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: E13*109R00/10*0072*01

Annexes: - Rapport Technique
- Fiche de Renseignements du constructeur

Bertrange, le 10 octobre 2022

Communication

E13

objet 2/: - ~~**DELIVRANCE D'UNE HOMOLOGATION**~~
concerning 2/: ~~APPROVAL GRANTED~~
- **EXTENSION D'UNE HOMOLOGATION**
APPROVAL EXTENDED
- ~~**REFUS D'HOMOLOGATION**~~
~~APPROVAL REFUSED~~
- ~~**RETRAIT D'HOMOLOGATION**~~
~~APPROVAL WITHDRAWN~~
- ~~**ARRET DEFINITIF DE LA PRODUCTION**~~
~~PRODUCTION DEFINITELY DISCONTINUED~~

d'une usine de rechapage, en application du Règlement ONU N° 109.
of a retreading production unit pursuant to UN Regulation N° 109.

Numéro d'homologation:
Approval number: E13*109R00/10*0072*01

Marque d'homologation:
Approval mark: E13 109 R - 000072

1. Nom et adresse du rechapeur:
Retreader's name and address:
PROTEKT POINT D.O.O.
Bjelopoljski put bb
31300 PRIJEPOLJE
SERBIA

2. Nom et adresse de l'entreprise de rechapage:
Name and address of retreading production unit:
PROTEKT POINT D.O.O.
Bjelopoljski put bb
31300 PRIJEPOLJE
SERBIA

3. Le cas échéant, nom et adresse du mandataire:
If applicable, name and address of retreader's representative: not applicable

4.	**Description sommaire définie aux paragraphes 4.1.3., 4.1.4. et 4.1.5 du présent Règlement:** Summarised description as defined in paragraphs 4.1.3.,4.1.4. and 4.1.5. of this Regulation:	
4.1.	**Nom(s) de marque/marque(s) de fabrique[3]:** Brand name(s)/trademark(s)[3]:	PROTEKT POINT
4.2.	**Désignation(s) commerciale(s)/nom(s) commercial(aux)[3]:** Trade description(s)/Commercial name(s)[3]:	PROTEKT POINT
4.3.	**Renseignements relatifs à la gamme de pneumatiques visée au paragraphe 4.1.5 du présent Règlement:** Information in relation to the range of tyres as defined in paragraphs 4.1.5. of this regulation:	Refer to technical report
5.	**Service technique et, le cas échéant, laboratoire d'essai agrée pour l'homologation ou la vérification de la conformité:** Technical service and, where applicable, test laboratory approved for purposes of approval or of verification of conformity:	Luxcontrol S.A. B.P. 349 L-4004 Esch-sur-Alzette
6.	**Date du procès-verbal délivré par ce service:** Date of report issued by that service:	07.09.2022
7.	**Numéro du procès-verbal délivré par ce service:** Number of report issued by that service:	LC 0973 002 22
8.	**Motif(s) de l'extension (le cas échéant):** Reason(s) of extension (if applicable):	Refer to Annex A of technical report
9.	**Observations:** Any remarks:	not applicable

10. **Lieu:**
Place: Bertrange

11. **Date:**
Date: 10 octobre 2022

12. **Signature:**
Signature:

Pour le Ministre de la Mobilité et des Travaux publics	Pour la SNCH
Alain DISIVISCOUR **Conseiller**	**Laurent LINDEN** **Directeur opérationnel**

13. **Est annexée à la présente communication une liste des pièces figurant dans le dossier d'homologation déposé auprès des services administratifs ayant octroyé l'homologation et qui peuvent être obtenues sur demande.**
Annexed to this communication is a list of documents in the approval file deposited at the Approval Authority which has considered this approval and which can be obtained upon request.

see “Index to information type-approval report”

2/ Biffer les mentions inutiles
Delete that which does not apply

3/ La liste des documents du dossier d’homologation déposé auprès de l’autorité compétente en matière de réception qui a examiné cette approbation est annexée à la présente communication et peut être obtenue sur demande.
A list of brand name(s)/trademark(s) or Trade description(s)/Commercial name(s) may be annexed to this communication.

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: E13*109R00/10*0072*01

Annexes: - Rapport Technique
- Fiche de Renseignements du constructeur

Bertrange, le 10 octobre 2022

Index du dossier d'homologation

Index to type-approval report

Numéro d'homologation:
Approval number: E13*109R00/10*0072*01

Révision:
Revision: 00

Nom et adresse du rechapeur:
Retreader's name and address:

PROTEKT POINT D.O.O.
Bjelopoljski put bb
31300 PRIJEPOLJE
SERBIA

1. Procès-verbal d'essai:
Test report: N° LC 0973 002 22

- Technical report: Page(s) 1 to 18;
- Index: Annex A – Page(s) 1.

2. Dossier du constructeur:
Report of the manufacturer: Annex B

- Manufacturer's information document: Page(s) 1 to 37.

3. Autres documents annexés:
Other documents annexed: not applicable

4. Date de délivrance de l'homologation initiale:
Date of issue of initial type approval: 29.11.2013

5. Date de la dernière délivrance de pages révisées:
Date of last issue of revised pages: not applicable

6. Date de la dernière délivrance d'une homologation révisée:
Date of last extension: 10.10.2022

Luxcontrol SA

TECHNICAL REPORT
No.: LC 0973 002 22

Inspection concerning the

Production of retreaded pneumatic tyres for commercial vehicles and their trailers

performed according to the

ECE Regulation No. 109

Manufacturer:
PROTEKT POINT D.O.O. **Bjelopoljski put bb** **31300 PRIJEPOLJE** **SERBIA**

Extension 01 to EU Type Approval no.: E13*109R00*109R00*0072*00

Index:

1.	General	2
2.	Inspections and their results	4
3.	Evaluation of test results	16
4.	Statement of compliance	18
Index to the information folder:		1

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- Luxcontrol SA
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Tél:++352-54.77.11-1
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E-Mail:info@luxcontrol.com
Int.:www.luxcontrol.com
N ident: LU 113 536 61
RC Lux.: B15664
Fortis Banque Luxembourg
IBAN: LU56 0030 1612 0727 0000
BIC: BGLLLULL
Dexia-BIL
IBAN: LU48 0026 1824 1543 2600
BIC: BILLLULL

1. General

1.1. Test Provisions

The inspection was carried out according to the requirements of the ECE-Regulation No. 109 including supplement 10 to the 00 series of amendments.

1.2. Information concerning the approval of the production of retreaded pneumetic tyres for commercial vehicles and their trailers

The statements below apply to the previous ECE type-approval as referred to on page 1.

1.2.1. () Numbering according to the communication following Annex 1 of Regulation No. 109

(1.) Retreader's name and address:

PROTEKT POINT D.O.O.
Bjelopoljski put bb
31300 PRIJEPOLJE
SERBIA

(2.) Name and address of retreading production unit:

PROTEKT POINT D.O.O.
Bjelopoljski put bb
31300 PRIJEPOLJE
SERBIA

(3.) If applicable, name and address of retreader's representative:

not applicable

(4.) Summarised description as in paragraphs 4.1.3., 4.1.4. and 4.1.5. of this Regulation:

(4.1) Brand name(s)/trademark(s): **PROTEKT POINT**

(4.2) Trade description(s)/ Commercial name(s): **PROTEKT POINT**

(4.3) Information in relation to the range of tyres as defined in paragraphs 4.1.5. of this Regulation:

…

Trade names or marks	**PROTEKT POINT**
Range of tyre sizes	**See manufacturer's information document**
Structure of tyres	**Radial**
Category of use of tyres	**Normal / Snow / Special-use tyres / Mud and Snow**
For snow tyres the list of tyres having to fulfil the requirements of paragraph 7.2.	**See point 3.1. of information document**
System of retreading	**Pre-cured cold retread system**
Method of application of the new materials to be used	**precured**
Maximum speed symbol of the tyres to be retreaded	**N**
Maximum load index of the tyres to be retreaded	**150**
Nominated international tyre standard to which the range of tyres conform	**ETRTO, ~~TRA~~, ~~JATMA~~, ~~TRAA~~, ~~ABPA~~, ~~STRO~~**

(8.) Reason(s) for extension of approval:

Update of the supplement to series of amendments to the regulation

(9.) Any remarks:

Not applicable

…

2. Inspections and their results

2.1. Tyres used for Load/Speed endurance test:

Following tyres have been used for testing (if not stated in part 1.2.2. of this report):

- **Year 2013 (ECE-approval of production unit)**

Date of testing	Size designation	Tread pattern
30/10/2013	385/65 R 22,5	RZ12-L
04/11/2013	385/65 R 22,5	RZ12-L
06/11/2013	315/80 R 22,5	RTA-W
11/11/2013	385/65 R 22,5	RZ12-L
13/11/2013	315/80 R 22,5	RTA-W

COP 2014

Report n°	Size designation	Tread pattern	Reg	Result
A 67-14	315/80 R 22,5	E-PZA	109	OK
A 71-14	315/80 R 22,5	E-PZA	109	OK

