

BET YOU DIDN'T KNOW THAT - MERKUR. MERKUR 10-hole Braced Girders are to be found with either male ends or with female ends. The MCS entry (MERKUR (C). 3/4c) which comes from the older style small format manual, shows the latter, and so does my similar manual; the other sort appear in the newer large format ones. And its not just in the manuals, I have some of each sort, but unfortunately I didn't notice until I had mixed up for ever those from a new and those from an older set.

NECOBO MOD 1 GEARS. In OSN 5/85 I suggested that the original NECOBO gears were Mod 1. Hans Klarenbeek recently kindly gave me a handful of gears which turned out to be Mod 1 and which fitted more or less exactly the description of NECOBO gears #127-130A in MCS(FB), p3/4. That's to say they have the same number of teeth, and there are no holes in the faces of the gearwheels. The only difference is that the Worm Wheel in MCS looks like a proper one with the teeth shaped to conform to the Worm whereas the one I have is just like the other gearwheels except for the number of teeth. The Worm and Worm Wheel mesh at 2-hole centres and not the 1-hole spacing that I postulated in OSN 5. I've typed 1-hole and 2-hole advisably because the only problem in saying these gears are almost certainly early NECOBO is that suitably paired they bind rather if mounted at centres that are multiples of $\frac{1}{2}$ ". They run sweetly when spaced x 12.9mm apart. I haven't myself any NECOBO parts to check their hole spacing but MCS says $\frac{1}{2}$ "; it also says that the hole diameter is 4.5mm and if that is correct it would mean that MECCANO diameter axles (4.1mm) would be a loose fit, and this might just allow the gears a reasonable mesh. All five gears are brass throughout; the bosses have an o/d of 10.0mm, a bore of 4.1 (they just fit a MECCANO axle), and they are double-tapped 5/32 BSW; the o/d of the Worm is 14.0mm and the face width of the Pinion is 5.3mm.

CONSTRUCTION C40 Control System

Hellmuth Kohler

The last two issues of OSN have given brief details of this set which contains a programmable sequential controller; here is a fuller description. The heart is the programme unit, as illustrated in OSN 6/133. This has groups of electrical inputs, outputs and a programming board area.

What does this quite complicated system do? It controls a sequence of up to ten 'states' or steps. Each step is initiated by a momentary contact closure - and maintained until the next impulse is received. At each step, zero, +4.5 or -4.5 volts is provided at each of two independent output sockets, a third output socket gives only zero or +4.5 v. Motors or lights or other 4.5 v devices can be driven from the outputs. Reset, that is a return to the first step in the sequence, is automatic after ten steps, or can be programmed earlier at any stage. There is no inbuilt timing element, contrary to the claims in the original German publicity.

OUTPUTS and PLUGBOARD. Output channels are at the top of the unit. A1 and A2 each have two pairs of pins, 1 & 2 together with 3 & 4. A3 has just pins 1 & 2. On channels A1 & A2, pins 1 & 4 are connected always to 4.5 v, on channel A3 pin 1 is also at 4.5 v. Jumper plugs, which can be inserted for each step (row) of the controller, determine the output states at the pins when the program row is active. The controlled pins of the output channels A1 and A2 are 2 & 3, on A3 pin 2 only.

With no jumper plug, pins are not live. Either pin 2 OR 3 can be made active by inserting a jumper. With the jumper to the left, pin 2 is at 9.0 v (U_0); with jumper to the right, pin 3 is at 0 v (\perp). Inserting two jumpers in channel A1 or A2, which would appear to switch on both pins 2 and 3, is not allowed, and might (will?) damage the unit.

Single pole devices, lights, etc. are connected to pins 1 & 2 and/or 3 & 4 as desired, and can be switched on or off. Channels A1 and A2 can drive 4.5 v d.c. motors in either direction, by taking pin 1 (or 4) to one motor terminal, and commoning pins 2 & 3 to the other. The system output connecting plugs do this for you. As pins 1 and 4 are at 4.5 v, 2 at 9 v or 3 at 0 v, the motor 'sees' + or - 4.5 v.

CONTROLLING the SEQUENCE. The active row (or step) in the program is shown by a lit LED. At the top left of the controller is the input area. There are 4 input pins 'S' (all with similar function, but not just in parallel to give one input), (\perp) are two ground pins, and at R are two reset pins. Every time an 'S' pin is grounded, the control steps along one row. This input need only be a transient contact. The system protects against contact bounce by requiring about a two second interval before any further input signal is accepted.

On applying + 9.0 v to an 'R' pin the sequence resets to step (row) 1 immediately. This 9.0 v can be obtained direct on the board from the first pin in a row, with no jumper in place, as shown in the model picture. Note that this 9.0 v only appears when the program row is active.

The jumpers are not simply connectors, they contain diodes to prevent unwanted current flows.

[cont. >]

MERKUR AND THE NEW 300 SERIES SETS. MCS describes the oldest known series of sets, Nos 1 to 7, and also the 201 and 202 Sets which include Tyres and Rubber Tracks as well as various parts not in the 1-7 Outfits. Models can be made solely from the #201 and 202 but they can also be used with the basic sets to allow larger, more realistic models. Nearly two years ago Peter Kessler saw #7 Sets on sale in Barcelona, but as well, two new Sets, #320 and #330. He bought a 330 and kindly lent me the manual to examine. Then Tony Parmee showed me a #300, #310, and #330 that he had bought in Czechoslovakia in early 1992, and also two 'mini MERKUR' Sets bought at the same time. Finally José Bernal Moreno recently sent the Parts List and Set Contents for the #340 Outfit, believed to be the largest in the current range. He also enclosed details of the M1 Motor Set which is listed in MCS along with the 200 series. To start with some notes on the 1-7 and 201/202 Manuals, parts, etc.

Sets #1-7. In a 1-7 manual [Ref A] which seems to be the same as that used for the MCS entry, a motor is shown (Fig 1A) which is not illustrated in MCS. Alongside (Fig 1B), as a matter of interest, is one that can be made from the MERKUR ELEKTRO Set. The date of this manual is not known but it does have an old-fashioned look to it, the page size is much smaller than later ones, about the size of 1920s MECCANO manuals, and all the illustrations are elaborately shaded line drawings, in brown on cream paper with blue text. And it contains 180 models, many more than in later manuals. One of the languages used is Russian so perhaps this makes it more likely that it is post rather than prewar. One of the models (Fig 2) shows the 85 tooth Gear Wheel with a wide face, probably the same width as the 119 tooth one in MCS, and in the other view the cutouts in the face are circular rather than triangular, an older pattern perhaps or a mistake maybe. The manual is quite honest in places with for Model No 13 a note: 'In this model Part No 6 was drawn in error instead of Part No 5.' One other extract from the Introduction gives a little information about the parts at that time - 'The MERKUR metal constructional set contains various coloured, varnished parts, brass belt pulleys and accurate toothed wheels of all descriptions cut out of brass, by means of which'. The Pulleys in a #5 Set which has this style of manual, are of steel, as are the Gears in a #7 (no manual) which from the colours of the parts predates the #5. One page in the back of this Manual, it is reproduced in MCS on p5, shows some 'supermodels', and one of them consists of two houses (with a waterwheel beside one of them) made from large plates which are not in the Manual's Parts List. These may have been from the MERKUR METROPOL Set, for which as far as I know, no information other than the name is available. If any reader knows anything about it please write in.

SUMMARY OF MANUAL [Ref A]. #Name: MERKUR. #Details of maker: None. #Dates & Ref Nos: Sg 4 on inside rear cover. #Page size: 234x150mm deep. #No of pages: 129 numbered plus 7 at end, plus covers. #Language: English, Russian, Spanish, German. #Printing: The cover is white, yellow, blue and green, with MERKUR in red on black. The text is blue, the models are line drawings in brown; only the motor is halftone. #Page Nos of Parts List & highest PN: 5-11.98A. #Page Nos of Set Contents & highest PN: 130-131. 99. [English version, other languages follow] #Sets covered: 1-7. #No of models for each set: 1: 37 + Alphabet, Numerals. 2: 33. 3: 32. 4: 33. 5: 16. 6: 17. 7: 12. #Name, Model No, Page No of first & last model of each set: 1: Signal discs,1,18; Gun,37,24. 2: Fortune wheel,51,25; Machine gun,83,37. 3: Gun,110,38; Planing Machine,141,55. 4: Machine Saw,151,56; Field Gun,183,74. 5: Slewing Crane,201,75; Shaking Screen,216,90. 6: Potato Lifter,251,90; Railway Barriers,267,108. 7: Windmill,302 [error, should be 301],109; Reversing Gear for Forward and Reverse Motion,312,128. #Other notes: There are illustrations of 5 'Supermodels' (in blue) on p129.

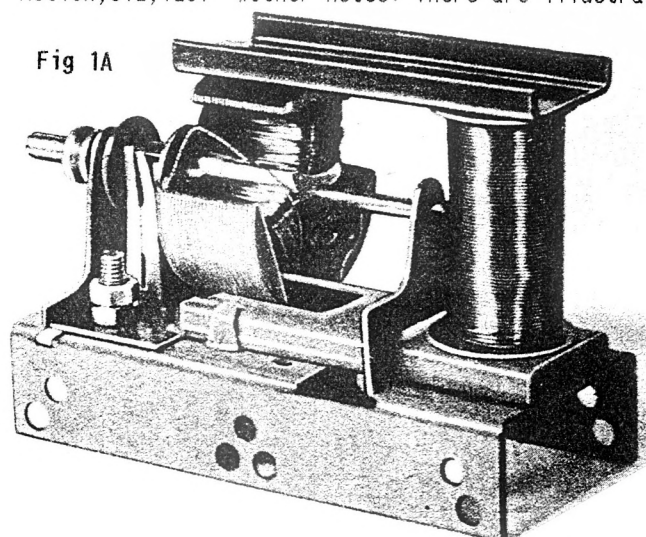
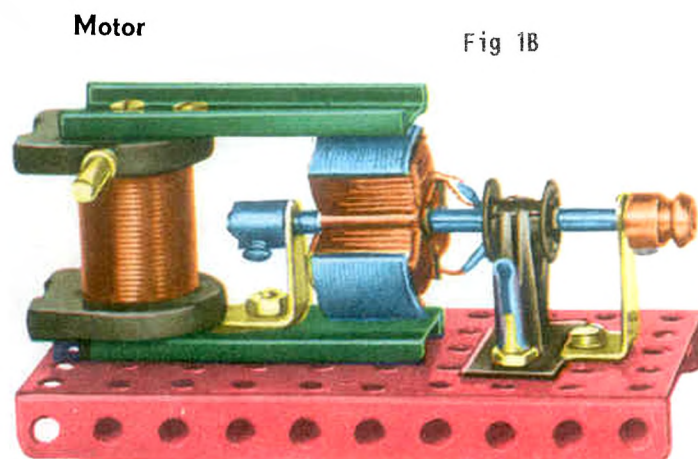


Fig 1A



Motor

Fig 1B

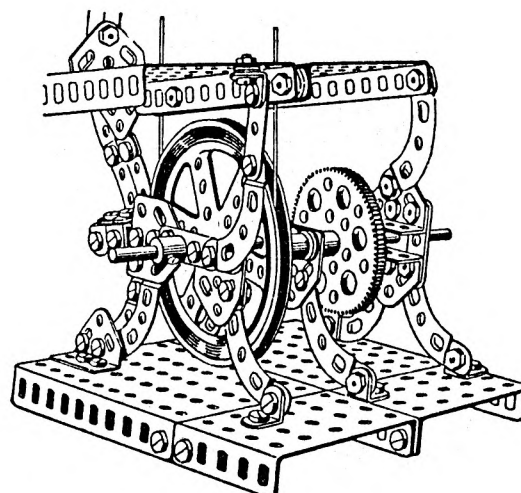
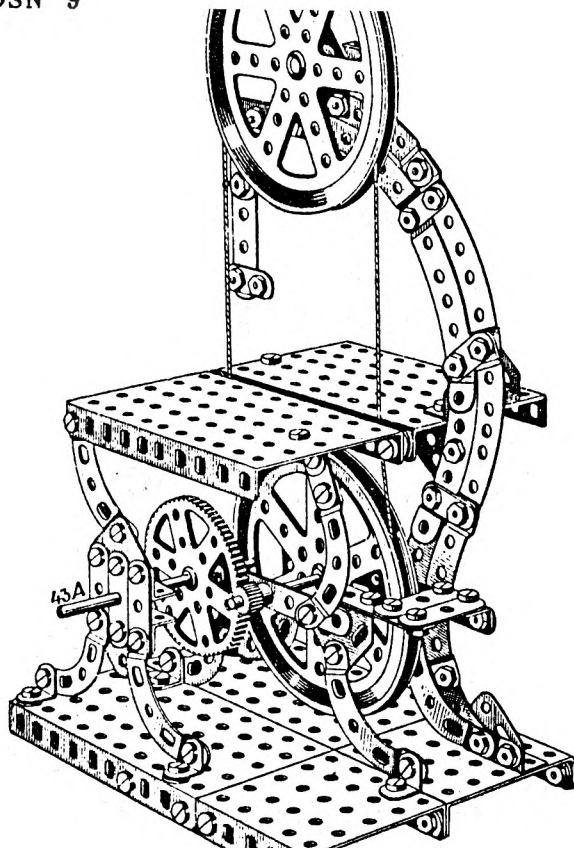


Fig 2

309.

Band Saw
Ленточная пила
Sierra de cinta
Bandsäge

The next manual available [Ref B] is again for Sets 1-7 but is the large size and the cover is identical to that in MCS for Sets 201/202. The parts shown in it are almost unchanged from Manual A above but a variation of the Collar (#50) is shown alongside the type in MCS, the Pinion too has an extended boss, and the large Gears have narrower teeth and no cutouts. Also the Rubber push fit Collar (#95C) is illustrated. These parts are shown in Fig 3. There is one deletion - #54, Nut and Bolt, 22mm. This Manual came with a #7 Set and the Collars and Pinions in it had the normal type boss without any extension. The purpose of the extended boss was presumably to increase the depth of the tapped hole for the Grubscrew, and this would certainly be useful in the case of the Pinion which has a thin wall to the boss and is tapped M4. Or perhaps these parts were made of plastic when the extension would have been essential to avoid stripped threads. The Set Contents are identical to the earlier Manual except that #99, Box for Bolts, is not included, and #98A, Washer, is listed for Set 4 and above.

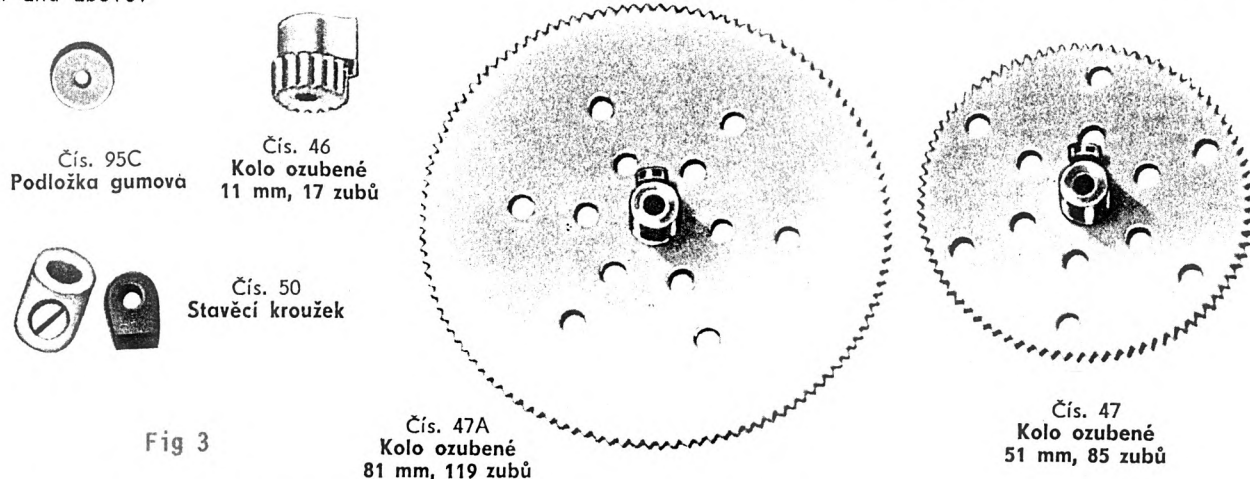


Fig 3

All the models in this manual are shown in colour. There are 65 for Sets 1-7 and the majority of them were in the earlier manual, with some redesign in a few cases; the new models are mostly for the larger sets. In addition there are 9 using Set 201 or 202 combined with one of the basic sets. At the end of the manual a few pages are given to show models that can be made using #201 or 202 alone, from the MERKUR ELECTRO Set, and using the M1 Motor Set. This motor is different to that in the earlier manual and Fig 4 shows 2 views of it, with its associated gearing. More details of this Set are given at the end of this article.

A more recent #6 Set came with a 1-7 manual that is identical to the above except for the cover which is in the same general style as that of the 201/202 Set Manual to be described later. This Set had a label stuck on the bottom of the box which included the words, 'Dispatch date 16 pros. 1987'.

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Motorek se základní deskou a převodovým soukolím.

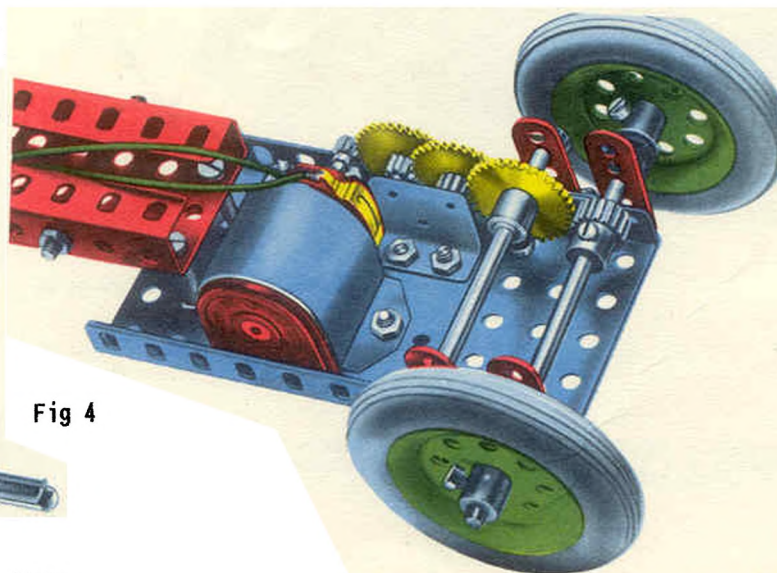
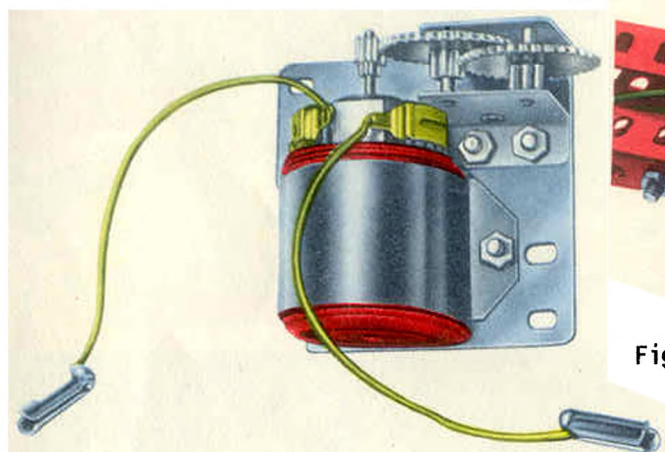
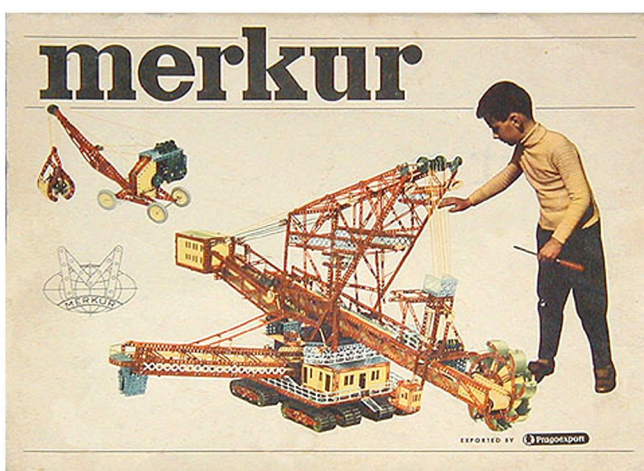


Fig 4

SUMMARY OF MANUAL [Ref B; for Ref C, see 'Other notes' below]. #Name: MERKUR. #Details of maker: Exported by Pragoexport. #Dates &/or Ref Nos: None. #Page size: 240x320mm deep. #No of pages: 48 (1 & 48 unnumbered) plus covers. #Language: Czech. #Printing: All models shown in halftone colour. Cover off-white with MERKUR in black; boy is black/yellow, and models are brown/yellow/light blue. #Page Nos of Parts List & highest PN: 1-3,98A. #Page Nos of Set Contents & highest PN: 48,98A. #Sets covered: 1-7, but also some models using these sets with #201 or 202. #No of models for each set: 1:16. 2:16. 3:6. 4:8. 5:5. 6:6. 7:8. Plus 9 for #1-7 with #201/202. #Name, Model No, Page No of first & last model of each set: 1: LOPATA,1,6; KARA,16,8. 2: VOZIK,17,9; VETRNIK,32,13. 3: BRUS,33,14; PASMOVKA,38,15. 4: VYTAH S JERABEM,39,16; JERAB,46,19. 5: NOSIC NARADI,47,19; VRETENOVY LIS DVOUKOTOTOUCOVY,51,22. 6: MOTOROVY VUZ ELEKTRICKE DRAHY,52,23; VALNIK,57,27. 7: TRAKTOR,58,27; SOUSTRUH,65,34. Combined Sets: POZARNICKE AUTO SE ZEBRIKEM,66,35 (4+201); TEZKY TERENNI AUTOMOBIL,74,43 (7+202). #Other notes: • Models that can be made using Motor Set, M1, are shown on pp43-44; from MERKUR ELECTRO on p45; and Sets 201/202 on pp46-47. • A later version of this Manual [Ref C] is identical except that the size is 235x315mm and the cover, below, is white with a grey band, MERKUR is in black, the models and parts are multi-coloured.



