

MEHANOTEHNIKA That's the name of the Yugoslav system made from the 1950s by a company of the same name. Much later, in the 1990s, sets called METALLICO were produced, by the same company, see 13/336, but by then called Mehano. One phase of MEHANOTEHNIKA is shown in MCS but this account, based on some parts with a manual, is mainly about what seems to be a later phase with fewer parts and a different set structure.

HISTORY According to Mehano's web site (www.mehano.si) the Mehanotehnika company was set up at Izola (in Slovenia) in 1952. Production of metal toys started in 1953, but it isn't clear whether or not the constructional sets were made from the outset. The company name was changed to Mehano in 1990, and Slovenia became independent in 1991. The MCS entry claims 201 parts and Sets 1-8. No detailed information on the parts & sets is given, and there is no mention or indication of linking outfits.

The present manual shows Sets A, B, & 1-7, with No.1, equal to A+B, as the basic set, and then 2-7 as add-on outfits. Four Accessory Sets for Strips, Plates, etc are also shown.

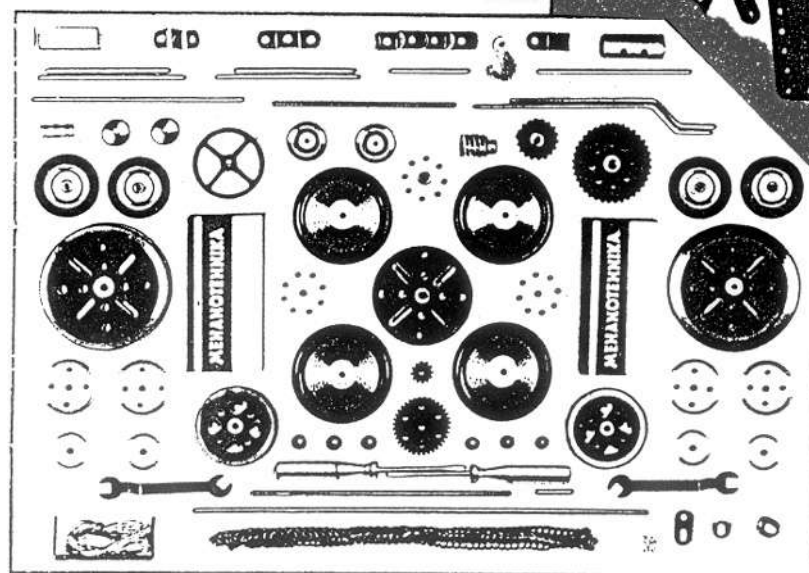
PHASE 1 Below the lid label/manual cover used at that



time, and across the bottom of the page, a photo of the No.7 set taken from MCS, with inset the 4.5v Motor included in the outfit. The note below tells of a box 415*300*65mm with 757

