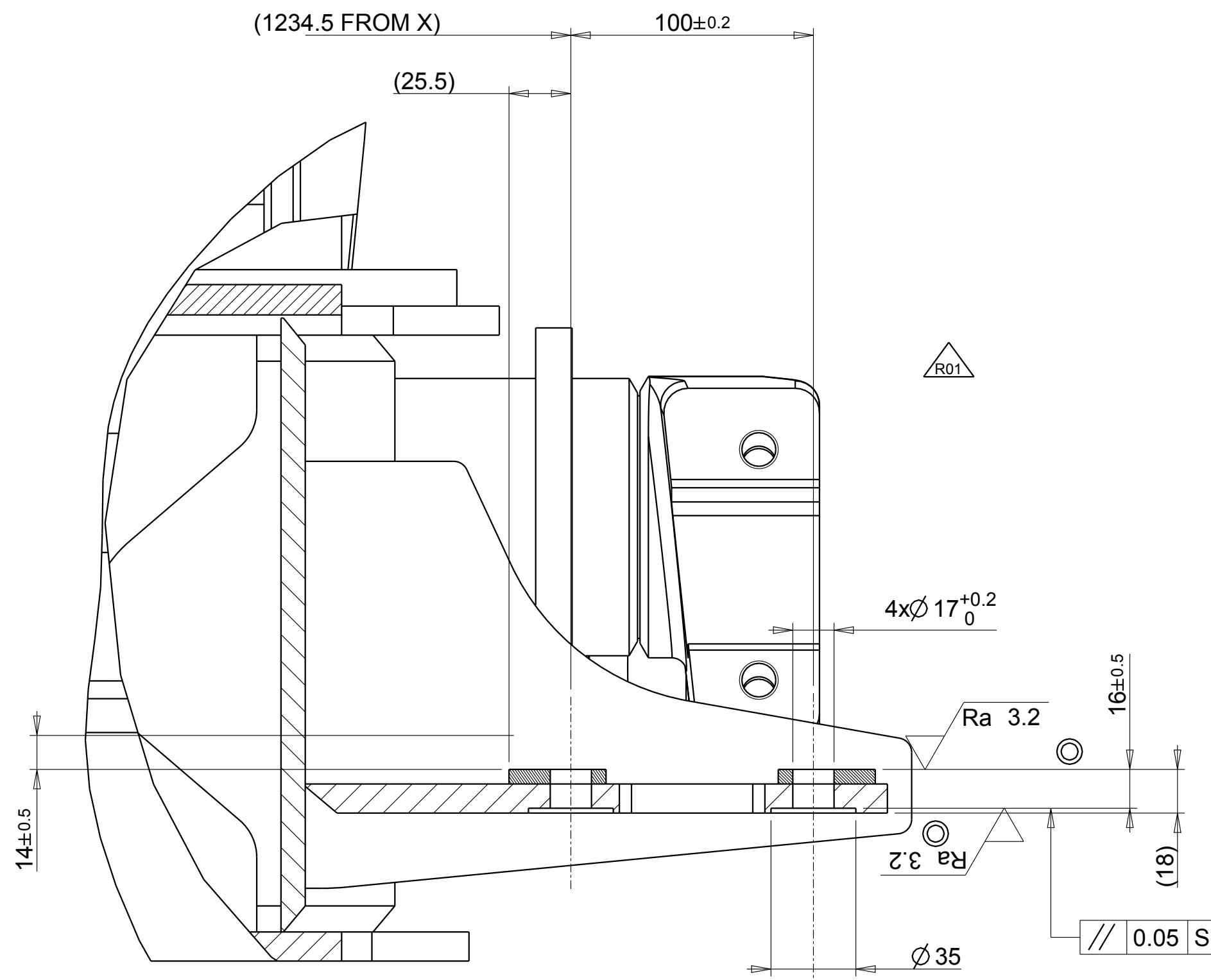
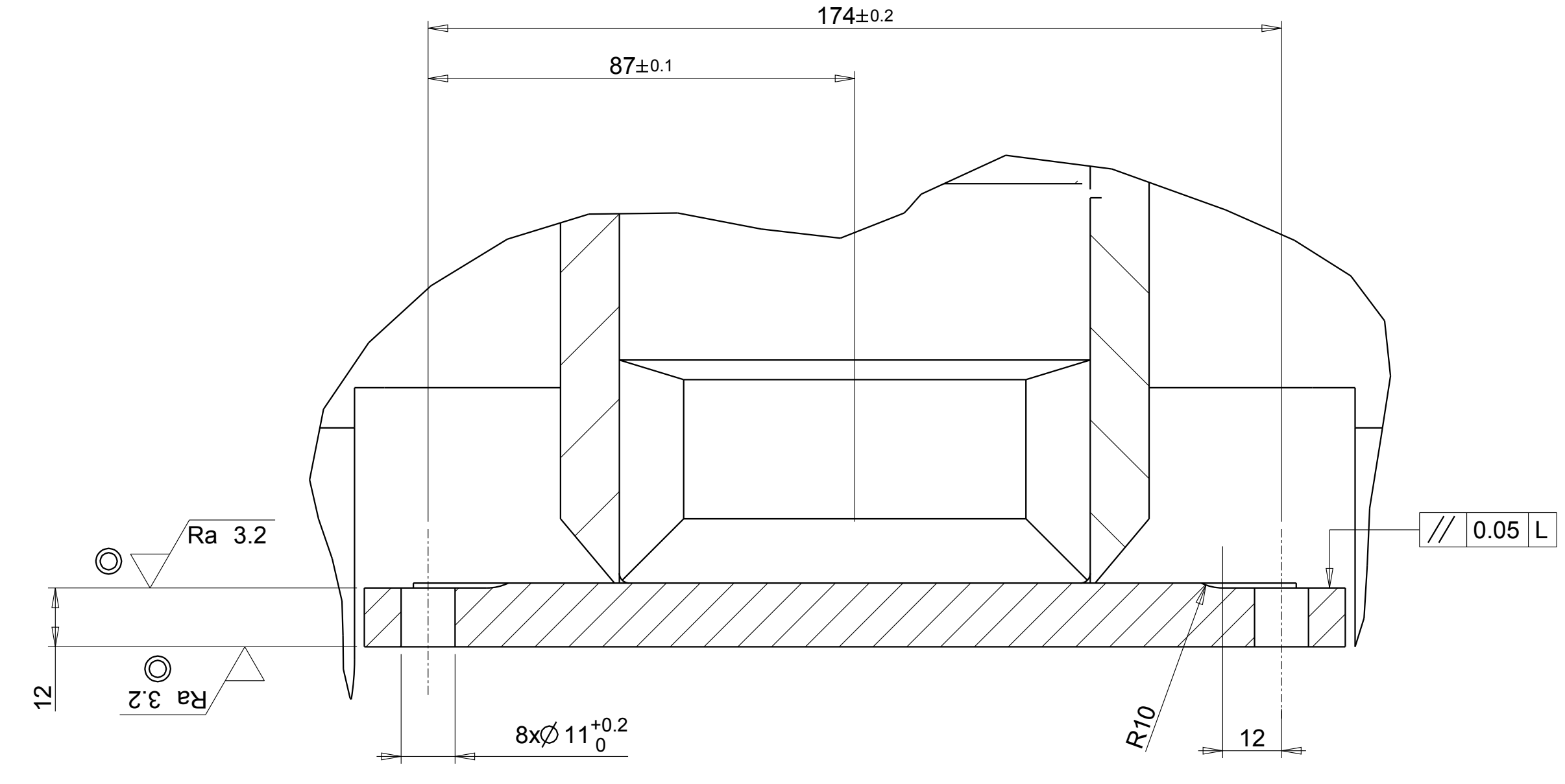


