

International Edition

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

www.trainini.eu

Published monthly
no guarantee

ISSN 2512-8035

Trainini

German Magazine for Z Gauge



TGV Sud-Est from Azar Models

Building Bridges with Noch
Annual Review 2025

Introduction

Dear Readers,

I would like to begin my first lines with a cheerful New Year's greeting to all our readers! I am not the only one who is delighted that you have found your way back to us again this year!

And now I come to the main topic of this issue: the French TGV is not just any train, which is why we have summarized its history. It was the pioneer of high-speed rail transport in Europe, rightly a source of national pride and an ambassador for safe rail travel.



Holger Späing
Editor-in-chief

It is certainly no exaggeration to say that our train was just what was just all we needed! Of course, I mean that in the best sense of the word, but a few years ago, no one would have expected it.

The market for the 1:220 scale in France first had to be developed, because the few Märklin models, which were all derived from existing designs, were not going to attract Zetties in large numbers.

Azar Models approached this with passion and skill, and we were able to follow this success story from an early stage. Nevertheless, we considered it a great risk to attempt the huge investment in the first TGV series generation with crowdfunding.

But the project was a success, proving that the time is ready for it. We are delighted about this, as it represents a milestone in our gauge. Therefore, there was no question that this innovation would also have to undergo our testing. You can now find the results, described in great detail, in this edition.

We have also found some relevant literature on the subject. The current selection in German is very sparse, but at least it offers an introduction to the topic. Unfortunately, the best title on the subject can only be found in second-hand bookshops – but it's worth searching for.

Next month, we will describe and present all the new products for spring 2026 in detail. Before that, it is our tradition to look back and review the past year. Only in this way can we truly appreciate how much has happened in twelve months and how our hobby has developed.

Accordingly, we did not want to make an exception in January 2026 and remain true to this tradition. For us, it is also special in that we have a big anniversary year behind us, which should have a long-lasting impact.

However, we didn't want to go through the main season without any construction topics at all. The test of the Intellibox 3 from Uhlenbrock had to take a back seat once again to give it the space it deserved. Instead, beginners among our readers can rejoice, because we have selected a kit that is almost perfect for a first project. Have fun with it and enjoy reading this edition!

Sin-Z-erely,

Holger Späing

Editorial

Introduction	2
--------------------	---

Model

Exceptional Project	4
---------------------------	---

Prototype

Quickly to Success.....	19
-------------------------	----

Design

Stone upon Stone.....	27
-----------------------	----

Technology

Currently no items

Literature (not translated - only in German)

The TGV Success Story from A to Z	33
Railway Journey around the World	35

News

Something special lies behind us	37
Zetties and Trainini in Dialogue.....	47

Imprint	62
---------------	----

We thank for the loan of the test model for today's article.

Date of publication of the German language version of this issue: 30 January 2026

Cover photo:

The TGV unit 46 passed in front of the photographer's lens during a brief stop. The train, one of the first TGV Sud-Est mod-els, already features the Atlantique livery of its successors. In this case, the miniature is still a prototype.

The TGV SE from Azar Models

Exceptional Project

French TGV trains are exceptional, are known worldwide, and are also very popular with model railway enthusiasts. The new Z gauge model from Azar Models is also exceptional, as it was financed in an innovative way. Today, we would like to find out whether the result, in the form of the TGV Sud-Est, can prove itself in operation on the layout.

A few years ago, the young manufacturer Azar Models from France announced a model of the TGV Sud-Est, with which the SNCF began scheduled high-speed transport in 1981, as a Z gauge model. This decision seemed very bold, as a market first had to be established in France, while demand in Germany seemed questionable.

After all, only a few trains were equipped for the electrical system commonly used in Germany, and none of them had German safety devices. According to the schedule, there were only connections beyond France to Switzerland. Would its prestige effect alone be enough for economic success?



With the supplementary pack (item no. T01-OR2), the TGV Sud-Est has ten cars and is therefore the same length as the prototype. Three first-class cars are then lined up between the power car and the bistro car, as can be seen here.

When the train was first announced, Azar Models was still working with 3D printing as its technical basis. It quickly became clear that a switch to plastic injection moulding was necessary because demand for the company's own cars was rapidly increasing.

For TGV, however, this also meant financing a train that required four different housing designs. Other components required their own tools. It quickly became clear that the expected costs would exceed the EUR 100,000 mark.

Azar Models boldly forged ahead and seized upon an innovative idea that made the economic risk calculable: customers would pre-finance a large part of the toolmaking and production costs.

In this form of mass pre-financing (known as “crowdfunding”), customers become lenders and receive agreed services from the debtor in return. In this case, it was the exclusive receipt of a limited special edition of the 16 set, which set the world rail speed record of 380 km/h on 26 February 1981.

The plan worked: after a hesitant start, the required minimum number of participants who made a binding contribution was reached; it was even slightly exceeded. This secured the financing and the manufacturer initiated the next steps.



Painted and lettered models of both trains were on display at the **Trainini Anniversary Exhibition 2025**. This gave our readers an idea of how attractive the train looks in the Atlantique livery, which is not discussed further today.

At the **Trainini Anniversary Exhibition in 2025**, we were able to show our guests production approval samples of this very set 16 and the 46 multiple unit in the later Atlantique design. A few colour changes were made for series production, but nothing stood in the way of the ambitious plan.

The seven-piece world record set 16 (item no. T01-WR), which we were able to use for our test, as well as the orange (T01-OR1A) and blue-silver-grey standard versions (T01-AB1A) were produced as analogue catalogue models. Digital versions (T01-OR1D / T01-AB1D) are also available ex-works.

The basic unit always consists of seven parts, but leaves space in the deep-drawn insert for three additional cars so that a train of prototypical length can be inserted. An additional 1st class intermediate car and two 2nd class cars are available separately as expansion packs in both colour schemes (T01-OR2 / T01-AB2).

We would like to point out that our test was carried out with an analogue version of the seven-piece set without extensions. Since the length and weight specifications for a train refer to a ten-piece set, we have extrapolated the values determined from the individual data accordingly. The speeds were measured using the Halling Modelle MTS-100, with a light barrier.



Today, we tested a seven-piece set from the limited special series for pre-financiers (T01-WR), which is based on the world record train from 1981 with the number 16.

Pride and exclusivity

The special series we are allowed to test conveys France's national pride in its trains, whose successors still hold the "Blue Ribbon of Rail" today, through its distinctive packaging.

Although all model sets can be accommodated in a ten-piece unit in a thermoformed insert, the appearance of this box differs from the usual Azar Models design: it is completely orange and has white lettering.

It depicts a silhouette of a TGV train and refers to the world record set on 26 February 1981. The speed is also indicated on the flap on the long side. Information about the model can only be found on the underside, where grey is also used as an additional printing colour.

The seven-piece set rests in a thermoformed insert made of colourless, transparent plastic inside the box. Both power cars (M1 / M2) and all intermediate cars of the articulated train (R1 / R2 / R4 / R7 / R8) are individually inserted into it.

R4 is the bistro car, which has two Jacobs bogies, while the middle cars R 2 and R7 each have one. On top are brief instructions, a numbered certificate of authenticity and a folding map showing the world record.

The sight makes us look forward to the upcoming test, because at first glance everything seems to be just right: there are no noticeable colour differences between painted and unpainted plastic parts.

Dimensions and data for the TGV Sud-Est (23000 series) of the SNCF:

	Prototype	1:220	Model
Train length over bow flap	200.190 mm	910,0 mm	935,4 mm*
Length of drive head (M1 / M2)	22.150 mm	100,7 mm	101,0 mm
Length end carriage (R1 / R8)	21.845 mm	99,3 mm	101,2 mm
Length intermediate carriage (R2 – R7)	18.700 mm	85,0 mm	87,0 mm
Height above rail head (Wagen)	3.420 mm	15,5 mm	15,6 mm
Vehicle width	2.814 mm	12,8 mm	13,0 mm
Pivot distance (M1 / M2)	14.000 mm	63,6 mm	63,5 mm
Bogies	3.000 mm	13,6 mm	13,0 mm
Wheel diameter	920 mm**	4,2 mm	4,4 mm
Service weight	418,0 t	---	145,1 g*
Train composition	M1 + 8R + M2		
Axle layout	Bo'Bo' + Bo'2'2'2'2'2'2'Bo' + Bo'Bo'		
Power	6.450 kW		
Permitted maximum speed	270 km/h (later 300 km/h)		
Years of construction	1978 - 1985		
Number produced	109 + 3,5 Copies		
Manufacturer	Alstom / Francorail		

* ten units (seven-piece set: 674,4 mm & 106,1 g)

** during world record attempt 1.050 mm (4,8 mm)

The paint colours used, including the colour scheme, are true to the original, have been applied with sharp edges, and even the many windows show no gaps; the panes are flush with the exterior. This allows us to easily see the uniform medium grey interior of the articulated elements.

Compared to those of the German Federal Railways, the operating markings are sparse, but they are applied in flawless white using pad printing. They include markings for lifting points, weight specifications and home location, as well as operating numbers.

Below the driver's cab side window, we can clearly see the number 16 of this set, the operating number TGV 23031 on both sides of the frame of both power cars, and TGV 23016 on all intermediate cars. This follows the SNCF scheme, in which

the respective operating number is part of the five-part series number (here 23000).





On the door and to the side of it, we find information about the car class and the features of the car, although this is no longer completely legible. In the orange area next to the window, there is a mark indicating a lifting point.

Image on page 7:

The few operating markings on the power cars include the operating number and home station (to the left of the skirt cut-out) and the number of the train set.

On the connecting cars, we see the class numbers in a thin white frame on the side next to each door. Another field with pictograms, which provides passengers with information about the respective car, is no longer legible.

A (fairly) modern train requires comparatively few add-on parts, as aerodynamics played a decisive role in its exterior design. Classic protruding components such as grab rails have been recessed in the prototype so that they do not cause air turbulence.

We therefore only find what we are looking for in the roof area of the power cars, where cover plates in front of the pantographs had to be moved separately. The insulators at the ends of the power cars and on both sides of the articulated elements are also among the parts that protrude above the car bodies.

They have been very finely crafted, feature sharp engravings, and, therefore, catch the eye in a positive way. In the prototype, the concealed, continuous high-voltage line is continued from car to car at these points. This is particularly relevant with regard to the power supply from the overhead line, which will be discussed again shortly.

continued on page 10



Image above:

The front flaps are designed as removable plug-in parts and could therefore be adapted to both versions. Originally, they bore the lettering "SNCF", but later versions of the coupling covers did without this.

Picture below:

Azar Models used this to conceal a pin under the plug-in part, which, with the help of the enclosed part, also allows two sets to be coupled together. This was common on the prototype. The connecting rod also realistically replicates the two connected Scharfenberg couplings.

Another noteworthy feature is the front hatch on each power car. On the prototype, these could be opened sideways to reveal the Scharfenberg coupler, which could be used to couple two TGVs together.

Azar Models has actually given this some thought and designed removable plug-in parts. This made it possible to take into account the two different operating time designs, but also to use the open shaft to connect two model sets. A coupling rod that can be plugged in there is included with the train ex-works.

The pantographs on this new model also deserve special attention. They are a new design that will also be used on other models. Azar Models has explicitly stated this, but it can also be seen from the samples displayed at exhibitions.



The single-arm pantographs were redesigned for the TGV, but are also to be used on other models in the future. This is probably why Azar Models opted for the DC version, even though the two models looked different in the prototype.

The first thing we notice is that the power cars are each equipped with two identical single-arm pantographs – without suspension in the model. This does not follow the prototype (see prototype article), but is acceptable as a compromise, in view of the considerable additional costs. Compared to the previous model, the colour here, as with the bogies, has been chosen to be darker.

On a positive note, the injection-moulded parts, which are made entirely of plastic (presumably POM), are mechanically functional when assembled. At the same time, they appear to be considerably more stable than those used by Rokuhan in their 1812 series. Although they are not of the same type, their basic design and functionality are quite comparable.

The pantograph structure, diagonal stiffeners and rocker with contact strips correspond exactly to the Faivelay AM DC version for DC operation below 1,500 volts. Unlike the TGV's AC pantographs, it is, therefore, also compatible with the locomotive models already announced.



Between the motor car (right) and the end car of the articulated train (left), we find a prototypical reproduction of rubber bulges, rectangular buffers and a hint of a screw coupling.

For model railway enthusiasts who want their models to be as true to life as possible, this raises two points: those who want to minimise any noticeable deviations from the real thing should display their models in direct current mode, as in real life. This also fits in with the fact that pure high-speed lines with their typical features are rarely replicated in Z gauge – the old SNCF network provides the perfect template.

The second point that arises from this is which pantographs need to be ironed on and when: the AC version is located at the rear end of each power car, while the pantographs pointing towards the front of the power car are used for DC operation.

When supplying the train with 1,500 V=, the corresponding pantographs were extended on both power cars; in alternating current operation, one was sufficient, usually the one at the rear of the train. The front power car was supplied from the continuous high-voltage line.

The technical perspective

We are accustomed to Azar Models adhering as closely as possible to the original dimensions when converting to a scale of 1:220. This is essentially part of this manufacturer's brand identity. We can clearly see this design philosophy at work here once again. Where the deviations listed in the table cannot be explained by measurement tolerances, we will now explain them.

