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and Prototype

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Harvesting machines in model

New motor in the rail bus
Rock design with Styrodur

Introduction

Holger Späing
Editor-in-chief

Dear Readers,

because it was offered as part of our series on digital basic knowledge, in the last issue we explained the operating modes of the iron core and bell-shaped armature motors and compared their advantages and disadvantages.

From my point of view it would be a good idea to make a practical comparison. Which model could do this better than the popular rail bus?

Since 1973 it has been offered in various versions. During this long period it has been running with all generations of Märklin motors, because recently it appeared in a revised form with the bell-shaped armature motor, which is to determine the future of Göppingen. Therefore, we subjected the three- and five-pole motor as well as the bell-shaped armature motor to a driving test.

On this occasion, it was also possible to compare what other progress had been made, both inside and out. Experience herewith the product care very closely, as introduced and pushed by the market leader for some years on different models. The digital focus series will then be continued in the next issue.

There was also something to compare in the accessories sector, where the Massey-Ferguson MF 830, the third combine harvester on a scale of 1:220, competed a few months ago. Can it repeat or continue the success story of MO-Miniatur's Claas Europa?

The only model currently available allows us to look left and right to see what other agricultural models there are. Life on the farm would be pretty lonely if the combine harvester were the only vehicle or device on the farm.

Agriculture simply fits too well to the many secondary railway topics that we find on train layouts and with cattle breeding alone this focus is far from being used up. And so we noticed that there is a lot going on in this area, and over and over again new developments come up.

This month we are also focusing on the topic of rock design, which was explicitly requested by many readers during last year's main topic. Our reader Jochen Brüggemann shares with you today his experiences in preparing rocks of Styrodur instead of gypsum, which he can then use later without problems in his train layout.

A good eye for the role model is also extremely important for convincing results. We haven't forgotten that either, and have sprinkled in a few illustrative objects. Far too often, convincing implementations are ultimately hampered by false or missing layers of sedimentary rock.

Enjoy with us the last warm summer days, the reading and the then seamlessly following new hobby season!

Yours,

Holger Späing

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We thank Jochen Brüggemann for his guest article.

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Cover photo:
Sales of agricultural machinery are booming. While the farmers of Rothenzell are on their way to the fields with tractor and combine harvesters, the E 44 with its freight train transports new equipment to factory equipment dealers.

Märklin development 1973 to 2018

Evolution of the rail bus

Since 1973, Uerdinger Schienenbusse (railbuses) have been part of the Mini-Club program. Up to the latest edition from the new year 2018, the VT 989 / 798 series has thus had all Märklin engine generations. This makes us most curious in examining selected examples in practice according to the technical descriptions of the functions in the last issue and to check what else has been updated on this popular model.

Just one year after the premiere of Z gauge at the International Toy Fair in Nuremberg, a 1:220 scale model of the Uerdingen 798 / 998 series rail bus followed, and its appearance could be considered revolutionary at the time, as it had a much more elaborate design and was therefore closer to the prototype than its counterpart of the single-engine example in H0 gauge.

But more than 40 years have passed since then and time has not passed over the former flagship model. Technical weaknesses in the construction remained, externally errors and compromises on the identical structure for the control and motor vehicles made the models look old.

It won't work without a rail bus: The delivery of the revised models (Art. No. 88166 and 88171) provides the occasion for a technical overview.

Recently, extensive refinements occurred, which has made us take notice. So it seemed about time to take a closer look at 45 years of model history from a technical point of view. For the sake of comparability, we have only focused on DB implementations.

We compared the original model with article number 8816 from the seventies and eighties, the variant 8831 with Jägermeister liquor advertising from 1994, the Conrad special edition 88312 from 2007 and the new version 88166 from this year.

We have compared four generations of rail buses (from rear to front): The original model (8816) produced from 1973, the Jägermeister version from 1994 (8831), the Conrad special edition from 2007 (88312) and the result of this year's model update (88166).

For the variants 8831, 88312 and 88166, we also collected measured values from operating the various versions. This selection was based on their different drives with three-pole (8831), or five-pole iron-core motor (88312) and bell armature motor (88166). During the course of its production time, the 8831 model was also available with a five-pole motor, which should be mentioned for the sake of completeness.

External developments

In this comparison, the progress in varnishing and especially printing is quickly and very clearly visible. While in the seventies the models were painted in such a way that they left a good and prototypical impression in the light of incandescent lamps, Märklin later took a clear turn.

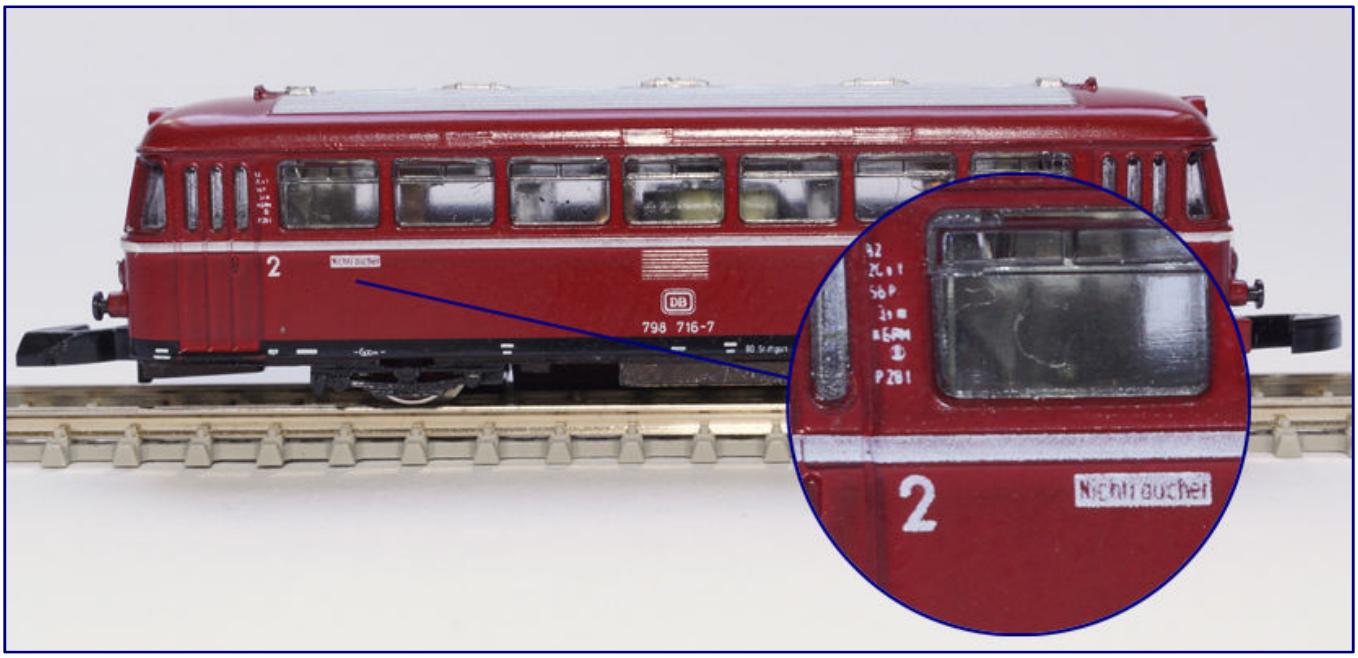
The clearly brighter colours compared to prototype gave way and Märklin consistently oriented itself to the RAL scheme and the effect of the colours viewed in daylight. On the rail bus, this phenomenon is easiest to detect between products 8816 and 88166.

Also printing has made significant improvements. Company labelling has become significantly finer, the line width that can be printed has decreased significantly. Perhaps this is also the reason for the long absence of an Era III version in the programme?

After all, it is necessary to place considerably more tiny letters between the windows in the door area, which may well have been problematic in the course of the first twenty years. It cannot be overlooked that the printing on the newer implementations has become noticeably sharper.

The number of printing inks used was also smaller in the early years. Since the company number, DB cookies and class numbers were printed in white, Märklin also used the same colour for the wide decorative lines under the ribbon. The model, however, had white aluminium-coloured trims at this point.

This error can be detected up to version 8831; only the Conrad 88312 rail bus was correctly printed in this respect and, as the first Era III edition of the rail bus, also had company addresses in the correct colours at the time of commissioning.



This is how the original model 8816 came to its buyers from 1973. By the standards of the time, both the form and the printing had been extremely successful. The enlargement shows that all addresses and decorative lines were produced exclusively in white overprint.

For a long time, the upper decorative lines on the circumferential rain gutter, which cannot be proved on all rail bus models, were also completely missing. They first appeared on model 8831, but were also printed in white at the time, and subsequently became standard.

The models also lacked for many years window embossings. This refers to the contrasting colour of the frames, which is achieved by embossing colour ribbons on the protruding contours. Among our comparison models, only the most recent edition 88166 features metal windows that follow prototype and are brightly highlighted. However, it should be noted that this is not the first time this has been implemented in this manner.

The rubber seals of the folding doors printed on the new item also provide a clear improvement in overall appearance. The thin, accurately printed black lines between the individual door wings are immediately noticeable to the observer and in any case have a high recognition value for rail bus connoisseurs.

However, Märklin has not been able to correct or eliminate errors in the basic form. Thus the horn with two pipes does not fit the model, motor and control cars still carry identical fans, which is not to prototype, and the luggage compartment of the control car still has a three-leaf instead of a four-leaf folding door.

On the prototype, only the driver's cab end with the luggage compartment has a control panel and thus a three-light headlight signal on the outside. The other side of the model is equipped only with two taillights.

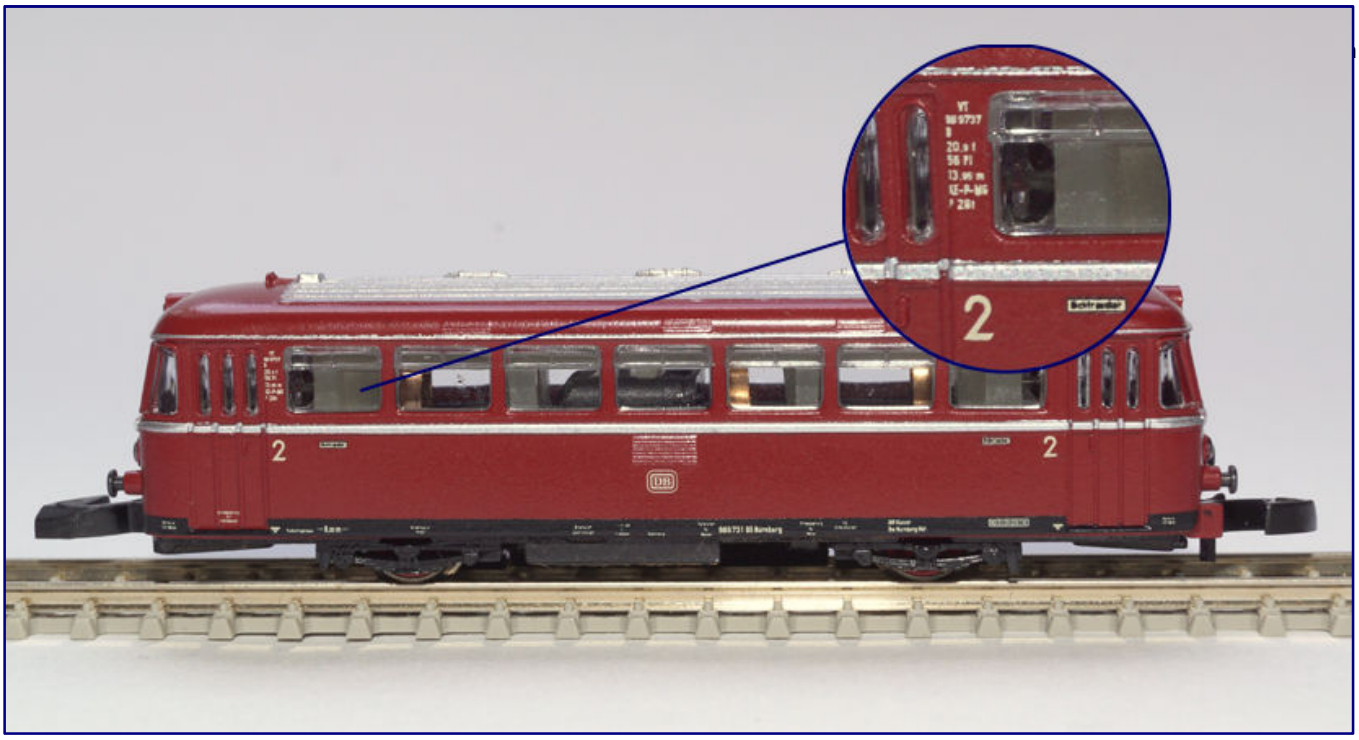
For the 8831 model, the upper decorative lines have also been printed for the first time, but their printing colour is still white, as with the lower ones. The lettering is finer and in two colours.

