Chapter 22

HEATED CONTAINER G.E.C. TYPE H.O.3373/A/B

LIST OF CONTENTS

LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Heated container G.E.C. Type 3373/*A*/*B* ...	*Ref. No.* 5*V*/224
Voltage	28 *volt*
Rating	200 *watt*
Capacity	1.6 gallon
Weight (less sleeve and dishes) empty	10 *lb.*

Introduction

1. The heated container Type H.O. 3373 shown in fig. 1 is used to store pre-heated food or beverage until required. A heater element is provided in the container to maintain the temperature of the contents and replace any heat losses; being capable of raising the temperature of the contents by 25 deg. F. in one hour. The supply for the element being provided from a 28 volt source connected to a plug in the top of the container. The container is supplied with a tap for use where liquids are stored and with an inner sleeve and dishes shown in fig. 1, for use when foods are stored.

DESCRIPTION

2. The container primarily consists of two sub-assemblies, the outer casing and the inner container, between which are accommodated the heater elements and the heat insulating lagging. An exploded view is shown in fig. 2. The inner container is made of Monel (a nickel copper alloy) and clamped to it are the two 100 watt sheathed wire elements; wrapped around the inner

Fig. 1 Container, Type H.O. 3373

container and the elements is the aluminium foil lagging, held off the heaters by distance pieces. At the bottom of the container is the tap adaptor which passes through the outer casing to accommodate the tap. Provision is made for the space between the container and the casing to breathe with change in air pressure due to varying altitude by a pressure vent at one corner of the inner container top plate, on an adjacent corner is fitted the electrical connector plug.

3. The outer casing is of stainless steel and provides for the attachment of the container lid and a moisture drain for the container-casing space. Two corner brackets fitted at opposite corners of the outer casing are slotted, into these slots the lid clamp engages. The moisture drain is in the centre of the base of the outer casing and is covered by a cover plate and sealing gasket secured by four 4 B.A. mushroom headed screws. The internal flange on the base of the outer casing acts as a support ring for the inner container.

4. The lid is of black Bakelite and has a spring steel clamp and carrying handle attached, it is sealed by a rubber sealing ring and secured to the container in the following manner: the lid is placed on the container and with the clamp depressed it is rotated in a clockwise direction so that the ends of the clamp engage in the slots of the two corner brackets. To remove the lid the clamp is depressed to clear the slots in the corner brackets and rotated in an anti clockwise direction.

