Ralltalk Issue 61x October 2011 Magazine

October 2011

ISSN 1756 - 5030

Xtra



DB Class 140 - 1950s design and still going strong







































On September 7th, Bulgarian Class 07, No. 07.106 powers away from the Bulgarian border post of Svilengrad with Train No. 13499 "The Orient Express". This loco will work the train over the border to Edirne in Turkey. This train originated in Paris and only runs once a year along the full route from Paris to Istanbul. Steve Madden

On an autumn West Australian day, ARG's narrow gauge No. S3303 takes empty coal hoppers south to the mines at Collie in South Western Australia. Colin Gildersleve 3303



















Russian Railways place two orders with Siemens and partners

Russian Railways (RZD) have placed an order for further Desiro RUS type regional trains with Train Technologies, a joint venture of Siemens and the Russian rail technology manufacturer Sinara. The order, for which a preliminary contract was signed in June of this year, is for the delivery of 1,200 cars and is worth about two billion euros. Production in the Ural Locomotives factory near Yekaterinburg is due to begin in 2013. RZD has also awarded Siemens a 40-year maintenance contract, effective 2013 and covering a total of 54 trains of the same type that RZD had already ordered in 2009 and 2010. This maintenance contract is worth around 500 million euros. The relevant agreements were signed by Peter Löscher, Siemens CEO, Vladimir Yakunin, RZD President, and Dmitriy Pumpyanskiy, President of the Sinara Group, at the international rail business forum "Expo 1520" in Shcherbinka near Moscow.

The Siemens Desiro RUS type trains for regional rail service can operate at a top speed of up to 160 km/h. In Russia, they go by the name of Lastochka ("Little Swallow"). The first units are due to enter service in Sochi in autumn 2013 (photograph shows a design study).

Starting in 2013, the 1,200 new cars ordered by RZD for the Desiro RUS type regional train are to be built in the Ural Locomotives plant near Yekaterinburg, where Siemens has been manufacturing electric freight locomotives since 2010 under the terms of a joint venture. "In all, we shall be investing more than 200 million euros in the Desiro production setup - in modern buildings, machine tools and personnel training," said Siemens CEO Peter Löscher. "Siemens is the most successful non-Russian supplier of railway technology in that country. By localizing production activities, we are strengthening this market position and securing our close ties with the Russian railway industry." Hans-Jörg Grundmann, CEO of the Siemens Mobility Division, added, "The trains will be delivered in the period from 2015 to 2020 and deployed above all in Russia's rapidly growing metropolitan regions. This order clearly shows that conurbations are a huge growth market. Studies forecast that worldwide around five trillion euros will be invested in urban transportation systems by 2035." With the latest order for nearly 300 Desiro trains, Russia is creating the basis for modern and eco-friendly urban transportation for the future.

These new regional trains will offer enhanced comfort for the passengers and the train personnel alike. Besides that, compared to the trains currently operating in Russia, the new Siemens trains will consume roughly 30 percent less energy. Going by the name of Lastochka ("Little Swallow") at RZD, the Desiro RUS can operate at a top speed of up to 160 km/h. The vehicle is a development of the Desiro ML and has been specially adapted to the demands of the Russian market. This means not only resistance to temperatures as low as -40° Celsius, but also carbodies and bogies that are built for 1520-millimeter broad gauge track.



DB Schenker Logistics Establishes a New Road-Rail Interface in Northern Italy



The 250-meter indoor track enables multimodal solutions for weathersensitive freight

DB Schenker has opened a new logistics center in the Northern Italian town of Dinazzano, which improves the links between road and rail. The center, located next to the already existing facilities of the Schenker Italiana S.p.A. branch of Dinazzano specialized in rail logistics and forwarding, is thus able to offer complete multimodal solutions. The single-track hall of the new terminal is 250 meters long and 26 meters wide and has an indoor height of ten meters. Inside the hall, valuable sensitive freight can be transshipped between rail cars and trucks in any weather. The terminal makes comprehensive additional logistics services possible. The site includes an approximately 30,000 square meter asphalted outdoor area. The siding is 600 meters long.

The facility offers efficient transshipment equipment, including bale clamp forklifts with rotating clamps, cranes that can carry up to 35 tons and a truck scale for checking vehicle units up to 18 meters long. The quartz cement floor inside the terminal can support up to 100 tons. The team of specialists of the Schenker Italiana S.p.A. branch of Dinazzano for rail forwarding and logistics is also based in the new logistics center. Along with the existing DB Schenker Railport in Castelguelfo, the new terminal gives DB Schenker especially efficient capacity in the Emilia-Romagna region.

"Our new multimodal logistics center serves as an interface between the different modes of transport and enables a high quality of service in a wide range of logistics services," said Karl Nutzinger, Member of the Management Board of Schenker AG responsible for Land Transport. "At the same time, the new terminal has allowed us to continue to expand our leading position in linking road and rail."

