RDW

Vehicle Technology Division

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

E4

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- ~~approval withdrawn~~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-025702-S2WR2 **Extension number: 03**

1.	Manufacturer's name and address(es)	:	SHANDONG HAOHUA TIRE Co., Ltd. Dadi Road, West Xinhai Road North, Houzhen Industry zone,Shouguang city, Shandong Province, P.R.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~~/special~~
3.1.	Snow tyre for use in severe snow conditions	:	~~yes/~~no [2]
3.2.	Traction tyre	:	~~yes/~~no [2]

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2700 AT Zoetermeer
The Netherlands

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Vehicle Admission & Surveillance

4.	Brand(s) name(s) and/or Trade description(s) of the type of tyre	:	LANVIGATOR; WINDFORCE; APLUS; KINGRUN; VICTORUN; ORNET; GOALSTAR; POWERTRAC; wideway; KORYOMAX; SEAMTYRE (Trademarks) PERFORMAX; PERFORMAX; A919; GEOPOWER K4000; VR936; VOLAREKE H/T; PERFORMAX; CITYROVER; SPEEDWAY; CROSSLAND HT K88; LANDTOUR (Tread patterns)
5.	Technical service and, where appropriate, test laboratory approved for purposes of approval or of verification of conformity tests	:	TÜV NORD Mobilität GmbH & Co. KG Institut für Fahrzeugtechnik und Mobilität Adlerstr. 7 D-45307 Essen
6.	Performance(s) approved	:	sound level at (~~stage 1~~/stage 2)(1)(2), wet adhesion level,rolling resistance level (~~stage 1~~/stage 2)(1)(2)

6.1. Sound level of the representative tyre size, see Paragraph 2.5. of Regulation number 117, as per item 1.6. of the test report in the appendix 1 to Annex 3: 72 dB(A) at reference speed of ~~70~~/80 km/h (1).

6.2. Wet adhesion level of the representative tyre size, see Paragraph 2.5. of Regulation number 117, as per item 1.7. of the test report in the appendix to Annex 5: 1.31 (G) using the vehicle ~~or trailer~~ method (1).

6.3. Rolling resistance level of the representative tyre size, see paragraph 2.5. of Regulation number 117, as per item 1.8. of the test report in the appendix to Annex 6: 8.67 N/kN(2).

6.4 Snow grip level of the representative tyre size, see paragraph 2.5. of Regulation No. 117, as per item 1.10. of the test report in the appendix (2) to Annex 7: --- (Snow grip index) using the~~ brake on snow method~~ (2), ~~spin traction method~~ (2) or acceleration method (2).

7.	Number of report issued by that service	:	CS117-D0-2017-00602
8.	Date of report issued by that service	:	March 24, 2017
9.	Reason(s) of extension (if applicable)	:	Addition of tread patterns and tyre sizes. Change of Technical service.
10.	Any remarks	:	---
11.	Place	:	Zoetermeer
12.	Date	:	19-APR-2017

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13. Signature :

14. Annexed to this communication are:

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 [3].

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.

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[1] Strike out what does not apply.
[2] Appendix 2 for C1 and C2 tyres
Appendix 3 for C3 tyres.
[3] In the case of category of use 'snow' a test report according to appendix of Annex 7 shall be submitted.

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

1.	GENERAL		
1.1	The performance characteristics to be assed for the tyre type	:	rolling sound level / adhesion performance level on wet surfaces / rolling resistance
1.2	Manufacturer's name	:	SHANDONG HAOHUA TIRE CO.,LTD.
1.3	Name and address of applicant	:	SHANDONG HAOHUA TIRE CO.,LTD. : Dadi Road West, Xinhai Road North, : Houzhen Industry Zone, Shouguang City, Shandong Province, P.R.China
1.4	Address(es) of manufacturing plant(s)	:	the same as the applicant
	Brand name(s), Trade description(s) or Trade mark(s) to be used for particular tyre type-approval requested	:	trademark(s) LANVIGATOR; WINDFORCE; APLUS; KINGRUN; VICTORUN; ORNET; GOALSTAR; POWERTRAC; wideway; KORYOMAX; SEAMTYRE treadpattern(s)PERFORMAX; PERFORMAX; A919; GEOPOWER K4000; VR936; VOLAREKE H/T; PERFORMAX; CITYROVER; SPEEDWAY; CROSSLAND HT K88; LANDTOUR
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
2.3.1	For Class C1 tyres, state weather	:	
2.3.1.1	Reinforced (or extra load) in case of approval with regarding to rolling sound mission level	:	see attached "list of tyre size"
2.3.1.2	Speed category symbol "Q" or below (not inc- luding "H") or "R" and above (including "H")in case of snow tyres for approval with regarding to adhesion on wet surfaces	:	see attached "list of tyre size"
2.3.2	For Class C2 and C3 tyres, state whether:		
2.3.2.1	M+S marked in case of approval with regard to rolling sound emission level at stage 1	:	not applicable
2.3.2.2	Traction in case of approval with regard to rolling sound emission level at stage 2.	:	not applicable
2.4	Category of use (normal, snow, special)	:	~~normal~~ / snow / ~~special~~
2.5	A list of tyre designations covered by this application	:	see attached "list of tyre size"
2.6	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 pat-tern(s) to be used on the designated range of tyre sizes. This may be by drawing, photograph or description but must be sufficient to allow the type approval authority or technical service to determine whether any subsequent changes to the major features will adversely affect the tyre performance	:	see attached "drawing of tread pattern"

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MANUFACTURER'S STAMP

Signature:

Name: ...ZHANGWEI.....

