

Temporary Maintenance Instruction TMI139-576

**Tail plane lower fitting – Replacement on
TAIL BOOM ASSY P/N 3G5350A00136.**

All AW139 Helicopters

The technical content of this document is approved under the authority of DOA nr. EASA.21J.005.

The present TMI will be evaluated for its introduction in the standard set of Technical Publication.

If no further notice is received, the present document expires on: March 11th 2025.

2024-03-11

Introduction

This TMI provides the instructions and requirements to perform the Tail plane lower fitting – Replacement for TAIL BOOM ASSY P/N 3G5350A00136.

Following procedure contained in this TMI updates and supersedes the contents of the relative Data Modules inside IETP:

ANNEX	DATA MODULE CODE	DATA MODULE TITLE
Annex 1	ASRP-39-A-53-52-05-00B-921A-D	Tail plane lower fitting – Replacement (remove and install a new item)

The content of this TMI will be endorsed within the applicable Maintenance Manual at the earliest opportunity.

Tail plane lower fitting – Replacement (remove and install a new item)

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Tail plane lower fitting - Replacement (remove and install a new item)

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References

Table 1 References

Data Module	Title
39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)

Table 1 References

Data Module	Title
39-A-00-50-00-00A-010A-D	Local supply consumables, materials and expendables - General data
39-C-55-11-01-00A-520A-A	Tail plane - Remove procedure
39-C-55-11-01-00A-720A-A	Tail plane - Install procedure
CSRP-A-51-21-00-00A-028A-D	Surface treatments - General
CSRP-A-51-21-05-00A-028A-D	Cleaning of structural parts - General

Table 2 Access points

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Access Panel / Door Id	Data Module
No Zones	

Preliminary Requirements

Required Conditions

Table 4 Required Conditions

Conditions	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A
Applicability: P/N 3G5350A00136. Additional effectivity restrictions: none.	
Kit/SB/Equipment compatibility limitations: none.	
The repair area shall be cleaned before repair execution.	CSRP-A-51-21-05-00A-028A-D
Paint and primer shall be removed from the repair area.	CSRP-A-51-21-00-00A-028A-D

Support Equipment

Table 5 Support Equipment

Nomenclature
No Support Equipment

Supplies

Table 6 Supplies

Nomenclature	Identification No.	Qty
Sealing compound	C153	AR
Rivets (P/N NAS9301BNS-5-04)	Local supply	AR
Pin (P/N HL20PB-5-8)	Local supply	AR
Collar (P/N HL86W-5)	Local supply	AR
Pin (P/N HL20PB-6-4)	Local supply	AR
Collar (P/N HL86W-6)	Local supply	AR

Spares

Table 7 Spares

Nomenclature	Identification No.	Qty	Effectivity
Tail plane lower fitting	3G5351A09132 or 3G5351A09132A	1	3G5351A09132A comes with 3 holes of 3.2 mm diameter, for matching with fin structure
Shim (left side)	3G5351A03853	AR	
Shim (right side)	3G5351A09351	AR	
Spot faced plate (left side)	3G5351A08152	AR	
Spot faced plate (right side)	3G5351A08252	AR	

Safety Conditions

WARNING

The materials that follow are dangerous. Before you do this procedure, make sure that you know all the safety precautions and first aid instructions for these materials:

- [Sealing compound \(C153\)](#)

