DEROGATION 4242

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 1332

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	20 February 2024
NAME	Kwababana Hlumisa
VISA	PP

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	1332		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	1631		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03019		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2897		NGC
Wheel (Right)	AR00000174670	016	07-23	Bonatrans
Wheel (Left)	AR000000174670	154	11-22	Bonatrans
Wheelset (Rear)	AR00000178600	M3020		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2899		NGC
Wheel (Right)	AR00000174670	018	07-23	Bonatrans
Wheel (Left)	AR00000174670	048	07-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2311007		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310172		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1592	01-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	4808	01-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	4806	01-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	4807	01-24	WEBTEC
Motor (front)	AR00000168516	21457		GIBELA
Motor (Rear)	AR00000168516	21217		GIBELA

QC: 018
Revision: 1.0

PRESSING REPORT

DATE	
2/19/2024	

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	38.87 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q2		5602

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM[mm]	THEORETICAL [mm]
586.78	+ 0.00	= 586.78	MIN 585.00 MAX 587.50

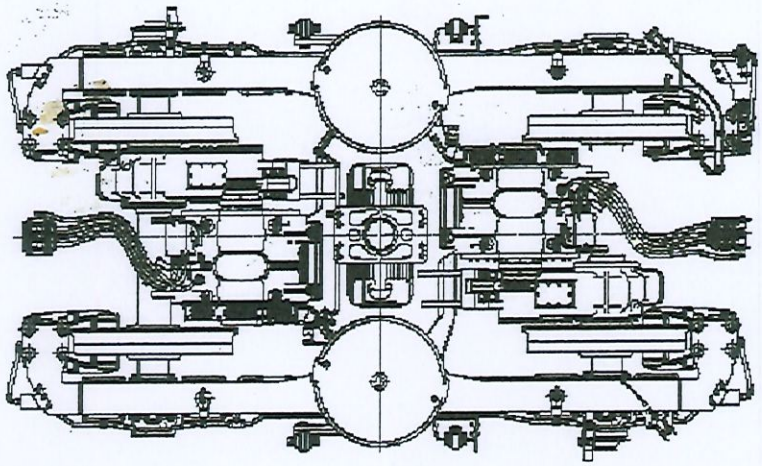
RIGHT JACK LOAD	
7376	Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	38.90 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5508

BOGIE SERIAL N°	MB1-1332
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22375
COMPLETE BOGIE WEIGHT [Kg]	7285

OPERATOR	DATE
BAFANA	2/19/2024

OPERATOR STAMP
DC-BFI-6 DC-BFI-6



	THEORETICAL		MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN MAX	0.00 0.00	-0.48 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN MAX	0.00 0.00	1.85 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN MAX	0.00 0.00	-0.33 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN MAX	0.00 0.00	0.69 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN MAX	0.00 0.00	1.17 ✓

LEFT JACK LOAD	
7376	Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	38.42 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5549

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]
-0.21	MIN -1.00 MAX 1.00

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	38.06 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5716

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21217
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	75999543	
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 TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 05
Name :... Dimakatso
Signature :...

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

2/2 17

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: 18/10/23
Name: XOCHITL

Assembly after test
Date: 03/02/24
Name: Godfrey Xolani & Thomas

ROTOR S/N	STATOR S/N	
MCR22-6-056	GIB-1227	

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 05/23 SN78-1085122

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

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 X019-0831 01/23 SN0113

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

Référence appareil: GIB1C001

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) 2,87GΩ [X] OK [ ] NOK

OPERATOR			Device serial number	Quality verification	
Out of round at the end of the shaft drive end 0,05 max: 0mm	[X] OK	[ ] NOK	GIB1C001	[ ] OK	[ ] NOK
Out of round on toothed wheel 0,1 max: 0,02mm	[X] OK	[ ] NOK	GIB1C001	[ ] OK	[ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,8mm	[X] OK	[ ] NOK	GIB1C001	[ ] OK	[ ] NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	X OK ☐ NOK	Device serial number: SDDL3C08126	☐ 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	NCC2387	QC 1 X 61 Nm	☐ OK	☐ NOK
F2	Torque tightening to 8 x 76 Nm:	X OK ☐ NOK	NCC2387	QC 1 X 61 Nm	☐ OK	☐ NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	X OK ☐ NOK	NCC2408	QC 1 X 37 Nm	☐ OK	☐ NOK
F4	Torque tightening to 4 x 22 Nm:	X OK ☐ NOK	NCC2405	QC 1 X 18 Nm	☐ OK	☐ NOK
F5	Torque tightening to 6 x 22 Nm:	X OK ☐ NOK	NCC2405	QC 1 X 18 Nm	☐ OK	☐ NOK

Finishing

F1	Torque tightening to 4 x 22 Nm:	X OK ☐ NOK	NCC2405	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: Dina KDS	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 03
Name : Dina
Signature : KDS

CERTIFICATION OF CONFORMITY

GIBELA

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21457
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76618058	
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 TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 05
Name :. Dimakatso
Signature :.....