THIS APPLICATION IS ACCOMPANIED BY:

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

,

List of tyre size

Brand name(s) or Trade mark(s) : LANVIGATOR; WINDFORCE; APLUS; KINGRUN; VICTORUN; ORNET; GOALSTAR; POWERTRAC; wideway; KORYOMAX; SEAMTYRE

Tread pattern : PERFORMAX; PERFORMAX; A919; GEOPOWER K4000; VR936; VOLAREKE H/T; PERFORMAX; CITYROVER; SPEEDWAY; CROSSLAND HT K88; LANDTOUR

Tyre size	Approval No.	Limit value for stage2 dB(A)	Wet grip index(G)	Rolling resistance maximum values for stage2 (N/kN)	Indication	Marking
215/60R17 96H	E4-0276699	≤71	≥1.1	≤10.5	~~Reinforced~~/ standard	M+S
215/65R17 99H	E4-0275046					
215/70R16 100H	E4-0282292					
225/55R18 98H	E4-0282316					
225/60R17 99H	E4-0270988					
225/65R17 102H	E4-0270989					
235/60R17 102H	E4-0270990					
235/65R17 104H	E4-0268385					
235/70R16 106H	E4-0268390					
245/60R18 105H	E4-0282312					
245/65R17 107H	E4-0270991					
245/70R16 107H	E4-0268383					
255/65R16 109H	E4-0275045	≤72				
255/65R17 110H	E4-0276700					
255/70R16 111H	E4-0268394					
255/70R18 113H	E4-0282313					
265/60R18 110H	E4-0275048					
265/65R17 112H	E4-0268387					
265/70R16 112H	E4-0268391					
265/70R17 115H	E4-0268392					
275/60R18 113H	E4-0285574					
275/65R17 115H	E4-0275047					
275/65R18 116H	E4-0282315					
275/70R16 114H	E4-0268393					
285/60R18 116H	E4-0275049	≤74				
285/65R17 116H	E4-0276701					

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List of tyre size

Brand name(s) or Trade mark(s) : LANVIGATOR; WINDFORCE; APLUS; KINGRUN; VICTORUN; ORNET; GOALSTAR; POWERTRAC; wideway; KORYOMAX; SEAMTYRE

Tread pattern : PERFORMAX; PERFORMAX; A919; GEOPOWER K4000; VR936; VOLAREKE H/T; PERFORMAX; CITYROVER; SPEEDWAY; CROSSLAND HT K88; LANDTOUR

Tyre size	Approval No.	Limit value for stage2 dB(A)	Wet grip index(G)	Rolling resistance maximum values for stage2 (N/kN)	Indication	Marking
225/60R18 104HXL	E4-0282328	≤72	≥1.1	≤10.5	Reinforced/ ~~standard~~	M+S
225/70R16 107HXL	E4-0282317					
235/55R18 104HXL	E4-0270992					
235/60R17 106HXL	E4-0276703					
235/60R18 107HXL	E4-0270994					
235/65R17 108HXL	E4-0268386					
235/65R18 110HXL	E4-0282321					
245/65R17 111HXL	E4-0276704					
245/70R16 111HXL	E4-0268389					

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Test size for tyre noise:

Test Size	:	**285/60R18 116H**
Because of	:	**Largest section width**
		~~**Smallest aspect ratio**~~
		Largest rim diameter

Test size for wet grip:

Test Size	:	**235/70R16 106H**
Because of	:	~~**Smallest section width**~~
		~~**Largest aspect ratio**~~
		~~**Smallest rim diameter**~~
Calculated limit value	:	**1.1*1.1=1.21**

Test size for rolling resistance:

Test Size	:	**225/60R17 99H**
Because of	:	**---**
Worst Case	:	**215/60R17 96H**
Calculation	:	**=0.3+0.06*(99-96)=0.48**
Calculated limit value	:	**10.02**

Test size for snow performance:

Test Size	:	------
Because of	:	------
Calculated limit value	:	