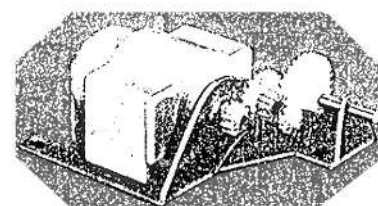
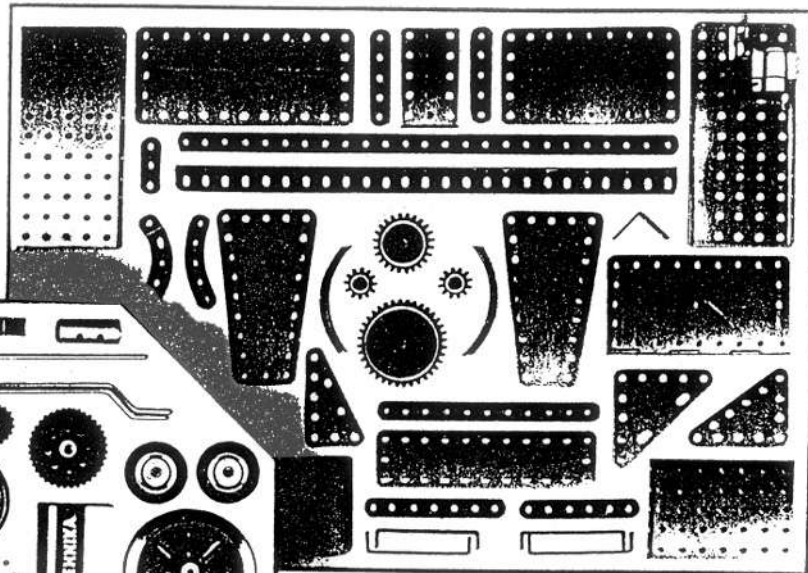
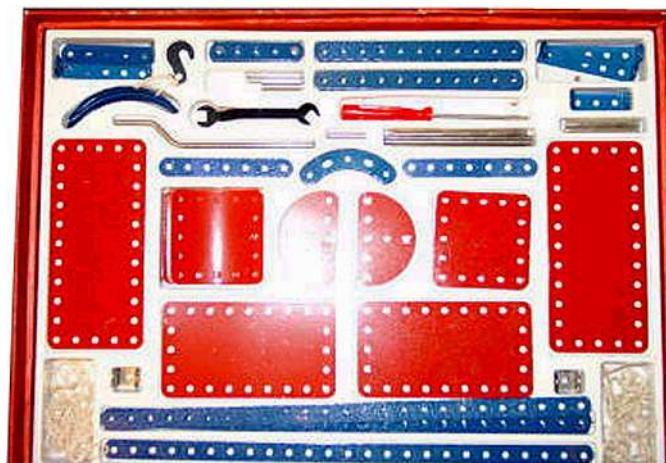
Numero 009 - Mehanotehnika 7.

Con questa scatola da costruzione i giovani costruttori possono mettere insieme originali e complicati modellini mobili del settore meccanico. Alla scatola è accluso un motore elettrico EMT-1 che può essere adibito alla propulsione dei modellini costruiti. Imballato in scatola con due supporti in plastica in cui sono disposti 757 pezzi. Grandezza della scatola: 415 x 300 x 65 mm. La scatola da costruzione più grande seguente è il numero otto (010) che contiene 3 supporti con 1083 pezzi e che completa e conclude bene la nostra serie delle scatole da costruzione.



parts, and of the No.8 with 1083 parts in 3 layers. The 1960s MECCANO No.7 & No.8 had about 770 & 1130 parts, of about 100 & 140 different types. The sets aren't directly comparable of course but if there were 201 parts in the Yugoslav system one wonders if all were included in the No.8.

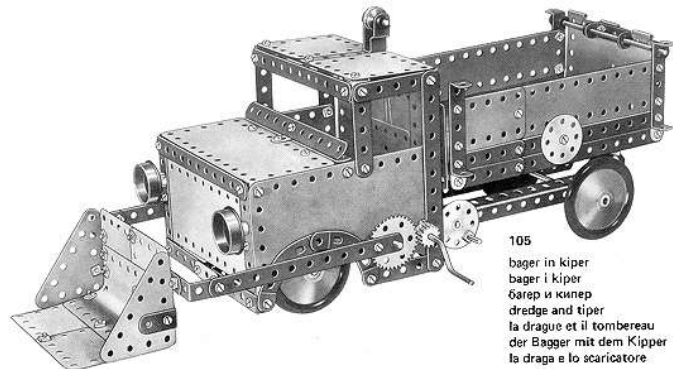
Two sets of this period have been seen on Ebay. One, a No.6, has the 2 layers of parts below, in trays which look to be



moulded plastic. The box scales at 16½*11½", and the lid & manual cover are as already shown. Likewise the other, probably a No.2, but in this case the plastic tray is yellow and the box is said to measure 13½*9¾"

Most of the parts in all three sets look like their MECCANO counterparts but there are a few originals, as follows. A flat, black Hook; Trunnions with different shaped cutouts; a 9h long Flexible Sector Plate; 3 Coarse-toothed Gears with 12, 24, & 36 teeth (16 DP probably); a Pinion & Gear Wheel which seem to have 12/36 teeth (24 DP); and a matching Worm.

