MECCANO 2MS POWER DRIVE SET

WINDPUMP

Supplementary Leaflet

PLEASE READ CAREFULLY BEFORE STARTING TO BUILD

Fully detailed in this Leaflet are 6 working models – a few examples of the many it is possible to build with the Meccano 2MS Power Drive Set. Intended to show how simple constructions can be driven electrically, they make use of the ultra-modern Meccano Junior Power Drive Unit which is a powerful 4½v. low consumption miniature D.C. electric motor. Full details of the Junior Power-Drive Unit and instructions for operating it are given below.

In this Leaflet, the constructional details of the models are explained by half-tone illustrations (photographs) and line drawings which can be followed without difficulty.

A list of the contents of the 2MS Set is given on page 6. Each model is accompanied by a list of the parts needed to make it and, in this list, the PART NUMBERS are printed in RED while the QUANTITY OF PARTS REQUIRED is printed in BLACK. In the assembly illustrations, certain Part Numbers are also printed in red to help in identifying them. Where difficulty arises, the parts themselves can be identified by checking the Part Number against the Meccano Part illustrations on the back covers of either of the other two manuals packed with this set. The Power Drive Unit is identified in the drawings by the letters P.D.U.

Some models are more easily built in separate units and these are illustrated in the same way. The points at which these units are bolted together to form the complete model are indicated in the drawings by RED dots in the holes or by RED boltheads. In cases where red indicating lines pass behind plates or other obscuring parts of a model, these lines are shown dotted.

JUNIOR POWER DRIVE UNIT OPERATING INSTRUCTIONS

The Meccano Junior Power Drive Unit consists of a small but powerful electric motor coupled to a reduction gear mechanism, both built into a strong moulded housing designed to look like a piece of full-size electrical plant equipment. The motor will run from a Direct Current supply of 4½ volts as supplied by a battery such as types 703, F40, 1289 or equivalent. The terminals of the battery should be connected to the red and the white wires running from the motor.

Mounted on the end of the Unit is a stop forward reverse lever, marked "L" in the illustrations. Two small holes in this lever are designed to take lengths of cord or wire so that, if the Unit is built inside a model where it cannot be reached, it can be controlled from elsewhere. The base of the Unit is pierced with holes of a standard size and spacing to enable it to be bolted easily into Meccano models.

The speed at the output shaft of the Unit is 1000 r.p.m. at 4½ volts. Note that it should not be operated from a higher voltage than this and it should not be run at full speed for long periods of time without short stops to allow it to cool. If it is found that the motor will not power a model then it must be turned off IMMEDIATELY.

