Chapter 29

SOLENOID UNIT, WESTOOL SERIES 1174

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LEADING PARTICULARS

Solenoid unit, Westool Series 1174	*Ref. No.* 5CW/10103
Voltage rating	24*V d.c. intermittent*
Minimum operating voltage	16*V d.c.*
Current rating	6*A maximum at* 24*V d.c.*
Coil resistance	4 *ohms*
Stroke	0·5 *in* ± 0·02 *in.*
Effort	10 *lb. at* 24*V d.c.* 6·5 *lb. at* 16*V d.c.*
Time rating	45 *sec. maximum, followed by* 2 *hours cooling*
Ambient temperature range	−20 *to* +30 *deg. C.*
Temperature rise	70 *deg. C in* 75 *sec.*
Weight	2·5 *lb. approximately*

Introduction

1. The solenoid unit, Westool Series 1174, is used in the alighting gear up-lock system of the Basset aircraft, in its 24V application.

DESCRIPTION

2. The solenoid unit is of cylindrical shape with cut-off conical end-plates, the end-plates clamping and locating the solenoid coil centrally to the body. The coil is wound so that operation on 12V or 24V

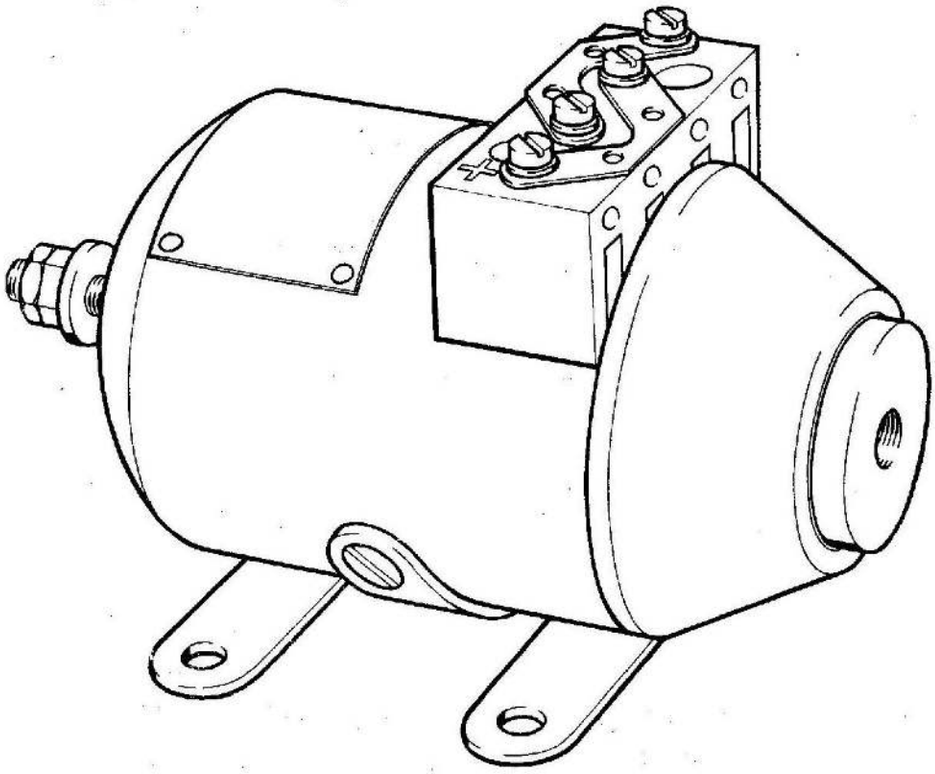

Fig. 1. Solenoid unit, Westool Series 1174

d.c. is possible, the coil connections being brought out to a terminal block mounted on top of the solenoid. Series/Parallel connecting strips are provided on the terminal block. A bracket is screwed to the solenoid body, diametrically opposite the terminal block, and provides four holes for securing the unit.

3. The solenoid armature is a plunger, able to move axially along the centre of the coil. The plunger protrudes from one of the end-plates and has a tapped hole for connecting the load. A screwed rod is fitted to the other end of the plunger and projects through the other end-plate, to provide an adjustment for the range of stroke.

SERVICING

4. Little servicing can be performed apart from visually examining the unit for external damage, cleanliness and security of electrical connections.

Testing

5. Details of the tests which should be applied to the unit to verify its serviceability will be found in Appendix A to this chapter.

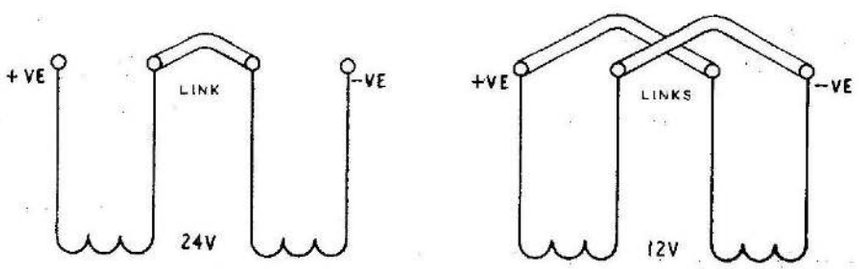

Fig. 2. Circuit diagram