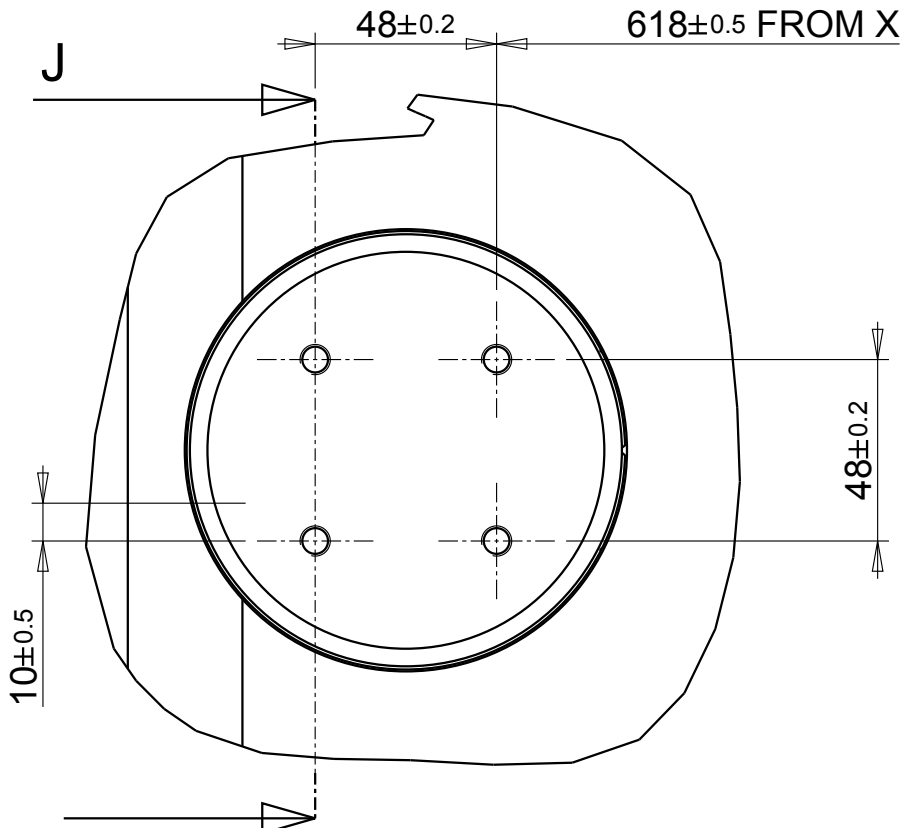
SECTION O-O
SCALE 1:2



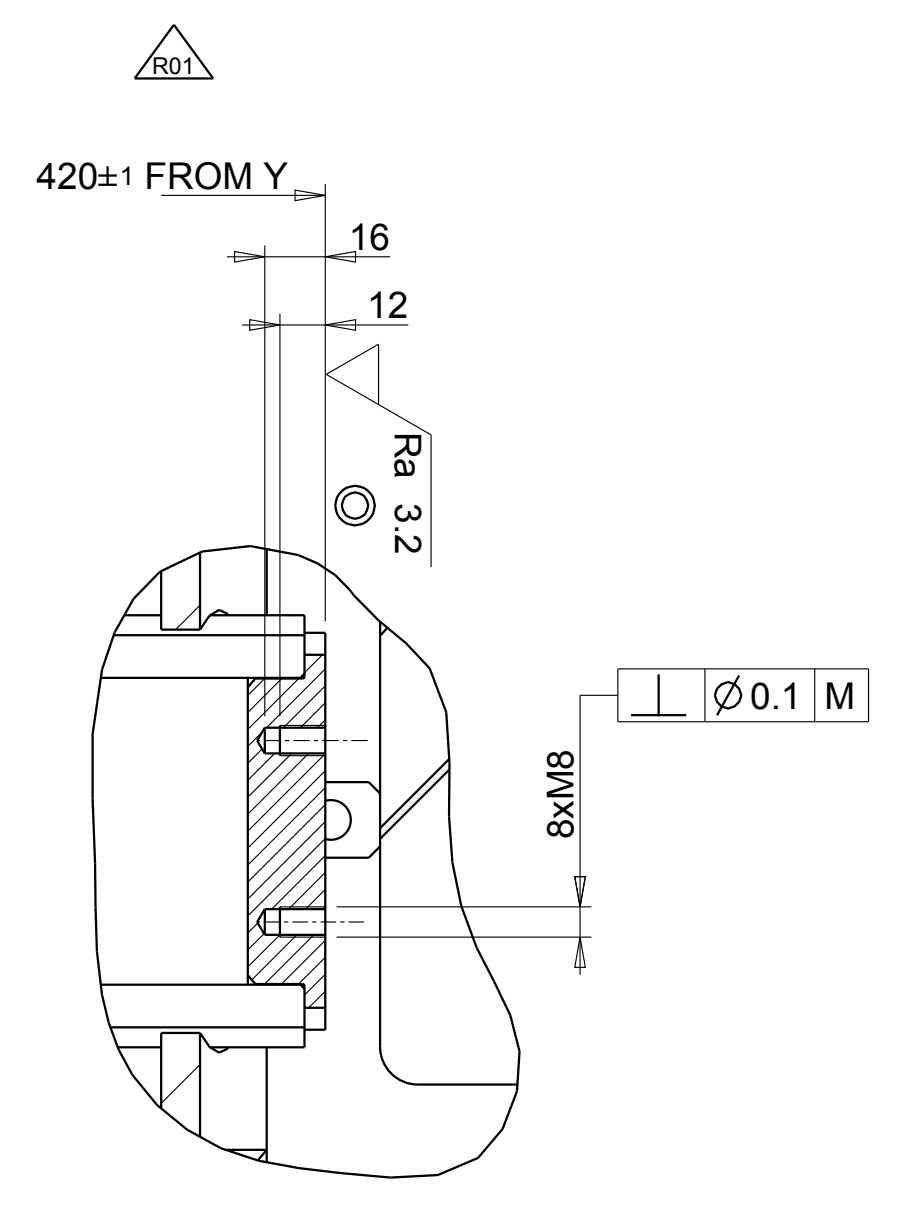
SECTION E-E
SCALE 1:2



Detail C_(1:1)



