

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


MANUFACTURER'S DELIVERY DOCUMENT	
PRODUCT TYPE	MOTOR BOGIE MB1 DTR0009706804
SERIAL NUMBER	MB1 1417

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	06 May 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
Motor Bogie MB1	DTR0009706804	1417		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1709		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03239		Alstom - Ubunye
Axle with fitted gearbox	AR000000177072	K3310		NGC
Wheel (Right)	AR000000174670	022	11-23	Bonatrans
Wheel (Left)	AR0000000174670	037	11-23	Bonatrans
Wheelset (Rear)	AR000000178600	M03240		Alstom - Ubunye
Axle with fitted gearbox	AR000000177072	K3280		NGC
Wheel (Right)	AR000000174670	058	11-23	Bonatrans
Wheel (Left)	AR000000174670	053	11-23	Bonatrans
Pneumatic suspension (Right)	AR000000176127	2311096		Hutchinson
Pneumatic suspension (Left)	AR000000176127	2310216		Hutchinson
Brake unit with PB (Right rear)	AR000000174544	1748	04-24	WEBTEC
Brake unit without PB (Right front)	AR000000175185	5268	04-24	WEBTEC
Brake unit without PB (Left Front)	AR000000175185	5264	04-24	WEBTEC
Brake unit without PB (left rear)	AR000000175185	5267	04-24	WEBTEC
Motor (front)	AR000000168516	21561		GIBELA
Motor (Rear)	AR000000168516	21589		GIBELA

PRESSING REPORT

DATE
5/6/2024

RESPONSIBLE VALIDATION

PRASA

INSTRUCTION SHEET:

FAMILY:

LOAD TEST : MOTOR BOGIE

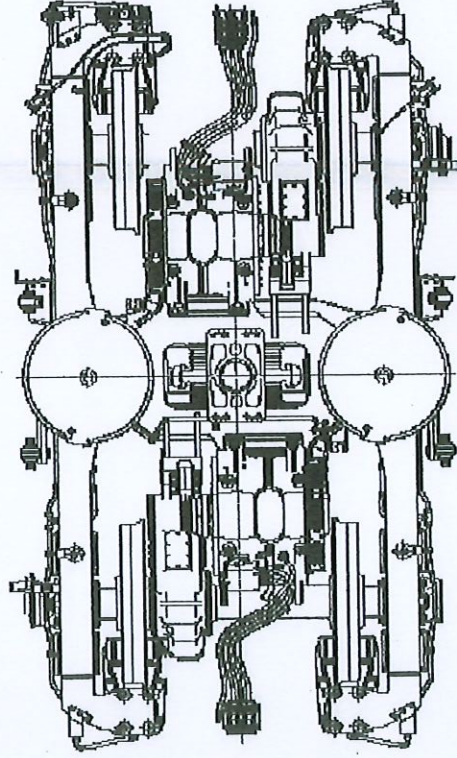
PROJECT:

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	33.00	39.00	37.62 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5532

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.36	+	0.00	=
		586.36	
			MIN 585.00
			MAX 587.50

RIGHT JACK LOAD	
	7376 Kg

BOGIE SERIAL N°	MB1-1417
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22389
COMPLETE BOGIE WEIGHT [Kg]	7297
OPERATOR	BAFANA
DATE	5/6/2024



OPERATOR STAMP	
DC-3-FI-6	

LEFT JACK LOAD	
	7376 Kg

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	33.00	39.00	37.60 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5563

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.12	+	0.00	=
		587.12	
			MIN 585.00
			MAX 587.50
DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]			THEORETICAL [mm]
-0.76			MIN -1.00
			MAX 1.00

	THEORETICAL		MEASURED
	MIN	MAX	
LOAD DIFFERENCE ON FRONT AXLE [%]	0.00	0.00	-0.28 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	0.00	0.00	1.50 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	0.00	0.00	-0.33 ✓
LOAD DIFFERENCE ON RAILS [%]	0.00	0.00	0.61 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	0.00	0.00	0.39 ✓

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	33.00	39.00	36.79 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5700

