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and Prototype

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The feather-light V 90

Modern Container Transport
Sensitive analogue Control

Introduction

Holger Späing
Editor-in-chief

Dear Readers,

The final sprint for this year is coming to an end. As you read these lines, it is already the first Sunday in Advent, four weeks later it will be Christmas, and just one week after that, 2025 will already be a thing of the past.

I am really looking forward to the Advent meeting in Zell an der Mosel and to seeing some Zetties again who I have not met in person for up to two years at a cosy get-together over a glass of wine.

There is no other meeting quite like this one: a relaxed atmosphere without stress, in a Christmassy mood with a unique backdrop in the old railway station, and the exhibition on Sunday is always very relaxed. Nevertheless, this day also comes to an end far too quickly.

So, I would now like to pause and look back with deep gratitude. The last four months of 2024 in particular were very stressful and time-consuming for me and my editorial colleagues for various reasons.

In the run-up to our anniversary year, all of this came with enormous challenges, the consequences of which then continued throughout 2025 and into today: we have only managed to catch up on some of the backlog. Many projects are behind schedule compared to the original plans.

And then suddenly the crafting season and Christmas shopping season are approaching. The number of deliveries is skyrocketing, many products need to be inspected, some of them extensively tested, and in any case photographed.

It's always fun, but most of the time we don't even notice how quickly time appears to fly by. What seems like yesterday in our memories may have shaped the spring and only comes into focus when we look at the calendar. Tempi passati...

To be honest, not only our readers, but also myself were very moved and thoughtful by the commemoration of the dead at our anniversary exhibition. It clearly showed how quickly time passes and how fading everything in this world is.

This should not trigger melancholy but rather awe and the gratitude I mentioned earlier. With this realisation, I return to the Advent meeting, which for me is and remains a symbol of our community.

Together, we have accomplished many tasks, sometimes under challenging circumstances, and were able to celebrate a wonderful festival with you, which will surely remain in our memories for a long time to come. And now, the Advent gathering is set to be the crowning finale of another fantastic year with Z gauge.

Take a moment to pause, treat yourself to some peace and contemplation, enjoy Advent, and, above all, enjoy this edition, into which we have once again poured our heart and soul! We hope you have great pleasure reading it.

Sin-Z-erely,

Holger Späing

Trainini® International Edition
German Magazine for Z Gauge

Editorial

Introduction 2

Model

New Approaches in Shunting Service 4
Articulated Container Transporters 15

Prototype

Currently no items

Design

Ready for the Change in Direction? 22

Technology

Operating in the Top Class 37

Literature (not translated - only in German)

By Train to the Construction Site 44
Focus on the Invisible 46

News

Zetties and Trainini in Dialogue 49

Imprint 60

We would like to thank Eisenbahnstiftung for providing images and the 1zu220 shop for lending us test samples.

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Cover photo:
The real-life V 90 is a heavyweight, designed to move and manoeuvre large loads. The model is light as a feather and outperforms every model we have ever tested.

Innovative V 90 from Märklin

New Approaches in Shunting Service

The German Federal Railway's original plan was to use V 100 class engines for its hump yard and heavy shunting operations. The V100 did prove unsuitable for this task, however, and a new locomotive, the V90, had to be developed. Märklin's newly designed model of the class V90 is also one of a kind – reason enough for us to put it under the microscope.

The class V 60 was not suitable for heavy shunting duties on hump yards and the original idea of using it in a double traction configuration was apparently rejected. As a result, these types of operations continued to be performed by steam locomotives for many years to come.

Nevertheless, the German Federal Railway stuck with the intention to eventually streamline these services and convert them to one-man operation. The initial plan was to add weight to the V 100, modify its gear ratio and equip it with a reinforced frame.

When this class V 90 with road number 051 posed for the photographer at the Hamburg-Wilhelmsburg marshalling yard on 10 June 1968, it was just one year old and still bore its old road number. The taillight casing is worth a look, because we will come back to this in a moment. Photo: W. A. Reed, Sammlung Eisenbahnstiftung

Ultimately, however, the design of the V 100 proved unsuitable for increasing the axle load from 16.8 metric tonnes to the required 20 tonnes. A new locomotive had to be developed, therefore, but was to be closely based on the V 100 and, like it, be driven by cardan shafts.

Maschinenbau Kiel (MaK) subsequently designed the heavier and longer class V 90. As there was no need to reduce weight, the frame could be made very robust and cost-effective. The engines were also to be equipped with shunting radio, but were not fitted with train heating systems.

In 1964/65, MaK initially delivered 20 pre-production locomotives with the 800 kW motor taken from the class 211 and a top speed of 70 km/h. Regular production began in 1966 with 290 021, followed by a further 388 units until the end of 1974. From number 290 071-0 onwards, they already bore the digital road number straight out of the factory.

The regular production locomotives were equipped with the MTU 12V 652 TA engine from the class 212, which in this case was throttled to 800 kW. Their maximum speed is 80 km/h and their frame was extended to 14.32 metres, compared to the pre-production units.

Visitors of our anniversary exhibition at the beginning of October had the opportunity to experience from up close a drivable version of the new V 90 model. Less than two months later, series production began with only minor changes compared to this pre-production model.

The engine's angular no-frills look reminded many railway enthusiasts of the blocky graphics of early computer games, earning them the nickname "Atari locomotive." This does not detract from its proven performance during sixty years of heavy shunting and transfer service.

Even today, these locomotives still carry the bulk of DB Cargo's single-wagon traffic and can be found throughout Germany. Of course, other versions have been added to the 290 series: the 291 is a version with a slow-running MaK engine, while the 294 to 296 series were created by equipping them with radio remote controls and remotorising them.

And so, although this type of locomotive is on the decline, it remains indispensable to this day, as the Voith Gravita class has only been able to partially replace it. The V 90s have been painted in a total of

Visible changes compared to the pre-production version on the previous page is the colour of the taillights on the shunting platform, which are now red.

four different colour schemes. Märklin chose the oldest, RAL 3004 purple red, for its first production run – which brings us to the model.

External appearance

First impressions count, as the saying goes. And in the case of the new V 90 in its original Deutsche Bundesbahn livery (item no. 88510), this impression is extremely good. But why are we emphasising this so clearly? Even the first CAD renderings already gave us reason to expect this.

This can be easily explained by the special features of this shunting locomotive, which already pose major challenges when transposing them into models at scales even larger than Z. And it has not always been possible to find the best possible solutions to these challenges.

First and foremost, there are the lantern casings in the railings, which make it almost impossible to install light guides and at the same time leave hardly any space for a light source. The earlier Roco model in H0 scale had to admit defeat and make do without lights.

If we reduce the scale to Z gauge, then the narrow front ends also become a problem. The long hoods are designed exactly like this in the prototype and are therefore characteristic, because the locomotive driver needs a good view towards the buffers when shunting.

For a long time, this meant either distorting the model or increasing the scale while maintaining the proportions to such a degree that existing Z scale drives could be installed. Only the arrival of bell-type armature motors made a Z scale model of this popular locomotive class feasible – but not without some compromises, even today.

Before we present the solution, we would like to emphasise that Märklin's decision and courage deserve great praise and recognition. The timing seems to be just right. However, we still need to answer the question of how good the result actually is.

And indeed, a first indication of this being a successful model is how well it compares to the dimensions of the prototype: Almost across the board, the measures converted to scale are accurate to a tenth of a millimetre. We cannot recall any other model that achieves this level of scale accuracy.

Information and data on the V 90 series of the DB:

	Prototype	1:220	Model	Deviation
Length over buffers (LüP)	14.320 mm	65,1 mm	65,1 mm	0,0 %
Height above SO (roof edge)	4.250 mm	19,3 mm	19,2 mm	- 0,5 %
Width (circumference)	3.115 mm	14,2 mm	14,3 mm	+ 0,7 %
Total axle load	9.500 mm	43,2 mm	43,2 mm	0,0 %
Bogie wheelbase	2.500 mm	11,4 mm	11,2 mm	- 1,8 %
Wheel diameterr	1.100 mm	5,0 mm	4,8 mm	- 4,0 %
Service weight (2/3 supplies)	78,8 t	---	16,2 g	
Axle layout	B'B'			
Power	810 kW / 1.100 PS*			
Permitted maximum speed	80 km/h			
Years of manufacture	1964 - 1974			
Quantity produced	408			

* Throttled, engine control power 990 kW / 1.350 PS

Even the smallest deviations remain below 1% in relation to each other and are more likely to be attributed to measurement tolerances.

Only two values are above this ratio, which is solely due to the fact that they are the smallest dimensions in the series.

In proportion, they must stand out more clearly in the model, even though the eye cannot detect any inconsistency.

With regard to the diameter of the wheels, which is supposedly the most significant value, we must note that the measurement refers to a new wheel. Märklin's wheel dimensions are closer to those of a worn wheel, which we consider legitimate in this case.

The intricate engravings on the model are also a feast for the eyes, underlining Märklin's expertise in this field. One fine but important detail is the shunting radio antenna on the roof, which is not just a "block" but a finely modeled piece true to the look of the prototype.

V 90 029 (item no. 88510) impresses with its precise dimensions and intricate engravings. Painting in the correct RAL colours is the expected standard of today. However, we have noticed deviations from the prototype in the area of the lantern casings and the support rod attached to them (see prototype photo on page 4).

Another positive feature is the unobstructed view into and through the driver's cab, which would have been unthinkable just some years ago. Now our gaze falls instead on the two driver's consoles, which are crying out for a colour treatment and could be enhanced even further by adding a driver’s torso.

Incidentally, the console replica is part of a continuous injection-moulded part for both front sections. The driver's cab is a separate part with clear inserts for the windows and is attached on top, leaving a small gap between the cab wall and the “inner part”.

The shunting radio antenna on the roof is finely crafted, the windows feature rubber seals, and there was even enough detail to recreate the driver's console behind the windows. In terms of detail, this locomotive is hard to beat. Even the markings are legible.

This brings us to the colours found on the model. The structure and the marshalling yard railing are correctly painted in RAL 3004 purple red colour, while the frame and bogies are painted in the equally correct RAL 9005 deep black. From 1966 onwards, the roof of this series was painted in RAL 7022 umber grey, as can also be seen on the model.

Decorative strips, lettering and part of the lantern casing should be executed in RAL 7032 pebble grey. This is also the case with the model, but unlike the prototype, the entire lantern casing is painted in light grey, including underneath the rim, where it should appear black.

The external hand poles should also be black instead of red. On the opposite side of the climb (towards the driver's cab), however, the pole is painted correctly.

We do not entirely agree with these compromises, as the bright colour is clearly noticeable and makes this deviation apparent. In our view, red instead of black is not a simplification, but an error for which we cannot find any evidence in the original.

