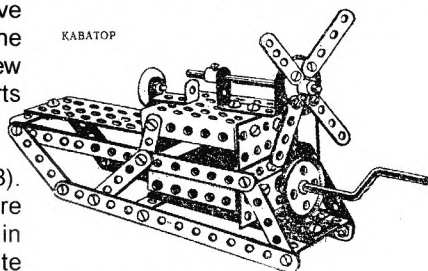


**KONSTRUKTOR** [3] This is the Russian system in MCS with 10mm hole spacing, and about 50 parts including some unusual ones. For example, 2,8,10,14 & 18h Strips; an 18h A/G; the Trunnion below (#036); Flanged Plates, 3\*3 & 5\*5h, flanged on all sides, & 9\*6h flanged on its long sides; and Perforated Plates, 2\*8h, 2\*18h, 3\*5h, & 3\*9h. None of the parts have any slotted holes, and the A/Gs & Plates have square corners. The MCS manual cover has Nov. 1984 (in Russian) on it, probably made with a rubber stamp. Now more information is to hand thanks to Jeannot Buteux & Don Redmond.

Don sent a copy of a Manual and some details of a No.1 Set. The Manual has a PR including the date 03.09.80, and the print run, of 150000. Under it is an address in Belaya Tserkov', a town 80km south of Kiev. The appropriate pages are very similar to those in MCS, but the cover has no date stamp, instead, rubber stamped in red, after the 'kon' are words meaning 'technical game'. The wording in the bottom right corner of the cover starts 'Game recommended for children in lower & middle school classes for development of technical skills'.

**SUMMARY OF MANUAL** •Name: KONSTRUKTOR. •Details of maker: none. •Dates &/or Ref Nos: 03.09.80 in PR on p28, with 3ak. 2489 at end. •Page size: 20\*14cm deep. •No. of pages: 28 + covers. •Language: Russian. •Printing: B&W line drawings on newsprint paper. •Page No. of Parts List/Set Contents & highest PN: 2,048 (Ill. Parts on p3). •Sets covered: 1 & 2. •No. of models for each set: 8,22. •Name, Page No. of first & last model of each set (no Model Nos.): 1: SANKI,6; ÉKSKAVATOR,26. 2: STUL,5; AÉROSANI. •Other notes: • Russian names transliterated. • Index on p4; models for Sets 1/2 not in order. • Below the PR is an address: Belaya Tserkov', ul. Krasnoarmeiskaya, 22a. • All cover blank except front outside.

The two Sets covered by the Manual are quite similar in content - both have '80±2' N&B, but the No.1 has a few more of some parts than the No.2, 30 extra in all, giving 185 (plus the N&B). The models are fairly simple but in the main have quite good lines. A medium sized one is shown above.



The No.1 Set box measures 285\*205\*32mm, and has a black plastic tray bottom with a translucent green top. Moulded into the latter are the Set No., and details of date, price, school levels, etc. Don gave the start date for the system as 1975.

The parts are in natural aluminium, except for the steel Screwdriver and the N&B. • DATA (in mm) Strips: •Hole pitch/dia, 10.0/4.4 •width, 9.8±. Thread: M4. Boss: •d/t M3. Axle Dia: 3.9. DP (Mod): NA. Nut & Bolt: steel with hex Nut.

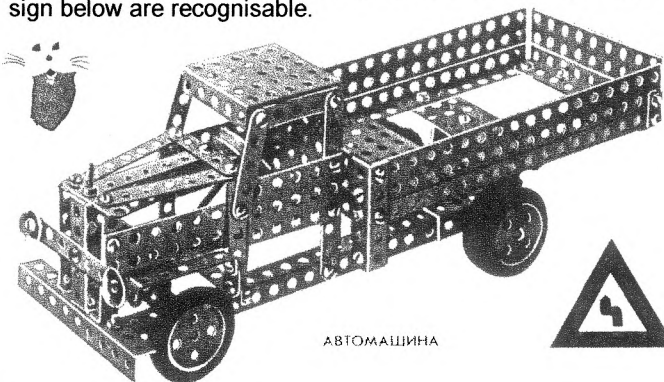
Jeannot sent some details of a later set, made in Minsk, and known from 1985 & 1987. Nearly all the parts in the Illustrated Parts List are as before, although they have been redrawn (badly in some cases), and renumbered. The only part not in the new set is the M3 Set Screw, and probably the Pulley (below, #41) is tapped M4. Also it is now has 5 holes in its face instead of 4. Another possible change is to the Hook and the old (#035) & new (#30) types are shown below. The Trunnion as drawn looks to have the holes spaced differently (#27 below), but Jeannot wrote that the bottom hole in the actual part is only 2mm away from the bend (and that this is not the only badly designed part). The 35mm long Screwed Rod is now listed as 30mm.

