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 1414

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	26 April 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	1414		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1736		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03231		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3206		NGC
Wheel (Right)	AR00000174670	054	11-23	Bonatrans
Wheel (Left)	AR000000174670	063	11-23	Bonatrans
Wheelset (Rear)	AR00000178600	M03232		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3204		NGC
Wheel (Right)	AR00000174670	088	11-23	Bonatrans
Wheel (Left)	AR00000174670	047	11-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2308001		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2307176		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1743	04-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	5251	04-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	5253	04-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	5252	04-24	WEBTEC
Motor (front)	AR00000168516	21534		GIBELA
Motor (Rear)	AR00000168516	21506		GIBELA

PRESSING REPORT

DATE	
4/25/2024	
DATE VALIDATION	RESPONSABLE VALIDATION

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

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN		
	MAX		
GAP PRIMARY SUSPENSION [mm]	MIN	33.00	37.91 ✓
	MAX	39.00	
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q2		5595

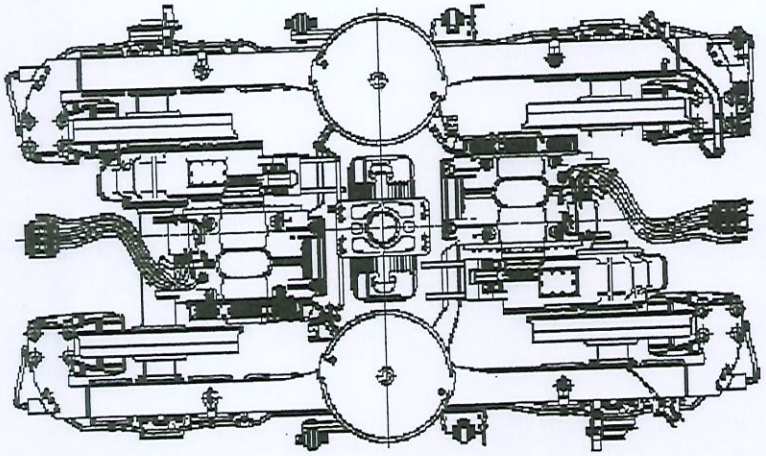
SECONDARY SUSPENSION ✓				
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM[mm]	THEORETICAL [mm]
587.50	+	0.00	= 587.50	MIN 585.00
				MAX 587.50

RIGHT JACK LOAD	
7376	Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN		
	MAX		
GAP PRIMARY SUSPENSION [mm]	MIN	33.00	37.64 ✓
	MAX	39.00	
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5582

BOGIE SERIAL N°	MB1-1414
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22380
COMPLETE BOGIE WEIGHT [Kg]	7281

OPERATOR	DATE
EDWARD	4/25/2024



	THEORETICAL		MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN	0.00	-0.19 ✓
	MAX	0.00	
LOAD DIFFERENCE ON REAR AXLE [%]	MIN	0.00	0.42 ✓
	MAX	0.00	
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN	0.00	-0.19 ✓
	MAX	0.00	
LOAD DIFFERENCE ON RAILS [%]	MIN	0.00	0.12 ✓
	MAX	0.00	
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN	0.00	0.30 ✓
	MAX	0.00	

OPERATOR STAMP
BFI-21

LEFT JACK LOAD	
7376	Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN		
	MAX		
GAP PRIMARY SUSPENSION [mm]	MIN	33.00	37.81 ✓
	MAX	39.00	
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5574

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

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

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN		
	MAX		
GAP PRIMARY SUSPENSION [mm]	MIN	33.00	36.71 ✓
	MAX	39.00	
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5629

CERTIFICATION OF CONFORMITY

GIBELA

Inpection certificate according EN 10204-3.1

Product:	Traction Motors 6 ECA 3022 B
Serial Number:	N ° 21506
Client / Customer:	ALSTOM UBUNYE (PTY) LTD
Project:	PRASA
P O Number:	76754147
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: 2024/04/17

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -04- 17
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21506

ALSTOM

GIBELO

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: 20/02/24
Name: Godfrey & Xolani

