

*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



On the Move in Narrow Gauge

Permanent shortage V 100  
New Ways of Cleaning

## Introduction

Dear Readers,

Since the outbreak of the Corona crisis, that is, for about three years now, I am probably not alone in feeling that the number of new products supplied has been declining. In fact, this is not just a feeling, but a verifiable fact.

If we follow, for example, the delivery schedules, means the delivery schedules of Märklin or also the explanations of annual financial statements and sales, we notice, on the one hand, repeated postponements and are also directly told how bottlenecks on the world market continue to the end of supply chains.

This is unfortunate, but cannot be changed. After all, in our hobby it should not annoy us. Let's make the best of this situation; that is also the common thread running through this edition.

It is number 212 and the first topic is about the class 212 of the Bundesbahn. It simply couldn't fit any better. For years, the Märklin model has been in great demand, each new edition is sold out in no time at all. So, what to do when one's desire does not come true?

Michael Pleiner, who likes to build with paper and cardboard, has acted from necessity. He has found a way to build his dream model himself. He tells us about it in this edition and gives an idea to those who have experienced something similar.

Reinder Rutgers also had no other choice but to help himself, because he is a narrow-gauge fan, and that is a largely neglected subject in Z gauge. If it becomes smaller than the converted metre gauge, then there is no longer anything to buy.

He once briefly presented the solutions he had found for himself in a letter to the editor and thus triggered many calls for a detailed report on this project. He has prepared two parts, the first of which we will begin with today. You can be curious to see how creative this path has been!

There is also a shortage of supplies on the book market. High-quality printing paper has been scarce and thus expensive for some years. That's probably why many titles seem to be on hold and are substantially delayed. This is also noticed by us, who are aiming for two reviews per edition.

In addition to a reissued classic, we are therefore also presenting an antiquarian book in this edition and, after a long time, would like to focus once again on great publications that are not known to many or have largely been forgotten.

Of course, I have not summarised all the contents of this edition, but that is probably negligible. You will soon have an overview when you have read through everything. Don't be surprised that this time you have a thinner edition in front of you. We haven't run out of topics — we're just investing our time in new projects on which articles will soon appear here. Enjoy reading!

Holger Späing



**Holger Späing**  
Editor-in-chief

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We thank Michael Pleiner and Reinder Rutgers for their contributions.

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### Cover photo:

The romantic idyll of the narrow-gauge railway is deceptive. The small diesel railcar has already been in service for a few years and will certainly not be able to prevent the ending of this narrow-gauge railway. Photo: Reinder Rutgers

V 100 on a Rokuhan base

## Born out of Necessity

*For 22 years, the DB's V 100<sup>20</sup> has been part of Märklin's Z gauge programme. Every new edition is out of stock at lightning speed and carries fantastic second-hand prices. This creates longings by many Zetties and leaves them with unfulfilled wishes. Our reader Michael Pleiner therefore took the initiative and shows a way out for those who like to tinker.*

By Michael Pleiner. When I tried to buy the V 100 offered in the current Märklin catalogue in October 2022, the dealers in the München (Munich) area did not have the locomotive in stock, nor was the locomotive available for dealers to order from Märklin.

However, I had a Rokuhan shorty at my disposal and found that the 10 mm axle spacing in the bogie corresponds to that of a V100.

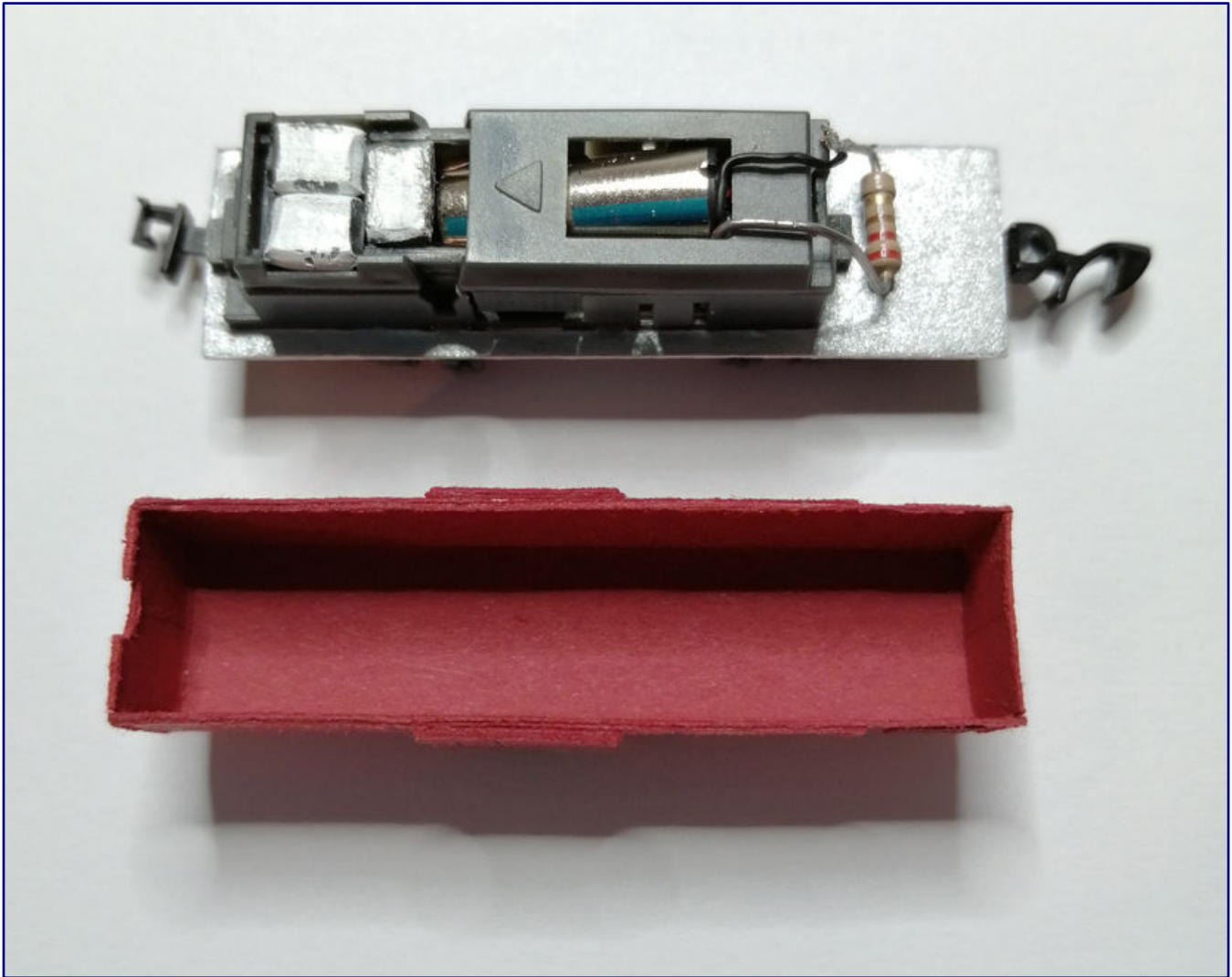


Compromises are unavoidable, but on the layout the completely self-built V 100 cuts an undoubtedly good figure in front of its train.

In many YouTube videos you can see the Shortys cruising leisurely over the tracks. However, if a Märklin transformer is used as the power source, the driving characteristics of the Shorty resemble those of a New Year's Eve rocket.

A series resistor of 110  $\Omega$  solves this problem. Higher resistance values allow an even softer and smoother start-up, but the final speed is then pretty low.





For acceptable driving characteristics at the Märklin transformer, a 110  $\Omega$  resistor has been soldered in (top right).

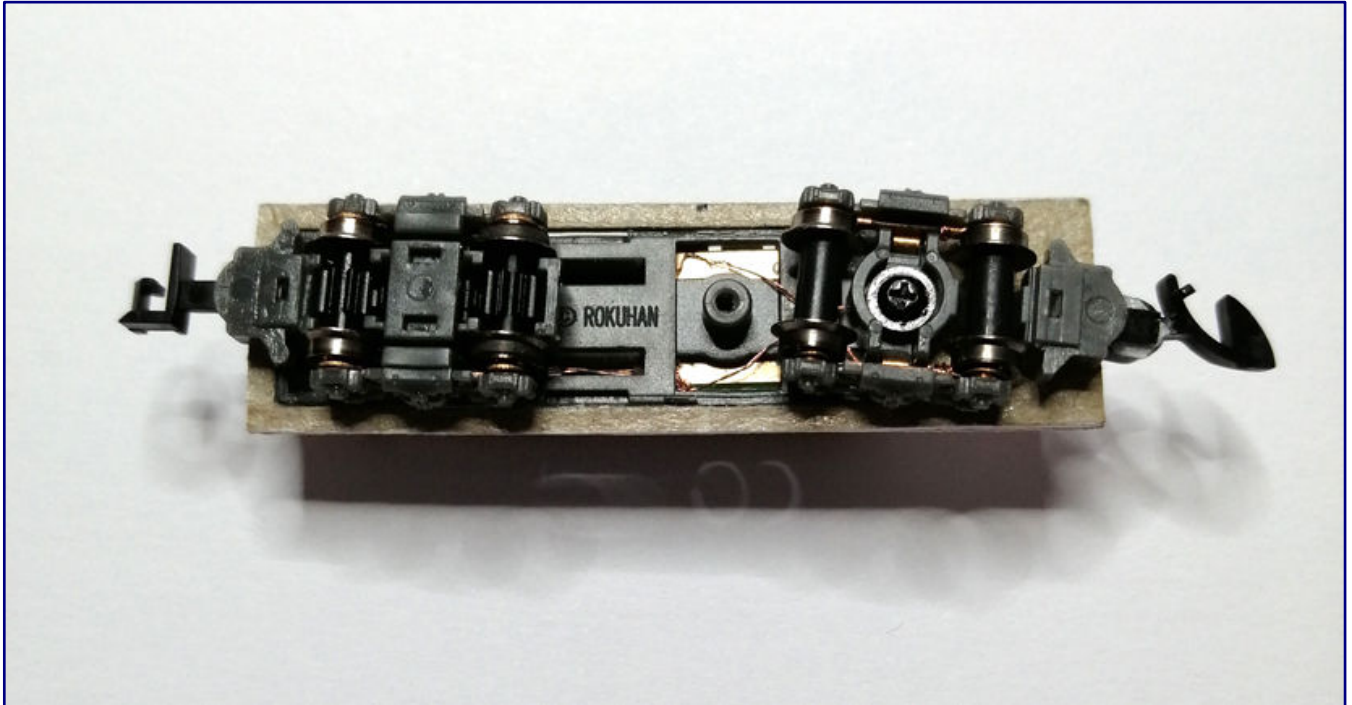
The width of the superstructures of the V100 bonnets is 9 mm in 1:220 scale. However, the chassis of the Shortys are just under 11 mm wide and have a length of 40 mm. Without taking into account the detents for Shorty housings, the length of the chassis remains 37 mm. The scale length of the chassis of a V 100 is 50 mm without buffers.

The basis of my V 100 is a 1 mm thick piece of cardboard 50 mm long and 14 mm wide. A rectangle of 37 x 11 mm was cut out to hold the shorty. The distance to the long sides and to one of the narrow sides is 1.5 mm. The resulting base plate was glued to the detents from below.

For the bogie of the Shorty a new pivot was mounted, which is offset by 10 mm. It has a height of 2 mm, an outer diameter of 3 mm and an inner diameter of 1.5 mm for the fixing screw.

On the bogie, the current conducting plates pointing vertically upwards had to be bent horizontally outwards. These plates normally contact the traces of a printed circuit board inside the shorty, and because the bogie that has just been moved, this is no longer useful.

Therefore, 2 mm wide copper sheet strips now conduct the traction current from the running bogie to the circuit board. On the base plate the superstructures of the V 100 have a scale total length of 49 mm and a length of 48 mm at the top because of the slant of the fronts.



The basis of the self-build is a cardboard plate in which a shorty bogie was placed. The non-powered bogie was placed further out to increase the overall axle base prototypically.

The superstructure of my locomotive consists entirely of purple construction paper in several layers. I started with a U-shaped blank that extends over the entire length. Then came the fronts, the sliding bonnet, the ventilation grilles, and the driver's cab.

