

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 1338**

CONTENTS

- Compliance certificate.....	Page 1/2	☒
- List of deviations and missing parts.....	Page 2/2	☒
- Products traceability.....	1 page	☒
- Load test report.....	1 page	☒
- Motor certificate.....	8 pages	☒

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	22 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	1338		Alstom - Ubunye
Motor Bogie Frame	AR000000176080	1647		Alstom - Ubunye
Wheelset (Front)	AR0000000177020	M03033		Alstom - Ubunye
Axle with fitted gearbox	AR000000177072	K3085		NGC
Wheel (Right)	AR000000174670	130	11-22	Bonatrans
Wheel (Left)	AR0000000174670	074	07-23	Bonatrans
Wheelset (Rear)	AR000000178600	M3034		Alstom - Ubunye
Axle with fitted gearbox	AR000000177072	K3071		NGC
Wheel (Right)	AR000000174670	102	11-22	Bonatrans
Wheel (Left)	AR000000174670	068	11-22	Bonatrans
Pneumatic suspension (Right)	AR000000176127	2312112		Hutchinson
Pneumatic suspension (Left)	AR000000176127	2401070		Hutchinson
Brake unit with PB (Right rear)	AR000000174544	1569	01-24	WEBTEC
Brake unit without PB (Right front)	AR000000175185	4728	01-24	WEBTEC
Brake unit without PB (Left Front)	AR000000175185	4726	01-24	WEBTEC
Brake unit without PB (left rear)	AR000000175185	4739	01-24	WEBTEC
Motor (front)	AR000000168516	21366		GIBELA
Motor (Rear)	AR000000168516	21462		GIBELA

QC: 018
Revision: 1.0

PRESSING REPORT

DATE 2/22/2024	RESPONSABLE VALIDATION		PRASA	
DATE VALIDATION			INSTRUCTION SHEET:	
				FAMILY:
				LOAD TEST : MOTOR BOGIE
				PROJECT:

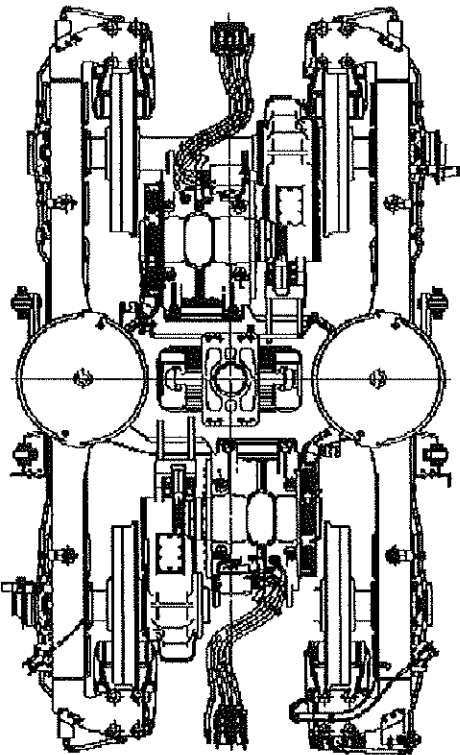
	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.71 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q2	5509

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.40	+	0.00	MIN 585.00 MAX 587.50

RIGHT JACK LOAD
7375 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.61 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q4	5619

BOGIE SERIAL N°	MB1-1338
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22329
COMPLETE BOGIE WEIGHT [Kg]	7256
OPERATOR	DATE
EDWARD	2/22/2024



	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	1.10 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.45 ✓
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	0.33 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	-0.77 ✓

OPERATOR STAMP
DC-3FI-6

LEFT JACK LOAD
7376 Kg

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.60	+	0.00	MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]	✓	THEORETICAL [mm]
-0.20		MIN -1.00 MAX 1.00

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.19 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q1	5632

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.59 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q3	5569



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21366
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76302441	
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
Perfomed and signed off by:	Name_____ Dimakatso Mohoalali
	Signature <u></u>



