

**STOKYS AUTO SETS.** From Harry Mariën some photos of two new STOKYS Auto Sets, the #1 and 1a, and the number in the top right hand corner of the 1a box lid shown below, 1·1a·2, seems to indicate that there is a #2 Set as well. Just when these Sets were introduced is not certain but they are currently available.

The #1 box contains two trays; all the parts seem to be standard STOKYS but their range indicates that the models cover a wide span of vehicles. There is for example a Hook, and one of those Winch Brackets, A41, and 2 of the Flanged Discs K01, which with 4mm Balls between them make a ball bearing. So the makings of a crane and in fact a model of a Mobile Crane is shown in the background of what looks as if it is the cover of the manual in another photo. Also visible are 4 50mm Flanged Wheels, R23, and 2 of the smaller R22, so a loco? Two 1½"ish diameter Gear Wheels can be seen but there are no signs of their purpose. And no signs of a Driver, with STOKYS on his helmet, as shown in the cockpit of the Racing Car. The Wheels in the set look as if they are red R06 35mm Pulleys fitted with Tyres, but whether with the standard R08 Tyres can't be seen. There are 6 of them.

The #1a box again has 2 trays and they look to be the same size and to have the same inner partitions as those of the #1. And again 6 Wheels but both the Hubs and the Tyres look different to those in the #1, (below, right); they look like those used on the Racing Car shown on the lid. The hubs have 6 holes around the boss and what may be a wide rim to take a wide tyre; the diameter of which looks if anything slightly smaller than the one in the #1 Set. They're perhaps #R62 (Wheel complete with Tyre), one of the new STOKYS parts mentioned in OSN 7, it's 47mm in diameter. Various gears can be seen including Contrates and a Worm, and there are 4 Couplings and 3 Cranks, and one of the H05 3-Spoked Wheels that could be used as a steering wheel. So some mechanical detail can be expected in the models. There is nothing to suggest that any of them are motorised, and indeed the current STOKYS sideplate type motors would hardly be suitable for use in relatively small models.

Harry also sent photos of a current STOKYS #4 Set and as far as can be seen the contents remain the same as they were; the covers of the manuals, 0-2 and 3-4, are almost unchanged from early 1970s ones - the model of the Excavator with the green roof is the same but the 30mm band along the bottom has changed from blue to yellow.



Above: the label on the box in the set for small parts.



**STAHLBAU TECHNIK.** Courtesy of Geoff Wright I have recently been able to examine two No.1 Sets and some amplification of the data in MCS is possible. The sets are very similar to one another but with some minor differences such as the colour of the box and the reference numbers on the lids. The latter contain elements that could be dates with EVP 7,55 on both, and Pn 598/73 on one and Pn 13/1972 on the other. There are no other positive indications of age although the parts are packed in a plastic tray with moulded recesses for the various parts, and the handle of the Screwdriver is also made of plastic. Neither set had a manual and neither was complete, and both contained some parts which from the Contents given in MCS should not have been in a Set 1.

The spacing of the holes is 12.5mm and the Strips are 12mm wide with the ends near fully radiused. All the Strips, DAS and Brackets are nickel plated. Except for one 5x3h Plate (#12) which is also nickelled, all the Plates, Flat Girders and Girder Brackets (#23) have a 'crackle' finish, some in light grey and others in pale green. Some of these parts do not look exactly as illustrated in MCS - #13 and 14 are fully perforated, #23 has 2 rows of holes in the wider flange, and the elongated holes shown in #15 and 25 are replaced by large circular holes of 5.7mm diameter.

#27, 30 and 31 are painted a bright redish orange, including the 11.2mm dia, double-tapped bosses. The illustration of #27 in MCS is not very clear, it is a MÄRKLIN type Flanged Wheel but with 12 holes in its face, 2 on each of 6 equispaced radii, at 12.5 and 25mm from the centre. #31 is 22mm dia and not the 26 shown in MCS.



continued to be made until at least 1966. The hole pitch was 12.0mm and the Axles and N&B were 3mm Ø. All parts were nickel plated. As well as the sets mentioned in OSN 8, there were packs of parts Z1-Z14 available. In a photo of a 1955 F Outfit the only part that isn't in the MCS Extra Sheets is a Circular Plate of 45 or 50mm Ø (slightly larger than B31) with only a centre hole and 4 others on a pcd of 36mm (probably). To give an idea of size, the Pulley which takes the Tractor Tyre scales at 75-80mm diameter.

**STRUCTATOR** From EZ. This system was made by Bing between 1913 and c1917. Then, if I've understood correctly, from 1919 to 1921 it was produced by 'H.Huck, Inh. Adolf Huck' of Nürnberg as '**TECHNIKO/TECHNICO**'. A firm called J.Kleiner of Houndsditch advertised STRUCTATOR in G&T from May 1922 until April 1924, but I suppose it's possible that they were selling old stock. As shown in MCS, the original sets were advertised here in December 1913.

The German patent was Nr.282410 of 14 January 1913. The grooved Baseboards were wooden; the Plates (see 6/115) and some of the small parts were aluminium.

**TECHNIK** Another small set from the WW2-early 1950s period. The parts were made of steel and bare aluminium: some of the former were plated, nickel or brass, and others painted red. Holes were 3.9mm Ø but I don't have the spacing. In EZ the name TECHNIK-METALLBAUKASTEN WESTFALIA is mentioned in passing and it might be the WESTFALIA described later. There's also a small photo of a set in Pl.60 with TECHNIK on it but it's too small to see any of the other wording.

**TECHNIKUS** I couldn't find anything in EZ on the postwar East German system of that name that's in MCS; the one made by VEB Funkwerk, Leipzig with an 'RFT' logo, and parts that look just like STABIL. There is however mention of an earlier TECHNIKUS made by Menki Zimmer of Fürth from 1914 to ?. No other details are given.

**TECHNOFIX** From EZ. This was a system in which steel Rods were joined by being pushed into Connectors (rather like the MECCANO Rod and Strip Connector) which were then joined together in some way. No N&B were used and David Hobson has suggested that the method may be that shown in a UK patent from 1924. It is No.230975 in the name of B.Buxbaum, and toy bridges and awning frames are mentioned as possible applications. One Connector has a spigot 'd' which engages in the hole 'c' of the other Connector; and then sliding the Rod 'e' in the second Connector over the holes prevents the joint from falling apart. The ends of the Rods were to be tapered if necessary.

The system lasted from 1928 to at least 1935. The original maker (or agent?) was W.Keller & Co. of Stuttgart, followed in 1930 by Kosmos, also from Stuttgart, and then from 1931, Gebr. Einfeldt of Nürnberg. An ad from 1935 is headed KOSMOS-BAUKASTEN TECHNOFIX.

The ad shows 3 models, a small Trolley with Wheels that have 4 large holes in their faces, an Arch Bridge, and a Crane. The Pulleys in the latter look like the Trolley Wheels but small holes can be seen between the large ones. The Crane has a quite complicated braced structure but no indication of scale is given.

**THALE STAHLBAU TECHNIK** Some notes on this

East German system were given in 8/174. There are photos of 2 sets in EZ and it's interesting to see that the 5\*5h Plates have elongated holes along 2 opposite edges, and not the larger holes in OSN 8. The only other difference is that the shade of the EZ red parts isn't at all orange.