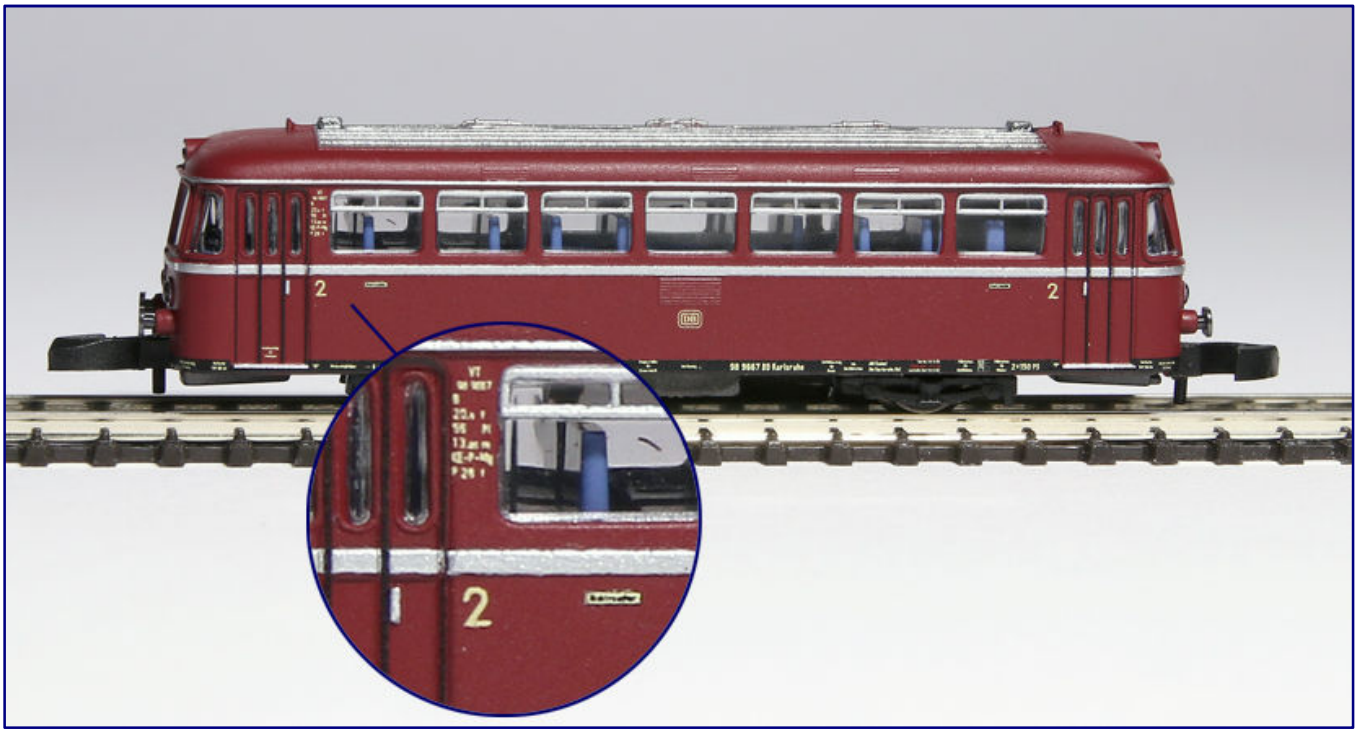
As early as 1973 it appeared curious that Märklin had recreated the three air intake openings for the engines on the side walls, but did so without an exhaust pipe on the roof. Thus the form was not correct for an engine car, a sidecar or a control car; every implementation remained as a compromise. This did not change until 2018 when the model update occurred.

Fortunately, the buffers have changed in the meantime. For some years now Märklin has been using flattened specimens on the top and bottom of the rail bus, which is to be welcomed, as this change is also perceptible. The bar at the lower edge of the housing on the right side of the coupling, however, has remained until today.

We have not yet mentioned two very praiseworthy changes in product care that set the 88166 model apart from all previous editions: most importantly is the interior design produced by 3D printing, which, thanks to its blue colour, the imitation leather interior of the Uerdinger is reproduced correctly.

Due to the colour contrast, this immediately catches the eye through the windows, which is why the insertion of Preiser figures (with amputated legs) is worthwhile. The interior also has new interior lighting with white light-emitting diodes, which already shine brightly when starting, and is therefore easily noticed.





The comparison of the labelling and decorative lines between the Conrad support (88312, top) and the current model (88166, bottom) shows almost no gains. However, the pressure of the door seals and the door handle, as well as the frame embossing on the hinged doors, are clearly noticeable. The blue interior is also immediately noticeable.

Successful new engine

Märklin has thus eliminated a major shortcoming in the original design. The front and interior lighting on both sides was previously taken over by incandescent lamps and can only be guessed in all comparable models when driving at realistic speeds. Only when the rail bus started to race along at ICE speeds could the light be noticed without any problems.

With the latest version, all the lights are clearly visible even when driving extremely slowly, and the LEDs also enabled the headlights to be illuminated in the direction of travel. Unfortunately, it still wasn't enough for red taillights at the end of the train this time.

The original model was driven by a three-pole motor with iron core. Its weaknesses were contact problems on dirty rails and in the switch area. Otherwise, as with almost all models of that time, it is possible to achieve a thoroughly good driving culture.

With regard to the driving values, today is an opportunity to practically test the theoretical knowledge on iron-core and bell-shaped armature motors learned in the last issue. For example, we first tried the models 8831, 88312 and 88166 in the start-up and slow speed tests.

We measured the following starting voltages here:

Part No.	Drive	Start-up voltage
8831	Three pole motor	1,3 Volt
8831	Five pole motor	1,3 Volt
88312	Five pole motor	6,0 Volt
88166	Bell-shaped armature motor	2,6 Volt

To our amazement, the three-pole and five-pole motors in the model of the same article number are still on a par here. This can be due to measurement inaccuracies or manufacturing tolerances in the area of the gear unit.

With this innovation we notice that although it requires twice the voltage to start as its sister models with iron-core motors, the LEDs light up immediately. If we turn the transformer up further to the measured voltage, this model also starts to move smoothly.

The only infamous exception was the Conrad 88312 rail bus: It needed by far the highest voltage to start moving, which cannot be explained by the physical properties of its motor.

The Jägermeister rail bus (8831) was built from 1994 to 2008 with both three-pole and five-pole motors. The driving characteristics of both versions are surprisingly similar.

The lowest continuous driving voltage for all four models also had to be determined. We expected it to be identical to the starting voltage for the new model, while it must be higher for all other models. We have also calculated the lowest speed, based on the model, at which the model can run:

Part No.	Drive	Start-up voltage	Prototype speed
8831	Three pole motor	1,9 Volt	17 km/h
8831	Five pole motor	1,9 Volt	12 km/h
88312	Five pole motor	9,0 Volt	174 km/h
88166	Bell-shaped armature motor	3,2 Volt	22 km/h

It can be seen that with the classic five-pole motor a cultivated driving operation is possible, which, due to the lower breakaway torque, even permits a slightly lower model speed.

The Conrad special model finally falls out of line at this point, because it already exceeds its model by almost twice its top speed, and we are making a slow speed test here.

It is worth noting that the 88312 model is anything but safe on the tracks, especially at this racing speed. It still drives very jerkily and therefore is quite unsatisfactory, but, at least, it doesn't stop on the track anymore. Unfortunately, this model is therefore not suitable for our layouts.

We attribute this to the enormous quality fluctuations that Märklin experienced before 2012 with the massive relocation of production to the Far East. Badly worked gears with burrs and higher fluctuations in connection with often faulty and also low-torque motors took their toll, probably also here. One consolation remains that it could probably be repaired, in principle, with spare parts.

The winner in this discipline is the new version 88166, even if this cannot be readily seen from the measured values. Although the starting voltage does not prove to be the lowest slow speed voltage, as we had actually expected, there is also an explanation for this based on our observations.

The exterior of the Conrad rail bus (88312) is already close to the current model. As a representative of the late Far East production phase, however, it unfortunately has most unacceptable driving characteristics.

The transmission's self-locking mechanism probably puts the model on the right track when the track contact is lost for an (unexpected) moment. This is a “birth defect” of the rail bus, which unfortunately still has to manage without swing axles. This is not a happy solution for a vehicle with only two power contact points per pole.

It is therefore slightly faster than its two siblings from the 8831 series. Nevertheless, it beats them clearly in the area of driving characteristics, because it drives visibly smoother and more evenly over the test track.

With transformer position 100, the three-pole candidate and also the innovation are well and safely on the way, while the Conrad counterpart is still on the road with a very erratic and faltering ride. In the noise test, the model 88166 performs best by far, because it is the quietest. The classic sounds of a Märklin miniclub model are not audible here, but a sound decoder still makes the most sense. Only a quiet buzz reveals that a drive actually is operating under the housing.

The revised new edition after model update (88166) shows the most balanced operating characteristics of all of the models. In addition to the interior fittings and the printing properties already described, the rhombuses of Waggonfabrik Uerdingen on the ends and the flattened buffers should also be mentioned positively.

And also with the current consumption of the bell-type armature motor:

Part Nr.	Drive	Transformer position 100	Transformer position 150
8831	Three pole motor	150 mA	200 mA
88312	Five pole motor	170 mA	190 mA
88166	Bell-shaped armature motor	20 mA	27 mA

The new rail bus is thus in the same range as Rokuhan's models, which are also equipped with bell-shaped armature motors ex-works. The three- and five-pole motors are also roughly in the expected range, and both consume significantly more power.

Summary

The measurements certainly confirm what we have read in theory about the different drive systems. It also became clear, however, that, in addition to a high-quality and solidly manufactured motor, a well-matched and precisely manufactured gearbox is also required in order to be able to bring advantages to the rail.

After Märklin had considerable problems for several years, the Göppingen firm has returned to good quality results with the relocation of production to its own plants. Ongoing product revisions make many classics wait for a few more years in the catalogue range.

