



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de la Mobilité
et des Travaux publics

Département de la mobilité
et des transports

SOCIÉTÉ NATIONALE DE
CERTIFICATION ET D'HOMOLOGATION
S.A.

Registre de Commerce: B 27180

L-8070 Bertrange



Référence: SNCH*R13:A11*0014*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Bertrange, le 07 mars 2024



Communication concernant ⁽¹⁾:

Communication concerning ⁽¹⁾:

- **Délivrance d'une confirmation**
Confirmation granted
- ~~Extension d'une confirmation~~
~~Confirmation extended~~

**d'un rapport technique concernant l'Annexe 11, Appendice 2, paragraphe 3.9. du Règlement CEE N° 13
pour un essieu de référence/frein de référence**

of a test report regarding Annex 11 Appendix 2 item 3.9. of ECE Regulation N° 13 for a reference axle/brake

Numéro de confirmation:

Confirmation number:

SNCH*R13:A11*0014*00

**1. Marque de fabrique ou de commerce du dispositif
ou du composant:**

Trade name or mark of the device or component:

TRAX / VAVAX

(Logos: See information document)

2. Type du dispositif ou du composant:

Type of the device or component:

TRAX JMB 3020

3. Nom et adresse du constructeur:

Manufacturer's name and address:

ÖZKOÇ İLAVE DİNGİL SAN. TİC. LTD. ŞTİ.

Büyük kayacık Mahallesi Konya

Organize Sanayi Bölgesi 13. Sokak No:5

Selçuklu / Konya / Turkey

**4. Le cas échéant, nom et adresse du représentant
du constructeur:**

If applicable, name and address of the manufacturer's representative:

Not applicable

5. Présenté aux essais le:

Submitted for tests on:

25. - 26.12.2023

6. **Modifications faisant l'objet de la présente extension:**
Reasons for extension: Not applicable
7. **Service technique chargé des essais:**
Technical service responsible for conducting tests: Luxcontrol SA
B.P. 349
L-4004 Esch-sur-Alzette
8. **Date du procès-verbal délivré par ce service:**
Date of test report issued by that service: 27.01.2024
9. **Numéro du procès-verbal délivré par ce service:**
Number of test report issued by that service: LC 1454 002 24
10. **Lieu:**
Place: Bertrange
11. **Date:**
Date: 07 mars 2024
12. **Signature:**
Signature:

Pour la Ministre de la Mobilité
et des Travaux publics

Pol PHILIPPE
Attaché

Pour la SNCH

Laurent LINDEN
Directeur opérationnel



13. **Pièces jointes:**
Attachments: See INDEX

⁽¹⁾ **Biffer les mentions inutiles.**
Strike out what does not apply.



Référence: SNCH*R13:A11*0014*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Bertrange, le 07 mars 2024

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Numéro de confirmation:

Confirmation number:

SNCH*R13:A11*0014*00

Marque de fabrique ou de commerce:

Trade name or mark:

TRAX / VAVAX

(Logos: See information document)

Type:

Type:

TRAX JMB 3020

1. Procès-verbal d'essai:

Test report:

N° LC 1454 002 24

- Technical report:
- Index:
- General information:
- Test results:

Page(s) 1 to 3;
Index - Page(s) 1;
Annex A - Page(s) 1;
Annex B - Page(s) 1 to 6.

2. Dossier du constructeur:

Report of the manufacturer:

N° TRAX JMB 3020

- Manufacturer's information folder:

Page(s) 1 to 5.

3. Autres documents annexés:

Other documents annexed:

Not applicable

4. Date de délivrance de la confirmation:

Date of issue of the confirmation:

07.03.2024

5. Date de la dernière délivrance d'une confirmation révisée:

Date of last extension of the confirmation:

Not applicable



1. General

Manufacturer Name and Address: ÖZKOÇ İLAVE DİNGİL SANAYİ VE
TİCARET LTD. STİ.
BÜYÜK KAYACIK MAHALLESİ
KONYA ORGANİZE SANAYİ BÖLGESİ
13. SOKAK NO:5
SELÇUKLU/KONYA/TÜRKİYE

~~Vehicle Type~~ **TRAX JMB 3020**
~~Or component of ESA or STU:~~

2. Test details

	Inspector	Location of test:	Date of receipt of test item:	Date of test:
Main report	Fatih UZUN (Type Approval Engineer)	Selçuklu/Konya/ Türkiye	25.12.2023	25.12.2023 26.12.2023

2.1. Remarks

2.1.1. Main report:

Not applicable



3. **Statement of compliance**

The inspections items and measurements carried out have shown the compliance of the type described in this technical report and the attached Annexes with the requirements of the standard as stated on page 1.

