



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 - 1504**

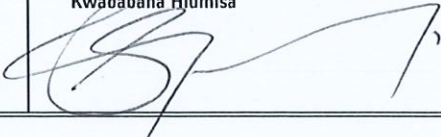
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COMPLIANCE CERTIFICATE

We hereby declare, barring exceptions, reservations, or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completions of testing and verification, they completely satisfy all specified requirements and applicable standards and regulations.

CONSTRUCTOR APPROVAL

DATE	18 July 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 1504		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M 1836		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M 3467		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3186		NGC
Wheel (Right)	AR00000174670	118	04.24	Bonatrans
Wheel (Left)	AR000000174670	119	04.24	Bonatrans
Wheelset (Rear)	AR00000178600	M 3468		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3440		NGC
Wheel (Right)	AR00000174670	089	04.24	Bonatrans
Wheel (Left)	AR00000174670	023	04.24	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2311041		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310163		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	998	06.24	Wabtec
Brake unit without PB (Right front)	AR00000175185	2985	06.24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	2986	06.24	Wabtec
Brake unit without PB (left rear)	AR00000175185	2987	06.24	Wabtec
Motor (front)	AR00000168516	21773		Alstom Ornans
Motor (Rear)	AR00000168516	21673		Alstom Ornans

DATE
7/15/2024

PRESSING REPORT

DATE 7/15/2024	RESPONSABLE VALIDATION	PRASA	LOAD TEST : MOTOR BOGIE
DATE VALIDATION		INSTRUCTION SHEET:	PROJECT:
		FAMILY:	

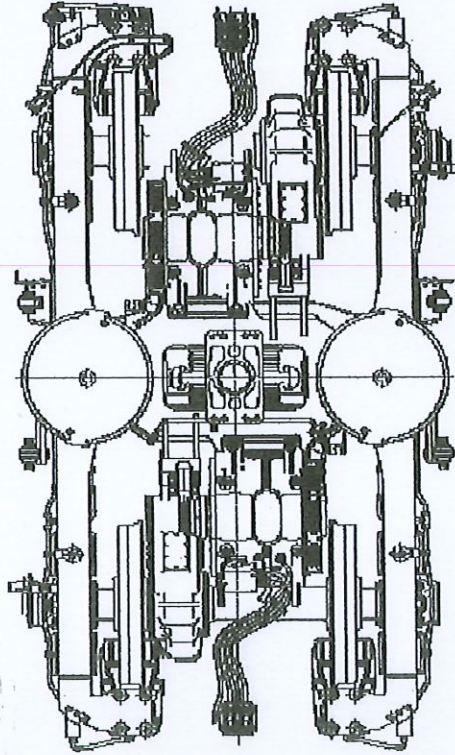
WHEEL DIAMETER [mm]	THEORETICAL		MEASURED
	MIN	MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00		34.80 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q2		5609

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
584.69	+	1.00	585.69
			MIN 585.00 MAX 587.50

RIGHT JACK LOAD	
7376	Kg

BOGIE SERIAL N°	MB1-1504
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22400
COMPLETE BOGIE WEIGHT [Kg]	7293
OPERATOR	DATE
BAFANA	7/15/2024

OPERATOR STAMP
DC-BFI-6



	THEORETICAL		MEASURED
	MIN	MAX	
LOAD DIFFERENCE ON FRONT AXLE [%]	0.00	0.00	-0.42 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	0.00	0.00	1.29 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	0.00	0.00	-0.26 ✓
LOAD DIFFERENCE ON RAILS [%]	0.00	0.00	0.44 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	0.00	0.00	0.86 ✓

LEFT JACK LOAD	
7376	Kg

WHEEL DIAMETER [mm]	THEORETICAL		MEASURED
	MIN	MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00		35.10 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q1		5562

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
585.30	+	0.00	585.30
			MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]		
0.39		
	THEORETICAL [mm]	
	MIN -1.00 MAX 1.00	

WHEEL DIAMETER [mm]	THEORETICAL		MEASURED
	MIN	MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00		34.40 ✓
SHIM THICK [mm]			
WEIGHT ON WHEEL [Kg]	Q3		5687

