

**APPLICATION FOR APPROVAL EXTENSION OF A TYPE OF PNEUMATIC TYRE ACCORDING
TO ECE REGULATION No. 54, 00 SERIES OF AMENDMENTS**

- | | | | |
|--------|---|---|--|
| 1. | Manufacturer's name or trade mark | : | HUALU; ANNAITE; XINGYUAN; GUOBAO; QIANGWEI
GUANGDA; ANGUANGDA; HILO; FULLRUN; ANTYRE;
VIKRANT; FEDERO; JKTYRE; AMBERSTONE; BENTENG;
DAEWOO; INFINITY; TURNPIKE; XBRI; SYRON; FULLWAY;
<u>BILLSTONE; GREMAX; FORGOOD; AUFINE; PETROMAX;</u> |
| 2. | Tyre type designation by the manufacturer | : | 100;300;366;766; 786; TB906;TB786; SL602; SL366; SL766;
SL786;AL606;F168;F186; VUC;VALIANT-VUB1;JETWAY-EX3;668;SL668;DWS11; TB766+; <u>TB766;T875;
T655;TB762;TB877;S200;TB878;S900;X88;XB300;K-TIR225F1;TB901;GM100;GM300;GM366;GM766;GM786;
GM668;FG901;FG907;AF177;AF667;AF18;AF867;PT501;PT503;</u> |
| 3. | Manufacturer's name and address | : | Xingyuan Tire Group Co., Ltd.
Xishui Industrial Zone, Guangrao,
Dongying, Shandong 257336
P.R. China |
| 4. | If applicable, name and address of
manufacturer's representative | : | not applicable |
| 5. | Summarised description, | | |
| 5.1. | Tyre size designation | : | 315/80R22.5 |
| 5.2. | Category of use | : | normal/special/snow |
| 5.3. | Structure | : | diagonal (bias ply) /radial |
| 5.4. | Speed category symbol, | | |
| 5.4.1. | nominal | : | M |
| 5.4.2. | additional (if applicable) | : | not applicable |
| 5.5. | Load-capacity indices, | | |
| 5.5.1. | corresponding to nominal speed | : | single: 157, twinned (dual): 154 |
| 5.5.2. | corresponding to additional speed | : | single: --- , twinned (dual): --- |
| 6. | Overall dimensions | : | ETRTO/calculated /Annex 5 |
| | overall section width | : | 312 |
| | outer diameter | : | 1076 |
| 7. | Factor 'x' | : | not applicable |
| 8. | Ply-rating number for diagonal (bias ply) tyres | : | 20 |
| 9. | Rims on which the tyre can be mounted | : | 9.00 |
| 10. | Measuring rim and test rim | : | see attached test report |
| 11. | State whether the tyre is | : | tubeless-/tube type |
| 12. | Inflation pressure and index for
measuring and testing | : | see attached test report |
| 13. | Submitted for approval on (date) | : | August 20, 2013 |

We herewith declare that we have not applied and will not apply for approval with another Contracting Party of the ECE for the same type of product.

MANUFACTURER'S STAMP

Signature :

Name: Liu Xiaoming

THIS APPLICATION IS ACCOMPANIED BY:

- A drawing of the tyre's side wall, tread and dimensioned cross section.
- 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~~

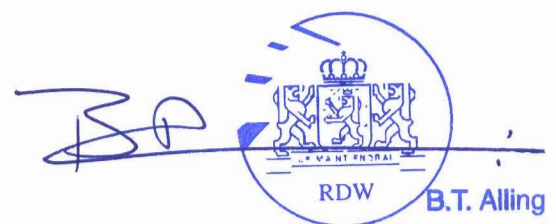
of a type of pneumatic tyre for motor vehicles pursuant to Regulation number 54.

Approval number: E4-54R-0023104**Extension number: 04***Approval mark:***0023104**

1. Manufacturer's name or trade mark(s) on the tyre type : HUALU; ANNAITE; XINGYUAN; GUOBAO;
QIANGWEI; GUANGDA; ANGUANGDA;
HILO; FULLRUN; ANTYRE; VIKRANT;
FEDERO; JKTYRE; AMBERSTONE;
BENTENG; DAEWOO; INFINITY;
TURNPIKE; XBRI; SYRON; FULLWAY;
BILLSTONE; GREMAX; FORGOOD;
AUFINE; PETROMAX
2. Tyre type designation by the manufacturer : 100; 300; 366; 766; 786; TB906; TB786; SL602;
SL366; SL766; SL786; AL606; F168; F186;
VALIANT-VUB1; VUC; JETWAY-EX3; 668;
SL668; DWS11; TB766+; TB766; T875; T655;
TB762; TB877; S200; TB878; S900; X88;
XB300; K-TIR225F1; TB901; GM100; GM300;
GM366; GM766; GM786; GM668; FG901;
FG907; AF177; AF667; AF18; AF867; PT501;
PT503
3. Manufacturer's name and address : Xingyuan Tire Group Co., Ltd.
Xishui Industrial Zone, Guangrao,
Dongying, Shandong 257336
P.R. China



