

# MÄRKLIN



Hans Kistner

D 55 E o. P.



This is primarily a catalogue of our productions for the H0 Gauge. Information regarding 0 Gauge is contained in an illustrated booklet "The Big 0 Gauge" obtainable from any toyshop. We cannot supply you direct from our Works. We reserve the right to alter our designs; dimensions and weights are given without guarantee. This catalogue cancels all previous ones.

**GEBR. MÄRKLIN & CIE. <sup>GM</sup><sub>BH</sub>**

*Makers of fine metal toys*

**GÖPPINGEN/WURTEMBERG**

OA 08 55



Trade Mark

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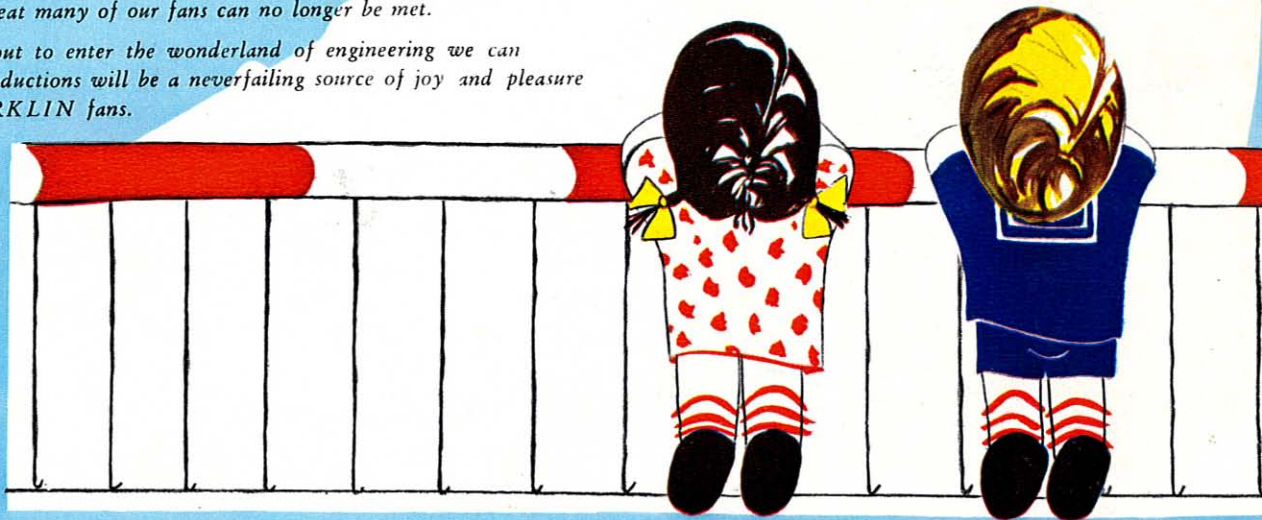
## To all **MÄRKLIN** fans:

*This is a catalogue of our models already famous by their popularity over the years and also of our latest productions as well, thus presenting a comprehensive list of our entire range which is, in itself, so extensive as to provide something for everyone. Among our latest productions meriting special mention is the Railbus and trailer, No. DB 800 K, which we have brought out in response to the very special wishes of our fans and which is an outstandingly successful model of the original.*

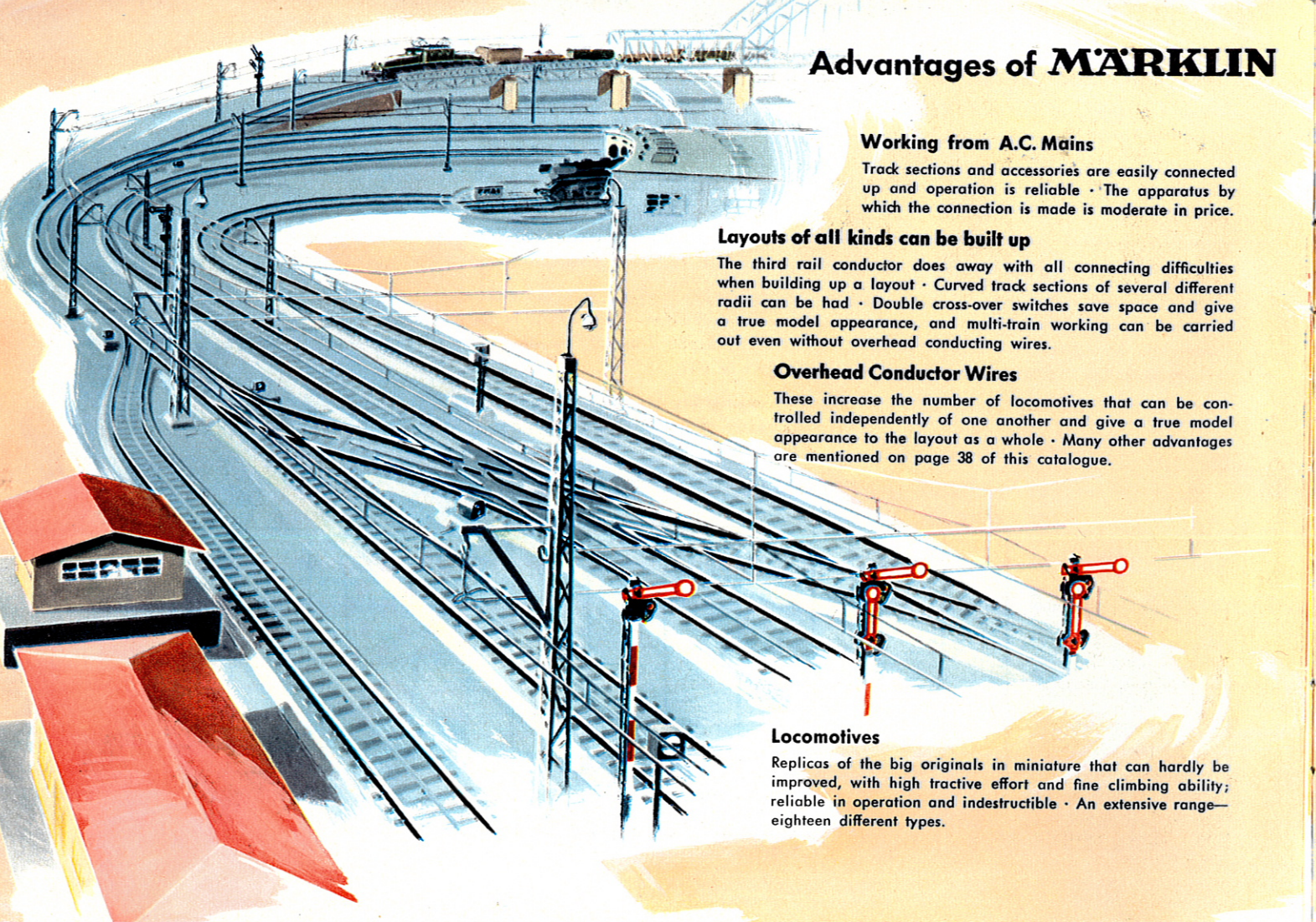
*This catalogue shows our favourite and finest models developed by experienced designers taking advantage of the most up-to-date technical progress. Modern factories using selected materials and the decades of experience possessed by our skilled specialists form the basis for the outstanding quality of MÄRKLIN productions that are so highly esteemed the world over.*

*Please make your choice. You are sure to find just the models you want to give you more and more pleasure. If, after selecting what you want for Christmas, you would like to have it by then, our only advice is to order early. The demand for our productions is so great that stocks in toyshops are seriously depleted already months before Christmas, so that the wishes of a great many of our fans can no longer be met.*

*Now that you are about to enter the wonderland of engineering we can only hope that our productions will be a neverfailing source of joy and pleasure to you as to all MÄRKLIN fans.*



**GEBR. MÄRKLIN & CIE. <sup>GM</sup><sub>BH</sub> · GÖPPINGEN/WÜRTT.**



# Advantages of **MÄRKLIN**

## **Working from A.C. Mains**

Track sections and accessories are easily connected up and operation is reliable. The apparatus by which the connection is made is moderate in price.

## **Layouts of all kinds can be built up**

The third rail conductor does away with all connecting difficulties when building up a layout. Curved track sections of several different radii can be had. Double cross-over switches save space and give a true model appearance, and multi-train working can be carried out even without overhead conducting wires.

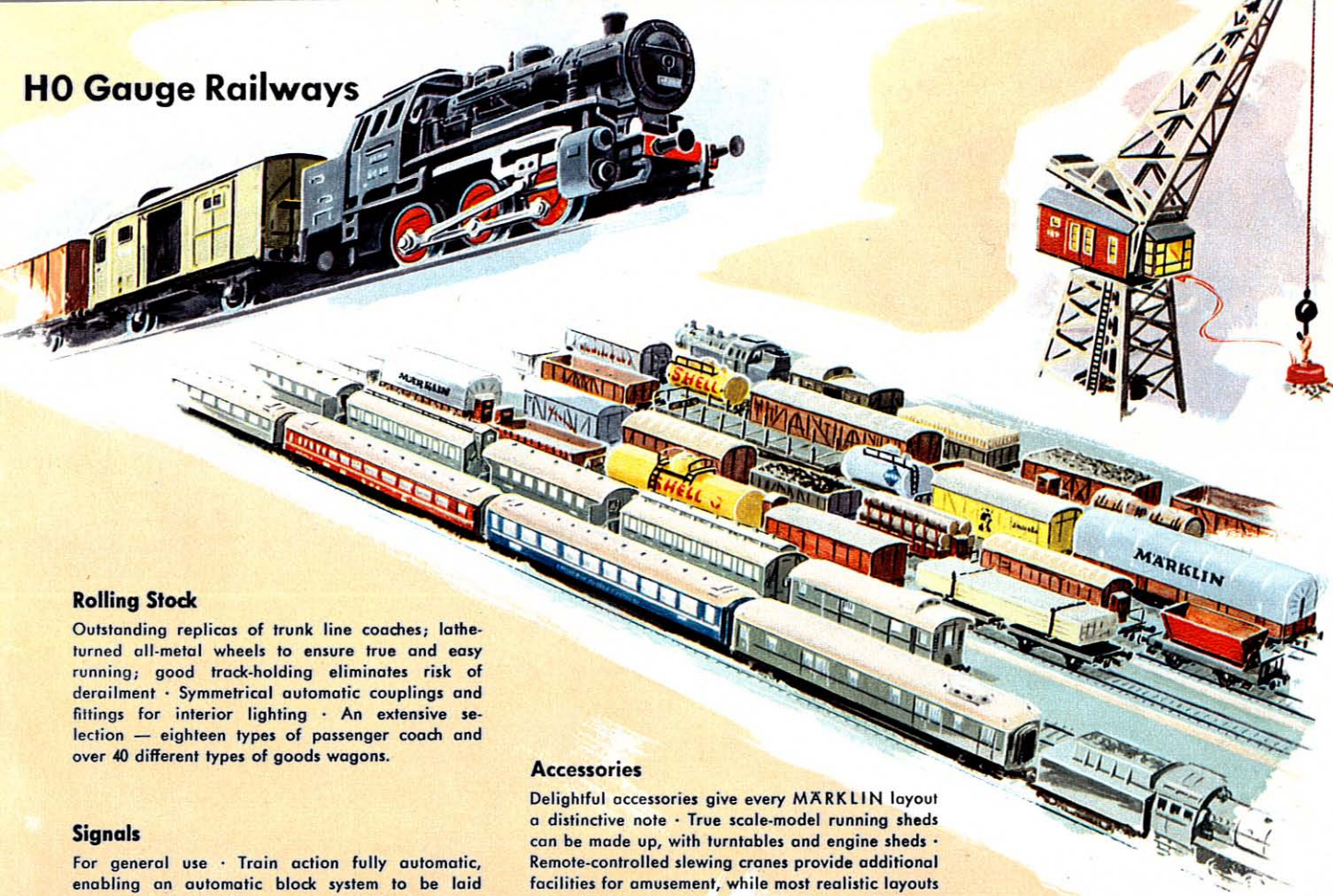
## **Overhead Conductor Wires**

These increase the number of locomotives that can be controlled independently of one another and give a true model appearance to the layout as a whole. Many other advantages are mentioned on page 38 of this catalogue.

## **Locomotives**

Replicas of the big originals in miniature that can hardly be improved, with high tractive effort and fine climbing ability; reliable in operation and indestructible. An extensive range—eighteen different types.

# H0 Gauge Railways



## Rolling Stock

Outstanding replicas of trunk line coaches; lathe-turned all-metal wheels to ensure true and easy running; good track-holding eliminates risk of derailment · Symmetrical automatic couplings and fittings for interior lighting · An extensive selection — eighteen types of passenger coach and over 40 different types of goods wagons.

## Signals

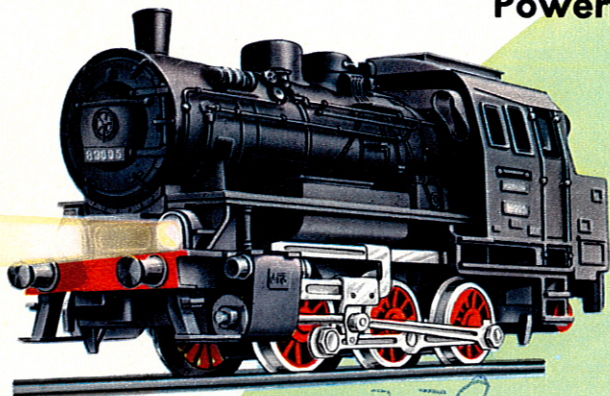
For general use · Train action fully automatic, enabling an automatic block system to be laid out · Precision finish ensures durability in operation · A great variety at moderate prices; nine different types.

## Accessories

Delightful accessories give every MÄRKLIN layout a distinctive note · True scale-model running sheds can be made up, with turntables and engine sheds · Remote-controlled slewing cranes provide additional facilities for amusement, while most realistic layouts can be built up by using grade crossings and bridges with piers, all moderately priced · This catalogue contains a further extensive range of accessories.

## Powerful Tank Engines

MARKLIN



CM 800

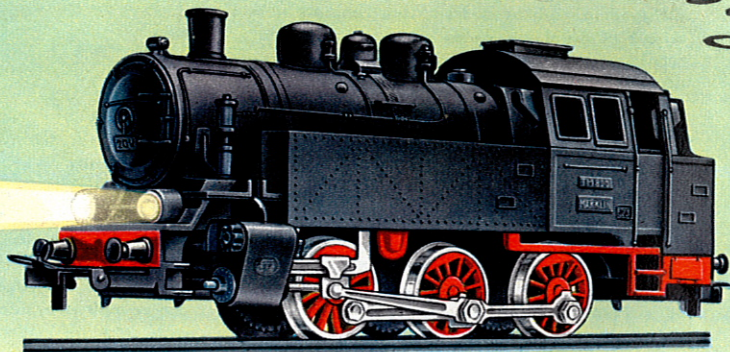
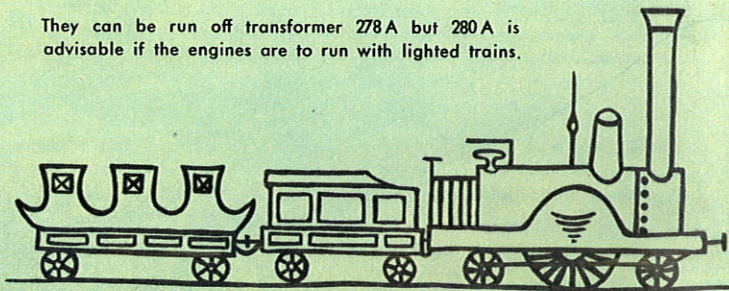
German Federal Railways Class 89 0-6-0 tank engine, reversing by remote control and hand lever · Plastic tyres on rear driving wheels increase the tractive effort and climbing power · The specially low-g geared motor ensures long service and enables the engine to run slowly as well · Two electric headlights; dull black unbreakable plastic body, cast metal frame · Scale model reproductions of the boiler fittings, cab, coal bunker and water tanks · Strong coupling hook at each end · Length over buffers about  $4\frac{1}{2}$  in.; weight about  $7\frac{1}{2}$  ozs.

TM 800

German Federal Railways Class 80 0-6-0 tank engine, reversing by remote control and hand lever · Plastic tyres on rear driving wheels · Specially powerful · Two electric headlights · Dull black, strong all-metal body with excellent reproductions of the boiler fittings · Automatic couplings at each end · Length over buffers, about  $5\frac{1}{4}$  in.; weight about  $14\frac{1}{2}$  ozs.

*These engines are great favourites as they can be used for either passenger or goods service and especially for shunting in marshalling yards and sidings; their appearance and the ease of placing them on the track are other advantages. Their easy running on curves, great power and harmonious design are notable features of these models.*

They can be run off transformer 278A but 280A is advisable if the engines are to run with lighted trains.



## A Very Successful Model

*The latest German Federal Railways locomotives are the Class 23 engines used on medium and heavy passenger and express and light fast and goods services. Engine and tender are built by the latest welded method of construction and designed to run at 65 m.p.h. forward and 55 m.p.h. in reverse. As these engines are allowed to travel at high speed on main line services they are frequently used for heavy suburban and interurban traffic as well, instead of tank engines.*

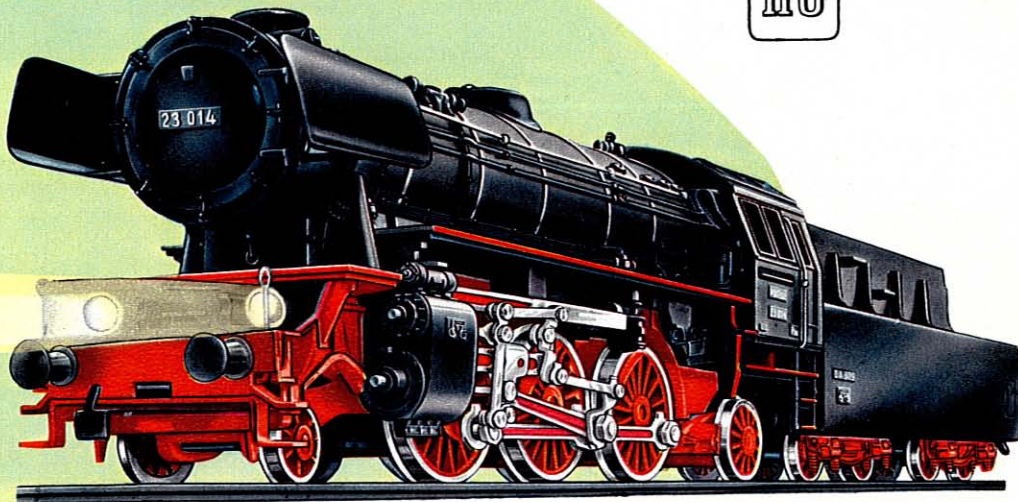
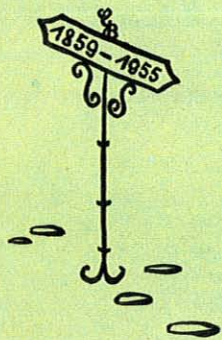
### DA 800

2-6-2 passenger train locomotive and tender, reversing by remote control and hand lever · Heusinger valve gear · Both pony trucks are sprung to prevent derailment and provide easy running on curves · Front coupling hook on pony truck to give easy coupling · Plastic tyres on rear driving wheels to increase tractive effort · Specially low-g geared drive · Two electric headlights · Dull black unbreakable plastic body with scale model reproductions of the boiler fittings and all-over cab of its big original · Cast metal frame; tender close-coupled to engine, reproducing the welded prototype · Automatic coupling and many details · Length over buffers, about  $9\frac{3}{4}$  in.; weight, with tender, about 16 ozs.

MARKLIN



This model will run off transformer 278 A, but 280 A is advisable for lighted trains.

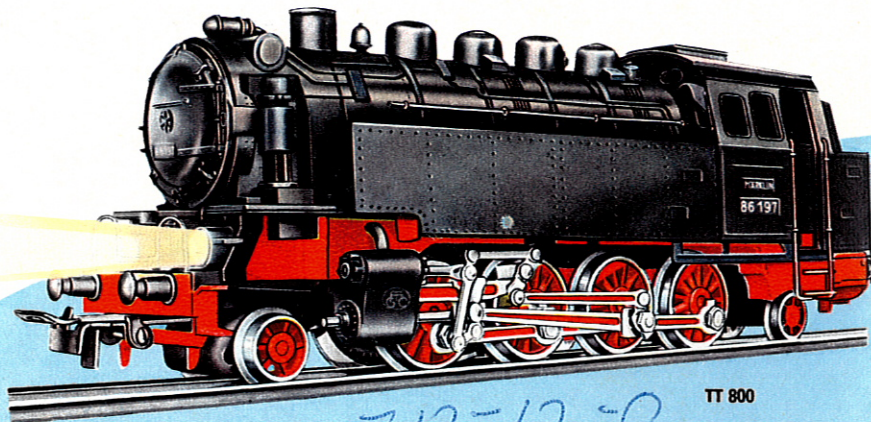


27-15-0

## Indestructible Models

TT 800

**German Federal Railways Class 86 2-8-2 ("Mikado") Tank Locomotive**, reversing by remote control and hand lever · Heusinger valve gear · Plastic tyres on rear driving wheels to improve tractive effort · Specially low-g geared motor enabling engine to run slowly as well · Two electric headlights front and rear switch over automatically when engine reverses · Strong all-metal casing with numerous details, finished dull black · Automatic couplings front and rear · Length over buffers about 6½ in.; weight about 22 ozs.

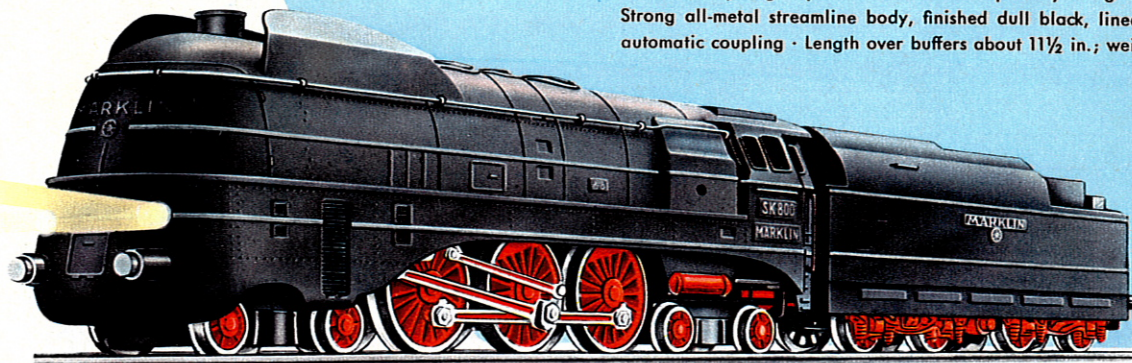


TT 800

280 A transformer required

SK 800

**Streamline Express 4-6-4 Tender Locomotive**, reversing by remote control and hand lever · Plastic tyres on rear driving wheels to improve tractive effort · Leading and trailing bogies with spoked wheels are sprung to prevent derailment · Specially low-g geared motor; two electric headlights · Strong all-metal streamline body, finished dull black, lined silver · Double-bogie tender with automatic coupling · Length over buffers about 11½ in.; weight with tender, about 32 ozs.



