WORKPACK

mycopter AVIATION SERVICES
AMO NO. : A00203/11

CLIENT/OWNER:	SKYLINE ACCESS SDN BHD		SERIAL NO.	HOURS	LDG/CYCLE	WORKPACK NO.:	MYCAS-SBK-15-001
AIRCRAFT TYPE:	EC120B	AIRCRAFT:	1089	2469.8 → 2491.8	3062.0 → 3065 LDG	WORK/INSP/DESC:	SCHEDULE INSPECTION
REGISTRATION:	9M-SBK	#1 ENGINE:	34099	2469.8 → 2725.11	2783.56	JOB CONTROL NO.:	2015-021
BASE/FACILITY:	MYCOPTER HANGAR, SUBANG	#2 ENGINE:	N/A 5471.8	N/A 5709.11	N/A 5781.11	LBE REF. NO.:	SBK-0003
DATE IN:	26/01/15 OUT: 26/01/15					SHEET:	1 OF: 1

REASON FOR RAISING:

TO CARRY OUT ALL DUE INSPECTION I.A.W MAINTENANCE SCHEDULE INSPECTION.

RAISED BY AND DATE:

DIYANA

26-JAN-2015

LIST OF SCHEDULED INSPECTION AND ALL WORK CARRIED OUT UNDER THIS WORKPACK INCLUDING INDIVIDUAL REFERANCE.

NO	INSPECTION/WORK	WORKSHEET REF
1	100H/3M AIRFRAME INSPECTION	MYCAS-SBK-15-001-01
2	AD 2010-0026 (ASB 05A012)	MYCAS-SBK-15-001-02
3	AD F-2003-325 R1 (ASB 05A003 R3)	MYCAS-SBK-15-001-03
4	15H/7D ENGINE INSPECTION	MYCAS-SBK-15-001-04

MASTER SIGNATURE SCHEDULE

NAME	ENGINEER / INSPECTOR		
	TECH / INITIAL	SIGNATURE	APPROVAL
AHMAD ARIFF SAIDI			
MOHD AZMAR AHMAD			

MAINTENANCE RELEASE STATEMENT

THIS IS TO CERTIFY THAT ALL WORK LISTED ABOVE HAS BEEN INSPECTED AND ACCOMPLISHED IN ACCORDANCE WITH MYCOPTER AVIATION SERVICES EXPOSITION AND PROCEDURE.

NAME	FIRM	SIGNATURE	APPROVAL	DATE
AHMAD ARIFF SAIDI	MYCAS			26/1/15

WORKSHEET

mycopter AVIATION SERVICES

AMO NO. : AO0203/11

CLIENT/OWNER:	SKYLINE ACCESS SDN BHD		SERIAL NO.	HOURS	LDG/CYCLE	WORKSHEET NO.:	MYCAS-SBK-15-001-01
AIRCRAFT TYPE:	EC120B	AIRCRAFT:	1089	2469.6	3062	WORK/INSP/DESC:	100H/3M AIRFRAME INSPECTION
REGISTRATION:	9M-SBK	#1 ENGINE:	34099	2469.6	2783.5	WORKPACK REF.:	MYCAS-SBK-15-001
BASE/FACILITY:	MYCOPTER HANGAR, SUBANG	#2 ENGINE:	N/A	N/A	N/A	LBE REF. NO.:	SBK-0001 SBK-0003
DATE IN:	26/01/15 OUT: 26/01/15					SHEET:	1 OF: 1

REASON FOR RAISING:	RAISED BY AND DATE:	OTHER REQUIREMENT/INFORMATION:
100H/3M AIRFRAME INSPECTION I.A.W MAINTENANCE SCHEDULE REF SKY/MS/EC120B SERIES, ISSUE 1, REV 0.	DIYANA 26-JAN-2015	

ITEM	DESCRIPTION	TECHNICIAN	ENGINEER	APPROVAL	DATE
A. 100H/3M AIRFRAME INSPECTION I.A.W EC120B MSM 05-25-00, DATED 15/05/2014					
	MAIN ROTOR				
1	Greasing of Droop Restrainer Ring. REF AMM 62-21-00, 4-2 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**			MYCAS	26/1/15
2	Greasing – Anti – Vibrators. Operation in severe climatic conditions. REF AMM 62-21-00, 3-1 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**			MYCAS	26/1/15
3	Lubrication – Swashplate Assembly. Operation in severe climatic conditions. REF AMM 62-31-00, 3-1 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**			MYCAS	26/1/15
	TAIL ROTOR DRIVE				
4	Lubrication - Bearing. Operation in severe climatic conditions. REF AMM 65-11-00, 3-1 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**			MYCAS	26/1/15

ITEM	PART NUMBER	DESCRIPTION	SERIAL NUMBER OFF	SERIAL NUMBER ON	QTT	POSITION	REASON	LIFED ITEM INFORMATION TSN/TSO/DUE/TIMEX	RELEASE REFERENCE

THE WORK RECORDED ABOVE HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE MCAR FOR THE TIME BEING IN FORCE AND IN THAT RESPECT THE AIRCRAFT / EQUIPMENT IS CONSIDERED FIT FOR RELEASE TO SERVICE.	NAME	FIRM	SIGNATURE	APPROVAL	DATE
	ARIFF	MYCAS		MYCAS	26/1/15

PARTS LABELED & RETURNED	D.D. RAISED	DUPLICATE INSP.	GROUND RUN	FLIGHT TEST	TORQUE CHK.	ADDITIONAL WORKSHEET	MONITORED DEFECT	PLANNING FORECAST	DIARY UPDATE	STATUS UPDATE	D.D STATUS	AIRCRAFT LOG BOOK	ENGINE LOG BOOK	PROPELLER LOG BOOK	LOG CARD	OEM/COMP LOG CARD	MOD RECORD BOOK

WORKSHEET

mycopter AVIATION SERVICES

AMO NO.: AO0203/11

CLIENT/OWNER: SKYLINE ACCESS SDN BHD		SERIAL NO.	HOURS	LDG/CYCLE	WORKSHEET NO.: MYCAS-SBK-15-001-02
AIRCRAFT TYPE: EC120B	AIRCRAFT:	1089	~~2469.6~~	~~3062~~ 3065	WORK/INSP/DESC: AD 2010-0026-E (ASB 05A012)
REGISTRATION: 9M-SBK	#1 ENGINE:	34099	~~2469.6~~	~~2725.11~~ ~~2783.56~~	WORKPACK REF.: MYCAS-SBK-15-001
BASE/FACILITY: MYCOPTER HANGAR, SUBANG	#2 ENGINE:	N/A ~~2471.8~~	N/A	~~2727.11~~ N/A ~~2785.11~~	LBE REF. NO.: ~~SBK-0001~~ SBK-0003
DATE IN: 26/01/15 OUT 26/01/15					SHEET: 1 OF: 1

REASON FOR RAISING:	RAISED BY AND DATE:	OTHER REQUIREMENT/INFORMATION:
AD 2010-0026-E (ASB 05A012) TIME LIMITS - MAINTENANCE CHECKS CHECK FOR CRACK IN THE MAIN ROTOR HUB.	DIYANA 26-JAN-2015	