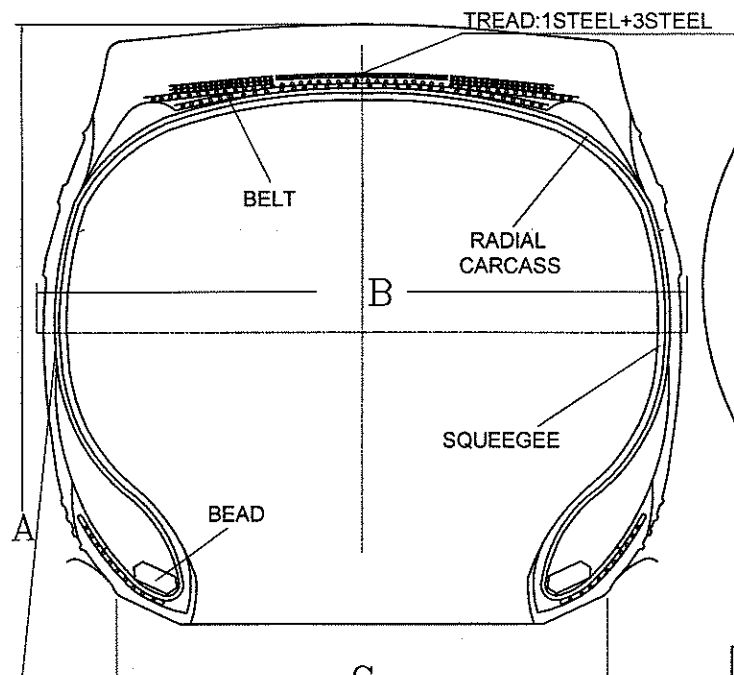
4. If applicable, name and address of the manufacturer's representative : not applicable
5. Summarized description:
- 5.1. Size of tyre : 315/80R22.5
- 5.2. Category of use : normal/~~special/snow~~⁽¹⁾
- 5.3. Structure : ~~diagonal (bias ply)~~/radial⁽¹⁾
- 5.4. Speed category symbol:
- 5.4.1. nominal : M
- 5.4.2. additional (if applicable) : ---
- 5.5. Load-capacity indices:
- 5.5.1. Corresponding to nominal speed:
- single : 157
- twinned (dual) : 154
- 5.5.2. Corresponding to additional speed:
- single : ---
- twinned (dual) : ---
6. Technical service and, where applicable, test laboratory approved for purposes of approval or of verification of conformity : TÜV Rheinland Kraftfahrt GmbH
Technologiezentrum Verkehrssicherheit
Typprüfstelle Fahrzeuge/Fahrzeugteile
Am Grauen Stein
D-51105 Köln (Poll)
7. Date of report issued by that service : May 21, 2012
September 12, 2012
November 16, 2012
April 15, 2013
August 29, 2013
8. Number of report issued by that service : 86-R54-725/10
86-R54-1015/12
86-R54-1297/12
86-R54-0352/13
86-R54-1540/13
9. Reason(s) for extension (if applicable) : addition of trade marks and tyre type designations
10. Any remarks : ---
11. Approval : ~~granted/extended/refused/withdrawn~~⁽¹⁾
12. Place : Zoetermeer
13. Date : 09-SEP-2013
14. Signature :



15. Annexed to this communication is a list of documents in the approval file deposited at the administrative service having delivered the approval and which can be obtained upon request.
- Application form relating to ECE approval for a pneumatic tyre pursuant to Regulation number 54.
 - The drawing of the tyre's sidewalls, tread and dimensioned cross-section.
 - The test report as mentioned in item 8.

⁽¹⁾ Strike out what does not apply.