SK 800

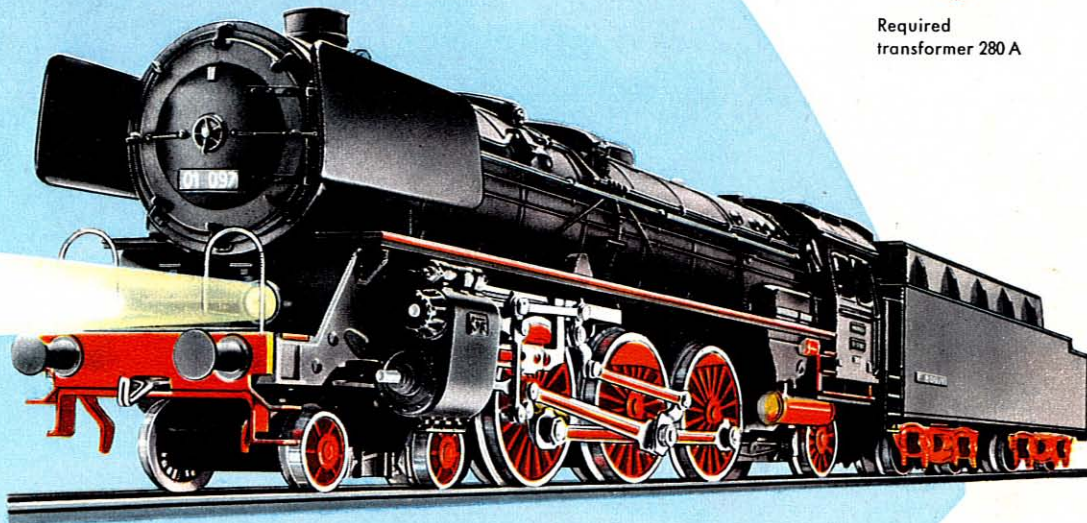


**MARKLIN**



## A Super H0 Gauge Model

*This is one of the finest MARKLIN model locomotives made and is a true replica in miniature of the German Federal Railways' Class 01 express locomotive. Outstanding features are its fine proportions and excellent performance—a model that no set should be without.*



Required transformer 280 A

**F 800**

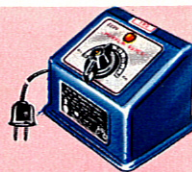
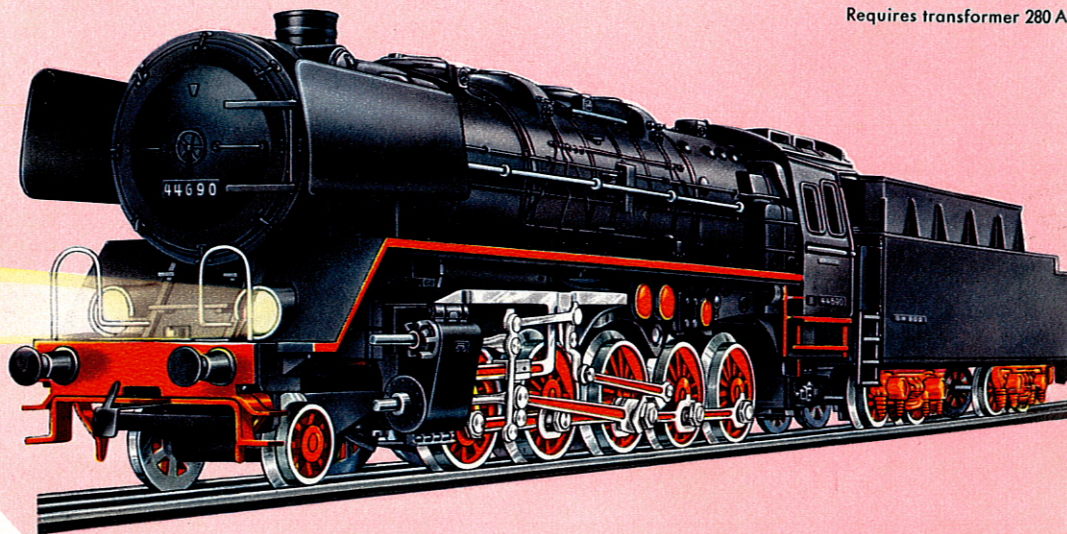
**Express 4-6-2 ("Pacific") Tender Locomotive**, reversing by remote control or hand lever · Heusinger valve gear · Leading bogie and trailing truck are sprung to prevent derailment · Coupling for banking engine · Negotiates curves easily · Plastic tyres on rear driving wheels · Excellent tractive effort and climbing power · Specially low-g geared motor · Two electric headlights · Strong all-metal casing finished dull black · Boiler fittings, cylinders and deflectors are faithfully reproduced · Double bogie tender with automatic coupling · Length over buffers about 11 in.; weight with tender, about 26 ozs.

711-2-6

MARKLIN

## Heavy Goods Locomotive

*Long-distance goods traffic on the German Federal Railways is constantly increasing and is hauled over non-electrified stretches by the powerful Class 44 locomotives; that is why this type of engine is seen so often on the long main line stretches, arousing interest and wonderment among all railway enthusiasts. Its particularly pleasing appearance and powerful design are the reasons for reproducing it by this fine model.*



Requires transformer 280 A

GN 800

**"Decapod" 2-10-0 type** · The frame is divided into two separate motive units, giving excellent running even over short-radius curves · Reversing by remote control or hand lever · Heusinger valve gear · Plastic tyres on rear driving wheels to improve tractive effort and climbing power · All coupled wheels driven and all wheels flanged · Leading pony truck sprung to prevent derailment · Front coupling fixed to pony truck for easy coupling · Will negotiate curves extremely well · Specially low-g geared motor gives slow-running also · Two electric headlights · Strong all-metal body, finished dull black with scale-model reproductions of all boiler fitting details · Deflectors true to scale · Double bogie tender with automatic coupling · Length over buffers about 11 in.; weight with tender about 34 ozs.

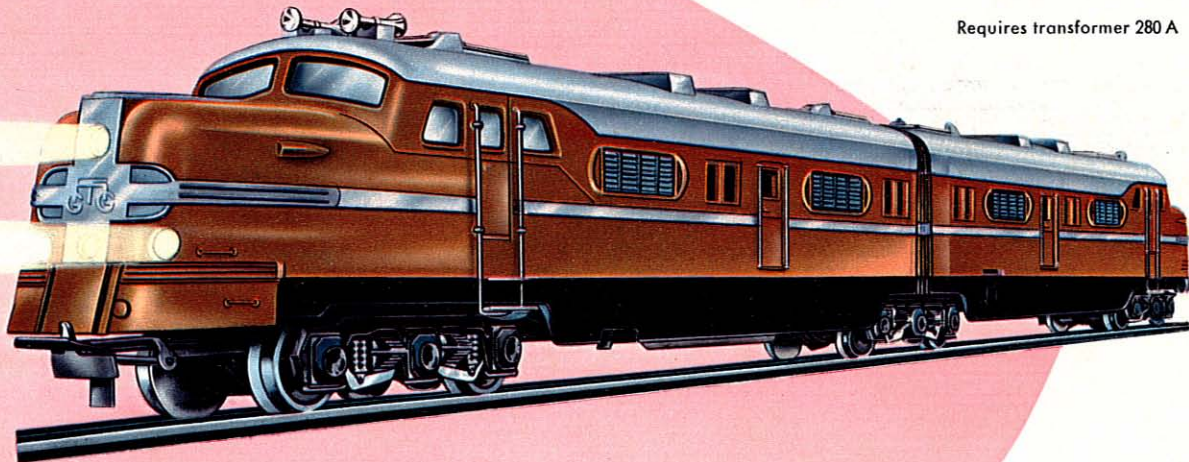
Z16-4-0

## A Twin-unit Locomotive with exceptional pulling power

*As the name implies, this is a model of a type having an outstanding performance, and its twelve wheels are all driven by a propeller shaft. Pantograph bow collectors supplied can be screwed on to the roof without requiring any tools, thus making the model into an electric locomotive.*



Requires transformer 280 A

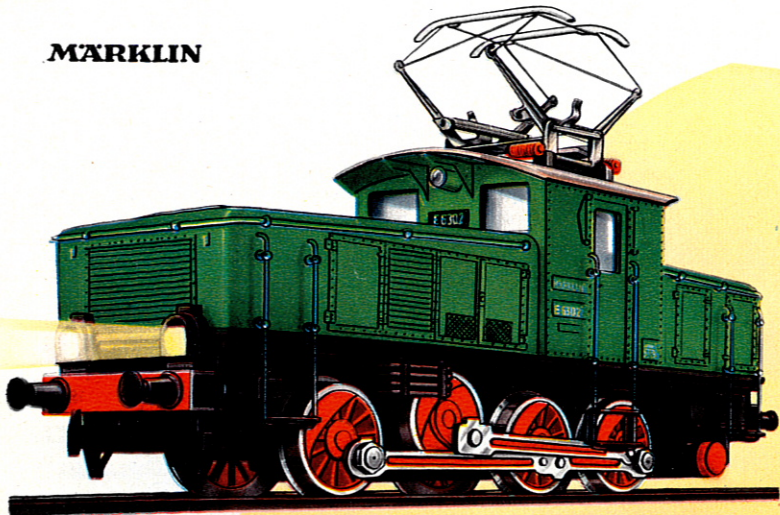


DL 800

**Twin-unit Electric Locomotive, 0-4-4-0 type with Jacobs centre bogie** · Reverses by remote control and hand lever · The extra powerful motor driving through all twelve wheels provides outstanding tractive effort · Three electric headlights at each end switch over automatically when the engine reverses · Switch lever gives optional current pick-up from overhead wire or third rail, pantograph bow collectors being supplied with the engine for attachment as required · Reddish-brown strong all-metal body with numerous details · Low centre of gravity eliminates risk of derailment · Automatic couplings at each end · Length about 17 in.; weight about 40 ozs.

221-7-6

**MARKLIN**



Z5-1-3

CE 800

The models on pages 10 and 11 require transformer 278 A, but transformer 280 A is advisable for lighted trains.

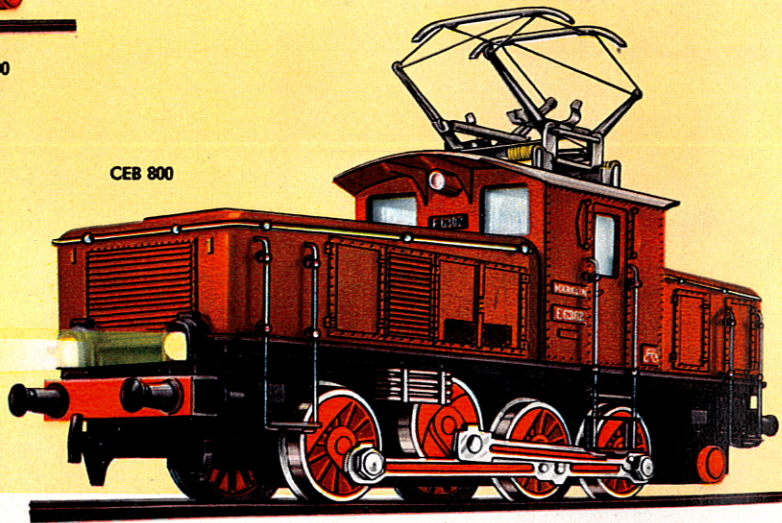
**CEB 800**

Electric Shunting Locomotive · The same as CE 800 above, but finished brown colour.

## A Model in Great Demand

**CE 800**

Electric Shunting Locomotive, German Federal Railways 0-6-0 Class E 63 · Spur-gear driven jackshaft; reverses by remote control and hand lever · Plastic tyres on rear wheels increase tractive effort and climbing power · Specially low-g geared motor gives durability in service and also allows the engine to run slowly as well · Two electric headlights at each end switch over automatically when the engine reverses · Switch lever gives optional current pick-up from overhead wire or third rail · Special lightly-sprung current collector · Green unbreakable plastic body with separate handrails fitted and numerous details · Cast metal frame; cello windows; strong coupling hooks at each end · Length over buffers about 4¾ in.; weight about 9 ozs.



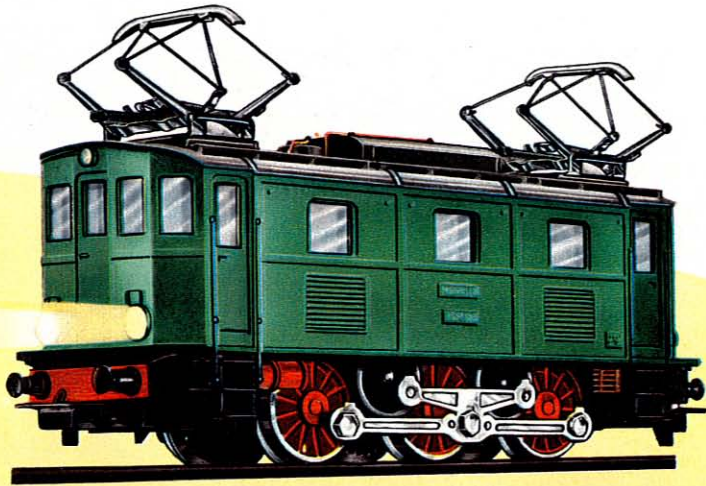
CEB 800

Z5-1-3

## General-purpose Locomotives

### RSM 800

**Mixed-traffic 0-6-0 Electric Locomotive**, reverses by remote control and hand lever · 2 interchangeable headlights · Switch lever gives optional current pick-up from overhead wire or third rail · Well-designed green all-metal body; cello windows · A very strong model with splendid pulling power, easy to handle and place on the track, even on curves · Automatic couplings at both ends · Length over buffers about 5 in.; weight about 15¼ ozs.

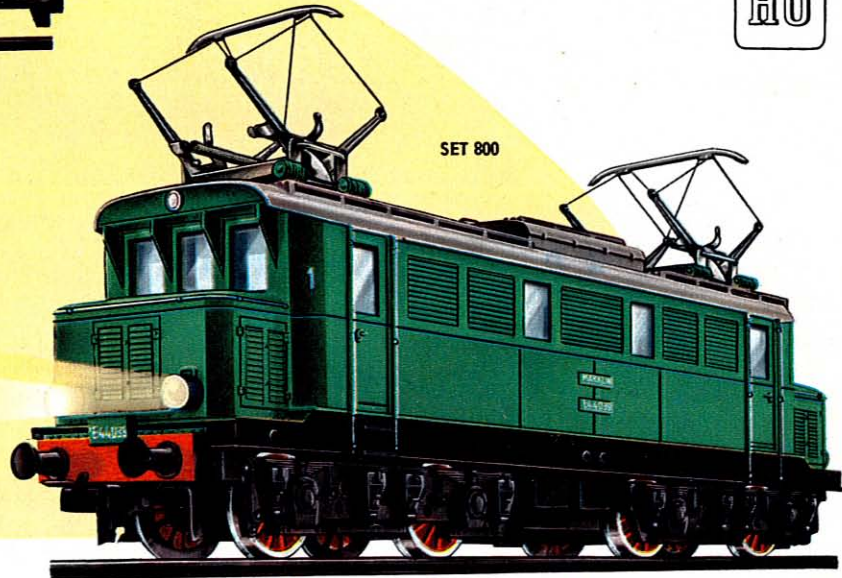


RSM 800

Z6-7-6

### SET 800

**Electric Locomotive for General Service, 0-4-4-0 type** · The four inner wheels are driven by the motor, with the leading and trailing wheels in pony trucks to give better freedom of running on curves · The axles are arranged so as to give the impression of the 0-4-4-0 arrangement of the big Class E 44 of the German Federal Railways · Reverses by remote control and hand lever · Plastic tyres on one set of driving wheels give great pulling power · Two electric headlights front and rear switch over automatically when engine reverses · Switch lever gives optional current pick-up from overhead wire or third rail · Two sprung pantograph bow collectors · Well-designed green all-metal body with numerous details · Automatic couplings at each end · Length over buffers about 6½ in.; weight about 25 ozs.



SET 800

Z7-15-0



## Outstanding Replicas of Western European Locomotives

*The prototype of the SEH 800 locomotive is used for the Netherlands Railways express services in Holland, and the prototype of SEF 800 is in use in France.*



SEH 800



SEF 800

### SEH 800

**Electric 0-4-4-0 type Express Locomotive**, with the same wheel arrangement as SET 800 · Reverses by remote control and hand lever · Plastic tyres on one set of driving wheels give very great pulling power · Two electric headlights front and rear switch over automatically when engine reverses · Switch lever gives optional current pick-up from overhead wire or third rail · Two sprung pantograph bow collectors · Blue all-metal body lined silver with porthole-type windows in sides · Automatic couplings at both ends · Length over buffers about 7½ in.; weight about 26 ozs.

### SEF 800

**Electric Locomotive** the same as SEH 800, but with green finish.

# The Favourite Swiss Locomotive

MARKLIN

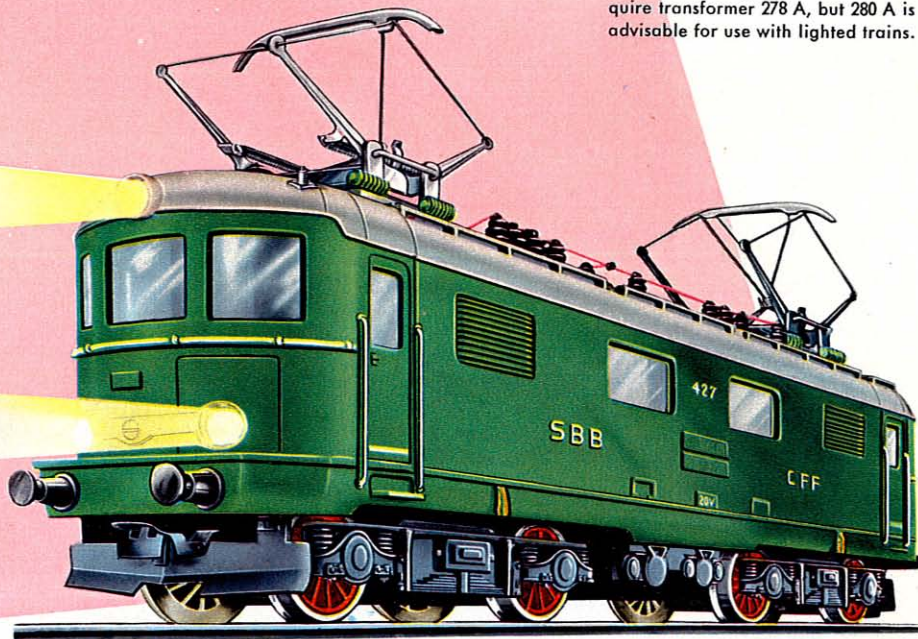
*Their big prototypes, the Class Re 4/4 locomotives, are used in Switzerland for drawing the light express trains that are so popular. Both individually as well as in the train series as a whole, this is a most outstanding type of locomotive and its successful replica is an acquisition to any set. The RET model gives as sensational a performance on its miniature track as its big prototype does on the line.*



The models on pages 12 and 13 require transformer 278 A, but 280 A is advisable for use with lighted trains.

## RET 800

**Electric Locomotive** · An eight-wheeled locomotive with the same wheel arrangement as the SET 800 · Reverses by remote control and hand lever · Plastic tyres on one set of driving wheels give very great pulling power · Three electric headlights front and rear switch over automatically when the engine reverses · Switch lever gives optional current pick-up from overhead wire or third rail · Two sprung pantograph bow collectors on roof · Green all-metal body with numerous details · Automatic couplings at each end · Length over buffers about 6½ in. ; weight about 23 ozs.



710-13-9



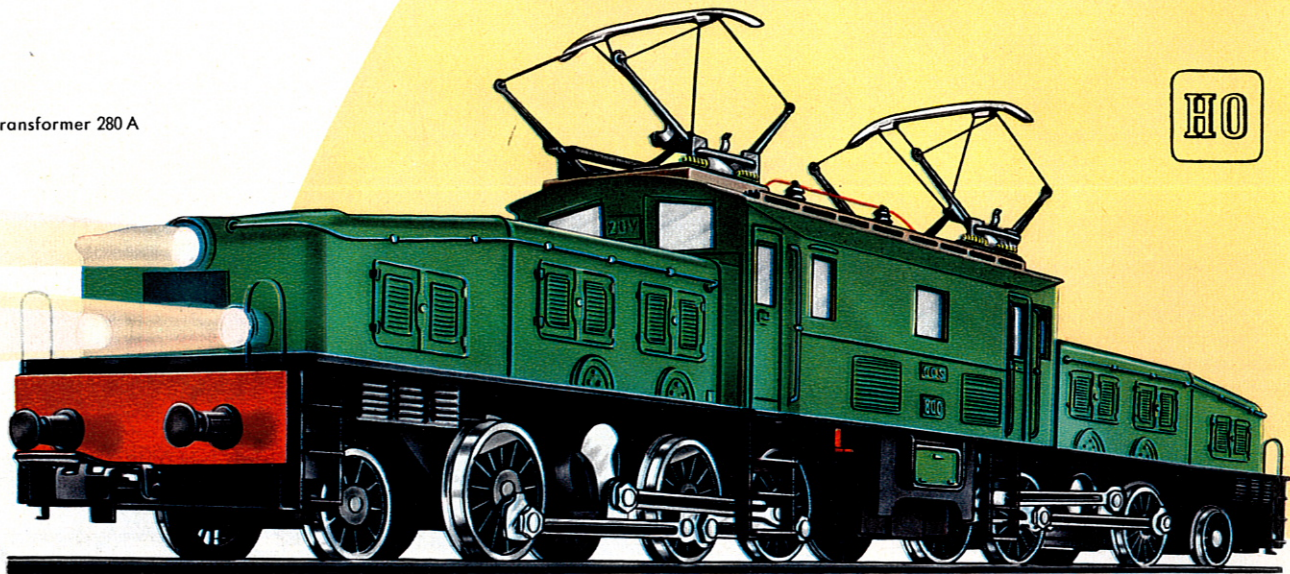
## Heavy Electric Goods Locomotive

*This masterpiece in miniature is a true replica of its internationally-famous prototype used for hauling heavy goods trains over the numerous curves and long gradients of the St. Gotthard line. The model develops astonishing power and is one of the most characteristic and finest models of the Swiss Federal Railways.*

CCS 800

**The "Crocodile" 2-6-2 Electric Goods Locomotive** - The articulated design of this locomotive enables it to take curves of normal radius with ease - Reverses by remote control and hand lever - The leading and trailing pony trucks are sprung to guard against any risk of derailment - Extra powerful motor with specially low reduction gear - Three electric headlights front and rear switch over automatically when the engine reverses - Switch lever gives optional current pick-up from overhead wire or third rail - Two sprung pantograph bow collectors on roof - Green all-metal body with many details - Automatic couplings at both ends - Length over buffers about 10½ in.; weight about 34 ozs.

Requires transformer 280 A

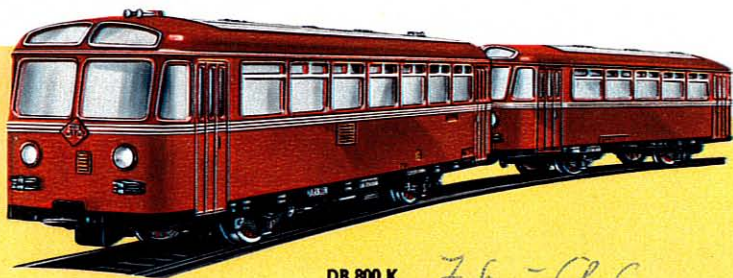


220-0-0



MARKLIN

## Railbus and Trailer



DB 800 K

76-96

DB 800 K

71-18-9

Railbus and Trailer

**Railbus** · Four-wheeled, reverses by remote control and hand lever; plastic tyres on driving wheels · Lights at either end and interior lighting by two bulbs · Red unbreakable plastic body with many details · Cast metal frame, with fine plastic reproductions of the axleboxes, springs and track guards · Cellon windows · Latest type symmetrical couplings at both ends allow the two cars to be unusually close-coupled · Length over buffers, about 5¾ in.— with trailer, about 11 in.; weight about 9½ ozs.

DB 800 B

**Railbus Trailer** · Sheet steel frame with fine plastic reproduction of axleboxes, springs and track guards · Plastic body with many details · Cellon panes in windows · Red tail lights at both ends with interior lighting by one bulb and pick-up shoe for lighting current · The special symmetrical coupling is only suitable for the railbus · Length over buffers about 4¾ in.

DB 800 K model requires transformer 278 A

ST 800 model requires transformer 280 A



ST 800 MT

**Extension Unit** (centre portion), length about 7½ in.

The ST 800 three unit train can be lengthened by one or two more snap cars by a simple snap connection that connects up the lighting for the centre cars as well · These extra cars are supplied with the same colouring as the front and rear cars, so please state colour required when ordering.

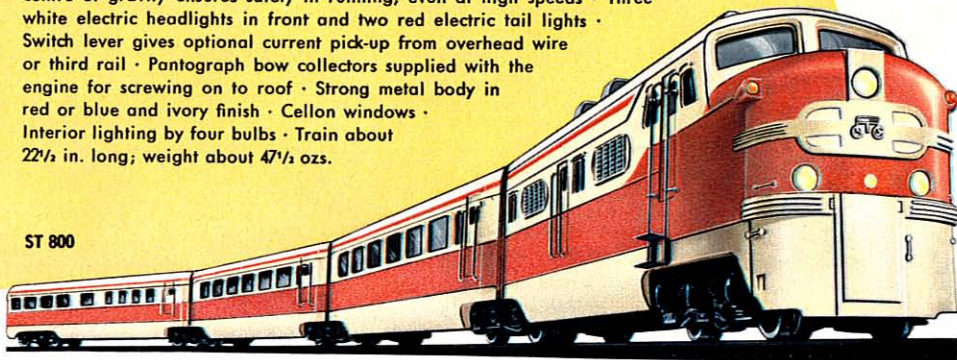
72-19-6

## Diesel Express Train

ST 800

**Diesel Express Train** · Three units running on four 4-wheeled bogies, each of the two centre trucks ("Jacobs" type) being common to two cars · Reverses by remote control and hand lever · Extra powerful motor · The low centre of gravity ensures safety in running, even at high speeds · Three white electric headlights in front and two red electric tail lights · Switch lever gives optional current pick-up from overhead wire or third rail · Pantograph bow collectors supplied with the engine for screwing on to roof · Strong metal body in red or blue and ivory finish · Cellon windows · Interior lighting by four bulbs · Train about 22½ in. long; weight about 47½ ozs.

