

**MANUFACTURER** ALSTOM Ubunye  
 Marievale Road, Vosterkroon, Nigel, 1490  
**CUSTOMER** Gibela  
**CONTRACT**  
**PROJECT** PRASA

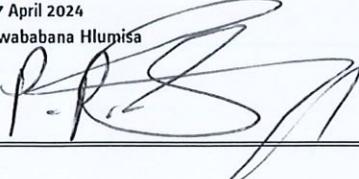
MANUFACTURER'S DELIVERY DOCUMENT	
PRODUCT TYPE	TRAILER BOGIE type TBEXT
	DTR0009706803
SERIAL NUMBER	TBEXT - 602

**CONTENTS**

- Compliance certificate.....	Page 1/2	<input checked="" type="checkbox"/>
- List of deviations and missing parts.....	Page 2/2	<input checked="" type="checkbox"/>
- Products traceability.....	1 page	<input checked="" type="checkbox"/>
- Load test report.....	1 page	<input checked="" type="checkbox"/>

**COMPLIANCE CERTIFICATE**

We hereby declare, barring exceptions, reservations, or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completions of testing and verification, they completely satisfy all specified requirements and applicable standards and regulations.

CONSTRUCTOR APPROVAL	
DATE	17 April 2024
NAME	Kwababana Hlumisa
VISA	

I - Deviation / Derogation

II - Bogie configuration

B Bogie index

# ALSTOM UBUNYE PRODUCTS TRACEABILITY

Products Designation	Product Reference	Serial Number	Batch or Date Manufactured	Supplier
Trailer Bogie TBEXT	DTR0009706803	602		Alstom - Abunye
Trailer Bogie Frame	AR00000176083	T0 866		Alstom - Ubunye
Wheelset (Front)	AR000000177020	T0 1615		Alstom - Ubunye
Axle	AR00000174678	114649	12176732	Jinxi
Wheel (Right)	AR00000174670	069	10.23	Bonatrans
Wheel (Left)	AR000000174670	052	10.23	Bonatrans
Wheelset (Rear)	AR00000185203	T0 1616		Alstom Ubunye
Axle	AR00000174678	114913	12176732	Jinxi
Wheel (Right)	AR00000174670	054	10.23	Bonatrans
Wheel (Left)	AR00000174670	037	1023	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2310168		TMT
Pneumatic suspension (Left)	AR00000176127	2310220		TMT
Brake unit with PB (Right rear)	AR00000174544	1716	04.23	Wabtec
Brake unit without PB (Right front)	AR00000175185	5154	04.23	Wabtec
Brake unit without PB (Left Front)	AR00000175185	5156	04.23	Wabtec
Brake unit without PB (left rear)	AR00000175185	5155	04.23	Wabtec

DATE  
4/17/2024

RESPONSABLE VALIDATION

PRASA  
INSTRUCTION SHEET:  
FAMILY:

LOAD TEST : TBEXT

# PRESSING REPORT

DATE VALIDATION	RESPONSABLE VALIDATION	PRASA	INSTRUCTION SHEET:	LOAD TEST :	TBEXT
			FAMILY:	PROJECT:	

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	35.44 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [kg]	Q2	5450

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
585.83	+	5.00 =	590.83
			MIN MAX
			590.00 592.50

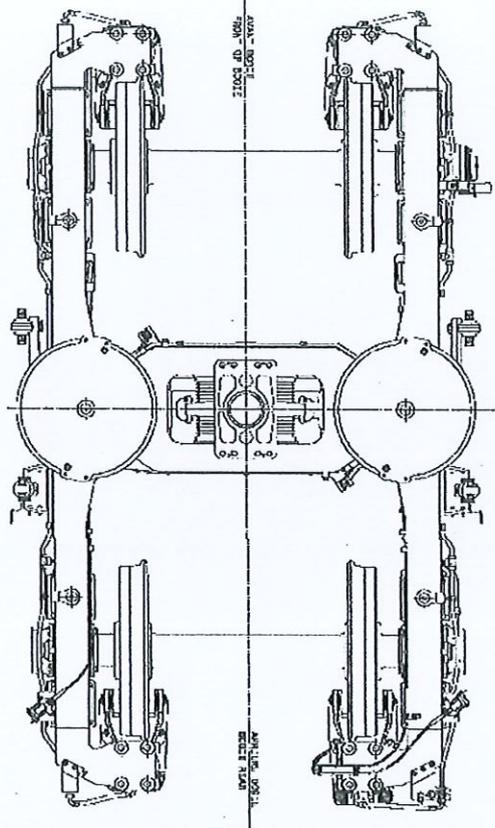
RIGHT JACK LOAD  
8453 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	36.30 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [kg]	Q4	5432

BOGIE SERIAL N°	602
BOGIE TYPE	TBEXT
BOGIE WEIGHT UNDER LOAD [kg]	21865
COMPLETE BOGIE WEIGHT [kg]	4621
OPERATOR	DATE
EDWARD	4/17/2024

OPERATOR STAMP

BFI-21



	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	35.98 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [kg]	Q1	5465

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.55	+	4.00 =	590.55
			MIN MAX
			590.00 592.50

LEFT JACK LOAD  
8453 Kg

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]	0.28	THEORETICAL [mm]	MIN MAX
			-1.00 1.00

	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN MAX	0.14 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN MAX	0.79 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN MAX	-0.16 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN MAX	0.46 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN MAX	0.32 ✓

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	35.80 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [kg]	Q3	5518

**MANUFACTURER** ALSTOM Ubunye  
 Marievale Road, Vosterkroon, Nigel, 1490  
**CUSTOMER** Gibela  
**CONTRACT**  
**PROJECT** PRASA

MANUFACTURER'S DELIVERY DOCUMENT	
PRODUCT TYPE	TRAILER BOGIE TBINT
	DTR0009706802
SERIAL NUMBER	TBINT 609

**CONTENTS**

- Compliance certificate.....	Page 1/2	<input checked="" type="checkbox"/>
- List of deviations and missing parts.....	Page 2/2	<input checked="" type="checkbox"/>
- Products traceability.....	1 page	<input checked="" type="checkbox"/>
- Load test report.....	1 page	<input checked="" type="checkbox"/>
- Motor certificate.....	8 pages	<input checked="" type="checkbox"/>

**COMPLIANCE CERTIFICATE**

We hereby declare, barring exceptions, reservations, or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completions of testing and verification, they completely satisfy all specified requirements and applicable standards and regulations.