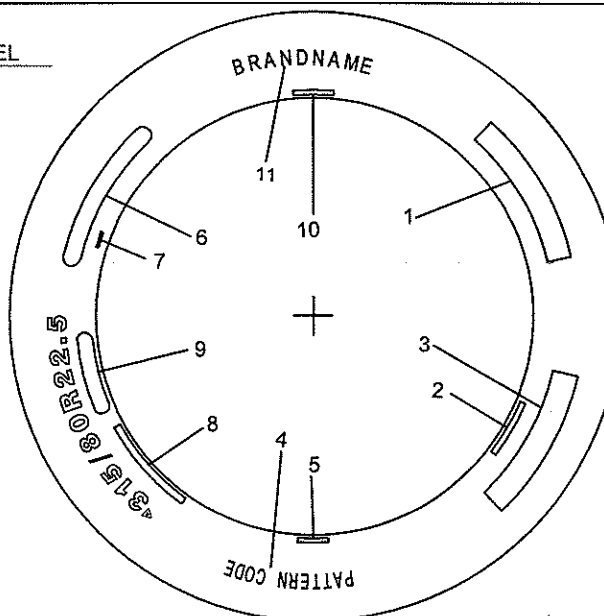


SIDEWALL: 1STEEL

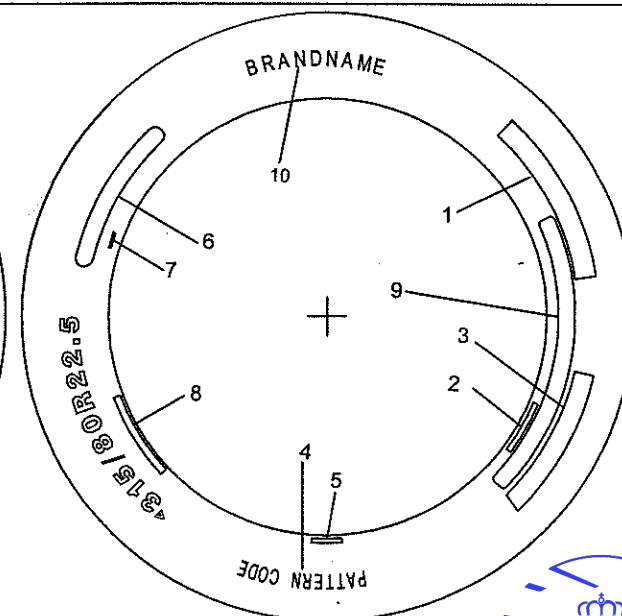
PROJECTION

TREAD PATTERNS

REFER TO ATTACHMENT NO.042-2013



BOTTOM SIDEWALL



TOP SIDEWALL

BOTTOM SIDEWALL		TOP SIDEWALL	
1	ALL STEEL RADIAL TIRE REGROOVABLE	1	ALL STEEL RADIAL TIRE REGROOVABLE
2	STANDARD RIM 9.00	2	STANDARD RIM 9.00
3	WARNING:	3	WARNING:
4	REFER TO ATTACHMENT NO.042-2013	4	REFER TO ATTACHMENT NO.042-2013
5	TUBELESS	5	TUBELESS
6	157/154 M 20PR LOAD RANGE L PLIES:SIDEWALL 1 STEEL; TREAD 1 STEEL + 3 STEEL MAX LOAD SINGLE 4125 Kg(9090 LBS) AT 900 Kpa(130 PSI) COLD MAX LOAD DOUBLE 3750 Kg(8270 LBS) AT 900 Kpa(130 PSI) COLD	6	157/154 M 20PR LOAD RANGE L PLIES:SIDEWALL 1 STEEL; TREAD 1 STEEL + 3 STEEL MAX LOAD SINGLE 4125 Kg(9090 LBS) AT 900 Kpa(130 PSI) COLD MAX LOAD DOUBLE 3750 Kg(8270 LBS) AT 900 Kpa(130 PSI) COLD
7	***** (MOULD CODE)	7	***** (MOULD CODE)
8	DOT 66 TW BB31**** (****—DATE CODE)	8	DOT 66 TW BB31**** (****—DATE CODE)
9	(E4)*****	9	兴源轮胎集团有限公司/-
10	MADE IN CHINA	10	REFER TO ATTACHMENT NO.042-2013
11	REFER TO ATTACHMENT NO.042-2013		



315/80R22.5	157/154	M	TL	1076	312	228.5	SEE TREAD PATTERNS
TIRE SIZE	LOAD INDEX	SPEED SYMBOL	TYPE	A (mm)	B (mm)	C (mm)	SKID DEPTH (mm)

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APPROVED BY

王

XINGYUAN TIRE GROUP Co.,Ltd.

ATTACHMENT NO.042-2013

TIRE SIZE 315/80R22.5 157/154 M

(E4) *****

BRANDNAME

PATTERN CODES

TREAD PATTERNS

HUALU (BOTTOM SIDEWALL)



(TOP SIDEWALL)

100

366

766

300

SL766

SL786

SL366

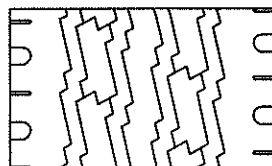
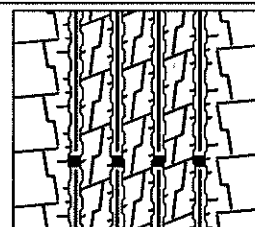
SL602

668

786

AL606

SL668

100 GM100 PT503
SKID DEPTH: 15.5mm366 SL366 TB906 DWS11
GM366 FG901
SKID DEPTH: 16.5mm

ANNAITE (BOTTOM SIDEWALL)



(TOP SIDEWALL)

100

300

366

766

786

668

GUOBAO (BOTTOM SIDEWALL)



(TOP SIDEWALL)

100

300

366

766

786

668

QIANGWEI (BOTTOM SIDEWALL)