COP 2015

Report n°	Size designation	Tread pattern	Reg	Result
A 01-17	315/80 R 22,5	RTA-W	109	OK
A 02-17	315/80 R 22,5	RTA-W	109	OK

COP 2016

Report n°	Size designation	Tread pattern	Reg	Result
A 49-18	315/80 R 22,5	Z12	109	OK
A 50-18	315/80 R 22,5	Z12	109	OK

COP 2017

Report n°	Size designation	Tread pattern	Reg	Result
A 51-18	315/80 R 22,5	RTA-W	109	OK
A 52-18	315/80 R 22,5	RTA-W	109	OK

…

COP 2018

Report n°	Size designation	Tread pattern	Reg	Result
A 42-19	315/80 R 22,5	Z12	109	OK
A 43-19	315/80 R 22,5	Z12	109	OK

COP 2019

Report n°	Size designation	Tread pattern	Reg	Result
A 42-20	315/80 R 22,5	Z12	109	OK
A 41-20	315/80 R 22,5	Z12	109	OK

COP 2020

Report n°	Size designation	Tread pattern	Reg	Result
A 21-21	315/80 R 22,5	Z12	109	OK
A 23-21	315/80 R 22,5	Z12	109	OK

COP 2021

Report n°	Size designation	Tread pattern	Reg	Result
A 45-22	315/80 R 22,5	Z12	109	OK
A 46-22	315/80 R 22,5	Z12	109	OK

…

2.2. Inspection items

	Inspector	Location of test:	Date of receipt of test item:	Date of test:
Site	A. Tomasini	See (2.)	4 april 2013	4 april 2013
Tires		Marangoni I - Rovereto	See 2.1.	See 2.1.
Follow up audit 2016	A. Tomasini	See (2.)		10 May 2016
		Marangoni I - Rovereto	See 2.1.	See 2.1.
Follow up audit 2019	B. Leukart	See (2.)		4 June 2019
		Marangoni I - Rovereto	See 2.1.	See 2.1.
Extension 01 and Follow up audit 2022	B. Leukart	See (2.)		6 September 2022
		Marangoni I - Rovereto	See 2.1.	See 2.1.

2.2.1. Outline of the structure of the company producing the retreaded tyres:

2.2.1.1. Address:

PROTEKT POINT D.O.O.
Bjelopoljski put bb
31300 PRIJEPOLJE
SERBIA

2.2.1.2. Responsible Person:

Chairman of company: KRSMAN KRPOVIC
Quality assurance: KRSMAN KRPOVIC
Responsible for production: MARKO BOJEVIC

2.2.1.3. Legal Structure:

Private Limited Liability Company

2.2.1.4. Production:

ca. 2000 tyres per year

2.2.2. Range of retreaded tyres:

See item (4.) of this report.

2.2.3. Marking of retreaded tyres:

See item (4.) and 2.2.7. of this report.

…

A sufficiently large space for the approval is provided. All markings required by paragraph 3 of the Regulation are provided on the sidewall(s) as set out in annex 3 of the Regulation.

2.2.4. Retreading system:

see item (4.) and 2.2.7. of this report.

2.2.5. Method of application of the new materials used:

see item (4.) and 2.2.7. of this report.

2.2.6. Nominated international standard(s) to which the range of tyres conform:

see item (4.) and 2.2.7. of this report.

2.2.7. Description of the quality management system which ensures the effective control of the tyre retreading procedures

2.2.7.1. Documented System

The basis of the system is a quality manual from Marangoni.
The language used is understood by the operators.
Procedures, declined into work- and control-instructions exist for all workstations.

For traceability each process step for each tire is documented on a checklist following the tire.

2.2.7.2. Requirements of regulation

2.2.7.2.1. Presence of E/e mark

Only tires having e or E mark will be accepted in production under ECE R109 status. This is documented in control instruction at incoming inspection.

…

2.2.7.2.2. Incoming inspection

100 % visual inspection for incoming tires. Limits for acceptation are given in the documented system. During inspection tires are dry and proper. Acceptance is recorded in form of a checklist per tire.

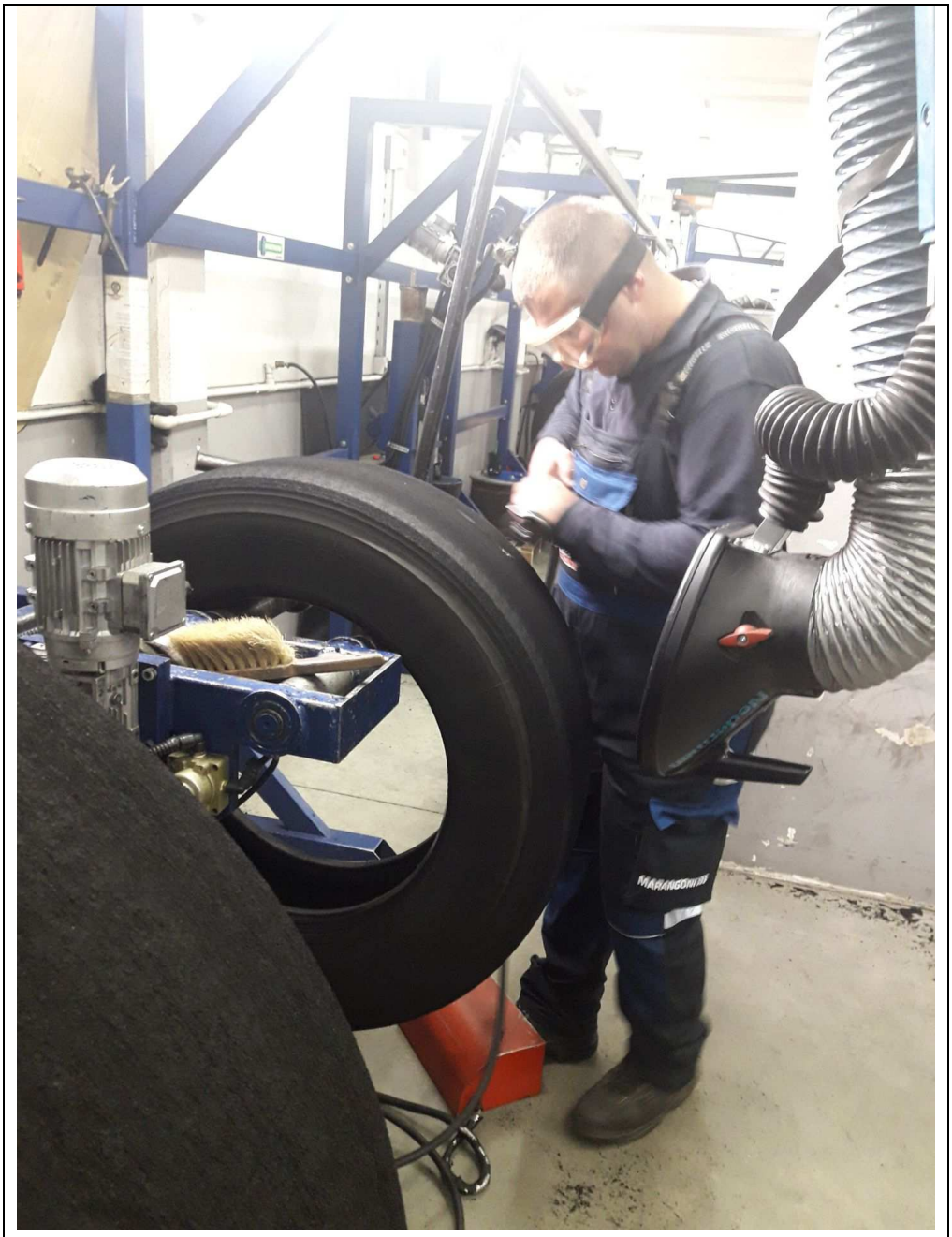
…

2.2.7.2.3. Preparation

Buffing is being made according to work instruction. The process is recorded in the checklist (worker's initials).

