

**Notes:**

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2. Remove all burrs and sharp edges
3. All tolerances  $\pm 1\text{mm}/1^\circ$  unless otherwise noted



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	CRADLE BASE	THE BASE IS THE MAIN STRUCTURE ,SECURED BY TWIST LOCKS,ON WHICH THE JAW IS MOUNTED.	1
2	SLIDING JAW	JAW SLIDES TO ACCOMMODATE VARIES SIZES OF COIL	2

Designed by	Checked by:	Passed by:	Approved by:	Date: 12/10/2025	Abstract from:
<b>UGANDA RAILWAYS</b> DRAWING AND DESIGN OFFICE KAMPALA, UGANDA			Material:	<b>DRG.No:</b>	
CRADLE ASSEMBLY				Sheet 1 of 2	

**PRODUCTION NOTES**

**1. Cutting:**

All components must be cut with precision using appropriate cutting tools (e.g., CNC plasma cutter or band saw) to ensure dimensional accuracy.

Each member should be cut to match the specified dimensions and inner profiles to achieve a precise fit for maximum surface area at the joints.

Tolerances for cutting must not exceed  $\pm 0.5$  mm to maintain joint integrity and structural alignment.

**2. Welding:**

All welds shall be performed using MIG welding (Gas Metal Arc Welding - GMAW) for consistent weld quality and strength.

Welding consumables, such as filler wire, should match the base material specifications to avoid material incompatibility.

Weld beads should ensure full penetration at all joints to provide optimal load transfer.

Preheating may be required for thicker sections to minimize thermal distortion and improve weld strength.

- Use **E7018 or ER70S-6 electrodes/filler rods** for structural welds depending on welding type.
- Maintain a preheat temperature of 50-100°C for thicker sections to minimize thermal cracking.
- Follow AWS D1.1/D1.6 standards for structural steel welding and inspection.

**3. Joint Preparation:**

Surfaces to be welded must be cleaned thoroughly to remove dirt, oil, rust, or mill scale using wire brushing or grinding.

Chamfers, if specified, must be applied to ensure proper weld penetration.

**4. Inspection:**

Dimensional checks should be conducted after cutting and before welding to verify joint compatibility.

All welds must be visually inspected for uniformity, absence of cracks, porosity, or undercutting.

Non-destructive testing (NDT) may be performed as required, especially for critical load-bearing joints.

**5. Post-Welding:**

Welded components must be allowed to cool gradually to prevent residual stresses.

Post-weld grinding should be performed where required to achieve a smooth surface finish or to meet aesthetic requirements.

Apply anti-corrosion coating or primer to all exposed surfaces after fabrication.

**6. Assembly:**

All components should be assembled on a level fixture or jig to ensure proper alignment during welding and assembly.

Final assembly dimensions must adhere to the engineering drawings and specified tolerances.

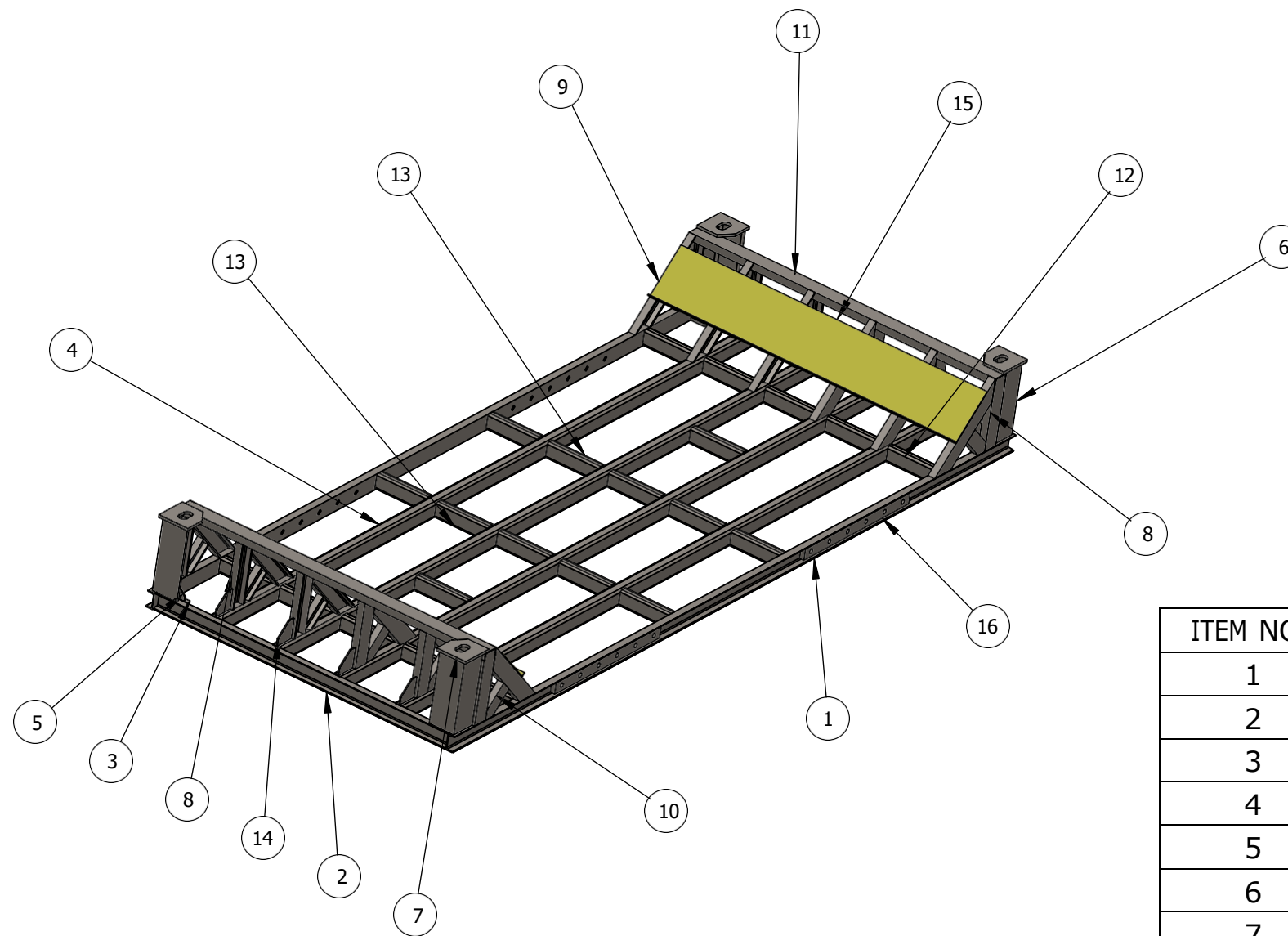


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UGANDA RAILWAYS DRAWING AND DESIGN OFFICE KAMPALA, UGANDA.			Material:	<b>DRG.No:</b>	
			Title	PRODUCTION NOTES	
					Sheet 2 of 2



