VALVES ELECTRONIC

VT58 AND VT58A

MINISTRY OF AIRCRAFT PRODUCTION (D.C.D.) CV 1058

Specification D.C.D.,W.T.1306 Issue No.5. Dated 10.3.45. To be read in conjunction with K1001, ignoring clauses:- 5.2, 5.8.	Security	
	Specification Open	Valve Open

TYPE OF VALVE :- Transmitting Triode.
CATHODE :- Directly Heated, Tungsten.
ENVELOPE :- Metal - Glass Construction.
COMMERCIAL PROTOTYPE :- E.960.

MARKING

VT58 Ø 10E/11405 Serial Number

or

VT58A Ø 10E/410 Serial Number

Ø This space to contain the marked voltage as found in Test Clause 'f'.

RATING		Note
Filament Voltage (V). Marked Voltage Approx.	12.6	
Filament Current (A).	58	
Maximum Anode Dissipation (W).	750	A
→ Maximum Anode Voltage (kV).	23	
The valve is capable of operation at frequencies up to 100 Mc/s. and with suitable precautions up to 250 Mc/s.		
CAPACITANCES (pF.)		
Cag	6.8	
Cgf	8.1	

DIMENSIONS AND CONNECTIONS

See Page 3. ←

PACKING

According to K1001/7.3.
Additional marking :- "Glass - Fragile".

NOTE

A. For this dissipation forced air cooling shall be provided by not less than 90 cu.ft. of air per minute with a pressure drop across the valve of the order of 2-inches of water.

→ Indicates a change

VT58 & VT58A

TESTS

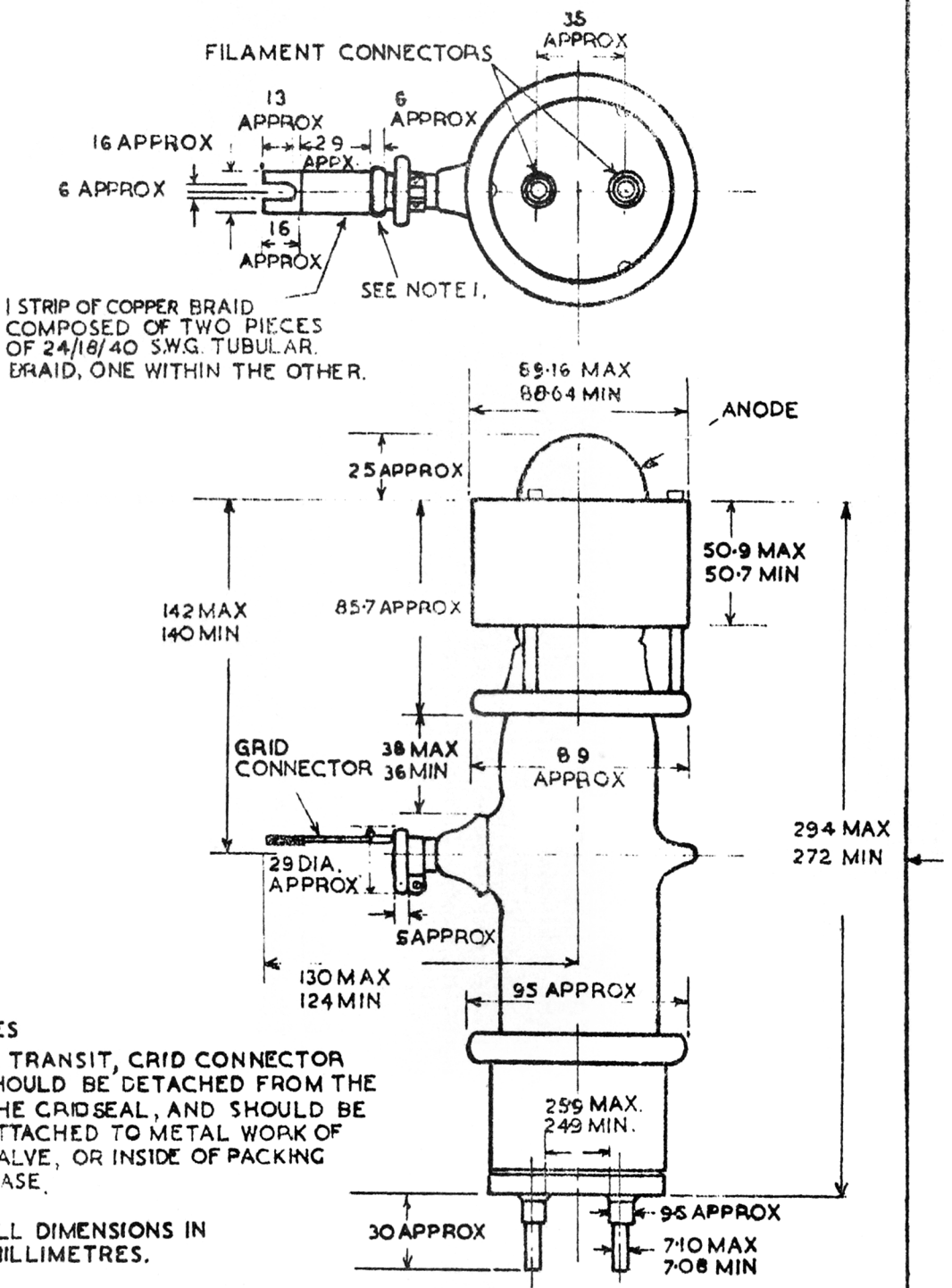
To be performed in the order specified and are additions to those applicable in K1001.

