ADMIRALTY
AIR MINISTRY

ELECTRICAL MANUAL, STATIC CONSUMER EQUIPMENT (AIRBORNE)
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Section 7. List of Chapters : *delete* " *(to be issued later)* " after the title of Chapter 5, and *write* " (A.L. 35) " in the outer margin against the deletion. *Insert* this Chapter 5 to follow Chapter 2, and *record* the incorporation of this A.L. in the Amendment Record Sheet.

Chapter 5

TAXYING LAMP, TYPE A

LIST OF CONTENTS

LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Taxying lamp, Type A	*Stores Ref. 5C/3863*
Lamp, filament, 12V, 36W (Stores Ref. 5L 1539) *Lamp, filament, 24V, 36W (Stores Ref. 5L 320)*	*For single-engined aircraft*
Lamp, filament, 12V, 60W (Stores Ref. 5L 586) *Lamp, filament, 24V, 60W (Stores Ref. 5L 588)*	*For multi-engined aircraft*
Lampholder, S.V.C., Type B	*Stores Ref. 5C/2680*
Diameter	*4·4 in.*
Length	*4·1 in.*
Vertical divergence of beam	*10 deg.*
Horizontal divergence of beam	*40 deg.*
Weight	*8 oz.*

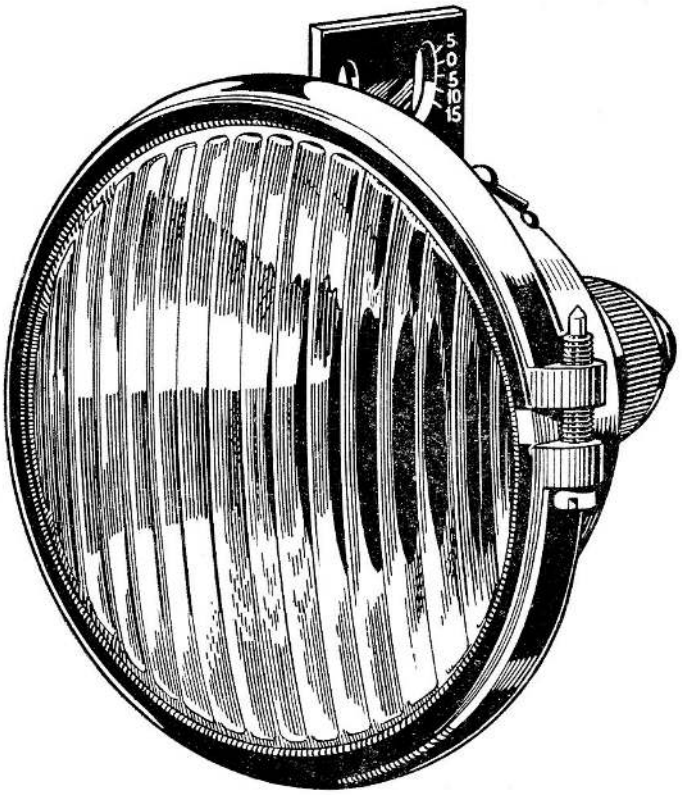

Fig. 1. Taxying lamp, Type A

Introduction

1. This lamp is designed to illuminate the region about the wing tips of an aircraft, thus giving warning of the presence of obstructions when the aircraft is being taxied into, or about, parking areas.

DESCRIPTION

2. The lamp, shown in fig. 1, consists essentially of a lampholder, body, reflector, and bezel ring and glass. The type of filament lamp used depends upon the voltage of the aircraft electrical system and upon whether the aircraft is single or multi-engined (see Leading Particulars).

3. The filament lamp is fitted in a small bayonet cap lampholder, which is covered by a waterproof sleeve, and when in position extends forward into the main body of the lamp. Within the body is a reflector, whilst at its front are a gasket and clear glass. These are secured by a bezel ring which fits over a lip integral with the body. The glass, which is convex, is fluted and it is important that the flutes be maintained in a vertical position, as shown in fig. 1.

4. Riveted to the outside of the lamp body is a mounting bracket, in the upright of which is a fixing hole, suitable for a $\frac{1}{4}$ in. dia. fixing bolt, and a slot. A scale, graduated in degrees, 5–0–5–10–15, is engraved at the side of the slot. By use of the scale a critical adjustment can be made to the lamp's position in the vertical plane, within the set range of twenty degrees.