SCALE 1:2



SECTION J-J


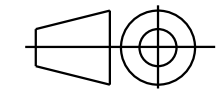
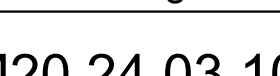
Not dimensioned radii R0.5
Not dimensioned chamfers 0.5x45°

SHARP EDGES SHALL BE REMOVED

Painting in accordance with TD-EM00.10.0028:

- Protect from painting all threaded holes and machined surfaces marked with ○
- Protect only with primer all surfaces marked with ○

Technical Specifications	-				
Technical Document	-				
Fixture/Mould Asset ID	-	2	Added axlebox support reference data	14/07/2025	D. Carling
Coating/Heat Tre./Roughness	-	1	UPDATED DRAWING	24/09/18	S. Ponzo
Paint/Color	-	Mod No	Modification Description	Date	Sign

1	Welded Complete Frame Assembly		1	EM204240320000					1767.3
									1668.5
No	Parto Any Designation Name of Item		Adet Qty.	Resin No / Norm Drawing No / Norm	Malzeme Material	Oglo Dimension			Agrilik Weight (kg)
	ISO 1302	ISO 8015	EN 22553	General Tool	ISO 2768	1 f	n00	h30	K30
	EN 15085-2 Certification Level			CL100 CL20 Weld Pro. CL30 CL40 Cast Steel	ISO 13920 A30 A60 6C0 F40 F60				
	Approved	P. Farina		Scale	ISO 12708	1m20	Lr20	Sm20	Sr20
	Checked	M. Borio		1:5					
	Prepared	Marco Eid							
			MCD COMPLETE FRAME ASSY						
					EM20.24.03.10000				
TYPE	Date: 14/07/2025				Sheet:1/4		Size:A0		Rev:02

Technical drawing of the PRIMARY SUSPENSION TRANSVERSAL WHEELBASE 2030±1, showing the BOTTOM VIEW and various dimensions.

Dimensions:

- Overall width: 2500±1
- Overall length: 1962±1
- Wheelbase: 2030±1
- Other dimensions: 151±0.5, 90±0.2, 1459±0.5, 1250±0.5, 850±0.5, 795±0.5, 110±0.2, 1015±0.5, 1075±0.5, 682.5±0.5, 130±0.2, 1854±1, 1825±1, 736±0.5, 180±0.2, 90±0.1, 130±0.2, 415±0.5, 130±0.2, 645±0.5, 216±0.2, 20±0.2, 307.5±0.5, 180±0.2, 120±0.2, 235±0.5, 176^{+0.3}_{-0.1}, Ra 3.2, 0.5 Y, 0.5 K.

Details:

- Detail A (1:2): View of a component with dimensions 100±0.2, 50±0.1, 75±0.1, 150±0.2.
- Section A-A: SCALE 1:2. Cross-section view showing dimensions 16xØ22, 16, 16xØ22, 16.
- Detail B (1:2): View of a component with dimensions 90°, 45°, PCD Ø140±0.2.

Surface Finish:

- 0.5 Y
- 0.5 K
- Ra 3.2
- 176^{+0.3}_{-0.1}

Notes:

- SHARP EDGES SHALL BE REMOVED
- Not dimensioned radii R0.5
- Not dimensioned chamfers 0.5x45°
- Painting in accordance with TD-EM00.10.0028:
 - Protect from painting all threaded holes and machined surfaces marked with ⌀
 - Protect only with primer all surfaces marked with ☉

Legend:

ISO 1302	Surface Condition	ISO 1302	Surface Condition
<1000	5.0/0.8	<1000	5.0/0.8
<630	4.0/0.7	<630	4.0/0.7
<400	3.0/0.6	<400	3.0/0.6
<250	3.0/0.4	<250	3.0/0.4
<100	2.0/0.3	<100	2.0/0.3
<40	1.5/0.2	<40	1.5/0.2
L mm	mm	L mm	mm
Nom. Size	Class	Nom. Size	Class
<4000	2.0/0.4	<4000	2.0/0.4
<2000	1.2/0.4	<2000	1.2/0.4
<1000	0.8/0.3	<1000	0.8/0.3
<400	0.5/0.3	<400	0.5/0.3
30-120	0.3/0.2	30-120	0.3/0.2
2-30	0.2/0.1	2-30	0.2/0.1
L mm	mm	L mm	mm
Nom. Size	Class	Nom. Size	Class
>20000	9.0/5.0	>20000	9.0/5.0
<20000	8.0/7.0	<20000	8.0/7.0
<16000	7.0/6.0	<16000	7.0/6.0
<12000	6.0/5.0	<12000	6.0/5.0
<8000	5.0/4.0	<8000	5.0/4.0
<4000	4.0/3.0	<4000	4.0/3.0
<2000	3.0/2.0	<2000	3.0/2.0
<1000	2.0/1.5	<1000	2.0/1.5
<400	1.0/1.0	<400	1.0/1.0
30-120	1.0/0.5	30-120	1.0/0.5
2-30	1.0/0.5	2-30	1.0/0.5
L mm	A±E±H	L mm	A±E±H
Nom. Size	Class	Nom. Size	Class

Assembly Information:

No	Pargu Ady	Adet	Resim No / Norm	Malzeme	Ölçü	Agrilik
1	Welded Complete Frame Assembly	1	EM20240320000			1767.3

Technical Specifications:

Technical Document	2	Added axlebox support reference data	14/07/2025	D. Carino
Coating/Heat Tre./Roughness	1	UPDATED DRAWING	24/09/18	S. Pozzo
Paint/Color		Modification Description	Date	Sign

