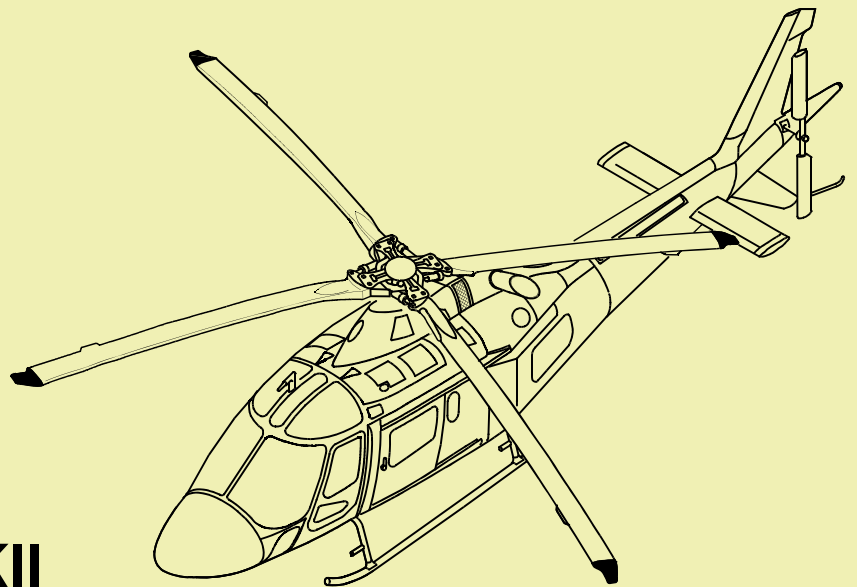


A119/AW119MKII-MPM

— MAINTENANCE PLANNING MANUAL



**A119/AW119MKII
HELICOPTER
MODELS**

**Fourth Issue:
Revision 6:**

**15 December 2015
02 December 2021**

THIS PUBLICATION IS ISSUED BY LEONARDO S.p.A.

This document contains proprietary data and information and shall not be disclosed, reproduced in whole or in part for any purpose, other than helicopter operation or maintenance, without prior written authorization from Leonardo S.p.A.

PUBLICATION CODE 502051506A

HIGHLIGHTS

The reason for update is given for the revision below listed.

Revision N.	Reason for update
2nd Issue	— Updated Section 05-10-00 page 05-9, to add new cargo hook P/N (AW Protocol NDC 109-0710-001). — Updated Section 05-12-00, change P/N 1270152-3 oxygen bottle, add note 6 Replace every 15 years (AW Protocol TPD 1425). — Updated Section 05-20-00 page 05-25, Section 05-30-00 page 05-39 and Section 05-40-00 page 05-59 to add the check of the marking painted on the rotating scissor (AW Protocol TPD 1418, ref. B.T. 119-27). — Updated Section 05-50-00 page 05-65, delete cross reference to para 55-00-07 and add new inspect (AW Protocol TPD 1383 and 1426). — Updated Section 05-50-00 page 05-65, change cross reference to engine controls setting check (AW Protocol TPD 1450). — Updated Section 05-50-00 page 05-65, insert new inspection to connecting nuts on the case assy of 90° gearbox (Ref. B.T. 119-23). — Updated Section 05-60-00 page 05-95, insert new special inspection on the cargo hook every 1000 hours or 5 years (AW Protocol NDC 109-0710-001). — Updated Section 05-60-00 page 103, page 105, page 107, to change cross references (AW Protocol TPD 1596).
1	— Updated Introduction page iii to modify ARRANGEMENT for Certification Maintenance Requirements. — Updated Chapter 04 to add new Section 04-30 “Certification Maintenance Requirements”, moved from Section 05-11. — Updated Section 04-30 Certification Maintenance Requirements to introduce new damper P/N 109-0112-05-107. On the damper P/N 109-0112-05-103 add new cross reference. — Updated 05-i Table of Contents to delete from index “Certification Maintenance Requirements”. — Pages 05-11 to 05-14 have been deleted from the manual. — Updated Section 05-00-00 page 8 to delete Section “05-11”. — Updated 05-20-00, 05-30-00, 05-40-00, 05-60-00 to modify cross reference to 04-30.
2	— Not Issued - Airworthiness Authority Approval Pending - Updated Section 04-30 page 04-30-03 to introduce new P/N and inspection of tail rotor bushing (AW Protocol NDC 109-0162-008).
3	— Updated divided card of Chapter 05 to add “Pre-Mod. B.T. 119-32”. — Updated table of contents to introduce PRE and POST MOD. B.T. 119-32. — Updated Section 05-10-00 page 05-9 (Editorial change) to modify Note 2. — Updated Section 05-12-00 page 05-15 (Technical change) to delete part of Note 6 (AW Protocol 2038). — Updated Section 05-20-00 page 05-26 (Technical change) to add P/N applicability to step 6.d., Updated Section 05-30-00 page 05-40 (Technical change) to add P/N applicability to step 6.d., Updated Section 05-40-00 page 05-55 (Technical change) to add P/N applicability to step 2.d. (AW Protocol TPD 2179).

Revision N.	Reason for update
	— Updated Section 05-50-00 page 05-64 (Technical change) to add new step 4.A. (AW Protocol TPD 2174), Updated Section 05-50-00 page 05-64A (Technical change) para 7. EVERY 100 FLIGHT HOURS b. step 5) introduced P/N applicability to the hub cover (AW Protocol TPD 2346). — Updated Section 05-50-00 page 05-64A and 05-64B (Editorial change). — Updated Section 05-50-00 page 05-65 (Technical change) to modify cross reference to step 7.e.1) (AW Protocol TPD 2166) and modified step 7.e.2) to added “pay particular attention to the attachment area”. — Updated Section 05-50-00 page 05-65 (Editorial change) to modify para 7. EVERY 100 FLIGHT HOURS step f. 3) (AW Protocol TPD 2181). — Updated Section 05-50-00 page 05-65 (Technical change) to modify step 8.b.1) (AW Protocol TPD 2176). — Updated Section 05-50-00 page 05-67 (Technical change) to modify the Note after step d. 4) (AW Protocol TPD 1711). — Updated Section 05-50-00 page 05-68 (Technical change) to modify reference to T.P. A109/AW119 SERIES-OM (AW Protocol TPD 2171). — Updated Section 05-60-00 page 05-89 to delete Hydrostatic Test of Oxygen bottle because already included in Section 04-30 (CMR) (AW Protocol TPD 2399). — Updated Section 05-60-00 page 05-93 (Technical change) to add cross reference to procedure 25-92-8B (AW Protocol TPD 2165). — Updated Section 05-60-00 page 05-105 (Technical change) to modify note of definition of cycles. — Updated Section 05-60-00 page 05-113 (Technical change) to add new D. inspection every 12 months (AW Protocol TPD 1892). — Added new Chapter 05A “Post-Mod. B.T. 119-32 printed on green pages.
4	— Reprinted all HIGHLIGHTS form to change the word “Update” in “Updated”. — Updated editing of the discrepancy form. — Updated Section 05-12 (Technical change) to add harness P/N AGU-001-X00 and P/N 1-10-610201TNY (AW Protocol TPD 2603). — Updated Section 05-50-00 para 05-50-1 (Technical change) to modify reference in step 7. b. 5) (AW Protocol TPD 2347). — Updated Section 05-50-00 para 05-50-1 sub-para 9. EVERY 300 FLIGHT HOURS step a. 1. to delete cross-reference (AW Protocol TPD 2668). — Updated Section 05-50-00 para 05-50-1 step 12. and Section 05A-50-00 para 05A-50-1 step 11. (Technical change) to indicate the necessity of hub disassembly (AW Protocol TPD 2563). — Updated Section 05-50-00 para 05-50-1 (Editorial change) to modify cross-reference (AW Protocol TPD 2544). — Updated Section 05-50-00 para 05-50-1 (Technical change) to modify step 12. g. (AW Protocol TPD 2234). — Updated Section 05-50-2 (Editorial change) to modify the section title. — Updated Section 05-50-00 para 05-50-2 step 8. (Editorial change) Moved “OPERATION IN HIGH CORROSIVE ENVIRONMENT” from step 8. to step 9 (AW Protocol TPD 2164). — Updated Section 05-50 para 05-50-2 step 8 (Technical change) to introduce new para “TAIL SKID IMPACT” already enclosed in new inspection program. — Updated Section 05A-12 (Technical change) to add Fuel cell assy P/N 109-0900-40 shelf life limits (AW Protocol TPD 2737). — Updated Section 05A-12 (Technical change) to add harness P/N AGU-001-X00 and P/N 1-10-610201TNY (AW Protocol TPD 2603). — Updated Section 05A-00-00 para 05A-00-3 (Editorial change) to correct typing error. — Updated Section 05A-00 para 05A-00-3 (Editorial change) to delete ‘EVERY 900 FLIGHT HOURS’ as not applicable to this program (AW Protocol TPD 2643). — Updated Section 05A-10-00 (Editorial change) to fully indicate expiring dates (AW Protocol TPD 2581).

Revision N.	Reason for update
	— Updated Section 05A-20-00 para 05A-20-2 (Editorial change) to modify reference in step 9. of sub para 62-00 MAIN ROTOR (AW Protocol TPD 2347). — Updated Section 05A-20-00 para 05A-20-4 sub para 53-00 FUSELAGE (Editorial change) to delete step 2 (AW Protocol TPD 2544). — Updated Section 05A-20-00 para 05A-20-4 sub-para 63-00 MAIN ROTOR DRIVE step 1. a. to delete cross-reference (AW Protocol TPD 2668). — Updated sub-para 63-00 MAIN ROTOR DRIVE step 2. b. to modify cross-reference (AW Protocol TPD 2544). — Updated Section 05A-40-00 para 05A-40-2 (Editorial change) to modify reference in step 9. of sub para 62-00 MAIN ROTOR (AW Protocol TPD 2347). — Updated Section 05A-40-00 para 05A-40-10 sub para 53-00 FUSELAGE (Editorial change) to delete step 2. — Updated Section 05A-40-00 para 05A-40-10 sub-para 63-00 MAIN ROTOR DRIVE step 1. a. to delete cross-reference (AW Protocol TPD 2668). — Updated Section 05A-40-00 para 05A-40-10 sub-para 63-00 MAIN ROTOR DRIVE step 2. a. and 2. b. to modify cross-reference (AW Protocol TPD 2544). — Updated section 05A-50-00 para 05A-50-1 (Editorial change) to delete instruction 5 in step 11 of sub para “EVERY 2400 FLIGHT HOURS INSPECTION” 62-00 “MAIN ROTOR” because covered by instruction 2. c. (AW Protocol TPD 2738). — Updated Section 05A-50 para 05A-50-2 step 8 (Editorial change) to introduce new para “OPERATIONS IN HIGH CORROSION ENVIRONMENTS” already enclosed in old inspection program (AW Protocol TPD 2164).
3rd Issue	— This Third Issue has been released to delete all information related to the old maintenance program as dictated by the expiry date given in the B.T. 119-32 dated January 30 2009. — All references to A119/AW119MKII-OM renamed as A109/AW119 SERIES-OM. — Updated Technical Publication Discrepancy Form to change address. — Updated Section 05-12 Note 7 (Technical change) to modify replacement limits for Hoist operator harness P/N A114A01 (AW Protocol TPD 4730). — Updated Section 05-12 Note 8 (Editorial change) to add applicability to AIR-CRAFT BELTS. — Updated Section 05-60 step 9 (Technical change) to introduce new inspection for Hoist operator harness every 12 months (AW Protocol TPD 4730).
1	— Updated Section 05, Table of contents, (Editorial change) to add two pages in 05-60 - OPTIONAL EQUIPMENT (AW Protocol NDC 109G7706-001). — Updated Section 05-12 (Technical change) to add ADAS processor (AW Protocol NDC 109G7706-001). — Updated Section 05-20 para 05-20-3 (Technical change) to add RVDT and LVDT checks (AW Protocol TPD 20002654). — Updated Section 05-40 para 05-40-8 (Technical change) to add RVDT and LVDT checks (AW Protocol TPD 20002654). — Updated Section 05-60 (Technical change) to add Engine Monitoring System (ADAS) (AW Protocol NDC 109G7706-001).
2	— Updated Introduction (Technical change) to modify reference to Bollettini Tecnici (AW Protocol TPD 20005733). — Updated Section 05-00 (Technical change) to modify tolerances of Special inspection (AW Protocol TPD 20001705). — Updated Section 05-00 (Technical change) to modify para GENERAL. Removed Miscellaneous Requirements reported in the para GENERAL of each scheduled maintenance inspection (AW Protocol TPD 20005598). — Updated Section 05-60 Step 13.D. (Editorial change) to modify reference to A119/AW119MKII-MM (AW Protocol TPD 20001174).

Revision N.	Reason for update
	— Updated Section 05-12 (Technical change) to modify replacement time for External Hoist cable cutter cartridge (AW Protocol TPD 20002114). — Updated Section 05-20 Para 05-20-1 (Technical change) to add new check for gas generator at Step 6.29. (AW Protocol TPD 20005311). — Updated Section 05-40 Para 05-40-1 (Technical change) to add new check for gas generator at Step 6.29. (AW Protocol TPD 20005311). — Updated Section 05-60 (Technical update) to add new Para 16 Battery on the baggage compartment (AW Protocol NDC-109G2406-001).
3	— Updated Chapter 04 to add Bolt P/N 709-0160-57-101, Lower Half Scissor P/N 109-0134-25-103 and in the CMR Tail Rotor Hub bushing P/N 109-8131-36-101. Refer to dedicated “List of revised pages”.
4	— Updated Section 05-12 Para 05-12-00 (Technical change) to modify Replacement Time of Vibraton absorber assembly (AW Ptotocol NDC 109-MM-019). — Updated Section 05-12 Para 05-12-00 (Technical change) to add new Harness with reel P/N AGU-XXX-SERIES and P/N 1-10-6102XXYYY SERIES (AW Protocol NDC 109-0707-001).
5	— In all publication changed denomination company from Agusta to AgustaWestland. — Updated Section 05-00 Para 05-00-3 (Technical change) to add COMMON SCHEDULED MAINTENANCE CHECKS. The old Paras from 05-00-3 thru 05-00-6 are shifted (AW Protocol TPD 20008062). — Updated Section 05-00 Para 05-00-4 (Technical change) to add Special inspection at 200 Flight hours/12 months (AW Protocol NDC-109G0520-001). — Updated Section 05-20, from para 05-20-1 thru Para 05-20-6 (Technical change) to delete Para GENERAL in the table (AW Protocol TPD 20008062). — Updated Section 05-40, from para 05-40-1 thru para 05-40-14 (Technical change) to delete Para GENERAL in the table (AW Protocol TPD 20008062). — Updated Section 05-50 Para 05-50-1 (Technical change) to add new 200 flight hours/12 months inspection for Main transmission structural fwd and aft lower fittings. Subsequent paras have been shifted (AW Protocol NDC-109G0520-001). — Updated Section 05-50 Para 05-50-1 (Technical change) Step 9 Every 400 flight hours/24 months inspection to add reference to A119/AW119MKII-MM for inspection of swashplate duplex bearing (AW Protocol TPD 20008063). — Updated Section 05-70 (Editorial change) to correct text in the table (AW Protocol TPD 20007408).
6	— Updated Section 05-12 Para 05-12-00 (Technical change) to add Replacement time for CVDR underwater acoustic beacon lithium battery (AW Protocol NDC 109G3130-001). — Updated Section 05-60 Para 6 (Editorial change) to correct typing error (AW Protocol TPD 400045759).
7	— Updated Section 05-12 (Technical change) to remove Replacement Time of Harness with reel and relevant Note 8 (AW Protocol NDC 109G0255-003). — Updated Section 05-20 (Technical change) Para 05-20-6 to add new inspections 25-00 for crew and passengers safety restraints systems (AW Protocol NDC 109G0255-003). — Updated Section 05-40 (Technical change) Para 05-40-14 to add new inspections 25-00 for crew and passengers safety restraints systems (AW Protocol NDC 109G0255-003). — Updated Section 05-60 (Technical change) Step 4 to add new inspection for litter adjustable torso restraint assy and safety belt assy (AW Protocol NDC 109G0255-003).

Revision N.	Reason for update
8	- Updated Section 05-12 (Technical change) to add new Cabin fire extinguisher bottle MB2620I00251 (Vendor P/N A344) with new replacement requirement (AW Protocol NDC-109G2620-001). - Updated Section 05-50 (Technical change) to add new Special Inspection Para 7A "EVERY MONTH" for Cabin fire extinguisher bottle (AW Protocol NDC-109G2620-001).
9	Updated Section 05-60 (Editorial change) to modify cross reference of Para 13 Step D. due to shifting of paragraph in the Maintenance Manual. It was: Para 25-61-26, becomes Para 25-61B-9 (AW Protocol TPD 400059885).
10	Updated Section 05-12 (Technical change) to add new Cabin fire extinguisher bottle (AW Protocol NDC 109G2620-003).
11	Updated Chapter 04 to add Upper case assy P/N 109-0402-45-101. Refer to detailed List of revised pages (AW Protocol NDC 109-0400-015).
4th Issue	- Updated TOC and Introduction of MPM, to add new applicability code E for helicopters equipped with G1000H kit (AW Protocol NDC-109G4600-001). - Updated Chapter 04 to add new applicability code E for helicopters equipped with G1000H kit. Refer to applicable List of effective pages contained in Chapter 04 (AW Protocol NDC-109G4600-001). - Updated Section 04-30 (Editorial change) to correct cross reference to Landing gear maintenance procedure (AW Protocol TPD 400028156). - Updated Section 05-00 (Technical change) Para 05-00-4 to add new Inspection tolerances for Special Inspection Every month and Special Inspection Every 12 months (AW Protocol NDC-109G2620-001 and NDC-109G4600-001). - Updated Section 05-12 (Technical change) to add replacement time for Artex C406-N-HM battery pack (AW Protocol TPD 400059885). - Updated Section 05-12 (Technical change) to add new replacement requirement for Battery pack P/N 9230-32501-01 of new stand-by indicator (AW Protocol NDC-109G4600-001). - Updated Section 05-12 (Technical change) to modify Note 4 for the shelf life of elastomeric bushing (AW Protocol TPD 400045211). - Updated Section 05-20 (Editorial change) Para 05-20-4, 71-00 Step 1 to correct number of referenced figure (AW Protocol TP #1482/4229). - Updated Section 05-40 (Editorial change) Para 05-40-10, 71-00 Step 1 to correct number of referenced figure (AW Protocol TP #1482/4229). - Updated Section 05-50 (Editorial change) Para 05-50-1, 13 Every 1600 flight hours inspection, to correct 71-00 Step 1 for wrong referenced figure (AW Protocol TP #1482/4229). - Updated Section 05-50 (Technical change) to add new check Para 9 EVERY 12 MONTHS for Standby controls indicator (AW Protocol NDC-109G4600-001). - Updated Section 05-50 (Technical change) to add new check Para 9 EVERY 12 MONTHS to perform fuel calibration test procedure (AW Protocol NDC-109G4600-001). - Updated Section 05-50 (Technical change) Para 05-50-1 to add new Step 16 for the inspection of landing gear dampers every 300 landings (AW Protocol TPD 400028156). - Updated Section 05-60 (Technical change) Table OPTIONAL EQUIPMENT to add new Emergency Locator Transmitter (ELT) (C406-N-HM) (AW Protocol TPD 400059885). - Updated Section 05-60 (Technical change) to add new optional equipment 17 Emergency Locator Transmitter (ELT) (C406-N-HM) (AW Protocol TPD 400059885).
1	- Modified "AgustaWestland S.p.A." with "LEONARDO S.p.A." and "Agustawestland" with "Leonardo Helicopters" in all manual iaw TP #3171. - Deleted the List of effective pages and the Technical Publication Discrepancy Form page. Modified Record of Temporary Revision (ROTR) page.

Revision N.	Reason for update
	— Added "Aircraft Material Data Information" (AMDI) to page of Purchase of technical publications iaw TP #3166. — Added "Electrical Standard Practices" (09-Z/ESP-00-X A119/A109 SERIES-ESP) to page of Purchase of technical publications iaw TP #2571. — Added "Corrosion Protection & Control Publication" (A109/A119 SERIES-CPCP) to page of Purchase of technical publications iaw TP #3059. — Updated Section 05-00 to completely re-write para 05-00-4 and assign a new title, "Permitted variation of task frequencies", that is more coherent with treated subject. Consequently modified TOC of Chap 05 and Figures 05-1 and 05-2 iaw NDC 109G0255-020 (see TP #3374). — Updated Section 05-10 to include new Starter generators P/Ns iaw NDC 109G2430-003. — Updated Section 05-20 Para 05-20-3 to modify the applicability of Starter generator inspection iaw NDC 109G2430-003. — Updated Section 05-20 Para 05-20-3 to correct cross reference to add Para 32A-11-8 iaw NDC 109G0255-020 (see TP #3374). — Updated Section 05-40 Para 05-40-8 to modify the applicability of Starter generator inspection iaw NDC 109G2430-003. — Updated Section 05-40 Para 05-40-8 to correct cross reference to add Para 32A-11-8 iaw NDC 109G0255-020 (see TP #3374). — Updated Section 05-50 Para 05-50-1 to correct cross reference to add Para 32A-11-7 iaw NDC 109G0255-020 (see TP #3374). — Updated Section 05-50 Para 05-50-2 to correct cross reference to add Para 32A-11-8 iaw NDC 109G0255-020 (see TP #3374). — Updated Section 05-60 Step 16 to modify the applicability of Starter generator inspection iaw NDC 109G2430-003.
2	— Updated Introduction of MPM, to modify the applicability of code E helicopters iaw NDC-109G4600-002. Introduced configuration codes E1 and E2. — Updated Purchase of Technical Publication list to add Common Structural Repair Publication and Air Vehicle Structural Repair Publication, already present in IETP. Updated Overhaul Manual and Corrosion Protection & Control Publication codes as editorial change. Updated applicability of Wiring Diagram Manual. — Updated Introduction of Chapter 04 to modify the applicability of code E helicopters iaw NDC-109G4600-002. — Updated frontpage of Chapter 04A to better identify applicability of code E helicopters iaw NDC-109G4600-002. — Updated Section 05-50 Para 05-50-1 to modify Step 9 in order to add configuration codes iaw NDC-109G4600-002. — Updated Section 05-50 Para 05-50-1 to add new Step 17 EVERY 10000 FH for Indicating and Recording System iaw Safety Assessment 109G4600R001/02 Rev. E. — Updated Section 05-60 to add new Step 18 NVG kit (P/N 109G3360F01-101 ref: 109G3360E005) iaw NDC 109G4600-002.
3	— Updated Section 05-20, Para 05-20-3, 62-00 MAIN ROTOR to modify wording of inspection iaw TP #3084. — Updated Section 05-20, Para 05-20-4, 71-00 POWER PLANT to modify reference to Figure iaw TP #3073. — Updated Section 05-20, Para 05-20-6, 26-00 FIRE PROTECTION to modify cross reference in Step 2. iaw TP #3803. — Updated Section 05-40, Para 05-40-6, 62-00 MAIN ROTOR, to modify wording of inspection iaw TP #3084. — Updated Section 05-40, Para 05-40-10, 71-00 POWER PLANT to modify reference to Figure iaw TP #3073.

