

Chapter 1
(Completely revised)

GENERAL

CONTENTS

Para

- 1 Introduction
- DESCRIPTION
- 2 Canopy jettison jack
- 5 Operation
- MAINTENANCE
- 7 Dismantling
- 8 Assembling

Fig

- 1 Diagrammatic layout of canopy jettison system 2
- 2 Canopy jettison jack 2

Page

INTRODUCTION

1 The canopy jettison system (fig 1) of the Hunter F Mk 6, F(GA) Mk 9, FR Mk 10 and GA Mk 11 aircraft, comprises a canopy jettison and time-delayed firing unit and two jettison jacks connected by pipes. The jettison jacks are located towards the front of the canopy below the guide rails and are interconnected with the canopy locks. The canopy jettison and time-delayed firing unit is described in AP 109C-0201-15F.

DESCRIPTION

CANOPY JETTISON JACK (fig 2)

2 The canopy jettison jack consists of a body containing a piston, which is closed at the lower end by a bottom fitting secured by a locking ring. A bracket is formed at the upper end of the body in which is pivoted a canopy lock operating lever. One end of the lever protrudes into the body to contact a shoulder machined in the piston; the other end of the lever is connected to the canopy lock connecting rods. Fitted into the jack body opposite to the lever is a negative-g plunger and spring secured in position by a cap. The rounded end of the negative-g plunger is in contact with the shoulder of the piston.

3 The lower end of the piston is fitted with a larger diameter head which contains a distance spigot to prevent bottoming of the piston. The upper end of the piston is machined to form a shoulder, which, when the piston is retracted, is engaged by the operating lever and the negative-g plunger.