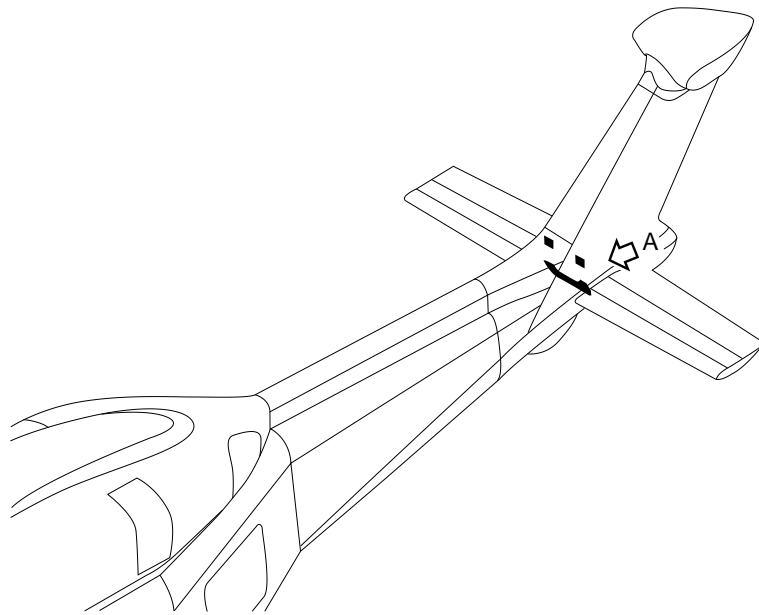
Procedure

- 1 During this procedure:
 - Refer to CSRP for all the processes described in this DM
 - Adapt manufactured items during installation on existing structure
 - Protect all manufactured items with Primer
 - Deburr new fastener holes
 - Select actual fastener grip at installation
 - Dip the shank of fasteners into [Sealing compound \(C153\)](#) before installation
 - Rivet as indicated, if holes conditions are not suitable use oversize rivets.
 - 2 Remove the tail plane (refer to [39-C-55-11-01-00A-520A-A](#)).
 - 3 Get access to the work area (refer to [Figure 1](#), detail A).
 - 4 Remove the fasteners that attach the tail plane lower fitting assembly to the structure.
 - 5 Clean the items that follow from sealant and other contaminants:
 - The tail plane lower fitting assembly mounting holes
 - The surface of the fin assembly.
- Note**
- Do not remove the shims 3G5315A03853 ([Shim \(left side\) \(3G5351A03853\)](#)) and 3G5351A09351 ([Shim \(right side\) \(3G5351A09351\)](#)) from the structure. If the shim removal or replacement is necessary, proceed as follows:
- get the thickness from the existing shim
 - take the new shim
 - peel the shim to the correct thickness.
- 6 Install the new shim with the [Sealing compound \(C153\)](#) . Refer to [Figure 1/Sheet 3](#).
 - 7 Remove the tail plane lower fitting.
 - 8 Place the new [Tail plane lower fitting \(3G5351A09132 or 3G5351A09132A\)](#) on the aircraft structure and temporarily install the tail plane lower attachment bolts to make sure that you get the correct alignment.

- 9 Adapt the existing holes in the new tail plane lower fitting assembly (refer to the ASRP Standard procedures). Make sure that there are the required interference fits for the Hi-Loks (refer to [Figure 1/Sheet 2](#)).
- 10 Clean the holes and prepare the tail plane lower fitting mounting surfaces for [Sealing compound \(C153\)](#) application.
- 11 Apply the [Sealing compound \(C153\)](#) to the mating surfaces of tail plane lower fitting.
- 12 Place the [Tail plane lower fitting \(3G5351A09132 or 3G5351A09132A\)](#) on the fin assembly still wet. To do this, use the clecos and attach it with fasteners (refer to [Figure 1/Sheet 6](#)).
- 13 Wait until the sealing compound has correctly cured. Refer to sealing compound package for correct cure time information.
- 14 If the spotfaces ([Spot faced plate \(left side\) \(3G5351A08152\)](#) and [Spot faced plate \(right side\) \(3G5351A08252\)](#)) replacement is required, proceed as follows:
 - 14.1 Remove the fasteners and safety the spotfaces to the vertical fin structure.
 - 14.2 Install the new spotfaces with the Hi-Loks (refer to [Figure 1/Sheet 4 and Sheet 5](#)).
- 15 Install the tail plane (refer to [39-C-55-11-01-00A-720A-A](#)).

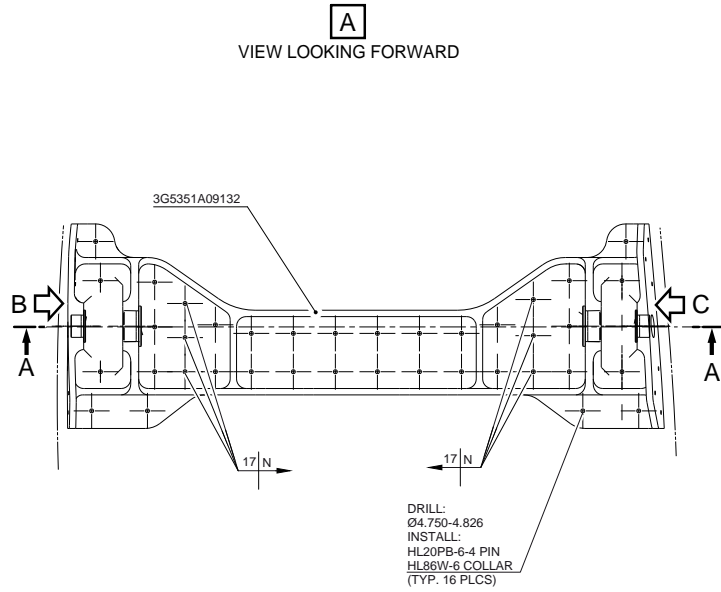
Requirements After Job Completion

- 1 Remove all the tools and other items from the work area.
- 2 Make sure that the work area is clean.
- 3 Do a loose object check.
- 4 Return the helicopter back to service conditions.



