Lastwagenflotte**

**Diecast Masters 1:50**
**Cat D7 Evolution Set**

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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".**

## Use everything that's on offer

Those who can remember the picture above belong to the very faithful readers of Trucks & Construction, at that time called Construction Modeller. With this picture from six years ago I wanted to draw attention to the white squares with the so-called QR-Code. Since 2013, Trucks & Construction has been a multimedia magazine and it is about time for me to mention this once again.

QR-Codes can be read by any Smartphone to link you to a website. In our case, a link to movies about models introduced in the magazine. For example, would you like to see the original of new model Hitachi ZX 690LCH-6 at work then just scan the code on page 17 and enjoy up to 15 minutes of this machine in action and with sound! In order to avoid giving you headaches when watching the films, whenever possible, I am linking only to film clips that have no camera shots that 'wiggle' or have distracting extraneous noises.

If you are a reader of the digital issue, just tap your finger on the code. In any case, it pays to use this additional free feature.

Newer smartphones have the QR-Code reader already installed; older ones need to download this free app: for example, t-online recommends 'QR Droid Private' (for Android) or 'Qrafter' (for iOS).

Another free feature which is only quite rarely used is on page 43. It is the classified section with private ads which are free for subscribers, by the way! Sell your models or search for them. Both features function well, as the feedbacks show. Of course, a pre-condition for this is patience because speed wise, our small ads cannot keep up with eBay and Co.

Use these free features and get more out of your subscription.

I would like to wish you all a lot of fun while reading this issue.

Daniel Wietlisbach

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## Marcel Erb collects what he likes

# A colorful collection

by Daniel Wietlisbach

**Marcel Erb is an enthusiastic collector of 1:50 trucks. Before he limited himself to this segment of collecting he had an interesting journey through the world of a variety of modeling scales ...**

Together with his sister, Marcel Erb grew up in the picturesque village of Blumenstein near Thun (Switzerland) at the foot of the Alps and he still lives there today. His father worked as a crane and excavator operator on a Liebherr tower crane with counterbalanced arm which left an inedible impression on the youngster that would last for a lifetime. Even today, Marcel is a great fan of the Liebherr brand and the only display case with construction machinery is populated in the main by models of it. The young boy was not allowed to drive himself, however, he regularly helped his father with maintenance work on weekends.

Marcel found everything that moved on roads interesting. In the municipality where he lived there was also an excavator company which used to transport their Menzi Muck walking excavator to the construction sites in the dumping bins of their Volvo N 88 4x2. The company also had a garage with a car dealership which still exists today but now they have the dealership for so-called Mini tracked transporters and small excavators from Takeuchi.

While many of his school friends played soccer in their spare time, Marcel preferred to occupy himself in the sandbox with his trucks and Siku construction machines. Some of these have even survived and quite clearly show signs of enthusiastic play. He got most of the toys as presents and still remembers a large tinplate truck he wished for and finally got from his godfather.

Even though a career as a driver seemed to be logical and was within his interests, he decided to apprentice as a construction carpenter. The then-expected long hours of overtime at the wheel of a truck had taken the shine, even the glamour, off this interesting job. Marcel wanted to have time for his hobbies after the end of the working day.

### First collection in 1:24 scale

In a warehouse in Thun, fifteen-year-old Marcel discovered two kits from Italieri which were offered at half the original price. Without any previous kit-building experience, he purchased the two tractor truck kits for a Volvo F12 and a Peterbilt 378 and immediately began putting them together at home. As his 'beginner pieces' they were finished just 'out of the box' as one would say today, without any modifications, because the young model builder had to get some experience first.

These were not the last ones and soon the collector began to adapt his models according to his wishes, to paint them in wished-for color schemes and even lettered them with specially ordered water slide transfers. During the next few years he continually refined his handicraft. The pinnacle of that development was a truck and trailer set modelled down to the last detail, exactly as on the original. At that time a friend of Marcel was at the wheel of the original Scania 113M. This made it possible for Marcel to study and measure all the details and take pictures of them without being rushed. The model is an exact copy of the original, down to the smallest decal on the front fender. The wider tires of the trailer where then not available commercially; they had to be made up by cutting up two standard-size tires and re-assembling them. At the beginning of the project Marcel kept track of the hours spent on it but gave up counting at hour 120.

Also created were some of the vehicles of the very well-known transport company of Martin Wittwer (a friend of Marcel's) from the neighboring village of Wattenwil. That is how the collection grew continuously and needed more and more space.

## From 1:87 to 1:50

2003 was a year of change. Because, even as a carpenter on construction sites, the overtime hours grew more and more and the amount of stress increased; Marcel searched for alternative employment. He found it at a recycling company where he was paid to learn how to drive a fork lift and also to take classes in metallurgy. This is the material he is mostly working with today. Later on, he was able to train as and excavator operator on a Fuchs 331MHL material transfer excavator.

Marcel is enthusiastic about Fuchs machines and the tilting cabin has a wonderful side bonus. From high up he was able to observe the goings on in a nearby company compound during his breaks. It was the yard of the Komatsu importer Kuhn, which regularly received new machines via the Netherlands. The transports from Holland were made by the easy-to-recognize orange vehicles of the well-known transportation company 'Vlist'.

Not only in his profession, but also his personal life took a new direction. In 2003 he married his wife, Jing, and two years later, with the birth of his first child and four years later with the second, founded a family.

This of course had far-reaching consequences for his model building which was very time intensive and needed more and more space. Because family was important for Marcel, and he wanted to spend every free moment with his children, the hobby came to a stand-still and he looked around for space and time-saving alternatives.

That was when he discovered models in 1:87 from AMW, Herpa and, of course, Saurer models from Roskopf. Even though the models from that time are still around, the collector soon changed to the more valuable-looking metal models in 1:50. He already knew about these from a few Scania promotional models from Tekno.

When, in the window of a store in Berne specializing in such items, he discovered a Corgi model of the Scania 144L V8 silo tractor-semi trailer 'Ian Hayes', he was thrilled. This became the first, but not the last, Corgi model in his collection because the English producer was a 'nose ahead' as far as the shaping of the cabins was concerned. On top of that, Marcel liked the colors and the extensive lettering of the English models. He therefore regrets very much that Corgi has stopped producing models.

## Only models in 1:50

After his boss, a woman, unfortunately died much too soon, and because nobody was there to continue, the company where Marcel had worked for the last 10 years was wound up and sold. He changed over to a larger recycling company, where, once again, he works in the old metal department. For the last five years, using a Fuchs MHL320 he has fed scrap metal into a metal shredder and crusher with 500 tons of crushing power.

His collection continued to grow and the focus soon became apparent: Scania. Today, the collector does not remember where his enthusiasm for the Swedish brand came from: 'it was simply just there!'

Marcel Erb quickly learned that models have to be ordered when they are announced if one does not want to miss out. He visited swap meets in Switzerland and abroad and met several dealers that he trusts and orders models from. Through a collector friend, he finally got to know more about Tekno and later on WSI. Later on, they visited the truck races on the Nürburgring (Nuremburg) race course together. At the races there were also stands with models for sale and he even drove all the way to the Netherlands to the well-known large swap meets.

He estimates that today his collection contains about 1,000 models. Even today, the collector

## The collector

Marcel Erb (48) trained as a carpenter and later became a material transfer excavator for several recycling companies.

He never gave up on the carpentry but now it is a hobby for him and he works on his own home, so that it is always up-to-date. He and his wife Jing are the parents of Ken (14) and Justine (10). He is open to visits from like-minded collectors, who should book an appointment with him by telephone: +41 (0)79 374 19 80

does not want to limit his collecting efforts and the only thing that counts when he is thinking of buying a model is that he must like it. That is why the models in his glass display cases are very colorful but are set out in exact order. A wooden measuring stick is used when setting up the models for display to make sure the parallel distances between them are all the same. He collects heavy-duty transports and freight hauling models of internationally active companies. For him it does not matter which kind of semi-trailer is pulled by the tractor truck in front. Here too, models that are not true to the original in all details do not bother him: "Whether a truck has two or four horns on the roof is known exactly by only a very few!"

Today Marcel Erb orders most of his models over the Internet because the swap meets have lost a lot of quality merchandise for his collecting interest. There have been hardly any problems receiving goods by mail and anyway, he knows all the dealers personally.

Housed in one of the display cabinets is his construction machinery collection which dates from the beginning of his collecting. Construction machines are his preferred load on the low-boy trailers. The current hobby room has existed only since 2008. At that time, the garage was renovated and the possibility occurred to him to add an extra basement room under the garage. After that, the first four display cabinets were ordered and finally, the beautiful models that until then lingered in their boxes, could be adequately displayed. Nowadays, the cabinets have grown to nine in number and the room for even 1:50 models is slowly becoming scarce.

But stopping collecting is out of the question for Marcel. One solution would be selling off his 1:24 collection, but he put a lot of effort into it and is emotionally attached to the models. Only the future will show what kind of solution is to be found.



## Volvo F725 with Forss-Parator trailer

# Lia Sagbruk

by René Tanner

**Despite there being a larger brother, the F7 was my favorite, possibly because of the color scheme or the accessory variations. Most of them had roof racks, sun visors and the polished Volvo hub caps. Additionally, the blue decorative stripes increased their appeal to me …**

In the past, the advertising announcements for commercial vehicles were really fantastic and the graphics were well done. The Mack F700, the one with the D700 front hood, painted in the patriotic Stars and Stripes finish, was offered by a butler to future customers on a serving salver and so Volvo developed a similar strategy. Its ads showed trucks of the F and N series sitting on the palm of a hand, close enough to be touched! I have always been fascinated by the advertisements!

