

Railtalk Magazine Xtra

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Contact Us

Editor: David david@railtalkmagazine.co.uk

Co Editor: Andv editor@railtalkmagazine.co.uk

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Submissions

Should you fancy getting involved with the magazine, then please send any photographs, videos or articles, to us at the below email address:

entries@railtalk.net

Please include a detailed description and credits of the author.

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From the Editor...

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

Well February already, and in the UK the weather certainly isn't improving, but in order to combat this, we have some excellent photos sent by Anton Kendall from Australia and New Zealand where sunshine is plentiful in their summer months. Another thing in this months issue I would like to mention is the excellent article on Indian Narrow Gauge by Professor Sachinder Mohan Sharma, a delightful chap which we met by accident whilst heading down to Didcot last year. And if anyone else wants to write for the magazine please do get in touch to the email address on the left. My first trip of the year this month takes me into Italy for the first time for a good while, travelling there from Switzerland, but more interestingly this month, whilst booking another trip for later in the year, I discovered that it is possible to leave Prague at 06:30 and be back in London for just before 20:00 which I think is great news for those who don't want to fly. The cost was comparable with a flight at around £70 for either.

Until next month, as always please keep sending in the photos and remember if you are going on

Once again many thanks to the many people who have contributed, it really makes our task of putting this magazine together a joy when we see so many great photos. These issues wouldn't be possible without: Brian Battersby, Mark Bearton, Mark Bennett, Keith Chapman, Derek Elston, Mark Enderby, Tim Farmer, FrontCompVids, Paul Godding, Richard Hargreaves, Keith Hookham, Colin Irwin, Anton Kendall, Michael Lynam, Phil Martin, Chris Perkins, Mark Pichowicz, David Pollock, Andy Pratt, Railwaymedia, Neil Scarlett, Laurence Sly, Steamsounds, Mark Torkington, and Andrew Wilson.

Front Cover: On October 16th, waiting departure from Samtredia with service No. 6313, 08:05 to Kutaisi is 4-car class ES EMU ES 006 rebuilt form the core of an RVR (Rīgas Vagonbūves Rūpnīca) by TELF (Tbilisi Electric Locomotive Factory). Although the pantograph is raised the unit could not move itself so welcome haulage was given by Class 11 (formerly VL11) Bo-Bo+Bo-Bo twin section electric locomotive No. 11-276. David Pollock

This Page: Kiwirail locos Nos. 544-8 and 462-8 lay down the power as they work train No. 926 11:00 Invercargill - Dunedin over the Mataura River bridge in Gore on December 21st.



Pictures CFCLA's Nos. CM3310 and CM3313 climb Minimbah Bank on November 19th with a containerised ore working. Anton Kendall









One of Freightliner's Australian trains. This is train No. 1581 to Narrabri and comprises empty containers from Sydney's Port Botany to be loaded with export cotton from the NSW North West. The locomotives are Nos. CF4407/CF4408, on long term lease from CFCLA (Chicago Freight Car Leasing Australia) and painted in the companies corporate livery. Seen on January 21st at East Maitland in the NSW Hunter Valley. Mark Bennett





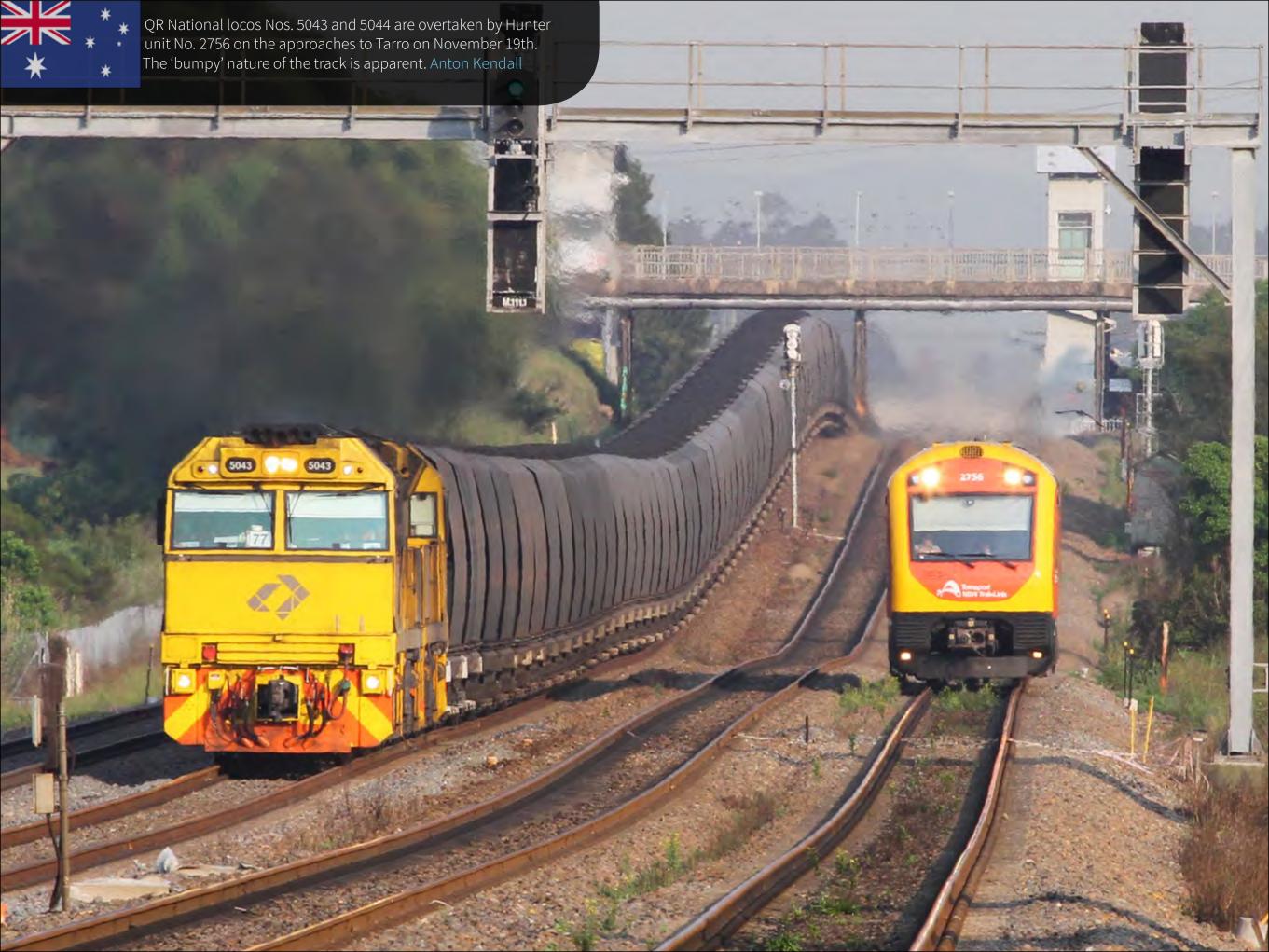
the coal handling plants in Newcastle on November 19th. Anton Kendall

Glencore's GE Transportation's C44aci design Nos. XRN026, XRN023 and XRN019 pass through East Maitland station on November 19th. Anton Kendall



















