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# The Ae6/6: Icon and old friend

Bryan Stone



No. 11406 at Schaffhausen.

All photos: Bryan Stone

In 1952 the Gotthard was a very different world. Post War recovery had brought long, though infrequent, passenger trains, and again heavy freight. Traffic was growing, and the assorted motive power at Erstfeld, Bellinzona, Luzern, was showing its age. Rod-drive Be4/6s and 'Krokodiles' from the first days of electrification turned out alongside Ae4/7s and the eleven wartime Ae4/6s, which could not 'pull their weight', and even some of the new Re4/4s were also pressed in, despite their unsuitability for the 1 in 37 grades. The three Ae8/14 double engines were simply overwhelmed. Of the fifteen daily express trains each way in the 1952 summer timetable, twelve were booked regularly for double-heading, and many were run in two or three parts, apart from the extras and agency trains that were also becoming popular. Even Be6/8 'Krokodiles' were sent out piloting. For the freight, the 'Krokodiles' could handle the loads, but were so slow on the mountain that capacity was becoming difficult. A new start was urgently needed. In 1949 two prototypes of a new, 6-axle 6,000hp general-purpose locomotive were ordered. They would run at 125kph, weight 120t and take a 600t train at 75kph over the Gotthard. This was a revolutionary programme.

In 1953 Nos.11401 and 11402 were in service. They could do what was wanted, but many problems showed up. Issues, which later would be a nuisance, with the two prototypes were acute. Excessive unbalanced flange wear, motor damage, and bad riding in some speed ranges were at once apparent. They remained exotic, non-standard, and were often out of service, but No.11402, for 50-years unloved, has made it to being a museum example with SBB Historic, as a true pioneer.

The SBB Board thought that twenty of the new engines

would meet their needs. But it took time. A modified version was ordered, and twelve examples, Nos.11403 – 11414, were delivered in 1955/56. By then the need had again outgrown the resources; batches of twelve to twenty-five were ordered in series, until by 1965 one hundred and twenty had been delivered. The first fifty all went to Erstfeld depot, and by the early 1960s, when I first saw them, a Gotthard train without an Ae6/6 was already unusual. The Ae8/14s, after a period in store, were again in action, but the last Ae4/7s left the Gotthard in 1965, a last diagram involving double-heading the 'Riviera-Express'. That I would like to have seen! In 1965 the Ae4/6s were on local passenger, postal and pick-up goods diagrams, though at busy weekends everything that would go was still needed. Now it was the Ae6/6 that ran the service, single with up to 650 tonnes, double-heading or, with loads over 900 tonnes, in threes with an intermediate locomotive.

Drivers came to love them, but they had their moments. A traction effort of 40t, compared to 22.5t of the Ae4/6, and a sensitive controller, meant at first some broken couplings, and the electrical braking had a step around 95kph, which could give a sharp shock. Drivers learned this, and needed detailed road knowledge, since many of the trains were made up of heterogeneous stock from many countries, and even in good condition could have widely different characteristics. In his book Schneeberger picks out the Italian perishables trains as a challenging example. Today the succession of Interfrigo trains is only a memory. But the passenger trains with fifteen assorted Italian, Dutch, German, Belgian coaches: Wagon-Lit cars; restaurant cars; plus local Swiss and Postal cars; all in different colours, were no less fascinating. I recall how the windows would be pulled down in Basel and Luzern, and the bags, cases and string-tied boxes would be loaded

No. 111422 on an oil train at Zollikofen. through the windows, and the crowds would pile in to go to Ancona or Brindisi, while each train had its Ae6/6 and followed the rest up the hill.

By 1970 there were fifty at Erstfeld and fifty-seven at Bellinzona, and also thirteen in Lausanne, where they replaced Ae4/7 on the Brig - Domodossola line. They also reached out with through workings north of the Gotthard, to Basel over the Aargau Südbahn from Rotkreuz to the Bötzberg. But now the concept would again change. In 1980, as the new Re6/6s took over the Gotthard, depots at Zürich, Basel and Biel received contingents of Ae6/6s and they now became a general purpose locomotive for the whole network. For this they were really too slow, so although often on passenger trains, they lost out again to the new Re 4/4II. By 1993 there were no more Ae6/6s stationed at depots on the Gotthard route. However, on-going withdrawal of the 'Krokodiles', Ae4/7s and Ae3/6s left some steady jobs on the, often heavy, freights of the Swiss Mittleland. There was always a big assembly around Basel SBB shed; handling the Rhein port trips; and also at Olten. In this time they also ventured over the SOB with its steep hills, and even onto the Seetal, up to Beromünster.

But this is not the whole story. Somehow with an inspired gesture, and also with the prototypes in 1953, the SBB recovered its image and the Ae6/6 became its icon, with its homeland on the mythical Gotthard. Tastes may change, but the chrome strips applied on the front and sides, the elaborate crests on their flanks, and the long chrome strip from front to rear, caught the public imagination. The first two were named Ticino and Uri (where the south and north portals of the Gotthard were) and all of the first twenty five were named after Swiss Cantons - even Appenzell Innerrhoden, where the SBB doesn't reach! Schoolchildren had special trips, bands played, local notables named their engines, and Eberhard describes a romp from Glarus to Mendrisio on such an occasion.

Management had originally been sceptical, but now every town and city wanted its engine, and eventually all the one hundred and twenty were named and given coats of arms, though the chromium strips only decorated the first twenty five, the 'Canton' engines. You saw them a long



way off, and it has amused me that even in the last dismal years, when number plates and cantonal arms were being stolen by so-called enthusiasts, or removed for safety, and whether green or newly red, some of the 'Canton' engines kept their stripes down to the withdrawal that started in 2010. They may have been out of place in Yverdon yard making up a sugar beet block load, but they still excited.

Inevitably with so many running at their peak some 250,000 km/year, often 750 to 1,000 km/day, in such difficult conditions of steep gradients, heavy trains and hard winters, some came to grief. A number were severely damaged including No.11401, which took two years to repair, but it was only in 2001 that No.11410, after a collision, was the first to be withdrawn. In any case, the R3 general overhauls, undertaken in Bellinzona, had not been



No. 11425 brings a log train through Spiez.



Above: No. 11427 is parked at Thun.

Bottom: No.11513 brings a mixed freight into Spiez.

carried-out after 1996 though an almost equal job was done on some engines. Some of them ran for 55 - 57 years.

We will not overlook No.11414. Delivered in November 1954, a 'Canton' engine named 'Bern/Berne', she was different, and indeed remained so. No. 11414 had modified bogies from new, and in May 1968 was selected for modifications to motors and gearing, and suspension, for high-speed trials. Normal speed being 120kph, the maximum over most of the SBB system, this was an ambitious project. In June 1968 No.11414 made five trial trips between Forchheim and Bamberg on the DB, each at maximum 200kph. On return she was run at 160kph near Martigny. She remained unusual, since her bogies were non-standard and no spare existed, so overhauls always took longer. She worked however until June 2006 and ran in total 6.1 million km.

The rest we know. The remaining Ae6/6 were at the last allocated to SBB Cargo, became heavy duty hacks, ran container trains, sugar-beet and oil blocks, even the Frutigen 'pick-up' which entertained us daily around Spiez, and in December 2013 the last, after yet another short reprieve, were withdrawn. Seven have been 'rescued', and some will run. Their reputation as 'Schienenfresser', (devouring the track), will survive them; but they have worked very hard, and long, and the SBB and its suppliers in 1953 could have done no better. 

Below: No. An unusual view of 11473 showing its pantograph gear.

