

H

A. Bouette

316

319

For correct identification of the types concerned refer to the basic numbers shown in the Index of Service Bulletins (page 1).

N° 55.07

CLASSIFICATION : OPTIONAL

SUBJECT: STABILIZERS

Improvement of the flexible mounting of the stabilizer spar tube.

Corresponds to modification : AM 1300

OFFICIAL APPROVAL

S.G.A.C. approved

Date : April 3, 1974

N° 55.07

Page 1

Imprime en France

H/AV/MA ST N° 4 A

SERVICE BULLETIN

RECOMMENDED

H SERVICE BULLETIN

1 - PLANNING INFORMATION

A - EFFECTIVITY

All Alouette III type 316-319 aircraft.

B - REASON

To avoid damage of the stabilizer spar tube and lengthen the inspection intervals which are extended from 200 to 400 hours.

C - DESCRIPTION

The modification consists of :

- re-reaming the brackets attaching the stabilizer panel to the tail boom ;
- re-reaming the castle nuts ;
- replacing the rubber bushes by Teflon bushes ;
- delating the existing Teflon washers ;
- Effect on interchangeability : not affected
- Effect on electrical balance : none

D - COMPLIANCE

On production line : Optional.

Retrofit action : By operators on removal of the stabilizer

Spares : On request.

E - APPROVAL

Modification approved by the "Service Technique Aéronautique" on 6th September 1972.

F - MANPOWER

1 fitter
1 machine-tool operator } about 6 hours

The time needed to manufacture the tooling is not included.

G - MATERIAL - Cost - Availability

Bushes 3160S.23.11.108 are to be ordered as spares.

H - TOOLING - Cost - Availability

Not applicable.

I - WEIGHT and BALANCE

Not applicable.

J - REFERENCES

Refer to : - figures 1 and 2

- Maintenance Manual, chapter 55.

2 - ACCOMPLISHMENT INSTRUCTIONSA - PRELIMINARY STEPS

- (1) In accordance with the dimensions of figure 1, manufacture a tool out of steel (C.20 for instance), in order to be able to machine stabilizer brackets 3160S.23.11.092 and 3160S.23.11.093 and castle nuts 3160S.23.11.099 on a lathe.
- (2) Remove the stabilizer, in accordance with the instructions given in the Maintenance Manual, chapter 55.
- (3) Remove brackets 3160S.23.11.092 and 3160S.23.11.093 from the tail boom.

CAUTION : Brackets and tail boom cannot be dissociated. Mark their respective position so that the brackets are not discarded on reassembly if the correct incidence angle of the stabilizer panels cannot be obtained.

B - OPERATING PROCEDURE

- (1) Transformation of brackets 3160S.23.11.092 and 3160S.23.11.093 into brackets 3160S.23.11.105 and 3160S.23.11.106.

Refer to figure 2.

- On a precision lathe, use the tool manufactured according to figure 1 to modify brackets 3160S.23.11.092 into 3160S.23.11.105 and brackets 3160S.23.11.093 into 3160S.23.11.106, by reworking the inside diameter :

dia. $37 \begin{smallmatrix} + 0.1 \\ 0 \end{smallmatrix}$ is machined to dia. $38 \begin{smallmatrix} + 0.1 \\ 0 \end{smallmatrix}$

and

radius 0.5 is machined to radius 1 mm.

- Surface finish on reworked areas - "Magic Bluer"
(Specification Mil-C-13924A)
Supplier : BIRCHWOOD CHEMICAL
P.O. BOX 100
HOPKINS

Minnesota

- (2) Transformation of castle nuts 3160S.23.11.099 into castle nuts 3160S.23.11.107

Refer to figure 2.

- On a precision lathe, use the tool manufactured according to figure 1 to modify castle nuts 3160S.23.11.099 into 3160S.23.11.107, by remachining the inside diameter :

dia. $37.4 \begin{smallmatrix} 0 \\ + 0.1 \end{smallmatrix}$ is machined to $38.4 \begin{smallmatrix} 0 \\ + 0.1 \end{smallmatrix}$

and by making a 1 mm radius.

- Surface finish on reworked areas - "Magic Bluer".

(3) Installation

On the tail boom, offer up L.H. bracket 3160S.23.11.105 and R.H. bracket 3160S.23.11.106 ; after installing R.H. profile block 3160S.23.11.323 and L.H. profile block 3160S.23.11.324, secure the brackets with the screws previously removed :

8 screws 3160S.99.23.002

8 washers 3160S.23.11.094

Install Teflon bushes 3160S.23.11.108 in the bracket housings. Fit castle nuts 3160S.23.107.

In accordance with the instructions given in the Maintenance Manual, chapter 55.1 paragraph 2 B or 55.00 page 403 paragraph 2, replace the spar tube, the stabilizer panel and the fin, taking into account the operating instructions (paragraph 2 D).