INSTALLATION

Mounting position

5. The lamp is mounted, whenever possible, in the leading edge of the wing, as near to the wing tip as is practicable, and outboard of the swept circle of the outermost propeller. Where a wing mounting for the lamp is not possible, it may be positioned on the undercarriage or beneath the fuselage, though in either of these locations, the effectiveness of the lamp is considerably reduced.

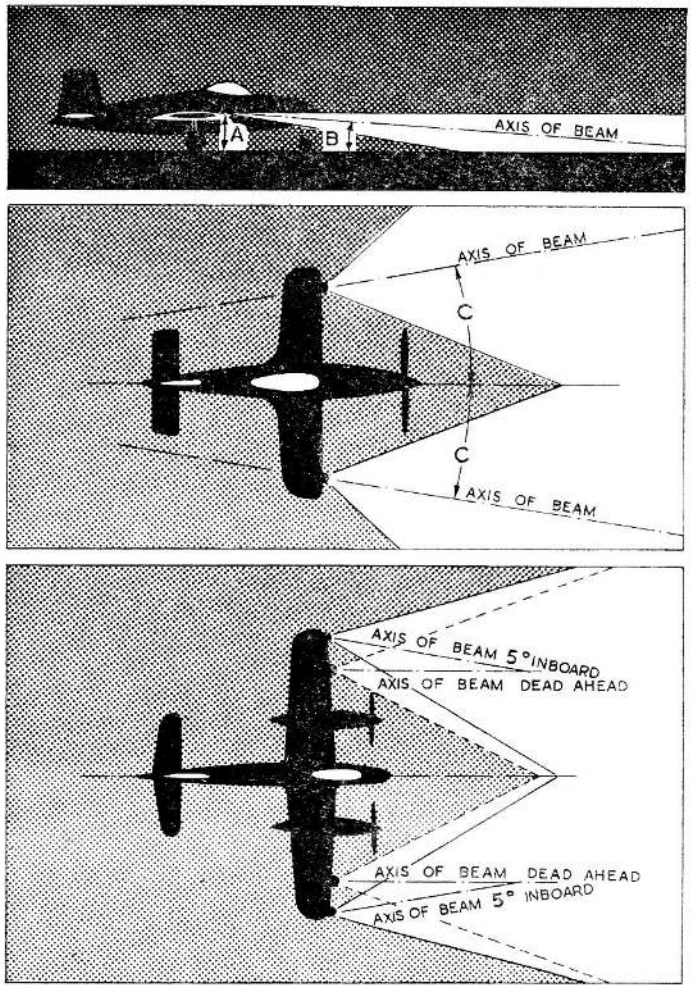

Fig. 2. Installation diagram

Beam setting adjustment

6. As the setting of a lamp varies according to its location and the type of aircraft to which is fitted, the following procedure for initial setting is necessarily of a general character.

Vertical plane

7. With the aircraft in its normal taxying attitude, the axis of the lamp should be directed downwards at a small angle B (*fig.* 2) : the angle should be approx. A/4 degrees, where A is the height, in feet, of the lamp above the ground.

Horizontal plane

8. With single-engined aircraft, the axis of the lamp should be turned outboard at an angle C (*fig.* 2). This angle is usually approx. 12 degress but may be smaller if the lamp is mounted more than half-way out towards the wing tip.

9. With multi-engine aircraft, the axis of the lamp should be parallel to the centre-line of the aircraft, unless the lamp is mounted more than half-way out towards the wing tip, in which case it may be turned inboard at an angle between 0 deg. and 5 deg. The actual figure is dependent upon the closeness of the

lamp to the wing tip : the nearer the lamp is to the wing tip, the greater should be the angle.

SERVICING

10. The lamp should be examined periodically to ensure that it has sustained no mechanical damage. The electrical connections to the lampholder should at all times be secure and free from corrosion. The front glass should be cleaned, at intervals, inside and out.

11. The metal reflector may occasionally require cleaning. It should be washed with soap and water and then rubbed lightly with a soft cloth. Do not use any metal polish.

12. The operation of the lamp should be checked prior to each flight by switching on and observing that the lamp lights satisfactorily.

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