Revision N.	Reason for update
	— Updated Section 05-40, Para 05-40-14, 26-00 FIRE PROTECTION to modify cross reference in Step 2. iaw TP #3803. — Updated Section 05-50 Para 05-50-1, 64-00 TAIL ROTOR to modify cross reference iaw TP #4697. — Updated Section 05-60 to add new Step 19 220V AC Utility Socket installation Kit iaw NDC-109G2420-004. See TP #4375.
4	— Updated Section 05-60 Para 9. External hoist to modify Step J. iaw NDC-109G2520-025.
5	— Updated Section 05-50 to modify para 9 EVERY 12 MONTHS title system 34-00 STANDBY CONTROLS AND INDICATORS sub para 1. iaw NDC-109G3420-014. See TP #5415.
6	— Updated Chapter 04 to add new Section 04-20 "MANDATORY INSPECTIONS" applicable to all code system and to add Main rotor blade life extension iaw NDC-109G0255-018.

PAGE INTENTIONALLY LEFT BLANK

ROTR-1

[illegible]

PAGE INTENTIONALLY LEFT BLANK

[illegible]

PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

Chapter	Title
Introduction	
04	AIRWORTHINESS LIMITATIONS A B
04A	AIRWORTHINESS LIMITATIONS C E
04B	AIRWORTHINESS LIMITATIONS D
05	SCHEDULE/UNSCHEDULED MAINTENANCE

PAGE INTENTIONALLY LEFT BLANK

INTRODUCTION

SCOPE

This A119/A119MKII-MPM “Maintenance Planning Manual” is part of a set of maintenance publications which comprises 3 manuals:

- A119/AW119MKII-MPM “Maintenance Planning Manual”
- A119/AW119MKII-MM “Maintenance Manual”
- A119/AW119MKII-WDM “Wiring Diagram Manual”.

ARRANGEMENT

This A119/A119MKII-MPM contains the Chapter 04 “Airworthiness Limitation Section” and the Section 04-30 “Certification Maintenance Requirements” applicable to all A119 Helicopter models as specified below:

- Chapter 04 “Airworthiness Limitations” code **A** **B** applicable to A119 helicopter model.
- Chapter 04A “Airworthiness Limitations” code **C** **E** applicable to AW119MKII helicopter model.
- Chapter 04B “Airworthiness Limitations” code **D** applicable to AW119 helicopter model converted into AW119MKII helicopter model by application of B.T. 119-26.
- Chapter 05 “Schedule/Unschedule maintenance” applicable to all helicopter models.

APPLICABILITY CODE SYSTEM

Alphabetic codes (letters A thru Z, except I, O, X and Y), are used to identify configuration changes related to the helicopter serial number, as follows:

- **A** A119 Helicopter model serial number from 14003 to 14030 (**not equipped with IDS**).
- **B** A119 Helicopter model serial number from 14031 to 14700 (**equipped with IDS**).
- **C** AW119MKII Helicopter model serial number from 14701 to 14900.
- **D** A119 Helicopter model serial number from 14031 to 14700 (**converted into AW119MKII by the application of B.T. 119-26**) same as code **C** except for **Airworthiness Limitations Section**).
- **E** AW119MKII Helicopter model serial number from 14901 and subs (**equipped with G1000H or G1000H NXi**) same as code **C**.

NOTE: Within the manual, if the information is common to both G1000H and G1000H NXi configurations, **E** is shown. If the information is different between G1000H and G1000H NXi configurations:

- **E1** Is assigned to data applicable to avionic configuration G1000H only.
- **E2** Is assigned to data applicable to avionic configuration G1000H NXi only.

Where on illustrations, procedure and paragraph, no applicability code is shown, the information is applicable without exception to all helicopters.

UP-DATING

The content of this manual is subject to updating.

Variations and modifications will be introduced as the result of increase of information available, modification of aircraft and progressive extension of the maintenance operations.

Every effort is made to keep this manual current, review conferences with maintenance personnel and a constant review of maintenance and discrepancy reports assure inclusion of the latest data in the manual. However, we cannot correct an error unless we know of its existence. In this regard it is essential that you do your part by forwarding the attached "Technical Publications Discrepancy Form" giving details of the discrepancy.

PURCHASE OF TECHNICAL PUBLICATIONS

The present manual forms part of a set of publication applicable to the A119 helicopter model. This set comprises:

Rotor Flight Manual - IDS	A119-RFM-IDS
Rotor Flight Manual	A119-RFM - Basic
Rotor Flight Manual	AW119MKII-RFM
Rotor Flight Manual	AW119MKII-G1000H-RFM
Maintenance Planning Manual	A119/AW119MKII-MPM
Maintenance Manual	A119/AW119MKII-MM
Wiring Diagram Manual	A119/AW119MKII-WDM (Valid for Helicopters up to S/N 14900)
Wiring Diagram Manual	AW119MKII-G1000H-WDM (Valid for Helicopters S/N 14901 & subs equipped with G1000H or G1000H NXi)
Overhaul Manual	A119/A109 SERIES-OM
Illustrated Parts Catalog	A119/AW119MKII-IPC
Common Structural Repair Publication	CSRP-A-CSRP-00-X
Air Vehicle Structural Repair Publication	3C-A-ASRP-00-X
Pictorial Tools Usage Manual	A119/A109 SERIES-PTUM
Electrical Standard Practices	09-Z/ESP-00-X A119/A109 SERIES-ESP
Corrosion Protection & Control Publication	AW119/A109 SERIES-CPCP
Aircraft Material Data Information	AMDI
Bollettini Tecnici	A119/AW119MKII-B.T.
Information Letters	---

BOLLETTINI TECNICI

Please refer to the LEONARDO HELICOPTERS website:

<https://leonardo.agustawestland.com/>

for the updated list of Bollettini Tecnici.

NOTE: It is the operator's responsibility to check the BT status with continuity.

CHAPTER 04

AIRWORTHINESS LIMITATIONS

APPLICABLE TO A119/AW119MKII HELICOPTER MODELS

F.A.A. APPROVED

PAGE INTENTIONALLY LEFT BLANK

LIST OF EFFECTIVE PAGES

INSERT LATEST REVISED PAGES. DESTROY SUPERSEDED PAGES.

NOTE: The portion of page affected by the revision is indicated by a black vertical line in the outer margin and the approval revision number is printed in the lower margin.

CAUTION: Upon receipt of the second and subsequent revisions to these Chapter 04, personnel responsible for maintaining it in current status will ascertain that all previous revisions have been received and incorporated. Action should be taken promptly if these Chapter 04 are incomplete.

CHAPTER 04 APPLICABLE TO HELICOPTERS CODE A B

Dates of original and revised pages are:

First issue	0	28/04/2000	Revision	6	15/02/2005	Revision	4	17/06/2011
Revision	1	28/04/2000	Revision	7	14/01/2008	Revision	5	24/07/2012
Revision	2	02/01/2001	Second issue	0	14/01/2008	Revision	6	Not Issued
Revision	3	14/05/2004	Revision	1	Not Issued	Revision	7	Not Issued
Revision	4	14/05/2004	Revision	2	Not Issued	Revision	8	02/12/2021
Revision	5	14/05/2004	Revision	3	20/06/2011	Revision		

CHAPTER 04A APPLICABLE TO HELICOPTERS CODE C E

Dates of original and revised pages are:

First issue	0	22/10/2007	Revision	3	20/06/2011	Revision	7	06/12/2020
Second issue	0	14/01/2008	Revision	4	17/06/2011	Revision	8	02/12/2021
Revision	1	Not Issued	Revision	5	24/07/2012			
Revision	2	Not Issued	Revision	6	15/12/2015			

CHAPTER 04B APPLICABLE TO HELICOPTERS CODE D

Dates of original and revised pages are:

First issue	0	Not Issued	Revision	3	20/06/2011	Revision	7	Not Issued
Second issue	0	14/01/2008	Revision	4	17/06/2011	Revision	8	02/12/2021
Revision	1	Not Issued	Revision	5	24/07/2012			
Revision	2	Not Issued	Revision	6	Not Issued			

SECTION 04-20 Mandatory Inspections.

Dates of original and revised pages are:

First issue	0	Not Issued	Revision	3	Not Issued	Revision	7	Not Issued
Second issue	0	Not Issued	Revision	4	Not Issued	Revision	8	02/12/2021
Revision	1	Not Issued	Revision	5	Not Issued			
Revision	2	Not Issued	Revision	6	Not Issued			

SECTION 04-30 Certification Maintenance Requirements.

Dates of original and revised pages are:

First issue	0	Not Issued	Revision	3	Not Issued	Revision	7	Not Issued
Second issue	0	Not Issued	Revision	4	Not Issued	Revision	8	Not Issued
Revision	1	16/12/2008	Revision	5	Not Issued			
Revision	2	05/07/2011	Revision	6	15/12/2015			

Total number of pages in these chapters are 46 consisting of the following:

Page No.	Revision No.	Page No.	Revision No.
Title Page	8	04B-Title Page 1	8
Title Page-Blank	0	04B-Title Page 2	0
A and B	8	04B-i and 04B-ii	0
Intro-i	8	04B-iii	8
Intro-ii	0	04B-iv	0
Chapter 04		04B-1	0
04-Title Page 1	8	04B-2 thru 04B-4	8
04-Title Page 2	0	Section 04-20	
04-i and 04-ii	0	04-20 Title Page 1	8
04-iii	8	04-20 Title Page 2	8
04-iv	0	04-20-i thru 04-20-iv	8
04-1	5	04-20-01 and 04-20-02	8
04-2	4	Section 04-30	
04-3	8	04-30 Title Page 1	6
04-4	0	04-30 Title Page 2	1
Chapter 04A		04-30-i and 04-30-ii	1
04A-Title Page 1	8	04-30-iii	8
04A-Title Page 2	6	04-30-iv	1
04A-i and 04A-ii	6	04-30-01 and 04-30-02	1
04A-iii	8	04-30-03	6
04A-iv	6	04-30-04	1
04A-1	6		
04A-2 and 04A-3	8		
04A-4	6		

INTRODUCTION

GENERAL

This Chapter contains:

- Chapter 04 “Airworthiness Limitations” code **A** **B** applicable to A119 helicopter model.
- Chapter 04A “Airworthiness Limitations” code **C** **E** applicable to AW119MKII helicopter model.
- Chapter 04B “Airworthiness Limitations” code **D** applicable to A119 helicopter model converted into AW119MKII helicopter model by the retrofit kit P/N 109-0824-09-101.
- Chapter 04-20 “Mandatory inspections”.
- Chapter 04-30 “Certification Maintenance Requirements”.

APPLICABILITY CODE SYSTEM

The following code system applies:

- **A** **A119** helicopter model serial number from 14003 to 14030 (not equipped with IDS).
- **B** **A119** helicopter model serial number from 14031 to 14700 (equipped with IDS).
- **C** **AW119MKII** helicopter model serial number from 14701 to 14900.
- **D** **A119** helicopter model serial number from 14031 to 14700 converted into AW119MKII by the retrofit kit P/N 109-0824-09-101
- **E** **AW119MKII** helicopter model serial number from 14901 and subs (equipped with G1000H or G1000H NXi) same as code **C**.

PAGE INTENTIONALLY LEFT BLANK

CHAPTER 04

AIRWORTHINESS LIMITATIONS

APPLICABLE TO A119 HELICOPTERS MODELS

- **A** A119 HELICOPTER NOT EQUIPPED WITH IDS
- **B** A119 HELICOPTER EQUIPPED WITH IDS

PAGE INTENTIONALLY LEFT BLANK

CHAPTER 04 - AIRWORTHINESS LIMITATIONS

TABLE OF CONTENTS

Sect/Para	Page
LIST OF REVISED PAGES	04-iii
04-00 AIRWORTHINESS LIMITATIONS SECTION	04-1

PAGE INTENTIONALLY LEFT BLANK

LIST OF REVISED PAGES

Revision No.	Subject	F.A.A. Approved
—	First issue	28-04-2000
1	Revised pages A, 04-iii/04-iv, 04-1 and 04-2. Added page 04-3/04-4.	28-04-2000
2	Revised pages A, 04-iii, 04-1, 04-2 and 04-3.	02-01-2001
3	Revised pages A, 04-iii, 04-2 and 04-3.	14-05-2004
4	Revised pages A, 04-iii, 04-2 and 04-3.	14-05-2004
5	Revised pages A, 04-iii, 04-1 thru 04-3.	14-05-2004
6	Revised pages A, 04-iii, 04-2 and 04-3.	15-02-2005
7	Revised pages A, 04-iii, 04-1 thru 04-3	14-01-2008
—	Second issue	14-01-2008
1	Not Changed.	Not Issued
2	Not Changed.	Not Issued
3	Revised pages 04-Title Page 1, A and B, 04-iii, 04-2.	20-06-2011
4	Revised pages 04-Title Page 1, A and B, 04-iii, 04-2.	17-06-2011
5	Revised pages 04-Title Page 1, A and B, 04- iii, 04-3.	EASA on behalf FAA Dated 24 July 2012
6	Not Changed.	Not Issued
7	Not Changed.	Not Issued
8	Revised pages 04-Title page 1, A and B, 04-iii, 04-3.	Approval No. 10077822 dated 02 December 2021 (Acceptance i.a.w. FAA-EASA TIP Rev.6, Section III, §3.2 - Design change classified as Basic)

PAGE INTENTIONALLY LEFT BLANK

SECTION 04-00

AIRWORTHINESS LIMITATIONS SECTION

The Airworthiness Limitations Section is F.A.A. approved and variations must also be approved.

Some Agusta Model A109/A119/AW119MKII retirement life parts, with the same part number, are interchangeable among the various A109/A119/AW119MKII models. The retirement life for a particular part, even with the same part number, may be different depending upon which A109/A119/AW119MKII model the part is installed on. The retirement life of parts which have been interchanged among models must use the lowest retirement life listed for any model on which that part has been installed.

The parts listed in this section must be mandatorily retired from service when the indicated retirement life is reached.

When retiring from service (if the life limit is reached or for other reasons) the parts contained in the airworthiness limitations schedule, all the non-serialized standard parts which connect the identified assembly/component shall be also replaced.

If not otherwise specified, the retirement lives are based on the following assumptions:

- 600 landings in 100 flight hours, including 400 rotor Start-Stop cycles
- 1200 external load cycles in 100 flight hours
- 320 rescue hoist lifts in 100 flight hours

NOTE: Only for helicopters that install tail rotor blades P/N 709-0160-48-101:
800 landings in 100 flying hours, including 400 rotor start-stop cycles are permitted assuming a maximum of 600 landings with external load cycle (cargo hook, rescue hoist lift and fire fighting operation) and 200 more landings with no external load cycle.

All retirement lives are expressed in Flight Hours (FH), if not otherwise specified.

The retirement lives of some parts are expressed in "Landings" because their life is dependent upon the rotor start-stop cycles and the helicopter ground-air-ground cycles.

Flight hours are defined as those hours accumulated from take-off to landing.

The retirement life specified for any given part number contained in this section applies to the indicated and to all successive dash numbers for that item, if not otherwise specified.

Any mission profile using more cycles per hour than those listed above requires the retirement lives to be recalculated and approved by F.A.A..

AIRWORTHINESS LIMITATIONS SCHEDULE

Part Number	Denomination	Retirement life
MAIN ROTOR HUB AND BLADES		
709-0104-01-101	Blade	15000 FH
109-0111-03-109	Hub	100000 landings (see note 4)
109-0111-04-101	Elastomeric bearing	120000 landings (see notes 1 and 4)
TAIL ROTOR HUB AND BLADES		
109-8132-01-111	Blade	1000 FH
109-8131-07-1	Retention strap assy	7200 landings (see note 4)
109-8131-08-1	Strap pin	20000 landings (see note 4)
109-8131-06-1	Strap plug	20000 landings (see note 4)
109-0131-06-105/107	Hub assy	12000 landings (see note 4)
109-8131-09-1	Bolt, retention strap	20000 landings (see note 4)
109-8131-29-101	Grip assy	12000 landings (see note 4)
709-0160-48-101	Blade	100000 landings (see note 4)
709-0160V01-101	Elastomeric bushing	See note 3
709-0160-47-101	Bolt	20000 landings (see note 4)
709-0160-57-101	Bolt	49000 Landings
109-0135-16-101	Bearing housing assy	35000 FH
109-0135-03-101	Lever assy	48000 FH
MAIN ROTOR CONTROLS		
109-0110-42-124/125/126	Servo actuator	27000 FH
109-0110-05-5	Support swashplate	11000 FH
109-0134-10-101	Half scissors	30000 FH
109-0134-25-103	Lower half shissor	56800 FH
TAIL ROTOR CONTROLS		
109-0135-02-101	Control Rod	1000FH
FUSELAGE		
109-0210-13-201	Stabilizer	9000 FH
109-0324-60-101	Aft support structure assy	40000 landings
TRANSMISSION		
109-0405-10-3	Planetary carrier	19000 FH
109-0405-76-107	Main rotor shaft	18000 FH
109-0407-66-101	Antitorque plate	100000 landings (see note 4)
109-0415-10-101	Engine to transmission driveshaft	26000 FH
109-0325-03-113	Rod, aft	5900 FH
109-0425-77-101	Tail rotor driveshaft	70000 FH
109-0425-75-101	Tail rotor flange	51000 FH

AIRWORTHINESS LIMITATIONS SCHEDULE (Cont.d)

Part Number	Denomination	Retirement life
109-0425-49-101	Adapter	53000 FH
109-0402-24-9	Cover assy	10000 FH
109-0402-45-101	Upper case assy	30000 FH
109-0325-02-3	Rod, fwd	38000 FH
109-0325-08-109	Fitting, lower	76000 FH
SKID LANDING GEAR		
109-0570-04-101	Fwd crosstube assembly	13000 landings
109-0570-05-107	Aft crosstube assembly	14000 landings
109-0570-09-103	Lower saddle, aft crosstube	See note 5
EXTERNAL HOIST		
BL-12606-1	Cable	1500 rescue lifts or 4 years whichever occurs first (see note 2)

NOTE 1: Every 50 flight hours inspect elastomeric bearing. Refer to Section 04-20.

NOTE 2: Lift definition: a "lift" is defined as an unreeling and recovery of the cable with a load attached to the hook, regardless of the length of cable that is deployed/recovered. An unreeling/recovery of the cable with no load on the hook is not considered to be a "lift". Any operation where a load is applied for half the operation, i.e. unreeling or recovery, must be considered as a lift.

NOTE 3: Every 200 flight hours inspect elastomeric bushing. Refer to Section 04-20.

NOTE 4: For the components whose retirement life was expressed in flight hours as required by Airworthiness Limitation Section First Issue Revision 6 and it is now expressed in landings, in order to convert the total accumulated time in equivalent landings, the following criteria must be applied:

1. If the number of landings is available:
 - a. Calculate equivalent landings as follows:
Equivalent landings = accumulated landings
 - b. Record equivalent landings in the log cards of the component;
 - c. Continue calculating the accumulated life in landings based on the helicopter usage.
2. If the number of landings is not available:
 - a. Calculate equivalent landings as follows:
Equivalent landings = Flight hours x 4
Example TR strap pin cumulated flight hours = 800
Equivalent landings = 800 x 4 = 3200
 - b. Record equivalent landings in the log cards of the component;
 - c. Continue calculating the accumulated life in landings based on the helicopter usage.

NOTE 5: Inspect every 300 landings. Refer to Section 04-20.

PAGE INTENTIONALLY LEFT BLANK

CHAPTER 04A

AIRWORTHINESS LIMITATIONS

APPLICABLE TO AW119MKII HELICOPTER MODEL

- **C** AW119MKII HELICOPTER NOT EQUIPPED WITH G1000H OR G1000H NXI
- **E** AW119MKII HELICOPTER EQUIPPED WITH G1000H OR G1000H NXI



PAGE INTENTIONALLY LEFT BLANK

CHAPTER 04A - AIRWORTHINESS LIMITATIONS

TABLE OF CONTENTS

Sect/Para	Page
LIST OF REVISED PAGES	04A-iii
04A-00 AIRWORTHINESS LIMITATIONS SECTION	04A-1



PAGE INTENTIONALLY LEFT BLANK

LIST OF REVISED PAGES

Revision No.	Subject	F.A.A. Approved
—	First issue	Type Certificate Data Sheet (TCDS) No. H7EU dated 22-10-2007
—	Second issue	14-01-2008
1	Not Changed.	Not Issued
2	Not Changed.	Not Issued
3	Revised pages 04A-Title Page 1, A and B, 04A-iii, 04A-2.	20-06-2011
4	Revised pages 04A-Title Page 1, A and B, 04A-iii, 04A-2.	17-06-2011
5	Revised pages 04A-Title Page 1, A and B, 04A-iii, 04A-2.	EASA on behalf FAA Dated 24 July 2012
6	Revised pages 04A-Title page 1 and 04A-Title page 2, A and B, 04A-i thru 04A-iv, 04A-1 thru 04A-4.	EASA on behalf FAA Dated 15 December 2015
7	Revised pages 04A-Title page 1 and 04A-iii.	EASA on behalf FAA Dated 06 December 2020
8	Revised pages 04A-Title page 1, A and B, 04A-iii, 04A-2 and 04A-3.	Approval No. 10077822 dated 02 December 2021 (Acceptance i.a.w. FAA-EASA TIP Rev.6, Section III, §3.2 - Design change classified as Basic)



PAGE INTENTIONALLY LEFT BLANK

SECTION 04A-00

AIRWORTHINESS LIMITATIONS SECTION

The Airworthiness Limitations Section is F.A.A. approved and variations must also be approved.

Some Agusta Model A109/A119/AW119MKII retirement life parts, with the same part number, are interchangeable among the various A109/A119/AW119MKII models. The retirement life for a particular part, even with the same part number, may be different depending upon which A109/A119/AW119MKII model the part is installed on. The retirement life of parts which have been interchanged among models must use the lowest retirement life listed for any model on which that part has been installed.

The parts listed in this section must be mandatorily retired from service when the indicated retirement life is reached.

When retiring from service (if the life limit is reached or for other reasons) the parts contained in the airworthiness limitations schedule, all the non-serialized standard parts which connect the identified assembly/component shall be also replaced.

If not otherwise specified, the retirement lives are based on the following assumptions:

- 600 landings in 100 flight hours, including 400 rotor Start-Stop cycles
- 1200 external load cycles in 100 flight hours
- 320 rescue hoist lifts in 100 flight hours

All retirement lives are expressed in Flight Hours (FH), if not otherwise specified.

Flight hours are defined as those hours accumulated from take-off to landing.

The retirement lives of some parts are expressed in "Landings" because their life is dependent upon the rotor start-stop cycles and the helicopter ground-air-ground cycles.