C - IDENTIFICATION

Tail boom 3160S.23.11.000.14 is changed to .15.

For tail booms with lower dot numbers, mention embodiment of the modification on the log card.

D - OPERATING INSTRUCTIONS

(1) On installation :

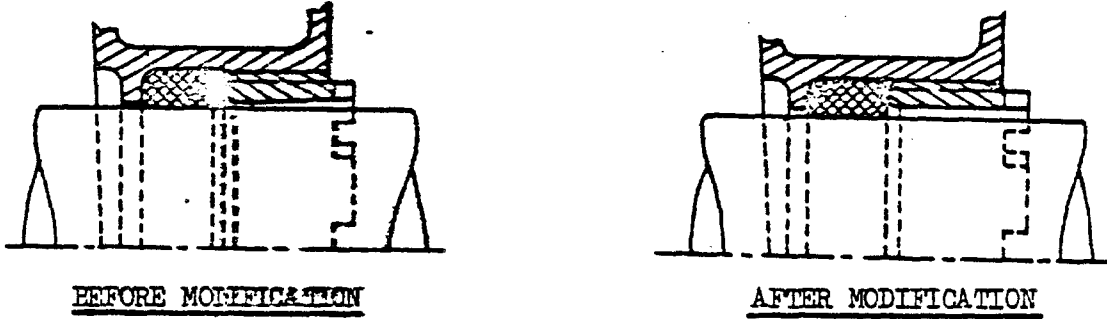
- . make sure that the bush is fully home in the housing,
- . make sure that the castle nut can be fitted freely, torque to 0.5 mdaN,
- . untighten the castle nut completely,
- . after drawing up against the bush, again apply a torque of 1.3 mdaN.

(2) Change the Teflon bushes on the 800 hour periodic inspection.

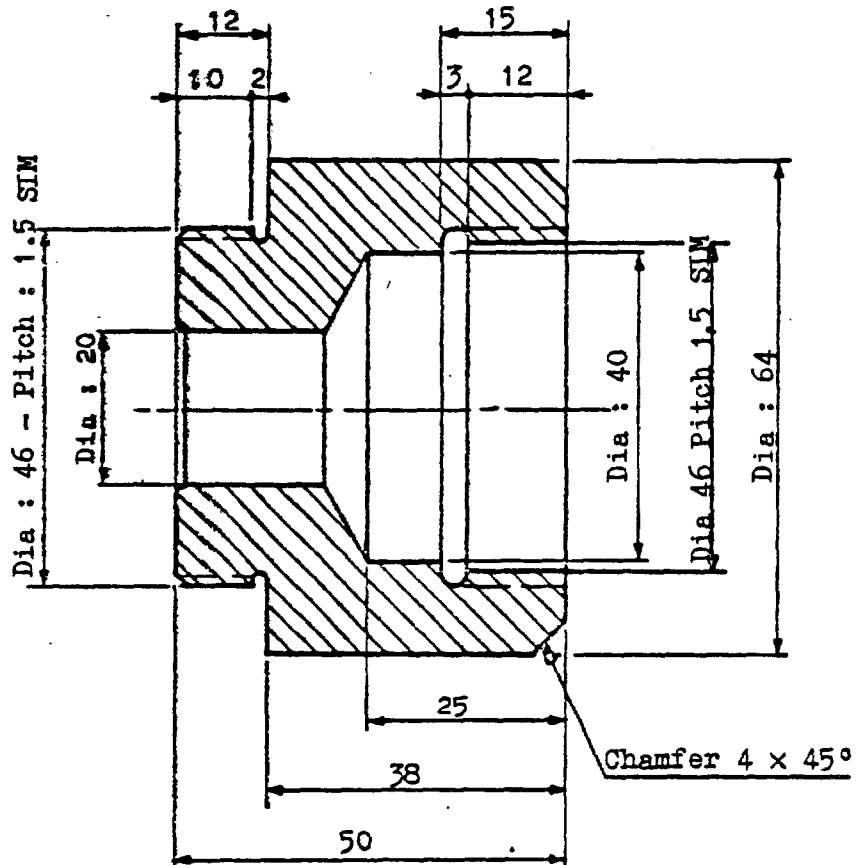
(3) If the reworked brackets are fitted again with the original rubber bushes (due, for example, to the lack of provisioning), tighten the castellated nuts as mentioned in Chapter 55.1 of Maintenance Manual. After the first 5 flying hours, check the tightening torque of these nuts (refer to chapter 5.6 of Maintenance Manual).

CAUTION :

- In this definition, it is mandatory to replace the Teflon bushes by rubber bushes on both sides at the same time, (mixing being prohibited).
- This exceptional installation limits the service life of rubber bushes to 100 hours.



