# Railtalk Magazine Xtra

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#### Welcome

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 concentrate on life outside the UK, and once again we have some excellent shots from some of Europes finest photographers. Our "From the UK" section has a look at the recent DMU gala at Llangollen.

Quite a varied selection again this month, thanks to all our contributors, yet another really great month for photography and although we cannot possibly include all your photos in the magazine we really and honestly do appreciate each and every one that is sent in.

#### **Andy Patten**

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, Phil Martin, John Coleman, Pavel Kopec, Tomáš Kubovec, Richard Hargreaves, Martin Grill, Martin Válek, Pavel Šturm, Bea Želtvayová, Pavel Martoch and BVT

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## Bombardier wins new contract in Delhi to deliver a further 74 MOVIA Metro Cars

Bombardier Transportation has recently announced that it has won an order for 74 BOMBARDIER MOVIA metro cars from the Delhi Metro Rail Corporation Ltd (DMRC). The contract is valued at approximately 83 million euros (\$101 million US) and includes an option of a further 40 cars. Delivery will follow the completion of existing contracts and is expected to end in 2011. With the contract award DMRC will be operating a large fleet of 498 MOVIA metro cars, benefiting from economies of scale in both acquisition and maintenance costs.

The new achievement is a further milestone for Bombardier's railway vehicle manufacturing operations in India, part of a sound and swiftly implemented business expansion plan. The company signed its first contract with DMRC in July 2007, inaugurated its manufacturing plant in Savli, Gujarat in November 2008 and completed the local manufacturing of its first metro car in June 2009. Today over 160 of these MOVIA cars are successfully operating in Delhi's metro network.

Stéphane Rambaud-Measson, President, Passengers Division, Bombardier Transportation, declared: "We are delighted to receive this additional order from Delhi Metro. It is an excellent endorsement of our increasing industrial presence in India, which is growing from strength to strength."

The recent industrial set-up at Savli, where MOVIA metro cars for DMRC are manufactured, is a landmark achievement by any standard. The site was built in a record 18 months involving a great deal of skill and co-operation from Bombardier teams in India and abroad. Providing a further impetus to the local economy and a testament to India's vast skills base, the site generated 750 new jobs and over 2,000 indirect jobs through the local supplier network.

Rajeev Jyoti, President & Managing Director, Bombardier Transportation in India, said: "India's railway industry is expanding at great speed to keep up with the infrastructural requirements of the country. Having anticipated this growth, Bombardier in India is more than ready and willing to match the industry's needs in terms of products, technology and our international expertise. Making Vadodara the only city in the world equipped to deliver all key electrical and mechanical components for the manufacturing of a railway vehicle is a clear demonstration of Bombardier's local capacity and commitment." In the phase II expansion of the Delhi Metro, the modern MOVIA high-capacity vehicles will transport an impressive 4 million passengers every day, reducing their journey time and alleviating the heavy traffic congestion and pollution prevalent in the city. The phase II expansion extends the existing network to a total of 125 kilometres covering all major destinations in the East-West and North-South corridors of the city, which is occupied by approximately 16 million inhabitants.

# Alstom expands its Very High Speed portfolio adding a new train platform

Alstom has unveiled a new model of Very High Speed train at the International railway exhibition EXPO Ferroviaria in Turin, Italy. The new platform is added to an already extensive portfolio, ranging from the tilting High Speed trains Pendolino, to the Very High Speed trains Duplex and AGV. In a market environment where very high speed is growing worldwide, operators in various countries have different needs, strategies, and demands.

The very high speed market has reached a level of maturity that drives customers to refine the identification of their passengers' needs and hence to fine-tune their technical specifications. Applying a logic of continuous progress for its Very High Speed offer, Alstom keeps on developing new offerings in order to provide its customers with the largest range of options, to allow them to configure their specific train.

The operators can then position its business on the most relevant market segment for them and address their own targets more precisely.