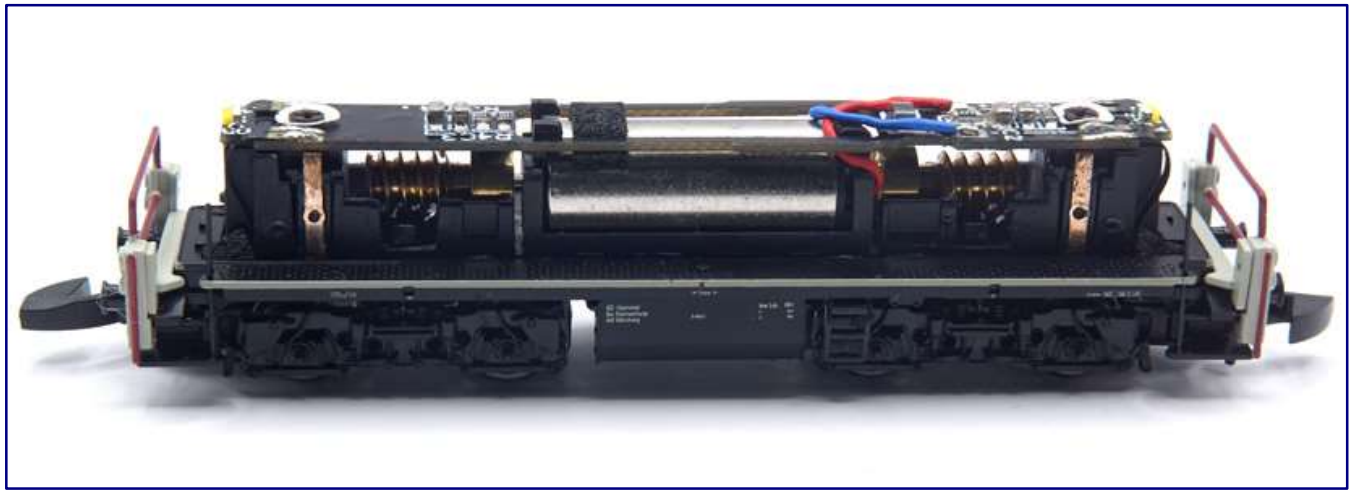
The rubber-framed windows on the driver's cab are set off in black, and the door handles are also highlighted in silver. The printing also includes the MaK factory plate, which is not legible under a magnifying glass, however.

The other addresses, however, are correct and indicate that road number V 90 029 (built in 1966) was based at the Delmenhorst depot of DB Hannover. We can also decipher the acceptance inspection carried out at the Nuremberg maintenance depot on 11 January 1967. We can therefore confidently identify the model as the locomotive that was based in Lower Saxony for exactly two years with an old number.

The technology behind the model

It is only thanks to the bell-type armature motor that this locomotive has become possible in a true-to-scale design, which takes the significance of this type of motor beyond merely ensuring good running characteristics.

We were a little surprised to find that the chassis frame is made of plastic rather than cast metal. This reduces the material thickness and makes for a more realistic look, but also makes it slightly flexible in the sense that it can bend. The choice of material also explains the strikingly low weight, which is significantly less than the weight of the much smaller model of a class PtL. 2/2 “glass box” (21 grams) from Z-Modellbau, which we would like to use as a comparison.

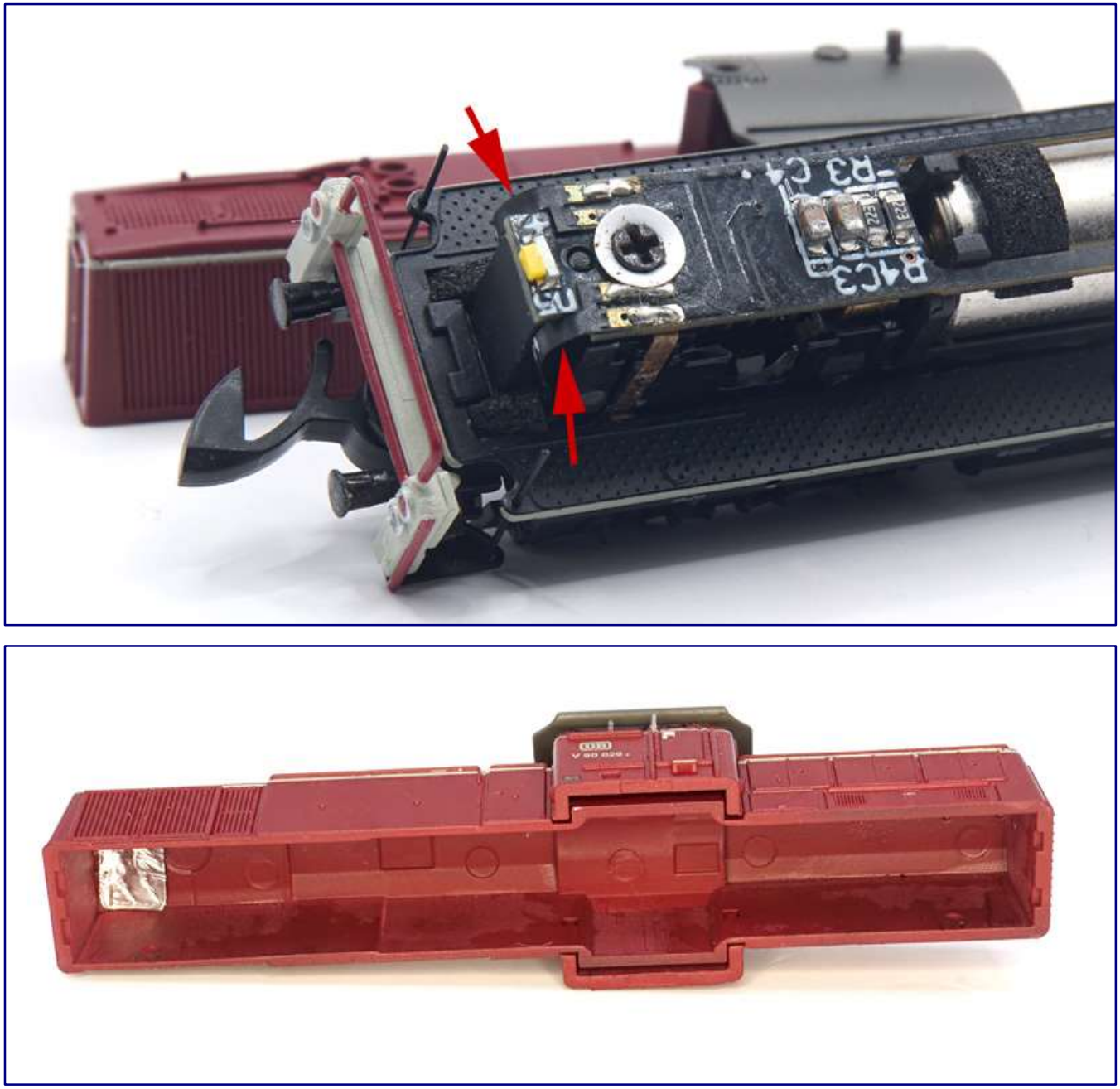


The chassis is made of plastic, which explains the remarkably low weight of this shunting locomotive. As usual, the drive works via a worm gear and spur gear.

The ingenuity of the Märklin engineers have resulted in the model also being equipped with full lighting. A white-red light change between headlights and tail lights according to the direction of travel was certainly not to be expected. For a long time, we remained exciting to see whether the manufacturer would really be able to implement this feature: And indeed, they succeeded.

While it was easier to “hide” an LED inside the stem of the upper light, this seemed almost impossible with the lantern casings. It was more likely that light guides would have to lead from the shell to the lantern casings and be camouflaged in some way.

In fact, however, both the white and red SMD light-emitting diodes are located in the bezels and are connected by means of a flexible circuit board. This can only be guessed at, and even the thickness of the bezels does not give any indication.



A flexible circuit board (top image; arrow markings) supplies power to the lantern casings, which house the LEDs for the taillight and lower headlight. A look inside the locomotive body (bottom image) reveals that no light guides are installed, and that the visible exterior area consists only of lantern glasses. The double cab wall is also clearly visible.

All ten lights contain tiny lamp glasses instead of light guides, and in the case of the taillights, they are now even coloured red. The model we were allowed to photograph did not yet feature this differentiation. The only minor drawback is that the upper light does not appear to shine as bright as the lower ones. This may also be due to its smaller diameter.

The bell-type armature motor transmits its power via worm gears to the axle gearboxes in the bogies, in which all gears are made of plastic. We assume that the material used is POM, which has self-lubricating properties.

The only critical components are the very thin sliding contacts on the bogie, which transmit the electricity collected by the wheels to the chassis. They are very sensitive and can easily be bent, which inevitably leads to contact problems.

Looking at the front lantern casings, it is clear that they are designed like a box with a lid. The white colour also reveals the course of the power supply lines. It is surprising how thin the cover parts could be made.

This model also follows the new requirement to achieve a maximum speed that is as close as possible to the original. Accordingly, the V 90 is not a “racing mouse” and can be controlled more sensitively across the entire controller range than older models from other series.

This model starts gently at 2 volts DC, equivalent to 15.7 km/h, and thus also safely passes our points. Unfortunately, we only notice light coming out of all the lanterns when 3.8 V is applied – Märklin has obviously not coordinated starting with lights on.

We continue to accelerate and reach the prototype maximum speed of 80 km/h at 7.6 V on the track. When the nominal voltage of 10 volts is applied to the track, we measure the equivalent of 112.3 km/h. This is still significantly faster than the prototype, but beyond the capabilities of historical locomotive models. We assume that Märklin has responded here to criticism of the V 80, which some customers felt was too slow compared to the measured values.

The deceleration from the maximum speed in the event of an emergency stop appears very gentle. It is measured at exactly 4.6 cm; this should be sufficient to prevent the carriages of a trailing train from derailing, but also to prevent them from passing a signal section that is showing a stop signal.

Traction force and operation

We traditionally measure the current consumption at transformer settings 100 and 150 as typical values for operation on the system. In both cases, the V 90 proves to be remarkably economical with 8.5 and 11.7 mA. This is also confirmed by a smooth-running gearbox with no discernible mechanical resistance.

However, the interesting issue is tractive force, as this is the lightest Märklin model we have ever tested. As expected, this discipline also shows a record value in a negative sense: the locomotive is pulled over the pulley on level ground with just 2.75 grams, and this value drops further to 1.75 grams on a 3% gradient.

This is even below our initial expectations and makes us question whether this model can be used in a manner true to the original. We have yet to see a functioning Z scale layout of a hump yard, but if there were one, this locomotive would certainly struggle on it.

The gear wheels are made of plastic, presumably POM with self-lubricating properties. The bogie frame is attached from below, as revealed by the visible clamping pins. If you look closely, you will also notice the bright sliding contact points on the bronze plate of the chassis: we consider them to be a little too delicate to ensure long-term operational safety.

However, it is much more important to clarify what kind of operations the model can undertake. It should also be emphasised here that the measured weight cannot simply be equated with the towing weight: it would be less than a single wagon, but because of its wheels, it would generate considerably less frictional resistance than a “block” of this mass.

And so, we can give the all-clear here after all. The new model is not a miracle of traction, but in testing it moved a mixed 11-car freight train smoothly along a flat straight track and also around a 220 mm radius curve (R3).

