

*International Edition*

Free,  
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for railroad enthusiasts  
in the scale 1:220  
and Prototype

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# Trainini

German Magazine for Z Gauge



## The Siemens Vectron

A quick Look down the Road  
Three Trailers for Märklin's Best

50  
Years  
of Z Gauge

## Introduction

Dear Readers,

In my mind I am currently in the seventies of the last century. In autumn 1975, my first Z-gauge layout was almost finished and only the necessary decorations were missing. With my saved pocket money, I went to the toy shop around the corner and bought, among other things, two Märklin 8973 packs, as I recall.



Dirk Kuhlmann  
Editor

These were the six colourful plastic cars which, in today's view, looked more like a tiny eraser. At that time, I was happy to have a few road cars on my model railway layout. Of course, the cars didn't get fixed, which was the only way I could keep creating new scenery. Modesty was a typical virtue in those days. A look at the vehicles in 1:87 scale always gave rise to pipe dreams.

Of course, in the course of the next few years, new and better products continuously appeared on the market. Even back then, colour was the order of the day. My first really dirty cars were on the layout in the early eighties. A little ash from my grandparents' coal stove helped here.

Some experiments failed and the model only had a right to exist in a scrap yard. In addition, the solvents used to roughen the plastic surface were often so aggressive that the model literally melted away. And nowadays?

During my 48 years with the Z-scale model railway hobby, a great variety of road vehicles has been created. With the most diverse and modern manufacturing methods, even "the" desired model can be realised. Additional materials and the finest tools perfect a number of cars or trucks. As a side effect, the hobbyist can boast of owning truly unique vehicles. This brings us quite smoothly to the content of this edition.

We look at various commercial vehicles in 1:220 scale and their modification for very special themes on your own model railway layout. Of course, a short excursion through the last decades – the model railroader speaks of epochs – should not be missing.

The appropriate literature comes from the Motorbuch-Verlag and can help the model railway fan with many photos for the optimal realisation.

The DB Cargo class 193 (Märklin 88231), on the other hand, is our larger focus topic. Many fans of Era VI have certainly been waiting for this locomotive. With our proven test procedure, we get to grips with the model and look at its strengths and possible weaknesses.

Of course, a report on the original should not be missing at this point and also shows the successful development of this locomotive. For further information, the EK publishing house in Freiburg (Breisgau) has published a suitable book. We have also looked at it and read it.

Sin-Z-erely,

Dirk Kuhlmann





Five decades on the road

## A Sample of commercial Road Vehicles

*Covering five decades of commercial road vehicles at a scale of 1:220 is the aim of this article. The subject area has changed a lot in recent years: At Märklin, modelling techniques have evolved, some suppliers have disappeared from the market, others have sprung up. And then there are also those accidental finds that enrich our world. We will try to give you an overview with the help of some selected examples.*

We thought it was time again for a car theme in this magazine. It has been a while since we last looked at road traffic on model railway layouts. And since we also wanted to present quite current vehicles, this issue with its focus on Era VI seemed to be a perfect fit.



This scene at the Hermsdorf level crossing (built by Harald Fried) shows how important not only figures but also motor vehicles, either actively participating in traffic or just parked on the side of the road, are for adding realism to a model railway layout.

And, so, we want to provide a brief overview of the product ranges of various manufacturers, through several decades and highly diverse vehicle types, which is intended to highlight the diversity and creativity of this particular chapter in the history of Z scale. The aim today is not to show ready-made models, but to present solutions for customisation according to one's own needs.

### Bread express with style

Until the demise of the Vidal-Werke automobile manufacturer, the Tempo Hanseat was a very popular three-wheeler in Germany. The fact that this type of vehicle was so popular once as a small delivery van had mainly financial reasons. Today, such vehicles in restored condition are popular collector's items.

And, so, during his summer holiday in 2005, the author of this article came across a well-preserved example in the possession of the Hoffmann bakery in the town of Müden / Örtze (Lueneburg Heath), which bore the appealing, low German inscription “Hoffmann’s Backhus”. This sparked the immediate decision to create a Z scale version of this particular specimen.



Particle accelerator or bread express? Regardless of the intended use of the tricycle, this Tempo Hanseat proved to be an appealing prototype for a Z scale model.

The matching model was later found as an addition to a Märklin museum car for the catenary and pantograph specialist Sommerfeldt. This model was freed from its inscriptions using cotton swabs and pad print remover from Prehm Modellbau, disassembled and spray painted with white PUR primer (Badger SNR-401). This achieved good coverage on the previously light grey painted model.



Before and after: The Märklin model labelled “Sommerfeldt” (left) lost its pad printing and changed its basic colour to pure white (right).





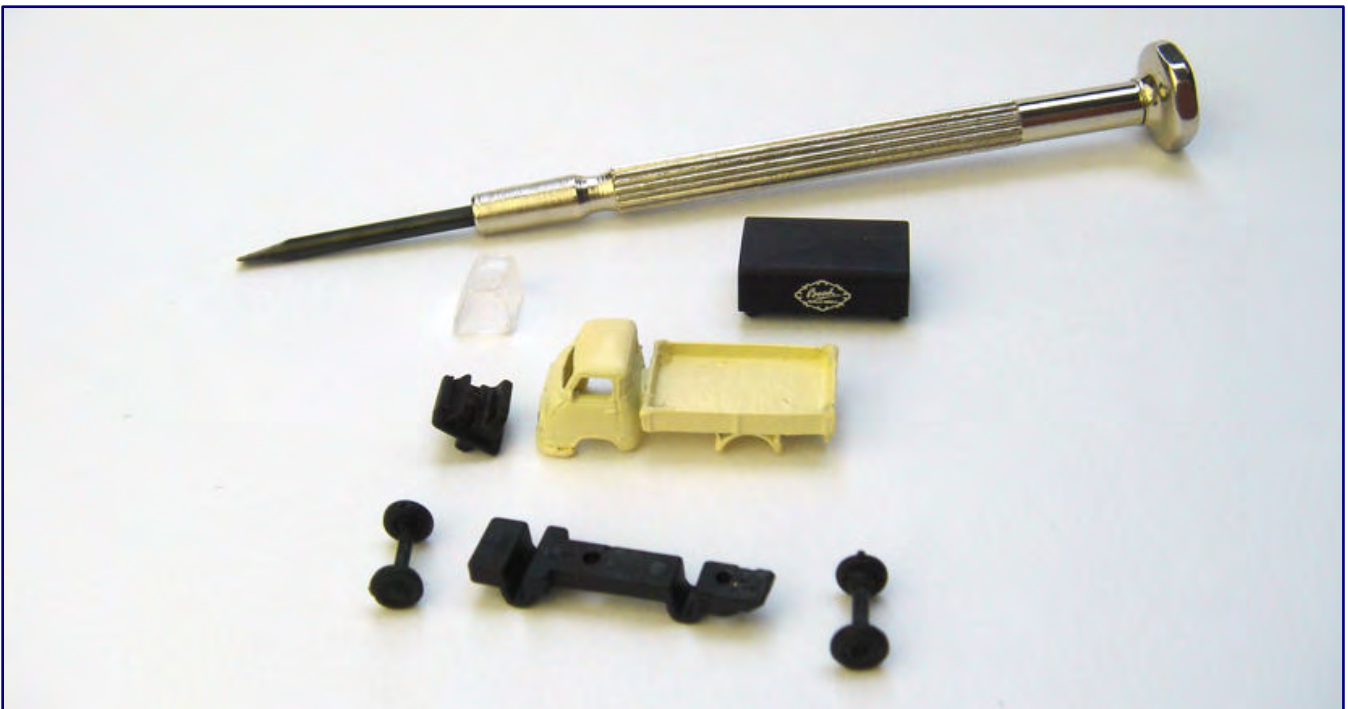
Although the original and the model are undoubtedly not from the same model year and the same design, the impression of the model appears to be coherent and appealing. From now on, Hoffmann's Backhaus will also deliver its bakery products on a model railway layout.

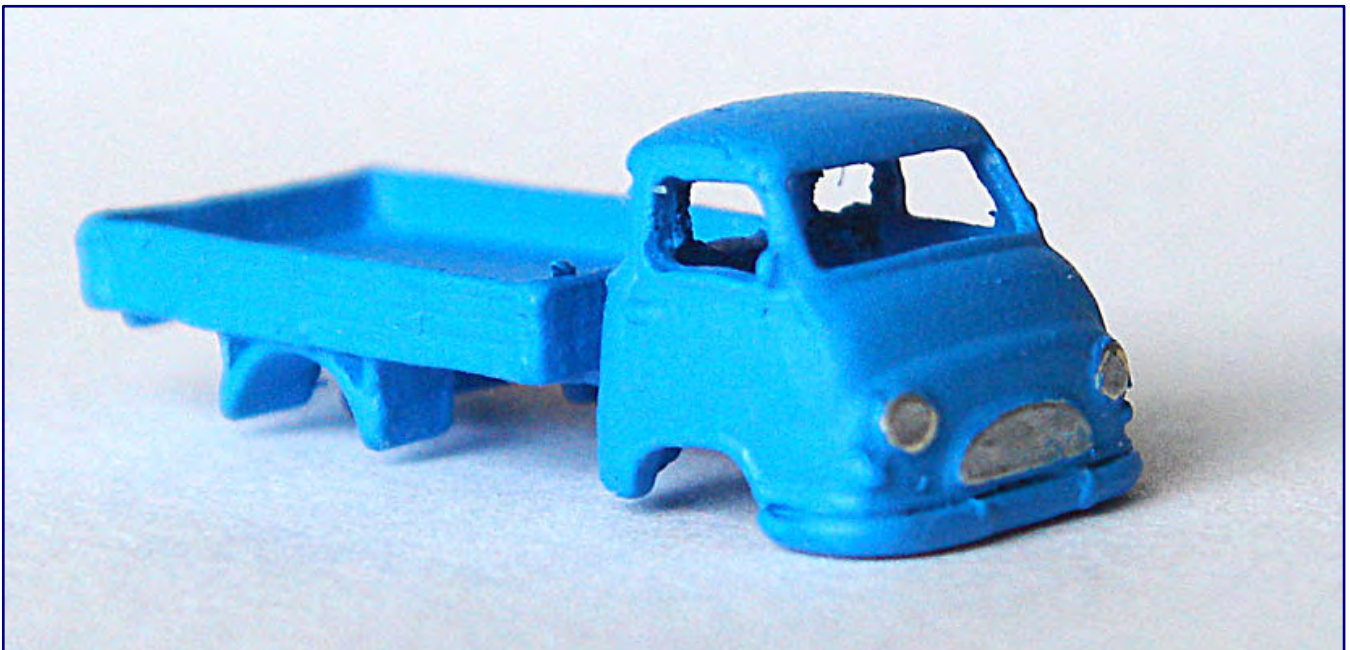
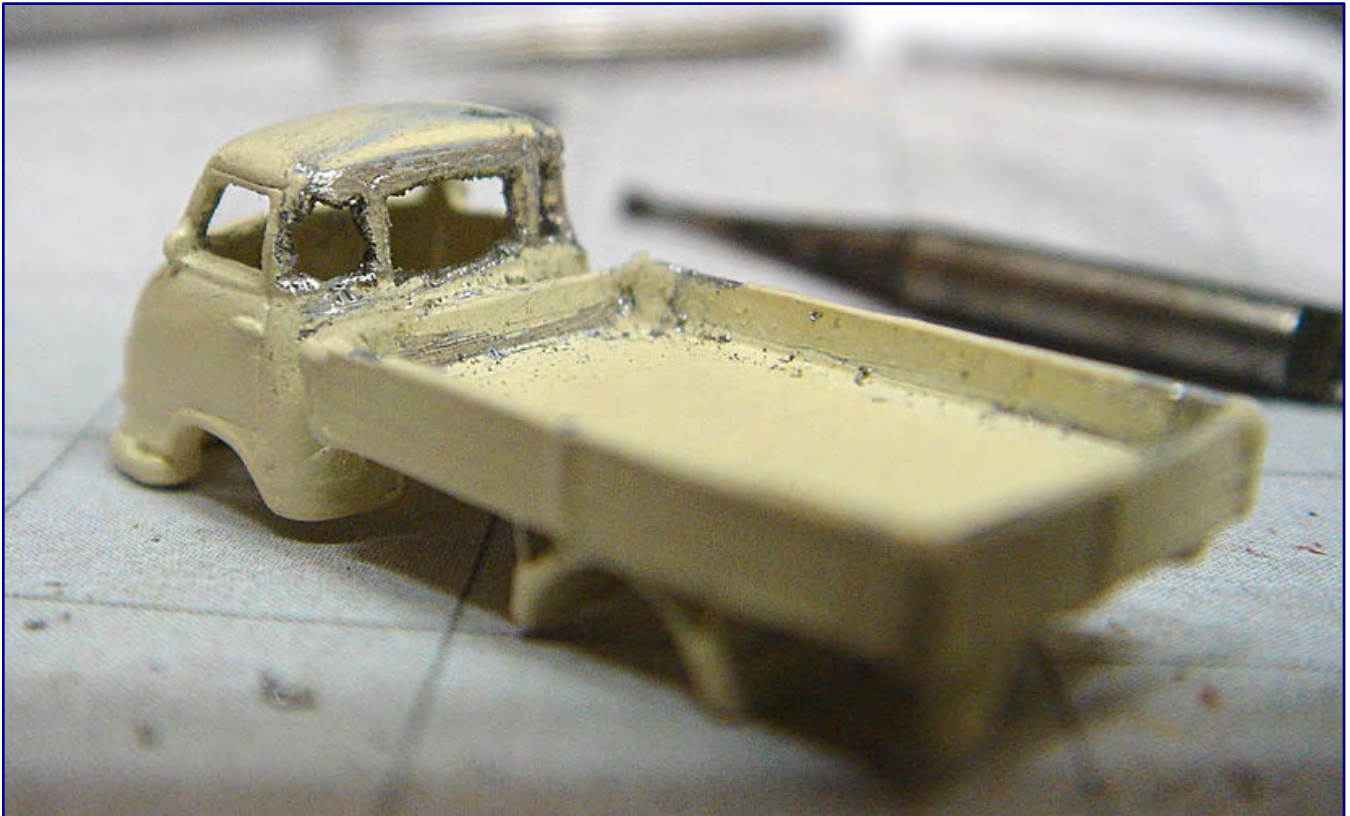
The new lettering was produced by Modellbahndecals Andreas Nothaft according to self-made original templates and then applied to the model, before being sealed with a coat of clear varnish. Touch-up work on the front wheel drive and the headlights was done with paints from Revell by brush.

And let's not forget the final assembly. Disassembling the model was necessary for better paint separation and access. This is one of the new Märklin car models that have real rubber tyres mounted on them.

## Schubert's Lamp Shop

We were also attracted by the Hanomag Kurier delivery van with flatbed and tarpaulin that was included with the 2018 Märklin museum car. The same idea that came to us also occurred to our reader Götz





The most important modifications on the Tempo Matador consisted in milling the rear windows and repainting the body. In order to be able to apply new lettering afterwards, the original ones on the grey-brown tarpaulin top had to be removed beforehand.

Guddas, who designed his model in the same colour, also upgraded it considerably. For example, he also added separate exterior mirrors.

We did not go that far, even though we chose the same, contemporary blue colour that had also suited him. The light blue (RAL 5012 light blue) comes from Oesling Modellbau and was reapplied as a spray paint to thinly cover the old colour without ruining details.



Again, a thorough disassembly was on the agenda: The frame, axles and clear-view insert could be put aside. Almost all the necessary work was limited to the superstructure consisting of driver's cab and platform. The only exception was the removal of the inscriptions from the tarpaulin, which was done in the same way as on the previously described model.

However, a considerable upgrade of the appearance of this vehicle can be achieved quickly. To do this, we milled out the three rear windows of the driver's cab using a micro drill grinder and suitable inserts. Care is needed, as otherwise, the separating bars are quickly removed, as well.



Even journeys without the tarpaulin attachment are possible. A good appearance in this case is provided by the wooden floor of the loading area, which was created from real wood veneer.

It is quite sufficient to only create an opening here that allows access with square key files and then create the windows by carefully filing away the material. Especially with the two outer windows that run around the edges of the side and rear wall, this minimises the risk of loss or more costly rebuilding efforts of the window bars.