(TOP SIDEWALL)

100

300

366

766

786

668



100

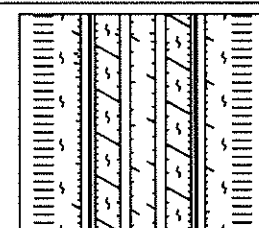
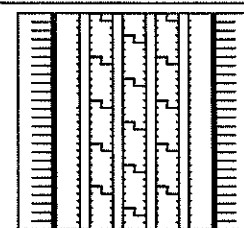
300

366

766

786

668

766 SL766 TB766+ GM766
SKID DEPTH: 15mm786 SL786 TB786 F186
GM786 FG907
SKID DEPTH: 15mm

GUANGDA (BOTTOM SIDEWALL)



(TOP SIDEWALL)

100

300

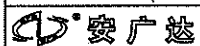
366

766

786

668

ANGUANGDA (BOTTOM SIDEWALL)



(TOP SIDEWALL)

100

300

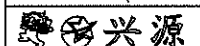
366

766

786

668

XINGYUAN (BOTTOM SIDEWALL)



(TOP SIDEWALL)

SL366

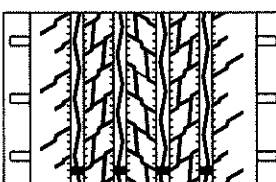
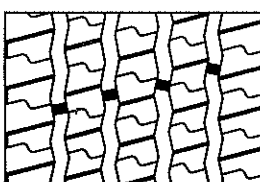
SL766

SL786

SL602

AL606

SL668

SL602
SKID DEPTH: 15.5mm668 SL668 GM668
SKID DEPTH: 14.5mm**FULLRUN**

TB906

TB786

TB766+

ANTYRE

TB906

TB786

FEDERO

F168

F186

AMBERSTONE

100

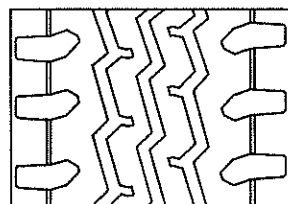
300

366

766

786

668

300 AL606 F168 GM300 PT501
SKID DEPTH: 17mm

BENTENG (BOTTOM SIDEWALL)



(TOP SIDEWALL)

100

300

366

766

786

668

DAEWOO

DWS11

Infinity

366

GREMAX

GM100

GM300

GM366

GM766

GM786

GM668

FORGOOD (BOTTOM SIDEWALL)



(TOP SIDEWALL)

FG901

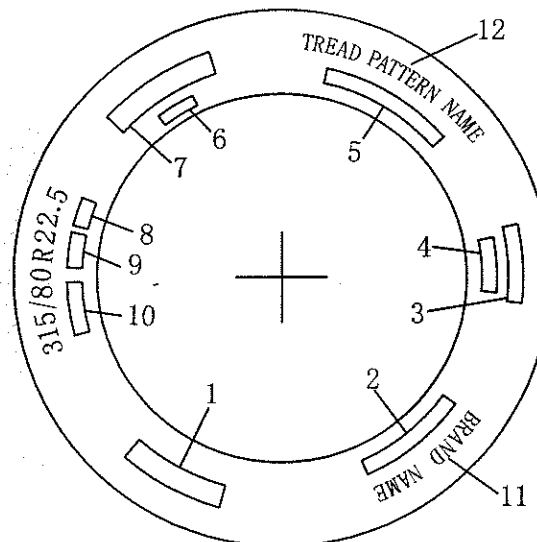
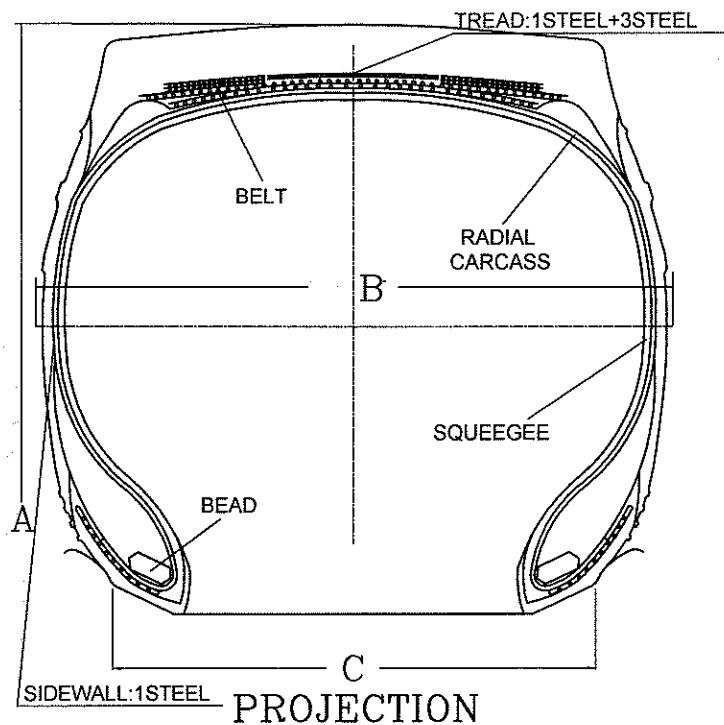
FG907