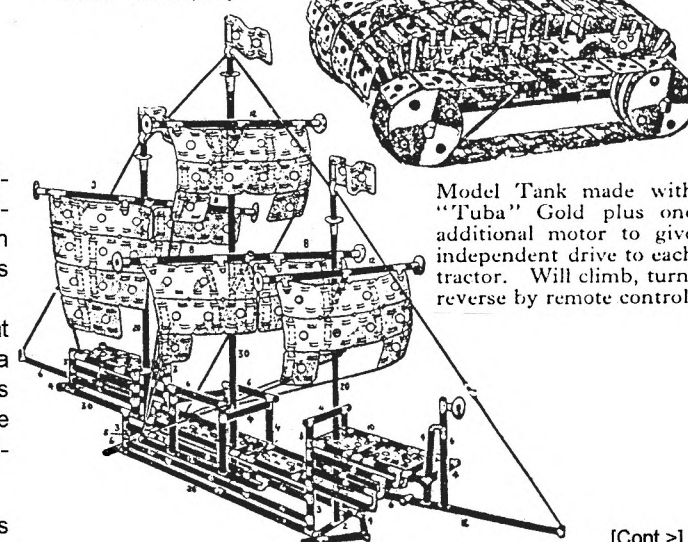
The dates given in EZ are from the 1950s to the 1970s; the maker, Krause & Co., later became VEB Metallspielwaren Thale/Harz.

**TITAN** EZ gives the period of this 10mm hole pitch system as c1948 to 1960. MCS/FB gives the hole diameter as 3.5mm. The manufacturer was originally Titan GmbH of Ludwigsburg/Württemberg, and later of Schwäbisch Hall, as in MCS/FB. A photo of a set from about 1950 shows the Strips and small parts black, A/Gs green, most Plates red, and most circular parts red, silver or green. The only parts in the rich blue are the 11\*7h and 9\*7h Plates, and the large Flanged Discs (PNs 64 & 65 can be seen). The model on the box lid is predominantly red and blue with silver wheels, the colour scheme given in MCS/FB. The parts were made from steel 1mm thick.

Jeannot mentioned a TITAN (2) with steel parts painted light grey but I don't know whether this was a colour variant of the above or a different system.

**TUBA** This is included as a UK system in MCS but the evidence now available indicates that it was German. The original Patent was German, applied for on 31 May 1933 by Josef Szapiro, and it was made in Berlin by the firm Die Tuba Spielwaren GmbH. David Hobson tells me that the UK Patent, 434838, of May 1934 (with a Convention Date of 31 May 1933), was in the name of J.F.Kennedy, a British subject but with a Berlin address of Joachimsthaler str. 38. In ads for TUBA in *Games & Toys* there is no mention of it being British made, and most likely it was imported from Germany. It was originally advertised in Sept 1934 by The Chad Valley Co. Ltd, Harborne, Birmingham 17, but in the last ad, in Oct 1935, Andrew Charles Ltd, 13-16 Wrothesly Street, Birmingham 5, announced that they had taken over sole distribution. Several models were shown in the different ads including the ones below. Under colours Jeannot listed steel, blued and nickel plated, and then later, gold, silver, red, green, blue, and yellow Plates. A photo of a German sets in EZ shows black Tubes, bright Plates, a red large Pulley and yellow small ones - similar colours to those given in MCS. An ad in German for the Motor is also similar to the one in MCS apart from using metric units, but it does show it running from a 4½v battery, and it gives the diameter as 30mm.

Model Galleon made from "Tuba" Silver, 15/-



Model Tank made with "Tuba" Gold plus one additional motor to give independent drive to each tractor. Will climb, turn, reverse by remote control.

[Cont.>]



## A Little More about THALE STAHLBAU TECHNIK

Since the notes on this East German system (54 parts, with a few unusual ones; 4.2mm holes at 12.5mm pitch; M4 N&B) in 8/174 & 15/419, several manuals from 1960 to 1967, and some other information, have come to hand from various sources. Thanks are due to Thomas Morzinck & Clive Weston for their contributions.

Per *Baukästen* the sets were made from 1946 to 1975: first, until 1961, by Thaler Blechwarenfabrik Krause & Co.; then, until 1972, by the same company but with 'KG' (Kommanditgesellschaft = limited partnership) after the name; & finally by VEB Metallspielwaren Thale. The dates given below are mostly taken from the last digits of PRs - this is an assumption but it seems to give a coherent sequence.



**MANUALS** Two types have been seen. One has models for sets 1-3, and the cover above (as in MCS) is in full colour on a green ground. Some of the models are in colour too and all are shown against a 'real' background drawn in orange. The second, for Set 1, is in B&W, with no 'scenery'; it has no proper covers, the first page is the Intro page from the 1-3 version. The PRs of the various manuals seen are listed at the end. The 1965 1-3 and the 1963 Set 1 Editions are described below - the small changes in the others will then be noted in what follows.

**SUMMARY OF MANUAL** •Name: Thale STAHLBAU TECHNIK  
•Details of maker: THALER BLECHWARENFABRIK KRAUSE & CO, THALE/HARZ. •Dates &/or Ref Nos: III/18/2-26750 P 205/65 on C3.  
•Page size: 284\*197mm deep. •No. of pages: 28+covers. •Language: German. •Printing: covers & some models in colour; most models have 'real' background in orange. •Page No. of Illustrated Parts List & highest PN: 3,54. •Page No. of Set Contents & highest PN: 2,54 (51-54 not in sets). •Sets covered: 1,2,3. •No. of models for each set: 17,14,7.  
•Name, Model No., Page No. of first & last model of each set: 1: Sackbarre,3,7; Krankenstuhl,4,12. 2: Windmühle mit Hammerwerk,38,13; Doppelständer-Kurbel-presse,54,C4\* 3: Fahrbare Verladebrücke,29,C2; Motorisierte Feuerwehrleiter,28,C3. •Other notes: • The models aren't in order. The last model before the back cover is Einfacher Drehkran,52,26 for Set 3. • On p25 is No.25, Karussell "Spinne" which needs Set 3 & extra parts. • Standard Constructions are given on pp4-6 & experiments in mechanics on pp27-28. • \* The Set/Name/Model No./Parts List of this model are given in the 1960 Edition but in none of the later ones.

The **Set 1 manual** has 8 pages, all similar to the 1-3 manual above. After the introductory page, the Set Contents, & the Illustrated Parts, the final 5 pages are the No.1 model pages 6-11 from the 1-3 manual. The last model is No.9, Elektrokarre.

In the manuals through 1965 only one manual, price Pf40, is listed; thereafter 2 are shown: one in colour at Pf83 & one in B&W at Pf10. If these last are the two types described here, the coloured version was available by 1960.

**PARTS** No new ones were added during the period. One part, #55 Kurbel f. Spinne, was listed as a part in the Set Contents through the 1965 No.1 Manual, but was never included in any Sets. It isn't illustrated: an ordinary Kurbel is a Crank Handle & #55 may have been a special cranked part used to give the necessary offset to the spider at the top of the Spinne model shown in MCS (a 6-car 'Octopus' Roundabout). The same illustration of this model, which needed Set 3 plus extra parts, was in all the 1-3 manuals and probably an ordinary Kurbel could be used instead.

The **25mm Axle** is marked 'Zinken für Egge' (Tines for Harrow) in the 1960 manual, but not thereafter, and there is no Egge

models shown. Perhaps it was in an earlier Edition.

In certain years the **Gears (#51-54)** were marked in the Parts List as not being available.

The **colours** of the parts are generally similar to those noted in OSN 8 except that in the earlier sets the Strips are black, painted according to BK. The Gears were moulded in a dark brown plastic that looked like Bakelite.