Thus there is again a presentable and urgently required basic program, which makes the track interesting also for newcomers.

However, despite the technical upgrading and the beauty treatment that has taken place, the age of the rail bus can now be clearly seen. The time soon seems ripe for a replacement, for example in the form of a largely redesigned VT 959 to meet today's standards, the predecessor of the twin-engined Uerdinger.

Our comparison shows that the current model beats every previous edition in appearance and can also score points in technology. Even though the basic model has become old in the meantime, hardly a Zettie can avoid it, as this plant photo also impressively proves.

Nevertheless, article 88166 fills a gap in the range: the Conrad special model, which is no longer available, appears less attractive due to its poor operating characteristics. The novelty for Era III therefore remains without a real alternative, especially as Märklin is unlikely to reconstruct the twin-engine design. And no Zettie would want to do without a rail bus.

All in all, the revised new edition also has a very attractive exterior; Märklin has used modern techniques to get everything out of its moulds that is possible. This became very clear without a direct comparison to the older models. That's why the current edition should sell well. As I said before, without a rail bus it doesn't work at all.

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Combine harvester model on a scale of 1:220

A revolution in agriculture

Without agriculture it is not possible on most model railroads. It is not only a backdrop for rail traffic, but also an independent and attractive topic in its own right. An overview of the mechanisation of agriculture helps to determine the correct framework for one's own epoch. And we are taking this opportunity to compare the combine harvester models from Artitec and MO-Miniatur.

Most model railways have branch lines as their theme and are therefore more of a rural, than an urban theme. This means that the focus is not only on idyllic landscapes, but also on farms and fields.

However, while the larger scales suffer from a severe lack of space and may at best indicate fields, meadows and pastures, our scale offers excellent conditions for exploiting the colourful image of green corridors, yellow cornfields and also brown farmland and for giving the railway the backdrop it deserves for an optimal effect.

With the Caterpillar D7 bulldozer and the Massey-Ferguson MF 830 combine harvester, Artitec has launched two interesting models that can be used in many different applications. Let us now take a closer look at the agricultural machine and classify it historically.

This also presupposes a need for suitable agricultural machinery. Many tractor models, produced for more than ten years, prove this, as does the high-circulation model of the Claas Europa from MO-Miniatur. We presented it in detail in **Trainini®** 2/2010.

This was the first 1:220 scale combine harvester model that was once implemented at the suggestion of our editorial staff. Around the turn of the year 2017/18 Artitec's Massey-Ferguson MF 830 was released, the third harvesting machine for Z gauge.

We take this as an opportunity to compare them with the no longer available Claas Europa, but at the same time to classify the machines historically and thus give our readers a framework to use them in an appropriate manner. Let us therefore make a short excursion into the history of German and European agriculture.

Looking back to the beginning of modern times, agricultural work was labor-intensive, difficult and relatively unproductive hard work. The majority of the people lived in the country and not in the city. Only a few had their own land, the majority of the people worked as day labourers, servants or maids for farmers. There was no shortage of manpower, and they were correspondingly cheap to recruit.

“Horse and plough” are also announced by Artitec for gauge Z and bear witness to the time when agriculture was still practiced without machines. Until the early Era III, such sidecars can be used on European installations.

It is regrettable that in the course of the Middle Ages much knowledge about the productive cultivation of the fields and about helpful tools had been lost. Famines as a result of droughts or other natural events kept recurring.

The sentence “Give us our daily bread today” as an urgent request to God reminds the Christians in the Lord's Prayer how little it used to be taken for granted to be fed and ultimately survive.

Slowly and laboriously new knowledge about efficient field cultivation was built up. The introduction of the three-field economy as early as the Middle Ages laid the first foundations for population growth.

However, it was not until the time of “Alte Fritz” (Frederick the Great) that the company was able to develop into a fruit cultivation business, which produced much more stable harvests.

It was also the Prussian king Frederick II who promoted the cultivation of potatoes and corn in his territory and helped the plants imported from the New World to play the roles of important food products, which created lasting opportunities for an adequate supply of nutrients.

The motorization of German agriculture only really took off after 1945. The Porsche Junior is part of this history and also of today's sports car manufacturer. Lamborghini experienced similar developments in Italy.

The market remained strongly in motion after the Second World War. Mergers and acquisitions have caused brands to perish or to emerge. This modern Deutz-Fahr tractor stands for the merger of the two formerly independent brands of KHD in 1977 and today the Deutz-Fahr brand belongs to the Italian SDF Group.

The devastating impact of nature on the survival of the European population is still clearly demonstrated by the great famine in Ireland between 1845 and 1849, which claimed around one million lives. It also meant that those, who could, immigrated to America to seek their fortune there.

However, the flight to the still young United States also had a decisive impact on the development of agricultural technology: in view of the low population density, large areas had to be cultivated, and at the same time the workforce was scarce and in demand. This made them expensive and exerted pressure on farmers early on to replace them more cost-effectively with farm machines.

Many inventions therefore come from this continent or have at least been perfected and further developed there. Developments that were to bring tangible progress included animal-powered ploughs and engine driven threshing machines pulled onto the field by oxen or horses. Later, some of the steam engines were able to partially operate independently.

Over the last seventy years, tractors have become larger and more powerful to meet the ever-increasing demands of the equipment that they pull. This Fendt 926 Vario TMS, which has dual tyres on both axles for weight distribution on unstable ground, can be classified close to the current peak performance. Fendt has been part of the American AGCO Group since 1997.

Since it proved difficult and laborious to bring coal and above all enough water to the fields, the inventors of the period quickly thought about constructing alternatives to heavy steam engines.

The ray of hope in this case came from Germany. In 1886 Carl Benz and Gottlieb Daimler invented the automobile almost in parallel. The Otto four-stroke engine, named after its inventor, also started running here for the first time. Nicolaus August Otto and Eugen Langen had solved the problems of gasifying fuel, introducing it into the combustion chamber, including compression and ignition.

The development of a combine harvester in Germany was first started by the manufacturer Claas. In 1946, the machine was ready for series production. The result in the form of the trailed combine harvester Claas Super can be seen here in a later version with grain tank at the harvest behind a Deutz D40 tractor in 1969. Photo: Mgweb (public domain)

Rudolf Diesel is regarded as the inventor of the “new rational heat engine,” the self-ignitor named after him. It was characterised above all by a higher efficiency, which was later to give it a breakthrough for larger machines and trucks.

So it was also a key for the development of the tractor. Derived from the Latin word for the verb “pulling,” the later German name was “Schlepper.” The tractor was a signpost for the mechanisation of agriculture, which, with the exception of England, arrived late in Europe.

It was significantly lighter than a steam engine, had the capacity for considerably longer working hours and could be used both as a traction and as a propulsion engine.

After the USA and Canada, manufacturers in Europe also entered the growing market, some of which are still known today or continue to exist under other brand names after take-overs.

This Claas Super-Automatic -S- (built in 1972) belongs to the last development and construction phase of the successful model. Photo: Sj413 (CC-BY-SA-3.0)

However, the pressure to replace people with machines was slow to pick up speed in continental Europe. The first impetus came from increasing industrialization, which was also driven forward by the expansion of the railroad networks.

But only the wars in the Old World changed the situation considerably. With the deaths in the battlefields, agriculture also ran out of more workers, but the situation was far from comparable to the lack of workers that farmers in America had to control. There, large numbers of immigrants had been drawn to the West in the course of the gold rush.

This Claas Mercator 50 (built in 1974) is the smallest model of the second-generation large combine harvester from Harsewinkel. In addition to the desire for more performance, the appearance had also become more important. The result was the side panels, accompanied by the colour seed green and a modified logo that is still common today. When this model was launched on the market in 1969, it was still called Claas Protector.

Those who farmed there had to plough and till hard prairie soil in order to be able to supply people with food. The endless expanses provided for huge farms that placed completely different demands on the machines that were needed here.

As a result, manufacturers in the United States and Canada have developed into the world's largest and still leading companies in the industry today. Tractors also reached their limits when they had to pull and drive machines that required a lot of power. The hour of self-drive had come.

For grain harvesting, development using simple mowers initially led to mower binders, for which the automatic knotting of the spike bundles first had to be invented. They placed the bundles on the field, which could then be collected and threshed.

After the takeover of Heinrich Lanz AG during a decline in 1956, the John Deere brand also began to gain a foothold in Germany. The self-propelled 1188 SII Hydro/4 combine harvester from this company stands for today's standard large machines, which are often operated by contractors.

The next stage of development was the Mäh-Dresch-Binder, which also took care of threshing and cleaning the grain, which was bagged and transported away. In the end, the combine harvester was there as we know it today in its basic operation, only the flow direction and threshing technology inside has changed since then. In English this machine is called a "Combine" because of the combination of all important work steps.

On America's large fields, they gained great importance early on and also led to the further growth of large agricultural machinery manufacturers. In Europe, with the exception of England, distribution remained restrained.

Only the ideas of the regime from 1933 to 1945 drove forward the development and production of tractors in Germany. The number of tractors delivered increased steadily and noticeably, but they still did not develop into the dominant agricultural machine.

An important requirement was the replacement of liquid fuels with alternative propulsion systems to make the country independent of imports.

The wood gasifier, which Lanz in particular offered as a variant of its combustion engines, played an important role here until 1945 because of these conditions. After the Second World War, the time for both technologies was over when the market for tractors in Germany suddenly grew rapidly and new companies developed.

The company Claas from Harsewinkel (Gütersloh district), founded in 1913, played a pioneering role in Germany. As early as the 1930s, it had the courage to develop a self-propelled combine harvester that was not yet ready for series production. But the developer Walter Brenner had another “super idea” on December 8, 1942, from which the name of Claas Supers derives, the first (towed) combine harvester of this company.

The English confiscated some prototypes after the war, but did not have them copied. Instead, they had them brought to the Rhineland in the summer of 1946 for harvesting the grain there. Claas used this experience to bring its new product, which works according to the transverse longitudinal flow principle, to series production readiness.

In 1953, the Super-Junior, a smaller and less expensive alternative with a cutting width of 1.80 m, was introduced. With 65,000 copies built between 1946 and 1978, the entire series developed into a great sales success for Claas.

The top model of the Super series, the Super-Automatic, demanded an output of 35 HP from the tractor with a cutting width of 2.10 m. Later, these trailed, single-axle combine harvesters were also available with grain tank, tank pipe and mounted engine.

A look at the model world

A model of the Claas Super-Automatic with hydraulics was available from MO-Miniatur. This is a reproduction of the early years of production in the transport position: the machine can be loaded onto freight cars or pulled on the road with the bagging device folded up and the cutterbar angled around 180˚.

The combine harvester Claas Super-Automatic, so important in the history of agricultural technology, was converted into a model by MO-Miniatur a few years ago. Here it is moved by a Deutz F2L, which wasp models has developed exclusively for the 1zu220 shop. The tractor is one of the few model tractors currently available.

Tractors suitable for operation were also included in the range: The Eicher Wotan (80 HP), the Steyr 190 (36 HP) or the Güldner G75 all-wheel drive (75 HP). On the KoMi-Miniaturen side, the Deutz F3M317 was contributed, which also had sufficient power with 50 HP, and a a PTO shaft must always be present on the model for the drive.

The Claas Europe was also a technical milestone and a model of success at the same time. As a model of the MO miniature, it was also the first combine harvester on a scale of 1:220. As a follow-up version it appeared in green (see picture below).

