

Genre : TURBOMOTEUR
Constructeur : TURBOMECA
Category : TURBO-SHAFT
N° Serie : 9112
N° Certificat de type M5
Serial No. : Type certificate N°

Famille Family	Type Type	Variante Variant	Version Version
ARRIEL	1	D	1

La durée de fonctionnement ci-dessous est celle du moteur complet suivi comme tel par son numéro individuel ; elle peut être différente des heures de fonctionnement de chacun des modules constitutifs éventuels.
The engine operational lifetime below is that of the complete engine followed up as such by its serial number; this lifetime can differ from the operating hours of each of the possible constitutive modules.

Livret moteur N° <i>Engine log book No.</i>	2
Etabli à <i>Established at</i>	TURBOMECA AUSTRALASIA
Date <i>Date</i>	11/Mar/2015
Durée de fonctionnement moteur à l'ouverture du livret : <i>Engine operational lifetime consumed at the start of this log book :</i>	11222 HOURS
Signature <i>Signature</i>	 TAA 33

L'absence d'indication ou l'inexactitude des informations qui doivent être renseignées par l'utilisateur, telles que les événements ou le comptage des cycles ou heures de fonctionnement, mettrait TURBOMECA dans l'impossibilité d'assurer un suivi correct du moteur ou des modules.

L'utilisateur s'exposerait dans ce cas à des risques graves d'incidents ou d'accidents, sans pouvoir mettre en cause la responsabilité de TURBOMECA, au titre de la garantie ou autrement.

The absence of any indication or inaccuracy of the information given by the operator, such as the occurrences or counting of cycles or operating hours would prevent TURBOMECA from ensuring correct engine or module follow-up.

In this case, the operator would expose himself to serious risks or accidents whilst being unable to call into question TURBOMECA's responsibility under a guarantee or otherwise.

1. Approved National Aviation Authority Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE		3. Form Tracking No. 1658		Page 1 of 1	
4. Approved Organization Name and Address Heliproducts Industries Ltd. # 350 - 18799 Airport Way . Pitt Meadows, BC V3Y 2B4							
6. Item	7. Description	8. Part No.	9. Qty	10. Serial / Batch No.	11. Status / Work		
1	TURBOSHAFT ENGINE ARRIEL 1D1	0292005220	1	9112	INSPECTED/TESTED		
12. Remarks Inspected, not tested, in accordance with Safran Helicopter Engines Maintenance Manual X292G24522 Revision 24, Dated Feb 28th 2019. 0.0 hrs accumulated since last certification. Engine shipped less Tachometric box and Fuel Control Unit. Ground run, vibration check, leak check, and oil pressure check to be carried out prior to first flight. TSN: 12220.8 GP CSN: 18111.10 PT CSN: 17480.00							
13a. Certifies that the items identified above were manufactured in conformity to: Approved design data and are in condition for safe operation Non approved design data specified in block 12.				14a. ☒ CAR 571.10 Maintenance Release ☒ Other regulations specified in block 12 The maintenance outlined in block 11 and described in block 12 was performed in accordance with the applicable approved business requirements			
13b. Authorized Signature		13c. Certificate / Approval ref. No.		14b. Authorized Signature		14c. Certificate / Approval ref. No.	
				 Jonathan McLellan		83-05	
13d. Name		13e. Date (dd/mm/yyyy)		14d. Name		14e. Date (dd/mm/yyyy)	
						3-Feb-2020	

Installer Responsibilities

This certificate does not constitute authority to install.

Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.

Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.

