# Railtalk

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Magazine

Xtra



Welcome to the Railtalk Magazine Xtra, which compliments the main Railtalk Magazine and means that we can put even more pages together every month. As always in Xtra, we focus on life outside the UK, and once again we have some excellent shots from some of Europes finest photographers. Our "From the UK" section this month went to sample the recently opened Duffield section of the Ecclesbourne Valley Railway and whilst we were there we went to visit the Steeple Grange Light Railway.

These two locations are both well worth a visit and as there is quite a lot to see, do allow plenty of time.

This month Andy, myself and a few other Railtalk regulars went to the Czech Republic to sample the dying days of the Class 749s, and although we did get to see some, there certainly has been a large reduction in the daily workings for these locos, we can only hope that they will see increased use during the Summer months, but beyond that the future looks very bleak.

Back in the UK, I was dismayed this month (again!) as to the behaviour of both train staff and passengers on the UK rail network. Poor customer service and standards must be addressed, otherwise the railways will loose out to other modes of transport, but also the behaviour of customers who are rude and unruly must be addressed. What are the BTP employed for?

Until next month, please keep those photos coming.

#### David

Once again many thanks to the many people who have contributed this month, 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: Colin Gildersleve, Steve Madden, Brian Battersby, Paul Godding, Richard Hargreaves, Pavel Kopec, Tomáš Kubovec, Richard Hargreaves, Martin Grill, Martin Válek, Mark Pichowicz, Richard Weber Filip Štajner, Pavel Šturm, Bea Želtvayová, Petr Holub, Pavel Martoch, Honza Štofaňak, BVT, Ivo Rušák, and Libor Hyžák

## Welcome

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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.