ITEM	DESCRIPTION	TECHNICIAN	ENGINEER	APPROVAL	DATE
1	Perform AD 2010-0026-E (ASB 05A012) Time Limits - Maintenance Checks Check for crack in the Main Rotor Hub i.a.w Para 2. SATISFACTORY/~~UNSATISFACTORY~~ (RECTIFICATION REF:_____)				26/1/15

ITEM	PART NUMBER	DESCRIPTION	SERIAL NUMBER OFF	SERIAL NUMBER ON	QTT	POSITION	REASON	LIFED ITEM INFORMATION TSN/TSO/DUE/TIMEX	RELEASE REFERENCE

THE WORK RECORDED ABOVE HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE MCAR FOR THE TIME BEING IN FORCE AND IN THAT RESPECT THE AIRCRAFT / EQUIPMENT IS CONSIDERED FIT FOR RELEASE TO SERVICE.	NAME	FIRM	SIGNATURE	APPROVAL	DATE
	ARIFF	MYCAS			26/1/15

PARTS LABELED & RETURNED	D.D. RAISED	DUPLICATE INSP.	GROUND RUN	FLIGHT TEST	TORQUE CHK.	ADDITIONAL WORKSHEET	MONITORED DEFECT	PLANNING FORECAST	DIARY UPDATE	STATUS UPDATE	D.D STATUS	AIRCRAFT LOG BOOK	ENGINE LOG BOOK	PROPELLER LOG BOOK	LOG CARD	OEM/COMP LOG CARD	MOD RECORD BOOK

WORKSHEET

mycopter AVIATION SERVICES

AMO NO.: A00203/11

CLIENT/OWNER: SKYLINE ACCESS SDN BHD		SERIAL NO.	HOURS	LDG/CYCLE	WORKSHEET NO.: MYCAS-SBK-15-001-03
AIRCRAFT TYPE: EC120B	AIRCRAFT:	1089	2469.6	3062 3065	WORK/INSP/DESC: AD F-2003-325R1 (ASB 05A003R3)
REGISTRATION: 9M-SBK	#1 ENGINE:	34099	2469.6	2473.11 2485.11	WORKPACK REF.: MYCAS-SBK-15-001
BASE/FACILITY: MYCOPTER HANGAR, SUBANG	#2 ENGINE:	N/A 2471.8	N/A	2473.11 N/A 2485.11	LBE REF. NO.: ~~SBK-0001~~ SBK-0003
DATE IN: 26/01/15 OUT: 26/01/15					SHEET: 1 OF: 1

REASON FOR RAISING:	RAISED BY AND DATE:	OTHER REQUIREMENT/INFORMATION:
AD F-2003-325 R1 (ASB 05A003 R3) – ROTOR DRIVE –ENGINE MOUNT AND ENGINE-TO-MAIN GEAR BOX (MGB) COUPLING TUBE ASSEMBLY.	DIYANA 26-JAN-2015	

ITEM	DESCRIPTION	TECHNICIAN	ENGINEER	APPROVAL	DATE
1	Perform AD F-2003-325 R1 (ASB 05A003R3) Time Limits - Maintenance Checks Check for crack of the Engine-to-MGB Coupling Tube Assembly i.a.w Para 2.B. SATISFACTORY/~~UNSATISFACTORY~~ (RECTIFICATION REF:_____)				26/1/15

M	PART NUMBER	DESCRIPTION	SERIAL NUMBER OFF	SERIAL NUMBER ON	QTT	POSITION	REASON	LIFED ITEM INFORMATION TSN/TSO/DUE/TIMEX	RELEASE REFERENCE

THE WORK RECORDED ABOVE HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE MCAR FOR THE TIME BEING IN FORCE AND IN THAT RESPECT THE AIRCRAFT / EQUIPMENT IS CONSIDERED FIT FOR RELEASE TO SERVICE.	NAME	FIRM	SIGNATURE	APPROVAL	DATE
	ARIFF	MYCAS		MYCAS BODS	26/1/15

PARTS LABELED & RETURNED	D.D. RAISED	DUPLICATE INSP.	GROUND RUN	FLIGHT TEST	TORQUE CHK.	ADDITIONAL WORKSHEET	MONITORED DEFECT	PLANNING FORECAST	DIARY UPDATE	STATUS UPDATE	D.D STATUS	AIRCRAFT LOG BOOK	ENGINE LOG BOOK	PROPELLER LOG BOOK	LOG CARD	OEM/COMP LOG CARD	MOD RECORD BOOK

WORKSHEET

mycopter AVIATION SERVICES
AMO NO. : AO0203/11

CLIENT/OWNER: SKYLINE ACCESS SDN BHD		SERIAL NO.	HOURS	LDG/CYCLE	WORKSHEET NO.: MYCAS-SBK-15-001-04
AIRCRAFT TYPE: EC120B	AIRCRAFT:	1089	2469.6 H	3062.0	WORK/INSP/DESC: 15H/7D ENG. INSP.
REGISTRATION: 9M-SBK	#1 ENGINE:	34099	2469.6	2725.11 / 2783.5	WORKPACK REF.: MYCAS-SBK-15-001
BASE/FACILITY: MYCOPTER HANGAR, SUBANG	#2 ENGINE:	N/A 2411.8	N/A	2727.11 / N/A 2785.11	LBE REF. NO.: SBK-0003
DATE IN: 26/01/15 OUT: 26/01/15					SHEET: 1 OF: 2

REASON FOR RAISING:	RAISED BY AND DATE:	OTHER REQUIREMENT/INFORMATION:
15H/7D ENGINE INSPECTION I.A.W TURBOMECA ARRIUS 2F MAINTENANCE MANUAL, 05-20-00-200-801-A01.	DIYANA 26-JAN-2015	

ITEM	DESCRIPTION	TECHNICIAN	ENGINEER	APPROVAL	DATE
A. 15H/7D ENGINE INSP.					
	OIL SYSTEM				
1	Visual pre-blockage indicator of the oil filter – Visual inspection. REF MM 71-00-06-816-807 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
2	Check engine oil consumption. Fill up level oil. REF MM 12-10-22-610-801 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
	FUEL SYSTEM				
3	Visual pre-blockage indicator of the fuel filter – Visual inspection. REF MM 71-00-06-816-805 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
	ENGINE				
4	Engine attachments – Visual inspection. **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
5	Mating faces of the casings – Visual inspection **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
6	Mating faces of the pipes – Visual inspection. **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
7	Floor the engine compartment – Visual inspection. **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
	D. AIR INTAKE AND EXHAUST				
8	Visible part of the air intake grid – Visual inspection. (if the anti-sand filter is not installed). **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
9	Air intake surrounding – Visual inspection. **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
10	Exhaust surrounding – Visual inspection. **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
	E. ELECTRICAL SYSTEM				
11	Tightening check of the electrical plugs REF MM 70-43-00-940-801 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15
	F. LRUs				
12	LRUs attachment REF MM 70-11-00-940-801 **SATISFACTORY/UNSATISFACTORY (RECTIFICATION REF:_____)**	CR	A-L		26/1/15