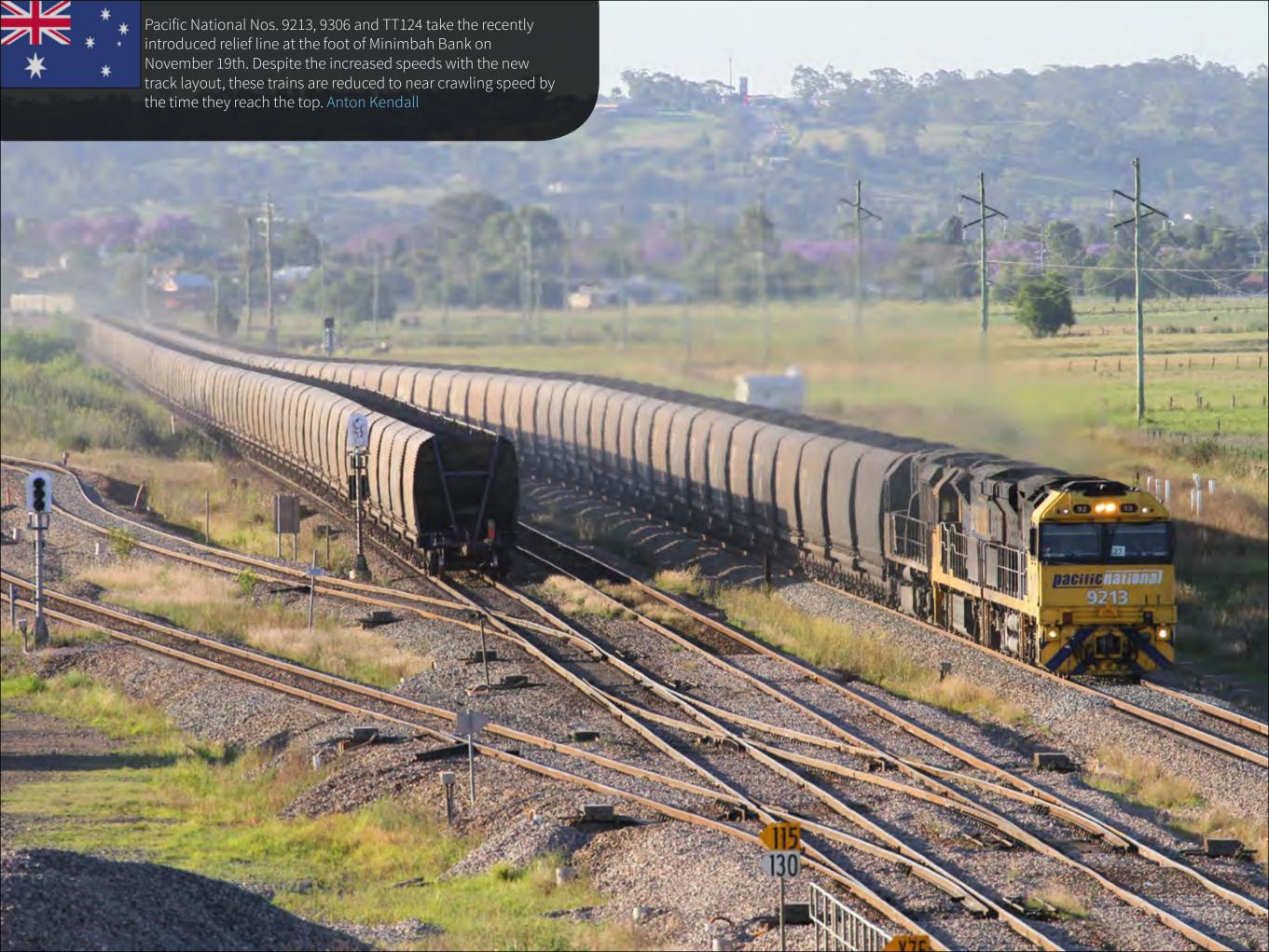






















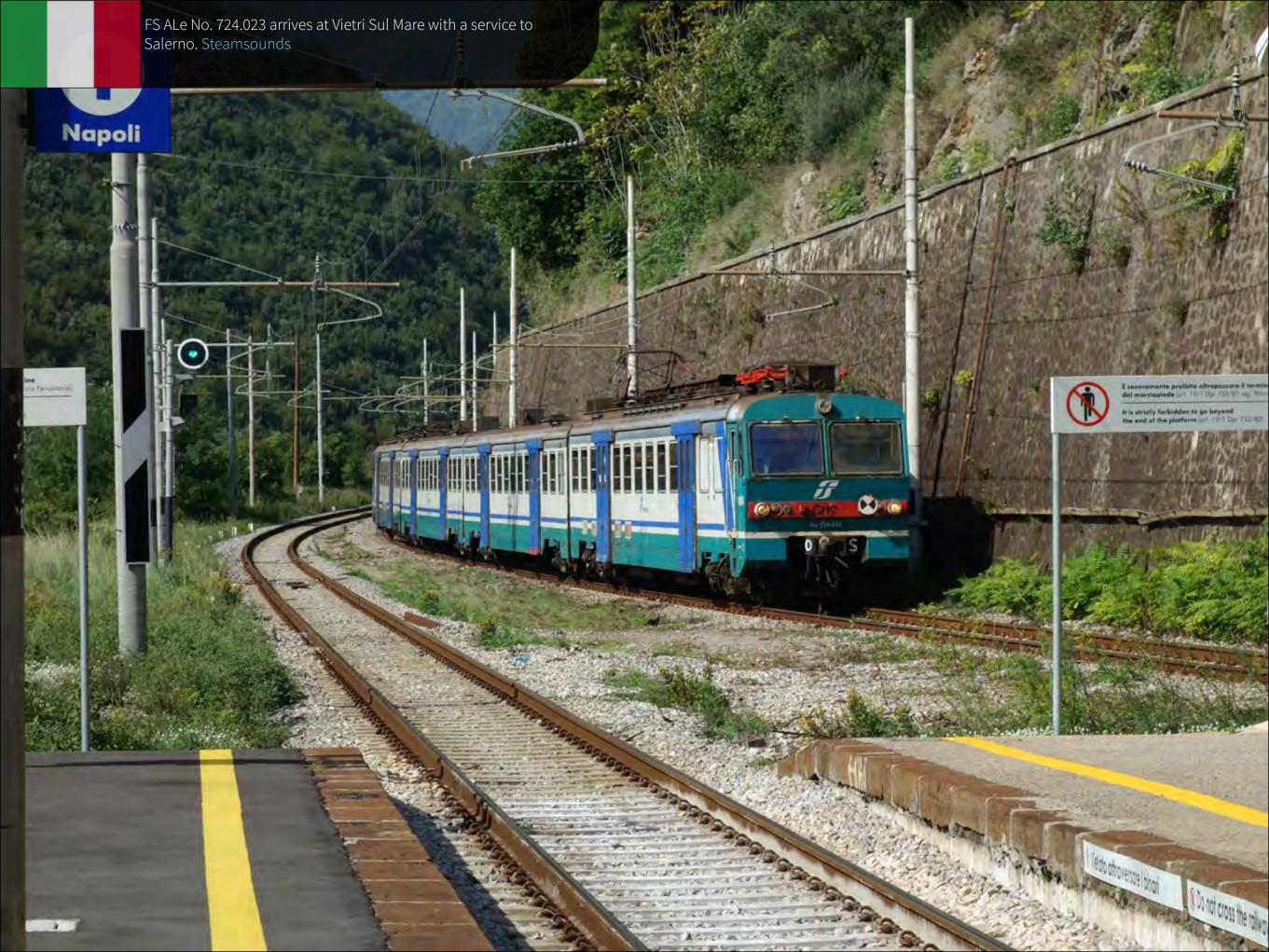














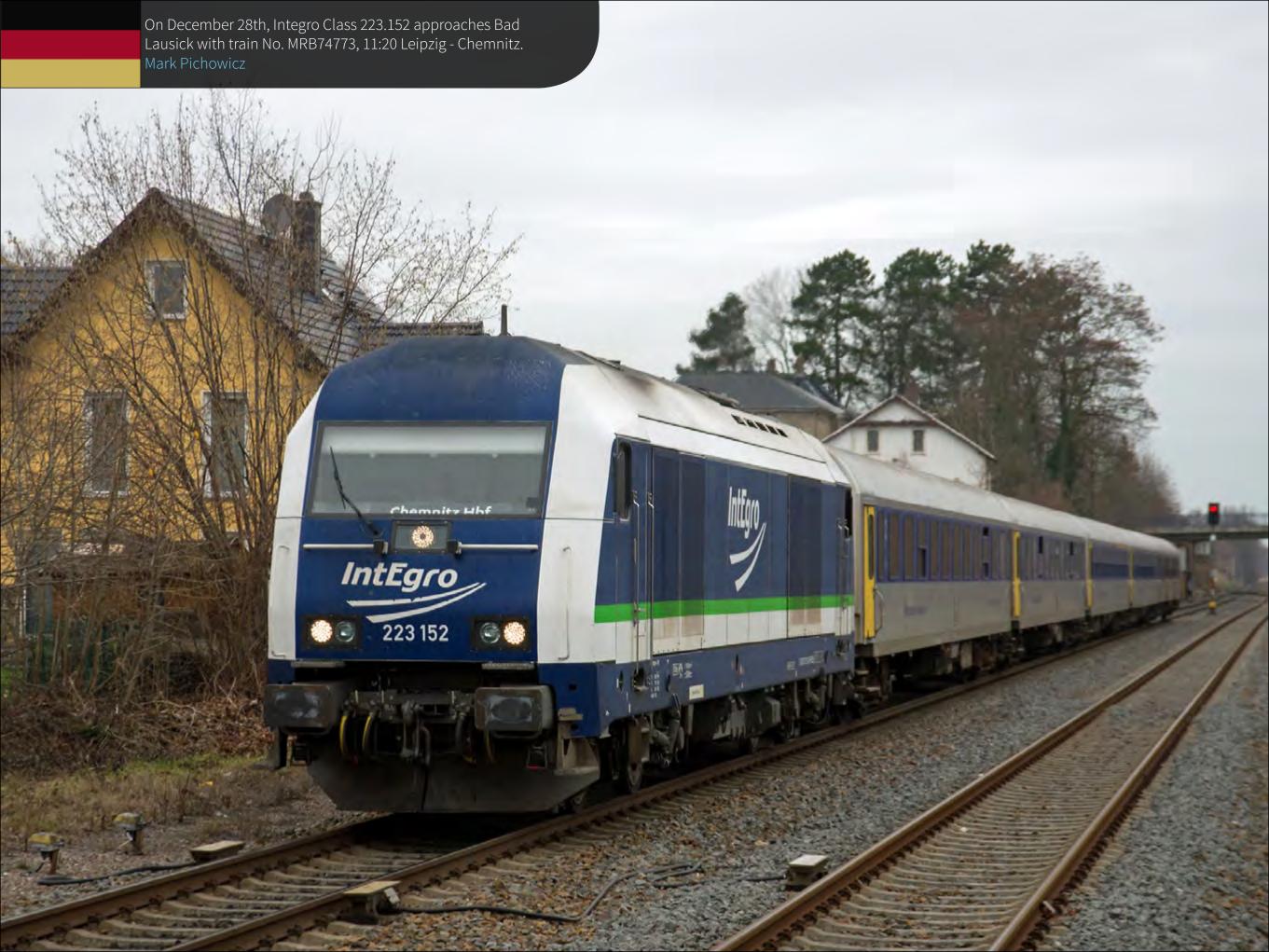






























News and Features The Skytrain is seen at Flughafen Düsseldorf. The fully automatic train travels at a height of about 10 meters over the airport on a stretch of about 2.5 kilometres in length. Steamsounds



Lokomotion GmbH orders eight multisystem locomotives from Siemens

The private railway company Lokomotion GmbH has placed an order with Siemens for eight Vectron type multisystem locomotives for operation in Germany, Austria and Italy. In addition to the train protection systems required for these countries the locomotives are to be equipped with the European Train Control System (ETCS). Delivery of the vehicles is scheduled to start in spring 2017. They have a maximum power output of 6,400 KW and a top speed of 200 km/h. These locomotives are to be deployed in cross-border traffic between Germany and Italy.

"With this order our Vectron platform has reached two significant milestones at the same time. Firstly, Lokomotion is the 20th customer who has decided in favour of our locomotive. And, secondly, this order also marks the 300th Vectron we have sold," says Jochen Eickholt, CEO of the Siemens Mobility Division.



Works start to install the ERTMS signalling system in the Atlantic Corridor in Spain

- The project was awarded to a consortium formed by Alstom, Siemens Rail Automation and CAF Signalling.
- The Level 1 ERTMS train protection system will be installed in the Atlantic Corridor, on the La Coruña-Santiago and Santiago-Vigo connection.

The works to install the ERTMS level 1 train safety and protection system started in the Atlantic Corridor during January, on the La Coruña-Santiago and Santiago-Vigo links.

This project was awarded by Adif to a consortium composed of Alstom, Siemens Rail Automation and CAF Signalling for a total amount of €63.2 million. In addition to the installation of the safety and traffic control system the consortium will also maintain it for 20 years.

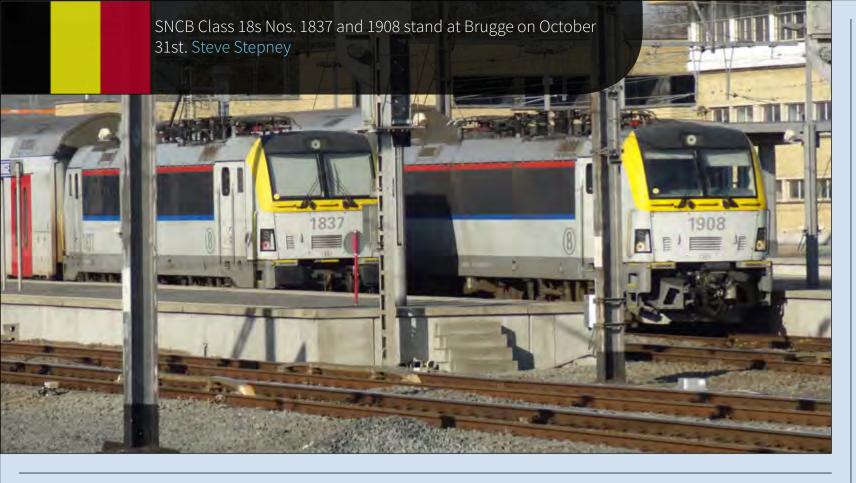
The consortium is made up of leading companies in the Spanish railways ignalling, control and telecommunications sectors, with extensive experience carrying out projects on high-speed lines as well as conventional and suburban lines.

The European Rail Traffic Management System (ERTMS) is a train command and control system adopted by the European Union to be outfitted on all new lines that are built in countries of the EU. The objective is for signalling and communications between the track and on-board train equipment to be compatible throughout Europe and to enable railway traffic interoperability among the various EU states.

