

Railtalk Magazine Xtra





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## Submissions & Contributions

Railtalk Magazine Xtra, a Magazine written by the Enthusiast for the Enthusiast. So why not join the team. We are always looking for talented Photographers and Writers to join us at Railtalk. Be it though Pictorial Submissions or via a written article featuring an event or Railtour, we greatly appreciate any contributions to the magazine however big or small.

#### **Photographic Contributions**

All Photographic contributions should to be sent to us via email, post or via the members section page on our website. Contact addresses are provided to the right or on the next page.

All images ideally should be provided at a resolution of at least 2048px x 1536px at 150dpi.

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#### **Front Cover**

A Eurostar set, with power car No. 3209 leading emerges from the North Downs tunnel working 9132 12:58 London St Pancras- Brussels Midi on January 2nd.

#### **This Page**

Hunslet built 0-6-0 diesel-hydraulic shunter No. 679 equipped with a Rolls Royce V8 DV8T engine makes a light engine shunt move at Galle. *David Pollock* 

#### **Next Page**

Locon Class 139.555 and 193.772 top'n'tail train No. LP85104 through Radstadt on January 28th. *Thomas Niederl* 





## Railtalk Magazine Xtra

# Welcome

Welcome to another edition of Railtalk Xtra, the monthly magazine that predominantly features railways outside the UK.

February already, and the first trip of the year booked. Once again we have had some really excellent photos sent in this month and I know we keep repeating the same thing but they are all really appreciated. I must say that with all the snow in central and eastern Europe at the moment, photographically it looks great, but I'm sure it's far too cold to be out with the camera for long though.

In the news this month is that the orders keep rolling in for Siemens Vectron's with the announcement that the Austria's OBB are to order up to 200 of these fine machines and the Swiss SBB buying 18 of them.

Also the first of six double-deck push-pull trainsets being built by Škoda Transportation for Deutsche Bahn is undergoing trials at the Velim test circuit in the Czech Republic. Entry into service is not now expected before December 2017. This is Skoda's first major foray into the German rail market and we hope that it succeeds.

Back in the UK this month and the Rail Delivery Group have announced a complete overhaul of the structure of Great Britain's fares system. The aim is to 'blow the dust off' the current system, which is based on regulations fixed in place with





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Railtalk Magazine Xtra

## With Thanks

Once again many thanks to the many people who have contributed, it really makes our task of putting this magazine together a joy when we see so many great photos.

These issues wouldn't be possible without: Brian Battersby, Mark Bearton, Mark Bennett, Keith Chapman, Julian Churchill, Nick Clemson, Derek Elston, Mark Enderby, Tim Farmer, Dave Felton, FrontCompVids, Paul Godding, Richard Hargreaves, Keith Hookham, Colin Irwin, John Johnson, Anton Kendall, Jyrki Lastunen, Ken Livermore, Michael Lynam, Peter Marsden, Phil Martin, Denzil Morgan, Thomas Niederl, Peter Norrell, Chris Perkins, Mark Pichowicz, David Pollock,

Andy Pratt, Railwaymedia, Alan Rigby, Neil Scarlett, John Sloane, Stephen Simpson, Laurence Sly, Stewart Smith, Steamsounds, Steve Stepney, Mark Torkington, Andrew Wilson and Erik de Zeeuw.



the privatisation of British Rail and assumes that 'the world stopped' in 1995.' Primarily the failing in the UK fares system is that it can sometimes cheaper to purchase multiple shorter tickets and combine them on a long journey - so called 'Split-Ticketing' or it can be cheaper to purchase a ticket for a longer journey and alight before reaching the destination. Both of these methods have received much press recently and according to several train operating companies are considered illegal. Interesting times ahead.

This months 'From the UK' is the recent Great Central Railway's Winter Steam Gala, plenty to see and do and highly recommended if you've never been.

As always thanks for all the excellent photos, please keep sending them in, and remember if you are going on holiday, don't forget to take your camera.

David Editor















# ÖBB orders up to 200 locomotives from Siemens

Framework contract of up to 200 Vectron locomotives

First tranche for 30 Vectron MS

Delivery to begin in summer of 2018

Austrian Railways (ÖBB) has signed a framework contract with Siemens for the delivery of up to 200 Vectron locomotives. Under the contract, up to 100 alternating current (AC) locomotives, 50 alternating current (AC) locomotives with diesel power modules, and 50 multisystem (MS) locomotives can be called up. A firm order for 30 MS locomotives was placed at the signing. The locomotives will be built in the Siemens plant in Munich-Allach, Germany. The first units are to be delivered beginning in summer of 2018.

"Winning the biggest tender for locomotives in Europe underscores one thing above all: the capability of our Vectron platform. It offers the greatest flexibility throughout the locomotive's entire lifecycle. And for operators that means they can make long-term plans for the future," said Jochen Eickholt, CEO of Siemens Mobility Division.

The locomotives will be operated by the Rail Cargo Group, the freight division of ÖBB. They will be used for cross-border freight transport in Austria, Czech Republic, Croatia, Germany, Hungary, Italy, Poland, Slovakia and Slovenia. In addition to having national control systems, all locomotives will also be equipped with the European Train Control System (ETCS). The locomotives have a maximum output of 6,400 KW and a top speed of 160 km/h.



- OBB Class 1142.631 and DB Class 101.043 top'n'tail train No. EC 217 through Haus on January 23rd. *Thomas Niederl*
- OBB Class 1144.040 leads train No. IC 513 through the snow at Pruggern on January 29th. *Thomas Niederl*









- On January 29th, OBB Class 1116.187 hurries through the snow at Aich-Assach, hauling Eurocity train No. EC164 'Transalpin' from Graz Hbf to Zurich HB. *Thomas Niederl*
- Locon Class 151.074 hauling train No. DRV 13187 passes through Altenmarkt im Pongau on December 31st. *Thomas Niederl*
- In its striking Nightjet livery, Class 1116.195 leads train No. EC164 'Transalpin' through St. Martin am Grimming on January 10th. *Thomas Niederl*











- S-Bahn Steiermark liveried Class 4024.120 speeds away from Gröbming on January 29th working train No. R4476 from Bruck/Mur to Kalwang. *Thomas Niederl*
- New OBB Cityjet No. 4746.015 works train No. R4475 Stainach-Irdning Bahnhof Aigen im Ennstal Ort, passing Aich-Assach on January 29th. *Thomas Niederl*
- OBB Class 1142.683 hauling a rake of City Shuttle coaches works train No. Rex4429 from Stainach-Irdning Bahnhof to Linz/Donau Hbf, seen shortly after departure from Stainach-Irdning on January 23rd. *Thomas Niederl*















## A first for Stadler: trams for the Czech Republic

Stadler has won the tender to develop and build 40 trams for the Dopravní podnik Ostrava a.s. (DPO) operating company in Ostrava. The order is worth a total of approximately CHF 45 million. The Ostrava trams are being planned and constructed by Stadler Prague. Stadler will work closely with Czech suppliers. This is the first time that Stadler has received an order for trams from the Czech Republic.

Daniel Morys, Executive Director of Dopravní podnik Ostrava a.s., and Peter Jenelten, Executive Vice President Marketing & Sales at Stadler, signed the contract for the delivery of 40 adapted Tango trams. The contract between DPO and Stadler covers the delivery of 30 + 10 2-car low-floor uni-directional trams for normal gauges. The order is worth a total of approximately CHF 45 million. The trams are based on the triedand-tested Tango design, but have been tailored to DPO requirements in Ostrava with low-floor technology and other customised adaptations to fit their unique intended purpose. Stadler Praha is overseeing project planning and engineering.

Signing the contract in Ostrava, Executive Director Daniel Morys emphasised the importance of the project: "I am very satisfied with the course of this public contract, and I believe that the Swiss quality of the new trams in Ostrava will bring higher comfort for travelling, which we really request, and our passengers will be happy about the new trams." Peter Jenelten, Executive Vice President Marketing & Sales at Stadler, added: "We are proud to be able to deliver the first trams

to the Czech Republic, and we are looking forward to providing passengers in Ostrava with a very high degree of comfort and a thoroughly pleasant ride. Our sales team has much appreciated the whole professionally lead process of the tender by DPO." The 2-car trams for the city of Ostrava are 24.9 metres long, 2.5 metres wide, and 3.6 metres high.