There may have been changes to the contents of the sets within Phase 1 because the Lorry below (taken from the

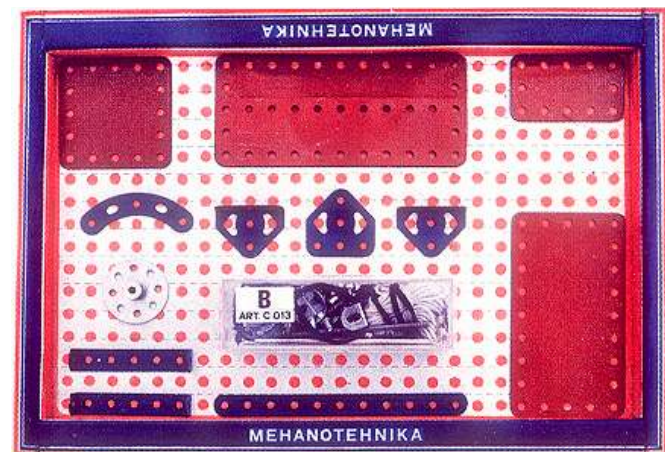


Phase 2 manual, x .55, but identical to one of the Phase 1 No.6 set models in MCS) has Flanged Wheels as headlights and none of these can be seen in the Ebay No.6.

PHASE 2 As already noted this section is based on a manual (with the cover below) and the parts with it. The



manual contains sections with models for Sets: A, 1 (=A+B), 1+2, 1+2+3, ... 1+2+...+7. Before each is a colour photo of the tray for the 'new' set (as below for the B), and in addition each



individual part is shown in colour with its PN & quantity. All trays are the same size, scaling at 9½*13¾", and all are the same design. There is one for each set except that the No.1 is made up of the A & B trays packed together. The No.1 lid is

shown and is identical to the manual cover except for '1' in the top right corner. No doubt the other lids are similar but none are shown. As a further simplification to the packaging each set contains an identical selection of N&B & other small parts in a clear plastic box, 12*4½*1¼cm, with MEHANOTEHNIKA IZOLA moulded into the lid (I'll call this the N&B Box).

The Table on the facing page shows the parts in the various sets (the parts aren't named so 'Meccano' ones have been used). The first column has the contents of the common N&B Box; the '1-7' column has the total contents of Sets 1-7, and they add up to 1075 parts. With an N&B Box in each set, this total does include rather a lot of some not so useful parts, the Cranked Bent Strip for instance, but the generous number of Brackets would be very welcome.

The accessory sets PL1 & 2 (for Plates), and TR1 & 2 (for Strips etc) are in the same packaging & each contains an N&B Box.

The PNs in the Table are all preceded by 'C 013' in the Manual except the Screwdriver which has the prefix 'E 182'. The N&B Box is #C 013 G1. There is no obvious reason why some of the parts are lettered rather than numbered.

The parts seen have black PNs in the Table and they show no obvious differences from the Phase 1 illustrations. Generally they look like MECCANO and most are well made and finished. The colours are red & blue as before, with, as might be expected, most bright parts nickel. The red is the 1960s MECCANO colour or a little lighter, and the quite rich medium blue is between the shades in the two sets already shown. Exceptions to the above are noted in what follows. See 13/336 for references to METALLICO.

Holes are 4.2mm at 12.7mm pitch. All **threads** are M4. **Bosses** are aluminium, 10.0mm Ø, 4.2mm bore, and double-tapped. The **peening** is either 4- or multi-point, with a slightly conical centre recess. The **ends** of most Strip parts & Brackets are semi-rounded; the **corners** of the Plates are fully radiused. **Nickeled parts** are steel.