This affects some length measurements; in addition to the overall length, the elements of the articulated train (R1 to R8) are particularly noticeable here. One of their basic features is that they rest on a Jacobs bogie, at least at one end. The measurement specified for the prototype and referenced in the miniature always includes half of this.



The dimensional deviations shown in the table are mainly due to the non-standard carriage spacing, which adds up over the entire length of the train. This is obvious between the power car and the articulated train (top photo), while the Jacobs bogies of the intermediate carriages conceal it well (bottom photo). The good implementation of the bogies with their respective details is noticeable in both photos.

In order to ensure sufficient curve performance and the necessary smooth running on curves, it is often necessary to set slightly larger distances between cars in Z gauge. Due to the closed train formation, this is not noticeable when viewing the train, but it is nevertheless verifiable.

This is only immediately visible between the power cars (M1 / M2) and the adjacent end cars (R1 / R8), where two end bogies face each other. The coupling here is based on the principle of hook (car) and eye

(power car). The excessive gap can also be seen here in the replicas of the rectangular buffers and rubber bulges, which touch each other on the prototype.

Calculated over the entire length of the train, the deviations add up significantly – a phenomenon that almost always has a negative effect on long multiple units. Nevertheless, the solution for the Jakobs bogies can be considered good, as it works perfectly: pins mounted on both sides are inserted into shafts at the ends of the cars, where they lock into place.

This makes the bogie's guidance very similar to the prototype. It also makes the units just as easy to separate as they are to connect. In testing, the connections always remained secure. The locking mechanisms on the underside of the car floors are designed differently, which indicates which side the user needs to release – we will come back to this in a moment.

Incidentally, the Jakobs bogies are equipped with replicas of the air suspension that was only added to the original model after modifications. They do not match the orange train set that set the world record, as steel springs were still the standard at that time. This reproduces a much later operating condition. Here, too, we accept the economic necessity of having to commit to a uniform design.

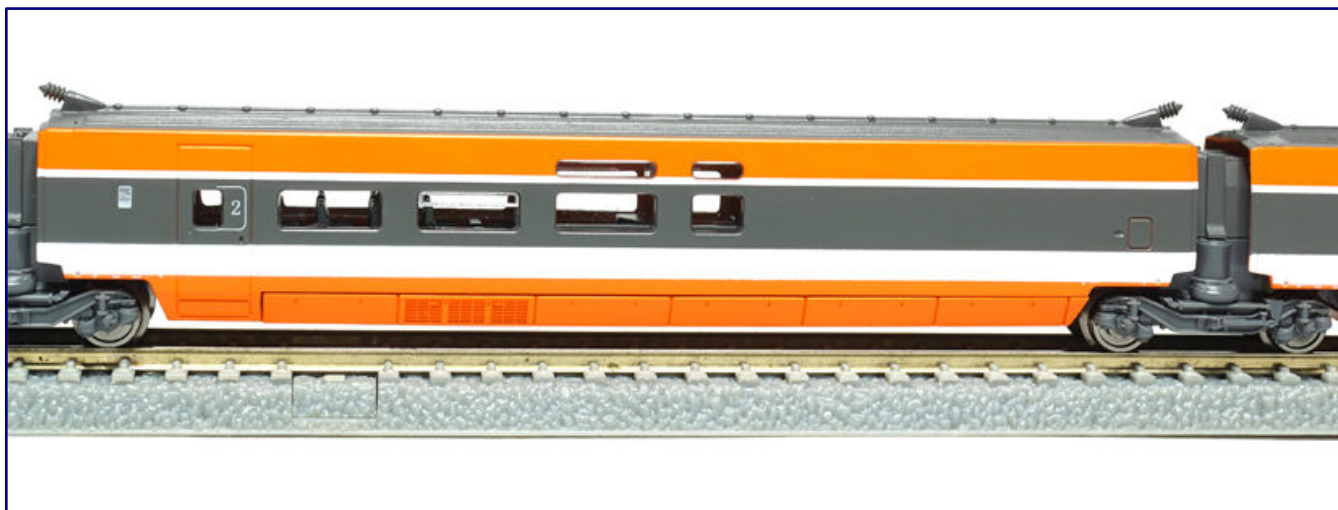


The removed housing allows a view of the interior, which features a number of details. The lighting board with its three light-emitting diodes is powered by the bogies.

The chosen wheel diameter also does not reflect the world record ride! In our opinion, the very slight difference from the correct standard series measurement is negligible, as it is common practice in the market. The most suitable part from the existing modular system is regularly used.

All bogies deserve praise, by the way. Both those that replicate powered bogies and those that replicate pure running bogies are reproduced in outstanding detail. Sharp contours ensure a true-to-life impression and allow important functions of the prototype to be recognised.

The power consumption is also very reliable and functional. It is supplied to all axle tips without any measurable running resistance. In articulated trains, this is used to supply the light-emitting diodes for



The bistro car, recognisable by an additional row of windows at the top, forms the centre of the train. At this point, the polarity of the supply voltage for the interior lighting changes, which is taken from the two adjacent bogies.

the interior lighting, however, due to the lack of an electrical connection to the power car, it cannot be switched in digital mode. In our test, it worked absolutely flicker-free.

The same applies to the three-light head signal and the two red tail lights on the power cars, which, unfortunately, are not visible immediately upon departure. Compared to the samples exhibited in October, the lamp housings for the transparent parts in the series were designed in white, which had a positive effect on the overall impression.

These are also powered independently by the power consumption in the respective motorised end car. Only one of them is powered; they are not electrically connected. As a result, powerless signal sections on the analogue-operated layout can only be used when the motorised end car is leading the train. A diode circuit, as is common with Märklin, is not used here.



For direct comparison with the bistro carriage, we show one of the other middle carriages here – in this case, the 1st class carriage. Here, too, the interior design catches the eye.

The concept chosen by Azar Models for the car sequence and power supply for the interior lighting has a special feature, which is also noted in the instructions. Each Jakobs bogie always supplies both connected cars with both electrical poles.

The bistro car is special because it represents the point in the train where the polarity of the power supply changes. It is always stored with two Jakobs bogies inserted. For all other intermediate cars, it is important to ensure that the side marked for separation on the car floor is observed. Otherwise, there is a risk of a short circuit.

Operating

The TGV is equipped with state-of-the-art technology: it is powered by a bell-type armature motor with two flywheels, which are located to the right and left of it on the two shafts. Cardan shafts transmit the driving force to worm gears, which in turn drive spur gears, thereby driving all four axles.

The two outer axles of the motorised drive head are each equipped with a traction tyre, which are offset diagonally to each other. This is to ensure maximum traction in both directions of travel. In fact, our seven-part test unit was even able to overcome a five-per-thousand gradient without any problems – i.e., a gradient well above the recommended maximum values.



Inside, a 12 V bell-type armature motor with two flywheels drives the spur gears of both bogies via a cardan shaft and worm gear. For optimum traction, a traction tyre is fitted to each of the two outer axles.

Even at a track voltage of 0.3 volts, the train set started moving at a speed equivalent to 1.7 km/h on level ground. We determined that safe switch movements, with the lowest continuous driving voltage, occurred at 2.1 volts with a speed equivalent to 61 km/h.

In our opinion, this would also have been possible at around 1.5 volts and thus at a significantly lower speed. The limits here were set by the tapped transformer voltage and, with it, insufficiently sensitive controllability on the speed controller.

The train reached its original maximum permissible speed of 270 km/h at a track voltage of 6.5 volts. At a nominal voltage of 10 volts, we measured 441.6 km/h. This means that both prototypical high-speed transport and the world record journey can be simulated with this model.



The circuit board of the power heads is factory-equipped for connection of a D&H DH05C decoder. Suitable installation space is also provided under the housing.

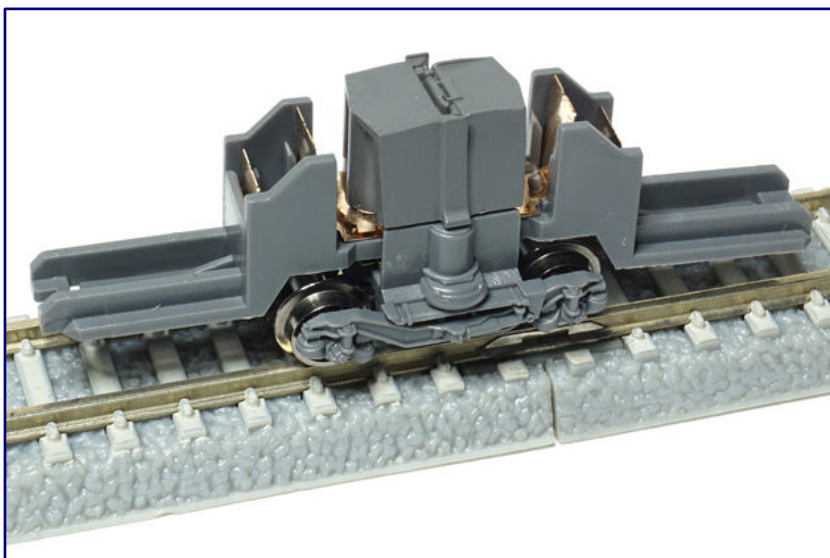
The only slight drawback is that light emission at the front and rear of the train is only noticeable from 2.8 volts onwards. The interior lighting reacts a little earlier, but only well after the train has started moving.

From a maximum model speed of 270 km/h, the flywheel masses help the train achieve a run-out of 9 cm. This is still a manageable value, but it should be sufficient to prevent derailments in the event of a sudden power failure. At the same time, it should ensure that powerless sections are not crossed, causing a collision.

The current consumption in the test was between 31 and 45 mA depending on the driving programme, which is within the expected range. At full load, it rose to 65 mA, causing the wheels to spin and thus protecting the motor from overload and damage.

This summarises the results of all test disciplines: with the choice of model, an icon of railway history has found its way onto Z gauge tracks. Azar Models has reproduced it as true to scale as possible without compromising on operational safety.

With interior fittings and lighting, as well as the enclosed coupling rod for joint operation of two trains, the model is superbly equipped and leaves nothing to be desired. The solutions found for the special challenges of this train, together with the paintwork and lettering, are also very appealing.



One of the Jakobs bogies with vertical contact plates for connecting the two poles for the interior lighting.

The compromises made in the design of the single-arm pantographs and the air suspension of the bogies are easily overlooked given the price-performance ratio. The safe and recognisably prototype-based running performance also contributes significantly to this, although it would have been desirable for the lighting to respond more quickly.



The seven-part TGV world record train set 16 is travelling through a fitting landscape backdrop on a demonstration run for the public.

However, we would also like to note that our tests are carried out uniformly with the same Märklin transformer, which outputs pure direct current. We have not checked whether, for example, permanent lighting can be regulated on a Rokuhan speed controller. For this reason, this point only has a minor influence on our rating.

Since our test did not reveal any real weaknesses in this model, it can be described as affordable in comparison to other products on the market, and fills a gap in the range, especially with regard to the growing market in France, while also being well received in Germany. We are therefore nominating this train set for the best new releases of 2025 in the locomotive category.

Manufacturer of the models:
<https://azar-models.com>

„Überholstelle Lamerden“

Teil 6

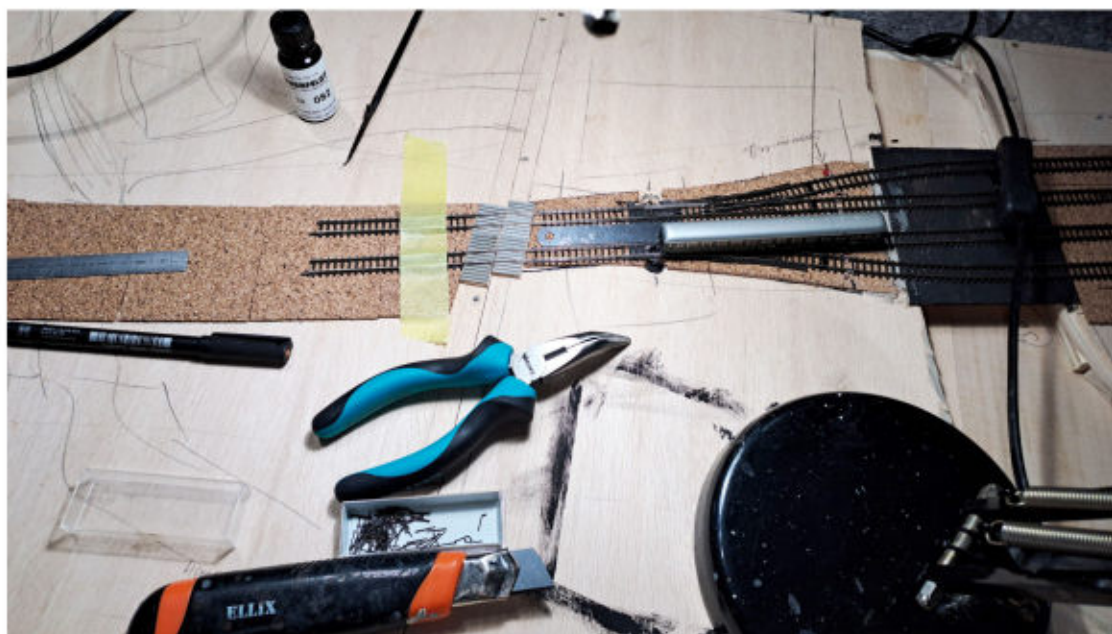
Gleise verlegen - Teil 2 - Gleisverlegung im sichtbaren Bereich von Lamerden

Entgegen den strengen und vorgegebenen Geometrien der Märklingleise werden wir im sichtbaren Bereich von Lamerden in hoher Prozentzahl mit den Flexgleisen arbeiten. Ein erster Schritt ist das Einschneiden des 660 mm langen Schwellenbandes, für unser Vorhaben reicht ein Schnitt alle 10 mm. Umso heftiger der Radius/ die Kurve wird, umso mehr Einschnitte sind wechselseitig notwendig.