Sets #201 and 202. The next manual [Ref D] is for Sets 201 and 202. It has a different cover to that in MCS but the illustrated Parts List and the Set Contents are identical. 11 models are shown for #201 and 10 for 202. Then there are 7 which need one of 'standard' sets 4-7 plus either 201 or 202; one of these is the model shown in MCS. All the models shown at the back of Ref B above for the 201 or 202 Sets, and for combined sets are included. No mention of Sets 4-7 is made except to specify when one of them is needed for a particular model. All the models look quite modern in character and are attractive if one accepts the multitude of colours in which the different parts are finished. They are not very adventurous mechanically, none are motorised and steering, where shown, (some details are left to the imagination), is of the simple, centre pivot type, although on the back cover there are black and white views of Ackermann type gear (Fig 5). The parts are shown quite clearly in MCS but note that the pulley part of #83 is in two halves, both with boss, which are bolted together around the tyre. The Tyres of #82 and 83 are made of hard black plastic, although they look grey in the manual, and the #82 type won't come off the Pulley using fingers, but no doubt it would if soaked in hot water. Also two of the Strips, #2A and 3A, are included in the Contents but not in the illustrations, and these are made from very thin metal.

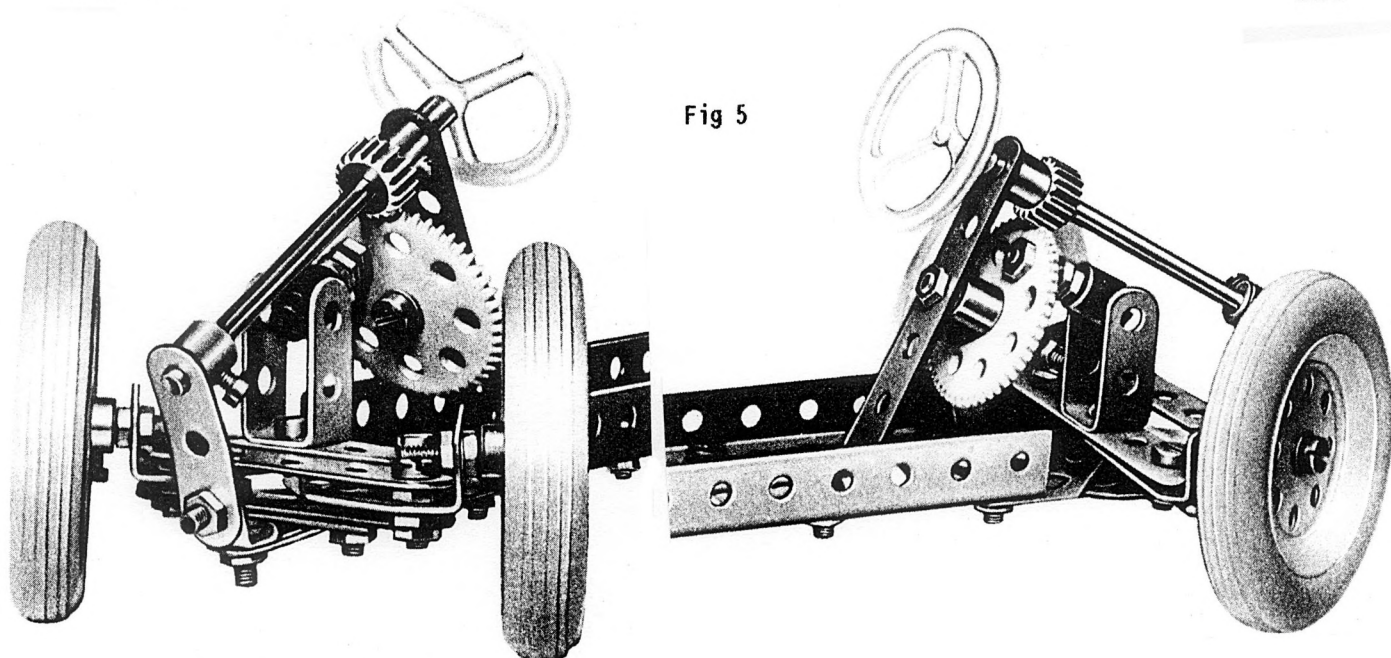


Fig 5

SUMMARY OF MANUAL [Ref D]. #Name: MERKUR. #Details of maker: KOVOPODNIK, POLICE NAD METUJI. Exported by Pragoexport. #Dates &/or Ref Nos: N-05*61001 - Sg 4 inside front cover. #Page size: 314x235mm deep. #No of pages: 32 numbered plus covers. #Language: Czech. #Printing: Halftone, colour except for the back cover. Front cover is white with grey band and MERKUR in black. Multi-colour models and parts. #Page Nos of Parts List & highest PN: 1-3.98A. #Page Nos of Set Contents & highest PN: Inside back cover.98A. #Sets covered: 201 & 202 but some models need one of Sets 4-7 as well. #No of models for each set: 201:11. 202:10. 201/202+4-7: 7. #Name, Model No, Page No of first & last model of each set: 201: VOJENSKY AUTOMOBIL "GAZ",1,6; LETALDO,11,13. 202: TRAKTOR,12,14; VYSOKOZDVIZNY VOZIK,21,23. Combined Sets: NAKLADAC S DRAPAKEM,22,24 (201+4); TEZKY TERENNI AUTOMOBIL,31,32 (202+7). #Other notes: None.



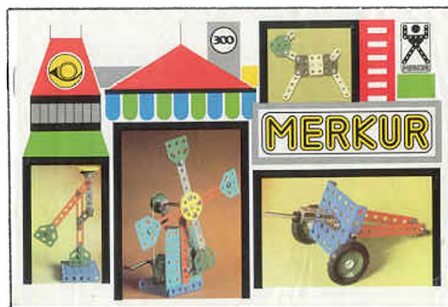
300 Series Sets. These replace the 1-7 and 201/202 outfits, and their contents are drawn from the whole range of MERKUR parts, including a few new ones. The only part not included in the #340 is the 5-hole Braced Girder. The new sets up to the 330 are of comparable size in terms of number of parts, to the 1-7 range; the 300 equating roughly to the old #1, and the 330 is about the same as the old #7, except that their are rather fewer Nuts and Bolts. This is no doubt because there are many more Plates, and of course many less Strips; for example, the generous 20 each of Curved Strips and Angle Girders are reduced to 4 and 6 respectively. The 340 is larger with, excluding N & B, about 450 parts, against 625 in a #7 combined with a #202. To give an idea the 340 has rather more parts in it than the 1991 MECCANO #6, although the latter has a motor which the MERKUR Set lacks.

There are 25 new parts and while some are the sort that might be expected such as different length Axles, others are more interesting, for example a Universal, #1140. And MERKUR has finally found the need for a Flanged Sector Plate, it's 8 holes long, the original MECCANO length; and notice those Flanged Brackets, 3037 and 4037, the equivalent to MECCANO #139 and 139a, parts which were never included in standard MECCANO sets. The super Trunnions, 2039 and 3038, look as if they ought to have specific uses but are only used as general purpose parts in a couple of models in the #330 manual. Perhaps their intended role is apparent in #340 models, which I haven't seen. In general the new parts, aside from the new Plates, are not used extensively in the 330 models, and I couldn't spot the Semi-circular Plates (1016/2016) at all. The Magnet, #1268, in case you wondered, is to help pull the parts out of the moulded plastic packaging. A selection of the new parts is shown in Fig 6. As mentioned in OSN 6 MERKUR parts have been given given new Part Nos: generally adding 1000 to the old number gives the new one, but variants of material or design which used to be indicated by a suffix letter now have an extra 2000, 3000, etc added to the old basic number.

Turning to the manuals for these sets, I have details of the #300 and #330. The 300 one [Ref E] is very bright with colour photographs of 13 simple models on art paper. Most of them are from earlier manuals, modified in some cases, but several are new. The recently introduced Tyre for the 23mm Pulley

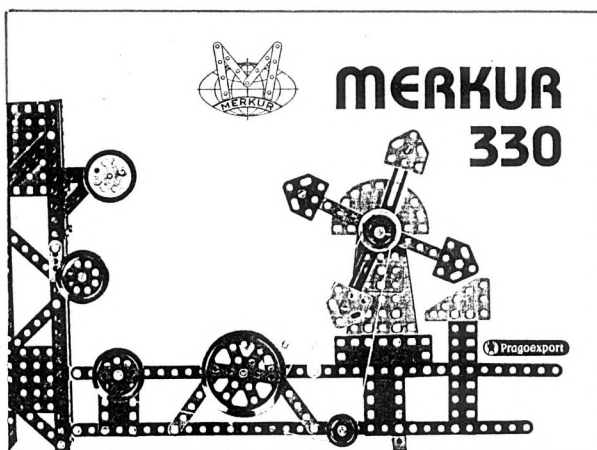
improves the appearance of Carts and the like. A new logo (in Fig 6) is on the front and back covers.

SUMMARY OF MANUAL [Ref E]. #Name: MERKUR 300. #Details of maker: Kovopodnik OPMH Broumov, zavod 02, Police nad Metuji. Exported by Pragoexport. #Dates &/or Ref Nos: None. #Page size: 236x159mm deep. #No of pages: 12 inc covers, all unnumbered. #Language: Czech, German, English, Spanish. #Printing: All colour photos inc cover. #Page Nos of Parts List & highest PN: 10-11.3031. #Page Nos of Set Contents & highest PN: 11,3031. #Sets covered: 300. #No of models for each set: 13. #Name, Model No, Page No of first & last model of each set: Spade,4; Wind wheel,9. (No Model Nos.) #Other notes: None.



The 330 Manual [Ref F] is also all colour; the models in it vary in size, starting with small, simple ones, and going on to a dozen or so of medium size. Two of the smaller ones are in the 300 Manual, and others are from the 1-7 (Ref B above); the medium size models are all new, and most of them look realistic and make good use of the parts in the set. None are motorised and mechanisms are simple (there are no gears), but steering is included in one or two of them. One model is shown in Fig 7. For the more complex models 'step by step' instructions are given, with a list of the parts needed for each step. Even then a little imagination is sometimes needed.

SUMMARY OF MANUAL [Ref F]. #Name: MERKUR 330. #Details of maker: Kovopodnik, OPMH Broumov, stredisko 02, Police nad Metuji. Exported by Pragoexport. #Dates &/or Ref Nos: None. #Page size: 319x235mm deep. #No of pages: 40 unnumbered inc covers. #Language: Czech, German, English, Spanish, Hungarian. #Printing: Halftone colour. Cover is white with MERKUR 330 in black, and multi-colour parts. #Page Nos of Parts List & highest PN: 38-39, 4037 (illustrations on pp36-37). #Page Nos of Set Contents & highest PN: 38-39, 4037. #Sets covered: 330. #No of models for each set: 26. #Name, Model No, Page No of first & last model of each set: WIND WHEEL,6. SCREW PRESS,34. (No Model Nos.) #Other notes: None.



Details are given on p235 of Extra MCS Sheets for the 300 Series Outfits. The Contents of Set 320 is lacking and if you have it please let me know.

'mini MERKUR' Sets. These are sets with just the parts needed to make one small model packed in a transparent container attached to a card which carries a picture of the model. There are at least 4 in the series and two of them have been seen - one for an Aeroplane (Trempek) and the other for a Windmill (Mlyn). The former has a label on the back with 19/9/91 on it. The parts in these little sets are not all in normal MERKUR colours, some have been changed to give an improved appearance to the models. For example all the Plates for the wing and tail of the Aeroplane are yellow, and the Pulleys, #1040, are red to match the fuselage instead of their normal green.

Colour of MERKUR parts. There are so many colours and there have been so many variations, that only broad generalisations are thought worthwhile. The oldest parts seen (judging from the box lid with them) are mid-brown Strips and Angle Girders, green Pulleys and Trunnions, blue Flanged Plates and Braced Girders, and yellow Gear Wheels. Bosses, small Brackets and 3-hole Strips, Pinions, Couplings, and Bush Wheels have a black metallic finish. The next Set (#7 with Manual B) is similar except that the brown parts are bright orange, and all the black metallic parts are nickel plated, except Bush Wheels (yellow), and Collars and the bosses of Pulleys (aluminium). The colours used in the 1987 #6 (Manual C), the 202 (Manual D), and the 300 series, and the mini Sets (but see above), are similar with the following exceptions. The orange of the Strips etc is darker, all Strips through 6-hole in length, and all bosses are nickel; and of the new parts all plastic Plates, Trunnions and Flat Girders are green, the small 5x3 hole Flanged Plate and metal Flat Girders are orange, most of the metal Flat Plates are dark green with a few dark blue, and the 3x5 hole Triangular Plate, Wheel Disc and Pulley with Tyre are mustard. Plastic Gear Wheels have been seen yellow or black, and although the larger Tyres are black plastic the small one, #1089, is of black rubber. Nuts and Bolts are plated (Bright zinc?), whereas in the earlier sets they were untreated steel.

The blue parts vary in shade even within the same set but most Braced Girders are light blue, and Flanged Plates are normally a medium shade. The yellow used also varies with the early parts in a

strong tint and the later ones much lighter.

Parts shown in the later manuals sometimes differ in colour or shade from the actual parts. For example the colours of the illustrated Parts in the 330 manual described above are much darker than the actual parts, no doubt the colour printing went astray. But sometimes different colours do turn up: a red plastic Flat Trunnion was found in a 300 Set, and so the red plastic Plate #2073 shown in the 300 Manual may exist even though the one in the Set was the standard green.

MOTOR SET M1. More details of this Outfit are now available, including an Illustrated Parts List that also shows the Contents. Most of the special parts used can be seen in Fig 4. An Extra MCS Sheet gives full details and further illustrations from the Instruction Leaflet, showing how the parts are used.