The center is located near Bologna and Modena in one of Italy's most important economic regions. In addition to the automotive industry, the region is also home to over 200 companies that manufacture tiles and terracotta products for export. DB Schenker supplies the Italian tile industry with around one million tons of clay from Germany's Westerwald region by rail via the Dinazzano terminal. From there, Schenker Italiana S.p.A. in cooperation with DB Schenker Rail ships tiles and ceramics to Northern Europe.

Czech Railways order 16 Railjets from ÖBB master agreement with Siemens



Siemens Mobility has received an order from the Czech railway company Ceske Drahy (CD) for the delivery of 16 seven-car Railjet trains. This order involves the takeover of an option that was originally intended for Austrian Federal Railways (ÖBB). Czech Railways plans to use these Siemens-built intercity trains to modernize its fleet. The Railjets will be deployed on the national mainline between Prague and Brno and in cross-border traffic to Austria, Germany, Hungary and Slovakia. Delivery of the trains is expected to start in 2013. All 16 Railjets are due to be delivered to Czech Railways by 2014.

The Railjet trains reach a top speed of 230 km/h and meet all the requirements for international high-speed rail operation. The technical design is based on the service-proven Viaggio Comfort type intercity vehicles. The standard configuration consists of a driving trailer and six intermediate cars that are coupled to a locomotive operating in push-pull mode. The onboard amenities include a bistro car, a restroom that is accessible for persons with reduced mobility, a wheelchair lift on each exit side, spaces reserved for baby carriages and strollers, and a mini-cinema for children. The entire train is 185.5 meters long. This order involves the takeover of a contract option that was originally intended for Austrian Federal Railways (ÖBB). The order is worth more than 200 million euros. The trains now being ordered by Czech Railways were actually the third and final part of a large-scale order placed by ÖBB for 67 Railjet trains. In the end, ÖBB ordered 51 of these trains from Siemens, 40 of which have meanwhile been delivered.

Stadler Pankow GmbH opens new plant in Berlin-Hohenschönhausen

- 300 new jobs to be created by 2013 in Berlin-Brandenburg metropolitan region
- Klaus Wowereit, Mayor of Berlin: "Berlin's industry is fit for the future. Its strength is its close mesh with an excellent local research environment."
 - Stadler receives first order from UK

Stadler Pankow GmbH, a member company of Swiss Stadler Rail Group, has opened its new plant in Berlin-Hohenschönhausen, at an official ceremony. During the celebrations, the first tram produced in Hohenschönhausen rolled out of the sheds. Spurred by new national and international orders, Stadler is investing around EUR 10 million in two new production sites in Berlin. The main focus of the Gehrenseestrasse plant in Hohenschönhausen will be final assembly of the vehicles. A new site in Berlin-Reinickendorf will handle production of bodyshells for the double-decker multiple-unit train KISS.

"Berlin's industry is fit for the future," proclaims Berlin's Mayor, Klaus Wowereit. "After radical restructuring, it is now contributing again to the economic growth of our capital city. We are delighted that innovative and internationally competitive businesses are locating to Berlin. They profit from a close mesh with an excellent local research environment." Michael Daum, Director of Stadler Pankow GmbH, adds: "Berlin's ample, skilled and highly qualified workforce offers us a clear advantage in this location. Our market estimates indicate that we are going to create 300 new jobs at our sites in Berlin and Brandenburg by 2013."

Stadler Pankow has been active on the German market since 2000 and has quadrupled its workforce over the past decade. From 200 employees in 2001 to 830 in 2011, the trend is rising. The company has sites in Pankow, Velten (Brandenburg), Reinickendorf and now in Hohenschönhausen too, making Stadler Pankow the centre of competence for the Regio-Shuttle RS1, one of the first of a new generation of multiple-unit diesel-powered commuter trains to be distributed widely across Germany. Stadler Pankow is also the centre of competence for trams and underground trains. It is not only a production base, but handles market prospecting within Germany and for international export. Stadler trams not only ply the streets of German cities, but are present in Bergen (Norway), in Austria and in France. They will shortly also be making their debut in Luxembourg and London.

All commuter railway systems, regional vehicles and double-decker multiple-unit trains ordered in Germany are developed and manufactured in Germany.

First order for UK: Berlin trams soon to serve Croydon, London "We are thrilled to receive orders from Veolia, ODEG, Luxembourg State Railways (CFL) and also from London's Tramtrack Croydon Limited, for example. They give us the opportunity to revive Berlin as a traditional centre of rolling-stock manufacture and to make a significant contribution to it," states Daum. Stadler Pankow is already working on its first order for the United Kingdom: six Variobahn-type trams for the London Borough of Croydon. Daum continues: "Final assembly of all vehicle models will take place at our new site in Hohenschönhausen. These range from our Tango/Variobahn trams and underground trains to the FLIRT regional train, the electric double-decker multiple-unit train KISS and the Regio-Shuttle RS1. The rail vehicles will then be commissioned in Velten."

Christina Emmrich, District Mayoress of Lichtenberg, explains: "We are delighted that Lichtenberg is not only becoming more attractive as a residential district, but is also establishing itself as an ideal industrial location, especially with its suburb of Hohenschönhausen." Originally, Stadler's new Hohenschönhausen plant used to fabricate concrete slabs. After comprehensive modernisation, around 70 employees here are currently producing rail vehicles for customers in Potsdam, Mainz, Munich, Bergen, Graz (Austria), Luxembourg and Croydon (London).