As a result, Alstom is further enlarging its portfolio of Very High Speed trains, adding new options that are combined in a third platform: a new very high speed, high capacity, single deck, fully interoperable train. It is based on the best of Alstom technology, which has proved itself over 30 years of experience with the articulated Very High Speed platforms (TGV, TGV Duplex and AGV) and the non-articulated High Speed platforms (Pendolino).

The train, designed to reach a maximum speed of 400 Km/h, relies on 8 traction systems with 8 motors in powered bogies, delivering a total power of 10 MW and is capable of a commercial speed of up to 360 km/h. To free all possible space for passenger, all technical equipments have been placed under the chassis. The interior room for passengers has been maximised thanks to the wide bodyshell and to the positioning of pantographs, so as to keep constant roof height throughout the length of each car. It offers the best ratio in terms of floor surface, number of seats (600) and total train length (8 cars, 200 m).

The train will be able to travel across European borders: it can be equipped with 3 redundant pantographs of different kind (1.500 volts DC, 3.000 volts DC, 15.000 volts AC, 25.000 volts AC) and can install on board 10 different signaling systems.

"This new train is the proof of Alstom's continuous leadership and innovation drive in the field of Very High Speed. It attests to Alstom's will and capacity to offer products that can satisfy all the different needs of the market and the most diverse requirements of operators, especially in countries where very high capacity is a requirement, and the wider body shells used in their railways entail a non articulated train." declared Gian Luca Erbacci, Alstom Transport General Manager for South Europe.

The train is targeted at a worldwide market, with the first real opportunity being Italy and the Trenitalia tender for 50 very high speed trains. Alstom has submitted its bid to this tender on May 20 2010, proposing a specially customized version.

# Alstom and Transmashholding sign a contract for the design and production of the EP20 electric locomotive for the Russian market

On 29 June, Patrick Kron, Chairman and CEO of Alstom, and Andreï Bokarev, Chairman of the Board of Directors of Transmashholding (TMH), signed a contract for the design and manufacturing in Russia of key components for the EP20 electric locomotive.

This contract defines how Alstom and TMH will cooperate in fulfilling the €1 billion order for 200 passenger locomotives awarded a month ago by Russian Railways (RZD) to Transmashholding. Alstom's part of this global contract represents €450 million.

Alstom and Transmashholding have teamed up in a global partnership, which includes a 25% stake from Alstom in the holding company of Transmashholding. This global agreement has already resulted in the creation of a 50/50 joint venture (Tekhnologii Relsovogo Transporta -TRT), which will develop EP20 locomotives on the Novotcherkassk site. It is also planned that this joint venture will develop at a further stage metros, regional trains, passenger cars or other rolling stock.

The production of these locomotives will be carried out by TMH with technical support from Alstom on the same site of Novotcherkassk.

Furthermore, a 50/50 joint venture for the manufacture of components will soon be established: this will produce - also at Novotcherkassk - traction drives for the new EP20 locomotive, to be based on the latest technology from Alstom.

The EP20 is a 7,200-kW triple-bogie locomotive boasting speeds of up to 200 km/h and designed to operate in temperatures as low as -50°C. It will be fitted with current collection and catenary voltage transformation systems so that it can run on both the voltage systems in use on the Russian network. The EP20 will be the first in a new range of locomotives intended for use in the 1520-mm track gauge zone.

"We are delighted to be signing this contract, which puts into effect our partnership with TMH", said Patrick Kron at the close of the ceremony. "The EP20 project will pave the way for a whole new family of modern locomotives for the CIS market."

In addition, during the recent Saint Petersburg Economic Forum, the two partners have just announced the creation of a joint venture with the Kazakhstan Railways (KTZ) to provide electric locomotives to the Kazakh market.