The situation will be different in the tighter R1 and R2 curves, but the train length is quite generous and does not reflect the typical transfer train on a branch line. It is composed of bogie wagons and two-axle wagons. However, two-axle wagons and in particular those with a long wheelbase tend to generate high frictional resistance when cornering.

Let us now conclude the test with a suggestion for how to use this model on a layout: The V 90 was, especially in view of its nationwide use, the most commonly seen locomotive in front of all types of freight wagons on the German railway system, both then and now.

The possibilities for finding new and authentic train formations for model operations are correspondingly broad. This class was not used in passenger train service, due to its low maximum speed and lack of heating equipment.

The V 90 029 is ideal for use in front of short transfer trains, as the prototype was and is often seen in single-carriage transport. It could also be used in the beet campaign.

Passenger carriages would therefore only be credible as a journey to a storage group or for staging at the platform. But this would also the question of how the necessary uncoupling procedures are to be depicted.

We would like to note at this point that this model (and also the upcoming version as the 290 series in ocean blue and ivory; 88511) should prove very popular, as its visual design in particular is almost perfect. Its driving characteristics are also very appealing. Its low weight and relatively weak traction are not as significant as we had expected.

That is why we are nominating the V 90 029 (88510) for our best new releases of 2025 award in the locomotive category and consider it a strong favourite.

Manufacturer of the Model:
https://www.maerklin.de

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Sggrss 733 from FR Model
Articulated Container Transporters

The articulated transport wagons for containers and swap bodies were a dream model for many Era VI enthusiasts. Perhaps because of their limited use exclusively in the present and recent past, no large-scale manufacturer has dared to produce these wagons until now. In 2025, they appeared in small series and most recently in a DB version.

Around 2005, a new type of container wagon was introduced, consisting of two halves and running on three bogies for the first time. The halves were connected in the middle and supported by a shared bogie.

This feature made them highly recognisable and also gave them an appearance that attracted the attention of model railway enthusiasts. Their value for model conversions had long been recognised in H0 scale, but in Z gauge it took dedicated and persistent effort before FR, a small-series manufacturer, finally ventured into this design.

On 12 February 2022, 132 426 from Nürnberger Leasing GmbH will travel through Leipzig-Schönefeld to Halle with brand new Sggrss articulated railcars. They have long been an indispensable part of local public transport. Photo: Ralf Opalka, Railway Foundation Collection

Before we introduce the models, let's first take a quick look at their prototypes: The articulated wagons with six-wheel sets that we will be discussing here are intended for transporting large containers and swap bodies in combined freight transport (KLV). Over the last twenty years, Eastern European wagon manufacturers have designed several very similar types, which differ only in details and the maximum permissible speed.

At VTG, the leasing company and purchaser of this type of wagon, they are designated Sggrss 80. The number is probably derived from the total loading length in feet, distributed over the two halves of the

Deutsche Bahn also uses the Sggrss 733, which is now available as a model. Shown here is the first (item no. 49.347.11) of two DB versions.

wagon. The wagons can therefore accommodate two 40-foot, four 20-foot or only two 30-foot containers. In the latter case, part of the loading length remains unused.

On the outer longitudinal beams of the wagon, there are 20 fixed, fold-down pins for each of these loading positions to secure the load units in accordance with UIC leaflets 592-1 and 2. Both halves of the wagon are connected to each other via a Talbot-type hinge bearing and lateral sliding pieces. There is also a ladder in the middle of the wagon for climbing over.

The undercarriage is a torsion-resistant, welded frame construction made of rolled and sheet metal profiles, consisting of the head pieces, the main cross members and the outer longitudinal members. The areas above the bogies are reinforced with metal sheets, which also serve as spark guards.

Requests for this carriage began several years ago, but Märklin did not appear interested, particularly since this type of design was not available for H0 gauge. It seemed a bold undertaking for a small series, as both halves of the carriage required considerable design work and assembly.

It remained unclear for a long time whether the costs incurred could be covered. Y 25 bogies and suitable containers were found in the mould inventory of FR Freudenreich Feinwerktechnik, but only a metal construction was recommended for the superstructures in order to ensure sufficient weight and good running characteristics.

After persistent requests and inquiries from other interested parties, a decision was finally made to produce this type of carriage. However, the models presented today, designed by Deutsche Bahn's freight transport division, were preceded this year by versions from private operators.

Converted to scale 1:220

These two models (item nos. 49.347.11 & 49.347.21) replicate wagons used by Deutsche Bahn AG, where they are designated as class Sggrss 733. They differ only in their road numbers, which have been correctly selected from the range of numbers used on the prototypes.

They are loaded with different containers, which makes it easier to distinguish between them: 40-foot sea containers were selected in the combination Hapag-Lloyd / Maersk-Sealand (end number -11; see page 16) and DB Schenker / Maersk (-21).

The second variant (49.347.21) differs only in terms of its operating number and the 40-foot containers mounted on it, but this already makes for a noticeable change.

These containers are also produced in-house by FR, are injection-moulded from plastic and also have base plates. The DB Schenker container has more elaborate printing and lettering than the others. Here, we also find its number printed on the roof, and the locks are highlighted in colour.

This brings us to the point that not only our own containers can be placed on these articulated wagons, but also Märklin representatives with identical pins. As with the prototype, 20', 30', and 40' containers can be loaded up to a total prototype length of 40 feet. The loading area is equipped with matching openings. On the prototype, retaining bolts with pins perform this function.

Like the enclosed containers, the Y 25 bogies, whose substructure types can be disregarded on a scale of 1:220, are injection moulded from plastic, including the retaining pins and mountings in the wagon floor, as has long been known from the FR mould kit.

However, the car bodies with the articulated connection in the middle had to be completely redesigned. Metal was the material of choice here. Folded and soldered etched sheets provide the necessary weight to ensure safe running. They are also responsible for the filigree appearance, which realistically reproduces the impression of longitudinal and cross members.

Märklin containers can also be loaded onto the models, as can be seen here. Mountings for the container dimensions used in the prototype have been taken into account. This allows for further variations to achieve the greatest possible variety.

When no containers are loaded, the view through the floor of the carriage reveals the track bed below, interrupted only by replica parts of the braking system. Although the underbody is far from being completely reproduced, this also follows the impression of the prototype.

We discover a minor compromise in the access ladders in the middle of the carriage with the joint area. This should be mentioned without judgement, because we see this as a design challenge that is certainly not easy to solve with the highest possible operational safety and a harmonious appearance.

Maintaining key model dimensions is also part of creating a harmonious appearance for a model. However, we believe that maintaining the proportions of the original model is more important than adhering to tenths of a millimetre, as this would make any errors more obvious.

Maße und Daten zum Containertragwagen Sggrss 733 der DB:

	Vorbild	1:220	Modell	Abweichung
Length over buffers (LüP)	26.700 mm	121,4 mm	125,5 mm	+ 3,4 %
loading length (2 x)	12.550 mm	57,0 mm	56,3 mm	- 1,2 %
Height of loading level above SO (rail head)	1.155 mm	5,3 mm	5,4 mm	+ 1,9 %
Loading width	2.600 mm	12,1 mm	11,6 mm	- 4,1 %
Wheelbase (2 x)	10.580 mm	48,1 mm	50,5 mm	+ 5,0 %
Bogie wheelbase	1.800 mm	8,2 mm	8,0 mm	- 2,4 %
Wheel diameter	920 mm	4,2 mm	4,2 mm	0,0 %
Net weight	28,0 t	---	7,6 g	
Permitted maximum speed	120 km/h			
Bogie design	Y 25 Lssd (BA 999.1)			
Years built	2007 - 2008			

In the case of these miniatures, we also consider this aspect to be good. Deviations result primarily from the functional implementation of the central joint, where both halves of the carriage are supported by a single bogie – similar to Jacob bogies, but here with only one central pivot instead of two off-centre pivots.

Other external features

The paintwork and printing are flawless: the correct colour shade according to RAL 3020 traffic red is clean and free of dust inclusions, and the lettering has been applied in multiple colours using pad printing. They are almost entirely flawless.

The wagons are complemented by attached parts that replicate important details: brake pressure vessels, UIC rope hooks on protruding beams, and a bracket for shunters at the end of each outer loading area

continued on page 20

The view from above of the empty half of the carriage (top picture) reveals the elements of the braking system, which can be seen between the cross struts. The type of connection between the two halves can also be seen. However, only from below (middle picture) does it become clear that the underbody shows hardly any details, as the components that are not visible from above have not been reproduced here.

A compromise had to be made with regard to the ladder in the middle section (picture below), which is acceptable because it is hardly noticeable. However, it is a pity that in a model of this price range – as can be seen on the left-hand side of the carriage – neither the card index box nor the brake lever have been reproduced in plastic.

The fact that the brake's card index boxes and shift levers are not raised but only printed is hardly noticeable from a normal viewing distance, but it is noticeable up close. This is an opportunity that has been missed, one that should have been taken advantage of, especially given the high price. The rectangular UIC high-performance buffers deserve praise, as they contribute to the correct impression of the prototype.

The DB Schenker container has more elaborate printing than the other three from both models. This can be seen on the locking bars on the end of the container.

FR's standard fittings are Märklin-compatible system couplings, which are used here in their classic design with a coupling shaft.

The dark wheel sets, which fit well with Märklin rolling stock but, unlike Märklin, are chemically burnished instead of nickel-plated black, are also included.

Weight, low centre of gravity and bogies ensure smooth and easy running on straights and in curves.

The models' dead weight appears perfectly balanced: weighing less than 8 grams, they place only minimal

This container is the only one to also have its individual number on the top.

The Sggrss 733 feels most at home in modern all-electric trains, such as those running from seaports to the hinterland, here being pulled by a class 181[2] locomotive.

strain on the locomotive's traction and therefore do not interfere with long block trains.

This brings us to the possible uses of this new product: in real life, they are almost exclusively found in longer block trains, which would be beyond the financial means of most interested parties when it comes to a small-series model.

However, given the variety of KLV freight cars in use today, it makes sense to use them together with models from Märklin. One such modern bogie car can be found in the Göppingen range as type Sgns 691 from Deutsche Bahn AG (first edition as 82640; see **Trainini®** 12/2023). In both cases, we are excited to see future printing variants.

All in all, an important and striking model has been reproduced here on a scale of 1:220. This has closed a painful gap for fans of Era VI. As this has been done in an outstanding manner, we are nominating the second version with the more elaborately printed Schenker container (49.347.21) for the new releases of 2025 in the wagon category.

Local transport and railroad maintenance car trains

Ready for a Change in Direction?

Train formation suggestions are among our readers' favourite topics. As there are currently developments in two particular areas, we are taking up these topics and presenting a few suitable ideas. Our focus is on local transport in the Ruhr region in the early 1960s, and, above all, the exciting field of railroad maintenance car trains.

If we look at the new products from Märklin in recent years, we see two model themes that seem to run like a common thread through the product range. On the one hand, we see local transport with push-pull trains, which has been highly relevant in all eras.