1. Approving Civil Aviation Authority / Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking N° BSAFO-2019-0190	
4. Organization Name and Address SAFRAN Safran Helicopter Engines Canada 11800, Helen Bristol Mirabel, Québec, J7N 3G8 Canada		5. Work order/Contract/Invoice PO: 7000079630 WO: 303533262				
6. Item 1	7. Description TURBOSHAFT ENGINE ARRIEL 1D1	8. Part N° 0292005220	9. Qty 1	10. Serial/Batch N° 9112	11. Status/Work Repaired	
12. Remarks This TURBOSHAFT ENGINE ARRIEL 1D1 was Repaired I.A.W. Maintenance Manual X292G24522 revision 24 Feb. 28/2019 under work order 303533262. Visual inspection have been performed. All TU's, SB's and AD's have been verified I.A.W. authorities and OEM requirements. All TU's, SB's and AD's applied during shop visit are listed on Engine Log book issued with this product. List and status of life limited parts are available on Engine Log book issued with this certificate. List of all replacement parts is available in work file under work order notified in block 5.						
IMPORTANTES NOTES: Airworthiness of this engine is to be determined after performing post maintenance inspection I.A.W. ARRIEL 1 maintenance manual chap. 05.						
TSN: 12220.45 CSN GG: 18111.10 CSN PT: 17480.00		Work performed in accordance with ☒ E.A.S.A. 145.7135				
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non approved design data specified in block 12.		14a ☒ CAR 571.10 Maintenance Release ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		14c. Approved Organization Number OMA 22-02		
13b. Signature		13c. Approved Organization Number		14b. Signature 		
13d. Name		13e. Date (dd/mm/yyyy)		14d. Name Luc Frenette 14e Date (dd/mm/yyyy) 19/Jul/2019		
INSTALLER RESPONSIBILITIES This certificate does not constitute authority to install. Installers working in accordance with the national regulation of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified. Statements in block 13a and 14a do not constitute installation certificate. In all cases, the technical records for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.						

INSTRUCTIONS GENERALES / GENERAL INSTRUCTIONS

1. Ce livret doit accompagner le moteur complet auquel il est affecté dans tous ses mouvements y compris en cas de vente, de location ou de prêt, tant chez l'industriel que chez l'utilisateur. Il est valable pour tout type de moteur, de conception modulaire ou non.
This log book must accompany the complete engine at all times, including in the event of sale, hire or loan both at the constructor's and at the operator's. It applies to all engine types, whether of modular design or not.
2. Il doit être renseigné avec soin et précision par l'utilisateur sous sa responsabilité, conformément aux notes explicatives apparaissant au long des pages.
It shall be filled in with great care and accuracy by the operator, under his responsibility according to the explanatory notes here in.
3. Chaque événement marquant doit y être inscrit dans les plus brefs délais, à l'encre, par une personne qualifiée, sans qu'aucune mention n'y soit effacée ou grattée, ni aucune page enlevée.
Every significant occurrence shall be entered as soon as possible by a qualified person using ink, and no entry whatsoever shall be erased or scratched out. No page shall be removed.
4. Tout document séparé d'origine utilisateur (suivi spécifique) apportant une information utile à l'utilisateur peut-être inséré. Ces documents devront être retirés du livret moteur avant retour à TURBOMECA ou Station-Service agréée par TURBOMECA.
Any separate document (specific follow-up) providing useful information to the operator can be incorporated. These documents will be removed from the engine log book before it is returned to TURBOMECA or to a TURBOMECA-approved Service Station.
5. L'industriel ou l'utilisateur doivent apposer leur visa.
It shall be signed by the constructor or the operator.
6. Le livret doit être présenté pour inspection sur demande de toute personne autorisée.
The log book shall be handed over for inspection if so requested by any authorised person.

COMPOSITION ET CONTENU / COMPOSITION AND CONTENTS

Après la page de titre, la page d'instructions générales, la présente page, la page caractéristiques nominales, la ou les fiche(s) d'essai au banc, ce livret comprend cinq sections repérées de A à E, contenant chacune des feuilles numérotées. Aucun feuillet ne doit être retiré. Le livret se compose de :

After the title page, the general instructions page, this page, the nominal characteristics page and the test bench sheet. The log book is made up of five sections identified from A to E, each of which contains sheets numbered as indicated overleaf. No sheet shall be removed. This log book contains :