The filigree specialist from Stade has a thematic focus in the field of agriculture and has therefore repeatedly provided exciting new products, which also included various trailers and agricultural implements such as hay rakes from various eras.

The current range includes the 55 HP Lanz Bulldog tractor of the type HR 8 arable air.

The early days of modern agriculture will soon serve Artitec with the "horse and plough" announced at the toy fair. In addition to the products already mentioned, the air is currently becoming somewhat thin. The only tractor of current production still known to us is the exclusive model of a Deutz F2L for the 1zu220 shop, manufactured by Wespe Models.

This is a once widespread and popular agricultural vehicle from the halls of the oldest gas engine factory in the world. Also striking is its green paint with the yellow weaning strips and red rims. For the Claas Super-Automatic, however, this tractor is only suitable as a tractor, and it could not operate the Super-Automatic due to a lack of sufficient power.

Self-propelled combine harvesters in comparison

If we turn to the models of self-propelled combine harvesters, a brief comparison of the Claas Europa from MO-Miniatur with the Massey-Ferguson from Artitec becomes obvious. Here, too, we want to go into the role models in passing in order to be able to classify them in terms of time and importance.

At the beginning of the 1950s, the manufacturer Claas turned again to self-propelled vehicles for European standards, the first one leaving the halls as early as 1953. However, these models were still too expensive for small and medium-sized businesses, which eventually led to cheaper models.

While Artitec's Massey-Ferguson MF 830 still looks quite handsome compared to the caterpillar, it seems almost tiny when compared to the Claas Europa by MO-Miniatur. Nevertheless, questions of scale are unjustified for both.

The Claas Europa with 2.10 m cutting width and 45 HP was launched in 1958. Shortly afterwards followed the smaller Columbus with a 1.80 m cutting width and 29 and 34 hp, respectively. Unfortunately, we did not find any exact vehicle data for the Massey-Ferguson MF 830. This may be due to a different or non-uniform designation because there are overlaps between tractors and combine harvesters.

The origins of Massey-Ferguson:
Massey Harris's history began in 1847, when Daniel Massey established his production facility in Newcastle, Ontario, Canada. At that time he manufactured simple agricultural implements. About ten years later, the foundry founded by Alanson Harris for the manufacture and repair of such equipment was built at the same location.

Massey and Harris were competitors. They both developed into recognised and appreciated manufacturers of harvesting machines before finally merging in 1891.

Irish engineer Harry Ferguson founded his company in Belfast in 1911. It was also dedicated to the manufacture of agricultural equipment and soon also tractors. He took a decisive step with a three-point coupling that initiated a change in tractor technology and is now used by almost all models on the market. With it, tractor and implement function as an integrated system.

In 1953 Ferguson merged his company Harry Ferguson Ltd. with the North American company Massey-Harris to form “Massey Harris Ferguson.” Five years later, the company changed its name to Massey-Ferguson. Today, the former company belongs as a brand to the American agricultural machinery group AGCO, which has also owned the German brand Fendt since 1997.

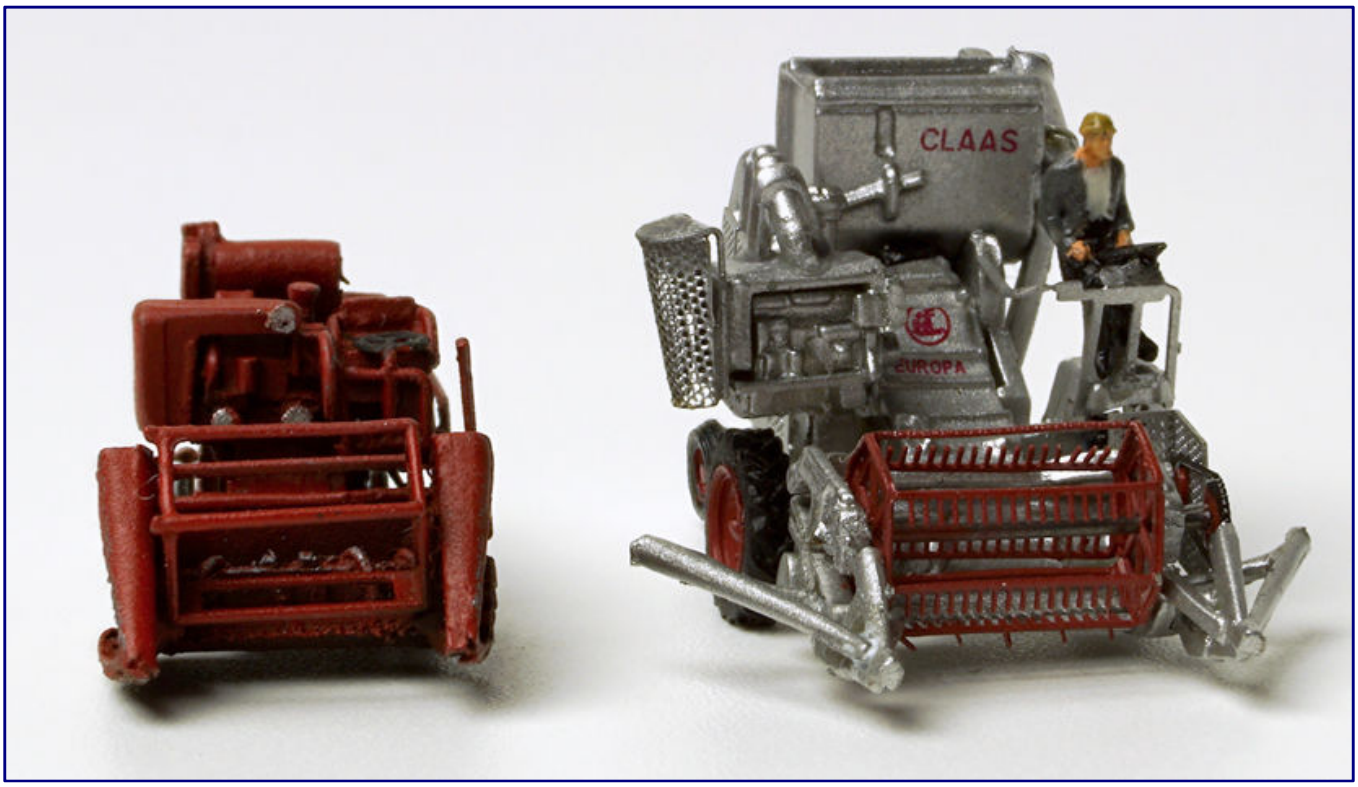
Due to its size and construction, however, this model can also be classified in comparison to other designs of this manufacturer at the same time as its Claas counterpart.

At that time they were all equipped with engines from Perkins, which Claas had used for a long time.

Its cutting width is slightly narrower than that of the German comparable model and should have been around 1.80 m. This means that both agricultural machines probably had quite identical target groups and can be regarded as direct competitors.

The manufacturer's model of the MF 830 (Art. No. 322.018) from Artitec is as detailed as the model from MO-Miniatur, but cannot quite keep up in direct comparison. The applied, fine etched parts give their tiny parts an even higher filigree effect.

But we also have to certify to the accessory specialist from the Netherlands that he has cleverly selected the template. Only its overall width is dimensioned so that the MF 830 can also be loaded onto low side wagons.



The difference in size becomes even clearer in the front view. Only the Artitec model with cutter bar fits on a low side wagon, while that of MO miniature stands out with a more finely designed reel.

With the steering wheel of the open operator's platform, however, the pendulum again swings in favour of the MO miniature. At Artitec, it would have to be removed and reassembled later in order to place a driver figure on the seat. A slightly higher material thickness is also noticeable on the reel. In addition, Artitec has fewer details.

As with the competitor model, however, fine, free-standing parts characterize the good overall appearance. If we now place the two vehicles directly opposite each other, the Claas Europa dominates the picture. This is not due to deviations in scale, but rather to the different model sizes. The Claas Europa is wider, longer and above all higher.

As a direct comparison model to the MF 830, its smaller brother Claas Columbus would probably be more suitable, but it is not available as a model for the Z gauge. It is precisely the differences between the two models, which also affect the paintwork, that make the system so attractive: The Massey-Ferguson is dark red; the Claas device was available in silver and medium green.

Depending on the placement in the surroundings, each specimen will stand out in very different ways through the contrast created to a golden yellow field of corn, a field path or road as well as the dark ambience of a shelter, or even blend harmoniously into the surroundings.

Left vehicle side (top picture) and rear view (bottom picture) should provide an overview of the successful detailing of the Artitec product.

The paint finish in particular is another advantage of the Artitec model, because the matt surface corresponds to the appearance of a technically well-kept one, not regularly washed work equipment, on which dust from the air, grain and dry arable land precipitates during idle periods and during field work.

The view from above allows a good view of the complete machine and its cutting unit in the Artitec implementation.

However, our favourite in direct comparison would be the Claas Europa by MO-Miniatur, because it impresses with its finer details. Since it has not been available from the manufacturer for some time, however, this evaluation no longer brings any practical benefit for interested parties. Finding a new copy at a sales partner should become more difficult in the meantime.

Anyone who does not yet own a combine harvester model and wants to recreate harvest scenes or farm life in 1:220 scale can therefore not ignore the Artitec model. For deployment scenes, however, a suitable driver figure should be put on it despite the necessary effort, which can be obtained from Trafofuchs, as a commissioned work according to your own wishes.

The minimal coarser details do not represent a shortcoming, because the Artitec miniaturization is absolutely contemporary and quite filigree. And so the buyer is also pleasantly struck that it is printed with the lettering and the company logo of the model manufacturer.

It is up to the model railroader to stage this vehicle in such a way that its strengths become apparent and the viewer is captivated. This is best achieved when the combine harvester is shown on a partially harvested field at work or when it passes the spectator on a freight train. Our favourite would be to load several combine harvesters onto low sided wagons, because such a repetition, in particular, draws the viewer's attention.

Manufacturer of the compared models:
http://www.artitec.nl
https://www.mo-miniatur.com

Further information on sources of supply:
http://www.komi-miniaturen.de
https://www.1zu220-shop.de

Matching desired figures:
http://www.trafofuchs.de

Rock design with Styrofoam

An alternative to plaster

Jochen Brüggemann has been working for more than five years on the scenery of his ongoing Z-gauge layout project. He built the terrain of his layout with extruded polystyrene foam or "Styrofoam", a lightweight yet strong material. As Styrofoam is easy to carve and shape, Jochen decided to use it also for modelling the few rock formations which he wanted to include in his layout. After some preliminary tests with leftover pieces, he went to work with standard tools and materials. He is happy to share today with our readers his experiences and results.

By Jochen Brüggemann. Styrofoam is a lightweight yet strong material which is mainly used for insulation purposes in the construction industry. The technical term for Styrofoam, a brand name, is extruded polystyrene foam. It is a rigid foam made of polystyrene, the stuff we all know from plastic model kits. Extruded polystyrene foam comes in a variety of colours - usually blue, pink or yellow - and is also known as Styrodur, another brand name, or simply foam board or blue board.

Light weight yet strong, Styrofoam can be shaped into almost any form with a set of simple tools and without causing too much of a dusty mess, properties which have made it a popular landscaping material for railway modellers.

The finished rock formation is ready to be attached to the layout after having received an additional algae/moss wash and a ground cover consisting of grass, weeds and blackberry bushes.