MOT 01773

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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: 25/05/24

Name: Goodfrey

Assembly after test

Date: 22/06/24

Name: BLANT, THOMAS & TRIC

ROTOR S/N SU900282-052		STATOR S/N GIB-1802	
Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289			
INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965.289 FAG: NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU 214-E-M1-P6-F1-H257A-J20AA-C4 SKF: NU 214 ECM/C4-VA3091 (cross out the references that have not been fitted)			
N°: ROMANIA 0097 10/23 84 247 - 1988033			
S2 Radial play after assembly (0,042 / 0,114): 0,06mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 140g - Max: 149g Measured quantity: 164g Filter 1 (Name and signature) \$ Filter 2 (Name and signature) S. J. J.	
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°: AUSTRIA 094 W			
S1 Radial play after assembly (0,021 / 0,067): 0,04mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g Max: 164g Measured quantity: 164g Filter 1 (Name and signature) \$ Filter 2 (Name and signature) S. J. J.	
Référence appareil: A5ZP14			
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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)

10.6 G Ω



OK



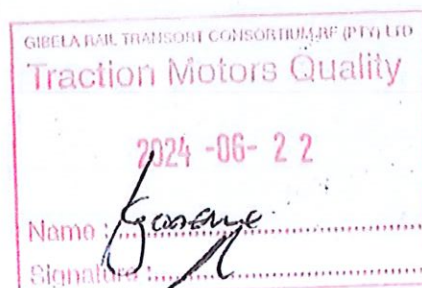
NOK

OPERATOR

Quality verification

Out of round at the end of the shaft drive end, 0,05 max Value <u>0,01mm</u>	☒ OK ☐ NOK	Device serial number <u>AJ2P14</u>	☐ OK ☐ NOK
Out of round on toothed wheel 0,1 max: <u>0,01mm</u>	☒ OK ☐ NOK	Device serial number <u>AJ2P14</u>	☐ 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
<u>Missing speed sensor Deviation # : 7072</u>			
Prep. & Final Assembly			
OPERATOR		Quality verification	
☒ F1 Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 61 Nm ☐ OK ☐ NOK
☒ F2 Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 61 Nm ☐ OK ☐ NOK
☒ F3 Torque tightening to 4 x 44 Nm: Fold locking plate	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 37 Nm ☐ OK ☐ NOK
☒ F4 Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 18 Nm ☐ OK ☐ NOK
☒ F5 Torque tightening to 6 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 18 Nm ☐ OK ☐ NOK
Finishing			
☒ F1 Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	wrench reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 22 Nm ☐ OK ☐ NOK
Grease protection transport			
☒ S3 18g (0/+4.5) CC Measured quantity: <u>18g</u>			☒ OK ☐ NOK
☒ S4 18g (0/+4.5) CC Measured quantity: <u>18g</u>			☒ 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: <u>Gosame</u>		<u>Speed sensor to be fitted as MOD</u>	
OBSERVATIONS			

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21673

ALSTOM

GIBELQ

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

Référence: TROS 916.216

Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test

Date: 23/04/24

Name: Godfrey

Assembly after test

Date: 23/06/24

Name: Xolani, Tholus, Zama Beterc

ROTOR S/N		STATOR S/N	
S4900282-119		GIB - 1672	
Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289			
INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965.289 FAG: NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU 214-E-M1-P6-F1-H257A-J20AA-C4 SKF: NU 214*ECM/C4-VA3091 (cross out the references that have not been fitted)			
N°: ROMANIA: 0097 09/23 81222-1369794			
Radial play after assembly (0,042 / 0,114): 0,05mm ☒ OK ☐ NOK		LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Measured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature) ☒ Filter 2 (Name and signature) ☒ Quality validation: Ding	
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-VC 0241 (cross out the references that have not been fitted)			
Serial N°: GERMAN: 0200 X 020 - 0616 01/23 810376			
Radial play after assembly (0,021 / 0,067): 0,05mm ☒ OK ☐ NOK		LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Measured quantity: ☐ OK ☐ NOK Filter 1 (Name and signature) ☒ Filter 2 (Name and signature) ☒ Quality validation: Ding	
Référence appareil: A52P14			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 2 Page 1	

