

# Railtalk | Magazine *Xtra*

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## Submissions

Pictures, articles and news can be entered through the forum, or by email to us at:

**entries@railtalk.net**

Please include a detailed description and credits.

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Welcome to our new look Railtalk Magazine Xtra. We hope that you will like the new design of both our magazines, but please give us your all important feedback so that we can be assured that this new look is what you want.

This month, after several visits to mainland Europe, I have been in the UK, mainly involved with design and implementation of the new magazine and website. However one thing that has amazed me from all over Europe is the lack of snow. Several countries have had a covering in early December but there seems to have been very little since. Perhaps someone can let me know how the situation is now.

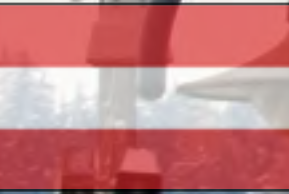
You might notice some new buttons to the left on this page, these should link to our new pages and if you have any content for Youtube, or a link for Twitter then please do let us know. Before I finish this month, thanks to all the photographers who have sent in photos during 2013, please keep them coming during 2014 and from all of us at Railtalk may we wish you a very Happy New Year.

## David

*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. This issue wouldn't be possible without: Brian Battersby, Mark Bearton, Dave Felton, Paul Godding, Carl Grocott, Richard Hargreaves Dave Harris, Stuart Hillis, Keith Hookham, Richard Jones, Anton Kendall, Steve Madden, Phil Martin, Chris Morrison, Gerald Nicholl, Chris Perkins, Mark Pichowicz, Andy Pratt, Laurence Sly, Railwaymedia, Steamsounds, and Steve Thompson.*

Front Cover: On September 26th, Romanian Unicom Tranzit's No. 40-0089 with last mile shunter No. 60-0952 and top & tailed by No. 40-0272 in full company livery drops downhill near Breaza Nord with a rake of grain hoppers. [Chris Perkins](#)  
This Page: Croatian Railways Class 2044.027 passes Hrascina Trovisce whilst working train No. 3015, 14:11  
Varazdin - Zargreb. [Laurence Sly](#)

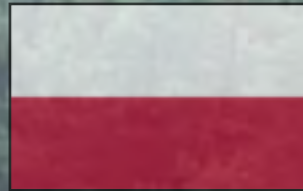




An OBB Class 1144 No. 1144-271 heads light through Innsbruck on November 26th. [Class47](#)



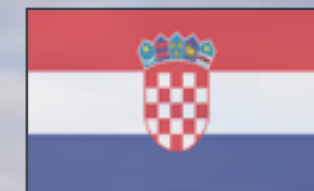
CFR MARFA's No. 60-1279 comes off the non-electrified line north of Chitila with a long train of bogie hoppers on September 24th. [Chris Perkins](#)



TEM2-085 works a short train of empty box wagons through Katowice Sosnowiec on September 26th.

*Anton Kendall*

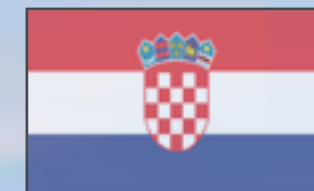
Croatian Railways Class 2044.016 passes Donj Kucan level crossing whilst working train No. 570, 16:30 Zagreb - Cakovec.  
*Laurence Sly*





Four SBB CFF FFS Re 6/6s, Nos. 11681, 420-347, 11333 and 620-086 work a rather lightly loaded liner over Amsteg Viaduct on August 23rd. [Steve Madden](#)

HZ's Class 2044.001 departs Madzarevo whilst working train No. 3017, 15:41 Varazdin - Zargreb. [Laurence Sly](#)





Trenitalia Class E655.045 heads south near San Vincenzo, with a rake of ferry wagons. [Mark Bearton](#)

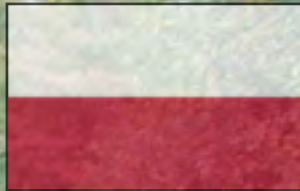




Ceske Drah's Class 749.006-3 stands at Týnec nad Sázavou on November 23rd with a working to Praha Hln. These veteran locos were due to finish all regular passenger work in early December. [Andy](#)



OBB Siemens Taurus No. 1216-145 kicks up the snow as it speeds through Lesce-Bled, Slovenia with a mixed freight bound for Austria. [Chris Perkins](#)



With the help of an SM42 diesel, DLA's 3E/1M-488 hauls a huge train of coal through Katowice Sosnowiec on September 26th. [Anton Kendall](#)



SBB Cargo Vossloh 1700 No. 843.085 crosses the road at Schattdorf with a trip freight, August 23rd.

*Steve Madden*

Sri Lankan Railways Class S10 Chinese built diesel multiple unit No. 16233 is seen standing in platform 11 at Colombo Fort station on December 13th. [Dave Felton](#)





Sri Lankan Railways Class S3 Hyundai built diesel multiple unit No. 833 is pictured after arriving in platform 4 at Colombo Fort station on December 13th, [Dave Felton](#)



Class W3 B-B No. 673 Diesel Hydraulic locomotive originally built by Henschel & Son in Germany as Class W1 and converted in 1997 by Sri Lankan Railways to Class W3 is seen on a light engine movement, passing through Colombo Maradana on December 13th. [Dave Felton](#)





Sri Lankan Railways Class M5 No. 778 diesel electric locomotive built by Hitachi is seen passing through Mahawaskaduwa, north of Kalutara with train No. 8040, 06:30 service from Colombo Maradana to Matara on November 24th. [Dave Felton](#)



Above: Amtrak train No. 390 'Saluki' departs Centralia Illinois smack on time on its way to Chicago on September 27th. [Andy Pratt](#)



Right: A BNSF manifest heads over the diamonds at Centralia on September 27th. [Andy Pratt](#)

Main: An NS coal empties passes through Centralia on September 26th. Three routes cross at Centralia, the north south CN line crosses the east west NS whilst the BNSF winds it's way through from the north west to the south east. [Andy Pratt](#)





An FS DMU No. 501-014 heads past the old works at Castelfiorentino with a Siena to Empoli service on September 24th. [Mark Bearton](#)



CD's Class 749.107-9 arrives into Praha Hln. on November 23rd with a service from Tynec nad Sazavou. This was one of the last workings for this loco before scheduled passenger services finished for the class in early December. [Andy](#)



Above: SNCB Class 13 No. 1332 heads through Antwerp Berchem on December 13th. [Brian Battersby](#)



Right: Bombardier TRAXX Class E186.217 heads an intermodal working through Antwerp Berchem on December 13th. [Brian Battersby](#)

Main: Vossloh G2000BB series No. 1615 takes a rake of Transcereales wagons through Gent St Pieters on December 10th. [Brian Battersby](#)





Trenitalia Class D445.1132 leads the 12:10 Florence to Siena service near Basseto on September 24th.

*Mark Bearton*

On November 24th, AZD Praha liveried Class 749.039-4 is seen at Tanvald with the Sundays only evening service to Praha, one of the last workings for this class before replacement by Class 750 'Goggles'. [Andy](#)

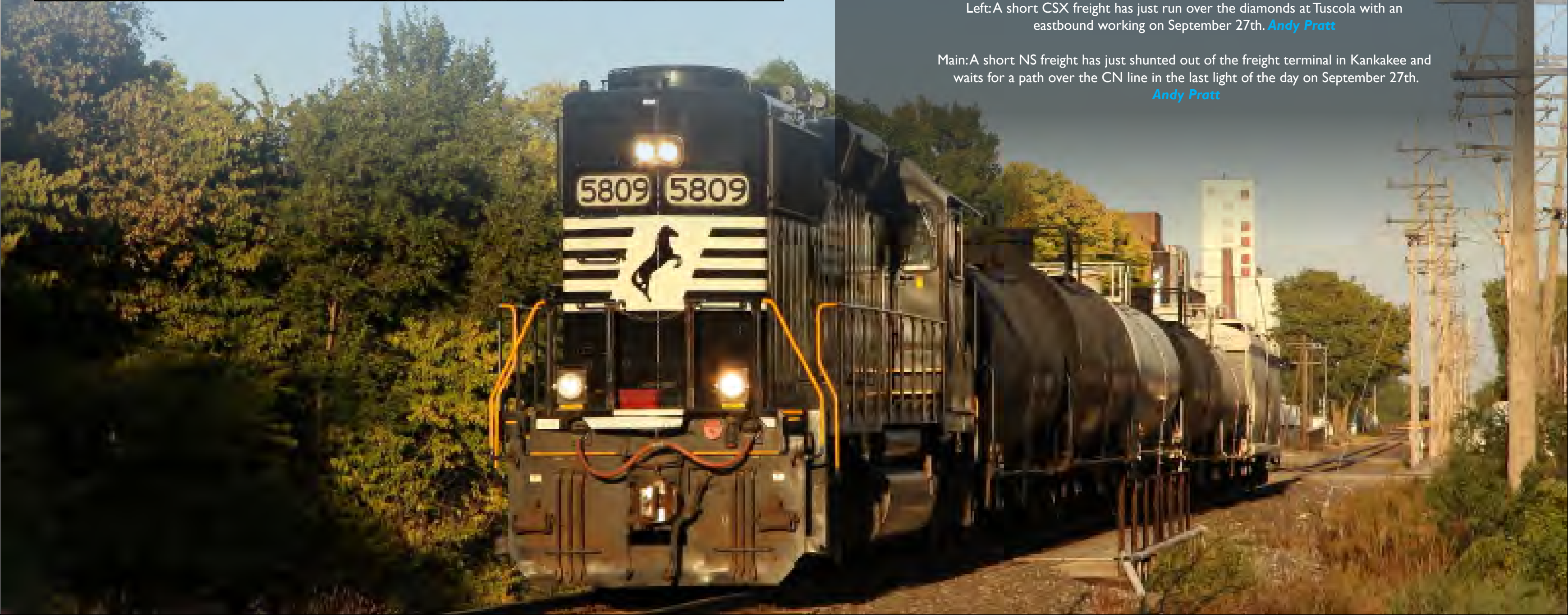




Above: Amtrak train No. 393 'Illini' passes over the flat crossing at Kankakee Illinois on September 27th. The Amtrak service is running south on the CN line, while the NS line runs east west. [Andy Pratt](#)