### Club of four

At the beginning of the 70s, the four partners Saviem, Volvo, DAF and Magirus all faced the same challenge: the construction of all light to middle-heavy trucks required new cabs including the necessary technology (drive train, brakes etc.). The above-mentioned companies got together in November of 1971 to agree on a common

useable construction. For this, a co-operation agreement was signed and in 1971, the 'European Truck Development Corporation' was founded. The co-operatively developed vehicles with tilting cabs reached the market after they were introduced to the public at the 1975 Brussels Motor Show. Every company had its own design for the front beneath the window screen and used its own engines. Among them, only Magirus-Deutz built in air-cooled engines.

The front axles for all the members came from Saviem and the driver's cabins were made by Magirus-Deutz. Volvo, however, had to build their driver's cabins as extra re-enforced versions to comply with the Swedish safety standards. At the same time, the 'club of four' set a milestone with the internationalisation of European utility vehicle markets. The external design of the 'club of four' was greatly influenced by the design department from Saviem. This led to a great similarity of the 'club of four' vehicles to the largest French trucks from Saviem. Since Saviem co-operated with MAN in the sector of medium to very heavy trucks, a close similarity of the MAN large truck series to the 'club of four' vehicles existed at that time. The Volvo F7 in the first release was offered with the 213 hp TD 70G as a turbo without the Intercooler. Later followed the TD 70F as a Turbo-Intercooler which gave the driver a respectable 236 hp to play with. Not really a very highly-powered engine for the medium-heavy truck to fill the medium-heavy truck segment. Despite this, the F7 got a lot of recognition and was voted 'truck of the year' in 1979. During the 8 years of production, around 35,600 were made; Great Britain was among the largest markets.

## The Model

My first version of the F720 truck also had the blue striped décor but a little less decorated until I had found suitable picture material to build the model anew. I like the long, 10 m open trailers as they are common in Scandinavian countries. There they are used to transport agricultural products and general cargo. The upper structures with their heavy hinges for side loading and the quadruple sideboard locking mechanism had great attraction for me. So that the F7 could fill its work in the heavy local traffic, I wanted it to be a three-axle chassis version with a trailing axle.

The kit for this truck came, as did so many, from www.asam.co.uk and was offered as a 4x2 with sleeper cabin. The detailing is minimal but, as I have already mentioned a few times in previous articles, the model builder can find at ASAM every conceivable model that is not available elsewhere. A peek at Alan Smith's website is worthwhile in any case.

For the driver's cabin there have to be a few corrections: the front grille, including the front light surrounds, seems visually incorrect and the cabin is seated too deep on the chassis.

The rear fenders on the driver's cabin have been made too small and are attached to the cabin sides. However, the shape is convincing and when all glued together, the cabin looks identical. I have added a new dashboard and matching driver's seats to the minimal interior and several other small parts including the mounting aid handrails. The air intake and the filter cartridge have been given additional details. Also, the separate fenders with brackets and the tilting pump for tipping the driver's cabin forward.

The roof rack parts were made to fit and the silver railing was only glued on after painting. The side wind deflectors to conceal the front radiator a bit better were made from scratch using aluminium sheet stock.

Both chassis alterations were very extensive. The ladder frame on the truck and on the trailer chassis was made from 2 mm plastic profiles. Besides the rear axle fender made from aluminium sheet stock, I paid extra attention to the drive comfort and braking systems: all brake cylinders and leaf springs are equipped with hoses and lines. Spring hanger brackets, spring assemblies and brake shafts were then adjusted and attached. The trailer whiffletree with the level tensioners was soldered together from brass profiles; the tensioning springs were made by bending 0.4 mm florist wire.

Several accessory parts like new tanks from Tekno, tool boxes and spare wheel holder came from my scrap box and the tires from Tekno were combined with Heavy-Goods rims.

## Forss-Parator

The brothers Lasse and Ola Forss founded their company at the beginning of the 30s in the Swedish town of Mjölby. They worked out

of a former 'Bensinstation' (gas station) where the company grew into one that at first concentrated on the restoration of old tires by applying new rubber and then later on built wheel barrows, horse carts and other agricultural machinery. Forss enlarged their production line with cargo transport trailers for the army and from this they started to receive more and more requests for a number of different transport trailers for civilian use, from cut lumber to tank and flat deck trailers.

Due to a contact in the US, Forss took on the dealership for Thermo-King refrigeration units. In the 60s, Forss had over 300 employees. After the construction industry went into crisis at the end of the 60s the brothers decided to sell to Incentive; this company was led by Wallenberg. Incentive merged Forss with ASJ Släp from Linköping and later on added it to the trading company Parator. That was how the Forss-Parator company was born and still continues to produce as BT Mjölby. BT develops technical vehicle components as well as custom-made solutions for the transportation sector. Mjölby Släp, Tankman, Högstads Svets AB und Mjölby Billackering are other companies that belong to the BT group.

Both of the deck assemblies in the Forss-Parator style were made from aluminium sheet stock and plastic sheet stock. The making of the sideboard hinges, the stakes in the middle and the closing mechanisms took quite some time, but optically, the fiddly work is convincing and clearly shows where they were made, just like on the Buscar Scania.

The paint job contributed to the successful over-all impression: the light grey chassis, cream white for the flat decks and the lower part of the cabin and with it the matching blue for the upper cabin parts suits the Volvo truck very well.

A few accessories underline the look of the smaller brother of the F12 well. The illuminated roof panel, two Bibendums (Michelin Men), the Starktone fanfare-style diesel horns, as well a slew of light equipment decorate the F7 to make it a heavy-duty local traffic truck.



## New Hitachi in 1:50 from TMC

# ZX 690LCH-6 & ZW180-6

by Daniel Wietlisbach

**Since TMC has been running the shop, Hitachi scale models have repeatedly received top marks. While so far, the producers have concentrated on excavators, they now are responsible for the first wheeled loader model …**

The 70-ton excavator is being released in two versions, the LCH and the LCR with re-enforced lower carriages for use in quarries. The total weight is between 68.7 and 70.6 t and the available shovel capacities range from 1.5 and 4.0 $m^3$. The built-in six-cylinder Isuzu AQ-6WG1XASA-02 produces 345 kW (469 PS).

The model of the excavator arrives well protected in combination of Styropor and clear plastic half-shell and can be removed from the package with one reach of the hand. It is heavy to hold and looks stable and valuable.

The original has been copied true to scale and the under carriage has been modeled in the fully-extended working position. The drives have been exactly replicated; the

bolted connection of the X frame is detailed and the metal tracks with their three-piece segments turn very smoothly.

The upper carriage is made almost completely from metal castings and shows some carefully thought out details. Service hatches have locks and handles and the air intake grilles are not only printed on but are partially colored too. Especially nice is the pierced radiator grille on the right hand side behind which the radiator can be made out. A hatch to the engine room opens and behind it sits a partial reproduction of the engine. The exhaust, air intake stack and back-up camera are separately mounted. All safety railings as well as the ladder and the rear-view mirror brackets are made from fine metal castings and wire. On our sample, they were bent a little so we had to bend them slightly back into shape. As with earlier models, the running board on the driver's side is made from a flawlessly etched piece of sheet metal surrounded with a solid white metal casting rim.

The cabins on Hitachi models are always something special. The one on the ZX690 does not disappoint. The door opens and turns a prototypical 180° so that the very detailed and multi-colored interior can be studied at leisure. The glass has been fitted very flush but unfortunately, the divider between the two front windows has not been painted. The roof protection grille is not modeled pierced. Working lights, window wipers, antenna and warning beacon complete the details on the cabin.

The excavator is equipped with a 7.8 m outrigger arm, 3.6 m jib and a 4.0 $m^3$ shovel. All supply lines go all the way, are completely free-standing and include an additional hydraulic circuit. Surprisingly, the model surpasses the original's top working height by 10 mm; 20 mm are missing to reach the top digging depth but this will hardly be a concern in a display case. All parts are well copied. The one casting shovel has detailed wear fences and side cutter and five teeth but they are a little bit simplified.

## ZW180-6

With its 14.88 to 15.75 t, the ZW180-6 belongs to the middle-large class of wheeled loaders. It is designed for earth moving applications and is also available with a longer lifting mechanism for industrial use. The capacity of the shovels goes from 2.4 to 3.1 $m^3$. The six-cylinder Cummins QSB6.7 produces 129 kW (175 PS).

### At a glance

+ Metal content
+ Detailing
+ Functionality

The model of the ZW180 also has a high metal content and was made true to scale. The wheel hubs are exactly engraved and the wheels have rubber tires with the same profile as the originals. The drive train has been modeled completely and the rear axle oscillates. The 40° turning angle is maintained by using two hydraulic cylinders. The rear part of the machine is an exact replica and surprises with openable covers made from very fine photo-etched mesh grille on each side. The motor is easy to spot and is detailed. In front of the radiator is a fan which can be seen easily through the pierced radiator grille. All handrails are made from metal on the wheeled loader too.

The cabin is reached on both sides by a ladder and steps and has very flush-mounted glass windows including printed on gaskets. The interior has also been modeled very well and can be easily seen because of the generous amount of glass on the cabin.

The front part of the machine with its exactly made hydraulic cylinders including all the necessary lines is very pleasant to look at. The lifting rack does not quite reach the maximum tipping height and the universal shovel has been produced with an undercutting knife.

