



ALSTOM UBUNYE

MANUFACTURER ALSTOM Ubunye
 Marievale Road, Vosterkroon, Nigel, 1490

CUSTOMER Gibela

CONTRACT

PROJECT PRASA

MANUFACTURER'S DELIVERY DOCUMENT

PRODUCT TYPE MOTOR BOGIE type MB1
 DTR0009706804

SERIAL NUMBER MB1 - 1505

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 July 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	M 1505		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M 1876		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M 3471		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3286		NGC
Wheel (Right)	AR00000174670	022	04.24	Bonatrans
Wheel (Left)	AR000000174670	069	04.24	Bonatrans
Wheelset (Rear)	AR00000178600	M 3472		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3193		NGC
Wheel (Right)	AR00000174670	111	04.24	Bonatrans
Wheel (Left)	AR00000174670	105	04.24	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2311036		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310159		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1905	07.24	Wabtec
Brake unit without PB (Right front)	AR00000175185	5737	07.24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	5749	07.24	Wabtec
Brake unit without PB (left rear)	AR00000175185	5754	07.24	Wabtec
Motor (front)	AR00000168516	21795		Alstom Ornans
Motor (Rear)	AR00000168516	21809		Alstom Ornans

PRESSING REPORT

DATE
7/5/2024

DATE VALIDATION

RESPONSABLE VALIDATION

PRASA

INSTRUCTION SHEET:

FAMILY:

LOAD TEST : MOTOR BOGIE

PROJECT:

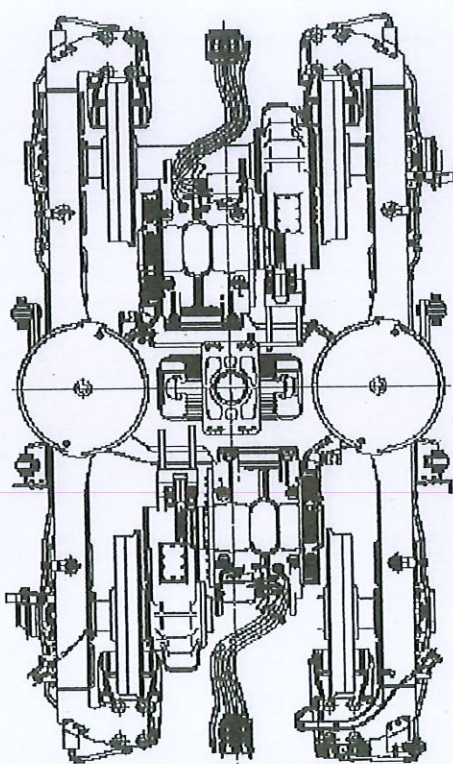
	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	36.81 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [KG]		Q2 5638

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.11	+	0.00	586.11
			MIN 585.00 MAX 587.50

RIGHT JACK LOAD
7376 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.11 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [KG]		Q4 5527

BOGIE SERIAL N°	MB1-1505
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [KG]	22410
COMPLETE BOGIE WEIGHT [KG]	7307
OPERATOR	EDWARD
DATE	7/15/2024



	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	-0.96 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	1.66 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.32 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN 0.00 MAX 0.00	0.36 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	1.31 ✓

OPERATOR STAMP
BFI-21

LEFT JACK LOAD
7376 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.57 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [KG]		Q1 5531

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.91	+	0.00	586.91
			MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]			
			THEORETICAL [mm]
			MIN -1.00 MAX 1.00
		-0.80	

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.21 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [KG]		Q3 5714

21795

ALSTOM

GIBELD

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: 20/05/24
Name: Godfrey

Assembly after test
Date: 05/06/24
Name: MOUNTAIN SURPRISE

ROTOR S/N		STATOR S/N	
Su900282-061		GIB-1747	
<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>			
N°: Romania 0097 09/03 SN180 - 1369794			
<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: 169g Measured quantity:</p> <p>Filter 1 (Name and signature) <input checked="" type="checkbox"/> Filter 2 (Name and signature) <input checked="" type="checkbox"/></p> <p>Quality Insp. Name and signature: Dima EDS</p>	
<p>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)</p>			
Serial N°: Austria 094W			
<p>S1 Radial play after assembly (0,021 / 0,067): 0,04mm</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: 159g - Max: 164g Measured quantity:</p> <p>Filter 1 (Name and signature) <input checked="" type="checkbox"/> Filter 2 (Name and signature) <input checked="" type="checkbox"/></p> <p>Quality Insp. Name and signature: Dima EDS</p>	
Référence appareil: AJ2P14			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 2	
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ALSTOM