The new set is very similar to the previous No.1 but with some 10 extra N&B, a second Spanner, but one less 2\*3\*2h DAS. There is nothing to indicate any companion sets.



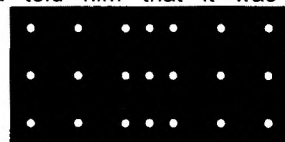
The parts are quite well made, and all are natural aluminium except for the polished steel N&B, Axles, Screwed Rods, and bosses. The holes in most parts are 4.6mm Ø but those in the bosses and some Brackets are 4.1mm.

The first manual's plain cover is replaced by the A4 size one right, with photos of 5 models on it, 3 of which are in the previous manual. The 2 new ones are a Helicopter & a Wheel Chair. Jeannot sent a copy of one of the manual models, the Lorry below, which is almost identical to one in Don's manual (and as shown in MCS), but it's a halftone instead of a line drawing. With it in the original are various small items which haven't copied well, but the cat and the road sign below are recognisable.



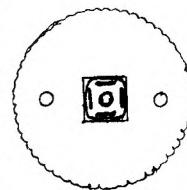
**MYSTERY PART No.39** The 6h Braced Girder from Spain, with the small solid diamond in the centre (19/533). Don Redmond asks if this could be an early (1928-35) METALLING part. Perhaps the Liverpool asymmetrical design was not to their taste.

**MYSTERY PART No.42** The 3\*6" Plate in 20/567. Don wrote that Lou Boselli had told him that it was an ERECTOR part introduced post-1917, but there is no illustration or mention of it in *Greenberg*. [The normal P19 Plate is the same size overall, and a 25% photocopy of it is shown above.]



**MYSTERY PARTS No.43 & 44** These are lots of parts which are described in the Australian article in this Issue.

**MYSTERY PART No.45** Another from Don. A 56t Gear (right) of 38 DP, so about 1½" Ø, with a thin (.034") steel disc that may once have been brass plated. The boss is of zinc or some other grey metal, 1½" Ø with a near square shoulder which fits into a ¾" square centre hole in the disc, and is swaged in by four 5/32" long dents. The bore is .166", and the boss is single-tapped 5/32" BSW.



**MYSTERY PARTS No.46** Some parts found by Dave Taylor which at a glance look like MECCANO but on inspection clearly aren't. All are painted a medium green, and have 4.3mm holes at 12.7mm pitch. They comprise: Strips with 3,4,5,6,7,9,11,19 holes; DAS: M46,47a,48,48a,48b,48d; Brackets: M10,11,12,12a,44,45,102,125; an 11h A/G & a 5h Flat Girder; Propeller Blades like the original



of Rods pushed into Clips.]

7. From Philip Woodcock. "• On **METALCRAFT** (24/689), provided there is very little actual rusting of the steel underneath, the tarnish causing the 'dull patchy grey finish' can be easily removed with metal polish, especially using wadding-based polishes such as Duroglit or Silvo. With sufficient elbow-grease the results are really splendid and give an almost chrome-like appearance.

• On **CONSTRUMENTS** (see 5/79), a Set 200 recently acquired is described on the box lid (via a stuck-on overlabel) as 'Cinematograph and Optical set'. Its manual, which runs to 112 pages and 111 models, refers to British patents 289574 of 2/2/1927, 305780 of 3/1/1928, & 345013 of 23/1/1930.

• On the end date of **MANUFAX** (see OSN 7/155), my manual has the printer's reference 'D.G.H. 8/46' and the Manufax address is still Cressy Road, NW3. So even if the sets were old stock, the manuals were being printed post-war.

• My 3 sets of **LES JOUETS "AUTO-CYCLE"**, with one manual, build up into a realistic 1920s Sports Car; some very attractive Bicycles of all shapes & sizes; and lastly a very peculiar Aeroplane. They date I assume, from the 1920s, and are made from aluminium with brass N&B." [This system is in MCS as AUTOCYCLE and though a selection of parts are shown, there's nothing on the sets. Nor are dates given but David Hobson tells me that it was patented in France in 1919 – the UK patent is 156061 of 1920. Philip would like to exchange information with anyone who has knowledge of this system.]

