

NAMS 20090: 2023

First Edition

SANS 20090: 2010

Edition 4

NAMIBIAN STANDARD

Replacement brake lining assemblies and drum-brake linings for power-driven vehicles and their trailers

This Namibian standard is the identical adoption of SANS 20090:2010 and is adopted with the permission of the South African Bureau of Standards (SABS)

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National foreword

This Namibian Standard (NAMS) is identical to South African National Standards SANS 20090 Replacement brake lining assemblies and drum-brake linings for power-driven vehicles and their trailers, and was approved for adoptions by the Namibian Standards Institution's CEO.

Namibian standards are developed based on NSI Standards development procedures in accordance with the rules given in the International Organisation for Standardisation/ International Electrotechnical Commission (ISO/IEC) Directives 1, ISO/IEC Guide 21-1 Adoption of international standards as regional or national standards and WTO – TBT World Trade Organisation Code of Good Practice (which is published as Annex 3 in the TBT Agreement)

The NSI Technical Committee responsible for this standard is NSI TC 10, Vehicle and Road Safety.

This NAMS 20090: 2023 SANS 20090: 2010 was published on 01 September 2023.

SOUTH AFRICAN NATIONAL STANDARD

Replacement brake lining assemblies and drum-brake linings for power-driven vehicles and their trailers

This national standard is the modified adoption of ECE R90:2009 and ECE amendment 1, and is adopted from the United Nations Economic Commission for Europe.



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SANS 20090:2010

Edition 4 and ECE amdt 1 and nat. amdt 1

Table of changes

Change No.	Date	Scope
ECE amdt 1	2010	Amended to change the scope, to add a new definition for a parking brake lining assembly and to renumber the remaining definitions, to change a requirement in the clause on specifications and tests, and conformity of production, and to add a new annex on technical prescriptions for replacement brake lining assemblies intended for the use in separate parking brake systems being independent of the vehicle service brake system.
Nat. amdt 1	2011	Amended to change certain modifications in the national foreword.

National foreword

This South African standard was prepared by National Committee SABS/TC 022/SC 01, *Construction of motor vehicles – Braking*, in accordance with procedures of the South African Bureau of Standards, in compliance with annex 3 of the WTO/TBT agreement.

This SANS document was published in February 2011.

This SANS document supersedes SANS 20090:2010 (edition 4).

This document is referenced in the National Regulator for Compulsory Specifications Act, 2008 (Act No. 5 of 2008).

This SANS document is the modified adoption of ECE R90:2009 with modifications necessitated by South African conditions. For this reason, the requirements in 5.1.1 of this SANS document are deemed to have been met if the requirements of SANS 1207 or SANS 20013 to the level of ECE R13.08 are complied with.

Also, the requirements in 5.2.1 of this SANS document are deemed to have been met if, either

a) when tested in accordance with SANS 601,

- 1) the mean fully developed decelerations recorded with the replacement brake lining assembly, between the pressures required to achieve mean fully developed decelerations of 2 m/s² and 6 m/s² on the reference plot determined in 5.3.3(b) of SANS 601:2011, lie within the limits determined in 5.3.3(c) of SANS 601:2011,
- 2) the average mean fully developed deceleration recorded at the higher speeds of the speed sensitivity test lies within 15% of that recorded for the lowest speed, and
- 3) the hot performance after the type 1 test is not less than 3,5 m/s², or

b) the requirements of 2.2 in annex 3 of this SANS document and the requirements for hot performance as required in (a)(3) above are complied with. **Nat. amdt 1**

The requirements for shear strength and compressibility in 5.3.2.1 and 5.3.2.2 of this SANS document are deemed to have been met when tested in accordance with SANS 957 and SANS 6312, respectively.

Compliance with this document cannot confer immunity from legal obligations.