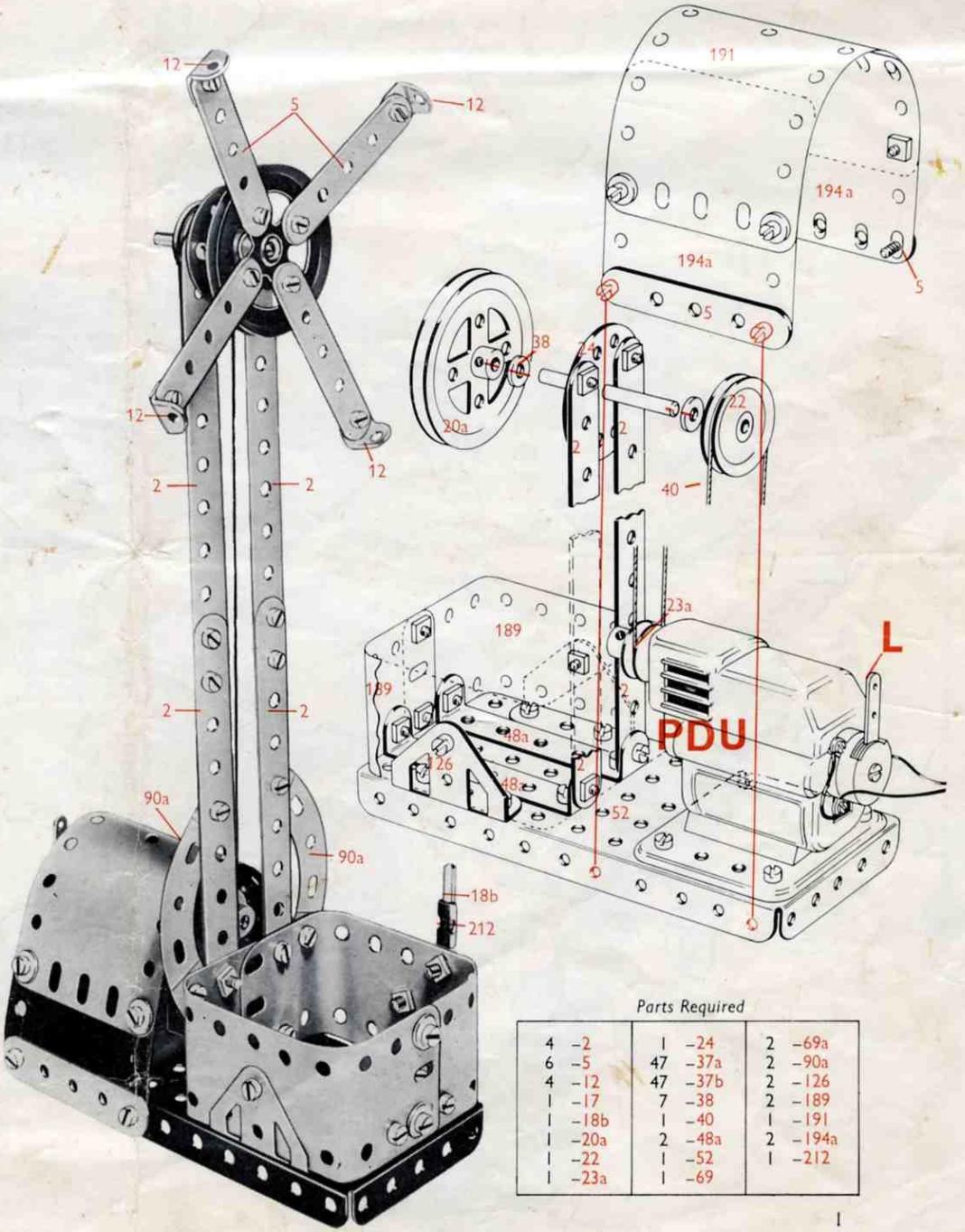
BRUSH REPLACEMENT

The Junior Power Drive Unit is designed so that the motor brushes can be replaced. A hole in the casing, immediately below the control switch, gives access to a small screw in the side of the motor. If this is unscrewed, the brush assembly can be withdrawn as a unit. The brushes are connected by wires to two of four screw terminals attached to the control switch and the wires must be disconnected from these terminals before the brushes can be completely removed.

To replace the brushes, the above sequence is reversed, care being taken to see that the brushes lie one each side of the commutator when in position. Quote Sales No. 11160 when ordering replacement brush assembly.

LUBRICATION

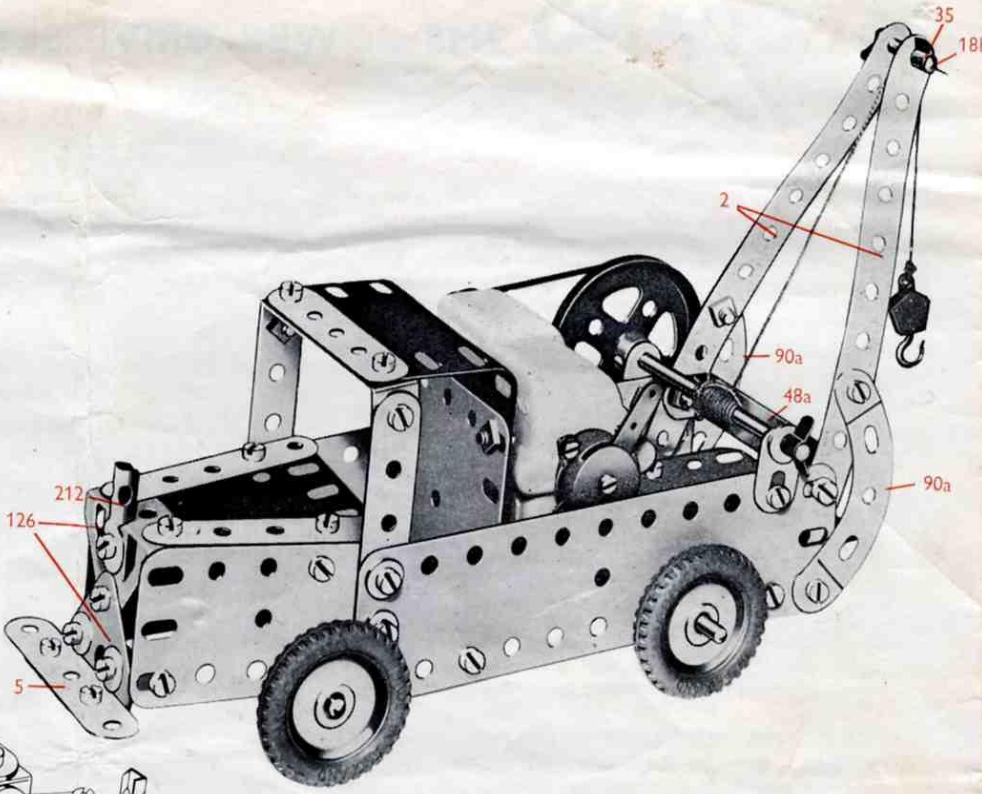
The only lubrication necessary is to the output shaft bearing. This is achieved by applying a little light sewing machine oil to the visible section of the output shaft and allowing it to run down through the bearing. Oil must NEVER be applied to the motor, itself.

