

DESCRIPTION AND MAINTENANCE INSTRUCTIONS

MAINTENANCE OF QUICK RELEASE PRESSURE FASTENERS

(This EO replaces EO 05-1-2Q dated 11 Jun 59)

GENERAL

1 Experience has shown that insufficient attention is paid to the care and maintenance of quick release pressure fasteners. Investigations have proven that aircraft accidents and incidents have been directly attributed to aircraft inspection panels and cowlings secured by these fasteners coming loose while airborne, resulting in damage to the aircraft, and creating a possible accident hazard to personnel.

DEFINITION

2 Quick release pressure fasteners are used to secure engine cowlings, fairing, panels and similar sheet metal components requiring repeated and rapid attachment and removal. The common types of quick release pressure fasteners are Dzus, Camloc, Airloc, Paneloc, Zahodiakin, Lion, Oddie, Simmons and Shakeproof. Installation and replacement instructions for these fasteners are contained in EO 05-1-3/7.

INSPECTION AND REPAIR

3 In order to ensure that fasteners are serviceable they are to be inspected before replacing panels etc., and if found defective the following action is to be taken.

| DEFECT | REPAIR |
|---|--|
| Wire spring or pin distorted or broken. | Replace wire by riveting or replace pin as per EO 05-1-3/7, para. 28. |
| Slots cracked, bent or broken dzus studs. | Replace dzus stud as per EO 05-1-3/7, para. 11. |
| Hole in plates or panels oversize or cracked. | Repair by patching as per EO 05-1-3/24 and replace stud. |
| Stud receptacles bent cracked or broken. | Replace stud receptacle as per EO 05-1-3/7, para. 27. |
| Stud cross pin not centralized. | Center or if distorted replace as per EO 05-1-3/7 para. 28. |
| Rivets in receptacles or wires loose. | Replace rivets if rivet holes in receptacles oversize, replace receptacle. |
| Slot in head of stud distorted. | Replace stud. |
| Safety marks removed. | Repaint safety marks. |

NOTE

Excessive pressure, pounding or hammering should not be applied in locking quick release pressure fasteners. If excessive pressure pounding or hammering is applied on pressure fasteners the spring, stud or receptacle will be damaged.

SAFETY MARKS

4 Safety marks in the form of a stripe are to be painted across the head of the fasteners and on the metal adjacent to all quick release pressure fasteners to indicate the locked position of the fasteners. The colour is to be visually distinctive at all times. The colour of the stripes is to be governed by the colour of the cowl surrounding the fasteners as follows:

- (a) Yellow stripes on black background.
- (b) Black stripes on yellow background.
- (c) White or red on camouflage background.
- (d) Black on aluminum background.

NOTE

Safety marks are not required for Camloc type fasteners, since a design safety feature provides a pronounced protrusion above a flush surface when in an unlocked position.

POSITIVE LOCKING PRECAUTIONS

5 During maintenance or inspections, panels, cowls, etc., will be in one of two positions.

- (a) Panels, cowls etc., are to be on the aircraft with all quick release pressure fasteners in the locked position.
- (b) Panels are to be completely off the aircraft and placed on shelves, stands etc., or hanging on chains attached to the aircraft. This will ensure panels are not accidentally left partially installed when an aircraft becomes airborne.

WARNING

Ensure all quick release pressure fasteners are in a positive locked position at all times when panels, cowls etc., are installed. The safety marks should be in proper alignment when fasteners are in the positive locked position.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

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