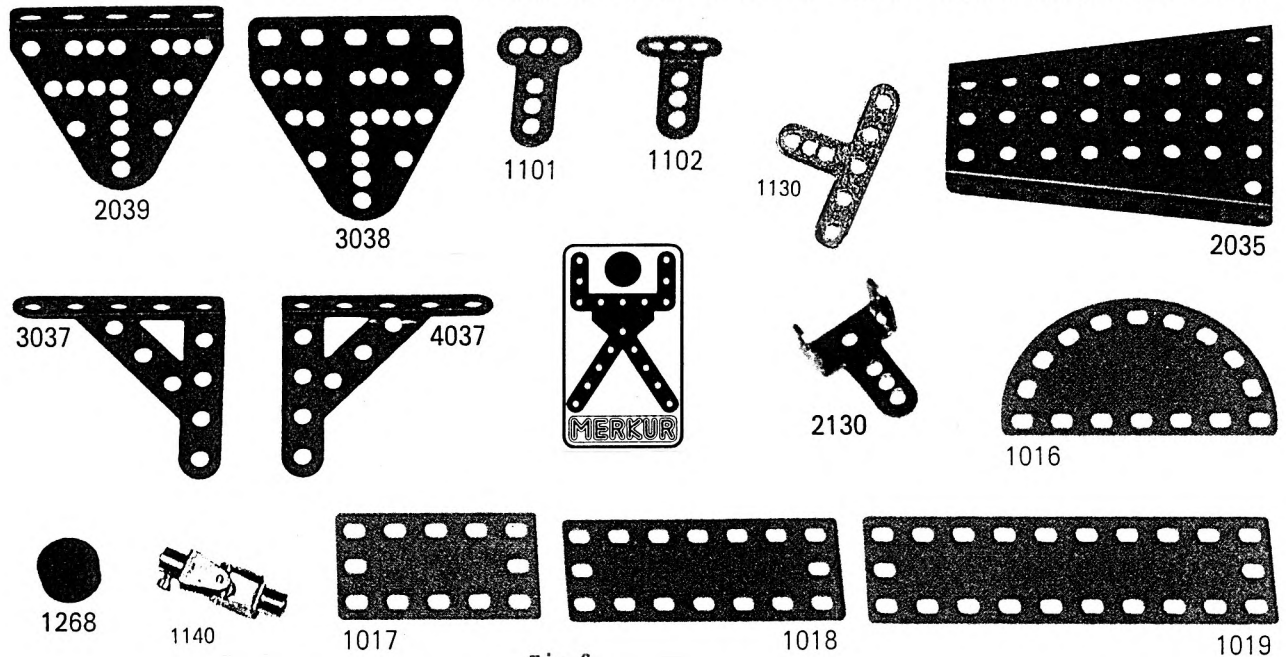


Fig 6

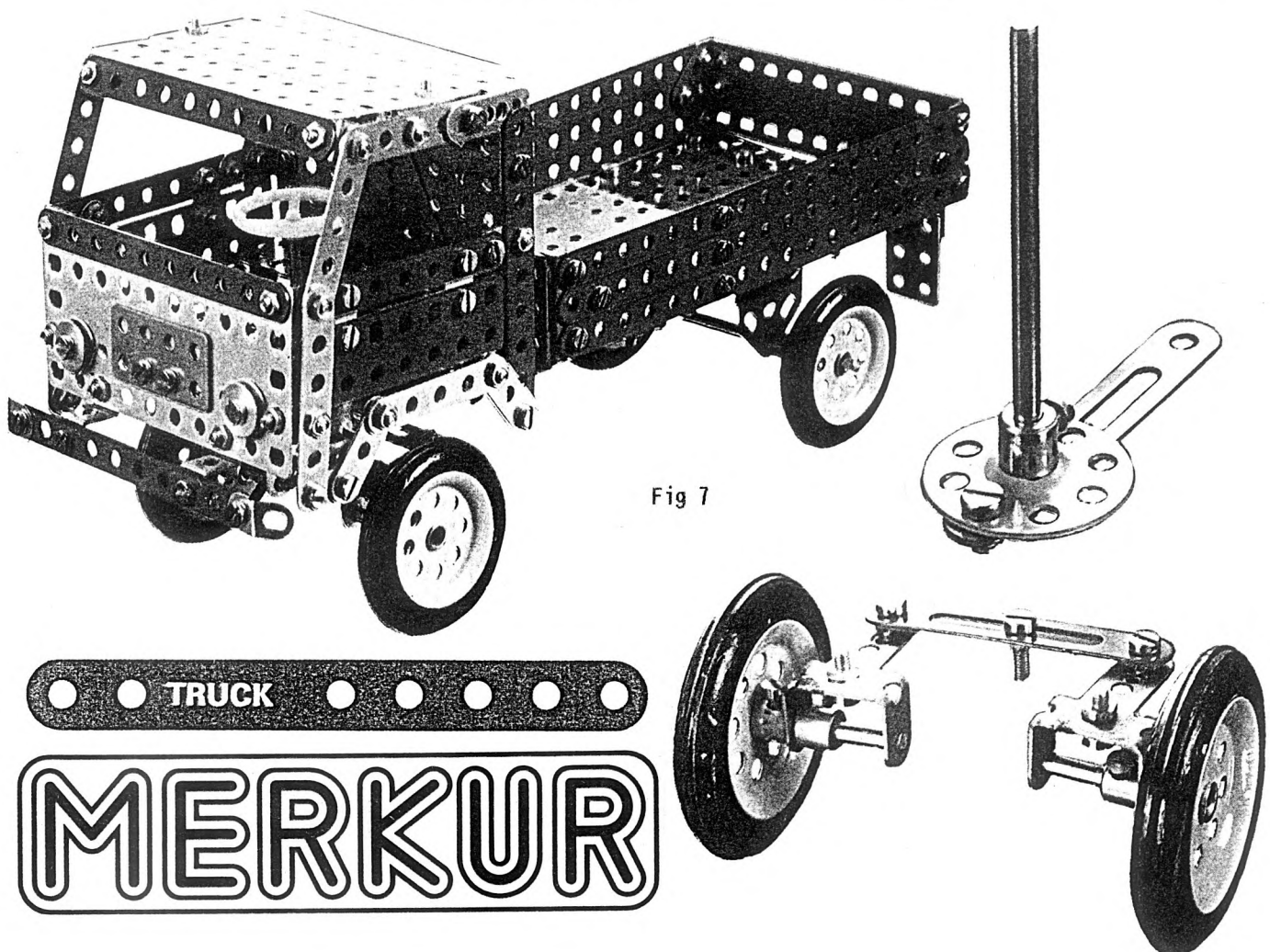


Fig 7

NEW FROM MERKUR José Bernal Moreno wrote about a new set from MERKUR called ALFI, which a friend of his bought in the middle of last year. The manual is in Czech and what follows is taken from colour copies of the covers, the Set Contents and the Illustrated Parts which José kindly sent. ALFI is a Set to make a Plotter, and it's shown on the cover with a 15 way ribbon cable, which comes in the Set, running from it to what looks like a computer keyboard, with a screen in the background. The cover illustration is reproduced below, .4 full size, but it may not come out too clearly.

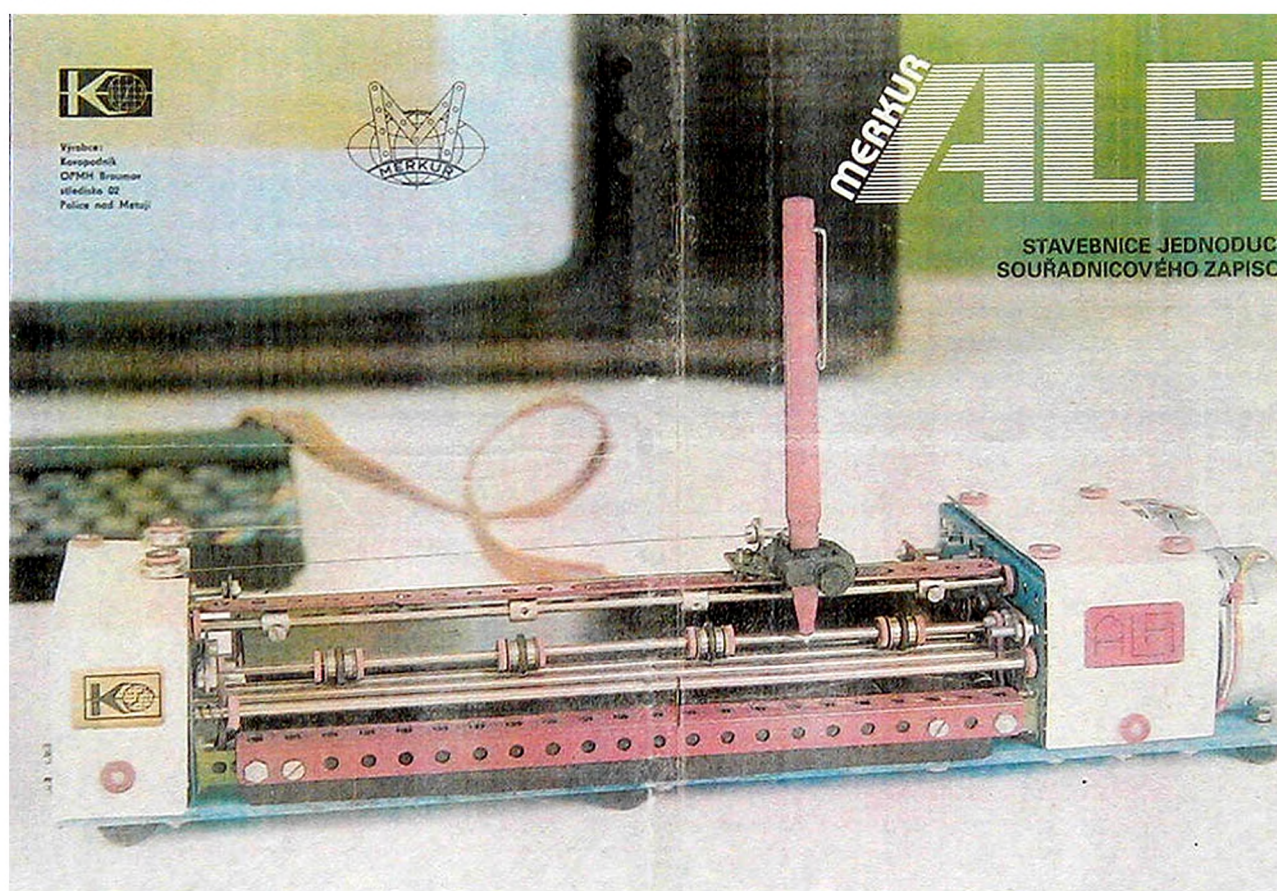
The base of the Plotter is a blue plate about 3mm thick perhaps, which scales up at about 350x100mm. At each end are cased in units, the inner faces of which are 10x5h Flanged Plates. At the RH end there are also 2 24v (stepper?) Motors, one no doubt to transport the paper, and the other to move the pen.

There isn't a pen among the parts listed and it looks like an ordinary ballpoint; it is held in a special holder attached to a Flat Trunnion, which appears to slide, in some way that can't be seen, on a long Rod located behind the top long Strip. That Strip looks as if it is there to provide a steady for the pen unit; it is a special part and has 23 holes, with 4 Collars attached to it which serve to locate the Strip on the foremost top Rod. The pen unit appears to have a cord or wire attached to it which to the right, goes into the end casing, and to the left passes round the 2 small Pulleys on the top of the left casing, and so back to the RH end. Possibly the wire goes round a winch driven by one of the motors.

The paper may pass between the 2 long Rods at the bottom and the one above them with the 4 'cylinders' on it. Their centre part is rubber and they could move the paper if they are fast on the Rod and the other motor drives it.

That's mostly speculation, now for some facts. There are 351 parts in the Set, of 69 different types. That includes 8 different N&B, M2, M3 and M3.5, 83 in all; there are also 50 Washers and 44 of the rubbery Stops (#1095) that MERKUR use as collars. Of the rest about 50 are standard parts or derivatives, different lengths of Rod and A/G for instance. One part new to me is #1094, a small Compression Spring: you may be able to see it on the LH end of the foremost lower Rod. The remaining parts are mostly electrical or electronic, a Printed Circuit Board, a Relay, Connectors, 18 Transistors, 9 Diodes, 36 Resistors, etc. It would be interesting to know if the Transistors and so on have to be soldered in, and who the Set is meant for. The standard parts are in normal MERKUR colours, the Covers for the end casings are shown white. All the parts and the Set Contents will be included in Extra MCS Sheets.

On an entirely different tack, Don Bock has heard that MERKUR are planning to replace their 300 series with 3 new sets.



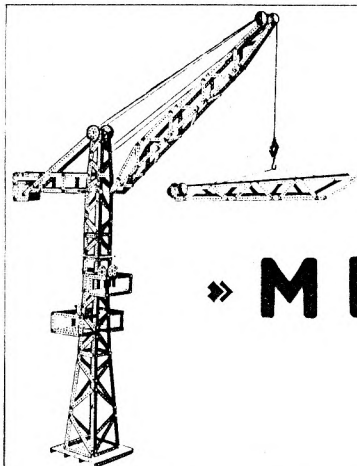
SMALL AD - FOR SALE. Several lots of English BOB parts including a selection of the Plates described in OSN 9/233. Each lot weighs about 2½lb and contains around 200 parts with approximately 41 Plates/Strips of 13 types; 6 Tyres; 35 Pulleys of 6 types; 48 formed and 50 straight Rods (8 shapes and 5 lengths), most somewhat rusty; and 25 'fixings'. But note there are only 8 Joints, not enough to make a real model. £10 plus carriage from the Editor.

MERKUR, OLD and NEW David Hobson kindly lent me an old No.3 Outfit that he has recently acquired. The box measures 8½*12½*¾" and is black with a large full colour label on the lid. On it are a boy, a Floating Crane, a Loco with Tender & 2 Wagons, and the Crane that is also shown on the manual cover (right). The inside of the box is yellow, with card Trays forming internal partitions. There's a blue 2¼" square tin for the N&B etc, and its cover has a quartered geometrical pattern in yellow and a blue which isn't quite the same shade as the base. Inside the box lid is a label in Czech which seems to be explaining how to make a #1 into a #5 with linking sets 1B to 4B. The manual also mentions Sets 5B and 6, but not the 6B and 7 of later manuals. That these didn't exist at the time is borne out by the following parts not being in the Illustrated Parts: 7h Curved Strip, No.26A; 2*5*2h DAS, 31A; 3*3 & 5*5 Corner Brackets, 37,37A; 34 & 119t Gears, 46A,47A; Bevel, 56; Contrate, 57; Axles, 62A,63,64, 65; and the MECCANO pattern Screwdriver, 80A. None of these were needed for the No.6 but all except 2 of the Axles were in the No.7.

This Set must have been earlier than the parts with the brown Strips described in 9/214, because the latter included 7h Curved Strips. The only brown part in this Set is the little Screwdriver, No.80.

The parts in David's Set are identical in shape to those of later sets, but many types of part, such as Gears and large Pulleys, are not included in the No.3. The colour scheme is generally similar too - Strips are a red-orange, brackets are black metallic, Plates are blue, and the only Trunnion left is green. The blue and green aren't exactly the same shades as those of later parts but are quite close. The main difference is that a number of parts are made from lacquered brass instead of the later aluminium or steel. Brass parts in this Set are the 13mm Loose Pulley, Collars, the 22mm Pulley, and the Bush Wheel. The N&B are also brass with machined Nuts (later pressed), and Bolts with slightly smaller heads, typically 5.6mm Ø.

Details of the manual are given at the end. The cover has the name of the company as Inventor so (from *Eisenzeit*) that dates it from before nationalisation in 1950. In passing, Werner Sticht has translated the whole EZ MERKUR section for me, and it also says that the Inventor company developed from a blacksmith's business, which was founded in 1920 by Jaroslav Vance. Sets with the MERKUR name were first produced in 1930 but before that



Kniha předloh

pro

kovovou mechanickou stavebnici

» MERKUR «

Radost malých inženýrů, konstruktérů a stavitelů.
Technicky uspořádaná hra pro stavbu modelu strojů,
konstrukcí různých předmětů. Hra pro zábavu
i poučení. Účelně zaměstnává, bývá dítip.

„INVENTOR“ stroj výroby kov., stavebnic a různých lisovaných zboží kov., regulat. kamen spol. s r. o. POLICE N. MET.

there had been an Inventor's Outfit: no details of it are known except that its parts were not joined by N&B. Current MERKUR literature claims 'more than 70 years of tradition'.

Returning to the Manual, the illustrations of the parts are exactly as those in the small manual described in 9/210. I think, though I haven't checked every one, that the models are all in the later manual (and it has many more besides). The illustrations are identical with a few minor changes but the order of the models is different and the Model Nos., which don't correspond to the ones in the OSN 9 manual, are out of order in places. Compared to later manuals the contents given for the #6 Set are the same but the #1 has a few less parts, notably 2 instead of 4x23mm Pulleys.

There were a few 'extra' parts in the Set, and a couple worth noting are a green steel Bush Wheel with a brass boss, and an orange Double Hook, No.96.

SUMMARY OF MANUAL •Name: MERKUR •Details of maker: 'INVENTOR', POLICE N. MET. •Dates &/or Ref Nos: none. •Page size: 231*149mm deep. •No. of pages: 28 unnumbered. •Language: Czech. •Printing: B&W inc cover; line drawings of models. •Page Nos. of Illustrated Parts List & highest PN: 4-6,98A. •Page Nos. of Set Contents & highest PN: 27,99. •Sets covered: 1,2,3. •No. of models for each set: 19,17,22. •Name, Model No., Page No. of first & last model of each set: 1: Kolo štetí,46,8; Koza na rezání dřeva,20,10. 2: Vetrník,52,11; Návestní terc,120,15. 3: Vuz zebrinový,102,16; Kovár,128,22. •Other notes: (i) 11 models for Sets 4,5,6, from Motocykl,151 to Auto sklápecí,253, are shown on pp22-26. (ii) The outside back cover, p28, is blank. (iii) Many of the accents over letters in the Czech names have had to be omitted.

The Current Range & a New Motor/Gears Set In June my daughter went for a holiday in the Czech Republic, with strict instructions from Dad to watch out for second-hand lots of VASEK, METROPOL, etc. No such luck of course but she did (sensible girl) bring me back as a souvenir, a MERKUR Motor/Gears Set 2.1, which I'd never seen or heard of before, and a leaflet showing the current range of outfits.

The Leaflet contains the following:

- 8 one model sets 01 to 08, all of which are small railway locos or wagons. In order, a Tank Loco, a 6-wheel Loco, a Tender for it, a Cattle Truck, a Crane Truck, an Open Wagon, a Bolster Wagon, and a Tank Wagon. Nos.02, 05 & 08 are shown on the facing page. All run on the same small, yellow wheels, which may be 22mm Pulleys, or possibly special Flanged Wheels. The parts are in the usual colours and the only obvious non-standard item is the tank body on the Tank Wagon.
- Next in price are 5 *mini* blister packs with parts for a Light Aircraft (Trempik), a Delta Wing Jet (Deltaplan), a Helicopter (Vrtulník), a Buggy (Buggy Skoda), and a Windmill (Mlyn). The English names are mine. These are the Sets mentioned in 9/214, and they contain 110, 142, 202, 136, & 115 parts respectively. The Windmill is a rather a

basic model, but the others are quite realistic looking, partly because many of the parts are in non-standard colours. The colour schemes for the 5 are red/yellow, red/blue, red/green, red, & red/green, except that the Bush Wheel, where used, is always yellow. The Buggy is as shown here.

- Then there are another 2 (unnamed) one-model boxed sets, 010 to build a Formula 1 Racing Car (206 parts), and 011 for a Motorcycle (230 parts). They appear to be made from standard parts and are again realistic looking models (opposite), even though few, if any, of the parts are in non-standard colours.

- Finally Outfits 3,4,5,6 & 7. The No.3 has 218 parts, weighs 1.04kg, and the model featured is a rather crude Tipping Truck, some 20cm long. The No.4 (602 parts in 2 layers, 2.86kg) shows a much better Truck which must be nearly 30cm long and appears to have proper steering. The No.5 has 733 parts in 3 layers (3.87kg) and the model is a tracked Digger, 60cm+ long, with a bucket wheel to do the digging. The 828 parts in the No.6 (opposite) are packed in 2 layers but with 2 trays in each - weight 4.6kg. The models are a tracked Crane lifting a Jeep. The No.7 has the same layout of trays for the 1124 parts (4.45kg). The model is the Fire Engine shown for the TECC No.7 in 12/320, and the sets weigh about the same. None of the other TECC sets

seem to correspond to these MERKUR ones. Clearly the sets are no longer progressive. No non-standard colour parts can be seen.

The name 'CROSS' is shown on the front and back of the Leaflet several times, and is prominently shown on most of the set lids. It is no doubt the name of the company that now makes MERKUR. Under it on the back is a name 'Ing. Jaromir Kriz' (perhaps the proprietor - Ing. probably indicates a qualified engineer), and the address, Nádražní 289, at the same town as before, 549 54 Police nad Metují. The phone/fax is (0042) 0447 94166/94450. The other, limited wording is in Czech/German/English/Spanish/French.

Absent from the Leaflet and therefore probably quite new is the **Motor/Gears Set**. Its parts are housed in a pale yellow translucent moulded plastic tray with a clear push down lid. This packaging sits in a card outer tray which slides into a sleeve measuring 9.7*6.9*1.4". On top of it the Motor and Battery Box are shown in colour on a blue ground, and on the bottom, Sets 3-7, as on the Leaflet.

The set cost the equivalent of £7 and the contents are as follows:

- The Geared Motor (below) is as shown in all the illustrations, but the top of the actual gearbox is rounded over and fully enclosed. The case is orange plastic except for a red inner face to the gearbox extension; it measures 50mm overall, excluding the (standard diameter) shaft, by 30mm wide, by 53mm high. The method of mounting it is unusual - two 2h long A/Gs are bolted to the model with their round holes engaging the LEGO-like studs that are provided on the sides and top and bottom of the motor casing. The terminals at the ends of the leads are shown bolted to a plastic Flat Trunnion, using long Bolts which receive the push-

on clips on the Battery Box leads. With the specified 4.5v, the no-load output speed is about 170rpm, and the torque feels adequate for small and medium size models. There are probably 3 pinion/gear reduction stages and each can't be much more than 3:1, which would give a motor speed of around 5000rpm. If the motor is of modern design that's perhaps rather low, and the rated voltage conservative.

- The Battery Box (below the Motor) takes 3 C cells and is in 3 parts, with a red bottom, a black top, and a black inner housing for a cell at 90° to the others. Top left on the front side is a black spring loaded switch for forward and reverse; a similar switch on the back face isn't used.
- A 17t Pinion and a Worm (BZP); a 34t Gear (painted yellow); a 50t Gear and 2 15mm o.d., 25t Bevels, (black plastic with nickel bosses); a 50t Contrate (painted blue).
- A Coupling (nickel); 2 Universals (see below & 9/215, BZP, 39mm o/a); a 100mm Driving Band (black rubber, about 3mm wide, perhaps #2309); a flat Screwdriver, #1080, and Spanner, #1085 (BZP). 2x2h A/Gs (BZP).
- All parts that aren't plastic are made of steel including all bosses; their design is unchanged though I don't recall a 2h A/G from before. The parts are well made though the paintwork and BZP aren't quite perfect, and the Screwdriver doesn't fit the Grub Screws and some of the Set Screws. What a pity that BZP is replacing the much richer looking (and more durable) nickel plating.