	Test Conditions				Test	Limits		%	Notes
	Vf	Va	Vg	Ia (mA)		Min.	Max.	Tested	
Forced air cooling of the anode shall be provided by not more than 90 cu.ft. of air per minute with a pressure drop across the valve of the order of 2-inches of water.									
a	0	Raised slowly from 10 kV. to 27 kV. and maintained till flashing ceases.	0	0	Cold Flash Process. Va maintained at 27 kV. for a period of 5 mins. without further flashing.			100%	1,2
b	13.0	Raised slowly from 10 kV. to 31 kV. and maintained till flashing ceases.		A trace.	Hot Flash Process. Va maintained at 31 kV. for a period of 5 mins. without further flashing.			100%	1,2
c	13.0	7 kV.	-	100	Reverse Ig. Spot reading (uA)		250	100%	
d	13.0	7 kV. reduced to 5 kV.	-	Maintained at 100.	Vg Change (V)	44	60	5% (4)	
e	13.0	275	275	-	Ic (A)	0.87	1.15	100%	
f	-	1 kV.	1 kV.	Ic = 450	Vf (V). This value of Vf times 1.45 is to be the marked voltage.	8.2	9.2	100%	
g	Marked Voltage	0	0	-	If (A)	52	64	100%	
h	Marked Voltage	7 kV.	-	100	Reverse Ig. Spot reading (uA)	-	250	100%	
→ j					Capacitances (pF.) 1. Cag 2. Cgf	5.1 6.9	8.5 9.3	6 per week	

NOTES

1. Test clause 'a' applies only to valves Type VT58 and test clause 'b' applies only to valves Type VT58A.

2. Once the conditions specified in either test clause 'a' or test clause 'b' have been met, they need not be repeated for acceptance testing. For test clauses 'a' and 'b' there shall be a 300 ohms resistor in series with the applied volts, and a capacitance not greater than 0.25 uF. in parallel with the supply volts on the supply side of the resistor.



NOTES

1. IN TRANSIT, GRID CONNECTOR SHOULD BE DETACHED FROM THE THE GRIDSEAL, AND SHOULD BE ATTACHED TO METAL WORK OF VALVE, OR INSIDE OF PACKING CASE.

2. ALL DIMENSIONS IN MILLIMETRES.