Eine weitere Vorbereitung sind die notwendigen Kabelanschlüsse an den Schienen. Hierbei reicht schon ein handelsüblicher 20 Watt Lötkolben mit möglichst feiner Spitze. Aus optischen Gründen löten viele Modellbahner ihre Anschlüsse an die Unterseite der Gleisprofile. Dazu muss ein wenig des Schwellenbandes entfernt werden. Ich bevorzuge die Stromeinspeisungen an den wenigen fertig konfektionierten Schienen im Gleisfeld und lasse dabei die Flexgleise aus. Eine weitere Möglichkeit ist die Anbringung des Kabels an der Flanke des Gleises, dies bietet sich dem reisenden Modellbahner an, welcher bei Defekten auf Ausstellungen einen schnellen Zugriff haben möchte. Falls sie noch ein wenig unsicher mit dem Lötkolben sind, so kann ich nur einen Gang zu einem Modellbahnverein empfehlen oder ein Bastler im Freundeskreis aufsuchen.

Lesen sie weiter auf der Website zum Projekt unter:

https://www.1zu220-shop.de/Projekt2025:_123.html



Beachten Sie auch unsere Angebote auf www.1zu220.de !

The TGV SE of the SNCF Quickly to Success

France is not only home to the 'Blue Ribbon of Rail,' but also played a pioneering role in high-speed rail transport in Europe. The TGV concept gained momentum here in the 1960s and was ready for series production in the 1970s. The first generation entered regular service in 1981, and we want to focus on this today.

After the Second World War, France quickly established itself as a pioneer of high-speed transport using electric traction. While the railway had always been associated with the pursuit of higher speeds, the focus before 1945 was primarily on steam locomotives.

Germany's neighbour had already begun electrifying its railways in the 1920s (1,500 V=) and therefore shifted its focus now to electric locomotives. The aim was to deliberately explore the limits of technology and the wheel-rail system. The findings could then benefit the reviving long-distance transport sector with new trains.



By 1985, high-speed rail transport had long been established in France. Three TGV Sud-Est trains are waiting for passengers here at Paris Gare de Lyon. Photo: ETH Library Zurich, Image Archive / Photographer: Bärtschi, Hans-Peter / SIK_03-026269 / CC BY-SA 4.0

It was necessary to determine how much safety margin there was when travelling at high speeds and what technical modifications would be required to achieve this. At the same time, it was already clear that new designs would have to be found for the high currents that the pantograph had to conduct from the overhead line via the transformer to the traction motors.

All this ultimately led to world record drives on 27 and 28 March 1955, when CC 7107 and BB 9004 exceeded the magical 300 km/h barrier and the latter set a new world rail record of 331 km/h. Fifteen years later, it would be possible to build on the experience gained.

Unlike the more densely populated countries of Germany, Belgium and the Netherlands, France is characterised by only four major population centres: Paris/Ile-de-France, Lille, Lyon and Marseille. There are large distances between them, and traffic is concentrated in Paris.

Bordeaux, Nantes, Nice, Grenoble, Rennes and Strasbourg are other centres, but they are comparatively small.

Cars and aeroplanes therefore developed early on and clearly became competitors to the railways, while the classic long-distance routes did not have the capacity to absorb even more traffic or to accelerate it further.

Following the example of the Japanese Shinkansen, new high-speed lines and trains were therefore intended to offer economically promising alternatives.

In contrast to Japan, however, the plans launched in 1966 did not focus on a new and independent transport system, but on integrating the routes known as LGV (Ligne à Grande Vitesse) into the existing network.

The first line to be decided upon was the LGV Paris - Sud-Est (450.8 km) to Lyon, which was built from 1981 onwards. If we include extensions and connections to the Mediterranean, 40% of the French population should benefit from significantly reduced travel times; in future LGV projects, the economic benefits were expected to decline gradually.

In addition to the railway line, which was to run as close as possible to the road network and avoid expensive engineering structures, the construction of the first high-speed line also included connections to the existing network, the conversion of the Paris Gare-de-Lyon terminus and the construction of a new station at Lyon-Part-Dieu. In the southern section, inclines with a 35 % gradient were required in both directions.



The map shows the TGV network radiating out from Paris as it stood in 2009. The first connection to Lyon, which began regular service in 1981, is marked in orange. Illustration: madcap. (CC-BY-SA-3.0-migrated)

Development of the vehicles

In parallel with the LGV project, trials were conducted with an initial articulated train, the gas turbine-powered TGV-001, which was delivered in 1972. However, in view of the first oil crisis and the decision to build nuclear power plants, the focus shifted to electric traction as early as 1975, after the companies that were involved in the project had confirmed that the TGV (Train à Grande Vitesse) could be operated in this way.

The pre-series vehicles 01 'Patrick' and 02 'Sophie' of the TGV Sud-Est (TGV SE, sometimes also TGV PSE), resulting from the first series order in 1976, were ready for test runs in 1978. A total of 109 full trains (for passenger transport) and five half-trains (for mail) were to be delivered by 1985.

In addition to the windowless mail trains, they were divided into three basic configurations for the SNCF: two-class trains for two ('bicourant') and three power systems ('tricourant') as well as first-class-only trains for two systems.



In July 1984, two TGV Sud-Est trains are travelling on the high-speed line towards Dijon. The steep gradients on the route are clearly visible in the photo. Photo: Joost J. Bakker (CC-BY-SA-2.0)

All TGVs were and are designed to run both on the classic SNCF network, which is electrified with 1,500 V DC, and on the LGV lines, which are electrified with 25 kV 50 Hz AC. Triple-system variants are also designed to run on 15 kV 16.7 Hz, as required for the line leading to Switzerland.

The dual-system trains of the TGV SE were registered in the 23000 series, while the triple-system variant was registered in the 33000 series. The allocation of operating numbers was changed during the procurement process, resulting in the reallocation of 87 and the omission of 99. The final numbers were: 01 to 98 (two classes/two systems including the pre-series), 100 to 102 (1st class only) and 110 to 117 (two classes/three systems).

Four principles were defined for the construction of the trains, which also remained valid for all subsequent models: operationally inseparable units, articulated train construction (for the middle cars), traction motors suspended at the car body (instead of at the bogies) and a maximum axle load of 17.5 tonnes.



A TGV Sud Est is showcased at the Rennes station on 19 September 2024 as part of Open Monument Day. Attention is drawn to the three powered bogies of the power car and first centre carriage. Photo: Kapamez (CC-BY-SA-4.0)

The decision to use a comparatively low axle load was intended to reduce the forces acting on the superstructure and, thereby, protect it. This required consistent weight savings, which resulted in two car bodies being supported jointly on a single Jacobs bogie.

This also meant that there were no seats above the bogies, which promised greater travel comfort. The car bodies were positioned as low as possible. They consisted of a tubular support beam structure embedded in semi-rust-free stainless steel, glass and polyester.

A PSE unit always consists of two power cars ('motrice', abbreviated M) and eight intermediate cars ('remorque', abbreviated R). Accordingly, the following intermediate cars are arranged between the two power cars M1 and M2: R1 to R3 (1st class cars), R4 (2nd class car with bar compartment) and R5 to R8 (2nd class cars).

The intermediate cars R1 and R8 are connected to the power cars by conventional push-pull devices, while the power cars are equipped with covered Scharfenberg couplings on the outside, which can be used to connect two units.



On 7 April 1987, the TGV Sud-Est with train set number 12 waits to depart from Marseille St Charles. Photo: Phil Richards (CC-BY-SA-2.0)

To reach the required speeds of 270 km/h and also be able to negotiate the 35‰ gradients, the designers specified a drive power of 6,000 kW. In view of the defined axle load, this was only possible if twelve traction motors could act on twelve axles.

Since the power cars only had four of these, the outer bogies of the intermediate cars R1 and R8 also had to be included. Incidentally, this was no longer the case in later generations with the use of asynchronous three-phase motors, as such motors are significantly smaller and lighter while delivering the same power.

Proven components

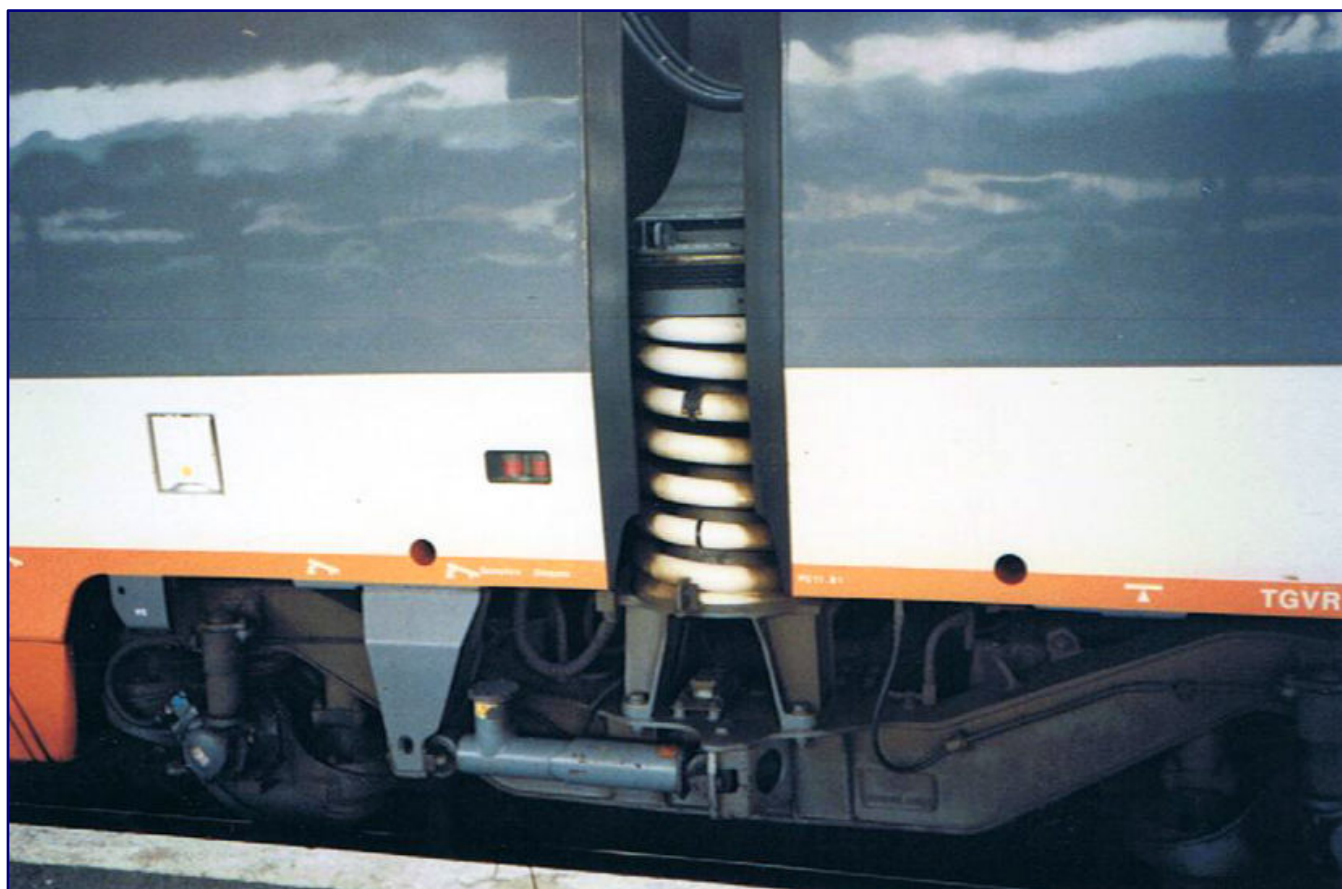
Technically, the first series generation of the TGV was more a construction based on proven technology than on genuine innovations. This is not to diminish the innovative power of the overall concept, but merely to point out that all key components had been sufficiently tested and were based on proven methods.

One example of this were the distinctly visible vertical coil springs of the secondary suspension in the Jakobs bogies. The SNCF opted for these despite having already had good experience with air suspension on the Corail cars. It was not until several years after the world record journey on 26 February 1981 at 380 km/h that conversions to SR-10 air suspension were implemented.

continued on page 25

Photos on page 24:

Steel springs on a Jakobs bogie (top photo; compare with model photo on page 12) in 1987 and view of the driver's cab in TGV 23129 after conversion to TVM 300 in 2011. Photos: Thyristorchopper (CC-BY-SA-3.0) / Pieye Trains (CC-BY-SA-4.0)



The TVM 300 cab signalling system was something completely new: at speeds of 260 km/h in regular service (from 2 September 1982: 270 km/h) and a technically possible 300 km/h, the classic block system with signals set up along the track was no longer sufficient.

