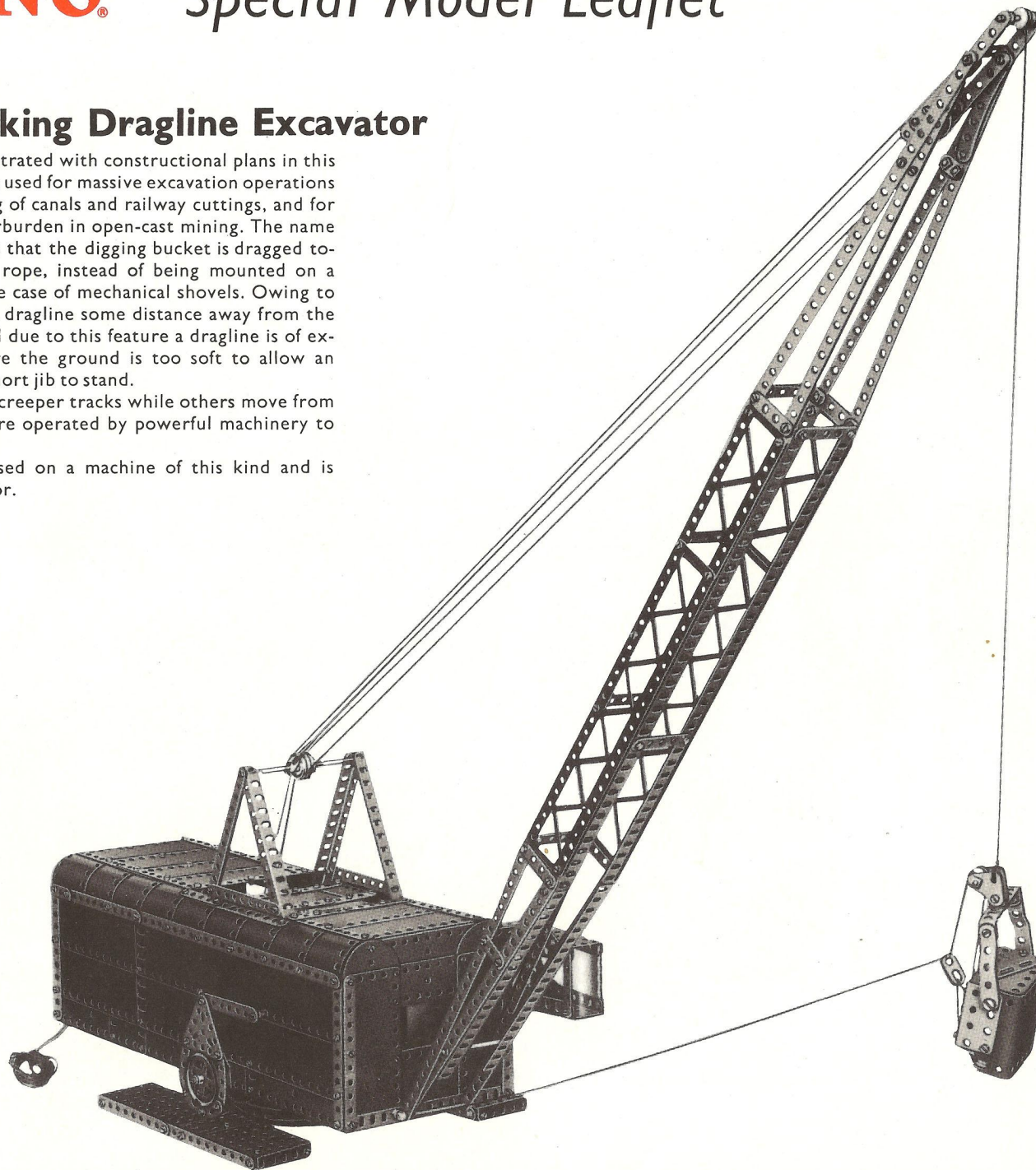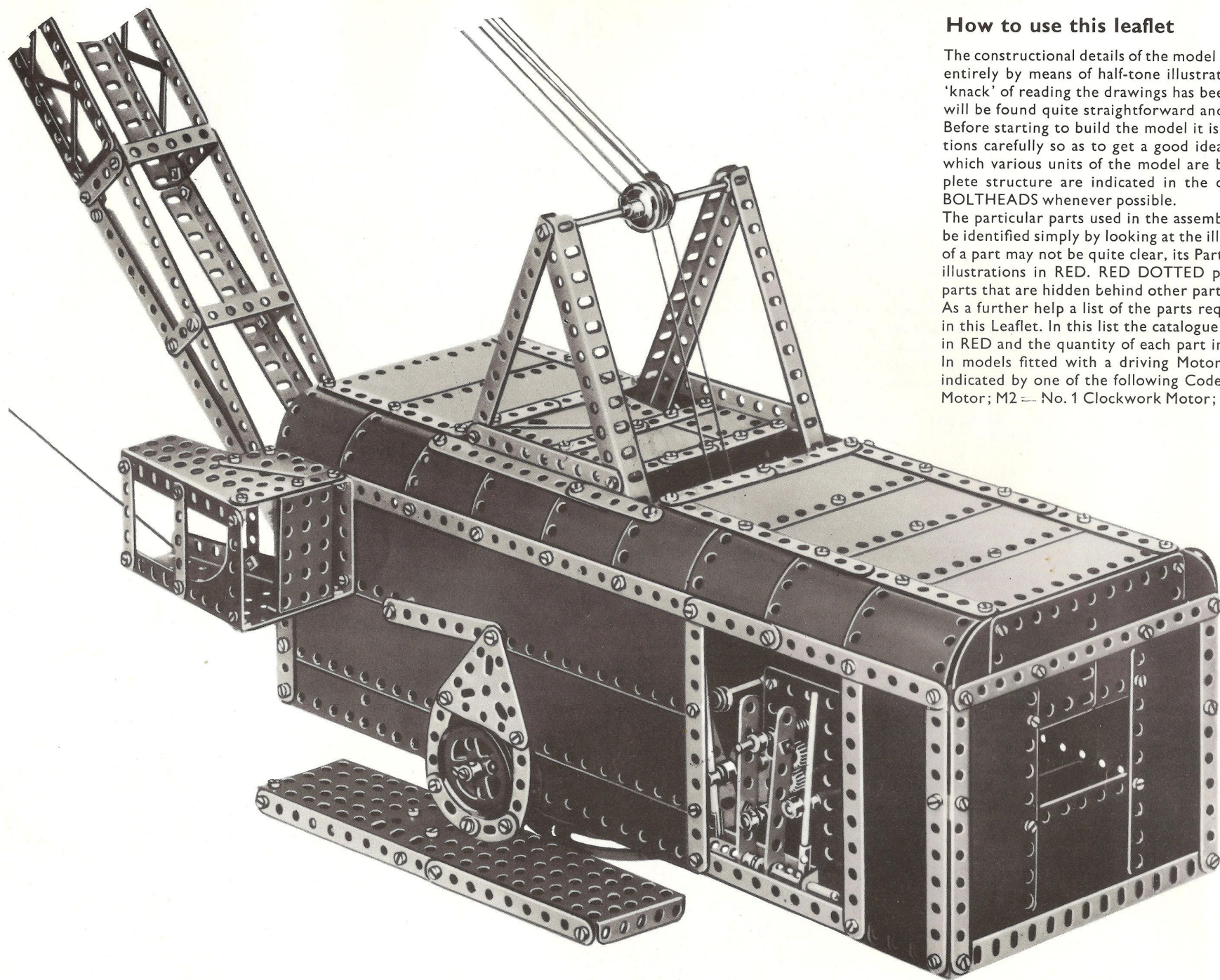# MECCANO. *Special Model Leaflet*