Scale: 1:5

Material: MCD COMPLETE FRAME ASSY

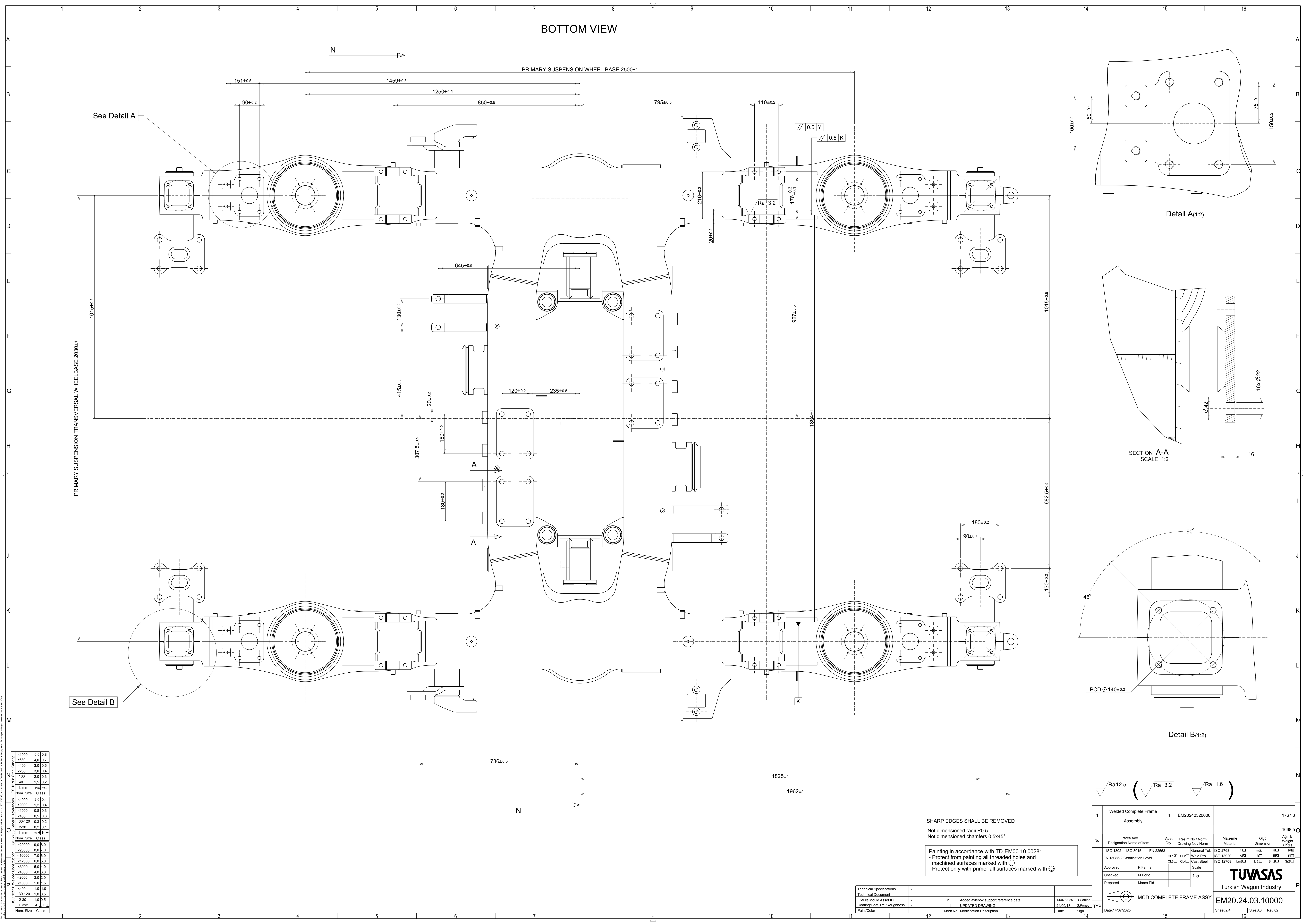
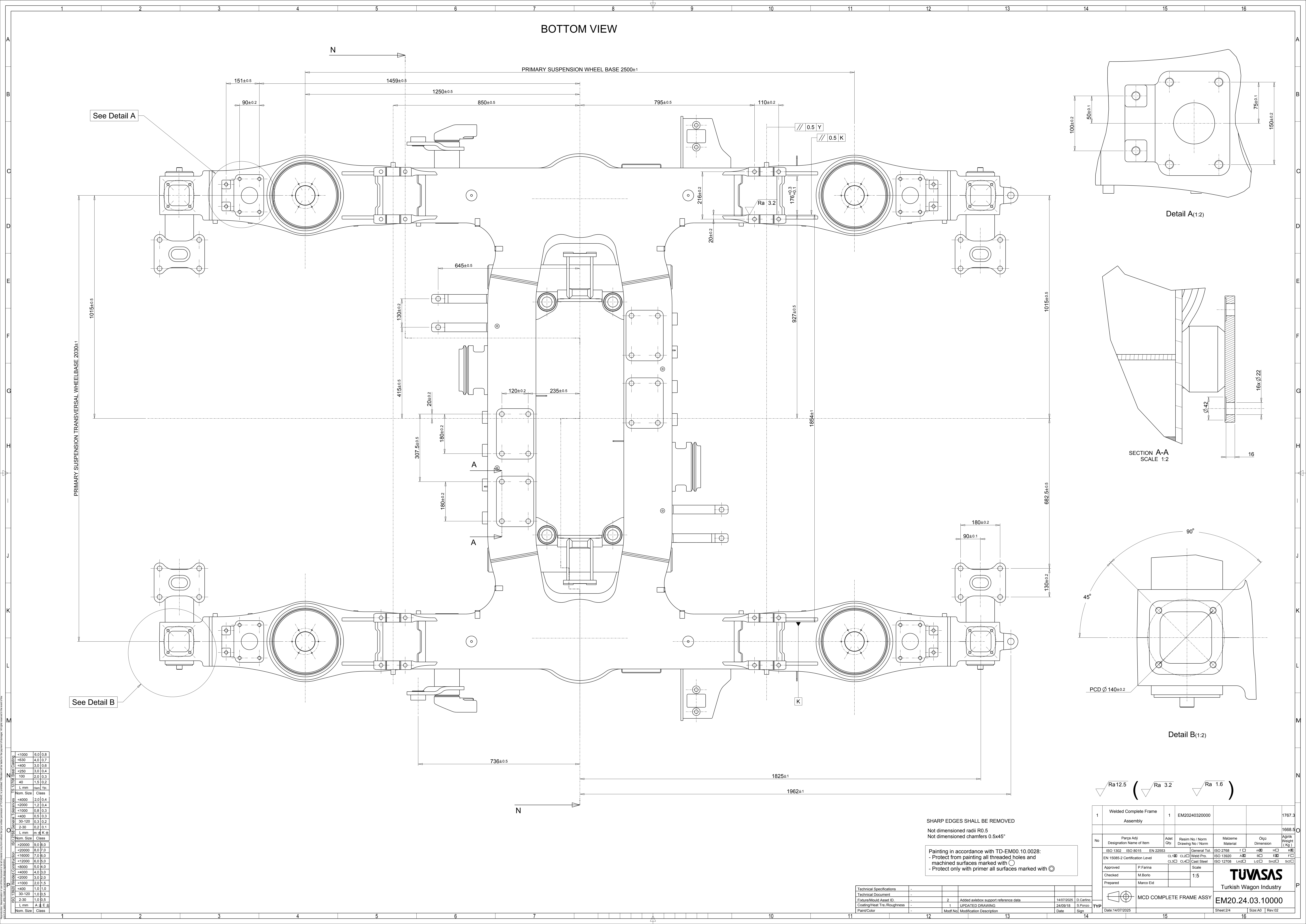
Sheet: 2/4

