

RELATING TO ECE TYPE-APPROVAL FOR A TYPE OF TYRE WITH REGARD TO ROLLING SOUND EMISSIONS AND TO ADHESION PERFORMANCE ON WET SURFACES AND/OR TO ROLLING RESISTANCE (ECE Regulation No. 117. 02, Supplement 3)

1. GENERAL

- 1.1. The performance characteristics to be assessed for the tyre type : rolling sound emission level and adhesion performance level on wet surfaces and rolling resistance and snow performance testing
- 1.2. Manufacturer's name : SHANDONG NEW CONTINENT TIRE CO.,LTD.
- 1.3. Name and address of applicant : SHANDONG NEW CONTINENT TIRE CO.,LTD.
Lushan Project Area, Economic Development Zone,
Yishui, Shandong, 276400 China
- 1.4. Address(es) of manufacturing plant(s) : same with the applicant
- 1.5. Brand name(s), Trade description(s) or Trade mark(s) to be used for particular tyre type-approval requested : UNIGRIP;
ROAD TURBO;
2. Tyre
- 2.1. Tyre classification (class C1, C2, C3) : Class C1 / ~~Class C2~~ / ~~Class C3~~
- 2.2. Section width range for class C1 tyres : see attached "list of tyre size"
- 2.3. Tyre structure : ~~diagonal~~ / ~~bias-belted~~ / radial
- 2.4. For Class C1 tyres, state weather :
- 2.4.1. Reinforced (or extra load) in case of approval with regarding to rolling sound emission level : see attached "list of tyre size"
- 2.4.2. Speed category symbol "Q" or below (not including "H") or "R" and above (including "H") : not applicable
in case of snow tyres for approval with regarding to adhesion on wet surfaces
- 2.5. For Class C2 or C3 tyres, state weather "Traction tyre" : ~~Yes~~ / ~~No~~
- 2.6. Category of use (normal, snow, special) : normal / ~~snow (snow tyre for use in severe snow conditions)~~ / ~~special~~
- 2.7. A list of tyre designations covered by this application : see attached "list of tyre size"
- 2.8. Details of major features, with respect to the effects on tyre performance (i.e. rolling emission level or adhesion on wet surfaces, respectively) of the tread pattern(s) to be used on the designated range of tyre sizes. : see attached "drawing of tread pattern"
- 2.9. In the case of "special use tyre", drawing of the tread pattern supplied in order to verify the void-to-fill ratio. : not applicable
- 2.10. Submitted for approval on (date) : July 9th, 2014

MANUFACTURER'S STAMP

Signature:

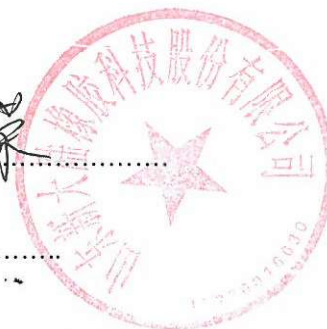
.....

Name: YaoRong

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THIS APPLICATION IS ACCOMPANIED BY:

- List of tyre size
- Drawing of tread pattern
- The test report



THE NETHERLANDS
(N E D E R L A N D)

COMMUNICATION

Concerning ⁽¹⁾:

- approval granted
- ~~approval extended~~
- ~~approval refused~~
- ~~approval withdrawn~~
- ~~production definitely discontinued~~

of a type of tyre with regard to 'rolling sound emission level' and/or 'adhesion performance on wet surfaces' and/or 'rolling resistance' pursuant to Regulation number 117.

Approval number: E4-117R-026507 S2WR1
Extension number: 00

- | | | |
|----|---|---|
| 1. | Manufacturer's name and address(es) | : Shandong New Continent Tire Co., Ltd.
Lushan Project Area, Economic Development Zone,
Yishui, Shandong, 276400 China |
| 2. | If applicable, name and address of
manufacturer's representative | : not applicable |
| 3. | 'Tyre class' and 'category of use' of the
type of tyre | : Class C1/ Class C2 / Class C3
normal / snow / snow tyre for use in severe snow
conditions / special |
| 4. | Brand(s) name(s) and/or Trade
description(s) of the type of tyre | :
UNIGRIP;
ROAD TURBO; |
| 5. | Technical service and, where appropriate,
test laboratory approved for purposes of
approval or of verification of conformity
tests | : TÜV Rheinland Kraftfahrt GmbH
Technologiezentrum Verkehrssicherheit
Typprüfstelle Fahrzeuge/Fahrzeugteile
Am Grauen Stein
D-51105 Köln (Poll) |
| 6. | Performance(s) approved | : sound level at (stage 1 /stage 2) ⁽¹⁾ , wet adhesion level,
rolling resistance level (stage 1/ stage 2) ⁽¹⁾
and snow performance level |