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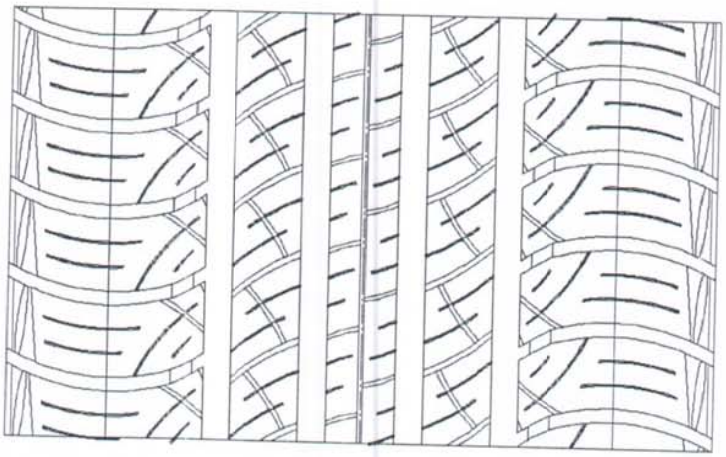
Drawing of the tread pattern (for measured tyre)

Manufacturer name	SHANDONG HAOHUA TIRE CO., LTD.
Pattern name	PERFORMAX; PERFORMAX; A919; GEOPOWER K4000; VR936; VOLAREKE H/T; PERFORMAX; CITYROVER; SPEEDWAY; CROSSLAND HT K88; LANDTOUR
Tyre Size	**235/70R16 106H**
Market	EU/US
Marking	M+S
Pitch number	62
Pitch ratio	18/20/24
Number of circumferential block like elements on traction tyre	---
Void volume [%]	31.8
Width: main grooves [mm]	12/12.6/12.6/12
Depth: center groove [mm]	8.3
Depth: shoulder groove [mm]	6.1

Pattern



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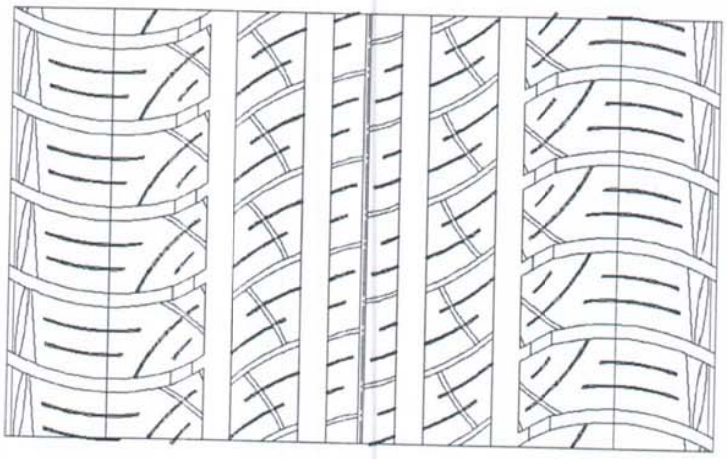
Manufacturer name	SHANDONG HAOHUA TIRE CO., LTD.
Pattern name	PERFORMAX; PERFORMAX; A919; GEOPOWER K4000; VR936; VOLAREKE H/T; PERFORMAX; CITYROVER; SPEEDWAY; CROSSLAND HT K88; LANDTOUR
Tyre Size	**285/60R18 116H**
Market	EU/US
Marking	M+S
Pitch number	56
Pitch ratio	16/18/22
Number of circumferential block like elements on traction tyre	---
Void volume [%]	31.9
Width: main grooves [mm]	8.9/9.4/9.4/8.9
Depth: center groove [mm]	8.3
Depth: shoulder groove [mm]	5.6

Pattern



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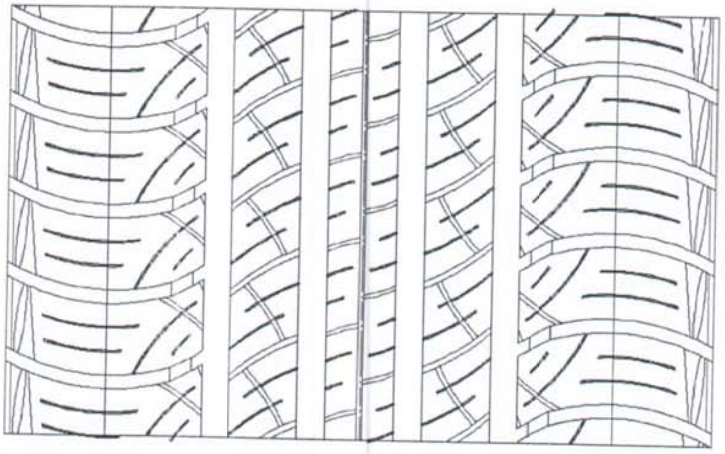
Manufacturer name	SHANDONG HAOHUA TIRE CO., LTD.
Pattern name	PERFORMAX; PERFORMAX; A919; GEOPOWER K4000; VR936; VOLAREKE H/T; PERFORMAX; CITYROVER; SPEEDWAY; CROSSLAND HT K88; LANDTOUR
Tyre Size	**225/60R17 99H**
Market	EU/US
Marking	M+S
Pitch number	56
Pitch ratio	16/18/22
Number of circumferential block like elements on traction tyre	---
Void volume [%]	31.9
Width: main grooves [mm]	8.9/9.4/9.4/8.9
Depth: center groove [mm]	8.3
Depth: shoulder groove [mm]	5.6