Stadler Group offers full services across all segments of the commuter transport market. Theserange from development, design and manufacture of vehicles, through assembly, painting and commissioning to maintenance, upgrading and repair. With over seven decades of experience, the company can complete orders in a short lead time, with an eye on cost-effectiveness. Special importance is attached to elimination of barriers and energy efficiency.



Modernisation of Attnang-Puchheim Station

The story so far

The time since the commission with this extensive project was utilized to perform soil exploration and to determine the spatial concept for the station. In addition, it was necessary to plan the interfaces between rail and bus services, as well as to the exact reconstruction of the highway works to align and coordinate with the relevant authorities. In January 2011 with the removal of the old station building was begun. Construction work for the passage of pedestrians to hit place was started in autumn 2010. In May 2011, was the passage of pedestrians in the shell to be completed. End of May 2011 was commissioned by ÖBB-project management with the next action. These include the renovation of railway tracks and the production of two new covered station platforms as well as elevators and escalators between the passage of pedestrians and the platforms. By implementing this measure, all requirements of a modern transport station are met.

"These renovations will allow for Attnang-Puchheim and the entire region to produce an attractive railway station, which is based on the most beautiful train stations in Austria," says DI Franz Hujber, station renovation project Attnang-Puchheim, ÖBB-Infrastruktur AG. "Gmunden for regional services and those who commute out of the room, Vöcklabruck and Hausruck is Attnang-Puchheim central traffic turning point. Therefore, we pay 20 percent of the funding for a modern railway station to receive, which will be a business card for public transport," says the Oö. Provincial Traffic Hermann Kepplinger.

What happens next

In the first phase until the end of 2011 preparatory work such as piling works and Gleisverschwenkungen be performed. From early February 2012 while the civil works for the new station building, the construction of the new island platforms 4 / 5 and the construction of the new pedestrian tunnel will be made to the platforms. Should be the end of 2014, construction work, coordinated with the conversion work for the new bus station at the track was completed.

Full accessibility and comfort in the new station

The station building is designed in a modern architecture. The glass surfaces provide a good entry of light into the building and into the basement, which now serves as the access to the tracks and hit the course. From Renner place of the platforms or in the course of the Park & Ride areas or from the track leads into the basement area of the ticket hall. In this there is the ÖBB ticket sales, a bake shop, a tobacconist and a toilet facility. The wide opening to the light rail and a floor atrium will provide natural lighting for the room. With the construction of the station, the date requirements are met at a train station with national significance. An important role takes on the station building itself. As a visible sign of the railway as a modern transportation of today. With the equipment of lifts and 55 cm high platform edges to full accessibility for the entire station is reached. The two island platforms are equipped with escalators in opposite directions. The platforms themselves are equipped with the new platform roofs.

skyline architekten

Bombardier Transportation Strengthens its Technological Leadership with New and Improved Centres of Excellence

Bombardier is extending its leading position in global mobility by launching a series of new centres of excellence during 2011 and enhancing its existing centres for technological innovation. The opening of Bombardier's new Centre of Excellence (CoE) for its next generation electric mobility solution BOMBARDIER PrimoveCity is the latest step in this process. Located at the company's engineering and manufacturing site in Mannheim, Germany, the CoE is finetuning Bombardier's inductive e-mobility solutions to provide easy urban transportation with all modes of electric vehicles, from trams and buses to commercial vehicles and cars. With a state-of-the-art testing and development facility due to open in the autumn of 2011, the CoE will support future partnerships, projects and opportunities in the fast moving electric mobility sector. BOMBARDIER PRIMOVE technology has already been demonstrated successfully with a Bombardier low floor tram in Augsburg, Germany, and with a bus on a 125 m stretch of road in Lommel, Belgium, where tests are also due to begin with a passenger car.

The opening of the Mannheim CoE follows the successful launch of Bombardier's new CoE for Rail Signalling Engineering, in July 2011. Located in Madrid, Spain, the new centre will house more than 200 engineers working on signalling projects for Europe and Latin America. Bombardier's signalling CoE is already working on major projects to improve safety, drive higher capacity and reliability, shorter headways between trains and reduced maintenance costs. These projects include the installation of the advanced train protection and control solution BOMBARDIER CITYFLO 650 communication-based train control (CBTC) for four lines of the London Underground (UK) and lines 1 and 6 of Metro Madrid (Spain). Metro Madrid is part of one of the busiest networks in Europe, where the customer has already noted a 30% increase in passenger carrying capacity.

In Canada, Bombardier is building a new Product Design and Development Centre to consolidate its expertise for designing and protoyping passenger rail vehicles for the North American market. This new CoE at Bombardier in St-Bruno, Québec, is set to open in Spring 2012. Its location in the Greater Montréal area positions Bombardier for concluding research and development partnerships with recognised institutions in the region. The passenger rail vehicles designed at the centre will be built at Bombardier's various manufacturing facilities across North America.

