

The "Servo-Pot." should give the following milliampere output for the specified temperature and E.M.F. values.

All tests should be carried out with a 100 ohms resistance in the input side, and 1,000 ohms in series with the output indicator.

0°C—300°C

Temp. °C	Input (mV.)	Output (mA.)	Temp. °C	Input (mV.)	Output (mA.)
300	14.7	.89	125	5.40	.258
275	13.32	.798	100	4.24	.179
250	11.9	.700	75	3.12	.102
225	10.49	.605	50	2.03	.0286
200	9.2	.514	40	1.61	.0
175	7.89	.426	25	.992	-.0422
150	6.65	.341	0	0	-.1097

SPOOL DATA

(Refer to Circuit Diagram)

Spool	Value (Ohms)	Spool	Value (Ohms)
A	28,565 ±140	D	50 ± .01
B	492.5 —507.5	E	1,000 ±10
C	14.58 ±.015	F	10 ± 1

0°C—800°C

Temp. °C	Input (mV.)	Output (mA.)	Temp. °C	Input (mV.)	Output (mA.)
800	33.30	.952	300	12.21	.319
700	29.14	.827	200	8.13	.196
600	24.91	.700	100	4.10	.075
500	20.64	.572	40	1.61	0
400	16.40	.444	0	0	-.048

SPOOL DATA

(Refer to Circuit Diagram)

Spool	Value (Ohms)	Spool	Value (Ohms)
A	65,040 ±320	D	50 ± 0.1
B	492.5 —507.5	E	1,000 ±10
C	33.2 ±.04	F	10 ± 1

0°C—1,000°C

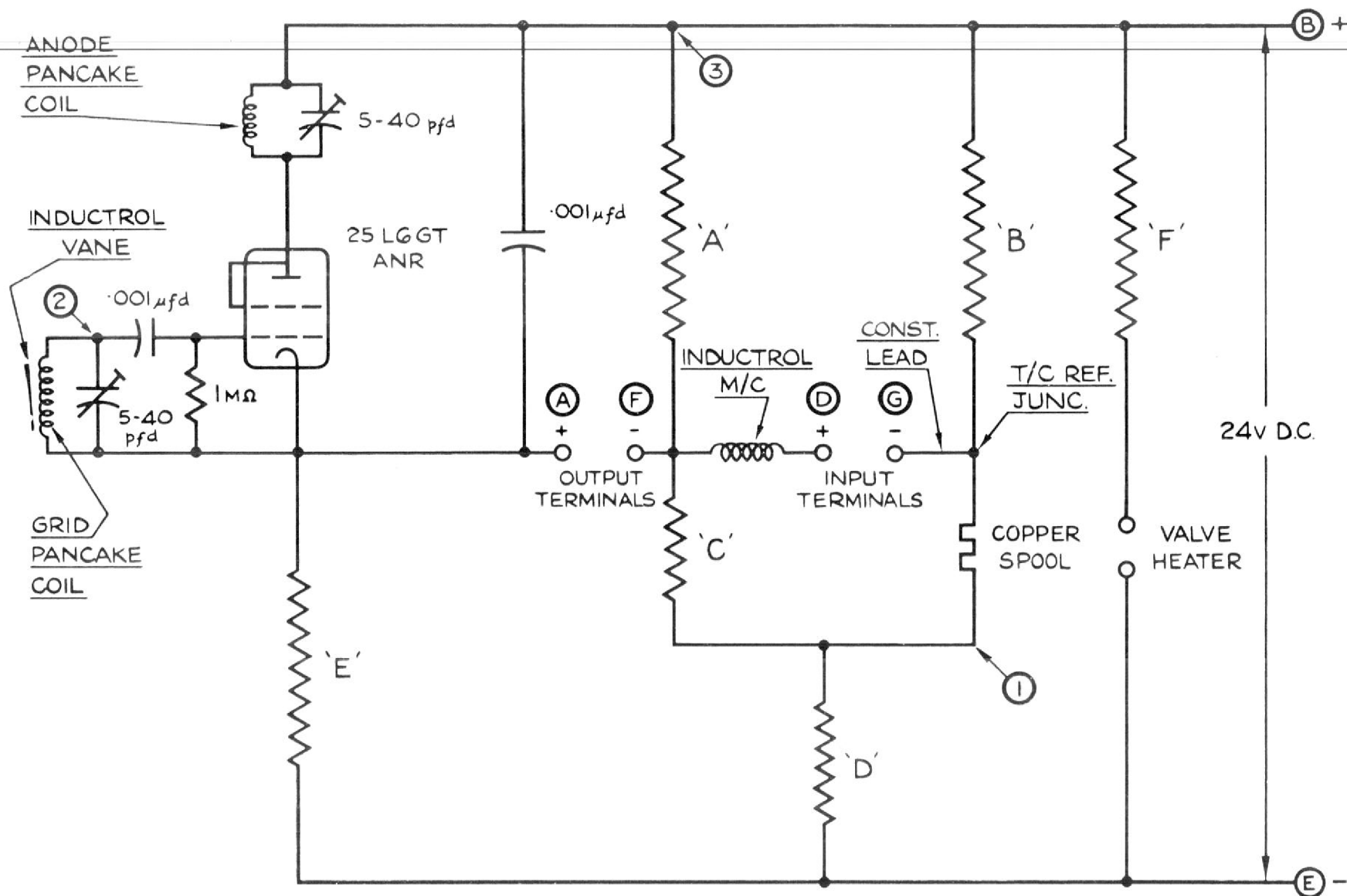
Temp. °C	Input (mV.)	Output (mA.)	Temp. °C	Input (mV.)	Output (mA.)
1,000	41.31	.961	400	16.4	.358
900	37.36	.865	300	12.21	.257
800	33.30	.768	200	8.13	.158
700	29.14	.666	100	4.10	.0603
600	24.91	.564	40	1.61	0
500	20.64	.461	0	0	-.039