10.24 Giant Walking Dragline Excavator

The Giant Dragline Excavator illustrated with constructional plans in this Leaflet, is based on actual machines used for massive excavation operations such as are required in the making of canals and railway cuttings, and for work in clay pits and clearing overburden in open-cast mining. The name 'dragline' is derived from the fact that the digging bucket is dragged towards the machine on a flexible rope, instead of being mounted on a pivoted arm fixed to a jib as in the case of mechanical shovels. Owing to this action it is possible to place a dragline some distance away from the scene of the actual operations, and due to this feature a dragline is of exceptional value in locations where the ground is too soft to allow an ordinary mechanical shovel with short jib to stand.

Some draglines are mounted with creeper tracks while others move from place to place on giant feet that are operated by powerful machinery to give a 'walking' motion.

The model illustrated here is based on a machine of this kind and is powered by an E15R Electric Motor.
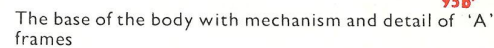

This model can be built with Meccano Set No. 10

How to use this leaflet

The constructional details of the model shown in this Leafl[et]
entirely by means of half-tone illustrations and line draw[ings]
'knack' of reading the drawings has been acquired assembl[y]
will be found quite straightforward and simple to carry o[ut]
Before starting to build the model it is advisable to study
tions carefully so as to get a good idea of its various sec[tions]
which various units of the model are bolted together to
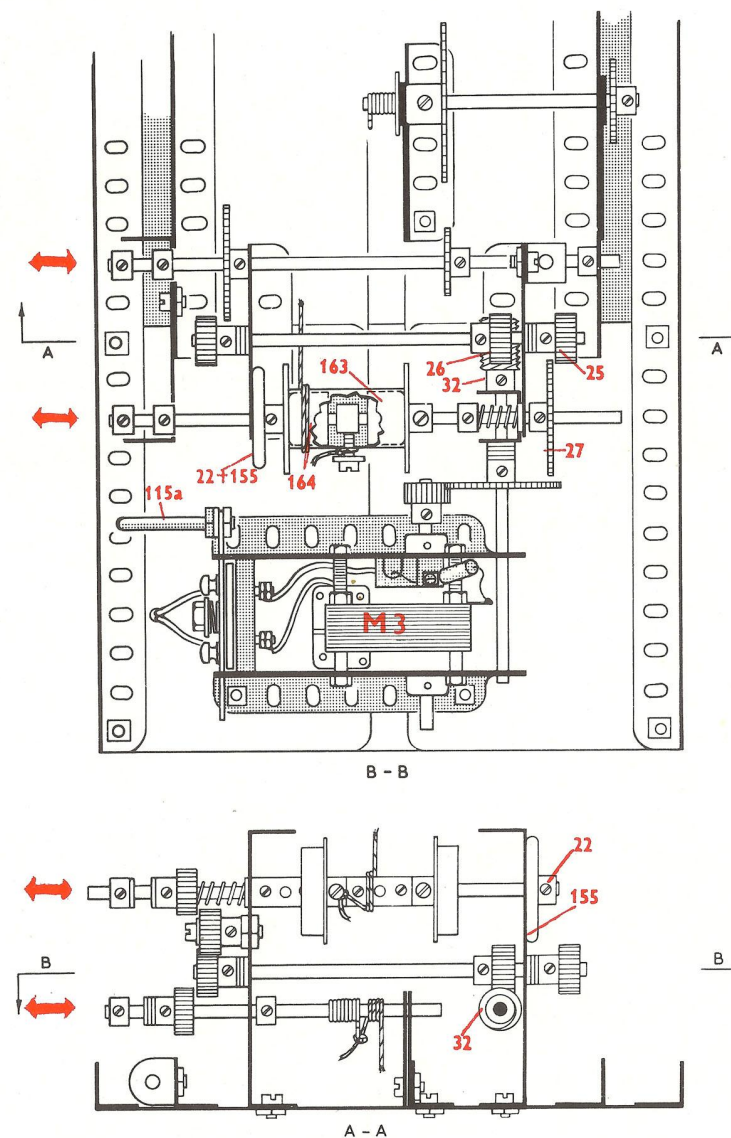plete structure are indicated in the drawings by RED
BOLTHEADS whenever possible.