WORKSHEET

mycopter AVIATION SERVICES

AMO NO. : A00203/11

CLIENT/OWNER: SKYLINE ACCESS SDN BHD		SERIAL NO.	HOURS	LDG/CYCLE	WORKSHEET NO.: MYCAS-SBK-15-001-04
AIRCRAFT TYPE: C120B	AIRCRAFT:	1089	2469.6	3062.0 3065	WORK/INSP/DESC: 15H/7D ENG. INSP.
REGISTRATION: 9M-SBK	#1 ENGINE:	34099	2469.6	3725.11 2703.50	WORKPACK REF.: MYCAS-SBK-15-001
BASE/FACILITY: MYCOPTER HANGAR, SUBANG	#2 ENGINE:	N/A 2441.8	N/A	2954.11 N/A 2488.11	LBE REF. NO.: SBK-0003
DATE IN: 26/01/15 OUT: 26/01/15					SHEET: 2 OF: 2

REASON FOR RAISING:	RAISED BY AND DATE:	OTHER REQUIREMENT/INFORMATION:
15H/7D ENGINE INSPECTION I.A.W TURBOMECA ARRIUS 2F MAINTENANCE MANUAL, 05-20-00-200-801-A01.	DIYANA 26-JAN-2015	

ITEM	DESCRIPTION	TECHNICIAN	ENGINEER	APPROVAL	DATE

ITEM	PART NUMBER	DESCRIPTION	SERIAL NUMBER OFF	SERIAL NUMBER ON	QTT	POSITION	REASON	LIFED ITEM INFORMATION TSN/TSO/DUE/TIMEX	RELEASE REFERENCE

THE WORK RECORDED ABOVE HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE MCAR FOR THE TIME BEING IN FORCE AND IN THAT RESPECT THE AIRCRAFT / EQUIPMENT IS CONSIDERED FIT FOR RELEASE TO SERVICE.	NAME	FIRM	SIGNATURE	APPROVAL	DATE
	AHMAD ARIFF SAIDI	MYCAS			26/1/15

PARTS LABELED & RETURNED	D.D. RAISED	DUPLICATE INSP.	GROUND RUN	FLIGHT TEST	TORQUE CHK.	ADDITIONAL WORKSHEET	MONITORED DEFECT	PLANNING FORECAST	DIARY UPDATE	STATUS UPDATE	D.D STATUS	AIRCRAFT LOG BOOK	ENGINE LOG BOOK	PROPELLER LOG BOOK	LOG CARD	OEM/COMP LOG CARD	MOD RECORD BOOK

EASA	EMERGENCY AIRWORTHINESS DIRECTIVE
	AD No.: 2010-0026-E UN-CONTROLLED 28/01/2015 (DD/MM/YYYY) **Date: 19 February 2010** Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This EAD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Type Approval Holder's Name:	**Type/Model designation(s):**
EUROCOPTER	EC 120 B Helicopters

TCDS Number:	DGAC 189
Foreign AD:	Not Applicable
Supersedure:	None
ATA 62	**Main Rotor Head- Rotor Hub Inspection**
Manufacturer(s):	Eurocopter (formerly Eurocopter France, Aerospatiale)
Applicability:	Eurocopter helicopter models EC 120 B all serial numbers, if equipped with Main Rotor Head with the following Hub part numbers: C622A1002103, C622A1002104, C622A1002105
Reason:	Eurocopter has been informed that an EC 120 B helicopter has performed an emergency landing due to a set of amplitude vibrations originating from the main rotor. As a result of the investigation, it was determined that the Main Rotor Head (MRH) hub had failed in the attachment area of one of the three drag damper fittings. Due to the reasons described above, this Emergency AD requires a repetitive visual inspection for detecting eventual cracks to preclude any risk of MRH hub failure.
Effective Date:	21 February 2010
Required Action(s) and Compliance	Required as indicated, unless already accomplished:

Time(s):	(1) Within the next 15 flight hours after the effective date of this AD and thereafter, at intervals not exceeding 15 flight hours, perform a visual inspection to detect cracks in the inspection areas of the rotor hub in accordance with the instructions of paragraph 2.B.2 of Emergency Alert Service Bulletin Eurocopter EC 120 05A012 - Revision 1 - (EASB). (2) If no crack is found, re-install the dome fairing if it was removed previously and resume flight in accordance with the instructions of § 2.B.2, of Eurocopter EASB. (3) If one or more cracks are found, before next flight, contact Eurocopter as described in the NOTE 1 of paragraph 2.A of Eurocopter EASB, and replace the affected rotor hub with a new rotor hub in accordance with § 2.B.2 of Eurocopter EASB. (4) If during inspection accomplished in accordance with § (1) of this AD local deterioration is found, remove the finish paint until the P05 primer coat become visible and visually inspect the concerned areas in accordance with § 2.B.2.b.3. Accomplish the relevant corrective actions in accordance with § 2.B.2.b.1 or § 2.B.2.b.2. (5) Replacement of the rotor hub in compliance with § (3) or § (4) of this AD does not terminate the repetitive inspection requirements of § (1) of this AD.
Ref. Publications:	Eurocopter EC 120 B EASB 05A012 – Revision 1, dated 19 February 2010. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.
Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA; E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: EUROCOPTER (STDI), Aéroport de Marseille Provence, 13725 Marignane Cedex, France Telephone: +33 (0) 4 42 85 97 97 - Fax +33 (0) 4 42 85 99 66 E-mail: Directive.technical-support@eurocopter.com

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T.F.S. No. 00000568

EUROCOPTER
DIRECTION TECHNIQUE SUPPORT
13725 MARIGNANE CEDEX FRANCE

EMERGENCY

ALERT SERVICE BULLETIN

COLIBRI	NUMBER	VERSIONS	
EC120	05A012	Civil:	B

SUBJECT: **TIME LIMITS - MAINTENANCE CHECKS**

Check for crack in the main rotor hub

ATA: 62

REVISION No.	DATE OF APPROVAL	DATE OF ISSUE
Revision 0	On: February 15, 2010	2010.02.15
Revision 1	On: February 19, 2010	2010.02.19

CAUTION

THE INFORMATION AND INSTRUCTIONS CONTAINED IN THIS ALERT SERVICE BULLETIN ARE INTENDED FOR MAINTENANCE PERSONNEL AND FLIGHT CREWS.

1. PLANNING INFORMATION

1.A. EFFECTIVITY

1.A.1. Helicopters/installed equipment

Helicopters equipped with Main Rotor Head (MRH) with hub with the following part numbers:
- C622A1002103,
- C622A1002104,
- C622A1002105.

1.A.2. Non-installed equipment

Not applicable.

1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

To preclude any risk of MRH hub failure.

Revision 0 of this ALERT SERVICE BULLETIN did not form the subject of an EASA Airworthiness Directive.

The purpose of Revision 1 of this ALERT SERVICE BULLETIN is to modify paragraph 2.B.2.b. concerning the interpretation of the results by reducing the actions to be taken when you are in doubt about whether or not there is a crack.

Revision 1 of this ALERT SERVICE BULLETIN will form the subject of an EASA Airworthiness Directive.

Revision 1 of this ALERT SERVICE BULLETIN does not affect compliance with Revision 0.