…

2.2.7.2.4. Retreading

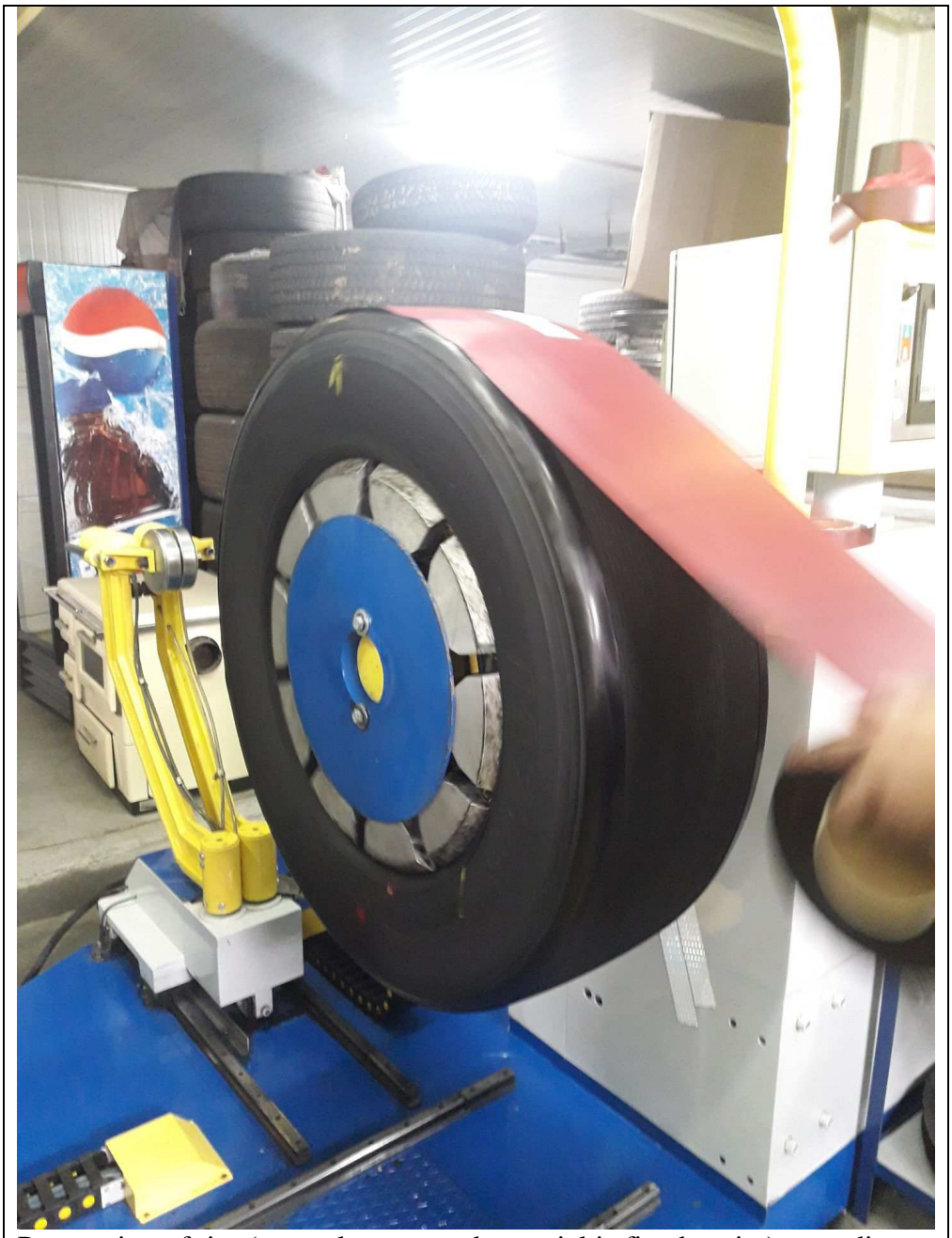


If necessary repair is being made according to work instruction. The process is recorded in the checklist. Repair material handling is documented.

…

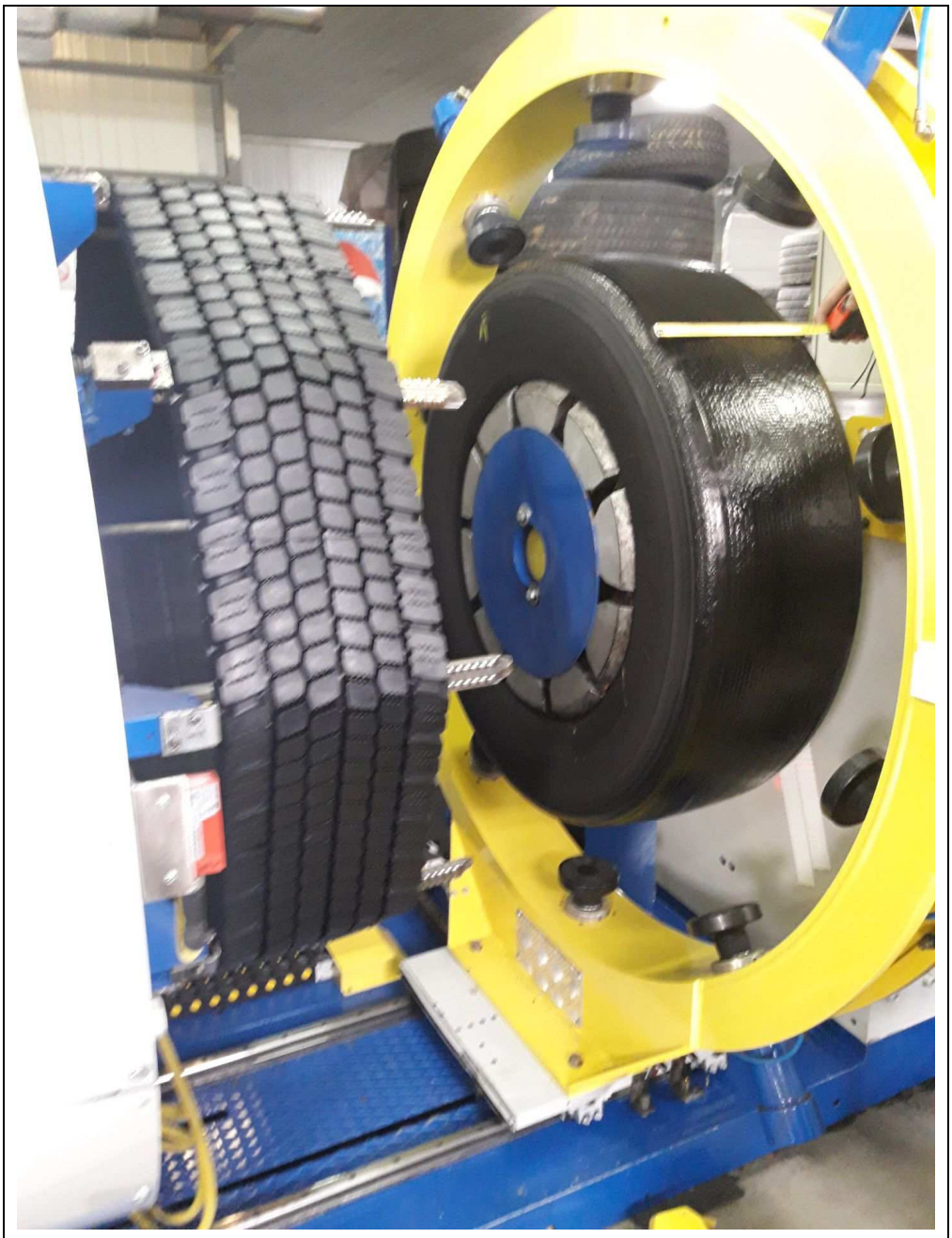
Protection of steel is being made according to work instruction. The process is not recorded. Material is located in an adapted storage.

…



Preparation of tire (example: precured material is fixed to tire) according to work instruction.

…



Material is located in an adapted storage.

…

Curing is being made according to work instructions. The process is recorded in form of paper print outs reflecting temperature, pressure and time. Pressure, temperature and time are under automatic surveillance during the process. In addition all factors are registered for archiving. Marangoni technicians assure calibration of equipment	

…

Curing is being made according to work instructions.
The process is recorded in form of paper print outs reflecting temperature, pressure and time.
Pressure, temperature and time are under automatic surveillance during the process. In addition all factors are registered for archiving.
Marangoni technicians assure calibration of equipmentFinished tire

2.2.7.2.5. Final inspection

Final inspection is being made immediately after curing is finished, according to work instruction.

The tire ~~is /~~ is not inflated during final inspection.
If not, the tire has been inflated during following production steps:

- Buffering
- Preparation

…

2.2.8. Load/Speed Endurance tests and measured dimensions of the tyres:

The tests have been carried out with the tires listed under item 2.1.. The tires withstood the test procedure for 47 hours and fulfilled the size requirements before and after the tests.

2.3. Remark

2.3.1. General:

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

2.4. Test facilities

All measuring and test equipment used to carry out the inspections are in accordance with the ECE-Regulation stated in 1.1. of this report and with EN17025.

3. Evaluation of test results

3.1. Variants and equipment covered

The tests carried out cover the following component variations and equipment as far as these are relevant for the approval of the production of retread pneumatic tires:

- **different tire carcasses as stated in annex B**
- **different makes as stated above**

3.2. Remarks

3.2.1. Main report:

- The approval certificate keeps its validity only if the required yearly COP (control of production) tests are performed
- The next follow up audit is planned for end 2016.