GIBELD

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)		8.87 GΩ		<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: 0,01mm	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number AJ2P14	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
Out of round on toothed wheel 0,1 max: 0,05mm	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number AJ2P14	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	<input type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	<input type="checkbox"/> OK	<input type="checkbox"/> NOK	Device serial number	<input type="checkbox"/> OK	<input type="checkbox"/> NOK

Missing speed sensor Deviation #: 7070

Prep. & Final Assembly

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

Finishing

F1	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/>	<input type="checkbox"/> OK <input type="checkbox"/> NOK	<small>check reference in the event of future absence of the motorised screwdriver</small>	QC 1 X 22 Nm	<input type="checkbox"/>	OK <input type="checkbox"/> NOK
----	---------------------------------	-------------------------------------	--	--	--------------	--------------------------	---------------------------------

Grease protection transport

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

OBSERVATIONS

21809

ALSTOM

GIBELD

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: 18/06/24
Name: XOLANT

Assembly after test
Date: 26/06/24
Name: XOLANT & SURPREISE

ROTOR S/N 8269683-055	STATOR S/N G413-1840		
<p>Beating 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 SKE-NU-214-ECM/C4-VA9091 (cross out the references that have not been fitted)</p>			
<p>N°: Romania 0097 09/23 SN433-1369794</p>			
<p>S2 Radial play after assembly (0,042 / 0,114): 0,07mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Filter 1 (Name and signature) [Signature] Filter 2 (Name and signature) [Signature] Measured quantity: [Signature] Quality validation: Dima [Signature]</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 SKE 6214-M/C4-VL 0241 (cross out the references that have not been fitted)</p>			
<p>Serial N°: Austria 095 W</p>			
<p>S1 Radial play after assembly (0,021 / 0,067): 0,001mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Filter 1 (Name and signature) [Signature] Filter 2 (Name and signature) [Signature] Measured quantity: [Signature] Quality validation: Dima [Signature]</p>	
<p>Reference appareil: AMXG00</p>			
<p>FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA</p>		<p>TROS 916.216 2 Page 1</p>	

ALSTOM

GIBELD

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)		7,03 GΩ	<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: 0mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number AMXG00	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
Out of round on toothed wheel 0,1 max: 0,05mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number AMXG00	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	<input type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
Sensor reference: DTR0000512252/OSD1830.19Q14HW	<input type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number	<input type="checkbox"/> OK	<input type="checkbox"/> NOK

Missing speed sensor Deviation H: 70.70

Prep. & Final Assembly						
OPERATOR			Quality verification			
F1	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	with reference to the extent of failure / absence of the process / absence of the	QC 1 X 61 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK	NOK
F2	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	with reference to the extent of failure / absence of the process / absence of the	QC 1 X 61 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK	NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	with reference to the extent of failure / absence of the motorised screwdriver	QC 1 X 37 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK	NOK
F4	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	with reference to the extent of failure / absence of the process / absence of the	QC 1 X 18 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK	NOK
F5	Torque tightening to 6 x 22 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	with reference to the extent of failure / absence of the process / absence of the	QC 1 X 18 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK	NOK
Finishing						
F1	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	with reference to the extent of failure / absence of the process / absence of the	QC 1 X 22 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK	NOK
Grease protection transport						
S3	18g (0/+4.5) CC	Mesured quantity: 18g			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	NOK
S4	18g (0/+4.5) CC	Mesured quantity: 18g			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	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	NOK
				Final inspection	Comments	
				Quality Insp Name and Signature:		
				Dima		
OBSERVATIONS						

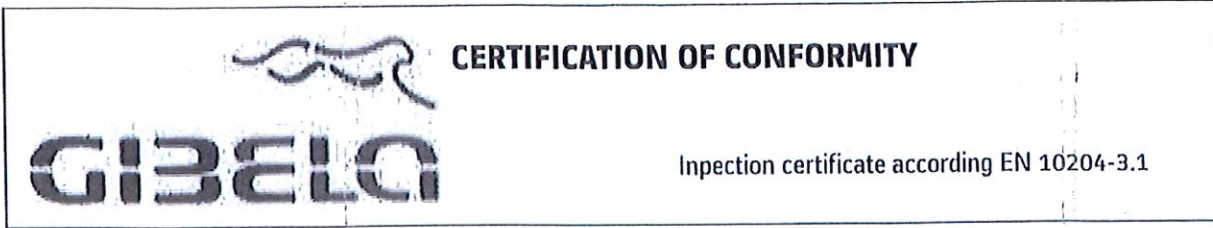
GIBELA RAIL TRANSPORT CONSORTIUM HF (PTY) LTD