- 6.1. Sound level of the representative tyre size, : 235/55R17 103W: 71 dB(A)
see Paragraph 2.5. of Regulation number
117, as per item 7. of the test report in
appendix to Annex 3, at reference speed of
~~70~~/80 km/h⁽¹⁾.
- 6.2. Wet adhesion level of the representative : 195/55R15 85V: 1.25
tyre size, see Paragraph 2.5. of Regulation
number 117, as per item 7. of the test
report in the appendix to Annex 5: ... (G)
using ~~the vehicle or trailer method~~⁽¹⁾.
- 6.3. Rolling resistance level of the : 195/50R15 82V : 11.646 N/KN
representative tyre size, see Paragraph 2.5.
of Regulation number 117, as per item 7.
of the test report in the appendix to Annex
6.
- 6.4. Snow performance of the representative : not applicable
tyre size, see Paragraph 2.5. of Regulation
number 117, as per item 7. of the test
report in the appendix to Annex 7.
7. Number of report issued by that service : 86-R117-1174/14-00
8. Date of report issued by that service : July 28, 2014
9. Reason(s) of extension (if applicable) : not applicable
10. Any remarks : ---
11. Place : Zoetermeer
12. Date : **26-AUG-2014**
13. Signature :
14. Annexed to this communication are: CF500 - SWR - 00
- 14.1. A list of documents in the approval file deposited at the Administration services having delivered the approval and which can be obtained upon request⁽²⁾.
- 14.2. A list of tread-pattern designations: Specify for each trademark or brand name and trade description the list of tyre size designations, adding in case of Class C1 tyres the mark 'reinforced' (or 'extra load') or the speed symbol of snow tyres or in the case of tyres of Classes C2 and C3, the mark 'traction', if so required by paragraph 3.1. of this Regulation.

⁽¹⁾ Strike out what does not apply.

⁽²⁾ In the case of category of use 'snow' tyre for use in severe 'snow conditions' a test report according to appendix of Annex 7 shall be submitted.

List of tyre size

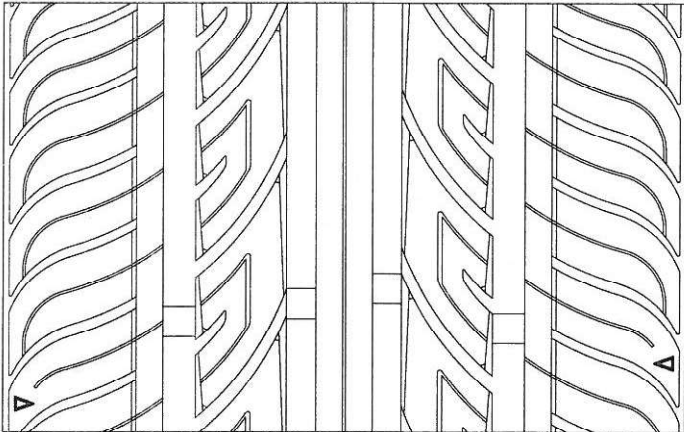
Brand name(s) or Trade mark(s) : UNIGRIP;
Tread pattern : ROAD TURBO;

