Chapter 7

WATER HEATERS, G.E.C. H.O. 800 SERIES

LIST OF APPENDICES

LIST OF ILLUSTRATIONS

1. These heaters are similar to the 28 volt water heaters (G.E.C. H.O. 800 series) details of which are given in Sect. 10, Chap. 6 to which reference should be made for descriptive and operational details. The 112 volt heaters incorporate a relay which is fitted in the base of the unit and is used to control the supply to the heater element, a circuit diagram is given in fig. 1. Details of the individual heaters are given in the Appendices to this chapter.

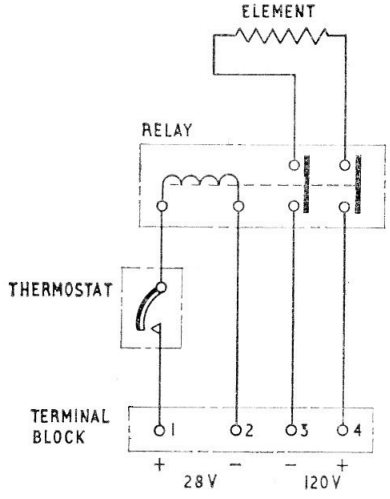

Fig. 1. Circuit diagram

SERVICING

2. Servicing whilst the heater is installed is limited to inspection of the water pipe connections and sealing gaskets for leaks, and of the electrical connections for security, corrosion, and damage due to over-heating. The element and thermostat may be checked for continuity and if required renewed without draining the heater. The relay coil should also be checked and inspected for signs of overheating and the contacts for pitting or burning. The relay should be serviced in accordance with A.P.4343C, Vol. 1, Book 2, Sect. 3, Chap. 8.

3. When removed from the aircraft the interior of the container should be checked for signs of fur or scale and if found a solution of glacial acetic acid mixed in the proportion of one part acid to 16 parts of water (i.e. half pint acid to 1 gallon of water) should be boiled in the urn then allowed to stand for a few hours. The solution should then be poured out and the fur and scale rinsed out.

Insulation resistance test

4. The insulation resistance when measured with a 500 volt insulation resistance tester between the terminals of the heater element and the element sheath should be not less than 5 megohms.

Continuity test

5. A continuity test of the element may be made with a suitable test meter, the reading obtained should be approx. 25 ohms.

Appendix 1

WATER HEATER, G.E.C. TYPE H.O. 818AR

LEADING PARTICULARS

Water heater, G.E.C. Type H.O.818AR	*Ref. No.* 5V/159
Heater element	*Ref. No.* 5V/164
Relay, 25 amp.	*Ref. No.* 5CW/3942
Capacity	$\frac{1}{2}$ *gallon*
Voltage	112*V d.c.*
Rating...	500 *watt.*
Weight	$5\frac{3}{4}$ *lb.*
Thermostat, 7 in. A.C.S.	30–190 *deg. F.*

1. This heater is similar to the 28 volt heater, Type H.O. 818A, and is of aluminium construction with a sacrificial anode and a 112 volt heater element. A relay Type S1, or Type S7, is fitted in the base of the heater below the terminal block, which in this heater is a 4-way Type C 7027 block.

Appendix 2

WATER HEATER, G.E.C. TYPE H.O. 800R

LEADING PARTICULARS

Water heater, G.E.C. Type H.O.800R	*Ref. No.* 5*V*/248
Heater element	*Ref. No.* 5*V*/164
Relay, 25 *amp*	*Ref. No.* 5*CW*/3942
Capacity	$\frac{1}{2}$ *gallon*
Voltage	112*V d.c.*
Rating...	500 *watt.*
Weight	6 *lb.*
Thermostat, 7 *in. A.C.S.*	30–190 *deg. F.*

1. Similar to the 28 volt heater Type H.O. 800. the type H.O. 800R water heater is constructed of stainless steel but has a 112V heater element. A Type S1 or S7 relay is fitted below the 4-way Type C 7027 terminal block in the base of the heater.

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