"Bombardier Transportation is at the cutting edge of mobility innovation, not just in terms of our proven rail products and technologies but also in terms of the latest e-mobility solutions requiring expert research and development to shape our cities of the future," said Josef Doppelbauer, Vice President Project Management and Chief Technical Officer, Bombardier Transportation. "In order for us to best harness the potential of our product development expertise around the world, we are committed to strengthening our network of Centres of Excellence across the company. These latest investments in our new centres will complement the expertise concentrated in our existing centres of competence, and demonstrate our dedication to continually innovate and drive changes in public transportation for the 21st century."

Bombardier Transportation draws on an extensive infrastructure of Centres of Excellence with a proven track record. The Bombardier bogies centre in Siegen, Germany, was enhanced this year with a new wheel set centre to optimise the chain of logistics. Production is set to rise from 1,700 wheel sets in the first year of operation to 10,000 per year by 2013, an increase of 83%. Bombardier's factories in Siegen and in Crespin, France, are CoEs for bogies, delivering the industry's most comprehensive selection of technically sophisticated bogie solutions in the form of BOMBARDIER FLEXX bogies, which cover the entire range of rail vehicles. These products are based on more than 160 years of experience and the technical expertise of the specialist engineers who contribute to the continual strenthening of the FLEXX portfolio thanks to their innovative developments.

The development of Bombardier locomotives is centred in three manufacturing sites: Kassel, Germany, home of the BOMBARDIER TRAXX locomotive platform; Vado Ligure, Italy, for 3 kv DC markets across Europe; and an electrical locomotives development centre in Zurich, Switzerland. Bombardier propulsion and controls centres develop the systems that comprise the highly reliable BOMBARDIER MITRAC portfolio covering traction and auxiliary converters, drives and electronics. These centres are located in Västerås, Sweden (Medium Power Propulsion system and qualification, TCMS products units); Mannheim, Germany (Low Power Propulsion, battery, TCMS, e-mobility); Zurich (High Power Propulsion,TCMS); and Hennigsdorf, Germany (drive competence).

OC Transpo chooses Alstom to supply six new commuter trains to Ottawa



Alstom Transport have announced it will supply six new diesel multi-unit (DMU) trainsets to OC Transpo, the urban transit service for the city of Ottawa. This order of CAD\$34 million (€25 million) is part of OC Transpo's plan to continuously upgrade O-Train rolling stock and infrastructure and continue providing the quality service Ottawa passengers have come to expect. The new Alstom DMUs, called Coradia Lint, will be delivered in May 2013.

OC Transpo is currently operating vehicles that run on a segregated network and which were designed to European standards. Coradia Lint is the ideal vehicle for Ottawa's rail commuter service as it is a modern, high-performance, reliable, low-floor DMU. Features of the Coradia Lint include:

- Lower emissions and better fuel economy, providing a cleaner vehicle and reduced emissions;
- Passenger capacity of 260;
- Flexible operation with short travelling times and small stop distances that help meet demanding timetables;
- Performances proven on European networks with more than 500 vehicles delivered to date.



"This contract represents for Alstom the first introduction in North America of a vehicle designed to European standards. We are proud to bring our global DMU expertise to North America and to support OC Transpo in its plans to double capacity and increase service," said Guillaume Mehlman, President of Alstom Transportation in North America. "By choosing Alstom's Coradia Lint, the City of Ottawa is providing a safe, reliable mass transit solution to its citizens, which also reduces emissions and traffic congestion." The Coradia Lint has proven its outstanding reliability and quality in numerous passenger revenue service operations for many transit authorities and operators in countries such as Denmark, Germany and France. Alstom has delivered more than 500 Coradia Lint trainsets to both public and private operators that have together covered more than 400 million kilometres in commercial service. The O-Train is an eight kilometre light-rail service that began as a pilot project in 2001. The initial ridership target of the O-Train pilot project was between 5,100 and 6,400 customer-trips per day, but has since reached 12,000, and today carries 2.3 million passengers annually.

Alstom and TMH have signed a contract to produce the 2ES5 electric locomotive for Russian railways

Alstom and Transmashholding have signed a contract to develop and produce the new 2ES5 electric locomotive in Russia. This contract defines the terms and conditions under which the two partners will be working together to fulfil the order that Russian Railways (RZD) placed with Transmashholding in June 2011. This order relates to the supply of 200 freight locomotives and is worth a total of approximately €1 billion. Alstom's share of this contract is €400 million. The first deliveries are scheduled to begin in 2012. Alstom and Transmashholding have entered into a global partnership, with Alstom acquiring a 25% stake in the parent company of TMH. This partnership has already resulted in the design and production of another locomotive - the EP20 passenger locomotive. It was presented to RDZ at the Expo1520 rail show at the beginning of September. Like the EP20, the 2ES5 will be designed by TRtrans, a joint venture engineering company that Alstom and Transmashholding set up in December 2010. The 2ES5's key components (such as the bogies and motor block) will be manufactured by a second joint venture company, Railcomp. The creation of this company is in progress. Design and production of the 2ES5 will be carried out at Transmashholding's Novocherkassk site in southern Russia.