Istanbul/Turkey, 05 February 2024

Luxcontrol s.a.
Service Homologation-automobile

Fatih UZUN
Ingénieur-Inspecteur

Mehmet YÜKSEL
Ingénieur-Inspecteur



Details to the information package, including a summary in chronological order, concerning extensions and/or amendments

Previously granted: **Not applicable**

Main Report

Technical Report No.:	LC 1454 002 24	3 Pages
	Index	1 Page

List of Annexes:

A: General Information	1 Page
B: Test results	6 Pages
C: Information folder	5 Pages

Content of the information folder:

- Manufacturer's information document no. TRAX 3020 dated 27/01/2024 acc. to ECE R13.12 (page 1 to 5)
-



GENERAL INFORMATION

Concerning a confirmation

of a Test Report regarding Annex 11 Appendix 2 item 3.9. of ECE Regulation No. 13 for a reference axle/brake

- | | | |
|------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [1.] | Trade name or mark of the device or component: |  and  |
| [2.] | Manufacturer's name for the type of device or component: | TRAX JMB 3020 |
| [3.] | Manufacturer's name and address: | ÖZKOÇ İLAVE DİNGİL
SANAYİ VE TİCARET LTD. ŞTİ.
BÜYÜK KAYACIK
MAHALLESİ KONYA
ORGANİZE SANAYİ BÖLGESİ
13. SOKAK NO:5
SELÇUKLU/KONYA/TÜRKİYE |
| [4.] | If applicable, name and address of the manufacturer's representative: | not applicable |
| [5.] | Submitted on: | 25.12.2023 |
| [6.] | Reason(s) for extension: | not applicable |



Technical report No

Base Part: ID4-LC 1454 002 24

Suffix:00

Note: Test report as prescribed in section 3.9 of Appendix 2 to Annex 11.

1.General

1.1. Axle manufacturer name and address:

ÖZKOÇ İLAVE DİNGİL SANAYİ VE TİCARET LTD. ŞTİ.
BÜYÜK KAYACIK MAHALLESİ KONYA ORGANİZE SANAYİ
BÖLGESİ 13.SOKAK NO:5 SELÇUKLU/KONYA/TÜRKİYE

1.1.1. Make of axle manufacturer:



1.2. Brake manufacturer name and address:

See item 1.1.

1.2.1. Brake identifier ID2-:

300X200

1.2.2. Automatic brake adjustment device:

- ~~Integrated*~~
- ~~Non-integrated*~~

*Strikethrough, as appropriate.

1.3. Manufacturer's information document:

TRAX JMB 3020

2. Test Record

The following data is recorded for each test:

2.1. Test code:

LC 1454 002 24

2.2. Test specimen:

Axle with drum brake

Test variant.:

S-cam brake

2.2.1. Axle code:

See below

2.2.1.1. Axle identifier:

ID1- TRAX JMB 3020

2.2.1.2. Identification of tested axle:

TRAX JMB 3020



2.2.1.3.	Test axle load (Fe identifier) [daN]:	10294
2.2.2.	Brake:	See below
2.2.2.1.	Brake identifier:	ID2- 300X200
2.2.2.2.	Identification of tested brake:	300 x 200
2.2.2.3.	Maximum stroke capability of the brake: <i>Note: Applies to disc brakes only.</i>	NA mm
2.2.2.4.	Effective length of the cam shaft: <i>Note: Applies to drum brakes only.</i>	700 mm
2.2.2.5.	Material variation: <i>Note: As per paragraph 3.8 (m) of Appendix 2 to this annex.</i>	NA
2.2.2.6.	Brake: - Drum* - Dise * <i>*Strikethrough, as appropriate.</i>	
2.2.2.6.1.	Actual test mass of drum/ dise : <i>*Strikethrough, as appropriate.</i>	35,5 kg
2.2.2.6.2.	Nominal external diameter of disc: <i>Note: Applies to disc brakes only.</i>	NA mm
2.2.2.6.3.	Type of cooling of the disc: - Ventilated * - Non-ventilated * <i>*Strikethrough, as appropriate.</i>	
2.2.2.6.4.	Integrated hub: - With * - Without * <i>*Strikethrough, as appropriate.</i>	
2.2.2.6.5.	Disc with integrated drum: - With parking brake function * - Without parking brake function * <i>*Strikethrough, as appropriate. Note: Applies to disc brakes only.</i>	



2.2.2.6.6. Geometric relationship between disc friction surfaces and disc mounting:

NA

Examples: One piece, casted, connection on action side.

