

ROYAL CANADIAN AIR FORCE

DESCRIPTION AND MAINTENANCE INSTRUCTIONS INSTALLATION OF EXPEDITOR HINGE BEARING BOLTS

EQUIPMENT AFFECTED:

Expeditor 3 Aircraft

INFORMATION

1 Improper installation of flap, rudder and elevator hinge bearing bolts has caused numerous cases of malfunctioning and unnecessary wear of the component hinges. Insufficient torquing of the bearing bolt permits it to turn in the bearing bushing and female hinge causing extremely rapid wear of the hinge and to a lesser extent, the bearing bushing. Excessive torquing will cause binding of the bearing and possible crushing or distortion of the hinge bracket.

INSTALLATION DATA

2 Install as follows:

- (a) Check the hinge bearing for any evidence of binding.
- (b) Install the control surface, and by the use of shims, eliminate any gap between the bearing race and female hinge.

(c) Tighten the attaching bolts so that the female hinge flanges hold the inner bearing race firmly. The bolt should be drawn snug to prevent working in the female hinge. The use of 4 or 5 inch box-end or open-end wrenches is recommended, where such are available, using a moderate force to tighten the bolt.

(d) After installation and each periodic inspection, the hinge bolts should be checked for any indication of working in the female hinge. This may be done by attempting to rotate the bolt with a 4 or 5 inch wrench. If wear or looseness is detected, determine if shims are necessary and reinstall as in (c) above.

NOTE

A 4 or 5 inch midjet-type wrench is recommended on all installations of the hinge bearing bolts on Expeditor to discourage application of excessive torque. If only standard wrenches are available maintenance personnel should be made aware of the risk of over-torquing.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

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