The particular parts used in the assembly of the model ca[n]
be identified simply by looking at the illustrations, but wh[ere]
of a part may not be quite clear, its Part Number is printe[d]
illustrations in RED. RED DOTTED pointer lines are u[sed]
parts that are hidden behind other parts of the structure.
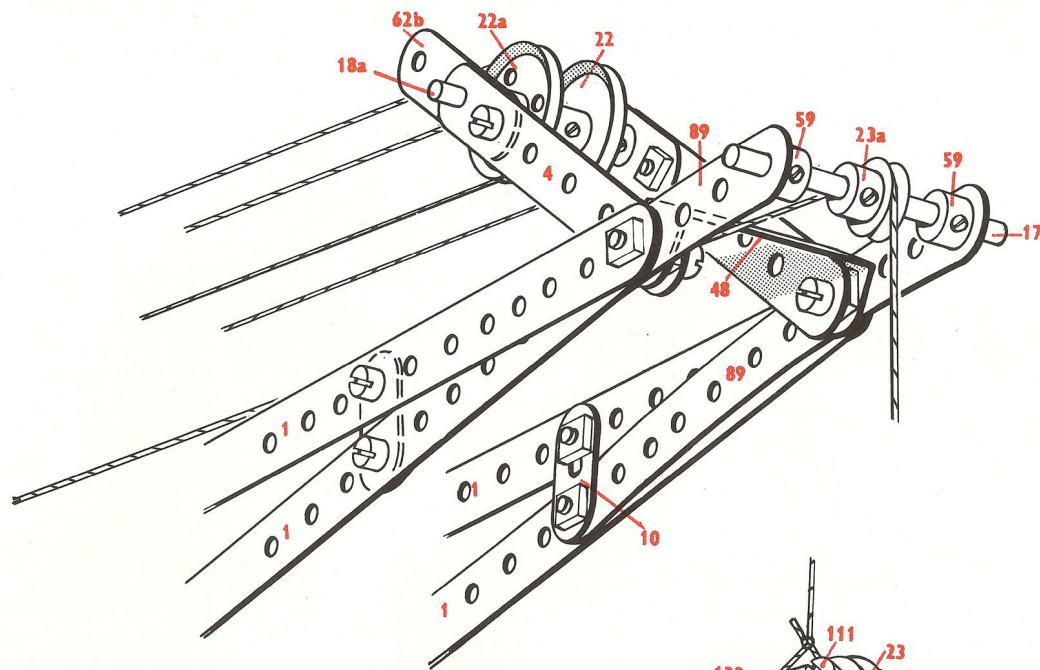
As a further help a list of the parts required to build the
in this Leaflet. In this list the catalogue numbers of the pa[rts]
in RED and the quantity of each part in BLACK.

In models fitted with a driving Motor the particular ty[pe]
indicated by one of the following Code Marks: M1 = Mo[tor]
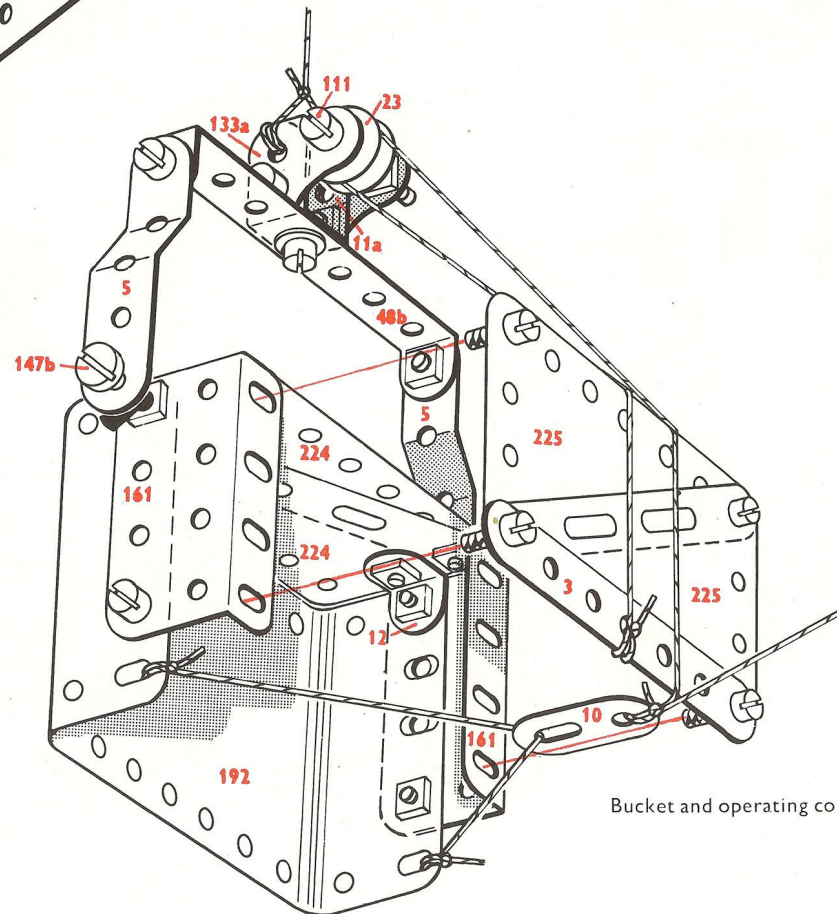Motor; M2 = No. 1 Clockwork Motor; M3 = Meccano Ele[ctric]

One of the

n in this Leaflet are explained
and line drawings. Once the
quired assembly of the model
ple to carry out.

sable to study all the illustra-
ts various sections. Points at
d together to form the com-
ngs by RED DOTS or RED

the model can in most cases
tions, but where the identity
mber is printed on the model
er lines are used to indicate
he structure.

d to build the model is given
bers of the parts are printed
ACK.

particular type of Motor is
ks: M1 = *Magic* Clockwork
= Meccano Electric Motor.