They offer space for up to 188 passengers, with seats for 61. The vehicles have low floors throughout, and also feature four wide doors for quick and efficient boarding and disembarking, as well as a wheelchair ramp. The vehicles are fully air-conditioned and have a maximum speed of 80 km/h. They meet all the relevant safety standards and the front of the trams is optimised for pedestrian safety. The electric trams from Stadler represent a particularly attractive investment thanks to their proven design, low overall system costs and reliability.

They are approved by a wide range of European countries and can be found operating in a number of different configurations in countries including Switzerland, Germany, France and Denmark, with Russia soon to join the roster as well.

The first tram for Ostrava will be in the final assembly phase in March 2018.

# Railtalk Magazine Xtra



# A 25kV Unified Power System for Czech

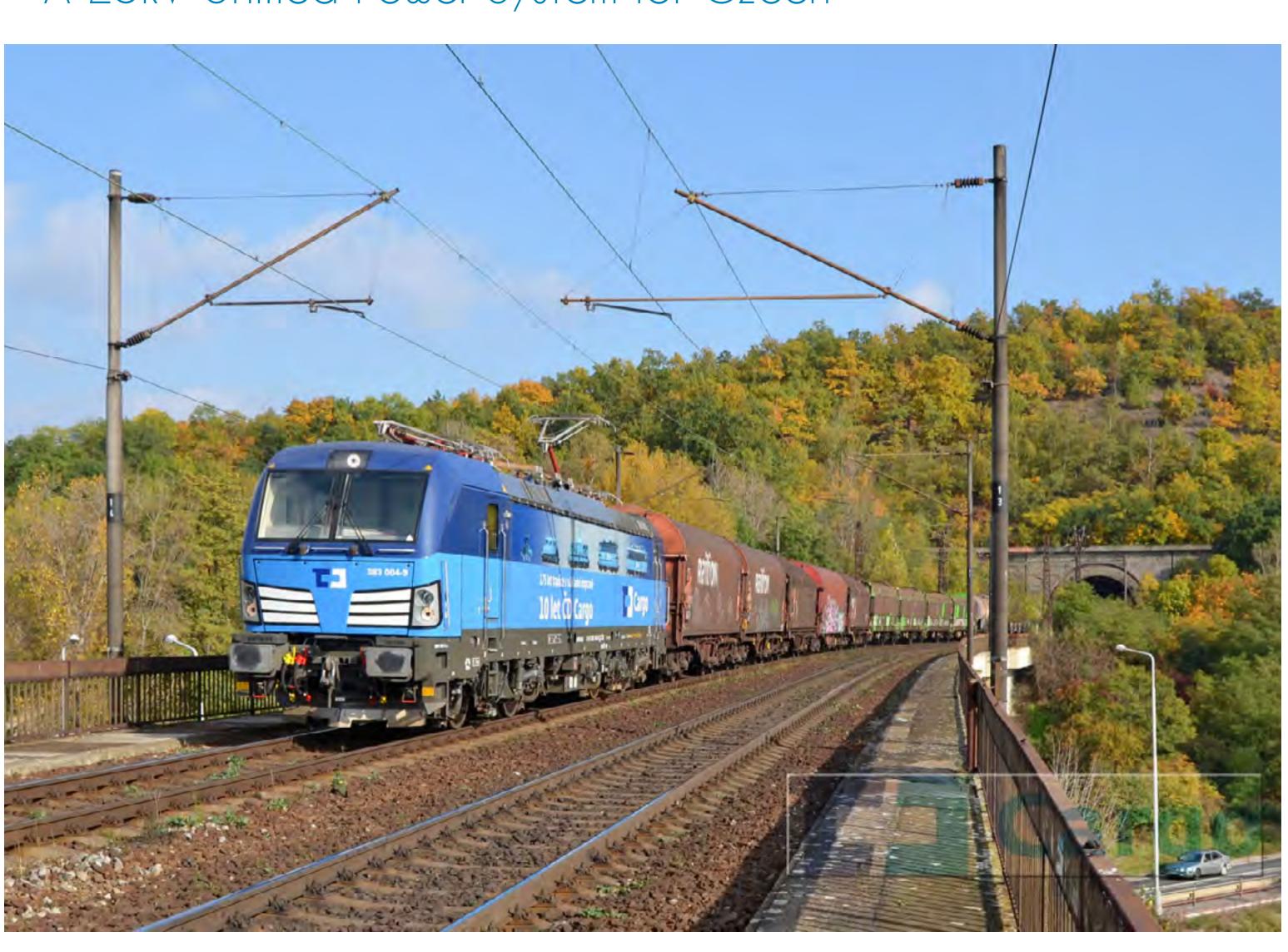
On Monday, December 19, 2016 the Central Committee of the Ministry of Transport has decided for the transition to a unified power system in relation to the priorities of the programming period 2014-2020 and fulfilling the requirements of TSI ENE.

The target power supply system on the lines of the RIA should in future become ac traction 25 kV 50 Hz, with the possible exception of unification with track in the Tabor - Bechyne and border regions (eg. St.hr. Šatov - Znojmo).

In addition to extensive construction work consisted in the construction of new substations and the gradual reconstruction of the overhead line, this will be a major change for the rail carrier.

Changing power system is necessary to utilize characteristics of modern and fully interoperable vehicles, especially their high performance.

Photos: ©CD Cargo















## New Trains Ordered for Lines D and E of the SNCF Network in Île-de-France

### Alstom-Bombardier consortium will design and supply a new generation of double deck trains

Bombardier Transportation confirms that it has received an official notice from SNCF to supply, in consortium with Alstom, 71 new trains for the RER lines D and E of the Île-de-France (greater Paris) network. This order is valued at 1.16 billion euro (\$1.22 billion US) for the Alstom-Bombardier consortium. Bombardier's share of the contract is valued at 373 million euro (\$395) million US). The first trains will be delivered and enter circulation from 2021 onwards.

This follows the press conference hosted by French national railways SNCF, greater Paris transport authority STIF and the Île-de-France region on Wednesday, January 11, 2017 to announce that the Alstom-Bombardier consortium has been selected to provide the new trains. This first order is part of a framework contract. STIF has dedicated an estimated 3.75 billion euro (\$3.97 billion US) in financing for up to 255 trains (130 for the RER line D and 125 for the RER line E), their largest financing ever.

Laurent Bouyer, President of Bombardier Transport France, said "This brand new train will enhance the travel conditions of passengers in Île-de-France. Bombardier brings its reliability and hands-on knowledge of the Île-de-France network to the consortium, as well as the large scale production capacities of our Crespin site in Northern France."

This contract will modernise the existing rolling stock, which is on average over 30 years old. The passengers on lines D and E will discover a new generation of trains, more reliable as well as more comfortable and regular.