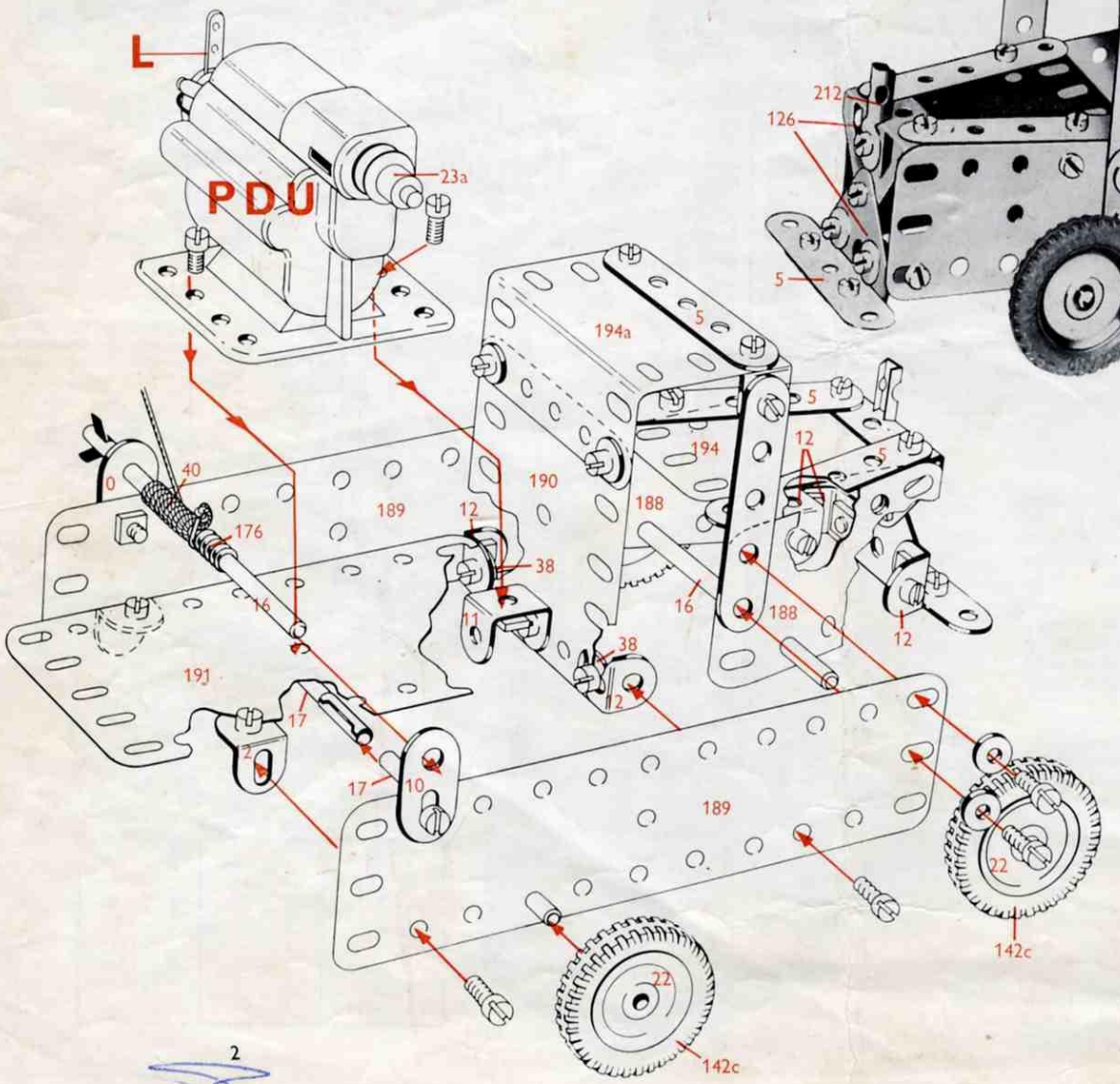


Parts Required

4 –2	1 –24	2 –69a
6 –5	47 –37a	2 –90a
4 –12	47 –37b	2 –126
1 –17	7 –38	2 –189
1 –18b	1 –40	1 –191
1 –20a	2 –48a	2 –194a
1 –22	1 –52	1 –212
1 –23a	1 –69	