Assembly after test
Date: 1/04/24
Name: XOLANI, JACQUES & THOMAS

ROTOR S/N	STATOR S/N	
MCL23-10-0052	GTB-1515	

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 SN14-1369794

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

[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 MDS

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 X 116-1016 04/23 SN0301

S1 Radial play after assembly (0,021 / 0,067): 0,05mm

[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 MDS

Référence appareil: AMXG114

ALSTOM

GIBELO

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) 6.12 GΩ [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 AMXG14		OK	NOK
Out of round on toothed wheel 0,1 max: 0,05mm	X	OK	NOK	Device serial number AMXG14		OK	NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,66mm	X	OK	NOK	Device serial number GIBFZ001		OK	NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	X	OK	NOK	Device serial number 5231-1000243		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 motorised screwdriver) D386286	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 motorised screwdriver) D386286	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 motorised screwdriver) 2511039	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 motorised screwdriver) W005807	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 motorised screwdriver) W005807	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 motorised screwdriver) N005077	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: Dimq	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -04- 11
Name : Dimq
Signature :

CERTIFICATION OF CONFORMITY

GIBELA

Inpection certificate according EN 10204-3.1

Product:	Traction Motors 6 ECA 3022 B
Serial Number:	N ° 21534
Client / Customer:	ALSTOM UBUNYE (PTY) LTD
Project:	PRASA
P O Number:	76832940
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: 2024/04/17

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -04- 17
Name :... Dimakatso .....
Signature :.....

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21534

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: 29/02/2024
Name: Jacques

Assembly after test
Date: 10/04/24
Name: XOLANI / THOMAS

ROTOR S/N	STATOR S/N	
MCR03-11-085	GIB-1563	

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°: Rommun 0097 11/23 SN 909-188219

(S2) Radial play after assembly (0,042 / 0,114): 0,08mm ☒ OK ☐ NOK

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
[signature]	[signature]	Dima [signature]

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°: Schmann 0200 X116-0717 04/23 SN 0071

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

Référence appareil: AJ CP14

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
[signature]	[signature]	Dima [signature]

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) 148 MΩ ☒ OK ☐ NOK

OPERATOR				Quality verification	
Out of round at the end of the shaft drive end 0,05 max: 0,01mm	☒ OK	☐ NOK	Device serial number: AJ CP14	☐ OK	☐ NOK
Out of round on toothed wheel 0,1 max: 0,05mm	☒ OK	☐ NOK	Device serial number: AJ CP14	☐ OK	☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,75mm	☒ OK	☐ NOK	Device serial number: GI-BFL003	☐ OK	☐ NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	☒ OK	☐ NOK	Device serial number 3231760069	☐ 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) DSD1830.19Q14HW	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) DSD1830.19Q14HW	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) DSD1830.19Q14HW	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) DSD1830.19Q14HW	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) NCC5077	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

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -04- 11
Name : Dima
Signature : MDS

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 1415

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	03 May 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	1415		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1747		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03227		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3234		NGC
Wheel (Right)	AR00000174670	121	11-23	Bonatrans
Wheel (Left)	AR000000174670	120	11-23	Bonatrans
Wheelset (Rear)	AR00000178600	M03228		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3202		NGC
Wheel (Right)	AR00000174670	108	10-23	Bonatrans
Wheel (Left)	AR00000174670	094	10-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2309195		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2309202		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1746	04-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	5261	04-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	5260	04-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	5263	04-24	WEBTEC
Motor (front)	AR00000168516	21590		GIBELA
Motor (Rear)	AR00000168516	21557		GIBELA

PRESSING REPORT

DATE	
4/26/2024	
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 33.00 MAX 39.00		36.71 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q2		5568

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM[mm]	THEORETICAL [mm]
586.48	+ 0.00	= 586.48	MIN 585.00 MAX 587.50

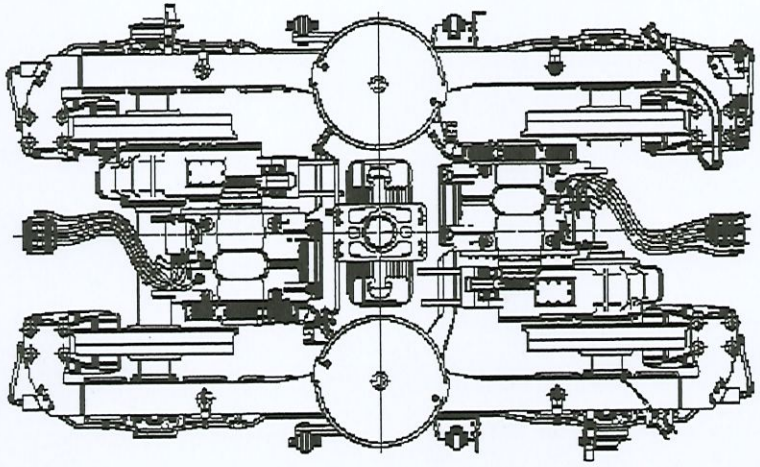
RIGHT JACK LOAD
7377 Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00		37.50 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5574