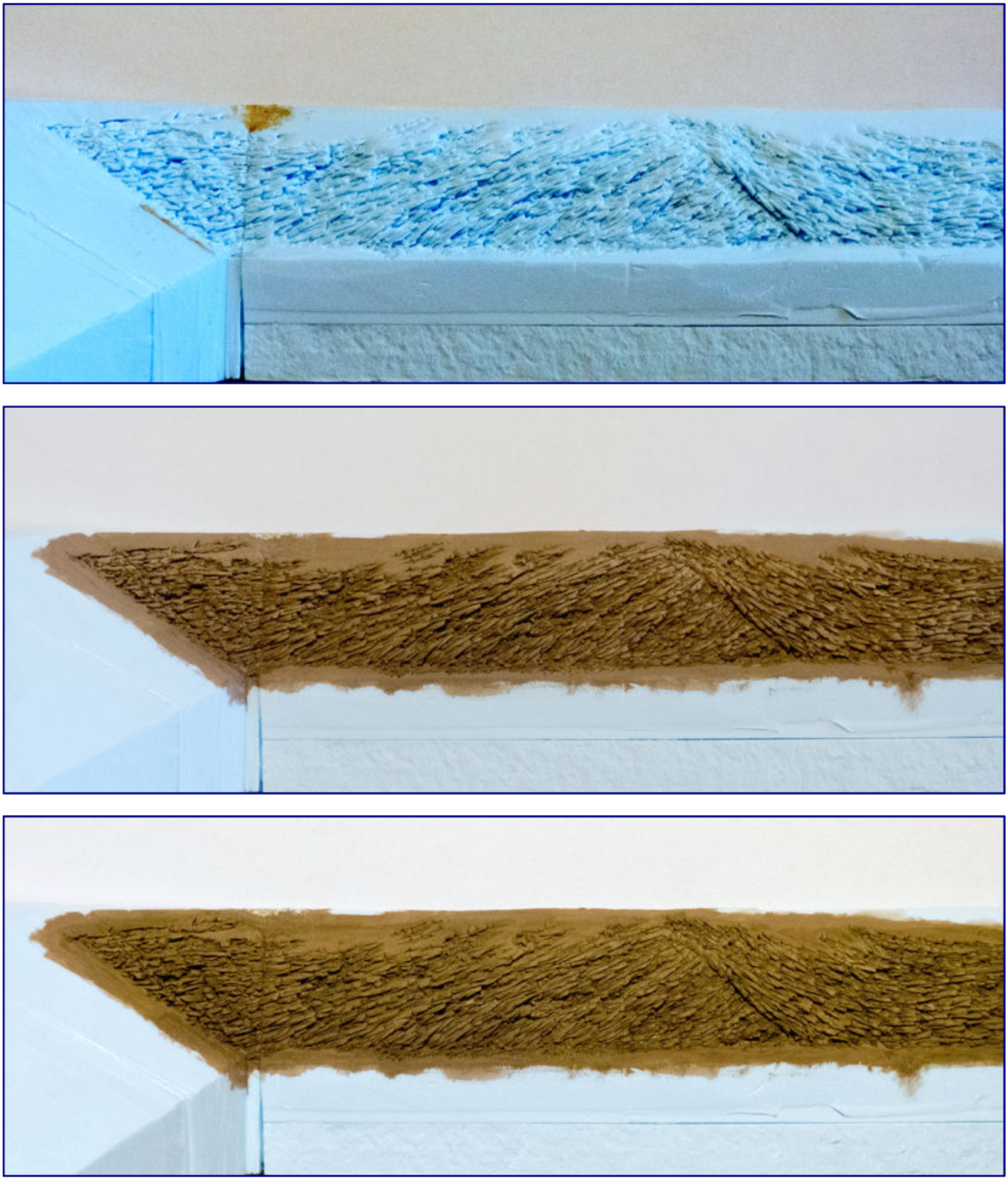
It is for these reasons that I did not even consider plaster or other types of fillers for constructing the terrain of my layout, but decided to build it completely from Styrofoam. And given my good experiences with the material, it only seemed natural to use it also for modelling the few rocks which I had planned to include in the scenery.

I did not follow, however, the often described practice of first gluing Styrofoam panels and blocks onto the baseboard before carving them into their final shape. The risk of damaging signals, catenary masts and other already installed items just seemed too great with this method.

Continued on page 29

Studying nature is an indispensable part of modelling realistic scenery. Here are two examples of Devonian limestone cliffs at the Neander Valley (Mettmann district, Germany). They offer a good illustration of the fault edges, textures and sedimentary layers typical for many rock formations.

In addition, I was concerned that small, electrostatically charged Styrofoam particles could impair the functional reliability of my points. I built, therefore, many of my Styrofoam landscape sections “off-site”, matched them to fit with each other and around the track work and positioned them at first loosely on the layout, before permanently securing them.



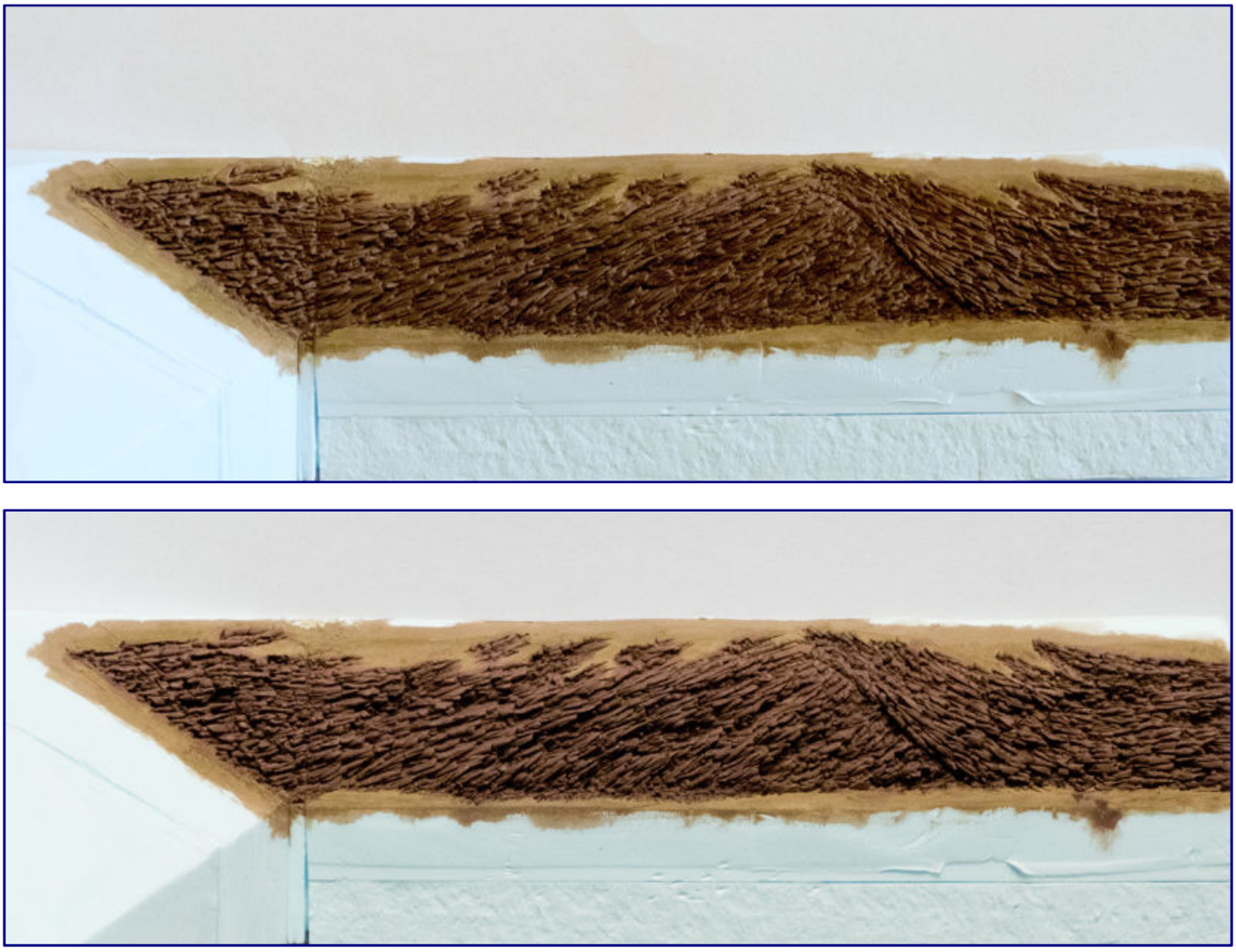
Final rock shape after carving (top). The gap between two Styrofoam parts has been closed with Faller Hydrozell filler. The rock looks quite realistic already after a first base coat (middle photo) and a first wash (bottom).

This part of the modelling was done almost exclusively with a set of sharp knives at a table away from the layout. This had the added advantage of simplifying the detailing of the rock formations I had in mind. My goal was to achieve the authentic look of layered, strongly weathered and partially very crumbly mottled sandstone.

But at first I did some dry runs on a few Styrofoam leftovers in order to practice the necessary steps and techniques. Once confident that it could be done, I set out to detail the rocks on the already prepared landscape segments.

Carving the rocks

When cutting my Styrofoam landscape sections into shape, I made sure to leave some extra material in those areas where I was planning to have rocks. Individual layers of rock were then carved several milimeters deep with a sharp knife and a pointed craft knife.



Improved highlights and shadows after a second coat of sandstone coloured acrylic paint (top) and an additional coat of lighter sandstone colour (bottom).

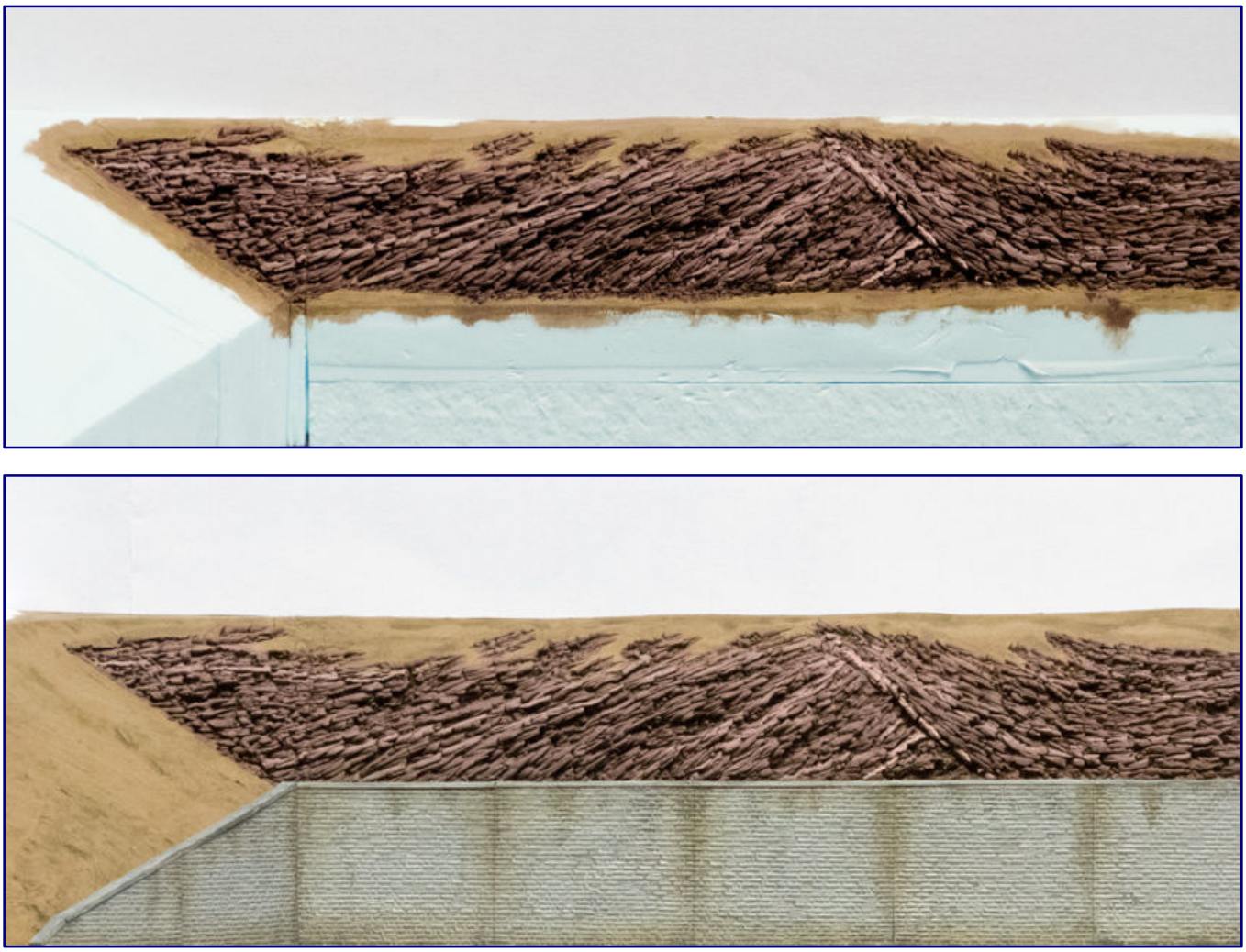
In doing so, I tried to avoid creating horizontal layers of rock. Slightly turning the blade during carving allowed me to cut irregularly shaped layers and partial gaps in the rocks. Additional detailing was done by

