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 - 1459

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	14 June 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	M 1459		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M 1796		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M 3351		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 1338		NGC
Wheel (Right)	AR00000174670	057	10.23	Bonatrans
Wheel (Left)	AR000000174670	055	10.23	Bonatrans
Wheelset (Rear)	AR00000178600	M 3352		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3142		NGC
Wheel (Right)	AR00000174670	107	03.24	Bonatrans
Wheel (Left)	AR00000174670	115	03.24	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2403036		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2404016		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1832	05.24	Wabtec
Brake unit without PB (Right front)	AR00000175185	5524	06.24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	5523	06.24	Wabtec
Brake unit without PB (left rear)	AR00000175185	5522	06.24	Wabtec
Motor (front)	AR00000168516	21729		Alstom Ornans
Motor (Rear)	AR00000168516	21730		Alstom Ornans

PRESSING REPORT

DATE	
6/10/2024	
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	37.38	✓
SHIM THICK [mm]				
WEIGHT ON WHEEL [Kg]	Q2		5612	

SECONDARY SUSPENSION ✓					
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM[mm]	THEORETICAL [mm]	
585.67	+	1.00	= 586.67	MIN	585.00
				MAX	587.50

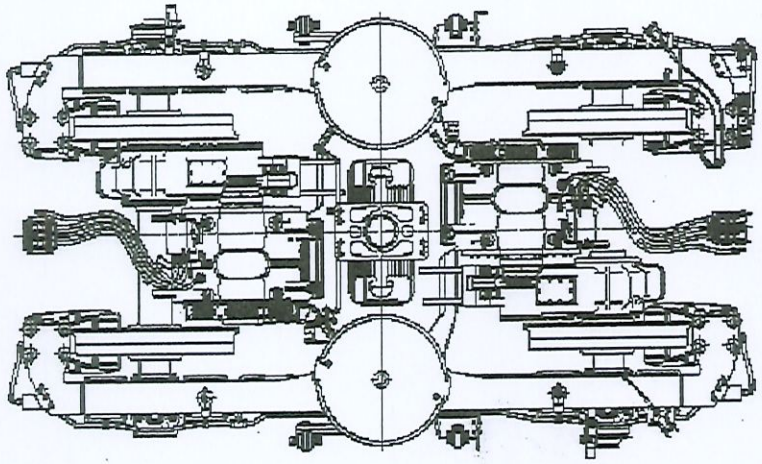
RIGHT JACK LOAD	
7374	Kg

	THEORETICAL		MEASURED	
WHEEL DIAMETER [mm]	MIN MAX			
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	37.90	✓
SHIM THICK [mm]				
WEIGHT ON WHEEL [Kg]	Q4		5527	

BOGIE SERIAL N°	MB1-1459
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22385
COMPLETE BOGIE WEIGHT [Kg]	7299

OPERATOR	DATE
BAFANA	6/10/2024

OPERATOR STAMP
DC-BFI-6



	THEORETICAL		MEASURED	
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN MAX	0.00 0.00	-0.47	✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN MAX	0.00 0.00	1.43	✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN MAX	0.00 0.00	-0.19	✓
LOAD DIFFERENCE ON RAILS [%]	MIN MAX	0.00 0.00	0.48	✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN MAX	0.00 0.00	0.95	✓

LEFT JACK LOAD	
7376	Kg

	THEORETICAL		MEASURED	
WHEEL DIAMETER [mm]	MIN MAX			
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	37.70	✓
SHIM THICK [mm]				
WEIGHT ON WHEEL [Kg]	Q1		5559	

SECONDARY SUSPENSION ✓					
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM [mm]	THEORETICAL [mm]	
587.17	+	0.00	= 587.17	MIN	585.00
				MAX	587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm] ✓	THEORETICAL [mm]	
-0.50	MIN	-1.00
	MAX	1.00

	THEORETICAL		MEASURED	
WHEEL DIAMETER [mm]	MIN MAX		-	
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	37.00	✓
SHIM THICK [mm]				
WEIGHT ON WHEEL [Kg]	Q3		5687	

21729

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: 14/05/24
Name: Godfrey

Assembly after test
Date: 01/06/24
Name: YOUANI, ZAMA, GODFREY & THOMAS

ROTOR S/N	STATOR S/N	
MCR22-11-121	GIB - 1758	

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

SKE: ~~NU 214 ECM/C4 VA3091~~

(cross out the references that have not been fitted)

