help. In one such there is a reference to using bulbs from an electrical construction set called LETRIXMEC, made by the same firm.

SUMMARY OF MANUAL. #Name: METALMEC Scatola N.5. #Details of maker: OPSET. #Dates &/or Ref Nos: None. #Page size: 247x167mm deep. #No of pages: 56 inc covers, all unnumbered. #Language: Italian, Introduction also in English and French. #Printing: Halftone photos. Cover in colour with light brown background, boys with red and blue jumpers, and a mainly red model. #No Parts List or Set Contents. #Sets covered: 1-5. #No of models for each set: 1,16; 2,17; 3 or 4,8; 4 or 5,5; 5,6. #Name, Model No, Page No of first & last model of each set: 1: BILANCIA,7 [No Model Nos]; SEGA A NASTRO,15. 2: MOTOCARRO,16; JEEP,25. 3 or 4: TRANSATLANTICO,27; CATAPULTA,33. 4 or 5: SEGA PORTATILE NASTRO,35; MORTAIO SEMOVENTE. 5: GRU PER COSTRUZIONI EDILI,41; MOTOCARRO RIBALTABILE,51. #Other notes: the Manual is a little disorganised, models appearing twice have been ignored, and the first 16 models, said to be for Set #5 have been assumed to be Set #1 models.

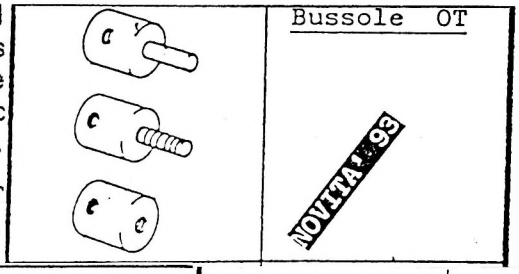
New MCS pages show two other #5 models, photocopies of the parts, and the contents found in Set #5.

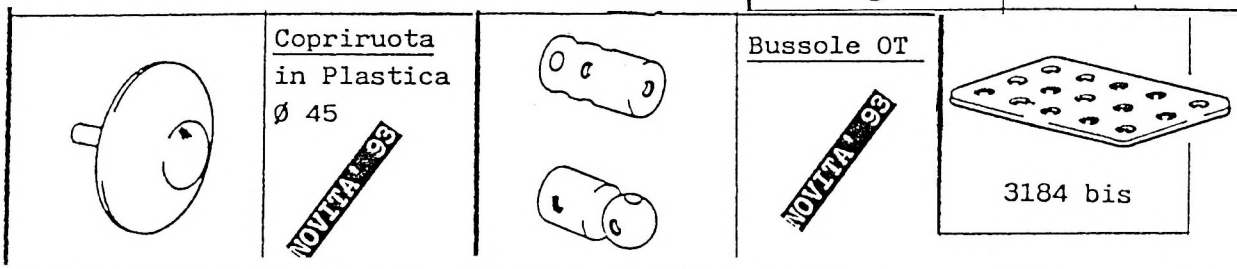
BRAL NEWS. Tobias Haffter kindly sent some BRAL leaflets and dates for them. The sets described in OSN 7/142 were current into 1992 and were replaced by the MEKABRAL range (see 8/190) later in that year. The official Illustrated List of Parts for 1992-93 includes, with one or two minor differences, the extra parts noted in OSN 8, and there are other changes, mostly additions. Details are as follows:

- The Boiler #3211 is shown without ends and the Boiler End, 3211A in 8/192, is now 3048 Tappi Caldaia; likewise the Plate 3185A becomes 3185 bis.
- Most of the new parts are shown below. 3184 bis is no doubt the 3184 (Channel Bearing) opened out; the others (New for '93) have no PNs and only one, Copriruota (Push-on Wheel?), has a description. The others, all made of brass (OT), are called Bussole (Bearings), and might be similar to MECCANO Parts 63c,64,136a,173a,179.
- New parts not illustrated are 3011 bis, Metallo c/bus (Wheel Disc maybe, 3011 is a Bush Wheel); and 3204 bis which is labelled twice, once as Plastica and below Plastica Traspar. - 3204 is the 11x5 hole Flanged Plate but a plastic, transparent version, it doesn't sound likely. Also the Flexible Plates 3186-91 are marked as being in two versions, plastic and metal, the latter have 'bis' after the PN.
- Two deletions, the 75mm Tyre 3016 and the Wire Screwdriver 3239.

