



GRAND-DUCHÉ DE LUXEMBOURG

Ministère du Développement durable
et des Infrastructures
Département des Transports

L-2938 Luxembourg

SOCIÉTÉ NATIONALE DE
CERTIFICATION ET D'HOMOLOGATION

s.à r.l.

Registre de Commerce: B 27180

L-5201 Sandweiler

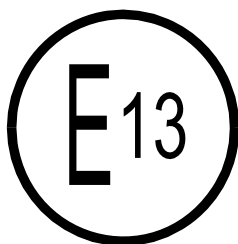


Référence: E13*109R00*109R00*0072*00

Annexes: - Rapport Technique
- Fiche de Renseignements du constructeur

Sandweiler, le 29 novembre 2013

Communication



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APPROVAL WITHDRAWN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 N° 109
of a retreading production unit pursuant to Regulation N° 109


Numéro d'homologation:

Approval number:

E13*109R00*109R00*0072*00

Marque d'homologation:

Approval mark:

 109 R - 000072

1. Nom ou marque de fabrique de l'entreprise de rechapage:

Retreader's name or trade mark:

PROTEKT POINT

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, selon les paragraphes 4.1.3. et 4.1.4. du présent Règlement:

Summarised description as in paragraphs 4.1.3. and 4.1.4. of this Regulation:

<i>Trade names or marks:</i>	<i>PROTEKT POINT</i>
<i>Range of tyre sizes:</i>	<i>see manufacturer's information document</i>
<i>Structure of tyres 2/:</i>	<i>diagonal / bias-belted / radial</i>
<i>Category of use of tyres 2/:</i>	<i>normal / snow / special-use tyres</i>
<i>System of retreading 2/:</i>	<i>top-capping / re-capping / bead to bead</i>
<i>Method of application of the new materials to be used 2/:</i>	<i>camel-back / strip-wound / direct-extrusion / pre-cured</i>
<i>Maximum speed symbol of the tyres to be retreaded:</i>	<i>N</i>
<i>Maximum load index of the tyres to be retreaded:</i>	<i>160</i>
<i>Nominated international tyre standard to which the range of tyres conform 2/:</i>	<i>ETRTO / TRA / JATMA / TRAA / ABPA / STRO</i>

5. Autorité délégué:

Assigned authority:

*Société Nationale de Certification et d'Homologation
L-5201 Sandweiler*

Service technique et, le cas échéant, laboratoire d'essai agréé 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 SA
BP 349
L-4004 Esch-sur-Alzette

6. Date du procès-verbal délivré par ce service:

Date of report issued by that service:

20.11.2013

7. Numéro du procès-verbal délivré par ce service:

Number of report issued by that service:

LCA 54 0973 001 13

8. Motif(s) de l'extension (le cas échéant):

Reason(s) of extension (if applicable):

not applicable

9. Observations:

Any remarks:

not applicable

10. **Lieu:**
Place: Sandweiler
11. **Date:**
Date: 29 novembre 2013
12. **Signature:**
Signature:

Pour le Département des Transports



Marco FELTES
Inspecteur Principal 1^{er} en rang

Pour la SNCH



Claude LIESCH
Directeur



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"



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L-5201 Sandweiler



Référence: E13*109R00*109R00*0072*00

Annexes: - Rapport Technique
- Fiche de Renseignements du constructeur

Sandweiler, le 29 novembre 2013

Index du dossier d'homologation

Index to type-approval report

Numéro d'homologation:

Approval number:

E13*109R00*109R00*0072*00

Révision:

Revision:

00

***Nom ou marque de fabrique de l'entreprise
de rechapage:***

Retreader's name or trade mark:

PROTEKT POINT

1.

Procès-verbal d'essai:

Test report:

N° LCA 54 0973 001 13

- Technical report:
- Index to information package:

Pages 1 to 13;
Annex A - Page 1.

2.

Dossier du constructeur:

Report of the manufacturer

Annex B

- Information folder:

Page 1 to 9.

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.