ITEM NO.	QTY.	DESCRIPTION
1	2	CH 120 x 12
2	2	CH 120 x 12
3	4	FEET TWIST LOCK APERTURE
4	4	120 x 80 x 8.0
5	4	TWIST LOCK APERTURE FEET GUSSET
6	4	200x200x16
7	4	TOP TWIST LOCK APERTURE
8	12	CH 120 x 12
9	12	CH 120 x 12
10	12	CH 100 x 10
11	2	CH 120 x 12
12	8	120 x 60 x 8.0
13	14	120 x 60 x 8.0
14	8	VERTICAL MEMBER GUSSET
15	2	SHEET METAL OVERLAY
16	4	POSITIONING BLOCK

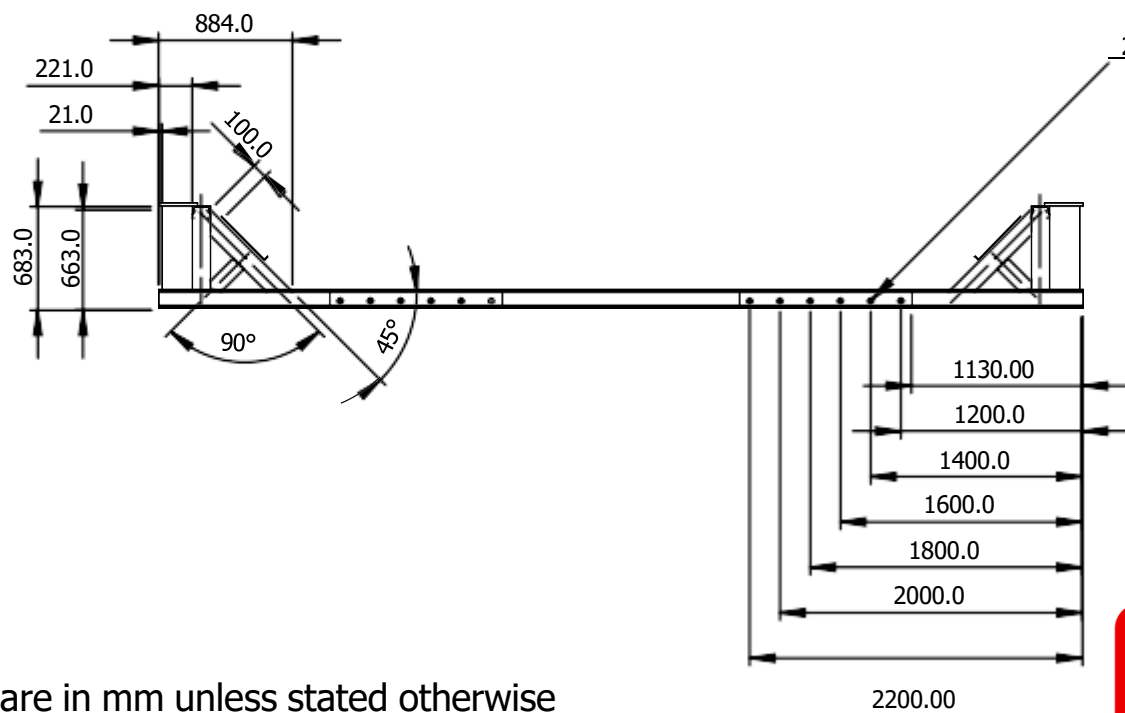
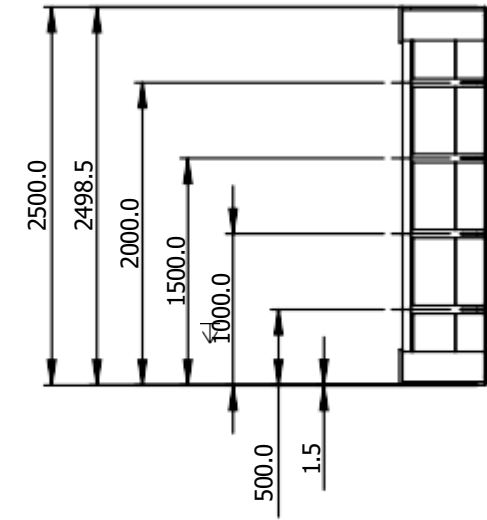
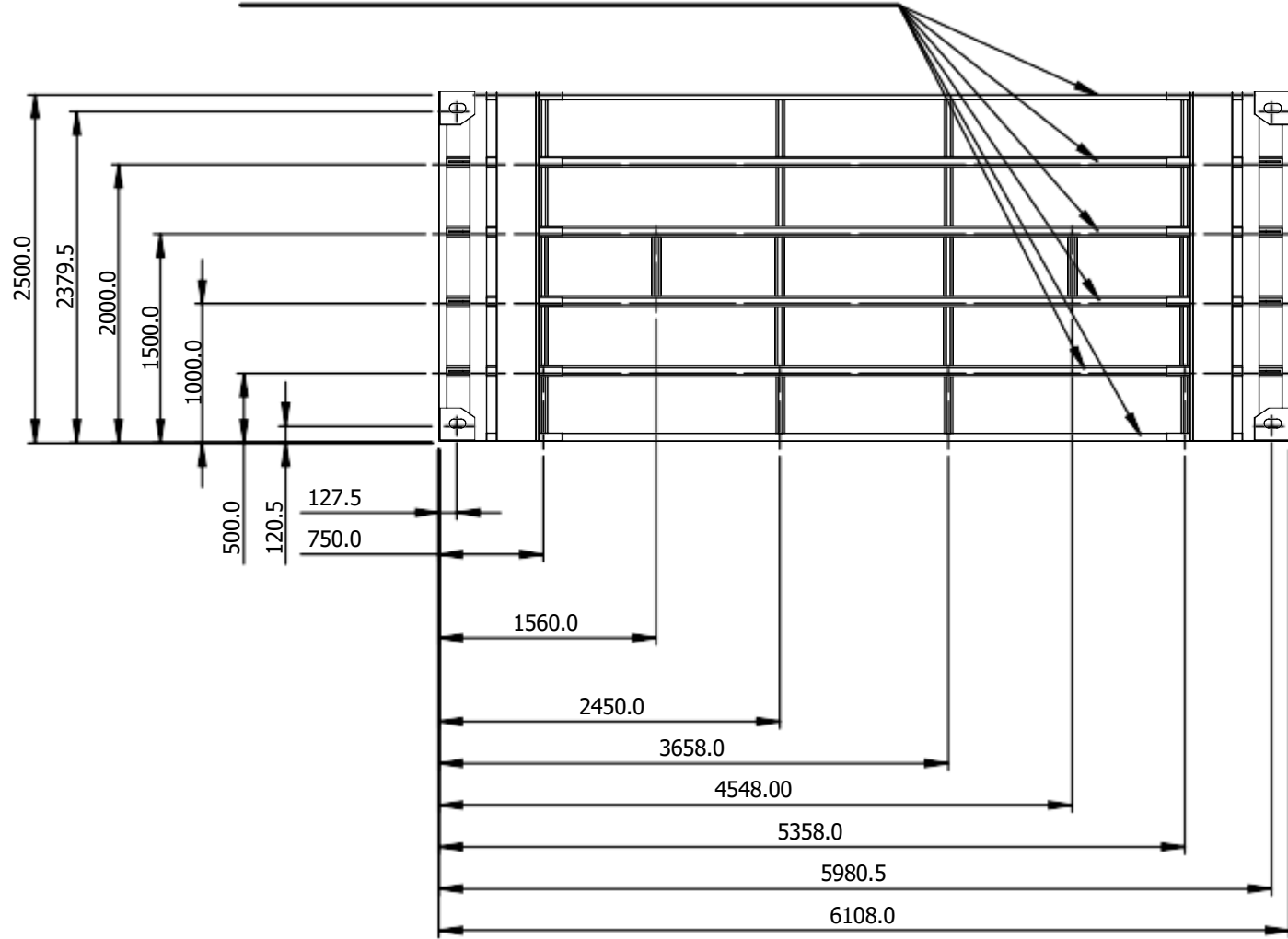
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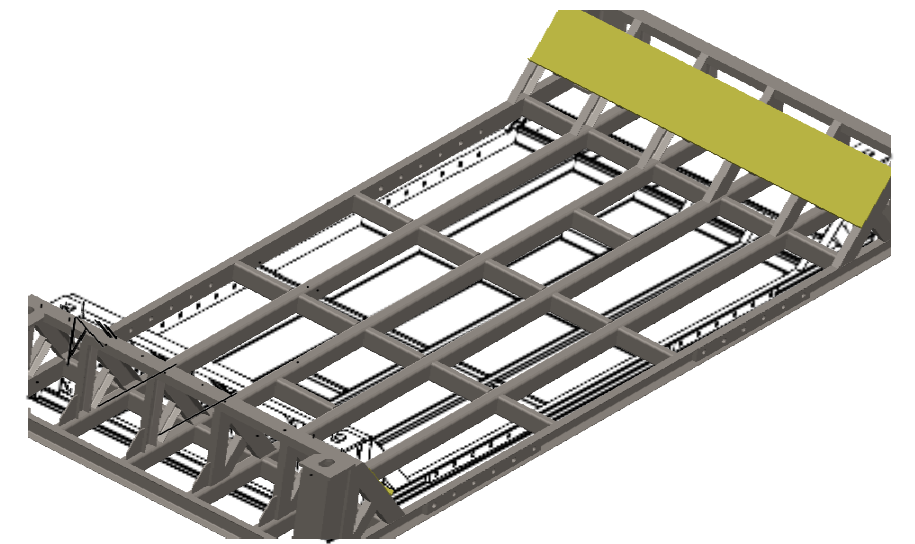
Designed by:	Checked by:	Passed by:	Approved by:	Date: 12/10/2025	Abstract from:
UGANDA RAILWAYS DRAWING AND DESIGN OFFICE KAMPALA, UGANDA.			Material:	<b>DRG.No:</b>	
Title CRADLE BASE SKELETON				Sheet 1 of 6	