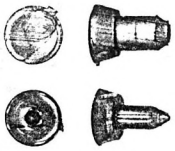
The material from which some of the parts are made is shown: all 'brassware', all gears, Sprockets 3019-23, and the Pulleys 3002 and 3007 (15mm with boss and 38mm) are brass; the Flanged and Bush Wheels, the Sprockets 3017-18, all the remaining Pulleys less than 38mm dia, and the Chimney Adaptor are labelled ZAMA, which is I think the zinc based MAZAC alloy. The 77mm Spoked Wheels are cast aluminium.

Peter Kessler wrote that the small 'Kit' models are rather flimsy but can easily be improved by adding a few extra parts.



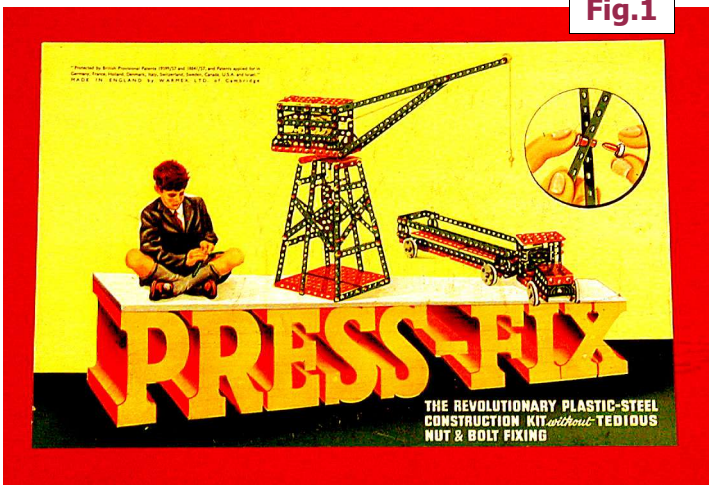


PRESS-FIX. I've never seen a PRESS-FIX Set so I was agog when Geoff Wright showed me a PRESS-FIX box recently. Unfortunately it wasn't the PRESS-FIX in MCS but a plastic set from the same company. But quite possibly the plastic Plugs and Sockets that are used instead of nuts and bolts are the same; they are shown opposite, the o/d of the Socket is .187" and that of the Plug, .128". Also the plastic Wheels look as if they might be the ones described in MCS, they are a push fit on the .172" dia steel Axles and two of them together form a Pulley. On the Instruction Sheet is Copyright 1959 so if the dates in MCS are correct the plastic PRESS-FIX came after the metal version.



PRESS-FIX This was a 1950s UK system with a handful of more or less conventional parts, mostly metal, but held together by little white plastic Plugs pushed into little red plastic Sockets. These last two parts were actually described in 9/227: they were from an all-plastic set by the same maker, also called PRESS-FIX. This account is based on one set, incomplete but with examples of all the parts except the DAS.

Fig.1



PRESS-FIX was made by Warmex Ltd, Swavesey – a village near Cambridge. It is thought that there was only one metal outfit, and that it came before the plastic version. The lid of the present outfit mentions two 1957 provisional patents, 57/19599 & 57/18841. The model leaflet belonging to the plastic set in OSN 9 was Copyright 1959 and an ad from Anglocentrop Ltd., 62 Oxford Street, London, W.1 (presumably a distributor) in the Jan. 1960 Games & Toys showed models made from the plastic parts.

The SET is in a red box, 43¾*31*2½cm, with the label, 138*211mm, in Fig.1. (A box, 40½*29¼*2½cm was mentioned in MCS.)

Fig.2

The PARTS in their pale blue moulded tray can be seen in Fig.2 (the left side matches the right) & Fig.3. Notes on them follow with, in curly brackets, the quantities of parts found in the present set, those found in the MCS set, and those needed for the manual models. Where a part is in more than one colour the quantity of each is given.

Fig.3

• **Holes** are 4.7mm except that the bores of the circular parts are a little smaller. The pitch of the holes in the Flanged Plate is 12.7mm but it is 12.8mm in the other parts. All the holes are round.

• **Quality** Apart from the hole pitch the parts are well made and well finished.

• **Flanged Plate**, 5*11h. {1 blue, 1 red; 1 blue, 1 red; 2}

• **Strips**, 5h {9 blue & 1 green; 12 blue & 6 green; 8}; 11h {4; 6; 6}; 19h {1; 6; 4}; 25h {3; 6; 4}. They are made of rather springy steel; their width is 12.7-12.8mm and the ends are almost fully radiused. The 19 & 25h are .9mm thick; the 5 & 11h .8mm.• **DAS**, not seen – they were probably in the 3 empty oblong recesses in Fig.2. {0; 6 green; 6}

• **Trunnion**. {8; 9; 8} • **Flat Trunnion**. {8; 10; 8}

• **Axle**, 4" long, 4.68mm Ø. {3; 5; 5} The tray has recesses for only 4 Axles.

