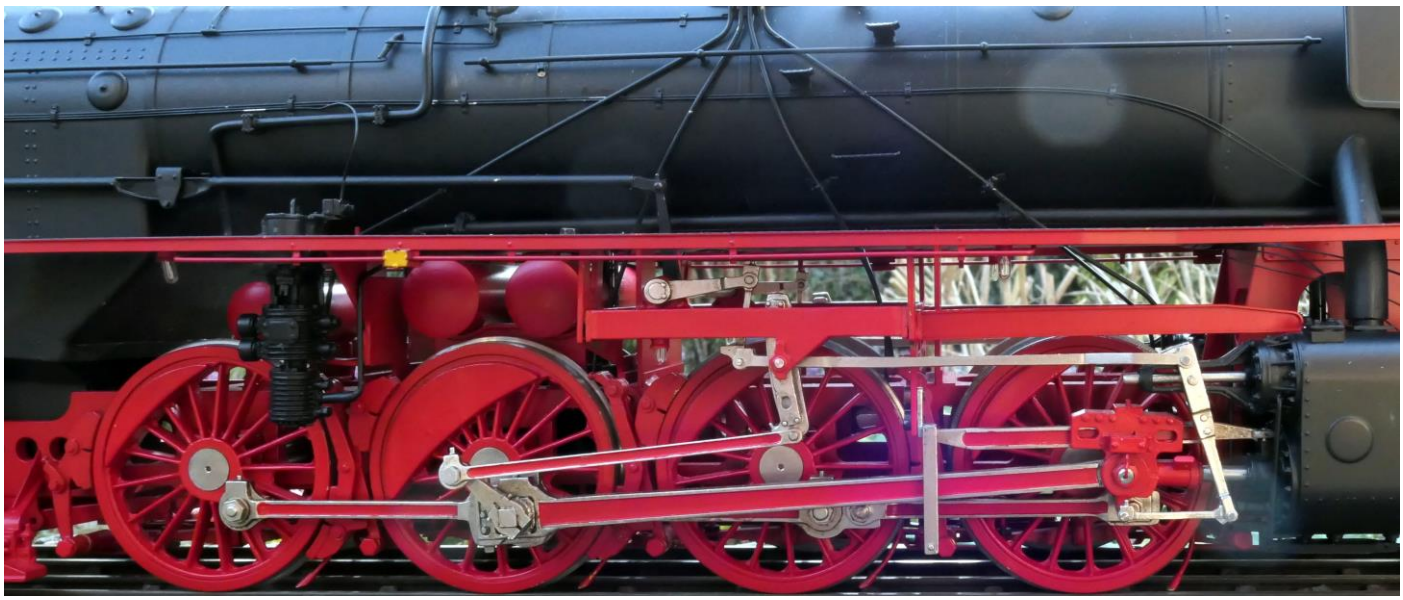
Eight or More

LARGER STEAM LOCOMOTIVES FROM THE COLLECTION OF FRED VAN DER LUBBE

F van der Lubbe |SNCF231E | 25 november 2025

1 Content



2 Introduction

Steam locomotives do not have to be large to be interesting, as can be seen in one of my previous e-books “Elegance on Rails – Atlantics, Singles & Americans”. This present e-book anyway shows larger and even the largest steam locomotives, excluding articulated locomotives which were already the subject of my e-book “Big Boy and other Articulates”. In this book I take a look at locomotives with 4, 5 and 6 driving axles, i.e. “Eight or More” driving wheels (which explains the title). I have included in this book locomotives with and without a separate tender.

The types shown in this book are (in Whyte notation and with generally known name):

- 0-8-0 Eight-coupled
- 2-8-0 Consolidation
- 2-8-2 Mikado
- 2-8-4 Berkshire
- 4-8-2 Mountain
- 4-8-4 Northern
- 6-8-6 Turbine
- 0-10-0 Ten-coupled
- 2-10-0 Decapod
- 2-10-2 Santa Fe
- 2-10-4 Texas
- 2-12-0 Centipede
- 4-12-2 Union Pacific

I have these types of locomotives in various gauges and scales of different brands. Most of these are models, while others are toys. The toy types do have recognisable prototypes. The catalogue is organised on wheel arrangement and further, when relevant, on country and modelling gauge. The index in the back can be used to find locomotives by maker or brand. The length of the locomotives in this catalogue is in centimetres. The mentioned track gauges are N (9 mm), H0/00 (16.5 mm), S (22.5 mm), 0 (32 mm) and 1 (45 mm). Most of the locomotives are running with steam or electric propulsion, but some are static models. Some of these types of locomotives were streamlined and these models were thus presented in a previous book by me: Steamliners – Streamlined Steam Locomotives; for completeness they are also presented in this book.

This catalogue will not elaborate on the history of the locomotives. There are many books that go into this and a lot can be found in Wikipedia or other internet resources.

Again, another interesting but not covered area is the history of the makers or brands of the toys and models described here. Note however that he history of ASTER and Elettren, makers of some of the locomotives in this book, can be read in other e-books I wrote: http://sncf231e.nl/aster/ and https://sncf231e.nl/elettren/ .

Acknowledgements

Thanks to Tamme and Jacques for tips and proofreading.

Remarks

Any remarks or comments are welcome, they can be given via fred.van.der.lubbe at planet.nl.

3 0-8-0 Eight-coupled

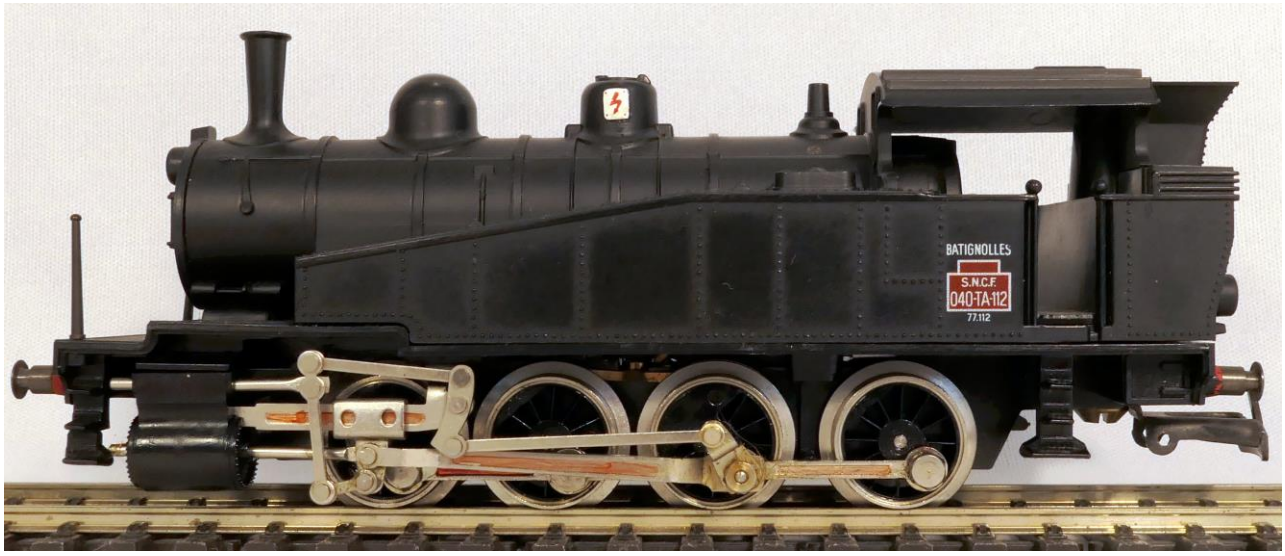
Examples of the 0-8-0 wheel arrangement were constructed both as tender and tank locomotives. The earliest locomotives were built for mainline haulage, particularly for freight, but the configuration was later also often used for large switcher locomotives. The wheel arrangement provided a powerful layout with all engine weight as adhesive weight, which maximised the tractive effort and factor of adhesion.

3.1 Czech republic

The Czech company ETS made this, 20 cm long, 0 gauge tinplate model of a Czech series 400.0 0-8-0 tank locomotive. The original locomotive 400.001 was made in 1888, as one of series of only two, with the name “Maffersdorf” by Wiener Neustadt. They were used on a local branch and as shed pilot and already withdrawn in 1933, so not a famous series at all.

3.2 France

The 0-8-0 SNCF 040TA tank locomotives were originally built for the French ETAT railway between 1914 and 1922. There were variants in cab and the one shown is a Jouef made model in H0 gauge with an open cab. Jouef also made a closed cab version. This version, 12 cm long, with catalogue number 8293 was made from 1983 until 1997; it is a plastic bodied locomotive.

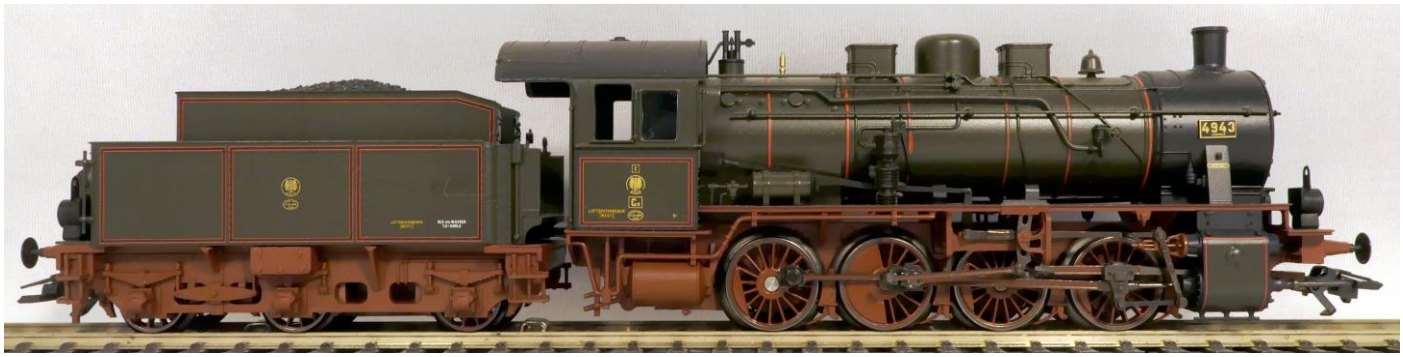


3.3 Germany

3.3.1 H0 Gauge

Fireless steam locomotives are seldom modelled. Märklin made a 12 cm long H0 gauge model of a German 0-8-0 fireless locomotive named “Paul” with catalogue number 26504 in a set with two Persil freight cars. The original locomotive operated at the Henkel factory site in Düsseldorf, Germany. It was one of the few 4-axle fireless locomotives, most are 0-4-0 or 0-6-0 ones.

The Prussian railways acquired a large number of 0-8-0 tender locomotives of series G8.1 for the longer and heavier freight trains. The 21 cm long H0 gauge Märklin model with catalogue number 37551 is a 0-8-0 of the G8.1 series (later classified as series 55) of the Prussian Railways (KPEV) in olive green/black livery from Era I. It is a 3-rail model.



3.3.2 1 Gauge

In gauge 1 Märklin made a DB (German Railways) Class 55 version of the same 0-80 as seen above. It is an older AC model with sound, catalogue number 5713, and has a length of 57 cm. The locomotive and tender body are plastic.

3.4 USA

The Indiana Harbor Belt (IHB) Class U4a was the world's largest 0-8-0, designed to push endless strings of cars over the hump. They were built by ALCO and had three cylinders with Gresley Valve Gear and a tender truck booster.

3.4.1 H0 Gauge

The RivaRossi IHB 0-8-0 shown here has no tender truck booster. RivaRossi later made versions with booster. It is an H0 gauge plastic DC model with a length of 27 cm.

3.4.2 0 Gauge

RivaRossi made the IHB 0-8-0 with booster tender in 0 gauge as a ready to run model and as a kit. The kit, which included lettering, was unmotorized and RivaRossi made an extra motorizing kit available. I made this motorized model from such kits. The 2-rail DC model is 46 cm long and the body is made of plastic.

3.5 USSR

The Russian Ob 0-8-0 was introduced in 1901 as a standard goods engine with two cylinders and Walschaerts valve gear. More than 8000 of these class were made by all main builders in Russia. Around 1987 Markscheffel & Lennartz (M&L) from Hamburg, well known as supplier of expensive large scale trains, imported a train set from Russia which contained this Ob class locomotive and two passenger cars. The set was made by Drusba in Russia. The locomotive is a detailed plastic 2-rail DC model with a motorised tender and a length of 19 cm. The gauge is H0, but the scale is unknown since the prototype is a Russian broad gauge locomotive.

4 2-8-0 Consolidation

The consolidation represents the wheel arrangement of two leading wheels on one axle, usually in a leading truck, eight powered and coupled driving wheels on four axles, and no trailing wheels. The Consolidation represented a notable advance in locomotive power. From its introduction in 1866 and well into the early 20th century, the 2-8-0 design was considered to be the ultimate heavy-freight locomotive. It became the most popular type of freight locomotive in the United States and was built in greater quantities than any other single wheel arrangement. I can show quite some 2-8-0 models from several countries in this chapter.

4.1 England

Both the LMS and the LNER had 2-8-0 locomotives. The LMS one, class 8F, was a design by Stanier and the LNER one, class O4, a design by Robinson of the Great Central Railway. A model of the LMS 2-8-0, but in British Railways livery, was made by Wrenn based on Hornby Dublo tooling with catalogue number W2224. It is a metal 2-rail DC model, 25 cm long.

I have a model of a LNER O4 class 2-8-0 made by Bachmann with catalogue number 31-003. It is a 2-rail nicely detailed plastic bodied model with a length of 25 cm.

4.2 France

The French 140C locomotives were a class of 340 locomotives built between 1914 and 1917 in France and in Britain. They were used for freight and passenger services until the end of steam on the SNCF. 140C287 pulled the last ever commercial steam train on French railway metals on 24 September 1975. I have models of the 140C in 1, 0 and H0 gauge.

4.2.1 H0 Gauge

Jouef made in the seventies with catalogue number 8282 this black version of SNCF 140C231. It is a simple plastic model with the motor in the tender and a length of 23 cm.

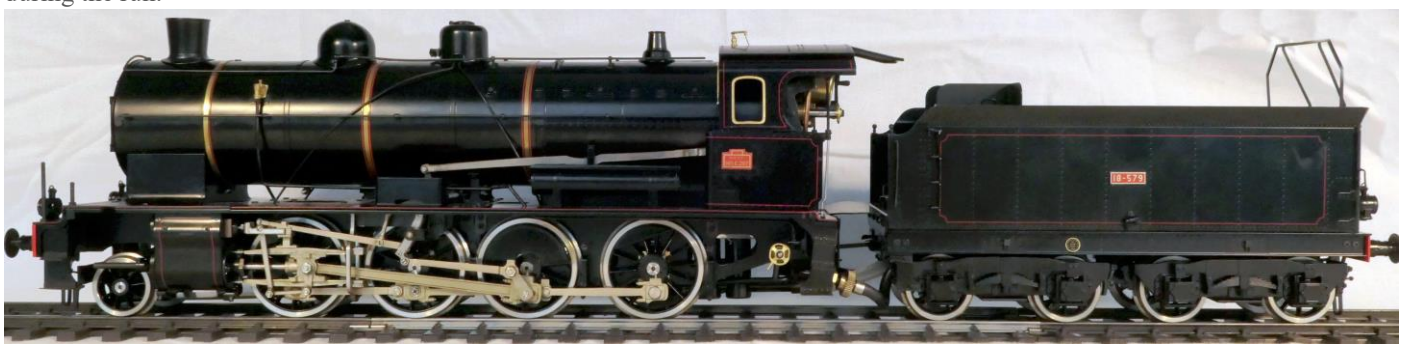
The Austrian company Liliput also made a 140C model in H0. Their model is much better detailed and better running than the older Jouef model and has a nice green with yellow lining livery. The catalogue number of 140C314 is L101432, it is 22 cm long.

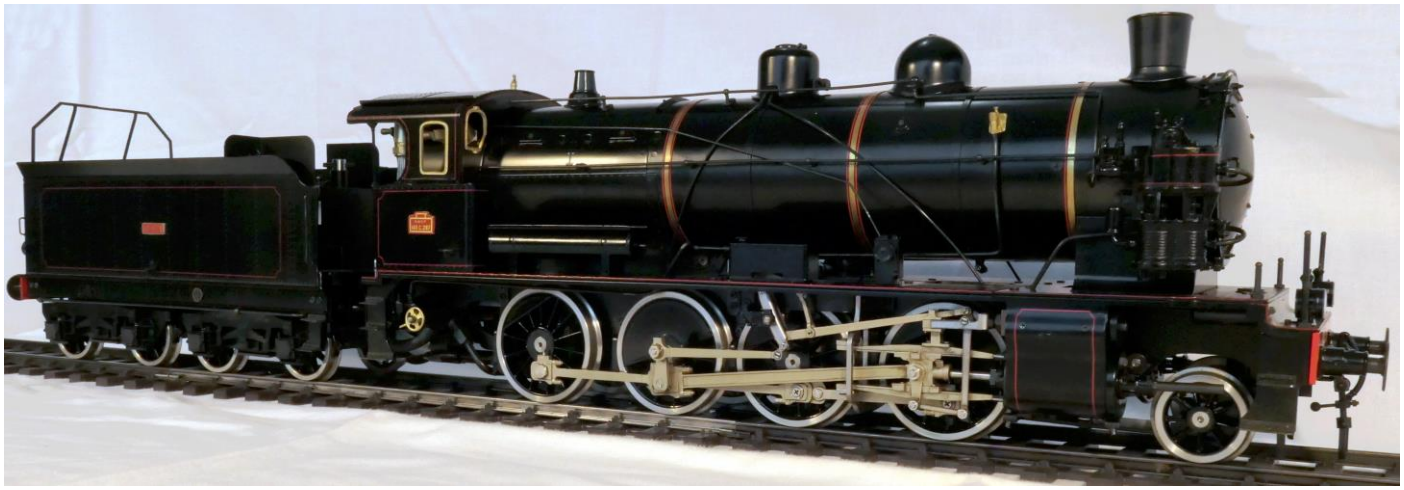
4.2.2 0 Gauge

In 0 gauge the Czech manufacturer Merkur made, initiated by enthusiasts of the French CFE train collectors society, a 44 cm long tinplate style 0 gauge model of SNCF 140C210. It has catalogue number 9192a and my version has the extra sound electronics which includes a random whistling whistle. The completely metal locomotive runs on 3-rail DC.

4.2.3 1 Gauge

In 2007 ASTER Europa commissioned the SNCF 140C 2-8-0 in a green and a black version. At the end of 2016 ASTER UK had a sale of black 140C kits, and of course, I took advantage of it like a real Dutchman. Building the kit went easy and my 140C287 is running great. It is a 61 cm long spirit fired, all metal live steam locomotive with an axle pump supplying water to the boiler during the run.





4.3 Germany

The Bavarian State Railway got delivered two Class E I goods train locomotives in 1899 with a 2-8-0 wheel arrangement. These were American Vauclain compound four cylinder locomotives build by the Baldwin Locomotive Works in the USA. Fulgurex sold H0 models of this locomotive in 1979 that were made in Japan. These were nicely detailed factory painted brass models with catalogue number 2051. One can see the large low pressure cylinder on top of the smaller high pressure cylinder.

The Prussian G 8.2 was a 2-cylinder version of the Prussian G 8.3. The locomotives were employed on heavy goods train duties on main lines. Later the top speed on some units was raised to 75 km/h allowing the G 8.2 also to be used for passenger trains. A total of 846 examples of the locomotive were built between 1919 and 1928. The later classification was Baureihe 56. Here is a 2-rail DC H0 gauge model of the Prussian G8.2 with number 5353 made in 1987 by Fleischmann in a set with 6 freight cars with catalogue number 4884. Length is 20 cm.

4.4 Italy

The Ferrovie dello Stato (FS; Italian State Railways) Class 740 (Italian: Gruppo 740) is a class of 2-8-0 steam locomotives that was designed as the simple expansion and superheated version of the earlier FS Class 730. The first locomotives were built in 1911 and in total, 470 were built. Here are a number of class 740 locomotives and derivatives in H0 gauge. RivaRossi made with catalogue number R0005 a set including this nicely detailed Class 740 locomotive with tender drive which is 24 cm long..

RivaRossi made a model of a class 741 locomotive, being a class 740 that was rebuilt with a Franco-Crosti boiler with a single pre-heater under the boiler. This detailed plastic tender drive locomotive has catalogue number 1142.

Lima of Italy made in the sixties this funny looking locomotive which has E680 on the cab. I assume it might be a “model” of a Class 740. It is a very simple plastic locomotive, 23 cm long, that is mostly seen with a German like tender. It has a German looking cab, but the tender is very Italian.

4.5 Switzerland

The Rhaetian Railway (RhB) G 4/5 was a class of metre gauge 2-8-0 steam locomotives operated by the RhB, which is the main railway network in the Canton of Graubünden, Switzerland. The class was named G 4/5 under the Swiss locomotive classification system. G 4/5 denotes a narrow gauge steam locomotive with a total of five axles, four of which are drive axles. The RhB ordered a total of 29 examples of the G 4/5 class between 1904 and 1915. Brawa made almost twenty years ago a small range of trains based on 1-metre gauge railways running on 45 mm track and called these correctly IIm. The G 4/5 was one of these. It is a plastic and metal detailed and very heavy 2-rail electric locomotive with a length of 65 cm.

4.6 USA

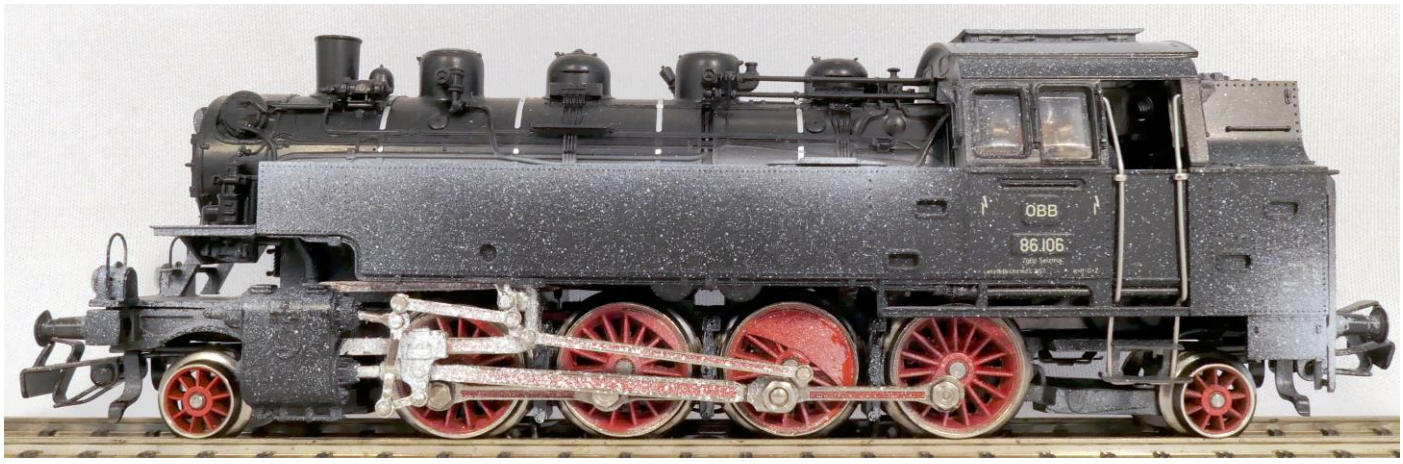
At the end of the 19th century the Denver & Rio Grande Western Railroad ordered some standard gauge 2-8-0 (Consolidation) locomotives for freight trains. MDC Roundhouse made kits in H0 gauge for these locomotives. I built one of these kits with catalogue number 485, long ago. The kits were plastic/metal (cast metal boiler, plastic pre-painted tender body and cab) with an open frame motor. I should have changed the red wire for a black or grey one of course. The length of this sparsely detailed locomotive is 20 cm.

5 2-8-2 Mikado

Mikado represents the wheel arrangement of two leading wheels on one axle, usually in a leading truck, eight powered and coupled driving wheels on four axles and two trailing wheels on one axle, usually in a trailing truck. Locomotives with this wheel arrangement saw service on all six populated continents. The 2-8-2 wheel arrangement allowed the locomotive's firebox to be placed behind instead of above the driving wheels, thereby allowing a larger firebox that could be both wide and deep. This supported a greater rate of combustion and thus a greater capacity for steam generation, allowing for more power at higher speeds. The 2-8-2 was one of the more common configurations in the first half of the 20th century, before dieselisation. The 2-8-2 type was particularly popular in North America, but was also used extensively in Continental Europe and elsewhere.

5.1 Austria

The Baureihe 86 was a standard Mikado tank locomotive for passenger and freight trains. 774 machines of the BR86 were built by almost all locomotive factories in Germany. After 1948, even more of these locomotives were built in Austria. Märklin made with catalogue number 3113 a HO gauge model of an Austrian ÖBB Baureihe 86 decorated with some snow giving it a wintery view. The nicely decorated 16 cm long model is for 3-rail operation.



5.2 England

The London and North Eastern Railway Class P2 was a class of 2-8-2 steam locomotives designed by Sir Nigel Gresley for working heavy express trains over the harsh Edinburgh to Aberdeen Line. The first locomotive of the class, No. 2001 Cock o' the North, was introduced in 1934. In 2013 Hornby made with catalogue number R3171 a 29 cm long nicely detailed 2-rail DC plastic model of this locomotive in 00 gauge.

5.3 France

There are a number of different French Mikado's in various gauges in my collection, i.e. 141E in H0, 141P in H0 and 0, 141R in H0, 0 and 1 and 141TA in H0.

5.3.1 H0 Gauge

The PLM constructed 680 Serie 1000 Mikado steam locomotives between 1913 and 1934. The 141E and 141F were rebuilt during the 1950s to increase power and efficiency. They were used for both passenger and freight duties. REE Models made a very detailed metal/plastic 27 cm long 2-rail H0 gauge model of an SNCF 141E having number 5-141E388 of the Clermont depot.

The Mikado of the 141P series numbers 1 to 318 are unified steam locomotives of the SNCF put into service between 1942 and 1952. Designed in part by André Chapelon, these mixed service compound locomotives, equipped with a stoker, proved to be economical in water and fuel. I have three models of the 141P in H0 all made by Jouef. The first one is a model of 141P102 of the Venissieux depot with catalogue number 8269. This is an early plastic model made from 1975 to 1978. It has a motorised tender and is 28 cm long.

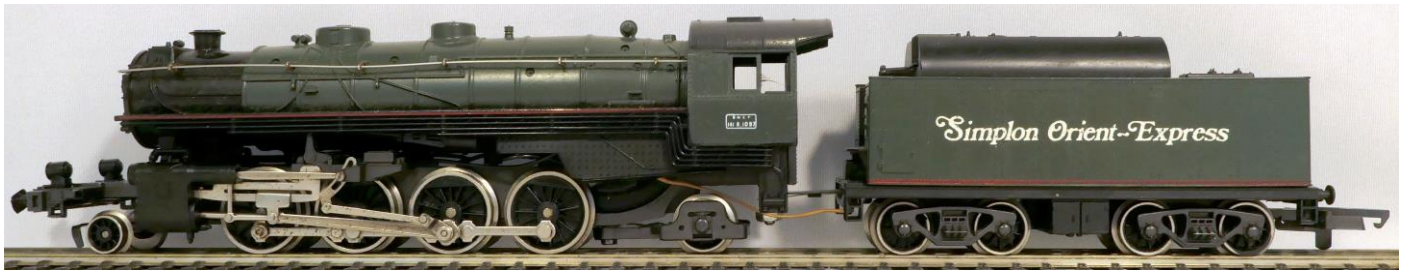
The next Jouef 141P in H0 gauge has catalogue number 827209 and is a later (around 1998), more detailed and better motorised, model. It is a black version of 141P282 of Chaumont depot.

After the takeover by Hornby of RivaRossi/Jouef the 141P model was renewed and better detailed; it still has tender drive. Here is a model of 141P13 of the Montargis depot with catalogue number HJ2036. This model was introduced in 2008.

The SNCF 141R is a class of 2-8-2 steam locomotives of the French State Railways. They were used all over the French rail network from 1945 to 1974. At the end of World War II, there was a shortage of locomotives, and to quickly obtain the large number needed locomotives were ordered from the main American and Canadian locomotive builders. The design was based somewhat on the USRA Light Mikado, suitably modified to meet the SNCF loading gauge. Modifications included the overall height, the fitting of European couplers and buffers, left-hand drive and unique style smoke deflectors. The 141R exists in coal and oil versions. I have a number of models of the 141R, six in H0. First shown is a Jouef model of a coal version with catalogue number 8274 of 141R416 of the Reims depot introduced in 1973. The plastic DC model with tender drive is 27 cm long.

This next Jouef 141R has catalogue number 828500 and was a limited issue made on request of the Strasbourg hobby shop Philibert and sold only by him between 1994 and 1996. My example, that I bought in Strasbourg, is number 218 from 250. It is an oil version, 141R900 from the Hausbergen depot and has some extra detailing.

Lima from Italy also made some 141R models long ago; these are, as was normal at that time with Lima, very simple and not very detailed plastic 2-rail DC models. These had their motor in the locomotive and a length of 28 cm. They introduced 141R1097, a green oil burner, in 1969. I have a version which was made for the English market and has English couplers. It came in a train set with four simple CIWL cars called “Simplon Orient Express” and very not-prototypical this is shown on the tender. Mine has no smoke deflectors; I have seen other examples with and without these.

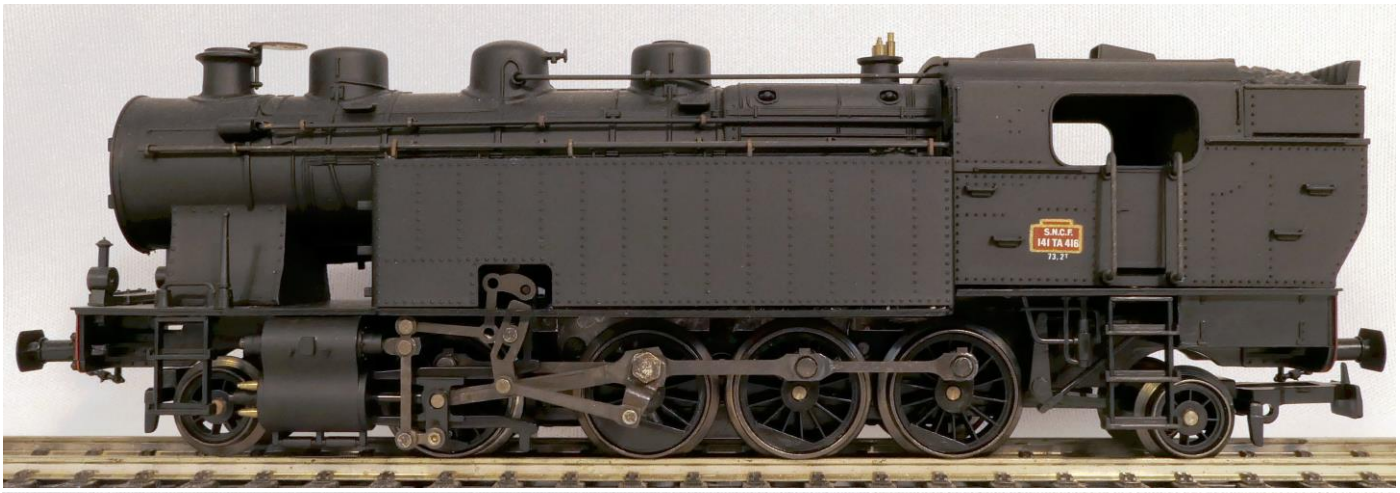


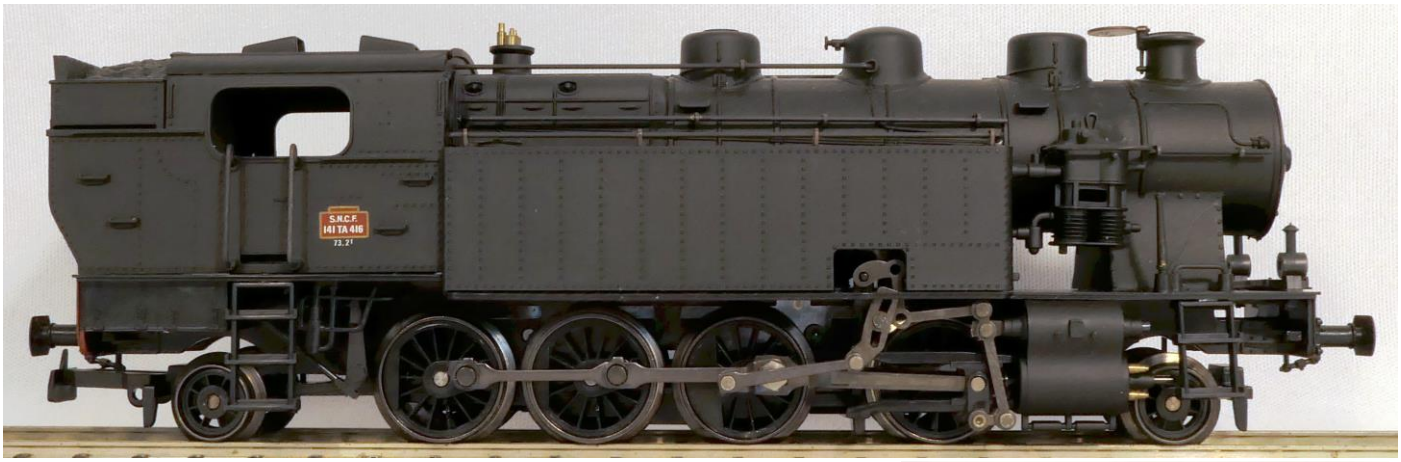
Lima introduced a black coal burning version with number 141R1288 in 1971. Of course they changed the tender accordingly. The catalogue number is 3004L.

In 2001 RivaRossi introduced nicely detailed models of the coal burning 141R which were announced years before already. I have a 2-rail DC model with catalogue number R 1325 of 141R466.

In 1964 the small French model company TAB or Gerard TAB introduced a model of 141R1330, a coal version. The body of the locomotive is made of zamac while the tender body is made of plastic. It was produced in 2500 copies. It is a 2-rail DC version with lighted lamps at the front and a length of 28 cm.

The SNCF 141TA are tender steam locomotives that were originally made for the Paris to Orléans Railway Company. They were built from 1911 to 1922 and were of a two-cylinder single-expansion type with Walschaerts distribution, with the driving rods on the second coupled axle (an unusual arrangement on 2-8-2's). Jouef announced models of 141TA416 in 1984. It is a nicely detailed plastic 2-rail DC model with a length of 15 cm.





5.3.2 0 Gauge

With catalogue number 3489-2 MTH made in their Premier range a model of SNCF 141P268. This nicely detailed metal model is 55 cm long and has smoke and sound. It can be controlled with DCC or with MTH DCS.

Sunset 3Rd Rail, a division of Sunset Models, made this brass model of the 141R in a number of versions. I have a fuel version of 141R769. This is a nicely detailed 2-rail model with a QSI sound system and smoke. It is powered by a Pittman motor and is 56 cm long

5.3.3 1 Gauge

The ASTER SNCF 141R 2-8-2 Mikado, made in 1979, came with a Mistral headboard, however, suitable Mistral rolling stock is not available in gauge 1. The 141R Mikado was the first ASTER locomotive with four coupled driving axles. I did add the optional available whistle and whistle valve which had to be bought separately. They made a green oil-fired version with running number 1244 and a black coal-fired version. This spirit fired live steam locomotive is 76 cm long.

5.4 Germany

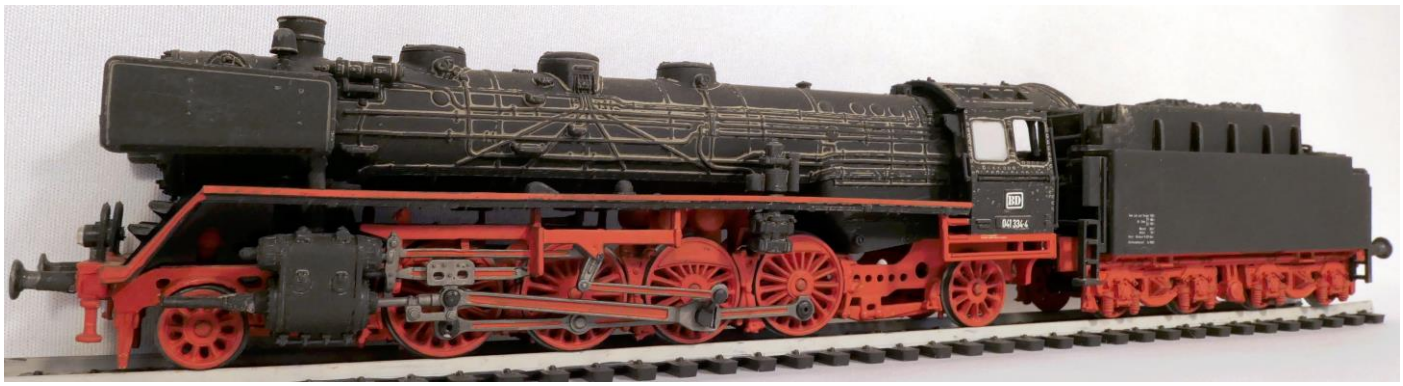
5.4.1 H0 Gauge

The Saxon 2-8-2 locomotives, known as "Sachsenstolz", were at the time of their appearance the only German express train locomotives with the wheel arrangement 1'D1' (Mikado) and the largest express train locomotives in Europe. From 1925 these four-cylinder compound locomotives were classified as Baureihe 19.0. Gutzold made in 2002 with catalogue number 48100 a 2-rail DC model of 19.017, which is preserved to this day. It has the DR (Deutsche Reichsbahn) livery. This is a very nicely detailed model with a length of 28 cm,

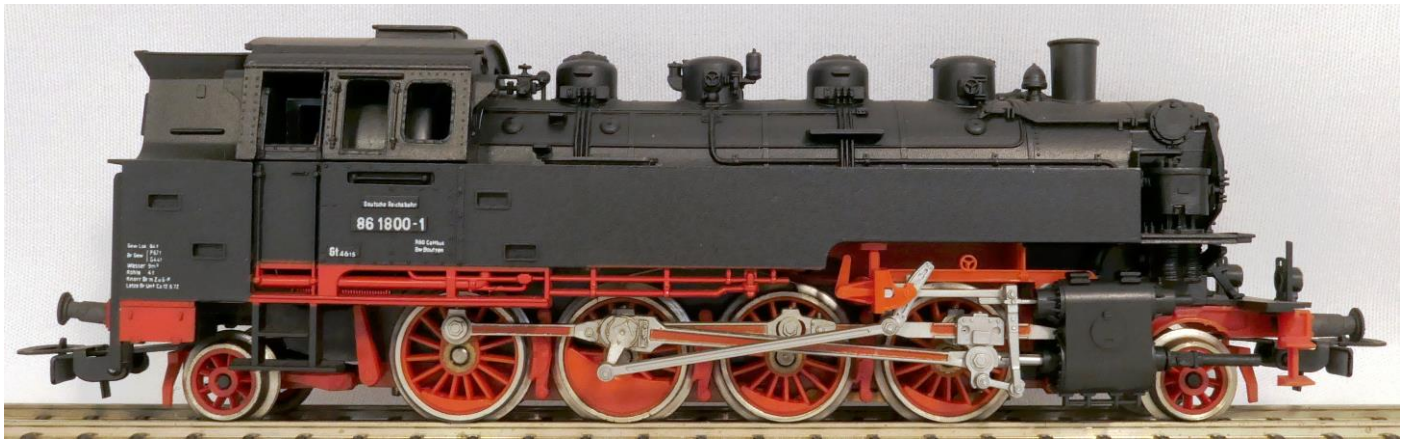
The Baureihe 39 Mikado was the last passenger train locomotive developed by the Prussian State Railways and known as P10. It was first delivered in 1922. It was intended for heavy express trains and passenger trains in the low mountain ranges. The four-coupled machines with their three-cylinder engines were the most powerful passenger train locomotives at that time. Fleischmann made a train set in H0 with catalogue number 4885: "D-Zug der Preußischen Staatsbahnen" in 1988. The train represents a short D-Zug (express train) from the early 1920s. It is the transition period from the Prussian state railway to the Deutsche Reichsbahn Gesellschaft. The nicely detailed locomotive which has a length of 27 cm still has the paintwork of the previous railway company.

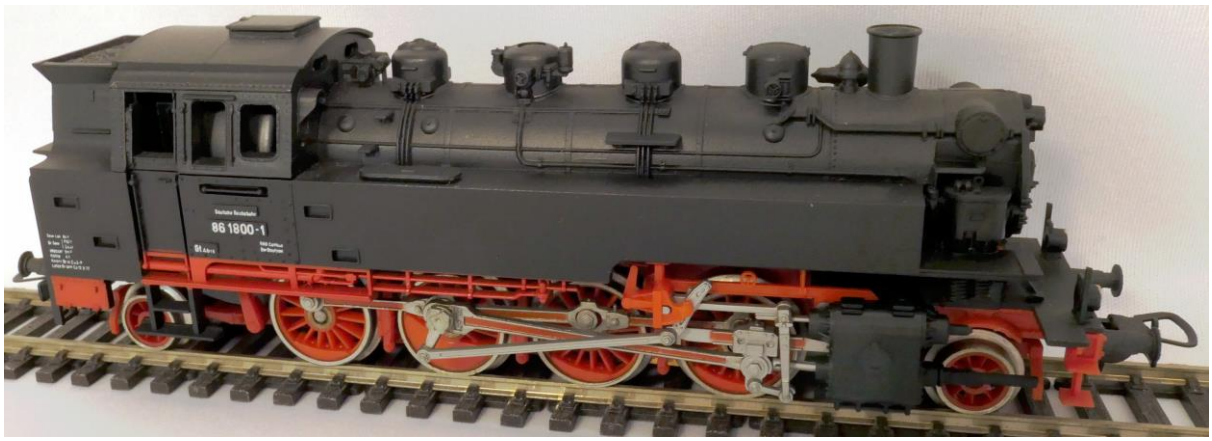
RivaRossi made with catalogue number 1347 also a model of the Prussian P10, but this time in so called photo grey. This is a nicely detailed 2-rail DC H0 model.

The German Class 41 steam locomotives were standard goods train engines (Einheitslokomotiven) operated by the Deutsche Reichsbahn (DRG) and built from 1937. The plastic kit maker Revell introduced a kit of the Baureihe 41 long ago, although I do not know the year. I built this kit, which represents a locomotive with number 041-334-4 of the Deutsche Bundesbahn (DB), but the decal in the kit erroneously showed BD. It is a non-motorised plastic model.



The Baureihe 86 was a standard Mikado tank locomotive for passenger and freight trains. 774 machines were built by almost all locomotive factories in Germany. Piko made with catalogue number 190em27 a model of an east German Deutsche Reichsbahn version of the BR86. This is a plastic 2-rail DC H0 model with a length of 17 cm.





5.4.2 1 Gauge

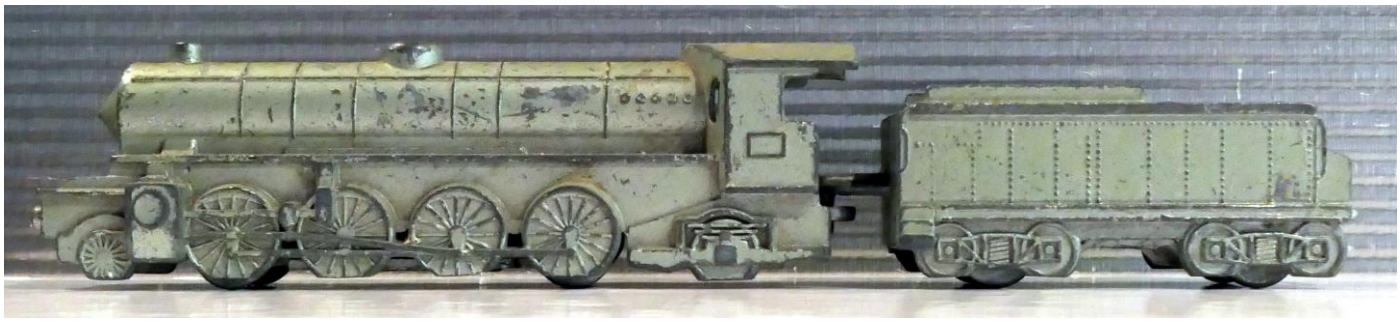
The German modelmaker Pein made this 1 gauge model of the Baureihe 41 in 1983 commissioned by the Hamburg train shop Markscheffel & Lennartz. It is a completely metal model with a strong motor in the boiler and at the time was called a super model because of the correct detailing which includes a working Kraus Helmholtz bogie system for the front driving axle. The model was available in German Bundesbahn or Reichsbahn livery, I have the DB version of 41.259. It has a length of 75 cm and runs on 2-rail DC.

5.5 Italy

The FS - Italian State Railways Gruppo 746 is a class of 2-8-2 steam locomotives that were the biggest ever built for the Ferrovie dello Stato. Forty of these four cylinder compound locomotives were made by Ernesto Breda in 1922, and then ten more in 1926; Gio. Ansaldo & C. built ten more, fitted with Caprotti valve gear, in the same years.

5.5.1 N Gauge

The Italian toy company Mercury made, using the name Colibri, in the fifties some small diecast metal unmotorised floor trains including a Gruppo 746 locomotive and freight and passenger cars. Although not made for running on rails they are the size of N gauge trains. When looking closely I recognised this locomotive as one of the series made with Caprotti valve gear.

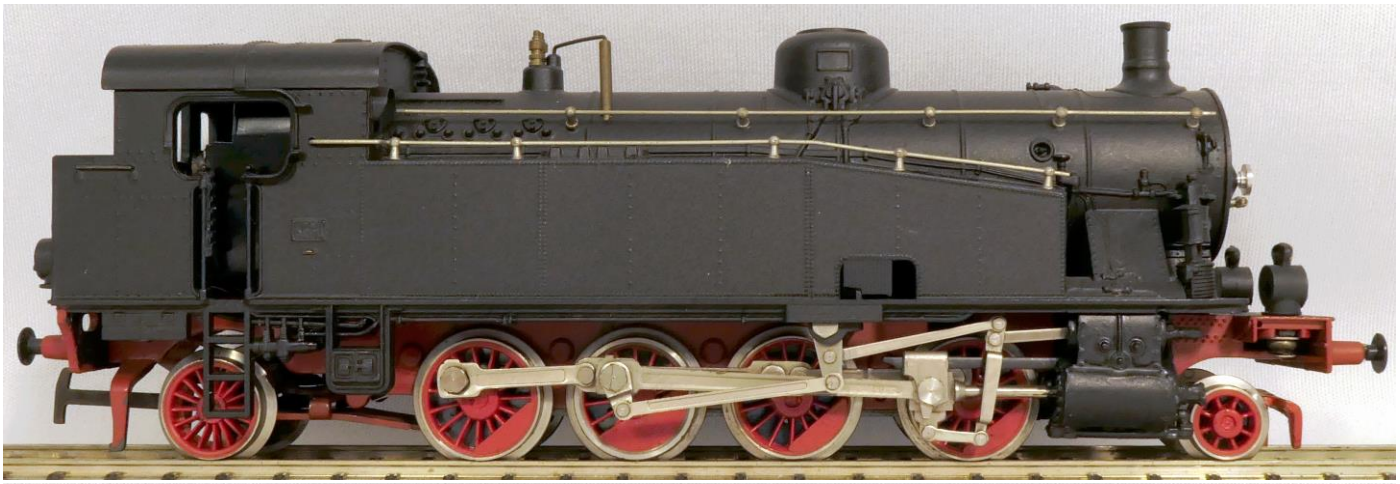


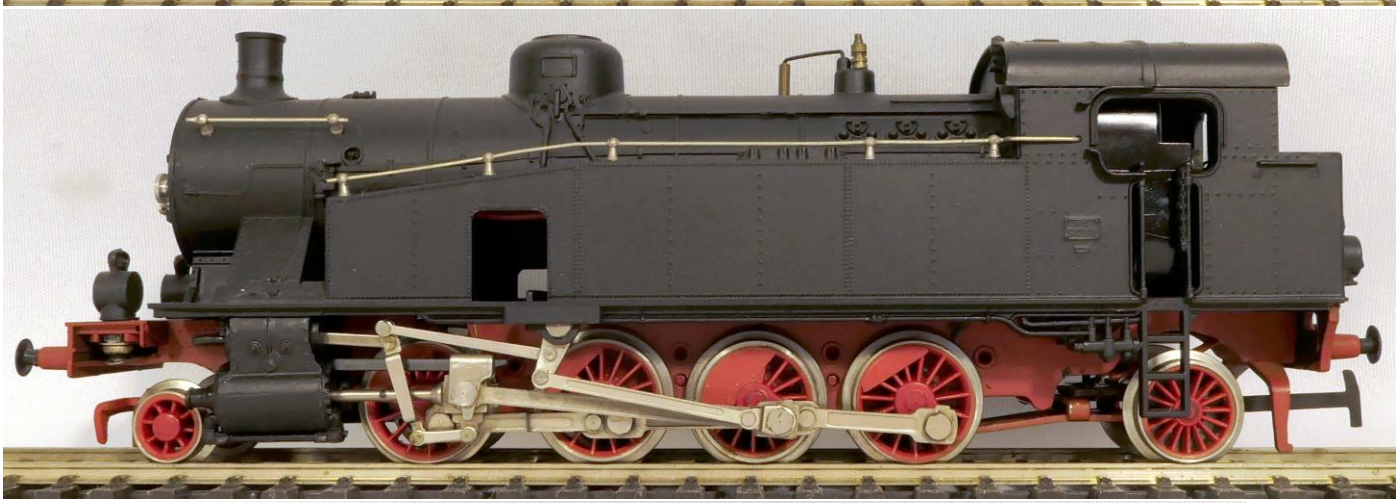
The Gruppo 746 with some of the Colibri freight cars:

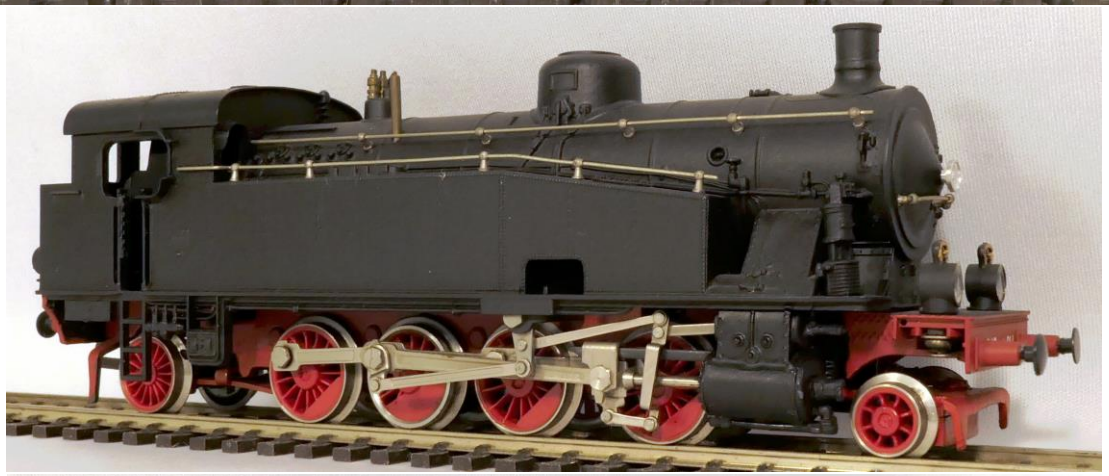
5.5.2 H0 Gauge

With catalogue number 11132 RivaRossi issued in their TrenHobby series of locomotive kits a version of the Gruppo746 with Caprotti valve gear. I built this kit about 40 years ago. The 2-rail DC plastic bodied locomotive is 29 cm long.

Another Italian 2-8-2 is the Gruppo 940 tank locomotive designed for the railway lines that cross the Apennines or the Alps. The FS Research Office designed what turned out to be an excellent locomotive, both for passenger and for freight trains. In 1973 RivaRossi made a model of Gr 940.014 with catalogue number 1144/4. It is a simple plastic model with a length of 16 cm.







5.5.3 0 Gauge

The Italian company Elettren made a model of the Italian FS Gruppo 746 in 0 Gauge. This model is quite rare and the example I acquired seem to have received extra detailing. Whether this is done by Elettren or a previous owner, I do not know. The good looking 3-rail electric model is 58 cm long.

5.6 Japan

The Class D51 is a type of 2-8-2 steam locomotive of the Japanese National Railways (JNR). Designed by chief mechanical engineer Hideo Shima, they were built by Kawasaki Heavy Industries Rolling Stock Company, Kisha Seizo, Hitachi, Nippon Sharyo, Mitsubishi, Mitsubishi Heavy Industries and JGR's factories from 1936 to 1945. It is the locomotive most built in Japan. The Japanese toy company Yonezawa used the name Diapet for a range of 1:80 scale diecast models, including this model of a D51. This a un unmotorised die-cast model to approximate H0 gauge.

5.7 USA

5.7.1 H0 Gauge

The USRA Light Mikado was an USRA standard class of steam locomotive designed under the control of the United States Railroad Administration, the nationalized railroad system in the United States during World War I. Heavy Mikado's used the same running gear as the USRA Light Mikado but were built to a higher axle load, with larger cylinders and with a much larger boiler for more power and steam-generating ability. RivaRossi made a number of Heavy Mikado models in various liveries. In 1983 they made with catalogue number 1537 this model of a Great Northen Mikado. It is a 2-rail H0 model with a length of 29 cm.

Southern Mikado 4501 has a very special history. For over forty years, it hauled heavy trains along the southern lines of the United States. It looked like her life would end on a Kentucky branch line and be scrapped, until a passionate admirer stepped in and purchased her from Southern. Refurbished with the collaboration of other railway enthusiasts, the 4501 was stripped of its "black" livery and given the green colour with gold lettering, typical of passenger locomotives. RivaRossi made in 1996 with catalogue number 5409 a model in H0 gauge for 2-rail DC. It has a length of 30 cm.

With catalogue number 22801 Trix made an H0 gauge model of a New York Central H6 class light Mikado. It is a nicely detailed 2-rail DCC model with sound and a length of 29 cm.

5.7.2 1 Gauge

In 1999 ASTER made a 1: 32 scale model of the USRA Mikado 2-8-2 in two separate versions; a black version and a beautiful Southern green version. The black version had less detailing and no hand or axle pump. The more complete Southern version is a model of locomotive 4501. It is a spirit fired live steam model with a length of 77 cm.

6 2-8-4 Berkshire

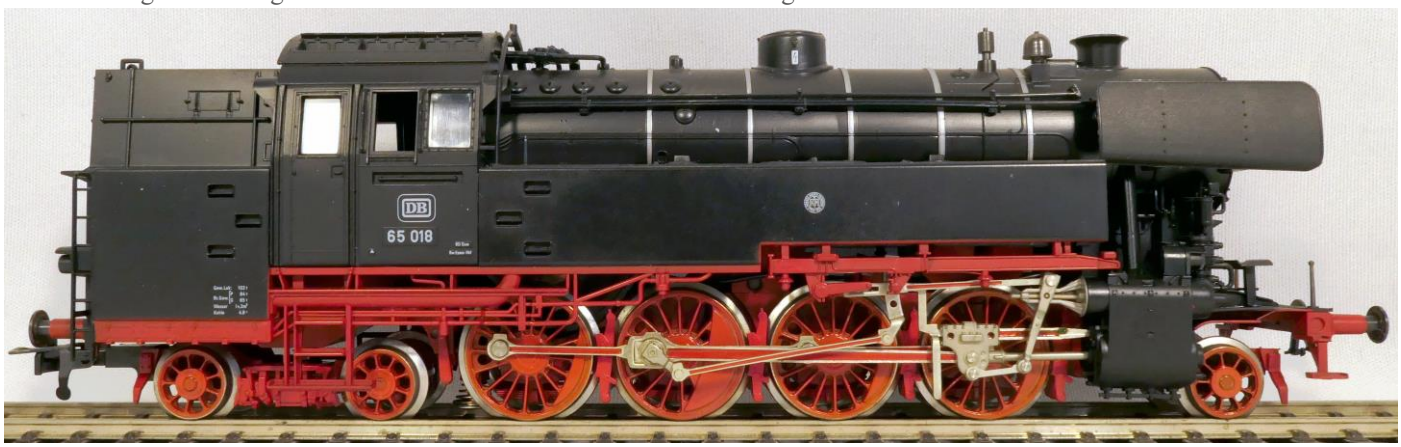
A Berkshire is a steam locomotive that has two unpowered leading wheels, followed by eight coupled and powered driving wheels, and four trailing wheels. In Europe, this wheel arrangement was mostly seen in mainline passenger express locomotives and, in certain countries, in tank locomotives. In the United States of America, the 2-8-4 wheel arrangement was a further development of the enormously successful 2-8-2 Mikado. It resulted from the requirement for a freight locomotive with even greater steam heating capacity.

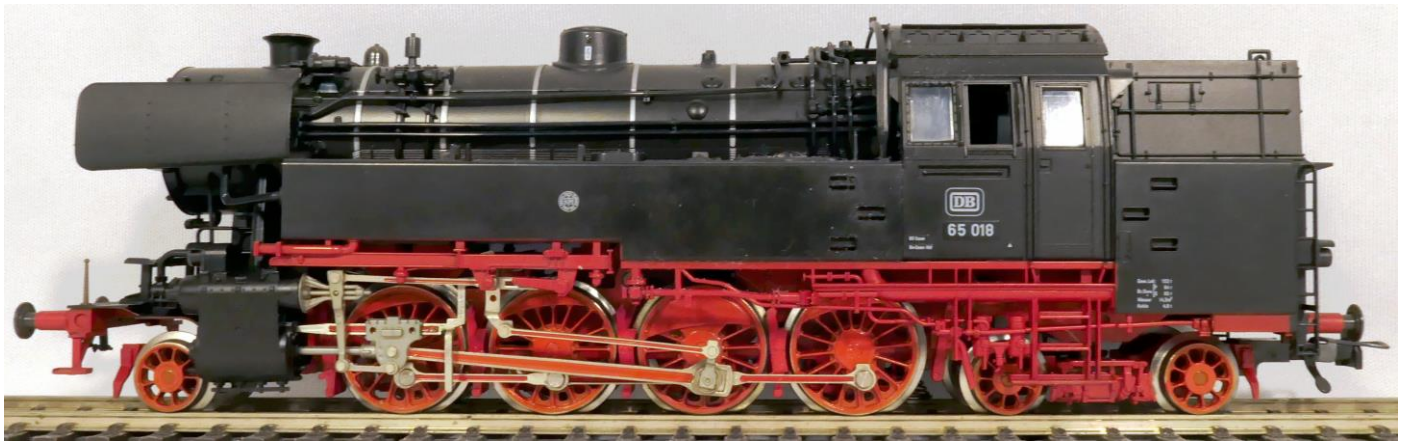
6.1 Austria

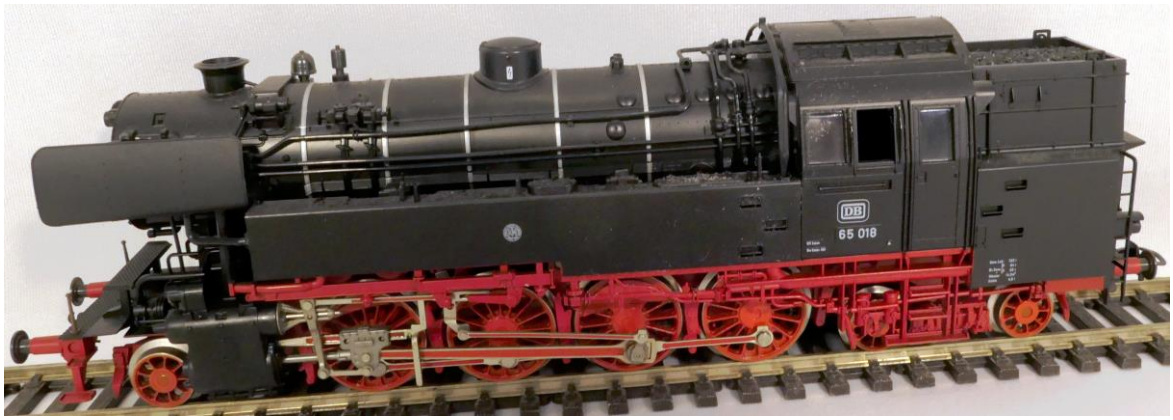
In 1931 and 1936 a total of twelve 2-8-4 locomotives , called class 214, were made for the Federal Railways of Austria. They were the largest steam locomotives ever built in Austria and the most powerful express locomotives with the longest connecting rods that existed in Europe at that time. With catalogue number 10610 Liliput made from 1978 until 1990 a model of class 214 with running number 04. At the time it was released, it was considered a very good and detailed H0 gauge model, so I bought it when it became available. It is a heavy model with metal locomotive and tender body and some plastic details. The motor of this 12 V DC model is in the tender and drives the tender wheels.

