

3 OTHER SYSTEMS from BRAZIL The only Brazilian system in MCS is MECANIC, and the 4 sets illustrated were in a catalogue No.20 of 1956/57, from a company with a logo in the form of a 4-point star with 'ESTRELA' underneath. They look just like the MECCANO outfits of the period except that the name on the box lid is MECANIC instead of MECCANO. Now thanks to Carlos Machado of São Paulo, some details of three other systems, all certainly made in Brazil, are available - he gave Geoff Wright some parts and copies of literature, and Geoff kindly lent them to me for this account.

MEC-BRAS I'll start with this one because it seems to have been made by the company above, Brinquedos ESTRELA S.A. (Star Toys), Rua Joaquim Carlos, 508 - São Paulo; the logo on the manual cover is as in MCS. Carlos said that it was made from 1950 to the mid 1960s. From the manual and the handful of parts available, it seems to follow MECCANO of the 1954-61 period quite closely, including the same general colour scheme, although the hole and axle diameters are very slightly smaller.

The manual is for Set 5 and as well as models for that outfit a few for Sets 1-4 are included. All are MECCANO 1954-61 models, in the same order, and with the same page layout, although the text is in Portuguese of course. One noticeable difference is that the set numbers are greater by one than their MECCANO equivalents, so the MEC-BRAS No.1 is the MECCANO No.0, etc. The illustrations used are identical except that most of the evidence of the Magic Motor fitted to some of the No.1-4 models has been removed. The Magic or No.1 C/W motors in the No.5 models remains and in the Introduction it is suggested that a MEC-BRAS electric motor (Set No.9110) should be used instead.

The Set Contents shows Outfits Nos.1-6 and Nos.10 & 11. As would be expected the former follow their MECCANO counterparts almost exactly, and small differences, like a 1½" dia 6-hole Wheel Disc, are probably misprints. Sets 10 & 11 both contain a Bulb with Socket, an Electric Motor, and a Control Box, which no doubt houses the 3 off 1.5v Batteries that are also included in both Sets. None of these parts are illustrated. In addition the No.10 contains a small selection of common parts including 10 N&B and an 11*5h Flanged Plate, and is clearly an accessory set. The No.11 has many more parts, more than in the No.3 Set, but with a different mixture: it could have stood on its own, but would have needed special models to use the parts in it to advantage. It is possible that the No.10 is the No.9110 Set mentioned above. Neither Set contains the 6" Driving Band and the Gear and Pinion that are in the No.6 Outfit.

Most of the parts are shown on the page of Illustrated Parts. None of the illustrations has been copied directly from MECCANO, but only the 1" Pulley without Boss, which has a fourth hole in its face, and the 8h Wheel Disc, in which two opposite holes have been omitted, look unusual. Apart from the 12½" Strip none of the PNs correspond to MECCANO, and the last of the 80 odd parts that are listed, (all of which are included in the Sets) is No.250. Notes on the actual parts to hand follow and unless stated they are very similar to their MECCANO opposite numbers.

• DATA (in mm) Strip (11-hole): •Hole pitch/dia, 12.7/4.1

- width, 12.8; •thickness, .82; •ends near fully radiused.
- Boss: •o/d, 9.6 (1 of 4, 10.3); •i/d, 4.06-4.17; •brass (some painted); •double tapped. Thread: 5/32 BSW. Axle Dia: 3.95 (Crank Handle). DP (Mod): probably 38. Nut: sq., probably 6.4 A/F; Bolt: RH 7.2 dia, CH 5.4 dia, both brass.
- The 11h Strip is a mid, bright, slightly emerald, green; the Flanged Sector Plate is medium red, and the 5*5h Flexible Plate (with no centre hole) is slightly lighter.
- The Road Wheel (red/black) is very similar to the original MECCANO pattern except that the rim is not so rounded. The 3" Pulley (77mm dia, 4mm wide rim) is glossy black; the 1" is steel painted yellow, including the brass boss. Its Tyre is a bluey-grey colour with a near rectangular cross section, ribbed circumferentially around the outside.
- The Bush Wheel is brass and the boss is larger in diameter than the others at 10.25mm. The Crank Handle has a wooden grip dyed red. The Spanner has MEC-BRAS stamped on it, the only part seen that is so marked.
- The parts are well made and with a generally good finish.