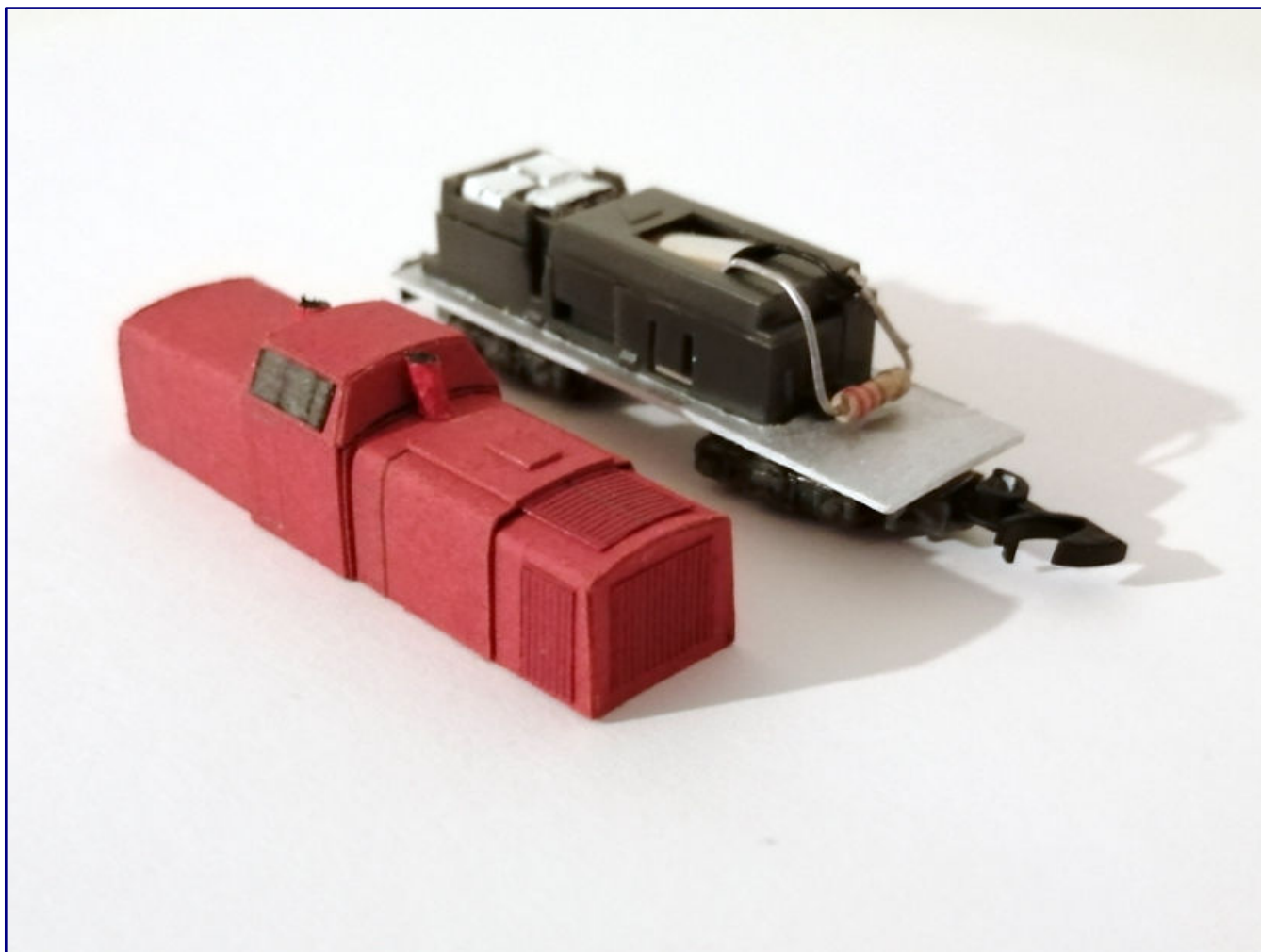
I drew the maintenance hatches and doors with a pencil. The windows of the driver's cab, on the other hand, are glued on and are made of anthracite-coloured construction paper. The exhaust pipe and air intake are imitated with red painted toothpicks.

Silver-coloured paper was then used for the top. The white trim strip is glued on, the locomotive's lamps I painted with thick white paint almost plastically. Because of the detent of the shorty, a small piece had to be cut out at the end of the shorter bonnet, so that the body can be put on the base plate.

The buffers could be reproduced with the help of black painted pin heads. The side plates underneath the base, as well as the fuel tank, are again made of paper. The couplers are regular exchange couplers from Rokuhan.

Since the Shortys are made of plastic and therefore very lightweight, I found it necessary to use lead to weigh down the loco. I also replaced the standard metal weights with lead.

Unfortunately, the Shortys have only one driven bogie. This factor as well as the low friction weight take their toll and limit the possibilities of use. Originally, my V 100 was intended for light passenger train service with two four-axle rebuilt coaches, but even in tight curves and slight gradients the locomotive stops with spinning wheels.



You can easily see how the locomotive body of the V 100 is made of different layers of construction paper. The exhaust pipe was once a toothpick that has been painted to match.

The reason for this is the mass of coaches, because they are equipped with metal weight from the factory. Nevertheless, my V 100 is not a pure showcase model! I use it consistently in light goods train service.

Due to the out-of-scale width of 11 mm (instead of the correct 9 mm) the locomotive looks a bit squat.

However, this is not noticeable for the viewer at first, as the locomotive shows all the characteristic features of a V 100, and is also perceived as such.

It remains impressive how a personal dream model can be created with relatively manageable effort and a reasonable degree of difficulty.





I, for one, enjoy my Rokuhan-Shorty-based locomotive, which was born out of necessity and lack of availability, and I hope that this will inspire other Zetties who feel a similar lack to build their own.



For our reader, a wish has definitely come true, after he was unable to get hold of a Märklin model several times and was also able to experience some tinkering joy in his search for a suitable replacement.

Alle Fotos: Michael Pleiner

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Only 3.0 instead of 6.5 mm track gauge (part 1)

## May it be a little less?

*For our author Reinder Rutgers, Z gauge still doesn't seem small enough. Therefore, today he describes his experiences with building rolling stock in gauge Ze. These narrow-gauge models also follow the scale of 1:220, but have only 3 mm gauge. In this tiny scale, the challenges are even more tricky.*

By Reinder Rutgers. Narrow-gauge railways always found my special interest in prototype and model. From the eighties onwards, I was occupied with the gauge H0e, later also with the scale 2m. Many real prototypes were visited and many books were read.

When, about ten years ago, a Japanese model railway on a scale of 1:450, with a gauge of 3 mm, was brought onto the market under the name of T gauge (for English "three"), a thought immediately occurred to me: Now it should theoretically be possible to realise a more extensive narrow-gauge railway in Z scale.



The comparison of the gauge Ze diesel locomotive with a V 100<sup>20</sup> from Märklin illustrates the extremes that were successfully exhausted here by our reader.

In 2012, in order to investigate whether a model railway can be seriously operated on 3 mm tracks, I built a small layout in their nominal scale (see photo on page 11). It turned out that T-gauge trains run surprisingly well, albeit with some conditions.

Pulse width modulation is a must. The system's own controller works well in this respect. Secondly, the driving characteristics are better when at least two coupled drive units are combined, which pays off especially on turnouts with an insulated frog.

Thirdly, the tractive power of the drive units is limited, although magnetic adhesion should make it possible to cope with larger gradients. In my experience, there must be at least one motorised unit per three to four non-driven wagons.

Fourthly, only relatively long four-axle motorised wagons are available from the manufacturer, and in addition, two-axle wagons are completely absent in gauge T, as they are, on the other hand, typical for a narrow-gauge railway. As a consequence of these operating experiences, I have built nine ghost cars in addition to the locomotive and traction unit models.



These nine ghost cars have gauge-T drive units and operate with an operating voltage of 4.5 volts.

## Special challenges

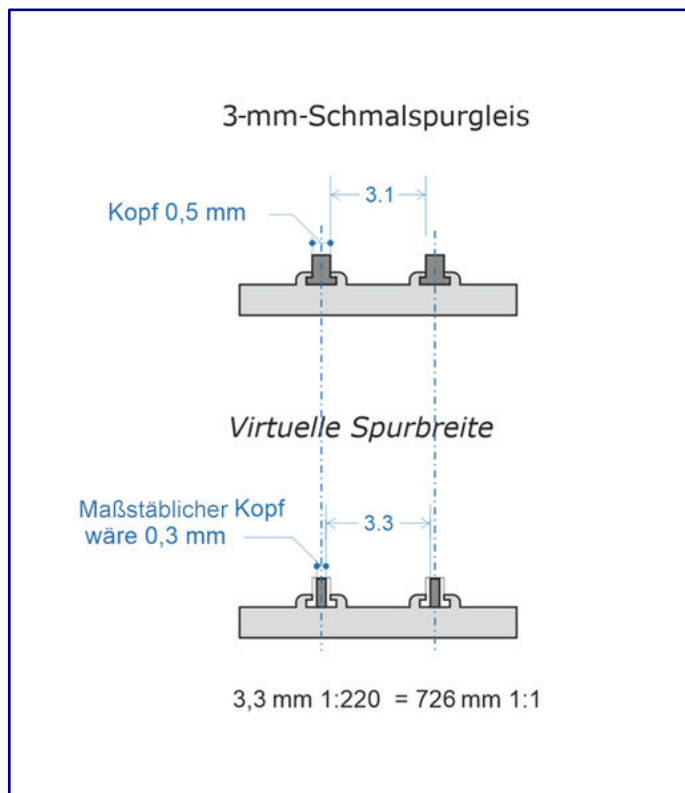
As far as driving my own narrow-gauge trains is concerned: narrow gauge railcar models run as good as their 1:450 scale counterparts, but hauled trains are more problematic. Even setting up and coupling the wagons is considerably trickier than with standard gauge wagons in 1:220 scale.

Sometimes this is, to be honest, a bit frustrating. The available rerailling aid only works to a limited extent for my narrow-gauge solution. Maybe I will develop something of my own. But this is a project for the future.

Many T-gauge parts are available individually, but there are only a few sources of supply. In Germany there is Lemiso; in the UK the site T-Gauge.com. The last one offered a bit more parts so far, such as long couplers. This supplier also makes its own products, including a narrow-gauge track ("Wide Sleeper Track") suitable for nominal size Ze.



With this test layout on a scale of 1:450, the necessary operating experience was achieved in a typical Dutch landscape.



The rails for T gauge have a pivot spacing of 3.6 mm. A to-scale narrow gauge rail head would be about 0.3 mm wide. This means that the virtual rail spacing would be 3.3 mm (see lower part of the graphic).

This equals about 720 mm in reality. Many German narrow-gauge railways had 750 mm gauge. On a layout, the small difference will not be noticeable.

However, a narrow-gauge turnout does not exist yet, only a strange turnout with a fixed counter curve, so a lot of own initiative is needed here. Building your own track and points is already difficult as the trains have to run on steel track because they have magnetic wheels.

But steel rails are hard to come by and steel cannot be soldered at low temperatures. This brings special challenges to the user that we are not familiar with from standard Z gauge.

After the trial phase, the parameters were clear. The next question was whether I could produce my own narrow-gauge models for the Ze size on the basis of the T gauge material.

My first idea beforehand was to convert Märklin rolling stock. I converted several models accordingly, but had no success with locomotives. Their metal chassis proved to be unsuitable. Only a sliding bus could be adapted to the (converted) 750 mm gauge conditions in a more or less acceptable way.

Next, I built four-axle narrow-gauge examples from Märklin freight wagons. To do this, I made the car bodies considerably narrower and mounted new, lower underframes. The use of optically similar or identical side walls of standard gauge wagons is realistic.



Even in the prototype, they were often no smaller than those of their standard-gauge siblings from the period that we are recreating with Era I. With the exception of a few very small open wagons, however, only four-axle wagons can be produced in this way, because almost all standard-gauge wagon bodies are too long.



In this, three-part gauge Ze diesel railcar train, all three vehicles are powered to achieve good and safe driving characteristics.

Further attempts to convert Märklin material into passenger coaches and two-axle coaches by shortening the car bodies did not satisfy me. In the end, I decided to build the whole thing myself in order to achieve convincing results.