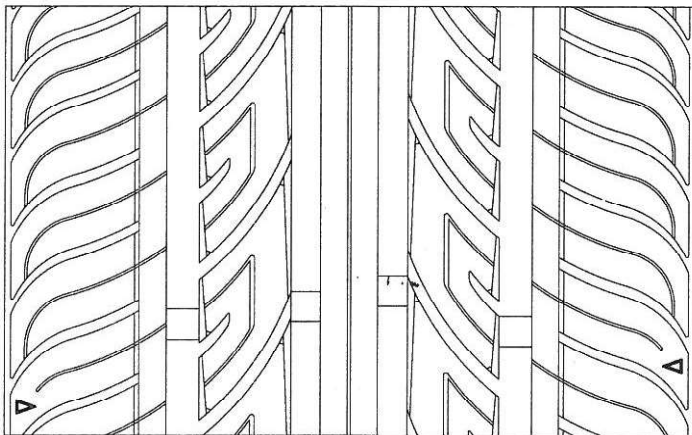
Tyre size	Approval number	Limit for rolling sound dB(A) of Stage II	Limit for wet grip index	Limit for rolling resistance coefficient N/KN of Stage I
195/55R15 85V	0270919	71dB	1.1	12.0
205/55R15 88V	0270920	71dB	1.1	12.0
205/55R16 94W XL	0270925	72dB	1.1	12.0
215/55R16 97W XL	0272926	72dB	1.1	12.0
225/55R16 99W XL	0270927	72dB	1.1	12.0
195/50R15 82V	0270921	71dB	1.1	12.0
205/50R16 87W	0270923	71dB	1.1	12.0
225/50R16 92W	0270924	71dB	1.1	12.0
215/55R17 98W XL	0270928	72dB	1.1	12.0
225/50R17 98W XL	0270931	72dB	1.1	12.0
225/55R17 101W XL	0270929	72dB	1.1	12.0
235/55R17 103W XL	0270930	72dB	1.1	12.0
195/55R16 87V	0277622	71dB	1.1	12.0
205/55R17 95W XL	0277623	72dB	1.1	12.0
195/50R16 84V	0277625	71dB	1.1	12.0
205/50R15 86V	0270922	71dB	1.1	12.0
205/50R17 93W	0277626	71dB	1.1	12.0
215/50R17 95W	0277627	71dB	1.1	12.0

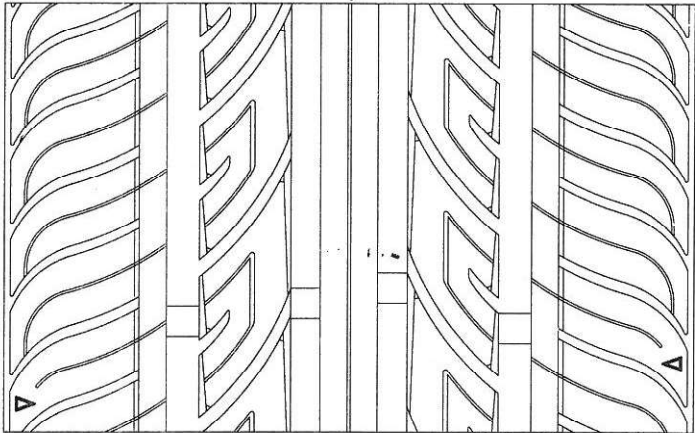
Worst Case Selection

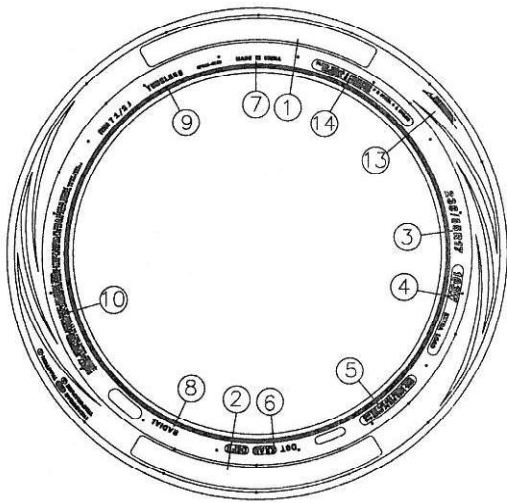
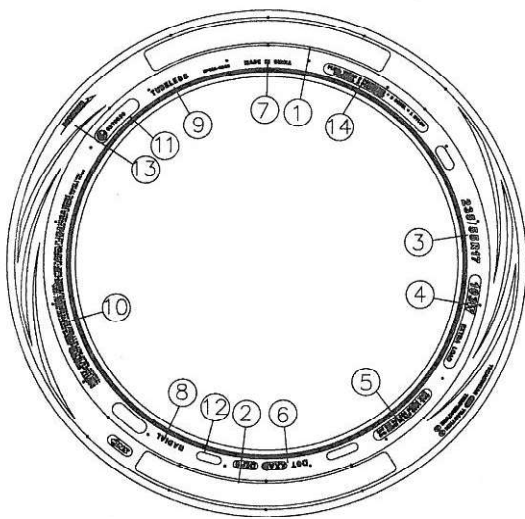
Test size for rolling sound : 235/55R17 103W
Because of : Widest
Test size for wet grip : 195/55R15 85V
Because of : Smallest width
Highest aspect ration
Smallest rim diameter
Test size for rolling resistance : 195/50R15 82V
Because of : Lowest load capacity index