The paint job on both models is faultless and they impress once more with the detailed lettering down to tiny decals.

## Tinplate

# Cab-over truck

by Robert Bretscher

**This 'Golden Eagle' truck, article # H-9029, made in 1960 by Marusan-Shoten, Tokyo, has a few different modes of propulsion ...**

Marusan from Tokyo was founded in 1947 by three relatives. Initially, the company only engaged wholesalers and toys distributers until in the 50s the company dared to design and produce toy cars themselves. Marusan had huge successes in the US with a wonderful Cadillac model and its 1954 submarine series that could travel for up to 10 meters under water.

Our approximately 30 cm long Golden-Eagle cab-over truck from 1950 is a typical item from the Japanese toy manufacturing industry. It's simple, colorful construction combined with unexpected technical features guaranteed a high degree of 'play value'. With this kind of production, the Asiatic Toy Makers had no problem keeping up with their European competitors. Therefore, our truck model surprises us with the valuable and ingenious propulsion concept which allows for three different kinds of propelling the truck. These methods are: to push the truck backward and forwards without making any noise; to use with the electric motor which had two 1.5 Volt batteries; if the battery runs out, the model can also be used with the built-in friction motor. And so, seamless transport in children's play-room is guaranteed. Additionally, the three-axle truck has a steerable front axle which is operated by hand. To load oversized loads without any problems the maker has given the model a folding down rear board that is secured with chains. The cab-over truck is decorated on all sides with colorful printed-on lettering. Even the interior equipment, including the driving wheel, is replicated as a color print. On looking closer at the model beneath the fold-down rear wall one discovers: a black and yellow striped warning beam; two red indicator lights; the license plate 'H-9029' written on it which we guess is supposed to point to the article number of the model.

## 95-ton mining dump truck from WSI in 1:50

# Volvo R100E

by Daniel Wietlisbach

**With the Volvo R100E, WSI completes the series of large earth-moving machinery by Volvo. The mining dumper fulfills high expectations ...**

Only a few years ago, Volvo expanded its rigid frame dumper truck line-up with the acquisition of Terex. That connection is not completely new because the Euclid dump truck in Volvo yellow appeared already in the 80s. And finally, the Terex dumpers originally came from the Euclid brand.

The Volvo R100E is the successor of the Terex TR100 but has been completely newly designed and given the unmistakable Volvo logo on the radiator grille. The tare weight of the machine is 69.55 t and the loaded weight is an impressive 164.55 t. A V12 Cummins QST30 CAC engine which delivers 783kW (1065 hp) is the power plant for the unit.

### The model from WSI

That there are almost only large machines from Volvo being made is a consequence of the lack of consistent policy from the producer. Since Volvo is no longer taking a guaranteed number of models from the model-making companies, the consequence of that is that only certain block-buster sale items are being made. The model makers cannot be blamed because, after all, they are taking on the full risk of producing a model.

Even though the lack of smaller models is greatly regretted by collectors, we will now look at the newest large model. This is very heavy because of its high metal content. It is well proportioned which is confirmed by a check of its main measurements.

The wheel rims are exactly engraved and the rubber tire have a prototypical profile. The first thing we noticed after looking at the model was that the axles are sprung which, in combination with the oscillating rear axle, are wonderful to watch in action. The rear indicator lights have been made partially from clear plastic parts. The drive train, inclusive the prop shaft and gear shaft, is completely modeled and the front wheels, steerable using hydraulic cylinders, have sufficient turning radius. Fuel and hydraulic fluid tanks can be found at the massive main frame.

**At a glance**

+ Metal content
+ Detailing
+ True to scale

Of course, the impressive V12 Cummins engine has been replicated and to get a better look at it, the engine hood can be tilted forwards. The radiator grille and both side openings are made from super-fine, photo-etched grilles. For an unexplainable reason, the four front lights, integrated into the engine hood, have not been painted. The cabin platform is reached by steps which are attached on both sides of the truck; every single step is an individual anti-skid surface casting. It looks very tidy because it has only a few visible joints, as the original. The orange safety rails and other railings typical for the new generation of Volvo machines are especially eye-popping. WSI has made them from metal castings and so they look a bit massive, especially when compared to the Liebherr R9150, also made by them. The prototypical original rear view mirrors have reflecting surfaces and are of metal.

The edgy looking cabin has been really well copied. It is made from a single casting. Because of this technique, the gaps around the doors on both sides could not be

modeled. At least they are printed on in yellow on the lower section and so hint at the gaps. The glass inserts fit very flush and the rubber gaskets are hinted at but, not printed on, in black. Singly-attached front lights and warning beacons as well as the window wiper complete the outside details. The cabin interior is multi-colored and very detailed. Even some of the gauges, made from stickers, can be seen; the Volvo logo on the back of the seats is almost obligatory.

Now, let's look at the bin. It has been exactly made and of course is a metal casting. It reaches the maximum dumping height without any effort, thanks to the hydraulic cylinders which are first class models. These have a three-step operation, like the original, and are chromed and almost dainty. Even the small yellow warning decals have been thought of. The stone deflectors, hanging between the double tires, and the mud flaps made from real hard rubber, have also been modeled.

The satin finish has no faults and the color separations are sharp. The lettering, made from water slide transfers, covers well, is very detailed and sharp and includes some really tiny decals.

The model of the R100E joins the row of all the large machines by Volvo seamlessly.



## A short rear swing excavator from Motorart

# Kobelco SK 75SR-7

by Daniel Wietlisbach

**With the model of the new SK 75SR-7 with short rear swing, Motorart releases another small excavator from Kobelco ...**

The short rear swing Kobelco Generation 7 excavator with a working weight of 7.8 to 9.3 t is designed for tight clearance construction sites. Shovels with a volume of between 0.11 up to 0.35 $m^3$ are available. The built-in Yanmar 4TNV98CT engine can produce 53.7 kW.

The SK 75SR-7 is not the first small excavator model from Motorart and, like its predecessors, it convinces with its very detailed modeling. Despite its small size, it feels hefty in the hand and feels valuable.

The lower carriage is exactly replicated, the three-piece track segments run easily and the blade is a good copy of the original. It reaches both maximum positions and is operated prototypically with a hydraulic cylinder complete with supply lines.

The upper carriage is made completely from cast metal parts. The shape has been well captured; all hatches, locks and air intakes are shown and the exhaust is a separately-applied part. The cabin is multi-colored and the glass insert is in three parts. The front and top fit very flush, including the rubber gaskets. A handhold made from wire as well as window wipers and mirrors complete the cabin. The detailed interior is multi-colored. The equipment is a little jewel. Despite the extensive freestanding attached supply lines, it looks very dainty. The maximum digging depth is not reached by the model but the working height and the transport measurements are correct to the millimeter. As a special treat for the alteration friends, an extra hydraulic circuit was included.

Coloring and the detailed printed-on lettering are faultless and so the SK 75SR gets a high score for functionality, detailing and metal content.

## Evolution Set from Diecast Masters in 1:50

# Caterpillar D7

by Daniel Wietlisbach

**With the D7s, Diecast Masters is already releasing the fourth set in this popular 'Evolution' series. While the D7E is already known, we were mostly interested in the historic D7C ...**

The 'Evolution Sets' are a great hit with collectors and so for their great pleasure, historical models are regularly newly released or, at least, they are improved and re-released. The D7 set comes in the now well-known presentation box. Both models are securely screwed down to a base plate. A brochure with spiral binding documents the history, in English, of the D7 from the forerunners of the 1920s to the first D7 in 1939, to the top modern, diesel-electric-powered D7E.

While the model of the D7E came from the standard production program (read the discussion about it in issue 5-2018) the historic D7C is a completely newly constructed model.

The D7 earned itself a legendary reputation during the Second World War. With the D8, it belonged to the largest dozers and was responsible for preparing the ground for the construction of air strips for US troops on islands in the Pacific.

The C-series of the bulldozer appeared in 1955 and was equipped with the then new D339 four-cylinder engine with 128 hp. The working weight, depending on equipment, varied between 12.3 and 16 tons. The D7C was offered in production for 4 years and was replaced in 1959 by the D7D.

Because the pipe layer 572C is based on the D7C, the assumption was that Diecast Masters would use some of the former Norscot models for this. But, despite looking very closely at both, we find that not the case. The pipe-laying model differs in so many details from the base machine that none of the parts could be used.

The model is well proportioned and with its large, spoked drive wheel looks really quaint. The drives are nicely engraved and the metal tracks turn easily. The engine hood is a nicely engraved single casting with an especially finely and delicately engraved radiator grille. The typical perforated plate looks authentic and the bulges in the lower parts have been well molded. The engine is visible from both sides and it is easy to see all the important parts. Especially nice and inventive is the way the front lights have been made. The bodies are made from black plastic and the lenses are clear which makes very realistic lights. The hydraulic cylinders are made rather plainly; in particular, the supply line on top looks flat and angular. The producer was wise to choose a hydraulic operated dozer blade as a cable-controlled one in 1:50 would be hard to model realistically. The blade can be adjusted mechanically to three positions; to do this, a Phillips screw has to be loosened on both sides. Unfortunately, on this petite model the screw looks too large. Other than that, the straight standard blade has been well modeled.