8. From Don Redmond. • On the **ERECTOR Trunnions** (24/714), the S E type shown in 23/666 will be called Fig.5. The problem with this part was that a 34mm Ø P8 Small Wheel (Pulley, S E PN X7A), journalled in the top hole (½" above the row of 3 holes) would foul Bolt heads in the bottom centre & side holes. It seems from the '1920' Set in Greenberg (p62) that it was the first ERECTOR pattern (dated by Sternagle as 1923 – the '1920' Set has a 1922 patent date on its lid). Note it was the Fig.5 part without slots in this Set, not the Fig.3 part stated in OSN 24. [Correct, a mistake.] It is thought that by 1924 the design was changed to that of Fig.1, for the reason given above. Probably this design was short-lived because the No.4 on p74 of *Greenberg*, labelled 1924, has the Fig.2 design (with the slotted side holes), and these are commonly found. Then in 1935 the Fig.4 pattern, painted red, was introduced, with the lower position apex hole reinstated. As far as is known the Fig.3

type has never been found.

• On the **ERECTOR 24t Gear**, my 1920 No.6 Set includes a 2-hole one without boss (see 24/714), and one can just be seen in the top right corner of furthest right compartment of the right-hand tray of the 1915 No.8 on p56 of *Greenberg*.

• One or two more details on **KONSTRUKTOR [3]**, see 22/648. The M4 Bolts are roundheaded and 8mm u/h; the M3 Set Screws provided for the 29mm Pulleys & Collars are also 8mm u/h, far out of scale even for the sturdy 12mm bosses. The hex Nuts are 6mm A/F, but the Spanner has 7.5mm wide jaws.

9. Jeannot Buteux sent a copy of a magazine page, courtesy



M. Bertin, about the East German Tractor Set **UNSERE TAKTSTRASSE**, mentioned in 17/477. The box lid and one of the two models that could be made are shown above. The photo is from eBay and 40cm was mentioned, so quite large models if that is their length. The Set was produced by VEB Traktorenwerk Schönebeck, an agricultural machinery manufacturer, and was introduced in 1958. 'Kasten 1' can be seen on the lid, so there may have been more than one Set. On the manual cover, inset, the 2 models are called Geräteträger RS 09, & Hopfenschlepper RS 56. Both are red with yellow wheels, and black seat & tyres. They are fitted with a motor (I think) and have Ackermann steering.

**EXTRA MCS SHEETS** Each Sheet costs 15p + postage if the whole batch as listed in each Issue of OSN is ordered at the same time. That makes £5.25 for the 35 below, plus postage. For all other purchases each Sheet costs 20p + postage if copied double-sided like the originals, but 7½p per side + postage if copied single-sided. All back Sheets can be supplied.

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INGENIERO [2]: X1.1,2/5,4/5a [2 Sheets]  
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KONSTRUKTOR SHKOL'NYÍ : X1,2/5,3/4/6,5a [2 Sheets]  
LECTROKIT: X1.1,2,5,5a [2 Sheets]  
MA TOUR CONSTRUIT: X1.1,2/6,5,5a [2 Sheets]  
METALCRAFT [2]: X2.2,5 [1 Sheet]  
METALLO [2]: X1.1,2,4,4a,4b,5,6,7 [4 Sheets]  
MLADOST: X1.4a/6a,5a,5b,7 [2 Sheets]  
MONT' VITE: X1.1,2,5,6 [2 Sheets]  
PIN-IT: X1.1,2,5,7 [2 Sheets]  
RECORD: X1.1,2,4,5,5a,5b,6,6a [4 Sheets]  
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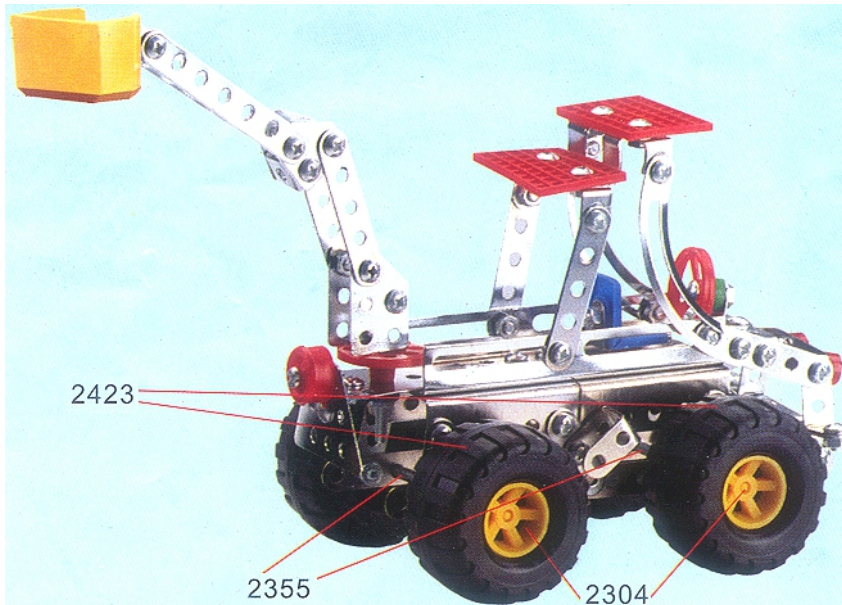
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shown except that the Wheel Hub & Steering Wheel are yellow, and the Axle Stops, 2402, are blue & red.