MOT 21561

ALSTOM

GIBELCO

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Référence: TROS 916.216

Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test

Date: 11/03/24

Name: Godfrey & Yolani

Assembly after test

Date: 11/04/2024

Name: Sigafoos Yolani & Tommas

ROTOR S/N		STATOR S/N	
MCR23-11-021		GIB-1584	
<p>Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965289</p>			
<p>INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965289 FAG: NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU 214-E-M1-P6-F1-H257A-J20AA-C4 SKF: NU 214 ECM/C4-VA3091 (cross out the references that have not been fitted)</p>			
N°:			
ROMANIA: -0097 10/23 SH229-19882233			
<p>Radial play after assembly (0,042/0,114): 0,07mm</p> <p><input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>LUBRICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min:144g - Max:149g</p> <p>Mesured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Quality validation</p> <p>Filter 1 (Name and signature): <i>[Signature]</i></p> <p>Filter 2 (Name and signature): <i>[Signature]</i></p> <p>Quality Insp. Name and signature: <i>[Signature]</i></p>	
<p>INSULATED CERAMIC BEARING OPPOSITE DRIVE END side - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965289 FAG: 6214-M-P6-J20AB-H257A-C4 or 6214-M-P6-J20AA-H257-C4 SKF: 6214-M/C4-VL-0241 (cross out the references that have not been fitted)</p>			
Serial N°:			
GERMANY: -0000X116-0940 04/23 SH0223			
<p>Radial play after assembly (0,021/0,067): 0,05mm</p> <p><input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>LUBRICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min:159g - Max:164g</p> <p>Mesured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Quality verification</p> <p>Filter 1 (Name and signature): <i>[Signature]</i></p> <p>Filter 2 (Name and signature): <i>[Signature]</i></p> <p>Quality Insp. Name and signature: <i>[Signature]</i></p>	
Référence appareil: AMXG14			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216	
		Page 1	

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FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the Insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)		3-06 G.SL		<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK
OPERATOR				Quality verification	
Out of round at the end of the shaft drive end, 0,05 max	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number	AMXG14	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
Value: 0,01mm					
Out of round on toothed wheel 0,1 max:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number	AMXG14	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
0,06mm					
sensor / toothed wheel play 0,7 (+/-0,2):	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number	GIBFL001	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
0,7mm					
Sensor reference: DTR0000512252/DSD1830.19Q14HW	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number	52318013668	<input type="checkbox"/> OK	<input type="checkbox"/> NOK

Prep. & Final Assembly

OPERATOR				Quality verification			
<input checked="" type="checkbox"/> F1	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QC 1 X 61 Nm	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> F2	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QC 1 X 61 Nm	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> F3	Torque tightening to 4 x 44 Nm: Fold locking plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QC 1 X 37 Nm	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> F4	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QC 1 X 18 Nm	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> F5	Torque tightening to 6 x 22 Nm:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QC 1 X 18 Nm	<input type="checkbox"/>	<input type="checkbox"/>

Finishing

<input checked="" type="checkbox"/> F1	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QC 1 X 22 Nm	<input type="checkbox"/>	<input type="checkbox"/>
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Grease protection transport

<input checked="" type="checkbox"/> S3	18g (0/+4.5) CC	Mesured quantity:	18g	<input checked="" type="checkbox"/>	OK	<input type="checkbox"/>	NOK
<input checked="" type="checkbox"/> S4	18g (0/+4.5) CC	Mesured quantity:	18g	<input checked="" type="checkbox"/>	OK	<input type="checkbox"/>	NOK

Final inspection following the check-list DTR0000452909 and DTR0000452910 (in the case of 100% inspection of the production) OK NOK

Final Inspection	Comments
Quality Insp Name and Signature: <i>Gasane</i>	

OBSERVATIONS

GIBELA RAIL TRANSPORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality

2024-04-12

Name: *Gasane*

Signature: *Gasane*




CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B
Serial Number: N ° 21589
Client / Customer: ALSTOM UBUNYE (PTY) LTD
Project: PRASA
P O Number: 76940755
Status: QC PASS
Derogations / Concession / Waiver N °: N/A
Customer modification: N/A
Missing parts: N/A

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 completion of testing and verification, they completely satisfy all specified requirements, and applicable standards and regulations.

Date: 2024/04/17
Function: Final Inspection
Performed and signed off by: Name _____ Dimakatso Mohoalali
Signature _____ 



Gibela Rail
02 Shosholozza Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

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21589

ALSTOM

GIBEL

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Référence: TROS 916.216

Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test
Date: 16-03-2024
Name: Romanus