The retirement life specified for any given part number contained in this section applies to the indicated and to all successive dash numbers for that item, if not otherwise specified.

Any mission profile using more cycles per hour than those listed above requires the retirement lives to be recalculated and approved by F.A.A.

AIRWORTHINESS LIMITATIONS SCHEDULE

Part Number	Denomination	Retirement life
MAIN ROTOR HUB AND BLADES		
709-0104-01-111	Blade	14000 FH (see note 5)
109-0111-03-109/-113	Hub	64000 Landings
109-0111-04-101	Elastomeric bearing	46000 Landings (see note 1)
TAIL ROTOR HUB AND BLADES		
709-0160-48-101	Blade	100000 Landings
109-8131-07-1	Retention strap assy	7200 Landings
109-8131-08-1	Strap pin	20000 Landings
109-8131-06-1	Strap plug	20000 Landings
109-0131-06-105/107	Hub assy	12000 Landings
109-0040-51-103	Servo actuator	54000 FH
709-0160V01-101	Elastomeric bushing	See note 2
709-0160-47-101	Bolt, retention strap	20000 Landings
709-0160-57-101	Bolt, retention strap	49000 Landings
109-0135-16-101	Bearing housing assy	11000 FH
109-0135-03-101	Lever assy	37000 FH
109-0135-05-101	Scissor, half	22000 FH
MAIN ROTOR CONTROLS		
109-0110-42-124/125/126	Servo actuator	27000 FH
109-0110-05-5	Swashplate support	5600 FH
109-0134-10-105	Lower rotating scissor	30000 FH
109-0134-10-101	Half scissors	30000 FH
109-0134-25-103	Lower half shissor	56800 FH
TAIL ROTOR CONTROLS		
109-0135-02-101	Control Rod	6000 FH
FUSELAGE		
109-0210-13-201	Elevator	7900 FH
109-0324-60-105	Aft support structure assy	34000 FH
109-0324-52-105/106	Ribs	47000 Landings
109-0324-51-101	Crossbeam	56000 Landings
MAIN TRANSMISSION, MAIN TRANSMISSION SUPPORT AND TAIL ROTOR (90°) GEARBOX		
109-0407-66-101	Antitorque plate	100000 Landings
109-0402-24-9	Upper case assy	10000 FH (see note 3)
109-0402-45-101	Upper case assy	30000 FH
109-0405-10-3	Planet gear	36000 FH (see note 3)
109-0405-76-107	Main rotor shaft assy	13000 FH
109-0415-10-101	Engine to transmission driveshaft	30000 FH
109-0325-03-113	Rod, aft	12000 FH (see note 3)
109-0425-77-101	Tail rotor shaft assy	39000 FH (See note 3)
109-0425-75-101	Tail rotor flange	32000 FH (See note 3)
109-0425-49-101	Adapter	32000 FH (See note 3)

AIRWORTHINESS LIMITATIONS SCHEDULE (Cont'd)

Part Number	Denomination	Retirement life
109-0325-02-3	Rod, fwd	18000 FH (see note 3)
109-0325-08-109	Lower fitting	50000 FH
SKID LANDING GEAR		
109-0570-69-103	Skid, landing assy	41000 landings
EXTERNAL HOIST		
BL-12606-1	Cable	1500 Rescue lifts or 4 years, whichever comes first (see note 4)

NOTE 1: Every 50 FH inspect elastomeric bearing. Refer to Section 04-20.

NOTE 2: Every 200 FH inspect elastomeric bushing. Refer to Section 04-20.

NOTE 3: **Cargo hook operation penalty.** For this part, a life penalty must be mandatorily applied whenever a cargo hook operation is performed. The penalty of this part is listed in the table below. To calculate the accumulate life, multiply the flight hours by the penalty coefficient of the table below. The flight hours must be calculated from take-off to landing. The cargo hook operations must be in accordance with the assumption of maximum 12 external load cycles in one hour.
Example: for the upper case assembly: flight time = 2 hours, number of cargo hook operations = between 1 and 12 per flight hour. Total accumulated flight hours = 2 x 1.5 = 3.

Cargo hook operation - Life penalty coefficient

Part Number	Denomination	Life penalty coefficient
109-0402-24-9	Upper case assy	1.5
109-0325-02-3	Rod, fwd	2
109-0325-03-113	Rod, aft	2.5
109-0425-77-101	Tail rotor shaft assy	3.5
109-0425-75-101	Tail rotor flange	3.5
109-0425-49-101	Adapter	3.5
109-0405-10-3	Planet gear	2

NOTE 4: **Rescue hoist lift definition.** A lift is defined as an unreeling and recovery of the cable with a load attached to the hook, independently of the length of the cable that is deployed/recovered. An unreeling/recovery of the cable with no load on the hook is not considered to be a "lift". Any operation where a load is applied for half the operation, i.e. unreeling or recovery, must be considered as a lift.

NOTE 5: Every 130 FH (after 12000 FH), inspect main rotor blade tip cap for de-bondings. Refer to Section 04-20.



PAGE INTENTIONALLY LEFT BLANK

CHAPTER 04B

AIRWORTHINESS LIMITATIONS

**APPLICABLE TO A119 HELICOPTERS EQUIPPED WITH
INTEGRATED DISPLAY SYSTEM (IDS)
CONVERTED INTO AW119MKII BY THE
RETROFIT KIT P/N 109-0824-09-101**



PAGE INTENTIONALLY LEFT BLANK

CHAPTER 04B - AIRWORTHINESS LIMITATIONS

TABLE OF CONTENTS

Sect/Para	Page
LIST OF REVISED PAGES	04B-iii
04B-00 AIRWORTHINESS LIMITATIONS SECTION	04B-1



PAGE INTENTIONALLY LEFT BLANK

LIST OF REVISED PAGES

Revision No.	Subject	F.A.A. Approved
—	First issue	Not Issued
—	Second issue	14-01-2008
1	Not Changed.	Not Issued
2	Not Changed.	Not Issued
3	Revised pages 04B-Title Page 1, A and B, 04B-iii, 04B-2.	20-06-2011
4	Revised pages 04B-Title Page 1, A and B, 04B-iii, 04B-2.	17-06-2011
5	Revised pages 04B-Title Page 1, A and B, 04B-iii, 04B-2.	EASA on behalf FAA Dated 24 July 2012
6	Not Changed.	Not Issued
7	Not Changed.	Not Issued
8	Revised pages 04B-Title page 1, A and B, 04B-iii, 04B-2 thru 04B-4.	Approval No. 10077822 dated 02 December 2021 (Acceptance i.a.w. FAA-EASA TIP Rev.6, Section III, §3.2 - Design change classified as Basic)



PAGE INTENTIONALLY LEFT BLANK

SECTION 04B-00

AIRWORTHINESS LIMITATIONS SECTION

The Airworthiness Limitations Section is F.A.A. approved and variations must also be approved.

Some Agusta Model A109/A119/AW119MKII retirement life parts, with the same part number, are interchangeable among the various A109/A119/AW119MKII models. The retirement life for a particular part, even with the same part number, may be different depending upon which A109/A119/AW119MKII model the part is installed on. The retirement life of parts which have been interchanged among models must use the lowest retirement life listed for any model on which that part has been installed.

The parts listed in this section must be mandatorily retired from service when the indicated retirement life is reached.

When retiring from service (if the life limit is reached or for other reasons) the parts contained in the airworthiness limitations schedule, all the non-serialized standard parts which connect the identified assembly/component shall be also replaced.

If not otherwise specified, the retirement lives are based on the following assumptions:

- 600 landings in 100 flight hours, including 400 rotor Start-Stop cycles
- 1200 external load cycles in 100 flight hours
- 320 rescue hoist lifts in 100 flight hours

All retirement lives are expressed in Flight Hours (FH), if not otherwise specified.

Flight hours are defined as those hours accumulated from take-off to landing.

The retirement lives of some parts are expressed in "Landings" because their life is dependent upon the rotor start-stop cycles and the helicopter ground-air-ground cycles.

The retirement life specified for any given part number contained in this section applies to the indicated and to all successive dash numbers for that item, if not otherwise specified.

Any mission profile using more cycles per hour than those listed above requires the retirement lives to be recalculated and approved by F.A.A.

**AIRWORTHINESS LIMITATIONS SCHEDULE**

Part Number	Denomination	Retirement life
MAIN ROTOR HUB AND BLADES		
709-0104-01-111	Blade	14000 FH (see note 7)
109-0111-03-109/-113	Hub	64000 Landings
109-0111-04-101	Elastomeric bearing	46000 Landings (see note 1)
TAIL ROTOR HUB AND BLADES		
709-0160-48-101	Blade	100000 Landings
109-8131-07-1	Retention strap assy	7200 Landings
109-8131-08-1	Strap pin	20000 Landings
109-8131-06-1	Strap plug	20000 Landings
109-0131-06-105/107	Hub assy	12000 Landings
109-0040-51-103	Servo actuator	54000 FH
709-0160V01-101	Elastomeric bushing	See note 2
709-0160-47-101	Bolt, retention strap	20000 Landings
709-0160-57-101	Bolt, retention strap	49000 Landings
109-0135-16-101	Bearing housing assy	11000 FH
109-0135-03-101	Lever assy	37000 FH
109-0135-05-101	Scissor, half	22000 FH
MAIN ROTOR CONTROLS		
109-0110-42-124/125/126	Servo actuator	27000 FH
109-0110-05-5	Swashplate support	5600 FH
109-0134-10-101	Lower rotating scissor	30000 FH
109-0134-25-103	Lower half scissor	56800 FH
TAIL ROTOR CONTROLS		
109-0135-02-101	Control Rod	6000 FH (see note 5)
FUSELAGE		
109-0210-13-201	Elevator	7900 FH
109-0324-60-105	Aft support structure assy	34000 FH (see notes 5 and 6)
109-0324-52-105/106	Ribs	47000 Landings
109-0324-51-101	Crossbeam	56000 Landings
MAIN TRANSMISSION, MAIN TRANSMISSION SUPPORT AND TAIL ROTOR (90°) GEARBOX		
109-0407-66-101	Antitorque plate	100000 Landings
109-0402-24-9	Upper case assy	10000 FH (see note 3)
109-0402-45-101	Upper case assy	30000 FH
109-0405-10-3	Planet gear	36000 FH (see notes 3 and 5)
109-0405-76-107	Main rotor shaft assy	13000 FH
109-0415-10-101	Engine to transmission driveshaft	30000 FH (see note 5)
109-0325-03-113	Rod, aft	12000 FH (see notes 3 and 5)

AIRWORTHINESS LIMITATIONS SCHEDULE (Cont'd)

Part Number	Denomination	Retirement life
109-0425-77-101	Tail rotor shaft assy	39000 FH (See note 3)
109-0425-75-101	Tail rotor flange	32000 FH (See note 3)
109-0425-49-101	Adapter	32000 FH (See note 3)
109-0325-02-3	Rod, fwd	18000 FH (see note 3)
109-0325-08-109	Lower fitting	50000 FH
SKID LANDING GEAR		
109-0570-69-103	Skid, landing assy	41000 Landings
EXTERNAL HOIST		
BL-12606-1	Cable	1500 Rescue lifts or 4 years, whichever comes first (see note 4)

NOTE 1: Every 50 FH inspect elastomeric bearing. Ref. to Section 04-20.

NOTE 2: Every 200 FH inspect elastomeric bushing. Refer to Section 04-20.

NOTE 3: **Cargo hook operation penalty.** For this part a life penalty must be mandatorily applied whenever a cargo hook operation is performed. The penalty of this part is listed in the table below. To calculate the accumulated life, multiply the flight hours by the penalty coefficient of the table below. The flight hours must be calculated from take-off to landing. The cargo hook operations must be in accordance with the assumption of maximum 12 external load cycles in one hour.

Example: for the upper case assembly: flight time = 2 hours, number of cargo hook operations = between 1 and 12 per flight hour. Total accumulated flight hours = $2 \times 1.5 = 3$

Cargo hook operation - Life penalty coefficient

Part Number	Denomination	Life penalty coefficient
109-0402-24-9	Upper case assy	1.5
109-0325-02-3	Rod, fwd	2
109-0325-03-113	Rod, aft	2.5
109-0425-77-101	Tail rotor shaft assy	3.5
109-0425-75-101	Tail rotor flange	3.5
109-0425-49-101	Adapter	3.5
109-0405-10-3	Planet gear	2

NOTE 4: **Rescue hoist lift definition.** A "lift" is defined as an unreeling and recovery of the cable with a load attached to the hook, independent of the length of the cable that is deployed/recovered. An unreeling/recovery of the cable with no load on the hook is not considered to be a "lift". Any operations where a load is applied for half the operation, i.e. unreeling or recovery must be considered as a lift.

NOTE 5: The following retirement life applies to the components listed below until their replacement.

Part number	Denomination	Retirement life	Note
109-0135-02-101	Control rod	1000 FH	See also note 3 for cargo hook operation penalty
109-0405-10-3	Planet gear	19000 FH	
109-0325-03-113	Rod, aft	5900 FH	
109-0415-10-101	Engine to transmission driveshaft	26000 FH	
109-0324-60-105	Aft support structure assy	32000 FH	

This note must not be applied if the component has been replaced with a 0.0 flight hours component.

If the component has been installed on other A109/A119/AW119MKII models, the general criteria for the interchangeable parts among the various A109/A119/AW119MKII models must be applied.

NOTE 6: For the aft support structure assy P/N 109-0324-60-105 whose retirement life was expressed in landings as required by the original Airworthiness Limitation Section Chapter 04 code **A** and code **B** up to First Issue Revision 7 and it is now expressed in flight hours, in order to convert the total accumulated landings in equivalent flight hours, the following criteria must be applied:

- Calculate equivalent flight hours as follows:

$$\text{Equivalent flight hours} = \text{Landings} / 4$$
- Record equivalent flight hours in the log cards of the component
- Continue calculating the accumulated life in flight hours based on the helicopter usage.

NOTE 7: Every 130 FH (after 12000 FH), inspect main rotor blade tip cap for de-bondings. Refer to Section 04-20.

SECTION 04-20

MANDATORY INSPECTIONS

**APPLICABLE TO A119/AW119MKII
HELICOPTER MODELS**

F.A.A. APPROVED

PAGE INTENTIONALLY LEFT BLANK

SECTION 04-20

MANDATORY INSPECTION

TABLE OF CONTENTS

Sect/Para	Page
LIST OF REVISED PAGES	04-20-iii
04-20 MANDATORY INSPECTIONS.....	04-20-01

PAGE INTENTIONALLY LEFT BLANK

LIST OF REVISED PAGES

Revision No.	Subject	E.A.S.A. Approved
—	First issue	Not Issued
—	Second issue	Not Issued
1	-	Not Issued
2	-	Not Issued
3	-	Not Issued
4	-	Not Issued
5	-	Not Issued
6	-	Not Issued
7	-	Not Issued
8	Revised pages A and B, added 04-20 Title Page 1, 04-20 Title Page 2, 04-20-i thru 04-20-iv, 04-20-01 and 04-20-02.	Approval No. 10077822 dated 02 December 2021 (Acceptance i.a.w. FAA-EASA TIP Rev.6, Section III, §3.2 - Design change classified as Basic)

PAGE INTENTIONALLY LEFT BLANK

SECTION 04-20

MANDATORY INSPECTIONS

The parts listed in this section must be mandatorily inspected when the indicated interval is reached. Each column of the table has a heading that gives the data that follows:

Number (No) column

This column gives the system plus a number to identify each listed component.

Part column

This column gives the description and the Part Number of the part. The mandatory inspection specified for any given part number contained in this section applies to the indicated and to all successive dash numbers for that item, if not otherwise specified.

Task column

This column gives the description of the work to do.

Interval column

Flying hours are defined as those hours accumulated from take-off to landing. Inspection intervals are mandatory and cannot be increased. Inspection intervals can be anticipated provided that the next inspections intervals do not exceed the values mandated in this chapter. Example: Task interval: 200 FH. If task is performed at 185 FH, next task must be performed within 200 FH from the previous compliance.

Reference column

This column shows the paragraph which provides the instructions to do the inspection.

Applicability column

This column gives the applicability to the helicopter code. The explanation of the code is reported in the Introduction section (intro-i) of this chapter 04.

No	Part	Task	Interval	Reference	Applicability
32-01	Lower saddle, aft crosstube 109-0570-09-103	Inspect the aft crosstube lower saddle.	300 Landings	32-11-8	A B
62-01	Elastomeric bearing 109-0111-04-101 (Note 1)	Inspect bearing for cracking, separation of the shims, blowing, rubber powder and/or crumbs.	50 FH	62-21-52	A B C D E
62-02	Blade 709-0104-01-111 (Note 2)	Inspect the main rotor blade tip cap for de-bondings.	130 FH (after 12000 FH)	62-11A-23 A.(8). 62-11A-23 A.(9).	C D E

No	Part	Task	Interval	Reference	Applicability
64-01	Elastomeric bushing 709-0160V01-101	Inspect elastomeric bushing for cracking, blowing, rubber powder and/or crumbs.	200 FH	64A-11-8D	A B C D E

- NOTE 1:** Retirement life: refer to Section 04-00, 04A-00 and 04B-00.
- NOTE 2:** Retirement life: 14000 FH. Refer to Section 04A-00 and 04B-00.

SECTION 04-30

CERTIFICATION MAINTENANCE REQUIREMENTS

**APPLICABLE TO A119/AW119MKII
HELICOPTER MODELS**

F.A.A. APPROVED

PAGE INTENTIONALLY LEFT BLANK

SECTION 04-30

CERTIFICATION MAINTENANCE REQUIREMENTS

TABLE OF CONTENTS

Sect/Para	Page
LIST OF REVISED PAGES	04-30-iii
04-30 CERTIFICATION MAINTENANCE REQUIREMENTS	04-30-01

PAGE INTENTIONALLY LEFT BLANK

LIST OF REVISED PAGES

Revision No.	Subject	F.A.A. Approved
—	First issue	Not Issued
—	Second issue	Not Issued
1	Added pages 04-30 Title Page 1 and 04-30 Title Page 2, 04-30-i thru 04-30-iv and 04-30-01 thru 04-30-04.	Letter No EASA D (2008) MMA/LNI/L08.5484 dated 16/12/2008
2	Revised pages 04-30 Title Page 1, A and B, 04-30-iii, 04-30-03.	Letter No EASA D (2011) MMA/SSI/60005594 dated 05-07-2011
3	—	Not Issued
4	—	Not Issued
5	—	Not Issued
6	Revised pages 04-30 Title Page 1, 04-30-iii and 04-30-03.	EASA on behalf FAA Dated 15 December 2015
7	—	Not Issued
8	—	Not Issued

PAGE INTENTIONALLY LEFT BLANK

SECTION 04-30

CERTIFICATION MAINTENANCE REQUIREMENTS

A Certification Maintenance Requirement is a mandatory inspection/preventive maintenance task arising from the certification process. This section summarizes, in tabular form, the A119/AW119MKII helicopter components which required preventive maintenance arising from the certification process. The table is divided into the following columns:

- ITEM: Identifies the system or equipment which are affected by the CMRs.
- TASK: Shows a description of the inspection/task to do.
- CMR PERIODICITY (Flight hours): Shows the hourly/calendar interval the inspection/task must be done.

The periodicities quoted for each CMR are the maximum intervals permitted between each recommended task. Although these periodicities may not be escalated, it is possible that they could be rationalized (i.e. a lower interval selected) within Chapter 05-20, 05-30, 05-40, 05-50 and 05-60 of this document.

The CMRs listed below shall not be changed or deleted without the approval of the aircraft manufacturer and Certification Authority.

ITEM	TASK	C.M.R. PERIODICITY (Flight Hours)
ENVIRONMENTAL CONTROL - CHAPTER 21		
Air heating external duct P/N NAS1375A08SM196.	General visual inspection of external duct for damage and condition.	Whenever the maintenance activity is performed in duct surrounding area.
Air heating hot air delivery pipe P/N 109-0680-14-101 and P/N 109-0680-15-101.	Detailed visual inspection of hot air delivery pipe for damage and condition (removal of external duct required).	2 Years
EQUIPMENT/FURNISHING - CHAPTER 25		
Oxygen system P/N 109-0811-76-147.	Detailed visual inspection of Oxygen Cylinder (bottle), retaining clamps, mounting brackets and associated bolts for damage, condition and security of attachment, as appropriate. Examine cylinder mounting brackets to ascertain that they do not damage the cylinder in any way. Ref. to para 25-65-12 and Structural Composites Industries Technical Bulletin Special Report #2438.00 Rev. B dated 08/31/00 or later.	1 Year

ITEM	TASK	C.M.R. PERIODICITY (Flight Hours)
Oxygen cylinder (bottle) P/N 1270152-3	Hydrostatic test and interior detailed inspection of oxygen cylinder (bottle). Ref. to Structural Composites Industries Technical Bulletin Special Report #2438.00 Rev. B dated 08/31/00 or later.	3 Years
Cargo hook installation P/N 109-0810-31-139	Operational check of isolation relays for closed circuit failures.	2000
Safety hook installation P/N 109-0811-75-115	Operational check of isolation relays for closed circuit failures.	2000
Hoist assembly P/N 109-0900-62-205/-207	Visual check of the bumper assembly for condition and damage, and to ensure that the hook and bumper assy are correctly homed when the system is not in use. Check bearings for freedom of rotation.	Daily
Hoist assembly P/N 109-0900-62-205/-207	General visual inspection of the full length of cable for damage and condition. (Ref. to para 25-91-7) and to ensure that the cable cotter pin is correctly installed.	Soonest of: (a) After the last use of the day (b) Every 50 FH (c) Every week
Hoist assembly P/N 109-0900-62-205/-207	Operational check of the cable foul circuit and of the intermediate up/down and full-in/full-out limit switches. (Ref. to para 25-91-6).	Soonest of: (a) After the last use of the day (b) Every 50 FH (c) Every week
External hoist installation P/N 109-0812-68-101/-103/-115/-117	Operational check of the flap (arm) and push button switch circuits. (Ref. to para 25-91-8).	400
FUEL - CHAPTER 28		
Impending bypass switch P/N 42D218	Operational check. (Ref. to para 28-41-13).	25
Impending bypass switch P/N 42D218	Functional check to verify operation at 1.4 PSID. (Ref. to para 28-41-14).	300
LH tank Jet Pump P/N 109-0611-53-103. (and associated pipe union)	Operational check. (Ref. to para 28-41-12).	600
Forward probe P/N 109-0900-54 with low level sensor and Fuel Control Unit P/N 109-0900-54-207/307 (and associated connectors).	Operational check. (Ref. to para 28-41-12 and 28-41-16).	600

ITEM	TASK	C.M.R. PERIODICITY (Flight Hours)
Flame arrestors P/N 109-0900-47-101.	Discard. (Ref. to para 28-00-7).	4 Years
LANDING GEAR - CHAPTER 32		
Landing gear damper P/N 109-0570-32-107.	Operational check to verify freedom of movement of piston (Ref. to Sect. 05-50 para 16).	300 Landings
Landing gear damper P/N 109-0570-32-107.	Restoration to include operational check to verify freedom of movement of piston and check of oil level (removal required). (Ref. to Sect. 12-20-31 and para 32-12-7).	1200 Landings
MAIN ROTOR - CHAPTER 62		
Main rotor damper P/N 109-0112-05-105.	Remove and return the damper to Agusta for inspection according to MDT 03-001.	900
Main rotor damper P/N 109-0112-05-107.	Remove and return the damper to Agusta for inspection according to MDT 08-001.	1200
MAIN ROTOR DRIVES - CHAPTER 63		
Rotor brake P/N 109-0506-56-103.	Detailed visual inspection of the rotor brake assembly disc for damage and condition.	Following any maintenance activity in the area of the rotor brake assembly.
TAIL ROTOR - CHAPTER 64		
Tail rotor hub bushing P/N 109-0131-31-103.	Detailed inspection for damage and condition (removal required). Ref. to para 64-21-10 or 64A-21-15.	100
Tail rotor hub bushing P/N 109-8131-36-101.	Detailed inspection for damage and condition (removal required). Ref. to para 64A-21-15.	100
IGNITION SYSTEM - CHAPTER 74		
Engine starting. Igniter plugs P/N 3032096 (and associated leads)	Operational check. (Ref. to para 74-21-7).	600
ENGINE CONTROLS - CHAPTER 76		
Engine Controls P/N 109-0010-81-101/-201 P/N 109-0010-81-105/-205	Operational check of MEC and MOS.	2000 (See note)

NOTE: This periodicity does not apply if the subject check is performed as part of the Engine pre-start check and starting procedure.

