



**RDW**

Division Vehicle Regulation & Admission

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



**COMMUNICATION**

Concerning <sup>(1)</sup>:

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- ~~approval withdrawn~~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

of a type of tyre with regard to ‘rolling sound emission level’ and ~~and~~ ‘adhesion performance on wet surfaces’ and ~~and~~ ‘rolling resistance’ pursuant to Regulation number 117.

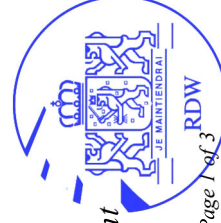
**Approval number: number <sup>(2)</sup>: E4\*117R02/10\*9170\*03**

**Suffix(es) <sup>(3)</sup>: 02S2WR2**

1. Manufacturer’s name and address : Shandong Huasheng Rubber Co., Ltd.  
Daozhuang industry Zone,  
Guangrao County, Dongying City,  
Shandong Province 257336; China (PRC)
  
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~~
  
- 3.1. Snow tyre for use in severe snow conditions : ~~yes/no~~ <sup>(1)</sup>
  
- 3.2. Traction tyre : ~~yes/no~~ <sup>(1)</sup>
  
4. Tyre type designation

P.O. Box 777  
2700 AT Zoetermeer  
The Netherlands

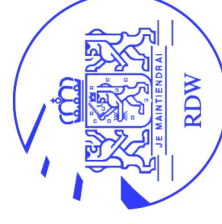
Tel. + 31 (0)79 345 83 02  
E-mail [typapproval@rdw.nl](mailto:typapproval@rdw.nl)  
[www.rdw.nl](http://www.rdw.nl)



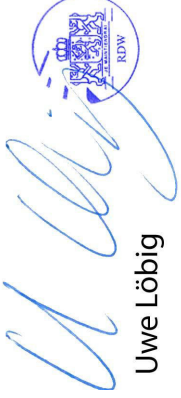
Type-approval Department

**Approval number: E4\*117R02/10\*9170\*03**

- 4.1. Brand name(s)/trademark(s) of the type of tyre  
: AENEAS;FULUTONG;FURUITONG; HABLEAD; HONGTU; HUASHENG; HUMSUNG; JINJI; JINXIN; KAPSEN; ROADBOSS; TAITONG; TERRAKING; TYSONKING; UNITED; DAILYWAY; DOUBLE ROAD; DOLLUP; MESHLINE; TANZA; SATOYA; TORYO; TOYOMOTO; TOURTRACK; BUNGRAH TIRES; SUPER HAJARI; A-ONE; ORNET; XCEED; IPLAS; TEXXAN; MILEWAY; ROOGOO; ADDO INDIA; KETER; LAZZA; TOLEDO; FIRELION; CARGOFORCE; SUPERIA; TIREBOT; STUD; ALTAIRE; GRAND; ETERNITY; RODEO; PETROMAX
- 4.2. Trade description(s)/ Commercial name(s) of the type of tyre  
: HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KT106; KR186; NA07; CA07; RM106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLF055; IP700; A648; TEC333; SUJ100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09
5. Technical service and, where applicable, test laboratory approved for purposes of approval or of verification of conformity tests  
: TÜV Rheinland Kraftfahrt GmbH  
Typprüfstelle Fahrzeuge/Fahrzeugteile  
Am Grauen Stein  
D-51105 Köln
6. Performance(s) approved  
: sound level at (~~stage 1~~stage 2)<sup>(1)</sup>, wet adhesion level, rolling resistance level (~~stage 1~~stage 2)<sup>(1)</sup> ~~and snow performance level~~
- 6.1. Sound level of the representative tyre size, 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<sup>(1)</sup>.  
: 385/65R22.5 160K: 72 dB(A)
- 6.2. Wet adhesion level of the representative tyre size, see Paragraph 2.5. of Regulation number 117, as per item 7. of the test report in the appendix to Annex 5 using the vehicle ~~or trailer~~-method<sup>(1)</sup>.  
: 385/65R22.5 158K: 1.13



**Approval number: E4\*117R02/10\*9170\*03**

- 6.3. Rolling resistance level of the 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. : 385/65R22.5 158K: 5.040 N/KN
- 6.4. Snow grip 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<sup>(4)</sup> to Annex 7 using the brake on snow method<sup>(1)</sup>, ~~spin-traction-method~~<sup>(1)</sup> ~~or acceleration-method~~<sup>(1)</sup>. : ---
7. Number of report issued by that service : 86-R117-3881/20-00
8. Date of report issued by that service : October 23, 2020
9. Reason(s) of extension (if applicable) : Addition of trade description and brand name. upgrade the supplement number of regulation upgrade the format of type approval number
10. Any remarks : ---
11. Place : Zoetermeer
12. Date : 09 November 2020
13. Signature :   
Uwe Löbig
14. Annexed to this communication are: HS106 - SWR - 03
- 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<sup>(5)</sup>.
- 14.2. A list of tyre size designations: Specify for each brand name/trademark and/or each trade description/ Commercial name 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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<sup>(1)</sup> Strike out what does not apply.