SUMMARY OF MANUAL •Name: MEC-BRAS Catalogo No.5. •Details of maker: Brinquedos ESTRELA S.A., Rua Joaquim Carlos 508, São Paulo. •Dates or Ref Nos: none. •Page size: 287*204mm deep. •No. of pages: 32 + covers. •Language: Portuguese. •Printing: models are halftones. •Page No. of Illustrated Parts & highest PN: IBC,240. •Page No. of Set Contents & highest PN: OBC,250. •Sets covered: 1-5. •No. of models for each set: 6,11, 12, 8,35. •Name, Model No., Page No. of first & last model of each set: 1: ELEVADOR, 1.1,1; CAVALINHO BRAVO, 1.6,1. 2: FORD BIGODE,2.1,2; CARRO DE CARGA,2.11,3. 3: PONTE ELEVADORA, 3.1,4; PRENSA DE PEDAL,3.12,6. 4: ROLO COMPRESSOR C/ REBOQUE, 4.1,7; CARRO DE CIGANO,4.8,9. 5: MISTURADOR DE CONCRETO,5.1,10; CARRO COUPÉ, 5.35,32. •Other notes: Model No.3.10 has no title or number. Details taken from a photocopy.



Given the models in it, the Manual above couldn't have appeared before 1954, and given also that Estrela were selling the MECANIC sets in 1956/57, it seems likely that it would date from after that. In MCS it is supposed that the MECANIC outfits, or the parts for them, were made in Liverpool, but it must be a distinct possibility that they were produced by Estrela in Brazil. Perhaps there was an arrangement with Liverpool, rather like that which existed with EXACTO in Argentina.

KITPOCK This is another system that was compatible with MECCANO, except perhaps for the size of the Axles, and it was made in São Paulo from 1980 to around 1990, by Spock Brinquedos (Spock Toys). The address on the literature (of Spock Industrial Ltda.) is Rua Acopiara 203, Alto da Lapa, São Paulo. In this case a manual isn't available but there are some parts, and copies of three leaflets, two of which (in Portuguese, English and Spanish) are mainly about the sets.

'Steel construction sets' Nos.1-5 are listed in what seems to be the earliest leaflet and for each there's a picture of the (trilingual) box lid, with some of the models from that particular Set on it. The sets are also named - Junior, Senior, Master, Super Master, and Premium (with no Portuguese or Spanish equivalents). The Gondola, the main model featured on the leaflet is shown on the next page. The number of parts in each set is given and also the number of manual models for each - 163 parts/35 models for the No.1, to

More on MEC-BRAS Edmundo Veiga has kindly sent several items of interest. First he now has 3 manuals like the No.5 described in 14/374, but for Sets 1, 3, & 6. All the covers are similar to the No.6 below. The models in these manuals, as in the No.5, are those for the appropriate 1954-61 MECCANO sets.



The next item is the manual below with No.9105 on the cover. It also includes models for Sets 9102 & 9103, and the Set Contents (on the facing page) cover these 3 sets & also the slightly larger No.9113. The range of parts is a little less than in the No.5 manual but the PNs & illustrations used are the same (see the MCS Extra Page X1.4).

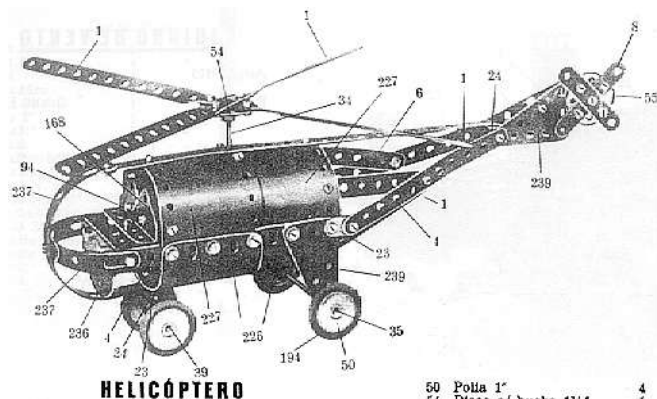


Comparing the MEC-BRAS 9102-9113 sets with the 1-6 series, the 9102, 9103, & 9105 are very similar to Nos.2, 3, & 5. 9113 has a few extra parts over the 9105 but the main difference is the addition of the 4.5v Motor, the Control Box for it, and the Bulb & Socket. The No.6 has none of these electrical parts (they were in the add-on Sets 10 & 11 of the time) but has some 15 parts that are not listed at all in the 9105 manual, including the 12½" A/G, #13; 19t Pinion, #60; 57t Gear, #65; 2½" Cylinder, #238; & the 2*2½" Flexible Triangular Plate, #240.

