with no end flanges.

REMARKS Manual covers like the 0-1 have been seen for Sets 0-4 & 0-6. Also, from Ebay, another, below, with the same registration number in the top right corner. 2 of its model pages were shown, one identical to a page in the 0-1 manual, and the other identical to MCS/FB p5, with two No.6 models.

A 0-6 manual from a related Argentinian system, **DU-EN-LOZ**, is to hand and it has a cover very like the El MEC one left but with JUGUETE MECANICO DU-EN-LOZ in the blue bottom panel, and a registration number of 326.243 top right. (I wondered about the name DU-EN-LOZ but my dictionary gave nothing useful.) The contents are very similar in style to EL MEC with much of the text the same and, very minor details apart (the pages are headed DU-EN-LOZ instead of EL MECANICO for instance), the model pages are the same as all known EL MEC pages. The Illustrated Parts pages have the same PNs but show the modified pattern of Curved Strip, Trunnions, & Spanner, and Flexible Plates with normal corners (the fancy type are still shown in the models). So perhaps these changes, and the higher registration number, indicate that DU-EN-LOZ appeared later than EL MEC.

OSN 31/937 **EL MECANICO: S2**

Snippet. 'New' System: GENIAL New to OSN though the firm concerned, Genial-Spielwaren of Vienna, is listed in *Baukästen*. Jacques Pitrat kindly alerted me to the Ebay picture below which was being sold from Austria. It can be seen that the parts look exactly like DUX (see 20/558), and so do the models on the manual cover. I haven't actually found any of them in the couple of DUX manuals to hand but there are certainly a number of others I've never seen. The models on the lid are less obviously DUX but can't be seen at all clearly. Another possible DUX connection is the booklet above the manual, with 'DUX' in the top right green box, but it may of course not belong to the Set. It looks like the first manual described in OSN 20. The B&W symbol in the red ring on the lid label & manual cover is the maker's logo, a stylised man with legs apart holding a white semicircular annulus above his head, with GENIAL printed on it.

Another Ebay item showed a similar set but the covers of the 3 manuals with it were like the lid label below, but printed in plain B&W.

The *BK* entry says that the firm existed from 1946 to around 1951 and sold a Metallbaukasten in 3 sizes, plus an Electric Motor. Also mentioned are constructional sets for a clock, railway items, as well as house & garden, but I'm not sure if these were in any way related to the Metallbaukasten, and there is no mention at all of a DUX connection.

In fact there seems to have been GENIAL sets which did not have DUX-type parts. One such belonging to Dr Ansgar Henze is shown in the photo below, from the Swiss AMS Club N/L 1/2003, reproduced here by kind permission of the editor. The lid again has models all over it and they look similar in style to the ones on the DUX set, but are probably not identical. The label though is exactly the same design. Half way down the right side of the lid is what looks like a red circular sticker with a white '1' on it. No manual is shown. The parts, a rather strange selection with seemingly more Plates than Strips, are presumably in their original arrangement. Notice that not all the holes in the Plates are pierced, and that the end holes in many of the parts are closer together than the others, as in DUX Beams.

If in fact there were two types of GENIAL, could it be that the one below came first, perhaps DUX inspired to some degree, and with a selection of the original models on the box lids. Then a change was made to DUX parts, but using the same boxes, or at least the same style of lid.