Alstom will install its Atlas 100 solution, for ERTMS level 1 between Redondela and Villagarcía de Arousa (35 kilometres of dual track) on the Vigo-Santiago high-speed section of the Atlantic Corridor. This link has Alstom Smartlock interlockings. The company will also install an ERTMS control centre with Atlas technology.

Siemens will install its Trainguard Futur 1300 for Level 1 ERTMS on the Vilagarcía de Arousa - Santiago - Cerceda link, where the interlockings use Siemens Trackguard Westrace technology; and on the Cerceda - La Coruña link. Siemens will also install two new ERTMS control centres with Trainguard Future technology to control the Atlantic Corridor train protection systems. CAF Signalling will install its Level 1 ERTMS AURIGA system on the Vigo-Urzaiz - Redondela high-speed link, which currently uses electronic interlocking with QUASAR S3e CAF Signalling technology.

Each member of the Consortium will install its ERTMS system on connections where they have previously installed signalling technologies.





Bombardier Wins Order to Supply Light Rail Vehicles in Mexico

Rail technology leader Bombardier Transportation has announced that it has won an order from the Electric Urban Train System of Guadalajara (SITEUR) to supply 12 Light Rail Vehicles (LRVs) of the TEG-15 model, consisting of two cars each, that will run in Line one of SITEUR in Guadalajara. The contract is valued at approximately 752 million Mexican pesos (\$44 million US, 40 million euros).

"As an innovation driver, Bombardier has developed many new features on the vehicles in order to improve the experience for all the people who use the Guadalajara public transit system every day. As part of the innovations, the trains will have an On Board Video Recording System (OVRS), new fire and smoke detection system, Light Emitting Diode (LED) technology and will be accessible to wheelchairs." said Raymond Bachant, President, Bombardier Transportation, Americas Division. The teams of Bombardier Transportation's facility in Ciudad Sahagún, State of Hidalgo, are leading the development of the process, from design and engineering to complete production and putting the vehicles into service. The 29.56 metres long articulated carbon steel trams will run in pairs and are designed for a maximum capacity of 48 seated passengers and more than 300 standing passengers per vehicle. The new vehicles will be mechanically, electrically and pneumatically compatible with TEG-90 vehicles from SITEUR and will run to a maximum speed of 80 kilometres per hour. The new LRVs' design will be based on the existing fleet of TE-12 vehicles that were previously supplied by Bombardier to the Electric Transport Services of Mexico City (Servicio de Transportes Eléctricos del Distrito Federal, STEDF) in 2014, with a restyled end bonnet design. They have proven to be a success with high reliability and low maintenance costs.