SPOOL DATA

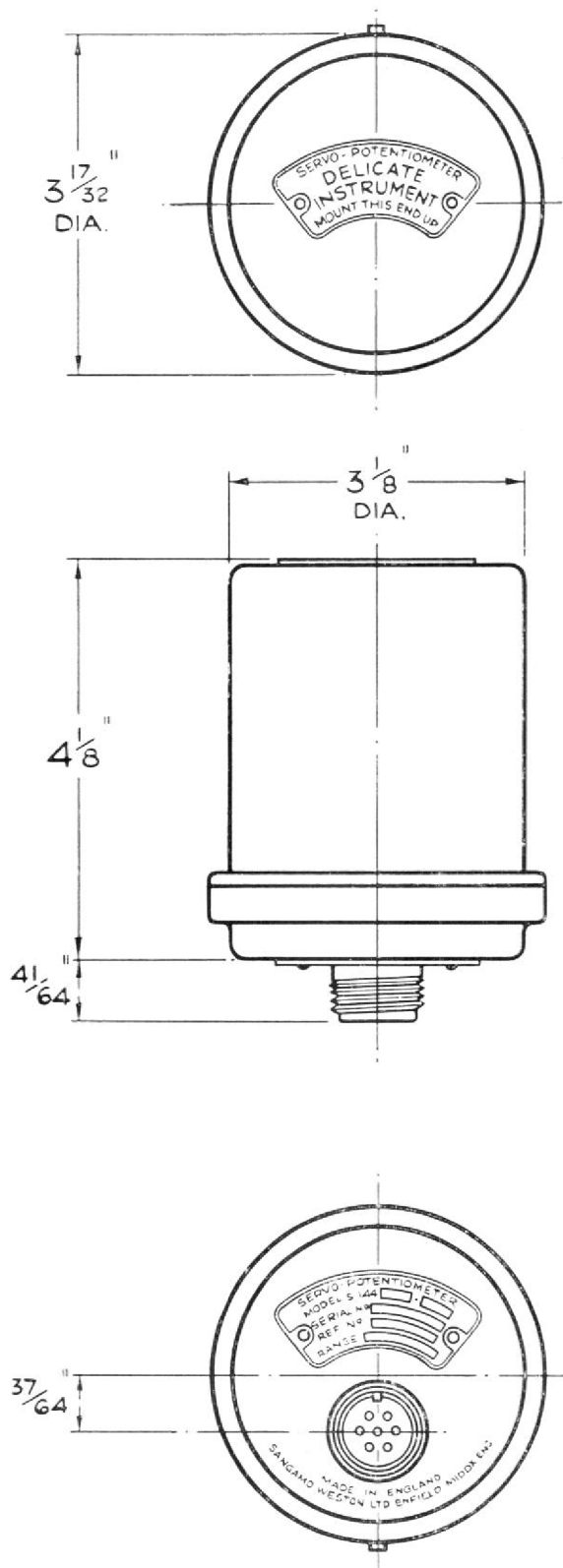
(Refer to Circuit Diagram)

