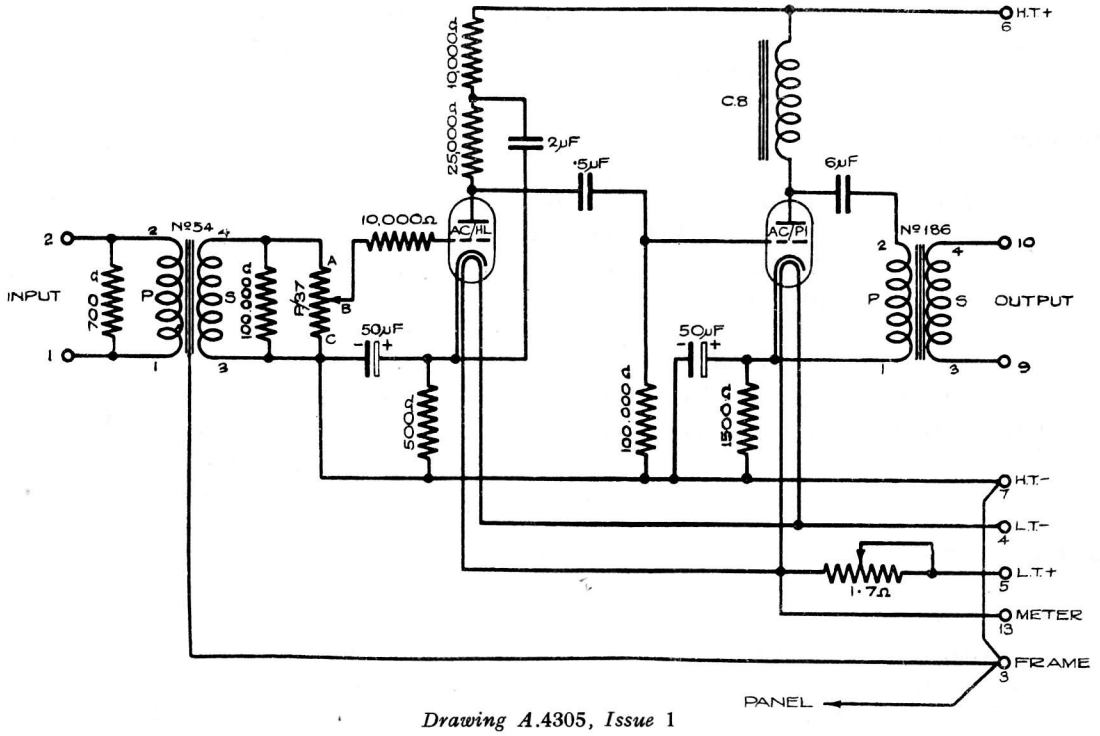
AMPLIFIER B/11



Drawing A.4305, Issue 1

This amplifier is used at **Daventry** and **Stagshaw.**

Circuit

It is a two-stage amplifier with screened input transformer and resistance-capacity coupling between stages. The output stage is choke-capacity coupled to the output transformer. The volume control operates in the input to the first stage and the grid bias is automatic. It is normally operated to provide an output at zero volume.

Impedances

Input impedance		(approx)	600 ohms
Output impedance		(approx)	330 ohms
Normal source impedance		(approx)	600 ohms
Normal load impedance	Daventry	(approx)	2,000 to 8,000 ohms
	Stagshaw	(approx)	8,000 ohms

Transformers

	Number	*Impedance Ratio*	*Turns Ratio*
Input	54	1/11	1/3.31
Output	186	8.05/1	2.83/1

Volume Control

Type	*Total Resistance*	*No. of Studs*	*Loss per Stud*	*Loss on Lowest Stud*
P.37	10,000Ω	21	2 db.	Infinite

Supply Data

Stage	*Valve*	*Automatic Grid Bias* Volts negative	*Anode Current* mA (approx)	*Filaments* Volts	Amps
1	ACHL	1.75	3.5	4	1
2	ACP 1	30	20	4	1
			—		—
	Total		**23.5**		2

High Tension Supply .. .. 250 volts rectified A.C.
Low Tension Supply .. .. 6 volts rectified A.C. (adjusted to 4V by a series resistance).

600 Ohm Test Gain

Testing Conditions

Loss Pads key set at **60 db.**

T.M.S. sending level .. .. – 10 db.
Gain at 1,000 c/s. .. .. **36.5 ± 2 db.**
Gain at 50—5,000 c/s. .. .. ± 0.5 db. } Relative to gain
5,000—9,000 c/s. .. .. ± 1.0 db. } at 1,000 c/s.

Working Voltage Gain

Testing Conditions

Volume control set for maximum output.
Output at approximately zero level.

Gain at 1,000 c/s.

Output loaded with 2,000 ohms .. .. 39 ± 2 db.
Output loaded with 8,000 ohms .. .. 40 ± 2 db.