3.2.2. Follow up audit 2016:

- No substantial change has been made in the quality system. A new “autoclave” (curing) has been installed. Marangoni procedures are used trough the complete retreading process.
  See also point 2.2.7.2. for updated photos of the retreading shop.
- The prescribed yearly COPs on the tires have been successfully performed for the years:
  2013
  2014
  2015

…

- No deviation or non-conformity compromising the quality system has been found.
- All requirements remain fulfilled.
- **The approval certificate E13*109R00*109R00*0057*00 keeps its validity only if the required yearly COP (control of production) tests are performed**
- **The next follow up audit is planned for 2019.**

3.2.3. Follow up audit 2019:

- No substantial change has been made in the quality system. A new "autoclave" (curing) has been installed. Marangoni procedures are used trough the complete retreading process.
  See also point 2.2.7.2. for updated photos of the retreading shop.
- The prescribed yearly COPs on the tires have been successfully performed for the years:
  2016
  2017
  2018
- No deviation or non-conformity compromising the quality system has been found.
- All requirements remain fulfilled.
- **The approval certificate E13*109R00*109R00*0057*00 keeps its validity only if the required yearly COP (control of production) tests are performed**
  The next follow up audit is planned for 2022.

3.2.4. Follow up audit 2022:

- No substantial change has been made in the quality system.
  See also point 2.2.7.2. for updated photos of the retreading shop.
- The prescribed yearly COPs on the tires have been successfully performed for the years:
  2019
  2020
  2021
- No deviation or non-conformity compromising the quality system has been found.
- All requirements remain fulfilled.
- **The approval certificate E13*109R00*109R00*0057*00 keeps its validity only if the required yearly COP (control of production) tests are performed**
  The next follow up audit is planned for 2025.

…

4. Statement of compliance

The inspections items and measurements carried out have shown the compliance of the technical unit described in this report and the attached Annex with the requirements of the ECE-Regulation No. 109 including supplement 10 to the 00 series of amendments.

Esch-sur-Alzette, September 7th, 2022

Luxcontrol s.a.
Service Homologation-automobile

Benedikt Leukart
Ingénieur-Inspecteur

Angelo Tomasini
Ingénieur-Inspecteur

Annex

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

ECE Type Approval no.: E13*109R00*109R00*0057*00

Main Report

Technical Report No.: LCA 54 0973 001 13 Page 1 to 13

Composition of the Annex:

A:	Index	Page 1
B:	Information folder	Page 1 to 9

Index to the information folder:

- Technical documentation of production site (page 1 to 9)

Extension 01

Technical Report No.: LC 0973 002 22 Page 1 to 18

Composition of the Annex:

A:	Index	Page 1
B:	Information folder	Page 1 to 37

Content of the extension:

- Update of the supplement to series of amendments to the regulation
- New tread pattern added

Index to the information folder:

- Technical documentation of production site (page 1 to 37)

PROTEKT POINT

E13 109 R - 000072

0. Common information

E13*109R00/10*0072*01
Société Nationale de Certification et d'Homologation

0.1. Name and address of retreading company:

PROTEKT POINT D.O.O.
Bjelopoljski put bb
31300 PRIJEPOLJE
SERBIA

0.2. Name, Surname and address of authorized person:

KRSMAN KRPOVIC

0.3. Retreading company

Chairman of company: KRSMAN KRPOVIC
Quality assurance: KRSMAN KRPOVIC
Responsible for production: MARKO BOJEVIC

1. Description of applied retreading method.

1.1. Mode of retreading
Cold curing with pre-cured material (Pre-cured cold retread system)

1.2. Method of retreading
Method of retreading is cold curing using MARANGONI pre-cured material:

- Pre-cured protector rings (Ringtread)
- Curved protector strip (Kontur, PRL, Classico)

1.3. Categories of renewable tyres
Truck tyres can be retreaded in following categories:

• Normal	X	local and long distances
• M+S	X	Mud and snow
• Special	X	Mixed, construction

1.4. Maximal speed index of retreaded tyres

F (80 km/h) < speed index < N (140 km/h)

MARANGONI rings and protector strips can be operated at maximum speed M, which is indicated in Marangoni Product Manuals, being official documents of Marangoni.

1.5. Maximal load index of retreaded truck tyres is 150.

2. Description of renewable tyres

2.1. Renewable tyre brands
All tyre brands are considered renewable. To accept a tyre for retreading it has to have a mark of conformity from producer or previous retreader (E or e)

2.2. Structure
All tyres, which are retreaded with retreading device, have radial structure.

3. Available range of retreaded tyres in actual consignment.

3.1. Range of tyres
Sizes of tyres, retreaded with pre-cured material in retreading device are following:

From 7.50R15 to 445/65R22.5

All tyres devised for retreading, which satisfy standards and have disc diameter between 15” and 22,5” can be retreaded.

Size limits for renewable tyres depend on

a) Capacity of retreading device:
   - Minimal: 15”
   - Maximal: 22,5”

b) Maximal and minimal width of available rings and protector strips:

Rings
Minimal width 155mm
Maximal width 390 mm

Strips
Minimal width 130mm
Maximal width 390mm

List of tires / pattern certified 3PMSF:
385/65 R 22,5; 385/55 R 22,5 / BLK WSS 300M; 320M; 325 XS
295/60 R 22,5; 315/70 R 22,5; 315/60 R 22,5 / BLK RDL FE 265XXS; 270XS; 280XXS;280XS
295/60-295/80-315/60-315/70-315/80-12R22,5-13R22,5 / RD4, DA4S
295/60-295/80-315/60-315/70-315/80-12R22,5-13R22,5 / ENERGECO, ENERGECO+, DA2
295/60-295/80-315/60-315/70-315/80-12R22,5-13R22,5 / RDHMe, RDHM, DHM, U729
295/60 R 22,5; 295/80 R 22,5; 315/80 R 22,5; 315/70 R 22,5; 315/60 R 22,5 /
RDG101 250M; 260M; 270XS; 270M; 280XXS; 280XS
295/60-295/80-315/60-315/70-315/80-12R22,5-13R22,5-305/70 R19,5 / RD2, RD2+, DE2, UD2, UD2L

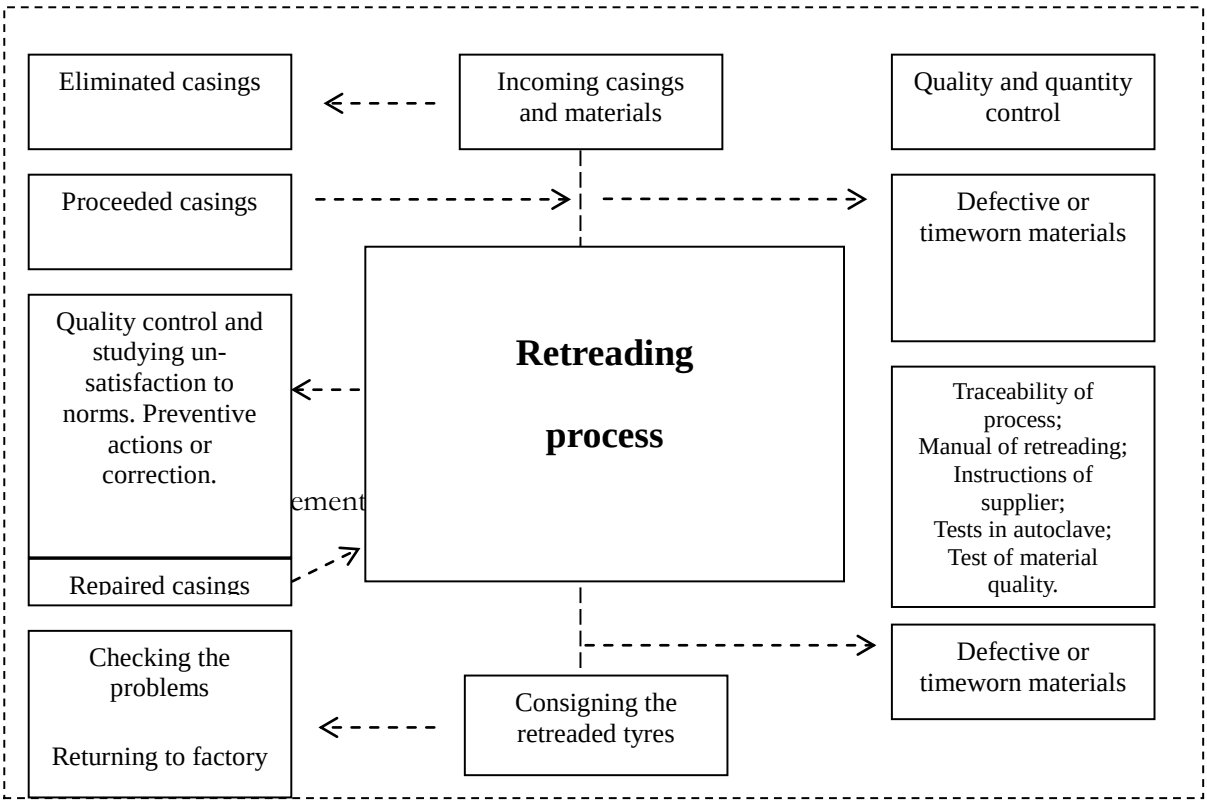
Description production unit/quality system/tyres

4.1.1. Company structure

PROTEKT POINT d.o.o.Bjelopoljski put bb
31.300 PRIJRPOLJE
SERBIA

Chairman of company: KRSMAN KRPOVIC
Quality assurance: KRSMAN KRPOVIC
Responsible for production: MARKO BOJOVIC

follows the procedure, being indicated in MARANGONI tyre retreading manual. Production process can be briefly displayed as follows:



4.1.2. Quality management system

Initial test

First visual control is performed when casings come in, to recognize useless casings with visible one or more irreparable faults.