# Bombardier receives order from SBB for 59 TWINDEXX Double-deck Inter-city Trains in Switzerland

Bombardier Transportation has won the tender from SBB, the Swiss Railways, to supply new double-deck trains for inter-city rail travel. The contract for 59 BOMBARDIER TWINDEXX trains has a total value of around 1.8 billion Swiss francs (1.3 billion euros, \$1.6 billion US). This makes the TWINDEXX project the largest vehicle order in the SBB's history. The contract also includes options for more than 100 additional TWINDEXX trains.

André Navarri, President of Bombardier Transportation, commented on the decision: "We would like to thank the SBB for placing their trust in us and are very much looking forward to continuing this successful collaboration. Switzerland has always played an important role for Bombardier, both as a market and as a production location. The three Swiss sites with 900 employees are not only a fixture in the country's traditional rail industry but are also important elements of our international network of innovation and production. The TWINDEXX trains open a new chapter in this success story."

Stéphane Wettstein, Chief Country Representative of Bombardier Transportation in Switzerland, said: "The TWINDEXX double-deck train, with its innovative roll compensation, is a future-oriented concept, yet it also employs tried and tested elements of technology. The TWINDEXX trains are not only extremely comfortable but, thanks to their low operating costs, offer long-term added value in economic terms as well. The decision is also really good news for employees in Switzerland. Our sites in Villeneuve, Zürich and Winterthur are going to benefit considerably from this collaboration. They share a leading role in the project together with our Competence Center for Double-Deck Technology in Görlitz, Germany."

At the signing of the contract, Andreas Meyer, Chief Executive Officer of the SBB, commented: "Looked at objectively, Bombardier best fulfilled the wide-ranging criteria to win the contract. The up-to-date, customer-friendly trains and a further improved product range offer numerous, noticeable

advantages for our customers. What is more, the roll compensation means that we can also save more time, improving punctuality and reducing missed connections. This is an important step towards improving our own service."

The 59 trains consist of a total of 436 fully air-conditioned carriages providing over 36,000 seats. The train concept was developed by the Bombardier Transportation Competence Center for Double-Deck Technology in Görlitz. Görlitz can look back at a record of more than 2,500 double-deck cars that have been produced

since the 1990's that were tailor-made for various international markets.

Features of the TWINDEXX trains that will increase passenger comfort include spacious interior compartments, wide doors for entry and exit, wireless internet access and business class compartments. The trains are fitted with electronic customer information and emergency call systems as well as CCTV. The roll compensation BOMBARDIER FLEXX Tronic WAKO system is one of the key technical elements of the TWINDEXX trains. It was developed by the Bombardier Competence Center for Bogie Design in Winterthur. This mechatronic technology merges proven technical components into an innovative system. FLEXX Tronic WAKO compensates the natural roll movement of the carbody maximizing comfort for passengers and at the same time allowing the train to take corners particularly quickly. With this technology, double-deck intercity trains will be able to increase their speed in curves by 15%, thus significantly reducing travel time. Compared to other systems, where some passengers complain of motion sickness, the carbodies will tilt only to a very limited degree.

Reduction in energy consumption by ten percent has been achieved thanks to a selection of BOMBARDIER ECO4 products. The BOMBARDIER MITRAC Permanent Magnet Motor is the main contributor in combination with further ECO4 technologies like the ThermoEfficient Climatization System and the Energy Management Control System. These technologies contribute to the economical life cycle costs and ecological impact of the trains but also the excellent performance.

Both the Bombardier site in Zürich and the Villeneuve factory will increase their capacity in order to complete the project.

The TWINDEXX project will be managed from Zürich, while Villeneuve – the only rail production site in western Switzerland – will be responsible for producing the vehicles together with Görlitz. Görlitz is also taking the lead in the engineering process. The Winterthur site will design the bogies, while production will take place in Siegen, Germany. The Swedish site of Västeras will be responsible for the drive system with the super-efficient permanent magnet motors.