So did the 1-6 outfits come after the 9102-9113 sets, or before them? The 9102-9113 sets include the 1½*2½" Flexible Triangular Plate, #239, so that puts them at 1954 or after (assuming that Estrella did not introduce the part before Meccano). If the blue/red/yellow colours in the model on the manual cover are correct, that was a definite difference compared with the presumed red/green colour scheme in of the 1-6 sets. Edmundo has remarked that his

understanding is that MEC-BRAS was made under license from Liverpool.

The range of models in the manual is broadly similar to those for MECCANO in the postwar to 1960s period, but with fewer models, and none are exact copies. Some look better to me than their nearest MECCANO counterparts, and some worse. The Helicopter below, 60% full-size, is a fair example of the better ones. Each model has a list of the parts needed and brief building instructions.



Artigo 9105

Parte no.

Quant. Peças

1	Tira 12½"	4
4	Tira 5½"	2
6	Tira 3½"	2
8	Tira 2½"	2
23	Tala	4
24	Canaleta	2
25	Esquadro	3
34	Eixo 4"	1
35	Eixo 3½"	1
39	Eixo 1½"	1

50	Polia 1"	4
54	Disco c/ bucha 1½"	1
55	Disco 1½"	1
82	Porca	50
83	Parafuso 5/32"x7/32"	54
84	Arruela	12
94	Canaleta 2½"x½"	1
100	Base 5½"x 2½"	1
167	União 2½"	1
168	Suporte angular	2
194	Argola de Borracha	4
226	Placa flexível 4½"x2½"	2
227	Placa flexível 5½"x2½"	2
236	Meia lua	2
237	Arco 8"	4
239	Placa triangular 2½"x1½"	4

O corpo é formado pelas placas flexíveis n.º 226 e 227. Estas, devem ser parafusadas a uma base 5½"x2½" (n.º 100).

SUMMARY OF MANUAL •Name: MEC-BRAS No.9105. •Details of maker: as for No.5 manual in 14/374. •Dates &/or Ref Nos: none. •Page size: 204*206mm deep. •No. of pages: 20+covers. •Language: Portuguese. •Printing: B&W ½-tones of models. •Page No. of Illustrated Parts List & highest PN: C3,239. •Page No. of Set Contents & highest PN: C4,250. •Sets covered: 9102,9103,9105. •No. of models for each set: 16,8,8. •Name, Page No. of first & last model of each set (no Model Nos.): 9102: CARRIOLA,1; CAMINHÃO,8. 9103: MOTOCICLETA,9; CAMINHÃO,12; 9105: CAVALO MEC. C/ CARRETA,13; TANQUE DE GUERRA,20. •Other notes: details from a photocopy.

The MEC-BRAS 4-figure set numbers bring to mind the 4 MECANIC sets, 9100-9103, sold (made?) by the same firm, and known from 1956/7. Apart from the name, they, as shown in MCS, look like 1954-61 MECCANO outfits, and the Set Nos.0-3 can be seen on their box lids. Exact comparisons between the sets with common 4-figure numbers isn't possible but certainly the two 9102s differ in that the MECANIC set has a 2½" Road Wheel and the MEC-BRAS one doesn't. Both 9103s have two. The MEC-BRAS No.2 doesn't have one and the No.3 has one.