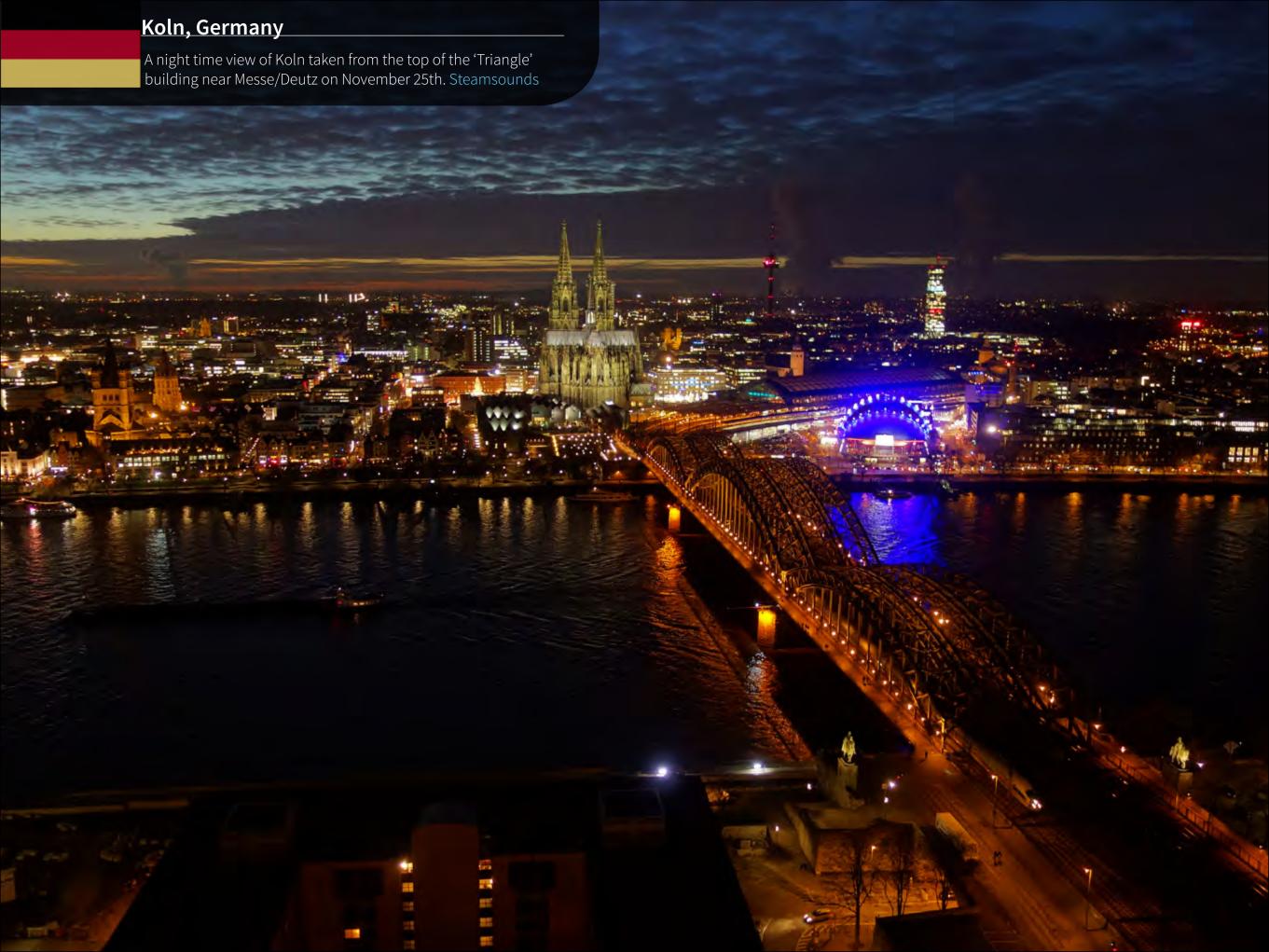
Siemens to equip Line 4 of the Metro Paris for driverless operation

- Third automation project in a row for Metro Paris
- Rail technology reduces travel time and energy consumption
- Start of passenger service planned for 2020

Siemens has received an order from the Paris public transport operator RATP (Régie Autonome des Transports Parisiens) to equip the 27 stations of Paris Metro Line 4 with signalling and operations control systems. Fully automatic operation can increase the capacity of this line by up to 20 percent because trains will be able to run at shorter headways.

"Siemens has equipped about 300 route km worldwide with signalling technology for fully automatic operation, making it the market leader in this field. Automatic operation will enable Line 4 to offer a service interval of 85 seconds. At the same time, the automatic control will allow to reduce energy consumption by up to 15 percent," says Jochen Eickholt, CEO of Siemens Mobility. The order volume totals around 70 million euros. Work on the line is scheduled for completion in 2022. To upgrade the twelve kilometres of Line 4, Siemens will supply the Trainguard MT automatic train control system that uses communications-based technology to achieve fully automatic, driverless operation. All train movements will be supervised via the operation control centre, which will also be supplied by Siemens. Special doors at the platforms will ensure additional safety at all 27 metro stations. With around 700,000 passengers a day, Line 4 of the Paris Metro is one of the most frequented sections of the whole Paris mass transit network. It is also the most important north-south metro link in the city, connecting the stations of Porte de Clignancourt in the north of the city and future station Bagneux in the south. On its way through France's capital it stops at three major long-distance railway stations and is also the only line with transfer terminals to all 16 other mass transit lines.

Apart from Line 4, Siemens has also equipped Metro Lines 14 and 1 for driverless operation. Metro Line 1 is the oldest and most heavily frequented underground line in Paris. It links the east and west of the city along 17 kilometres of track. Siemens has likewise recently supplied important signalling components and systems for Lines 3, 5 and 9.





A nostalgic journey on the oldest NG line in India

- by Professor Sachinder Mohan Sharma

With the pursuit of the unigauge policy by Indian Railways most of the meter gauge and narrow The fuel capacity is 350 litres, however with the four coach consist it consumes gauge sections are being converted to broad gauge. However the few sections covering less than approximately one litre per 2000 kilometres are left over and have maintained their charm and romance. One such attraction is kilometre and thus consumes the oldest narrow gauge section of the erstwhile Gaekwar's Baroda State Railway.



The section of Pratapnagar-Vishwamitri (PRTNVS) which is part of the 51.25km Pratapnagar-Jambusar the coach is a mobile ticket window. Unlike other stations where the date is punched on (PRTN-JMB) line was started in 1881. The gauge of the section is the 762 mm or 2 feet 6 inch gauge. the ticket, the guard stamps the date on the ticket using a date stamp. Initial operations on this route were with steam locomotives which were phased out and replaced by diesels in 1990's. The heritage value of the section has been preserved by the Vadodara division of The tickets are made of cardboard material which in itself is historical in foreign railway Western Railway by constructing a heritage museum and park in front of the station which is open to systems. On certain other stations ticket selling has been outsourced through a ticket the public. The PRTN Railway workshop nearby also has a treasure of heritage and historic artefacts selling agent. There is no hurry and the train chugs along even waiting for passengers who which it proudly displays at the entrance. Tourists should try and get permission to see the displays arrive late at the station and flag down the train. The activity at the stations dies down in the workshop as well.

There are plenty of interesting things for the diehard railway enthusiast and also for railway men to As the train starts from PRTN learn from the operations on this section. The ZDM5 (Narrow gauge, Diesel, Mixed usage) locomotives the broad Gauge track runs running on this section are maintained at the PRTN diesel shed situated close to the station. The parallel to the NG track and then ZDM5 Locomotive is a B'-B' type locomotive which implies that each of its bogie has two axles parts its way before Vishvamitri coupled together and driven through a cardan shaft arrangement.

The engine of the locomotive delivers 450 horse power at 1900 rpm which is transmitted to the passengers can change over wheels through a Voith hydraulic transmission and cardan shaft arrangement. Around 41 of these to the broad gauge services locomotives were built by CLW in 1980's for high speed operation on track fit for 6t axle load. These as the NG trains pass through weigh approximately 23T (5.5T axle load) and have a top speed of 50 kmph. The speed limit on the a rail under bridge and the BG section is 25 kmph presently. These 6 cylinder 4 stroke locomotives are powered by a Kirloskar KTA- trains move on the main line 1150L engine and are numbered starting 501 onwards.