Traction Motors Quality

2024-06-27

Name : Dima

Signature : *[Signature]*



Product: Traction Motors 6 ECA 3022 B
 Serial Number: N * 21809
 Client / Customer: ALSTOM UBUNYE (PTY) LTD
 Project: PRASA
 P O Number: 77446441
 Status: QC PASS
 Derogations / Concession / Waiver N * : 7072
 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: 2024/06/27
 Function: Final Inspection
 Performed and signed off by: Name _____ Dimakatso Mohoalali
 Signature *[Signature]*



Gibela Rail
 02 Shosholozu Avenue
 M07 Traction Motor
 1590

GIBELA RAIL Compiled by **M Kola** Date: 22/2/2022

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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 - 629

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 July 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	M 629		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M 1827		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M 3463		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3342		NGC
Wheel (Right)	AR00000174670	085	04.24	Bonatrans
Wheel (Left)	AR000000174670	077	04.24	Bonatrans
Wheelset (Rear)	AR00000178600	M 3464		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3147		NGC
Wheel (Right)	AR00000174670	173	03.24	Bonatrans
Wheel (Left)	AR00000174670	068	04.24	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2310224		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310202		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1003	06.24	Wabtec
Brake unit without PB (Right front)	AR00000175185	2975	06.24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	2974	06.24	Wabtec
Brake unit without PB (left rear)	AR00000175185	2973	06.24	Wabtec
Motor (front)	AR00000168516	21787		Alstom Ornans
Motor (Rear)	AR00000168516	21803		Alstom Ornans

PRESSING REPORT

DATE
7/11/2024

DATE VALIDATION

RESPONSIBLE VALIDATION

PRASA
INSTRUCTION SHEET:

FAMILY:

LOAD TEST : MOTOR BOGIE

PROJECT:

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	37.70
SHIM THICK [mm]		
WEIGHT ON WHEEL [kg]		5615

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.10	+	0.00	586.10
			MIN MAX
			585.00 587.50

RIGHT JACK LOAD
7376 Kg

BOGIE SERIAL N°	MB2-629
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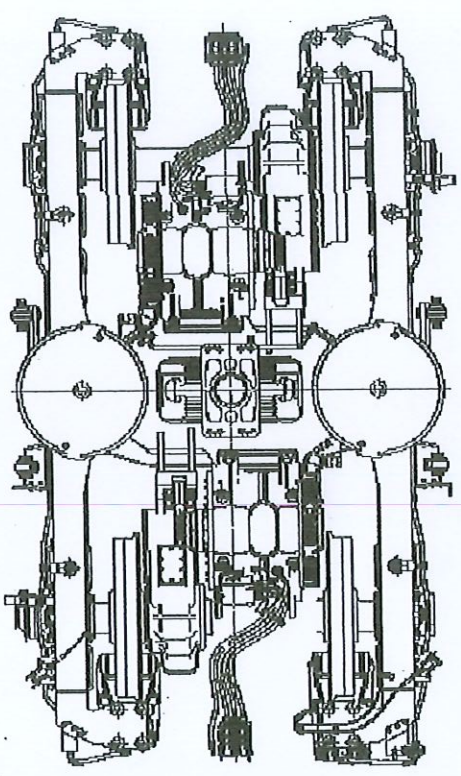
BOGIE TYPE	MB
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BOGIE WEIGHT UNDER LOAD [kg]	22372
------------------------------	-------

COMPLETE BOGIE WEIGHT [kg]	7276
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OPERATOR	DATE
BAFANA	7/11/2024

OPERATOR STAMP
DC-3-1-6



LEFT JACK LOAD
7376 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	37.60
SHIM THICK [mm]		
WEIGHT ON WHEEL [kg]		5542

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.84	+	0.00	586.84
			MIN MAX
			585.00 587.50

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	37.00
SHIM THICK [mm]		
WEIGHT ON WHEEL [kg]		5649

	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN MAX	-0.65
LOAD DIFFERENCE ON REAR AXLE [%]	MIN MAX	0.74
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN MAX	-0.26
LOAD DIFFERENCE ON RAILS [%]	MIN MAX	0.04
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN MAX	0.70

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	38.15
SHIM THICK [mm]		
WEIGHT ON WHEEL [kg]		5666

