

Temporary Maintenance Instruction TMI139-384 Rev. A

Left Bracket Assy – Replacement procedure (Remove and install a new item)

**All AW139 helicopters equipped with
passenger compartment subfloor p/n
3P5331A00232**

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: February 22nd, 2023.

2022-02-22

Introduction

The purpose of this Temporary Maintenance Instruction is to describe the procedure for replacement of the Left Bracket Assy P/N 3P5331A05131.

Left Bracket Assy - Replacement procedure (remove and install a new item)

Table of contents

- [References](#)
- [Preliminary requirements](#)
- [Procedure](#)
- [Requirements after job completion](#)

List of tables

- 1 [References](#)
- 2 [Required conditions](#)
- 3 [Support equipment](#)
- 4 [Supplies](#)
- 5 [Spares](#)

List of figures

- 1 [LH Bracket Assy - Work area](#)
- 2 [T shape profile 3P5331A29051](#)
- 3 [Middle Frame Assy STA2105 3P5331A05531](#)
- 4 [Left Frame Assy STA2105](#)
- 5 [Structural Removals](#)
- 6 [Bracket Assy to Longheron](#)
- 7 [Bracket Assy to Left Vertical Panel](#)
- 8 [LH Bracket Assy - Removed profile](#)
- 9 [Mobile Rack Assy - Work Area](#)
- 10 [Plate Assy - Work Area](#)

References

Table 1 References

Data Module	Title
39-A-00-20-00-00A-120A-A	Helicopter safety - Make the helicopter safe for maintenance
39-A-06-41-00-00A-010A-A	Access doors and panels – General data
39-A-07-11-00-00A-000A-A	Helicopter - Lift on jacks - General
39-A-32-21-01-00A-520B-A	Nose landing gear - Remove procedure
39-A-32-21-01-00A-720B-A	Nose landing gear - Install procedure
39-A-32-31-04-00A-520B-A	Nose landing gear actuator - Remove procedure
39-A-32-31-04-00A-720B-A	Nose landing gear actuator - Install procedure
39-A-51-41-01-00A-010A-A	Rivet replacement - General data

Preliminary requirements

Required conditions

Table 2 Required conditions

Condition	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A
The access panels 131AL & central exterior must be removed	39-A-06-41-00-00A-010A-A
The helicopter must be lifted on jacks	39-A-07-11-00-00A-000A-A
The nose landing gear must be removed	39-A-32-21-01-00A-520B-A
The nose landing gear actuator must be removed	39-A-32-31-04-00A-520B-A

Support equipment

Table 3 Support equipment

Nomenclature	Identification No.	Qty
1. Control Tool	3G3220V00133A670A	1

Supplies

Table 4 Supplies

Nomenclature	Identification No.	Qty
No supplies are required		

Spares

Table 5 Spares

Nomenclature	Identification No.	Qty
1. Left Bracket Assy	3P5331A05131	1 (1)
2. Pin	HL20PB-5-3	16
3. Pin	HL20PB-5-4	22
4. Pin	HL20PB5-5	5
5. Collar	HL86PB-5	31
6. Collar	HL86PBW-5	12
7. Rivet	MS20470AD4	AR
8. Rivet	MS20470AD4-4-5	AR

9. Rivet	MS20470AD4-5-5	AR
10. Rivet	MS20470AD5-5	AR
11. Rivet	MS20470AD5-5-5	AR
12. Rivet	MS20470AD4-8	AR
13. Rivet	MS20470AD4-6-5	AR
14. Rivet	A297A05TW02	AR
15. Rivet	A297A04TW02	AR
16. Rivet	A297A04TW03	AR
17. Rivet	AS46789-512	AR
18. Rivet	AS46789-514	AR
19. Rivet	NAS1720C5L4P	AR
20. Rivet	NAS1720C5L5P	AR
21. Rivet	MS20470AD4-5	AR
22. Rivet	MS20470AD4-6	AR
23. Rivet	MS20470AD5-6	AR
24. Rivet	NAS9301B-4-02	AR
25. Rivet	NAS9301B-4-04	AR

Note:

(1) As alternative it is possible to order P/N 3P5331A05131M01.

Safety conditions

None

Note

Before apply the subsequent procedure, in order to obtain the applicable instructions necessary to get access to the work area, contact the Manufacturer.

Procedure

1. Get access to the work area. Refer to figure 1.
2. Remove RH Nose harness Assy 3G9A11B00112 & 3G9A12B00112 from work area.
3. Remove the T shape profile p/n 3P5331A29051 from Middle Frame Assy STA2105 as per figure 2.
4. Remove Middle Frame Assy STA2105 p/n 3P5331A05531 as per figure 3.
5. Remove LH Lower Profile p/n 3P5331A25953 & Angle p/n 3P5331A29351 from Left Frame Assy STA2105 as per figure 4 & 5.
6. Remove Left Frame Assy STA2105 p/n 3P5331A05733 as per figure 4 & 5.
7. Remove Connector p/n 3P5331A30751 from LH Bracket Assy as per figure 6.
8. Remove LH Bracket Assy p/n 3P5331A05131 as per figure 7.