ST 800



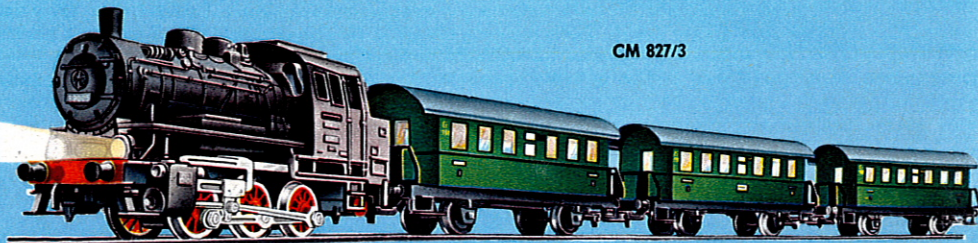
725-6-3

## Popular-priced Quality Sets

*Despite their very moderate cost, these train sets are some of the most outstanding models in our production series. Through their being so reasonable in price, anyone can afford to have a MÄRK-LIN train set at a very moderate outlay.*



CM 827/3



CM 827/3

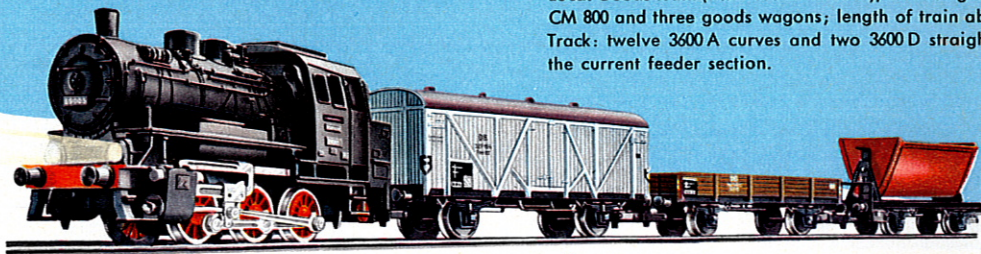
*26-1-6*  
**Local Passenger Train** (without transformer), consisting of tank engine CM 800 and three 327/1 passenger coaches. The train is approximately 19 inches long and the track consists of twelve 3600 A curves and two 3600 D straights, including the current feeder section.

The train sets on pages 16 and 17 require transformer 278 A, but 280 A is advisable if the trains are to be lighted.



CM 805/3

**Local Goods Train** (without transformer), consisting of tank engine CM 800 and three goods wagons; length of train about 16¾ in. Track: twelve 3600 A curves and two 3600 D straights, including the current feeder section.



CM 805/3

*26-11-6*

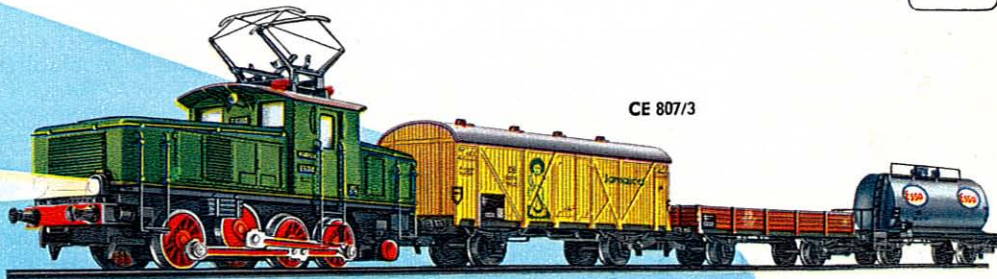
## Train Sets with Oval Tracks (without transformer)

MARKLIN

HO

CE 807/3

Goods Train (without transformer) consisting of CE 800 electric locomotive and three plastic goods wagons · Train about 17½ in. long, with twelve 3600 A curves and two 3600 D straights, complete with current feeder section and instructions.



CE 807/3

29-6-9

CE 829/3

Local Passenger Train (without transformer), consisting of CE 800 electric locomotive and three 329 coaches · Train about 22 in. long, with twelve curves 3600 A and two 3600 D straights, complete with current feeder section and instructions.

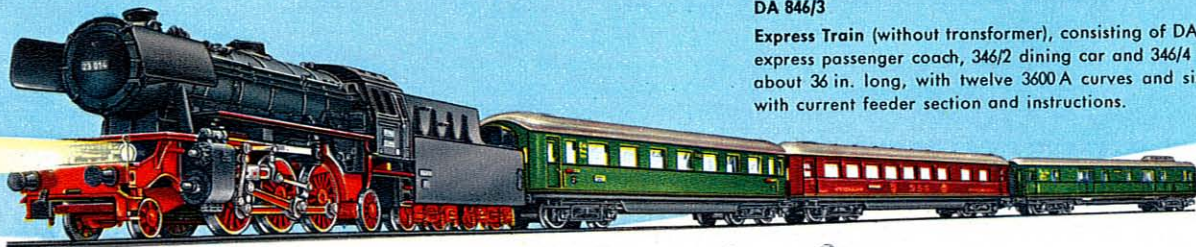


CE 829/3

29-13-6

DA 846/3

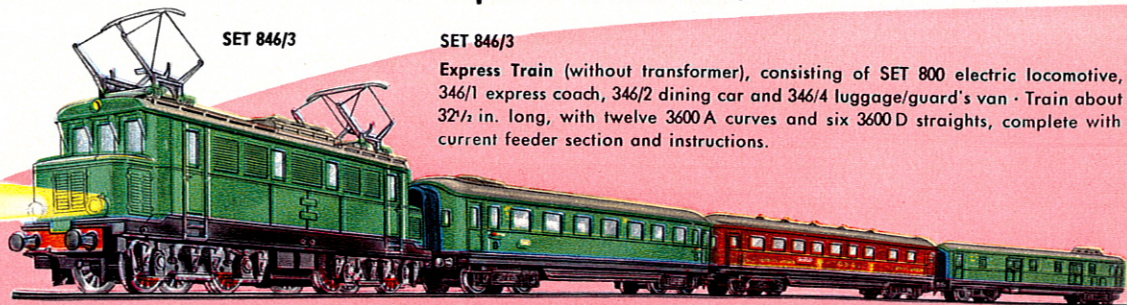
Express Train (without transformer), consisting of DA 800 steam locomotive, 346/1 express passenger coach, 346/2 dining car and 346/4 luggage/guard's van · Train about 36 in. long, with twelve 3600 A curves and six 3600 D straights, complete with current feeder section and instructions.



DA 846/3

215-15-0

## More Complete Train Sets

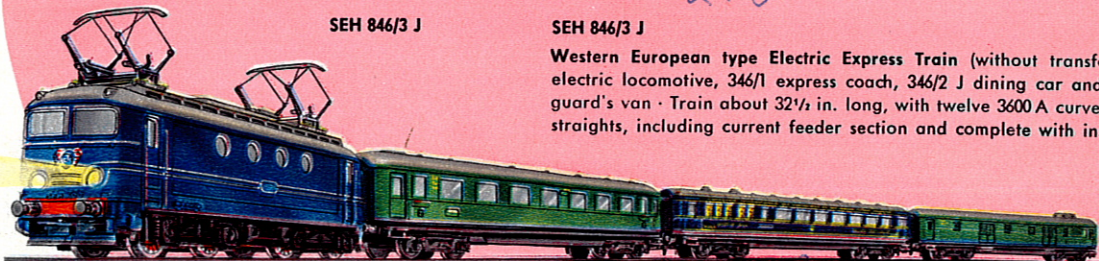


SET 846/3

SET 846/3

Express Train (without transformer), consisting of SET 800 electric locomotive, 346/1 express coach, 346/2 dining car and 346/4 luggage/guard's van · Train about 32½ in. long, with twelve 3600 A curves and six 3600 D straights, complete with current feeder section and instructions.

215-15-0

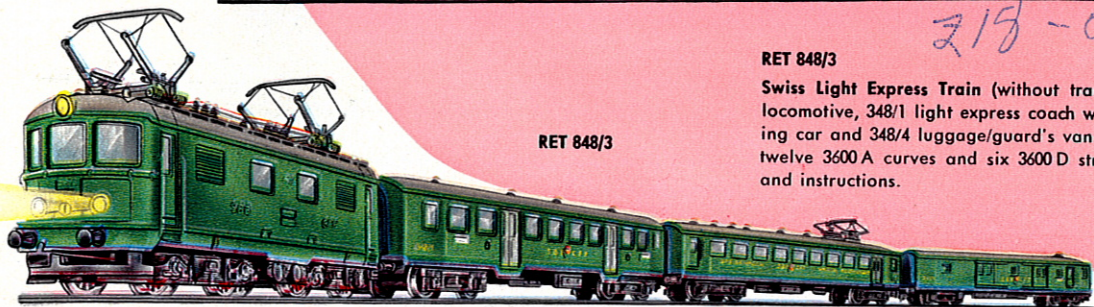


SEH 846/3 J

SEH 846/3 J

Western European type Electric Express Train (without transformer), SEH 800 electric locomotive, 346/1 express coach, 346/2 J dining car and 346/4 luggage/guard's van · Train about 32½ in. long, with twelve 3600 A curves and six 3600 D straights, including current feeder section and complete with instructions.

218-0-0



RET 848/3

RET 848/3

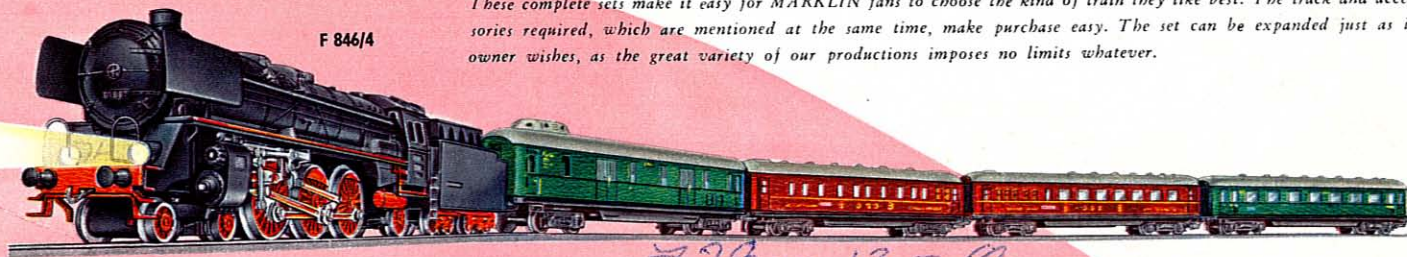
Swiss Light Express Train (without transformer), consisting of RET 800 electric locomotive, 348/1 light express coach with sliding doors, 348/2 light express dining car and 348/4 luggage/guard's van · Train about 33 in. long, complete with twelve 3600 A curves and six 3600 D straights, including current feeder section and instructions.

The double sliding doors are opened and closed by turning a knob on the roof of the coach.

219-13-9

## Complete Train Sets ready to run, with oval tracks (without transformer) **MÄRKLIN**

*These complete sets make it easy for MÄRKLIN fans to choose the kind of train they like best. The track and accessories required, which are mentioned at the same time, make purchase easy. The set can be expanded just as its owner wishes, as the great variety of our productions imposes no limits whatever.*



F 846/4

228-13-9

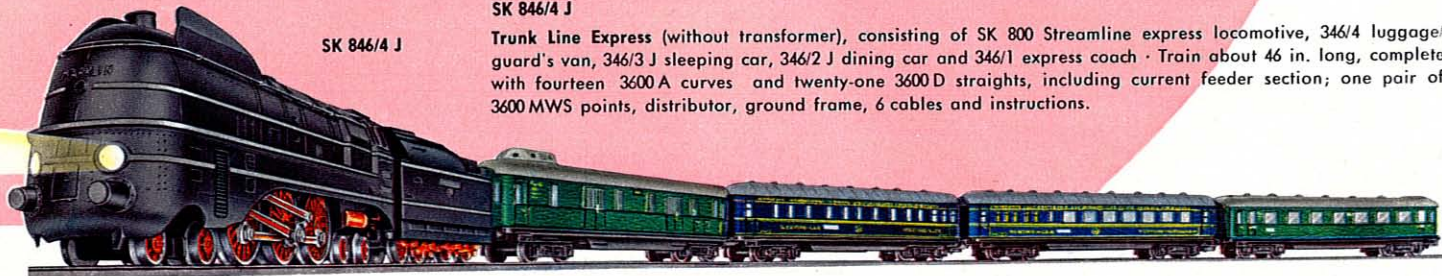
F 846/4

**Express Train** (without transformer), consisting of tender locomotive F 800, 346/4 luggage/guard's van, 346/3 sleeping car, 346/2 dining car and 346/1 express coach · Train about 46½ in. long, with fourteen 3600 A curves and twenty-one 3600 D straights, including current feeder section, one pair of 3600 MWS points, distributor, ground frame and six cables; complete with instructions.

As with all other train sets in this catalogue, dining cars and sleeping cars can also be supplied in the blue international colouring, so if you want this, please add "J" to the reference number when ordering.

SK 846/4 J

**Trunk Line Express** (without transformer), consisting of SK 800 Streamline express locomotive, 346/4 luggage/guard's van, 346/3 J sleeping car, 346/2 J dining car and 346/1 express coach · Train about 46 in. long, complete with fourteen 3600 A curves and twenty-one 3600 D straights, including current feeder section; one pair of 3600 MWS points, distributor, ground frame, 6 cables and instructions.

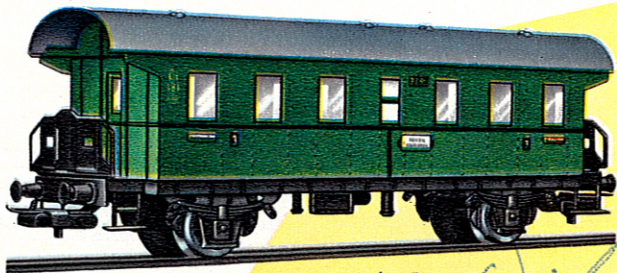


SK 846/4 J

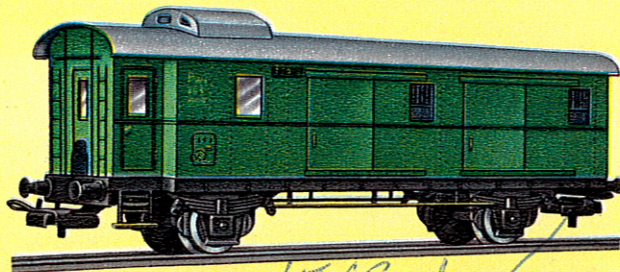
230-7-6

## Passenger Coaches of finely printed sheet steel

All coaches are fitted with automatic couplings and arranged for interior lighting

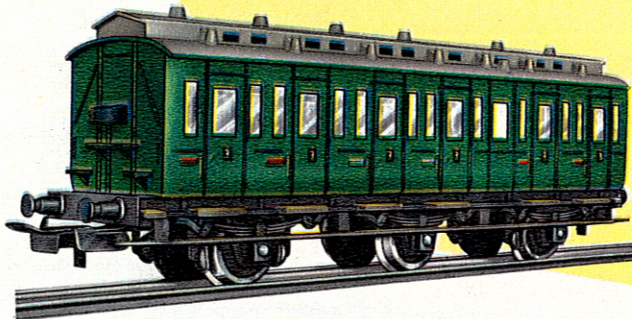


329/1 Local Coach with end entrances and platforms  
 327/1 Simpler type, as illustrated on page 49.

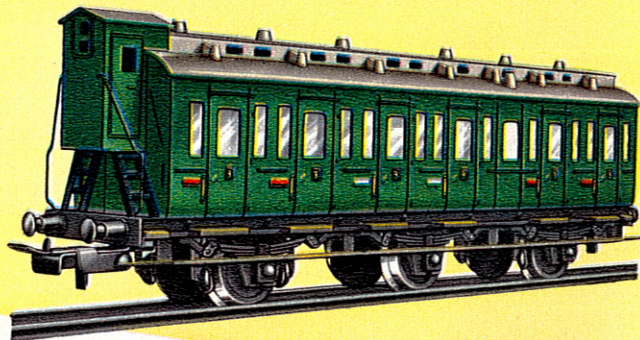


329/4 Luggage/guard's van, with sliding door both sides and guard's roof lookout.

Standard Type Coaches, with numerous details · Cellon windows; dark green with grey roof · Numerous markings · Length over buffers about 5½ in.



330/1 Without brakesman's cabin



330/2 With brakesman's cabin.

Coaches with separate Compartments, six-wheeled, with sides divided up into six compartments · Dark green with grey roof; numerous markings · Length over buffers about 5¼ in.

## Light Express Coaches of the Swiss Federal Railways



348/1

Light Express Coach, double bogie type, a replica of the Swiss Federal Railways (SBB) prototype. B bogies have equalisers to take up track irregularities. Two double sliding doors each side opened and closed by turning a knob on roof. Cellon windows. Numerous details — vestibule connections, footboards, battery boxes and markings; dark green, with silver-grey roof. Length over buffers about 8½ in.



All coaches have **automatic couplings** (all-metal stock) and are fitted for interior lighting



348/2

Dining Car. With pantograph bow collector for car lighting current. Window and roof ventilators. Vestibule connections. Ground glass windows to kitchen compartment. Battery boxes. Dark green, with yellow lettering and silver-grey roof. Length over buffers about 8½ in.

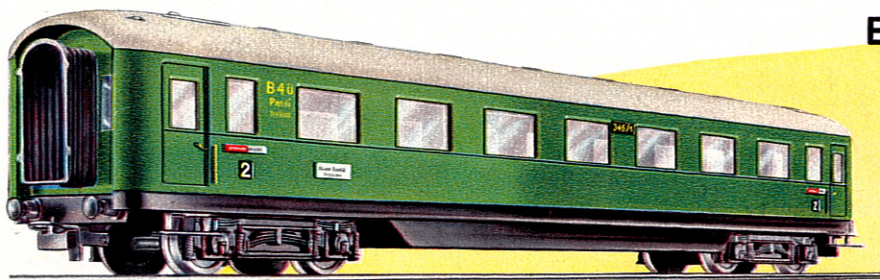


348/4

Luggage/Guard's Van. Sliding doors in sides. Barred windows; many details. Dark green, silver-grey roof, yellow lettering. Length over buffers about 5¼ in.

See page 37 for tail lights for 348 coaches.

## Express Coaches All-metal type



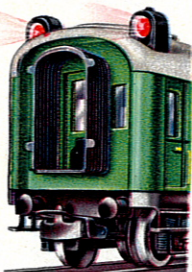
All coaches fitted with **automatic couplings**, and arranged for interior lighting



346/1

21-10-9

**Double-Bogie Express Coach** · Detachable roof, real windows with cellopanes; dark green, grey roof, length over buffers about 8 in.



346/1 B

**Express Coach**, as 346/1, but with tail lights and bow collector.

22-10-0



346/2

21-10-9

**Dining Car**, double-bogie type; a replica of the German Sleeping Car Co's. (DSG) car · Wine red, yellow lettering, grey roof; length over buffers about 8 in.

346/2 J

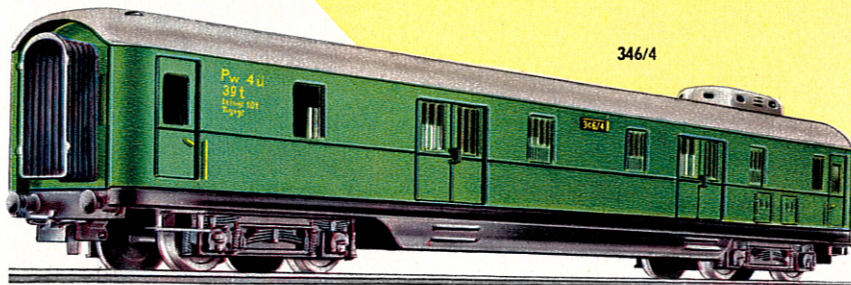
**Dining Car** as above, but a replica of the International Sleeping Car Company's car (ISG) · Blue, yellow lettering, grey roof · length over buffers about 8 in.

346/4

21-10-9

**Baggage Car** · Windows with bars · Two double sliding doors on each side · Dark green · Length about 8 in.

346/4



21-10-0



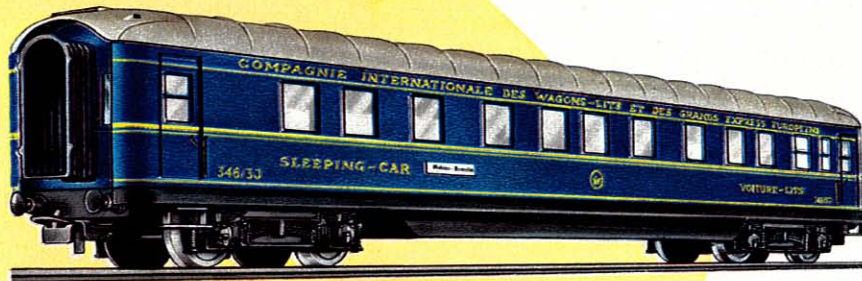
## MARKLIN



346/6

Trunk Line Express Coach, double bogie, of the German Federal Railways · Blue, with silver roof and lettering · Length over buffers about 8 in.

71-10-9



346/3 J

Sleeping Car, double bogie—a model of the International Sleeping Car Company's (ISG) stock · Blue, with yellow lettering and grey roof · Length over buffers about 8 in.

346/3

Sleeping Car, double bogie—a model of the German Sleeping Car Company's (DSG) stock · Wine red, with yellow lettering and grey roof · Length over buffers about 8 in.

71-10-9

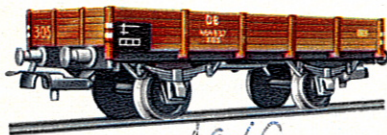


346/5

71-19-0

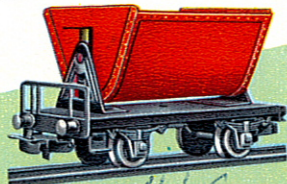
71-10-9

## Inexpensive Thermoplastic Freight Cars



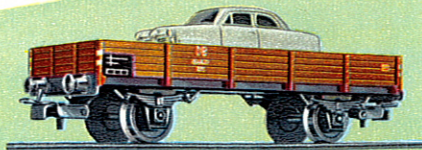
305/1

Low-sided Goods Truck · Brown, length about 4 in.



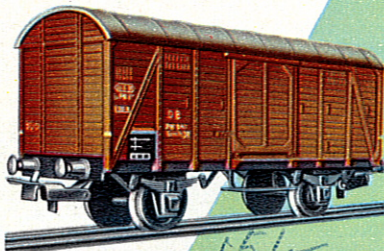
362

Tipping Truck · Red, to tip either side; with locking gear · Length about  $3\frac{1}{4}$  in.



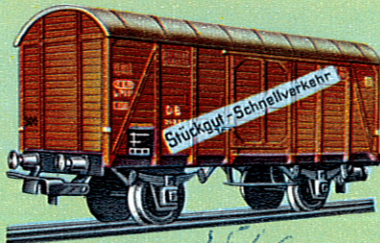
305/2

Low-sided Goods Truck · Brown, loaded with miniature Ford "Taunus 12 M" car; length about 4 in.



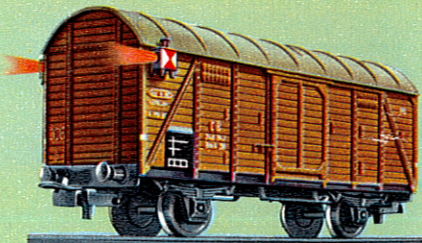
306/1

Closed Goods Van · Brown, with grey roof; about 4 in. long



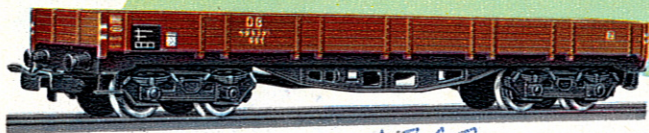
306/2

Closed Goods Van · Brown, with grey roof; lettered diagonally · Length about 4 in.



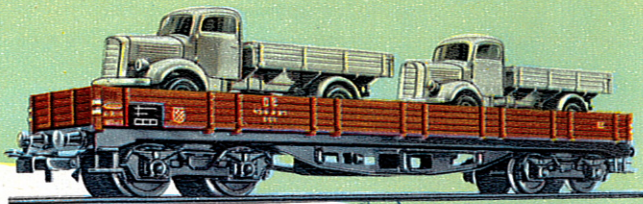
306/1 S

Closed Goods Van · Brown with grey roof; well-designed electric tail lights at sides and current pick-up shoe; length 4 in.