## From plan to model

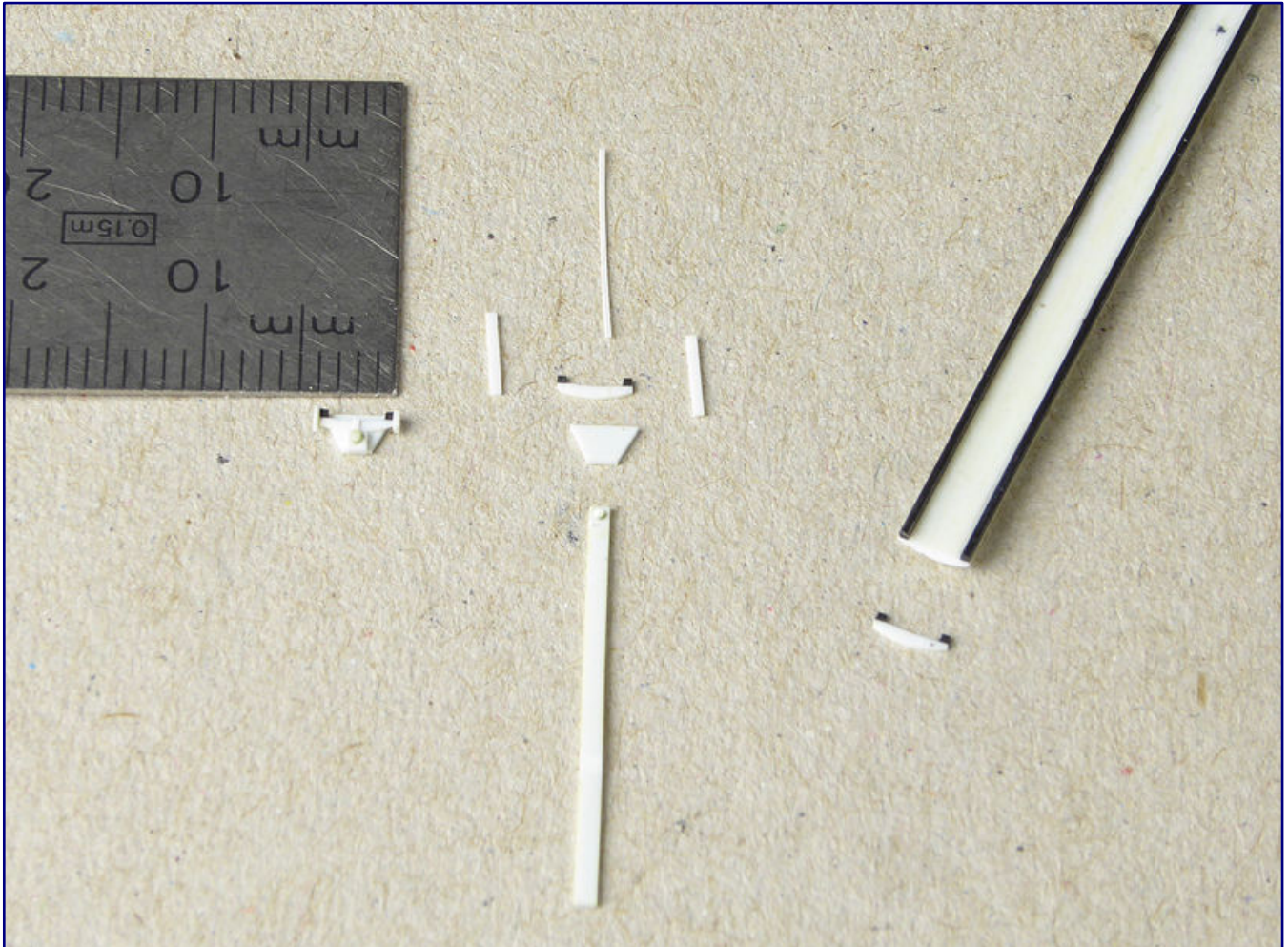
In nominal size H0e I have always reproduced real prototypes precisely and in detail. For my new passion in gauge Ze, however, I have decided for various reasons to design my models solely in my own way.

This does not mean that I do something arbitrary – on the contrary. For me it is very important that the models give their viewer a correct impression, a kind of summary of typical features from several prototypes.

That means studies, a lot of thinking and also some experiments. But it is also a lot of fun, because I feel like the chief engineer of my own railway company.

An important prerequisite for self-building is a good, scaled drawing. I usually use a scale of 2:1 or 4:1, i.e., two or four times larger than the later model. It is important to consider the available or yet to be developed technical means, skills and materials already when drawing. For example, if I use 0.3 mm thin wire for handles, then I also draw with 0.3 mm.

I would like to give the readers a suitable example for looking at limits and what is possible: In the case of the axle brackets of the two-axle wagons, the technical framework must be examined and used sensibly. In the spring set, for example, no individual leaf springs are indicated here, and the hooks are reproduced vertically instead of obliquely for manufacturing reasons. If we look at the finished models, the axle holders nevertheless look good overall, and are above all coherent.



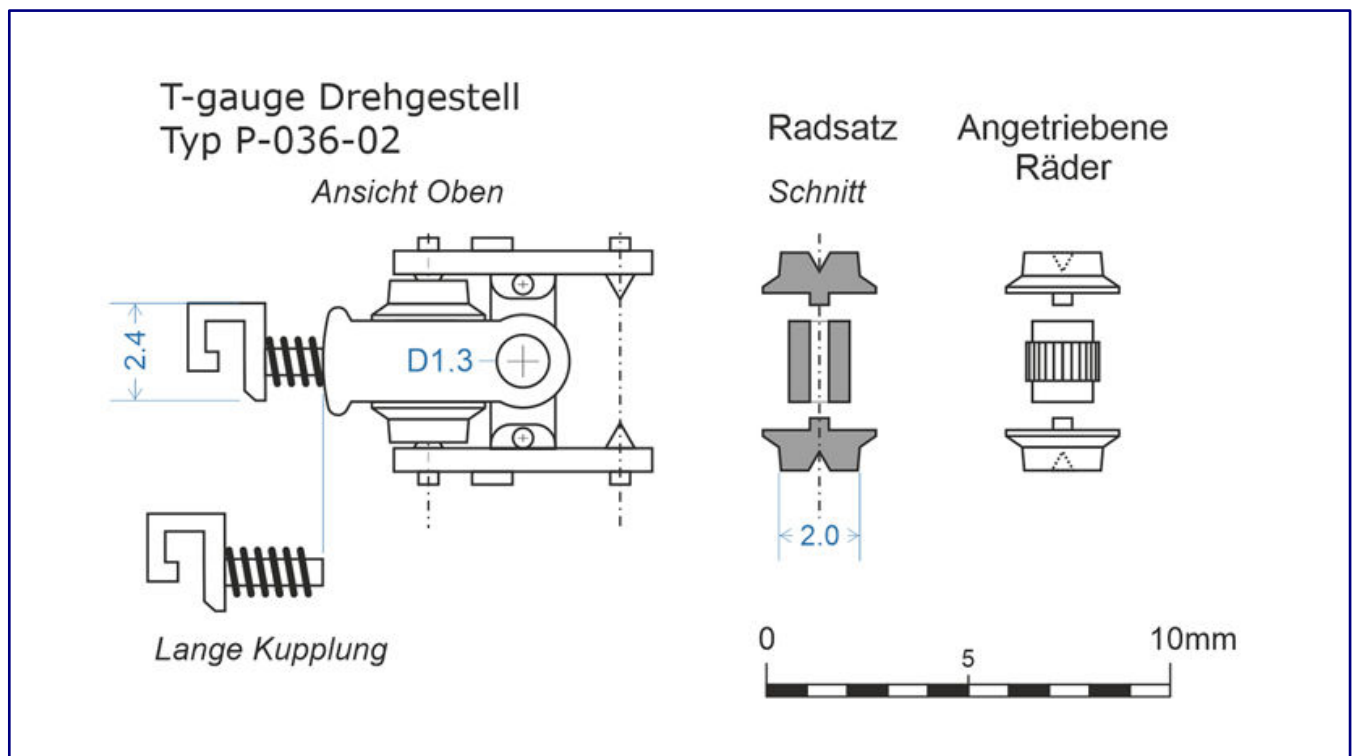
The axle beam replicas consist of nine individual parts each (above the centre). For the spring assembly, a bar profile with the desired crescent-shaped cross-section is first created. Then 0.3 mm narrow discs are cut off (top right). This method ensures that all springs are exactly the same.

The axle bearing is made from a round profile piece that is embedded in a polystyrene strip (centre). The surrounding plates are made with the help of a fine-cutting device. Some strips are only shortened to their final dimensions after assembly (top left). A total of four gauges are used for accurate reproduction.

By the way, I should mention that I had first tried to modify the axle holders of Märklin wagons. But these were too big and thick for me. If that doesn't bother you, you could of course go that way, but for me the proportions are more important than the detailing.

Last general consideration I have to make here: I make my models from polystyrene and self-adhesive film. Primarily I choose this approach because I have a lot of experience with it, but also because of the possibilities of both materials.

The results are quite close to those of the etching technique. A CNC foil cutter is used to cut the foil. When I started my tiny adventure, 3D printing was not yet an option!



This drawing explains the special features of axles and tip bearings described in the next section, as well as the types of couplings used.

But even today, foil on transparent material is still an excellent technique for creating glazed walls with little relief. The advantage of handicraft remains that I don't have to sit for hours behind a computer screen, because nowadays work already forces us to do that to a considerable extent. All too often, idiosyncratic computers tend to cause stress, whereas real handicraft can have a therapeutic effect.

## In a new world

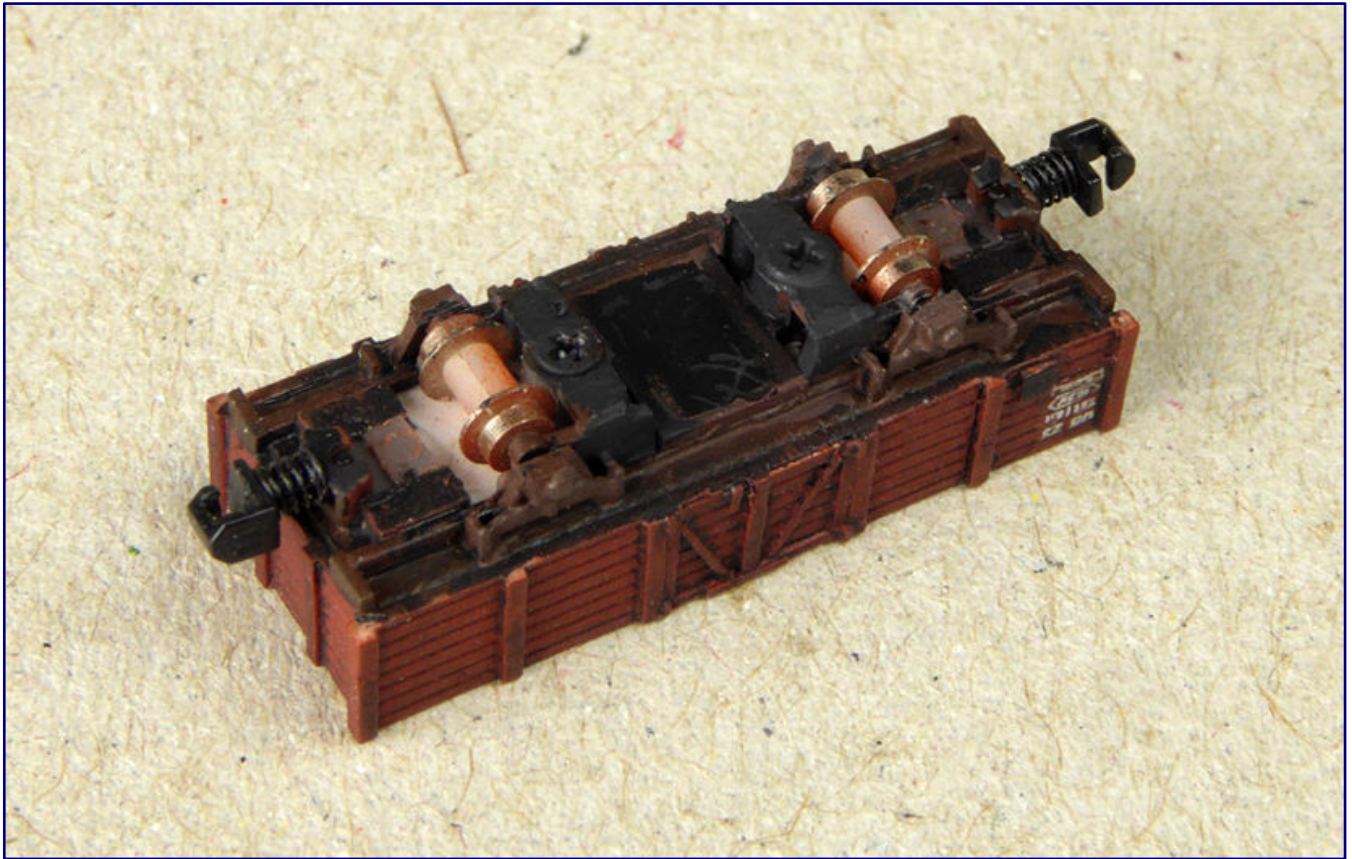
I would like to share some knowledge about T-gauge parts with the readers of this report. The couplings are very small claw couplings. Unfortunately, only those couplings that come with finished models work right away. Separately supplied couplings, on the other hand, jam and require reworking.