This locomotive is fitted with one exhauster and one compressor, to operate air brakes on locomotive and vacuum brakes on trailing stock.

about 100 litres in the to and fro journey.

The trains on the section work on a "One train only" system and the driver receives a token as his authority to proceed. There are thus no station staff enroute and the tickets in the section are sold by the Guard of the train which is a unique experience from a tourist's perspective. The daily sale of tickets on train is about 1500 rupees. The guard portion of



once the train departs.

to meet the main line. At Vishvamiti junction station the route on top.





It is a wonderful sight to see the two gauges so close to each other and yet they never meet.

Another interesting feature of the section is the concept of travelling gate man (TGM).

A gateman travels on the train and gets down closing seven level crossing gates so that the train can pass through. This is an effort by the railway to optimise as no permanent gatemen are posted on these level

crossing gates. On many other gates the train simply stops dead and the driver proceeds after blowing the whistle.



There is a lot for the non railway enthusiast as well. The journey passes through wonderful landscapes and over the Vishvamitri River running across the city of Vadodara. If one is lucky he may spot a crocodile or two in the river, something unique in this place. Along the route there are a lot of temples like the famous Swami Narain temple near Atladara, Jain temple near

Bhaili and Prajapita Brahma Kumari Ishwariya Vishva Vidyalaya between Bhaili and Atladara station.



Near jambusar is the famous Kavi city having a 400 year old Jain temple and the Shree tambeshwar Mahadev temple. So next time you are in Vadodara, you can board train No. 52036 at 10:00 from Pratapnagar and return the same day by 17:10 hours. Don't forget to carry drinking water as you will not find it at the stations enroute.





Hong Kong Tramways launches the TramOramic Tour

Hong Kong Tramways ("Tramways") held a ceremony at Whitty Street Depot recently, celebrating the launch of the TramOramic Tour – Hong Kong's first-ever sightseeing tram tour abroad a 1920s' style heritage tram. The ceremony, attended by more than 100 guests, marked a major new Hong Kong tourism initiative and a significant milestone for the city's iconic tramways.

The ceremony showcased Tramways' commitment to advancing and enhancing its service where the Honourable Mr. Gregory SO Kamleung, Secretary for Commerce and Economic Development, Dr. Peter LAM Kin-ngok, Chairman of the Hong Kong Tourism Board, Mr. Eric BERTI,

Consul General of France in Hong Kong and Macau, Mrs. Ingrid YEUNG HO Poiyan, Commissioner for Transport, Ms. Cathy CHU Man-ling, Commissioner for Tourism and Mr. Emmanuel VIVANT, Managing Director of Hong Kong Tramways simultaneously made their appearance on stage to officiate ribbon-cutting for unveiling the TramOramic Tour.

Mr. Gregory SO, Secretary for Commerce and Economic Development, said, "Creativity is one of the keys for our economy to continue to thrive and flourish. We attach great importance to and have actively encouraged the development of creative industries in Hong Kong. I am happy to see that the

Hong Kong Tramways, with its imagination and creativity, has successfully turned a tram ride into a fun-filled and culturally enriching experience for the visitors."

Dr. Peter LAM, Chairman of the Hong Kong Tourism Board (HKTB), said "The tram has a long history and is also one of the most importanticons in Hong Kong. To many visitors, taking a tram ride is a 'must-do' in Hong Kong, through which they can experience the old and new facets



of the city. The HKTB would like to thank Hong Kong Tramways for rolling out this 'TramOramic Tour' for locals' and visitors' enjoyment. With this new product on the market, we will continue to work with Hong Kong Tramways and our local travel trade partners to promote this tour and will reach out to overseas consumers via our marketing and PR efforts."

Mr. Emmanuel VIVANT, Managing Director of Hong Kong Tramways, said in his opening remarks, "We are excited to introduce to you Hong Kong's first-ever sightseeing tramcar, the TramOramic Tour. With this new initiative, we aim to benefit the local tourism industry by establishing a new attraction and help preserve the 111-year old Tram heritage. The service offers passengers a '100% Hong Kong' experience on a unique Ding Ding from days gone by."

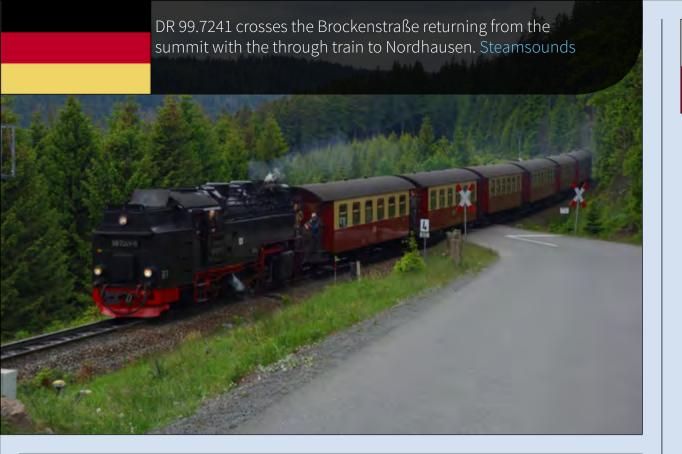
The highlight of the TramOramic Package is an

amazing 1-hour trip aboard a unique and elegant 1920s' style tram with an open top upper deck. As the journey passes through the city streets, authentic Hong Kong stories and sites of interest are narrated to passengers via personal headphones in eight languages. The tram features an on-board video comparing past and present Hong Kong and a heritage corner with old pictures and genuine tram souvenirs.

The package also includes a 2-day pass giving unlimited free access to the Tramways' regular service to deepen Hong Kong's exploration and seven thematic journey maps for self-guided tours to interesting sites along the tram lines.

The first TramOramic Tour will commence on 24th January 2016. Tickets are now available for online booking via www.hktramways.com and onboard of each departing tour if seats are still available.





Siemens to electrify metro lines in Peru

Siemens has been contracted by Ansaldo STS to electrify the entire metro line 2 as well as the roughly 8 kilometre long first phase of line 4 in Lima. The two new metro lines will connect additional city districts and the international airport to the capital's mass transit network. This project will not only boost the city's development but also reduce CO2 emissions, because roughly 80 percent of the energy required for rail electrification is provided by hydroelectric power plants. Passenger service is due to start on the first section as of 2017. The remaining three sections will follow by 2021. Siemens will supply the complete electrification of the new double-track metro line 2, which is to connect the eastern district of Ate with the western suburb of Callao via 27 kilometres of track that run through the historic city centre. Another part of the project is the simultaneous extension of line 2 to the airport. This section is the first phase of the future line 4. The scope of supply includes six feeder stations (60 kV/20kV), two 20 kV cable distribution rings, 37 station supplies and 21 rectifier substations (1.5kV, DC), as well as the SCADA (supervisory control and data acquisition) system for the electrical systems. Siemens entered the market in Peru with the electrification of the first extension of the metro in Lima back in 2010.

The Siemens type series 8DN8 gas-insulated switchgear is specially designed for space-saving system configurations and has a low dead load, which makes it extremely cost-effective. As this switchgear is also characterized by low noise and very low field emission (EMC), it can be easily integrated in sensitive environments, residential areas and city centres.

First three modern Vectron locomotives have arrived in Poznań

The first three new locomotives out of a total of 15 such vehicles to be operated by PKP CARGO on international routes have arrived in Poznań. The locomotives will first undergo further tests in Poland and at the end of January will be formally accepted by PKP CARGO. In parallel, train drivers will be trained in the handling of these modern machines. Before the Vectrons reached Poznań from Munich, they were transported to the German border town of Frankfurt an der Oder. From there, Polish crews drove them to the capital of the Wielkopolska region. During the drive, the first tests of the new vehicles in Poland were simultaneously performed.

The Vectron's designation in PKP CARGO is EU-46. The Polish operator received locomotives with the serial numbers of 501, 502 and 503. Further tests of these vehicles will be performed in the company's locomotive depot in Poznań's Franowo district. By the end of January, the Vectrons will undergo a number of tests, following which delivery and acceptance reports will be formally signed. The main activities on the part of PKP CARGO will focus on training its staff: train drivers and



persons responsible for analysis of data recorded in the locomotive. Activities related to the installation of route surveillance systems and GPS-aided positioning of locomotives will also be commenced.