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

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: 28/05/24
Name: ADRIANT

Assembly after test
Date: 23/06/24
Name: TOM, ERICK & AUBREY

ROTOR S/N 6U90082-084		STATOR S/N G1B-1786	
Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289			
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/G4-VA3091 (cross out the references that have not been fitted)			
N°: ROMANIA 0097 09/23 SN373-1369794			
S2 Radial play after assembly (0,042 / 0,114): 0,07mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Mln:144g - Max:149g Measured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK Filter 1 (Name and signature) [Signature] Filter 2 (Name and signature) [Signature] Quality Insp. Name and signature [Signature]	
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°: AUSTRIA 895 W			
S1 Radial play after assembly (0,021 / 0,067): 0,05mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Mln:159g - Max:164g Measured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK Filter 1 (Name and signature) [Signature] Filter 2 (Name and signature) [Signature] Quality Insp. Name and signature [Signature]	
Référence appareil AMXG00			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 2 Page 1	

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) 207MΩ		<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	
OPERATOR			
Out of round at the end of the shaft drive end, 0,05 max Value 0,01mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number AMXG00	<input type="checkbox"/> OK <input type="checkbox"/> NOK
Out of round on toothed wheel 0,1 max: 0,04mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number AMXG00	<input type="checkbox"/> OK <input type="checkbox"/> NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	<input type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number	<input type="checkbox"/> OK <input type="checkbox"/> NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	<input type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number	<input type="checkbox"/> OK <input type="checkbox"/> NOK

Missing speed sensor Deviation #: T012.

Prep. & Final Assembly							
OPERATOR				Quality verification			
F1	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	watch reference for the event of false absence of the motorized screwdriver	QC 1 X 61 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK		
F2	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	watch reference for the event of false absence of the motorized screwdriver	QC 1 X 61 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK		
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	watch reference for the event of false absence of the motorized screwdriver	QC 1 X 37 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK		
F4	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	watch reference for the event of false absence of the motorized screwdriver	QC 1 X 18 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK		
F5	Torque tightening to 6 x 22 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	watch reference for the event of false absence of the motorized screwdriver	QC 1 X 18 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK		
Finishing							
F1	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	watch reference for the event of false absence of the motorized screwdriver	QC 1 X 22 Nm	<input type="checkbox"/> OK <input type="checkbox"/> NOK		
Grease protection transport							
S3	18g (0/+4.5) CC	Mesured quantity: 18g			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK		
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:	Speed sensor to be fitted at max		
				OBSERVATIONS			
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Traction Motors Quality

2024 -06- 23

Name: Gasane
Signature: *Gasane*

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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: 31/05/24
Name: Godfrey

Assembly after test
Date: 06/06/24
Name: XOLANT & SURPRISE

ROTOR S/N Sub 9682-009		STATOR S/N GIB-1818	
<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 SKE: NU 214 ECM/C4-VA3091 (cross out the references that have not been fitted)</p>			
N°: Romania 0097 09/23 SN208-1369794			
<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>S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min: 144g - Max: 149g Measured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Filter 1 (Name and signature) <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Filter 2 (Name and signature) <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Quality Insp. Name and signature: Dima</p>	
<p>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 SKE 6214-M/C4-VL 0241 (cross out the references that have not been fitted)</p>			
Serial N°: Austria 094 W			
<p>S1 Radial play after assembly (0,021 / 0,067): 0,04mm</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: 159g - Max: 164g Measured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Filter 1 (Name and signature) <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Filter 2 (Name and signature) <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Quality Insp. Name and signature: Dima</p>	
Référence appareil: AJZP14			
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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)		10.86 MΩ	<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: 0,02mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number: AJZP14	<input type="checkbox"/> OK <input type="checkbox"/> NOK
Out of round on toothed wheel, 0,1 max: 0,05mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number: AJZP14	<input type="checkbox"/> OK <input type="checkbox"/> NOK
sensor / toothed wheel play, 0,7 (+/- 0,2):	<input type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number:	<input type="checkbox"/> OK <input type="checkbox"/> NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	<input type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number:	<input type="checkbox"/> OK <input type="checkbox"/> NOK

Missing speed sensor Deviation #: 7072

Prep. & Final Assembly

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

Finishing

F7	Torque tightening to 4 x 22 Nm:	<input checked="" type="checkbox"/>	OK <input type="checkbox"/> NOK	check reference for the event of false absence of the motorised screwdriver	QC 1 X 22 Nm	<input type="checkbox"/>	OK <input type="checkbox"/> NOK
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Grease protection transport

S3	18g (0/+4.5) CC	Mesured quantity: 17g	<input checked="" type="checkbox"/>	OK <input type="checkbox"/> NOK
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>Dima EMS</i>	

OBSERVATIONS

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			2

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Traction Motors Quality

2024 -06- 26

Name : *Dima*

Signature : *EMS*