Since they are made of soft plastic, probably POM (Polyoxymethylene, a kind of thermoplastic), this is only possible by cutting away material, which is a truly tricky job. There are, however, eye couplings that safely and easily connect two carriages.

The only problem is that these are not offered in a long version and it is not possible to shunt with them. However, shunting is an illusion in this extreme scale anyway. This is also the reason why I have built stand-alone models for side tracks in addition to the rolling material. These have prototypical, but non-functional central buffers.

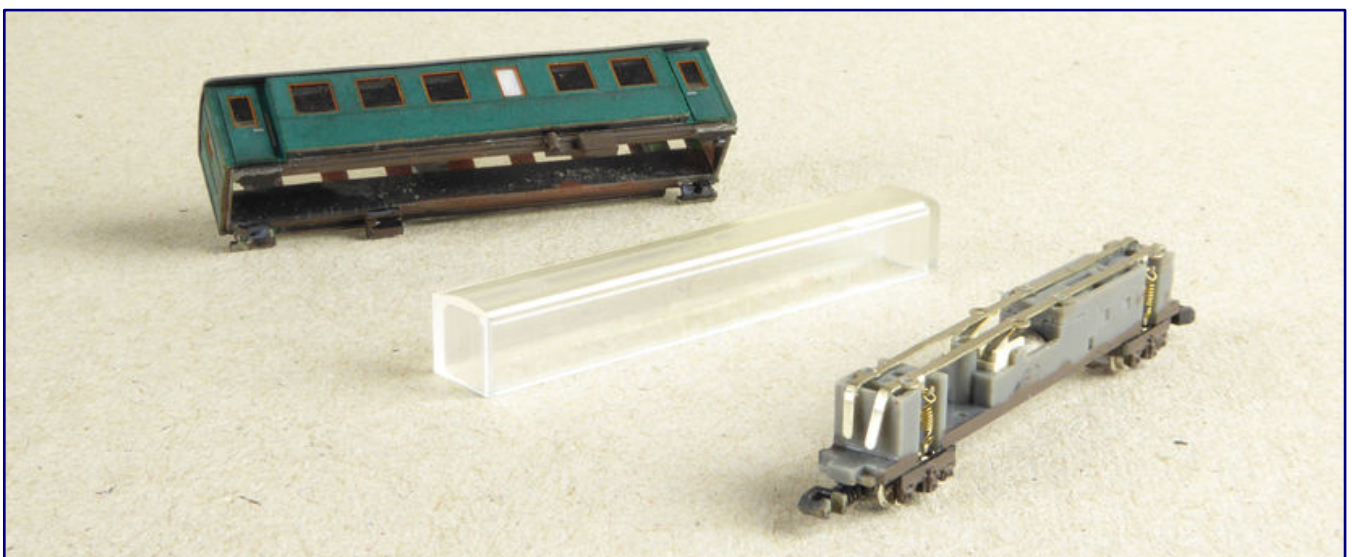
The wheelsets are also mounted differently in T gauge. Normally, in model making, a point bearing by means of pointed axle ends in tapered bushings is common. Here, it is exactly the other way round: The points sit on the frame and the bushings form the outer sides of the wheels. Two wheels are connected by a plastic sleeve as axle. This is a very clever design, especially in view of the tiny size, because it makes insulated metal wheels possible in the first place.





The underside of a two-axle freight wagon suitable for rolling illustrates the modifications made to obtain necessary parts from the bogies and to install the matching coupling.

The disadvantage of this design is that it is difficult to construct a well-functioning and smooth-running wheel bearing. Although T-Gauge.com also offers wheel sets with conventional tips, these have wheels made of plastic. But that does not seem to me to be recommendable in this scale.



Here you can see the drive unit of a ghost car. The corresponding transparent cap was integrated into the car body.

After a few attempts, I then decided not to use them. Instead, half of gauge T-bogies were used for two-axle wagons that had to be drivable. I covered them with my own axle holder imitations.

For the scale 1:450 there are even different bogies available. I like the models P-004 without magnetic wheels and P-005 with magnetic wheels best. How many magnetic wheels are needed for non-powered models is not a settled matter for me.

Although these wheels “stick” well to the track, they also cause jerky driving. If a wagon is big enough, adding a weight is a real alternative that promises more operating realism.



**These three different types of open wagons were designed for sidings as floor models and patinated.**

By the way, the tiny wheels have a diameter of 2 mm. This corresponds to 440 mm for our scale and is therefore actually a little too small, because most wheels on the 750 mm narrow gauge have a dimension of about 500 to 600 mm. However, it is not noticeable when looking at it, because the wheel flanges are too large.

Four-axle drive units are available in five different lengths. Recently, T-Gauge.com has also introduced a six-axle drive unit and a three-axle locomotive. Both are extremely interesting as a basis for narrow gauge models. Unfortunately, they were not yet available when I built the models I present here.

The drive units are only held in the supplied housing by clamping force. As it is difficult to achieve the precision required for this when building your own, it is advisable to use a series housing as a basis for driven models. Moreover, it is transparent, which is of considerable advantage for the construction of railcars and passenger coaches.

continues on page 19



## Supplementary photo series on selected self-built models by Reinder Rutgers (2 pages)



For size comparison, the narrow-gauge steam locomotive number 6 and a Märklin model of the class 01 (behind) were placed together. The proportions are truly impressive. Without this opportunity for comparison, the tiny locomotive would appear larger, especially since it has also been perfectly aged based on prototypes.



The snow plough is closely based on a Rügen model, but is sufficient as a standing model on a summer layout. Behind the model are two water wagons, which were also typical for the service fleet of many small railways in the past.





Everyone is probably familiar with freight wagons attached to a rail bus (at the rear). On small railways, however, individually running diesel railcars were used far more frequently as locomotive replacements for goods trains because of the low volume of traffic.



The modern times of narrow-gauge light railways are embodied by these new-built cars in the style of the fifties and sixties.

## Creative diversity of types

It is clear that a large layout requires a lot of wagons, especially if the main operating point of a narrow-gauge railway is to be represented. And this is not only true for the heyday of narrow-gauge railways.

Later, when there was not much going on at such railways, there were often long rows of parked wagons on side tracks. Since I had sometimes seen exactly that in reality, it was my plan from the outset to recreate something like that in the model as well.

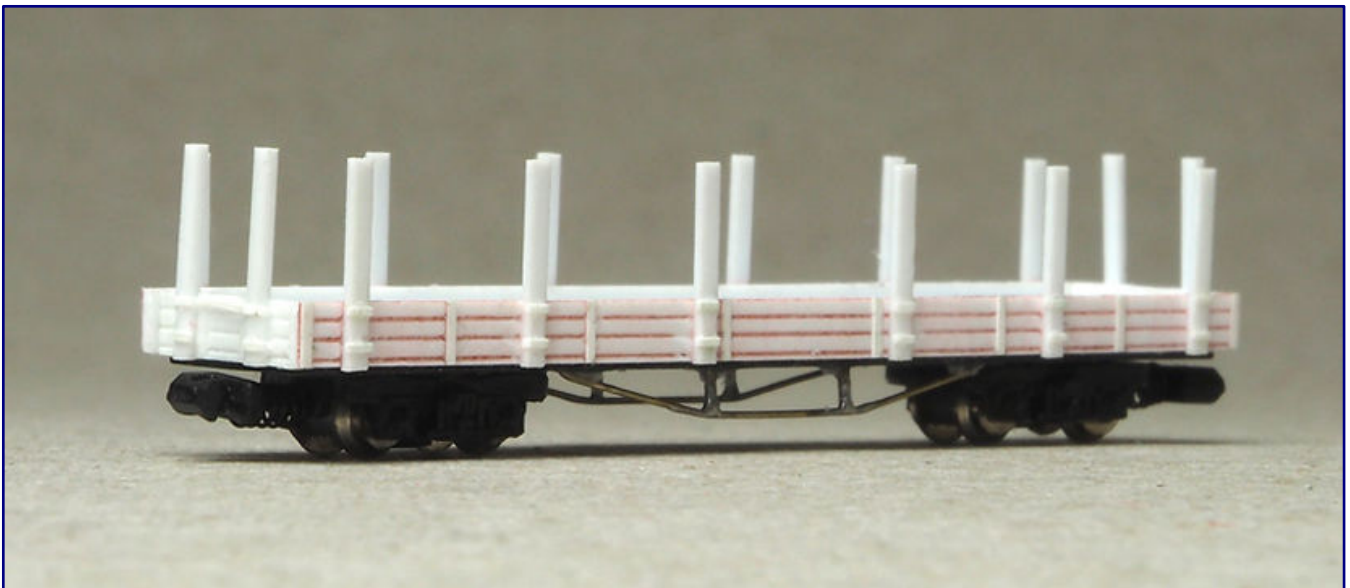
Besides the already mentioned nine ghost wagons, I therefore also produced several types of freight wagons, so that their variety can reproduce the typical photo of a small railway. In addition to older and younger examples of the main types G and O, wagons that would normally be found in a depot also found their way into the model: snow plough, water or equipment wagons. In addition, there were old wagon bodies that are used as accommodation or sheds.



This photo, which shows all the freight wagons being spray-painted, illustrates the incredible scale of the home-grown fleet – locomotives, railcars and passenger coaches are not shown here!

My 'modern' railcars are inspired by those of the Kleinbahn Osterode - Kreiensen. An old-style railcar, on the other hand, is based on Prussian models, as is the steam locomotive with the outer frame. After thorough deliberation, I made this one as a stand model.

It was a kind of 'extra': from the outset, the idea was to represent a railway company that switched to railcars in the early sixties. Then I had the idea that it would be nice to put an old, rusty and worn-out steam locomotive on the siding. I used parts of a gauge Nf kit by Roy Bergauer for its steering and frame, the rest is self-made.



The construction photo of the steam locomotive clearly shows the pipes on the boiler (photo above): They are made of 0.25 mm thin polystyrene round rods. Other parts like the chimney, the air pump or the lights were turned. On the four-axle stake wagon (photo below), which was also under construction at the same time, the trussing made of 0.3 mm wire is impressive.

For the driven, four-axle diesel locomotive, however, there is no direct prototype, as the design here was dependent on the conditions of the drive unit. This time I was able to use parts from the tinkering box for the superstructure, and for the rest I had to build my own.

Parts that were needed several times, such as locomotive lanterns, roof ventilators or axle bearing holders, I produced in "mass production". The reason for this is not primarily economic or time-saving. Rather, it often requires certain skills, sensitivity, tricks or even adjustments. It then takes too much time to get to grips with this again and again if a certain part is missing later. In the worst case, it is no longer there as a pattern or master model.



All models were aged in colour. I orientated myself on historical photos. Older passenger and goods wagons have a sun-bleached colour, some wagons have repaired areas, and the steam locomotive has been heavily patinated.



The small diesel locomotive with four different carriages (upper photo) has the effect of gently and carefully applied operational dirt. On the old building railcar (lower photo), which has also been aged, the sidecar is also motorised.

In general, however, I have kept the patina discreet, although there were exceptions even with the prototype: For example, the metre gauge material of the Albtalbahn at that time was in an externally poor condition. Nevertheless, most of the more modern locomotives and wagons of the small railways in the sixties looked well maintained.



The stop of the old-building railcar conveys the idyllic impressions we associate with the long-defunct narrow-gauge railways of years gone by. Thanks to Reinder Rutgers, they skilfully find their way into the 1:220 scale.

All in all, building took more time than I thought. I had to try out a lot of new things, painstakingly learn them and sometimes there were setbacks. Nevertheless, these challenges are always important for me in model building. And, this is what has made me a dedicated Zettie in the past years.

All photos and drawings: Reinder Rutgers

Suppliers for the basic models:

<https://www.lemiso.de>

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Maintenance and care of small railways (part 11)

## Böttcher's Miracle Cleaning Agent

*Sooner or later, every Z scale enthusiast is faced with the task of giving their rolling stock a good cleaning. And the most desired approaches are those that do not require the complete dismantling of the models. After all, reassembling a steam locomotive can be quite a challenge. And that's why we want to see how a relatively new product can help us to keep life as simple as possible.*

The cleaning of wheels and track concerns and interests all model railway enthusiasts, at least judging from the frequent feedback that we have received in response to our series of articles on "Maintenance and Care of Small Railways", which has been running for ten years.