Note

To remove the bracket, it will be necessary to slide inboard and forward after removal of all attaching hardware.

9. Remove the mobile rack assembly from interseat console. Refer to figure 9.
10. Gain access to area surrounding NLG Actuator Bracket by removing the plate assembly p/n 3P5331A07733 from interseat console. Refer to figure 10.
11. Position control tool 3G3220V00133A670A (table 3 support equipment) in NLG actuator bracket & RH MLG bracket assy.
12. If LH Bracket Assy P/N 3P5331A05131M01 is going to be installed, proceed as follows. Otherwise go to Step 13.
 - 12.2 Drill 34 holes at \varnothing 3,3mm. Refer to figure 11;
 - 12.3 Drill 10 holes at \varnothing 4,1mm. Refer to Figure 12;
 - 12.4 Drill 3 holes at \varnothing 4,154 / 4,118mm. Refer to Figure 13.
13. Using the third fixed point on the control tool, place LH bracket assy into position and shim any gaps as necessary.
14. Install LH bracket assy per figure 7 while control tool is in place to avoid misalignment.
15. Install Connector p/n 3P5331A30751 as per figure 6.
16. Install Left Frame Assy STA2105 p/n 3P5331A05733 along with LH Lower Profile p/n 3P5331A25953 & Angle p/n 3P5331A29351 as per figures 4 & 5.
17. Install Middle Frame Assy STA2105 p/n 3P5331A05531 & T shape profile p/n 3P5331A29051 as per figures 2 & 3.
18. Install RH Nose harness Assy 3G9A11B00112 & 3G9A12B00112
19. Return the helicopter to flight condition.

Requirements after job completion

1. Remove all the tools and the other items from the work area.
2. Make sure that the work area is clean.
3. Do loose objects check.

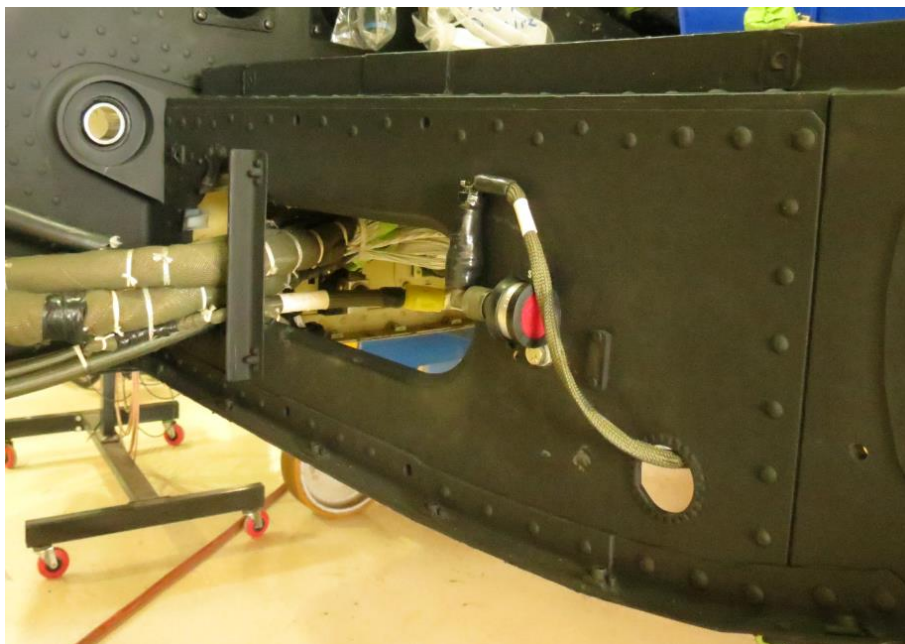
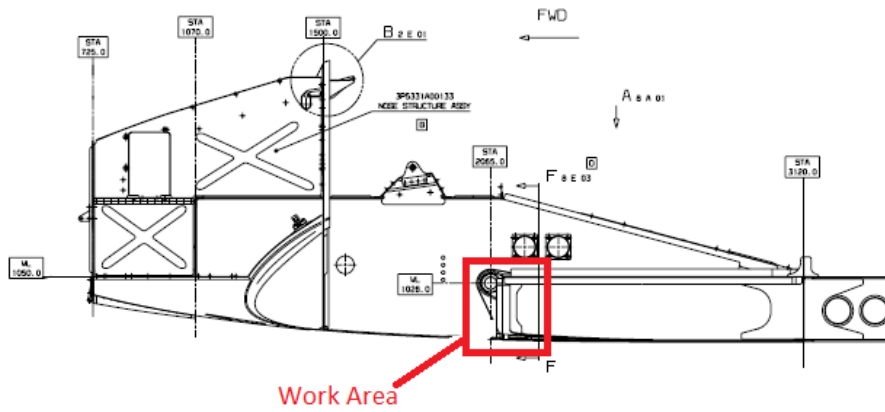
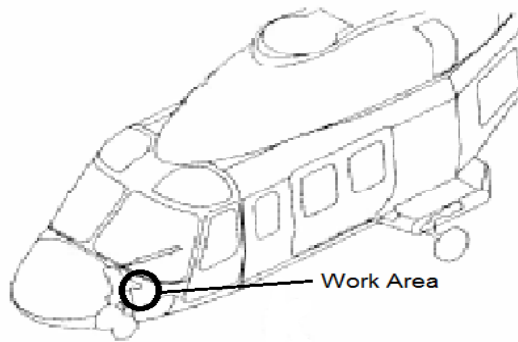