The Leaflet with the Set is a single sheet, 15*42cm, folded in two. The cover is similar to the sleeve and 5 mechanisms are shown on the other pages, including a Differential. All need extra constructional parts of course and most need more Gears than are in the 2.1 Outfit. So is there a larger Gears Set, a 2.2 perhaps? As on the Leaflet, and the sleeve, the wording is in 5 languages.



MIGNON - the Ansatzmutter and other Parts Sven-Ulrich Glage has kindly sent a few MIGNON parts including an Ansatzmutter, the purpose of which was debated in 11/298. First the run of the mill parts. A Plate, #178, .42mm thick, anodised yellow, and a plain aluminium 3h Flat Girder, .99mm thick, both look like their illustrations in MCS, with BRAL-shaped elongated holes, 4mm long o/a. 3 different Strips range from 5.97 to 6.25mm in width, and are from 1.05 to 1.16mm thick. The N&B are nickel plated brass - the Nuts are machined, 4.5mm A/F and 1.6mm thick; Bolts have cheeseheads 4.0mm Ø by 1mm deep, and the lengths in the Parts List include the heads. The thread (including the Motor N&B) is not M2.5 as suggested in OSN 10. The o.d. varies from 2.51 to 2.57mm and the pitch is .45mm - from 7/169 it may well be a Löwenherz thread. The Washer, #145, is aluminium, 8.1mm Ø. The parts seen are well made except that all the holes in one Strip are slightly offset from the centreline.

A steel A/G was mentioned in 13/360, and Sven wrote that he has an early, unboxed No.1 Set in which all Strips, DAS, A/Gs, and

Brackets are made of nickel plated steel. One of the parts he sent, a 5h Strip, was nicked, but the base material is brass, not steel. Its width & thickness are within the range given above for aluminium Strips.

The Ansatzmutter is made of brass, but not nickel plated, and it looks just like the illustration in 10/263, a Shouldered Nut in fact. The nut part is 4.50mm A/F and 1.53mm thick, and the extension is 3.07mm Ø and 1.09mm deep. The only use I can see for it is to provide a pivot for a Strip, and as such it would be a worthwhile part in any comprehensive system, particularly where the standard Bolts are considerably smaller than the holes, as is the case with MIGNON.

In the manual model in which it is used (#18 for Set 3), it appears to secure a long Bolt to the structure, head inside, and the extension outwards of course. Then locknuts are used to retain the Strip in place on the extension with suitable end float. It would be more elegant, and save a Nut, if the Bolt were turned around (head outwards) and locked to the structure by the Ansatzmutter on the outside, extension outwards, and an ordinary Nut on the inside.

The No.0 in the first manual has 75 N&B, and in size it is somewhere between the 00 and 0 in the second.

Other manuals must exist because although the MCS models are in one or other Mans.1 & 2, their page numbers and layout are not identical. Richard also sent the Illustrated Parts from another manual which is the same as the one in Man 2, but also shows separately the earlier illustrations of the Lead Screw & Saddle, the 4-Spoke Pulley, and the Screw-driver with the wooden handle.

There are 4 other smallish Hungarian systems in MCS which together with TECHNOKID, have certain parts, & in some cases, models, with a similar look to them. Of the two general purpose sets MECHANIKA has the widest range of parts, with conventional, rounded-cornered Plates and Strips, though the former are 4 holes wide. FÉMÉPÍTŐ appears to be similar but with fewer parts. Another, METAPLAN, is the largest with over 60 parts, and many of them, all square-cornered, are obviously intended to allow the Loco & Carriage shown in MCS to look as realistic as possible. The last is KIS TECHNIKUS, and the manual cover in MCS shows the Railcar & a manual lying on a table with the name TECHNOKID on it. So it may be the same as, or closely related to, TECHNOKID. Actual MECHANIKA parts are plain aluminium like those of TECHNOKID, and probably those of the other three systems are too.



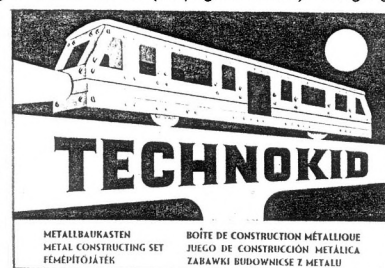
SUMMARY OF MANUAL

[Man1] •Name: TECHNOKID 0-1 •Details of maker: MEJA, MAGYAR GYÁRTMÁNY, GYÁRTJA A, BUDAPESTI VT. MECHANIKAI JÁTEKGYÁRA, BUDAPEST XX, SÁGVÁRI ENDRE-U. 24. •Dates &/or Ref Nos: F k.: Mosányi Pál - 27263/LD05 - Révai, Budapest (F. v.: Nyáry Dezső) •Page size: 246*166mm deep. •No.

of pages: 44 + covers. •Language: Hungarian. •Printing: Colour cover (black, yellow, dark blue, grey, red train); B&W photos of models on red framed white pages. •Page No. of Illustrated Parts & highest PN: 4,75. •Page No. of Set Contents & highest PN: 5,75. •Sets covered: 0.1. •No. of models for each set: 16,13, & 22 for #1+extra parts. •Name, Model No., Page No. of first & last model of each set: 0: BORONA [CLOD-CRUSHER],1,8; BORONA [HARROW],16,13. 1: FELVONÓ [LIFT],17,14; DIESEL-MOTOROS GYORSVASÚT [DIESELMOTOR TRAIN],29,25. 1+: KONYHAMÉRLEG [KITCHEN SCALES],30,26; KÖRHINTA [MERRY-GO-ROUND],51,44. •Other notes. The English names above are from the English edition. The words on its cover are in Spanish - Caja de construcción metálica on the front. The maker's name on the back of the Hungarian version is replaced by ARTEX, SOCIEDAD HÚNGARA PARA LA EXPORTACIÓN E IMPORTACIÓN, BUDAPEST 5.P.B.45. The PR is Publ : C. Kovács - 26111/LD05-Révai, Budapest (Resp. : D. Nyáry).

SUMMARY OF MANUAL [Man2] •Name: TECHNOKID •Details of maker: TECHNOKID, Budapest, Hongrie. •Dates &/or Ref Nos: 'Felelős kiadó: Bokor Jenő igazgató', & '63.3254 Egyetemi Nyomda, Budapest', on back cover. •Page size: 201*136mm deep. •No. of pages: 92 inc covers (no page numbers). •Language:

German, French, English, Spanish, Hungarian, Polish. •Printing: Colour covers (black, yellow, fawn, red train); B&W photos of models on white pages, partially pink or blue. •Page No. of Illustrated Parts & highest PN: 20,151. •Page Nos. of Set Contents & highest PN: 21, 151. •Sets covered: 00,0,1. •No. of models for each set: 37,16,55. •Name, Model No., Page No. of first & last model of each set: 00: TRAFFIC SINGS,1,32; LORRY,37,50. 0: BED,38,51; DUMPINGWAGON,53,59. 1: WHEEL BARROW, 54,60; DIESEL RAILCAR,108,90. •Other notes. The parts pages and model names are repeated in all languages. The models that can be made with each set are not stated and have been judged from the parts needed to make each model.



PUBLICATIONS

Ward's Catalog Erector, 1913-85 I haven't seen this 118 page, spiral-bound book by Marshall McKusik, but Don Redmond writes that it is very good, with a coloured cover showing two of the Duplex Standard Sets and a version of the White Truck, and a whole chapter on these Sets. (Duplex sets were made by Gilbert for the various stores and, instead of Girders, contained Strips with alternate normal & large diameter holes. Ward's sold TRUMODEL & STEEL-TECH Duplex sets.) The reproduction from the catalogues is much better than in the Sears volume (see 15/425), having been taken from the paper originals rather than microfilm. Also included is an article about the alleged connection between Gilbert and Meccano, including full details of the latter's legal action against AMERICAN MODEL BUILDER. It is available from Ashton House Press, 820 Park Road, Iowa City, IA 52246-2427, U.S.A., price \$28 including (US?) postage.

PRIMUS ENGINEERING This book by David Hobson is the result of much careful research into the PRIMUS system and the firm who made it, and though there are still some gaps because the appropriate records have disappeared over the years, it is a very thorough account of a unique system. Do you know where you can still see the full-size prototype of the PRIMUS Architrave? Did you know that a offshoot of the firm that made PRIMUS is still trading in Blackheath? Did you know that there are 8 known varieties of the Flanged Wheel? As well as all that there are the background topics which are mentioned in David's ad opposite, and some of them I found interesting in their own right, particularly the discussion of the validity of Hornby's 1901 patent claim in the light of the relevant patents that had preceded it. There is a lot of information in this book and, as seems to be the fashion these days, there is no Index, so I made up a skeleton one for myself as I read through the first time and have since found it invaluable.

The MERKUR Geared Motor This is the one that was mentioned in 17/485, and I finally got to use it in a model recently. In doing so I discovered that the fore & aft movement in the output shaft, which I had assumed was just due to poor assembly, is probably intentional. When the shaft is at one extreme position it runs at the 170rpm of OSN 17, but at the opposite extreme, a movement of 2mm or so, a different internal gear is engaged and the speed is increased by a factor of about 5. Depending on which speed is to be used a Collar may be needed on the end of the shaft that isn't carrying the output wheel. I can't find any indication of a 2-speed capability on the Leaflet which was with the Motor or the box it was packed in.

SMALL ADS

WANTED. The PRESTACON Jeep Kit, shown in OSN 17, p490. Don Redmond, 9 St Catherine Street, Kingston, Ontario, K7K 3R9, Canada.

FOR SALE at cost of production. Privately produced book "PRIMUS ENGINEERING - An Early Competitor for Meccano". Describes the history and details of the Primus Engineering system. Also includes information on the development of metal constructional toys in the late 19th century, and the position which Primus and other early rival systems (there seem to have been more than 20) occupied in relation to Meccano through to the mid-1920s. A4 size with 100 sides of text and tables, together with 111 sides of black and white illustrations, and 8 sides of colour copying showing 32 photos. Comb-bound with acetate covers, weight about 1kg. Price £19, plus post and packing: total in UK total £23; in Europe £24; in USA \$46 airmail, or \$38 surface (no credit card facility but can utilise US dollar currency). David Hobson, 'Woodington', Edford Green, Holcombe, Bath, BA3 5DB, England.

1995, £1500 say, and is said to be intended for technical schools, apprentice shops, inventors and hobbyists. • A 3000 Kit is also mentioned and seems to be just a 1400 & a 1600 in their own boxes. It isn't listed in the 1993 Price List but it is in a 1995 one and costs some 10% less than buying its component sets individually.

Motor Kits 8310 & 8410 are also shown and are simply 10 of the small Geared Motors, or 10 of the large ones, one for each output speed, packed in a plastic carrying case.

The **1995 Price List** has all the 1993 sets plus various others which are, like the 3000, just a combination of the standard sets at a slightly reduced price. The new ones are the 901 (500 + 401), 1900 (1400 + 500), 2001 (1600 + 401), 2100 (1600 + 500), 2500 (2000 + 500), 3500 (1600 + 1400 + 500), & 3901 (1600 + 1400 + 500 + 401).

Mechanism Kits were mentioned earlier and these presumably led to the ready built **COMPACT Gear Models** which were intended to demonstrate all manner of mechanical movements. The simplest is a belt running over a pair of pulleys with a jockey pulley, and pointers on the shafts to show what is happening. At the other extreme a planetary gear, again with pointers. A pair of the transparent Gearbox Side Plates, spaced apart, form the main structure of the models and many of the components look to be standard parts. 60 of the Kits are listed in MCS under COMPACT SMP, with some small illustrations. They would date from about 1970 when Stock Model Parts (SMP) sold AUTOMAT material in the U.S.A. In 1993 there were 75 Models in all, called the C 62 Series, and all but a few of the 1970 ones have been carried forward with the same PNs.

USING THE PARTS David Hobson owns the early parts mentioned in the Introduction and he kindly lent them to me to play with. The main ones were A/Gs, Brackets, Levers, Gears, Threaded Bearings, 4mm Shafts, & Lead Screws with Lead Nuts.

I made a framework and had a 96:18 gear step-up driving a Lead Screw; a pair of Lead Nuts on the latter were bolted to a Rack which meshed with a Gear Wheel. I'd then used up all of the 6 Bearings. The framework was easy to make and perfectly rigid, but the geometry of the A/Gs didn't allow two to be joined at right angles through their round holes, and it was not possible to join three at a corner with 3 N&B. The Bearings were surprisingly easy to line up, partly due to the slightly greater clearance in them compared to the FAC parts, and they were also not quite as long. It would have been easier to mount the Rack if there had been a longer Lead Nut with 2 mounting holes in it, and such a part was introduced later on. As would be expected from such accurate parts, my little mechanism worked smoothly first time.

What to say more generally about AUTOMAT? Comparisons with FAC come to mind but I really haven't adequate experience of either system, particularly in building complex mechanical movements or the heavier types of machinery. This is especially true of AUTOMAT's later parts, which I've not even seen, let alone used.

Nevertheless my overall conclusion about FAC must apply equally to AUTOMAT: any good-sized range of reasonably well designed, accurately made parts would be more than welcome to anyone who needs to make up the types of machinery envisaged by the designer of the system. The literature and the early range of parts seem to indicate that with AUTOMAT the original emphasis was on demonstration models, particularly those relating to automatic machine tools, and other small pieces of machinery. But later on the addition of 6mm Shafts would have allowed more power to be used, and the heavy Girders would have made strong frameworks possible. Comments from anyone who has used the parts would be very welcome.

THANK YOU to all who have contributed material, including Josep Bernal, Jeannot Buteux, John Hanby, David Hobson, Thomas Keel, Thomas Morzinck, & Geoff Wright.

MERKUR News David Hobson was recently able to take photos of some sets belonging to Bill Foote, and he kindly gave me copies. They include No.340, the largest set in the previous range (see 9/213), and two new sets that have been introduced since the notes in 17/484. So MERKUR seems to be alive and well, though I've not heard of it being on sale in the UK. (Is TECC (20/569) still marketed I wonder.) The 'CROSS' name is still prominent on all items.

One of the new outfits is a larger **Motor/Gears Set, No.2.2**. Its box is somewhat larger than that of the No.2.1, but is in the same style, and all the 2.1 parts can be seen, plus more gears and some other parts. The former include another Contrate, another 50t Gear, and 2 more Bevels. The other parts that can be seen are some Axles, a 7h Strip, a few DAS, more than one 5h wide Flat Plates, a 5*5h & one, perhaps two, 5*10h Flanged Plates, 2 Trunnions & 2 Plastic Flat Trunnions, 2 Large Trunnions #2039 (red) & 2 Large Flat Trunnions #3038 (green), and (probably) a 10h A/G and a second Coupling. The front of the Model Leaflet (or Manual perhaps) is similar to that of the 2.1 in layout but shows the Motor driving an output shaft with a 38mm Pulley on it, through a Pinion/Gear reduction, followed by a Worm stage. Apart from Pulleys the 2.2 Outfit appears to contain most but not quite all the parts needed for the Mechanisms in the 2.1 Leaflet.

Before going on to the second new set, a word about the **No.340**. The parts are in 4 trays and sit in the usual MERKUR clear, moulded plastic inserts. The style of the lid and the manual cover is similar to that of the 330 manual in OSN 9, with side views of a more elaborate Windmill driven by a gear train, and a tracked Chassis under it. The 85 & 119t Gears shown are the early 6-spoke design but the ones in the Set are the current type with no cutouts.

The other new set is the **No.8** with 1405 parts and weighing 6.6kg. So it's appreciably larger than the No.7 and it includes the Motor that is in the Gear Sets, the only regular set to do so. The parts are in 5 trays with inserts, and fit into a box which is probably the same size in plan as the No.6 & 7. It's no doubt deeper to allow a stack of 3 trays on one side with 2, deeper and edged in red, alongside. The models on the lid are those shown in OSN 17 for the No.6, but inset top right is the Mechanism from the 2.2 lid and there's another inset top left but I can't make out what it is. The text is in 12 languages and down the lefthand side are some 20 small flags. All the main parts can be seen including the 5h Braced Girder not in the 340. In addition to the Pulleys/Tyres in the 340 there are 4 new Tyres that scale at 7cm o.d. This part is black plastic and looks to be a disc with the tyre shape moulded around it (left). The only hole in the disc is at the centre and although a 38mm Pulley would fit into the recess above the disc I can't see how it would be attached. Perhaps the Tyre has a boss behind the disc

and it is a push-fit on the Axle, with the Pulley fastened to the Axle by its Set Screw as decor. Colours are as usual except that both parts of the battery Box are black. The 'M3 - M8' on the Manual cover (below) presumably indicates the sets covered though the M prefix isn't used elsewhere. No



details are available as to what's inside. The Tractor is the one shown in 20/569, but now it's pulling a Trailer.

MERKUR in 2001 This update is based on information kindly sent by Orion DreamDancer, & also on the content of 3 web sites last June - the Merkur site, www.merkurtoys.cz; the U.S. site www.merkurtoys.com; & a Dutch retailer, www.pmot.nl. In America sets can be bought from www.erektorworld.com. Incidentally MERKUR is often sold under the name M'KUR in the U.S. because, apparently, The Ford Motor Co. have registered, and I believe use, the name Merkur (it means mercury in Czech of course).

The main source of information is a **brochure** from 2001, in Czech & English. The Set Numbers alone are used on the boxes, but in the brochure have an 'M' before them. The main additions since 1997 (see 17/484) are the large No.8 outfit (see 21/613); a 2-model set, No.1.1, 4 'railway' sets, an electrical & an electronic outfit; and another 12 of the small, single model sets. Also 3 theme sets called Army, Fire, & Farmer, and the latter two are starred as being new. The 5 Mini-blister packs have disappeared, and also the 8 sets 01-08, each of which made a small rolling stock model. However similar models to most in both types are included in the new range, but not the Windmill, nor the Loco & Tank Wagon shown in OSN 17.

The lids of the existing sets are mostly similar in style to the No.6 in OSN 17 but nearly all now sport the column of little flags that can be seen on the manual cover in OSN 21. The featured models are also mostly the same and the few changes are noted below. The large red flash with 'CROSS' on it appears on most of the single-model sets, but is not on the lids of the other new sets, or on those where the lid has been changed. Excluding the theme sets, most of the new or redesigned lids have 'BIG SET' next to the set number at the top, as on the 1.1 below.



Colours. Except for the Army set the parts in the various outfits are in the usual range of MERKUR colours, although the colour may vary for any given part from set to set. This may give a better appearance in some cases but for me too many colours are used in many of the models.

The Sets in the Brochure are: • **No.1.1** (above). This measures 365*272*48mm, and has 240 parts. The 2 models



shown, a Cross-Country Vehicle & a Sporting Trike, have mainly blue parts but with touches of yellow & red. At the bottom of the last column is the rather unusual cover of the 4-page manual, mostly in shades of blue, with a rather whimsical trike and intrepid rider with a red-spotted white scarf on his head, tied at the back to give 2 flying 'pigtails'.

• **Nos.3-7** are as before except that the **No.3** now has a Mobile Crane on the lid (though the old lid is shown on the European web sites), and **No.6** has the Tractor & half Trailer that is on the M3-M8 manual shown in OSN 21, only pointing in the opposite direction. With a few minor exceptions the contents of Set 3-6 are progressive, and apart from some changes to the Tyres the No.6 is identical to the previous No.340. (The contents of the smaller sets do not correspond so well.)