NOTE  
ALL LOAD-BEARING MEMBERS SHALL BE CONTINUOUS TO ENSURE  
EFFICIENT LOAD TRANSFER AND MAINTAIN STRUCTURAL INTEGRITY



20 x Ø 33.00 THRU

NOTE  
HOLES MUST BE DRILLED  
ONLY AFTER ASSEMBLING  
THE JAW TO ENSURE  
ACCURATE POSITIONING,  
THE MAX AND MIN JAW  
TRAVEL SHOULD BE  
DETERMINED POST-  
ASSEMBLY TO GUIDE THE  
DRILLING PROCESS



Notes:

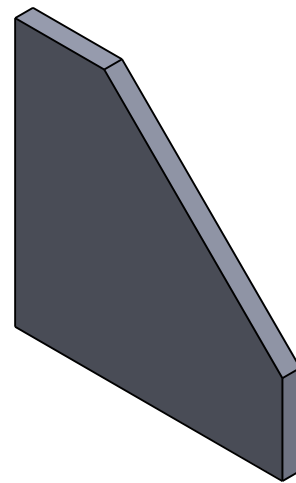
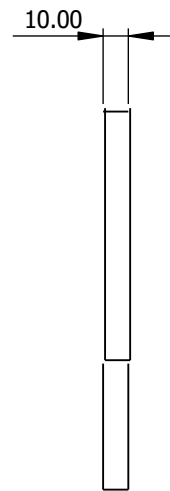
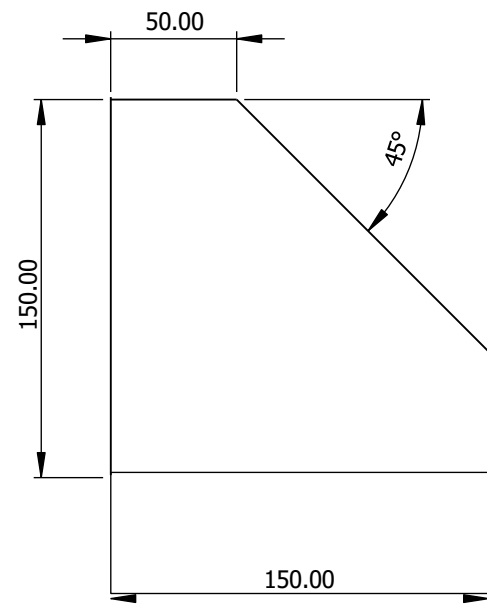
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Designed by:	Checked by:	Passed by:	Approved by:	Date:	Abstract from:
12/10/2025					
UGANDA RAILWAYS DRAWING AND DESIGN OFFICE KAMPALA, UGANDA.			Material:		DRG.No:
Title				CRADLE BASE SKELETON	
					Sheet

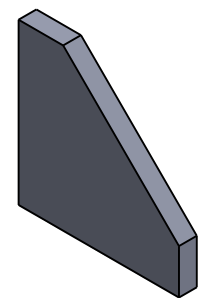
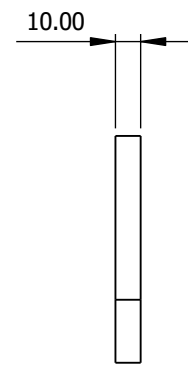
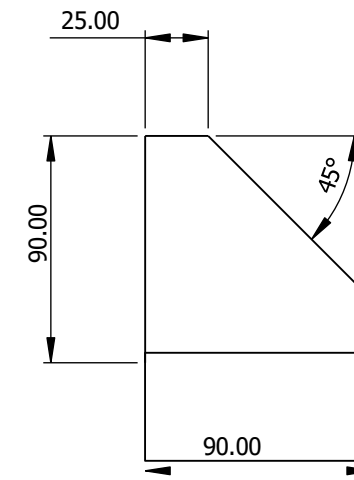


ITEM NO. 14



VERTICAL MEMBER GUSSET

ITEM NO. 7



TWISTLOCK APERTURE GUSSET

**ATTENTION**

FOR WELDING GUSSETS AND TWIST-LOCK APERTURES, ENSURE PROPER JOINT PREPARATION BY CHAMFERING THE EDGES TO BE WELDED. THIS FACILITATES FULL WELD PENETRATION, ENHANCING JOINT INTEGRITY AND LOAD-BEARING CAPACITY.