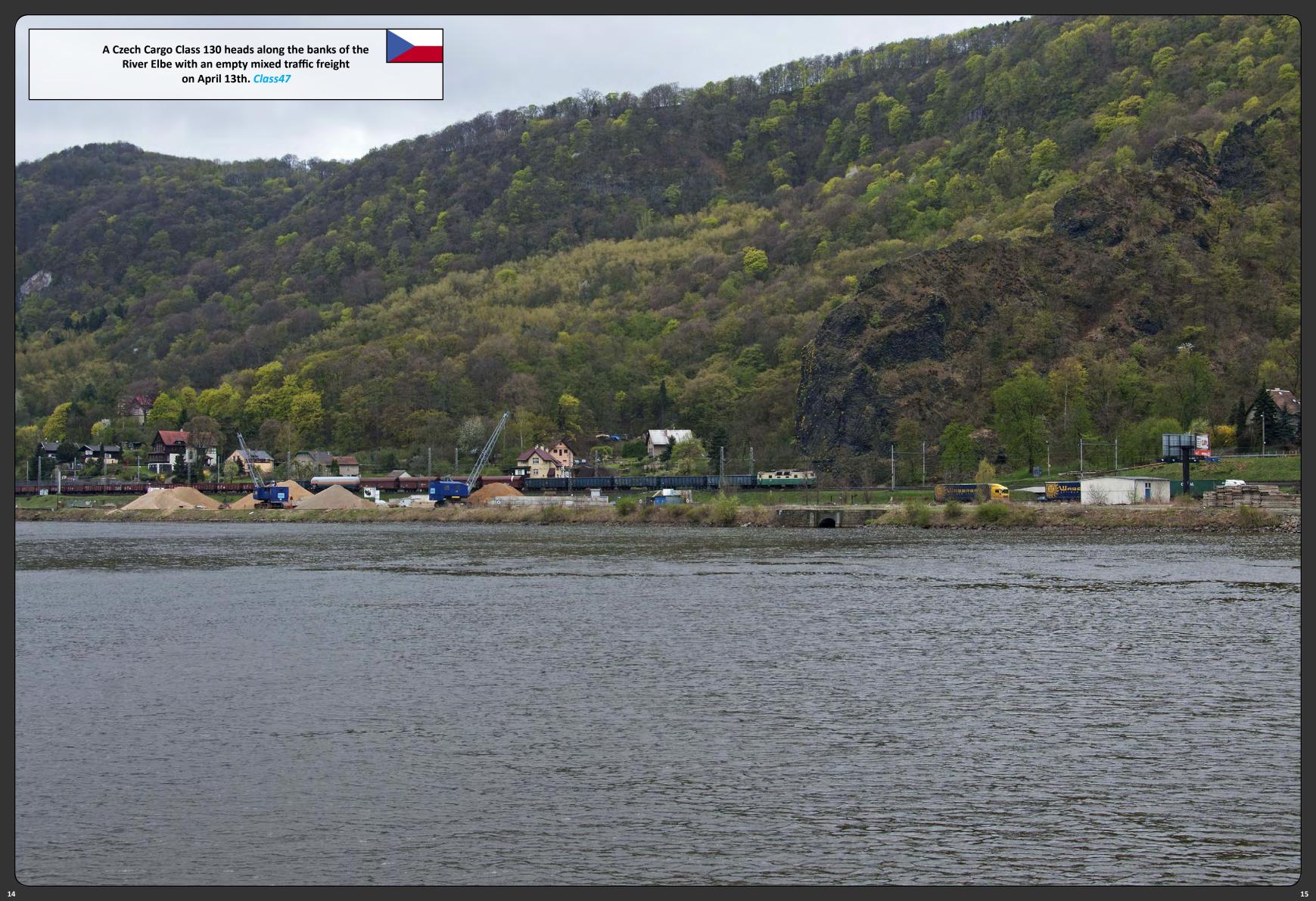








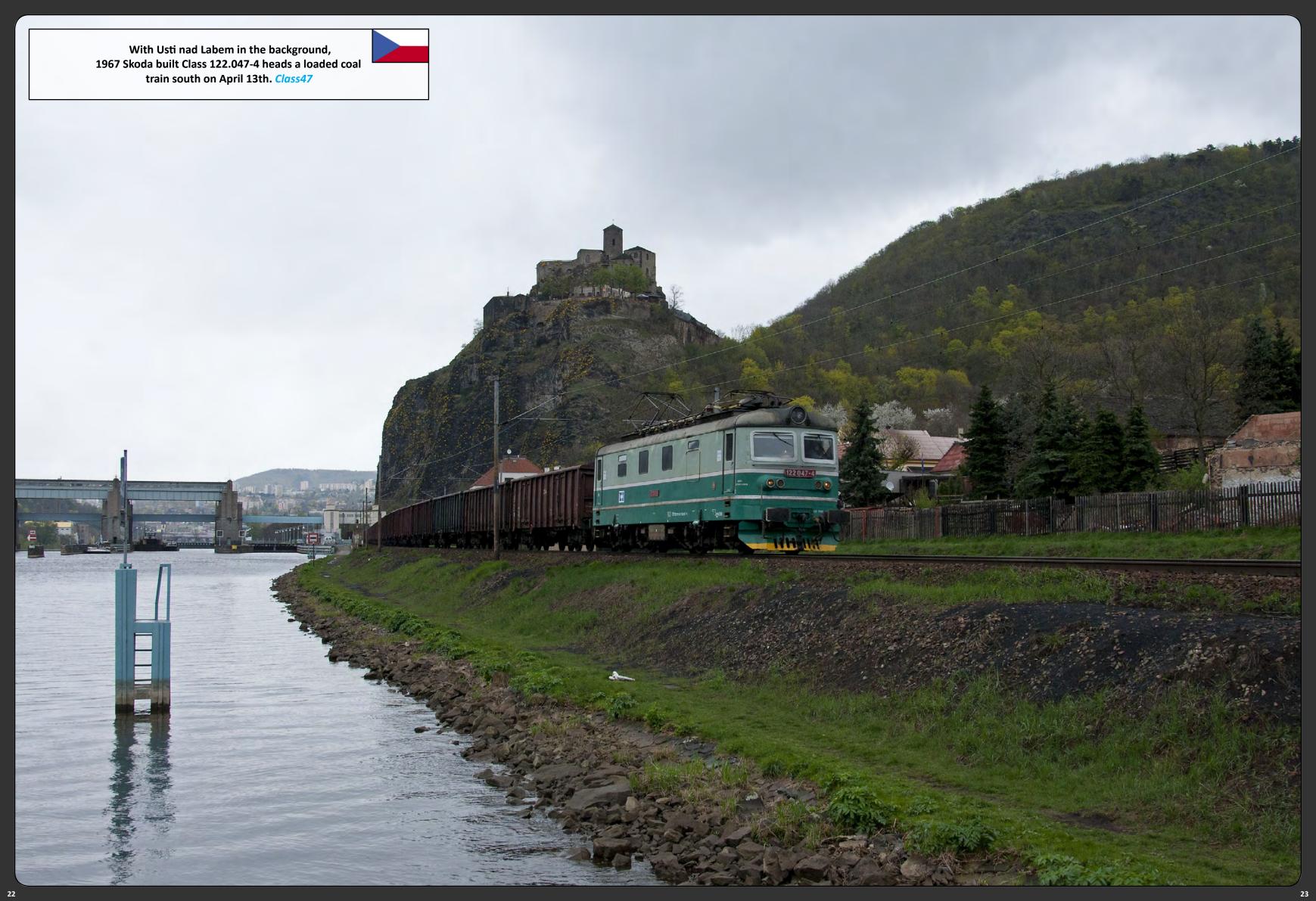














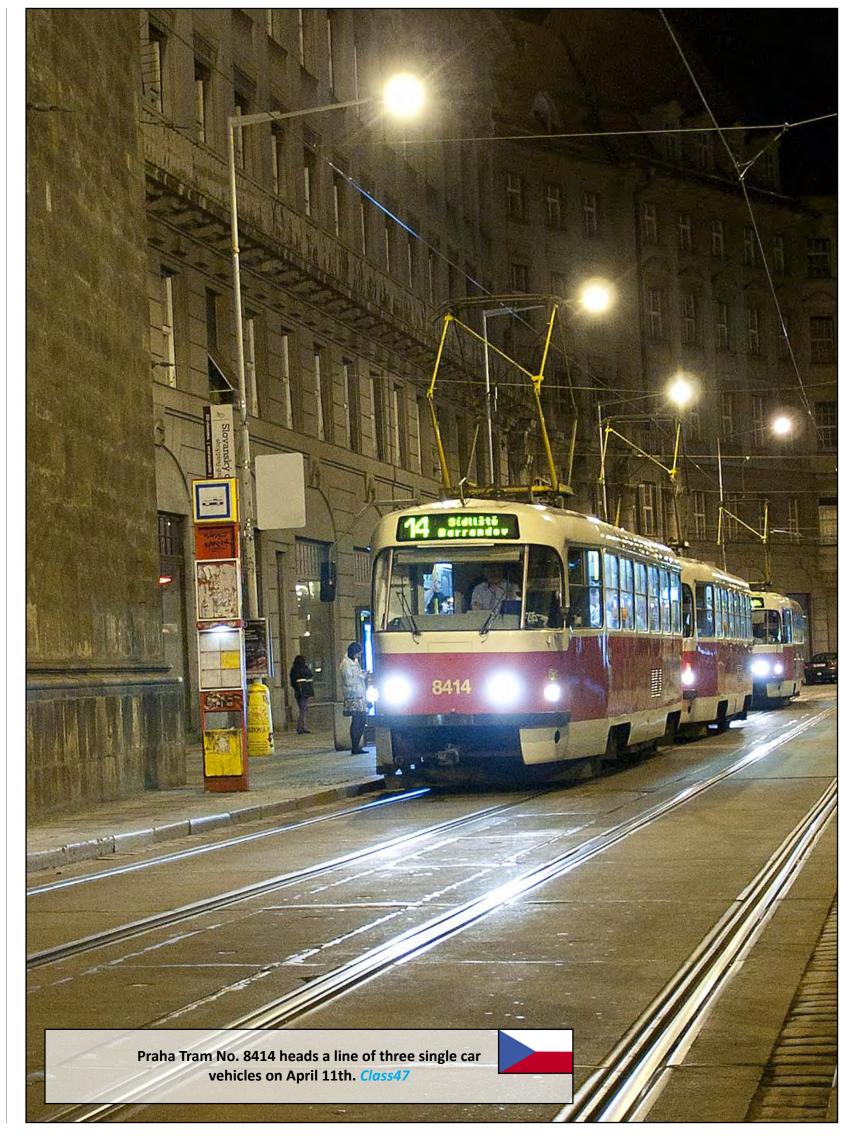




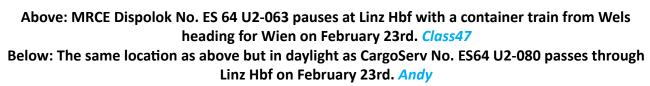
















Above: Has anyone seen my wheels? A grounded Class 703 is seen at the CZ Loko depot in Jilhava on April 11th. Class47
Below: Heading up a track train in the yard at Jihlava on April 11th is Class 742.043-3. Class47





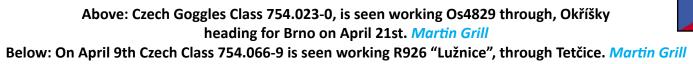
















Above: Czech Class 242.240-0, a 25 kV 50 Hz AC electric loco, is seen at Brno Hln having arrived with a stopping service from Tisnov on April 12th. *Paul Godding*Below: OBB Class 1216.216 speeds through Brno-Zidenice on a drab grey day. *Class47* 







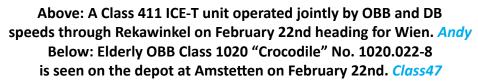




Above: Czech Class 754.074-3 works the R667 "Petr Vok" Plzen - Brno service through
Náměšť nad Oslavou on April 3rd. Martin Grill
Below: On March 29th, Class 754.063-6, passes Střelice with Os 4805 from Jihlava to Brno. Martin Grill











Above: A line of Class 751 "Grumpies" are seen on Ostrava depot on April 12th.