Once all the edges are sanded clean, a coat of primer is recommended to improve the adhesion of the final coat of Oesling paint on the metal of the superstructure. Here, we again used the Badger product. Comparable products are also available from Vallejo. Rims, radiator, headlights, rear lights and number (license) plates were painted with Revell and Vallejo paints.

The lettering on the tarpaulin was to be contemporary and a company name was to be given in the usual naming style of the time. This also included a suitable, easily readable, typeface. Again, an order was placed with Andreas Nothafft. If the tarpaulin is not put on, the viewer's gaze falls on a wooden floor made of thin veneer.

“Schuberts Lampenladen” (“Schubert’s Lamp Shop”) is a tongue-in-cheek allusion to the lighting skills of our helper Torsten Schubert (Z-Lights), who already found his way onto a private model railway layout under the same name with a lamp shop of the fifties and sixties thanks to Dirk Kuhlmann. So, this delivery vehicle closes another gap and also makes for an appealing upgrade from the condition of the original model.

continues on page 10





“Where are you coming from, where are you going...?” The delivery van of “Schuberts Lampenladen” (Schubert’s Lamp Shop; top) humorously alludes to our helper’s skills with soldering irons, enamelled wires and the finest light-emitting diodes. The idea for this model was inspired by a model scene designed by Dirk Kuhlmann in which the electrical goods shop of the same name (bottom) was located to the left of the Lichtburg movie theatre.

## Modern semi-trailer

Of course, a modern articulated truck, fits perfectly with today's cover story about the Siemens Vectron engine. However, we have cheated a little bit, because our fictitious advertisement still uses old pre-1993 postcodes.

These became invalid just a few years after the federal territory was expanded to include the states of Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt, and Thuringia, in order to merge those from formerly two states according to a uniform scheme. The tractor unit put by us in front of the trailer, on the other hand, was only built from 1996 onwards.



A few years ago, Universal Hobbies offered canvas covered semi-trailers with advertising imprints as key rings in 1:220 scale. After a few modifications, they can be combined with modern semi-trailer trucks.

Nevertheless, the duo can certainly be credibly used in a transitional period, because tarpaulin inscriptions were not necessarily corrected in a timely manner. The decisive factor in each individual case was certainly the planned remaining period of use. But, also, the street chosen, as intended by the author, will not be found under the successor postcode in street maps of the city mentioned.

If you want to use modern trucks, there is not much to be found on the market. Herpa has not produced a Z scale car model for years, and even Märklin itself tends to focus on classics for country roads. Only small-series manufacturers such as NoBa-Modelle have recognised the demand. But every now and then there are unexpected cases of good fortune.

A few years ago, one of these was a key chain from Universal Hobbies, which was produced exactly on a scale of 1:220 for the agricultural machinery manufacturer Krone as a promotional item. The two versions "Krone Big M Trailer Keyring" (art. no. UH 5528) and "Krone Big Pack Trailer Keyring" (UH 5531) are still available today from a few dealers, but then at many times their original price.

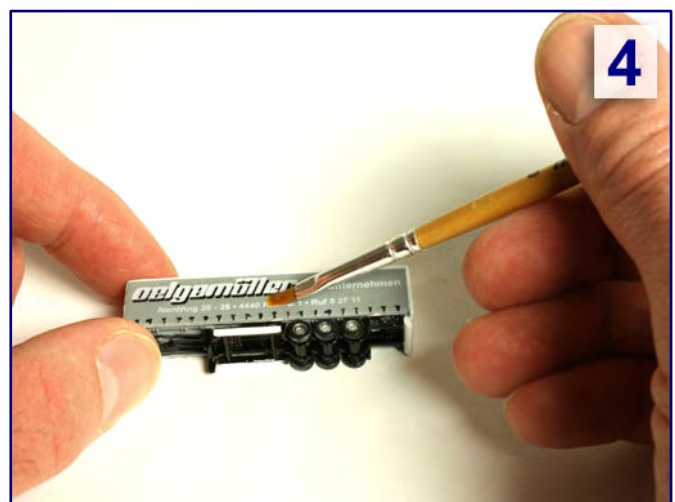
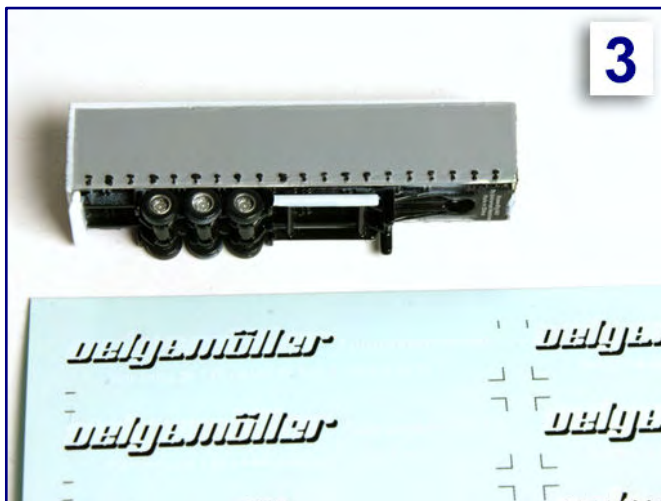
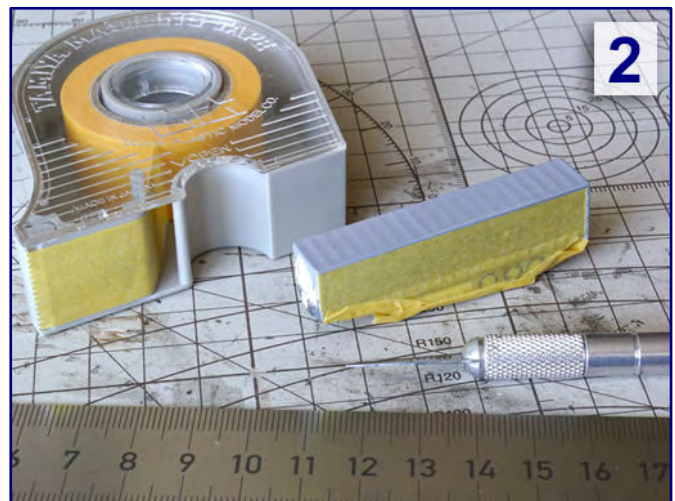


Completely cast from metal and finely printed, they can be easily modified and put to good use on a model railway layout. If you can still get hold of such a piece, you can easily keep the factory imprints and continue to use them. We, on the other hand, decided to become a bit more creative.

First of all, the trailer had to be made fit for road use. To do this, the eyelet cast on the front end of the trailer had to disappear. We managed this with the help of the Roco fine saw (10900), a tool that has been tried and tested for many years and is still available under the term “hobbyist’s saw”.

Of course, marks are left on the metal of the end wall, and the cut has to be made very close to it, which is not easy because of the thickness of the saw blade. Reworking can, therefore, not be completely avoided.

This is the hour for the UV adhesive “Uhu LED Light Booster”, which can not only join parts, but also fill gaps, and it is ideal for rebuilding material in layers.



The uneven surface resulting from the removal of the key-chain eyelet is rebuilt layer by layer with Uhu LED Light Booster glue (step 1). The trailer’s sides are painted over in light grey, the bulkhead and ceiling in a uniform white. Masking tape from Tamiya (step 2) protects and separates the paint layers during application. Finally, the tension levers for fixing the tarpaulin are set off again in black (step 3) and the decals are prepared for application. Finally, they are applied with adhesion solution and softener (step 4) and smoothed out with a soft brush, so that no air pockets remain.

It is applied in tiny layers and, if necessary, brought into position or shape with a toothpick before the accompanying battery-powered UV LED is used. More and more layers can be applied on top of the hardened layers, which makes it almost impossible for areas that are to remain open to become filled.



A direct comparison shows the differences between the box-shaped trailer from the earlier Herpa range and the redesigned key-chain trailer.

Immediately after curing, the hard adhesive can be sanded, as we do here, and then painted. This fairly new product saves a lot of time and is an extremely proven helper in its combination of light-reacting components and ordinary cyanoacrylate.



The Herpa truck unit with more detailed 3D wheels and rims from Zmodell makes for a convincing model, together with the converted trailer.



The reworked front side is then touched up with white paint and awaits new side surfaces. After the white areas are masked with Tamiya masking tape, the light grey PUR primer from Vallejo (74601) is sprayed on. The new colour covers the Krone advertising and creates space for our own markings.

Designed according to our own wishes on a distortion-free photo of the repainted trailer, Björn Plutka (Z-Doktor Modellbau) printed the matching decals for us. We apply them to both sides of the model with the help of adhesion improver and softener, which is then ready for use after drying and sealing with clear varnish. We set the lower tension levers for the curtain canvas with a pointed hair brush and black lacquer.

As a matching tractor we use a Mercedes-Benz Actros from the former production of Herpa, but it carries finely designed wheels from Zmodell, which look better and match the detailing of the rims of the trailer. These are 3D printed parts that were previously not available for purchase. Upgraded in this way, the "Fuhrunternehmen Oelgemöller" can now start its service on the model railway layout.



The MAN F8 was the result of a collaboration with the French producer Saviem. The truck with its boxy cab is a classic that is still remembered. Etchlt-Modellbau has had it in its range for some time.

## A classic on four wheels

The section heading probably sums it up: the MAN F8 has become a classic of truck design. It was widely used and the distinctive boxy shape of its driver's cab made it stand out and recognisable. This vehicle was also found in the east of Germany and was produced under licence in Romania.



Due to licenced production, this vehicle was also found in Eastern Bloc countries. Therefore, we have equipped it with a short container trailer. In this case, it carries a 20-foot refrigerated container with markings of the Deutsche Reichsbahn.

The model for the 3D print kit from EtchIT-Modellbau (art. no. XD033\_Z) was the two-axle truck MAN F8 with tipper cab in a medium-length version. The chosen design with horizontally running ribs in the radiator grille corresponds to the production period 1972 to 1983.

This vehicle type was introduced as early as 1967 as the successor to the Type 415 and Type 10210 models. At that time, MAN announced a cooperation with the French manufacturer Saviem, which included technology and sales. It lasted until 1977, and Saviem supplied the driver's cabs in this case.

The grille of the model already shows the company logo that is still in use today, including the Braunschweig lion. This was added to the three-letter abbreviation after the takeover of the traditional manufacturer Büssing by Maschinenfabrik Augsburg-Nürnberg.

EtchIT-Modellbau delivers this model in two parts, which makes painting much easier. We painted the undercarriage uniformly deep black and used PUR primer from Badger (SNR-403). The cabin was painted in RAL 5012 light blue from Oesling-Modellbau.

The grill, headlights, turn signals, rims, rear lights, number plates and exterior mirrors were painted with Revell and Vallejo paints. It is worth mentioning that the steel rims are not painted in chrome silver, but in an iron grey corresponding to RAL 9006 grey aluminium. Only the surfaces of the wing mirrors are chrome coloured (Vallejo "Metal Color Chrome" 77707).

The windows were "glazed" with Micro Kristal Klear from Microscale (MI-9). For the large windscreen, a trick from Edgar Seubert helped: we masked it from the outside with Tamiya masking tape, applied the adhesive paint, and waited for the surface to dry through. This successfully prevented the Micro Crystal Clear from acquiring a lens-shaped form upon drying.



With the same colours we also treated the chosen two-axle trailer for 20-foot containers (XD058b\_Z). The supplied reefer container from the DR's stock was painted with RAL 9002 grey-white using Oesling paint and received its markings through the decals from EtchIT-Modellbau that came with the kit.

In order maintain a consistent story line on a non-DDR layout and, as long as the container should not somehow have found its way over to the West, we also like to exchange the short container for an inland container of the Bundesbahn. Then it is also possible to depict attractive reloading scenes between freight wagons and delivery vehicles.



It is conceivable, for example, to readjust reloading operations of the combined load traffic (KLV). In addition to swap bodies, containers are also transferred from the train to the road. A container terminal would be the perfect place for the model.

Märklin used to carry a container terminal kit in its assortment. Even today, second-hand sets can still be found from time to time at trade fairs and exhibitions.

## The Kidney Table Era

We take a leap back at least another decade with the last model we are presenting today. This one also comes from EtchIT-Modellbau and documents an equally good, almost perfect printing technique. Their model of a Magirus Deutz Mercur 120 flatbed truck with tarpaulin (XD178pla\_Z) is well designed and comes in two pieces (chassis with platform / driver's cab).

The prototypes of the round cab originated in 1951 during the mid-century kidney table era, gave Magirus-Deutz's commercial vehicles a distinctive face for over two decades, and became a great success with their air-cooled engines. Their manufacturer repeatedly emphasised in its advertising that air could not freeze and made this a unique selling point over water cooled competitors.

The German Federal Railways also used the Magirus Mercurs, and we find this truck decidedly elegant in its contemporary livery. This can be confirmed on the supplier's pages, which show the Bundesbahn version as a design sample. Except for the colours of the markings, we have taken over this design.



The Magirus Mercur 120 was also used by the DB and probably served in door-to-door traffic. Consequently, the DB livery and lettering were the inspiration for our design.

And that is why our model is given an air-brushed base coat of RAL 7021 black-grey from the Oesling-Modellbau range, which was common at the time. The mirror surfaces and headlights are painted chrome-colour (Vallejo 77707) with a brush, the indicators on the mudguard, tail lights and number plates orange, red and white, respectively.



The open tarpaulin at the back allows creation of loading scenes at the goods shed.

Suitable colours can be found in the Revell range or at Oesling-Modellbau. We also liked the colour of the tarpaulin, which EtchIT-Modellbau shows on its pages. This can be reproduced well with Revell matt leather brown (84).

This vehicle can be marked with lettering and DB emblems from Nothaft decal sets (220-0865 / 220-2210, adapted to pure yellow). Glazing of the windows and sealing of the lettering correspond to the approach described above.



## The crumpled face

We started this article with a vehicle from the Vidal-Werke and we will close it with another one from the same company. EtchIT-Modellbau added a 3D-printed model of this interesting small delivery van to its range some time ago, of which we received a sample from the test prints.

Our readers should take into account that the final version of the model is much improved, compared to the pre-production version we used.

In particular, the print layers are clearly visible in our version. A second model with a different body variant from the later series does not show this deficiency!

Consequently, the vehicle we would like to show here is not representative of the particularly high print quality of EtchIT-Modellbau.

The reason that we are nevertheless presenting the model is its unique character.

In its original design, the Tempo Matador 50 quickly earned the unflattering nickname “crumpled face” and soon underwent a model change that was also intended to give it a more pleasing appearance. Nevertheless, the original front design is memorable and has a high recognition value.



The Tempo Matador 50, here an example of the 1951 model year, is one of the greatest design aberrations in German post-war history. That's why its front design was eventually changed. Photo: Rex Gray (CC-BY-2.0)



This striking vehicle is part of history and cannot be ignored, with its design being a witness of the design language during its time. We have therefore given it a paint job that does it justice. Please note that this is a pre-production model and not the final series model!

And that's what makes it interesting as a model, which was rightly recognised here. Our wish was to distinguish it from other vehicles on the layout in terms of colour. That's why we gave it a contemporary paint job, which certainly can't meet today's aesthetic demands, but which suits the Matador well: Beige body and brown chassis.

The two-part construction again facilitates painting. Tyres, number (license) plates, windscreen wipers, head-lights, and door handles are also painted in the same way as described above.

The second model as an estate car is assigned a special function and will be the subject of another report. In the future, we plan to present from time to time various Z scale car models of the different large and small series manufacturers. The intention is to provide a bit of an overview of what is available on the neglected market for Z scale road transport vehicles.

**Manufacturer of the basic models:**

<http://www.etchit.de>  
<https://www.maerklin.de>

**Markings used:**

<https://www.modellbahndecals.de>  
<https://www.z-doktor.de>

**Paints, adhesives and tools:**

<http://badgerairbrush.com>  
<https://www.faller.de>  
<http://www.oesling-modellbau.com>  
<https://www.revell.de>  
<https://www.roco.cc>  
<https://www.tamiya.de>  
<https://www.uhu.de>



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Nahe des sauerländischen Grottenbergs befand sich an der Strecke zwischen Beringhausen und Messinghausen der gleichnamige Schrankenposten mit der Nummer 255. Wir haben nach diesem malerischen Vorbild einen bei geringer Größe höchst detaillierten Bausatz entwickelt, der sich realitätsnah wie beim Original, 10mm tief in den Bahndamm einbauen lässt. Die Vorderseite und die seitliche angebrachte

Stahlterasse liegen dabei auf Trassen-Niveau, während auf der Rückseite der Kohlenkeller ebenerdig zu erreichen ist. Mit seiner charakteristischen Schieferverkleidung des Obergeschosses ergänzt der Schrankenposten 255 den verwandten Bahnhof 'Westheim' aus der Exklusivserie des 1zu220-shop vorbildgerecht.

