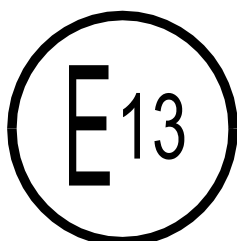




Référence: SNCH*R13:A11*0005*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Luxembourg, le 03 mai 2019



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*0005*00

- 1. Marque de fabrique ou de commerce du dispositif
ou du composant:**
Trade name or mark of the device or component: TRAX
(Logo: See information document)
- 2. Type du dispositif ou du composant:**
Type of the device or component: TRAX JMB
- 3. Nom et adresse du constructeur:**
Manufacturer's name and address: ÖZKOÇ İLAVE DİNGİL SAN. TİC. LTD. ŞTİ.
Konya Organize Sanayi Bölgesi 13. Sk. 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: 22.11. & 25.11.2017

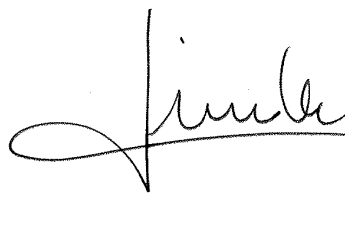
6. **Modifications faisant l'objet de la présente extension:**
Reasons for extension: Not applicable
7. **Autorité déléguée:**
Assigned authority: *Société Nationale de Certification et d'Homologation
L-5201 Sandweiler*
- Service technique chargé des essais:**
Technical service responsible for conducting 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: 16.04.2019
9. **Numéro du procès-verbal délivré par ce service:**
Number of test report issued by that service: LC 1454 003 19
10. **Lieu:**
Place: Luxembourg
11. **Date:**
Date: 03 mai 2019
12. **Signature:**
Signature:

**Pour le Ministre de la Mobilité
et des Travaux publics**



Alain DISIVISCOUR
Conseiller

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*0005*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Luxembourg, le 03 mai 2019

INDEX INDEX

	Numéro de confirmation: Confirmation number:	SNCH*R13:A11*0005*00
	Marque de fabrique ou de commerce: <i>Trade name or mark:</i>	TRAX (Logo: See information document)
	Type: <i>Type:</i>	TRAX JMB
1.	Procès-verbal d'essai: Test report:	N° LC 1454 003 19
	- Technical report:	Page(s) 1 to 3;
	- Index:	Page(s) 1;
	- General information:	Annex A - Page(s) 1;
	- Test results:	Annex B - Page(s) 1 to 6.
2.	Dossier du constructeur: Report of the manufacturer:	N° OKC 005
	- Manufacturer's information document:	Annex C - 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:	03.05.2019
5.	Date de la dernière délivrance d'une confirmation révisée: Date of last extension of the confirmation:	Not applicable

TECHNICAL REPORT

Base Part: ID4-LC 1454 003 19

Suffix:00

Inspection concerning

Reference axle

performed according to

Annex 11, Appendix 2

**of ECE-Regulation No. 13
series of amendments: 11
Including supplement: 13**

Type: TRAX JMB

Manufacturer name and address:

ÖZKOÇ İLAVE DİNGİL SANAYİ VE TİCARET LTD. ŞTİ.
KONYA ORGANİZE SANAYİ BÖLGESİ 13. SK. NO:5
SELÇUKLU/KONYA/TURKEY

Contents:

1. General
2. Test details
Index

A reproduction of this report and its annexes, except in full, is prohibited without the written permission of Luxcontrol s.a.



1. **General**

Manufacturer:

**ÖZKOÇ İLAVE DİNGİL SANAYİ VE
TİCARET LTD. ŞTİ.**
KONYA ORGANİZE SANAYİ BÖLGESİ
13. SK. NO:5
SELÇUKLU / KONYA / TURKEY

Vehicle Type

TRAX JMB

~~Or component or ESA or STU:~~

2. **Test details**

	Inspector	Location of test:	Date of receipt of test item:	Date of test:
Main report	Erdal Çınarcı	Hacı Sabancı Organized Zone Sarıçam/Adana/Turkey	22.11.2017	22.11.2017 25.11.2017

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.