**SETS** On the back of the 1960 manual it is said that 3 **linking sets**, 1a, 2a, & 3a, are available - the last is to convert a No.1 into a No.3. (Actually Roman numerals are used, as they were elsewhere from time to time.) No mention is made of linking outfits in later manuals.

The only change to the **set contents** was that the number of 25mm Axles in Sets 2 & 3 were reduced from 13 & 15 to 6 & 12 between 1960 & 1963. At some time after 1967 2 Gears were added to Sets 2 & 3, as shown in MCS, but oddly, although the sets are progressive in all other respects (except the Tyre pattern for the 26mm Pulley), the MCS Set Contents shows a 20 & a 40t Gear in Set 2, and a 20 & a 60t in Set 3. The Worm wasn't included in either.

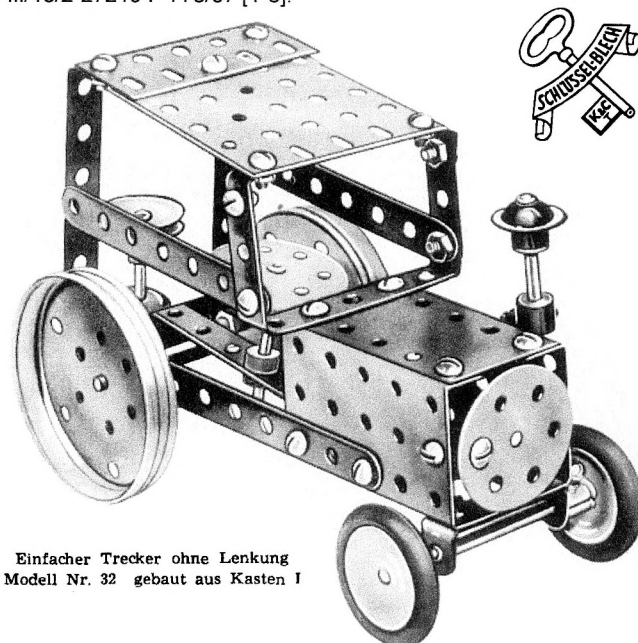
A **Gears Outfit** is known from 1961 and all four Gears are shown on the lid label opposite (45% full-size). The PR at the bottom is IV/18/15 1201 Pn 701/61. The name of the company has the KG after it - this was never added to the name on the manuals.



Photos of two sets from this time show them packed in dark mottled boxes, lighter inside, with partitions to separate the parts. The lid label is very similar to the manual cover. A No.1 of unknown date is in a red box with partitioning, and has the later type of Gantry Crane label shown in OSN 8.

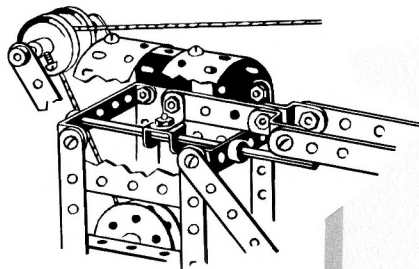
**MODELS** Those for Set 1 are mostly reasonable looking, typical small models - the Tractor below is among the best. Many for Set 2 are machine tools or agricultural implements, plus a few vehicles, and the Digger at the top of the next page. Again most are attractive looking. The No.3 models include 3 fair Lorries with centre-pivot steering, a better Fire Engine with 2-stage ladder, 2 decent Cranes, and the Big Wheel in MCS. All the models are quite simple though with mechanical features confined to the simple steering and some Pulley drives. The only exception is the 'Octopus' special model, also in MCS, which uses the Gears, but even then there seem to be two separate drives, one to rotate the arms, and the other to the eccentric to raise/lower them.

**Manual Ref. Nos.** III/18/2-24629 Pn 509/60 [models for Sets 1-3]; III/18/12 . 26006 . P 573/63 [1]; III/18/12-26541- P 205/65 [1]; III/18/2-26750 P 205/65 [1-3]; III/18/2-27047 P 261/67 [1]; III/18/2-27219 P 773/67 [1-3].



Einfacher Trecker ohne Lenkung  
Modell Nr. 32 gebaut aus Kasten I





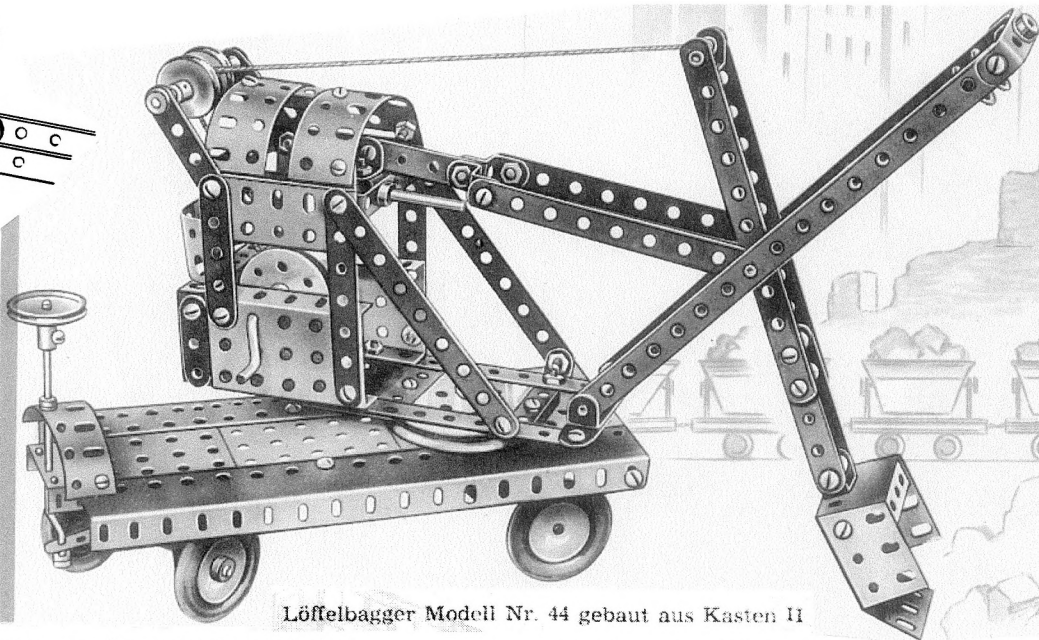
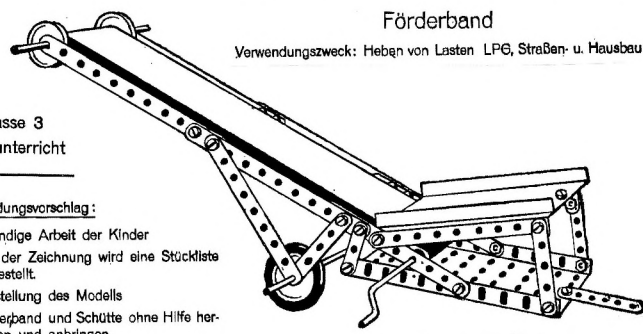
**LATER** The 1972 OSN 8 No.1 was in a purple mottled box with white moulded packaging. The 1973 Set was similar except that the box was blue. Also its label did not carry the Krause key logo - by that time the company had been nationalised.

