Voie Libre # 111

URBAN TRAMWAY: A SUBJECT IN ITSELF?

Voie Libre

#111

THE MAGAZINE OF RAILWAY CREATORS



A CLOSE LOOK AT THE SCHNEIDER LG TRACTORS

CREATING WATER,
FITTING A BACKSCENE,
A RAILCAR AND WAGON - BOTH SIMPLE!
THE FULL STORY WITH VOIE LIBRE!

KRÄHENBERG BAHN,
JIMM LIMONADE:

2 OUTSTANDING LAYOUTS!

#111 – OCTOBER–NOVEMBER–DECEMBER 2022
Quarterly. Price of issue:10 €

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N° 01
NOVEMBRE
DÉCEMBRE
JANVIER
2023

UNIVERS RETRO

L'INCROYABLE HISTOIRE DES TRANSPORTS

AUTO - MOTO - TRAIN - AVION - BATEAU

UN MAGAZINE DE 100 PAGES,

pour découvrir la prodigieuse et récente histoire des transports terrestres, aériens et maritimes et de ces engins fabuleux qui nous ont fait rêver.

Nouveau



Premier numéro :
25 Octobre 2022
Parution
tous les 3 mois

Des découvertes
et des surprises à
chaque numéro

Numéro 1
Disponible en kiosque
et sur
universretro-lemag.com

Découvrez « Univers Rétro » le nouveau magazine sur l'incroyable histoire du transport aux XXème siècle ! Maritime, aérien, fluvial, routier ou encore ferroviaire, prenez plaisir à lire l'histoire des transports et les anecdotes qui l'ont émaillée, voire de faire des découvertes : saviez-vous par exemple que la trottinette électrique date... de 1920 ?



PUBLISHER: Christian Fournereau – christianf@lrpresse.com/ **EDITOR:** François Fontana – francoisf@lrpresse.com /**CONSULTANTS TO THE EDITORIAL TEAM**: Éric Fresné (ericf@lrpresse.com), Jean-Paul Quatresous / **WITH ASSISTANCE FROM:** Yann Baude (yannb@lrpresse.com), Annette and Jean-Louis Rochaix (†) **AND FROM :** Pascal Durand, François Fouger, Gonçalo Germano, Gilbert Gribi, Jean-Pierre Hacard, Gérald Hadorn, Bernd Irion, Bernard Junk, Vincent Lepais, Nicolas Novel-Catin, Vincent Piotti, Jacques Royan, Andreas Spahni, Roderik Vanderkelen.

ARTISTIC MANAGEMENT AND GRAPHIC DESIGN: Antoine Simon – antoines@lrpresse.com / **GRAPHIC DESIGNERS**: Benjamin Madelainne, Pierre Frank / **TRANSLATOR :** Geoffrey Nickson / **DOCUMENTATION AND SHIPPING :** Patrick Morvan – patrickm@lrpresse.com / **ADVERTISING:** Benjamin Fournereau – 02 97 24 01 65 – benjaminf@lrpresse.com / **TRADE AND PROFESSIONNALS :** Magalie Rous – magalier@lrpresse.com – 02 97 59 37 66 /**ACCOUNTING :** Anne Le Crom – annel@lrpresse.com / **PHOTO-ENGRAVING :** Photext / **FLASHAGE AND PRINTING :** RECTILIGNE

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LR PRESSE SAS
BP 30104 – F-56401 AURAY CEDEX
Tél. (33) 02 97 24 01 65
Fax (33) 02 97 24 28 30
http://www.voielibre.com
contact@voielibre.com
RCS Lorient B.381289719

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Voie Libre

LE MAGAZINE DES CRÉATEURS FERROVIAIRES

October, november, december 2022

Editorial #111

CURE FOR GLOOM

You look pretty despondent!
– Off colour, as my Grandma used to say! True, its autumn time, nasty headlines keep cropping up, nothing much to look forward to...
– All the same, I think I have something nice for you. Issue 111 of Voie Libre has just been released. Here is something to be enjoyed, to get your mind off the news, to have plenty of fun.

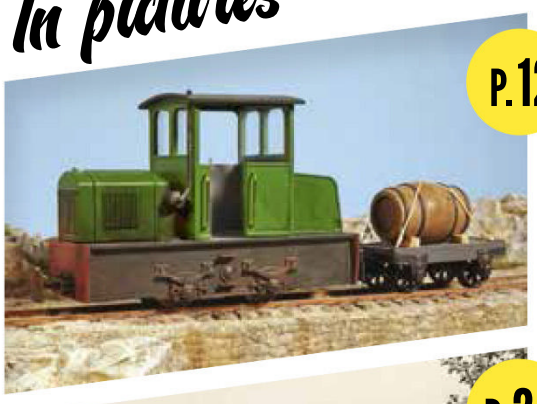
Railway modelling as a derivative, as medicine, as an antidote – cross out whatever you disagree with, or don't if you'd rather– that's our motto within the editorial team. This quarter, take advantage of the end-of-season shows to widen your horizons and let in the sunshine.
We look forward to meeting you soon.

François Fontana

Follow us on Keep in touch all the year round with Voie Libre on blog.voielibre.com

84 PAGES **of fun!**

In pictures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Central folder
THE CFD HALTS

TILLIG THE HARZ DR 2-10-2 T 99 237 IN PERIOD III

HO-12

A new version of these splendid locomotives from the metre gauge network in the Harz mountains has been released.
This locomotive, built by LKM in 1955, was first delivered to the Eisfeld-Schönbrunn railway, then transferred on 5th November 1973 to the Harz depot at Wernigerode, where it has remained ever since. Weighing in at 48 tons empty, 61 tons in working order, and delivering 515 kW/700hp, its maximum speed is 40 kp/h. The model, identical to the versions previously released, runs very smoothly and realistically. It is fitted with a NEM Next 18 662 socket for digitizing and/or fitting sound. The markings confirm its assigned shed (overhaul 1963, Meiningen works). Three directional white LED lights at each end. Fitted ex-works with standard loop couplings, the engine can also accommodate its original central buffer, as a full buffer beam is supplied. The brake hoses must be added, and possibly the piston tailrod covers if your curves are large enough.

Jacques Royan



TILLIG
REF. 02932
PRICE OBSERVED
CA. 480€

REE BILLARD: THE SECOND SERIES

Just over 2 months after the release of the first series, REE is delivering its second series of Billard A80 D railcars. Three period III machines are available. They differ from the earlier series by having only one headlamp at each end instead of two. You can choose between 3 companies. N° 316, in ruby red and pearl grey livery, ran on the Charentes and Vivarais CFD networks. X 242, in red and cream SNCF version, spent some time on the Blanc-Argent before leaving for Corsica. N° 511, also in red and cream but with an aluminium grey waistband, belonged to the Chemins de Fer Départementaux du Tarn. All three have different roof fittings. The technical features, reviewed in Issue 110 of Voie Libre, remain identical to those of the first series.

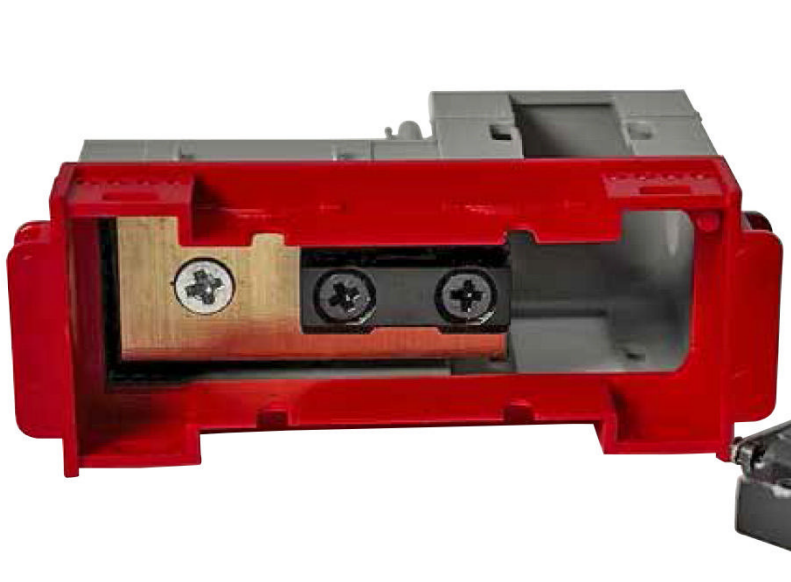
Éric Fresné

REE LES SECONDAIRES
REF. VM-006 CFD BILLARD A80 D N°316 (VM-006 S DIGITAL SOUND VERSION)
REF. VM-007 SNCF BILLARD A80 D N°242 (VM-007 S DIGITAL SOUND VERSION)
REF. VM-008 CFDT BILLARD A80 D N°511 (VM-008 S DIGITAL SOUND VERSION)
PRICES OBSERVED: 18 € IN ANALOGUE VERSION, 290€ IN DIGITAL SOUND VERSION)



HO-9 /HO-12

MINITRAINS
A DEUTZ OMZ 122 TRACTOR







Available in three liveries, green, grey or blue on a red chassis with a steel-coloured connecting rod, this new model is fitted to the brand's traditional driving mechanism, whose reliability is fully demonstrated. The inside of the engine bonnet features a large lump of ballast giving the engine a total weight of 44 grams. Out on the track, the locomotive easily tackles 10 % gradients and hauls 24 axles on a 5 % gradient. The body is particularly well-made, with many add-on parts and special attention given to some details such as: the radiator grille, the air filter or the exhaust and horn. The model is strictly in line with 1/76 scale proportions, the chassis has outside frames and only the cranks and the coupling rod are visible. Some weathering on the chassis frames and the buffers will put the final touch to a very successful model.

François Fontana

MINITRAINS
REF. GREEN MT2090, GREY MT2092
PRICE: 144.90€
WWW.TRAINS.LRPRESSE.COM

009 /H0-9



PECO KATO NEW LIVERY FOR THE LITTLE ENGLAND 0-4-0 ENGINES

The small tender 0-4-0 locomotives, Prince et Princess, have been announced in green livery with black lining and grey chassis. These new models should be available at the end of the year.

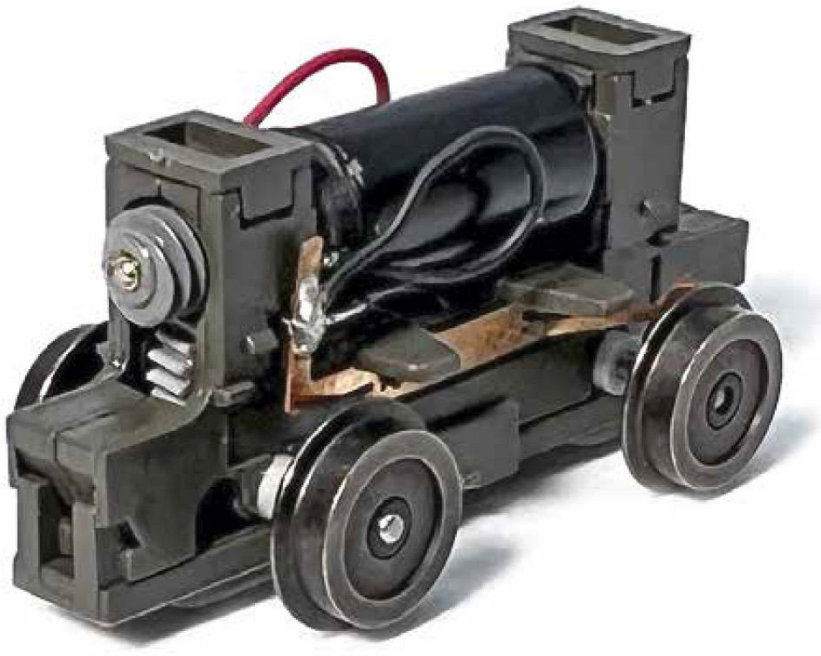
François Fontana

HO-9 /009



TECHNIQUE
LEOPOLD HALLING : A NEW DRIVING CHASSIS

LEOPOLD HALLING
REF. ANT-VAR-V3 H0
PRICE: 73€
WWW.HALLING.AT



This is not really a new chassis, but a modernization of the Vario type, which is part and parcel of the brand's strong reputation. It is now fitted with a tiny coreless motor. Running more smoothly than the previous version, more compact, without the flywheels, this motor fits into many of the brand's models. The wheelbase can be set at 23, 26 or 30.4mm for gauges ranging from 16.5 to 9mm. The chassis is fitted with 9mm diameter blackened wheels, all of which pick up the current. The model is supplied with a set of additional ballast weights.

François Fontana

BEMO : ABT 4194 PILOT CARRIAGE FOR THE BDEH 2/4 MOTOR UNITS N° 41 TO 45

HO-12

Delivered in September 1971, this new series of four carriages was fitted with a push-pull system in 1973/1974. This new version in original Dunkelrot (dark red) livery carries a <<Furka-Oberalp>> marking on its left-hand side only.

Jacques Royan

BEMO
REF. 3275 209
PRICE: 114.99€



BEMO : MOB EK 618 OPEN WAGON

Built in 1905 by the Busch Wagenfabrik company in Bautzen for the Montreux Oberland Bernois network, this 4-wheeler open wagon with a brake-wheel platform used to carry coal or wood, and later pulpwood. It weighed in at 5 tons empty and could carry a 10 ton load. Already produced in the past, it now has a new number, Ek 618. The brake shoes and hoses must be fitted by the buyer.

Jacques Royan

HO-12

BEMO
REF. 2276 308
OFFICIAL PRICE: 44.99€



MINITRAINS
TWO NEW WAGONS





Two new wagons, fitted to the brand's standard chassis, have been released: a peat wagon and a open staff wagon with facing seats, for carrying workers on a site or convertible into a toast-rack wagon by addding a roof. The peat wagons are sold in sets of four, the staff wagons in sets of two. The axles are blackened, and the models sharply engraved and neatly cast. The chassis are injected in matt black plastic, the bodies in dark brown.

François Fontana



HO-9

MINITRAINS
PEAT WAGONS. REF. 5187, PRICE: 39.90€
STAFF WAGONS. REF. 5186, PRICE: 26.90€

PREISER
PREISER'S NEW RELEASES ARE AS PLEASING AS EVER!



This new series features photographers on the lookout, but what are they after: a puffin colony or a train hauled by a preserved steam locomotive? As for the archeologists, it does not look as if they are scrutinizing a monster from the steam age! Supplied in transparent plastic boxes, the accurately modelled figures are very neatly painted.

François Fontana



PREISER
PHOTOGRAPHERS REF. 10804
ARCHÉOLOGUES RÉF. 10805

HO

SCENARY

HO

ARCHITECTURE & PASSION
TWO NEW STATION BUILDINGS



Here are two new laser-cut station buildings in this manufacturer's «easy déco» range. On the one hand, for fans of the Blanc – Argent, the station building at Argy, with its charming frieze tiles. On the other hand, the typically CFD station building at Château-Landon, with its cut stone base, red brick quoins and facings and zinc roof. The buildings in this range are laser-cut out of card of different colours, and are assembled with wood glue.

François Fontana



ARCHITECTURE & PASSION
HTTPS://WWW.ARCHITECTURE-PASSION.FR



0/HO /N



BARBED WIRE OUT ON THE PRAIRIE

Modelling a barbed wire fence is not, in my view, the easiest job around. The Woodland Scenics catalogue offers a ready-made solution that I found quite pleasing. It consists of wires twisted two by two and fitted to plastic posts. The product is available in the most common scales. Whatever the scale, each reference comprises a length of 3-strand fencing, of two gates and of 12 additional posts used for making corners or reinforcements. The posts have a pin that must be inserted and glued into a hole drilled out in the base to a diameter of 0.8mm. Seen from a distance of 60cm, the appearance of the twisted wires is reasonably convincing. The gates can also be used independently, for example to close a passage through a hedge.

Éric Fresné

WOODLAND SCENICS
BARBED WIRE FENCE
REF. A2990, N SCALE: 15€
REF. A2980, 00/H0 SCALE: 15€
REF. A3000, 0 SCALE: 20€



A NEW SHOP OF AXEL'S BAZAR

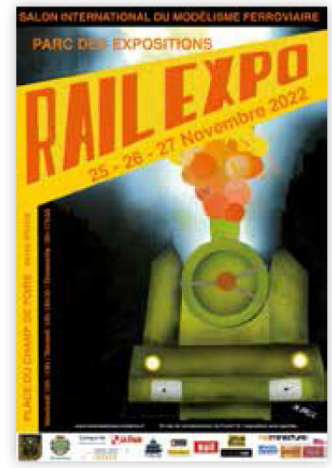
HTTPS://AXELSBAZAR.COM/

Well known for his 3D printed scale models of vintage lorries, Axel Vega has just broken away from the Shapeways printing platform for their marketing by creating his own online shops. Henceforth, his lorries are no longer supplied as rough prints, but as kits comprising printed parts with instructions, pre-cut glazing, wire for the axles and even driving mirrors and windscreen wipers for some models. The range of French vehicles in H0 has been expanded with models calling upon laser-cut card for the bodies. Finally, in parallel to his French models, Axel has launched a range of laser-cut vehicles and buildings inspired by the U.S.A. in the 1940s and 1950s.

Éric Fresné

GATHERINGS

Come and see us at:
- Railexpo in Dreux on 25th-26th and 27th November.
- The <<Fête du Train au Pays des Grands Noms>> in Meursault, Burgundy, on 10th and 11th December.







THEY DID IT!

The enthusiasts from the Association du Musée des Transports de Pithiviers resurrected the original spirit of the Decauville system! For more than a year, they were involved in preparing the major gathering of young farmers from Eure-et-Loir and Loiret, <<Terre de Jim>>, at Outarville. The goal? To install a 1500m long loop of portable track, and to run two passenger trains on it, amongst the visitors, on what used to be sugar-beet fields! And this was a great success, with some 12.000 passengers carried in the midst of a dense crowd, not forgetting a few supply trains between the central kitchen and the food stands. The Henschel DFB 0-8-0 T and the Royan type 0-6-2 T, hauling consists of 3 toast-rack carriages, did the job. Congratulations to all.

Jacques Royan

PRESS REVIEW



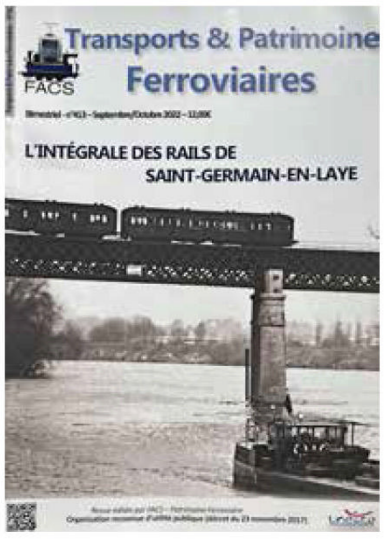
After a short summer break, the press review is back. Rail et Industrie, in Issue 88, continues the study of the mining tractors produced by the Berry company. In the same issue, an article about the PX type De Dion railcars built for the Conakry to Kankan railway in French Guinea. With a body built by Fernand Genève, these were the very last railcars to be produced by De Dion Bouton, after the OC2 type. Issue 413 of **Transports & Patrimoine Ferroviaires**, the new format of the FACS magazine, takes a look at everything that ran on rails in Saint-Germain-en-Laye, in the western suburbs of Paris. From early attempts to the RER express metro and high-capacity trams, including (a far more interesting subject for the Voie Libre team) steam and electric tramways. Our fellow-publication **Schmale Spuren** devotes a lot of space to the Passions Ferroviaires show that took place on the premises of the large Kaeserberg layout in Switzerland, which is open to the public. The magazine also looks at a weird tramway that used to carry mine skips. Our American colleague, available only online, **The Dispatch**, reviews a whole series of pleasing micro-layouts, sources of contemplation for some and of inspiration for others. My favourite, the highly whimsical «Ivor the Engine», by Ben Bucki.

UNIVERS RÉTRO: A BRAND NEW MAGAZINE

A new title for fans of fine machinery has just come onto the market: Univers Rétro, a 100-page quarterly aimed at the general public, invites us to dicover everything that rolls, floats, flies... In summary, anything that was driven by a motor and fed the dreams of generations from the 1950s until nowadays. Supported by fine pictures, Univers Rétro tells us about transport and travel, and the entire travel culture that surrounded this field. Issue N°1 looks at the early days of Harley-Davidson, the creation of the fabulous Riva motor boats, but also at the small Isetta car built under BMW licence in the 1950s. The magazine also tells us the story of a legendary luggage manufacturer: Vuitton. And of a genius in the world of equipment suppliers: Michelin. Nor forgetting a bold air pirate: D.B. Cooper. Railway enthusiasts are not forgotten, with an article about the Mont Blanc rack railway, and one about the Solido miniature road vehicles. 100 pages of very fine pictures, with an elegant layout that favours lavish illustration.

The Editorial Team









P'tits Kits
VOIE LIBRE



1
The Billard T 50 tractor hauling a small tank wagon, certainly in a vineyard!

A T 50 IN 0–16.5 FIRST ENGINE IN THE P'TITS KITS RANGE

Following on from the successful release of wagon consists in H0–9/00–9, the P'tits Kits Voie Libre range has quite literally moved upscale with its very first model and very first engine: a Billard T 50 in 0!

BOOK NOW WITH THE LR PRESSE SHOP!

Text and illustrations: **François Fontana**

THE MODEL AT A GLANCE

Prototype: Billard T 50
Scale: 0 (1/43.5)
Gauge: 16.5mm
Motor: coreless
Driving mechanism: worm gear, straight gears on both axles
Price: 180 euros

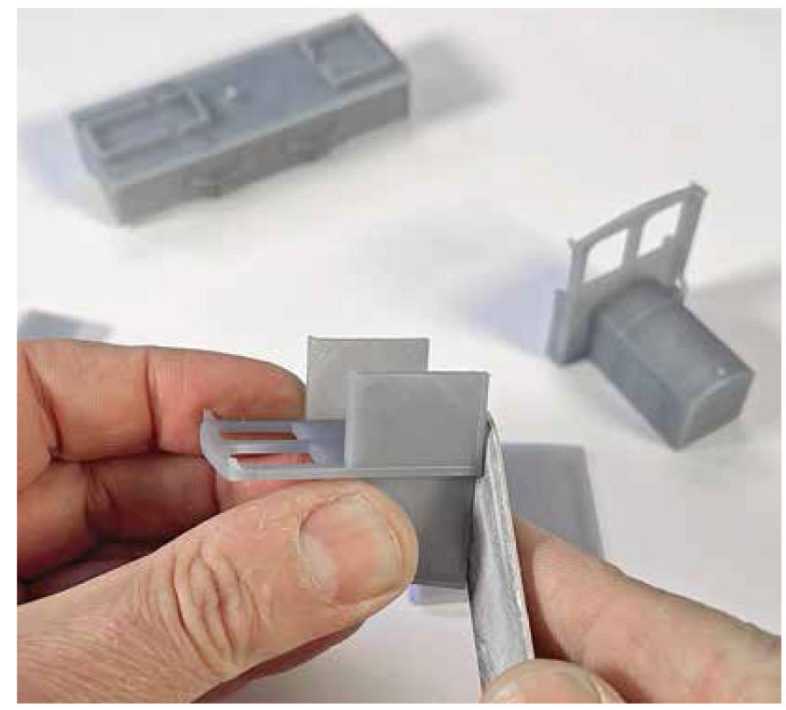
For some time now, a number of modellers had been asking for a narrow gauge model in 0 scale, if possible a locomotive and preferably a typically French one. So we opted for the Billard T 50 tractor. A machine for which we have a real soft spot: four of them were built at Tours for the sugar industry, the last in the series have been preserved, and its diagram published in Issue nº 52 of Voie Libre. So here it is! In this article, we review the very first scale unit produced. The T 50 will be available for Railexpo, but you can reserve your own model by calling + 33(0)2 97 24 01 65.

WHAT DOES IT CONSIST OF?

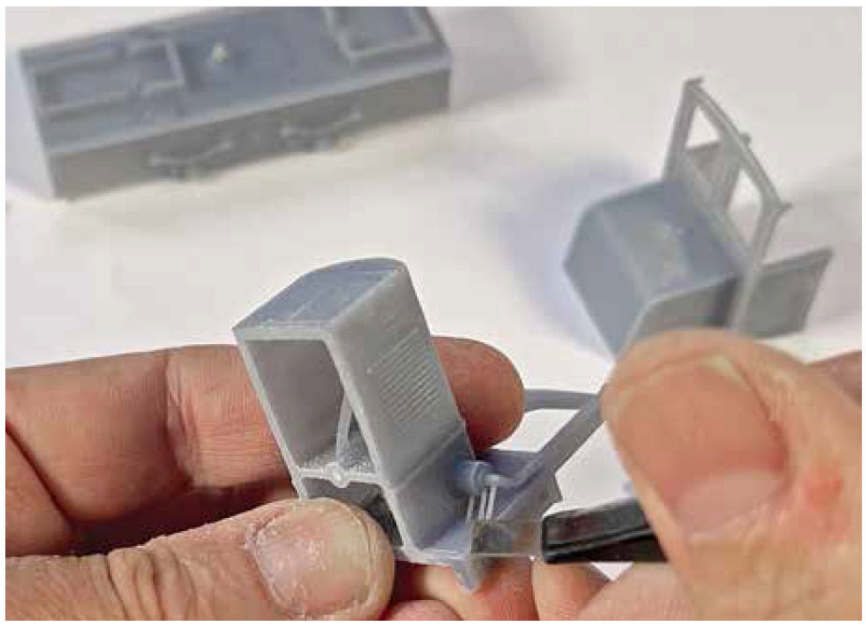
The tractor, drawn by Eric Fresné, comprises 8 main 3D printed parts, and a few accessories. The parts are supplied already separated from their sprues and cleaned, but they need to be gently sanded with a cardboard nailfile. The couplings are articulated to ease running through sharp curves.



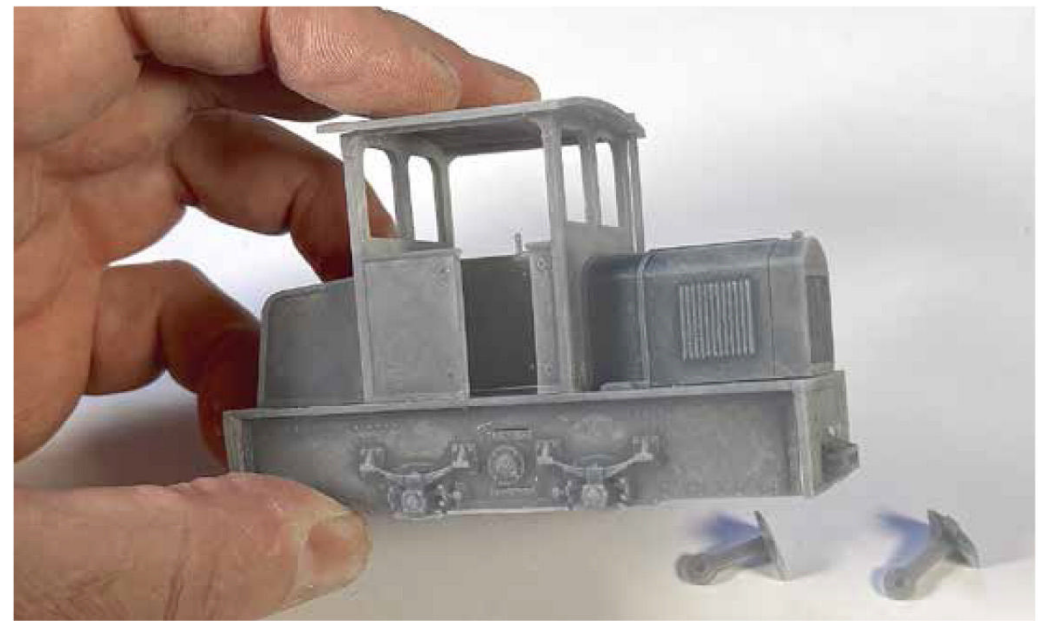
2 All the parts that make up the tractor's body.



3 The tiny printing tabs are filed off with a cardboard nailfile. This ensures a perfect surface on the edges of the bonnets, to mate with the top of the chassis.



