



MANUFACTURER **ALSTOM** Ubunye
Marievale Road, Vosterkroon, Nigel, 1490

CUSTOMER **Gibela**

CONTRACT

PROJECT **PRASA**

MANUFACTURER'S DELIVERY DOCUMENT

PRODUCT TYPE **MOTOR BOGIE MB1**

DTR0009606804

SERIAL NUMBER **MB1 1331**

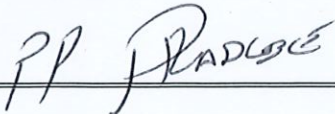
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- Products traceability.....	1 page	<input checked="" type="checkbox"/>
- Load test report.....	1 page	<input checked="" type="checkbox"/>
- Motor certificate.....	8 pages	<input checked="" type="checkbox"/>

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	14 February 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	1331		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	1636		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03023		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2948		NGC
Wheel (Right)	AR00000174670	114	07-23	Bonatrans
Wheel (Left)	AR000000174670	078	11-22	Bonatrans
Wheelset (Rear)	AR00000178600	M3024		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2947		NGC
Wheel (Right)	AR00000174670	112	07-23	Bonatrans
Wheel (Left)	AR00000174670	084	07-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2309099		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2311002		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	969	08-2023	POLI
Brake unit without PB (Right front)	AR00000175185	2881	08-2023	POLI
Brake unit without PB (Left Front)	AR00000175185	2880	08-2023	POLI
Brake unit without PB (left rear)	AR00000175185	2876	08-2023	POLI
Motor (front)	AR00000168516	21407		GIBELA
Motor (Rear)	AR00000168516	21280		GIBELA

QC: 018
Revision: 1.0

DATE
21/4/2024

RESPONSABLE VALIDATION

PRASA
MOTOR BOGIE
INSTRUCTION SHEET:
FAMILY:

PRESSING REPORT

LOAD TEST : MOTOR BOGIE

PROJECT:

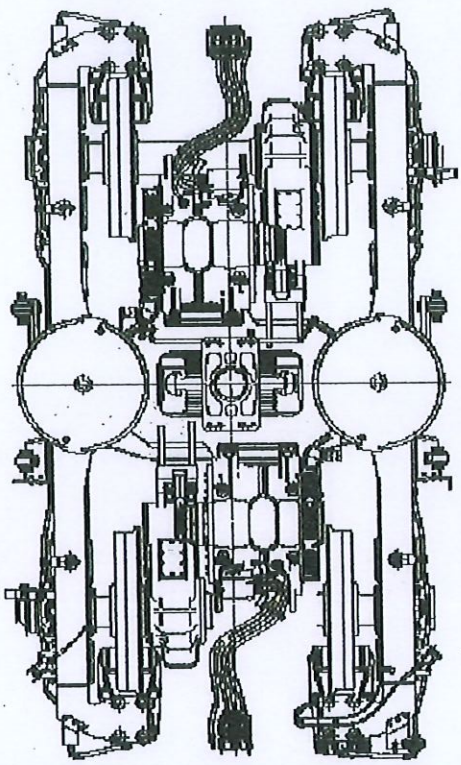
	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.93 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q2	5558

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
584.28	+	3.00	= 587.28 MIN 585.00 MAX 587.50

RIGHT JACK LOAD
7377 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.97 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q4	5545

BOGIE SERIAL N°	MB1-1331
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22364
COMPLETE BOGIE WEIGHT [Kg]	7282
OPERATOR	DATE
BAFANA	21/4/2024



	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	0.39 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	1.03 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.21 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN 0.00 MAX 0.00	0.71 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	0.32 ✓

OPERATOR STAMP
DC-BFI-6

LEFT JACK LOAD
7377 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.50 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q1	5601

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.37	+	0.00	= 587.37 MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]	✓	THEORETICAL [mm]
-0.09		MIN -1.00 MAX 1.00

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.30 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q3	5660



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21280

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76092438

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: 2024/01/24

Function: Final Inspection

Performed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____



Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

Property of GIBELA RAIL, cannot be distributed or reproduced without authorization

