E34

AIR PUBLICATION

105D-1307-6

(Formerly A.P. 4601, Vol. 6, Sect. 3, Chap. 26)

HUNTER

POWERED FLYING CONTROLS

JACK

FAIREY HYDRAULICS LTD.

PART No. AH30227

REPAIR AND RECONDITIONING INSTRUCTIONS

BY COMMAND OF THE DEFENCE COUNCIL

J. T. Dunnett

Ministry of Defence

FOR USE IN THE

ROYAL NAVY

ROYAL AIR FORCE

(Prepared by the Ministry of Aviation Supply)

Issued Dec. 70

AMENDMENT RECORD SHEET

Record the incorporation of an amendment list by inserting the date of making the amendments and by signing in the appropriate column.

A.L. No.	AMENDED BY	DATE
1	[signature]	4-12-73
2	[signature]	10.11.73
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Prelim

MODIFICATION RECORD

The following record confirms that this publication is technically up-to-date in respect of the modifications listed below. Information on modification titles, classification categories and mark applicabilities is given in the associated Modification Leaflets publication.

MODIFICATIONS

FHB 130 L

FHB 156

JACK
PART No. AH 30227

◀ WARNING: THE LIFE OF THIS JACK IS 2000 FLYING HOURS. THIS CAN BE INCREASED TO 3000 HOURS SUBJECT TO THE EXTENSION END PART NO. BH 18011 BEING RENEWED BETWEEN 1000 AND 2000 HOURS. THE P.F.C.U. RECORD CARD IS TO BE SUITABLY ANOTATED. ▶

FHR 448 – Refacing by-pass valve piston conical surface

1. The valve piston conical surface may be refaced to a finish of 32 micro-inches, or better. Concentricity to diameter X (fig. 2) must be maintained at 0.001 in (0.002 in total D.I. reading) and after refacing dimension Y must not be less than 0.865 in. On assembly lightly seat the piston in its housing by the method detailed in A.P. 105D–1307–1. Where the clearance between the housing and the underside of the banjo bolt head (fig. 2). is below the minimum requirement, repair scheme FHR 574 (para. 2) must be incorporated.

FHR 574 – Re-seating of by-pass valve

2. When the assembly clearance between housing and jack body, with re-seating washer FHQ 2284 in position and the housing securing bolts screwed down finger tight only, is below the minimum requirement (A.P. 105D–1307–1) this scheme allows a lower tolerance as indicated (fig. 2). A further special washer, FHSO 101, which is 0.050–0.055 in thick, is introduced and may be used, if necessary, to meet testing requirements (See A.P. 105D–1307–1 – By-pass valve alternative washers and springs).

FHR 819 – Repositioning extension end locking dowel hole

3. If when fitting a replacement jack body or extension end the locking dowel holes do not align, or should the existing hole through the two parts become damaged, a new $\frac{3}{16}$ in dia (0.187/0.190) hole may be produced to the same depth as the original hole. The new hole must be on the same cross section and at 90 deg. from any existing hole in either part.

Note...

An original dowel hole is positioned at 180 deg to the jack body platform and the dowel is rivetted to and retained by the jack identification plate, the plate is then secured by a retaining strip. When the hole is repositioned in accordance with this repair, it is required that the identification plate retain its original position so that is is visible when the jack is installed. To achieve this the plate assembly dowel is to be removed from the plate and discarded and the plate is to be secured using a retaining strip (fig. 1) having a dowel attached to the strip.