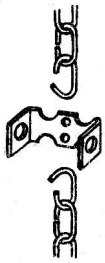
OSN 31/937 **GENIAL: S1**

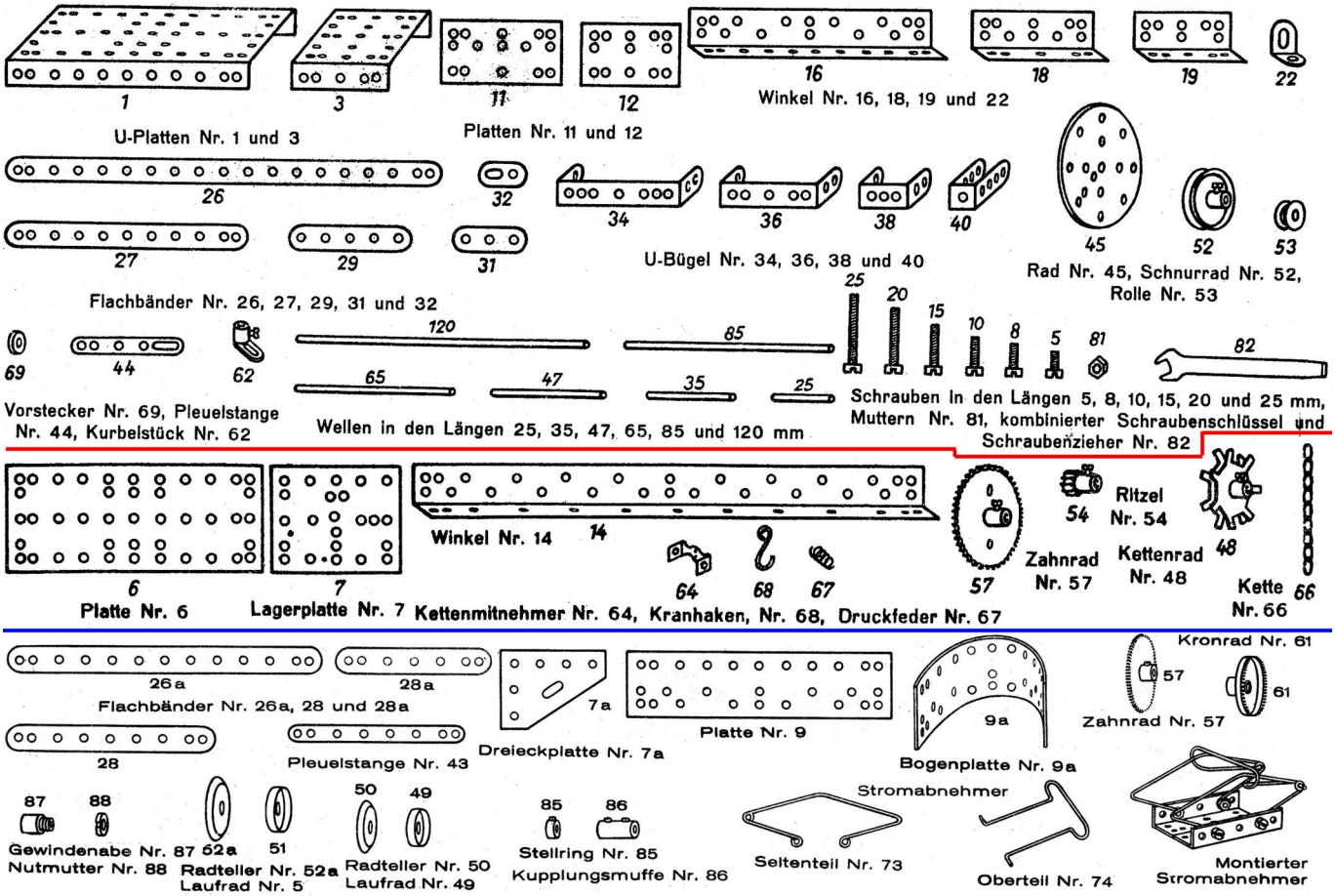
More on GENIAL The possibility of two types of GENIAL was noted in 31/937 and now one of the non-DUX sets has come to hand. It is a No.2, the largest made, and although it has been used it is virtually complete. GENIAL is quite a small system but some of its 67 different parts are rather unusual. Neither the set nor its manuals give any information about the

maker but the heading of a flyer that was with the set, below, 50% f-s, has the address and a new phone number rubber-stamped on. It also includes an announcement of a competition with a closing date of March 1952. The covers of the 3 manuals with the Set have 'PAT ANG' on their front covers. Incidentally 'genial' in German doesn't mean what it does in English, my dictionary says 'ingenious, inspired, brilliant'.