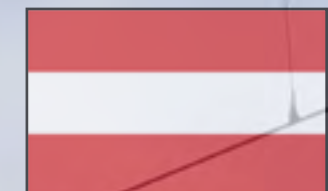
Left: A short CSX freight has just run over the diamonds at Tuscola with an eastbound working on September 27th. [Andy Pratt](#)

Main: A short NS freight has just shunted out of the freight terminal in Kankakee and waits for a path over the CN line in the last light of the day on September 27th. [Andy Pratt](#)





Mariazellerbahn No. 1099.014 leads the 10:53  
Mariazell to St. Pölten near Kirchberg an der Pielach  
on October 17th. [Railwaymedia](#)





Above: Crossrail's Class 66 No. DE6314 hauls an empty freightliner service through Antwerp Berchem on December 13th. [Brian Battersby](#)



Right: Crossrail's Class 66 No. DE6309 passes through Antwerp Berchem on December 13th with an intermodal working. [Brian Battersby](#)

Main: Rurtal Bahn Cargo Class 66 No. PB01 hauls a rake of box wagons through Antwerp Berchem on December 13th. [Brian Battersby](#)



FS Trenitalia Class E464.005 passes Torremuzza whilst at the rear of Regionale train No. 7836, 13:08 Palermo Centrale - Messina Centrale, September 8th. [Laurence Sly](#)





SBB Re 4/4 II Nos. 11180, 11174 and 11250 are seen working an engineers train at Wassen high level on August 23rd. [Steve Madden](#)

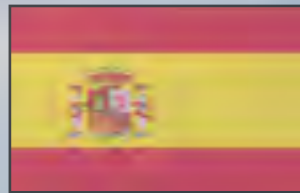


Jungfrauahn units Nos. 211 and 218 are seen working train No. R542, 09:30 Jungfrauoch - Kleine Scheidegg with the Jungfrau mountain as the back drop on November 2nd.

*Keith Hookham*

On November 25th, Locon Class 189.821-2 (LOCON 502) passes through a snowy Amstetten with a rake of ferrywagons. [Class47](#)





Renfe's Class 252.014-6 and 252.052-6 are seen at Barcelona's Estacio de Franca on October 15th.

[Class47](#)



Above: On November 3rd, SBB Ae 6/6 No. 11488 stands at Oberburg after arriving with waste containers from Solothurn. [Mark Pichowicz](#)



Right: 1912 built He 2/2 No. 11 stands at Europe's highest station Jungfrauoch, 3454M above sea level with the Eiger Ambassador Express, November 2nd. [Mark Pichowicz](#)



Main: On November 3rd, SBB Ae 6/6 No. 11440 passes Killwangen Spreitenbach heading into RB Limmatal. [Mark Pichowicz](#)



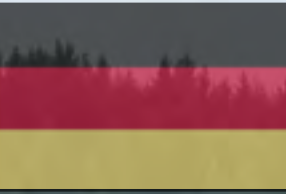


DB Class 218.457 is seen at Kempten(Allgau) Hbf ready to propel train No. RE57587 back to München Hbf, October 19th. [Steamsounds](#)



Train No. 6822, 09:12 from Debrecen to Satu Mare arrives at the border town of Nyirabrány on October 4th. The Romanian border is less than half a mile away. [Steve Madden](#)





On September 20th, DR 99.7245 is seen arriving at Eisfelder Talmühle with the through Norhausen - Brocken service while No. 99.7235 takes water. [Steamsounds](#)



Above: Class 183.039, owned by ZSSK Cargo but on hire to Pol-Miedz Trans, hauls a coal train through Kedzierzyn-Kozle on September 27th. [Anton Kendall](#)

Left: One of the few remaining Romanian built Electroputere ST43s, No. ST43-217 works light engine with an ST44 through Kedzierzyn-Kozle on September 27th, having just deposited a coal train in the yard. [Anton Kendall](#)

Main: One of the superb M62 locomotives, No. M62-1186 (92 51 3 630 052-0) operated by Pol-Miedz Trans, opens up at Kedzierzyn-Kozle on September 27th, after sitting idle for an hour. [Anton Kendall](#)





H-MAV No. 431-240 is pictured working train No. 6025,  
14:24 Nyiregyhaza to Debrecen at Hajduhadhaz on  
October 2nd. [Steve Madden](#)



Above: Infrabel's Class 62s Nos. 6295 and 6317 pass through Antwerp Berchem on December 13th. [Brian Battersby](#)

Left: SNCF Fret No. 467471 heads a freightliner working through Gent St. Pieters on December 10th. [Brian Battersby](#)

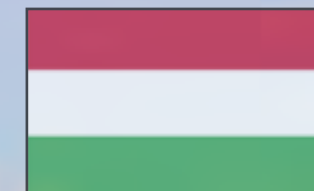
Main: SNCB's Class 77 MaK GI200 series Nos. 7852 and 7840 head through Lokeren on December 10th with some empty freightliner flats. [Brian Battersby](#)



HZ Class 2044.005 crosses the River Drava as it approaches  
Varazdin with the 16:59 Kotoriba - Zagreb.  
*Laurence Sly*



CFR Class 82 No. 82-0446 depart Biharkeresztes with International Train 'Hargita', 06:15 Budapest Keleti to Brasov (Romania) on October 3rd. A MAV Class M41 worked the train to Biharkeresztes and 82-0446 worked the train over the border into Romania. [Steve Madden](#)





At München Hbf on October 19th, a pair of 'Rabbits'  
Nos. 218.488 and 218.461 meet at sunset.

*Steamsounds*





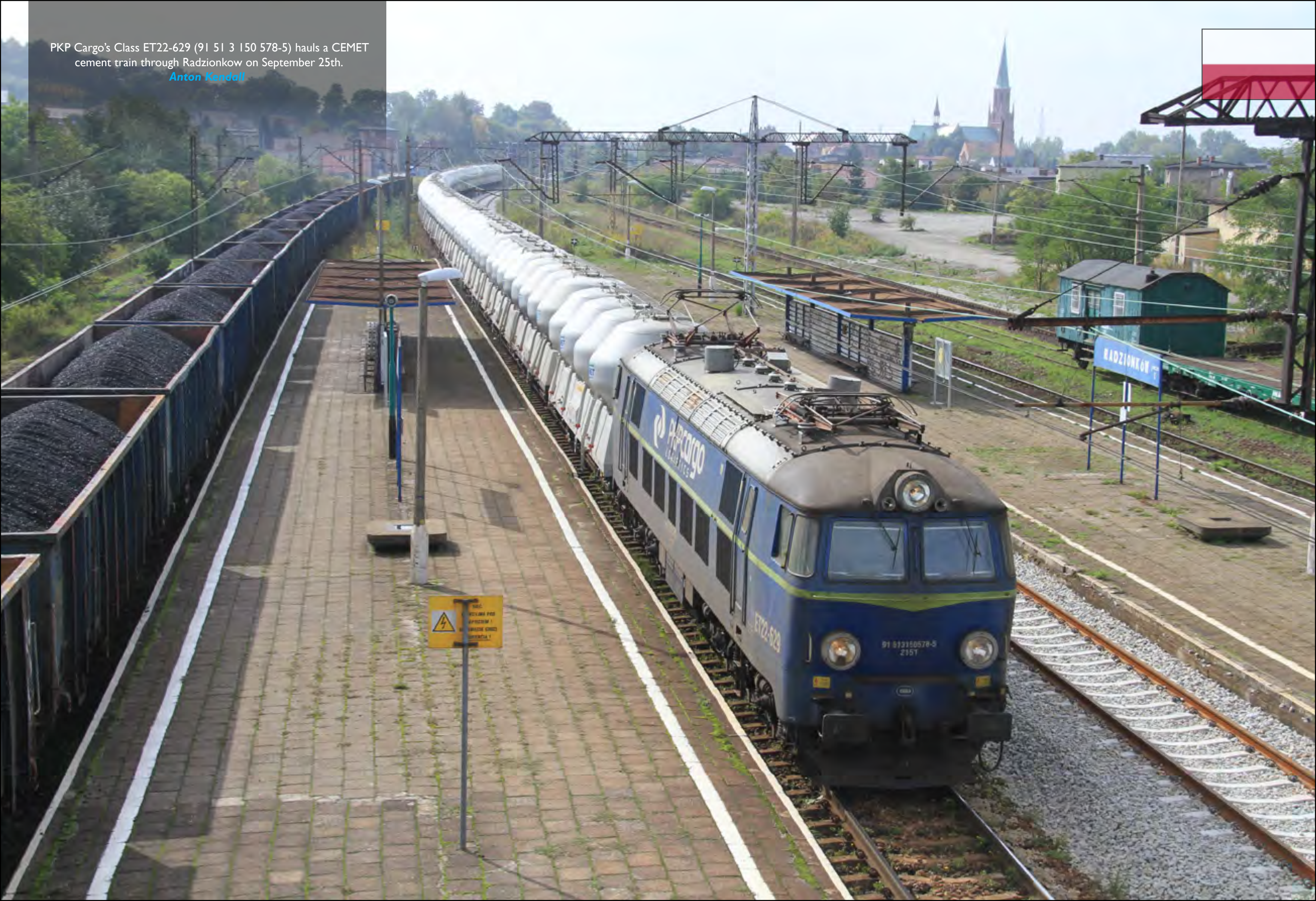
Above: The Cumbres & Toltec Scenic Railroad held a Galloping Goose running day on September 24th. Here Replica Motor No. 1 approaches Dalton on loan from the Ridgway Museum. [Andy Pratt](#)

Right: The Cumbres & Toltec Scenic Railroad's original restored Goose No. 5 from the Galloping Goose Historical Society is seen at the running day on September 24th. [Andy Pratt](#)

Main: The 3ft gauge Durango & Silverton Narrow Gauge Railroad runs 45 miles from Durango to Silverton in Colorado. Baldwin K-36 2-8-2 No. 482 reaches the outskirts of Durango on September 23rd with the 14:30 departure from Silverton. [Andy Pratt](#)



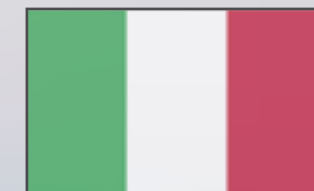
PKP Cargo's Class ET22-629 (91 51 3 150 578-5) hauls a CEMET cement train through Radzionkow on September 25th.  
*Anton Kendall*





SNCF's No. 107251 passes the steam era water crane at Beziers station arriving with train No. 4755, 08:18 Marseille St. Charles to Bordeaux St. Jean on August 15th.  
*Chris Perkins*

On September 9th, FS Class E464.008 approaches Pollina whilst working Regional train No. 12760, 13:08 Palermo Centrale - Messina Centrale. [Laurence Sly](#)





Above: On a dull September 15th, three work stained BNSF War Bonnets head east through Neola Idaho with a manifest. [Andy Pratt](#)

Left: A Union Pacific train of grain cars heads east through Omaha Nebraska between the old Union and Burlington Stations before heading over the Missouri River and into Idaho on September 15th. [Andy Pratt](#)

Main: A BNSF loaded coal train heads across the flyover over the Union Pacific line at Grand Island. [Andy Pratt](#)





One of the best diesel classes in Hungary are the Class M41s. Here M41-321 departs Mezopeterd Station with train No. 6414, 11:00 Puspokladany to Biharkeresztes on October 3rd.

*Steve Madden*

Servtrans' Sulzer No. 60-1629 is the rear loco on a train of open bogie wagons heading for the loop at Buftea on September 23rd. [Chris Perkins](#)







Above: Graz tram No. 654 is seen heading along Herrengasse working service No. 7 towards Wetzelsdorf. [Steamsounds](#)

Left: Gent tram No. 6310 is seen heading towards St. Pieters on December 10th. [Brian Battersby](#)

Main: Graz tram No. 216 passes near Jakominiplatz whilst working service No. 5 to Puntigam. [Steamsounds](#)





## Siemens to deliver locomotives to Finland

Finnish State Railways place major order worth more than 300 million Euros

Option for an additional 97 locomotives including maintenance

First order for the Vectron broad gauge version

The Finnish Railways VR Group intends to place an order for 80 electric Vectron locomotives with Siemens worth more than 300 million Euros. This is the largest rolling stock investment ever made by VR Group and the second-largest purchase in Europe this year. The order will include an option for an additional 97 locomotives as well as the maintenance of the locomotives over a period of 10 years. The contracts will be signed in the very near future. The new locomotives designed to operate on broad gauge tracks are scheduled to be delivered one after the other from 2016. The first electric locomotives start operational services in 2017, and the entire fleet will be delivered to Finland by 2026. In both freight and passenger transportation they will also replace the existing Soviet-type locomotives, some of which were built in the 1970s. "For Siemens this marks the largest single contract so far for its latest generation of Vectron locomotives and the first for this type in the broad gauge version", emphasizes Jochen Eickholt, CEO of the Siemens Rail Systems Division. The electric locomotives will be manufactured at the Siemens plant in Munich, Germany, and the bogies at the Siemens plant in Graz, Austria.

The new locomotives are designed to operate reliably even under the extreme climatic conditions in Scandinavia during their long service life. Siemens was able to provide clear evidence of their capability during comprehensive test and authorization trips in Sweden and Norway. "The selection was made after a long and careful examination. The electric locomotive manufactured by Siemens is well suited to the challenging conditions in Finland", says VR Group's President and CEO Mikael Aro. The locomotives for VR-Yhtymä Oy will benefit from the valuable experience gained during these tests. In addition, the Vectron fleet has already traveled far more than one million kilometers. Vectron locomotives are operating according to timetable in Germany, Poland and Sweden. The new generation of electric Siemens locomotives is well established in the market. Siemens was already able to sell more than 50 of them to seven international customers so far.

The Vectron locomotives are based on a technical platform. This concept enables Siemens to design and manufacture vehicle variants such as alternating system or multi system locomotives according to customer-specific requirements within a short time. Authorization has already been granted for Germany, Austria, Hungary, Poland, Romania and Sweden.





## Museo del Ferrocarril at Vilanova i la Geltrú

The museum occupies the former locomotive depot of Vilanova built in the late nineteenth century, which at the time employed more than 900 people. The collection is located in the original facilities of a large depot of steam locomotives, and a former production centre for the repair of engines, which closed as such in 1967 and re-opened as a museum in 1990

Above: Steam locomotive No. 230-4001 built by Henschel and Maffei (Germany) is seen outside the museum roundhouse. [Class47](#)

Left: An early Talgo diesel locomotive No. 353-005, and coaches built by Krauss-Maffei in 1968. [Class47](#)

Main: A view of just some of the large collection of steam locomotives held here at the Museum. [Class47](#)





## Vilanova i la Geltrú continued...

Above: Steam locomotive No. 230-4001 built by Henschel and Maffei (Germany) is seen outside the museum roundhouse. [Class47](#)

Left: The interior of the Talgo unit with original seating. [Class47](#)

Main: Babcock & Wilcox and Brown Boveri 1929 built Class 272.006 stands next to Oerlikon/Euskalduna 1928 built Class 270.001. [Class47](#)





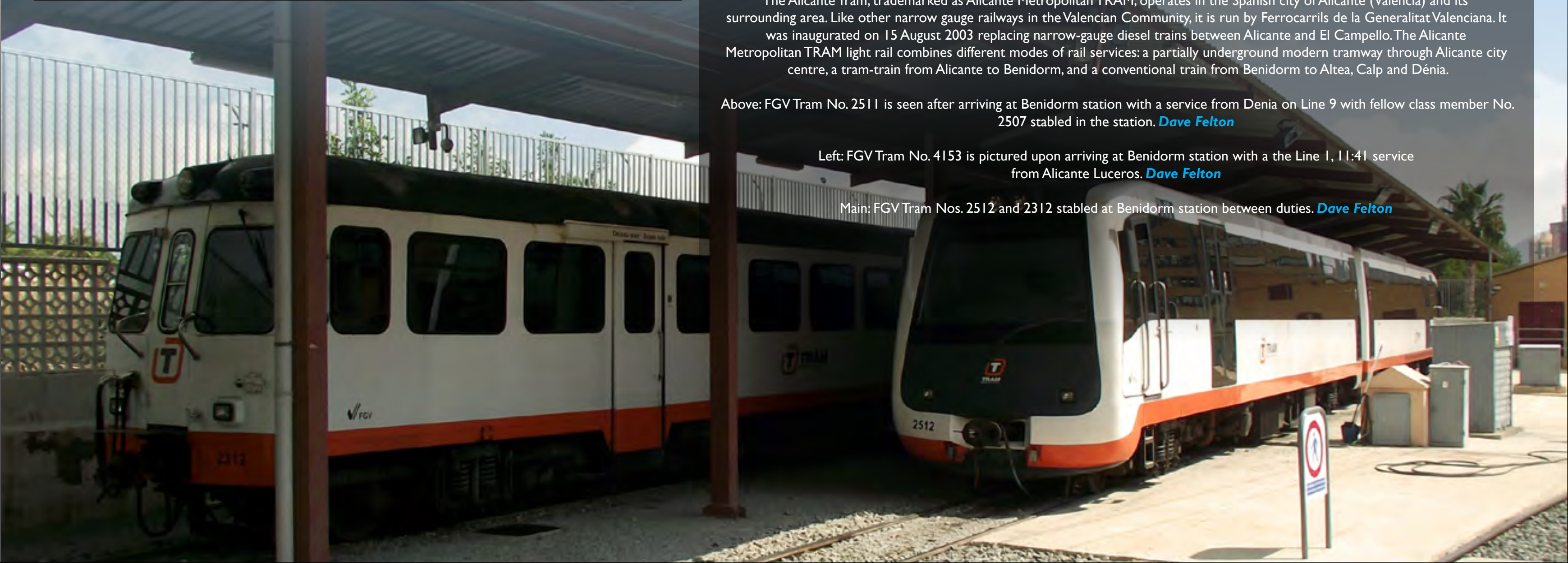
## Alicante Trams

The Alicante Tram, trademarked as Alicante Metropolitan TRAM, operates in the Spanish city of Alicante (Valencia) and its surrounding area. Like other narrow gauge railways in the Valencian Community, it is run by Ferrocarrils de la Generalitat Valenciana. It was inaugurated on 15 August 2003 replacing narrow-gauge diesel trains between Alicante and El Campello. The Alicante Metropolitan TRAM light rail combines different modes of rail services: a partially underground modern tramway through Alicante city centre, a tram-train from Alicante to Benidorm, and a conventional train from Benidorm to Altea, Calp and Dénia.

Above: FGV Tram No. 2511 is seen after arriving at Benidorm station with a service from Denia on Line 9 with fellow class member No. 2507 stabled in the station. [Dave Felton](#)

Left: FGV Tram No. 4153 is pictured upon arriving at Benidorm station with a the Line 1, 11:41 service from Alicante Luceros. [Dave Felton](#)

Main: FGV Tram Nos. 2512 and 2312 stabled at Benidorm station between duties. [Dave Felton](#)





A Hungarian MAV engineers vehicle is seen stabled in the yard at Biharkeresztes on October 2nd. [Steve Madden](#)

## Alstom delivers the first Gulf region tramway to Dubai



Alstom has delivered the first of the 11 Citadis trams to the Roads and Transport Authority (RTA) of Dubai (UAE). These trams will be in service on the Al Sufouh Road, the first tram line in the Gulf region. The new 10-km line is due to open by the end of 2014. It includes 11 air-conditioned stations and connects destinations such as the Burj Al Arab Hotel area, Dubai Media City, the Marina and the metro. In a second project phase, the line is planned to be extended up to 14.7 km.

Alstom is responsible for the design, integration and supply of this turnkey tramway project, which includes: the supply of Citadis trams, track laying, signalling (using Alstom's Urbalis CBTC1), communications systems, integrated operation control centre, platform screen doors and ticketing system. Alstom will also be responsible for the maintenance of the transport system for a period of 13 years.

Mattar Al Tayer, the Chairman of the Board and Executive Director of RTA, said "Now that Alstom has conducted the initial systems tests on the tram in their facilities in France, we are starting technical tests on the depot's rails and test runs on the line. All operational aspects will be continuously assessed until the line opens."

The Dubai Citadis tram is 44 metres long and can carry up to 408 passengers in "Gold", "Silver", and "Women & Children" classes. It offers high-end comfort, "infotainment" solutions, enhanced communications and security systems both within the stations and on-board the trams. The main features of the tram's fine design are its diamond-shaped front nose, and its external livery which evokes the sand dunes of the Emirate. Dubai's tram is the first tram to run exclusively on APS3 and also the first with tropicalised next-generation equipment adapted to the extreme weather conditions of the Gulf, including temperatures above 50°C, high humidity and sand.

The trams for the city of Dubai are designed and assembled at Alstom's La Rochelle plant in France.

## Alstom celebrates 10th anniversary of catenary-free Citadis tram



Alstom is celebrating the tenth anniversary of its APS system (Alimentation Par le Sol, or ground-level power supply) as 26 new Citadis trams enter service in Bordeaux, ordered by the city in 2012. Bordeaux was the first city to choose the catenary-free technology for 14 kilometres of its total network of 44 kilometres.

Developed exclusively by Alstom, APS powers the Citadis tram via a third rail embedded in the ground, preserving the city's architectural heritage. To avoid any risk to other road users (pedestrians, cyclists or motorbikes), the third rail is divided into separate sections that are only powered when the tram passes over them. This technology is the result of over ten years' Research and Development. The Alstom site in Vitrolles (France) created the first prototype and submitted the first patents in 2000.

Over ten years, the APS system has been ordered by eight cities in France and abroad, either to equip part of a tram network as

in Bordeaux, Angers, Reims, Orléans, Tours, Cuenca (Ecuador) or an entire network as in Dubai (UAE), or in combination with other Alstom technologies. For example, in 2013 the city of Rio de Janeiro, Brazil, ordered Citadis trams from Alstom that are designed to run simultaneously with APS and supercapacitors.

In all, Alstom has already equipped 42 kilometres of track and 151 Citadis trams with the APS technology. These trams have travelled over 13 million kilometres with no overhead cables. With APS, supercapacitors and the onboard battery, world-leading technology initially developed for the Nice tram system (France), Alstom is the only manufacturer to have a full range of catenary-free solutions to equip cities wishing to enhance their architectural heritage.



# ICE trains for Deutsche Bahn approved for Germany

German Federal Railway Authority approves trains' deployment in Germany

Four new ICE trains delivered to Deutsche Bahn

Approval process for operation in France and Belgium still underway

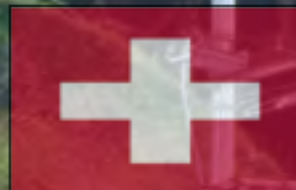
The new ICE trainsets from Siemens for Deutsche Bahn (DB) have been approved for immediate deployment in Germany. The German Federal Railway Authority (EBA) approved the trains' operation – also in multiple-unit or so-called double-traction mode – on DB's rail network. Two trains were delivered in November for test purposes. Siemens has now supplied DB with two more ICE trains of the Velaro D type for deployment in Germany, with four additional trains to follow in the spring of 2014. "With the approval to operate these trains in Germany now granted, we've reached an important milestone in this project," said Jochen Eickholt, CEO of Siemens' Rail Systems Division. As agreed with DB, the remaining eight of the 16 ICE trains originally ordered are reserved for test runs in Belgium and France in preparation for implementing cross-border operation and obtaining the requisite authorizations.

Since 2008, DB has ordered from Siemens a total of 16 advanced high-speed trains, worth more than €500 million, for deployment in Germany, Belgium and France. Following their approval by the EBA, the new ICE trains can now go into operation on Germany's rail network. The approval process for their cross-border deployment to Belgium and France is still underway. The regulations regarding train control systems – for example, those regarding the correct interpretation of route signals – vary in Europe from country to country. The related complexity is the main reason for the delivery delays.

"We're cooperating with Deutsche Bahn, the French operator SNCF, the German Federal Railway Authority and the corresponding French and Belgian authorities to obtain approval – which has not yet been granted – for the trains' cross-border deployment. However, we're also dependent in this connection on a number of suppliers. In order to accelerate these processes in the future, we have to achieve harmonization with respect to technology and approval in Europe as quickly as possible," stated Eickholt.

The Velaro D is a further development of the current ICE 3 trains, several of which have already been deployed in cross-border operation between Germany, France and Belgium since 2007. Each new train comprises eight individual cars and can accommodate up to 460 passengers – 30 more than its predecessor. With an output of 8,000 kilowatts (about 11,000 hp), the train can achieve speeds of up to 320 kilometers per hour (km/h). Like earlier models, the new ICE has traction motors that are mounted under the floor and distributed over the length of the train, enabling particularly rapid acceleration. The climate-friendly electric brake system feeds braking energy directly back into the power supply system.





Pilatus Bahn unit No. 25 is seen departing Alpnachstad at the bottom of the Pilatus Bahn on November 1st, working service R13, 10:55 Alpnachstad - Pilatus Kulm. [Keith Hookham](#)

## Alstom's high-speed trains cross their 16th border on the new Paris-Barcelona high-speed line



With the opening on 15 December 2013 of the direct high-speed line linking Paris (France) and Barcelona (Spain), Alstom's high-speed (HS) trains have now crossed their 16th border. Alstom is the only rail manufacturer to have built more than 1,100 HS cross-border trains, in service in 18 different countries. The TGV Duplex and AVE S100 trains that will travel on the Paris-Barcelona line have all been designed and produced by Alstom. The Duplex very high-speed train, with the highest transport capacity on the market, is operated by French national rail operator, SNCF.

has equipped the TGV and AVE S100 with Atlas, its ERTMS solution which enables trains to share a unique signalling system through out all countries.

About Alstom high speed and very high speed trains

Alstom is the sole rail manufacturer to offer three complementary HS trains: Pendolino (HS train up to 250 km/h, 450 passengers), Duplex (VHS train up to 320 km/h, 510 passengers) and AGV (VHS train up to 360 km/h, 450 passengers).



The AVE-S100, a single deck VHS train, operated by Spanish national rail operator, Renfe, was delivered about 20 years ago. Alstom has modernised the AVE S100s, adding about 15 years to their lifespan. They have been adapted by Alstom and then homologated to circulate on the French network. In order for the French and Spanish trains to travel from one country to another, they must be interoperable. This means that they must adapt to a variety of power voltages, signalling equipment and technical specifications of interoperability (train, noise, tunnels, etc.) in line with European Union requirements. To this end, Alstom

One in three HS trains in circulation around the world has been manufactured by Alstom. The trains have travelled 5.5 billion kilometres. The world's first HS train ever to cross a border was an Alstom train, operated by SNCF, travelling from France to Switzerland in 1984.

Photo: TGV Duplex, the highest capacity train on the high speed market. Already in service in 5 countries and crosses 5 borders. Operated on the Paris-Barcelone line by SNCF. Alstom Transport / TOMA – M. Genel

## Alstom to upgrade Rome suburb with latest rail signalling systems



Alstom, as part of a consortium, has been awarded a contract by RFI (Rete Ferroviaria Italiana), to upgrade the Rome railway intersection, one of Italy's busiest rail points where high-speed lines intersect with national and regional lines. The total amount of the contract is worth €120 million, with Alstom's share worth €80 million. The project is scheduled to be completed in the spring of 2017.

To improve the efficiency of the railway intersection, which is 200 km long and sees the passage of 1,200 trains per day, the project involves the installation of railway signalling systems, as well as SCMT[3] cab signalling systems, telecommunications and civil works.

Alstom will provide its ACC-M railway signalling system[4], a computerised multi-station interlocking for the Tiburtina-Orte, Ciampino-Colleferro and Roma Casilina-Campoleone-Nettuno railway sections. The Group will also implement its integrated control and security centre (ICSC) across the whole network. This is based on Alstom's Iconis platform, the latest Alstom technology which has been in use for seven years at the Bologna railway

intersection.

These new-generation computerised systems will guarantee the safety and integrated management of every aspect of railway operations (level crossings, passenger information, video surveillance), and provide the information required for rapid intervention and real-time decision-making. "Alstom will provide RFI with the latest high-technology signalling systems, supporting our customer in its commitment to strengthening the country's infrastructure" declared Pierre-Louis Bertina, President and Managing Director of Alstom Ferroviaria S.p.A.

The project will involve Alstom's site in Bologna (600 employees), the Group's centre of excellence for railway signalling, in collaboration with the Bari railway signalling research and development centre (50 employees), and Guidonia in Rome (150 employees), specialised in railway infrastructure.



## Alstom presents a life-sized model of Avignon's Citadis tram



consumption. The new trams are fitted with large windows, air conditioning and a real-time information system to ensure passenger comfort and well-being on every journey. They are also equipped with double doors at the front and rear to make it easier for passengers to board and alight.



On December 14, 2013, Alstom unveiled a life-sized model of Greater Avignon's Citadis Compact tram in the presence of Marie-Josée Roig, Mayor of Avignon and President of the Avignon Urban Community, François Mariani, President of the Vaucluse Chamber of Commerce and Industry, Robert Fidenti, President of the Atout Tram association, and Hubert Peugeot, Sales Director of Alstom Transport. The model will be displayed at the foot of the city walls until spring 2014.

The model introduces Greater Avignon's residents to a full-sized replica of their future tram, chosen in September 2013 via a public consultation of 4,000 voters. "The design is based on the rhythm of coloured surfaces. It emphasises the large double doors that help to identify the tram's entrances and recalls architectural elements of the city" explains Xavier Allard, Vice President of Design and Styling at Alstom Transport. The second city in France to choose Citadis Compact, after Aubagne, Greater Avignon has opted for the highest capacity version of this short tram from the Citadis range. The 24-metre tram can carry 133 to 146 passengers (up to 45,000 a day) depending on the interior layout. Alstom will supply a total of 24 Citadis Compact trams to Greater Avignon. They will run on the two lines of the future 14.5-kilometre network, and are scheduled to enter service in late 2016.

In selecting Citadis Compact from Alstom, Greater Avignon has chosen reliable and tested equipment with the benefit of feedback from nearly 15 years' use. This long lifetime has led to solutions being identified to reduce the tram's operating costs through optimized maintenance and reduced energy

98% recyclable, Citadis helps protect the environment.

The 1,500 Citadis trams operating worldwide have already prevented the emission of over 4 million tons of CO2 compared with emissions from car traffic and improved quality of life in cities, with noise levels four times lower than those of cars. Citadis Compact is manufactured at industrial sites in France: La Rochelle for the tram design and assembly, Ornans for the motor design and production, Le Creusot for the bogies, Tarbes for the electrical and electronic traction equipment, Valenciennes for the control system, Villeurbanne for the onboard electronics and Saint-Ouen for the design. To date, 1,726 Citadis trams have been ordered by 43 cities worldwide.

## Alstom to supply infrastructure systems for the Shatin Central link of Hong Kong Metro



Alstom has been awarded a contract by MTR Corporation Limited, Hong Kong's metro network operator, to build, install, test and put into service a 22 km-long track, which includes 6 km of depot and sidings, and a 25kV overhead line (including the catenary system) for the city's new Shatin-Central Link. The contract value for Alstom is approximately €41 million. The project is scheduled to be completed in 2018.

It is expected that in 2021 more than 1 million passenger trips will be made daily on the Shatin-Central Link which will connect several existing railway lines to form two strategic railway corridors, namely the "East West" and the "North South" corridors. The 22 km project assigned to Alstom involves the extension of the existing Ma On Shan Line from Tai Wai to the West Rail via East Kowloon to form the "East West Corridor" which includes seven

stations.

"We are very excited to contribute to Hong Kong's efforts in expanding its metro network. This great success further reinforces Alstom's position in the city's metro market and demonstrates our long-term partnership with MTR," said Dominique Pouliquen, President of Alstom Transport Asia Pacific and Alstom China Country President.

This is Alstom's third metro infrastructure systems contract in Hong Kong after the South Island Line (East) and Kwun Tong Line Extension contracts in 2012. The company has also cooperated with MTR on signalling systems, train renovations and other services. Present in Hong Kong for more than 30 years, Alstom has supplied about 1,100 metro cars to the city and provided signalling systems to seven metro lines.

## Alstom delivers 9 Citadis trams to the city of Valenciennes on the opening of its second line



The second line in the Valenciennes tram network was opened on Friday December 13, in the presence of Frédéric Cuvillier, France's Minister for Transport, the Sea and Fishing, Francis Decourrière, President of the SITURVI, Valérie Létard, President of the Valenciennes Métropole council, Laurent Degallaix, mayor of Valenciennes, and Jérôme Wallut, Managing Director of Alstom Transport France. The new line, 15.5 km long, serves 22 stations and will open towards the end of February 2014. To mark the opening of the line, Alstom delivered nine trams, ordered by the city in 2010, to increase the tram network's transport capacity. They will be added to the current fleet of 21 trams running on the first line, which links the University of Valenciennes with Denain. In all, 30 trams will run on the two lines.

The new Citadis trams supplied by Alstom to the city of Valenciennes are identical to the 21 trams already in operation. They are 33 metres long, carry up to 295 passengers and offer a high level of comfort on board, with low floors throughout, a wide aisle, air conditioning, comfortable seats, large windows and a video surveillance system.

98% recyclable, Citadis helps protect the environment. It also contributes to the quality of life in cities with a noise level 5 dBA lower than that generated by car traffic, meaning nearly four times less noise. Since it entered service, about 5 million tonnes of CO2 emissions have been avoided.

Seven of Alstom's ten industrial sites in France took part in the Valenciennes Citadis project: La Rochelle for the tram design and construction, Valenciennes for the studies, Ornans for the motors, Le Creusot for the bogies, Tarbes for the powertrain equipment and Villeurbanne for the command and control electronics. Alstom Transport's tram business supports 4,400 jobs in France at Alstom and its suppliers. Alstom has already sold 1,726 Citadis trams to date in 43 cities worldwide, 21 of them in France, and these trams have carried 6 billion passengers, 3 million a day.

Photo: Citadis tramway in Valenciennes. Copyright: Alstom Transport / TOMA - C.Sasso



## Bombardier Wins FLEXITY Tram Order from Mülheim Transport Authority



Rail technology leader Bombardier Transportation has won a contract from the Mülheim Transport Authority (MVG) for 10 BOMBARDIER FLEXITY Classic trams. The new order is valued at approximately 27 million euro (\$37 million US).

The Essen Transport Authority (EVAG) placed an order for 27 FLEXITY trams in December 2011 and the MVG called off an option for another five vehicles in June 2012. The transport authorities Duisburg Transport Authority (DVG), EVAG and MVG have been united at an operational level in the VIA Transport Authority since 2010. The MVG moves nearly 27 million passengers per year. The first tram went into operation in the city in 1897.

Klaus-Peter Wandelenus, Managing Director, MVG, said: "With this tram we have achieved a high level of standardization which will result in short servicing and maintenance periods. The tram's operating efficiency over the entire lifecycle is of utmost importance. There is no room for isolated solutions and technical experiments. The new low-floor trams symbolize how we will act in Via in future. On the one hand we have never been able to offer our customers so much barrier-free comfort, while on the other hand we developed this tram together with Bombardier placing a particular focus on economical operation."

The three-module, bi-directional vehicles are identical to the trams already ordered. They are 30 m long and 2.3 m wide with a capacity of 172 passengers and equipped with the innovative BOMBARDIER MITRAC propulsion system.

Conventional wheel-set bogies ensure a smooth ride and reduce wear and tear of wheels and tracks. Bombardier produces the trams at its manufacturing site in Bautzen, the electrical equipment at its site in Mannheim, and the bogies at its site in Siegen. The first vehicles are scheduled to be delivered in August 2015.

To date more than 600 FLEXITY Classic trams are on order or operating successfully worldwide, including in the German cities of Dortmund, Dresden, Frankfurt, Halle, Kassel, as well as Adelaide in Australia, Krakow in Poland and Norrköping in Sweden. Bombardier offers the industry's most complete portfolio of light rail solutions with a strong reputation for passenger comfort, low energy consumption and reliability. More than 4,000 Bombardier trams and light rail vehicles are in revenue service or on order across Europe, Australia and North America.

## Bombardier to Supply 10 Additional Light Rail Vehicles to Manchester Metrolink



Rail technology leader Bombardier Transportation together with consortium partner Vossloh Kiepe has signed an option to supply 10 additional BOMBARDIER FLEXITY Swift light rail vehicles (LRVs) to Transport for Greater Manchester's (TfGM's) Metrolink system. This option forms part of the contract signed with Greater Manchester Passenger Transport Executive (GMPTe now referred to as TfGM) in 2007 and is valued at approximately £ 18 million GBP (22 million euro, \$ 30 million US), with Bombardier's share valued at approximately £ 14 million GBP (17 million euro, \$ 23 million US). To date Bombardier and Vossloh Kiepe have delivered 77 vehicles to Manchester. This option for 10 further vehicles brings the total number of LRVs ordered for the city from the consortium to 104.

Peter Cushing, Transport for Greater Manchester's Metrolink Director, said: "The new FLEXITY M5000 vehicles are now a familiar sight across Greater Manchester, with nearly 70,000 journeys a day made on the Metrolink network. The vehicles are helping us deliver greater capacity and a much more reliable journey, with lighter, brighter and more spacious interiors giving extra room for passengers. We look forward to completely replacing our tram fleet with this model during 2014." Manchester's Metrolink system demonstrates the premium quality

and service provided by Bombardier in delivering excellent passenger comfort and proven state-of-the-art technology to the Greater Manchester community. The vehicles are high-floor so they are compatible with the substantial number of former railway stations on the network which have high platforms. The 28.4 m long light rail vehicles with a width of 2.65 m offer a capacity for 200 passengers. Wide double-door entrances ensure rapid passenger flow and level access to space suitable for all users including those in wheelchairs or with pushchairs.

As consortium leader, Bombardier designs and manufactures the vehicles at its sites in Bautzen, Germany, and Vienna, Austria. Bombardier's Siegen plant in Germany is responsible for delivering the bogies. The consortium partner Vossloh Kiepe provides the electrical equipment. The first tram of the new batch will be delivered in March 2015. Bombardier's FLEXITY vehicles are operating successfully in cities around the globe. They were selected by TfGM because of their value for money and design flexibility. Overall, Bombardier now has more than 4,000 trams and light rail vehicles in successful revenue service or on order in cities across Europe, Australia and North America.

## Bombardier Level Crossing Technology Set to Increase Rail Security



Rail technology leader Bombardier Transportation has participated in the European Union funded railway industry partnership for integrated security of rail transport, PROTECTRAIL, as a consortium partner. As part of this, its EBI Gate 2000 level crossing system contributed to demonstrations of the latest state-of-the-art rail security solutions at the test track in Żmigród, Poland. The system is manufactured in Poland and integrated with an obstacle detector for the first time. The successful testing was the result of the collaboration between Bombardier's site in Katowice and the global technology company Honeywell, which provided the radar scanner. When integrated, the EBI Gate 2000 system is able to receive information about an obstacle on the level crossing, which may impact the crossing or train operations, and send data to the PROTECTRAIL system. The information can then be used to alert crossing, station or train personnel. This successful testing also provides the foundation to develop a mechanism to inform the train driver about the need to brake.

The demonstration was attended by approximately 100 participants, including Andrzej Massel, former Under Secretary of State, Polish Ministry of Transport; Jerzy Wisniewski, Fundamental Values Director, UIC; representatives of the European

Commission as well as project partners, railway stakeholders, transport authorities and rail police. Slawomir Nalewajka, Head of Rail Control Solutions Poland, Bombardier Transportation, said: "As well as contributing to this important study, which will help meet customers' growing expectations regarding security, these tests have provided valuable field experience in operating the integrated system. The increased functionality will further benefit the security and safety of our rail infrastructure."

PROTECTRAIL is one of the largest integration projects for railway security at present. The consortium is composed of 29 companies working together since September 2010 to integrate existing security solutions in the rail environment to meet future security challenges. The objective is to develop a global framework, taking existing solutions, making them interoperable, and testing them in demonstrations with real-life scenarios. As a leading consortium partner, Bombardier's Network Solutions group is responsible for the global integration efforts of the 29 members to improve overall passenger security. In Poland, the consortium has demonstrated an effective common approach to reduce the engineering costs associated with integration while improving the overall situational awareness in security and operational control centres.

## Alstom sets a new high-speed record with its Pendolino in Poland



Alstom sets a high-speed record in Poland reaching 293 km/h while conducting tests on its Pendolino train on the Gora Włodowska - Psary line north-west of Krakow. The record was reached as Alstom was conducting tests in the presence and in partnership with its customer, Polish operator PKP Intercity, to obtain circulation permission for the 20 Pendolino trains ordered by PKP Intercity in 2011. All the tests have been successful so far, which will enable PKP Intercity to start operation by the end of 2014.

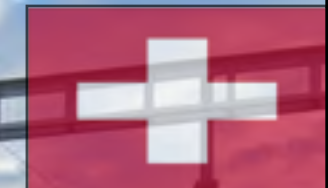
The contract signed with PKP Intercity also includes 17 years of maintenance and the construction of a new maintenance depot, to be inaugurated in the first quarter of 2014. The trains will circulate between Warsaw, Gdansk, Gdynia, Krakow, Katowice and Wrocław.



The previous Polish high-speed record of 250 km/h was set in 1994, also by a Pendolino train. The highest speed recorded to date for a Pendolino train was 283 km/h in Italy in 2007. This technological milestone is another demonstration of Alstom's excellence in the high-speed and very high-speed market, in which the company is world leader with over 30 years of commercial service experience and has built one out of every three trains in operation in the world. Pendolino is the world's best-selling high speed train (500 trainsets sold). Certified to operate in 13 countries, it can smoothly cross seven borders when in operation. With a 25-year return of experience in commercial service and an R&D programme designed to further optimise its performance, this Alstom high-speed train is able to address the needs of all regions worldwide - including North America, Russia, CIS and Asia - willing to develop high-speed transport.

Pendolino is designed to run at up to 250 km/h on both high-speed and conventional lines. Its success rests on its modularity and flexibility. It can be fully customised from interior layout to the number of cars (4 to 11), voltage power supply, gauge and suspension. Pendolino can be operated under extreme climate conditions (up to 45° and -45°C). It is also available with Tiltronix, Alstom's tilting technology, which enables the train to tilt by up to 8 degrees and still run at 250 km/h, allowing it to travel 30-35% faster than conventional trains with even greater comfort. Pendolino is mainly produced at Alstom's Savigliano factory in Italy. The Savigliano factory is currently executing contracts for PKP (Poland) and SBB (Switzerland).

Photo: PKP Pendolino world speed record. Copyright :Alstom Transport / A.Février



An SBB Class 460 is seen arriving into Luzern. [Steamsounds](#)

## Stadler establishes service company



Stadler Rail reinforces the growing service sector. Maintenance will be consolidated by a new subsidiary company. The current division manager, Jürg Gygax, is to become the CEO. The sites in Szolnok, Hungary (carriage body construction), Winterthur (bogie production) and Biel (cast steel) are being integrated into the new Components Division. Markus Bernsteiner, who is currently the head of the Swiss Division, will become the new division manager. These changes mean that Stadler Rail Group will consist of five divisions from 2014. Peter Spuhler is to take over the Swiss Division ad interim, which comprises the plants in Bussnang and Altenrhein.

As a result of newly acquired contracts and the purchase of the Voith subsidiary Voith Rail Services in the Netherlands, Stadler Rail has been able to further develop the service sector in recent months. The company also sees potential in this area in the future. Expanding to five divisions allows individual business areas to be managed in a more targeted way.

### Seasoned executives

All divisions are led by long-standing division managers. The new Service Division, the service company that is being established with sites in Switzerland, Hungary, Algeria, Austria, Italy, Poland, Sweden and the Netherlands, will be managed by Jürg Gygax, who has up until now been the head of the former Service Division. The current head of the Swiss Division, Markus Bernsteiner, is taking over the management of the new Components Division, which combines all internal suppliers. He will also be acting as head of the new Company Structure and Development staff function on a Group level. He reports to the Group CEO, Peter Spuhler, who will once again be temporarily heading up the Swiss Division with its two sites Bussnang and Altenrhein. Michael Daum will continue to oversee the German Division, and Christian Spichiger will manage the Central and Eastern Europe Division.

Stadler Rail is increasingly committed to the growing service sector. Alongside the existing contracts in Switzerland, Germany, Hungary, Algeria, Austria, Norway and South Tyrol, various other long-term service contracts have recently been signed in Switzerland, Poland and Sweden. The company has already achieved excellent availability levels at all its sites so far. The front runner is the Westbahn fleet in Linz, which achieved availability of 99.7% in 2012.



The Wuppertal Schwebebahn near Oberbarmen. [Steamsounds](#)

## FIRST GYSEV FLIRT HAS BEEN INTRODUCED IN HUNGARY



The first FLIRT train for Hungarian-Austrian railway operator GYSEV Zrt. has been introduced in Sopron, Hungary. The new vehicle was handed over by Zoltán Dunai, Country Manager of Stadler in the presence of Mrs. Zsuzsa Németh, Hungary's Minister for National Development, Ms. Ilona Dávid, Chairperson of GYSEV, and Mr. Szilárd Kövesdi, CEO of GYSEV. The railway operator can count on the operation of already two vehicles of the future fleet of four FLIRTs, as Stadler in parallel with the introduced train officially delivered the second vehicle of the series too. The two vehicles already possess all necessary authority permissions, so that they are able to enter commercial service on the railway line of Sopron–Szombathely–Szentgotthárd, already at the timetable change of GYSEV on 15 December. The commercial service of the two trains already this year has become possible due to the early delivery of Stadler, which handed over the vehicles with 60 train days before the deadline.

The first two trains are part of the fleet of altogether four FLIRTs, about which GYSEV and Stadler signed a delivery agreement back in 2012 April. GYSEV accomplished the procurement within the frames of the reconstruction project of the railway lines of Sopron–Szombathely–Szentgotthárd. In addition to the purchase of the new trains, this project included the finishing of the reconstruction works of Sopron–Szombathely line, and the entire modernisation of the Szombathely–Szentgotthárd line.

line of Győr-Hegyeshalom, where the speed tests at 160 km/h are possible. The first two GYSEV FLIRTs passed all tests successfully, thus the authority was able to issue the permission required for the commercial service. As the GYSEV FLIRTs are identical with the ones Stadler produced for the Hungarian Railways, homologation of the vehicles was not required this time. According to the contract, Stadler would have needed to deliver the first train only at the end of December, and the second only at the end of January, but similarly to the MÁV project, Stadler delivered again well before, altogether 60 train days before the deadlines. The carriages of the trains were produced in the Hungarian factory of Stadler in Szolnok, while the final assembly was made in Poland, Siedlice.

The maximum speed of the single voltage low floor regional trains is 160 km/h, and possess altogether 211 seats and 164 standing places. The GYSEV FLIRTs are equipped with state-of-the-art passenger information system, air conditioning, multifunctional areas for the storage of bicycles, disabled accessible toilets, as well as free wifi internet connection, and power sockets for the charging of mobile phones and laptops. From the 55 cm platform it is possible to enter the trains directly, without the need of stairs. The vehicles have a very dynamic acceleration power of 1.2 m/s<sup>2</sup>, by which the drivers are able to compensate even 10 minutes delays in the timetable.

## Arriva begins high profile Polish rail contract



European transport group Arriva has begun a new rail contract operating on four electrified lines in the Kujawsko-Pomorskie Voivodship in northern Poland. The new, two-year contract started on 15 December and sees Arriva running 12 existing units on four lines - from the medieval city of Toruń Główny to Jabłonowo Pomorskie and Kutno, and from the largest city in the region, Bydgoszcz, to Laskowice Pomorskie and Piła. The contract serves around 50 railway stations. Worth €22 million over the next two years, the contract sees Arriva integrating new services with its existing diesel line rail operations and fleet of 18 units within the same region. As part of the new contract Arriva has welcomed some 80 new employees and has increased its annual train kilometres in the country by 50 per cent, to 3.8 million train kilometres.

Radim Novak, managing director – central and eastern Europe at Arriva, said: “As a major private rail operator in Poland we are now providing a network of regional rail services in northern Poland. The new contract will see us playing a key role in the region's economy as we are providing services which link larger towns and cities quickly and efficiently. “We will be introducing value for money ticketing options for customers and new technology. Our objective is simple - to deliver quality services which encourage more people to travel with us and sustains the growth in passenger numbers in northern Poland. At the same time we will be giving financial savings for the region.”

Arriva will continue to consult with its customers and stakeholders regularly to improve the current service level and to ensure services are performing to the highest standards



With this GYSEV renewed altogether 110 km railway track, which resulted in the increase of the maximum speed to 120 km/h. The total value of the project is HUF 49.8 bn, out of which HUF 42.3 bn has been provided by the European Union. The procurement cost of the four trains amounted to a good EUR 20 million. The commissioning of the new trains has been executed by the Hungarian employees of Stadler in the maintenance centre of the company in Pusztaszabolcs. During the commissioning process the experts of Stadler worked closely with the Hungarian Transport Authority, the representatives of which executed the usual technical tests and authority checks of the vehicles on the railway

This is a huge advantage from the aspect of keeping the timetable, because no other trains in Hungary are capable of such performance apart from the FLIRTs operated by MÁV. The train full with passengers can reach 100 km/h speed in 28 seconds, while it is able to stop from a speed of 120 km/h only using its service brake without the necessity to use the airbrake. It is also converting its accumulated kinetic energy into electricity, and can nearly fully feed it back into the overhead network. The FLIRT is the most developed and successful model of its category, out of which Stadler has been able to sell altogether 940 trains worldwide.

## Alstom and Škoda Transportation bidding consortium awarded pre-qualification status for the supply of double-deck trains in North Rhine-Westphalia

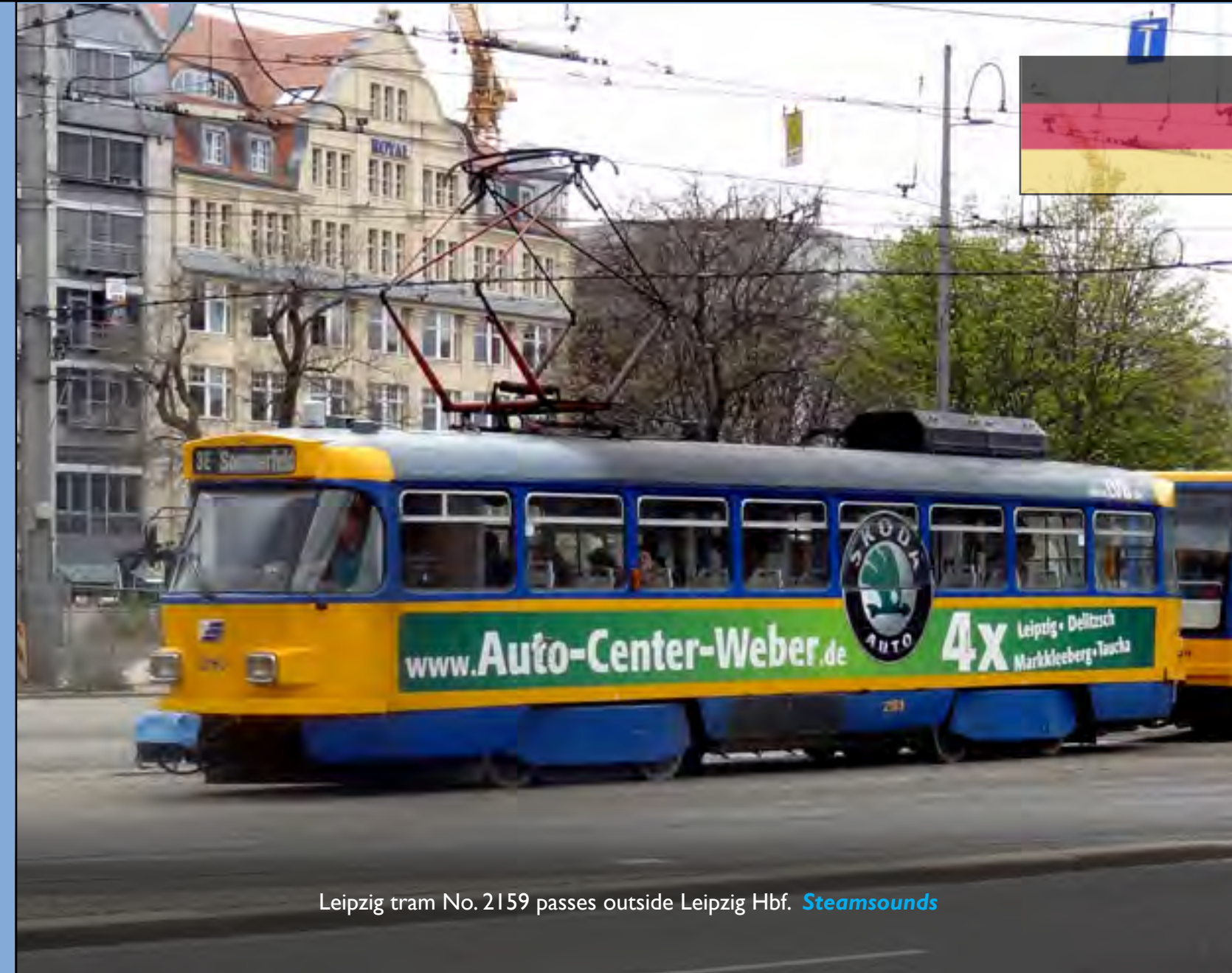


Alstom Transport and Škoda Transportation consortium have been pre-qualified for the supply and maintenance of double-deck regional trains for the so-called Rhine-Ruhr Express project in North Rhine Westphalia. The largest conurbation area in Europe, North Rhine-Westphalia is also the main traffic hub in Germany's most highly populated federal state. The Rhine-Ruhr-Express will connect the major cities of the region – including Cologne, Leverkusen, Dusseldorf, Duisburg, Bochum, Dortmund and Bielefeld – and expand as far as Koblenz in Rhineland-Palatinate. It is due to enter commercial service on six lines in December 2018.

Alstom and Škoda are developing a completely new electrical multiple unit to meet the requirements of the Rhine-Ruhr-Express. This new design is based on proven eco-friendly technologies from both manufacturers: high recyclability rate, energy braking recovering system, high acceleration capacity to fit in the challenging timetables of mixed rail traffic. The trains will feature a maximum capacity of 400 seats and a low floor to ensure easy access on-board. In the Rhein-Ruhr-Express project, a new tendering concept will be used in Germany that has previously mainly been seen in the UK.

This means that the manufacturer of the trains will also provide maintenance and servicing for a period of 30 years. The transport association placing the order will be making the trains directly available to the train operating companies. This will make it possible to optimise not only the overall costs over the entire service life of the vehicles, but also the transport services offered to passengers.

“Who knows the train better than the company who built it. So it makes perfect sense to leave maintenance and servicing in the hands of the manufacturers. On all sides this optimises planning ability with regard to a top-quality deployment concept with high vehicle availability. We are delighted to have been awarded pre-qualification status for the bidding process for the development of a new train-concept that is fine-tuned to the requirements of the customer”, say Dr. Martin Lange and Z. Majer heading the Alstom and Škoda bidding consortium.



Leipzig tram No. 2159 passes outside Leipzig Hbf. [Steamsounds](#)

## Bombardier Wins Train Operations Contract in British Columbia



Rail technology leader Bombardier Transportation has announced that it has signed a contract to provide train operations for TransLink's highly successful West Coast Express commuter rail system in the Lower Mainland region of British Columbia. The contract is valued at approximately \$17 million CAD (\$15 million US, 11 million euro) and includes train operations for five years. Options for three additional five-year periods can also be exercised. The Bombardier team will mobilize for service at the beginning of 2014 and assume train operations responsibility in May 2014.

Bombardier will provide train operations for the West Coast Express BOMBARDIER BiLevel commuter rail fleet of 44 vehicles. Close to 1,200 BiLevel cars are already in operation across the United States and Canada.

“We're extremely pleased to expand our long standing relationship with Bombardier as a vehicle and technology provider, to now include rail operations,” said Fred Cummings, President and General Manager of the British Columbia Rapid Transit Co. Ltd. “We have developed a successful partnership over the years, and we look forward to Bombardier continuing to provide the safe, reliable, and courteous service our West Coast Express customers have grown to expect.”