The D7C is driven by Bob's granddad who is dressed for the period and glued in. So that he is protected from the California sunshine, a plug-in sun umbrella is included. Where in later series a kind of dashboard popped up, the air filter took the prominent spot. To counter that, all steering levers are arraigned together beside the pedals on the platform floor; they are made from slightly over-sized plastic parts. At the rear, in addition the trailer hitch with the unfortunately glued-in pin, is a nicely detailed cable winch with authentic lettering on the winch housing. The rest of the lettering has also been applied and is sharp and legible. The early Caterpillar yellow is top-notch for all fans of the color.

### At a glance

+ Overall impression
+ Finish
− Plastic railings

## Bymo ups the ante in 1:50

# Bauer BG 30

by Daniel Wietlisbach

**With the Bauer BG 30, Bymo is replacing its 'original' BG24H, which had started to show its years, with the widely-used Kelly drilling method model ...**

The new BG30 belongs in the 'ValueLine' series which has been optimized to use the Kelly drilling rig. The 26.9 land mast makes it possible to reach drilling depths of up to 87.0 m. The maximum bore diameter is 2500 mm. As the machine designation hints at, the torque exerted lies around 300 kNm and the unit is powered by a Caterpillar C9 producing 280 kW. The base machine, which is actually called a BT 80, has its own telescoping under carriage and is also used as a carrier for other specialized civic engineering machinery.

### The model from Bymo

The BG 30 from Bymo arrives almost completely assembled in an accordingly-sized box, in line with the philosophy among many producers that models should be displayed complete right out of the box. Only running board, ladder, safety railings and the work light package have to be added. Luckily however, the model can be completely dis-assembled for transportation because the ballast slabs are made individually.

With its new flat finish paint job, the model looks noble and it feels hefty in the hand. The BG 30 is true to scale; even the under carriage which either extended or retracted, has absolutely correct measurements. The drives do not sag and the metal tracks can be turned, although not very easily.

The upper carriage comprises exactly-made metal castings on which all openings, flaps, locks, anti-skid surfaces and air intake grilles are added at the correct places. The mounting ladder and the safety railings are thin metal castings. The very detailed winch is operated using a hex key. To hide the place where the key is inserted, a removable winch motor has been made to fit the hole. A very elegant solution. Never seen before on such a model is the cable drum with the grooves to guide the cable exactly. First class! The winch folds down backwards for transportation as on the original.

We already know that the standard issue cab is like the original so it was possible to take it, including the glassed-in windows and interior equipment, from the MC 96 and GB 50. The very nice-looking cabin has been made exactly and includes a photo-etched protective grille on the roof.

The kinematic used to adjust the mast height is fully functional and true to the original. The four finely engraved hydraulic cylinders shine with detailed screws on the connections. The mast is kept upright and stable in any position.

It is made from two scaled-down metal parts that are exact copies of the original. On the upper end are mounted two detailed double dolly wheel heads, one for the main and one for the auxiliary winches. In comparison to the earlier models, the BG 30 has a large hydraulic cylinder at the front of the mast to move the Kelly drill. The sled with the spinning engine is made from plastic and has tiny little metal springs as details. It would be well suited as a beautiful and interesting jewel-like item on a transport truck. The Kelly guide rail on the mast easily fulfills all the requirements of current modeling standards and the box-like drill head enclosure at the end of the mast has been made without any

**At a glance**

+ True to scale
+ Detailing
+ Metal safety railings

compromises. The drill head, with its finely made chisel heads is especially nice to look at and also, it opens. The drilling diameter is 1500 mm, as calculated against the prototype. That measurement is almost a standard for these models. Because the machine has been designed for larger diameters, we would have been very happy to see one with a much larger diameter this time. The supply lines from the upper chassis to the drill drive are made from rubber and are continuously flexible.

The paint has no faults and the lettering is detailed. It is an all-round well-designed model made with the current level of technology.



# Tom's truck log

by Tom Blase

## Chewing gum trucker in olive or the 'boys from overseas'?

For a few months he overtook me at almost the same place on the A60 – an American (?) GI with his Freightliner M915 from the 'Transportation Truck Terminal' of the US Army in Kaiserslautern.

What many did not know, however, was that about 200 of these drivers are all German civilian employees. They were in the fortunate situation of hearing daily the great sound of the Detroit Diesel engines and then 'on the side' undertaking all needed transports. Thankfully, the drivers are barred from any war or conflict zones. The truck technology could be classified as 'rustic', because besides using the standard diesel fuel, the engines could also tolerate the NATO fuel JP8 and that is nothing other than kerosene.

During my childhood days, I was always excited when my father had to make a trip carrying Sea-Land or United States Lines containers to US army or air bases.

It was a world apart with what were for me exotic cars and trucks. To my eyes, the workers and those who lived on base were cool and easy-going (as one feels as a teenager) and often closed an eye when I looked astounded and took a closer look at some objects. There were Mack short hood trucks of the R-series, GMC Astro cab-over trucks and even the International-Transtar trucks with the fantastic rounded shape design. Here, I was able to get really close up to those fantastic vehicles and take a good look at them.

There were also some funny and some very odd situations. On the Hahn Airbase at Hunsrück, then not yet a civilian outpost of Frankfurt Airport, there was a place where the access road crossed the airport runway for Phantom Jets. There was no light signal or barrier, just a simple sign nailed to a post. On it was a pictogram of a jet plane.

When such a jet came slowly and majestically closer, we would lean of the horn and greet in a 'militarily-correct' fashion. The pilots had just as much fun and saluted back with a wide grin.

I doubt that today as a 'school holiday trucker' one would be able to enter military compounds this easily. But in the 70s, for me that was an almost daily occurrence.

But, nevertheless, these trips to the Army in 'good old Germany' were interesting and unforgettable.

## Small loader from NZG in 1:32

# Wacker Neuson WL20e

by Daniel Wietlisbach

**Traditionally, the models from Wacker Neuson are made in 1:32 scale. NZG is responsible for the Bauma models ...**

Hybrid power having become an accepted practice with most producers, at this year's Bauma electric propulsion systems were among the big themes of the show.

So too at Wacker Neuson, who, with the WL20e showed the first completely electric-powered wheeled loader. Equipped with one electro motor each for driving and hydraulics, it reaches the performance capabilities of its conventional WL20 brother. The maximum operating time of five hours is reduced to 1.5 hours if used continuously for heavy-duty work. With a six-to-eight-hour battery charging time, the articulated wheeled loader is supposed to save 41% of the running costs of the machine.

The working weight is 2.35 t and its the standard shovel capacity is 0.2 $m^3$. The engine motor produces 6.5 kW and the one for the hydraulics, 9.0 kW. The wheeled loader is also available in an almost identical look as the 1160 eHoftrac in red. Weidemann has belonged to the Wacker Neuson group since 2005.

### Models

The models are packaged very securely but have been adapted according to which company shops they are going to go. The WL20e arrives packaged between Styropor and the Hoftrac between clear plastic half shells.

Despite their large scale, the models look petite and fine. They have been scaled down to the proper measurements and are even prototypically functional. Even the very tight turning radius and the scooping depth of the shovel are correct and so, of course, is the maximum tipping height of the shovel.

The model of the red Weidemann 1160 eHoftrac differs from the original in the kind of tires and the equipment. The tires are wider and the fenders have been adapted accordingly. Also, the model has a multi-function shovel which has clear advantages for farm use.

A look at the model from below clearly shows the axle housings and the prop shaft which is made to turn so that driving in tight curves is no problem. An easily visible hydraulic cylinder takes care of the steering.

Both models have a high metal content including the finely engraved rear part of the machine which is made up from several parts. The open cabin has been lavishly finished. The roll-over protection cage is exactly copied and the side protection bar with its pierced 'W' logo is made from metal and has been separately applied. Driver's seat, joy stick and steering column are exact replicas the latter even having printed-on gauges and logos. Rear view mirror, work light and a warning beacon made from plastic round out the operator's working area details.

The fine front of the vehicle is made from a metal casting with attached tool box and large front lights which look a little toy-like; for a model in this scale, the front lights should have glass true to the original.

Despite the compact size of the wheeled loader, the lifting apparatus has two lifting cylinders so that it can reach a high tilting height. Its pivoting position is relatively high. Four hydraulic lines supply the dumping cylinder and quick changer, which, by the way, is non-functional. All of the equipment has been finely made yet at the same time, is very solid. The shovel of the WL20e has five teeth and is designed for use on construction sites and the toothless shovel of the 1160 eHoftrac also has a functional grab attachment that is operated by two hydraulic cylinders. Both models have a faultless paint finish and lettering is cleanly applied.

**At a glance**

+ Metal content
+ Functionality
+ Detailing

## New from Ros in 1:50, mobile and tracked

# Sennebogen 613E

by Carsten Bengs

**Little machines make a great impact. At the 2019 Bauma, Sennebogen presented many new and re-worked models in their fan shop. Among them was the 613E telescoping crane in both mobile and tracked versions ...**

The two all-rounders are convincing, even in model form. Ros has created the two 16 t cranes as detailed models whose dimensions correspond to the prototypes.

The telescoping under carriage ensures sufficient stability when deployed at work and a minimal width for transportation on a low-loader trailer. The three-part segments of the tracks are very realistic and the sprung guide wheels give enough, but not too much, tension so that the tracks move easily. The bottom set of rolling wheels are only hinted at so have no function. The drive sprocket is finally engraved and on the outside some climbing ladders are picked out in silver to stand out.

The 613E Mobil runs well on its wheels. All of them are steerable and have a sufficient turning radius. The four supports guarantee the model's stability and the bottom foot plates oscillate. White and red striped safety paint on the feet rounds off the detailing. Small ladders on the support stowing boxes make the ascent to the cabin easier. Between the axles are small tool boxes, well protected by stair steps, both painted in silver, as on the original.