A new design of lid top (below) has been seen in photos of Sets 2 & 3. The ground is yellow & white, with the same Crane as before but with 3 stylised doll-like children. It's rather charming but would it have appealed to budding young engineers? Perhaps it was intended to attract East German mums. Judging from its appearance it came after the 1973 label but the key logo can be seen in the bottom small circle. Possibly this design was only used for the larger sets, and was introduced before 1973. There are much clearer photos of this type of lid in BK (p124) & EZ (Pl.67), and in the former it can be seen that there's no 'key' in any of the circles. In the with 'key' Set below the end holes in the 5\*5h Plate are elongated, but in the BK 'no key' Set they are oversized round holes, as in the 1972-73 No.1 Sets. In all three 'doll' sets the Gears look to be white. As far as is known the design of the manual cover was never changed.



### Another Krause System **METALLBAUTECHNIK**

Details are given in MCS - this was a set intended as an instructional aid for 'Werkunterricht Klasse 1 bis 3'. All that is known of it is a folder, 220\*157mm deep, with 11 cards inside, 10 with page numbers 1-20, and the other with just 8 Road Signs printed in colour on it. All the 28 parts are illustrated and though many of them



Löffelbagger Modell Nr. 44 gebaut aus Kasten II

could be, and probably are, STAHLTECHNIK parts, a few are clearly not, in particular a 5\*11h Flanged Plate, and a Hinge. Two of the Axles are different lengths too, at 60 & 100mm. All that can be said from the details given is that the Axles are 4mm Ø, and the thread is M4. The Set Contents are given and include 34 Strips form 3 to 11h, 4x 26mm Pulleys with Tyres, and 22 M4 Bolts.

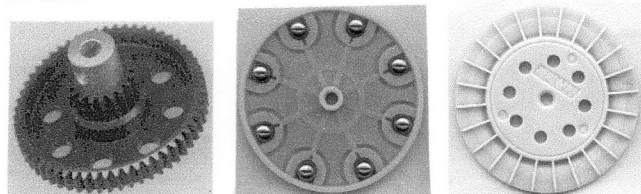
14 models are shown after some 'Basic Constructions': the first are Frames, with & without bracing, on p7, and the last is the Conveyor in the previous column. For that the children had to decide what parts were required (for most models the parts needed were listed), and build the model, including making the belt & chute (from unspecified material) without help. The other models include Steps, Barrows, a Set of Scales, a Braced Gate, a Stand for the Road Signs, & a Crane. The latter needs 2 Sets, as does a Cable Railway shown on the back of the folder.

From the PR on the back of the folder, P 321/70 IV-25-3, the date would be 1970, and the KG is there after the company name, as would be expected.

**Some JE-IL (JEP) Parts** Geoff Wright kindly showed me the 4 parts described below; they were illustrated or mentioned in 13/344.

The **Gusset**, #131, is a thin, rigid steel plate, .70mm thick, painted a mid-green. The **Steering Bracket**, #133, is made from 1.18mm steel with an iridescent finish. The **Combined 1/2" Pinion/1 1/2" Gear** (below) is black plastic with a brass boss mould in, and has 19/57 teeth. The boss is double-tapped, .374" Ø, with a bore of .164". The pinion's face is 1/4" wide and the gear's is .20". The gear disc has 8 holes in it and its inner side is recessed. The **Ball Bearing**, #110 (below), is now made of yellow plastic, and is 62mm Ø. 8 balls, 9/32" Ø, are held trapped in the centre part, and it doesn't have the ring of 8 holes shown in OSN 13. The two outer parts are identical, with a ring of 8 holes at 1/2" radius, and 24 radial stiffening ribs around the circumference on the outward side. The overall depth of the unit is 15 1/2mm.

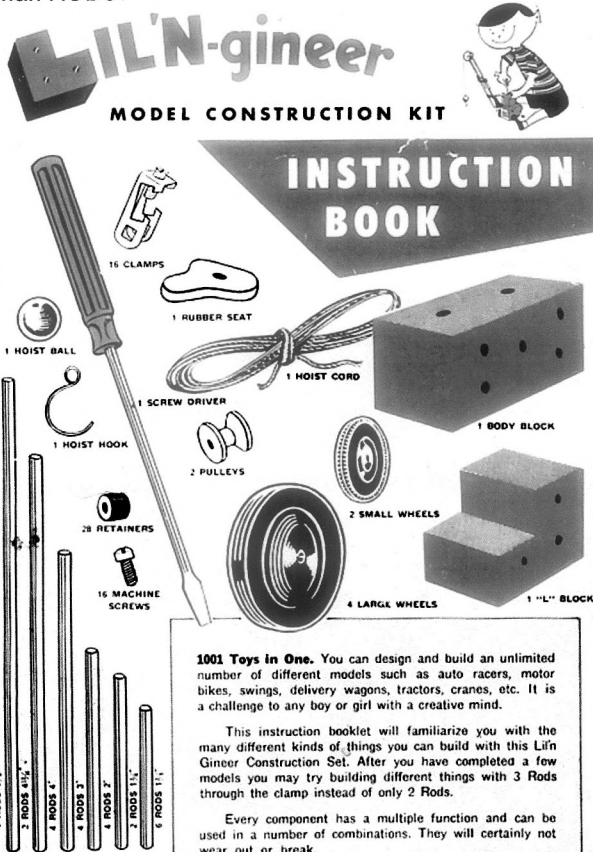
The parts look well made and finished but there are some criticisms: the bends in the Bracket are not quite at 90°; running the Combined Gear with MECCANO parts gives the impression that the JEP part might have a tight mesh with a similar JEP Gear; and the dimensions of the Ball Bearing parts mean that the axial load is being partly taken largely by the plastic faces rather than solely by the balls.





## 'New' System: LIL'N-GINEER

Kendrick Bisset has recently found an example, nearly complete, of this small, rather unusual, Canadian set, and kindly sent details. It includes a Model Sheet and on the front, at the bottom, is 'Made In Canada by Eagle Toys Ltd. - Montreal, Canada'. Kendrick has another LIL'N-GINEER Model Sheet, identical in most respects, but at the bottom is 'Another Product by Chris Manufacturing Co. Inc., Modesto, California' and 'Exclusive Representatives, Novelty Mfg. Co., P.O. Box 1747, Richmond, California'. Also, most of the parts in the Set look similar to those of two MCS entries - the Spanish EL INGENIERO MECANICO, and the German ROBO.



**1001 Toys in One.** You can design and build an unlimited number of different models such as auto racers, motor bikes, swings, delivery wagons, tractors, cranes, etc. It is a challenge to any boy or girl with a creative mind.

This instruction booklet will familiarize you with the many different kinds of things you can build with this Lil'N Gineer Construction Set. After you have completed a few models you may try building different things with 3 Rods through the clamp instead of only 2 Rods.

Every component has a multiple function and can be used in a number of combinations. They will certainly not wear out or break.