• **Pulley Disc**, 39mm Ø. The bore is 4.6mm and grips the Axle well. {4 red, 4 yellow, 1 gold; 5 red, 5 yellow; 10} In the present set 2 each of the red & yellow have their peripheral holes counterbored, as can be seen in Fig.3. • **Small Pulley Disc** or **Axle Stop**, see Fig.3. 16½mm Ø with a 4.5mm bore – it is difficult to push onto an Axle. It is not used in any of the models, nor is it mentioned in MCS. {0; 4; 0}

• **Plug & Socket**. The Plug's shank is 3.25mm Ø (probably a nominal ⅛"); the Socket's 4.75mm (almost 3/16"), with a bore of 2.9mm. The parts are very hard to push together and pliers are often needed to pull them apart. Were they easier to use 50 years ago? Both shanks are 7½mm long, and both heads are 7.6mm Ø. {86; 79; 77}

• **Tool**, 52mm long, see Fig.3 (in Fig.2 it is in the blue Flanged Plate). The fork end is used under the Plug head to pull it out of the Socket. If the Socket's head is then inaccessible the spike can be used to push it out of a hole. {1 green; 1 black; 1}

• **Cord**, a Hank of is mentioned in MCS.

The MANUAL has its covers and possibly other outer pages missing with 12 unnumbered pages remaining. MCS talks of 16 pages and a cover similar to the lid label, but it isn't clear if the 16 pages included the covers.

p1 of the 12 pages starts rather strangely with talk of youngsters who 'are not bored with the time-consuming nut and bolt assemblies' and also of Press-fix as 'ideal in occupational therapy for patients of all ages'. The use of the Plug & Socket, and the Tool are then described.

22 models are shown on the next 11 pages, 2 to a page, from HANDCART to OPEN TRUCK. They provide a good selection including Fairground Models, Cranes, Machine Tools, and an Excavator, but none of course approach the two models on the lid in terms of size. A small halftone is shown for each model, plus a list of parts, and fairly lengthy instructions. The photos are adequate only for the smaller models, and the instructions are unclear in some cases. Three of the models are shown in Fig.4 on the next page, at their original size (but rearranged), and the photos show as much detail as could be seen in the Manual.

My Model is shown in Fig.5, basically the Power Press in Fig.4 but with the bracing changed because I had only 4 of the 11h Strips, & no DAS. (The 3 DAS used at the top are substitute parts, from PREMIER.)

The changes made to the bearings for the vertical spindle were because I couldn't understand how the original was constructed.

Two parts joined by a Plug & Socket were held closely together if the Plug was pressed fully home but even so the parts could turn relative to one another under a quite small load. Thus bracing was important and in this model all was well with one exception – the inner bearing for the top horizontal shaft was held only by the holes in the lugs of a DAS. There was no obvious way of improving matters short of a complete redesign. This didn't stop the model working but care was needed not to knock the bearing out of alignment. One other unsatisfactory feature was that the only way of joining two parts so that they would turn freely relative to one another was to not push the Plug fully home and thus allow both parts to ride on the Plug itself. This worked but was untidy with play of nearly 1½mm. Another 'untidiness' was that the Wheels were made of a non-rigid plastic and it was difficult to get the face to run true – this was a problem with the red 'big end' Wheel on the top shaft.

Assembling the model would probably have been a little quicker than using N&B if the Plugs had not been so difficult to get into and out of the Sockets. The Axle Stops on the top horizontal shaft were not in the Manual version but proved invaluable in aligning the connecting rod correctly.

With the mix of colours the appearance of the model was not to my taste and the red & white of the rather intrusive Plugs & Sockets would have looked more at home on a Christmas tree.

Another Plastic PRESS-FIX SET Apart from Axles all the parts in the OSN 9 set were plastic but a larger plastic set seen on Ebay looks to have steel DAS.

Fig.5

PRESS-FIX

CRANE

Parts required

1 Base Plate
4 5½ in. Perforated Strips
5 2½ in. Perforated Strips
2 2½ in. Bent Perforated Strips
2 Bent Triangular Pieces
6 Wheels
2 Spindles
28 Plastic plugs and sockets
4 Flat Triangular Pieces