Bausatz aus hochwertigem, durchgefärbtem Hartkarton. Abmessungen: ca. 22x22x55 (LxBxH in mm)



## Neuauslieferung Mai 2022:



Märklin 88485 - Elektrolokomotive Baureihe 146.5



Märklin 88678 - Elektrolokomotive 101 003-2



Märklin 88772 - Diesellokomotive Baureihe V 36

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Vectron MS from Märklin

## New Platform for Z Gauge

*After a hesitant start, the Siemens Vectron has developed into a widespread successful model that can be found in almost all European countries. The Zetties' desire to be able to use this locomotive on their layouts has increased even more. A completely new design promises the closest possible resemblance to the prototype, which is why we took a close look at Märklin's new model.*

No sooner had the triumphant advance of the Vectron platform from Siemens begun than the wishes of Z gauge railway enthusiasts increased to be able to use at least one version of this locomotive on their layouts. But, for a long time, they waited in vain, although we also heard from Märklin that it was a very interesting prototype.

At the 2020 International Toy Fair, the last one before the outbreak of the Corona crisis, the Z gauge inventor from Göppingen finally announced this eagerly anticipated locomotive as a new product. The supplier sent two versions, the SBB Cargo and DB Cargo, into the race for customer favour. At the same time, however, it was announced that delivery was not planned until 2021.



Modern KLV transports are the main field of application of the Siemens Vectron MS, which is the only electric locomotive of DB Cargo that can run from the Dutch North Sea ports to Italy without reloading. Carrying wagons for trailers, swap bodies and containers are, therefore, particularly suitable for train formation in the model.

But it took almost a year longer, because the turn of the year 2021/22 also had to pass, before the first Zetties were allowed to hold their new model in their hands. However, it was not one of the two spring new products that we just mentioned, but the ÖBB version as Rh 1293 announced in autumn 2021 before its delivery.



But, in the meantime, parts of the traffic-red Siemens Vectron MS used in goods train service have also found their way onto the shelves in the form of the DB-AG class 193 (item no. 88231). We had planned a test for these, which we can now publish today.

We were also very excited to hold the new model in our hands. Unpacked and subjected to a first impression, joy spread: The Vectron has a familiar weight, which promises good tractive power for a four-axle bogie locomotive. Proportions and details also seem to be well done, and we also note the new pantographs on the roof.



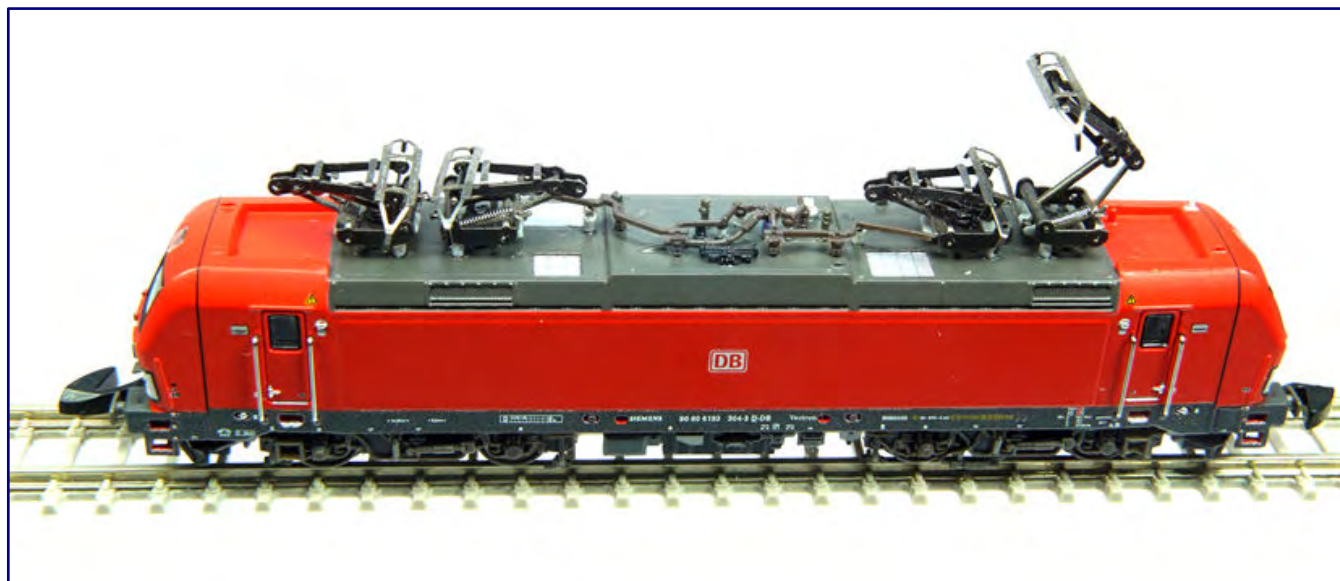
The first impression of the scale and proportions of the locomotive (item no. 88231) is good: prototypically large wheels under a newly designed chassis. But the model will also reveal downsides in the test.

Now, it would soon become clear whether the dimensions and measurements hold what the eye promises. There is no question, however, that this new product is based on a completely new chassis, which will certainly serve as a platform for further implementations with similar prototype dimensions, at least with regard to the distance between the pivots.

The first insight also means that, unlike the models of the Europrinter or TRAXX family, this locomotive is not based on an existing chassis, which in the past have forced one compromise or another. This is



One of the obvious strengths is the detailed reproduction of the bogie frames. The fact that the retractable pantographs have been redesigned is only noticeable after a second glance.



The first look at a new model should probably always be from above. Here, in addition to the four pantographs, which were not differentiated in shape and width according to the countries of registration, we discover elaborate roof lines that even reach the inner pantographs.

all the more important because such adaptations have sometimes distorted the locomotive's individual features or distorted it in places.

The new Vectron proves to be refreshingly independent after removal from the familiar sliding box with thermoformed insert and transparent fixing cover. We will encounter this again explicitly in the following remarks when we talk about the strengths of this model – however, it is not entirely free of weaknesses either, which we also note.

## Details and Scaling

In many respects the new Vectron makes a good impression immediately, which is also confirmed when measuring the most important prototype data and also stands up to the view through the magnifying glass. These include good detailing, which is of course hardly noticeable on the smooth locomotive body.

### Data and dimensions of the Siemens Vectron MS (193 series):

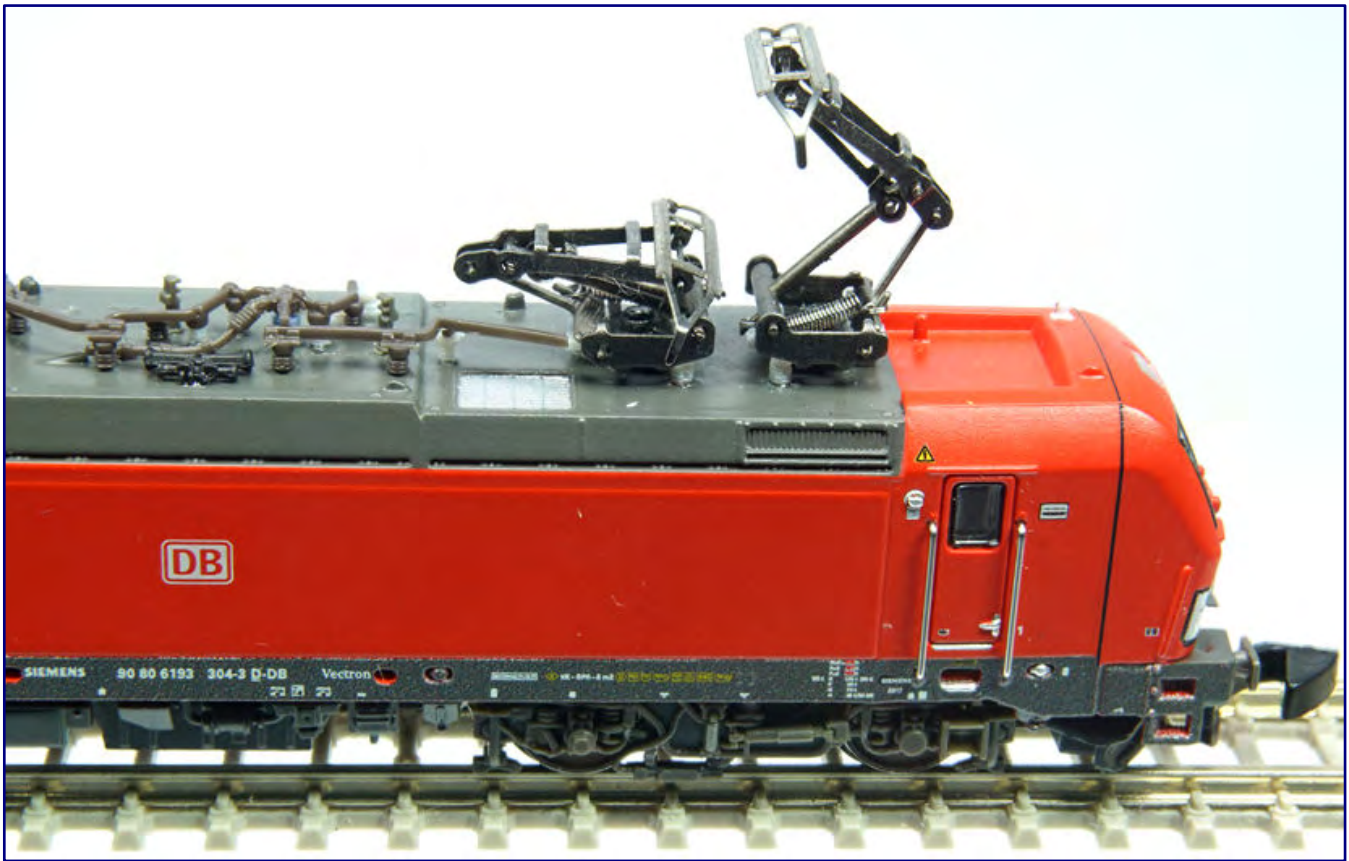
	Prototype	1:220	Model
Length over buffers (LüP)	18.980 mm	86,3 mm	86,3 mm
Maximum width	3.010 mm	13,7 mm	13,7 mm
Height over rail head	4.248 mm	19,3 mm	22,6 mm
Overall wheel base	12.500 mm	56,8 mm	57,7 mm
Bogie axle width	3.000 mm	13,6 mm	13,5 mm
Pivot spacing	9.500 mm	43,2 mm	43,7 mm
New wheel diameter	1.250 mm	5,7 mm	5,7 mm
Wheel diameter worn	1.160 mm	5,3 mm	
Service weight	87 - 90 t	---	2 g
Max. wheelset load	22,5 t		
Axle sequence	Bo' Bo'		
V <sub>max</sub>	160 / 200 km/h (depending on design)		
Power (AC)	6.400 kW		
Years built	ab 2010		
Quantity produced (3/2022)	1.327 (for all versions)		

What is meant here are the individually mounted roof insulators, cables, switches, and the air horns are correctly placed in the middle of the locomotive. The only disturbing thing is their speckly sheen, from which only the air horn is excluded.

This suggests POM as a material that cannot be painted easily. The roof cables reach the pantographs.

Particularly praiseworthy are the separately attached climbing bars on the driver's cabs, while the handles at the fronts are moulded on and not free-standing. The two lowest steps to the driver's cabs are not part of the body, but of the bogie frame to allow their swinging out on curves.





Horn (black) and roof cables (basalt grey) are separately attached and make a coherent impression overall. However, in the case of the second-mentioned attachments, the speckly shine of the parts noticeably disturbs the realistic impression.

The finely realised and very detailed bogies are one of the highlights of this new product, also thanks to the larger wheels with prototypical diameters. Here, Märklin has demonstrated very impressively what is also decisive for a good overall picture. For example, the free-standing Indusi locomotive magnet should be highlighted here.



The brake discs, which were developed by Zmodell as accessory parts, represent a considerable visual gain in the area of the excellently detailed bogies.

Another innovation is the plastically reproduced control panel in the driver's cab, which is reproduced in light grey. We found a similar one previously on the V 80, but there the ground clearance could not be converted to implement it on the level of this model. It is almost a pity that the driver's seat is missing, because this conversion almost requires a figure to be added.



The close-up should illustrate how successful the bogies are and how significantly their appearance can be enhanced with Zmodell's accessory parts.

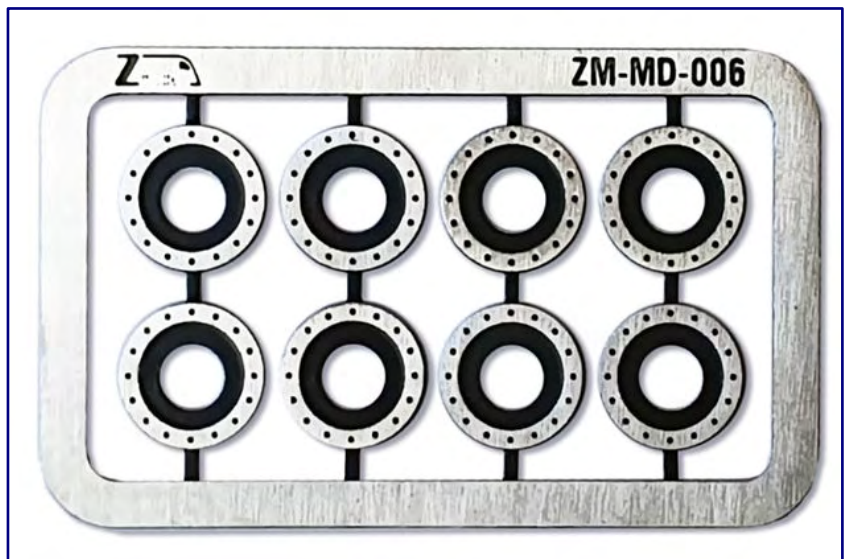
Steps, other openings in the locomotive frame and also the ventilation grilles are recessed or excellently engraved. Unfortunately, the roof area of our test model was painted too thickly, which covered some of the fine engravings.

The wheels used for the Vectron also seem to be completely new parts: Exactly to scale in diameter, we cannot recall having found this wheel disc dimension before on another locomotive model.

Admittedly, we have not undertaken any lengthy research at this point, because the only decisive factor is that Märklin has used correctly sized parts, which are also important for the prototypical appearance.

They can be visually upgraded by gluing on detailing parts from Zmodell, the last new development before the outbreak of the war in Ukraine.

Each etched sheet contains eight colour-treated brake discs for the Siemens Vectron, which are cut out and glued to the wheel surfaces with the help of a glue stick or a drop of diluted white glue. They should be available shortly, after the fitting test was successful at the first attempt.



The Zmodell parts set (item no. ZM-MD-006) contains eight complete brake discs for equipping a model.



And, so, the new product to be reviewed here impresses with amazingly well-fitting prototype dimensions. This can be seen in our table, in which we have included all the important dimensions, the deviations of which, only fall within the range of unavoidable measurement inaccuracies.



It is not easy to make the interior fittings in the driver's cab visible in one shot, but the eye catches the shapes of the control panel directly behind the windscreen. The red, instead of grey, surfaces in the steps on the buffer beam are disturbing.

There is only one measure that is noticeably and clearly out of the ordinary: The total height above rail head (SO), which is exceeded by a whopping 3 mm. This outlier is caused by the four single-arm pantographs on the roof of the locomotive, none of which is connected for functional electric catenary operation.

These are newly designed parts, which in some details, such as the rounded beam of the lower scissors, are now somewhat closer to the prototype. The overrun horns at the side of the contact strips also look more convincing, but, unfortunately, they do not match the designs used on the Siemens Vectron MS. The fact that the model has four identical parts, where the prototype is designed for different power systems and catenary runs, we deliberately leave out.