Especially in response to the test report on the wheel cleaning device distributed by Modellbahn-Union (see **Trainini**® 11/2021), we received many enquiries. But we also received questions about stubborn dirt that could not be removed with this tool even with the use of isopropyl alcohol.



After heavy use of the layout and especially at exhibitions, more cleaning is required. Today, we are looking for new ways to get on top of the dirt.

This clearly shows that more "manual work," disassembling of models and other means are required on a case-by-case basis. We already gave some advice on bogie locomotives in episodes 1 (August 2013) and 7 (October 2018), and wagon wheels were the subject of episode 6 in August 2016.

Today we would like to combine a few tricks with a fairly new cleaning agent that impressed us in the previous tests. The product we tested is called “Steam Oil & Cleaning Oil” (art. no. BM 7503) and comes from Böttcher Modellbahntechnik.

We presented it for the first time with the spring new products in **Trainini®** 2/2022. The manufacturer promises that it immediately dissolves dirt, does not damage plastic, and can also be used with rail cleaning wagons.

The professed properties of the product tempted us to plan for a test over several days at the Intermodellbau exhibition in Dortmund against the type of stubborn dirt that accumulates inevitably on locomotive wheels and in their gears during under railway exhibition conditions.

The plan was also to use the agent as a cleaning fluid on Modellbahn Union’s wheelset cleaners.

We wanted to find out whether it would be able to gently remove the type of firmly attached dirt, which some of our readers were unable to remove even by using the wheelset cleaner in combination with regular isopropyl alcohol.

Unfortunately, as we also had to report a little later, the exhibition was cancelled. Suitable test models with comparably heavy dirt accumulations have therefore not been available to us until today.

Therefore, our report comes late and is also limited in its informative value at this point. However, we have no doubt about the Böttcher product and its efficacy, because our experiences, which we share here, are quite impressive.

## Health and safety advice

Before we describe the use and the results achieved, however, it is equally important for us to communicate some background on the choice and decision: The terms “oil” or “distillate” in connection with chemicals of this kind do not come about by chance.

These are regularly petroleum products, which are known to have contents that are hazardous to health, including various hydrocarbons. This places special requirements on their safe use and therefore subjects them to the requirements of the Hazardous Substances Regulation as the national implementation of EU Directive 2014/27/EU for occupational safety and also consumer protection.

Special requirements also apply to the packaging of substances and mixtures, many of which are even internationally coordinated and harmonised. Among the important safety features within the EU is, for example, the UFI code (“Unique Formula Identifier”), which must be indelibly affixed to the container label with various transitional periods — the relevant ones here expired on 1 January 2021.

This follows the realisation that in the event of medical emergencies caused by the product, the information urgently required for health care must be obtained quickly. It allows a clear prescription



A year ago, we introduced the quite inexpensive steam and cleaning oil from Böttcher Modellbahntechnik as a new product. Today, it is to prove itself in various applications.



Harmonised law within the European Union stipulates that dangerous substances must be labelled with hazard and safety information as well as other characteristics.

identification, because it leads to the so-called distributor. This non-public information is accessible to the poison control centres.

If this sixteen-digit alphanumeric code is missing, faulty, or even deliberately falsified, it does not take much imagination to imagine the fatal consequences if a hazardous substance enters the human metabolism.

Since hazardous substances are not only found in the workplace, but also in the home, child safety devices on bottle caps are now commonplace, but, unfortunately, not always taken for granted.

The hazard pictograms, signal words and hazard (H) and safety (P) phrases, which were revised in the last amendment, occupy a much larger space than before. They are intended to be clearly recognisable, to create awareness and to help derive the correct handling to avoid accidents and to contain their consequences.

Those who cannot read are warned clearly by the pictorial language, but all others should take the hazard information H304 very seriously. It reads: "May be fatal if swallowed and entering airways." We have not chosen it arbitrarily, because it also belongs to the product we want to use today.



Warning word and hazard statements should be taken seriously in any case and lead one to take appropriate protective measures: We have only one health! Unfortunately, even today some chemicals do not meet the legal labelling requirements.



Perhaps some of our readers now doubt whether they have already seen and read such notices on the liquids they have already held in their hands as part of their model railway hobby. To our dismay, not all products that pose a health risk and are freely available on the market comply with the applicable protective regulations, and, unfortunately, this also includes very popular products.

This is the reason why we keep our hands off some chemicals and do not present them in this magazine. Stefan Böttcher has met our expectations and clearly labelled and secured his steam and cleaning oil.

## Our real life experiences

Our central questions for the test were whether and how well the Böttcher distillate was compatible with the wheel set cleaner from Modellbahn-Union, and what cleaning performance was achieved when combining both products.

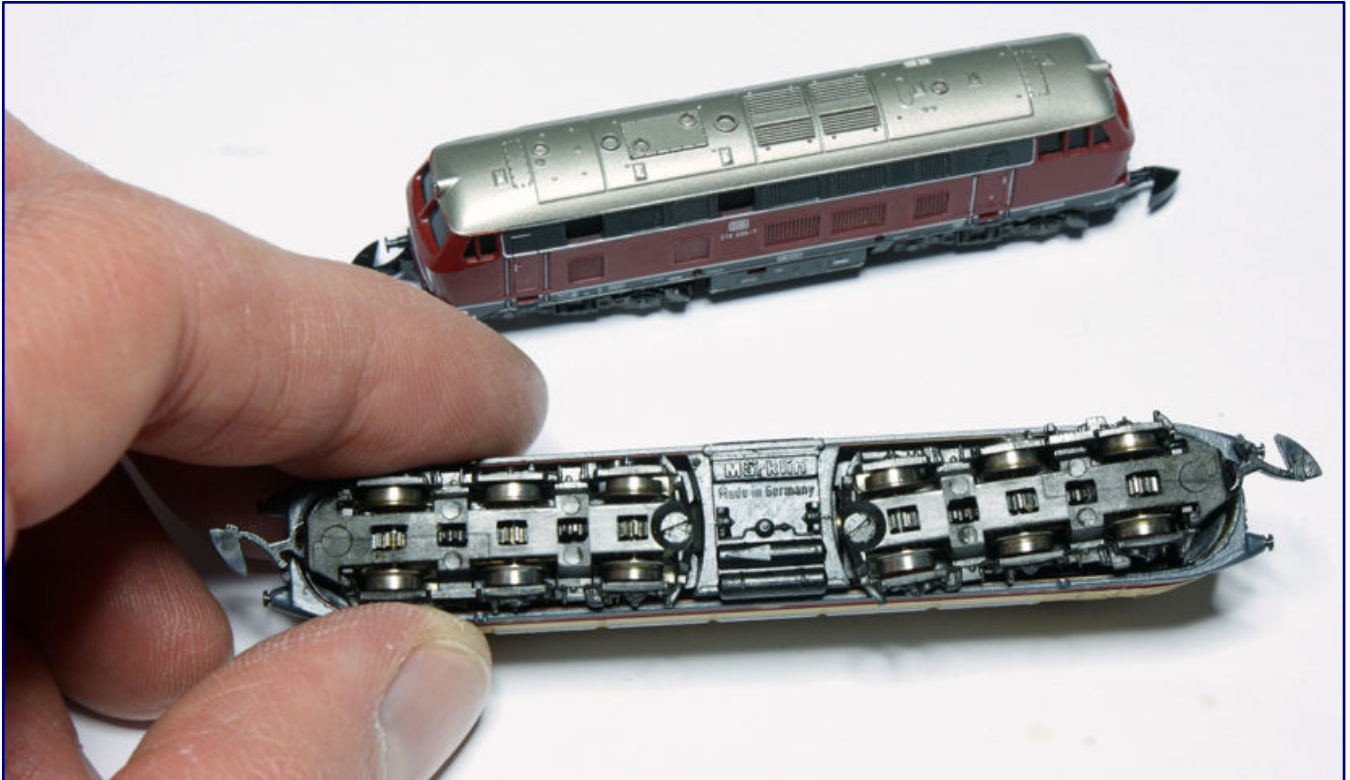
A four-day test at the Intermodellbau was supposed to provide conclusive results, but this did not materialise. So, all that was left as a substitute were runs on our home layout. The two locomotive models in the inventory with the most dirt on the wheel surfaces were selected, but they were not able to accumulate the amount of dirt that occurs during a whole day's use at the trade fair.

Nevertheless, this test provided usable information: we did not find any damage to the device, which confirms the plastic compatibility promised by the manufacturer. However, we have to put a caveat for surfaces that are characterised by varnish and printing, i.e., almost all surfaces of vehicle models.



On Modellbahn-Union's locomotive wheel cleaner, the Böttcher distillate noticeably increased the cleaning effect; it did not damage plastics either on the device or on models. But here, too, there are limits to the cleaning power, which make it necessary to combine it with other mechanisms.

It is not possible to make a general statement here, because we have certainly found colours that are dissolved and smudged by the cleaning oil. It is therefore advisable for model railway enthusiasts to be careful here, to carry out their own tests in inconspicuous places beforehand, or, in the best case, to remove the shell before use, in order to avoid contact with the cleaning agent.



The wheels of our class 103 (Märklin 8854) have become respectable clean again. But caution is advised with regard to the tampon printing, especially of older models, such as here the class 216 (Märklin 8875) produced from 1972 onwards, which at that time did not yet receive a protective coating.

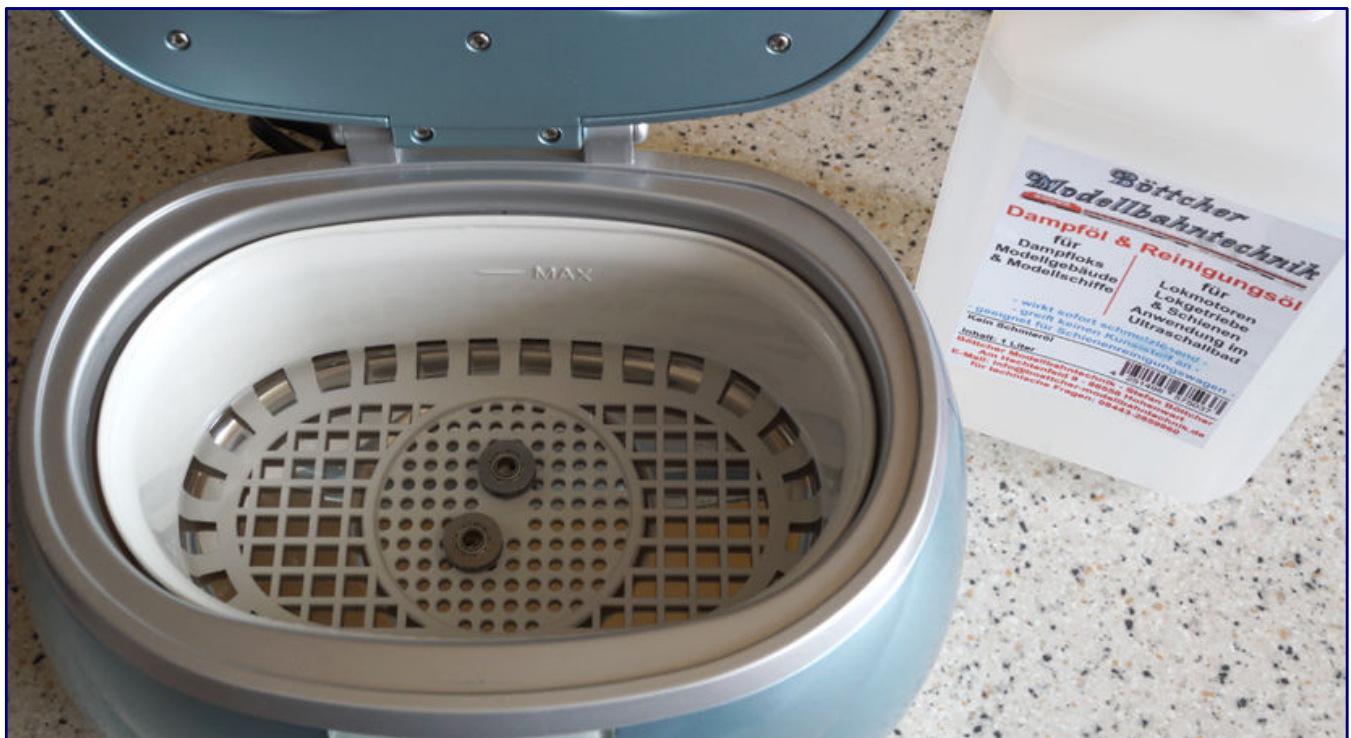
This behaviour towards paints does not come as a surprise to us, as it was once also observed with various steam oils that we tested for the Eisenbahn-Journal about 15 years ago and which represent a thoroughly expected product characteristic.