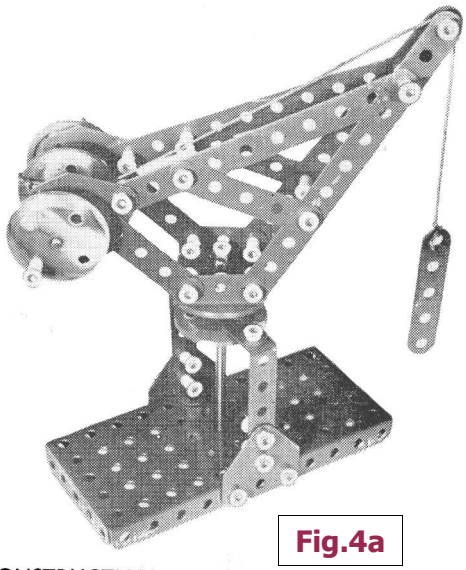


Fig.4a

CONSTRUCTION

The Crane is fixed to the top of the vertical Spindle by means of two Bent Triangular Pieces. These are fixed to the top Wheel. Another Wheel is placed under the 2½ in. Strip which is fixed to two 2½ in. Bent Strips which in turn are fixed to the side of the Base Plate by two Flat Triangular Pieces. Another Wheel is placed on the vertical Spindle under the Base Plate. The up and down movement of the string is made by the same means as on the model of the Hoist.

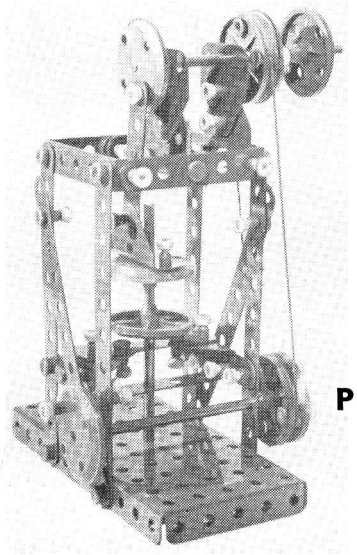
ELECTRIC TRUCK

Parts required

2 Base Plates	6 2½ in. Bent Strips	3 Spindles
6 5½ in. Strips	8 Flat Triangular Pieces	7 Weeels
8 2½ in. Strips	2 Bent Triangular Pieces	57 Plugs and Sockets

CONSTRUCTION

The two Base Plates are joined together with two 2½ in. Strips and two Flat Triangular Pieces. Two 5½ in. Strips are used to fill the gap in between the two Base Plates. The front Platform is fixed onto the Base Plate with two 5½ in. Strips. Four 2½ in. Bent Strips are fixed across these two strips. Two Flat Triangular Pieces form the front with two 2½ in. Strips fixed onto the top of them. The front wheel assembly is made by fixing two Bent Triangular Pieces onto a wheel; on these fix a Flat Triangular Piece, join these two together with a 2½ in. Bent Strip; the wheels are fixed onto the Bottom Holes; another wheel is used to space this Assembly from the Platform, the Vertical Spindle is then passed through the Platform through a Bent 2½ in. Strip with a wheel on top, onto which is fixed a 2½ in. Strip which is used for a Handle.



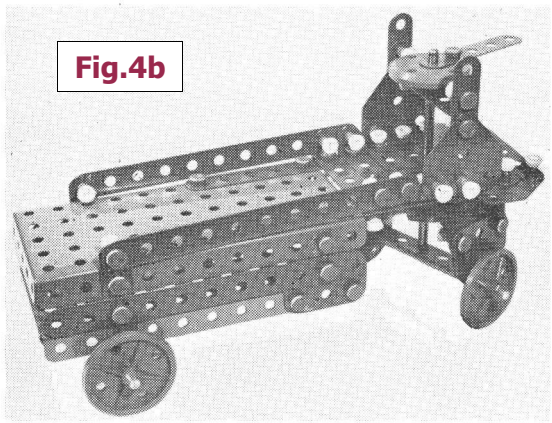


Fig.4b

POWER PRESS

Parts required

1 Base Plate	4 2½ in. Bent Strips	9 Wheels
6 5½ in. Strips	3 Bent Triangular Pieces	3 Spindles
6 2½ in. Strips	4 Flat Triangular Pieces	51 Plugs and Sockets

CONSTRUCTION

Four 5½ in. Strips form the Main Uprights, another two are added to strengthen the Frame. The four 5½ in. Strips are joined together at the top with two 2½ in. Strips, and two 2½ in. Bent Strips, a further 2½ in. Bent Strip is fixed in the centre to which Flat Triangular Pieces are fixed. Another two are fixed on the end 2½ in. Bent Strip. These form the Bearings for the top Spindle. A double Bearing for the Vertical Spindle is made by fixing a 2½ in. Strip on top of a 2½ in. Bent Strip. The Bearings are fixed to the Main Uprights with two 2½ in. Strips fixed onto two Bent Triangular Pieces. The two Spindles are connected together with a 2½ in. Strip pivotted on a Bent Triangular Piece, which is fixed onto the Wheel on the Vertical Spindle. The Machine is driven with a Handle at the bottom with a piece of cord looped round the two Pulleys to act as a Drive.

Fig.4c