At this point, however, we would like to leave the present behind and take a little trip back in time: we find ourselves in the late 1970s, on the cusp of the 1980s. Vehicles in the new, modern ocean blue and ivory colour scheme are increasingly dominating the scene.

Push-pull trains were part of the Z gauge from early on, but for a long time these were more modern designs. Here, one such train with a Karlsruhe head is leaving Königzhausen.

But railway fans are not particularly enthusiastic about the new colour scheme and reject it. They feel that the locomotives are too susceptible to dirt. But, is it indeed true that 'everything was better in the old days?'

The reason the German Federal Railways went looking for new colours was because they wanted to look brighter and friendlier. They've managed that, so it's worth asking whether the view of railway fans, who also miss steam locomotives, is really relevant?

Especially since there are also engines that look good in these new colour schemes, and are, therefore, often given a retro design today. This is particularly true of locomotives with a central driver's cab, such as the 212 series. DB has also found a good solution for the V 160 family.

For Z gauge, the models of the 212 (item no. 88967), 216 (88784), and 218 (88786) series are important for push-pull train services. They can be operated with control cars that feature the Karlsruhe head based on the same concept or still display the previous design with orange warning stripes (both formerly listed under item no. 8718).

For many years, the 515 series dominated reversible train services on less frequented routes. And so, this battery railcar (item no. 88251) may also be used on its own from time to time.

But these engines also pulled the Bunny Boxes (from 87189). Regardless of which trains model railway hobbyists put together, sometimes with individually available additions (such as 87162 with Quelle advertising), strict adherence to the prototype applies: for many years, trains featured both silver cars with black frames and ocean blue frames. Due to restrictions at the time, a reversible train consisted of a maximum of five coach cars.

For layout operation, this means an impressive train length that even a long-distance model train will hardly exceed. Therefore, two to a maximum of four coach cars will probably be the upper limit in most cases.

Replacing them with a contemporary railcar combination takes up less space. The 'electric torch' was widespread in the 1970s and 1980s. This nickname referred to the battery-powered railcars of the 515/815 series.

Märklin has gone with the more appealing paint scheme with a deeper contrasting area on the front (88251), which quickly caught on after initial trials. Against the backdrop of a green model landscape,

these trains really add a nice splash of colour and can also be used with a trailer coach or as stand-alone railcars.

The diesel locomotives with central driver's cab certainly cut a fine figure in ocean blue and ivory. The class 212 (88697) in this livery can pull push-pull trains with Karlsruhe heads (see page 22) as well as 'Bunny Boxes.'

Unlike the rail bus, which did not change its colours to the new livery design, the battery-powered trains also remained on the rails for several years longer, and had a significant impact on local public transportation. We therefore attach great importance to the relatively new models as well.

A leap back in time to the coal mining district

Another leap in time takes us back to the days when the chimneys in the Ruhr region were still smoking and large crowds of people were on their way to steelworks or mines every day. The beginnings of push-pull train services can also be traced back to North Rhine-Westphalia, where push-pull operation was implemented early on in the Wuppertal area with the V 36 and Donnerbüchsen (thunder box railcars) modified into control cars.

The German Federal Railways' initial experiences led to the development of the Hasenkasten (Bunny Boxes), which made their debut with the central-entry carriages and were to become a feature of local transport in large numbers as the Silberling (Silverling). The V 80 and, even more so, its successors in the form of the V 100 series became the recommended locomotives for these trains.

But the still omnipresent steam locomotive also had to be made suitable for push-pull trains. In the field of tender locomotives, the 3810-40 and 23 series were used for this purpose. Where larger stocks were

dispensable, high-speed tender locomotives that could run at the same speed in both directions became the recommended choice.

They provided the initial spark in the Ruhr region before the catenary had been installed across this region on a large scale. After the Reichsbahn had already had good experiences with the Ruhr express service and was now considering a long-term urban railway network, they offered a good transitional so.

Märklin has already addressed this very subject and offers a typical local transport set from that era. With this in mind, the Class 78 (88068) was also made suitable for use as a reversible train by adding red rear lights for push-pull operation in addition to the head.

The Class 78 (88068) with its 3yg reconstruction cars and a Rabbit Box (87074) is a typical push-pull train from the Ruhr area during the 1950s and 1960s.

For a brief summary of the history, we refer to extracts from Märklin's own product description: As early as 1936, the at that time Lübeck-Büchen Railway had steam-powered push-pull trains developed by Henschel.

The young Federal Railway took up the LBE's idea of steam-powered push-pull trains and put them into service for the first time in 1951 – pulled and pushed by the Class 78. Like the captain of a ship, the locomotive driver gave instructions through a control device from the control car to the fireman on the locomotive, who was authorised to operate the regulator.

The fireman carried out these instructions alongside his firing duties, while the locomotive driver was able to operate the train's compressed air brake directly. The so-called 'regulator authorisation' required the fireman to be trained as a locomotive operator. In most cases, these were younger engine drivers.

continued on page 28

Next to its sister locomotive 65 015, 65 013 waits for its next assignment on 5 September 1960 (photo above). On the same day, Märklin's prototype locomotive 65 012 arrived at Essen Central Station on track 13 with the N 2163 push-pull train from Düsseldorf. Now there is a change of personnel before the return journey begins. It will continue to operate in the Ruhr area for another six years. Both photos: Wolfgang Jahn, Sammlung Eisenbahnstiftung

The Essen – Essen-Kettwig – Düsseldorf route was ideal for commuter train-like service with push-pull trains (from 1956) due to its high frequency. The tender locomotives were always coupled to the train with the smoke box facing the train, as can be seen here when 65 016 is waiting to depart from Essen Central Station on 7 March 1965 (photo above). Photo: Theodor Horn, Sammlung Eisenbahnstiftung

When 65 017 arrived from Düsseldorf at the same station on 31 March of the same year, the last year of operation in the Ruhr area was about to begin: a year later, every second train was already running with V 100s. Photo: Klaus D. Holzbornrn, Sammlung Eisenbahnstiftung

This type of push-pull train operation was used in suburban transport in Hamburg, Frankfurt (Main), in the Hanover district, in the Wuppertal area, and finally also in Saarland and in the Ruhr area (preliminary operation of the suburban railway). While elsewhere the V 100 later took over operations, in the greater Essen area it was replaced by electrically powered push-pull trains.

In the steam era, exclusively Silberling sets were rarely used in the Ruhr express service. More typical were pairs of refurbished cars with control lines, which were supplemented by a Silberling Bunny Box. As 'Push-pull Train Era III' (87074), we also find exactly this combination in their offering.

Our steam-powered push-pull train (88068 / 87074) has now left the city behind and is approaching the Ruhr region in a much more rural setting.

Why are we mentioning this so explicitly? Quite simply because the topic has gained further significance with a new announcement last week. As an Insider Club model for 2026, we are looking forward to the new 65 012 (83650) steam locomotive. It is also suitable for use in push-pull trains and will therefore be equipped with a light change system that also includes the red rear light.

Although its service life was comparatively short, it was longer than that of many other new construction steam locomotives. Developed in parallel with it was the V 80, which we have already mentioned and which, like the V 100, surpassed it in power with 1,500 hp.

For around ten years after their introduction in 1956, the reversible 65 012 to 65 018 locomotives were used on the Rhine and Ruhr between Essen and Düsseldorf in the precursor to the suburban railway but also proved their worth in front of freight trains. Many engine drivers are said to have preferred them to the V 100, even though diesel traction offered a higher top speed.

This was because the 65 series was considered to be very powerful, which was a great advantage on the Ruhr area routes with their many stops. Before the introduction of push-pull trains, it delivered maximum performance, which only came to an end with the 1966 summer service schedule.

On 6 May 1966, 65 013 looks just as the Märklin model is advertised: it has a surface preheater on the smoke box, a fan box attachment on the driver's cab and still carries the brass plate with its operating number. Exactly three weeks later, it will be based in Limburg (Lahn). Photo: Klaus D. Holzborn, Sammlung Eisenbahnstiftung (Railway Foundation Collection)

A special feature was that the locomotive was always coupled to the train with the smoke box facing the train – this also applied to the Class 78 engines used. This meant that the fireman could shovel while facing the direction of travel and was not injured during emergency braking, as had happened several times in Hamburg-Harburg when the Class 38 was pushing the tender ahead.

In railroad maintenance car train duties

DB began outsourcing construction work back in the 1970s. With the privatisation of the railways, which included the separation of operations and infrastructure, this became standard practice from 1994 onwards. Contractors included DB subsidiaries as well as external companies with no stake in the Deutsche Bundesbahn, most of which also took over DB's maintenance car train carriages.

This was and is also reflected in the Z gauge range: the recent past and present are characterised by yellow-painted locomotives and carriages. The Bahnbau Group has also attracted attention with its models, as have Leonhard Weiss, Wiebe, and Ernst Schauffele, a company that was liquidated in 2009.

At this point, however, we look back a little further, to when the railway converted its own carriages and painted them ocean blue. We consider this segment to be the second, current focus of the Märklin product range.

Railroad maintenance car trains often lined up at loading roads and were parked there for long periods during maintenance work. This was especially true for material, recreation, sleeping, and workshop cars. This offers attractive possibilities for model railways, as shown here with the workers taking a break and the brake shoe applier.

Railway maintenance car vehicles for personnel, materials, and tools were indispensable for the construction and auxiliary services of the Federal Railway. The names of the vehicles changed several times over the decades, as did the original vehicles used to create new functions. However, their basic functions remained the same.

They were used for staff to stay, live and sleep, eat, and wash and dry their clothes. Over the years, the level of comfort offered was increased, for example by reducing the number of beds per railcar.

Workshop and equipment carriages usually followed standardised design drawings but were equipped differently according to the client's requirements. Models on this theme can be found not only in the Märklin range, but also at FR and, historically, at Railex.

Almost all of the models to date have in common that they already mark the last renovation phase of the DB: in their early years, the MCi provisional passenger carriages and regional railway types were the main sources, followed in the 1960s by the Donnerbüchsen (‘Thunder Boxes’) and, only when these were used up, the three-axle remodelled carriages.

At that time, the covered types refurbished after the war provided a suitable basis for the freight cars used, but above all the Pwg(h)s 054 freight train baggage cars, which were now surplus in large quantities.

A small number of older rebuilt cars from before 1974 can now also be found in the product ranges: Märklin has launched an earlier G 10 and a Württemberg passenger car with platforms in green paint, while FR has given a former Pwgs 054 a livery of chrome oxide green paint.

However, most models already belong to the ocean blue era but can also be mixed with the green representatives that will be around for many years to come. Popular models from the early Z gauge years were certainly the workshop carriage based on a BD3yge in the Railex range (S-11) and the compressed gas storage carriage (Märklin 88605) based on Gbrs 253.

continued on page 33

Meanwhile, we have formed a railroad maintenance car train from the remaining carriages in the current product range (photo above), in front of which the 055 series is earning its keep. Behind the 290 series are refurbished carriages with roller shutters from later years, but also one of its predecessors, which was based on a Donnerbüchse (photo below).