#### More Variobahn trams for the Ruhr area

BOGESTRA is moving ahead with the modernisation of its fleet of trams: the company specialising in local transport systems is to buy 15 further Variobahn trams from Stadler Pankow GmbH and is thus exercising the option it arranged in 2005 when it ordered the first 30 trams. The delivery of the trams is due to take place between 2013 and 2015.

The total investment in the new vehicles is approximately EUR 30 million. BOGESTRA has been running modern, low-floored trains of the Variobahn type on its routes since 2008. They were first used on the 301 line (Gelsenkirchen main station—Gelsenkirchen-Horst), then later on the 306 line (Bochum main station—Wanne-Eickel main station). They have more space and are more comfortable. The 30 trams in the first order will be delivered gradually until the end of 2011.

Two thirds of them are already in use. The Variobahn trams are all low-floored and stand out thanks to their award-winning design as well as their fully air-conditioned interiors. Five door areas on each side allow passengers to get on and off the tram comfortably at all times. Passengers with restricted mobility also have

the use of the four convenient folding ramps (two on each side). These are the first BOGESTRA trams that are fitted with closed-circuit television, and tickets may also be bought from the driver. The trams will gradually replace the "M carriages" from the 1970s and 1980s. Among other routes, the further 15 Variobahn trams are mainly intended to serve the extended 310 line. The Variobahn trams are manufactured at Stadler Rail Group's competence centre for trams in Berlin. In addition to locations in Germany (Berlin-Pankow and Velten) and in Switzerland (Altenrhein, Bussnang and Winterthur), rail vehicle manufacturer Stadler Rail has locations in Poland (Siedlce), in Hungary (Budapest, Pusztaszabolcs and Szolnok), in the Czech Republic (Prague), in Italy (Merano) and in Algeria (Algiers). The Group has a workforce of over 3,000 people around the world. The best-known vehicle series from Stadler Rail Group are the articulated multiple-unit trains GTW (501 trains sold), the Regio-Shuttle RS1 (442 trains sold), the FLIRT (579 trains sold), the double-decker DOSTO (125 trains sold) in the railway segment, and the Variobahn (284 trains sold) and the newly-developed Tango (122 trains sold) in the tram segment. Furthermore Stadler Rail manufactures passenger carriages and locomotives and is the world's leading manufacturer of rack-and-pinion rail vehicles.



### Alstom opens a new maintenance site in Germany

Alstom is opening a new service and maintenance centre located in Braunschweig, Germany. Alstom will bring new life to the halls of Braunschweig's former locomotive maintenance site during the coming months—in order to respond to an increasing demand from a growing service market.

Today, approximately 20% of the Regional traffic in Germany is performed by private operators bringing a strong renewal of the fleets in operation—representing a growing trend that is equally strong in the Netherlands and Nordic countries. The new 15,200 square metre site is slated to be operational in 2011.

The new Braunschweig centre will specialise in the maintenance, modernisation and heavy repairs of electric rolling stock: regional trains, tram-trains, tramways, metros and locomotives in Germany and its surrounding countries. The site will also incorporate a logistics centre responsible for the supply of spare parts—comprising 3,000 square meters.

The new site will include four static test tracks available after renovation work has been completed. Three tracks are intended for maintenance and repair work, while painting operations will take place on the fourth track. A fifth commissioning track equipped with 15 kV will be installed in 2011 to ensure that repaired vehicles can also be put into operation on site.

"Braunschweig is the ideal strategic location for the targeted growth in the heart of the Northern European market. Private operators depend on a reliable service partner. On the other hand, the know-how from the expanded service business ensures optimized products and thus optimum technical support for the state transport companies as well," said Dr. Martin Lange, Managing Director of Alstom Transport in Germany.

