

## Additional MGB middle entry coaches for Spain

Ferrocarrils de la Generalitat de Catalunya (FGC) operates the 12,5 km long metre gauge route from Ribes-Enllaç (905 m above sea level) to Núria (1964 m) in the Spanish Pyrenees. Due to its electrification with 1500 V DC and the Abt rack system on the upper section, this line shares many similarities with Swiss mountain railways. Additionally, much of the fleet is composed of Swiss-built vehicles.

Recently, FGC placed an order with Stadler Bussnang for an additional train to meet with peak demand. Because this set had to be as cheap as possible, it will be formed of the following rolling stock:

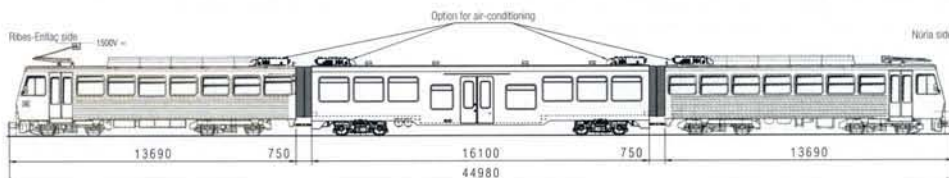
- A factory-new HGem 2/2 rack and adhesion locomotive, as an "off-the-shelf" design that has already been delivered to several Swiss narrow gauge railways, and
- the two pre-used middle entry coaches B 2273 und 2275, formerly owned by Matherhorn – Gotthard-Bahn (MGB).

The locomotive is like those being supplied to Chemins de fer du Jura and Appenzeller Bahnen. Ownership of the two former MGB coaches has already passed to Stadler and they are currently stored at the depot yard of the Frauenfeld – Wil-Bahn in Wil. Pending further examination, one of the two coaches is to be converted to a driving trailer.

Originally built by SIG, the two vehicles entered revenue service in 1963. Following an extension of their body shell by roughly three metres in the 1990s, the two coaches now weigh about 13.3 t each and offer 64 seats. Both coaches were last overhauled (bogies) and repainted in 2013, making a renewed revamp unnecessary. It is intended to remove the toilets.

Already in 2008, FGC acquired two cascaded middle entry coaches from MGB-predecessor Furka – Oberalp-Bahn, which FO in turn had taken over from SBB Brünigbahn. Additionally, FGC has charged Stadler with lengthening two of the four type A5 – A8 two-coach EMUs that were supplied by La Maquinista Terrestre

i Marítima (MTM), SLM and BBC in 1986 and 1995 respectively. In terms of their design, these vehicles are very similar to the low-floor intermediate coaches B 4211 – 4221 that were delivered to MGB in 2013/14. Whether these coaches might be fitted with air-conditioning is currently being evaluated. (lüt)



Above: Design rendering of the two-coach EMUS of MTM, as built by MTM, SLM and BBC, including one of the newly ordered intermediate coaches (illustration: Stadler).

Bottom: Recently acquired by Stadler, the former MGB coaches B 2273 and 2275 are seen outside of the depot of the Frauenfeld – Wil-Bahn in Wil (photo: J. Lüthard, 27 March 2018).



## 26 Flirt and Kiss trainsets destined for Slovenia

Slovenian Railways (SŽ) is ordering 26 single- and double-deck trainsets from Stadler in three versions, which, if required, can be used in combination. Options allow the procurement of a further 26 trains. The contract is valued at EUR 170 million and was signed on 18 April 2018 in Ljubljana. To SŽ's surprise, no other company participated in the complex bidding process.

Eleven Flirt multi-system EMUs are intended for cross-border revenue traffic to Austria and Croatia. Because of the extra-long car bodies, the four-car trains are 80.7 metres long; that is six metres more than usual. There are 223 seats available in second and only twelve seats in first class. The wheelchair-accessible toilet is located in one of the middle coaches; a small toilet and a guard's compartment are arranged in one of the end carriages.

The ten three-car 79.8-metre-long Kiss EMUs can seat 292 passengers, including 16 in first class. They will run only in Slovenia and are equipped for 3 kV DC. The two toilets, one of which is suitable for persons with reduced mobility, are located in the middle coach.

SŽ's new fleet with a Kiss, an electric Flirt and a diesel Flirt (drawing: Stadler).

The five also three-car (not including the power module housing both Deutz diesel engines), but only 70.4-metre-long Flirt diesel-electric multiple units offer 171 seats, of which twelve are located in first class. As with the electric-powered Flirt trainsets, the two toilets are arranged in the middle coach and in one end carriage.

With all three types of vehicle there is a powered bogie in each end carriage, and enough room for two wheelchairs and five bicycles. Flirt and Kiss trainsets are designed for operation at a maximum speed of 160 km/h, whilst the maximum speed for diesel-powered Flirt trainsets is 140 km/h.

This is the first time since delivery of the Desiro multiple units shortly after the turn of the millennium that SŽ has ordered new rolling stock for passenger transport. There is an urgent need for this because of the ageing fleet, but also because of the growing demand in ridership.

With the delivery of the electric Stadler trains, SŽ will phase out the ageing 311 series, also known as "Gomulka" (named after a 20<sup>th</sup> century Polish statesman) and produced in Poland. The diesel-powered Flirt trainsets will replace the oldest models of the 813 series trainsets, which Fiat delivered in the 1970s. (stad/mr/bac)

