

Temporary Maintenance Instruction TMI 139-487 **Rev B**

Tail section - Tail gearbox attachment structure - Detailed inspection

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: **January, 29th 2022.***

2021-01-29

Introduction

This TMI provides the instructions and requirements to perform the detailed inspection of the external and internal side of the tail gearbox attachment structure.

All the information reported in the subsequent pages will be updated in the IETP revision 39, Data Module :

ANNEX	DATA MODULE CODE	DATA MODULE TITLE
Annex 1	39-A-53-40-00-00A-31AC-A	Tail section - Tail gearbox attachment structure - Detailed inspection

Tail section - Bonded skin panels - Detailed inspection

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Refer to attached annex

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Refer to attached annex

Annex 1

Tail section - Tail gearbox attachment structure - Detailed inspection

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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 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
The access panels/doors 360AL, 360AT and 360CT must be removed/opened	39-A-06-41-00-00A-010A-A

Support Equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Platform, left	GG-01-00	1
Platform, right	GG-02-00	1
Magnifying glass (10 power)	ZZ-00-00	1
Mirror	ZZ-00-00	1
Boroscope	ZZ-00-00	1
Light source (strong)	ZZ-00-00	1

Supplies

Table 6 Supplies

Nomenclature
No Supplies

Spares

Table 7 Spares

Nomenclature
No Spares

Safety Conditions

No Safety Condition

Procedure

- 1 Put the Platform, left (GG-01-00) adjacent to the left side of the fuselage.
- 2 Put the Platform, right (GG-02-00) adjacent to the right side of the fuselage.

Note

When you do the subsequent steps, use the Magnifying glass (10 power) (ZZ- 00-00) , the Mirror (ZZ-00-00) , a Light source (strong) (ZZ-00-00) and the Boroscope (ZZ-00-00).

- 3 Get access to the external right side of the fin (1) as shown in Figure 1 detail A.
- 4 Clean the area to inspect with the Cheesecloth (C028) and the Aliphatic naphtha (C059) or the Cleaning solvent (C010) or equivalent .
- 5 Accurately examine the area around the right forward and rear holes (4) on the external right side of the tail gearbox attachment-fitting (3) as shown in Figure 1 detail B. Make sure that there are no crack damages.
- 6 If you find crack damage tell the Manufacturer.
- 7 Accurately examine the frontal and right side of the body of the tail gearbox attachment-fitting (3). Make sure that there are no crack damages.
- 8 If you find crack damage tell the Manufacturer.
- 9 Examine the external area around the vertical and horizontal row of fastener holes (2) of the external right side of the tail gearbox attachment-fitting (3), as shown in Figure 1 detail A. Make sure that there are no crack damages.
- 10 If you find crack damage tell the Manufacturer.
- 11 Examine the external area around the vertical and horizontal row of fastener holes (6) of the external forward side of the tail gearbox attachment-fitting (3), as shown in Figure 1 detail D. Make sure that there are no crack damages.
- 12 If you find crack damage tell the Manufacturer.

- 13 Get access to the inner right side of the fin (1) as shown in Figure 1 sheet 4.
- 14 Clean the area to inspect with the Cheesecloth (C028) and the Aliphatic naphtha (C059) or the Cleaning solvent (C010) or equivalent .
- 15 Examine the inner area around the vertical and horizontal row of fastener holes (2M) of the inner left side of the tail gearbox attachment-fitting (3) as shown in Figure 1 sheet 3. Make sure that there are no crack damages.
- 16 If you find crack damage tell the Manufacturer.
- 17 Examine the area around the vertical and horizontal row of fastener holes (8M) of the inner rear side of the tail gearbox attachment-fitting (3) as shown in Figure 1 sheet 3. Make sure that there are no crack damages.
- 18 If you find crack damage tell the Manufacturer.
- 19 Accurately examine the area around the vertical and horizontal row of fastener holes (6M) of the forward side of the tail gearbox attachment-fitting (3) as shown in Figure 1 sheet 3. Make sure that there are no crack damages.
- 20 If you find crack damage tell the Manufacturer.
- 21 Accurately examine the area around the vertical and horizontal row of fastener holes (7M), of the inner right side of the tail gearbox attachment-fitting (3) as shown in Figure 1 sheet 4. Make sure that there are no crack damages.
- 22 If you find crack damage tell the Manufacturer.
- 23 Get access to the external left side of the fin (1) as shown in Figure 1 detail E.
- 24 Clean the area to inspect with the Cheesecloth (C028) and the Aliphatic naphtha (C059) or the Cleaning solvent (C010) or equivalent .
- 25 Accurately examine the area around the left forward and rear holes (4) on the external left side of the tail gearbox attachment-fitting (3) as shown in Figure 1 detail B. Make sure that there are no crack damages.
- 26 If you find crack damage tell the Manufacturer.
- 27 Accurately examine the rear and left side of the body of the tail gearbox attachment-fitting (3). Make sure that there are no crack damages.
- 28 If you find crack damage tell the Manufacturer.

