

now no Gears or Coupling, but the number and variety of other parts seem to be reduced. Some differences could be due to omissions when the Set was packed, but since no Set Contents is provided there is no way of knowing what should be in it. I note in passing that the first model in the #7 Manual, a Tractor, needs two Tyres for its 2" Pulley rear wheels, and neither Brian's Set, nor the OSN 3 #7, includes them. The Motor/gearbox is a plus of course in the new #7.

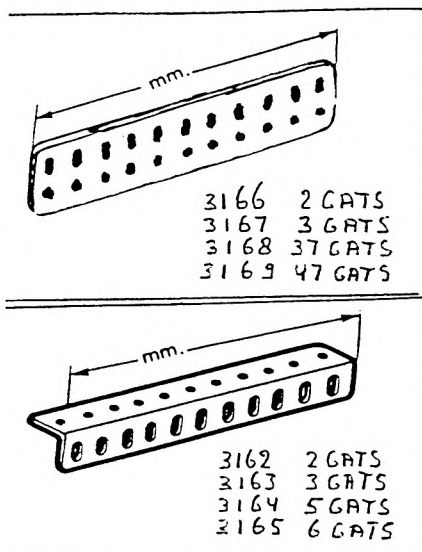
SUMMARY OF MANUAL. #Name: BRAL. #Details of maker: BRAL, Via P.Lomazzo,34, 20154 Milano. Italia. #Dates &/or Ref Nos: None. #Page size: 240x160mm deep. #No of pages: 20 inc covers, all unnumbered. #Language: Italian, French, Spanish, English, German. #Printing: Black line drawings, with some halftone shading, on art paper. Cover is red with varicoloured parts on light blue squares, and white lettering plus black BRAL. #Page Nos of Parts List & highest PN: None. #Page Nos of Set Contents & highest PN: None. #Sets covered: #7. #No of models for each set: 16. #Name, Model No, Page No of first & last model of each set: [Models have no nos or titles] Tractor, 3. Bulldozer, 18. #Other notes: Manual was in a 1992 Set, but shows outdated maker's name and address.



AMENDMENTS TO MCS: SETS: add "In 1992, Standard Sets #2021, 2130-3, 2241-3; plus 7 small Kits called jeepkit, elikit, BIG FOOT, TRACTOR, SANDY EXPLORER, LADY CAR, CROSS CAR."

MOTORS: Add: "Introduced 1992: A1000 3v Motor and A2000 3v Motor with Gearbox."

FOOTNOTE ON 1992 PARTS Since this piece was written Brian has received from a Dutch friend and passed on, a photocopy of an Illustrated Parts List later than the one mentioned in OSN 8. This includes all the parts in the MCS Pages X1.3/4g-h plus some others, obviously added after the list was first prepared; all of these are shown below. The Motor A1000 is not mentioned. Notice that although the List is nearly all in Italian the use of English (END) and Dutch? (GATS = holes) in the written additions. Perhaps last minute updates by Brian's friend.



	3047 Piastrina triang. PL
	3049 Ruota Camion
	3050 Squadretta

	3185A
	Motoriduttore A 2000
	3211 Caldaia 3211A END

SCIENTIFIC BOUNDOS - COMMENTS ON MCS. Under COMMENTS in the MCS entry it is said that the PNs and models are similar to those of MECCANO. This is true but there is an even closer resemblance to 1920s MÄRKLIN. The drawings of the models are identical line for line to those in a 1920 MÄRKLIN manual and the same is true of the parts: the only exception is #44 which was still the MECCANO shape in 1920, the next list to hand, for 1931, shows the revised pattern, exactly as in the S B List.

Was this then a case of a Dutch manufacturer copying MÄRKLIN, or was it simply MÄRKLIN using a second name for its product in Holland, and perhaps elsewhere. I would guess the latter but only because there are no Titles, Parts Lists or Instructions shown for the S B models, whereas there are in the MÄRKLIN manual, and this might mean that they are grouped together for all the models elsewhere in the manual, a method sometimes used for foreign language manuals, so that only the text part had to be altered for each country.

AMENDMENTS TO MCS (as necessary, depending on version)

COMMENTS: Replace by, 'The only information available is shown. The parts, their numbering, and the models are identical to 1920s MÄRKLIN.'

SCIENTIFIC This name on the lids of this Dutch system is accompanied by Bouwdoos meaning construction set. As mentioned in 8/192 many features of SCIENTIFIC match those of MÄRKLIN, particularly the set contents & the manual models.