<sup>(2)</sup> According to Schedule 4 to Revision 3 of the 1958 Agreement.

<sup>(3)</sup> According to paragraphs 5.2.2. and 5.3.1.2. of this Regulation.

<sup>(4)</sup> Appendix 2 for C1 and C2 tyres. Appendix 3 for C3 tyres.

<sup>(5)</sup> In the case of 'snow tyre for use in severe snow conditions' a test report according to Appendix 2 of Annex 7 shall be submitted.

**RELATING TO ECE TYPE-APPROVAL EXTENSION 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 10)**

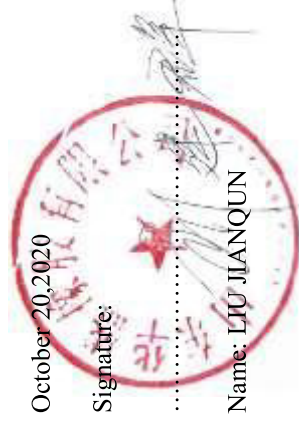
1. GENERAL
- 1.1. The performance characteristics to be assessed for the tyre : rolling sound emission level and adhesion performance level on wet surfaces and rolling resistance  
type
- 1.2. Manufacturer's name : Shandong Huasheng Rubber Co.,Ltd
- 1.3. Name and address of applicant : Shandong Huasheng Rubber Co.,Ltd  
Daozhuang Industry Zone;  
Guangrao County; Dongying City;  
Shandong Province 257336 ;  
P.R. China
- 1.4. Address(es) of manufacturing plant(s) : same with the applicant
- 1.5. Brand name(s)/trademark(s) and Trade description(s)/  
Commercial name(s) of the type of tyre : (trade mark)AENEAS;FULUTONG;FURUITONG;  
HABILEAD;HONGTU;HUASHENG;HUMSUNG;  
JINJI;JINXIN;KAPSEN;ROADBOSS;TAITONG;  
TERRAKING;TYSONKING;UNITED;DAILYWAY;  
DOUBLE ROAD;DOLLUP;MESHILINE;TANZA;  
SATOYA;TORYO;TOYOMOTO;TOURTRACK;  
BUNGRAH TIRES;SUPER HAJARI;A-ONE;  
ORNET;XCEED;IPLAS;TEXXAN;MILEWAY;  
ROOGOO;ADDO INDIA;KETER;LAZZA;  
TOLEDO;FIRELION;CARGOFORCE;SUPERIA;  
TIREBOT;STUD;ALTAIRE;GRAND;ETERNITY;  
RODEO;PETROMAX  
  
(tread pattern)HS106;ST908;NXS02;  
XD619XLECO;OR619XLECO;KT106;KR186;  
NA07;CA07;RM106;LX-A88;T031;JS106;AF33;  
AVHS111;OD919;ZH809;TT611;ST520;RSS701;  
TS506;AVHS333;KA300;DR816;HI64;HMT99;  
SA895;CGR999;RASI;TRANS216;SN558;  
EGS868;TX113;ST-084;TV906;DL516;T64;  
NT106;RAS+;KTMT3;ROADGRIP404;AIM216;  
LLF055;IP700;A648;TEC333;SU100;DR305;  
FS06;CTC381;OR619;XD620;UT556;RG106;  
KTHD9;LZ505;M516;AT301;GD106;EXA890\*;  
RT203; PT518;TKT09
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"

## Information folder:

HS106-SWR-03

- 2.4.2. Speed category symbol “Q” or below (not including “H”) : Not applicable or “R” and above (including “H”) in case of snow tyres for approval with regard 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) : October 20,2020

## MANUFACTURER'S STAMP



## THIS APPLICATION IS ACCOMPANIED BY:

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

Manufacturer:

Shandong Huasheng Rubber Co.,Ltd

Information folder:

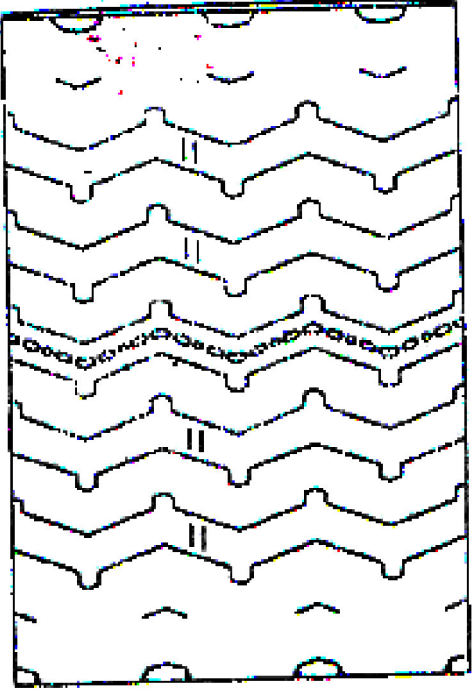
HS106-SWR-03

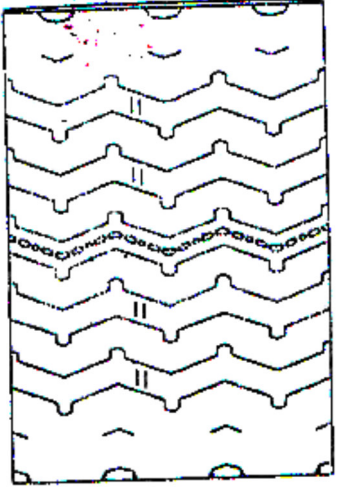
I List of tyre size

Tyre size	Approval No.	Limit for rolling sound dB(A)	Limit for wet grip index	Limit for rolling resistance coefficient N/KN of Stage II
385/65R22.5 160K	E4-54R-0038016	73	0.8	6.5
HUASHENG;JINXIN;TAITONG;HONGTU;KAPSEN;XCEED;ORNNET;TANZA;DOUBLE ROAD;HUMSUNG; TOYOMOTO;TEXXAN;TERRAKING;JINJI;SATOYA;DAILYWAY;ADDO INDIA;KETER;BUNGRAH TIRES;PLAS; A-ONE;STUD;SUPERIA;TOLEDO;CARGOFORCE;FIRELION;TIREBOT;AENEAS;FULUTONG;FURUITONG; HABLEAD;ROADBOSS;TYSONKING;UNITED;DOLLUP;MESHLINE;TORYO;TOURTRACK;ROOGOO;LAZZA; SUPER HAJARI;ALTAIRE;GRAND;ETERNITY;RODEO; <u>PETROMAX</u> (trade mark)				
HS106;ST908;NXS02;XD619XLECO;OR619XLECO;KT106;KRI86;NA07;CA07;RM106;LX-A88;T031;JS106;AF33; AVHS111;OD919;ZH809;TT611;ST520;RSS701;TS506;AVHS333;KA300;DR816;HI64;HMT99;SA895;CGR999;RAS1; TRANS216;SN558;EGS868;TX113;ST-084;TV906;DL516;T64;NT106;RAS+;KTMT3;ROADGRIP404;AIM216;LLF055; IP700;A648;TEC333;SU100;DR305;FS06;CTC381;OR619;XD620;TRANS216;UT556;RG106;KTHD9;LZ505;M516; AT301;GD106;EXA890*;RT203; <u>PT518;TKT09</u> (tread pattern)				
385/65R22.5 158K	E4-54R-0038040	73	0.8	6.5
HUASHENG;JINXIN;TAITONG;HONGTU;KAPSEN;XCEED;ORNNET;TANZA;DOUBLE ROAD;HUMSUNG; TOYOMOTO;TEXXAN;TERRAKING;JINJI;SATOYA;DAILYWAY;MILEWAY; (trade mark)				
HS106;ST908;NXS02;XD619XLECO;OR619XLECO;KT106;KRI86;NA07;CA07;RM106;LX-A88;T031;JS106;AF33; AVHS111;OD919;ZH809;TT611;ST520;RSS701;TS506;AVHS333;KA300;DR816;HI64;HMT99;SA895;CGR999;RAS1; TRANS216;SN558;EGS868;TX113;ST-084;TV906;DL516;ROADGRIP404;T64;NT106;RAS+(tread pattern)				

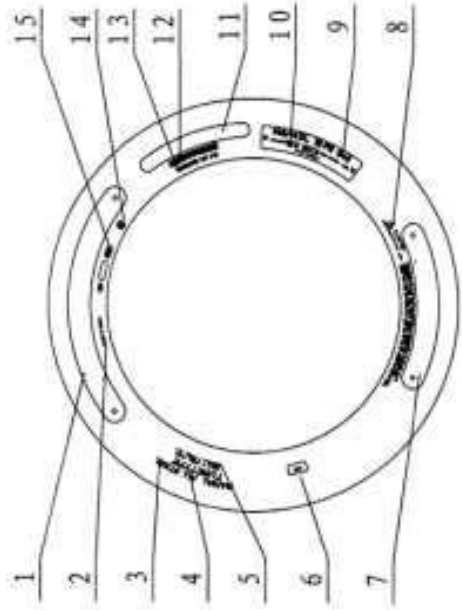
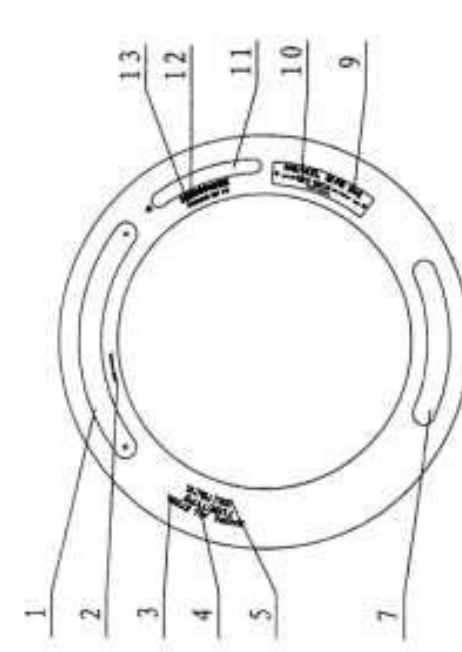
II Worst Case Selection