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GIBELQ

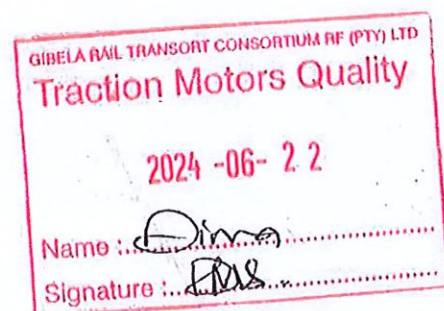
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)		10.9652 ☒ OK ☐ NOK	
OPERATOR		Quality verification	
Out of round at the end of the shaft drive end, 0,05 max	☒ OK ☐ NOK	Device serial number	☐ OK ☐ NOK
Value: 0,02mm		A52P14	
Out of round on toothed wheel 0,1 max:	☒ OK ☐ NOK	Device serial number	☐ OK ☐ NOK
0,06mm		A52P14	
sensor / toothed wheel play 0,7 (+/- 0,2):	☐ OK ☐ NOK	Device serial number	☐ OK ☐ NOK
Sensor reference: DTR0000512252/DS01830.19Q14HW	☐ OK ☐ NOK	Device serial number	☐ OK ☐ NOK

Missing speed sensor Deviation #: 1075

Prep. & Final Assembly											
OPERATOR				Quality verification							
F1	Torque tightening to 8 x 76 Nm:	☒	OK	☐	NOK	wrench reference (in the event of false absence of the motorised size indicator)	QC 1 X 61 Nm	☐	OK	☐	NOK
F2	Torque tightening to 8 x 76 Nm:	☒	OK	☐	NOK	wrench reference (in the event of false absence of the motorised size indicator)	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 false absence of the motorised size indicator)	QC 1 X 37 Nm	☐	OK	☐	NOK
F4	Torque tightening to 4 x 22 Nm:	☒	OK	☐	NOK	wrench reference (in the event of false absence of the motorised size indicator)	QC 1 X 18 Nm	☐	OK	☐	NOK
F5	Torque tightening to 6 x 22 Nm:	☒	OK	☐	NOK	wrench reference (in the event of false absence of the motorised size indicator)	QC 1 X 18 Nm	☐	OK	☐	NOK
Finishing											
F1	Torque tightening to 4 x 22 Nm:	☒	OK	☐	NOK	wrench reference (in the event of false absence of the motorised size indicator)	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											

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





CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N ° 21673

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 77174093

Status: QC PASS

Derogations / Concession / Waiver N °: 7072

Customer modification: N/A

Missing parts: N/A

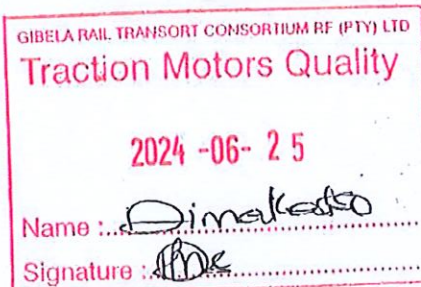
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Date: 2024/06/25

Function: Final Inspection

Performed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____



Gibela Rail
02 Shosholozu Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

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



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N° 21773

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 77402558

Status: QC PASS

Derogations / Concession / Waiver N°: 7072

Customer modification: N/A

Missing parts: N/A

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Date: 2024/06/25

Function: Final Inspection

Performed and signed off by: Name_____ Dimakatso Mohoalali

Signature _____



Gibela Rail
02 Shosholozu Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

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MANUFACTURER **ALSTOM Ubunye**
 Marievale Road, Vosterkroon, Nigel, 1490

CUSTOMER **Gibela**

CONTRACT

PROJECT **PRASA**

MANUFACTURER'S DELIVERY DOCUMENT

PRODUCT TYPE **MOTOR BOGIE type MB2**

DTR0009706805

SERIAL NUMBER **MB2 - 630**

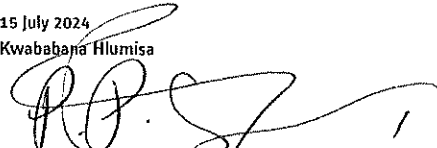
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- Compliance certificate.....	Page 1/2	☒
- List of deviations and missing parts.....	Page 2/2	☒
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- Load test report.....	1 page	☒
- Motor certificate.....	8 pages	☒

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CONSTRUCTOR APPROVAL

DATE	15 July 2024
NAME	Kwababana Hlumisa
VISA	

I - Deviation / Derogation

II - Bogie configuration

B Bogie index



ALSTOM UBUNYE

PRODUCTS TRACEABILITY

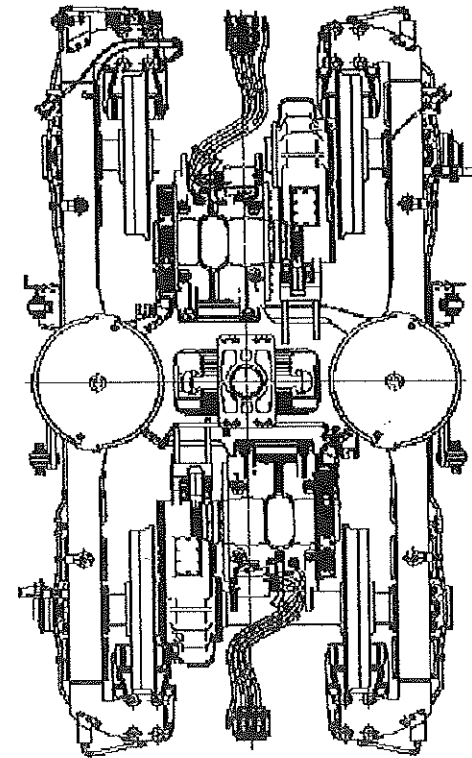
Products Designation	Product Reference	Serial Number	Batch or Date Manufactured	Supplier
Motor Bogie MB2	DTR0009706805	M 630		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M 1865		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M 3465		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3133		NGC
Wheel (Right)	AR00000174670	012	03.24	Bonatrans
Wheel (Left)	AR000000174670	099	04.24	Bonatrans
Wheelset (Rear)	AR00000178600	M 3466		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K 3088		NGC
Wheel (Right)	AR00000174670	019	04.24	Bonatrans
Wheel (Left)	AR00000174670	024	04.24	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2310138		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310135		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	977	03.24	Wabtec
Brake unit without PB (Right front)	AR00000175185	2897	03.24	Wabtec
Brake unit without PB (Left Front)	AR00000175185	2895	03.24	Wabtec
Brake unit without PB (left rear)	AR00000175185	2896	03.24	Wabtec
Motor (front)	AR00000168516	21827		Alstom Ornans
Motor (Rear)	AR00000168516	21813		Alstom Ornans

PRESSING REPORT

DATE 7/12/2024	RESPONSABLE VALIDATION	PRASA	LOAD TEST : MOTOR BOGIE
DATE VALIDATION		INSTRUCTION SHEET:	
		PROJECT:	

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
585.35	+	2.00	587.35
			MIN 585.00
			MAX 587.50

RIGHT JACK LOAD	
7376	Kg



BOGIE SERIAL N°	M82-630
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22392
COMPLETE BOGIE WEIGHT [Kg]	7302
OPERATOR	BAFANA
DATE	7/12/2024

OPERATOR STAMP
DC-37146

THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.60
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q2	5599

THEORETICAL		MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	-0.28
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	1.18
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.26
LOAD DIFFERENCE ON RAILS [%]	MIN 0.00 MAX 0.00	0.46
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	0.73

LEFT JACK LOAD	
7376	Kg

SECONDARY SUSPENSION			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.09	+	0.00	587.09
			MIN 585.00
			MAX 587.50
DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm]			
0.26			MIN -1.00 MAX 1.00

THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.40
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q1	5568

THEORETICAL		MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.90
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q3	5679

21827

ALSTOM

GIBEL

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

Référence: TROS 916.216

Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test

Date:

Name:

13/06/24
XOLANT

Assembly after test

Date:

Name:

06/06/24
XOLANT & SURPRISE

ROTOR S/N 6069683-010		STATOR S/N GIEB-1838	
Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289			
INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965.289 FAG: NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU 214-E-M1-P6-F1-H257A-J20AA-C4 SKF: NU 214 ECM/C4 VA3091 (cross out the references that have not been fitted)			
N°: AUSTRIA 349 W			
S2 Radial play after assembly (0,042 / 0,114): 0,08mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 149g Measured quantity: Filter 1 (Name and signature): <i>[Signature]</i> Filter 2 (Name and signature): <i>[Signature]</i> Quality validation: <i>[Signature]</i>	
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°: AUSTRIA 094 W			
S1 Radial play after assembly (0,021 / 0,067): 0,04mm ☒ OK ☐ NOK		S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 164g Measured quantity: Filter 1 (Name and signature): <i>[Signature]</i> Filter 2 (Name and signature): <i>[Signature]</i> Quality validation: <i>[Signature]</i>	
Reference approval: AMX CISO			
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 2 Page 1	

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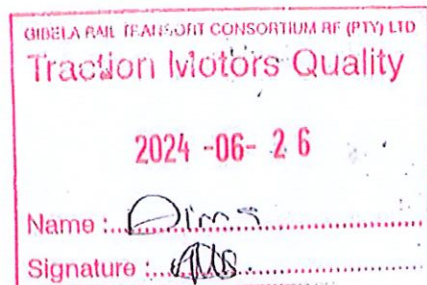
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the Insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)		115 MΩ		☒ 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 AMX C100	☐ OK ☐ NOK	
Out of round on toothed wheel 0,1 max: 0,04mm	☒ OK ☐ NOK	Device serial number AMX S20	☐ 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 #1: 70%

Prep. & Final Assembly											
OPERATOR				Quality verification							
F1	Torque tightening to 8 x 76 Nm:	☒	OK	☐	NOK	interch reference for the event of failure absence of the motorised screwdriver	QC 1 X 61 Nm	☐	OK	☐	NOK
F2	Torque tightening to 8 x 76 Nm:	☒	OK	☐	NOK	interch reference for the event of failure absence of the motorised screwdriver	QC 1 X 61 Nm	☐	OK	☐	NOK
F3	Torque tightening to 4 x 44 Nm: Fold locking plate	☒	OK	☐	NOK	interch reference for the event of failure absence of the motorised screwdriver	QC 1 X 37 Nm	☐	OK	☐	NOK
F4	Torque tightening to 4 x 22 Nm:	☒	OK	☐	NOK	interch reference for the event of failure absence of the motorised screwdriver	QC 1 X 18 Nm	☐	OK	☐	NOK
F5	Torque tightening to 6 x 22 Nm:	☒	OK	☐	NOK	interch reference for the event of failure absence of the motorised screwdriver	QC 1 X 18 Nm	☐	OK	☐	NOK
Finishing											
F1	Torque tightening to 4 x 22 Nm:	☒	OK	☐	NOK	interch reference for the event of failure absence of the motorised screwdriver	QC 1 X 22 Nm	☐	OK	☐	NOK
Grease protection transport											
S3	18g (0/+4.5) CC	Mesured quantity:	18g				☒	OK	☐	NOK	
S4	18g (0/+4.5) CC	Mesured quantity:	18g				☒	OK	☐	NOK	
Final inspection following the check-list DTR0000452909 and DTR0000452910 (in the case of 100% inspection of the production)								☒	OK	☐	NOK
Final Inspection							Comments				
Quality Insp Name and Signature:											
Dima											
OBSERVATIONS											

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			2



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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: 11/06/2024
Name: Sugnes