PAGE INTENTIONALLY LEFT BLANK

CHAPTER 05

SCHEDULE/UNSCHEDULED MAINTENANCE

PAGE INTENTIONALLY LEFT BLANK

CHAPTER 05 - SCHEDULE/UNSCHEDULED MAINTENANCE

TABLE OF CONTENTS

Section	Title	Page
05-00 - GENERAL		05-1
05-00-1.	Description	05-1
05-00-2.	Inspection programs	05-1
05-00-3.	Common scheduled maintenance checks	05-2
05-00-4.	Permitted variation of tasks frequencies	05-4
05-00-5.	Glossary	05-7
05-00-6.	Abbreviations	05-7
05-00-7.	Chapter 05 organization	05-8
05-10 - COMPONENT OVERHAUL SCHEDULE		05-9
05-12 - MISCELLANEOUS REPLACEMENT SCHEDULE		05-11
05-20 - SCHEDULED MAINTENANCE CHECKS - EXTENDED INSPECTION PROGRAM		05-13
05-20-1.	Basic 50 flight hours/60 days inspection	05-13
05-20-2.	200 flight hours inspection	05-19
05-20-3.	400 flight hours inspection	05-21
05-20-4.	800 flight hours inspection	05-25
05-20-5.	3200 flight hours inspection	05-27
05-20-6.	12 months inspection	05-29
05-40 - SCHEDULED MAINTENANCE CHECKS - PROGRESSIVE INSPECTION PROGRAM		05-33
05-40-1.	Basic 50 flight hours/60 days inspection	05-33
05-40-2.	Progressive Inspection program 200 hours inspection - Phase A	05-39
05-40-3.	Progressive Inspection program 200 hours inspection - Phase B	05-41
05-40-4.	Progressive Inspection program 200 hours inspection - Phase C	05-43
05-40-5.	Progressive Inspection program 200 hours inspection - Phase D	05-45
05-40-6.	Progressive Inspection program 400 hours inspection - Phase 1	05-47
05-40-7.	Progressive Inspection program 400 hours inspection - Phase 2	05-49
05-40-8.	Progressive Inspection program 400 hours inspection - Phase 3	05-51
05-40-9.	Progressive Inspection program 400 hours inspection - Phase 4	05-53
05-40-10.	Progressive Inspection program 800 hours inspection	05-55
05-40-11.	Progressive Inspection program 3200 hours inspection	05-57
05-40-12.	Progressive Inspection program 12 months inspection - Phase I	05-59
05-40-13.	Progressive Inspection program 12 months inspection - Phase II	05-61
05-40-14.	Progressive Inspection program 12 months inspection - Phase III	05-63
05-50 - UNSCHEDULED MAINTENANCE CHECKS		05-65
05-50-1.	Special inspections	05-65
05-50-2.	Conditional inspections	05-71
05-60 - OPTIONAL EQUIPMENT		05-79
05-70 - LUBRICATION AND SERVICING		05-123

LIST OF ILLUSTRATIONS

	Page
■ Figure 05-1. Deleted.....	05-3
Figure 05-2. Inspection scheduling programs	05-4

SECTION 05-00

GENERAL

05-00-1. DESCRIPTION

This Chapter contains the inspection requirements concerning the A119/AW119MKII helicopters equipped with PRATT & WHITNEY PT6B-37A engine, but does not contain inspection procedures. Such procedures will be found in A119/AW119MKII-MM.

The inspections are presented in typographic form suitable for the local reproduction in such a way as to be used by personnel to perform helicopter inspections and to constitute, if desired, a data collection. The inspections must be accomplished by qualified personnel to ascertain the airworthiness of the helicopter. Eventual discrepancies must be eliminated before flight.

Prior to inspection, open or remove as necessary, fairings, cowlings panels and inspection doors.

Flight airworthiness must be determined by inspection of all parts to check the general condition, security of attachment, cleanliness, freedom of movement and security, in accordance with the operational inspection rules and instructions contained in A119/AW119MKII-MM.

The airworthiness of the helicopter is determined by acceptance of all parts with quality standard aircraft practice and specified instructions contained in the pertinent Chapters of this manual.

For acceptance requirements and limits refer to A119/AW119MKII-MM and/or A109/AW119 SERIES-OM.

NOTE: The inspection and maintenance of the engine, electronic equipment, instruments, etc. must be performed in accordance with the instructions and procedures required by relevant manufacturers and in accordance with approved maintenance schedule.

NOTE: The inspection and overhaul schedule requirements contained in this Chapter must not be exceeded without explicit approval.

NOTE: When operating under particular environmental conditions (contaminated ambient, near the sea or special missions) it is prerogative and responsibility of the operator to increase or intensify the prescribed inspections as necessary to assure safe operation.

NOTE: During maintenance procedure, for identification and handling of the critical parts, refer to Section 20-30 of A119/AW119MKII-MM.

05-00-2. INSPECTION PROGRAMS

The operator may choose from two inspection programs, as indicated in figure 05-1, designed to provide flexibility for maximum utilization of the helicopter and to most suit the operator's needs. The inspection programs are identified as follows:

NOTE: For the inspection requirements concerning the optional equipment refer to Section 05-60.

1. Extended Inspection Program (refer to Section 05-20). The scheduled inspections consist of a basic 50 flight hours/60 days inspection, 200 hours inspection, 400 hours inspection, 800 hours inspection, 3200 hours inspection and 12 months inspection.
2. Progressive Inspection Program (refer to Section 05-40). The scheduled inspections consist of a basic 50 flight hours/60 days inspection, progressive 200 hours inspection (divided into four phases), progressive 400 hours inspection (divided into four phases), progressive 800 hours inspection, progressive 3200 hours inspection and progressive 12 months inspection divided in three phases.

The operator may decide to interrupt one program and revert to the other provided the following is accomplished:

- Changing from extended to progressive inspection program:
 - (Helicopters with less than 200 hours) Perform 50hours/60 days inspection, the 200 hours inspection and the 12 months inspection of the extended maintenance program and continue with the new program.
 - (Helicopters above 200 hours) Perform 50hours/60 days inspection, the 200 hours, the 400 hours inspection and the 12 months inspection of the extended maintenance program and continue with the new program.
- Changing from progressive to extended inspection program:
 - (Helicopters with less than 400 hours) Perform 200 hours inspection and the 12 months inspection and continue with the new program.
 - (Helicopters above 400 hours) Perform 200 hours inspection, 400 hours inspection and the 12 months inspection and continue with the new program.

This chapter includes:

A. Time Limits:

- Permissible inspection interval tolerances.
- Component overhaul schedule.
- Miscellaneous replacement Schedule.

B. Scheduled Maintenance Inspection:

- Extended inspection program.
- Progressive inspection program.

C. Unschedule Maintenance Checks:

- Special inspection
- Conditional inspection.

D. Optional equipment scheduled / unscheduled inspections:

- Special inspection.
- Conditional inspection.

05-00-3. COMMON SCHEDULED MAINTENANCE CHECKS

This Section gives the date necessary to do the common scheduled maintenance checks on the helicopter. The common-scheduled maintenance checks are applicable to:

- Extended Inspection Program - Section 05-20
- Progressive Inspection Program - Section 05-40
- Unscheduled Maintenance Checks - Section 05-50

The common scheduled maintenance checks includes:

- Expiry of components' retirement life and inspection in accordance with Chapter 04
- Components' overhaul interval in accordance with Section 05-10.

- Non flight critical parts replacement time in accordance with Section 05-12.
- Servicing in accordance with Section 05-70.
- Perform applicable optional equipment inspections in accordance with Section 05-60.
- Other inspection requirements.
- Check log book for recorded discrepancies. Correct any fault that could affect safety of operations.

Refer to the latest issue of Engine Maintenance Manual for the scheduled and unscheduled maintenance requirements applicable to the Pratt & Whitney Canada PT6B-37A engine.

NOTE 1: With respect to the Rescue Hoist Assembly, there is a set of tasks for which Operators shall obtain the Official Component Maintenance Publication from the OEM (BREEZE EASTERN) and must be certified to a suitable level. For reference of the Operator, a copy of the Component Maintenance Publication is included in the A109/A119-CMP (CD-ROM only), for information only.

NOTE 2: With respect to the Cargo Hooks, there is a set of tasks for which Operators shall obtain the Official Component Maintenance Publication from the OEM (Onboard System) and must be certified to a suitable level. For reference of the Operator, a copy of the Component Maintenance Publication is included in the A109/A119-CMP (CD-ROM only), for information only.

05-00-4. PERMITTED VARIATION OF TASKS FREQUENCIES

To allow an acceptable level of flexibility in the maintenance planning and in order to compensate for unpredictable situations (e.g. unforeseen increase in the helicopter utilization rate), a set of permitted variations associated to task intervals can be utilized.

A variation can be applied only when the minimum inspection interval prescribed by MPM Ch.05 cannot be complied with due to circumstances which could not reasonably have been foreseen by the Operator or by its contracted Maintenance Organization.

The permitted variation is a range after the nominal task interval identified using the following scheme:

- If a task is executed within the permitted variation it is considered as accomplished at its nominal interval; therefore the next task deadline and permitted variation will be calculated starting from such nominal value.
- "If the task is executed outside the permitted variation (early execution), the subsequent due time and permitted variation shall be calculated starting from its actual completion.

The accomplishment of a task at an interval greater than its nominal value plus the allowed positive variation is not authorized by Leonardo Helicopter Division and shall be verified and approved by the competent National Aviation Authority.

In any case all permitted variations are not cumulative and cannot be assumed as maintenance planning tool.

PERMITTED VARIATION (SECTION 05-20, 05-40, 05-50 AND 05-70)**Items Controlled by Flying Hours**

NOMINAL TASK INTERVAL	MAXIMUM VARIATION OF PRESCRIBED PERIOD
Below 50FH	: No variation permitted
From 50FH (included) up to 400FH (excluded)	: + 10 FH
From 400FH (included) up to 3200FH (excluded)	: + 30 FH
More than 3200 FH	: + 60 FH

Items Controlled by Calendar Time

NOMINAL TASK INTERVAL	MAXIMUM VARIATION OF PRESCRIBED PERIOD
Below 2 months	: No variation permitted
From 2 months (included) up to 12 months (excluded)	: + 10 days
12 months (included) or more	: + 2 months

Items Controlled by more than one limit

For items controlled by more than 1 limit, i.e. items controlled by flying hours and calendar time, all limits shall be considered. The task shall be performed when the most restrictive one is reached.

Practical examples:

1. Task Interval 50FH
Permitted variation: + 10FH
 - If the task is accomplished between 50 FH and 60 FH its next execution is due at 100 FH (helicopter total time) + 10 FH
 - If the task is anticipated at 40 FH its next execution is due at 90 FH (helicopter total time) + 10 FH
2. Task Interval 400 FH
Permitted variation: + 30FH
 - If the task is accomplished between 400 FH and 430 FH its next execution is due at 800 FH (helicopter total time) + 30 FH
 - If the task is anticipated at 250 FH its next execution is due at 650 FH (helicopter total time) + 30 FH
3. Task Interval 12 Months
Permitted variation: + 2 Months
 - If the task is accomplished between 12 and 14 months its next execution is due after 12 months + 2 months from the nominal due date
 - If the task is anticipated at 10 months its next execution is due after 12 months + 2 months

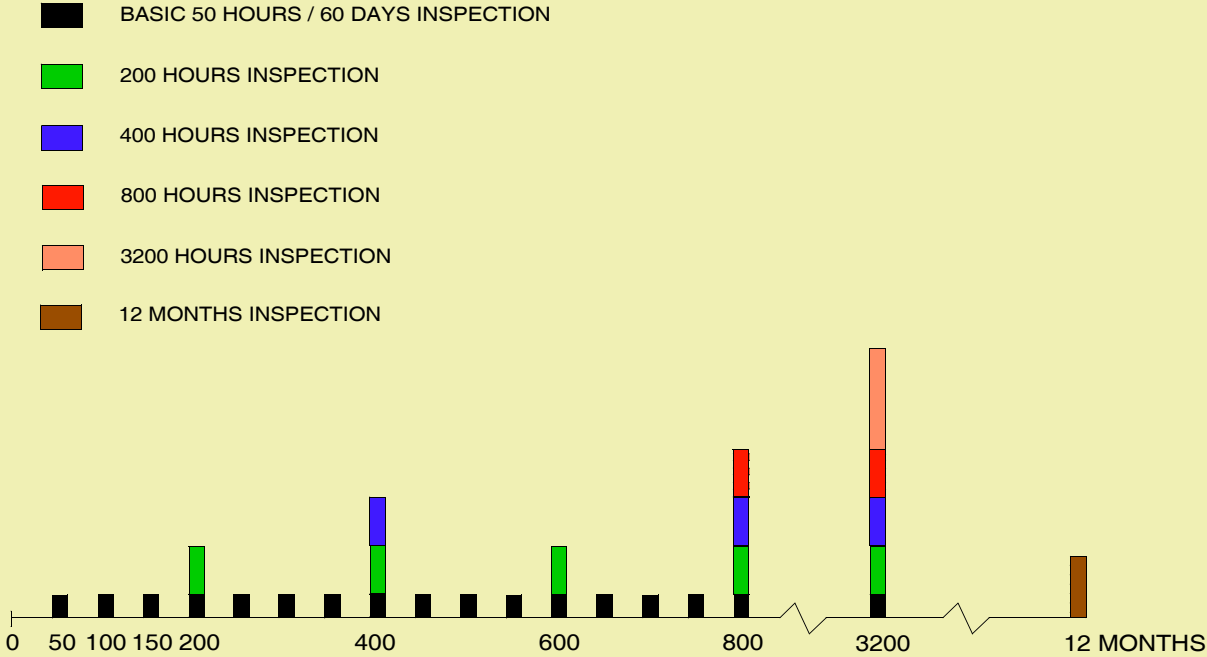
EXCLUSION CASES

1. Unless otherwise specified, permitted variations DO NOT apply to:
 - Airworthiness Directive

- National Requirements
 - Life limited part intervals specified by a manufacturer or identified in aircraft or engine Type Certification Data Sheets
 - Airworthiness Limitations, including CMRs
 - Discard Tasks
 - Overhaul tasks
 - Special Inspections whose interval requirement is not expressed only in FH or calendar parameters (e.g. "At each engine removal/installation", "At each blade retention bolt removal", "Prior to the first flight of the day", "Between 5-10 FH (new a/c or after reinstallation of major components)", "At pilot doors removal/Installations", "At each transmission removal/Installation", "Every 2400 hours and subsequently after 1200 hours of component operation", ...).
2. Following tasks for which a specific task permitted variation is identified:
- "Indication/recording system **E**" and "Standby controls and indicators" Special Inspection 12 months (Para 05-50-1 Step 9): no variation allowed
 - Servicing of main rotor dampers every 400 hours (Section 05-70) : no variation allowed
 - Lubrication of MR blades every 7days (Section 05-70): + 3 days variation allowed
 - Servicing of Landing Gear dampers (Section 05-70): + 100 landings variation allowed.

Figure 05-1 Deleted

LEGEND KEYED TO EXTENDED INSPECTION PROGRAM (REFER TO SECTION 05-30)



05-00-5. GLOSSARY

For a correct understanding of the inspection requirements contained in this Chapter, the meaning of the following terms are defined:

DENT	A point where the surface of a body is deformed by a concavity.
CONDITION	Term used to determine if the item under examination presents external damage which could jeopardize its safe operation.
DAMAGE	Failure, malfunction, inconvenience. The term is always used to cover its most extensive meaning.
DISTORTIONS	Shape alteration. The term is always used to cover its most extensive meaning.
SECURED	Term used to determine if the item under examination is correctly attached; mainly referred to doors and disconnectable items.
CRACK	A partial fracture of an item.
INSPECT	Observe, examine.
SECURITY	Term used to determine if the item under examination is connected to relative attachment area.
WEAR	Mechanical deterioration due to extensive use. The term is used to indicate excessive consumption.
FLIGHT HOURS	Flight hours are counted from take off to landing.

05-00-6. ABBREVIATIONS

The following list contains the abbreviations used in this Chapter.

<u>ABBREVIATION</u>	<u>MEANING</u>
a.c.	Alternating current
A.F.C.S.	Automatic flight control system
CMR	Certification Maintenance Requirements
CMM	Component Maintenance Manual
d.c.	Direct current
IDS	Integrated Display System
LH	Left hand
MEC	Mechanical Engine Control
MFR	Manufacturer
MOS	Manual Override System
No.	Number
P/N	Part Number
RH	Right hand
Flt hrs	flight hours
SAS	Stability augmentation system

05-00-7. CHAPTER 05 ORGANIZATION

This Chapter is consists of the following sections:

SECTION 05-10	Component Overhauled Schedule
SECTION 05-12	Miscellaneous Replacement Schedule
SECTION 05-20-1	Basic 50 Flight hours/60 days
SECTION 05-20-2	200 Flight hours
SECTION 05-20-3	400 Flight hours
SECTION 05-20-4	800 Flight hours
SECTION 05-20-5	3200 Flight hours
SECTION 05-20-6	12 months
SECTION 05-40-1	Basic 50 Flight hours/60 days
SECTION 05-40-2	Progressive 200 Flight hours (Phase A)
SECTION 05-40-3	Progressive 200 Flight hours (Phase B)
SECTION 05-40-4	Progressive 200 Flight hours (Phase C)
SECTION 05-40-5	Progressive 200 Flight hours (Phase D)
SECTION 05-40-6	Progressive 400 Flight hours (Phase 1)
SECTION 05-40-7	Progressive 400 Flight hours (Phase 2)
SECTION 05-40-8	Progressive 400 Flight hours (Phase 3)
SECTION 05-40-9	Progressive 400 Flight hours (Phase 4)
SECTION 05-40-10	Progressive 800 Flight hours
SECTION 05-40-11	3200 Flight hours
SECTION 05-40-12	12 Months (Phase I)
SECTION 05-40-13	12 Months (Phase II)
SECTION 05-40-14	12 Months (Phase III)
SECTION 05-50-1	Special Inspections
SECTION 05-50-2	Conditional Inspections
SECTION 05-60	Optional Equipment
SECTION 05-70	Lubrication and Servicing

SECTION 05-10

COMPONENT OVERHAUL SCHEDULE

The following schedule summarizes, in tabular form, the A119/AW119MKII helicopter components to be submitted to overhaul, and the relevant overhaul intervals.

NOTE: The overhaul interval specified for any given part number contained in this overhaul schedule applies to indicated and all successive dash numbers.

Part Number	Denomination	Overhaul interval (Flight hours)	Tolerance (Flight hours)
109-0400-05-103	Main transmission assembly	4800	60
109-0440-06-101	Tail rotor (90°) gearbox assembly	4800	60
109-0110-42-124/-125/-126	Main rotor servo actuator assembly	1800	30
109-0040-51-103	Tail rotor servo actuator assembly	1800	30
200SGL129Q	Starter generator	1000	30
200SGL129Q-2	Starter generator	1000	30
200-216-00	Cargo Hook assy	See note 1	30 hours/3 months
109-0705V03-107	Cargo Hook assy	See note 1	30 hours/3 months
528-010-01	Cargo Hook (secondary)	See note 1	30 hours/3 months
109-0705V03-105	Cargo Hook (secondary)	See note 1	30 hours/3 months
109-0010-81-101	Pilot collective stick assembly	6000	80
109-0010-81-105	Co-pilot collective stick assembly	6000	80
109-0631-82-101	Droop compensator control cable assembly	30000	
109-0900-62-205/-207	External hoist assembly	See note 2	100 cycles/3 months
109-0840-05-101	Engine Air Intake Particle Separator	See note 3	

NOTE 1: Send for overhaul every 1000 hours of external load operations or 5 years, whichever comes first. "Hours of external load operations" is defined as the time in which a helicopter is engaged in external load operations (with load on hook).
An external load operation hour "h" is counted as "2 x h" in the following cases:
- sand and dust condition,
- or Logging application.

NOTE 2: 2000 External Hoist Cycle or 5 years whichever comes first. A cycle is defined as an unreeling and recovery of the cable with a load attached to the hook, independently of the length of the cable that is deployed/recovered. An unreeling/recovering of the cable with no load on the hook is not considered to be a "cycle". Any operation where a load is applied for half the operation, i.e. unreeling or recovery, must be considered as a cycle.

NOTE 3: Send to Leonardo Helicopters for overhaul every 10 years.

PAGE INTENTIONALLY LEFT BLANK

SECTION 05-12

MISCELLANEOUS REPLACEMENT SCHEDULE

This section contains the recommended replacement schedule for all non flight critical parts that as such do not represent an airworthiness limitation.

Some Leonardo Helicopters Model A109/A119/AW119MKII parts presented in this section, with the same part number, are interchangeable among the various A109/A119/AW119MKII models. The replacement schedule for a particular part, even with the same part number, may be different depending upon which A109/A119/AW119MKII model the part is installed on. The replacement schedule of parts that have been interchanged among models must use the lowest discard time listed for any model on which that part has been installed.

The replacement schedule specified for any given part number contained in this section applies to indicated and all successive dash numbers for that item unless otherwise specified.

When retiring from service the parts contained in this section, the relative standard parts have also to be retired from service.

Replacement time is expressed in Flight Hours unless specified otherwise.