The **5h long DAS**, #07, has the small hole noted in 13/336. The **Curved Strip**, #08, is the MECCANO pattern and not the larger radius METALLICO part. Slots in the #10 **A/G** are 8mm against 8½ in MECCANO. The **2h Brackets** #70-72 are nickel but otherwise as METALLICO. The slot in the **Reversed A/B** #75 is 8mm long. The cutouts in the **Trunnions** #25 & 26 give a 'hole' at ½" pitch from any of the round holes. The **Crank Handle** #44, 5¼" long o/a, and **Axles** #48-53, are 3.95mm Ø, nickel plated, with slightly rounded ends. The **Bush Wheel** #A1 has a 36mm Ø aluminium disc. The **Pulleys** #B1 & C1 are aluminium too with 25½mm Ø discs. The boss on the Loose version is 2mm long. The black rubber **Tyre** #D1 is 5mm wide and 34mm o.d. when on a Pulley. In the manual the **3" Pulley** #E1 is sometimes shown black and sometimes blue. The **Road Wheel** #F1 is almost identical to the MECCANO part except for the boss and a larger, 20mm Ø, flat circle in the centre of the coned outer part. The **Pinion** #42 & 6h **Gear** #43 mesh at 1" centres and in different pictures seem to have 12/36, 14/35, or 14/36 teeth. The DP for these combination would be 24.0, 24.5, 25.0 and a modulus of a little over 1. Exactly 1.0 would need 12/39 or 14/37 teeth. The **N&B** are nickeled. **Bolts** are 5,9,12,19mm u/h and most have a very neat cheesehead, 5.6mm Ø and 2mm thick, but some are 6.8mm Ø & 2½mm thick. **Nuts** are square, pressed, 6.9-7.0 A/F and 2mm thick. #61 **Washer** is 10mm o.d., nickeled, and only .6mm thick. The **Axle Clip** #63 is as METALLICO. #64 **Cord Anchoring Spring** is 8mm long with a loop just large enough to take a Bolt. The **Screwed Rod** #54 is 75mm long, nickeled, with 6mm of 3.6mm Ø plain rod in the centre. The **Threaded Pin** #55 is also nickeled, 3.95mm Ø, 21mm long o/a, with 9mm of thread and no shoulder. The (rather feeble) **Screwdriver** #A2 is 125mm long o/a with a 3mm Ø blade. Its 60mm fluted red plastic handle has MEHANOTEHNIKA along

	Set →	N&B	A	B	1	2	3	4	5	6	7	1-7	PL	PL	TR	TR
PN	Name ↓	box											1	2	1	2
01	Strip 25h					2	2		2	2	2	10			4	
02	Strip 11h		2	2	4	2	2		4	2	4	18			2	12
03	Strip 7h									2		2				4
04	Strips 5h		6		6	2					2	10			10	
05	Strip 3h								2			2			2	
06	DAS 3h						2					2				2
07	DAS 5h		2	2	4	2			2	2		10				2
08	Curved St'p'd Str		2	2	2				2	2		8				2
09	Formed Strip					4						4				2
10	A/G 25h														4	
11	Flex PI 3*5h			2	2	2						4	2			
12	Flex PI 3*11h			2	2					2		4	2			
13	Flex PI 5*5h			3	3	3						6	2			
14	Flex PI 5*9h			2	2					2		4	2			
15	Flex PI 5*11h			2	2					2		4	2			
16	Triang PI 3*5h									4		4		2		
17	Triang PI 4*5h									2		2		2		
18	Curved PI 3*5h							4				4		2		
19	Curved PI 5*5h								2			2		2		
20	Sector Plate								2			2	2			
21	Flgd Sector PI						2					2		2		
22	Flgd PI 5*11h		1		1				1			2		1		
23	Flgd PI 3*5h							1				1		1		
24	Semi-circ PI					2						2	2			
25	Flat Trunnion			2	2						2	4				2
26	Trunnion			2	2						2	4				2
27	Wheel Disc 8h					2						2				
33	Small Loose Ply					1	1				1	3				
39	Collar										4	4				
40	Small Flgd Whl										4	4				
41	Flgd Wheel										4	4				
42	Pinion 12?t										1	1				
43	Gear Whl 36?t										1	1				
44	Crank Handle		1		1							1				
45	Spanner		1		1							1				
47	Flat Hook		1		1							1				
48	Axle 25m	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
49	Axle 38mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
50	Axle 50mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
51	Axle 90mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
52	Axle 100mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
53	Axle 115mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
54	Scr Rod 75mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
55	Threaded Pin	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
56	Bolt 5mm	30	30	30	60	30	30	30	30	30	30	240	30	30	30	30
57	Bolt 9mm	2	2	2	4	2	2	2	2	2	2	16	2	2	2	2
58	Bolt 12mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
59	Bolt 19mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
60	Nut	30	30	30	60	30	30	30	30	30	30	240	30	30	30	30
61	Washer	4	4	4	8	4	4	4	4	4	4	32	4	4	4	4
62	Washer 19mm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
63	Axle Clip	4	4	4	8	4	4	4	4	4	4	32	4	4	4	4
64	Cord Spring	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
65	Rod Conn'tor	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
66	Rod, Str Conn	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
67	Hank of Cord	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
68	Dr Band 20cm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
69	Dr Band 48cm	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
70	Flat Brkt	4	4	4	8	4	4	4	4	4	4	36	4	4	4	4
71	Obtuse A/B	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
72	A/B	4	4	4	8	4	4	4	4	4	4	32	4	4	4	4
73	A/B 2*2h	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
74	Dble Brkt	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
75	Reverse A/B	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
76	Cr'k'd Bent Str	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
77	Dble Bent Str	1	1	1	2	1	1	1	1	1	1	8	1	1	1	1
A1	Bush Whl 8h			1	1			1				2				
A2	Screwdriver		1		1							1				
B1	Ply Loose 26mm					1		1			1	3				
C1	Ply Fast 26mm		4		4		2				1	7				
D1	Tyre for B1,C1		4		4							4				
E1	Pulley 3"						1		1			2				
F1	Road Wheel					1	1	2				4				

