Tailplane Hinge Spigot Inner and Outer Bearing - Fitting

AFSC 43250 43171 43151

TIME EST

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

ASSOCIATED PROCEDURES

SP 6 (P) 114 (AF)

SPECIAL TOOLS AND EQUIPMENT

Spanner (26DK/95170).
Tool (26DK/95178).
Spanner (26DK/95149).
Spanner (26DK/95169).
Stand (26DK/95289).
Tool (26DK/95062).
Jib No.5 (4GC/4232291).
Sling (26DK/95102).
Tool (26DK/95421).
Spanner (26DK/95061).
Walkway (26DK/95055).
Spanner (26DK/95150).
Torque wrench (1C/1202795)
Multi purpose servicing hoist (4GC/4232366).

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1. PREPARATION

1.1	Tailplane spigot.	Lubricate (Grease XG 287).
1.2	Bearing housing.	Lubricate (Grease XG 287).
1.3	Oil seals:	
	(a) Inner bearings.	Fit, using tool (26DK/95421).
	(b) Outer bearings.	Fit, using tool (26DK/95421).
1.4	Inner bearing:	
	(a) Bearing assembly.	Fit in tailplane spigot housing.
	(b) Retaining nut.	Tighten, using spanner (26DK/95149).
	(c) Locking tab.	Fit.
	(d) Tab screws.	Lock by centre punching.
1.5	Outer bearing:	
	(a) Inner spherical half.	Fit into bearing housing.
	(b) Tab washer.	Position.
	(c) Retaining nut.	(i) Fit and tighten, using spanner (26DK/95061) until nut contacts inner spherical half. (ii) Mark relative position of tab washer, nut and housing. (iii) Remove.
	(d) Outer seal.	Fit to tailplane hinge.
	(e) Retaining nut.	Fit to tailplane hinge.

Continued Overleaf

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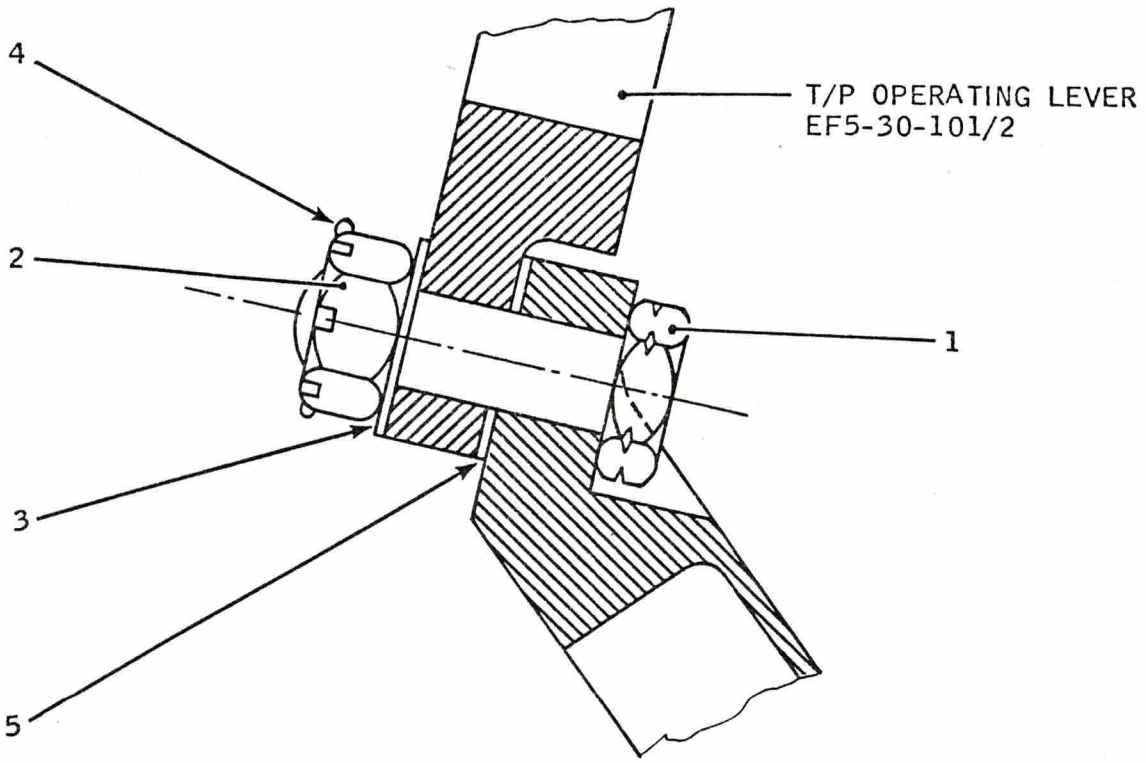