1.D. DESCRIPTION

Revision 0:

EUROCOPTER has been informed of an emergency landing performed with an EC120 B Colibri helicopter following the sudden occurrence of high amplitude vibrations originating from the main rotor. On the ground, it was then found that the MRH hub had failed in the attachment area of one of the three drag damper fittings.
In Safety Information Notice No. 2110-S-62 of November 5, 2009, EUROCOPTER reminded you of how important it is to carry out the scheduled maintenance actions on the rotor hub during the flight-related check.
In order to preclude any risk of a similar incident occurring on rotor hubs with part numbers listed in paragraph 1.A.1., EUROCOPTER makes compliance with the visual check, defined in this ALERT SERVICE BULLETIN, mandatory.

Revision 1:

The purpose of Revision 1 is to modify paragraph 2.B.2.b. concerning the interpretation of the results. Indeed, considering the crack growth rate and existing safety margins, the actions to be taken when you are in doubt about whether or not there is a crack, can be reduced.

1.E. COMPLIANCE

EUROCOPTER renders compliance with this ALERT SERVICE BULLETIN mandatory.

1.E.1. Compliance at the works

1.E.1.a. On helicopters

Not applicable.

1.E.1.b. On non-installed equipment

Not applicable.

1.E.2. Compliance in service

1.E.2.a. On helicopters/installed equipment

- Comply with paragraph 2. at the latest within 15 flying hours following receipt of Revision 0 of this ALERT SERVICE BULLETIN, dated February 15, 2010.

Then,

- Comply with paragraph 2.B. every 15 flying hours.

1.E.2.b. On non-installed equipment

Not applicable.

2. ACCOMPLISHMENT INSTRUCTIONS

2.A. GENERAL

NOTE 1

Please feel free to contact EUROCOPTER should you need any further information or support when complying with the instructions described in this ALERT SERVICE BULLETIN.
Contact the EUROCOPTER Customer Service Technical Support Department:
By: Fax: +33 (0)4.42.85.99.66
Email: DynComp.Technical-Support@eurocopter.com

2.B. OPERATIONAL PROCEDURE

2.B.1. Preliminary steps

Not applicable.

2.B.2. Procedure

2.B.2.a. Visual check for crack in the inspection areas (A1) and (A2) of the rotor hub

As per Figure 2:

- During the first check, if the identification plate (b) is in the inspection area (A1) or (A2), remove the plate (b):
  . Unbond the identification plate (b) using a plastic tool or bronze knife, taking care not to damage the rotor hub. Remove the dome fairing if necessary.
  . Locate the area (B), and then clean it as per Task 20-10-00, 3-8 (titanium part).
  . Copy the references marked on the identification plate (b) on the area (B) with indelible ink, as per Task 20-10-00, 3-43.

As per Figure 1:

- Visually inspect the inspection areas (A1) and (A2) on the hub (a), and make sure that there is no crack.
- Comply with paragraph 2.B.2.b.

2.B.2.b. Interpretation of the results

1 - If no crack is found:
. Install the dome fairing if it was removed previously.
. Resume flights.

2 - If one or more cracks are found:
. Contact EUROCOPTER in accordance with the conditions described in NOTE 1 of paragraph 2.A:
. Replace the affected rotor hub (a) with a new rotor hub (1a), (1b) or (1c).
. Assemble the rotor hub (1a), (1b) or (1c) and install the MRH as per AMM Task 62-21-00, 4-1.
. Resume flights.

3 - If local deterioration is found, leading you to suppose that there could be a crack (scoring, paint spalling, etc.): (as per Figures 1 and 2):
. Sand the suspected area(s) using No. 600-grit (fine grit) abrasive paper. Remove only the finish paint until the P05 primer coat becomes visible.
. Once again, visually inspect the concerned area(s), and make sure that there is no crack.
. Interpret the results in accordance with paragraph 2.B.2.b.1. or paragraph 2.B.2.b.2.

NOTE 2

To ease future periodic visual checks, EUROCOPTER authorizes you to resume flights without paint touch-up in the sanded areas.

2.B.3. Final steps

Not applicable.

2.C. OPERATIONAL PROCEDURE ON NON-INSTALLED EQUIPMENT

Not applicable.

2.D. IDENTIFICATION

2.D.1. Identification of modifications in the documentation

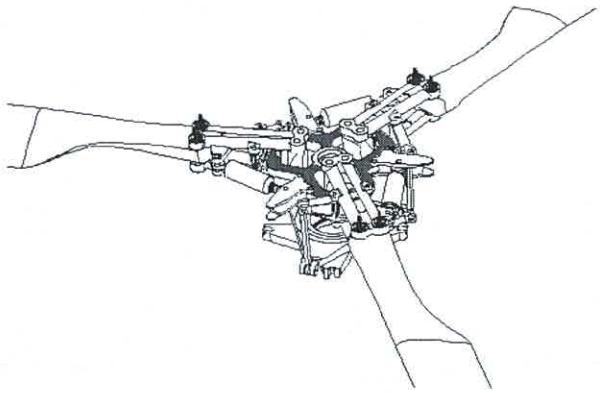
Record initial compliance with this ALERT SERVICE BULLETIN in the helicopter documentation.

2.D.2. Identification of modifications on equipment

Not applicable.

2.E. OPERATING AND MAINTENANCE INSTRUCTIONS

The visual check described in paragraph 2.B. and to be carried out every 15 flying hours will be integrated into the Master Servicing Manual (MSM) and Aircraft Maintenance Manual (AMM).