Drawing of the tread pattern (for measured tyre using for tyre noise)

Manufacturer name	:	SHANDONG NEW CONTINENT TIRE CO.,LTD
Pattern name	:	ROAD TURBO;
Tyre Size	:	235/55R17 103W
Market	:	EU
Pitch number	:	72
Pitch ratio	:	1.4/1.296/1.2/1.08/1
Void volume	[%]	: 68
Width: main grooves	[mm]	: 8.0
Depth: center groove	[mm]	: 8.0
Depth: shoulder groove	[mm]	: 6.5
Tyre tread pattern	:	

Drawing of the tread pattern (for measured tyre using for tyre wet grip)		
Manufacturer name	:	SHANDONG NEW CONTINENT TIRE CO.,LTD
Pattern name	:	ROAD TURBO;
Tyre Size	:	195/55R15 85V
Market	:	EU
Pitch number	:	72
Pitch ratio	:	1.4/1.296/1.2/1.08/1
Void volume [%]	:	68
Width: main grooves [mm]	:	8.0
Depth: center groove [mm]	:	8.0
Depth: shoulder groove [mm]	:	6.5
Tyre tread pattern	:	

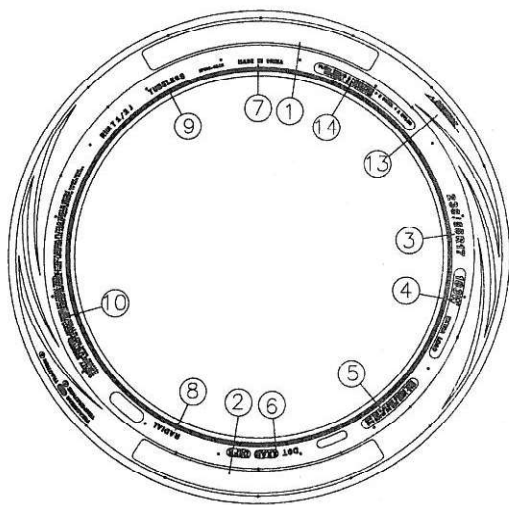
Drawing of the tread pattern (for measured tyre using for tyre rolling resistance test)		
Manufacturer name	:	SHANDONG NEW CONTINENT TIRE CO.,LTD
Pattern name	:	ROAD TURBO;
Tyre Size	:	195/50R15 82V
Market	:	EU
Pitch number	:	72
Pitch ratio	:	1.4/1.296/1.2/1.08/1
Void volume [%]	:	68
Width: main grooves [mm]	:	8.0
Depth: center groove [mm]	:	8.0
Depth: shoulder groove [mm]	:	6.5
Tyre mass [kg]	:	8.59
Tread depth [mm]	:	7.8
Tread width [mm]	:	170
Curvature radius of tread crown [mm]	:	500
Tyre outer diameter [mm]	:	577
Tread plies	:	2 POLYESTER + 2 STEEL +1 NYLON
Tyre tread pattern	:	

Drawing of the tyre sidewall	
Tyre Size	: 235/55R17 103W
	
Upper mold	Lower mold
1、Comforser ; YINBAO; GINELL; FULLRUN; UNIGRIP; MULTIRAC	1、UNIGRIP;
2、CF500;YB500;GN500;FRUN-HP; ROAD TURBO; MUL COMFOR	2、ROAD TURBO;
3、235/55R17	3、235/55R17
4、103W EXTRA LOAD	4、103W EXTRA LOAD
5、MAX. LOAD 875 kg (1929 lbs) MAX.PRESS 350 kPa(51 psi)	5、MAX. LOAD 875 kg (1929 lbs) MAX.PRESS 350 kPa(51 psi)
6、DOT ****	6、DOT ****
7、MADE IN CHINA	7、MADE IN CHINA
8、RADIAL	8、RADIAL
9、TUBELESS	9、TUBELESS
10、SAFETY WARNING	10、SAFETY WARNING
11、/	11、E4 0270930
12、/	12、PRODUCT DATE
13、ROTATION	13、ROTATION
14、PLIES:TREAD 2 POLYESTER+2 STEEL+ 1 NYLON SIDEWALL 2 POLYESTER	14、PLIES:TREAD 2 POLYESTER+2 STEEL+ 1 NYLON SIDEWALL 2 POLYESTER