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

ALSTOM

MOT 21366

GIBELA

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: 06/12/2023

Name: Siguas

Assembly after test

Date: 10/01/24

Name: YOUNE, GODFREY THOMAS

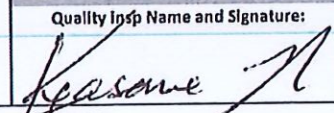
ROTOR S/N M123-10-085		STATOR S/N C1B-1378	
Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289			
INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety 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°: ROMANIA :- 0097 09/23 S1307 -1369794			
S2 Radial play after assembly (0,042 / 0,114): 0,08mm ☒ OK ☐ NOK		S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Mln:144g - Max:149g Measured quantity: Quality validation Fitter 1(Name and signature) Fitter 2(Name and signature) Quality Insp. Name and signature <i>[Signatures]</i>	
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-VL0241 (cross out the references that have not been fitted)			
Serial N°: GERMANY :- 0200 x116 -0711 04/23 S20056			
S1 Radial play after assembly (0,021 / 0,067): 0,06mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Mln:159g Max:164g Measured quantity: Quality verification Fitter 1(Name and signature) Fitter 2(Name and signature) Quality Insp. Name and signature <i>[Signatures]</i>	
Référence appareil A52P14			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 Page 1	

ALSTOM

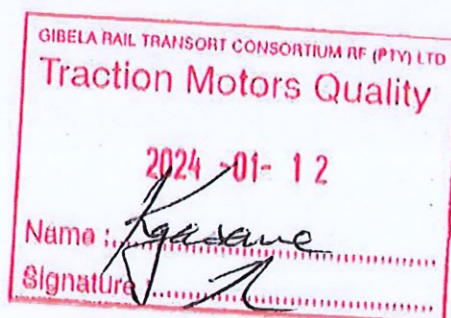
GIBELA

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)				397 MΩ ☒ OK ☐ NOK	
OPERATOR				Quality verification	
Out of round at the end of the shaft drive end 0,05 max:	☒ OK ☐ NOK	A52P14		☐ OK ☐ NOK	
Out of round on toothed wheel 0,1 max:	☒ OK ☐ NOK	A52P14		☐ OK ☐ NOK	
sensor / toothed wheel play 0,7 (+/- 0,2):	☒ OK ☐ NOK	C1BFL002		☐ OK ☐ NOK	

Sensor reference: DTR0000512252/DSD1830.19Q14HW		☒ OK ☐ NOK		Device serial number 52314006674	☐ OK ☐ NOK	
Prep. & Final Assembly						
OPERATOR			Quality verification			
F1	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	wrench reference (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	wrench reference (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	wrench reference (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	wrench reference (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	wrench reference (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	wrench reference (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:			
						
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 ° 21462

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76618083

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: 2024/02/17

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

21462

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:

Name:

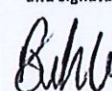
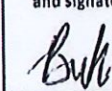
30/01/24
XOUMI, G. GODFREY

Assembly after test

Date:

Name:

19/02/24
XOUMI, G. GODFREY, THOMAS

ROTOR S/N MORRIS-11-112		STATOR S/N GIBS-1468	
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 EGM/C4-VA3091 (cross out the references that have not been fitted)			
N°: ROMANIA: - 0097 09/23 SN248 - 1369794			
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 Mesured 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°: GERMANY: - 0200 X272-1228 09/23 SN0019			
S1 Radial play after assembly (0,021 / 0,067): 0,04mm ☒ OK ☐ NOK Reference appareil: AJ2P14		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Mesured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature):  Filter 2 (Name and signature):  Quality Insp. Name and signature: 	
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 2 Page 1	

