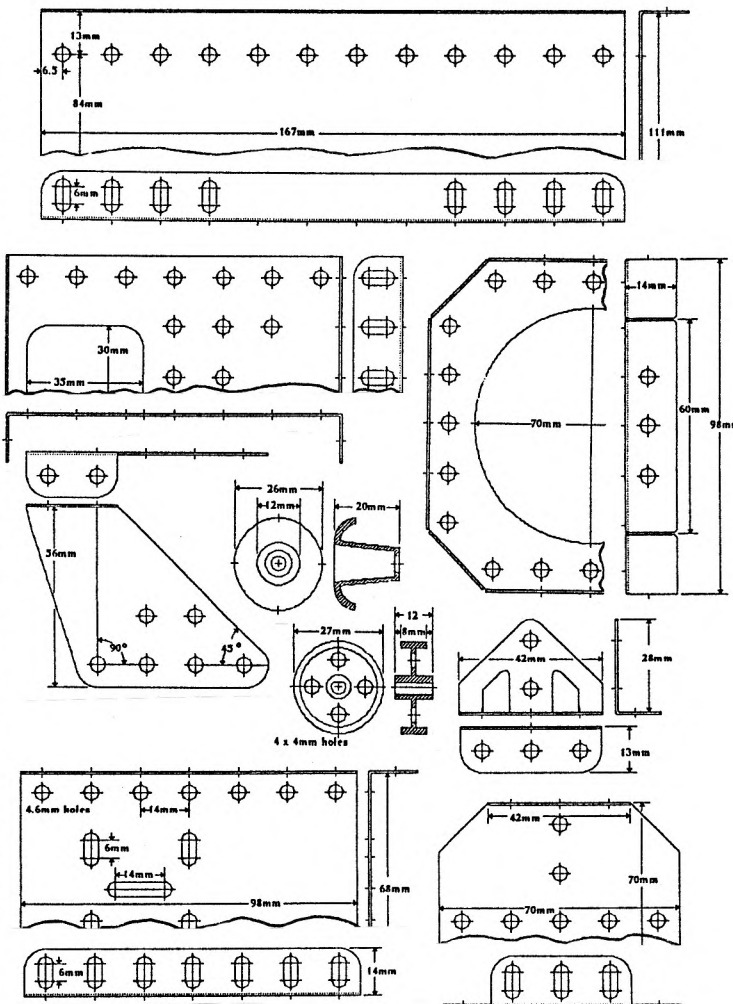


SEL'KHOZTEKHNIKA (SEL for short, and it may be called KONSTRUKTOR (2) in earlier MCS/FB), particularly the unusual Flanged Disc. Other notable similarities are the colour, the 3 Flanged Plates, and the general lack of slotted holes. But there are some parts that don't occur in SEL, the Channel Girder and Hook for example, and many parts that don't correspond in size, even though the general type may be in both.

Perhaps there's no connection, or perhaps Dave's parts were from a larger SEL outfit. Or, given that some of the Russian systems are to an extent derivative, just possibly the mystery parts came from the as yet unknown prototype of the Russian system.

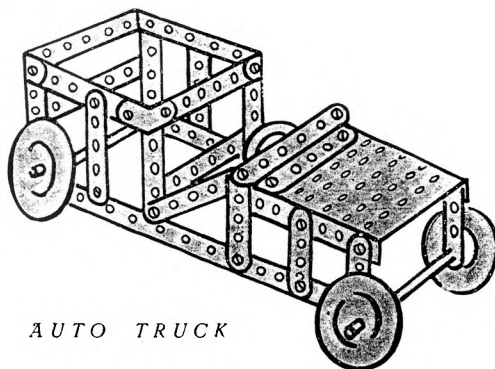
MYSTERY PARTS No.31 Thanks to Don Blakeborough in New Zealand for details of another lot of related parts. He mentioned that Space and Space Control transfers stuck to some of them suggest a theme set. Don sent the list of the parts below, and drawings of them, which are shown here at reduced scale, and in some cases only a half view is given for parts that are symmetrical. The holes are 4.6mm Ø at 14.0mm pitch.

- 3 **Trunnions**, 2 red, 1 black.
- **Octagonal Flanged Plates**: 2 x 98mm with circular cutout, flanged on all sides, black; 1 x 70mm, 2 flanges, black.
- **Rect. Flanged Plates**: 1 x 167*113mm, red; 2 x 7*5h with cutout, white; 2 x 98*70mm, white.
- **Flanged Fin**, 2 x LH, 2 x RH, zinc.
- 4 x **Roller Wheel ?**, grey plastic to fit shaft with flat.
- 3 x **Hub Centre ?**, grey plastic.
- **Screws** with Philips roundhead: 23 x6mm u/h; 1x18 u/h.
- 14 machined hex **Nuts**, 6.7*3.2mm thick (a MECCANO Bolt enters about half way).



Two ONADO Sets ONADO was a small UK system of some 34 different parts including a few unusual ones, but exactly what all the parts are isn't clear from the details in MCS. Recent finds provide some more information.

First, Frank Beadle was able to examine a set owned by Bob Field and kindly sent along some details. It appeared complete and the parts were clipped to a grey card with brass bifurcated paper clips - a method mentioned in



AUTO TRUCK

one of the two Leaflets that were with the Set. One of these shows 3 crudely drawn models under the heading 'Begin with these simple models'. No set numbers are given but one of the models, the Auto Truck above, couldn't have been made with the parts in the Set because it needs 4 Road Wheels. The other Leaflet has the makers name and address (Onado Industries Ltd., Faraday House, 8-10 Charing Cross Road, London, W.C.2), and an Introduction which mentions that the parts are 'preserved in oil to prevent corrosion'; that the No.2 Set contains 120 parts and the No.3, 175; and that 'an illustrated booklet is in course of preparation'. The Set seen has no indication of size on it but with many fewer than 120 parts, it is presumably a No.1.

The second Leaflet also has a List of Parts, with prices, and includes about half the parts listed in MCS. Details follow with where appropriate, the number of parts in the No.1 in square brackets.

- Strips with 23, 19, 15 [6], 9 [6], 5 [3] holes. 2h Strips called Links. 2h Angles (Brackets) [6]. 1*3*1 DAS [8], called 5 hole Double Angles.
- 5*7 and 7*7h [1] Chassis, which are 3*7 and 5*7h Flanged Plates with flanges on the 7h sides. A Flexible Plate, 9*5h.
- Tinplate balloon Wheels [2], about 1" dia. Pulley Wheels, fixed and loose. Spindles [1x4"]. Brass Collars [2] or Clips. Bent Crankshaft. Screwdriver [1 wire]. Flat 2-ended Spanner [1]. N&B.