This account is based on 2 sets to hand, a No.1 & 1A, both incomplete and without manuals, plus some sets seen on Ebay: 1 each of a 0 & 0A, 2 each of Nos.1 & 1A, and one No.2. My thanks to Jan Ringnald for the information he sent.

The SETS Although only Sets 0-2 have been seen there was almost certainly a No.3 as well, and perhaps a No.4. Fig.3, translated from the Dutch, has the Set Contents of Sets 0-2 with the 'A' sets omitted. The contents of the various sets are identical to early 1920s MÄRKLIN outfits. Justification for the No.3 comes from seeing No.3 models in a manual and from a spare parts price

list which has all the parts needed for an early 1920s MÄRKLIN No.3 (plus one other, see below). The evidence for a No.4 is a manual cover which has 'No. 0 t/m 4' (0 through 4) on it, and said manual is included in the Price List.

The BOXES The No.1, 1A, & 2 boxes seen are dark blue, or possibly black for some. Labels for the main sets, 31½*21cm, are as Fig.1, and feature the early MÄRKLIN Big Wheel, with a similar design for the 1A but without the model. A label inside the lid gives the set contents. The No.1 & 1A both measure 35¾*24*3½cm; the No.2 is 49*44cm. Partitioning gives them 10, 9, & 22 compartments respectively. The 0 & 0A have similar boxes but they are smaller and scale at 32*21cm & 29*15cm. Their labels are basically as the 1 & 1A in design but with small changes to the layout of the wording.

The PARTS Many of the parts can be seen in Fig.2, a No.2 set. The only main part missing is the 5*7h Flanged Plate. The only parts which differ obviously from their MÄRKLIN counterparts are the Windmill Sail with its round holes, the Flanged Pulley with no face holes, and the Bush Wheel in the centre of the Windmill Sails which appears to have 16 face holes – in the one other Bush Wheel seen in a set it has the usual 8 holes.

The parts in the price list but not in Set 2 are: #4, 6h Strip; #9, 11h A/G; #18, 3cm Axle; #21, 38mm Pulley; #25,26, 18, 14mm Pinions; #27, 35mm Gear; #32 14mm Worm; #33, Pawl; #46, 2*5*2h DAS; #53, Small Flanged Plate; #66, Large Flanged Disc; #68, Bandjes (Bands – the only part without a MÄRKLIN equivalent – the MÄRKLIN #68 was the 19.5cn Ø Flanged Ring, a part only in Set 6).

The Parts to hand The main ones missing are the Flanged Plate, the Flanged Disc Pulley, & the Bush Wheel. Of the parts shown right the 5h Strip is prewar MÄRKLIN for

FIG.1

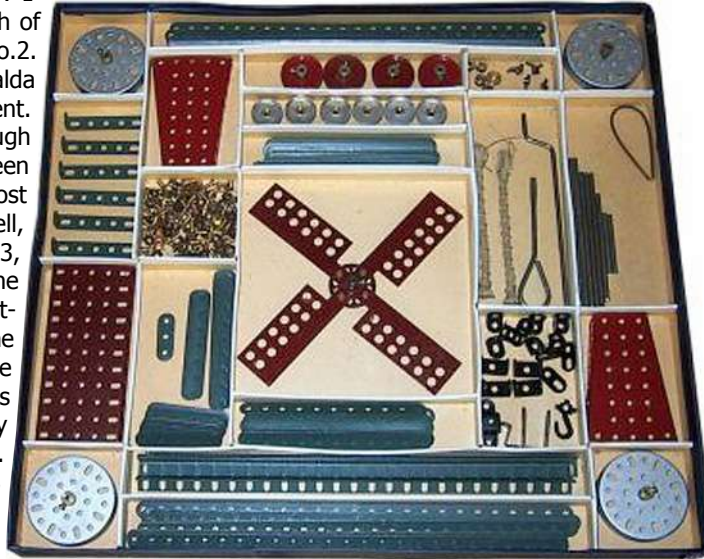


FIG.2

comparison. **Holes** are 4.1-4.3mm at 12.7mm pitch, but 12.65 in the A/G. **Slots** are 7.8mm but 8.3 in the A/G. The **thread** is 5/32" BSW'. **Bosses** are single-tapped with a bore of 4.1mm and deeply recessed peening. **Axles** are 4.05mm Ø. **Strips** are 13-13.4mm wide except the 25h at 12.0. Their line of holes is sometimes offset from the centreline. The **D/B** is