"In the coming weeks, we will train our drivers and, together with representatives of Siemens, will prepare the locomotives for operation at PKP CARGO. In February, three new locomotives will hit the tracks," says Member of the Management Board in charge of Operations at PKP CARGO Wojciech Derda. The Vectrons are painted in accordance with the adopted unified visual identity of the whole PKP CARGO Group. The base colour is gray with a white logo and distinct red elements. Another three locomotives will be delivered to PKP CARGO in February. The last 15 vehicles (with approval for seven EU countries) will be delivered at the end of the first half of 2017. To date, PKP CARGO has owned only one multi-system locomotive and leased the others. This solution enabled the company to react in a rapid and flexible manner to the changing transportation environment and helped it obtain safety certificates for international routes (permits for independent operation of trains).

Currently, PKP CARGO enjoys a stabilized level of utilization of its multi-system locomotives. In such a situation, the purchase of own locomotives is the most favourable option, because it enables the company to be more competitive in terms of price against foreign carriers. PKP CARGO is the largest cargo rail carrier in Poland with a 56% market share in terms of freight turnover. Besides the transportation of goods by rail, the PKP CARGO Group is also a forwarder and an operator of terminals and sidings. The PKP CARGO Group also provides rolling stock repair and maintenance services.

TRANSNET STEAM LOCOMOTIVES TO BE SOLD AT AUCTION IN FEB 2016

The Federation of Heritage Railways of Southern Africa has been advised by Transnet that a large number of steam locomotives will come up for sale in February 2016. These locomotives were previously classified as Heritage and to be retained. They still have a chance to survive if they are purchased by the Preservation sector. If no bids are made from people to preserve them then they will be sold to the scrap industry.

As many are valuable as a source of parts these would have to be sourced from the scrap industry and from our experience the scrap industry cannot be bothered with people taking items off scrap locomotives. Alternatively they demand unrealistic prices for the spares.

The best possible solution is for people to purchase them. That of course does create yet another problem in terms of the logistics involved in moving them somewhere safe. There are various locations in South Africa, such as Reefsteamers, the Sandstone Heritage Trust and



possibly others where free accommodation could be made available in the interests of Preservation. The Federation will be canvassing the Preservation sector to see how many such storage sites might potentially be available.

These locomotives will only be sold for the scrap price which at the moment is fairly low. Bearing in mind the exchange rate to the South African Rand (R24:£1 or R16:\$1 etc.) the amount of money required to buy them will actually be minimal for foreigners in particular. There is no reason why foreigners cannot bid for these locomotives and FEDRAIL SA will in any event assist with

the process. It should be borne in mind however that the transportation cost of getting these locomotives to a safe location could be more than the cost of the locomotive. FEDRAIL SA will be in a position to provide estimates of cost as long as we know well in advance that someone is interested in a specific locomotive. We will seek out the best solution to its longer term storage.

FEDRAIL SA will issue regular bulletins regarding any developments that are taking place. In the interim we would ask interested parties to study the attached list to see whether they can make a contribution. One idea if for people to form consortiums to acquire these locomotives and certainly foreign railway enthusiast groups could add one of these locomotives to their collection as part of a longer term strategy to make a contribution to Steam Railway Preservation. After the loss of the SANRASM collection it is unthinkable that these locomotives should be lost.

We invite interested parties from around the world to join FEDRAIL SA to strengthen ties with Southern African Railway Heritage. To become a member, email: membership(at)fedrailsa.com.

CLASS	LOCO	BUILT	CURRENT LOCATIO	ON BUILDER / NOTES
G	221	1904	Witbank	NBL / Very poor condition.
H2	249	1901	Witbank	Dubs / Very poor condition
4AR	1560	1913	Queenstown	NBL / Rebuilt, stripped
6B	524	1897	Bloemfontein	Dubs / Very poor condition
7A	1019	1898	Witbank	Dubs / Very poor condition
11	928	1904	Bloemfontein	NBL / Very poor condition
14CRB	1778	1919	Queenstown	Montreal / Last 14CR?
15A	1970	1921	Epping Beyer	Peacock / ex 'Milly' the pride of De Aar
15AR	1798	1915	Queenstown	NBL / ex Sydenham Prestige loco
15AR	1840	1920	Klipplaat	BP / ex Dunns, Extremely poor condition.
15AR	1966	1921	Queenstown	Beyer Peacock / stripped
15AR	2012	1921	Queenstown	NBL / stripped
15AR	2093	1925	Queenstown	Maf / stripped
15AR	2100	1925	Queenstown	Maf / stripped, no tender
15BR	1832	1918	Queenstown	Montreal / stripped
15F	2928	1939	Bloemfontein	NBL / well known green liveried 15F
15F	2996	1944	Kroonstad	Beyer Peacock / stripped, Class 23 Tender
15F	3042	1944	Germiston	NBL / stripped, Class 23 Tender
15F	3087	1946	Kroonstad	NBL / stripped, Class 23 Tender
15F	3153	1946	Epping	NBL / ex Prestige loco, Fair condition
15F	3156	1946	Worcester	NBL / Fair condition THE LAST BUILT NBL 15
16CR	809	1917	Queenstown	NBL / ex Royal train loco but stripped
19A	679	1929	Witbank	SLM / Switzerland / Poor condition
19AR	693	1929	Queenstown	SLM / Switzerland / Poor condition
24	3606	1948	Voorbaai	NBL / ex George - Knysna branch
24	3632	1949	Voorbaai	NBL / ex George - Knysna branch
24	3635	1949	Voorbaai	NBL / ex George - Knysna branch
24	3667	1949	Queenstown	NBL / – No Tender
24	3693	1949	Voorbaai	NBL / ex George station pilot
25NC	3407	1953	Worcester	NBL / Fair condition
25NC	3417	1952	Worcester	HEN / Fair condition
25NC	3479	1953	Bloemfontein	NBL / Fair condition

BEYER	GARRATT	ROILL	STEAN	M LOCOMOTIVES
GEA	4003	1945	Witbank	BP Very poor condition
GM	2304	1938	Witbank	BP Very poor condition
GMA	4090	1956	Bloemfontein	BP Very poor condition
GMA	4129	1958	Bloemfontein	BP Very poor condition
RR 14A	508	1953	Voorbaai	BP Very poor condition
RR 16A	615	1953	Voorbaai	BP Very poor condition





Hector Rail purchases 10 six axle locos

Hector Rail has purchased 10 six axle locos from DB Schenker (DB Class 151). The locos were built in the mid-seventies. The delivery of the locos will take place during 2016 and 2017. The locomotives are powerful and are much more cost efficient to purchase compared to new locomotives. This makes them an attractive solution in the segment of short distance heavy transports. But they are also an attractive alternative for other segments in the railway market such as intermodal transports.

In order secure a cost efficient refurbishment and to secure spare part supply in the future operation a total of 15 locomotives have been purchased. Five of the locomotives will be used as spare part donors.

With this type of locomotives Hector Rail can provide a new concept to the market compared the rented modern locos, which is the standard solution for other "non-incumbent" railway operators in the market. This is possible thanks to the financial strength of Hector Rail



Coal contracts entered into by PKP CARGO

The PKP CARGO Group has signed a contract with Tauron Wydobycie for the transportation of 8.5 million tons of coal in 2016-2017 for a total gross price of PLN 142.3 million. The contract marks another large coal transportation tender won by PKP CARGO after its best bid for the transportation of 1 million tons of coal from Bogdanka in Lublin to PGNiG Termika's plants in Warsaw in 2016. The gross value of the Bogdanka contract is in excess of PLN 20 million. In the coming 12 months, the PKP CARGO Group will transport a total of over 1.7 million tons of "black gold" to PGNiG Termika's cogeneration plant.

"The PKP CARGO Group has an almost 60% share in the coal rail transport market in Poland. For years, we have been a partner of the mining and power generation industries. We want to strengthen this partnership by offering our clients continuously improved logistics services" says Member of the Management Board in charge of Commerce at PKP CARGO Jacek Neska. The PKP CARGO Group signed a contract with Tauron Wydobycie at the end of 2015. Under this contract, Poland's largest freight carrier will, over the course of two years, transport provide 8.5 million tons of coal from the Tauron Group's mining plants to its power plants and cogeneration plants as well as to its other customers. The PKP CARGO Group will also provide its services at railway sidings of the Tauron Group's plants in Tychy, Katowice and Bielsko-Biała.