ITEM	PART NUMBER	REPLACEMENT TIME (Flight Hours)
EBC-502 H ELT battery package	GS-52	Note 1
Artex C406-2HM battery pack Artex C406-N-HM battery pack	452-0133	Note 5
Cabin fire extinguisher bottle	A072A02 or AW003ZE02	Note 2
Cabin fire extinguisher bottle	MB2620I00251 (Vendor P/N A344)	Note 10
Oxygen bottle	1270152-3	Note 6
Vibration Absorber Assembly	109-0823-29-105 (LHS) & -106 (RHS)	3200
External Hoist cable cutter cartridge	109-0900-62-501	Note 3
Elastomeric bushing	709-0160V01-101	Note 4
Hoist operator harness	A114A01	Note 7
ADAS Processor	DAAS-A-010-1	Note 8
CVDR underwater acoustic beacon lithium battery	NEDA Type 1604A	Note 9
L3 ESI-2000 battery package	9230-32501-01	Note 11

NOTE 1: Refer to EBC-502H ELT CMM.

NOTE 2: 10 years from date of manufacturing on bottle label.

NOTE 3: 5 years from installation or 9 years from manufacture whichever comes first. The date of manufacture can be found in the lot number on the container on the cartridge. Refer to CMM for the interpretation of the date of manufacture coding.

NOTE 4: Shelf life is 5 years from manufacture. The life applies also to elastomeric bushings installed on the blades or on hub and blade assembly stored as spare parts.

NOTE 5: 5 years from date (month) of shipment from Artex. For conditional replacements due to specific events, refer to Artex C406-2HM ELT or Artex C406-N-HM CMM.

NOTE 6: Replace every 15 years.

NOTE 7: 3 years from installation or 10 years from manufacture whichever comes first.

NOTE 8: 10 years from installation send to Manufacturer.

NOTE 9: 6 years. The underwater locator device operation is guaranteed for at least 30 days within 6 years of standby condition. The replacement of the lithium battery must be performed by the manufacturer of the acoustic beacon.

NOTE 10: 6 years from the date of manufacture.

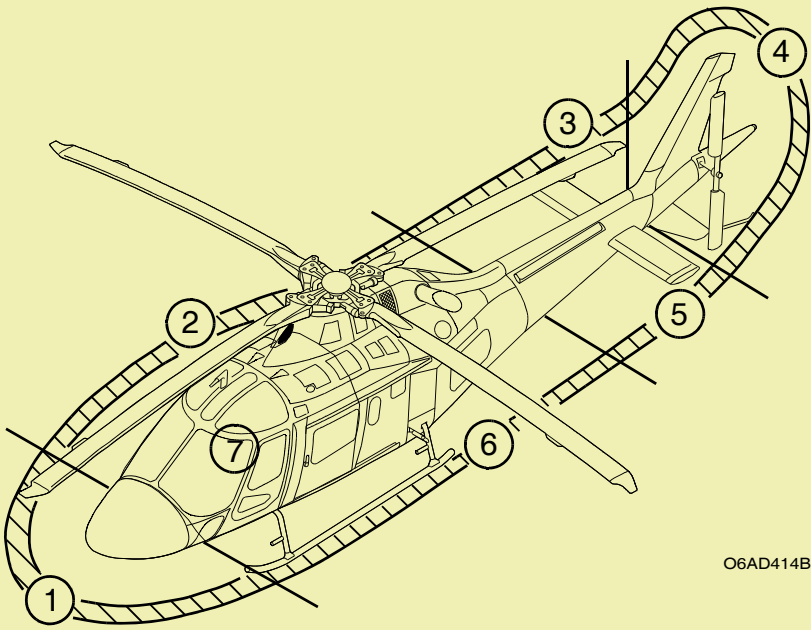
NOTE 11: 5 years from the date of manufacture.

SECTION 05-20

SCHEDULED MAINTENANCE CHECKS

EXTENDED INSPECTION PROGRAM

05-20-1. BASIC 50 FLIGHT HOURS/60 DAYS INSPECTIONS

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
<i>Perform the 50 flight hours/60 days inspection every 50 hours of flight operation or after 60 calendar days, whichever occurs first.</i>  O6AD414B AREA No. 1 : Helicopter nose AREA No. 2 : Fuselage - RH side AREA No. 3 : Tail boom - RH side AREA No. 4 : Fins, 90° gearbox, tail rotor, tail skid AREA No. 5 : Tail boom - LH side AREA No. 6 : Fuselage - LH side AREA No. 7 : Cabin interior	

EXTENDED INSPECTION PROGRAM (50 HOURS/60 DAYS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
1. HELICOPTER NOSE	
1. Battery and relative mount attachments for condition and security. Vent lines for condition and obstruction	
2. Nose compartment electrical/avionic components, relative mounts and floor attachment area for condition, cracks and security.	
3. Ventilation air intake screen and ducts for condition.	
2. FUSELAGE - RH SIDE	
1. SAS pitch and roll actuators for unusual play, condition and security; electrical connections for condition and security.	
2. Fuel system drain lines and valves for leaks.	
3. Landing skid for damage, condition and forward and rear saddles connecting skid to crossbeams for sealing integrity.	
4. Landing skid damper for condition and leaks. Support for condition.	
5. Rear crosstube and central support for condition and security (visible parts).	
6. Forward crosstube and fuselage attaching clamps for condition and security.	
7. Main rotor grips (2 places) for condition.	
8. Main rotor elastomeric bearings for separation or loss of bearing elements, eventual blowing and/or rubber extruding and absence of oil or grease; if contaminated ref. to Para 62-21-50 for cleaning.	
9. Check interrupter and magnetic pick-up for condition and security (provision for main rotor balance and track).	
10. Main rotor dampers (2 places) for condition, security, unusual play of bearings and correct fluid level.	
11. Ground jumpers between pitch control lever (inside grip) and damper and between damper and attachment bracket to hub for condition.	
12. Main rotor pitch change links for condition, security, corrosion and fretting of the spherical bearings, loss of part of the liner and unusual play (check axial play by moving the pitch link by hand and the radial play by rotating the blade along its pitch axis and by acting from the tip cap area).	
13. Swashplate upper and lower boots for condition, integrity and absence of grease on external surfaces.	
14. Main rotor hub and blades (2 places) for condition, damage and cleanliness.	
15. Main rotor damper fittings (2 places) for condition, unusual play and cracks in the area of the attachment point to the hub.	
16. Main transmission and accessories for condition, security and leaks of lubricant.	

EXTENDED INSPECTION PROGRAM (50 HOURS/60 DAYS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
17. Engine to transmission drive shaft (visible part) for condition and security of attaching hardware. Check bolts attaching shaft flange to the engine and to the main transmission for integrity of slippage marks.	
18. Visible parts of flight controls, levers and supports for condition and security.	
19. Main rotor servo actuator (1 place) for condition, security and leaks. Inspect bleed hole for leaks, lower spherical bearing for looseness and upper bearing for abnormal play.	
20. Forward and aft engine supports and rods for condition and security.	
21. Engine exhaust duct for condition, security and cracks.	
22. Ventilation air intake screen and ducts for condition.	
23. Main rotor hub cover for condition and security.	
24. Swashplate and rotating scissor for condition, security and unusual play. Ref. to para 62-31-9; in case of doubt ref. to para 62-31-9A.	
25. Flap and drop restrainers for condition, freedom of movement and integrity of lock-wire. Inspect floating ring and droop stop plates for condition and check that grease is present in contact area.	
26. Hydraulic pump for leaks.	
27. Fuel tank sump cover for condition and security.	
28. Anticollision light for condition, security and cracks.	
3. TAIL BOOM AND STABILIZER- RH SIDE	
1. Tail boom exterior (pay particular attention to tail boom and fuselage attachment areas) and stabilizer for cracks, dents, missing and/or loose rivets and screws.	
2. Position and anticollision lights for condition, security and cracks.	
4. FINS, 90° GEARBOX, TAIL ROTOR, TAIL SKID	
1. External fuselage for cracks, dents, missing and/or loose rivets and screws.	
2. Tail rotor hub and blades for condition, contamination of oil/grease, security and freedom of flapping. Flap stop bumpers and boots for condition and damage. Tail rotor hub for unusual play along flap axis. Tail rotor blades for condition, scratches and dents.	
3. Tail rotor pitch change mechanism for condition, security and unusual play.	
4. Tail rotor (90°) gearbox for condition, security, oil leaks.	
5. TAIL BOOM AND STABILIZER - LH SIDE	
1. Tail rotor drive shafts for condition, security, proper bonding of balancing weights and rings in contact with dampers.	

EXTENDED INSPECTION PROGRAM (50 HOURS/60 DAYS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
2. Tail rotor drive shaft bearing for condition and excessive grease leakage. In case excessive grease leakage is detected inspect for roughness to rotation.	
3. Tail rotor drive shaft Thomas couplings for condition and cracks of visible surfaces.	
4. Tail rotor drive shaft dampers for condition and freedom of movement.	
5. Tail boom exterior (pay particular attention to tail boom and fuselage attachment areas) and stabilizer for cracks, dents, missing and/or loose rivets and screws.	
6. Position lights for condition, security and cracks.	
6. FUSELAGE - LH SIDE	
1. Fuel system drain lines and valves for leaks.	
2. Landing skid for damage, condition and forward and rear saddles connecting skid to crossbeams for sealing integrity.	
3. Rear crosstube and central support for condition and security (visible parts).	
4. Landing skid damper for condition and leaks. Support for condition.	
5. Forward crosstube and fuselage attaching clamps for condition and security.	
6. Main rotor grips (2 places) for condition.	
7. Flap and drop restrainers for condition, freedom of movement and integrity of lock-wire. Inspect floating ring and droop stop plates for condition and check that grease is present in contact area.	
8. Main rotor dampers (2 places) for condition, security, unusual play of bearings and correct fluid level.	
9. Ground jumpers between pitch control lever (inside grip) and damper and between damper and attachment bracket to hub for condition (2 places).	
10. Main rotor pitch change links (2 places) for condition, security, corrosion and fretting of the spherical bearings, loss of part of the liner and unusual play (check axial play by moving the pitch link by hand and the radial play by rotating the blade along its pitch axis and by acting from the tip cap area).	
11. Swashplate upper and lower boots for condition, integrity and absence of grease on external surfaces.	
12. Main rotor damper fittings (2 places) for condition, unusual play and cracks in the area of the attachment point to the hub.	
13. Fan and oil cooler for condition and security.	
14. Transmission to fan drive shaft for condition, security and freedom of axial movement.	
15. Main transmission and accessories for condition, security and leaks of lubricant.	
16. Visible parts of flight controls, levers and supports for condition and security.	

EXTENDED INSPECTION PROGRAM (50 HOURS/60 DAYS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
17. Forward and aft engine supports and rods for condition and security.	
18. Engine exhaust duct for condition, security and cracks.	
19. Ventilation air intake screen and ducts for condition.	
20. Main rotor hub cover for condition and security.	
21. Swashplate and rotating scissor for condition, security and unusual play. Ref. to para 62-31-9; in case of doubt ref. to para 62-31-9A.	
22. Main rotor hub and blades (2 places) for condition, damage and cleanliness.	
23. Main rotor servo actuator (2 places) for condition, security and leaks. Inspect bleed hole for leaks, lower spherical bearing for looseness and upper bearing for abnormal play.	
24. Hydraulic pump for leaks.	
25. Main rotor elastomeric bearings for separation or loss of bearing elements, eventual blowing and/or rubber extruding and absence of oil or grease; if contaminated ref. to Para 62-21-50 for cleaning.	
26. Tail rotor servo actuator for condition, security and leaks.	
27. Fuel tank sump cover for condition and security.	
28. Engine oil filter for condition, leaks and security.	
29. Gas Generator Control lever rigging check, ref. to para 76-11-29A.	
7. CABIN INTERIOR	
1. Magnetic compass for level of fluid. Correction card for legibility.	
2. Safety belts for condition. Release mechanism for operation.	
3. Passenger seats for condition and security.	
4. Check the contents of the first aid kit onboard and expiring date of all the components.	
5. Set radio master (RAD MSTR) switch to on and check that avionic cooler fan (nose compartment) operates.	

PAGE INTENTIONALLY LEFT BLANK

05-20-2. 200 FLIGHT HOURS INSPECTION

Perform this inspection every 200 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
22-00 AUTO FLIGHT	
1. SAS yaw actuator for unusual play, condition and security; electrical connections for condition and security.	
24-00 ELECTRICAL POWER	
1. Starter-generator brushes for wear. Commutator contacts for wear, pittings and burnings. Ref. to para 24-31-36 (only for standard starter generator).	
53-00 FUSELAGE	
1. Tail boom internal area surrounding the attachment points and relative fuselage brackets for cracks, corrosion and visual evidence of distortion. Ref. to Para 53-31-9A (Tail boom removal not required).	
62-00 MAIN ROTOR	
1. Non-rotating scissors for abnormal play, damage, corrosion and wear. Ref. to para 62-31-9B. In case of abnormal play ref. to para 62-31-20.	
2. Main rotor blades for condition, voids, swelling and cracks particularly near root end, trim tab, tip cap and trailing edge. Ref. to para 62-11-8 thru 62-11-23 or para 62-11A-8 thru 62-11A-23.	
3. Pitch change links bearings for excessive play. Ref. to para 62-31-8.	
NOTE: For bearings with more than 800 hours, remove pitch change links and check the play of bearings. Ref. to para 62-31-12.	
4. Check main rotor flapping limiter stop for correct torque. Ref. to para 62-21-40.	
5. Inspect main rotor damper and fitting for wear and damage. Ref. to para 62-21-26.	
6. Rotating scissors hinge points for excessive play, damage, corrosion and wear. Ref. to para 62-31-9A. In case of excessive play ref. to 62-31-16.	

05-20-3. 400 FLIGHT HOURS INSPECTION

Perform this inspection every 400 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
22-00 AUTO FLIGHT 1. SAS pitch and roll actuators, on roof deck, and yaw actuator, on rear fuselage; check slippage marks between body and shaft.	
24-00 ELECTRICAL POWER 1. Starter-generator brushes for wear. Commutator contacts for wear, pittings and burnings. Ref. to para 24-31-36 (only for starter generator with XL2 marked after the S/N and P/N 200SGL129Q-2).	
28-00 FUEL 1. Perform operational test of engine fuel filter caution circuit. Ref. to para 28-41-13.	
32-00 LANDING GEAR 1. Skid tubes for yielding and skid shoes for corrosion and damage. Landing gear attachment points for damage, cracks, distortion and security. Crosstubes for warping. (Ref. Para. 32-11-8 and Para. 32A-11-8). 2. Ground handling wheels attachment for condition. 3. Support of forward and aft crosstube for cracks, corrosion, distortion, damage and security.	
53-00 FUSELAGE 1. Tail boom internal area, stabilizer attachment area and relative locking system for security and cracks. Surrounding areas for distortion, cracks and defective and/or missing rivets. 2. TAIL BOOM a. Tail boom vertical fin internal area surrounding aft spar attachment to the tail boom for cracks. Ref. to para 53-31-11.	

EXTENDED INSPECTION PROGRAM (400 FLIGHT HOURS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
b. Tail boom internal section surrounding vertical fin attachment for cracks; pay particular attention to rib upper portion. 3. Inspect Crew Door posts for cracks. 4. Inspect Upper crew windows aft support structure for cracks.	
62-00 MAIN ROTOR	
1. Remove damper fittings, refer to para 62-21-25 and inspect for condition, cracks and fretting in the area of contact with the hub.	
63-00 MAIN ROTOR DRIVE	
1. Inspect the external surface of the engine to transmission drive shaft for dents, scratches and damage. Ref. to para 63-11-6.	
64-00 TAIL ROTOR	
1. Inspect bolt P/N 109-8131-09-1 or P/N 709-0160-47-101 and pin P/N 109-8131-08-1 of retention strap for condition, corrosion and wear. Ref. to para 64-21-10 and 64A-21-15.	
2. Disassemble tail rotor hub and inspect all components for wear, condition, corrosion and damage. Ref. to para 64-21-5 and 64A-21-5.	
65-00 TAIL ROTOR DRIVE	
1. Tail rotor drive shaft bearing for condition, overheating, corrosion, correct seating of retaining clips, roughness and freedom to rotation (shaft/adaptor removal not required) (Only for bearing P/N 109-0424L02-101).	
2. Tail rotor 90° gearbox mounting sleeve for condition and security, surrounding area on tail boom final rib for cracks, loose rivets and security.	
67-00 ROTORS FLIGHT CONTROL	
1. Tail rotor servo actuator for condition, security, leaks and corrosion of control levers.	
71-00 POWER PLANT	
1. Engine cowling for cracks and defective and/or missing rivets.	
2. Engine bay drain filters for obstruction.	
3. Engine mounts, supports and rods surrounding area for condition, corrosion, cracks, distortions and security in particular in the area of fuselage aft mount fittings.	

EXTENDED INSPECTION PROGRAM (400 FLIGHT HOURS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
76-00 ENGINE CONTROLS 1. Check engine control rigging (collective and power) for freedom of travel throughout range and for excessive looseness or lost motion in linkage. Ref. to para 76-11-17B and 76-12-35. 2. Check RVDT for proper operation. Ref. to para 76-11-16A or 76-11-17A. 3. Check LVDT for proper operation. Ref. to para 76-11-34A or 76-11-35. 79-00 OIL 1. Fan shaft for freedom of rotation and spline for wear and fretting. Ref. to para 79-21-8. 2. Fan support group for damage. Impeller for damage and evidence of chafing on blade tips. Ref. to para 79-21-8.	

PAGE INTENTIONALLY LEFT BLANK

05-20-4. 800 FLIGHT HOURS INSPECTION

Perform this inspection every 800 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
28-00 FUEL 1. Fuel flexible and rigid tubes for condition, leaks and chafing.	
29-00 HYDRAULIC POWER 1. Clean the hydraulic filter elements. Ref. to para 29-11-31.	
53-00 FUSELAGE 1. TAIL BOOM a. Tail boom attachment bolts for correct torque. Ref. to para 53-31-8.	
2. Inspect main transmission structural aft lower fittings, for condition of attachment bolts and condition of surrounding structure, verify correct torque. Ref. to para 63-31-9.	
62-00 MAIN ROTOR 1. Main rotor head ring nut bolts for correct torque. Ref. to Para 62-21-13.	
2. Swashplate for correct friction. Ref. to para 62-31-28.	
63-00 MAIN ROTOR DRIVE 1. POWER PLANT AND OIL COOLER FAN a. Splined adapters of transmission to fan drive shaft for excessive radial play and Thomas couplings for cracks and corrosion of laminates. Ref. to 63-11-14.	
2. MAIN TRANSMISSION a. Main transmission mounts for condition and/or chafing with tubing. Ref. to para 63-31-7.	

EXTENDED INSPECTION PROGRAM (800 FLIGHT HOURS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
b. Bolt P/N NAS 625-14 and -18 securing main transmission support fittings to the structure for correct torque. (See para 63-31-8 and 63-31-9).	
65-00 TAIL ROTOR DRIVE	
1. Free bearing adapter of tail rotor drive shaft (para 65-11-9) and inspect bearing for roughness and freedom of rotation. Ref. to para 65-11-25.	
2. Remove tail rotor drive shaft forward and aft sections. Clean and inspect shafts, adapters and thomas couplings per para 65-11-9, 65-11-13 and 65-11-17.	
3. Check drive shaft dampers for dimension, correct friction setting and integrity of supports. Ref. to para 65-11-29.	
67-00 ROTORS FLIGHT CONTROL	
1. Lower spherical bearing of main rotor servo actuators for freedom of movement and correct rotation moment. Ref. to para 67-31-9.	
2. Upper rod-end bearing of main rotor servo actuators for radial play. Ref. to para 67-31-9.	
3. Main rotor servo actuators dowel pin seats for wear, elongation and/or distortion. Ref. to para 67-31-9.	
NOTE: The following inspection is applicable to main rotor servo actuators P/N 109-0110-42-124/-125/-126 up to S/N 2331 included. The subject servo actuators repaired or overhauled by Magnaghi after 13 may 1999 (date shown on the related assembly historical record) do not require compliance with this inspection.	
4. Remove main rotor servo actuators and inspect bolts securing the two half-bodies. Ref. to para 67-31-12.	
71-00 POWER PLANT	
1. Attaching hardware securing engine mount and relative fittings secured to fuselage for correct torque. Ref. to figure 71-7.	
79-00 OIL	
1. Oil flexible and rigid tubes for condition, leaks and chafing.	
2. Detach fan from oil cooler and thoroughly clean oil cooler mating surface with fan.	

05-20-5. 3200 FLIGHT HOURS INSPECTION

Perform this inspection every 3200 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
28-00 FUEL	
1. Fuel tanks for debris, water, contamination, cleanliness and presence of fungus. Ref. to para 28-11-10.	
2. Tank and internal components for condition. Perform tank pressure test. Ref. to para 28-12-4.	
52-00 DOORS	
1. Cowlings, fairings, doors and access panels, service steps for condition, cracks, distortions, defective and/or missing rivets and correct hinge operation.	
53-00 FUSELAGE	
1. Visible electrical and electronic component supports for condition and security.	
2. Fuselage for general condition, visual evidence of distortions, nicks, scratches, corrosion, defective and/or missing rivets particularly in the area surrounding attachment points of main transmission, transmission supports, engine mounts, fan supports, tail boom and landing gear.	
3. Fuselage/tail boom attachment holes for corrosion, wear and elongation. Ref. To Para 53-31-9.	
4. Check transmission antitorque plate and deck structure attaching bolt holes for corrosion, wear and elongation. Ref. to para 63-21-17.	
5. Fuel tank bays for cracks and distortions.	
6. Tail Boom. Visually inspect externally and internally for general condition, distortions, cracks, corrosion, defective and/or missing rivets particularly area surrounding fuselage attachment points, stabilizers, lower fin, tail skid and 90° gearbox. Stabilizers, lower fin and 90° gearbox removed.	

EXTENDED INSPECTION PROGRAM (3200 FLIGHT HOURS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
63-00 MAIN ROTOR DRIVE 1. Inspect main transmission components. Ref. to para 63-21-18.	

05-20-6. 12 MONTHS FLIGHT HOURS INSPECTION

Perform this inspection every 12 Months in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
24-00 ELECTRICAL POWER	
1. External power receptacle for condition and arcing; door for correct closure.	
2. Starter-generator for condition and security. Electrical connections for arcing and/or short circuit evidence.	
3. Electrical wiring for interference and chafing with surrounding areas, for condition and security of connections.	
4. Overhead panel internal wirings, breakers and connectors for condition, chafing and arcing.	
5. Remove battery (para 24-31-25) and recondition (para 24-31-26), inspect vent lines for obstructions and damage.	
6. Perform DC electrical system operational check per para 24-31-12, 24-31-14 and 24-31-15.	
7. Generator control Box, Relays box and related terminals for damage and security of connections.	
8. Perform operational test of AC electrical system 24-21-9.	
9. Perform operational test of the battery temperature warning circuit. Ref. to para 24-31-13.	
10. Connectors and cables on transmission deck and engines bays for condition and corrosion.	

