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19th, April 1962

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AUSTRALIAN MISSION

S.N.E.C.M.A

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COMMONWEALTH AIRCRAFT CORPORATION PTY. LTD.

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MELBOURNE

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Attention : the MANAGER.Subject : Anodising aluminium alloy component parts.
ATAR 9C engine.

Dear Sir,

LJS Further to our letters P 374, P 400 and P 502, and in reply to your M 190 on the above subject, please find attached hereto the SNECMA internal note KL/6478 dated 17th, April 62 along with a complete list of all aluminium alloy parts on the ATAR 9C engine that are anodised.

It will be noted from this list that the majority of the parts are given a standard sulphuric acid anodise. There are however 48 parts that are sulphuric acid anodised and coloured red (refer our letters P 400 & P 502 for processing details and the SNECMA authority to use red lacquer paint in lieu of red coloured anodising) and two parts that are sulphuric acid thick anodised.

SNECMA do not carry out chromic acid anodising at their Kellermann plant. All parts to be so processed are sent to their Billancourt plant.

In regard to thick anodising, SNECMA are only carrying out this operation on a laboratory control scale or small pilot plant basis at their Suresnes plant. Arrangements are however being made for a production processing installation for this plant at Kellermann.

The subject of chromic acid anodising and also thick sulphuric acid anodising on the parts concerned has been discussed with the Materials section

NOTED
CNPS

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at Kellermann. The following are their comments :

(a) the reason for the chromic acid anodising process being called up on the five parts listed was for dimensional control only. Chromic acid anodising provides a thinner anodic film with greater ease of control of finished dimension of the part after processing as compared to sulphuric acid anodising.

(b) the thick or hard sulphuric acid anodising was employed for surface hardness. While its present application on the engine was limited to two small parts, its future application could be extended to a number of other parts - eg. in certain applications the substitution of an aluminium alloy part thick sulphuric acid anodised in lieu of the present steel part. Consideration is also being given to the application of this process to replace the present chrome plating operation in the bore of the aluminium alloy jacks operating the variable nozzle, the details of which were reported in our letters P 348 & P 445.

Arrangements will be made to visit Suresnes to inspect the thick anodising plant installation.

Recommendations :

(a) that our present requirements for part n° :

501.110.005.0 Clavette 10 off per engine.

" " 006.0 Entretoise " " "

be purchased from SNECMA as finished parts.

(b) That consideration be given to the installation of a thick sulphuric acid anodising plant at C.A.C as a future project.

Yours faithfully,



G.H. FOSTER

SNECMA

Kellermann

ÉMETTEUR

KL

NOTE INTÉRIEURE

No

KL/6478

DESTINATAIRE

Australian Mission

DATE

17th, April 1962

OBJET : Anodised parts ATAR 9C engine.

Attention : Mr. FOSTER

Dear Sir,

In answer to your memo ref. HAK/SG dated 26th, March 1962, please find herewith one copy of the list of the ATAR 9C parts which were anodised at the time the list was established, i.e. 31st of March, 1962.

Parts for which no remark appears in the last column should be sulphuric anodised and sodium dichromate impregnated.

Yours faithfully,

Service des Licences


M. FABRE

Copy : KL

Numéro	Désignation	Coefficient	OBSERVATIONS
501.108.073-0	Aube mobile	37	
501.108.074-0	"	39	
501.108.075-0	"	53	
501.108.076-0	"	53	
501.150.019-0	Entretoise	)	
501.150.020-0	" à surépaisseur	) 53	
501.150.021-0	" à largeur réduite	) suivant	
501.150.022-0	" de calage	)	
501.150.023-0	" de calage	) besoins	
501.150.113-0	Entretoise	1	
501.150.027-0	"	) 44	
501.150.028-0	" à surépaisseur	) suivant	
501.150.029-0	" à largeur réduite	) besoins	
501.150.013-0	Aube directrice	36	
501.150.037-0	" "	2	
501.150.038-0	" "	2	
501.150.032-0	Entretoise	)	
501.150.033-0	" à surépaisseur	) 38	
501.150.034-0	" à largeur réduite	) suivant	
501.150.035-0	" de calage	) besoins	
501.150.038-0	Cale	4	
501.150.040-0	Verrou	4	
501.150.014-0	Aube directrice	40	
501.150.047-0	" "	2	
501.150.046-0	" "	2	
501.150.042-0	Entretoise	)	
501.150.043-0	" à surépaisseur	) 42	
501.150.044-0	" à largeur réduite	) suivant	
501.150.045-0	" de calage	) besoins	
501.150.038-0	Cale	4	
501.150.040-0	Verrou	2	
501.150.048-0	"	2	
501.150.015-0	Aube directrice	52	
501.150.055-0	" "	2	
501.150.054-0	" "	2	
501.150.050-0	Entretoise	)	
501.150.051-0	" à surépaisseur	) 54	
501.150.052-0	" à largeur réduite	) suivant	
501.150.053-0	" de calage	) besoins	
501.150.056-0	Cale	4	
501.150.058-0	Verrou	4	
501.150.016-0	Aube directrice	44	
501.150.065-0	" "	12	
501.150.067-0	" "	2	
501.150.066-0	" "	2	