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: 09/11/2023

Name: Sincques

Assembly after test

Date: 15/02/24

Name: Geoffrey, Yolande, Thomas

ROTOR S/N 6U68623-045		STATOR S/N CETB-1288	
<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°: AUSTRIA: 037W			
<p>S2 Radial play after assembly (0,042 / 0,114):</p> <p>0,08mm <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</p> <p>Measured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Quality validation: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Fitter 1 (Name and signature): <i>[Signature]</i></p> <p>Fitter 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 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: 094W			
<p>S1 Radial play after assembly (0,021 / 0,067):</p> <p>0,05mm <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</p> <p>Measured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Quality validation: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Fitter 1 (Name and signature): <i>[Signature]</i></p> <p>Fitter 2 (Name and signature): <i>[Signature]</i></p> <p>Quality Insp. Name and signature: <i>[Signature]</i></p>	
<p>Reference approval: <i>[Signature]</i></p>		<p>TROS 916.216</p>	
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		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)		<input 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	<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	<input type="checkbox"/> OK	<input type="checkbox"/> NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,75mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	<input type="checkbox"/> OK	<input type="checkbox"/> NOK



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21407

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76526484

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: 2024/02/05

Function: Final Inspection

Performed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____

GIBELA RAIL TRANSPORT CONSORTIUM RF (PTY) LTD

Traction Motors Quality

2024 -02- 05

Name : Dimakatso

Signature : [Signature]

Gibela Rail
02 Shosholozu Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

Property of GIBELA RAIL, cannot be distributed or reproduced without authorization

21407

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

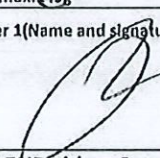

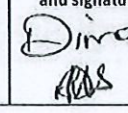
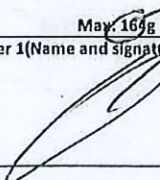
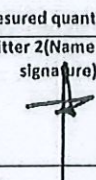
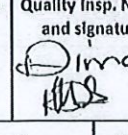
Date: 14/01/2024

Name: Jucq, J

Assembly after test

Date: 02/02/24

Name: Godfrey, Nolant & Thomas

ROTOR S/N MCB22-11-007		STATOR S/N GIB-1429	
<p>Bearing lubrication - Security operation</p> <p>Incorrect lubrication can lead to engine failure with a safety risk in service</p> <p>SRIL TROS 965.289</p>			
<p>INSULATED CERAMIC BEARING DRIVE END - Security operation</p> <p>Incorrect assembly can lead to engine failure with a safety risk in service</p> <p>SRIL TROS 965.289</p> <p>FAG : NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU-214-E-M1-P6-F1-H257A-J20AA-C4</p> <p>SKE-NU-214-ECM/C4 VA3091</p> <p>(cross out the references that have not been fitted)</p>			
N°: Romanici 0097 09/23 SN338-1369794			
<p>S2 Radial play after assembly (0,042 / 0,114):</p> <p>0,08mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>S3 LUBRICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min:144g - Max:149g Measured quantity: <input type="text"/></p> <p>Fitter 1(Name and signature) </p> <p>Fitter 2(Name and signature) </p> <p>Quality validation: </p>	
<p>INSULATED CERAMIC BEARING OPPOSITE DRIVE END side - Security operation</p> <p>Incorrect assembly can lead to engine failure with a safety risk in service</p> <p>SRIL TROS 965.289</p> <p>FAG : 6214-M-P6-J20AB-H257A-C4 or 6214-M-P6-J20AA-H257-C4</p> <p>SKE-6214-M/C4-VL-0241</p> <p>(cross out the references that have not been fitted)</p>			
Serial N°: Germany 0200 1116-0811 04/23 SN0155			
<p>S1 Radial play after assembly (0,021 / 0,067):</p> <p>0,05mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>S3 LUBRICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min:159g Max:164g Measured quantity: <input type="text"/></p> <p>Fitter 1(Name and signature) </p> <p>Fitter 2(Name and signature) </p> <p>Quality validation: </p>	
Référence appareil: ASEP14			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216	
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		Page 1	

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)		517 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: 0,01mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number: ASEP14	<input type="checkbox"/> OK <input type="checkbox"/> NOK	
Out of round on toothed wheel 0,1 max: 0,06mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number: ASEP14	<input type="checkbox"/> OK <input type="checkbox"/> NOK	
sensor / toothed wheel play 0,7 (+/- 0,2): 0,75mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number: GIB-14002	<input type="checkbox"/> OK <input type="checkbox"/> NOK	