WRECKING TRUCK

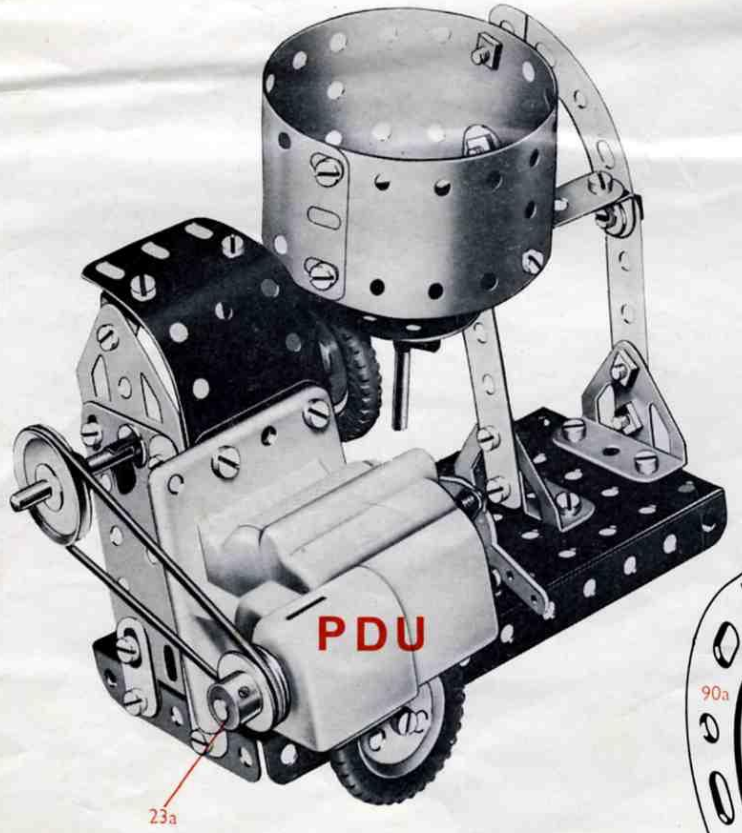




Parts Required

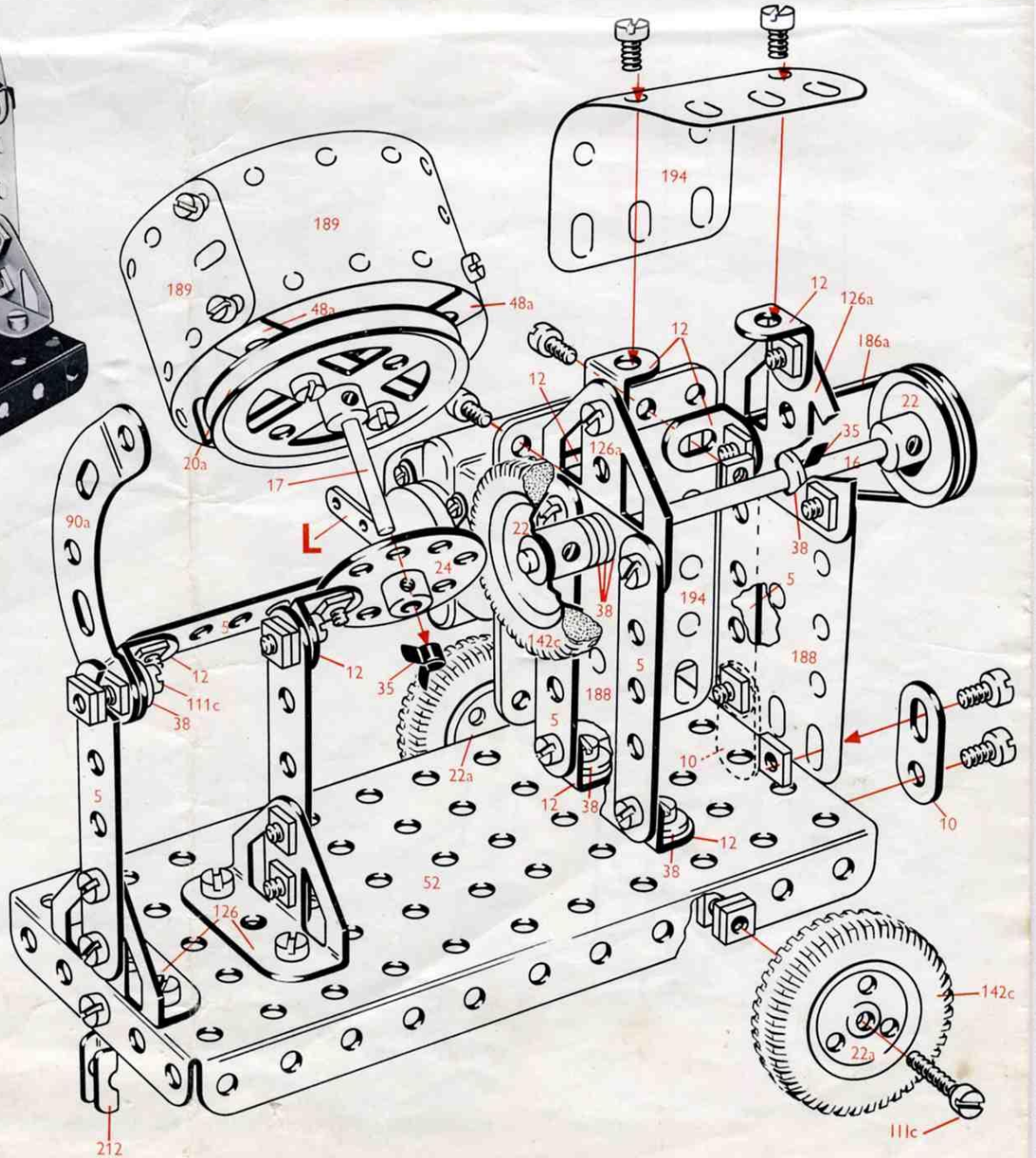
2 – 2	1 – 69
6 – 5	5 – 69a
2 – 10	2 – 90a
1 – 11	2 – 126
8 – 12	4 – 142c
2 – 16	1 – 176
2 – 17	1 – 186a
1 – 18b	2 – 188
1 – 20a	2 – 189
4 – 22	1 – 190
1 – 23a	1 – 191
3 – 35	1 – 194
38 – 37a	1 – 194a
38 – 37b	1 – 212
10 – 38	1 – 213
1 – 40	1 – Small Hook
2 – 48a	