Figure 1 - LH Bracket Assy - Work area

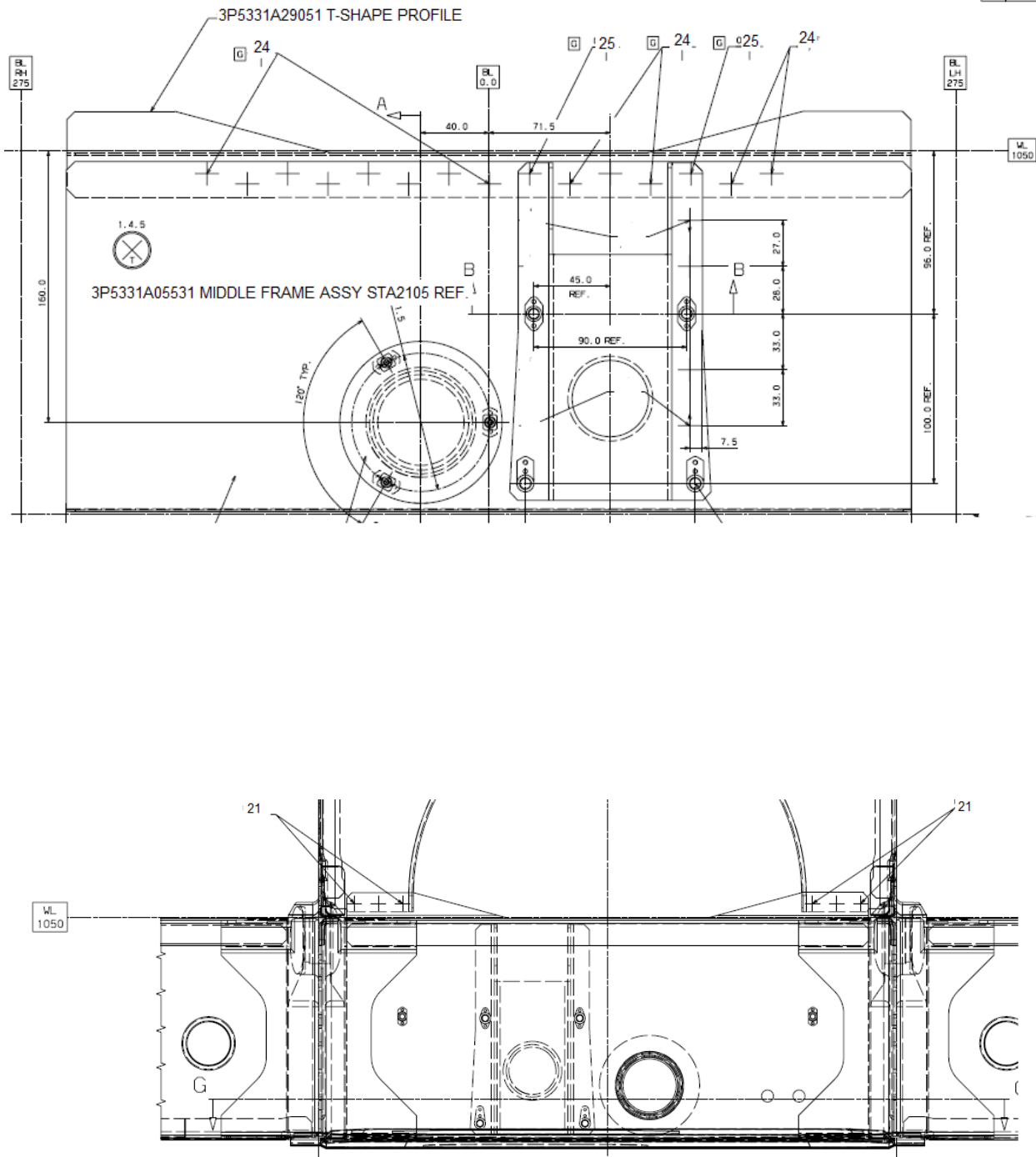


Figure 2 - T shape profile 3P5331A29051

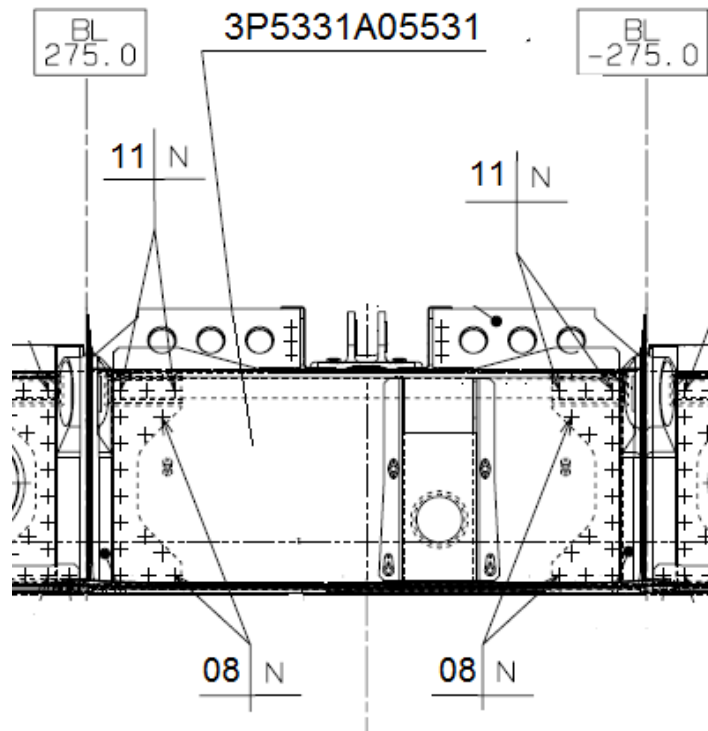