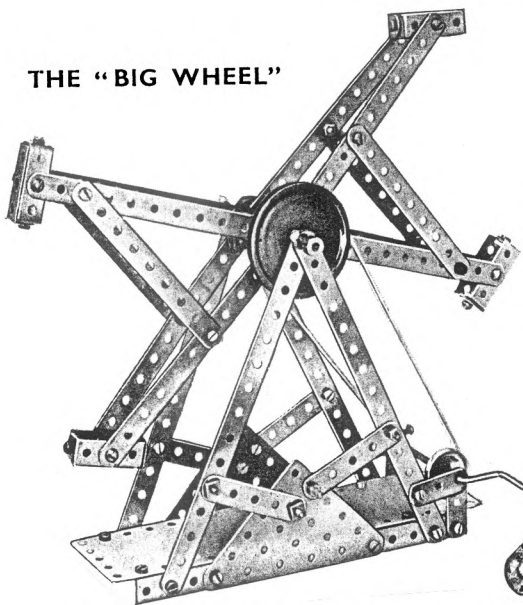
• The parts are either nickel plated or bare steel. The Screws in the Collars have a different thread to the N&B.

Judging by the illustrations on the box lid and their pastel colours, Frank judged that the Set might date from the 1930s. However the prices of the parts in the Leaflet don't support that - in those cases where a direct comparison can be made they are at least 2 or 3 times the maximum price of similar 1930s MECCANO parts. So that might date the Leaflet as 1941, when the price of MECCANO parts leapt up, or postwar. In the latter case the box itself might have been prewar stock.

The other find, thanks to Bob Curling, are the manual and remaining blue and red parts from a later set - the manual looks as if it is the one used for MCS. Some other parts will also be mentioned that came in a mixed lot.

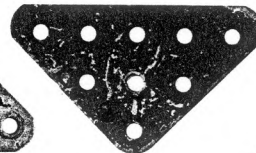
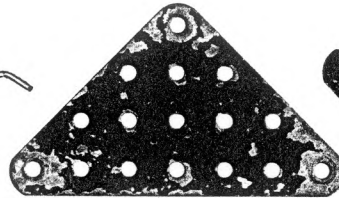
The manual has one good photo, on good quality art paper, of each of the 12 fairly ordinary models shown, 4 each

THE "BIG WHEEL"



PARTS REQUIRED

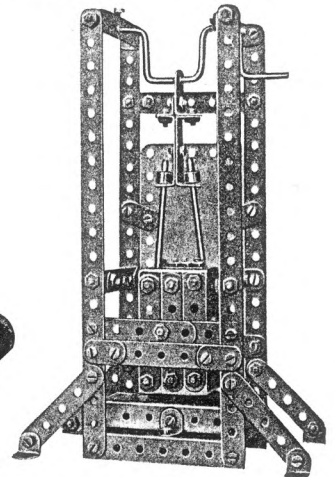
4	only 2 hole Strips
4	" 3 " "
4	" 5 " "
4	" 9 " "
4	" 15 " "
4	" 23 " "
2	" 15 " Angle Strips
12	" 5 " Double Angles
2	" 6 x 6 Triangle Plates
2	" 5 x 9 Flexible Plates
1	" Loose Pulley Wheel
1	" Fixed " "
1	" Large " "
1	" Spindle " "
1	" Winding Handle
Nuts and Bolts	



STEAM HAMMER

PARTS REQUIRED

4	only 19 hole Strips or	8	only 2 hole Angles
2	" 15 " "	1	" Crankshaft
2	" 15 " "	1	" 5 x 7 Chassis
12	" 9 " "	1	" 7 x 7 " "
12	" 5 " "	6	" Brass Collars
8	" 2 " Links	Nuts and Bolts	



for Sets 2, 3 and 4. The Introduction is almost identical to that in the No.1 Leaflet with the same reference to brass clips, and to Sets 2 & 3 (but no mention of No.4). The only major change is the omission of the 'preserved in oil', and instead, 'ONADO parts are beautifully coloured in Royal Blue and Crimson'. The Parts Required are given for each model and the names of the parts there isn't always consistent with the List of Parts (as in MCS). The one or two cases where this is of interest are mentioned in the notes on the parts that follow. The number of parts found in the Set are again given in brackets, but many are obviously missing.

• DATA (in mm) Strip (9-hole): •Hole pitch/dia, 12.7/4.1; •width, 12.7 (typical); •thickness, .80; •end radii, 7.1. Boss: •o/d, 9.5 (3/8"); •i/d, 4.11; •red painted brass; •single tapped. Thread: 5/32" BSW in Pulley boss; 4BA in Collars (no N&B seen). Axle Dia: 3.96. DP (Mod): NA. Nut & Bolt: not seen.

The parts seen are listed below. All holes are round.

- 19,15,9,5,2h Strips [2,2,6,6,8], and the 3h Strip called 3 hole Flat. Only the 19 and 3h, at 1.1mm, differ in thickness from the 9h. Widths vary from 12.6 to 12.9mm but most are 12.7 to 12.8. 2 hole Angles [3]. 1*3*1 DAS [10].
- The 2 sizes of Chassis [1 of each], which have sharp square corners and slightly smaller holes (4.0mm) than the Strips. The 5*9 Flexible Plate [1] is .40mm thick, with fully rounded corners and no centre hole.
- Balloon Wheels [4], 1.57"Ø that have tubular brass bushes with eyelet type ends. The Fixed Pulley [1] is 25.7mm Ø, and 4.2mm wide across the vee. Its boss has 6-point peening. The Loose Pulley [1] is the same overall size and has a small (8.2mmØ) brass boss, similar to the TEMSI equivalent. It has eyelet type peening and the bore is 3.97mm. Collars [3] are 3/8"Ø and 1/4" wide.
- The nominally 5/32" Spindles [3] are a tight fit in some of the parts, and are 4" long against the 3" in the Parts List. The (3") Crank Handle [1] is 4" long overall and has square bends. It is the Winding Handle of the List.
- The Screwdriver, above (x .5), is made of 1.25mm steel, nickel plated.
- If the N&B have the same 5/32 thread as in the Pulley boss, the thread in the Collar would be different to the N&B, as with the No.1 parts. All the Set Screws are steel and cheeseheaded - the one in the Pulley is painted red with a 6.0mm Ø head and 4 1/2mm u/h; the ones in the Collars are 6.3mm Ø and 6 1/2mm u/h, and look like plated commercial

screws. The Set Screws shown in the models have round heads. The Bolts in them are shown with cheeseheads, and the Nuts are mostly largish hexagonal, with a few square.

• The Strips and Brackets are painted a bright but flat looking royal blue; the Plates and circular parts a dull medium to dark red - more like red oxide than the crimson of the Manual. Apart from the width of the Strips, the parts are accurately made and quite well finished.

• In the mixed lot were 2 sizes of Triangular Plates (above), painted with a red quite close to the Set parts but glossier. The smaller one corresponds exactly to the 5 x 3 Triangle Plates shown in, and listed for, models in the Manual, and is presumably the Small Triangular Pierced Plate of the Parts List. A Large Triangular Pierced Plate is also in the List and a 6 x 6 Triangle Plate is called up for Big Wheel (above), the only time it is shown - as can be seen it's hole pattern is different to the larger Triangular Plate found in the lot.