Layout of the winding mechanism and drive transmission
to the walking feet

The base of the body with mechanism and detail of 'A'
frames

One of the walking feet and its operating eccentric

The winding mechanism assembled, with control levers

Diagrammatic layout of the winding mechanism for the boom and digging bucket

B - B

A - A

The jib-head and pulley assembly

Bucket and operating cords

14	–	1	2	–	27a	3 – 111a
2	–	1b	1	–	32	10 – 111c
24	–	2	4	–	35	1 – 115a
6	–	2a	329	–	37a	2 – 120b
5	–	3	299	–	37b	6 – 126a
8	–	4	31	–	38	2 – 133a
13	–	5	1	–	38d	2 – 136
4	–	6	2	–	40	4 – 142a
5	–	6a	1	–	45	1 – 143
4	–	7a	1	–	48	1 – 146a
6	–	8	9	–	48a	2 – 147b
2	–	8a	3	–	48b	2 – 155
4	–	9	2	–	48c	2 – 161
1	–	9d	1	–	51	1 – 163
1	–	9f	2	–	52	2 – 164
4	–	10	4	–	52a	1 – 165
5	–	11	4	–	53	2 – 176
1	–	11a	2	–	53a	2 – 179
12	–	12	2	–	54	5 – 188
2	–	12b	12	–	59	6 – 189
3	–	14	2	–	62	12 – 190
3	–	15	2	–	62b	3 – 191
2	–	15a	6	–	63	12 – 192
1	–	15b	2	–	70	1 – 193a
5	–	16	2	–	76	2 – 193c
2	–	16a	1	–	80c	2 – 193e
4	–	17	2	–	89	2 – 194
4	–	18a	4	–	90	3 – 194d
2	–	20	4	–	90a	6 – 197
2	–	20a	1	–	94	6 – 200
4	–	20b	1	–	95	1 – 201
5	–	22	1	–	95b	2 – 212
4	–	22a	1	–	96	4 – 214
3	–	23	1	–	96a	2 – 221
1	–	23a	2	–	99	2 – 224
1	–	24	2	–	100	2 – 225
1	–	24a	1	–	102	2 – 226
1	–	25	2	–	108	4 – 235
5	–	26	2	–	109	*1 – M3
1	–	27	2	–	111	

