

Chapter 36

LOCK JACK

Type No. 1.01946.001

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Introduction

1. This jack is spring-loaded to the closed position and hydraulically-operated to the extended position against the spring pressure. The travel of the jack is within the limits of 0.535 in. and 0.575 in.

Description

2. The body is formed with two lugs at one end for airframe attachment points, and a tapping in the opposite end receives a fluid connection supplied by the aircraft manufacturer.

3. The piston rod is formed with an eye-end and is integral with a piston head grooved for a sealing ring and supporting split ring. A spring is located over the piston rod against the head, and the assembly is retained in the body by a screwed end cap. A washer, which serves as a seating for the spring, is backed by a bush housed in the end cap; and a flange on the piston rod acts as a travel stop to limit the piston travel.

TABLE 1
Special tool

Ref. No.	Part No.	Description
27Q/17679	S.T.2772	Sleeve for split ring.

SERVICING

Leakage

4. External leakage will indicate a faulty bonded seal which must be renewed. Internal leakage past the piston head sealing ring will be shown by the sluggish action of the jack in service or the loss of pressure during test. Renew the sealing ring. Failure of the jack to return to the closed position will be due to a weak or damaged spring, which must be renewed.

Dismantling

5. (1) Unscrew the end cap and withdraw the piston assembly from the body.

(2) Slide the washer and the spring from the piston rod and withdraw the bush from the end cap.

(3) Remove the sealing ring and the split ring from the piston head.

Assembling

6. (1) Lightly coat the piston sealing ring with Grease XG-315 (34B/9100519) and fit the sealing ring and the split ring to the piston head. If a new split ring is fitted, it must be gapped 0.009 in. to 0.012 in. on assembly and the sharp edges at the gap, on the flat faces only, removed by a radius of 0.005 in. to 0.015 in.

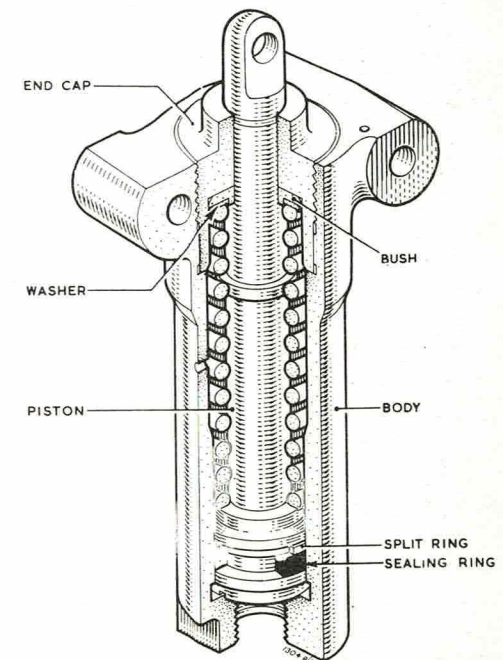


Fig. 1 Lock jack

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(2) Locate the spring over the piston rod and against the head, and insert the piston into the body.

(3) Insert the bush, chamfered face leading, into the end cap and follow with the washer. Slide the cap over the piston rod and screw it tightly into the body.

(4) After final assembly and test, wire-lock the end cap to the body.

Testing

7. A static hydraulic test rig is required, together with one pipe adapter Part No.

A.G.S.1104-B and one bonded seal Part No. A.G.S.1186-B. The pipes between the test rig and the jack are to be $\frac{3}{8}$ in. outside diameter for metal pipes or $\frac{3}{8}$ in. nominal for flexible hose.

(1) Screw the pipe adapter, fitted with the bonded seal, into the fluid connection. Connect the test rig supply line to the connection and apply pressure to extend the jack. The pressure required to

commence the extending movement must not exceed 140 lb/in², and that required to complete the extension must not exceed 210 lb/in². Check that the travel is within the limits as detailed in para. 1.

(2) Increase the pressure to 2,550 lb/in². Leakage is not permissible.

(3) Release the pressure. The jack must return smoothly and instantly to the closed position. Disconnect the supply line.

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