NOTE: ITEM 5 IS TO BE ADJUSTED TO SUIT THE GAP (IF ANY) BETWEEN THE TWO MATING SURFACES. SEE ITEM 12

REF	PART NO.	DESCRIPTION	UNIT QTY.
1	EEAS 95 HN	SPECIAL $\frac{1}{2}$ IN. DIA. HTS BOLT	2
2	A27-N-S	$\frac{1}{2}$ IN. DIA. MS SLOTTED NUT	2
3	SP 13-N	$\frac{1}{2}$ IN. DIA. WASHER	2
4	SP 9 E 10	3/32 IN. DIA. SPLIT PIN	2
5	E B2-30-215	LAMINATED SHIM	2

TAILPLANE OPERATING LEVER CONNECTION TO TAILPLANE SPIGOT

FIGURE 1

Continued

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1	PREPARATION (Cont'd)	
1.6	Outer bearing assembly.	Press evenly onto tailplane spigot hinge (See Fig. 2, STAGE 3).

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2	INSPECTION STAGE	
2.1	Independent Check.	Assembly and locking of inner bearing.

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3	FITTING	
3.1	Tailplane sling (26DK/95102).	Fit.
3.2	Multi-purpose servicing hoist with No. 5 Jib.	Connect to tailplane sling.
3.3	Tailplane.	(i) Raise whilst steadying. (ii) Manipulate into spigot housing.
3.4	Spigot bore.	Screw tool (26DK/95178) fully in (See Fig. 2, STAGE 4).
3.5	Tailplane spigot.	Drawing into inner bearing using drawing nut of installation tool, until outer bearing contacts spherical seating.
3.6	Outer bearing retaining nut.	(i) Tighten, using spanners (26DK/95169/70) until mark made in sub-item 1.5 (c) operation (ii) aligns. (See Fig. 2, STAGE 5). (ii) Lock with tab washer.
3.7	Outer seal.	Position in recess in retaining seal.
3.8	Tailplane spigot.	(i) Draw home. (ii) Check that clearance between shoulder and faces of outer bearing retaining nut is 0.255in. PLUS OR MINUS 0.025 in. (See Fig. 2, STAGE 5).

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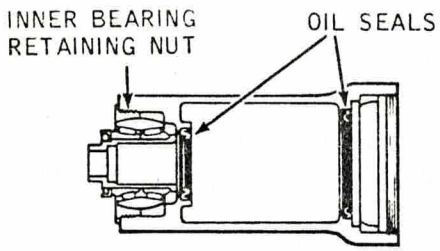
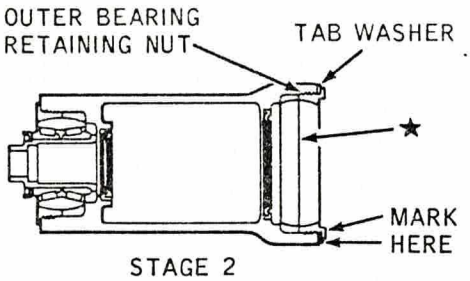


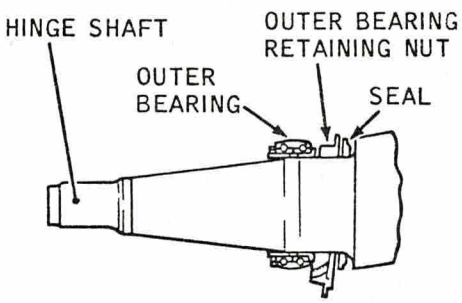
STAGE 1

FIT THE INNER AND OUTER OIL SEALS AND THE INNER BEARING TO THE TAILPLANE HOUSING. TIGHTEN THE RETAINING NUT WITH BOX SPANNER REF.NO.26DK/95149 AND FIT THE LOCKING TAB. LOCK ITS SCREWS BY CENTRE PUNCHING.



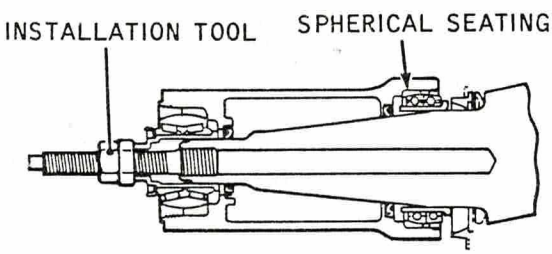
STAGE 2

FIT THE OUTER BEARING RETAINING NUT AND TAB WASHER AND TIGHTEN THE NUT WITH BOX SPANNER REF. NO.26DK/95061 UNTIL THE FACES MARKED ★ ABUT. MARK THE RELATIVE POSITIONS OF NUT, WASHER AND HOUSING AND REMOVE THE NUT.



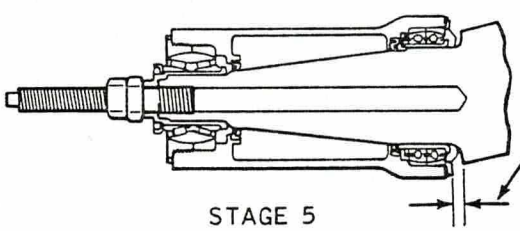
STAGE 3

PLACE THE OUTER SEAL AND RETAINING NUT OVER THE TAILPLANE HINGE SHAFT, AND PRESS THE OUTER BEARING EVENLY OVER THE SHAFT TO THE POSITION ILLUSTRATED.



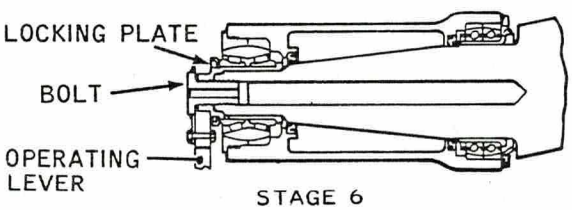
STAGE 4

ENTER THE TAILPLANE HINGE SHAFT INTO ITS HOUSING AND SCREW INSTALLATION TOOL REF.NO.26DK/95178 FULLY INTO THE SHAFT. DRAW THE SHAFT INTO THE INNER BEARING UNTIL THE OUTER BEARING CONTACTS ITS SPHERICAL SEATING.



STAGE 5

SCREW THE OUTER BEARING RETAINING NUT INTO THE HOUSING AND TIGHTEN IT WITH SPANNER REF.NO.26DK/95169 AND 26DK/95170. TO ALIGN THE MARKINGS MADE AT STAGE 2. LOCK THE NUT WITH THE TAB WASHER AND POSITION THE SEAL. DRAW THE TAILPLANE FULLY HOME WITH THE INSTALLATION TOOL.



STAGE 6

REMOVE THE INSTALLATION TOOL. ATTACH THE TAILPLANE OPERATING LEVER. SECURE IT WITH THE BOLT AND LOCK THE BOLT WITH THE LOCKING PLATE.

TAILPLANE ASSEMBLY

FIGURE 2

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

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3	FITTING (Cont'd)		
3.9	Installation tool.	Remove.	
3.10	Sling.	Remove.	
3.11	Tailplane.	(i)	Ensure movement is full and free.
		(ii)	Check tailplane to fuselage fairing gap (0.05in. minimum) throughout travel.
3.12	Tailplane operating lever: a) Attachment arm. b) Screw-jack arm.	(i) (ii)	Fit. Connect and lock.
3.13	Tailplane operating lever.	(i)	Alignment of operating lever to be adjusted to suit by introduction of shimming (See Fig.1 ITEM 5 and Fig.3 ITEM 12).
		(ii)	Torque-tighten nut (Fig.1 ITEM 2) to a value of 500 to 530 lbf in. using torque wrench (IC/1202795).
		(iii)	Where condition determines it is acceptable to modify the thickness of Fig.1 ITEM 3 to align split pin hole. Additionally if required it is acceptable to fit a quantity of two of ITEM 3.
3.14	Operating lever bolt (tailplane spigot).	(i) (ii)	Tighten. Fit lockplate.
4	GENERAL		
4.1	Tailplane flying control system.	Test (SP 114 (AF)).	