During a photo stop with the Lübeck 220 065-7 on the bridge at Hochdonn (photo above) during the journey to Niebüll in April 1982, the length of the still manageable railroad maintenance car train can be seen at its hook. Photo: Jochen Lawrenz, Sammlung Eisenbahnstiftung

211 172-2 is shown on 13 March 1987 with a very short unit that is therefore suitable for the layout. Ideas for the model are provided by the excavator loaded onto the low-sided wagon, which will be used for work in route. Photo: Wolfgang Bügel, Sammlung Eisenbahnstiftung

Compared to later railroad maintenance car trains in the Märklin product range, the Railex interpretation illustrates a special feature: the first modifications to the former half-luggage carriages mostly retained their folding doors in the luggage compartment and also their old windows. In addition, it can be seen in the photos that the roofs were different colours and did not all follow the standard RAL 7022 umbra grey.

The 8776 railroad maintenance car set already represented a step forward in this regard. In addition to a Donnerbüchse carriage, which had already changed its colour scheme, it also contained two former refurbished carriages. These were now characterised by their umbra grey roofs and replicas of the rubber-framed windows with hinged upper sections.

We immediately took up the idea from the previous page and loaded the new Atlas 1302 from Artitec onto our service train. The reconstruction car from the 87761 set has an overpainted window on the right.

This marked a large part of the modifications in the prototype, because this innovation was introduced quite early on. A little later, external roller shutters were fitted to the windows of the living rooms and bedrooms. This was also reflected in this pack and will soon be continued with the announced pack 87762. Märklin has also taken into account window openings that were no longer needed and were welded shut with sheet metal.

The earlier passageways, which were closed and also welded shut with sheet metal, were not included in the model. There were exceptions, so this is acceptable for the models. However, this was often limited to one side of kitchen and kitchen trailer railcars and was much less common on other types.

Märklin took a different approach with the 87761 Railroad Maintenance Car set. Here we see windows that are no longer needed and have simply been painted over. We have not found any evidence of such a design, but it is conceivable.

That is why we also used parts from this set for our model scenes, in which different carriages and manufacturers were deliberately mixed. For example, the appropriate equipment and workshop carriages from FR were also used, as was the 86572 supplementary set with a crane from Märklin.

The aim was to show how different railroad maintenance car trains looked despite certain similarities, and how this could at least be hinted at in the model. In reality, they were often much longer. An ocean-blue train could easily have included 20 carriages!

We present this train again in close-up and are delighted with the strikingly realistic effect of the excavator. When the Artitec model is transported, square timbers can be placed under the shovel to protect the wagon floor. If we were to incorporate the low-sided wagon into a train consisting of ocean blue railcars for construction crew, workshop and sleeping, a pebble-grey VW Transporter T3 with DB lettering would be the perfect load. A product idea for MrZtraX?

They can be depicted both travelling to a construction site, allowing them to be experienced in motion, and parked near such a site. They were often found on loading roads or sidings close to roads and paths – and, thus, also to connections to the electricity grid.

Incidentally, Märklin itself has taken advantage of this visual variety, which is ideal for model railways, with item number 8776: this train also carried a construction trailer, as we often find them used as break rooms on larger construction sites.

A VW Transporter T3 in DB gravel grey would be more suitable here. This model does not yet exist, but could be produced by MrZtraX because the basic model is already available. Such vehicles were often carried along as smaller material wagons and unloaded on site – which is another reason why access to a road was often so important.

Another idea that also attracts attention on a moving train has just been delivered: the Atlas 1302 excavator from Artitec (322.044) looks very realistic and can be placed on a low-sided wagon. The German Federal Railways soon came to appreciate the benefits of having such a road vehicle working from a wagon. And in the event of an emergency, the wheeled excavator could be unloaded at any time and put to even more extensive use.

Our last photo also illustrates the different roof colours that could be seen on the ocean blue maintenance car train carriages. We can recreate all three in the model (listed in order): a light, almost white-looking grey (Railex), mouse grey (2 x FR Freudenreich Feinwerktechnik) and the umbra grey (Märklin) specified in the colour scheme.

However, the theme is implemented individually, railroad maintenance car trains offer great variety and are very appealing to viewers. These internal railway services could be further enhanced by the announced 1928 passenger carriages. Once the refurbished carriages had been used up, as donors, DB lso made greater use of four-axle carriages – this would be a new product for Z gauge.

Manufacturers of suitable models:
https://artitec.nl
https://fr-model.eshop.t-online.de
https://www.maerklin.de
https://www.noba-modelle.de

Source of supply for some brands:
https://www.1zu220-shop.de

„Überholstelle Lamerden“

Teil 4

Gleisverlegung

Heutzutage können wir uns glücklich schätzen, dass eine Gleisplan – Software dem Modellbahner viel Arbeit abnimmt. So kann der favorisierte Schienenweg immer wieder am PC optimiert werden. Bei umfangreichen Plänen ist sogar ein 1:1 Ausdruck über den heimischen Drucker möglich. Auch der noch unsichere Einsteiger sollte diese Funktion nutzen, um die spätere Lage der realen Schienen und Weichen jetzt schon zu fixieren. Es ist eine willkommene Schablone. Nebenher bietet die Software auch eine Auflistung der nötigen Gleiskörper diverser Hersteller an.

Die Gleissysteme von Märklin und Rokuhan sind in sich ausgereift und lassen wenige Wünsche offen. Bei höchst eleganten Kurven kommen jedoch die fertigen Schienenkörper an ihre optischen Grenzen. Hier schafft, wie auch bei anderen Maßstäben, ein flexibles und längeres Gleis eine willkommene Abhilfe.

Lesen sie weiter auf der Website zum Projekt unter:

https://www.1zu220-shop.de/Projekt2025:_:123.html

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Analogue speed controller Heißwolf SFR-4000

Operating in the Top Class

In the world of model railways, Heißwolf is synonymous with sophisticated speed controllers, just as Tempo is synonymous with tissues. Enthusiastic customers simply refer to their Heißwolf, but this has now become a Tams. But first things first: Bernd Heißwolf handed over the production and distribution of his devices to Tams Elektronik a few years ago. And it is there that a new generation has now appeared – and we took a look at it.

Digital railway enthusiasts swear by the driving characteristics of their locomotives and their fine control behaviour. This is repeatedly cited as an argument to others, especially newcomers, that a switch is inevitable and urgently needed. But is that really the case?

The SFR-4000 speed controller is delivered to buyers with the items listed above. A power supply unit or, alternatively, a transformer is not included.

The most important argument put forward here is the so-called pulse width modulation (PWM) used by the decoder to control the motor. Short, powerful voltage pulses cause it to respond and rotate readily. As the driving voltage (and speed) increases, these pulses are modified so that, in the final stage, the motor can ultimately be driven with pure DC voltage.

However, this is not an invention of the digital age, but originates from the analogue world and began to increasingly change and conquer the market around thirty years ago. Titan had transformers in its range that used this process and were designed for the requirements of Z gauge.

At Märklin, it was the "electronic08" product, the more powerful of the two brown transformer devices, which worked in the same way and are still popular today. So, is it all water under the bridge? Not quite: the analogue transformer of yesteryear is now replaced by individual decoders in each individual locomotive.

They enable the control pulses to be precisely matched in frequency to the type of motor used and the specific characteristics of the model. This naturally offers an advantage over the fixed behaviour of a single device that only recognises an identical characteristic curve for each locomotive.

The front of the power supply unit features LED status indicators (on the right) and various connections (from left to right): six-pin socket (track connection with fixed polarity DC voltage / power supply for the device / track connection with polarity reversal), socket strip (emergency stop / synchronisation module) and RJ12 socket (connection for the control unit).

If a model railway enthusiast does not want to switch to digital operation, or does not want to switch completely, it would make sense for the central control unit, currently a speed controller on the plug-in power supply, to be able to replicate the same individuality as a decoder. As soon as the purchase price of the required decoders exceeds that of such an analogue speed controller, there is a cost advantage.

What we have just outlined here has long been familiar to many model railway enthusiasts as the “Heißwolf”. Bernd Heißwolf developed several generations of such devices and sold them under his own name.

A few years ago, he retired and handed over his brand and inventory to Tams Elektronik. In the background, Kersten Tams developed a new version, still with the active help of Bernd Heißwolf, who also assisted with testing.

This has been available since late spring 2025 and is called SFR-4000 (item no. 56-40007-01). It is very modestly described as a speed controller for analogue DC railways, without referring to its truly outstanding features.

In addition to the power unit (“Power Unit SFR-4000”) and the hand control (“Hand Control SFR-4000”), included is the connection cable with RJ12 plugs, a six-pin connection terminal, and a five-pin socket strip.

The handset is completely new, but its casing should be familiar to Tams customers.

A plug-in power supply (output voltage 22–24 V; min. 2.6 A) is no longer included because the manufacturer expects that suitable parts are already available in sufficient numbers in every household or can otherwise be purchased separately – this is to avoid adding to the price.

The connection to the power supply unit is made via the pluggable, six-pole connection terminal. Incidentally, the connection socket commonly used in plug-in power supplies today is not available on the Tams device. Consequently, the plug must be cut off in order to be able to attach the cable leads directly to the terminal.

Alternatively, a model railway or safety transformer (16–18 V; min. 2.6 A) can also be used as a power source. The specifications for this can be found in the instructions. For our test, we used the 52 VA lighting transformer from Viessmann (5200).

Incidentally, the Heißwolf controller does not come with a printed manual: instead, the package insert refers to the electronic version and the option of having a printed copy sent to you if required.

This is certainly a viable approach that takes into account both the protection of natural resources and individual needs and preferences. After all, 52 printed pages is already a considerable amount. We used the PDF document for our test here.

Tried, tested, and new

The device, presented by the manufacturer as a “convenient control system for analogue DC model railways of nominal sizes Z to 0e,” combines proven features with new characteristics. The basic features that made it so successful remain unchanged.

Once properly adjusted, the locomotives will continue to start smoothly and deliver high traction even at low speeds. Acceleration is smooth, and the maximum speed can also be set individually.

A storage capacity of up to 250 different vehicle profiles should be sufficient even for large fleets. It should also be noted that a profile can be used for multiple vehicles of the same type rather than just one specific vehicle: vehicle variants with identical engines and the same driving behaviour do not require technical differentiation.

Depending on the motor type, you can work with pure DC voltage, individually adjusted pulse width modulation (PWM) or with superimposed PWM and pure DC voltage (“SFR special”). The maximum voltage on the track can be set between 2.0 and 14.0 volts in order to comply with the permissible values for the size and type of motor. The maximum output current is 1.5 A.

250 locomotive profiles can be created and saved. Each one can be assigned its own name so that the right locomotive can be quickly identified. For example, profile number 003 refers to the class 58 tender steam locomotive.

New features in the SFR-4000 version include an integrated synchronisation module and updated user guidance. The new housing of the handheld device, which will be familiar to long-standing Tams customers, makes it more convenient to operate via the keypad: its housing is purchased from Lenz and is also used for the company's own digital handheld controller.