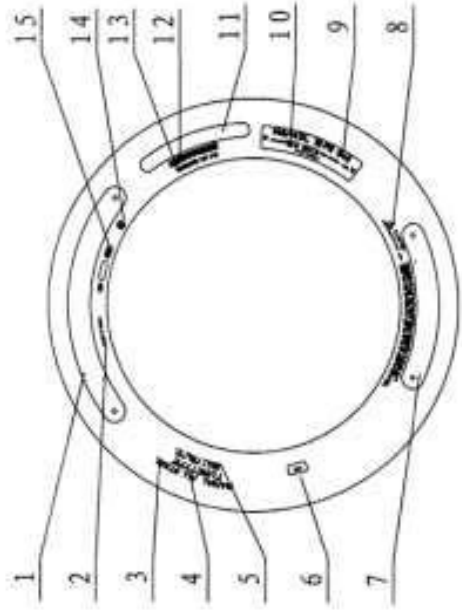
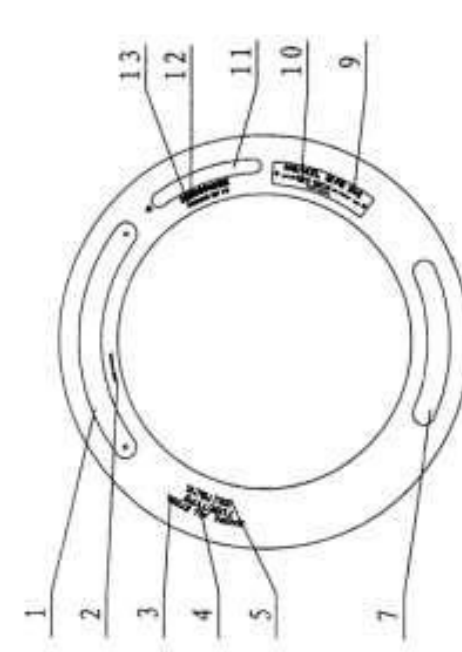
Test size for rolling sound	:	385/65R22.5 160K
Because of	:	Widest
Test size for wet grip	:	385/65R22.5 158K
Because of	:	The wet grip test result of 385/65R22.5 158K is G= 1.13, which is 110% above the limit value of ECE-R117(for normal use tyre, the 110% limit value is G=0.88)
Test size for rolling resistance	:	385/65R22.5 158K
Because of	:	Lowest load index

Drawing of the tread pattern (for measured tyre using for tyre noise)	
Manufacturer name	: SHANDONG HUASHENG RUBBER CO., LTD.
Pattern name	: HS106;ST908;NXS02;XD619XLECO;OR619XLECO;KT106;KR186;NA07;CA07;RM106;LX-A88;T031;JS106;AF33;AVHS111;OD919;ZH809;TT611;ST520;RSS701;TS506;AVHS333;KA300;DR816;HI64;HMT99;SA895;CGR999;RASI;TRANS216;SN558;EGS868;TX113;ST-084;TV906;DL516;T64;NT106;RAS+;KTMT3;ROADGRIP404;AIM216;LLF055;IP700;A648;TEC333;SU100;DR305;FS06;CTC381;OR619;XD620;UT556;RG106;KTHD9;LZ505;M516;AT301;GDI06;EXA890*;RT203; <u>PT518;TKT09</u>
Tyre Size	: 385/65R22.5 160K
Market	: EU
Pitch number	: 52
Pitch ratio	: 1
Void volume	: 66.2
Width: main grooves	: 16/16/16/16
Depth: center groove	: 15.5
Depth: shoulder groove	: 15.5
Tyre tread pattern	: 