Alstom and Transmashholding present the EP20 locomotive, first production resulting from their strategic partnership

Alstom Transport and Transmashholding (TMH) have unveiled the first joint production resulting from the strategic partnership established in Russia between the two companies: an electric locomotive for EP20 passenger trains. The locomotive's development by a newly created joint venture – the "TRtrans" engineering centre – took just seven months. This first production will be followed in a few months by another electric locomotive: the 2ES5 locomotive designed for freight transport. Since their alliance in 2008, the two partners have received orders for a total of 700 locomotives for Russian Railways (RZD) and Kazakhstan Railways (KTZ) totalling €3.5 billion. The EP20 locomotive is presented at Expo 1520, held on 6-9 September in Moscow.

The EP20's challenge: transport passengers at 200 km/h in temperatures reaching minus 50° C

This new-generation locomotive, ordered by Russian Railways in view of the 2014 Olympic Games in Sotchi, was inspired by the latest Alstom locomotive – the Prima II –, and by Russian models designed and manufactured by TMH. Yet the EP20 is not a simple adaptation of existing models. It was designed specifically for the CIS market and features the very latest in technology. The EP20 is the first triple-bogie passenger locomotive (BoBoBo) capable of operating at speeds of up to 200 km/h on both voltage systems in use in Russia. Its asynchronous motor is rated at 7200 kW, making the EP20 one of the world's most powerful passenger train locomotives.

It was winterised for operation under temperatures as low as minus 50° C, with components suitable for extreme conditions and preheating systems for its sensitive equipment.

The EP20 is also the first Russian locomotive equipped with a computerised cab, including driving aids, remote service diagnosis, remote maintenance and centralised data. The locomotive's highly efficient traction system also allows for a significant reduction in electricity consumption.



EP20: the product of a day-to-day partnership

The result of a unique industrial and technical organisation, the EP20 was developed by 150 "TRtrans" engineers at TMH's largest locomotive manufacturing facility located in Novocherkassk. The engineers come from the two partner companies. They are supported by Alstom teams from its plants in Belfort, Tarbes, Le Creusot, Ornans and Villeurbanne in France and Charleroi in Belgium. The Alstom teams provide expertise for all high voltage electrical equipment, as well as the command control systems for traction drives. The TMH teams, in turn, contribute their unmatched know-how in the area of "winterisation" and their knowledge of the constraints and standards governing the 1520-mm track gauge market in Russia and the CIS. Alstom's facilities at Tarbes and Belfort will provide all high voltage electrical equipment (motor units, auxiliary units, circuit breakers and the main transformer), as well as command control systems for the traction drives for the first 36 EP20 locomotives, scheduled for delivery to RZD between 2012 and 2013. The other components (including the bogies) will be produced by TMH and the locomotives will be assembled at its plant in Novocherkassk. The production of the first EP20 enabled the two companies to work together to optimise the industrial process, standardise operations and refine continuous improvement methods and tools.

The key components for the next 164 EP20s will be manufactured by a second joint venture, called RailComp. Under an agreement signed in 2009 between Alstom and TMH, this company is scheduled to be formed at the end of 2011. The first RailComp plant, which will also be installed at the Novocherkassk site, will produce traction drives for the EP20, among others, starting in 2014. Assembly of the locomotive will then continue at the Nevz plant, which will gradually benefit from joint progress made on the project.

DB Schenker Begins Rail Transports from Leipzig to a Production Site in China

DB Schenker Rail Automotive, Deutsche Bahn's specialist for automotive rail freight transport, is overseeing auto part transports from Leipzig to Shenyang in northeastern China on behalf of BMW. Trains will take three weeks to complete the nearly 11,000-kilometer journey. By mid September the fourth container train to transport parts and components to BMW's Shenyang plant in the Liaoning province, where they will be used in the assembly of BMW vehicles had begun its journey. Beginning in late November, trains will depart from Leipzig once a day.

"With a transit time of 23 days, the direct trains are more than twice as fast as maritime transport followed by transport to the Chinese hinterland. This is a major incentive for the Eurasian Land Bridge. We are grateful to BMW for placing their trust in this environmentally friendly transport route. BMW's trust is further proof that we are considered a strong and reliable partner of the automotive industry and its suppliers," said Dr. Karl-Friedrich Rausch, Member of the Management Board of DB Mobility Logistics AG responsible for Transportation and Logistics.

The route reaches China via Poland, Belarus and Russia. DB Schenker Rail cooperates with partner rail companies in each of the countries to oversee the trains. The containers have to be transferred by crane to different gauges twice – first to Russian broad gauge at the Polish-Belarusian border and then back to standard gauge at the Russian-Chinese border in Manzhouli. DB Schenker Logistics, the logistics division of DB, has set up a new logistics center in northern Leipzig to supply BMW plants in Shenyang and Rosslyn, South Africa, with auto parts. The containers are loaded at the logistics center and then transported to the transshipment terminal by truck.