The name of one of a maximum of 250 storable driving profiles should be based on the traction vehicle and consists of up to 16 characters, which can be filled with upper- and lower-case letters, numbers, and special characters.

For each profile, a start-up and maximum voltage (2.0 to 14.0 volts) and the pulse – for the pulse width modulation described above – can be configured, which overcomes the breakaway torque when starting

up in the old three- and five-pole motors and achieves a smooth start-up. This pulse consists of the voltage level and a frequency between 0 and 100 Hz.

These settings can be used to limit the maximum speed to a realistic value or to the maximum permissible value for the motor. The latter should be used regularly, as the operating voltage for Z gauge is specified by the manufacturer as 10 volts, while the boxes of models with bell-type armature motors indicate 12 volts!

Further configuration options relate to acceleration and deceleration delays (start and end frequency of the pulses), which can be used to achieve smooth acceleration and deceleration when the driving voltage changes.

Individually adjusted for the respective motor behaviour, the transition between PWM and DC voltage is so smooth that the Heißwolf controller – like its predecessor versions – can give even the oldest locomotive models excellent driving characteristics. They match what current digital decoders can achieve and may even surpass some of them.

Further options

The aforementioned handheld control unit ensures that the data is kept in order. It can be used to copy individual profiles and paste them elsewhere, delete individual profiles from the file, insert empty profiles at any location, or even delete all profiles with a single command.

And even malfunctions have been taken into account: protection for the speed controller and the model railway layout is provided by an overheating protection device, which is activated when the processor exceeds approx. 80 °C or the heat sink exceeds approx. 50 °C. It then automatically switches off the power supply unit. An LED signals this, and a message appears on the hand-held control unit.

In the settings, we can also store the desired controller mode: The factory-set "DC mode" has a middle position for stopping, whereas in "AC mode" the direction is changed by pressing the rotary knob.

This protective function also works in the same way in the event of overload or short circuit. The response time at which this intervention should take place can be adjusted. When selected appropriately, this protects small track gauges such as our cables, rails and axles from thermal overload with serious consequential damage.

The power unit also has an input to which an emergency stop button (available as an accessory) can be connected if required. When this is pressed, the speed controller sets the output voltage to zero and activates the short-circuit brake: the vehicle then comes to a halt without any braking delay. Activation is also indicated by an LED and a display.

The integrated synchronisation module, which has also already been mentioned, is also of considerable importance. This enables the connection of up to seven additional

SFR-4000 power units. A locomotive can then be tracked across circuit boundaries using the hand-held control unit.

However, only one handheld device may be connected to each power unit, otherwise damage may occur! If this is observed, there will be a maximum of eight handheld controllers connected to the eight power units, and no device will have two connected to it.

To take advantage of synchronisation, one power unit is set as the “master” in “main circuit” operating mode, while all others operate as “slaves” in the “secondary circuit”. All devices now adopt the profiles of the defined master device.

At the same time, a technical requirement is that electrically isolated circuits are created according to the number of power units: each section is supplied by one device, but always synchronised. Otherwise, the pulses would overlap and the vehicle would accelerate strongly and unintentionally at the circuit limit.

Incidentally, the SFR-4000 has two track connections: the “normal” one has variable rail polarity, which depends on the selected direction of travel (see photo on page 38). It is changed when switching.

We used three locomotives with different generations of three- and five-pole motors for the test, as they require very different control systems to run smoothly.

The special track connection, on the other hand, has a fixed polarity that is specified independently of the direction of travel. What is the purpose of this? This can be explained using the example of a turning loop. When used correctly, this allows us to achieve short-circuit-free entry and exit at the turning loop.

To do this, the main line is connected to the normal track connection, while the rails within the turning loop are connected to the special track connection. This turning loop is always traversed in the same direction of travel.

Before the locomotive leaves the turning loop, the direction of travel (polarity of the normal route) and then the switch are changed. Tams recommends briefly stopping the locomotive before departure and only allowing it to leave once the direction of travel and switch are set correctly.

So what is our conclusion? At the outset, we described Heißwolf as synonymous with sophisticated, high-quality speed controllers with pulse width modulation. This observation should further reinforce the novelty of the product.

In our case, the power supply was provided by a 5200 light transformer from Viessmann. We ensured the required cable cross-section of 0.75 mm² by pulling three strands of 0.25 mm² each.

The collaborative development work and production by Tams shows that this era is by no means over. There is still a demand for such control systems for analogue vehicles – and not just in Z gauge.

In this respect, we consider it important to continue this product line and set the right tone with contemporary innovations. Anyone who has ever used a Heißwolf controller will probably never want to give it up.

However, the offer is aimed much more at interested beginners with high standards, as existing customers will probably continue to use their existing equipment. Nevertheless, there is also the option of “upgrading”, which may involve passing on the old equipment to a fellow hobbyist looking to gain experience.

We emphasise the importance and significance of this analogue control system by nominating the SFR-4000 for the best new releases of 2025 in the technology category.

Manufacturer of the device:
https://tams-online.de

Distributor:
https://www.1zu220-shop.de

Purchase of Loconet sockets:
https://www.h0fine.de

Trainini *TV* - Episode 46:
https://www.h0fine.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.

Bauzüge und Bauzugwagen
Mit der Bahn auf den Bau

Seit einigen Jahren haben auch die Modellbahnhersteller den Reiz von Bauzugwagen erkannt. Und so erfreuen wir uns an Modellen, die dem Transport von Material und Baustoffen dienen sowie an weiteren, die Werkstätten beherbergen oder dem Aufenthalt des Personals dienen. Genau um diese Vorbilder geht es im neuen Buch von Stefan Carstens.

Stefan Carstens | Wolfgang Henn
Bahndienst- und Dienstgüterwagen
Band 2: Bauen und Wohnen

Stefan Carstens Eisenbahn-Dokumentation
Hamburg 2025

Gebundenes Buch
Format 21,8 x 29,7 cm
288 Seiten mit 415 Farb-, 475 S/W-Abbildungen und 90 Faksimiles

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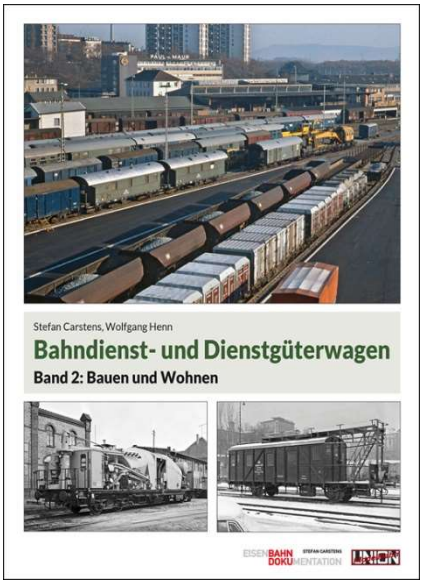

Und er hat es wieder getan! Nachdem der erste Band sogar auf unerwartet großes Interesse gestoßen ist, setzt Deutschlands größter Güterwagenexperte Stefan Carstens die neue Reihe zu Bahndienst- und Dienstgüterwagen sehr zu unserer Freude fort.

Thema sind im Band 2 die Bauzüge von Deutscher Reichsbahn im Osten und Deutscher Bundesbahn im Westen. Geblieben ist im Vergleich zum Vorgängerband die bereits bewährte Struktur. Sie orientiert sich nicht an den unterschiedlichen Bauarten, sondern der Chronologie des Entstehens, was technische Entwicklungen und die jeweiligen Rahmenbedingungen deutlicher hervortreten lässt.

Die Betriebsgeschichte der Bauzüge beginnt schon vor 1945, hat aber ihre thematischen Schwerpunkte vor allem im Zeitraum der Nachkriegszeit bis zum Verschmelzen der Staatsbahnen auf die Deutsche bahn AG. Gearbeitet wird wieder mit außergewöhnlich vielen, überaus gut ausgewählten und hervorragend reproduzierten Fotos und auch Grundrisszeichnungen.

Insgesamt rund einhundert Jahre umfasste das Archivmaterial, das hier ausgewertet und genutzt worden ist. Das schafft wirklich einen vollständigen Blick von den ersten Anfängen und Provisorien bis hin zu gezielt entwickelten und entworfenen Wagen für Zwecke bahninterner Bauaufgaben.

Dokumentationslücken – besonders im Bereich der ostdeutschen DR – sind geblieben und galt es zu schließen. Dabei verlieren sich die beiden Autoren aber nicht in Spekulationen. Es werden Annahmen getroffen, aber aus vorhandenem Wissen hergeleitet und als wahrscheinliche Antwort begründet, dabei aber durchweg klar auch als solche gekennzeichnet.

Fachlich geht es im Buch nicht nur um Bauzüge, deren Länge so manchen Eisenbahnkenner noch überaschen wird. Viele Wagen wurden auch außerhalb fester Bauzüge in deutlich kürzeren Einheiten eingesetzt und hier ebenso vorgestellt.

Fachlich umfassen die Inhalte wohl alle Bauarten von Bahndienstwagen, die in Bauzügen, für Bautrupps sowie für die Elektrifizierung von Strecken eingesetzt wurden (und werden). Dazu gehören neben Umbauten gedeckter Bauarten und von Personenwagen übrigens auch seltene Exoten sowie ehemalige Triebwagen.

Vor besondere Aufgaben gestellt sah sich die Deutsche Reichsbahn, die auf einen deutlich kleineren Fundus an Ausgangswagen zurückgreifen konnte. Zudem litt sie immer an Mangel und musste viele Fahrzeugtypen, die bestens geeignet gewesen wären, noch über Jahrzehnte für den regulären Betriebsdienst erhalten.

Eine schier unglaubliche Vielzahl an Informationen macht dem Leser schnell deutlich, welch große Lücke hier zuvor im Bereich der Literatur bestand. Nie zuvor ist diese wichtige Seite des Bahnverkehrs so ausführlich und grundlegend analysiert, erforscht und aufgearbeitet worden.

Auch wenn sie sich meistens abseits des von Fahrgästen Wahrgenommenen abspielt, so handelt es sich hier um eine überaus wichtige und zentrale Funktion innerhalb des Bahnwesens, die mehr Aufmerksamkeit verdient und endlich erhält.

Seitdem die Modellbahnhersteller hier interessante Vorbilder und Farbtupfer entdeckt haben, scheint das Interesse soweit gewachsen zu sein, dass dieses Buch den Informations- und Wissensdurst stillen kann. Wir verweisen an dieser Stelle auch auf den Modellbericht dieser Ausgabe.

Ein besserer Autor als Stefan Carstens hätte sich dafür zudem wohl kaum finden lassen. Die vielen Zahlen, Daten und Fakten sind auch für die Modellbahn höchst relevant und machen aus diesem Werk gewiss keinen Geheimtipp.

Vor uns liegt ein Buch, das trotz der hohen Erwartungen so manche Überraschung liefert und für uns zweifelsfrei ein Verkaufsschlager werden wird. Wir nominieren es deshalb für die Neuerscheinungen des Jahres 2025 in der Kategorie „Literatur“.

