

Oaris EMU On Test

In September 2011 the prototype 105-001 320 km/h Oaris EMU being developed by CAF since 2005 (see R 4/10, pp. 28 - 29) was moved from Beasain to the AVE depot and works at La Sagra, near Toledo, to start authorisation testing. Dynamic tests began in early November, on the branch to Toledo and on the main line to Córdoba and Sevilla, the train proving remarkable camera-shy! The 5,280 kW four-car EMU has distributed power, each car having one powered, and one non-powered bogie, equipped with two 660 kW traction motors. End cars are 26,780 mm long, intermediate ones 24,780 mm. Floor height is a uniform 1,260 mm above rail top. The train is dual-voltage (3 kV DC/25 kV AC), with ASFA and LZB ATPs and ERTMS Level 2 installed.

CAF plans 1,435 mm gauge and variable gauge versions, mounted on developments of the Brava bogie, in all four major voltage systems in use in Europe. Trains of up to eight cars in length are envisaged, rated at 10,560 kW, and with over 500 seats, the manufacturer's goal being to create a train which is capable of operating throughout Europe, without limitations. Clearly lengthy and costly authorisation procedures are envisaged if this is to be achieved.

In 2009 CAF and RENFE signed an agreement under which the first Oaris would replace the final Class 120 on order (apparently 120-366), and the class designation, 105, was reserved. In September 2009 it was announced that a four-car prototype would be built, with fixed-gauge (1,435 mm) bogies, and a top speed of 320 km/h. It was stated that the prototype's bodyshell would be designed to accommodate variable gauge bogies. Construction was completed on 16 December 2010, and it was announced that once static testing was finished, the train would realise dynamic tests on the ADIF network during the first quarter of 2011. Delays occurred, and this was not to be the case until the autumn. Following the initial dynamic tests, RENFE placed a further order with CAF for four more intermediate cars, so that the train would be compatible in terms of capacity with the AVE (Classes 100, 102 and 103) long distance fleet. As it exists, the prototype has 45 Preferente seats and 170 in Turista, plus one wheelchair harness point. Interior design is by Giugiaro. **The photo shows 105-001 at La Sagra AVE depot on 17 December 2011.**



Photo: CAF

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