N°: Romania 0097 09/23 SN440 - 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
	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°: Austria 095W

(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: 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) 6.41GΩ [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: 0,07 mm	[X] OK [ ] NOK	Device serial number AJ2P14	[ ] OK [ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2):	[ ] OK [ ] NOK	Device serial number	[ ] OK [ ] NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	[ ] OK [ ] NOK	Device serial number	[ ] OK [ ] NOK

missing speed sensor Deviation #: 7072

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)	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)	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)	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)	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	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -06- 0 1
Name : Dima
Signature :

21730

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: 14/05/24
Name: Godfrey

Assembly after test
Date: 31/08/24
Name: XOLANI, ZAMA & THOMAS

ROTOR S/N	STATOR S/N	
MCR23-11-117	GIB-1724	

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 - 0095 09/23 SN364-1369794

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

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°: AUSTRIA - 095 W

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: 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) 9.29 GΩ [X] OK [ ] NOK

OPERATOR			Quality verification
Out of round at the end of the shaft drive end, 0,05 max Value 0,01 mm	[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):	[ ] OK [ ] NOK	Device serial number	[ ] OK [ ] NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	[ ] OK [ ] NOK	Device serial number	[ ] OK [ ] NOK

Missing speed sensor Deviation #: 7072

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)	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)	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)	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)	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	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -06- 01
Name : Dima
Signature :

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21729
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	77293079	
Status:	QC PASS	
Derogations / Concession / Waiver N °:	7072	
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: 2024/06/03

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -06- 03
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

GIBELA

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors 6 ECA 3022 B
Serial Number:	N ° 21730
Client / Customer:	ALSTOM UBUNYE (PTY) LTD
Project:	PRASA
P O Number:	77333977
Status:	QC PASS
Derogations / Concession / Waiver N °:	7072
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: 2024/06/03

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -06- 03
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 MB2
	DTR0009706805
SERIAL NUMBER	MB2 616

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	10 June 2024
NAME	Kwababana Hlumisa
VISA	

ALSTOM
TRANSPORT

DELIVERY STATUS

PRASA
MB2 616

I - Deviation / Derogation

II - Bogie configuration

B Bogie index

ALSTOM UBUNYE

PRODUCTS TRACEABILITY

Products Designation	Product Reference	Serial Number	Batch or Date Manufactured	Supplier
Motor Bogie MB2	DTR0009706805	616		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1795		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03348		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3525		NGC
Wheel (Right)	AR00000174670	172	03-24	Bonatrans
Wheel (Left)	AR000000174670	146	03-24	Bonatrans
Wheelset (Rear)	AR00000178600	M03347		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K3542		NGC
Wheel (Right)	AR00000174670	149	03-24	Bonatrans
Wheel (Left)	AR00000174670	027	03-24	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2312049		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2311052		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1831	06-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	5515	06-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	5514	06-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	5516	06-24	WEBTEC
Motor (front)	AR00000168516	21734		GIBELA
Motor (Rear)	AR00000168516	21707		GIBELA

PRESSING REPORT

DATE	
6/8/2024	

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	36.81 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q2		5530

SECONDARY SUSPENSION ✓					
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM[mm]	THEORETICAL [mm]	
584.71	+	1.00	= 585.71	MIN	585.00
				MAX	587.50

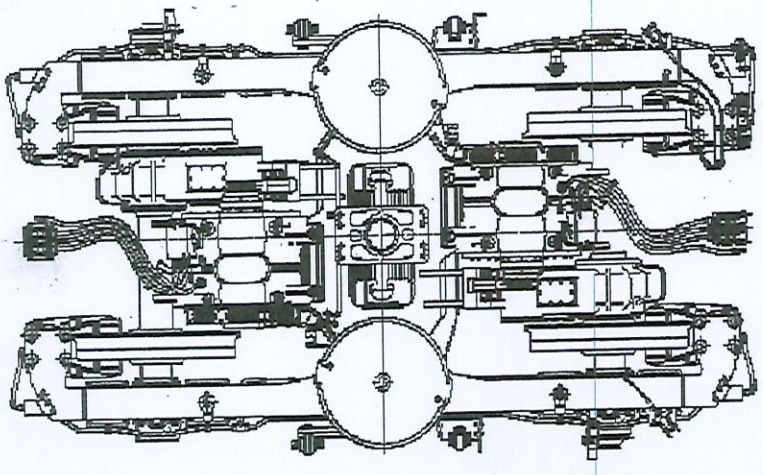
RIGHT JACK LOAD	
7376	Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	36.51 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q4		5636