**The MODEL LEAFLET** It is a single sheet folded to give 4 sides 130\*186mm deep. The front is purple at the top, shading to dark blue at the bottom, and has a photo of the model, similar to the view left. Above it is 'RIG OUT ONESELF ! WIT MODEL REPAIR TRUCK ! 58387', and below, 'MADE IN CHINA'. The name METALLICA isn't anywhere on the Sheet. The back has the parts as shown earlier. On the inside pages are 4 subassembly steps used in constructing the model (left). With some difficulty it can be made more or less as shown but it wasn't clear if the Bucket arm was meant to be articulated. Not enough Nuts were provided to allow lock-nutting and joints made by screwing Bolts into 'spare' Axle Stops weren't really stiff enough to support the arm. Long Bolts passing through 2 Axles Stops between the sides would have solved the problem.

## METALLICA: S2

OSN 31/934

**Snippet: New System - KONSTRUKTOR** This is about 2 sets which were offered on American Ebay in November 2003. They were said to be European, and nearly all the items in the seller's extensive range of different objects were from Russia.

Below a picture of the manual cover from the 'Mechanical' set, and below it the model on the box lid. Said lid is in landscape format but otherwise is similar to the cover, apart from the Excavator replacing the Lorry. The word before KONSTRUKTOR means child's or perhaps junior, and in the white star is 'more than 53 models'. There is nothing to indicate whether the parts for the two 'plastic' models on the lid & cover are in the Set, but I expect not.

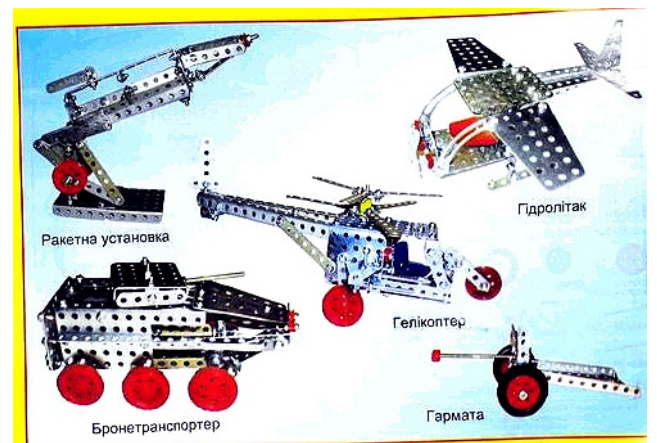


To the right are pictures of the 'Military' set: the lid label, the open box, & some models, perhaps a manual page. The same 'junior' word is under KONSTRUKTOR.

And that is the only obvious evidence that the two sets are from the same manufacturer, except perhaps that both boxes look to be made of blue plastic. But there is one other similarity. The letter 'I' appears in both the word for Military and for Mechanical, and it is not a usual letter in the Russian alphabet. My language notes say it was used in old Russian and in Ukrainian, so, discounting the first possibility, perhaps the sets come from the Ukraine.

The parts in the sets have the air of having a hole pitch of 10mm, and some, like the Curved Slotted Strip, and the orange Axle Stop in the top right corner of the left compartment, look like CONSTRUCTION. Others though do not, the 5\*5h Flanged Plate for instance, and the red plastic push-on Road Wheels.

Also the pale green (!) Tyres. They are used on the Field Gun, perhaps fitted over two of the Road Wheels, back-to-back.



**Note** - The set on the left is KONSTRUKTOR[3] and the one on the right is TECHNOK

KONSTRUKTOR [3]: S1

TECHNOK: S1

OSN 31/934



**KONSTRUKTOR [3] Continued** This particular KONSTRUKTOR was a Russian system known from the 1980s which had 10mm pitch aluminium parts, and some notes on it were given in 22/648. The last known date at the time was 1987. No parts have ever come to hand from this period but from the Illustrated Parts in MCS they look like the East German SONNEBERGER (see 18/502), and the various sets to be discussed here have similar parts. Those in the one set to hand are indeed very similar to SONNEBERGER.

These notes are based on a number of Ebay photos and one outfit, called CONSTRUCTOR, somewhat incomplete but with its manual. This set, probably from 1992, will be described first as a reference, followed by notes on what seem to have been various KONSTRUKTOR sets between the OSN 22 outfits and CONSTRUCTOR.

### The CONSTRUCTOR Set

Even though this outfit was probably made in a different place to the OSN 22 sets, there are strong links between them, notably the parts, the set contents, and many of the manual models.