one side. The **Spanner #45 & Hook #46** are as METALLICO; they are 85 & 30mm long o/a respectively and both are chemically blackened. The Spanner openings are hexagonal despite the square Nuts. The slotted holes in the flanges of **#23 3*5h Flanged Plate** are 8mm long. The **#16 3*5h**

Triangular Flexible Plate is as METALLICO. **#18, 3*5h Curved Plate** is like a Flexible Plate but thicker to make it rigid and its 3h side is curved through 90° - quite a useful part. The **Rod Connector #65** is 22mm long with wavy butting edges. The **Cord #67** is off-white and rather thicker than usual. The rubber **Driving Bands** are of rectangular section, 2½*1½mm for the 20cm **#68**, & 4*2½mm for the 48cm **#69**, both with the larger dimension in the radial sense. Among the parts were 2x 46mm Ø **Road Wheels** not shown in the Manual; they have black plastic 29mm hubs and black rubber tyres with a slightly knobbly tread - MEHANOTEHNIKA IZOLA is moulded onto one sidewall. They are a nice running fit on the Axles but may not of course have been part of the constructional system.

The **MANUAL** is printed on art paper and has 92 pages, 240*167mm, plus covers. Text is limited to the Intro & model names, and is in 7 languages. The first 3 are probably Slovenian, Croatian, & Serbian, then English, French, German, & Italian. C2 has a chart in colour showing the recommended ages for the different sets, then p1 has the Intros - suitable for young & old, and the set structure.

p2 gives the contents of the N&B Box; p3 shows the A & B trays; p4 the contents of A; pp5-8, 16 A models from 1 toboggan to 16 elevator; p9 the contents of B; pp10-21, 35 models for A+B=1, from 17 autocar to 51 transport crane.

Thereafter there are 6 sections for Sets 1+2, 1+2+3, 1+2+...+7, each preceded by a page showing the contents of the appropriate addition set. The models in the different sections are: Σ1-2, 15 models on pp23-30, from 52 dredge to 66 steam-hammer; Σ1-3, 5 models on pp32-35, from 67 movable bridge to 71 swing crane; Σ1-4, 8 models on pp37-40, from 72 waggon with horse to 79 lift; Σ1-5, 4 models on pp42-46, from 80 tractor with trailer to 83 crossbow; Σ1-6, 18 models on pp48-71, from 84 wire ropeway to 101 pantograph; Σ1-7, 9 models on pp73-89, from 102 quarry elevator to 110 bredge elevator. The English names are not always well chosen, the 'bredge elevator' for example is a Travelling Hammerhead Crane.