**Reaffirmed and reprinted in October 2020.
This document will be reviewed every five years
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19 February 2010

AGREEMENT

**CONCERNING THE ADOPTION OF UNIFORM TECHNICAL PRESCRIPTIONS
FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN BE FITTED
AND/OR BE USED ON WHEELED VEHICLES AND THE CONDITIONS FOR
RECIPROCAL RECOGNITION OF APPROVALS GRANTED ON THE BASIS OF
THESE PRESCRIPTIONS */**

(Revision 2, including the amendments which entered into force on 16 October 1995)

Addendum 89: Regulation No. 90

Revision 2 - Amendment 1

Supplement 11 to the 01 series of amendments - Date of entry into force: 24 October 2009

**UNIFORM PROVISIONS CONCERNING THE APPROVAL OF REPLACEMENT
BRAKE LINING ASSEMBLIES AND DRUM-BRAKE LININGS FOR POWER-DRIVEN
VEHICLES AND THEIR TRAILERS**



UNITED NATIONS

*/

Former title of the Agreement:

Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

GE.10-

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E/ECE/324
E/ECE/TRANS/505 } Rev.1/Add.89/Rev.2/Amend.1
Regulation No. 90
page 2

Insert a new paragraph 1.1.3., to read:

"1.1.3. The replacement brake lining assemblies used for separate parking brake systems being independent of the vehicle service brake system will be subject only to the technical prescriptions defined in Annex 8 of this Regulation."

Insert a new paragraph 2.12., to read:

"2.12. "Parking brake lining assembly" means a pad assembly or shoe assembly belonging to a parking brake system separate and independent from the service brake system."

Paragraph 2.12. (former), renumber as paragraph 2.13.

Paragraph 5.3.1.2., amend to read (adding a sentence at the end):

"5.3.1.2. Replacement brake linings
.... at 200 °C for shoe assemblies. This requirement does not apply to parking brake lining assemblies."

Paragraph 8.4.1., amend to read (adding a sentence at the end):

"8.4.1. ensure that for each
.... quality assurance procedure. For parking brake lining assemblies only the shear strength described in paragraph 5.3. is applicable."

Throughout the whole text of the Regulation, substitute "Annex 8" by "Annex 9".

Annex 8 (former), renumber as Annex 9.

Insert a new Annex 8, to read:

"Annex 8

TECHNICAL PRESCRIPTIONS FOR REPLACEMENT BRAKE LINING ASSEMBLIES INTENDED FOR THE USE IN SEPARATE PARKING BRAKE SYSTEMS BEING INDEPENDENT OF THE VEHICLE SERVICE BRAKE SYSTEM.

1. COMPLIANCE WITH REGULATION No. 13

Compliance with the requirements of Regulation No.13 shall be demonstrated in a vehicle test.

1.1. Vehicle test

A vehicle which is representative of the type(s) for which the replacement brake lining assembly approval is required shall be equipped with the replacement brake lining assemblies of the type for which approval is requested and instrumented for brake testing as required by Regulation No. 13. The vehicle shall be fully laden. Brake linings submitted for test shall be fitted to the relevant brakes and, shall not be burnished.

- 1.2. The parking braking system of the vehicle shall be tested according to all relevant requirements in Regulation No. 13, Annex 4, paragraph 2.3."

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12 March 2009

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM TECHNICAL PRESCRIPTIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN BE FITTED AND/OR BE USED ON WHEELED VEHICLES AND THE CONDITIONS FOR RECIPROCAL RECOGNITION OF APPROVALS GRANTED ON THE BASIS OF THESE PRESCRIPTIONS */

(Revision 2, including the amendments which entered into force on 16 October 1995)

Addendum 89: Regulation No. 90

Revision 2

Incorporating all valid text up to:

Supplement 5 to the 01 series of amendments - Date of entry into force: 7 December 2002
Supplement 6 to the 01 series of amendments - Date of entry into force: 9 November 2005
Supplement 7 to the 01 series of amendments - Date of entry into force: 18 January 2006
Supplement 8 to the 01 series of amendments - Date of entry into force: 2 February 2007
Supplement 9 to the 01 series of amendments - Date of entry into force: 10 November 2007
Corrigendum 1 to Revision 1 of the Regulation, subject of Depositary Notification
C.N.251.2008.TREATIES-1 dated 8 April 2008 - Date of entry into force: 12 March 2008
Supplement 10 to the 01 series of amendments - Date of entry into force: 15 October 2008

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF REPLACEMENT BRAKE LINING ASSEMBLIES AND DRUM BRAKE LININGS FOR POWER-DRIVEN VEHICLES AND THEIR TRAILERS



UNITED NATIONS

*/ Former title of the Agreement:

Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

GE.09-

Regulation No. 90

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF
REPLACEMENT BRAKE LINING ASSEMBLIES AND DRUM BRAKE LININGS
FOR POWER-DRIVEN VEHICLES AND THEIR TRAILERS

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