Spool	Value (Ohms)	Spool	Value (Ohms)
A	80,700 ±400	D	50 ± 0.1
B	492.5 —507.5	E	1,000 ±10
C	41.19 ±.04	F	10 ± 1



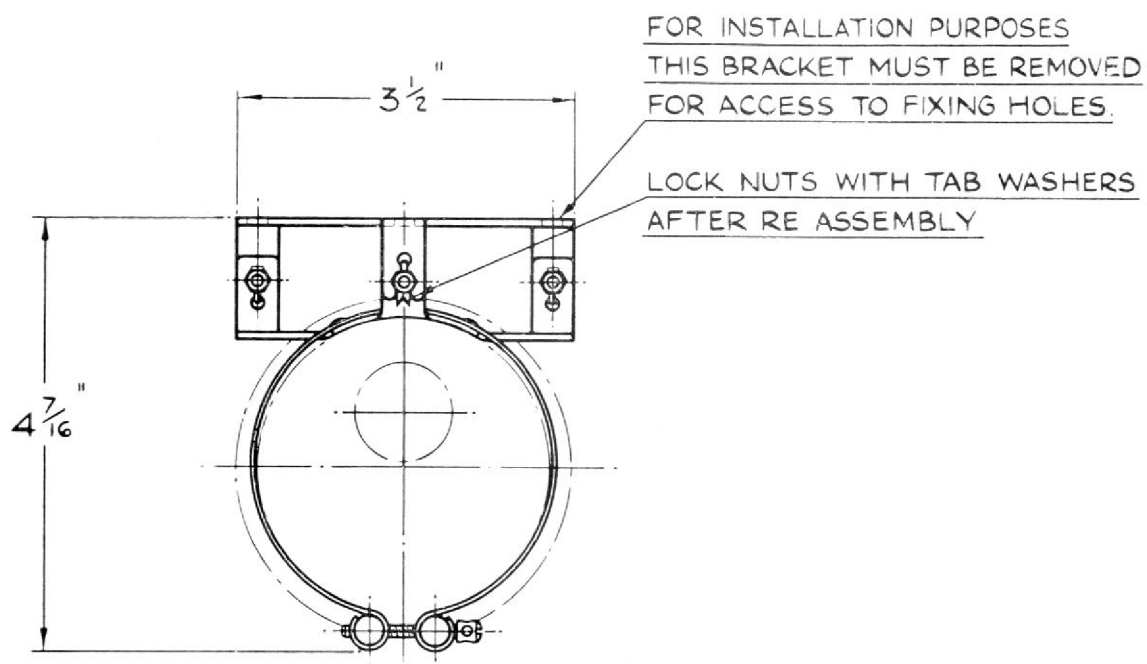


LETTERS IN CIRCLES, THUS (A) REFER TO PINS IN FIXED PLUG ON BASE OF POTENTIOMETER. NUMERALS IN CIRCLES, THUS (3) REFER TO TEST POINTS QUOTED IN FAULT-FINDING CHART. VALUES OF SPOOLS 'A', 'B', 'C', 'D', 'E', 'F' ARE GIVEN ON RANGE SHEET.