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21457

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: 29/01/2024
Name: Jacq100

Assembly after test
Date: 01/02/24
Name: Xolani, Godfrey & Thomas

ROTOR S/N	STATOR S/N	
MCR22-11-144	GTB-1466	

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 C097 09/23 SN404-1369794

S2 Radial play after assembly (0,042 / 0,114):	S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly		
0,09mm [X] OK [ ] NOK	Min:144g - Max:149g — 145	Mesured quantity:	Quality validation
	Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality Insp. Name and signature
	[signature]	[signature]	Ding [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 X116-1003 04/23 SN0273

S1 Radial play after assembly (0,021 / 0,067):	S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly		
0,05mm [X] OK [ ] NOK	Min:159g Max:164g — 160	Mesured quantity:	Quality verification
Référence apparell: AJ2774	Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality Insp. Name and signature
	[signature]	[signature]	Dina [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) 549 MΩ [X] OK [ ] NOK							
OPERATOR					Quality verification		
Out of round at the end of the shaft drive end 0,05 max: 0,02mm	[X] OK	[ ] NOK	Device serial number AJ2774	[ ]	OK	[ ]	NOK
Out of round on toothed wheel 0,1 max: 0,06mm	[X] OK	[ ] NOK	Device serial number AJ2774	[ ]	OK	[ ]	NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,75mm	[X] OK	[ ] NOK	Device serial number GTBFL002	[ ]	OK	[ ]	NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	☒ OK ☐ NOK	Device serial number: SJ31000958	☐ 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:	☒ OK ☐ NOK	DS1830.1	QC 1 X 61 Nm	☐ OK	☐ NOK
F2	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	DS1830.1	QC 1 X 61 Nm	☐ OK	☐ NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	☒ OK ☐ NOK	DS1830.1	QC 1 X 37 Nm	☐ OK	☐ NOK
F4	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	DS1830.1	QC 1 X 18 Nm	☐ OK	☐ NOK
F5	Torque tightening to 6 x 22 Nm:	☒ OK ☐ NOK	DS1830.1	QC 1 X 18 Nm	☐ OK	☐ NOK

Finishing

F1	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	NECESSITY	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: Dina KDS	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 03
Name : Dina
Signature : KDS

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 1334

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	21 February 2024
NAME	Kwababana Hlumisa
VISA	PP Prasa

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	1334		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	1475		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03031		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3132		NGC
Wheel (Right)	AR00000174670	128	07-23	Bonatrans
Wheel (Left)	AR000000174670	111	07-23	Bonatrans
Wheelset (Rear)	AR00000178600	M3032		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3143		NGC
Wheel (Right)	AR00000174670	125	07-23	Bonatrans
Wheel (Left)	AR00000174670	125	11-22	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2310204		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310127		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1568	01-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	4735	01-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	4734	01-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	4736	01-24	WEBTEC
Motor (front)	AR00000168516	21349		GIBELA
Motor (Rear)	AR00000168516	21379		GIBELA

PRESSING REPORT

DATE	
2/20/2024	
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	38.38	✓
	MAX	39.00		
SHIM THICK [mm]				
WEIGHT ON WHEEL [Kg]	Q2		5617	

SECONDARY SUSPENSION ✓				
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM[mm]	THEORETICAL [mm]
586.44	+ 0.00	=	586.44	MIN 585.00
				MAX 587.50