At initial control trained inspector has to

PROTEKT POINT D.O.O.
Bjelopoljski put bb
31300 Prijepolje
Tel/fax: +381 (33) 74 31 31
Mob.: +381 (69) 35 35 111
E-mail: prodaja@protektpoint.rs
PIB: 107878128
M.B.: 20888563
Š.D.: 2211
Br.računa: 170-30022738000-47 UniCredit Bank

Make sure that casing is clean and dry before further test according to method described in Marangonityre retreading manual (chapter 2)

Recognizes the casings useless for retreading, which have at least one of faults listed in ECE (Economic Commission for Europe) regulation 109 § 6.2.4.1. (a, b, c, d)

Decides about retreading the casing taking into consideration detected fault(s). Evaluation criteria about whether the fault is in acceptable limits or not can be found in Marangoni tyre retreading manual or in Marangoni tyre test manual.

Note: Faults can be detected in phase from initial test until cutting.

If casing is not acceptable for retreading operator notes "N" (*nelietojams* - unusable) in Stocktaking card of tyre production (prepared before initial test) and delivers the tyre to defect zone.

Check if casing has (in accordance with Regulation ECE 109):
Conformity number of factory (R54) or conformity number of previous retreader. (R109)
Indications of load and speed
Maximal speed index ≥ 80 km/h (F)

Repairs

Repairs are allowed only on retreaded tyres. Any previous retreadings, which are out of admissible limits, will be changed regularly. There are steel fortified patches used to prevent defects during tyre exploitation. Technical limits of material are indicated in table of corrections from supplier of fastening materials, as well as in Tyre retreading manual.

Maximal retreading sizes at top: 40mm*70mm
Maximal retreading sizes at sides: 70mm*130mm

Tyres will not be retreaded if there are following circumstances:

- Size of damage exceeds size allowed by producer of fastenings.
- If tyre needs more than 5 patches (if tyre will be exploited on construction sites) or 2 patches (if it will be exploited on the street) including the existing patches.
- In case, the damages are located so close, that patches would cover each other.
- In case, the damage is located in a place where it is irreparable.

Method of selecting retreading material and method of incoming material control.

Our suppliers guaranty the quality of supplied material (Marangoni and Tip Top have ISO 9001 certificate). The characteristics of patches meet the standards of ECE 109.

Materials are controlled when they come in as well as during the process.

Control of incoming material

When controlling the incoming material, its type, quantity and condition will be identified, to make sure it conforms to what is indicated by documents. Otherwise the load will be placed in zone of quarantine awaiting for the decision of management after clearing the circumstances with supplier.

Control during the process

The profile will be chosen according to size of tyre and the wishes of customer. Management helps customers to choose, using Marangoni product catalogue, which contains information about protector rings and covers, as well as the sphere of their application.

PROTEKT POINT D.O.O.
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PIB: 107878128
M.B.: 20888563
Š.D.: 2211
Br.računa: 170-30022738000-47 UniCredit Bank

Tyre will be cut with cutter of size according to profile (Tyre retreading manual), to ensure that ring (cover) fits tightly to surface of tyre (top, sides). Special program allows achieving an ideal cutting profile for each type and size of tyre.

From other side, supplier's directions about storage and usage of raw material have to be regarded.

In moment of applying operator checks the expiry date of material (if prescribed) and its condition. If date is expired or material is damaged, it has to be placed in area of quarantine. Management decides regularly whether to keep or remove them after clearing the circumstances with supplier.

When supplier modifies the production and these modifications have influence on production and/or final result, he has to provide written information.

Procedure of product quality checking during the phase of production.

When beginning the process each casing is being checked from inside and from outside and it receives stocktaking card of tyre production. This card follows the casing in all phases of process, mentioned below:

- Visual control
- Cutting, buffing
- Identifying the holes, splits and damages
- Repair (if necessary)
- Cementing
- Filling the holes and splits
- Preparing protector
- Constructing
- Curing
- Final check

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In the end of each phase operator checks if process has been going on according to suppliers method (described in tyre retreading manual of Marangoni and its addenda) and if all controls have been done according to ECE 109. When detecting defects, limits of their accepting are indicated in Tyre control manual, to define the criteria of accepting or rejecting the casings.

To assure, that only proper casings are forwarded to next phase of process, operators confirm with their signature in stocktaking card, that casing has passed the control.

To avoid tyre overheating, during cutting (buffing) phase the blades will be checked and replaced if necessary.

After detecting holes and splits, uncovered steel cords will be handled mechanically and cemented as soon as possible, to prevent their oxidizing. After finishing repairing operations tyres will be cured not later than after 72 hours, which is the time MARANGONI has recommended, considering specific time, temperature and pressure parameters.

In final control, operator checks tyre, while they are still warm, to make sure, if they are in perfect condition before leaving workshop.

Marking control is performed in following phases:

- Initial test (Presence of conformity label „E", directions for further operators in stocktaking card)
- Test of holes and splits (maximum speed index, eliminating the old marking)
- Package (new marking)
- Final test (checking the necessity, correctness and readability of marking)

There is ETRTO (The European Tyre and Rim Technical Organization) standard used internationally.

Method of tyre selection, checking the conformity of products to regulation 109.

There are samples selected in the warehouse of production after retreading to check their durability, sizes and marking.

Durability check

Regulation E 109 sets, that the exploitation qualities of retreaded tyres must be checked according to app.7 of this regulation. These tyres must display actual production of machine. There must be 5 tyres checked initially in case the amount of production is 500 to 600 tyres per year.

Selection of tyres that have to be sent to rotation test (R54) is performed by management. It is based on amount of purchased materials and on most characterizing parameters of retreaded tyres.

The results of this test will be preserved.

Size control of retreaded tyres.

Once in a month one lot of tyres passes size and marking control. Practically the operator will apply the procedure of app.6 of Regulation, to measure the outer diameter of final product. After that the conformity of these sizes to theoretical values (D min and D max) will be checked. Operator checks the marking of the same lot of tyres.

The result of this control will be filed. The rotation of tyres has to be ensured, to control all range of tyres.

Procedure, if lot of tyres does not correspond requirements.

Tyre will be admitted as improper, if:

- it contains retreading faults (during the production or complaints of customer)
- shows faults in load and speed checks
- contains marking faults (missing or old marking)

Note: first defects are detected between initial check and cutting and will not be considered incompliance. Operator will decide whether to affirm conformity according to prescribed limits of admissibility

Incompliance during the production: after curing the tyres are checked while they are still hot, to detect all defects, which exceed admissible limits. In this case operator makes immediate decision, which can be:

- corrections (small retreading defects, marking defects)
- remaking (bigger retreading defects, which demand complete remaking)
- defected goods (defect is not reparable)

In any case operator points type of defect and its possible cause in stocktaking card and forwards the tyre to appropriate place (noting “N” or “*nederīgs*” in stocktaking card)

Incompliance in case of customer’s complaint:

According to quality politics of our company it is important to be able determining the reasons why have the tyres shown faults during exploitation.

Operator makes visual analysis of defect and makes one of mentioned decisions, on the ground of settled admissible limits. If the matter is a retreading defect, the operator completes a card „Customer complaints analysis”

This card is afterwards putted in computer (table „Incompliance”), to make accounting and conclude the tendencies of incompliance. According to these tendencies management will decide about improving activities and file the decision.

The stocktaking cards of the tyres, which have had defects after curing, are available also as computer files.