Another Product by **Chris MANUFACTURING CO., Inc.** Modesto • California

Exclusive Representatives  
**NOVELTY MFG. CO.**  
P.O. Box 1747 - BEACON 3-5008  
RICHMOND, CALIFORNIA

Above, the front of the Chris Sheet with the Illustrated **Parts**. Apart from the company, it differs from the Eagle version only in the illustrations of the Clamp - the two types are shown below with the Eagle type on the right. Now notes on the actual parts. • The Blocks are wood, painted red. The Body Block is  $2\frac{7}{8} \times 1\frac{11}{16} \times 1\frac{11}{16}$ "; the 'L' Block is a  $1\frac{11}{16}$ " cube with a  $\frac{13}{16}$ " square corner removed. The holes are mostly at 1" spacing. • The 2 Pulleys are red painted wood,  $\frac{5}{8}$ " o.d. &  $\frac{1}{2}$ " wide. • The 16 Clamps look very much like the illustration. The 6-32 Setscrew has a fillister head, .175" Ø. There is enough room to fit two parallel rods in the Clamp, as well as one perpendicular to the other two. In the models shown only 2 Rods are used but it is said in the instructions, 'After you have completed a few models you may try building things with 3 Rods through the clamp instead of only 2 Rods.' With the Chris design the bottom Rod would be free to turn in the square hole. • Like the Clamps & Setscrews the Rods are steel, 26 in all, in 6 sizes, given on the Sheet as  $1\frac{3}{8}$ ,  $1\frac{1}{4}$ , 2, 3, 4,  $4\frac{13}{16}$ , &  $6\frac{7}{8}$ " long. They are .161-.162" Ø, MECCANO size. • The 4 Large Wheels (2" Ø) are hard black

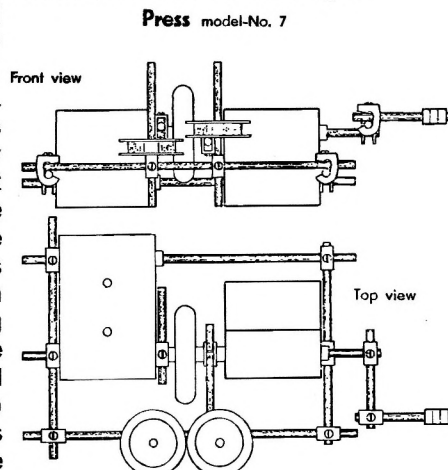
rubber and are a loose fit on the Rods. The 2 Small Wheels (1") are a bit softer, and are a press fit. • The Seat (about 1" long) is also black rubber & a press fit. • The 28 Retainers are red rubber, and look to be made from  $\frac{5}{16}$ " o.d. rubber tubing. Six of them stacked are just a shade more than 1" long. All of the rubber parts are still flexible. • The Screwdriver, some 7" long o/a, has a clear yellow plastic handle. • The Hoist Ball is missing from the Set.

The box is quite large & scales at  $13\frac{1}{2} \times 12$ ". The lid above is red & black on yellow, with the parts to the left against a dark ground. In the white circle is 'Kit No.1 CONTAINS 101 PIECES'.

The **Model Sheet** is  $13 \times 9$ ", folded to give 4 sides. It is printed in red & black, and 15 models are shown, each with a Parts List. Some of the more interesting models are shown on the front of this Issue. The models are identical on the Chris & Eagle Sheets, and the Clamps shown in them do not have the bottom hole. It is left to the reader to imagine models in which Clamps with 3 Rods are used.

**EL INGENIERO MECANICO** is described in MCS as having bright steel & polished wooden parts. The dimensions given are only estimates but if correct the parts would be a little smaller than LIL'N-GINEER. The range of parts is the same except there is no direct equivalent to the red Pulley, and the Large Wheel is a Tyre on a Pulley. This Pulley serves instead of the LIL'N-GINEER red one. The 17 models shown include all the LIL'N-GINEER ones, though the latter have been redrawn with a few small changes.

Nothing is said about the **ROBO** parts in MCS, but 1 of the 2 pages of EL ING MEC models is included, and they are identical except that errors in the numbering of the Spanish models has been corrected. In addition engineering drawings of three models are included (labelled in English) and an example is shown right. It is one of the models not on the LIL'N-GINEER Sheet. The Parts List includes Rods 2, 3, 4, 5, & 7" long, and *Eisenzeit* notes them as 4mm Ø.



- |              |             |
|--------------|-------------|
| 1 body block | 5 2" shafts |
| 1 L-Block    | 3 3" shafts |
| 1 wheel      | 1 4" shafts |
| 2 pulleys    | 2 5" shafts |
| 12 clamps    | 2 7" shafts |
| 8 bushings   |             |

**Dates.** MCS mentions 1940 for EL INGENIERO MECANICO, and in *Eisenzeit* ROBO is said to be from the 1950s. Judging by the box lid LIL'N-GINEER might be from the 1950s too.

## Another THALE STAHLBAU TECHNIK Nr.1 Outfit A

1972 Nr.1 was described in 8/174 (the box with the purplish lid) and now, courtesy David Hobson, I've been able to examine another Nr.1 from the same year (as judged by the last numbers of the lid label PR: Pn 13/1972). The two boxes are identical including all the details on the label. The parts' finish shows a couple of differences:

• The Flat Girder, Girder Bracket & 3\*5h Plate are nickel, but the 5\*5h Plate & the 3\*5h Flanged Plate (made from it) have a medium green crackle finish. Also they both have slotted holes,  $8\frac{1}{2}$ mm o/a, instead of the oversize round ones. So apparently the two styles were in use at the time. • The Screwdriver is virtually identical except that the handle is black and the 'VOLTUS' on the OSN 8 one is replaced by a word hard to read but possibly 'Smalcatda'.



## Early THALE STAHLBAU TECHNIK Parts & Manual

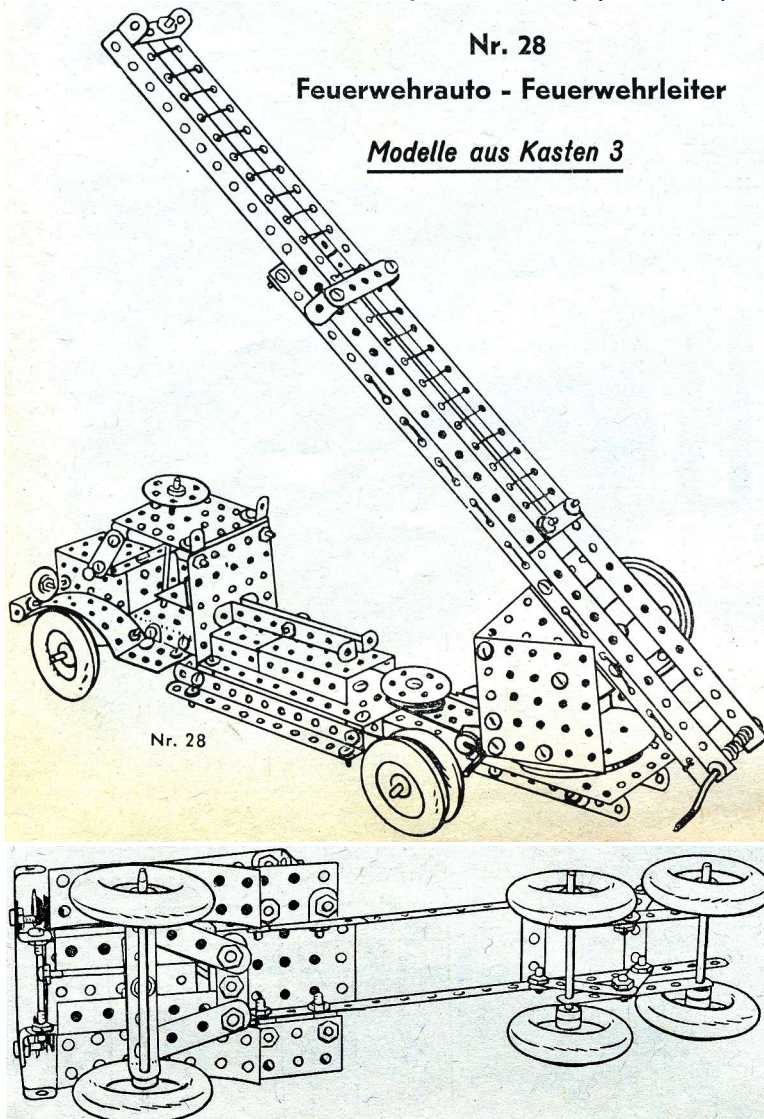
Notes on this post-WW2 East German system appeared in 8/174, 14/419, 24/698 & 27/782. Now an earlier manual, & some parts with it, probably the remains of a No.2 outfit, have come to hand.