391/1

Low-sided bogie Goods Truck · Brown, length about  $7\frac{1}{4}$  in.



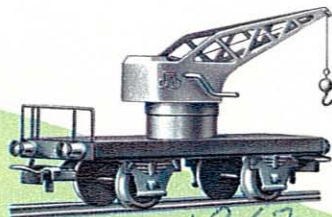
391/2

Low-sided bogie Goods Truck · Brown, loaded with two  $3\frac{1}{2}$ -ton Mercedes lorries; length  $7\frac{1}{4}$  in.

**MARKLIN**

**H0**

Four-wheeled wagons with sheet steel frames, die-cast wheels and plastic bodies; finished enamel. The lengths given are measured over the buffers.



366

1973  
Crane Truck · All-metal, aluminium colour; slewing jib with hand winch · Length about 3¼ in.



308/2

1913  
pulverised Coal Wagon · Two silver-coloured pulverised coal containers with fillers and connected by runway with ladder each side · Length about 4 in.



307/1

1316  
Refrigerated Van · White, with red lettering · Roof has imitation ventilating flaps · Length about 4 in.



307/2

151-  
Banana Van, with picture of a banana gatherer · Yellow, with blue lettering and white roof · Length about 4 in.



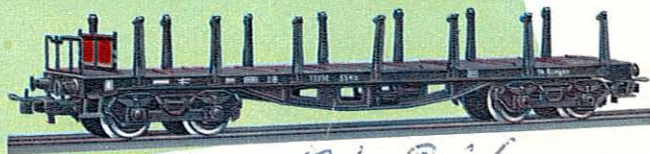
308/1

1973  
Wine Wagon, with two barrels and ladder each side · Barrels light brown with word "BORDEAUX"; length about 4 in.



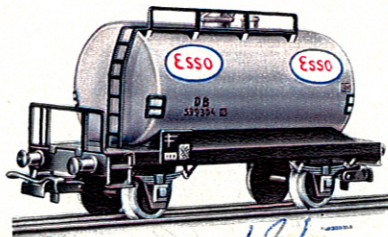
393 C

21-3-6  
Bogie Tilt Truck · Brown, with white tilt cover; length about 7¼ in.

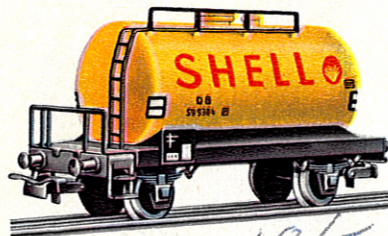


392 C

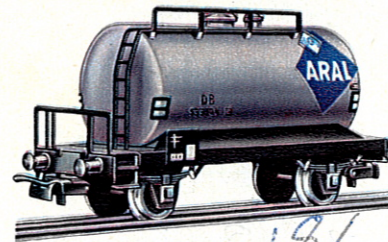
21-3-6  
Open Platform Bogie Truck with stanchions · Sheet steel body; length about 7¼ in.



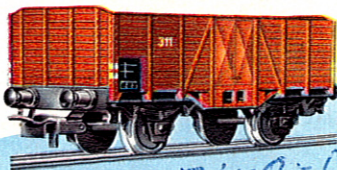
304 E  
Tank Wagon · "ESSO", silver · Steel chassis with plastic bodies · Length about 4 in.



304 S  
Tank Wagon · "SHELL", yellow · Steel chassis with plastic bodies · Length about 4 in.



304 A  
Tank Wagon · "ARAL" (petrol), silver · Steel chassis with plastic bodies · Length about 4 in.



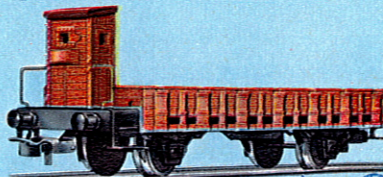
311

Open Goods Truck · Brown or grey; length about 3½ in.

311 S With limit. load of macadam

311 H With limit. load of pit props

311 K With limit. load of coal



323

Low-sided Goods Truck, with brakeman's cabin · Brown, length about 4½ in.



322

Tilt Truck with brakeman's cabin · Brown, with white tilt cover · Length about 4½ in.

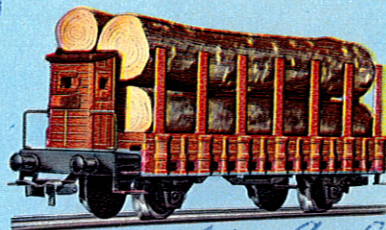
HO

## All-metal Wagons

21-7-0

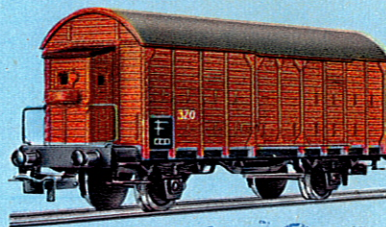
321

Open platform truck with standions as above, but without load of timber.



321 G

Open platform truck with standions, with load of timber (tree trunks) · Brown; length about 4½ in.



320

Large-capacity Goods Van with brakeman's cabin and grey arched roof · Brown; length about 4½ in.

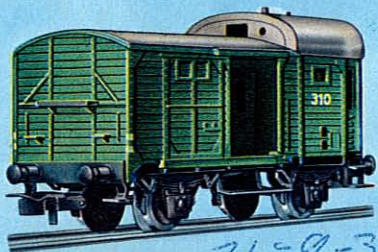
*These goods wagons have die-cast zinc frames with light metal alloy bodies. The greatest care has been taken in the scale-model reproduction of all details. All four-wheeled wagons have imitation brake shoes and automatic couplings.*



315 *21-4-9*  
Open Goods Truck with brakesman's cabin · Brown or grey · Length about 4 in.



316 *21-9-3*  
Goods Van with brakesman's cabin · Brown with grey roof · Length about 4 in.

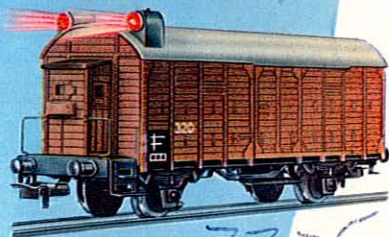


310 *21-9-3*  
Goods Train Luggage/Guard's Van · Green, with grey roof · Doors on one side open, the other closed · Length about 3 3/4 in.

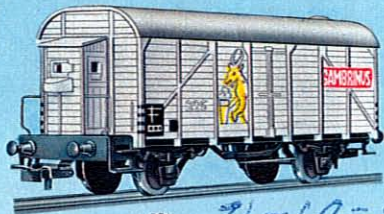


314 E *21-10-93*  
Tank Wagon with brakesman's cabin · Light grey "ESSO" · Gangway with ladder and fillers · Length about 4 in.

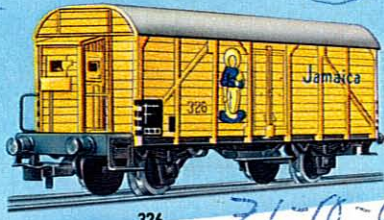
- 314 G Ditto, white "GASOLIN" (petrol)
- 314 S Ditto, yellow "SHELL"
- 314 BP Ditto, green "BP."



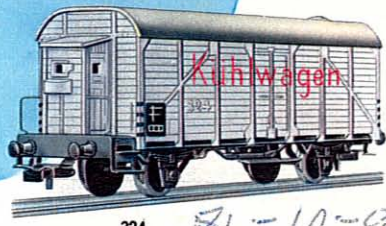
320 S *22-5-0*  
Large-capacity Goods Van with brakesman's cabin and arched roof · Two electric tail lights and current pick-up shoe · Length about 4 1/2 in.



325 *21-10-9*  
Beer Van with brakesman's cabin · White · Length about 4 1/2 in.



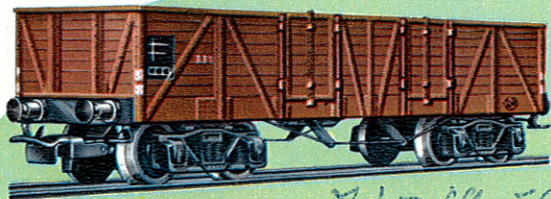
326 *21-10-9*  
Banana Van with brakesman's cabin · Yellow, with white roof · Length about 4 1/2 in.



324 *21-10-9*  
Refrigerated Van, with brakesman's cabin · White · Length about 4 1/2 in.

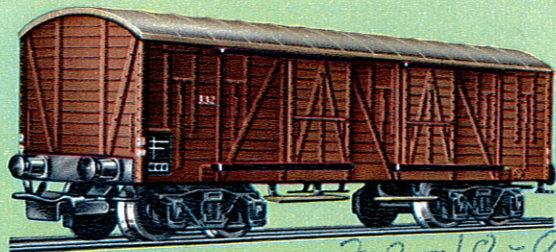
# Super-Model All-Metal Goods Stock

All wagons have **automatic couplings**



331  
Open Bogie Goods Truck · Brown, length about 5½ in.

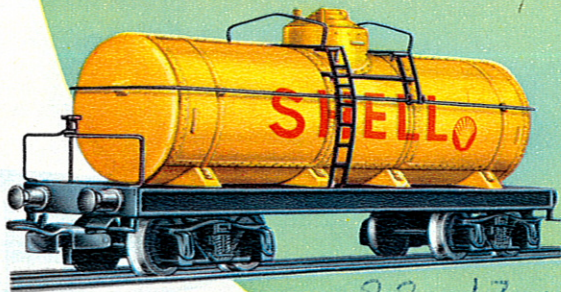
21-19-9



332  
Bogie Goods Van · Brown with grey roof · Sliding doors to open · Length about 5½ in.

22-10-9

*Easy running on curves · Bogies with imitation springs, Numerous details*

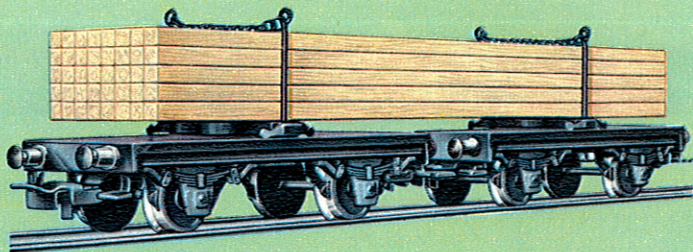


334 S  
Large-capacity Bogie Tank Wagon · Yellow, "SHELL", with brake handwheel, handrails, ladder and gangway, and filler · Length about 5½ in.

22-17-9

334 E  
Large-capacity Bogie Tank Wagon as above, but light grey · "ESSO"

22-17-9



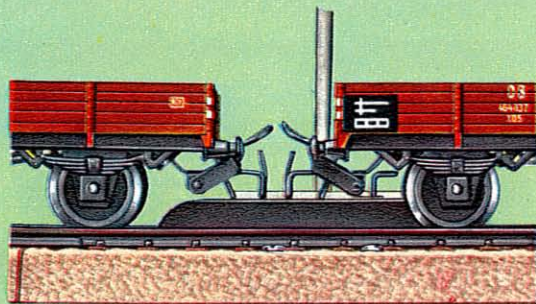
361 G  
Timber Truck, loaded with baulks of timber · Black; two units; length about 7½ in.

21-13-0



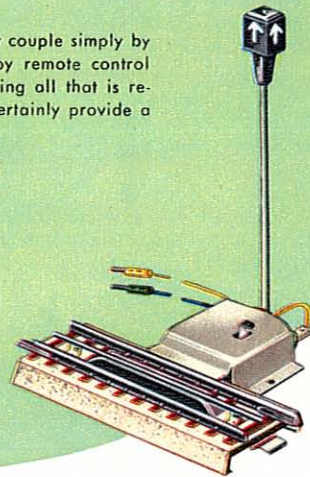
## Remote Control Uncoupler

All MÄRKLIN locomotives and rolling stock are fitted with automatic couplings (see illustration) that couple simply by pushing together. The MÄRKLIN automatic coupling is designed so that it can be uncoupled by remote control operating through a special section of track for uncoupling, pressing the button on the controller being all that is required. As all shunting operations can easily be imitated by this means, the uncoupling device will certainly provide a great deal of pleasure.



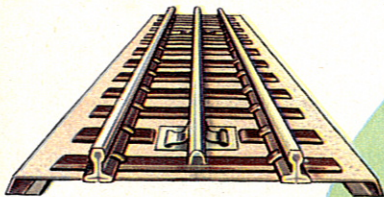
### 3600 EKS

**Uncoupling Track Section** · Uncouples stock automatically by ramps that can be raised on either side of the centre rail. A signal lamp on a post lights up when uncoupling is taking place. Supplied with two connecting leads. Length of track section about 3½ in.



Raising the ramps releases the coupling and the rolling stock can be shunted over a hump.

# MARKLIN Standard Track with Centre Conductor Rail



The 3600 track sections consist of all-metal hollow rails forming the MARKLIN standard centre-rail track. A circle is made up of 12 curved sections 3600 A1/1 giving an outside diameter of 30 in. The track sections have stamped imitation ballast and contact tongues that are proof against short-circuiting.



3600 D1/1  
Straight section, about 7 in. long



3600 D1/2  
Straight section, about 3 1/2 in. long.



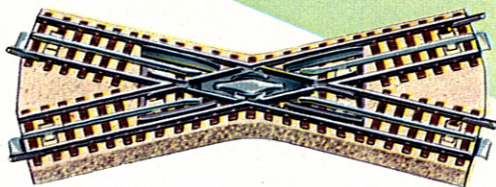
3600 D1/4  
Straight section, about 1 3/4 in. long.



3600 D1/16  
Straight section, about 1 1/16 in. long



3600 D1/8  
Straight section, about 1/8 in. long.



3600 K Crossing, about 7 1/2 in. long



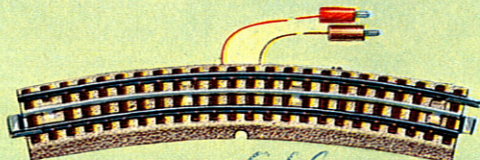
3600 A1/1  
Curved section, length 7 1/2 in.



3600 A1/2  
Curved section, length 3 3/4 in.



3600 A1/4  
Curved section, length 1 7/8 in.



3600 AA  
Feeder section, curved, 2 connecting cables.  
3600 DA  
Feeder section, straight, 2 connecting cables.



3600 BSD Contact section, straight.  
3600 BSA Contact section, curved

12 curved sections make a circle 30 in. in diameter

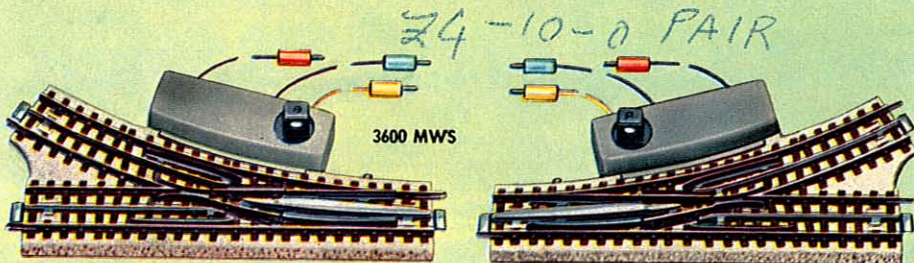


# Electro-magnetic Points for Remote Control, with double-solenoid operation

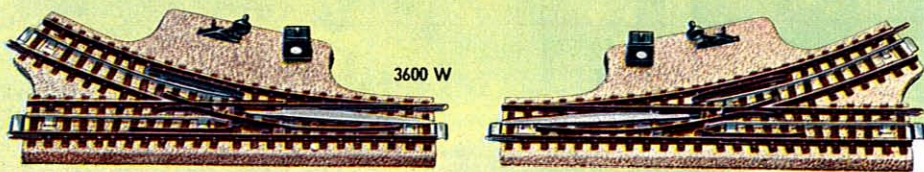
The 3600 MWS electro-magnetic points and 3600 DKWS double slip points are operated by double solenoids. Electric ground signals show the position of the points. If the points should be forced open derailment cannot result and they will return to their original position automatically.

## 3600 DKWS

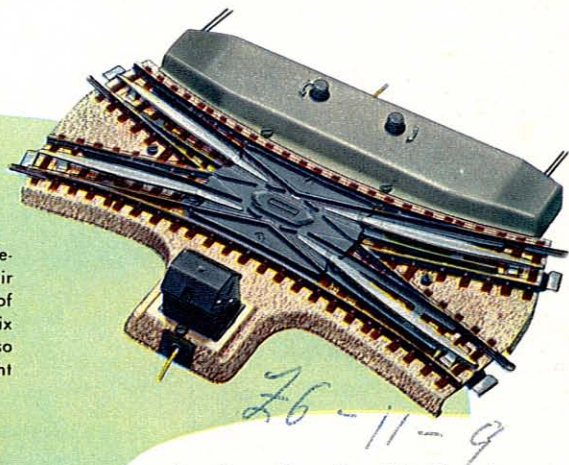
**Double Slip Points**, operated by double solenoids. Electric ground signals change their indications in accordance with the settings of the points, just as their originals do. Six connecting cables. Manual operation is also provided by two rotating knobs. Straight length  $7\frac{1}{4}$  in.; curved length  $7\frac{1}{2}$  in.



Pair of Electro-magnetic Points, one right-hand and one left-hand, both operated by double solenoids. Electric ground signals. Three connecting cables to each point. The lengths are the same as track sections 3600 D $\frac{1}{2}$  and 3600 A $\frac{1}{2}$ .



Pair of Manually-operated Points, with crossings, guard rails etc. and flexible tongues. Dummy ground signals. Rail lengths the same as 3600 MWS.



## Sections for Double Track

Twelve track sections make up a 36-inch diameter circle, including the road bed.

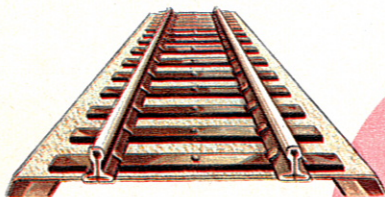


3700 A $\frac{1}{2}$  Length 9 in.

3700 A $\frac{1}{2}$  Length 4 $\frac{1}{2}$  in.

Curved Sections for circle of double track to build up double track systems. The 3600 DA track sections are used for feeder sections and the standard models of points, crossings and slip points are used. Using an inner circle made up of the 3600 A sections the circle diameter will be 30 in., while a circle of 3700 A sections gives a diameter of 36 in. The distance between the two centre rails will then be about 3 in.

# The Ideal Model Track with Centre Studs instead of a third rail



This model track combines the advantages of the third-rail track with the scale-model appearance of the two-rail track. As in their full-size counterpart, the sleepers are separate from the usual road bed. Very effective track replicas can be made up with double tracks; a circle of 3900 sections gives a diameter of 47 1/2 inches including the road bed, while the diameter of a circle of 3800 sections is about 44 inches. A circle requires either 16 track sections of 3900 A or 3800 A, giving a distance between track centers of 2 inches and about 1/8 in. between the beds. 3600 sections can be used with the model track sections 3900 without difficulty.

BOX OF 10  
32/10/13



3900 D1/1  
Straight section, 8 3/4 in. long.



3900 DE  
Straight extra section, 4 1/2 in. long  
Used to make up double track using points and crossings.



3900 D1/2  
Straight section,  
4 1/4 in. long.



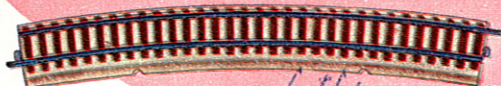
3900 D1/4  
Straight section,  
2 1/4 in. long.



3900 D1/7  
Straight section,  
1 1/4 in. long.



3900 D1/8  
Straight section,  
1 1/2 in. long.



3900 A1/1  
Curved section, 9 in. long.



3900 A1/2  
Curved section,  
4 1/2 in. long.



3900 A1/4  
Curved section,  
2 1/4 in. long.



3900 BSD  
Straight contact section, 8 3/4 in. long.

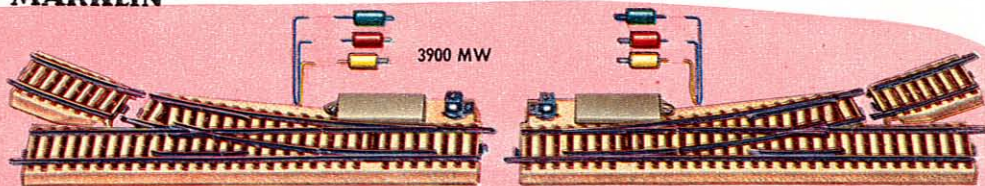


3900 BSA  
Curved contact section, 9 in. long.

16 sections give a circle 47 1/2 in. in diameter

MARKLIN

75-19-3PR



Pair of Electro-magnetic Points, one right-hand, one left-hand · 9 in. long, including extra sections 3900 ZR and ZL · The curved line is three-quarters of the length of 3900 A $\frac{1}{2}$  track section · Bulb 485 Flexible tongues · Three connecting cables.



3900 ZL  
Extra section, left-hand, 2 $\frac{1}{4}$  in. long



3900 ZR  
Extra section, right-hand, 2 $\frac{1}{4}$  in. long

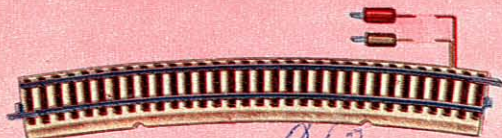


3900 ZD  
Extra section, straight, 2 $\frac{1}{4}$  in. long

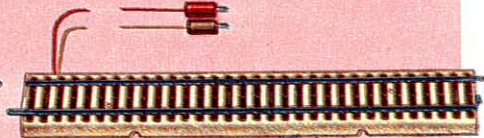


3900 K  
Crossing, 8 in. long

For crossings and points, if any, when not connected with other points and crossings but with straight and curved track sections.



3900 AA  
Curved feeder section, 9 in. long, with two connecting cables



3900 DA  
Straight feeder section, 8 $\frac{1}{4}$  in. long, with two connecting cables



### Sections for Circular Double Track

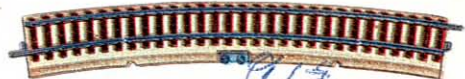
16 track sections make a circle 44 in. in diameter, including the road beds



3800 A $\frac{1}{1}$   
Curved section, 8 $\frac{1}{2}$  in. long



3800 A $\frac{1}{2}$   
Curved section, 4 in. long



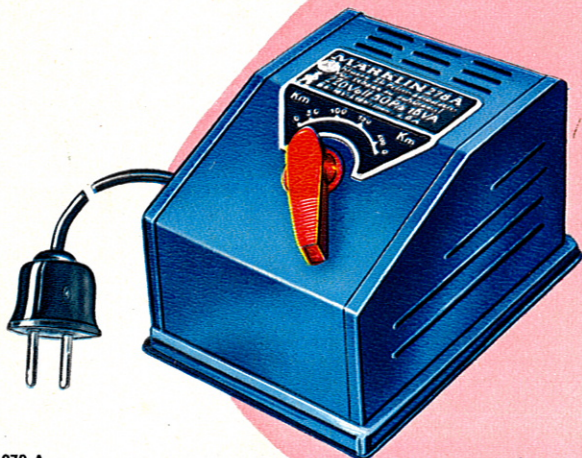
3800 BSA  
Contact section, 8 $\frac{1}{4}$  in. long

Full instructions for building up track are included with both these feeder sections

## The Efficient **MÄRKLIN** Transformers

The steel casings of these transformers and their very effective insulation—which is tested to several thousand volts—together with the automatic short-circuit cutout, obviate all possibility of contact with the mains side and thus ensures safety against all risk. Connection to the mains is by plugs and leads permanently fixed to the apparatus. These transformers can be supplied for mains voltages of 110, 125, 150 or 220 volts, so please specify the mains voltage required when ordering. The 8-16 volts low-tension current is regulated to show the speed of the train on a scale. Speed regulation is infinitely variable, requiring no additional apparatus and is combined with the switch for reversing the running direction of the trains (Perfect reverse 24 V) in a single controller. The current supplied for operating the railway is 8 to 16 volts for the track ("B" sockets) and 16 volts for lighting and magnetic unit operation ("L" sockets), the current returning in both cases through the earthing socket ("O").