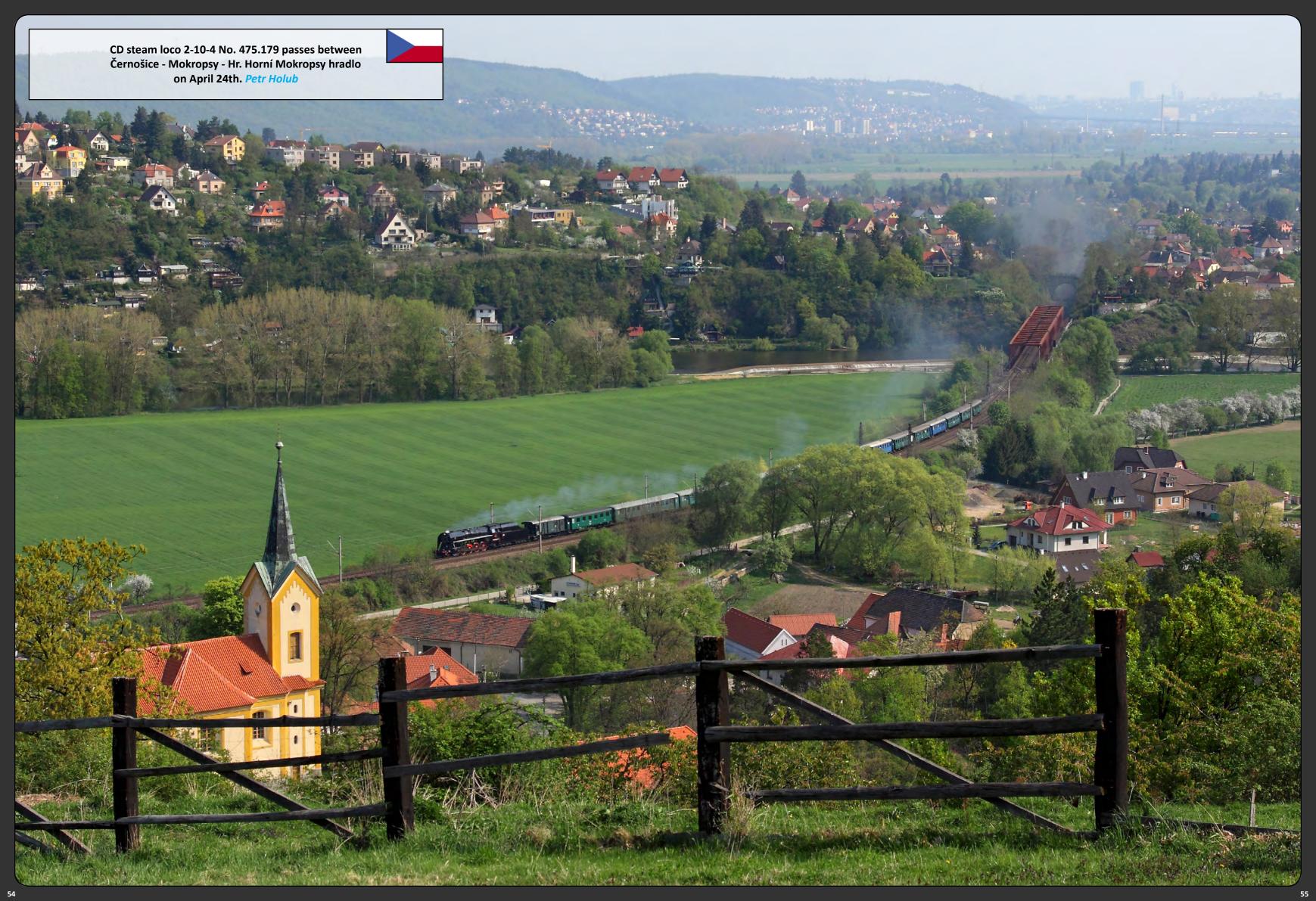
A one way trip to the scrap yard for these veterans. Class47

Below: Tisnov on April 11th sees Class 242.238-4 working the local Brno service. Paul Godding









ARG loco S 3306 departs Kwinana Yard with a coal train for South West Australia on December 13th. Steve Madden



















## **News and Features**

# History meets the future at Salzburg Hauptbahnhof

At Salzburg Hauptbahnhof modern and historic parts blend close together. The reconstruction of the protected steel hall is clear and the work on the art nouveau entrance hall and platform one is on schedule.

The 25,000 customers a day at Salzburg's main train station can see the ongoing progress of the work for a modern, customer-friendly traffic stop in the state capital. "Like a large mosaic we are returning and preserving historical items back to the central station and together with the new elements for a modern customer area of the future," said project leader Thomas Wörndl ÖBB. On schedule, the restoration works are in the entrance hall where the shine in youth-style decorative elements and tile images have a new look this year.

## 2,500 individual parts connect seven supporting arches in the right place

Ensuring appropriate use of experts of the ÖBB and the companies involved have set up the historic, listed steel hall dating from the year 1909 in recent months. Up to 30 workers were working around the 2,500 restored or reconstructed individual parts to assemble, piece by piece. After nearly two years of absence, the hall with its seven supporting arches is ready. The 100 year old paintwork has been blasted and removed and the metal work again show their finest modeling after decades of decay.

This has paid off, because the historic steel parts are upgraded, professionally restored and introduce back into the original color, for re-assembly thousands of rivet head bolts or pins were needed. The total size of the listed building is 79 meters long and nearly 25 meters wide. By the end of August the total replacement will be complete with the majority of sections welded together as a single membrane.

#### Restoration work is on track

Delight is shown by Ronald Gobiet, state curator for Salzburg, together with the ÖBB project management on the progress of restoration work at the Salzburg train station. "Just in time like the track and to provide precise as clockwork run the work to the valuable and historic components for future generations," said Gobiet. At the start of the building project, the plasterboard panels were taken down in the hall, exposing the underlying building dating from 1908. The art nouveau tile images were renovated or reconstructed completely. The stucco has been repaired and painted professionally and also the windows have been replaced. The building has been restored to its 1908 splendour. The schedule of the first part of the re-opening of the hall in November 2011 will be met. For the cultural city of Salzburg and the approximately 25,000 daily rail passengers at the main station many of the Art Nouveau items are easily visible.

#### A modern platform with the flair from 1860

The roof of the platform one from 1860 was restored together with the steel structure of the hall. The major upgrade of the components on the state of the art, which include the upgrading of historic steel structures or the fire-resistant coating of cast iron columns were successfully implemented. In early May 2011 the skilled workers will restore the 40 columns, 180 meter long platform canopy which is erected at the entrance of the building. The platform structures, among which will be the new central passage, are already installed. Currently, the foundations are being built for the platform canopies.