**The MANUAL.** It has 20 pages including covers, 210\*142mm, all pale blue except the covers - the front, with a manual model on it, is shown right. p2 has a list of all the parts in the system; p3 illustrations of the parts in the No.3 outfit, with quantities; p19 lists the contents of the No.1 & 2 sets; and p20 has text about the virtues of the system; the maker, Thaler Blechwarenfabrik Krause & Co., Thale/Harz; and a very long PR which gives no indication of date. An inspection slip found in the manual, no doubt from the original set, has '12357' stamped on it and this probably indicates 12th March 1957 (all later slips seen have this style date code).

The rest of the pages show models for Sets 1-3 with a line drawing of each, brief constructional notes for many of them, and a parts list for all but the No.1 models. The latter have no names and go from Nr.2 (a Trike) on p4 to Nr.10 (a 3-Wheel Truck) on p5. The No.2 models run from Nr.11 Ackerschlepper (Farm Tractor) on p6 to Nr.18 Motodreirad (3-Wheel Delivery Truck) on p9. Also on p9 is the parts list for the model on the cover; it is entitled 'Nr.1 Motorrad' but needs parts from the Nr.2 outfit. The first No.3 model is Nr.19 Windmühle on p10, and the last, Nr.28 on p18, is shown right. Under it is a drawing from p12, the basic chassis used for the Fire Engine and a number of other models. Both drawing are their original size. The steering column is a 44mm Screwed Rod.

The models, apart from a few small ones, 3 agricultural implements, a Windmill, a Bridge with Signals, & a Ferris Wheel, are all vehicles, with 6 based on the Chassis. The later manual (see OSN 24) has a much wider range of models and only some half of those in this manual have been retained, and then with improvements, a complete redesign in many cases.

The **parts** listed in the Manual are given below with English names, and the quantities in Sets 1/2/3 in curly brackets. Also,



8}. **Plates with holes only along the two longer edges:** 3\*3h {-/1/1}; 3\*5h {1/1/2}; 3\*7h {-/-2}. **A/B** {8/19/20}. **D/B** {2/6/6}. **Rev. A/B** {-/2/2}. 64mm Ø **Flanged Disc Pulley** {2/2/2}. **Pulley** 28,26mm Ø {4/9,7/11,12}. 50mm Ø **Tyre** {-,4x 37mm Ø/6,6x 43mm Ø/11,11x 46mm Ø}. 6h **Bush Wheel** {1,-/1,2/3}. 6h **Wheel Disc** {1,2/1/1}. 18mm **Formed Disc**, used for headlamps, etc {1,2/2/2}. **Nut** {30/67/126,127} (In the early manual the Nuts for Set 3 are

listed as 50 steel, 65 brass, & 11 Stoppmuttern. The latter may be stiff nuts because there is a note that double the number of ordinary Nuts may be supplied in their place.)

**Bolts** {34,35/75,78/105,140}. These are totals and include 5 longer Bolts for Set 3 in the early manual, and 2 for each set in the later version. Also in the early one Bolts may be steel or brass. **Washer**, not mentioned at all in the later manual {7,-/14,-/20,-}. **Axles:** 25mm - it looks like a RH rivet with a pointed end & is described as a Kerbstift in the early manual; a number are used as the tines in a Harrow model {-/13,6/15,12}; 45,55mm - hollow with a small diameter flange on one end {3/4/2,4}; 60,80mm {2/4/4}; 95,110mm {2/2/2}; 120mm Screwed Rod, 130mm **Axle** {-/1/1}.

**Crank Handle** 105mm {-/1/1} - there were 2 early types, with & without a threaded end, with only the former in the sets; later there was only the without version, but in 2 lengths, 105 & 125mm with {-/1/1} of the latter.

**Rubber Axle Stop** 3\*

10mm Ø {6,10/13,15/30(but crossed out in pencil and 20 added),20}. **Hook** {1/2/2} - the early type was wire, replaced by the flat 'loaded' pattern.

**Spanner** {1/1/1} - as right with the circular end cranked; the





That concludes the different parts in the early sets. Later additions, apart from those already mentioned, were a Coupling & 4 Gears. The **Coupling** {-/2} allowed Axles to be joined and there was no longer a need for the Screwed Rod & Threaded Crank Handle (to make longer shafts they had been joined by a D/B). The Gears were not included in the regular sets initially and the **Worm** (27.5mm Ø) never was. The **Gears** have 20t {-/1/1}; 40t {-/1-}; & 60t {-/1/} and are 27.5, 52.5, & 77.5mm Ø (but examples to hand are 26½, 52, 76½mm o.d.)

**Finish.** All the parts are black except the orange-red Flanged Disc Pulley; the blue Pulley, Bush Wheel, & Wheel Disc; and the green 2\*7h Formed Plate. Most of the black parts are painted but a few are chemically blackened and it is mentioned in the Manual that both finishes are used. The parts have been well played with but look as if they were well painted originally.

**HISTORY of the SYSTEM** What follows is based largely on a couple of dozen reasonably complete sets seen on Ebay, enough perhaps to try to deduce the order in which changes took place, and their approximate dates. The dates given are from the last 2 figures after P (or sometimes Pn) in the manuals' PR, and in two cases they have been seen to agree with the dates on corresponding inspection slips. Baukästen says that sets were made in the years 1946 to 1975 but the earliest here is from 1957. The main changes were:

- **The Lid Labels.** the earliest known,

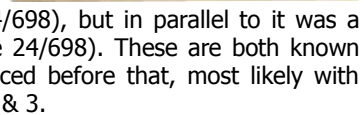
- **The Manuals.** The first was the 'Motorcycle' described earlier. Only the cover of the next manual, the 'Red Motorcycle', right, has been seen. These manuals covered Sets 1-3 and so did the next, the 'Jib Crane' (see 24/698), but in parallel to it was a 'B&W' version for Set 1 (see 24/698). These are both known from 1963 but were introduced before that, most likely with the Jib Crane label for Sets 2 & 3.

● **The Plates.** At first they were painted with ordinary paint in strong colours, either green or blue; then, from about the time of the Red Motorcycle manual, a crackle finish paint was used, light grey & pale green. Only a couple of sets have been seen with a mix of the two types of paint finish, and nicked Plates are also occasionally found.

• **A/Gs** were green at first, then those seen have the light grey crackle finish. • Although the **Screwdriver** in the Motorcycle manual has a wooden handle, a wire type similar to the **MECCANO** pattern is in most of those sets which still have one, prior to the change to plastic trays. After that only the plastic handled type has been seen, black, or more usually,

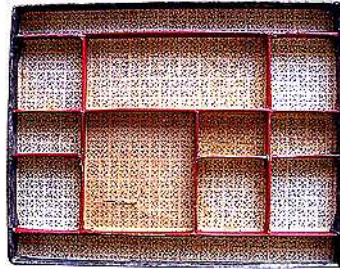
- **Early Parts.** Nothing is known about them prior to 1957 but the earliest known lid label, the Gantry Crane, shows all parts black even though red & yellow are also used in it. So conceivably all the parts were black at first.