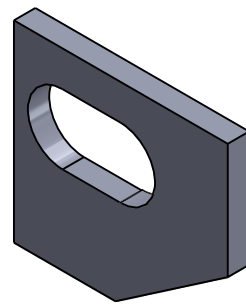
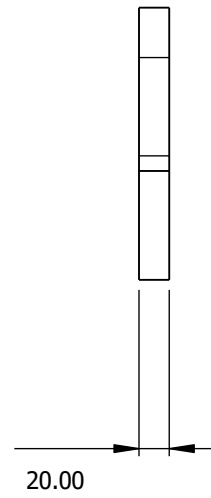
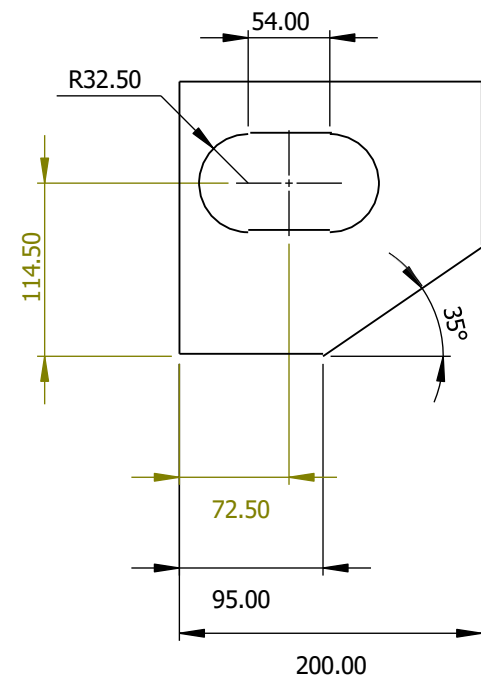
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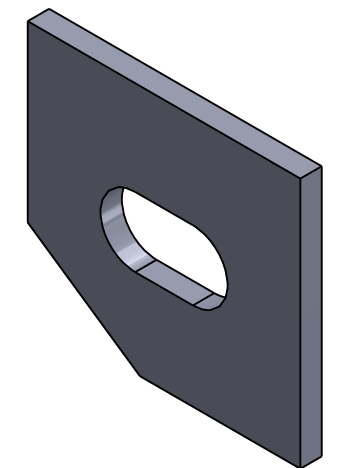
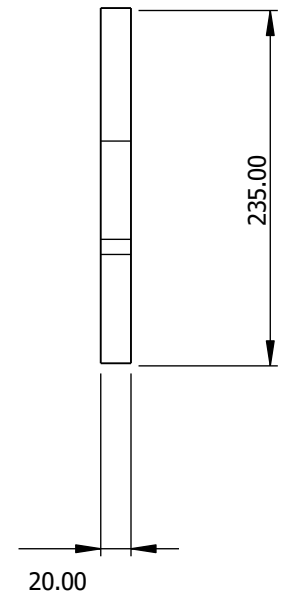
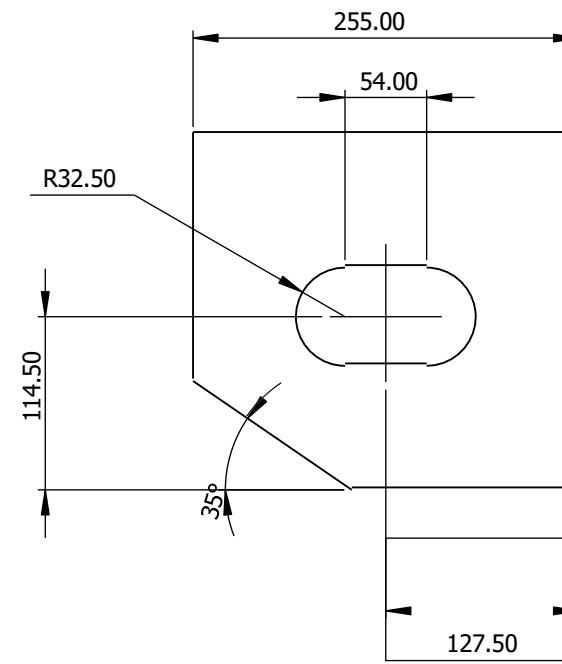
		Date:	Abstract from:
		12/10/2025	
UGANDA RAILWAYS DRAWING AND DESIGN OFFICE KAMPALA, UGANDA		Material: MILD STEEL	<b>DRG.No:</b>
Title			Sheet

ITEM NO.3



FEET TWIST LOCK APERTURE

ITEM NO.7



TOP TWIST LOCK APERTURE

**ATTENTION**

FOR WELDING GUSSETS AND TWIST-LOCK APERTURES, ENSURE PROPER JOINT PREPARATION BY CHAMFERING THE EDGES TO BE WELDED. THIS FACILITATES FULL WELD PENETRATION, ENHANCING JOINT INTEGRITY AND LOAD-BEARING CAPACITY.

Notes:

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2. Remove all burrs and sharp edges
3. All tolerances 1mm/1 unless otherwise noted



UGANDA RAILWAYS DRAWING AND DESIGN OFFICE		KAMPALA, UGANDA	
		Material:	DRG.No:

MILD STEEL

Title

6 x 33.00 THRU ALL

75.00

273.00

471.00

669.00

867.00

1065.00

1140.00

35.00

83.00

Notes:

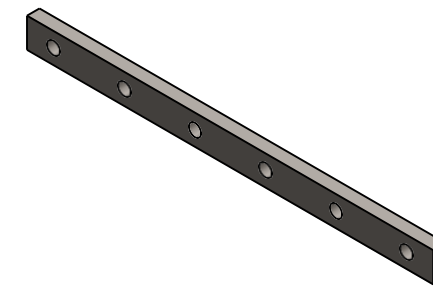
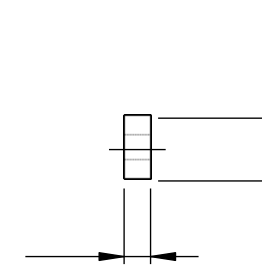
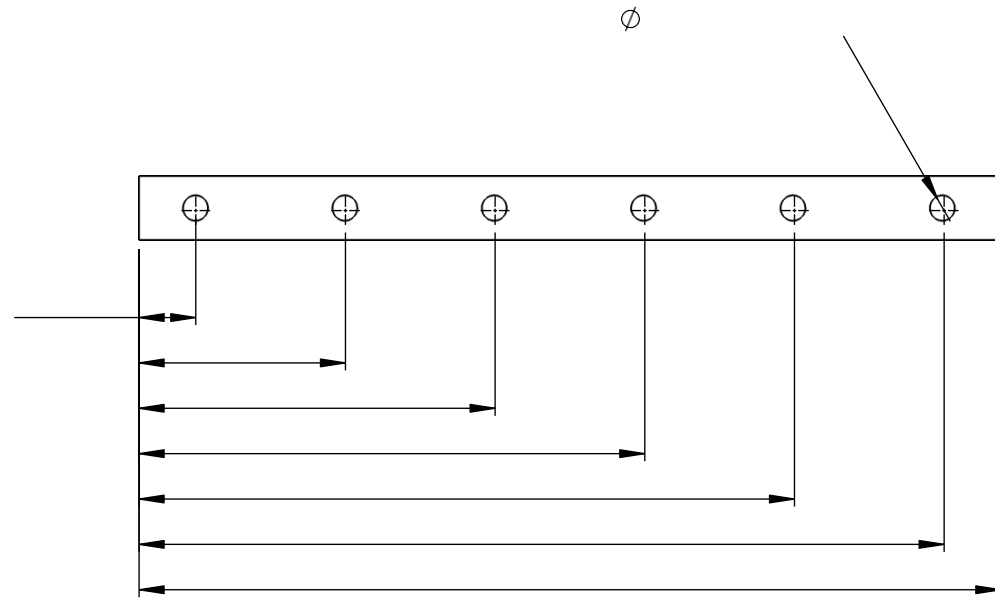
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Material:

**DRG.No:**

UGANDA RAILWAYS  
DRAWING AND DESIGN OFFICE

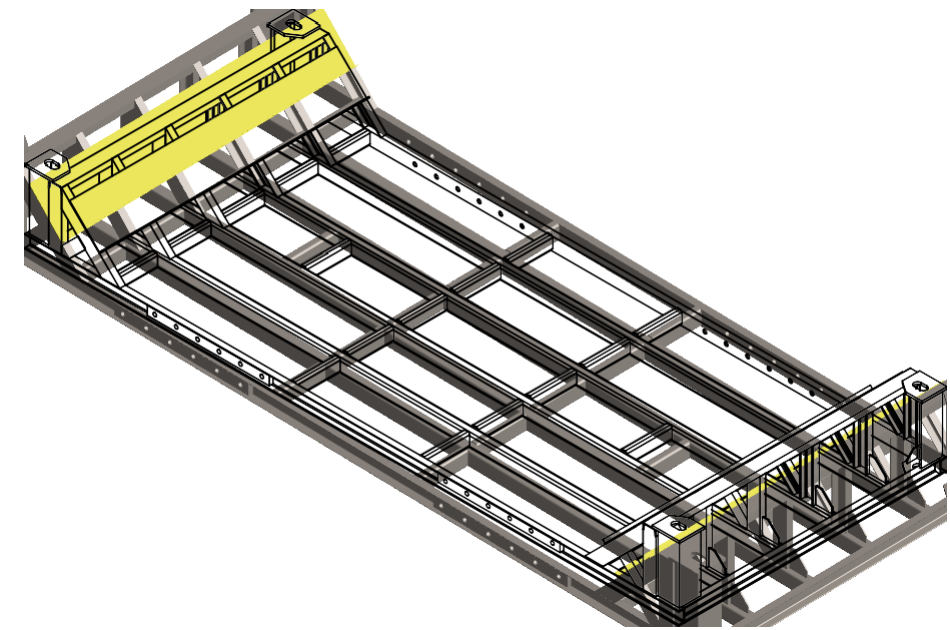
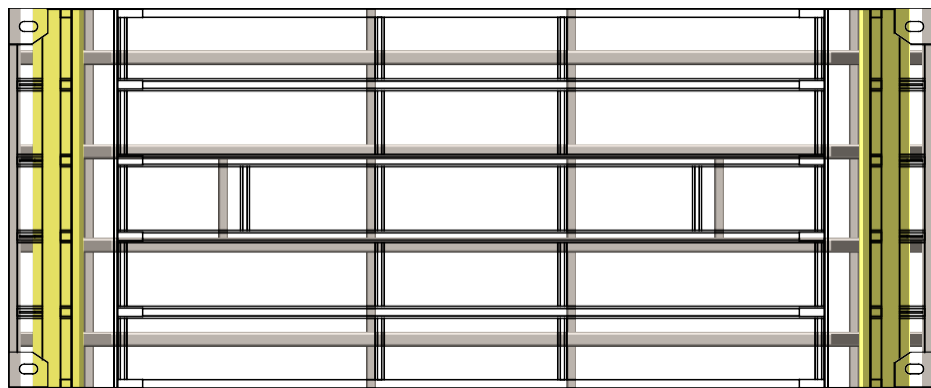
MILD STEEL