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) 3.27 GΩ		☒ OK ☐ NOK	
OPERATOR		Quality verification	
Out of round at the end of the shaft drive end 0,01mm	☒ OK ☐ NOK	Device serial number AMXG14	☐ OK ☐ NOK
Out of round on toothed wheel 0,1 max: 0,07mm	☒ OK ☐ NOK	Device serial number AMXG14	☐ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,1mm	☒ OK ☐ NOK	Device serial number GIBF2001	☐ OK ☐ NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW

☒ OK ☐ NOK Device serial number: 02317001101☐ OK ☐ NOK

Prep. & Final Assembly

OPERATOR			Quality verification		
F1	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver) NCCS 57	QC 1 X 61 Nm	☐ OK ☐ NOK
F2	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver) NCCS 57	QC 1 X 61 Nm	☐ OK ☐ NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver) NCCS 58	QC 1 X 37 Nm	☐ OK ☐ NOK
F4	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver) NCCS 58	QC 1 X 18 Nm	☐ OK ☐ NOK
F5	Torque tightening to 6 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver) NCCS 58	QC 1 X 18 Nm	☐ OK ☐ NOK

Finishing

F1	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver) NCCS 57	QC 1 X 22 Nm	☐ OK ☐ NOK
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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:

Bukle

Comments

OBSERVATIONS

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

TROS 916.216

2

Page

2

GIBELA RAIL TRANSPORT CONSORTIUM HF (PTG) LTD

Traction Motors Quality

2024-02-16

Name: Bukle

Signature: ml

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

MANUFACTURER'S DELIVERY DOCUMENT

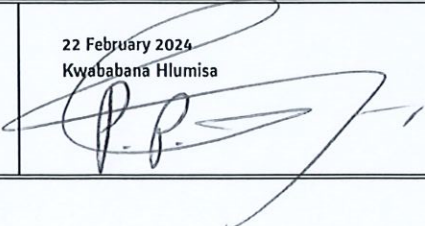
PRODUCT TYPE MOTOR BOGIE type MB2
 DTR0009706805
SERIAL NUMBER MB2 - 576

CONTENTS

- Compliance certificate.....	Page 1/2	☒
- List of deviations and missing parts.....	Page 2/2	☒
- Products traceability.....	1 page	☒
- Load test report.....	1 page	☒
- Motor certificate.....	8 pages	☒

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CONSTRUCTOR APPROVAL	
DATE	22 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	576		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1643		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M3011		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2957		NGC
Wheel (Right)	AR00000174670	060	07-23	Bonatrans
Wheel (Left)	AR000000174670	064	07-23	Bonatrans
Wheelset (Rear)	AR00000178600	M3012		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2971		NGC
Wheel (Right)	AR00000174670	043	11-22	Bonatrans
Wheel (Left)	AR00000174670	002	11-22	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2312057		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2312063		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1565	01-24	Wabtec
Brake unit without PB (Right front)	AR00000175185	4724	01-24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	4732	01-24	Wabtec
Brake unit without PB (left rear)	AR00000175185	4723	01-24	Wabtec
Motor (front)	AR00000168516	21431		Alstom - Gibela
Motor (Rear)	AR00000168516	21312		Alstom - Gibela

21312

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: 20/11/23

Name: XOLANT

Assembly after test

Date: 06/01/24

Name:

ROTOR S/N MCR22-11-039		STATOR S/N GIB-1298	
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°: ROMANIA 1- 0097 11/22 SN698 - 5747155			
S2 Radial play after assembly (0,042 / 0,114): 0,06mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min:144g - Max:149g Mesured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature) <i>[Signature]</i> Filter 2 (Name and signature) <i>[Signature]</i> Quality validation: <i>Dima KUS</i>	
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 1- 0200 X020 - 0620 01/23 SN0387			
S1 Radial play after assembly (0,021 / 0,067): 0,05mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min:159g - Max:164g Mesured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature) <i>[Signature]</i> Filter 2 (Name and signature) <i>[Signature]</i> Quality verification: <i>Dima KUS</i>	
Référence appareil: AMXG14			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 2 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)