Assembly after test
Date: 07/06/2024
Name: YOLANE, BEIT SHEPHERD

ROTOR S/N S4900282-027		STATOR S/N CEB-1825	
Bearing lubrication - Security operation Incorrect lubrication can lead to engine failure with a safety risk in service SRIL TROS 965.289			
INSULATED CERAMIC BEARING DRIVE END - Security operation Incorrect assembly can lead to engine failure with a safety risk in service SRIL TROS 965.289 FAG: NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU 214-E-M1-P6-F1-H257A-J20AA-C4 SKF: NU 214 ECM/C4 VA3091 (cross out the references that have not been fitted)			
N°: AUSTRIA 094 W			
S2 Radial play after assembly (0,042 / 0,114): 0,08 mm ☒ OK ☐ NOK		S3 LUBRICATION WITH MOBILITH SHC 100 before cover assembly Min: 144g - Max: 49g Filter 1 (Name and signature): Filter 2 (Name and signature): Measured quantity: Quality validation: Dima (110)	
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 349 W			
S1 Radial play after assembly (0,021 / 0,067): 0,06 mm ☒ OK ☐ NOK Reference: AMK 920		S3 LUBRICATION WITH MOBILITH SHC 100 before cover assembly Min: 159g - Max: 166g Filter 1 (Name and signature): Filter 2 (Name and signature): Measured quantity: Quality validation: Dima (110)	
FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA		TROS 916.216 2 Page 1	

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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)				1,949/2 ☒ OK ☐ NOK	
OPERATION				Quality verification	
Out of round at the end of the shaft drive end, 0,05 max Value: 0,01 mm		☒ OK ☐ NOK	AMK 920		☐ OK ☐ NOK
Out of round on toothed wheel 0,1 max: 0,05 mm		☒ OK ☐ NOK	AMK 920		☐ OK ☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2):		☐ OK ☐ NOK	Device serial number		☐ OK ☐ NOK
Sensor reference: DTR0000512252/DS01830.19Q14HW		☐ 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:	☒ OK ☐ NOK	stretch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 61 Nm	☐ OK ☐ NOK		
☒ F2	Torque tightening to 8 x 76 Nm:	☒ OK ☐ NOK	stretch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 61 Nm	☐ OK ☐ NOK		
☒ F3	Torque tightening to 4 x 44 Nm: Fold locking plate	☒ OK ☐ NOK	stretch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 37 Nm	☐ OK ☐ NOK		
☒ F4	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	stretch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 18 Nm	☐ OK ☐ NOK		
☒ F5	Torque tightening to 6 x 22 Nm:	☒ OK ☐ NOK	stretch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 18 Nm	☐ OK ☐ NOK		
Finishing							
☒ F1	Torque tightening to 4 x 22 Nm:	☒ OK ☐ NOK	stretch reference (in the event of failure / absence of the motorised screwdriver)	QC 1 X 22 Nm	☐ OK ☐ NOK		
Grease protection transport							
☒ S3	18g (0/+4,5) CC	Mesured quantity: 18g		☒ OK ☐ NOK			
☒ S4	18g (0/+4,5) CC	Mesured quantity: 18g		☒ OK ☐ NOK			
Final inspection following the check-list DTR0000452909 and DTR0000452910 (In the case of 100% inspection of the production)					☒ OK ☐ NOK		
				Final Inspection Quality Insp Name and Signature: <i>Dina MS</i>	Comments		
OBSERVATIONS							

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA	TROS 916.216	2	Page 2
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LA DAIL TRANSPORT CONSORTIUM RF (PTY) LTD

Fract. in Motors Quality

2024 -06- 2 8

name : *Dina*

signature : *MS*



CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N * 21827

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 77531218

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: 2024/06/27

Function: Final Inspection

Perfomed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____ *AMS*



Gibela Rail
02 Shosholozu Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

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CERTIFICATION OF CONFORMITY

Inspection certificate according EN 10204-3.1

Product: Traction Motors 6 ECA 3022 B

Serial Number: N * 21813

Client / Customer: ALSTOM UBUNYE (PTY) LTD

Project: PRASA

P O Number: 77457387

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: 2024/07/01

Function: Final Inspection

Perfomed and signed off by: Name _____ Dimakatso Mohoalali

Signature _____



Gibela Rail
02 Shosholozu Avenue
M07 Traction Motor
1590

GIBELA RAIL

Compiled by M Kola

Date: 22/2/2022

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