The extra size of the **No.7** is because there are many more N&B, with 366 Nuts against 193 in the No.6, and in fact it has slightly fewer non-N&B parts. Compared to the No.6 it has fewer Gears, and a few less of a whole range of parts, but the most noticeable changes are extra A/Gs, 23 against 10, 13x 1*2*1h DAS, & 2 Bulbs with Holders. All these are used in the featured model, the Fire Engine, shown on the box lid, the only No.7 model in the manual (described later). This model is the same as the TECC one shown in 12/320, and though not a bad model in some ways, it is perhaps surprising that a set was created especially for it. (In passing it is worth mentioning that though the TECC No.7 is probably similar to the MERKUR No.7, the TECC & MERKUR Nos.5 & 6 certainly differ quite significantly. The contents of the MERKUR sets will be put into MCS and can be compared with those of the two TECC sets – I don't have details of the TECC No.4 except that its weight is similar to the MERKUR No.4.

• The **No.8**. The lid shows the Tracked Crane & Jeep which were on the No.6 lid. The top left inset, which could not be explained in OSN 17, are the Set 1.1 models, or very similar. The Set contains, for each part, as many as are in any of the Sets 3-7 (and probably the 1.1 as well), and a few more in some cases, plus the Motor. So a large set with 395 Nuts, 23 A/Gs, 16 Gears, 6 Couplings, and a pair of Universals. (The contents of Sets 3-7 are given in the manual below and have been quoted here; those for the No.8 are as found in an actual set. In general the actual contents of sets varies a little from the manual figures. For all the other sets the number of parts given in the Brochure is used, in preference to the number, sometimes different, which may be visible on the appropriate lid in the Brochure.) As Orion pointed out, apart from the STOKYS No.4 outfit, if it is still available, the No.8 is the only large general purpose set now on the market.

Orion sent the **M3-M8 manual** that was in OSN 17: **SUMMARY OF MANUAL** •Name: MERKUR M3-M8. •Details of maker: Cross, Ing. Jaromír Kříž. •Dates &/or Ref Nos: none. •Page size: 310*212mm deep. •No. of pages: 32 inc covers, unnumbered. •Language: Czech, German, English, Spanish, French. •Printing: colour. •Page Nos. of Ill. Parts & highest PN: 30-31, 1285/4037. •Page Nos. of Set Contents & highest PN: 29, 2309/4037 (Sets 3-7 only). •Sets covered: 3-8. •No. of models for each set: 8,7,4,2,2,2. •Name, Page No. of first & last model of each set (no model nos.): 3: BAND SAW,6; CRANE,10. 4: DUMP TRUCK,11; TOWER CRANE,20. 5: BULLDOZER,19; DIGGING-WHEEL EXCAVATOR. 6: TRACTOR ZETOR,15-16; FULL-PORTAL GANTRY CRANE,22. 7: CRANE TRUCK,21; FIRE-ENGINE,25. 8: CROSS-COUNTRY RACINGS (2 models),18. •Other notes: •The models are not in any particular order. •More models, 1-11, for Sets 3-7, are on pp 26-28, with Parts Lists but no names – the first is a Saw Table & the last a Radar Dish. •The 'M8' element of this manual is on the 4 centre pages, with uses of the Motor on p17.

This manual is in the same style as the earlier 300-series, and was probably originally for Set 3-7, with the centre 4 pages added for Set 8. The other pages haven't been changed so the No.8 Set Contents aren't given, and the sets from which each model can be built stop at No.7. The No.8 pages show only the splendid No.6 Tractor that is on the cover, the use of the Motor with gearing, and 2 quite

small all-terrain models similar to the 4-wheel version from Set 1.1. Curiously none of the models on the No.8 lid are anywhere in the manual. The models for Sets 3-7 are mostly the old favourites with one or two new ones, and the No.7 Crane Truck below took my eye. None of the models for the larger sets do them justice though and it's a little sad to find only 2 models for each of Sets 7 & 8.



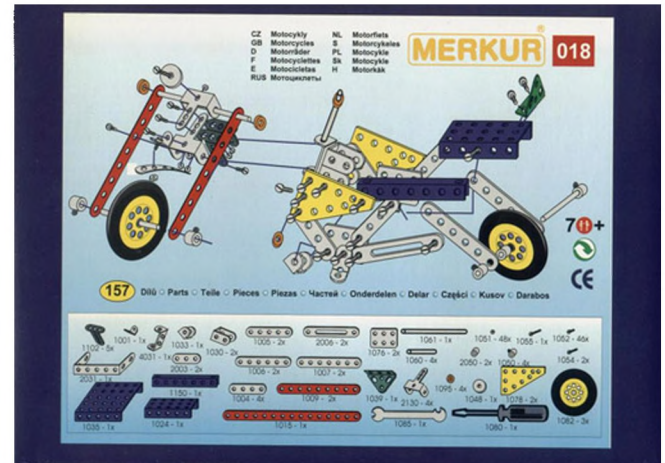
The M3-M8 manual is included in Sets 5 to 8. A known **Set 4** has an old 330 manual with an 'M4' sticker over the '330' number. The **No.3** has its own 16 page manual, 222*159mm deep, with 10 models, some new and some from earlier 300 series editions.

Next the single small model sets, **010 to 018**, of which **Nos.010 & 011** are unchanged. All the wheels on the vehicles in this series, except 018, are a Tyre on a 23mm Pulley. The parts in the sets are shown on the underside of the boxes, together with step-by-step instructions. • **012** has 143 parts and is called Service Car; the lid shows a small Jeep towing a 2-wheel Crane Truck. • The 223 parts in **013**, Helicopter, are used to make a model similar in size and features to the old Mini model. On the Dutch site the 013 has the same number of parts but the lid shows a slightly different Helicopter and a small shoulder-wing Monoplane. • The **014**, Aeroplane (94 parts) is again similar to the previous Mini model. • The **015**, Spaceship, has 168 parts and the model is similar to the old Mini Deltaplan (and that is the Czech name for the new set). The dark blue lid below

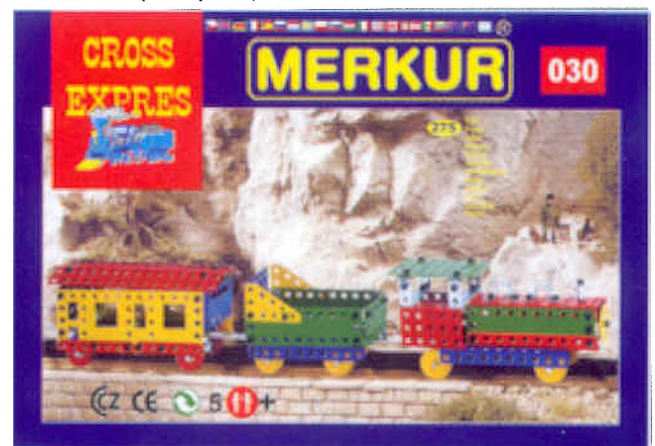


(with the corner of another set bottom right) is jazzier than any of the others. The instructions on the underside of the box are unusual in being in B&W. • The **016** Buggy (124 parts) looks the same as the old Mini set model of the same name (see OSN 17). • **017**, Truck, has 124 parts too and is an articulated lorry carrying, in the picture, a load of 'tree trunks'. • **018**, Motorcycles, has 3 models on the lid, a normal machine with & without a (rudimentary) sidecar, and

a Motor Tricycle. The set has enough parts to make any one of these but the instructions on the box (below) are only an exploded view of the 2-Wheeler. The wheels are the 38mm Pulley with Tyre.



Now **railway sets**. All the wheels are 23mm Pulleys. • The **030** (266 parts), below, makes a Loco, Tender, &



Coach, shown on the lid against a rocky backdrop. They look to be running on rails but none are in the set. The name of the set, top left, is CROSS EXPRESS. The Tender is the previous 03 model but the others are new, and the side of the Coach is a single pierced 13*5h Plate (shown later). The bottom of the box has instructions for just the Loco. • The **031** has 285 parts and makes a simple Steam Loco & a 17h long Open Wagon. Also on the lid is a small inset of the 030 models. The instructions for the models are on the front & back of a Model Sheet. • The **032** has 162 parts (the lid says 266) and makes the earlier 01 Loco & 04 Cattle Truck (or perhaps it's a Coach). • Finally the **033**, with 137 parts, makes a slightly modified version of the Crane Truck shown in OSN 17, and a 6h deep Coal Wagon with the sides made of pairs of the #1077 Angled Corner Plate.

None of the Locos is as good as the 6-wheeler shown on OSN 17.

Now for the **theme sets**. The **Farmer** has 341 parts, including about 95 N&B, in a box 365*275*48mm. On the lid is a Tractor pulling one of the other 7 models in the manual - a Harrow I think, none of the models is named. The manual cover overleaf has the Tractor, a Utility Cart (which looks as if it might sag in the middle), and a Sprayer, with the large Wheels from the Tractor as the tank. The other models are various Implements including a Combine (shown below the Manual). All simple models but reasonable enough, although it would have been nice if the Combine's rotor turned as the model is pushed along. The manual has 12 pages including covers, 223*159mm: the Illustrated Parts/Set Contents are on the BC but otherwise all the pages are devoted to the models, starting with the Tractor and finishing with the Utility Cart. Most have step-by-step pictures with the parts to be used at each step correctly coloured and the rest of the



model in a pale neutral colour. It isn't indicated in any way but it is possible to build the Tractor and any of the various attachments at the same time.

The **Fire** set is also in a box 365*275*48mm but the parts (no total is given) are in 2 layers. The lid below shows



a rather nice Fire Engine with steering and an extending ladder, and 4 other models are included in the 16 page manual. Most of the parts in the Fire Engine are red (or perhaps the MERKUR dark orange), with some bright parts which fit in quite well; but the Pulleys in the wheels, and the back of the cab are yellow, and would be much better red.

The **Army** set also has 2 layers of parts, with 677 in all, in the same size end-opening box. Ivor Ellard very kindly lent me his set, bought in Prague early in 2002. Apart from the Tools, each layer (a yellow plastic moulding in a white card tray) has identical parts in it except for their colours. In one most parts are a dark olive green and in the other, a sand shade – in both cases with a very slightly speckled finish. However in each layer the Axles, N&B, & most of the small parts are BZP, the Pulleys and a few other parts are the standard MERKUR green, and the Bush Wheels are yellow.

The box is green and there are 5 models on the lid



(above), plus a silver rocket & some soldiers that aren't in the Set. The models are 2 identical Tanks, one olive & one sand, 2 other tracked vehicles, perhaps a Machine Gun Carrier, & an Armoured Personnel Carrier, and a Machine Gun Post, or the like. On the bottom of the box are the usual Illustrated Parts/Set Contents, and instructions for the Tank, in 14 steps. In all the tracked models Plates have to be curved, which is very difficult given their thickness. The appearance of the models isn't helped by the bright and standard coloured parts, and the gun on the Tank looks a bit feeble, especially as it carries a shiny aluminium Worm as a muzzle break.

The **Motor Sets**. The 2.1 was described in OSN 17. It is now in the same size box but the top, still blue, has a different view of the Motor and a possibly different, red, 3x C cell Battery Box, open with its lid alongside. A 2.2 Set is in a larger box, 365*272*48mm, with, again, a blue top, but on it: the Motor; an OSN 17 type red & black Battery Box; a Motor-driven Mechanism; and 4 different set lids. As found the contents include more Gears, 14 in all; 2 Couplings; and a selection of structural parts such as Plates, 3 Flat & 3 Flanged; Trunnions, large & small, 8 in all; 2 each of 2h & 10h A/Gs; and various DAS. Apart from there being no Pulleys in the Outfit, the parts would be sufficient for 3 of the 5 mechanisms on the 2.1 Model Sheet.

The **Electrical Set, E1**, is in many ways similar to the earlier ELEKTRO outfit No.102 (details in MCS), but with some refinements, and with the parts used in the experiments mounted on a plastic rather than a metal plate. The parts are what might be expected in a good class electrical set and include a Morse Key, a Bell, Bulbs & Holders, a Horseshoe Magnet, a Coil, an Armature with commutator, Pole Pieces, a 6-lobe Cam, a 62mm aluminium Disc with Boss, a shallow Flanged Disc, 64mm Ø, with the flange extended by 6 lugs, a Compass Needle & Card, a Resistor & an LED (used as a diode), and Bags of Iron (filings & larger pieces), Copper Sulphate, and Sodium Chloride (salt). Also of course, structural parts, basically a yellow Plastic Plate, 25*17h, with 15 & 25h A/Gs to support the edges, and 3*5h Flanged Plates at the corners as feet. Various Trunnions & Brackets are provided to mount components and the latter are connected either by bright Strips (up to 15h) bolted to the Plastic Plate, or by Cables with split metal ends that push over the shanks of Bolts fastened to the Plate. Parts with bare wire ends are held in Terminal Posts (#5050) which have a tapped bore at one end to allow them to be bolted to the Plate. In some experiments 2 AA cells are shown clamped to the Plate by a 3h Strip, with A/Bs to locate them; in others 6v are needed and on p8 of the Manual a small multi-output transformer is shown, perhaps as a suggested power source. Among the parts are 3 & 5h Strips, and some Brackets, all with one end hole enlarged, perhaps to accept an Insulating Bush, though there is also a 3h red Fibre Strip with the same large end hole.

The manual, in Czech, is 209*150mm deep and has 64



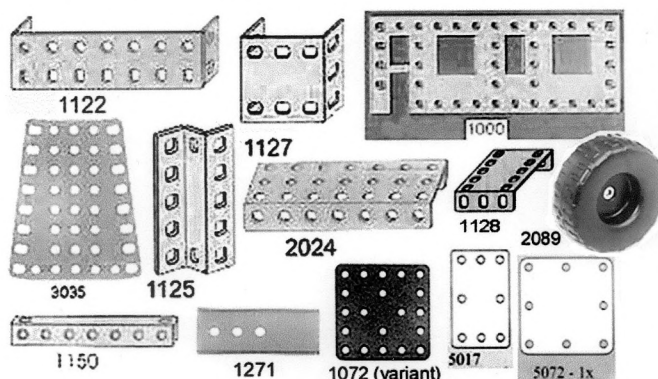
pages plus covers. The Motor on the cover above is virtually identical to the one from the Elektro set in Fig. 1B of 9/210. On p2 are a list of the 88 experiments in the manual, and they follow a 6 page Introduction. The 13 on electrostatics start on p10; the 17 on current electricity on p18; the 13 on magnetism on p27; the 25 on electro-magnetism on p34; the 11 on electrical machines on p47; the 3 on electrical measuring instruments on p54; and the 6 on electro-chemistry on p56. The Illustrated Parts/Set Contents are on pp60-63. p64 has brief biographical notes on 27 scientists, and there are portraits of 16 of them on the inside covers. For each experiment there is a photo, with a circuit diagram sometimes, and always a fairly lengthy note of (no doubt) explanation. It all looks quite serious.

The box lid is similar to the manual cover but has a red 'CROSS' label top left with some parts underneath it.

The **E2 Elektronik Set** uses the same mounting board but the wire ends of the standard resistors, capacitors, etc are looped and bolted to black plastic Component Blocks, with the same Bolts holding the Blocks to the Plate. The Blocks are connected together by Strips, or Cables with circular tagged ends. The parts include 2 Transistors, a Thermistor, and an Earphone. The 56 page manual is the same size as the Electrical one, and its cover is again similar to the box lid - with a boy setting up an experiment and another watching him. The 60 experiments inside are presented in a similar way, though with more circuit diagrams and less photos. It looks good, serious stuff, and I think I'll leave it at that.

Neither the E1 or E2 sets are listed on any of the foreign sites but since they are in the Czech/English brochure perhaps English language instructions exist. One known example of the old ELEKTRO sets has a manual in Czech plus a booklet with 'MANUAL OF INSTRUCTIONS FOR MERKUR ELEKTRO ELECTRICAL CONSTRUCTIONAL SETS' on its plain white cover. It is thought that it contains an English version of the Czech text in the Manual.

The new parts are shown below. The 5*13h pierced Side Plate, #1000, for the Coach is yellow. The Flanged Plates are: #1128 3*5h; #2024, 3*7h; #1122, 2*7h; #1127, 3*3h. #3035 is a flat version of the Flanged Sector Plate



#2035. The Plates #5017 & #5072 are Transparent Plates with only the holes shown. The 2 parts in the centre at the bottom are from the Army Set: the first is in fact an existing part, the Pole Piece #1271 in the E1 Set; the 5*5h Plate with the diamond of 4 holes in the middle is shown on the bottom of the box as the #1072 fully Perforated Plate. That leaves the 5h long Z-Girder, #1125, and the 7h long 1*1*1h Channel Girder, #1150, with only the end holes on the top face.

Other parts which may be new are: a Compression Spring, #1094, as used in the suspension of the 1.1 models; #2050, a Spacer, probably plastic, of about the size of the Collar; a 1*2*1h DAS, #4031; and a couple of Tyres - one is the #2089 Wheel used on the 1.1 models, it is probably the one illustrated in 21/613; and the other is #3089, a larger Tyre for the 26mm Pulley, used on the back wheels of the 010 Race Car.

An innovation for 2002 is a change to **Allen-headed Bolts**, though as yet they are not in all sets (they were shown prematurely in the Illustrated Parts of many of the 2001 small sets). All found to date have a smart black finish, with matching Nuts. In some sets the various lengths of Bolts have different heads and both an Allen Key & Screwdriver are provided.

In passing, the Large & Small **Pawls** (#1071 & 1070) are found left- & right-handed, and where appropriate pairs are often packed in sets.

All the **ELEKTRO E1** parts will be shown in MCS.

Parts Packs The Dutch site lists 13 of these, Nos. nd101 to nd113: Strips & A/Gs; Strips & Plates; Curved Strips; Wheels (?Pulleys); Gears; Tyres & ?Rims; Flanged & Angled Plates; N&B; 25h Strips' 25h A/Gs; Small Plastic Plates; Large Plastic Plates; Rubber Caterpillar Tracks. They vary in price from €2.50 for the Small Plastic Plates, to €14.50 for the Gears.

An oddity Over the normal black '6' in a red box, on the side of one of two No.6 sets seen, was a black '6' on a white sticker, and under it a white printed '11' in the red box. Both lids were otherwise as expected. A mistake or a new numbering scheme that never happened?

'New' System: MECHANIK The Nr.100 set (below), no doubt German, is said to be 50 years old. The box is red with most of the lid covered by a label. The name in blue is suspended from a large Crane set against a pink and white background. The right hand panel is red with Nr.100 on it, and a logo which seems to be the letters KU with the K's top oblique in the form of a crane's jib. Along the bottom in a blue panel is MECHANIX METALL-SPIELWAREN (Mechanix Metal Toys). But the X in MECHANIX might (just) be a stylised K.



The parts that can be seen are: • Strips with 3-11h, 3 & 5h long DAS, Brackets, 2h+ Ø Loose Pulleys with 4 face holes, and what may be an 8h Wheel Disc. All these parts look as if they could be aluminium. • 2h Ø Fast Pulleys, & an 8h Bush Wheel, both with a brass look. 2 of the Pulleys are fitted with black Tyres, or fat Rings. • Square Nuts and CH Bolts. A Spanner with a ring opening at one end & hex jaws at the other.

SNIPPETS: MERKUR Several out of the way sets are mentioned below, including one which might be a 'new' system. No dates can be given for any of them, indeed very few dates are known for sets before the 1990s.

Below a box lid, printed in what looks like a dull olive colour – MERKUR can be seen in the oval at the bottom of the frame at the top, and along the top the name METROPOL can easily be deduced, followed by ?EKTRUS. ELEKTRUS is a MERKUR name but there hardly seems room for the EL. METROPOL was an architectural system using Panels bolted to frames made from standard MERKUR parts. ELEKTRUS was an electrical set, probably before the later ELEKTRO outfits, but like them composed of a mix of standard & special parts.