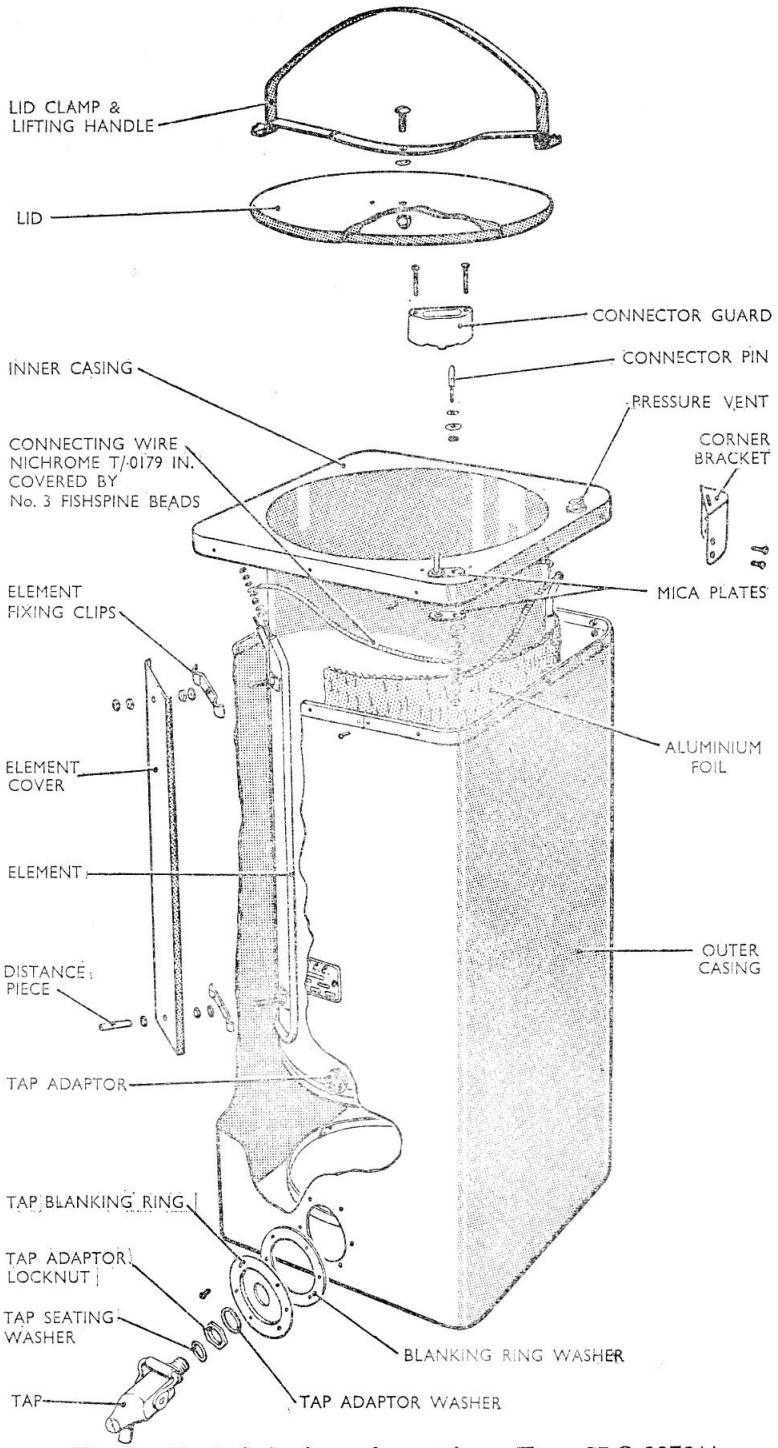

Fig. 2 Exploded view of container, Type H.O.3373/A

Accessories

5. The melamine dishes and inner sleeve fit into the container when assembled as shown in fig. 1.

OPERATION

6. There is no protective device fitted to prevent the container from overheating care should therefore be taken to avoid it being switched on and connected when empty.

SERVICING

7. The container should be maintained clean and when not in use it should be rinsed with clean fresh water and allowed to dry before being stored, with the lid in position but not clamped down, in a cool dry store. Periodically the drain hole cover should be removed to check for the ingress of moisture between the casing and container, if moisture is found the container should be dismantled and the container casing and aluminium foil dried and inspected for damage or corrosion. The pressure vent must be kept clean and free from obstruction, and the connector plug pins inspected for damage and security.

Dismantling

8. To dismantle the container proceed as follows :

(1) Remove the tap and tap seating washer.

(2) Remove the tap adaptor locknut and tap adaptor washer.

(3) Remove the tap blanking ring and blanking ring washer.

(4) Remove the corner brackets.

(5) Remove the eight 4 B.A. screws securing the inner container top plate.

(6) Withdraw the inner container.

Reassembly

9. To reassemble the container reverse the procedure given in para. 8 (1)-(6). After assembly fill with water and check for leaks, measure the insulation resistance and functionally test the heater element.

Renewing an element

10. To renew an element dismantle the container as described in para. 8 then proceed as follows :

(1) Remove the foil lagging.

(2) Remove the distance pieces at each element.

(3) Disconnect the element connecting wires at each element and determine which element is faulty.

(4) From the faulty element remove the guard and element clips.

(5) Remove the element.

(6) After load and insulation tests fit the new element.

(7) Reassemble the container by reversing the procedure given in sub-paras (1) to (4).

(8) Test the inner container assembly before proceeding to reassemble the container following the reverse of the procedure given in para. 8.

(9) Test the container for leaks, make insulation and functional tests on the heater element.

Renewing the electrical connector

11. To renew the electrical connector or an individual pin dismantle the container following the procedure given in para. 8 and then proceed as follows :

(1) Disconnect the element connecting wire at the connector plug pins.

(2) Remove the connector guard.

(3) Remove the plug pin retaining nut, metal washer and mica washer.

Note . . .

If only one pin is replaced at a time the other pin will hold the two mica plates (shown in fig. 2) in position. If the mica plates are to be renewed both pins should be removed.

(4) Remove the plug pin complete with metal washer and mica washer.

(5) Fit the new pin with the washers assembled in the order : metal washer, thin mica washer, thick mica washer.

(6) Check that the thick mica washer has passed through the top mica plate, inner container top plate and the lower mica plate.

(7) Replace the plug pin mica washer, metal washer and retaining nut.

(8) Repeat operations (3) to (7) for second pin if required.

(9) Refit the connector guard.

(10) Reconnect the element connecting wires. Make an insulation resistance test and then reassemble the container following the reverse of the procedure given in para. 8. Test the container for leaks and make insulation resistance and functional tests on the heater element.

Renewing the tap

12. The tap is screwed into the tap adaptor and can readily be removed and replaced. It is also possible to dismantle the tap whilst it is fitted, by removing the two screws securing the handle and removing the handle, then removing the hexagonal nut on the plug whilst holding the square shank end. The plug can then be removed. It should be noted that the OFF position of the handle is vertical.

Testing

Insulation resistance test

13. The insulation resistance of the container should be measured using a standard 250V insulation resistance tester across the connector plug pins and the case. The reading obtained should be not less than 5 megohms.

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