Unfortunately, a dilemma becomes apparent with the new parts: Märklin apparently does not want to give up its unconditional downward compatibility back to 1974. That's why these new successors to the parts that have been used for 48 years are again particularly sturdy and made of metal. They are therefore also designed for electrical function with old locomotive models.

As a result, the pantographs are oversized and not to scale in almost the same way, and look clunky and overwhelming. Since the viewer's gaze usually falls on the model from above, in a four-unit arrangement in particular, they slay any aesthetics and prototype appeal with a design that is far too high and overly wide contact strips.

The first association when looking at these much too bulky attachments, which now stand on insulators and thus are even higher, are clothes drying racks that someone put on the roof of the locomotive to dry

their laundry. They also do justice to this in that they are difficult to fix in the raised-up state and keep lowering (folding together).

Our colleague Andreas Bauer-Portner from the editorial office of Modelleisenbahner, who also tested this model for the current issue 6/2022, found out that the contact strips are more suited to N gauge (scale 1:160)!

We illustrate this only, but unfortunately just significant shortcoming of the Vectron with a pictorial comparison of the new hauling-in pantographs against its predecessor (on the class 101 “160 years of Märklin”) and the scale-correct implementation by Rokuhan (class 181<sup>2</sup>).



Was the redesign of the single-arm pantograph really worth it? Compared to the also out-of-scale predecessor on the 101 series, there are only marginal improvements. In 2015, Rokuhan had already demonstrated on the class 181<sup>2</sup> how true-to-scale and colour-correct examples should look. In contrast to Märklin's old, as well as, new design, they are also mounted on the roof in a prototypical manner, are flat, and have separate collector strips.

In general, steam locomotives are considered to be the highest art of construction, which not every manufacturer has mastered because of the many attachment parts, controls, and lines. Here, Märklin is far ahead, and only has to give way to Bahl's model railways. On the other hand, there is still a lot of room for improvement in electric locomotive models.

Finally, in this part of the test, we now evaluate the painting and printing of the new product. Here, too, the picture is quite heterogeneous. The basic colours RAL 3020 traffic red for the locomotive body and RAL 7012 basalt grey for the frame and the roof area have been chosen correctly and have been applied opaquely and clearly. In addition, there are colour-contrasting areas such as the cooling air outlets in the roof or the radio antenna.

The many printed elements that adorn the Vectron in various places are pleasantly noticeable. Here, Märklin has used its well-known and appreciated skills to apply every tiny warning sign and every tiny company inscription by pad printing.





A plus for the new model are the separately attached climbing bars at the driver's cabs, which contribute pleasantly to the overall appearance. Not quite correct are the lower top lights, where the two lamps in each case are not clearly separated from each other and are also not under a common glass cover.

In our opinion, however, the digital print for the grey separation of the frame from the locomotive body, in order to then print it with pads, was not chosen appropriately. As a result, this base surface presents itself to the viewer, as do the white bezels of the headlights with visible grid points.

This has an unsettled effect and does not do justice to the model. Another unpleasant consequence of this technique is that the recesses for the steps are not reached by the basalt grey and stand out in red, which does not correspond to the original. For a very high-priced model, we expect greater care at this point.

In our opinion, it would be better to use a stencil paint similar to the roof area and white pad printing for the lantern edgings and front slats. We have expressed this as an expectation to the manufacturer for future versions.

A small side note should be that the complete lamp inserts with two integrated lanterns sit under a common cover glass in the prototype. This is missing in the model, but depending on the perspective, it could have a positive effect and contribute positively to the impression.

## Traction and technology

From a technical point of view, the result is similar to the assessment of the external features. The Vectron has become a successful model that has proven its suitability for the layout. However, it still allows for minor points of criticism, but, in this case, they are clearly less decisive.



Many engraved details and additional, mostly also elaborate prints show the effort Märklin has put into its model of Europe's currently most important electric locomotive. Against this background it remains incomprehensible why so much effect was wasted with the heavily screened digital printing on the frame: A flat stencil painting would not have left out the hollows of the steps and would have made the pad printed company inscriptions stand out much more clearly.

We consider the bogie frames, which completely cover the gear wheels of the transmission and protect them from dirt, to be the right step. Ease of maintenance is established by lubrication holes, which are supplied with a drop of oil at service intervals according to the enclosed instructions.

The model has a three-light headlight and two red tail lights that change depending on the direction of travel. This was implemented in a contemporary manner with SMD light-emitting diodes on circuit boards.



The completely covered gear wheels in the bogies are conducive to ease of maintenance. However, Märklin has also thought of not making maintenance more difficult, and has integrated a total of four lubrication openings.



We noticed, although not disturbingly, a colour difference between the two lower and the upper top light: at the top, a higher yellow component is perceptible, which makes the emitted light appear warmer.

Conceptually, this miniature also follows the new standard introduced with the E 41: The cast chassis is split lengthwise according to poles. The bolted-together part securely encloses the bogies' pivots. As a result of this construction, the current guides via spring plates have also been changed to the way we know them from AZL and Rokuhan.

The bell-shaped armature motor transmits its driving forces to all four wheels via worm and gear wheels. In combination with a weight of 32 grams, which corresponds to the value of comparable bogie locomotives, the Vectron develops good tractive forces.



In addition to the bell-shaped armature motor with two shaft ends, the interior features the main and two lighting boards. If you look closely, you will also notice that the four current collectors (pantographs) are not electrically connected. Consequently, there is no switch screw for overhead line operation.

As expected, four-axle bogie models are at the top, and so our test candidate also had no tractive force problems with long container trains on a level track. The tractive force test with weights pulled over a rope pulley, as is usual and expected in the print press, resulted in 5.0 grams on a level track, and an incredible 4.25 grams at a gradient of 3 %. However, such values will only become meaningful in future comparative series.

The electrical measurements were carried out unchanged using the Märklin transformer 67011. This device from earlier production is known to deliver a peak voltage of up to 14 volts unloaded, which, however, quickly drops to the nominal value of 10 volts DC under load.

The economical bell-shaped armature motor conserves its capacities, which is why it brings up to 13.5 volts to the track. The Vectron MS then travels at 268.1 km/h and leaves its prototype far behind. At 10 volts official maximum voltage it is within the expected range.

We were able to start it at 1.1 km/h at 0.4 volts on the track, at 2.2 volts it moves with 34.5 km/h and then it passes every turnout safely. A more sensitive control and safe driving, even with creeping speeds, is easily possible with other speed controllers.

We measured the current consumption in the basic settings defined by us as follows: 18 mA at transformer position 100 and 35 mA at 150. These are also expected values, which correspond to other Märklin models with this drive. We were also interested in the maximum value at full load, i.e., a state with full wagon load, where the point of spinning wheels is reached. We measured this at 60 mA.

## Summary

The long wait of about two years has been worth it. Märklin offers its customers a widespread and consistently implemented locomotive of large prototype distribution. Anyone travelling in Era VI will definitely not get past the Siemens Vectron, which applies regardless of the country reproduced on the layout.

The prototypes are used almost exclusively in freight traffic, where they can be used with mineral and gas tank cars, as well as with colourful container trains. Mixed goods trains are also allowed to liven up the layout, which hardly excludes a freight car model of the large and small series.



In the first light of the day, this Vectron with a refrigerated wagon train passes in front of the photographer's lens. Has it already hauled this train without interruption from the Adriatic to Germany?

Rarely, however, are they used in passenger train service. There, rental locomotives may appear from time to time, otherwise customers would have to wait for variants for Flixtrain or the Czech CD, for example, which would then also require suitable rolling stock.

However, many more versions will certainly follow, as a glance at the H0 gauge programme reveals. Two versions (DB Cargo and ÖBB) have already been delivered, three more have been announced and are not yet available.

DC and AC versions of this locomotive are perhaps also conceivable, which would make do with two pantographs and would certainly look considerably more pleasing.

This brings us to the two decisive weaknesses, of which at least one can be remedied: The new, but again too large pantographs, will certainly accompany us for the next 50 years, but in the frame area Märklin should refrain from using digital printing in the future. Here, similar experiences with H0 scale should also trigger a learning effect.



Because of its overall very good and coherent implementation, we nominate the Vectron MS as DB Cargo class 193 (88231) for the new releases of the year 2022 in the category locomotives. Depending on the competition it will meet here, also from itself, it might not have an easy time with the weaknesses discussed here.



Tank car block trains, alternatively formed from Märklin's modern articulated tank cars, are a typical load for DB Cargo's class 193 machines.

The situation is probably different with the textured and blackened brake discs as an etched part accessory set (ZM-MD-006) from Zmodell, which are also nominated and are to compete for the editorial prize in the accessories category.

Finally, an important note is aimed at the digital railroaders among the Zetties. The new supplier CRZ Ulm (Christian Ribatzky) offers a digital conversion board that comes either without or with a D+H decoder. Velmo also has a digital conversion solution in the pipeline, which many customers are eagerly awaiting.

**Manufacturer of the base model:**  
<http://www.maerklin.de>

**Digitisation offers for the Vectron:**  
<https://www.crz-ulm.de>  
<https://velmo.cde>

**Brake discs for the Vectron:**  
<https://www.1zu220-shop.de>

The Siemens Vectron locomotive platform

## The Future has begun

*A rapidly changing market, increasing external pressure and significantly stricter approval regulations forced Siemens to develop a completely new locomotive platform in the middle of the first decade of this millennium. The start of the Vectron was not easy, but it picked up speed and became today's widely used successful model.*

With the liberalisation of European rail transport, the market for rolling stock also became increasingly dynamic. The tendency was to move away from designs specially developed for a state railway by fixed "house-and-yard suppliers" towards solutions that could serve as many of the new market participants as possible, even with smaller quantities.

Instead of a tailor-made suit, in future proverbial off-the-peg suits were in demand, which had to be developed to fit and satisfy as many customers as possible. The starting point for the first offerings of the German locomotive industry from the mid-nineties onwards were the most recently developed three-phase locomotives.



Siemens sent 127 001-6, the "EuroSprinter", into the race for a modern three-phase locomotive to succeed the class 120. Internally designated ES 64 P, the locomotive became the forefather of Siemens locomotives up to the Vectron platform. Photo: Urmelbeauftragter (CC-BY-SA-3.0,2.5,2.0,1.0)



In the case of the manufacturer Bombardier, which in the meantime had evolved over various stages, this was the class 101 of Deutsche Bahn AG, which had its roots in the "12X" (classified as class 128). The letter X in this project designation was a placeholder for a digit and thus referred to a series number that had yet to be filled.

In fact, at the time it was a question of a successor to the class 120 equipped with more modern components, i.e., a supposed 121: the first three-phase locomotive originated in 1979 and did not go into series production until 1987. Only 60 units were built because their components were outdated by the rapid development of semiconductor technology and had long since become too expensive.

The competing product from Siemens was the Europrinter (class 127; internally ES 64 P), which also competed for orders from the Deutsche Bundesbahn. In retrospect, it should be known that with the privatisation process, there was also a move away from the concept of the universal locomotive.

Instead of a 121, an express locomotive 101 was procured, and the stock of freight locomotives was also specially rejuvenated. Siemens received orders here with the 152 and 189 series, internally designated as type ES 64 F (152) and ES 64 F4 (189). Nevertheless, competitor Bombardier seemed to be ahead for a long time.



The Europrinter gave rise, among other things, to the class 189 as a multi-system locomotive for freight transport, internally designated ES 64 F4. It was also procured by Deutsche Bahn AG. However, this example taken in Fulda on 2 July 2010 is leased from MRCE.

In order to be able to classify and appreciate the role of the Vectron in this context, we now need to delve a little deeper into the historical upheavals of this part of the machine building market and illuminate how the various manufacturers have reacted to them.

## A nose ahead with platforms

We have now already touched on some of the Siemens's vehicles sold in the changing market environment, but they only partially describe the long road to the Vectron, and still omit important factors. Two very important influencing factors have remained completely unexamined.

Strong competition arose from the large and highest-turnover rail vehicle manufacturers in Europe (Alstom, Bombardier and Siemens). On the world market, they were ousted from the top position from 2010 onwards by Chinese competitors, who increasingly focused on the European market as well.



Five of MRCE's 189 282 (type ES 64 F4) of the HLE 18 series are to be transferred to Belgium on 27 February 2010. SNCB had ordered them from Siemens in 2008. Also, still listed as ES 64 F4 and at the same time externally identical to the ES 2007 for Portugal, they represent the link from the Europrinter family to the Vectron platform.

But they also had to and still have to hold their own against European competitors such as Pesa (Poland), Skoda (Czech Republic) or Stadler (Switzerland). At the same time, growth in the core markets slowed. Those who wanted to survive here had to implement rationalisations and find suitable answers.

The second major influencing factor was increasing regulatory requirements for the approval of new rail vehicles. The European regulations for a compatible and transnational railway system led to the Technical Specifications for Interoperability (TSI) and DIN EN 15227 defined massively stricter requirements for collision safety.

Already a few years after the turn of the millennium, it became apparent that the electric Europrinter and the diesel-powered Eurorunner locomotives would no longer have a future. The "Taurus" of ÖBB, which was accepted as visually successful, and its offshoots for other railway companies were thus threatened with becoming a discontinued model in the medium term.



Bombardier also played a significant role in this, as this manufacturer already had the appropriate solution with its TRAXX platform and successfully implemented it on the market. Various electric locomotives of different performance classes, speed ranges, and power systems could be built modularly on it, as well as diesel-electric offshoots.

This supplier also quickly had the adaptations of the locomotive body to the new collision regulations under control with its 2nd and 3rd generation and was ahead on the market for a long time. Siemens urgently needed a model with a similarly high degree of flexibility that could be built just as cost-effectively.



The locomotives 1827 (in 3rd place in the train), 1838 (4th place) and 1828 (6th place) and their two sisters, which remained unrecognised during the passage through Gunzenhausen, already have separately attached steel fronts, as the Vectron was also to receive. The design is also largely identical to the Vectron. The front grille with the later lamellas and the final more dynamic shape of the lower headlights were changed.

However, this manufacturer benefited from the fact that it had founded its own locomotive leasing company, Siemens Dispolok, at an early stage, which allowed newer and still undercapitalised railway companies to use modern vehicles without tying up urgently needed capital through a purchase. In this way, the company's own subsidiary also significantly promoted the sales of the parent company.

The starting point for the company's own locomotive platform, which has been available since 2010 with the Vectron, was the "Eurosprinter 2007" (ES 2007). A tender won in Portugal, and, shortly afterwards, an order from Belgium provided the impetus to start a further development, which met the new safety requirements with new front ends attached. They represent the transition from the Eurosprinter family to the Vectron platform.

Orders from Lithuania and Iran for a diesel-electric version followed in 2007 and 2010, respectively. A new face represented, so to speak, the first step that was soon to usher in a completely new era. Siemens took a lot of time to develop a well thought-out and future-proof platform and, in parallel, to find the best possible face for the locomotive via designs and studies, which had to have a sales-promoting and identity-forming effect.

## The Vectron is born

In 2010, the manufacturer took the step to the market and presented its new Vectron platform: In June, Siemens Mobility was able to demonstrate the electric locomotive at the Wegberg-Wildenrath test centre, and at the Innotrans in the same year, the diesel locomotive could also be seen as Vectron DE. A short time later, the private railway magazine awarded the Vectron the Innovation Prize – a first respectable success.

While the Vectron was almost completely new on the inside and took over only a few features from the Europrinter machines, the new “front end”, as the driver's cab area, which can be attached separately and exchanged after accidents, is called, differed only slightly from the ES 2007.



Siemens' demonstration and stock locomotives are painted white. As a representative of the first-built Vectron, we therefore show this picture of the specimen with which test and approval runs were undertaken in Finland. Photo: Siemens Mobility (Siemens-Pressfoto)

The few differences include mounted cameras for reversing in place of previous cab side windows. The roof of three removable segments rests on the frame with the side walls above the engine room.

The driver's cabs of the electric (AC, DC and MV) and diesel-electric (DE) versions are largely identically equipped and follow a modular system in order to be able to be adapted to the respective required safety systems: All national train control systems commonly used in Europe, as well as the European ETCS, are also offered.

The underframe, side walls and roof, on the other hand, differ according to the type of traction, while fixed positions are defined inside for all equipment elements, which are occupied according to the equipment package. The platform approach means that as many identical parts as possible can be used and installed across all conceivable variants.



In the electrical version dealt with exclusively in this article, the racks and cabinets are arranged to the right and left of a straight central aisle. Underneath the central aisle is a channel in which the control lines and compressed air pipes are laid.