The models to the right and in front of the boys are well known standard MERKUR, while those to the left might be METROPOL, though the skyscraper is a lot more ambitious than anything shown in MCS.

The outside of the box is probably black, with white inside, and there are 3 layers of parts, with card partitions in the bottom and the 2 trays. The parts that remain are the usual colours of green (a much lighter shade than usual) Pulleys, Bush Wheel, & Trunnions, orange-red Strips & A/Gs, and blue Flanged Plates. Short Strips & Brackets are black, the colour used before they were nicked. No METROPOL Panels can be seen, and the only part that might be 'electrical' is a bulb in a holder.

Now the No.3 Set below, in a purple box with a label showing a green loco in front of a workshop. The parts are in



a white foam tray, with green Pulleys, blue Flanged Plates, black Brackets, and brown, not orange Strips. Below the manual with the Set, orange printed in black, and the picture in the frame is the same as on the lid of the first Snippet above. Unfortunately the words at the top are not clear enough to say what they are. An open page shows models typical of those for a small MERKUR outfit.



Another set has the same label as the No.3 but on a red box; the set number can't be seen but it is a bigger outfit. The box is white inside and has card partitions, so is

probably earlier than the No.3. The colour scheme is the same, & 2 parts in very deep yellow, probably a Bush Wheel & a Contrate, are the shade of those with my own brown parts. The Manual, right, is different unless it is the title page rather than the cover.



The lid below is from a set for Denmark. It is blue with a light green panel model panel on the left, and at the top, INGENIØR-SÆT in red with



MERKUR underneath in white. Under that is SUPPLERINGSÆTKE 5L (though the L may be another letter), so a set linking Set 5 & 6, called 5B in MCS, from the 1-7 series of sets (see 9/210). The logo top left is a stylised clockwork figure with trumpet & key - it seems familiar but I can't place it. The letters under it are indecipherable. The bottom of the box is red, white inside with the expected moulded translucent tray for the parts. The major ones can be seen & correspond to the MCS 5B. The colours too are as expected, red-orange, green, blue, nickel, with the Gear Wheels a lightish yellow. The handle of the Screwdriver, #81, looks to be orange plastic though, rather than the wood in MCS. (According to MCS #81 is in the Set 6 but not 5B.)

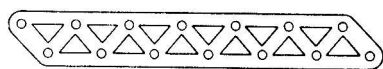
The lid of the final set is olive or similar, with a label in 2



shades of blue (above). The name & FHW at the bottom are orange, & it is those initials that are puzzling. On ebay it was said that the set was made by Metallwarenfabrik Fritz Hochstrate, & that it might be prewar. FHW could stand for Fritz Hochstrate Werke (factory) but Fritz Hochstrate, or any other FHW, is not known to have been associated with MERKUR, or any other system. The box, off-white inside with partitions edged in the olive, has a mixture of parts, with most looking like TRIX. But the others include a number of black Strips & Brackets which look slightly narrower than the hole pitch. A 7h Strip with slotted end holes can be seen clearly. Also in the box is a red 5h Ø Flanged Disc Pulley. The models at the sides of the label are not similar to any in the earliest MERKUR manuals to hand (from perhaps the 1970s or even later) & are not in the style of any known illustrations. The parts in the box may not be original but even so is the set Czech MERKUR or another of that name?

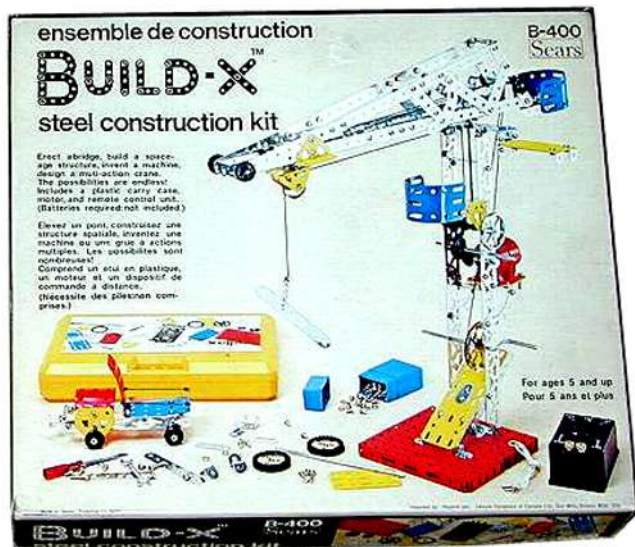
not original as Don's & David's are larger in diameter (to fit the metal bosses) and with a flat for the D bores. The diameters found vary from 4.20 to 4.23mm, and the depth to the flat from 3.69 to 3.74mm. In passing, the corresponding figures from a handful of Gabriel ERECTOR Flatted Axles are 4.03-4.06 & 3.38-3.63.

Other points on the parts. The **Gear P-005** has an o.d. of 20mm, and combines an 18t contrate with a 13t pinion (15.0mm o.d.). At Mod.1, the teeth are fairly coarse. The unusual **Braced Girder S-012**, (below) has, as might be



expected, its lengthways holes at 28.0mm pitch, and the 2 lines of

holes at 14mm centres. The plastic **Flexible Plates** have 'MADE IN JAPAN', moulded into them. The drum-shaped **Motor, E-002**, has a red plastic case with the 2 parts of the housing joined by the band in the middle; there are 2 screw terminals on the back, and a black pinion pressed onto the shaft.



Don also mentioned a **yellow plastic case**, above, about 28*18*5½cm, with a snap catch lid, and a BUILD-X

label on it. These boxes were used to house the parts in both BUILD-X & DELTA-X sets, from at least #200 upwards. Various labels have been seen, all in colour, some featuring a model from the set in question, and others a selection parts from the Set. Some labels have no Set No. on them and these at least would have been packed inside a cardboard box. One such box for the B-400 set is shown in the last column with its contents below it: a yellow case and a plastic block containing the E-002 Motor & E-001 Controller/Battery Box. The Motor appears to have a pulley on its shaft, though a pinion is shown in the instructions for the Crane. The blue plastic box on the left is M-002 for the N&B, etc. The B-500 set contains 2 of the yellow boxes. All the BUILD-X labels seen carry the Sears name.

BUILD-X: S1 & DELTA-X: S1

[29/845-6]

6. **MERKUR** sets were offered in an ad last Spring from Merkur, P.O.Box 25, Melton Mowbray, Leicestershire, LE13 1ZG, tel. 01664 485029.

MERKUR: S1

[29/846]

7. One of the 'goodies' on Werner's web site (see Web Sites below) is a full account of the **KNIRPS** sets, adding to the notes in 11/272, 24/714, & 25/743. Some of the details follow. The No.1 was launched in 1932 to compete with TRIX, and at the same price, .50 Mark. The contents were quite similar too and, updating the estimates in OSN 11 & 25, comprised: 2,4,2,2 of 3,5,7,9h Strips; 2x 1*3*1 DAS; 4 Wheel Discs; 3 Screwed Rods; 8 Bolts & 16 Nuts; a Span'driver, and a Crank Pin.

The parts were packed in an envelope and every part in the Set was shown on the front of it. The envelope was in a large box (like TRIX), 18*12*1.5cm, with a label similar to the No.48 manual cover in OSN 25, but without the words along the top, and with KNIRPS Nr.1 in the diamond bottom right.

The **Crank Pin** (Kurbelbolzen), right, is 17mm long, and about 2mm diameter, to pass through the small holes in the Wheel Disc. The shoulder near the end is like the ULOX part and would allow the Pin to be held between 2 Wheel Discs, though its use isn't made clear in the KNIRPS model leaflet.

Some details of the latter were given in OSN 25 but all of it is shown on the web site.

Another point of interest is the No.1a linking set. It was also priced at .50 Mark to compete with TRIX and the No.2 cost 1 Mark. But the No.2 didn't include all the parts in the No.1, the Wheel Discs for example, and so buying a No.1 & a No.1a, at .50 Mark each, gave appreciably more parts than buying a No.2 at 1 Mark.

KNIRPS: S1

[29/846]

8. Good news from Werner Sticht. Urs Flammer has told him that **Stokys** has new owners, Mr Herbert Schulthess & Mr Mauro Matesco, and they will continue to produce STOKYS parts & sets. The address of Stokys AG is now Wihelstrasse 9, Walchwil, Switzerland, CH 6318.

STOKYS: S1

[29/846]

9. Kendrick Bisset has discovered that the **thread used in U.S. produced MECCANO** is the American 7-32 instead of

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MERKUR in 2005 These notes are based mainly on Merkur's website, www.merkurtoys.cz, in mid-2005, but with additional material from Orion DreamDancer (thank you), and Girders & Gears at www.girdersandgears.com. The Merkur site shows the lids of the sets but photos elsewhere differ slightly, perhaps depending on the market. Also shown are manual pages for many of the outfits, including the illustrated parts with quantities in some cases (click on the Set, then on Manual). For some sets though, not all the pages are shown.

Since the account in 27/790 some changes have been made to the small sets with one new one and more parts in the majority. Now all but the 03x series are said to be able to build any 1 of 10 different models. All the larger set continue unchanged but 4 new ones have been added: John Deere MO1, Classic CO1, Kitty Hawk, & Safari, in that order.

Two general comments on these four new sets. First, there are no Plastic Plates in any of them; second, continuing what seems to be Merkur policy, none contain a Motor – in fact the only set ever to have had one is the M8. Since the MERKUR range does include 2 Motor accessory sets, one might think that they would be advertised in the manuals, or at least in those of the larger motorless sets, and examples shown of how some of the models in them could be motorised. But no, as far as I know, this is not the case. One other thought – several constructional stages are shown for many of the models for these sets (and some at least for the smaller ones too), a better system I think than the rather too mechanical step-by-step instructions often provided these days.

The SMALL SETS Their lids are more or less as before but the model(s) on a few have been changed to reflect their improved scope. The new one is 019 with 181 parts and it has a boy & a Windmill on the lid, though the other 3 models shown on the web manual pages are Fairground Rides.

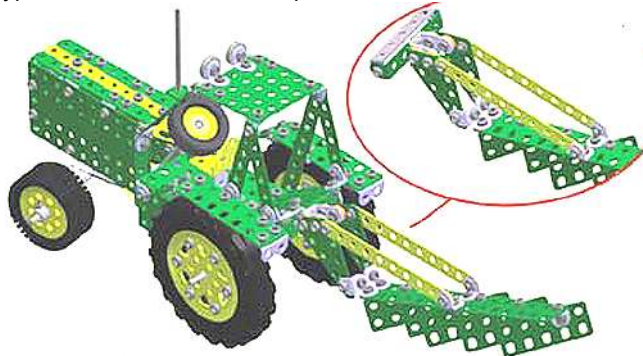
The new parts counts for Sets 010-018 & 030-033 are: 223,230 (no change), 217,230, 101,195,205,202,172, and 300, 222,300,143. Thus quite a large increase for a few sets, from 124 to 205 for 016 for example. The only decrease is for 031 but the original number, 285, is still on the web page box lid. It's not entirely clear what the extra parts in some of the 03x sets are used for but it is said that all the main models on the lids can be made at the same time.

The NEW LARGE SETS As might be expected the **John Deere** (Item No,3338) is mainly about agricultural Tractors & their implements, all in the correct colours, and with a little JD logo on the Plates which form the sides of the engine compartment. The box is 360*270*55mm with the lid below. There are 2 layers of parts and apart from Strips, the main ones are 9 Flat Girders, 17 Plates, 2,6,2 of 5,3,2h Ø Pulleys, all with Tyres, and 200 N&B (plus 18 longer Bolts).



The manual has 16 pages including covers, and the front is green & yellow with a small Blacksmith and 3 Tractors; 2 of them are fitted with implements which are described in the manual, the other has a blade at the front, and isn't, unless there are pages not shown on Merkur's website.

The 10 models, unnamed, are on pp4-15, after an 'educational value' Intro on p2 (=C2), and Basic Constructions on p3 in 11 languages. 6 of the models are described in detail and 5 of them comprise the one on the lid and variations of it – no roof, wider bonnet, etc. All have centre-pivot steering, and one is towing a 21h long, 4-wheel Trailer. The sixth model, on pp13-14, is perhaps a type of harvester, a little longer than the others, with no steering, but what might be a cutter bar at the front and a side chute for delivery of the 'product'. p15 has 4 models with one photo & an explanatory detail for each. One is a small Blacksmith with a 2h Ø face, and the others are 'typical' Tractors but with implements attached. One is shown



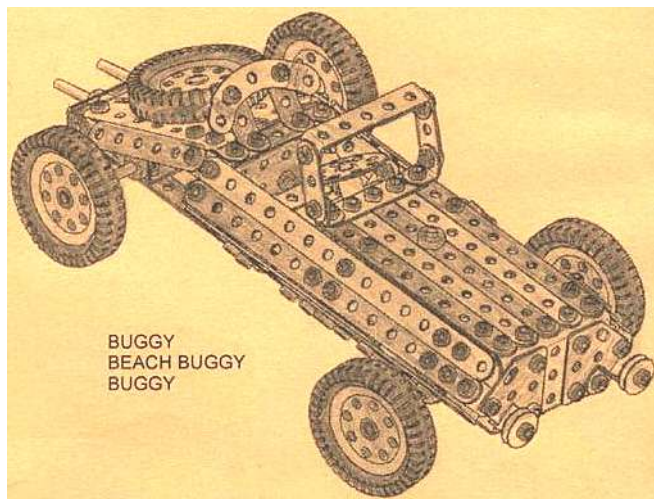
above. The Illustrated Parts are on p16.

The **Classic** (Item 3345) has 2-layers in a blue box 360*275*55mm. It is said to be in 1930s style though some of the parts are more recent introductions. The lid below has the Illustrated Parts with quantities on its inside. Each tray is partitioned into 3 areas: 2 with parts clipped down, the other with 2 circular metal tins for N&B etc, with MERKUR CLASSIC on the lids, & a lidded card box between them for small parts.



The 929 parts include 4 A/Gs, 7 Flat Girders, 32 Plates, 15 Pulleys including 2x 5h Ø, 4 Gears, & about 300 N&B. The finish looks to be lacquered steel, with some parts bright, some a brownish colour, and some perhaps in between.

The manual has 20 pages including covers, of about 15*20cm. All except the covers are a light brown shade, with the models shown as line drawings, as in the Buggy on the next page. All the pages are on the website. The text is in Czech, German & English. p2 has a flim-flam Intro, pp3-4 Basic Constructions, & pp18-20 the Illustrated Parts with quantities. The first of the 41 models is SPADE on p5, and the last, on p17, is DOUBLEDECKERBUS, as on the lid. Apart from this last, the models, or at least most of them, are taken from earlier manuals for the 1-7 sets, though some have been changed a little. One of the exceptions is the Buggy in the next column – it has centre-pivot steering linking to the steering wheel by a 10h Strip bent into a 'Z' shape. Of the other models 34 are quite small, and the others are typically about the size & complexity of the Band Saw in 9/211 (it is fitted with 5h Ø Pulleys instead of the 7h). The Bus has seats on the lower deck, opening driver's door & bonnet, & an imitation engine. As on the Buggy the front wheels are on an Axle running in a

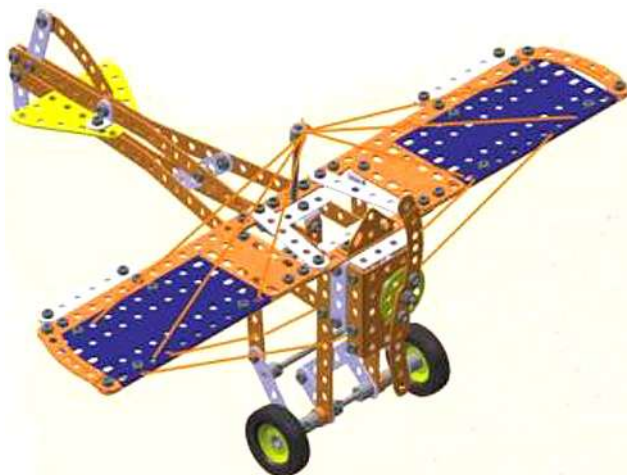


centre-pivoted DAS but I can't see a steering wheel.

The **Kitty Hawk** outfit (Item No.3352) was advertised as a celebration of the 100th anniversary of the Wright Brothers first sustained power flight near Kitty Hawk in Dec. 1903. It is another 2-layer set, with 900 parts in a box 360*270*55mm. The lid is shown below; inside the parts are in yellow formed plastic trays & include over 160 Strips & DAS, 2 A/Gs, 4 Flat Girders, 50 Plates, about 90 Brackets, & 250 N&B. Strips, A/Gs, & many of the Plates are a sand colour, with the shorter Strips, DAS, & most Brackets bright plated, probably BZP. Some Plates are blue & yellow, & the Pulleys are yellow.

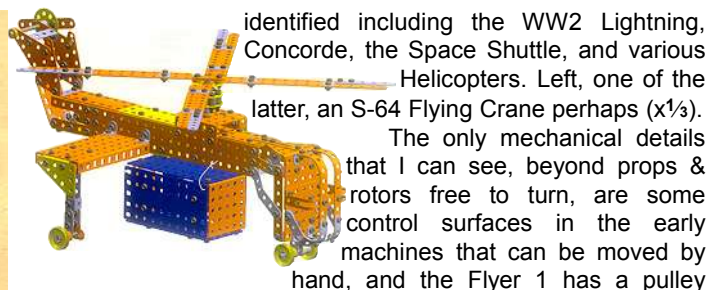


The manual has 52 pages and the cover is similar to the lid label but with an ad for Czech Airlines down the righthand side. Early manuals had only 48 pages with 96 models, but as 100 models were claimed, later ones had a loose folded sheet in the centre to give 4 extra pages. All the models are aircraft of one sort or another and start with 4 of the Wright's early Gliders, through their Flyer 1 (as on the cover), and then 4 other named early machines including the Blériot below. The



rest of the models are unnamed but some can easily be

MERKUR: S3



identified including the WW2 Lightning, Concorde, the Space Shuttle, and various Helicopters. Left, one of the latter, an S-64 Flying Crane perhaps (x1/3).

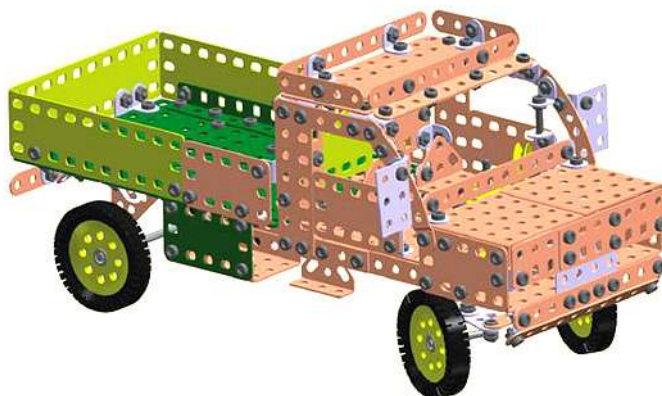
The only mechanical details that I can see, beyond props & rotors free to turn, are some control surfaces in the early machines that can be moved by hand, and the Flyer 1 has a pulley drive between the 2 propellers (but, wrongly, they both turn the same way). The Blériot, and a few other models, have plating and open framework more or less where they should be, but most are partially plated, and to my eyes full plating, or no plating, particularly of wings, would be more pleasing.

The **Safari** set (No.3369) appeared in 2004 and has 765 parts in a 3-layer box, 365*270*72mm. The lid is shown below. All the pages from the manual including the Illustrated Parts with quantities are on the Merkur website. The main parts include 10 A/Gs, 9 Flat Girders, 58 Plates, 6x 3h Ø Pulleys with Tyres, & 210 N&B. Most of the parts are painted light



brown but the short Strips, DAS, & Brackets are bright plated, and some Plates are green or yellow.