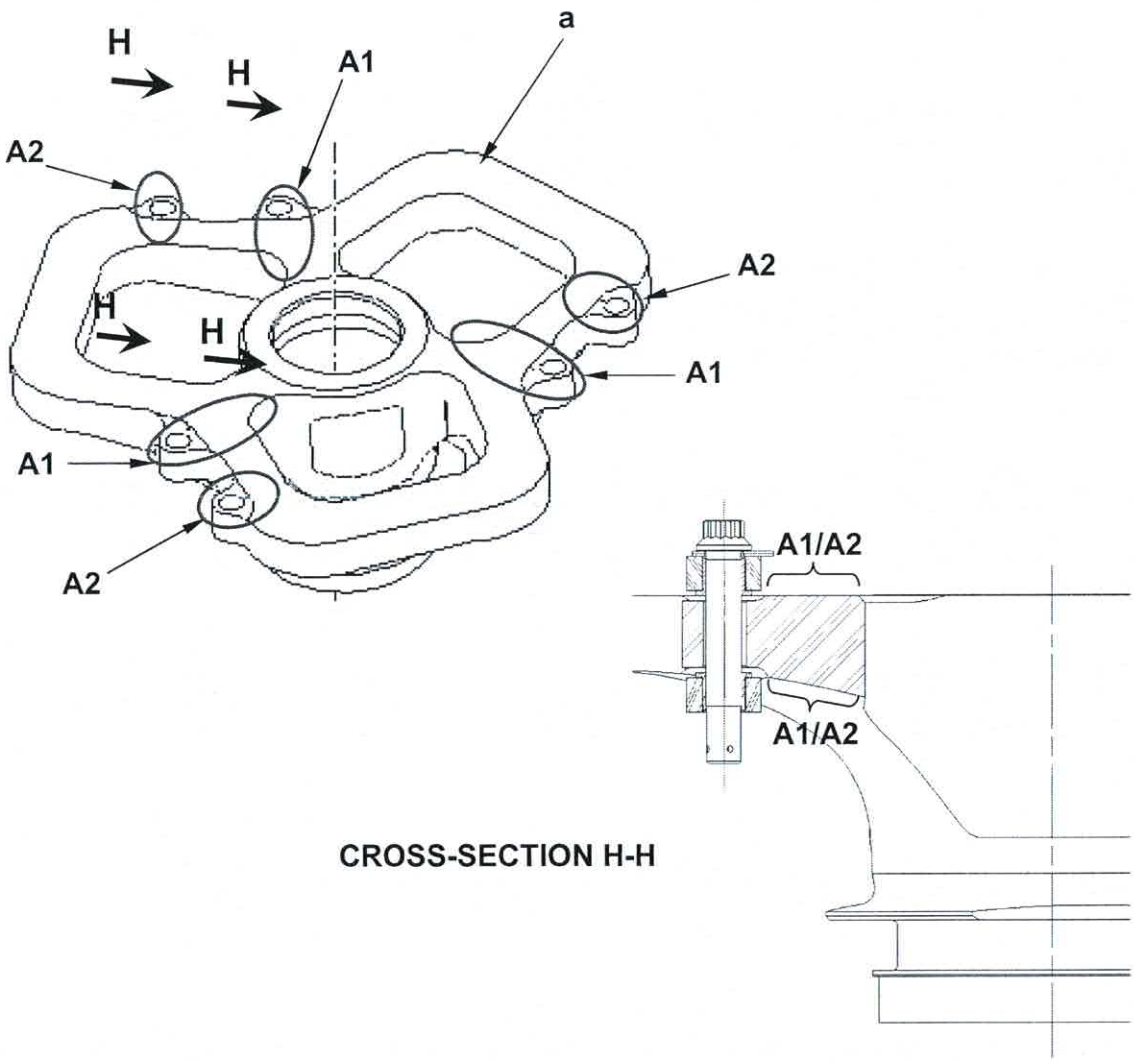


Figure 1: Visual check of the rotor hub

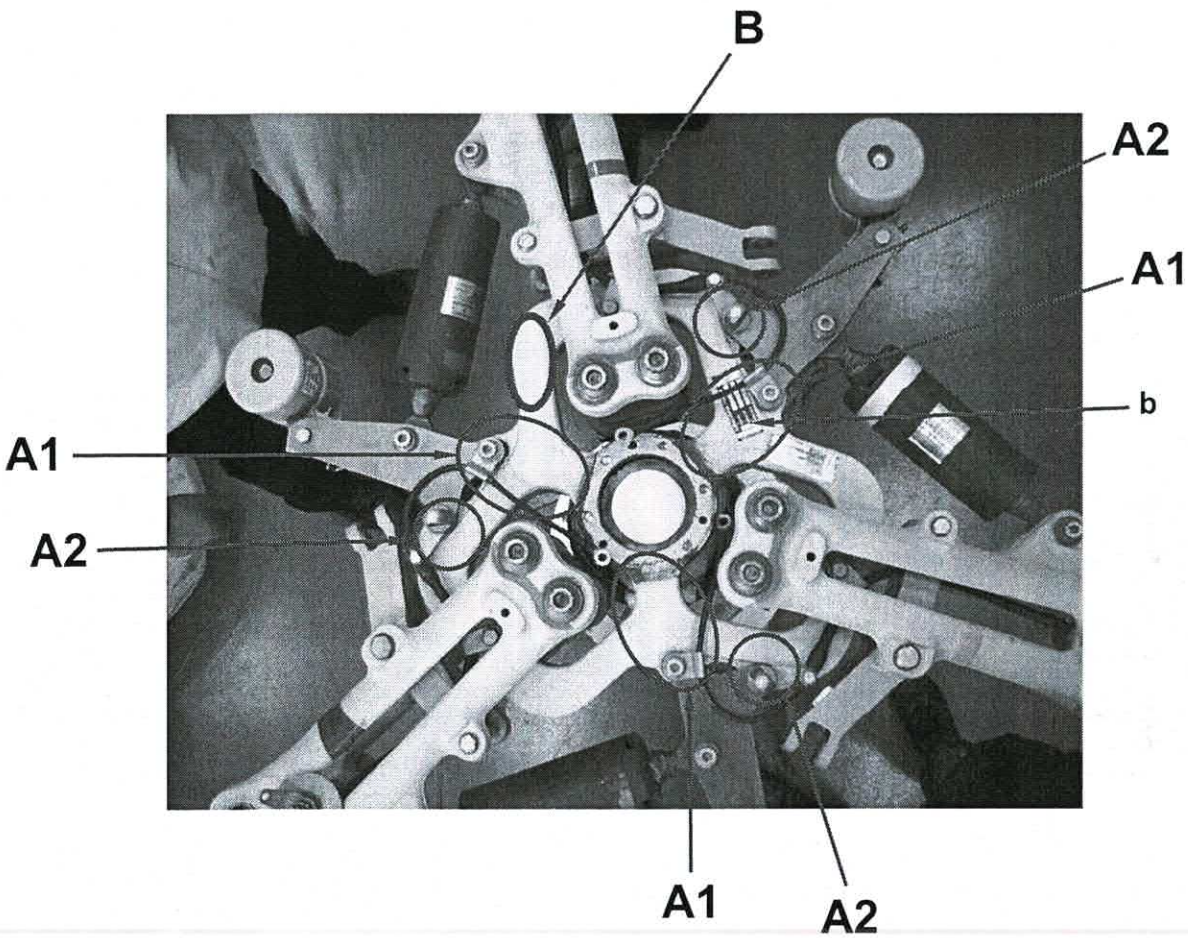


Figure 2: Rotor hub – Identification plate

3. MATERIAL INFORMATION

3.A. MATERIAL: PRICE AND AVAILABILITY

3.A.1. Cost

For all information concerning the price of kits and/or components for modifications, tools and assistance, contact the Customer Service Sales department or the EUROCOPTER Network.

3.A.2. Availability

The kits or components or tools will be delivered on the operator's order.

3.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT

Not applicable.

3.C. MATERIAL REQUIRED FOR EACH HELICOPTER / ENGINE / COMPONENT

3.C.1. Kits or components to be ordered for one helicopter or one assembly

Material Part Number Manufacturer Part Number	Qty.	Item	Key Word	Instructions
C622A1002103	1	1a	Rotor hub	
or				
C622A1002104	1	1b	Rotor hub	
or				
C622A1002105	1	1c	Rotor hub	

Routine replacement parts required for compliance with the Tasks listed in paragraph 1.K., can be ordered in accordance with paragraph 3.D.

3.C.2. Material to be ordered separately

The products required for compliance with the Tasks listed in paragraph 1.K., can be ordered from the INTERTURBINE company.
Website: **http://www.itlogistics.de**
Phone: +49.41.91.809.300
AOG: +49.41.91.809.444

3.C.3. Material to be modified at the Manufacturer's or to be returned

Not applicable.