Instead, it was necessary to specify a target speed in comparison with the actual speed and to indicate necessary speed changes much earlier under external control. Only in this way, in conjunction with the train radio to the train control centre, could the goal of running TGV trains at intervals of five minutes, and later only four, be achieved.



Even 40 years after the world record set on 26 February 1981, signs on train set 16 still refer to the legendary journey. Photo: Sukkoria (CC-BY-SA-4.0)

As further generations of TGV trains entered daily service and the high-speed rail network expanded, the TVM 430 safety system was also modernised as part of the renewal programme when the trains reached half of their planned service life. The interiors of the trains and their external appearance were also modified and adapted. The 2+2 seating arrangement in 2nd class and 2+1 in 1st class remained unchanged.

The pantographs used were also key components for the TGV SE. In view of the speeds travelled, the required contact pressure on the overhead line and the reaction speed to a changing contact wire height, only single-arm pantographs could be considered. Due to the different operating voltages, two different models were required on each power car.

Therefore, double-joint single-arm pantographs based on the Faivelay AMD system were installed for alternating current and single-joint single-arm Faivelay AM pantographs for direct current operation, which differ not only in their contact bars but also in their design.

A characteristic feature of the trains' operation was that, when it was running on alternating current, only one pantograph was used, which was usually the rear one, whereas when running on direct current, both pantographs had to be used. The pantographs were located at the rear of the roof of the power cars, with the alternating current version on the outside, i.e., facing the articulated train.



Two coupled TGV units in Atlantique livery waiting at Paris Gare de Lyon on 9 March 2009. Photo: Matthew Black (CC-BY-SA_2.0)



Set 39 on 6 April 2014 at Paris Gare du Nord. Photo: Chris Sampson (CC-BY-2.0)

The first generation of TGV trains was in service from 1978 (test runs) and 1981 (start of regular service) until 2019, when the last set was officially retired. Today, museums and monuments commemorate the milestones in the development of the TGV until its market launch.

The date 26 February 1981 will always be remembered as the day when train set number 16 set a new world rail speed record of 380 km/h, which was only surpassed in 1988 by the German ICE-V (see **Trainini**® 12/2025) and then, just 18 months later, again by a TGV. With the 1981 world record holder, we have also built a bridge to Azar Models' new product.

Brief overview of the model's history:

<https://www.hochgeschwindigkeitszuege.com/frankreich/frankreich.ph>

Bridge building with Noch **Stone upon Stone...**

Noch, the model railway accessories manufacturer based in Wangen im Allgäu (Germany), was an early adopter of laser cut technology. They have by now accumulated enough know-how and experience to also delight, from time to time, the Z scale community with imaginative kits. As a current example, we built their stone arch bridge, which is also highly recommended for beginners.

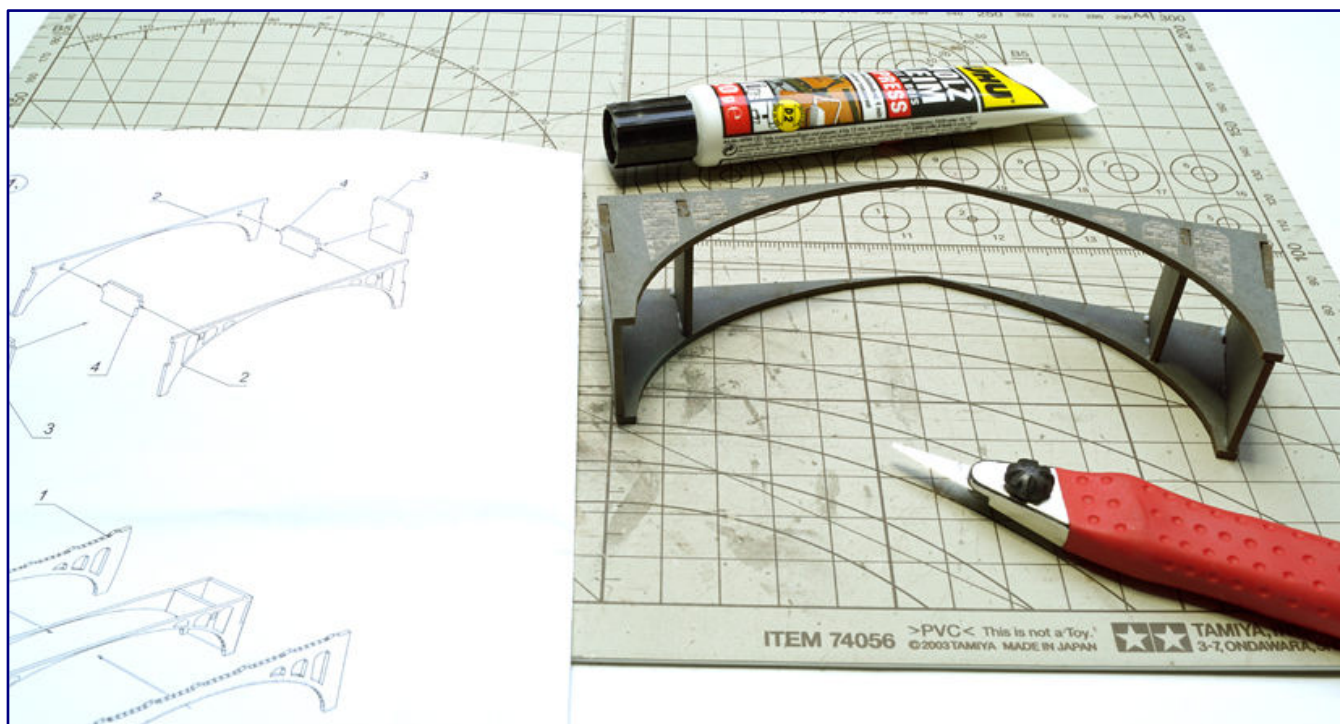
Z gauge found its way into Noch's product range early on and has remained there to this day. Although the Wangen-based accessories supplier was never the one to have the widest range of products for our scale, it has maintained a consistent flow of products over the decades.

And so, this brand continues to delight us today with innovative manufacturing processes, new technologies, and, also, just good ideas. A new product from 2024, which was first released in early 2025 and which we would like to briefly introduce below, does come with all three of these qualities.



The manufacturer's design proposal for the stone arch bridge (item no. 44380) envisages two intersecting railway tracks. However, the quickly assembled structure allows for many more possible uses. Photo: Noch

Noch is one of the manufacturers that introduced laser cutting technology into its production processes at an early stage. Not only did this demonstrate the supplier's innovative spirit once again, but their use of solid-coloured hardboard right from the beginning, also ensured the highest possible quality and durability. It took several years for Z gauge to benefit from this, but it has now also established itself in this segment of the market.



In the first step of assembly, the bridge still appears very unstable despite the thick cardboard parts. This is due to the lack of a support above the centre of the arch, which causes it to buckle temporarily.

The stone arch bridge (item no. 44380) is a current product that continues this range. The product images in the catalogue promise an attractive and realistic-looking element for any layout, as it can be used to carry either a single-track railway line or a road.

Hardly any layout project can do without civil engineering structures, and each time the question arises as to how best to build the bridge. And it forces one to reflect and decide upon up which transport routes should intersect, how that should be arranged in an authentic way and how the solution will fit into the overall landscape on the confined space of the layout.

In the past, designers paid more attention to appearance. This is why so many brick buildings were constructed, or, after the advent of concrete construction methods, structures were clad in stone. Exposed concrete has become the standard in more recent times. Fortunately, many old civil engineering structures have survived to this day and continue to fulfil their function unchanged.

This is precisely what creates many options for this model to be used on layouts across all model railway eras. The hardboard construction particularly benefits from the matt and visually very differentiated appearance after laser cutting. No other manufacturing process can come so close to the original without the need for an additional application of paint!

Like all Noch hard cardboard kits, this one comes with easy-to-follow instructions and a tube of Uhu wood glue. All one needs to provide are the necessary tools: a sharp craft knife, a small nail file and, if necessary, a toothpick and laser-cut glue (ideally from the same manufacturer).

The instructions provide clear and unambiguous sequences of images, which work for all languages worldwide. All parts are clearly labelled with numbers and can be assigned to the cardboard sheets.

continued on page 30



Image above:

The next thick layer of cardboard also stiffens the bridge in the middle. Next comes the track support, which completes the structural integrity.

Image below:

In the next step, insert and glue the cardboard insert, which replicates the masonry arch on the underside. Here, too, it is advisable to do a dry fit first. For all small gluing areas where glue may ooze out, it is also a good idea to consider using a special laser-cut adhesive, also from Noch.

Nevertheless, it is important to check that all the sheets are complete and to review the instructions while examining the parts before you begin. This will help you become familiar with the kit and ensure success.

There are relatively few parts that need to be glued together here, and none of them are particularly difficult. The kit is therefore also ideal for gaining initial experience with this material and ensuring a good result.

It should be noted that most parts are quite thick and require a sharp, precise blade. This makes it easier to cut the holding points in the sheet, saves energy and ensures a satisfactory outcome.

The first step is to glue together six pieces, all of which have the specified thickness. These form the core of the stone bridge and will later contribute significantly to its stability and load-bearing capacity: the finished model will be able to support a heavy train without any problems and will still be far from reaching its load limit.



The stone arch bridge takes only about thirty minutes to build. After the last parts for the arcade arches and the central portal have been installed, the result is not only visually appealing, but also sturdy enough to safely carry any train. Incidentally, Noch has engraved the model's year of construction, 1925, in the centre of the arch, which allows it to be used from Era II to the present day

However, this only applies in part to the first arch section which feels unstable until another part is added to it to form the belt above the arch's curvature which ensures that the structure becomes torsion resistant. Anyone building such a kit for the first time should be aware of this and take it into account before mistakenly assuming that there may be a fault with the kit's design.

This component, which significantly reinforces the structure, gives the bridge already the impression of being a piece of solid and sturdy engineering, both visually and haptically. Next it is time to glue the track cover onto the top. It is a thick piece which fits easily and precisely into place of the already assembled basic structure.



We use our stone arch bridge for depicting a crossing between a railway line and a country road. There was already a lot of traffic there in the 1960s. It is, therefore, good that the road is wide enough for the two delivery vehicles to pass each other safely.

The next two steps involve stone cladding on the inside of the upper bridge end and then the masonry inside the arch. This brings us to components with lower material thickness, which serve a purely visual rather than a load-bearing function.

It is always advisable to carry out a fitting test without glue so that corrections can be made if necessary. It is often necessary to file down the cut edges that previously marked the holding point in the cardboard sheet. Once everything fits, the glue can be applied.

Only two final steps remain: the double-sided decoration on the outer line of the arch, and then the final thin layer to cover the three decorative arches on the outside of the structure.

After just six steps and perhaps thirty minutes of construction, we have a small masterpiece before us, whose success we attribute not to ourselves, but to its manufacturer. In contrast to the manufacturer's design proposal, however, we do not use the stone arch bridge as a crossing for two railway lines, but rather to carry a country road over a branch line.

Provider:
<https://www.noch.de>



**Get your
ticket
now!**



Where small things are king.



www.intermodellbau.com

The world's largest exhibition for
model building and model sports

16–19 April 2026

Messe Dortmund, Germany

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.

Standardwerk zu schnellen Zügen **Der TGV-Erfolg von A bis Z**

Selten haben wir so lange nach Fachbüchern gesucht, die unsere Berichte für Interessierte fortführen und Wissen vertiefen können. Doch auch dieses Mal sind wir fündig geworden und können einen Titel präsentieren, der Maßstäbe gesetzt hat. In einer durchaus überschaubaren Auswahl trat er angenehm hervor.

Brian Perren
Der TGV – mit hoher Geschwindigkeit zum Erfolg

Minirex AG
Luzern (Schweiz) 2003

Gebundenes Buch
Format 22,0 x 22,0 cm
132 Seiten mit ca. 100 farbigen Abbildungen

ISBN-10 3-907014-15-4
Keine Buchpreisbindung

Erhältlich nur noch antiquarisch

Deutschsprachige Literatur zum französischen TGV-System und seinen Zügen war und ist dünn gesät. Einzelne Monatshefte oder Sonderausgaben von Fachmagazinen haben sich damit durchaus mal beschäftigt, meistens aber in kurzer Form und eher als Randthema zu einem anderen Schwerpunkt.



Auf dem Markt verfügbar ist leider derzeit kein einziger Buchtitel, der sich umfassend wie ausführlich mit dem Hochgeschwindigkeitsverkehr in Deutschlands Nachbarland beschäftigt. Das ist wirklich schade, denn die SNCF war der europäische Pionier und lieferte gewiss auch viele Vorlagen und Anhaltspunkte für den ICE, der sieben Jahre nach dem ersten Serien-TGV das Licht der Welt erblickte.

Deshalb haben wir auf antiquarischem Gebiet Ausschau gehalten, um unseren Lesern trotzdem weiterführende Literatur mit auf den Weg geben zu können. Und unter dem, was wir gefunden und gelesen haben, sticht der nun vorzustellende Titel außerordentlich hervor.

Geschrieben wurde das Buch „Der TGV - mit hoher Geschwindigkeit zum Erfolg“ übrigens auch keinesfalls auf Deutsch: Es stammte aus dem Vereinigten Königreich und ist – ebenso antiquarisch – dort auch in englischer Sprache zu finden. Im Original titelt es als „TGV Handbook“.

