



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

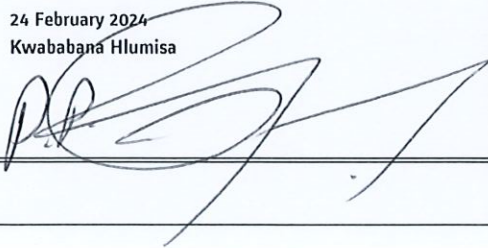
SERIAL NUMBER **MB1 - 1341**

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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	24 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	M1341		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1646		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M3037		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3160		NGC
Wheel (Right)	AR00000174670	021	07-23	Bonatrans
Wheel (Left)	AR000000174670	126	07-23	Bonatrans
Wheelset (Rear)	AR00000178600	M3039		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3188		NGC
Wheel (Right)	AR00000174670	123	07-23	Bonatrans
Wheel (Left)	AR00000174670	121	07-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2311032		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310148		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1572	01-24	Wabtec
Brake unit without PB (Right front)	AR00000175185	4729	01-24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	4730	01-24	Wabtec
Brake unit without PB (left rear)	AR00000175185	4741	01-24	Wabtec
Motor (front)	AR00000168516	21468		Alstom Ornans
Motor (Rear)	AR00000168516	21450		Alstom Ornans

QC: 018
Revision: 1.0

2/23/2024

DATE VALIDATION

RESPONSABLE VALIDATION

PRASA

INSTRUCTION SHEET:

FAMILY:

PRESSING REPORT

LOAD TEST : MOTOR BOGIE

PROJECT:

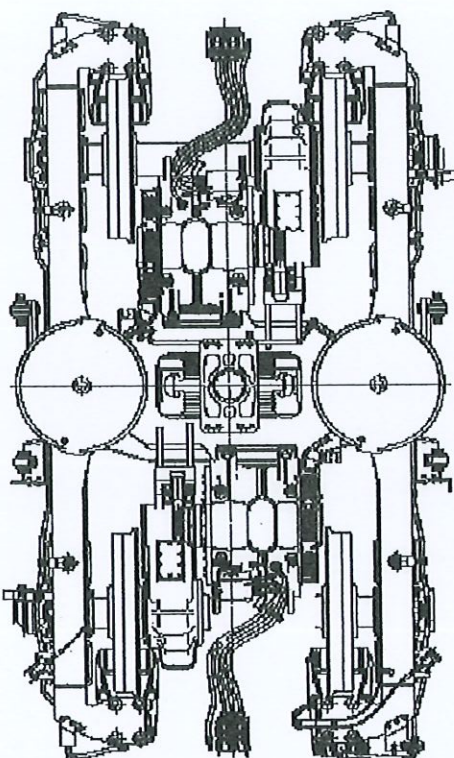
	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.71 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q2	5585

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.76	+	0.00	= 586.76
			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	38.40 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q4	5520

BOGIE SERIAL N°	MB1-1341
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22353
COMPLETE BOGIE WEIGHT [Kg]	7270
OPERATOR	DATE
BAEANA	2/23/2024



	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	-0.23 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	1.51 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.29 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN 0.00 MAX 0.00	0.64 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	0.87 ✓

OPERATOR STAMP

DC-3FI-6

LEFT JACK LOAD	
7376	Kg

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.83	+	0.00	= 586.83
			MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]		✓	THEORETICAL [mm]
-0.07			MIN -1.00 MAX 1.00

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.69 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q1	5559

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.97 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q3	5689

21468

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: 31/01/2024

Name: JACQUES

Assembly after test

Date: 19/02/24

Name: NOLAN, GODFREY & THOMAS

ROTOR S/N MCR23-10-032	STATOR S/N GIB-1488		
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 SN294-136974			
S2 Radial play after assembly (0,042 / 0,114): 0,08mm ☒ OK ☐ NOK		S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Measured quantity: Filter 1 (Name and signature) Filter 2 (Name and signature) Quality validation: Quality Insp. Name and signature:	
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-VC0741 (cross out the references that have not been fitted)			
Serial N°: GERMANY:- X272-1002 09/23 SN0014			
S1 Radial play after assembly (0,021 / 0,067): 0,06mm ☒ OK ☐ NOK Reference to spare part:		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g Max: 164g Measured quantity: Filter 1 (Name and signature) Filter 2 (Name and signature) Quality verification: Quality Insp. Name and signature:	
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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)			☐ OK	☐ NOK
OPERATOR			Quality verification	
Out of round at the end of the shaft drive end 0,05 max:	☒ OK ☐ NOK	ASCM	☐ OK	☐ NOK
Out of round on toothed wheel 0,1 max:	☒ OK ☐ NOK	ASCM	☐ OK	☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	☒ OK ☐ NOK	ASCM	☐ OK	☐ NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW

☒ OK	☐ NOK	Device serial number 52314806730	☐ OK	☐ NOK
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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)	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)	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)	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)	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)	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)	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:

Buhle

Comments

OBSERVATIONS

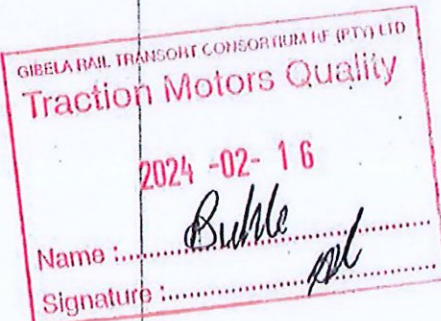
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TROS 916.216

2

Page

2



21450

ALSTOM

GIBELQ

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

Référence: TROS 916.216

Révision: 2

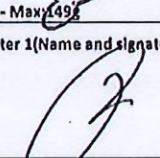
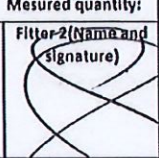
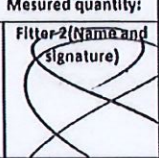
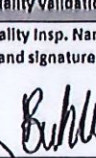
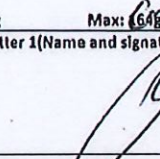
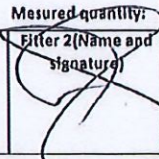
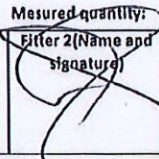
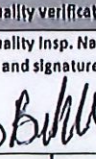
Documents de référence: AT00000325953 - AT00000325990

Assembly before test

Date: 07/01/2024
Name: Jacques

Assembly after test

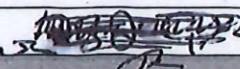
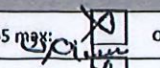
Date: 10/02/24
Name: XOLANT, GODFREY & THOMAS

ROTOR S/N MCR22-11-113		STATOR S/N GIB-1459	
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 6N133-1369794			
Radial play after assembly (0,042 / 0,114): 0,08mm ☒ OK ☐ NOK		LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Filter 1 (Name and signature):  Filter 2 (Name and signature):  Mesured quantity:  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-C4 SKE-6214-M/C4-VE-0241 (cross out the references that have not been fitted)			
Serial N°: GERMANY: 0200 X116-0913 04/23 6N0200			
Radial play after assembly (0,021 / 0,067): 0,06mm ☒ OK ☐ NOK Référence appareil: A50714		LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Filter 1 (Name and signature):  Filter 2 (Name and signature):  Mesured quantity:  Quality validation: 	
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 2 Page 1	

ALSTOM

GIBELQ

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)		 ☒ OK ☐ NOK	
OPERATOR		Quality verification	
Out of round at the end of the shaft drive end 0,05 max: 	☒ OK ☐ NOK	Device serial number: A50714	☐ OK ☐ NOK
Out of round on toothed wheel 0,1 max: 0,08mm	☒ OK ☐ NOK	Device serial number: A50714	☐ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,8mm	☒ OK ☐ NOK	Device serial number: A50714	☐ OK ☐ NOK

GIBFL001

Sensor reference: DTR000051252/DSD1830.19Q14HW		☒ OK ☐ NOK 50312001239		☐ 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 Measured quantity:	18g			☒ OK ☐ NOK
S4	18g (0/+4.5) CC Measured 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
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GIBELA RAIL TRANSPORT CONSORTIUM RF (PTY) LTD

Traction Motors Quality

2024 -02- 16

Name :

Signature :



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21468

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76634795

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 Shosholozza 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



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21450

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76596482

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

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 1342

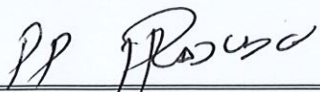
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- Compliance certificate.....	Page 1/2	☒
- List of deviations and missing parts.....	Page 2/2	☒
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- Load test report.....	1 page	☒
- Motor certificate.....	8 pages	☒

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	24 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	1342		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	1653		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03047		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2925		NGC
Wheel (Right)	AR00000174670	117	07-23	Bonatrans
Wheel (Left)	AR000000174670	167	04-23	Bonatrans
Wheelset (Rear)	AR00000178600	M3048		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2937		NGC
Wheel (Right)	AR00000174670	012	07-23	Bonatrans
Wheel (Left)	AR00000174670	010	07-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2311030		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310160		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1581	01-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	4772	01-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	4774	01-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	4773	01-24	WEBTEC
Motor (front)	AR00000168516	21411		GIBELA
Motor (Rear)	AR00000168516	21486		GIBELA

DATE
2/24/2024

DATE VALIDATION

RESPONSABLE VALIDATION

PRESSING REPORT

PRASA

INSTRUCTION SHEET:

FAMILY:

LOAD TEST : MOTOR BOGIE

PROJECT:

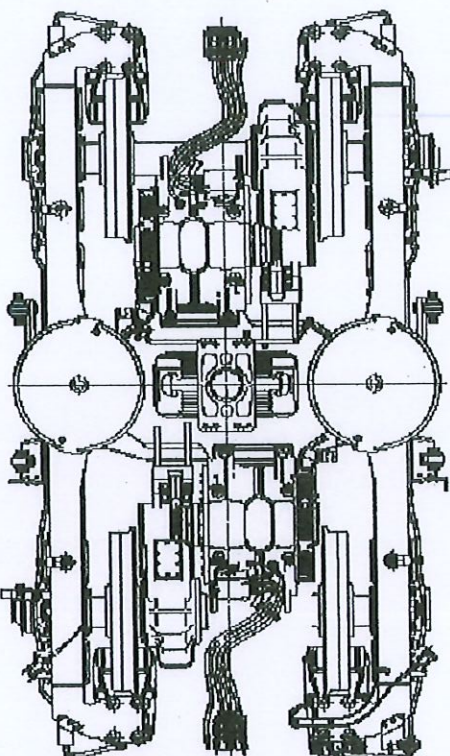
	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.60 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q2	5486

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.68	+	0.00	= 586.68
			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	37.21 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q4	5639

BOGIE SERIAL N°	MB1-1342
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22352
COMPLETE BOGIE WEIGHT [Kg]	7277
OPERATOR	DATE
BAFANA	2/24/2024



	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	1.50 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.59 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.33 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN 0.00 MAX 0.00	0.45 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	-1.04 ✓

OPERATOR STAMP

DC-3F1-6

LEFT JACK LOAD

7376 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	36.90 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q1	5653

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.32	+	0.00	= 587.32
			MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]	✓	THEORETICAL [mm]
-0.64		MIN -1.00 MAX 1.00

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	36.80 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q3	5573



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21411

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76539182

Status: QC PASS

Derogations / Concession / Waiver N °: N/A

Customer modification: N/A

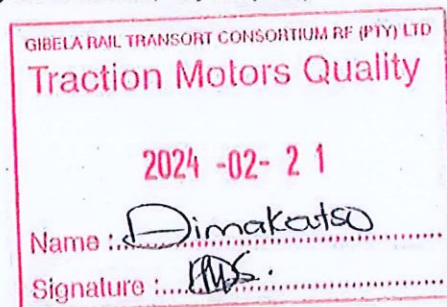
Missing parts: N/A

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: 2024/02/21

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

21411

ALSTOM

GIBELCO

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

Référence: TROS 916.216

Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test

Date: 17/10/2024

Name: Jacques

Assembly after test

Date: 20/02/24

Name: Godfrey & Volantier Thomas

ROTOR S/N MCB23-10-021		STATOR S/N CIB-1408	
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 FCM/C4 VA3091 (cross out the references that have not been fitted)			
N°: ROMANIA! 0097 09/23 SN420-1369794			
S2 Radial play after assembly (0,042 / 0,114): 0,09mm ☒ OK ☐ NOK		S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min:144g - Max:149g Mesured quantity: Fitter 1(Name and signature) <i>[Signature]</i> Fitter 2(Name and signature) <i>[Signature]</i> Quality validation: Dima KDS	
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/G4-VL-0241 (cross out the references that have not been fitted)			
Serial N°: GERMANY :- 0200 X116-0818 04/23 SN0170			
S1 Radial play after assembly (0,021 / 0,067): 0,06mm ☒ OK ☐ NOK Reference appareil: <i>ASCP14</i>		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min:159g Max:164g Mesured quantity: Fitter 1(Name and signature) <i>[Signature]</i> Fitter 2(Name and signature) <i>[Signature]</i> Quality verification: Dima KDS	
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216	2
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ALSTOM

GIBELCO

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)		☐ OK	☐ NOK
OPERATOR		Quality verification	
Out of round at the end of the shaft drive end 0,05 max:	0,04mm ☒ OK ☐ NOK	<i>ASCP14</i>	☐ OK ☐ NOK
Out of round on toothed wheel 0,1 max:	0,06mm ☒ OK ☐ NOK	<i>ASCP14</i>	☐ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	0,7mm ☒ OK ☐ NOK	<i>CIBFL002</i>	☐ OK ☐ NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW			☒ OK ☐ NOK		Device serial number S2216001481	☐ 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)	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)	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)	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)	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)	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)	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							

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 -02- 20

Name : Dima

Signature : [Signature]



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21486

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 76687736

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: 2024/02/21

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

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

21486

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: 12/02/24

Name: XOUTANT

Assembly after test

Date: 19/02/24

Name: XOUTANT & THOMAS

ROTOR S/N	STATOR S/N
MCR23-10-073	GITS-1495
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-VA309T (cross out the references that have not been fitted)	
N°: ROMANIA:- 0097 09/23 SN 95-1369794	
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 Measured quantity: Filter 1 (Name and signature) Filter 2 (Name and signature) Quality validation Quality Insp. Name and signature Dime
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:- X272-0959 09/23 SN 0005	
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 Measured quantity: Filter 1 (Name and signature) Filter 2 (Name and signature) Quality verification Quality Insp. Name and signature Dime
Référence appareil AJEP14	
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)	8,83M.Ω	☒ OK ☐ NOK
OPERATOR		Quality verification
Out of round at the end of the shaft drive end, 0,05 max Value 0,02mm	☒ OK ☐ NOK	Device serial number AJEP14 ☐ OK ☐ NOK
Out of round on toothed wheel 0,1 max: 0,01mm	☒ OK ☐ NOK	Device serial number AJEP14 ☐ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,8mm	☒ OK ☐ NOK	Device serial number GITS-1495 ☐ OK ☐ NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	☒ OK ☐ NOK	Device serial number GITS-1495 ☐ OK ☐ NOK

Prep. & Final Assembly													
OPERATOR				Quality verification									
☒ F1	Torque tightening to 8 x 76 Nm:	☒ OK	☐ NOK	search reference for the event of failure / absence of the motorized strength (ref. NCCSS 87)	QC 1 X 61 Nm	☐	OK	☐	NOK				
☒ F2	Torque tightening to 8 x 76 Nm:	☒ OK	☐ NOK	search reference for the event of failure / absence of the motorized strength (ref. NCCSS 87)	QC 1 X 61 Nm	☐	OK	☐	NOK				
☒ F3	Torque tightening to 4 x 44 Nm: Fold locking plate	☒ OK	☐ NOK	search reference for the event of failure / absence of the motorized strength (ref. NCCSS 87)	QC 1 X 37 Nm	☐	OK	☐	NOK				
☒ F4	Torque tightening to 4 x 22 Nm:	☒ OK	☐ NOK	search reference for the event of failure / absence of the motorized strength (ref. NCCSS 87)	QC 1 X 18 Nm	☐	OK	☐	NOK				
☒ F5	Torque tightening to 6 x 22 Nm:	☒ OK	☐ NOK	search reference for the event of failure / absence of the motorized strength (ref. NCCSS 87)	QC 1 X 18 Nm	☐	OK	☐	NOK				
Finishing													
☒ F1	Torque tightening to 4 x 22 Nm:	☒ OK	☐ NOK	search reference for the event of failure / absence of the motorized strength (ref. NCCSS 87)	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 of the production)				DTR0000452910 (in the case of 100% inspection)		☒	OK	☐	NOK				
				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">Final Inspection</th> <th style="text-align: center;">Comments</th> </tr> <tr> <td>Quality Insp Name and Signature: <i>Dima</i></td> <td></td> </tr> </table>		Final Inspection	Comments	Quality Insp Name and Signature: <i>Dima</i>					
Final Inspection	Comments												
Quality Insp Name and Signature: <i>Dima</i>													
OBSERVATIONS													

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