Some of the other parts in the List are shown in the models. The 15 hole "L" section Channel (A/G), with square corners, and the Large Pulley, are in the Big Wheel. The Bent Crankshaft is used in a Steam Hammer (above). The 7 x 5h Pierced Rect. Plate, with round corners, is used in several models, but, as in the Naval Sloop in MCS, is always called up as a 5 x 7h Flexible Plate.

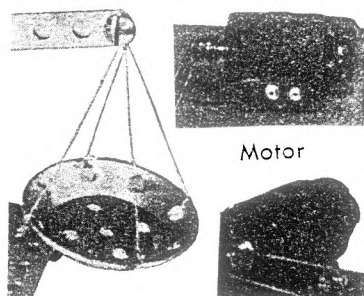
That leaves unseen the 7 x 7h Pierced Square Plate, the 1" Spindle (and the 3" if it was not always the 4" as found), the Spanner, the Large Wheels, the Single throw Hand Crank, and the 3 hole Double Angle.

And in my box of unidentified parts is a Flanged Plate that is virtually the same as 5*7h Chassis but is slightly, not more than 1mm, narrower. It has a dark grey dull metallic finish. [Would I be right to call that sherardised?] If this wasn't an earlier ONADO part, there's another mystery system waiting to be found.

SUMMARY OF MANUAL •Name: ONADO ENGINEERING MODELS •Details of maker: ONADO Industries Ltd., Faraday House, 8/10 Charing Cross Road, London, W.C.2. •No dates or Ref Nos. •Page size: 280*215mm deep. •No. of pages: 8 + covers. •Language: English. •Printing: good halftone photos of models; cover as MCS with blue model bridge and red lettering. •Page No. of Parts List: 8 (no PNs). •No Set Contents. •Sets covered: 2,3,4. •No. of models for each set: 4,4,4. •Name, Page No. of first & last model of each set: 1: PORTER'S TRUCK,1; FIGHTER PLANE,2. 2: DELIVERY VAN,3; TOWER BRIDGE,5. 4: ARMY TRUCK,6; NAVAL SLOOP,7. (No Model Nos.)

The main changes to the Parts List are that the 6 & 11h Strips are marked as 'Slotted', and 2 Rods with Threaded Ends, 95 & 120mm long, are introduced to replace the 90 & 120mm Threaded Rods, & the Piston Rod. All the MCS Pulleys are still included except that the 20mm is now 16mm Ø. The Set Contents show a few minor changes, the most noticeable being the deletion of the two 15h A/Gs from the 01 Outfit.

There's a single photo of each model with the Parts Required for it, inadequate for the larger models given that no instructions are given. The models are probably all the same as in the MCS manual: there are the same number, the parts required for them are identical, and the models on p9 are identical to those on the MCS/NZ p5. None of the



modified parts can be seen. One has an unusual and unknown part as a scale pan (far left) - a pre-1954 part? Two models are driven by the Motor (left) which, though indistinct, doesn't look like the one in the MCS Gears Set. It looks cylindrical, mounted on a base with 2 terminals on the side. The

Drill & Racing Car at the bottom of the facing page are made from Sets 03 & 03+03a respectively. The Digger, the last model in the Manual, needs Sets 02+03+03a, and is similar to the one on MCS/FB p5, but without any of the long slotted parts that can be seen in the MCS version. The latter came from a later manual, but its PR isn't known.

SUMMARY OF MANUAL •Name: KONSTRUKTION Metallbaukasten •Details of maker: VEB(K) Technische Werkstätten Gotha. •Dates &/or Ref Nos: Re 299/59 V/6/17-10 on p12. •Page size: 211*297mm deep. •No. of pages: 12 inc covers. •Language: German. •Printing: B&W ½-tones of models, parts; blue cover with red border (at top of facing page). •Page No. of Parts List/Set Contents & highest PN: 12,15b (Illustrations on p2). •Sets covered: 01,02,03,03a. •No. of models for each set: 3,10,5,1,5(03+03a),1(02+03+03a). •Name, Model No., Page No. of first & last model of each set: 01: Säulenkran,1,3; Dreirad,5,3. 02: Dezimalwaage,3,3; Fahrbarer Drehkran,11,5. 03: Torkran,13,5; Windmühle,24,9. 03a: Motorrad,20,8. 03+03a: Exzenterpresse,16,7; Luftschaukel,23,9. 02+03+03a: Löffelbagger,25,10. •Other notes: •The parts for each model are on p11. •No.19 on p8 is misspelt Rennwaen.

A Later Set This is the #02 described in OSN 8. The parts in it look to be just like those in the 1957 #02, and are, with minor exceptions, just like their CNN equivalents.

The bottom of the box is a dark colour outside and yellow inside; the top is half yellow and half blue with a large photo of the later Digger, and KONSTRUKTION in white on a red rectangle, followed by METALL-BAUKASTEN in black on the yellow. The style and italic letters of KONSTRUKTION are identical to those on the cover of the Gears Set manual shown in MCS/FB, p2. The Set No. is on the side of the lid.

The Last Sets, from about the mid-1960s These are the ones illustrated in the CNN manual described in OSN 17, with /67 in its PR. They are thought later than the #02 above because of the plastic packaging. The lids of the 3 standard sets look (in B&W) identical to that of the #02 above, except that the Set No., 01, 02 or 03, follows METALL-BAUKASTEN. The Gears Set has KONSTRUKTION in the same style but it is followed by METALL-GETRIEBE *Baukasten*; and 2 models, the rear of a Chassis & most of a Mobile Crane, are shown inside the 2 largest of 3 'gears', rather like those on the cover of the CNN manual shown at the bottom of 17/489.

It has been suggested that from early in the 1960s the system was produced at Schmerbach, by VEB Metallwaren Schmerbach, but the date of this changeover is discussed below.

An Early CONSTRUCTION Set After writing about KONSTRUKTION it was interesting to see, courtesy David Hobson, a CONSTRUCTION 01 Set, which was probably

made soon after the name was changed.

The box measures 35*23½*2cm and the base is red, with a yellow moulded plastic tray for the parts. It is very similar to the illustration of the KNN Set in the Set's Manual but the Angle Brackets are housed slightly differently. The Strips sit up at 45°, like those in the card partitioning of the KNN Set in OSN 8. The N&B, etc are in 2 round yellow plastic boxes with lids to match. The box lid is exactly like the OSN 8 KNN one, except for C's instead of K's in the name, and 01 after it instead of METALL-BAUKASTEN. Again the layout of the Set (as per the picture in the Manual) is printed on the inside of the lid.