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BLACKLINE

WSS

Winter trailer design - 3PMSF

Rimorchio invernale - 3PMSF

Winter-Trailerprofil - 3PMSF

Remolque para invierno - 3PMSF

Profil remorque hivernale - 3PMSF

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RINGTREAD

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

	SIZE	mm		mm	mm		CODE
	265/70R19.5	220	XXS	2580	14,0		021035304
	275/70R22.5	240	XS	2895	14,0		021035303
	275/70R22.5	250	XS	2860	14,0		021035335
	295/80R22.5	250	M	3140	14,5		021035302
	315/80R22.5	260	M	3215	14,5		021035301
	315/70R22.5	270	XS	3000	14,5		021035305
	315/60R22.5	280	XXS	2840	14,5		021035306
	385/65R22.5	300	M	3210	14,0		021035370
	385/65R22.5	320	M	3215	14,0		021035380
	385/55R22.5	325	XS	2955	14,0		021035383
	445/45R19.5	390	XXS	2690	14,0		021035390

220 mm - 280 mm = 4 grooves / 4 incavi / 4 Längsrillen / 4 sculptures / 4 surcos

MARANGONI original tread design / Design originale del battistrada MARANGONI / MARANGONI Original Profildesign / Diseño original de la banda de rodadura MARANGONI / Conception originale de la bande de roulement MARANGONI

BLACKLINE

RDL FE

Super low rolling resistance drive pattern for the greatest fuel saving on long haul application

Trattivo con minima resistenza al rotolamento e massimo risparmio di carburante nelle lunghe distanze

Profil für Antriebsreifen mit sehr geringem Rollwiderstand für maximale Kraftstoffeinsparung im Fernverkehr

Motriz de superbaja resistencia al rodamiento para lograr el mayor ahorro de combustible en largas distancias

Profil traction à moindre résistance au roulement et économe en carburant pour longue distance

E13*109R00/10*0072*01
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LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

RINGTREAD

	SIZE	mm		mm	mm	CODE
	295/60R22.5	265	XXS	2740	16,5	021062531
	315/70R22.5	270	XS	3000	16,5	021062535
	315/60R22.5	280	XXS	2840	16,5	021062541
	315/70R22.5	280	XS	3000	16,5	021062542

MARANGONI original tread design / Design originale del battistrada MARANGONI / MARANGONI Original Profildesign / Diseño original de la banda de rodadura MARANGONI / Conception originale de la bande de roulement MARANGONI

BLACKLINE

RDR HM3

Very high mileage regional / long haul drive pattern

Trattivo regionale / lunghe distanze con chilometraggio elevato

Sehr hohe Kilometerleistung im Regional- und Fernverkehr

Tracciòn Regional / larga distancia con un elevado kilometraje

Profil traction conduite régional / longue distance à kilométrage très élevé

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LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

RINGTREAD

	SIZE	mm		mm	mm	CODE
	285/70R19.5	230	XXS	2650	15,0	021070109
	285/70R19.5	250	XXS	2650	15,0	021070121
	295/80R22.5	250	M	3170	20,0	021070124
	315/80R22.5	260	M	3185	20,0	021070130
	295/60R22.5	265	XXS	2785	18,5	021070101
NEW	295/55R22.5	270	XXS	2650	18,5	021070103
	315/70R22.5	270	XS	3000	20,0	021070135
	315/80R22.5	270	M	3185	20,0	021070137
	315/60R22.5	280	XXS	2840	18,5	021070139
	315/70R22.5	280	XS	3000	20,0	021070140
	315/80R22.5	280	M	3185	20,0	021070102

MARANGONI original tread design / Design originale del battistrada MARANGONI / MARANGONI Original Profildesign / Diseño original de la banda de rodadura MARANGONI / Conception originale de la bande de roulement MARANGONI

RD4

Intercity bus with good winter traction

Bus interurbano con buona trattività in impiego invernale

Für Überlandbusse, mit guter Traktion auf winterlichen Straßen

Autobús interurbano con buena tracción en condiciones invernales

Bus interurbain avec bonne traction hivernale

INTERCITY

URBAN

WINTER

ENERGY SAVING

RINGTREAD

STD COMPOUND	SIZE	mm		mm	mm		CODE
	295/80R22.5 *12R22.5*	230	M	3140	17,0		021022505
	285/70R19.5	235	XXS	2650	17,0		021022501
	275/70R22.5	235	XS	2860	17,0		021022506
	295/80R22.5 *315/80R22.5*	240	M	3180	17,0		021022508
	295/80R22.5 *315/80R22.5*	250	M	3185	17,0		021022511

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RTA-E

Long haul and fuel saving trailer

Rimorchio per lunghe distanze e risparmio di carburante

Trailerprofil im Fernverkehr, für kraftstoffsparenden Einsatz

Remolque para largas distancias con ahorro de combustible

Profil remorque longue distance et économe en carburant

E13*109R00/10*0072*01
Société Nationale de Certification et d'Homologation

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

RINGTREAD

HP COMPOUND	SIZE	mm		mm	mm	CODE
	385/65R22.5	295	M	3235	15,0	021025215
	385/65R22.5	305	M	3215	15,0	021025220
	385/65R22.5	320	M	3215	15,0	021025227
	385/55R22.5	325	XS	2955	15,0	021025230
	435/50R19.5	380*	XXS	2740	12,0	021025246
	445/45R19.5	390*	XXS	2690	13,0	021025250

* 6 grooves / 6 incavi / 6 Längsrillen / 6 sculptures / 6 surcos

RTA-W

Long haul and fuel saving trailer

Rimorchio per lunghe distanze e risparmio di carburante

Trailerprofil im Fernverkehr, für kraftstoffsparenden Einsatz

Remolque para largas distancias con ahorro de combustible

Profil remorque longue distance et économe en carburant

LONG HAUL

REGIONAL

WINTER

ENERGY SAVING

RINGTREAD

HP COMPOUND	SIZE	mm		mm	mm	CODE
	385/65R22.5	295	M	3185	12,0	021025456
	385/65R22.5	305	M	3185	12,0	021025459
	385/55R22.5	325	XS	2955	12,0	021025485

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RTE/RTE-M

High mileage regional trailer

Rimorchio regionale ad alto chilometraggio

Trailerprofil mit hoher Kilometerleistung im Regionalverkehr

Remolque regional con alto kilometraje

Profil remorque régional à kilométrage élevé

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

RINGTREAD

HP COMPOUND	SIZE	mm		mm	mm	CODE
RTE	385/65R22.5	295	M	3185	16,0	021025505
RTE	385/65R22.5	305	M	3185	16,0	021025510

STD COMPOUND	SIZE	mm		mm	mm	CODE
RTE-M	385/65R22.5	295	M	3185	14,5	021025705
RTE-M	385/65R22.5	305	M	3185	14,5	021025710

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R164-L

High mileage regional trailer

Rimorchio regionale ad alto chilometraggio

Trailerprofil mit hoher Kilometerleistung im Regionalverkehr

Remolque regional con alto kilometraje

Remorque régional à kilométrage élevé

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

RINGTREAD

STD COMPOUND	SIZE	mm		mm	mm		CODE
	385/65R22.5	300	M	3210	13,5		021031507

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RSSY3

Mixed application super single design

Super-single per uso misto

Trailerprofil im gemischten Einsatz

Remolque para aplicaciones mixtas

Profil Super Single pour applications mixtes

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RINGTREAD

ON/OFF

OFFROAD

HP COMPOUND	SIZE	mm		mm	mm	CODE
	385/65R22.5	295	M	3235	16,5	021034232
	385/65R22.5	305	M	3235	16,5	021034235
	425/65R22.5	320	XL	3380	17,0	021034238
	445/65R22.5	360	XL	3460	17,5	021034247

ENERGECO+

Long haul and fuel saving drive

Trattivo per lunghe distanze e risparmio di carburante

Für kraftstoffsparende Fahrten im Fernverkehr

Tracción para largas distancias con ahorro de combustible

Profil traction longue distance et économe en carburant

E13*109R00/10*0072*01
Société Nationale de Certification et d'Homologation

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

RINGTREAD

HP COMPOUND	SIZE	mm		mm	mm		CODE
ENERGECO+							
	315/80R22.5 *295/80R22.5*	250	M	3185	19,5		021037020
	295/60R22.5	255	XXS	2695	18,0		021037023
	315/70R22.5 *305/70R22.5*	260	XS	3000	19,5		021037026
	315/80R22.5	260	M	3185	19,5		021037029
	315/60R22.5	270	XXS	2820	18,0		021037032
	315/70R22.5	270	XS	3000	19,5		021037035
	315/80R22.5	270	M	3185	19,5		021037037
	315/60R22.5	280	XXS	2820	18,0		021037041
	315/70R22.5	280	XS	3020	19,5		021037042
ENERGECO							
	295/80R22.5	250	M	3185	17,0		021036505
	315/80R22.5	260	M	3185	17,0		021036508
	315/70R22.5	270	XS	3000	17,0		021036512
	315/80R22.5	270	M	3185	17,5		021036520

17 **product comparison / additional tyre sizes** · confronto dei prodotti / misure aggiuntive di pneumatici · Produktvergleich / zusätzliche Reifengrössen · comparación de productos / tamaños adicionales de neumáticos · comparaison de produits / tailles de pneus supplémentaires

RD2

High mileage regional drive

Trattivo regionale ad alto chilometraggio

Für Antriebsreifen im Regionalverkehr, mit hoher Kilometerleistung

Motriz de alto kilometraje

Profil traction régional à kilométrage élevé

LONG HAUL

REGIONAL

WINTER

ENERGY SAVING

RINGTREAD

STD COMPOUND	SIZE	mm		mm	mm		CODE
	265/70R19.5 *285/70R19.5*	220	XXS	2550	14,5		021022006
	285/70R19.5 *265/70R19.5*	230	XXS	2620	14,5		021022010
	275/70R22.5	240	XS	2860	19,5		021022016
	295/80R22.5 *315/80R22.5*	240	M	3185	19,5		021022017
	305/70R22.5 *315/70R22.5*	250	XS	3000	19,5		021022022
	295/80R22.5 *315/80R22.5*	250	M	3185	19,5		021022023
	315/70R22.5 *305/70R22.5*	260	XS	3000	19,5		021022026
	315/80R22.5	260	M	3185	19,5		021022029
	315/70R22.5	270	XS	3000	19,5		021022030
	315/80R22.5	270	M	3185	19,5		021022032