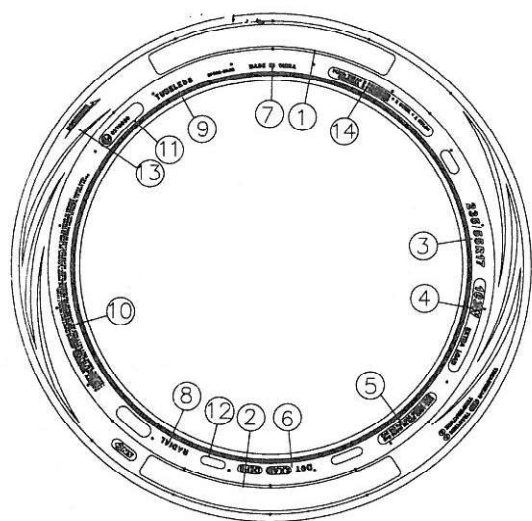
Drawing of the tyre sidewall

Tyre Size

: 195/50R15 82V



Upper mold



Lower mold

1、Comforser ; YINBAO; GINELL; FULLRUN; UNIGRIP;MULTIRAC	1、 UNIGRIP;.
2、CF500;YB500;GN500;FRUN-HP; ROAD TURBO; MUL COMFOR	2、 ROAD TURBO; .
3、195/50R15	3、195/50R15
4、82V	4、82V
5、MAX. LOAD 475 kg (1047 lbs) MAX.PRESS 350 kPa(51 psi)	5、MAX. LOAD 475 kg (1047 lbs) MAX.PRESS 350 kPa(51 psi)
6、DOT ****	6、DOT ****
7、MADE IN CHINA	7、MADE IN CHINA
8、RADIAL	8、RADIAL
9、TUBELESS	9、TUBELESS
10、SAFETY WARNING	10、SAFETY WARNING
11、/	11、E4 0270921
12、/	12、PRODUCT DATE
13、ROTATION	13、ROTATION
14、PLIES:TREAD 2 POLYESTER+2 STEEL+ 1 NYLON SIDEWALL 2 POLYESTER	14、PLIES:TREAD 2 POLYESTER+2 STEEL+ 1 NYLON SIDEWALL 2 POLYESTER

Type : CF500; YB500; GN500; FRUN-HP; ROAD TURBO;
Manufacturer : MUL COMFOR
Shandong New Continent Tire Co., Ltd.

TEST REPORT

according to ECE-Regulation

Uniform Provisions concerning the Approval of Tyres with regard to Rolling Sound Emissions and to Adhesion on Wet Surfaces and/or to Rolling Resistance

including all amendments until
ECE-R117, Amend.02, Suppl. 03

Approval Status

ECE – certificate : E4-117R-026507 S2WR1 Ext.00

Structure of report :

0. Tyre noise, wet grip, rolling resistance and snow performance test description
1. General information
2. Tested object(s)
3. Tested record
4. Appendices
5. Statement of conformity

The Test Report shall be reproduced and published in full by the client only. It shall however be reproduced partially with the written permission of the Testing Laboratory only.

Type : CF500; YB500; GN500; FRUN-HP; ROAD TURBO;
Manufacturer : MUL COMFOR
 : Shandong New Continent Tire Co., Ltd.

0. Tyre noise, wet grip and rolling resistance and snow performance test description

- 0.1. Noise measurement
 - 0.1.1. Measurement conditions : The test course satisfies the requirements of ISO 10844:1994 and the test surface is dry and clean for all measurements.

The measuring instruments satisfy the requirements of Section 1. in Annex 3.