Pattern



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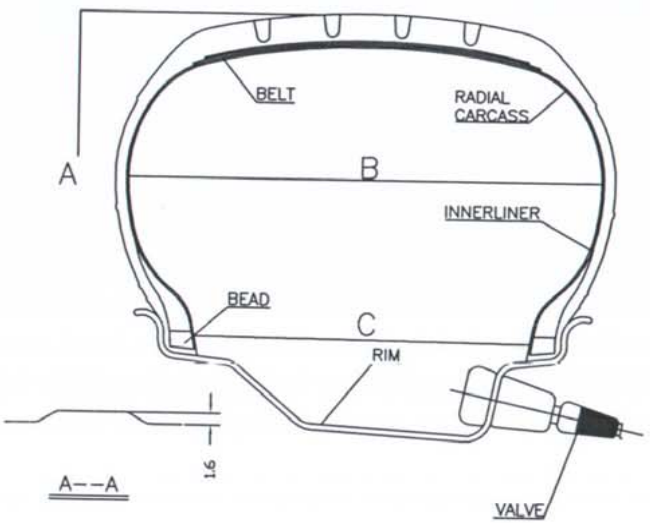
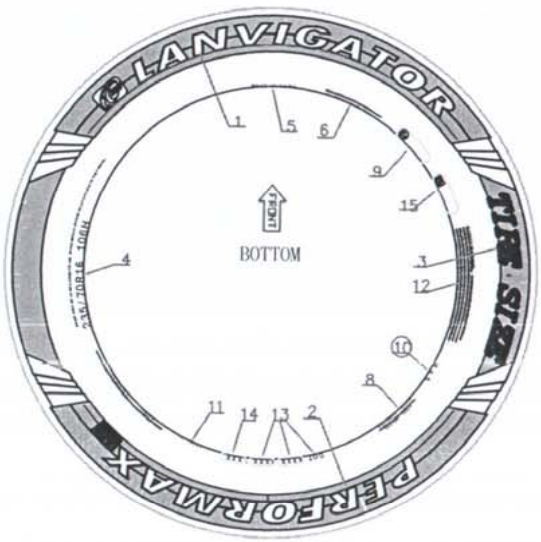
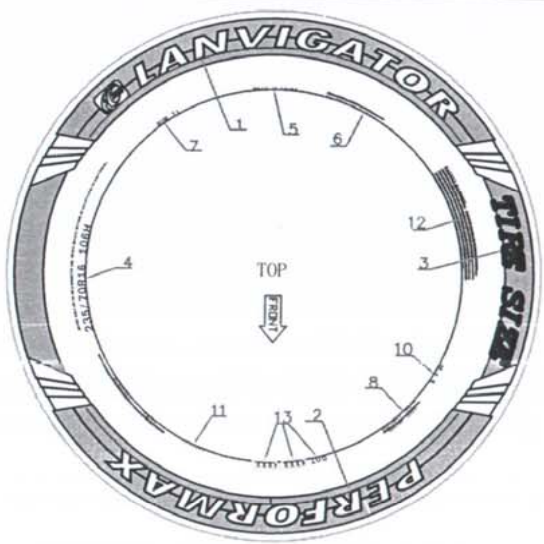
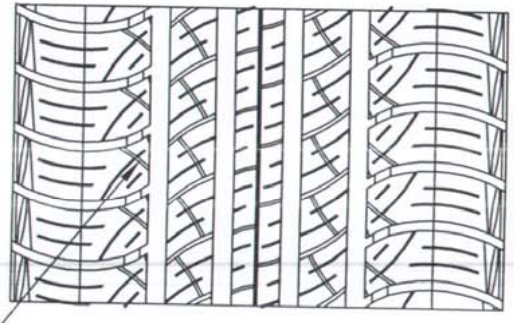






Above is the diagram of the position discription;
Specific contents please see the text.