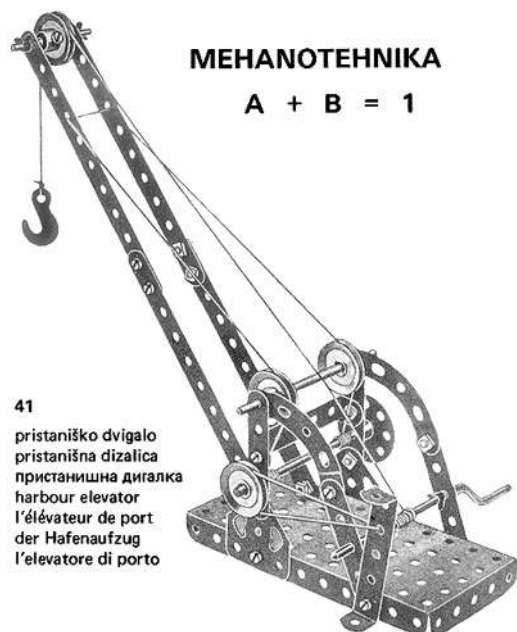
pp 90-C3 have the contents & trays for the accessory sets PL1-2, & TR1-2. C4 has 'MEHANOTEHNIKA IZOLA YUGOSLAVIA' – the only reference to the manufacturer at the top, and below a colour photo of a boy firing a Mechanical Crossbow, similar to Model, 83. The models on the front cover are the Σ1-7 109 Concrete Mixer on the left and the Σ1-7 52 Dredge.

There is no mention of a Motor, or of parts other than those in the Sets. The 4½*2½" Hinged Plates of Phase 1 can be seen in a few of the larger models but no doubt this was because the Phase 1 photos were still being used.

Each model in the Manual is illustrated by a large, usually good quality photo, with extra views for the larger ones. Even so it's hard to work out how some of them are meant to work and Parts Lists would have helped. There is a good variety of models, typical of the larger systems of the day, but with fewer road vehicles than might be expected, and only one, the Lorry shown earlier, uses the 4 Road Wheels available after Set 4 has been added. Many of the models, over a half perhaps, look original to me; the rest owe something to MECCANO, but have often been changed, though mostly not for the better. A selection of the better original models is shown overleaf at about 70% full-size, and the Manual has other views of #93 & 110. The Tractor is the only model in the Manual fitted with any form of steering and the only other mechanical feature is the wide use of Cord around Pulley brakes in Cranes, etc. The cradle & rocket in #93 tilt upwards using the Crank Handle near the 3h end of the Flanged Sector Plate but the torque needed must be quite high. Only the No.7 set has Gears and then they are only used as a pair in the Lorry, though the Gear Wheel itself is sometimes used as a Bush Wheel.

My Nos.1+4 parts didn't allow any but small models from

the Manual so I made the Forklift shown bottom right – the rear wheel steers from the Bush Wheel & the hoist action is operated by the Crank Handle.



МЕХАНОТЕХНИКА

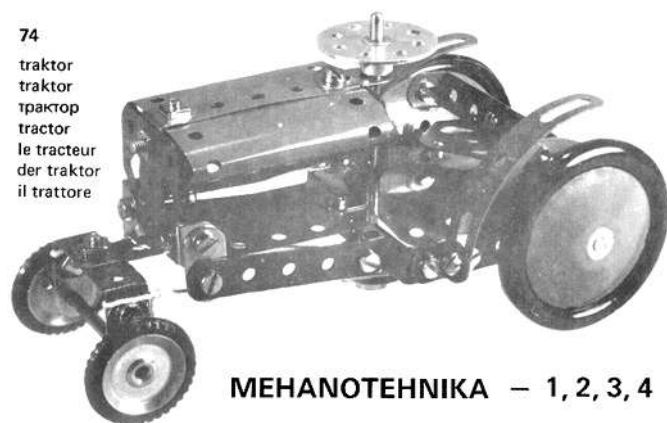
A + B = 1

41

pristaniško dvigalo
pristanišna dizalica
пристанісна дигалка
harbour elevator
l'élévateur de port
der Hafenaufzug
l'elevatore di porto