4 The 3 silencer brackets must be removed, using the tip of a blade.



5 The smooth surfaces lisses are truly smooth, and the details incredibly sharp. This is 3D printing at its very best!

The box contains the ballast required to ensure smooth running of the model, and the driving chassis is supplied in sub-assemblies that simply clip-fit together. The modeller's job consists simply in gluing or assembling the parts, and in decorating the engine.

HOW DOES IT WORK?

The driving chassis consists of a 2-part, 3D printed housing, of a coreless motor fitted with two worm gears, of two axles each fitted with one straight gear, and of two electrical pick-ups. On top of the motor block, two holes allow for the transmission to be lubricated; one of the two axles has some vertical freedom. This 3-point suspension ensures reliable electrical pick-up and smooth running for a 4-wheeler machine.
The ballast, consisting of lead sheets, fits into the front and rear bonnets that are screwed



6 The lead strips are rolled up to fit inside the bonnets. They bring the total weight of the engine to 90g.



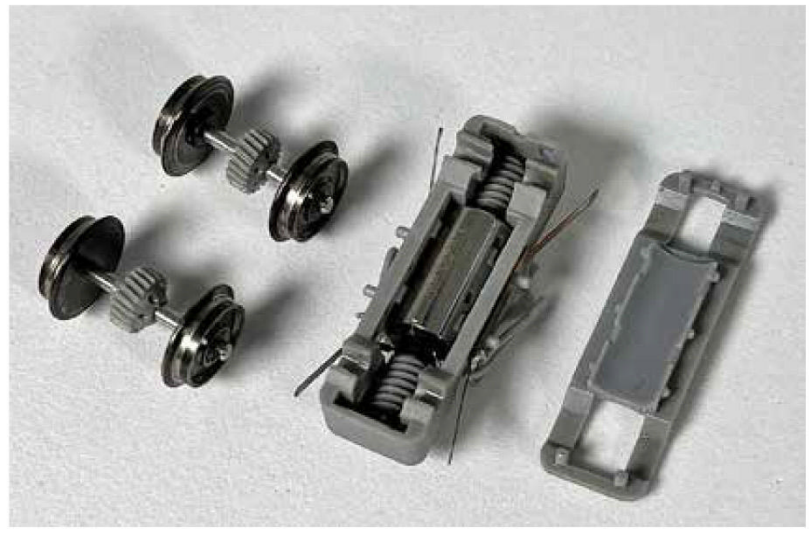
7 Once the tabs have ben filed down, the model must be thoroughly cleaned with lukewarm water. Painting can then be undertaken, taking care to no longer touch the parts with bare hands.



8 After having been given a coat of grey primer with a spray can, the inside of the cab is masked off, and the outside will be painted green.



9 The various parts are assembled after having been painted. The whole model is then moderately weathered!



10 The components of the driving chassis designed by BD Concept for Les P'tits Kits Voie Libre.

onto the chassis. This means there is still plenty of space between the frames, in front or behind the motor, to fit a simple decoder.

TESTS

Once assembled, the model was subjected to some tough testing: continuous runs on an oval of track, in 6 hour periods, alaways in the same direction, turning the engine round after each period. I observed some wear on the wheel surfaces after 36 hours of running, but nothing on the chassis, nor on the driving mechanism. With a gearing ratio of 1/22 combined with 10.6mm diameter wheels, the engine has a perfectly prototypical scale running speed.



11 1/22 gearing ratio, coreless motor, chassis with 3-point suspension, everything needed for a successful model.



12 The driving chassis seen from below.



13 The motor unit fits in from below. It clip-fits onto the chassis.



14 There is plenty of space to fit a simple decoder between the chassis frames.



15 This Billard T 50 looks good, an excellent opportunity to move into – or to return to – 0 scale narrow gauge!

The Krähenberg Bahn in H0–9



We discovered the Krähenberg Bahn, a splendid H0-9 creation, in the entrance hall of the Kaeserberg layout at the first edition of Passions Ferroviaires during the spring of 2022. What we did not know was that there was more to it than met the eye. Andreas Spahni, its creator, tell us the full story.

Text: **François Fontana based on input from Andreas Spahni**
Photos : **François Fontana, François Fouger, Andreas Spahni**

The small ex-Lisbon motor unit runs onto the layout.

A large ex-Soviet TU2 locomotive is in charge of hauling heavy trains on the graded stretch of the line.



The agricultural cooperative also generates a significant amount of goods traffic.

This was indeed a fine discovery, a small part of an entire universe. At first sight, we knew this layout would be a superb topic for a Voie Libre article. Then, talking with Andreas, we learnt many things, heard lots of stories, but above all found out about the true history of the layout, how it all started, how it grew and how it ended. Once we had overcome the language barrier, Andreas told us about what lies behind this outstanding layout. Before letting him take over, let's find out a bit more about himself. He is a keen modeller, but also a train driver who has spent his professional life on secondary lines and is fully familiar with their features. This in-depth knowledge is expressed on the layout, including of course all the technical aspects, but also and possibly above all the sociological aspect which comes to life with a touch of irony! Andreas, tell us all about the Krähenberg Bahn.

Andreas Spahni: I will tell you about my travels through this fine region, travels that began during a holiday, sketchpad in hand, on a deserted beach on the island of Juist in the North Sea. The Krähenberg is a sunny and heavily wooded mountain range in the Palatinate region in West Germany. It is well known for its hiking trails and splendid viewpoints. One of the finest is Gaagerehubu, with the crow monument that gave its name to the range. In the gardens of the the Gaagerehubu hotel, I heard the angry yells of the massive presidential «crow», in charge of the

The layout at a glance

Scale: H0 1/87
Gauge: 9mm
Dimensions: 130 x 40cm plus fiddleyard on the left-hand side
Control: digital





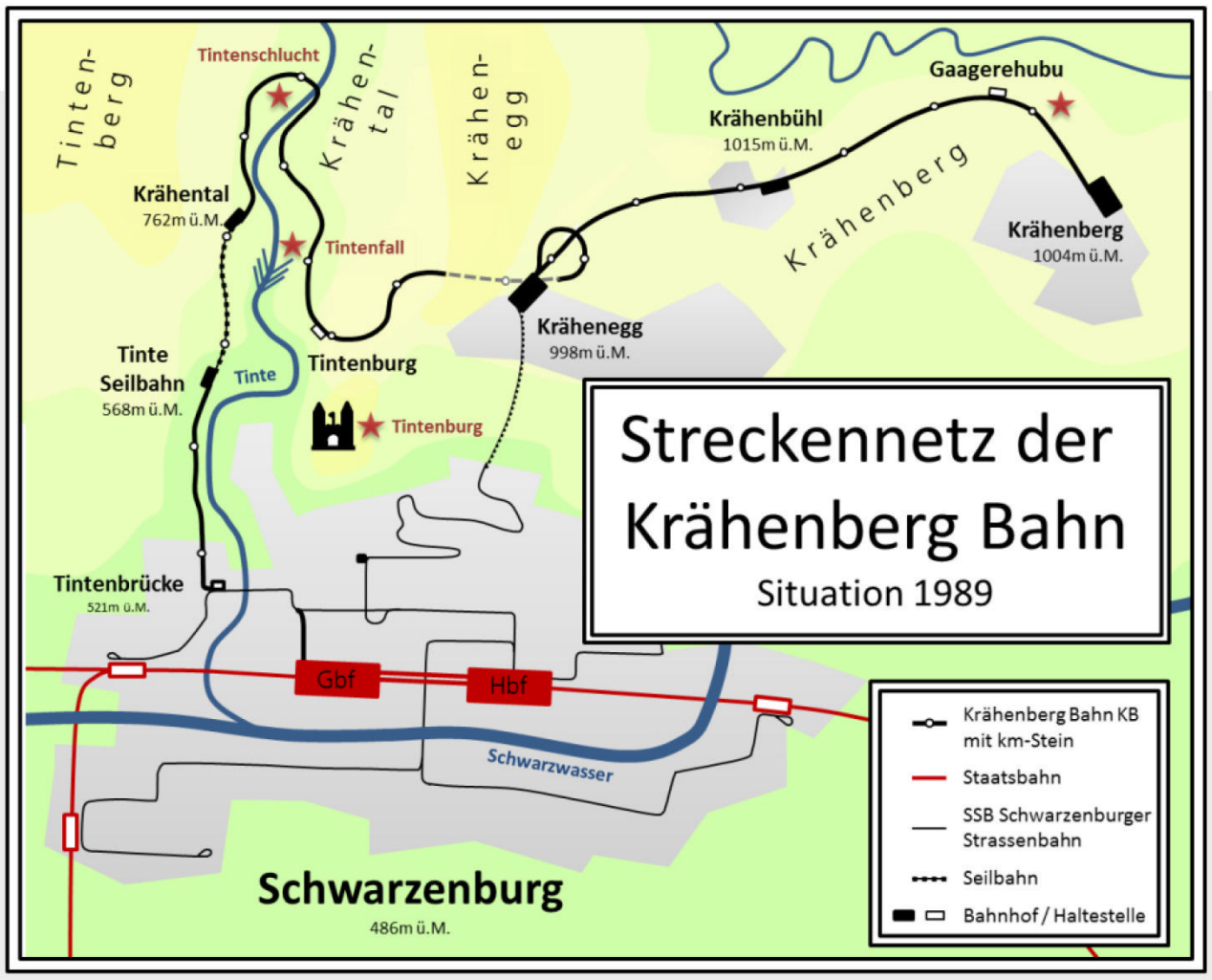
A torrid farewell scene, unless it is a reunion upon arrival of the train!

In the foreground, at right, the passenger terminus. The fast electric motor unit has just arrived.

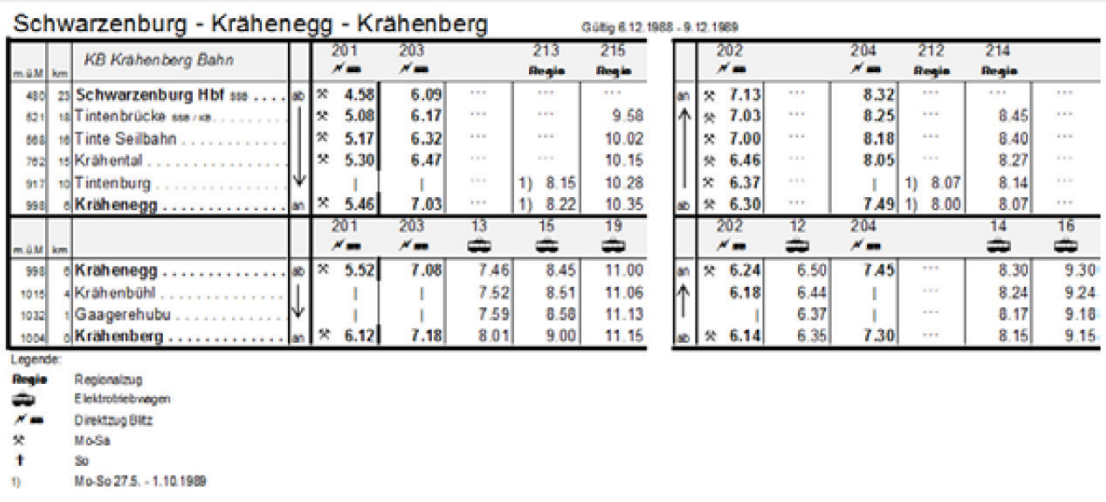
Krähenberg executive – complaining about the small local railway. The man's fine curly mustaches were positively brisitling!
– «Every time I sit in this rickety train, I feel sick. The ancient rolling stock should be replaced. The tariffs for freight are too high. The wet blankets in Schwarzenberg should get their act together and widen the road!»
After a few glasses of white wine, this song can be heard frequently along the valley. Most of the times, it just goes with the wind! The Krähenberg Bahn is a vital artery for tourism, the neglected child of the busy Mr. Fritz Hugi, owner of the Hugi AG machinery factory in Krähenberg. In addition to the commuters who travel down the valley and to the tourists who travel in the opposite direction, trade is the KB's raison d'être: delivery and shipment of agricultural produce for the Landhandel GmbH company, for the Rabenschwarz coffe grinding outfit and of course for the Hugi AG factory. Carrying machinery for this plant is the largest source of income for the railway. And it is thanks to Mr. Fritz Hugi, nicknamed Ättu, Chairman of the Board and largest shareholder, that the KB remains alive. He is also the man behind the purchase, repair, adaptation and modification of all the rolling stock sourced from various other railways. However, increased comfort and shorter

Just like the real thing

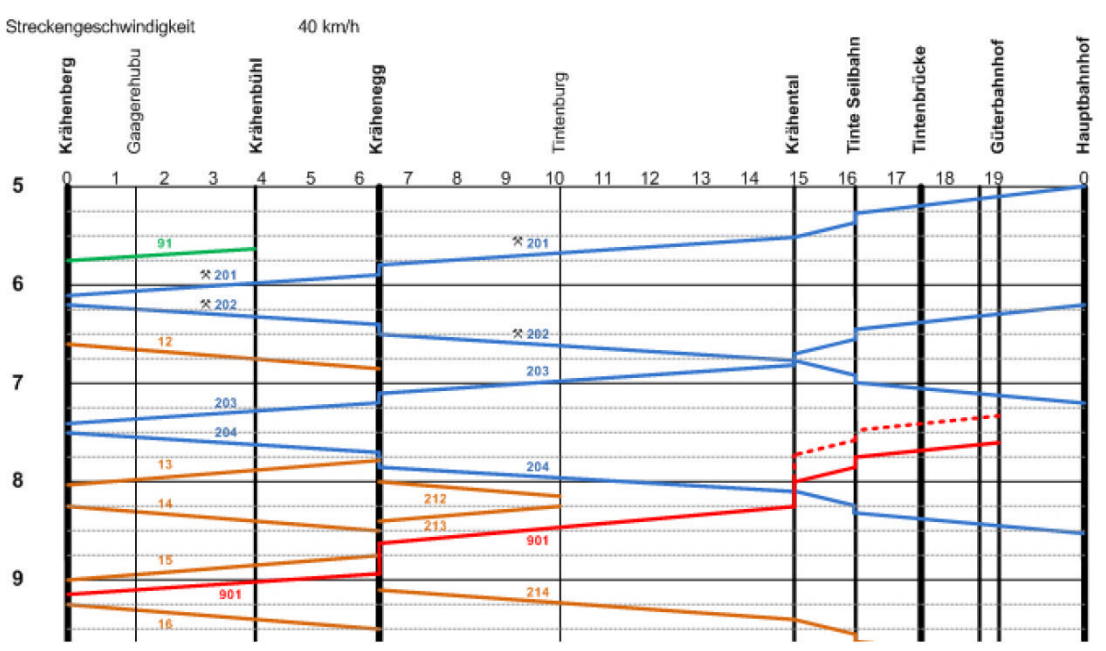
Andreas is a professional railwayman! So he designed his layout like a real line, drawing the full plan carefully. He operates it in accordance with a timetable and graphs. Here is an operational sequence as well as a few wagon and motive power cards.



Theoretical plan of the line



Timetable sheet



Operational graph



Motive power card



Wagon card



The complete layout as it used to be, in Andreas' former workshop.



In the fiddleyard, the cassettes for the motive power.



Andreas has taken care to model the most representative details. Here, a transformer for the overhead wires. In the background, the crow statue, which gave its name to the mountain range, not the Presidential crow!

A small ex-Army tractor is assigned to station shunting.



En coulisse, les cassettes pour le matériel moteur.

The diesel locomotive, with a passenger consist, runs into the station.



During the Passions Ferroviaires exhibition.

travel times will never be enough for the Presidential «crow» who heads the local executive. In his eyes, the train belongs in the past. He should remember however, that the railway is the second largest local employer in the Krähenberg, right after Hugi AG! Among the cast of characters, we must also mention Gottlieb Benker, aka Gödu, who is both station master and operations manager. A massively-built individual, he moves portentously and thoughtfully from his office to the train staff to convey travel orders; he is definitely an «alpha» of the boss type. Fortunately for his colleagues, his office is located inside the KB workshops, a little distance away, at Krähenbühl. The workshop employees are warned by the secretary whenever Gödu leaves the place with important instructions. To ensure safe operations, the local features are indicated to the train drivers by simple signposts. Travel orders are given by Gödu to the drivers via the blue lineside telephones. Once the operational situation has been checked and permission given, trains may proceed. Without Gödu's blessing, nothing moves on the KB.



Andreas, all smile out, tells the fabulous story of the Krahenberg Bahn to the spectators.



281 units of the TU2 type diesel-electric locomotives, originally from the Soviet Union, were built between 1954 and 1959.

François Fontana: Well, well! So this story is entirely out of your imagination, like the railway's route? You designed the working schedule and the operational graphs, the Krähenberg Bahn works like a real railway?
AS: Yes, the route is very peculiar, with a stretch over which the wagons are moved by cableway to overcome a steep gradient. This means there are 3 very different sections, from the central station to the inclined plane at Tinte and from the station at the top of the inclined plane to Kräheneeg with steam or diesel haulage. Finally, an electrified section to Krähenberg. The layout covers the stretch from Krähenbühl to Krähenberg, which I built in four sections each measuring 130 x 40cm.

FF: You also imagined that Ättu had purchased very specific stock, corresponding each time to a given type of use on the railway?
AS : There is a wide variety of motive power on the railway: the former Lisbon tram motor unit "Jufli", used for regional traffic between Krähenegg et Krähenberg. The ex-Talbot twin-energy motor unit "Schigg", used for a fast "Blitz" service over the entire line. The ex-LAW diesel parcels motor unit "Zarli Carigiet", used for carrying goods and passengers, while the TU2 type diesel locomotive "Prügu" and the L45H type diesel "Trötschgeler" are dedicated to goods traffic. As for the diesel shunter Gib-Häb-Zünd, it is used at Krähenberg, while the "Schnaagi" performs its duties at Schwarzenburg goods station.

FF: And all this runs just like the real thing?
AS : On this type of small railway, there is no centralized control, the turnouts are hand-operated and each route must be determined individually. A wireless Digitrax UT system is used to work the layout. But the consists are built up using individual wagon cards and follow a specific graph. Each operational session is unique and follows the timetable.

FF: For the exhibition, did you design a specific fiddleyard?
AS : Yes, the layout was dismantled and all that is left is the Krähenberg section. I pulled it out of storage for the show, cleaned it, debugged it and built a small cassette filddleyard for operation at the show. ■

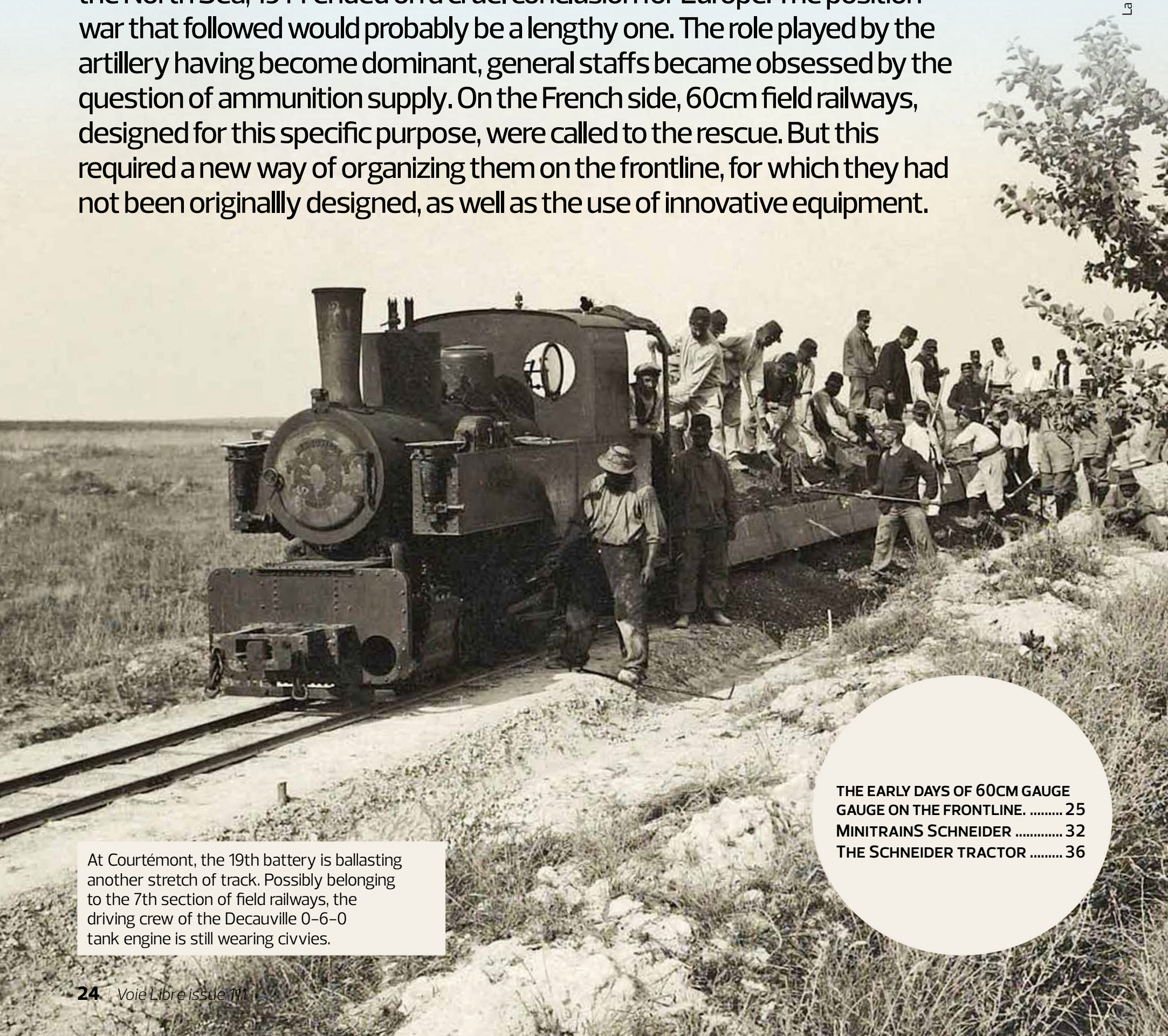
The railway depot area with its ancient steam locomotive.

The large Hugi AG factory closes the perspective on the left-hand side of the layout.

1915, a turning point

After the German offensives in Belgium and on the Marne, and the race to the North Sea, 1914 ended on a cruel conclusion for Europe. The position war that followed would probably be a lengthy one. The role played by the artillery having become dominant, general staffs became obsessed by the question of ammunition supply. On the French side, 60cm field railways, designed for this specific purpose, were called to the rescue. But this required a new way of organizing them on the frontline, for which they had not been originallly designed, as well as the use of innovative equipment.

La Contemporaine collection



At Courtémont, the 19th battery is ballasting another stretch of track. Possibly belonging to the 7th section of field railways, the driving crew of the Decauville 0-6-0 tank engine is still wearing civvies.

THE EARLY DAYS OF 60CM GAUGE GAUGE ON THE FRONTLINE. 25
MINITRAINS SCHNEIDER 32
THE SCHNEIDER TRACTOR 36

Champagne 1915, the early years of 60cm gauge on the frontline

In 1915, as soon as its became obvious that artillery was going to play a major part in what was turning into a protracted war, moving the huge amounts of ammunition required became a major concern for the general staff. Designed for this purpose, 60cm gauge railways were soon found to be essential.

Text: **Éric Fresné**

1904 Prosper Péchot explained to the students of the Ponts et Chaussées engineering school the French military doctrine applying to 60cm gauge field railways. It foresaw its use in the case of a siege war, either for attacking, or defending, a stronghold. This scenario was put to the test many times during major manoeuvers between1894 and 1914.
Ten years later, with war taking the shape of an extensive siege, 60cm gauge field railways ▪▪▪



La Contemporaine collection

In July 1915, men of the 19th battery of the 10th Foot Artillery Regiment are hard at work building a trackbed in the vicinity of Courtémont (Marne).

18+

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In July 1915, a group of artillery workers are setting out to work on a field railway line in Champagne.

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Félix Leprince-Ringuet

German prisoners also took part in earthworks.



Félix Leprince-Ringuet

A depot being built.

▪▪▪ quickly became one of the main means for supplying the frontline. As early as November 1914, the first massive orders of equipment were issued. It was also decided to organize the troops needed to build and operate the future networks, of which there was a serious shortage at the time. Péchot, called out of retirement in August 1914, was put in charge of setting up the «60cm gauge instruction center» at Boissy-Saint-Léger and Jouy-en-Josas, in the outer suburbs of Paris. Technical management was carried out by a detachment belonging to the 7th Section of field railways. Railwaymen from the Compagnie du Midi trained the artillery soldiers that were part of the Territorial Army reserve, men aged 40 to 49 who were involved in non-fighting tasks. They were given a theoretical training at school, and a practical one by taking part in the construction and operation of the Paris stronghold. Tuition began in February 1915 and it was planned that four territorial batteries could be trained simultaneously, meaning some 1,200 men.

THE PREMISES OF THE CHAMPAGNE NETWORK

On the front, the first offensives were organized, in particular in the Champagne region where the IVth Army went onto the attack as early as December 1914. The crucial part played by the Artillery required solid supply lines between the railway stations located on lines 5 and 5bis of the Compagnie de l'Est between Suippes and Sainte-Menehould. Starting in February 1915, Joffre decided to equip the IVth Army with 60cm gauge railways. He obtained that some 50km of track be commandeered and had the 20 Baldwin saddle tank 0-6-0 tank engines that had been supplied to the Paris stronghold in 1914 transferred to Suippes and Mourmelon.

Mobilizing staff turned out to be far trickier. The first graduates of the instruction center had not yet been trained. It was decided to draw on the units that had taken part in building the tracks of the Paris stronghold. The 10th Territorial Battery of the 12th Field Artillery Regiment and the 1st Territorial Battery of the 10th Foot Artillery Regiment were designated for this mission. Péchot voiced strong reservations about this choice. While it was true that both units had indeed carried out trackwork 6 months earlier, the men that made them up at the time had since been transferred and replaced by other, totally inexperienced soldiers. It was these men that were sent to Champagne to start building the 60cm gauge railways. Other batteries, equally untrained, followed.

The problem was even worse for technical staff. The Artillery did not have a single driver or ▪▪▪



La Contemporaine collection

Suippes was one of the railheads of the Champagne network. The 60cm gauge station was truly gigantic.



La Contemporaine collection

The lines were extended to the front. One of them reached the hamlet of La Harazée, on the edge of the Argonne forest.



La Contemporaine collection

60cm gauge track is also used to retrieve shell casings, as already described in Voie Libre 103.

▪▪▪ fireman qualified to work steam locomotives. The first 16 crews were poached from the instruction center staff belonging to the 7th Section of Field Railways. As best it could, this motley and ill-prepared troop did manage to build the core of a network on the rear of the IVth Army. The offensive ended during March 1915. Although it was not decisive, it did show that territorial gains, and even a breakthrough in the front, were achievable provided the necessary means in men and equipment were mobilized. In part, this was what motivated Joffre when planning a second offensive.

A REAL 60CM GAUGE NETWORK

With a view to breaking decisively through the front, he mobilized the IInd and IVth Armies that were scheduled to attack in September. The attack itself was preceded by careful logistical preparation that began in the spring. 60cm gauge railways played a key part in this process. A part that is fairly well known thanks to several written sources. At the end of the 1930s, Félix Leprince-Ringuet gave an account of his experience as reserve squadron chief in charge of the IInd Army's railway network from August 1915 to January 1916. He had to organize 5 lines originat-



La Contemporaine collection

The first role of 60cm gauge track was to carry artillery ammunition. These two Péchot platforms are loaded with 220 calibre shells. The crates contain the proximity fuses.



La Contemporaine collection

Another critical function of 60cm gauge was carrying drinking water. This Kerr–Stuart 0–6–0 tank engine is hauling a 1915 Decauville tank wagon and a Péchot platform loaded with barrels.

ing from the exchange stations with the standard gauge, extending 10 to 20km towards the front before branching out to the artillery batteries. Up to 3,600 men were under his command to carry out this task. The regimental diaries of these batteries provide precious information about their activity during this period. For instance, the 6th Operating Company of the 10th Foot Artillery Regiment was formed at Vienne-la-Ville on 1st July 1915 using two detachments belonging to existing units. This company operated the lines originating from Valmy. It was supported by the 19th Construction Battery of the 10th Foot Artillery Regiment that arrived from Jouy-en-Josas where it had completed its training. Both units worked together, with operations being directed by Sub-Lieutenant Lelièvre of the 6th Company. Working conditions were somewhat precarious. Bombing was frequent, causing casualties and slowing down work as much as the shortage of track equipment did. The units chiefs kept clamouring for more from the central depot in Chartres.