Numéro	Désignation	Coefficient	OBSERVATIONS
501.150.064-0	Entretoise	12	
501.150.060-0	"	) 46	
501.150.061-0	" à surépaisseur	)	
501.150.062-0	" à largeur réduite	) suivant	
501.150.063-0	" de calage	) besoins	
501.150.056-0	Cale	4	
501.150.058-0			
501.150.068-0	Verrou	4	
501.150.017-0	Aube directrice	54	
501.150.074-0	" "	14	
501.150.075-0	" "	2	
501.150.076-0	" "	2	
501.150.073-0	Entretoise	14	
501.150.069-0	"	) 56	
501.150.070-0	" à surépaisseur	)	
501.150.071-0	" à largeur réduite	) suivant	
501.150.072-0	" de calage	) besoins	
501.150.077-0	Cale	4	
501.150.079-0			
501.150.080-0	Verrou	4	
501.150.018-0	Aube directrice	74	
501.150.086-0	" "	2	
501.150.085-0	" "	2	
501.150.081-0	Entretoise	) 76	
501.150.082-0	" à surépaisseur	)	
501.150.083-0	" à largeur réduite	) suivant	
501.150.084-0	" de calage	) besoins	
501.150.077-0	Cale	4	
501.150.079-0			
501.150.087-0	Verrou	4	
501.150.091-0	Couvercle	2	
501.150.094-0	Bride de fermeture	2	
501.222.008-0	Anneau de labyrinthe	1	
501.222.009-0	Anneau intermédiaire	1	
599.212.018-0	Bouchon d'obturation	1	Oxydation anodique sulf. rouge
599.310.014-0	" "	1	" " " "
501.210.002-0	Entretoise	2	
501.200.056-0	Bouchon	4	
501.200.042-0	Plaque d'obturation	1	
599.210.016-0	Bouchon d'obturation	1	Oxydation anodique sulf. rouge
501.200.072-0	Bride	1	
501.251.006-0	Carter de réducteur	1	
501.250.039-0	Boitier de roulement	1	Oxydation anodique chromique
501.250.040-0	" "	1	" " "
551.712.006-0	Bouchon tête hexagonale	1	
501.303.300-0	Bouchon	3	
501.303.301-0	"	1	
501.300.010-0	Boitier de roulement	1	Oxydation anodique chromique
501.300.017-0	" "	1	" " "
501.303.021-0	" "	1	
501.303.007-0	Bouchon	1	