The positions of two or even four pantographs on the multi-system variants (Vectron MS) are therefore also clearly defined and always identical. The vehicles with end driver's cabs are designed as mainline locomotives for fast passenger traffic (maximum speed 160 or 200 km/h), as well as interoperable freight traffic.



When this Vectron, destined for the Finnish state railway VR, is built in Munich-Allach, it allows a view into its interior with a firmly defined basic arrangement of the necessary components and aggregates. Photo: Siemens Mobility (Siemens-Pressfoto)

The “Siemens Charger” (Vectron DE) and “Amtrak Cities Sprinter” (Vectron AC), which are built in Sacramento (California) for the American market and are designed for a maximum speed of 200 km/h, are also based on this platform. For the European market, the production of the car bodies, parts of the pre-assembly as well as the final assembly are located at the Siemens plant in Munich-Allach (ex-Krauss-Maffei).

In the Krauss-Maffei tradition, the Vectron therefore also has sturdily constructed pivots with a rectangular cross-section on the bogies that extend far downwards. They are designed in such a way that wheelsets with track gauges of up to 1,676 mm can be fitted.

The wheelsets are driven by a partially sprung pinion hollow shaft drive, the “high performance drive with sprung brake shaft” (HAB) of the Taurus variants was dispensed with. The wheel disc brakes are visible from the outside.

Multiple traction is possible among each other, but also mixed together with locomotives of the classes 120, ES 64 F (class 152), ES 64 U2 (Rh 1016/1116 “Taurus” of the ÖBB), ES 64 U4 (Rh 1216 “Taurus” of the ÖBB), and ES 64 F4 (class 189).





Railpool became Siemens' first customer and initially ordered six locomotives. On 13 October 2018, 193 827, a locomotive from this lessor, is on the move with DGS 48613 in autumnal Wuppertal-Sonnborn. Photo: Wolfgang Bügel, Eisenbahnstiftung

The operating mass of a ready-to-run, four-axle locomotive is between 80 and 90 tonnes, depending on the version and equipment. Ballast weights are also possible to achieve a required weight. The driver's position is on the right side of all locomotives.



Unfortunately, the Vectron DE remained unsuccessful. Its construction was discontinued after only nine units. In the picture is the demonstration locomotive 247 901. Photo: Siemens Mobility (Siemens-Pressfoto)

The electric locomotives are regularly designed for a maximum speed of 160 km/h, by means of a pre-equipment package; 200 km/h is also possible without major conversions. In autumn 2019, Siemens



announced a 230 km/h version. 193 780 received correspondingly modified bogies. In mid-August 2020, test runs began in Austria, so that future Nightjet trains could be so equipped.

Another equipment option is a shunting module for the Vectron AC (alternating current version) and DC (direct current version). A Steyr Motors M16 UI in-line six-cylinder auxiliary diesel engine (180 kW output) enables the Vectron to run through sections without current in shunting service ("Last Mile").

Depending on the equipment, the price for a Siemens Vectron is between three and five million euros, which is by no means affordable for all rail transport companies. In March 2018, Siemens Mobility therefore launched a more cost-effective version under the product name "Smartron."



The name "Smartron", introduced in 2018, originally concealed a pre-configured AC locomotive for 15 kV 16.7 Hz with 5.6 MW power, listed in Germany as series 192. Due to demand, the range has since been extended to Romania and Bulgaria, and Italy could soon follow. Photo: Siemens Mobility (Siemens-Pressfoto)

It is an "off-the-shelf" locomotive and does without the 30 or so configuration options that are now available. It is a pre-configured and, despite the use of proven Vectron technology, reduced to the most necessary. Colour preferences are also not possible; this economy version is always delivered in RAL 5019 Capri blue.

The Smartron is also easy to recognise visually: The front lamellas initially painted a somewhat different picture, the light area under the lamp glasses on the Vectron is black here. The locomotive has thus gained in visual elegance. In terms of price, it was unbeatably cheap at 2.5 million euros when it was launched.

continues on page 41





Photo above:  
192 005 of Eisenbahnen und Verkehrsbetriebe Elbe-Weser GmbH (Zeven) is one of the Smartrons in use in Germany and here on 13 February 2021 near Lauffen am Neckar. Photo: Zeno Pillmann, Eisenbahnstiftung

Photo below:  
RheinCargo has had its Smartron completely refurbished with an attractive foil design, like 192 034 here. The share of renewable energies in the traction current, which is so vehemently advertised here, was around 57 percent in 2019. The locomotive was taken into service on 2 March 2021. Photo: Wolfgang Bügel, Eisenbahnstiftung



## All beginnings are difficult

The Vectron got off to the worst possible start when Siemens Mobility sent it into the race for orders from railway undertakings (RUs) and locomotive leasing companies in 2010. The consequences of the financial crisis were far from over and the volume of rail transport had yet to recover.

Under these conditions, demand for new machines continued to be low for the time being, and the two new locomotive variants also had to first make a name for themselves, and prove themselves in everyday operation, before buyers would take the economic risk associated with a new model.



193 853, on which the internally originally intended designation XE 4 is also written, is leased to BoxXpress, which runs container trains from the North Sea ports to the hinterland. MRCE was one of the early Vectron customers in 2013, and the locomotive is pictured here at Hilden/Rheinland station on 28 September 2015. Photo: Wolfgang Bügel, Eisenbahnstiftung.

The locomotive rental company Railpool from Munich paved the way for this success. Just two months after the Innotrans 2010 trade fair, it ordered six Vectron ACs with ETCS for 200 km/h top speed to be used in Germany and Austria.

At the end of 2012, the Vectron entered commercial service for the first time via Railpool: Verkehrsbetriebe Elbe-Weser GmbH (EVW) was the first tenant and tested the new locomotives in container train services between northern and southern Germany.

Interest remained high and the machines counted many users in the following years who wanted to gain experience and impressions before all six were leased long-term to DB Regio in 2017. Railpool eventually expanded its Vectron stock to 29 vehicles, although the main focus there remained on the TRAXX.

For Siemens, these were key successes in gaining a foothold in the market, discovering and eliminating teething problems. The manufacturer also pushed ahead with the approvals of its platform in the various European countries, always and to this day. Nevertheless, sales continued to be sluggish at first, because the Bombardier competition was established and proven.

A second order arrived in 2012. It came from the Italian company Fuori Mori for two Vectron DCs. Doubts about the success of the Siemens platform locomotive remained until December of the same year, when a first major order was reported.

DB Cargo Polska S.A. then ordered 23 AC locomotives and acquired an option for 13 more. Now sales seemed to be on the move, because the Polish subsidiary of the German state railway could also be seen as a weighty reference.



In 2013, the purchase of 23 locomotives by DB Cargo Polska S.A., a foreign subsidiary of a state railway, brought movement into the Vectron orders. Photo: Siemens Mobility (Siemens-Pressfoto)

In the following year, MRCE (Mitsui Rail Capital Europe GmbH), which was formed by the sale of Siemens Dispolok, followed suit and initially ordered 15 Vectron ACs, with more to follow. The stock grew to 45 Vectron AC, 22 Vectron DC and 68 Vectron MS! Siemens was also successful with the concept of building so-called stock locomotives.

These locomotives, built on their own account, kept the production load more evenly distributed, served as demonstration machines and made it possible to serve smaller orders promptly and quickly, which was to prove to be another sales argument. The Siemens Vectron was now finally in the fast lane. Only the diesel-electric version was a poor seller and made it to just nine units.

In July 2017, an order from the lessor ELL for ČD Cargo (Czech Republic) broke through the 500 units sold, and, in January 2018, its 100th machine was handed over to this customer alone.

continues on page 45





Photo above:

ELL developed into one of the big customers for the Siemens Vectron. Here 193 726 is seen on 6 June 2018 with DGS 62866 to Aachen West in the north exit of Gremberg marshalling yard. Photo: Wolfgang Büge, Eisenbahnstiftung

Photo below:

Inspired by the model railway, 193 314 of DB Cargo passes the photographer on 1 April 2021 in front of EZ 51548 (Moers - Gremberg) near Hilden. Photo: Joachim Bügel, Eisenbahnstiftung





**Photo above:**  
Passenger train services are rarer. 193 861 is on the road for Flixtrain, passing its FLX 32609 to Cologne on the deconstructed former Hamburg Pfeilerbahn on 29 August 2020. Photo: Benno Wiesmüller, Eisenbahnstiftung.

**Photo below:**  
193 293 of the CD is still at the beginning of its seven-hour journey to Prague on 20 August 2021. In Hamburg-Altona, it is hauling the EC 179 via Berlin and Dresden to Decin in the Czech Republic. Photo: Thorsten Eichhorn, Eisenbahnstiftung



The major railway companies DB Cargo, SBB Cargo, ÖBB and BLS also joined the ranks using Vectron locomotives. Sales picked up more and more. The Vectron eventually became a kilometre millionaire and found its 40th customer on 9 July 2018, two years later also its 50th. Strong distribution of the model was recently also found especially in Eastern Europe.

With the 1,000th machine officially built and sold, a mark has been reached at which one can certainly speak of a “European locomotive”. Only France, where the liberalisation of rail transport is making slow progress, is largely a blank spot on the map.



A special feature of this locomotive of the Polish company Lotos, which uses the Vectron with wagons from Germany to Poland, are three different locomotive numbers written on the front. In addition to the Polish operating number 5 370 043-9, the different German LZB number 193 005 is also written on the front, which causes increasing confusion in the operating number sequence of the German NVR. The abbreviation X4EA, which was once planned as an internal designation, is also written on. This locomotive was photographed at Altenbeken on 16 May 2022. Photo: Jan Tappenbeck

From 2020 onwards, probably mainly as a result of the Corona crisis and a temporary decline in transport, an oversaturation of the market became apparent. Sales of the Vectron were now declining. The mark of 500 sales had already been reached in 2017, the 1000<sup>th</sup> locomotive was ordered by DSB in May 2020 – almost exactly ten years after market launch.

By March 2022, there should be 1,327 units for 61 customers. Today, the Siemens Vectron is registered in 20 different countries. Since the end of 2019, it has also been approved for ETCS operation with Baseline 3 in Germany.

## The Vectron models

Initially, Siemens Mobility developed four electric and one diesel-electric basic variant, without yet having a single customer order for it. This was followed in 2018 by a dual-power locomotive, the variant of which for light goods train service and train formation tasks has been marketed as “Vectron Dual Mode light” since 2021.

The Vectron Dual Mode presented at Innotrans in 2018 was not presented to the public as a finished locomotive until March 2019 in the form of the 248 001. It replaces the Vectron DE from 2010, which was not in demand and had only been built a further eight times after the demonstration locomotive.



The latest addition to the Siemens platform is the Vectron DM (Dual Mode) for operation on an overhead line or with the aid of a diesel engine on sidings and feeder tracks. 248 001 was the first locomotive to be presented with this solution. Photo: Siemens Mobility (Siemens-Pressfoto)

The electrical variants DC (direct current), AC (alternating current), and MS (multi-system), as well as the pre-configured economy version Smartron (series 192) have already been mentioned in the article. In combination with different power classes, this results in the following basic variants:

- Vectron MS  
Multi-system locomotive with 6,400 kW (~) / 6,000 kW (3 kV =) / 3,500 kW (1.5 kV =) power, maximum speed 160 or 200 km/h
- Vectron AC High Performance  
AC locomotive with 6,400 kW power, maximum speed 160 or 200 km/h (German series 193)
- Vectron AC mittlere Leistung  
AC locomotive with 5,600 kW power, maximum speed 160 km/h
- Vectron DC  
DC locomotive with 5,200 kW power, maximum speed 160 or 200 km/h (briefly known in Germany as class 191).
- Vectron DE (no longer offered since 2019)  
Diesel-electric locomotive with 2,400 kW power, maximum speed 160 km/h (German series 247)



- Vectron DM (Dual Mode)  
Dual-power locomotive for 15 kV alternating voltage and diesel engine with 2,000 kW power at the wheel, maximum speed 160 km/h (German series 248)
- Vectron DM light (Dual Mode light)  
Two-power locomotive for 15 kV alternating voltage and diesel engine with 750 kW power at the wheel, maximum speed 120 km/h

The Vectron DE is about one metre longer than the electric versions and has smaller wheel diameters and bogie axle stands. Its engine room is, classically for diesel locomotive construction, divided into three chambers.

The Vectron DM is a further development of the product platform and largely follows the Vectron DE in its basic concept. In addition to the electric drive train and a current collector, it has a reduced tank to make room for the main transformer.



The Mozart locomotive 193 204 of Salzburger Eisenbahn Transportlogistik GmbH (SETG) wears one of the most attractive Vectron designs. It proudly shows off its sides in Munich-Laim on 4 September 2015. Photo: Stefan von Lossow, Eisenbahnstiftung.

This locomotive, which is becoming much more popular, is intended for those railway companies that operate sidings. In the last part of the line, which is no longer electrified, there is no need for separate diesel shunting locomotives. The Vectron can stay on the train and deliver the wagons itself, which saves operating costs.

The Finnish state railway was the first customer to make use of this option with a large order. The only disadvantage of the Vectron DM is the increased axle load of 22.5 t, which places high demands on the superstructure of the tracks to be traversed.

Manufacturer of the Siemens Vectron:  
<https://www.mobility.siemens.com>



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Trailer load for Rmms 33 and R 10

## Not ordinary for the Best

*Whether the three trailers from Modellbau Laffont have to be intended for agricultural use, we leave up to the Zetties to decide. In any case, a not everyday load has been brought onto the market here, which after our hint now also enhances the most beautiful low side wagons from the house of Märklin.*

We reported a small but fine new product only last month. In response to a query, Modellbau Laffont immediately expressed a wish for further development and followed this up with action within a few days.

The trigger was his “wagon load 3 agricultural trailers” (item no. Z4901), which is designed for Märklin's classic 8610, which unfortunately is no longer a contemporary model. So, we suggested to adapt the loading frame to the newer models of the R 10 and Rmms 33 (KIm 441).

Especially for Märklin's second-named, youngest and best construction, there is still no offer from a third-party manufacturer. After taking off the loading area dimensions, the construction was quickly adapted, and a follow-up article (Z5201) with three loading frames for securing the trailers was delivered.



Whether passing by the viewer in a local goods train or shunting in the focus of the spectator: The agricultural single-axle trailers from Modellbau Laffont are not a seemingly everyday load on various low-sided wagons.

We had taken this one into focus for a small report, whereby we also assembled the original kit in parallel, because six carts can then be quite freely swapped to different wagon types.

For the assembly you need a sharp craft knife (recommended by us: Mozart), a cutting mat (e.g., Tamiya), tweezers, a dot glue tool or toothpick (for the fine glue spots), a piece of kitchen paper to wipe off glue residues from these tools, and a suitable lasercut glue (recommended by us because of its fine dispensing needle: Faller Expert Lasercut).



The number of bows and parts remains manageable. The degree of difficulty in assembling results solely from the tininess of the parts. The new kit that we used for the report comes with three different loading frames (front) for different Märklin low-sided wagons.

The assembly is done in only three steps, and the kit also contains only very few parts in eight different coloured sheets (six for kit Z4901). However, this should not tempt you to assume that this is a beginner's kit because of the clarity.