EXTENDED INSPECTION PROGRAM (12 MONTHS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
25-00 EQUIPMENT/FURNISHING	
1. Examine crew safety restraint system. Ref. to Para 25-11-14.	
2. Examine passengers safety restraint system. Ref. to Para 25-21-30.	
26-00 FIRE PROTECTION	
1. Portable fire extinguisher:	
a. Weigh fire extinguisher. Ref. to Para 26-22-7	
b. Visually inspect fire extinguisher for general condition. Ref. to Para 26-22-6.	
2. Fire detection system. Ref. To para 26-11-4.	
28-00 FUEL	
1. Drain and vent lines for condition and obstructions.	
29-00 HYDRAULIC POWER	
1. Flexible tubes for condition and chafing; pay particular attention for chafing with main transmission mounts.	
2. Flight controls hydraulic components for leaks.	
34-00 NAVIGATION	
1. Antenna(s) for condition and security. Check sealant for voids and condition.	
2. Drain pitot static and dynamic lines.	
52-00 DOORS	
1. Remove pilot doors and inspect jettison mechanism for correct operation. Ref. to para 52-11-10.	
53-00 FUSELAGE	
1. Fuselage and tail boom exterior for general condition, corrosion, visual evidence of distortion and defective and/or missing rivets.	
2. Service steps, wire ropes and related fixing area on fuselage for condition, security and integrity.	
3. Inspect placards and decals for integrity and legibility.	
4. Inspect cockpit floor and cabin floor for cleanliness, corrosion, dents and damage (liners removal required).	
5. Tail skid for wear. Inspect tail skid attachment area for corrosion, cracks and damage.	

EXTENDED INSPECTION PROGRAM (12 MONTHS INSPECTION)

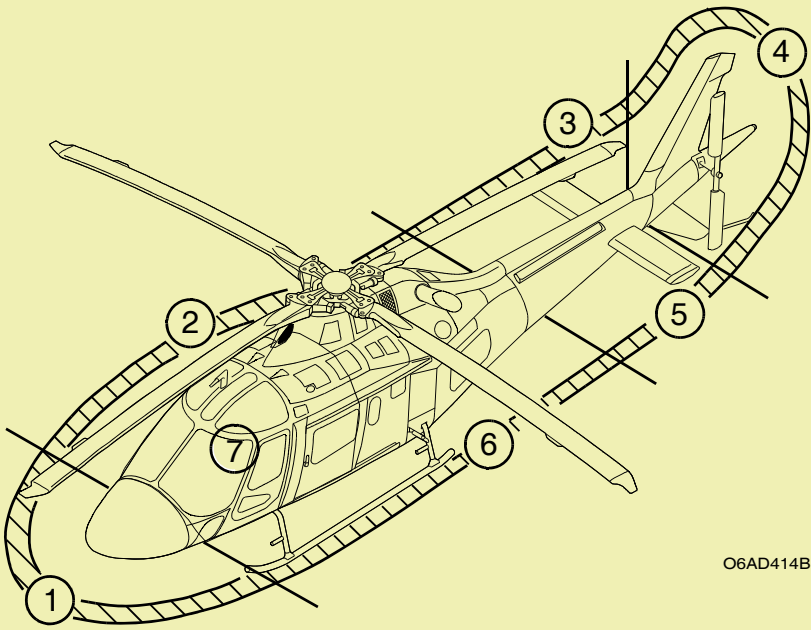
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
55-00 STABILIZERS 1. Stabilizer for condition, cracks and distortions, dents, corrosion, defective and/or missing rivets (Pay particular attention to the attachment area) Ref. to para 55-00-7. Tail plane removal required. 67-00 ROTORS FLIGHT CONTROL 1. Check the following components for condition, clearances, corrosion, security and bearings for abnormal play. a. Control tubes. b. Bellcranks. c. Supports. 2. Flight controls for freedom of movement. 3. Check cyclic for correct friction value. Ref. to para 67-12-18. 4. Check collective for correct friction value. Ref. to para 67-11-16.	

PAGE INTENTIONALLY LEFT BLANK

SECTION 05-40

SCHEDULED MAINTENANCE CHECKS - PROGRESSIVE INSPECTION PROGRAM

05-40-1. BASIC 50 HOURS/60 DAYS INSPECTIONS

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
<i>Perform the 50 flight hours/60 days inspection every 50 hours of flight operation or after 60 calendar days, whichever occurs first.</i>  O6AD414B AREA No. 1 : Helicopter nose AREA No. 2 : Fuselage - RH side AREA No. 3 : Tail boom - RH side AREA No. 4 : Fins, 90° gearbox, tail rotor, tail skid AREA No. 5 : Tail boom - LH side AREA No. 6 : Fuselage - LH side AREA No. 7 : Cabin interior	

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
--	---------

05-40-00

PROGRESSIVE INSPECTION PROGRAM (50 HOURS/60 DAYS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
17. Engine to transmission drive shaft (visible part) for condition and security of attaching hardware. Check bolts attaching shaft flange to the engine and to the main transmission for integrity of slippage marks.	
18. Visible parts of flight controls, levers and supports for condition and security.	
19. Main rotor servo actuator (1 place) for condition, security and leaks. Inspect bleed hole for leaks, lower spherical bearing for looseness and upper bearing for abnormal play.	
20. Forward and aft engine supports and rods for condition and security.	
21. Engine exhaust duct for condition, security and cracks.	
22. Ventilation air intake screen and ducts for condition.	
23. Main rotor hub cover for condition and security.	
24. Swashplate and rotating scissor for condition, security and unusual play. Ref. to para 62-31-9; in case of doubt ref. to para 62-31-9A.	
25. Flap and drop restrainers for condition, freedom of movement and integrity of lock-wire. Inspect floating ring and droop stop plates for condition and check that grease is present in contact area.	
26. Hydraulic pump for leaks.	
27. Fuel tank sump cover for condition and security.	
28. Anticollision light for condition, security and cracks.	
3. TAIL BOOM AND STABILIZER- RH SIDE	
1. Tail boom exterior (pay particular attention to tail boom and fuselage attachment areas) and stabilizer for cracks, dents, missing and/or loose rivets and screws.	
2. Position and anticollision lights for condition, security and cracks.	
4. FINS, 90° GEARBOX, TAIL ROTOR, TAIL SKID	
1. External fuselage for cracks, dents, missing and/or loose rivets and screws.	
2. Tail rotor hub and blades for condition, contamination of oil/grease, security and freedom of flapping. Flap stop bumpers and boots for condition and damage. Tail rotor hub for unusual play along flap axis. Tail rotor blades for condition, scratches and dents.	
3. Tail rotor pitch change mechanism for condition, security and unusual play.	
4. Tail rotor (90°) gearbox for condition, security, oil leaks.	
5. TAIL BOOM AND STABILIZER - LH SIDE	
1. Tail rotor drive shafts for condition, security, proper bonding of balancing weights and rings in contact with dampers.	

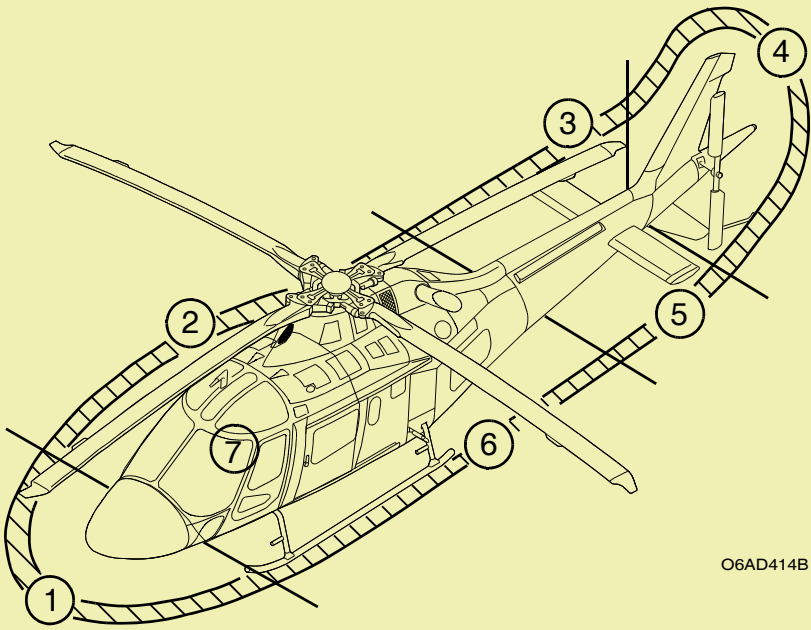
PROGRESSIVE INSPECTION PROGRAM (50 HOURS/ 60 DAYS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
2. Tail rotor drive shaft bearing for condition and excessive grease leakage. In case excessive grease leakage is detected inspect for roughness to rotation.	
3. Tail rotor drive shaft Thomas couplings for condition and cracks of visible surfaces.	
4. Tail rotor drive shaft dampers for condition and freedom of movement.	
5. Tail boom exterior (pay particular attention to tail boom and fuselage attachment areas) and stabilizer for cracks, dents, missing and/or loose rivets and screws.	
6. Position lights for condition, security and cracks.	
6. FUSELAGE - LH SIDE	
1. Fuel system drain lines and valves for leaks.	
2. Landing skid for damage, condition and forward and rear saddles connecting skid to crossbeams for sealing integrity.	
3. Rear crosstube and central support for condition and security (visible parts).	
4. Landing skid damper for condition and leaks. Support for condition.	
5. Forward crosstube and fuselage attaching clamps for condition and security.	
6. Main rotor grips (2 places) for condition.	
7. Flap and drop restrainers for condition, freedom of movement and integrity of lock-wire. Inspect floating ring and droop stop plates for condition and check that grease is present in contact area.	
8. Main rotor dampers (2 places) for condition, security, unusual play of bearings and correct fluid level.	
9. Ground jumpers between pitch control lever (inside grip) and damper and between damper and attachment bracket to hub for condition (2 places).	
10. Main rotor pitch change links (2 places) for condition, security, corrosion and fretting of the spherical bearings, loss of part of the liner and unusual play (check axial play by moving the pitch link by hand and the radial play by rotating the blade along its pitch axis and by acting from the tip cap area).	
11. Swashplate upper and lower boots for condition, integrity and absence of grease on external surfaces.	
12. Main rotor damper fittings (2 places) for condition, unusual play and cracks in the area of the attachment point to the hub.	
13. Fan and oil cooler for condition and security.	
14. Transmission to fan drive shaft for condition, security and freedom of axial movement.	
15. Main transmission and accessories for condition, security and leaks of lubricant.	
16. Visible parts of flight controls, levers and supports for condition and security.	

SECTION 05-40

SCHEDULED MAINTENANCE CHECKS - PROGRESSIVE INSPECTION PROGRAM

05-40-1. BASIC 50 HOURS/60 DAYS INSPECTIONS

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
<i>Perform the 50 flight hours/60 days inspection every 50 hours of flight operation or after 60 calendar days, whichever occurs first.</i>  O6AD414B AREA No. 1 : Helicopter nose AREA No. 2 : Fuselage - RH side AREA No. 3 : Tail boom - RH side AREA No. 4 : Fins, 90° gearbox, tail rotor, tail skid AREA No. 5 : Tail boom - LH side AREA No. 6 : Fuselage - LH side AREA No. 7 : Cabin interior	

PAGE INTENTIONALLY LEFT BLANK

05-40-2. PROGRESSIVE INSPECTION PROGRAM 200 HOURS INSPECTION - PHASE A

Perform this inspection every 200 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
62-00 MAIN ROTOR	
1. Non-rotating scissors for abnormal play, damage, corrosion and wear. Ref. to para 62-31-9B. In case of abnormal play ref. to para 62-31-20.	
2. Main rotor blades for condition, voids, swelling and cracks particularly near root end, trim tab, tip cap and trailing edge. Ref. to para 62-11-8 thru 62-11-23 or para 62-11A-8 thru 62-11A-23.	
3. Pitch change links bearings for excessive play. Ref. to para 62-31-8.	
NOTE: For bearings with more than 800 hours, remove pitch change links and check the play of bearings. Ref. to para 62-31-12.	
4. Check main rotor flapping limiter stop for correct torque. Ref. to para 62-21-40.	
5. Inspect main rotor damper and fitting for wear and damage. Ref. to para 62-21-26.	
6. Rotating scissors hinge points for excessive play, damage, corrosion and wear. Ref. to para 62-31-9A. In case of excessive play ref. to 62-31-16.	
7. (For rotating scissor P/N 109-0134-09-101 only) check painted markings for visibility and integrity.	
8. (Only for damper fittings P/N 109-0111-07-101/-105/-109). Remove damper fittings and inspect for condition and fretting in the area of contact with the hub.	
9. (Only for P/N 109-0111-43-101 or -113) Remove hub cover and inspect for loose or missing rivets and for cracks to the internal ribs. Ref. to para 62-21-14A.	

PAGE INTENTIONALLY LEFT BLANK

05-40-3. PROGRESSIVE INSPECTION PROGRAM 200 HOURS INSPECTION - PHASE B

Perform this inspection every 200 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
63-00 MAIN ROTOR DRIVE	
1. Perform operational checkout of circuit and chip detectors on coupling gearbox and upper case. Ref. to para 63-41-14.	
2. Upper case to main case attachment nuts for correct torque. Ref. to para 63-21-23.	
65-00 TAIL ROTOR DRIVE	
1. Perform operational checkout of chip detector circuit. Ref. to para 65-41-6.	
2. (Only for bearing P/N N651G10V1021). Tail rotor drive shaft bearing for condition, corrosion, correct seating of retaining clips, overheating, roughness and freedom to rotation. (shaft/adaptor removal not required).	
3. Check of the connecting nuts, that fixed the pinion mounting sleeve assy to the case assy of the 90° gearbox P/N 109-0440-06-101, for security and torque value. Refer to B.T. 119-23.	

PAGE INTENTIONALLY LEFT BLANK

05-40-4. PROGRESSIVE INSPECTION PROGRAM 200 HOURS INSPECTION - PHASE C

Perform this inspection every 200 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
22-00 AUTO FLIGHT 1. SAS yaw actuator for unusual play, condition and security; electrical connections for condition and security.	
24-00 ELECTRICAL POWER 1. Starter-generator brushes for wear. Commutator contacts for wear, pittings and burnings. Ref. to para 24-31-36 (only for standard starter generator).	
53-00 FUSELAGE 1. Tail boom internal area surrounding the attachment points and relative fuselage brackets for cracks, corrosion and visual evidence of distortion. Ref. to Para 53-31-9A (Tail boom removal not required).	

PAGE INTENTIONALLY LEFT BLANK

05-40-5. PROGRESSIVE INSPECTION PROGRAM 200 HOURS INSPECTION - PHASE D

Perform this inspection every 200 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
64-00 TAIL ROTOR	
1. Tail rotor blades (P/N 709-0160-48-101 only) for:	
a. Voids. Ref. to para 64A-11-8.	
b. Scratches, dents and cracks. Ref. to para 64A-11-8.	
c. Clean tail rotor blade to maintain an improved visibility of warning stripes. Ref. to para 64A-11-7.	
2. Tail rotor hub for correct flap hinge friction. Ref. to para 64-21-14 and 64A-21-14.	
3. (Only for tail rotor hub and blade assy P/N 109-8131-02-155) Remove grip assy and inspect bushing liner for wear. Ref. to para 64-21-9 step E.	
4. (Only for tail rotor hub and blade assy 109-0162-03-101 and 109-0162-03-105).	
a. Inspect blade elastomeric bushing for: condition, fretting and wear, including relative hub contact area. Refer to para 64A-11-8.	
b. Inspect blade retention bolt for condition, corrosion and nicks. Refer to para 64A-11-8.	
5. Inspect pitch change mechanism and related hardware for damage, corrosion and excessive wear. Ref. to para 64-31-9 and 64-31-10.	

PAGE INTENTIONALLY LEFT BLANK

05-40-6. PROGRESSIVE INSPECTION PROGRAM 400 HOURS INSPECTION - PHASE 1

Perform this inspection every 400 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
53-00 FUSELAGE	
1. Tail boom internal area, stabilizer attachment area and relative locking system for security and cracks. Surrounding areas for distortion, cracks and defective and/or missing rivets.	
2. TAIL BOOM	
a. Tail boom vertical fin internal area surrounding aft spar attachment to the tail boom for cracks. Ref. to para 53-31-11.	
b. Tail boom internal section surrounding vertical fin attachment for cracks; pay particular attention to rib upper portion.	
3. Inspect Crew Door posts for cracks.	
4. Inspect Upper crew windows aft support structure for cracks.	
62-00 MAIN ROTOR	
1. Remove damper fittings, refer to para 62-21-25 and inspect for condition, cracks and fretting in the area of contact with the hub.	
65-00 TAIL ROTOR DRIVE	
1. Tail rotor drive shaft bearing for condition, overheating, corrosion, correct seating of retaining clips, roughness and freedom to rotation (shaft/adaptor removal not required) (Only for bearing P/N 109-0424L02-101).	
2. Tail rotor 90° gearbox mounting sleeve for condition and security, surrounding area on tail boom final rib for cracks, loose rivets and security.	

PAGE INTENTIONALLY LEFT BLANK

05-40-7. PROGRESSIVE INSPECTION PROGRAM 400 HOURS INSPECTION - PHASE 2

Perform this inspection every 400 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
22-00 AUTO FLIGHT	
1. SAS pitch and roll actuators, on roof deck, and yaw actuator, on rear fuselage; check slippage marks between body and shaft.	
71-00 POWER PLANT	
1. Engine cowling for cracks and defective and/or missing rivets.	
2. Engine bay drain filters for obstruction.	
3. Engine mounts, supports and rods surrounding area for condition, corrosion, cracks, distortions and security in particular in the area of fuselage aft mount fittings.	

PAGE INTENTIONALLY LEFT BLANK

05-40-8. PROGRESSIVE INSPECTION PROGRAM 400 HOURS INSPECTION - PHASE 3

Perform this inspection every 400 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
24-00 ELECTRICAL POWER 1. Starter-generator brushes for wear. Commutator contacts for wear, pittings and burnings. Ref. to para 24-31-36 (only for starter generator with XL2 marked after the S/N and P/N 200SGL129Q-2).	
32-00 LANDING GEAR 1. Skid tubes for yielding and skid shoes for corrosion and damage. Landing gear attachment points for damage, cracks, distortion and security. Crosstubes for warping. (Ref. Para. 32-11-8 and Para. 32A-11-8). 2. Ground handling wheels attachment for condition. 3. Support of forward and aft crosstube for cracks, corrosion, distortion, damage and security.	
63-00 MAIN ROTOR DRIVE 1. Inspect the external surface of the engine to transmission drive shaft for dents, scratches and damage. Ref. to para 63-11-6.	
76-00 ENGINE CONTROLS 1. Check engine control rigging (collective and power) for freedom of travel throughout range and for excessive looseness or lost motion in linkage. Ref. to para 76-11-17B and 76-12-35. 2. Check RVDT for proper operation. Ref. to para 76-11-16A or 76-11-17A. 3. Check LVDT for proper operation. Ref. to para 76-11-34A or 76-11-35.	

PROGRESSIVE INSPECTION PROGRAM (PROGRESSIVE 400 HOURS INSPECTION - PHASE 3)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
79-00 OIL 1. Fan shaft for freedom of rotation and spline for wear and fretting. Ref. to para 79-21-8. 2. Fan support group for damage. Impeller for damage and evidence of chafing on blade tips. Ref. to para 79-21-8.	

05-40-9. PROGRESSIVE INSPECTION PROGRAM 400 HOURS INSPECTION - PHASE 4

Perform this inspection every 400 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
28-00 FUEL 1. Perform operational test of engine fuel filter caution circuit. Ref. to para 28-41-13.	
64-00 TAIL ROTOR 1. Inspect bolt P/N 109-8131-09-1 or P/N 709-0160-47-101 and pin P/N 109-8131-08-1 of retention strap for condition, corrosion and wear. Ref. to para 64-21-10 and 64A-21-15. 2. Disassemble tail rotor hub and inspect all components for wear, condition, corrosion and damage. Ref. to para 64-21-5 and 64A-21-5.	
67-00 ROTORS FLIGHT CONTROL 1. Tail rotor servo actuator for condition, security, leaks and corrosion of control levers.	

PAGE INTENTIONALLY LEFT BLANK

05-40-10. PROGRESSIVE INSPECTION PROGRAM 800 HOURS INSPECTION

Perform this inspection every 800 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
28-00 FUEL 1. Fuel flexible and rigid tubes for condition, leaks and chafing.	
29-00 HYDRAULIC POWER 1. Clean the hydraulic filter elements. Ref. to para 29-11-31.	
53-00 FUSELAGE 1. TAIL BOOM a. Tail boom attachment bolts for correct torque. Ref. to para 53-31-8.	
2. Inspect main transmission structural aft lower fittings, for condition of attachment bolts and condition of surrounding structure, verify correct torque. Ref. to para 63-31-9.	
62-00 MAIN ROTOR 1. Main rotor head ring nut bolts for correct torque. Ref. to Para 62-21-13.	
2. Swashplate for correct friction. Ref. to para 62-31-28.	
63-00 MAIN ROTOR DRIVE 1. POWER PLANT AND OIL COOLER FAN a. Splined adapters of transmission to fan drive shaft for excessive radial play and Thomas couplings for cracks and corrosion of laminates. Ref. to 63-11-14.	
2. MAIN TRANSMISSION a. Main transmission mounts for condition and/or chafing with tubing.	

PROGRESSIVE INSPECTION PROGRAM (PROGRESSIVE 800 HOURS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
b. Bolt P/N NAS 625-14 and -18 securing main transmission support fittings to the structure for correct torque. (See para 63-31-8 and 63-31-9).	
65-00 TAIL ROTOR DRIVE	
1. Free bearing adapter of tail rotor drive shaft (para 65-11-9) and inspect bearing for roughness and freedom of rotation. Ref. to para 65-11-25.	
2. Remove tail rotor drive shaft forward and aft sections. Clean and inspect shafts, adapters and thomas couplings per para 65-11-9, 65-11-13 and 65-11-17.	
3. Check drive shaft dampers for dimension, correct friction setting and integrity of supports. Ref. to para 65-11-29.	
67-00 ROTORS FLIGHT CONTROL	
1. Lower spherical bearing of main rotor servo actuators for freedom of movement and correct rotation moment. Ref. to para 67-31-9.	
2. Upper rod-end bearing of main rotor servo actuators for radial play. Ref. to para 67-31-9.	
3. Main rotor servo actuators dowel pin seats for wear, elongation and/or distortion. Ref. to para 67-31-9.	
NOTE: The following inspection is applicable to main rotor servo actuators P/N 109-0110-42-124/-125/-126 up to S/N 2331 included. The subject servo actuators repaired or overhauled by Magnaghi after 13 may 1999 (date shown on the related assembly historical record) do not require compliance with this inspection.	
4. Remove main rotor servo actuators and inspect bolts securing the two half-bodies. Ref. to para 67-31-12.	
71-00 POWER PLANT	
1. Attaching hardware securing engine mount and relative fittings secured to fuselage for correct torque. Ref. to figure 71-7.	
79-00 OIL	
1. Oil flexible and rigid tubes for condition, leaks and chafing.	
2. Detach fan from oil cooler and thoroughly clean oil cooler mating surface with fan.	

