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 - 1346**

CONTENTS

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	27 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	M1346		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1660		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M3049		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2945		NGC
Wheel (Right)	AR00000174670	069	04-23	Bonatrans
Wheel (Left)	AR000000174670	067	04-23	Bonatrans
Wheelset (Rear)	AR00000178600	M3050		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2933		NGC
Wheel (Right)	AR00000174670	084	04-23	Bonatrans
Wheel (Left)	AR00000174670	086	04-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2401118		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2312021		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1609	02-24	Wabtec
Brake unit without PB (Right front)	AR00000175185	4829	02-24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	4838	02-24	Wabtec
Brake unit without PB (left rear)	AR00000175185	4834	02-24	Wabtec
Motor (front)	AR00000168516	21487		Alstom Ornans
Motor (Rear)	AR00000168516	21199		Alstom Ornans

21487

ALSTOM 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: 18/02/24
Name: XOLANI

Assembly after test
Date: 19/02/24
Name: XOLANI, GODFREY & THOMAS

ROTOR S/N	STATOR S/N
MCR23-11-010	GIIB-1501

Bearing lubrification - 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 (S2)
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 8H27-1369794

(S2) Radial play after assembly (0,042 / 0,114): 0,06mm

[X] OK [ ] NOK

(S4) LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:144g - Max:149g	Mesured quantity:	Quality validation
Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality Insp. Name and signature
8	[signature]	Dima Klaas

INSULATED CERAMIC BEARING OPPOSITE DRIVE END side – Security operation (S1)
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 :- 0200 X116-1017 04/23 8H0304

(S1) Radial play after assembly (0,021 / 0,067): 0,04mm

[X] OK [ ] NOK

(S3) LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:159g Max:164g	Mesured quantity:	Quality verification
Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality Insp. Name and signature
8	[signature]	Dima Klaas

Référence appareil: AJ2P14

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)	12,6MΩ		[X] OK	[ ] NOK
OPERATOR			**Quality verification**	
Out of round at the end of the shaft drive end, 0,05 max Value 0,01mm	[X] OK [ ] NOK	Device serial number AJ2P14	[ ] OK	[ ] NOK
Out of round on toothed wheel 0,1 max: 0,06mm	[X] OK [ ] NOK	Device serial number AJ2P14	[ ] OK	[ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,85mm	[X] OK [ ] NOK	Device serial number GIIBFLCO1	[ ] OK	[ ] NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	[X] OK [ ] NOK	Device serial number 8031K00185	[ ] OK	[ ] NOK

Prep. & Final Assembly

OPERATOR					Quality verification				
F1	Torque tightening to 8 x 76 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCOCS87	QC 1 X 61 Nm	☐	OK	☐	NOK
F2	Torque tightening to 8 x 76 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCOCS98	QC 1 X 61 Nm	☐	OK	☐	NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCOC081	QC 1 X 37 Nm	☐	OK	☐	NOK
F4	Torque tightening to 4 x 22 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) [illegible]	QC 1 X 18 Nm	☐	OK	☐	NOK
F5	Torque tightening to 6 x 22 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) [illegible]	QC 1 X 18 Nm	☐	OK	☐	NOK

Finishing

F1	Torque tightening to 4 x 22 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCOCS917	QC 1 X 22 Nm	☐	OK	☐	NOK

Grease protection transport

S3	18g (0/+4.5) CC	Mesured quantity:	18g	X	OK	☐	NOK
S4	18g (0/+4.5) CC	Mesured quantity:	18g	X	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 [signature]	

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- 19
Name : Dima
Signature : [signature]

21199

ALSTOM

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: 19/10/23
Name: XOLIENT

Assembly after test
Date: 14/02/24
Name: Geoffrey & Thomas

ROTOR S/N	STATOR S/N	
MCR22-6-0917	GIB-1815	

Bearing lubrification - 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

S2

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 0917 05/23 SN4452 – 1085122

S2 Radial play after assembly (0,042 / 0,114): 0,07 mm

[X] OK [ ] NOK

S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:144g - Max:149g

Mesured quantity:	Quality validation
Fitter 1(Name and signature)	Fitter 2(Name and signature) / Quality Insp. Name and signature
	Dima

INSULATED CERAMIC BEARING OPPOSITE DRIVE END side – Security operation

S1

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 0920 X020-0644 01/23 SN0489

S1 Radial play after assembly (0,021 / 0,067): 0,06 mm

[X] OK [ ] NOK

S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:159g Max: 164g

Mesured quantity:	Quality verification
Fitter 1(Name and signature)	Fitter 2(Name and signature) / Quality Insp. Name and signature
	Dima

Référence appareil
GIBDG001

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) 1,89 GΩ [X] OK [ ] NOK

OPERATOR			Device serial number	Quality verification	
Out of round at the end of the shaft drive end 0,09 max: 0 mm	[X] OK	[ ] NOK	GIBDG001	[ ] OK	[ ] NOK
Out of round on toothed wheel 0,1 max: 0,03 mm	[X] OK	[ ] NOK	GIBDG001	[ ] OK	[ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,75 mm	[X] OK	[ ] NOK	GIBDG001	[ ] OK	[ ] NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	☒ OK ☐ NOK	Device serial number: 32021SCC03512	☐ 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) NCC5587	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) NCC5587	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) NCC5081	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) NCC5006	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) NCC5008	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) N005277	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 [signature]	

