

X'TRAPOLIS MEGA

SUMMARY REPORT

Photo-not-contractual

CONFIDENTIAL INFORMATION

This document and its contents is the exclusive property of ALSTOM Transport SA or Affiliates.
The reproduction, distribution and utilization of this document as well as the communication of its contents to others without express written authorisation is prohibited. Offenders will be held liable for the payment of damages.
All right reserved in the event of the grant of a patent, utility model or design.

RELEASED

X'TRAPOLIS MEGA

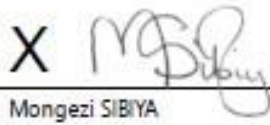
Application: **PRASA**

Technical Modifications		Geometric tolerances		A4		N	
A0	Creation						
Index	Revision Notification no.						
Prepared		14/08/2024	K. NKOANA	Summary Report of open items from TS239 Routine and Acceptance Testing			
Checked		14/08/2024	S. LUKHELE				
Approved		14/08/2024	M. SIBIYA				
		Date	Name				
		en					
				GIB0000007030			
				Rev.: A0		1/10	

Table of Modifications

Rev	Date	Modifications Content	Writer
A0	14/08/2024	Creation	Kgomotso NKOANA

Internal Validation

	Name	Function	Date	Signature
Writer	Kgomotso NKOANA	Test Expert	14/08/2024	 Kgomotso NKOANA Test Expert
Checker	Sifiso LUKHELE	Serial Test Manager	14/08/2024	 Sifiso LUKHELE Serial Test Manager
Approver	Mongezi SIBIYA	T&C HoD	14/08/2024	 Mongezi SIBIYA T&C HoD

	Reference:	Rev.:	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
	GIB0000007030	A0		3/11

TABLE OF CONTENTS

1	INTRODUCTION	5
2	SCOPE	5
3	TEST CONDITIONS	5
	VEHICLES TESTED	5
	TEST SCHEDULE	5
	GENERAL TEST CONDITIONS	5
	STATIC AND DYNAMIC TEST LOCATION	6
	TEST PARTICIPANTS	7
	ROUTINE TEST PERIOD	7
	ACCEPTANCE TEST PERIOD	8
4	TEST RESULTS.....	9
	VEHICLE PRE-TESTING	9
	VEHICLE FUNCTIONAL TESTING	9
	TRAIN FUNCTIONAL STATIC TESTING	10
	TRAIN FUNCTIONAL DYNAMIC TESTING.....	10
	ACCEPTANCE TEST ON CUSTOMER TRACK	10
5	CONCLUSION AND RECOMMENDATION	11

	Reference: GIB0000007030	Rev.: A0	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
				4/11

1 INTRODUCTION

For the PRASA project Gibela has implemented an exhaustive test program to perform the static routine testing at vehicle and train level including the dynamic routine test schedules. After the handover of each car from production to testing, the train is progressively coupled to formulate a six-car trainset. In parallel to the coupling activities Vehicle Functional Stating Testing is performed individually on the six cars. Static testing is continued to Train Functional Level.

After the static tests have been performed, the Dynamic Test is done on a 1.2 km test track in the Dunnottar Dynamic Test Track to verify all the safety functions of the train up to 60 km/h. The train is then transported to Wolmerton Depot for the final high speed acceptance test and handover to the customer.

2 SCOPE

The purpose of this document is to summarize the test results of the different test schedules.

The complete test report for each test schedule including all the test steps with respect to the pass/fail criteria will be submitted.

3 TEST CONDITIONS

Vehicles Tested

TS239 is composed of vehicles:

- TC1# 01 20 239 1
- M4 # 01 20 239 2
- M1 # 01 20 239 3
- M2 # 01 20 239 4
- M3 # 01 20 239 5
- TC2 # 01 20 239 6

Test Schedule

The tests were performed following the Routine Test Schedules

- | | |
|---|----------------------|
| ➤ Vehicle Pre- Testing TC1 (VPT) | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing TC2 (VPT) | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing M1 (VPT) | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing M2 (VPT) | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing M3 (VPT) | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing M4 (VPT) | GIB0000001465 rev D2 |
| ➤ Vehicle Functional Testing TC1 (VFT) | GIB0000001462 rev D2 |
| ➤ Vehicle Functional Testing TC2 (VFT) | GIB0000001463 rev D1 |
| ➤ Vehicle Functional Testing M1 (VFT) | GIB0000001464 rev D2 |
| ➤ Vehicle Functional Testing M2 (VFT) | GIB0000001465 rev D2 |
| ➤ Vehicle Functional Testing M3 (VFT) | GIB0000001466 rev D1 |
| ➤ Vehicle Functional Testing M4 (VFT) | GIB0000001467 rev D1 |
| ➤ Train Functional Routine Static Testing (TFS) | GIB0000001241 rev D0 |
| ➤ Train Functional Dynamic Testing (TFD) | GIB0000001029 rev D2 |
| ➤ Acceptance Test on Customer Track (ACT) | GIB0000000293 rev D3 |

	Reference:	Rev.:	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
	GIB0000007030	A0		5/11

General test conditions

No specific ambient conditions were mandatory during testing.