Publisher’s webpages:
https://www.stefancarstens.de

Distribution partner:
https://www.modellbahnunion.com

Schwere Fracht bei der Bahn

Das Unsichtbare im Fokus

Im März haben wir, anlässlich des Erscheinens eines Buches im selben Verlag, das Thema Schwertransporte bei der Bahn im Modell behandelt. Deutlich geworden sein dürfte das vielfältige Bild, wie schwere Lasten auf der Schiene bewegt werden. Auch ein Film widmet sich nun solchen Zügen und verspricht Spannung, doch rundherum überzeugt sind wir trotzdem nicht.

CFT Video Berlin
Schwertransporte
Außergewöhnliche Transporte auf der Schiene

EK Medien GmbH
Freiburg (Breisgau) 2025

DVD-Video
Bildformat 16:9
Tonformat Dolby-Digital 2.0
Sprache deutsch
Laufzeit ca. 58 Min.

Art.-Nr. 8681
Preis 22,80 EUR (Deutschland)

Erhältlich direkt ab Verlag
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Der Titel dieses Films legt sich eindeutig fest, was den Zuschauer hier erwarten soll, die Verlagsbeschreibung bezieht sich derweil ausschließlich auf die Bundesbahn. Beides geht, zumindest zu einem wesentlichen Teil, am Inhalt allerdings deutlich vorbei.

Schwertransporte sind schließlich Lasten, die wegen ihres außergewöhnlichen Gewichts oder einer Lademaßüberschreitung besondere Wagentypen oder Ausnahmeregeln erfordern. Damit ist die Erwartung des Käufers klar, wenn er diesen Film startet.

Tatsächlich aber bedarf es ganzer acht Minuten, bis erstmals ein solcher Zug im Bild auftaucht. Stattdessen sehen wir bis dahin Aufnahmen aus dem Kohle-, Erz- und Stahlverkehr. Gegen Ende des Films wiederholt sich das, ergänzt um Kieszüge. Allen gemein ist, dass mit ihnen hohe Zuglasten bewegt werden, aber sie bleiben nun mal durchweg im Rahmen des gewöhnlichen Regelwerks.

So bieten nur rund die Hälfte, maximal zwei Drittel der Spielminuten, das vom Titel Versprochene – allerdings nicht beschränkt auf die Zeit der Bundesbahn. Die kritisierten Inhalte wirken wie Füllmaterial und Wiederholungen, um die übliche Länge zu erreichen.

Das mag wie sehr harsche Kritik klingen, ist aber nicht wirklich so hart gemeint. Was wir zum versprochenen Thema entdecken, ist nämlich spannend und auch für den Modellbahner sehr aufschlussreich sowie wissenswert. Maßgeblich zum Einsatz kommen dabei historische Bundesbahnaufnahmen, worauf sich wohl auch die erwähnten Verlagsbeschreibungen beziehen sollen.

Zu erleben ist, wie wirklich alles, was überhaupt auf den Gleisen befördert werden kann, zuverlässig seinen Empfänger findet. Lastkraftwagen, Baumaschinen, Erntefahrzeuge und eben Panzer wie auch andere Militärfahrzeuge gehören dazu, wenn Schwerlastwagen der Regel- und Sonderbauart zum Einsatz kommen und häufig auch das Lichtraumprofil nicht eingehalten werden kann.

Besonders Militärtransporte haben zugleich auch eine besondere Aktualität. Aber auch Lokomotiven können nicht immer auf ihren eigenen Rädern transportiert werden und werden dann zum Ladegut. Häufig standen und stehen solche außergewöhnlichen Transporte im Zusammenhang mit dem Export und haben einen der deutschen Seehäfen zum Ziel.

Das sorgt für Vielfalt im Erscheinungsbild und optische Reize abseits des Alltäglichen: Motive, von denen auch eine Modellbahn lebt. Weitere Reize bieten auch die Strecken, die mit LÜ-Zügen (LÜ = Lademaßüberschreitung) befahren werden, denn dafür kommen nur bestimmte in Frage. Häufig vermitteln sie zugleich den Eindruck einer Nebenbahn und treffen auch damit den Nerv der Modellbahner.

Völlig aus der Reihe fallen aber die Transporte von Großtransformatoren mit Hilfe von Tragschnabelwagen. Hier sind es die historischen Sequenzen, welche die DB gezielt – vermutlich als Lehrfilm – aufnehmen ließ, um eben das zu dokumentieren und anschaulich zu machen.

Erklärt wird, wie diese Wagen mit dem Ladegut verbunden werden, welche weiteren Optionen sie für abweichende Ladegüter noch bieten und auch, wie die Tragschnabel-Brücken auf Straßenfahrzeuge umgeladen werden können. Was aber fehlt, sind Aufnahmen eben dieses Umladens.

Wir erleben die Reise auf der Schiene und auf der Straße, dazu das Abladen des Trafos. Beeindruckend ist, wie viele Kaelble-Fahrzeuge für ein einziges Ladegut dieser Art zeitgleich zum Einsatz kommen. Aufnahmen aus der Gegenwart schlagen eine Brücke zur Deutschen Bahn AG wie auch der heute auf solche Fahrten spezialisierten Spedition Kübler. Tragschnabelwagen mit bis zu 32 Achsen kommen dabei zum Einsatz.

Immerhin bis zu 18 Achsen zählen wir auch beim Transport von flüssigem Roheisen. Hier sind es die Torpedopfannenwagen von Krupp, die das Maximum bestimmen. Sie wurden bereits von Märklin ins Modell umgesetzt, ebenso wie Schwerlastwagen mit Thermohauben.

Auch diese Reise nach Duisburg und Bochum sowie ins Saarland fördert außergewöhnliche Aufnahmen zu Tage, die auch das Beladen des Torpedos mit 1.400˚C heißem Rohstahl zeigen, der anschließend zum Walzwerk gefahren wird. Die Aufnahmen reichen zurück bis in die ausgehende Dampflokzeit.

Dies ist das Material, was den Film so wertvoll macht, sei es nur zum Anschauen und Staunen, wie auch als Ideenquelle für die heimische Anlage und neue Motive, die authentisch umgesetzt sein wollen. Gerne hätten wir noch mehr davon gesehen, denn genau das spielt sich außerhalb dessen ab, was für Bahnfreunde öffentlich zugänglich ist.

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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.

Our film report and memorial service are well received:
As a long-time Zettie enthusiast (I built my first system in the late 1980s for a living room cabinet drawer, see attachment), I have been an avid reader of Trainini for many years and always look forward to new product presentations, test reports and the “Zetties and Trainini in Dialogue” section. Of course, I also watch the lovingly and elaborately produced films on Trainini TV.

Since Ulm is quite far south, I was unable to attend Trainini’s anniversary celebration, partly due to scheduling conflicts. This made me all the more interested in the reports in film, photos and words.

Photo: Michael Burkhardt

Reader Jürgen Lassauer summed up my feelings perfectly in his printed contribution, and I can only repeat: I was very impressed by the fact that the deceased were remembered in such a dignified manner and that space was given to faith in God and prayers for peace. It was truly unique!

I wish everyone who supports the wonderful hobby of model railways by working with Trainini all the best and God’s blessings!

Michael Burkhardt, Ulm

Lucky winner of the photo competition:
I’m so happy! I had considered other photo motifs for the anniversary exhibition, but with all the beautiful dioramas and models on display, it was really difficult to choose just one of my photos! I’m sure the jury felt the same way....

I would like to express my sincere thanks to you and the jury and congratulate everyone who contributed to the success of the Trainini anniversary exhibition. It was truly wonderful!

Klaus Lehmich, Vreden

All winnings with their recipients:
The winners of the **Trainini Photo Competition 2025** also have reason to celebrate, as all books have successfully reached their recipients. We were delighted to receive such positive feedback on the book prizes donated by Heel-Verlag (https://www.heel-verlag.de).

We would also like to thank all exhibitors who contributed to the success of our anniversary event. We were able to reward them for their commitment with the help of Mozart Blades (https://www.mozart-blades.com) and Uhu (https://www.uhu.com).

Our participants received a Solingen precision knife with ten replacement blades for model making and a selection of various standard and special adhesives for a wide range of tasks, as repeatedly used in our reports.

Insider-Modell 2026 published:
On 30 October 2025, Märklin announced the Insider Club models for 2026 and presented them at the trade fair in Friedrichshafen – in the case of Z gauge, however, only with a brochure and images from the CAD volume representation.

The model of the new Class 65 tender steam locomotive from the German Federal Railways is a good choice and will be a useful addition to the range. Please also refer to the article on train formation in this issue. This locomotive is a high-speed multi-purpose steam locomotive that was also used very successfully in push-pull train operations.

With the Essen 65 012 locomotive (item no. 83650), Märklin has selected a prototype that was suitable for use in push-pull trains and therefore dominated rapid transit between Essen and Düsseldorf for around ten years.

The 65 012 from Essen was chosen by Märklin as its 2026 insider club model. After a long time, a steam locomotive model has been released again for which a new chassis had to be developed. CAD representation: Märklin

The model complies with current production standards: it features a metal housing, bell-type armature motor drive and a chassis with fully movable detail control and replicas of brakes and sand pipes. A direction-dependent light changes between front and rear lights using LEDs has also been announced.

For the first time on a steam locomotive, Märklin has also created a detailed driver's cab with permanent cab lighting. Only members of the Insider Club can order this model.

Incidentally, the item number given is also correct: as there are no more free numbers available, the manufacturer has now also opened up the 83 number range for locomotive models. Further vehicles will probably be added in this range soon.

Obituary for Axel Pieke:

We were saddened to hear that our model railway friend Axel Pieke passed away on 15 October 2025 at the age of only 55. Axel worked at the Hans Böckler Vocational College in Oberhausen.

Axel Pieke († 15. Oktober 2025). Foto: privat

He also devoted his free time to Z gauge for many years. Even before his job-related move to the Ruhr area, he was well known, respected and active at the club in Bremen.

His employer's colleagues praise him as a person with heart, intellect, and integrity – an impression that we also gained from conversations and professional exchanges.

Readers of our magazine encountered him at the Spur-Z weekend in Altenbeken, where he has also exhibited in the past. He then presented the construction of his layout "Versuchs-Quadratmeter 2.0" (test square metre 2.0) in **Trainini®** 4/2019, striking a chord with Zetties. We also dedicated the cover photo to him.

Now, sadly, we must say goodbye, but we will keep him in our memories. Our deepest sympathy goes out to his siblings and other relatives.

At the end of the aforementioned article, film clips are provided as references that will certainly contribute to his memory. It can be accessed without registration at the following address: https://youtu.be/T97G7KKC-xk.

Winter at Yellow Dwarf:

Saunas can contribute to well-being and strengthen the immune system, especially in cold sub-zero temperatures and snow. Yellow Dwarf (https://www.yellowdwarf.eu) probably thought so, too, and has added a garden sauna with accessories (item no. 60388) to its range.