#### The new Salzburg Central Station

The new transit station will be as a regional and international transport hub with the requirements of a modern railway age. High level of customer comfort, short distances, barrier-free transfer, optimal passenger information, a central arcade with shops and a unique architectural concept with the integration of components in state-listed historical railway infrastructure gives Salzburg a distinctive new entrance.

## **Stadler trains for Apulia**



Stadler Rail has received an order from Ferrovie Appulo Lucane (FAL) for the supply of nine multiple-unit trains. The modern, narrow-gauge vehicles will enter service on FAL's network south-west of Bari, in Apulia, Italy, from 2013. Order volume amounts to around EUR 45 million (including replacement-parts package). 4 three-carriage and 5 two-carriage diesel-electric multiple-unit trains make up the order, which takes the number of trains sold by Stadler to Italy across the 100 mark.

#### Spacious and comfortable

The nine trains for FAL are based on the Stadler vehicles operated by Southern Italian railway company Ferrovie della Calabria, as delivered in the past two years. However, unlike Calabria's, these vehicles will feature an adhesion transmission system. Gauge is 950 millimetres. The multiple-unit trains offer a high level of comfort, 50% low-floor level, special places for wheelchair users and a facility for storing bicycles. The two-carriage versions offer seating for 92 plus eight fold-down seats. The three-carriage trains seat 157, 10 of which fold down. Top speed of these modern trains is 100 km/h. A simple maintenance concept and modern diesel engines (compliant with Euro 3A emission criteria) round off the key features of FAL's new fleet. All nine train combinations will be delivered during 2013.

The order takes Stadler across the 100 mark for trains sold to Italy (not counting SBB's own TILO fleet). A total of nine Italian customers have ordered 106 trains from Stadler in recent years. Half of those have been FLIRTs. The trains ply in various regions all over Italy, from Calabria and Apulia in the south to Lombardy and the province of Bolzano-Bozen in the North. Peter Spuhler, owner and CEO of Stadler Rail Group, is delighted with this latest success: "I am utterly proud that over 100 of our trains will soon be running in Italy. It goes to show that our innovative and reliable multiple-unit trains are very popular with customers."

#### Stadler Rail Group

Stadler Rail Group, system supplier of customer-specific solutions for rail vehicle construction, has locations in Switzerland (Altenrhein, Bussnang, Winterthur and Biel), in Germany (Berlin-Pankow, Berlin-Hohenschönhausen, Berlin-Reinickendorf and Velten), in Poland, in Hungary, in the Czech Republic, in Italy and in Algeria.

# **Europorte orders twelve EURO 4000 locomotives from Vossloh España**



As a result of its international trade strategy Vossloh España has closed a deal with the operator Europorte which will result in an order for twelve EURO 4000 locomotives that will be used to transport goods by freight. The order has been placed with Eurosco, a subsidiary of Europorte responsible for the management of rolling stock.

Europorte, which is the rail freight subsidiary of Groupe Eurotunnel, will receive delivery in May of the first two EURO 4000, designed and assembled in the Vossloh España plant in Albuixech (Valencia). The ten remaining locomotives will be delivered during the second half of 2012. Thanks to this investment Europorte will be able to rationalise its fleet, improve its productivity and reliability, and reduce its maintenance costs.

The EURO 4000 by Vossloh España is the most powerful diesel-electric locomotive manufactured in Europe. It is a highly innovative device that stands out due to its versatility, features, performance, technology and environmental compliance. It is specially designed to be able to run not only in France, but also in Belgium and Germany.

Equipped with an EMD (Electro-Motive Diesel) engine, considered to be the best engine for locomotives in the world, the EURO 4000 can pull longer and heavier freight trains at a faster speed than its competitors, which substantially increases the operator's competitiveness and efficiency.

Europorte offers a wide range of integrated rail freight services (traction for rail freight trains in France, Belgium, Germany, and the United Kingdom); local rail services, management of infrastructure and rail hubs. Europorte, with its 900 employees, ensures 95% train punctuality and reliability; Europorte builds a true European offer.

## First track is complete in Lainzer Tunnel

The underground work on the railway technical equipment of the two-track tunnel is progressing smoothly. The southern track is completed and the first time made the connection between Western, Southern and Donauländebahn.

#### **Custom work below ground**

15.5 km tracks have been already laid - or about two thirds of the 25.3 track miles. The 5.2 meters long track base plates made of concrete are transported into the tunnel and lined up with millimeter accuracy, averaging 60 m track per day. 220 workers are currently employed on the project.

#### Noise reduction through mass-spring system

The track construction is the tunnel Lainzer largely designed as a "Slab" with mass-spring system. This has incurred over the gravel track the advantage of lower maintenance costs and service life is longer. The mass-spring system consists of a mass block and reduce elastic elements between the superstructure construction and the tunnel structure, the vibrations. Vibrations are on their way from the rail car in the underground "swallowed", so this for the residents of overlying buildings are no longer perceptible.

## **Delivery of material on rails**

With the completion of the first track is also the transport logistics changes in the tunnel. Materials are delivered mainly by rail, by Meidling / Inzersdorf or from the node Hadersdorf (Western Railway) from. Ca. 9.8 km track must be laid yet. The end of 2011 will be the surface works in Lainzer tunnel completed.



New timetable 2012/2013 is the overall operation of the tunnel, to coincide with the opening of the new route Vienna - St. Pölten. From that time, the currently under way on the outstanding freight rail connection through the tunnel - which also means a reduction noise for nearby residents. Also, the night train Munich - Budapest with stops in Meidling will then go through the tunnel. Starting full operation of the railway station end of 2014 the basic beat of the long distance trains passing through the Lainzer tunnel to the junction railway station - from where are our passengers, all links to the Northern Railway, Southern Railway, Eastern Railway, open the airport and the entire regional transportation with a perfect inner-city links.

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# CityElefant head to Benesov, beginning with the replacement of the pantographs on the last line in the backbone around Prague

From 2nd May, Czech CityElefant units on the line S9 Praha - Benešov u Prahy are now also running on weekdays. The first phase replaced more than a third of the old trains on the long arm of Praha - Benešov u Prahy and by the end of the year, plans to add two more sets. Number of new units on the line by the end of the year, will be more than half. Replacing the older sets will continue next year with links to the short arm of Praha - Strančice. "With the rapid ongoing modernization of the suburban trains, we can deploy the first of a new unit CityElefant of the Praha - Benešov u Prahy for nearly a year sooner than we originally anticipated," said Antonin Blazek, Deputy Director General of Czech Railways for passenger transport. Originally it is envisaged the deployment of new trains on this route in the course of 2012 while the supply of four additional sets have been specially ordered and manufactured for this track.

Antonin Blazek also listed the major changes in the quality of travel on the line S9 Praha - Benešov u Prahy in connection with the first deployment of the new trains on weekdays, "CityElefant brings advantages over the old kit as it is much more comfortable. The units are air conditioned, have comfortable seats with textile-covered headrests, the latest sets have a closed toilet system, which can be used in stations. The stops inform audiovisual information system. Modern sets represent a fundamental change for the travel of wheelchair users. Trains are equipped with accessible toilets and platforms, facilitating the onset."