BOGIE SERIAL N°	MB1-1415
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22358
COMPLETE BOGIE WEIGHT [Kg]	7271

OPERATOR	DATE
EDWARD	4/26/2024

OPERATOR STAMP
BFI-21



	THEORETICAL		MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00		0.17 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00		0.49 ✓
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		0.16 ✓

LEFT JACK LOAD
7376 Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00		36.60 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5587

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
586.99	+ 0.00	= 586.99	MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm] ✓	THEORETICAL [mm]
-0.51	MIN -1.00 MAX 1.00

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00		36.24 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5629

GIBELA

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors 6 ECA 3022 B
Serial Number:	N ° 21590
Client / Customer:	ALSTOM UBUNYE (PTY) LTD
Project:	PRASA
P O Number:	76950608
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: 2024/04/17

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -04- 17
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21590

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: 16/03/24 Name: XOLANI		Assembly after test Date: 10/04/2024 Name: Jacques Xolani & Tommas
ROTOR S/N	STATOR S/N	
MCR23-11-090	GIB-1595	

Bearing lubrification - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289			
S2 **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 11/23 SN868 - 1888219			
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) [signature]	Fitter 2(Name and signature) [signature]	Quality Insp. Name and signature Dina [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-VL 0241~~ (cross out the references that have not been fitted)			
Serial N°: GERMANY 0200 X116 - 0753 04/23 SN0184			
S1 Radial play after assembly (0,021 / 0,067): 0,05mm [X] OK [ ] NOK	S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min:159g Max: 164g	Mesured quantity:	Quality verification
Référence appareil: AJZP14	Fitter 1(Name and signature) [signature]	Fitter 2(Name and signature) [signature]	Quality Insp. Name and signature Dina [signature]

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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) 16,7MΩ				[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 AJZP14	[ ] OK	[ ] NOK
Out of round on toothed wheel 0,1 max: 0,05mm	[X] OK	[ ] NOK	Device serial number AJZP14	[ ] OK	[ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,8mm	[X] OK	[ ] NOK	Device serial number GIBFL001	[ ] OK	[ ] NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	[X] OK	[ ] NOK	Device serial number S2024 1008003	[ ] 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) NCC0587	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) NCC0587	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) NCC0508	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) NCC0508	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) NCC0508	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) NCC0491	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: Dima [signature]	

OBSERVATIONS

GIBELA RAIL TRANSPORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024-04-10
Name : Dima
Signature : [signature]

CERTIFICATION OF CONFORMITY

GIBELA

Inpection certificate according EN 10204-3.1

Product:	Traction Motors 6 ECA 3022 B
Serial Number:	N ° 21557
Client / Customer:	ALSTOM UBUNYE (PTY) LTD
Project:	PRASA
P O Number:	76871885
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: 2024/04/17

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -04- 17
Name : Dimakatso
Signature : DMS

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

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

MOT 21557

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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: 11/09/24
Name: Godfrey & Xolani

Assembly after test
Date: 11/04/2024
Name: Jacques & Xolani & Tamas

ROTOR S/N	STATOR S/N
MCR23-10-061	GIB-1577

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 11/23 SN865-1888219

(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

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 0900 X116-0706 04/23 SN00047

(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

Référence appareil: AMXG114

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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)			24.4 MΩ	[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 AMXG114	[ ] OK	[ ] NOK
Out of round on toothed wheel 0,1 max: 0,06mm	[X] OK	[ ] NOK	Device serial number AMXG114	[ ] OK	[ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,8mm	[X] OK	[ ] NOK	Device serial number GBFL001	[ ] OK	[ ] NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	[X] OK	[ ] NOK	Device serial number S2252005542	[ ] 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 material screwdriver) D2862188	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 material screwdriver) D2862188	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 material screwdriver) D2S11039	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 material screwdriver) N0002869	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 material screwdriver) N0002869	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 material screwdriver) N0002869	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: Ngasane	

OBSERVATIONS

GIBELA RAIL TRANSIT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -04- 12
Name : Ngasane
Signature: