

# märklin



1983/84 E

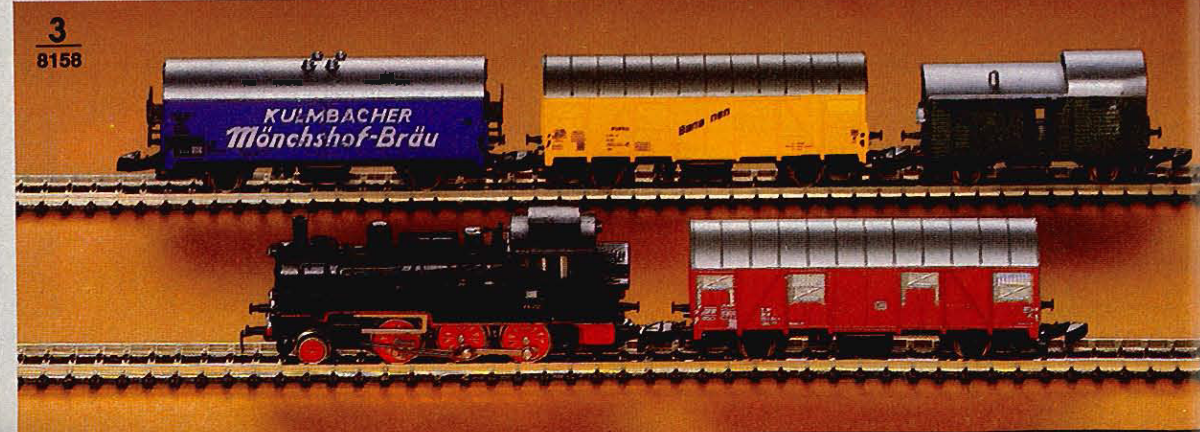
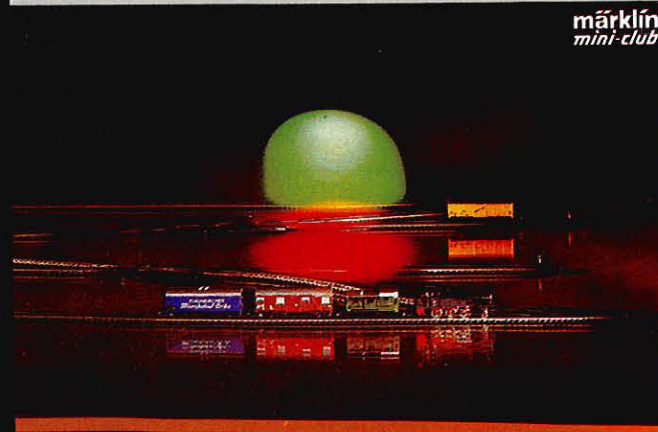
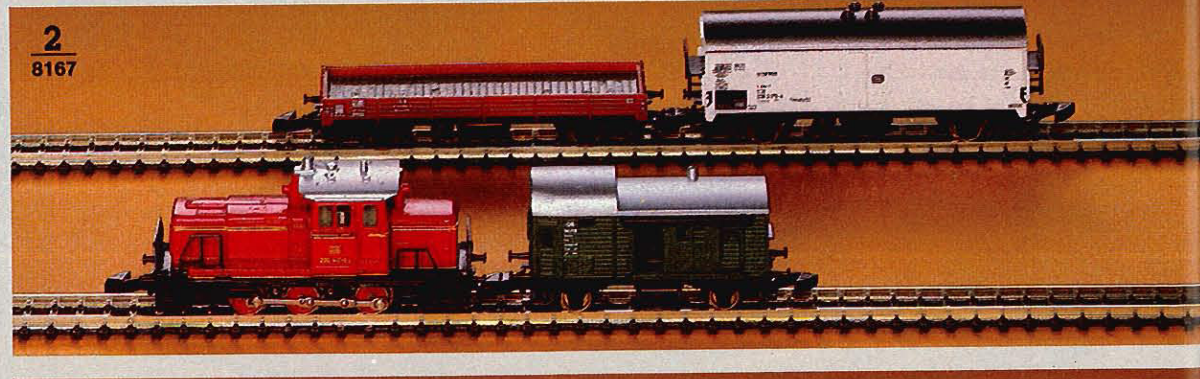
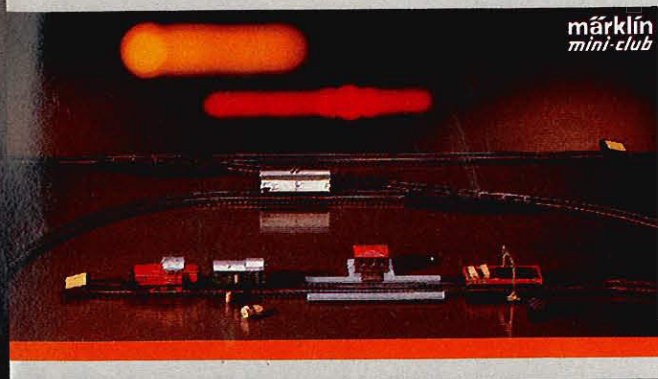
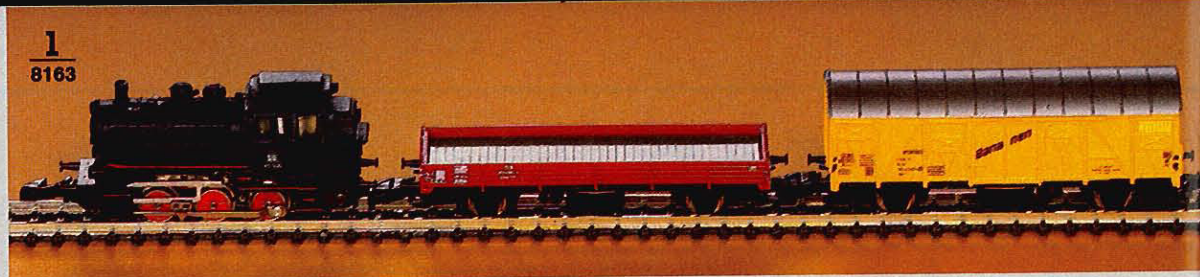
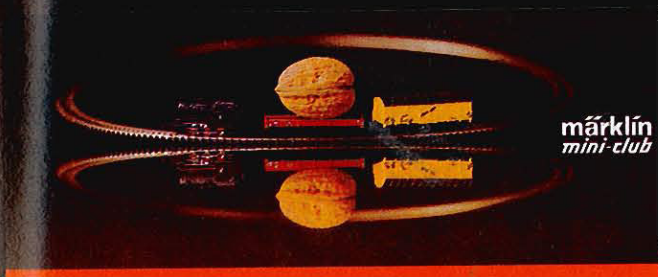
# Beginner Sets

Enjoy the maxi-pleasures  
of mini-club trains

1

8163 S 220 Volt  
8164 S 100 Volt Japan  
8165 S 110 Volt (60 Hz)  
8166 S 240 Volt

Freight train with power pack  
Includes: 1 tank engine (0-6-0T) 8800,  
1 box car 8606, 1 low-side gondola  
8610, 1 straight track 8500, 4 curved  
tracks 8520, 6 curved tracks 8521,  
1 feeder track 8590 and 1 power pack  
Train length 160 mm (6-<sup>3</sup>/<sub>8</sub>" )



# Special Trains

## Train after Train Gift Ideas

mini-club special trains are "dream" gifts – beautifully packaged and prototypically accurate – these sets often contain cars not available separately. (Special trains do not include track or power pack.)

**1**  
**8103 · Track work train** · Includes: 1 diesel switcher 8864, 1 crane car 8621, 1 low-side gondola 8610 with boom support, 1 low-side gondola 8610 with stacks of crossties, 1 low-side gondola 8610 with rail sections, 2 high-side gondolas 8622 loaded with ballast and 1 crew car · Train measures 440 mm (1' 5-1/4")

The crew car and the loaded gondolas are not available separately.

■ Construction trains have varied consists, e.g.: the number of crew and work cars depend on the type of work to be done (MOW, B&B, etc). If trains will be working far from major terminals, retired sleepers and diners are added for the convenience of the workers.

**1**  
**8103**



**2**  
**8104**



**3**  
**8102**



**4**  
**8105** 



**2**

**8104 · Passenger train of the former Prussian State Railways** · Includes: 1 tank engine (series T 12, built for passenger service), 1 6-wheel baggage car, and 4 6-wheel coaches (one 2nd class, one 2nd and 3rd class, one 3rd class, one 4th class) · Train measures 360 mm (1' 2-3/16")

These cars and the engine feature accurate coloring and stenciling and are not available separately.

■ At the beginning of the 20th century, Prussian passenger trains were made up of 6-wheel (3-axle) compartment cars. In those days, trains were

the only reliable means of transportation and these compartment cars were the mainstay of passenger service.

A benefit of the compartment cars was quick entraining and detraining. At that time, there were 4 classes of service based on seating comfort. To help passengers find their cars, each class had its own livery and was also distinguished by Roman numerals.

The exterior color for 1st and 2nd class cars was dark green, for 3rd class rust brown, and for 4th class dark gray.

**3**

**8102 · Express train** · Includes: 1 steam engine (4-6-2) 8892, 2 coaches 8730, and 1 baggage car · Train measures 372 mm (1' 2-1/4")

The baggage car is not available separately.

■ The first S 3/6 locomotives were based in Munich until 1941 and were the backbone of passenger service in Bavaria, powering limiteds to Lindau, Ulm, Würzburg, Nürnberg, Regensburg, Salzburg, and Kufstein.

**4**

**8105 · Airport train** · Includes: 1 class 111 electric locomotive, 1 1st and 2nd class commuter coach, 2 2nd class commuter coaches · Entire train is a special run · Train length 452 mm (2' 5-3/4")

● Electric locomotive with new road number and modern style pantograph

● Each coach has its own road number

Engine and cars not available separately.

■ The airport train is a service offered by the German Federal Railways connecting Ludwigshafen with the Frankfurt (M) airport. The express commuter train makes two round trips daily with intermediate stops at Mannheim, Weinheim, Heppenheim, Bensheim and Darmstadt.

The train is distinguished by its special paint scheme.

**Train Sets shown actual size**



# Steam Engines

Illustrations shown actual size

**1**

**8800 · Tank locomotive** · Class 89 · 0-6-0T wheel arrangement · Automatic couplers at each end · Length over buffers 45 mm (1-3/4")

**2**

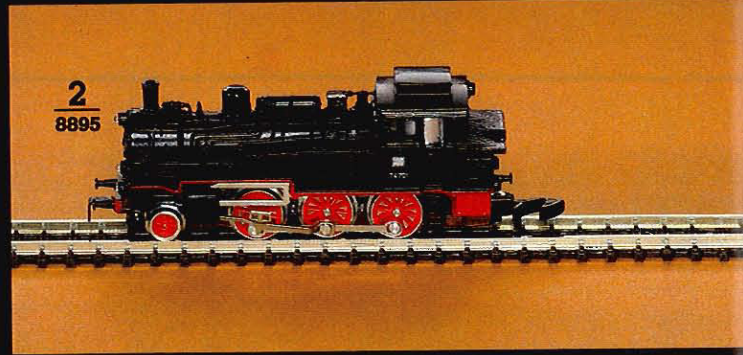
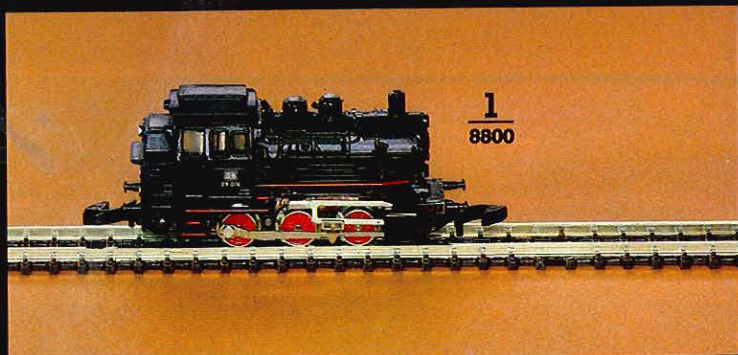
**8895 · Tank locomotive** · German Federal Railways' class 74 · 2-6-0T wheel arrangement · Coupling hook in front · Length over buffers 55 mm (2-3/16")

**3**

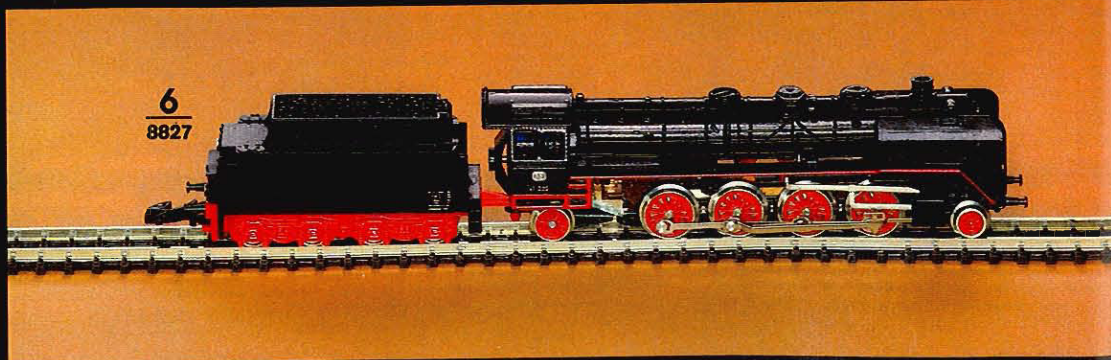
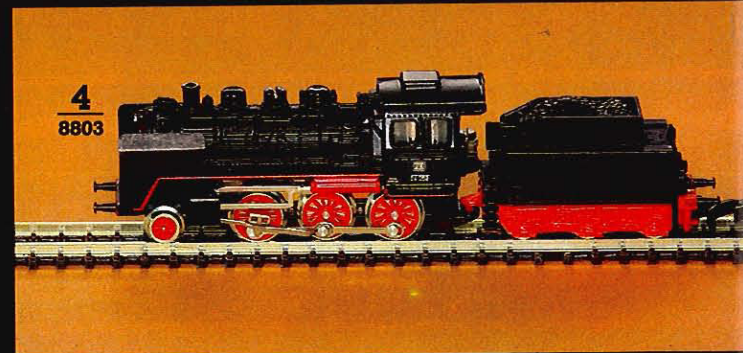
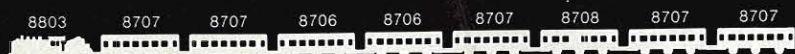
**8896 · Tank locomotive** · German Federal Railways' class 86 · 2-8-2T wheel arrangement · Three working headlights at each end · Red driving assemblies · Automatic couplers at each end · Length over buffers 63 mm (2-1/2")

Q = 60210 (rear)

■ Engine class 86 was produced by various manufacturers from 1928 to 1943. An efficient locomotive, it was used in passenger and freight service, particularly on branches and in mountainous districts. Of the 774 engines built for the German State Railways, 385 were assigned to the German Federal Railways in 1945.



Examples of trains consists:



**4**

**8803 · Passenger locomotive with tender** · German Federal Railways' class 24 · 2-6-0 wheel arrangement · Length over buffers 82 mm (3-1/4")

**5**

**8899 · Passenger engine with tender** · German Federal Railways' class 038 · 4-6-0 wheel arrangement · Red driving assemblies · Length over buffers 89 mm (3-1/2")

■ Designed by Robert Garbe, the Prussian P 8 was a fine tuned machine well liked by railroaders everywhere. By 1928, 3,800 of these moguls were plying the rails of several European lines. The German State Railways designated the P 8 as the 38<sup>0-2b</sup>. In the late 40s, the newly organized German Federal Railways classed them as the 038.

Besides being constructed in several styles, the 4-6-0 P 8 was regularly modified by the different roads to suit individual preferences.

On the German Federal Railways, the 038s had smooth smoke box doors. Witte smoke deflectors, and 8-wheel tub tenders inherited from scrapped 42s and 52s.

**6**

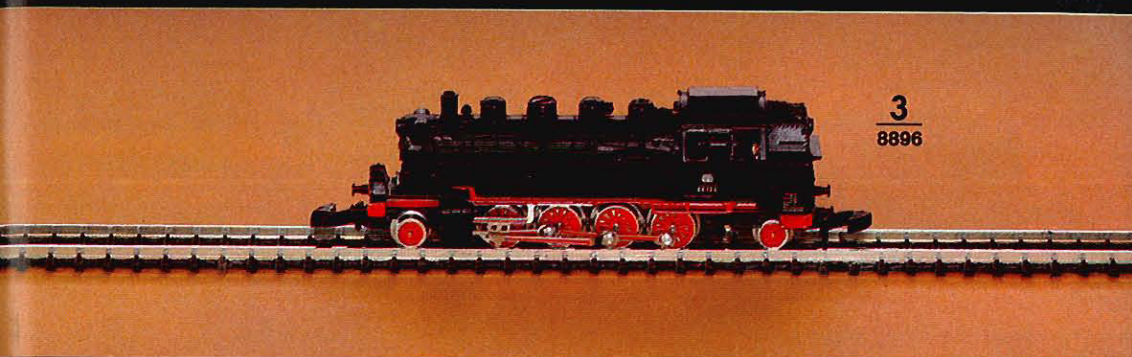
**8827 · Freight locomotive with tender** · German Federal Railways' class 41 · 2-8-2 wheel arrangement · Length over buffers 112 mm (4-3/8")

■ The first of a total of 366 engines were produced in 1936. They were designed as a fast freight locomotive and were employed as the workhorse on medium-weight freight trains. Their top speed was 90 kmph (56 mph).

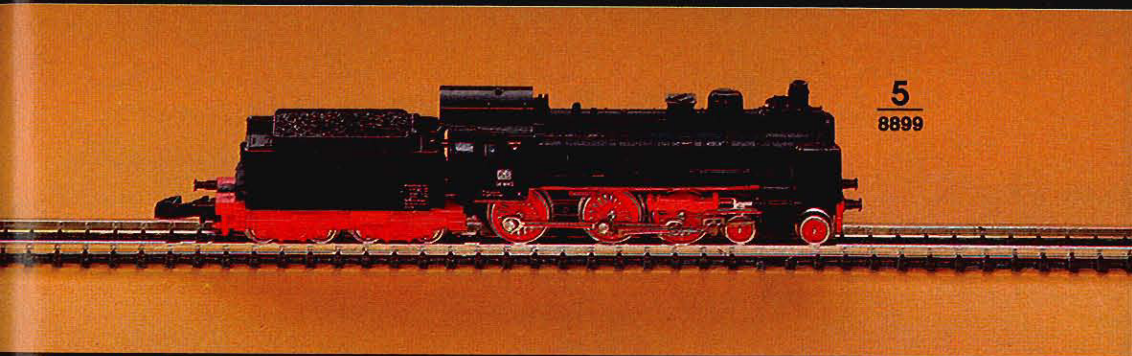
**7**

**8885 · Express locomotive with tender** · German Federal Railways' class 003 · 4-6-2 wheel arrangement · Length over buffers 112 mm (4-3/8")

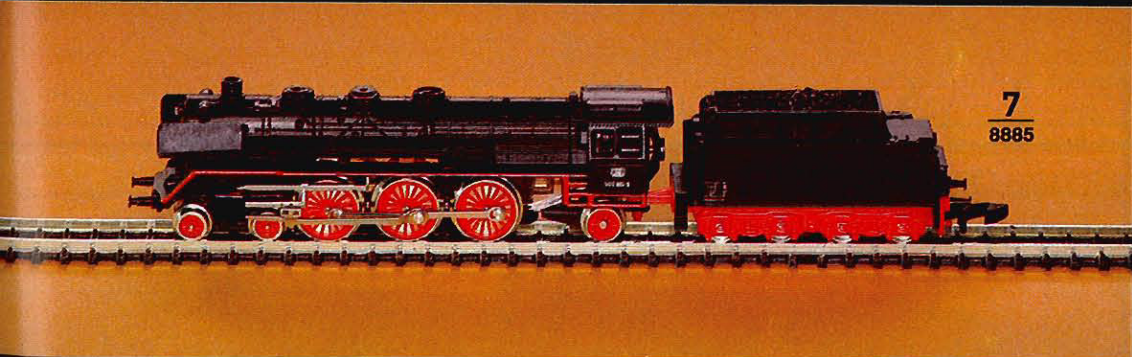
Engine 8885 has set a world record for endurance. Pulling 6 coaches, the engine operated continuously for 1,219 hours, covering 720 km (447 miles), about the distance between Cincinnati and Atlanta. According to the "Guinness Book of Records", the previous endurance record was only 440.7 km (273.8 miles) covered in about 300 hours. This record was established at an impartial testing institute.



**3**  
8896



**5**  
8899



**7**  
8885



### mini-club steam engines feature:

Remote control forward and reverse drive · Prototypically correct three working headlights (8800 not illuminated, 8803 will accept the 8953 10 volt bulb) · All driving axles powered · Automatic couplers at rear of tender or tank engine · Die cast zinc frame · Metal body  
Ⓞ = 8953

**Important:**  
Operate mini-club trains only on Märklin 8 V DC power packs · Operation on higher voltages may damage engine.

The locomotives are fitted with radio interference suppressors. The suppressors, which are also built into the power packs and feeder tracks 8590, virtually eliminate the chance of mini-club operation disturbing a neighbor's radio or TV reception.

## 1 Belgium

**8801 · Tank locomotive ·** Belgian State Railways' (NMBS/SNCB) class 96 · 2-6-0 wheel arrangement · Hook coupler in front · Length over buffers 55 mm (2-3/16")

The Märklin mini-club program offers one of the most famous German steamers in three popular versions. The S 3/6 of the Royal Bavarian State Railways (8892), the German State Railways' class 18 (8891), and the German Federal Railways' class 18<sup>4</sup> (8893).

## 2

**8892 · Express locomotive with tender ·** Former Royal Bavarian State Railways' class S 3/6 · 4-6-2 wheel arrangement · Length over buffers 106 mm (4-3/16")

## 3

**8891 · Express locomotive with tender ·** Former German State Railways' class 18<sup>4</sup> · 4-6-2 wheel arrangement · Length over buffers 106 mm (4-3/16")

## 4

**8893 · Express locomotive with tender ·** German Federal Railways' class 18<sup>4</sup> · 4-6-2 wheel arrangement · Length over buffers 106 mm (4-3/16")

■ The increasing demand for express passenger service prompted the Bavarian State Railways to order these reliable engines in early 1907. Fifteen months later, the road took delivery of the first S 3/6s. In this record time, a new locomotive was created whose shape and achievements set new standards.

After the merger of the provincial railways into the German State Railways, the S 3/6s were reclassified as the 18<sup>4</sup>

and 18<sup>4-5</sup>. Railfans can quickly identify these beauties by their powerful cylinders, distinct barrier frames, and the wreathed smokestack as one of the most handsome engines ever built.

The first S 3/6 left the Maffei Works on June 16, 1908. On the first trial run, it achieved 135 kmph (83 mph) pulling 420 tons.

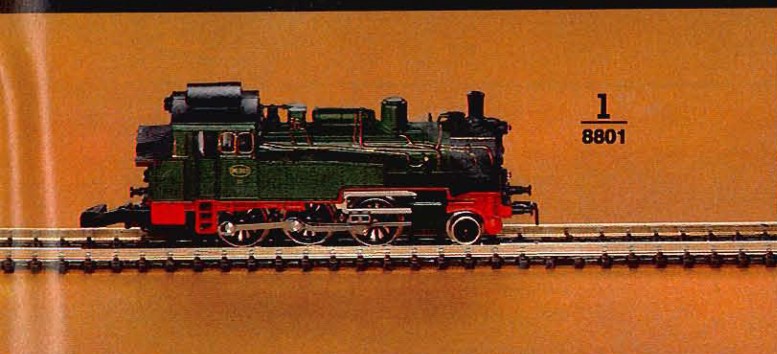
During the 1930s, they racked up about 160,000 km (98,132 miles) per year.

Among the more famous name trains powered by the S 3/6 were: the Rheingold, the Orient Express, the Paris-

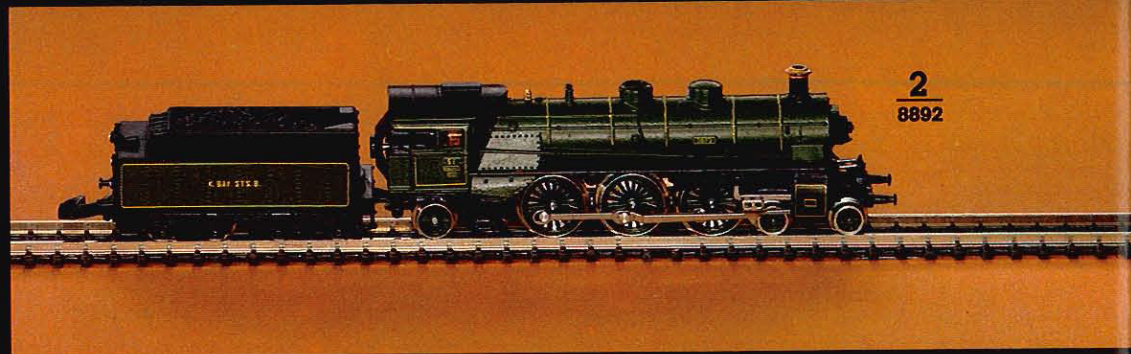
Karlsbad-Prague Express, and the Ostende-Wien Express.

For economic reasons, only 5 units were retired in 1946. But the winds of change were blowing and the old glory of these Pacifics would never return.

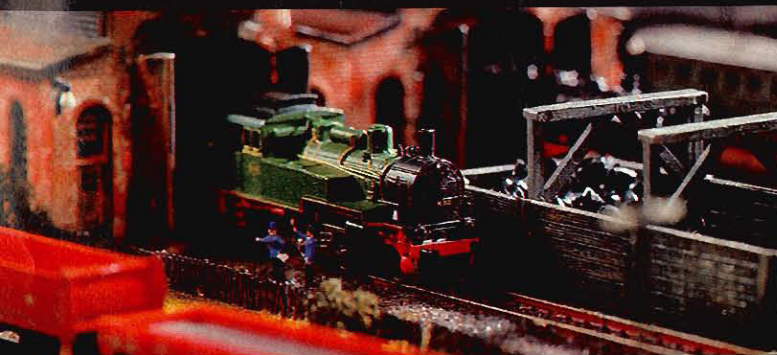
The prototype of our mini-club, the 18 478 of the DB (also the last S 3/6 ever built), made its last trip in July, 1960. The last of the S 3/6s was retired on May 17, 1967.



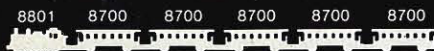
1  
8801



2  
8892

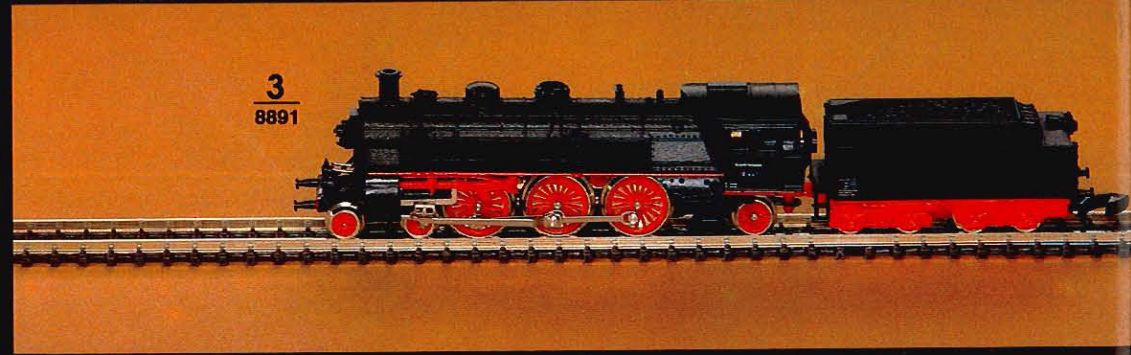


Examples of train consists:

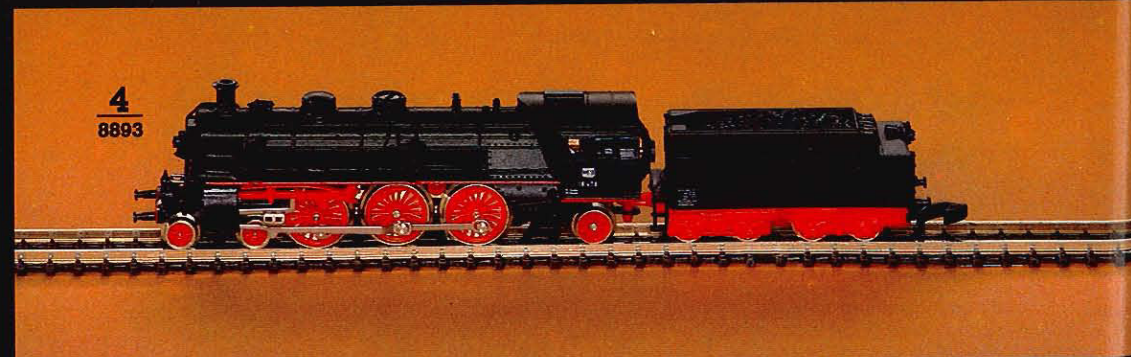


mini-club steam engines feature:

Remote control for forward and reverse · Prototypically correct three working headlights · All driving axles powered · Automatic couplers at rear of tender or tank engine · Die cast zinc frame · Metal body  
Ⓞ = 8953



3  
8891



4  
8893

# Electric Locomotives

Illustrations shown actual size

**Important:** Operate mini-club trains only on Märklin 8 V DC power packs. Operation on higher voltages may damage engine.

**1**  
8853 · Electric multi-purpose locomotive · German Federal Railways' class 120 · B-B wheel arrangement · Length over buffers 87 mm (3-<sup>3</sup>/<sub>8</sub>" )

■ The class 120 engines include the latest state-of-the-art locomotive development. For the first time, a German Federal Railways' engine includes a 3-phase motor which reflects the recent developments in semi-conductor technology enabling engines to achieve better performance. The locomotive has a power output of 5,600 kW and achieves a top speed of 160 kmph (100 mph).

The engine has unique features which make it the locomotive of the future:  
 – All-around general purpose engine. It can be used on freights and passenger trains.  
 – Improves the life of the roadbed. Only 40% of its mass is dead weight, as compared to 60% on other engines.  
 – Frugal use of energy. It requires only 86% of the energy of other locomotives.  
 These engines carry a price tag of DM 4 million (about \$2 million).

**2**  
8854 · Electric high-speed locomotive · German Federal Railways' class 103 · C-C wheel arrangement · Length over buffers 88 mm (3-<sup>1</sup>/<sub>2</sub>" )

**3**  
8842 · Electric express locomotive · German Federal Railways' class 111 · B-B wheel arrangement · Length over buffers 76.8 mm (3")

**4**  
8855 · Electric locomotive · German Federal Railways' class 111 as used on high-speed limited in the Rhine-Ruhr district · B-B wheel arrangement · Length over buffers 76.8 mm (3")

Overhead wiring is a natural with electrics. mini-club has a fully functional catenary system (page 136).

Although only 40% of the German Federal rail network is electrified, it accounts for 80% of the traffic load. The environmentally sound electric system is also free of world crisis, since the railroad uses domestic coal to fuel the power stations. Electric power is also the most energy-efficient means of operating trains. The far-flung German Federal Railways, for example, uses about as much current as the city of West-Berlin.

Further, rail transportation requires only 0.8% of Bonn's energy resources, while highway traffic needs 8% – ten times as much energy, but provides only 2.3 times as much transportation.

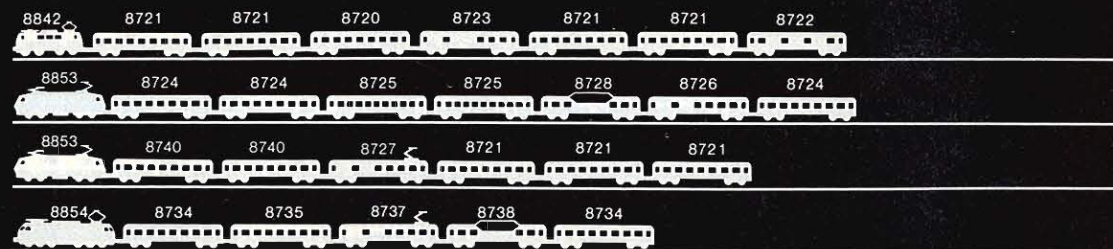


## The electric locomotives feature:

Remote control for forward and reverse drive · Both trucks powered · Three working headlights at each end, illuminated according to direction of travel · Can operate from track current or overhead · 2 spring-powered pantographs · Automatic couplers at each end · Die cast zinc frames · Windows inserted in plastic frames on colorful bodies

Q = 8953

### Examples of train consists:





**1**

**8822 · Electric freight locomotive** · German Federal Railways' class 194 · C-C wheel arrangement · Prototype green livery · Length over buffers 85 mm (3-3/8")

■ Designed for heavy freight service in mountainous districts, the engine was developed by the German State Railways in 1940. Classed as the E 94, it was a further improvement of the E 93. By 1945, 146 units were in service. Additional units were constructed from 1954 to 1956. Today, classed as the 194, most units continue in regular service.

The 194s have an hourly rating of 3,300 kW and maximum speed of 90 kmph (56 mph).

**2**

**8811 · Electric passenger locomotive** · German Federal Railways' class 144 · B-B wheel arrangement · Length over buffers 68 mm (2-1/16")

■ In 1931, the German State Railways ordered 20 B-B electrics from the Siemens-Schuckert-Works for use on the newly electrified Augsburg-Stuttgart line. Capable of both freight and passenger service, 174 units were built

between 1931 and 1945. Seven more were purchased by the German Federal Railways after 1945.

The E 44 was soon being used on all electrified sections and was quickly dubbed "Mädchen für alles" (Maid of all work). They averaged 20,000 km (12,440 miles) per month.

The E 44 was driven by 4 axle-mounted motors located on two double-axled trucks. All tractive and braking forces were absorbed by the trucks, which are coupled together. Total power was 1,860 kW continuous rating, or 2,200 kW hourly rating, and maximum speed was 90 kmph (56 mph).

**3**

**8857 · Electric freight locomotive** · German Federal Railways' class 151 · C-C wheel arrangement · Length over buffers 88 mm (3-1/2")

**4**

**8858 · Electric freight locomotive** · German Federal Railways' class 151 · C-C wheel arrangement · Length over buffers 88 mm (3-1/2")

**5 Switzerland**

**8856 · Electric freight locomotive** · Swiss Federal Railways' (SBB) Be 6/8<sup>III</sup> "Crocodile" · 2-6+6-2 wheel arrangement · Length over buffers 91 mm (3-5/8")

■ 40% of all transalpine traffic goes via the Gotthard line, a major Swiss trunk line. By the 1920s, traffic had become so heavy that special locomotives were needed, which could handle two round trips in 28 hours between Arth-Goldau and Chiasso. The first engine was a Ce 6/8<sup>I</sup> which soon evolved into the heavy freight motor, class Be 6/8<sup>III</sup>, the famous "Crocodile".

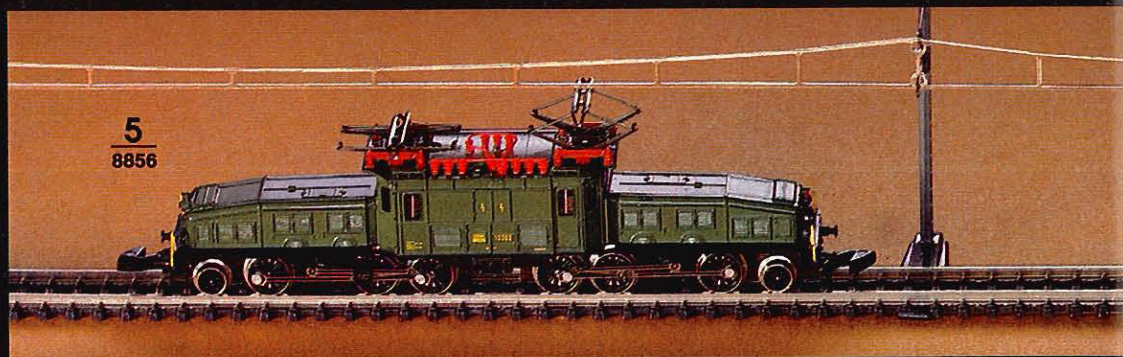
**1**  
8822  new



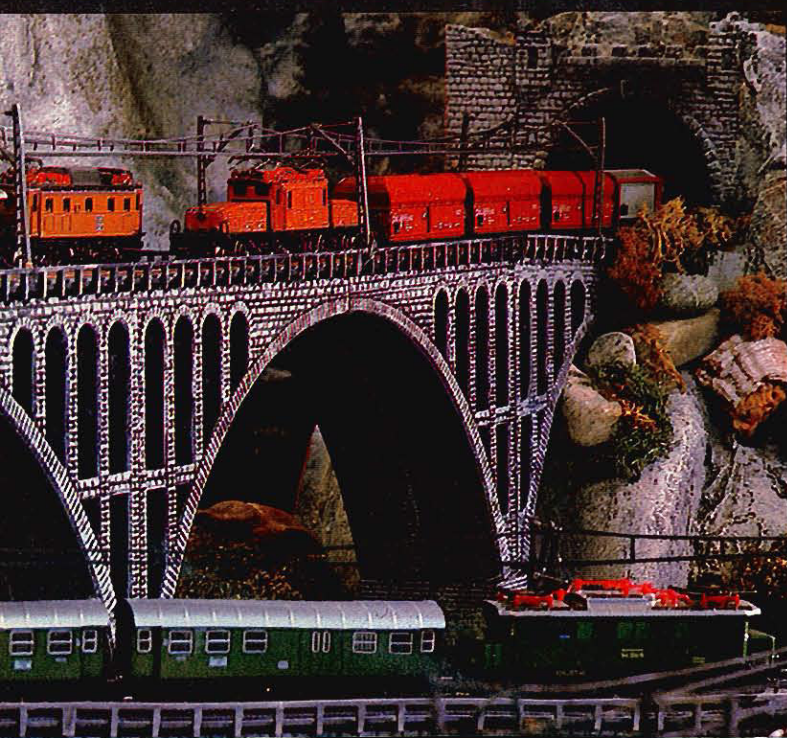
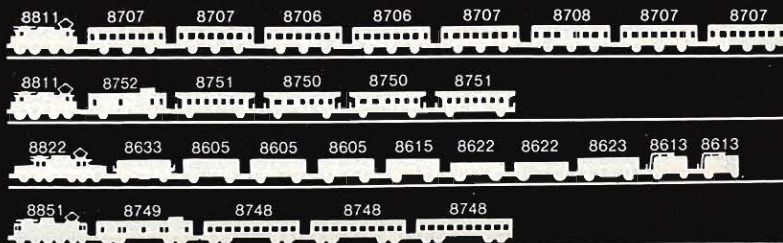
**2**  
8811



**5**  
8856



Examples of train consists:



## 6 Switzerland

**8852 - Electric freight locomotive** - Swiss Federal Railways' (SBB) class Ce 6/8<sup>III</sup> (Crocodile) - 2-6+6-2 wheel arrangement - Length over buffers 91 mm (3-5/8")

■ Following the proven performance of the first two "crocodiles", the Be 6/8<sup>II</sup> and Ce 6/8<sup>II</sup>, the Swiss Federal Railways ordered an additional series of 18 engines built in 1926 and 1927. These had some minor modifications. Although the interior workings were essentially unchanged, power was now transmitted via slanted rods rather than with triangular drive. The units were originally painted brown.

The hourly rating was 1,810 kW and a continued performance of 1,620 kW at 38 kmph (24 mph).

The Ce 6/8<sup>III</sup> had a top speed of 65 kmph (40 mph). In 1953, they were upgraded to 75 kmph (47 mph) and classed as Be 6/8<sup>III</sup>.

## 7 Switzerland

**8851 - Electric express locomotive** - Swiss Federal Railways' (SBB) class Ae 3/6<sup>II</sup> - 4-C-2 wheel arrangement - Length over buffers 64 mm (2-1/2")  
Q = 60210

■ The Ae 3/6<sup>II</sup> is a further development of the test engine Be 3/5 number 12201 built by Maschinenfabrik Oerlikon in 1919. Sixty of these Ae 3/6<sup>II</sup> were built between 1924 and 1926 for use on the level stretches of the Swiss Federal Railways. Because these engines are so sound, their maximum speed limit was increased from 90 kmph (56 mph) to 100 kmph (62 mph).

Two slow running motors located in the rigid engine housing drive the wheels via counter shafts and rods.

The hourly rating is 1,470 kW at 65 kmph (40 mph), and a continued performance of 1,225 kW at 75 kmph (47 mph).

3  
8857



4  
8858



6  
8852  new



7  
8851  new



### The electric locomotives feature:

Remote control for forward and reverse drive - Both trucks powered - Three working headlights at each end, illuminated according to direction - Can operate from track current and overhead - 2 spring-powered pantographs - Automatic couplers at each end - Die cast zinc frame - Windows inserted in plastic frames on colorful bodies

Q = 8953

### Illustrations shown actual size

**Important:**  
Operate mini-club trains only on Märklin 8 V DC power packs. Operation on higher voltages may damage engine.

8852 8632 8632 8610 8610 8607 8619

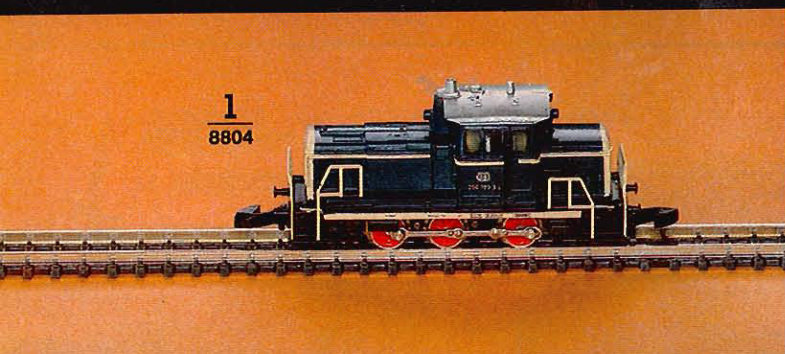
8852 8749 8748 8748 8748

8856 8630 8630 8630 8630 8630 8630 8630

8857 8625 8625 8626 8626 8627 8627 8628 8628

# Diesel Locomotives Self-propelled Cars

Illustrations  
shown  
actual size



**1**  
**8804 · Diesel switcher** · German Federal Railways' class 260 · C wheel arrangement · Sea blue/beige metal body · Length over buffers 49 mm (1-15/16")

■ Large numbers of the German Federal Railways' class 260 switchers were built from 1956 on for yard duty. They have a single motor rated at 478 kW and use hydraulic transmission.

Originally, the 260s were painted red, the color for switchers. Recently, they have been given a new coat: sea blue and beige.

**2**  
**8864 · Diesel switcher** · German Federal Railways' class 260 · C wheel arrangement · Red metal body · Length over buffers 49 mm (1-15/16")

■ The class 260 diesels date from 1956. Originally designated V 60, it has a 12 cylinder 478 kW diesel engine under the long hood and the air and fuel tanks under the short hood.

**Important:**  
Operate mini-club trains only on Märklin 8 V DC power packs. Operation on higher voltages may damage engine.

The diesels  
and self-propelled  
cars feature:

Remote control for forward and reverse drive · All axles powered · Three working headlights at each end (except 8802, 8804, and 8864) · Automatic couplers at each ends (except 8802) · Die cast zinc frames · Colorful bodies

☞ = 8953

Steam enthusiasts should be pleased to know that pre-warming the 260s power plant depends partly on coke-fired boilers.

As an aid for safe and efficient switching, the 260 has radio-telephones for constant communication between engineer, yardmaster, and other rail personnel. This engine can also be operated by remote control.

Like the class 261, the 260 locos are also used on freight runs.



## Spare parts for Locomotives

Locomotive	8800	8801	8802	8803	8804	8811	8816	8821	8822	8827	8842	8851	8852	8853	8854	8855	8856	8857	8858	8864	8874	8875	8885	8891	8892	8893	8895	8896	8899
Carbon Brushes	8987	8987	8988	8987	8987	8989	8988	8989	8989	8989	8989	8989	8989	8989	8988	8989	8989	8988	8988	8987	8988	8988	8989	8989	8989	8989	8987	8989	8989
Lights		8953		(8953)		8953	8953	8953	8953	8953	8953	60210	8953	8953	8953	8953	8953	8953	8953		8953	8953	8953	8953	8953	8953	8953	8953	8953
Pantograph					8955				8955		8955	8955	8955	8956	8955	8955	8955	8955	8955										

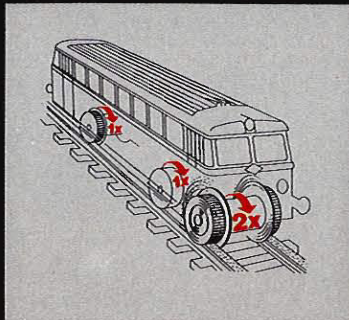
**3**

**8816 · Railbus** · German Federal Railways' class 798 · Length over buffers 62 mm (2-7/16")

**4**

**8817 · Trailer for railbus** · German Federal Railways' class 998 · Length over buffers 62 mm (2-7/16")

## How the Track-Cleaning Car works

**5**

**8802 · Track-cleaning car** · 2 powered axles · Automatic coupler on rear · Length over buffers 62 mm (2-7/16")

The vehicle has two powered axles. The rear wheels are ridged to provide better traction. Two track-cleaning ridged wheels are located ahead of the front axle, these rotate faster than the driving wheels causing the dirt to be thrown from the tracks.

**6**

**8821 · Diesel-hydraulic express locomotive** · German Federal Railways' class 221 · B-B wheel arrangement · Three working headlights at each end, illuminated according to direction · Length over buffers 84 mm (3-3/8")

■ The class 221 engines are successors of the earlier class 220. The 221s were required because the demands of heavier payloads and longer trains were taxing the 220s. Between 1962 and 1965, 50 of these 221s were built for the German Federal Railways. Both diesels have a power output of

993 kW. Utilizing hydraulic transmission, the 221s can achieve 140 kmph (87 mph). The diesels have oil-fired boilers.

**7199**

**Bottle of oil** · Contains about 10 cc lubricating oil for locomotives and cars

**3**  
**8816****4**  
**8817****5**  
**8802****6**  
**8821****7**  
**8874****8**  
**8875**

### Examples of trains consists:

8804 8625 8625 8625 8611 8611 8611 8611 8609

8804 8631 8631 8605 8605 8600 8622

8821 8721 8721 8720 8721 8721 8722 8722 8721

8864 8605 8615 8615 8605 8605 8600

8875 8875 8711 8711 8710 8711 8711 8712 8712 8711 8711

**7**

**8874 · Road diesel** · German Federal Railways' class 216 · B-B wheel arrangement · Three working headlights at each end, illuminated to direction · Length over buffers 75 mm (3")

■ In the mid-50s, the German Federal Railways began to dieselize in earnest. Because diesels are more utilitarian, there was a subsequent reduction in the number of types of locomotives rostered on the DB – a development unique in the railroad world. As part of this dieselization program, the Krupp Works at Essen developed that standard road diesel, the 216.

**8**

**8875 · Road diesel** · German Federal Railways' class 216 · B-B wheel arrangement · Three working headlights at each end, illuminated according to direction · Length over buffers 75 mm (3")

# Passenger Cars

## Passenger cars of the former German provincial railways

Cars used by the **Württembergischer Railways** · 4 wheels · Platform and entrance at both ends · See-through windows with "Cellon" panes · Length 60 mm (2-3/8")

1  
8700 · Coach

2  
8701 · Coach

Cars of the **Bavarian Railways** · 8 wheels · Windows set in plastic frames · Length 87 mm (3-3/8")

3  
8730 · Express coach · Type CCü of the former Royal Bavarian State Railways · 3rd class

## Passenger cars of the former German State Railways

Cars of the former German State Railways · 8 wheels · Windows set in plastic frames

4  
8731 · Express coach · Type C4ü bay 11 · 3rd class · Length 87 mm (3-3/8")

5  
8732 · Express baggage car · Type Pw4ü bay 09 · Length 78 mm (3-1/8")

## Passenger cars of the German Federal Railways

Cars of the German Federal Railways · 6 wheels · Windows set in plastic frames · Length 57 mm (2-1/4")

6  
8703 · Baggage car · Former type Pw3-pr02

7  
8704 · Compartment car · Former BC3-pr03

8  
8705 · Compartment car with brakeman's cab · Former type B3-pr03

## Passenger cars of the German Federal Railways

Cars of the German Federal Railways · 4 wheels · Windows set in plastic frames · Platforms and doors at each end · Length 63 mm (2-1/2")

9  
8750 · Coach · Type ABI 29 · 1st and 2nd class

10  
8751 · Coach · Type Bi 29 · 2nd class

1  
8700



2  
8701



3  
8730



4  
8731



5  
8732



6  
8703



7  
8704



8  
8705



Illustrations  
shown  
actual size

**11****8752 · Baggage car · Type D2ie**

■ Shortly after the founding of the German Railway Association in 1924, efforts were undertaken to establish a standard coach to replace those inherited from the provincial railways. These standard 4-wheel coaches were originally built with wood roofs and interiors. Later versions were all-steel. The type 29 coaches were an all-steel version. Because of their noisy operation, they quickly acquired the nickname "Donnerbüchsen" (rattling crates).

**Passenger cars of the German Federal Railways**

Cars of the German Federal Railways · 6 wheels · Windows set in plastic frames · Length 61 mm (2-3/8")

**12****8706 · Coach · Type AB3yge · 1st and 2nd class****13****8707 · Coach · Type B3yge · 2nd class****14****8708 · Combine car · Type BD3yge · 2nd class**

■ At the beginning of the 1950s, there were many obsolete and damaged 4 and 6 wheels coaches on the rip tracks of the DB. By modifying the underframes of these cars, new types of 6-wheel coaches for 2nd class service were built. Some were further modified to include a 1st class section or a baggage compartment. All cars had diaphragms.

**Passenger cars of the Swiss Federal Railways**

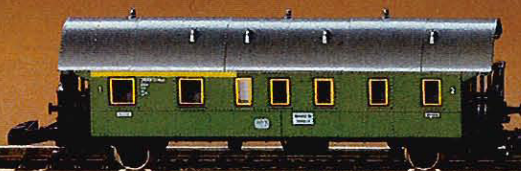
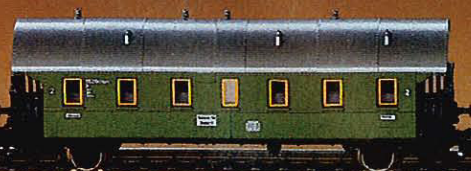
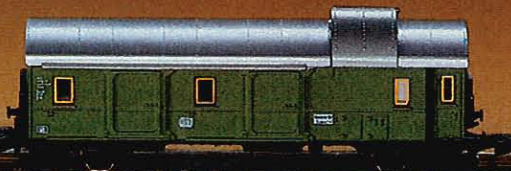
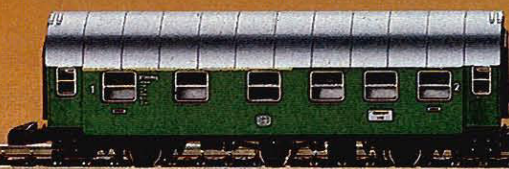
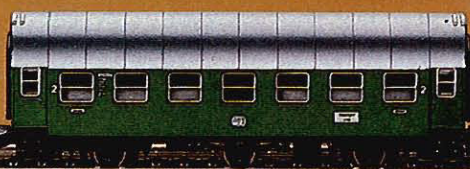
Cars of the SBB/CFF · 8 wheels · Windows set in plastic frames

**15 Switzerland****8748 · Express coach · Older type C4ü · 3rd class · Length 87 mm (3-3/8")**

■ These cars were constructed from 1913 through 1928 as corridor/compartments cars for international service. Cars 8901-8916 had Prussian style trucks, while cars 8917-8962 ran with gooseneck trucks. From 1933 to 1948, these cars were rebuilt with a center aisle and carded for domestic service only.

**16 Switzerland****8749 · Express baggage car · Older type F4ü · Length 91 mm (3-5/8")**

■ This baggage car was built for the BLS (Bern-Lötschberg-Simplon RR) in 1913. It was sold to the Swiss Federal Railways in 1927 for use on the Gott-hard limited.

**9**  
**8750****10**  
**8751****11**  
**8752**  **new****12**  
**8706****13**  
**8707****14**  
**8708****15**  
**8748**  **new****16**  
**8749**  **new**

## Passenger cars of the German Federal Railways

All models have these features:  
8 wheels · Windows set in plastic frames · Length 120 mm (4-3/4")

1

**8716 · Commuter car · Type Bnb<sup>720</sup> · 2nd class**

2

**8717 · Commuter car · Type ABnb<sup>703</sup> · 1st and 2nd class**

■ These commuter cars of the German Federal Railways are nicknamed "Silberlinge" (Silverliners) because the stainless steel bodies have an intriguing peacock's eye livery.

3

**8718 · Commuter car with baggage compartment and control cab · Type BDnrzf<sup>740</sup> · 2nd class · Three white headlights and two red tail lights, illuminated according to direction of travel**

■ Most commuter trains are Push-Pull and consist of a diesel, several coaches based on traffic demands, and a control car at one end. Push-Pull trains require no terminal turnaround: the engineer merely walks to the other end to resume operations for the return trip.

1  
8716



2  
8717



When the train runs control-car-first, three white headlights shine from the control car.

When the train runs diesel-first, two red tail lights shine from the control car.

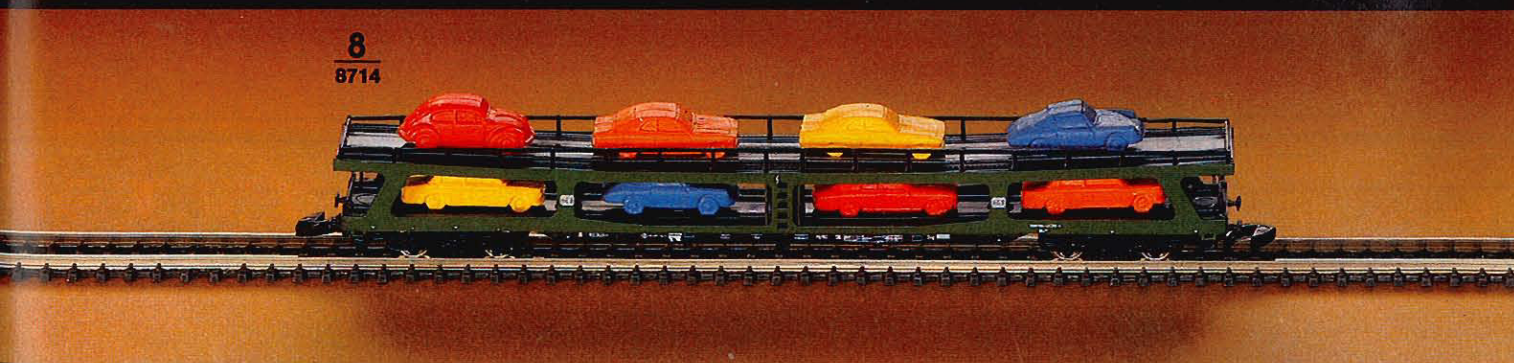
3  
8718



Illustrations  
shown  
actual size

**4****8710 · Express coach · Type Am · 1st class****5****8711 · Express coach · Type Bm · 2nd class****6****8712 · Baggage car · Type Dm<sup>902</sup> (earlier Düm 902)****7****8713 · Diner · Type WRmh<sup>132</sup> (earlier WRümh 132)****8****8714 · Auto carrier · Type DDm<sup>915</sup> · Includes 8 autos**

■ Auto trains are fairly common in Germany and are often operated as part of the D-Zug (express train) network. Autos are driven onto the cars under their own power using ramps to reach different levels. Drivers and occupants leave and return to their cars by walking along the ramps or climbing ladders on the cars.

**4****8710****5****8711****6****8712****7****8713****8****8714**



**Passenger cars of the German Federal Railways**

All models have these features:  
8 wheels · Windows set in plastic frames · Length 120 mm (4-3/4")

**1**  
8720 · Express coach · Type Am<sup>203</sup>  
(earlier Aüm 203) · 1st class

**2**  
8721 · Express coach · Type Bm<sup>234</sup>  
(earlier Büm 234) · 2nd class

**3**  
8722 · Baggage car · Type Dm<sup>902</sup>  
(earlier Düm 902)

**4**  
8723 · Diner · Type WRmh<sup>132</sup> (earlier  
WRümh 132)

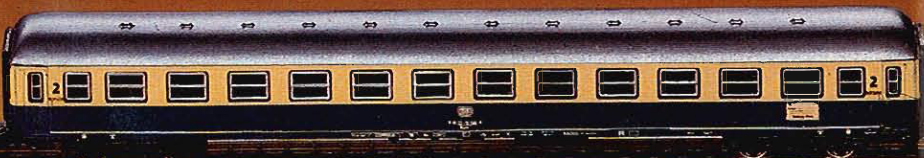
**5**  
8740 · Express coach · German  
Federal Railways' type Avmz<sup>207</sup>  
(EUROFIMA A9) · 1st class

■ The type A9 EUROFIMA coach was developed through a consortium of six European railroads. The cars incorporate many features of the German Federal Railways' first class coaches. Today, 500 EUROFIMA cars, including 100 first class coaches, operate on the western German network.

**1**  
8720



**2**  
8721



**3**  
8722



**4**  
8723



**5**  
8740



**6**

8727 without lighting  
8737 with lighting

**TEE/IC Diner** · Type WRmz 135 · Sprung single-arm pantograph

■ In measurements and space configurations, the type WRmz 135 is identical to the German Federal Railways' type WRmh 132. The cars have a single-arm pantograph and a small transformer so food can continue cooking when the car is at a station during layovers. The pantograph retracts automatically as soon as

engine power is coupled to the train. It also retracts as soon as the wheels roll, during blackouts, and if the overhead snaps.

These cars are primarily used on the TEE and IC (Inter City) limiteds of the German Federal Railways.

**7**

8724 without lighting  
8734 with lighting

**TEE-Compartment car** · Type Avmz<sup>111</sup> (earlier Avümz 111)

**8**

8728 without lighting  
8738 with lighting

**TEE-Dome car** · Type ADm<sup>101</sup> (earlier ADümh 101) · Dome shell made of transparent plastic

**9**

8725 without lighting  
8735 with lighting

**TEE-American style coach** · Type Apmz<sup>121</sup> (earlier Apümz 121)

**10**

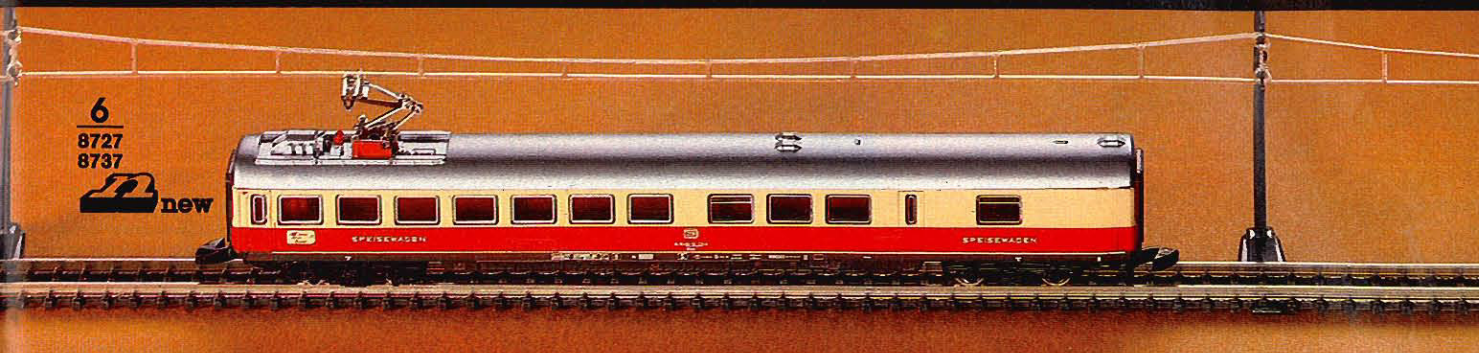
8726 without lighting  
8736 with lighting

**TEE-Diner** · Type WRmh<sup>132</sup> (earlier WRümh 132)

■ TEE trains are the varnish flagships of the German Federal Railways. All trains are completely 1st class, many coaches have American style 2-2 seating, and the entire train is air conditioned. Passenger comfort is a TEE trademark.

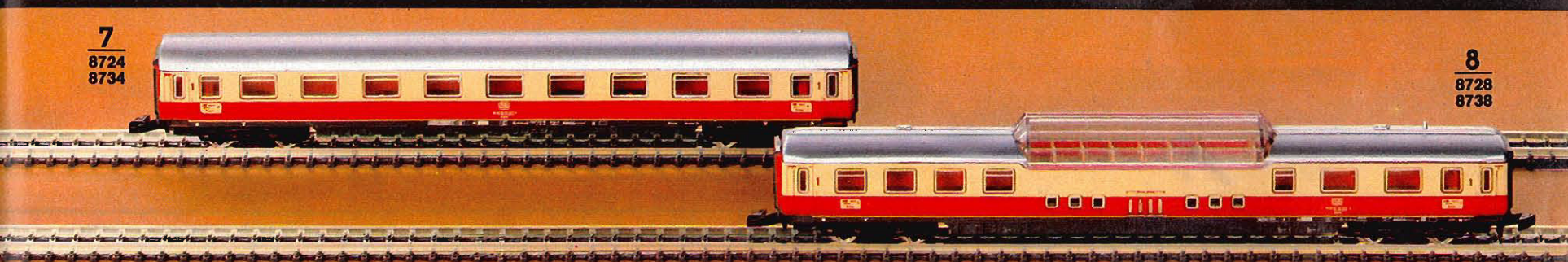
The Intercity trains travel at speeds up to 160 kmph (100 mph) and can reach 200 kmph (125 mph) on suitable track.

Illustrations  
shown  
actual size



**6**  
8727  
8737

**new**



**7**  
8724  
8734

**8**  
8728  
8738



**9**  
8725  
8735

**10**  
8726  
8736

# Freight Cars

**1**  
8600 · Refrigerator car · Type Ichqs-u<sup>377</sup> (earlier Ichqrs 377) of the German Federal Railways · Length 54 mm (2-1/8")

**2**  
8609 · Package car · German Federal Railways' type Dg · Operating doors on each side · Length 40 mm (1-9/16")

**3**  
8610 · Low-side gondola · Length 54 mm (2-1/8")

**4**  
8622 · High-side gondola · German Federal Railways' type E<sup>037</sup> (earlier Omm 52) · Length 54 mm (2-1/8")

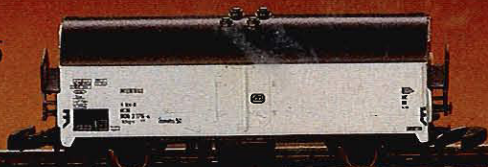
**5**  
8605 · Box car · German Federal Railways' type Gos-u<sup>253</sup> (earlier Gbrs 253) · Length 54 mm (2-1/8")

**6**  
8615 · Container car · German Federal Railways · Length 54 mm (2-1/8")

**7**  
8630 · Self-unloading hopper car · German Federal Railways' type Fals<sup>176</sup> (earlier Fads 176) · Length 53 mm (2-1/16")

**8**  
8633 · Refrigerator car · Lettered for Capri-Sonne juice company · Length 54 mm (2-1/8")

**1**  
8600



**2**  
8609



**3**  
8610



**8**  
8633  new



**9**  
8631



**10**  
8606



## Ladder tracks

Marshalling yards are the junction points for rail freight service. This is where incoming freights are broken up – often uncoupled by hand – and new freights are formed.

The exciting world of a freight yard can also be duplicated on mini-club layouts. Uncoupling is easy with the 8587 uncoupling track (page 132).

9

8631 · Refrigerator car · Lettered for Sinalco and Sinalco COLA, a German soft drink company · Length 54 mm (2-1/8")

10

8606 · Box car · German Federal Railways' type Ibbbs · Length 54 mm (2-1/8")

11

8602 · Beer car · Spatenbräu München · Length 54 mm (2-1/8")

12 Denmark

8608 · Beer car · Carlsberg · Length 54 mm (2-1/8")

13 Switzerland

8607 · Beer car · Feldschlösschen · Length 54 mm (2-1/8")

14 Switzerland

8632 · Beer car · Eichhof-Bier · Length 54 mm (2-1/8")

15

8623 · Bulk-freight car · German Federal Railways' type Tbis<sup>870</sup> · Length 64 mm (2-7/16")

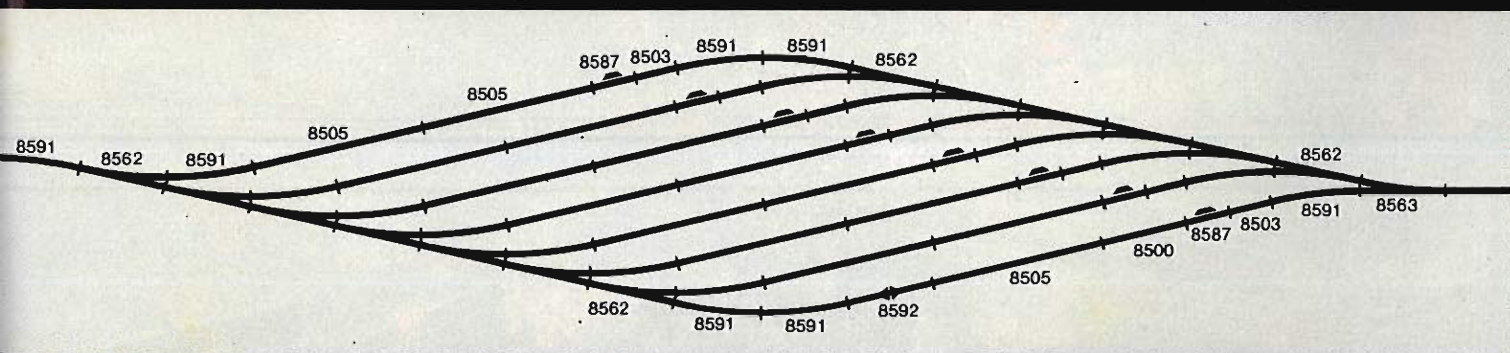
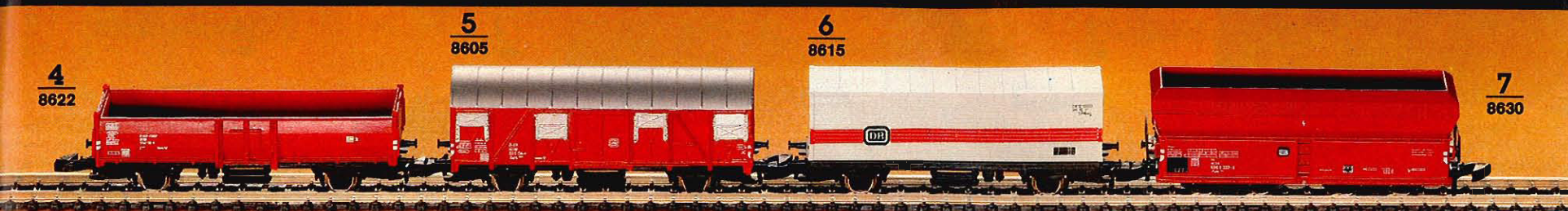
■ This special purpose car with sliding doors and sides was designed for economical loading and unloading of damp and bulk items. Every part of the interior can be reached by a crane or fork-lift.

16

8624 · Ballast car · Equipped with Talbot self-unloader · Used primarily in work trains · Length 33 mm (1-3/16")

■ The German Federal Railways has special maintenance of way cars. This car, for example, has trap doors along the sides which are manually operated by a lever. When a door opens, the sheer weight of the ballast allows for "selfunloading".

Illustrations shown actual size



■ The German Federal Railways field about 290,000 freight cars for general transportation, plus about 16,000 maintenance and special purpose cars. In addition, about 50,000 privately owned freight cars operate on German Federal tracks.

Some 65% of the freight cars are conventionally designed while 35% are specially-built cars.

The trend is definitely toward more special purpose cars as the German Federal Railways, responding to market demands, cooperates with shippers to build cars offering customers optimum protection against damage, automated loading and unloading systems, as well as taking into consideration price and service life.

**1**  
8611 · Tank car · Shell · 4 wheels · Length 40 mm (1-<sup>5</sup>/<sub>16</sub>" )

**2**  
8612 · Tank car · Esso · 4 wheels · Length 40 mm (1-<sup>5</sup>/<sub>16</sub>" )

**3**  
8613 · Tank car · Aral · 4 wheels · Length 40 mm (1-<sup>5</sup>/<sub>16</sub>" )

**4**  
8614 · Tank car · BP · 4 wheels · Length 40 mm (1-<sup>5</sup>/<sub>16</sub>" )

**5**  
8625 · Tank car · Shell · 8 wheels · Length 75 mm (3" )

**6**  
8628 · Tank car · BP · 8 wheels · Length 75 mm (3" )

**7**  
8626 · Tank car · Esso · 8 wheels · Length 75 mm (3" )

**8**  
8627 · Tank car · Aral · 8 wheels · Length 75 mm (3" )

**9**  
8620 · Depressed-center flat car · Loaded with transformer · Length 154 mm (6-<sup>1</sup>/<sub>16</sub>" )