Basis der deutschen Übersetzung von Kurt Niederer ist die zweite Auflage aus dem Jahr 1998, die aber zugleich auf den Stand von 2002 aktualisiert worden ist. Immerhin ist auch bis zu deren Erscheinungsjahr noch einiges geschehen oder zeichnete sich bereits ab.

Für diese (antiquarische) Rezension ausgewählt haben wir ihn, weil es das umfassendste und zugleich wohl auch beste Buch über den TGV ist – jedenfalls haben wir kein besseres gefunden.

Der Ansatz des literarischen Werkes ist ganzheitlich, denn er beschränkt sich nicht nur auf die Züge und Hochgeschwindigkeitsstrecken, was in der Tat ein wenig zu kurz gegriffen wäre, um dieses System zu verstehen und einordnen zu können.

Ausgelassen wird nur die Geschichte des schnellen Fahrens auf Schienen, was sowohl für die Zeit vor als auch nach dem Zweiten Weltkrieg gilt. Diese ist anderswo schon ausführlich behandelt worden. Auch der Erprobungsträger TGV-001, der noch einen Gasturbinenantrieb besaß, wird als Einstieg in die technische Entwicklung nur kurz gestreift und eingeordnet.

So kommen alle Seiten dieser Lektüre dem zu Gute, was der Titel schon verspricht: eine Erfolgsgeschichte des mit hoher Geschwindigkeit fahrenden TGV (mit elektrischer Traktion). Gewiss hätte der Autor im Stile von EK-Baureihenportraits auch den geschichtlichen Teil erheblich erweitern können, aber wäre das sinnvoll gewesen?

Dann aber hätte sich auch die Frage nach dem Sinn gestellt, denn besonders im technischen Teil hätte es wohl einen „beherrschbaren“ Buchumfang endgültig gesprengt, weil in diesem Fall auch gleich sämtliche Bauarten bis zum zeitlichen Schnitt des Redaktionsschlusses Anfang 2002 zu betrachten wären.

Und sie profitierten längst nicht mehr allein von dem, was in Frankreich geschah: In Deutschland wurde die Drehstromlok großer Leistung zur Serienreife geführt, der ICE verließ kurz zuvor das Triebkopf-Konzept, was auch Alstom nicht einfach ignorieren durfte. Deshalb sehen wir den Schnitt gut getroffen.

Die Inhalte widmen sich zunächst, wie nicht anders zu erwarten, den Hochgeschwindigkeitsstrecken „LGV“ inklusive ihrer Zuläufe von Bestandsstrecken und dann den TGV-Zügen. Beide Kapitel sind chronologisch geordnet, was dem Leser die Entwicklung schnell transparent macht. Nur selten springen die Ausführungen etwas vor und zurück, was dann zum Blick auf die Jahreszahlen zwingt, um den Überblick zu behalten.

Gut gewählt ist, dass sich auch Betrieb und Marketing als eigenständige Kapitel anschließen. So wird dem Leser auch transparent, wie komplex und anspruchsvoll das Steuern des gesamten Systems unter den selbstgestellten Anforderungen ist. Und es durfte ja nicht einfach als Selbstläufer erwartet werden, weshalb auch für die Vertriebsseite einiges zurechtgefeilt werden musste.

Immerhin ging es um das Spitzenprodukt der SNCF, das eine echte Alternative zum Flugzeug darstellen sollte und soll. Schließlich ging es hier nicht um ein Reisemittel für Geschäftsreisende und Eliten, der TGV sollte alle Gesellschaftsschichten erobern und gleichermaßen bedienen.

Die Konsequenz, mit der System und Konzept entwickelt worden waren, stärkte das Ansehen der SNCF ebenso wie das der beteiligten Hersteller. Daher verwundert es nicht, dass der TGV auch zu einem Exportschlager werden konnte, zu dem Siemens erst viel später anschließen konnte.

Zwei weitere Kapitel beschäftigen sich deshalb noch mal gesondert mit europäischen Ablegern der TGV und der möglichen Zukunft auf Basis der Einschätzungen zum Jahresbeginn 2002. Heute lässt sich rückblickend überprüfen, was davon eingetreten ist und was noch auf sich warten lässt. Eine Tabelle zum Schluss fasst die wichtigsten Daten der Züge noch mal zusammen.

Was bleibt in der Gesamtbetrachtung hängen? Zum Zeitpunkt des Erscheinens dürfte es zweifellos das beste Buch zu diesen Zügen gewesen sein. Auch heute setzt es noch Maßstäbe und ist durchaus als Standardwerk zu bezeichnen. Daher lohnt sich der Erwerb unverändert.

Von 1803 bis heute

Eisenbahnreise um die Welt

Geschwindigkeit hat den Menschen immer fasziniert. Das war auch bei der Eisenbahn niemals anders. Als die erste Dampflokomotive fuhr, galt das als Geschwindigkeitssensation, während es heute ein müdes Lächeln entlockt. Über 160 Buchseiten hinweg unternehmen wir eine Reise durch die Zeit und durch viele Länder bis zum heutigen Hochgeschwindigkeitsverkehr.

Thomas Estler
Die schnellsten Loks der Welt

Transpress Verlag
Stuttgart 2023

Gebundenes Buch
Format 24,0 x 22,0 cm
160 Seiten mit 73 S/W- & 114 Farbbildern

ISBN 978-3-613-71689-6
Best.-Nr. 71689
Preis 24,90 EUR (Deutschland)

Erhältlich direkt ab Verlag
oder im Fach- und Buchhandel



Thomas Estler (1958 – 2022) kennen wir als Fachautoren mehrerer Eisenbahnbücher in unterschiedlichen Verlagen. Darüber hinaus lieferte er eigene Fotografien auch für andere Publikationen zu. Am 12. September 2022 verstarb er überraschend, also noch vor dem Veröffentlichen des hier besprochenen Titels, der allerdings nicht sein letzter war.

Das liegt daran, dass wir es auch in diesem Fall mit einer Wiederauflage zu tun haben, die ihre Herkunft zu verschleiern versucht. Bereits 2017 erschien im selben Verlag sein Buch „Rekorde auf der Schiene - Die schnellsten Loks der Welt“ unter abweichender ISBN.

Wir haben keine zusätzlichen Daten finden können, die 2017 noch nicht bekannt waren oder vorgelegen hätten. So sind inhaltliche Aktualisierungen, wie beispielsweise zu den jüngsten Fahrzeugbaureihen des deutschen ICE hier auch nicht eingegangen. Auch bei den verwendeten Fotos sind uns keine Bilder eines Datums nach Ersterscheinen aufgefallen.

Hier sind wir übrigens zugleich bei einem Schwachpunkt des vorliegenden Werks: Es dürfte nicht einfach gewesen sein, alle Kapitel des Buches ausreichend und umfassend zu bebildern. Allerdings darf das nicht als Entschuldigung dafür gelten, dass manche Aufnahmen, deren Quelle offenbar das Internet war, keine ausreichende Druckauflösung aufweisen. Sie sind leicht an störenden Blockartefakten zu erkennen.

Betroffen sind vor allem jüngere Fahrzeuge, die ihren Ursprung außerhalb Deutschlands haben und deshalb nicht ohne weiteres selbst zum Fotografieren aufgesucht werden konnten. Auch historisches Bildmaterial, das noch aus ausbelichteten und entwickelten Filmen oder Platten reproduziert worden ist, weist diese Schwächen folglich nicht auf.

Festzuhalten ist an dieser Stelle deshalb auch, dass nur ein vergleichbar geringer Teil der Bilder betroffen ist. Der weitaus größere Teil ist nicht nur passend ausgewählt, sondern auch in guter Qualität reproduziert worden, was aussagekräftige Abbildungen zur Folge hat.

Inhaltlich lebt das Buch von der Faszination des Menschen für hohe Geschwindigkeiten. Das war auch bei der Eisenbahn nie anders, die auf jeden Fall das Leben der Menschen beschleunigte und Entfernungen geradezu schrumpfen ließ.

Thomas Estler hat ihre Anfangszeit miteinbezogen und den Bogen bis in die Gegenwart gespannt. Geschwindigkeiten, die heute nur noch ein Stirnrunzeln erzeugen, galten im 19. Jahrhundert als spektakulär und wurden anfangs mit Skepsis wegen möglicher Gesundheitsschäden betrachtet.

Aber schon um die nächste Jahrhundertwende begann eine gezieltere Jagd nach Geschwindigkeitsrekorden. Im Fokus stand zunächst vor allem die Dampftraktion, aber auch die Elektrolok mischte schon 1903 kräftig mit.

Eine Herausforderung für den Autor ist es an dieser Stelle gewiss, die am besten passende Struktur zum Ordnen der Ereignisse und Fahrzeuge zu finden. Soll chronologisch erzählt werden oder lassen sich die einzelnen Traktionsarten besser anhand ihrer Technik sortieren?

Gewählt hat der Autor eine dreigeteilte Struktur in folgender Abfolge: Dampf, elektrische Traktion und Diesellokomotiven. Das letztgenannte Kapitel ist aber nicht ganz korrekt bezeichnet, denn hier sind alle Arten von Verbrennungsantrieben vertreten, also auch Düsen- und Gasturbinen.

Innerhalb der drei Hauptkapitel herrscht eine chronologische Grundordnung vor, wobei sich der Autor sehr bemüht hat, weltweit alle wichtigen Fahrzeuge auch außerhalb der Normalspur einzufangen. „Was Sie schon immer über schnelle Züge wissen wollten“, ist ein Kaufargument aus der Eigendarstellung des Verlags.

Dieses bringt die Inhalte treffend auf den Punkt. Vor uns liegt kein Fachbuch mit außerordentlicher Wissenstiefe, sondern ein breiter Überblick über den gesamten Erdball und mehr als 200 Jahre. Vieles muss da also an der Oberfläche bleiben, aber alle wichtigen Kernpunkte ließ er gekonnt einfließen.

Mit Blick auf die Themen unserer Ausgaben und umgesetzte Spur-Z-Modelle finden sich auch durchaus einige Berührungspunkte: So tauchen die Schnellfahrdampflokomotiven der Baureihe 05, der Schienenzeppelin und auch die Fliegenden Züge der DRG im Buch auf.

Mit dem Shinkansen-System inklusiver einiger Schlüsselbauarten, der TGV-Historie und dem deutschen ICE sind aber auch die bekanntesten Vertreter der Gegenwart enthalten. Damit knüpfen wir an dieser Stelle an das Hauptthema dieser Ausgabe an.

Uns so handelt es sich um ein lesenswertes Buch für jedermann und auch Einsteiger mit Eisenbahninteresse. Wegweisende Entwicklungen wie auch Irrwege der Verkehrstechnik sind hier wiederzufinden und in einer Form präsentiert, dass auch einem unbedarften Leser viele Zusammenhänge deutlich werden dürften.

Publisher's webpages:

<https://motorbuch-versand.de>

Our review of the year 2025

Something special lies behind us

Looking back on the past year, many impressions remain: beautiful moments, sad events, and special memories. There is no question that 2025 also had many highs and lows that are worth remembering. We summarise the year again in the necessary brevity, but to the required extent.

After 2024 brought some personal setbacks, things could only get better. Confidence is important and right, perhaps more important than all the good resolutions that are quickly broken and then forgotten year after year anyway.

So, we wanted to start in high spirits: into the anniversary year of this magazine, which was to celebrate its twentieth birthday in August. Preparations for a fitting and grand birthday celebration together with several manufacturers and our readers had long been in full swing.



Although a venue had long been found, exhibits, catering, parking spaces and a supporting programme did not organise themselves. A great deal of effort was still required, and this would continue to increase steadily until the premiere at the beginning of October.

The start of the year was also marked by a rather controversial topic. We presented the NoBa-Modelle class 191 rod locomotive, complete with an integrated prototype report. The three 3D-printed body parts were mounted on a modified and shortened Märklin chassis, with two scissor pantographs from the small series manufacturer added to the roof.



The 191 series from NoBa-Modelle received mixed reviews: while some readers rejected it as too crude, others were pleased with its robust design, which can withstand the occasional careless handling. We equipped our model for the portrait with perfectly matching current collectors from the small series manufacturer.

With its concept of a robust model rather than one designed down to the last detail, the locomotive appealed to many buyers, some of whom shared their personal enthusiasm with us. Others, who probably also have this series on their wish list and whose requirements are different, were bothered by the overly thick roof and a few other details.

Our annual focus topic, which for the first time covered two full years, continued in January. We reported and continue to report on the construction of two beginner layouts that could not be more different: DIY versus ready-made, summer versus winter, Märklin versus Rokuhan tracks.

As it does every year, Märklin announced its new spring products on 7 January. These included some completely unexpected new designs, such as an E 60 series electric shunting locomotive and a new family of wagons in usage group 29, which had not yet been delivered by the time this issue went to press.

We present detailed information on all manufacturers' spring innovations in our February issue. 2025 was no exception, with this issue growing to an impressive 113 pages. Despite the ongoing economic downturn and resulting slump in consumer spending, the innovative strength of many large and small-scale manufacturers remained remarkable.

These included such groundbreaking products that they were to reappear in the magazine later in the year for a more detailed presentation. This always involves our editorial award for "New Product of the Year", with which we honour the new product in each category that has impressed us most in the sub-disciplines of innovation, filling market gaps, market significance and quality.