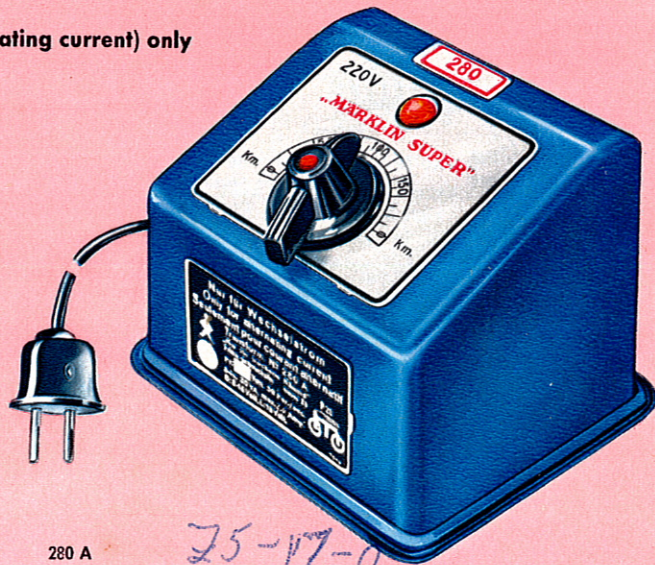
For use with A.C. (alternating current) only



278 A

22-14-0

Transformer · Output 16 VA; weight about 18 ozs ·  
Dimensions,  $4\frac{1}{2} \times 3\frac{1}{2} \times 2\frac{3}{4}$  in.



280 A

25-17-0

Transformer · Output 30 VA; red pilot light · Weight about 36 ozs ·  
Dimensions,  $5\frac{1}{2} \times 4\frac{1}{4} \times 4$  in.

# Accessories for Remote Control and Lighting

MARKLIN



476/4

Control plate, with eight socket connections for operating four double-solenoid accessories. The positions of the various electro-magnetic accessories connected to it can be seen by the positions of the control buttons on the plate itself.



470

Distributor, with 9 sockets; size  $2\frac{1}{8}$  by  $\frac{3}{4}$  in.



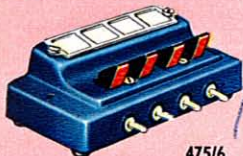
475/4

Switch Panel, for switching on the current for the railway or lighting to four different conductors via 4 tumbler switches; length 3 in., width  $1\frac{1}{2}$  in.



433 G 12

Set of Number Plates, for marking points, signals etc., consisting of 12 cast bases with slots into which numbers from 1 to 24 (to be cut out) can be inserted.



475/6

Switch Panel, for switching four different railway or lighting circuits on or off by four tumbler switches; length 3 in., width  $1\frac{1}{2}$  in.



489/1

Lead, single, with one plug and one socket, in any of the colours red, brown, black, blue or yellow; 39 in. long.

489/2

Lead, single, with one plug and one socket, in any of the colours red, brown, black, blue or yellow; 79 in. long.

The MARKLIN wiring system uses chiefly the following colours, viz:

**Red:** Power circuit (from transformer to centre rail or overhead wire).

**Brown:** Earth return from permanent way, lighting points or controller to transformer.

**Yellow:** Lighting and electro-magnetic accessories.

**Blue:** Earth return from electro-magnetic accessories to the controller or contact rail section (with green, red or orange plugs).

489 Gp

33 ft. of cable, packed separately in the colours most used.



490 M  
Socket



490 S  
Plug



490 SQ  
Plug with  
cross socket

in red, blue, brown, black, green, yellow and orange.



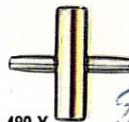
490 Z  
Double plug for  
connecting two  
sockets or two  
boxes.



497/3 P  
Pair of brushes to suit practically all HO gauge locomotives. Springs are only needed with the older type locomotives.

497/4 P  
Pair of brushes for Nos. CCS 800, DL 800 and ST 800.

497/3 LP  
Pair of brushes as 497/3 P for specially slow running. Can only be used in pairs.



490 Y  
Cross Plug/  
Socket, for using  
a double plug  
490 Z but also  
enables two  
plugs to be con-  
nected.

No.	Lamp	
485	Bayonet fitting	clear red or green
495	5 mm thread 6 mm bulb	clear red or green
499	5 mm thread 9 mm bulb	clear frosted red or green

# Some Popular HO Gauge Track Layouts

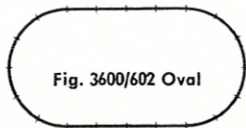


Fig. 3600/602 Oval

Size 59 in. by 30 in.;  
track sections: 11 A, 1 AA, 8 D

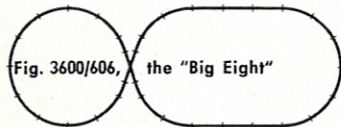


Fig. 3600/606, the "Big Eight"

Size 82 in. by 30 in.;  
track sections: 19 A, 1 AA, 4 A½, 6 D, 1 K

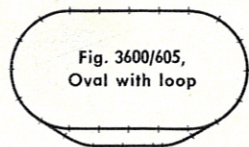


Fig. 3600/605,  
Oval with loop

Size 59 in. by 34 in.;  
track sections: 11 A, 1 AA, 10 D, 1 D¼,  
one pair of "W" points

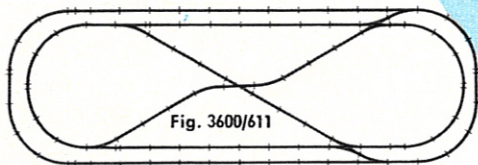


Fig. 3600/611

Double track with two cross-over reversing loops  
Size 116 in. by 40 in.; track sections: 25 A, 1 AA, 50 D,  
4 D½, 2 D¼, 6 D½, 2 pairs of WMS points, 2 DKWS, 1 K



753/2

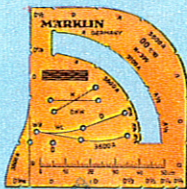
Booklet "The MARKLIN HO Gauge Railway and its Big Prototype", a handbook for MARKLIN model fans - 168 pages, size 8¼ in. by 5¾ in. - Contains suggestions for track layouts with a landscape background; the MARKLIN locomotives and their big prototypes; MARKLIN locomotives and rolling stock; Railway operation signalling regulations; Railway operation; Electric circuit systems for multi-train operation, and many others.

763/2

Booklet "Track Layouts for HO Gauge Toy and Model Railways" (probably available towards the end of the year). Contains plans for 3600 and 3700 standard track only.

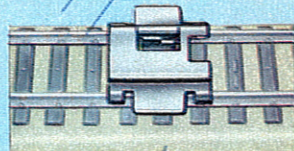
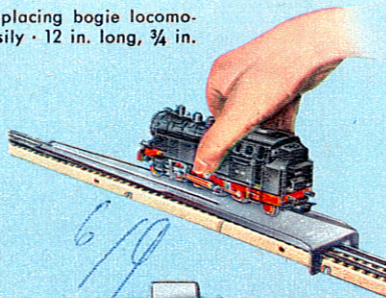
398

Rerailing Ramp, for placing bogie locomotives on the track easily - 12 in. long, ¾ in. high.



399

Stencil, transparent plastic, for drawing track plans for the 3600 and 3700 track sections (scale 1 to 10).

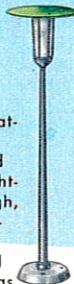


397/12

Coupling Jig, nickel-plated sheet steel, for straightening bent couplings.

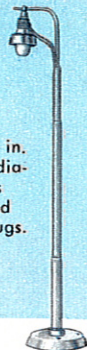
448/4

Station lamp standard, suitable for platforms, station forecourts and also street lighting - 5 in. high, base 1 in. diameter - Takes bulb 495; lead with metal plugs



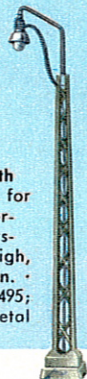
448/5

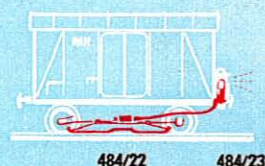
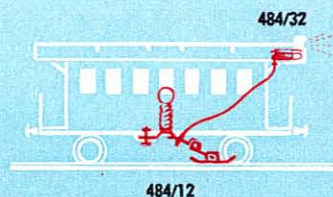
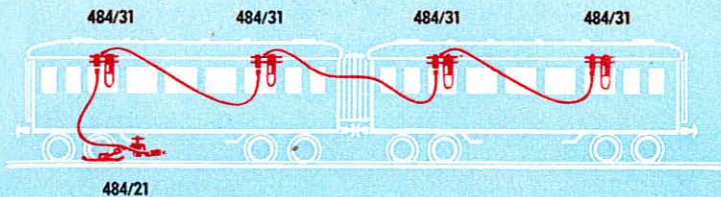
Arc Lamp, 6 in. high, 1⅓ in. diameter - Takes bulb 495; lead with metal plugs.



448/3

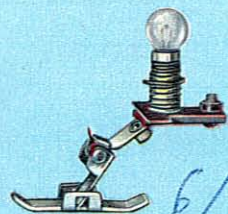
Arc Lamp with lattice mast, for use with overhead wire system - 8 in. high, base 1x1¼ in. - Takes bulb 495; lead with metal plugs.





## Electric Train Lighting

MÄRKLIN



Interior lighting for passenger coaches 329 and 330, with connecting socket for additional lighting.

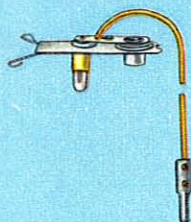


Current pick-up for coach light 484/31.

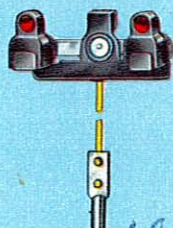
484/22



Current pick-up for coach light 484/31 and tail lights 484/33 when using passenger coach 327 and four-wheeled goods stock.



Coach lighting for all main line express coaches, with connecting socket for additional lighting. Takes bulb 485



Tail lights for coaches 329/1. Takes 2 bulbs 485. Requires 484/12 for connection.



Tail Lamp with bulb 485; fixes on buffer (not for use with 346 coaches). 484/12, 484/21, 484/22 or 484/31 required for connecting.

## H0 Gauge Plastic Tyres,

to fit the latest type MÄRKLIN H0 gauge locomotives.

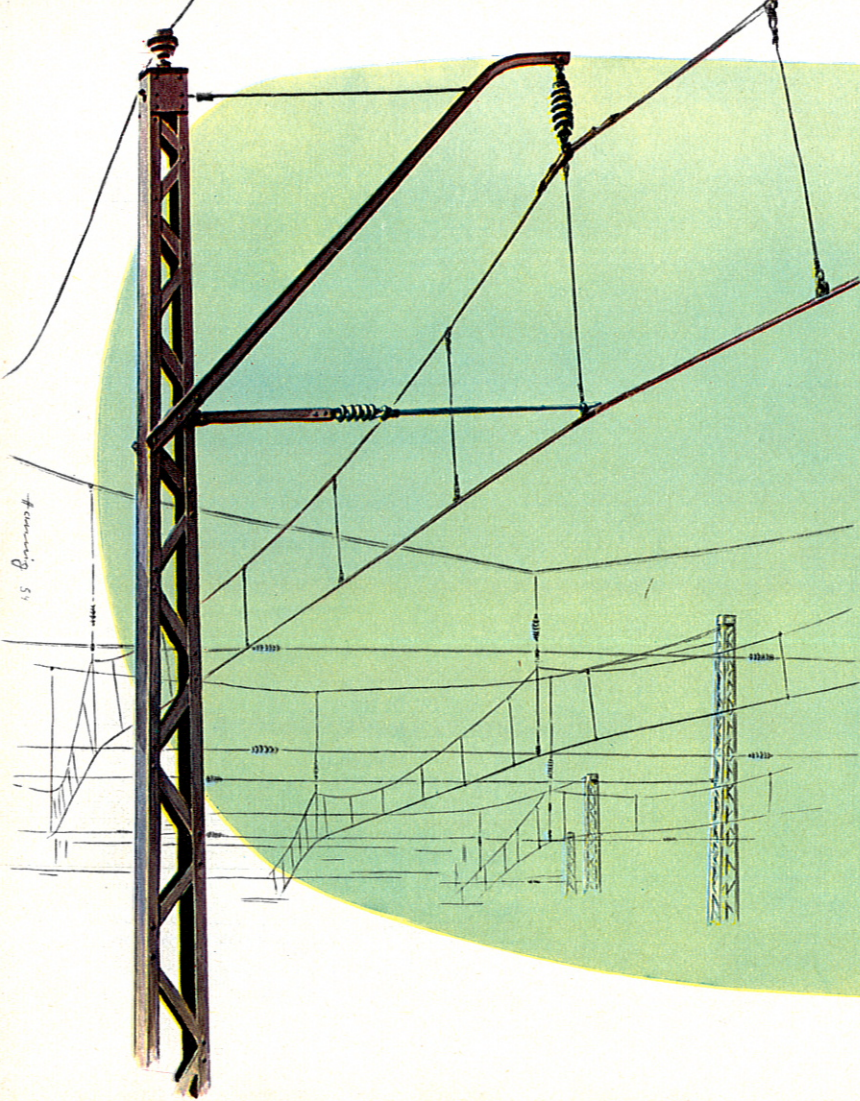
No. Fits locomotives Nos.

496/12	DT, DL 800
496/13	CM 800
496/14	SE, SEW, RES 800
496/14/1.6	CE, SET, RET, SEH, SEF, CEB and DB 800
496/16	TM, RM, TT, G, RSM 800
496/16/1.6	GN 800
496/20	DA 800, S 870
496/22	SK, F 800

Instructions for fitting are included in the instructions for the locomotives.

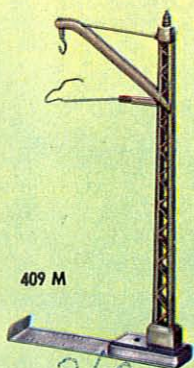
## The **MARKLIN** Overhead Wire System

- A realistic model of the overhead wire system on the main line sections as well as at busy stations.
- The overhead wires and their cross supports are true scale models.
- The plastic masts are flexible and yet strong at the same time.
- The sprung overhead wire suspension avoids voltage drop to the greatest extent possible.
- Erection is easy and does not require any tools. No alterations necessary to the wires.
- Adjustments in length are easily made by the push-in connections.
- Flexible overhead wire for both curved and straight stretches of track. Wire section 409 RR is for building up long straight sections only.



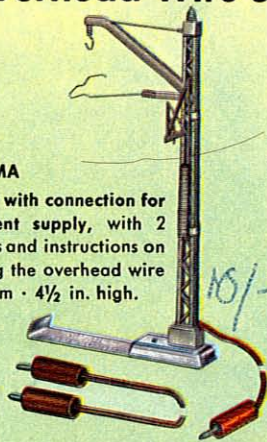


# Parts for the Overhead Wire System



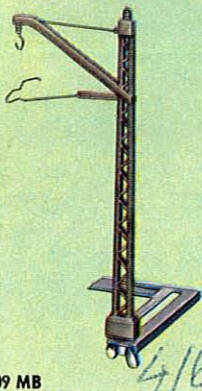
409 M

Mast, general type, for overhead wire, 4½ in. high.



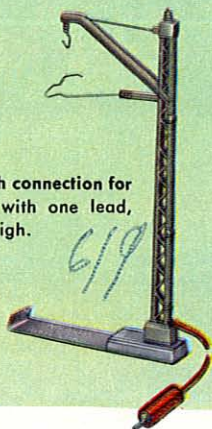
409 MA

Mast with connection for current supply, with 2 leads and instructions on using the overhead wire system - 4½ in. high.



409 MB

Bridge Mast, with fixing, 4½ in. high.



409 MS

Mast with connection for signals, with one lead, 4½ in. high.



409 RR



409 R



409 P



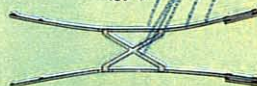
409 PH



409 Z



409 V



409 K



409 PN



409 SP

- 409 RR Catenary wire section for straight stretches
- 409 R Catenary wire section for straight and curved stretches
- 409 P Catenary wire section with plug-in connection for straight and curved stretches
- 409 PH Catenary wire section socket piece (for plug-in connection)
- 409 V Compensating section with plug-in connection
- 409 PN Catenary wire section with plug piece (for plug-in connection)
- 409 Z Adapter section, 407 to 409, plug piece
- 409 K Crossing section for 3600 K and 3600 DKWS with plug-in connection
- 409 U Circuit-breaker section with plug piece, for plug-in connection
- 409 SP Overhead wire tensing device for fitting to section and tower masts
- 409 GS Overhead wire outfit for signals not placed near the tower masts, consisting of 2 409 MS signal posts, 2 circuit-breaker sections 409 U, and 2 409 PH, suitable for all signals with train control.

Length

1¼ in.

10¾ in.

9½ in.

4½ in.

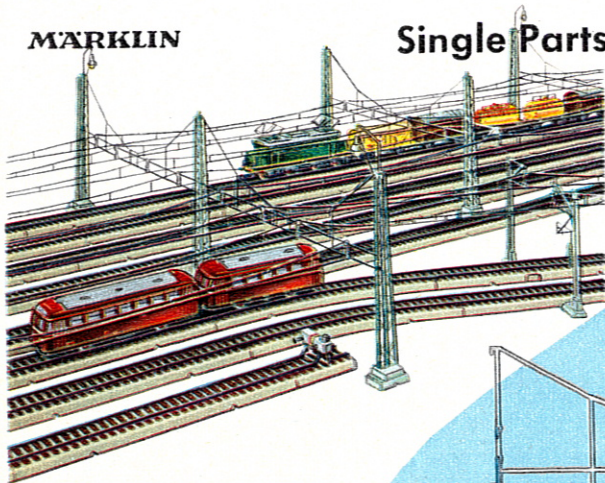
4 in.

4½ in.

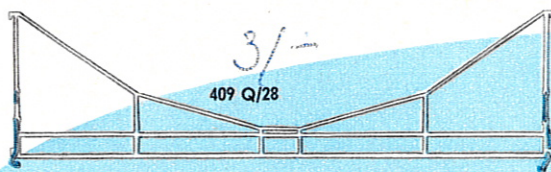
4 in.

4½ in.

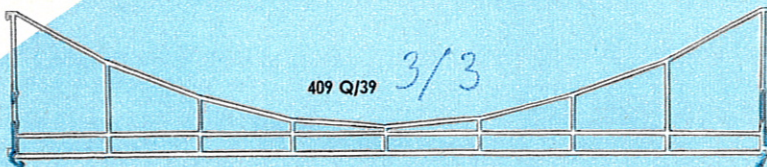
# Single Parts for the Tower Mast Overhead Wire System



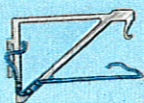
The ingenious design of the tower masts enables the overhead wire system to be modelled even in the largest station yards. One cross suspension unit needs two tower masts, larger layouts with two suspension units need three tower masts and three suspension units four tower masts. Single tracks passing outside the masts can be connected to the overhead wire system by the cantilever fitting 409 ZA.



**409 Q/28**  
Cross suspension unit, nickel-plated, to fit into the tower masts · Will span about three standard (3600) or four model (3900) tracks · Span about 11 in.



**409 Q/39**  
Cross suspension unit, nickel-plated, to fit into the tower masts · Will span about four standard (3600) or six model (3900) track sections · Span about 15½ in.



**409 ZA**  
Cantilever fitting, enables a single track passing outside the tower mast to be connected to the overhead wire system.

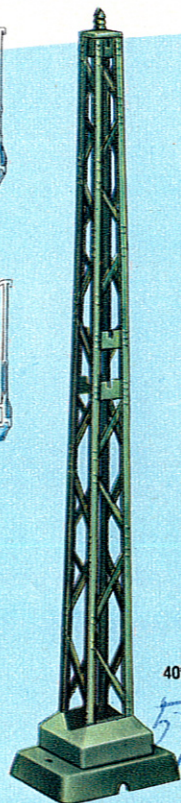


**409 AK**  
Overhead wire connecting lead, for connecting to signals in the station yard and supplying current to anywhere required.



**409 J**  
Overhead wire (catenary) insulation · Insulates the catenary wire sections from the cross suspension units · One required per track and suspension unit · Illustration shows full size.

**409 BG**  
Fixing Kit, consisting of 5 screws, 5 nuts and 5 washers · Usually the normal equipment is adequate for installing the overhead wire system but in rare cases it may happen that two catenary wires can only be joined by means of screws and nuts.



**409 T**  
Tower Mast, thermo-plastic, with detachable cap · Base, about 1⅓ in. square; 6½ in. high · For tower mast with arc lamp see page 36.

# The MARKLIN 446 Range of Signals

Marvels of precision and reliability, true to scale and unbreakable—nothing could be more suitable than these fine model signals for building up a true model MARKLIN railway and helping to make its working as entertaining as it is exciting. All signals are noteworthy for being miniature scale model replicas of the essential features of their prototypes, as well as for their fine detail finish. All posts are made of die-cast zinc and are practically indestructible.

These signals can be placed anywhere on either the standard or model track sections, on either the right or left of the permanent way and along either straight or curved sections.

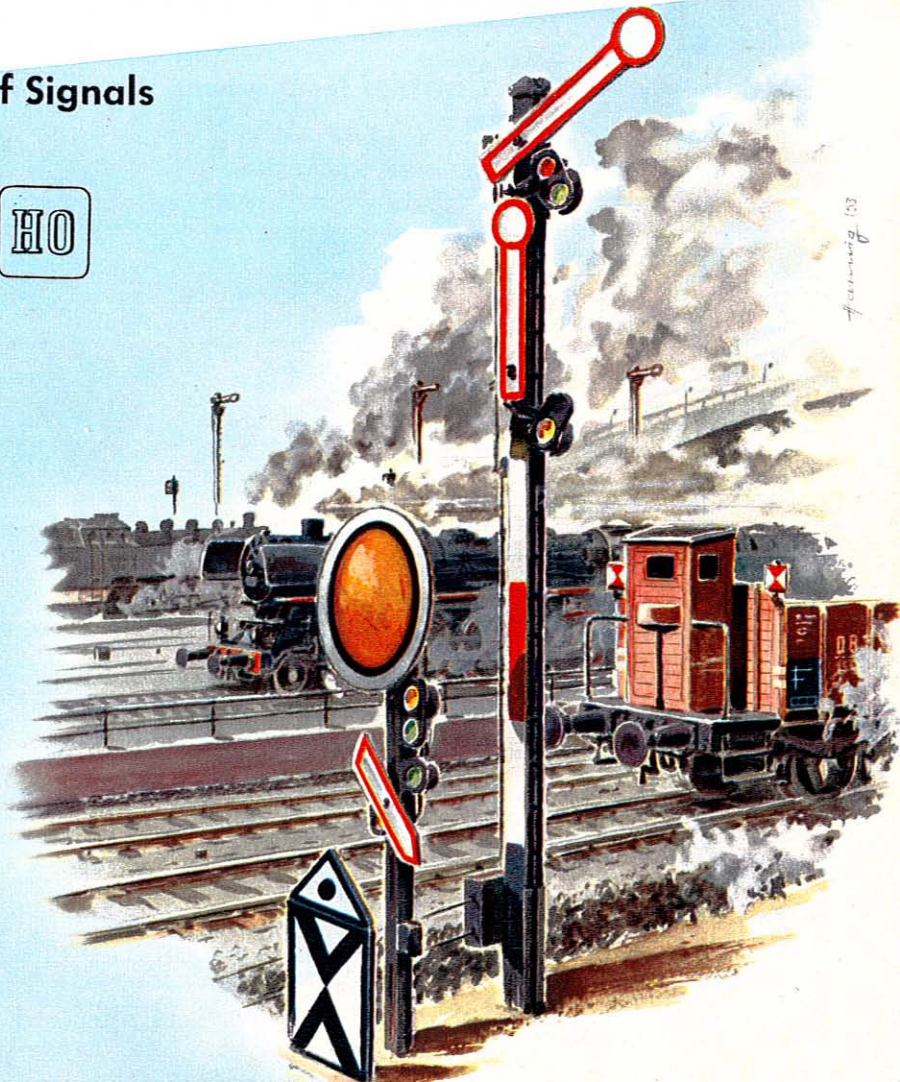
The **baseplate** fixes the signals to the track sections quite firmly.

The indications of all signals, as well as the positions of points, is shown on the ground frame controller by the **double solenoid operation** of the electro-magnetic switch-gear. The solenoid coils are made of specially durable materials.

**Train Control** is provided by power current switches with silver contacts at all home signals, track block signals and fly-shunting signals without using any special additional appliances.

**Fully-automatic Block Working**, i. e., controlling several trains by automatic signal operation, is easily arranged with all MARKLIN home signals.

**Distant Signals** can be interconnected with home signals as well as points, so as to give mutually interconnected working.



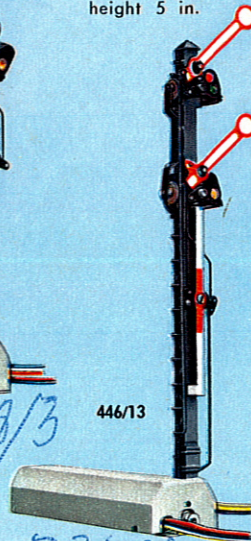
# Signals with Train Control for Overhead Wire and Third Rail



446/11  
Home Signal with one arm · Light change from red to green · Width 1 in., length 2¾ in., height 5 in.