A - INSTALLATION DIAGRAM



Material : C.20 steel, for exemple.

B - DIAGRAM OF THE REMACHINING TOOL

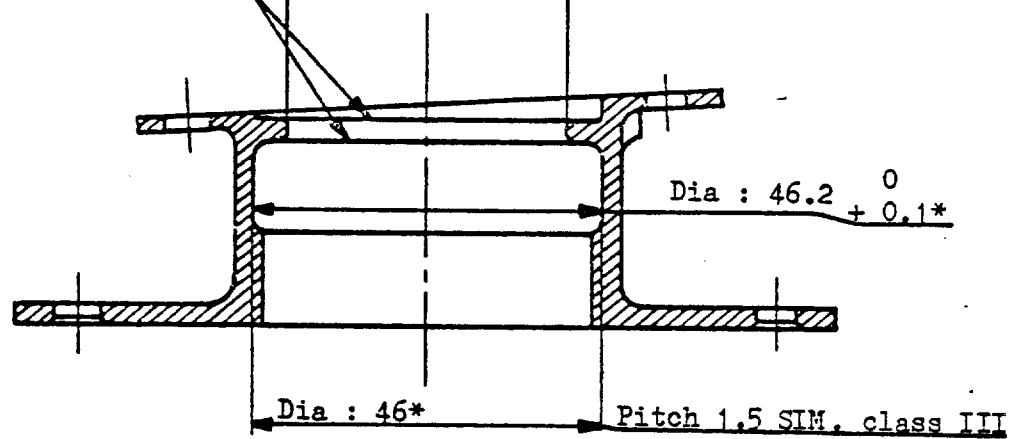
FIGURE 1

SERVICE BULLETIN

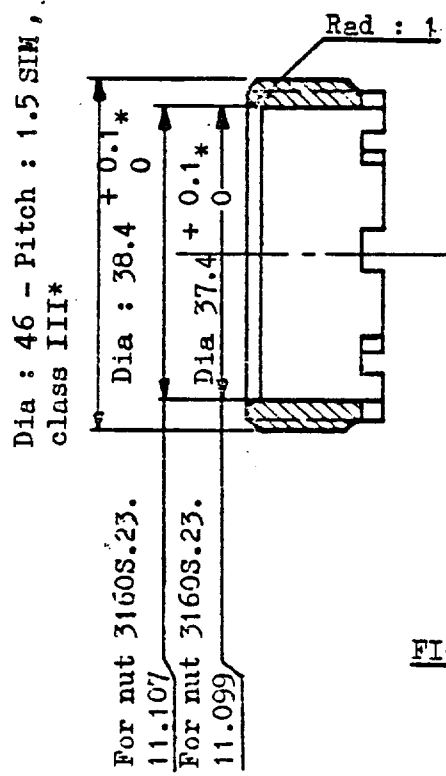
REMACHINING OF BRACKETS

Rad : 0.5 for brackets 3160S.23.11.092 and .093
 Rad : 1 for brackets 3160S.23.11.105 and .106

Dia : $38 \begin{smallmatrix} + 0.1 \\ 0 \end{smallmatrix}$ * for brackets 3160S.23.11.105 and .106
 Dia : $37 \begin{smallmatrix} + 0.1 \\ 0 \end{smallmatrix}$ * for brackets 3160S.23.11.092 and .093



NOTE : Diameters marked with an asterisk must be concentric within a tolerance of 0.05 (total indicator reading).



REMACHINING OF NUTS

FIGURE 2

H

SERVICE BULLETIN

3 - MATERIAL INFORMATION

A - BASIC INFORMATION

The bill of material required for the application of the present SERVICE BULLETIN has been established for : 1 ALOUETTE III aircraft.

B - COMPLETE BILL OF MATERIAL

AM 1300

NEW PART NUMBER		Quantity	Unit Price	DESCRIPTION	FORMER PART NUMBER	Quantity	INSTRUCTION EFFECTIVITY
3160S.23.11.105	E	1		L.H. bracket	3160S.23.11.092	H	1
3160S.23.11.106	E	1		R.H. bracket	3160S.23.11.093	H	1
3160S.23.11.107	E	2		Castle nut	3160S.23.11.099	H	2
3160S.23.11.108	E	2		Bush Washer	3160S.23.11.088 3160S.23.11.098	F F	2 2
KEY	A	New		} Included in kit	F	Cancelled	
	B	Interchangeable			G	Re-usable on other assemblies	
	C	Already used on aircraft			H	May be modified	
	D	Local manufacture		} Not included in kit	I	To be maintained in service until stock is exhausted.	
	E	To be ordered separately if not in stock					

C - COMPLETE BILL OF TOOLS

Not applicable.

D - PROCUREMENT CONDITIONS

Refer to paragraph 1G.