further cutting, engraving and plucking with knifes and tweezers until I had achieved the desired effect. However, several more years passed until I approached the colouring of the rocks.

Painting and weathering the rocks

At first, I had intended to prime and strengthen my rocks with a coat of diluted white glue.

However, upon reading an article about rock modelling with Styrofoam in a German railway modelling magazine (Eisenbahn-Journal 1/2016), I decided to dispense with a white glue coating and subsequently found that a direct application of acrylic paints suffices to strengthen the rocks, at least at the small scale of things in Z-gauge and provided that one works carefully on the carved rocks.



Additional highlights have been applied to individual rock layers (top). After also colouring the surroundings, the landscape section is ready to receive its ground cover. Just to give an idea of the scale: the retaining wall is about 25mm or one inch high and was made from a cardboard reinforced plastic stone sheet from Godfather Models & Supplies (bottom).

The colouring of my mottled sandstone rocks was done in six steps, by using soft size 2 – 6 brushes and by waiting for each coat of paint to thoroughly dry before applying the next one:

1. Start with a base coat of oxide brown acrylic tinting paint from the DIY store, slightly diluted with water.

Adding a drop of dish soap helps to lower the surface tension of the diluted paint and improves its flow. By the way, I applied the paint not only to the rock itself but also to the surrounding areas. It took two rounds until the paint had spread into each and every crack. The first step was only completed once absolutely no bare Styrofoam was visible any more.

2. Apply a wash of olive-coloured basecoat from Woodland Scenics (Art. no. C1229 "Earth Undercoat"), also diluted with water and with a little dish soap added. Apply also one or two coats to the rock's surroundings in one or two passes.

3. Two coats of sandstone coloured acrylic paint (Kreul Hobby Line No. 32, "Burnt Sienna"), slightly diluted with water, directly on the rocks.

4. One loosely painted coat of a lighter sandstone colour (obtained by adding some white colour to the paint from step 3).

5. Highlighting individual rock layers with strokes of an even lighter colour tone than the one used under step 4.

6. Apply a final wash of diluted olive-coloured basecoat from Woodland Scenics (Art. no. C1229 "Earth Undercoat").

Finally, here is a complete view of our finished rock section. The rocks have now also received a moss and algae wash as shown in the lead photo on page 27. Work on the ground cover has also been completed and the section is ready to be added to the layout.

To give the rock an appearance of some slight moss and algae growth, an additional wash with moss/algae coloured base colour from Woodland Scenics can be applied (C1228 "Green Undercoat", diluted with water).

After having completed the paint work, the rocks (and their surrounding areas on the Styrofoam landscape section) are now ready to receive a ground cover of turf, static grass, small bushes and trees.

The finished landscape segments are then one by one secured to the layout with white glue. Any remaining gaps between the segments will be closed with Hydrozell, a filler product form Faller, and at some later stage covered up with grass, turf or foliage.

If you feel inspired by my method of modelling rocks from Styrofoam, you are welcome to give it a try. However, I cannot and do not want to guarantee a successful outcome, and decline any responsibility or liability in case of something going wrong.

All photos (except page 28): Jochen Brüggemann

Selection of suppliers of layout products:
https://www.faller.de
https://www.c-kreul.de
https://woodlandscenics.woodlandscenics.com

Suppliers of ground cover products and trees:
https://www.busch-model.info
https://www.heki-kittler.de
https://www.mininatur.de
https://www.noch.de

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

Technologiesprünge im Ackerbau

Explosion der Landtechnik

Erst zum Ende der Steinzeit wurden Menschen sesshaft und hörten auf, den Herden ihrer Beutetiere nachzuziehen. An die Stelle von Jagen und Sammeln traten Viehzucht und Ackerbau. Das vorliegende Buch streift Jahrtausende Menschheitsgeschichte ab dem jungsteinzeitlichen Grabstock, legt den inhaltlichen Schwerpunkt aber auf die Technikgeschichte der modernen Landwirtschaft seit Beginn der industriellen Revolution.

Albert Mößmer
Das große Buch der Landtechnik
Vom Grabstock bis zum Feldroboter

Geramond Verlag GmbH
München 2018

Gebundenes Buch
Format 22,7 x 27,4 cm
168 Seiten mit ca. 230 überwiegend farbigen Abbildungen

ISBN 978-3-95613-058-8
Preis 29,99 EUR (Deutschland)

Erhältlich direkt ab Verlag
oder im Fach- und Buchhandel

Heute ist den Menschen der Industrieländer seit Generationen nicht mehr bewusst, wie wenig selbstverständlich es ist, täglich satt zu essen zu haben. Tausende von Jahren war zuvor die Ernte trotz Schweiß und Mühen unsicher: Schädlinge, Krankheiten, Naturkatastrophen und Kriege zerstörten die Frucht der Felder und lösten Hungersnöte aus.

In der Bibelgeschichte der Vertreibung aus dem Paradies heißt es: „Mit Mühsal sollst du dich ernähren alle Tage deines Lebens“. Die Christen beten im Vaterunser: „Unser tägliches Brot gib uns heute“. Deutlicher lässt sich nicht formulieren, welche Sorge über lange Zeit hinweg die größte der Menschen war.

Besonders seit dem Beginn des 20. Jahrhunderts ging die Zahl der in der Landwirtschaft tätigen Personen beständig zurück, gleichzeitig ernährte jeder Bauer immer mehr Menschen, die immer geringere Anteile ihres Monatseinkommens für Lebensmittel ausgeben mussten. Möglich machten das nur immense technische Fortschritte in der Bewirtschaftung von Feldern, die für enorme Produktivitätssteigerungen sorgten.

Die Geschichte des Ackerbaus vom jungsteinzeitlichen Grabstock, seiner Weiterentwicklung, den Verlust wichtiger Erkenntnisse im Mittelalter mit der Folge von Unterernährung und Hunger für die Mehrheit der Bevölkerung sowie dem Erfinden und Perfektionieren wichtiger Maschinen als Grundlage für höhere Produktivität in der Neuzeit ist ein äußerst interessantes Geschichtskapitel.

Zusammengefasst auf 168 Seiten ergibt das ein faszinierendes Kompendium mit einem Ansatz, wie er nicht in klassischen Geschichtsbüchern zu finden ist. Mit Modellbahn hat das insoweit zu tun, als dass dem Leser auf dramatische Weise auch die Lebensweise früherer Menschheitsgenerationen bewusst gemacht wird, um auch die Umwelt seiner Anlage historisch korrekt wiedergeben zu können.

Fachautor Albert Mößmer beleuchtet in seinem Werk nahezu die komplette Geschichte der Landtechnik von den Anfängen des Ackerbaus über Hilfsgeräte wie Saatmaschine, Schlepper oder Mähdrescher bis hin zu elektronisch gesteuerten mobilen Feldrobotern.

Die Frühgeschichte und Ursprünge der Landwirtschaft bilden dabei nur ein kleines, aber dennoch sehr wichtiges Randkapitel für den Gesamtkontext. Die inhaltlichen Schwerpunkte liegen hingegen auf der Entwicklung von Maschinen und Antrieben wie Dampfmaschine und Verbrennungsmotoren in den letzten 200 Jahren.

Viele historische Meilensteine liegen damit bereits im Zeitalter der Eisenbahn, die ebenfalls ihre Spuren hinterlassen hat und ebenfalls einen Schlüsselfaktor der beschriebenen Entwicklungen bildet. Berührungspunkte zwischen Landtechnik und Eisenbahn gibt es folglich viele und das sollte auch auf Anlagen nicht zu kurz kommen.

Das von vielen guten und auch hervorragend wiedergegeben Fotos, darunter historische Dokumente als größter Anteil, ergänzt von museal erhaltenen Fahrzeugen, geprägte Buch ist ein Schatz an Vorlagen für den vorbildorientierten Modellbahner. Angesichts der Bedeutung von Nebenbahnen im ländlichen Umfeld und in Darstellung der beginnenden Erntezeit gehört dieser Titel schon fast zur Pflichtlektüre.

Doch das hervorragende und auch fesselnd geschriebene Werk ist auch bestens geeignet für historisch interessierte Menschen ohne Eisenbahnleidenschaft. Ebenso spricht es jeden Technikbegeisterten an.

Ein Grund dafür ist, dass die erfundenen und weiterentwickelten Maschinen nach Aufgabengebieten in eigenen Kapiteln beschrieben werden, die in ihrer Abfolge zudem weitgehend chronologisch sortiert sind. Das sorgt für Klarheit und Nachvollziehbarkeit, weil es einen roten Faden liefert, welche Fortschritte für die Evolution der modernen Landwirtschaft gesorgt haben.

So stehen Saatmaschinen vor den noch heute bestens bekannten Dreschmaschinen, während der Traktor das Lokomobil ablöst und mit der Serienreife des Dieselmotors selbst einen Entwicklungssprung erlebt.

Dazu liefert der Autor auch Porträts vieler wichtiger Pioniere der Landtechnik wie Max Eyth, Cyrus McCormick, Daniel Massey, Harry Ferguson, John Deere, Rudolf Diesel oder Franz Claas. Das sorgt nicht nur für Abwechslung im Lesefluss, sondern zeigt auch auf, wie sehr die Entwicklungen von Wettbewerb getrieben waren und Bewährtes sich auch bei anderen Herstellen durchsetzen sollte.