Esch-sur-Alzette, April 16, 2019

Luxcontrol s.a.
Service Homologation-automobile

Erdal Çınarcı
Ingénieur-Inspecteur

Benedikt Leukart
Ingénieur-Inspecteur

Annexes



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 003 19	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. OKC 005 dated 15/11/2017 acc. to ECE R13.11 (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: |  |
| [2.] | Manufacturer's name for the type of device or component: | TRAX JMB |
| [3.] | Manufacturer's name and address: | ÖZKOÇ İLAVE DİNGİL
SANAYİ VE TİCARET LTD. ŞTİ.
KONYA ORGANİZE SANAYİ
BÖLGESİ 13. SK. NO:5
SELÇUKLU/KONYA/TURKEY |
| [4.] | If applicable, name and address of the manufacturer's representative: | Not applicable |
| [5.] | Submitted on: | 22.11.2017-25.11.2017 |
| [6.] | Reason(s) for extension: | Not applicable |



Technical report No

Base Part: ID4-LC 1454 003 19

Suffix:00

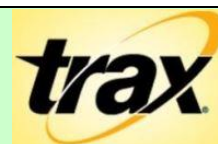
Note: Test report as prescribed in section 3.9 of Appendix 2 to Annex 11.

1.General

1.1. Axle manufacturer name and address:

ÖZKOÇ İLAVE DİNGİL SANAYİ VE TİCARET LTD. ŞTİ.
KONYA ORGANİZE SANAYİ BÖLGESİ 13. SK. NO:5
SELÇUKLU / KONYA / TURKEY

1.1.1. Make of axle manufacturer:



1.2. Brake manufacturer name and address:

See item 1.1.

1.2.1. Brake identifier ID2-:

330 x 200

1.2.2. Automatic brake adjustment device:

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

**Strikethrough, as appropriate.*

1.3. Manufacturer's information document:

OKC 005

2. Test Record

The following data is recorded for each test:

2.1. Test code:

LC 1454 003 19

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 3320

2.2.1.2. Identification of tested axle:

TRAX JMB 3320



2.2.1.3.	Test axle load (Fe identifier) [daN]:	ID3-11768
2.2.2.	Brake:	See below
2.2.2.1.	Brake identifier:	ID2- 330 x 200
2.2.2.2.	Identification of tested brake:	330 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>	37 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 Balatacılık Sanayi ve Ticaret A.Ş.
- 2.2.2.7.2. Make: EREN
- 2.2.2.7.3. Type: M761
- 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: 4,35 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:
Geçgel Mak. San. Tic. Ltd. Şti.
2. Organize San. Vezirköy Cad. Kocadere Sok. No:10
Selçuklu / Konya
- 2.2.3.2. Make: TRAX



2.2.3.3. Type: 5046

2.2.3.4. Version: --

2.2.4. Wheel(s): 285/70 R19,5 (Dual)

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 R19,5	19,5x7,5	256	247,5	31	19

2.2.5. Lever length l_e : 150 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: BC 0078.0

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:	3.5.1.2	3.5.2.2/3	3.5.2.4
Test speed (km/h)	40	40	40
Brake actuator pressure p _e (kPa)	650	70	650
Braking time (min)	-	2,33	-
Braking force developed T _e (daN)	6590	3530	5477
Brake efficiency T _e /F _e	0,56	0,30	0,46
Actuator stroke s _e (mm)	27	-	27
Brake input torque C _e (Nm)	1863	-	1863
Brake input threshold torque C _{0,e} (Nm)	30	-	30

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)	-	45	-
Brake actuator pressure p _e (kPa)	650	360	650
Number of brake applications	-	20	-
Duration of brake cycle(s)	-	60	-
Braking force developed T _e (daN)	6237	3530	5360
Brake efficiency T _e /F _e	0,53	0,30	0,45
Actuator stroke s _e (mm)	27	-	27
Brake input torque C _e (Nm)	1863	-	1863
Brake input threshold torque C _{0,e} (Nm)	30	-	30

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:

8,7

2.3.3.2.

Declared threshold torque C_{0,dec}:

30 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 11 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.



