Chapter 1

ROTARY TRANSFORMER, TYPE XC1017 (H.S.S.)

LIST OF CONTENTS

LIST OF ILLUSTRATIONS

LEADING PARTICULARS

*Rotary transformer, Type XC*1017 *(HSS)*	*Ref. No.* 5*UB*/6815
Input	
Voltage	19 *volts d.c.*
Current	2·1 *amperes (approx.)*
Output	
Voltage	300 *volts d.c.*
Current	45 *milliamperes*
Rating	*Continuous*
Speed	10,000 *r.p.m. (approx.)*
Bearings	*See para.* 6
Bearing grease	*MOLYSIL* 33
Brushes, carbon	
Input	*CM5H Morganite*
Output	*IM6 Morganite*
Brush spring pressure	
Input end	$4\frac{1}{2}$ *to* 6 *oz.*
Output end	$3\frac{1}{4}$ *to* $4\frac{1}{4}$ *oz.*
Weight of unit	3 *lb.* 6 *oz.*

Introduction

1. The rotary transformer, Type XC1017 (HSS) is designed for use with electronic equipment; it is hermetically sealed and is fitted with a built-in radio interference suppressor unit (H.S.S. means high temperature, sealed and suppressed).

DESCRIPTION

2. The Type XC1017 rotary transformer is designed to step up the voltage from 19 volt d.c. input to 300 volt d.c. output, but with a corresponding fall in the current consumption from approx. 2·1 amperes input to 45 milliamperes output.

3. This transformer is a complete replaceable unit.

4. This is a compound wound, long shunt connected machine, with two turns of series field winding on each pole. The input and output armature windings are wound on the same shaft (*fig.* 1).

Bearings

5. There are two double-row, self-aligning, Hoffmann Type U105 bearings fitted, reduced tolerances on the O.D. and the bore, change them to the Type N5733 bearings, after heat treatment they become Hoffmann N6523 Type bearings. Special grease is used, see Leading Particulars.

INSTALLATION

6. This type of transformer is usually installed in pairs, information on their installation will be contained in the relevant chapter describing the electronic equipment to which they are fitted.

SERVICING

7. No servicing is recommended in situ, being hermetically sealed, if there are signs of overheating, the transformer must be removed for bay servicing (*para.* 9). The transformer is a complete replaceable unit.

8. While installed and in operation, a cold air flow assists in keeping the temperature below the critical temperature.

9. It is recommended that the transformer be removed complete, for bay servicing, in accordance with the relevant Aircraft Servicing Schedule.

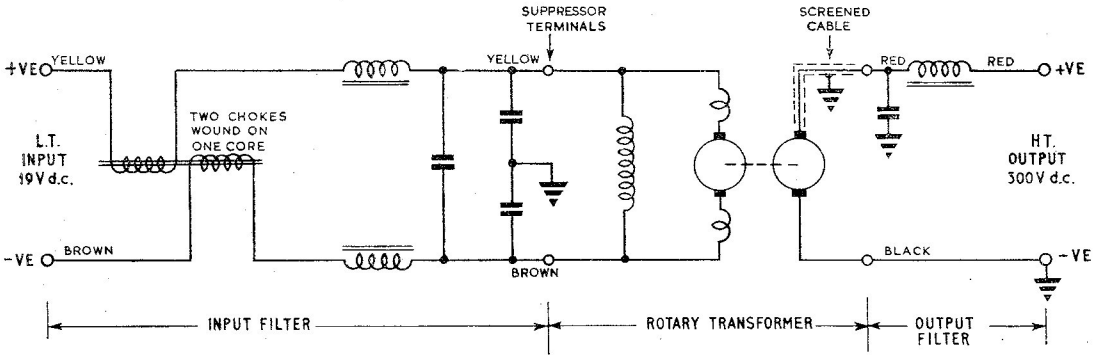

Fig. 1. Circuit diagram of rotary transformer with suppressor unit

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