3.C.4. Products to be ordered separately

Not applicable.

3.C.5. Tools

Not applicable.

3.C.6. Material supplied by the User

Not applicable.

3.D. PROCUREMENT CONDITIONS

Order the required quantity (unless otherwise specified)

from

EUROCOPTER
Etablissement de Marignane
Direction Ventes et Relation Client
ECR
13725 MARIGNANE CEDEX
FRANCE

NOTE 1

For ALERT SERVICE BULLETINS, order by:
Telex: HELICOP 410 969F.
Fax: +33(0)4.42.85.99.96.

NOTE 2

On the purchase order, please specify the mode of transport, the destination and the serial numbers of the helicopters to be modified.

3.E. PROCEDURE: MATERIAL RETURN

Not applicable.

4. APENDIX

Not applicable.

	AIRWORTHINESS DIRECTIVE No F-2003-325 R1	Distribution: A	Issue date: May 12, 2004	Page : 1/3
Direction générale de l'aviation civile France	This Airworthiness Directive is published by the DGAC: [X] on behalf of EASA, the Primary Airworthiness Authority for the affected product. [ ] as the Registration Airworthiness Authority for the affected aircraft..		*Translation of « Consigne de Navigabilité » of same number.* *In case of difficulty, reference should be made to the French issue.*	
GSAC publication	***No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive, unless otherwise agreed with the Authority of the State of Registry.***			
Corresponding foreign Airworthiness Directive(s): **Not applicable**		Airworthiness Directive(s) replaced: **2003-325 original issue**		
Person in charge of airworthiness: **EUROCOPTER**		Type(s): **EC 120 helicopters**		
Type certificate(s) No. **189** TCDS No **189**				
ATA chapter: **63, 05, 71**	Subject: **Rotor drive - Engine mount and engine-to-main gear box (MGB) coupling tube assembly**			

1. **EFFECTIVITY:**

EC 120 B helicopters

- fitted with engine-to-MGB coupling tube assembly P/N C631A1101101,
- fitted with the engine mount comprising the parts specified in § 1.A. of referenced EUROCOPTER EC 120 Alert Service Bulletin (ASB) No. 04A005.

2. **REASONS:**

This Airworthiness Directive (AD) is issued following a case of cracking detected on a reinforced coupling tube, which may lead to engine-to-MGB coupling failure and subsequently to autorotation.

This AD covers the requirements of AD 2000-176-004, which is cancelled by its Revision 3.

In addition, this AD incorporates the inspection intervals and service life limit of the coupling tubes introduced by Revision 2 of ASB No. 05A003. It also renders the engine mount described in § 1above as unfit for flight, in compliance with ASB No. 04A005.

Revision 1 of this AD takes into account Revision 3 of ASB No. 05A003 by incorporating the consequences of compliance, if applicable, with EUROCOPTER EC 120 Service Bulletins (SB) No. 71.003 (Improvement of the Engine Mount) and/or No. 71.005 (Installation of a New Spring-Loaded Engine Suspension).

3. **MANDATORY ACTIONS AND COMPLIANCE TIMES:**

3.1. Aircraft fitted with an engine mount block NOT modified as per EUROCOPTER EC 120 SB No. 71.003 and with serial numbers lower than 1170 AND which have not been modified in compliance with EUROCOPTER EC 120 Service Bulletin (SB) No. 71.005:

3.1.1. Reminder of the actions required for compliance with AD 2000-176-004 R2:

Unless already accomplished, the following actions were rendered mandatory from the effective date of the original issue of Airworthiness Directive 2000-176-004 i.e. on receipt of the "telegraphic" AD issued on April 21, 2000:

a) Prior to the next flight, perform a visual crack detection inspection on the cylindrical body of the coupling tube on both sides of the MGB coupling tube attachment fitting, in compliance with the instructions specified in paragraph 2.B. of referenced EUROCOPTER ASB No. 05A003.

b) Immediately remove and replace any coupling tube which has one or more cracks.

c) At each check after the last flight of the day, without exceeding 5 flight hours, repeat the operations described in § a) and b) above.

Note that, for aircraft not modified as per SB No. 71.003 or SB No. 71.005, the service life limit of the coupling tubes specified in § 1 above is 1,000 flight hours.

3.1.2. Actions required for compliance with the original issue of this AD:

The following actions were rendered mandatory from the effective date of the original issue of this AD:

a) From June 30, 2004, the parts referenced in § 1.A of referenced EC 120 ASB No. 04A005 will be unfit for flight.

b) In the next scheduled inspection and at the latest by June 30, 2004, the engine mountbase must be checked as per the instructions given in § 2.B of referenced EUROCOPTER EC 120 ASB No. 04A005.

3.2. Aircraft fitted with an engine mount block modified in compliance with EUROCOPTER EC 120 SB No. 71.003 or with serial numbers equal to or higher than 1170 AND that have not be modified in compliance with EUROCOPTER EC 120 SB No. 71.005:

The following operations were rendered mandatory from the effective date of the original issue of this AD:

3.2.1. Within 25 flight hours, then at intervals of no more than 25 flight hours, visually check the condition of the coupling tube in compliance with the instructions described in § 2.B. of referenced EUROCOPTER EC 120 ASB No. 05A003 R3.

3.2.2. Immediately remove and replace any coupling tube which has one or more cracks.

3.2.3. In this case, the service life limit of the coupling tubes referenced in § 1 above is 20,000 flight hours.

3.3. Aircraft that have been modified in compliance with EUROCOPTER EC 120 SB No. 71.005: (Spring-Loaded Suspension Engine Mount)

From the effective date of Revision 1 of this AD:

3.3.1. The service life limit for the coupling tube referenced in § 1 above is extended to 20,000 flight hours.

3.3.2. The inspections of the coupling tube every 5 hours/at each flight related check or every 25 flight hours are cancelled.

3.4. Spare Parts:

From the effective date of Revision 1 of this AD:

3.4.1. Coupling tubes specified in § 1, held as spares AND having flown on an aircraft "prior to compliance with SB No. 71.005", must undergo a dye penetrant crack detection inspection in accordance with the instructions specified in § 2.B of referenced SB No. 71.005 before they are re-installed on aircraft "after compliance with SB No. 71.005".

3.4.2. After installing on an aircraft a coupling tube specified in paragraph 1, held as spares, comply with the instructions described in § 3.1. or in 3.2. or in 3.3. above, depending on whether the aircraft has not been fitted or has been fitted with an engine mount block modified in compliance with SB No. 71.003 and depending on whether the aircraft has been modified in compliance with SB No. 71.005 for installing a spring-loaded engine suspension.

4. REFERENCE PUBLICATIONS:

EUROCOPTER EC 120 Alert Service Bulletins No. 05A003 R3 and No. 04A005,
EUROCOPTER EC 120 Service Bulletins No. 71.003 and No. 71.005.
(Any subsequent approved revision to the Alert Service Bulletins and Service Bulletins is acceptable).

5. EFFECTIVE DATES:

Original issue : Upon receipt, from September 13, 2003
Revision 1 : May 22, 2004.