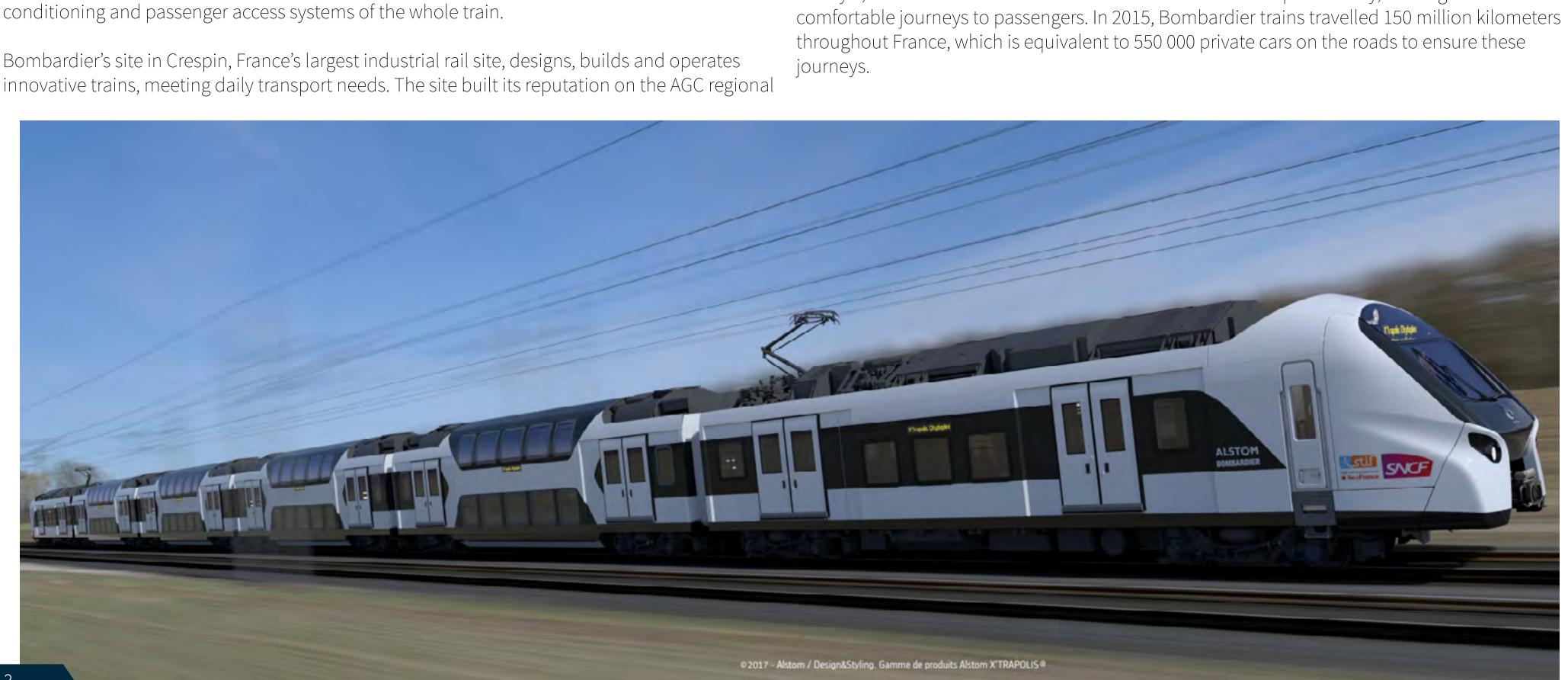
To carry out this major project successfully, a total of around 2,000 people will work on the project under the Alstom-Bombardier consortium, including 550 experienced engineers, securing more than 8,000 jobs in the French rail sector. Bombardier's site in Crespin will be responsible for designing and manufacturing the intermediate cars, and designing the air conditioning and passenger access systems of the whole train.

Bombardier's site in Crespin, France's largest industrial rail site, designs, builds and operates



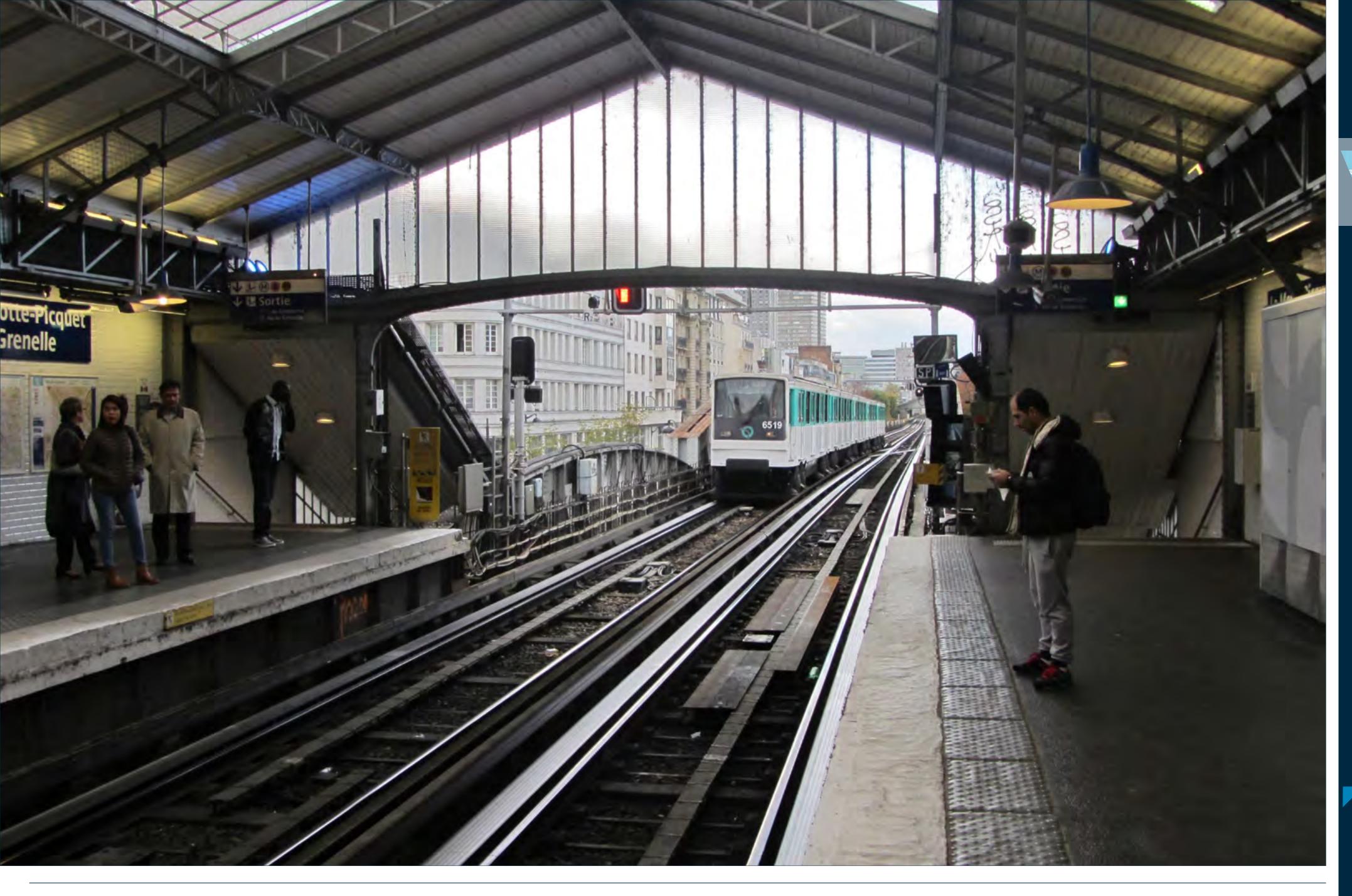
trains and is now delivering two major projects: the Francilien commuter train for the Île-de-France Region and the BOMBARDIER OMNEO double deck platform which includes the Regio 2N and the OMNEO Premium intercity train.

Nearly 1,000 "made in Hauts-de-France" Bombardier trains operate daily, offering reliable and













A Paris metro train on an overground section of line 6, is seen approaching La Motte - Piquett Grenelle station. *John Sloane* 

## Alstom to provide new automation systems for lines B and D of the Lyon metro

Alstom and the SYTRAL have signed a contract worth 91 million euros for the supply of new automatic operation systems to lines B and D of the Lyon metro. The automatic start-up of line B is planned for the end of 2019, and line D is scheduled to switch over to the new automated system in mid-2023.

The contract is part of the SYTRAL's "Avenir Metro" (Future Metro) programme. It aims to increase the transport capacity of lines A, B and D of the Lyon metro to cope with an estimated 30% increase in ridership in the coming years. The transport capacity will be increased thanks to Alstom's solution, which will reduce the time between the trains, as well as by coupling the trains to each other at rush hour.

Alstom will supply its Urbalis 400 solution, already deployed on more than 1,000 kilometres of metro lines around the world. A pioneer of CBTC Radio in 2003, Alstom equips 25% of all metro automation systems in service today.