CEMENT MIXER



Parts Required

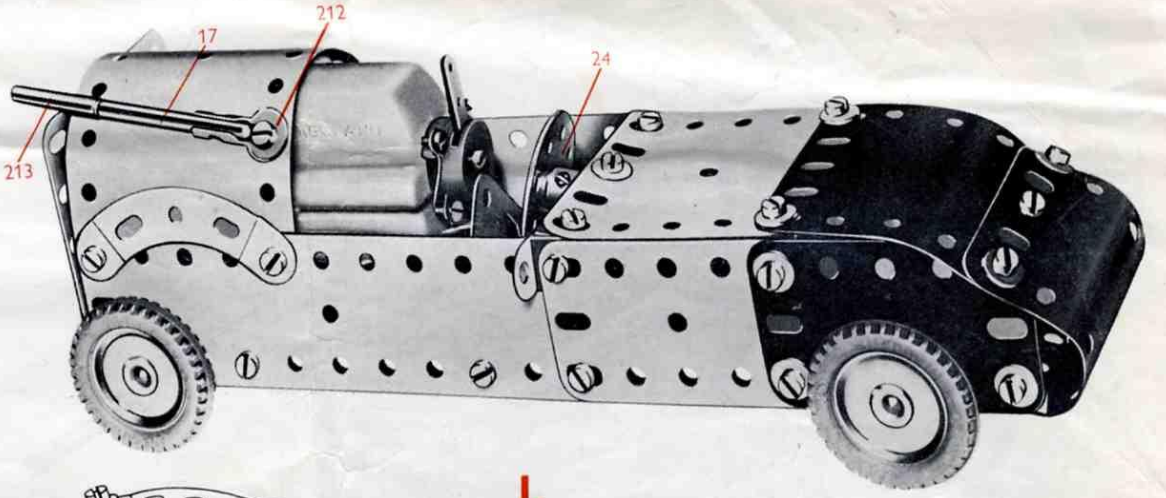
7	– 5	2	– 48a
2	– 10	1	– 52
8	– 12	1	– 69
1	– 16	4	– 69a
1	– 17	1	– 90a
1	– 20a	3	– 111c
2	– 22	2	– 126
2	– 22a	2	– 126a
1	– 23a	3	– 142c
1	– 24	1	– 186a
2	– 35	2	– 188
48	– 37a	2	– 189
38	– 37b	2	– 194
5	– 38	1	– 212