Figure 3 - Middle Frame Assy STA2105 3P5331A05531

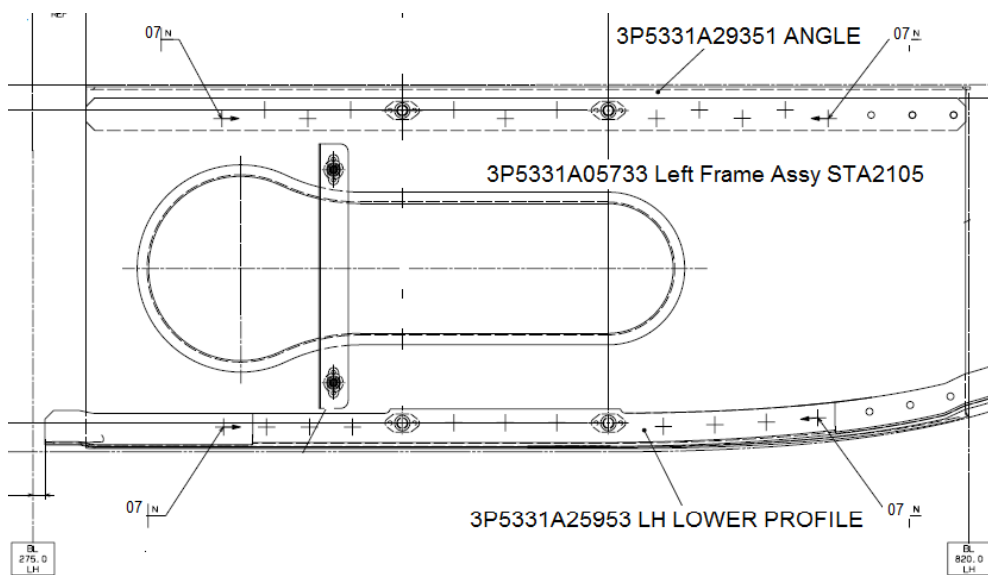


Figure 4 - Left Frame Assy STA2105