The attractive gas tank wagons from last year's February issue are a prime example of the reader projects presented in 2025. They were also on display at our anniversary exhibition. Photo: Theo Bornhöft

For several years now, we have also been announcing the winners with a laudatory speech in the February issue, because this magazine is probably the best platform for combining the proven achievements of manufacturers with future prospects and motivating them.

We also have a long tradition of building our own models. Theo Bornhöft started this tradition in the middle of winter with his short bogie tank wagons. He combined skill with creativity to create very special works of art, which were then also displayed at our anniversary exhibition.

And the following month, we continued in the same vein: as part of a report on heavy transport by rail, we provided an idea for optimising an old model, and reader Bernd Jablonski contributed three of his own creations, which added a particularly appealing dimension to this topic. Among the homemade models was the 155 series from "Alex" Mark, which was presented in April.

We attempted to provide "start-up financing" for the announced 1928/1930 type express train cars, designated as usage group 29 by DB: for the first time in decades, Märklin had announced a complete family of cars as new moulds in its spring new items. Nevertheless, we felt that they needed to be explained because, at first glance, they conveyed the familiar image of the Reichsbahn.

It was therefore important to us to highlight the potential for expansion and also the possible colour variants that the largest Z gauge manufacturer can provide us with if its investment proves to be economically successful. It is almost regrettable that these cars are still on the backlog list at the time of going to press.

Somehow, a river landing for the Artitec ferry was also a matter close to our hearts. The Dutch accessory supplier has been providing us with high-quality and sometimes unusual new products for years. The river ferry was simply part of this because it provides a reason to integrate a river into the layout and connect it with a road. For many, model railways without water are simply unthinkable.



Artitec has been spoiling us with outstanding innovations for many years. That is why we have deliberately chosen to showcase the river ferry as one of our top products.

iTrain & Dinamo Train Control were a technical topic that our reader Sandro M.O.L. Schneider was keen to report on. When it comes to controlling and driving trains, we are happy to be involved (as this issue proves). The presentation of the Heißwolf SFR-4000 speed controller in December is also part of this topic block.

We were also happy to report on On TraXS in Utrecht, even though there was no Z gauge layout represented there in 2025. We very much hope that this will change again in 2026, so that our scale can once again be shown in its best light.

This was guaranteed at Intermodellbau Dortmund, although it seemed to be in serious jeopardy at times. In a dispute, the Model Railway Association in Germany e.V. had terminated its cooperation with the organiser and cancelled all exhibitors. Our report caught the attention of our readers.

In a major effort that brought together and connected many partners, we succeeded not only in saving this trade fair, but also in giving it a boost in quality. As the first media partner of Intermodellbau, we were met with great enthusiasm on site. On the other hand, not a single one of our conversation partners regretted the departure of the previous model railway organiser.

On the model side, several new Märklin products took centre stage: the Wismar rail bus shone as a new design with minor flaws, while the 1962 "Rheingold" with its crease and, above all, the class 038 tender steam locomotive as a bronze cast model with three domes were particularly impressive.

June brought us to a craft theme that tied in with our new focus on "black gold": a corner shop in typical colliery architecture was reminiscent of earlier times and also of the Ruhr region in the 1960s. This



The Steigenfest was something of an obligation for us: on one hand, Märklin has found many model templates on its “home route” over the decades, and on the other hand, we were also attracted by the many programme items, in which we were even allowed to participate in the case of the scale replica. In the picture, a CIWL train set coming from Steige passes through Geislingen station, while a push-pull locomotive is attached to a freight train.

construction report was accompanied by Michael Boost’s presentation of new interior lighting – a technical topic for many readers.

Our report on the anniversary exhibition of the Stammtisch Untereschbach e.V. was certainly exciting, too, where, among other things, a magnificent layout called the “Eulenschlucht” (Owl Gorge) celebrated its premiere. Unfortunately, this event was very poorly attended. For us, it was soon time to move on to the Geislinger Steige.

A big celebration awaited us there, as the steep section was celebrating the 175th anniversary of its commissioning. A colourful programme in the town, at the station and also inside it awaited the guests, some of whom were transported back over a hundred years into the past.

We had the honour of participating in the model section of the municipal museum. We were able to enrich the 28-metre-long layout with a scale replica of the section from Geislingen to Amstetten with several models. We presented this extraordinary exhibit together with photographs of the prototype in December.

Participating in the wrapping of an advertising locomotive was once again a great experience. In our presence, 101 127-9 was transformed from a traffic red locomotive into a black beauty, reminiscent of the anniversary of the standard locomotives with an image of the 01 series chassis.

Reports from the United States and from a plant in South Africa once again underscored how international our magazine has become over the years. This continued in August, when we celebrated exactly 20 years of **Trainini®**.

We reported on a Japanese reader's homemade TGV model, which caused quite a stir and gave us a taste of what to expect from Azar Models' replicas (to be continued in September). Martin Grübele's 3D-printed designs also did not originate in Germany: this reader also lives in the USA and enriched our international appeal in a special way.

A piece of news from August was also set to be groundbreaking: with MKB-Modelle, we were in danger of losing an important supplier of accessories due to age, and we had been missing new products for several years. The brand and previous models have now found a new home at Modellbahn Union.



For the first time, all three previous On-traXS participants exhibited simultaneously in Wasserkurl at the beginning of October 2025. They ensured the highest standard of exhibits, exciting impressions and, above all, a cross-border community. The photo shows the layout exhibited by Pieter Willems.

In September, we gave a preview of our event **Trainini Anniversary Exhibition 2025** at the beginning of October, which was of course also reported on in detail afterwards. We were also pleased to welcome several readers from abroad, even from other continents, as well as a number of manufacturers who came as visitors.

Due to a lack of space, we were unable to allocate them their own stands, but offered them the option of displaying their latest products in our display cases, thereby enabling them to engage with customers. This alternative was well received and also preserved the non-commercial nature of the event.

For the first time, all three On-TraXS participants in gauge Z presented themselves at the same time at an exhibition, which speaks for the quality standards, but also for the broad cross-section of the desired exhibits.

We would therefore also like to give a brief mention to Peter Sturm, who arrived with three suitcase systems. We chose his winter suitcase featuring the Elefantentreffen as our exhibit of the year for 2024 and were delighted to welcome it to our event after profiling it in March.

In September, we also celebrated the 25th anniversary of the load carrier manufacturer Duha, which has become even more important for our standard. From September onwards, the number of new products delivered will also increase significantly. One example of this was the covered bogie freight wagons from Azar Models.



Peter Sturm's "Laacher See" layout celebrated its exhibition premiere with us. Two months later, it was also on display at the Advent meeting in Zell (Mosel). Peter always sits in front of his layouts at events and actively seeks conversation with visitors.

These were followed by Märklin's V 90, articulated railcars from FR, the SFR-4000 Heißwolf controller from Tams Elektronik (all in November), the Intercity Experimental Series 410/810 from Märklin, and the Gras-Master 4.0 from Noch (both in December). Further new products were postponed with their reports at the turn of the year and will only be presented in this issue.

In October, we summarised the Märklin Days 2025, which editor Ralf Junius had attended for us in Göppingen. The use of the dust fairy on the "Industrial Junction" module we acquired from the estate of Gunnar Häberer not only imparted knowledge about effective and gentle cleaning of equipment, but also marked the shift into the crafting season.

Our memorial service at the beginning of our own exhibition was also very well received. Axel Pieke, who died unexpectedly shortly after the event at the age of only 55, had not yet been mentioned there.

The news of the death of David George (87), who appeared in the USA for many years as “Mr. Dave”, attracting a large audience and promoting Z gauge with his layout, reached us much later and should, therefore, be acknowledged here.

With a report on reversing and construction trains, we provided a brief market overview in the November issue, but also offered suggestions for train formations, as our readers always request. Incidentally, the newly announced class 65 tender steam locomotive from Märklin fitted in perfectly.



In addition to early reversing trains, construction trains were also a focus of our train formation efforts last year. The cars, which were once chrome oxide green and later ocean blue, provide a welcome change on the layout and are therefore very popular.

The crowning glory of the past year was our report on the Advent meeting in Zell (Mosel). This meeting has always had a special function and enjoys great popularity among participants, and not without reason.

In 2025, visitor interest finally rose sharply again, which probably also contributed to a positive perception of the wine region. Special exhibits offering variety and sophistication, complemented by hands-on activities, ensured that there was something for everyone.

This means that we have once again completed twelve months in fast forward and are now looking ahead. This includes the many new developments that are gradually coming to light. However, we would also like to note that we have not yet been able to complete our two-year focus topic (2024 and 2025) entitled “The path to your first investment”.



The model railway exhibition at the Advent gathering in Zell (Mosel) was very well attended. And, so, the shunting diploma we offered was also very popular: young and old alike enjoyed the task of moving four freight wagons individually across the small track field in such a way that they formed a train with a pre-determined wagon order.

Nine parts were not nearly enough for two systems, but we couldn't devote any more space to these parallel topics. That's why we're building a bridge to the new year and continuing this series as a key topic for 2026.

2025 Year in Review – Episode 49 on **Trainini TV**:
<https://www.youtube.com/TraininiTV>

FASZINATION MODELLBAHN

*Neuheiten des Jahres
Treffpunkt der Modellbahner
Namhafte Aussteller
Ausgewählte Fachhändler
Atemberaubende Modellbahn-Anlagen
Einzigartige Privatanlagen
Filigrane Dampfmodelle
Informatives Modellbahn-Forum*

6. – 8. MÄRZ 2026



Internationale Messe für Modelleisenbahnen & Zubehör

MAIMARKTHALLE MANNHEIM

Öffnungszeiten:
Freitag bis Sonntag 9.00 – 17.00 Uhr



WWW.FASZINATION-MODELLBAHN.COM

f FaszinationModellbahn

faszination.modellbahn

FaszinationModellbau

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.

A traditional New Year's greeting from Switzerland:

A big thank you for all the good things you do! As always, it was great fun waiting for the next issue at the end of the month and discovering new things in the published issues in the meantime.

This year has been very surprising for me, with dream models I never dared to hope for becoming reality, a small visual impression from Azar, Z-Otti and kunst-modell. And the next announcement is already waiting...

Martin Zimmermann, per E-Mail



Our reader has effectively arranged some of his personal dream models, which were delivered or announced in 2025, in this photo.
Photo: Martin Zimmermann

Editor's reply: As every year, we are delighted to receive greetings and wishes for Christmas and the New Year. We have put this one first because it has become something of a tradition and we are always excited to see the picture that accompanies it. Nevertheless, we would also like to thank you for all the other letters that will follow or are not reproduced here.

A thank you and greetings at the turn of the year:

Thank you for the 20 years with you. I look forward to the magazine every month, even though there isn't always something in it for me.

But that's okay. Keep up the good work for the next 20 years, preferably with at least twice as many pages.

Jürgen Tuschick, Rovinj (Kroatien)



Our long-standing reader shows us a selection of his layouts and showpieces from his model railway room at home in Rovinj. Photo: Jürgen Tuschick

To the climbing report in Trainini® 12/2025:

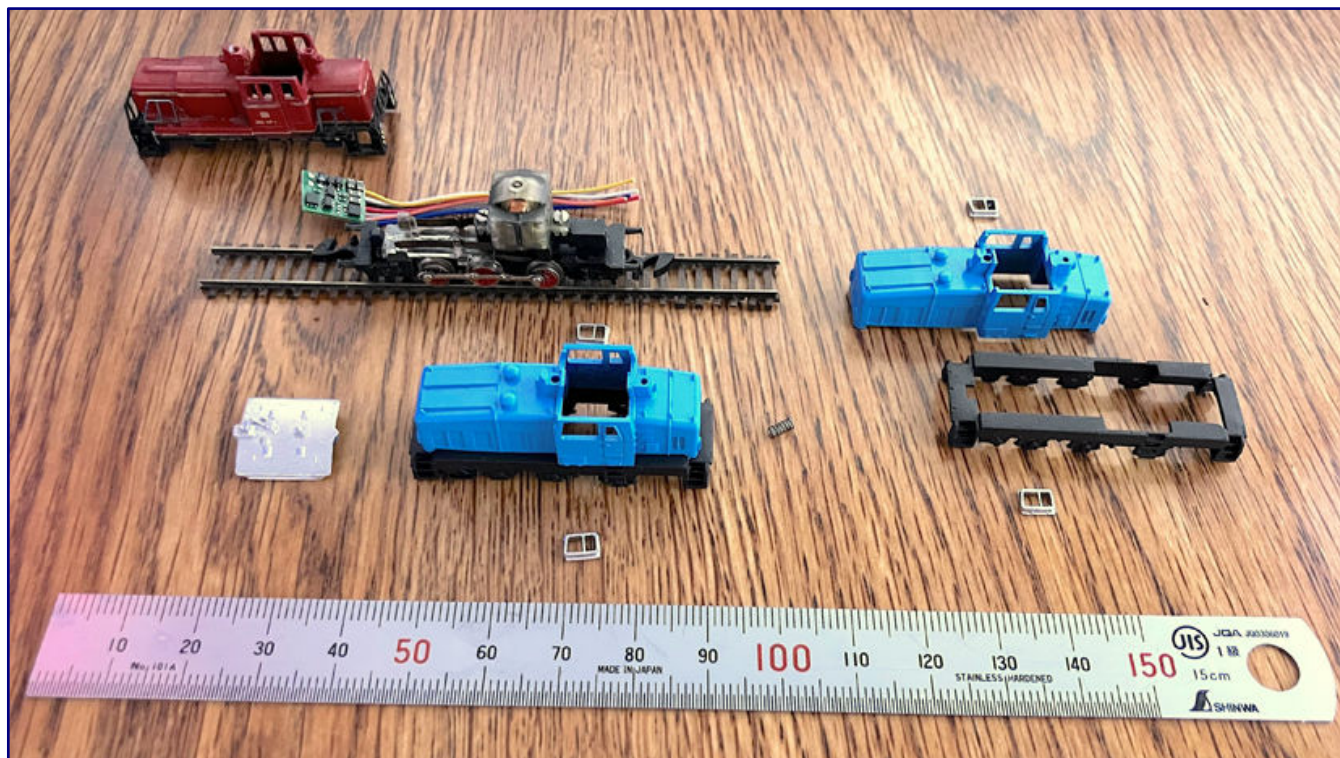
I wish you a happy and healthy New Year and lots of ideas for training. I find the December issue extremely interesting. Keep up the good work!