Now the noteworthy points about the parts. • The slot of the Angle Bracket, 51, has rounded ends, not square as shown in 17/489. • The Distance Piece 30 in OSN 17 has not yet been supplanted by the tapped Collar. • The Tyres have KONSTRUKTION moulded into both walls. • Most parts are in the thicker metal of the day, the 1.1mm thick 20mm Discs caught my eye. • The Screwdriver is the normal CNN type with a hexagonal section plastic handle, instead of the wooden one in the illustrations. • The Spanner is the CNN shape but the throat of the opening is semicircular, and the hex opening at the other end is 'rotated' slightly.

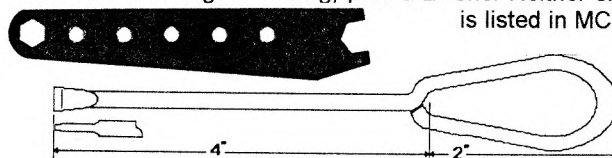
The manual is identical to the 17/489 one except that it's in German, English, French, Spanish, & Dutch; the PR is Re 50/66 V/6/17-10, so a year earlier than the other; and the maker's name isn't on the cover (or elsewhere in the Manual, or the Set). This last might be thought to indicate that the change of manufacturer to VEB Schmerbach occurred in 1966-67, but as already mentioned it may have been earlier.

Following the note in 18/497, Werner has written that it was in 1975 that production of CONSTRUCTION passed to VEB Pfaffschwende.

Another ONADO Set Don Blakeborough kindly sent notes on some parts that he has acquired, complete with the Manual described in 15/405, and an end opening, card, N&B box. Said box (left) measures 2¼*1½*¾" deep, and also has ONADO on the sides & ends. Don thinks the lot may be most of a No.3 Set, and I can pass on the list of parts that he sent to anyone interested.

The parts seem to correspond to the blue & red ones of OSN 15 except as follows:

- The red Balloon Wheels are 1.9" Ø and ⅝" thick.
- The Axles are again 4" long, plus a 2" one. Neither size is listed in MCS.



- Don's Screwdriver (above) is wire. His Spanner is just like the one (above) that belonged to the Bob Curling parts, but which wasn't available earlier. It is rather like the UMAKIT one (see 13/339), but has a hex opening at the narrow end instead of the end hole, and the outer shape is not quite the same. The open jaws admit a ⅝" nut but the ring is only a little over ¼" A/F. It measures 3¾" o/a, and looks as if it may have been nickel plated.

- Among Don's parts were 36 Nuts, ⅝" A/F, and various Bolts comprising: 15 CH & 13 RH, 9.5mm u/h; and 2 CH & 2 RH, 6.5mm u/h. All the Bolts are commercial looking, and plated but not polished, Don found that the thread of the N&B, and in the boss/Collars, isn't ⅝" BSW. One of the longer RH Bolts was found in the boss of the 1" Pulley and was partly red, as if in situ when the part was painted.

Don added that he had also found some more Chassis (Flanged Plates) in his 'unknown' box, together with a 15h 'L' Section Channel, painted blue with square corners.

enough. The MCS material is identical to the appropriate pages of this manual.

The parts actually found in the Set correspond to the Contents in the Manual (and MCS) except that as extras there were: a 3" Axle, 2 Nuts, & 3 Split Pins; and missing: 2 Bolts. The 70 Bolts found included 2x 1/2" with slotted round heads.

The Other BILT-E-ZE In OSN 17 some parts were mentioned, including Strips with chamfered corners and larger, 4.1mm holes, that were thought to be BILT-E-ZE. The main reason was that among them was an example of the unusual Flanged Plate, stamped with the name, that was described in 8/183. Since then another mixed lot has yielded identical parts plus some others which may have been their fellows. They comprise: • A Flanged Plate, in a similar red to the No.4 Plate above. • All lengths of Strip & A/G in the same shade of green. • 4 Flat Trunnions, black but without the enlarged hole. • 2 Angle Brackets, black, with normal size holes. • 4x 1 1/4" o.d. tinplate balloon Road Wheels painted red, with 'tyres' 1/4" deep & 3/8" wide. • 3.98mm Ø Axles, 1 1/2, 3, 4, 5 1/4" long. • 2 brass Pulleys, the same size but 4.16mm bore, and single-tapped bosses with slightly convex peening. • 2 black Span'drivers as before but with 6mm wide ends. Rusty steel N&B: hex pressed Nuts 7.9mm A/F, and 6.4mm Ø RH Bolts. These parts, like those in the first batch, seem to be not quite as well made as those in David's Set, with rather more burr around the ends of the Strips for example.

History Nothing is known of the manufacturer. The 'Purchase Tax' mentioned on the box lid was charged from 1940 to 1973 but there is one possibly more helpful clue - some pencilled, incomprehensible letters inside the lid end in '50% Tax', and if that is a reference to P.T., that rate was in force only from Nov. 1947 to April 1948.

The similarity between BILT-E-ZE & VOGUE lies not only in the parts themselves but in: • Their names. They are mostly rather unusual, like Crank Wheel, Grooved Pulley, Panel, etc, and in most cases they are identical to those in the early 'blue' VOGUE manual, described in 17/465. Some of the latter were changed later - Panel to Plate for instance. • The set contents. The quantities of the main parts in the No.4 are the same as those thought to have been in the first VOGUE 'standard' set. The main differences are that the 5*11h Plate is replaced by two 5*5h Perforated Plates, and 4 of the Collars by some Axle Stops. • The manual models. The 7 models in the Manual are the same, with a few changes, often minor, as the 7 in the VOGUE 'blue' manual.

So there does seem to be a connection between the two systems. BILT-E-ZE might have been a copy of VOGUE or, more likely, vice-versa, but perhaps even more likely, VOGUE followed on from BILT-E-ZE, with or without some direct connection between the firms involved. That would be consistent with the 1947-48 P.T. date, and the likely late-1940s date for VOGUE's appearance.

Whether the 'other' parts came before David's set is equally difficult to determine, but possible they did because the VOGUE hole size, Axle diameter, and the bore of the bosses are quite similar to those in the No.4, and significantly different in the 'other' parts.

However the zinc Wheels & large Axles in the No.4 may not fit into this pattern. They are identical, apart from the length of the Axle, to those used in the PRINCE WILLIAM Railway Wagons, to be described in the next Issue. So they were probably bought-in items, unless the two firms concerned were connected in some way. But even if they were, it is hard to believe that having produced sets with perfectly satisfactory Balloon Wheels & normal Axles, the BILT-E-ZE management would modify the Trunnion, and change the drawings in the Manual, to accommodate the new parts - unless they were very cheap and/or were thought to add significant interest to the Set.

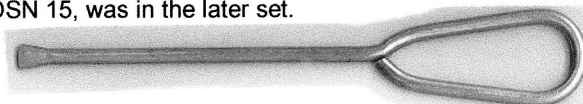
More on ONADO David Hobson kindly lent me a **No.2 Set**, unused & complete with manual. This is the first time I've seen an ONADO boxed set, and it has some features in common with the sets & parts, old & new, described in 15/404, and also with Don Blakeborough's Set in 21/615.