2.2.2.6.7. Base material:

Grey Cast Iron

2.2.2.7. Brake:

- Lining*

- Pad*

**Strikethrough, as appropriate.*

2.2.2.7.1. Manufacturer:

Eren Balataçılık Sanayi ve
Ticaret A.Ş.

2.2.2.7.2. Make:

EREN

2.2.2.7.3. Type:

M76GG

2.2.2.7.4. Method of attachment:

Riveted

- Lining*

- Pad on the brake shoe*

- Back plate*

**Strikethrough, as appropriate.*

2.2.2.7.5. Thickness of back plate:

--

mm*

Weight of shoes:

6,10

kg*

**Strikethrough, as appropriate.*

2.2.2.7.6. Base material:

Steel

- Back plate*

- Brake shoe*

**Strikethrough, as appropriate.*

2.2.3. Automatic brake adjustment device:

See below

**Not applicable in the case of integrated automatic brake adjustment device.*

2.2.3.1. Manufacturer name and address:

HALDEX BRAKE PRODUCTS AB.
INSTRUMENTGATAN 15 BOX 501 261 14 LANDSKRONA,
SWEDEN

2.2.3.2. Make:

HALDEX

2.2.3.3. Type:

S-ABA 80022



2.2.3.4. Version: 0

2.2.4. Wheel(s): 285/70 R 19,5

Note: For dimensions, see Figures 1A and 1B in Appendix 5 to this annex.

2.2.4.1. Reference tyre rolling radius (R_e) at test axle load (F_e): 434 mm

2.2.4.2. Data of the fitted wheel during testing:

Tyre Size	Rim Size	X_e (mm)	D_e (mm)	E_e (mm)	G_e (mm)
285/70 R 19,5	7,5x19,5	260	260	77	-10

2.2.5. Lever length l_e : 155 mm

2.2.6. Brake Actuator: See below

2.2.6.1. Manufacturer: Arfesan A.Ş.

2.2.6.2. Make: ARFESAN

2.2.6.3. Type: 30"

2.2.6.4. (Test) identification number: 01.63.00.120

2.3. Test results: See below

Note: Corrected to take account of rolling resistance of $0.01 \cdot F_e$.

2.3.1. In the case of vehicles of categories O₂ and O₃ where the O₃ trailer has been subject to the Type I test:

Test Type	0	I	
Annex 11, Appendix 2, paragraph:	3.5.1.4	3.5.2.2/3	3.5.2.4
Test speed (km/h)	40	40	40
Brake actuator pressure p_e (kPa)	650	N/A	650
Braking time (min)	N/A	2.55	N/A
Braking force developed T_e (daN)	6206.8	721.0	4366.8
Brake efficiency T_e/F_e	0.60	0.07	0.42
Actuator stroke s_e (mm)	76.745	N/A	76.745
Brake input torque C_e (Nm)	1925.1	N/A	1925.1
Brake input threshold torque $C_{0,e}$ (Nm)	23.16	N/A	23.16



2.3.2.

In the case of vehicles of categories O₃ and O₄ where the O₃ trailer has been subject to the Type III test:

Test Type	0	III	
Annex 11, Appendix 2, paragraph:	3.5.1.2.	3.5.3.1.	3.5.3.2.
Initial test speed (km/h)	60	60	60
Final test speed (km/h)	0	30	0
Brake actuator pressure p _e (kPa)	650	N/A	650
Number of brake applications	N/A	20	N/A
Duration of brake cycle(s)	N/A	60	N/A
Braking force developed T _e (daN)	5706.8	3150.0	4606.8
Brake efficiency T _e /F _e	0.55	0.31	0.45
Actuator stroke s _e (mm)	76.75	N/A	76.75
Brake input torque C _e (Nm)	1925.1	N/A	1925.1
Brake input threshold torque C _{0,e} (Nm)	23.16	N/A	23.16

2.3.3.