The conditions of measurement satisfy the requirements of Section 2. in Annex 3.
 - 0.1.2. Test methods The testing method satisfies the requirements of Section 3. in Annex 3.
 - 0.1.3. Test results processing The test results are processed in accordance with the requirements of Section 4. in Annex 3.
- 0.2. Wet grip measurement
 - 0.2.1. Measurement conditions : The test track satisfies the requirements of Section 3.1. in Annex 5.

Standard reference test tyre (SRTT) corresponds to (ASTM) standard F 2493-08.

Atmospheric conditions satisfy the requirements of Section 3.3. in Annex 5.

The testing method using a trailer towed by a vehicle, complies with the requirements of Section 4.2.2.1. in Annex 5.

The measuring equipments, conditioning of test track, preparation of tyres, rims, the tow vehicle and the trailer, satisfy the requirements of Section(s) 4.2.2.2. to 4.2.6. in Annex 5.
 - 0.2.2. Test methods : The test procedure satisfies the requirements of Section 4.2.7. in Annex 5.
 - 0.2.3. Test results processing : The test results are processed in accordance with the requirements of Section 4.2.8. in Annex 5.

Type : CF500; YB500; GN500; FRUN-HP; ROAD TURBO;
 Manufacturer : MUL COMFOR
 : Shandong New Continent Tire Co., Ltd.

Valid Test results :

Running No.	Speed km/h	Direction of run	Sound Level Measured dB(A)		Air Temp. °C	Track Temp. °C	Sound Level Measured dB(A)		Comments
			Left	Right			Left Temp. correction	Right Temp. correction	
1	71.9	W to E	70.2	69.9	36.5	48.2	---	---	---
2	74.3	W to E	70.0	70.1	36.5	48.2	---	---	---
3	75.7	W to E	71.2	71.7	36.5	48.2	---	---	---
4	77.6	W to E	70.7	70.9	36.5	48.2	---	---	---
5	81.7	W to E	71.7	71.3	36.5	48.2	---	---	---
6	83.6	W to E	72.5	71.9	36.5	48.2	---	---	---
7	85.7	W to E	73.1	72.7	36.5	48.2	---	---	---
8	87.8	W to E	73.8	74.2	36.5	48.2	---	---	---
Limit value	70~90	---	---	---	5 ~ 40	5 ~ 50	---	---	---

Regression line slope : 41.1

Sound level after temperature correction according to paragraph 4.3. of annex 3 : 72.6 dB(A)

Final result according to paragraph 4.4. and 4.5. of annex 3 : 71 dB(A)

Limit Value for C1 (Stage I+ II) : 72 dB(A)

Type : CF500; YB500; GN500; FRUN-HP; ROAD TURBO;
Manufacturer : MUL COMFOR
Manufacturer : Shandong New Continent Tire Co., Ltd.

3.4. Tyre wet grip measurements

3.4.1. Date of test : June 03, 2014
 3.4.2. Test vehicle : RDW wetgrip trailer 01(OPS23)
 3.4.3. Location of test track : RDW – Test Centre Lelystad
 Test track characteristics : TBN13, G13.1206A / G13.1193
 Issued by : KOAC.NPC
 Method of certification : BPN / ASTM E 965
 Water depth : 0.75 - 1.00 mm
 3.4.4. Identification of the SRTT : APX0 EVUU 5109
 3.4.5. Valid test results* :

		SRTT (before)	Candidate (1 2 / 3 of 3)	SRTT (after)
Size		P225/60R16	195/55R15	P225/60R16
Load & speed index		97S	85V	97S
Tyre identification		F2493-08	COMFORSER / CF500	F2493-08
Rim width		6.5J	6.0J	6.5J
Average load (kg)		546	382	547
Pressure (kPa)		180	180	180
μpeak	1	0.98	0.95	0.91
	2	1.00	0.99	0.90
	3	1.01	0.97	0.91
	4	0.97	0.93	0.91
	5	1.01	0.98	0.93
	6	0.97	0.96	0.90
Average		0.99	0.96	0.91
Standard deviation σ		0.02	0.02	0.01
(σ / average) ≤ 5%		1.9	2.3	1.2
Total σ/average SRTT (≤ 5%)				4.4
Ra, Adjusted		--	0.97	--
Wet grip index G(T)		--	1.25	--
Ambient temp. (°C)		15.0	16.0	19.0
Ground temp. (°C)		16.0	16.0	18.0
Limit value for C1:			1.10	
* The test data of the wet grip test refer exclusively to the report No. RDW-117R-0020181.				