The manual has 20 pages including covers, and the front is very similar to the box lid. There is no Intro, the Basic Constructions are on C2, and the Illustrated Parts on C4. The other pages contain 50 unnamed models, from a small Rake to a small Mechanical Shovel. The models fall into 3 sections. The first has 18 small, elementary models on one page. The second has 8 Vehicles of various types, the best of which are perhaps the main model on the lid, and the Lorry below. The other vehicles are not easy to name but no doubt this allows them better to fit a youngster's dreams. Several of the models are fitted with 'proper' steering but there are no other features of note. The final section is 4 pages with, on 3 of them, just



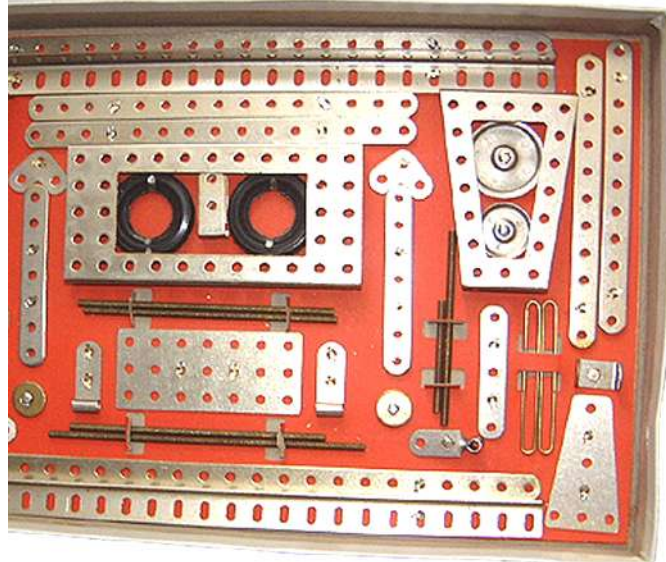
one view of each of 18 models, mostly Aircraft & more Vehicles, and mostly quite reasonable. They include the Helicopter that can be seen on the lid. The 4th page isn't shown on the Merkur site (one page there is duplicated) but no doubt it has the remaining models in the same style, and the 6-Wheel Truck on the lid is most likely from that page.

OSN 33/992

EDITORIAL Apologies if this issue is a little later than usual getting to you, and for any slippages in future Newsletters which may occur. My enthusiasm remains undimmed, but less gets done each day as the years roll on, and I am finding some difficulty in producing an issue every six months. No need to make any decisions at the moment but perhaps one day it may be necessary to increase the interval between issues, or change to OSN appearing irregularly as each issue is completed. I'll give details on the OSN web site if significant delays in future issues are likely to occur.

Shorter NOTES, with thanks to all contributors.

1. On **TECO**, see 34/1027, Jacques Pitrat has the No.IV Ebay set and confirmed that it is very similar in content to a STABIL Nr.51, with a second main card of parts, as below (symmetrical left & right). All the parts on it look like STABIL except that the Pulleys have no face holes. There are 4 of each size of



Flexible Plastic Plates on the small card. The parts are well made except that the gold paint is flaking off the 14 & 28t metal Gears. As might be expected from a STABIL inspired system the holes are 4.2mm Ø at 12.5mm pitch, and the thread is 5/32" BSW. The hex Nuts though are a little larger than STABIL. No Trunnion of any sort was in the Set.

TECO: S3 [35/1036]

2. Jacques also sent a reference to an excellent web site about **MIGNON**: www.mignonbaukasten.de/. It has pictures of all the sets, manual pages, leaflets, etc, as well as a history of the system, and photos of many attractive non-manual models. I hope to include a brief summary of the history at a later date.

MIGNON: S1 [35/1036]

3. Another web site worth mentioning, www.merkur.co.uk. The M8 set (see 21/613 & 27/790) is on sale there and full details of the set are shown, with excellent photos of the trays of parts, and all the pages of the manual including the illustrated set contents.

MERKUR[1]: S4 [35/1036]

4. **Snippet. 'New' System: WIMA.** Below the Ebay photos



of this small German system, said to be incomplete. I'm not sure if the red mark on the boy's sleeve is a tear in the label or a 'blot'. Most of the parts look conventional: 5 & 11h Strips, DAS, Angle & Flat Brackets, a 5*11h Flgd Plate, 2h Ø Pulleys, Axles, small hex Nuts, fillister Bolts, and a Spanner. There are 2 possible 'foreigners'. One, the two circular parts that look like ballraces, even if the Wheels of the Crane on the lid do seem to have some face holes. The other is the 'strip' whose end can be seen poking out aslant from below the end of the top 11h Strip in the photo. It looks to be flat on the bottom of the box and if so its holes are much nearer the edge than in the other Strips. Also 6 & 10h Strips can be seen on the lid but that may be artistic licence.

WIMA: S1 [35/1036]

5. Don Redmond wrote that he has seen **MEKANIX** sets (see 34/1009) in Canada with the name DOLLARAMA (a chain of 'dollar stores') on them and a Montreal postcode H4P 1M2. Also China as the country of origin. The boxes are 16½*11½*2½cm and the inside packaging is similar to that of the OSN 34 sets.

POLYLONG (MEKANIX): S8 [35/1036]

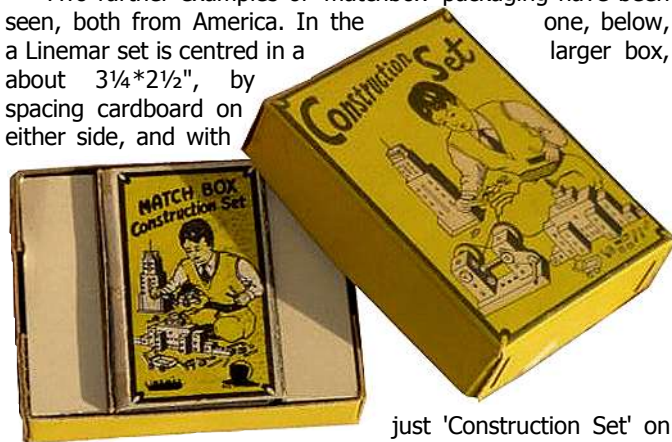
6. Also from Don, after a discussion with Kendrick Bisset. Tinplated Strips & Brackets, instead of nickel parts, may be found in **U.S. MECCANO** sets prior to the Elizabeth Meccano factory opening (and making tinplated parts) in 1922. They

Its front is like the Linemar outfit shown in Fig.3 in OSN 6 except that the words at the bottom are 'MADE BY LOUIS MARX & CO 200 5th AVE. N.Y.C.'. It is the set shown on the card below, and the back has the MBCS name, followed by 'The Vest Pocket Builder'; 4 'medals' (different



to those on the CLOU set); and the Louis Marx address. The card, 150*123mm, has push through tabs which hold the bottom of the set's sleeve in place, and it can be seen, less the set, in the MCS '100 TOYS IN ONE' entry (which was no doubt made before it was realised that the card was just packaging for the Set).

Two further examples of 'matchbox' packaging have been seen, both from America. In the one, below, a Linemar set is centred in a larger box, about 3¼*2½", by spacing cardboard on either side, and with



just 'Construction Set' on the lid. Notice that the Linemar name on the Set has been blacked out.

The other example is another 'Linemar' box with the blacking out at the bottom. It is packed in a clear plastic bag about 1½ times the size of the box. The bag also contains a model sheet, folded to fit into it. The top is closed with a piece of folded cardboard stapled over it, one side of which is shown above.



Also mentioned in OSN 6, a Spanish set called MACÓN with scaled up 'matchbox' parts, and another called TEXAS with parts that could be used with MACÓN. An example of TEXAS has yet to be found and no further MACÓN sets are known.

MATCHBOX SETS: S1 [37/1102]

9. **Snippet. A SUPERSONIC Outfit** Most of the parts in this 1950s UK Aero system were described in 14/367 and a couple of other points about it are mentioned in the AJET article elsewhere in the Issue. No set was known until one was sold on Ebay recently and the box & manual are shown in the next column. The top half of the lid was included in the original photo and was a blue or purple but badly faded, with a label covering most of it, identical to the corresponding part of the manual cover. The main parts are strung or clipped singly to the backing card. Notice that the red Bush Wheel has 3 face holes, not the 4 mentioned (incorrectly) in OSN 14. The quantities of the smaller parts used in the manual models are: 16 Flat Brackets; 12 A/Bs; 52 Nuts; 44,8,2,4,2,2 of ¼,⅜,½,



⅝,¾,1" Bolts; 2 Axles; & 4 Spring Clips. By scaling, the Nut is ⅝" square, the standard A/F size of 4BA commercial nuts at the time. Most of the N&B have a brass look and reflected light could account for the few with a silver appearance.

SUPERSONIC: S1 [37/1102]

10. **Snippet. An ARWILL Lid** Details of a manual and some parts from this small UK system were given in 29/856, and the similar BELMONT was described in 36/1076. Both are a little unusual in having 2h wide Flat Trunnions, 4, 8, & 12h long Strips, and a 4*8h Flanged Plate. Now, below, the lid of a set



sold on Ebay. The 8 models on it are all in the OSN 29 manual, though some are seen from a slightly different viewpoint. The Set's contents weren't shown, nor were the dimensions of the box given.

ARWILL: S2 [37/1102]

11. **Snippet. An EZY-BILT Set with Yellow Parts** The existence of yellow Strips was mentioned in 19/545 but it wasn't clear if they were ever included in sets. Now a No.5 outfit seen on Ebay, seeming complete, has all the Strips, DAS, & Trunnions in yellow; the only other 'strip' parts are green Curved Strips, and the other parts are in the normal red & nickel colour scheme. The Lid is yellow with the 2 boys & a Shovel design, as on the manual cover in 22/638. It has SET NO.5 above the righthand boy and LEAD FREE under him. The words EZY-BILT LTD., ADELAIDE can be seen in a line under the design. There are 2 layers of parts in light blue moulded plastic trays and the manual cover is the Sidney Harbour Bridge type shown in 7/145. A Price List with the set is dated FEBRUARY 1967; the address on it can't be read but it is not the Kilkenny one on the February 1966 example in MCS, and its last line could be Adelaide S.A.

EZY-BILT: S6 [37/1102]

12. **MERKUR in 2007** Based on the English language section of the company's web site (www.merkurtoys.cz) in mid-2007, there have been no changes to the ranges of parts & sets noted for 2005 in 33/991. The Czech section though shows

one additional set, the Classic CO2. It is said to have the same number of parts, 929, as the original CO1 Classic set described in OSN 33, and the lid shows the same Bus, but it is in B&W and is plainer in style. The box, 380*290*65mm, is a little larger than the CO1, and weighs more, 3.2 against 2.7kg.

The sets available from the U.S. Girders & Gears web site (www.girdersandgears.com) include the AH-64A Apache set which hasn't been mentioned in OSN before, and seems to be for the American market only. Its box is 10¾*14*1¾" and the



lid, above, claims 470 parts & over 40 models. The name M-KUR on the box is used because Ford (I believe) use the name 'Merkur' and had registered it before the Czech firm entered the U.S. market. The larger parts are dark green while the small ones, 4 Worms (used as 'decor') & Brackets have a bright finish, probably BZP. As is usual in MERKUR the model isn't powered. 9 of the other models are shown on the G&G web site with 2 reasonable small Helicopters and the rest, well look for yourself.

MERKUR [1]: S5

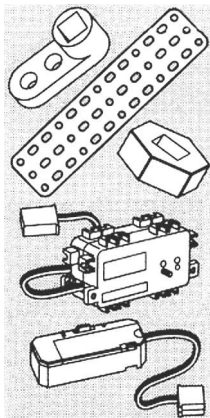
[37/1103]

13. COSTRUZIONI MECCANICHE These are the only words on a No.1 manual cover shown in an entry under this name in Jeux de Construction Métallique (JCM). Also shown, a page with 2 models whose illustrations are identical with those in a 1920s MÄRKLIN manual, and a page with a list of the Set Contents of the No.1. In JCM it is implied that the manual would be from an AMI-LAC outfit, and indeed COSTRUZIONI MECCANICHE is the main name on all AMI-LAC manuals I've seen, though with an AMI-LAC logo as well, or just the AMI logo on earlier ones. I couldn't find either of the models in the AMI(-LAC) manuals to hand and this, together with the absence of a logo, made me wonder if this was actually a manual from a different, and hitherto unknown system. To support this the names of the parts in the Set Contents and their PNs don't correspond to those in the AMI(-LAC) manuals seen. One further thought, it is said that prior to their post-WW2 production, the AMI firm made sets for a short period in the early 1920s, so could this manual have come from that time?

COSTRUZIONI MECCANICHE S1

[37/1103]

14. DELTA-X Since the notes in 36/1096 an MD-153 Stegosaurus set has come to hand and it contains the parts right which were not known before. The 3*13h Perforated Plate is nicked and its slotted holes are 4.3mm long. The other parts are grey plastic: a Geared Motor with a square section output shaft on each side, the 1x AA Battery box shown in the OSN 36 model, a Crank which snaps onto the Motor shafts, and an hexagonal Spacer with a square bore. All the metal parts in the set are nickel plated. A few errors



OSN 37/1103

crept into the OSN 36 notes, the hole pitch is actually 8.0mm and the thread is M3.

The finished model is about 15" long and it waddles along quite well on a smooth surface. Its speed scaled up to match a 30ft long animal would be about 8mph.

The Stego set came from www.hlj.com/top/Sci, an English language Japanese mail-order toy shop called Hobby Link. When I looked in July six DELTA-X outfits were listed (to see all of them I had to type 'delta-x' into the Item Name box on the home page). 5 of the sets were mentioned in 36/1096, the other was the Robot Soldier set below. It was said to be a



31cm high model of a figure in the Japanese cartoon film 'Castle in the Sky: Laputa', made in 1986, with eyes that light up. It was marked as discontinued though and I couldn't find it on the Epoch web site, so perhaps small-scale DELTA-X dates from earlier than was suggested in OSN 36.

P.S. Since the above was written I've been told that the small scale DELTA-X was definitely on sale before 2000.

DELTA-X [b]: S4

[37/1103]

15. ENTECH in 2007 From www.toy-kraft.com, the range of these Indian sets, made by Aries, is unchanged from 2005, see 33/995.

ENTECH: S3

[37/1103]

SMALL ADS

[37/1103]

Wanted Information on the history & products of the **Kelmet Corp.** (who made STEEL ENGINEERING) and the **Nobel Mfg. Co.** (who made Trumodel Construction Equipment in Miniature). Please contact John H. Emmons at jemmons@neo.rr.com or phone (330) 492-3601 (in U.S.A.). I already have the material in Greenberg Vol.1, and the ACGHS & S.Cal. Newsletters.

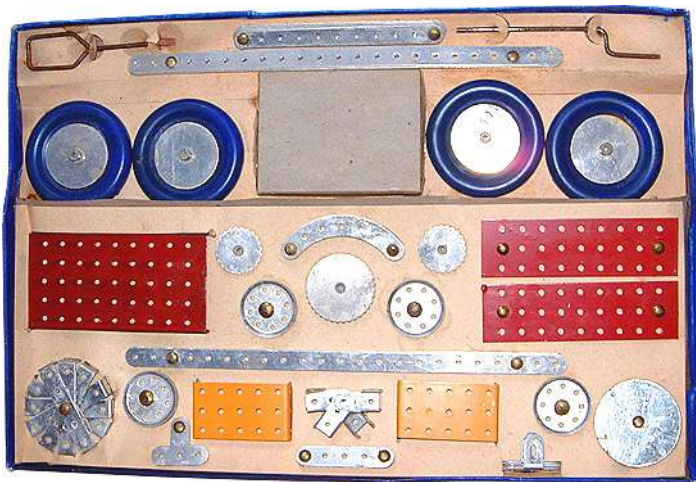
Tri-ang ARKITEX 75% upwards of the different parts (all plastic) from a Bridge Set (no box), and a manual/catalogue which also covers Sets 1-3 for Buildings. All in good condition but the models are not very exciting. Some of the parts look as if they could be used in Buildings. Free from the Editor but new owner to collect or pay postage - packed weight 2¾lb. (If more than one person wants it I'll draw a name from a hat on 1st November.)

For sale: MCS Don Blakeborough 1983, as 14 clip-bound books with card covers. Weight about 5.4kg. £20 plus postage. Will post to UK only. David Hobson, Woodington, Edford Green, Holcombe, Radstock, BA3 5DB; tel: 0171 232741.

EDITORIAL Several readers have asked if the Database on the OSN web site can be printed out. As far as I can tell it isn't possible to print the full width using Internet Explorer – several of the righthand columns plus the COMMENTS column aren't printed. And even then thick vertical lines appear which weren't in the original. By chance though I found that the Firefox Mozilla browser gives a more satisfactory result. If Landscape and Shrink To Fit Page Width are selected in Page Setup the result is that all columns are printed with a small but readable text size. The COMMENTS though are printed as several short lines instead of the original long one and this increases the number of A4 sides for the whole Database from 34 to 41 (with the default margins).

Shorter NOTES, with thanks to all contributors.

1. **JR ENGINEER** Kendrick Bisset wrote that his No.4½ set is virtually the same as the one described in 22/632 & 33/975. The only differences are that it contains only four 5h Strips instead of 6 – still clipped down in each case, and 50, 4, & 40 of Bolts, Long Bolts, & Nuts. Also the lid on the box of small parts is the CONSTRUCTION SUPPLIES one mentioned in OSN 33 and not the plain card one in Jacques' set below.



The manual too is the same and has 'Copyright 1946, Coledi, Inc., New York' on the inside front cover (as in fact did the OSN 22 & 33 examples). Kendrick also has an identical manual except that it has a typewritten yellow sticker on the top of the front cover (above the 'JR EN' of JR ENGINEER), which reads 'MODELS, COPY and LAYOUT by / HARRY SNYDER / 138 E. 34 St. / N.Y. 16, N.Y.' At the top of the sticker are the remains of the last line, as if many labels were typed and cut or torn apart.

JR ENGINEER: S4

[40/1196]

2. **HELLER'S STAHLBAU** Thomas Morzinck has found a review of this German 'DIY' system (see 36/1083) in the January 3rd 1937 issue of Die Sendung (a German Radio Times). It speaks of it as being new and no doubt it would have been in the shops for Xmas 1936.

HELLER: S6

[40/1196]

3. **Snippets: Double-barrelled MERKUR** As can be seen on the lid right (actually the top of a sleeve), the set is being sold under the name EBERT MERKUR. Ebert GmbH was the Munich firm that sold Czech-made EBS sets some years ago (see 22/643) but the present Ebert may not of course be the same company. Another set from the same Ebay seller features a 77 part Windmühle but the name at the bottom is WIFRA MERKUR. From Google a number of German firms have Wifra in their names.



For both sets the sleeve covers a wooden box, 16*16*5cm, with a sliding lid, an unusual and perhaps slightly extravagant touch for a set of this sort. An example can be seen below in another WIFRA MERKUR set, this time called Gärtner mit Zwei



Karren – Gardener with Two Barrows.

All the models come from the MERKUR range, and the parts too of course although I don't recall what appears to be a blue-handled Screwdriver in the open box.

MERKUR [1] S6

[40/1196]

4. **STABIL** On the basis of 5 documented sets Werner Sticht has discovered that the N&B used during 1911-1914 were unusual in two respects. First, the Bolts were brass and the Nuts steel, and secondly, the thread was not the usual 5/32" BSW (as in MECCANO) with 32 tpi, but a similar thread with approximately 33 tpi. The two are of course incompatible and a 33 tpi Nut on a 32 tpi Bolt will jam after a few turns. The pitch of a 33 tpi thread is .77mm – not a likely metric standard and the reason for the change is at the moment a mystery.