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5	INSPECTION STAGE		
5.1	Independent Check.	(i) (ii)	Assembly and Locking. Functional.

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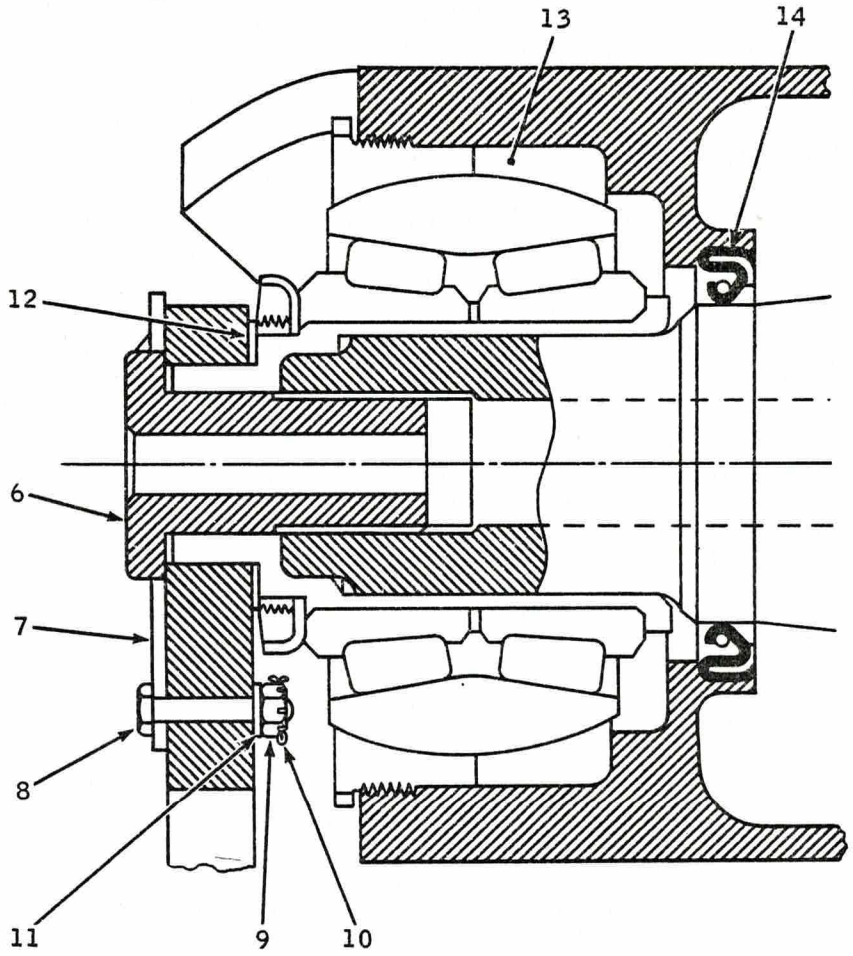

NOTE: ITEM 12 TO BE SUITABLY ADJUSTED IN CONJUNCTION WITH ITEM 5 FOR ALIGNMENT OF OPERATING LEVERS PT.NOS.E F5-30-101 LEFT AND E F5-30-102 RIGHT.

REF	PART NO.	DESCRIPTION	UNIT QTY.
6	E B1-30-141	BOLT	2
7	E B1-30-143	LOCKING WASHER	2
8	A25-6-C	2 B.A. BOLT HEX. HD.	2
9	A27-C-S	2 B.A. MS SLOTTED NUT	2
10	SP 9 C 10	1/16 IN. DIA. SPLIT PIN	2
11	SP 13 C	2 B.A. WASHER	2
12	E B2-30-217	LAMINATED SHIM	2
13	E B1-30-433	INNER BEARING ASSY.	2
14	MIS.24	OIL SEAL	2

TAILPLANE OPERATING LEVER CONNECTION TO TAILPLANE HINGE

FIGURE 3

Continued

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6	FITTING	
6.1	Heat shields (quantity 2).	Fit.
6.2	Triangular panels (quantity 2).	Fit.
6.3	Fuselage walkway.	Remove.
6.4	Tailplane sling attachment point blanking screw.	Fit.

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7	GENERAL	
7.1	No.1 Reheat jet pipe.	Fit (SP 6 (P)).

NOTE: All wirelocking to be 22 SWG stainless steel unless otherwise stated.