

OVERHAUL MANUAL

ADDENDUM

MODEL S. 149. 1. 316 - INDICATOR PRESSURE 0-120 P. S. I.

The information contained in the main section of the Overhaul manual 31-09-101 is applicable to this Variant. Additional details, applicable to Model S. 149. 1. 316 only, are given in this addendum.

REVISION RECORD SHEET

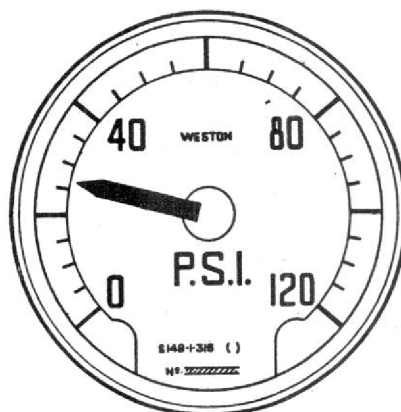
Revision No.	Date of Issue	Incorporated by	Date	Remarks
1	Sept. 1965	Sangamo Weston Ltd	Sept. 1965	Pages 3, 4 and 5 revised
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MODEL S. 149.1.316 - INDICATOR PRESSURE 0-120 P. S. I.



Description

Model S. 149.1.316 is a ratiometer type indicator designed for use in conjunction with a SANGAMO WESTON S.122 pressure transmitter to indicate pressure over a range of 0 to 120 p.s.i.

The scale presentation is illustrated. The caption P.S.I. figure, cardinals, division lines and the lance type pointer are finished photogenic white, the background being matt black.

Connections to the indicator are by means of three terminals A, B and C of four shrouded 6-32 U.N.C. terminals, with captive washers, fitted in a terminal block secured to the base. Terminal D is not connected.

NOTE: A pointer return unit is not fitted to this indicator, instead a spring, one end of which is fitted to the top bridge, returns the pointer beyond the right hand end mark when the movement is unenergised. The movement is fluid damped and the viscosity grade colour coding, marked on the surface of the top bridge, is given in the paragraph headed Data. A replacement movement must bear the same colour coding.

Data

Resistance of each moving coil	360-540 ohms
Resistance of Spool A	4000 ohms +5% (unadjusted)
	-0
B	4000 ohms +5% (unadjusted)
	-0
Power consumption at 26V d.c.	20mA (max)
Colour coding for viscosity grade of oil used	Black

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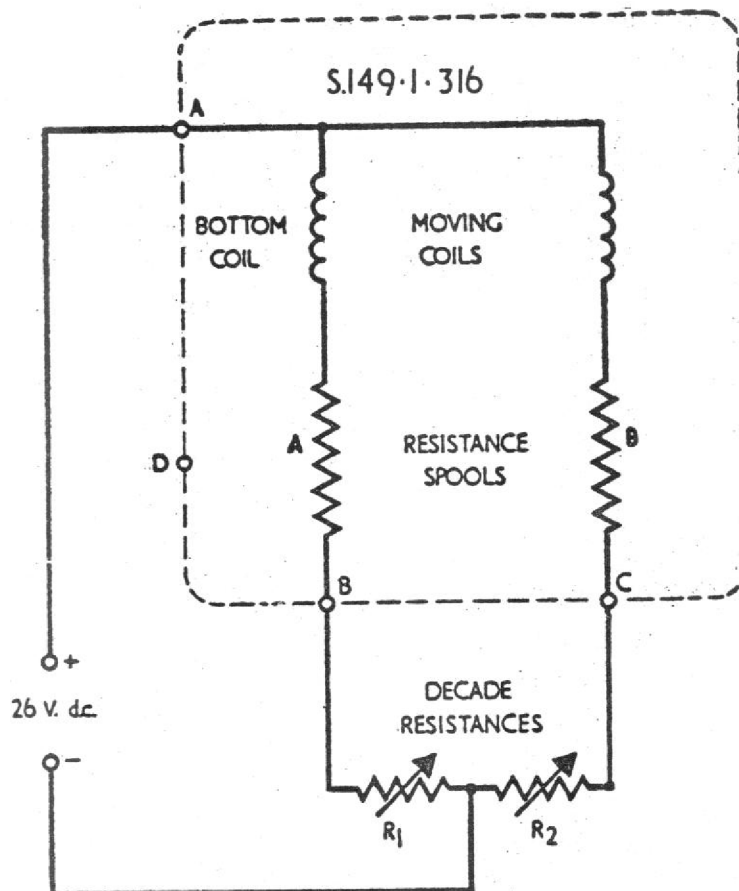


Fig. 9 Calibration circuit diagram

Testing and Calibration

- (1) Connect the indicator in the circuit given in Fig. 9. The resistance boxes R1 and R2 are adjusted to simulate changes of resistance of the pressure transmitter.
- (2) If scale end indications are incorrect after overhaul, adjust spools A and B as instructed in paragraph 8A (Testing) of the main section of this manual.

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- (3) If necessary re-calibrate the indicator using the values given in the accompanying table.

p.s.i.	R1 ohms	R2 ohms
0	490	3010
20	880	2620
40	1265	2235
60	1645	1855
80	2020	1480
100	2390	1110
120	2760	740

Accuracy

The accuracy of the indicator is $\pm 2\%$ of full scale deflection.



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This list to be used with Common Parts List for Model S.149 Form 1

VARIANT PARTS LIST

S. 149. 1. 316

Fig. and Index No.	Nomenclature	Part No.	Units per Assy.
Fig. 8	Pressure Indicator 0-120 p.s.i.	S. 149. 1. 316	
3	Case	168332	1
5	Screw 10 B.A. x 0.23 in Sp. Hd. (Scale)	169910	2
6	Lockwasher 10 B.A. (Scale)	159306	2
7	Scale Blank (Upper)	168367	1
8	Scale Blank (Lower)	168368	1
15	Movement Complete (Mod. J)	15/S. 149. 1. 316 (J)	1
or 15	Movement Complete (Mod. T)	15/S. 149. 1. 316 (T)	1
17	Pointer Stop R.H.	162558	1
24	Plate Spool Mtg.	171590	1
25	Screw 10 B.A. x 3/16 in (Spool)	150330	2
26	Lockwasher 10 B.A. (Spool)	153367	2
28	Spools	28A/S. 149. 1. 316	1
		28B/S. 149. 1. 316	1
33	Terminal Shroud & End Plate	177228	1
34	Screw & Washer assembly	175279	4
35	Label 24V.	171338	1

Sangamo Weston Code appears on front of Scale

SANGAM
WESTON



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