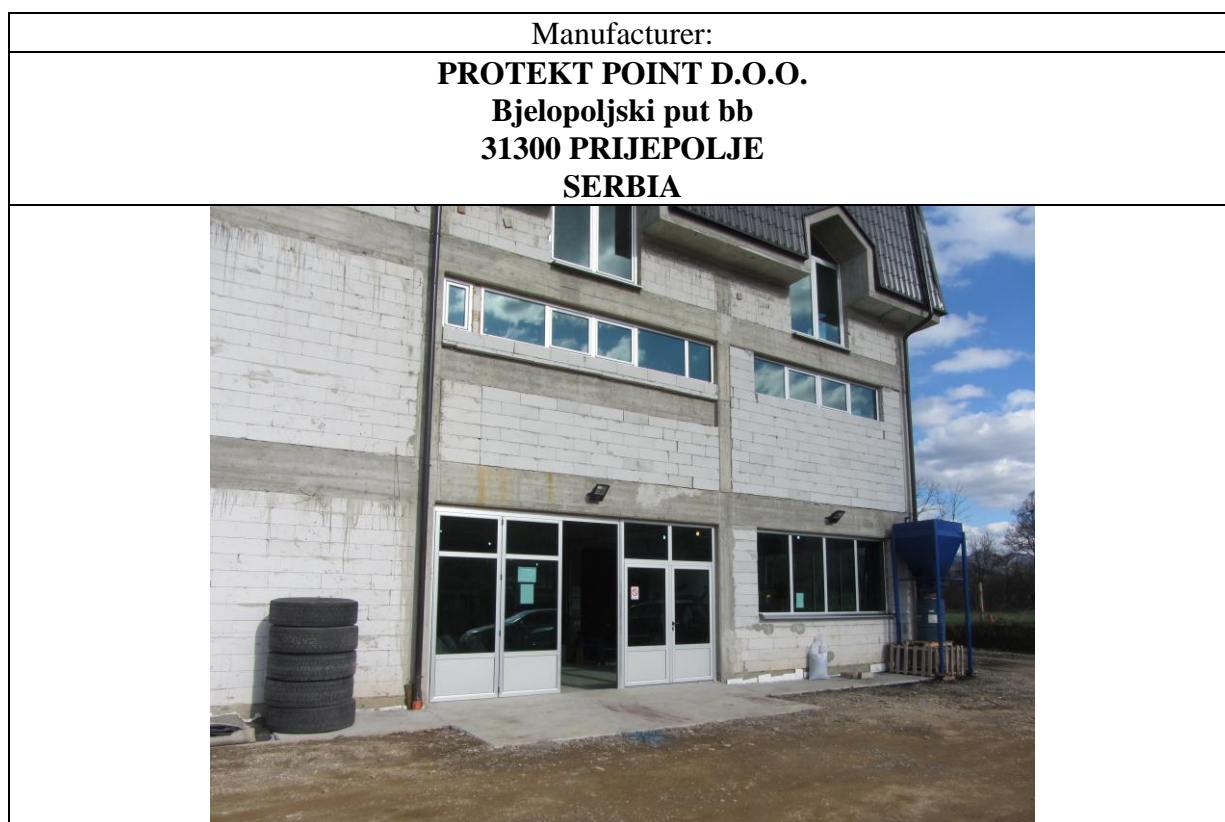
**Date de la dernière délivrance d'une
homologation révisée:**

Date of last extension:

not applicable

TECHNICAL REPORT
No.: LCA 54 0973 001 13

Inspection concerning the
**Production of retreaded pneumatic tyres for
commercial vehicles and their trailers**
performed according to the
ECE Regulation No. 109



ECE Type Approval no.: --

Index:

1. General	2
2. Inspections and their results	4
3. Evaluation of test results	12
4. Statement of compliance	13
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1. **General**

1.1. **Test Provisions**

The inspection was carried out according to the requirements of the ECE-Regulation No. 109 including supplement 6 to the 00 series of amendments entered into force on 17 march 2010.

1.2. **Information concerning the approval of the production of retreaded pneumatic 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 or trade mark:

PROTEKT POINT

(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. and 4.1.4. of this Regulation:

Trade names or marks:

PROTEKT POINT

Range of tyre sizes:

Various sizes as documented in Annex B



Structure of tyres:

~~diagonal, bias-belted~~, radial

Category of use of tyres:

normal, snow, special-use tyres

System of retreading:

top-capping, re-capping, bead to bead

Method of application of the new materials to be used:

~~camel-back, strip-wound, direct extrusion~~, pre-cured

Maximum speed symbol of the tyres to be retreaded:

N

Maximum load index of the tyres to be retreaded:

160

Nominated international tyre standard to which the range of tyres conform:

ETRTO, ~~TRA, JATMA, TRAA, ABPA, STRO~~

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

Not applicable

(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

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.

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 acceptance 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



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.



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 6 to the 00 series of amendments entered into force on march 17, 2010.

Esch-sur-Alzette, November 20, 2013

Luxcontrol s.a.
Service Homologation-automobile

Angelo Tomasini
Ingénieur-Inspecteur

Mauro Moscardelli
Ingénieur-Inspecteur

Annex



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

ECE Type Approval no.:

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)
-



Quality Assurance Manual about retreading industrial vehicle and trailer tyres.



Summary.