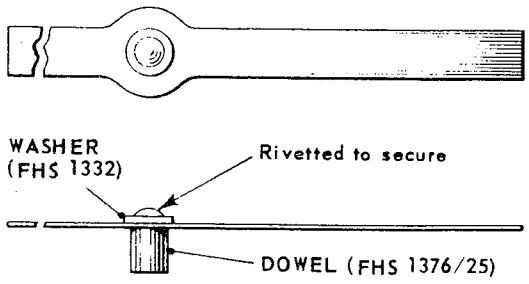

Fig. 1 Dowel and strip Part No. FHS 1738/A/25

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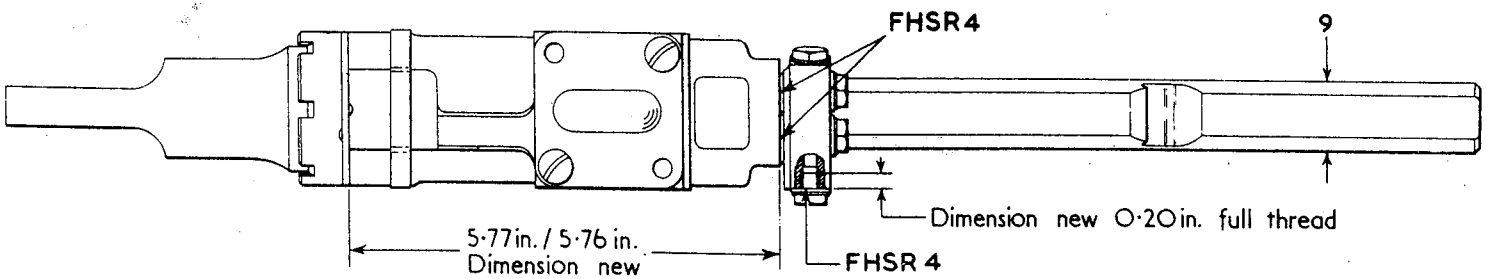


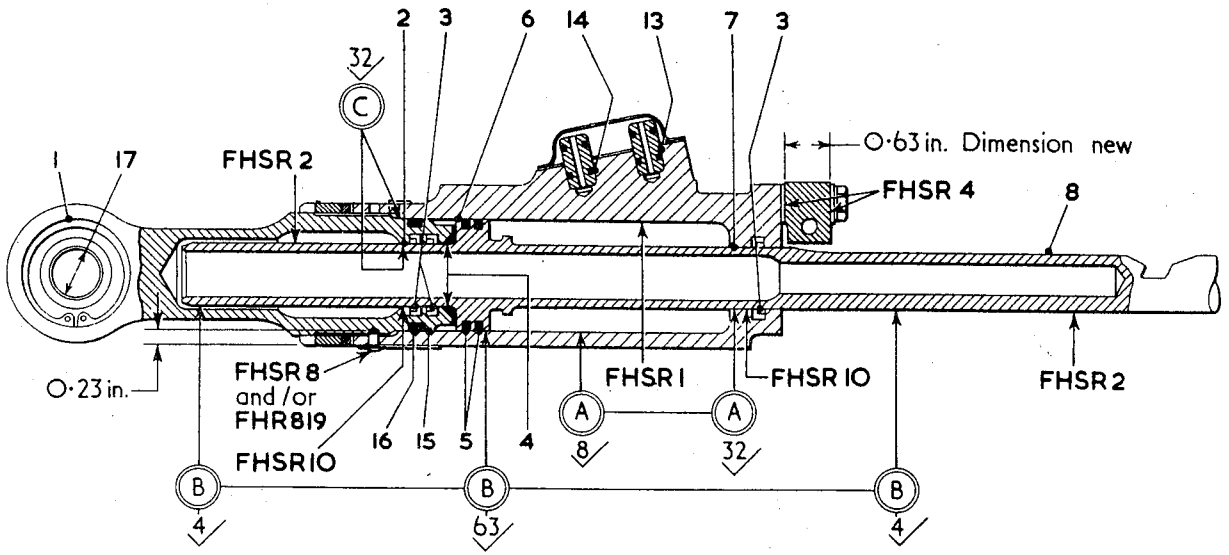
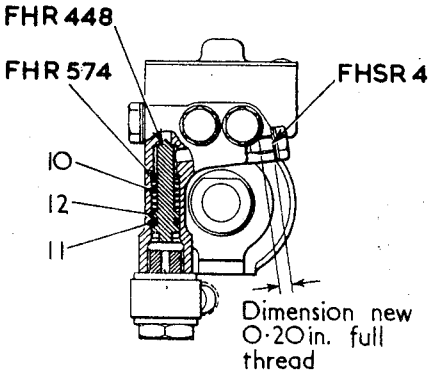
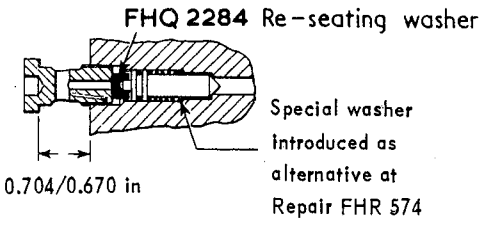


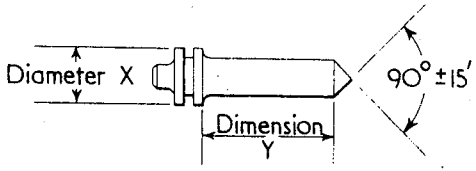
Fig. 2 Key diagram

CONCENTRICITY	
A	0·001in. (0·002in. total D.I.R.)
B	0·002in. (0·004in. total D.I.R.)
C	0·001 in. (0·002 in. total D.I.R.)