CONSTRUCTOR APPROVAL	
DATE	18 April 2024
NAME	Kwababana Hlumisa
VISA	

I - Deviation / Derogation

II - Bogie configuration

B Bogie index



# ALSTOM UBUNYE PRODUCTS TRACEABILITY

Products Designation	Product Reference	Serial Number	Batch or Date Manufactured	Supplier
Trailer Bogie TBINT	DTR0009706802	609		Alstom - Ubunye
Trailer Bogie Frame	AR00000176083	T0 879		Poland -MZ
Wheelset (Front)	AR000000177020	T0 1617		Alstom - Ubunye
Axle	AR00000174678	102130	D1230038	Jinxi
Wheel (Right)	AR00000174670	026	10-23	Bonatrans
Wheel (Left)	AR000000174670	027	10-23	Bonatrans
Wheelset (Rear)	AR00000185203	T0 1618		Alstom - Ubunye
Axle	AR00000174678	102070	D1230038	Jinxi
Wheel (Right)	AR00000174670	129	10-23	Bonatrans
Wheel (Left)	AR00000174670	023	10-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2310174		TMT
Pneumatic suspension (Left)	AR00000176127	2310139		TMT
Brake unit with PB (Right rear)	AR00000174544	1720	04-24	Wabtec
Brake unit without PB (Right front )	AR00000175185	5182	04-24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	5183	04-24	Wabtec
Brake unit without PB (left rear)	AR00000175185	5184	04-24	Wabtec

# PRESSING REPORT

DATE  
4/18/2024

RESPONSIBLE VALIDATION

PRASA

INSTRUCTION SHEET:

LOAD TEST : TBINT

FAMILY:

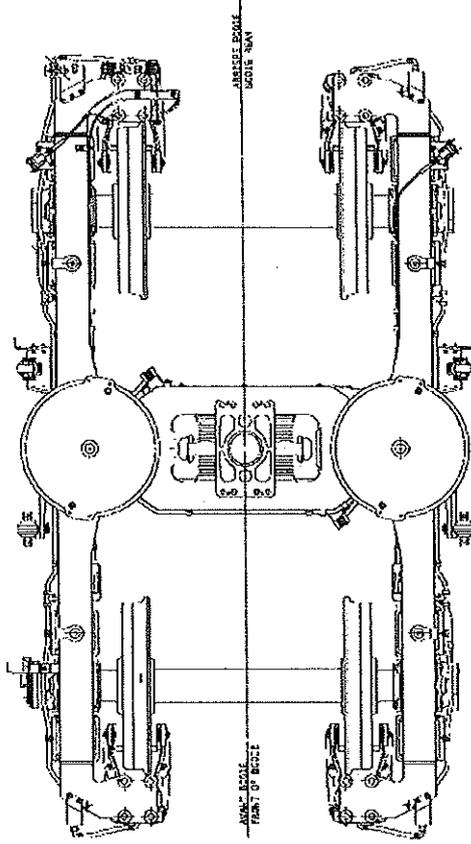
PROJECT: PRASA

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]	34.50	40.50	38.79 ✓
GAP PRIMARY SUSPENSION [mm]	34.50	40.50	✓
SHIM THICK [mm]	Q2		4520
WEIGHT ON WHEEL [Kg]	Q2		4624

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
588.12	+	0.00	587.50
		588.12	590.00
			MIN
			MAX

RIGHT JACK LOAD	6695	Kg
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BOGIE SERIAL N°	609
BOGIE TYPE	TBINT
BOGIE WEIGHT UNDER LOAD [kg]	18347
COMPLETE BOGIE WEIGHT [kg]	4622
OPERATOR	EDWARD
DATE	4/18/2024



OPERATOR STAMP	BFI-21
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LEFT JACK LOAD	6695	Kg
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	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]	34.50	40.50	38.45 ✓
GAP PRIMARY SUSPENSION [mm]	34.50	40.50	✓
SHIM THICK [mm]	Q1		4624
WEIGHT ON WHEEL [Kg]	Q1		4587

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
588.57	+	0.00	587.50
		588.57	590.00
			MIN
			MAX

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]	✓	THEORETICAL [mm]	MIN	-1.00
			MAX	1.00
				-0.45

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]	34.50	40.50	38.61 ✓
GAP PRIMARY SUSPENSION [mm]	34.50	40.50	✓
SHIM THICK [mm]	Q4		4616
WEIGHT ON WHEEL [Kg]	Q4		4616

	THEORETICAL		MEASURED
	MIN	MAX	
LOAD DIFFERENCE ON FRONT AXLE [%]	-2.00	2.00	1.14 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	-2.00	2.00	-0.32 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	-2.00	2.00	-0.32 ✓
LOAD DIFFERENCE ON RAILS [%]	-2.00	2.00	0.41 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	-2.00	2.00	-0.72 ✓

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]	34.50	40.50	38.17 ✓
GAP PRIMARY SUSPENSION [mm]	34.50	40.50	✓
SHIM THICK [mm]	Q3		4587
WEIGHT ON WHEEL [Kg]	Q3		4587