Some 8,000 different components from BMW supplier plants are received, packaged and loaded onto containers according to delivery requirements in the logistics center's roughly 63,000 square-meter warehouse area. Sheet metal parts are also treated in Leipzig for maritime transport through different climate zones. Once the logistics center is operating at full capacity, around 50 containers will be able to be loaded daily. Schenker Deutschland AG is hiring 600 new employees for the center. DB Schenker is one of the automotive industry's largest logistics partners worldwide. It transported around three million finished vehicles by rail in 2010.

Some 250 trains – loaded with auto parts and new cars – travel daily between Portugal and Russia and between Scandinavia and Turkey. DB Schenker Contract Logistics is the automotive industry's partner for the production of six million vehicles a year.

Siemens to equip most of the Swiss Federal Railways network with ETCS system



Siemens is to equip 9,000 of the total 11,000 automatic train control elements in the route network of the Swiss Federal Railways (SBB) with the European Train Control System (ETCS) type Trainguard 100. The order is worth a total value of around 125 million euros. The contract covers the conversion of the existing train control system to ETCS Level 1 Limited Supervision and the maintenance of the existing signaling system for 25 years. The system will be delivered in eight geographically defined implementation phases in the period between 2012 and 2017.

The Siemens Mobility Division is to equip most of the approximately 3,000 route kilometers of the Swiss Federal Railways (SBB) network with the European Train Control System of type Trainguard 100 by 2017. The order entails all the necessary adaptation work to the roughly 430 existing interlockings in the network. The various types in use include mechanical, electromechanical and electronic interlockings. The backbone of the Swiss ETCS system will be formed by 5,300 lineside electronic units (LEU) type MiniLEU S11 that transmit information from the trackside signals to the passing trains (intermittent data transmission). The MiniLEU S11 will run on solar power cells and therefore consume 90 percent less energy than conventional, cabled models. This will enable the SBB to save approximately 876,000 kilowatt-hours of energy per annum. The order also includes the supply of 1,200 lineside electronic units type LEU S21 MS, which will be installed wherever continuous data transmission is required.

Bombardier to Deliver Further 76 MOVIA Metro Cars to Delhi Metro from Savli India Site



Bombardier Transportation announced in September that it has received an order for 76 additional BOMBARDIER MOVIA metro cars from the Delhi Metro Rail Corporation Ltd (DMRC). The contract is valued at approximately 84 million euro (\$120 million US) and is a follow-on to the orders for 114 vehicles announced in mid 2010. Delivery will commence in the third quarter of 2012 and is expected to end in early 2013.

With the new order DMRC will be operating a fleet of 614 MOVIA metro cars, one of the largest in the world. DMRC will be benefiting from economies of scale in both acquisition and maintenance costs. Around 460 of these MOVIA cars are already operating successfully on Delhi's metro network. With more high-capacity MOVIA metro trains in operation, mobility in Delhi is improving on a weekly basis, with passengers getting their travel experience enhanced by less waiting time and more space inside the trains. During the 2010 Commonwealth Games in Delhi the MOVIA metro trains were a cornerstone of the mobility plan successfully implemented by DMRC.

Stéphane Rambaud-Measson, President, Passengers division, Bombardier Transportation, said: "We are delighted to receive this additional order to supply MOVIA vehicles in New Delhi. It is an excellent endorsement of our growing relationship in India. We intend to continue to contribute to the success of the Delhi Metro network by delivering more of our high performance MOVIA vehicles, meriting the trust that the DMRC management have placed in us."

The MOVIA vehicles and BOMBARDIER FLEXX Metro 3000 bogies are manufactured entirely at Bombardier's industrial site in Savli, Vadodara which is in Gujarat State, India. The site inaugurated in 2008 has proven to be a real impetus to the local economy. To date, 780 new direct positions and over 3,000 indirect jobs through the local supplier network have been generated. The proven design of the FLEXX Metro 3000 bogies is geared towards the operational requirements of DMRC to ensure safe, reliable operations and low life cycle costs.

Benoît Cattin Martel, 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." He added: "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."

About Bombardier Metro vehicles

The success of the MOVIA car is acknowledged by the majority of operators around the world. This is evident with more than 3,900 MOVIA metro cars ordered to date. Bombardier's expertise is proven as one of the world's major suppliers of metro cars transporting over 7 billion people every year using its metro cars in cities like New York, Montreal, Toronto, Paris, London, Berlin, Bucharest, Stockholm, Shanghai, Shenzhen, Guangzhou, New Delhi and many others.

The MOVIA metro vehicles integrate the world's most advanced technologies in metro vehicle manufacturing, such as stainless steel carbodies and the reliable BOMBARDIER MITRAC propulsion and control system featuring IP technology. The MOVIA metros are developed from a standardised platform, which ensures a high degree of reliability, safety and maintainability while providing low life-cycle cost. Original, stylish and fully accessible, the MOVIA metro offers values and services that are second to none.

Bombardier Unveils the First Progress Rail Locomotive to be Assembled in Ciudad Sahagún, Mexico



Bombardier Transportation has unveiled the first of 32 electric-diesel locomotives manufactured for Progress Rail Services Corporation. Production on this project began in April of this year, following a contract awarded in November 2010. This contract reflects both companies' willingness to establish a long-term business relationship.