The IInd Army's network benefitted from the first Péchot-Bourdon locomotives supplied by the United States as well as from Decauville equipment. The first improvised wagons, using Péchot platforms, were built by this railway's workshops, in particular those used to retrieve shell casings from the battlefield. But this stock was barely sufficient to operate a network of more than 200km. The staff was not properly trained to drive and maintain the engines and breakdowns were frequent. Worse still the railway had received no spare parts, meaning ▪▪▪



Carrying troops always remained a very secondary task. This rough-and-ready platform, fitted to two 1915 Decauville bogies, is designed to carry wounded soldiers, seated.

La Contemporaine collection

▪▪▪ the workshops were obliged to cannibalise newly-delivered locomotives to keep the others running! Things got so bad that the network's activity had to be reduced to the absolute minimum during September to reduce wear on the rolling stock and track prior to the offensive.

THE BATTLE AGAINST THE MUD

All the field railway networks of the IInd and IVth Armies were built over the chalky sub-soil of the Champagne. Construction work was made easier by the soft stone and by particularly good weather during the spring and summer. Over many stretches, the trackbed looked so stable that the track was not even ballasted. However, in late September, just as the offensive was about to be launched, heavy rain fell over the area. It continued throughout the winter, with periods of hard frost in between.

Subjected to this dreadful weather, the 60cm track simply sank into an ocean of sticky mud. The terminal branches, where the wagons were horse-drawn, were damaged by the horses' hooves. To make the matters worse, as the tracks were the only paths offering a degree of stability, they were also used by the horse-drawn supply convoys, thus warping and burying the rails even deeper into the mud...

It was at that time that the networks of both armies merged to form one single, extensive Champagne system. Félix Leprince-Ringuet was put in charge of it and undertook to rescue it from the mud. This involved tedious ballasting and realigning work. Leprince-Ringuet used tens of thousands of fascines to raise the muddiest stretches. He even had a double track built, for intensive traffic! The task was anything but easy, especially as the end of the offensive and the merging of the networks meant that most of the construction batteries were transferred to the Argonne and Aisne regions. This obliged the officer to call on territorial infantry units without any technical training. Abandoning the standard/narrow gauge connections to line 4bis in favour of those with line 4, closer to the front, led to shorter travel times and hence an increase in the output of the 60cm gauge network.

The situation on the motive power front improved gradually. Management of the workshops was

Operating a 60cm gauge railway in the midst of troops was not an easy task.



La Contemporaine collection



Félix Leprince-Ringuet

Right from the very early days of the offensive, the weather turned the battlefield into an ocean of mud that made operating the railway incredibly difficult.

FÉLIX LEPRINCE-RINGUET

A graduate of two elite French engineering schools, the Ecole des Mines and the Ecole Polytechnique, a gifted mountain climber and great traveller, Félix Leprince-Ringuet took hundreds of photographs throughout his whole life. Mobilized in 1914 with the rank of squadron chief, he photographed his entire war. This photographical archive was entrusted to the library of the Paris Ecole des Mines (of which Leprince-Ringuet had been a curator) by his grandson Bruno Turquet. We are grateful for his permission to publish some of these pictures.





entrusted to a real railwayman, Captain Guillet, of the 10th Section of Field Railways. The network also received at long last the spare parts that were so severely missing when the offensive was being prepared. However, their delivery took place only after the 4 volume book of rules on 60cm gauge railways had been published. A book of rules that made no mention of how to build track on the front!
Félix Leprince-Ringuet handed over management of the Champagne network in January 1916. He left his successor a system that could still be improved, but whose organization prefigured what 60cm gauge networks built on the rear of the French armies would look like from 1916 onwards.

SCHNEIDER LG MINITRAINS: *even better!*

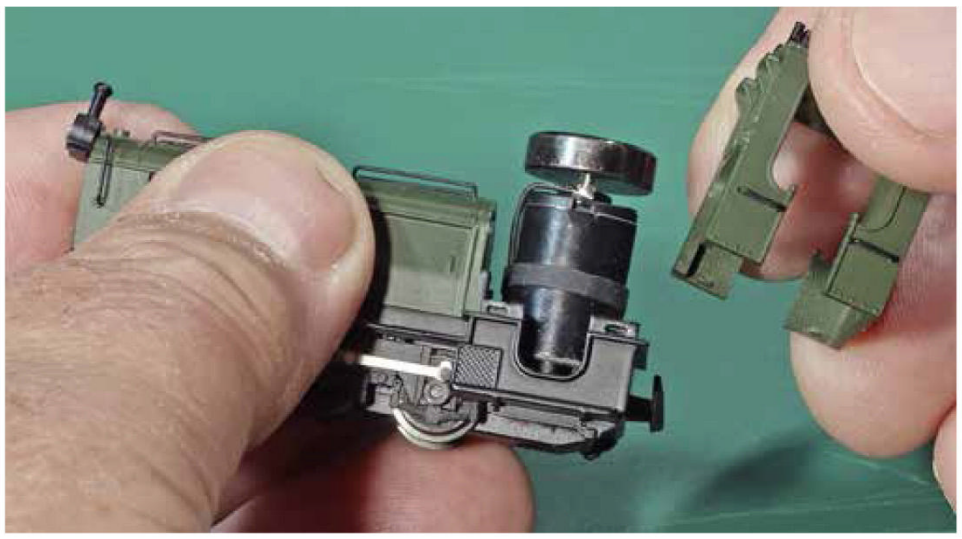
The guest presence of the LG type Schneider tractor at Uxegney fort during the inauguration of the «Train des forts», last May, gave Bernard Junk the opportunity to take a second look at the scale model produced by MinitrainS.

Text: **Bernard Junk**
Photos: **Nathalie Junk**, **Bernard Junk**



Neat and prototypical: the LG Schneider in H0-9, a MinitrainS model as modified by Bernard!

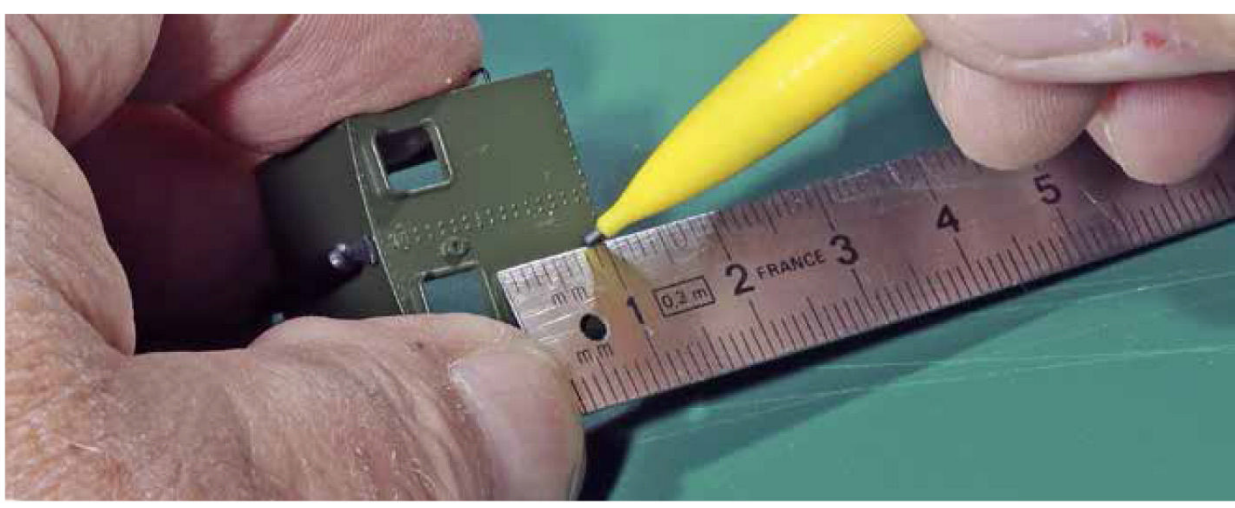
Put on the market a few years ago, this well-made and smooth running model does show a few faults that are obvious to specialists: the cab angles are sharp while they are curved on the prototype, and the recess on the rear of the cab, where a lamp fits, is missing. I decided to correct these mistakes, which can easily be eliminated.



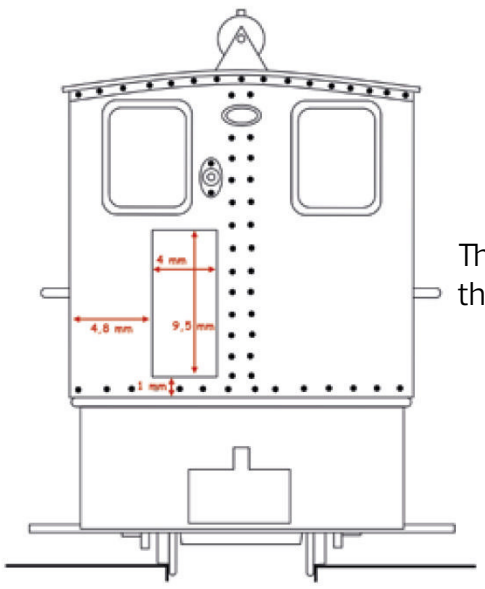
1 Removing the cab: a simple clip-fit, it is removed effortlessly.



2 Using a cardboard nail file, I smoothed the vertical angles. To make the job easier, I removed the four handles that get in the way of the file. I then fitted them back and glued them with a micro-drop of instant glue.



3 Using photographs of the real tractor, I traced the location of the recess at the rear of the cab.

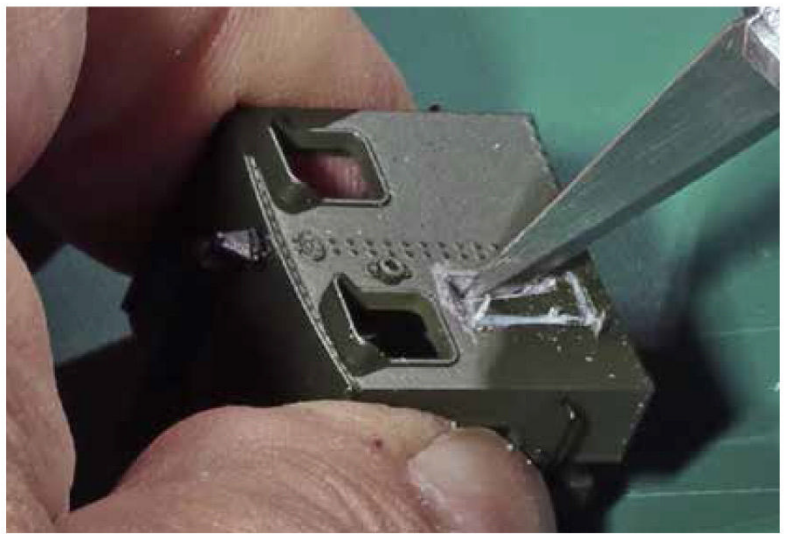


The outline of the lamp recess.

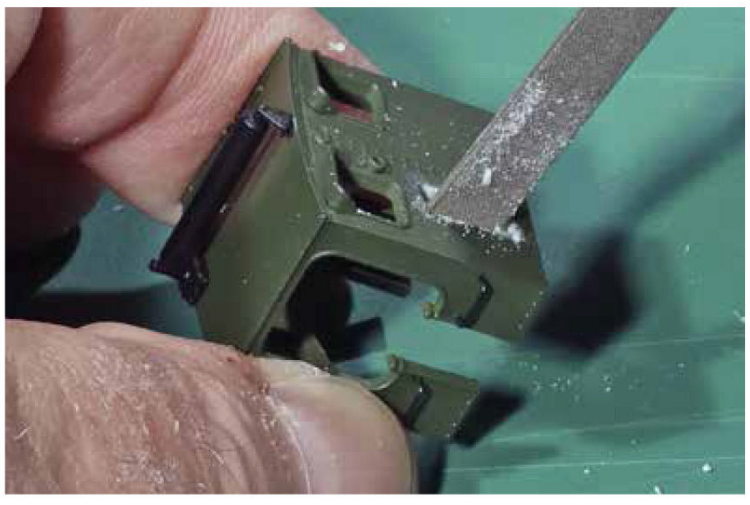


4 Start by drilling the angles with a fine hand-held bit.

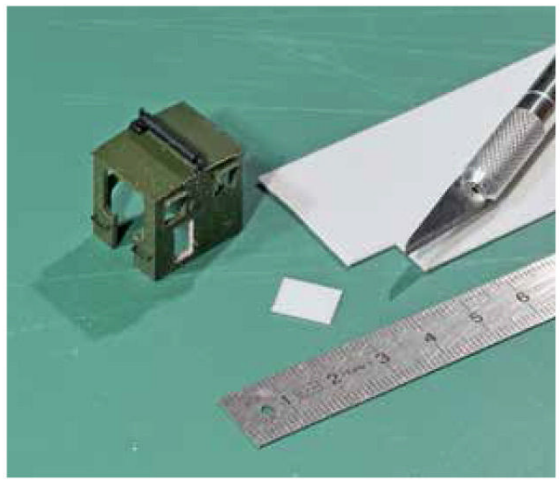
Note: take care, as modifying the model will cancel the warranty.

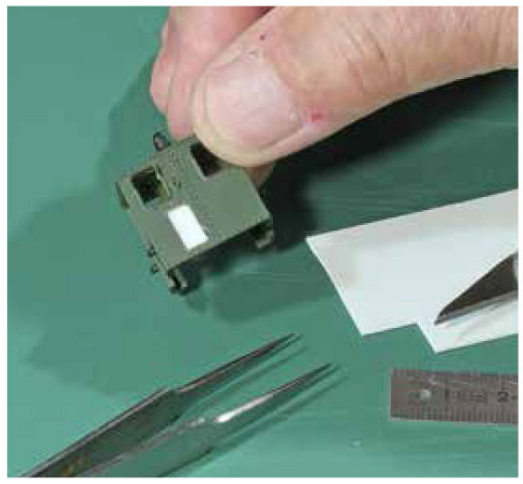


5 I cut out the recess with a scalpel.



6 The job is finished off with a file so as to obtain a neat aperture and sharp angles.





7 The back of the recess is closed off with a small piece of 0.5mm thick plastic sheet.



8 I found a lamp in one of my scrapboxes: kit leftovers or a «just in case» purchase... Fortunately, I had two of them, meaning that I can replace the front lamp in order to have two identical lamps. Too bad, it will not be a working one, but in any case, my tractor will not run at night.



9 I took the opportunity of this major overhaul to add a roof rack. The Schneider seen at Uxegney has one. I made it by soldering fine strips cut out of a 0.2mm thick brass sheet.



10 The last job consists in repainting the body of the model. I used a Tamiya misty grey, ref. TS32, from a spray can. In my view, it is pretty close to the Artillery grey shade. As nothinng better was available, I made a computer drawing and print of the «Artillerie» plate and number plates. Neatly cut out, they were glued onto the cab. When I get the chance, I will make a new set in etched metal.



The plates in 1/87 scale



The plates in 1/76 scale



The plates in 1/43.5 scale



11 Two or three evenings worth of work, and here is a transformed signature WWI tractor...

The Schneider LG tractor at Uxegney

Photos: **Nicolas Novel-Catin unless otherwise mentionned**


A


B


C


D

A Presented outside the fort. P. Durand.

B The rear panel of the cab, our area of interest.

C The inside of the front panel of the cab.

D The inside of the rear panel of the cab.

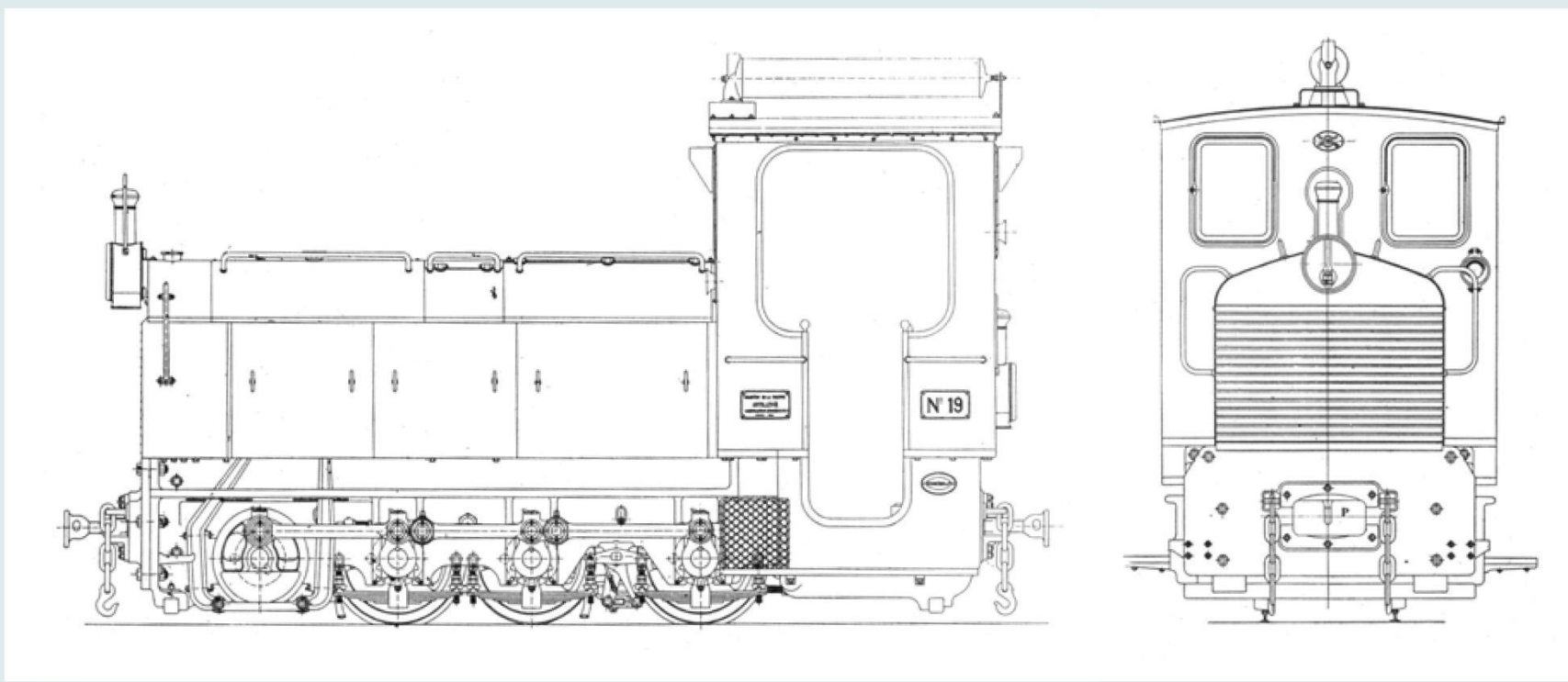
E The Schneider plate on the front panel of the cab.

F The builder's plate.


E



F



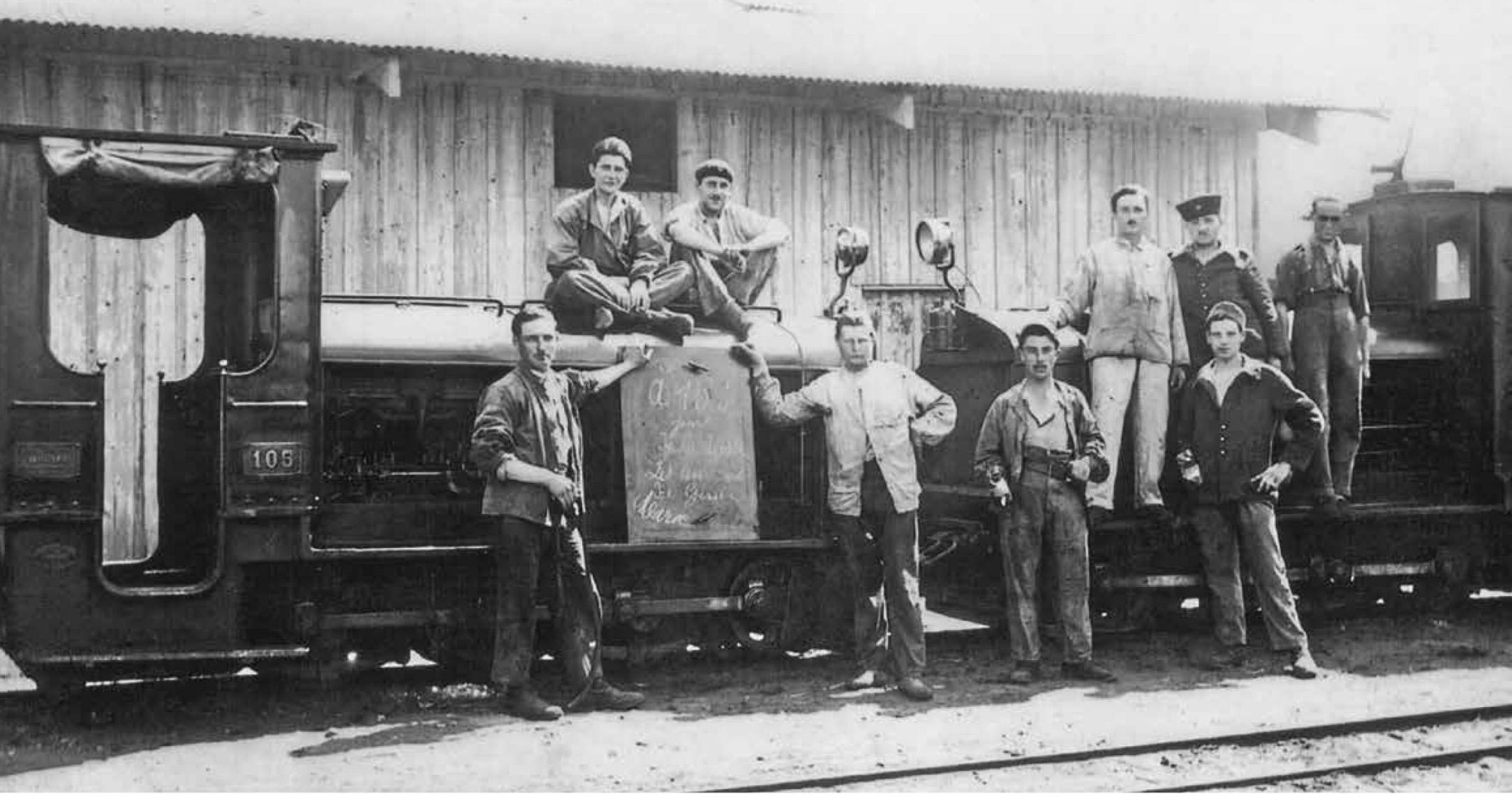
DR Coll E. Fresné

Left-hand side elevation and front panel. DR E. Fresné collection

The Schneider tractor, A NEW TOOL FOR MILITARY 60CM GAUGE

The experience gained during the Champagne campaign convinced the French general staff of the major role that could be played in the war by 60cm gauge railways. However, this required a modernization of the system imagined by Prosper Péchot.

Text: **Éric Fresné**



J.-P. Hacard collection

Jean-Pierre Hacard's father, at left, poses in front of Schneider 105 which he is in charge of. This is during the Rif war. A detachment of the 15th Regiment of Engineers, specialized in 60cm gauge railways, has been dispatched to Knitra. The plate on the left-hand side of the cab is not marked «ARTILLERIE», as could be expected, but actually «MAROC»!



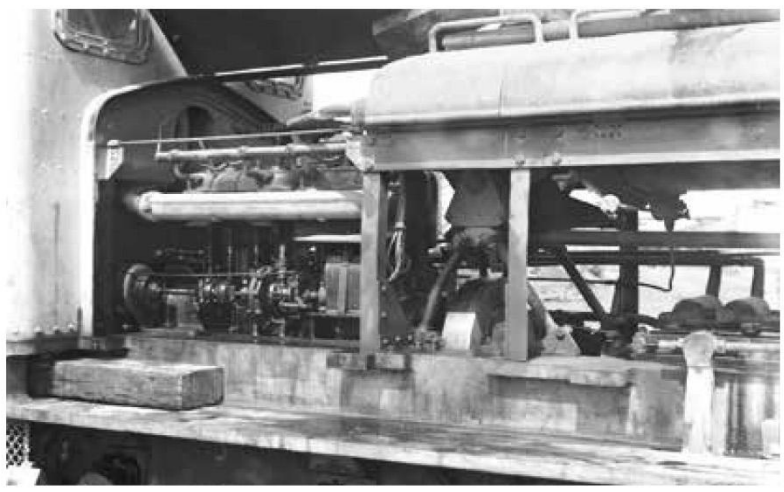
G. Mangin/D. Oberlin

LG tractor N° 30 somewhere on the front. The markings on the bonnets are there to ease their dismantling and reassembly during maintenance.



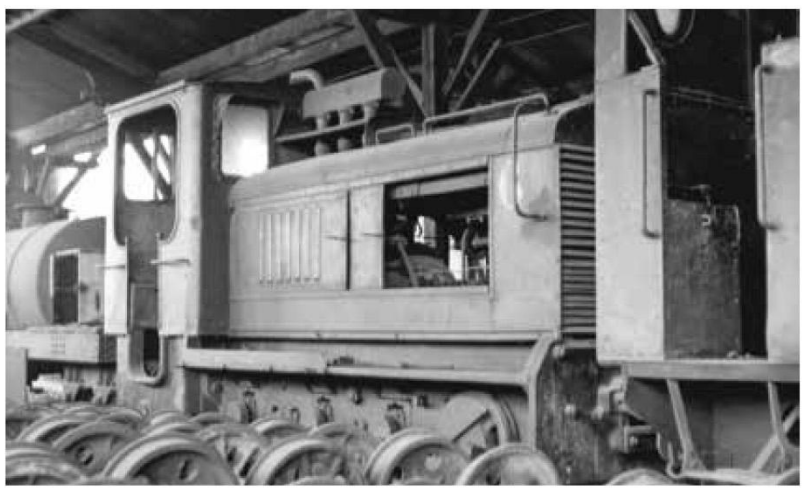
G. Mangin/D. Oberlin

The cab of the Schneider tractor gives it a slightly steam locomotive–like appearance.



G. Mangin/D. Oberlin

With the bonnets open, from left to right, the motor, flywheel and sandbox and the top of the gearbox, become visible.



DR

Villeron sugar mill used a Schneider tractor. Even re–motorized and with its body partly rebuilt, it remains quite recognizable.

The 1915 offensives demonstrated the difficulties linked to concentrating the ammunition required for artillery preparation. As road transportation displayed its limitations, 60cm gauge was shown to be essential to move across the area separating the standard gauge railheads from the front. The generalized use of 60cm gauge field railways implied ordering steam locomotives and wagons from the beginning of 1915 and defining new types of stock. As the plumes of smoke emitted by the locomotives were easily spotted by the enemy, the general staff decided to use internal combustion engines. The Schneider company, one of the French wartime industry heavyweights, was selected to design the Artillery's first locotractor.

LG OR LG3

This machine was built jointly by Schneider and by its affiliate SOMUA (Société d'Outillage Mécanique et d'Usinage d'Artillerie). A heavy cast steel chassis carried a 50 or 60hp straight 4 cylinder motor, identical to the type fitted to the Schneider CA tanks and CD artillery tractors. Weighing 10 tons in working order and fitted with 3 axles, this engine could run over Péchot track. The gearbox and reversing mechanism provided for 4 speeds in each direction. Maximum speed was 26km/h and the engine could haul up to 20 tons on the level. A first order for 40 units of the LG type was issued in September 1915 and the first engines entered service during 1916. The following orders, applying to the LG3 type, were issued in January and December 1916. In all,113 Schneider tractors had been delivered by the time the Armistice was signed. Seen from the outside, the LG and LG3 types were strictly identical. The engine bore, and hence power, was the only difference between the two types. An inventory drawn up by the Ministry of Liberated Regions would seem to indicate however that the LG types built at Le Creusot, were grey, whereas the LG3 types, assembled at Saint-Ouen in the suburbs of Paris, were sand yellow...

