

Industry Sector Mobility Division

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The fastest train in Russia comes from Siemens – Velaro RUS

World premiere at InnoTrans in Berlin – Russia joins the club of high speed rail countries

Russia's first high speed train, Velaro RUS, has been presented at the InnoTrans trade fair in Berlin. The vehicle's traveling speed of 250 km/h means that Russia has now entered the high speed rail era. Heinrich Hiesinger, CEO of the Siemens Industry Sector, joined Vladimir Yakunin, President of the Russian railway company RZD, in unveiling three cars of the first train. The name given by RZD to the fastest train series in the country is "Sapsan", which is Russian for "peregrine falcon".

Industry-CEO Hiesinger expressed his pride in Russia's new acquisition: "With the Velaro RUS, RZD is writing a new chapter in the history of the Russian railways. Russia now belongs to the club of high speed rail countries." Up to now, only eight countries in the world have operated a network for high speed trains, among them Germany, France and Japan. Hiesinger also pointed out that the order from the Russian railway company was very important for Siemens: "The rollout of the first Russian high speed train marks a major milestone in the long-lasting and successful partnership between Russia and Siemens. We want to expand this relationship in future, especially in the transportation sector." In order to lend substance to these plans, Yakunin and Hiesinger took time during the rollout ceremony to sign a memorandum of understanding. It was agreed that Siemens would modernize the classification yards in Luzhskaya near St. Petersburg and in Chernyakhovsk near Kaliningrad. These yards are to be equipped with shunting installations controlled by Siemens automation systems.

250 kilometers an hour at minus 50 degrees Celsius

The cars on show in Berlin are only part of the first Velaro train, which will consist of ten cars altogether. Siemens is to deliver eight Velaro RUS trains to RZD by 2010. They are being built in the Siemens factory in Krefeld-Uerdingen, Germany. From the end of 2009 onwards, the 250 km/h trains are to connect Moscow and St. Petersburg. This will reduce the journey time by around one

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hour in all. Later on, the high speed trains are to be used on the Moscow–Nizhny Novgorod route as well.

The Velaro RUS is the world's most modern high speed train. It is based on the Siemens Velaro platform for high speed trains. The vehicle boasts the latest in train technology: the traction system and all the technical modules being arranged under floor over the entire length of the unit and not only in one locomotive each coupled at the front and rear as is the case with conventional trains. This creates around 20 percent more seating capacity for the same length of train.

The ten-car trainsets are each 250 meters long and can accommodate 604 passengers. Given the length of station platforms in Russia, the trains can include two more cars and be 50 meters longer than, for example, the Velaro E of the Spanish National Railways (RENFE). Moreover, the vehicles are designed for the Russian broad gauge and are around 33 cm wider than the ICE 3 operated by Deutsche Bahn in Germany. All elements of the train such as technical equipment, insulation and lubricants have been designed to cope with the extreme climatic conditions in Russia. The Velaro RUS is therefore designed to run at outdoor temperatures down to -50° Celsius.

The two end cars of the train, which are painted in the colors of the Russian flag, each feature a first-class lounge directly behind the driver's cab. A transparent glass partition between the lounge and driver's cab provide passengers with an exciting view of the line ahead. A video and audio entertainment system provides on-board entertainment in first and second class. The passengers in both classes are also offered a catering service. In a bistro car in the middle section of the train, they can buy light meals and beverages.

With an installed traction power of 8000 kilowatts, which is equivalent to approximately 11,000 h.p., the Velaro RUS is built for a maximum operating speed of 250 km/h but can be upgraded to reach speeds of up to 300 km/h. Given that several axles are directly driven, the train can accelerate better than locomotive-hauled trains. In addition, this traction concept makes it possible to drive on steeper sections of line. The electric brake allows the energy generated during braking to be fed back into the power supply system, thus saving energy and costs. Part of the Velaro RUS fleet will be supplied as two-system trains for use on both DC and AC electrified lines.

An expanding Russian railway market

The order for the trains and for a maintenance period of more than 30 years had been placed with Siemens in May 2006. Counting that service contract, the order is worth 600 million euros. Russia is expected to be one of the most rapidly expanding railway markets in the world in the new few

decades. A development program of the Russian government allows RZD to invest up to 400 billion euros in new trains and expansion of the railway network by 2030. In the coming years, approximately 20,000 km of railway lines are to be built, including 1,500 km of high speed lines.

You may find pictures related to this press release under

<http://www.siemens.com/ts-pictures/VelaroRUS>

For TV footage material please contact Anja Uhlendorff under +49 (0)172/ 1089706.

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