PARTS The Illustrated Parts from the 3 manuals are shown across the bottom of the page. Those in the No.0 are above the red line; the additional ones in the No.1 are between the red & blue lines; & the remainder are only in the No.2. For the No.2, the Gear #59 is incorrectly shown as #57. The Set Contents on the next page lists the parts in numerical order, and some notes on all of them follow.

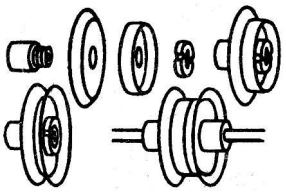
• **Materials**. Except as noted, steel. • **Holes** are 3.3mm Ø, and the basic hole pitch is 10.0mm; a good many though are at 5 or 20mm. • **Thread**: M3, but 2.6x.45mm in some 6mm Ø bosses. • **Bosses** are brass, most 8mm Ø but where noted 6mm, 3.2mm bore, single-tapped and with a very, very narrow ring of peening. • **Colours**. Most parts are blued to almost black but the Corner Bracket #7a is light green, and the Flanged Plates, the Plate #6, & most circular parts are light red - exceptions are noted below. • #1,3 **Flanged Plates**, 60*100,40mm. #6,7,9,11,12 **Flat Plates** 40*100,50; 25*100, 50,40mm. #9a **Formed Plate** 25*100mm. #7a **Corner Bracket** 40*30mm. The two dots in the drawing of the #7 40*50mm Plate are small holes, 1.2 & 1.5mm Ø, purpose unknown. Also the holes on or near the shorter centre line of this part are not at standard spacing, they are, as explained later, to suit the Gears. • #14,16,18,19 **A/Gs**, 15*10mm in section, & 200,100,50,40mm long. • #22 **A/B**, 9*12*10mm wide with a 7½mm slot, and #32 **Flat Bracket** made from it. • #26,26a,27,28,28a,29,31 **Strips**, 10mm wide & 170,110, 90,70,60,50,20mm long. #43,44 **Narrow Strips**, 6mm wide and 60,35mm long. Strip lengths are between end hole centres. • #34,36,38,40 **DAS**. All have at least 2 holes in their lugs, and all at are 5mm pitch. #45 **Disc**, 50mm Ø. The 'extra' holes are to allow the Crank #62 and other parts to be bolted to it. • #48 **Chain Wheel** with red painted aluminium discs, 30mm across the 'spikes'. Two have 6mm Ø bosses and one an 8mm. #66 **Chain** (right) with steel links a little over 5mm long o/a & made of .8mm wire. As can be seen above, horizontal links sit on the lands between the spikes while the lower part of the vertical links drop into the groove between the two discs. The Chain runs surprisingly well, at least at the lowish speeds I've tried. Only 35cm of Chain was left in the Set. #64 **Kettenmitnehmer** (Chain Carrier Link) is shown right; it is 11mm across, 6mm wide, & the large side holes take a Bolt or Axle. In the manual models it used with Cord rather than Chain, usually with a Strip bolted to one of the lugs which pulls, pushes, or steadies a moving part. How successful that would be I'm not sure. The Link wouldn't ride around the Chain Wheel of course but it probably would around a Pulley, though it doesn't need to in the manual models. • #52 **Pulley** is 25mm Ø with a 4½mm wide vee. Some of those in the Set have come apart and the centre hole in the discs is 4.1mm Ø. #53 **Loose Pulley** is brass, 10mm Ø