The Lyon metro will benefit from a tried-and-tested system that is constantly being upgraded (on-board computers equipped with the latest technology, safety calculation systems with over 99% availability, beacon localisation...). Completely optimised, Urbalis is also environmentally friendly, enabling significant reductions in energy consumption.

"We are honoured by the SYTRAL's renewed confidence in our products and in the expertise of our teams. The passengers will benefit from a faster and safer service. The new-generation metro of Lyon will be a real international showcase for Alstom," said Jean-Baptiste Eyméoud, President of Alstom France.

Two Alstom sites in France will be responsible for the design, manufacture and installation of the new automation systems for the Lyon metro: Villeurbanne for the supply of electronic products and equipment, as well as deployment and operational maintenance and Saint-Ouen for the Urbalis signalling system.















- DB Class 101.042 departs Berlin Hbf with the EC service to Amsterdam Central on rather cold December 17th evening. *Mark Torkington*
- DB Regio Class 442.321 stands at Berlin Zoologischer Garten with an RE7 service to Dessau Hbf. Steamsounds











- On December 16th, DB Class 112.128 waits departure time at Hamburg Hbf to push an RE service towards Kiel. *Mark Torkington*
- MRB Class 223.054 with a service for Leipzig, stands at Chemnitz Hbf along with a brand new tram train. *Steamsounds*















- Centralbahn's Class 1142.635 (formerly ÖBB Class 1142.635) stands at Düsseldorf Hbf with a charter train. *Steamsounds*
- Heidelberg tram No. 3257 stands at Bismarckplatz working a line 22 service.

  Steamsounds
- PKP Class 193.506 heads through Hannover Linden with an intermodal working.

  John Sloane















DB Cargo has signed a cooperation agreement with Toshiba, one of the leading Asian suppliers of rail vehicle technology. The agreement involves a feasibility study for the joint development and subsequent purchase of an initial 100 new hybrid locomotives by DB Cargo. The hybrid vehicles will be used in regional transport operations and, in addition to a significant reduction in diesel consumption and lower maintenance costs, will raise the average fleet availability. The first test vehicles are expected to be available by the end of 2019. The partners agreed not to disclose the purchase price.

Toshiba is also a member of a partner consortium lead by the Munich locomotive leasing company RailPool (a subsidiary of OAKTREE and GIC) which will take over older Class 151 and 155 freight locomotives belonging to DB Cargo AG into an asset pool, with the aim of making use of these resources in the form of a capacity leasing model. The asset pool will contain 200 locomotives and give DB Cargo the chance to lease locomotive capacities efficiently in line with changing demand.

"The objective is to promote the development of the supplier market for freight locomotives and components in cooperation with Toshiba. This will provide DB Cargo with access

to sunrise technologies that are not currently available in this form in our home market. In return, we – as the largest rail freight operator in Europe – can pave the way for Toshiba to enter the European market. In other words, this is a classic win-win situation," said Jürgen Wilder, Chairman of the Management Board of DB Cargo. As part of its asset management activities, the consortium has thus also created the first market for used rolling stock which will enable it to lease locomotive capacities flexibly and at short notice. Deutsche Bahn will remain responsible for maintenance of the locomotives. DB Cargo's fleet of switching locomotives has an average age of 40 years, which means they will soon have reached their maximum service life. DB Cargo has therefore opted for innovative hybrid technology at an early stage to cover its replacement requirements and at the same time to accumulate its own expertise in maintenance and repair. The pace of innovations in the rail freight business is slowing down and competition is low as many European manufacturers have discontinued their activities in this sector. Nevertheless, the leading Asian technological players have still not succeeded in gaining a hold on the European market. This is attributable primarily to their insufficient experience of European rail operations, the complicated approval procedures and the lack of suitable partners. DB Cargo seeks to overcome these obstacles in a collaboration with Toshiba and make the European market for rail vehicle technology a more attractive proposition for the future.





DB Class 146.552 is seen on the rear of Train No. IC2442 to Koln as it departs Dresden Hbf.

Class47









Nuremburg tram No. 1124 is seen working a line 8 service to Erlenstegen. *Brian Battersby* 







# Germany

## LNVG's Bombardier-built Fleet Passes 100,000,000 Kilometer Milestone

Bombardier's vehicles form the backbone of regional public transport in Lower Saxony,

Germany

Since start of operation in 2003, the fleet has moved approximately 340 million passengers with an availability rate of over 99 percent

Rail technology leader Bombardier Transportation has announced that a Landesnahverkehrsgesellschaft Niedersachsen (LNVG) fleet has successfully completed 100-million kilometres of service since starting operation in 2003. The LNVG fleet consists of 37 BOMBARDIER TRAXX locomotives and 220 BOMBARDIER TWINDEXX doubledeck coaches. This successful achievement is due to a close partnership between the manufacturer, owner, operator and maintenance provider – setting a new standard for Germany's public transport. The fleet is owned by LNVG, operated by metronom Eisenbahngesellschaft, and maintained by Bombardier Transportation and its partners Osthannoversche Eisenbahn (OHE) and Eisenbahn und Verkehrsbetriebe Elbe-Weser (evb).

Hans-Joachim Menn, CEO of LNVG, said, "We are very proud of this achievement that shows that public transport in Germany can be both reliable and economic. Since 2003, we have been working closely with our partners to offer reliable mobility and high comfort to the population in Lower Saxony. Increasing passenger numbers and reaching 100 million kilometres of operation prove this in a compelling fashion."

Francois Muller, Head of Fleet
Management Solutions Bombardier
Transportation Germany, added,
"Keeping a fleet available on a
constantly high level for a full

100,000,000 kilometres is an amazing accomplishment. I thank all people involved for their daily engagement and the outstanding performance. By using the latest technologies, we continuously optimize the fleet's maintenance and have significantly contributed to environmentally friendly mobility in Lower Saxony."



After originally delivering the vehicles in 2003, 2005, 2006, 2007 and 2010, Bombardier assumed fleet maintenance and achieved an average availability of over 99 percent. According to the terms of a contract extension until 2035 signed in August 2016,

Bombardier was officially named as the fleet's registered keeper as well as the Entity in Charge of Maintenance (ECM) and will ensure a fleet availability of 100 percent in operation.

No 201 is photographed operating at the Thyssen/Krupp steelworks at Duisburg. *John Sloane* 







- A Berlin tram working route No. 12 heads down Friedrichstraße with an evening service.

  Peter Marsden
- In Berlin, it's busy at Große Prasidentenstraße, near Hackescher Markt, with three 7-section Flexities all working on route M4. *Peter Marsden*















- Press Class 253.014 is seen stabled at Nuremburg. *Brian Battersby*
- Vossloh G2000BB No. 272.405 runs light engine through Oberhausen West Yard. *John Sloane*
- Euro Cargo Rail's No. 77 010 (transferred from France and still carrying French numbering) is seen at Osterfeld Sud. *John Sloane*









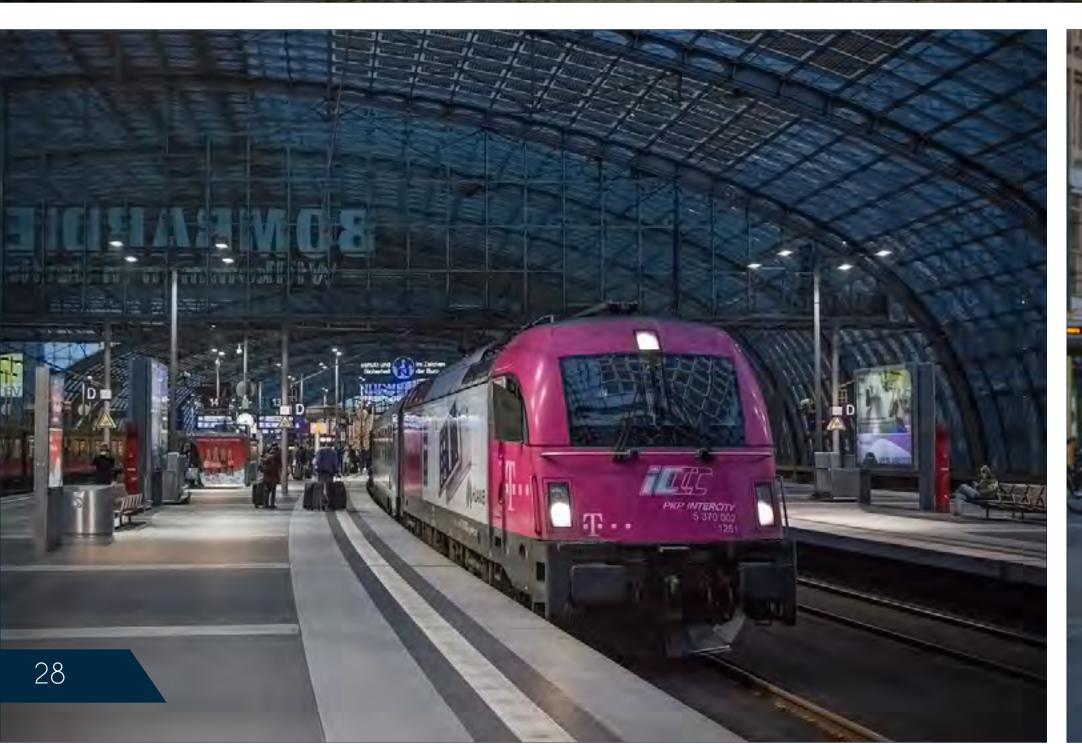








- On December 19th, DB Class 146.552 pauses in Dresden Hbf with an unidentified morning IC departure. *Mark Torkington*
- Berlin Flexity No. 9026 departs Alexanderplatz on route M2 to Am Steinberg. *Peter Marsden*
- Polish PKP Intercity Class 370.002 is seen upon arrival at Berlin Hbf with a EC working from Warsaw on December 17th. *Mark Torkington*











On January 28th, No. L97, a battery-electric loco recently completed by Brush, is seen visiting the Great Central Railway for test running. Despite its number, it is destined for the Hong Kong subway rather than London Underground! *Richard Hargreaves* 









- Metre Gauge YDM4 No. 6371 pauses at Torniya with an additional service to Junagadh on November 12th. *Mark Torkington*
- On November 13th, No. 6416 pulls into Asarva on the now closed Ahmedabad to Himatnagar and Udaipur metre gauge line with a train to Ahmedabad. *Mark Torkington*
- On November 17th, narrow gauge ZDM4s Nos. 207 and 211 pause at Abhanpur Junction during the morning rush hour. No. 211 is on the morning train from Telibandha to Dhamtari whilst No. 207 will work the connecting train to Rajim. *Mark Torkington*

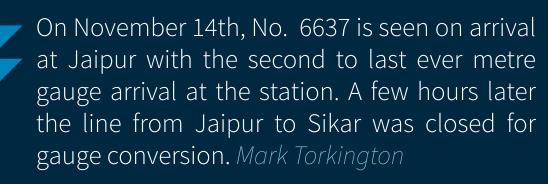












- A variety of electric locos are seen inside Allahabad Shed early morning on November 22nd. *Mark Torkington*
- WDM3A No. 16284 arrives at Mukuria Junction station on November 26th, with a local train heading towards Malda Town. *Mark Torkington*











FS Class E652.086 approaches Santa Margherita station hauling a southbound tank train.

John Sloane









- A night time photo of the magnificent entrance at Rotterdam Centraal Station. *Peter Marsden*
- On a misty morning, January 24th, R-NET train No. 8633 composed of two Stadler Flirt 3 trainsets arrives into Waddinxveen working a service from Alphen a/d Rijn to Gouda.

  Erik de Zeeuw







# Netherlands

NS Class 1700 No. 1749 stands at Nijmegen with a service to 's-Hertogenbosch. *Steamsounds* 

### NEW TRAMS BY CAF FOR THE PROVINCE OF UTRECHT

The Province of Utrecht (Netherlands) and CAF have signed a supplementary agreement, ordering the production and delivery of 22 trams, type Urbos 100, in addition to the ongoing order for 27 trams. The contract was closed by Jacqueline Verbeek-Nijhof, on behalf of the Provincial Excecutive, and Josu Esnaola, sales director CAF.

The new trams will replace the more than 30 year old vehicles currently operating on the line between the cities of Utrecht, Nieuwegein and IJsselstein. It is expected that this improved service will attract more passengers. Therefore the new trams are an extended version of the Urbos 100 tram ordered in January 2015 by the Province of Utrecht for the Uithofline.

This new series of trams will boost light rail ridership on the Uithofline by 35,000 passengers per day in 2018, rising to 45,000 passengers per day in 2020. Ridership is also forecast to increase along the route to and from Nieuwegein

and IJsselstein.

The new trams consist of 7 modules instead of 5, thus reaching a length of over 41 metres. Apart from the difference in length both versions of the Urbos 100 trams are identical. Is it also possible to couple the two tram versions leading to a total length of 75 metres and a total capacity of almost 500 passengers. This will make it the longest city tram expected to operate in Europe.

#### Energy efficient

Both tram versions are energy efficient, using regenerative braking and LED-lighting, and are prepared for installation of an energy recovery pack system which reduces energy consumption even more. In addition, this new system allows the tram to run without the traditional overhead catenary. Apart from the attractive appearance and high comfort level, passengers will enjoy the transparent interior, easy accessibility,

comfortable climate control and accurate passenger information systems.

The first Urbos 100 tram for the new fleet has arrived in Utrecht and is now made ready for test runs. These trams will be expected to operate on the Uithofline in the summer of 2018. The second batch of 22 trams is planned to start operations in Utrecht, Nieuwegein and IJsselstein in 2020.

Once again, this certifies the significance of the European market for the company. Stand out projects amongst those currently implemented on the continent include the supply of trams for the cities of Freiburg, Cagliari, St. Étienne, Luxembourg and Amsterdam, metro units for Brussels, Istanbul and Helsinki, commuter and regional trains for the United Kingdom and The Netherlands, and high speed trains for Norway.







DB Schenker No. 6433 is on her way to Kijfhoek shunting yard with a short train of tanks while Captrain Class 203.103 handles a container shuttle at the Rail Service Centre, Rotterdam Waalhaven on January 6th. *Erik de Zeeuw* 







On December 28th, Class 186.114 stands at Rotterdam Centraal after arriving on the rear of an IC-D service from Amsterdam.

Mark Pichowicz



























- Hired in Class 749.162 awaits departure time at Komarno on the temporary "vice unit" turn to Bratislava hl. st. on December 20th.

  Mark Torkington
- Bratislava based Class 240.100 stands at Smolenice on December 12th with a Trnava Kúty working. *Tim Farmer*
- On January 12th, ZSSK Class 240.037 and 240.132 stand at Kúty with the 13:33 and 14:33 departures to Trnava. *Tim Farmer*























Spain



## Museo de Ferrocarril de Delicias, Madrid

- Built in the 1960s, this Talgo locomotive No. 350.002 is seen on display at the museum. John Sloane
  - RENFE 2-8-0 No. 140.2044, was built by Euskalduna (44 / 1927) for the Andaluces (No 491). John Sloane
  - Renfe No. 280.002 stands in display at the 'Museo de Ferrocarril de Delicias'. Built by Alsthom in the 1960s when RENFE was looking for dual voltage electric locomotives that could maintain operational while the electrification was gradually changing from 1500 to 3000 volts. John Sloane







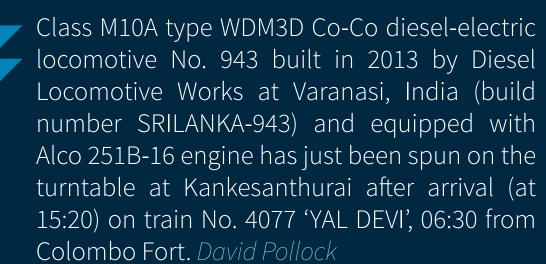
Stabled outside the national railway museum at Kadugannawa is preserved class M1 A1A-A1A diesel-electric locomotive No. 560 equipped with Mirrlees V12 JS12VT engine. It was built by Brush Bagnall (works No. 3046) in 1955. David Pollock











Class S12 built by China South Locomotive & Rolling Stock Corporation Limited (CSR) are 10-car sets formed by two Driving Motor Brake vehicles (coded MGC) equipped with MTU 12V4000R41 engines sandwiching eight coaches. No. MGC 924 nearest at the rear is waiting to depart from Maradana on an empty coaching stock move to Colombo Fort.

#### David Pollock

Class M4 type MX620 Co-Co diesel-electric locomotive No. 746 'KAMUNAKULA' built by Montreal Locomotive Works (MLW) and equipped with an Alco 251C3-12 engine arrives at Colombo Fort with a northbound service.

David Pollock









Running into Ragama with train No. 1036 06:30 Kandy – Colombo Fort is Class M9 type AD32C Co-Co diesel-electric locomotive No. 872 built by Alsthom and equipped with a Ruston 12RK215T engine. David Pollock









- Train No. 1036 06:30 Kandy Colombo Fort departs from Maradana behind class M5C Bo-Bo diesel-electric No. 782 built by Hitachi and equipped with a Caterpillar 3516 DITA engine, coupled behind and running dead in train is Class M6 type G22CW A1A-A1A diesel-electric No. 789 built by Thyssen-Henschel (under licence from General Motors) and equipped with EMD 12-645E engine. *David Pollock*
- Departing from Peradeniya Junction is train No. 1023 17:00 Kandy Hatton hauled by Class W3 type DH3-1200 B-B diesel-hydraulic locomotive No. 636 equipped with Caterpillar DI-TA engine. The loco was originally a Class W1 when built by Rheinstahl-Henschel. *David Pollock*
- Making a shunt move from Peradeniya Junction station into the sidings (right) under the authority of an array of lower quadrant semaphore signals are a pair of un-numbered Lanka Ashok Leyland Driving Motor Third Open railbuses built by Sri Lanka railways at Rathmalana works which have worked train No. 9 17:10 from Kandy arriving into Peradeniya Junction at 17:25. *David Pollock*









Class S8 built by Hyundai and Hitachi is a 5-car diesel-hydraulic multiple unit powered by a single Driving Motor Brake Third Open equipped with a MTU 12V396 TC 13 engine. Seen departing Colombo Fort working train No. 3420 14:35 to Chilaw with Driving Motor Brake Third Open No. 838 nearest at the rear.. *David Pollock* 

















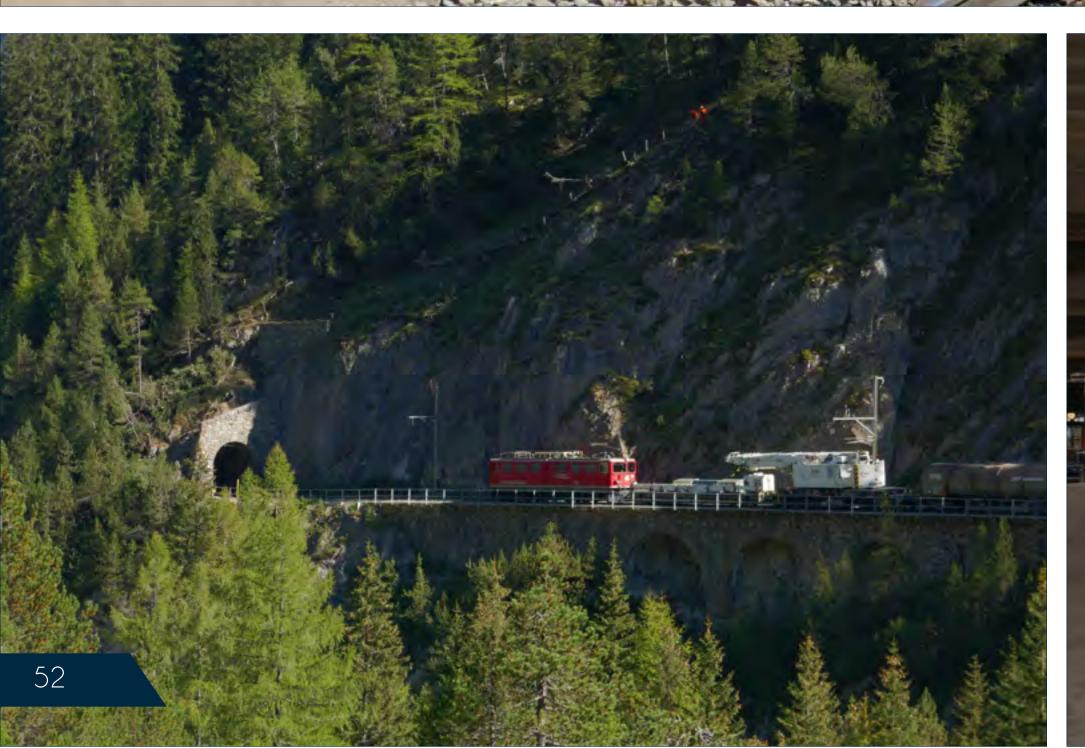








- RhB Ge 6/6ll No. 701 with a Gmf 4/4 dead in tow, pauses at Bergün to cross a southbound passenger train. *Steamsounds* 
  - RhB Ge 4/4II No. 630 and Ge 4/4III No. 649 stand side by side at Chur with trains Nos. RE1725 to Disentis/Mustér and RE1125 to St. Moritz. Steamsounds
  - Between Bergün and Preda, RhB Ge 6/6II No. 705 is about to enter the short Fuegna Tunnel with a freight from Samedan to Chur. Steamsounds

















RhB Ge 6/6II No. 704 stands at Samedan with a rake of tanks. *Steamsounds* 

#### 18 Vectron locomotives ordered by LokRoll AG

Multisystem locomotives equipped for the D-A-CH-I corridor

Deliveries to begin in December 2017

#### Initial service with SBB Cargo International

Together with the infrastructure fund of Reichmuth Infrastruktur Schweiz AG, the leasing company LokRoll AG has ordered 18 multisystem Vectron locomotives from Siemens. They will be used for cross-border operation along the Germany-Austria-Switzerland-Italy corridor. In addition to having national train control systems, all locomotives will also be equipped with the European Train Control System (ETCS).

The locomotives will have a maximum output of 6,400 KW and a top speed of 160 km/h.

LokRoll will lease the locomotives to the Swiss freight transport firm SBB Cargo International for a period of 15 years.

"With this order of locomotives, we will be expanding our services in the sector of rail freight transport and be able to more efficiently network European industry," says Michail Stahlhut, CEO of SBB Cargo International AG.











# Alstom delivers the first metro trainset to Guadalajara in Mexico

Alstom, in partnership with CPVM, delivered on January 24th to the Secretaría de Comunicaciones y Transporte (SCT) the first of the 18 Metropolis trains that will circulate on the new Line 3 of Guadalajara metro network.

Line 3 - which will be operated by the Sistema de Tren Eléctrico Urbano (SITEUR) - is around 21 km in length and crosses Zapopan, Guadalajara and Tlaquepaque.

Around 230,000 passengers are expected every day. "We are pleased to hand over and as per schedule the first Metropolis trainset to SCT. This project will undoubtedly benefit the metropolitan area of Guadalajara and its residents who will be commuting aboard a reliable, comfortable and environmentally-friendly mean of transport" declared Rodelmar Ocampo, Manager Director for Alstom Mexico.

The Metropolis for Guadalajara is composed of three cars and equipped with air conditioning. The metro sets the highest environmental standards. Its energy is reduced thanks to the train's light weight, optimization of traction performance and energy recovery. It reaches a maximum Alstom's Metropolis is a world leading, proven, safe and reliable metro train that serves many of the great global cities including Panama, Singapore, Sao Paulo, Shanghai and Amsterdam. More than 5,000 Metropolis cars have been sold worldwide.

In December 2014, SCT awarded Alstom a contract to provide and integrate an entire metro system. In addition to the 18 Metropolis trains, Alstom is supplying communication systems, high-voltage and traction substations, and traffic control systems based on Urbalis 400, Alstom's CBTC system. Widely proven and constantly upgraded, Urbalis represents the ideal CBTC solution for urban transit operators aiming to maximise performance and capacity and who require traditional interlocking systems for operational needs.



speed of 90km/h and includes a communication and information system for passengers. Metropolis trainsets are produced in Alstom's factory of Santa Perpetua in Barcelona, Spain.