The box is end-opening and measures 31¼\*19¾\*3cm.



Fig.1

The top is shown above and the two models on it are from the manual. All the box's wording apart from 'CONSTRUCTOR TECHNICAL GAME' is in Russian. The logo on the top, and one on the box's edge are shown right. The bottom of the box is similar in style but in portrait format, with the models & toys rearranged, and without the logo. The contents of the Set given in the Illustrated Parts in the manual (Fig.4 on the facing page at ¾ f-s) are identical to those in the second KONSTRUKTOR set in OSN 22.

The parts are in an 8 compartment moulded, translucent plastic tray which sits in a white card tray and many are held together by the blackened steel Clip shown at 'A' in Fig.4. The Parts are as in Fig.4 except that • the ends of Strips & Brackets are semi-radiused; • the amount of metal outside the edge holes is as would be expected; • the single-hole lugs of the DAS are normal height, and the longest DAS that looks to be 1\*4\*1h is actually 1\*5\*1h; • The A/G's and Flanged Plates' flanges have large diameter holes; • The holes in the Trunnion have normal spacing, as in '036' in OSN 22.

Other points of interest about the parts follow (the 6\*9h Flanged Plate, Small Pulley, Axles, Crank Handle, 30mm Screwed Rod, Collar, & Screwdriver have not been seen.)

• **Material.** Threaded parts and the Spanner are steel, the other parts aluminium with a shiny finish.

• **Holes** are 4.3 or 5.3mm, at 10.0mm pitch.

• **Strips** are 9.8mm wide. • **A/Gs** are 11¼\*11½mm o/a with a comparatively large radius bend.

• The **Pulley** is 30mm Ø & 3.4mm wide. The **boss** is 10mm Ø and 4.1mm bore, double-tapped M3. The **Tyre** fitted to it is black rubber, 45mm o.d. and 8mm wide, with only a vestige of tread around the centre of the outside.

- The **Disc** is 50mm Ø and the **Pulley Disc** 18mm Ø.
- The **Screwed Rods** are 62 & 75mm long with 26 & 33mm respectively of thread at each end. The smooth centre is 3.5mm Ø.
- The **Hook** is 23.9mm long and 13.3mm wide.
- The **N&B** are M4 and are chemically blackened. The **Nut** is hexagonal, 6.9mm A/F; the **Bolt** has a 6.8mm Ø cheesehead, 8mm u/h.
- The **Spanner** is 75mm long o/a and 2mm thick.
- The **Cord** is made from 2 strands twisted together and is rather shiny.
- As mentioned earlier the parts are generally very similar to SONNEBERGER (but they do not include the latter's Gears & Flanged Disc). They are well made, at least as good quality as the German system. The most noticeable differences between the two are that SONNEBERGER Strips & Brackets have fully radiused ends, and the bosses are single-tapped. Less obvious, the holes are slightly smaller, barely 4.2 & 5.3mm, the A/G's

