

NEW SYSTEM - MEK-STRUCT

MEK-STRUCT came into the shops just before Xmas (1994), 2 years after STEEL TEC appeared. Again the parts are made in China, although in this case for a Hong Kong firm, the Artin Industrial Co. Ltd., 2/F., 21-25 Sze Mei Street, Sanpokong, Kowloon. Whether the sets are available in Hong Kong I don't know, so far they have been reported on sale in the U.S.A., Canada and Belgium. The two systems have more than their source of manufacture in common, comparing the largest MEK-STRUCT (M-S) set, the '450' with the largest STEEL TEC (S/T) standard set, the #4 (there aren't any M-S theme sets), they are of comparable size and the range of parts, just over 60 in each, is quite similar. Several of the unusual S/T features are repeated, 8x7 and 6x5h Plates for example, and 2 sizes of sliding Struts. Apart from the S/T gears, the only part with a boss in either is the Bush Wheel, and neither have any long parts - with the M-S 11-hole Strips and 3x11h Plates the longest.

The most noticeable differences are that instead of a motor and a few gears, the M-S has a motor/gearbox unit, and, a unique feature, nearly all the ends/corners of the M-S parts are cut back (notched). The exceptions are the triangular shaped parts. There doesn't seem to be any great constructional advantage in this but no doubt it is meant to distinguish M-S from the hoi polloi. Most who have written have thought it quite attractive. Another distinguishing mark is that, unlike S/T where Strips and some small Plates are BZP, all M-S metal parts, except possibly the Bush Wheel, are painted.

RANGE OF SETS The main designation is the number of parts in the set, which is displayed prominently on the box lid, and on the cover of the 3 manuals I've seen. In addition there is a much smaller Article No. on each box. The following have been reported (with the lowest prices found):

From Canada. All boxes have bilingual text. • Small single model sets, Art. Nos. 3201-3208, **146** Buggy, **143** Truck, **152** F3 Racer, **147** Bulldozer, **163** Jeep, **160** Helicopter, **154** Plane, **150** Cannon. \$9.97 from Zellers. • **210** (#3821). • **270** (#3827), 9 models, motorised. The ad speaks of forward and reverse by 'radio-control' but shows the standard Battery Box with a push buttons for each direction. \$24.97 from Zellers. • **370** (#3837), 9 models, motorised. \$44.97.

From the U.S.A. • **450**, 9 models, 4.3 lb, motorised. \$39.99 from J.C.Penney.

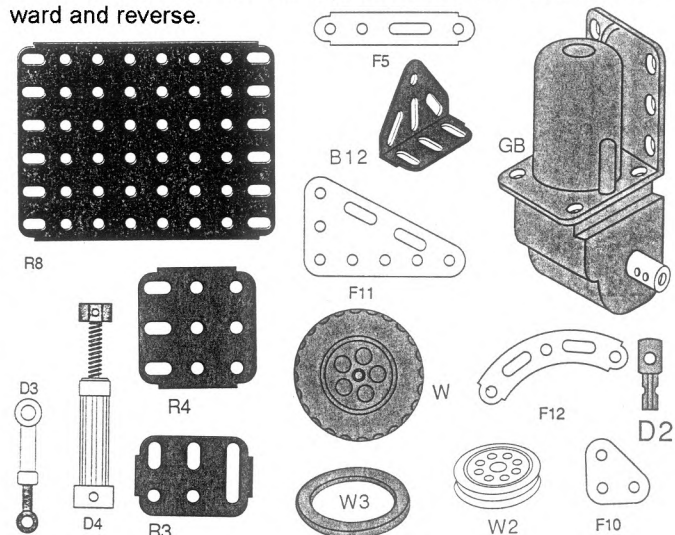
From Belgium. • **150**. 6 models. 499 Fr (£10). English and Flemish text on the box. One of the 6 models shown in the ad is the same as the 143 Truck above, and another looks very similar to the 163 Jeep.

PARTS The parts are accurately made (except for the N&B) and well finished. All measurements are over the paint which is generally rather thick. • **DATA** (in mm) **Strip** (9-hole): •Hole pitch/dia, 12.7/4.2 but varies between 4.1 and 4.3 depending on paint thickness •width, 12.9; •thickness, 1.07; •ends fully radiused and of unusual shape, as shown later. **Boss**: •o/d, ?; •i/d, 4.22; •single tapped. **Thread**: M4. **Axle Dia**: 4.00. **DP (Mod)**: NA. **Nut**: square, 6.8-7.2 A/F, bright, probably nickel, plated steel. **Bolt**: roundhead with Allen recess, 6.6 dia, BZP steel.

The known parts, in fact those in the 450 set, are listed below using MECCANO-style names, with illustrations of the more unusual ones. All have PNs, consistent between the different sets, but no names. The colours mentioned are those of the actual parts, the North American ads and the

models on the covers of manuals show some differently coloured, mainly some blue parts as yellow. Only slotted holes which are not in the equivalent MECCANO parts are noted.

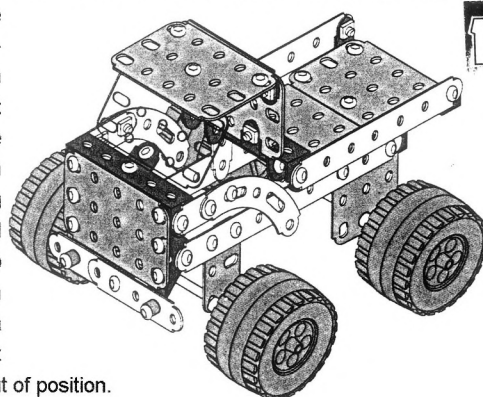
- Strips: 3,4,5,7,9,11 holes; 5h (F5) and 7h with holes 2 and 3 joined to make a slot; Curved, 1½"r, end holes 2" apart (F12). (All yellow.)
- DAS: 1x1x1, 1x2x1, 1x3x1, 1x5x1, 2x1x2. All blue.
- Brackets: 1x1, and Obtuse, 1x2, Reverse (no slot), Angle Brackets. 3h A/G. Trunnion (B12, see below). All blue. Yellow Flat Bracket, 1" Corner Bracket (F10) with straight hypotenuse, and 3x5 Triangular Plate (F11, see below).
- Plates: 5x3 Flanged Plate; 3x5, 3x11, 5x5, 5x6, 6x8 (R8) Flat Plates, fully perforated with slots along the edges underlined; 3x3 similar but slots on one edge only (R4); 2 and 3h Flat Girders, and 3h with hole and slot at one end joined (R3). All these parts are orange. Also plastic 3x5, black and transparent, as above but flexible.
- Wheels: 45mm dia, 28mm wide, black rubbery plastic, push-on Road Wheel (W1); yellow 22mm grooved Wheel (W2) and black Tyre (W3); 8-h Bush Wheel, bright plated.
- Fixings: 6,12,18,28mm Bolts. The thread is almost certainly M4 but is undersize with the o/d as small as 3.8mm. Despite this some Nuts were tight to run down. The Nuts are slightly larger than MECCANO ones and most in a 143 Set were too big to fit into the ring end of the Spanner. S/T N&B weren't satisfactory either. The Spanner (TL3) is 3" long and is nickel plated with ARTIN stamped faintly on one side. It isn't like the illustration, the open end is square and the (angled) ring end has 8 star points. The other tools are two sizes of Allen key. Washers are 9mm dia and nickel plated. Other parts are a black plastic Sleeve, 5.7x8mm dia, and some not yet seen - a longer Sleeve, a neat looking Rod and Strip Connector (D2), and a Spring Clip which looks plastic.
- Geared Motor (GB). The black casings of the 3v motor and gearbox are held together with tiny screws. There is probably a first stage worm and second stage spur reduction to the output shaft. This projects only some 5mm each side and short couplings are provided to allow extensions to be fitted. The Couplings are 9.5mm long and with two parallel single tappings 5mm apart, and their bore allows a MECCANO Rod to fit in comfortably. In the models the driven wheels are on axles fitted directly into these Couplings, and given the latter's short length and their slightly oversize bore, one wonders how true the wheels run. The yellow Battery Box is connected to the motor by a 54" flex: it takes 2xAA cells and has push button switches for forward and reverse.