20mm wide; the 2h high version, the **Pulley** has 25.2mm aluminium discs & a 10mm Ø steel boss. The **Flanged Pulley** has 35.5mm Ø aluminium discs and a 9½mm Ø brass boss. The holes in the **Windmill Sale** are 6.8mm Ø. The **Crank Handle** is 165mm long o/a. **N&B** The two Sets were in one lot and included two types: (1) Brass Bolt with 5.1mm Ø CH, & square steel Nut, 8.1 A/F; (2) Nickelled Bolt with 8mm RH, & square brass Nut, 8.5mm A/F. Both Bolts are 8mm u/h. The **Set Screw** is steel, 5½mm u/h, with a 5.5mm Ø CH. A 4mm long **Grub Screw** was found in 2 of

PN	Part Set:	0	1	2
1	Strip 25h	--	4	10
2	Strip 11h	4	6	16
2a	Strip 9h	--	--	2
3	Strip 7h	--	1	2
5	Strip 5h	9	9	12
7	Strip 3h	--	2	2
8	A/G 25h	--	--	4
10	Flat Brkt	4	4	4
11	Double Bracket	--	1	4
12	Angle Bracket	8	12	12
15	Axle 13cm	--	--	3
15a	Axle 11½cm	2	3	3
16	Axle 9cm	--	--	1
17	Axle 5cm	2	2	2
19	Crank Handle	1	1	1
20	Flanged Pulley	--	--	4
22	Pulley 25mm	4	6	6
23	Loose Pulley 12mm	1	1	1
24	Bush Wheel	1	1	1
35	Spring Clip	4	6	6
36	Screwdriver	1	1	1
37	Nut & Bolt	25	30	65
40	Cord 4m	1	1	2
44	Dble Bracket 2h high	1	1	1
45	Double Bent Strip	--	--	1
47	Reversed. A/B	--	2	2
52	Large Flanged Plate	1	1	1
54	Flanged Sector Plate	1	2	2
55	Spring Cord	--	1	1
57	Hook	1	1	1
59	Collar	--	2	4
60	DAS 1*5*1h	1	4	6
61	Windmill Sail	--	--	4
67	Flanged Disc Pulley	--	2	4

FIG.3

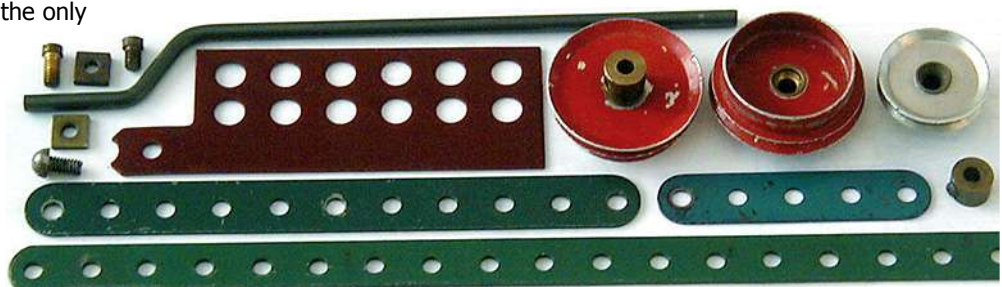


FIG.4

the Collars. The **Spring Clip** has narrowed wings but is of soft steel with little grip. **Finish** The A/G, DAS, & most Strips are dark green but the 25h is slightly lighter. The Sector Plate matches the Windmill Sail but both have probably been repainted. So originally they may have matched the Flanged Pulley. Brackets are painted black.

The EBAY SETS The Flanged Disc Pulleys in all of the sets look to be painted silver. The only Bush Wheel in them is red. In all the sets save the No.2 the red parts are a lightish shade. 3 have bluish-green parts similar to the prewar MÄRKLIN shade, one has dark green parts as in my sets, and one has a mix of the 2 colours. In the one set other than the No.2 with a Windmill Sail, it has rectangular cutouts, but there are parts from several other systems in the box. The set with the mix of green parts has a Sector Plate with only a single row of lengthways holes.

The MANUALS The Price List includes manuals 0-1, 0-2 & 0-4. The known covers are similar to the Fig.1 label. Otherwise nothing is known of them except that the illustrated parts & drawings of the models in the few pages seen are identical to those in prewar MÄRKLIN manuals, from the early 1920s in some cases.

