

ILMAILULAITOS

CIVIL AVIATION ADMINISTRATION
PL 50
SF - 01531 VANTAA, FINLAND
Puhelin/Telephone 90 - 82 921
International + 358 0 82 921
Telex 12 1247 AVIA SF
Telefax 90 - 870 2304

LENTOTURVALLISUUSHALLINTO
FLIGHT SAFETY AUTHORITY

MUUTOSMÄÄRÄYS

AIRWORTHINESS DIRECTIVE



M 1709/90

Muutos 2

19.4.1991

M-määräyksen noudattaminen on ilma-aluksen jatkuvan lentokelpoisuuden edellytyksenä. Määräyksen mukaisen toimenpiteen saa tehdä ja kuitata, ellei määräyksessä toisin mainita, ilmailuväläinekorjaamo tai lupakirjamekaanikko kelpuutuksensa mukaisesti, purjelentokoneiden ja harrasteilma-alusten osalta huollosta vastaava henkilö. Tehty toimenpide on merkittävä ilma-aluksen teknilliseen päiväkirjaan tai purjekoneen matkapäiväkirjaan. M-määräys on annettu ilmailulain (595/64) 14§:n ja ilmailuasetuksen (525/68) 20§:n perusteella.

British Aerospace. Ohjaussauvan kahvan tarkastus.

Koskee: Kaikkia Beagle B121 Pup Series 1/2/3-lentokoneita.

Viite: CAA AD 010-05-90.

Voimaantulo: 15.5.1991

Voimassaoloaika: Tämä määräys on voimassa toistaiseksi.

Toimenpiteet:

- A. Tarkasta ohjaussauvan kahvat ennen seuraavaa lentoa Pup Service Bulletinin nro. B121/95 Revision nro. 2 kohdan 3.1 - 3.6 ohjeiden mukaisesti, ellei niitä jo ole tarkastettu M 1709/90 muutos 1:n mukaisesti. Jos murtumia löytyy, nii tee kohdan B mukaiset toimenpiteet ennen seuraavaa lentoa.
- B. Vaihda vasemmanpuoleinen ohjaussauvan kahva uuteen viimeistään 30.9.1991 ja tämän jälkeen viiden vuoden välein sekä oikeanpuoleinen kahva uuteen viimeistään 31.12.1991 ja tämän jälkeen viiden vuoden välein Pup Service Bulletinin nro. B121/95 Revision 2 kohdan 3.7 - 3.9 ohjeiden mukaisesti.
- C. Avaa seuraavassa huollossa ohjaussauvan kahvoille laitekortit.

Toimistopäällikkö


Kim Salonen

Tämä määräys korvaa määräyksen M 1709/90 Muutos 1.

M179.1jv

V.G.V!

**BRITISH AEROSPACE
COMMERCIAL AIRCRAFT
AIRLINES DIVISION
PRESTWICK**



**PUP SERVICE BULLETIN
MANDATORY**

BULLETIN NO. B121/95

PAGE 1 OF 7

R DATE: ORIGINAL ISSUE JUN 4/90
REVISION NO. 2 JAN 28/91

BEAGLE B121 PUP SERIES 1, 2 AND 3 AIRCRAFT

FLYING CONTROLS - FAILURE OF HANDGRIP FITTING ON CONTROL COLUMN

1. AIRCRAFT AFFECTED

All models.

UNIT/PART AFFECTED:

Handgrip fitting, Part No. BE-45-10283.

2. REASONS

Cases have been reported of fractures of the handgrips fitted to the control columns of Bulldog aircraft. These handgrips are identical to those fitted to Pup aircraft. Failures may be more likely on aircraft operating in climates susceptible to high levels of ultra-violet radiation.

There have been two recent occurrences of in flight failure of the control column handgrips during aerobatics. The failed handgrips had no evidence of surface cracking. Revised inspection procedures are required to ensure that the handgrips are airworthy.

R Further testing has established that non destructive inspection
R is not adequate to detect degradation of strength. The handgrips are
R now lifed at five years.

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3. ACTION

R 3.1 Immediate inspection of both control column handgrips is
R required before further flight, unless accomplished under
R previous revisions to this bulletin.

R Left hand control column handgrips must be replaced by 31st
R March 1991 and thereafter at intervals not exceeding 5 years.
R Right hand control column handgrips must be replaced by 30th
R June 1991 and thereafter at intervals not exceeding 5 years.

Note: Statements ASM refer to the Pup Aircraft Servicing
Manual.