The upper carriage is identical on both models. The slewing table sits on the lower carriage without any play and allows problem-free turning. Because the ballast is integrated into the upper carriage it cannot be detached; it would not be required anyway for transportation purposes. The Sennebogen logo which is integrated into the casting is very legible. As on the prototype, the printed-on 'Green Efficiency' logo can be seen on the side; it stands for low operation costs. A great number of other detailed warning stickers are found on both models.

Both cranes are powered by a 92 kW FPT N45 diesel engine. FPT is an Italian maker belonging to the CNH group of companies. Radiator and exhaust treatment plants are easily recognizable. There one can also see some small set-in steps including their handrails.

The cabin has also been modeled in great detail and the MultiCab logo directly on the door, is easy to read. Underneath, a warning decal gives important information about the danger zone. On top of that, the cabins can be raised to get a better view. Arm rests and joy sticks are easy to make out and, of course, on the 613E Mobil there is a steering wheel. Even the gear shifters are easy to recognize. Window wipers, handholds and mirrors round out the details.

Behind the cabin runs the bundle of hoses to the lifting arm. The lifting winch is operated with a small key which can be found in the accessory bag in the box with the model. As released, the 613E models come rigged with a three-string main hook for a 10.5 t lifting capacity. The somewhat thick-looking rope is relatively stiff so that the hook does not descend by itself. All dolly wheels are made of metal and turn freely.

The outrigger arm can be telescoped twice reaching 38 cm on the model or 18.8 m on the real thing; the length indicator is hinted at on the side. Also very nice are the two moveable rope guides on the base of the arm. The accesso-

### At a glance

+ Detailing
+ A lot of accessories included
− Bolts

ries on the 613E are especially exciting. The tip extension, which is 5 m long on the original, is stowed on the side of the outrigger arm and safely secured with a small bolt. The extension can be angled out using a small hydraulic cylinder. As an alternative, it is even possible to attach a work platform. It is adjustable and the control panel is visible.

Overall, Ros has produced both of the Sennebogen 613 Es in great detail. However, there is room for improvement: the shiny chrome bolts look a bit uncouth. Since cranes like the 613Es have not been available for a long time, it is very welcome that Sennebogen has now released them. They are ideal for small construction firms and bridge-building sites and are very popular. Fuchs crane company which is located in Bad Schönborn would be the only possible competitor but they left the crane market for this class a long time ago.



# New Demag from IMC in 1:50

# AC45 City

by Carsten Bengs

**Neither Terex nor Demag produced City cranes for a long time so at the end of 2017, Demag released the brilliant AC45 City. A matching model by IMC Models was then available at the 2019 Bauma ...**

These very successful cranes are and have been very popular with crane rentals (about 1,000 of the predecessor model were sold). With the 45-t lifting capacity, the crane is designed for smaller lifts and especially for use as a taxi crane in tight places. The prototype has a maximum boom length of 31.2 m plus a tip of 13 m. A 260 kW strong MTU engine is installed.

The measurements of the three-axle crane have been properly scaled down by IMC. Functionality and detailing are very convincing. The three-axle lower chassis rolls freely on the suspended wheels which have a sufficient turning radius. The rims are correct and match the prototype. IMC offers the model with two different tire variations.

Two functional ladders are on the under carriage. They turn when the machine is in use and fold down. Very nice! The engine room is at the rear. Exhaust and radiator are made from plastic. Headlights as well as outrigger supports control panel in the middle round out the details.

Additionally, on the front of the vehicle are steps including handrails and a detailed mirror for driving, all made completely from white metal! The metal outrigger supports with visible threads give the model a solid footing. We were delighted to discover that the included crane mats are made from white zinc. During the drive, these are securely stowed away in a thin sheet metal compartment behind the front axle.

The finish of the cabin has been nicely detailed and the monitor or joy sticks are easy recognizable. Window wipers, mirror and safety railings are there and so are the headlights and a warning beacon.

**At a glance**

+ High degree of adherence to detail
+ Ladders
+ Crane mats made from metal

The fire extinguisher is also easy to spot just in front of the ballast. From there, small, flexible hydraulic lines run to the boom where they follow the pipes and other supply lines to the lifting winch. Its hydraulic engine and protective surround are easy to recognize.

The original is ballasted with a maximum of 5.3 t counterweights. This remains with the vehicle during transport. The white Demag logo is raised and integrated with the ballast and warning decals are included.

The lifting winch has a sufficient supply of cable but the locking mechanism seems to be a bit loose. The three-dolly wheeled lifting hook is designed for 32-t lifting capacity and has been replicated as on the original. The correct number of individual metal wheels on the hook block are there and move very freely.

The very nice looking, proportionally correct boom has four telescoping parts and extends to 61 cm height at the wheel tips; with the two-part tip added, the maximum height at the wheels is 84 cm. If the tip is not required it can be stored on the purpose-built brackets and secured with bolts. There is a length sensor on the main boom and a work light as well. On the boom head a protective sheet metal hood is attached during road transport. On the prototype, the license plate is displayed there. The boom is kept safely in position with a metal cylinder and a grub screw.

The lettering is very convincingly done with countless warning and operating decals all over the model underlining its high value.

Once again, IMC Models has produced a successful model of the City crane line in 1:50. It fulfills all wishes regarding adherence to detail and functionality. Surely, the model will be perfect in other operator's liveries and as a companion crane to the coming AC700 model.



## A model for Opa's (Grandfather's) jubilee

# DAF 2600 'van Seumeren'

by Daniel Wietlisbach

**Every historic model is based upon a story. Behind the set shown here is the story of one of the most steadfast employees of van Seumeren and Mammoet ...**

Fifty years ago, in 1969, Jan van Wees began to work for van Seumeren crane operators. Because Jan's father had passed away early in his life, Jan ran the farm with his mother. This earned him the sobriquet 'Farmer'. He was known by this nickname while doing crane work around the world and he became like one of the van Seumeren family.

To begin with, Jan used a small truck to transport all kinds of small parts that were needed for work the cranes were doing at the time. A little later, the fleet was enlarged with two two-axle trucks which were given the fleet numbers 3 and 22. The first three-axle truck, #25, was added in 1972; it was a DAF 2600 6x2. When van Seumeren got its first low-deck trailer, an 8-axle with a capacity of 200 t, Jan was the first driver and it was also the beginning of his career in the heavy-transport sector.

In the introduction to the first book about the history of van Seumeren, Frans von Seumeren, among others, praised Jan's capacity to memorize: "During the beginning of the growth period of the business we seemed to forget all kinds of parts like steel plates, crane mats and even outrigger parts frequently. When all efforts to find the missing parts were

exhausted, Jan was the last resource. I often asked him for help and he was successful in locating the missing items, most of the time!"

Jan van Wees was a life-long collector of historical material of van Seumeren and later on Mammoet. And he was also the co-initiator of the 'Mammoet Club'.

Jan not only worked for the company until his retirement in 2003 but he is still actively involved at events. Since his retirement he's been given the pet name 'Opa'.

### DAF 2600 #25

One of Jan's friends, a truck mechanic by trade, purchased a DAF 2600 tractor-truck with a 6x2 chassis, an almost exact match for the former fleet #25. He needed to draw on the help of many for the restoration of the truck. When it came to re-painting, he went to Jan to get permission to paint it in the old van Seumeren paint scheme. Once the DAF 2600 was finally restored, the search began to find a suitable trailer. Mammoet was contacted and, indeed, they had and old low-deck trailer of the ODU type that Opa Jan was able to purchase; it was almost as old as the tractor truck.

The last step of the project was to get a 20-foot container and furnish it as a museum. There Jan can present all of his collected company memorabilia. At the 10-year jubilee of the Mammoet Club, the finished tractor-trailer unit was revealed to the public and can now be seen regularly at events across the Netherlands. Until the end of this year, Jan is able to drive the unit himself but, unfortunately, after that his driver's license runs out.

Mammoet Merchandising issued the set shown here in a limited series of 500 pieces especially for Opa Jan's 50th company jubilee as a 'thank you' and to honor his lifelong commitment.

While the DAF 2600 tractor truck and container came from WSI, NZG contributed the historic low-deck trailer. The same set, but without lettering and in a different color, is also available in the Nooteboom shop.



## From civic engineering to a crane company

# Clausen Crane lifts and moves

by Erich Urweider

**Clausen Kran Brig is known for spectacular crane work in high mountain situations especially in the Canton of Wallis in Switzerland. We paid Clausen a visit ...**

The owner of the firm, Gerhard Clausen, is always open to using the newest technology available. This is also why he is the initial customer for the Liebherr LTM 1250-5.1 which features the one-engine concept.