This item is to be completed only when the brake has been subject to the test procedure defined in paragraph 4 of Annex 19 to this regulation, to verify the cold performance characteristics of the brake by means of the brake factor (BF).

2.3.3.1.

Brake factor B_F:

6.51

2.3.3.2.

Declared threshold torque C_{0,dec}:

23.16

Nm

2.3.4

Performance of the automatic brake adjustment device, (if applicable).

2.3.4.1.

Free running according to paragraph 3.6.3 of Annex 11, Appendix 2:

- Yes*

- ~~No~~*

*Strikethrough, as appropriate.



3. Application Range

Application range specifies the axle/brake variants that are covered in this test report, by showing which variables are covered by the individual test codes.

NA

This test has been carried out and the results reported, in accordance with Appendix 2 to Annex 11 and, where appropriate, paragraph 4 of Annex 19 – Part 1 to Regulation No. 13, as last amended by the 12 series of amendments.

Yes

At the end of the test defined in paragraph 3.6 of Annex 11, Appendix 2, the requirements of paragraph 5.2.2.8.1 of Regulation No. 13 are deemed to be fulfilled.

Yes

Note: Only to be completed when an automatic brake wear adjustment device is installed.

4. Remarks

The inspection results are only applicable to items which have been tested.

5. Test facilities

Calibration of measuring and test equipment used to carry out the inspections is in accordance with the standard stated on page 1 of this report and with ISO 17025:2017.

	TRAILER AXLE & BRAKE INFORMATION DOCUMENT	Date	27.01.2024	
		Document Nr.	TRAX JMB 3020	
	According to ECE R13.12, Annex 11, Appendix 5 ANNEX I		Revision Nr.	00
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1. GENERAL

Name and address of axle or vehicle manufacturer

ÖZKOÇ İLAVE DİNGİL SANAYİ VE TİCARET LTD. STİ.
BÜYÜK KAYACIK MAHALLESİ KONYA ORGANİZE SANAYİ BÖLGESİ 13. SOKAK NO:5
SELÇUKLU/KONYA/TÜRKİYE
TRAX 3020
O3&O4

1.1. Commercial Description

1.2. Category

2. AXLE DATA

2.1. Manufacturer (name and address)

ÖZKOÇ İLAVE DİNGİL SANAYİ VE TİCARET LTD. STİ.
BÜYÜK KAYACIK MAHALLESİ KONYA ORGANİZE SANAYİ BÖLGESİ 13. SOKAK NO:5
SELÇUKLU/KONYA/TÜRKİYE

2.1.1. Make of axle manufacturer



and



2.2. Type / variant

TRAX JMB 3020

2.3. Axle identifier

ID1-TRAX JMB 3020

2.4. Test axle load (F_e)

10294 daN

2.5. Wheel and brake data according to the following
Figures 1A and 1B

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Société Nationale de Certification et d'Homologation

Figure 1A

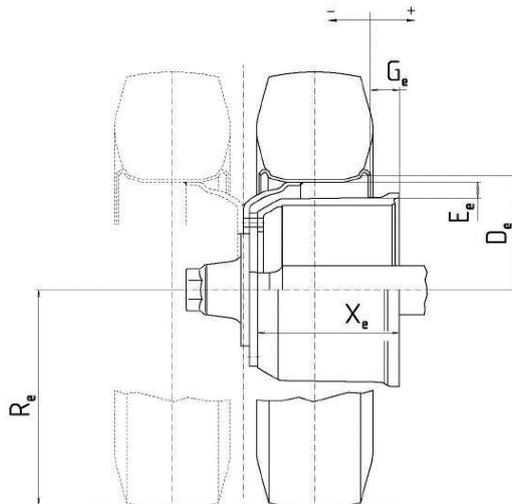
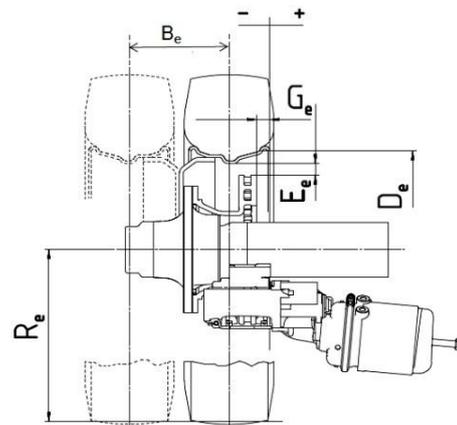