• **Summary** The chart below shows, with some simplification, the main happenings. Dates are mostly best guesses with '1960' representing the late 50s - early 60s, and '1968', 1965-70. As speculation some of the changes may have occurred in 1961 & 1972 when the status of the company changed (see 24/698), or soon after.

[illegible]

**THALE Matters** Graham Aldous has kindly sent some information about his THALE material.

**A Geometrie-Baukasten** This set is in a black & white mottled box, 342\*272\*28mm, and the base, not used for any other set as far as is known, is shown left. The label is the Jib type shown in 24/698 with 'Bestell-Nr.0606100' and the first few letters of (probably) 'Geometrie-Baukasten' rubber stamped in purple in the top left corner.



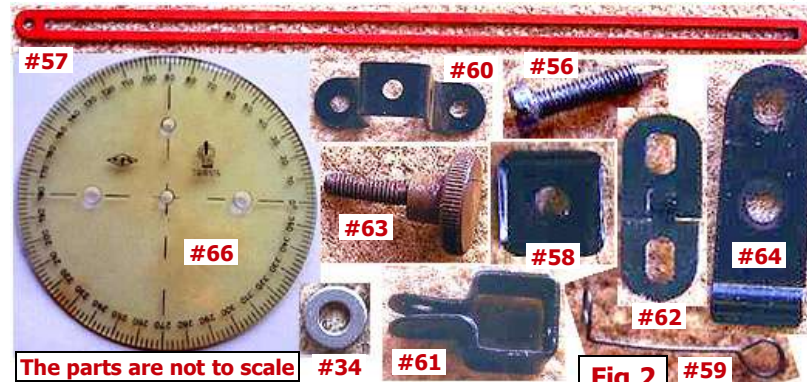
**Fig.1**

There was a 4-page leaflet with the Set and on the front it says that although the Set is made by Krause & Co. KG, the only supplier is Staatliches Kontor für Unterrichtsmittel und Schulmöbel (National Office for Instructional Material and School Furniture), Wittenberger Str.8, Leipzig C1, and that the Stock No. is 0606100, as on the lid.

It isn't known when the Geometrie set was introduced but this example was from the mid-1960s, with the PRs of the label & leaflet ending in P206/65 & Pn822/63 respectively.

The **set contents** are given in the Leaflet, with a colour for each part except the Tools & NBW. Some are from the standard range and some, #34 & 56-66, are specials, see Fig.2. All are listed below with my English names and relevant notes in square brackets. All are black except where stated.

- 2,4,8,2,4,16,2,10x #1,2,4-9 [2,3,5,7,9,11,17,25h Strips], 2x 9h, 4x 11h, & 4x 25h are red;
- 1x #15 [5\*5h Perforated Plate], light green;
- 7x #17 [A/B];
- 2x #24 [L-section A/G], green;
- 1x #25 [5\*3h Flanged Plate], light green;
- 1x #27 [Flanged Disc Pulley], red;
- 1x #30 [6h Wheel Disc], red;
- 50x #36 [M4 Nut];
- 40x #38 [M4 Bolt, 6-8mm u/h];
- 10x #39 [M4 Bolt, 10-15mm u/h];
- 4x #39 [M4 Bolt, 20mm u/h];
- 1x #43 [110mm Axle];
- 1x #47 [Spanner];
- 1x #48 [Screwdriver, not seen but one in an Ebay photo is the wire type];
- 2x #56 [Bolt, 20mm u/h with pointed end];



**The parts are not to scale**

**Fig.2**

- 5x #57 [Slotted Strip, length as the 25h Strip], red;
- 6x #58 [Strip Crossover Bracket];
- 8x #59 [2-eyed, wire Cord Support, from 25 to 29mm long];
- 1x #59 [Double Bent Strip];
- 1x #61 [Strip Connector];
- 6x #62 [Hinge];
- 3x #63 [Thumbscrew];
- 1x #64 [Rod Clamp];
- 10x #34 [Washer];
- 1x #65 [24.6cm Ø Disc, not among Graham's parts but one in an Ebay photo is a pale pink-red with only a centre hole – it is not clear what it is made of], light green;
- 4x #66 [360° Protractor, 100mm Ø, transparent plastic].

The colours of the parts in Graham's set are as above except that the green parts are 'Hammerite' grey.

The **Leaflet** is headed 'Thale GEOMETRIE-BAUKASTEN aus Metall-Normteilen', and the text is headed 'Oh, diese

Mathematik!!!'. I don't think any geometrical demonstrations are explained but reference is made at the end to Geometrie-modelle aus Baukastenteilen by Dr. Rudolf Beilin, Publication 24 in a series of teaching material from Volkseigener Verlag, Berlin, Art.No.003490 (earlier 342590).

**Rolled Bosses** Another new item, a photo of a 6h Bush Wheel, a 26mm Pulley, & a Flanged Disc Pulley, all with 8mm o.d. rolled bosses. They are double-tapped and all three parts have a light olive Hammerite finish, including the bosses. The 26mm Pulley diameter is listed in all the later manuals but no example, with any type of boss, has been reported before.

**26mm Tyre** The Tyre is 46mm Ø and fits the 26mm Pulley with rolled boss above. It too is a rare part and has a ribbed circumferential tread instead of the block pattern found on all other known THALE Tyres.

**Two Hats** The final items from Graham are the 2 variants of the #32, 18mm Hut (= Hat), right. It is a part often used as a headlamp and the green one with the dished centre is the type commonly found.



**Fig.3**

**Snippet. An Early Set** While on the subject of THALE it's worth mentioning this set because from its lid (below) and



**Fig.4**

contents, it almost certainly predates the earliest set, from 1957, mentioned in 38/1138.

The box is wooden with a sliding lid, and the base, which scales at about 26cm wide, is partitioned into 10 bays. The Telpher Span model on the lid is not in any of the known manuals. The parts that can be seen look like the later ones but are all black. They comprise: Strips, probably up to 25h; 1\*5\*1h DAS; 5\*3h Flanged Plates; a Flanged Disc Pulley; 2 small Pulleys which scale at 30mm Ø, the size in the 1957 set; and numerous small Brackets etc. There are also some silverish TRIX-style 'foreigners', and some Tyres or Rubber Rings, but they may not be genuine either.

**The Krause Company History** Finally a note from Thomas Morzinck who some years ago spoke with Mr. Krause, the last owner of the company. The Krause family went into business in 1912 with the production of baking tins and similar items. In 1946 they started producing metal construction sets as a sideline. Mr. Krause, born around the start of WW2, & his cousin, posed as models for the 2 boys on some of the set lids (Mr. Krause was the dark haired one). Production of the sets ceased in 1975 due to problems over pricing policy, which was controlled by the GDR authorities in those days. In addition to the standard outfits a Gears Set (see 24/698) was added around 1960, and there was also the Geometrie Set, said to have been used for many years in East German schools. By 1995 Mr. Krause was a car dealer in the town of Thale.



5. **THALE** Graham Aldous is continuing to research the history of this East German system and I hope to be able to included his findings later on. One thing has emerged though, the summary chart in 38/1138 is incorrect for the early years because the parts & manual thought to be from 1957 are almost certainly earlier than 1955, and the change from the Motorcycle to the Jib Crane manual occurred in 1955-56.

Graham has also found that the pitch of the holes in some early THALE parts is 12.75mm, instead of the 12.5mm later. This led me to check the pitch of the parts described in 38/1138 and (to my shame, that I hadn't done so before) I found it to be ½" or very nearly (12.7±.02mm in the various different types of part).

**THALE STAHLBAU TECHNIK: S4** [40/1197]

6. **FAC** Jacques Pitrat wrote that the FAC web site, www.facsystem.se, contains much of interest. As well as details of the current products there are photos of a number of models, old sets, and also pdf files of old manuals including 4 in English. The site has English, French & German language versions as well as Swedish.

**FAC: S1** [40/1197]

7. **MERKUR in 2008**, from the English version of the Merkur web site. Little has changed since 2007 (see 37/1103) except that the American M-KUR Apache set has appeared as the MERKUR Helikopter Set (#3314) with 486 parts, and the same model on the lid.(

Both the Classic C01 and C02 sets are listed with the same reference number, 3345, and the difference in weight between the two seems to be because the C02 is in a wooden box.

One correction to 33/991, the Set 030 has 310 parts.

**MERKUR [1] S7** [40/1197]

8. **Snippet. FERROX** A No.2 set similar to the 'in between' one noted in 38/1134 was offered on Ebay. It was not so complete, the main parts missing being the Flanged Plate and the 1\*5\*1 DAS. Also the the tools were a wooden-handled Screwdriver, & a Spanner with one open end and a ring at the other – similar to the one in the Phase 3 set in Fig.3b of 36/1090.

The most notable difference though was that certain parts were painted a medium blue. These comprised the Large Flanged Disc, the longest DAS (1\*9\*1h in this set, a size not mentioned before, but the length of the long DAS in the OSN 38 No.2 couldn't be seen), and the 5 & 11h Strips (the latter the longest in, or remaining in, the set). The only other painted parts were the green 6\*10h Perforated Plate and the red 1\*3h SAS, the same shade as in the OSN 38 No.2.

The present set's box was said measure 35\*21\*2.8cm and the maker was Drösler as before.

**FERROX S4** [40/1197]

9. **Snippet. THE THATCHER TIN CAN TOY** The picture inside the lid of the wooden box for this 'DIY' set was shown in 33/973. An Ebay set in the same box, 17\*10\*3¼", contained some tools and a booklet ©1920 entitled Gilbert Tin Can Toy Making. The set is pictured in it and the contents that can be seen include a mallet, scribe, pliers, snips, dividers, ruler, bending jig, forming block, soldering iron, & some smaller items.

**THE THATCHER TIN CAN TOY: S2** [40/1197]

**OSN Subscription Rates** The price per Issue, including postage, at Printed Paper Rate where available, is £5.50 for UK; £6 by air to Europe & surface anywhere; £6.50 by air outside Europe. **Back Issues** For the zones above : OSN 1: £1/£1.30/ £1.50; OSN 2,3: £2.30/£2.70/£2.90 each; OSN 4-27: £3.60/£4.10/£4.50 each; OSN 28 on (in colour): £6/£6.50/£7. (All colour & some B&W issues are on loose sheets.)

**Payments** Please make cheques etc payable to P.A.Knowles. Remittances must be in Pounds Sterling (GBP) or, as cash, in Euros or US Dollars (£1=€1.10=\$1.50). Payments from overseas may also be made using PayPal (in Sterling please).

**Small Ads** Short ads are free to subscribers; insertion guaranteed in OSN 41 if received by the end of July (but repeats may not always be possible, please ask).

10. **STAHL-BAUKASTEN** Since the Snippet on this early post-WW2 German system in 38/1160, Jürgen Kahlfeldt has kindly sent more details, via Thomas Morzinck.

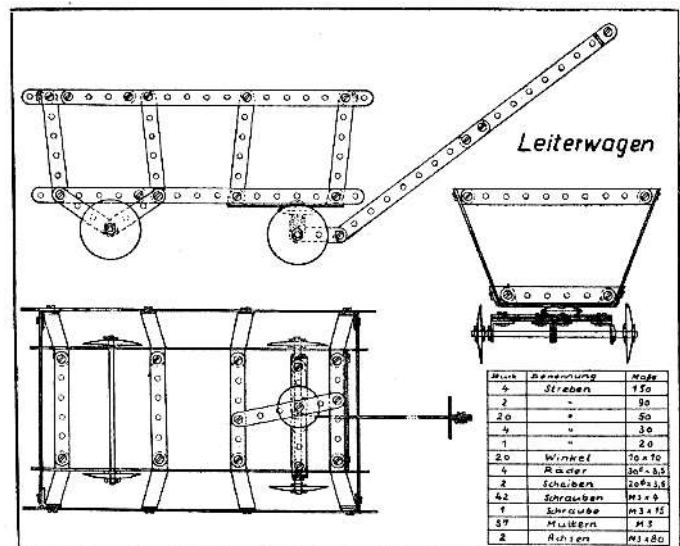
The parts are made of .7mm thick aluminium, and the holes are 3.3mm Ø at 10.0mm pitch. Below the set contents given

### Inhalt des Kartons:

Stück	Bezeichnung	Beulänge	Stück	Bezeichnung	Abmessungen	Stück	Bezeichnung	Abmessungen
4	Blechstreifen	10mm	26	Winkel	10 x 10mm	1	Grundplatte	100 x 60 x 10
11	"	20 "	2	Winkelstücke	100 x 10 x 10	4	Schrauben	20 x 3,5 <sup>ø</sup>
6	"	30 "	2	Schrauben	M 3 x 15	4	"	30 x 3,5 <sup>ø</sup>
2	"	40 "	51	"	M 3 x 4	1	Schraubenzieher	
25	"	50 "	60	Muttern	M 3	1	Schrauben -	
16	"	90 "	2	Gewindestifte	M 3 x 80	1	schlüssel	
4	"	100 "	2	"	M 3 x 30	1	Vorlageheft	
4	"	150 "	2	"	M 3 x 20			

on the front of the manual. In order, the parts are 4,11,6,2,25, 16,4,4 of 10,20,30,40,50,90,100,150mm Strips (those lengths are overall so perhaps the 10mm is a sort of washer); 26 10\*10mm A/Bs; 2x 100mm A/Gs, 10\*10mm in section; 2,51 M3 Bolts, 15,4mm long; 60 M3 Nuts; 2 each M3 Screwed Rods, 80,30,20mm long; 1 Flanged Plate 100\*60mm; 4 each Discs, 20,30mm Ø, and (probably) dished by 3.5mm; 1 each Screwdriver, Spanner, Manual.

The manual has 8 pages including covers – the front as in OSN 38. 6 models are shown on pp2-7, one to a page, with a 2- or 3-view engineering drawing for each, plus a list of parts. The first model is the Leiterwagon below (slightly rearranged),



and the last is Treppe (a Stairway with Landing). The other models are the Slewing Crane, Radio Tower, & Electric Pylon on the lid, and a Girder Bridge. The back cover has the side elevation of 5 more models including a Lorry, another Crane, and a Guyed Pylon.

**STAHL-BAUKASTEN [2] S2** [40/1197]

11. **PHILIPS** In 39/1187 the change from colourless to red Wheels was associated with the introduction of the new sets ME 1201 & 1250, which replaced the ME 1200 outfit. But the change seems not to have been so clear cut because Paul Goodman has found red Wheels in one of his three ME 1200 sets.

**PHILIPS: S9** [40/1197]

### OSN – Your Credit Balance:

was after OSN 39

was after your remittance of

is after this Issue

Please send at least £ if you wish to receive the next Issue.