Matthias Vogel, Göppingen

This greeting is addressed to the "Traininists":

Another lovely edition at the end of the year. It really allows you to experience the meetings, exhibitions and clubs, if you can't make it in person. Reports like these were also an incentive to cross the Atlantic in October to see the Trainini anniversary with my own eyes.

A visit to Wasserkurl and Achim Kahn inspired a new craft project: since Märklin's new V 60 is likely to arrive soon, the old one with a vertical motor can be rebuilt to resemble its design ancestors (possibly Henschel DHG 500, as I heard from Holger).



The Henschel DHG 500, designed for industrial railways and implemented by Achim Kahn, caught our reader's eye at the anniversary exhibition, which is why he set to work himself. The matching chassis has been available from Märklin since 1972 – coincidence or intention? Photo: Martin Grübele

All that really needs to be done to the undercar is to remove the linkage and paint the wheels dark, so it's a simple conversion with space for a decoder. Thank you for your many years of work, which inspires and makes it possible to experience Z gauge 'undiluted.'

Martin Grübele, Champaign (USA)

Addendum to the report on the ICE-V:

We would like to send an addendum to our brief test of the new edition of the 410 series "Intercity Experimental" (item no. 88716). This was prompted by various comments from readers, which gave us the impression that we had rated this train poorly.

We would like to contradict this and set the record straight. The truth is that opportunities have been missed here for no apparent reason. This refers, in particular, to the damage-prone clutch, which is surprising: a version with a newly designed connection was once released, but to our astonishment, it has not been used here.

The train's running characteristics, on the other hand, can be rated as very good, and the fact that it does not reach the prototype speed is not as significant as many readers might have expected. The reason for this is that model railway radii, even in Z gauge, are regularly well below those of the prototype. An ICE travelling at the equivalent of 400 km/h would be likely to derail on many curves. It is therefore a compromise that should be acceptable to most people.

Apart from the wind deflectors, which the prototype did not have, the exterior has been crafted to be largely flawless. In addition to Märklin's consistently good paintwork, the model clearly benefits here from accurate colours and enormous advances in print quality.



The current new edition of the ICE-V 410 series is a successful model overall, even if it does have some avoidable weaknesses in certain areas.

Together with the significantly darker tinted windows, these features bring the miniature closer to its prototype than its predecessors from the 1980s and 1990s ever could. From a normal viewing distance, the differences in the bogies of the intermediate cars also disappear.

Overall, the new edition is not the best in its class, but still scores highly with its good performance.

Open letter to the SWR Broadcasting Council:

On 19 December 2025, we got involved in the public campaign to keep the television programme "Eisenbahn-Romantik" on the air and wrote the following letter to the chair of the SWR Broadcasting Council:

"Dear Dr Engelbert Günster,

In your capacity as Chairman of the Broadcasting Council, I am writing to you on behalf of our editorial team with this open letter, which we would like to publish in our magazine together with your response. We refer to the public meeting of the Broadcasting Council on 5 December 2025.

We believe that you and your colleagues have not adequately fulfilled your duties to the public, who are obliged to pay licence fees. The majority of representatives did not actively follow the important agenda item on the programme Eisenbahn-Romantik, did not demand further accountability from the director, did not critically question his report, and, instead, largely preferred to engage in private activities on digital devices.

We would therefore like to remind you and urge you all that you are not represented on this committee “for fun” or to receive attendance fees, but to represent the licence-paying public. The behaviour we are criticising here is unacceptable and does not fulfil your duties. If there is no interest in conscientiously monitoring the proper use of public funds and performing important supervisory duties, then I hereby publicly and unanimously call on you to resign.

We contributors are condemned to supporting public broadcasters with our hard-earned money and cannot escape this obligation. In return, however, we can also expect all representatives of your committee to fulfil their duties faithfully and reliably, and above all competently. I am currently seeing none of this. Therefore, we and our readers will also have to rethink our attitude towards television and radio financed by compulsory contributions. If culture and education continue to decline and the differences between educational television and purely commercial offerings continue to disappear until they are no longer perceptible, then the moral claim to reach into every citizen’s pocket by legal norm will also cease to apply in the future.



The behaviour, which was publicly visible and corroborated by several witness statements, is simply shameful.

I expect every “knowledgeable citizen” to have not only intelligence and discipline, but also commitment and adequate preparation. Unfortunately, the term “knowledgeable” in Germany seems to be based solely on party affiliation, rather than education and relevant expertise. I am therefore glad that broomsticks, flower pots, and representatives of our native fauna are not yet eligible for party membership.

We all expect you and the other councillors to recognise and understand when the broadcaster compares apples with oranges and uses arbitrary formats to justify decisions that allow no other conclusion. The director general may be able to fool and deceive knowledgeable citizens, a downright ridiculous term in this context, but he cannot fool the general public.

I therefore request that you fulfil your obligations, identify suitable comparison formats yourself, commission a well-founded assessment in the form of an expert opinion with analysis and comparison points to be determined, and, above all, critically examine this at the next meeting. In view of the upcoming holidays, I expect your response in the same text format by 9 January 2026.”

Instead of responding to all enquiries as publicly promised, the broadcaster’s committee has remained silent to this day. Editor-in-chief Holger Späing comments as follows:

“If someone takes the trouble to write a letter, then common courtesy dictates that a reply should be sent. We can assume this all the more so as it has been repeatedly suggested that SWR takes its licence fee payers seriously and would be prepared to do so.

We can therefore conclude that although the broadcaster is heavily dependent on compulsory licence fee payers, it does not seem to be interested in their opinions and views. After all, the money flows into its coffers as a matter of course. And unlike a club, for example, the company is not accountable to its donors.

A lack of decency and questionable morals can be hidden here under the guise of freedom of the press, but it remains to be seen whether this is effective. I am probably not the only one who has been convinced by this behaviour to finally reject broadcasting financed by compulsory levies and to campaign against this outdated construct in future.

The founding fathers of our republic established broad and well-protected freedom of the press, so that it could serve as a pillar supporting democracy. It was not intended to allow politicians and their cronies to retreat to cushy positions, and live off the public purse without any accountability, whatsoever. Such disrespectful behaviour is shameful, and another nail in the coffin of our democratic form of society.”



Here you can see the market stall (item no. Z109-7B) with a matching paint scheme suggested by the manufacturer. Photo: Klingenhöfer Miniaturen

Klingenhöfer opens the new product season:

Klingenhöfer Miniaturen was the first manufacturer to inform us of a new product for 2026 (<https://www.klingenhoefer.com>). Even though no one is thinking about refreshing ice cream in the depths of winter, it seems like the right time for the new market stall (item no. Z109-7B) complete with salesperson figure, which is sure to make everyone’s mouth water with its large waffle cone and three scoops on the roof of the stall.

The model comes unpainted and can be customised to suit your own preferences. This will help the cold days fly by, so that you will be ready for the first rays of sunshine on your home layout.

A small flood of new products after Christmas:

“Every year again” is what many retailers would like to say when they look at the Märklin deliveries, which are made not during but after the Christmas season and tie up liquidity. This is currently the case with the MHI special model of the 101 series (item no. 88668), which adorns the engine of the 01 066 express steam locomotive.

We were present during the application of the decals to the prototype in mid-2025 and can confirm to the manufacturer that, compared to the hand-made sample, they paid very close attention to the subtle differences that arose during the process and implemented them. This means that the expected finishing touch on the prototype will also be a special eye-catcher on the model.



A few adjustments were made to the 101 127-9 with its current advertising design (item no. 88668) in order to match the final appearance of the prototype as closely as possible. These include, in particular, the small red areas on the front of the locomotive.

Märklin has now also completed the Flixtrain with a three-car and a two-car set (87403 / 87404) in the typical green and black design, as the prototype currently appears on the tracks. The design, including the paintwork and printing, was very elaborate, even on the front ends, and leaves an appealing impression that is true to the prototype.

The only slight drawback is that the windows and roof design – as with the earlier Interregio cars – do not correspond to the current operating condition because no changes have been made to their shape. This also applies to the dark grey interior with compartments, which no longer corresponds to the original design, but cannot be seen very clearly from the outside anyway due to the lack of interior lighting.

One of the highlights among the latest arrivals is the class 290 shunting diesel locomotive in ocean blue/ivory livery (88511). It reflects an operating condition from the late 1980s, to which the lettering and equipment have also been adapted: for example, it features a more modern shunting radio antenna, which is mounted on the short front end instead of on the roof.

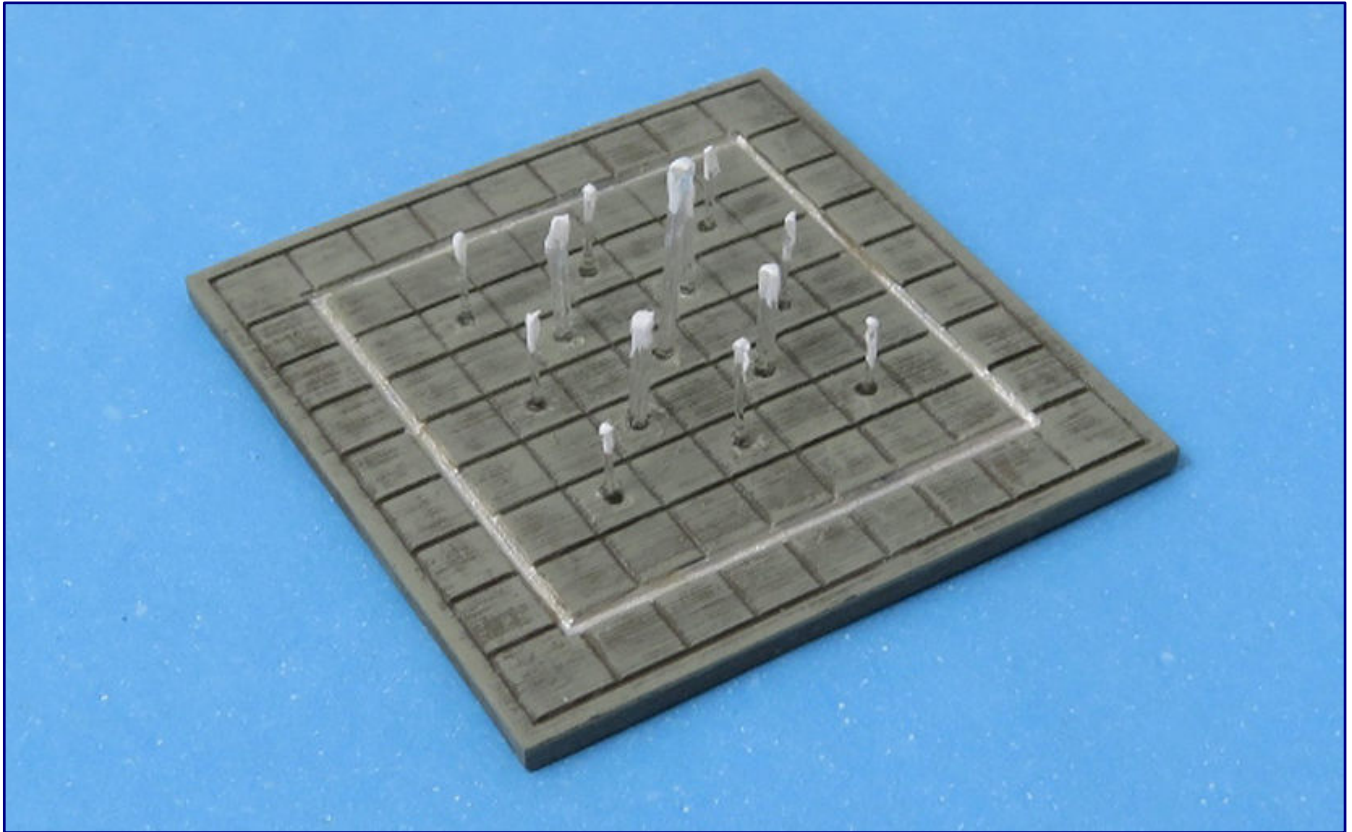


The Flixtrain carriage sets (87403; photo above) and the ocean blue and ivory-coloured Class 290 (88511; photo below) have now also been delivered.

This part has not been included in the basic colour scheme in accordance with the prototype, but its white colour appears somewhat too bright compared to the light grey (with red tip) of the prototype. The lamp rings, which are made of bare metal on the prototype, are not printed on. In our photo sample, we also noticed a slightly thick coat of ivory paint, but we cannot comment on this with regard to the entire series.