Drawing of the tread pattern (for measured tyre using for tyre wet grip and rolling resistance)	
Manufacturer name	: SHANDONG HUASHENG RUBBER CO., LTD.
Pattern name	: HSI106;ST908;NXS02;XD619XLECO;OR619XLECO;KT106;KR186;NA07;CA07;RM106;LX-A88;T031;JS106;AF33;AVHS111;OD919;ZH809;TT611;ST520;RSS701;TS506;AVHS333;KA300;DR816;HI64;HMT99;SA895;CGR999;RASI;TRANS216;SN558;EGS868;TX113;ST-084;TV906;DL516;T64;NT106;RAS+;KTMT3;ROADGRIP404;AIM216;LLF055;IP700;A648;TEC333;SU100;DR305;FS06;CTC381;OR619;XD620;UT556;RG106;KTHD9;LZ505;M516;AT301;GDI06;EXA890*;RT203;_PT518;TKT09
Tyre Size	: 385/65R22.5 158K
Market	: EU
Pitch number	: 52
Pitch ratio	: 1
Void volume	: 66.2
Width: main grooves	: 16/16/16/16
Depth: center groove	: 15.5
Depth: shoulder groove	: 15.5
Tyre mass	: 80
Tread depth	: 15.5
Tread width	: 389
Curvature radius of tread crown	: 536
Tyre outer diameter	: 1072
Tread plies	: 5 Steel + 1 Steel
Tyre tread pattern	: 



Drawing of the tyre sidewall	
Tyre Size : 385/65R22.5 160K	
 <p>Upper mold</p>	 <p>Lower mold</p>
1.TRADE MARK	1.TRADE MARK
2.MADE IN CHINA	2.MADE IN CHINA
3.RADIAL ALL STEEL	3.RADIAL ALL STEEL
4.TUBELESS	4.TUBELESS
5.TREAD 5 STEEL PLYS SIDEWALL 1 STEEL PLY	5.TREAD 5 STEEL PLYS SIDEWALL 1 STEEL PLY
6. "CCC"	7.TREAD PATTERN
7.TREAD PATTERN	9.160K 20PR
8.SAFETY WARNING	MAX LOAD SINGLE920LBs(4500KG) AT130PSI(900KPa)COLD LOAD RANGE M
9.160K 20PR	11.385/65R22.5
10.MAX LOAD SINGLE920LBs(4500KG) AT130PSI(900KPa)COLD LOAD RANGE M	12.REGROOVABLE
11.385/65R22.5	13.STANDARD RIM 11.75
12.REGROOVABLE	
13.STANDARD RIM 11.75	
14.ECE APPROVAL NO.	
15.DATE CODE XXXX	

Drawing of the tyre sidewall	
Tyre Size : 385/65R22.5 158K	
 <p>Upper mold</p>	 <p>Lower mold</p>
1.TRADE MARK	1.TRADE MARK
2.MADE IN CHINA	2.MADE IN CHINA
3.RADIAL ALL STEEL	3.RADIAL ALL STEEL
4.TUBELESS	4.TUBELESS
5.TREAD 5 STEEL PLYS SIDEWALL 1 STEEL PLY	5.TREAD 5 STEEL PLYS SIDEWALL 1 STEEL PLY
6. "CCC"	7.TREAD PATTERN
7.TREAD PATTERN	9.158K 18PR
8.SAFETY WARNING	10.MAX LOAD SINGLE9370LBs(4250KG) AT125PSI(850KPa)COLD LOAD RANGE M
9.158K 18PR	11.385/65R22.5
10.MAX LOAD SINGLE9370LBs(4250KG) AT125PSI(850KPa)COLD LOAD RANGE M	12.REGROOVABLE
11.385/65R22.5	13.STANDARD RIM 11.75
12.REGROOVABLE	
13.STANDARD RIM 11.75	
14.ECE APPROVAL NO.	
15.DATE CODE XXXX	

**Type** : **Test Report No. 86-R117-3881/20-00**  
HS106; ST908; NXS02; XD619XLECO; OR619XLECO;  
KT106; KR186; NA07; CA07; RM 106; LX-A88; T031;  
JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520;  
RSS701; TS506; AVHS333; KA300; DR816; H164;  
HMT99; SA895; CGR999; RAS1; TRANS216; SN558;  
EGS868; TX113; ST-084; TV906; DL516; T64; NT106;  
RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055;  
IP700; A648; TEC333; SU100; DR305; FS06; CTC381;  
OR619; XD620; UT556; RG106; KTHD9; LZ505; M516;  
AT301; GD106; EXA890\*; RT203; PT518; TKT09  
**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

## TEST REPORT

according to UN-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**

**UN Regulation No. 117**

including all amendments until  
Amend.02, Suppl. 10

**Approval Status**

**UN approval** : **E4-117R-029170 S2WR2 Ext.02**

Structure of report :

Item No.

0. General information
1. Tested ~~vehicle(s)~~ object(s)
2. Tested record
3. List of appendices
4. 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.