Publishing pages with reference possibility:
https://verlagshaus24.de/geramond

Erfolgsprogramm im Wirtschaftswunder

Robuste Stangenlokomotiven

Ohne eine Bestellung von 15 Stangenlokomotiven der Baureihe V 65 wäre das erfolgreiche, erste Baukastenprogramm von MaK wohl kaum bei den Eisenbahnfreunden wahrgenommen worden. Ihr mehrheitlicher Fokus und größtes Interesse richten sich schließlich stark auf die Staatsbahnen. Das EK-Videoportrait weiß dies gezielt zu nutzen und vermittelt über diesen Aufhänger viel Wissenswertes.

CFT Video Berlin
Die Baureihe V 65 - Baukastenlok aus Kiel
Die vierachsige Rangierlok und das MaK-Typenprogramm

EK-Verlag GmbH
Freiburg 2018

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

Best.-Nr. 8443
Preis 19,80 EUR (Deutschland)

Erhältlich direkt ab Verlag
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Mit ihrem ersten Typenprogramm schuf die Kieler Maschinenbaufirma MaK einfache und robust konstruierte Diesellokomotiven mit zwei bis vier Achsen in Leistungsklassen von 200 bis 1.200 PS. Sie waren zurechtgeschnitten für den erwarteten Bedarf privater Eisenbahngesellschaften, wie beispielsweise die noch aus der Vorkriegszeit stammenden ELNA-Dampflokomotiven.

Über die vielen Jahre ihrer Bauzeit entwickelten sie sich zu Erfolgsmodellen und nicht wenige von ihnen blieben bis heute erhalten. Sogar nach Kuba und in die USA gelangten einige Baumuster. So stellen sie ein gelungenes Produkt des Wirtschaftswunders dar.

Sechzig Jahre später rührt ihre anhaltende Bekanntheit vor allem aus dem Umstand, dass auch die DB sich für die Stangenlokomotiven aus dem Hause MaK interessierte. Zur Zeit der Entwicklung und Beschaffung der dreiachsigen V 60 entschied sich die Bundesbahn für den Kauf von 15 vierachsigen Maschinen mit 650 PS Leistung.

Weitere Bestellungen erfolgten aber nicht. Äußerlich wiesen sie einige Unterschiede zu den übrigen Lieferungen auf, denn die DB verlangte Anpassungen an ihre Vorgaben, was vor allem die angesteckten Reflexglaslampen statt fest im Aufbau eingebauter Laternen betraf.

Eingereiht wurden die 1955/56 gelieferten Exemplare für den leichten Strecken- und Verschubdienst als V 65. Kamen sie anfangs häufig noch im Personenzugdienst zum Einsatz, wanderten sie wegen ihrer geringen Höchstgeschwindigkeit schließlich in den Rangierdienst ab und wurden in Puttgarden beheimatet. Bis 1980 war die seit 1968 als Baureihe 265 bezeichnete Splittergattung ausgemustert.

Der neue Baureihenfilm aus dem EK-Verlag portraitiert die vierachsigen Stangenlokomotiven der Baureihe V 65 und klammert die zwei- und dreiachsigen Schwestern geringerer Leistung vollständig aus. Für Privatbahnversionen gleicher Achsfolge fand sich hingegen in angemessener Weise Platz.

Der thematische Schwerpunkt des Videos liegt auf der Museumslok V 65 001, die bei den Osnabrücker Eisenbahnfreunden betriebsfähig erhalten blieb und vor Donnerbüchsen zum Einsatz kommt – so wie es auch der frühen Dienstzeit dieser Lok entspricht. Daraus folgt ein geringer Teil an historischem Filmmaterial, stattdessen wird gezielt gedrehtes Material aus heutiger Zeit eingesetzt.

Gelungene Sequenzen in hervorragender Qualität laden zum Träumen ein und wecken wohl auch im Modellbahner Wünsche nach adäquaten Modellen. Wie schnell zu erkennen ist, lässt sich diese vierachsige Stangenlok erheblich vielseitiger einsetzen als die kleinere V 60 gleicher Leistungsklasse.

Das Programm der vierachsigen Stangenlokomotiven, zu dem die V 65 gehört, bot Motorisierungen von 575 bis 1.200 PS. Insgesamt 268 Exemplare brachte diese Spielart hervor.

Viele von ihnen wurden exportiert, die meisten bei Privatbahnen in Dienst gestellt. Damit wird auch klar, dass sich der Film nicht allein auf die 15 DB-Vertreter beschränken kann. Gezeigt werden deshalb auch deren weitere Museumsbahnvertreterinnen sowie Exemplar, die bei der OHE (Osthannoversche Eisenbahnen) noch lange im Einsatz standen.

EK-Buchautor Roland Hertwig kommt zu Wort, um die technischen Eigenschaften und Merkmale dieser Bauserie und speziell der Bundesbahnvertreterinnen zu erläutern, was erahnen lässt, wie schwierig es gewesen sein muss, historisches Filmmaterial zu finden, das diese Lücke hätte füllen können.

So enthält der Film nur verhältnismäßig wenige historische Sequenzen, die Einblicke in den Einsatz bei der Bundesbahn geben. Zeigen ließ sich damit fast ausschließlich die letzte Einsatzphase im Verschub des Fährbahnhofs Puttgarden auf der Vogelfluglinie. Beeindruckend ist, wie aus dieser vermeintlichen Not ein überaus gelungenes Portrait über die vierachsige MaK-Stangenlok entstehen konnte.

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http://www.eisenbahn-kurier.de
https://www.ekshop.de

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Readers' letters and messages

Zetties and Trainini in Dialogue

Thank you for each letter to the editor and all the feedback that reaches us. Write us (contact details see 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 image is our goal. Likewise, here we note any events or meetings with a significance to Z gauge reference, if we are informed in time.

Trainini Contest 2018 – Error found:

Our Trainini competition 2018 from the last issue was a difficult one. In view of the image resolution in the magazine, the error I was looking for was hardly noticeable, and no one expected it anyway. A good eye was necessary in any case, some model knowledge could have been of advantage, and natuarally luck is a part of it, in any case.

The error searched for in the last issue concerned the model of the Doornkaat car MKO-022, which presented itself to its viewers in Dornum as a yellow construction train car in August 2018. The solution to the mystery was to be found on the seaward side of the sliding door, which was weathered by the sea air.

So we only received one single letter with the right solution! The book prize in the form of the title “Modell-bahn-Bahnhöfe” from the series “Modellbahn perfekt” of Geramond-Verlag goes to Dietmar Allekotte from Mülheim an der Ruhr. The prize will be sent to him within the next few days. Congratulations upon winning!

Photo above:
The flawless sliding door on the side facing away from the water has been preserved with its painting and today hangs as an exhibit on the wall in the locomotive shed north. Photo: MKO e.V.

Left photo:
The opposite sliding door had the inscription "Fabrik errichtet 1806." This spelling mistake in the form of a missing letter was the key issue.

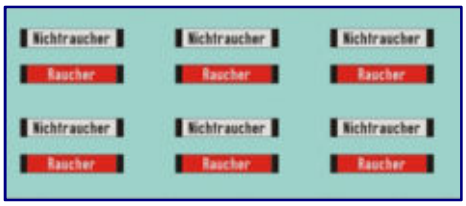
Perhaps his present, intensive occupation with coastal motifs, to which also the Museumsbahn Küstenbahn Ostfriesland e.V. (MKO) has helped our reader. The error was hidden in the article about the model and replica of the Doornkaat car.

In the upper picture on page 8, the following incorrect address can be read on the loading door address about the Doornkaat distillery: On the opposite side of the wagon this writing was correctly written in the same advertising motif as "Factory built in 1806." The sliding door with the flawless motif was preserved during the conversion of the original and is now kept on a wall in the locomotive shed.

This error is of course irrelevant for Z gauge, because the lettering would not be readable in the model. Nevertheless, this humanness impressively proves how the historical advertising motif was painted twice by hand at the end of the nineties according to old models.

News for model train decals for the model building season:

Andreas Nothaft has assembled new sets of decals for the upcoming hobby season, with which road and rail vehicles can be individually labeled. All combinations are available from now on and this also for the Z gauge:



The decal specialist has some interesting new products for autumn, including smoking and non-smoking signs for the Reichsbahn period. Illustration: Andreas Nothaft

- wiss registration plates (vehicle registration plates / number plates) for four cantons so far (Article No. 0550),
- Smoker/Non-smoker Signs for Era II (2605),
- ICE- given names (21045)
- Labels for four pa-containers (6850),
- Labels for a Gm Munich of the K.Bay.Sts.B. I (7752),
- Test warning bar of E 10 477 incl. company number and location (8122) and
- Complete labelling for a 103 of the DB for all epochs (8137).

You can order these and other decals as well as individual orders at http://www.modellbahndecals.de.

Factory closure hits AZL production:

At the turn of last month, the two owners of AZL published the following information in their forum:

> “American Z Lines was informed on Friday 27 July that our main producer of locomotives and rolling stock has closed its factory. We are currently working to transfer our tools to other producers, but this will lead to delays in release of our previously announced products.
>
> This has serious implications for the entire industry, we are not alone in this situation, and we have no further information or forecasts. Please note that we received several deliveries of spare parts before the factory was closed. This will enable us to support our current product line for the foreseeable future.
>
> Although we regret these delays, we appreciate your continued support and business. AZL is financially strong and will continue to exist. We will keep you updated as soon as we receive more information.”

According to our information, the supplier concerned is the Chinese producer AFFA. In Z gauge, this should also affect the US supplier Atlas, which in our scale is busy preparing a new track system.

According to the sales partner, AZL's ability to supply around 40,000 products is secured for another 18 months. Delays in delivery and a rescheduling of deadlines would affect announced innovations such as the lightweight passenger coaches or the steam locomotive of NW class J in brass construction.

Trade fair announcements for the autumn 2018:
From 15 to 18 November 2018, the 35th International Model Railway Exhibition (IMA) will take place in the exhibition halls (Köln Messe) of Köln (Cologne). Around 200 brand manufacturers, small series suppliers, dealers and clubs are to be represented there. At the same time, the Köln Echtdampf-Treffen, the Lego-Kidsfest and the Lego-Fanwelt will take place, which can be visited with the same ticket.

Z gauge will also be represented: Although we have not yet received any information on the layouts to be exhibited in this scale, at least the diorama competition of the railway magazine (see separate announcement) should have a worthy presence.

Children and young people can once again test and practice their manual skills at the BDEF "Junior College Europe." Further information can be found at https://www.modellbahn-koeln.de. Open daily from 9:00 to 18:00, only on Sunday the fair is already over at 17:00 o'clock.

Model railway parade at the toy fair:
As part of our report on the International Toy Fair in February, we had already announced that the model railway segment would be relocated next year. The reason for this is probably the continuing loss of manufacturers in this area, which is why an increasing part of the hall is increasingly being filled with suppliers from outside the industry despite the establishment of a small series forum.

Spielwarenmesse eG has now announced that model railways and model making will be combined in a single product group and can be found together in Halls 7 and 7A in future. The 70th edition of the International Toy Fair will take place from 30 January to 3 February 2019.

Manufacturers previously represented in these halls, whose products are more relevant for buyers from the classic toy trade, will move to the Electronic Toys category in Hall 4A. The new segment will then include model trains of all gauges, accessories for dioramas and landscaping, model kits, cast metal models and the new products and innovations from RC and RTR model making.

New locomotive model at Micro-Trains:
After MTL had to postpone the originally planned delivery date, the unpainted and unlabelled version of the EMD SD40-2 from Micro-Trains (Art. No. 970 01 000) will be delivered this month.