Leo Clausen began excavation work in 1969 with a tracked loader. The foundation for the crane company was laid in 1972 when a PPM 1507 telescoping crane was added to the fleet of the one-man enterprise. After that, depending on requirements, work was done for excavating or lifting with the crane that had a 15-ton capacity. The crane business developed very satisfactorily so that about two years later Clauson acquired a second crane, a PPM 2507 with lifting capacity of 25 t. This crane was also used very successfully and then two ye-

ars later a 40-ton capacity crane, also from PPM, joined the Clausen fleet. One has to mention that PPM and Grove were the only crane producers which had in their programmes telescoping arm cranes with cabins on their upper structures. (By the way, in 1975 Gerhard Clausen's mum took her truck driver's license as one of the first women in Wallis to do so.) With increasing frequency, crane accessories had to be transported, therefore, a Steyr truck with 320 hp V8 engine and all-wheel drive joined the vehicle fleet. Also, a two-axle Goldhofer semi-trailer that was extendable to 5 m was added. At first it could not be licensed because the experts in the highway department just did not have experience with such a vehicle. One has to mention that previously crane outrigger arms were normally transported on logging trailers. It was only the intervention of the Goldhofer salesman Max Roth and the Goldhofer factory guaranteeing the traffic safety of such a unit that got the desired result and the unit was licensed. Thanks to their investment in these various products, the company was very successful.

## The first Liebherr mobile crane

Liebherr developed the LTM concept cranes during the 80s. These impressed Leo Clausen considerably and he purchased an LTM 1060. He got a 1986 model, one of the re-worked series that already had the hydro-pneumatic suspension. In 1988, the current owner and manager of the company, Gerhard Clausen finished his apprenticeship as a truck mechanic and entered the firm. In the same year, a tractor truck made by Terberg was acquired. It was based on a Volvo F12 which was rebuilt into an all-wheel drive truck by Terberg in the Netherlands. The choice of Volvo was made because of the proximity of the Volvo dealership where Gerhard Clausen had done his apprenticeship. The Terberg was given a torque converter clutch (WSK) with an integrated retarder. The drawback on the Terberg was the relatively low coupling height of the trailer for an all-wheel drive vehicle. Together with the truck came a double telescoping trailer from Goldhofer. It stayed in the fleet until 2017 because it could be telescoped out to 10 m and then it was replaced with an almost identical trailer. The main differences were the new MPA axle and the hydraulically-operated rear ramp for the vehicle transport. Both semi-trailers are or were also used for the transportation of railway rolling stock.

In 2010, the first MAN three-axle tractor truck of the TGS type joined the fleet. Two years later followed another three-axle Goldhofer low-deck trailer; this one, however, was ordered with a dolly so that even with a three-axle tractor vehicle the load remains within the limits allowed.

## Purchase of a tracked crane

A Liebherr LTR 1060 tracked crane joined the vehicle fleet in 2013 even though initially Liebherr Schweiz did not want to sell him the crane. Gerhard Clausen got the idea for purchasing such a crane when he saw some pictures of the LTM 1035 that needed a dozer on a mountain construction site to pull it into place. "You will never find enough work for such a machine, think about it again," was the answer to his request from Liebherr. But shortly after that, Clausen Kran got the job of deconstructing an old cold-water diverter at the Simplon Pass.

For this, the LTR 1060 was the key machine to be used because the moving of the crane from within the worksite could be accomplished much faster than with a conventional mobile crane. In this way, 720 t of concrete element, cut into manageable pieces the day before, were moved. After that, work on several construction sites in the high mountains followed which were noted internationally so making the name of Clausen Kran widely recognized.

In the same year, a three-axle MAN TGX tractor truck with WSK (torque converter) was purchased. The special thing about the truck

### Clausen in numbers

| | |
|---|---|
| Founding year | 1969 as an excavating company |
| Employees | 5 (Including management) |
| Homepage | www.clausenkran.ch |
| Mobile cranes | 70 to 250 tons |
| Tracked crane | 60 tons |
| Trucks | 2 |
| Using cranes | since 1972 |

was that it left the MAN works as a four-axle heavy-duty tractor truck and was then re-configured into a three-axle one by the importer Toni Maurer. This was cheaper than having the tractor truck re-built at the factory, especially so because of the torque converter that is indispensable for the work of Clausen Kran.

## Fleet renewal

The Liebherr LTM1250-5.1, made as a model by NZG in limited series of 250 pieces, was bought in 2016. Like the Liebherr Variobase, this crane also has the Varioballast feature. With this, the counterweight can be brought 80 cm closer to the axis of rotation of the upper chassis which reduces the turning radius but, depending on circumstances, requires more counterweight. Vice versa, and according to a statement made by Gerhard Clausen, in over 90 % of the cases the turning radius is not a problem if the maximum lifting capacity is not required. This means that one or another counterweight transport can be left off. Clausen is also full of praise about the Variobase system: "The LTM 1250-5.1 was the first machine with this and I was very sceptical. But it is a very good instrument. Especially so, if the supports cannot be extended completely for any reason at all. Especially in mountain villages where there are often narrow spaces, this is a boon for operators. However," he continues in the same breath, cautioning "the system tempts one to be a bit lazy. Why move an obstacle for the supports if the computer supervises everything?"

The fleet renewal was not finished with this. In 2017, a Liebherr four-axle LTM 1070-4.2 joined the fleet and at the end of the same year, also an LTM 1130-5.1. Both cranes had Variobase. The company with its five employees is at home in the upper Wallis and, with the current vehicle fleet, is well placed for any challenges. The size restrictions for telescoping cranes are regulated by the tourist village of Zermatt since Clausen is often at work there erecting a construction crane or placing a new generator for the Elektrizitätswerke Zermatt (Electricity works Zermatt). Because the bridge below the village at the cement works has been re-enforced it is now possible to drive there without any problems. Before that, the outrigger arm of the crane often had to be dis-assembled and re-assembled at the construction site, a rather big effort which luckily can be avoided nowadays.

In addition to the Liebherr cranes, two MAN tractor trucks in the three-axle version are part of the fleet. The two-axle MAN 4x4, which could be used as a truck with on-board crane or as a tractor truck, did not fulfill the expectations of the company and after only a short stay, was sold off.

As a replacement, another MAN-TGS three-axle machine arrived and that completed the current vehicle tally.

## Municipal vehicles in action, part I

# A clean sweep

by Robert Bretscher

**Because we see public works vehicles on our roads almost daily, it is not surprising that many model makers have made attractive miniatures of them ...**

As written in the Inufa (Industrial vehicles) catalogue of 1973, public works vehicles are supposed to be multi-functional and efficient. Today, other attributes are required. Now they have to be multifunctional, economic, long-lasting and, if possible, useable everywhere. On top of that, the legislated safety regulations have been tightened and so the purchasing prices for these necessary vehicles have increased considerably. For communities with tight budgets, this means that part of the work done by public services is now more often delegated to private enterprises. Today, public service vehicles work year-round at different jobs on multiple sites as sweepers, garbage collectors, high pressure washers and, not to be forgotten, as specialized vehicles to work in the snow during the winter months. These highly versatile vehicles are often equipped with several hydraulic systems to cover the whole spectrum of work challenges expected from them. One vehicle is often not enough for the ever-changing job requirements. Therefore, highly specialized vehicles are required, including some that can operate not only on regular roads but also on narrower footpaths. In this continuing series, we will look at a variety of municipal vehicles in model form and begin today with street sweepers.

### Balayeuse-Arroseur LMV Paris

Dinky Toys France, Article # 596, 1960

In use from 1956 until about the 80s, this real street sweeping machine from LMV ((Le Matériel de Voirie) was used mainly in Paris and could also be used as a street washing vehicle. The utility vehicle was powered by a 50 hp Perkins engine.

Dinky France produced this 1:43 scale miniature model from 1960 until 1963. Unfortunately, the model never reached the projected sales figures and became a non-seller collecting dust on store shelves. Not even its futuristic appearance helped sales figures even though the makers had spent a lot of effort to give the streetsweeper a realistic look. The cabin alone with its many glassed-in windows is impressive. One fact alone shows how extensively Dinky Toys worked to create this model: the rotating and sideways adjustable brush is made from real bristles. The model is even capable of sweeping up a couple of bread crumbs from the table with out any problems!

The rear part is nicely decorated, the air intake slits are finely engraved and it has a painted-on red warning sign and a plaque with the engraved 'LVM' company sign above it just like on the real thing. Looking at the model from above, one can make out the water tank with the filling pipe. Furthermore, 12 simulated nut and bolt castings hint at an openable access hatch required for servicing the vehicle. Despite the profile tires coming from the maker's truck program, they are a good fit for this machine and are mounted on diecast rims.

The paint scheme for this vehicle, except for a small series, was always cream and green.

### Elgin-Pelican Street sweeper

Conrad, article # 5066, ca. 1997

Over 100 years of technical know-how are behind every Elgin Sweeper Company. This is the slogan the company uses to advertise its products. Since 1914, they have produced all kinds of cleaning vehicles, for streets, airports, car ra-

cing tracks and large construction sites. At home in the US town of Elgin, Illinois, this technology group of companies sells cleaning machinery but also has a worldwide distribution network.

The hydraulically-driven Pelican is equipped with a 74 hp engine and when empty weighs 6.5 tons. The sweeper with its integrated waste material container is capable of collecting up to 2.8 $m^3$ of refuse and road dust. The full container can be lifted up to a height of almost 3 m to dump the waste into a waiting truck or large waste container.

Conrad made this impressive 1:50 model of the street sweeper in the 90s. This very elaborately built model with the correct lettering and the Pelican packaging was probably made as a promotional vehicle model. Maybe because of this, not even the smallest details of this fine machine were omitted. All movements of the real machine can be duplicated in model form and all functions of a real street sweeper simulated. The brooms on both sides are moveable and can extend sideways over the width of the vehicle. The disc-shaped brooms on the side are designed to sweep the refuse to a collecting point then the red rotating road brush pushes the dirt and dust particles into the refuse container. Then the container lifts up and dumps just like the real thing. For this purpose, Conrad had a fine built-in, well-functioning lifting system with a hydraulic cylinder. Additionally, the model has noticeable real, glassed-in cabin with two distinctive protruding side windows. On the roof is a warning beacon and a hinted-at air conditioning unit.