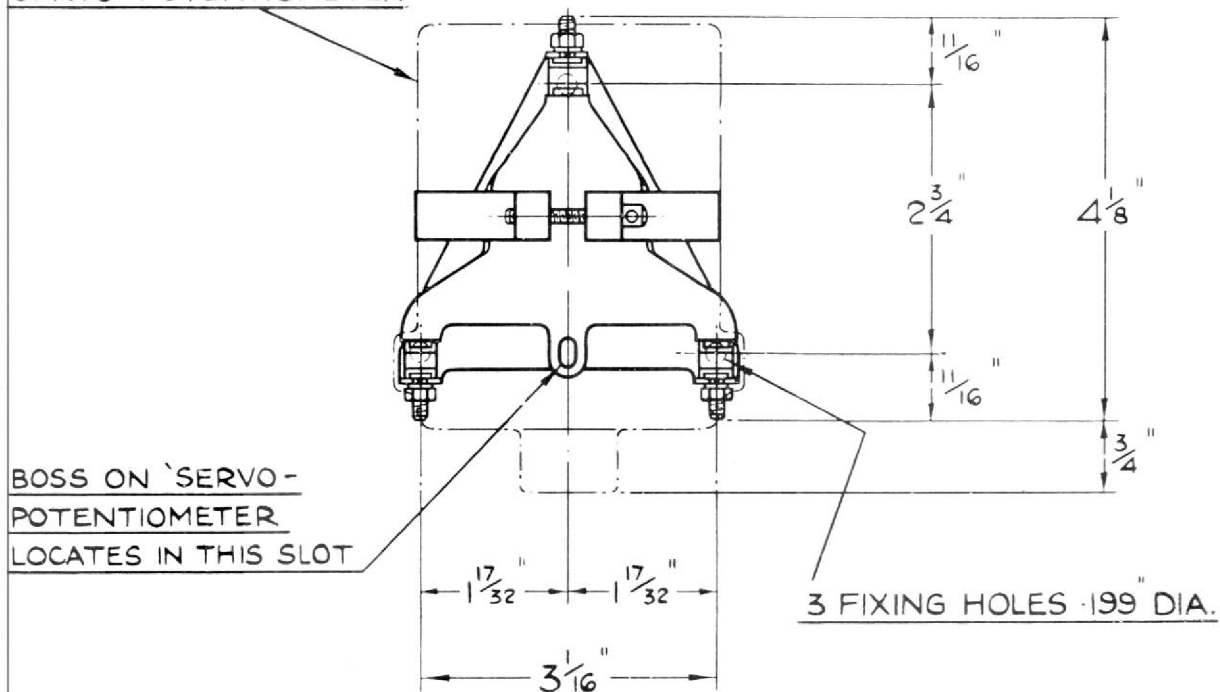


"Servo-Pot"