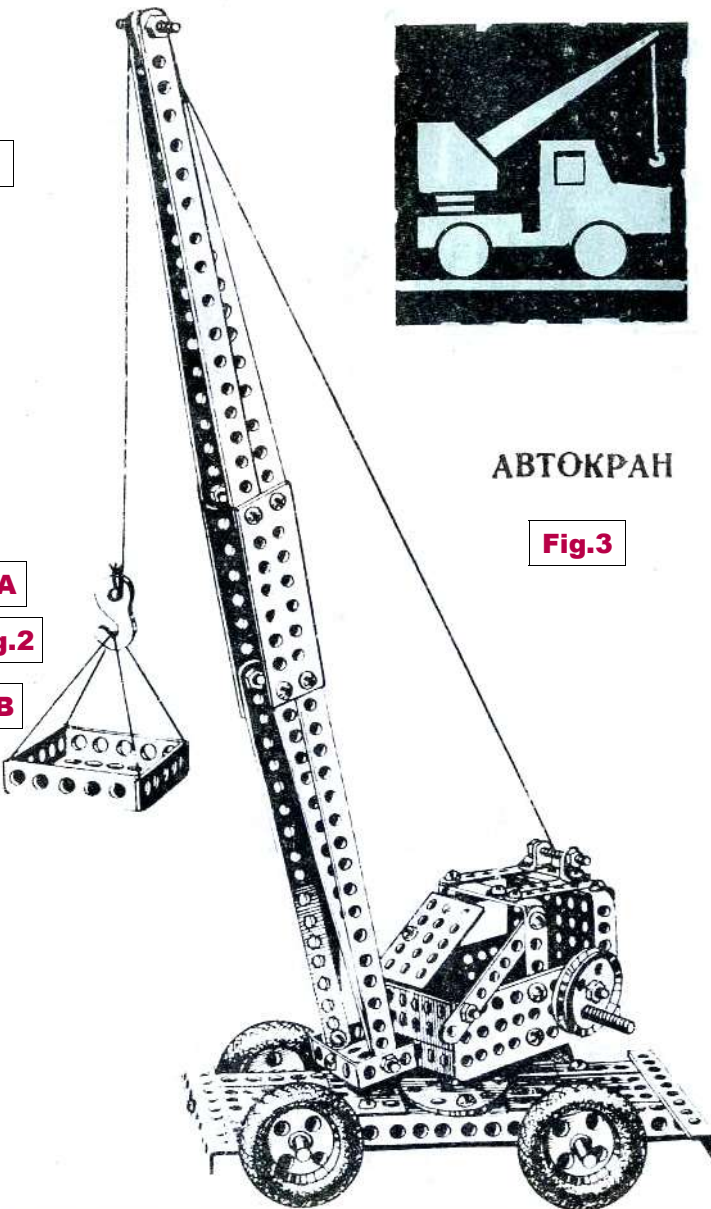
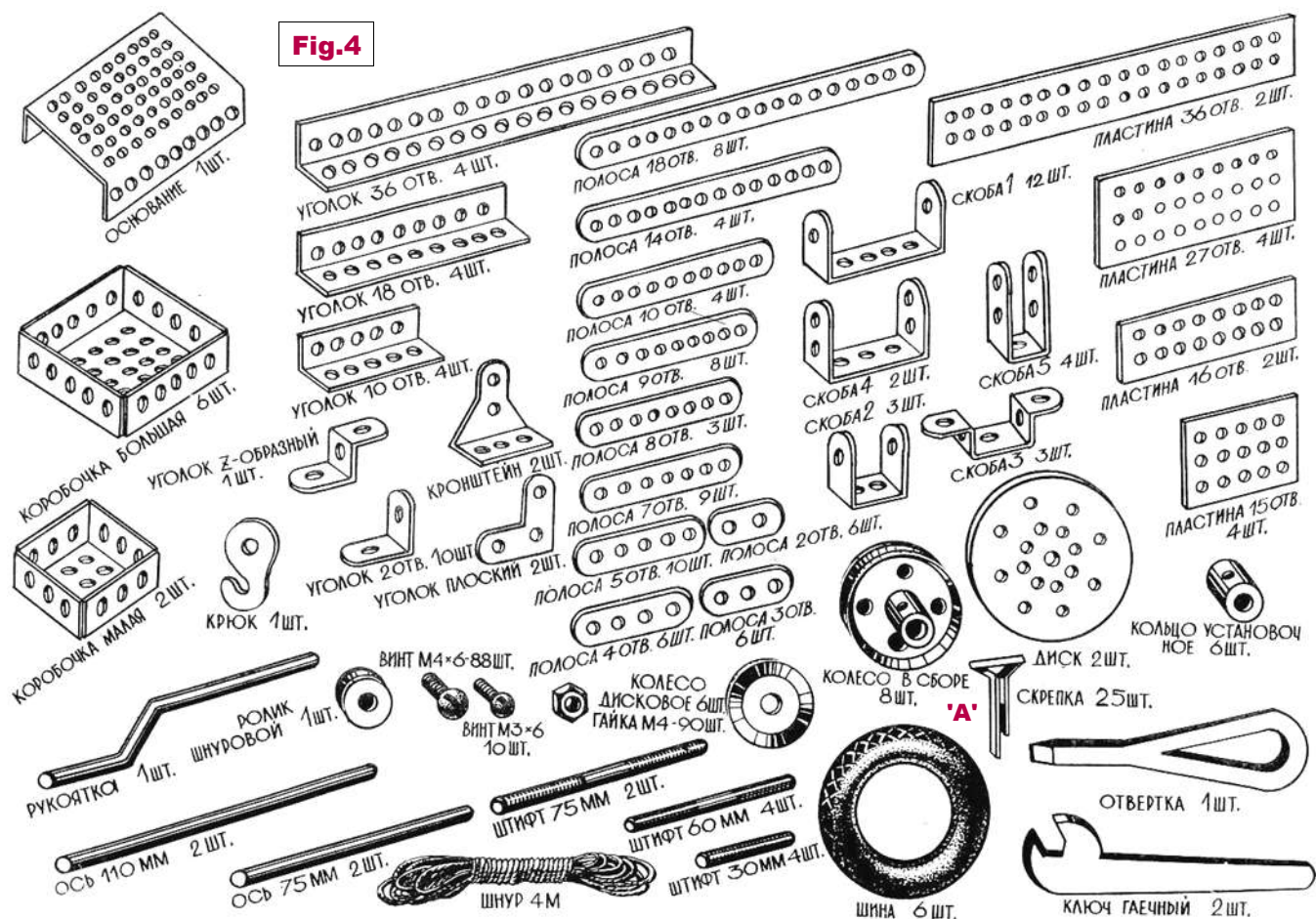