- 29 Examine the external area around the vertical and horizontal row of fastener holes (7) of the external left side of the tail gearbox attachment-fitting (3) as shown in Figure 1 detail E. Make sure that there are no crack damages.
- 30 If you find crack damage tell the Manufacturer.
- 31 Examine the external area around the vertical and horizontal row of fastener holes (8) of the external rear side of the tail gearbox attachment-fitting (3) as shown in Figure 1 detail F. Make sure that there are no crack damage.
- 32 If you find crack damage tell the Manufacturer.

Requirements After Job Completion

- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.
- 2 Install/close the access panels/doors 360AL, 360AT and 360CT. Refer to 39-A-06-41-00-00A-010A-A
- 3 Remove the platform from the left side of the fuselage.
- 4 Remove the platform from the right side of the fuselage.

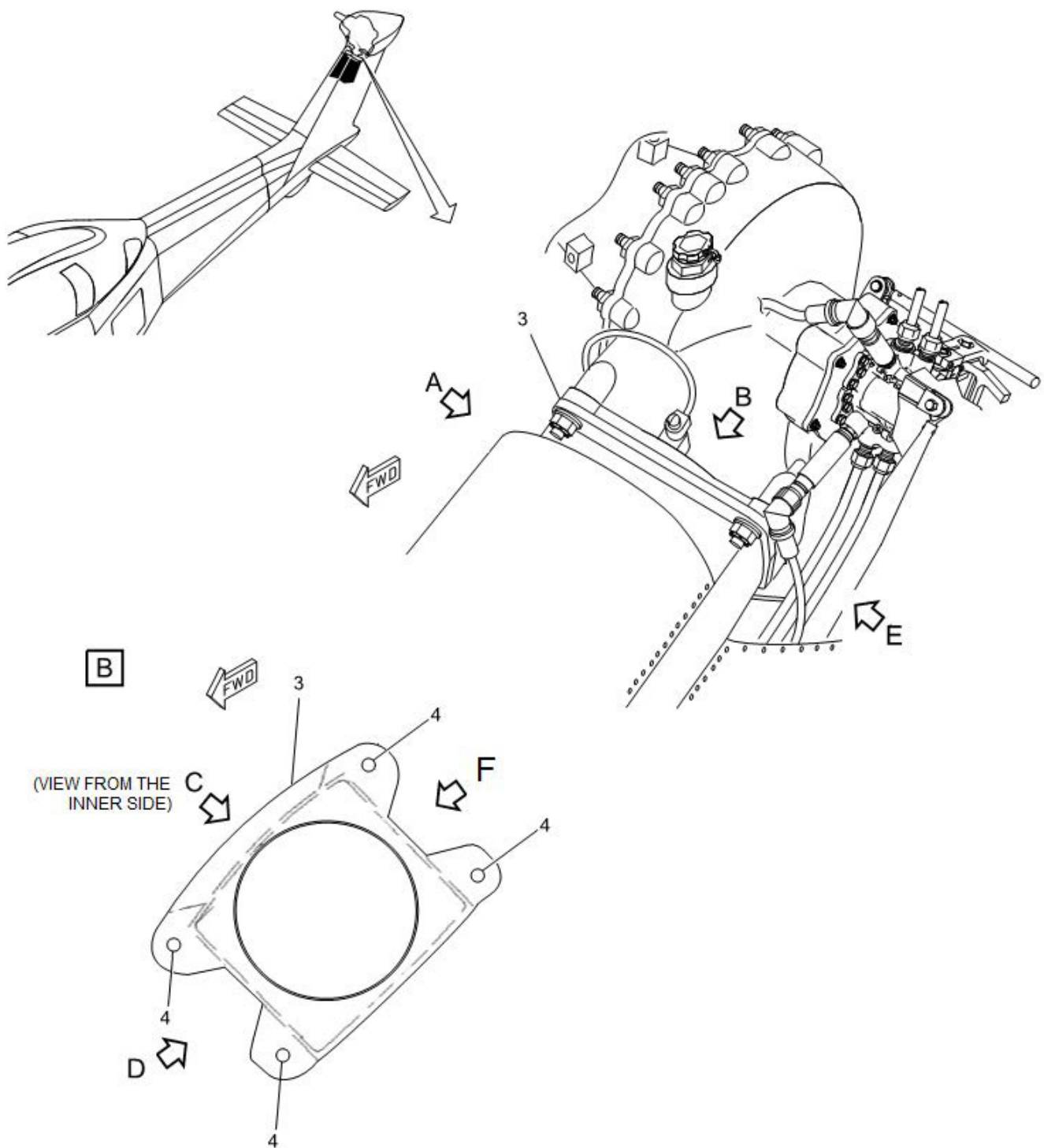


Figure 1 Tail section - Tail gearbox attachment structure - Detailed inspection (Sheet 1 of 5)

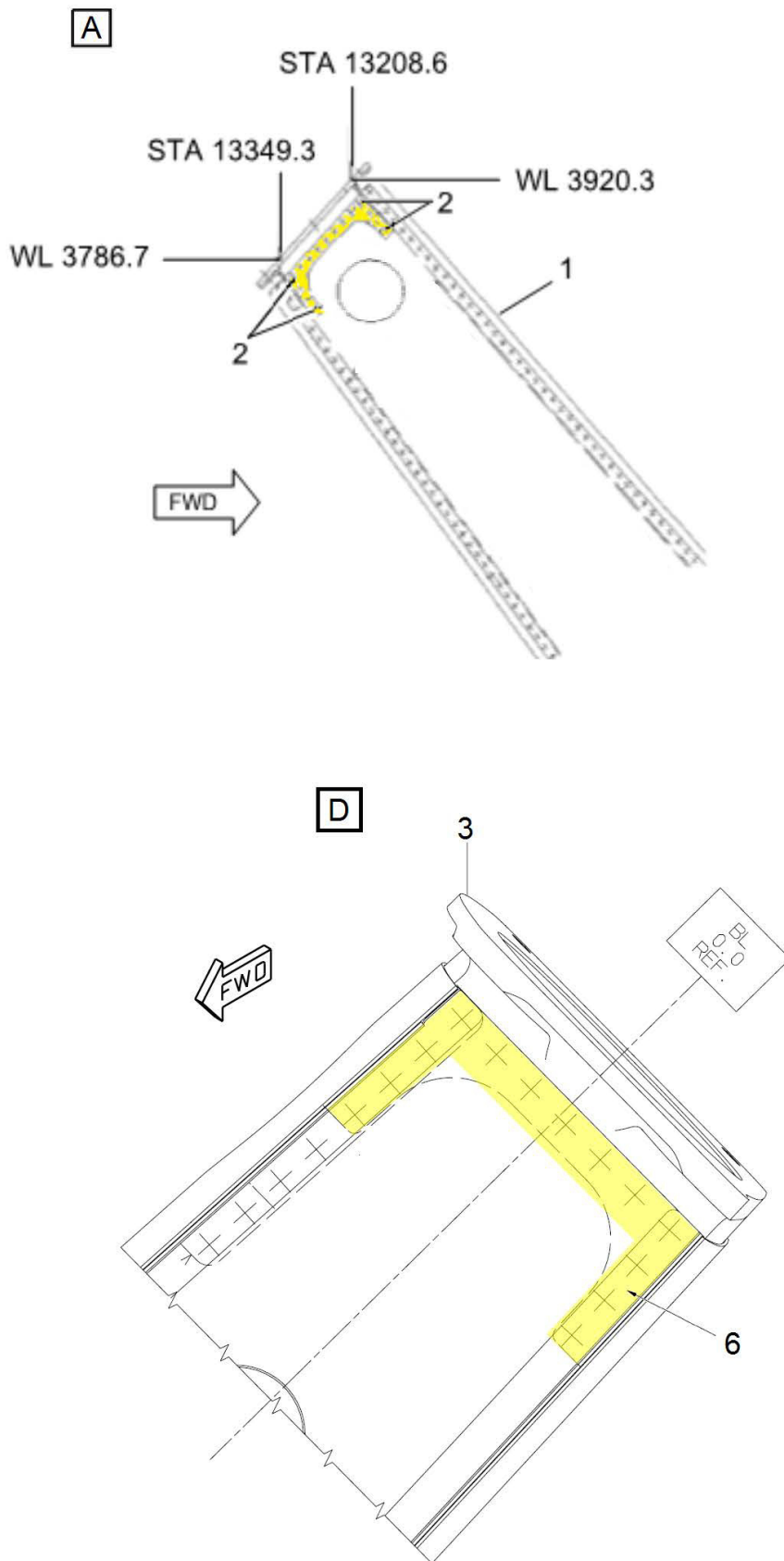
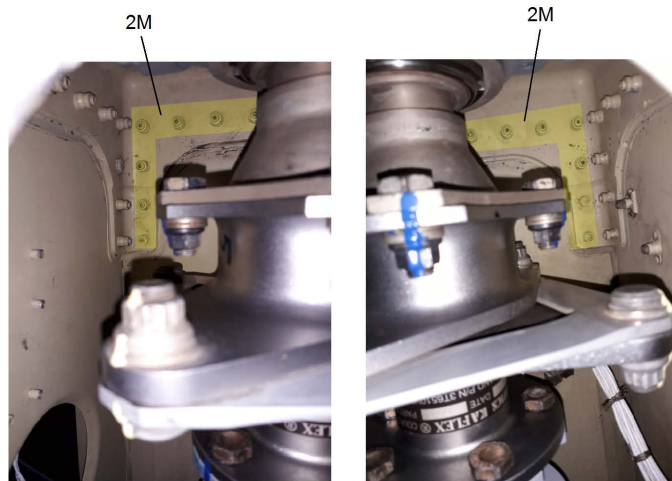