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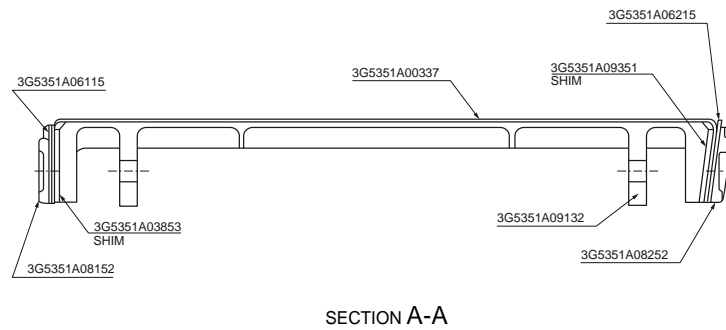
Figure 1 (Sheet 1 of 6) Tail plane lower fitting - Replacement (remove and install a new item)



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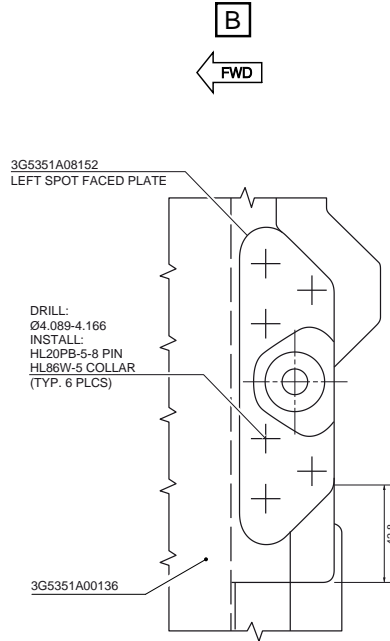
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Figure 1 (Sheet 2 of 6) Tail plane lower fitting - Replacement (remove and install a new item)



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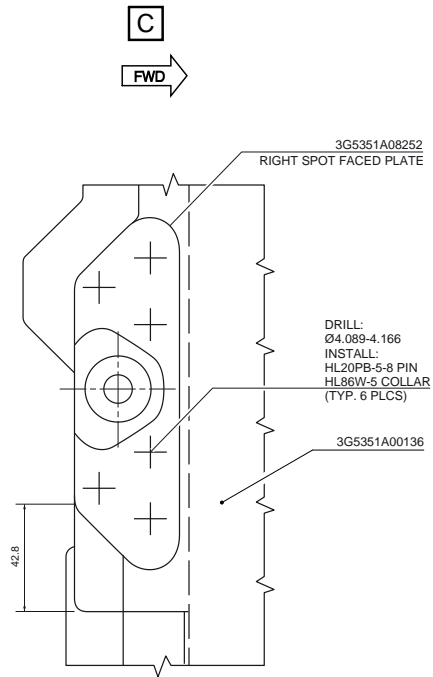
Figure 1 (Sheet 3 of 6) Tail plane lower fitting - Replacement (remove and install a new item)



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Figure 1 (Sheet 4 of 6) Tail plane lower fitting - Replacement (remove and install a new item)



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Figure 1 (Sheet 5 of 6) Tail plane lower fitting - Replacement (remove and install a new item)

RIVET CODE IN ACCORDANCE WITH NTA018R CODICE RIVETTO SECONDO NTA018R			
REF. NUMBER NUMERO DI RIFERIMENTO		ORIENTATION ORIENTAMENTO	
COUNTERSINK TIPO DI SVASATURA		BLANK LASCIARE LIBERO	
<p><u>NOTE:</u> EDGE DISTANCE FROM CENTERLINE EXCEPT WHERE INDICATED OTHERWISE</p> <p><u>NON-COMPOSITE</u> UNIVERSAL HEAD 2 TIMES SHANK DIA. COUNTERSINK HEAD 2.5 TIMES SHANK DIA.</p> <p><u>COMPOSITE</u> UNIVERSAL HEAD 2.5 TIMES SHANK DIA. COUNTERSINK HEAD 3 TIMES SHANK DIA.</p>		<p><u>NOTA:</u> DISTANZA DEL BORDO DALL'ASSE ECCETTO COME INDICATO</p> <p><u>NON-COMPOSITO</u> TESTA UNIVERSALE 2 VOLTE IL DIAMETRO DEL GAMBO. TESTA SVASATA 2.5 VOLTE IL DIAMETRO DEL GAMBO.</p> <p><u>COMPOSITO</u> TESTA UNIVERSALE 2.5 VOLTE IL DIAMETRO DEL GAMBO. TESTA SVASATA 3 VOLTE IL DIAMETRO DEL GAMBO.</p>	
REF. No No RIF.	RIVET PART NUMBER NUMERO PEZZO RIVETTO	REF. No No RIF.	RIVET PART NUMBER NUMERO PEZZO RIVETTO
17	NAS9301BNS-5-04		

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Figure 1 (Sheet 6 of 6) Tail plane lower fitting - Replacement (remove and install a new item)

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End of Data Module