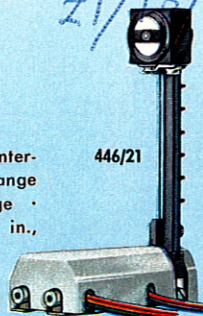


446/12  
Home Signal with two interconnected arms · Light change from red to green/orange · Width 1 in., length 2¾ in., height 5 in.

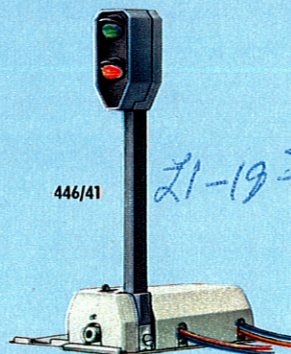


446/13  
Home Signal with two independent arms · Operation, connections and track current control as with all signals for train control, but with an additional third solenoid · The current returns through an extra blue lead with an orange cross plug-in connection. Through the mechanical interconnection of the two armatures the three possible signal indications are provided by supplying current to one solenoid only in each case · Light change either from red to green or red to green/orange · Width 1 in., length 4¾ in., height 5 in.

446/13  
Home Signal with two independent arms · Operation, connections and track current control as with all signals for train control, but with an additional third solenoid · The current returns through an extra blue lead with an orange cross plug-in connection. Through the mechanical interconnection of the two armatures the three possible signal indications are provided by supplying current to one solenoid only in each case · Light change either from red to green or red to green/orange · Width 1 in., length 4¾ in., height 5 in.



446/21  
Track Stop Signal · Post with movable front and rear discs · Width 1½ in., length 2¾ in., height 5¾ in.



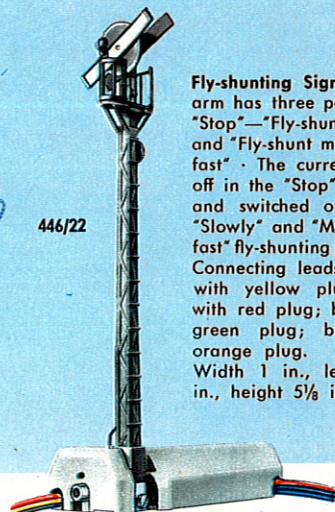
446/41  
Colour-light Home Signal · Light change from red to green; lighting by No. 485 bulbs, red and green · Extra lever for manual operation of signal · Width 1½ in., length 2¾ in., height 3¼ in.

21/18/3

These signals — home, block or shunting — are all fitted with track power cutouts providing train control by overhead wire and third rail independently of each other.

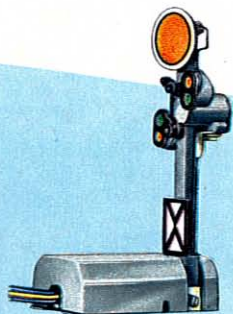
The electro-magnetic switchgear of the home signal 446/13 and shunting signal 446/22 is fitted with three solenoids and that of the other signals with double solenoids. The current transmitting spring on the track current cutout have silver contacts and can therefore stand very heavy track currents.

Every signal has lead connections with cross plug-in fittings marked in the colours for the circuits and lighting. Two plug-in connections for the overhead wire and one for the earth return complete the electrical connection system. The lighting is by bulbs 485; third rail insulation 3600 Z; baseplate and instructions are included with every signal.



446/22  
Fly-shunting Signal · The arm has three positions—“Stop”—“Fly-shunt slowly” and “Fly-shunt moderately fast” · The current is cut off in the “Stop” position and switched on in the “Slowly” and “Moderately fast” fly-shunting positions. Connecting leads: Yellow with yellow plug; blue with red plug; blue with green plug; blue with orange plug. Width 1 in., length 3⅞ in., height 5⅞ in.

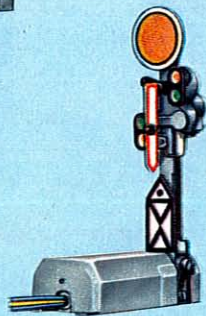
# Distant Signals without Train Control



446/1

Distant Signal without semaphore arm · Double solenoid · Light change from orange/orange to green/green · Two blue leads for automatic operation, connection to the ground frame or for connecting with the home signal · Yellow lead for current supply · The three plugs—red, green and yellow—are the cross-socket type · Used mostly together with home signal 446/11 · Width about 1½ in.; length 2¼ in., height 2¾ in.

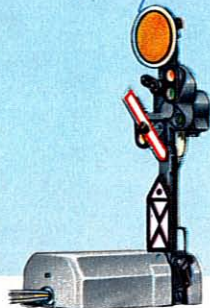
21/11/6



446/2

Distant Signal, with movable arm and fixed disc · Operation, lights and leads as 446/1 · Light change from orange/orange to orange/orange/green · Used mostly together with home signal 446/12 · Width about 1½ in.; length 2¼ in.; height 2¾ in.

21/15/0



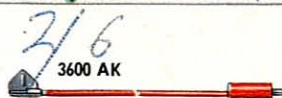
446/3

Distant Signal, with movable arm and disc; 2 double solenoids · Light change either as 446/1 or 446/2 · Three blue leads with red, green and orange cross-socket plugs · Used mostly together with home signal 446/13 · Width about 1½ in.; length 2¼ in.; height 2¾ in.

21/19/3

446/99

"MARKLIN Book of Signals," 1955 edition · A completely illustrated guide to the 446 series of signals generally · Revised and enlarged edition.



Connecting lead for third (centre) rail, 3 in. long



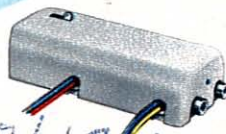
3600 Z  
Third rail insulation for 5 points



3600 J  
Isolating Indicator for marking isolated sections

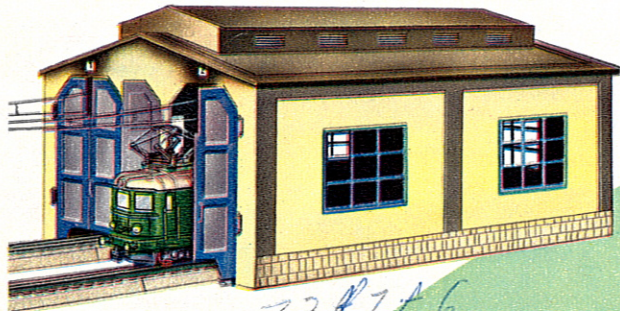
446/91

Universal Remote Control Switch for switching on, off and reversing track and lighting current and also the actuating current of electro-magnetic accessories · Can be controlled via contact rail sections, ground frame controller or by means of the supplementary hand levers · Can be used in all sorts of ways, such as, for example, switching the lights on and off while trains are in motion, cutting out train control by the signals in certain directions of travelling—all described in the Instructions and in the 1955 edition of the Signals Book, 446/99.



21/19/3

## Locomotive Sheds

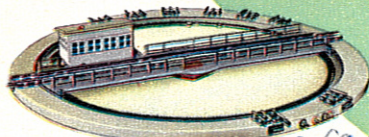


412

**Loco Sheds** with doors for dead ends closing automatically, roof light and real windows · (Locomotives, track dead ends and overhead wire system not included) · Fittings for the provision of interior lighting with two No. 481 lampholders and also for the overhead wire set No. 409 LG later on · Size 13 by 7 by 6 in. · Distance between track centres about 3½ in.

409 LG

**Overhead Wire Set** for loco shed 412, consisting of two overhead wire suspension units.



410 NG

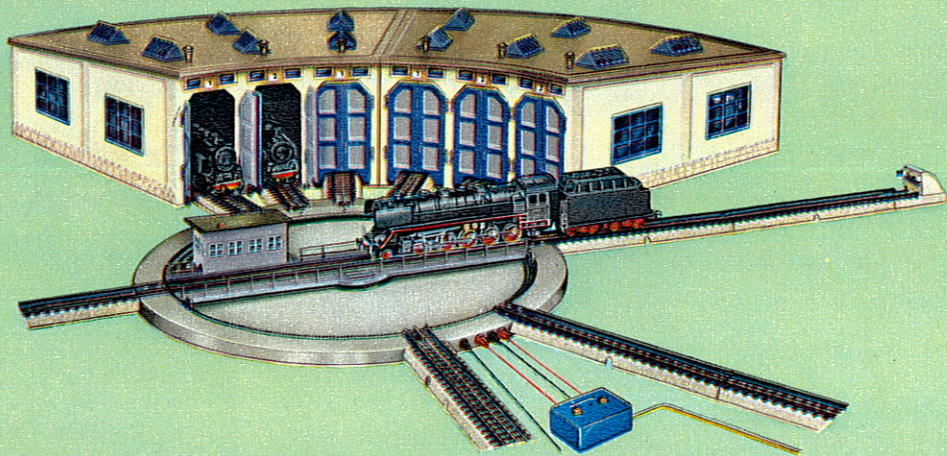
**Turntable Set**, consisting of 410 N turntable, 14⅞ inches in diameter, with remote control to turn in either direction; reversing switch 410/4 and lead · Two 411 B loco sheds or three 412 sheds can be used with this turntable set · Turntable track has guard rails and engine house · A red warning light flashes when table is turning · Current is automatically cut off from all dead ends in the running shed that do not register with the track on the turntable.

HO



411 B

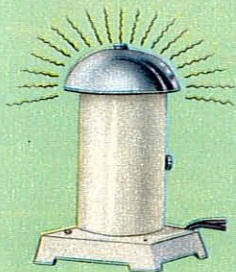
**Loco Sheds** with three tracks, with roof lights, smoke troughs, interior lighting and three doors that close automatically · Lacquered in colours · (Track dead ends not included) · Size 14¼ by 14½ in.; height 5½ in.



This illustration shows the harmonious combination of two loco running sheds and the turntable as a true replica of the actual prototype.

## All by Remote Control

MARKLIN

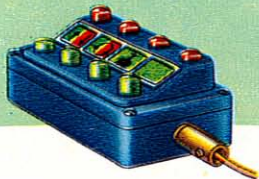


438

**Warning Bell**, with electromagnetically operated clapper · Lead with metal plugs ·  $2\frac{1}{8}$  in. high; base  $1\frac{1}{2}$  in. square.

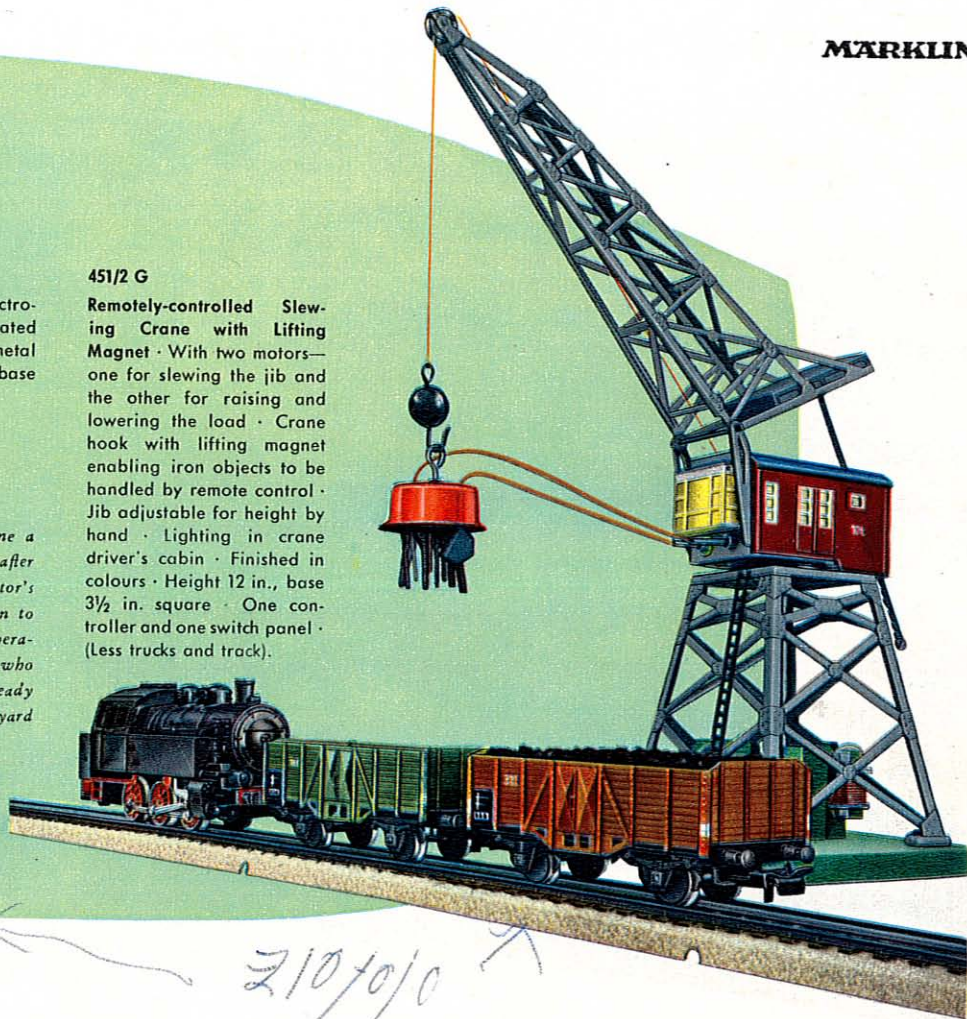
21-6-6

*This slewing crane enables the sidings also to become a centre of attraction by loading or unloading trucks after shunting, it being left entirely to the railway operator's fancy whether to transfer the load from the trucks on to a lorry or into a barge. In this way a new world of operational activity is opened up to the model enthusiast who is now able, with the aid of the uncoupling device already mentioned, to lay out and operate a goods shunting yard in the manner of its big prototype.*



451/2 G

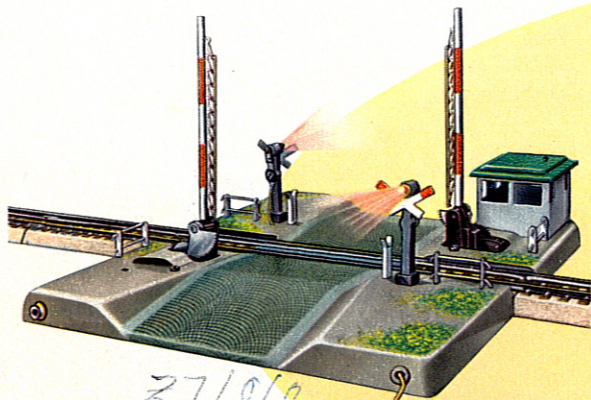
**Remotely-controlled Slewing Crane with Lifting Magnet** · With two motors—one for slewing the jib and the other for raising and lowering the load · Crane hook with lifting magnet enabling iron objects to be handled by remote control · Jib adjustable for height by hand · Lighting in crane driver's cabin · Finished in colours · Height 12 in., base  $3\frac{1}{2}$  in. square · One controller and one switch panel · (Less trucks and track).



210/0/0

# Level Crossings with Automatic Barriers

MARKLIN

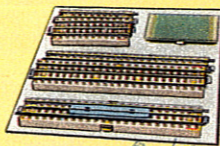
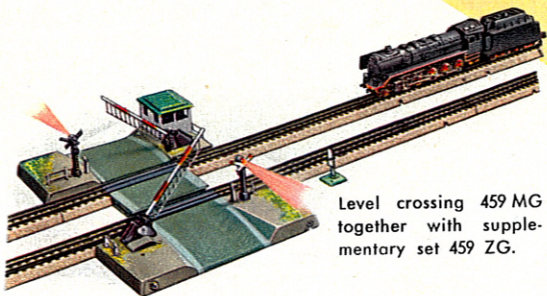


## 459 MG

**Fully-automatic Level Crossing** - Consists of two electro-magnetically operated barriers, crossing keeper's hut, warning lamp, warning signs and a set of contact rail sections (four straight track sections).

The crossing is worked entirely automatically, the barriers closing when the train passes over a contact rail section a few sections away from the crossing, the warning lamp lighting up at the same time. The barriers are lifted automatically and the warning light goes out as soon as the train leaves the last contact rail section.

This level crossing can also be arranged for multi-track operation as well by means of the supplementary set 459 ZG described and then works fully automatically just the same.



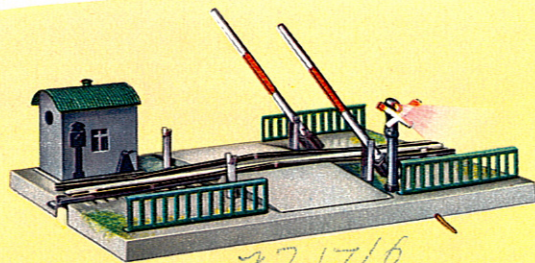
## 459 ZG

**Supplementary Set** for each additional track, consisting of a set of contact rail sections with intermediate section 459 Z for inserting into the intervening space between the two tracks.

## Contact Rail Sections

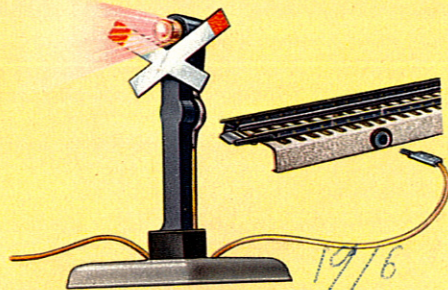
3600 KG Straight  
3600 KGR Curved

7/6 EACH



## 457 B

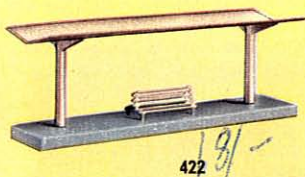
**Mechanically-operated Level Crossing** for single-line tracks. The barriers close by the wheels pressing down a track bar as they pass over it. With crossing-keeper's hut and railings. Warning cross with red bulb lights up when the barriers close. Base 5/8 by 7 in.



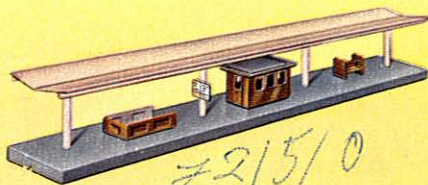
## 450 G

**Warning Cross** with flashing light for fixing at crossings. The set consists of a warning cross road signal with two leads and plugs and one No. 3600 KS contact rail section. The red warning light flashes when the train passes over the contact rail section - 2 in. high; base of flashing light, 1x1 1/4 in.; contact rail section 3 1/2 in. long.





422  
19/1  
Platform with corrugated iron roof and seat · Base 4 by 1 1/4 in.; height 3 1/8 in.



423  
22/5/0  
Platform with Roof with waiting room, stairs to subway, seat and timetable board · Length 20 1/2 in.; width 3 3/8 in.; height 3 3/8 in.



418/1  
72/11/6  
Station Buildings with tower and terrace · Modern window shapes and fine details recently added / Clock and terrace windows have cellon panes · Base 13 1/2 by 4 3/4 in.; height 6 1/2 in.

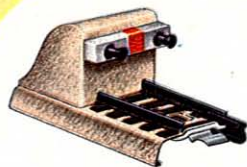


452/1  
19/3  
Tunnel, made of finely-stamped sheet steel · Can be placed over all straight and curved track sections that can also be equipped with the overhead wire · 9 3/4 x 5 1/2 x 5 in.



404 Ga, Gb or Gc  
11/6 A BOX

**Railway Figures** · Can be supplied in three different types · a and b: Travellers and railway staff; c: Permanent way staff · In boxes of ten · Figures are 7/8 of an in. tall.



462  
7/3  
Stop Block, stamped imitation concrete · Base has 3600 track section · Length 2 3/8 in.



481  
5/6  
Lampholder with 499 clear bulb and lead; for stations, goods sheds etc.



397/11 G  
50 Staples for fixing leads to wooden surfaces.



431  
6/6  
Distant Signal Warning Boards, set of three, each 1 1/8 in. high.



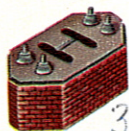
432  
2/9  
Distant Signal Board 1 in. high.



461 B  
12/3  
Stop Block with dead end lamp to light · Die-cast zinc buffer beam · Track section of 3900 model track type, but can also be used with 3600 track sections.

# Scale Model Bridges

These bridge-building parts fit together like the parts of a building set and can be used to build up bridges of any type and size with their approaches. 467 P/6 c and 467 P/30 c pier-building parts enable bridge piers to be built to any height by  $\frac{1}{4}$  in. stages. Base plate 467 P/3 c makes a most effective foundation for these piers.



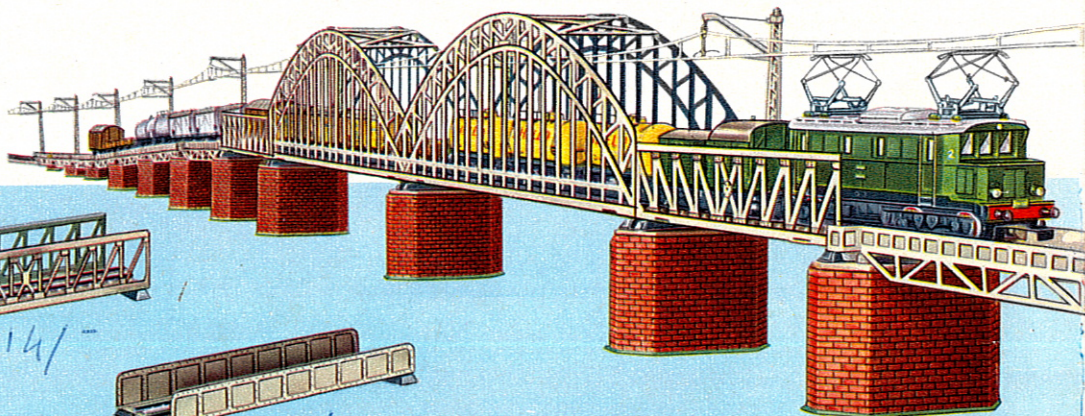
467 P/30 c  
Bridge Pier,  
thermoplastic,  $1\frac{1}{4}$  in.  
high.



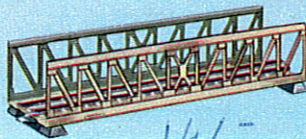
467 P/6 c  
Bridge Pier,  
thermoplastic,  $\frac{1}{4}$  in.  
high · Specially design-  
ed for laying bridge ap-  
proach ramps with a  
 $\frac{1}{4}$  in. gradient from pier  
to pier.



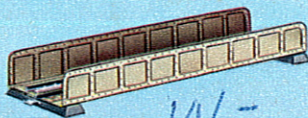
467 P/3 c  
Base Plate for use as a  
foundation · Green,  
height  $\frac{1}{8}$  in. · Thermo-  
plastic.



466  
Girder Bridge, can be used  
either by itself or together  
with the arched girder bridge  
467/2 as an approach bridge ·  
Grey · Complete with track,  
 $7\frac{1}{4}$  in. long and slot for  
409 MB overhead wire mast ·  
Height  $1\frac{3}{4}$  in.



14/ -



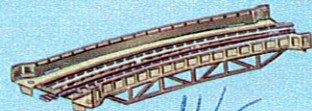
14/ -

465  
Plate Girder Bridge ·  
Grey, complete with  
track  $7\frac{1}{4}$  in. long and  
slot for 409 MB mast for  
overhead wire · Height  
1 in.

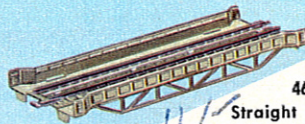


21-19-0

467/2  
Arched Girder Bridge · Grey, complete with  
track  $14\frac{1}{4}$  in. long · Slots for two 409 MB over-  
head wire masts · Height to top of arch  $4\frac{1}{4}$  in.



468 A  
Curved Ramp Section,  
standard 3600 radius  
Grey · Length  $7\frac{1}{2}$  in.



468 D  
Straight Ramp Section ·  
Grey · Length 7 in.

MARKLIN

# H0-Gauge Miniature Clockwork Railways



22/16/3

S 873/2

Goods Train Set with four-wheeled tender locomotive S 870; two goods wagons · Eight 872 A $\frac{1}{2}$  track sections · Train 15 $\frac{1}{2}$  in. long.

*Clockwork railways are exceedingly popular and are notable especially for their durability and high tractive effort. The engine and tender are streamlined and have plastic bodies. The couplings are the same as on the electric railways. The track sections can easily be converted for use with electric traction.*

All stock fitted with **automatic couplings**

S 870

Clockwork Locomotive, dull black, 0-4-0 streamline type with streamlined tender · Plastic cab · Hand levers for stop and go, and for forward and reverse running · Sturdy clockwork motor · Length with tender 7 $\frac{1}{2}$  in.; weight with tender about 5 ozs.