* Not included in set

The base and roller bearing on which the Dragline body is mounted
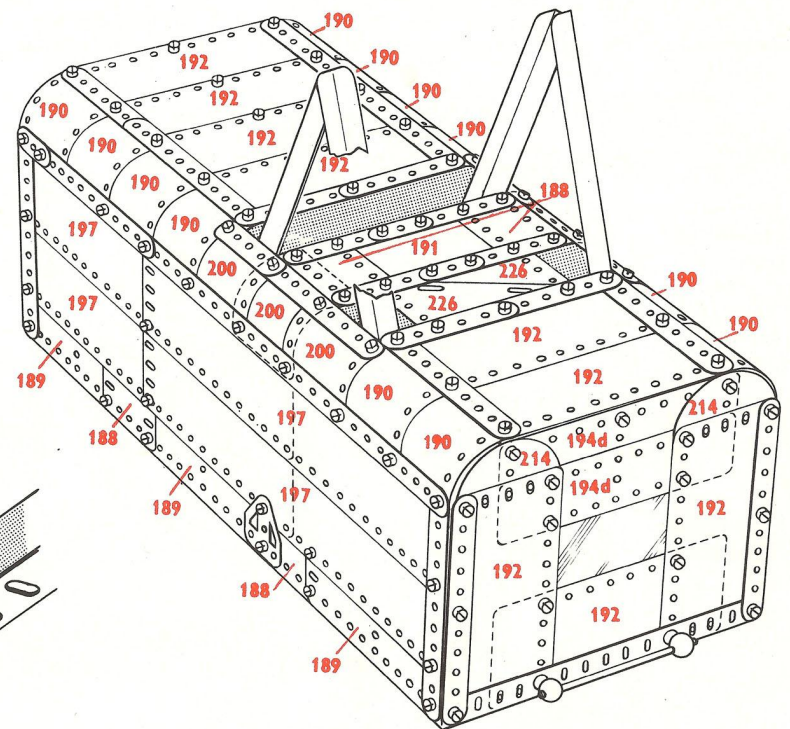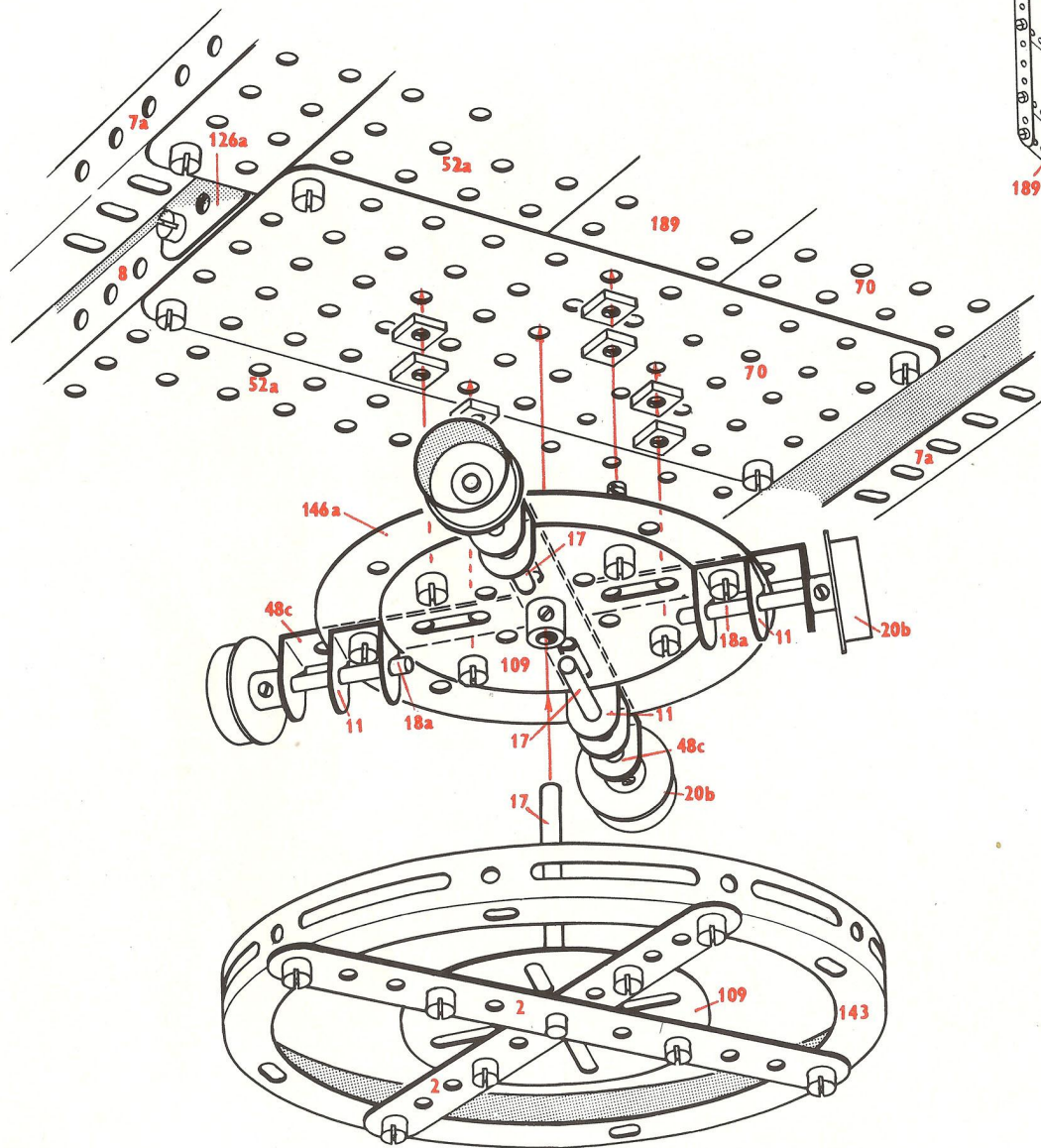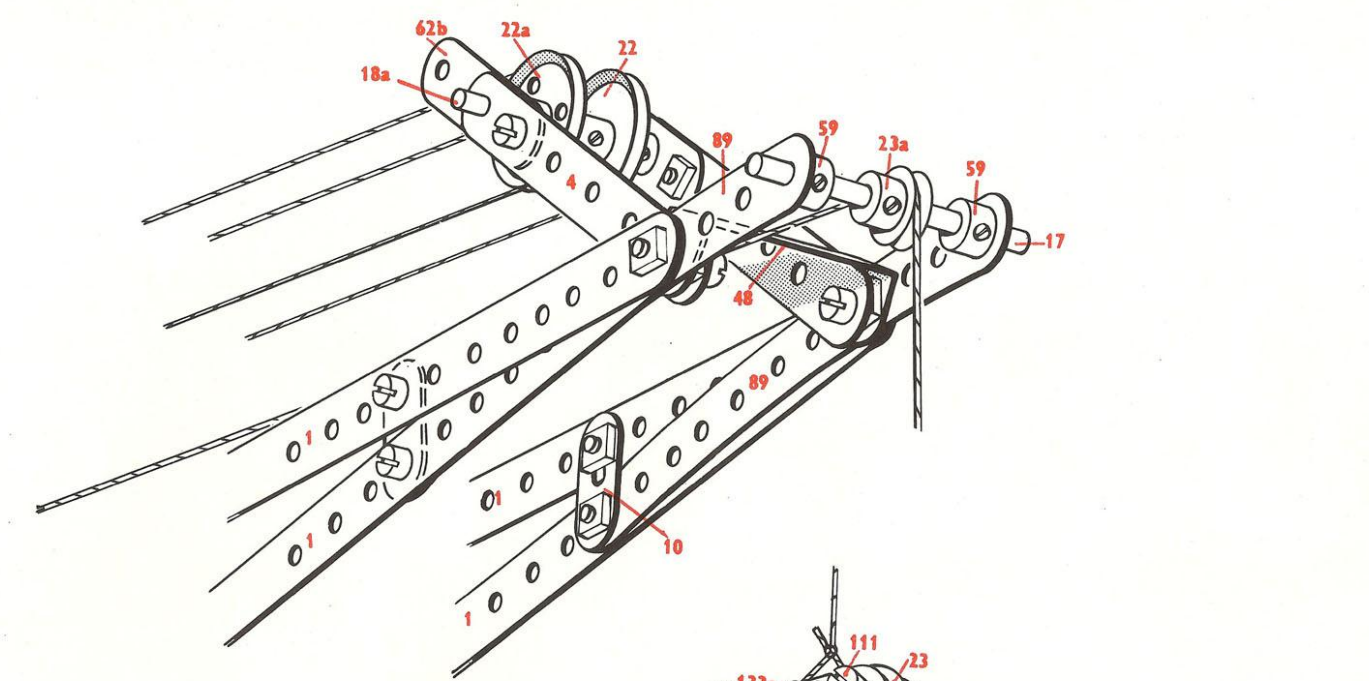