# Vectron – Siemens' universal locomotive for rail transportation in Europe

Siemens presents Vectron, a new locomotive generation that has been developed for the widest possible range of traction tasks. These locomotives can be used for both national and cross-border passenger and freight traffic and are built for a maximum speed of either 160 km/h or 200 km/h. The various performance classes and voltage systems - with either alternating current (AC), direct current (DC) or multi-system type - enable the locomotive to be configured easily to individual requirements. Country-specific automatic control systems can simply be exchanged or added. Another special feature is the front end that is designed as an internal deformation zone. This can be readily disconnected from the rest of body, thus ensuring easy replacement in the event of an accident. The components in the machine compartment are arranged to make the best possible use of space. The completely modular concept is also suitable for operators who require only small numbers of vehicles.

Vectron designed by Siemens: The new generation of locomotives has been developed for the widest possible range of traction tasks. These locomotives can be used for both national and cross-border passenger and freight traffic and are built for a maximum speed of either 160 km/h or 200 km/h. The various performance classes and voltage systems enable the Vectron to be configured easily to individual requirements. Country-specific automatic control systems can simply be exchanged or added. Rail transportation in Europe is changing at an ever faster rate. The logistics are becoming more and more complex; goods have to be moved more quickly and over greater distances. The cross-border traffic in Central Europe and on the Southeast Corridor is already heavy and will continue to increase. Modern locomotives have to be capable of serving these main routes and future growth regions, which means they have to be interoperable and pre-equipped to operate there. They have to be built to ensure easy conversion to country-specific systems and equipped with intelligent train protection concepts. In addition, greater environmental awareness and new logistics concepts are elevating the

importance of national transports by rail.

Siemens offers a number of Vectron versions for a range of transportation tasks. The Vectron not only covers the high performance class up to 6400 kW but also provides solutions in the medium performance class up to 5200 kW for regional passenger traffic and lighter freight trains. A diesel-electric version is planned for the medium term. The locomotive body is designed to withstand stresses with a maximum static tensile force of 1,500 kN and a maximum static compressive force of 2,000 kN.

The service-proven, semi-suspended hollow shaft motor drive has been developed further for the required speed range. The lower unsprung masses reduce track wear. The standard Vectron is designed for a maximum speed of 160 km/h, but it can be upgraded to a 200 km/h high-speed version with an appropriate preliminary equipment package and without having to change the bogies. The bogies can be originally equipped or retrofitted with active rotational dampers (ADD). The ADD fulfills the function of a conventional rotational damper while also being an actuator. This reduces the guiding forces in curves and increases wheel service life because tread and wheel flange wear is lower. The machine compartment layout, with a central aisle, makes optimum use of space and also makes maintenance exceptionally easy. Racks with the same functions have the same specified locations in all versions. It has been possible to shorten the traction converter even further. The space subsequently gained from this has been used to install the AC main current components alongside the DC components in the machine compartment instead of on top of the roof. This substantially reduces the cost of repairs and the length of downtimes in the event of damage to the overhead contact line.

The Vectron's train protection concept is exceptionally versatile. The locomotive is preconfigured for operation in almost all European countries. There are three fixed rack positions in the machine compartment for the train protection cabinets. The cabinets themselves have a modular design for easy conversion and retrofitting. The underfloor area and the bogie have also been prepared for the mounting of antennas and speed encoders. The concept of predefined installation locations has also proven itself for the driver's desk because subsequent retrofitting does not require any makeshift structures.

The Vectron has major advantages when it comes to safety.

Firstly, it has a defined deformation zone in the front end, which can be disconnected from the body. Secondly, the straight, central aisle provides a quick escape route.

The new Railcover service concept was developed in conjunction with the Vectron. It offers freely combinable modules for the spare part supply, maintenance and servicing, which can be selected to match the customer's specific requirements. Various grades of support can be provided to ensure the highest possible availability, ranging from mobile on-site support to full service for the complete vehicle fleet. Russian Railways orders locomotives with Siemens technology Russian Railways (RZD) today ordered a total of 221 locomotives from "OOO Ural Locomotives", a Siemens joint venture. The new company which was formed last week as a joint venture with the Russian freight locomotive manufacturer OJSC Sinara Transport Machines (Sinara) will build modern electric locomotives in Verkhnyaya Pyshma near Yekaterinburg. Siemens has a 49 percent stake in the joint venture. The contract was awarded at the international rail business forum "1520 Strategic Partnership" in Sochi on Russia's Black Sea coast. The parties have agreed not to disclose the order volume. Furthermore Siemens and RZD have agreed on expanding their partnership in the long term. A memorandum of understanding between both parties makes provision for the future production of regional trains with Siemens technology in Russia.