MANUFACTURER **ALSTOM** Ubunye
Marievale Road, Vosterkroon, Nigel, 1490

CUSTOMER **Gibela**

CONTRACT

PROJECT **PRASA**

MANUFACTURER'S DELIVERY DOCUMENT

PRODUCT TYPE **MOTOR BOGIE MB2**

DTR0009706805

SERIAL NUMBER **MB2 573**

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- 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

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CONSTRUCTOR APPROVAL

DATE	15 February 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	573		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1618		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03009		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2863		NGC
Wheel (Right)	AR00000174670	120	07-23	Bonatrans
Wheel (Left)	AR000000174670	118	07-23	Bonatrans
Wheelset (Rear)	AR00000178600	M03010		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2885		NGC
Wheel (Right)	AR00000174670	131	07-23	Bonatrans
Wheel (Left)	AR00000174670	133	07-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2309105		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2309113		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	967	08-2023	POLI
Brake unit without PB (Right front)	AR00000175185	2873	08-2023	POLI
Brake unit without PB (Left Front)	AR00000175185	2871	08-2023	POLI
Brake unit without PB (left rear)	AR00000175185	2872	08-2023	POLI
Motor (front)	AR00000168516	21384		GIBELA
Motor (Rear)	AR00000168516	21362		GIBELA

QC: 018
Revision: 1.0

DATE
21/4/2024

DATE VALIDATION

RESPONSABLE VALIDATION

PRASA
ALCANTARA JOURNAL

INSTRUCTION SHEET:

FAMILY:

PRESSING REPORT

LOAD TEST : MOTOR BOGIE

PROJECT:

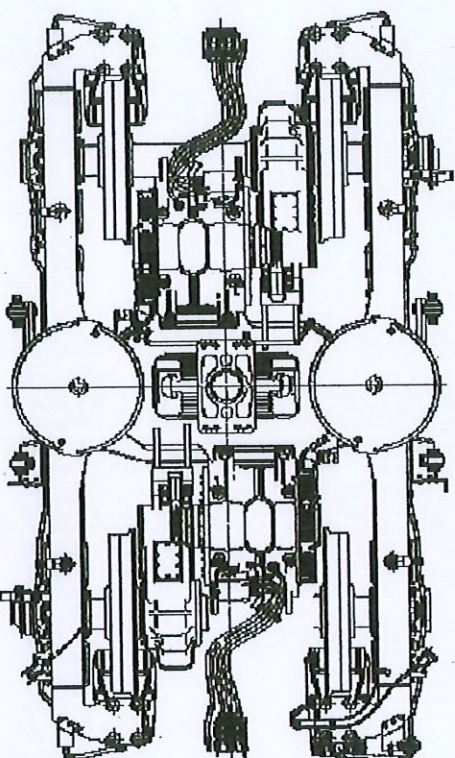
	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.98 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q2	5571

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.67	+	0.00	= 586.67
			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	39.00 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q4	5641

BOGIE SERIAL N°	MB2-573
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22375
COMPLETE BOGIE WEIGHT [Kg]	7303
OPERATOR	DATE
EDWARD	21/4/2024



	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	0.21 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.65 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.20 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN 0.00 MAX 0.00	-0.22 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	-0.43 ✓

OPERATOR STAMP

DC-BFI-21

LEFT JACK LOAD

7376 Kg

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.93	+	0.00	= 586.93
			MIN 585.00 MAX 587.50

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.58 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q1	5594

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]	✓	THEORETICAL [mm]
-0.26		MIN -1.00 MAX 1.00

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.13 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q3	5568



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21362

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76302396

Status: QC PASS

Derogations / Concession / Waiver N °: N/A

Customer modification: N/A

Missing parts: N/A

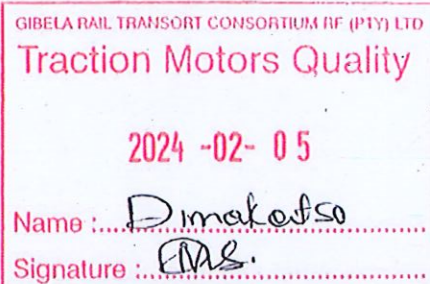
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Date: 2024/02/05