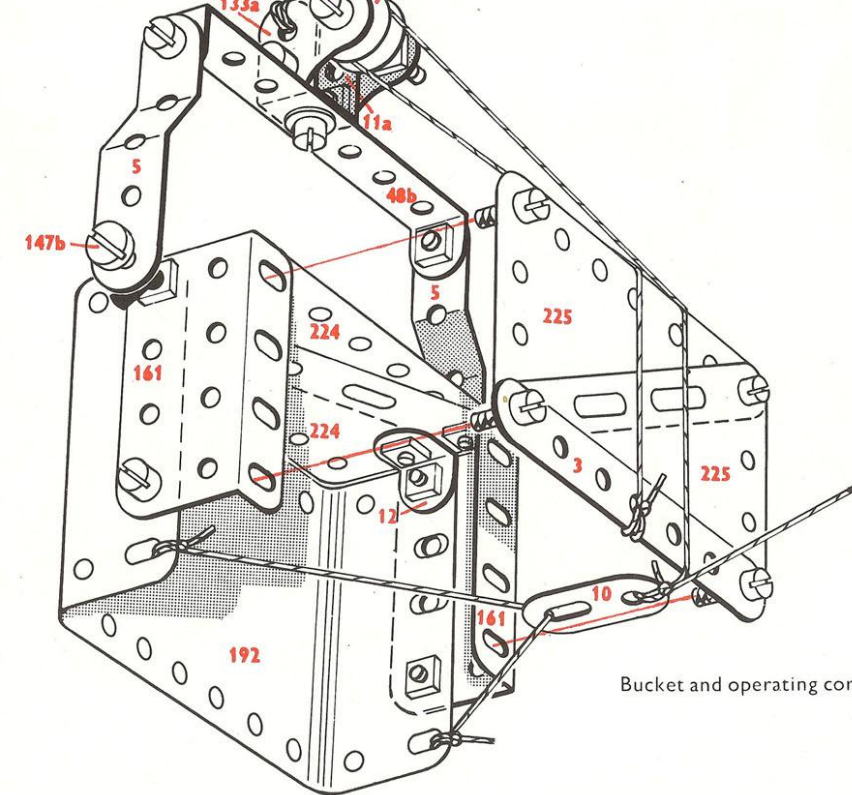
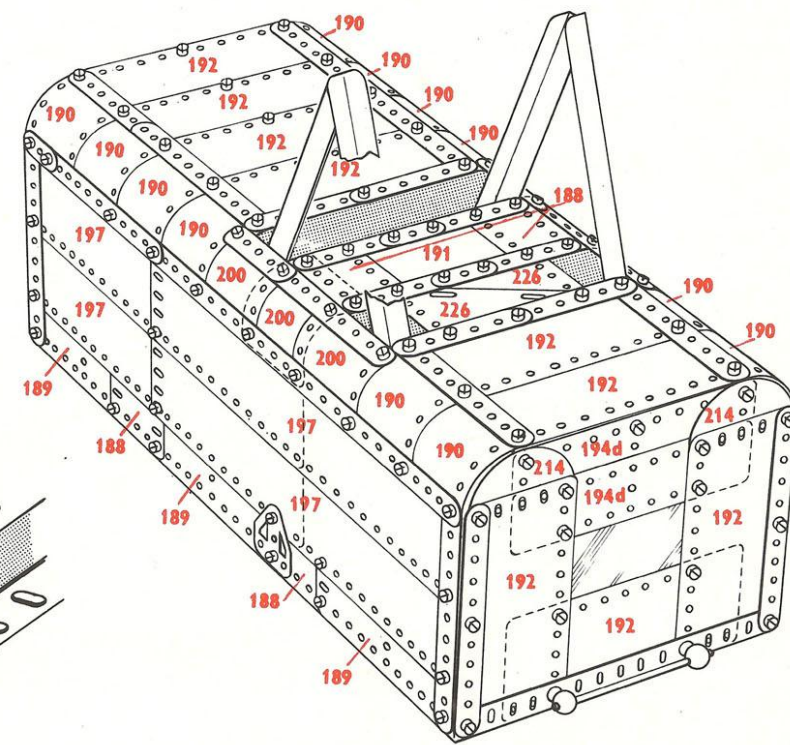The body, seen from the front end
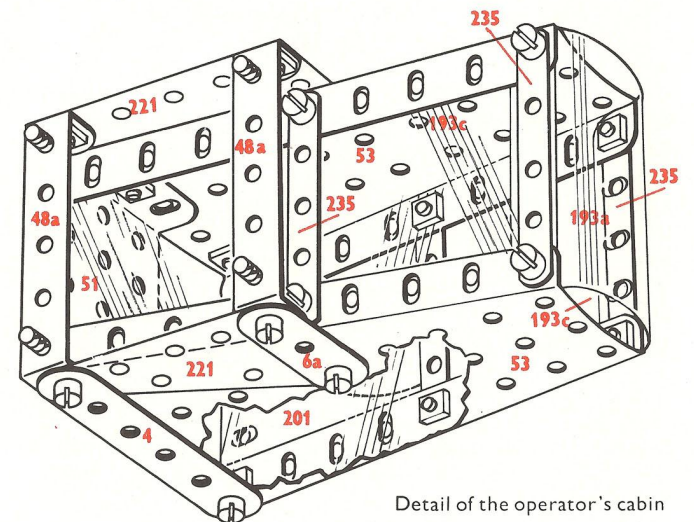
Detail of the operator's cabin