Static and Dynamic Test location

The tests were conducted at the Gibela Dunnottar factory in South Africa

	Reference:	Rev.:	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
	GIB0000007030	A0		6/11

Test participants

Last Name	First Name	Company	Occupation
MABUNDA	Neliswa	Gibela	EPU Manager
LUKHELE	Sifiso	Gibela	Serial Test Manager
NKOANA	Kgomotso	Gibela	Test Expert
NGUBANE	Lindani	Gibela	EPU Manager
MOCWAGOLE	Kealeboga	Gibela	EPU Manager
MERAPE	Mavis	Gibela	EPU Manager
ZULU	Vusumuzi	Gibela	EPU Manager
MAKOLA	Hilda	Gibela	Test Technician
ZULU	Nokukhanya	Gibela	Test Technician
XULU	Sithembile	Gibela	Test Technician
MATSHAVA	Junior	Gibela	Test Technician
SHINGA	Sthabile	Gibela	Test Technician
MABUNDZANE	Nick	Gibela	Test Technician
GUMEDE	Carol	Gibela	Test Technician
MTHEMBU	Mvelo	Gibela	Test Technician
MILANI	Philemon	Gibela	Test Technician
KHOSA	Tshembhani	Gibela	Test Technician
TSELA	Impi	Gibela	Test Technician
MAKAYA	Linda	Gibela	Test Technician
FUNYUFUNYU	Mbavhalelo	Gibela	Test Technician
CHIRWA	NQOBILE	Gibela	Test Technician
SIBANYONI	Sizwe	Gibela	Test Technician
MAKHANYA	Thandanani	Gibela	Test Technician
SEKGOLOLO	Alleta	Gibela	Test Technician
MKHONTO	Simphiwe	Gibela	Test Technician
MASONDO	Nhlakanipho	Gibela	Test Technician
MLABA	Vuma	Gibela	Test Technician
SIGUDLA	Walter	Gibela	Test Technician

Routine test Period

The routine test was performed from the 1st of August 2024 until the 14th of August 2024 in Dunnottar.

	Reference:	Rev.:	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
	GIB0000007030	A0		7/11

Acceptance Test location

High-Speed Acceptance Test on the Customer Main Line (De-Wildt), The dynamic performance to be validated to a maximum speed of 60km/h inclusive, ensuring compliance to service, emergency and degraded mode braking performance.

Acceptance Test participants

Last Name	First Name	Company	Position
TBA			

Acceptance Test period

The High speed Acceptance test to be performed in Wolmerton, Customer Main Line (De-Wildt).

	Reference:	Rev.:	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
	GIB0000007030	A0		8/11

4 TEST RESULTS

Vehicle Pre-Testing

RTR Vehicle Pre-Testing TS239 TC1 Report	GIB0000007025 rev A0
RTR Vehicle Pre-Testing TS239 TC2 Report	GIB0000007026 rev A0
RTR Vehicle Pre-Testing TS239 M1 Report	GIB0000007021 rev A0
RTR Vehicle Pre-Testing TS239 M2 Report	GIB0000007022 rev A0
RTR Vehicle Pre-Testing TS239 M3 Report	GIB0000007023 rev A0
RTR Vehicle Pre-Testing TS239 M4 Report	GIB0000007024 rev A0
All test steps were performed and passed successfully	

Vehicle Functional Testing

RTR Vehicle Functional Static Testing TS239 TC1 Report	GIB0000007019 rev A0
RTR Vehicle Functional Static Testing TS239 TC2 Report	GIB0000007020 rev A0
RTR Vehicle Functional Static Testing TS239 M1 Report	GIB0000007015 rev A0
RTR Vehicle Functional Static Testing TS239 M2 Report	GIB0000007016 rev A0
RTR Vehicle Functional Static Testing TS239 M3 Report	GIB0000007017 rev A0
RTR Vehicle Functional Static Testing TS239 M4 Report	GIB0000007018 rev A0
All test steps were performed and passed successfully	

	Reference:	Rev.:	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
	GIB0000007030	A0		9/11

Train Functional Static Testing

RTR Train Functional Static Testing TS239 Report GIB0000007027 rev A0

All test steps were performed and passed successfully with an exception of Train ground communication, the confirmation of train connectivity to Train tracer CFM. The Netbox sim card is not issued.

Train Functional Dynamic Testing

RTR Train Functional Dynamic Testing TS239 Report GIB0000007028 rev A0

All test steps were performed and passed successfully

Acceptance Test on Customer Track

RTR TS239 Acceptance Test on Customer Track test report GIB0000007029 rev A0

All routine (works) tests have been performed and completed successfully. The Acceptance Test on customer track that covers the high speed 120km/h and UHF radio functional tests will be performed in Wolmerton.

	Reference:	Rev.:	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
	GIB0000007030	A0		10/11

5 CONCLUSION AND RECOMMENDATION

All routine (works) tests have been performed and completed successfully with an exception of

1. Train ground communication, a test that covers the confirmation of train connectivity to Train tracer CFM. The Netbox sim card is not issued.
2. EVC Communication error – the issue has resurfaced, escalated to engineering for further investigation. Current containment is to reset ERMTS on DDU and the fault clears

The Acceptance Test on customer track that covers the high speed 120km/h and UHF radio functional tests will be performed in Wolmerton.

	Reference: GIB0000007030	Rev.: A0	Summary Report of open items from TS239 Routine and Acceptance Testing	Date:14/08/2024
				11/11