# First freight train from China arrives in London

Operated by the InterRail Group

DB Cargo responsible for the Duisburg-London section

The first container train travelling between China and the UK arrives today at the DB Cargo UK terminal at the London Eurohub in Barking. The train is operated by the InterRail Group, a multinational transport operator headquartered in Switzerland, on behalf of China Railway subsidiary CRIMT (China Railway International Multimodal Transport). Various freight railways handle traction along the 12,000 kilometre route; DB Cargo is responsible for the section from Duisburg to London via the Channel Tunnel.

The train originated in Yiwu in the eastern Chinese province of Zhejiang. It reached London in around 18 days, making it twice as fast as ship transport. The train was loaded primarily with textiles and other consumer goods. The 34'x40' containers required specifically for the UK were loaded at Deutsche Bahn container platforms at the Duisburg container terminal, which are specially approved for the Channel Tunnel.

The UK is just the latest destination added to the China–Europe rail link. The train is initially being operated as a test train. London is one more international connection for the InterRail Group, along with Duisburg, Madrid, Afghanistan and Riga, on the "One Belt – One Road" corridor, an initiative of the Chinese government.

DB services to and from China

DB has collaborated with partners since 2011 to operate weekly container trains on the world's longest rail line, which connects, among other cities, Duisburg and Hamburg to Wuhan, Chongqing and Harbin, and as of mid-2016, Hamburg to the Chinese province of Hefei.

A record number of containers, around 40,000, were transported by train along the legendary Silk Road in 2016. The volume is expected to increase to some 100,000 containers by 2020.

The 10,000 to 12,000 kilometre journeys usually take 12 to 16 days and require containers to be unloaded and reloaded multiple times due to changes of gauge. The service is used in particular by customers with time-sensitive commodities, such as special promotional clothing items, and capital-intensive goods, such as automotive parts and electronics.



#### World News



#### Alstom to provide maintenance to freight locomotives in Mexico

Alstom has been awarded a contract by Ferromex to provide preventive, predictive and corrective maintenance for 219 freight locomotives for a five year period. The scope of Alstom's services includes the application of CBM technologies, oil and vibration analyses. Thanks to the implementation of remote monitoring, asset support and predictive analytics solutions, maintenance works will greatly be facilitated, and operational costs reduced.

The locomotives will be maintained at Ferromex depots located in Torreon, Chihuahua and Guadalajara. This project is expected to generate 150 direct jobs. "We are honoured that Ferromex, for whom we are maintaining more than half of its locomotives, is renewing its trust in Alstom's services. This award also illustrates Alstom's commitment to support Mexico's mobility projects for more efficient, more reliable, more sustainable transport network "declared Rodelmar Ocampo, Managing Director of Alstom Mexico.

Alstom has been present in Mexico for nearly 50 years. The group supplied sixty metro trainsets for the first metro line of Mexico City as well as signaling systems, electromechanical and modernization for more than 100 other metro trainsets. Alstom has also provided trains, maintenance and modernization services, as

well as signalling and infrastructure for passengers and freight services.





#### World News



#### Alstom wins its first metro system contract in Vietnam

Alstom, as leader of a consortium with Colas Rail and Thales, today signed a contract with Hanoi Metropolitan Railway Management Board (MRB) to supply a metro system for Hanoi metro line 3 to start commercial operation by the end of 2021. This is the first integrated metro system contract for Alstom in Vietnam. Alstom's share of the contract is worth around €190 million. Hanoi Line 3 - which is 12.5 km-long - is the second metro line under construction in the city. As part of this contract, 12 stations and one depot at Nhon for trains maintenance will be built. Once operational, the line is expected to carry 8,600 People Per Hour and Per Direction (PPHPD).

Alstom will supply and integrate the metro system which is composed of 10 Metropolis trainsets, Urbalis 400, the Alstom's CBTC solution which controls trains movement, enabling them to run at higher frequencies and speeds in total safety, as well as the power supply and depot equipment together with Colas Rail.

"In the context of the France Vietnam collaboration, we are delighted to sign this contract which aims to improve Hanoi's transportation system and reduce the growing traffic in the city. With its advanced and sustainable technology and 16 years' expertise in metro integrated solutions, Alstom is the preferred partner to provide Vietnam with a greener and smarter transportation system" said Jean-François Beaudoin, Senior Vice President Alstom Asia Pacific.

The project will involve six Alstom sites in France: Valenciennes, Saint-Ouen, Le Creusot, Tarbes, Ornans and Villeurbanne.

Alstom, which is the world leader in the supply of integrated urban mobility systems, has been awarded 18 integrated metro projects in over a decade in cities such as Singapore (Circle Line), Guadalajara (Mexico), Dubai (UAE), Riyadh (KSA), Los Teques (Venezuela), and Panama (Metro Line 1&2).

Photo: © Alstom



#### "BIELIK" will guard PKP CARGO shipments



Modern, super light, equipped with cameras even better than before, the drone "Bielik" –White-tailed Eagle – is starting to patrol railway tracks and areas in use by PKP CARGO. Last year, through the use of a drone fleet, the largest Polish rail carrier reduced the theft of goods transported by nearly 50 percent. The new acquisition will help the company in taking better care of security of the supplies and railway infrastructure.

"Our current experience with a fleet of drones is very good. Reducing the number of thefts, increasing security, and the ability to perform remote inspection of warehouses – there is every reason to continue to invest in this technology. Our new acquisition, the drone "Bielik", is a device with the world's highest standards, and invented as a whole, designed and manufactured in Poland. That adds to the enjoyment "emphasizes Maciej Libiszewski, the president of PKP CARGO.

"Bielik", like other drones used by the railway company, thanks to high-resolution cameras will allow thieves to be identified on the recordings.

"Drones offer huge support in our daily work. When flying, they are practically inaudible, and thanks to their colours and small size they are difficult to see. They can operate in all weather conditions and at night, because they are equipped with thermal imaging cameras that allow you to see a man from a distance of almost a kilometre" adds president Libiszewski.

"Bielik" was developed in the Dron House S.A. company in the area of Warsaw. It is a quadcopter, and the shape of the hull provides excellent aerodynamic characteristics. High-quality carbon fibre is used for its construction. As a result, the ratio of the drone weight to take-off weight sets it apart from the competition. Propellers of carbon fibre provide high strength compared with those made of plastic and make the drone very agile and dynamic. Another distinctive feature of it is endurance - much better than that of the competition and that is at 3.5 kg.

The construction of the drone ensures safe flight in virtually all weather conditions. "Bielik" fears neither rain nor cold. The new machine is equipped with a FULL HD 18 x ZOOM camera with a triple-axis gimbal stabiliser, with the ability to render high-resolution images. Furthermore, the device has a fast processor and a real-time system, allowing you to provide virtually zero latency in the transmission of signals. Data sent between desktop control and the drone is encrypted.

To date, the PKP CARGO fleet of drones has consisted of two types of machines, "the DJI Phantom 3" and "Eagle". Drones transmit recorded live images to the headquarters of the Team for the Prevention of Threats. As a result, employees of the Team can respond quickly to theft and catch thieves red-handed.



#### Siemens to modernize metro line in Peru

Line 1 in the capital city of Lima

New traction power supply for first line section

Siemens is to provide the complete traction power supply for the first section of metro line 1 in Lima, which covers around nine kilometres. The modern power supply, upgrading of existing overhead contact line system and modifications to electrification in the depots will increase both the availability and the costeffectiveness of the rail route. The upgrade be carried out during ongoing operation. Lima's first metro line was completed in 2011, covering around 21 kilometres. The line connects the south east of Lima with the city centre, thus shortening transport routes considerably for many of the capital city's inhabitants. The first section of line 1, covering around nine kilometres, was installed in 1995, so the traction power supply for this section now needs to be modernized.