21-7-6

327/2

Passenger Coach, four-wheeled, red · Length 4 $\frac{1}{2}$  in.

719

327/1

Passenger Coach, the same as 327/2, but green.

719



22/7/3

S 873/1

Passenger Train Set with four-wheeled tender locomotive S 870; two 327/2 coaches · Eight 872 A $\frac{1}{2}$  track sections · Train 17 in. long.

Track Sections Eight 872 A $\frac{1}{2}$  track sections make up a circular track 24 in. in diameter.

872 MDG

Set of Parts for converting 872 D $\frac{1}{2}$  straight sections to electrical operation, comprising one length of straight third rail, two contact tongues and four insulating tabs.



8d

872 A $\frac{1}{2}$

Curved Track Section, length 9 in.



8d

872 D $\frac{1}{2}$

Straight Track Section, length 7 $\frac{1}{4}$  in.

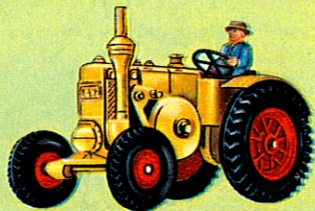


8d

872 MAG

Set of Parts for converting 872 A $\frac{1}{2}$  curved sections to electrical operation, comprising one length of curved third rail, two contact tongues and four insulating tabs.

# Miniature Motor Vehicles made either of Die-cast Zinc or Thermoplastic

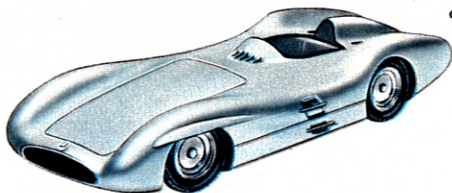


**5521/71 F**  
Lanz "Bulldog" Tractor with driver ·  
All details carefully reproduced ·  
Thermoplastic with special tyres ·  
Length 3 in.

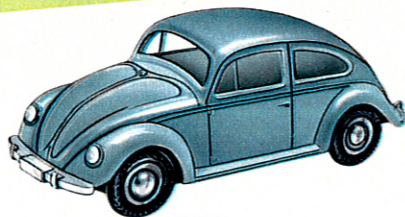


**433/5**  
Metachromatype pictures Start numbers  
for racing car (5 x 3 numbers).

**5524/11 A**  
Mercedes Formula Racing Car with Start numbers.



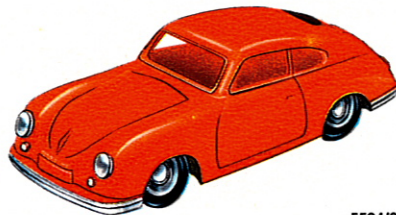
**5524/11**  
Mercedes "Formula-type" Racing Car, die-cast zinc, length 4 in.



**5524/3**  
Volkswagen Limousine, die-cast zinc, 3½ in. long



**5521/27**  
Petrol Tanker, modern six-wheeler articulated type, in "B.V.-Aral" petrol colours · The two parts are detachable · Will turn in a very small circle · Thermoplastic body · Length 6¼ in.



**5524/2**  
Porsche Car, die-cast zinc, length 3¾ in.

*Scale model replicas of their prototypes · Rubber tyres · Can be supplied in various colours · Scale about 1/45th full size*



5524/12

Trailer, suitable for either the 5524/10 lorry or the 5521/71 F Lanz "Bulldog" tractor · Die-cast zinc, 4 $\frac{3}{8}$  in. long



5524/1 S

Mercedes 300 Car, die-cast zinc, 4 $\frac{3}{8}$  in. long



5521/52 S

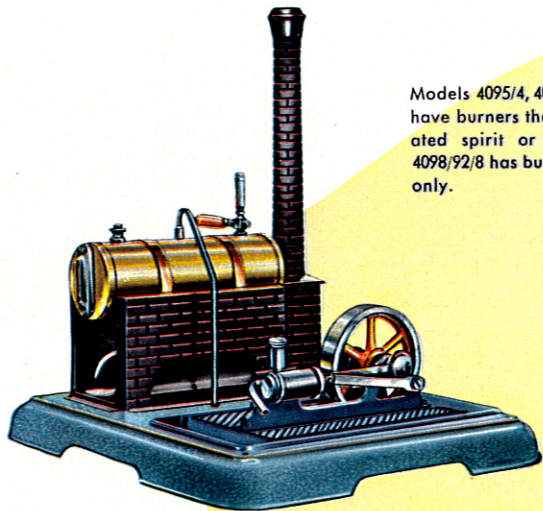
Limousine de luxe, die-cast zinc, 4 $\frac{3}{4}$  in. long



5524/5 Z

Volkswagen Delivery Van, in two colours; die-cast zinc · 3 $\frac{1}{2}$  in. long

*MARKLIN Steam Engines have always been among the educational toys that are most eagerly sought, as they so clearly demonstrate how heat can be converted into mechanical energy, while the model engines that also drive dynamos show in addition how that mechanical energy can be converted into electrical energy to light an electric lamp and so heighten the impression given. Furthermore, these engines will drive all sorts of working models by means of shafting. All the engines have safety valves and are tested for pressure and performance; accessories such as fillers etc. are supplied with the engines. All engines run either forwards or backwards according to the direction in which the flywheel is turned by hand to start off with.*



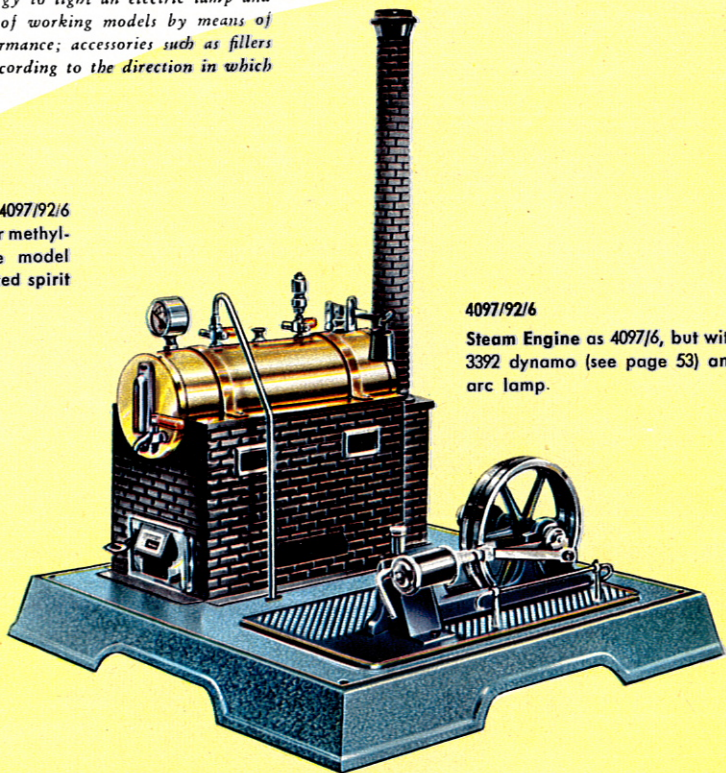
#### 4095/4

Steam Engine, polished brass boiler, 2 in. in diameter, with safety valve, whistle and water gauge · Single-acting cylinder, flywheel and grooved pulley · Imitation brickwork stack, 10 in. high; baseplate 10 by 9 in.

#### 4095/5

Steam Engine, similar to 4095/4, but larger. Polished brass boiler, 2 in. in diameter, with steam stop cock, safety valve, whistle, water gauge etc. Stack 14½ in. high; baseplate 11 in. square.

Models 4095/4, 4095/5, 4097/6 and 4097/92/6 have burners that will take either methylated spirit or block fuel; the model 4098/92/8 has burner for methylated spirit only.



#### 4097/92/6

Steam Engine as 4097/6, but with 3392 dynamo (see page 53) and arc lamp.

#### 4097/6

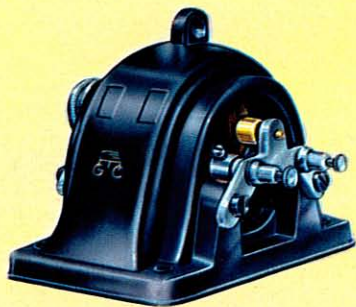
Steam Engine, polished brass boiler, 2¾ in. diameter; steam stop cock, weighted-lever type safety valve, bell whistle, pressure gauge, water gauge, drain cock, filling screw · Fixed single-acting cylinder with lubricator, reverses, to run in either direction · Flywheel grooved for driving belt · Grooved pulley · Stack 15½ in. high; baseplate 12 in. square.

# Steam Engines

MARKLIN

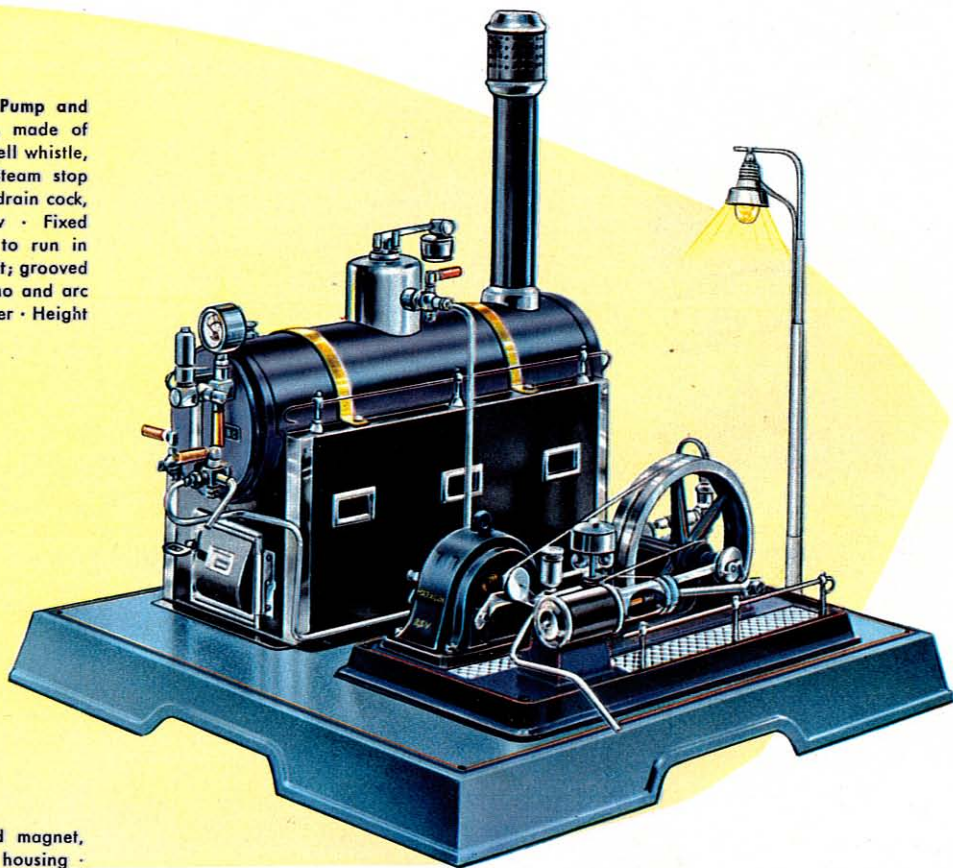
4098/92/8

**Model Steam Engine with Fire Tube Boiler, Feed Pump and Dynamo** · Brass oxidised boiler, steel-blue colour, made of strong sheet brass,  $3\frac{3}{8}$  in. diameter,  $10\frac{1}{4}$  in. long · Bell whistle, steam dome, weighted lever-type safety valve · Steam stop valve, pressure gauge, three-way cock, water gauge, drain cock, safety-type methylated spirit burner, filling screw · Fixed **double-acting** cylinder with lubricator, reversible, to run in either direction · Lubricators, flywheel grooved for belt; grooved pulley; centrifugal governor, feed pump, 3392 dynamo and arc lamp · Baseplate 15 in. square · Flywheel 4 in. diameter · Height  $13\frac{1}{2}$  in. (with smokestack).



3392

**Dynamo**, for generating alternating current · Field magnet, H-armature, grooved belt pulley · Terminals · Cast housing · Output  $2\frac{1}{2}$  volts 0.2 amperes at 4,000 r.p.m. · Baseplate  $2\frac{1}{8}$  by  $3\frac{1}{2}$  in.; height  $2\frac{1}{2}$  in.





METAL-

# MÄRKLIN

Based on the most up-to-date engineering practice, MÄRKLIN metal building sets, by providing infinite opportunities for making things, will act as a potent stimulus to the budding inventor and will also open up the way to scientific knowledge for him.

MÄRKLIN building sets can always be added to and enlarged, making them an ever-welcome item in the educational equipment of our youngsters. It is probably every boy's ambition to make any number of realistic models with the minimum of tools and to set them going by the motors described on page 62. The illustrated book of directions supplied with every metal building set not only makes assembly easy but also provides the incentive to occupation with an instructional background. Helping to stimulate and develop the inventive urge is certainly one of the most fertile results to be obtained from a MÄRKLIN building set. Every set can be expanded as desired by additional sets (see page 63) and additional parts. All parts are made of the finest materials and finished in colours.



# BUILDING SETS

Even the introductory sets contain a great number of parts to make up numerous realistic models with the aid of the book of designs supplied with the set, some of these being shown here.



## Basic Set 99

Contains 124 constructional parts plus 27 clips, making 151 parts in all.

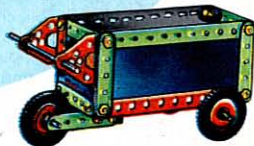
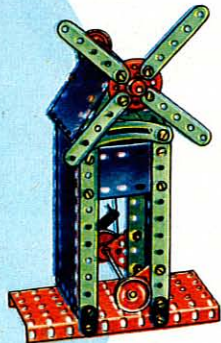
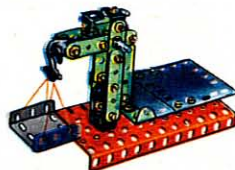
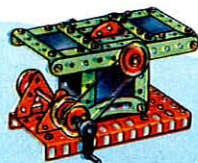
Size of box:  $15\frac{1}{4} \times 10\frac{1}{2} \times 1$  in.; weight 3 lbs.

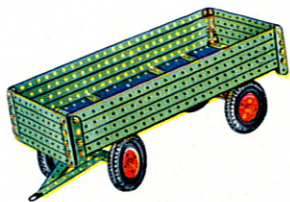
Can be made up into basic set No. 100 by supplementary set 99 A.



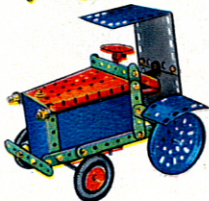
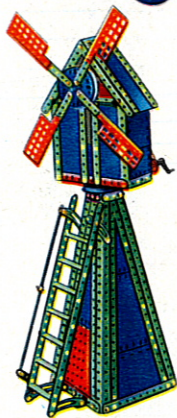
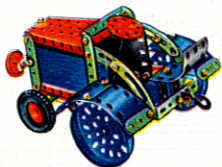
## Basic Set 100

Contains 166 constructional parts plus 43 clips, making 209 parts in all - Size of box,  $16 \times 12 \times 1$  in.; weight  $4\frac{1}{4}$  lbs. This set increases the versatility and number of models considerably. Can be made up into basic set 101 by supplementary set 100 A.





101

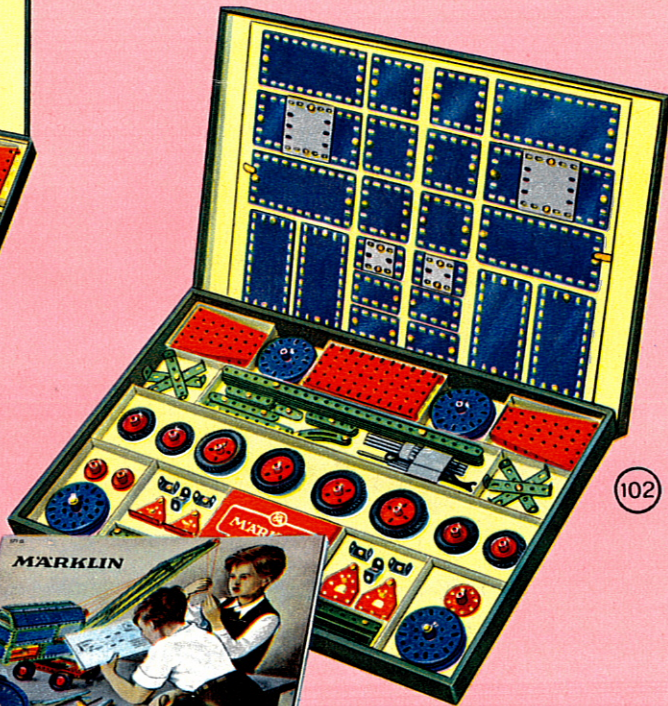


#### Basic Set 101

Contains 232 constructional parts plus 51 clips, making 283 parts in all. Size of box  $20\frac{1}{2} \times 14 \times 1\frac{1}{8}$  in. Weight 5 lbs.

One of the most popular basic sets, making up numerous models from all branches of engineering, such as transport-motor lorries, steam tugs, marine gyroscopes, helicopters etc.—industry-slewing cranes, milling machines, eccentric presses, shearing machines—or agriculture-reapers, tedders and tractors—all can be easily constructed with the help of the illustrated instruction book. Can be made up into basic set 102 by the addition of supplementary set 101 A.

Set 102 increases the number and realism of the models considerably, there being a diesel locomotive, tramway with repair vehicle for the trolley wire, motor lorry, motorbus and tractor with trailer to represent traffic generally. Mobile slewing cranes of all kinds up to tower slewing cranes are there for goods handling, while a surface grinder, highspeed drilling machine, and pendulum and gang saws represent machining and working materials. Windmills demonstrate the utilisation of wind power.



102

#### Basic Set 102

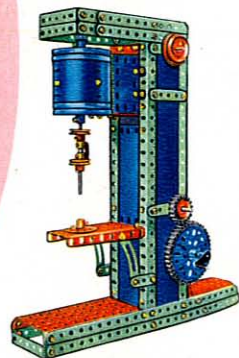
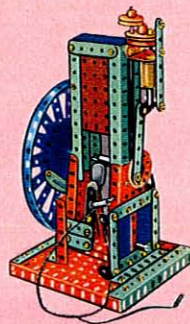
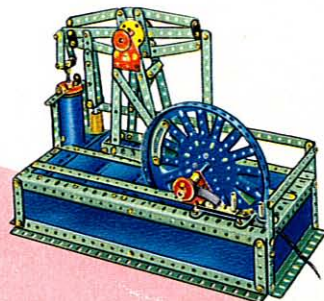
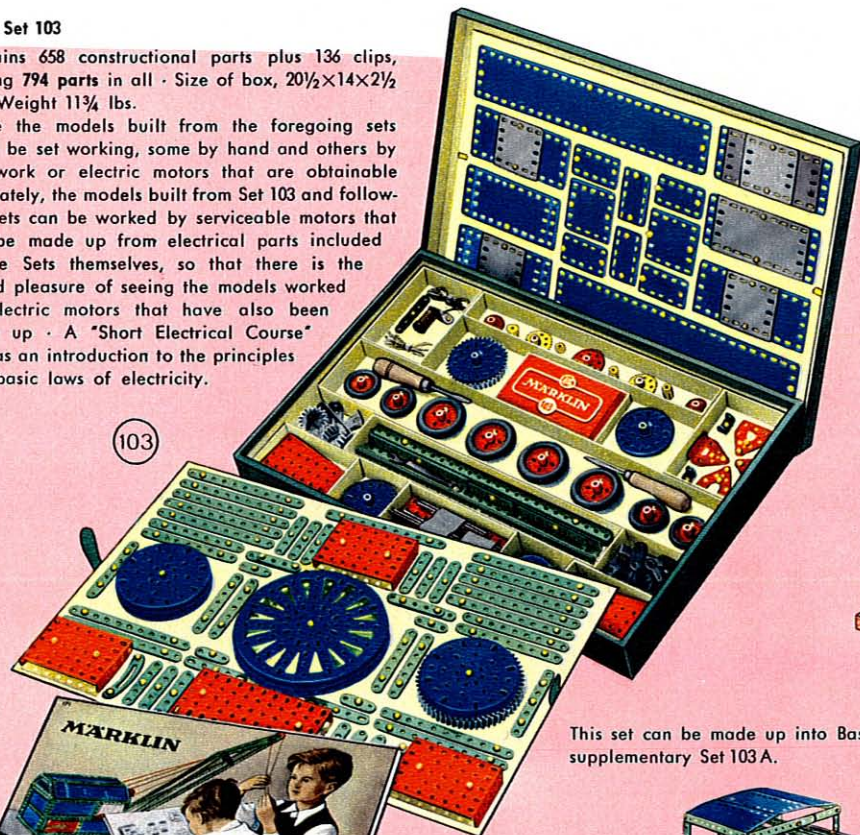
Contains 386 constructional parts plus 67 clips, making 453 parts in all. Size of box  $20\frac{1}{2} \times 14 \times 1\frac{1}{2}$  in.; weight 8 lbs.

### Basic Set 103

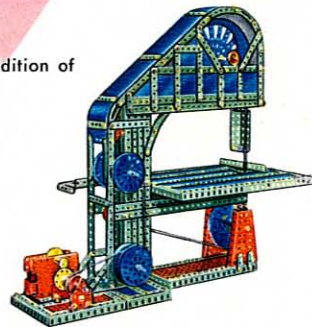
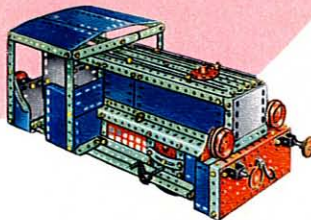
Contains 658 constructional parts plus 136 clips, making 794 parts in all. Size of box,  $20\frac{1}{2} \times 14 \times 2\frac{1}{2}$  in. Weight  $11\frac{3}{4}$  lbs.

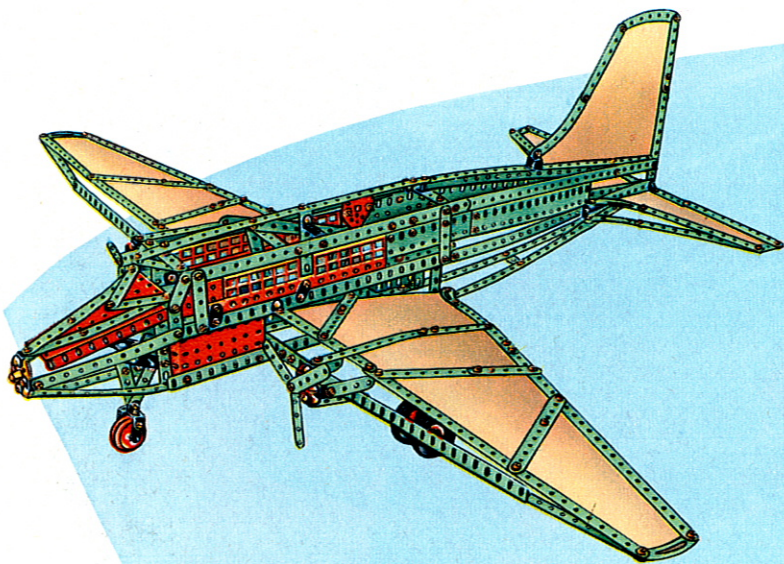
While the models built from the foregoing sets could be set working, some by hand and others by clockwork or electric motors that are obtainable separately, the models built from Set 103 and following Sets can be worked by serviceable motors that can be made up from electrical parts included in the Sets themselves, so that there is the added pleasure of seeing the models worked by electric motors that have also been made up. A "Short Electrical Course" acts as an introduction to the principles and basic laws of electricity.

103



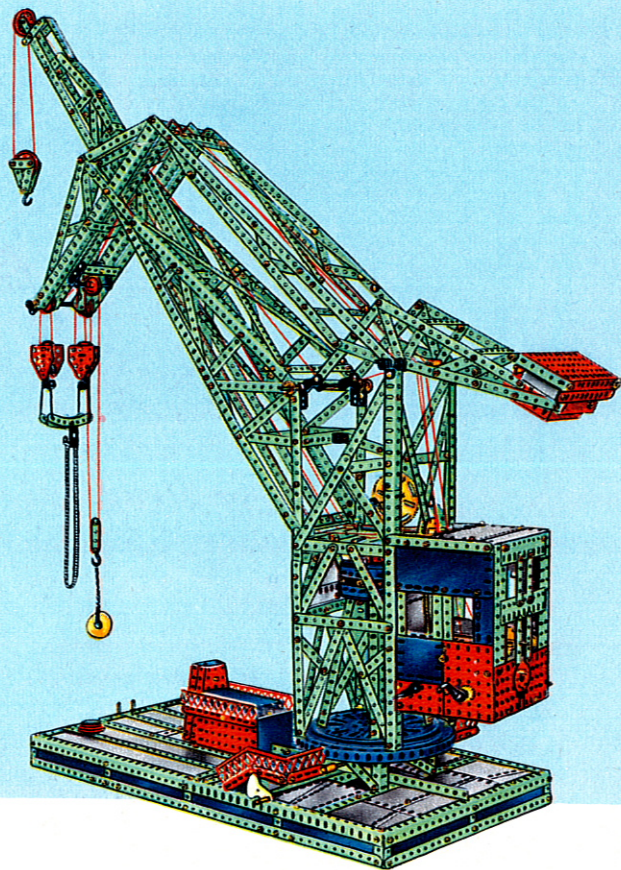
This set can be made up into Basic Set 104 by the addition of supplementary Set 103 A.