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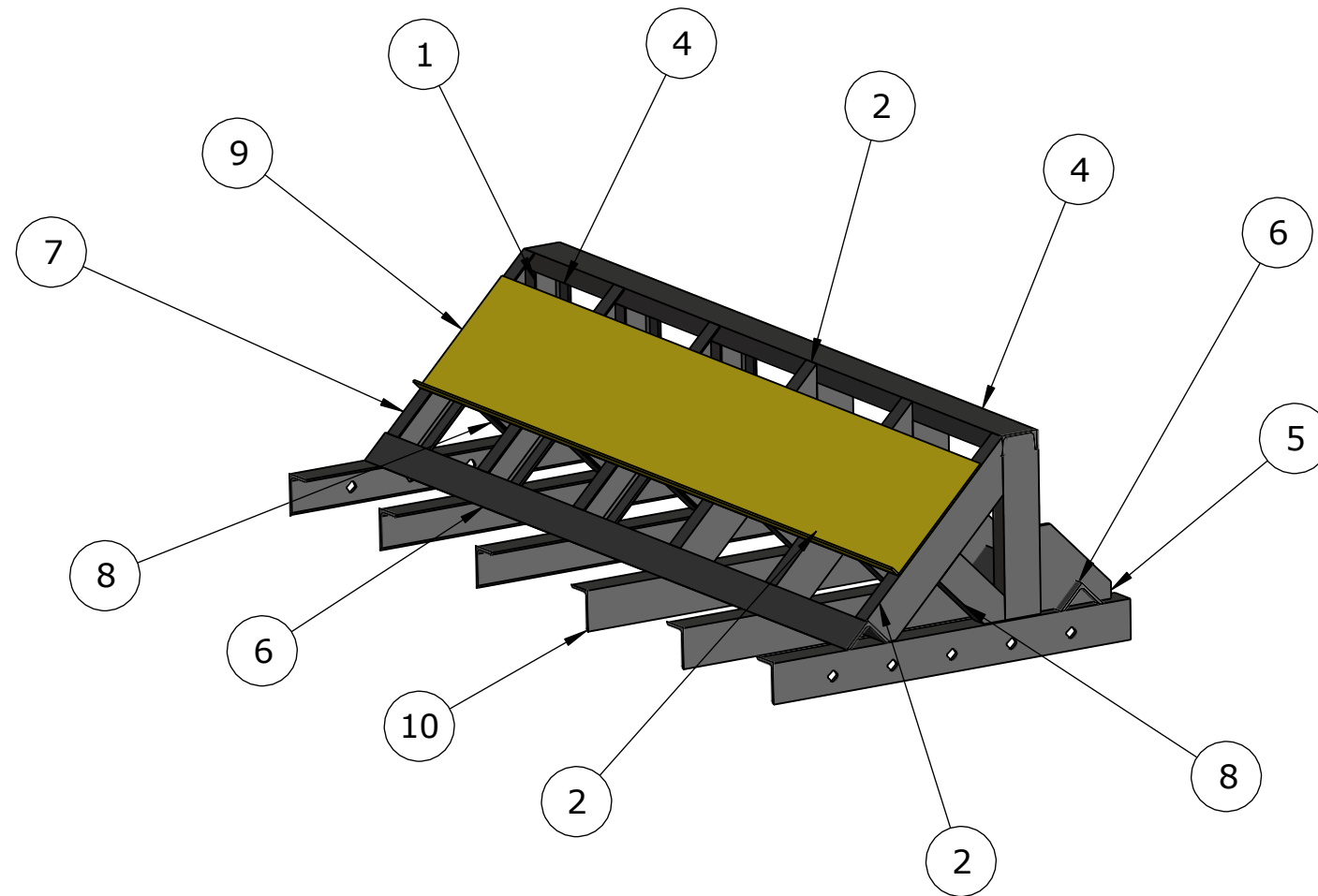



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UGANDA RAILWAYS DRAWING AND DESIGN OFFICE KAMPALA, UGANDA.		Material:	DRG.No:		
Title			CRADLE BASE VIEWS		Sheet 6 of 6



ITEM NO.	QTY.	DESCRIPTION	LENGTH
1	6	CH 120 x 12	530.7
2	3	CH 120 x 12	659.43
3	2	120x80x8	1200
4	1	CH 120 x 12	2500
5	6	GUSSET	
6	2	100x100x8	2522.44
7	3	CH 120 x 12	659.43
8	6	CH 100 x 10	259.72
9	1	SHEET METAL OVERLAY	
10	4	120x80x8	1200

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UGANDA RAILWAYS  
DRAWING AND DESIGN OFFICE  
KAMPALA, UGANDA.

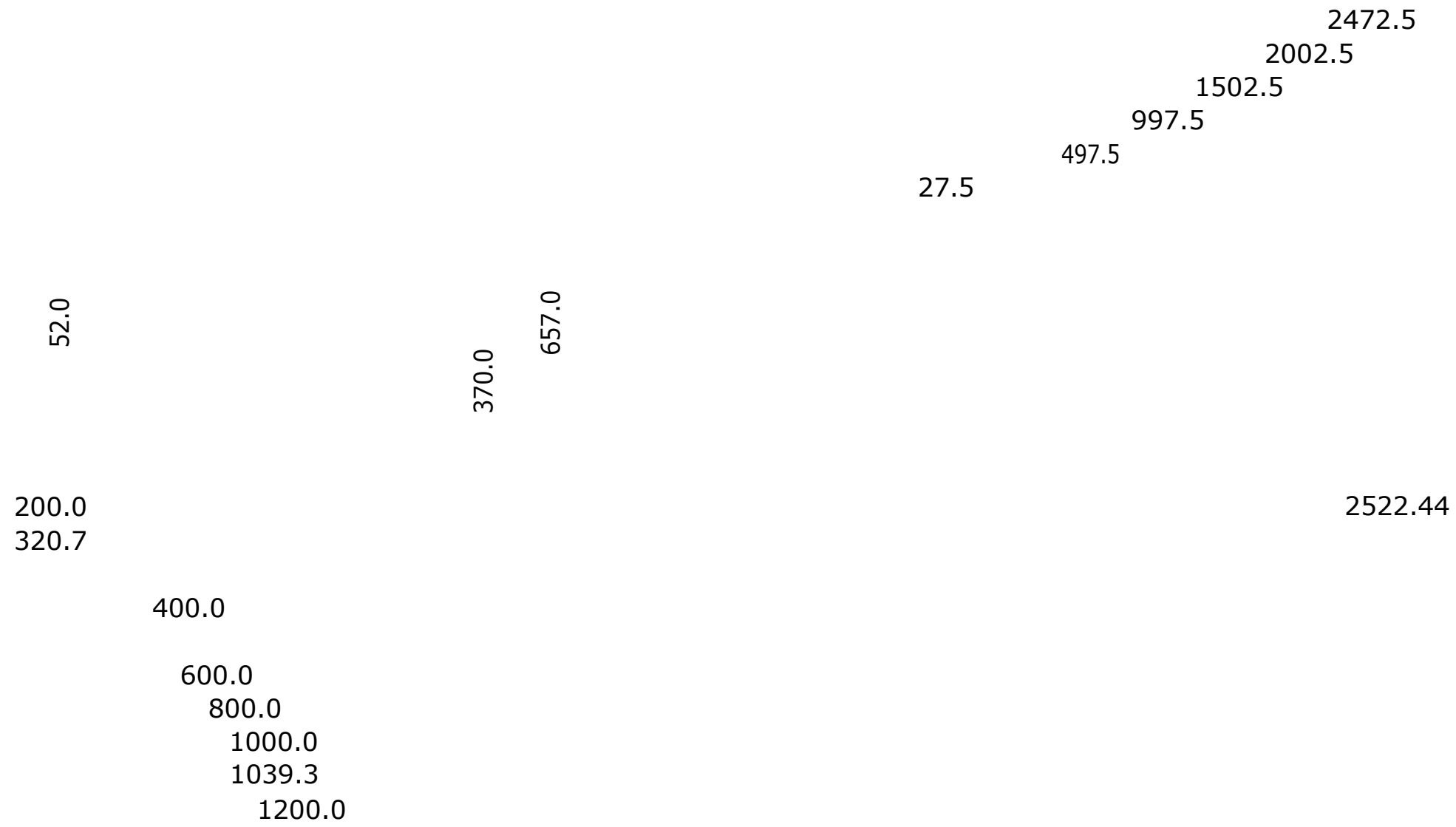
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DRG.No:

Title

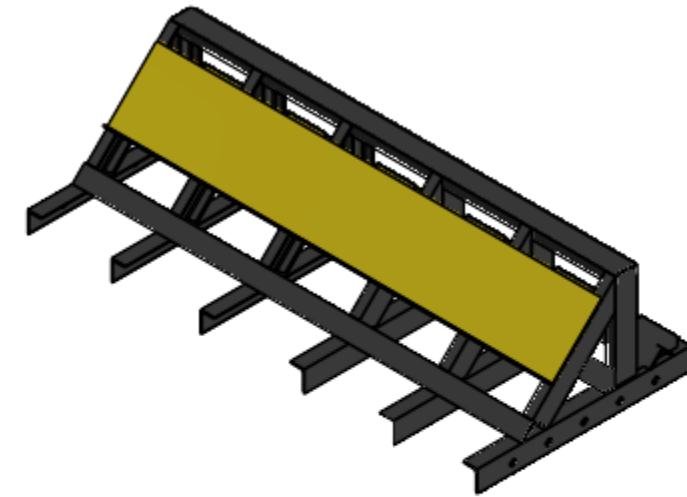
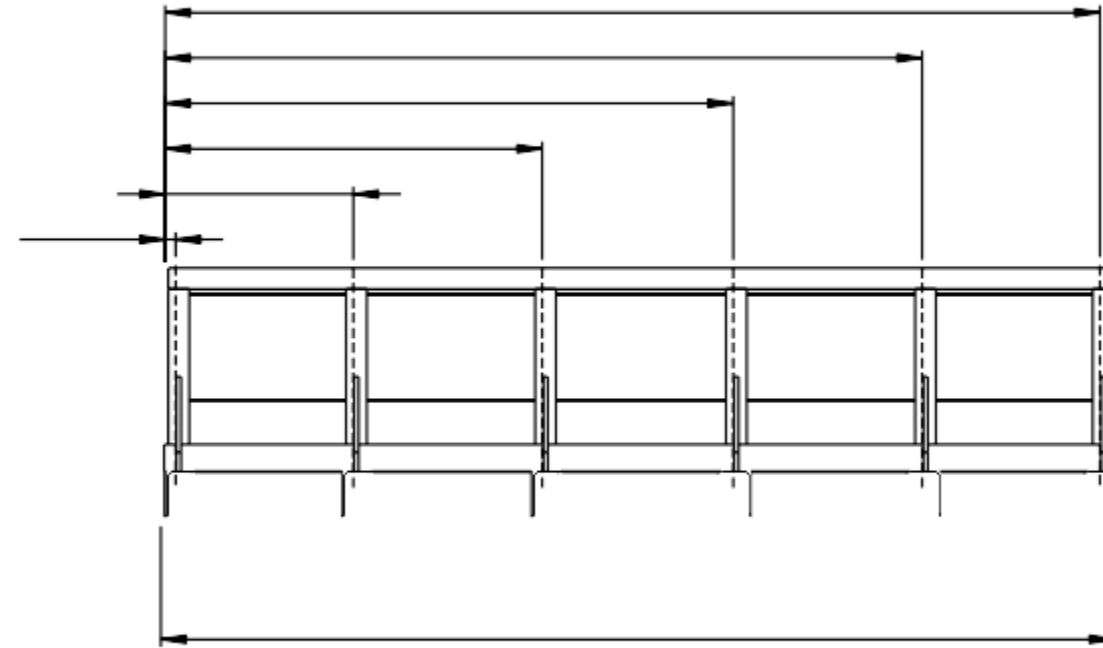
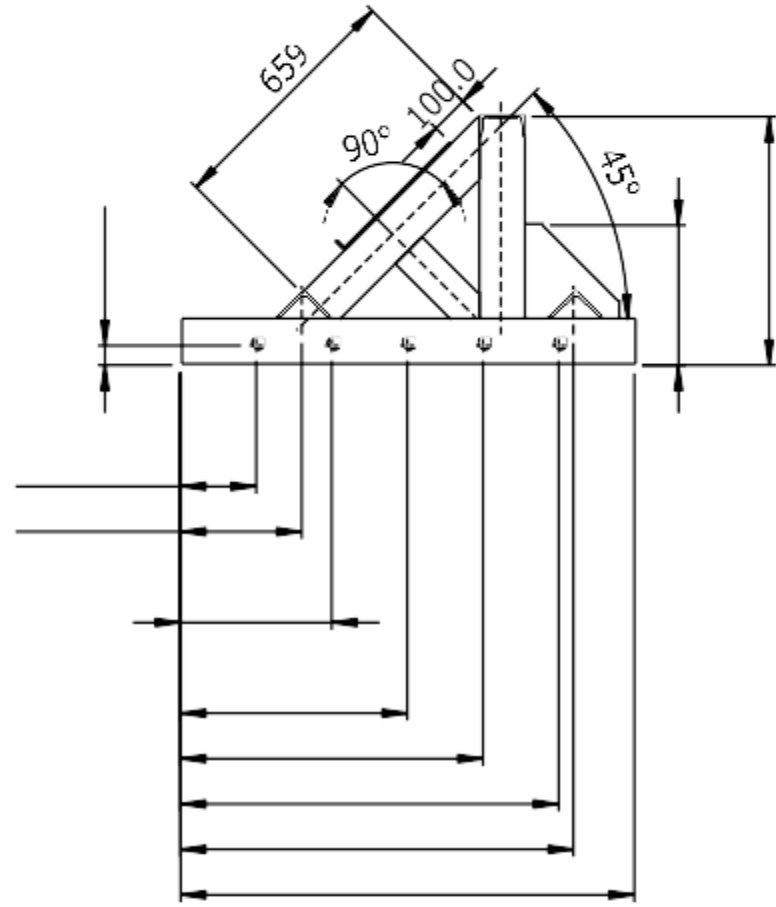
SLIDING JAW

Sheet  
1 of 4



**Notes:**

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3. All tolerances 1mm/1 unless otherwise noted