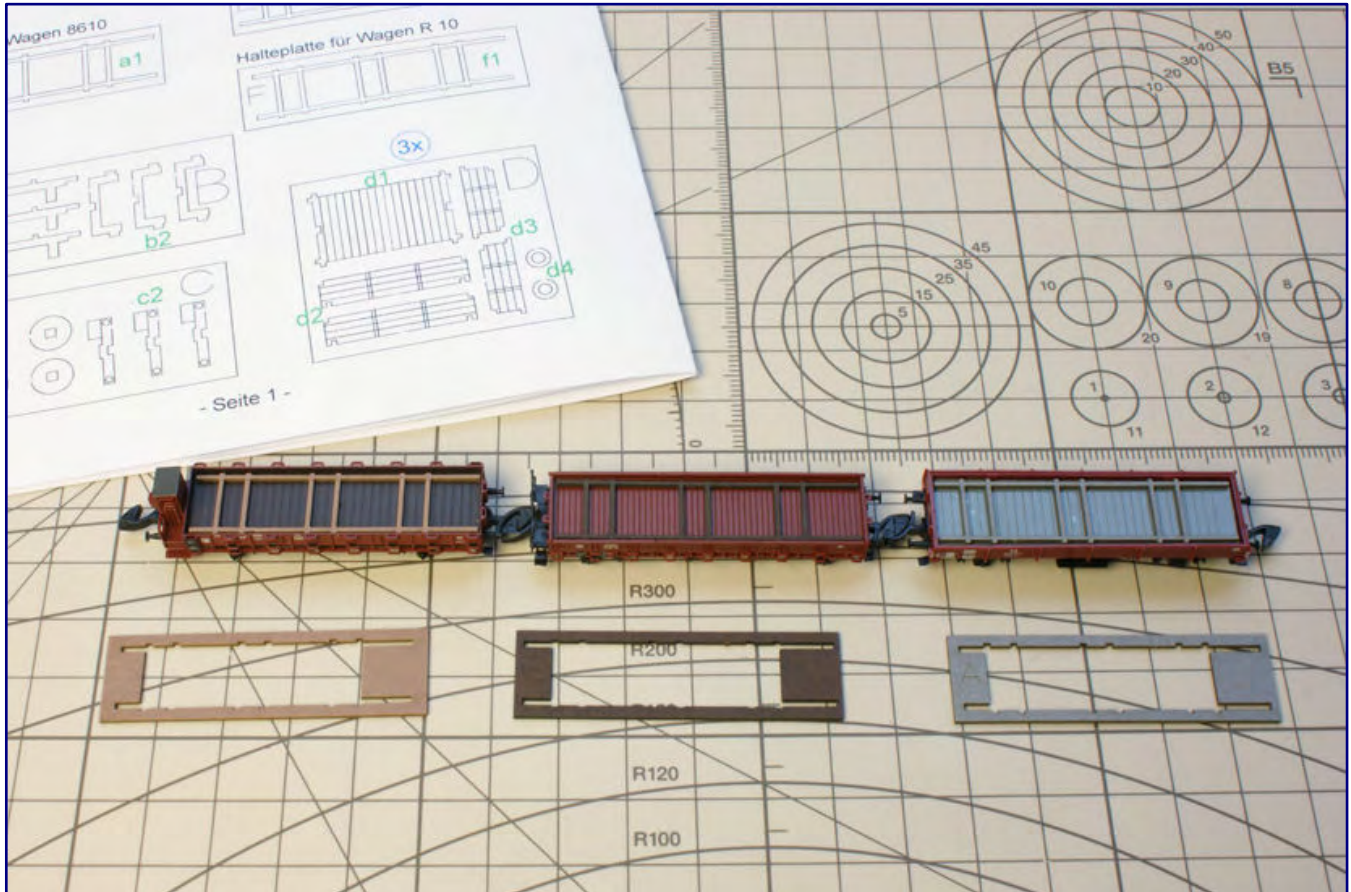
Since the single-axle trailers are very tiny, as we try to illustrate by comparing coins, some experience is required here to be able to dose and place the glue carefully enough. Holding and positioning the tiny parts, especially the rims and end walls of the carts, also demands a steady hand.

If all this is given, only about one hour of building time is to be estimated, but in between we also want to give the glue some curing time. With a few such breaks, it can become an evening's work, but the result is rewarding. The tips and advice that Modellbau Laffont provides with its kits are also always valuable.

Building step 1 requires the following three activities: First, the two longer side walls are glued to the base plate of each trailer, then the end walls are added. Only when all four walls are hooked together does the loading trough have sufficient stability of its own. It can then be laid upside down to dry.



The frame consists of a cross that ends with the drawbar at the front and supports the axles at the side. It consists of two parts with grooves that are glued together. Step 2 then provides for the frame to be glued under the load surfaces.



The component designations A, E and F for the three loading frames make it clear that a kit that appeared shortly before was subsequently expanded and independently added with changed cardboard colours.

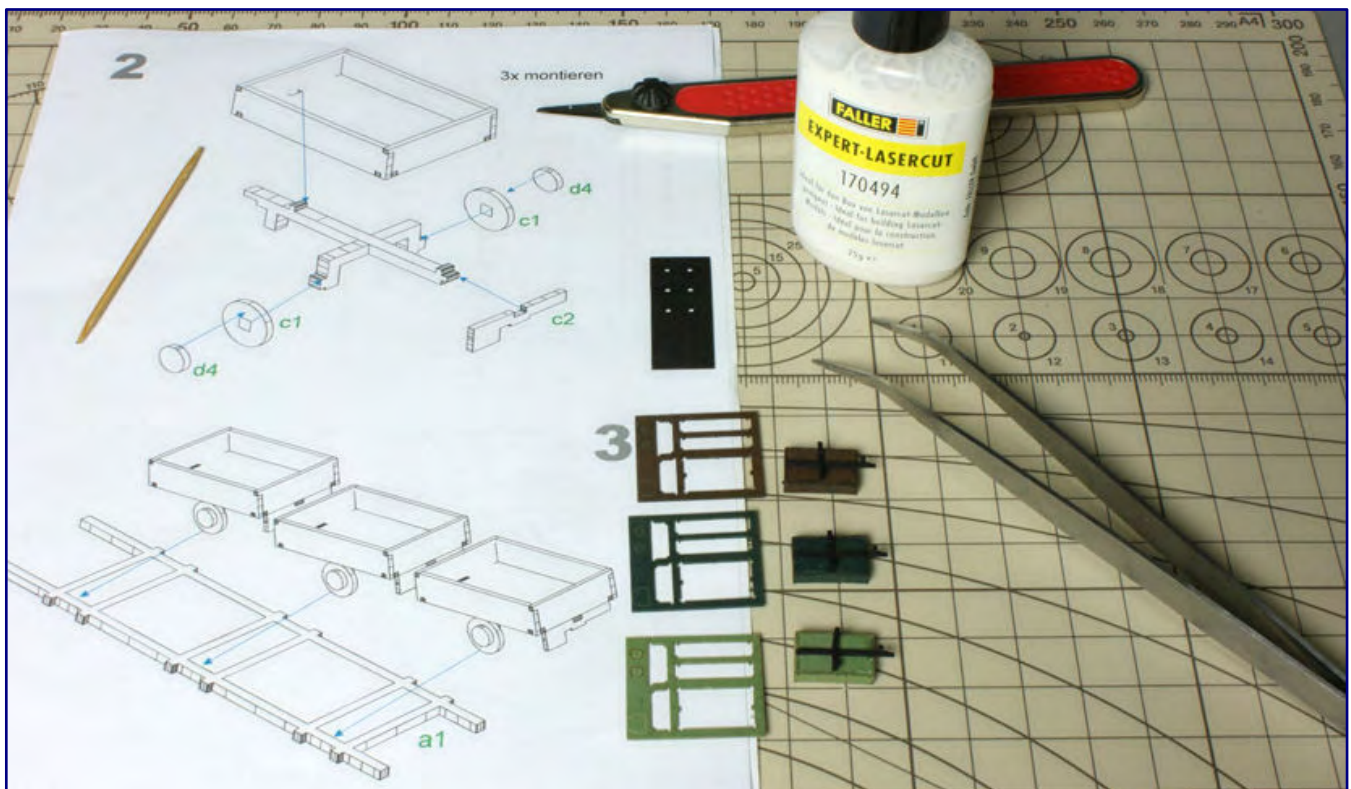
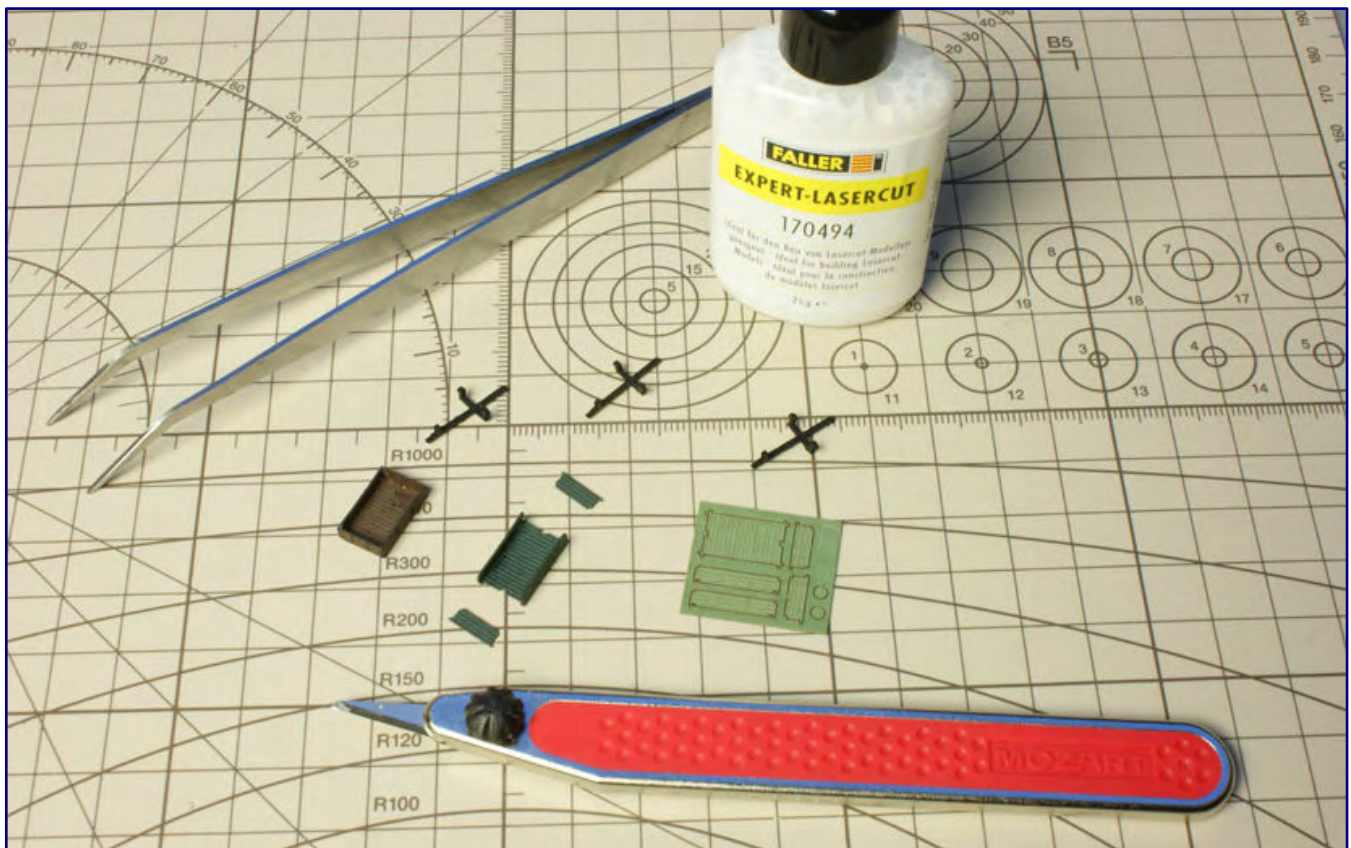
For correct positioning, the cargo bed has a small opening at the front and rear that accommodates equal-sized pins of the side member. Twisting is not possible here because the cargo bed does not have a defined front and rear side – this is determined optionally during assembly itself.

A cover plate with number plate holder and rear lights (or reflectors) is attached; the wheels on both sides and the rims or wheel cap imitations on top. The wheels can be placed on a square peg and positioned accurately, here, it is rather the tiny drop of glue in the right place that poses the problem during assembly.

It is one of the great challenges of this product after the side panels have been assembled. But, also, the hubcaps should not be put on hastily, because they have to be centred as best as possible. Valuable help is provided here by the toothpick, the tip of which is slightly moistened so that the hubcap adheres to it, and can be guided to its final position.

The end plate with the number plate holder is finely engraved and therefore visually appealing. It will be very visible after loading. Only the gluing point is very small, because this part will be free-standing and will not touch the underside of the loading area.

continues on page 53



Three support frames are to be built from two parts each, the loading areas consist of five parts each (picture above) and require a deft hand due to their tininess and extremely small gluing areas. After preparing the upper and lower parts, they are glued together (picture below) so that wheels, rims and the rear lighting support can be attached afterwards. After drying, the trailers can be placed in the loading frame.



Here, too, care is needed so that it is not accidentally moved or torn as long as the glue has not yet set. The carts are now finished. Now, only the loading frames have to be cut out of their sheets, and the one that matches the chosen wagon has to be selected.

Placed on its inner surface, the trailers can be picked up with the tweezers and positioned on it. The longer end of the frame is the drawbar side for the carts designed in three different colours. This is the last construction step 3 according to the instructions, which is the conclusion of our little project.



Finally, we would like to give a more detailed look at each of the three single-axle trailers as they look loaded onto a freight wagon. The Köf 2 has just driven two low-sided wagons with a total of six of these trailers to the loading ramp of the village station, where the local agricultural machinery dealer is about to collect them.

We would like to add that the instructions are silent about whether the hangers should be inserted loosely or glued into the frame. Here, every buyer should make his personal decision whether he wants to use his load flexibly on different trolleys or chooses a fixed configuration. Those who opt for gluing should look for inconspicuous gluing points on the wheels in order to firmly connect all four elements with each other.

Manufacturer's pages and reference:  
<https://www.modellbau-laffont.de>

Note for English readers: The literature section that follows is not translated into English because the original texts of the books involved are in the German language. The original German is left here for information purposes only.

## Der Siemens-Verkaufsschlager **Münchener Erfolgsmodell**

*Die Siemens-Vectron-Plattform hat sich am Markt durchgesetzt und ist von Europas Schienen nicht mehr wegzudenken. Damit wurde auch spürbar, dass es an einer literarischen Würdigung fehlt. Dem EK-Verlag fiel die Rolle zu, diese Lücke zu schließen. Die Ende 2021 veröffentlichte Buchneuheit haben wir uns angeschaut und möchten sie explizit empfehlen.*

Mathias Oestreich  
Vectron  
Moderne Siemens-Lokomotiven für Europa

EK-Verlag GmbH  
Freiburg 2021

Gebundenes Buch  
Format 21,0 x 29,7 cm  
256 Seiten mit ca. 400 farbigen Abbildungen

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Zehn Jahre vor Erscheinen dieses Baureihenportraits erblickte der Siemens Vectron das Licht der Welt. Nach zögerlichem Start entwickelte er sich zu einer wahren Europalok, die heute bei fast 50 Bahngesellschaften im Einsatz und allgegenwärtig im Schienenbild ist. Seine Plattform erscheint wegweisend, weshalb ein Portrait dieser Lokfamilie angezeigt war.



Mathias Oestreich stellt diese Lokomotiv-Plattform für den Europa-Verkehr detailliert vor. Das Werk aus dem EK-Verlag folgt konzeptionell in vielen Punkten den blauen Büchern der Portraitbände und zeigt sich ebenso anspruchsvoll.

Dennoch ist es bewusst nicht in diese Reihe eingegliedert und hebt sich auch beim Einband davon selbstbewusst ab. Geschuldet ist dieser der Tatsache, dass nicht die abgeschlossene Geschichte einer historischen Lokomotive wiedergegeben wird, sondern eines aktuellen Produkts auf dem Höhepunkt seines Verbreitungszyklus.

So reiht es sich ein zu weiteren Bänden über die konkurrierende TRAXX-Familie oder auch die Baureihe 120, die zum Zeitpunkt des Erscheinens auch noch im aktiven Dienst stand. Gemein ist allen Büchern dieser eigenständig auftretenden Reihe also die Tatsache, dass sich noch viele Fortschreibungsanlässe finden werden.

Wegen vielen Änderungen, die für den Schienenverkehr aus der Liberalisierung und aus dem Privatisieren von Staatsbahnunternehmen resultieren, würde die „historische“ Struktur auch nicht auf dieses Buch passen. Gleichwohl bedeutet das kein Stück Qualitätseinbuße.



Unterschiede betreffen eher die Struktur einzelner Kapitel und das durchgängige Verwenden von Farbfotos, wo historische Bücher mit einem oder auch zwei Farbteilen auskommen müssen. Auch für dieses Meisterwerk gilt die Feststellung, dass das Bildmaterial gut ausgesucht und reproduziert worden ist, um die Inhalte aller Kapitel und Abschnitte perfekt zu dokumentieren und zu veranschaulichen.