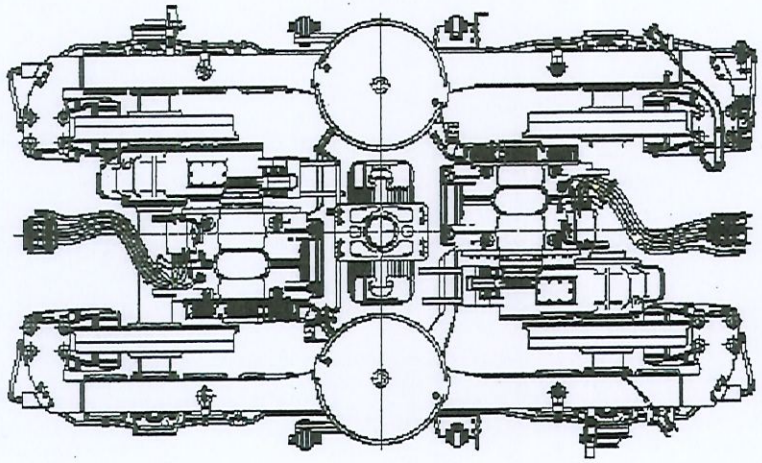
RIGHT JACK LOAD
7376 Kg

	THEORETICAL		MEASURED	
WHEEL DIAMETER [mm]	MIN			
	MAX			
GAP PRIMARY SUSPENSION [mm]	MIN	33.00	38.97	✓
	MAX	39.00		
SHIM THICK [mm]				
WEIGHT ON WHEEL [Kg]	Q4		5518	

BOGIE SERIAL N°	MB1-1334
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22355
COMPLETE BOGIE WEIGHT [Kg]	7278

OPERATOR	DATE
EDWARD	2/20/2024

OPERATOR STAMP
DC-BFI-6



	THEORETICAL		MEASURED	
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN	0.00	-0.71	✓
	MAX	0.00		
LOAD DIFFERENCE ON REAR AXLE [%]	MIN	0.00	1.47	✓
	MAX	0.00		
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN	0.00	-0.21	✓
	MAX	0.00		
LOAD DIFFERENCE ON RAILS [%]	MIN	0.00	0.38	✓
	MAX	0.00		
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN	0.00	1.09	✓
	MAX	0.00		

LEFT JACK LOAD
7376 Kg

	THEORETICAL		MEASURED	
WHEEL DIAMETER [mm]	MIN			
	MAX			
GAP PRIMARY SUSPENSION [mm]	MIN	33.00	38.40	✓
	MAX	39.00		
SHIM THICK [mm]				
WEIGHT ON WHEEL [Kg]	Q1		5538	

SECONDARY SUSPENSION ✓				
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.12	+ 0.00	=	587.12	MIN 585.00
				MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm] ✓	THEORETICAL [mm]	
-0.68	MIN	-1.00
	MAX	1.00

	THEORETICAL		MEASURED	
WHEEL DIAMETER [mm]	MIN			
	MAX			
GAP PRIMARY SUSPENSION [mm]	MIN	33.00	37.88	✓
	MAX	39.00		
SHIM THICK [mm]				
WEIGHT ON WHEEL [Kg]	Q3		5683	

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21349
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76254813	
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 TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 05
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21349

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: 29/11/2023
Name: Sakgwe

Assembly after test
Date: 03/02/24
Name: Xolani, Godfrey & Thomas

ROTOR S/N	STATOR S/N	
MCR22-10-108	GIB-1325	

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 09/23 SN351 - 1369794

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		Mesured quantity: 160	Quality validation
Fitter 1(Name and signature)		Fitter 2(Name and signature)	Quality Insp. Name and signature
[signature]		[signature]	Dimg [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 -0749 04/23 SN0125

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

Référence appareil: AJ-C914

S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:159g	Max: 164g	Mesured quantity: 160	Quality verification
Fitter 1(Name and signature)		Fitter 2(Name and signature)	Quality Insp. Name and signature
[signature]		[signature]	Dimg [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) 830 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-C914	☐ OK	☐ NOK
Out of round on toothed wheel 0,1 max: 0,08mm	☒ OK	☐ NOK	Device serial number AJ-C914	☐ OK	☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,8mm	☒ OK	☐ NOK	Device serial number GIBFL002	☐ OK	☐ NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	[X] OK [ ] NOK	Device serial number S2317000612		[ ] 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) D2511019	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)	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) D2511039	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)	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) N005589	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) N005577	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 -02- 03
Name : Dima
Signature : [signature]

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21379
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76320103	
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_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -01- 24
Name : Dimakatso
Signature : KMS.

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

2179

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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: 08/12/2023
Name: SCICLUNA

Assembly after test
Date: 17/01/24
Name: VOLANT

ROTOR S/N	STATOR S/N	
MCR22-8-0714	CIB-1385	

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 SN950-1369794

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 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 :- 0200 X116-0903 04/23 SN0178

S1 Radial play after assembly (0,021 / 0,067): 0,05mm ☒ OK ☐ NOK

Référence appareil: AJ CP14

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

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) 3,71 GΩ ☒ 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 CIBF1002	☐ OK	☐ NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	☒ OK ☐ NOK	Device serial number 6231400 6799		☐ 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	

Handwritten wrench references: DDS16680, DDS11007, N0032479

Finishing

F1	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N0032477	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 -01- 17
Name : Dima
Signature : [signature]