In the first class section, which offers more comfortable seats with folding tables. Several sites are also larger tables that can be used for work during the trip. These sites are also available with 230v sockets for powering small electronics such as laptops. Passengers can use it as a cost to the beneficiary track tickets (the difference between 1st and 2nd class represents only 20% in price compared to normal tickets where the price differential of 50%) and additional payment or time-1 class. It can be used also for the listed tickets PID / Opencard (see conditions tariff CD and PID).

Passengers with tickets the second class is recommended prior use of vehicle control (without power collectors on the roof) and medium loaded wagon, offering instead of 2 classes on both floors and have a combined capacity of 250 seats, ie 80% capacity throughout the set.

Replacing older pantographs on the line S9 Praha - Benešov u Prahy will continue in 2012. Today already in production of 4 other sets specially designed for this line to strengthen connections from Prague to Strančice. Number of old pantographs in Prague and Central Bohemia and would significantly decrease. Passengers with them at the end of next year, especially as the encounter with reinforcement kits in the rush hours of working days for additional routes as the line S 41 solutions in Prague - Prague Liben or as a back-up kits.

Throughout Prague suburban transport has in the past 5 years on a major exchange trains. While the timetable 2006/2007 pantographs old participated in the operation of 64% new only from 36% in May this year, this ratio is substantially reversed. Old pantographs on the number of required sets share only 21%, while CityElefant constitute 79% of all trains on the weekends.

## Its Official - No more Class 749s or Class 750/0s from December



Ceske Drahy's deployment of the 749 legendary diesel locomotives, which railroad fans affectionately known as "Cloudy" or "Bardotka" ends in December. "The last 27 serviceable locomotives will gradually move to the reserve pool and as from the first major malfunction will probably go for scrap" says ČTK's spokesman Radek Joklík. Also ending in December, will be a Class called 750/0, the forty-year service as a first generation "Goggles", According to available data, Cesky Drahy still has serviceable 27 "Cloudy" and 17 "Goggles." "From the 2012 timetable, which is still in preparation and may have a variety of changes, I really have no plans use in traffic any Class 749s or 750/0s," said ČTK Joklík. Most of the "Goggles" have passed for a total modernization of 924 million crowns which will result in 19 new locomotives. But the "Bardotky" will be from this winter to serve only as a backup to the fleet and it will likely sell off examples. A number of clubs and museums are interested in the locomotives, and are now negotiating with the railways for their sale. According to ČTK, the price of hundreds of thousands of crowns can be achieved for an operable locomotive. Several museum plan to leave the machine with CD for main line running. On the last line, where the threatened locomotives are still running, just now on the weekends, dozens of fans flock from all over Europe.

## **New Locos for LKAB**



LKAB's board decided on Wednesday April 27 to invest in four new dual-IORE locomotives from Bombardier. The order is an important part of a large investment in LKABs logistics of a billion Swedish krona SEK.

"The investment is strategic to LKAB's development plan and increases train capacity for ore transports to 40 million tons per year. Increased capacity on the Malmbanan line is essential to implement the plan for three new mines and an increase in delivery capacity of 35 % by 2015" says LKAB's CEO Lars-Eric Aaro.

LKAB currently has 13 IORE-locomotives and is now increasing the number to 17 locomotives. IORE-locomotives are designed for extremely heavy rail transport. LKAB's ore trains consist of 68 ore cars with a carrying capacity of 100 tons each. Each train carries 6,800 tons of iron ore and is 750 meters long. Ore shipments are transported from LKAB's mine sites in Malmberget, Svappavaara and Kiruna to LKAB's ore ports in Narvik and Luleå and to the SSAB site in Luleå.

## **Background**

The requirements for the locomotives are very high. "The ore transports run around the clock in an extreme Arctic climate with large temperature fluctuations and weather variations. The Bombardier locomotives have proven to be reliable in this harsh climate. When the trains in southern Sweden stood still, our ore trains were always on schedule," said Jan Olovsson, project manager. The four IORE locomotives will be delivered during the period May 2013 to March 2014.

#### **Increased capacity**

"This investment provides us with a transport capacity of 20 daily trains instead of the current 15 trains on Malmbanan" says Göran Heikkilä, Director of MTAB, Malmtrafik in Kiruna AB, which handles the rail traffic.

Klas Wåhlberg, President of Bombardier Transportation Sweden AB, comments: "Our new order from LKAB is a great success. Our customer appreciates the IORE-locomotives' high performance and reliability. It is also proof of our well-established co-operation."

## **Energy efficient**

The IORE-locomotives have a high tractive effort of 1200 kN, the world's most powerful locomotives. The power at the wheels is 10 800 kW, or about 15 000 hp and the axle load is 30 tonnes on each of the 12 driving axles. The IORE-locomotives are very energy efficient and have a built-in energy regeneration. Using so-called asynchronous motors, kinetic energy is converted to electric power when the locomotive brakes. The Bombardier IORE locomotives regenerate on average 25 percent of the energy consumed during transportation. This benefits the environment and LKAB's investment in Green Pellets, the world's smartest iron ore product.

"We are very proud to be part of LKAB's ongoing success," stated Åke Wennberg, President of Bombardier Transportation's Locomotives & Equipment Division. "The power and performance of these Bombardier locomotives are unequaled and will further strengthen LKAB in their strategic business development."

Final assembly of the new locomotives will take place in Kassel, Germany. The carbodies, bogies and propulsion will be produced at Bombardier's sites in Wroclaw, Poland, and Siegen and Mannheim, Germany, respectively.



## After Easter "sparks are flying" on the Tyrolean tracks

Every year the 70-meter Schienenschleifzug "Speno" comes to the Tyrol and gives the track with its 2,500 hp, a new ideal profile. After Easter, it is traveling on the 422 km long railway network Tyrolean especially at night. With the use of the grinding train in nineteen visits in the next two months to 29 June 2011, about 56 kilometer of track is to be ground. This special machine removes the bumps on the rail surface, therefore trains run even more quietly over the tracks, which for residents raises a noise reduction and the life of the rail infrastructure is extended significantly.

#### Less noise - quiet travel - an economic advantage

The use of rail grinding train is meticulously planned. Because of the dense railway traffic on many routes in the Tyrol, shifts are classified into the night and on weekends. The 24 grinding motors, which are on board the train, get each layer between two and three kilometers a new rail grinding. Not randomly, for the selected road sections are already fixed in advance by using a special measurement campaign. This high-tech device shows the experts exactly where the Grinding train is to be used.

#### Life of the rails will be extended

Deformations of the rail head on the rail surface are formed by the trains traveling on small waves or slip. These fine irregularities are a source of noise, which also weigh vehicles and railway track by vibration. With the use of the grinding train - they are ground only 0.3 mm - the tracks get back their ideal profile. The contact of the wheels is to track and optimize the grinding brings advantages for all concerned. For residents along the path of the noise level is noticeably reduced by smoothing the rails. For rail passengers in the cars to travel is still a quiet and pleasant. For ÖBB rail grinding also brings economic benefits, for the life of the rails will be extended.