The contract signed today calls for the supply of 221 electric freight locomotives, which will be built by "OOO Ural Locomotives" as of 2011. Siemens is set to invest over EUR 100 million in setting up a modern freight locomotive production, thereby creating around 800 jobs for highly qualified personnel. Siemens' role in the joint venture will be to supply the electric traction components, which will be manufactured in St. Petersburg. At the same time, work has begun on setting up an engineering center for rolling stock in Moscow, which will create around 200 jobs at Siemens in Russia.

As Division CEO Hans-Jörg Grundmann stated, "Russia is a strategic growth market for rail technology. Our all-around portfolio for modern and ecofriendly transportation technology positions us perfectly in the rolling stock and rail infrastructure markets. We also wish to remain a dependable partner for RZD in future and will continue to place great importance on local manufacture in Russia."

Photo next page © Siemens



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# Naming of the first FLIRT train for the Berchtesgaden Railway

At the train station in Bad Reichenhall on Tuesday, 29
June, the first railcar of the Berchtesgaden Railway was
baptized. The prominent Godfather District Georg
Grabner thanked the manager of the Berchtesgaden
train, Arnulf Schuchmann for bringing to name: "The logo
and the emblem on the FLIRT, the Berchtesgaden, and
the Salzburger Land. The modern and comfortable trains
will be operating between Salzburg and Golling."

Chief Administrative Officer Georg Grabner and Arnulf Schuchmann were yesterday agreed that the Berchtesgaden train with passengers is now very well accepted.

The start date for the service is not known, as yet. The lack of approval and an act of vandalism have ensured a delay. "Our Next steps include better through service to the trains to Salzburg and a technical solution for the many unsecured crossings, "said Schuchmann

BLB is an official member in the Salzburg Transport Association (SIA). The Association coordinates the performance of public transport in Salzburg and in the adjacent regions. "Our membership in the SIA as border rail link is of course an important requirement for the transport planning in the coming years.

It facilitates not only the fares. The SIA Membership offers many benefits for the passengersm and holders of SVVJahreskarten can convey their bikes for free."

However, in the district of Berchtesgaden, the bicycle transport is already free.

Vacationers and day trippers have in recent weeks, used the Berchtesgaden train frequently. The trip to school both with and without bicycle or a visit to Berchtesgaden, Bad Reichenhall and Salzburg were the most sought after destinations.

"I am particularly pleased that there are benefits for all age groups, with the railway as means of transportation. There are more passengers travelling from the Salzburg area and from the circle of Munich, "said Schuchmann and He adds: "We particularly recommend the journey home by train to the popular festivals in Bad Reichenhall and Berchtesgaden. "

Change in the management of Berchtesgaden train sees Arnulf Schuchmann leave the management from Wednesday 30 June with Mackinger Gunter, current director of the Salzburg branch line taking over the position of Managing Director from 1 July to take over. Arnulf Schuchmann, will however continue to advise as a transport expert.



#### Alstom delivers first renovated coaches for the Bucharest Metro

On 26 May, the first two renovated coaches of the Bucharest Metro left Alstom Transport's site in Reichshoffen. After a 5-day trip across Germany, Austria, Hungary and then the Carpathian mountains in Romania, the coaches will be delivered to Metrorex's workshop in Bucharest.