Nr.	Bezeichnung	0	1	2
1	U-Platte	1	1	2
3	U-Platte	2	2	4
6	Platte	–	2	2
7	Lagerplatte	–	2	4
7a	Dreieckplatte	–	–	4
9	Platte	–	–	2
9a	Bogenplatte	–	–	2
11	Platte	2	2	8
12	Platte	2	2	8
14	Winkel	–	4	6
16	Winkel	2	4	8
18	Winkel	2	4	8
19	Winkel	2	4	8
22	Winkelstück	6	10	16
26	Flachband	2	2	4
26a	Flachband	–	–	4
27	Flachband	2	2	8
28	Flachband	–	–	8
28a	Flachband	–	–	4
29	Flachband	2	2	8
31	Flachband	4	4	10
32	Flachband	4	6	10
34	U-Bügel	2	2	4
36	U-Bügel	2	2	4
38	U-Bügel	2	2	4
40	U-Bügel	1	1	2
43	Pleuelstange	–	–	4
44	Pleuelstange	2	4	8
45	Rad	1	1	2
48	Kettenrad	–	2	2
49	Laufrad	–	–	4
50	Radteller	–	–	4
51	Laufrad	–	–	4
52	Schnurrad	4	4	4
52a	Radteller	–	–	8
53	Rolle	1	1	2
54	Ritzel 15 Zähne	–	1	3
57	Zahnrad 60 Zähne	–	–	1
59	Zahnrad 80 Zähne	–	1	1
61	Kronrad 45 Zähne	–	–	1
62	Kurbelstück	3	4	6
64	Kettenmitnehmer	–	2	2
66	Kette	–	1	2
67	Druckfeder	–	2	5
68	Kranhaken	–	1	1
69	Vorstecker	15	25	30
73	Stromabnehmer Seitenteil	–	–	4
74	Stromabnehmer Oberteil	–	–	2
85	Stellring	–	–	2
86	Kupplungsmuffe	–	–	1
87	Gewindenabe	–	–	4
88	Nutmutter	–	–	4
25	Welle 25 mm lang	2	2	3
35	Welle 35 mm lang	2	2	3
47	Welle 47 mm lang	2	2	4
65	Welle 65 mm lang	2	2	4
85	Welle 85 mm lang	1	1	4
120	Welle 120 mm lang	1	1	1
185	Welle 185 mm lang	–	–	1
5	Schraube 5 mm lang	27	35	130
8	Schraube 8 mm lang	6	6	8
10	Schraube 10 mm lang	4	5	10
15	Schraube 15 mm lang	6	7	9
20	Schraube 20 mm lang	2	2	3
25	Schraube 25 mm lang	2	2	3
81	Mutter	47	68	150
82	Schraubenschlüssel	2	2	2
	Vorlage Nr. 0	1	1	1
	Vorlage Nr. 1	–	1	1
	Vorlage Nr. 2	–	–	1

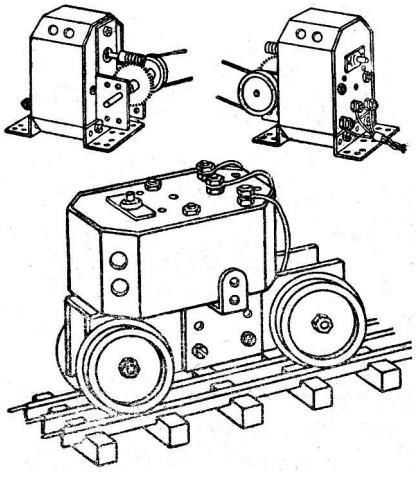
& 4mm wide. • #54 **Pinion**, 15t, brass, 8½mm o.d., 3mm wide face. #57,59 **Gears**, 1½mm wide aluminium discs, 60,80t, and 31,41mm o.d. There are no holes in either disc. They are Mod.5 (51 DP), and do not mesh at standard spacing, even using the 5mm pitch holes. The approximate centres for the 15/60t & 15/80t combinations are 19 & 24mm, and the non-standard holes in the Plate #7 provide these spacings. #61 **Contrate**, brass, 45t, 51mm o.d. • #25,35,47,65, 85,120,185 brass plated steel **Axles** with sheared ends and as long in mm as the PN. Different examples vary from 3.08 to 3.18mm Ø and some are slightly oval. • #62 **Crank**. The arm is 6mm wide and has a 9mm slot. The boss is 6mm Ø. 3 of the 6 have nickeled arms. • #67 **Compression Spring**, 4½mm Ø, 8 to 9mm long, and wound from ½mm wire. • #68 **Hook**. 1mm plain steel wire, flat, 21mm o/a. • #69 **Axle Stop** is pressed from light brown fibre, 8½mm Ø & 2-2½mm wide. • #73,74 are the side & swinging top of an imitation loco **Current Pick-up**. They are of 1.2 & 1mm copper plated wire respectively. • #85 **Collar** is brass, 8mm Ø & 5mm wide. • #86 **Coupling** is brass, 8mm Ø & 15mm long, with the two tapped holes at about 8mm centres. • #87 **Threaded Hub**, 8mm Ø, 10mm long o/a with 3½mm threaded M5. #88 **M5 Nut**, 2½mm thick, 8mm Ø with indentations both side to match the width of the Span'driver jaws. The Hub can take suitable combinations of #50, 52a **Pulley Discs** 20,25mm Ø (the 20mm is plain brass; the 25mm is steel painted red on the concave side only), and #49,51 plain aluminium **Wheel Flanges** 15,20mm Ø, 5½, 6mm wide. Examples are shown right. All these parts have a 5.5mm centre hole. • #5,8,10,15,20,25 **Bolts** have a 5.5mm Ø cheesehead and are as long u/h as the PN in mm. #81 pressed **Nut** is hexagonal. 5.5mm A/F & 1.7mm thick. All the N&B are bright steel. • #82 **Span'driver**, 65mm long and 1mm thick.