Size: A0

Rev: 02

Company: TUVASAS Turkish Wagon Industry

Product: EM20.24.03.10000

[illegible]

BOTTOM VIEW

PRIMARY SUSPENSION WHEEL BASE 2500±1

See Detail A

See Detail B

Detail A(1:2)

SECTION A-A
SCALE 1:2

Detail B(1:2)

SHARP EDGES SHALL BE REMOVED
Not dimensioned radii R0.5
Not dimensioned chamfers 0.5x45°

Painting in accordance with TD-EM00.10.0028:
- Protect from painting all threaded holes and machined surfaces marked with ⌀
- Protect only with primer all surfaces marked with ☉

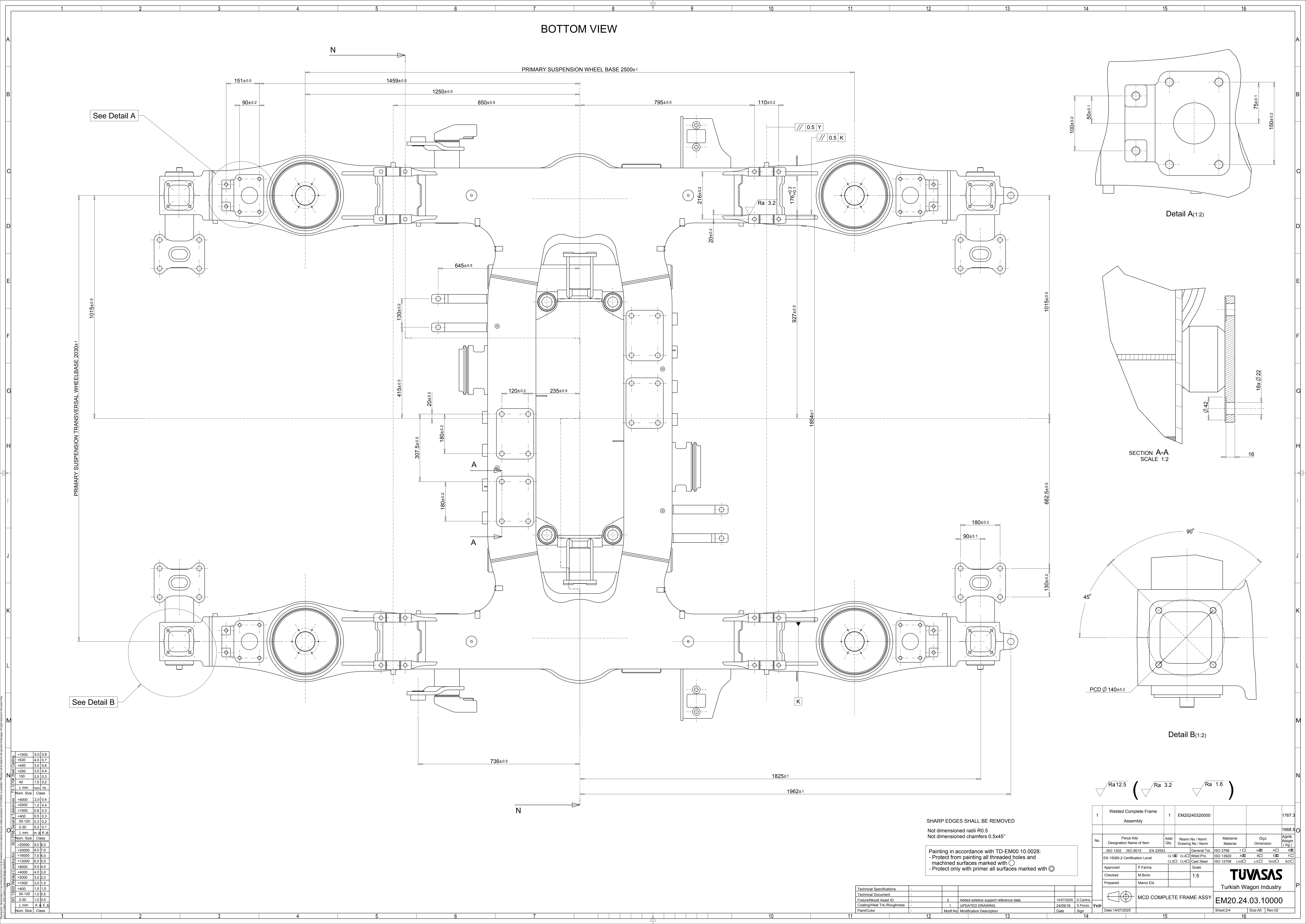
ISO 1307	Norm. Size	Class
<1000	5.0	0.8
630	4.0	0.7
400	3.0	0.6
250	3.0	0.4
100	2.0	0.3
40	1.5	0.2
L mm	mm	µm
Norm. Size	Class	
<4000	2.0	0.4
<2000	1.2	0.4
<1000	0.8	0.3
400	0.5	0.3
30-120	0.3	0.2
2-30	0.2	0.1
L mm	mm	µm
Norm. Size	Class	
>20000	9.0	6.0
<20000	8.0	7.0
<16000	7.0	6.0
<12000	6.0	5.0
<8000	5.0	4.0
4000	4.0	3.0
2000	3.0	2.0
<1000	2.0	1.5
400	1.0	1.0
30-120	1.0	0.5
2-30	1.0	0.5
L mm	A ± E ±	
Norm. Size	Class	

Technical Specifications	Item	Description	Date	Signature
Technical Document	-	-	-	-
Fixture/Mould Asset ID	2	Added axlebox support reference data	14/07/2025	D. Carino
Coating/Heat Tre./Roughness	1	UPDATED DRAWING	24/09/18	S. Pozzo
Paint/Color	-	-	-	-

No.	Pargı Ady Designation Name of Item	Adet Qty.	Resim No / Norm Drawing No / Norm	Malzeme Material	Olcı Dimension	Agrlık Weight (Kg.)
1	Welded Complete Frame Assembly	1	EM20240320000			1767.3

ISO 1302	ISO 8015	EN 22553	General Tol.	ISO 2768	f	m	H	K
EN 15085-2 Certification Level	CL 100	CL 100	Weld Pro.	ISO 13920	A00	R0	E00	F00
Approved	P. Farina		Scale	ISO 12708	L/mC	L/vC	SmC	SvC
Checked	M. Borio		1:5					
Prepared	Marco Eid							

TYP	Date	Sheet	Size	Rev
14	14/07/2025	2/4	A0	02

[illegible]

Technical drawing of the PRIMARY SUSPENSION TRANSVERSAL WHEELBASE 2030±1, showing the BOTTOM VIEW and various dimensions.