The base of the box is purple on the outside and measures 11*9*1". The lid is pale blue with a large, 9 3/4*7 3/8", label (above) in navy & mustard on fawn, but in pastel shades. Somewhat faded perhaps, though Frank Beadle mentioned pastel colours for the early No.1 box. The words at bottom left are 'ONADO INDUSTRIES LTD', & the models are the early skeletal type. The parts are clipped to a yellow card, using brass clips, as in the No.1. The layout of the parts is very similar though the quantities differ and one or two of the parts are not the same type. The box for the N&B is identical to that shown in OSN 21: there was a box in the No.1 but no details of it are to hand. The only thing to show that this Set is a No.2 is a circular label stuck on the edge of the lid.

Although the No.2 shares some similarities with the early set, the main impression on looking at it is that the parts are painted in the later royal blue & crimson, and that the manual is identical with the later one described in OSN 15.

The differences in the contents and notes on the parts follow. • The **contents** are as in the early No.1 except that there are 3 extra 9h, & 5 extra 5h Strips; 2 extra Brackets; a 5*7h Chassis instead of a 7*7h; & no Flexible Plate. • The **Spindle** is 3" and not 4" - it has sheared ends and looks to be nickel plated. • The **Spanner** is as shown in OSN 21 (though a 2-ended one can be seen on the lid label), but at 92mm it is slightly shorter, and it is tin plated. • The **Screwdriver** (below), nickel plated, is very similar to the one from Don's set that he sketched, and is the same length o/a, 6". It will be recalled that a flat type, illustrated in OSN 15, was in the later set.

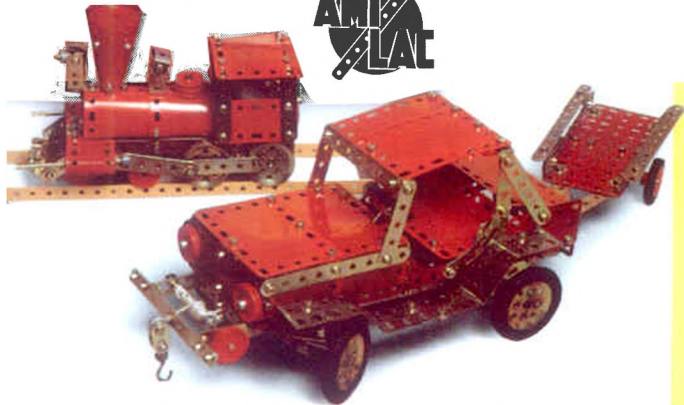


• The **N&B** are commercial 4 BA items of untreated steel. The 37 pressed hex Nuts are 7.9mm (5/16") A/F and about 2.6mm thick; the 36 Bolts have 6.3mm Ø cheese-heads and are 8mm u/h. Mixed with them is a single round-headed Bolt, otherwise as above. The Set Screws in the Collars are as in OSN 15 but have roundheads, and are of dull plated steel. From the N&B in this Set, and those in Don's, it seems that Bolts and Set Screws of more than one length, and type of head, may be found, but none of the square Nuts shown in the manual have turned up so far.

The extra parts found in **Don's No.3**, over the contents of the No.2, are: 23h Strips, promised but not yet arrived; 2x 19h, & 8x 2h Strips; 4x 1*3*1h DAS; a 5*9h Flexible Plate; 1x 2" & 2x 4" Axles (instead of the 1x 3"); a 7*7h Chassis; a Crank Handle; and 4 Collars.

both above average, a quite good Windmill, and a long but indistinct Low Loader.

The other Set is #201 at €60 and the lid is in the same style as the #200 but across it is '10 GRANDI MODELLI MOTORIZZATI' - so the Set must contain a Motor. The 5 models shown, all interesting looking & realistic, are: a Ship, perhaps a frigate, about 20" long with what might be a little Helicopter on the afterdeck; a decent size Crane with a grab, and a 4-Wheel Truck to take the spoil; a Tractor with 2" Pulleys/Tyres as the back wheels, and fitted with a 4-furrow plough on the back which can be raised & lowered; the 4-4-0 Loco below with 1" & 1½" Pulleys as wheels, a conical funnel, & a cowcatcher (I think); and, also below, what I'll call a Pickup Truck & Trailer - it has a winch on the front, the wheels are 1½" Pulleys/Tyres and, as on the Tractor, they appear to steer.



The **parts** used in the new sets appear all be from the standard range, apart from some white plastic looking Windmill Sails - they are 5½" long, taper from 1½" to 2½" wide, and have a hole in each corner. Colours too look standard with the Flexible Plates mostly red but with a few in blue.

The name & address of the **firm** are much as before: Lac di Ausonio Alemanni, I-26841 Casalpusterlengo (LO), Vicolo Draconi, 5. The phone/fax is now 0039 0377 84225/84120, and the email address is lacgioc@tin.it.

Four ONADO Sets Courtesy David Hobson I've been able to examine two No.2 outfits and two No.3's, all apparently unused. All but one No.3 have the earlier, unpainted parts, but have proper manuals, and are thus thought later than the 'No.1' described in 15/404. They will be described in their probable chronological order, based on their packaging, followed by notes on the painted No.3. Leaving aside the introduction of paint, only very minor changes can be seen in the parts, but there were several different types of N&B, and two different threads were used in each Set, but not in a consistent pattern.

First No.2 The box is of plain brown cardboard, 11¼*9¼*1", with a 'No.2' circular sticker on the side of the lid. The lid label is the same as the later No.2 shown in 22/629 except that the girl's dress, the boy's shorts, & the small lettering are red (maybe bleached out of the OSN 22 item). Brass clips are again used to attach the parts to a backing board, light yellow in this case.

The contents are as in the OSN 22 'painted' No.2 - the parts are laid out in the same way in both sets, & are as described in OSN 15 & 22 except: • Their bare steel finish, bar the tinplated Spanner & Road Wheels. • The Collar, single-tapped as before but 5/32" BSW, with a 7/16" u/h RH plain steel Set Screw. • The Spanner - it's the flat type shown in 21/615 but 100mm long and the 5 holes are parallel to the tapered edge. • The commercial 4BA N&B - the 42 hex Nuts are machined brass, 6.3mm A/F & 3.5mm thick; the 36 CH Bolts are dull treated steel, 3/8" u/h, with 6.2-6.4mm Ø heads. The Nuts fit the ring opening of the

Spanner. • The brown card box for the N&B, right, which measures 2½*2½".

The manual is an earlier version of the OSN 15 one, with 4 pages of the same size, plus covers. The front cover is the same but the Tower Bridge is grey (ordinary ½-tone), the lettering blue, and there's a note on the model, 'See instructions on Page 4'. As in the OSN 15 Leaflet the Intro talks of parts 'preserved in oil', and Sets No.2 & 3. There is no allusion anywhere to sets smaller or larger than these. The models are as before for Sets 2 & 3, and so the last one is the TRAVELLING CRANE on p4. The note on the cover about the Tower Bridge (which was later a No.4 model) includes the extra parts needed above a No.3 Outfit. The list of parts on the IBC is as in the OSN 15 Leaflet except that the Winding Handle has been added, and the lengths of the Spindles are given (as 1" & 3").