TRAILER AXLE & BRAKE INFORMATION DOCUMENT

Date	15.11.2017
Document Nr.	OKC 005
Revision Nr.	00
Page	1 / 5

According to
ECE R13.11, Annex 11, Appendix 5

1. GENERAL

Name and address of axle or vehicle manufacturer

**ÖZKOÇ İLAVE DİNGİL SAN. TİC.
LTD. ŞTİ.**

**Konya Organize Sanayi Bölgesi 13. Sk. No:5
Selçuklu / Konya / Turkey**

1.1. Commercial Description

JMB 3320

2. AXLE DATA

2.1. Manufacturer (name and address)

**ÖZKOÇ İLAVE DİNGİL SAN. TİC.
LTD. ŞTİ.**

**Konya Organize Sanayi Bölgesi 13. Sk. No:5
Selçuklu / Konya / Turkey**

2.1.1. Make of axle manufacturer

TRAX

2.2. Type / variant

TRAX JMB

2.3. Axle identifier

ID1- TRAX JMB 3320

2.4. Test axle load (F_e)

11768 daN

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

Figure 1A

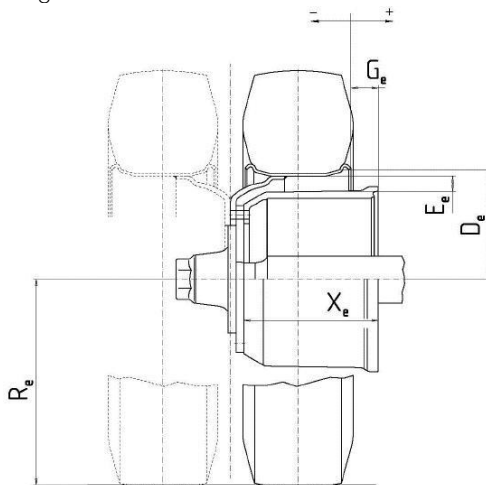
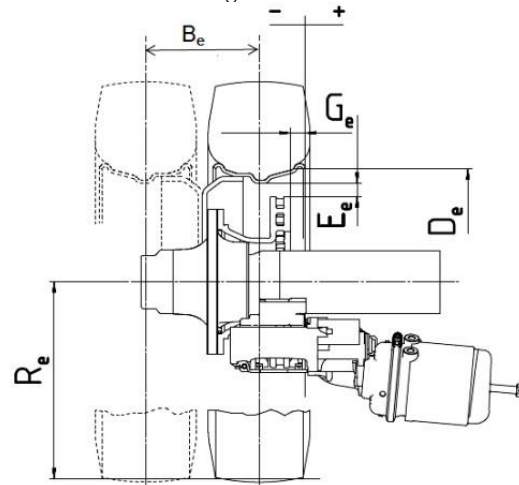


Figure 1B



Tyre	Rim	D_e (mm)	E_e (mm)	G_e (mm)	R_e (mm)	B_e (mm)	X_e (mm)
285/70 R19,5 (Dual)	19,5x7,5	247,5	31	19	434	300	256



TRAILER AXLE & BRAKE
INFORMATION DOCUMENT

According to
ECE R13.11, Annex 11, Appendix 5

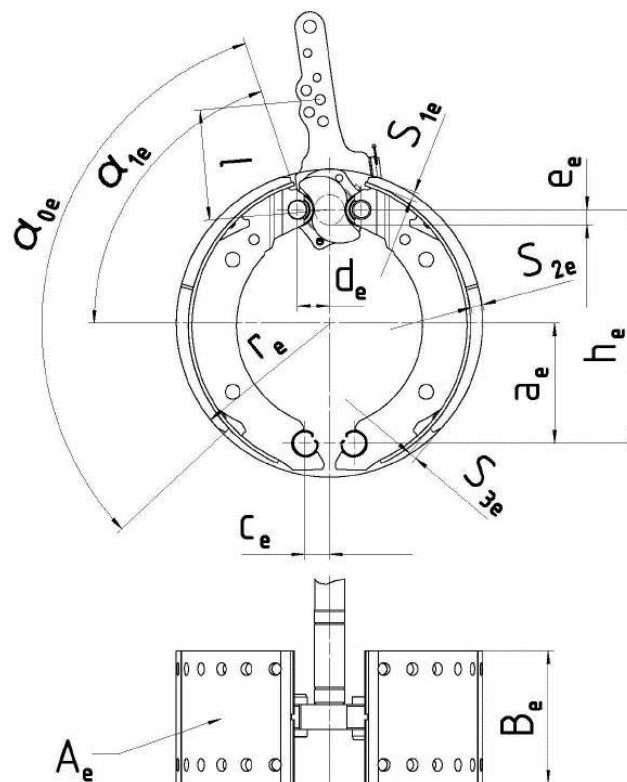
Date	15.11.2017
Document Nr.	OKC 005
Revision Nr.	00
Page	2 / 5