STABIL: S5

[40/1196]

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]

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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.

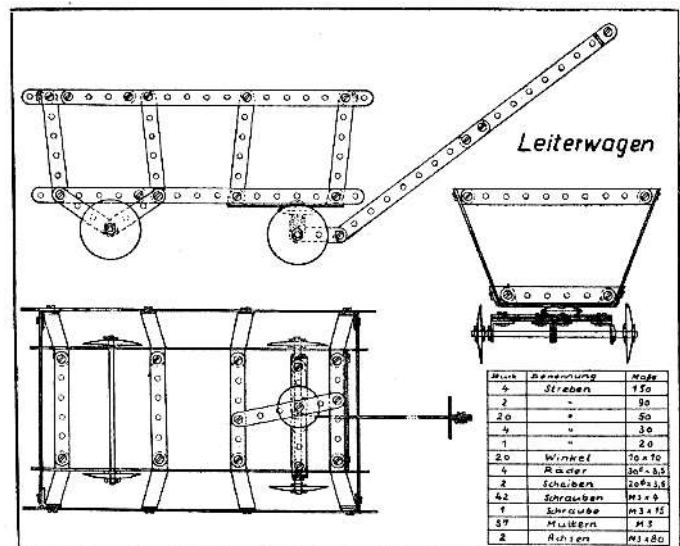
The parts are made of .7mm thick aluminium, and the holes are 3.3mm Ø at 10.0mm pitch. Below the set contents given

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 ^ø
6	"	30 "	2	Schrauben	M 3 x 15	4	"	30 x 3,5 ^ø
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]

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The latter, 'machines électriques', is shown below and



'éléments MECCANO' can be seen under the JEULIN name.

The other sets, all shown on the Encyclopédie page, were: 'initiations-nous à la mécanique' including Gears; 'études leviers et balances'; and 'construisons circuits électriques'. All have the same style of packaging, and lids with a photo of a boy & a girl, but set on different background colours. An electric motor could be made from the Machines Électriques outfit, but otherwise nothing is known of the scope of the sets or whether they included a manual or instruction sheets.

JEULIN: S1

[45/1357]

5. WIFRA & EBERT MERKUR Sets. These were mentioned in 40/1196 and were small sets with parts for the model(s) on the lid, and probably others in a model leaflet – almost certainly all were existing MERKUR models.

The Merkur website shows photos of 6 WIFRA sets, each labelled with a date of 1988. The sets, with the model(s) on the lid in brackets are: Flugzeug (Shoulder Wing Monoplane); Gärtner mit Zwei Karren, see OSN 40 (Gardener with Two Barrows); Gelände-Rennwagen (Off-road Racer); Güterwagon mit Schranken, right (Goods Wagon with Level Crossing Barrier); Hubschrauber (Helicopter); Wind+mühle (Windmill).



Only one EBERT set is shown and it is dated 1992. Apart from the name the lid it is identical to the WIFRA Flugzeug, and since the EBERT Hubschrauber lid in OSN 40 is the same as the WIFRA one, it is quite likely that there were other EBERT sets matching the WIFRA ones.

The sides of the EBERT boxes carry the KOMEB logo, right, which was shown



on a set containing a MERKUR Motor etc in 26/760. Said set is actually shown on the Merkur site and is dated 1992. Broumov under the logo is a town some 10km from Police nad Metuji, and together they are MERKUR's home towns. The WIFRA box sides have the logo right with Kovopodnik above it (the company's name while it was nationalised) & Broumov underneath.

MERKUR: S9

[45/1357]

6. Snippet. Another 1913 TOY BUILDER Outfit. This Ebay set below has a wider selection of parts than the Sears 10 cent



FIG.1

one described in 28/833, and would have been capable of building more elaborate models, but unfortunately there was no model sheet with it. The box's lid was used only in 1913, and there is a much better photo of it in OSN 28. It was said to measure approximately 10*5", about the size of the 10c set. Some of the parts such as the Girders with flanged rather than formed edges, and pulleys made from 2 Pulley Discs & a steel Tyre held together by a threaded brass Hub, confirm the 1913 date – all these parts were changed for 1914.

The Set Contents label below was stuck inside the lid, and



FIG.2

interestingly it is headed 'CONTENTS OF ERECTOR NO. 0.' Greenberg lists a No.0 for 1913 but gives no details beyond saying that its box was 11*7*3/4", that it cost 50c, and built 13 different models. I wonder about the 13 models, 69 were claimed for a later No.0 with a very similar inventory to the Ebay set, and when TOY BUILDER sets were next sold in 1915 the smallest had 47 parts for '100 Toys'.

TOY BUILDER: S2

[45/1357]

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New from MERKUR When I looked at Merkur's website (www.merkurtoys.cz) a year ago nothing had changed since 2008 (see 40/1197), but recently David Hobson alerted me to new sets he'd seen there. Also a new history feature including photos of sets, mainly lids, going back the the early 1930s; some 1930s ads; & photos of 'supermodels'. One change not for the better is that now there seems to be very limited information about many of the sets, especially the new ones, and sometimes the details that are given can only be assessed by going to the Czech rather than the English language option.

The new sets added to the 2008 range are as follows.

- **Machinery Set Basic.** A small outfit with instructions for 10 models. Its lid is similar in style to Fig.1 but landscape and featuring a Lathe. It costs Price 280Kč (the largest 'regular' set, the No.8, costs 3436Kč, and at the moment £1≈26Kč).
- **Machinery Set Complete.** It has the lid in Fig.1 and the parts include Gears & the 2-speed Geared Motor (see 17/485 & 20/583). 80 models are claimed including various mechanical drives: pulleys, with universals, etc. Price 2480Kč.
- **Excavator.** This is a large outfit with 2627 parts with the lid in Fig.2 – it is called a Maxi Set, and as far as can be seen it is to make just the one model. Said model is very similar to the one featured on certain 1980s lids, but it couldn't of course be made with any of the sets at that time. There is nothing to indicate if it is powered but let's hope so. The price is 8820Kč.
- **Spider.** This is one of 3 sets listed as Robotic & Mechatronic Kits, and all are single model sets. The Spider is radio controlled and its 4 channel, 2.4MHz Transmitter is said to be capable of controlling up to 4 models. The lid and the model are shown in Figs.3 & 4. The significance of the 'GAMA' after the name on the lid isn't explained. Price 3200Kč.

- **Robotic Arm.** Figs.5 & 6 show the lid & the model. Again

a manual & programs on a CD. It is said that updates are possible from the internet and that multiple Robots can be synchronised to work together. The set includes a mains to 5v/8A power supply. Its price is 6930Kč.

- **ALFI.** This, the third Robotic set, is not new, it is the Plotter described in 10/265 and is aimed at educational establishments. It costs 3540Kč.

New Parts. Those I noticed were 1*2h A/Gs & 1*2*1 'U' Girders, both 400, 500, & 600mm long. Also a 25h long Braced A/G (Fig.7), & 4 Flanged Plates, 340*250 & 250*170mm in plan, both with 1 & 2h deep flanges. One is shown in Fig.8 but it may not be clear that there are holes in the top flange. I haven't spotted any of these parts in models.

Another part I don't recall is what looks to be a 15h Flanged Plate in the base of the Bandsaw on the Machinery Set's lid – it isn't listed among the website's Spare Parts.

The Spare Parts include 2 Stepper Motors, those in the Robotic Arm no doubt. Also listed are nine 12v Geared Motors with ratios of 390-36:1, giving output speeds of 14-150rpm (their PN's are all 'GM37-' plus digits denoting the speed, eg GM37-14). They are cylindrical with a motor attached to a gear-box, and are probably 17mm Ø by 52mm long o/a excluding the 2mm output shaft at the motor end & the 6mm Ø at the other. Their use isn't stated (per-



the 'beta' on the lid is a mystery. The model has 6 degrees of freedom, is powered by six Servo Motors, and is to be controlled from a PC. The kit includes



FIG.2

FIG.5



FIG.4



FIG.6

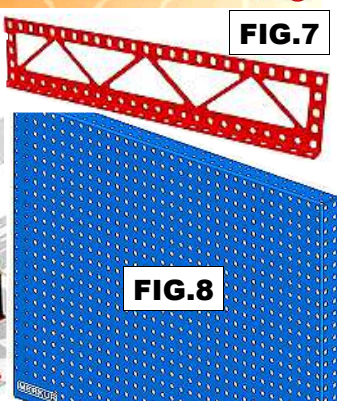


FIG.7

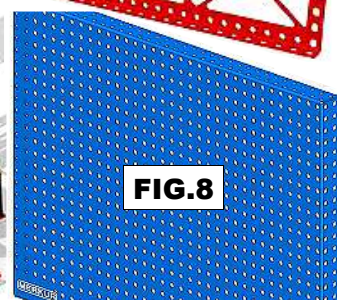


FIG.8

New from MERKUR The notes that follow were based on the Merkur website in mid-February – at the time the catalogue which can be download from the site had not been changed to include a number of sets which have been added since those noted in 45/1363, and its name includes '2011'. Czech prices are shown on the website but those here are approximately the corresponding GBP.

LARGER SETS There are three new ones, all with 2 layers of parts. One is the Red Baron below with 680 parts and a manual showing 40 models



Fig.2

including several different types of aircraft, a House, & a Motorcycle. The second is Flying Wings with 640 parts and a manual with again 40 models, this time including spaceships, jets, prototypes, & experimental planes. The lid shows 2 1930's style 'interesting looking' monoplanes of about 40cm span with nearly all the parts dark green. Finally, the Age of the Vikings below with 1350 parts, and again a 40-model manual with



Fig.3

modern models as well as the Viking Ship, plus others said to hark back to the Greek myths: Trojan Horse, Siege Tower, Catapult, Trebuchet, & Battering Ram,

RETRO SETS 3 new sets have been added to the existing C01 & C02 in the Retro series: C03, C04, & C05, all with 2 layers of parts, and all with colourful 1930s style labels – Fig.1 shows the C04. C05 is packed in a suitcase-style box. No details are given of the contents but presumably they are similar to the prewar outfits. There is no indication of the



Fig.1

and some wheeled, but there is also a Mini Robot and the Ant below. Sample programs can be downloaded for

colour of the parts. 141, 183, & 216 models are claimed for the Sets, appreciably more than those for Sets 3, 4, & 5 in the old-style, though post-WW2, manual described in 9/210, even though it has more pages – over 129 against the 90 mentioned on the C04 & C05 labels.

ROBOTIC SETS No less than 18 sets have been added to the Robot & Spider shown in OSN 45, though some are just variations of the same model depending on what level of control is fitted to them. Most are small chassis, some tracked

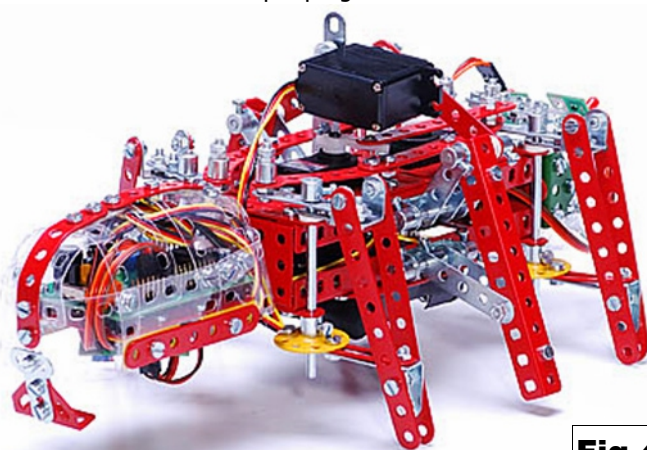


Fig.4

most of the models.

SCHOOL SETS There are 3 series of these. **Mini Kits:** 6 sets: the Alphabet; 3 simplicity models (a Weightlifter, a Skier, & a Sailing Ship); a simple Chair-O-Planes roundabout with its 6 seats represented by Trunnions; and a Pump worked from a Crank Handle via a rocking lever. **Physics for 9-14 year olds** with 7 sets: Mechanika 1 with parts to make simple apparatus for experiments with pulleys, weights, spring balance, etc; EMA 2 with just an illustration of a circuit diagram & a meter of some sort; a set called Module Switches but with no details except the price; 4 sets, each a mechanism on a light blue 17*25h Flanged Plate with the Geared Motor driving various

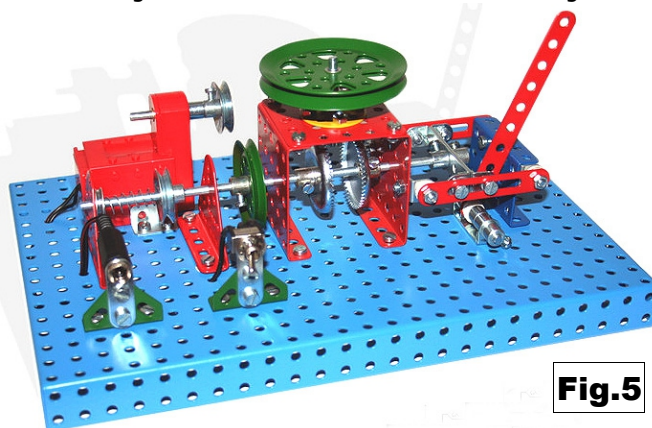


Fig.5

gearboxes, cranks, etc. One is shown above. **Mechatronics:** 27 sets in all but usually without any details beyond a title and sometimes a photo. They include: • 3 sets, Elektronika I, II & III, are for technical secondary schools – Set III is shown in Fig.6 and costs some £2000 (for comparison the Red Baron is priced at £33, the Viking £46, the Retro sets from £24 to £48, the School set above at £39, & the Ant at £96). • 2 sets are to make elaborate models. One is called Programmable Mini Line



Fig.6

and has a robot working on items on a conveyor belt. The other, Automated Warehouse, Fig.7, costs nearly £1800 and a video shows a sequence of the gantry crane picking up one of the red 'boxes' (on the base at the back), putting it on the down conveyor, the robot picking it up at the bottom and putting it on the up conveyor, and the gantry crane putting it back in its original position. Presumably it could then go on to circulate other boxes in the same way. The gantry crane moves along what looks to be an extruded metal cross member. • Finally 22 Modules, mostly at about £100 each to control Motors, measure distance, sound, temperature, pressure, colour, moisture, etc, and one labelled WiFi. In those that are illustrated the components are mounted on the light blue Flanged Plates.

Zakázkové stavebnice The website in Czech but not the English or German versions, has this additional category of

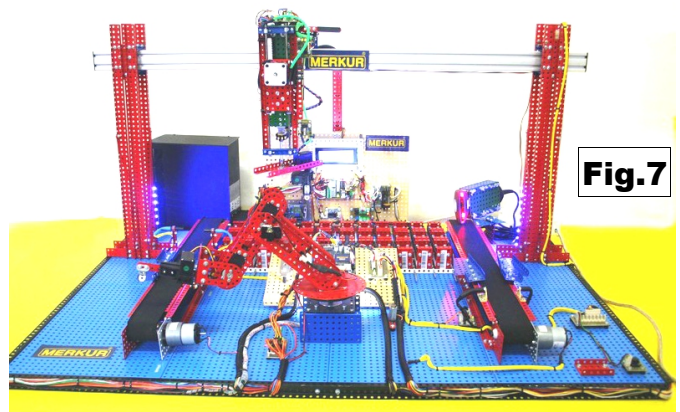


Fig.7

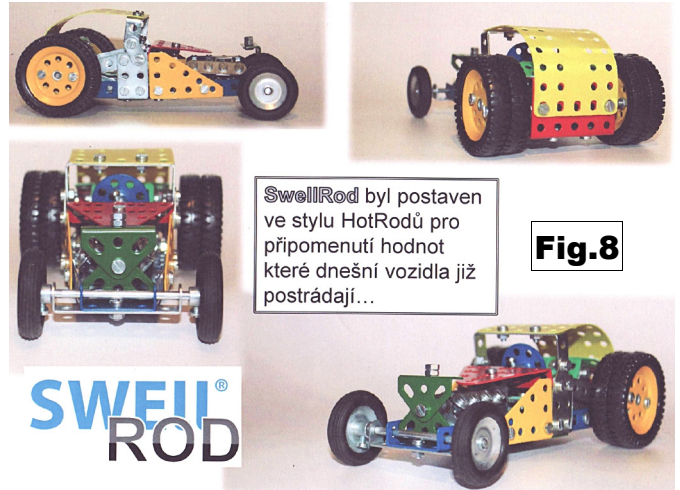


Fig.8

**SWEIL®
ROD**

sets. The name translates as Custom Kits and 5 models are shown, each probably from a different £10 set. They are small cars, 3 Saloons; a hot rod called a 'Rat Rod'; and the one above.

MERKUR [1]: S11

OSN 49/1058

Snippet. 'New' System:

WIDES Right, the Ebay photos of an Auto Set and part of the instructions. From the 'Wides-Metall+spiele Auto-Baukasten' on the latter the maker is probably a firm called Wides, and it was said that the Set was complete and dated from the 1940s or 1950s. There was no indication of the size of the parts.

No N&B can be seen but most probably the parts are bolted together. One Wheel can be seen in box's bottom left corner; it is rather nice looking but it's a pity that it isn't larger to be in scale with the rest of the model. Nothing of the crane is visible – at a glance I wondered if the green circular part on top of the blue Chassis, and partly

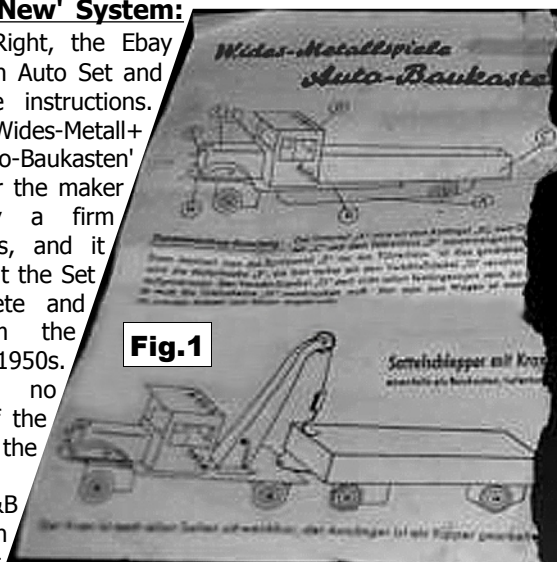


Fig.1

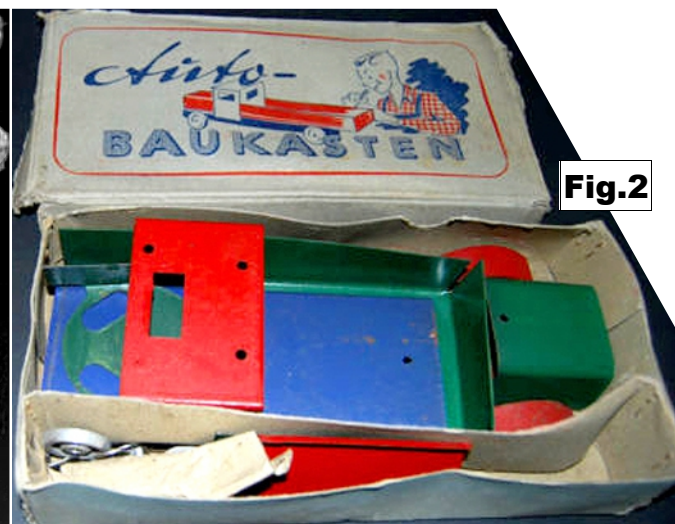


Fig.2

hidden by the red Cab Back, was its base, but the side leg on view, and no doubt with a fellow on the opposite side, makes it probable that it is the mounting for the front Wheels of the Lorry or the Trailer. And if it has a centre hole that could allow centre pivot steering.

WIDES: S1

OSN 49/1058