PETROMAX

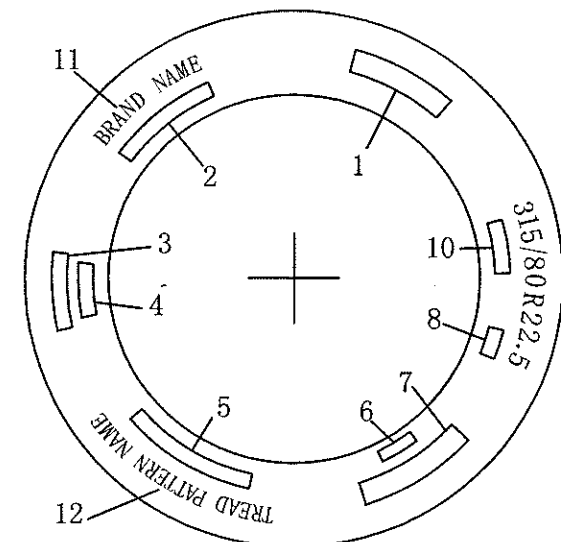
PT501

PT503





BOTTOM SIDEWALL

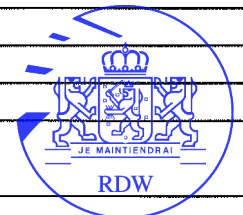


TOP SIDEWALL

TREAD PATTERNS

REFER TO ATTACHMENT NO.043-2013

1	PLIES: SIDEWALL 1 STEEL TREAD 1 STEEL + 3 STEEL MAX LOAD: SINGLE 4125 Kg (9090 LBS) AT 900 Kpa (130 PSI) COLD LR. L DUAL 3750 Kg (8270 LBS) AT 900 Kpa (130 PSI) COLD						
2	ALL STEEL RADIAL TUBELESS						
3	BRAND TIRE HERE						
4	REGROOVABLE						
5	SAFETY WARNING!						
6	MADE IN CHINA						
7	157/154M 130PSI 20PR						
8	STANDARD RIM 9.00						
9	(E ₄) *****						
10	DOT 66 TW BB31 **** (****----DATE CODE)						
11	BRAND NAME						
12	TREAD PATTERN NAME						
315/80R22.5	157/154	M	TL	1076	312	228.5	SEE TREAD PATTERNS
TIRE SIZE	LOAD INDEX	SPEED SYMBOL	TYPE	A (mm)	B (mm)	C (mm)	SKID DEPTH (mm)



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XINGYUAN TIRE GROUP CO., LTD.