The final item is the outfit below, and to the right; it is



CONTEÚDO DO MEC-BRAS

N.º	DESCRIÇÃO DAS PARTES	CONJUNTO				N.º	DESCRIÇÃO DAS PARTES	CONJUNTO			
		N.º 9102	N.º 9103	N.º 9105	N.º 9113			N.º 9102	N.º 9103	N.º 9105	N.º 9113
1	Tira 12 1/2"	/	/	4	4	104	Base segmento	/	/	2	2
4	Tira 5 1/2"	4	4	8	10	107	Gancho	1	1	1	1
6	Tira 3 1/2"	/	/	2	2	134	Segmento 2 1/2"	2	2	4	4
8	Tira 2 1/2"	4	6	9	9	158	Parafuso 5/32" x 3/8"	4	4	6	6
23	Tala	4	4	5	7	167	União Z 1/2"	1	1	2	2
24	Canaleta	/	/	2	2	168	Suporte angular	2	2	2	4
25	Esquadro	8	8	10	20	169	Suporte liso	2	2	2	2
28	Meio Esquadro 1/2" x 1 1/2"	/	/	4	4	182	Pneu 1"	4	4	4	4
34	Eixo 4"	/	/	2	2	194	Argola de borracha	4	4	4	4
35	Eixo 3 1/2"	2	2	4	4	211	Mola de torção	/	1	1	1
38	Eixo 2"	2	2	2	2	214	Correia de Borracha 2 1/2"	/	1	1	2
39	Eixo 1 1/2"	/	/	2	2	220	Roda 2 1/2"	/	2	4	4
40	Eixo 1"	/	/	1	1	222	Placa flexível 2 1/2" x 1 1/2"	/	/	2	5
41	Polia com cubo 3"	/	/	2	2	223	Placa flexível 5 1/2" x 1 1/2"	/	2	2	2
43	Manivela	1	1	1	1	224	Placa flexível 2 1/2" x 2 1/2"	/	2	4	5
50	Polia 1"	4	4	5	6	226	Placa flexível 4 1/2" x 2 1/2"	/	1	2	2
52	Roldana 1/2"	/	/	1	1	227	Placa flexível 5 1/2" x 2 1/2"	/	/	2	2
54	Disco com bucha 1 3/8"	1	1	1	2	230	Dobradiça 4 1/2" x 2 1/2"	/	/	1	1
55	Disco 1 3/8"	/	/	2	2	231	Placa U 2 1/2" x 2 1/2"	/	1	2	2
76	Chave de boca	2	2	2	2	232	Placa abaulada 2 1/2" x 2 1/2"	/	2	2	2
78	Presilha	4	4	8	8	233	Terminal	/	1	1	2
79	Chave de fenda	1	1	1	1	234	Suporte movel	/	/	2	2
82	Porca	44	54	100	110	235	Luva	/	/	1	1
83	Parafuso 5/32" x 7/32"	40	50	94	104	236	Meia lua	/	/	2	2
84	Arruela	6	8	14	14	237	Arco 3"	/	/	4	4
85	Arruela 3/4"	/	/	2	2	239	Placa triangular 2 1/2" x 1 1/2"	/	/	4	4
86	Barbante	1	1	1	1	245	Fio Flexível (mtrs.)	/	/	/	2
88	Suporte especial	/	/	1	1	246	Lampada c/ Soquete	/	/	/	1
93	Canaleta 1 1/2" x 1/2"	/	/	1	1	247	Conetor	/	/	/	2
94	Canaleta 2 1/2" x 1/2"	2	2	6	8	248	Casa de comando	/	/	/	1
99	Base pequena 2 1/2" x 1 1/2"	/	/	1	1	249	Motor	/	/	/	1
100	Base 5 1/2" x 2 1/2"	1	1	1	2	250	Pilha 1,5 V	/	/	/	3

a Set No.81680 and belongs to Edmundo's friend Carlos Granja. The Crane on the lid and the Trike on the manual are both in the 9105 manual, for sets 9102 & 9105 respectively. It is thought that the Set was probably the largest of the day, and the parts that can be seen, and the Crane, point to it being similar to the No.9105 or the No.5.

Nothing is known of the date of the set but its 5-figure number might place it after the 9102-13 series. In passing the parts described in OSN 14 look exactly like those in the 81680 outfit.



The **date order** of the various MEC-BRAS phases remains unclear, in particular whether or not the 1-6 sets preceded the 9102-13 series. Some of the unknowns are the box lids and packaging in both periods; whether a blue, red, & yellow colour scheme ever existed; and when did the Meccano relation-ship start & finish. Also where did the MECANIC outfits fit in? - with some of their 4-figure item numbers common to MEC-BRAS sets, both ranges they can hardly have been concurrent.