Typprüfstelle Fahrzeuge/Fahrzeugteile  
TÜV Rheinland Kraftfahrt GmbH  
Am Grauen Stein, 51105 Köln, Germany  
Designation: RDWT-CEB-01

Engineering Centre Shanghai  
TÜV Rheinland (Shanghai) Co., Ltd.  
No. 177, 179, 189, Lane 777,  
West Guangzhong Road, Shanghai,  
P.R. China

Master\_RDW\_en\_R17 Page 1 / 6  
Issued: 2018-04-01  
86-R117-3881-20-00  
HS106.doc

**Test Report No. 86-R117-3881/20-00**

**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

### 0. General information

- 0.1. Make (trade name of the manufacturer) : Shandong Huasheng Rubber Co., Ltd.
- 0.2. Type : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KT106; KR186; NA07; CA07; RM106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09
- 0.3. Category of vehicle : Not applicable
- 0.4. Name and address of the manufacturer : Shandong Huasheng Rubber Co., Ltd.  
Daozhuang industry Zone,  
Guangrao County, Dongying City,  
Shandong Province 257336; China (PRC)
- 0.5. No. of the information folder : HS106 - SWR - 03  
-Date of issue : --  
-Date of last change : --

### 1. Tested ~~vehicle(s)~~ object(s)

- 1.1. Description
- 1.1.1. ~~Vehicle~~ object
- Commercial description : Not applicable
- Type(s) ~~variant(s)~~ ~~version(s)~~ : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KT106; KR186; NA07; CA07; RM106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895;

**Test Report No. 86-R117-3881/20-00**

**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KT106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

Identification number : See Appendix 1

1.1.2. Condition of ~~vehicle(s)~~Object(s) : New / ~~Used~~ / ~~Pretested~~

1.2. Worst case selection : The determination of the worst case was done according to internal procedures of the Technical Service (QMA 1.301.005, section 6.2.2.2.) and RDW Announcement for the Technical Service number: 2018/01[Regulation R117], the description was mentioned in [II.Worst case selection] of information folder No. HS106 - SWR - 03.

1.3. Remarks : All versions of the types as stated in the information folder are covered by the tested object(s) respectively.

## 2. Tested record

2.1. Equipment for measuring and testing : The test facilities / measurement equipment used were in compliance with the test requirements.

2.1.1. Specifications for the test site : See Appendix 1

### 2.1.2. Subcontracting

- Tyre noise : Not applicable

- Wet grip : Not applicable

- Rolling resistance : Not applicable

- Snow performance : Not applicable

2.2. Test results : See appendix 1

**Test Report No. 86-R117-3881/20-00**  
**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

- 2.2.1. Test results referring to measurements : Pass ~~Fail~~
- 2.2.2. Attributive tests : Not applicable
- 2.2.3. Alternative test provisions : Not applicable
- Remarks concerning extension : ~~The type has been tested according to the modification(s) mentioned in appendix 0.~~  
**The new parts meet the requirements of the regulation.**
- 2.3. Additional information : An actual practical test of the type was not necessary. The results of the previous test(s) are still valid.  
 : The results of the test refer exclusively to the object(s) mentioned under point 1. of this report.
- 2.4. Test site : See Appendix 1
- Test date : See Appendix 1
- 2.4. Remarks : The test data mentioned in Paragraph 1. of Appendix 1 refer to report No.: 86-R117-3498/18-00  
 Corresponding to type approval No. E4-117R-029170 S2WR2 Ext.02.

**Type** : **Test Report No. 86-R117-3881/20-00**  
**HS106; ST908; NXS02; XD619XLECO; OR619XLECO;**  
**KT106; KR186; NA07; CA07; RM 106; LX-A88; T031;**  
**JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520;**  
**RSS701; TS506; AVHS333; KA300; DR816; H164;**  
**HMT99; SA895; CGR999; RAS1; TRANS216; SN558;**  
**EGS868; TX113; ST-084; TV906; DL516; T64; NT106;**  
**RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055;**  
**IP700; A648; TEC333; SU100; DR305; FS06; CTC381;**  
**OR619; XD620; UT556; RG106; KTHD9; LZ505; M516;**  
**AT301; GD106; EXA890\*; RT203; PT518; TKT09**

**Manufacturer** : **Shandong Huasheng Rubber Co., Ltd.**

### 3. List of Appendices

Appendix 0 : List of modifications  
 Appendix 1 : Test minutes

### 4. Statement of conformity

The in point 0.5. mentioned information folder and the type described in that comply with the requirements mentioned on page 1.

With regard to the required level of performance to be achieved, the tested items were representative for the type to be approved (see point 1.2).

The mentioned test results refer to the ~~vehicle(s)~~object(s) described under point 1.1. of this report.