# The first ten modernized and revitalized fast train cars are already in operation

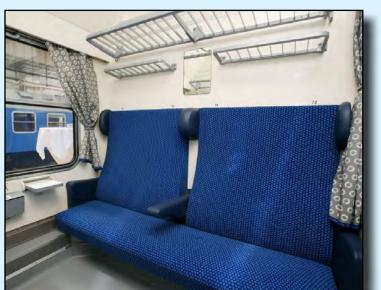
Upgraded new cars are equipped with electrical sockets 230 V 50 Hz power for small electronics, air conditioning and closed system toilets which can now also be used in the stations. Revitalized cars offer a particularly pleasant interior and Leather seats are reupholstered with textile coatings, wall paneling is restored and refurbished toilets.

Deputy Director General of Railways for passenger Antonin Blazek: "The operation has already been deployed with twenty second-class cars refurbished for Eurocity and Intercity trains. Upgraded cars constantly pull out of the depot in Prague and Bohumín on such as trains EuroCity Slovan Jaroslav Hasek or Ostravan.



Revitalized express train cars are running primarily on routes from Prague, Pribram and Ceske Budejovice, Cheb over to Usti nad Labem and Prague. There are included in such fast trains as Salubia Excelsior. The public were officially introduced these cars at the exhibition Quantcast Rail Days in Ostrava in early June last year. "

A new feature is an electronic audio-visual information system to inform passengers the train route and nearby stations. The whole car has new floors and wall surfaces. Undergoing a comprehensive reconstruction are the windows and entrance doors, which improves the thermal comfort in vehicles especially in winter. Great attention is paid to the reconstruction of toilets, including the exchange of large parts of their equipment. Czech Railways will this year have a total of 58 cars for the first and 2 classes for Eurocity and Intercity trains, and 110 vehicles of various types destined for other fast train connections. Czech Railways is currently preparing modernization for more than 250 different cars used primarily in long-distance transport.





## Sunshine and railcar naming in Freilassing

On Sunday, 3rd April the third train of the Berchtesgaden Railway was named "Stadt Freilassing." The blessing ceremony was held in gorgeous spring weather at the Lokwelt. Naming the ET134 train was the first mayor of Freilassing, Josef Flatscher. Many local guests took the opportunity to attend. The first Railcar naming took place in June 2010 in Bad Reichenhall, the second in November 2010 in Berchtesgaden. Two other railcars in the fleet are still without a name.



## The TGV reaches 30 years old



From April 15 until July 14, 2011, a large event is being deployed in 18 major railway stations in France and Europe (Lyon Perrache, Strasbourg, Marseille, Geneva, Lille, Bordeaux, Brussels, Paris ...).

This tour will allow visitors to rediscover, through a unique set design, 30 years of innovations station for passengers. Cars will unveil themes of a fun, interactive, experiential and original experience and the scenes of yesterday's TGV, today and tomorrow. For the occasion, the TGV of 30 years will step in Lille Flandres station (Channel 9) and allow inhabitants of Nord-Pas de Calais to discover and rediscover the importance of this package so special.

A trip by train for you and 30 people of your choice. To celebrate this anniversary, SNCF is also launching a competition game on the Internet: www.sncf.com/30anstqv.

Participants will be able to tell their best story of the TGV. A panel of judges designate the most original story. The overall winner will have the opportunity to organize her own journey, to measure, with 30 people of his choice for the purpose he wishes during a dream weekend.



## Berchtesgaden celebrates Girls Day



This year for the first time, the Berchtesgaden railway was an operating partner in Girl's Day.

#### A day as a train conductor and Lokfüherin

Two students, Elena Ortmann and Dana, spent a day with the company on one of its trains and both agreed "We really liked it. the job of a Conductor looks much easier and simpler than it really is."

On Thursday 14 April "Girls Day" meant that any girl of 10 to 16 years could see technical and manual occupations in the Berchtesgaden region first hand. For the first time Berchtesgaden trains were also involved in this action and insight into the working life of train drivers and train crew was possible.

The students were amazed how diverse the professions, and what to look for. Gunter Mack Inger, Managing Director of Berchtesgaden railway says: "The train driver is certainly still one of the classic male professions, which is why we appreciate the interest of the girls more."

The BLB employs a total staff of 32: 15 drivers and 17 conductors. Including eight women (seven conductors and a drive train attendant).

Photo: Doris Kalteis with the girls in the role of a train conductor.



## Stadler's FLIRT rolls in to Belarus

Last week the roll-in of the first two of ten FLIRTs (Fast Light Innovative Regional Trains) in Minsk took place, for Belarus State Railways BŽD. Delivery was possible in less than one year from signature of the contract, due to simultaneous production of a nearidentical FLIRT for Helsinki at Stadler's Bussnang site. In the margin of the celebration Peter Spuhler, owner and CEO of Stadler Rail Group, and Anatoly Alexandrovich Sivak, Chief Executive of BŽD, signed a declaration of intent for the procurement of further vehicles and cooperation in the service sector.

#### Stadler's first order from a CIS state

Peter Spuhler was jubilant in Minsk at the roll-in ceremony: "I am so proud that our FLIRT will now serve Belarus too. This is the first time that Stadler has supplied vehicles to a country of the former Soviet Union. We discern great potential in the Commonwealth of Independent States, as we have our Helsinki-type FLIRT to offer. This modern broad-gauge train 1 is suitable fortemperatures as low as –40 degrees Celsius." Stadler is currently working on a broad-gauge order from Estonia for 38 FLIRTs. 656 FLIRTs have already been sold, in 13 different countries. Technically, the trains for BŽD are largely based on the FLIRT for Helsinki. They are being built in two versions: six FLIRTs will serve the conventional commuter railway system of the capital of Belarus, Minsk. These high-capacity trains seat 232. The other four FLIRTs are destined for inter-regional transport between major cities. Given the longer journey times, these offer more comfortable and elaborate interior fittings. Hence seating capacity is only 188.



## Siemens to build first regional trains for Russian City Sochi in Krefeld

Vladimir Yakunin, president of Russian Railways (RZD), and Peter Löscher, Siemens CEO, has officially launched the production of regional trains for the Russian city Sochi in a ceremony that was attended by Dr. Peter Ramsauer, German Federal Minister of Transport. The first 38 of the total 54 Desiro RUS type regional trains ordered in 2009 are to be built at the Siemens plant in Krefeld, Germany. The increased localization of regional train production in Russia is due to start in 2012 with the manufacture of the remaining 16 Desiro RUS trains under that order.