Fig.3

Детали к модели:			
Полоса—18 отверстий	8 шт.	Кольцо установочное	5 шт.
Полоса—7 отверстий	2 шт.	Колесо в сборе	5 шт.
Полоса—5 отверстий	7 шт.	Диск	2 шт.
Пластина—27 отверстий	2 шт.	Крюк	1 шт.
Пластина—16 отверстий	2 шт.	Коробочка большая	5 шт.
Пластина—15 отверстий	4 шт.	Коробочка малая	1 шт.
Уголок—36 отверстий	2 шт.	Ось 110 мм	2 шт.
Уголок — 18 отверстий	2 шт.	Штифт 75 мм	1 шт.
Уголок—2 отверстия	5 шт.	Штифт 60 мм	1 шт.
Уголок плоский	1 шт.	Штифт 30 мм	3 шт.
Скоба	2 шт.	Шина	4 шт.
Ролик шнуровой	1 шт.	Шнур	





bend is quite sharp, and many of the Brackets have large holes (early parts had slotted holes instead).

The manual has 28 pages 272\*187mm plus covers, and the front is shown above. As can be seen the name on it is KONSTRUKTOR and it is in Russian throughout. It has the 'A' logo and '1992' in the small print along the bottom. C2-4 are blank except that C4 has more of the stylised silhouettes of models as on C1. p1 is the title page with 1992 again among the small print at the bottom, p2 has a list of the contents with page numbers, and pp3-4 have an introduction. p5 is the Illustrated Parts and the parts look virtually the same as those in the OSN 22 sets. The 31 models are on pp6-27, and p28 has only some small print which includes 1992 as a date and a print run of 15000. Also an address in Kupyansk, a town in the Ukraine, east of Kharkov.

The models go from СКАМЕЙКА (Bench) to ЗКСКАВАТОР (Excavator – ЗКСКАВАТОР isn't in my Russian dictionary, nor in an online Ukrainian one, but the latter gave ЕКСКАВАТОР as excavator). There is a clear line drawing for each together with a parts list and one of the silhouettes mentioned earlier. Fig.3 shows one of the larger models, full-size apart from the parts

list. Some two-thirds of the models, including many of the larger ones, were in the manual described in OSN 22, though most have been redrawn and a few changed slightly.

#### Other CONSTRUCTOR Sets

Of the 6 other sets seen on Ebay 3 look identical to the one



Fig.6

already described and another differs only in the manual with it, as above. Top centre is the 'A' logo, and bottom right the 'B' type.

The other two sets have the box left, end opening as before and with the same parts tray except it that it is light blue in colour. The logo top right is the 'A' type and the circle top left has some words and '7-15' in it. The manual has the Fig.5 cover model and the 31 models, the number in the Fig.5 manual, are claimed in the lid's left panel. The Crane on the lid is one of the Fig.5 manual models.

[Cont. >]



Fig.7



## KONSTRUKTOR Sets in Plastic Boxes

**The black one.** This is probably the earliest of the three KONSTRUKTOR sets seen on Ebay. It was sold from the Ukraine, and the case is black plastic. The lid, 26\*20cm, has a small type 'A' logo to the right of the side view of a Lorry model, and underneath are ТЕХНИЧЕСКАЯ ИГРА as on the CONSTRUCTOR lid, and КОНОТСТРУКТОР (=KONSTRUKTOR). Also ПИОНЕР, which means Pioneer. The 10 compartment black tray is smaller overall than in any of the other sets. It isn't clear if the case has a top & bottom with the tray inside it, or whether the tray forms the bottom of the case.

14 pages from the manual were also shown including the Illustrated Parts with quantities, but unfortunately the names of the parts and their quantities can't be read. The parts look like those in the CONSTRUCTOR manual except that the Hook is similar to the #30 in OSN 22, and only an end view of the Collar is shown. But not included are the 8h Strip and 5\*9h Flanged Plate. From the parts in the box the quantities of some are smaller than in the CONSTRUCTOR outfit, with fewer Pulleys/Tyres for example, and 5\*5h Flanged Plates. Given this, and the two parts no longer included, the inventory very probably corresponds, or is very similar to the smaller No.2 KONSTRUKTOR Set in OSN 22.

Below the manual's front cover and the logo top right, if



Fig.8

logo it be, is new. But the 'A' logo is on the title page and also there what is probably '1989'. Of the 10 models shown 7 are in the Fig.5 manual, including the largest Crane. 2 of the others are in the OSN 22 manual; the third is the Ship right and is on the last page (before the blank C3).