3.2 Ensure the aircraft is safe for servicing, in accordance with
ASM, Chapter 3.

3.3 Clean the handgrips fitted to the top of the control columns.

3.4 Lock the control columns in the neutral positions and, using a
spring balance, apply loads to the columns as follows:

(a) Refer to Figure 1 and fit a suitable Tyrap, or equivalent
as close to the top of the handgrip as possible, for the
hook of the spring balance to locate on. Position the
hook of the spring balance on the handgrip and, using a
rope on the opposite end, apply a load of 35lb +/- 5lb
towards the left hand side of the cockpit, simulating
aileron control loading. While the load is being applied
visually inspect the handgrips for cracking, crazing,
distortion or other surface damage, using a strong light
and magnifying glass as necessary.

(b) Repeat step (a), applying the 35lb +/- 5lb load to the RH
side of the cockpit.

(c) Repeat step (a), applying the load forward and then aft
simulating elevator control loading.

3.5 If any evidence of cracking is found on a handgrip, replace
the handgrip, complete with the upper section of the control
column, before next flight.

Note: Crazing is defined as hairline surface markings which do not
increase in width or depth when the handle is loaded in
accordance with para 3.4.

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R Cracking is defined as change in width or depth of surface markings when the handle is loaded in accordance with para 3.4.

R 3.6 If there is no evidence of cracking of the handgrip under loading in accordance with para. 3.4, continue flying and replace the handgrips as given in para. 3.7.

R 3.7 Replace the left hand control column handgrip by the 31st March 1991, and the right hand control column handgrip by 30th June 1991. Thereafter, replace the handgrips at intervals not exceeding 5 years.

R 3.8 Replace handgrip as follows:

(1) Remove R/T plunger switch (if fitted):

(a) Withdraw the switch cable from the socket at the base of the control column.

(b) Remove the attachment screw from the cap at the top of the handgrip and remove the cap.

(c) Using a soldering iron, release the cable loom from the R/T switch. Remove cable loom and switch.

Note: Tag the cables to enable them to be identified when re-connecting to the switch.

(2) Remove split pins, nuts, washers and bolts securing the upper control column in position. Withdraw the upper control column from the control column pivot tube assembly.

R (3) Using extreme care, drill out the rivets securing the handgrip to the upper control column and remove handgrip from upper control column and scrap handgrip.

R (4) Position the new handgrip, Part No. BE.45.10283 into the upper control column, and using an 1/8in. (0.125in) diameter drill, drill the rivet holes from the upper control column into the handgrip. Remove the handgrip and deburr and reprotect cut edges.

R (5) Position the new handgrip, Part No. BE.45.10283 into the upper control column and using rivets, Part No. AGS2044-406 secure the handgrip to the upper control column.

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- R (6) Install the upper control column, complete with new handgrip, on the control column pivot tube assembly. Secure with nuts, bolts, washers and new split-pins.
- R (7) Solder the cable looms to the R/T push button switches and fit the switches to the top of the control column.
- R (8) Fit switch cable to the socket at base of control column.
- R (9) Carry out a duplicate inspection.

3.9 Communications System - Functional Check

Carry out a complete functional check on all aspects of the communications system as detailed in the relevant Aircraft Servicing Manual Supplement.

- R 3.10 Locally manufacture a pair of white linen bags to fit over the handgrips when the aircraft is parked in the sun.
- R 3.11 If damage is found during inspection in accordance with Paragraph 3.4, a defect report must be raised and sent to: The Manager, Customer Support, British Aerospace (Commercial Aircraft) Ltd., Airlines Division, Prestwick Airport, Ayrshire, KA9 2RW, Scotland.
- If no damage is found, a report is still required which should be forwarded to the Customer Support Manager (address as in Paragraph 3.11 above).
- R

4. COMPLIANCE

- 4.1 Compliance with this Service Bulletin for UK registered aircraft has been classified as MANDATORY by the UK Civil Aviation Authority. This service bulletin is CAA Airworthiness Directive 010-05-90.
- R 4.2 All aircraft must be inspected, in accordance with Paragraphs 3.3, 3.4 and 3.5 before next flight, unless accomplished under previous revisions to this bulletin. Aircraft which have been inspected in accordance with para 3.5 (a) of the original issue of this bulletin (25 lb. load test), do not require the inspection before next flight.
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- R 4.3 All aircraft must have:
- R (a) the left hand control column handgrip replaced by 31st
- R March 1991 and thereafter at intervals not exceeding 5 years.
- R (b) The right hand control column handgrip replaced by 30th
- R June 1991 and thereafter at intervals not exceeding 5 years.