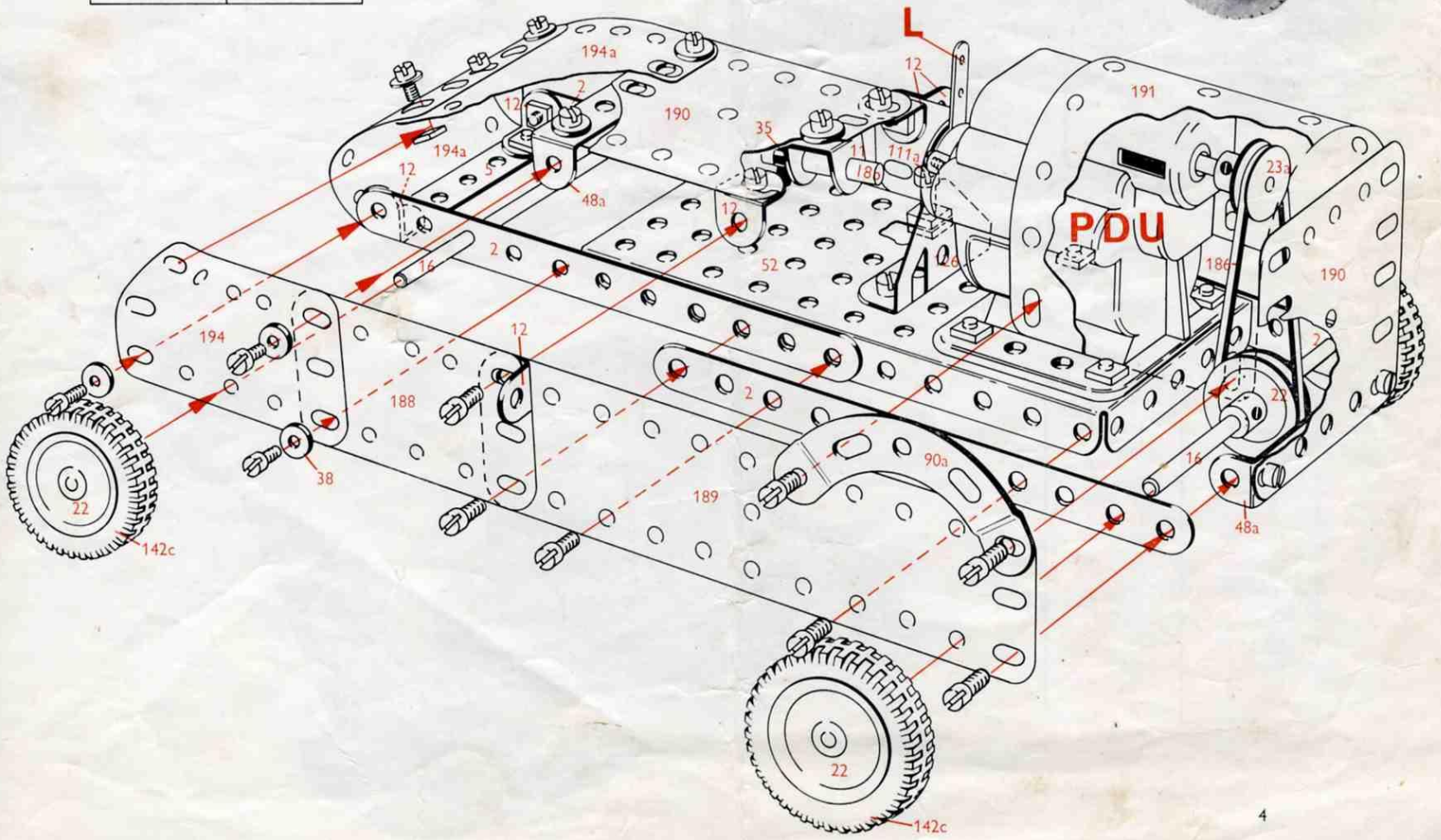


RACING CAR

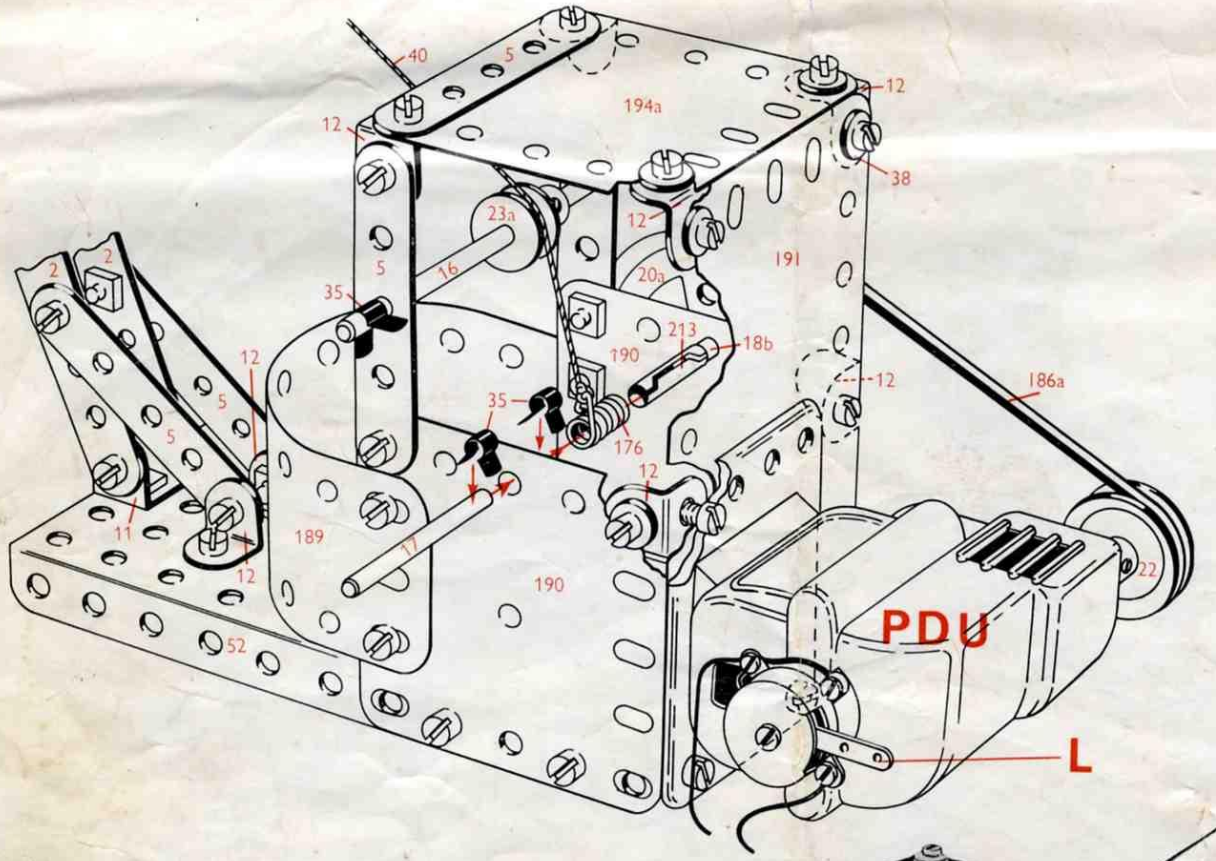
Parts Required

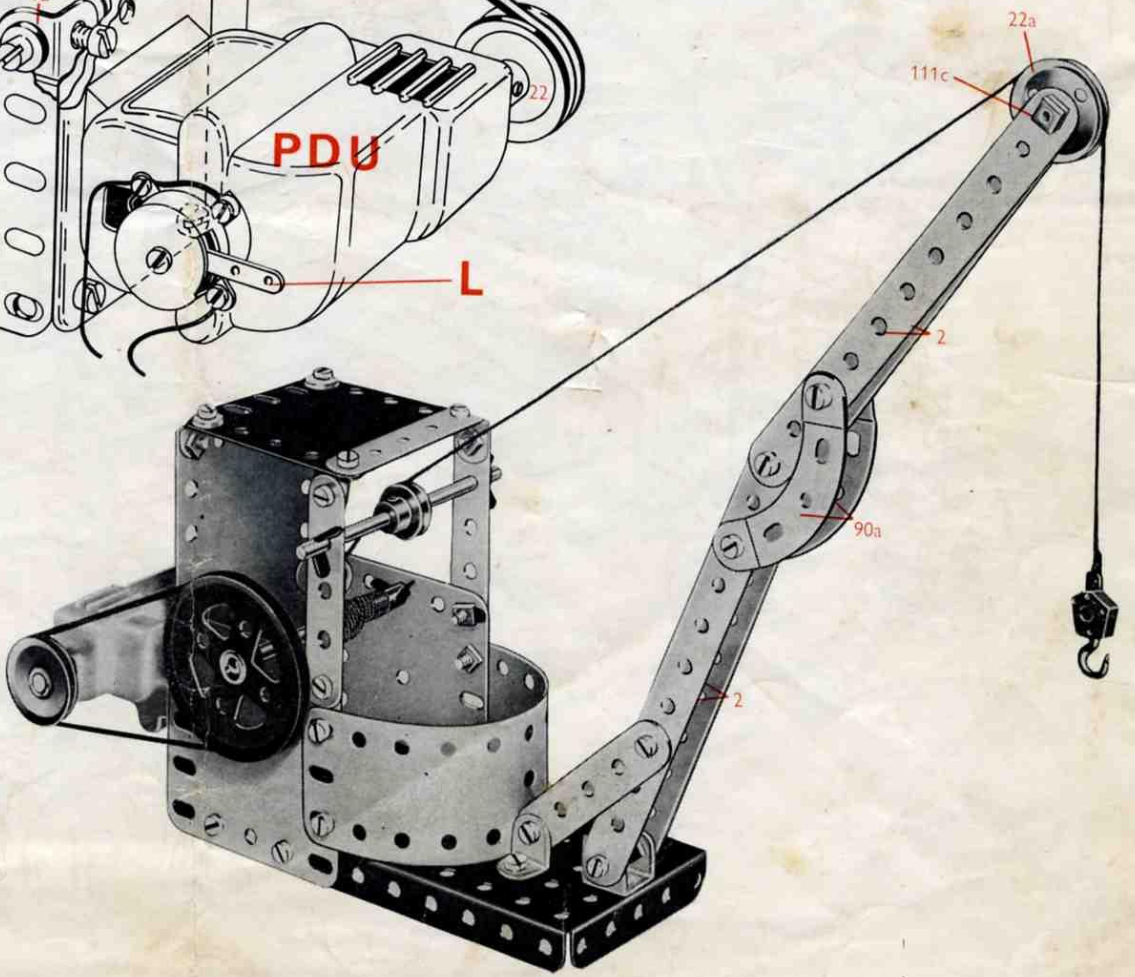
4	–	2	1	–	52
1	–	5	6	–	69a
1	–	11	2	–	90a
6	–	12	1	–	111c
2	–	16	4	–	142c
1	–	17	1	–	186
1	–	18b	2	–	188
5	–	22	2	–	189
1	–	23a	2	–	190
1	–	24	1	–	191
1	–	35	2	–	194
41	–	37a	2	–	194a
39	–	37b	1	–	212
10	–	38	1	–	213
2	–	48a			