Dimensions

SANGAMO
WESTON

CHAIN DOT OUTLINES
INDICATE POSITION OF
SERVO-POTENTIOMETER



Anti-Vibration Mounting
Fixing Diagram

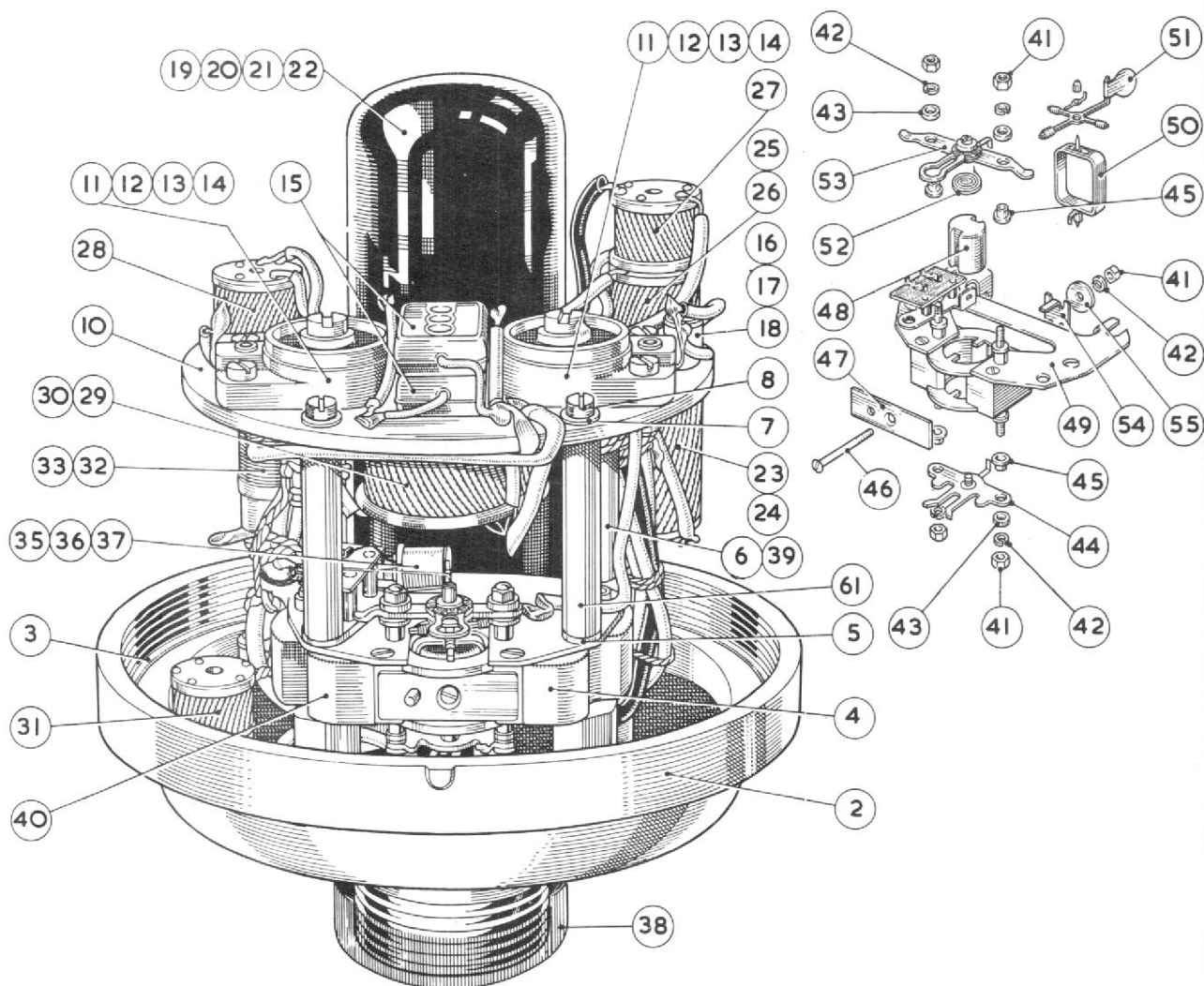


DECLARATION

INFORMATION REQUIRED BY BRITISH STANDARD G.100

Item	Weight	Max. Storage Period Without Preservation Packing	Acceleration Grade	Climatic Grade and Altitude Rating	Vibration Grade.	Fire Resistance Grade	Compass Safe Distance	C.G. Position
"Servo-Pot"; Model S.144 Form 3	24 ozs. including mounting bracket	6 months	1B	1-60,000 ft.	3 (anti-vibration mounted)	Fire resistant	3' 6"	Approximately symmetrical about all centre lines
Indicator: Model S.78 Form 3	12½ ozs.	6 months	1B	1-60,000 ft.	3 When mounted on instrument flight panel	Fire resistant	12"	1" from glass along geometric centre.
Model S.149	12 ozs.	Indefinite. Subject to visual inspection and serviceability check	1B	1-60,000 ft.	3	Fire resistant	12"	2" from glass along geometric centre.