Figure 1B



Tyre	Rim	D_e (mm)	E_e (mm)	G_e (mm)	R_e (mm)	B_e (mm)	X_e (mm)
285/70 R 19.5	7.5x19.5	260	77	-10	434	--	260



TRAILER AXLE & BRAKE INFORMATION DOCUMENT

According to
ECE R13.12, Annex 11, Appendix 5
ANNEX I

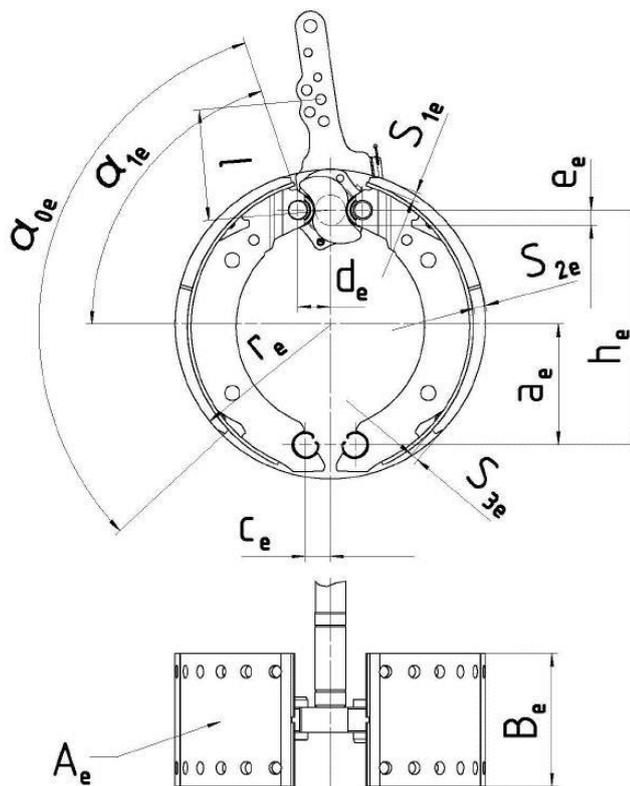
Date	27.01.2024
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3. BRAKE SNCH*R13:A11*0014*00 Société Nationale de Certification et d'Homologation

3.1. General Information

- 3.1.1. Name **WABCO**
- 3.1.2. Manufacturer (Name and address)
- 3.1.3. Type of brake Drum Brake
- 3.1.3.1. Variant S-Cam brake
- 3.1.4. Brake identifier ID2- 300X200
- 3.1.5. Brake data according to the following Figures 2A and 2B
- 3.1.6. Brake Factor (B_r) 6,51

Figure 2A

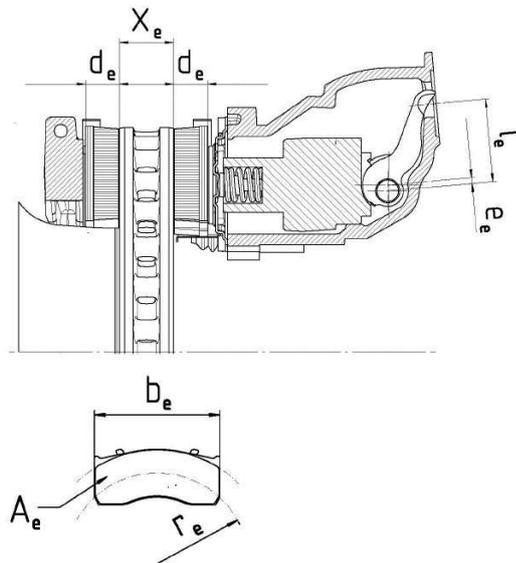


a_e (mm)	h_e (mm)	c_e (mm)	d_e (mm)	e_e (mm)	α_{0e} (°)	α_{1e} (°)	B_e (mm)	r_e (mm)	A_e (cm ²)	S_{1e} (mm)	S_{2e} (mm)	S_{3e} (mm)
110	223	30	28	13	114.5	67.25	200	150	1118	13	18	13