PKP CARGO's transportation services for Tauron are performed in full sets of railway cars, while for other clients the company also transports coal in groups of cars or single cars. The contract with Tauron is an extension of the companies' cooperation established in 2012.

The outcome of the tender for the transportation of steam coal from Bogdanka was announced by PGNiG Termika at the beginning of December 2015. The tender won by PKP CARGO is an extension for another 12 months of the handling of fuel supplies by PKP CARGO to Termika's cogeneration plants in Warsaw. PKP CARGO also handled the supplies to these plants in previous years. Additionally, in 2016 the company will transport up to 700 thousand tons of coal from Silesian mines. The transportation of coal from Bogdanka to PGNiG Termika's cogeneration plants will be performed by using electric traction. To serve these plants, PKP CARGO uses standard E-series goods wagons and specialized Fa-type dumper wagons. Involved in the provision of services together with PKP CARGO is PKP CARGO Service, a member of the PKP CARGO Group, which also handles work at the sidings of PGNiG Termika's cogeneration plants.

Rail operators in Poland transport a total of approx. 15-20 million tons of freight a month. For PKP CARGO, the provision of services to the Tauron Group means an average freight of nearly 355 thousand tons of coal a month. Transportation services for PGNiG Termika translate into a monthly average freight of nearly 150 thousand tons of coal. PKP CARGO is the largest cargo rail carrier in Poland with a 56% market share in terms of freight turnover and the second largest cargo rail carrier in the European Union.

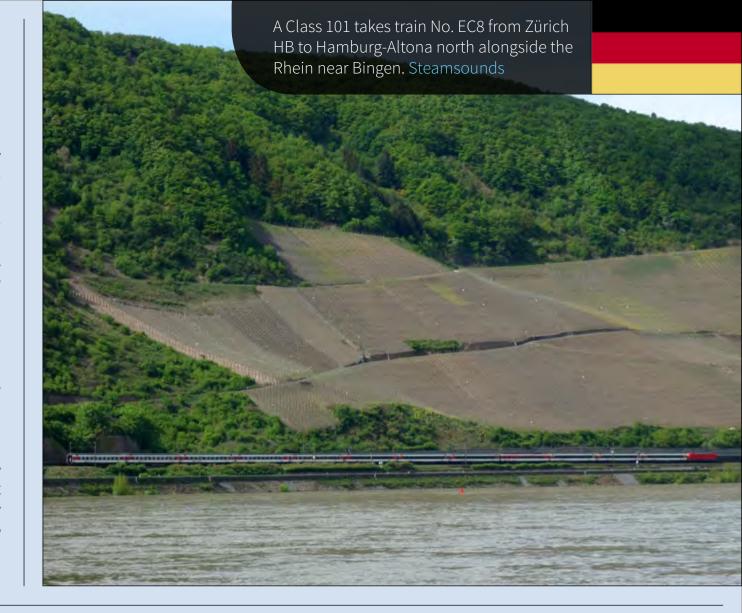


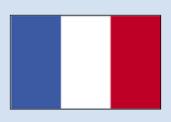
Alstom will contribute to the signalling upgrading of a regional line in Italy

Alstom, as the leader of a consortium, has been commissioned by the Italian railway network (Gruppo FS) to upgrade the Milano Centrale-Milano Smistamento–Monza–Chiasso line. Alstom's share of this contract is worth €21 million. The company will install Atlas 200 its ERTMS level 2 solution, including its latest-generation, multi-station, computerised interlocking system, Alstom's Smartlock 400 GP system on the 51 km line. The line forms part of corridor A (Genoa-Rotterdam) of the European network interoperable corridors, and will be the first non-high-speed railway line in Italy to be entirely managed by a level 2 ERTMS system.

"As a result of the project, which includes the installation of a new-generation product, the line's already high level of safety will be further increased," declared David Cannafoglia, Vice President Alstom TIS South Europe and Director of the Bologna site. "Furthermore, the ERTMS-2 system, which is being implemented on conventional lines for the first time in Italy, will facilitate the work of train drivers. Traffic management on the whole line will be easier and more efficient for the operational centre."

The project, which will take two-and-a-half years to be completed, will allow the operator to manage the circulation of trains safely and in accordance with the latest regulations governing computerised interlocking systems. Passengers will not only benefit from the greater safety, but also from the greater punctuality of the trains. The project will be managed by Alstom's Italian sites: the centre of excellence in Bologna and the R&D centre in Bari, which will collaborate with Charleroi site in Belgium.





Strasbourg tramway to Illkirch opens and prepares access to Germany

Alstom participated in the opening of the southern extension of the Strasbourg tramway at Illkirch on 14 January 2016. Alstom's Infrastructure teams carried out the studies and installed the overhead contact line over the two kilometres of double track that make up the extension of Line A. Twelve people (construction manager, site manager, machines operator, six assemblers and three workers) worked on the line for a period of six months. The Alstom teams are now focusing on installing the overhead contact line for the extension of Line D towards Kehl and on laying 300 metres of rail track on the Rhine bridge planned between March and May 2016.

Alstom is a privileged partner of CTS (Compagnie des Transports Strasbourgeois) for the development of the tramway network, both in terms of infrastructure and rolling stock. In 2013, Alstom conducted the studies and installed the overhead contact lines for the extension

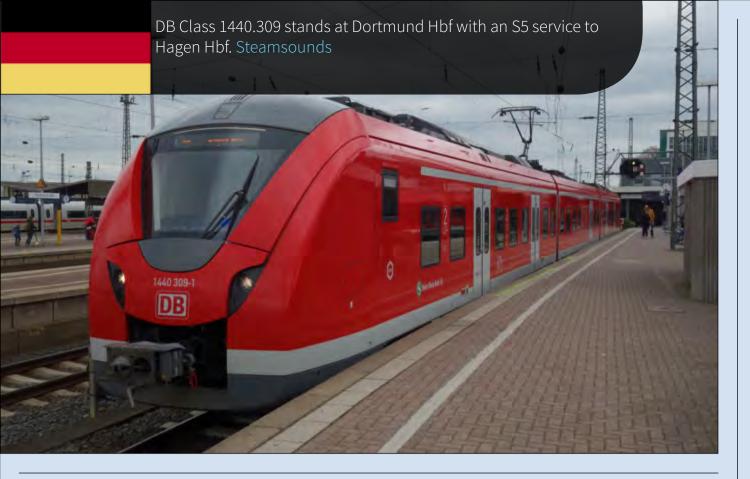
of lines A and D at Hautepierre, representing 2.3 kilometres. Alstom's Infrastructure teams also renewed the Kevlar fibres on the 2.3 kilometres of line at Hautepierre in 2013, and on the 5.4 kilometres of lines A and E in consortium with Colas Rails en 2015.

Developing the tramway network also means extending the rolling stock fleet. Alstom supplied 41 Citadis trams to CTS between 2005 and 2007, and signed a new contract in 2014

for 12 extra trams, for which the first deliveries should begin in summer 2016. They will serve the Illkirch-Graffenstaden town centre and will also circulate on the cross-border line linking the centre of Strasbourg to Kehl in Germany. This tramway will be the first in France to cross a border.

Photo: © Alstom







Alstom delivers ahead of schedule the first Kochi Metro trainset

Alstom has delivered on January 2, 2016, ahead of schedule, the first Metropolis trainset to Kochi Metro Rail (KMRL) of the 25 trainsets ordered by Delhi Metro Rail Corporation (DMRC) in August 2014. The 25 trainsets will circulate on an elevated metro rail network that is 25 km long and includes 22 stations. The line is expected to open in June 2016.

The unique design of the Kochi metro, unveiled in September 2015, has set a new benchmark in urban mobility in India. The front end features LED lights that are in the shape of elephant's tusks. As the metro will run on a viaduct, it will light up the city at night.

Speaking on the occasion, Elias George, Managing Director of KMRL said, "It is a big achievement for Kochi metro. These metro cars are manufactured end-to-end by Alstom in India and are delivered ahead of schedule at a record time of 15 months. I would like to take this opportunity to congratulate the teams from Alstom, DMRC and KMRL, who worked hard to make it happen."