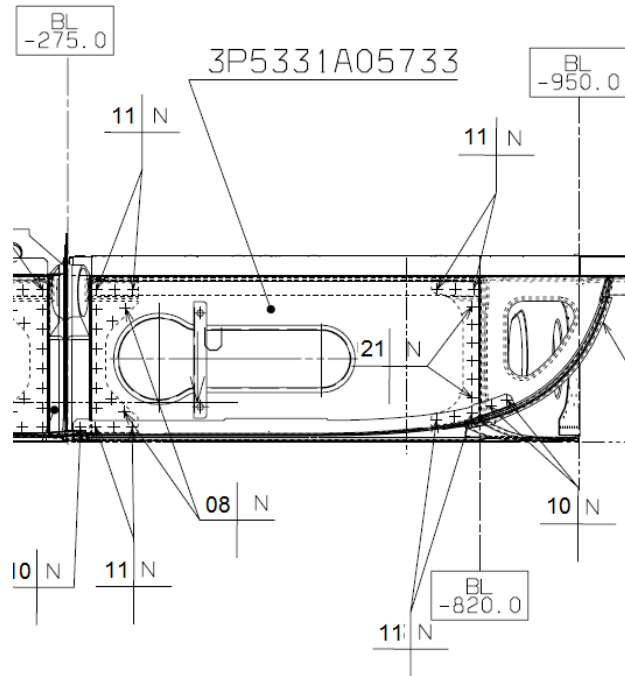


Figure 5 - Left Frame Assy STA2105

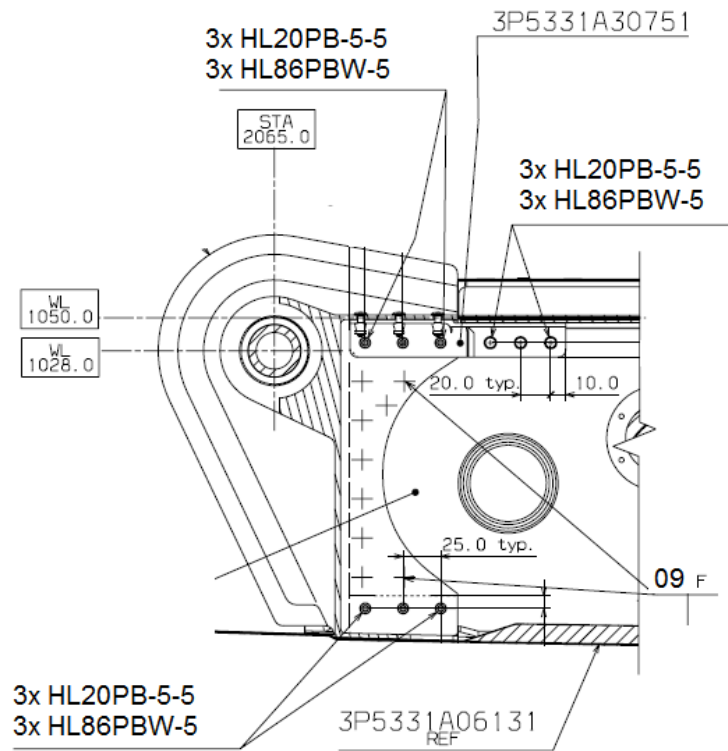


Figure 6 - Bracket Assy to Longheron