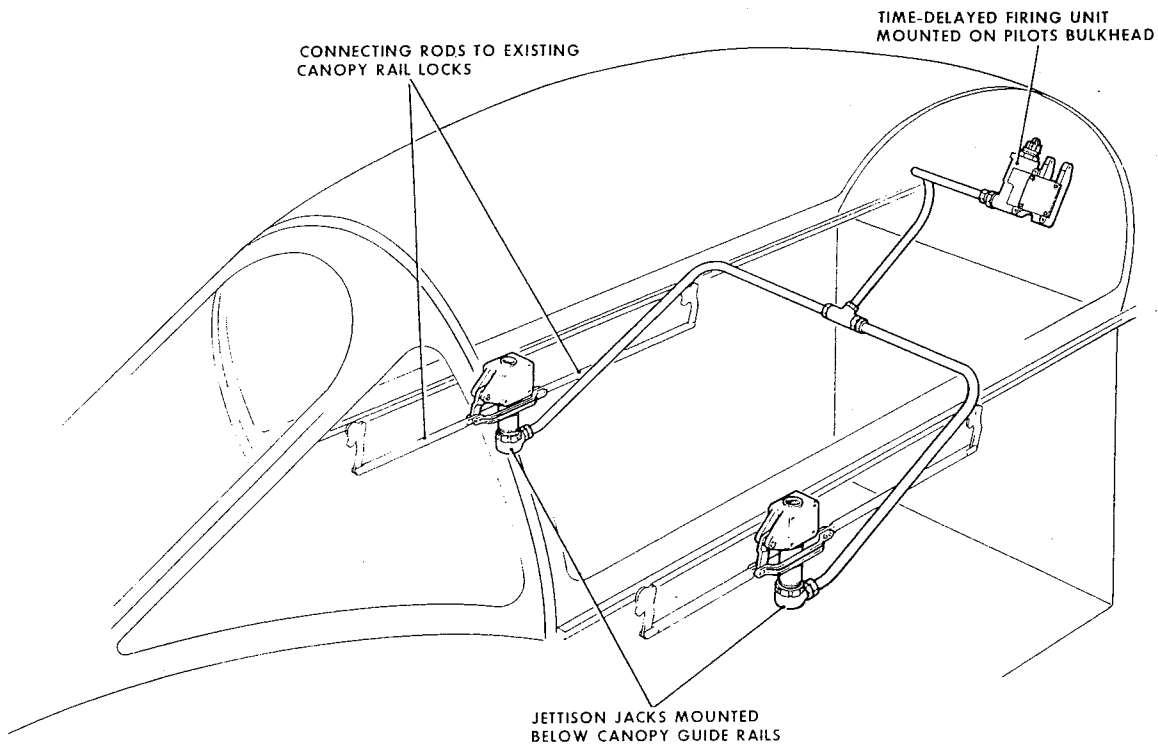


Fig 1 Diagrammatic layout of canopy jettison system

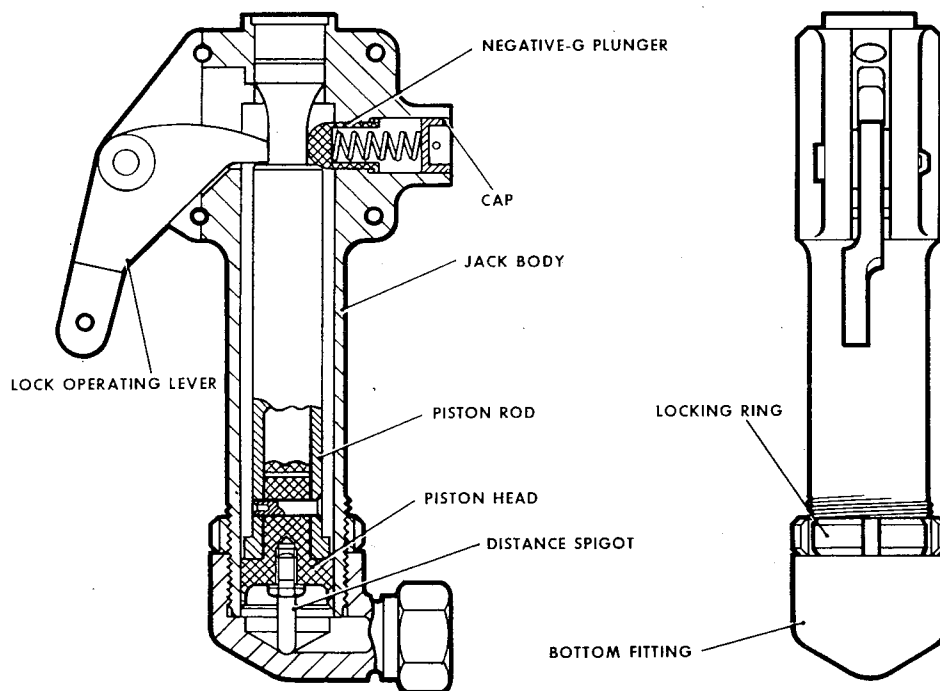


Fig 2 Canopy jettison jack

4 The bottom fitting is internally threaded to screw on to the bottom of the jack body and externally threaded to accept the union nut of the pipe from the time-delayed firing unit. A locking ring secures the bottom fitting to the jack body.

Operation

5 When either firing handle of the ejection seat is operated, the canopy jettison and time-delayed firing unit is operated, the cartridge is fired and gas pressure passes to the two jettison jacks. The gas pressure bears on the head of the piston and forces the piston upwards. The negative-g plunger (which prevents movement of the jack piston until gas pressure operating on the piston head overcomes the plunger spring) is forced away from the piston and the operating lever is rotated. Rotation of the lever moves the canopy lock connecting rods rearwards to unlock the canopy. Further upward movement of the jack causes the end of the jack to bear on the canopy, raising it sufficiently for the airstream to carry the canopy clear of the aircraft.

6 On GA11 aircraft, the time-delay mechanism is removed and the firing unit sear is connected directly to the cockpit canopy jettison handle. Operation of the handle fires the cartridge, the gas from which operates as described in para 5. There is no connection between the seat firing handles and the canopy jettison system.

MAINTENANCE

CANOPY JETTISON JACK

Dismantling

7

- 7.1 Remove the split pin securing the negative-g plunger cap and remove the cap, spring and negative-g plunger.
- 7.2 Remove the split pin, operating lever axis pin and operating lever.
- 7.3 Loosen the locking ring and unscrew and remove the bottom fitting and locking ring.
- 7.4 Remove the piston from the lower end of the jack body.

Assembling

8

- 8.1 Lightly lubricate the piston with grease XG 285. Insert the piston into the jack body.
- 8.2 Lightly lubricate the negative-g plunger with grease XG 285. Fit the negative-g plunger, spring and plug. Secure the plug with the split pin. Ensure that the negative-g plunger is engaged above the piston shoulder.

- 8.3 Lightly lubricate the operating lever axis pin with grease XG 285, fit the operating lever to the body and secure with the axis pin and split pin.
- 8.4 Screw the locking ring and then the bottom fitting on to the body. Screw the locking ring down on to the bottom fitting hand tight.
- 8.5 Fit a protective cap to the pipe connector.

This file was downloaded
from the RTFM Library.

Link: www.scottbouch.com/rtfm

Please see site for usage terms,
and more aircraft documents.