"Bombardier Transportation is proud to deliver the first of these 32 locomotives, which highlights the excellent operating capacity of our Ciudad Sahagún plant and the skill of our workforce," said Raymond Bachant, President, North America, Bombardier Transportation. "It once again demonstrates the Bombardier commitment to deliver high quality products to our customers."

The production process for these locomotives consists of building the frame structure, final assembly of the locomotive, static and dynamic functional testing, and painting.

"Progress Rail is proud to be able to count on a global strategic partner such as Bombardier Transportation to support us in manufacturing world-class locomotives for our customers. We are very pleased with the work performed by the entire Bombardier team at the Ciudad Sahagún plant," said William (Billy) Ainsworth, President and CEO, Progress Rail Services.

This first order consists of the final assembly of 32 Electro-Motive Diesel model SD70ACe diesel-electric locomotives. Each locomotive develops 4,300 horsepower; weighs 194 tons; measures 22.5 metres in length, 3 metres in width and 4.8 metres in height. It has a combustion capacity of 18,500 litres, and a top speed of 112 km per hour. At present, over 100 highly skilled Bombardier employees are involved in this project, in the areas of manufacturing and assembly, technical support, and supply management.

Since 1997, more than 1,300 locomotives have been manufactured and assembled in Bombardier Transportation's facilities in Mexico, mainly for exports to the United States.

About Progress Rail Services Corporation

Progress Rail Services, a wholly owned subsidiary of Caterpillar Inc., is a leading supplier of new and remanufactured locomotive and railcar products and services to the railroad industry, operating one of the most extensive rail service and supply networks in North America. We serve our customers through a network of more than 130 locations across the United States, Canada, Mexico, Brazil, Italy, Germany, and the United Kingdom, with more than 4,300 employees. Progress Rail Services is headquartered in Albertville, Alabama.

Through its acquisition of Electro-Motive Diesel, Progress Rail has expanded its portfolio of industry-leading products and services, furthering its commitment to our customers. Founded in 1922, Electro-Motive Diesel is an original equipment manufacturer of diesel-electric locomotives. Headquartered in LaGrange, Illinois, EMD designs, manufactures and sells diesel-electric locomotives for all commercial railroad applications and is a global provider of diesel engines for marine propulsion, offshore and land-based oil well drilling rigs, and stationary power generation.

The company is the only diesel-electric locomotive manufacturer to have produced more than 72,500 engines and has the largest installed base in both North America and worldwide. EMD also has an extensive aftermarket business offering replacement parts, maintenance solutions and a range of value-added services.

73

Worldwide Launch of Bombardier FLEXITY 2 Tram



Blackpool and Lancashire County Council embrace latest international technology for UK's longest running tram operation

On September 8th, Bombardier hosted the global launch of the BOMBARDIER FLEXITY 2 tram in Blackpool, England. Blackpool and Lancashire County Council purchased the world's most advanced tram technology from Bombardier to revitalize Britain's most traditional tram system and will operate 16 new, ultra-modern FLEXITY 2 vehicles on the Blackpool and Fleetwood tramway.

The FLEXITY 2 tram combines 'the best of the best' in global tram technology and Bombardier's experience in delivering more than 3,500 trams and light rail vehicles to around 100 cities in more than 20 countries. FLEXITY 2 is based on the very successful BOMBARDIER FLEXITY family of light rail vehicles and combines proven technology with continuous improvement and innovation.

Blackpool has the UK's longest running tram operation, which last year celebrated its 125th year of operation. As a popular tourist destination, 4 million passengers use the tram annually, with the majority travelling during the busy summer period. While the heritage trams that operate the service remain a popular tourist attraction for visitors, with new accessibility regulations coming into effect in 2019, Blackpool and Lancashire County Council began an extensive programme to identify a supplier for a new fleet of vehicles, which would enable ease of access and comfort for all passengers.

Cllr Simon Blackburn, Leader of Blackpool Council commented: "Providing a modern tram service that operates as an effective transport system while still offering visitors and residents the opportunity to enjoy uninterrupted views of our coastline is something unique to Blackpool. The new FLEXITY 2 model will help us improve access for people with prams or with wheel chairs for example and will run alongside our heritage trams. "This marks a significant milestone in modernising our tram way and I am delighted that Bombardier chose the new tram depot on our Promenade as a fitting backdrop for an international launch of their new model."



Mike Kirby, Director of Transport and Strategic Highways at Lancashire County Council, said: "We've been very impressed by the professional approach of Bombardier in working with us and Blackpool to develop the tram scheme and design and manufacture the vehicles to our chosen specification. We're very much looking forward to the day when people on the Fylde coast and in Blackpool can enjoy using this tram for leisure and their regular journeys. The FLEXITY 2 vehicle offers the best tram technology available and demonstrates Lancashire and Blackpool's commitment to provide a world class transport system."

Germar Wacker, President of the Business Unit Light Rail of Bombardier Transportation commented: "We are delighted that Blackpool and Lancashire chose the FLEXITY 2, to bring the latest technology to such a revered tram operation in the UK. The FLEXITY 2 tram incorporates outstanding, proven features of Bombardier trams into one vehicle. FLEXITY 2 will ensure that all passengers in Blackpool and the Fylde coast can enjoy the best standards in comfort and safety."