With this model, Conrad was able to demonstrate quite cleverly the individual steps of the street sweeping process. Looked at from this point of view, the tasks given to the promotional vehicle were successfully fulfilled.



## Cranes in the harbor, part I

# Loading at the harbor

by Markus Lindner

**The best place to observe impressive spectacular heavy-duty load transfers in action is at one of many harbor sites ...**

In Germany alone there are around 250 inland ports which receive regular traffic; in Switzerland there is one in Basel. Thanks to their infrastructure, they can transport not only bulk commodities like coal, grain and petroleum and its by-products but also unwieldy, bulky and very heavy loads such as machine parts. Shipping by water has some advantages over road transport. The shipment by water is sometimes longer but is less complicated due to non-critical height restriction at bridges and under passes. Weight restrictions are usually inapplicable as is the need to pass through narrow places, intersections or traffic circles.

A dense network of navigable rivers and well-maintained canals make it possible to transport seamlessly on water from the Netherlands to the Black Sea or from Hamburg Harbor to Switzerland.

Most harbors are equipped to handle bulk cargo or container traffic. The loading and transport of heavy-duty goods, happens only sporadically with the exception of at some specially equipped terminals. For every loading situation, the necessary mobile or tracked cranes have to be used. That means loading operations become more interesting which presents a perfect reason for creating a diorama based on such situations.

Of course, in such surroundings cranes and lowboy trailers can

be presented but they also provide great backdrop for material-transferring machines of any size. Reach Stackers, construction machinery used to maintain waterways, as well as a variety of 'exotic vehicles' wait at the quay side for shipping.

## Mobile Diorama

Because of its size, the diorama was not to be permanently displayed but made in such a way that it was easy to store and re-build if needed.

It was very fortunate that two stout plywood and aluminum reenforced shipping boxes were at hand and had no further use. The diorama was to constructed in such a way that one hand it could to be stored in one of the boxes and on the other to be big enough to display a larger size tracked crane in full rigging and showing the loading of larger machinery parts on to it. In the foreground, a slice of a harbor basin on a lower level, big enough for a river boat or pontoon was planned.

Also taken into account during planning was that the overall construction of the diorama had to be solid enough to allow the safe display of one of the heavy crane models.

These pre-requisites were all fulfilled by using a sub-construction of interlocking plywood ribs. The quay-level surface, to which some lengths of wood were added for stability was then attached.

The lower-lying water surface is made up from two shelves that have been screwed on to the subform with M8 bolts and wing nuts. The harbor basin ends at a bulkhead which was plugged into the frame work at the front. Wooden dowels ensure the exact position of the bulkhead walls.

## Background

The rear end of the display includes several backdrop elements which are also attached to the frame work and the quay-level surface.

On this diorama, the ground of the scene is the typical concrete floor with gaps between the poured sections. It is made out of foam sheet; instructions for this technique have been shown several times in previous articles. Optimally, the gaps between two sections are hidden by a gap between the poured concrete floor sections and the three bulkhead sections from which the 180 x 65 cm display space of the diorama is created.

On the left is a grain elevator typical for a harbor. The silos were made from 12 cm diameter solid cardboard tubes that already have a concrete-like surface. The remaining parts for the building consist of various pieces of construction card, foam board and plywood.

At the rear, I deliberately choose not to place a building of similar height such as a warehouse to avoid a very 'busy' backdrop for pictures of the crane at work.

The main element here is a warehouse with several bays as is typically found on many harbor sites. Inspired by pictures from the Internet, this one is made to look like the prototype from the Romanian harbor Constanta; it shows the loading of wind turbine components in that Black Sea port.

These buildings too were made from mixed material: craft card, plywood and foam parts. Windows and doors were cut out from colored craft paper and the glass material is from thin Acryl glass sheet stock. For the biscuit tone of the paint job, house paint was used and the weathering is discreetly-applied powder paint pigments.

Due to its size, the building had to be made from several sub-sections made to overlap thus hiding any gaps that would otherwise be visible.

A small gate with a small gate keeper's hut adjoins the building on the left and on the right is a concrete fence behind which are some trees and greenery.

## The bulkheads

The bulkheads, spray painted in a rusty brown color, are made up from special aluminum profiles offered by the producer Alfer. They are readily available in building centers. Additional details are the ladders made from plastic Aeronaut ladder stock, and wire which is bent for handholds. Also bent from wire and soldered together were the brackets for the life preservers. I got the necessary copper wire from a piece of standard electric wire with a ø 1.5 mm. Matching life preservers can be found in ship modeling accessories. Plastic push-pins with an added plastic square make first class bollards.

## Water

A special challenge for every modeler and diorama builder is the depiction of a body of water, in our case, the basin of the harbor. Favorite methods like pouring epoxy or

other transparent materials cannot be used because of the need to dismantle the diorama. An alternative would be using a rough surface wall paper in conjunction with a high gloss finish for simulating small waves.

I found an even simpler solution suited to the frequent assembling and tearing down. It came in the shape of transparent plastic sheets with a so-called 'bark texture' surface which is offered by the Gutta Company for furring out interior doors and is available in many construction supply warehouses.

A flat piece of wood painted in greens and browns was prepared and then cut-to-size plastic sheet stock was simply laid on top of it. With this, one gets the necessary water surface with a bit of wave structure and it is lightly glossy too.



# New on the market

## IMC 1:87

The Arocs StreamSpace was built with two different materials and the cabin is made from metal. For the first time, three sets for sewer maintenance have been released. All three models come in the attractive blue of the GMB Company. The most conspicuous is the one truck with vacuum tank upper structure. But the flat deck with truck crane and its loads as well the truck with cargo box upper and with a small trailer are nice to look at.

## 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 583K pipe layer | 1:48 | CCM | Dealers | www.ccmodels.com |
| Grove GMK 4100L-1 «BKL» | 1:50 | Conrad | Dealers | www.conrad-modelle.com |
| MAN TGX XXL 8x4 SLT yellow | 1:50 | Conrad | Dealers | www.conrad-modelle.com |
| Mercedes-Benz Arocs 10x4 concrete mixer «Senn» | 1:50 | Conrad | Dealers | www.conrad-modelle.com |
| Mercedes-Benz Arocs 6x4 «Oetjen» | 1:50 | Conrad | eclusive Fritze's | www.fmb-shop.de |
| Caterpillar 769 / 770 Evolution Set | 1:50 | Diecast Masters | Dealers | www.diecastmasters.com |
| Furukawa HCR 1450-ED drill rig made of resine | 1:50 | IMC | Dealers | www.imcmodels.eu |
| Terberg F1850 W 8x4 made of resine «Nederhoff» | 1:50 | IMC | Dealers | www.imcmodels.eu |
| Volvo FH04 8x4 / low loader / Scania LS63 6x4 «Brouwer» | 1:50 | IMC | Dealers | www.imcmodels.eu |
| Mercedes-Benz Arocs SLT 8x4 «S.A. Smith» | 1:50 | IMC | Dealers | www.imcmodels.eu |
| Liebherr L586 X-Power «Sweden» | 1:50 | NZG | Dealers | www.nzg.de |
| Komatsu PC4000 backhoe white | 1:50 | NZG | eclusive ovp | www.modell-ovp.de |
| Volvo FH04 10x4 dump truck «Stoeckli» | 1:50 | Tekno | Dealers | www.tekno.nl |
| Liebherr LTM 1090-4.2 «Nordic Crane» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Liebherr LTM 1050-3.1 «Friderici» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Tadano ATF 60G-3 «Schot» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Scania S Highline 8x4 SLT red | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Scania R 6x2 / stone trailer «Gerben Buiter» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Volvo FH04 8x4 / asphalt container «Hakarp» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Volvo FH04 8x4 / Palfinger PK 150002 SH «Skaks» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Volvo FH04 6x2 / stone trailer «Pauw» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Volvo FMX 8x4 dump truck «Leenaerts» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| Mercedes-Benz Actros MP4 6x4 «Laso» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| MAN TGS L 6x4 «Bok Seng» | 1:50 | WSI | Dealers | www.wsi-collectors.com |
| MAN TGX XXL L 6x2 / semi low loader «Frank Norager» | 1:50 | WSI | Dealers | www.wsi-collectors.com |

## New Scania at Tekno in 1:50

Besides the already-known new re-release of the T143, Tekno surprised us in its newsletter in the middle of August with the announcement of the highly desirable T140., Made from completely new molds, the model will be available by the middle of 2020 as a 6x2 tractor truck in the 'Marco Donk' livery. For the friends of show trucks comes the Scania 4 4x2 'Semtrade Svempas Shark' of 1997. Because the original is made up from many extra parts, Tekno is promising several new shaped parts to make up this exclusive truck correctly. The factory says that this model is already sold out.

## Mercedes-Benz at IMC 1:50

In order to pair its own low-deck trailers, IMC is working on models of Mercedes-Benz Actros and Arocs. StreamSpace, BigSpace and GigaSpace as well as the matching STL heavy-duty cabins will be made in 1:50. Chassis configurations are planned for 4x2, 6x2 and 8x4. To differentiate themselves from the competitors, among other things planned are doors that open, a proportional steering and other so far unknown features are planned. The first models should be available this month.