SETS The No.2 manual described later has the Set Contents for Nos.0,1,2 & linking sets 0A,1A: these with the 'A' sets omitted are shown left.

The box is a similar orange to the one on the right in OSN 31 and its outside paper covering is printed with manual models at reduced scale. It measures 35*27¾*6¾cm and one long side folds down to ease access to the 2 trays inside. These are cream, and pierced with small holes for clips and/or cord to hold the parts. The lower one sits on 6 cream 2½cm deep trays glued down around 3 sides of the bottom of the box. Perhaps a card occupied the remaining rectangular space. The label, 24¼*19cm, is also similar to the OSN 31 example but has a dark brown ground; it is 'signed' ATELIER JANKOWITZ JA along the top right side. There is a round '2' sticker on the right edge of the lid.

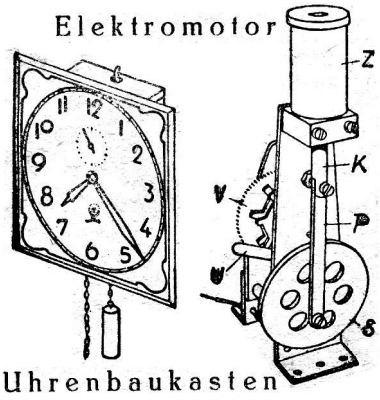
The **Flyer** lists the Sets 1-3, 0A, 1A, and also an add-on Nr. EE outfit. This allows Gauge 0 electric Locos and additional rolling stock to be built (perhaps adaptations of manual models). A springy Current Collector is mentioned, also plastic Wheels & normal Axles. A Motor & Track are referred to but it's not clear to me if they are included in the Set - they are listed separately later in the flyer.



The 20v, 1 amp Motor (E-Bau) for use with the standard Sets is shown right. It is fitted with a 40:1 worm reduction, and (I think) remote control (fern-umschaltbar). A Motor Unit, ETW 32, (right) is specifically intended for Gauge 0 Locos built from the standard sets. It looks to be based on the E-Bau but has a 20:1 reduction. The wheels are brass and the axles silver steel. Plastic wheels fitted to axles are also listed, 21mm Ø for Wagons & 25mm for Locos.

Various parts for the hobbyist were available including all those in the Sets; additional Gears with 10, 45, 48, & 75t; a Mod.7 Worm with

20 & 40t Worm Wheels; and Wheels with Tyres.



Various Transformers were listed, PN 80, 201, & 200. Also Sets to build a weight-driven Clock (14 hour run) and a Solenoid Motor (8v, 1 amp, to power small models). The illustrations of these are shown left - there is no mention of the use of standard parts in them but perhaps some of the Gears were used in the clock, & the Gear V in the Motor looks to be on the same shaft as a Chain Wheel.

