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D.O.S

28th, March 1962

HAK/SG P 485

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AUSTRALIAN MISSION
S.N.E.C.M.A
70, bld Kellermann

COMMONWEALTH AIRCRAFT CORPORATION PTY. LTD.

BOX 779-H P.O.
Elizabeth st.

MELBOURNE
Australia

PARIS 13e
France

Attention : the MANAGER.

Subject : Magnesium alloy castings in GA 9 material.

Dear Sir,

Magnesium alloy castings in GA 9 material are listed for production in the light alloy foundry at C.A.C. Examples of these parts are :

- 501.300.012.9 Cover
- 501.300.030.9 Cover.

On magnesium alloy GA 9, SNECMA specify and are using the following heat treatment in a CO₂ gas atmosphere :

- 390° C - 8 hours
- raise to 400° C - "
- " " 410° C - "

then a forced air cool.

The main reasons why this special heat treatment was being used seemed to be :

- a) they have the facilities and equipment available from earlier projects and before the introduction of the more recent magnesium alloys, eg. ZREI.
- b) they can obtain the required physical properties with GA 9 alloy using the specified heat treatment.
- c) GA 9 alloy is about half the price of ZREI alloy.

A request has been submitted to SNECMA asking that consideration be given to allow C.A.C to use ZREI as an alternative to GA 9 for all parts specifying GA 9 material. This would then allow C.A.C to use a normal heat treatment for ZREI in an air circulating furnace and obviate the special CO₂ gas atmosphere set up. SNECMA's reply to this request ref. KL/6363, dated 26th, March 62, is attached.

In Rankin - will you please provide a list of these GA 9 parts we will be casting, for examination as to importance. 68

Yours faithfully,

G.H. Foster
G.H. FOSTER

NOTED
CNPS

SNECMA

NOTE INTÉRIEURE

N° KL/6363

3 Kellermann

ÉMETTEUR

DESTINATAIRE

DATE

KL

AUSTRALIAN MISSION

26th, March 62

OBJET : Magnesium alloy GA 9 castings.

Attention: Mr. FOSTER.

RECEIVED

2 APR 1962

Dear Sir,

In answer to your memo reference HAK/SG dated 20th, February 1962, please find hereunder translation of our Inspection Management reply.

- 1) Same general remark as under para. 1 of our note KL/6362.
- 2) Concerning the particular request formulated in your above mentioned memo, there could be effectively no inconvenience for the use of ZRE 1 alloy by C.A.C to replace GA 9 alloy (easiness of work, ZRE 1 contamination by GA 9 risk eliminated).

However, depending upon the importance of parts concerned, if C.A.C accepts the responsibility of this derogation, C.A.C should have to provide for partial or complete validation tests to be made on engines. It will then be possible for C.A.C to take advantage of the results of these tests, under its own responsibility with our technical advice.

Signed : Inspection Manager.

M. RICHER

Yours faithfully,

Licence engineer,

M. FABRE.