3,30 GΩ



OK



NOK

OPERATOR			Quality verification	
Out of round at the end of the shaft drive end 0,03 max: <u>0,01mm</u>	☒ OK ☐ NOK	Device serial number: <u>AMX 0174</u>	☐ OK ☐ NOK	
Out of round on toothed wheel 0,1 max: <u>0,03mm</u>	☒ OK ☐ NOK	Device serial number: <u>AMX 0174</u>	☐ OK ☐ NOK	
sensor / toothed wheel play 0,7 (+/- 0,2): <u>0,8mm</u>	☒ OK ☐ NOK	Device serial number: <u>CH3F1008</u>	☐ OK ☐ NOK	
Sensor reference: DTR0000512252/DSD1830.19Q14HW	☒ OK ☐ NOK	Device serial number: <u>630 39000470</u>	☐ OK ☐ NOK	

Prep. & Final Assembly

OPERATOR		Quality verification	
☒ F1 Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver): <u>NCC5587</u>	QC 1 X 61 Nm ☐ OK ☐ NOK
☒ F2 Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver): <u>NCC5587</u>	QC 1 X 61 Nm ☐ OK ☐ NOK
☒ F3 Torque tightening to 4 x 44 Nm: Fold locking plate	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver): <u>NCC5587</u>	QC 1 X 37 Nm ☐ OK ☐ NOK
☒ F4 Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver): <u>NCC5587</u>	QC 1 X 18 Nm ☐ OK ☐ NOK
☒ F5 Torque tightening to 6 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver): <u>NCC5587</u>	QC 1 X 18 Nm ☐ OK ☐ NOK

Finishing

☒ F1 Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver): <u>NCC5587</u>	QC 1 X 22 Nm ☐ OK ☐ NOK
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Grease protection transport

☒ S3 18g (0/+4.5) CC	Mesured quantity: <u>18g</u>	☒ OK ☐ NOK
☒ S4 18g (0/+4.5) CC	Mesured quantity: <u>18g</u>	☒ 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: <u>Dina RBS</u>	

OBSERVATIONS

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

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

2024 -01- 30

Name: Dina
Signature: RBS

21431

ALSTOM

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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: 09/01/04

Name: XOLANT

Assembly after test

Date: 01/02/04

Name: XOLANT, GEDRE, THOMAS

ROTOR S/N		STATOR S/N	
MCR03-10-040		CTIB-1436	
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°: ROMANIA: 0097 09/23 SN203-1369794			
S2 Radial play after assembly (0,042 / 0,114): 0,06mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Mesured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature): Filter 2 (Name and signature): Quality validation:	
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-G4 SKF 6214-M/G4-VL-0241 (cross out the references that have not been fitted)			
Serial N°: GERMANY: 0200 X272-1242 09/23 SN0057			
S1 Radial play after assembly (0,021 / 0,067): 0,08mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g Max: 164g Mesured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature): Filter 2 (Name and signature): Quality validation:	
Référence appareil: AJP14			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 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)		1,45 GΩ	☒ OK ☐ NOK
OPERATOR		Quality verification	
Out of round at the end of the shaft drive end 0,02 mm max:	☒ OK ☐ NOK		☐ OK ☐ NOK
Out of round on toothed wheel 0,1 mm max:	☒ OK ☐ NOK		☐ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	☒ OK ☐ NOK		☐ OK ☐ NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW

☒ OK
 ☐ NOK
 Device serial number: 30312004578

☐ OK
 ☐ NOK

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:	☒ OK ☐ NOK	QC 1 X 37 Nm	☐ OK ☐ NOK		
	Fold locking plate					
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		
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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 PDS.	

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 ° 21431

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76568543

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

Perfomed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____ 



Gibela Rail
02 Shosholora Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

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CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21312

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76196178

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
02 Shosholozu Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

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