• Misc: nickel plated Axles, 25,40,50,60,110,125mm long, with chamfered ends; 2 yellow and black sliding Struts (D3, D4), one spring loaded; a black 57c pattern Hook; and some Cord. And one little mystery - the Belgian ad for the 150 Set shows a Racing Car with a driver in its cockpit; I can't spot him in any of the other models, including racing cars from larger sets, and he isn't shown in the 450 parts.

SETS, MODELS AND MANUALS Some details of 3 sets are available. The **143 Truck/Camion** Outfit is packed in a full colour box, 7 $\frac{3}{4}$ x6x2", with tuck-in ends, and is described as a 'Free Wheeling Construction Set', which really means it doesn't have a motor. The top and bottom are the same with a large photo of the model, and mention of a '1 Year Limited Warranty' and a toll free Service Hotline. Inside there's a leaflet giving the address of ARTIN USA, INC. - Room 662, 200 Fifth Avenue, New York, 10010; Fax: 1-212-633-1926; Hotline: 1-800-97-ARTIN. The latter offers help and free replacements for defective parts. The contents of the Set are all in one thin plastic box, packed in bubble pack bags. The full colour Instruction Leaflet (P/N 3205144) shows the parts, but with no quantities, and the model, in exploded form, with 3 sub-assemblies which are then joined up, 6 steps in all. There is no text beyond Mek-Struct and Artin, not even the name of the model. The Truck (below) is 6 $\frac{1}{2}$ " long and is I suppose reasonable of its type. When finished it felt quite solid, in part at least because most

of the pieces are of a slightly heavier gauge than normal. It wasn't that easy to make tidily, the main problem being that with the hard paint and no washers, when tightening down a Bolt in a slot, it tended to slide out of position.

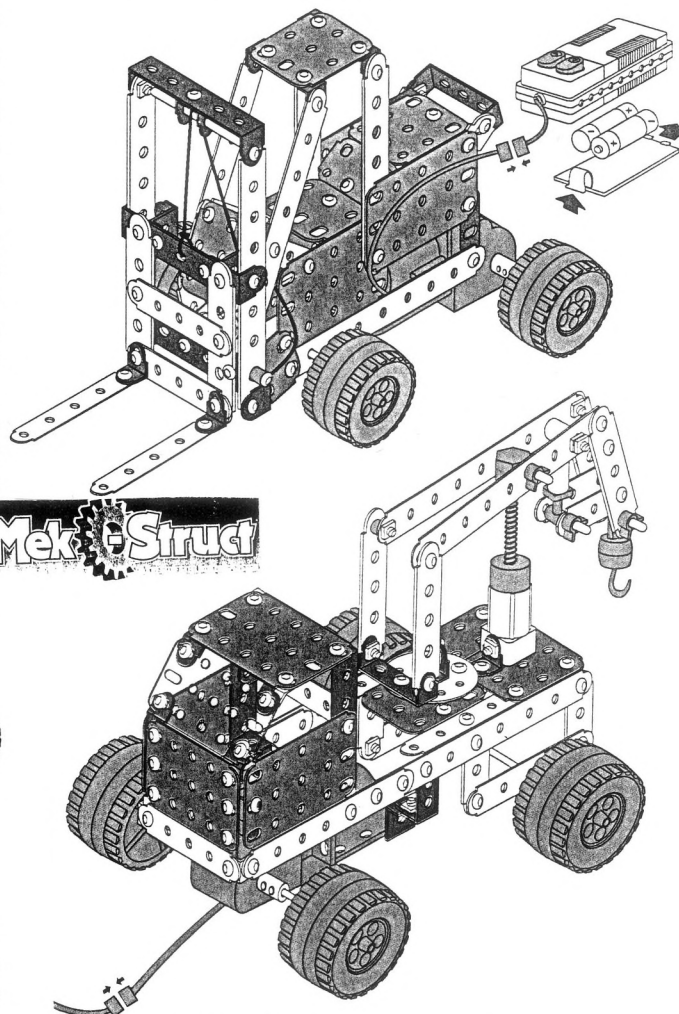


There were actually about 180 parts in the set including about 60 N&B. 9 parts, plus some N&B, remained after the model had been made as per the Leaflet, and looking at the ad illustrations of the other 'one model' sets, I suspect that several of them could be made with the parts in the 143. And of the 6 models shown in the ad for the 150 Set, one is the 143 Truck, and they all look possible with the 143 parts, give or take that Racing Car driver. It seems odd not to even hint at the full potential of the 'one model' sets.

A **270** Set was found to contain 297 parts (including 161 N&B). This time they are packed in a foam block, some in cavities under clear covers, and the rest in a parts tray with divisions and a clear lid. Photos of the 9 models in the A4 size (portrait fashion), 32 page manual are shown on its front and back covers. Inside the presentation of the models is similar to that on the 143 Leaflet and again there's no text in the Manual, and the models have no names, even on the box. Some of them look like the 150 models but with the motor unit built in; the others, a Loading Bucket and a Go-kart for example, are a little larger, but similar in concept, with the motor driving the Wheels and any other movement operated by hand. None of the models use anything like the number of parts in the set.