Dabei geht der Autor weit über Werksgrafiken und -fotos des Herstellers Siemens hinaus, der ihn gemäß Vorwort eh nicht aktiv unterstützt hat. Die deutliche Mehrheit der Bilder zeigen Siemens-Vectron-Lokomotiven im aktiven Dienst vor Zügen, also keine Hochglanzaufnahmen stehender Fahrzeuge zum Zwecke von Werbeaufnahmen.

Dem Autor ist es auch gelungen, mit rund 400 Fotos wohl alle Gestaltungsvarianten dieser inzwischen deutlich 1.000 Maschinen zu dokumentieren, was angesichts der Kurzlebigkeit mancher Gestaltung und europaweiten Einsatzes für sich schon eine Herkules-Aufgabe darstellt.

Dieses neue Buch reflektiert die Geschichte der Drehstromlokomotiven bis zum Vectron, seine Entwicklung und Erprobung, die Technik inklusive Gemeinsamkeiten und Unterschiede zu seinen Vorgängern sowie selbstverständlich die aktuellen Einsätze in Europa.

Den letzten Teil des Werkes bilden Ausführungen zum Siemens-Rail-Service-Center nahe der Fabrikationsstätte in München-Allach, hinter dem ein komplettes Dienstleistungsangebot steckt, das sich von Diagnose, Ersatzteilverhaltung und -beschaffung bis zu Nachrüst- und Umbauangeboten erstreckt.

Wichtige Nachrichten nach Redaktionsschluss, die sich wegen der unverändert laufenden Auslieferungen nicht mehr in die vorausgegangenen Kapitel einarbeiten ließen, finden sich dahinter ebenso wieder wie eine vollständige Lieferliste mit Stand von September 2021.

Sehr aufschlussreich sind die im ersten Teil des Buches vorgestellten Gestaltungsstudien, die zum markanten Gesicht des Vectron geführt haben. Hier ist schnell festzustellen, dass Siemens letztendlich den richtigen gewählt und zum endgültigen Bild geführt hat.

Eine gelungene Idee sind auch eingebaute Kommentare und Stellungnahmen von Geschäftsführern verschiedener Bahnen, die erläutern, warum ihre Entscheidung für diese Lok gefallen ist. Sie bilden einen herrlichen Kontrast zu den Ausführungen des Autors, unterstreichen sie gleichzeitig aber auch.

Ausführlich behandelt werden alle folgenden Varianten des Vectrons: Zweisystem-Wechselstromlok (Vectron AC), reine Gleichstromlok (Vectron DC), Mehrsystemlokomotive (Vectron MS), „Smartron“ als preisgünstige Wechselstrom-Einsystemlok, Diesellok (Vectron DE) und der kombinierten Diesel-/Elektrolok (Vectron DM; Dual Mode).

Autor und Verlag haben hier ohne Zweifel ein außergewöhnlich gelungenes Werk vorgelegt, das sicher seinen Platz im Regal aller Modellbahn- und Vorbildfreunde finden wird, die sich für die Maschinen auf dieser Plattform in irgendeiner Form begeistern können und an ihrer Technik interessiert sind

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<https://www.eisenbahn-kurier.de>  
<http://s/www.ekshop.de>

## Die deutsche Lieferwagenvielfalt **Vergessen und unsterblich**

***Wer den Buchtitel liest, der denkt zuerst an den VW Transporter, den Ford Transit und auch den Mercedes-Benz Sprinter. Aber Deutschlands Autowerke verlassen weit mehr kleinere Nutzfahrzeuge für höchst unterschiedliche Aufgaben und in unterschiedlichster Gestaltung. Und wer versucht, an die Zeit vor 1945 zurückzudenken, wird sicher auf große Wissenslücken stoßen. Dies zeigt den Bedarf auf, den das hier vorgestellte Buch bedient.***

Wolfgang Gebhardt  
Deutsche Lieferwagen und Transporter - seit 1898

Motorbuch Verlag  
Stuttgart 2021

Gebundenes Buch  
Format 23,0 x 26,5 cm  
320 Seiten mit 922 teilweise farbigen Abbildungen

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Wie häufig an dieser Stelle, möchten wir einige Eingangsworte unserer Besprechung dem Autor widmen. Wolfgang Gebhardt ist uns als Autor von Büchern über Nutzfahrzeuge bereits bekannt. Wir haben an dieser Stelle auch schon Werke von ihm vorgestellt oder bereiten dies vor.

In der einschlägigen Szene gilt er als Nutzfahrzeugspezialist mit Schwerpunkt auf deutsche Omnibusse, Lastwagen und Traktoren. Zudem publiziert er regelmäßig in verschiedenen Fachmagazinen. Das sollten passende Referenzen für ein derart anspruchsvolles Werk sein.

Die Zeit von 1898 bis heute aufzuarbeiten, bedeutet immerhin eine Zeitspanne von fast 125 Jahren, die nicht ohne Dokumentationslücken bleiben kann. Gleich zu Beginn setzt der Autor deshalb im Vorwort den Rahmen für dieses Werk: Die Abgrenzungslinie vom Lieferwagen zum hier nicht behandelten Lastwagen liegt regelmäßig bei der 1,5-Tonnen-Klasse.

Natürlich gibt es auch Fahrzeuge, die in Ausführungen unter- wie auch oberhalb angeboten werden oder im Laufe der Bauzeit Änderungen erfuhren, die das Abgrenzen schwierig machen. Deshalb gibt es fallweise Ausnahmen. Behandelt wurden alle Hersteller in Ost- und Westdeutschland, was zeitweise zwei Staaten einschließt.

Außen vor blieben Hersteller in Ländern, die nur wegen deutscher Besetzung zeitweise als reichszugehörig betrachtet wurden und sich folglich auch nicht als deutsch definieren würden. Aber auch so kamen über 300 Produzenten zusammen, von denen die meisten heute nicht mehr existieren.

Einige fusionierten oder wurden übernommen. Ihre Werke wurden weitergenutzt, bisweilen auch ihre Autos weitergebaut. Nicht selten trugen sie dann andere Namen, weshalb es auch mehrere, technisch identische Fahrzeuge geben kann, die verschiedenen Herstellern und Marken zugerechnet werden müssen.





Wolfgang Gebhardt hat auch hier akribisch die Änderungen in Firmennamen und Rechtsformen zusammengetragen, um diesen Teil der automobilen Geschichte sauber und schlüssig zu dokumentieren. Einige spektakuläre Übernahmen seit 1945 mögen Lesern noch in Erinnerung sein, aber es ist nur ein Bruchteil an Veränderungen, wie sich beim Lesen herausstellt.

Zu berücksichtigen waren auch Fälle, in denen sich Anbieter wegen schlecht gewerteter Marktaussichten anderen Geschäftsfeldern zuwandten und den Lieferwagenbau einstellten. Ebenso gab und gibt es Ausflüge branchenfremder Hersteller, die zeitweilig mit einem einzigen Typ versucht haben, auf dem Markt Fuß zu fassen.

Das Feld, das es hier zu bearbeiten galt, ist groß, wie unsere Leser nun merken werden und immer bedurfte es einer Entscheidung, was in dieses Buch gehört und was nicht. Lastenfahrräder zählen gewiss nicht dazu, bei in Motorradbauweise gefertigten Dreirädern sieht das schon wieder anders aus.

Sie waren die ersten Lieferfahrzeuge überhaupt, die in sichtbaren Stückzahlen auf den Straßen auftauchten. Und sie sind oft auch eng verwandt mit den Dreirädern von Vidal (Tempo) oder Goliath (Borgward), die lange Zeit marktführende Rollen einnahmen.

Um zu verstehen, warum Motorräder zu Lieferwagen wurden, Dreiräder lange Zeit bevorzugt wurden und Nutzfahrzeugklassen sich manifestierten, bedarf es ebenso eines Ausflugs in die deutsche Zulassungsgeschichte. Richtigerweise wird dies als Einführungskapitel gleich an den Anfang des Buches gestellt.

So wird dem Leser das Verständnis für viele Erläuterungen auf den noch folgenden, weit über 300 Seiten mitgegeben. Für technikbegeisterte Modellbahner, die Automodelle nicht nur als wahllos zusammengestelltes Beiwerk auf der Anlage sehen, ist dies sehr viel wert. Hier öffnen sich nämlich wichtige Entscheidungshilfen für ein stimmiges Bild der dargestellten Geschichte.

Lieferwagen waren und sind schließlich unverzichtbar, denn sie versorgen Innenstädte und sichern den Überlandtransport. Portraitiert wird deshalb die gesamte Geschichte der Groß- und Kleinserienfabrikate sowie Prototypen einschließlich der Klein-Kommunalfahrzeughersteller in Deutschland. Darunter sind selbstverständlich auch die Marken aus der früheren DDR oder das Multicar, das bis heute seine Nische gefunden hat.

Doch freuen Sie sich auch auf viele weitere Kuriositäten, von denen Sie gewiss noch nie gehört haben. Einen Grund mehr dazu bietet auch die Tatsache, dass es gelungen ist, fast jeden Hersteller und mindestens seine wichtigsten Fahrzeuge zu bebildern.

In Farbe sind freilich nur die Typen jüngerer Vergangenheit und der Gegenwart abgedruckt. Aber auch aus der Pionierzeit der Fotografie ist es gelungen, reproduzierbares und geeignetes Bildmaterial zusammenzutragen. Dies ist umso erfreulicher, als dass vor einhundert Jahren viele Modelle auch nur sehr kurzlebig waren.

Publishing pages:  
<https://www.motorbuch.de>

Readers' letters and messages

## Zetties and Trainini in Dialogue

**Thank you for each letter to the editor and all the feedback that reaches us. Write us (contact details are in imprint) - Trainini® lives from dialogue with you! Of course, this also applies to all suppliers in Z gauge, who would like to introduce innovations here. A representative sample is our goal. Likewise, here we note any events or meetings with significance to Z gauge reference, if we are informed in time.**

**Reader's impression of overhead line operation (Trainini® 3/2022):**

In your report about the non-model-compliant overhead (catenary) line with Märklin, I would like to add that I have had a Märklin Mini Club layout since 1973 and that on two main lines in four levels up to sixteen trains, eight each with "overhead line" and "underhead line" in nine block sections each, could be run safely with one pantograph. Provided the contacts on the rails and overhead line are clean.

Joachim Schultheiß, by E-Mail

**Congratulations on the 200th issue (Trainini® 3/2022):**

I have wanted to write to you for a long time, but now for the 200th issue of Trainini it has to be: It is really great what you (especially you) have done and are doing for the Mini Club.

I have been collecting and riding since 1983 and the 200 issues (all stored offline) have been a stimulus and enhancement to my hobby for many years. Many, many thanks and keep up the good work!

The idea with the independent logo for the 50th anniversary is great, I have already included it on the homepage of our Stammtisch: z-stammtisch.wien.

I look forward to seeing you again in Altenbeken – thanks again to the whole team and best regards from Wien (Vienna)!

Walter Leditzky, Wien (Vienna)

**Consent for Trainini TV:**

I think it's great that you now have a YouTube channel. Since I tried filming once myself, I know how much work is behind it and how much you and your comrades-in-arms still have to do.

Therefore, my suggestion: How about including Ralf J. in the Trainini TV team. He is present at almost all major events and is, thus, our chronicler of the meetings.

Johann Helbach, Bonn







Editor's reply: Indeed, we are already in dialogue with Ralf Junius. He was also our first choice and immediately came to mind, especially as he had already offered help in the past. Our request has already borne fruit, as he has supplied us with raw material from the Spur Z weekend in Altenbeken and also filmed a special sequence with and for us. He has not yet decided whether he will support us on a case-by-case basis or join us permanently. Ralf Junius also runs his own YouTube channel, which we appreciate very much.

**To test the RAm TEE from NoBa-Modelle (Trainini® 4/2022):**

The report about "meinen Zug" (my train) is great. I'm also happy for Barbara and Norbert. (...) See you in Altenbeken...

Peter Göller, by E-Mail

Editor's reply: We very much enjoyed getting to know each other in person, as well as the many other conversations in Altenbeken, most of which were unfortunately far too brief - we would also like to refer to the letter to the editor from the Wiener Z-Stammtisch. The close dialogue and personal contact are one of the great strengths that make our small gauge unique.

**First review of the Spur Z weekend:**

On 14 and 15 May 2022 the 8th International Z-gauge Weekend took place in Altenbeken in the best summer weather. The

atmosphere and participation at the event can be rated as good, and the Märklin stand personnel were also enthusiastic.

On the occasion of the 50th anniversary of our gauge, Märklin had significantly increased the size of its stand and kept it well staffed with a total of six people. Märklin had taken over the Saturday communal dinner in the Landgasthof Böhler (Bad Driburg) on a one-off basis in order to celebrate the birthday of the Z scale appropriately with the participants who had registered for it. We would like to leave a heartfelt thank you for this at this point.



One of many premieres of very successful installations in Altenbeken: "Booschot Statie" by Peter Willems (Belgium) based on an SNCB design.

We will report in detail about the meeting with many photos and impressions in the June issue, when we have the official numbers of participants. The first conclusion we can draw is that this meeting did not turn into a “Corona party”.

There were no warnings on mobile phones the week after, nor were there any reports of illness or symptomless infections. This is certainly due to the consistent hygiene concept of the organiser Z-Freunde International e.V., which also included the urgent request to wear masks in the hall.

Commendably, about 95 to 98 % of the visitors and exhibitors followed this request, and, thus, presumably successfully prevented a worldwide exchange of virus variants. Our editorial team is particularly pleased about this, because we have repeatedly called for responsibility also for the health of third parties, and therefore leave a big thank you.

#### **Requested models from Álvaro Cortes:**

Time and again, fire brigade and rescue service vehicles have made it into the ranges of various large and small series manufacturers. One gap in the programme for us were vehicles of the DLRG (Deutsche Lebens-Rettungs-Gesellschaft e.V.).

This is regrettable because it is very well known in Germany because it is present on beaches and lakes, and thanks to continuous, as well as persistent, work on a voluntary basis it has become the largest voluntary water rescue organisation in the world after its founding date of 19 October 1913 (Leipzig).

Álvaro Cortes (see February issue for contact details) was just as enthusiastic about this as their Portuguese counterpart and took up our suggestion to design DLRG vehicles based on existing models. In doing so, he strictly adhered to the valid labelling standard of this aid organisation.



Mercedes-Benz Sprinter as a vehicle of the rescue divers and a typical water rescue train of the DLRG consisting of VW Transporter T5 with trailer and rigid hull inflatable boat including outboard motor are available from Álvaro Cortes on request.

A Mercedes-Benz Sprinter now serves as a team bus for rescue divers and the VW Transporter T5 with trailer and rubber dinghy, which is used as a standard towing vehicle in many organisations, replicates a water rescue train.

Just in time for the start of the swimming season, these models are now ready for customers to enjoy “free time in safety” (DLRG’s former advertising slogan) on a scale of 1:220. The very successful models were also on display at the Z gauge weekend in Altenbeken.



## Neue Informationen von OL.D Modèles:

OL.D Modèles (<https://old-modeles.mozello.com>) has been looking for an engine option for the French TEE diesel multiple unit RGP 825 since our last exchange and will certainly keep us informed about progress.



Prototypes are the Grill Express and UIC coaches of the SNCF, which have already received their basic colour scheme here. Photo: OL.D Modèles

The following two models are currently in the prototype stage and are scheduled to be offered from the beginning of June: Grill Express and SNCF UIC coaches (1st class Era III and 1st/2nd class Era IV). The hitherto unpublished photos show ready-designed models from 3D printing with Railcolor airbrush painting before the application of sliding images.

## Märklin deliveries in May:

The electric locomotive 101 003-2 of the Deutsche Bahn AG in the special design “Design & Bahn” (item no. 88678) by the artist Gudrun Geiblinger, which is an advertising medium for a special exhibition of the DB Museum and was announced with the autumn new products 2021, was delivered in mid-May.



“Design & Bahn” promotes the 101 003-2 of the DB AG designed by Gudrun Geiblinger, which was only delivered as a model (88678).

Since Märklin had once chosen the first machines of this series as a template for its model, the shape fits perfectly to the template of this new product. The following series machines, on the other hand, have changes to the fans that were always ignored in Z gauge. A special feature is the different printing on both sides – we show the opposite side in the messages of our web pages.