Variety at Yellow Dwarf:

The three latest innovations from Yellow Dwarf (<https://www.yellowdwarf.eu>) cover a wide range of topics: First, there is the ground fountain (item no. 60025) for urban environments or parks. Everyone is familiar with the beautiful water features that invite you to escape the unexpected spray of the fountains in summer or enjoy a welcome refreshment.



Who isn't familiar with the beautiful water features of the ground fountain (item no. 60025) in many cities? Photo: Yellow Dwarf

The hunter's stand (60298), a classic raised hide, is a must-have for any model forest, as it creates familiar scenes and intrigue when combined with matching animal figures. By the way, it's worth taking a look at Noch's 3D master figure range.



Storage accessories V "Sanitary ceramics" (60250; image on the left) and hunter's stand (60298; image on the right). Photos: Yellow Dwarf

The storage accessory V "Sanitary Ceramics" (60250) is the ideal equipment for many craft businesses with large yards, where, in addition to vehicles, building materials and sanitary elements loaded on pallets are also a must. Even in an open high-bay warehouse, it is guaranteed to catch the eye of anyone viewing the facility.

Start of construction at NoBa-Modelle:

For NoBa models (<https://www.noba-modelle.de>), the first new products of the year are focused on the resumption of construction site operations. The central feature here is a swap body silo (item no. 2200R) for transporting and removing building materials.



The new interchangeable silo for construction sites is available individually or, as shown here, with a transport vehicle in driving position (item no. 6394R; left image) or pick-up position (6395R; right image). Photos: NoBa-Modelle

This important construction site item is also available together with a matching swap body vehicle, which has been converted for both driving position (6394R) and loading position (6395R).

News from AZL in January:

The first deliveries will be led by the EMD GP30 from Reading (item nos. 62125-1 / -2), followed by the blue and yellow EMD F7A & F7B from ATSF (63020-1 / -2). The EMD FP7 from Canadian Pacific (65316-1 / -2) is intended for passenger trains.

More recent is the EMD SD60 from the largest US railway operator, Union Pacific (65040-1 to -3). GE, on the other hand, produced the C40-9W, which was actually also used by Norfolk Southern (65103-1 / -2).



EMD F7A & F7B of the ATSF (item no. 63020-1; photo left) and EMD SD60 of the Union Pacific (65040-1; photo right). Photos: AZL | Ztrack

The freight train escort car with side observation windows pulls up for the Delaware & Hudson (92026-1), while the covered freight cars pull up individually or in pairs for the Western Pacific. (905414-1 / 915414-1).

The Auto Flood III bulk freight cars from CSXT (905707-1 / 915707-1 & -2) and the Missouri Pacific pneumatic unloading cars (916049-1 / 906019-1) are supplied in packs of two and four respectively. Individual 53-foot containers are labelled for UPS (95124) and FEC (95121).

Obituary for Helmut Küpper:

On 14 January 2026, Helmut Küpper, a well-known friend who had shaped our gauge community for decades, passed away at the age of 87, which came as a surprise to us. Together with his wife Josephine, who died about a year ago, he was a household name among many model railway enthusiasts worldwide under the Spur-Z-Ladegut Küpper brand. But many also knew him as a collector of advertising cars.

What made this man so unique was his sincerity, honesty and professional competence. He was known for his direct manner of speaking and showed backbone when it mattered, while always having his heart in the right place, which was obvious to everyone. So, it is not only us who miss him greatly.

Until two days before his sudden death, he was in contact not only with members of our editorial team. If we now briefly recount the personal experiences of one of our editorial colleagues, many of our readers will have similarly fond memories:

To refer to Mr. and Mrs. Küpper figuratively as “parents” in the field of model railways is a recognition and appreciation that they both richly deserve and which will continue to have an impact for a long time to come. The warmth, expert advice, assistance, and kind words described above helped us to find our place in our community and become an integral part of it.

For his 70th birthday, Helmut wanted to escape the hustle and bustle and take it easy. This wish led the couple to the Black Forest for a get-together, including a walk followed by dinner. Josephine and Helmut have always complemented each other perfectly, and not just on that day.

Our editorial colleague considered it a special honour to borrow the dioramas built by Helmut, which are also fondly remembered by many, and to exhibit them at the local model railway manufacturer. In addition to this trust, there was also a great deal of wisdom and constant humour throughout.

But he never denied that the death of his wife had affected him deeply over the months and robbed him of much of his joie de vivre. Nevertheless, he still loved to laugh. The two seemed unthinkable without each other, so it comforts us to know that they are now reunited.

Our deepest sympathy goes out to his closest relatives Christine and Markus, as well as all his family and friends. We miss Helmut and would like to honour his memory. Rest in peace.



Helmut Küpper, † 14 January 2026. Photo: private

First overview of new Märklin products 2026:

The first manufacturers begin announcing their new spring products at the beginning of January. Märklin is the first to do so for large-scale production. We would like to briefly list the most important new designs and design variants here before the complete and detailed presentation follows in February.

The Vomag rail truck (item no. 88022) is a real surprise, having just made it into the German Federal Railways fleet. The unusual vehicle is also powered in the model and has two illuminated lanterns at the front. Metal-filled plastic and precision-cast bronze ensure the highest possible dead weight.



The Vomag rail truck in service with the German Federal Railways (item no. 88022) is the highlight among this year's new models.
Photo: Märklin

A model of the glass train from the 491 series (88280) also comes as a surprise. The observation railcar has the Olympic blue paintwork (Epoch IV), two different pantographs and five lanterns for the front and rear lights.

The V 80 (88802) class diesel locomotive now enters Era III with a silencer fitted. Meanwhile, the bronze investment casting process continues with the Rail Zeppelin (88762), giving it a very elegant appearance.

The OOtz 44 (82710) bulk goods wagon, available in a pack of four, is a new freight wagon based on the chassis and body of the OOtz 43 from the 2011 new product range. The only difference is a lower body, which had to be newly developed.

Two new sets of figures from Artitec:

The expressiveness and lively effect of Artitec's figures (<https://artitec.nl>) are hard to beat. This, together with the unusual but always welcome scenes, is what makes them so unique.



The new steelworkers (item no. 5220004) from Artitec can also be used in many ways outside their trade and never fail to make an impact.



The depot staff (5220021) are also hard at work maintaining the locomotives.

The six “steelworkers” (item no. 5220004) have now been delivered. They appear to be sitting at the break table, pouring themselves coffee or chatting over a meal. The three-piece “Depot Staff” set (5220021) also shows the hard work going on in the depot, with the industrious fitters taking great care of the equipment stored there so that it is ready and in good working order for its next assignment.

Miwula campaign in January:

Miniatur Wunderland Hamburg repeated its “I can’t afford it” campaign for people in need in January 2026. Visitors to the exhibition can decide for themselves whether they want to take advantage of this offer – no proof is required.

Anyone who recites the phrase at the ticket office or writes it on a piece of paper will receive free admission during this quieter period. This campaign has already brought a sparkle to many children’s eyes. The founders report that parents have told them that a visit to the museum was their child’s greatest wish, one that they themselves were unable to fulfil.

The initiators hope that many others in the model railway sector and elsewhere will follow suit, sending such an uncomplicated message of solidarity and allowing the most vulnerable members of our society to share in such joys.

Chassis conversion with AZL:

One, two, done. That's how easy it is to convert Märklin freight train cabooses with the conversion kit (item no. 99005) from AZL. Simply remove the old chassis from the housing and insert the new one from the delivery set.



Remove the old chassis, fit the new chassis underneath: conversion is that easy with the AZL conversion kit. Photos: AZL | Ztrack

And now the otherwise well-made models with the correct bogie spacing and claw couplings that fit AZL are rolling again on the 1:220 scale US tracks. It is important to take a close look before the conversion to ensure that the brake replicas are placed on the correct side of the vehicle. Hopefully, the photo provided will help with this.

Opening of the trade fair season 2026:

The new trade fair season kicks off with Faszination Modellbahn at the Maimarkthalle Mannheim from 6 to 8 March 2026. Several manufacturers will be presenting their new spring products to the public for the first time here. ZFI is organising the conceptual area for Z gauge.

The next event will be Intermodellbau in Dortmund in April. Here, too, we can expect to see a good representation of Z gauge, and we intend to participate. As a media partner for this trade fair, we will provide further information as soon as the initial details have been finalised.

Time limit for editorial awards:

Along with the spring new items, we always announce in February which new items in the various categories have received the editorial award "New Release of the Year". Anyone who follows our issues closely can easily identify all the nominated candidates.

We would like to officially nominate two of them here today because, although they are discussed, they have not been tested like the rolling stock or tools and will not appear in a construction report in the near future.

The Ford Transit MK1 "Police" (item no. FDTMK1-05) from MrZtraX and the VW LT 28 Bus "DLRG" from JMC Scale Models are still in the running. Both were on display at our exhibition in October 2025, so many readers were able to get a personal impression of these extraordinary new products.

However, we would like to inform you that we are not yet considering the Intellibox 3 from Uhlenbrock for 2025. We have yet to test it, so we will only consider a nomination for 2026.

The reason behind this decision is that although the first devices were delivered in the past calendar year, there was a brief delivery halt due to a programme update. This means that many customers will not receive their devices until after the turn of the year, which is why it is appropriate to store them there.

Märklin Annual Report for 2025:

Shortly before the Toy Fair, Märklin announced its annual report for 2025. The past year was described as challenging in terms of the overall economic conditions. Nevertheless, Florian Sieber, managing partner, states that model railways remain a popular hobby.

The company remained stable, with turnover in the 2024/25 financial year amounting to EUR 119.2 million. The forecast for 2026 is somewhat more optimistic, at EUR 120.5 million. Customers' reluctance to spend is noticeable in these economically uncertain times. A positive conclusion was drawn from the previous year's new customer campaign, "Märklin rocks the rails".



Märklin reports investments in, among other things, the Göppingen plant (pictured) and economic stability in a difficult environment.

The good strategic production planning at the plants in Göppingen and Győr also contributes to the positive outlook for the future. Investments in new machinery and tools at both locations were also reported, as well as a new air heat pump heating system for three halls in Hungary.

Imprint

ISSN 2512-8035

Bibliographic information of the German National Library: The German National Library lists this publication in the German National Bibliography. Detailed bibliographical data and editions can be found in the DNB catalogue at <https://portal.dnb.de>.

The publication of **Trainini German Magazine for Z Gauge** is voluntary and non-commercial. **Trainini German Magazine for Z Gauge** does not aim for any sources of income. This publication is governed exclusively by German law.

Contributions marked by name exclusively reflect the personal opinion of the author. This is not necessarily the same as that of the editor or publisher. Unless otherwise indicated, photos are taken by the editor.

Board of Editors:

Holger Späing (Editor-in-Chief)
Harald Fried
Ralf Junius
Dirk Kuhlmann
Joachim Ritter

Correspondent North America:

Robert J. Kluz

English translation:

Alexander Hock, Christoph Maier, Oleksiy Mark, Martin Stercken

Further voluntary work: Torsten Schubert

Licensed **Trainini Discussion Group** (<https://www.facebook.com/groups/1597746057122056/>): Michael Etz (**Trainini Locomotive Doctor**)

Publisher and Responsible in terms of German press law (V.i.S.d.P.) is Holger Späing, Am Rondell 119, 44319 Dortmund; Contact: 49 (0)231 9598 7867 or by e-mail to [redaktion\[at\]trainini.de](mailto:redaktion[at]trainini.de).

Advertisements of events and advertisements of third parties are free of charge, but will only be accepted after availability and recognisable Z gauge reference. They appear separately from the editorial part on the sole responsibility of the advertiser. Advertisements from small series providers always have priority.

Letters to the editor must be submitted in writing by post or e-mail to [leserbriefe\[at\]trainini.de](mailto:leserbriefe[at]trainini.de), stating the full name and address of the responsible reader, and are always welcome. Publication is reserved to the editorial staff. The editorial team always endeavours to present a representative picture and therefore to take every submission into account.

By submitting video clips, pictures, photos and drawings, the sender agrees to the publication and indemnifies the publisher against any possible claims by third parties. This expressly includes a future repetition in the magazine, **Trainini TV** as well as in brochures and posters.

All company names, trademarks and designations mentioned in this publication belong to the respective manufacturers or rights owners. Their reproduction takes place without guarantee of the free usability. For misprints, errors, price quotations, product descriptions, building specifications or transmission errors of any form whatsoever, the editorial staff and publisher assume no liability.

Trainini German Magazine for Z Gauge is published monthly (without guarantee) and is available to all interested model railroaders, especially fans of Z gauge, to download free of charge and for a limited time from <https://www.trainini.eu>. Downloading may incur third-party connection and network service provider costs. The placement of only the complete magazine on other domains is expressly permitted after it is no longer available on **Trainini's** own webpages, and as long as the download is not offered for a fee. **Trainini TV** can be found at <https://www.youtube.com/TraininiTV>.

All contributions, videos, photos and reports are subject to copyright. Translation, commercial printing and any other form of reproduction, even in part, require the prior express consent of the publisher. Unauthorized commercial use will not be tolerated.

Trainini® is a legally protected trademark, registered in the register of the German Patent and Trademark Office (Munich), No. 307 30 512. The trademark is owned by Holger Späing, Dortmund. Misuse will not be tolerated. All rights reserved.