CRANE





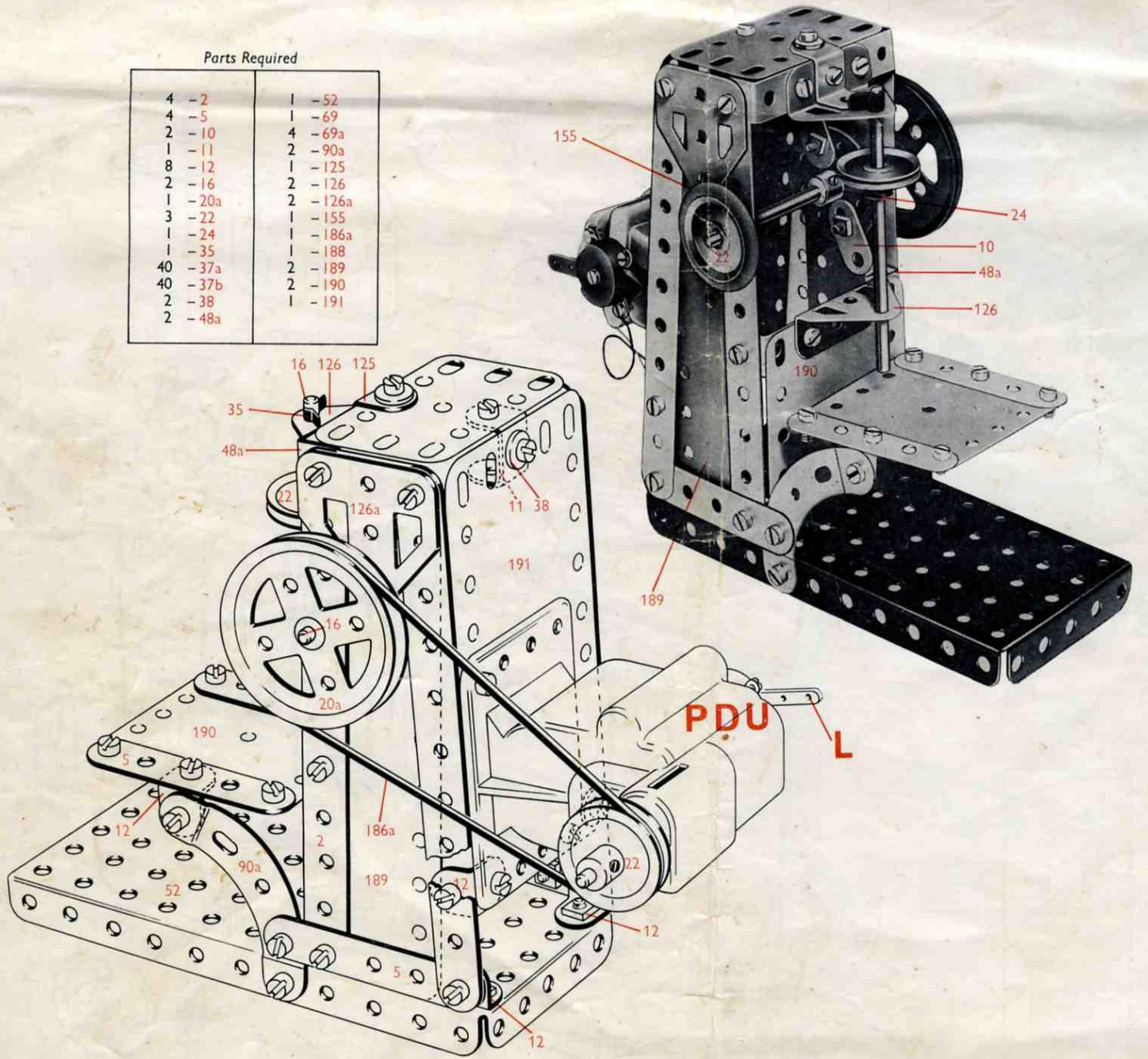
Parts Required

4	– 2	1	– 40
5	– 5	1	– 52
1	– 11	1	– 69
8	– 12	2	– 69a
1	– 16	2	– 90a
1	– 17	1	– 111c
1	– 18b	1	– 176
1	– 20a	1	– 186a
1	– 22	1	– 189
1	– 22a	1	– 190
1	– 23a	1	– 191
4	– 35	1	– 194a
42	– 37a	1	– 213
41	– 37b	1	– Small Hook
10	– 38		

STAMPING MILL

Parts Required

4 – 2	1 – 52
4 – 5	1 – 69
2 – 10	4 – 69a
1 – 11	2 – 90a
8 – 12	1 – 125
2 – 16	2 – 126
1 – 20a	2 – 126a
3 – 22	1 – 155
1 – 24	1 – 186a
1 – 35	1 – 188
40 – 37a	2 – 189
40 – 37b	2 – 190
2 – 38	1 – 191
2 – 48a	



MECCANO 2MS POWER DRIVE SET

(Contents)

Quantity	*Part No.*
4	2
6	5
4	10
1	11
8	12
2	16
2	17
1	18b
1	19s
1	20a
5	22
2	22a
1	23a
1	24
2	34
6	35
1	36
58	37a
52	37b
10	38
1	40
2	48a
1	52
2	69
6	69a
2	90a
4	111c
1	125
2	126
2	126a
4	142c
2	155
1	176
1	186
2	186a
1	186b
2	188
2	189
2	190
1	191
2	193
2	194
2	194a
1	199
1	212
1	213
1	Small Hook

Junior Power Drive Unit

MECCANO LIMITED, BINNS ROAD, LIVERPOOL, ENGLAND

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