The scope of supply by Siemens includes the installation, commissioning and overhaul of four traction power substations, six medium voltage cabinets for the stations between section Villa El Salvador to Atocongo. Siemens will install, test and commission the overhead catenary system for the main line as well as the Scada system (supervisory control and data acquisition) for monitoring and controlling the traction power supply will also be upgraded. Siemens entered the market in Peru with the electrification of the first extension of the metro in Lima back in 2010. In 2013 Siemens was awarded the contract to electrify the second extension of line 1 as well, which runs for around twelve kilometres on a viaduct through the three districts of Cercado de Lima, El Agustino and San Juan de Lurigancho.

At the start of this year, orders followed for the electrification of the entire metro line 2 as well as the roughly eight kilometres of the first phase of line 4 in Peru's capital city. The two new metro lines will connect additional city districts and the international airport to the capital's mass transit network.

# Railtalk Magazine Xtra

#### World News

#### Wolsztyn Steam Engine Depot can start operating train services



The culture institution "The Wolsztyn Steam" Engine Depot" has received the certificate and authorization of a railway undertaking.

Thanks to this, it will be able to organize train journeys lead by historical locomotives. The security certificate (section A and B) issued by the President of the Railway transport Office confirms that the railway undertaking is equipped with an approved safety management system. It entitles to access to the

railway infrastructure and provide traction services. Wolsztyn Steam Engine Depot as rail carrier will be able to start its very first retro train at the beginning of January 2017.

"This decision is good news for lovers of steam locomotives and retro style train journeys. I am glad that we were able to issue a safety certificate for Wolsztyn Steam Engine Depot. The institution has met all the requirements and will be able to organize journeys using historical locomotives" said Ignacy Góra, President of the UTK.

The culture institution "The Wolsztyn Steam Engine Depot" was set up in June 2016 by PKP CARGO S.A. and local governments of Wielkopolska region, Wolsztyn County and the town of Wolsztyn. This is the last place in Europe, which until recently had regular passenger traffic by use of steam locomotives. Also every year at the turn of April and May, locomotive parades are being organized that attract thousands of lovers of historic locomotives. "The reception by "The Wolsztyn Steam Engine Depot" of a rail carriage license and the ability to run the trains individually are crucial for the functioning of the institution of culture. This in fact restores train journeys with the world-famous Wolsztyn locomotives. I hope that steam-driven trains will give the impulse for a further development of the Steam Engine Depot "commented Maciej Libiszewski, Chairman of the Board of PKP CARGO.



#### First Midland Metro tram leaves UK for conversion to catenary-free

A Midland Metro tram is in Spain to be fitted with hi-tech batteries allowing it to run without the need for overhead power cables. Tram 18 was split in two and loaded on to flatbed lorries to make the journey from the Metro depot in Wednesbury to the factory in Zaragoza, Spain, where it was made. Tram manufacturer CAF will then fit the Urbos 3 with two lithium ion cells and undertake exhaustive tests before returning it to the UK in the autumn.

"It's a major milestone for the Metro as it will be the first system in the UK to have catenaryfree running. Battery technology is now so developed we can use it to get the tram through sensitive areas and overcome what would otherwise be expensive infrastructure works."

"This has got be good news as the Midland Metro continues to expand and provide an effective alternative to the private car, helping to ease congestion and support economic growth."



Further tests will then be carried out at the Metro depot before work begins there on fitting out the rest of the 21-tram fleet. The Midland Metro will be the first commercial tram system in the UK to have catenaryfree running, allowing the trams to operate over short distances without the need for overhead cables and equipment.

The batteries remove the need for overhead lines and equipment which would have marred the architecturally sensitive area around Birmingham's historic town hall in Victoria Square. The batteries have been commissioned by the West Midlands Combined Authority (WMCA), which owns the Midland Metro system. Cllr Roger Horton, lead member for rail and Metro on the WMCA's transport

delivery committee, said:

The total cost of fitting out the fleet will be a one-off sum of £15.5m but will save £9.24m on infrastructure costs on the first four tramline extensions.

Urbos 3 trams already run catenary-free along some sections of the tram networks in the Spanish cities of Zaragoza, Seville and Cadiz. The newly available lithium ion batteries will be fixed on the tram roof and recharged by overhead lines along other parts of the route.

Photo: Tram 18 ready to go to Spain for catenary-free battery fitting.



#### Alstom awarded its first tramway contract in Taiwan

Alstom has been awarded a contract by China Steel Co. to supply 15 Citadis trams for Kaohsiung tramway project phase 2, which is expected to start revenue service in 2019. This tramway project is the first for Alstom in Taiwan and adds to recent Asia-Pacific successes notably in China and Australia.

Phase 2 - which is 13.4km long and includes 23 stations - is part of the Kaohsiung tramway line which will be 22.1km long and include 37 stations. This new line will run all around the city and will be connected to two existing Mass Rapid Transit (MRT) lines: the Red and Orange.

will be able to commute aboard a tram that is efficient, comfortable, and that blends perfectly into the cityscape" said Ling Fang, Managing Director of China & East Asia, Alstom.

The 15 Citadis X05 trams will be designed and manufactured by Alstom La Rochelle site in France. The other French sites involved are: Tarbes for the traction system equipment, Valenciennes for the interior design, Villeurbanne for the onboard electronic systems and passenger information, Ornans for the permanent magnet motors, Le Creusot for the bogies, Vitrolles for the on-board power supply switching boxes Citadis Ecoswitch, and



Alstom will provide Citadis X05 which is equipped with the latest technologies including permanent magnet motors to reduce energy consumption. Alstom will also equip the trams with its Citadis Ecopack, an on-board energy storage solution located on the roof which enables the tram to run without a catenary from a station to another. Citadis Ecopack enables the tram to be fully charged through the catenary when stopped at stations in 20 seconds.

"Alstom is proud to bring its leading tramway and infrastructure technologies to Taiwan. Once completed, the tramway line will provide a green transport solution to Kaohsiung residents and visitors who

Aix en Provence for the safety control system related to Ecopack. Sesto in Italy is also involved for the traction system equipment.

Alstom Taiwan is providing the on-site testing, training and warranty services.

Alstom has been manufacturing trams for 18 years. 2,300 Citadis trams have been sold to more than 50 cities in 18 countries. Citadis X05, launched in 2014, has been ordered by Sydney in Australia, Nice, Avignon and Caen in France.



#### World News









### From the UK

# Great Central Railway

The GCR is currently Britain's only double track mainline heritage railway, with 5.25 miles) of working double track, period signalling, locomotives and rolling stock. It runs from the large market town of Loughborough to a terminus just north of Leicester. In late January the line held its Winter Steam Gala.

- On January 27th, SR 'Q' Class No. 30541 heads past Kinchley Lane with a Rothley bound service. *Ken Livermore*
- The restoration of BR Standard Class 5 4-6-0 No. 73156 nears completion, with boiler back on the frames and a new tender built. Pictured here in the shed at Loughborough on January 28th. *Richard Hargreaves*
- BRClass 08 0-6-0 dieselshunter No. 13101 stands in the weak winter sunlight at Loughborough on January 28th. *Richard Hargreaves*







## From the UK

- Class 101 DMU Nos. 51427 and 50266, now with recently restored Class 111 Trailer Second Buffet Lavatory No. 59575 added, arrives into Rothley with a terminating service on January 28th. *Richard Hargreaves*
- Seen passing Kinchley Lane on January 27th, Southern N15 'King Arthur' Class 4-6-0 No. 777 'Sir Lamiel' leads a Loughborough to Leicester service. *Ken Livermore*
- LMS Stanier Class 5 4-6-0 No. 45305 prepares to depart Loughborough TMD with the empty stock for a service to Leicester North on January 28th, whilst BR Standard Class 2 2-6-0 No. 78018 awaits its next duty. *Richard Hargreaves*



















A DB Class 171 electric loco (previously DR Class E251), ready to leave Konigshutte (Harz) with a service to Blankenburg (Harz) in March 1999. 15 of these locos were built in 1965 to operate services on the Rubeland Railway; the only line in Germany electrified at 25kV/50Hz. Today services are diesel hauled and these unique locos are obsolete. Keith Chapman