

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

CUSTOMER **Gibela**

CONTRACT

PROJECT **PRASA**

MANUFACTURER'S DELIVERY DOCUMENT

PRODUCT TYPE **MOTOR BÖGIE MB1**
DTR0009706804

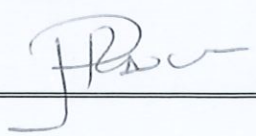
SERIAL NUMBER **MB1 1498**

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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	12 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	1498		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1855		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03455		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3068		NGC
Wheel (Right)	AR00000174670	017	03-24	Bonatrans
Wheel (Left)	AR000000174670	016	03-24	Bonatrans
Wheelset (Rear)	AR00000178600	M03456		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3276		NGC
Wheel (Right)	AR00000174670	016	04-24	Bonatrans
Wheel (Left)	AR00000174670	018	04-24	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2310082		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310215		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	979	03-2024	WEBTEC
Brake unit without PB (Right front)	AR00000175185	2889	03-2024	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	2891	03-2024	WEBTEC
Brake unit without PB (left rear)	AR00000175185	2890	03-2024	WEBTEC
Motor (front)	AR00000168516	21783		GIBELA
Motor (Rear)	AR00000168516	21826		GIBELA

PRESSING REPORT

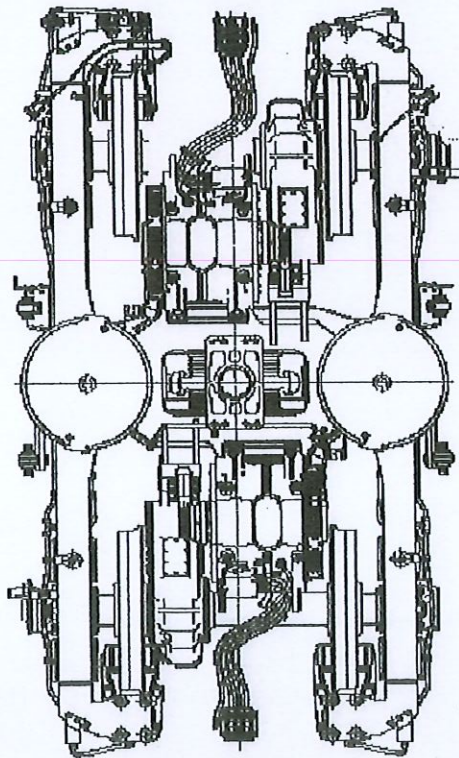
DATE 7/9/2024	RESPONSABLE VALIDATION	PRASA	LOAD TEST : MOTOR BOGIE
DATE VALIDATION		INSTRUCTION SHEET:	
		PROJECT:	
		FAMILY:	

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	MIN 33.00	MAX 39.00	35.70
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5520

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
585.12	+	2.00	MIN 587.12 MAX 587.50

RIGHT JACK LOAD	Kg
7376	

BOGIE SERIAL N°	MB1-1498
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22401
COMPLETE BOGIE WEIGHT [Kg]	7307
OPERATOR	DATE
BAFANA	7/9/2024
OPERATOR STAMP	



	THEORETICAL		MEASURED
	MIN	MAX	
LOAD DIFFERENCE ON FRONT AXLE [%]	0.00	0.00	-0.75
LOAD DIFFERENCE ON REAR AXLE [%]	0.00	0.00	1.61
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	0.00	0.00	-0.18
LOAD DIFFERENCE ON RAILS [%]	0.00	0.00	0.43
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	0.00	0.00	1.18

LEFT JACK LOAD	Kg
7377	

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.46	+	0.00	MIN 587.46 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]	THEORETICAL [mm]
-0.34	MIN -1.00 MAX 1.00

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	MIN 33.00	MAX 39.00	35.10
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5701

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	MIN 33.00	MAX 39.00	35.40
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5548



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21826
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	77531300	
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 _____