Assembly after test
Date: 11/04/24
Name: XOLANI, THOMAS & JACQUES

ROTOR S/N MORUS 11-092		STATOR S/N SIB -1570	
Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289			
(S2) INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965.289 FAG: NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU 214-E-M1-P6-F1-H257A-J20AA-C4 SKF-NU-214-EGM/C4 VA3091 (cross out the references that have not been fitted)			
N°: ROMANIA - 0097 10/23 SN 278-1988233			
(S2) Radial play after assembly (0,042/0,114): 0,06 <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK		(S4) LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Measured quantity: Filter 1 (Name and signature) Filter 2 (Name and signature) Quality validation: Quality Insp. Name and signature: Ding	
(S1) INSULATED CERAMIC BEARING OPPOSITE DRIVE END side - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965.289 FAG: 6214-M-P6-J20AB-H257A-C4 or 6214-M-P6-J20AA-H257-C4 SKF 6214-M/C4-VL 0241 (cross out the references that have not been fitted)			
Serial N°: GERMANY - 0200 X116 -1005 04/23 SN 0276			
(S1) Radial play after assembly (0,021/0,067): 0,05 <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK		(S3) LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Measured quantity: Filter 1 (Name and signature) Filter 2 (Name and signature) Quality validation: Quality Insp. Name and signature: Ding	
Référence appareil A32P14			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216	
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ALSTOM

GIBEL

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)		10,4 Ω		<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK
OPERATOR			Quality verification		
Out of round at the end of the shaft drive end, 0,05 max Value 0,01	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number A32P14	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
Out of round on toothed wheel 0,1 max: 0,05	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number A32P14	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,75	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number GIBEL 002	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number 5725200562	<input type="checkbox"/> OK	<input type="checkbox"/> NOK

Prep. & Final Assembly

OPERATOR				Quality verification			
<input checked="" type="checkbox"/> F1	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	<small>wrench reference (in the event of failure / absence of the motorised spreader)</small> 02862182	QC 1 X 61 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> F2	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	<small>wrench reference (in the event of failure / absence of the motorised spreader)</small> 02862182	QC 1 X 61 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> F3	Torque tightening to 4 x 44 Nm: Fold locking plate	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	<small>wrench reference (in the event of failure / absence of the motorised spreader)</small> 02862182	QC 1 X 37 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> F4	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	<small>wrench reference (in the event of failure / absence of the motorised spreader)</small> 02862182	QC 1 X 18 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> F5	Torque tightening to 6 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	<small>wrench reference (in the event of failure / absence of the motorised spreader)</small> 02862182	QC 1 X 18 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK

Finishing

<input checked="" type="checkbox"/> F1	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	<small>wrench reference (in the event of failure / absence of the motorised spreader)</small> 02862182	QC 1 X 22 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
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Grease protection transport

<input checked="" type="checkbox"/> S3	18g (0/+4.5) CC	Mesured quantity:	18g	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> S4	18g (0/+4.5) CC	Mesured quantity:	18g	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK

Final inspection following the check-list DTR0000452909 and DTR0000452910 (in the case of 100% inspection of the production) OK NOK

Final Inspection
Quality Insp Name and Signature: Dima KMS.

Comments

OBSERVATIONS



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

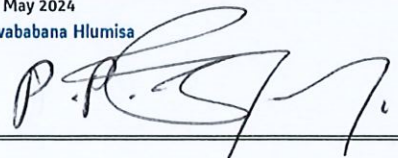
MANUFACTURER'S DELIVERY DOCUMENT	
PRODUCT TYPE	MOTOR BOGIE type MB2
	DTR0009706805
SERIAL NUMBER	MB2 - 602

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"/>
- Motor certificate.....	8 pages	<input checked="" type="checkbox"/>

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CONSTRUCTOR APPROVAL	
DATE	06 May 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
Motor Bogie MB2	DTR0009706805	602		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	1753		Alstom - Ubunye
Wheelset (Front)	AR000000177020	8235		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	3185		NGC
Wheel (Right)	AR00000174670	098	11.23	Bonatrans
Wheel (Left)	AR000000174670	092	11.23	Bonatrans
Wheelset (Rear)	AR00000178600	3236		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	3329		NGC
Wheel (Right)	AR00000174670	137	11.23	Bonatrans
Wheel (Left)	AR00000174670	127	11.23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2311053		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2312132		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1753	04.24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	5284	04.24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	5285	04.24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	5281	04.24	WEBTEC
Motor (front)	AR00000168516	21593		GIBELA
Motor (Rear)	AR00000168516	21544		GIBELA