FHR 574 Re-seating of by-pass valve



FHR448 To reface valve piston

SCHEDULE 1

FITS, CLEARANCES AND REPAIR TOLERANCES

Ref. No. on Key diagram	Parts and Description			Dimension New	Permissible Worn Dimension		Clearance New	Permissible Worn Clearance	Remarks
					Inter-changeable Assembly	Selective Assembly			
(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)
1	BEARING IN EXTENSION END	Extension end	i/d	1.3752 1.3742	1.3752	1.3756	0.0010 −0.0005	0.0010	
		Bearing	o/d	1.3747 1.3742	1.3742	1.3732			
2	PISTON RAM IN EXTENSION END	Extension end	i/d	0.8757 0.8745	0.8770	0.8780	0.0037 0.0015	0.0050	* Check for continuity of chromium plating
		Piston	o/d	0.8730 0.8720	0.8720	0.8695*			
3	PISTON RAM IN SEALS			Fit new seals to assembly instructions					
4	PISTON RAM IN STOP WASHER	Washer	i/d	0.8730 0.8720	0.8730	–	0.0010 −0.0010	0.0010	
		Piston	o/d	0.8730 0.8720	0.8720	–			
5	PISTON SEALING RINGS IN JACK BODY	Body	i/d	1.5010 1.4995	1.5030	1.5040	−0.0001 −0.0154	−0.0001	Fit new rings to provide not less than the interference quoted in Col. 7
		Rings (fitted)	o/d	1.5149 1.5011	–	–			
6	PISTON HEAD IN JACK BODY	Body	i/d	1.5010 1.4995	1.5030	1.5040	0.0130 0.0095	0.0150	
		Head	o/d	1.4900 1.4880	1.4880	1.4845			
7	PISTON RAM IN JACK BODY	Body	i/d	0.8757 0.8745	0.8770	0.8780	0.0037 0.0015	0.0050	* Check for continuity of chromium plating
		Piston (Chromium portion)	o/d	0.8730 0.8720	0.8720	0.8695*			

SCHEDULE 1 (continued)

FITS, CLEARANCES AND REPAIR TOLERANCES

Ref. No. on Key diagram	Parts and Description			Dimension New	Permissible Worn Dimension		Clearance New	Permissible Worn Clearance	Remarks
					Inter-changeable Assembly	Selective Assembly			
(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)
8	PISTON RAM	Dimension across flat		0.7930 0.7900	0.7880	–	–	–	
9	PISTON RAM	Nitrided portion	o/d	0.8730 0.8720	0.8720	–	–	–	
10	SPRING Part No. DH 23207			Effort when compressed to 0.45 in to be 10 ±1 lb					
	SPRING Part No. DH 32197			Effort when compressed to 0.45 in to be 13.5 ±1 lb					
11	BY-PASS PISTON SEAL IN HOUSING	Housing	i/d	0.3755 0.3745	0.3760	0.3775	–0.0043 –0.0137	–0.0043	Fit new seal to provide not less than the interference quoted in Col. 7
		Seal (fitted)	o/d	0.3882 0.3798	–	–			
12	BY-PASS PISTON HEAD IN HOUSING	Housing	i/d	0.3755 0.3745	0.3760	0.3775	0.0035 0.0015	0.0045	
		Piston	o/d	0.3730 0.3720	0.3715	0.3700			
13	CONNECTING PIECE IN BODY	Body	i/d	0.3755 0.3745	0.3765	0.3780	0.0035 0.0015	0.0050	
		Connecting piece	o/d	0.3730 0.3720	0.3715	0.3695			
14	CONNECTING PIECE SEALS IN BODY	Body	i/d	0.3755 0.3745	0.3765	0.3780	–0.0083 –0.0177	–0.0083	Fit new seals to provide not less than the interference quoted in Col. 7
		Seals (fitted)	o/d	0.3922 0.3838	–	–			

SCHEDULE 1 (continued)

FITS, CLEARANCES AND REPAIR TOLERANCES

Ref. No. on Key diagram	Parts and Description			Dimension New	Permissible Worn Dimension		Clearance New	Permissible Worn Clearance	Remarks
					Inter-changeable Assembly	Selective Assembly			
(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)
15	EXTENSION END IN BODY	Body	i/d	1.5010 1.4995	1.5030	1.5040	0.0030 0.0005	0.0050	
		Extension end	o/d	1.4990 1.4980	1.4980	1.4945			
16	EXTENSION END SEAL IN BODY	Body	i/d	1.5010 1.4995	1.5030	1.5040	−0.0068 −0.0166	−0.0068	Fit new seal to provide not less than the interference quoted in Col. 7
		Seal (fitted)	o/d	1.5162 1.5078	–	–			
17	BEARING		i/d	0.6252 0.6247	0.6252	–	–	–