The Delivery Journey Of The First Aeroexpress KISS EMU

In early August 2014 Stadler embarked upon the delivery, initially to the manufacturer's Fanipol works in Belarus, of the first of Aeroexpress's Class ESh2 EMUs.


Photo: Jürg D. Lüthard


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The 2,430 km long delivery journey, prepared 13 months, was an exceptionally complicated one, on account of the huge size of these double deck trains, built for the Russian/CIS loading gauge, and described in R 2/14, p. 26. This eliminated all possibilities of moving the vehicles by rail across Europe on 1,435 mm gauge tracks. Starting at Stadler's Altenrhein works, the cars of ESh2-001 KISS were moved, one by one, on low-loaders to the Rhein port of **Auhafen** in Muttenz, in the southeastern suburbs of Basel. ***The upper left-hand photo was taken on 1 September 2014 and shows the last car of the first transported unit, without its bogies, being craned onto a low-loader.***

The upper right-hand photo shows the interior of one of the cars. This is Economy class accommodation, with BORCAD-produced REGIO+ seat units in 2 + 3 configuration. These, unlike the leather-upholstered BORCAD COMFORT seats in Business class, have textile upholstery.

The whole convoys (including a truck, a trailer and a slave unit), measuring 49,830 mm long, 4,250 mm wide and 5,250 mm high, and weighing 128 t, could only travel at night, when there was very little other traffic around, and using a specially designated route with sufficient headroom. ***Even this involved the awkward transit of some winding narrow streets in towns such as Rorschach, where the centre photo was taken on 1 September.*** The journey from Altenrhein to Muttenz was scheduled to take three nights, for each of the six cars.

At Muttenz the cars were mounted on their 1,520 mm gauge bogies, and ***stored on specially designed pallets, which enabled them to rest on the quayside or on the deck of a vessel (see lower photo taken on 6 September 2014)***, without damage to the wheel flanges. By the end of the first week in September all six cars had been moved from Altenrhein, and were loaded ***onto the barge Miranda for their voyage down the Rhein to Amsterdam, as shown on the left-hand upper photo on the opposite page.*** Here they were transferred to a sea-going vessel for the journey up the Dutch and German coasts to Sassnitz, where arrival was on 15 September.

Here they were unloaded, and moved by low-loader the short distance to the freight yard at **Sassnitz-Mukran**, where they were railed and coupled together to form a complete train on the 1,520 mm gauge sidings. Here it was possible to realise a number of static tests of the train's systems, before it was shunted onto the train ferry Kaunas bound for **Klaipéda** in Lithuania, sailing on 27 September. From here the train was moved by rail to the Stadler Minsk factory in Fanipol, arriving there on the 30th. ***The lower right-hand photo on the oposite page shows ESh2-001 at Fanipol, hauled by***


Photo: David Gubler


Photo: Jürg D. Lüthard

Photo: Stadler

Photo: David Gubler

a Class TME2 diesel, shortly before it was pulled into the works complex. Thorough testing is now in progress, prior to the final stage of the delivery journey, by rail, to Moskva, which is expected in the first half of November.

In **Altenrhein** the second Aeroexpress KISS EMU, a four-car ESh2-002, was finished by mid-September, and it arrived to the Stadler Minsk works on 21 October 2014. ***The upper right-hand photo on this page taken on 1 September shows one of the end cars of the third train together with the end car of one of the SBB KISS EMUs.*** In total, Altenrhein works is assembling four Aeroexpress KISSes (initially it was planned to built only three there), these being two four-car and two six-car ones.

Recent developments at the **Stadler Minsk** works include the installation of engineering equipment and associated infrastructure (see R 4/14, pp. 50 - 51). The factory is expected to be 100 % complete by the end of 2014, the final touches being landscaping and the provision of car parking facilities. Nevertheless, all the manufacturing equipment was up and running by early October, thus enabling the production of Aeroexpress KISSes to start, with a view to deliveries taking place from late January 2015 to June 2016.

Stadler, Jaromír Pernička

Photo: Yevgeny Gromov

Sapsan News

Deliveries of the eight Velaro RUS Sapsans ordered by RZD from Siemens under the supplementary contract awarded in December 2011 continues. By early October 2014 five trains had been delivered and had been issued with conformity certificates. Unlike the first batch of eight Sapsans, these new trains are able to operate in **multiple**. ***The first double composition on a commercial service ran on 1 August 2014, between Moskva and St. Petersburg, and is shown here prior to departure from Moskva-Leningradsky vokzal, one of its EMUs being EVS1-11.***

Initially one train pair daily was planned for multiple operation. However, already on 25 August a second daily train pair formed of two EMUs was introduced. These pairs of Sapsans being around 500 m in length and able to carry 1,050 passengers now form trains 753 and 759 from St. Petersburg (07.20 and 13.55) and trains 766 and 760 from Moskva (13.45 and 19.35). On Sundays, Mondays and some public holidays a third service was operated using two Sapsans in multiple. The capacity of even more services will be increased in this manner in 2015. RZD states that the Sapsan services are currently running at almost 99 % seat occupancy level! Around 13 million passengers have been carried since the trains entered regular service in December 2009.

Photo: Siemens

A new **class of travel**, „ekonomichesky+" (economy+), was introduced on board the Sapsans on 15 September 2014. The modified accommodation is situated in car 10, one of the end cars. Here the distance between seat backs has been increased by 90 mm to 1,015 mm, compared with the 925 mm in economy class. One result is that the number of seats in car 10 has been reduced, while passenger are offered a more spacious travelling environment.

While economy+ has been provided on the second batch of Sapsans from the start, when they were being fitted out in Germany, it was installed during interior refurbishment work at Metallostroy depot on the first batch of trains, starting in summer 2013, together with the creation of a further new accommodation category, „lyuks" (see R 6/13, p. 36). This refurbished de-luxe accommodation is provided in car 1, the other end car, and since December 2013 has been rebranded „pervy klass" (first class). Car 2, the adjacent intermediate car, is branded „biznes" (business) class.

RZD, Jaromír Pernička

On 25 September 2014 at **InnoTrans** RZD's Senior Vice President, Valentin Gapanovich, the Vice President of Alstom in Russia, Jan Harder, and the technical director of Transmashholding, Sergey Kobzev, signed a memorandum on the development of production systems using lean manufacturing techniques. The document envisages, in particular, the exchange of experience, the training of specialists, the transfer of management technology in the field of modern tools for quality assurance, the implementation of lean manufacturing techniques, and motivating personnel.

RZD