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

ALSTOM

21826

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: 13-06-24

Name: Ruman

Assembly after test

Date: 26/06/24

Name: Xolani & Surprete

ROTOR S/N Su 900282-112		STATOR S/N 8113-1831	
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 OF NU-214-E-M1-P6-F1-H257A-J20AA-C4 SKE: NU 214 ECM/C4 VA3091 (cross out the references that have not been fitted)			
N°: AUSTRIA B49W			
S2 Radial play after assembly (0,042 / 0,114): 0,05 ☒ OK ☐ NOK		S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Filter 1 (Name and signature): <i>[Signature]</i> Filter 2 (Name and signature): <i>[Signature]</i> Measured quantity: <i>[Signature]</i> Quality validation: <i>[Signature]</i>	
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 OF 6214-M-P6-J20AA-H257-C4 SKE 6214-M/C4-VL 0241 (cross out the references that have not been fitted)			
Serial N°: AUSTRIA 094W			
S1 Radial play after assembly (0,021 / 0,067): 0,05 ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Filter 1 (Name and signature): <i>[Signature]</i> Filter 2 (Name and signature): <i>[Signature]</i> Measured quantity: <i>[Signature]</i> Quality verification: <i>[Signature]</i>	
Référence appareil: <i>[Signature]</i>			
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) 3,215 Ω		☒ OK	☐ NOK
OPERATOR		Quality verification	
Out of round at the end of the shaft drive end, 0,05 max Value 0,01	☒ OK ☐ NOK	Device serial number: <i>[Signature]</i>	☒ OK ☐ NOK
Out of round on toothed wheel 0,1 max: 0,06	☒ OK ☐ NOK	Device serial number: <i>[Signature]</i>	☒ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	☐ OK ☐ NOK	Device serial number:	☐ OK ☐ NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	☐ OK ☐ NOK	Device serial number:	☐ OK ☐ NOK

Missing speed sensor Deviation #: 7072

Prep. & Final Assembly											
OPERATOR						Quality verification					
F1	Torque tightening to 8 x 76 Nm:	☒	OK	☐	NOK	interference for the event of failure / absence of the motorised screwdriver	QC 1 X 61 Nm	☐	OK	☐	NOK
F2	Torque tightening to 8 x 76 Nm:	☒	OK	☐	NOK	interference for the event of failure / absence of the motorised screwdriver	QC 1 X 61 Nm	☐	OK	☐	NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	☒	OK	☐	NOK	interference for the event of failure / absence of the motorised screwdriver	QC 1 X 37 Nm	☐	OK	☐	NOK
F4	Torque tightening to 4 x 22 Nm:	☒	OK	☐	NOK	interference for the event of failure / absence of the motorised screwdriver	QC 1 X 18 Nm	☐	OK	☐	NOK
F5	Torque tightening to 6 x 22 Nm:	☒	OK	☐	NOK	interference for the event of failure / absence of the motorised screwdriver	QC 1 X 18 Nm	☐	OK	☐	NOK
Finishing											
F1	Torque tightening to 4 x 22 Nm:	☒	OK	☐	NOK	interference for the event of failure / absence of the motorised screwdriver	QC 1 X 22 Nm	☐	OK	☐	NOK
Grease protection transport											
S3	18g (0/+4.5) CC	Mesured quantity: 18g						☒	OK	☐	NOK
S4	18g (0/+4.5) CC	Mesured quantity: 18g						☒	OK	☐	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:					
						Dima					
OBSERVATIONS											

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

Inspection certificate according to EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N° 21738

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 77324726

Status: QC PASS

Derogations / Concession / Waiver N°: 7072

Customer modification: N/A

Missing parts: N/A

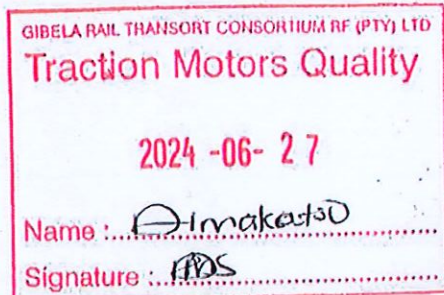
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Date: 2024/06/27

Function: Final Inspection

Performed 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

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ALSTOM

21783

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:

Name:

27/05/24
Goodfrey

Assembly after test

Date:

Name:

26/06/24
XOLANT & SURPRETSE

ROTOR S/N		STATOR S/N	
SUG9882-054		GIB-1799	
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 SKE-NU 214-ECM/C4-VA3091 (cross out the references that have not been fitted)			
N°: ROMANIA 0097 09/23 34103 - 1369794			
Radial play after assembly (0,042 / 0,114): 0,07mm ☒ OK ☐ NOK		LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Measured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature): Filter 2 (Name and signature): Quality Insp. Name and 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 SKE 6214-M/C4-VL 0241 (cross out the references that have not been fitted)			
Serial N°: AUSTRIA 074 W			
Radial play after assembly (0,021 / 0,067): 0,03mm ☒ OK ☐ NOK		LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Measured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature): Filter 2 (Name and signature): Quality Insp. Name and signature:	
Référence appareil: AJZP14			
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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)				9.95 GΩ		☒ OK	☐ NOK
OPERATOR				Quality verification			
Out of round at the end of the shaft drive end, 0,05 max		☒ OK ☐ NOK		Device serial number		☐ OK	☐ NOK
Value: 0,01mm				AJZP14		☐ OK	☐ NOK
Out of round on toothed wheel 0,1 max:		☒ OK ☐ NOK		Device serial number		☐ OK	☐ NOK
0,07mm				AJZP14		☐ OK	☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2):		☐ OK ☐ NOK		Device serial number		☐ OK	☐ NOK
						☐ OK	☐ NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW		☐ OK ☐ NOK		Device serial number		☐ OK	☐ NOK
						☐ OK	☐ NOK

Missing speed sensor Deviation #: 70 70

Prep. & Final Assembly													
OPERATOR				Quality verification									
F1	Torque tightening to 8 x 76 Nm:			☒	OK	☐	NOK	interch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 61 Nm	☐	OK	☐	NOK
F2	Torque tightening to 8 x 76 Nm:			☒	OK	☐	NOK	interch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 61 Nm	☐	OK	☐	NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate			☒	OK	☐	NOK	interch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 37 Nm	☐	OK	☐	NOK
F4	Torque tightening to 4 x 22 Nm:			☒	OK	☐	NOK	interch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 18 Nm	☐	OK	☐	NOK
F5	Torque tightening to 6 x 22 Nm:			☒	OK	☐	NOK	interch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 18 Nm	☐	OK	☐	NOK
Finishing													
F1	Torque tightening to 4 x 22 Nm:			☒	OK	☐	NOK	interch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 22 Nm	☐	OK	☐	NOK
Grease protection transport													
S3	18g (0/+4.5) CC		Mesured quantity: 18g							☒	OK	☐	NOK
S4	18g (0/+4.5) CC		Mesured quantity: 18g							☒	OK	☐	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:			
										Dima			
OBSERVATIONS													

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA	TROS 916.216	2	Page 2
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GIBELA RAIL TRANSPORT CONSORTIUM RF (PTY) LTD

Traction Motors Quality

2024 -06- 27

Name : Dima

Signature : *MS*

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 1499**

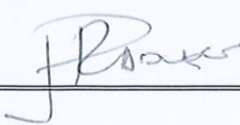
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- Products traceability.....	1 page	☒
- Load test report.....	1 page	☒
- Motor certificate.....	8 pages	☒

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CONSTRUCTOR APPROVAL

DATE	12 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	1499		Alstom - Ubunye
Motor Bogie Frame	AR000000176080	M1862		Alstom - Ubunye
Wheelset (Front)	AR0000000177020	M03453		Alstom - Ubunye
Axle with fitted gearbox	AR000000177072	K3264		NGC
Wheel (Right)	AR000000174670	119	03-24	Bonatrans
Wheel (Left)	AR0000000174670	120	03-24	Bonatrans
Wheelset (Rear)	AR000000178600	M03454		Alstom - Ubunye
Axle with fitted gearbox	AR000000177072	K3254		NGC
Wheel (Right)	AR000000174670	035	04-24	Bonatrans
Wheel (Left)	AR000000174670	036	04-24	Bonatrans
Pneumatic suspension (Right)	AR000000176127	2311019		Hutchinson
Pneumatic suspension (Left)	AR000000176127	2310122		Hutchinson
Brake unit with PB (Right rear)	AR000000174544	973	03-2024	WEBTEC
Brake unit without PB (Right front)	AR000000175185	2894	03-2024	WEBTEC
Brake unit without PB (Left Front)	AR000000175185	2892	03-2024	WEBTEC
Brake unit without PB (left rear)	AR000000175185	2893	03-2024	WEBTEC
Motor (front)	AR000000168516	21800		GIBELA
Motor (Rear)	AR000000168516	21823		GIBELA