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RD-HMe

High mileage drive axle pattern

Trattivo ad alto chilometraggio

Für Antriebsreifen, mit hoher Kilometerleistung

Tracción de alto rendimiento kilométrico

Profil traction à haut kilométrage

LONG HAUL

REGIONAL

WINTER

ENERGY SAVING

RINGTREAD

HP COMPOUND	SIZE	mm		mm	mm	CODE
	315/80R22.5 *295/80R22.5*	250	M	3185	20,0	021020420
	315/80R22.5	260	M	3185	20,0	021020423
	315/70R22.5	265	XS	3000	20,0	021020426
	315/80R22.5	270	M	3215	20,0	021020429
	315/70R22.5	275	XS	3000	20,0	021020432

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RDG101

All season regional pattern with excellent traction

Disegno all season regionale con eccellente trazione

Ganzjahresprofil für den Regionalverkehr mit hervorragender Traktion

Diseño regional para todas las estaciones con una excelente tracción

Profil régional 4 saisons avec une excellente traction

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Société Nationale de Certification et d'Homologation

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

RINGTREAD

HP COMPOUND	SIZE	mm		mm	mm	CODE
	295/80R22.5	250	M	3170	22,0	021007826
	315/80R22.5 *295/80R22.5*	260	M	3185	22,0	021007830
	315/70R22.5	270	XS	3000	22,0	021007835
	315/80R22.5	270	M	3215	22,0	021007837
	315/70R22.5	280	XS	3000	21,5	021007840

23 **product comparison / additional tyre sizes** · confronto dei prodotti / misure aggiuntive di pneumatici · Produktvergleich / zusätzliche Reifengrössen · comparación de productos / tamaños adicionales de neumáticos · comparaison de produits / tailles de pneus supplémentaires

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MIX100

Mixed application DIRECTIONAL drive (90% on-road, 10% off-road)

Trattivo DIREZIONALE per uso “misto” (90% “on-road” e 10% “offroad”)

LAUFRICHTUNGSGEBUNDENES Design für die kombinierte Anwendung (90% auf Straßen, 10% Off-Road)

Motriz DIRECCIONAL para aplicaciones mixtas (90% en carretera, 10% fuera de carretera)

Profil traction DIRECTIONNEL pour applications mixtes (90% sur-route, 10% hors-route)

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RINGTREAD

ON/OFF

OFFROAD

STD COMPOUND	SIZE	mm		mm	mm	CODE
	315/80R22.5	250	M	3240	22,5	021013745
	315/80R22.5	260	M	3240	22,5	021013752
	315/80R22.5	270	M	3240	22,5	021013759

MARANGONI original tread design / Design originale del battistrada MARANGONI / MARANGONI Original Profildesign / Diseño original de la banda de rodadura MARANGONI / Conception originale de la bande de roulement MARANGONI

MIX MASTER

Mixed application drive

Trattivo per uso misto

Für den gemischten Einsatz

Motriz para aplicaciones mixtas

Profil traction pour applications mixtes

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RINGTREAD

ON/OFF

OFFROAD

STD COMPOUND	SIZE	mm		mm	mm		CODE
	13R22.5 *12.00R20*	240	L	3300	18,5		021013503
	295/80R22.5	245	M	3170	18,5		021013504
	315/80R22.5 *13R22.5*	250	L	3300	18,5		021013505
	315/80R22.5	260	M	3220	18,5		021013507

TA

Long distance trailer

Rimorchio per lunghe distanze

Trailerprofil im Fernverkehr

Remolque para larga distancia

Profil remorque longue distance

E13*109R00/10*0072*01
Société Nationale de Certification et d'Homologation

LONG HAUL
REGIONAL
WINTER
ENERGY SAVING
WINTER TA M+S

PROFIL LINER

HP COMPOUND	mm	mm	mm	kg	kg/m	CODE
	320(6)	10400	13,5	52,2	5,0	044075035
	360(8)	10400	12,5	53,0	5,1	044075038
M+S	390(8)	10400	12,5	56,0	5,4	044075042

(...) numbers of grooves / numero d'incavi / Anzahl von Längsrillen / numero de surcos / nombre de sculptures

contoured tread with mini-wings / fascia concava con mini-alette / konturierter Laufstreifen mit Mini-Seitenlappen / banda cóncava con mini-alas / bande concave avec mini-ailettes

SSY3

Mixed application trailer design

Rimorchio per uso misto

Trailerprofil im gemischten Einsatz

Remolque para aplicaciones mixtas

Profil remorque pour applications mixtes

E13*109R00/10*0072*01
Société Nationale de Certification et d'Homologation

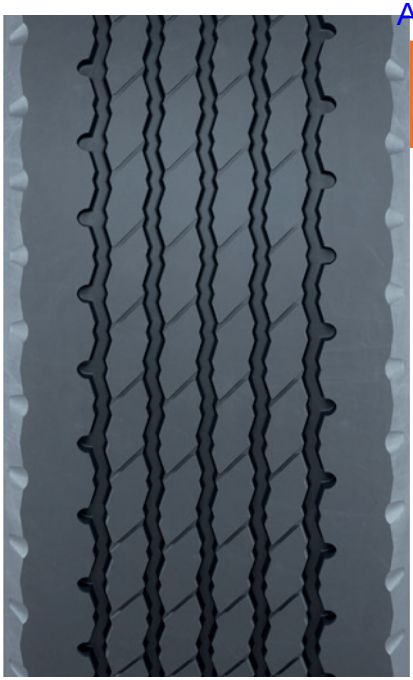
PROFIL LINER

ON/OFF

OFFROAD

HP COMPOUND	mm	mm	mm	kg	kg/m	CODE
	295	3290	16,5	17,3	5,3	044074532
	305	3280	16,5	17,9	5,5	044074535
	320	3420	17,0	20,0	5,9	044074538
	360	3500	17,5	23,2	6,6	044074547

contoured tread with mini-wings / fascia concava con mini-alette / konturierter Laufstreifen mit Mini-Seitenlappen / banda cóncava con mini-alas / bande concave avec mini-ailettes



164

Universal trailer with good grip

Rimorchio universale con buona aderenza

Trailerprofil mit guter Bodenhaftung

Remolque universal con buena adherencia

Profil remorque universel avec bonne adhérence

E13*109R00/10*0072*01
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LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

PROFIL LINER

STD COMPOUND	mm	mm	mm	kg	kg/m	CODE
	L-300(*)	3270	13,5	13,9	4,3	044061043

(*) Tread pattern 164-L light version / Disegno 164-L versione leggera / Profil 164-L Leicht Version / Diseño 164-L versión ligera / Profil 164-L version légère

contoured tread with mini-wings / fascia concava con mini-alette / konturierter Laufstreifen mit Mini-Seitenlappen / banda cóncava con mini-alas / bande concave avec mini-ailettes

ZEHM

All position for trucks and bus operating on regional roads, high mileage

Profilo regionale ad eccellente chilometraggio utilizzabile su tutte le posizioni sia di autocarri che di autobus

Wirtschaftliche Rundumbereifung für LKW und Busse im Regionalverkehr, hohe Kilometerleistung

Perfil económico para camiones y autobuses de tráfico regional, alto kilometraje

Toutes positions pour camions et bus parcourant les routes régionales, à kilométrage élevé

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PROFIL LINER

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

STD COMPOUND	mm	mm	mm	kg	kg/m	CODE
	210	10400	14,5	37,3	3,6	044080511
	220	10400	14,5	39,1	3,8	044080514
	230	10400	16,5	45,4	4,4	044080517
	240	10400	16,5	47,5	4,6	044080520
	250	10400	16,5	49,2	4,7	044080523
	260	10400	16,5	50,4	4,9	044080526

contoured tread with mini-wings / fascia concava con mini-alette / konturierter Laufstreifen mit Mini-Seitenlappen / banda cóncava con mini-alas / bande concave avec mini-ailettes

MS101

All season pattern, suitable for short and long distance

Disegno quattro stagioni per brevi e lunghe distanze

Ganzjahresprofil für Regional- und Fernverkehr

Perfil para todo tiempo, uso en cortos y largos trayectos

Profil 4 saisons, convenant aux courtes et longues distances

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LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

PROFIL LINER

HP COMPOUND	mm	mm	mm	kg	kg/m	CODE
	250	3140	22,0	18,2	5,8	043532250
	260	3050	22,0	18,8	6,1	043532254
	260	3250	22,0	19,9	6,1	043532257
	270	3250	22,0	20,6	6,3	043532262
	280	3050	22,0	20,0	6,6	043532266
	280	3250	22,0	21,4	6,6	043532267