But what about the cleaning performance? At the time, we were largely enthusiastic about the wheelset cleaner, but it also had its limits when it came to dirt accumulations which go beyond normally observed levels.

Together with the Böttcher cleaning oil, the effect could be increased and should thus solve the basic problem of many model railroaders. But even this time there are limits, as dirt that has caked on for years resists even the gentlest attempts to remove it.

Before reaching for the brass cleaning brush, however, alternatives may be examined. After all, the supplier describes the 1-litre bottle as suitable for ultrasonic baths.

When asked, he explained that he had not thought of adding it to the water, but that the liquid was recommended in concentrated form for ultrasonic cleaning. We then complied with this advice.



Undiluted, the Böttcher product is used in an ultrasonic cleaner and achieves best results against grease, oil and dirt. Sensitive parts such as painted shells and motors are not ultrasonically cleaned! Ideally, dismantled parts are cleaned individually in this way; here resin-covered deep groove ball bearings.

In view of our initial experience, we have of course removed the locomotive shell, and we have also removed the motor, as its windings can be damaged by the strong vibrations and cause a short circuit in the copper coils, even without additives.

### The little miracle cure against dirt

After the ultrasonic bath, we were pleased to find that the chassis was remarkably clean, but the plastic injected into the wheel surfaces showed no signs of damage. The black discoloration of the previously slightly yellowish, but completely transparent distillate, is very telling.

This certainly speaks volumes, and the accompanying photos impressively document what has been written here. It is now clear how much dirt was stuck in the gears and on the wheel treads: old lubricants, dust and particles, which are only partly noticeable during visual inspection.

#### **Always keep an eye on your health**

When using cleaning oil in baths or on a wheelset cleaner, it should be noted that this agent is much less volatile than alcohols. In comparison, this means significantly longer drying times for the cleaning equipment, and also a much larger time window in which the evaporating components are released into the room air.

This should always be taken into account with regard to health hazards when inhaling! Wherever possible, work should be done outdoors and the equipment should be left there to dry (protected from children and animals). The minimum requirement for occupational safety at home should be good and constant ventilation of the room.

We take this as evidence of the good cleaning performance of the agent, but the decisive factor is probably also the exposure time to dirt and base surface. The cleaning oil needs a contact surface and must be able to penetrate the dirt.

Apparently, the short contact time on the wheelset cleaner's stand is simply not sufficient for such "difficult cases". The permanently wet surface in the ultrasonic bath is larger, the vibrations generated by the unit will be the decisive factor.



What comprehensive basic cleaning solution can we then offer to those readers who do not have access to an ultrasonic device? Here we are thinking of a bath in cleaning oil that takes more than just a few minutes. Ideally, the receptacle should have transparent walls all around.

Periodic visual inspections are advisable, because we cannot make generally valid and binding statements about material compatibility with all conceivable materials of rolling stock. In principle, the procedure described here is also suitable for the old three- and five-pole motors.

According to our experience, the Böttcher product does not cause any damage to their parts, as the vibrations of the ultrasound do not damage them. What remains is a cleaned, but also completely degreased motor. In the further course, they have to be lubricated again with a drop of lubricating oil, otherwise the drive will screech later on.

Back to the cleaning process: After sufficient exposure time, a lot of dirt is liquefied and rinsed out, but we also find components that require mechanical reworking.



**You don't necessarily need an ultrasonic device for perfect cleaning results. In the test, placing the parts to be cleaned in an old wurst or jam jar and brushing off any remaining dirt with an old toothbrush proved to be just as effective.**

This is done with an old, but not frayed, toothbrush. The parts to be cleaned are held in one hand, please use protective gloves, and carefully brushed with the soaked toothbrush. The bristles brush off dried, adhering lubricant residues from the spaces between gears and worm gears very well.

Once the cleaning is complete, the processed parts are allowed to dry in the ambient air. If they can tolerate a water bath, they can also be rinsed clear. After complete and thorough drying, it is time to reassemble components such as undercarriages and gearboxes.

All parts are given a new and careful coat of suitable lubricants (greases or oils depending on the component). Less is more should be the way to go here.



Old versus new: The difference between the used and dirty liquid and the crystal-clear liquid from the product bottle proves what a miracle the cleaning oil performed in our test. Filtered out, by the way, it can be used several more times.

As an important final sentence, we explicitly state at this point that Böttcher cleaning oil is not a lubricating oil! This is also explicitly written on the bottle label and should be taken into account.

If parts are mounted and put back into operation without proper lubrication, they will jam or run dry and with significantly increased wear. Also major gearbox damage can then be expected.

**Manufacturer and supplier:**  
<https://www.boettcher-modellbahntechnik.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.

## Rückblick auf Dampfexoten **Was wäre, wenn...?**

***Auf unseren literarischen Ausflügen begegnete uns ein längst vergessenes, aber unverändert lesenswertes Buch. Wer es antiquarisch findet und erwerben kann, darf sich glücklich schätzen. Es behandelt die beiden Franco-Crosti-Baureihen der Bundesbahn, die als regelrechte Exoten in ihrem Bestand zu finden waren. Bekannt sind sie Modellbahnern wegen ihres ungewöhnlichen Erscheinungsbilds durchaus – das Wissen um ihre Technik und Bewährung birgt Lücken.***

Jürgen-Ulrich Ebel / Rüdiger Gänsfuß  
Franco-Crosti – Die letzte Chance der Dampflok  
Technik und Geschichte der Baureihen 42.90 und 50.40 der DB

Lok Report e.V.  
Erlangen 1980

Gebundenes Buch  
Format 21,0 x 30,0 cm  
142 Seiten mit 136 S/W-Abbildungen und 52 Zeichnungen / Tabellen

ISBN 978-3-921980-03-3  
Preis bei Erscheinen 33,50 DM (17,13 EUR)

Nur antiquarisch erhältlich

Am Anfang war es nur eine Zufallsbegegnung: Da strahlt den Rezensenten aus dem Regal ein auffällig orangefarbenes Buch an. So fällt der Blick ungewollt auf den Titel. Er verheißt: „Die letzte Chance der Dampflok“. Was also ist der Grund, dass diese letzte Chance doch noch vertan wurde?

Und warum sollte ausgerechnet die Franco-Crosti-Technik diese letzte Chance sein? Unweigerlich ziehen sich die Gedanken in Richtung Gegenwart und drängen ins Bewusstsein. In der Phantasie erscheint das moderne Leben, begleitet von Dampflokomotiven. Das wirkt wie Science-Fiction – nur halt mit Technik von vorgestern.

Nein, die Dampflok hatte eine solche Chance nicht, sich über die letzten fünfzig Jahre retten zu können und schon gar keine auf Weiterentwicklung. Zu groß waren die Mengen an Energie, die ungenutzt durch ihren Schlot auf Nimmerwiedersehen verschwanden.

Wer unseren Zeilen bis hierher gefolgt ist, den sollte es nun gepackt haben. Schuld daran ist eben der beinahe provokant wirkende Titel mit dem Foto einer so ungewöhnlich wirkenden und doch faszinierenden Dampflok darauf. Der grelle Einband erlaubt es nicht, dieses Buch zu übersehen.

2002 fand es eine weitere Auflage im EK-Verlag, in seiner Seitenanzahl kräftig gewachsen. Das dürfte neben neuem Bildmaterial sicher an den dort üblichen Statistikeiten liegen, die viele Käufer schätzen, aber nicht alle Interessenten brauchen. Wer zur zweiten Gruppe gehört, der ist mit diesem, antiquarisch übrigens auch günstiger zu beziehenden, Buch gut beraten.





Gelungen konzentrieren sich die beiden durch ihre vielen Publikationen bestens bekannten Autoren auf die wichtigen Inhalte und präsentieren sie dem Leser in leicht verständlicher und gut strukturierter Form. Sie stellen voran, welche Faktoren über den Erfolg einer Maschine bestimmen und arbeiten den großen Schwachpunkt der Dampflok treffend heraus: den viel zu geringen Wirkungsgrad.

Ein historischer Abriss erläutert die Anstrengungen, diesen über die Speisewasservorwärmung durch Oberflächen- und später Mischvorwärmer zu erhöhen. Ein weiterer Versuch richtete sich auf das Ausnutzen der Rauchgase durch Attilio Franco zur thermischen Verbesserung. Dieser Weg führte zu den Franco-Crosti-Lokomotiven, die vor allem in Italien eine respektable Verbreitung und Einsatzzeit erlebten.

Herausgearbeitet werden dann die Vorbehalte, die im deutschen Dampflokbaubau galten. Auch nach dem Abtritt Wagners und dem Ende seiner Einheitslokomotiven auf technischem Stand von 1925 war der deutschen Entwicklung unter Friedrich Witte ein gewisses Dogma nicht abzusprechen.

Es hieß „neue Baugrundsätze“ und hatte neben konsequentem Anwenden der Schweißtechnik mit der Verbrennungskammer und den Mischvorwärmern zwei unverrückbare Vorgaben. So fehlte anfangs die Bereitschaft, eine konkurrierende Technologie zu akzeptieren und praktisch zu erproben.

Doch die Widerstände konnten geschickt überwunden werden, an zwei nach dem Krieg fertigzustellenden Exemplaren der Baureihe 52 sollte sie getestet werden. Wegen ihres höheren Gewichts wurden diese beiden Lokomotiven schließlich aber als 42 9000 und 42 9001 in den Bestand eingereiht.

Schwerpunkt des Buches ist die technische Beschreibung dieser Exemplare, die mit ihnen gemachten Erfahrungen und (zu erwartenden) Probleme, denn hier wurde ja nicht von Grund auf eine Konstruktion erarbeitet, sondern der Rauchgasvorwärmer an einen vorhandenen, völlig überdimensionierten Kessel gesetzt.

Immerhin konnten die beiden Versuchsträger dahingehend überzeugen, was in der FC-Lok stecken würde, wenn alle Komponenten aufeinander abgestimmt sein würden und sich an der geforderten Leistungsfähigkeit der Lok und ihrem Einsatzprofil ausrichten würden.

Die Antwort darauf war die Baureihe 50<sup>40</sup>, die die DB in 18 Exemplaren umbauen ließ. Mit der ölgefeuerten 50 4011 fand diese Baureihe ihre Königin, die den meisten DB-Dampflokomotiven überlegen war.

Aber das Buch verheimlicht auch nicht die anhaltenden Probleme mit den FC-Maschinen, geht auch auf die „50.40-Krise“ ein und schaut in die einzelnen Betriebswerke und den von ihnen zugeordneten Aufgaben. Deutlich wird, dass die DB viel erreicht hat und eklatante Kinderkrankheiten abstellen konnte, aber ein Grundproblem dennoch nicht in den Griff bekam.

Es war die Achillesferse der Baureihe 50<sup>40</sup>, die ihre Wirtschaftlichkeit nach anfänglich großen Erfolgen zusehends in Frage stellen sollte. Die Autoren wagen auch einen Ausblick und ziehen ein Resümee, wie diese Technik doch noch zu großen Dampflok-Erfolg der Bundesbahn hätte werden sollen und können.

Spannend geschrieben sowie ansprechend mit gut reproduzierten Bildern und aufschlussreichen Zeichnungen angereichert, macht dieses Werk aus jedem einen FC-Liebhaber. Das Buch begleitet nicht nur Märklin-Freunde mit ihren Modellen, es macht einfach Lust auf mehr und weitere Miniaturen.

Antiquarian reference (suggestions):  
<https://www.booklooker.de>  
<https://www.zvab.com>

## Dreibändiges Wagen-Archiv Reisezugwagen bis 1993

*In den Reihen „Deutsches Lok-Archiv“ und „Deutsches Wagen-Archiv“ erschienen vor Jahrzehnten wichtige Nachschlagewerke für beinahe alle Schienenfahrzeugkategorien, die in Deutschland relevant waren und sind. Nach den Standardwerken für Dampflokomotiven legt Transpress nach 30 Jahren nun auch die Reisezugwagen-Trilogie neu auf. Wir haben einen Blick in diese genommen und fassen unsere Eindrücke zusammen.*



Peter Wagner / Sigrid Wagner / Joachim Deppmeyer  
Reisezugwagen 1 - Sitz- und Gepäckwagen - Privat- und Länderbahnen -  
Private Reisezugwageneinsteller - Deutsche Reichsbahn-Gesellschaft  
aus der Reihe „Deutsches Wagen-Archiv“

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Stuttgart 2023

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Peter Wagner / Sigrid Wagner / Joachim Deppmeyer  
Reisezugwagen 2 - Sitz- und Gepäckwagen -  
Deutsche Bundesbahn - Deutsche Reichsbahn  
aus der Reihe „Deutsches Wagen-Archiv“

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Wolfgang Theurich / Joachim Deppmeyer  
Reisezugwagen 3 - Speise-, Schlaf- und Salonwagen -  
Deutsche Bundesbahn - Deutsche Reichsbahn  
aus der Reihe „Deutsches Wagen-Archiv“

Transpress Verlag  
Stuttgart 2023

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Im vorliegenden Fall eines zeitgleich in drei Bänden (wieder)erscheinenden Werks macht es keinen Sinn, jedes Buch einzeln vorzustellen: Sie bilden ein zusammenhängendes Verzeichnis und dürften daher regelmäßig auch als Trio den Weg in heimische Bücherregale finden. Nur wenige Käufer dürften ihr Interesse derart eingeschränkt haben, dass sie mit einem Einzelband bereits vollends bedient wären.