6.2 Germany

The 2-8-4 (2D1) locomotives of the series 65 built by Krauss-Maffei were delivered to the Deutsche Bundesbahn (DB) between 1951 and 1956 and were used for passenger trains. Due to its high tractive effort and relatively high power, the series 65 was also suitable for medium-weight freight trains. With catalogue number 4065 Fleischmann introduced in the mid-eighties a nicely detailed and good running 2-rail DC model of the Baureihe 65 with a length of 18 cm.







6.3 USA

The development of the 2-8-4 wheel arrangement for steam locomotives was a result of an effort by the Lima Locomotive Works to improve on the speed and horse power of the USRA Mikado (2-8-2) locomotive, which had difficulty keeping up steam over long periods and often experienced wheel slippage. Lima Locomotive Works' engineer William E. Woodward designed a locomotive with a 100 square foot firebox. This larger firebox required a four-wheel trailing truck to support it.

6.3.1 N Gauge

The American Railroads Berkshire locomotive led a special train in 1969 to commemorate the driving of the Golden Spike of Transcontinental Railroad in 1869. RivaRossi introduced in 1977 an N gauge model, with a matching train, of this locomotive. The set had catalogue number 9012. The 2-rail N gauge locomotive is 19 cm long.

6.3.2 H0 Gauge

RivaRossi issued models of the Berkshire in a number of liveries for different railroads. In 1965 they started with a Nickel Plate Road Berkshire with number 779 and catalogue number 1244. This is a 35 cm long 2-rail DC model.

Fourteen years later in 1979 RivaRossi issued with catalogue number 1520 a similar Berkshire version, but numbered 574, in the livery of the Richmond Fredericksburg & Potomac Railroad.

6.3.3 0 Gauge

MTH made with catalogue number 20-3032 in their Premier line a 3-rail model with sound and smoke of the Nickel Plate Road Berkshire with number 765. The electronics failed, so now it runs silently with DC power on my garden railroad.

7 4-8-2 Mountain

A Mountain type steam locomotive represents the wheel arrangement of four leading wheels, eight powered and coupled driving wheels and two trailing wheels. The name was originated by the Chesapeake & Ohio Railway in the United States, who named the type after the Allegheny Mountains. It was a progression of the classic 4-6-2 Pacific layout, which featured a wide firebox positioned above the trailing truck and behind the coupled wheels, allowing for a wide and deep firebox as well as large coupled wheels. It began to be used on the more undulating routes as increasingly heavy loads, brought about by the introduction of all-steel passenger cars, began to overtax the hill-climbing capabilities of the existing 4-6-2 Pacific and the speed capabilities of 2-8-2 Mikado locomotives.

7.1 Canada

Canadian National Railways U-1-f class locomotives were a class of twenty 4-8-2 Mountain type locomotives built by Montreal Locomotive Works in 1944. They were nicknamed "Bullet Nose Bettys" due to their distinctive cone-shaped smokebox door cover. MTH made in their Premier line a 3-rail 0 gauge model of the U-1-f with catalogue number 20-3057. This heavy metal model is nicely detailed and 60 cm long.

7.2 France

There were several different Mountain locomotive series in France, I can show Est, Etat and SNCF types.

7.2.1 H0 Gauge

The Est 241 and the État 241 were French steam locomotives with tenders that were used in the express train service of the Chemins de fer de l'Est and the Chemins de fer de l'État. They were designed as "de Glehn" type four-cylinder superheated steam compound locomotives. When they were put in service they were the largest and most powerful steam locomotives on the continent. Trix made a model of Est 241-004 with catalogue number 25241, it is a 30 cm long DCC 2-rail H0 gauge model.

The 241-101 of the Etat was described as a super-Mountain with a number of innovations. The aesthetics of the machine were designed in collaboration with the technical services by an architect, Henri Pacon. It was supposed to represent the showcase of the Etat network. It was single expansion 3-cylinder engine. One innovative feature was the distribution with rotary cam valves of the "Renaud" type. Metropolitan imported in 1985 a factory painted brass model made in Japan by Fujiyama. This is an H0 2-rail DC model with a length of 32 cm.

The SNCF 241P is a 4-8-2 'Mountain' type express passenger steam locomotive that ran on the French National Railways from 1948 until 1973. Thirty-five of these were built by Schneider et Cie. between 1948 and 1952. It was a locomotive capable of hauling passenger trains of 700–800 tonnes at 120 km/h and of climbing gradients of 1 in 125. Jouef made with catalogue number 8241 already in the seventies a 2-rail DC model of the 241P7. It is a plastic model with a length of 32 cm and the motor in the tender.

In 2013 Jouef, now owned by Hornby, announced a new model of the 241P. This nicely detailed and good running 2-rail DC model of 241P6 has catalogue number HJ2238 and has a Mistral train board at the smokebox front.

7.2.2 0 Gauge

MTH made in its Premier European line also a model of Mountain EST 241 011 with catalogue number 20-43032 (see also 7.2.1). This is a digitally controlled 2-rail 0 gauge model with sound. The nicely detailed model has a length of 60 cm.

7.2.3 1 Gauge

Märklin made a 1:32 model of an ETAT Mountain in the SNCF version as it is restored and still operated. This is a digitally controlled 2-rail electric locomotive with sound and a length of 81 cm. It is very detailed and includes valve gear that prototypical correct changes when the locomotive is set for forward or reverse running.

7.3 USA

The Denver & Rio Grande Western railroad had 10 M75 Mountains built by Baldwin in 1925. These were rather special by having 3 cylinders. Samhongsa from Korea made in 1979 a series of 200 models of the M75 with Worthington feedwater heater in brass, imported by Key. I brought one from a visit to the US and had it painted by the Dutch company Philotrain. It is a very nicely detailed 2-rail DC H0 model with a length of 34 cm showing two eccentric cranks at the right, one for the third cylinder.

Although the name Mountain was used in the US, the New York Central used to name this type Mohawk. The New York Central became the largest 4-8-2 user in North America, with 600 locomotives of this type built. The L3a class was of the dual-service locomotive, capable of working passenger as well as freight trains. Tenshodo made models of the L3a Mohawk in factory painted brass already in 1960. These were imported by PFM. These are 2-rail H0 completely metal models with an open frame motor.

The M1 was a class of steam locomotive of the Pennsylvania Railroad (PRR). It was a class of heavy mixed-traffic locomotives of the 4-8-2 Mountain arrangement introduced in 1923. In 1930, 100 more were ordered; this class M1a had several improvements. Instead of separate cylinder block and smokebox saddle castings, the M1a had a one-piece casting. Broadway Limited Imports made H0 gauge models of the M1a available some years ago with catalogue number 004BLI. It is a 2-rail digitally controlled nicely detailed plastic model with sound and having a very long 12-wheel tender giving it a length of 38 cm.

8 4-8-4 Northern

The Northern represents the wheel arrangement of four leading wheels on two axles, eight powered and coupled driving wheels on four axles and four trailing wheels on two axles. The type was first used by the Northern Pacific Railway, and initially named the Northern Pacific, but railroad employees have shortened the name since its introduction. It is most-commonly known as a Northern.

8.1 Germany

The German Class 06 engines were locomotives of the Deutsche Reichsbahn designed to haul express train services. They were the only German locomotives with a 4-8-4 (Northern) wheel arrangement. There were only two Class 06 locomotives built by the firm of Krupp in 1939, they were the largest, heaviest and most powerful locomotives in Germany at that time. Lemaco made with catalogue number H0-025 an H0 gauge model of a DRG liveried Class 06.001. It is a 2-rail DC factory painted brass locomotive with a length of 32 cm.

8.2 Netherlands

The Netherlands are not known for exceptional steam locomotives, however when the 6300 hit the metals in 1930 it was the heaviest single frame steam locomotive in Europe. These large tank-locomotives, with the 4-8-4 wheel arrangement, were the last new series of steam locomotives for the NS (Dutch Railways). They were specially designed for the heavy coal transport from the South Limburg mines to the West of the Netherlands. Dutch company Artitec made an H0 model of the 6300's which was later sold via AVT Products. The AVT Products 2-rail DC version of 6308 is seen here. It is nicely detailed and has a length of 20 cm.

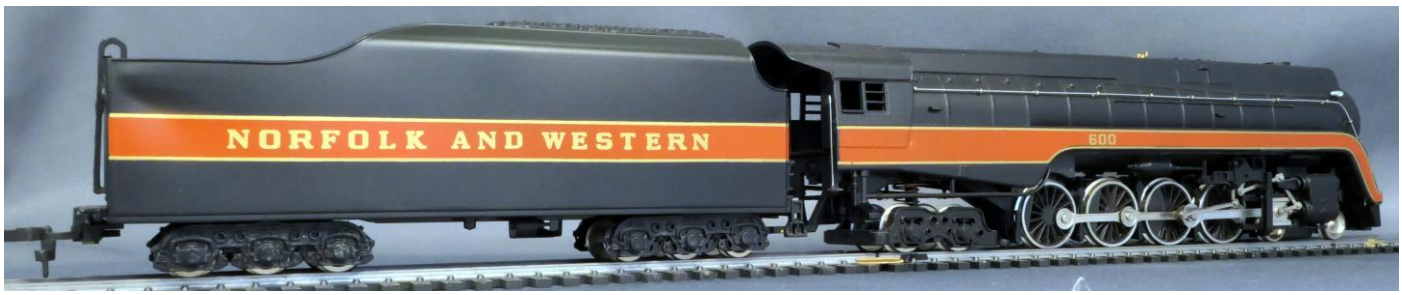
8.3 USA

8.3.1 N Gauge

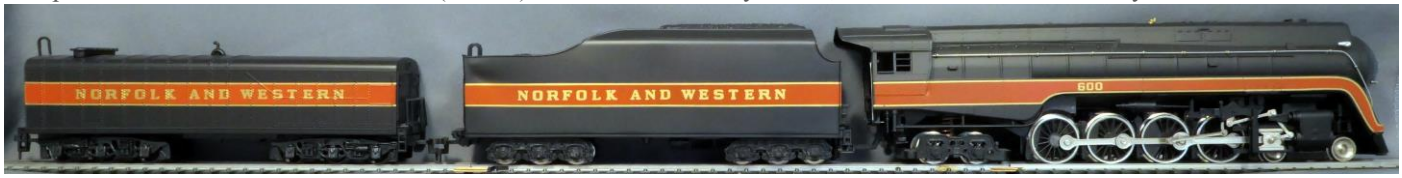
The GS-4 is a class of semi-streamlined 4-8-4 "Northern" type steam locomotive operated by the Southern Pacific Railroad (SP) from 1941 to 1958. A total of 28 locomotives were built by Lima Locomotive Works in Lima, Ohio. The GS-4's served as the primary motive power of SP's famous Coast Daylight passenger train between San Francisco and Los Angeles, California, a train in so called Daylight colours. The Japanese train maker Kato, known for making realistic N gauge models, made a model in 1:160 of the Southern Pacific Daylight GS4 locomotive (catalogue number 126-0301). This has the locomotive number 4449; it is 21 cm long. Most GS-4 models have number 4449 which is the number of surviving member of this class.

8.3.2 H0 Gauge

The Norfolk and Western J class was a class of 14 4-8-4 Northern streamlined steam locomotives built by the N&W at its Roanoke Shops, Virginia, between 1941 and 1950. The most powerful 4-8-4 locomotives ever produced, the J class were part of the pinnacle of steam technology. Bachmann catalogue number 410658A4 is a 2-rail DC earlier plastic H0 model of J class 600 with a length of 38 cm.



The preserved N&W J class locomotive (no 611) ran with an auxiliary tender, which was also modelled by Bachmann in H0.



The New York Central Railroad's Niagara was a class of 27 4-8-4 steam locomotives built by the American Locomotive Company. The New York Central named them “Niagara’s” instead of “Northerns”. It is considered as one of the most efficient 4-8-4 locomotives ever built. Bachmann made with catalogue number 41054020 years ago this H0 model of the New York Central Niagara 4-8-4. It is a plastic 2-rail DC model with funny coloured smoke deflectors and a length of 41 cm.

Broadway Limited Imports (BLI) made also a model of the New York Central Niagara. It has catalogue number 5183 and is a very nicely detailed digitally controlled model with a length of 40 cm. It has sound and smoke.

Here is a Bachmann model of the Southern Pacific GS-4 with catalogue number 410550D9. It is an early plastic 2-rail DC H0 gauge model with a length of 39 cm and wearing number 4454.

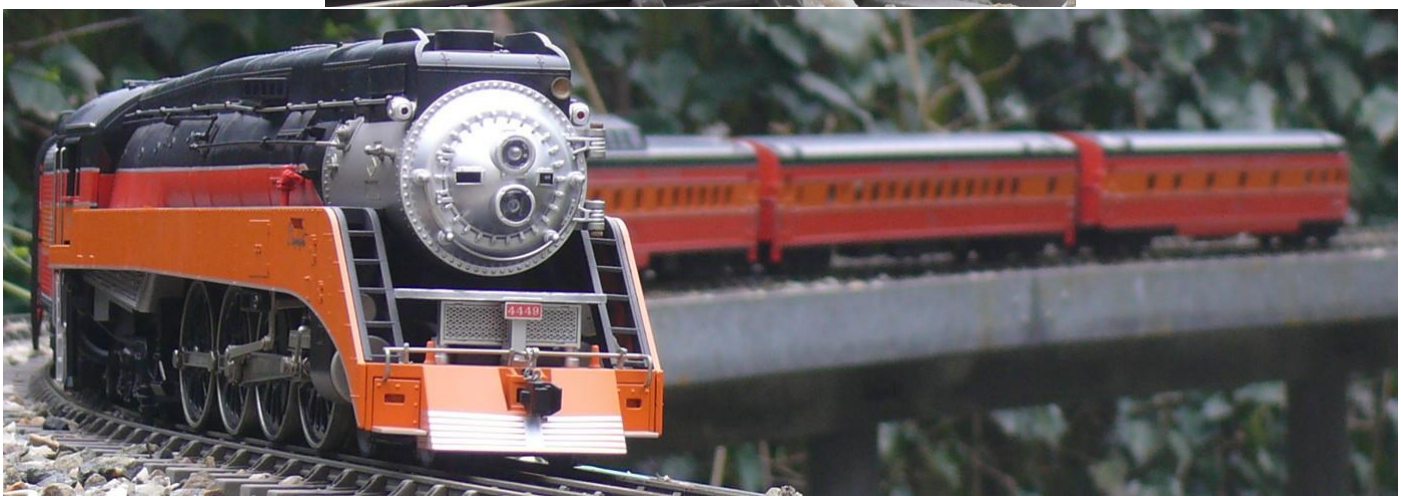
This is a factory painted brass model of a GS-4 with number 4454 made for Sunset Models by SMI in Korea. This nicely detailed model with a length of 39 cm was made in 1989.

The Union Pacific FEF (Four Eight Four) series consists of 45 4-8-4 "Northern" steam locomotives built by the American Locomotive Company (ALCO) between 1937 and 1944. The FEF series consisted of three classes of steam locomotives: FEF-1, FEF-2, and FEF-3. Here is a model made by RivaRossi in 1986 with catalogue number 1528/1 in H0 gauge of FEF-3 with number 8444. It is a plastic 2-rail DC model with a length of 41 cm.

8.3.3 0 Gauge

In their Railking line of so called traditionally sized 3-rail 0 gauge models MTH made this 57 cm long AC model, which is a bit smaller and shorter than a 1:48 US scale model.

In their Premier line MTH made a 1:48 0 gauge model of the Southern Pacific GS-4 with a matching Daylight train. This is a heavy metal 3-rail AC model with a length of 72 cm.



Weaver made a 3-rail 0 gauge digitally controlled brass scale model of the Union Pacific F-3 in 1:48. They made a series of 600 and my example is the last with number 600. It has sound and a length of 74 cm.

8.3.4 1 Gauge

The Great Northern S-2 was a class of 14 4-8-4 "Northern" type steam locomotives built by the Baldwin Locomotive Works in 1930 intended for fast passenger service. These locomotives were built to haul passengers on the GN mainline, pulling the Empire Builder. ASTER made a live steam Gauge 1 model of the S2 in 2008. This is a very detailed completely metal spirit fired locomotive that I made from a kit. It has a length of 99 cm and a battery powered front light.

ASTER also made a gauge 1 model of the Southern Pacific Daylight GS-4. This 105 cm long model was made in 1987. I made it from a kit. It is spirit fired.

9 6-8-6 Turbine

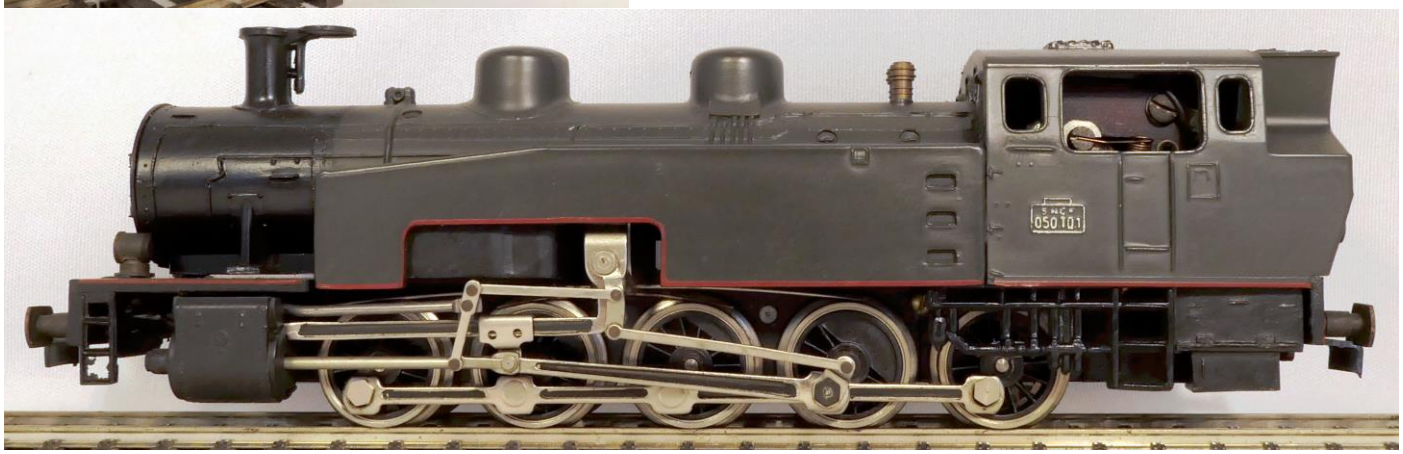
The Pennsylvania Railroad's S2 class was a steam turbine locomotive designed and built in a collaborative effort by Baldwin Locomotive Works and Westinghouse Electric & Manufacturing Company, as an attempt to prolong the dominance of the steam locomotive by adapting technology that had been widely accepted in the marine industry. One was built, #6200, delivered in September 1944. The S2 was the sole example of the 6-8-6 wheel arrangement in the Whyte notation, with a six-wheel leading truck keeping the locomotive stable at speed, eight powered and coupled driving wheels, and a six-wheel trailing truck supporting the large firebox. Lionel made a traditionally sized 0 gauge version of the turbine locomotive which was at a smaller scale but still recognisable. The one shown with catalogue and cab number 682 was made in 1955. It is a 3-rail AC locomotive with a whistling tender and 49 cm long.

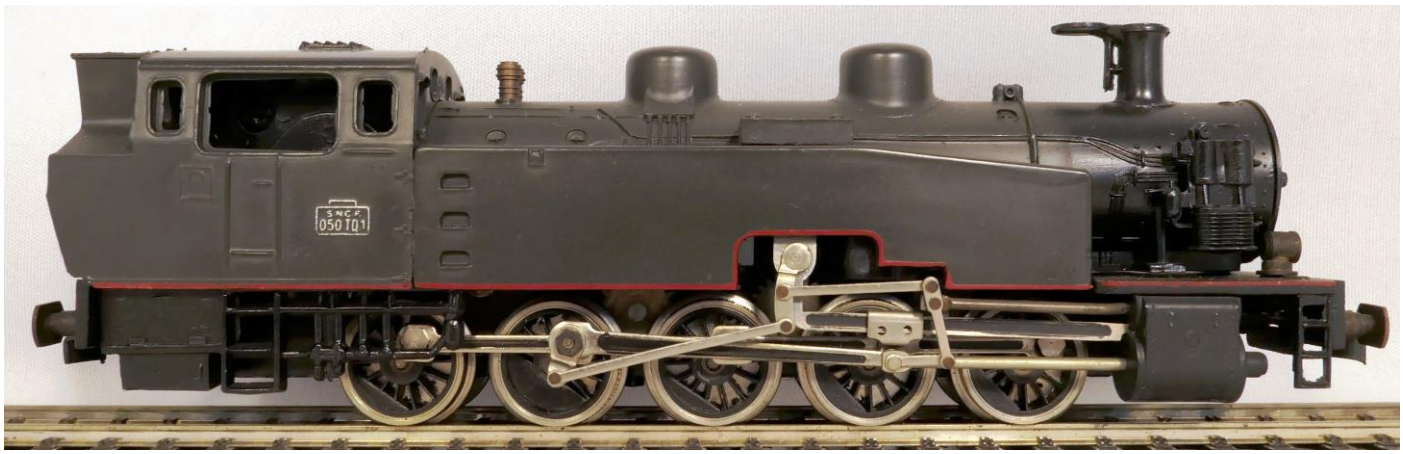
10 0-10-0 Ten-coupled

Ten-coupled represents the wheel arrangement of no leading wheels, ten powered and coupled driving wheels on five axles and no trailing wheels. The lack of leading and trailing wheels makes this wheel arrangement unstable at speed, and it is a type usually confined to fairly low-speed work, such as switching (shunting), transfer runs, slow-speed drag freight, or running over mountainous terrain.

10.1 France

The Ten-Coupled of the 050 TQ series, numbers 1 to 35, are steam tank locomotives of the SNCF put into service between April 1948 and November 1949. These machines were the last shunting tender locomotives put into service by the SNCF and only used on the Nord region. Roger Gérard and his father had a toy shop in Paris in 1948 called Train-Avion-Bateau (Train-Plane-Boat) shorted to TAB. They made 0 and later H0 model railway items in 2 and 3-rail from 1950 until 2007 under the name TAB or Gerard TAB. Here is a H0 gauge TAB 050 TQ. This is a 2-rail DC version, it is 16 cm long . The frame is made of metal, but the cabin is made of plastic.





10.2 Germany

The KWStE (Württemberg railway) used capital letters to identify their different types of locomotives. The type H was a Ten-Coupled type and an extra h, i.e. the type Hh, meant it was a super-heated locomotive. 26 of these locomotives with 3-axle tender were made between 1909 and 1920. Brawa made with catalogue number 40156 a model in H0 gauge of the Hh in the Württemberg green livery. It is a 2-rail DC model with a length of 19 cm.

11 2-10-0 Decapod

Decapod represents the wheel arrangement of two leading wheels on one axle, ten powered and coupled driving wheels on five axles, and no trailing wheels. These locomotives were popular in many countries. The 2-10-0's main advantage was that five out of six of its axles were powered, meaning almost all the weight was available for traction rather than being distributed over pilot and trailing wheels. The wheel arrangement's disadvantages included the firebox size restriction caused by the lack of trailing wheels.

11.1 Austria

The Deutsche Reichsbahn's Class 52 2-10-0 is a steam locomotive built in large numbers during the Second World War. It was a wartime development of the pre-war Class 50 (see below), using fewer parts and less expensive materials to speed production. The Austrian manufacturer Kleinbahn made with catalogue number 9593 a version of an Austrian version (Reihe 52 of the Austrian Federal Railways (OBB)) with a tub tender with brakeman's hut. This is a rather simple plastic H0 gauge 2-rail DC model with a length of 26 cm.

The German 1E (2-10-0) Class 50 2-cylinder freight locomotive was built in large numbers from 1939. After the Second World War, a number of these locomotives remained in Austria, 12 of which ended up with the Austrian Federal Railways (OBB) and were classified as Reihe 50. Märklin made in 1990 with catalogue number 3319 a 26 cm long model of one of these Austrian locomotives, of course based on their German model of the same type. It is a metal/plastic 3-rail AC model.

11.2 Belgium

The SNCB Type 26 consists of 100 locomotives originally ordered by the Germans as Class 52 2-10-0 locomotives from Belgian manufacturers during the occupation but not completed until after liberation. The Austrian manufacturer Liliput made with catalogue number 5295 a 2-rail DC H0 gauge model. The nicely detailed model with spring buffers is mainly made of metal and has a tender drive.

11.3 England

The British Railways Standard Class 9F 2-10-0 is a class of steam locomotive designed for British Railways by Robert Riddles. Number 92220 Evening Star of this class was the last steam locomotive to be built by British Railways in 1960 and is preserved. Rosebud Kitmaster issued plastic kits for various locomotives in 00 gauge including one for Evening Star. The kit was later re-issued by Airfix and again later by Dapol. I made some 50 years ago a model of Evening Star based on the Airfix kit with catalogue number 05652-0. It is a completely plastic static, i.e. without motor, model with a length of 27 cm.

11.4 France

There were a number of different French 2-10-0, or 150 as called in France, locomotives types. I can show two, both of German origin, the 150C and the 150X. The 150C was based on the Prussian G12, later Class 58, while the 150X was based on the Class 44. Note that many of the 150X were made by French industries. The 150C was a two cylinder locomotive while the 150X had three cylinders with simple expansion.

11.4.1 H0 Gauge

The SNCF 150C824 shown here is made by Roco from Austria. It is a 2-rail DC H0 model based on the German Class 58 Roco also made. It is a nicely detailed plastic model with a length of 22 cm and catalogue number 4118.

Here is a Jouef made model of the SNCF 150X in H0 gauge with catalogue number 8265 from the eighties. This 2-rail DC H0 gauge model has the motor in the tender. It has a plastic superstructure and is 26 cm long.

Märklin also made between 1965 and 1973 with catalogue number 3046, an SNCF 150X which was based on their 3-rail AC model of the German Class 44. It is a good running metal model with a length of 29 cm.

11.4.2 0 Gauge

The SNCF 150X 2-10-0 locomotive was made in 0 gauge by MTH in their European Premier line. It is a nicely detailed heavy metal model with a length of 51 cm and catalogue number 203528-2.

11.5 Germany

The Class 52 condensing locomotives (52 1850–2027) were coupled with 4 or 5 axle condensing tenders made by Henschel. This made it possible to travel longer distances without taking on water. The German manufacturer Gutzold made a model of such a locomotive with 4-axle tender with catalogue number 23400. It is a nicely detailed plastic H0 gauge model with a length of 31 cm.

The locomotives of the Class 42.90 are steam locomotives of the Class 52 that were converted in 1951. They were equipped with a preheating boiler designed by Italian engineers Attilio Franco and Piero Crosti, (a so called Franco Crosti boiler). Märklin made with catalogue number 39160 a 26 cm long H0 gauge model of such a locomotive in grey photo colour. It is a metal and plastic 3-rail digitally controlled model.

In a set with a snowplough (catalogue number 26830), Märklin made a Class 52 2-10-0 H0 gauge locomotive with tub tender. The locomotive as well as the wheel of the snowplough are digitally controlled. Length of the locomotive is 27 cm while locomotive and snowplough together are 52 cm long. This is a very nicely detailed train set with many operating possibilities.

11.6 Switzerland

The C 5/6 were a class of 2-10-0 four cylinder compound steam locomotives in use for the Swiss Federal Railways. The class was designed for use on the steep inclines of the Gotthard route, and was considered extremely efficient, earning the nickname Elephant. Roco of Austria made a model of the C5/6 in 2-rail DC H0 gauge. It has catalogue number 4111A and is 22 cm long.

11.7 USA

1200 2-10-0 locomotives were ordered by Imperial Russia from US manufacturers. Because of the Russian revolution a number these so called “Russian Decapods” were not delivered overseas and kept in the USA. The St Louis-San Francisco (Frisco) locomotive 1632 was a Baldwin made Russian Decapod. Bachmann/Spectrum made with catalogue number 81705 this nicely detailed H0 gauge model. It has a brakeman hut (so called dog house) on the tender and is 25 cm long.

12 2-10-2 Santa Fe

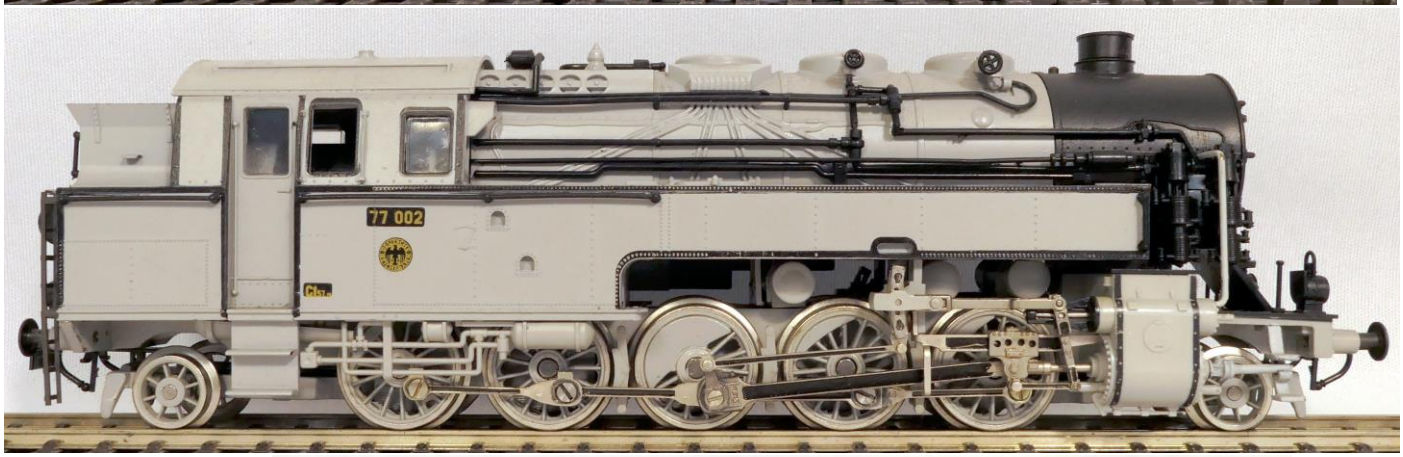
The Santa Fe type represents the wheel arrangement of two leading wheels, ten powered and coupled driving wheels, and two trailing wheels. In the United States and elsewhere it is known as the Santa Fe type, after the Atchison, Topeka and Santa Fe Railway that first used the type in 1903. The trailing truck allows a larger, deeper firebox than that of a 2-10-0.

12.1 Germany

12.1.1 H0 Gauge

German 2-10-2 or 1E1 locomotives were made with and without separate tender. The 2-10-2 with separate tender is the Class 45. The Class 45 engines, built between 1936 and 1937, were the most powerful steam locomotives ever operated in Germany. They were coupled with 5-axle tenders. Liliput from Austria made this 2-rail DC model of 45.001 in photographic paint in 1977. It is a nicely detailed model with a tender drive, it is quite long at 31 cm and the catalogue number is 4502.

German 2-10-2 tank locomotives were made in Classes 85 and 77/95. The Class 77/95 is the oldest, being based on the Prussian T20 locomotive. The T20 class of the Prussian State Railway were tank locomotives that were specially developed for heavy freight trains on steep main lines. The first, built in 1922, were delivered to the German Reichsbahn (DR) in 1923, initially as class 77, but in the same year they were reclassified as class 95, and further units were purchased. I can show two of these in H0 gauge. The first is made by Liliput and shows the locomotives as delivered with Class number 77 and in photographic grey. It is 19 cm long, has a metal body and catalogue number 9502.



Here is a Class 95 in H0 gauge of the east German Railways (Deutsche Reichsbahn) made by Piko in 1985 with catalogue number 5/6332. It is a plastic bodied nicely detailed locomotive.

The Class 85 were standard tender locomotives with a 1'E1' wheel arrangement for passenger and freight train service, especially as pusher locomotives on the Höllentalbahn in the Black Forest. Henschel built ten locomotives between 1932 and 1933. With catalogue number 33081 Märklin made this prewar (period 2) 3-rail AC version in 1997. It is 19 cm long and made of plastic and metal.

12.1.2 0 Gauge

In 0 gauge to a scale of 1:43.5, and not 1:45 which is now standard in Germany, Kiss made this brass model of the Class 95 in German Railways (DB) livery. It is a very detailed heavy model with a length of 36 cm. Catalogue number is 400042.

12.2 USA

Baltimore and Ohio Railroad Class S comprised three classes of 2-10-2 locomotives, Class S, S1 and S1a. They were nicknamed "Big Sixes" because until renumbering in 1954 their road numbers all began with 6. RivaRossi made a model of S1a with number 6200. The so called Vanderbilt-tender, having a cylindrical body like a tank car with a fuel bunker set into the front end, is remarkable. The 2-rail DC plastic bodied H0 gauge model is 36 cm long.

13 2-10-4 Texas

Texas type locomotives have two leading wheels on one axle, usually in a Bissel truck, ten coupled driving wheels on five axles, and four trailing wheels on two axles, usually in a bogie. The evolution of this locomotive type began as a Santa Fe type with a larger four-wheeled trailing truck that would allow an enlarged firebox. A subsequent development was as an elongated Berkshire type that required extra driving wheels to remain within axle load limits. This model of a Texas & Pacific Railroad locomotive was made with catalogue number 41056021 by Bachmann. It is a plastic model with a length of 42 cm.

14 2-12-0 Centipede

A Centipede represents the wheel arrangement of two leading wheels on one axle (usually in a leading truck), twelve powered and coupled driving wheels on six axles, and no trailing wheels. It is a further, but rarely used, development of the Decapod type. The K class of the Württemberg Railways were the only six-coupled locomotives with a 2-12-0 axle arrangement built for a German railway company. They were intended for the Geislinger Steige and the Baden Black Forest Railway. The German Reichsbahn adopted these as the Class 59. With catalogue number 1304 RivaRossi made around 1996 an H0 gauge model. This German Railways (DB) nicely detailed model is made of plastic and 23 cm long.

15 4-12-2 Union Pacific

The Union Pacific 9000 class was the only class of steam locomotives with a 4-12-2 wheel arrangement ever to be built. These locomotives had four leading wheels, twelve coupled driving wheels, and two trailing wheels. As the Union Pacific was the only operator of this wheel arrangement, it was often nicknamed the Union Pacific type. Here is an MTH scale model of this 4-12-2; it has catalogue number 203842-2 and shows the Gresley 3 cylinder valve gear movement of the prototype. It is a heavy metal 65 cm long model of the MTH Premier line.

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