Alstom will renovate a total of 15 of the oldest train sets in the Bucharest Metro fleet. They were manufactured for Metrorex - the company which runs the metro system - by Astra in Romania some 20 years ago. Alstom Transport's teams in Reichshoffen, France, have been entrusted with the engineering and industrialisation of this renovation project, together with work on the two pre-production coaches. The coach's drive trains and auxiliary converters will be renovated as part of the project. In addition, the air production assemblies and braking systems will be replaced. The series will then be modernised in Alstom's Bucharest workshops, where Alstom already supervises maintenance operations on the metro's train sets.

Examination of the pre-production coaches has already allowed Alstom's teams to examine the equipment's design. They were then reconditioned so that they could run on the Reichshoffen site's test track and have their traction and braking performance measured, before later being renovated and then put through validation tests. This project involved a team of ten or so people over more than 12 months at the Reichshoffen site. Around 10 Alstom employees in Bucharest were also involved in cabling.

The first renovated train set is scheduled to come into commercial service in November 2010. Mass renovation of the 15 train sets will begin in June 2010 and is scheduled to be completed by March 2012.



#### CD Cargo for United Raildays Fair 2010 in Ostrava

CD Cargo is the company traditionally to attend the 11th International Fair railway technology, products and services for rail and urban transport, United Raildays 2010 - Days of rail transportation, which took place on 15 to 17 June at the cargo station in Ostrava.

Immediately after the opening of the fair on 15th June at 9.30 h, chairman and CEO of CD Cargo Ing., Josef Bazala officially accepted from chairman and CEO CZ LOKO Ing. Joseph Barta the last locomotive of Class 753 from the contract to upgrade a total of 30 pieces of locomotives.

Modernization of locomotives from the original Classes 750, 752 and 753 was launched in 2008 and the project was financed through a leasing company ING Lease.

The Class 753 locomotive upgrading acquired a new ecological, more efficient Caterpillar combustion engines, a new auxiliary drives, a new train protection and radio stations for GSM-R, a new control and diagnostic system, and has been equiped with electrodynamic brakes and modernized for the driver.



Also at the fair by CZ LOKO there was a ceremony for CD Cargo locomotive 742 number seven hundred and first.



This is a test prototype, which is for modernization of the original Class 742. The locomotive will have to passes trial operation, after which an evaluation CD Cargo will consider any further upgrading of locomotives in this series. After upgrading to a new locomotive ecological, more efficient internal combustion engine with increased power of Caterpillar, a new auxiliary drives, a new train protection and radio for GSM-R, a new control and diagnostic system, has been achieved by electrodynamic brakes and modernized the driver. Locomotive 742 701 renovated cab, lowering the hood, the system provides automatic speed control, fuel metering and management of daily disturbances.

Both modernization projects were based on a proper selection process, in both cases, victory and upgrading performed by CZ LOKO based in the Czech Trebova.

The main benefit of upgrading is to increase the lifetime of the original locomotives at least 20 years, increasing reliability and improving the majority of operating parameters. Finally, there has been modernized to improve the comfort of service staff.

CD Cargo is the company cooperated with VÍTKOVICE Transport, Inc., and Research Institute of Rail, as the project

for the locomotive to drive the Class 703 with compressed natural gas (CNG). CD Cargo Company has provided the project suitable rail vehicle for sale with the necessary documentation, VÍTKOVICE Transportation implemented a reorganization and Research Institute conducted the necessary rail consulting business. By fitting the exchange of gas cylinders and engine size for a Tatra engine CNG Tedom has been extended cab, engine cover gallery and locomotives. The aim of reconstruction was to reduce fuel consumption, exhaust emissions and noise from vehicles, the project followed the economic and environmental benefits. All three locomotives were on display throughout the fair.

CD Cargo is the long-term role in support of secondary education in the fields of transport, forwarding and logistics and its link with practice. An example is the promotion of the Foundation for Young hauler, which holds an annual competition for students.