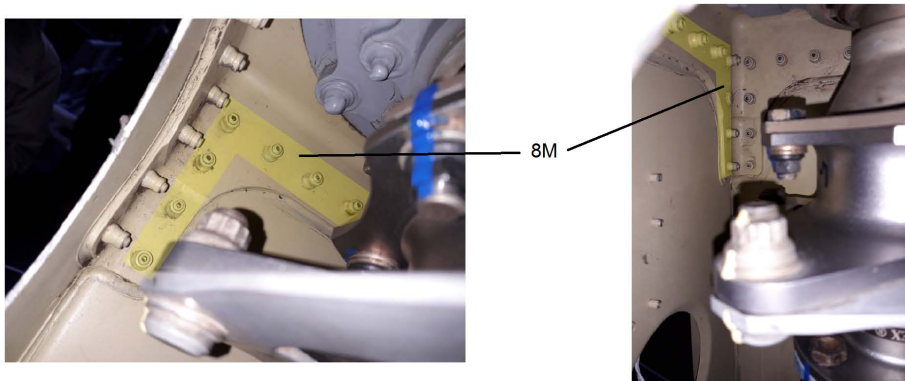
Figure 1 Tail section - Tail gearbox attachment structure - Detailed inspection (Sheet 2 of 5)

C

VIEW LOOKING LEFT SIDE
OF TGB FITTING



VIEW LOOKING REAR SIDE
OF TGB FITTING



VIEW LOOKING FORWARD SIDE
OF TGB FITTING

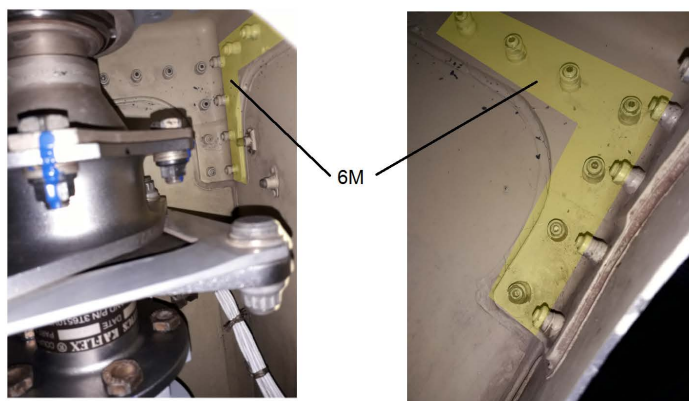
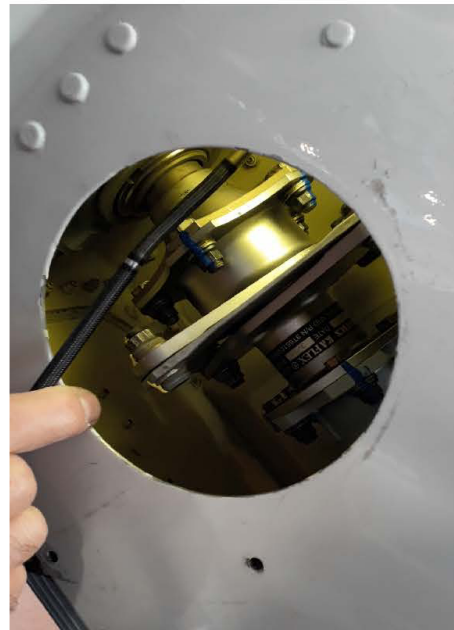


Figure 1 Tail section - Tail gearbox attachment structure - Detailed inspection (Sheet 3 of 5)



**VIEW LOOKING RIGHT SIDE
OF TGB FITTING**



7M

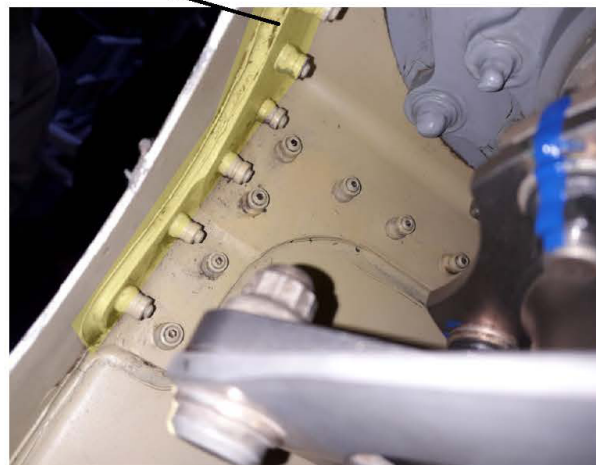


Figure 1 Tail section - Tail gearbox attachment structure - Detailed inspection (Sheet 4 of 5)

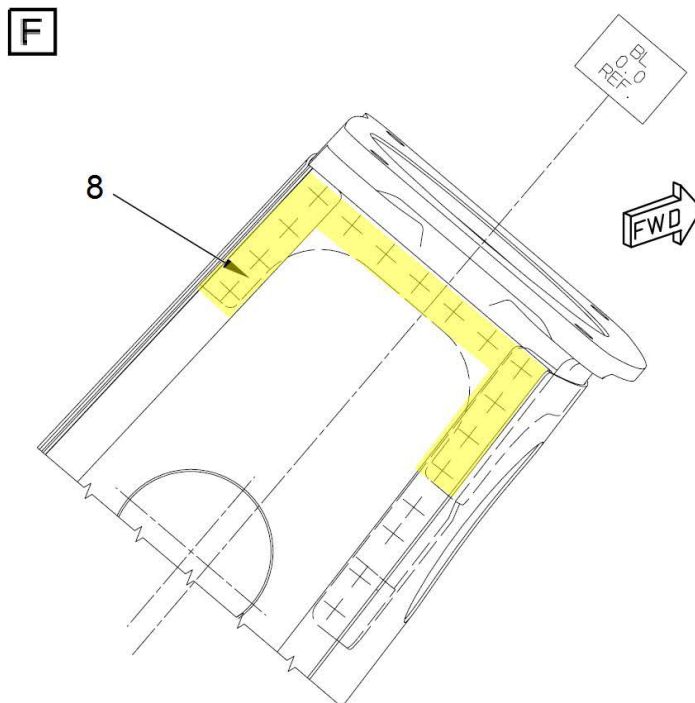
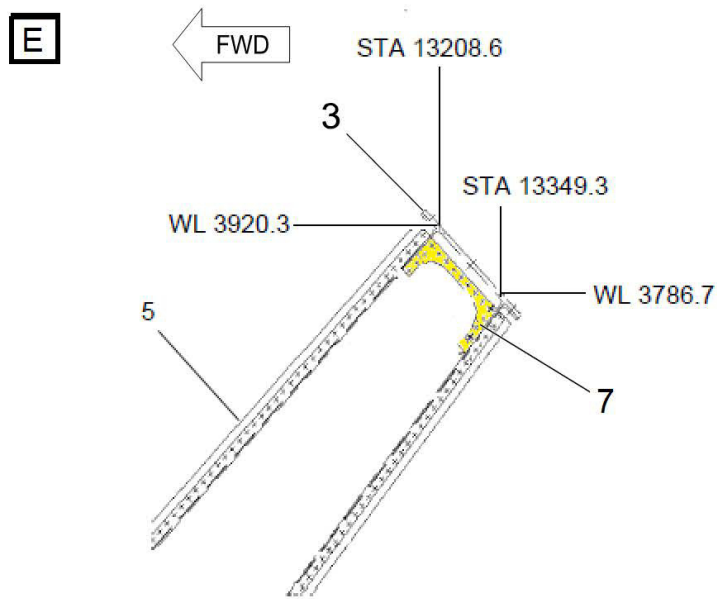


Figure 1 Tail section - Tail gearbox attachment structure - Detailed inspection (Sheet 5 of 5)