"The delivery of the first train set of Kochi metro marks another major milestone for Alstom in India. The project re-affirms our strong commitment and endorsement of the 'make in India' initiative of current government. Kochi metro is our second metro contract in the country after Chennai, and with the recent award of the Lucknow contract, we are well geared to serve India. We are proud to be able to contribute to the metro development of the country". Bharat Salhotra commented.



Alstom to supply ten extra Citadis trams to the Bordeaux Metropole

Alstom is to supply 10 extra Citadis trams to the Bordeaux Metropole for a total amount of 28 million euros, supplementing the fleet of trams already in circulation on the 79 kilometres of track that make up the network. Bordeaux has ordered 115 Citadis since the year 2000 and owns one of the largest tram fleets in France.



The new Citadis tramsets will enter service in 2018. They are identical to the previous ones and are equipped with the APS system . 44 metres long, they can accommodate more than 300 passengers each, equivalent to over 3 buses. Citadis offers optimal on-board journey quality with a fully low floor, air conditioning, a video surveillance system and audio and visual information. Up to 98% recyclable, Citadis helps to preserve the environment.

"This new order confirms the trust placed by the Bordeaux Metropole in Alstom's Citadis. These ten new tramsets will be designed and produced in France to very high standards of quality and respect for deadlines," says Jean-Baptiste Eyméoud, Senior Vice President, Alstom France.

The trams will be produced in Alstom's manufacturing sites in France: La Rochelle for the design and assembly, Ornans for the motors, Le Creusot for the bogies, Tarbes for the traction equipment, Villeurbanne for the on-board electronics and Saint-Ouen for the design.

Photo: © Alstom

Alstom to supply 15 Citadis Dualis tram-trains to SNCF

Alstom will supply 15 Citadis Dualis to the region of Ile-de-France following the second exercise of an option by SNCF on behalf of STIF. The order, which is part of a framework contract signed in 2007 with SNCF for the French regions, is worth 75 million euros. The Citadis Dualis tram-trains will be delivered from October 2017 onwards. and their entry into commercial service is scheduled for 2019 on the section between Livry-Gargan and Clichy Montfermeil.

Designed to meet increased mobility needs between urban and suburban networks, Citadis Dualis links the centre of town with the suburbs without having to change trains, combining the advantages of the train with those of the tram.

Designed along the lines of Alstom's Citadis tram, the Dualis version retains the fundamental characteristics which secured its success: modularity, accessibility, reliability. Dualis can run on a tramway network just as easily as on a regional rail network thanks to certain adaptations in terms of power, security and comfort. This configuration creates a polyvalent mode

a tram, it can circulate in town, while its performance, the same as that of a train, enables it to transport passengers at speeds of nearly 100 km/h in outlying areas without the need for changing modes of transport. Citadis Dualis contributes to sustainable mobility by revitalising urban spaces and enhancing the architectural heritage of cities.

To date, 48 Citadis Dualis tram-trains are in circulation: 24 in the Rhône-Alpes region to the west of Lyon since 2012 and 24 in Paysde-la-Loire, which respectively entered commercial service on the lines of Nantes-Clisson and Nantes-Châteaubriant in June 2011 and February 2014. 15 tram-trains for Ile de France are currently being manufactured in Valenciennes, where this new order will also be carried out. Five other sites will be involved in the manufacturing process: Ornans for the motors, Le Creusot for the bogies, Tarbes for the traction equipment, Villeurbanne for the on-board information and passenger systems, and Saint-Ouen for the design.

Over 150 Alstom tram-trains (Citadis Dualis and Regio Citadis) have already been sold

> Europe, covering over 50 million kilometres.

> > Photo: © Alstom





Graded coal shipments are in full swing

Solid fuels is one of the most important commodities that ČD Cargo trains transports. More than 60% of a volume of 16 mil. tonnes of solid fuel transported by ČD Cargo trains is brown coal. The largest part is then used in power plants where it is converted into electrical and thermal energy. A significant share is also transported as sorted coal for retail customers. Coal is still a popular fuel Czech households.

Unfortunately, today most of the shipping of sized coal is by trucks. Despite many unfavourable factors, ČD Cargo is fighting hard with road transportation. The result is

a shipment of almost 700,000 tons of sorted coal annually to designated retail customers.

And for those interested in the sorted coal shipment, ČD Cargo is the sole domestic rail carrier that provides transportation of fuel through individual wagon loads to about a thousand unloading places in the Czech Republic. If the customer is interested in transporting large quantities of coal, CD Cargo can arrange transportation in groups of wagons.

> Photo: © CD Cargo





Alstom's Regiolis trains in Picardy operated in triple units for the first time to accommodate over 1000 passengers per journey

Since the transition to the 2016 winter timetable, SNCF and the region of Picardy offer a daily return service between Laon and Paris for 1000 passengers, thanks to the use of Alstom's Regiolis trains in multiple units of 3.

The Regiolis trains have been in commercial service in the region of Picardy since 25 April 2014. The region has ordered 17 Regiolis trainsets consisting of 6 cars each in their dual-mode version (diesel or electric dual voltage). 110 metres long, each trainset can accommodate up to 334 seated passengers. 15 trainsets have been delivered to date and have travelled over 1.3 million kilometres; the final trainset will be delivered at the end of the first quarter of 2016. Thanks to the Regiolis certification programme, as of March 2015 SNCF and the French regions can operate their material in multiple units of three and four trainsets, enabling greater flexibility in line with peak travel times.

Regiolis belongs to Alstom's Coradia range of trains. Thanks to its modular design, it can be adapted to the needs of every organising authority as well as different types of use: suburban, regional and intercity. It comes in three lengths (56, 72 or 110 metres) and offers optimal comfort for passengers, whatever the length of the journey. The train is both ecological and economical, thanks to its low energy consumption and reduced maintenance costs. To date, 216 Coradia Polyvalent trains have been ordered by nine French regions.







CAF WINS SIGNIFICANT CONTRACTS WORTH €740M IN THE UNITED KINGDOM

CAF has recently signed contracts to manufacture two train fleets based on CAF's CIVITY platform with the operator Arriva UK and the finance services company Eversholt Rail Group, which are meant to run in Northern England. The Department of Transport recently awarded Arriva the Northern rail franchise to operate rail services in this region.

These projects include the supply of 43 electric trains of 3 and 4 carriages and 55 diesel trains of 2 and 3 carriages (a total of 281 passenger carriages) for commuter/regional services with a top speed of 100 mph. In addition to the supply of rolling stock, these contracts also encompass technical and logistic support services for both fleets. The value of both contracts combined stands at €740m which is the largest ever secured by CAF in Europe to date and increases the backlog amount up to approximately €5,500m.

Following on the trail of the Caledonian rail project between London and Scotland last year, this is the second order for the British version of the CIVITY platform products. CIVITY trains were recently supplied in Italy and Montenegro, and units are currently being manufactured for the NS project in the Netherlands. This order is strategically instrumental for the Company given the potential of the British market, where several other franchises have plans to renovate their fleets in the forthcoming years.

Furthermore, these contracts are a first for the Company with the Deutsche Bahn group (German Railways), owner of the Arriva company, which is the brand used by the German group to offer their services in several markets. Importantly, the Deutsche Bahn group operates more trains than any other operator in Europe, and is one of the world leading companies in the railway industry.

In the last few years, CAF has succeeded in expanding the company's operations in the United Kingdom with a broad range of vehicles and services. In the 90s, the company delivered trains for the Northern Spirit line and the Heathrow Express link between the airport and Paddington station in London. Recently, the company has developed projects for NIR (Northern Ireland Railways) comprising both rolling stock manufacturing and maintenance services, having also supplied trams for Edinburgh and Birmingham. Last year, CAF signed the above mentioned contract for the Caledonian Sleeper coaches for a total of circa €200m. These trains cover the route between London and Glasgow-Edinburgh and deliveries are expected in 2018.

Also worthy of note, CAF is currently taking part in several competitive tenders for various operators, and has already pre-qualified, as announced recently, for the London Underground tender. Additionally, the company is resolved to bid for the first stage of the HS2 high-speed rail line from London to Birmingham, which is one of the largest infrastructure projects in Europe in the next few years. This is proof of the company's ambition of expanding operations in the United Kingdom in the very near future.