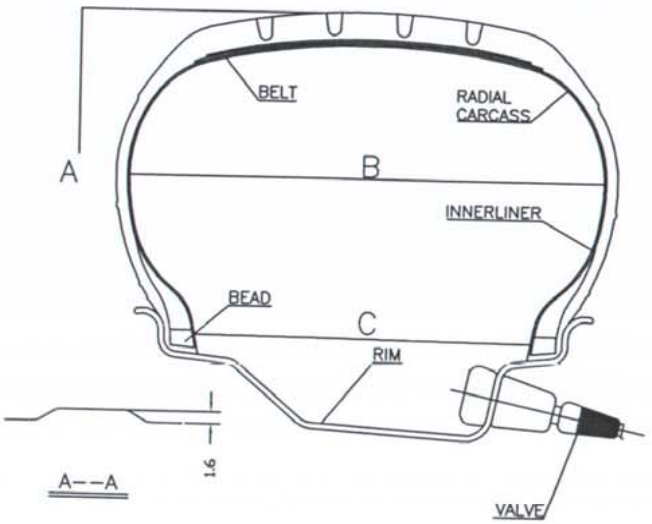


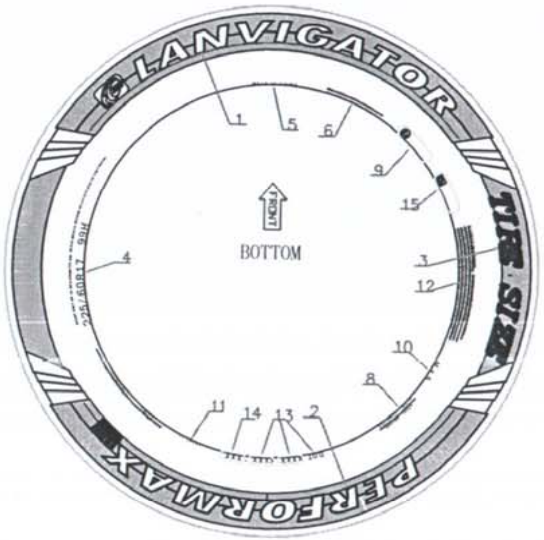
6-TREAD-WEAR INDICATORS EQUALLY SPACED AROUND CIRCUMFERENCE OF TIRE AND MARKED BY 'TRIANGLE'

10	M+S		
9	E4 0268390		
8	STEEL BELTED RADIAL TUBELESS		
7	RIM 7J		
6	MAX.LOAD 950kg (2094lbs) MAX.PRESS 300kpa (44psi)		
5	MADE IN CHINA	15	E4 025702 S2WR2
4	235/70R16 106H	14	PRODUCT DATE
3	235/70R16	13	DOT 1P2U
2	TREAD PATTERN NAME (See Page1 1.4)	12	SAFETY WARNING
1	BRAND NAME (See Page1 1.4)	11	SP097-**

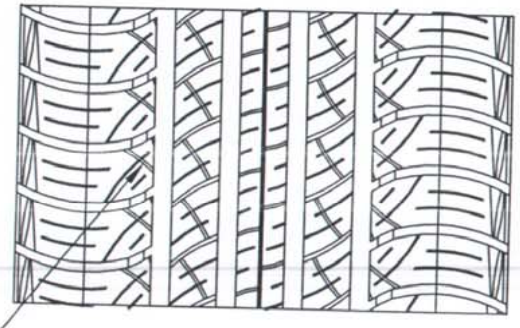
235/70R16	106	H	T/L	736±7	240±10	178	8.3±0.3			2014-11-23
TIRE SIZE	LOAD INDEX	SPEED SYMBOL	TYPE	A (mm)	B (mm)	C (mm)	SKID DEPTH (mm)			DATE
CHECKED BY		APPROVED BY		ZHANGWEI			山东昊华轮胎有限公司 SHANDONG HAOHUA TIRE CO.,LTD			

E4-117R-025702 S2WR2





Above is the diagram of the position discription;
Specific contents please see the text.