A FINE POST–WAR CAREER

After the Armistice, the Schneiders were used extensively for the reconstruction of the liberated regions. Very few, however, experienced civilian life beyond 1924. At least 43 units, some built after 1918, were shipped to Morocco from 1920. This is where Jean-Pierre Hacard's father, called to military service in the 15th Regiment of Engineers, got to drive N°105. The status of «regular stock» meant that the remaining units built were re-assigned to the French arsenals. They were used on the Maginot line fortifications in 1939 and even on the Mareth line in Tunisia! The chaos of WWII put an end to their existence.



© V. Piotti.

On the Vivarais, Billard railcar 213 seen at Arlebosc halt in September 2021.

THE HALTS, **small CFD buildings**

The CFD company built a variety of structures. Station buildings with or without semi-detached goods sheds, self-standing goods sheds of various sizes, engine sheds, water tanks, all these are well known. Halts are less familiar.

Text and illustrations: **Vincent Lepais**

PLANS IN 1/43,5 AND 1/87 (P 41-44)

After having dedicated a first study to the station of Aumagne-Reignier, located on the Charentes network of the CFD (Voie Libre n° 109), we take here a trip to Charente-Maritime, to discover another type of standardized CFD building: the halts.

WHY SHOULD CONSTRUCTION BE STANDARDIZED?

Just like standard gauge mainline companies, the Compagnie des Chemins de Fer Départementaux attempted to standardize part of its rolling stock and buildings. One same study allowed for each of the company's networks to be equipped as they were built. Of course, some were adapted to local requirements, either through their architecture, or simply

by stretching them if needed. One obvious example were the engine sheds, built to the same diagram but sometimes extended, as was the case in Indre-et-Loire. The variations observed were mostly due to the materials available locally, stone, brick, tiles, etc. Contractors had to carry out small modifications to use those materials while abiding by the original diagrams. So let us now take a look at the Cognac to Saint-Jean-d'Angély line, where our halt is located.

DESCRIPTION

La Tâche halt is located between the stations of Migron and Prignac-Courcerac. I selected this small structure for several reasons. The most obvious one is its good condition, which bears witness to the quality of its construction. This enabled me to make a detailed survey of the building and draw up detailed diagrams. The structure having been modified, it can be modelled in two versions, and its small size makes it suitable for a diorama, besides its attractiveness on a larger layout. It is sufficiently representative of the CFD, as a sketch of it can be found in Auguste Moreau's «Traité des Chemins de Fer». However, care should be exercized when dealing with sketches based on project drawings, as the actual building could turn out to be slightly different.

In its original version, the halt consists of a shelter with two gable walls and a facade «facing the fields», the facade on the track side being completely open. The rubble stone walls coated with a limestone rendering are built on a matching stone base. The plan shows their true matching. The toothed quoins are harp-shaped. Each gable has a protruding band on top. The roof is very basic, two-sided, and covered with mechanical tiles. Stones and tiles (Perrusson-Fontafie and La Rochefoucauld) were produced locally. The roof featured ridge tiles and Perrusson pediments identical to those found on the stations (see Voie Libre 102), but these had disappeared on this specific building. The name of the halt was painted on a wooden board fixed to the roof edge on the track side. The inside of the building was coated with rendering. The lower third of the wall was painted grey, the remainder white. A wooden bench supported by four brackets took up the whole length of the structure.

Facing West, the facade on the track side did not offer much in terms of protection against the elements. This may explain why, at a later date, it was closed off by a concrete wall with a door in the middle. The loss of light was then compensated by opening two small windows, with metal frames, one on each gable.



© V. Lepais

Gable on the Prignac–Courcerac end. 23 December 2002.



© V. Lepais

Details of the bench and of its wooden supports. 23 December 2002.

The same architecture could be found at Douzat halt, nowadays very damaged, at Chevanon on the line from Angoulême to Saint-Jean-d'Angély, as well as at Billon and La Turpaudière, on the line from Burie to Saintes, and also at Blameré, line from Saint-Jean-d'Angély to Marans. It was not possible to find technical documents at the departmental archives, so a Vivarais trackplan gives us a distance of 2.5m between the front of the building and the axis of the track.

Since those days, trains have deserted the former trackbeds of the Charentes CFD networks, and only hikers trek past our halt... So let us take a look at other examples of such small structures on other railways.

ON OTHER NETWORKS, THE VIVARAIS...

We shall start by the most famous CFD network, the Vivarais, nicknamed the «Mastrou». Without seeking to be exhaustive, almots identical buildings can be found at the halts of La Pras and Arlebosc on the line from Le Cheylard to Tournon, and at the halts of Trifoulou, Devesset and Intres on the line from Dunières to La Voulte-sur-Rhône. Noteworthy is the fact that the front of the halt building at Arlebosc was closed off in the same way as that at La Tâche.

ET NOT FORGETTING THE LOZÈRE

Still in the world of the CFD, the Lozère line adopted the same type of structure. It could be found at the on-request stops of La Salle-Prunet, Les Crozes, Saint-Michel-de-Dèze and La Devèze. Illustrating local adaptations, some of these halts had slate roofs instead of mechanical tiles.

SCALE MODELLING

The purpose of studying small railway structures is to suggest an easy and affordable modelling project. This type of model can call on simple materials, and Voie Libre regularly gives you examples. For those who would rather assemble a kit, Architecture & Passion produces two H0m references, 87CFD10 and 87CFD11, reproducing this type of halt in two versions, with toothed or straight quoins, respectively, which are supplied with a pre-engraved and coloured roof. These laser-cut card and wood kits can be assembled with wood glue.
It is now up to you to choose your CFD network, Charentes, Lozère or Vivarais! ■

Many thanks to Vincent Piotti for his documentary assistance.



© V. Lepais

The facade on the fields side. Note the quoins and rendering. 23 December 2002.



The building in its original condition, as produced by Architecture & Passion.

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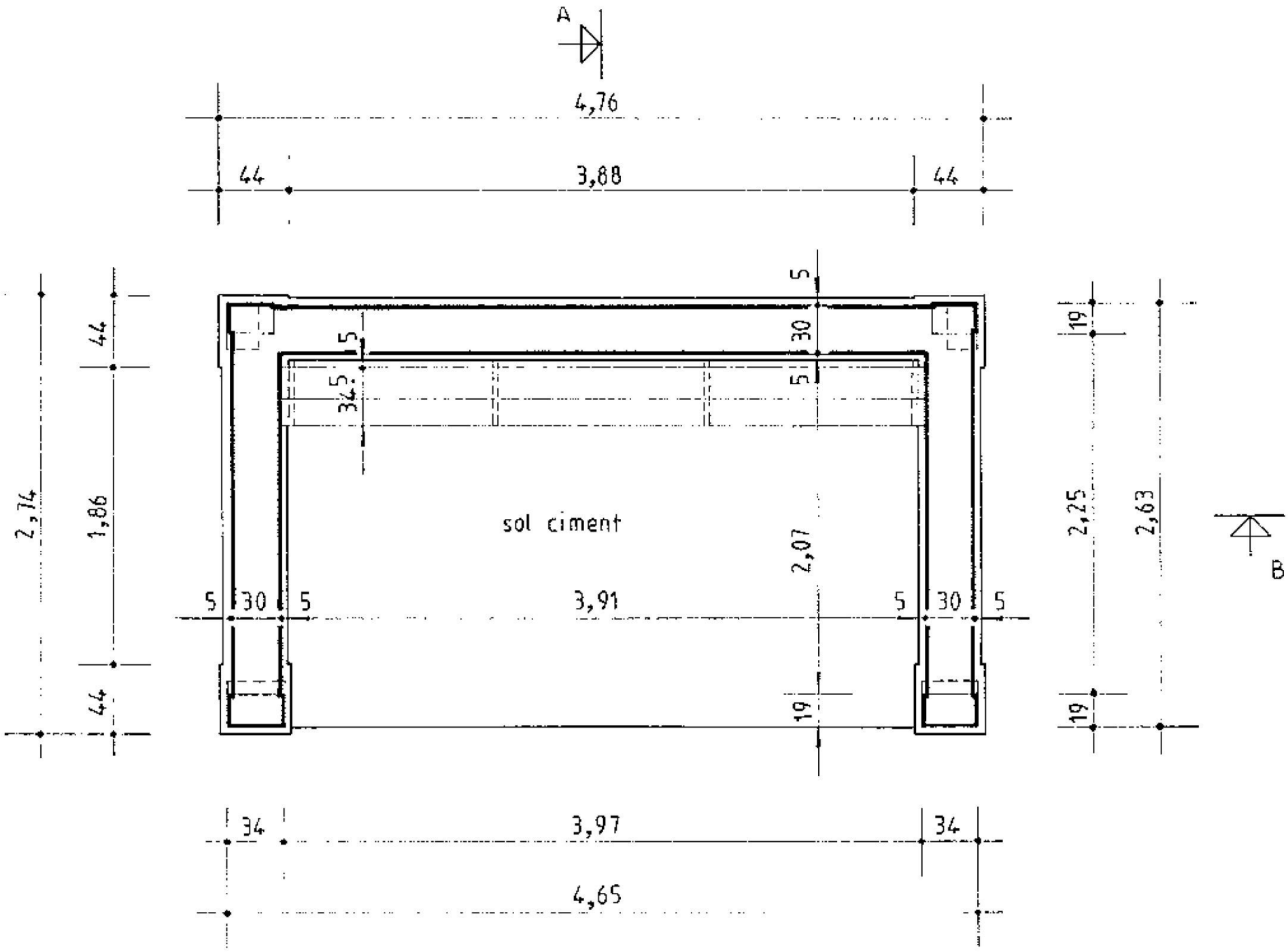
C.F.D. halt of La Tâche (Migron)

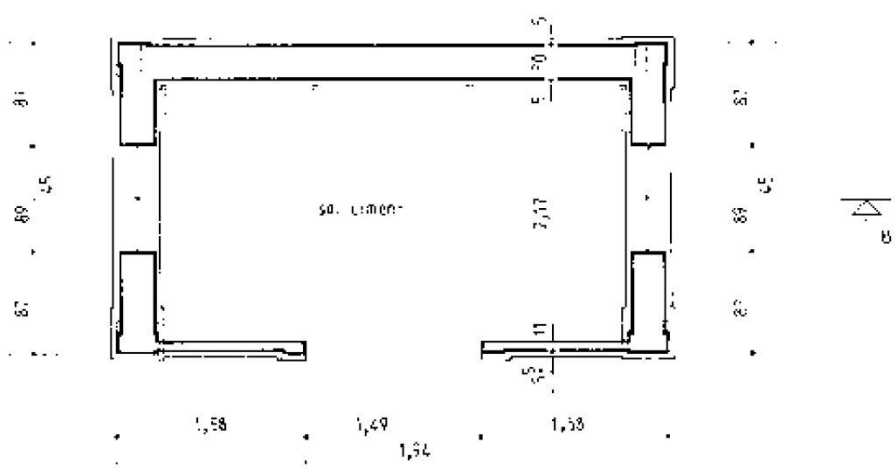
Scale 1/43,5 Drawing Vincent Lepais.

Plan view - ORIGINAL CONDITION



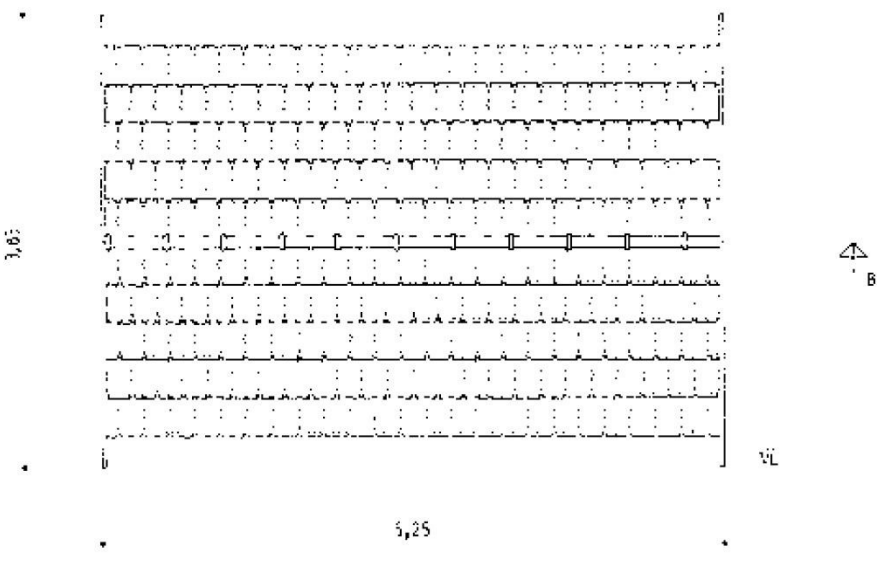
Plan view - AS MODIFIED

SCALE 1/87



Roof plan

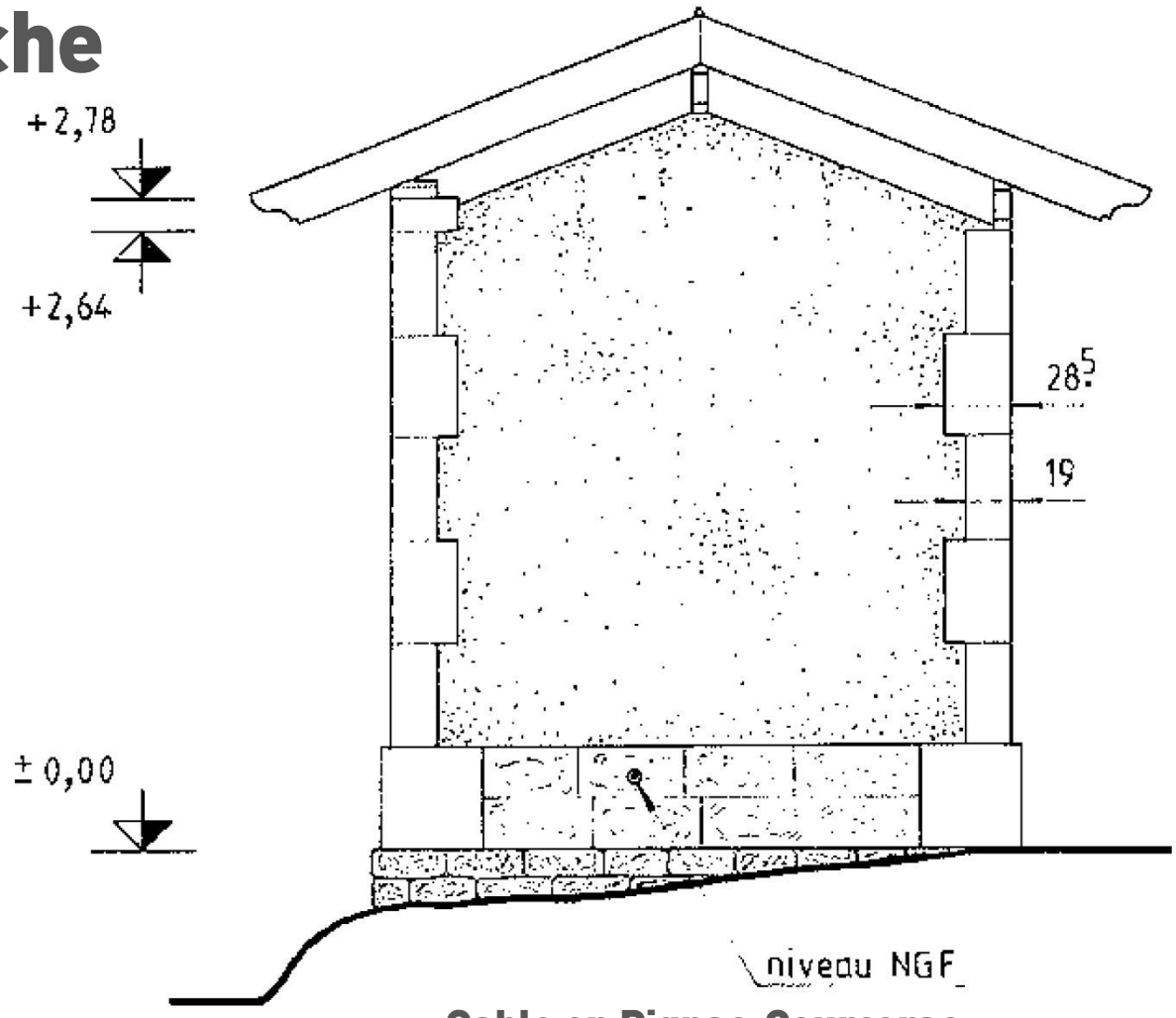
SCALE 1/87



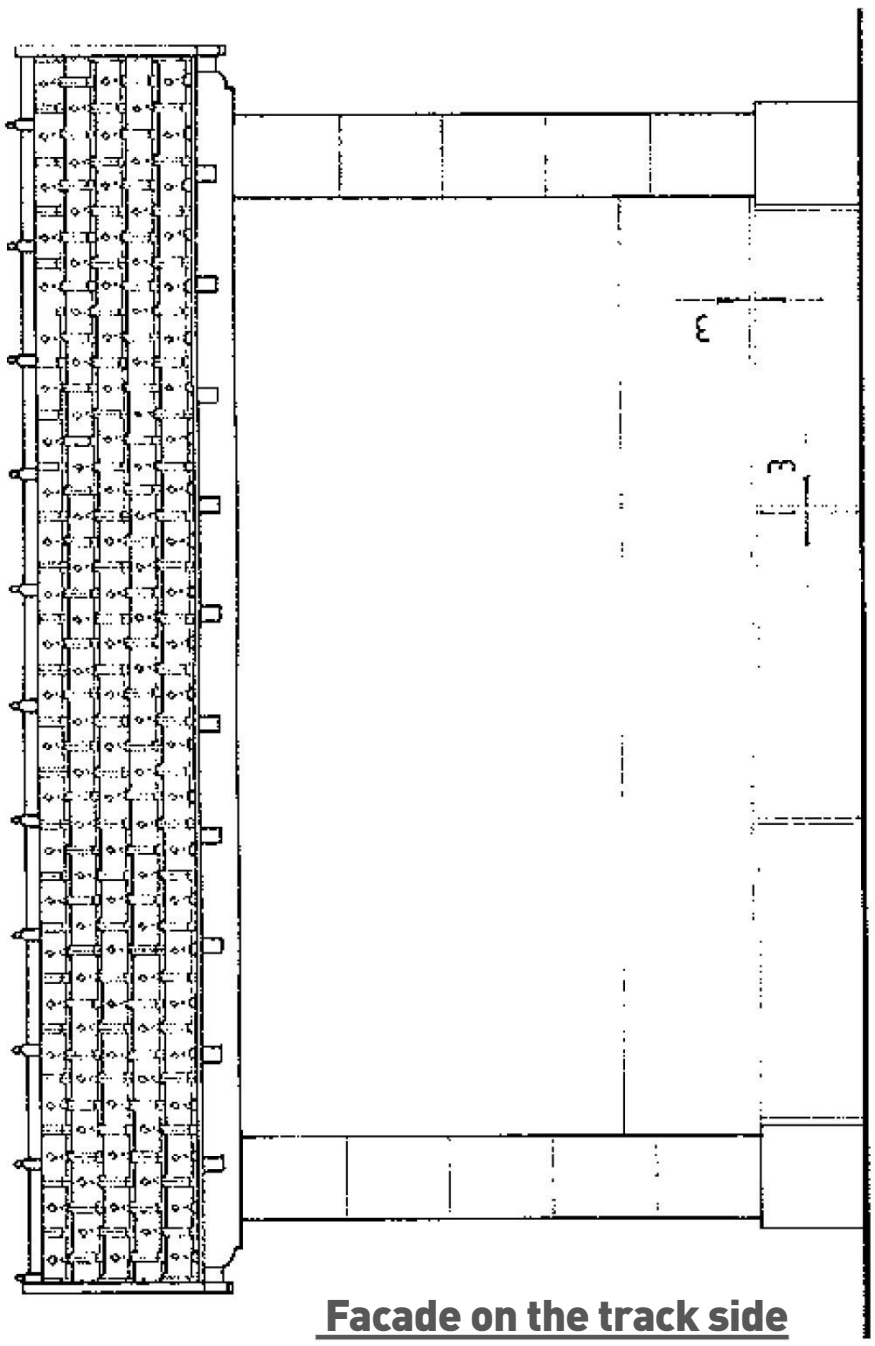
C.F.D. halt of La Tâche (Migron)

ORIGINAL CONDITION

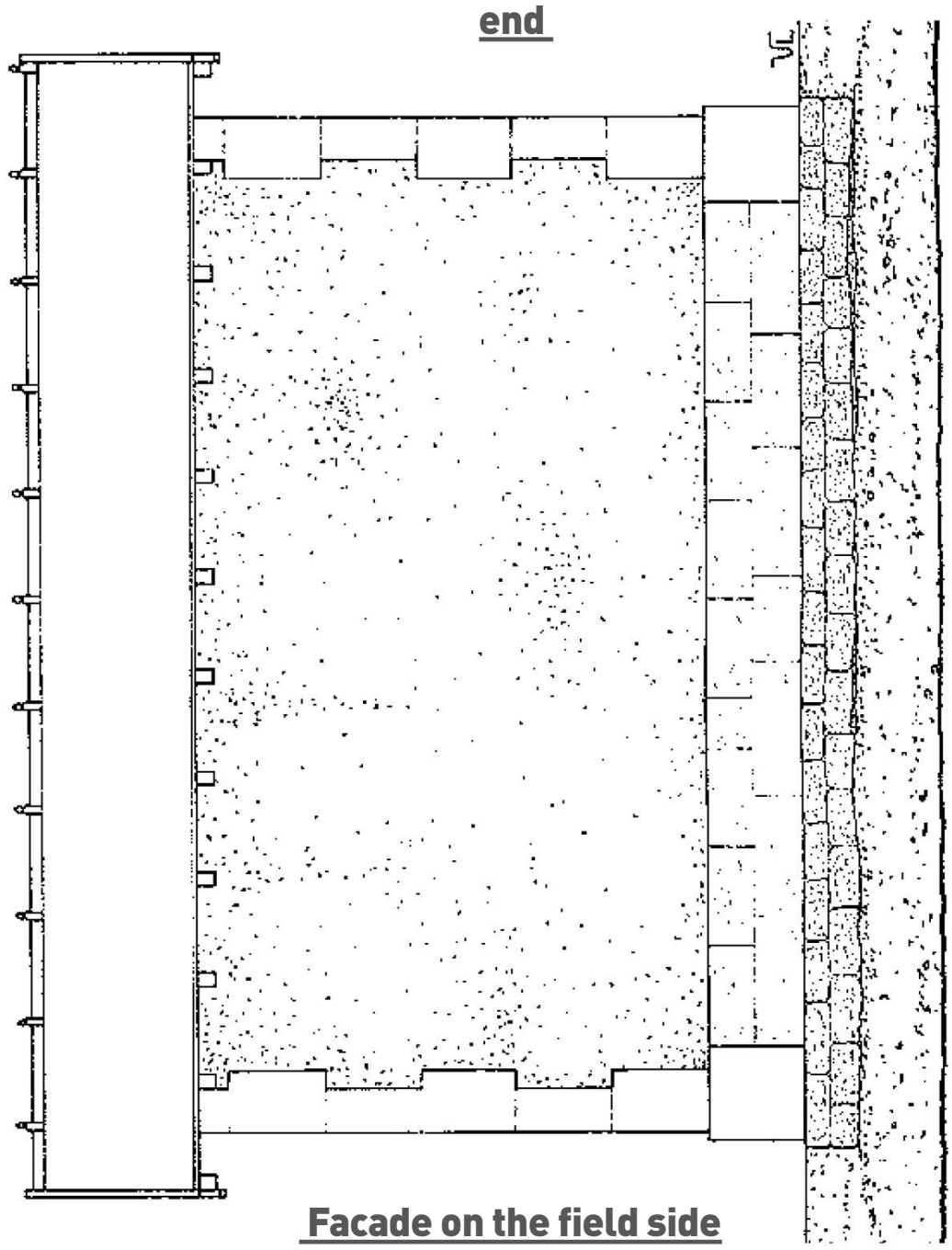
Scale 1/43,5 Drawing Vincent Lepais.