ITEM NO.5

50.00

142.00

250.00

10.00

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UG  
ANDA  
RAILWAYS  
DRAWING  
AND  
DESIGN  
OFFICE

Material: Mild steel

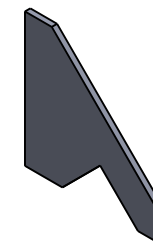
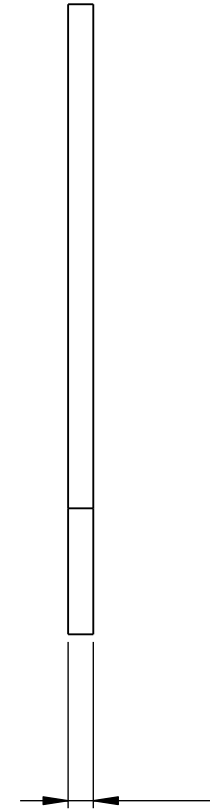
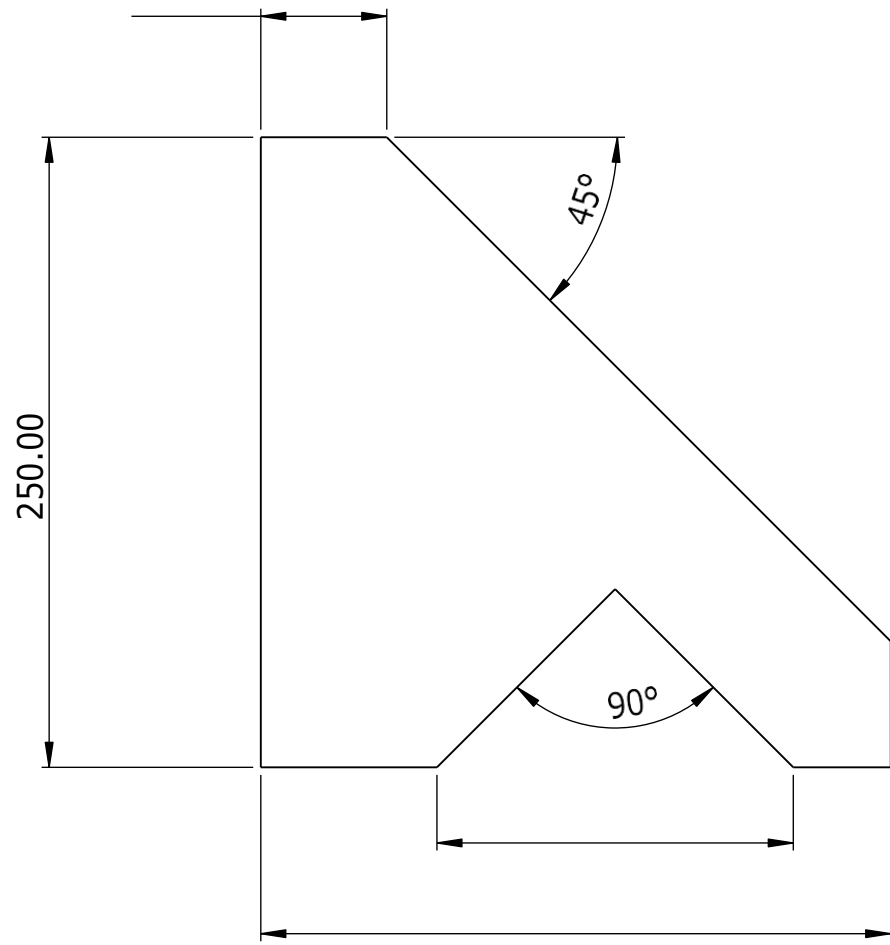
DRG.No:

KAMPALA, UGANDA.

Title

GUSSET

Sheet  
3 of 4

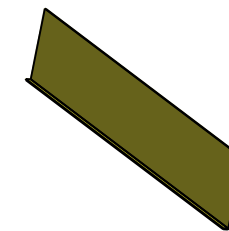
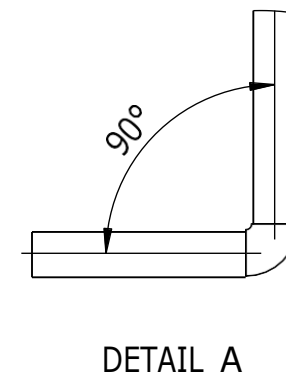
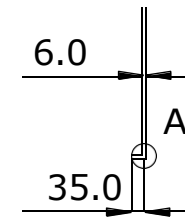
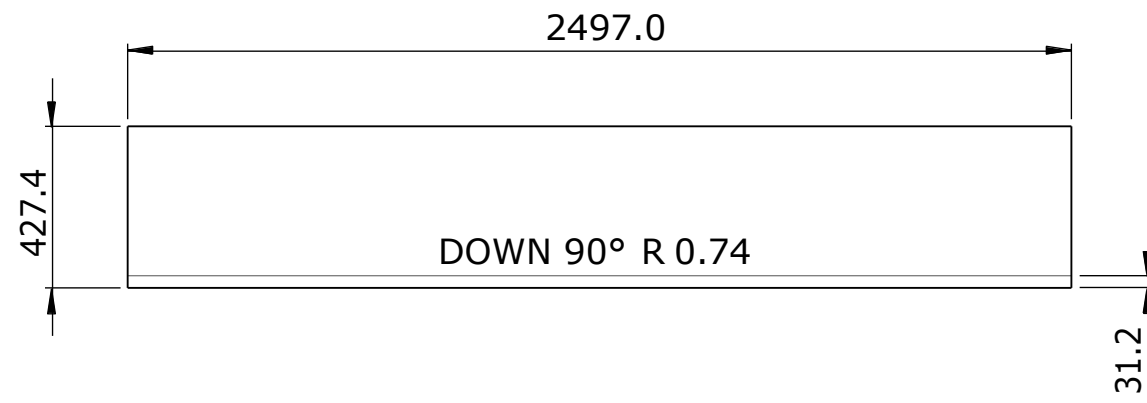
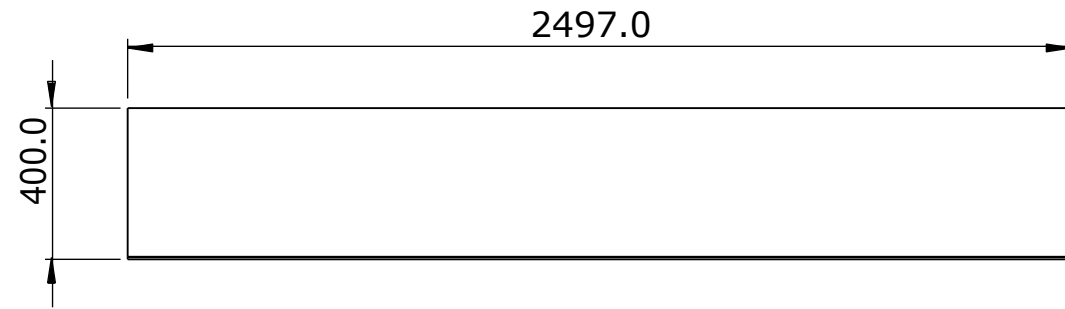


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ITEM NO.9



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UGANDA RAILWAYS DRAWING AND DESIGN OFFICE		Material: Mild steel	DRG.No:
KAMPALA, UGANDA.		Title SHEET METAL OVERLAY	Sheet 4 of 4