ATTACHMENT NO. 043-2013

TIRE SIZE 315/80R22.5 157/154M

(E4) *****

BRAND NAME

TREAD PATTERN NAME

TREAD PATTERN

FULLRUN

TB766

TB875

TB655

ANTYRE

TB762

TB877

TB655

TURNPIKE

S200

TB878

S900

XBRI

XB88

XB300

SYRON

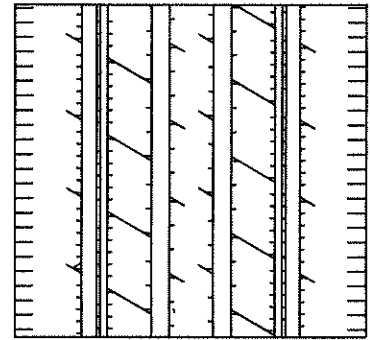
K-TIR225F1

FULLWAY

TB901

BILLSTONE

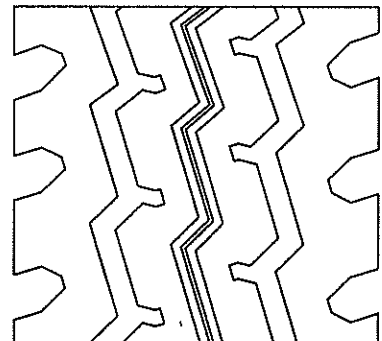
TB655



TB766 TB762 S200 TB878

K-TIR225F1

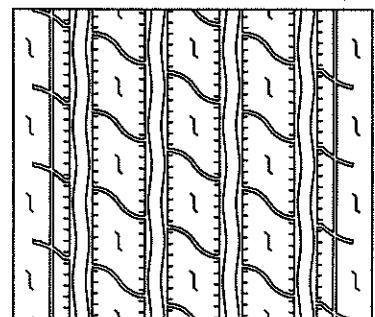
SKID DEPTH: 15mm



TB875 TB877 TB878

XB300 TB901

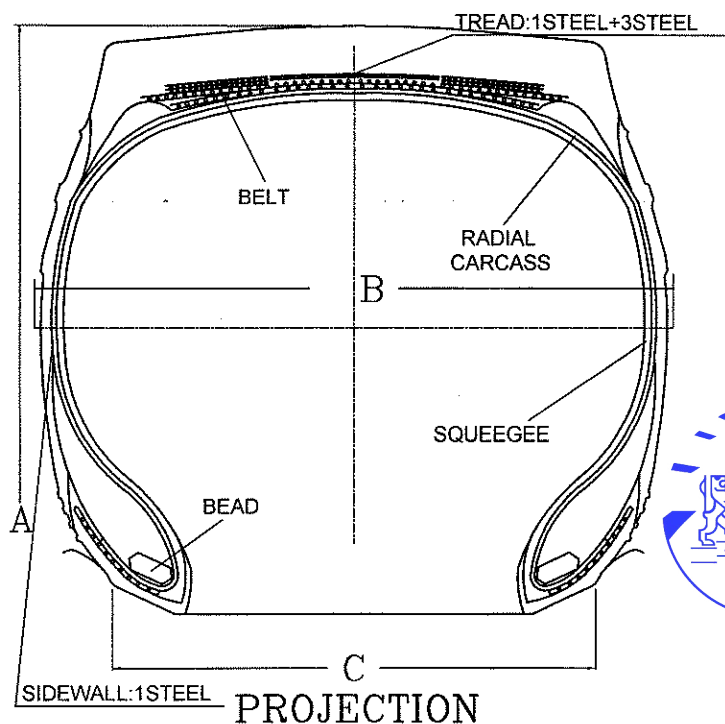
SKID DEPTH: 17mm



TB655 S900

SKID DEPTH: 15mm

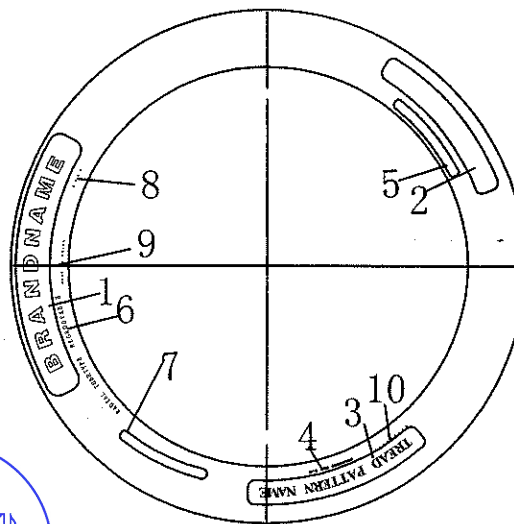
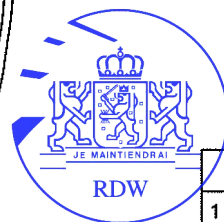




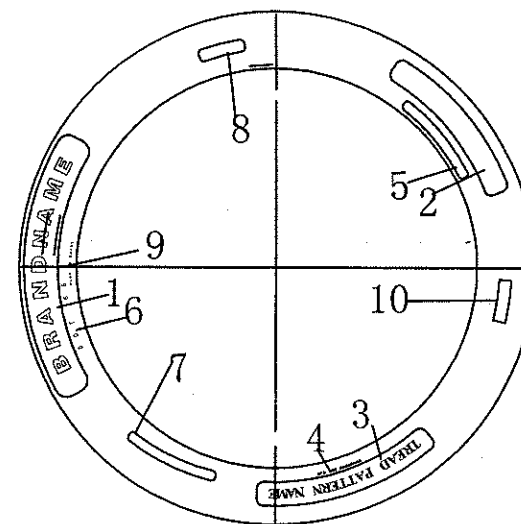
PROJECTION

TREAD PATTERNS

REFER TO ATTACHMENT NO.044-2013



LOWER MOULD



UPPER MOULD

LOWER MOULD		UPPER MOULD	
1	REFER TO ATTACHMENT NO.044-2013	1	REFER TO ATTACHMENT NO.044-2013
2	315/80R22.5	2	315/80R22.5
3	REFER TO ATTACHMENT NO.044-2013	3	REFER TO ATTACHMENT NO.044-2013
4	STANDARD RIM 9.00 TUBELESS	4	STANDARD RIM 9.00 TUBELESS
5	157/154 M 20PR LOAD RANGE L PLIES:SIDEWALL 1 STEEL; TREAD 1 STEEL + 3 STEEL MAX LOAD SINGLE 4125 Kg(9090 LBS) AT 900 Kpa(130 PSI) COLD MAX LOAD DOUBLE 3750 Kg(8270 LBS) AT 900 Kpa(130 PSI) COLD	5	157/154 M 20PR LOAD RANGE L PLIES:SIDEWALL 1 STEEL; TREAD 1 STEEL + 3 STEEL MAX LOAD SINGLE 4125 Kg(9090 LBS) AT 900 Kpa(130 PSI) COLD MAX LOAD DOUBLE 3750 Kg(8270 LBS) AT 900 Kpa(130 PSI) COLD
6	DOT 66 TW BB31****(****---DATE CODE)	6	DOT 66 TW BB31****(****---DATE CODE)
7	SAFETY WARNING.....	7	SAFETY WARNING.....
8	E 00****	8	AUFINE GROUP CO.,LIMITED
9	MADE IN CHINA	9	MADE IN CHINA
10	ALL STEEL RADIAL TIRE REGROOVABLE	10	ALL STEEL RADIAL TIRE REGROOVABLE