Engineering centre Shanghai / October 23, 2020  
 LX



Liu Xin  
 Expert Technical Service

**Test Report No. 86-R117-3881/20-00**

**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

**List of modifications**

**Appendix 0**

- Correction of : ---
- Modification of : upgrade the supplement number of regulation  
Upgrade the format of type approval number.
- Addition of : Trade description and brand name
- Deletion of : ---



**Test Report No. 86-R117-3881/20-00**

**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

### Test minutes

### Appendix 1

<b>1.</b>	<b>Tyre noise measurements</b>	
1.1.	Date of test	: April 07, 2016
1.2.	Test vehicle	
	Make and vehicle name	: DONGFENG MOTOR COMPANY LTD., DFL1160BX5
	Wheelbase	: 4700 mm(<5000mm for C2 & C3)
1.3.	Location of test track	: MTPG, Beijing, China
	Date of track certification to ISO10844:2011	: November 09, 2015
	Issued by	: Highway Inspection Center of China Ministry of Communications
	Method of certification	: Residual void content, Sound absorption coefficient, Texture depth
1.4.	Test tyre details	
	Tyre brand and trade description	: KAPSEN / HS106
	Tyre type	: 385/65R22.5 160K
	Tyre structure	: Radial
	Category of use	: Normal
	Tyre class	: C3
	State whether the tyre is	: <del>Standard</del> / <b>Reinforced</b>
	Manufacturing date code	: 1416
1.5.	Test data	
	Tyre sizes	Front axle : 315/80R22.5 157/153L Rear axle : 385/65R22.5 160K
	Reference load	: 4125 kg 4500 kg
	Reference inflation pressure	: 870 kPa 900 kPa
	Reference speed	: 70 <del>80</del> km/h

	Front left	Front right	Rear left	Rear right	Q <sub>t, avg</sub>

**Type** : HS106; ST908; NX502; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

Test mass (kg)	2865	2865	3245	3245	3055
Tyre load index (%)	69.5%	69.5%	72.1%	72.1%	70.8%
Inflation pressure (cold) (kPa)	600	600	650	650	/

Test rim width code : 9.00 x 22.5 (front) / 11.75 x 22.5 (rear)

Temperature measurement sensor type : NK5919(air)  
HT-806 (track)

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	62.90	S to N	73.1	73.2	28.0	33.0	---	---	---
2	64.80	S to N	72.2	72.7	28.0	33.0	---	---	---
3	66.80	S to N	72.8	72.8	28.0	33.0	---	---	---
4	67.70	S to N	74.5	74.2	28.0	31.0	---	---	---
5	73.40	N to S	73.5	72.9	28.0	33.0	---	---	---
6	74.60	N to S	73.8	73.6	28.0	33.0	---	---	---
7	77.40	N to S	74.5	74.5	28.0	33.0	---	---	---
8	78.60	N to S	75.3	74.4	28.0	33.0	---	---	---
Limit value	<b>60~80</b>	---	---	---	<b>5 ~ 40</b>	<b>5 ~ 50</b>	---	---	---

Regression line slope : 17.05

Sound level ~~after temperature correction~~ according to paragraph 4.3. of annex 3 : 73.6 dB(A)

Final result according to paragraph 4.4. and 4.5. of annex 3 : **72 dB(A)**

Limit Value for C3 (Stage II) : 73 dB(A)

**Test Report No. 86-R117-3881/20-00**

**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

## 2. Tyre wet grip measurements

2.1. Date of test : May 05, 2016

2.2. Test vehicle : China National Heavy Duty Truck Group Co., Ltd. / ZZ3167N391HD1

2.3. Location of test track : NMTCTJ  
Tianjin, P.R. China

Test track characteristics : 2014L00885; 2014L01100

Issued by : Tianjin Municipal Engineering Quality Inspection Center

Method of certification : BPN / ASTM E 965

Water depth : 1.30 – 1.40 mm

2.4. Identification of the SRTT : FVKP 00TX 3012

2.5. Valid test results : Vehicle method

	SRTT (before)		Candidate (4.2.4.3 of 3)		SRTT (after)	
	Left	Right	Left	Right	Left	Right
Size	315/70R22.5		385/65R22.5		315/70R22.5	
Load & speed index	154/150L		158K		154/150L	
Tyre identification	F2870		KAPSEN / HS106		F2870	
Manufacturing date code	/		/		/	
Category of use	/		Normal		/	
Tyre class	/		C3		/	
Standard or Reinforced	/		/		/	
Rim width	9.00 x 22.5		11.75 x 22.5		9.00 x 22.5	
Tyre load(kg)	Front	2552	2582	2582	2552	2582
	Rear	2881	2762	2881	2881	2762
Load index(%)	Front	68.1%	68.9%	60.0%	68.1%	68.9%
	Rear	76.8%	73.7%	67.8%	76.8%	73.7%

**Type** : HS106; ST908; NX502; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

Tyre pressure (kpa)	Front	630	630	600	600	600	630
	Rear	650	630	600	600	600	650
Braking between 60 km/h and 20 km/h		Braking distance (m)	Average decelerati on (m/s <sup>2</sup> )	Braking distance (m)	Average decelerati on (m/s <sup>2</sup> )	Braking distance (m)	Average decelerati on (m/s <sup>2</sup> )
	1	20.03	6.164	17.83	6.924	20.19	6.115
	2	19.98	6.179	17.87	6.909	19.91	6.201
	3	19.92	6.198	17.49	7.059	19.62	6.293
	4	---	---	17.79	6.940	---	---
	5	---	---	17.32	7.128	---	---
6	---	---	17.44	7.079	---	---	
Average AD	---	---	6.180	---	7.007	---	6.203
Standard deviation (m/s <sup>2</sup> )		0.055		0.234		0.285	
(Validation of results Coeff. of variation (percent) < 3 per cent		0.276		1.332		1.432	
Adjusted average AD of ref. tyre: Ra (m/s <sup>2</sup> )		---		6.19		---	
BFC(R) reference tyre (SRTT)				0.63			
BFC(T) candidate tyre				0.71			
Wet grip index G(T)		--		<b>1.13</b>		--	
Ambient temp. (°C)		28.0		29.2		31.3	
Ground temp. (°C)		26.0		28.1		28.7	
Limit value for C3:				0.8			