### The red and blue sets.

These have the Fig.5 manual and cases 28½\*25½\*3cm, one with a red lid and the other with a blue one. Moulded into the lid is just the outline of a lorry with a ring of text around it which includes ТЕХНИЧЕСКАЯ ИГРА and КОНОТСТРУКТОР. The parts are in 15 compartment formed trays, purple & pale blue respectively, and again the tray may form the bottom of the case. It can be seen that in both sets the quantities of Pulleys, Tyres, & Flanged Plates are the same as in the CONSTRUCTOR outfit.

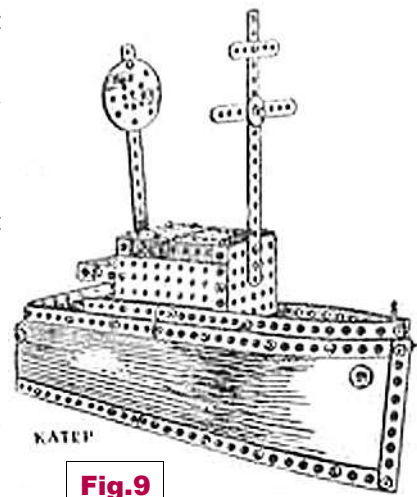


Fig.9

### Remarks

One can speculate that if the 1989 date for the 'black plastic' Pioneer set is correct, it appeared soon after the OSN 22 outfits, and replaced the (smaller) No.2. Probably there was also a larger outfit to replace the No.1. If so it may have been similar to the 'red & blue plastic' sets which are thought to be later because they have the Fig.5 manual. Then, in 1992, the CONSTRUCTOR version with the same manual, and with new, and no doubt cheaper, packaging. Why the change of name? Perhaps for export although only the name was in English, and the manual was all in Russian; more likely just to improve the brand's image at a time when foreign products were in vogue after the collapse of the USSR. But for whatever reason the manual retained its KONSTRUKTOR name.

## OSN 41/1253

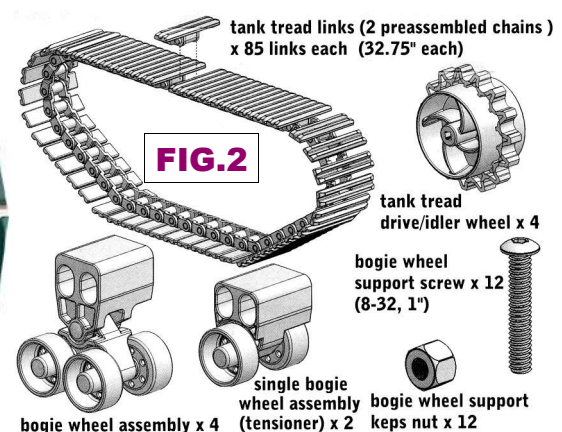
## KONSTRUKTOR [3]: S3

**VEX Tank Tread Kit** This set was mentioned in a general review of VEX elsewhere in this Issue, and from an example now to hand, it may be of interest to MECCANO etc builders for use in larger models of tracked vehicles. The parts in the set are shown right, and all but the N&B are plastic. The Bogeys don't blend particularly well with MECCANO but there is no problem in using MECCANO parts instead - in any case in most models there wouldn't be enough of the Bogeys to look realistic. The lower part of the Bogey looks as if it might pivot but it doesn't. The plastic Tread Links are similar to MECCANO but are 1½" wide and the cross gap for the sprocket teeth is greater, 7.9 against 3.3mm. The pitch of the Links is about the same (.1" greater over 10 Links) and VEX Treads are said to run satisfactorily on MECCANO plastic Sprockets. The drawback in using the VEX parts with MECCANO is that the Wheels are a push fit on the ⅛" square VEX Axles. So one must either run these Axles in MECCANO bores, VEX-fashion, or drill the bore out to give a push fit on a round Axle. Tricky that and there is no obvious way of securing a Wheel which is free on a round Axle.

The Treads are made of smooth, fairly slippery plastic and I've read that American enthusiasts fill the crosswise recess in



FIG.1



each tread with rubber to increase their grip. The model I made would climb a quite steep smooth hardboard slope well but when stopped it would slide back down.

The Tread Kit can be bought from Vex but the shipping charge is exorbitant; the present one came from [www.robotmarketplace.com](http://www.robotmarketplace.com) at \$30 plus \$18 shipping.

Vexplorer is mentioned elsewhere in this Issue and there was an add-on Tread Kit for it with fewer of the same parts: 2x 56 Links, 2 Bogies, no Single Bogies, & 4 N&B.