6. REMARK:

For any questions concerning the technical content of the requirements in this AD, please contact:

EUROCOPTER (STXI) - Aéroport de Marseille Provence, 13725 Marignane Cedex - France
Phone: +33 (0)4 42 85 97 97 - Fax: +33 (0)4 42 85 99 46
E-mail: Directive.technical-support@eurocopter.com

7. APPROVAL:

This AD is approved under EASA reference No 2004-4810 of May 05, 2004.

EUROCOPTER
DIRECTION TECHNIQUE SUPPORT
13725 MARIGNANE CEDEX FRANCE

CIVIL VERSION(S): B

ALERT SERVICE BULLETIN

No. 05A003

SUBJECT: **TIME LIMITS - MAINTENANCE CHECKS**

Engine-to-MGB Coupling Tube Assembly - Check and Limitation

ATA 63

LIST OF APPROVED REVISIONS	REVISION No. 3 APPROVED
No. Date 0 August 1, 2000 1 August 2, 2001 2 July 16, 2003	Date: March 10, 2004

1. PLANNING INFORMATION

1.A. EFFECTIVITY

For coupling tube assembly P/N C631A1101101.

1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

After compliance with the EC120 Service Bulletin No. 71-005, Revision 3 of this ALERT SERVICE BULLETIN:
- cancels the periodic 5-hour//flights related check airworthiness inspection or 25-hour airworthiness inspection,
- ensures a 20,000-flight hour service life limit for the coupling tube specified in paragraph 1.A., for aircraft not modified in compliance with the EC120 Service Bulletin No. 71-003.

Revision 3 will form the subject of Revision 1 of EC120 Airworthiness Directive No. 2003-325.

REMINDER

The original Mandatory Service Bulletin No. 05.003, which formed the subject of the 4th EC120 Airworthiness Directive:
- converted the Service Telex No. 05-003 issued on April 20, 2000, into a Mandatory Service Bulletin,
- specified that the visual check for cracks on the coupling tube assembly can be carried out by the pilot,
- reduced the maximum interval between two inspections from 10 hours to 5 hours,
- added Figure 1 to make it easier to visualize and to locate the cracks.

Revision 1 of this ALERT SERVICE BULLETIN, which formed the subject of Revision 2 of the 4th EC120 Airworthiness Directive:
- changed the designation of the Service Bulletin from "MANDATORY" Service Bulletin to "ALERT SERVICE BULLETIN", in compliance with the latest EUROCOPTER directives (Service Letter No. 1489-00-00).
- Revision 1 of this ALERT SERVICE BULLETIN (No. 05A003) introduced no change to the text of the Mandatory Service Bulletin No. 05-003.

Revision 2 of this ALERT SERVICE BULLETIN extended:
For aircraft equipped with engine mount stands installed in compliance with the EC120 Service Bulletin No. 71-003,
- the inspection intervals from 5 to 25 hours,
- the service life limit for the coupling tube specified in paragraph 1.A. from 1,000 to 20,000 flight hours.

Revision 2 formed the subject of Revision 3 of EC120 Airworthiness Directive No. 2000-176-004, which was superseded by Airworthiness Directive No. 2003-325.

NOTE

Aircraft S/N 1170 and above are fitted with engine mount stands installed at the works in compliance with Service Bulletin No. 71-003.

1.D. DESCRIPTION

Revision 0:

EUROCOPTER has received a report of cracks detected on an engine-to-MGB coupling tube assembly (coupling tube installed in compliance with the Recommended Service Bulletin No. 63-001). This incident led to the distribution of Service-Telex No. 05-003. The entire helicopter fleet is now equipped with a coupling tube having this part number and no further cracks have been reported.

The first findings showed that the cracks had started in the connection area between the cylindrical casing and the fitting that attaches the coupling tube to the MGB (refer to Figure 1 (C)). These cracks run lengthwise on the cylindrical casing, on either side of the coupling tube attachment fitting. The cracks go through the cylindrical casing thickness. They are visible on the lower section of the coupling tube cylindrical body

The examinations of the components making up the engine mount stand, that had been operated with the cracked coupling tube, revealed some assembling anomalies affecting this assembly.
At the present stage, our investigations show that this non-compliant assembling of the engine mount stand may have caused an excessive increase in the loads applied to the coupling tube (binding phenomena). This load increase that is higher than initially estimated, leads us to reduce the maximum inspection interval.

EUROCOPTER renders compliance with the precautionary measures described in paragraph 2.B mandatory, pending confirmation of this analysis and modifications that will provide a solution to this problem.

Revision 2:

Compliance with the Service Bulletin No. 71-003 enables operators to check the engine mount for correct assembly and eliminate any assembly errors that cause binding, increased loads and crack occurrence on the coupling tube (only one report of crack occurrence in operation before embodiment of Service Bulletin No. 71-003).

Moreover, tests conducted recently at the EUROCOPTER works have shown that this type of assembly (after compliance with Service Bulletin No. 71-003) reduces the loads applied to the coupling tube; it is therefore possible to extend:
- the crack inspection intervals,
and
- the service life limit for the coupling tube.

Revision 2 of this ALERT SERVICE BULLETIN defined the new inspection interval and the new service life limit for the coupling tube after compliance with Service Bulletin No. 71-003.
No particular maintenance operation was required for these new limitations.

Revision 3:

The purpose of the Service Bulletin No. 71-005 (installation of a new spring-loaded engine mount) is further to performing a dye penetrant inspection to ensure that there is no crack in the coupling tube:
- for aircraft prior to compliance with the Service Bulletin No. 71-003:
  . to cancel the periodic 5 hour//flights related check airworthiness inspections,
  . to extend the service life limit for the coupling tube from 1,000 hours to 20,000 hours.
- for aircraft after compliance with the Service Bulletin No. 71-003:
  . to cancel the periodic 25-hour airworthiness inspection.

REMINDER

The service life limit for the coupling tube is 20,000 hours.

1.E. COMPLIANCE

1.E.1. At the works

- On aircraft: Comply with paragraph 1.E.2.
- On spares: Not applicable.

1.E.2. Retrofit action

- On aircraft: By the operator.

1.E.2.A For aircraft before compliance with the EC120 Service Bulletin No. 71-005:

- Aircraft equipped with an engine mount stand not modified in compliance with the Service Bulletin No. 71-003:
  . Comply with paragraph 2.B. at each ALF-check, without exceeding 5 flight hours between two checks.
  . Remove and replace the coupling tube specified in paragraph 1.A., at 1,000 flight hours.

REMINDER

This engine mount stand standard is subject to an operating time limit on a long-term basis; refer to the ALERT SERVICE BULLETIN No. 04A005.

- Aircraft equipped with an engine mount stand modified in compliance with the Service Bulletin No. 71-003:
  . Comply with paragraph 2.B. at intervals not exceeding 25 flight hours.
  . The service life limit for the coupling tube specified paragraph 1.A. is 20,000 flight hours.

REMINDER

Aircraft S/N 1170 and above are equipped with an engine mount stand installed at the works in compliance with the Service Bulletin No. 71-003.

1.E.2.B For aircraft after compliance with the EC120 Service Bulletin No. 71-005:

- The service life limit for the coupling tube specified paragraph 1.A. is 20,000 flight hours.
- The inspections of the coupling tube every 5 hours//at each flight related check or every 25 flight hours are cancelled.

1.E.3 On spares:

Coupling tubes flown on aircraft "before compliance with the Service Bulletin No. 71-005" must be checked by means of a dye penetrant inspection in compliance with paragraph 2.B. of the Service Bulletin No. 71-005, before installation on aircraft "after compliance with the Service Bulletin No. 71-005".

1.F. APPROVAL

Approval is limited to civil version helicopters subject to an Airworthiness Certificate.

The technical information contained in Revision 0 of this ALERT SERVICE BULLETIN was approved on July 20, 2000 under the authority of DGAC Design Organisation Approval No. F.JA01.

The technical information contained in Revision 1 of this ALERT SERVICE BULLETIN was approved on August 1, 2001 under the authority of DGAC Design Organisation Approval No. F.JA01.

The technical information contained in Revision 2 of this ALERT SERVICE BULLETIN was approved on July 15, 2003 under the authority of DGAC Design Organisation Approval No. F.JA01.

The technical information contained in Revision 3 of this ALERT SERVICE BULLETIN was approved on March 10, 2004 under the authority of DGAC Design Organisation Approval No. F.JA01.

1.G. MANPOWER

Qualification: 1 mechanic (the visual check specified in paragraph 2.B. can be performed by the pilot).
Time: Approximately 5 minutes.

1.H. WEIGHT AND BALANCE

Weight: Not applicable.
Moment: Not applicable.

1.I. EFFECT ON ELECTRICAL LOADS

Not applicable.

1.J. SOFTWARE MODIFICATION EMBODIMENT STATE

Not applicable.

1.K. REFERENCES

Refer to Aircraft Maintenance Manual (AMM): Tasks 63-11-00, 4-1 and 63-11-00, 4-2.

1.L. OTHER DOCUMENTS CONCERNED

Master Servicing Manual (MSM).

1.M. INTERCHANGEABILITY AND MIXABILITY OF PARTS

Not applicable.

2. ACCOMPLISHMENT INSTRUCTIONS

2.A. GENERAL

NOTE

The visual check for cracks, specified in paragraph 2.B., can be performed by the pilot.

2.B. OPERATIONAL PROCEDURE

2.B.1. Preliminary Steps:

Open the left and right cowlings.

2.B.2. Checking the condition of the coupling tube

- Inside the MGB compartment, visually check the area of the coupling tube cylindrical casing on either side of the fitting that attaches the coupling tube to the MGB:
  . for cracks in the blending radius between the coupling tube cylindrical section and the fitting that attaches it to the MGB, see the cracked areas (C) shown on Figure 1.

  - If there is no crack:
    . leave as is,
    . resume flights.

  - If there is a crack:
    . remove and replace the coupling tube assembly as per AMM Tasks 63-11-00, 4-1 and 63-11-00, 4-2,
    . please inform the EUROCOPTER Customer Service Technical Support department: (STXV):
    - Fax: +33 (0)4 42 85 99 66.

2.B.3. Final steps

Close the left and right cowlings.

2.C. IDENTIFICATION

Record first compliance with this ALERT SERVICE BULLETIN in the aircraft documents.

2.D. OPERATING AND MAINTENANCE INSTRUCTIONS

The Master Servicing Manual (MSM) will be updated later.

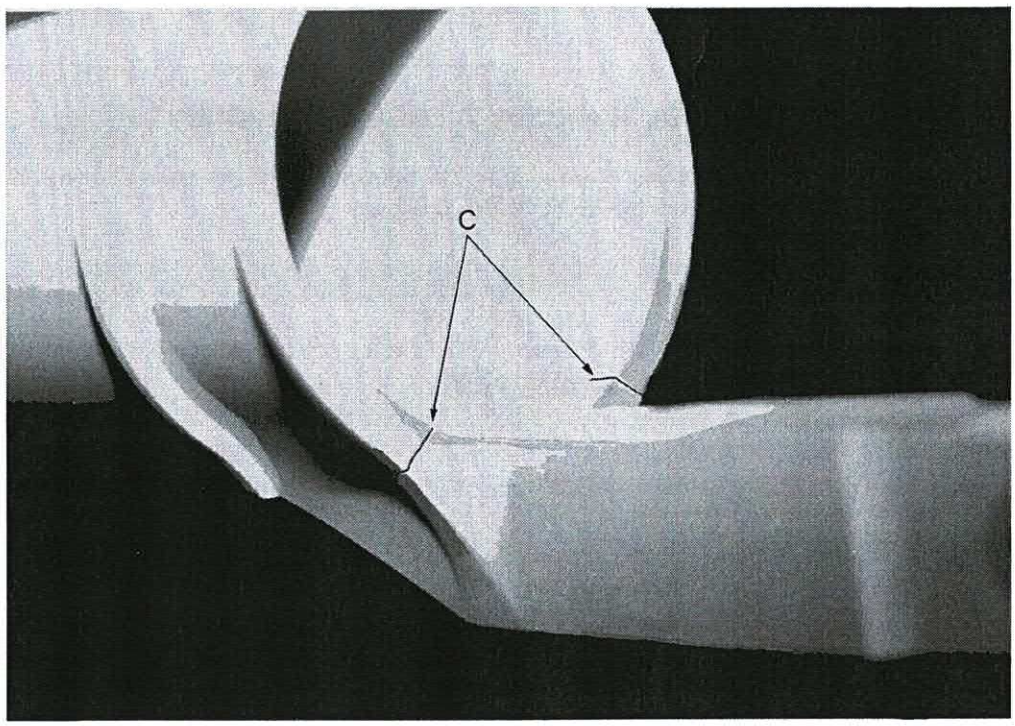


Figure 1

3. MATERIAL INFORMATION

3.A. MATERIAL - COST - AVAILABILITY

For all information, contact the Customer Support Sales Department.

3.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT

Not applicable.

3.C. MATERIAL REQUIRED FOR EACH AIRCRAFT, ENGINE/COMPONENTS

The materials identified by an asterisk "*" or required for compliance with the tasks and/or work cards listed in paragraph 1.K., can be ordered from INTERTURBINE company,
Website: http://www.itlogistics.de
Phone: +49.41.91.809.300
AOG: +49.41.91.809.444

3.D. MATERIAL REQUIRED FOR EACH SPARE PART

Not applicable.

3.E. RE-IDENTIFIED PARTS

Not applicable.

3.F. TOOLING - COST - AVAILABILITY

Not applicable.

3.G. PROCUREMENT CONDITIONS

Order the required quantity (unless otherwise specified)

from

EUROCOPTER
Etablissement de Marignane
Direction VENTES Service Client
S.V.
13725 MARIGNANE CEDEX
France

NOTE 1

For ALERT SERVICE BULLETINS, order by:
Telex: HELICOP 410 969F
Fax: +33 (0)4 42 85 99 96

NOTE 2

On the purchase order, please specify the mode of transport, the destination and the serial numbers of the aircraft to be modified.

4. APPENDIX

None.