The jib-head and pulley assembly

Bucket and operating cords

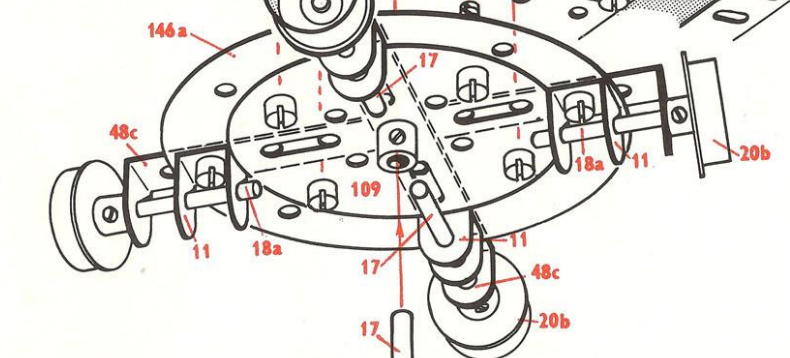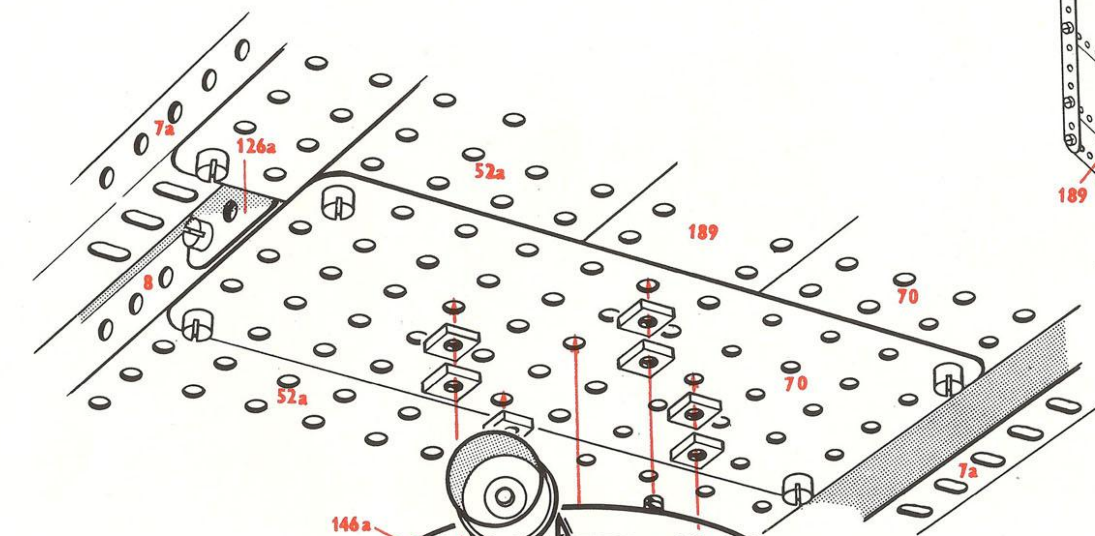|						
14	—	1	2	—	27a	3 — 111a
2	—	1b	1	—	32	10 — 111c
24	—	2	4	—	35	2 — 115a
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6	—	8	9	—	48a	2 — 155
4	—	9	2	—	48c	2 — 161
1	—	9d	1	—	51	1 — 163
4	—	9f	1	—	52	2 — 164
4	—	10	4	—	52a	1 — 165
1	—	11a	4	—	53	2 — 176
12	—	12	2	—	54	5 — 179
2	—	12b	12	—	59	6 — 189
3	—	14	2	—	62	12 — 190
1	—	15	2	—	62b	3 — 191
2	—	15a	6	—	63	12 — 192
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5	—	26	2	—	109	*1 — M3
1	—	27	1	—	111	

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The base and roller bearing on which the Dragline body is mounted
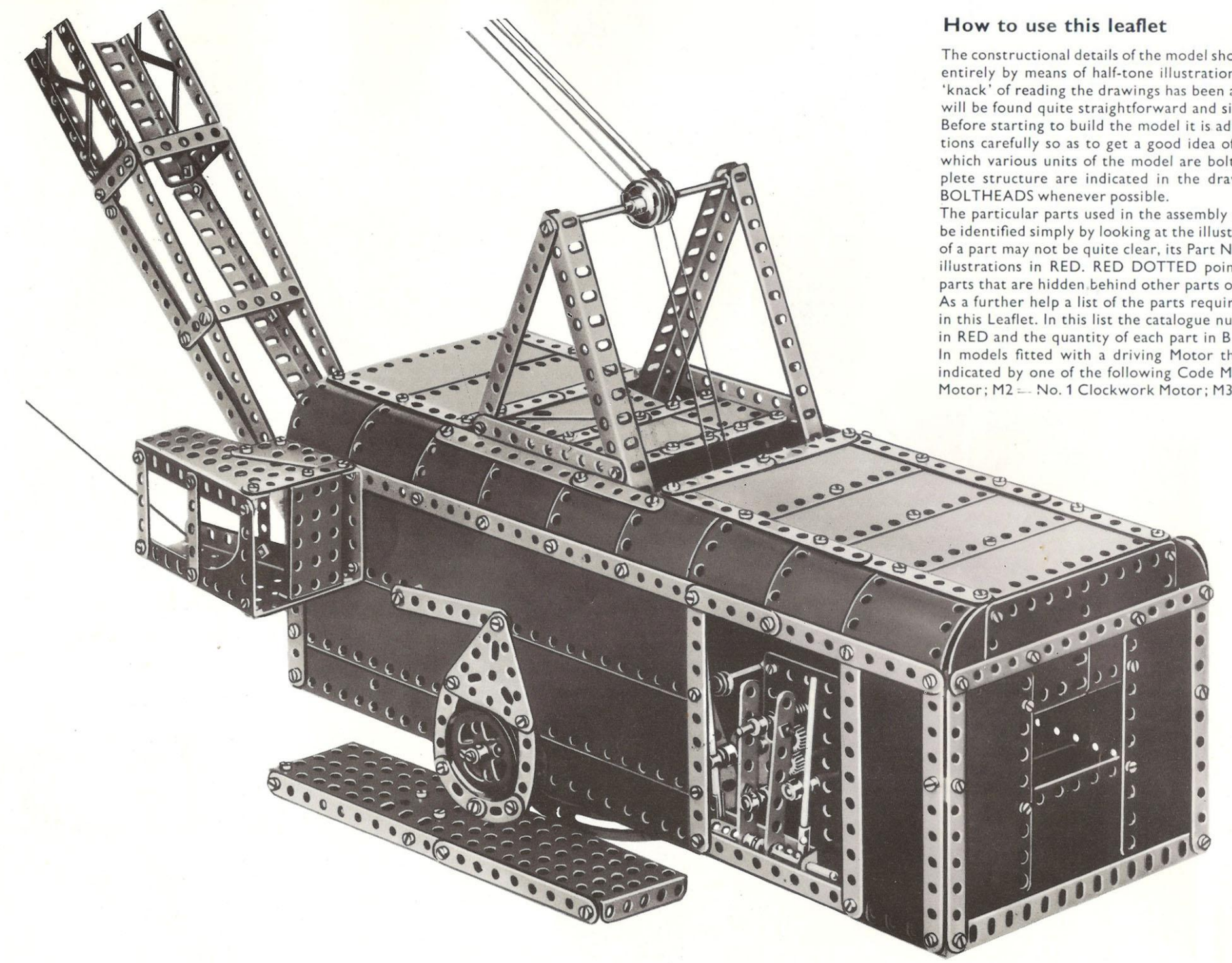