The **450** has 203 parts plus N&B, a total of 473, so again well over the nominal content. In round figures there are 50 Strips, 50 Brackets, and 30 Plates. The style of the manual is as that of the 270, and there are 40 pages covering the 9 models. One of them is familiar, a Helicopter that looks identical to the one from the 160 Set, and hasn't been motorised. But most are new and have a little more character than the models from the smaller sets. A few are longer, with a 15" long Dragster; and two, such as the Wrecker Truck in the next column, use the Struts, which aren't in the other sets. Several of the models, apart from the installation of the motor, bear a distinct similarity to their S/T #4 Set

counterparts, and the Fork Lift Truck below is virtually identical. Like the S/T models all are mechanically very simple - no steering on any of them, or even a bolt-on steering wheel, and the fork of the Fork Lift is raised by pulling down on a cord, there's not even a crank. Generally the models use less than half the parts in the set and, unless I missed them, the two Slotted Strips aren't used at all.



Thank you to Kendrick Bisset, Don Redmond, Tony Rednall, Chas Shrubsole and Richard Symonds for the material used in this piece. By the way M-S doesn't claim to be compatible with MECCANO but the boxes carry in small print, 'MEK-STRUCT has compatible parts for use with other steel building sets'.

SUMMARY OF MANUAL.

#Name: MEK-STRUCT #Details of maker: ARTIN #Dates &/or Ref Nos: P/N 3205138 on back cover. #Page size: 209x286mm deep. #No of pages: 40 inc covers (page nos. 1-36 start from 'p3'. #Language: English. #Printing: all colour - photos on covers and solid inside. #Page Nos of Illustrated Parts & highest PN: '2-3', W3. #[No Set Contents] #Sets covered: 450. #No of models: 9. #Name, Page No. of first & last model: Wrecker

Truck,1; Bucket Digger,33 [no Model Nos.] #Other notes: • the only text is on the front cover; • the model names above have been made up; • the '270' Manual is similar except the Ref. No. is P/N 3205136, it has 32 pages with the Parts shown on p'2', the models start with a Buggy on p1 and end with a Shovel Loader on p27.



MEK-STRUCT Update The range of sets known pre Xmas 1995, with sources and details, where available, is as follows:

In **Canada**. • The small sets #3201-3208 mentioned in 12/310 have been changed around 20 extra parts in each and slightly more elaborate models. The new range, in order, with the number of parts in brackets, is: Classic Formula (181); Bulldozer (166); Racer Car (156); Earth Loader (177); Go-Cart (169); Snow Mobile (186); Plane, now a bi-plane (174); Mountain Truck (181). There is also #3821 (210) which builds a selection of the above; #3827 (270) similar but powered; and a larger outfit #3837 (370).

• Emergency Vehicles Sets. #3213 Foam Injector (224); #3214 Classic Fire Engine (190); #3215 Fire Engine (224); #3721, unpowered set to build any of above; #3830, powered set for any of above with a sound/light unit which blinks an LED and makes assorted noises when the motor runs; #3856 (560), builds a different selection of Emergency Vehicles of more elaborate design. [The number of parts in the larger sets is indicated by the last 2 digits of the Item No., thus #3856 has 560 parts. In fact these sets usually have more than this nominal number of parts, and this explains why the #3721 with nominally 210 parts appears to have less parts than some of the models that can be made from it, #3215 for example, with 224. Prices at Zellers seem tied to the last digits and the xx21,27,30,37,56 are \$30,40,55,60,90.]

• Space Vehicle Sets: #3216 Space Plane (197); #3217 Robot (196); #3218 Space Shuttle (224); #3921, unpowered set to build any of the three above; #3930, similar but powered with sound/light; 560 part Set for several larger models, some running on wheels.

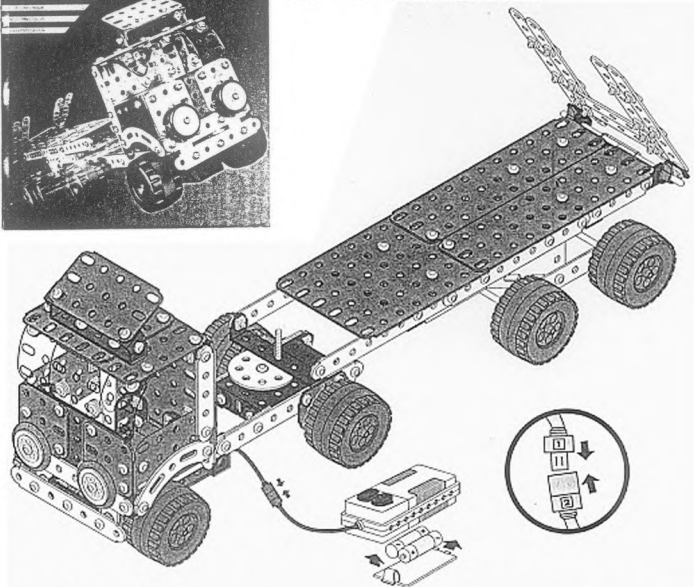
Most if not all these sets were at Zellers and some, for the first time, at Toys R Us.

U.S.A. Sears catalogue lists 3 sets: • Emergency Vehicle Set, motorised with lights and siren, 300 parts, \$40. This may be the #3830 above. • Space Vehicle Set, 560 parts with again motor/lights/sound, \$50. Probably as the Canadian Set - the model shown runs on 8 of the W1 Road Wheels. • 600 Piece Set, \$60. Again 8 Wheels, not in the Canadian list. More details are given below.

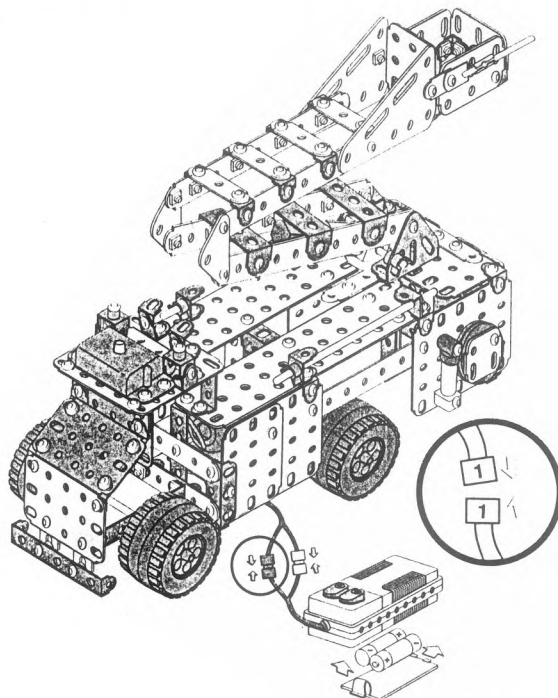
PARTS No new parts are known except the sound/light unit, and this is permanently wired to the motor/gearbox GB. There are two versions, GBS in the Space, and GBE in the Emergency Sets. The light is on while the motor is running but the sound sequence continues even if the motor is switched off part way through. Flat Plates and Flat Girders are red in the Emergency Vehicles, and grey in the Space Sets, but remain orange in the regular outfits.

The 600 PIECE SET The part count for this outfit from its manual is 611, slightly more than in a 1970+ MECCANO No.6. They both have around 150 N&B but there the comparison ends. There are over 80 different parts in the No.6 against 60+ in the 600; 30 Flexible Plates against 6; and while the 600 has a Motor/gearbox, there are no gears, and the single Bush Wheel is the only part that can be positively fastened to an Axle. The 600 does have a good selection of Strips and Brackets but none of the parts is longer than 11 holes, and the only A/G is 3h long. So which would you buy for junior? In the Sears catalogue the 600 costs \$60, the ERECTOR (Meccano) No.5 with 556 parts, \$85, and the No.6 with 640, \$120. Both have motors nowadays of course. I'd say that the MEK-STRUCT with its relatively straightforward models would be a better introduction to model making with N&B, but for an intro to engineering you need the ERECTOR.

One disappointment with the No.600 is the manual. It has 16 small (193*143mm) pages, plus covers, and though the step-by-step colour illustrations are good, only 4 models are shown. 3 of them are typical MEK-STRUCT, a Wrecker Truck for instance, very similar to the one shown in OSN 12, but one, the articulated Low Loader below, is different and some 18" long. However it only uses about half the N&B, and about half the other parts, in the Set. For the record the only reference on the manual is P/N 3205216 on the back cover Opposite the front cover.



The 560 EMERGENCY VEHICLES SET A typical mix of 569 parts but the two models copied to me, although still very simple, have a little more character in their appearance. The Fire Engine below would be getting on for a foot long and the sound light unit can be seen on top of the cab. The page size of the Manual is the same as the 600, but the text on the cover is in French as well as English, as one might expect from a Set bought in Canada, but also in German and Spanish. As in all the manuals there are no words at all inside, not even the names of the models.



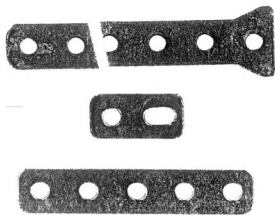
Thanks are due to Don Bock, Chas Shrubsole and Richard Symonds for the material used in this account.

ITEMS FROM LETTERS

1. Roger Baker confirmed that the Patent date on his **U.S. ©1913 MECCANO Manual** is 16TH JANUARY 1906 (see 13/346).

2. From Don Redmond. Referring to **MEK-STRUCT** (OSN 14/392), there is another series of 9 sets (bubble packed on card), each making a model smaller than the 3201-8 outfits. All are vehicles except #32301, a Mini Plane, and 32302, a Mini Helicopter. All have 5-digit numbers and names prefixed with Mini: 323903, Fire Engine; -4, Fork Lift; 5, Racer; 6, Buggy; 7, Loader; 8, Off-roader; 9, Car. The Fire Engine has 89 parts, in the standard colours rather than the red used for the Emergency Vehicles (3213-5).

• On **HANDY CRAFT**, it's not clear in the MCS illustrations that the 15h Strip has both ends splayed, whereas the 11h, as can be seen, is so shaped at only one end. All the Strips and the Fishplate have corners of very small radius (about 3mm), and this gives the DAS a decidedly odd appearance. The 3*3h triangular 'Trunnion' is similar to the VOGUE one but again has small radius corners. [Don kindly sent a Fishplate and 2 Strips, a 5h and an 11h. They are nickel plated, 12.1mm wide, and their holes are 4.4mm Ø, against 4.2mm given in MCS.]



3. On **CONSTRUCTION TRUCK** (14/373), Richard Symonds passed on some more details that he'd had from Don Blakeborough. The Flanged Plate in Don's set had a normal centre hole and not the enlarged one shown in OSN 14, the Axles are 80mm overall with 10mm of thread at each end, and the length and width of the Triangular Plate are both 35mm. The latter is red like the Flanged Plate, and the other parts are blue, except the black Spanner and nickel Screwdriver. The 5mm Ø RH Bolts are 5mm u/h, and the hex Nuts are 6mm A/F.

Richard also sent a photo of what appears to be a **BILD-A-SET** manual cover. The wording on it is in English, including 'Made in U.S.A.'. And there's what may be a copyright date but I can't read it. The models shown are much like those in MCS with holes that look as if they might be at least an inch apart. It is stated that no tools are needed, and there's a sentence in small print that I think reads '170 pieces complete with wooden pegs and dowels'. The latter can be seen in the models and it's possible that all the parts are wooden and the pegs and dowels are a push fit in them.



Another item was the March issue of another U.S. advertising paper called **Toy Trader**, rather similar to *Toy Shop* mentioned in 13/360. The main difference is that it doesn't contain any classified ads, all were from dealers, and I didn't, in a quick run through, spot any for OS in its 108 pages.

4. Points from David Hobson. • The London Toy Co., 0181 864 2186, say that they stock **STEEL TEC** sets, but have no lists. • **Eisenzeit** (ISBN 3-921590-39-6), the book reviewed in 14/377, can be obtained from the UK European

Book Shop, German Dept., tel: 0171 7345259. It costs about £37 plus UK postage, and delivery takes about 3 weeks. [Richard Symonds obtained a copy from Canada by writing directly to the bookstore mentioned in EZ - W. Tümmels Buchdruckerei und Verlag GmbH, Gundelfinger Straße 20, 90451 Nürnberg. Tel: (0911) 64197-0, Fax: (0911) 6419750. The total cost was around £34 including £4 postage and tax. That would have been by surface mail I expect. Richard added "Sure is a winner of a book".]

• When starting to restore some (Belgian) **TECNIC** parts, the paint on a proportion of them was in a particularly poor state and it was found that they had been stamped from sheet zinc instead of the usual mild steel. The Nuts too were solid zinc, 10mm square by 2½mm thick.

5. On **TRIX**, Peter Page asks what surface treatment was given to UK parts, and wonders if it could have been cyanide case hardening, which he adds, was a very cheap mass production method.

6. Some notes from Jeannot Buteux. • **CONSTRUCT-ORAMA (CO')** have discovered the following 'new' systems: **MÉCAMOTEUR**, **MULTIMÉCOS**, **INGÉNIO** [2], **BYG OG LES**, **CONSTRUCTA**, **STRUCTEX**, **KOSTRUKTØR**, **MÉTALLO** [1], **MÉTALLO** [2], **INGÉNIOR**, **NAVIGO**, **DEN LILLE ELEKTROINGENIØR**, **LEONARDO**, **SCHUMANN**, **MATADOR-ELEKTRO**, **PRIMEX**, **TEKNO-ELEKTRO**, **METALLO-MOTOR**, **METALLO-BILER**, **ACQUAVIVA**, **APENES**, **TECNICAVIA**, **LE MÉCANO**, **MÉCANAUTO**, **MASSTER KOWIES** (Polish), **CONSTRUCTOR** (Russian, 4 different types), **MAL'YCH** (Russia), **ARTIMÉTAL**, **MULTI-CONSTRUCTIONS**, **CONSTRUITOUT**, **FALCO** [2] (alias **ASSEMBLO** - this sounds like the **FALCO** mentioned in 5/83 but if so what is **FALCO** [1]?), **FALCO ELET** (alias the 1933 German **ELECTRIC**), **MEC-AÉRO**.

• Of these 3 seem of particular interest, although as yet the only information on them comes from documents - manuals, brochures, etc. **STRUCTEX** is Belgian and has about 112 different parts including a Ball Bearing and 11 A/Gs. The parts are apparently aluminium, like **STOKYS**. **LEONARDO** (Italian, 1947) is generally like **MECCANO** but with some individual parts. Again there is a good range of pieces, and the 'Epsilon' Set contains 1691 parts plus 1333 N/B. Another good size system is **MULTIMÉCOS**, c1950, and the parts include Curved Rods and many pieces with tapped holes.

• The existence of **MULTIMOTORE** has also been confirmed. It was an Italian version of **MULTIMOTEUR** (see 12/304 & 13/360), made under license by G.E.M.M.A. around 1947. It is likely that only 12 Outfits were available, from 3 of the 'groupes'. • Also confirmation that **EFEL** (the version made by Gédé, see 5/91) was produced with coloured parts: red A/Gs, green Strips, and blue Triangles.

• Some years ago CO' discovered a 1921 **ERECTOR** Manual in Dutch.

• On **WENEBRIK** (13/334), Jeannot wrote that he used to have a French Set No.5 with a Manual in French which was different to the British version.

• In answer to Don Redmond (OSN 13/337), the name **ÉCÉPÉ** corresponds to the pronunciation in French of the initials E.C.P., which stand for the École Centrale de Paris, the school for engineers at which Gustave Eiffel was a student in 1852/53. Another thing, a large steel Plate, 19*28h with 2 flanges, and painted black, formed the bottom of **ÉCÉPÉ** boxes.

• CO' have a **TECHMASTER #50 Set** and extra/different details from those in 13/391 are: • The con-

are unpainted and have the 8 spokes shown in the manual.

- The Engine Crank is grooved, on the side opposite the crank projection.
- The Flexible Shaft Coupling is a spring a bit less than 1½" long and with an o.d. of .226". It fits tightly over the Shafts and so isn't fitted in the same way as the MECCANO #175.
- Windmill Cards are red, 1½"×1½" and have a simple line as the border with 'MADE WITH STRUCTO' inside.
- Shafts are between .160 and .164" Ø with most towards the upper value. All bosses and Collars are double tapped 6-32. The N&B are 8-32, and the Bolts have a shallow filister head.
- Some Strips have larger holes than others and there appears to be 2 standards, 4.3±.1mm and 4.4±.15mm. Possibly later parts had the second size.
- Strips, A/Gs, etc were all tin plated, and have gone grey. The cast parts are a dull to shiny grey, the colour of some of the zinc alloys used in model locomotives. N&B are shiny (nickel or chrome?) plated. [Kendrick went to some trouble in measuring the diameter of holes in a sizeable selection of parts using plug gauges and a calibrated tapered rod (a better version of the one mentioned in 4/74). He also measured the holes in some U.S. MECCANO Strips and found 4.35±.075. He sent me full details and some interesting comments, but unfortunately I haven't room for them in this Issue. His conclusion is that it seems appropriate to quote hole size to the nearest .1mm, but even with that degree of imprecision, care is needed in using hole size in identifying parts because of the tolerances and differences that can occur. (±.1mm = ±.004")]

On Threads (7/168, 8/203) he sent copies of pages from the 1914 American Machinists' Handbook. Those shown (with the initials used earlier in brackets) are Whitworth (BSW), B.A., International & French (Metric) (IFS), Löwenherz (Lhz), A.S.M.E., and American Screw Company. The International Standard for metric threads was adopted in 1898 and was effectively the then French Standard. Lhz was designed in 1894 and was said to be widely used as a fine thread in Germany for measuring instruments and similar work. A.S.M.E. stands for American Society of Mechanical Engineers and their standards were promulgated in 1907 as a series of 'standard' and 'special' sizes. With a few exceptions they correspond to the ANF & ANC sizes respectively and all the combinations of diameter and tpi used have already been given in OSN 7 & 8. The American Screw Company sizes are all within the A.S.M.E. and ANC/F series except 2-48, 5-32, 6-30, 12-20, & 14-18. The Angle of all the American threads is 60°. If anyone would like more details I can copy to them the 7 A4 pages that Kendrick sent.

Also an answer to **Query 10** (5/106) about where the name **LYONS**, used in connection with the METALCRAFT Spirit of St. Louis sets, came from. An outfit he acquired recently has a LYONS sticker pasted on the outside, and a flyer included in it (showing the range of sets) has a description of the Lyonsport Aero Club by Garvey Lyons. It is thought that his name started to be used after he became president of Metalcraft in 1928 or 1929.

On **BOOMTOWN** (15/422) Kendrick's Plates are painted a rich blue, though not as bright as the current MECCANO shade.

11. On **STRUCTO** (15/424), Richard Symonds sent a copy of a page from the 1921 No.93 Montgomery Ward catalogue; it shows a train set which includes a bridge made from what appear to be 2 STRUCTO Multi-Unit Girders and various Strips. The maker's name isn't given but perhaps Structo were using up their remaining parts in that way, after they had ceased producing constructional sets.

12. On **STABIL** Werner Sticht sent a translation of an announcement contained in a 1929 circular to German toy dealers from Walther & Co., the manufacturers. It says that for years they have produced coloured sets for export, but these have never been sold on the German market because no matter what paint, lacquer, or method of colour printing is used, damage to it always occurs when tightening the nuts and bolts. An unused coloured set looks very well, and so does the first model, but soon the appearance is spoilt by the deterioration of the parts. Without hesitation they recommend only the nickel version of their outfits. Werner asks if anyone has any information on these coloured sets or parts, which were possibly sent to markets in North or South America, or elsewhere, and may have been sold under names other than STABIL. [1929 was the year in which Märklin introduced their coloured parts - as noted in earlier Issues, STABIL metal parts remained nickel plated until the end.]

13. Late last year D.Courdoux wrote to the **METALLICO** agents in France, Italy and Holland, as listed on their boxes (see 13/336), asking about the availability of sets. Only one replied, Meridien Sarl of Dijon, saying that the constructional sets had been discontinued after a legal complaint by Meccano-France.

14. On the **MEK-STRUCT** Couplings shown in 12/310, Gordon Finch wrote that the ones he has are 13mm long, with the holes spaced 7mm apart and tapped 2mm or slightly larger.

EXTRA MCS SHEETS The Sheets listed here are available at 15p per Sheet plus postage. That makes £6.15 for all 41 Sheets.

MCS Amendments, List No.4 [1]
 BILDICO [2]: X1.1 [1]
 BOY: X1.1,7 [1]
 CONSTRUC: X1.1,2 [1]
 CORUS: X1.1,2 [1]

DEN DANSKE INGENIØR: X1.1,2 [1]
 D.V.s INGENIØR: X1.1,2 [1]
 ERECTION: X1.1,2,4,5,5a [3]
 HANDY CRAFT: X1.4 [1]
 INGÉNIO: X1.2,5 [1]
 JOC MECANO: X1.1,5 [1]
 JUGA: X1.1,2 [1]
 KOBLER: X1.1,2,3/6,4/5,4a/5a [3]
 KONSTRUKTOR-III: X1.1,2/3/4/6 [1]
 KONSTRUKTOR MALYUTKA: X1.1,2,3/4/6,5 [2]

KONSTRUKTOR MEKHANIK: X1.1,5 [1]
 LEONARDO: X1.1,7 [1]
 L'INGÉNIEUR FRANÇAIS: X1.1,2,5,7 [2]
 LYNX: X1.1,3e/4e/5c [1]
 MALY KONSTRUKTOR: X1.1,2 [1]
 MAYKO: X1.1,2 [1]
 MECCANICO: X1.1,2 [1]
 MEKOTRAX: X1.1,2,4/6,5 [2]
 MÉTAFLEX: X1.1,3/4,7 [2]
 MÉTALOR: X1.2 [1]

MÉTALU: X1.2,5 [1]
 MEX: X1.2a/4a/6,5 [1]
 MINITECH: X1.2 [1]
 OREGION: X1.1,7 [1]
 PYGMÉE: X1.7a [1]
 STERLING: X1.5,5a [1]
 STRUCTEX: X1.1,2 [1]
 TEST: X1.1,7 [1]

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available, too. Other models are similarly overly ambitious for the set. There may have been larger sets, but no mention of any others is made in this manual. All of the models seem very skeletal, possibly natural for a rod system. Perhaps TECHNICAL TRAINER might best be characterized as a metal Tinkertoy set although the Basestand is the major departure from the Tinkertoy concept, and triangular constructions would be more difficult. Set quantities are not given in the parts listing.

The name in the manual is Tucker Toys Inc., 2496 Amsterdam Avenue, New York 33, N.Y., but a slip headed

'Announcement' has been stuck on the front cover, saying that 'Effective May 27, 1946 Tucker Toys Inc. has no further interest in this item'. It goes on 'M'd By Farmingdale Aircraftsmen Mfg. Corp., Farmingdale, New York, Distributed By Herman M. Kruse & Associates, St. Louis, Missouri'. Farmingdale is on Long Island about 30 miles from downtown New York City, and St. Louis is perhaps 900 miles away! Farmingdale Aircraftsmen are listed in the 1946 & 1949 editions of the Industrial Directory of New York State as manufacturers of pumps, compressors, etc.'

MEK-STRUCT Sets in the UK Early this year Bill Charleston bought an Emergency Vehicle 300 Set reduced to £10.99 from an Index catalogue shop. He was sufficiently impressed by the price, and the quality of the parts, to ask the distributors, Red Robin Toys Ltd., about other outfits. In a reply from the Customer Services department the following sets were said to be available:

- **Mek-Bots** (Robotic Warriors). 4 sets - Defender, Attacker, Protector, & Destroyer (600 parts).
- **Mek-Trax** (Construction Movers); 550 or 388 parts.
- **Space Vehicle Sets** with 560 or 300 parts.
- **Emergency Vehicles Sets** with 560 or 300 parts.
- **General Construction Sets**; 210, 270, 370 or 450 parts.

They also said that spare parts could be supplied but no price list was as yet available. Red Robin's address is Robin House, Tresam Road, Orton Southgate, Peterborough, PE2 6SG; phone/fax 01733 371170/370818. Bill also asked where he could buy the sets but the only outlet Red Robin named was Index.

Index have had various sets in the past but none are included in their Spring 1998 catalogue. Gordon Finch wrote that the Autumn 1996 Index catalogue showed the 300 part Emergency Vehicle Set at £24.99, a £14.99 210 part General Outfit, & a £4.99 169 part Set to make a Go-Cart, not mentioned by Red Robin. In the Spring 1997 edition the price of the 300 had been reduced to £17.99, and only the 210 & 169 were in the Autumn 1997 issue.

Most of the sets above have been mentioned already in OSN, with accounts of some of them, see 12/310, 14/392, 15/426, 16/443. But the MEK-BOTS - does anyone know anything of them?

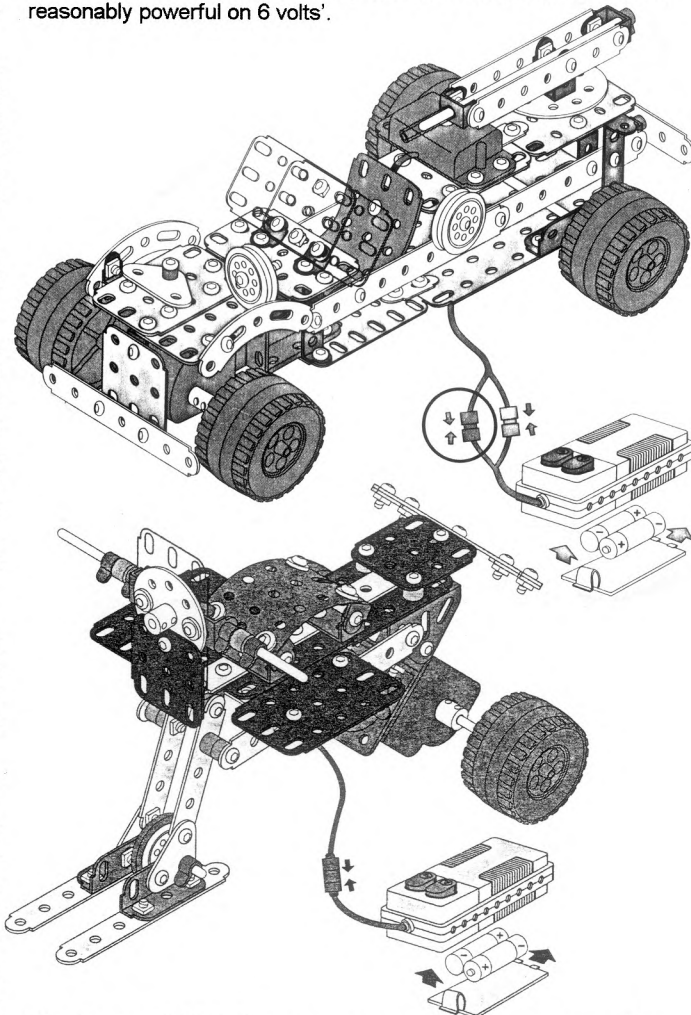
The Emergency Vehicles Set 300 At my local Index the only way to know that the 300 was still available was to ask, and I bought one for £10.99 (Stock No. 420-231). The (over) large box (16½"×11½"×2½") is basically orange with photos of the models on top and bottom. Also on it: Item No.3630; the Hong Kong address of Artin; and on a stick on label, Toytime Limited, Cams Lane, Off Harper Fold Road, Radcliffe, Manchester, M26 05W. This address is also on a slip in the box as that of Artin's UK Service Centre, with a phone/fax: 0161 7234451/7246808. Presumably they were Red Robin's predecessors.

The top of the box is transparent, covered by a hinged flap, and the parts are in recesses in a foam block which is inserted through the end of the box. Many parts are in a black plastic box (9"×4½"×¾") with a clear cover. The packaging isn't very convenient because the transparent top is an integral part of the box, and the foam block has to be taken out to get at the parts.

A little over half of the 311 parts in the Set are N&B, and the rest include the Motor/Gearbox with Light Unit (GBE), Battery Box, and a good selection of 32 Strips/DAS, 36 Brackets, and 17 Plates. The parts are as described in OSN 12 & 14 with the following amplifications/differences. • The **Coupling**, and the boss of the **Bush Wheel**, the only bossed part, are brass, 9.0mm Ø, and single-tapped M3. The Coupling's dimensions are as in 16/459. The bore of both parts is 4.06 mm and they are thus a nice fit on the Axles. • 1 lug of the **Reversed Angle Bracket** has a slotted hole. • All the metal **Plates** are red. • The 'Tyre', W3 is a black **Plastic Ring**. • The **Bush Wheel** is nickel plated. • The thread of some N&B is still poor but 9 extra of each were found in the Set. The **Spanner** now fits the Nuts properly. • The black **Light/Sound Unit** is permanently wired to the Motor: its red light shines steadily only while the Motor is running but the wailing noise continues for a few seconds after it is turned off. • The **Spring Clip** is thick black plastic with adequate grip. • The **Hook** is of black plastic too and isn't heavy enough. • The short length of **Cord** is black and rather thin.

The manual (P/N 3205170 on the back cover) is the usual small format style with 16 pages plus covers. Most of the text on

the front cover, there's none inside, is, like that on the box, in English, French, German, Dutch & Spanish. The 3 models in it are the typical, rather characterless, small M-K & STEEL TEC type. The best one is shown below (under the Ski-Runner), and, from a Leaflet that Chas. Shrubsole kindly contributed, it's a motorised version of the #3213 Foam Injector (224) mentioned in 14/392. The featured model is a Fire Engine and it's badly designed - the front Wheels run in 2 Strips ½" apart, the whole of the back with the ladder on it is attached to the main structure by 1 N&B on each side, and said ladder is at a fixed angle, neither up nor down, though it does rotate in plan. The heavy cable linking the Motor/Sound Unit is difficult to hide away on all the models, and doesn't improve their appearance. However the 3v Motor is powerful enough, with the 69:1 reduction in the gearbox, to make them move along smartly, even on carpet, and Bill wrote that it 'seems reasonably powerful on 6 volts'.



The General 270 Set Josep Bernal kindly sent a copy of an identical 300 manual from Spain, and also one from the General 270 Set. The contents of this set are probably similar to the one described in 12/311 but are not identical. And they aren't very different to those of the 300 above except that there's no Sound/Light Unit and no large Plates. The manual (in English only with no Ref. No.) is markedly different to the earlier 270, with only 16 of the small size pages and 5 models. 3 of them are similar to ones in the earlier manual but the other two are more interesting - a Biplane and the Ski-Runner above. It won't be clear but the handle-bars/skis are free to turn.

Piacentini (Piacentini Brothers) were Märklin dealers in São Paulo from before WW2 until the 1950s. During the war they could no longer get supplies of MÄRKLIN and decided to produce a clone under their own name. After the war Märklin claimed patent infringements and forced them to cease production.

Edmundo's acquaintance owns 2 sets and his No.1 is shown in the last column. From the photo the box has a blue

check pattern with a label just like the manual cover. The latter is white with the name in brown, and the Crane & border a light blue. The oblong with the Set No. is orange. The inside of the box is orange too and the parts are in MÄRKLIN colours except that the 1" Pulleys look to have a bright finish. There are no MECCANO pattern parts, the Curved Strip has the proper long slot, and the edge holes on top of the Flanged Plate are slotted.

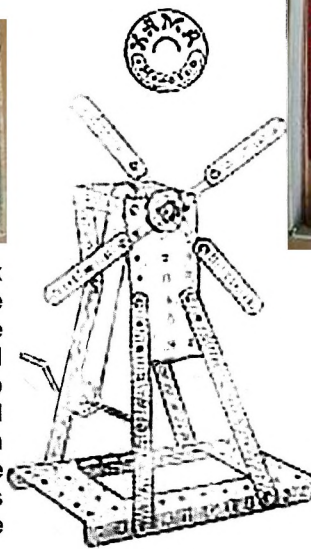
SNIPPET: A 'New' KONSTRUKTOR OUTFIT I'll call this KONSTRUKTOR [4A] – it's a small set with parts that look very much like STABIL, but painted instead of nickel plated. The range of parts, and as far as can be seen their quantities, seem to correspond to KON [4] in MCS, but its parts are said to be zinc plated, and the manual covers are completely different, with different wording and logos.



The KON 4A cover is shown above left, printed in black on a light purple, with the name in white on a red panel. The words along the top mean 'technical play'. The word in the top of the circular logo (also shown above the Windmill below) seems to transliterate as 'khama', which according to my dictionary is colloquial for boor or lout. Experts forward please. The box lid (above right) has the name in purple on a pale green ground, and the same 'technical play' at the top, in cursive script. The boy top left has a Crane, and its real-life counterpart is part of the industrial scene in the foreground, bottom right.

The open box is shown in the next column, and the main

parts are Strips (2,3,5, 7,11h long) & 2h Ø Pulleys in red; a Wheel Disc, DAS, & Brackets in yellow; and a 5*11h Flanged Plate, plus the 3*7h Perf. Plate from its centre cutout, in blue. Other STABIL-like parts are Screwed Rods (used as axles), Wire Stays, & a wire Winding Handle.



The only model shown is the Windmill left, identical to the KON 4 model in MCS, although the drawing is totally different, and much cruder.

Most recent Russian sets seem to have plated rather than painted parts and if KON 4 & 4A followed one from the other, it may be that KON 4A came first.

SNIPPET: RADIO SHACK'S MEK-STRUCT '370' SET The eBay pictures of this outfit will be compared with a photo, kindly supplied by Richard Symonds, of a standard Artin '370' set, believed to date from late 1994. The Artin lid below has small photos of 5 of the claimed 9 models on it, against a blue/purple ground.

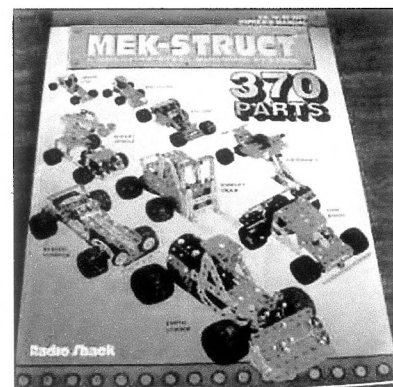


cover of its manual.

Right the cover of said manual, similar in style & colouring to the lid. The Radio Shack name can be seen at the bottom left corner (it isn't on the lid, at least not on the top or on the one side that can be seen). The 9 models are as on the lid.

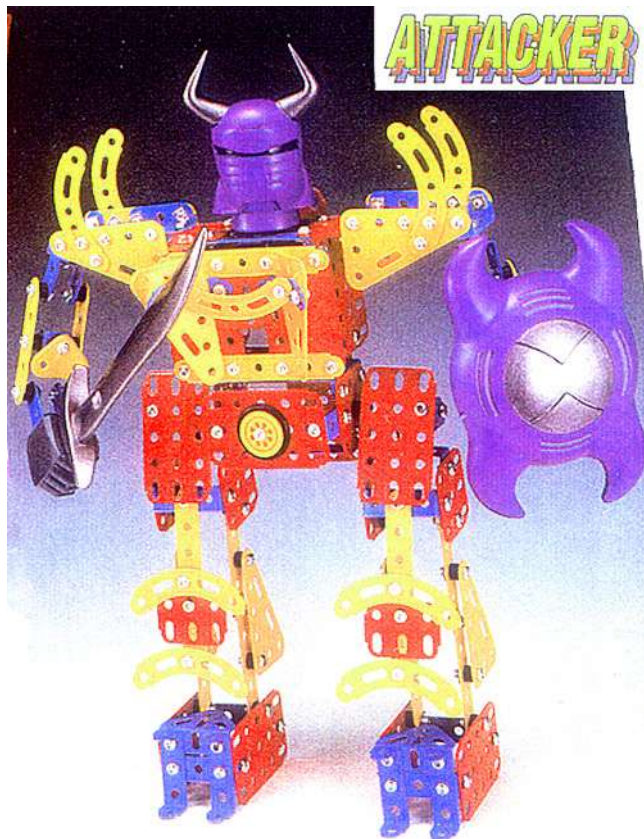
The Artin manual is similar in design to the '450' one in 12/311, purple at the top fading down to off-white, with a red band at the spine. The 5 models on the cover include the 4 not shown on the lid.

The models are all in the typical small MEK-STRUCT style but the Radio Shack & Artin ones are different, with only one or two having any marked similarity. No details of the inventories of the 2 sets are to hand but the parts in both are housed in identical white plastic foam blocks (with many in the usual black plastic box) and, as far as can be seen, at least the major parts in each set are the same. In both cases the colours are the standard blue, orange, & yellow.



The MEK-STRUCT Sets The Artin range from the UK agent was listed in 19/529, and early in 2002 Josep Bernal kindly sent colour copies of what seems to be an Artin trade brochure. It is in English, carries no date, and the three addresses on it are of Artin in Hong Kong, the factory there, and Artin USA Inc. All the outfits listed in OSN 19 are shown, with one page for each category (but 2 for the General sets), and then a page with 10 small 'pocket' sets.

MEK-BOTS The sets are #3305, Defender; #3306, Protector; #3307 Attacker; and #3308, Destroyer. Each has 600 parts, and the Attacker is shown below. All the models are about the same size, and each has a different, outlandish body. The Destroyer's arms end with large 3-fingered plastic hands, all the others carry a shield in one hand and a weapon - a missile launcher, gun, & sword for 3305-7 respectively - in the other. Again all are plastic. Presumably the limbs are articulated to some degree but the models aren't motorised. The missile launcher looks like a high-tech bow & arrow and on one side of it is something that may be a trigger. That is the only obvious 'action' that can be seen in any of the models.



MEK-TRAX The sets are #3403 with 388 parts, and #3404 with 550. The two models shown for each are identical to those for the sets described in 16/443, even though the smaller one has a different PN.

SPACE VEHICLE SETS The sets are #3730 with 300 parts and #3756 with 560. Both have 'lights, sound, action'. The light is a red plastic dome on top of a black box with mounting lugs at each side with holes at 5*2h pitch. The 'action' is no doubt the usual Geared Motor with forward/reverse Battery Box. The photo left is the lid of the larger set. 3 models are shown for each outfit and look to be made from standard parts with no plastic



'goodies'. The one to the right is the best of the 560 models; those for the 300 are simpler and even less attractive.

EMERGENCY VEHICLE SETS

Again sets with 300 parts (#3630) and 560 (#3656), both motorised as per the Space outfits, and although not mentioned both sets have the Sound/Light Unit. The 300 outfit was described in 19/529 and some notes on the 560 were given in 14/392. In both cases the 3 manual models are as in this brochure.

GENERAL SETS There are actually 8 of these: 2 labelled 210 parts, 2 with 270, 2 with 370, & 2 with 450. One of each pair has 'Free Wheeling Construction Set' on the box lid, while the other has 'Motorized by Remote Controller', and contains the Geared Motor & Battery Box as before. The PNs for the non-motorised 210/270/370/450 sets are #3221/3227/3237/3245, and those for the motorised versions are #3621/3627/3637/3645.

One group of models is shown for each pair of sets, 4 for the 210; 5 for the 270, including 2 of the 210 models; 6 for the 370, including 2 from the 270; and 6 for the 450 including 3 from the 370. Presumably there are motorised & non-motorised versions of each. The models are the usual run of smallish vehicles, running on the fat, plastic, push-on Road Wheels, though some are rather better looking than the original MEK-STRUCT models, the 210 Car below for example. In all the models seen the Wheels are mounted on the gearbox output shaft. One of the 210/270 models, a Ski Runner, was shown in OSN 19. The 210/270 Biplane below, with its strange undercarriage, has no motorised version.



POCKET BUILDERS That's the name of a series of 10 small blister-pack sets containing 70 to 89 parts. They are probably the same as those listed in 15/426 though there is now one extra and the PNs, #32311-20, differ slightly (the 323903 in OSN 15 should be 32303). Apart from the Mini Buggy, the names aren't given in the brochure, but the model photos tie up with the OSN 15 names except perhaps the 32319 model above left. The 10th model, 32320, is to its right, but I know not what to call it. All the models except the Helicopter run on 1" Pulleys/Rubber Rings.