Type : CF500; YB500; GN500; FRUN-HP; ROAD TURBO;
Manufacturer : MUL COMFOR
 : Shandong New Continent Tire Co., Ltd.

3.5. Rolling resistance measurements

- 3.5.1. Date of test : June 17, 2014
- 3.5.2. Test site : Technical Center for Inspection & Quarantine of SDCIQ
#53, Beijing Road, Qingdao Free Trade Area
Shandong Province, 266113
P.R. China
- 3.5.3. Test machine information
- Make / type : MTS / RW860
- Applicable test method : Force method
- Diameter ($\geq 1.7\text{m}$) : 1.7076 m
- Surface : Smooth steel / ~~textured surface~~
- Test machine alignment with : Bridgestone T.C.E.S.P.A.
- Alignment valid from : December 12, 2012
- Latest test machine monitoring on : May, 2014
- Measurement standard deviation σ_m in latest monitoring : $\sigma_m = 0.0269 \text{ N/kN}$ ($\sigma_m \leq 0.075 \text{ N/kN}$ for Class C1 and C2 tyres)
- 3.5.4. Test tyre details
- Tyre brand and trade description : Comforser / CF500
- Tyre type : 195/50R15 82V
- Tyre structure : Radial
- Category of use : Normal
- Plies fo tread and sidewall : 2 Polyester + 2 Steel + 1 Nylon / 2 Polyester
- State whether the tyre is : Standard tyre
- Manufacturing date code : 1814
- 3.5.5. Test conditions
- Test rim size / material : 6 J $\times$ 15 / Steel
- Test speed : 80 km/h
- Test load (80% of maximum load capacity) : 3726.5 N
- Inflation pressure : 210 kPa

Type : CF500; YB500; GN500; FRUN-HP; ROAD TURBO;
Manufacturer : MUL COMFOR
Manufacturer : Shandong New Continent Tire Co., Ltd.

Thermal conditioning : more than 3 hours

Warm-up	Forward rotation	Reverse rotation
	30 minutes	20 minutes

3.5.6. Measurement and recording

The initial test inflation pressure : 210 kPa

	Forward rotation	Reverse rotation
The test speed, U_n	80.04 km/h	-80.10 km/h
The ambient temperature, t_{amb}	24.81 °C	24.61 °C
The load on the tyre normal to the drum surface, L_m	3726.4 N	3726.3 N
Spindle force (formal test mode)	-35.30 N	-35.84 N
The distance from the tyre axis to the drum outer surface under steady-state conditions, r_L (formal test mode)	269.947 mm	270.000 mm
Skim test load	100.0 N	101.2 N
Spindle force (skim test mode)	-2.581 N	-3.808 N
The distance from the tyre axis to the drum outer surface under steady-state conditions (skim test mode)	286.782 mm	286.836 mm

3.5.7. Rolling resistance result

Initial value (or average in the case of more than 1) : 11.896 N/KN

Temperature corrected : 11.868 N/KN

Temperature and drum diameter corrected : 11.646 N/KN

Limit value for C1 (Stage I / H) : 12.0 N/KN

The test result corrected by alignment equation mentioned in paragraph 6 of Annex Iva of Regulation (EC) No. 1222/2009 is: n/a, Energy Efficiency Class: n/a

3.6. Snow performance measurements : **not applicable**

Type : CF500; YB500; GN500; FRUN-HP; ROAD TURBO;
Manufacturer : MUL COMFOR
Shandong New Continent Tire Co., Ltd.

4. List of Appendices

Appendix 0 : List of modifications

5. Statement of conformity

The above mentioned information folder and the type described in that comply with the requirements mentioned on page 1. The mentioned test results refer to the object(s) described under point 2.1 of this report.

Engineering centre Shanghai, / July 28, 2014
SR / AY

Dipl.-Ing. Su Rui
Expert Technical Service

Type : CF500; YB500; GN500; FRUN-HP; ROAD TURBO;
Manufacturer : MUL COMFOR
Shandong New Continent Tire Co., Ltd.

List of modifications

Appendix 0

Correction of : ---

Modification of : ---

Addition of : ---

Deletion of : ---