BOGIE SERIAL N°	MB2-616
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22372
COMPLETE BOGIE WEIGHT [Kg]	7278

OPERATOR	DATE
BAFANA	6/8/2024

OPERATOR STAMP
DC-BFI-6



	THEORETICAL		MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN MAX	0.00 0.00	0.82 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN MAX	0.00 0.00	-0.45 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN MAX	0.00 0.00	-0.31 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN MAX	0.00 0.00	0.18 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN MAX	0.00 0.00	-0.63 ✓

LEFT JACK LOAD	
7376	Kg

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	36.30 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5621

SECONDARY SUSPENSION ✓					
MEASURED [mm]	SHIM THICK [mm]		DIM. WITH SHIM [mm]	THEORETICAL [mm]	
585.57	+	0.00	= 585.57	MIN	585.00
				MAX	587.50

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

	THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX		
GAP PRIMARY SUSPENSION [mm]	MIN MAX	33.00 39.00	36.00 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5585

CERTIFICATION OF CONFORMITY

GIBELA

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21734
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	77314181	
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 -05- 24
Name : Dimakatso
Signature :

Date: 2024/05/24

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21734

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: 14/05/2024
Name: Jacques

Assembly after test
Date: 23/05/24
Name: Rouant

ROTOR S/N	STATOR S/N	
SYMCO 872-011	GIB-1746	

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
~~PAG: 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 SN402 - 1369794

S2 Radial play after assembly (0,042 / 0,114): 0,083mm ☒ OK ☐ NOK

S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:144g - Max:149g Mesured quantity:

Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality validation 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
~~PAG: 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°: AUSTRIA - 095W

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

(référence appareil) AMYC820

S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Min:159g Max:164g Mesured quantity:

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

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

Record the value of the insulation resistance of the bearings to TROS 915.069 (> 50 kΩ) 1,88 GΩ ☒ OK ☐ NOK

OPERATOR			Quality verification
Out of round at the end of the shaft drive end, 0,05 max Value 0,01mm	☒ OK ☐ NOK	Device serial number: AMYC820	☐ OK ☐ NOK
Out of round on toothed wheel 0,1 max: 0,06mm	☒ OK ☐ NOK	Device serial number: AMYC820	☐ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,7 mm	☒ OK ☐ NOK	Device serial number: GIBFL002	☐ OK ☐ NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	☒ OK ☐ NOK	Device serial number: S2321002480	☐ 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)	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)	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)	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)	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	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -05- 2 3
Name : Dima
Signature :

GIBELA

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors 6 ECA 3022 B
Serial Number:	N ° 21707
Client / Customer:	ALSTOM UBUNYE (PTY) LTD
Project:	PRASA
P O Number:	77236525
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 -05- 24
Name : Dimakatso
Signature :

Date: 2024/05/24

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21707

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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: 30/04/24
Name: DLANI

Assembly after test
Date: 23/05/2024
Name: NOVACNT

ROTOR S/N	STATOR S/N	
SU400852-104	CIB - 1708	

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 09/23 SNY337 - 1369794

S2 Radial play after assembly (0,042 / 0,114): 0,06 mm
[X] OK [ ] NOK

S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly
Min:144g - Max:149g
Mesured quantity:
Fitter 1(Name and signature)
Fitter 2(Name and signature)
Quality validation
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 X116 - 0813 04/23 SNY0160

S1 Radial play after assembly (0,021 / 0,067): 0,04 mm
[X] OK [ ] NOK

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

Référence appareil: AMXG20

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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) 3,16 GΩ [X] OK [ ] NOK

OPERATOR			Quality verification
Out of round at the end of the shaft drive end, 0,05 max Value 0,01 mm	[X] OK [ ] NOK	Device serial number: AMXG20	[ ] OK [ ] NOK
Out of round on toothed wheel 0,1 max: 0,03 mm	[X] OK [ ] NOK	Device serial number: AMXG20	[ ] OK [ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,75 mm	[X] OK [ ] NOK	Device serial number: CIBFL002	[ ] OK [ ] NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	[X] OK [ ] NOK	Device serial number: SQ32100341O	[ ] 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) NCC1587	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) NCC1587	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) N0050-81	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) N005968	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) N005906	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) N005277	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 TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -05- 2 3
Name : Dima
Signature : [signature]