Second No.2 This is identical to the first one except: • The N&B. The Bolt is as above but with a RH; the Nut (62 were found against 35 Bolts) is a steel, commercial machined thin type (2.1mm thick) with the same finish as the Bolt. • The box for the N&B is different - the same size as the one shown in 21/615 and made of the same ivory card, but with no printing at all on it. • There was no manual with this Set.

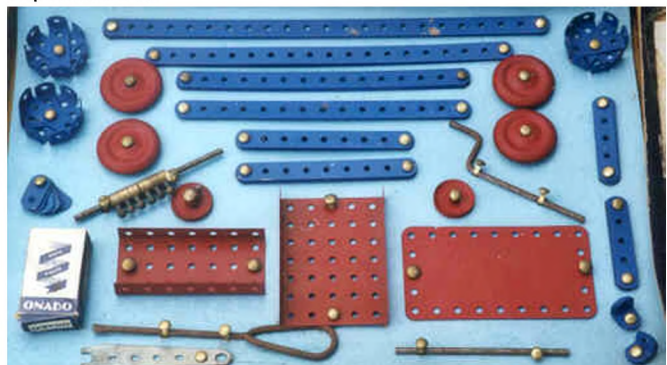
The 'Unpainted' No.3 The box (16*11*1¼") is a rich blue on the outside, and has the same label as the sets above, and 'No.3' on a similar sticker. The box for the N&B is the one in OSN 21 printed in navy blue. (No precise dates are known for ONADO but the set box was made from salvaged card, and 'DE IN HOLLAND' can be seen stencilled in black inside the lid).

The parts are clipped to a backing board as before but it is mauve in this set. The extra parts in the No.3 compared with the No.2, are: 2 each of 19 & 23h Strips, 8x 2h Strips, 4x DAS, a 5*7h Flanged Plate, 4 Collars, 2 Road Wheels, 1 each of 1" Pulleys, Fast & Loose, 1 Crank Handle, 2 Axles, 4" (instead of 1x 3"), a 5*9h Flexible Plate, and more N&B - 48 Bolts & 54 Nuts. Oddly there are only 8x 9h Strips against 9 in each No.2.

The parts are as already described except that • The Flexible Plate, and the discs of the 1" Pulleys, are tin plated. • The screwdriver is the same wire type but at 5¾" is slightly shorter. • There is 6-point peening on the Loose Pulley, and its bore is 4.1mm. • The N&B are different. The Set Screw in the Fast Pulley is 5/32" BSW, steel, 3/16" u/h, with a 5.9mm Ø CH. The Collars on the other hand are now tapped 4BA, with a 3/8" u/h, 6.2mm Ø RH Set Screw. The N&B, of plain steel, have changed to the BSW thread - the pressed hex Nut is 2.5mm thick, & 8.0mm A/F (and so fits the open end of the Spanner); the Bolt is ¼" u/h, with a 5.8mm Ø CH.

The manual with this set is identical to the one with the first No.2.

The Painted No.3 The box is the same as the unpainted set except that it is purple on the outside. The arrangement of the parts is identical (as in the photo below) but the backing card is light blue. The N&B box is the same navy patterned type. The only difference in the parts is that the Spanner is the OSN 21 type with holes parallel to the base edge, but even shorter at 87mm o/a. The manual is as in the unpainted set.



Steam Roller, a Big Wheel, a Galleon, a Jeep, & a Paddle Steamer. No Cranes are shown despite the large one on the lid label, and there are no 'mechanical' models, such as machine tools. None of the models are at all complicated mechanically and in some the details are not shown. Most of these though can be seen in extra views in the 'photo' manual described below. The No.7 Jeep, the only vehicle with 'proper' steering, & 2 of the No.8 models are shown in Fig.3, about ¾ full-size. The special model Machine Shop consists of some No.6 models - a steam engine and 6 machine tools - mounted on a baseboard, with the drive through overhead line shafting. It's impressive looking but again simple mechanically without for instance fast & loose pulleys on the shafting to allow the drive to each machine to be disconnected.

Another Manual Art paper pages from a manual, possibly later, have halftone photos of the No.8 models, & the No.230 special model. The pages are numbered 41-60 (with the first 5 also having VIII./1 to VIII./5 on them), and instead of being loose the sheets are double width and printed so they can be folded & bound in normal book fashion. The binding has been neatly done with sellotape, & black tape on the outside around the spine, but may not be

original. The models are as before but with many additional views, and alternative versions of the Tower, No.223, and the Railway Coach. No.228. The MCS/FB pages 5 & 5a are taken from these pages.

It is clear from some of the additional views that the propellers of the multi-engined aircraft models are geared together, and in at least one, the model on the manual cover, they are driven from an Electric Motor. This can be seen in Fig.1, and the Motor appears to have 6h wide flanged sideplates. A large gearwheel can be seen between them but I'm not sure what the seemingly similarly toothed strip coming out of the terminal plate is. An electric motor drive is also shown in an auxiliary view of the Big Wheel, instead of the Crank Handle, but what little can be seen of it looks different to the one in the Aircraft. There is no indication if either Motor was a VAŠEK item.

An Earlier Manual? The original p5 in MCS/NZ has a page from a manual with a completely different format to the loose pages. As shown the page size is smaller, and the pages may be bound. The Crane and Windmill on the page are identical to 'later' No.6 models, but unlike those they have names but no model numbers.

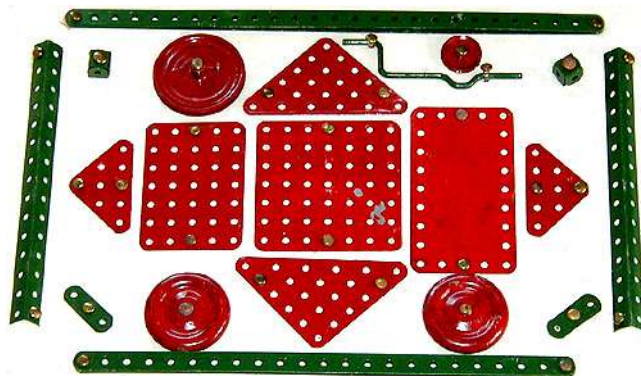
VAŠEK: S6

OSN 29/865

Is It A Real ONADO No.4 Outfit? The set in question came from the U.S.A. and David Hobson kindly let me examine it. No one as far as I know has hitherto seen a No.4, so why the doubt? First it has no label, and there is no sign that it ever had one. Second, the parts are red & green instead of the expected red & blue (see 15/405). Third, the manual is the one described in 25/728 with only models through No.3 in it, and mention of 'oiled' rather than painted parts. (The enlarged version with No.4 models was described in OSN 15.)

So what indicates that it is a No.4? Mainly that nearly all the parts listed in the later manuals, many of them rather unusual, are included, and only about half of them are in the No.3. Also the parts on one of the backing cards in the Set are, with minor exceptions, all of those in a No.3.

The SET The box is 29½*42*5cm, red outside, and white inside. The parts are attached to 2 white cards with the usual brass clips. One layer is identical to the No.3 shown in 25/728 except that the Tools are missing, the Strip parts are green, all the parts are painted, and there are 2 N&B boxes instead of one. The other layer is shown below and under it are listed the parts on it, and the N&B, with the quantities in curly brackets. Features not mentioned are as before.



- 3, 23, & 27h **Strips**. {4,2,2}
- 15h **A/G**, about 13*13mm in section, with square corners, and all holes round. {2}

- 5*7 & 7*7h **Plates**. The corners are well rounded, unlike those of the Flanged Plates. {1,1}
- Large & Small **Triangular Plates**. The rows of holes at ½" pitch are parallel to the hypotenuse in the Small type. The Plates in 15/405 appear not to be ONADO because of the different hole pattern in the larger version. {2,2}
- 5*7h **Flexible Plate**. {1}
- **Double Bracket**, about 14mm wide o/a. {4, a pair can be seen in each top corner.}
- **Pulleys**: 58mm Ø (right) & 25½mm Ø Loose. The discs of the 58mm have shallow circumferential corrugations, & the vee has parallel sides, 6mm wide. The o.d. of the boss is 9.8mm. {1,1}
- 'Balloon' **Road Wheels**, 51mm Ø. {2}
- **Single Throw Hand Crank**, 112mm long o/a. This part doesn't look much like the one in the OSN 15 Steam Hammer model. The Parts List also has a Bent Crankshaft which hasn't been seen - it cost 8d against 6d for the Single Throw Hand Crank. The Winding Handle cost 6d too. {1}
- **N&B** ⅝" BSW, with hex Nuts 7.9mm A/F, 2.3mm thick, and RH Bolts, 6.7mm Ø, 10mm u/h. {66 Nuts, 71 Bolts} Set Screws are all the long RH 4 BA, as in the No.3 in OSN 25.
- **Finish** Apart from the plain steel N&B all the parts are painted, including Axles, bosses & Set Screws. Plates, Wheels, & Set Screws are red; all the rest green. The red is a little darker than the shades in the photos here. Both red & green are glossier than the blue/red parts. The paint finish is poor with many runs & thick patches, especially on the 'new' red parts.



CONCLUSIONS The most likely explanation is David's, that this set was just a mock-up or sample of a proposed new set. In that case the No.4 manual might well not have been available, and perhaps a different lid label was being considered. On the colours, it could be that the set was produced before a definitive scheme was decided to follow the unpainted sets, and red/blue was finally adopted. A pointer to a red/blue No.4 is the blue A/G reported in 21/615.

ONADO: S1

OSN 29/865

A 1915 UK ERECTOR No.0 Outfit This set, near complete except that all the N&B are missing, was kindly loaned by David Hobson. The New Haven packing slip in it is dated OCT 15 1915. The Set is interesting for two reasons – the contents, not shown in *Greenberg* for any No.0 of this period, are on a label inside the lid, and the man on the lid label is not the one used on American sets.

Opposite **the label**, 7¼*6"; an enlarged view of the man; & the inventory. The equivalent man on the American label can be seen on p51 of *Greenberg* and is younger, not smoking, and wears a dark grey suit. Both are quite stern looking though the 'Englishman' does perhaps appear a little more benign. Otherwise the labels are identical except that the present one has 'LONDON, ENG.' under 'MYSTO MFG. CO.'; 'U.S.A.' has been added to the American 'NEW HAVEN, CONN.' address; and an additional line at the bottom reads: 'Patented in U.S.A., July 8, 1913, by Mysto Mfg. Co., British Patents Pending'.

The 'US man' was changed in 1920 to have up-to-date clothes and a half smile (*Greenberg* p62), and I think I remember reading somewhere that the two 'US Men' resemble to some extent the then current US presidents. Does anyone recognise the 'Englishman'?

The Box is black, 10¾*6¾*8", and the parts were clipped to a black card with the usual bifurcated 'T' clips (#P41). The Perforated Strips are the P35 'braced' pattern shown in 3/47 and not the P21 5h type in the Contents List, but otherwise the parts are as expected with small cutouts in the 3" Girders and all the parts either nickel or bright steel. An empty brown envelope, 3½*2¼", with Mysto ERECTOR on the front, would have contained the N&B.

The Model Sheet with the Set, 12*9", is printed in brown on both sides, and bears only the New Haven address. The top half of the front starts with 'Hello Boys and Girls: Here's FUN' and 'You Can Build 69 Toys / All for 50 cts'. Underneath are 8



CONTENTS OF ERECTOR NO. 0

Cata. No.	No. of Pieces	Parts
P32-3	4	3 in. Girders
P32-6	4	6 in. Girders
P21	12	Perforated Strips
P 1	6	Small Right Angles
P 2	8	Right Angles
P25-S	14	Short Screws
P26	14	Nuts
P27	4	Set Screws
P 8	4	Small Wheels
P22-4	2	4 in. Axle Rods
P19	1	Base Plate
P29	4	Washers
P33	1	Screw Driver
P41	22	Paper Fasteners
	1	Set of Directions



simple models, from #62 Stretcher to #66 Truck. The lower half has talk of larger sets with illustrations of the P58 Motor and 6

models including a 3-funneled Warship & a nice Street Car. Overleaf, in land-landscape, are the remaining even simpler models, unnamed & unnumbered, and none of them use any parts other than 'braced' Perforated Strips P35, matching A/Bs P1, & 7/8" Discs P29. They include the Alphabet & the Numbers 0-9, while the rest are mostly furniture & other domestic items. Only one has wheels – 4 Discs on a little Trolley.

OSN 32/947

ERECTOR [2a]: S1

Another ONADO Puzzle A somewhat puzzling No.4 set with red & green parts was described in 29/865, and now David Hobson has kindly lent me another acquisition which, at a glance, also looks like a No.4, and this time with the expected semi-matt blue & red parts. Said parts appear to be as new, still attached with the usual clips to the backing cards. There was no manual with the Set.

Like the previous No.4 it has 2 layers of parts, one, with very minor differences, has the No.3 parts on it (see 25/728), and the other is just like the layer illustrated in OSN 29 (apart from the colours that is). But the box is the same size as the No.3's in 25/728, and the lid (right) has a white disc stuck on the apron with 'No.3' printed on it in red. Also although the parts match perfectly in colour between the 2 layers, the 'No.3' layer has a yellow backing card (which matches the paper covering on the sides of the bottom of the box), while the 'No.4' parts are on a light blue card.