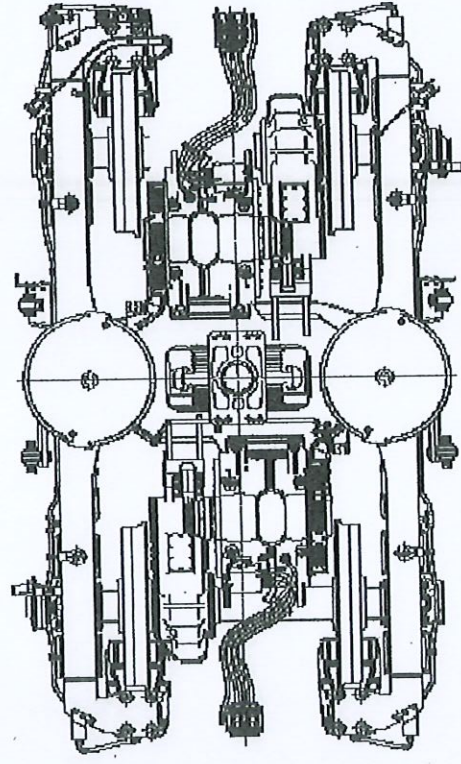
PRESSING REPORT

DATE 5/3/2024	RESPONSABLE VALIDATION
PRASA INSTRUMENTAL	LOAD TEST : MOTOR BOGIE
INSTRUCTION SHEET:	PROJECT:
FAMILY:	

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	33.00	39.00	37.71 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5601

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.43	+	0.00	=
		587.43	MIN
		587.50	MAX

RIGHT JACK LOAD
7376 Kg



BOGIE SERIAL N°	MB2-602
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22370
COMPLETE BOGIE WEIGHT [Kg]	7285
OPERATOR	DATE
BAFANA	5/3/2024

OPERATOR STAMP

DA-271-6

	THEORETICAL		MEASURED
	MIN	MAX	
LOAD DIFFERENCE ON FRONT AXLE [%]	0.00	0.00	0.29 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	0.00	0.00	0.12 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	0.00	0.00	-0.28 ✓
LOAD DIFFERENCE ON RAILS [%]	0.00	0.00	0.21 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	0.00	0.00	-0.08 ✓

LEFT JACK LOAD
7376 Kg

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.73	+	0.00	=
		586.73	MIN
		587.50	MAX

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm] ✓		THEORETICAL [mm]	
		MIN	MAX
0.70		-1.00	1.00

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	33.00	39.00	37.60 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5593

MOT 21544

ALSTOM

GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Référence: TROS 916.216 Révison: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test

Date: 04/03/24
Name: Godfrey & Nolane

Assembly after test

Date: 20/03/24
Name: XOLANE

ROTOR S/N MCR23-10-001		STATOR S/N GIB-1554	
<p>Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965 289</p>			
<p>INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965 289 FAG : NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU-214-E-M1-P6-F1-H257A-J20AA-C4 SKF-NU-214-ECM/C4-VA3091 (cross out the references that have not been fitted)</p>			
<p>N°: Romania 0097 10/23 SNO71-1988233</p>			
<p>Radial play after assembly (0,042 / 0,114) : 0,08mm</p> <p><input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>LUBRICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min 144g - Max: 149g</p> <p>Measured quantity: <u> </u></p> <p>Filter 1 (Name and signature) <u> </u></p> <p>Filter 2 (Name and signature) <u> </u></p> <p>Quality validation</p> <p>Quality Insp. Name and signature <u> </u></p>	
<p>INSULATED CERAMIC BEARING OPPOSITE DRIVE END side - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965 289 FAG : 6214-M-P6-J20AB-H257A-C4 or 6214-M-P6-J20AA-H257-C4 SKF-6214-M/C4-VE-0241 (cross out the references that have not been fitted)</p>			
<p>Serial N°: Germany 0200 X11b-0907 04/23 SNO186</p>			
<p>Radial play after assembly (0,021 / 0,067) : 0,05mm</p> <p><input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>LUBRICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min 159g - Max: 164g</p> <p>Measured quantity: <u> </u></p> <p>Filter 1 (Name and signature) <u> </u></p> <p>Filter 2 (Name and signature) <u> </u></p> <p>Quality validation</p> <p>Quality Insp. Name and signature <u> </u></p>	
<p>Référence appareil <u>Amxgily</u></p>		<p>TROS 916.216</p>	
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FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the Insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)		2.02 G.5L		<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK
OPERATOR			Quality verification		
Out of round at the end of the shaft drive <u>0,08mm</u>	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number <u>Amxgily</u>	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
Out of round on toothed wheel 0,1 max: <u>0,07mm</u>	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number <u>Amxgily</u>	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
sensor / toothed wheel play 0,7 (+/- 0,2): <u>0,06mm</u>	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number <u>GIB-001</u>	<input type="checkbox"/> OK	<input type="checkbox"/> NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW OK NOK Device serial number 5231603676 OK NOK

Prep. & Final Assembly

OPERATOR				Quality verification		
<input checked="" type="checkbox"/> F1	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 61 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> F2	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 61 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> F3	Torque tightening to 4 x 44 Nm: Fold locking plate	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 37 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> F4	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 18 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> F5	Torque tightening to 6 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 18 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK

Finishing

<input checked="" type="checkbox"/> F1	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 22 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
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Grease protection transport

<input checked="" type="checkbox"/> S3	18g (0/+4.5) CC	Measured quantity:	18g	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK
<input checked="" type="checkbox"/> S4	18g (0/+4.5) CC	Measured quantity:	18g	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK

Final Inspection following the check-list DTR0000452909 and DTR0000452910 (in the case of 100% inspection of the production) OK NOK

Final Inspection	Comments
Quality Insp Name and Signature: <i>Kasane A</i>	

OBSERVATIONS

GIBELA RAIL TRANSPORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
 2024-04-07
 Name: *Kasane*
 Signature: *[Signature]*

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FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Référence: TROS 916.216

Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test

Date: 18/03/24
Name: XOLANI

Assembly after test

Date: 09/04/24
Name: XOLANI THOMAS

ROTOR S/N MCR23-11-194	STATOR S/N CEITS-1596	
<p>Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289</p>		
<p>INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965.289 FAG: NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU 214-E-M1-P6-F1-H257A-J20AA-C4 SKF: NU 214-ECM/C4-VA3091 (cross out the references that have not been fitted)</p>		
<p>N°: ROMANIA: 0200 X116-0947 04/23 SNO238</p>		
<p>S2 Radial play after assembly (0,042/0,114): 0,07mm</p> <p><input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>	<p>S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min: 144g - Max: 149g</p> <p>Filter 1 (Name and signature): <i>[Signature]</i></p> <p>Filter 2 (Name and signature): <i>[Signature]</i></p>	<p>Measured quantity: <i>[Signature]</i></p> <p>Quality validation: <i>[Signature]</i></p>
<p>INSULATED CERAMIC BEARING OPPOSITE DRIVE END side - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965.289 FAG: 6214-M-P6-J20AB-H257A-C4 or 6214-M-P6-J20AA-H257-C4 SKF 6214-M/C4-VL-0241 (cross out the references that have not been fitted)</p>		
<p>Serial N°: GERMANY: 0200 X116 0947 04/23 SNO238</p>		
<p>S1 Radial play after assembly (0,021/0,067):</p> <p><input type="checkbox"/> OK <input type="checkbox"/> NOK</p>	<p>S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min: 159g Max: 164g</p> <p>Filter 1 (Name and signature): <i>[Signature]</i></p> <p>Filter 2 (Name and signature): <i>[Signature]</i></p>	<p>Measured quantity: <i>[Signature]</i></p> <p>Quality validation: <i>[Signature]</i></p>
<p>Référence appareil</p>		
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FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)	10,7M.Ω	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
OPERATOR		Quality verification
Out of round at the end of the shaft drive end, 0,05 max Value: Chou	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	<input type="checkbox"/> OK <input type="checkbox"/> NOK
Out of round on toothed wheel 0,1 max: 0,06mm	<input type="checkbox"/> OK <input type="checkbox"/> NOK	<input type="checkbox"/> OK <input type="checkbox"/> NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,7mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	<input type="checkbox"/> OK <input type="checkbox"/> NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	<input type="checkbox"/> OK <input type="checkbox"/> NOK

Prep. & Final Assembly							
OPERATOR				Quality verification			
<input checked="" type="checkbox"/> F1	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 61 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK	
<input checked="" type="checkbox"/> F2	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 61 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK	
<input checked="" type="checkbox"/> F3	Torque tightening to 4 x 44 Nm: Fold locking plate	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 37 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK	
<input checked="" type="checkbox"/> F4	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 18 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK	
<input checked="" type="checkbox"/> F5	Torque tightening to 6 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 18 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK	
Finishing							
<input checked="" type="checkbox"/> F1	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	QC 1 X 22 Nm	<input type="checkbox"/> OK	<input type="checkbox"/> NOK	
Grease protection transport							
<input checked="" type="checkbox"/> S3	18g (0/+4.5) CC	Mesured quantity:	18g		<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	
<input checked="" type="checkbox"/> S4	18g (0/+4.5) CC	Mesured quantity:	18g		<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	
Final inspection following the check-list DTR0000452909 and DTR0000452910 (In the case of 100% inspection of the production)					<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	
				Final Inspection	Comments		
				Quality Insp Name and Signature:			
				Dima			
OBSERVATIONS							
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA						TROS 916.216	2
							Page 2

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Traction Motors Quality

2024 -04- 09

Name : Dima

Signature : [Signature]