PRESSING REPORT

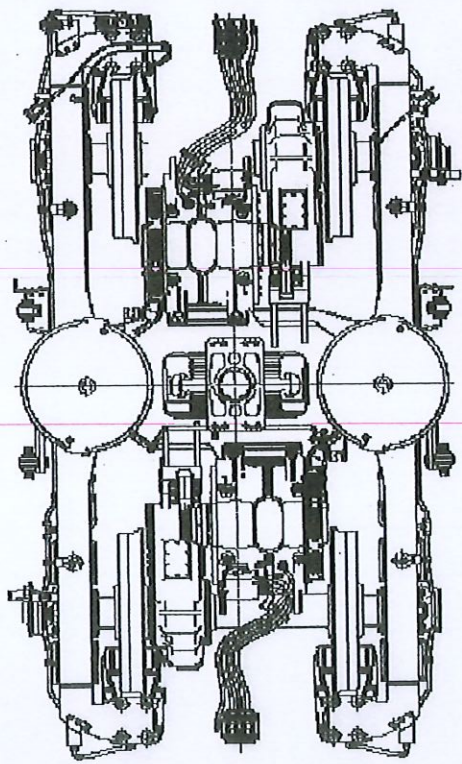
DATE 7/9/2024	RESPONSABLE VALIDATION	PRASA	LOAD TEST : MOTOR BOGIE
DATE VALIDATION		INSTRUCTION SHEET:	PROJECT:
		FAMILY:	

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	MIN 33.00	MAX 39.00	36.90
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5543

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
584.64	+	1.00	MIN 585.64 MAX 587.50

RIGHT JACK LOAD	7376	Kg
-----------------	------	----

BOGIE SERIAL N°	MB1-1499
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22374
COMPLETE BOGIE WEIGHT [Kg]	7283
OPERATOR	BAFANA
DATE	7/9/2024



	THEORETICAL		MEASURED
	MIN	MAX	
LOAD DIFFERENCE ON FRONT AXLE [%]	0.00	0.00	-0.40
LOAD DIFFERENCE ON REAR AXLE [%]	0.00	0.00	1.11
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	0.00	0.00	-0.21
LOAD DIFFERENCE ON RAILS [%]	0.00	0.00	0.36
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	0.00	0.00	0.76

OPERATOR STAMP	DC-3FI-6
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LEFT JACK LOAD	7376	Kg
----------------	------	----

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	MIN 33.00	MAX 39.00	35.90
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5668

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
585.35	+	0.00	MIN 585.35 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]	0.29
THEORETICAL [mm]	MIN -1.00 MAX 1.00

	THEORETICAL		MEASURED
	MIN	MAX	
WHEEL DIAMETER [mm]			
GAP PRIMARY SUSPENSION [mm]	MIN 33.00	MAX 39.00	36.20
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5559



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21823
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	77521652	
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: 2024/07/01

Function: Final Inspection

Performed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____



Gibela Rail
02 Shosholozo 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

21823

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:

Name:

13/06/24
XCLANT

Assembly after test

Date:

Name:

27/06/24
XCLANT

ROTOR S/N 8U69685-006		STATOR S/N CITS-1854	
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 ECM/C4 VA3091 (cross out the references that have not been fitted)			
N°: AUSTRIA: 282 W			
S2 Radial play after assembly (0,042 / 0,114): 0,07mm ☒ OK ☐ NOK		S4 LUBRICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Filter 1 (Name and signature): Filter 2 (Name and signature): Measured quantity: Quality validation:	
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°: AUSTRIA: 094W			
S1 Radial play after assembly (0,021 / 0,067): 0,06mm ☒ OK ☐ NOK		S3 LUBRICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Filter 1 (Name and signature): Filter 2 (Name and signature): Measured quantity: Quality validation:	
Référence appareil: AMXG20			
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		Page 2	
		Page 1	

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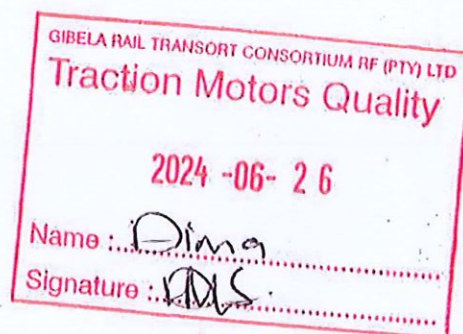
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

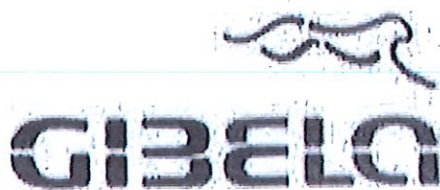
Record the value of the Insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)		109M2		☒ OK ☐ NOK
OPERATOR		Quality verification		
Out of round at the end of the shaft drive end, 0,05 max Value: 0mm	☒ OK ☐ NOK	Device serial number AMXG20	☐ OK ☐ NOK	
Out of round on toothed wheel 0,1 max: 0,08mm	☒ OK ☐ NOK	Device serial number AMXG20	☐ OK ☐ NOK	
sensor / toothed wheel play 0,7 (+/- 0,2):	☐ OK ☐ NOK	Device serial number	☐ OK ☐ NOK	
Sensor reference: DTR0000512252/DSD1830.19Q14HW	☐ OK ☐ NOK	Device serial number	☐ OK ☐ NOK	