Dimensions:

- Overall width: 2500±1
- Overall length: 1962±1
- Wheelbase: 2030±1
- Other dimensions: 151±0.5, 90±0.2, 1459±0.5, 1250±0.5, 850±0.5, 795±0.5, 110±0.2, 1015±0.5, 1075±0.5, 682.5±0.5, 130±0.2, 1854±1, 1825±1, 736±0.5, 180±0.2, 90±0.1, 130±0.2, 415±0.5, 130±0.2, 645±0.5, 216±0.2, 20±0.2, 307.5±0.5, 180±0.2, 120±0.2, 235±0.5, 176^{+0.3}_{-0.1}, Ra 3.2, 0.5 Y, 0.5 K.

Details:

- Detail A (1:2): View of a component with dimensions 100±0.2, 50±0.1, 75±0.1, 150±0.2.
- Section A-A: SCALE 1:2. Cross-section view showing dimensions 16xØ22, 16, 16xØ22, 16.
- Detail B (1:2): View of a component with dimensions 90°, 45°, PCD Ø140±0.2.

Surface Finish:

- 0.5 Y
- 0.5 K
- Ra 3.2
- 176^{+0.3}_{-0.1}

Notes:

- SHARP EDGES SHALL BE REMOVED
- Not dimensioned radii R0.5
- Not dimensioned chamfers 0.5x45°
- Painting in accordance with TD-EM00.10.0028:
 - Protect from painting all threaded holes and machined surfaces marked with ⌀
 - Protect only with primer all surfaces marked with ☉

Legend:

ISO 1302	Surface Condition	ISO 1302	Surface Condition
<1000	5.0/0.8	<1000	5.0/0.8
<630	4.0/0.7	<630	4.0/0.7
<400	3.0/0.6	<400	3.0/0.6
<250	3.0/0.4	<250	3.0/0.4
<100	2.0/0.3	<100	2.0/0.3
<40	1.5/0.2	<40	1.5/0.2
L mm	mm	L mm	mm
Nom. Size	Class	Nom. Size	Class
<4000	2.0/0.4	<4000	2.0/0.4
<2000	1.2/0.4	<2000	1.2/0.4
<1000	0.8/0.3	<1000	0.8/0.3
<400	0.5/0.3	<400	0.5/0.3
30-120	0.3/0.2	30-120	0.3/0.2
2-30	0.2/0.1	2-30	0.2/0.1
L mm	mm	L mm	mm
Nom. Size	Class	Nom. Size	Class
>20000	9.0/5.0	>20000	9.0/5.0
<20000	8.0/7.0	<20000	8.0/7.0
<16000	7.0/6.0	<16000	7.0/6.0
<12000	6.0/5.0	<12000	6.0/5.0
<8000	5.0/4.0	<8000	5.0/4.0
<4000	4.0/3.0	<4000	4.0/3.0
<2000	3.0/2.0	<2000	3.0/2.0
<1000	2.0/1.5	<1000	2.0/1.5
<400	1.0/1.0	<400	1.0/1.0
30-120	1.0/0.5	30-120	1.0/0.5
2-30	1.0/0.5	2-30	1.0/0.5
L mm	A±E±H	L mm	A±E±H
Nom. Size	Class	Nom. Size	Class

Assembly Information:

No	Pargu Ady	Adet	Resim No / Norm	Malzeme	Ölçü	Agrilik
1	Welded Complete Frame Assembly	1	EM20240320000			1767.3

Technical Specifications:

Technical Document	2	Added axlebox support reference data	14/07/2025	D. Carino
Coating/Heat Tre./Roughness	1	UPDATED DRAWING	24/09/18	S. Pozzo
Paint/Color		Modification Description	Date	Sign

Scale: 1:5

Material: MCD COMPLETE FRAME ASSY

Sheet: 2/4

Size: A0

Rev: 02

Company: TUVASAS Turkish Wagon Industry

Product: EM20.24.03.10000

Technical drawing of the PRIMARY SUSPENSION TRANSVERSAL WHEELBASE 2030±1, showing the BOTTOM VIEW and various dimensions.

Dimensions:

- Overall width: 2500±1
- Overall length: 1962±1
- Wheelbase: 2030±1
- Other dimensions: 151±0.5, 90±0.2, 1459±0.5, 1250±0.5, 850±0.5, 795±0.5, 110±0.2, 1015±0.5, 1075±0.5, 682.5±0.5, 130±0.2, 1854±1, 1825±1, 736±0.5, 180±0.2, 90±0.1, 130±0.2, 415±0.5, 130±0.2, 645±0.5, 216±0.2, 20±0.2, 307.5±0.5, 180±0.2, 120±0.2, 235±0.5, 176^{+0.3}_{-0.1}, Ra 3.2, 0.5 Y, 0.5 K.

Details:

- Detail A (1:2): View of a component with dimensions 100±0.2, 50±0.1, 75±0.1, 150±0.2.
- Section A-A: SCALE 1:2. Cross-section view showing dimensions 16xØ22, 16, 16xØ22, 16.
- Detail B (1:2): View of a component with dimensions 90°, 45°, PCD Ø140±0.2.

Surface Finish:

- 0.5 Y
- 0.5 K
- Ra 3.2
- 176^{+0.3}_{-0.1}

Notes:

- SHARP EDGES SHALL BE REMOVED
- Not dimensioned radii R0.5
- Not dimensioned chamfers 0.5x45°
- Painting in accordance with TD-EM00.10.0028:
 - Protect from painting all threaded holes and machined surfaces marked with ⌀
 - Protect only with primer all surfaces marked with ☉

Legend:

ISO 1302	Surface Condition	ISO 1302	Surface Condition
<1000	5.0/0.8	<1000	5.0/0.8
<630	4.0/0.7	<630	4.0/0.7
<400	3.0/0.6	<400	3.0/0.6
<250	3.0/0.4	<250	3.0/0.4
<100	2.0/0.3	<100	2.0/0.3
<40	1.5/0.2	<40	1.5/0.2
L mm	mm	L mm	mm
Nom. Size	Class	Nom. Size	Class
<4000	2.0/0.4	<4000	2.0/0.4
<2000	1.2/0.4	<2000	1.2/0.4
<1000	0.8/0.3	<1000	0.8/0.3
<400	0.5/0.3	<400	0.5/0.3
30-120	0.3/0.2	30-120	0.3/0.2
2-30	0.2/0.1	2-30	0.2/0.1
L mm	mm	L mm	mm
Nom. Size	Class	Nom. Size	Class
>20000	9.0/5.0	>20000	9.0/5.0
<20000	8.0/7.0	<20000	8.0/7.0
<16000	7.0/6.0	<16000	7.0/6.0
<12000	6.0/5.0	<12000	6.0/5.0
<8000	5.0/4.0	<8000	5.0/4.0
<4000	4.0/3.0	<4000	4.0/3.0
<2000	3.0/2.0	<2000	3.0/2.0
<1000	2.0/1.5	<1000	2.0/1.5
<400	1.0/1.0	<400	1.0/1.0
30-120	1.0/0.5	30-120	1.0/0.5
2-30	1.0/0.5	2-30	1.0/0.5
L mm	A±E±H	L mm	A±E±H
Nom. Size	Class	Nom. Size	Class