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Numéro	Désignation	Coefficient	OBSERVATIONS
501.320.025-0	Corps de pompe	1	
501.324.010-0	Corps intermédiaire	1	
501.324.009-0	Entretoise	1	
501.320.022-0	Couvercle de pompe	1	
501.322.014-0	Bague entretoise	1	
501.320.060-0	Roue de pompe	1	
501.320.061-0	Joue	1	
501.320.063-0	Lague	1	
551.710.008-0	Bouchon tête hexagonale	2	
501.320.014-0	Boitier	1	Oxydation anodique chromique
551.712.008-0	Bouchon tête hexagonale	1	
501.320.080-0	Bouchon	1	
576.616.020-0	Mamelon pour raccord	1	
501.418.030-0	Anneau porte bruleurs	1	
501.110.008-0	Anneau labyrinthe intérieur	1	
501.110.005-0	Clavette	10	Oxydation anodique sulf. épaisse
501.110.006-0	Entretoise	10	" " " "
501.110.009-0	Anneau labyrinthe extérieur	1	
501.991.121-0	Obturbateur	2	Oxydation anodique sulf. rouge
501.991.122-0	"	3	" " " "
501.208.012-0	Bouchon d'obturation	6	" " " "
599.314.018-0	Bouchon tête cylindrique	22	" " " "
599.312.016-0	Bouchon d'obturation	40	" " " "
599.310.014-0	Bouchon d'obturation	8	" " " "
599.212.018-0	" "	25	" " " "
599.210.010-0	" "	3	" " " "
501.410.051-0	Plaque de fermeture	1	
501.418.014-0	Collecteur de retour d'huile	1	
501.418.016-0	Boitier de retour d'huile	1	
501.418.015-0	" " "	1	
501.418.013-0	Support	1	
501.410.119-0	Plaque obturatrice	1	
599.308.012-0	Bouchon d'obturation	1	Oxydation anodique sulf. rouge
501.992.005-0	Bouchon d'obturation	1	" " " "
501.700.048-0	Siège de ressort	1	
613.508.007-0	Entretoise	1	
551.814.010-0	Bouchon à tête cylindrique	1	
613.990.032-0	Faux couvercle	1	Oxydation anodique sulf. rouge
599.226.032-0	Bouchon d'obturation	2	" " " "
599.236.042-0	" "	1	" " " "
599.214.020-0	" "	7	" " " "
599.248.056-0	" "	1	" " " "
501.704.036-0 ou 037-0	Bride raccord	1	
613.990.004	Couvercle	1	Oxydation anodique sulf. rouge
599.239.045-0	Bouchon d'obturation	2	" " " "
501.991.114-0	Obturbateur	2	" " " "
599.220.025-0	Bouchon d'obturation	2	" " " "
501.704.040-0	Raccord de purge	1	
501.991.058-0	Protecteur	1	" " " "
501.991.059-0	"	1	" " " "
599.218.025-0	Bouchon d'obturation	12	" " " "
599.216.022-0	" "	3	" " " "

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Numéro	Désignation	Coefficient	OBSERVATIONS
599.248.056-0	Bouchon d'obturation	1	Oxydation anodique sulf. rouge
599.260.070-0	" "	2	" " " "
599.227.034-0	" "	1	" " " "
501.703.078-0	Support	2	
501.703.061-0	Coude de sortie de carburant	1	
611.990.001-0	Couvercle	1	Oxydation anodique sulf. rouge
599.203.040-0	Bouchon d'obturation	1	" " " "
613.990.011-0	Couvercle	1	" " " "
599.216.022-0	Bouchon d'obturation	3	" " " "
501.992.001-0	" "	2	" " " "
501.706.005-0	Tube de rampe	19	" " " "
501.706.007-0	" "	2	" " " "
501.706.004-0	" "	19	" " " "
501.706.006-0	" "	2	" " " "
501.700.135-0	Couvercle	1	
501.703.154-0	Tube raccord	1	
501.841.007-0	Collerette	1	
599.310.022-0	Bouchon à tête cylindrique	16	Oxydation anodique sulf. rouge
599.324.030-0	" " "	1	" " " "
501.772.035-0	Bague de réglage	1	
501.316.020-0	Bouchon à tête cylindrique	20	Oxydation anodique sulf. rouge
599.333.040-0	" " "	2	" " " "
599.314.018-0	" " "	6	" " " "
501.772.033-0	bague de réglage	1	
501.849.009-0	Support	1	
599.222.028-0	Bouchon d'obturation	9	Oxydation anodique sulf. rouge
599.333.040-0	" "	1	" " " "
599.327.034-0	" "	1	" " " "
599.318.022-0	" "	5	" " " "
501.991.100-0	Obturbateur	3	" " " "
502.506.386-0	Demi collier	1	
502.506.387-0	" "	1	
502.551.519-0	" "	4	
502.500.414-0	Douille	1	
502.551.348-0	Cale	2	
502.705.152-0	Corps de vérin	9	
502.705.232-0	Piston	9	
501.700.037-0	Tube raccord	1	