## Siku Blister

Siku has for once created a very special model of a unique original. The 'HS Schoch' team is competing quite successfully in German and European Truck Trial Competitions with the MAN 8x8. The truck is a TGS 35.480 model with 353 kW of power. Like the original, the model is equipped with off-road tires and a roll-over bar. It is also very lavishly and authentically lettered. Included in the package, and matching the purpose of the vehicle, are two warning signs, one warns about rock falls and the other of 100% gradient. Great fun playing with the set should be guaranteed.

## Diecast Masters 1:50

DM in 1:50 is servicing a rather neglected market segment with two Mini and one Compact Excavator. 308 CR and 309 CR have the same upper chassis, however have different length lower chassis, on which even the attached blades are different, as on the originals. Both come richly equipped with alternate tools. Both have a digging and a humus shovel as well as an auger attachment. While the 308 CR is complemented with a demolition hammer, the 309 CR has been given a de-barking attachment for the forestry industry. The 301.7 CR A is a really tiny machine. It too comes with four tools that can be attached with the included fully functional, quick-change head. All three have been solidly and heavily made for their size, but are finely finished, even though we would have wished for hydraulic lines. All engraved details are nice and detailed and the printed-on lettering underlines the fine finish of the model.

## Eilschlepper und Strassenzugmaschinen 1903–1956

By Wolfgang Gebhardt, 128 pages, about 130 pictures, Format 14.2 x 20.5 cm
ISBN 978-3-613-04177-6

In the handy pocket book size compendium comes with diverse themes. The book looks at fast tractors like the Eilbulldog from Lanz and street pulling machines like the Mercedes-Benz Unimog. Besides well-known brands there are also some lesser known ones like BOB, Deuliewag, Hemna and others described in this book. For every described vehicle there is a picture, a short description with the most important information and a profile. Because of missing background information, sometimes the short descriptions are only a few sentences short while for others they are longer. Never the less, for classifying road pulling vehicles and fast tractors, this book is ideally suited. (eu)

## Roadbuilding Construction Equipment at Work

By Edgar Browning, 202 pages, black and white pictures and a few color ones, English language book, Softbound,
ISBN 978-0-578-21901-1

After the jubilee issue #10, Edgar Browning releases a new book almost a year later. #11 does not have 278 pages like the previous one but has more pages than #9. The current release looks at highway construction during the 50s, 60s and 70s in the US state of Pennsylvania. We meet old favorites like the Euclid TC12 Dozer or the Bucyrus-Erie 88B cable-operated excavator once again. But there are some previously unknown machines to be discovered like the KW Dart 30 dump truck, the Dart 600 and Terex 72-82 wheeled loaders, the Allis-Chalmers HD41 Dozer or the 9 $m^3$ Marion 191M cable-operated excavator. (up)

## Deutsche LKW-Anhänger

By Wolfgang H. Gebhardt, published by Motorbuch Verlag, 368 pages, around 700 pictures, Format 23.8 x 27.1 cm, Hardcover,
ISBN 978-3-613-04147-9

It doesn't matter how beautiful or practical the chassis is, without an upper structure it is not worth much to the hauler. In a diligently compiled work, the author describes 498 brands that had in some way something to do with building upper structures for truck trailers. Every maker is described with an address block, and a short précis about the history (as far it is known). A variety of producers had their factories in the former DDR or in today's Poland which would make researching it more difficult. The work doesn't claim to be complete. Many pictures and advertisements from several decades augment the texts. In particular, the historic pictures make this book valuable. (eu)

## Mercedes Benz Lastwagen Omnibusse 1906–1986

By Werner Oswald, publisher Motorbuch Verlag, 592 pages, about 1143 pictures, Format 24 x 27.3 cm, Hardcover,
ISBN 978-3-613-04157-8

The standard reference book about Mercedes-Benz trucks and busses has been newly re-issued. New are a variety of color pictures and some have been printed in a larger format. The first issue was a rather sober reference book; the newest installment is a refreshing change and conforms to today's expectations from such a work. The overview has suffered a bit, but the nice pictures compensate for this. Pictures are complemented by statistics and a short précis of the types shown. The history starts with the forerunner companies Daimler and Benz and ends in 1986. Those who do not have this book yet are served well because it is about the history of a worldwide brand name. (eu)

# Our partner page

## A visit to the Maggia valley

Our sister company, the Fiorini AG, has a variety of suppliers in the Tessin. On our last visit we went to see the quarry of our partner in the Maggia valley. Over the last years the quarry operation has changed from using explosives to working with a diamond-encrusted saw. As a result of this change, the quality of the quarried blocks has substantially increased and the amount of waste has decreased significantly. Four different Caterpillar machines are in use. When we were there a new excavator had just been delivered. The Cat 374D will surely do yeoman's duty in the quarry. An old DJB dumper is used for the removal of quarry waste.

## More digitalization and low emissions from the new vehicles

A four-axle roll-off container dumper arrived at the end of March and at the beginning of May a new roll-off dumper with five axles arrived. The MAN TGS 35.460 10x4 BLL has a very low emission Euro 6-Engine and has no problem hoisting up even the heavier bins.

The Weiacher Kies AG replaced the oldest of their diesel-electric powered D7E bulldozers. The three D7E usually work on the excavation and the Inert-Material dump. The Eberhard Bau AG received a replacement for their old D6N LGP dozer. The shop and the surveyor recently upgraded to the newest 3D-Steering so that even the new D6N dozer is capable of leveling off ground with the highest degree of accuracy.

In July, the first three excavators of the new generation from Caterpillar arrived. Currently, the model 330 with a working weight of 31 t has the most advanced digital steering capability. The new excavators are the first construction machines in the Eberhard fleet that have engines conforming to the current EU step V exhaust emission controls.

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# News in brief

## DAF CF Electric wins the Green Truck Award

On the evening before the Transport Logistics Fair in Munich, the leading trade journals Verkehrs-Rundschau and Trucker awarded the ContainerLogistiknetzwerk (Container logistics network) Contargo this price for commissioning the first DAF CF Electrics in Germany. The two fully-electric DAF trucks of the Rhenus sister company Contargo are part of an extensive field test with several vehicles all over Europe.

The DAF CF Electric is an electric 4x2 tractor truck that was developed for use of up to 37 t of cargo in a city environment. The vehicle is based on the DAF CR and the core of the intelligent drive component is a 210 kW strong elector motor that is powered by a Lithium-Ion battery pack with a current total capacity of 170 kWh. Depending on the load, the CF Electric has a range of up to 100 kilometers. (dw)

## The tests with the eActros are continuing

Because the tests with the 25-t heavy trucks for the heavy delivery traffic that began at the beginning of the year showed satisfactory results, the next test phase that includes comparison trips on eWayBW have begun. For this one, eActros and one conventional diesel truck are driven over the same route with exactly the same load as the catenary truck. However, because of the high infrastructure cost, Mercedes-Benz is not betting on the system with overhead wires and therefore does not plan electro trucks suitable for it. (dw)

## Komatsu PC2000-11

The model PC2000 is the largest excavator built by Komatsu in Japan. After the very successful PC1250, the 207-t heavy PC2000 in a front shovel version as Dash 11-series is now available. The built-in 12-cylinder Komatsu engine is capable of putting out 780 kW (1046 hp) of power and complies with the emission controls for Tier 4 final. The standard equipment includes an 8.8 m long boom, a 3.9 m long jib and a 13.7 $m^3$ capacity earth shovel or a rock shovel with 12 $m^3$ capacity. Furthermore, the contractor can choose between 810 mm wide two-section or 1010 mm wide three-section segment tracks. It takes four loading cycles for a PC2000-11 to load a Komatsu HD785-7 or a Caterpillar 777G. (up)

## TGS 18.510 4x4 Agrartruck

MAN is betting further on the agricultural sector and at November's Agritechnika in Hannover showed an accordingly configured 4x4 TGS semi-trailer tractor unit. The most noticeable feature is the reduced surface impact farming tires.

Among the internal workings is the D26 engine with a 10 hp increase in performance which increases the available power to 510 hp and it also complies with the Euro 6 exhaust protocols.

Besides the permanent four-wheel drive, the farm truck has a hydraulic plant, trailer hitch and hook-ups for several different systems. Additionally, the truck can be configured for forestry use. (dw)

## Caterpillar 794 AC Dumper

Since the exhaust control regulations in the US are even applied to the very large engines, Caterpillar is now presenting the 794 AC with a power unit that complies with the current Tier 4 final exhaust control protocols. For this diesel electric drive, a C175-16 diesel engine with 2610 kW or 3500 hp has been built in. With a total working weight of 521 t the surface mining dumper can transport 291 t of material. Compared to the same model of the Tier 2 engine, there was no loss of performance. It was even possible to lower the fuel use by 5.6%. The reduction of the emissions was achieved with the help of AdBlue. An engine version which complies with the European exhaust controls of step V is under development. (up)

## Volvo LC450H

Volvo is entering a new market segment with the 40.8-t heavy LC450H waste material compactor. Compactors with shovels have been built by Volvo previously but the wheeled dozer version is a novelty. As a performance comparison, the built-in 309 kW (414 hp) engine is about equal to the one found in the L260H wheeled loader. Volvo paired up with the American company Terra Compactor Wheel for the development of the LC450H. The choices for the blade are a 4665 mm wide Straight-Blade or a 4550 mm wide Semi-U-Blade. For the 1207 mm wide compacting rolls, the customer has the choice of three different arrangements for the 216 mm long compactor spikes. The new trash compactor is currently only available in the US. (up)