PARTS LIST **MODEL S.144 FORM 3**

Ref. No.	Description	Part No.	No. Off
1	Cover*	169848	1
2	Base (including Plug)	169840	1
3	Rubber Gasket	169847	1
4	Inductrol Movement Complete	Specify Code	1
5	Spacing Washer	103671	1
6	Spacer	170718	2
7	Lock Washer 8 B.A.	94469	4
8	8 B.A. Screw	96646	2
9	8 B.A. Nut (Top Plate Rear Fixing)*	150168	2
10	Mounting Plate Complete	169850	1
11	Condenser (Trimmer)	169156	2
12	Condenser Fixing Screw 8 B.A. $\times \frac{5}{16}$ "	96646	4
13	Condenser Fixing Nut 8 B.A.	150168	4
14	Lock Washer 8 B.A.	94469	4
15	Condenser (Fixed)	163987	2
16	Oscillating Coil Assembly (Anode)	169852	1
17	Fixing Screw 10 B.A. $\times \frac{3}{16}$ " (Anode Coil)	150330	1
18	10 B.A. Lock Washer (Anode Coil)	153367	1
19	Valve 25L6GT ANR	169867	1
20	Valve Holder*	169304	1
21	Valve Holder Fixing Screw 4 B.A. $\times \frac{5}{16}$ " R.H.	150044	2
22	4 B.A. Shakeproof Washer	150404	2
23	Spool A	Specify Code	1
24	Spool Fixing Stud	159271	1
25	Spool E	Specify Code	1
26	Spool Fixing Stud	159271	1
27	Spool C	Specify Code	1
28	Spool D	Specify Code	1
29	Spool B	Specify Code	1
30	Fixing Screw (Spool B) 10 B.A. $\times \frac{3}{16}$ " c/sk.	150310	1
31	Spool F	Specify Code	1
32	Compensating Coil Complete	169856	1
33	Fixing Stud (Comp. Coil)	169864	1
34	1 Megohm $\frac{1}{2}$ Watt Resistor*	169306	1
35	Oscillating Coil Assembly (Grid)	169852	1
36	Fixing Screw 10 B.A. $\times \frac{3}{16}$ " (Grid Coil)	150330	1
37	10 B.A. Lock Washer (Grid Coil)	153367	1
38	Protective Cap	169917	1
39	Spacer*	169863	2
40	Magnet	160645	1
41	12 B.A. Nut	155125	5
42	12 B.A. Lock Washer	155830	5
43	Insulating Washer	154399	4
44	Bottom Bridge	161019	1
45	Insulating Bush	154397	4
46	Core Fixing Screw	150123	1
47	Spacer. Urmounted	160624	1
48	Core	154404	1
49	Mounting Plate Pole Piece Assembly	168083	1
50	Moving Coil Assembly	Specify Code	1
51	Vane Assembly	169859	1
52	Hair Spring	Specify Code	1
53	Top Bridge	156895	1
54	Core Clamp	160884	1
55	Washer (Large)	157522	1
56	Shield*	159596	1
57	A.V. Mounting Bracket*	168865	1
—	Ligament, Phosphor Bronze, .0001" $\times$.002" $\times \frac{3}{4}$ "	171886	1
—	Balance Weights	Specify Code	As required
58	Suppressor Assembly A.B.E.F.*	170975	4
59	Suppressor Assembly D*	170974	1
60	Suppressor Assembly G*	170976	1
61	Pillar (Instrument Mounting)	169862	2
62	Washer 0.23" O/D $\times$ 0.093" I/D $\times$ 0.016"	101231	1

Suppressors are used on Model S.144.3.35 upwards.

* Not Shown.

NOTE: SANGAMO WESTON CODE NUMBER appears on front of Dial.



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