So it seems fairly certain that the card of the extra blue & red parts needed for a No.4 did exist, but what is not clear is how it came to be in a No.3 box (there is just room for it above the No.3 layer). One can speculate. Did the owner of the No.3 then buy a No.3A and discard its box? - but there is no evidence to even suggest that 'A' sets ever existed. Or did the No.4 layer come from a No.4 set and got put into the wrong box by a careless shop assistant? Or

Another point, 2 N&B boxes were found in the Set and one contained 50 Nuts & 48 Bolts, about the expected number for a No.3. The other had & 11 Nuts & 26 Bolts – too few Nuts to make the number up to a No.4. Also there is no obvious place for a box on the No.4 card.

There is one further mystery, the lid of the box is quite unlike the other known pattern, so did it come after that type

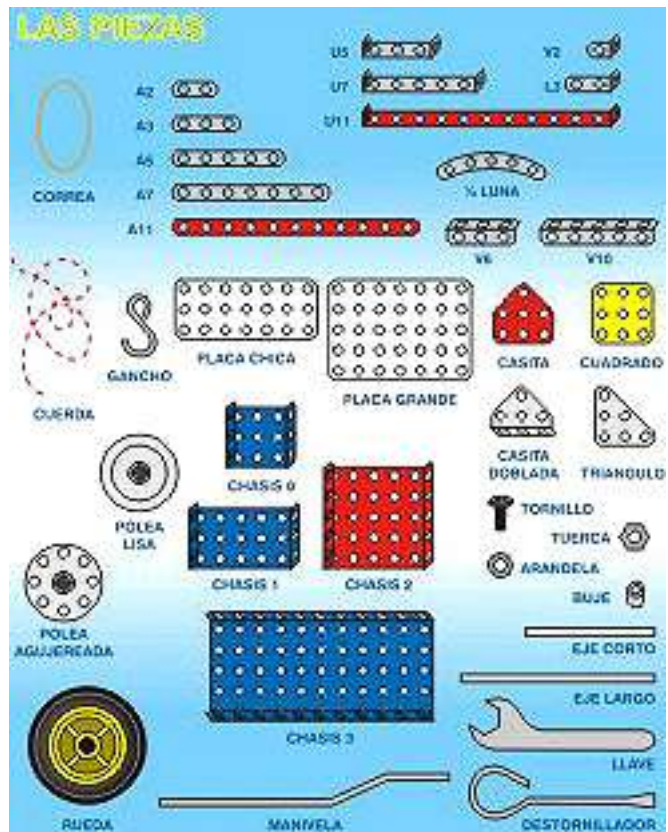


or was it a short-lived (perhaps) introduction at an earlier stage?

Now points of interest from **the parts**. • The No.3 card has 2 **Crank Handles**, one through each of the 2 clips that held the single part in other No.3's. The only manual model which needs 2 is the No.4 Army Truck. • **The N&B** are 4BA, plain steel, with pressed hex Nuts, 6.3mm A/F & 2mm thick, and 6.3mm Ø RH Bolts, 6½mm u/h. • **Boss tappings**. The 58mm Pulley, the only bossed part on the blue card, is 4BA, with a steel, 6.1mm Ø RH Set Screw, 3/8" u/h, & painted red. On the No.3 card the Collars are tapped 5/32" BSW, with plain steel 6.8mm Ø RH Set Screws, again 3/8" u/h. The Set Screw from the 1" Pulley on this card is missing and the tapping hasn't been identified, the pitch looks similar to 4BA but the 3.0mm bore is too large. • The **Spanner** is 87mm long with the holes parallel to the base edge; the wire **Screwdriver** is 6" o/a and is like the one in 21/615.

OSN 32/947

ONADO: S2



Snippet. New System: EL MECANICO ARGENTINO

A range of new sets was noticed on the Argentine Ebay last April. The pictures here are from the model leaflet of an outfit with 301 parts, and the models are representative of the decent range of 2 dozen models shown for the Set (with only 3 'Buggies'). What I take to be the box lid is very blurry but is in the same style as the



front of the Leaflet (top left). Parts were said to be epoxy coated. There was no indication of the hole pitch.

Other sets have 99 parts; 151 parts (called El Chico - The Boy) for 24 models; 222 parts (called El Modelo Mediano - The Mid-size Set), 39 models; and, the largest, 333 parts. The 4 models shown for the 333 part outfit are again too blurry to reproduce but include a Fork Lift Truck, and a Lorry-mounted Crane - both slightly larger than the 301 set models.

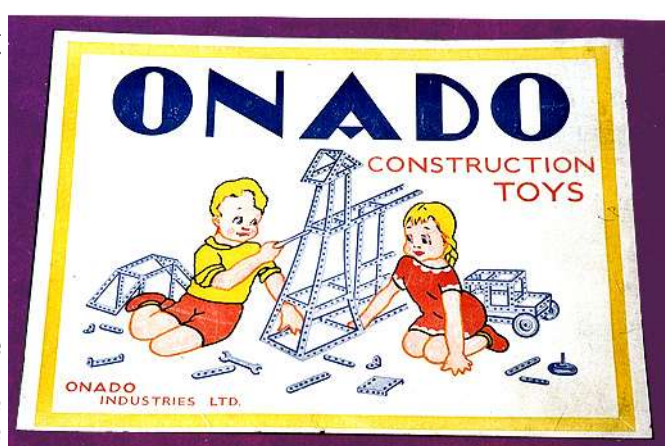
OSN 37/1131

EL MECANICO ARGENTINO: S1

Snippet - An Undoubted ONADO No.4 Outfit

For different reasons there were doubts about a red/green No.4 described in 20/865, and a royal blue/crimson No.3 with an added layer of the extra parts that would be in a No.4, see 32/947. Now two, identical, unused No.4's seen on Ebay (from the same seller) look entirely as would be expected, at least as far as the parts and packaging are concerned - the only possible query concerns their manuals.

Each box is purple, 16*11", with the label above. The 2 layers of parts are mounted on yellow backing cards, and have the normal dull crimson & royal blue colour scheme. One layer is like the No.3 card in 25/728 except that the Tools have been rearranged slightly to allow room for 2 N&B boxes in the bottom left corner. The other layer is exactly like the one in 29/865 apart from the colour of the parts.



The manual with each Set has the blue cover of the one described in 25/728 and so presumably has no No.4 models in it. The red/green No.4 also had this manual and in that case the No.4 version (described in 15/405) might not yet have been produced. One starts to wonder though if there was ever a variant of the 'blue' manual which included No.4 models. If the manuals with these Sets were the originals (likely given that there are the two outfits), and if they did not contain No.4

models, was there perhaps a supplementary model leaflet for the No.4 models?

Finally a correction to the notes on the manuals in OSN 25. It was said that the Tower Bridge model (the one on the cover of both the 'red' and the 'blue' manuals) 'was later a No.4 model': in fact it stayed a No.3 even though it needed a few parts not in the No.3 outfit.

OSN 37/1131

ONADO: S3