Sixteen four-member teams from eight selected schools will also be processed this year, theoretical issues in the field of freight forwarding and logistics, and address specific instances of practice. The best take on the opening day of the fair United Raildays 2010 awards from the hands of the Director General of Railways Cargo Ing. Josef Bazala. He also representatives of the Foundation for Young hauler shall check gift worth 55,000 CZK.



# CZ LOKO modernize "Cobra" locomotives for Czech Railways, they will be more economical and environmentally friendly

Czech engineering company CZ LOKO for Czech Railways will upgrade 19 locomotives 750 known as the "cobra". Will finance the modernization IMPULSE-Leasing-AUSTRIA. Total cost of upgrading, including the financial cost of leasing the 678 million CZK. A similar type of upgraded engines successfully used by many other carriers in the Czech Republic, such as CD or OKD Cargo Transport, but also carriers in Italy. Upgraded engines are mainly used in express transport from Prague through the sand into the Czech Budejovice, near Brno, or the lines of Hradec Kralove in Trutnov and Letohrad. "The upgrade will replace the original diesel engine, mainly the powerful, but energy and maintenance efficient type of power Caterpillar 1455 kW. Estimated savings compared with diesel locomotives still hovers on the basis of calculations and the operational experience of about 1.1 liters per kilometer, "says the modernization of locomotives Deputy **Director General for passenger Antonin** Blazek, and added other benefits:" The new engine will have better dynamic properties, resulting in savings in travel time.

In addition, a reduction in maintenance costs. In the end, thus allowing for savings on wages is in the order of several million crowns annually. Streamlined locomotive will also be guieter and produce less emissions. These changes will certainly welcome especially people living in the vicinity of the railway. "According to Blazek modernization" four-eyes "to exclude the oldest large diesel locomotive number 749 with the nickname "Cloudy" or "Bardotka" and restrict the operation of larger diesel locomotives medium power, such as series 742, which have in front of the hood and driver side view it is to operate passenger trains ideal. Czech Railways used to finance the modernization of the various ways of financing from own funds through bank loans for leasing, which was chosen in this case. For details, explains Director of investment and procurement Dluhošová Hana: "The call for tenders, which won jointly by CZ LOKO and IMPULSE-Leasing-AUSTRIA, we set the form as a condition of re-leasing. This means that Czech Railways to sell 19 locomotives of those 750 companies IMPULSE-Leasing-AUSTRIA, which is part of a banking group Raiffeisenlandsbank, the price of 40 million and after modernization, made by CZ LOKO, is get into a financial lease for ten years the subsequent redemption. Price of modernization of the locomotive reaches the amount of 678 million crowns, "explains director Dluhošová. Length of contract is set at 24 months until mid-2012, by which is to be put into operation all 19 refurbished

locomotives.

#### ÖBB - More customer friendly

Vouchers for compensation of small delays are now also available on train. If one goes on a journey, some times all does not run as planned, for ÖBB rail passengers this has now been remedied. All 1500 ÖBB Ticket Inspectors can now quickly and easily print out compensation vouchers.

"For our clients it is important for rapid and non-bureaucratic solutions for small defects found. That is where we are now exactly at. We are talking about lived service orientation and customer friendliness,"" said Gabriele Lutter, Chief Executive Officer ÖBB passenger AG.

No matter whether you ask the customer or the Inspector - the feedback on the voucher solution is unanimous in more than positive. On the customer side, the rapid and non-bureaucratic solution to a problem on the spot very well supported and always nice with a "Thank you, very nice," acknowledged. On employers' side is the constant availability of this type of compensation on the plus side, as well as the restoration of customer satisfaction. "The ability to independently and immediately remedy the situation for all parties is the ideal solution." Lutter concluded.



#### From the UK







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## **From the Archives** SNCF diesel hydraulic shunter No. 8449 is seen between duties at Amberieu on September 17th 2003. This loco, part of a fleet of 150 has a 12 cylinder Poyaud diesel engine, and Voith transmission. Class 47 Pg. 45





