

## Chapter 42

### WING TIP NAVIGATION LAMPS, THORN, TYPE WNL/30 AND /40

#### LIST OF CONTENTS

	Para.		Para.
<i>Introduction</i> ... ..	1	<b>Installation</b> ... ..	5
<b>Description</b> ... ..	2	<b>Servicing</b> ... ..	6

#### LIST OF ILLUSTRATIONS

	Fig.		Fig.
<i>Wing tip navigation lamp, Type WNL/30</i>	1	<i>Sectional view</i> ... ..	2

#### LEADING PARTICULARS

<i>Wing tip navigation lamp, WNL/30 (port)</i> ...	Ref. No. 5CX/5254
<i>Wing tip navigation lamp, WNL/40 (starboard)</i> ...	Ref. No. 5CX/5255
<i>Weight</i> ... ..	5.8 oz.
<i>Electrical connection</i> ... ..	4 B.A. screw terminals
<i>Filament lamp, 18 watt, 28-volt</i> ... ..	Ref. No. 5L/9953283



Fig. 1. *Wing tip navigation lamp,  
Type WNL/30*

#### Introduction

1. These navigation lamps are designed to indicate the presence, position and, as far as possible, the course of aircraft flying at night. The WNL/30 and WNL/40, i.e. the

port and starboard lamps respectively, are identical in construction, differing only in the colour of the lamp glass. They are designed to give an unobstructed light distribution of 180° in all vertical planes from straight ahead to 110° in azimuth from the ahead direction.

#### DESCRIPTION

2. A general view of a WNL/30 lamp is shown in fig. 1 while a sectional view, showing the construction, is shown in fig. 2. The lampholder forms an integral part of the lampholder body. This body is provided with a moulded cap, which also forms the cable clamp, and is in turn housed in a metal tube provided with a mounting flange.

3. The red (port) or green (stbd.) heat resisting glass domes are held in place, against a rubber sealing ring, by a pressed aluminium cover, secured by a 4 B.A. countersunk captive screw which engages with a 4 B.A. clinch nut carried on a bracket attached to the mounting flange.

4. Terminal connection is provided by two 4 B.A. screw terminals which screw into

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brass terminal blocks moulded in with the lamp holder body. The supply leads enter the lamp at the base of the tubular portion and are clamped to the lampholder moulding by a clamping strip held by two 6 B.A. screws.

### INSTALLATION

5. The lamp is secured to the wing by three 4 B.A. fixing screws. The holes for these screws are on  $1\frac{3}{4} \times 1$  in. fixing centres on the mounting flange of the lamp. The lampholder tube projects  $2\frac{3}{16}$  in. into the wing section via a  $1\frac{3}{8}$  in. diam. hole.

### SERVICING

6. Check the operation of the lamps by switching them on and off. Clean the glasses inside and out and clean the filament lamp. If there is any sign of blackening, the filament lamp should be renewed in order to prevent failure during operational periods. The sealing ring under the lamp glass should be examined and, if perished or damaged, a new one fitted. The ends of cables should be examined for signs of damage and connections must be secure and free from corrosion.

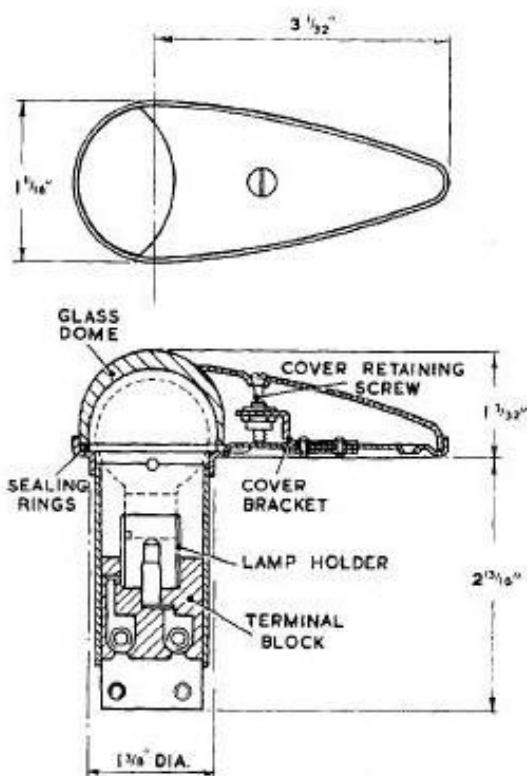


Fig. 2. Sectional view

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