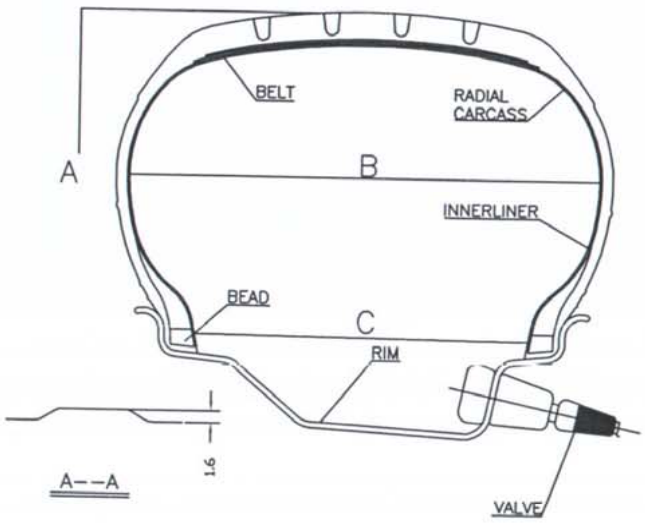


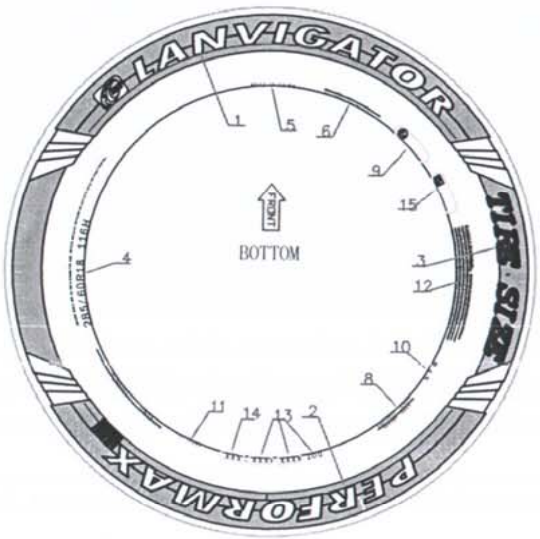
6-TREAD-WEAR INDICATORS EQUALLY SPACED AROUND CIRCUMFERENCE OF TIRE AND MARKED BY 'TRIANGLE'

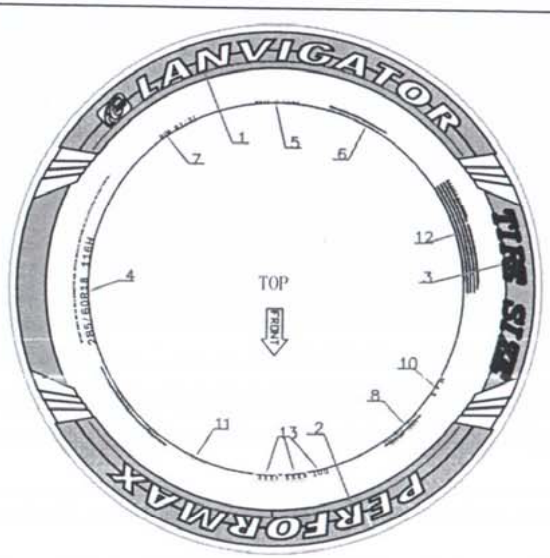
10	M+S		
9	E4 0270988		
8	STEEL BELTED RADIAL TUBELESS		
7	RIM 6 1/2J		
6	MAX.LOAD 775kg (1709lbs) MAX.PRESS 300kpa (44psi)		
5	MADE IN CHINA	15	E4 025702 S2WR2
4	225/60R17 99H	14	PRODUCT DATE
3	225/60R17	13	DOT 1P4A
2	TREAD PATTERN NAME (See Page1 1.4)	12	SAFETY WARNING
1	BRAND NAME (See Page1 1.4)	11	SP143-**

225/60R17	99	H	T/L	702±7	228±8	165	8.3±0.3			2014-11-23
TIRE SIZE	LOAD INDEX	SPEED SYMBOL	TYPE	A (mm)	B (mm)	C (mm)	SKID DEPTH (mm)			DATE
CHECKED BY		APPROVED BY	ZHANGWEI	山东昊华轮胎有限公司 SHANDONG HAOHUA TIRE CO.,LTD						

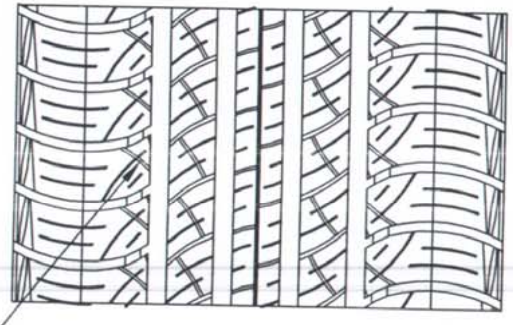
E4-117R-025702 S2WR2







Above is the diagram of the position discription;
Specific contents please see the text.



6-TREAD-WEAR INDICATORS EQUALLY SPACED AROUND CIRCUMFERENCE OF TIRE AND MARKED BY 'TRIANGLE'

10	M+S		
9	E4 0275049		
8	STEEL BELTED RADIAL TUBELESS		
7	RIM 8 1/2J		
6	MAX.LOAD 1250kg (2756lbs) MAX.PRESS 300kpa (44psi)		
5	MADE IN CHINA	15	E4 025702 S2WR2
4	285/60R18 116H	14	PRODUCT DATE
3	285/60R18	13	DOT 1P50
2	TREAD PATTERN NAME (See Page1 1.4)	12	SAFETY WARNING
1	BRAND NAME (See Page1 1.4)	11	SP245-**

285/60R18	116	H	T/L	799±8	292±9	216	8.3±0.3			2014-11-23
TIRE SIZE	LOAD INDEX	SPEED SYMBOL	TYPE	A (mm)	B (mm)	C (mm)	SKID DEPTH (mm)			DATE
CHECKED BY		APPROVED BY		ZHANGWEI			山东昊华轮胎有限公司 SHANDONG HAOHUA TIRE CO.,LTD			

E4-117R-025702 S2WR2

Type : **Tyre / Road Noise Emission and adhesion performance on wet surfaces and Rolling Resistance**
Manufacturer : **SHANDONG HAOHUA TIRE Co., Ltd.**