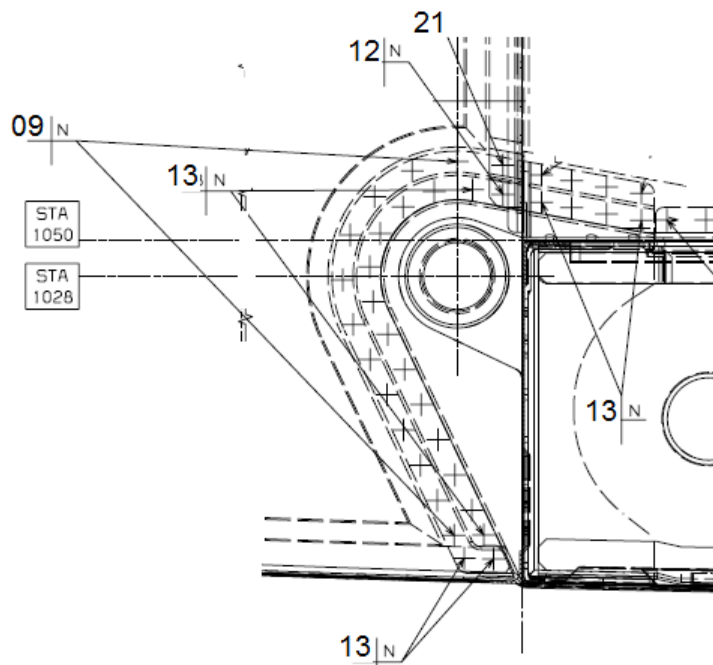


Figure 7 - Bracket Assy to Left Vertical Panel



Figure 8 - LH Bracket Assy - Removed profile

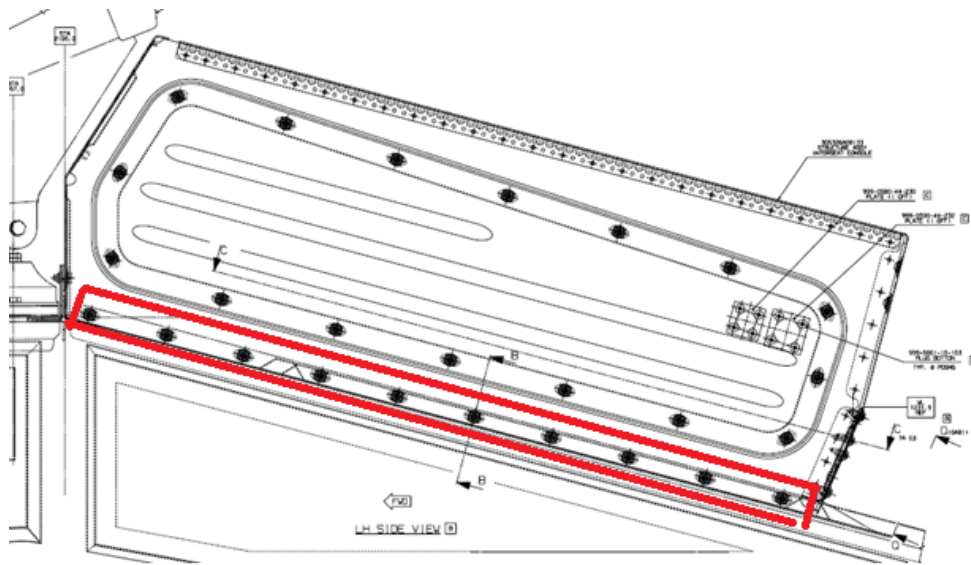


Figure 9 - Mobile Rack Assy - Work area

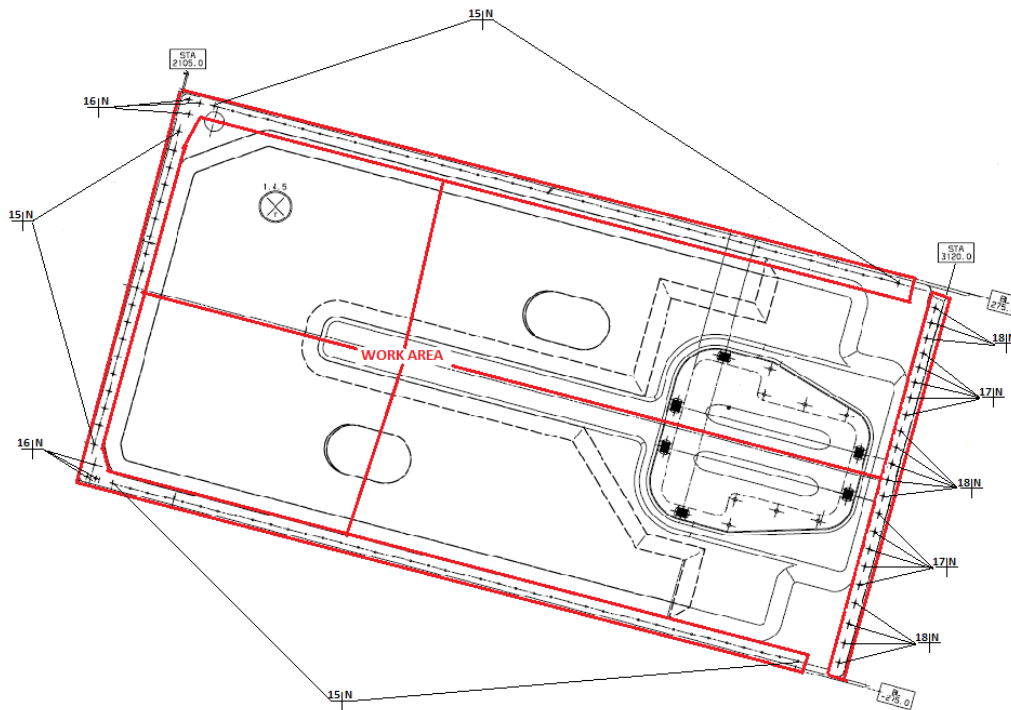


Figure 10 - Plate Assy 3P5331A07733 - Work area

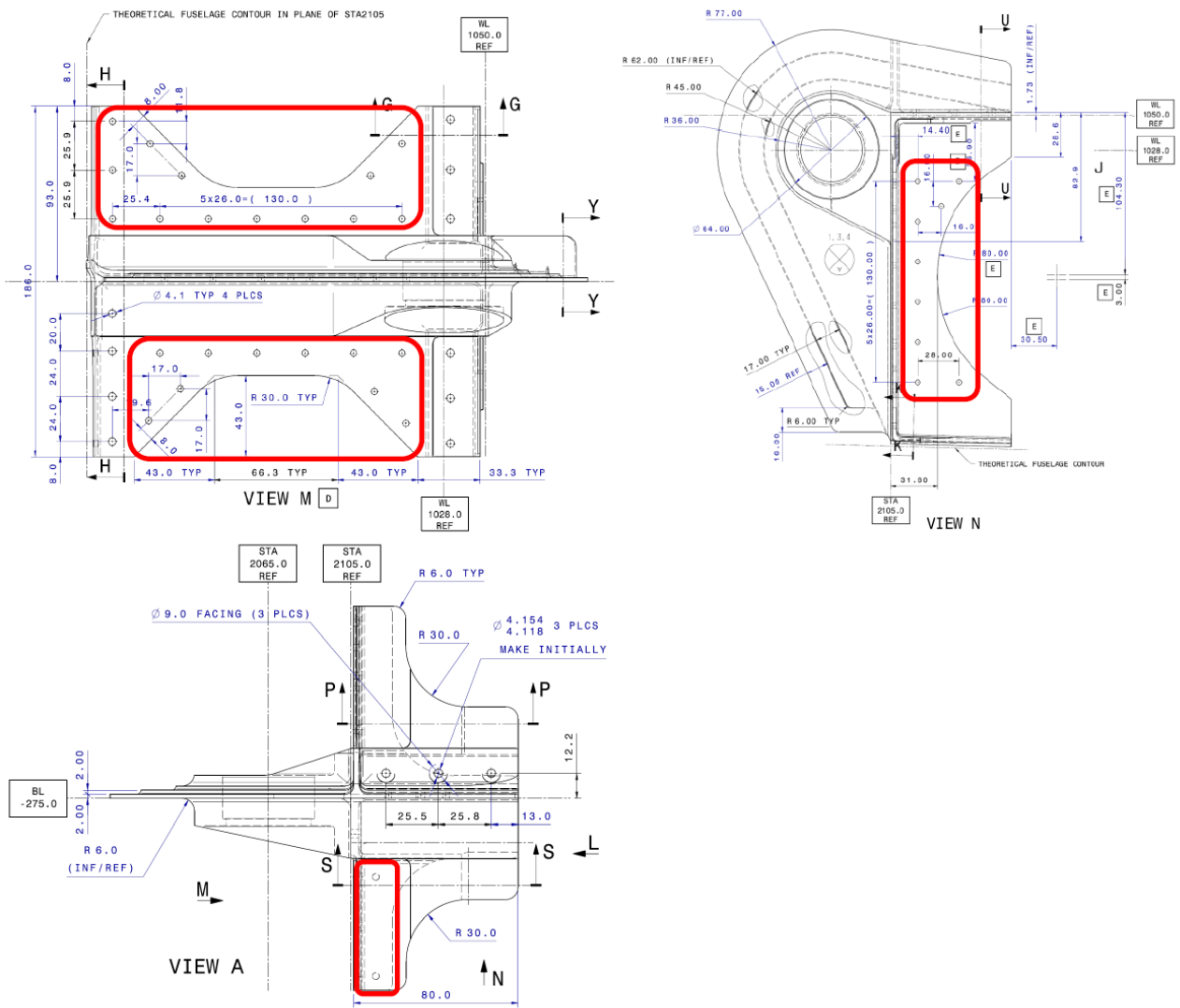


Figure 11

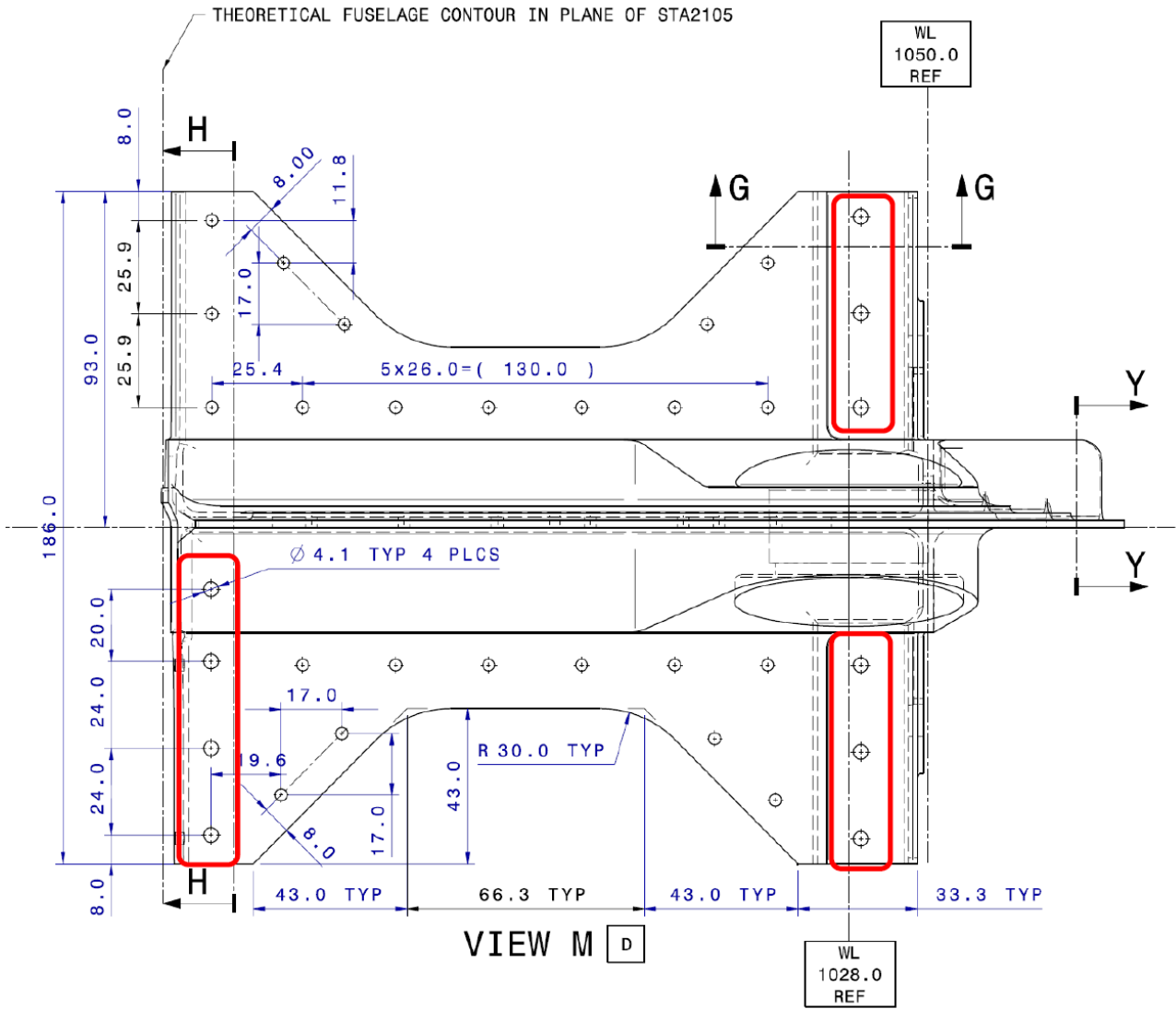


Figure 12

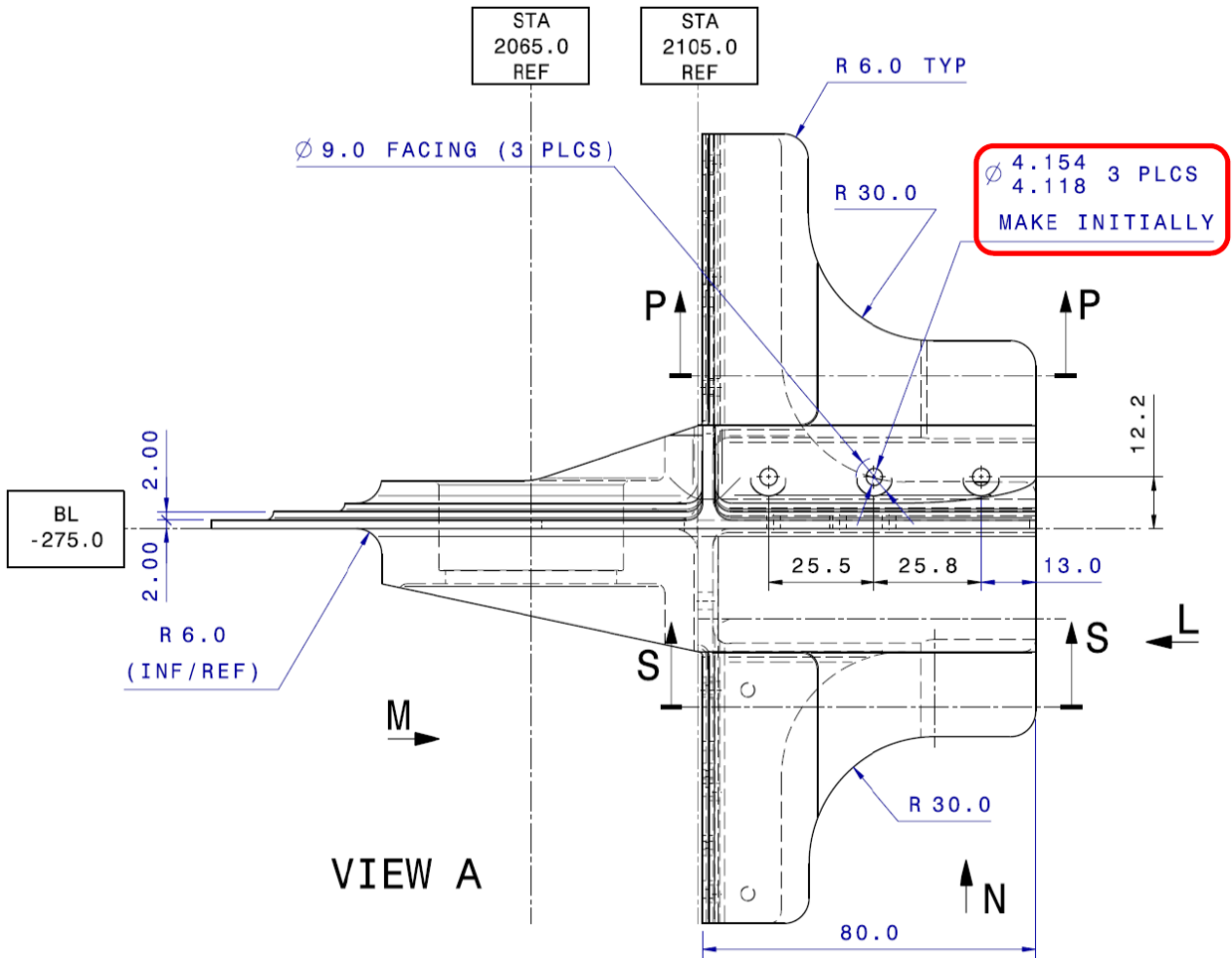


Figure 13