

Chapter 7

DOWNWARD IDENTIFICATION LAMP, TYPE C

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Fig. 1. Downward identification lamp, Type C

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Introduction

1. These lamps (Stores Ref. 5CX/557) are fitted on aircraft for the purpose of signalling to the ground or to other aircraft. The aircraft may show a steady light, or may signal in code, the light being white or coloured as previously determined.

DESCRIPTION

2. The lamp, fig. 1 and 2, is constructed mainly of moulded synthetic resin compound, is $3\frac{1}{4}$ in. high, and weighs approximately $12\frac{3}{4}$ oz. The socket for the filament lamp is moulded in one piece with the body and the mounting flange.

3. The contacts are mounted on curved leaf-springs which are each fixed by a rivet and a terminal. The terminal anchors the end of the spring and is almost surrounded by a shroud which rises from the moulding. A moulded cover fixed to the body by three countersunk screws protects the contacts and terminals. A slot is made in the edge of the body to accommodate the cables. The reflector of silvered copper, designed to give a beam with a divergence of 135° , is secured in the lamp by three screws. A moulded front, with the glass cemented in, screws over the open end of the lamp.

4. The filament lamp is a 24-volt, 80-watt lamp (Stores Ref. 5L/X952604), with a small bayonet cap. Domed fronts are normally fitted, the standard front being clear (Stores Ref. 5CX/4521); alternative domed fronts are amber (Stores Ref. 5CX/3465), green (Stores Ref. 5CX/3466), and red (Stores Ref. 5CX/3467). The front illustrated is flat, which was an earlier design; in this range are amber (Stores Ref. 5CX/1907), green (Stores Ref. 5CX/615), and red (Stores Ref. 5CX/616).

Mounting

5. The lamp is mounted on the airframe facing downwards, with the body within the fairing. It is fixed with three 2 B.A. screws or No. 9 wood screws, equally spaced through the lugs on the mounting flange, the holes being on a 5.75 in. pitch circle.

OPERATION

Range

6. Signalling is limited to points within the beam, which has a divergence of 135° , so that an aircraft cannot signal to a point from which it has an elevation of less than $22\frac{1}{2}^\circ$. The range of the lamp for points vertically below the aircraft is as great as is normally likely to be required. Owing to the distribution of intensity, the horizontal distance or plan range is limited to

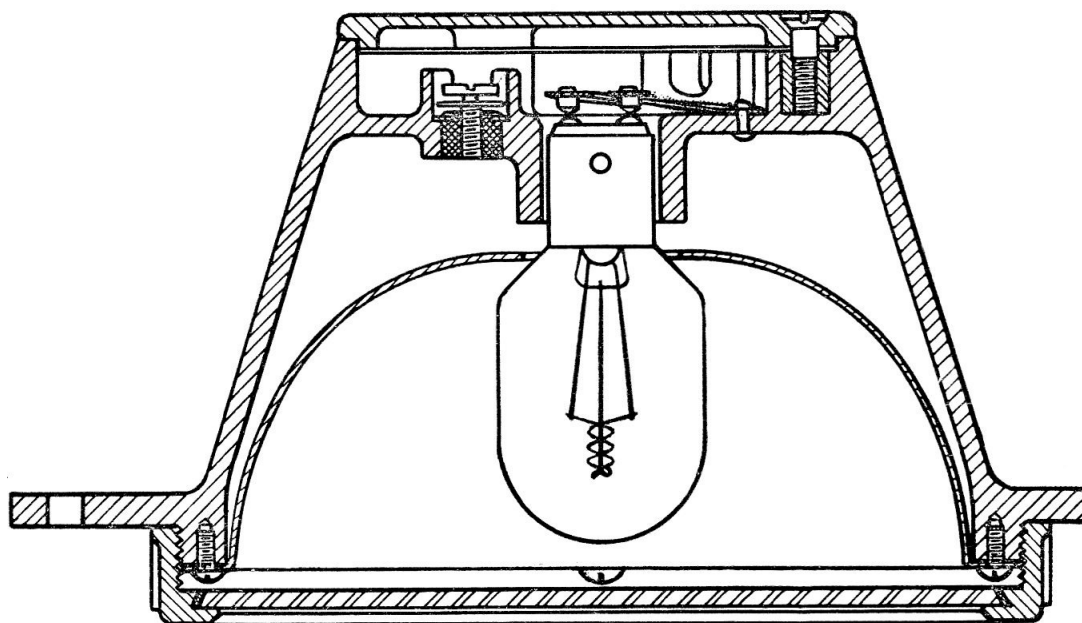


Fig. 2. Sectional view of lamp

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about $4\frac{1}{2}$ miles for clear, and 3 miles for coloured glass. A rate of signalling of approximately eight words per minute can be read without confusion.

Control

7. Control is by an identification switch-box located in the cockpit. By use of the switchbox, either upward (*Chap. 8*) or downward lamps may be kept on to give a steady light, or they may be connected separately or together to a signalling key.

SERVICING

8. Little servicing is required, but the operation of the lamps should be checked by switching them on from the cockpit and seeing that they light. The filament lamps must be examined for signs of blackening, and, if necessary, renewed before operational failure is likely.

9. The metal reflectors may need occasional cleaning by washing with soap and water and rubbing with a soft cloth. No metal polish of any kind may be used. The glasses and lamp bulbs must also be kept clean.