Another, similar flyer has been seen on Ebay, but the EE set isn't listed in it. A competition is advertised but the closing date can't be read. The telephone number in the heading can't be seen clearly either but is probably the 'old' one and there is no rubber- stamped 'new' one. So it may be an earlierissue.

MANUALS All the covers are similar in design to the lid label except that they are printed in two colours with no red, and have the set number in the bottom right corner. All have a brown ground with the light colour pale green for the Nr.0, pale blue for the Nr.1, and beige for the Nr.2. The printer's name, Liepolt Fally, Wien, is on the back cover.

The Nr.0 has 12 unnumbered pages plus covers, 295* 210mm. C2 has an Intro, and the Illustrated Parts & Set 0 Contents. pp1-12 have 55 models starting with 2 groups of 4 on p1 under the general heading LEHRMODELLE: Abb.1-8, Schnurantriebe (Cord Drives) & Flaschenzüge (Pulley Blocks). The models that following are 9. Karren (Cart) on p2, to 56. Dekupiersäge (Fretsaw Machine?) on p12. Also on that page one Nr.1 model, 106. Lastaufzug (Load Elevator). C3 has 11 basic constructions and C4 is blank apart from the printer's name. The models are shown as line drawings with auxiliary views in many cases, and with a little explanation for a few. There is a good selection of quite attractive little models with some emphasis of items of furniture, 6 including a Grand Piano; railway models, 8 including 5 Wagons; and machine tools, 14 in all. Unlike the other manuals no mention is made of the 'A' sets.

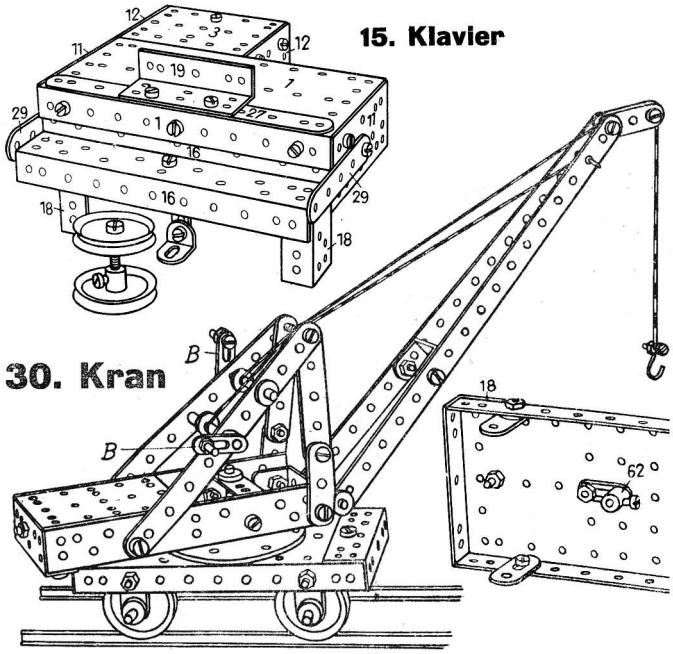
The Nr.1 has 8 unnumbered pages plus covers, 295* 206mm. C2 has the Illustrated Parts for Set 0A, & the Contents of Nos.0,0A,1. Also on this page 3 Lehrmodelle 101-103 for Chain Drives. pp1-8 have 14 models from 107. Flugzeug (Aeroplane) to 120. Automatische Druckmaschine (Automatic Printing Machine). Again the models are shown as line drawings but this time with many auxiliary views & more explanation - on C3 for models 116,117,119,120. C4 is as the Nr.0. Again there is a good selection of models of all types, some more complicated mechanically than would be expected for this size of set.