OBSERVATIONS

GIBELA RAIL TRANSPORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 19
Name : Dima
Signature : [signature]

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21199
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	75985824	
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

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 21
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

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

CERTIFICATION OF CONFORMITY

GIBELA

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21487
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76687735	
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

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 21
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

ALSTOM UBUNYE

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 1348

CONTENTS

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	27 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	1348		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	1661		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03051		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2939		NGC
Wheel (Right)	AR00000174670	017	04-23	Bonatrans
Wheel (Left)	AR000000174670	016	04-23	Bonatrans
Wheelset (Rear)	AR00000178600	M3052		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2942		NGC
Wheel (Right)	AR00000174670	124	04-23	Bonatrans
Wheel (Left)	AR00000174670	127	04-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2311155		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2401071		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1601	02-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	4822	02-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	4819	02-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	4821	02-24	WEBTEC
Motor (front)	AR00000168516	21445		GIBELA
Motor (Rear)	AR00000168516	21275		GIBELA

PRESSING REPORT

DATE	
2/27/2024	
DATE VALIDATION	RESPONSABLE VALIDATION

PRASA

INSTRUCTION SHEET:	LOAD TEST : MOTOR BOGIE
FAMILY:	PROJECT:

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	37.40 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q2		5625

SECONDARY SUSPENSION ✓					
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM[mm]	THEORETICAL [mm]	
586.19	+	0.00	= 586.19	MIN	585.00
				MAX	587.50

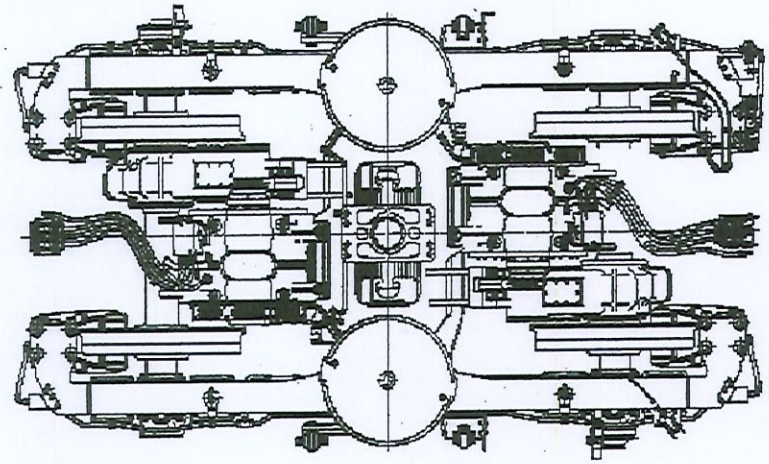
RIGHT JACK LOAD	
7377	Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	37.50 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5581

BOGIE SERIAL N°	MB1-1348
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22375
COMPLETE BOGIE WEIGHT [Kg]	7287

OPERATOR	DATE
BAFANA	2/27/2024

OPERATOR STAMP
DC-3FI-6



	THEORETICAL		MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN MAX	0.00 0.00	-0.81 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN MAX	0.00 0.00	0.48 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN MAX	0.00 0.00	-0.25 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN MAX	0.00 0.00	-0.16 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN MAX	0.00 0.00	0.64 ✓

LEFT JACK LOAD	
7376	Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	37.40 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5535

SECONDARY SUSPENSION ✓					
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM [mm]	THEORETICAL [mm]	
586.13	+	0.00	= 586.13	MIN	585.00
				MAX	587.50

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

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	37.10 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5635

CERTIFICATION OF CONFORMITY

GIBELA

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21445
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76596278	
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.

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 17
Name : Dimakatso
Signature :

Date: 2024/02/17

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21445

ALSTOM

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: 26/01/24
Name: XOLANT

Assembly after test
Date: 05/02/24
Name: XOLANT

ROTOR S/N	STATOR S/N	
MCR20-10-136	GIB-1461	

Bearing lubrification - 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

S2

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 8N309 - 1369794

S2 Radial play after assembly (0,042 / 0,114): 0,08mm
[X] OK [ ] NOK

S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:144g - Max:149g	Mesured quantity:	Quality validation
Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality Insp. Name and signature
		OIMA

INSULATED CERAMIC BEARING OPPOSITE DRIVE END side – Security operation

S1

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 X272-1241 09/23 8N0065

S1 Radial play after assembly (0,021 / 0,067): 0,06mm
[X] OK [ ] NOK

S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:159g	Maxi:164g	Mesured quantity:	Quality verification
Fitter 1(Name and signature)		Fitter 2(Name and signature)	Quality Insp. Name and signature
			OIMA

Référence apparell: AJ2P14

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) 7,46MΩ [X] OK [ ] NOK

OPERATOR				Quality verification	
Out of round at the end of the shaft drive end 0,05 max: 0,04mm	[X] OK	[ ] NOK	Device serial number AJ2P14	[ ] OK	[ ] NOK
Out of round on toothed wheel 0,1 max: 0,05mm	[X] OK	[ ] NOK	Device serial number AJ2P14	[ ] OK	[ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,7mm	[X] OK	[ ] NOK	Device serial number GIBSF(00)	[ ] OK	[ ] NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	[X] OK [ ] NOK	Device serial number: SA3171CCODS1		[ ] OK	[ ] NOK

Prep. & Final Assembly

OPERATOR				*Quality verification*	
F1 Torque tightening to 8 x 76 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCSD87	QC 1 X 61 Nm	[ ] OK	[ ] NOK
F2 Torque tightening to 8 x 76 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCSD87	QC 1 X 61 Nm	[ ] OK	[ ] NOK
F3 Torque tightening to 4 x 44 Nm: Fold locking plate	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCSD81	QC 1 X 37 Nm	[ ] OK	[ ] NOK
F4 Torque tightening to 4 x 22 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCSD68	QC 1 X 18 Nm	[ ] OK	[ ] NOK
F5 Torque tightening to 6 x 22 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCSD68	QC 1 X 18 Nm	[ ] OK	[ ] NOK

Finishing

F1 Torque tightening to 4 x 22 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCSD77	QC 1 X 22 Nm	[ ] OK	[ ] NOK

Grease protection transport

S3 18g (0/+4.5) CC	Mesured quantity:	18g	[X] OK	[ ] NOK
S4 18g (0/+4.5) CC	Mesured quantity:	18g	[X] OK	[ ] NOK

Final inspection following the check-list DTR0000452909 and DTR0000452910 (In the case of 100% inspection of the production) [X] OK [ ] NOK

Final Inspection	Comments
Quality Insp Name and Signature: Diina [signature]	

OBSERVATIONS

GIBELA RAIL TRANSPORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 06
Name : Diina
Signature : [signature]

CERTIFICATION OF CONFORMITY

GIBELA

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21275
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76080363	
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

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 21
Name :.....Dimakatso.....
Signature :.....

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

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

Q1275

ALSTOM

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: 08/11/2023
Name: Jacq Noo

Assembly after test
Date: 19/02/24
Name: NOUANI & THOMAS

ROTOR S/N	STATOR S/N	
MCR22-7-058	GTB-1278	

Bearing lubrification - 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 11/22 SN301-5747155

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: Quality validation
Fitter 1(Name and signature) Fitter 2(Name and signature) Quality Insp. Name and signature Dima

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 0200 1019-0830 01/23 SN0111

S1 Radial play after assembly (0,021 / 0,067): 0,06mm ☒ OK ☐ NOK

S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly
Min:159g Max:~~164g~~ Mesured quantity: Quality verification
Fitter 1(Name and signature) Fitter 2(Name and signature) Quality Insp. Name and signature Dima

Référence appareil AS-2914

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) 812 MΩ ☒ OK ☐ NOK

OPERATOR				Quality verification		
Out of round at the end of the shaft drive end 0,05 max:	☒ OK	☐ NOK	Device serial number AS-2914	☐ OK	☐ NOK	0,01mm
Out of round on toothed wheel 0,1 max: 0,05mm	☒ OK	☐ NOK	Device serial number AS-2914	☐ OK	☐ NOK	
sensor / toothed wheel play 0,7 (+/- 0,2): 0,75mm	☒ OK	☐ NOK	Device serial number GTB-1002	☐ OK	☐ NOK	

Sensor reference: DTR0000512252/DSD1830.19Q14HW	X OK ☐ NOK	Device serial number: S23120012417	☐ OK	☐ NOK

Prep. & Final Assembly

OPERATOR			Wrench reference (in the event of failure / absence of the motorized screwdriver)	Quality verification		
F1	Torque tightening to 8 x 76 Nm:	X OK ☐ NOK	NCCSB 05	QC 1 X 61 Nm	☐ OK	☐ NOK
F2	Torque tightening to 8 x 76 Nm:	X OK ☐ NOK	NCCSB 05	QC 1 X 61 Nm	☐ OK	☐ NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	X OK ☐ NOK	P35110S	QC 1 X 37 Nm	☐ OK	☐ NOK
F4	Torque tightening to 4 x 22 Nm:	X OK ☐ NOK	NCCSB 07	QC 1 X 18 Nm	☐ OK	☐ NOK
F5	Torque tightening to 6 x 22 Nm:	X OK ☐ NOK	NCCSB 07	QC 1 X 18 Nm	☐ OK	☐ NOK

Finishing

F1	Torque tightening to 4 x 22 Nm:	X OK ☐ NOK	NCCSB 17	QC 1 X 22 Nm	☐ OK	☐ NOK

Grease protection transport

S3	18g (0/+4.5) CC	Mesured quantity: 18g		X OK	☐ NOK
S4	18g (0/+4.5) CC	Mesured quantity: 18g		X OK	☐ NOK

Final inspection following the check-list DTR0000452909 and DTR0000452910 (In the case of 100% inspection of the production) — X OK ☐ NOK

Final inspection	Comments
Quality Insp Name and Signature: Dino	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 20
Name : Dino
Signature :