SECTIONS / SECTIONS	
A. Attestation de contrôle / Inspection Certificate	
Attestation de contrôle et stockage / Inspection and Storage Certificate	
Modifications et Services Bulletins appliqués à la livraison / Modifications and bulletins services incorporated at time of delivery	
Modifications et Services Bulletins appliqués par l'utilisateur / Modifications and bulletin services incorporated by operator	
Consignes de navigabilité / Airworthiness directives (si moteur civil) / (if civil engine)	
B. Liste des modules / Modules record	
Remplacement / Changes	
FMFE / Module Log Card / (si modulaire) / (if design is modular)	
C. Liste des équipements / Accessories record	
Remplacement / Changes	
FM / Log card	
D. Etat des Disponibilités / Availability status	
Etat des Disponibilités (suite) / Availability status	
E. Utilisation, entretien et révision / Operation, maintenance and overhaul	

Dans toutes les sections, des pages sont numérotées en "U" (ex: Page A4/U/1) ainsi que la feuille 3 / 4 de la FMFE (ex: FMFE 3/U). Celles-ci sont dédiées à l'utilisateur. Each sections, page are "U" numbered (ex: Page A4/U/1) and also sheet 3/4 of Exchangeable Component Log Card (ex: FMFE 3/U). These are for the operator using.

Après chaque retour pour entretien ce livret moteur est réactualisé. Afin de permettre à l'utilisateur d'assurer la continuité du suivi des feuilles vierges, numérotées chronologiquement, sont insérées dans le livret, à savoir :

After each return for maintenance, this engine log book is updated. In order to allow the operator to continue the follow-up, blank sheets which are numbered chronologically are inserted in this log book, i.e.:

- 1 page Modifications et Services Bulletins appliqués par l'utilisateur (section A) / 1 Modifications and Service Bulletins incorporated by the operator' page (section A)
- 2 pages remplacement (section B) / 2 replacement pages (section B)
- 2 pages remplacement (section C) / 2 replacement pages (section C)
- 4 pages état de disponibilités (section D) / 4 availability status' pages (section D)
- 50 pages Utilisation, Entretien Révision (section E) / 50 Operation, Maintenance, Overhaul' pages (section E)

Ces fiches doivent être consultées fréquemment et notamment en cas de transfert de propriété ou d'utilisateur afin de s'assurer des conditions et / ou modifications de navigabilité du matériel concerné.

These cards must be consulted frequently, notably in the event of a transfer of ownership or change of operator in order to guarantee the conditions and / or modifications of airworthiness for the accessory concerned.

organisme d'entretien / maintenance organization : fait référence à la station service, au centre de réparation, au technicien d'assistance extérieure / refers to service center, repair center, field rep.

CARACTERISTIQUES MINIMALES / MINIMUM CHARACTERISTICS

PARAMETRES / PARAMETERS		REGIMES / RATINGS					
DESIGNATION DESCRIPTION	Unités Units	O.E.I. PSU / SCP	O.E.I. PMU / MCP	O.E.I. illimité	Max. décollage Take-off-max.	Max. continu Max. continuous	HP/SARM rating 30mn
Vitesse de rotation turbine du generateur Generator Turbine RPM	Gas tr/mn rpm	/	/	/	52,330	50,764	/
Vitesse de rotation arbre de sortie Shaft RPM	Output tr/mn rpm	/	/	/	6,000	6,000	/
Puissance sur l'arbre Shaft Power	KW	/	/	/	531	466	/

Type Moteur <i>Engine type</i>	Arriel 1D1	Numéro de série <i>Serial Number</i>	09366
Module générateur de Gaz <i>Gas Generator Module</i>	3	Numéro de série <i>Serial Number</i>	09446
Travaux effectués : <i>Work carried out :</i>		Réparation <i>Repair</i>	

Les performances de ce moteur en conditions ISA-SL, suite à essai au banc, sont déclarées conformes aux performances minimales déclarées en conditions ISA-SL.
The performances of this engine, in ISA-SL conditions, following test on test bench, meet the minimum declared performances in ISA-SL conditions.

Date : 29 janvier 2016
Date : 29 January 2016

Visa Qualité
Quality signature