Garden sauna with accessories (item no. 60388; left image), garage (60420; centre image) and old wooden cart (60304; right image). Photos: Yellow Dwarf

The new garage (60420) also belongs in the domestic environment. It is a replica of a prefabricated concrete garage with an upward-opening door, as has been common in western Germany for several decades. Several of these models can be built next to each other, and when the door is open, they offer a glimpse of many a motorised treasure.

These are certainly no longer the old wooden carts (60304) that tend to wait in a farm barn for better times or, once restored, create a nostalgic atmosphere, for example in the vicinity of a farm shop. Remember our pumpkin farm, where a ladder cart would certainly also be suitable as a sales decoration for the crops.

TGV now in delivery:
On 31 October 2025, the TGV Sud-Est (south-east) trains in both colour schemes were completed by Azar Models (https://azar-models.com) and were shortly afterwards prepared for dispatch to the pre-financiers (world record train version) and dealers.

The first analogue versions have now reached their recipients, and the digital versions are expected to follow shortly. In both cases, the orange original livery (item no. T01-OR1) and the Atlantique design (T01-AB1) are available in a seven-piece version.

The TGV Sud-Est is now available in both versions, shown here in the original orange version. Photo: Azar Models

Three additional carriages are available separately to form a complete train (T01-OR2 / T01-AB2). The drive is installed in one of the two power cars, with power being collected at the axle tips in each centre carriage and power car.

Switching functions are implemented in the power heads via locomotive and function decoders, while the interior lighting in the intermediate carriages is permanently switched on, revealing the interior fittings. The drive is provided by a bell-type armature motor, and the front ends feature three white headlights or two red tail lights.

The fine current collectors, made of injection-moulded plastic, have been redesigned and will also be used in other models. Another special feature is that two TGV units can be coupled together and used jointly in the model.

The series models were first shown at the beginning of November at an exhibition in Chambéry, France, at the Azar Models stand.

New presence for Z-Otti:
Hans-Jörg Ottinger has separated his purchase offer under Z-Otti from the previous pages and transferred it to its own subdomain (https://shop.z-otti.de). There, the “Replacement Set for the Rail Zeppelin” (item no. ZUB-2511-Zepp-Set-1) includes the motor mount for a bell-type armature motor, including ball bearings for the propeller shaft.

Three replacement propellers and a gear wheel with worm gear for the drive section are also available as optional extras. The conversion kits are based on Märklin parts, which must be purchased separately and, when used in conjunction with these accessory sets, result in significantly smoother running of the drive and propeller.

Dust fairy now in Version 3.2:
Franke WF (contact via Franke.wf[at]web.de) informed us of a further product update, which has now led to the revised Staubfee 3.2. In episode 47 on Trainini TV, we are currently showing the use of version 3.0, which looks almost identical and is used in exactly the same way.

The wind turbines, the larger of which can be seen behind the intake opening, are printed in resin on the Staubfee 3.2. The interior is lined with nano adhesive tape, offering the air flowing through less resistance.

However, the update has once again increased the efficiency of the device. This is mainly due to the new wind turbines, which are now printed in resin and generate less turbulence thanks to thinner print layers and smoother surfaces, making the blowing airflow even more powerful.

The interior is now also partially lined with nanoband, allowing air to flow through with minimal resistance. The proven ball bearing on the propeller shaft has been retained to ensure smooth running.

The Trainini Photo Calendar 2026 is now available:

The year is drawing to a close, which means it's time once again for 13 beautiful Z gauge motifs, colourfully mixed according to era, traction type and country. This is exactly what the new **Trainini Photo Calendar 2026**.

It has been available in both German and English since 23 November 2025. As always, it is provided electronically for self-printing. Our readers can print out a paper version up to DIN A3 landscape format (42 x 29.7 cm). We hope you enjoy it!

Micro-Trains sold:

Surprisingly, the following dealer information from 19 November 2025 on the future of Micro-Trains arrived:

“Atlas Model Railroad Company is pleased to announce the acquisition of substantially all of the assets of Micro-Trains Line Co., a highly respected market leader in N and Z scale model railways, couplers and accessories. Effective 17 November 2025, Micro-Trains products will continue under the name “Micro-Trains by Atlas” as we complete a brief transition period. Current inventory will remain available through your usual Micro-Trains distribution channels.

This acquisition preserves the heritage and reputation of Micro-Trains, while strengthening Atlas’ commitment to the N and Z gauge communities, and the hobby industry, in general. We look forward to continuing our successful collaboration.”

What is phrased so positively here actually means the end as a manufacturer and company: the term “assets” only refers to the forms, other equipment and intangible assets such as trademark rights. It does not mean the continuation of the company at its location in Oregon, and, therefore, probably also does not mean the continued employment of the workforce.

In fact, we only know Atlas as a company that manufactures in the Far East and, to our knowledge, does not maintain its own production facilities in the United States. The initial reactions from the N gauge sector that we heard were correspondingly cautious.

Although Micro-Trains may have lost considerable ground in the Z gauge market over many years due to a lack of new designs and ceded its original importance to AZL, the company continued to enjoy a good reputation and market significance in the “nine” gauge segment.

The now expected closure of the plant, dismissal of staff and probable shipment of tools to China was apparently not well received there. Comments from customers revealed concerns about affordable products, particularly in light of current customs policy, while at the same time there were fears that manufacturing quality could also suffer as a result of such relocations.

Märklin deliveries during the Christmas season:

In keeping with the season, Märklin has released the “Beet Transport” train set with V 36 005 from the Grafschaft Hoya transport company (item no. 81773) and three open wagons of the Eo 017 type. The delivery also includes a hard cardboard kit for a mobile beet loading facility.

Supplementary wagon "Beet Loading" (item no. 82396) including close-up of the included load.

Using the example of the two open Eo 017 (82396) type supplementary wagons, we can see here how convincing the replicas of the sugar beet loads appear. They are made from an apparently treated natural product.

The high-speed locomotive 103 113-7, a vehicle belonging to the DB Museum (88546), has also arrived in stores. This version of the machine, with its purple-red painted frame, comes in a wooden box. The housing has been injection moulded from metal-filled plastic to increase weight and traction performance.

Winter addition from Panzer-Shop.nl:

For orders over € 50.00, Panzer-Shop.nl (https://www.panzer-shop.nl) is once again offering a free "Christmas set" this year. It features a family of four building a snowman. It also includes a children's sledge that can be parked next to the scene.

The current deliveries of AZL:

The focus of November deliveries is on models based on Amtrak designs. These include the EMD FP7 (item nos. 65317-1 / -2) and the EMD SW1500 shunting locomotive (62714-1 / -2). The ALCO RS3

EMD SD60 of the NY&SW "Susquehanna" (item no. 65027-1; photo left) and GE AC4400CW of Canadian Pacific (65201-1; photo right). Photos: AZL | Ztrack

(63329-1 / -2) is still in phase I and has not yet been given a new colour scheme. Only the name written on the black locomotive body indicates the new owner.

We do not list the Zephyr passenger coaches (with different operating numbers) individually. There are around 30 different sleeping, luggage, observation, dining, seating and end cars to choose from. The Ortner bulk freight cars are now also on the road for Amtrak and are available as a double pack (905361-1 / -2).

The green compressed air discharge cars of Burlington Northern (916040-1; photo above) are appealing, while at the same time a new design is rolling in with the Auto-Flood III bulk cars, labelled for BNSF in the first edition (905702-1). Photos: AZL | Ztrack

Next up is the GE AC4400CW for Canadian Pacific (65201-1 to -3) and the EMD SD60 for NY&SW “Susquehanna” (65027-1 / -2). The Trinity tank cars are enhanced by a version for Abengoa Bioenergy, either individually (905513-1) or in pairs (915513-1). Four-car (906010-1 / -2) and double combinations (916040-1) are offered by the compressed air unloading cars in the green design of the Burlington Northern.

The newly designed Auto-Flood III bulk freight cars, which are delivered to BNSF in their first edition including removable cargo, are based on new moulds. This type of car is available in double (905702-1) and four-packs (915702-1 / -2). A single 40-foot container from China Shipping is also available (95223).

Separate pages for Simateck Modellbauhilfe:
For several years now, Michael Smolinski has been offering very well-designed assembly and repair aids for working on Märklin steam locomotive models. We have also briefly presented them and are planning more detailed reports on them.

Meanwhile, he has been able to steadily expand his product range and has developed a well-thought-out concept based on a modular system. It was therefore time to finally create an overview page for ordering under his company name, Simateck Modellbauhilfe.

Interested parties can now find these via our list of links or directly at the following address: https://modellbauhilfe.de.

Little wonders from Artitec:
The new figures “DB Depot Personnel Cleaning” (item no. 522.0020) from Artitec (https://artitec.nl), which depict three railway workers from a depot, are a valuable addition to the range. For example, the shed stoker is holding a shovel in his hand, while his colleague is lubricating a bearing with a grease gun. Figures like these have been missing from the Z gauge range until now.

The new figures “DB Depot Staff Cleaning” (item no. 522.0020) also appear very lifelike, as their poses are taken from real life.

Following the two-way excavator, the Atlas 1302 has now also been delivered as a standard wheeled excavator (322.044). It is suitable for construction sites away from railways and, with its orange paintwork, conveys the familiar impression of being used.

This view from the rear at an angle really shows off the fine details of the Atlas 1302, which Artitec (322.044) has now delivered.

This model has also been extensively detailed and elaborately labelled. It thus seamlessly continues the series of top products from recent years. We are nominating this item for the new releases of 2025 in the accessories category.

Christmas tree season begins:
From 24 November until 27 December 2025, the world's smallest Christmas tree will once again be on display in Dortmund. The recognised world record holder for artificial trees, which has held the title since 2007, has found a new home in the window of Galerie Lamers at Kleppingstraße 8, right on the edge of the Christmas market.

The smallest Christmas tree in the world is now on display again in Dortmund.

First Herpa announcements for 2026:
The supplier of car and aeroplane models from Dietenhofen has announced its first new products for January and February 2026. It is thus following its usual rhythm, with the theme being new designs that are not yet possible and are

only expected to be unveiled at the Nuremberg International Toy Fair.

Once again, we have selected 1:200 scale aircraft models with a maximum length of 30 cm that can be used on layouts based on Central European themes:

Air France Douglas DC-4, revised edition (Art.-Nr. 571104-001),
LOT Polish Airlines Embraer E195 (573825), and
Canadian Armed Forces De Havilland Canada CC-132 (DHC-7; “Lahr airbase” / 573856).

For football fans, the season continues with the “BVB Team Airbus” A320 in the current 2025 Eurowings livery (573764). This is also available as a less detailed snap-fit model (614568).

The current Eurowings “team Airbus” A320 for Borussia Dortmund (item no. 573764) is now being added to the Herpa range. Photo: Herpa

The following Snapfit models are also available:

Alitalia Airbus A330-200 (610933-001),
Icelandair Boeing 737 Max 8 (614641), and
Condor Airbus A321neo “Island” (614726).

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