MARANGONI original tread design / Design originale del battistrada MARANGONI / MARANGONI Original Profildesign / Diseño original de la banda de rodadura MARANGONI / Conception originale de la bande de roulement MARANGONI

MS101L

All season pattern with excellent winter characteristics for light trucks

Disegno quattro stagioni con caratteristiche invernali per autocarri leggeri e furgoni

Ganzjahresprofil mit hervorragenden Wintereigenschaften für L-LKW

Perfil para todo tiempo con excelentes propiedades invernales para neumáticos de furgones y camionetas

Profil 4 saisons avec d'excellentes caractéristiques hivernales pour camions légers et camionnettes

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PROFIL LINER

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

HP COMPOUND	mm	mm	mm	kg	kg/m	CODE
	180	10400	15,0	30,3	2,9	043532316
	190	10400	15,0	31,2	3,0	043532323
	200	10400	15,0	33,9	3,2	043532330
	210	10400	15,0	35,9	3,4	043532337
	220	10400	15,0	37,4	3,6	043532344

MARANGONI original tread design / Design originale del battistrada MARANGONI / MARANGONI Original Profildesign / Diseño original de la banda de rodadura MARANGONI / Conception originale de la bande de roulement MARANGONI

BUTE

High mileage regional trailer

Rimorchio regionale ad alto chilometraggio

Trailerprofil mit hoher Kilometerleistung im Regionalverkehr

Diseño para Semiremolque, utilización en Regional

Profil remorque pour conduite régionale à kilométrage élevé

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LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

UNITREAD

BASIC COMPOUND	mm	mm	mm	kg	kg/m	CODE
	300*	9900	13,5	44,5	4,5	043327580

(*) Preformed wings / Alette preformate / vorgeformte Flügel / aletas preformadas / ailettes prémoulées

UZA L

All position drive with shoulder reinforcement for short and long distance traffic, fast and slow

Disegno trattivo per tutte le posizioni con le spalle rinforzate

Modernes schulterverstärktes Straßenprofil für den Regional- und Fernverkehr

Dibujo con hombros reforzados para trayectos cortos y largos

Profil moderne pour toutes les positions avec renforcement de l'épaulement pour courtes et longues distances, à vitesse lente et élevée

INTERCITY | URBAN | WINTER | ENERGY SAVING

UNITREAD

M+S

STD COMPOUND	mm	mm	mm	kg	kg/m	CODE
	230	10400	13,5	35,2	3,4	042530140
	240	10400	13,5	37,0	3,6	042530145
	250	10400	13,5	38,6	3,7	042530150

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U729

High mileage drive axle pattern

Trattivo ad alto chilometraggio

Für Antriebsreifen, mit hoher Kilometerleistung

Tracción de alto rendimiento kilométrico

Profil traction à haut kilométrage

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LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

UNITREAD

STD COMPOUND	mm	mm	mm	kg	kg/m	CODE
	230	10400	19,0	48,7	4,7	042561014
	240	10400	19,0	51,0	4,9	042561017
	250	10400	19,0	52,8	5,1	042561020
	260	10400	19,0	54,5	5,2	042561023
	270	10400	19,0	57,2	5,5	042561027
	285*	10400	19,0	62,9	6,0	042561036

(*) Mini wing

UD2

All season pattern with winter properties

Disegno quattro stagioni con caratteristiche adatte all'uso invernale

Ganzjahresprofil mit Wintereigenschaften

Perfil para todo tiempo con buenas propiedades para uso invernal

Profil 4 saisons avec propriétés hivernales/d' adhérence

UNITREAD

LONG HAUL

REGIONAL

WINTER

ENERGY SAVING

STD COMPOUND	mm	mm	mm	kg	kg/m	CODE
	230	10400	18,0	45,1	4,3	042523008
	240	10400	18,0	47,5	4,6	042523011
	250	10400	18,0	51,0	4,9	042523014
	260	10400	18,0	52,3	5,0	042523017
	270	10400	18,0	56,7	5,4	042523020

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UD2L

All season pattern, regional distance for light trucks

Disegno quattro stagioni per la ricostruzione di pneumatici Light Truck, brevi distanze

Ganzjahresprofil im Regionalverkehr für L-LKW´s

Perfil para todo tiempo para el recauchutado de neumáticos de transporte ligero, uso regional

Profil 4 saisons, régional pour camions légers

UNITREAD

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

STD COMPOUND	mm	mm	mm	kg	kg/m	CODE
	210	10400	16,0	38,0	3,6	042563008
	220	10400	16,0	39,9	3,8	042563011
	230	10400	16,0	41,6	4,0	042563014
	240	10400	16,0	44,4	4,3	042563017
	250	10400	16,0	46,4	4,5	042563020
	260	10400	16,0	47,9	4,6	042563023
	270	10400	16,0	50,8	4,8	042563027
	280	3270	16,0	16,5	5,1	042563033

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UMS4

All season tread pattern over short and medium distance on fresh snow

Disegno trattivo quattro stagioni per impieghi su brevi e lunghe distanze con neve fresca

Ganzjahresprofil für Antriebsachsen für Mittel- und Langstrecken auf frischem Schnee

Diseño para todas las estaciones, tanto para uso en corto como en medio recorrido, para superficies húmedas y resbaladizas

Profil 4 saisons pour courtes et moyennes distances sur la neige fraîche

LONG HAUL | REGIONAL | WINTER | ENERGY SAVING

UNITREAD

M+S

STD COMPOUND	mm	mm	mm	kg	kg/m	CODE
	155	10400	15,0	20,5	2,0	042526014
	165	10400	15,0	23,7	2,3	042526017
	180	10400	15,5	26,7	2,6	042526020
	195	10400	16,5	30,1	2,9	042526023
	205	10400	19,0	38,2	3,7	042526026
	220	10400	19,0	40,3	3,9	042526029
	230	10400	19,0	42,8	4,1	042526032
	240	10400	19,0	45,5	4,4	042526035
	250	10400	19,0	49,0	4,7	042526038
	260	10400	18,5	54,7	5,3	042526041

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UDY3L

Directional pattern, good traction and exceptionally high mileage, excellent traction on and off the road

Profilo direzionale con eccezionale resa chilometrica e trazione su strada e fuoristrada

Laufrichtungsgebundenes Traktionsprofil für den verschleißintensiven Einsatz Straße / Gelände

Escultura direccional, excelente kilometraje y buena tracción en carretera y fuera de ella

Profil directionnel, bonne traction et kilométrage très élevé, excellente traction sur et hors route

UNITREAD

ON/OFF

OFFROAD

STD COMPOUND	mm	mm	mm	kg	kg/m	CODE
	230	10400	17,0	45,1	4,3	042565014
	240	10400	17,0	47,8	4,6	042565017
	250	10400	17,0	50,0	4,8	042565020
	260	10400	17,0	51,9	5,0	042565023

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BDY3

High mileage, mainly for use on building sites

Profilo trattivo ad alta resa chilometrica per utilizzo prevalente in cantiere

Hohe Kilometerleistung, ideal für den Einsatz auf Baustellen

Alto rendimiento kilométrico, principalmente en obras

Kilométrage élevé, principalement pour utilisation sur chantiersn

UNITREAD

ON/OFF

OFFROAD

BASIC COMPOUND	mm	mm	mm	kg	kg/m	CODE
	240	10400	21,5	57,3	5,5	043321239
	250	10400	21,0	59,8	5,8	043321246
	260	10400	21,0	62,2	6,0	043321253

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BMM

Mixed application, non-directional

Impiego misto, non direzionale

Kombinierte Anwendung,
nicht laufrichtungsgebunden

Uso mixto, no direccional

Application mixte, non directionnelle

UNITREAD

ON/OFF

OFFROAD

BASIC COMPOUND	mm	mm	mm	kg	kg/m	CODE
	240	9900	20,0	54,0	5,5	043332038
	250	9900	20,0	57,2	5,8	043332045
	260	9900	20,0	59,7	6,0	043332052

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BUDYL

Directional pattern, good traction and exceptionally mileage on and off the road

Profilo direzionale con eccezionale resa chilometrica e trazione su strada e fuoristrada

Laufrichtungsgebundenes Traktionsprofil für den verschleißintensiven Einsatz Straße / Gelände

Diseño direccional, óptima tracción y excelente kilometraje, para una utilización on/off

Profil directionnel, bonne traction et kilométrage très élevé sur et hors route

UNITREAD

M+S

ON/OFF

OFFROAD

BASIC COMPOUND	mm	mm	mm	kg	kg/m	CODE
	210	10400	17,5	40,5	3,9	043366021
	220	10400	17,5	42,1	4,0	043366026
	230	10400	17,5	43,0	4,1	043366031
	240	10400	17,5	43,4	4,2	043366038
	250	10400	17,5	44,9	4,3	043366045
	260	10400	17,5	49,0	4,7	043366052

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