3. BRAKE

3.1. General Information

3.1.1. Make	ÖZKOÇ
3.1.2. Manufacturer (Name and address)	See item 1.
3.1.3. Type of brake	Drum Brake
3.1.3.1. Variant	S-cam Brake
3.1.4. Brake identifier	ID2- 330 x 200
3.1.5. Brake data according to the following Figures 2A and 2B	
3.1.6. Brake Factor (Br)	8,7

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)
127	250	28,25	34,5	12,5	116	56	200	165	1300	15	17	8,5

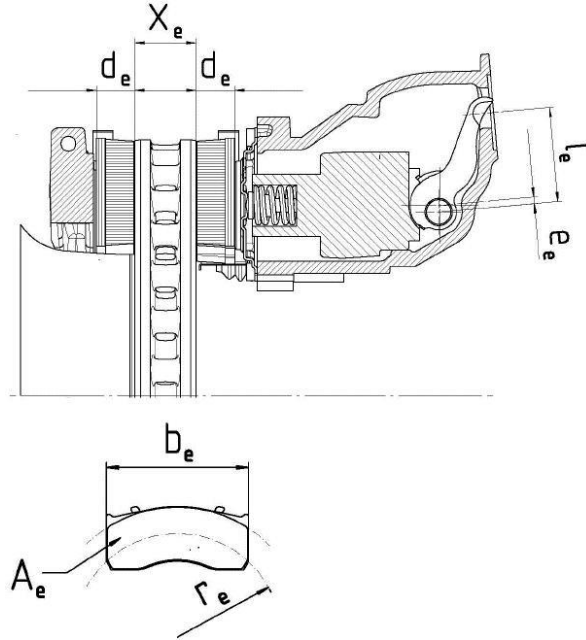


TRAILER AXLE & BRAKE
INFORMATION DOCUMENT

According to
ECE R13.11, Annex 11, Appendix 5

Date	15.11.2017
Document Nr.	OKC 005
Revision Nr.	00
Page	3 / 5

Figure 2B



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)

External

3.2.1.1. Manufacturer (Name and address)

Geçgel Mak. San. Tic. Ltd. Şti.
2. Organize San. **Vezirköy Cad.**
Kocadere Sok. No:10
Selçuklu / Konya

3.2.1.2. Make

TRAX

3.2.1.3. Type

5046

3.2.1.4. Version

--

3.2.2. Declared maximum brake input torque (C_{max})

2800 Nm

3.2.3. Mechanical efficiency (η)

0,9

3.2.4. Declared brake input threshold torque ($C_{0,dec}$)

30 Nm

3.2.5. Efficiency length of the cam shaft

700 mm

3.3. *Brake drum*

3.3.1. Max. diameter of friction surface (wear limit)


330 mm



TRAILER AXLE & BRAKE INFORMATION DOCUMENT

Date	15.11.2017
Document Nr.	OKC 005
Revision Nr.	00
Page	4 / 5

3.3.2.	Base material	Grey Cast Iron
3.3.3.	Declared mass	37 kg
3.3.4.	Nominal mass	37 kg
3.3.5.	Permitted range of the brake drum mass	37-39 kg
3.4.	<i>Brake Lining</i>	
3.4.1.	Manufacturer (Name and address)	Eren Balataçılık Sanayi ve Ticaret A.Ş. KOSBİ 13 Sok. No:6 Ulucak Bucağı Kemalpaşa / İzmir / Turkey
3.4.2.	Make	EREN
3.4.3.	Type	M761
3.4.4.	Identification (type identification on lining)	M76-433020
3.4.5.	Minimum thickness (wear limit)	5 mm
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
3.4.6.3.	Range of the weight of the brake shoes (without brake lining)	4,35 kg
3.5.	<i>Disk brake data</i>	
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 ($T_{H_{max}}$)	N/A
3.5.4.1.	Declared maximum brake input torque (C_{max}) $C_{max} = T_{H_{max}} * l_e$	N/A
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

	TRAILER AXLE & BRAKE INFORMATION DOCUMENT	Date	15.11.2017	
		Document Nr.	OKC 005	
	According to ECE R13.11, Annex 11, Appendix 5		Revision Nr.	00
			Page	5 / 5

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