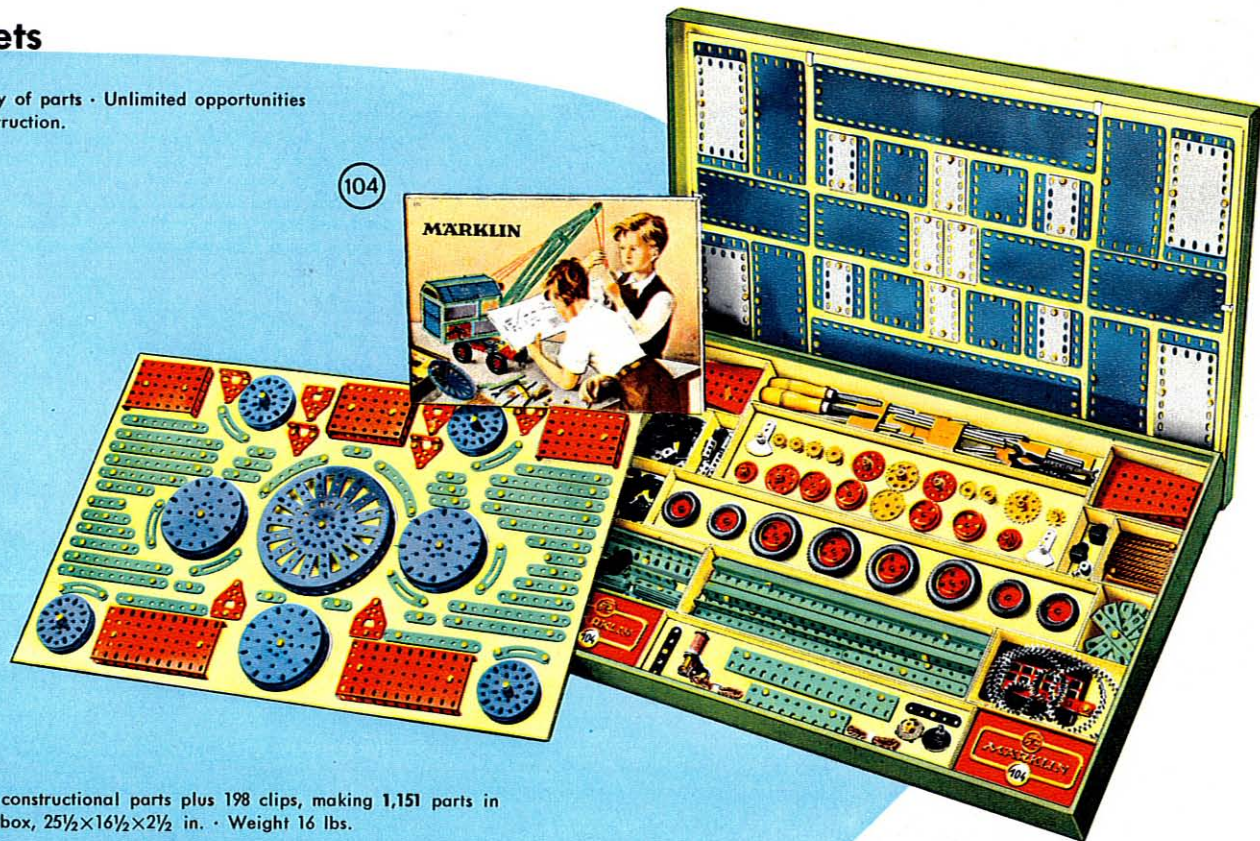
**Air Liner**  
with retractable landing gear, built with metal building Set 104

**350-ton Floating Crane** with eight different movements, built with metal building Set 105.  
This giant floating crane is needed in large seaports for carrying out ship repairs such as removing and replacing the boilers.



## Basic Sets

Great versatility of parts · Unlimited opportunities for model construction.

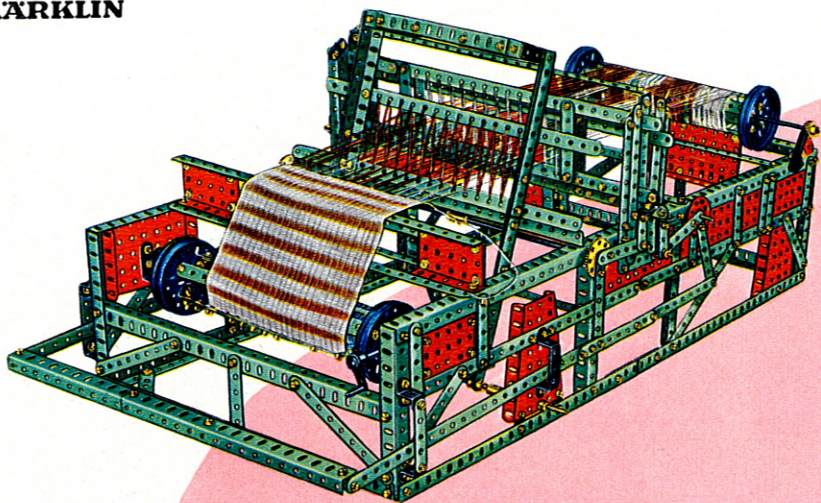


### Basic Set 104

Contains 953 constructional parts plus 198 clips, making 1,151 parts in all · Size of box,  $25\frac{1}{2} \times 16\frac{1}{2} \times 2\frac{1}{2}$  in. · Weight 16 lbs.

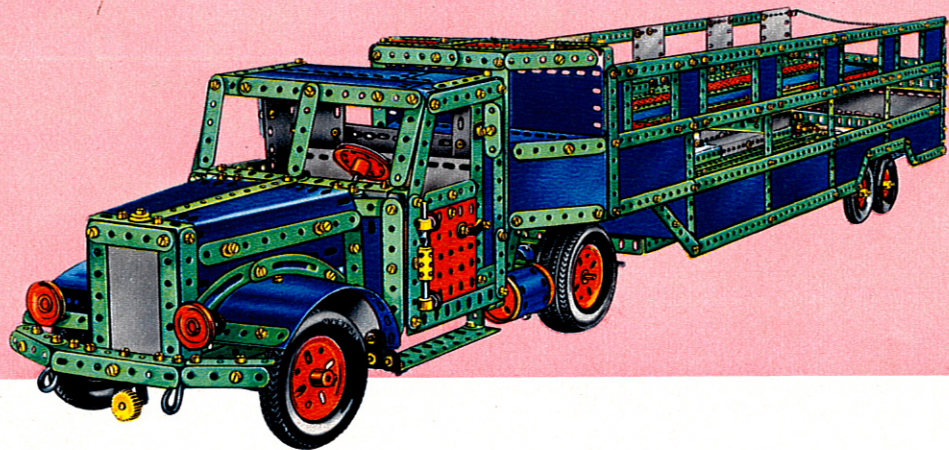
The perfection and true-to-prototype characteristics of the models increases from set to set and begins to reach a peak with the 104 Basic Set · As replicas of the real thing, each model requires several illustrations and detail sketches to show the details of its reproduction that are made possible by the versatility of the parts · A glance at the unique models makes it difficult for the eager owner of the set to decide on the model he will start off with, as the things that can be built with this Set are practically unlimited · This Set can be made up into Basic Set 105 by adding supplementary Set 104 A or the two new supplementary Sets 104 A/1 and 104 A/2.

**MARKLIN**



Hand Loom, to make real fabric. A most instructive model, built with metal building Set 105

Large Articulated Transporter for Volkswagen Cars · This model is about 31½ in. long and can be built with the 105 metal building Set

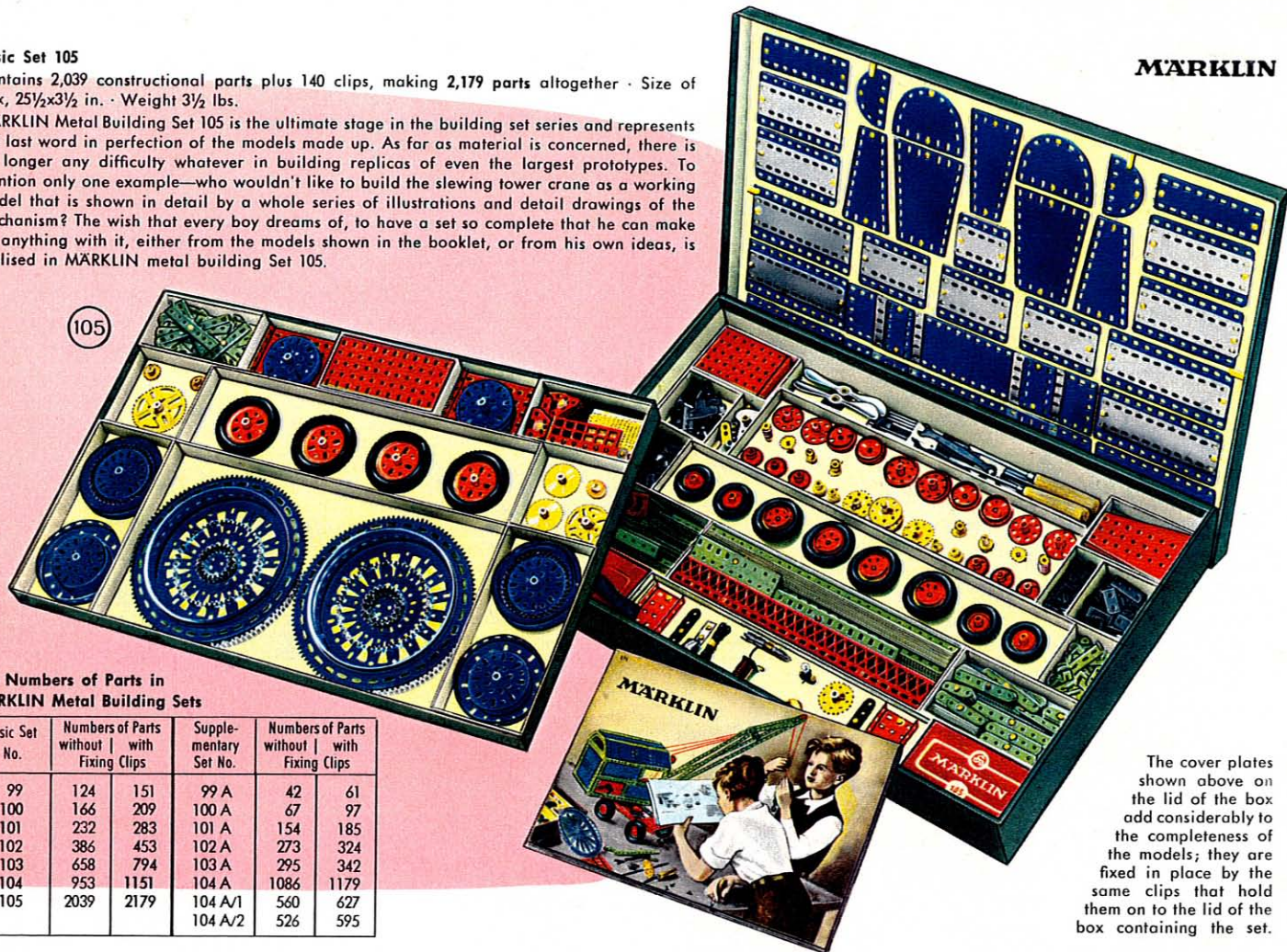


**Basic Set 105**

Contains 2,039 constructional parts plus 140 clips, making 2,179 parts altogether · Size of box, 25½x3½ in. · Weight 3½ lbs.

MARKLIN Metal Building Set 105 is the ultimate stage in the building set series and represents the last word in perfection of the models made up. As far as material is concerned, there is no longer any difficulty whatever in building replicas of even the largest prototypes. To mention only one example—who wouldn't like to build the slewing tower crane as a working model that is shown in detail by a whole series of illustrations and detail drawings of the mechanism? The wish that every boy dreams of, to have a set so complete that he can make up anything with it, either from the models shown in the booklet, or from his own ideas, is realized in MARKLIN metal building Set 105.

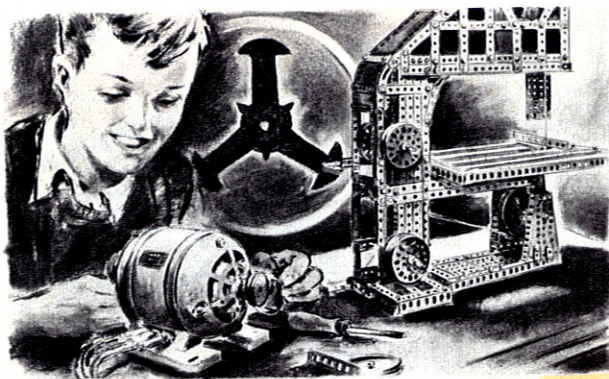
105



**The Numbers of Parts in  
MARKLIN Metal Building Sets**

Basic Set No.	Numbers of Parts		Supplementary Set No.	Numbers of Parts	
	without Fixing Clips	with Fixing Clips		without Fixing Clips	with Fixing Clips
99	124	151	99 A	42	61
100	166	209	100 A	67	97
101	232	283	101 A	154	185
102	386	453	102 A	273	324
103	658	794	103 A	295	342
104	953	1151	104 A	1086	1179
105	2039	2179	104 A/1	560	627
			104 A/2	526	595

The cover plates shown above on the lid of the box add considerably to the completeness of the models; they are fixed in place by the same clips that hold them on to the lid of the box containing the set.



## Motors for driving Models built from the Metal Building Sets

*Great though the pleasure is for any boy to be able to work by hand the many models shown in the booklet, after building them up, one after another, with every part properly fitted together and every gear wheel meshed as it should be, how much greater will be the thrill of seeing them working by mechanical power in the shape of either a clockwork or electric motor? The three motors shown below are suitable for the models in every way—the clockwork or simple type of electric motor for the smaller models, or the universal electric motor for the very big models. This is another instance of the high educational value of MÄRKLIN Building Sets and their unlimited opportunities as regards both construction and operation.*

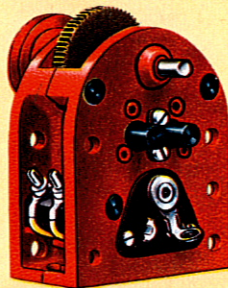
### Clockwork Motor



201 F

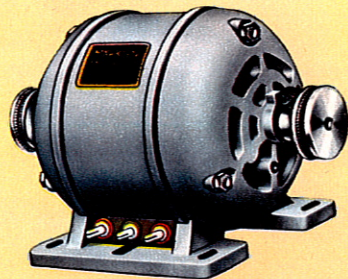
**Clockwork Motor**, reversing, to run forward or reverse and slowly or fast. Driving shaft with adjusting collar. Brake lever. With key and booklet, complete in cardboard box. Height 4½ in., width 3½ in., depth ¾ in. Weight 20 oz.

### Electric Motors



1321 G

**Electric Motor**, simple type; reverses, to run in either direction. No-load speed about 1,500 r.p.m. Operates on 16 volts and so can be connected to any MÄRKLIN railway transformer. Accessories: Two leads 489/1 (red and brown). Height 2½ in., width 2 in., depth 2 in. Weight about 3¾ oz.



1322 G

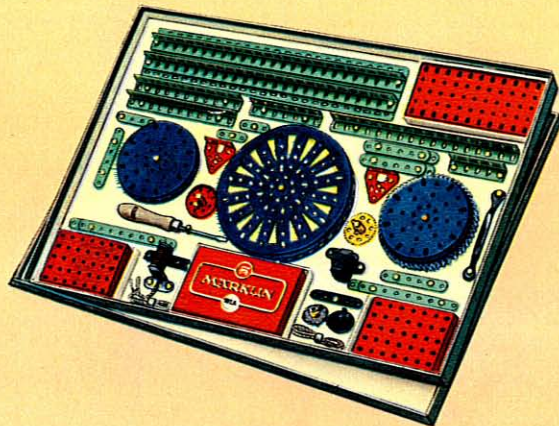
**Universal Electric Motor**, 16 volts. With leads and remote control switch for reversing direction of running. Two grooved pulleys on opposite shaft ends; speed regulated by transformer. No-load speed about 3,000 and 1,100 r.p.m. respectively. An extremely powerful motor designed for working the largest building set models as well as for driving dynamos and working models of all kinds. (It is advisable to use transformer 280 A only). Three plug-in connections. Height 2¾ in., width 3¾ in., depth 2½ in. Distance between pulley groove centres 3½ in. Weight 17 oz.



# Supplementary Sets

Any basic set can be expanded to the next larger set by supplementary sets, the parts in which are added to those in the basic set to make up the new basic set. If, for example, you already have basic set 101 and would like to have the contents made up to basic set 102, you would have to get supplementary set 101 A.

Supplementary Set 102 A



Summarising:

- Supplementary Set No. 99 A makes Set No. 99 into Basic Set No. 100
- Supplementary Set No. 100 A makes Set No. 100 into Basic Set No. 101
- Supplementary Set No. 101 A makes Set No. 101 into Basic Set No. 102
- Supplementary Set No. 102 A makes Set No. 102 into Basic Set No. 103
- Supplementary Set No. 103 A makes Set No. 103 into Basic Set No. 104
- Supplementary Set No. 104 A makes Set No. 104 into Basic Set No. 105
- Supplementary Set No. 104 A/1 } make Basic Set No. 104
- Supplementary Set No. 104 A/2 } into Basic Set No. 105

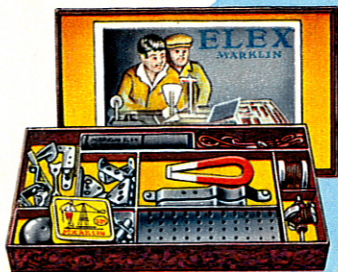
Any parts that are insufficient in number to build some particular model, as well as any special parts the sets do not contain, can be obtained separately to make up the sets, in addition to the supplementary sets mentioned above. Separate lists of such parts, as well as the actual parts themselves, are obtainable from any toyshop that stocks MÄRKLIN productions.

Some of the separate parts from the great variety that can be obtained from any toyshop.



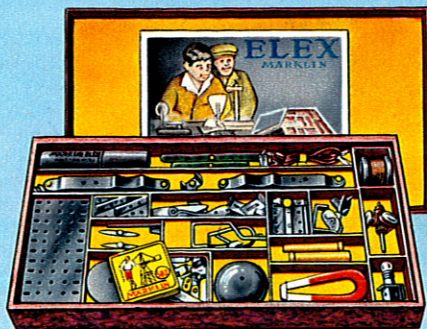
# "ELEX" Experimental Electrical Sets

The MARKLIN-ELEX Sets are experimental sets complete in themselves and through them a youth is introduced to the basic principles of magnetism and electrical engineering. Special parts included in Sets 502 A and 503 enable experiments to be carried out up to the Wheatstone bridge stage—and even to the extent of making up a workable telephone system. Each set contains all the parts required together with a detailed and well-illustrated instruction book for all important experiments, and a pocket-lamp battery is all that need be added to begin experimenting. 13470 UG transformer is specially suitable for providing current for ELEX models from the house lighting supply (alternating current). Each basic set can be made into the next larger one by a supplementary set.



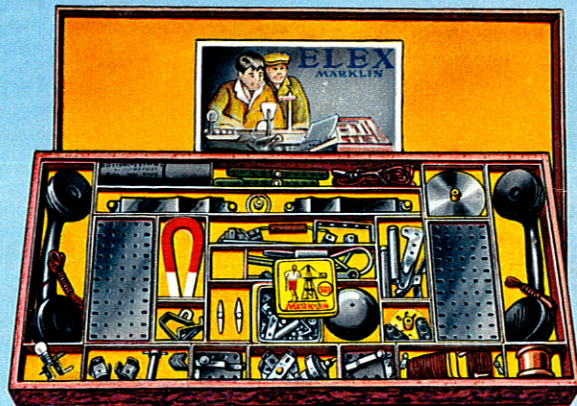
### ELEX 501

Basic Set with instruction book for about sixty experiments · Size of box, 13x7 $\frac{3}{4}$  in.



### ELEX 502

Basic Set with instruction book for about one hundred experiments · Size of box, 16 $\frac{1}{2}$ x9 in.



### ELEX 503

Basic Set with instruction book for over one hundred and sixty experiments · Size of box, 22 $\frac{3}{4}$ x11 in.



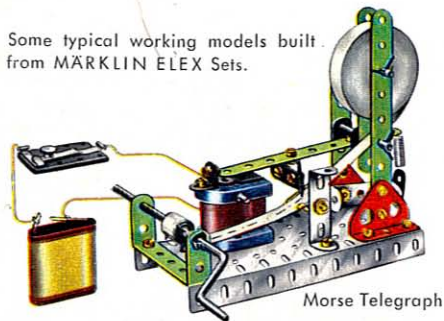
### 13470 UG

Experimental Transformer for connecting to the alternating current lighting system, with plug-in connections for 4-20 volts and red pilot light · Output 12 VA · Please state voltage of lighting system when ordering.

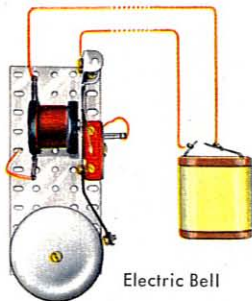
Supplementary Set ELEX 501 A; makes ELEX 501 set into ELEX 502  
 Supplementary Set ELEX 502 A; makes ELEX 502 set into ELEX 503

## Elex Models

Some typical working models built from MARKLIN ELEX Sets.



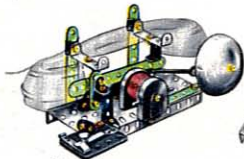
Morse Telegraph



Electric Bell



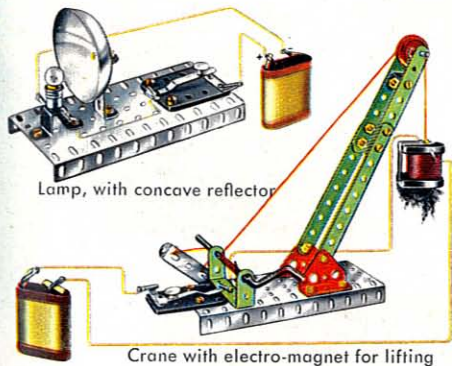
Electric Motor



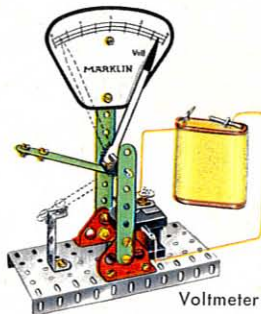
Telephone



Galvanometer



Crane with electro-magnet for lifting

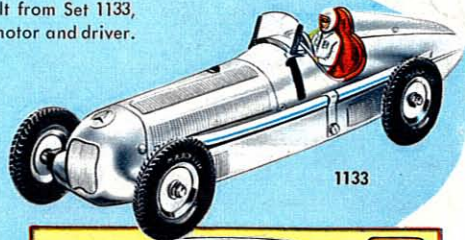


Voltmeter

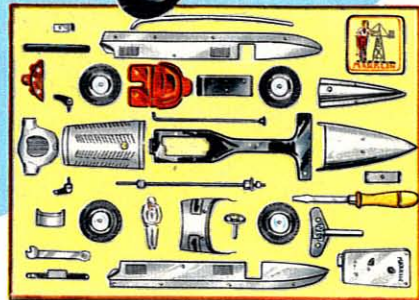
## The Popular MARKLIN Motorcar Building Set

*This building set contains all the parts required, including clockwork motor and figure of driver, to build the scale-model Mercedes-Benz racing car shown. Realistic appearance · Steers by steering wheel · Articulated axles · Powerful clockwork motor · Length of car 11 1/2 in.*

Racing Car, built from Set 1133, with clockwork motor and driver.



1133



Racing Car Building Set · The racing car dismantled, in cardboard box, with clockwork motor, driver and full instructions for building.



**MÄRKLIN**