Name of company:

PROTEKT POINT D.O.O. PRIJEPOLJE - SERBIA

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0. Common information

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

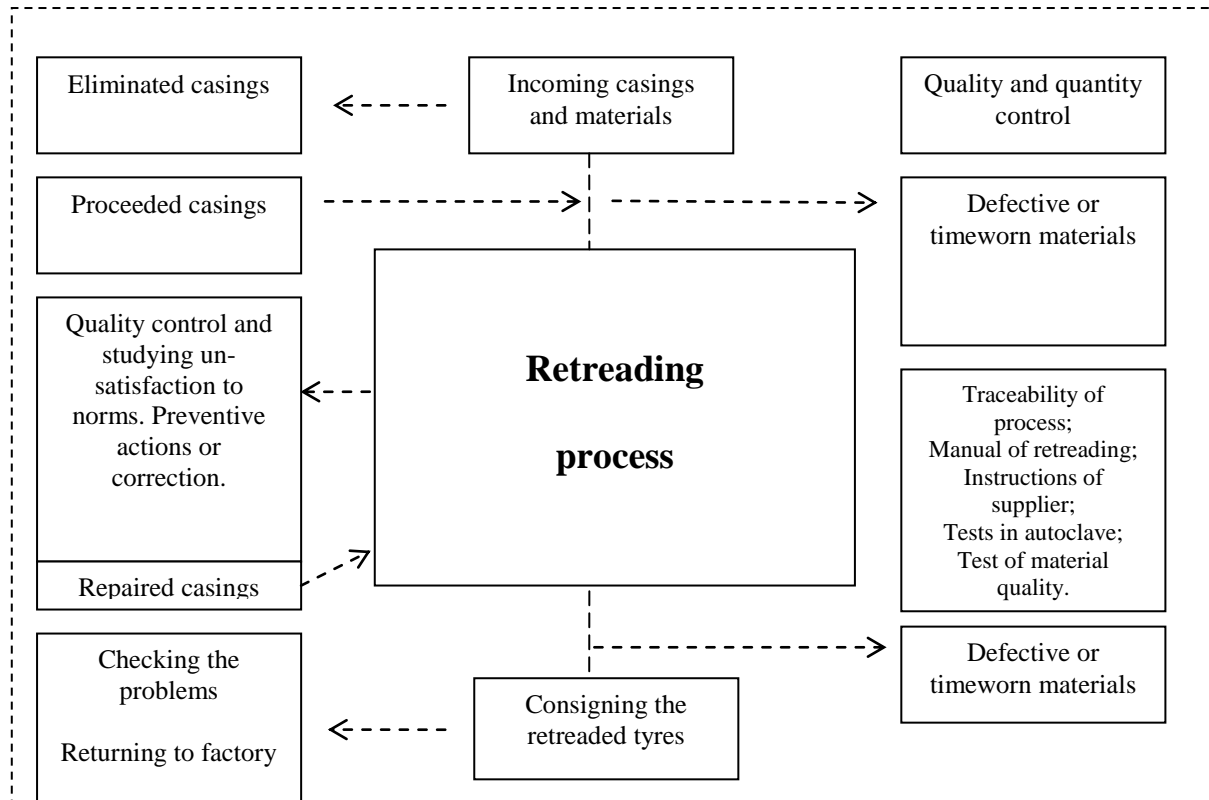
Maximal load index: 160



4. Applied means for guarantying conformity of production.

4.1. Quality system of company

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



4.2. Method of checking the incoming tyre quality

4.2.1. 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

- Make sure that casing is clean and dry before further test according to method described in Marangoni tyre 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” (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)

4.2.2. 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.

4.3. 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.

4.3.1. 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.

4.3.2. 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.

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.

4.4. 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

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 ETRO (The European Tyre and Rim Technical Organization) standard used internationally.



4.5. 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.

4.5.1. 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.

4.5.2. 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.

4.6. 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.

5. Marking of retreaded tyre.

5.1. Special marking factory marking of retreaded tyres.

When applying the protector to tyre casing operator adds following marking above matriculation number:

- Date according to format WW/YY (two digits week, two digits year)
- Reference „Retread”
- Name of company
- Marking M+S on tyres, which are meant for respective application (marking M+S is placed on MARANGONI rings or strips, if they are meant M+S)
- ECE 109 conformity number (it is already tested)
- Change of speed index (if necessary)
- Number of production, written with chalk inside the tyre

5.2. Size and position of marking.

Size: see the text of Regulation 109.

Position

- Trademark is positioned near the registration number.
- Number of authorization will be positioned on the right from symbol E near the registration number.
- Date of production is positioned near the registration number.
- If speed index has been changed, then old speed index on the tyre will be replaced with the new one.
- Mark M+S is placed on protector
- Inscription „Retread” will be positioned close by registration number.
- Number of production is positioned inside the tyre.