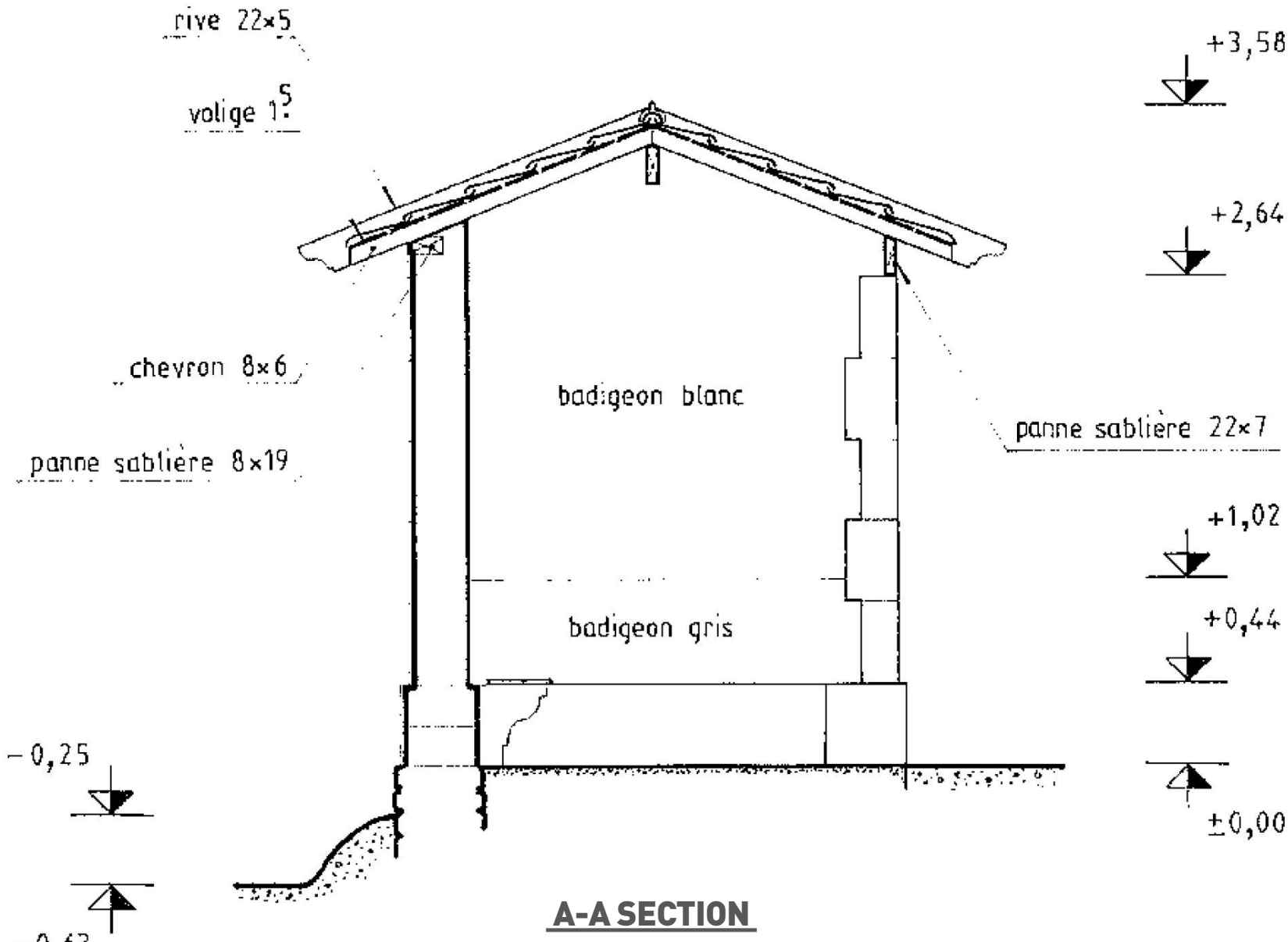
Gable on Pignac-Courcerac end



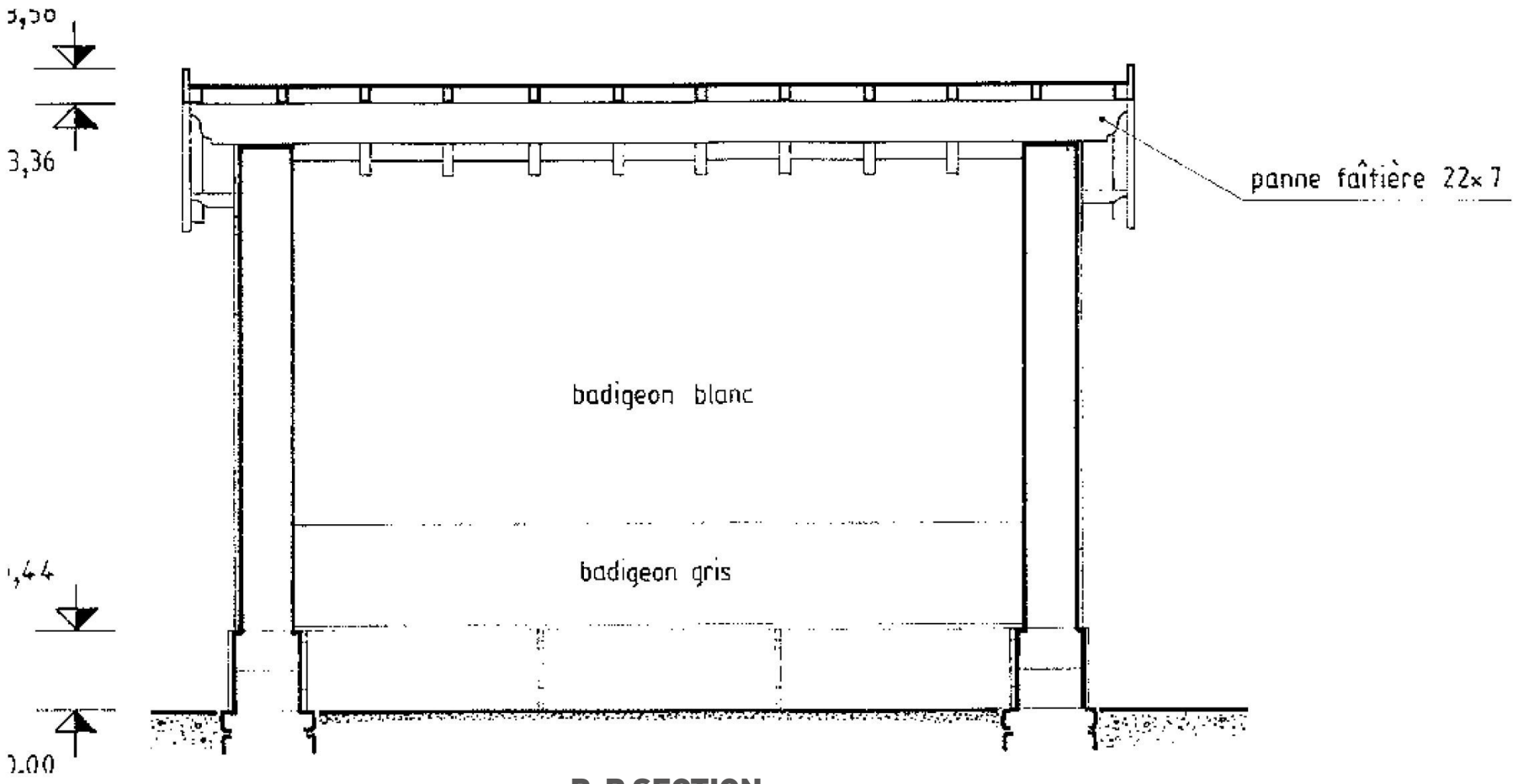
Facade on the track side



Facade on the field side



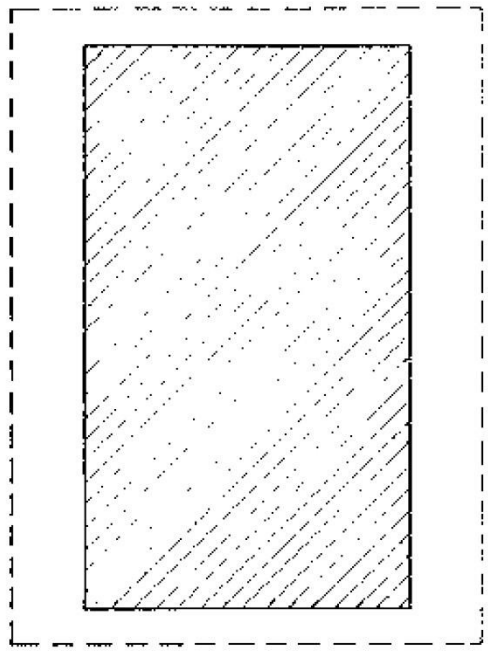
A-A SECTION

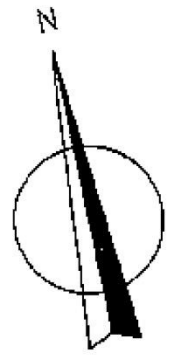


B-B SECTION

C.F.D. halt of La Tâche (Migron)
AS MODIFIED

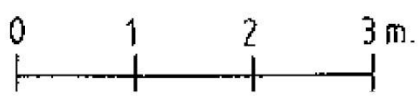
Scale 1/87 Drawing Vincent Lepais.



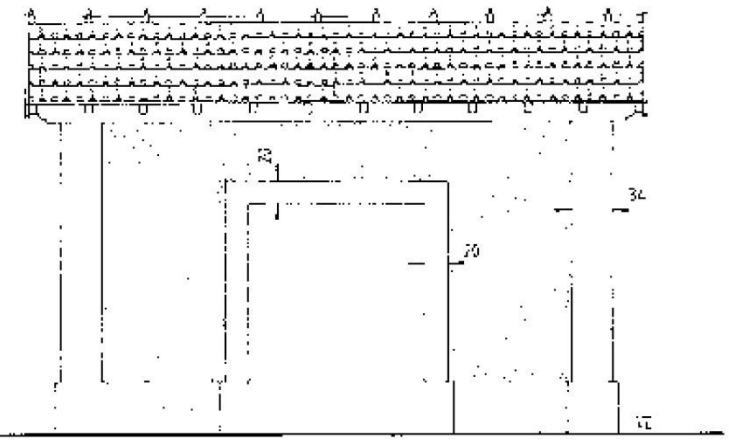


MIGRON

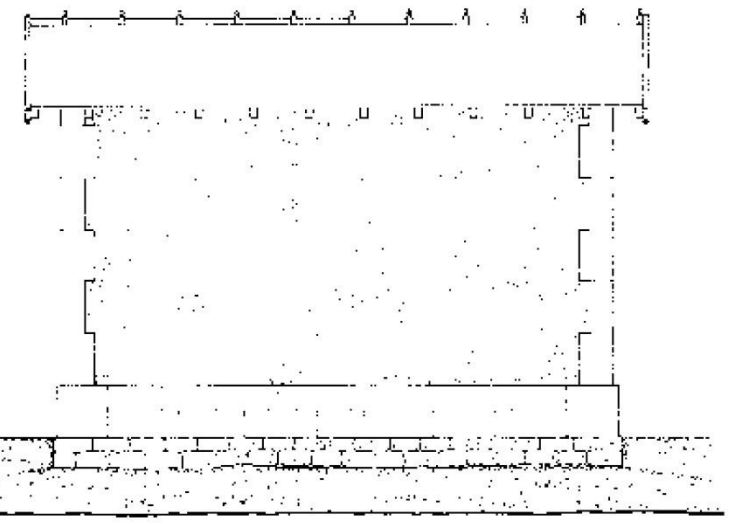
GROUND PLAN



Facade on the track side



Facade on the field side



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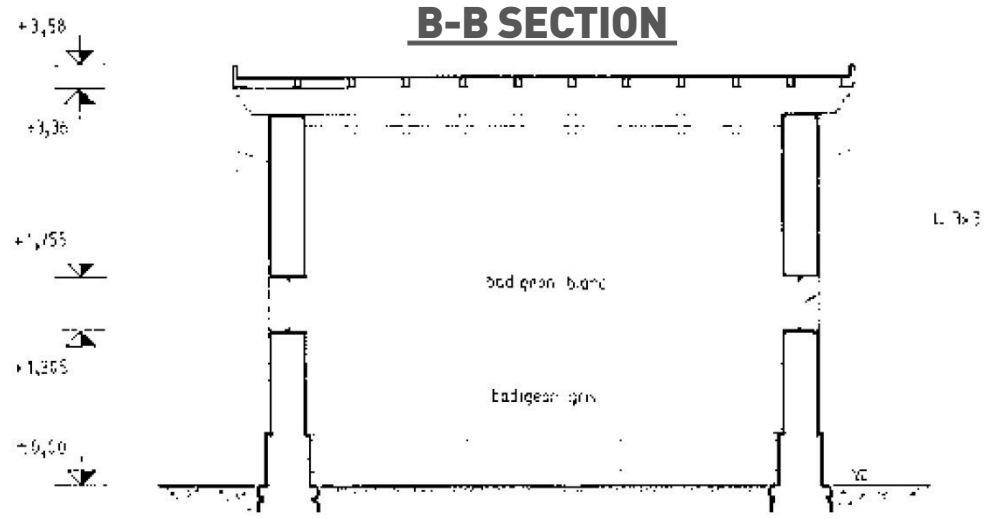
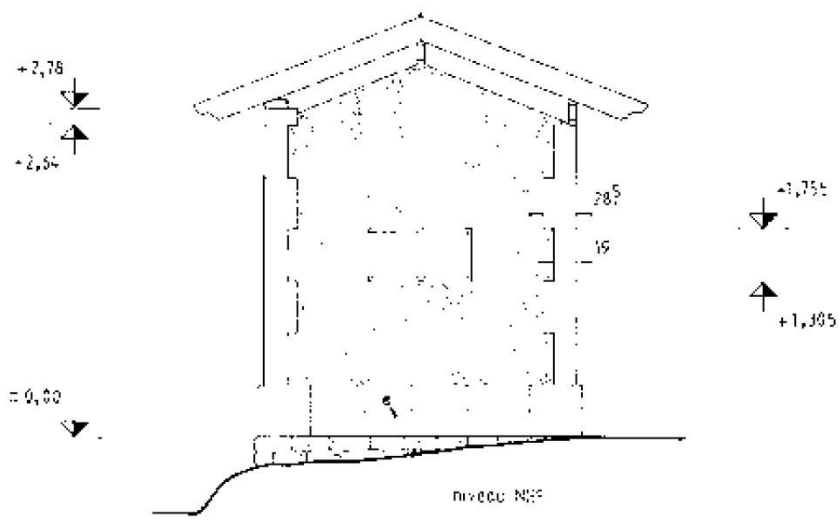


Gable on Pignac-Courcerac



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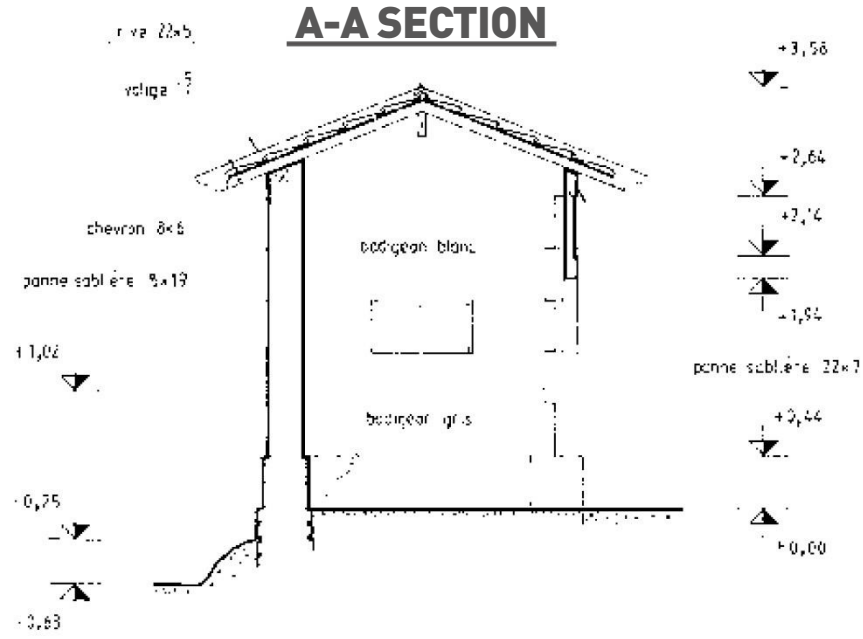

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A VINTAGE TRAM *just for us!*

LR Presse has decided to market a tramway set specifically created for us by Halling Modelle. Whether it is a topic unto itself or a feature complementing an existing layout, give it a go!



1 The vintage tram set with its period advertisements.

THE MODEL AT A GLANCE

Brand: Halling Modelle
Scale: H0 (1/87)
Gauge: 16.5 to 9mm
Period: from 1900 to nowadays.

Price:
Driving unit or demotorized trailers: 57,20 €

Motorization alone: 59,80 €

Complete set: motorized driving unit and trailer: 165 €

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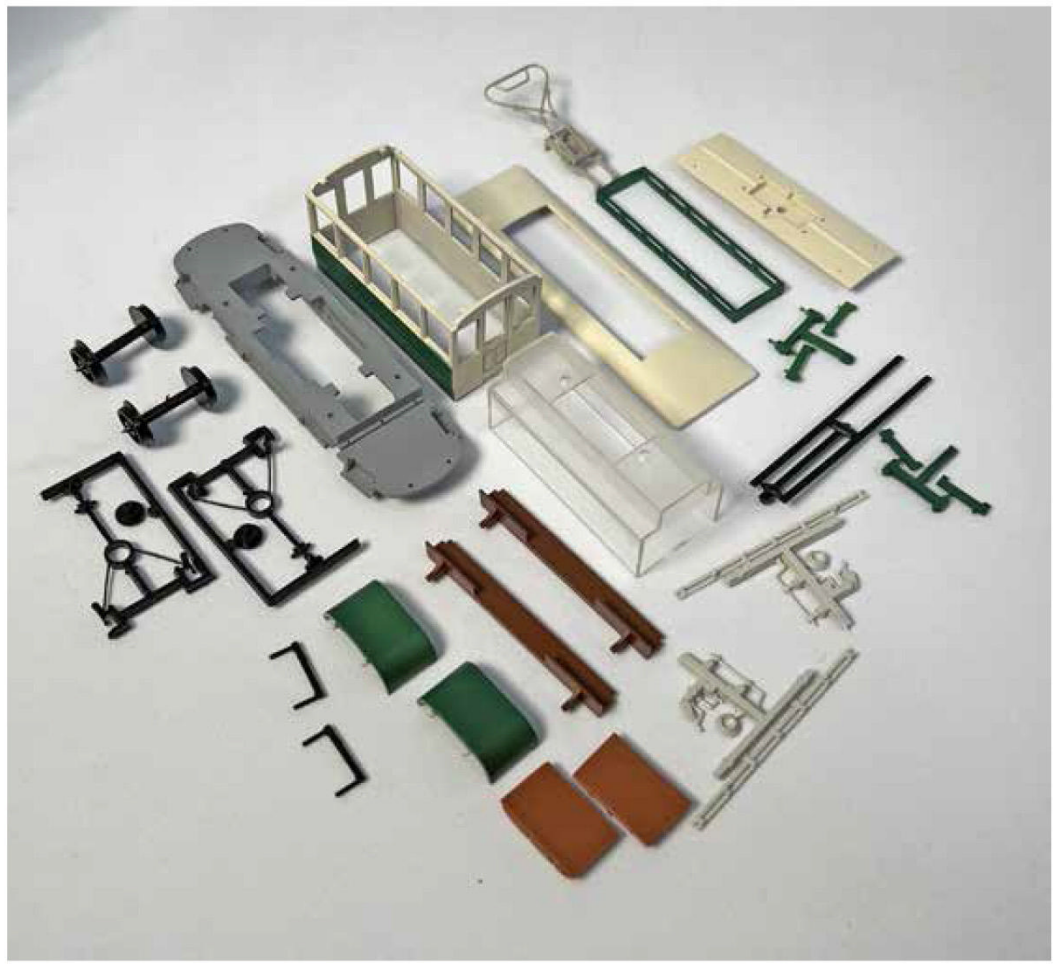


2 The full set of parts seen before assembly.

This is an adventure we had had in mind ever since we met Robert Neumann, the manager of the Ferro-Train Halling Modelle firm: to have a tramway we could arrange to our taste so that all modellers could include one on their layout. Whether the tram connects with the mainline trains or is the subject of a dedicated layout. We chose a 4-wheeler model with end balconies, in kit form, with or without driving mechanism, together with its trailer.

INSIDE THE PARCEL

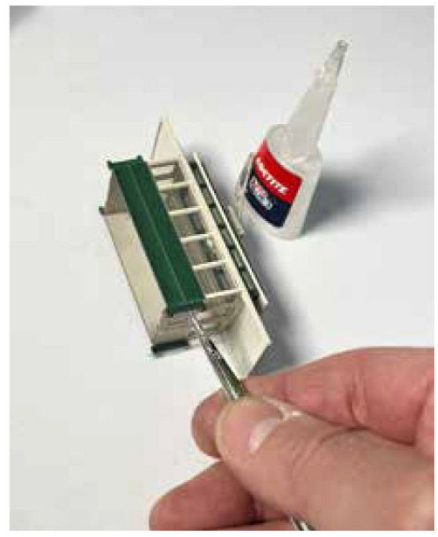
The parcel contains a good many high quality injected plastic parts. Everything fits together with simple tabs, and assembly is so accurate that glue is almost unnecessary! Depending on whether you opt for a driving unit or a trailer, the roof clerestory will differ and naturally, the driving positions will not be installed in the trailer. The models are supplied with plastic axles, which will be replaced by a specific driving chassis for the motor unit. We asked Halling Modelle for a special green and cream livery. Let us take a look at how all this comes together.

ASSEMBLING THE BODY

This is intuitive and hyper-simple! The glazing fits into the body, the roof fits over the top, the clerestory and the roof hold everything in place, no need for gluing! The end panels fit into the body sides. However, the holes are missing! You will have to dril them out to a diameter of 0.8mm using the small template we supply. The end panels are then glued against the bulkheads, polystyrene cements do not work, so I used super-glue applied with the top of a wooden toothpick.



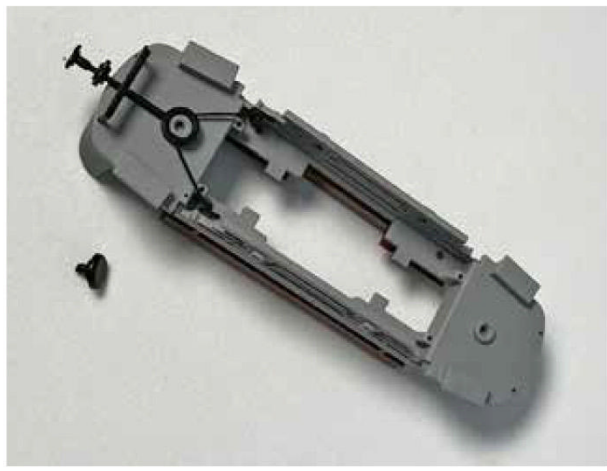
3 The body simply clip-fits together.



4 The return sides must be glued.



5 The longitudinal seats, the front panels, the driving positions and a few details all fit onto the chassis.



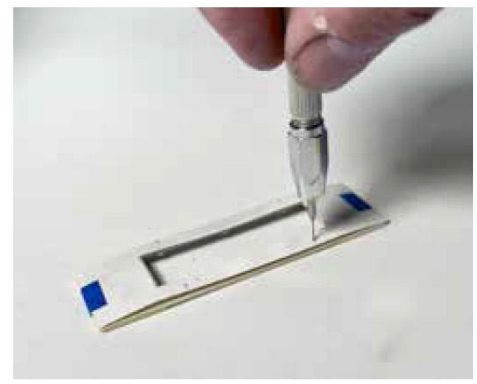
6 The couplings with their clever return system fit under the chassis.



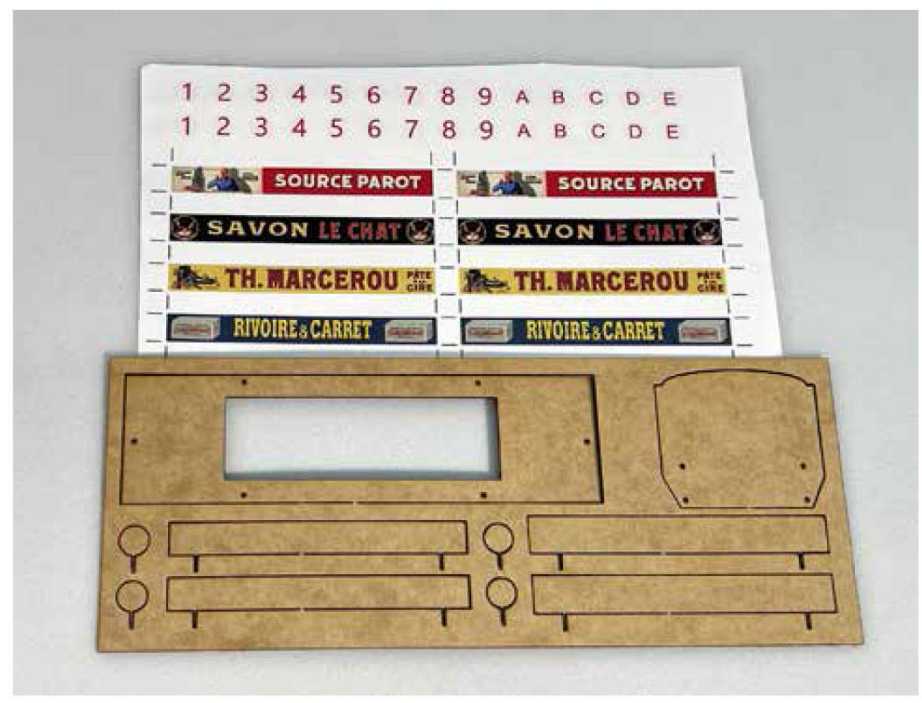
7 The front panels are fitted with their controls.



8 The handrails are fitted and glued. The passengers in the driving unit will have to be amputated.



9 On the roof, the template helps to drill the holes for the panels that carry the advertisements.



10 The templates and advertisement cutting boards are provided.

ASSEMBLING THE CHASSIS

The front panels fit onto the chassis. Because of the paint, you will have to carefully sand the two small tabs to ensure they fit into the tiny holes on the balconies, without forcing. In this case, a micro-drop of glue will be required. The driving positions, the handbrake controls and the lights must be glued in the same way.

HANDRAILS

This is the delicate part! The 8 handrails must fit into the tiny recesses on the sides and front panels. Four lengths of 0.5mm diam. and 24mm long straightened brass wire, as well as 4 others, 25mm long, will be required. For the front panels that are in one part with the chassis, the 25mm long brass wires are inserted into the tiny hole , then glued in the recesses of the front panels. On the body, the brass wires are glued directly in the recesses of the return sides, flush with the roof.

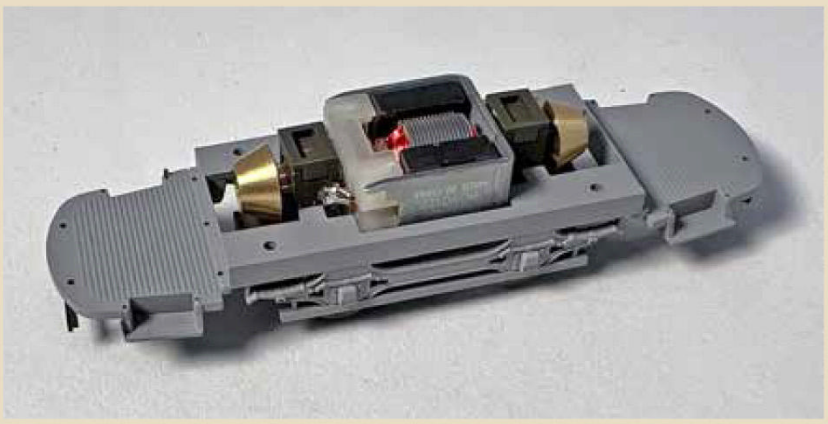
COMPLEMENTARY ITEMS

Nous We include a range of advertisements that fit onto the roof, together with the line numbers. A template helps to spot the holes that must be drilled to a diameter of 0.8mm, the supporting plates are glued into them once the advertisements have been fitted! We select 4 advertisements that have a typical 1920s to 1950s flavour. Naturally, you can very easily create your own advertisements on a 5 x 50mm rectangle and to glue them on the plates once printed.

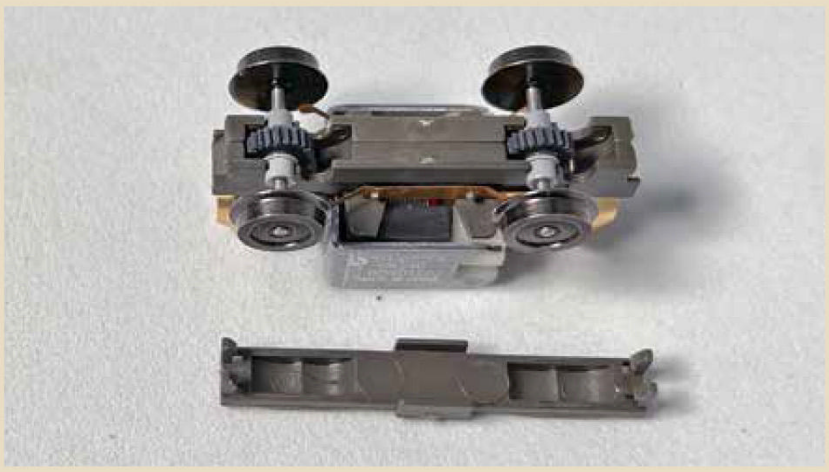
I completed the assembly by a touch of silver paint in the headlamps, by small touches of polished brass on the various control handles, and some weathering of the chassis and roof. Beyond that, the vehicle must remain clean: a tramway is a well-maintained machine that is properly looked after by the staff! ■

THE DRIVING CHASSIS

Halling Modelle has manufactured a specific chassis for this vintage tram. Two axles with blackened wheels are driven by a cascade of straight gears and worm gears. The 3-pole moto ris fitted with flywheels. High gearing ratio, smooth running, this an old model but a true driving mechanism classic whose gauge can vary from 16.5 to 9mm and whose wheelbase can be set to 23, 26.5 or 30mm. After having run in the tram for a few hours in both directions, it will behave perfectly out on the line. The tram body is quite full, any figures will have to be amputated to fit onto the seats, and the space available for any additional ballast is very much at a premium! But there is no need for extra weight, the driving unit hauls its trailer without any trouble, including on my own layout which has incredibly steep gradients!



The engine block in the chassis of the motor unit. It takes up all the space under and between the seats.



Once the keeper plate has been removed, the wheelbase can be modified. For re-gauging, the wheels must be pushed inwards on their axles. By pushing really hard, you can reach 9mm gauge.



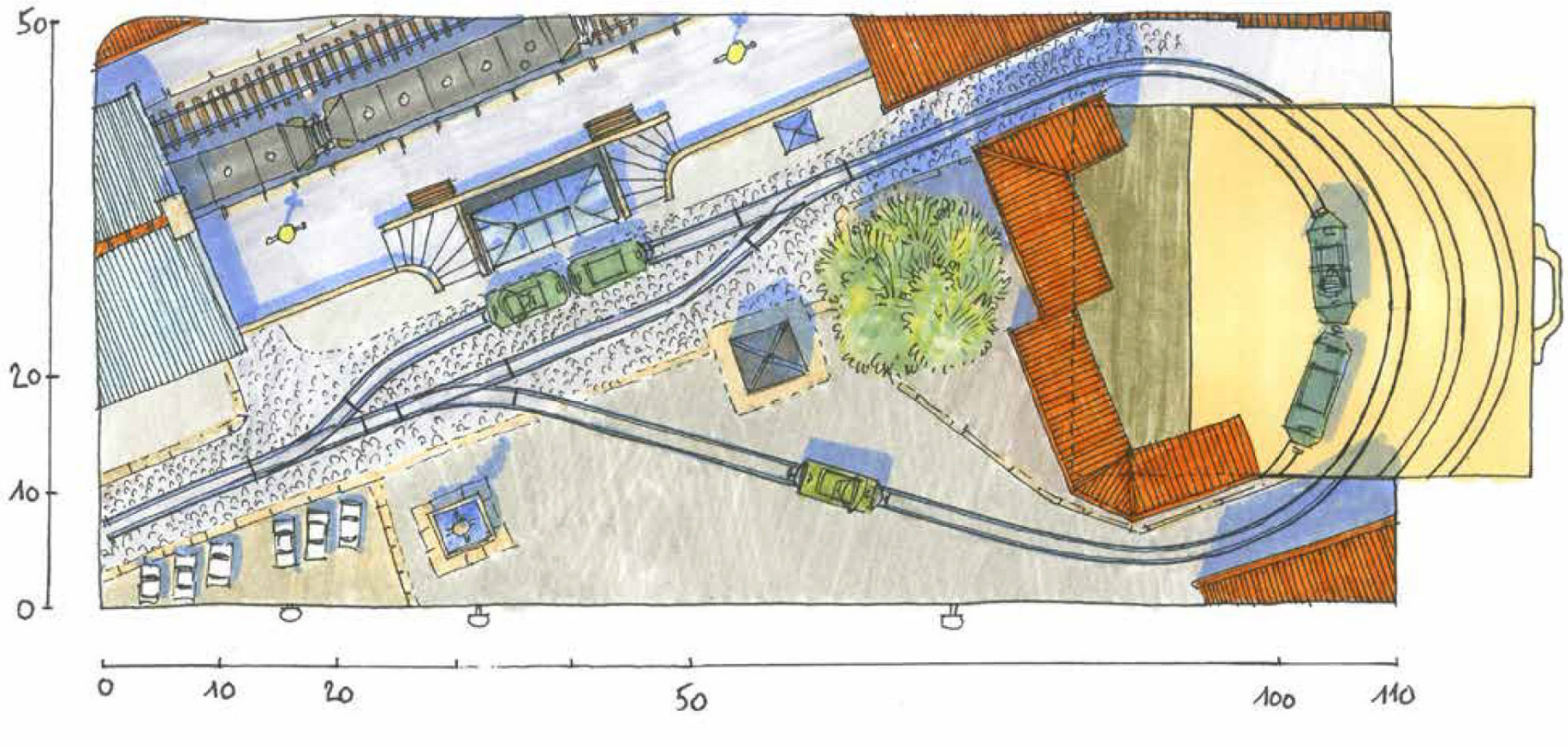
Tramway *Connection*

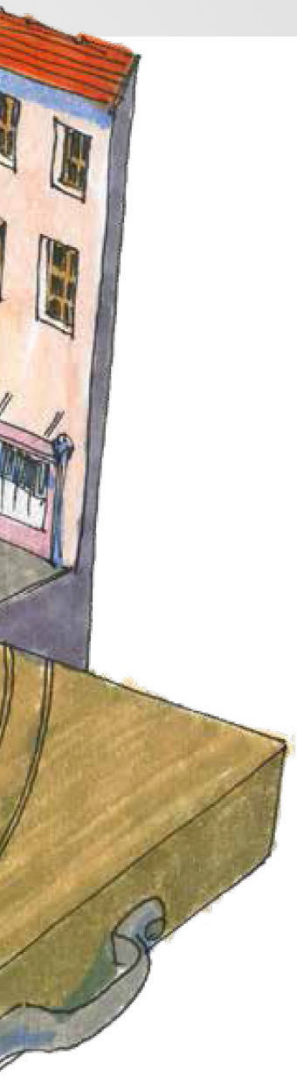
Text and illustrations: **François Fontana**

The availability of an attractive vintage tram consist from the LR Presse shop prompted me to share my enthusiasm for a small layout, linking the main line and urban transport.

The layout in perspective.

LAYOUT TRACKPLAN WITH THE TILLIG LUNA TRACK RANGE.





Monochrome postcards from the late XIXth and early XXth centuries are packed with views of tramways running through the streets of French cities, be they large or small! This is just the theme for a small exhibition layout, evoking a lengthy historical period stretching from the Roaring Twenties to the post-WWII baby-boom years.

THE TRACKPLAN

So as to ensure enough operational interest, the project features 3 turnouts and a large fiddleyard, in this case a 4-track curved traverser. The layout is an urban tramline terminus built in the courtyard of the local mainline station. A loop siding, with a short headshunt, allows the motor unit to run round its trailer. Two lines originate from this terminus, they come together in the fiddleyard, forming a balloon loop.

This project was designed with the Tillig Luna track, available in standard 16.5mm gauge as well as in 12mm metre gauge. I used the 204mm minimum radius, perfect for a 4-wheeler motor unit on a Brill chassis hauling a single trailer. The present article is illustrated with 16.5mm gauge track, but things are totally identical with 12mm gauge.



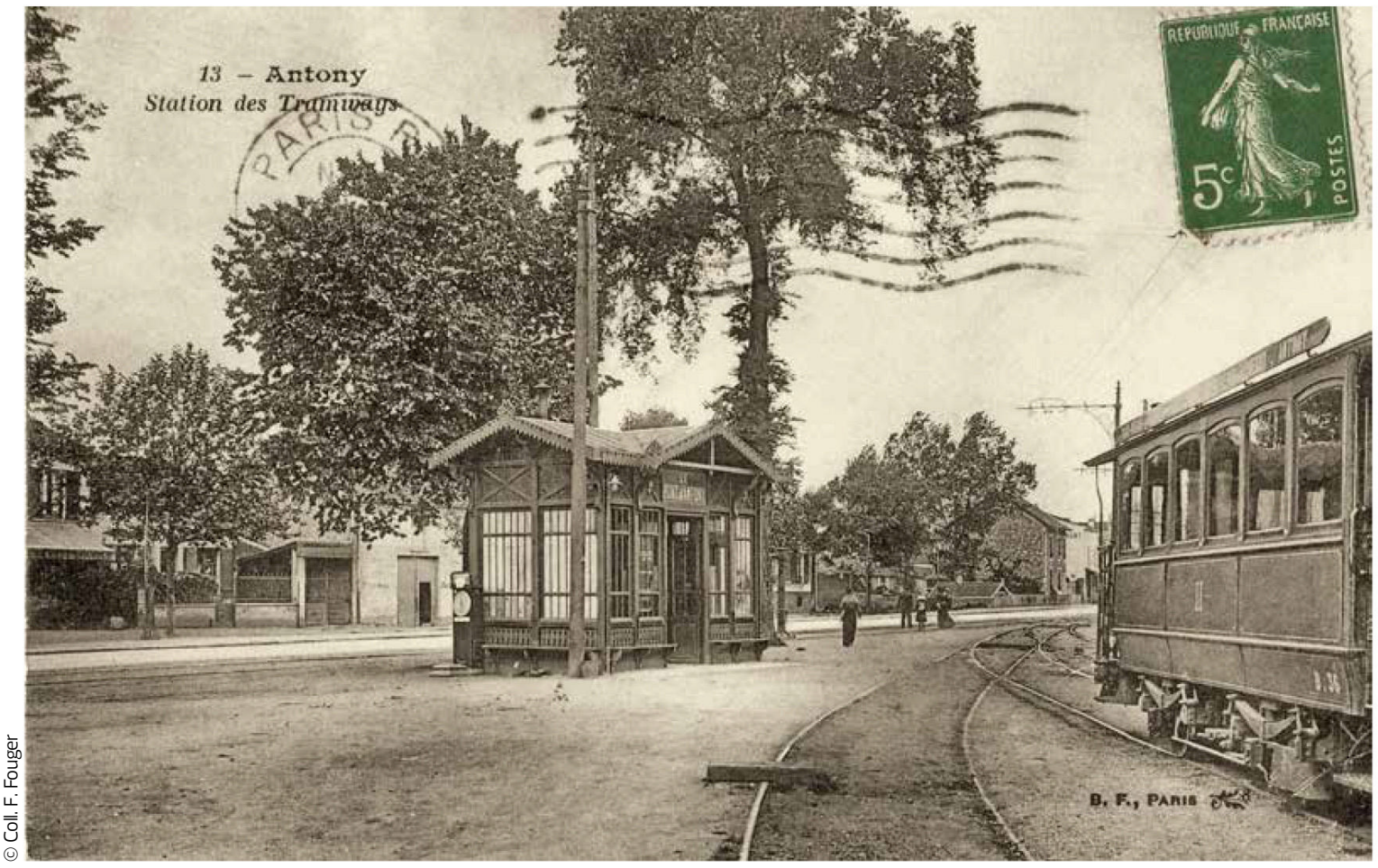
© Coll. F. Fontana

Toulon, the tramway stop outside the station. Here again, there is nothing missing in the scene: the trees, and the bowling area in the foreground with its large statue.



Le Havre, a splendid station facade. Noteworthy is the impressive newsstand!

© Coll. R. Duton



The tramway station outside Antony station, in the suburbs of Paris. No paving stones, the track is embedded in the gravel, note the fine-looking shelter. As well as the wooden chock on the track!

© Coll. F. Fouger



So many things outside Rouen station! Wall-mounted advertisements, public toilets, track embedded in the paving stones.

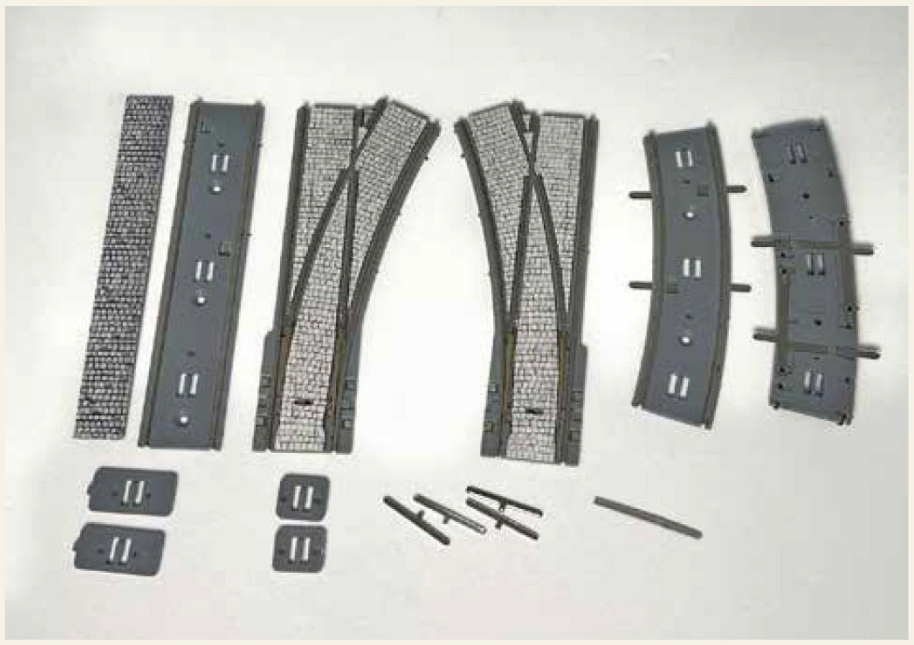
© Coll. R. Duton

AN URBAN ENVIRONMENT

The trickiest aspect when planning an urban tramway layout is without any doubt the scenery surrounding it; you need buildings, shops and signs! The traverser is partly concealed in a group of buildings, the two tracks that leave the terminus vanish into two streets between the facades. On the left-hand side, the front of the mainline station is partly modelled, while the passenger platform located above the station square closes off the remainder of the backscene. A train in the mainline station helps conceal the receding lines and... hey presto. Now for the atmosphere!

THE TILLIG LUNA TRACK

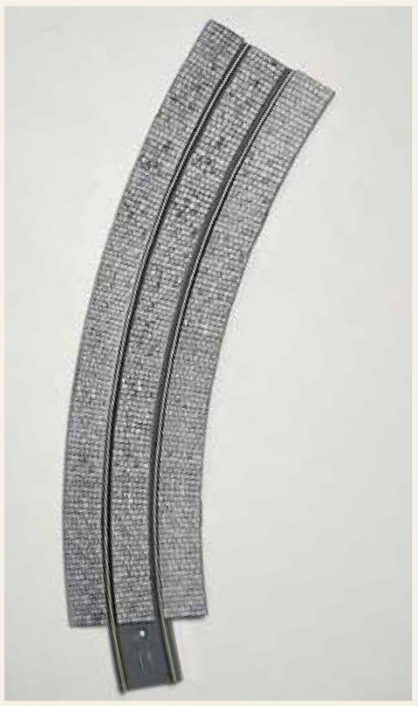
When it comes to track that is completely embedded in paving stones, there are not that many solutions: either you scratchbuild it, burying your tracks in cardboard or plasticine. Or you call on the only commercial range available: the Tillig Luna track!
The principle of this track is fairly simple: the inverted U-shaped sheetmetal rails are fixed onto grey plastic baseplates. The live rail joiners are simple metal strips that are inserted into the hollow rails. For insulating rail joiners, plastic strips are inserted. Under the baseplate, connectors can be hooked up to the electrical supply; some work will be required with a soldering iron. Once the baseplates are fixed onto the baseboard, Tillig suggests fixing other plates to hold the paving stones, while the spaceer parts located between the rails are fixed directly to the baseplates. Two radiuses are available, meaning that a double track can be laid if required. There are two types of turnouts, simple right and left-hand ones and symetrical ones, the latter featuring a crossing in the case of double track.
The Tillig Luna track range can be ordered from the Maketis shop.



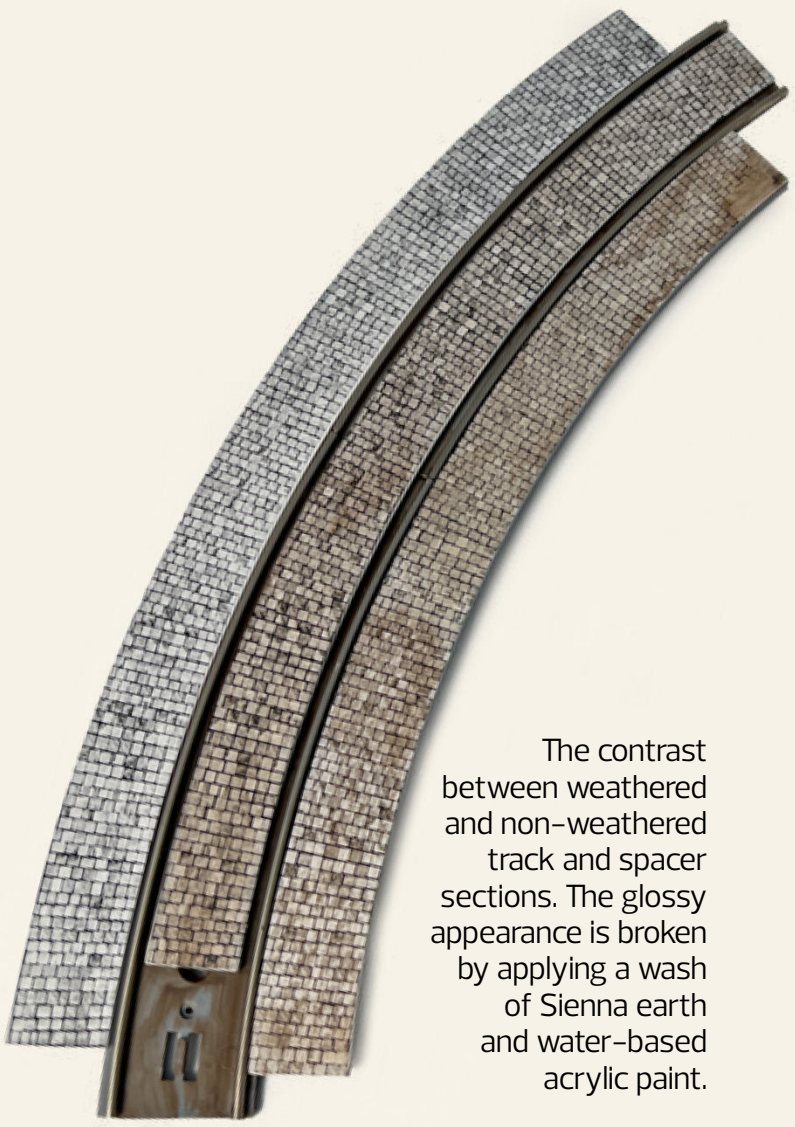
The Tillig Luna track: spacer parts cladding. A length of straight track. Two turnouts. A length of curved track on the rail side and another seen from below. In the foreground: spacer parts for double track stretches. Edge surfaces. Electric and insulating rail joiners.



Seen from below, a curved stretch with its specific cladding.



The same seen from above, the cladding is designed for each radius, 250 or 204mm, of course.



The contrast between weathered and non-weathered track and spacer sections. The glossy appearance is broken by applying a wash of Sienna earth and water-based acrylic paint.

WEATHERING IS REQUIRED

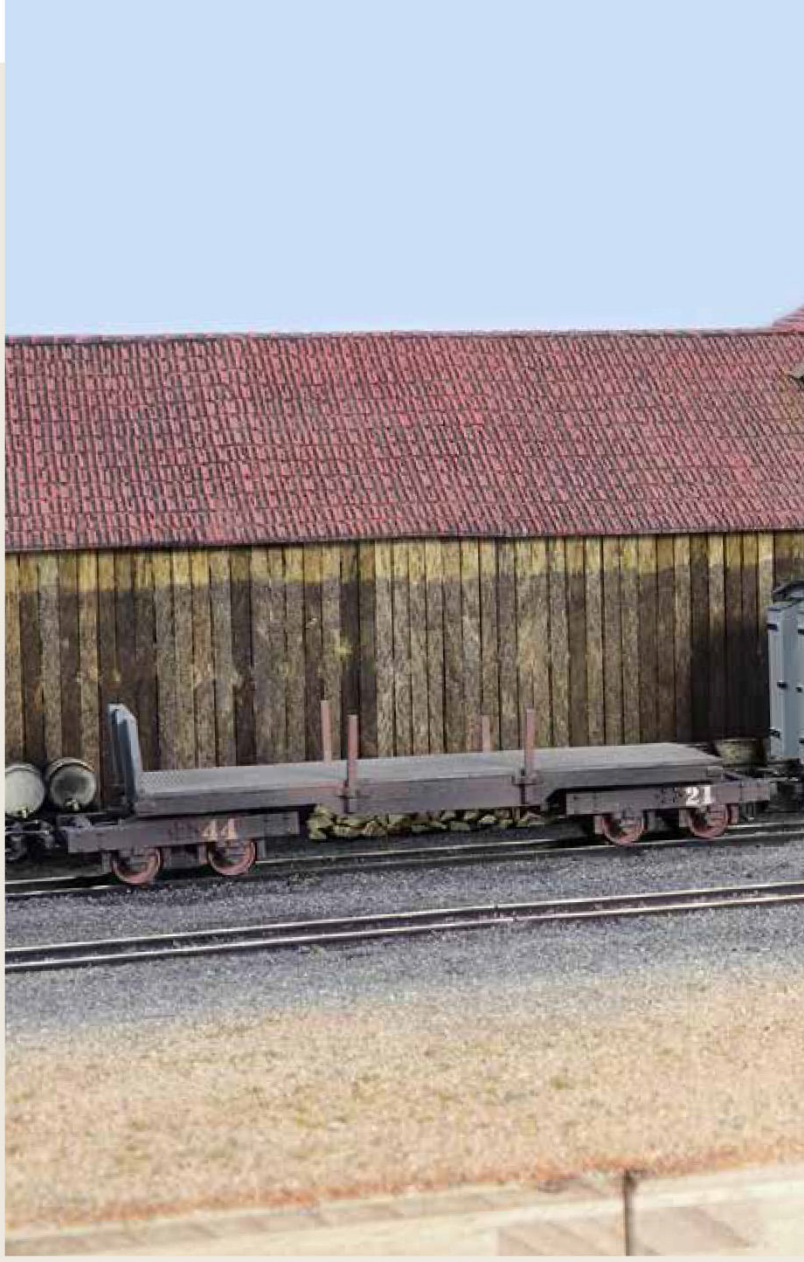
The paving is printed on a film-coated material on grey plastic supports. As the printing is somewhat glossy, some weathering is advisable. Acetone must be avoided absolutely, as it will promptly dissolve the ink! Pastels do not hold, and neither does alcohol. The only solution I found was to use a wash of acrylic paint. I opted for Vallejo paint from a mini-pot, and took the opportunity to colour the hollow along the rails as well as the sides of the rails. Before the paint dried, I rubbed the railhead clean, the overall apperance is greatly improved. ▪

A BOGIE WAGON *for Abreschviller*

With two P'tits Kits bogies, Bernd Irion has built a flat wagon for its forest network. Whatever the bogies, the approach remains the same!

Text and illustrations: **Bernd Irion**

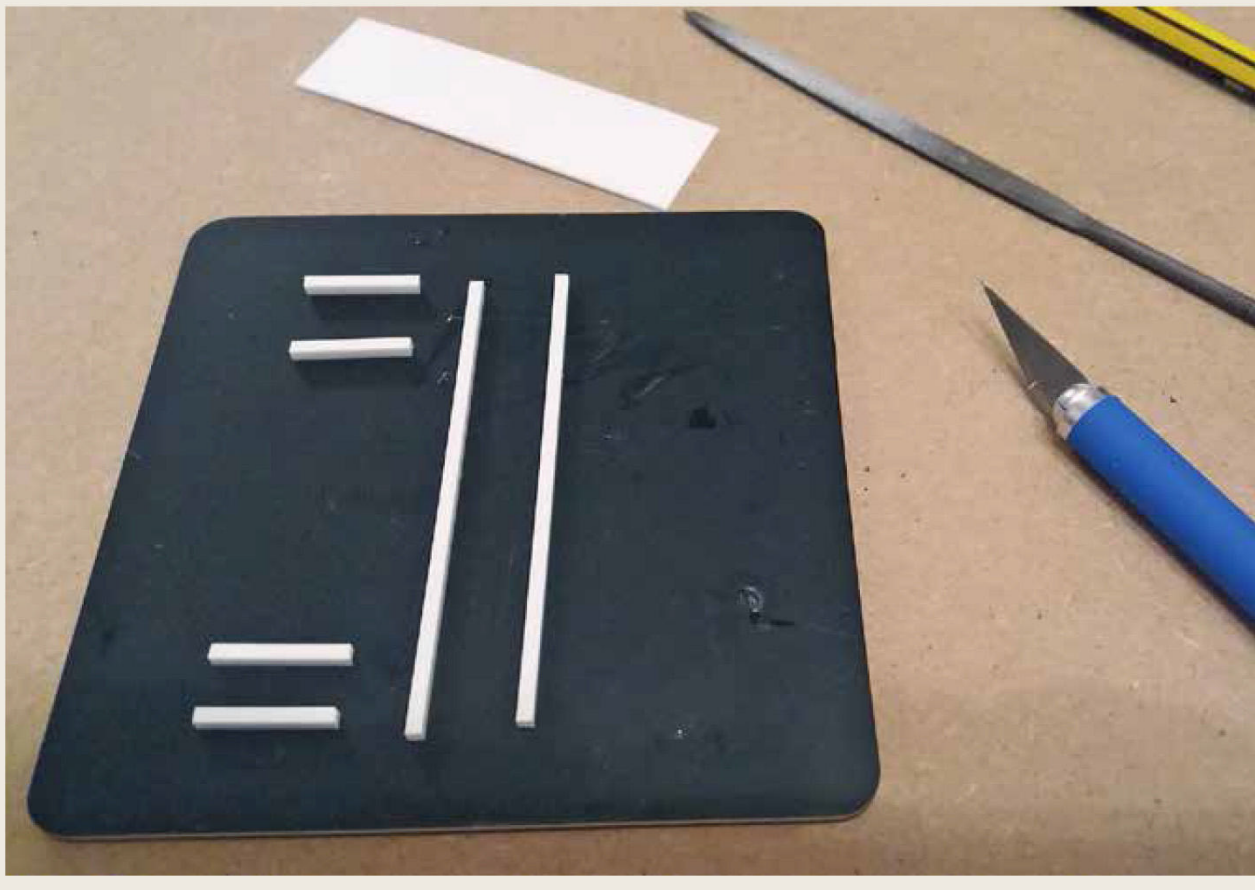
To increase the capacity of plank transport nothing better than a large flat wagon on bogies. Bernd used two P'tits Kits Voie Libre bogies to create his own according to the one circulating in Abreschviller. He explains how he did it. A nice DIY for a long autumn weekend and a very satisfying result. Of course, this type of wagon can be mounted on any bogie! ■



In front of the machine shed, the bogie plate with its unique backrest waits for the Mallet to be under pressure

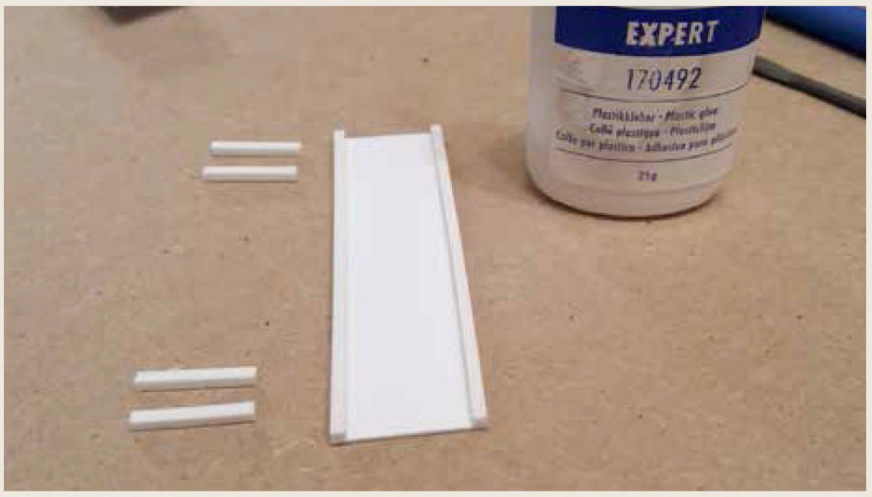
SUPPLIES

Two bogies
Evergreen:
Passenger car réf. 3025
2 x 2 mm réf. 164
1 x 1 mm réf. 142
0,25 x 1 mm réf. 102
Polystyrene glue

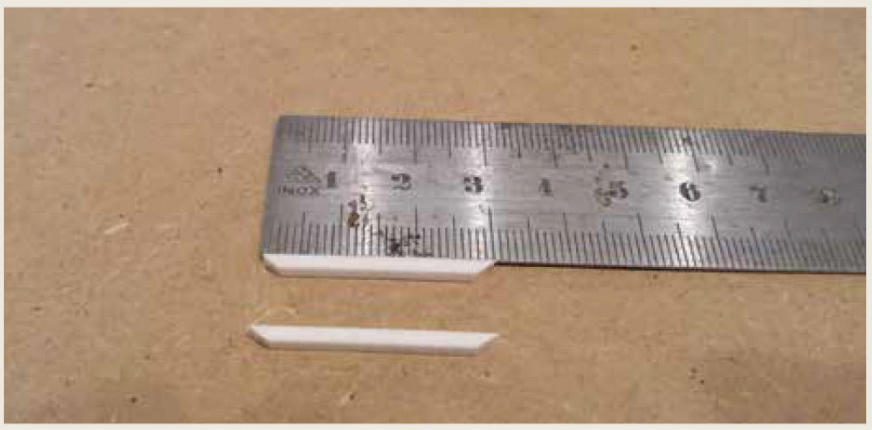


1 For the car floor, cut a 21 mm x 75 mm rectangle in the ribbed deck. And, in a 2 x 2 mm profile, two 75 mm frame rails and four 17 mm crossbars.





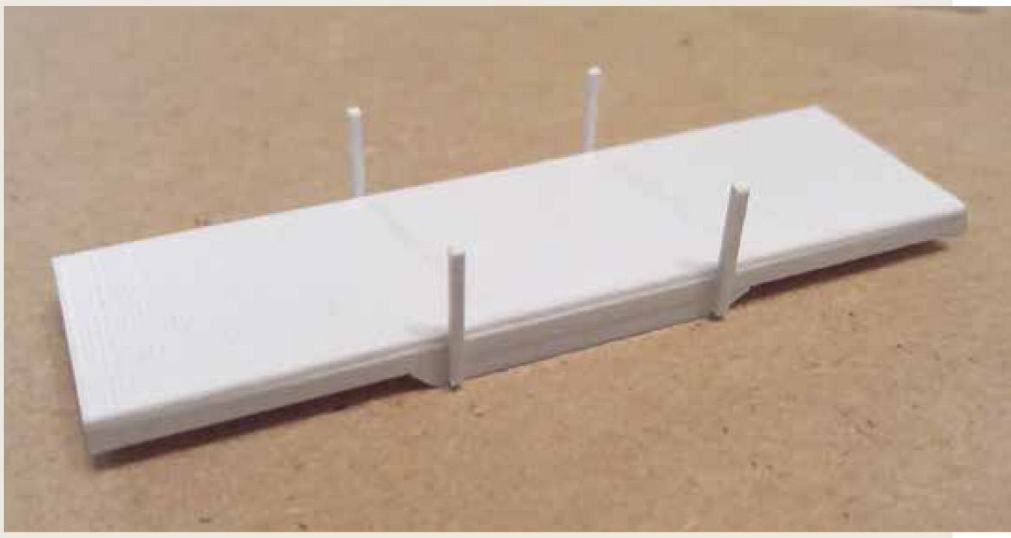
2 Glue the frame rails and crossbars under the deck with polystyrene-specific glue.



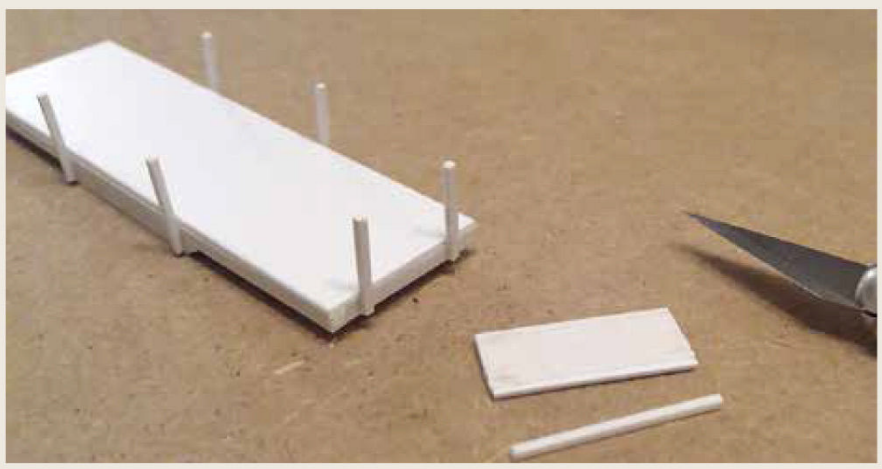
3 Cut two lengths of profile 2 x 2 mm 30 mm long, and bevel their ends to 45 degrees.



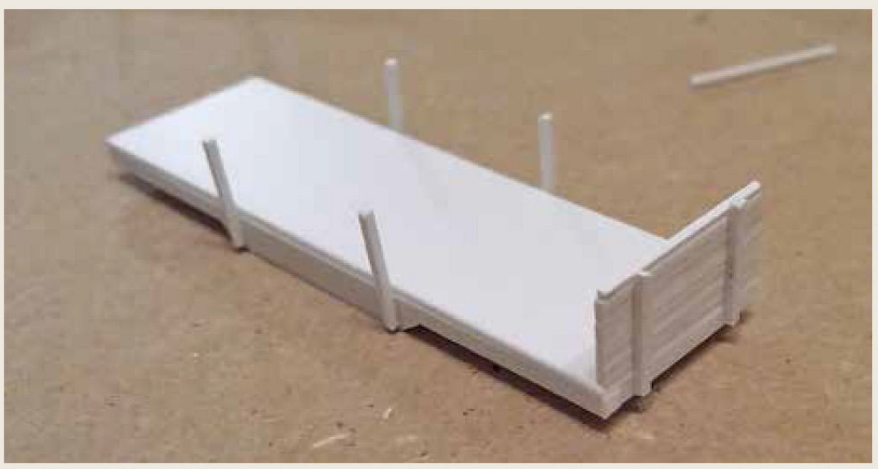
4 Glue the two reinforcements in the middle of the frame rails.



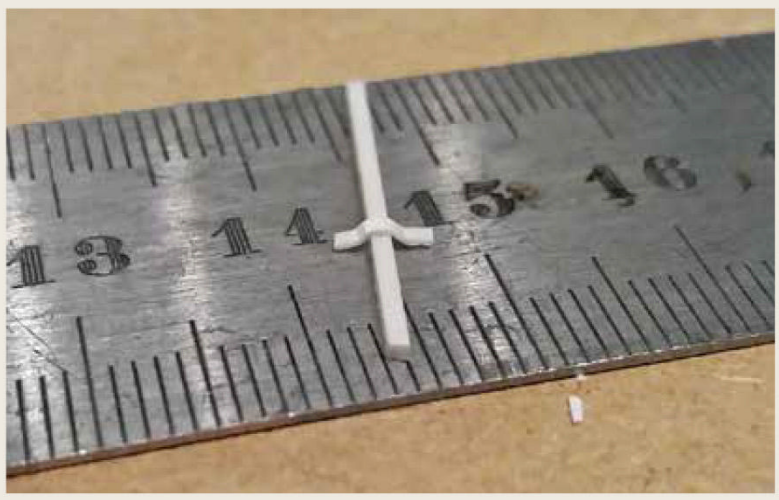
5 Cut out six lengths of approximately 12 mm of 1 x 1 mm profile. These will be the racks; on the real car there are not two that have the same length! Glue in four at the reinforcement bevel.



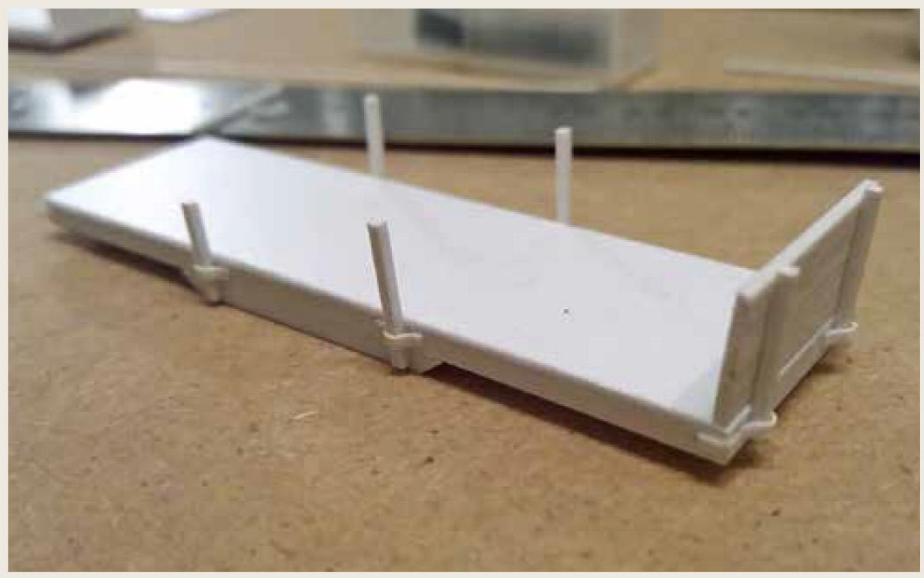
6 Stick the last two racks on a backrest 4 mm from the outer edges.



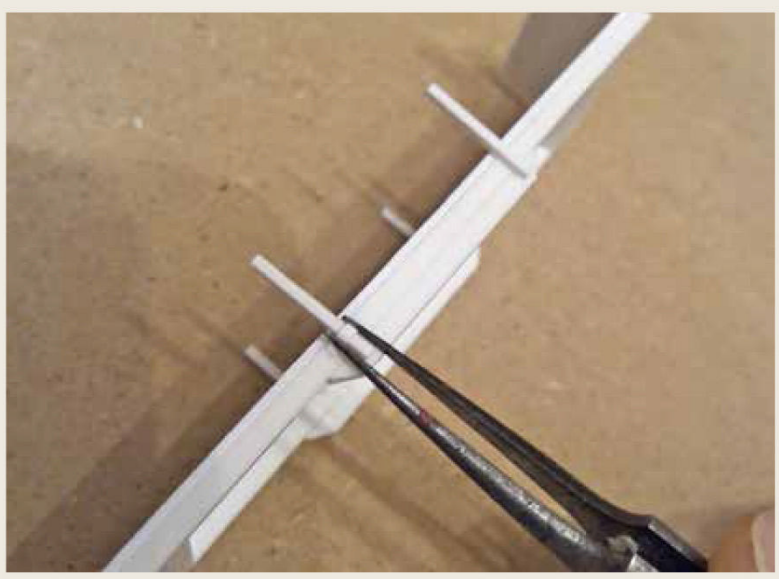
7 Build the backrest by gluing profile lengths of 2 x 2 mm of 21 mm long, one on the other, against the racks.



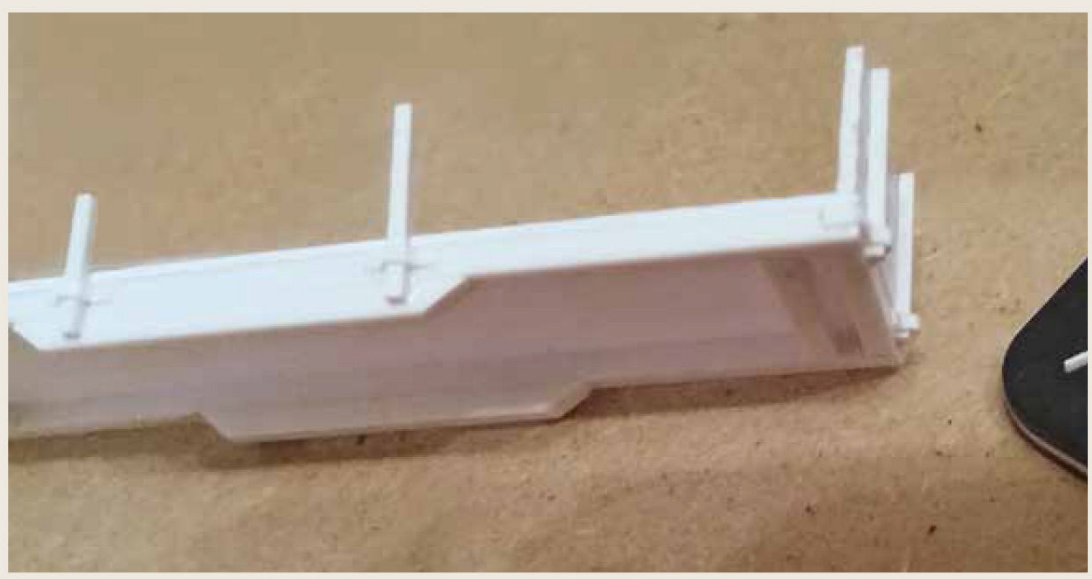
8 On a 1 x 1 mm square profile drop, press the 0.25 x 1 mm long profile flanges with your fingers. You'll break two or three before you find the right pressure!



9 Glue the clamps in the middle of the frame rails, straddling the racks.



10 When the glue softens the polystyrene, press the clamp against it.



11 Form the corner reinforcements, with a 0.25 x 1 mm profile 4 mm long bent by the middle, and stick them to the corners.



For colouring, it's a choice: a beige or grey base covered with dark washes to simulate traces of wear. Finally, a pile of boards and our wagon is ready to take the line! Notice the racks of unequal heights.

A CHILD OF VOIE LIBRE!

Somua/Duton railcar

The Editorial Team recently received a pleasing message, from an enthusiastic reader who sent us what he had created while reading... Voie Libre. Hooray, hooray, a kitchen table project!

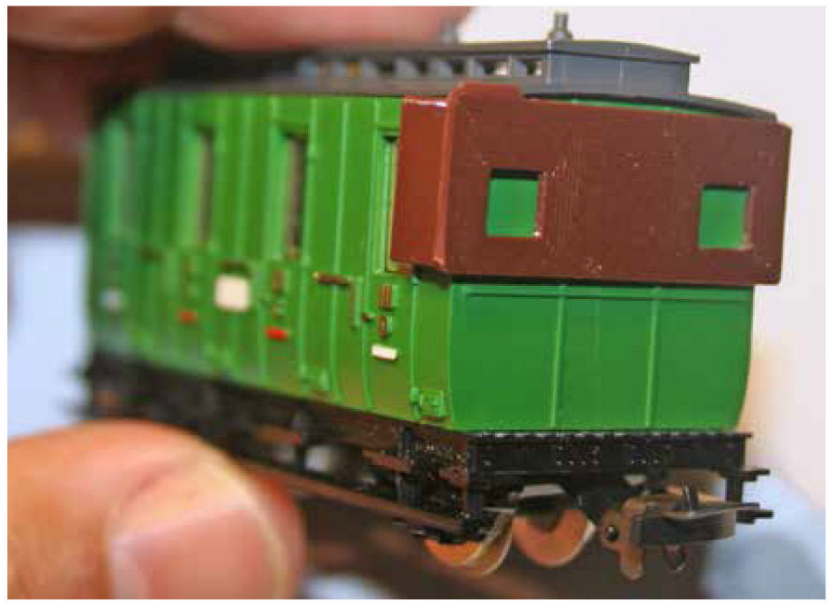
Text and illustrations: **Gonçalo Germano**



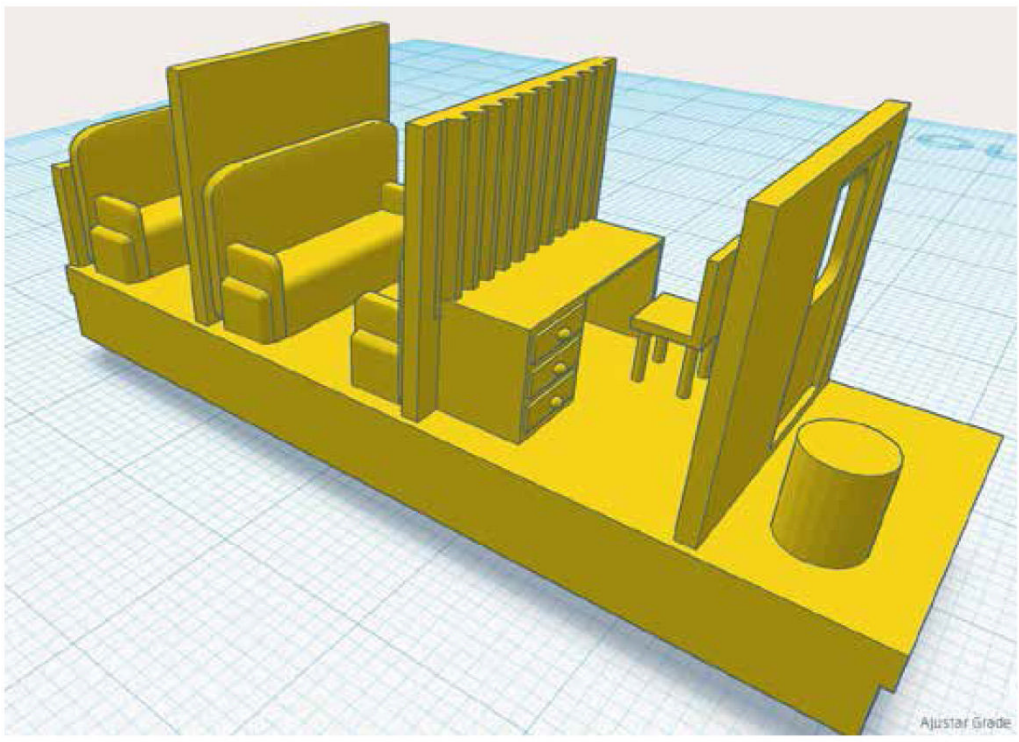
This small Somua/Duton railcar, in Gonçalo version, looks great! It is fitted to a Kato driving chassis.



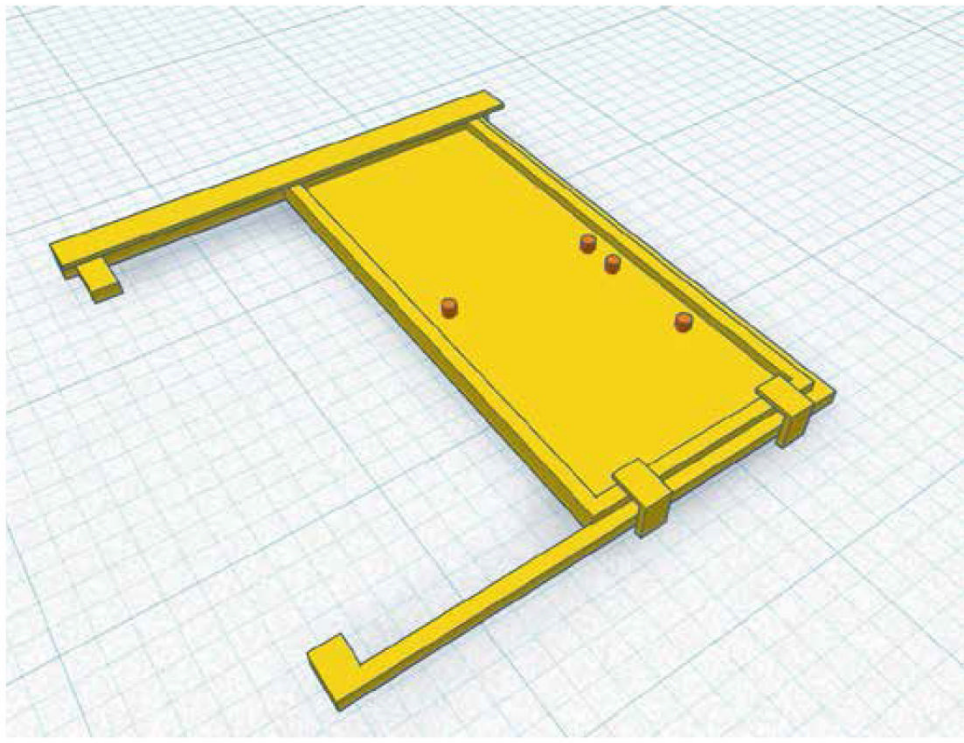
1 A few simple supplies and some 3D printed parts, using a wire printer.



2 The template is used for cutting out the apertures.



3 The chassis and inside furnishings, the glazing from the Egger-Bahn carriage is retained.



4 The sliding door on the right-hand side of the van compartment. By a mirror effect, i twill also fit the left-hand side.

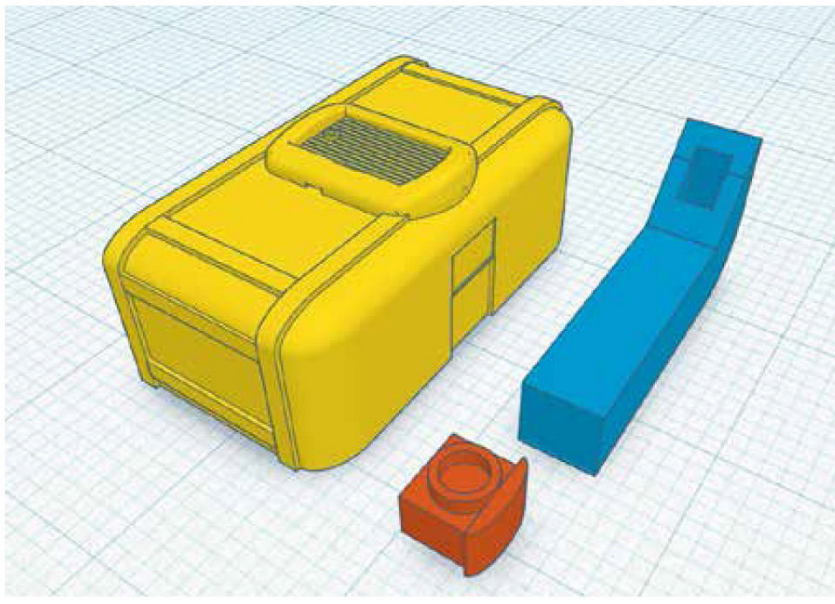
SUPPLIES

Kato 11-110 **driving chassis**
Slam-door **Egger-Bahn carriage**
Free 3D files from:
https://cults3d.com/en/3d-model/various/schneider-somua-h0e-egger-bahn-719c71b607bc0dd7a544

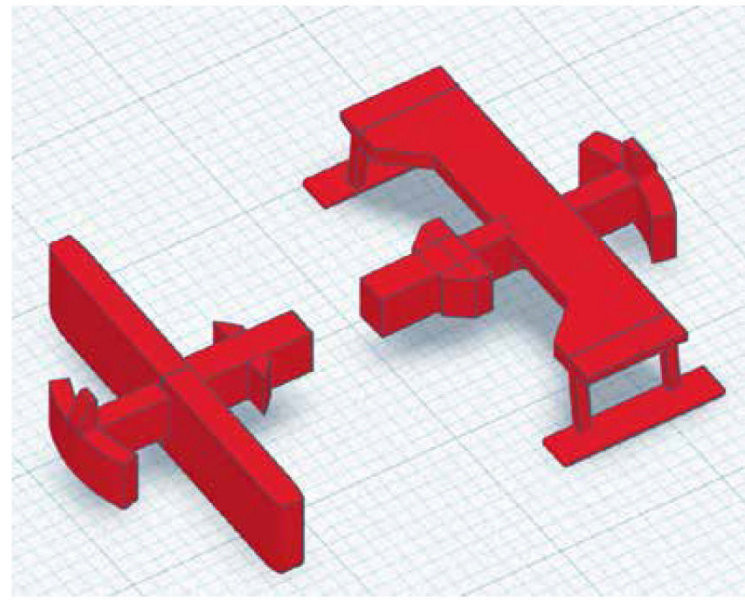
Gonçalo Germano is a Portuguese modeller who is fond of narrow gauge and a reader of Voie Libre. Obviously someone reputable ;-)) ! He sent us a short text, with a few photos, and told us how he had taken advantage of lockdown and working-from-home periods to create the model described by Raymond Duton in VL 94.

François Fontana: Hello Gonçalo, we have here a fine-looking railcar, a Raymond Duton model, very much inspired but significantly adapted.
Gonçalo Germano: Hello, yes, and many thanks to Raymond Duton, I love what he makes. I fell for this small railcar, magnificent, ugly and delightful. It has everything I enjoy in railway modelling and narrow gauge: the magic and mystery of its size, the freedom to adapt the model to the builder's imagination. I was not familiar with the original standard gauge model, so I did some online research and found the railcar preserved at the Mulhouse railway museum.

FF: Did you follow the Duton method?
GG: Yes, but in addition, I had just bought a 3D printer. I attended a few online modelling courses and jumped into the deep end after having swapped some H0 standard gauge stock for an Egger-Bahn carrige ref.



5 The parts making up the engine/ exhaust block.



6 The two buffer blocks, that fit into the coupling supports of the Kato chassis.

2009. I started by dismantling the carriage and removing the sprues, before moving on to 3D drawing. I drew the inside, the least visible part, with 4 compartments : the driving cab, with a rudimentary seat, the van with its post office, one first class compartment and a second class one.
I drew the van door, and thanks to the mirror function, I got a perfectly symetrical second one. I also drew the template for cutting out the apertures on either side of the silencer. The engine bonnet and the silencer are simple volumes developed on the basis of Raymond Duton's drawings, a brilliant acts as a headlamp.

FF: You also included buffer/coupling block?
GG: Yes, they fit into the N scale coupling supports of the Kato driving chassis. The rear one features a step to reach the rungs leading to the roof. A few details were added to the body, and the parts were then painted. Plastic sheet is not readily available in Portugal, so I cut all the parts out of leftovers. They were assembled with Uhu glue or superglue.

Having comlpeted this project, I thought it might tempt other modellers and while at it, I wanted to share the printing files with them. They can be found on the Cults3d.com website.

FF: What a great idea! Many thanks Gonçalo. I will quickly build my own Somua Gonçalo/ Duton railcar !
GG: Have fun!



7 Two simple wood steps complete the job.

MAKING WATER *using inclusion resin*

Gilbert Gribi describes a few recipes for enjoying quiet days by the waterside... water we will have poured ourselves!

LIVING WATER

Text and illustrations : **Gilbert Gribi**

Water can be modelled using different techniques: by applying acrylic or oil paints covered with glossy varnish onto a neutral background. This simple technique can only be used on smooth surfaces without pebbles, as they cannot be drowned in the water. Other products can also be used, such as: Realistic Water by Woodland Scenics, two-part icing resin for small thicknesses or Modellwasser XL by Noch. There is no shortage of products and techniques. Personnally, I am fond of inclusion resin. I will demonstrate how to proceed for a river and the branch of a pond. The river that feeds the mill wheel is on a slope, the mill race is being overhauled, and therefore closed. The pond branch is on the level. To make the stones more obvious, I modelled the pond during a period of drought.



A train loaded with wood rumbles over the metal girder bridge across the torrent on Gilbert Gribi's Carpates layout in 0n30.



1 The technique of paint covered with varnish for the La Vernarède layout. Here, the colour has been applied, all that is missing is the varnish that will make the water surface shiny.



2 Once varnished, the water shines, a few extra coats of varnish will create the waves. Highlights of white paint will represent the foam.



3 The bottom of the river and the mill race before the arrival of the water.

4 The guillotine sluices that control the mill race and the water supply to the mill wheel are personal 3D printed models.

SUPPLIES

- Soloplast, polyester inclusion resin, GTS type, 1kg: 26.95 €
- Gédéo resin, Cristal kit, 300ml: 18.29 €



5 The Soloplast resin.



6 The Pébéo resin.

THE PRODUCTS

On my 0n30 layout, I tested two different inclusion resins: the Soloplast GTS Pro resin and the Pébéo Gédéo resin. The latter has two faults: first, it is too fluid, takes too long to cure (24 h) and requires patience if several coats are to be pkured; second, it is a bit costly. The Soloplast resin produces a strong smell for a while. You will need to ventilate or, if this is not possible, wait a while before returning to the room.

BEGINNING THE TESTS

Before attempting anything on the layout, with the risk of having to break up everything and start all over again, I carried out several tests on a small surface, ca. 20 x 10cm.
For my first tests, I had begun by painting the river bed and then coated it in resin. The results were so disappointing that I gave up this idea. Instead, I went for the solution of a blend of grey sand and lightly earth-coloured sand. The small brown-coloured areas give the impression that this is the colour of the water.
The first difficulty consisted in finding the right colour for the water. It can vary between blue and green, even brown, depending on the surrounding vegetation. In my case, the blend was made in small quantities of 100g; 80g of transparent resin and 20g mixed with a tiny amount of Tamiya green, ref. XF-5. To prevent the resin fromm breaking, several thin coats must be applied, the last one being transparent.



7 First test with the brown colour.



8 Second test with an 80/20 blend of coloured resin.



9 The torrent cascades slightly, while the mill race is perfectly horizontal.



10 The resin rises are concealed by flock materials.



11 When seen in strong close-up, the capillary rises are quite visible between the reed stalks.



12 The advantage of resin is the possibility of giving depth to the water scene.



13 The flock materials used to camouflage the capillary rises.



14 The white poster paint highlights reproduce the foam on the top of the waves.

The other difficulty is due to the fact that my river is on a slight slope, meaning the resin will flow downwards. In such a case, resins that are too fluid should be avoided, as they would at once accumulate at the bootom end of the river. Should I have to do this again, I would build the river bed separately flat, before integrating it into my scenery. Another advantage would be that I could do it out of doors. The benefit of using a slightly denser resin, which cures fast, is that it can be worked on just before it hardens, to create for example small waves.

All resins tend to rise by capillar effect, especially those that are too fluid. On sand, this is not a big problem; it can be remedied by applying matt varnish or by adding a bit of sand. Likewise with stones that emerge from the water. It will be trickier with banks consisting of reeds and bushes. To avoid this defect, the resin is stippled with a small stick and the defect concealed with Heki or Woodland Scenics foliage.

My attempts to plant reeds were not very conclusive. This is possibly the only drawback when compared to the paint and varnish method. Perhaps the reeds should be glued onto the resin once it has cured, and a glossy varnish applied to the glue once the latter has dried.

To complete the job, I painted the sloping river surface with a little white acrylic paint from a tube to represent the eddies. ■

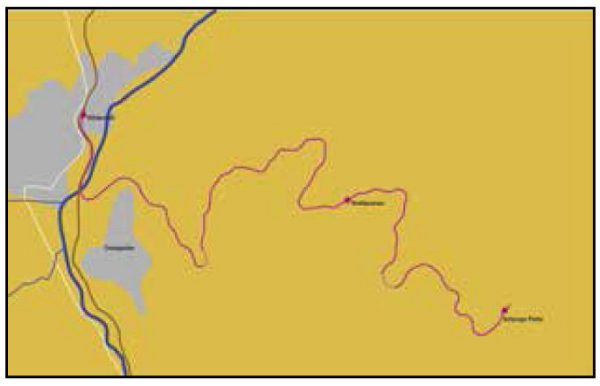


He 2/2 n° 11 restored in black livery, with open carriages at the Schynige Platte terminus, 1st September 2022.

The Schynige Platte railway

We are here in the heart of the Bernese Oberland, famous for its mountain peaks and the various railways, funiculars and cableways giving access to them. The Schynige Platte–Bahn (SPB) railway is part of those systems and boasts a remarkable feature: it is operated with locomotives built before 1914.

Text and photos: **Gérald Hadorn unless otherwise mentionned**





The inauguration of the entire line took place on 10th June 1893, with operations starting four days later. Although the traffic was quite a bit lower than expected, the rolling stock turned out insufficient at peak periods. The financial situation of the SPB quickly worsened and as early as 5th December 1894, the shareholders decided to sell the entire railway to the BOB (Berner-Oberland-Bahn) for a price of 200,000 Swiss francs, when building the line had cost more than 2.918,000 Swiss francs. From then on, the Schynige Platte line was part of the estate of the BOB, the latter company being in charge of its operation.

The line

The line originates from the BOB station at Wilderswil du BOB, 3.24km from the tourist resort of Interlaken. This is where the workshops and sheds of the SPB are located, at an altitude of 587m. After having paralled the BOB line over a distance of 600m, the SPB route moves away, tackling first a 220 ‰ gradient, followed at once by the steepest one, 250 ‰, across meadows and forests, before reaching the service passing loop at Rotenegg (km post 1.87, altitude 889m). Beyond this station, the line enters a first tunnel and changes direction. After a long stretch through the forest along a hillside, the winding route forms an S shape through the large Breitlauenen meadow, in the very middle of which stands the eponymous station (km post 4.60, altitude 1545m). This site offers a splendid panoramic view of Lake Thoune and the surrounding peaks. The land then becomes increasingly steep, and Grätli tunnel provides another change of direction. Amidst rocks and screes, the line finally reaches the terminus of Schynige Platte (km post 7.26, altitude 1990 m), facing the famous peaks of the Eiger, the Mönch and the Jungfrau.
The entire line is fitted with a Riggenbach rack. The track gauge, 80cm, is identical to that of the neighbouring Wengernalp (WAB) railway. Likewise for the rolling ▪▪▪

J-L. Rochaix

Three trains, three liveries.

The trains are parked outside Wilderswil depot prior to its extension.

5th May 1987.

A train consisting

sof ex-WAB semi-open carriages seen between Wilderswil and Rotenegg,

18th August 1991.

Emerging from the fog

in Breitlauenen meadow, 1st September 2022. Locomotive n° 11 has been repainted **in its 1938 to 1956 black livery.**





A service train is seen leaving Wilderswil before the beginning of the seasonal operation, **1st April 2004**.



He 2/2 14 with two ex-WAB carriages in their 1950s livery. To the right, the BOB metre gauge track to Lauterbrunnen and Grindelwald.



A train consisting entirely of ex-WAB stock in new livery, seen before conversion. Above Wilderswil, **6th August 1986**.

Carrying water

for the Schynige Platte hotel with wagon OC 81, above Breitlauenen. Following the construction of a pipeline, this type of transport was withdrawn **in 1999.**

J. Monternier



A service train with locomotive n° 62, in the livery and with the number of its previous owner, the WAB; seen above Wilderswil, **1st Apil 2004**.



A very rare situation with 3 liveries in the same train, between Wilderswil and Rotenegg, **5th October 1980**.



J. Monternier

A special steam charter emerges from Grätli tunnel, between Breitlauenen and Schynige Platte, in the early 1970s. Carriage B 21 is still in its original livery.



A special charter with locomotive H 2/3 5 and carriage B 6, restored to its original condition. Seen above Breitlauenen, **14th July 2007**.

▪▪▪ stock, both in the days of steam and at the time of electrification. The four tunnels along the line have a total length of 372m. The only bridge of significance is a 31.15m long span across the Lütschine river just beyond Wilderswil. The other civil engineering works consist of culverts, walls and rip-raps, in particular on the higher stretch of the line.

Rolling stock

The original motive power consisted of 6 H 2/3 steam locomotives built by the Winterthur works from 1891 to 1894 and of 7 open carriages. The locomotive was always placed downhill from the carriage, which was propelled uphill on the way up and held back on the return trip; the engines could only handle one carriage. Operation, focussed on tourism and restricted to summer months, continued in this way until nowadays. Heavily dependent on the weather, it usually took place from May to October and varied according to the quantities of snow that had to be cleared in the spring. Goods traffic was extremely light, and consisted essentially of shipments for the hotel-restaurant at the Schynige Platte.

Expansion

On the eve of WWI, the line was electrified in 1500 V DC. Four He 2/2 4-wheeler electric locomotives, delivered in the autumn of 1913, replaced steam as early as 9th May 1914. More powerful, they could handle two carriages at a maximum speed of 12km/h, against 9 in the days of steam. The first two closed carriages were delivered in 1929 and 1931.
After WWII, traffic increased quite significantly and required additional rolling stock. The SPB solved the problem by renting, then buying, almost identical locomotives to its own from the WAB, which gradually replaced them by modern electric units. In addition, and because of the heavy winter traffic on the WAB, this company regularly leased locomotives from the SPB during the cold season and vice-versa in the summer months. Such seasonal exchanges also applied, but less frequently, to the carriages; they ended in 1988. Currently, 11 engines are in service, 7 of which are from the WAB. The only survivor of the steam era, locomotive n° 5, remains useful for reinstalling the overhead wires in the spring. They have to be removed at the end of the summer season to prevent them from being swept away by avalanches or snow slides on the upper stretch of the line. Very occasionally, this engine can haul historical trains.
The SPB also «went to market» with the WAB by renting a few carriages from this company, then buying 8 partially closed carriages in 1964. The entirely closed carriages followed in 1968-70. After more than 20 years of service, most of these carriages were scrapped and their chassis re-used for building new all-metal bodies. The appearance of the latter was voluntarily made similar to their previous appearance, to preserve the nostalgic side of the SPB. 12 carriages were renovated in this manner from 1992 to 2003 and now provide the base service. At peak periods, 4 non-converted open carriages and the same number of splendidly restored open carriages can be pressed into service.

Tradition, tradition...

From 1988, a new shed built next to Wilderswil depot has provided cover for most of the rolling stock and avoids leaving it out in the open in winter. On the other hand, the idea of modernizing the railway by buying modern electric units was dropped in view of the opposition it generated. The cost of so doing would also have been prohibitive. Therefore, it is possible today to reach the Schynige Platte in an atmosphere that is identical to what was experienced by our great-grandparents. The station building at the terminus of the line has retained a lot of its original appearance, while the hotel-restaurant nearby, owned by the Company, has been adapted to current standards and a large panoramic terrace has been added to it. At Breitlauenen, the building has been restored with taste and is still served by staff that sells tickets, switches the points by hand when trains pass, and serves drinks. Here, the good old days are alive and well... ■

Panoramic view

from the top of Breitlauenen meadow, 14th July 2007. Train with two renovated carriages.

J.-L. Rochaix

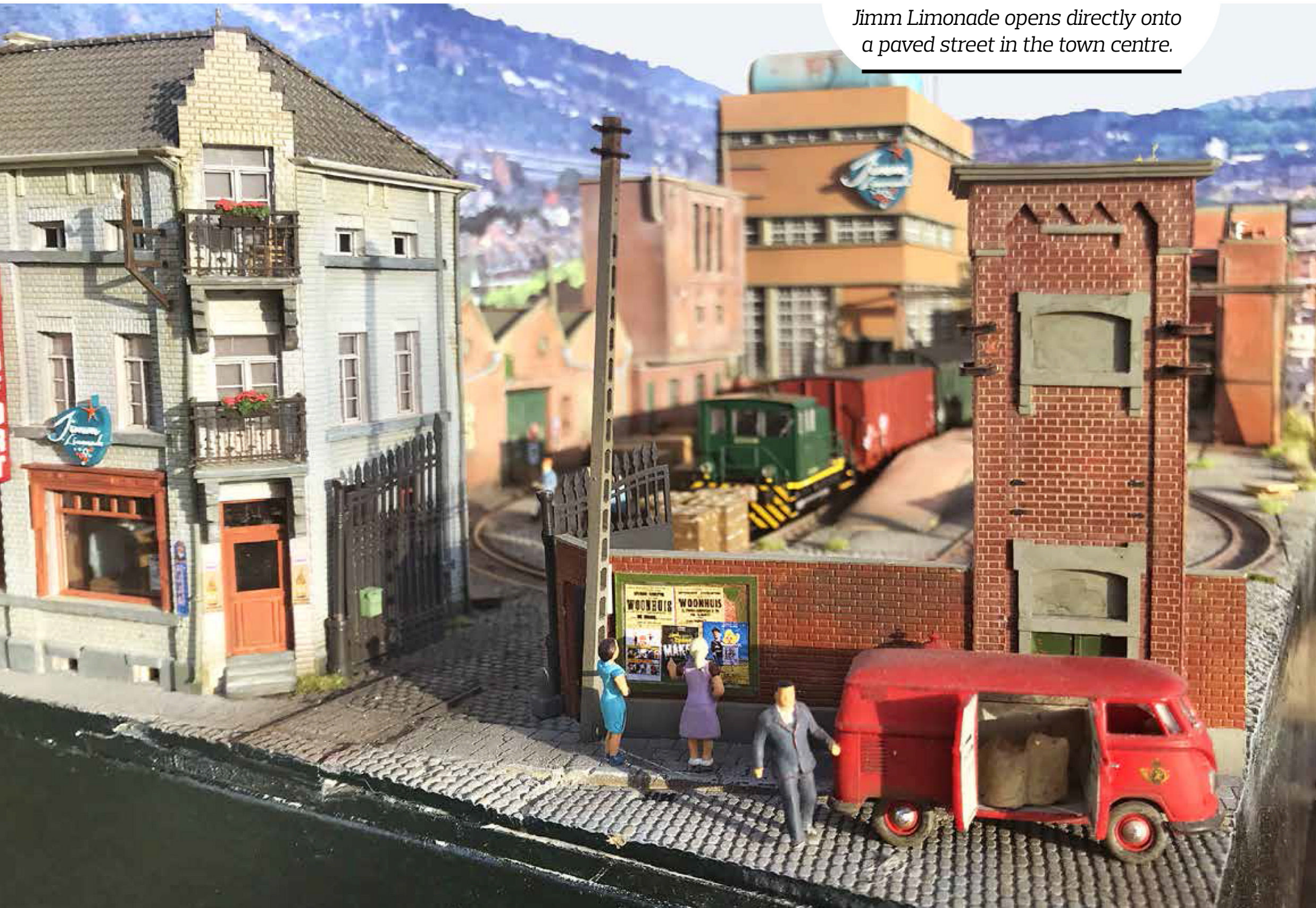
Overview

of the Schynige Platte terminus on 1st September 2022 with locomotives 18 and 63. The second one has kept its WAB number.

Jimm Limonade

A well-established trackplan, a successful adaptation, carefully designed and built rolling stock. And to round things off, a stunning touch... Such is the recipe for a splendid micro-layout.

Text : **François Fontana based on input from Roderik Vanderkelen**
Photos : **Roderik Vanderkelen**



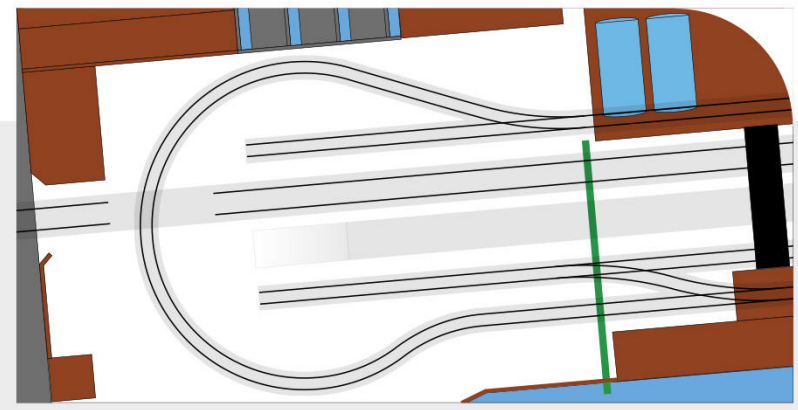
Jimm Limonade opens directly onto a paved street in the town centre.

The building at the entrance features a cafe on the ground floor and offices on the first floor.

The layout at a glance

Scale: 1/87
Gauges: 16.5 & 9mm
Dimensions: 40 x 60cm plus fiddleyard on the right-hand side

The layout Plan



The master-cook is Roderik, the layout is Jimm Limonade, and what got it all started was a micro-layout challenge organized by the Belgian show Modelspoorexpo in Louvain in 2018. The trackplan is based on Giles Favell's layout plan (*Voie Libre n° 68*): an interchange area between standard and narrow gauge; beyond that, however, all of Roderik's imagination and inventiveness kicked in!

Roderik Vanderkelen: I adapted Giles Favell's trackplan from his The Loop layout, to increase its shunting potential. I also adapted the theme, as I wanted something more typically Belgian. What is more Belgian than a brewery? But I do not drink beer, and plenty of layouts have chosen that theme. I conjured up the idea of a lemonade factory. In the 1960s, there were many of them, each region having its own brand. I set up the main buildings: bottle washing, filling, wooden crate fabrication, storage and shipment. I distributed the buildings logically, so they could be served by the small narrow gauge railway. In past times, the standard gauge line used to extend beyond — rails remain embedded in the street — but it was severed in the factory yard to make room for the narrow gauge track.

FF: Tell us about how the lemonade moves around?
RV: On the platform, the mainline trains unload the crates of empty bottles. A transfer table, one of the first in the country, moves the bottles to the washing

Inside the yard, there is a lot going on. The narrow gauge serves all the workshops towards the loading platform. The lemonade plant also delivers using its own small lorries.



Alongside the washing plant is the water pumping station.

plant, located in the first building, a metal girder structure with a brick infill. This building is located along the river so that water can be pumped in and drained. The lemonade manufacturing and bottling plants are on the other side of the tracks, inspired by the Mort Subite brewery. The next building is for storage; it is based on the Roman and Slaghmuylder brewery. Then come the carpentry shop for the wooden crates and the cafe building, with the offices upstairs. These stem from my childhood memories, they were on the way leading to school.

FF: How did you build Jimm Limonade?
RV: I always build light, as light as possible, and also as simple as possible for setting up the layout at shows. The framework consists of battens clad with 9mm thick plywood. The track is laid on a sheet of cork, the turnout control rods are combined with a switch to change the frog polarities. Once the track is laid, I worked on the soils. In the street and the entrance to the factory yard, the paving stones are cast in plaster. To create a visual break, the remainder of the yard has been modernized and the paving stones replaced by concrete slabs. I used foamboard, peeled on the outside, as this material simulates concrete well. Each slab was created and coloured separately with green, brown and grey shades. Some shades were broken down. The slabs were then glued, and the crack lines and joints emphasized with a dark wash. The areas between the tracks were weathered with slag from a coal-fired stove.

The oldest buildings are assigned to storage, carpentry and packaging.



At the back of the site, the manufacturing plant with its tanks on the roof.



FF: So you scratchbuilt all the structures?
RV: Yes, they consist of layers of plastic sheet and of embossed plastic sheet for creating the relief. I like having relief, as this generates differences in the shades and colours and provides depth. I do not use any diagrams, I draw my buildings as a function of the space available and I check the accuracy of the heights with a Preiser figure! The tiles roofs are from plastic sheets, the others are made out of fine grain sandpaper, the joints are marked with ink from a Rotring pen. Many scenic elements and details are 3D printed, models I draw myself or find on share websites. Thanks to this tool, I was able to decorate the inside of the cafe, for example, but also print the lemonade or beer brewing tanks. I created the Piedfort brand, a nod to the Begian Piedbœuf beer.

FF: What about the trains?
RV: On the standard gauge, there is space for two wagons and one engine. The sequence is often the same: a locomotive comes onto the layout and runs up to the buffer stop. Another locomotive shunts two wagons for unloading and loading from the fiddleyard to the factory yard. Once the wagons are full, the first locomotive shunts them back to the fiddleyard. There is no coupling.



The goods platform can only accommodate two wagons and one engine.



The various soils are carefully modelled. Note the gaps in the terracotta paving on the high platform.



Assemblies of plastic sheet, plaster castings, 3D printing, Roderik uses all the techniques he is comfortable with!

For the narrow gauge, I drew and 3D printed two small engines and I use a few flat trucks loaded with crates of bottles.

FF: And the splendid sign?
RV: I am a graphic designer, and consider all the advertising signs on my layout as very important; I wanted a graphic design that was immediately recognizable as dating from the 1950s/60s. So I created a sign based on those used by the Kolibri and Bessy lemonade brands, the latter being produced at Tollembeek where I live.

FF: So, what about the results of the layout challenge?
RV: I got a fine 5th place in the challenge, pretty good for a small layout built over just 6 weeks, but which runs very smoothly. One thing is sure, my next creation will be once again a small layout that is easy to manage time-wise, money-wise and entusiasm-wise! ■

The small freestyle locomotive is in charge on the narrow gauge.


Jimm
Limonade

Giving depth TO YOUR LAYOUT

Quittancourt is a rather flat layout. This choice was dictated by fictitiously locating the layout in the plains of Picardy. However, such a flat layout is lacking in depth. To solve this problem, Éric Fresné undertook therefore to make a backscene.

PERSPECTIVES AND REMOTENESS

Text and illustrations : **Éric Fresné**



19 March 1922. It looks like a damp day. The steam from the engines is going to condense well.



Bought on internet for ca. 15 euros, this type of telephone support, adaptable to a photo tripod, will turn out very useful when taking a truly horizontal panoramic shot.

Quittancourt is located on a plain, with very little relief. And as soon as I began building it, I decided to play fair by not building slopes in the background. The layout ends on a low embankment. To give it the depth it lacks, and evoke the distance, I decided from the outset to add a backscene. My abilities as a figurative artist being what they are, but also to save time, I opted for a photographic backscene.

THE PICTURE

When designing this backscene, I faced two technical issues that are actually linked to each other. First of all, a 2.40m long layout requires taking a panoramic photograph. This is possible with most smartphones. Using a camera can require calling on image processing software offering an assembly function. In such a case, remember to stagger your pictures by some 15 % so that the software can effectively assemble them. Hugin, a free utility, also provides fairly good results. Whatever appliance you use, take care to use a tripod. This will ensure that your panorama remains truly parallel.

The second point is far more important for the final appearance of your panorama. The more distant the horizon is, the stronger the impression of depth. I decided to stand at the top of the Menez Hom - 330m high! – and to photograph the crestline located 15km south and 50m lower. The width of the panorama must now be defined. To do so, you need to carefully chose the focal distance at which your photogaphs are taken. To keep things simple, the focal distance of a lens is the distance between the center of the lens and the camera's sensor, expressed in millimetres. The shorter the focal, the wider the viewing angle. For a current reflex camera, a 50mm focal is roughly equivalent to the human field of view. A similar field of view is obtained with a shorter focal on a compact camera or a smartphone. After several tests, I found that using an 80mm focal with a compact camera seemed to give the best result. But do not hesitate to take several sets of photos with different focals and choose the most suitable.



1 On my compact camera, with a short focal distance (28mm), the viewing angle is ca. 120° and corresponds roughly to what is seen by the human eye. The moor in the foreground is very much in evidence. The first crestline, wooded, is some 2.5km away and the horizon line is 15km away as the crow flies.



2 With a longer focal, the viewing angle is reduced in proportion. With a very long focal (120mm), the viewing angle becomes very small indeed. The scenes in the background take up most of the picture.



3 With an intermediary focal, while the foreground still takes up a fair amount of space, the wooded crest and the plain as far as the horizon are quite visible, without «eating up» the whole picture. This is the focal I chose for my backscene. The sky and the land each take up half the picture. It is easier to proceed in this way and to reframe the picture at the end of the image processing phase.

NOTE

The intermediary 80mm focal for a 24 x 36 camera of the type mentionned by Eric has a big advantage: it does not create peripheral deformations.



4 On my photos have been assembled, here is what my backscene looks like. It was re-framed to be some 45cm high. I only kept the sky and the plain in the background. By choice, the sky is overcast. This is because Quittancourt's fictitious location is quite close to the Channel coast...

IMAGE PROCESSING

The panorama obtained after shooting and assembling is not ready to be used. With my photo processing software, I reframe my panorama by cropping the picture. To keep things simple, half of my unprocessed images cover the sky, and the other half the scenery, including both the moors in the foreground and the crestline in the distance. I only kept the most distant view and the sky. To give it sufficient width, I also resampled my image. This reduces its definition but is not an obstacle when printing.

Again using my processing software, I attempted to enhance the distance effect by making the atmosphère slightly misty. In the «filters» menu, I selected the «Gaussian blur» option. Empirically, I applied a value of 2 points, the result proved fully satisfactory. After having checked its size one last time, my file was ready for printing.



5 To enhance the impression of distance, I also «thickened» the atmosphere somewhat. Image processing software was used for this. In the filter menu, I applied a touch of Gaussian blur, giving the image a damp atmosphere.



6 With the printout delivered, I leave my backscene unrolled on my workbench overnight. The weight of the lamination flattens the sheet.



7 The backscene support consists of two sheets of 5mm thick plywood, fixed to the rear of the layout.

PRINTING AND INSTALLING

Internet is packed with commercial sites offering large format printing services for allegedly unbeatable prices. In theory... In practice, obtaining a matt printout in a personnalized format leads to having to select chargeable options. A cost of almost 140 euros made me hesitate. Advised by François Fontana, I looked around my neighbourhood for a copy shop firm that delivered a matt laminated printout for my backscene, in just two days and at a cost of 80 euros. Much more affordable.

With my printout in hand, installing it was straightforward. Two 5mm thick plywood sheets provide the support. The poster is simply fixed to the boards using two-sided adhesive tape. Again to give real depth to my layout, the backscene is not located right up against the scenery, but set back by ca. 7cm. In the free space in between, I installed the return track of my balloon loop. It is partially concealed by the scenery. Installed in this way, the backscene has transformed my layout! ■



8 I glue a strip of two-sided adhesive tape over the entire length of the sheets, 1 or 2cm from the top.



9 By removing gradually the protection of the two-sided tape, I glue my backscene onto the plywood sheets, using the flat of my hand. The mass and strength of the laminated paper ensure it remains vertical on the support without generating folds.



10 The backscene is not located right up against the layout scenery. It is separated from the latter by a 7cm wide strip of wood that carries the return track, itself located behind the decorated part. This gives the scene even more depth.

11 Installed in this way, the backscene gives my layout a very convincing depth.

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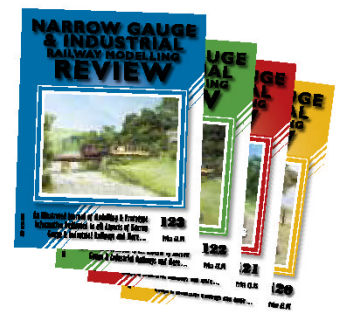

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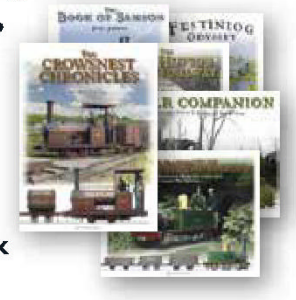

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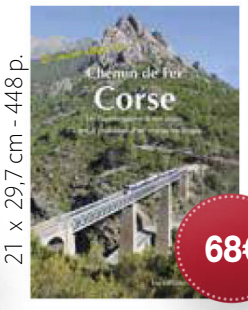

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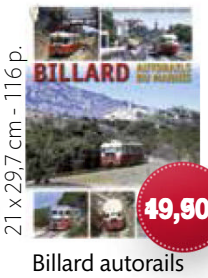

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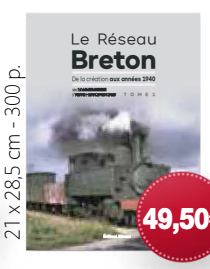

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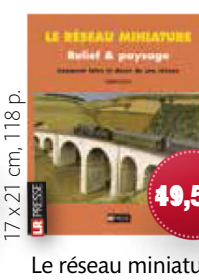

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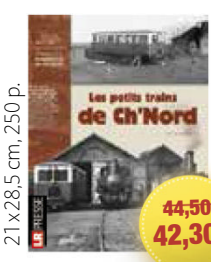

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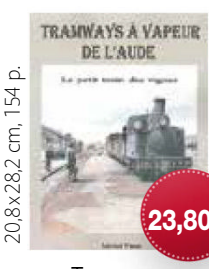

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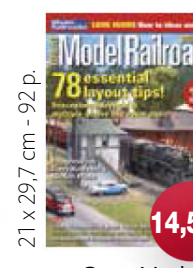

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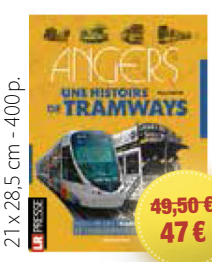

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Le modèle reproduit un locotracteur allemand de marque Deutz, modèle OMZ122, conçu dans les années 1930, pesant 10 t, propulsé par un moteur deux cylindres diesel de 40 cv. Caractéristique, avec son unique hublot central sur les faces de son abri et ses deux essieux embiellés, le modèle MinitrainS conviendra à tous les réseaux à voie étroite reproduisant des secondaires industrielles ou des chemins de fer préservés.



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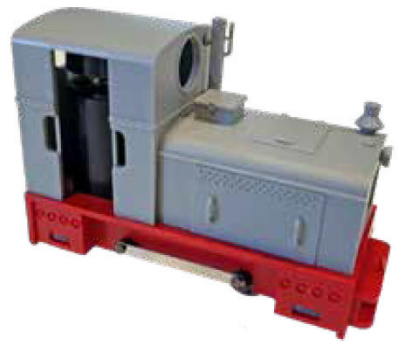

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890,00 €

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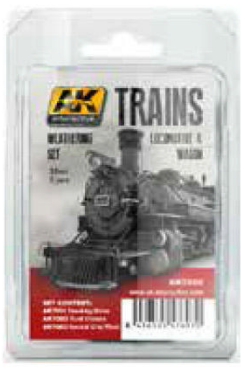

Set de 3 patines vieillissement - traînées de rouille, gris naturel, coulures de crasse

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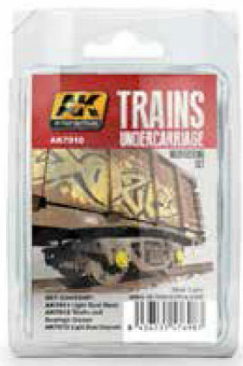

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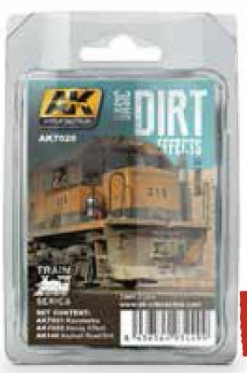

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THE MODEL AT A GLANCE

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Scale: O (1/43.5)
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Motor: coreless
Driving mechanism: worm gear, straight gears on both axles

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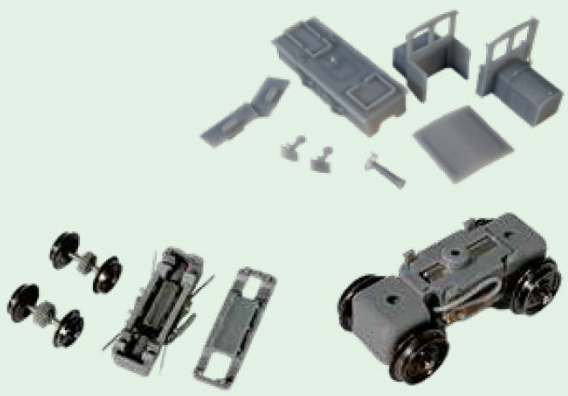

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