Function: Final Inspection

Perfomed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____



Gibela Rail
02 Shosholozwa Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

Property of GIBELA RAIL, cannot be distributed or reproduced without authorization

21362

ALSTOM

GIBELG

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: 05/12/2023

Name: Scigues

Assembly after test

Date: 07/01/24

Name: XOLANT

ROTOR S/N MLR23-10-082	STATOR S/N CIB-1377		
<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 SN274 - 1369794			
<p>S2 Radial play after assembly (0,042 / 0,114): 0,08mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min:144g - Max:149g Fitter 1(Name and signature) Fitter 2(Name and signature) Measured quantity: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK Quality validation: Dime ID2.</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>			
Serial N°: GERMANY: - 0200 X116-0707 04/23 SN0050			
<p>S1 Radial play after assembly (0,021 / 0,067): 0,05mm <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK Reference and serial: A5CPH</p>		<p>S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min:159g Max:169g Fitter 1(Name and signature) Fitter 2(Name and signature) Measured quantity: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK Quality verification: Dime ID2.</p>	
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			1

ALSTOM

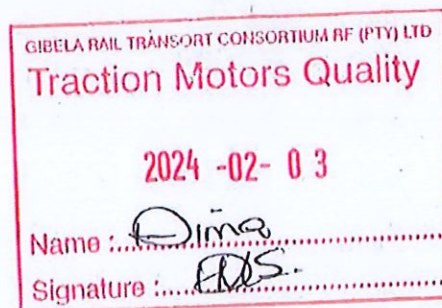
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FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)				2,43952 <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: A5CPH	<input type="checkbox"/> OK <input type="checkbox"/> NOK		
Out of round on toothed wheel 0,1 max:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number: A5CPH	<input type="checkbox"/> OK <input type="checkbox"/> NOK		
sensor / toothed wheel play 0,7 (+/- 0,2):	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	Device serial number: CIBFLOO	<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 5231460597	<input type="checkbox"/> OK <input type="checkbox"/> NOK	
Prep. & Final Assembly						
OPERATOR			Quality verification			
F1	Torque tightening to 8 x 76 Nm:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	wrench reference (in the event of failure / 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	wrench reference (in the event of failure / 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	wrench reference (in the event of failure / 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	wrench reference (in the event of failure / 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	wrench reference (in the event of failure / 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	wrench reference (in the event of failure / 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 Quality Insp Name and Signature: Dima EDS	Comments		
OBSERVATIONS						

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA	TROS 916.216	2	Page
			2





CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21384

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76336930

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: 2024/01/24

Function: Final Inspection

Performed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____ *DM*



Gibela Rail
02 Shosholozu Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

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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: 09/10/23

Name: XOUENI

Assembly after test

Date: 15/01/24

Name: Godfrey, Polana & Thomas

ROTOR S/N MCROD-11-159		STATOR S/N GIB-1394	
<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 SN 242 - 1369794			
<p>Radial play after assembly (0,042 / 0,114): 0,06mm</p> <p><input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min: 144g - Max: 149g</p> <p>Measured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Filter 1 (Name and signature): <i>[Signature]</i></p> <p>Filter 2 (Name and signature): <i>[Signature]</i></p> <p>Quality validation: <i>Dina PDS</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 SKE 6214-M/C4-VL 0241 (cross out the references that have not been fitted)</p>			
Serial N°: GERMAN: 0200 X116-0902 04/23 SN 0175			
<p>Radial play after assembly (0,021 / 0,067): 0,04mm</p> <p><input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK</p>		<p>LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly</p> <p>Min: 159g Max: 164g</p> <p>Measured quantity: <input type="checkbox"/> OK <input type="checkbox"/> NOK</p> <p>Filter 1 (Name and signature): <i>[Signature]</i></p> <p>Filter 2 (Name and signature): <i>[Signature]</i></p> <p>Quality validation: <i>Dina PDS</i></p>	
Reference appareil: A-JZP14			
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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) 4,56 GΩ		<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOK
OPERATOR		Quality verification	
Out of round at the end of the shaft drive end 0,05mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	A-JZP14	<input type="checkbox"/> OK <input type="checkbox"/> NOK
Out of round on toothed wheel 0,1 max: 0,06mm	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK	A-JZP14	<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	C-EEF1001	<input type="checkbox"/> OK <input type="checkbox"/> NOK