Zu den Autoren Peter Wagner und Wolfgang Theurich werden wir keine großen Worte verlieren müssen. Ihre Namen sind durch einschlägige Veröffentlichungen seit vielen Jahren bekannt. Gleiches gilt für Joachim Deppmeyer, der sich bereits vor mehr als vierzig Jahren an das Katalogisieren von Reisezugwagen in Buchform machte und dies bis heute tut. „Deppmeyer“ wurde in dieser Zeit durchaus zum Synonym für ein Standardwerk.

Transpress hat dies zum Anlass genommen, die dreibändige Personenwagen-Reihe des „Deutschen Wagen-Archiv“ in ihrem Klassiker-Sortiment wiederaufzulegen. Da die Bücher lange Zeit vergriffen waren und auch antiquarisch gute Preise erzielen, ist von einer guten Nachfrage auszugehen und die Entscheidung als richtig zu werten.

Hingewiesen sei an dieser Stelle aber auf einen Punkt, den auch der Verlag selbst hervorhebt: Es handelt sich nicht um eine überarbeitete und erweiterte Auflage, sondern einen unveränderten Nachdruck der ersten Auflage von 1993!

In den Bänden 2 und 3 nicht enthalten sind folglich Um- und Neubauten der Deutschen Bahn AG (ab 1994). Diese Lücke bleibt überschaubar und ist auch zu verschmerzen, denn die moderne Bahn setzt ja für die Zukunft bekanntlich fast ausschließlich auf Triebzüge. Auf der anderen Seite ist der Nutzen damit natürlich auf diejenigen Leser beschränkt, die sich für (weitgehend) historische Vorbilder interessieren oder Unterlagen für Eigenbauten brauchen, die vorrangig die Epochen I bis IV bedienen.

Die Inhalte der einzelnen Bände fassen wir wie folgt zusammen: Band 1 thematisiert die Entwicklung der normalspurigen Sitz- und Gepäckwagen bei Privat- und Länderbahnen inklusive privater Einsteller sowie der Deutschen Reichsbahn(-Gesellschaft) bis 1945. Band 2 setzt die Historie für diesen Wagenbereich bei Bundes- und Reichsbahn nach 1945 fort. Sie bilden folglich für die Sitz- und Gepäckwagen eine in sich abgeschlossene Einheit.

Der dritte Band ist den normalspurigen Speise-, Schlaf und Salonwagen gewidmet und verzichtet auf eine zeitliche Einteilung. Er bildet zusammen mit Band 2 ein in sich geschlossenes Werk für die Wagen der Reichsbahn in der früheren DDR und die der Bundesbahn im Westen. Berücksichtigt werden auch Veränderungen, die sich durch das Zusammenführen in der Deutschen Bahn AG ergaben – aber nur für die zum Übergangzeitpunkt existierenden Wagenbauarten.

Identisch ist jeweils der inhaltliche Umfang: allgemeine Ausführungen zu den einzelnen Wagengattungen, Beschreibungen der Bauarten, Angaben zu Nummern und Gattungsbezeichnungen sowie tabellarische Aufstellungen mit wichtigen Daten. In den Büchern zu finden sind aber bei weitem nicht alle Wagentypen, die bis 1993 auf Deutschlands Schienen unterwegs waren.

Die Lücken sind vermutlich größer als die hier erfassten Bestände, was bei einem Blick in die spezialisierteren Werke anderer Verlage schnell klar wird. Erkennbar ist allerdings, dass hier das oberste Ziel darin bestand, einen Überblick nach Typen und Grundkonstruktionen zu schaffen, ohne einen auf die Mehrzahl der Nutzer ausgerichteten Umfang zu sprengen.

Gerade deshalb halten wir diese drei Bücher für einen guten Einstieg in die Technikgeschichte der Reisezugwagen, der einen ausreichend großen Überblick schafft und mit den zum Inhalt gehörenden Zeichnungen auch wertvolle Hilfen für Bauprojekte liefert. Besonders diejenigen Menschen, die keinen Wert auf tiefgreifende Technikbeschreibungen und Betriebsstatistiken legen, finden hier einen bezahlbaren Zugang zu ihnen hilfreichen Informationen.



Das galt schon, da inhaltlich und auch im Erscheinungsbild unverändert, für die vor 30 Jahren erschienene Auflage. Im direkten Vergleich zu dieser müssen wir aber attestieren, dass die Bildwiedergabe seinerzeit etwas besser war, was an der damaligen Papierqualität gelegen haben könnte.

Alle in den Büchern abgebildeten Fotografien wurden nicht neu reproduziert und ebenso unverändert übernommen. Das schließt damit leider auch Mängel aus zu kontrastarmen oder unterbelichteten Aufnahmen mit ein. Wertvoller für den Modellbahner sind jedoch eh die Zeichnungen, denn Wagennummern und Betriebsanschriften würden sich aus Fotoabbildungen eh nicht entnehmen lassen.

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

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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.*

To the end of the gauge Z programme at Panzer-Shop.nl (Trainini® 1/2023):

Thank you for the magazine, which is as always interesting and worth reading. I now have clarity regarding Panzer-Shop.nl, after I recently noticed that the Z range was missing there. I don't want to criticise an entrepreneurial decision.

However, I would like to say that the assortment may have been too specialized. For this reason, I wrote (an) e-mail (with concrete product suggestions: editor's note) to the company (in mid-June 2022).

(...) The answer was prompt, short, and dismissive. Perhaps, I will now contact others on this subject.

Jörg Endreß, Bremen

A suggestion from Trainini® 12/2022 has been followed by this reader:

I read with interest the article about the DB's Rmms 33 rail service stake wagon (82133) in the December 2022 issue. I "souped up" the enclosed load insert according to your suggestions. The load, made of resin, was glued into the stake wagon at the end of the treatment with the Noch-Hin-und-weg (removable and reattachable) glue. Now, the whole structure looks much more realistic.



Following our suggestion from Trainini® 12/2022, the colours of this load insert have also been improved and is now more convincing. Photo: Harald Fried

Thank you very much for the optimisation suggestion. On the attached photos you can clearly see the improvements after the optimisation.

Harald Fried, Hermsdorf

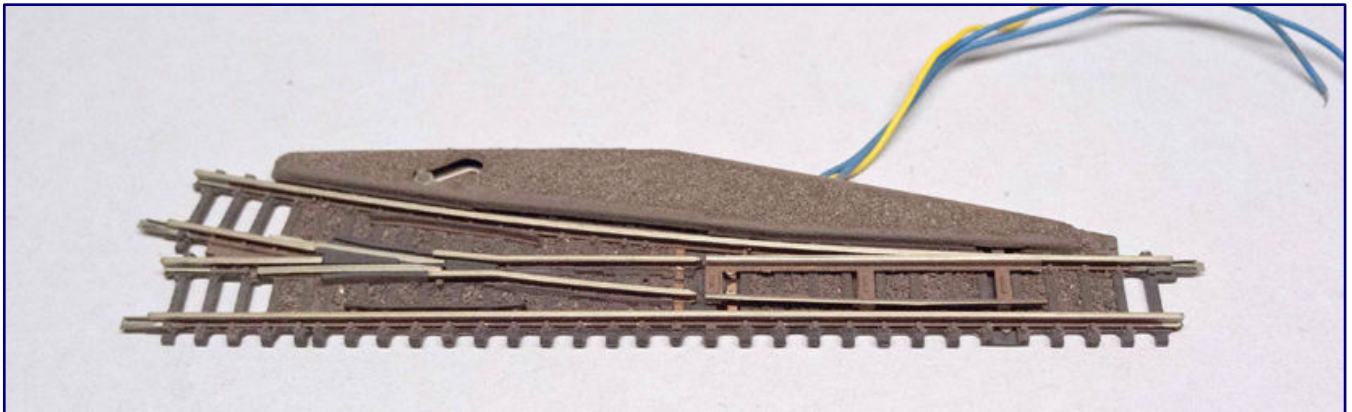
**Question about the signal box construction report from Trainini® 1/2023:**

First of all, a huge thank you for your magazine, sometimes I wish I could have a printed version at home. Yes, I am old fashioned, and I like flipping pages.

But, I am writing to you to understand better how the model maker (Jochen Brüggemann; editors' note) managed to hide so well the turnout motors.

I tried the same thing, but the trains were derailing, the glue build up was too thick. May I ask some advice?

Olivier Bébox, by E-Mail



**For camouflage purposes, the switch machine boxes were also ballasted. This must only be done so thinly and carefully that the clearance profile near the track is not impaired. Photo: Jochen Brüggemann**

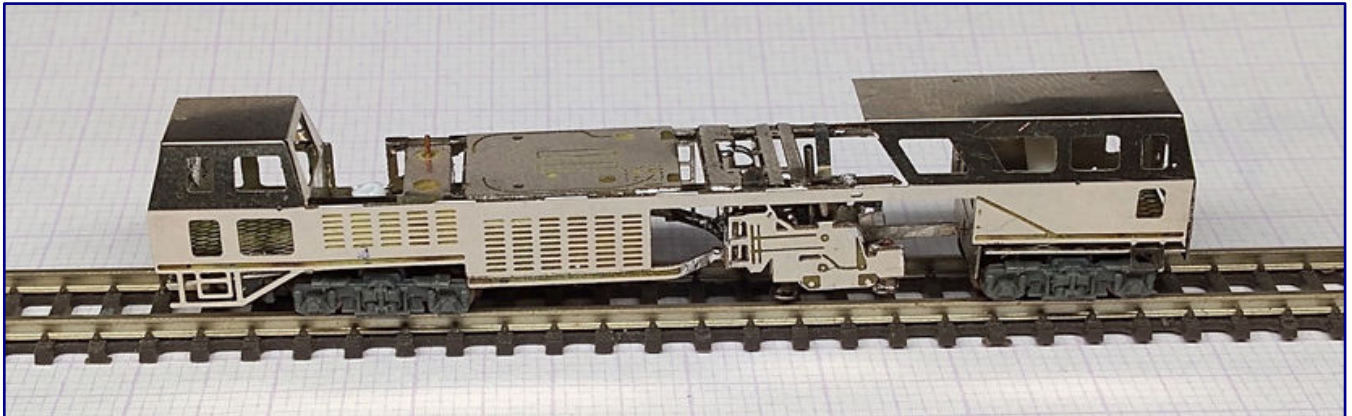
Answer from our author: Especially in Z gauge it is very important to keep the clearance of locomotives (and wagons) free of any obstacles to avoid undesired halting or derailing of trains. This also includes that the hiding of point machine housings may only increase the housing size very slightly. This applies especially to the two lateral edges of these housings. In addition, the turnout drive must not be blocked. (Editor's note: Jochen Brüggemann has offered to prepare a separate article on the subject of "Camouflaging turnout mechanisms".)

**Otti's model kits:**

After the publication of the February issue with the spring new products, Hans-Jörg Ottinger drew our attention to his range of kits, which he sells as a small entrepreneur under his own trade name "Z-Otti" (<https://zotti.lena-johannson.de/shop>).

On his pages we find many parts and kits made of etched metal and printed resin that can enhance many model railway layouts. A large part of them could also be seen on their own modules at the exhibitions in Altenbeken and Bad Schwartau. Among them, for example, was the Duomatic-07 track tamping machine (art. no. 2104-1-GSM).