315/80R22.5	157/154	M	TL	1076	312	228.5	SEE TREAD PATTERNS
TIRE SIZE	LOAD INDEX	SPEED SYMBOL	TYPE	A (mm)	B (mm)	C (mm)	SKID DEPTH (mm)

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XINGYUAN TIRE GROUP Co.,Ltd.

ATTACHMENT NO.044-2013

TIRE SIZE 315/80R22.5 157/154 M

E4 *****

BRANDNAME

PATTERN CODE

TREAD PATTERNS

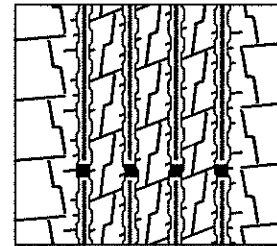
AU FINE

AF177

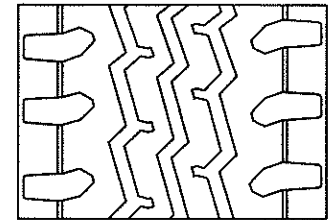
AF18

AF867

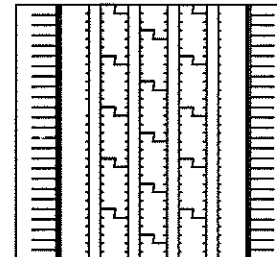
AF667



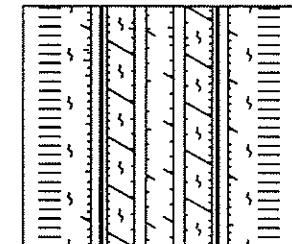
AF177 SKID DEPTH: 16.5mm



AF18 SKID DEPTH: 17mm



AF867 SKID DEPTH: 15mm



AF667 SKID DEPTH: 15mm

TEST REPORT

According to ECE-Regulation

Uniform provisions concerning the approval of pneumatic tyres for commercial vehicles and their trailers

ECE-R54, Amend.00, Suppl. 18

Approval Status

Previously granted
ECE type – approval : E4-54R-0023104 Ext.03

Structure of report:

Item No.	
1.	General information
2.	Test object
3.	Test record
4.	List of Appendices
5.	Statement of conformity
Appendix 0	List of modifications

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.

Manufacturer : Xingyuan Tire Group Co., Ltd.
Type : 315/80R22.5

1. General information

- 1.1. Manufacturer's name and address : Xingyuan Tire Group Co., Ltd.
Xishui Industrial Zone, Guangrao,
Dongying, Shandong 257336
P.R. China
- 1.2. Technical service responsible for carrying out the tests : TÜV Rheinland Kraftfahrt GmbH
Technologiezentrum Verkehrssicherheit
Typprüfstelle Fahrzeuge/Fahrzeugteile
Am Grauen Stein
D-51105 Köln (Poll)
- 1.3. Type : 315/80R22.5
- 1.4. Trade mark(s) : HUALU; ANNAITE; XINGYUAN; GUOBAO;
QIANGWEI; GUANGDA; ANGUANGDA; HILO;
FULLRUN; ANTYRE; VIKRANT; FEDERO;
JKTYRE; AMBERSTONE; BENTENG; DAEWOO;
INFINITY; TURNPIKE; XBRI; SYRON; FULLWAY;
BILLSTONE; GREMAX; FORGOOD; AUFINE;
PETROMAX
- 1.5. Tread pattern name(s) : 100; 300; 366; 766; 786; TB906; TB786; SL602;
SL366; SL766; SL786; AL606; F168; F186;
VALIANT-VUB1; VUC; JETWAY-EX3; 668;
SL668; DWS11; TB766+; TB766; T875; T655;
TB762; TB877; S200; TB878; S900; X88; XB300;
K-TIR225F1; TB901; GM100; GM300; GM366;
GM766; GM786; GM668; FG901; FG907; AF177;
AF667; AF18; AF867; PT501; PT503
- 1.6. No. of the information folder : ---
 - Date of issue : ---
 - Date of last change : ---