Missing Speed sensor Deviation #: 7072

Prep. & Final Assembly							
OPERATOR			Quality verification				
F1	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	interference (in the event of failure / absence of the motorized screwdriver)	QC 1 X 61 Nm	☐ OK ☐ NOK		
F2	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	interference (in the event of failure / absence of the motorized screwdriver)	QC 1 X 61 Nm	☐ OK ☐ NOK		
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	☒ OK ☐ NOK	interference (in the event of failure / absence of the motorized screwdriver)	QC 1 X 37 Nm	☐ OK ☐ NOK		
F4	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	interference (in the event of failure / absence of the motorized screwdriver)	QC 1 X 18 Nm	☐ OK ☐ NOK		
F5	Torque tightening to 6 x 22 Nm:	☒ OK ☐ NOK	interference (in the event of failure / absence of the motorized screwdriver)	QC 1 X 18 Nm	☐ OK ☐ NOK		
Finishing							
F1	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	interference (in the event of failure / absence of the motorized screwdriver)	QC 1 X 22 Nm	☐ OK ☐ NOK		
Grease protection transport							
S3	18g (0/+4.5) CC	Mesured quantity: 18g			☒ OK ☐ NOK		
S4	18g (0/+4.5) CC	Mesured quantity: 18g			☒ OK ☐ 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:			
				Dima <i>[Signature]</i>			
OBSERVATIONS							

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CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N * 21800

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 77419360

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: 2024/07/01

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

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Référence: TROS 916.216

Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test

Date:

Name:

Assembly after test

Date:

Name:

ROTOR S/N 8UB9683-078		STATOR S/N GIB-1806	
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 SKE: NU 214 ECM/C4-VA3091 (cross out the references that have not been fitted)			
N°: Romania 0097 11/23 SN846-1888219			
S2 Radial play after assembly (0,042 / 0,114): 0,07mm ☒ OK ☐ NOK		S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Filter 1 (Name and signature): [Signature] Filter 2 (Name and signature): [Signature] Mesured quantity: [Signature] Quality validation: Dima	
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°: Austria 094 W			
S1 Radial play after assembly (0,021 / 0,067): 0,05mm ☒ OK ☐ NOK Reference appareil: AMXG80		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] Mesured quantity: [Signature] Quality validation: Dima	
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Record the value of the Insulation resistance of the bearings to TROS 915.069 (> 50 kΩ) 74,8 MΩ		☒ OK ☐ NOK	
OPERATOR		Quality verification	
Out of round at the end of the shaft drive end, 0,05 max Value: 0,01mm	☒ OK ☐ NOK	Device serial number AMXG80	☐ OK ☐ NOK
Out of round on toothed wheel 0,1 max: 0,03mm	☒ OK ☐ NOK	Device serial number AMXG80	☐ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	☐ OK ☐ NOK	Device serial number	☐ OK ☐ NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	☐ OK ☐ NOK	Device serial number	☐ OK ☐ NOK

Missing speed sensor Deviation #: 7072

Prep. & Final Assembly							
OPERATOR			Quality verification				
☒ F1	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	QC 1 X 61 Nm	☐ OK ☐ NOK			
☒ F2	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	QC 1 X 61 Nm	☐ OK ☐ NOK			
☒ F3	Torque tightening to 4 x 44 Nm: Fold locking plate	☒ OK ☐ NOK	QC 1 X 37 Nm	☐ OK ☐ NOK			
☒ F4	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	QC 1 X 18 Nm	☐ OK ☐ NOK			
☒ F5	Torque tightening to 6 x 22 Nm:	☒ OK ☐ NOK	QC 1 X 18 Nm	☐ OK ☐ NOK			
Finishing							
☒ F1	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	QC 1 X 22 Nm	☐ OK ☐ NOK			
Grease protection transport							
☒ S3	18g (0/+4.5) CC	Mesured quantity: 18g	☒ OK ☐ NOK				
☒ S4	18g (0/+4.5) CC	Mesured quantity: 18g	☒ OK ☐ 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:		Comments		
			Dima				
OBSERVATIONS							

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