**Test Report No. 86-R117-3881/20-00**

**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

### 3. Rolling resistance measurements

3.1. Date of test : May 12, 2016

3.2. Test site : SDCIQ, Qingdao, China

### 3.3. Test machine information

Make / type : GX-YLG-2612

Applicable test method : Force method

Diameter ( $\geq 1.7$ m) : 2.0 m

Surface : Smooth steel / ~~Textured surface~~

Test machine alignment with : N.A.

Alignment valid from : N.A.

Latest test machine monitoring on : April, 2016

Measurement standard deviation  $\sigma_m$  in latest monitoring :  $\sigma_m = 0.0121$  N/kN ( $\sigma_m \leq 0.060$  N/kN for Class C3 tyres)

### 3.4. Test tyre details

Tyre brand and trade description : KAPSEN / HS106

Tyre type : 385/65R22.5 158K

Tyre structure : Radial

Category of use : Normal

Tyre class : C3

Plies fo tread and sidewall : 5 STEEL / 1 STEEL

State whether the tyre is : ~~Standard~~ / Reinforced

**Test Report No. 86-R117-3881/20-00**  
**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO; KR106; KR186; NA07; CA07; RM 106; LX-A88; T031; JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520; RSS701; TS506; AVHS333; KA300; DR816; H164; HMT99; SA895; CGR999; RAS1; TRANS216; SN558; EGS868; TX113; ST-084; TV906; DL516; T64; NT106; RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055; IP700; A648; TEC333; SU100; DR305; FS06; CTC381; OR619; XD620; UT556; RG106; KTHD9; LZ505; M516; AT301; GD106; EXA890\*; RT203; PT518; TKT09  
**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

Manufacturing date code : 1616

3.5. Test conditions

Test rim size / material : 11.75 x 22.5 / light alloy

Test speed : 80 km/h

Test load (85% of maximum load capacity) : 35426.5 N

Inflation pressure : 850 kPa

Thermal conditioning : more than 6 hours

Warm-up	Forward rotation	Reverse rotation
	180 minutes	50 minutes

3.6. Measurement and recording

The initial test inflation pressure : 850 kPa

	Forward rotation	Reverse rotation
The test speed, $U_n$	80.05 km/h	-80.00 km/h
The ambient temperature, $t_{amb}$	24.39 °C	25.07 °C
The load on the tyre normal to the drum surface, $L_m$	35426.6 N	35427.3 N
Spindle force(formal test mode)	-125.36 N	156.13 N
The distance from the tyre axis to the drum outer surface under steady-state conditions, $r_i$ (formal test mode)	500.725 mm	500.580 mm
Skim test load	399.9 N	400.1 N
Spindle force (skim test mode)	-14.12 N	28.129 N

**Test Report No. 86-R117-3881/20-00**  
**Type** : HS106; ST908; NXS02; XD619XLECO; OR619XLECO;  
 KT106; KR186; NA07; CA07; RM 106; LX-A88; T031;  
 JS106; AF33; AVHS111; OD919; ZH809; TT611; ST520;  
 RSS701; TS506; AVHS333; KA300; DR816; H164;  
 HMT99; SA895; CGR999; RAS1; TRANS216; SN558;  
 EGS868; TX113; ST-084; TV906; DL516; T64; NT106;  
 RAS+; KTMT3; ROADGRIP404; AIM216; LLLF055;  
 IP700; A648; TEC333; SU100; DR305; FS06; CTC381;  
 OR619; XD620; UT556; RG106; KTHD9; LZ505; M516;  
 AT301; GD106; EXA890\*; RT203; PT518; TKT09

**Manufacturer** : Shandong Huasheng Rubber Co., Ltd.

The distance from the tyre axis to the drum outer surface under steady-state conditions(skim test mode)	: 533.65 mm	533.47 mm
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**3.7. Rolling resistance result**

Initial value (or average in the case of more than 1) : 5.047 N/KN

Temperature corrected : 5.040 N/KN

Temperature and drum diameter corrected : **5.040 N/KN**

Limit value for C3 (Stage II) : ~~8.0 N/KN~~ 6.5 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 N/KN, Energy Efficiency Class: n/a

**4. Snow performance measurements : Not applicable**