5. WEIGHT AND BALANCE

Nil

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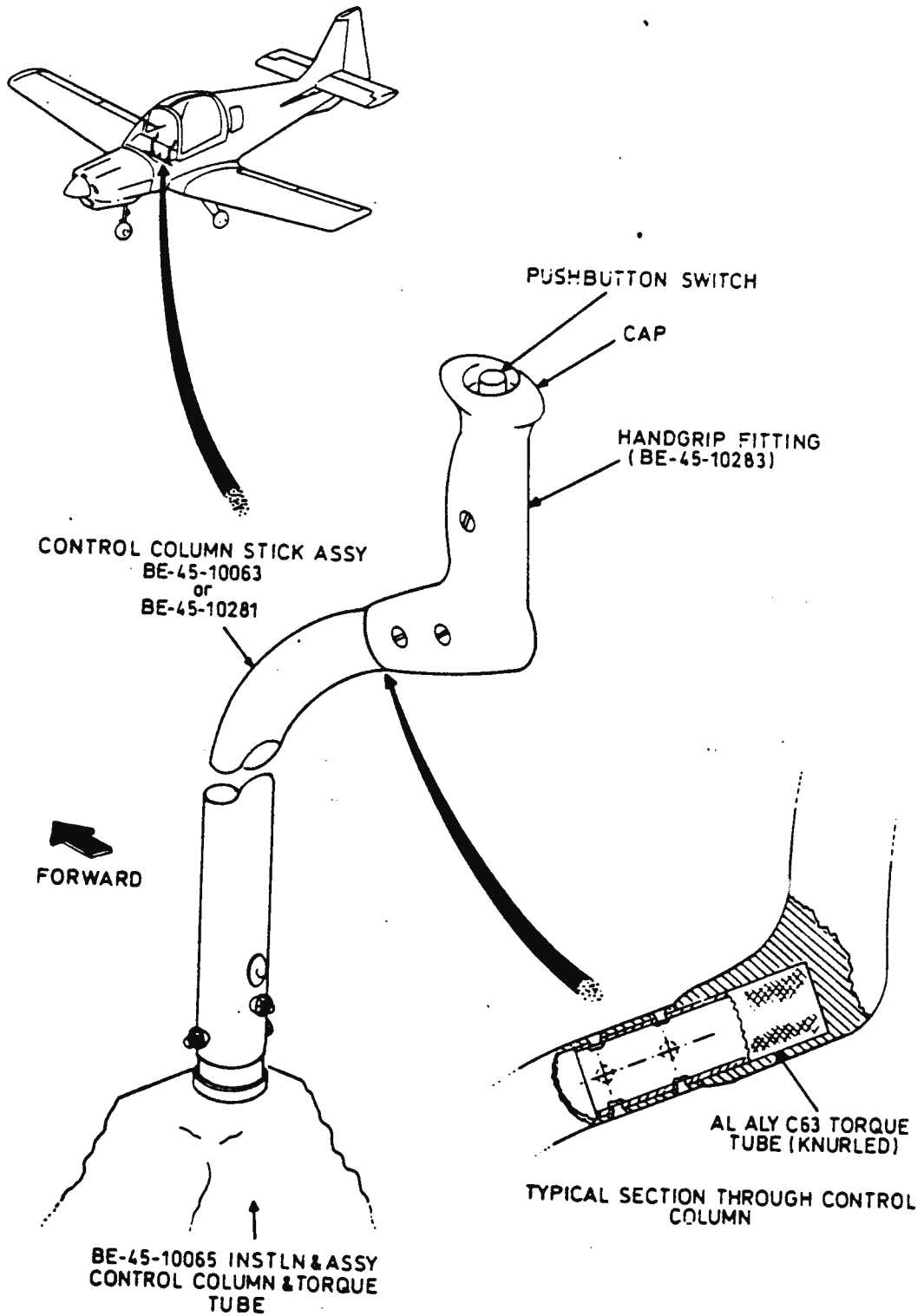


FIGURE 1

HANDGRIP FITTING AND CONTROL COLUMN

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6. EMBODIMENT

0.75 manhours for inspection only.
2.25 manhours for replacement of handgrips.

7. PARTS REQUIRED

	<u>Description</u>	<u>Qty</u>	<u>Part No.</u>
	Handle assembly	2	BE.45.10283
	Rivets	16	AGS2044-406
R	Pins sealing	16	AGS2047-406

8. PUBLICATIONS AFFECTED

Nil

Gmcowell
..... CHIEF ENGINEER
C.A.A. APPROVAL NO. DAI/1011/55.