Test Report

Agreement concerning the adoption of uniform technical prescriptions for the wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions

Uniform Provisions Concerning The Approval Of Types With Regard To Rolling Sound Emissions And To Adhesion On Wet Surfaces And Rolling Resistance And Snow Performance

ECE-R 117
as last amended

Revision 4
Supplement 8 to the 02 series of amendments

Approval status	
ECE	Number of approval
	E4-117R-025702-S2WR2

Type : **Tyre / Road Noise Emission and adhesion performance on wet surfaces and Rolling Resistance**
Manufacturer : **SHANDONG HAOHUA TIRE Co., Ltd.**

0. Tire noise, wet grip test and rolling resistance test description

0.1. Test facilities : The test facilities are in compliance with the requirements of the regulation

0.2. Noise Measurement

0.2.1. measurement : The test course satisfies the requirements of ISO 10844:1994 and the test surface is dry and clean for all measurement.

Measurement equipment corresponds to class 1 of IEC 60651.

The microphones are arranged at a distance of 7.5m±0.05m to the 2entreline at a height of 1.20m±0.02m above the measurement surface. A suitable windscreen may be fitted to the microsphone provided that account is taken of its effect on the sensitivity and directional characteristics of the microphone.

The microphones were calibrated prior to commencement.

Wind speed at the microsphone height ≤ 5m/s.

Ambient noise is at least 10 dB (A) less than the measured tyre-road sound emission.

Prior to actual measurement, the tires were run in for about 100 Km on public roads, to remove mold-release agents, mold discharges etc. from the tires.

The tyres fitted to the test rotate in the same direction as when they were run-in. Prior to testing tyres are warmed up by running under test conditions.

0.2.2. Test results : The vehicle was rolled across the test course in neutral gear with the engine switched off. The maximum sound pressure levels in dB (A) right and left of the vehicle were recorded together with the speed.

This measurement was carried out 8 times at different speeds; the different speeds were distributed as evenly as possible across the defined speed range.

Regression analysis is used to establish the relationship between the results and the reference speed.

0.3. Wet grip test Measurement

0.3.1. Measurement

The test track are in compliance with the requirements of the regulation paragraph 1.1 annex 5

Standard reference test tyre (SRTT) in accordance with the American Society for Testing and Materials (ASTM) standard E 1136 - 93 (re-approved 1998).

Wetting conditions according paragraph 1.2 annex 5

The water depth shall be between 0.5 and 1.5 mm.

The wetted surface temperature shall be between 5 °C and 35 °C and shall not vary during the test by more than 10 °C.

Trailer or special purpose tyre evaluation vehicle method

according the regulation paragraph 2.1 annex 5.

Standard vehicle method

according the regulation paragraph 2.2 annex 5.

0.3.2. Test results

The type of tyre complies with the requirements of the regulation paragraph 6.2.1.

0.4. Rolling resistance test Measurement

0.4.1. Measurement

Test equipment tolerances in compliance with the requirements of Appendix 1, Annex 6, Regulation 117 and EC/1235/2011.

Test rim,
For passenger car tyre rims (C1 tyres), the test rim width shall be the same as the measuring rim determined in ISO 4000-1: 2010 clause 6.2.2.
For truck and bus tyres (C2 and C3), the rim width shall be the same as the measuring rim determined ISO 4209-1:2001 clause 5.1.3.

Run-out,
Run-out shall meet the following criteria:
(a) Maximum radial run-out: 0.5 mm;
(b) Maximum lateral run-out: 0.5 mm.

Load application
The direction of tyre loading application shall be kept normal to the test.

0.4.2.

surface and shall pass through the wheel centre within
(a) 1 mrad for the force and deceleration methods;
(b) 5 mrad for the torque and power methods.

Tyre alignment
Camber angle
The plane of the wheel shall be perpendicular to the test surface within 2 mrad for all methods.
Slip angle
The plane of the tyre shall be parallel to the direction of the test surface
motion within 1 mrad for all methods.

Control accuracy
(a) Tyre loading:
(i) For LI ≤ 121 ±20 N or ±0.5 per cent, whichever is greater;
(ii) For LI > 121 ±45 N or ±0.5 per cent whichever is greater;
(b) Cold inflation pressure: ±3 kPa;
(c) Surface speed:
(i) ±0.2 km/h for the power, torque and deceleration methods;
(ii) ±0.5 km/h for the force method;
(d) Time: ±0.02 s.

Instrumentation accuracy

Parameter	*Load Index ≤ 121*	*Load Index > 121*
Tyre load	±10 N or ±0.5 % [a]	±30 N or ±0.5 % [a]
Inflation pressure	±1 kPa	±1.5 kPa
Spindle force	±0.5 N or +0.5 % [a]	±1.0 N or +0.5 % [a]
Torque input	±0.5 Nm or +0.5 % [a]	±1.0 Nm or +0.5 % [a]
Distance	±1 mm	±1 mm
Electrical power	±10 W	±20 W
Temperature	±0.2 °C	
Surface speed	±0.1 km/h	
Time	±0.01 s	
Angular velocity	±0.1 %	

In cases where reverse tyre rotation immediately follows the completion of the forward tyre rotation, a warm-up time for reverse tyre rotation shall be at least 10 minutes for Class C1 tyres and 30 minutes for all other tyre types.