05-40-11. PROGRESSIVE INSPECTION PROGRAM 3200 HOURS INSPECTION

Perform this inspection every 3200 Flight Hours in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
28-00 FUEL	
1. Fuel tanks for debris, water, contamination, cleanliness and presence of fungus. Ref. to para 28-11-10.	
2. Tank and internal components for condition. Perform tank pressure test. Ref. to para 28-12-4.	
52-00 DOORS	
1. Cowlings, fairings, doors and access panels, service steps for condition, cracks, distortions, defective and/or missing rivets and correct hinge operation.	
53-00 FUSELAGE	
1. Visible electrical and electronic component supports for condition and security.	
2. Fuselage for general condition, visual evidence of distortions, nicks, scratches, corrosion, defective and/or missing rivets particularly in the area surrounding attachment points of main transmission, transmission supports, engine mounts, fan supports, tail boom and landing gear.	
3. Fuselage/tail boom attachment holes for corrosion, wear and elongation. Ref. To Para 53-31-9.	
4. Check transmission antitorque plate and deck structure attaching bolt holes for corrosion, wear and elongation. Ref. to para 63-21-17.	
5. Fuel tank bays for cracks and distortions.	
6. Tail Boom. Visually inspect externally and internally for general condition, distortions, cracks, corrosion, defective and/or missing rivets particularly area surrounding fuselage attachment points, stabilizers, lower fin, tail skid and 90° gearbox. Stabilizers, lower fin and 90° gearbox removed.	

PROGRESSIVE INSPECTION PROGRAM (PROGRESSIVE 3200 HOURS INSPECTION)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
63-00 MAIN ROTOR DRIVE 1. Inspect main transmission components. Ref. to para 63-21-18.	

05-40-12. PROGRESSIVE INSPECTION PROGRAM 12 MONTHS INSPECTION - PHASE I

Perform this inspection every 12 months in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
28-00 FUEL 1. Drain and vent lines for condition and obstructions.	
34-00 NAVIGATION 1. Antenna(s) for condition and security. Check sealant for voids and condition. 2. Drain pitot static and dynamic lines.	
52-00 DOORS 1. Remove pilot doors and inspect jettison mechanism for correct operation. Ref. to para 52-11-10.	
53-00 FUSELAGE 1. Fuselage and tail boom exterior for general condition, corrosion, visual evidence of distortion and defective and/or missing rivets. 2. Service steps, wire ropes and related fixing area on fuselage for condition, security and integrity. 3. Inspect placards and decals for integrity and legibility. 4. Inspect cockpit floor and cabin floor for cleanliness, corrosion, dents and damage (liners removal required). 5. Tail skid for wear. Inspect tail skid attachment area for corrosion, cracks and damage.	
55-00 STABILIZERS 1. Stabilizer for condition, cracks and distortions, dents, corrosion, defective and/or missing rivets (pay particular attention to the attachment area) Ref. to para 55-00-7. Tail plane removal required.	

PAGE INTENTIONALLY LEFT BLANK

05-40-13. PROGRESSIVE INSPECTION PROGRAM **12 MONTHS INSPECTION - PHASE II**

Perform this inspection every 12 months in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
29-00 HYDRAULIC POWER 1. Flexible tubes for condition and chafing; pay particular attention for chafing with main transmission mounts. 2. Flight controls hydraulic components for leaks.	
67-00 ROTORS FLIGHT CONTROL 1. Check the following components for condition, clearances, corrosion, security and bearings for abnormal play. a. Control tubes b. Bellcranks c. Supports. 2. Flight controls for freedom of movement. 3. Check cyclic for correct friction value. Ref. to para 67-12-18. 4. Check collective for correct friction value. Ref. to para 67-11-16.	

PAGE INTENTIONALLY LEFT BLANK

05-40-14. PROGRESSIVE INSPECTION PROGRAM 12 MONTHS INSPECTION - PHASE III

Perform this inspection every 12 months in accordance with the following checklist.

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
25-00 EQUIPMENT/FURNISHING	
1. Examine crew safety restraint system. Ref. to Para 25-11-14.	
2. Examine passengers safety restraint system. Ref. to Para 25-21-30.	
24-00 ELECTRICAL POWER	
1. External power receptacle for condition and arcing; door for correct closure	
2. Starter-generator for condition and security. Electrical connections for arcing and/or shortcircuit evidence.	
3. Electrical wiring for interference and chafing with surrounding areas, for condition and security of connections	
4. Overhead panel internal wirings, breakers and connectors for condition, chafing and arcing.	
5. Remove battery (para 24-31-25) and recondition (para 24-31-26), inspect vent lines for obstructions and damage.	
6. Perform DC electrical system operational check per para 24-31-12, 24-31-14 and 24-31-15.	
7. Generator control Box, Relais box and related terminals for damage and security of connections.	
8. Perform operational test of AC electrical system 24-21-9	
9. Perform operational test of the battery temperature warning circuit. Ref. to para 24-31-13.	
10. Connectors and cables on transmission deck and engines bays for condition and corrosion.	

PROGRESSIVE INSPECTION PROGRAM (PROGRESSIVE 12 MONTHS INSPECTION - PHASE III)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
26-00 FIRE PROTECTION 1. Portable fire extinguisher: a. Weight fire extinguisher. Ref. to Para 26-22-7 b. Visually inspect fire extinguisher for general condition. Ref. to Para 26-22-6. 2. Fire detection system. Ref. to para 26-11-4.	

SECTION 05-50

UNSCHEDULED MAINTENANCE CHECKS

05-50-1. SPECIAL INSPECTIONS

Perform applicable Optional Equipment Special Inspections in accordance with Sect 05-60. Special Inspections

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
1 PRIOR TO THE FIRST FLIGHT OF THE DAY 62-00 MAIN ROTOR 1. (Only when protective tape is installed on leading edge) Inspect the tape for proper adhesion, condition, wrinkles, lifting or breaking at the edges. Ref. to para 62-11-33. 64-00 TAIL ROTOR 1. (Only when protective tape is installed on leading edge). Inspect the tape for proper adhesion, condition, wrinkles, lifting or breaking at the edges. Ref. to para 64-11-13. 2 BETWEEN 5-10 FLIGHT HOURS (NEW AIRCRAFT OR AFTER REINSTALLATION OF MAJOR COMPONENTS) <u>NOTE:</u> If incorrect torque is found, recheck within next 5 to 10 hours of flight. 18-00 VIBRATION AND NOISE ANALYSIS AND ATTENUATION 1. Bolts securing vibration absorber assy to fuselage for correct torque (Ref. to para 18-61-12). 53-00 FUSELAGE 1. TAIL BOOM a. Tail boom attachment bolts for correct torque. Ref. to Para 53-31-8. 62-00 MAIN ROTOR 1. Main rotor head ring nut bolts for correct torque. Ref. to Para 62-21-13. 	

UNSCHEDULED MAINTENANCE CHECKS (SPECIAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
63-00 MAIN ROTOR DRIVE 1. MAIN TRANSMISSION a. Upper case to main case attachment nuts for correct torque. Ref. to para 63-21-23.	
65-00 TAIL ROTOR DRIVE 1. TAIL ROTOR (90°) GEARBOX a. Mounting sleeve attachment bolts for correct torque. Ref. to para 65-21-6.	
3 AT EACH ENGINE REMOVAL 1. POWER PLANT a. Before engine removal, nuts securing engine fittings to engine mounts for correct torque. Refer to Para 71-01-8. b. Nuts securing engine mounts to fuselage attachments for correct torque. Refer to Para 71-21-6. c. Engine mount supports for corrosion, wear and elongation of holes for bolts. Ref. to Para 71-21-7.	
4 AT EACH BLADE RETENTION BOLT REMOVAL 62-00 MAIN ROTOR 1. Inspect blade retention bolt and grip bushing for condition damage and scoring.	
5 AT EACH MAIN TRANSMISSION REMOVAL 63-00 TRANSMISSION ANTITORQUE PLATE AND DECK STRUCTURE 1. Check transmission antitorque plate and deck structure attaching bolt holes for corrosion, wear and elongation. Ref. to para 63-21-17.	
6 EVERY 25 FLIGHT HOURS INSPECTIONS 64-00 TAIL ROTOR 1. Tail rotor blades (P/N 109-8132-01 only, ref. to B.T. 119-06) for: a. Voids. Ref. to para 64-11-8. b. Scratches, dents and cracks. Ref. to para 64-11-8. c. Clean tail rotor blade to maintain an improved visibility of warning stripes. Ref. to para 64-11-7.	

UNSCHEDULED MAINTENANCE CHECKS (SPECIAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
7 EVERY 100 FLIGHT HOURS INSPECTION 64-00 TAIL ROTOR 1. TAIL ROTOR a. Perform tail rotor dynamic balance. Ref. to para 64-00-9 and 64A-00-8. b. Inspect bushing P/N 109-0135-14-101 (internal diameter) and pitch change rod P/N 109-0135-02-101. Refer to para 64-31-10, points L and M. 76-00 ENGINE CONTROLS 1. ENGINE CONTROLS a. Perform engine controls setting check. Ref. to para 76-11-8.	
8 EVERY MONTH (APPLICABLE TO P/N MB2620I00251 VENDOR P/N A344) 26-00 FIRE PROTECTION 1. Cabin fire extinguisher bottle: a. Do a detailed inspection of the fire extinguisher pressure gauge to verify the operable range indication, including the gross weight in order to check the correct range value respect the initially installation. In addition do a detailed inspection for physical damage, corrosion, leakage or clogged nozzle. Refer to Para 26-22-6 and Para 26-22-7.	
9 EVERY 12 MONTHS 31-00 INDICATING/RECORDING SYSTEM [E] 1. Perform fuel calibration test procedure. Refer to [E1] para 31-41A-54C or [E2] para 31-41B-43. 34-00 STANDBY CONTROLS AND INDICATORS [E] 1. Perform capacity meter calibration procedure for stored and in service battery indicator. Refer to para 31-23-13 (for ESI-2000 standby P/N 9200-32500-0081 only).	
10 EVERY 200 FLIGHT HOURS/12 MONTHS INSPECTION 63-00 ROTOR DRIVE 1. MAIN TRANSMISSION STRUCTURAL FWD AND AFT LOWER FITTINGS a. Inspect main transmission structural fwd and aft lower fittings for corrosion, cracks and proper condition of joints. Ref. to para 63-31-10.	

UNSCHEDULED MAINTENANCE CHECKS (SPECIAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
11 EVERY 400 FLIGHT HOURS/24 MONTHS INSPECTION 62-00 MAIN ROTOR 1. Disconnect pitch change links and rotating scissors (removal is not required) and inspect swashplate duplex bearing for noise and roughness to rotation. Ref. to para 62-31-24.	
12 EVERY 1200 FLIGHT HOURS INSPECTION 28-00 FUEL 1. (Only for GLOBE Fuel Pump MFR P/N 164A298) Pump brushes for wear. Ref. to para 28-21-18.	
29-00 HYDRAULIC POWER 1. Hydraulic pumps splined shaft seat on transmission for wear. Ref. to para 29-11-27B, 29-12-27B and 63-21-39.	
13 EVERY 1600 FLIGHT HOURS INSPECTION 32-00 LANDING GEAR 1. Landing skid attachments bolts for correct torque. Ref. to para 32-11-7 and para 32A-11-7.	
63-00 MAIN ROTOR DRIVE 1. Remove engine to transmission main drive shaft and inspect: a. Shaft flanges for nicks, dents, scratches and fretting. Especially on surfaces in contact with engine flange and transmission shaft flange, b. Transmission drive quill splines for condition and wear. Refer to A109/AW119 SERIES-OM, para 63-11-01 step 4.	
71-00 POWER PLANT 1. Attaching hardware securing engine mount and relative fittings secured to fuselage for correct torque. Ref. to figure 71-9. Check for evidence of torque loss (fretting, black metallic powder, bright halo in the area, cotter pin condition), if suspected retorque. 2. Inspect end bearings of engine mounts for play. Ref. to para 71-21-7. 3. Inspect bearing of LH and RH engine support trunnion for excessive play. Ref. to para 71-01-9. 4. Inspect oil cooler fan bearings for free of rotation, roughness and abnormal play. Ref. to 79-21.	

UNSCHEDULED MAINTENANCE CHECKS (SPECIAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
14 EVERY 2400 FLIGHT HOURS INSPECTION	
53-00 FUSELAGE	
1. UPPER DECK	
a. Transmission support assemblies and relative fittings secured to fuselage. Ref. to Para 63-31-5.	
62-00 MAIN ROTOR	
1. MAIN ROTOR CONTROLS	
a. Remove and inspect swashplate duplex bearing for damage and corrosion. Ref. to Para 62-31-25.	
b. Swashplate teflon rings (pivot sleeve and swashplate) for wear. Ref. to Para 62-31-25.	
c. Guide and pivot sleeve slot of swashplate for damage and wear. Ref. to para 62-31-25.	
2. MAIN ROTOR	
a. Grips, pitch control levers, flap and droop restrainers for condition, damage and wear (hub disassembly required). Inspect blades grips bushings (blade retention pin seat) for wear, nicks and condition. Inspect contact area between blade and grip for condition and washers bondage. Ref. to Para 62-21-23, 62-21-18, 62-21-33, 62-21-35, 62-21-39, 62-21-55.	
b. Main rotor head installation. Ref. to Para 62-21-14.	
c. Hub floating ring for wear and DU washers and internal teflon shim for debonds. Ref. to 62-21-44.	
3. Inspect blade root bushings and blade root washers for damage and wear. Ref. to para 62-11-25 (62-11A-25), 62-11-26 (62-11A-26).	
4. Main rotor pitch change link assembly. Ref. to para 62-31-10.	
5. Inspect main rotor grip droop stop plate for wear and damage. Ref. to para 62-21-23 step F.	
15 EVERY 2400 HOURS AND SUBSEQUENTLY AFTER 1200 HOURS OF COMPONENT OPERATION	
65-00 TAIL ROTOR DRIVE	
1. TAIL ROTOR (90°) GEARBOX	
a. Inspect gears for (ref. to 65-21-14):	
1) Abnormal patterns, pitting and scoring.	
2) Fretting, damage, wear, corrosion on input pinion teeth and output shaft.	

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
3) Integrity of the packing carriers.	
b. Inspect gearing teeth for unusual prints, pitting, scoring, damage and bearings for freedom of rotation and roughness. Ref. to para 65-21-14.	
c. Perform tail rotor (90°) gearbox backlash check. Ref. to para 65-21-9.	
	
16 EVERY 300 LANDINGS	
32-00 LANDING GEAR	
1. LANDING GEAR DAMPERS	
a. Shake helicopter laterally and check damper steam travel for hardness.	
	
17 EVERY 10000 FH	
31-00 INDICATING AND RECORDING	
1. INDICATING AND RECORDING SYSTEM E1 .	
a. Perform an operational check to verify that there are no hidden failures preventing NR signal to be recovered from secondary source (i.e. GSC2 and the related NR sensor coil) in case of loss of primary source (i.e. GSC1 or the related NR sensor coil). Refer to Para 31-00-2C.	
2. INDICATING AND RECORDING SYSTEM E .	
a. Perform an operational check in order to verify the availability of redundant power supply of the related items (i.e. PFD, MFD, GEA 1 and 2, GIA 1 and 2). Refer to Para 31-00-2D.	

05-50-2. CONDITIONAL INSPECTIONS

The following inspections/checks must be performed following the occurrence of the applicable unscheduled events in accordance with the following checklist:

Date Signature Helicopter Registration No. Helicopter Flight hours	
INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
1. HARD LANDING a. If a hard landing is suspected, the following steps shall be complied with: 1) Inspect main and tail rotor blades for evidence of damage, check closely for wrinkled skin. 2) Visually inspect underside of fuselage and tail boom for evidence of ground contact. 3) Visually inspect landing gear skids and crosstubes for distortion, cracks, yields and damage. Landing gear fittings and surrounding areas for distortion, cracks and damage. Ref. to para 32-11-8 and para 32A-11-8. 4) Check landing gear deflection. Ref. to para 32-11-8 and para 32A-11-8. 5) Inspect flap stops and main rotor hub for distortion and evidence of hard contact. 6) Visually inspect main transmission mounts, transmission antitorque plate for distortion and cracks; surrounding areas for loose rivets or other damage. 7) Check all cowlings and doors for proper fit and alignment. Misaligned cowlings may indicate a distorted fuselage or tail boom resulting in major stresses and damage to components.	
NOTE: If only minor damage has been found at this point it can reasonably be concluded that a true hard landing did not occur. Perform basic 50 Flight Hours/60 days Inspection (Ref.to Sect 05-20-1) and return helicopter to flight status provided no further evidence of damage is found. If major damage has been found a hard landing has occurred.	

UNSCHEDULED MAINTENANCE CHECKS (CONDITIONAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
b. If a hard landing has occurred the following steps shall be complied with: 1) Remove and send the part to Leonardo Helicopters or to an approved facility for inspections/repairs in accordance with the A109/AW119 SERIES-OM overhaul manual: a) Main rotor hub assembly. b) Swashplate assembly. c) Main transmission assembly. d) Main transmission mount assemblies. e) Tail rotor drive shaft assemblies. f) Tail rotor (90°) gearbox and pitch change mechanism assembly. g) Tail rotor hub assembly. h) Engine-transmission drive shaft assembly. i) Rotating and non rotating scissor assemblies. j) Main rotor pitch change link assemblies. 2) Carefully inspect main rotor blades for damages, F.O.D. and defects. Ref. to para 62-11-8. 3) Carefully inspect tail rotor blades. Ref. to para 64-11-8. 4) Inspect tail skid tube for damage. Inspect tail boom internally and externally for cracks, distortion, and loose rivets. Inspect the tail boom attachment points for elongated holes and damaged structure. 5) Inspect airframe areas surrounding transmission, engine and landing gear skid attachment points for cracks, distortion and loose rivets. 6) Inspect fuel tanks bays for cracks, distortion and damage. 7) Check all cowlings and doors for proper fit, alignment and correct operation. 8) Completely inspect flight control systems, cyclic, collective and antitorque for bent or damaged tubes, bellcranks and supports for damaged bearings. 9) Inspect fuel, oil and hydraulic systems for damage and leakage. 10) Inspect engine mounts. 11) Inspect engine in accordance with engine manufacturer's manuals.	
2. SUDDEN STOPPAGE MAIN ROTOR Sudden stoppage is defined as any rapid deceleration of the drive system whether caused by seizure within the helicopter transmission or by contact of the main rotor blades with the ground or object of sufficient inertia to cause rapid deceleration.	

UNSCHEDULED MAINTENANCE CHECKS (CONDITIONAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
a. If visible damage is evident, remove and send the part to Leonardo Helicopters or to an approved facility for inspections/repairs in accordance with A109/AW119 SERIES-OM overhaul manual: 1) Main rotor hub assembly. 2) Swashplate assembly. 3) Main transmission assembly. 4) Main transmission mount assemblies. 5) Tail rotor drive shaft assemblies. 6) Tail rotor (90°) gearbox and pitch change mechanism assembly. 7) Tail rotor hub assembly. 8) Engine-transmission drive shaft assembly. 9) Rotating and non rotating scissor assemblies. 10) Main rotor pitch change link assemblies. 11) Transmission-fan shaft. b. Carefully inspect main rotor blades for damage, F.O.D. and defects. Ref. to para 62-11-8. c. Inspect tail rotor blades. Ref. to para 64-11-8 and 64A-11-8. d. Inspect engine mounts at fuselage attachment points for cracks. e. Inspect airframe areas surrounding transmission, engine and tail boom attachment points for cracks, distortion and loose rivets. f. Inspect main rotor servo actuators for evidence of damage and leakage. Remove and overhaul damaged components. g. Inspect fan assembly for damage. h. Inspect engine in accordance with engine manufacturer's manuals.	
3. SUDDEN STOPPAGE - TAIL ROTOR	
a. Remove and replace tail rotor hub and blade assembly. Scrap removed components. b. Remove and inspect the tail rotor drive shafts, Thomas couplings and adapters for distortion and cracks using M.P.I (Magnetic Particle Inspection) and F.P.I. (Fluorescent Penetrant Inspection) accordance with the A109/AW119 SERIES-OM overhaul manual (Sect 20-40). Visually inspect the tail rotor supports and bearing hanger for cracks and distortion. If damage is found remove and send to Leonardo Helicopters or to an approved facility for inspections/repairs the following components in accordance with the A109/AW119 SERIES-OM overhaul manual:	

UNSCHEDULED MAINTENANCE CHECKS (CONDITIONAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
1) Tail rotor (90°) gearbox and pitch change mechanism assembly.	
2) Main transmission assembly.	
3) Tail rotor drive shaft assemblies.	
c. Inspect tail boom and tail rotor (90°) gearbox attachment areas and mounting sleeve with particular attention to studs and bolts.	
d. Inspect the four tail boom attachment points for cracks, distortion and security. Check torque of attachment bolts.	
e. Inspect the tail boom internally for cracks, distortion and loose and/or missing rivets.	
f. Inspect stabilizers for skin cracks and evidence of damage.	
g. Check tail skid for condition and security.	
h. Inspect engine in accordance with engine manufacturer's manuals.	
4. OVERSPEED MAIN ROTOR	
Overspeed is defined as any incident in which 115% main rotor RPM and/or engine overspeed limits in engine manufacturer's manuals are exceeded.	
a. Remove and send to Leonardo Helicopters the following components for overhaul evaluation:	
1) Main rotor hub assembly.	
2) (For helicopters equipped with metallic tail rotor blades only) Tail rotor hub assembly.	
3) (For helicopters equipped with composite tail rotor blades only) Tail rotor hub and blade assembly.	
b. Closely inspect the following components:	
1) Main rotor blades for damage and defects. Ref. to para 62-11-8.	
2) (For helicopters equipped with metallic tail rotor blades only) Tail rotor blades. Ref. to para 64-11-8.	
3) Main transmission assembly.	
4) Main transmission mount assemblies.	
5) Swashplate assembly.	
6) Tail rotor drive shaft assemblies.	
7) Tail rotor (90°) gearbox and pitch change mechanism assembly.	
8) Engine-transmission drive shaft.	
9) Transmission-fan shaft.	
10) Fan assembly.	
11) Rotating and non rotating scissor assemblies.	