Assembly Information:

No	Pargu Ady	Adet	Resim No / Norm	Malzeme	Ölçü	Agrilik
1	Welded Complete Frame Assembly	1	EM20240320000			1767.3

Technical Specifications:

Technical Document	2	Added axlebox support reference data	14/07/2025	D. Carino
Coating/Heat Tre./Roughness	1	UPDATED DRAWING	24/09/18	S. Pozzo
Paint/Color		Modification Description	Date	Sign

Scale: 1:5

Material: MCD COMPLETE FRAME ASSY

Sheet: 2/4

Size: A0

Rev: 02

Company: TUVASAS Turkish Wagon Industry

Product: EM20.24.03.10000

Technical drawing of the PRIMARY SUSPENSION TRANSVERSAL WHEELBASE 2030±1, showing the BOTTOM VIEW and various dimensions.

Dimensions:

- Overall width: 2500±1
- Overall length: 1962±1
- Wheelbase: 2030±1
- Other dimensions: 151±0.5, 90±0.2, 1459±0.5, 1250±0.5, 850±0.5, 795±0.5, 110±0.2, 1075±0.5, 1015±0.5, 682.5±0.5, 130±0.2, 415±0.5, 130±0.2, 645±0.5, 216±0.2, 20±0.2, 927±0.5, 176^{+0.3}_{-0.1}, Ra 3.2, 0.5 Y, 0.5 K, 1854±1, 180±0.2, 90±0.1, 130±0.2, 736±0.5, 1825±1, 1962±1.

Details:

- Detail A (1:2): View of a component with dimensions 100±0.2, 50±0.1, 75±0.1, 150±0.2.
- Section A-A (SCALE 1:2): Cross-section view showing a 16xØ22 hole and a 16mm dimension.
- Detail B (1:2): View of a component with dimensions 90°, 45°, PCD Ø140±0.2.

Surface Finish:

- 0.5 Y, 0.5 K, Ra 3.2, Ra 12.5, Ra 3.2, Ra 1.6.

Notes:

- SHARP EDGES SHALL BE REMOVED
- Not dimensioned radii R0.5
- Not dimensioned chamfers 0.5x45°
- Painting in accordance with TD-EM00.10.0028:
 - Protect from painting all threaded holes and machined surfaces marked with ⌀
 - Protect only with primer all surfaces marked with ☉

Legend:

ISO 1302	Surface Condition	ISO 1302	Surface Condition
<1000	5.0/0.8	<1000	5.0/0.8
<630	4.0/0.7	<630	4.0/0.7
<400	3.0/0.6	<400	3.0/0.6
<250	3.0/0.4	<250	3.0/0.4
<100	2.0/0.3	<100	2.0/0.3
<40	1.5/0.2	<40	1.5/0.2
L mm	mm	L mm	mm
Nom. Size	Class	Nom. Size	Class
<4000	2.0/0.4	<4000	2.0/0.4
<2000	1.2/0.4	<2000	1.2/0.4
<1000	0.8/0.3	<1000	0.8/0.3
<400	0.5/0.3	<400	0.5/0.3
30-120	0.3/0.2	30-120	0.3/0.2
2-30	0.2/0.1	2-30	0.2/0.1
L mm	mm	L mm	mm
Nom. Size	Class	Nom. Size	Class
>20000	9.0/5.0	>20000	9.0/5.0
<20000	8.0/7.0	<20000	8.0/7.0
<16000	7.0/6.0	<16000	7.0/6.0
<12000	6.0/5.0	<12000	6.0/5.0
<8000	5.0/4.0	<8000	5.0/4.0
<4000	4.0/3.0	<4000	4.0/3.0
<2000	3.0/2.0	<2000	3.0/2.0
<1000	2.0/1.5	<1000	2.0/1.5
<400	1.0/1.0	<400	1.0/1.0
30-120	1.0/0.5	30-120	1.0/0.5
2-30	1.0/0.5	2-30	1.0/0.5
L mm	A±E±H	L mm	A±E±H
Nom. Size	Class	Nom. Size	Class

Assembly Information:

No	Pargu Ady	Adet	Resim No / Norm	Malzeme	Ölçü	Agrilik
1	Welded Complete Frame Assembly	1	EM20240320000			1767.3

Technical Specifications:

Technical Specifications	Value	Modif No	Modification Description	Date	Sign
Technical Document	-				
Fixture/Mould Asset ID	2		Added axlebox support reference data	14/07/2025	D. Carino
Coating/Heat Tre./Roughness	1		UPDATED DRAWING	24/09/18	S. Pozzo
Paint/Color	-				

Approval:

Approved	Checked	Prepared	Scale
P. Farina	M. Borio	Marco Eid	1:5

Product Information:

Product	Version	Sheet	Size	Rev
MCD COMPLETE FRAME ASSY	EM20.24.03.10000	2/4	A4	02

BOTTOM VIEW

PRIMARY SUSPENSION WHEEL BASE 2500±1

See Detail A

See Detail B

Detail A(1:2)

SECTION A-A
SCALE 1:2

Detail B(1:2)

SHARP EDGES SHALL BE REMOVED
Not dimensioned radii R0.5
Not dimensioned chamfers 0.5x45°

Painting in accordance with TD-EM00.10.0028:
- Protect from painting all threaded holes and machined surfaces marked with ⌀
- Protect only with primer all surfaces marked with ☉

ISO 1307	Norm.	Size	Class
<1000	5.0	0.8	
630	4.0	0.7	
400	3.0	0.6	
250	3.0	0.4	
100	2.0	0.3	
40	1.5	0.2	
L mm	mm	µm	K µm
Norm. Size	Class		
<4000	2.0	0.4	
<2000	1.2	0.4	
<1000	0.8	0.3	
400	0.5	0.3	
30-120	0.3	0.2	
2-30	0.2	0.1	
L mm	mm	µm	K µm
Norm. Size	Class		
>20000	9.0	6.0	
<20000	8.0	7.0	
<16000	7.0	6.0	
<12000	6.0	5.0	
<8000	5.0	4.0	
4000	4.0	3.0	
2000	3.0	2.0	
1000	2.0	1.5	
400	1.0	1.0	
30-120	1.0	0.5	
2-30	1.0	0.5	
L mm	A ± E ±		
Norm. Size	Class		