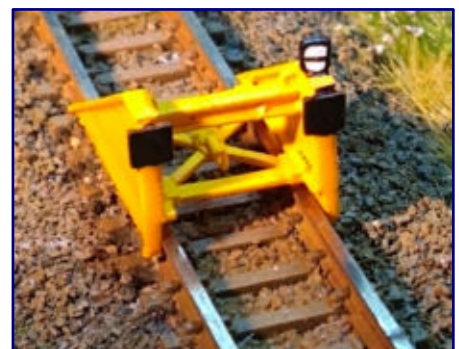




The track tamping machine Duomatic-07 (item no. 2104-1-GSM; photo above) still gives a view of the kit and its assembly. The Re 4/4 of the BLS (2201-1-Re4/4-set; photo below left) and the Ae 8/8 (2207-Ae8/8-set; photo below right) on the other hand already have been assembled, painted, and lettered. Photos: Z-Otti

Equally remarkable are the Swiss electric locomotive models Re 4/4 of the BLS (2201-1-Re4/4-set) as well as the BLS double locomotive Ae 8/8 (2207-Ae8/8-set), for which a motorised running gear is planned by FR Freudenreich Feinwerktechnik. An assembly can also be ordered from Carlo Mercuri (Italy) or Bahls Modelleisenbahnen.

This does not apply to the latter service provider for the glass train of class 491 (2109-1-ET91), which is also offered there as a separate and technically unrelated model. The 3D-printed resin Rawie buffer stop (23-03-RP) provides variety at the end of the track.



The glass train of the class 491 (2109-1-ET91; photo left) can also be found in the Z-Otti programme. A speciality that is not available from large-scale production is the Rawie buffer stop (23-03-RP; photo on the right) made of resin. Photos: Z-Otti

Those interested in the extensive range of accessories are advised to browse the pages in full for helpful finds.

## Märklin deliveries in March:

Märklin has delivered two new products in the reporting period, neither of which completely thrilled us. At first glance, the Messelok 2022, a traffic-blue diesel locomotive of the 218 series (item no. 88806), which is now in service for the Pressnitzalbahn GmbH (PRESS), looks very good.

The model arrives in a real wooden box and is powered by a bell-shaped armature motor. The light change is warm white-red and the model also scores with enlarged buffer plates. However, what does not match the prototype, provided that today's road number refers to the correct series, are the bogies with coil springs.



Despite correct parts in the mould kit, Märklin also delivered the class 2184 of the Press (item no. 88806) with incorrect bogie plates of an earlier prototype series.

These belong to the class 216 as well as the pre-series and the first two series of the 218. The locomotive 218 448-9 assigned to the sub-series 218<sup>4</sup>, on the other hand, would have to show so-called Meggi springs, and, subsequently, also other sandboxes.

Märklin has both variants in its mould construction kit. The manufacturer has made this mistake several times in the past, but, fortunately, it is avoidable.

Almost at the same time, the three-part goods train car sets for Era IV (82596), which Märklin has published as the MHI series, have arrived. The contents are a double stake wagon Spns 719, a KLV carrying wagon (labelled as type Lgs) with Genstar container and a gas tank wagon "Tycza Gas" without sunshield.

What we disliked about the delivered models was the reduced load safety device compared to the product illustration, which includes all double stanchions in the prototype, but not (any more) in the now delivered wagons.



Likewise, the wagon carrying the load is only a compromise, which, however, could be recognised early on from the product illustration: The running gear is the modified unit running gear from 1972, which was used at that time for such wagon loads and other models.

Since it has now been reused in the same way, the container model is firmly connected to the running gear and is also too short: it is not a 40-foot container, as the description suggests, but a visibly too short one that does not correspond to any standardised model. In the formation of a block train, this is certainly a shortcoming that is perceptible to the observer.

#### **Eurospoor 2023 is cancelled:**

Eurospoor 2023 (<https://eurospoor.nl>) in Utrecht at the Jaarbeurs exhibition centre has been cancelled. This is announced by the organiser on its webpages. The reason given is continuing uncertainties and cost increases, which mean that the risks are too high. A sufficient and stable calculation basis for an event of this size does not seem to exist at the moment.

#### **Polyplate kit delivered by Viessmann:**

Originally announced for autumn 2023, the small workshop (item no. 49590) from the Vollmer range has surprisingly already arrived at the dealers. "Polyplate," a new composite material for us, was used as the material for this kit.



The surfaces of the plaster and doors look a lot better on the original kit than on the product illustration of the small workshop (Vollmer 49590). Photo: Viessmann

It gives a good impression and is strongly reminiscent of familiar hard cardboard kits. We will check what we can expect during assembly in a building project and report back soon. Viessmann also offers its own adhesive in parallel: the container for the Polyplate adhesive (39997), which the manufacturer recommends, contains 80 ml.

#### **Reader's layout in the railway museum:**

Eckard Jehle's mountain facility, which we presented in **Trainini®** 8/2020 under the title "Alpenidyll im Badischen" (Alpine idyll in Baden), has since found a new home. At the time, our reader was looking for someone interested in taking it over.



In the meantime, a future operator has been found in the form of the Black Forest Railway Museum (<https://eisenbahnmuseum-schwarzwald.de>) in Schramberg, Baden. This museum, which houses the world's largest gauge 2 collection, is currently presenting exhibition layouts and models in the special exhibition "Small meets Large".

The models of the large gauge are all handmade and not industrially produced. The special exhibition was initiated on the occasion of the 50th anniversary of Z gauge and will run until 17 March 2024.

The builder reported on the difficult relocation of the layout from the Karlsruhe area to the Black Forest as follows: "Before the transport of the over 3.70 m long and very heavy layout, extensive stabilisation and packaging measures were necessary. The layout survived the transport over 140 km (...) without damage. At the installation site, the layout (...) is fully functional."

If you would like to get a personal impression and see the enormous mountain massifs, including the cable car, please check the opening times and plan a visit to the site as part of a weekend trip or holiday.

#### **AZL deliveries for March:**

This month, the EMD F7s are rolling out as A and B units from D&RGW (Rio Grande). An A-B combination (item no. 63003-1) and a single A unit (63003-2) are offered. The MAXI-IV carrier units are now printed with the new TTX logo. The yellow-painted units (906553-1 to -5) are, as usual, equipped with different container loads for varied trains.



**EMD F7A of D&RGW (item no. 63003-2; photo left) and ALCO PA1 of ATSF as demonstration locomotive "Gold Bonnet" (64425; photo right) are current new products for March. Photos: AZL / Ztrack**

For the sake of completeness, we would like to mention one new product from the beginning of March that was sold out immediately at the factory: ATSF's ALCO PA1 (64425) with the road number 53 was in such high demand. This locomotive was part of the General Electric advertising train and received a design in the Warbonnet scheme with the colour gold ("Gold Bonnet").

In February 1960 it was on the road in Southern California with one baggage car and three parlour cars to promote GE's "Golden Values." The train ran between Los Angeles, Pasadena, San Bernardino, Fullerton, and San Diego. At the end of the campaign, the locomotive and cars were returned to their usual colours and returned to regular service.

Shortly before the editorial deadline, the Norwegian-American manufacturer introduced a new shape to the market. The five-piece Trinity RAF semi-trailer wagons with a length of 53 feet with inscriptions from TTAX and their old logo are celebrating their market premiere.

The freight cars running on Jacob's bogies have five 53-foot semi-trailers from Roadway (905205-1).

The models are made of metal and have attached parts made of photo-etched sheet metal and plastic for different loading situations with semi-trailers and containers or without load. The trailers are also offered separately in a double pack (954005-1).



The TTAX Trinity RAF 53C Spine Cars (905205-1), which run on Jacob's bogies, are five-part and are being launched on the market as a new mould. Photo: AZL / Ztrack

#### Neighbourly help as a locomotive doctor:

An offer by Daniel Probst ([spur-z-nachbarschaftshilfe\[at\]web.de](mailto:spur-z-nachbarschaftshilfe[at]web.de)) is intended as neighbourly help against pure reimbursement of costs: He helps with maintenance, cleaning, repairs or motor changes for Märklin models with brush motors of all generations, i.e., the classic three- and five-pole drives.

Models with bell-shaped armature motors are not included here, nor are conversions to such motors or LED lighting and digital equipment. It should go without saying that this offer can of course only be made on a small scale and that the owner of a locomotive that is sent in bears the costs for postage, working materials, and spare parts.

It is our wish and idea to gather and deepen our own experience, but also to help hobby friends who do not have the necessary manual skills at this point. Getting to know each other in this way can perhaps also lead to a mutual exchange of personal skills for the benefit of others.



The BLS electric locomotive Re 4/4 (art. no. 5019RF) is also available as a finished model from NoBa-Modelle on the basis of a 3D print model. Photo: NoBa-Modelle

If you would like help here, please contact us directly so that we can exchange the necessary data personally.

#### Something new again at NoBa-Modelle:

No sooner have we announced the spring new oridzcts than NoBa-Modelle (<https://www.noba-modelle.de>) is already following suit. The electric locomotive Re 4/4 of the BLS is now available as a kit blank (art. no. 2019R) and as a finished model (5019RF). The double locomotive Ae 8/8 of the same railway administration has also been added, which is only offered as a blank (5020R), at least for the time being.

#### New from Micro-Trains:

This month MTL starts its new series "The War of the Worlds" based on the literary work of H. G. Wells. Car number 1 is a boxcar (item no. 518 00 840) with a motif from the 1906 edition of the book.

number 1 is a boxcar (item no. 518 00 840) with

Meanwhile, the light 83-foot sleeping cars return to the range in three versions: Union Pacific (550 00 011), PRR (550 00 061), and Norfolk & Western (550 00 240).

**Programme at Yellow Dwarf expanded:**

The Yellow Dwarf (<https://www.yellowdwarf.eu>) programme, which was only introduced last month, has already been expanded with some new articles. Construction sites can now be designed with the two assemblies “Construction Machines I” (art. no. 60220) and “Construction Machines II” (60221). Rubble can be dumped in the “Containers I” (60208), because they are open large capacity containers.

Transformer station and distribution cabinets (60251) are modern concrete buildings that we often encounter, but they are by far not as conspicuous as the earlier transformer houses. On the other hand, we are not supposed to look past the advertising billboards (60042), which are supposed to publicise products and brands. The boats (punts)(60107), which are already the third type of watercraft, will be the first to be built on the water.

There are also provisions for the beginning outdoor season: the “Garden Tools I” (60468) with ride-on mower and small shed, and the wooden flower beds (60460) create an attractive garden. After the work is done, you can enjoy a barbecue in the garden (60463).

**Message wagon for the first time for Z gauge:**

On 10 March 2023 Märklin offered a new creation from the “Message Wagon” series, which feature motifs and quotes from famous artists. For the first time, this offer was also valid for the Z gauge (art. no. 82391) – here, too, the models, for which the manufacturer does not give any information regarding quantities, were quickly sold out.



The first “Message Wagon” for Z gauge (item no. 82931) is dedicated to the Dutch painter Vincent van Gogh. On our portal pages we also show both wagon sides in close-ups.



The blue-and-yellow dominated copy was dedicated to the artist of the century Vincent van Gogh, who died at the age of 37 at the height of his creative powers. The motif was based on the oil painting "Cornfield with Crows".

#### Modelplant has closed:

On 17 March 2023 owner Thorsten Loth announced that he wanted to limit himself to his private hobby with Z gauge in the future. For this reason, he closed his Modelplant electronic distribution business for self-produced 3D printed parts, with immediate effect. After about ten years, it was no longer possible for him to operate this business, he said, explaining his decision.

The remaining stock has been taken over by the 1zu220-Shop and is being sold. If individual interior parts are missing to equip a coherent train, Thorsten Loth has agreed to produce these parts in addition. This is how an orderly end is to be brought about.

#### New refrigerated wagon variant from WDW Full Throttle:

William Dean Wright (<http://www.wdwfullthrottle.com>) offers a new double pack of the reconstructed 34-foot refrigerator cars with wooden walls. The red models with yellow side walls are discontinued at the CRX and carry Cudahy advertising (Item No. FT-9209-1).

The Cudahy Packing Company, whose design the cars show, was founded in Omaha (Nebraska) in 1887 and was one of the largest meat packing companies in the United States.

Around the turn of the century, railways converted many of their older wooden cars for modern use, using steel underframes, Bettendorf bogies and new braking systems.



The current 34-foot refrigerated trucks (item no. FT-9209-1) are representative of those from the former meat packer Cudahy. Photo: WDW Full Throttle

#### Range expansion at Werkzeuge Peter Post:

As announced in our new products reports in the last issue, there is an expansion of the range at Werkzeuge Peter Post (<http://www.peter-post-werkzeuge.de>). Jürgen Schirmer informed us that selected Microscale products will already be available from him at the Intermodellbau in Dortmund (20 to 23 April 2023).

These are Micro Set (adhesion promoter) and Micro Sol (softener) for applying and fixing decals on models, as well as Micro Mask (masking agent for paintwork).

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