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Figure 2B Société Nationale de Certification et d'Homologation



X_e (mm)	d_e (mm)	e_e (mm)	l_e (mm)	b_e (mm)	A_e (cm ²)	r_e (mm)
--	--	--	--	--	--	--

3.2. Drum brake data

3.2.1.	Brake adjustment device (external/internal)	N/A
3.2.1.1.	Manufacturer (Name and address)	HALDEX BRAKE PRODUCTS AB. INSTRUMENTGATAN 15 BOX 501 261 14 LANDSKRONA, SWEDEN
3.2.1.2.	Make	HALDEX
3.2.1.3.	Type	S-ABA 80022
3.2.1.4.	Version	0
3.2.2.	Declared maximum brake input torque (C_{max})	2800 Nm
3.2.3.	Mechanical efficiency (η)	0.56
3.2.4.	Declared brake input threshold torque ($C_{0,dec}$)	23.16 Nm
3.2.5.	Efficiency length of the cam shaft	700 mm

	TRAILER AXLE & BRAKE INFORMATION DOCUMENT	Date	27.01.2024	
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3.3. Brake drum

3.3.1.	Max. diameter of friction surface (wear limit)	300 mm
3.3.2.	Base material	Grey Cast Iron
3.3.3.	Declared mass	35.25 kg
3.3.4.	Nominal mass	35.5 kg
3.3.5.	Permitted range of the brake drum mass	33-37 kg

3.4. Brake Lining

3.4.1.	Manufacturer (Name and address)	EREN BALATACILIK SANAYİ VE TİCARET A.Ş. 13. Sokak No:6 KOSBİ Kemalpaşa / İzmir / Turkey
3.4.2.	Make	EREN
3.4.3.	Type	M76 GG
3.4.4.	Identification (type identification on lining)	EREN 41016/1
3.4.5.	Minimum thickness (wear limit)	5mm
3.4.6.	Method of attaching friction material to brake shoe	Riveted
3.4.6.1.	Worst case of attachment (in the case of more than one)	N/A
3.4.6.2.	Base material of the brake shoe	Steel (S355)
3.4.6.3.	Range of the weight of the brake shoes (without brake lining)	6.084 KG

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3.5. Disk brake data [Société Nationale de Certification et d'Homologation](#)

3.5.1.	Connection type to the axle (axial, radial, integrated etc.)	N/A
3.5.2.	Brake adjustment device (external / integrated)	N/A
3.5.3.	Max. actuation stroke	N/A
3.5.4.	Declared maximum input force (Th_{Amax})	N/A
3.5.4.1.	Declared maximum brake input torque (C_{max}) $C_{max} = Th_{Amax} * l_e$	N/A

	TRAILER AXLE & BRAKE INFORMATION DOCUMENT	Date	27.01.2024	
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3.5.5.	Friction radius (r_e)	N/A
3.5.6.	Lever length (l_e)	N/A
3.5.7.	Input/output ratio (i) (l_e/e_e)	N/A
3.5.8.	Mechanical efficiency (η)	N/A
3.5.9.	Declared brake input threshold force ($Th_{A0,dec}$)	N/A
3.5.9.1.	$C_{0,dec} = Th_{A0,dec} * l_e$	N/A
3.5.10.	Minimum rotor thickness (wear limit)	N/A
3.6.	<i>Brake disc data</i>	
3.6.1.	Disc type description	N/A
3.6.2.	Connection/mounting to the hub	N/A
3.6.3.	Ventilation (yes/no)	N/A
3.6.4.	Declared mass	N/A
3.6.5.	Nominal mass	N/A
3.6.6.	Declared external diameter	N/A
3.6.7.	Minimum external diameter	N/A
3.6.8.	Inner diameter of friction ring	N/A
3.6.9.	Width of ventilation channel (if appl.)	N/A
3.6.10.	Base material	N/A
3.7.	<i>Brake pad data</i>	
3.7.1.	Manufacturer and address	N/A
3.7.2.	Make	N/A
3.7.3.	Type	N/A
3.7.4.	Identification (type identification on pad back plate)	N/A
3.7.5.	Minimum thickness (wear limit)	N/A
3.7.6.	Method of attaching friction material to pad back plate	N/A
3.7.6.1.	Worst case of attachment (in case of more than one)	N/A

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Société Nationale de Certification et d'Homologation