Technical Specifications	-	-	-	-	-
Technical Document	-	-	-	-	-
Fixture/Mould Asset ID	-	2	Added axlebox support reference data	14/07/2025	D. Carino
Coating/Heat Tre./Roughness	-	1	UPDATED DRAWING	24/09/18	S. Pozzo
Paint/Color	-	Modif No	Modification Description	Date	Sign

No	Pargı Ady Designation Name of Item	Adet Qty	Resim No / Norm Drawing No / Norm	Malzeme Material	Olcı Dimension	Agrlık Weight (Kg.)
1	Welded Complete Frame Assembly	1	EM20240320000			1767.3

ISO 1302	ISO 8015	EN 22553	General Tol.	ISO 2768	f	m	H	C	k
EN 15085-2 Certification Level	CL 100	CL 100	Weld Pro.	ISO 13920	A00	R0	E00	F0	
Approved	P. Farina		Scale	ISO 12708	L/mC	L/vC	SmC	S/zC	
Checked	M. Borio		1:5						
Prepared	Marco Eid								

TYP	MCD COMPLETE FRAME ASSY	EM20.24.03.10000
Date: 14/07/2025	Sheet 2/4	Size A0 Rev 02

BOTTOM VIEW

PRIMARY SUSPENSION WHEEL BASE 2500±1

See Detail A

See Detail B

Detail A(1:2)

SECTION A-A
SCALE 1:2

Detail B(1:2)

SHARP EDGES SHALL BE REMOVED
Not dimensioned radii R0.5
Not dimensioned chamfers 0.5x45°

Painting in accordance with TD-EM00.10.0028:
- Protect from painting all threaded holes and machined surfaces marked with ⌀
- Protect only with primer all surfaces marked with ☉

ISO 1302	Surface Condition	ISO 2768	Tolerances
<1000	5.0/0.8	M	mm
<630	4.0/0.7	M	mm
<400	3.0/0.6	M	mm
<250	3.0/0.4	M	mm
<100	2.0/0.3	M	mm
<40	1.5/0.2	M	mm
L mm	H mm	K µm	µm
Nom. Size	Class		
<4000	2.0/0.4		
<2000	1.2/0.4		
<1000	0.8/0.3		
<400	0.5/0.3		
30-120	0.3/0.2		
2-30	0.2/0.1		
L mm	H mm	K µm	µm
Nom. Size	Class		
>20000	9.0/5.0		
<20000	8.0/7.0		
<16000	7.0/6.0		
<12000	6.0/5.0		
<8000	5.0/4.0		
<4000	4.0/3.0		
<2000	3.0/2.0		
<1000	2.0/1.5		
<400	1.0/1.0		
30-120	1.0/0.5		
2-30	1.0/0.5		
L mm	A ± E #		
Nom. Size	Class		

Technical Specifications					
Technical Document	-				
Fixture/Mould Asset ID	-	2	Added axlebox support reference data	14/07/2025	D. Carino
Coating/Heat Tre./Roughness	-	1	UPDATED DRAWING	24/09/18	S. Pozzo
Paint/Color	-	Modif No	Modification Description	Date	Sign.

No	Parg'a Ady Designation Name of Item	Adet Qty.	Resim No / Norm Drawing No / Norm	Malzeme Material	Olcu Dimension	Agrilik Weight (Kg.)
1	Welded Complete Frame Assembly	1	EM20240320000			1767.3

ISO 1302	ISO 8015	EN 22553	General Tol.	ISO 2768	f	m	H	C	k
EN 15085-2 Certification Level	CL 100	CL 100	Weld Pro.	ISO 13920	A00	R0	E00	F0	
Approved	P.Farina		Scale	ISO 12708	L/mC	L/vC	SmC	S/zC	
Checked	M.Borio		1:5						
Prepared	Marco Eid								

TYP	MCD COMPLETE FRAME ASSY	EM20.24.03.10000
Date: 14/07/2025	Sheet 2/4	Size A0 Rev 02

BOTTOM VIEW

PRIMARY SUSPENSION WHEEL BASE 2500±1

See Detail A

See Detail B

Detail A(1:2)

SECTION A-A
SCALE 1:2

Detail B(1:2)

SHARP EDGES SHALL BE REMOVED
Not dimensioned radii R0.5
Not dimensioned chamfers 0.5x45°

Painting in accordance with TD-EM00.10.0028:
- Protect from painting all threaded holes and machined surfaces marked with ⌀
- Protect only with primer all surfaces marked with ☉

ISO 1307	Norm.	Size	Class
<1000	5.0	0.8	
630	4.0	0.7	
400	3.0	0.6	
250	3.0	0.4	
100	2.0	0.3	
40	1.5	0.2	
L mm	mm	µm	K µm
Norm. Size	Class		
<4000	2.0	0.4	
<2000	1.2	0.4	
<1000	0.8	0.3	
400	0.5	0.3	
30-120	0.3	0.2	
2-30	0.2	0.1	
L mm	mm	µm	K µm
Norm. Size	Class		
>20000	9.0	6.0	
<20000	8.0	7.0	
<16000	7.0	6.0	
<12000	6.0	5.0	
<8000	5.0	4.0	
4000	4.0	3.0	
2000	3.0	2.0	
<1000	2.0	1.5	
400	1.0	1.0	
30-120	1.0	0.5	
2-30	1.0	0.5	
L mm	A ± E ±		
Norm. Size	Class		

Technical Specifications	-	-	-	-	-
Technical Document	-	-	-	-	-
Fixture/Mould Asset ID	-	2	Added axlebox support reference data	14/07/2025	D. Carino
Coating/Heat Tre./Roughness	-	1	UPDATED DRAWING	24/09/18	S. Pozzo
Paint/Color	-	Modif No	Modification Description	Date	Sign

No	Pargı Ady Designation Name of Item	Adet Qty.	Resim No / Norm Drawing No / Norm	Malzeme Material	Olgü Dimension	Agrlık Weight (Kg.)
1	Welded Complete Frame Assembly	1	EM20240320000			1767.3

ISO 1302	ISO 8015	EN 22553	General Tol.	ISO 2768	f	m	H	C	k
EN 15085-2 Certification Level	CL 100	CL 100	Weld Pro.	ISO 13920	A00	R0	E00	F0	
Approved	P. Farina		Scale	ISO 12708	L/m	L/v	S/m	S/v	
Checked	M. Borio		1:5						
Prepared	Marco Eid								

TYP	MCD COMPLETE FRAME ASSY	EM20.24.03.10000
Date: 14/07/2025	Sheet 2/4	Size A0 Rev 02