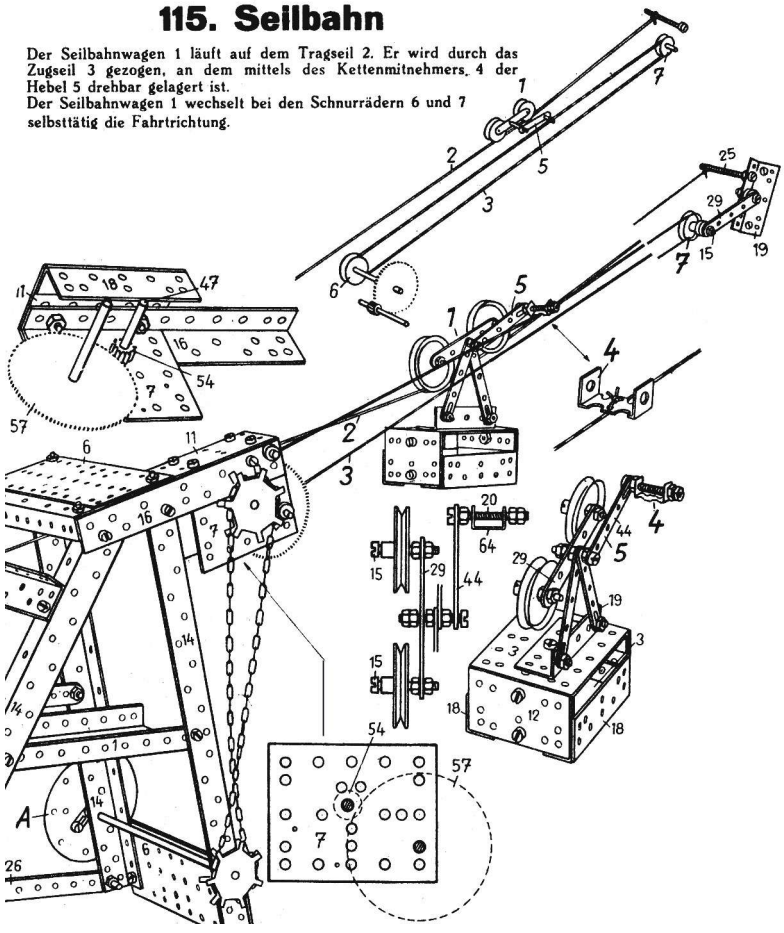
The Nr.2 has 8 pages plus covers, 290*203mm. C2 has an the Illustrated Parts for Set 1A, & the Contents of the 5 Sets 0-2. Also on this page, how to make pulleys & flanged wheels using the Threaded Hub etc. pp1-8 have 12 models from 201. OFFENER GÜTERWAGON (Open Goods Wagon) to 212. GREIFBAGGER (Grabbing Crane), on pp6-8. The presentation is as before but with many more auxiliary views (22 for the Greifbagger). All the explanatory notes are on C3. C4 has an ad for the Nr.200 Transformer and its use with the E-Bau Motor and toy railway track. 8 of the models are Rolling Stock including 2 Electric Locos and 2 Passenger Coaches. The others are a Loading Machine, a Tram, a Lifting Bridge, and the Grabbing Crane. All are attractive looking and the last four are quite complicated.