Test surface roughness
The roughness, measured laterally, of the smooth steel drum surface shall have a maximum centreline average height value of 6.3 mm.

Type : **Tyre / Road Noise Emission and adhesion performance on wet surfaces and Rolling Resistance**
Manufacturer : **SHANDONG HAOHUA TIRE Co., Ltd.**

1. General information

1.1.	Name and address of applicant	:	SHANDONG HAOHUA TIRE Co., Ltd. Dadi Road, West Xinhai Road North, Houzhen Industry zone,Shouguang city, Shandong Province, P.R.China
1.2.	Manufacturer and Brand Name(s) or Trade(s) description	:	LANVIGATOR; WINDFORCE; APLUS; KINGRUN; VICTORUN; ORNET; GOALSTAR; POWERTRAC; wideway; KORYOMAX; SEAMTYRE (Trademarks) PERFORMAX; PERFORMAX; A919; GEOPOWER K4000; VR936; VOLAREKE H/T; PERFORMAX; CITYROVER; SPEEDWAY; CROSSLAND HT K88; LANDTOUR (Tread patterns)
1.3.	Tyre Class	:	Class C1~~/ Class C2 / Class C3~~
1.4.	Category of use	:	~~normal/~~snow~~/special~~
1.4.1.	Snow tyre for use in severe snow conditions	:	~~yes/~~no
1.4.2.	Traction tyre	:	~~yes/~~no
1.5.	Worst case	:	refer to RDW announcement 2017-1
1.6.	Sound level according to paras. 4.4. and 4.5. of Annex 3 at reference speed of ~~70/~~80 km/h	:	285/65R18 116H 72 dB(A)
	limit value for list of tyre size	:	74 dB(A) (~~stage 1~~/stage 2)
1.7.	Wet adhesion level of the representative tyre size, see paragraph 2.5. of Regulation No. 117, as per item 7. of the test report in the Appendix to Annex 5: using vehicle ~~or trailer~~ method	:	235/70R16 106H 1.31(G)
	limit value for list of tyre size	:	1.10×1.1 (G)
1.8.	Rolling resistance coefficient of the representative tyre size, see paragraph 2.5. of Regulation No. 117, according to paragraph 6.2 and 6.3 of Annex 6 using ~~force /~~ torque ~~/ deceleration / power~~ method	:	225/60R17 99H 8.67 N/kN
	limit value for list of tyre size	:	10.02 N/kN (~~stage 1/~~stage 2)
1.9.	Test date rolling sound emission wet grip rolling resistance	: : : :	 October 29, 2014 October 28, 2013 November 03, 2014

Type : **Tyre / Road Noise Emission and adhesion performance on wet surfaces and Rolling Resistance**
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1.10. Snow grip index of the representative tyre size, see paragraph 2.5. of Regulation No. 117, according to paragraph 6.4 of Annex 7 using ~~brake on snow method~~ (2), ~~spin traction method~~ (2) or acceleration method (2) : not applicable

limit value : not applicable
test date : not applicable

1.11. Final conclusion for all testing : Pass /~~Fail~~

1.12. Comments (if any) : Addition of tread patterns and tyre sizes. The previous test data of other test sizes are still valid.

2. Remark concerning tested object(s)

All versions of the type as stated in the information document are covered with the tested version(s) and test object(s) respectively.

3. Appendices

0 List of modifications

Information document no. : HAOHUA-20170225-04

4. Statement of conformity

The type described in this test report and the appendices attached are in compliance with the Test Specification mentioned above.
The samples /~~test vehicles~~ used, were representative in terms of the type to be approved.
The Test Report comprises pages 1 to 7.
The Test Report shall be reproduced and published in full only and by the client only. It shall be reproduced partially with the written permission of the Test Laboratory only.

TEST LABORATORY

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Adlerstr. 7, D-45307 Essen

Designated Technical Service
RDW No. RDWT-T04

IFM TÜV NORD Mobilität 008 Designated Technical Service RDW No. RDWT-T04

Shanghai, March 24, 2017

RZ PY
B.S.M.E R. Zhu

Type : **Tyre / Road Noise Emission and adhesion performance on wet surfaces and Rolling Resistance**
Manufacturer : **SHANDONG HAOHUA TIRE Co., Ltd.**

List of modifications **Appendix 0**

More details for application of : **Date** : **March 24, 2017**

Correction of : -

Modification of : -

Addition of : tread patterns and tyre sizes. The previous test data of other test sizes are still valid.

Deletion of : -