Russia is one of the world's biggest railway equipment markets. In the next 30 years the country plans to invest a total of over €300 billion in new rolling stock and infrastructure. The urban transit networks are supposed to benefit from this investment as well. Russia's railway service operates more miles of track than any other country in Europe. The contract concluded in 2009 for the supply of 54 regional trains has a volume of approximately €580 million. The Desiro type trains designed by Siemens for regional rail service can run at a top speed of 160 km/h. In Russia, these trains go by the name of Lastochka – the swallow. The first units are scheduled to enter revenue service in Sochi in autumn 2013.

## **PESA modernize locomotives for PKP Cargo**

On April 12, there was officially signed an agreement with PKP Cargo, a PESA Bydgoszcz SA for the modernization of 26 locomotives and 4 ST44 SM42 twin-engine locomotives.

The first part of the contract is a continuation of the already completed modernization of 25 locomotives of the ST44 PKP Cargo for the years 2007-2009. These vehicles operate freight lines niezelektryfikowanych. The scope includes upgrading of locomotives ST44 primarily replacement engine for the engine's next-generation Kolomna 12CzN26/26 type, which complies with the exhaust emission, vibration and noise generated, to ensure operating efficiency thanks to low fuel consumption and engine oil. During the upgrading work will be subjected to the cab driver - to improve the aesthetics and comfort of the driver.



The modernization of the remaining four engines are the result of a prototype locomotive modernization SM42 with two units - used single or double depending on the load configurations. In the plant will be built with modern facilities, including two units of the company's internal combustion engine type CAT15 CATERPILLAR. Body will be completely reconstructed locomotives, new elements will be built in a modular system that allows for quick replacement, which significantly contribute to an improvement of the availability of the locomotives. The developed new driving cab which meets all standards for vehicles upgraded, ensuring proper ergonomics, comfort, and safety at work.

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## **Alstom to supply 8 additional Citadis Dualis** trainsets to the Pays de la Loire region in France

Following two initial orders for 15 Citadis Dualis trainsets in 2007 and 2009, the Pays de la Loire region (France) has recently demonstrated its continued confidence in Alstom Transport with an option for 8 additional trainsets worth €27 million. These 8 trainsets will operate on the Nantes - Chateaubriant line. They will be delivered in stages between 2013 and 2014.

In May 2007, SNCF placed a framework order worth €650 million with Alstom for the design and manufacture of 200 Citadis Dualis tram-train trainsets, including a firm order for 31 trainsets: 7 trainsets for the Pays de la Loire region and 24 trainsets for the Rhône-Alpes region. In March 2009, SNCF ordered a conditional first tranche of 8 additional trainsets for the Pays de la Loire region. Three trainsets have already been delivered to Nantes for operation on the Nantes -Clisson line, which will be inaugurated in June 2011. In total, 47 Citadis Dualis trainsets have been ordered, representing the largest fleet of new generation tram trains.

Designed to link the city centre with the surrounding region, Citadis Dualis is capable of operating inside towns and cities - just like a tramway - and can also operate on regional rail networks thanks to a series of adaptations that provide for power, safety and comfort. The new configuration offers a highly versatile form of transport.

Citadis Dualis is part of a new generation of rail equipment, offering a fold-out coupling that absorbs the reinforced structure in the event of a crash to meet the very latest safety standards; new, compact bogies designed for operation at 100 kph that offer enhanced comfort and movement; permanent-magnet motors that reduce energy consumption; and environmentally-friendly materials to ensure that 90% of the vehicle is recyclable. Fully modular, it also offers a wide range of options in interior fittings and exterior design. In addition, the Citadis Dualis won the Most Beautiful Design of the Year award at the 22nd annual Rencontres Nationales du Transport Public event, which took place in Nice in November 2009.

Entirely designed and assembled at Alstom Transport's facilities in France, Citadis Dualis is a driver of economic growth in regions across France: train engineering and assembly in Valenciennes (Nord Pas de Calais); bogies in Creusot (Bourgogne); motors in Ornans (Franche-Comté); traction drives in Tarbes (Midi-Pyrénées); and on-board computing systems in Villeurbanne (Rhône-Alpes).



## **Bombardier and Trenitalia Sign Contract** for an Additional 50 Locomotives

E464 locomotives will strengthen regional passenger fleet in Italy

Trenitalia (Italian Railways) has awarded Bombardier Transportation a new order to supply an additional 50 of its economical and proven E464 electric locomotives, exercising an option to the contract signed in 2009 for the supply of 100 units. Valued at approximately 128 million euro (\$186 million US), the contract is a further landmark for Bombardier locomotives in Italy. With this contract, Trenitalia has placed orders for a total of 688 E464 locomotives, 570 of which are already in successful commercial service. Delivery of the locomotives is scheduled for between 2012 and 2013.



With these additional 50 E464 locomotives, Trenitalia will be operating one of the largest single vehicle-type fleets in Europe, making it one of the first operators to benefit from considerably reduced operational and maintenance costs," said Åke Wennberg, President, Locomotives and Equipment, Bombardier Transportation. "In Italy, the E464 locomotives are as successful as the BOMBARDIER TRAXX locomotives are in many other European countries."

We are really proud of this new order. We thank Trenitalia for its continued confidence in the manufacturing capabilities we have developed in Vado Ligure," commented Roberto Tazzioli, Chief Country Representative Italy, Bombardier Transportation. "This order reinforces Bombardier's already strong manufacturing presence in Italy. It encourages us to continue offering superior solutions to Trenitalia, which we believe is positioned to place both regional and high-speed rail transportation in Italy amongst the world's greatest," added Mr. Tazzioli.

With a maximum power of 3.5 MW and a top-speed of 160 km/h, the E464 locomotive is particularly well known for its high level of reliability, availability and serviceability over its entire life cycle.

# Bombardier Transportation Signs Frame Contract with DB Regio AG for 200 Innovative TRAXX Diesel Multi-Engine Locomotives

The latest addition to the BOMBARDIER TRAXX platform raises the bar for environmental-friendliness and economy of operation in locomotive-driven transportation

Bombardier Transportation and DB Regio AG have signed a nine-year frame contract – valued at approximately 600 million euro (\$867 million US) – for 200 BOMBARDIER TRAXX diesel locomotives with game-changing multi-engine propulsion. At the same time, DB Regio has placed a formal order for the first 20 locomotives for passenger transportation. First delivery is planned for mid 2013. The order amounts to approximately 62 million euro (\$90 million US). This newest member of the TRAXX locomotive platform, with its highly innovative diesel propulsion is designed for locomotive-hauled passenger and freight transportation throughout Europe. Its use of four rugged, heavy-duty industrial diesel engines in place of a single large diesel motor provides operators with key advantages. The locomotive already fulfills the new stringent EU Stage IIIB emissions standard thanks to proven and highly efficient diesel engines. Compared to single-engine diesel locomotives, it markedly reduces fuel consumption, exhaust emissions and life-cycle costs.