Also arriving in the shops is the TRAXX locomotive class 146<sup>5</sup> (88485) for the local train designated as IC2 in long-distance services. Like the aforementioned locomotive, it also has a bell-shaped armature motor warm white/red light change by means of LED.



Due to the lack of a suitable form in the kit, the class 146<sup>5</sup> as the locomotive of the IC2 (88485) is less convincing. Like the still outstanding coaches, it is a compromise for friends of modern era VI.

The Märklin shape is not really appropriate here, because the prototype belongs to a modified substructure series. The manufacturer only tries to approach the appearance of this series by the continuous frame painting up to the front and an imprinted train destination display. This is only partially successful with the second feature, because it actually belongs in the driver's cab front window and is clearly placed too high here and visibly set off from it.

#### **DB promotion also on the model railway:**

Deutsche Bahn AG launched aid convoys to Ukraine under the “#WeStandWithUkraine,” which received media attention as Rail Bridge Ukraine. The Vectron MS with the road number 193 394 received a matching design, which can now also be recreated in 1:220 scale.

Modellbahndecals Andreas Nothaft (<https://www.modellbahndecals.de>) now offers the matching wet decals (art. no. 6660) for this purpose.



## A lot of new things at American Z Line:

There are quite a few deliveries to report this month at AZL. Known as the "Pine Tree livery," the colour scheme of the Northern Pacific, in which the EMD F7 is available as an A-B double (art. no. 63004-1) and as a single A-unit (63004-2).

The EMD E7 A & B now appears in the attractive Atlantic Coast Line colour scheme with two service number combinations (64609-1 / -2).

There is also a new version of the ALCO PA1, which looks no less appealing in the Southern livery (64417-1 / -2). The seven-piece Southern Crescent Limited car set matches them.

The EMD SW1500 shunting locomotive, which is still quite young as a model and has been adapted in its details to the respective railway administration, will appear in May in the version of the popular CSX (62704-1 to -3), for which there is a choice of no less than three operating numbers.



EMD E7 A & B in der Farbgebung der Atlantic Coast Line (Art.-Nr. 64609-2; Bild oben) und ALCO PA1 der Southern (64417-1; Bild unten). Fotos: AZL / Ztrack

Due to the high demand for the Southern Pacific trains "Cascade" and "Lark", the following single coaches are now available in a limited edition: 4-4-2 (73046-4 / -5) and 6-6-4 sleeper (73146-3), diner (73546-1 / -2), baggage (73646-1), observation (73846-1 / -2), and mail coaches (73946-3).

Manufacturer photos of the current deliveries can be found at <https://www.americanzline.com>.

## New Collection Z Gauge Annual Version 2022:

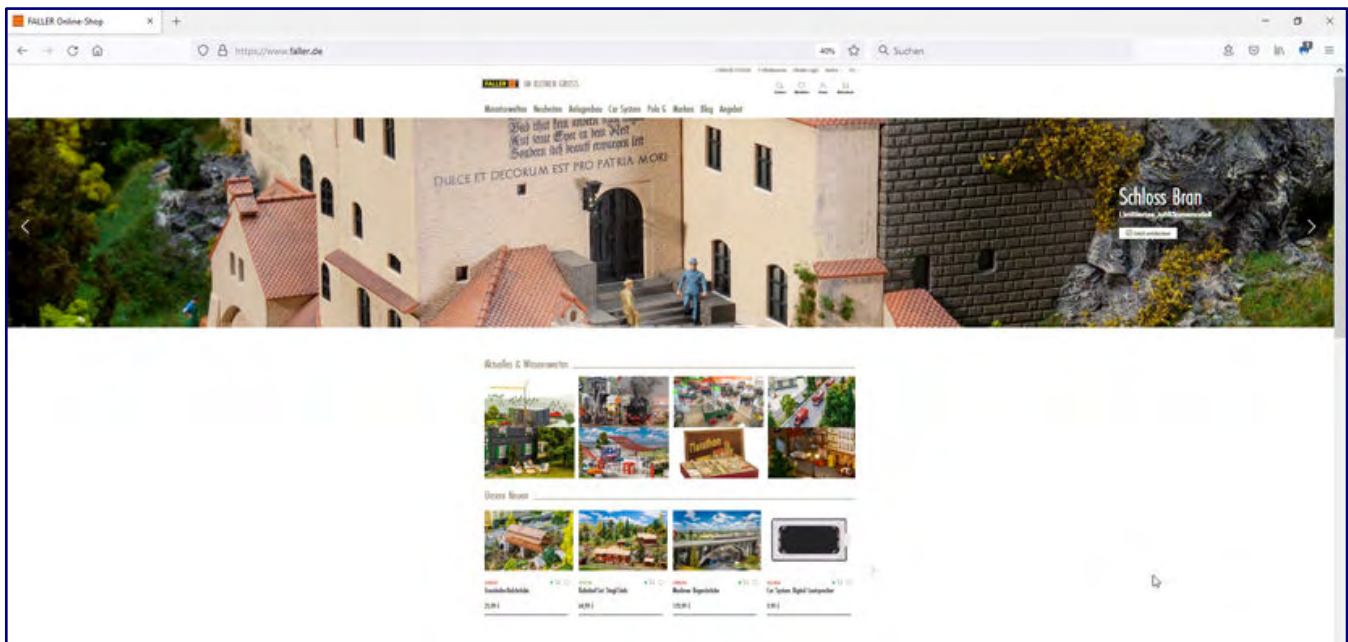
After our user report on the 2019 version of the Z-gauge Collection in **Trainini®**, the manufacturer Modellplan (<https://modellplan.de>) pointed us to the new 2022 version, which was available by the publication of this issue.

In the meantime, it can be found on the supplier's website and, according to official information, contains 3,960 item and 7,289 variant descriptions with over 7,000 colour illustrations. Thomas Zeeb was responsible for updating the database until his sudden death last year; since then, Modellplan has taken over this task itself.

The system requirements can be found on the Modellplan pages, but we could not find any information on new functionalities or improved functions as compared to previous versions. If you are interested, we recommend that you contact the provider in advance.

## New direct sales at Faller:

Since 25 May 2022, the Güttenbach-based accessories manufacturer Faller (<https://www.faller.de>) has had a visually and technically modernised Internet sales presence. Around 10,000 products from 38 model making brands are offered there from a single source.



Faller's own electronic distribution has been completely redesigned and is now also geared towards mobile end devices.

The new design and stable performance now also allow access from mobile devices down to mobile phones. Clarity, simple menu navigation, and accurate product search are the three key points that Faller promises its customers.

#### Exclusive Archistories new products:

Archistories has produced the new "Interlocking Yard Tower 'Dunkirk'" (item no. 102221) for Ztrack (<https://ztrackcenter.com>). The prototype of this US signal box is located in Dunkirk, near Columbus, Ohio at a railway crossing.

Its rather sober and functional design nevertheless has a high recognition factor with the historicising battlement motif on the upper edge. Derived from the original is a kit that can be built in two versions: the faithful crenelated version "Dunkirk" or with a flat sloping, projecting hipped roof as a fictitious signal box "Haley".

The hipped roof version makes the small signal box also suitable for European-style dioramas. Thanks to the outside steps it should not miss its effect there. That is why the kit is also available in cooperation for German customers via the 1zu220-Shop (<https://www.1zu220-shop.de>).

This will also apply to the separately available air conditioning units and rain pipes from Z-Doktor Modellbau, which are 3D printed. The building kit is made of solid-coloured hard cardboard.

#### New digital equipment supplier for Z gauge:

Christian Ribatzky from the Swabian region of Ulm introduces himself to our readers as a new digital supplier crZ-Ulm (<https://www.crz-ulm.de>). Self-developed circuit boards for simple digital conversion are his field of business.

Compared to the established manufacturer Velmo, he offers a different concept. His circuit boards are available individually and have to be fitted with a suitable decoder. However, the new pages also offer circuit boards on which a D+H decoder is already soldered. Digitisation services are also available.



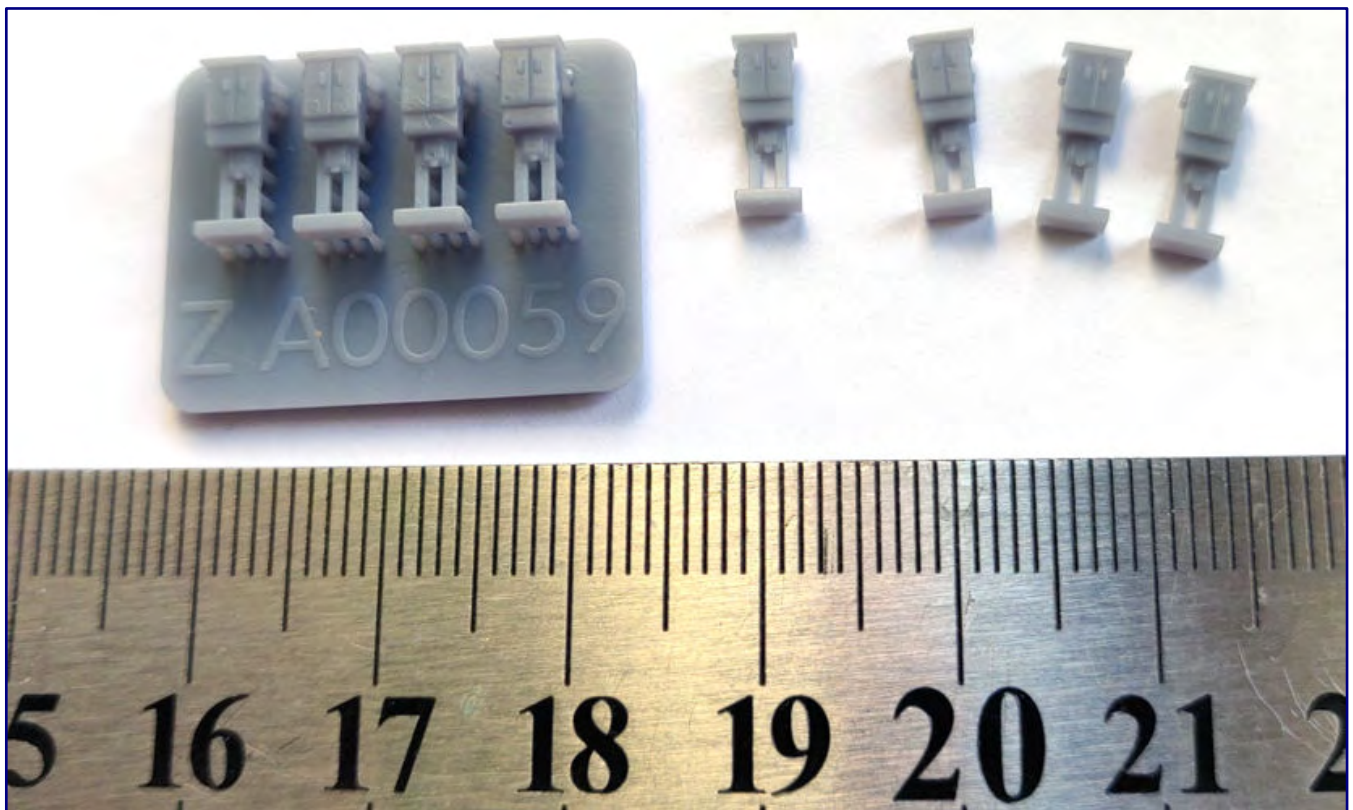
The already quite extensive range, which is to be continuously expanded, can be seen on the supplier pages. In the test report on the Siemens Vectron MS from Märklin, we have already pointed out a solution that fits this model.

**Collector's pack at WDW Full Throttle:**

The new collector's set "CSX Heritage" (item no. FT-COL60) from WDW Full Throttle (<http://www.wdwfullthrottle.com>) consists of wagons from the previous FT-4023 and FT-4024 sets. They have the road numbers ACL 83746 and SCL 883816. As in the previous month, these are black-painted bulk freight wagons, but in this case of a different design art.

**Meaningful track accessories announced:**

Soon available from Modellbahnunion (<https://www.modellbahnunion.com>) will be the old version of the track telephone (art. no. MU\_Z-A00059), usable in epochs III and IV.



Old-style trackside telephones of the Bundesbahn will soon be part of Modellbahnunion's programme.

Four copies per pack are to be offered as unpainted 3D printed parts made of resin. The highly detailed accessories for Bundesbahn (federal railway) lines can be processed with commercially available tools and paints. Revell Enamel or Revell Aqua Color, for example, are recommended as suitable paints.

**Märklin summer new products 2022:**

In mid-May, the Göppingen-based market leader announced its 2022 summer new products. First of all, the MHI exclusive new products in the form of a train set "Deutsche Bundespost" (art. no. 81341), consisting of a diesel locomotive V 36 of the OPD Hanover in the post office's own red livery and matching wagons.



The "Deutsche Bundespost" train set (item no. 81341) includes the vehicles shown here, as well as a Tempo tricycle in the cadmium yellow Bundespost livery complete with post horn. Photo: Märklin

It carries two DB Gmhs 53 boxcars (with the revised running gear) and an Rmms 33 stake car with brakeman's platform. For loading, a yellow Tempo tricycle in the design of the German Federal Post Office is also part of this pack. The operating condition is given as 1963 (epoch III).

The bronze investment casting series also promises interesting models: While the now announced open freight car Omm 52 (86236) officially continues the series and primarily appeals to collectors, further new products, which are produced in the same way, are aimed at operating railway enthusiasts.

The class 50 freight steam locomotive (88846) also contains a real bronze body, which is of course painted and lettered in this case. However, the manufacturing technology makes it possible for the first time to reproduce a three-domed version of this popular model. The windows of the cab tender again have printed frame reproductions.



Lost mould and bronze casting now make a three-domed class 50 freight steam locomotive possible (88846). Photo: Märklin



With the 101 088-3 in special livery "Dampfbahnroute Sachsen" (88679) another advertising locomotive based on the class 101 followed, while the one of the Re 420 (ex RE 4/4IV of the SBB) in livery "175 years of Swiss railways" (88596) was known since a few weeks and was already communicated by us.

Last but not least, another Vectron variant is announced, which is mainly found in the Netherlands. The prototype of the class 193 in black-green basic design with the motif "Flying Dutchman" (88233) belongs to the ELL rental locomotive stock at LTE and is part of the locomotive design series "Logistics4Legends".



With the "Flying Dutchman" from ELL, leased to LTE, the next variant of a Siemens Vectron (88233) already follows. Photo: Märklin

All the locomotive models listed are, even if we have not always explicitly stated so, state-of-the-art. This includes a drive with a bell-shaped armature motor and lighting with maintenance-free LEDs (warm white headlights), as well as detailed controls for the steam locomotive, and newly constructed collector pantographs for the electric locomotive conversions.

#### We still have one more ....:

The 1zu220-Shop, FR Freudenreich Feinwerktechnik and our magazine have come up with something special for the 50th anniversary of Z gauge. FR was responsible for the production of a one-time edition of 38 models, while **Trainini®** provided the inspiration and further support.

The 1zu220-Shop (<https://www.1zu220-shop.de>), through which this surprise new product will be available from Wednesday, 15 June 2022, acts as the client and supplier of the special model. The lead time of just over two weeks is necessary to give all interested parties the chance to purchase a model.

Due to the strong limitation, we expect that this desired model of many Epoch IV friends will be sold out quickly. The supplier therefore wants to prevent complaints and create a lead time.

Accordingly, no pre-orders or reservations will be accepted! The goods that have already been delivered will be switched to available in the electronic sales system at the start of business on the aforementioned day and will show the availability for delivery according to the stock level. Orders after sell-out are, consequently, not possible.



Chrome oxide green with white-aluminium roof and two-coloured lettering presents the parcel post wagon Post 2ss-t/13 (item no. 49.341.51), which will be offered exclusively by the 1zu220-Shop in a one-time edition of only 38 copies from 15 June 2022 onwards to mark the anniversary “50 years of Z gauge.”

We will briefly discuss the model in the next issue and present it a little more explicitly. It is the post wagon Post 2ss-t/13 (item no. 49.341.51), derived from a freight wagon type of the DB, with UIC number and old post horn of the German Federal Post Office.

FR Freudenreich Feinwerktechnik last offered a model of this type in its own sales department about ten years ago. Both variants offered at that time were far apart in their reproduced period of service and were quickly sold out. The unique special series for the 1zu220-Shop forms the link between the two versions.



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