2. Test object

- 2.1. Markings
- 2.1.1. Trade mark : HILO
- 2.1.2. Tread pattern name : 366
- 2.1.3. Plies
- Tread : 1 STEEL + 3 STEEL
- Side wall : 1 STEEL
- 2.1.4. Size designation : 315/80R22.5
- 2.1.5. Category of use : normal
- 2.1.6. Structure : radial
- 2.1.7. Speed category : nominal: M, supplementary: ---
- 2.1.8. Load-Capacity Indices
 corresponding to nominal speed : single :157, twinned : 154
 corresponding to supplementary speed : single : ---, twinned : ---
- 2.1.9. Index of inflation pressure for testing : 130 PSI
- 2.1.10. Ply-rating number : 20

Manufacturer : Xingyuan Tire Group Co., Ltd.
Type : 315/80R22.5

- 2.1.11. Indication : tubeless
 2.1.12. Regroovable : yes
 2.1.13. Date of manufacture : 1712
 2.1.14. Identification number : ---
 2.2. Remarks : all versions of the types as stated in the information document are covered with the tested test object respectively.

3. Test record

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

3.2. Test results

Remark concerning extension :

~~[The type has been tested according to the modification(s) mentioned in item Appendix 0.]~~

[The results of previous test are still valid.]

3.2.1. Dimension Measurement according to Annex 6

- 3.2.1.1. Measuring rim : 9.00 x 22.5
 3.2.1.2. Inflation pressure : 9.0 bar
 3.2.1.3. Inflation pressure (readjusted before conditioning) : 9.0 bar
 3.2.1.4. Duration of conditioning of mounted tyre pre-measuring at ambient room temperature : more than 24 hours
 3.2.1.5. Inflation pressure (readjusted after conditioning) : 9.0 bar
 3.2.1.6. Overall width at six equally spaced points
- | | | | | | |
|-------|-------|----|----|-------|----|
| 1. | 310.8 | mm | 4. | 311.1 | mm |
| 2. | 311.3 | mm | 5. | 310.9 | mm |
| 3. | 310.7 | mm | 6. | 311.3 | mm |
| Max.: | 311.3 | mm | | | |

- 3.2.1.7. Circumference : 3374 mm
 3.2.1.8. Outer diameter : 1074.0 mm
 3.2.2. Load/speed performance test according to Annex 7
- 3.2.2.1. Test machine : TJR-2-TB(Y)
 3.2.2.2. Diameter test drum : 1.7 m
 3.2.2.3. Test rim : 9.00 x 22.5
 3.2.2.4. Conditioning of mounted tyre pre-testing at test-room Temperature : more than 3 hours
 3.2.2.5. Test-room temperature : 26 °C
 3.2.2.6. Inflation pressure (readjusted before conditioning) : 9.0 bar

Manufacturer : Xingyuan Tire Group Co., Ltd.
Type : 315/80R22.5

3.2.2.7. Inflation pressure (readjusted after conditioning) : 9.0 bar
 3.2.2.8. Circumference after conditioning, before testing : 3374 mm
 3.2.2.9. Outer diameter : 1074.0 mm
 3.2.2.10. Inflation pressure : 9.0 bar
 3.2.2.11. Test drum speed : 225 min⁻¹
 3.2.2.12. Corresponding load (100 %) : 4125 kg

Step	Step-Duration [h]	Total Duration [h]	Actual speed (min ⁻¹)	Load (single) (%)	(kg)
1.	7	7	225	66	2722.5
2.	16	23	225	84	3465
3.	24	47	225	101	4166.2

3.2.2.13. Conditioning after testing at test-room temperature : more than 6 hours
 3.2.2.14. Inflation pressure : 9.0 bar
 3.2.2.15. Circumference after conditioning, after testing : 3380mm
 3.2.2.16. Outer diameter : 1075.9 mm
 3.2.2.17. Difference outer diameter before and after testing : 1.9 mm
 (max. 3.5 %) : 0.18%

3.3. Additional information

The results of the test refer exclusively to object mentioned under point 2.1. of this report.

Test site : Xingyuan Tire Group Co., Ltd.
 Xishui Industrial Zone, Guangrao,
 Dongying, Shandong 257336
 P.R. China
 Test date : May 06-08, 2012
 Remark : The results of the test refer to report No. 86-R54-725/10.

4. List of Appendices

0 List of modifications

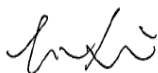
5. Statement of conformity

The information folder and the type described there comply with the requirements mentioned on page 1.

The test laboratory is accredited for the above mentioned tests by the accreditation body of the RDW, Vehicle Technology and Information Centre, as the competent Administrative Department for the Netherlands; Designation No: RDW-99050014 -06.

Engineering center Guangdong, August 29, 2013

LX / AY



Dipl.-Ing. Liu Xin

Manufacturer : Xingyuan Tire Group Co., Ltd.
Type : 315/80R22.5



List of modifications

Appendix 0

Correction of : ---

Modification of : ---

Addition of : trade marks and tyre type designations

Deletion of : ---