The body, seen from the front end

Detail of the operator's cabin

MECCANO® *Special Model Leaflet*

## 10.24 Giant Walking Dragline Excavator

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The particular parts used in the assembly of the model can in most cases be identified simply by looking at the illustrations, but where the identity of a part may not be quite clear, its Part Number is printed on the model illustrations in RED. RED DOTTED pointer lines are used to indicate parts that are hidden behind other parts of the structure.

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Layout of the winding mechanism and drive transmission to the walking feet
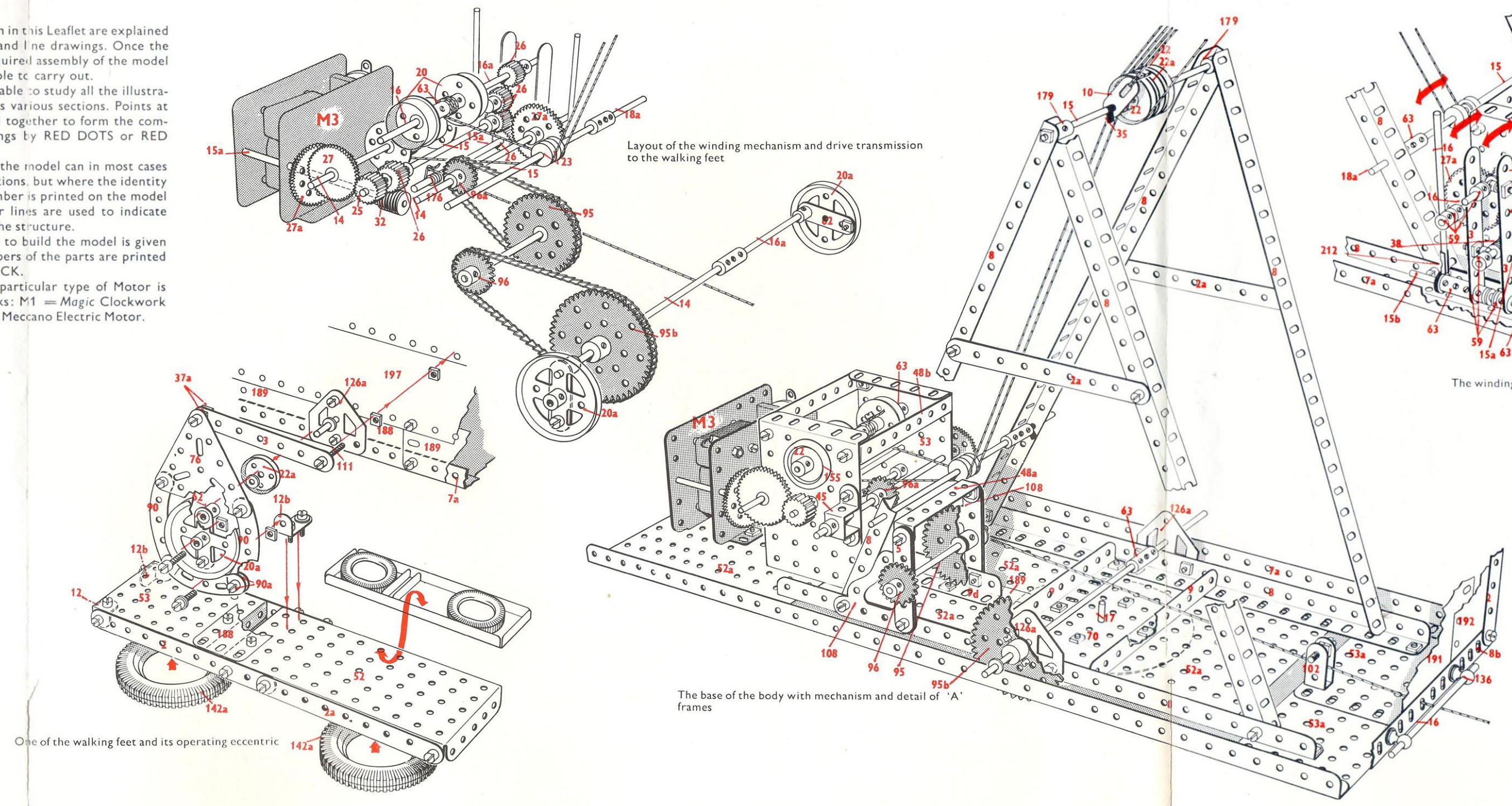
One of the walking feet and its operating eccentric

The base of the body with mechanism and detail of 'A' frames

The winding mechanism assembled, with control levers

Diagrammatic layout of the winding mechanism for the boom and digging bucket