74

traktor
traktor
трактор
tractor
le tracteur
der traktor
il trattore



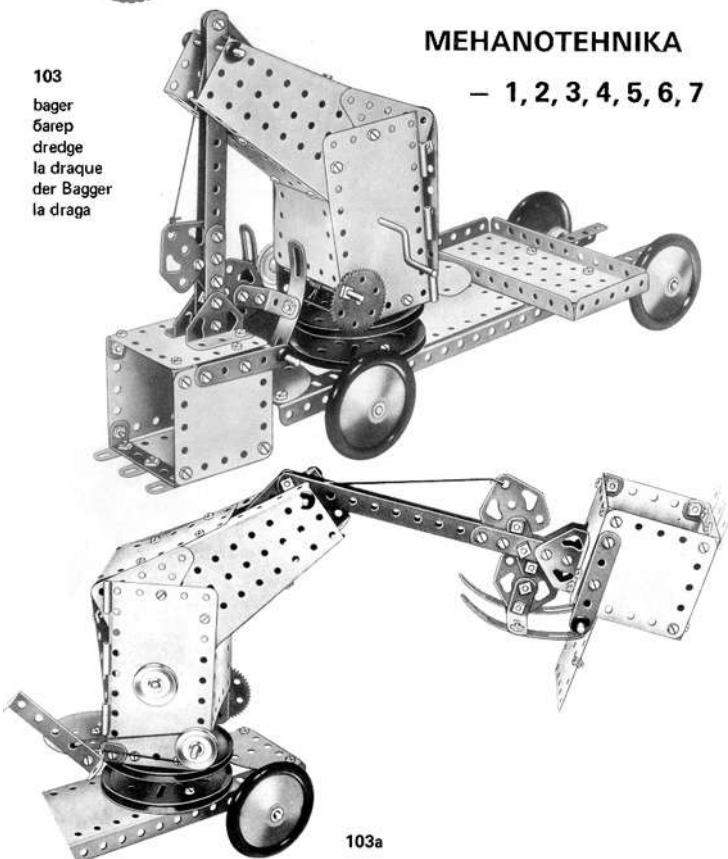
МЕХАНОТЕХНИКА – 1, 2, 3, 4

103

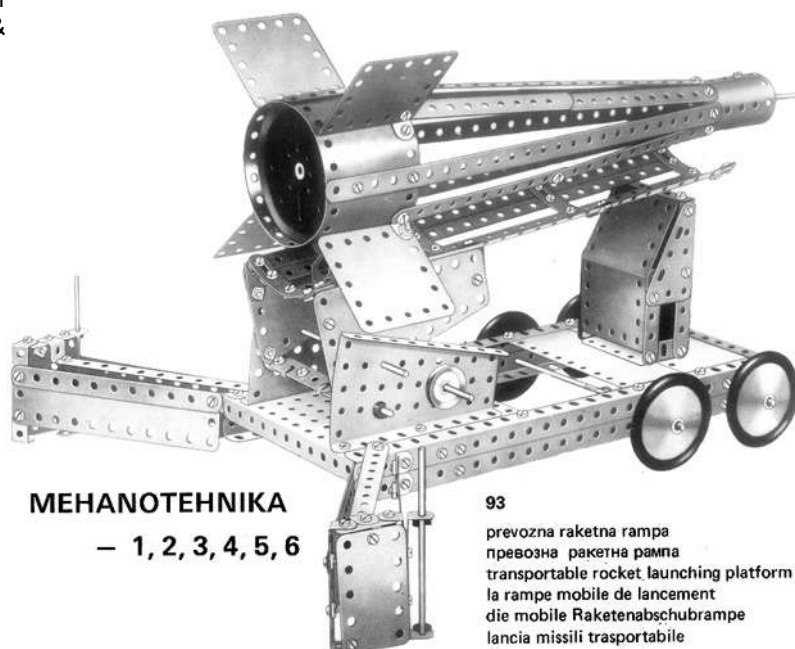
bager
бaгep
dredge
la draque
der Bagger
la draga

МЕХАНОТЕХНИКА

– 1, 2, 3, 4, 5, 6, 7



103a



МЕХАНОТЕХНИКА

– 1, 2, 3, 4, 5, 6

93

prevozna raketna rampa
превозна ракетна рампа
transportable rocket launching platform
la rampe mobile de lancement
die mobile Raketenabschubrampe
lancia missili trasportabile



МЕХАНОТЕХНИКА

– 1, 2, 3, 4, 5, 6, 7

110

bager dvigalo
bager dizalica
багep дигалка
bredge elevator
la drague élévatrice
der Baggeraufzug
la draga elevatrice