UNSCHEDULED MAINTENANCE CHECKS (CONDITIONAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
7. LIGHTNING STRIKE	
When the helicopter is suspected of having been struck by a lightning strike, the following precautionary measures, inspections and maintenance shall be accomplished:	
a. Visually inspect all external surfaces of the helicopter with particular attention to main rotor blades and hub, transmission assembly, tail rotor blades and hub, tail rotor (90°) gearbox and vertical fin. Check electrical instruments and systems. Replace defective and/or damaged parts.	
b. Inspect engine in accordance with engine manufacturer's manuals.	
c. If visual indications of damage are present proceed as follows:	
1) Inspect main rotor blades in accordance with para 62-11-23 and 62-11A-23.	
2) Inspect tail rotor blades in accordance with para 64-11-9 and 64A-11-8.	
3) Remove and send the part to Leonardo Helicopters or to an approved facility for inspections/repairs in accordance with the A109/AW119 SERIES-OM Overhaul manual:	
a) Main rotor hub assembly.	
b) Main transmission assembly.	
4) Inspect all rotating controls for indications of arcing or burning.	
a) Replace bearings that do not rotate smoothly.	
b) If evidence of arcing or burning is found or bearings do not rotate smoothly, remove swashplate assembly and send to Leonardo Helicopters or to approved facility for inspections/repairs in accordance with the A109/AW119 SERIES-OM Overhaul Manual.	
c) Replace main and tail rotor pitch change links that have signs of arcing or burning, including attaching hardware.	
5) Remove and send, the following components, to Leonardo Helicopters or to an approved facility for inspections/repairs in accordance with the A109/AW119 SERIES-OM Overhaul Manual:	
a) Tail rotor hub assembly.	
b) Tail rotor (90°) gearbox assembly.	
6) Inspect tail rotor (90°) gearbox attachment point areas for signs of arcing or burning.	
7) Inspect vertical fin for arcing or burning.	

UNSCHEDULED MAINTENANCE CHECKS (CONDITIONAL INSPECTIONS)

INITIAL EACH ITEM AFTER ACCOMPLISHMENT	INITIAL
d. If no indications of damage is found proceed as follows: 1) Inspect main rotor hub as follows: a) Visually inspect elastomeric bearings for signs of arcing or burning. b) Inspect dampers, relative attachments and hub for signs of arcing or burning. c) Visually inspect grips (external surfaces of plates, pitch control lever and aft bracket attachment bolts) for signs of arcing or burning. d) If there is evidence of arcing or burning, or damaged bearings remove main rotor hub assembly and send to Leonardo Helicopters or to an approved facility for inspections/repairs in accordance with the A109/AW119 SERIES-OM overhaul manual. 2) Remove main rotor hub assembly and visually inspect bearings for signs of arcing and burning. 3) Visually inspect driving spline on mast for signs of arcing and/or burning. a) If there is evidence of arcing and/or burning or damaged bearings, remove main transmission assembly and send to Leonardo Helicopters or to an approved facility for inspections/repairs in accordance with the A109/AW119 SERIES-OM overhaul manual. 4) Visually inspect tail rotor (90°) gearbox shaft teeth for signs of arcing or burning. Check bearings for smoothness of rotation. a) If there is evidence of arcing and/or burning or damaged bearings, remove tail rotor (90°) gearbox assembly and send to Leonardo Helicopters or to an approved facility for inspections/repairs in accordance with the A109/AW119 SERIES-OM overhaul manual.	
8. TAIL SKID IMPACT When the helicopter is suspected of having been struck the tail skid, the following precautionary measures, inspections and maintenance shall be accomplished: a. Remove lower fairing of tail boom lower fin and inspect tail skid fitting and relative area for condition, damage and cracks. b. Inspect all the attachment bolts for distortion and evidence of hard contact. c. Replace all the damaged parts.	
9. OPERATIONS IN HIGH CORROSIVE ENVIRONMENTS If you operate in high corrosive environments such as marine atmospheres, industrial pollution, agricultural sprays, corrosion soils, abrasive dust and extreme temperatures refer to Section 20-40 of A119/AW119MKII-MM.	

PAGE INTENTIONALLY LEFT BLANK

SECTION 05-60

OPTIONAL EQUIPMENT

This section of the manual identifies the scheduled maintenance requirements which apply to the optional equipment.

NOTE 1: For the retirement life of parts installed on the optional equipment refer to the Airworthiness Limitation Section 04-00-00.

NOTE 2: For non Flight Critical Parts installed on the optional equipment refer to the Miscellaneous Replacement Schedule 05-12-00.

NOTE 3: For the mandatory inspection arising from the Certification Process on the optional equipment refer to the Certification Maintenance Requirement 04-30.

Installation number	Denomination
1	Bleed-air heater
2	Emergency Locator Transmitter (EBC-502H)
3	Emergency Medical Transportation (E.M.T.)
4	Emergency Medical Service (E.M.S.)
5	Oxygen system
6	Supplementary fuel tanks
7	Cargo hook and safety hook
8	Rotor brake
9	External hoist
10	Wire Strike Protection System
11	Snow ski installation
12	Pulsed chip detector kit
13	Emergency Locator Transmitter (ELT) (C406-2HM)
14	Engine Air Particle Separator (EAPS)
15	Engine Monitoring System (ADAS)
16	Battery in the baggage compartment
17	Emergency Locator Transmitter (ELT) (C406-N-HM)
18	NVG KIT (P/N 109G3360F01 ref: 109G3360E005)
19	220V AC Utility Socket installation Kit

PAGE INTENTIONALLY LEFT BLANK

[illegible]

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM													
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours..... INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION 2. EMERGENCY LOCATOR TRANSMITTER (EBC 502H) A. Inspect ELT case, antenna and attachment support for proper installation. B. Inspect battery (on transmitter and audible monitor) for corrosion. C. Perform ELT operational test. NOTE 1: Always perform the test within the first 5 minutes of the hour (UTC). Be sure to notify any nearby control tower of your intentions.	EXTENDED						PROGRESSIVE					Initial	
	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours		12 months
						X						Phase III	
						X						Phase III	
						X						Phase III	

PAGE INTENTIONALLY LEFT BLANK

Date..... Signature..... Helicopter Registration No. Helicopter Flight hours..... INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION 3. E.M.T. EQUIPMENT A. E.M.T. Equipment for condition and security. B. Litter for cleanliness, condition and security.		INSPECTION PROGRAM							Initial
		EXTENDED						50 flight hours/60 days	
		200 flight hours							
		400 flight hours							
		800 flight hours							
		3200 flight hours							
		12 months							
		50 flight hours/60 days							
		400 flight hours							
		800 flight hours							
		3200 flight hours							
		12 months							
		3200 flight hours							
800 flight hours									
400 flight hours									
12 months									
50 flight hours/60 days						400 flight hours			
200 flight hours									
400 flight hours									
800 flight hours									
3200 flight hours									
12 months									
50 flight hours/60 days						800 flight hours			
200 flight hours									
400 flight hours									
800 flight hours									
3200 flight hours									
12 months									
50 flight hours/60 days						3200 flight hours			
200 flight hours									
400 flight hours									
800 flight hours									
3200 flight hours									
12 months									
50 flight hours/60 days						12 months			
200 flight hours									
400 flight hours									
800 flight hours									
3200 flight hours									
12 months									
50 flight hours/60 days									
200 flight hours									
400 flight hours									
800 flight hours									
3200 flight hours									
12 months									

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM												
EXTENDED						PROGRESSIVE						Initial
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....												
INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION												
4. EMERGENCY MEDICAL SERVICE (E.M.S.) A. E.M.S. for condition and security. B. Litter(s) for cleanliness, condition and security. C. Medical storage chest for condition, damage, security and completeness. D. Examine Litter adjustable torso restraint assy and safety belt assy. Ref. to Para 25-65-9A.												
X	X	X	X	X	X	X	X	X	X	X	X	X

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM						
			EXTENDED		PROGRESSIVE	
	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....	X					
INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION						
5. OXYGEN SYSTEM A. Oxygen distribution system and shut-off control knob for correct operation. B. Oxygen bottle (cylinder) for proper servicing.						
SPECIAL INSPECTIONS EACH 3 MONTHS A. Perform oxygen system bleeding procedure (para 25-65-14 step D.).						
Initial 						

PAGE INTENTIONALLY LEFT BLANK

Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....	INSPECTION PROGRAM												
	EXTENDED						PROGRESSIVE						Initial
	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
													
6. SUPPLEMENTARY FUEL TANKS													
EACH 10 YEARS													
A. Tank and internal components for condition. Perform tank pressure test. Ref. to para 28-12-4.													

PAGE INTENTIONALLY LEFT BLANK

[illegible]

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM											
EXTENDED						PROGRESSIVE				Initial	
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours		3200 flight hours
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....											
INITIAL EACH ITEM AFTER ACCOMPLISHMENT											
INSTALLATION											
EVERY 1000 HOURS OF EXTERNAL LOAD OPERATION OR 5 YEARS NOTE: "Hours of external load operations" is defined as the time in which a helicopter is engaged in external load operations (with a load on hook). An external load operation hour "h" is counted as "2 x h" in the cases that follow: - Sand and dust condition; - Or logging application. A. Do a calibration of the cargo hook weight system. Refer to para 25-92-8A. B. Visually inspect all visible and accessible electrical cables for security of attachment and chafing. Do an inspection of all the accessible connectors for mechanical damage and/or oxidation. The connectors must be disconnected, checked and then firmly reconnected.											
EVERY 2000 FLIGHT HOURS A. Perform operational test of the system. Ref. to para 25-92-6 and 25-93-8.											

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM											
EXTENDED						PROGRESSIVE					
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months
8. ROTOR BRAKE A. Perform operational test of Rotor Brake System Ref. to para 63-23-11. B. Check rotor brake assy for security of attachments. C. Check ring nut of rotor brake disc adapter for correct torque. Ref. to para 63-23-32. D. Check rotor brake linings for wear. Ref. to para 63-23-25. E. Check rotor brake disc for corrosion and condition.	X			X					X		
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....						INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION					

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM							Initial
			PROGRESSIVE				
			50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	
			EXTENDED				
			50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....			INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION				
CONDITIONAL INSPECTION ROTOR BRAKE ACTUATION WITH ENGINE ON A. Inspect calliper surrounding area for evidence of overheating. B. Start up the engine and apply after shutdown the rotor brake according to the limitations written in A119 RFM. C. If the time to stop the rotor from brake actuation is less than 7 sec., replace disc and linings (Ref. to para 63-23-10) and then repeat the test. ROTOR BRAKE ACTUATION AT NR>40% A. Carry out the same actions as per rotor brake actuation with engine on.							

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM												
EXTENDED						PROGRESSIVE						Initial
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
Date.....												
Signature.....												
Helicopter Registration No.												
Helicopter Flight hours.....												
INITIAL EACH ITEM AFTER ACCOMPLISHMENT												
INSTALLATION												
9. EXTERNAL HOIST												
A. Visually inspect oil level sight gauge. Ref. to 25-91-18.												
B. Visually inspect external hoist mount, struts, fittings and surrounding fuselage area for condition, damage and security. Ref. to 25-91-18.												
C. Visually inspect hoist assembly for leaks. Ref. to 25-91-18.												
D. Visually inspect External Hoist motor and cable cutter electrical connections for condition and security.												
E. Visually check bumper assembly for condition and damage, and ensure that the hook and bumper assembly are correctly homed when the system is not in use. Check bearings for freedom of rotation.												
F. Check hook swivel bearing for smooth and non-binding operation.												
G. Perform general visual inspection of cable cutter pin ensure it is correctly installed.												
H. Check that HOIST CABLE LOCKED message is not present upon hoist power up.												
I. Check security of setscrew holding the wire rope cable in drum flange.												
J. Perform a detailed inspection of manual cable cutter and hoist operator harness for condition. Inspect also the hoist operator attachment point for condition, corrosion and security to the aircraft attachment structure. Ref. to 25-91-10C.												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												
X												

PAGE INTENTIONALLY LEFT BLANK

[illegible]

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM											
EXTENDED						PROGRESSIVE				Initial	
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours		3200 flight hours
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....											
INITIAL EACH ITEM AFTER ACCOMPLISHMENT											
INSTALLATION											
SPECIAL INSPECTIONS (Cont) NOTE: A cycle is defined as an unreeling and recovery of the cable with a load attached to the hook, independently of the length of the cable that is deployed/recovered. An unreeling/recovering of the cable with no load on the hook is not considered to be a "cycle". Any operation where a load is applied for half the operation, i.e. unreeling or recovery, must be considered as a cycle. EVERY 200 HOIST CYCLES/3 MONTHS A. Clean and inspect levelwind follower and levelwind shaft for wear, corrosion and lubricate cable guide shaft. Ref. para. 25-91-18A. EVERY 400 EXTERNAL HOIST CYCLES/6 MONTHS A. Inspect pressure roller for wear and defects. Ref. para 25-91-18B. B. Inspect tension roller for wear and defects. Ref. para 25-91-18B. C. Clean and inspect fleet angle assy for wear, corrosion and defects. Ref. 25-91-18B. D. Inspect Geneva wheel for wear, corrosion and defects. Ref. para 25-91-18B.											
											
											
											
											
											
											

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM													
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours..... INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION CONDITIONAL INSPECTIONS AFTER LAST USE OF THE DAY, IF OPERATED IN SALT WATER ENVIRONMENT Inspect and wash the hook with fresh water and dry using a clean heavy duty lint free cloth. Ref. to para 25-91-17. AFTER LAST USE OF THE DAY, IF HOOK HAS BEEN IMMERSERD IN WATER Disassemble and inspect all subassemblies for defect and corrosion. Re-lubricate bearing(s) as required. Ref. para 25-91-17.	EXTENDED						PROGRESSIVE			Initial			
	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours		800 flight hours	3200 flight hours	12 months

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM																							
										Initial													
EXTENDED						PROGRESSIVE																	
50 flight hours/60 days						200 flight hours				200 flight hours													
400 flight hours						400 flight hours				400 flight hours													
800 flight hours						800 flight hours				800 flight hours													
3200 flight hours						3200 flight hours				3200 flight hours													
12 months						12 months				12 months													
X						X																	
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours..... INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION 10. WIRE STRIKE PROTECTION SYSTEM (WSPS) A. Inspect for condition and security. Ref. to para 53-24-7. CONDITIONAL INSPECTION GROUND CONTACT OF LOWER WSPS A. Visually inspect lower WSPS for damage. (Ref. to CMM). WIRE STRIKE A. Visually inspect the aircraft and external components for damage. B. Visually inspect the WSPS installation and components for damage. Ref. to para 53-24-7.																							

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM												
EXTENDED						PROGRESSIVE						Initial
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....												
INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION												
11. SNOW SKIS A. Check snow ski fitting supports and hardware for damage and security. B. Check earth braid for integrity. C. Check ski lower surface for wear.												
12. PULSED CHIP DETECTOR CONDITIONAL INSPECTION ACTIVATION OF PULSED CHIP DETECTOR BURNER A. If the number of recorded activations during last flight is less than 4 and no previous activation has been recorded in the preceding flights, verify cleanliness of the chip detectors and check continuity of the electrical harness. B. Otherwise carry out the procedures as for the basic detection system activation.												

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM																						
										Initial												
EXTENDED						PROGRESSIVE																
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months											
13. EMERGENCY LOCATOR TRANSMITTER C406-2HM A. Perform ELT operational test using cockpit switch. NOTE: Always perform the test within the first 5 minutes of the hour (UTC). Be sure to notify any nearby control tower of your intentions. B. Visually inspect ELT case and antenna for secure mounting. C. Inspect battery pack of ELT for corrosion. D. Check operation of controls and crash sensor. Ref. to para 25-61B-9.												X										
INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION																						

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM							
						PROGRESSIVE	
						50 flight hours/60 days	200 flight hours
						400 flight hours	800 flight hours
						3200 flight hours	12 months
						Initial	
Date.....							
Signature.....							
Helicopter Registration No.							
Helicopter Flight hours.....							
INITIAL EACH ITEM AFTER ACCOMPLISHMENT							
INSTALLATION							
CONDITIONAL INSPECTIONS							
14. ENGINE AIR-INTAKE PARTICLE SEPARATOR							
A. EAPS-Air intake for condition, foreign matter, damage/missing vortex generators and loose attaching hardware.	X						
B. EAPS- shut-off valve for cracks and security of installation.	X						
C. Visually check proper sealing between EAPS and firewalls.	X						
D. Visually check the joint between nozzle and bleed air supply pipe (visible part).	X						
E. Inspect for cracks both port and starboard EAPS plenums.							
F. By means of calliper, check diameter of the holes in the bleed air manifold (ref. to 71-62-11 and 71-62-12). Note: According to CMM 71-61-00 the above value shall be 2,53mm maximum.							
ENGINE START-UP WITH EAPS SWITCHED TO ON							
If engine ITT exceeds limits, perform engine inspection according to relevant EMM.							

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM												
EXTENDED						PROGRESSIVE						Initial
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....												
INITIAL EACH ITEM AFTER ACCOMPLISHMENT												
INSTALLATION												
15.ENGINE MONITORING SYSTEM (ADAS)												
A. Inspect processor for: -Security to the mounting bracket. -Inspect electrical ground strap for proper connection. -Inspect electrical connectors for proper connection to ADAS processor.												
B. Inspect TREND Switch / Fault Lamp for: -Electrical connectors for loose connections. -Wiring for proper routing and security. -Wiring for signs of interference and wire chaffing.												Phase C
C. Inspect Download Port for: -Electrical connectors for loose connections. -Wiring for proper routing and security. -Wiring for signs of interference and wire chaffing.												Phase C
D. Inspect harness for: -Proper routing and security. -Harness for signs of interference and wire chaffing.												Phase C
												

PAGE INTENTIONALLY LEFT BLANK

INSPECTION PROGRAM											
EXTENDED						PROGRESSIVE					
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months
INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION						Initial					
16.BATTERY IN THE BAGGAGE COMPARTMENT											
A. Baggage compartment electrical/avionic components, battery, relative mounts and floor attachment area for condition, cracks and security, inspect ventlines for obstruction and damage.						X					
B. External power receptacle for condition and arcing; door for correct closure.						X					
C. Starter-generator for condition and security. Electrical connections for arcing and/ or short circuit evidence.						X					
D. Electrical wiring for interference and chafing with surrounding areas, for condition and security of connections.						X					
E. Overhead panel internal wirings, breakers and connectors for condition, chafing and arcing.						X					
F. Remove battery (para 24-31A-25) and recondition (para 24-31A-26), inspect vent lines for obstructions and damage.						X					
G. Perform DC electrical system operational check per para 24-31A-12, 24-31A-14 and 24-31A-15.						X					
H. Generator control Box, Relays box and related terminals for damage and security of connections.						X					

INSPECTION PROGRAM																									
												Initial													
EXTENDED						PROGRESSIVE																			
						50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months														
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours..... INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION I. Perform operational test of AC electrical system 24-21-9. J. Perform operational test of the battery temperature warning circuit. Ref. to para 24-31A-13. K. Connectors and cables on transmission deck and engines bays for condition and corrosion. L. Starter-generator brushes for wear. Commutator contacts for wear, pittings and burnings. Ref. to para 24-31-36 (only for standard starter generator). M. Starter-generator brushes for wear. Commutator contacts for wear, pittings and burnings. Ref. to para 24-31-36 (only for starter generator with XL2 marked after the S/N and P/N 200SGL129Q). N. Nose compartment: ballast tray, relative mounts and floor attachment area for condition, cracks and security.													50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
																			X					Ph III	
																			X						Ph III
																			X						Ph III

INSPECTION PROGRAM												
EXTENDED						PROGRESSIVE						Initial
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....												
INITIAL EACH ITEM AFTER ACCOMPLISHMENT												
INSTALLATION												
17. EMERGENCY LOCATOR TRANSMITTER C406-N-HM												
A. Perform ELT operational test using cockpit switch.												
NOTE: Always perform the test within the first 5 minutes of the hour (UTC). Be sure to notify any nearby control tower of your intentions.												
B. Visually inspect ELT case and antenna for secure mounting.												Phase III
C. Inspect battery pack of ELT for corrosion.												Phase III
D. Check operation of controls and crash sensor. Ref. to para 25-61C-3.												Phase III

PAGE INTENTIONALLY LEFT BLANK

Date..... Signature..... Helicopter Registration No. Helicopter Flight hours.....		INSPECTION PROGRAM												Initial
		EXTENDED						PROGRESSIVE						
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
18. NVG KIT														
EVERY 24 MONTHS														
A. Perform an operational check of NVG equipment to verify correct lighting performance .Ref to para 33-11-8B, para 33-41-8A, para 33-42-6B and para 33-45-6B.														

PAGE INTENTIONALLY LEFT BLANK

Date..... Signature..... Helicopter Registration No. Helicopter Flight hours..... INITIAL EACH ITEM AFTER ACCOMPLISHMENT INSTALLATION 19. UTILITY SOCKET INSTALLATION KIT SPECIAL INSPECTIONS EVERY 6 MONTHS A. Do an operational test of the Ground Fault Interrupter (GFI) for proper operation. Ref. to para 24-21A-3.		INSPECTION PROGRAM						
		EXTENDED						INITIAL
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
		50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months	
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months			
50 flight hours/60 days	200 flight hours	400 flight hours	800 flight hours	3200 flight hours	12 months			

PAGE INTENTIONALLY LEFT BLANK

SECTION 05-70

LUBRICATION AND SERVICING

The following table contains the lubrication and servicing intervals for items of the A119 and AW119MKII helicopter models.

CAUTION: FOR INFORMATION CONCERNING THE PRODUCTS USED AND THE LUBRICATION AND SERVICING PROCEDURES REFER TO THE CHAPTER 12.

NOTE: Mixing of oils of different brands, types and manufactures is prohibited.

LEGEND

L : LUBRICATE
S : SERVICE
R : REPLACE

Item	On condition	7 days	50 hrs or 3 months*	100 hrs or 6 months*	200 hrs or 12 months*	400 hrs or 12 months*	1200 landings	Note
N° 1 hydraulic system reservoir	S							
N° 2 hydraulic system reservoir	S							
Main rotor dampers (4 places)	S							1
Main rotor floating ring and drop stop			L					
Main transmission oil	S					R		2, 3
Tail rotor 90° gearbox oil	S			R				
Engine oil tank	S							4
Main fuel tanks	S							
Auxiliary fuel tank	S							
Servo hydraulic system accumulators (2 places)					S with nitrogen			
Main rotor blade (only for helicopters which operate over the sea) Ref. to 62-11-35		L						
Main rotor swashplate (2 places)			L					
Main rotor servo actuators (3 places)					L			
Levers of main and tail rotor servo actuators. Protect with a corrosion preventive compound. Ref. to para 67-31-18						L		
Tail rotor drive shaft bearing			L					
Tail rotor pitch change mechanism duplex bearing			L					
Splined adapters of transmission to fan drive shaft	L							
Rotor brake pump hydraulic fluid (if installed)	S							
Landing gear dampers (2 places)							S	5

(*) **Whichever occurs first.**

NOTE 1: Every 400 flight hours service and bleed without removing damper from helicopter. Ref. to para 12-20-15.

NOTE 2: Perform transmission oil level check after engine shut down without operating rotor brake (if installed).

NOTE 3: In addition to oil replacement, replace oil filter of main transmission.

NOTE 4: Refer to engine manufacturer's manual for engine oil change schedule.

NOTE 5: Remove dampers from the helicopter and replenish. Ref. to para 12-20-31.