“West Coast Express has built an enviable reputation for reliability and exceptional customer service since its first trip in 1995. Bombardier appreciates the importance of maintaining and building on the West Coast Express record of good customer service,” added Raymond Bachant, President, Bombardier Transportation North America. Bombardier has a long-standing track record of providing operations and maintenance services to transit systems across North America including Agence Métropolitaine de Transport in Montréal, GO Transit in Toronto, the Maryland Area Regional Commuter (MARC) Train Service,



the Massachusetts Bay Transportation Authority, New Jersey Transit, North County Transit District in California, OC Transpo in Ottawa, the South Florida Regional Transit Authority, the Southern California Regional Rail Authority and, beginning in the spring of 2014, the Central Florida Commuter Rail Transit project (SunRail) Train Service. Bombardier also supports transit systems with overhaul and refurbishment programs and material and technology solutions.

# Bombardier to Supply 30 Additional Regio 2N Double-Deck EMUs in France

Order is part of the Regio 2N contract with the French Railways (SNCF) on behalf of the French Regions

This additional firm order for the regions Picardie, Midi-Pyrénées and Pays-de-la-Loire brings the total number of Regio 2N trains ordered to date to 159

Rail technology leader Bombardier Transportation has announced that SNCF has exercised an option for 30 additional Regio 2N double-deck electric multiple units. The order, which will be financed by the Regions, is valued at approximately 277 million euro (\$379 million US). It is part of a 2010 contract with SNCF for up to 860 trains for the French Regions.

Including this option, nine Regions have ordered a total of 159 Regio 2N EMUs. The delivery of the additional trains will take place from June 2016 until April 2017.

“The Regions and SNCF are confirming their trust in the innovative Regio 2N train with this order,” said Jean Bergé, President of Bombardier Transportation France. “Regio 2N is a technical platform of double-deck trains that is able to meet the needs of intercity, regional and commuter services. It offers both exceptional capacity and increased passenger comfort compared to conventional rail vehicles, encouraging a shift from individual car to rail travel.”

The train with an extra-wide carbody offers improved accessibility thanks to wide doors, gangways and corridors, large vestibules and step-free entrances from platform heights of 550 mm. This train features technical innovations in terms of reliability, availability, and sustainability, while generating economic benefits, like reduced energy consumption. With this new order, Regio 2N will be available in a 200 km/h version as well as in an extra-long 10-car version.

The Regio 2N double-deck EMUs were created by Bombardier teams in Crespin, in the Nord-Pas de Calais Region. Bombardier also designs, builds and tests the vehicles at the site. As the largest industrial rail site in France and a partner of the Nord-Pas de Calais Rail Competitvity Cluster, the Crespin site employs 2,000 people, including 500 engineers and managers. It relies upon a wide network of local suppliers and sub-contractors. Several suppliers have decided to set up their operations next to Bombardier, in the Trans Avenir industrial park, strengthening local employment opportunities and the regional economy.



From the UK



### A look back at 2013

Our annual look back at the best of what's happened in 2013, and what a year it has been in the UK for the return of the older classes, with the return to traffic of several Class 20s, 56s, 60s and the mainline running of Classes 52 and 55. We wonder what 2014 will bring?

We start the year in January with the commencement of year long celebrations for the 150th anniversary of London Underground. This is No. 12 'Sarah Siddons' passing through Euston Square with a Moorgate - Edgware Road special. [Chris Morrison](#)

One of the most stunning liveries of 2013 was East Coast's 'Skyfall' liveried rake with DVT 82231 and Class 91 007 seen here passing through New Zealand Bridge, Sandy.  
*Steve Madden*

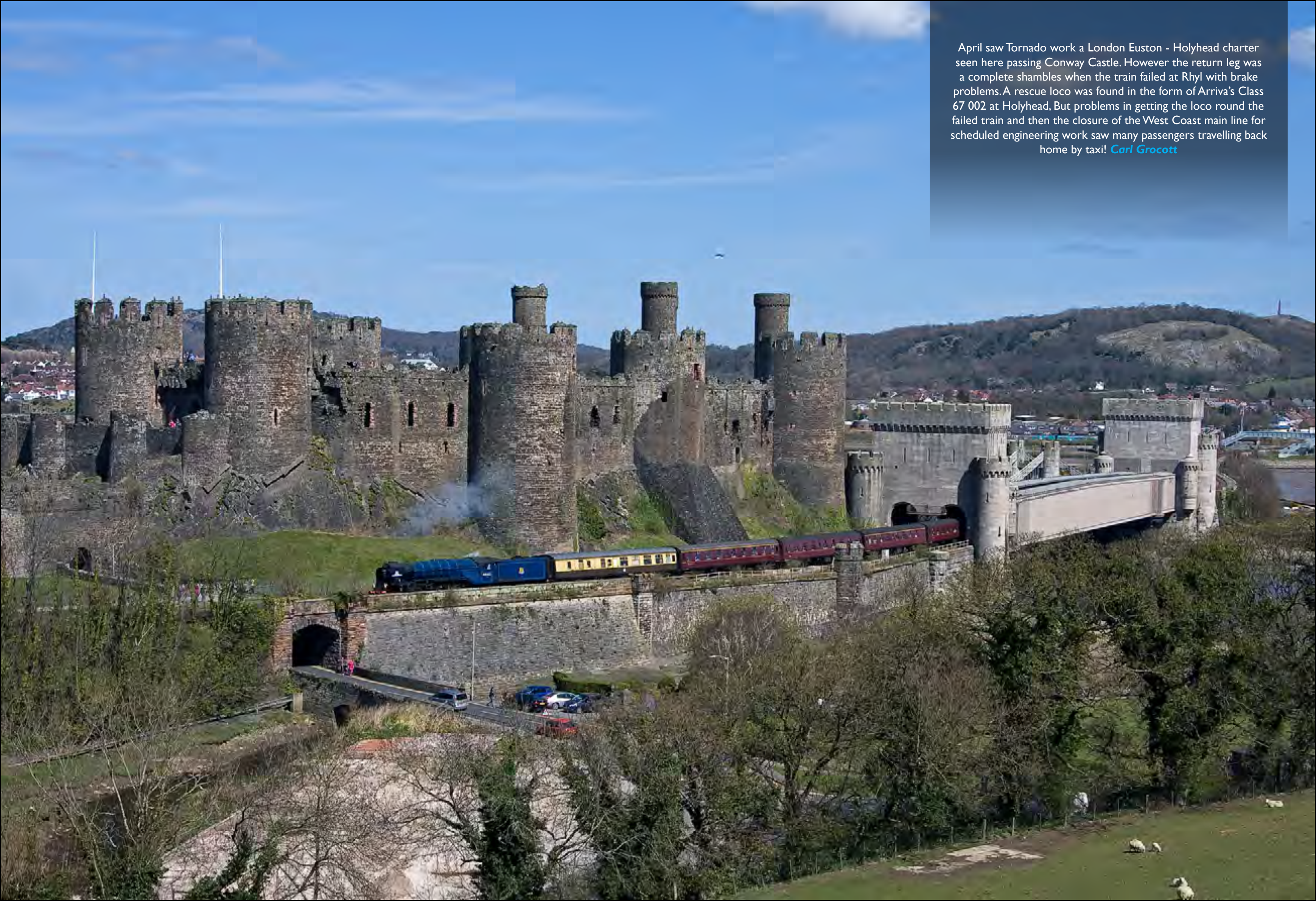






Winter returned in March, causing the usual chaos to the rail network. This is a snowy Doncaster where a loaded coal train heads to the nearby power station. [Class47](#)

April saw Tornado work a London Euston - Holyhead charter seen here passing Conway Castle. However the return leg was a complete shambles when the train failed at Rhyl with brake problems. A rescue loco was found in the form of Arriva's Class 67 002 at Holyhead, But problems in getting the loco round the failed train and then the closure of the West Coast main line for scheduled engineering work saw many passengers travelling back home by taxi! [Carl Grocott](#)





Network Rail's Class 97/3s have worked quite a few railtours in 2013. In May Class 97 304 and 97 303 are seen in charge of a Steam Dream's tour to Porthmadog. [Phil Martin](#)

Another livery variation in 2013 was the transformation of two First Great Western HST power cars into adverts for HP. This is No. 43148 at Taunton with a London Paddington service.

*Richard Hargreaves*



Colas Rail workings have continued to be popular throughout 2013 but none more so than the occasional trip along the sea wall to Teingrace. This is Class 56 302 passing Cockwood Harbour with a loaded working to Chirk. [Dave Harris](#)



When East Midlands Trains decided to hire in a pair of Class 37s for a Sunday Derby - Crewe shuttle service, they really shouldn't have been surprised that it became one of the passenger turns of the year. This is the 'Wedge-Ex' passing Stenson with Class 37 405 and 37 425. [Stuart Hillis](#)





Deltic '22 has continued to work well in 2013, with its GBRf contract for EMU movements around Scotland and occasional railtour and gala appearances, seen here crossing Loch Awe with an SRPS tour in September. [Richard Jones](#)

In October, UK Railtours HST excursion from London St. Pancras headed for the unusual destination of the East Lancs Railway with HST power cars Nos. 43049 and 43083. [Gerald Nicholl](#)





The somewhat unbelievable sight of a Western at Scunthorpe in November, when No. D1015 had a short stint working for GBRf.  
Will this be repeated in 2014?, who knows. [Steve Thompson](#)





Having been threatened with withdrawal, it is good to see that Class 87 002 has once again been resurrected for the winter ice breaking season, However in the sunshine at Doncaster it looks, for the moment at least, as if it isn't needed. [Richard Hargreaves](#)

From the Archives



SNCB diesel heritage in the form of a vintage Class 51, No. 5152 seen here passing Bercham with a freight heading for Antwerp Docks on June 19th 2001. [Paul Godding](#)

In June 2001, the SNCB Class 59s were extinct on the mainline, but at least 4 were to be found at Voroux, Nos. 5916, 5917, 5941 and 5946. [Paul Godding](#)





SNCF Sybic BB26075 is seen working a passenger service to Metz on August 19th 2008. [Brian Battersby](#)