In addition to Croydon and Docklands in London, Nottingham and Manchester, Blackpool and Lancashire has become the latest location in the UK to operate Bombardier's light rail solutions. The new FLEXITY 2 is equipped with Bombardier's industry-leading BOMBARDIER ECO4 range of technologies making it an energy efficient and low carbon means of transit. As well as having 100% low floor technology for optimal ride comfort, the FLEXITY 2 tram includes some new advanced features, such as touch-screens in the driver's cab, reflecting the latest developments in intelligent digital technology. "We travelled to every part of Europe to visit both vehicle manufacturers and other tram operations," Paul Grocott, Programme Manager for Blackpool Council explained. "We were keen to look at everything the market had to offer and thereby ensure that we got the most competitive and best solution available. Ultimately we narrowed our search and selected Bombardier with the FLEXITY 2 tram."

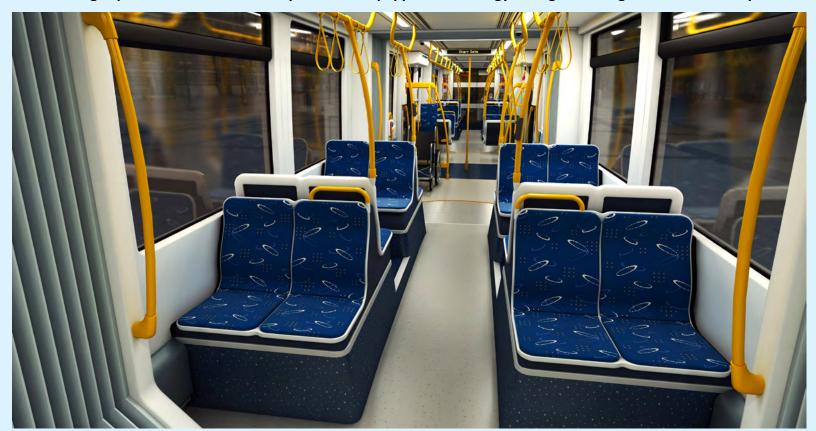
"In the end the technical message from Bombardier was extremely strong," Mr Grocott added. "The company has a lot of experience, particularly in the UK and whilst this is a new vehicle type it is a derivative of what is best in the FLEXITY family." The FLEXITY 2 vehicles are eagerly anticipated by the general public in Blackpool and Lancashire, though this does not signal the end for the heritage trams, which will continue to run alternate services with the new vehicles. Passengers will be able to choose which vehicle they want to use, old or new, with five-minute intervals between each service.

Following Bombardier's contract success in Blackpool and Lancashire, the Queensland Government in Australia has become the latest customer to order 14 high-capacity 45 m long FLEXITY 2 trams for its Gold Coast Rapid Transit system. As part of the GoldlinQ consortium, Bombardier will also design, build and operate the system.

Based on the highly successful FLEXITY platform with a strong reputation for performance and reliability, the FLEXITY 2 tram combines proven features and innovation in a single vehicle. It sets the highest standards in the areas of comfort, safety and environmental protection.

Each vehicle will be 32.2 m long and 2.65 m wide, with five sections and three bogies. The trams can carry approximately 74 seated passengers, with additional wheelchair and pushchair space plus standing room.

The technical advantages include an improved carbody concept, with good corrosion protection (essential for the seafront environment in which the vehicles operate) and an enhanced bogie design, the BOMBARDIER FLEXX Urban 3000 bogie. The latest flagship tram in the Bombardier portfolio is equipped with energy-saving technologies from the ECO4 portfolio.



Long Marston Open Day - 2011

Every year the huge ex Ministry of Defence complex at Long Marston in Worcestershire opens its doors to the public. The site is now operated by Motorail Logistics and primarily used to store surplus rolling stock from all over the UK. It is also where many of the Class 86 and 87 electric locos were prepared for further use overseas. The site is always worth a visit, and this year was no exception.

From the UK





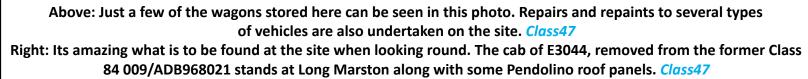


























Above: Several types of ex-industrial shunters are at Long Marston. This is 0-6-0 Coalite No. 9. *Brian Battersby*Below: Another shunter present was Hunslet "Emma" build number HE 8902/78. *Brian Battersby*





Above: Hunslet Engine Co No. 7181 (NCB No. 30) looks like it has had a fight with a tree, or perhaps a large bird is building a nest. *Brian Battersby*Below: Hunslet 0-6-0 Diesel Hydraulic 'Bachael' works number 7003 built in 1971. This loca shunted at the

Below: Hunslet 0-6-0 Diesel Hydraulic, 'Rachael', works number 7003 built in 1971. This loco shunted at the MG Rover Plant at Longbridge until closure in 2007. *Brian Battersby*



98