Using standard diesel engines produced in very large series, this new TRAXX DE locomotive builds a bridge to a multitude of other industrial applications with the same engine. This assures spare parts availability and diesel engine support thanks to the large quantity of engines installed and the established service capabilities in the market. The diesel engines are configured in a modular assemblies allowing modification and upgrades over the lifetime of the locomotive. They can be upgraded to meet potential new emission standards and requirements in the future. The exchangable diesel modules contribute markedly to lower costs for maintenance, future upgrades and overhaul. This is due to smaller and lighter exchangeable components, the easy accessability of spares, the ease of repair and the resulting shorter locomotive downtimes. In addition, mission reliability is substantially increased thanks to the redundant configuration with four diesel engines. With the multi-engine concept the locomotive maintains full tractive effort also if a reduced number of diesel engines are in operation. By shutting down engines during

idling and at low power demand, this key feature reduces fuel and lube oil consumption.

"The locomotives can be operated with one to four engines as needed, providing optimum power for each specific situation. The use of these 200 TRAXX multi-engine diesel locomotives will result in a massive reduction of CO2 over their life span," emphasised Åke Wennberg, President of the division Locomotives and Equipment, Bombardier Transportation. "By meeting the demanding Stage IIIB emissions standards, using sustainable fuels and operating fuel-efficiently, the TRAXX DE Multi-Engine is one of the most environmentally friendly locomotives in the marketplace."

Thanks to the TRAXX locomotive platform concept, operators will benefit from synergies to their existing TRAXX locomotive fleet for operation, maintenance, long-term spare parts availability and high residual value over the lifetime of the locomotives. DB AG and its subsidiaries already own and operate a fleet of more than 680 TRAXX locomotives.

"We are very pleased about the signing of the frame agreement with DB Regio AG. These locomotives will make a significant contribution to environmental sustainability for European passenger and freight transportation," said Dr. Klaus Baur, Chairman of the Management Board, Bombardier Transportation in Germany.

Final assembly of the new locomotives will take place in Kassel, Germany. The carbodies will be produced at Bombardier's site in Wroclaw, Poland, and the bogies are to be supplied by Bombardier's site in Siegen, Germany. Bombardier's sites in Mannheim and Kassel, Germany and Zürich, Switzerland are responsible for product development. The propulsion & control equipment will be supplied by Bombardier's sites in Mannheim and Hennigsdorf, Germany.

As a member of the TRAXX locomotive platform, the TRAXX Diesel Multi-Engine locomotive can accomodate the same country packages as the electric TRAXX locomotives, including conventional automatic train protection systems and ETCS. The platform is designed for the transportation of freight and passengers on national and international routes and is suitable for all networks. Since its introduction, more than 1,500 TRAXX locomotives have been sold and TRAXX locomotives are approved in 18 countries in Europe. The platform consists of three electric variants (multi-system, alternating and direct current locomotives) and a new diesel-electric design. All TRAXX locomotives are characterised by their modular design, as well as their innovative BOMBARDIER MITRAC propulsion and controls system, which is already in use in over 3,200 locomotives worldwide. TRAXX locomotives are more than 90 % recyclable and bear the EMAS environmental seal, guaranteeing environmental friendliness and energy efficiency.

# Alstom to provide Lyon with 10 high-capacity Citadis tramways

Lyons' transport authority - has selected Alstom to supply 10 high-capacity Citadis tramways, which can accommodate up to 400 passengers (or the equivalent of 6 buses, based on an average capacity of 6 passengers per sq.m. and 66 passengers per bus). The new trams will operate on the T3 line, which links Part-Dieu to Meyzieu. Options for an additional 2 to 9 tramsets may be issued at a later date. The total contract would then be worth approximately €58 million.

These new 43 metre-long Citadis tramsets will be the result of more than 10 years of feedback from the Lyon network, which will speed up their integration into the current fleet and reduce the line's operating costs.

Alstom's design matches the tramsets' original visual identity, in line with the aesthetic consistency sought by SYTRAL, while modernising certain aspects. For example, the tramsets retain the interior design concept created by the firm Avant Première. An innovative backdrop sets the scene for this harmony of colours and materials - the colour of the ceiling can be changed by altering the LED lighting.

Alstom's Citadis trams are designed for optimal quality of life on board, as well as maximum passenger comfort. They feature platform-height floors, air conditioning, a video-surveillance system and on-board audio and visual information. Alstom's Citadis tramways are also environmentally-friendly. Each Citadis requires four times less energy than a bus and 10 times less energy than a car in kWh per seated passenger, and is up to 98% recyclable. It also improves quality of urban life: it is nearly four times quieter than car traffic, generating noise levels that are 5 dBA lower.



Citadis has become a global benchmark for performance, so SYTRAL can be sure that it will be receiving trams that have proved their worth on the market. To date, a total of 1,524 Citadis trams have been ordered by 36 cities worldwide, while over 60 cities have tram projects in the pipeline.

History of the SYTRAL fleet: 73 Citadis, in operation since 2 January 2001, 57,541,027 trips per year (or the equivalent of 15.5% of all journeys on Lyon's public transport network).

# The new building of the train stop Čeladná on the line Ostrava – Valašské Meziříčí serves the public

Operation of the train stop Čeladná on the line Ostrava main station—Valašské Meziříčí has been launched. The new building of the train stop offers awaiting area and a barrier-free WC. Outside, there are a shelter and a bicycle shed. There is also an ecological contribution represented by a heat pump used for heating the building and preparation of hot water. There are new reinforced areas and access paths to the train stop made of granite-chip paving. The investor of the train stop reconstruction in Čeladná is the Railway Infrastructure Administration, state organization.



The original building of the train stop was put into operation in 1887. It was most likely built based on a typified design by architect Anton Dachler. It was a ground floor basementless building, a traditional structure from brick obverse masonry with saddle roof. The building comprised space for staff members, ticket sale, left-luggage office and a waiting room. Outside the building, there was a shelter to protect passengers from bad weather. An earth-closet was, however, placed in the building itself outside the train stop. However, time left marks on the technical conditions of the original building, so the masonry started to show capillary wetness; the roofing and the structure of the roof frame were damaged. Due to continuous changes of the yard level line and of the platform, the access to the building was 50cm below this level. This condition made it impossible to establish a barrier-free access to the building and the platform. For these reasons and with regard to new horizontal and vertical yard alignment on this spot, designed in the study "Electrification of the line Ostrava-Valašské Meziříčí", a decision was made to tear down the original building of the train stop and to build a new building in a horizontal and vertical position which would respect the project documentation of the new yard.

The developers were thus given an opportunity to design a new building. The challenge was all the more interesting since the determination to apply traditional procedures, natural material and to induce traditional atmosphere was omnipresent. At the same time, it was intended that the new building looked young and fresh. The architect designed a house made of obverse burnt brick, timber and stone. The building is with a standard though originally shaped, saddle sign facing the street. The overall look of the train stop is, however, modest as well as the design of the interior.



























Above: OBB Class 4010 series "Transalpin" EMU pauses at Bischofshofen on February 21st 2006. Below: OBB diesel unit Class 5047.024-4 is seen at St. Polton on February 22nd 2006.

**Both: Class47** 