This neutral design of the successful model on American tracks is aimed at hobbyists who want to produce their own designs and which have no chance of implementation in mass production. The news of the start of delivery comes at the right time, because the competitor AZL is experiencing delivery difficulties (see message above).

EMDSD40-2 in neutral design from current deliveries. photograph: Micro-Trains Line

The covered car “Hawaii” (Art. No. 510 44 226) is decorated and printed on one side with an attractive graffiti. Therefore, we show both sides of this wagon. Photo: Micro-Trains Line

Also on its way to dealers and customers is a six-piece freight train package from Northern Pacific with factory ageing and an A-unit EMD F7 as a train locomotive (994 05 190). From the Heinz wagon series, the 12th model (518 00 570) with the company number HJHC 456 is now rolling in.

In addition there are two 40-foot refrigerator cars with different car numbers of the Northern Refrigerator Car Company (518 00 610 / 518 00 620) and a 60-foot flat car of the ATSF (524 00 160).

The covered car “Hawaii” (510 44 226), sprayed on one side with large-area graffiti, is a feast for the eyes. The yellow basic model with signs of aging and small smears on the opposite side rolls for Railbox.

In Germany MTL models are available at Case Hobbies (http://case-hobbies.de). This dealer announced earlier this month that Ulrike Mühlstädt had retired early after many years of participation. Peter Scheele is now the sole owner again.

Märklin midsummer deliveries:

Something new is also coming out of Märklin's factory halls and onto the retailer's shelves. The self-discharging wagon package for the DR (Art. No. 82802) is particularly noteworthy. It consists of five open wagons of type OOtu 6778 with short coupling in Epoche-IV labelling.

The open wagon Omm 52 from the EUROP-Pool, loaded with scrap (Art. No. 86237) cuts a good figure in the freight train and attracts attention.

In contrast, the Omm 52 open freight car with a scrap load (86237) comes to the customer individually. The DB wagon (era III), which is labelled as part of the EUROP wagon pool, has no patina, but has a very convincingly designed load insert with which it will look good in any train consist.

On the subject of steel processing, the R10 stake wagon with brakeman's platform and structural steel mesh loading (82102) and another DB SSym 46 heavy-duty wagon loaded with round profiles (82343) followed in these days.

After a delivery pause of about one year, turntables (89983) have now returned to the dealers. As a label shows, the reason is a revision to the new engine generation. We also expect this to produce significantly quieter operating noise.

Fine small series model delivered:
As part of the reports from the International Toy Fair, we also reported in issue 2/2018 on the Swiss shunting tractor Te 3 from N-tram (Wolfang Besenhart). This Feinod, driven by a bell-shaped armature motor, has meanwhile been delivered in all four variants for private railways, SBB and Post (PTT).

Two versions and perspectives show the successful models of the Swiss Te 3 from N-Tram. Photo: Jörg Erkel, 1zu220 shop

The model, equipped with the finest details, has a pendulum axle and built-in electronics for optimum power consumption. On request, it can also be delivered digitally. It is available from the manufacturer (http://www.n-tram-shop.de) or in the 1zu220 shop (https://www.1zu220-shop.de).

Because of its safe power consumption, good switch travel, scale and detail fidelity as well as excellent slow speed characteristics, we have nominated this model for the new releases of the year 2018 in the category locomotives.

Announcement of a lighting solution from Ztrains:
Our correspondence partner Ztrack announced the launch of a pilot program to identify customer interest and market potential. The object of development of John Cubbin (Ztrains) is an easily installable lighting system (“Plug and Play”) for Rokuhan speed controllers with terminal strips (Art. No. A016). The lighting solution for Z scale, which is easy to set up with this system, is intended to produce various LED illumination; in this context, street lamps based on US designs were shown schematically. The dealers supported by Ztrack will be offered an initial version before the end of August.

Z-Freunde Saapfalz will be ceasing their internet presence:
Z-Freunde Saarpfalz, active in our track gauge since 1989, announced that they intend to give up their website (http://www.z-freunde.eu) at the end of 2018 and have therefore cancelled it. This step is justified by the basic data protection regulation that came into force in May, and is intended to create uniform regulations throughout the EU. The group does not want to expose itself to any problems, as it says on its pages.

Contest of Eisenbahnmagazin:

Once again this year, Eisenbahnmagazin is organising a diorama building competition, the results of which will be subject to a public vote at the Köln fair in November 2018. Following the long-standing column line, this time the competition theme is “Along the Rail.”

In the last edition our track gauge was represented by Dirk Kuhlmann with the diorama “Am Mauspfad.”

Anyone wishing to present their favourite era and nominal size in a worthy manner is invited to submit their idea for participation and to implement it on an area of 450 cm² (format 30 x 15 cm). This should be possible without any problems, especially for the Z gauge.

Registrations can be made by letter to the publisher's address (Alba Publikation, Infanteriestr. 11a, 80797 Munich) by fax to 0180 / 5 32 16 20 or e-mail to wettbewerb@eisenbahnmagazin.de. The latest deadline for submission is 31 October 2018, by which date the finished showpiece must be sent to the address TechnikMedia/Alte Dreherei, Am Schloss Broich 50, 45479 Mülheim an der Ruhr or delivered in person there or at the Munich address after prior arrangements have been made.

The competition is held in the categories adults and children/young people up to 16 years. You can win train packages, locomotives and wagons in the favoured gauge as well as vouchers for accessories and books from Geramond-Verlag. Current information can be found in Eisenbahnmagazin.

The latest news from American Z Line:

Other covered AAR cars from 1937 are currently being delivered with a brown paint finish and Canadian Pacific addresses. They are available with different serial numbers (Art. No. 904304-1) as well as double (904374-1) and quad combinations (914304-1).

The covered 40-foot wagons are offered in the same combination with the outer box frame, although two four-packages are available. This latest edition is inscribed for the Denver & Rio Grande (903111-1 / 903181-1 / 913111-1 & -2).

The 60-foot Gunderson cars with high side walls, now equipped with modern AZL couplings, originate from earlier editions. Four single wagons (91401-5 to -8) and a four-pack (90401-2R) have been reassembled for the TTX in this way.

Further manufacturer photos of the current deliveries can be found at http://www.americanzline.com.

FR-special edition for the Z Club Rhein-Neckar:
30 of 40 wagon packs from a special series by FR Freudenreich Feinwerktechnik for the Z-Stammtisch Rhein-Neckar (Art. No. 49,334,192) are sold free to refinance the project of this group. A commercial idea is therefore not associated with this.

Two covered freight cars of the Oppeln type, one of which is shown in brown paint and with a brakeman's platform as the EUROP car of the “Eisenbahnen des Saarlandes (SAAR),” the other in grey paint and without a brakeman's platform bears SNCF labelling shortly before inclusion in this pool.

The special edition (Art. No. 49,334,192) produced for the Rhein-Neckar regulars' table belongs to the early Era III and contains a "Opole" of the Saar Railways from the EUROP stock (left) and a copy of the same design from the SNCF stock. Photo: FR Freudenreich Feinwerktechnik

Due to the existence of the SAAR railway administration, the models can be dated from 1951 to 1956. They are available, as long as stocks last, from the initiator Volker Töpfer (info[at]kurpfalz220.de or via the ZFI-Forum) and in the 1zu220-Shop.

The trigger for the special models is the desire for more true-to-original models for Z gauge, also with a somewhat more unusual cover. If the campaign is successful, further implementations of various types and other types should therefore follow.

Current Artitec deliveries:
The Dutch accessories specialist Artitec (http://www.artitec.nl) has delivered its finely converted oil drums (Art. No. 322.013) this month. 16 neutrally designed copies in four colours (red, blue, yellow and green) await the customer when purchasing this article.

Herpa innovations for the end of 2018:
For the months November and December 2018 Herpa offers a lot of new aircraft on a scale of 1:200 in system-suitable sizes, also after different periods of use this selection is well mixed, the military aircraft are listed separately after the photos:

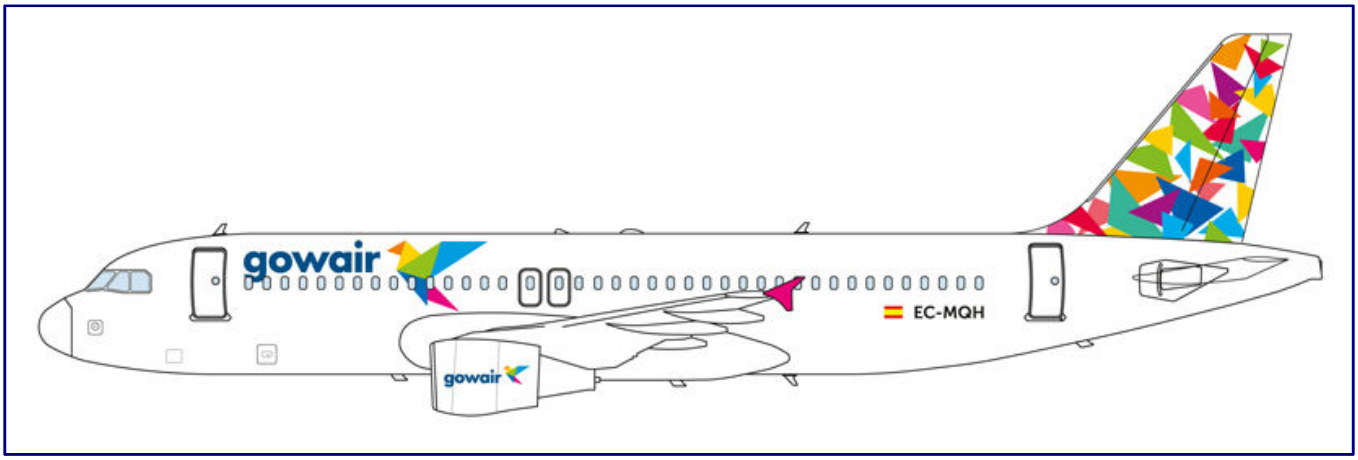
Air Baltic Airbus A220-300 (ex Bombardier CS300) – YL-CSB (Article No. 558457-001),
Swissair Fokker 100 – HB-IVA “Aarau” (559386),
KLM Convair CV-340 – PH-TGD “Pieter Brueghel” (559393),
Hop! For Air France ATR-42-500 – F-GPYN (559409),
Lufthansa Airbus A321 “Fanhansa Mannschaftsflieger” – D-AISQ “Lindau“ (559416),
Lufthansa Boeing 737-200 – D-ABBE “Remscheid” (559430),

Convair CV-340 "Pieter Brueghel" of KLM (Item No. 559393, left) and Boeing 737-200 "Remscheid" of Lufthansa (559430, right) are among the innovations for the end of the year. Photos: Herpa

Israeli Air Force Lockheed Martin F-35I “Adir” – AB-901 (559300),
Royal Air Force Airbus A400M Atlas C.1 “RAF 100” – ZM416 (559447) und
U.S. Air Force Lockheed Martin C-130J-30 Super Hercules – Ramstein Air Base (559461).

The simplified and snap together Snapfit series includes two models, one of which was also found in the Wings series. The flight view with the landing gear retracted appears here:

Lufthansa Airbus A321 “Fanhansa Mannschaftsflieger”– D-AISQ “Linda”(612104) and
Gowair Airbus A320 – EC-MQH (612135).



The Gowair Airbus A320 (612135), registered in Spain, appears as an inexpensive plug-in model from the Snapfit series. Photos: Herpa

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