The MÄRKLIN CONNECTION The parts in the sets to hand look like MÄRKLIN but, quite apart from their finish, none exactly match the German parts, and while adequate, none match their quality. It has been said that SCIENTIFIC existed prewar and there is no very good reason to think otherwise. However when MCS talks of the 1920s one may wonder because Märklin did not introduce coloured parts until around 1929. The use of the Märklin models and their distinctive shade of green paint would have almost certainly meant a Märklin connection but whether the parts came from Germany

or were made under licence remains to be seen.

One puzzle though. If SCIENTIFIC was introduced in the 1930s with Märklin's blessing why would an early 1920s Illustrated Parts be used in at least one manual? And could that early pattern Sector Plate seen in one Ebay set be genuine?

The parts in my sets would no doubt have been made in Holland after the war, either before Märklin got on its feet again or with their agreement. (The latter was presumably the case for the postwar Austrian METEOR which used MÄRKLIN models in its manuals, see 12/302.)

The argument that SCIENTIFIC was only postwar is more difficult. One could imagine a small system based on MÄRKLIN being launched soon after the war with models taken from whatever manuals were to hand but why would the change from the MÄRKLIN green to dark green have been made? If Märklin didn't object to their models being copied they would hardly balk at the use of 'their' colour. Or was the change of colour the other way round, and if so why? To make the parts look more attractive perhaps but I'm not convinced. It would be interesting to know if the parts in the sets with bluish-green parts are like those described here or if they are exactly like MÄRKLIN.

POSTSCRIPT A No.1A seen on Marktplaats has silver Flanged Disc Pulleys, Strips etc in prewar MÄRKLIN green, MÄRKLIN pattern (ie with rectangular cutouts), lightish red Windmill Sails, and brass looking Flanged Pulleys with 4 face holes. It was said to be complete and to perhaps be from the 1950s. Another, also said to perhaps date from the 1950s, is the same except that the Flanged Disc Pulleys are blue and the DAS a lightish green.

SCIENTIFIC: S2

OSN 47/1446

Snippets. More on

FRI-DIE Since Jacques Pitrat's description of his set in 35/1048, 4 other sets have been seen on Ebay, including one with coloured parts.

2 sets have identical boxes to Jacques' & they have the same range of parts too, all black except lighter Wheel Discs (Jacques' were also lighter but it doesn't show in the OSN 35 photo). Both these sets have more parts than Jacques' & one has over 50 A/Gs. Of the other parts it is likely that Sets should have 2 Hooks, 4 each of the Wheel & Pulley Discs, and possibly 1 or 2 Flat Girders. One set has the OSN 35 Model Leaflet; the other doesn't have one.

One of the other 2 sets one has the same box but it contains some additional different types of part (Fig.1) as follows.

- 2x 3*3h Flanged Plates, a long Flat Plate, & a Wire Screwdriver, all in the righthand tray.
- 9h Flat Girders and 2 bright Strips, probably 3 & 8h long, in the neighbouring bay.
- A bright part in the top left bay which may be a Disc appreciably larger than the Wheel Disc. Also in this bay a Pulley Disc with 4 peripheral holes, and another can be seen in the adjoining long bay. There was no Model Sheet with this set.



Fig.1

The fourth set is shown in Fig.2 and has the same size box as the others. Its lid is red with the same label nearly covering it, identical to the set with coloured parts on p218 in Baukästen. For reference the types of parts in this last set look like Jacques' except that it has 9h as well as 4h long Flat Girders, & its Screwdriver has a much shorter blade. The length of the Flat Girders in the Fig.2 set can't be seen. New parts in the Set, assuming they are original, are the Tyres & the 2*2h yellow Plate in the bottom tray. At a glance I wondered if the latter was a backing card but on closer inspection it is probably flanged & looks about the size of the 3*3h in the Fig.1 set. And I suppose that the hole that can be seen between it and the parts to its left is in the bottom of the tray and not in a light coloured Flat Plate. As in the Fig.1 set the red Pulley Discs

Fig.2



have the ring of 4 holes.

It isn't clear if it is a Leaflet or a Manual above the Set. The Bus on its front is a model on the reverse side of the OSN 35 Model Leaflet (which I omitted by mistake from the models shown in OSN 35). The PR was given as 754/500 11 48 KL.1, so a 1948 or 1954 date is possible – 1948 is at the end of FRI-DIE's mooted period. Richard Lüking G.m.b.H of Brackwede was also mentioned, a different name to the one in OSN 35, so possibly the printer.

FRI-DIE: S1

OSN 47/1446