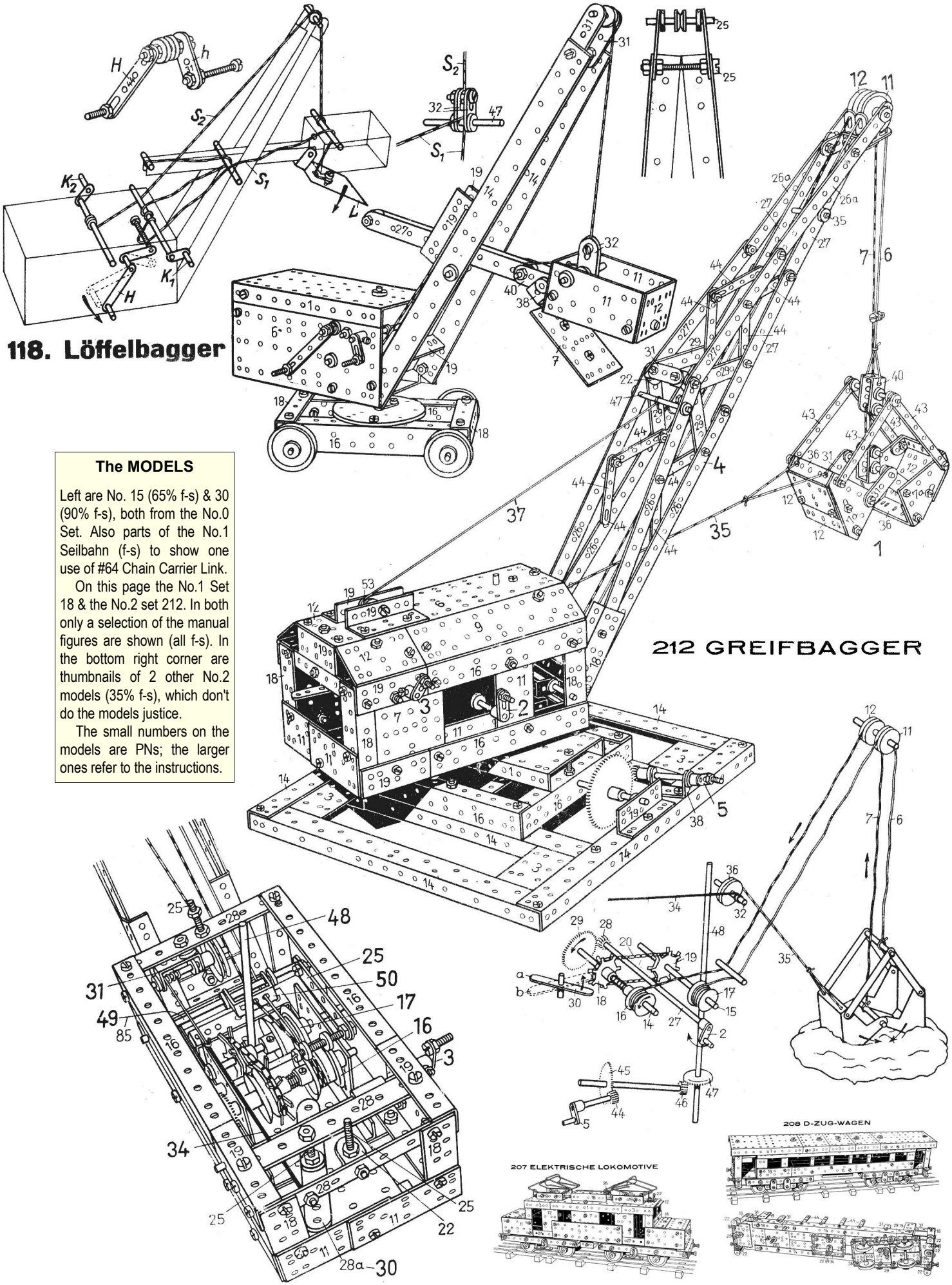
Right & on the next page, a selection of the models.

Another Look at OSN 31 Now that details of the present No.2 are known it is virtually certain that there was no DUX connection. The lefthand set in OSN 31 looks like the remains of a GENIAL & a DUX outfit in a GENIAL box. The 2 manuals with the Set support this. Also it can be seen that the basic pitch of DUX holes is 15mm against 10mm for GENIAL.

The cover of the GENIAL manual in OSN 31 is quite different to the ones with the No.2, and from its appearance it looks to be later. That would place it beyond 1952 if the Flyer was current when the No.2 was made. If the colours of the models on the OSN 31 cover are correct some parts were white at the time, the door (Plate #11) & bonnet side (A/G #18) on the (No.0) Lorry for instance.







The MODELS

Left are No. 15 (65% f-s) & 30 (90% f-s), both from the No.0 Set. Also parts of the No.1 Seilbahn (f-s) to show one use of #64 Chain Carrier Link.

On this page the No.1 Set 18 & the No.2 set 212. In both only a selection of the manual figures are shown (all f-s). In the bottom right corner are thumbnails of 2 other No.2 models (35% f-s), which don't do the models justice.

The small numbers on the models are PNs; the larger ones refer to the instructions.