

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- ~~approval withdrawn~~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 for motor vehicles pursuant to Regulation number 54.

Approval number: E4*54R00/23*46849*00

1. Manufacturer's name and address : ZODO TIRE Co., LIMITED
The South of Yalujiang Road Wenzhuang Village,
Qinghe Agency of Cao County Heze City,
Shandong Province 274400 China(PRC)
2. Tyre type designation ⁽²⁾ :
 - 2.1. Brand name(s)/trademark(s) : CONSTANCY; ILINK; LUXXAN; RHINO;
ARIVO; GRENLANDER; T TYRE; CRYSTAL;
ROCKBLADE; FRONWAY; SAILWIN; XBRI;
ROADMARCH; KANGS; ZMAX;
XCENTWAY
 - 2.2. Trade description (s)/Commercial name(s)/ : L-MAX9; LY399; VANPLUS 09;
VANTOUR 09; TRANSITO ARZ6-X;
INSPIRER L4; RT28; TWENTY; ROCK 838C;
PRIMEVAN 9; MAXCELL 09; Perseverant 902;
LY288; L-POWER28; DURAMAX 28;
RACINGMAX 28; TRANSITO ARZ6-M;
CITYMAX; INSPIRER L6; GTR501; Strength;
ROCK 818; PRIMEVAN 28; Perseverant 901
3. If applicable, name and address of the manufacturer's representative : Not applicable
4. Summarized description:

- 4.1. Size of tyre : 215/70R16C
- 4.2. Category of use : normal/~~snow~~/special⁽¹⁾
- 4.3. Structure : ~~diagonal (bias-ply)~~/radial⁽¹⁾
- 4.4. Tyre class : C2/~~C3~~⁽¹⁾
- 4.5. Speed category symbol:
- 4.5.1. nominal : R
- 4.5.2. additional (if applicable) : ---
- 4.6. Load-capacity indices:
- 4.6.1. Corresponding to nominal speed:
– single : 108
– twinned (dual) : 106
- 4.6.2. Corresponding to additional speed:
– single : ---
– twinned (dual) : ---
5. Technical service and, where applicable, test laboratory approved for purposes of approval or of verification of conformity : IDIADA Automotive Technology, S.A.
L'Albornar, P.O. Box 20
43710 Santa Oliva (Tarragona)
Spain
6. Date of report issued by that service : August 05, 2020
7. Number of report issued by that service : CN20080023
8. Reason(s) for extension (if applicable) : ---
9. Any remarks : ---



10. Place : Zoetermeer
11. Date : 21 August 2020
12. Signature :



R. R. van der Spek

13. 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 7.

⁽¹⁾ Strike out what does not apply.

⁽²⁾ A list of brand name(s)/trademark(s) or Trade description(s)/ Commercial name(s) may be annexed to this communication.

TECHNICAL DOCUMENTATION



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

- | | | | |
|--------|---|---|---|
| 1. | Tyre type designation | : | 215/70R16C 108/106R |
| 1.1 | Trademark | : | CONSTANCY; ILINK; LUXXAN; RHINO; ARIVO;
GRENLANDER; T TYRE;CRYSTAL;ROCKBLADE;
FRONWAY; SAILWIN; XBRI; ROADMARCH;KANGS;
ZMAX;XCENTWAY |
| 1.2 | Tread pattern | : | L-MAX9; LY399; VANPLUS 09; VANTOUR 09; TRANSITO
ARZ6-X; INSPIRER L4; RT28; TWENTY; ROCK 838C;
PRIMEVAN 9; MAXCELL 09; Perseverant 902; LY288;L-
POWER28;DURAMAX 28;
RACINGMAX 28;TRANSITO ARZ6-M;CITYMAX;
INSPIRER L6;GTR501;Strength;ROCK 818;
PRIMEVAN 28;Perseverant 901 |
| 2. | Manufacturer's name and address | : | ZODO TIRE Co., LIMITED
The South of Yalujiang Road, Wenzhuang Village Qinghe
Agency of Cao County Heze City, Shandong Province 274400
China(PRC) |
| 3. | If applicable, name and address of
manufacturer's representative | : | not applicable |
| 4. | Summarised description, | | |
| 4.1. | Tyre size designation | : | 215/70R16C |
| 4.2. | Category of use | : | normal/ special /snow ⁽¹⁾ |
| 4.3. | Structure | : | diagonal (bias ply) / radial ⁽¹⁾ |
| 4.4. | Speed category symbol | : | |
| 4.4.1. | Nominal | : | R |
| 4.4.2. | Additional (if applicable) | : | not applicable |
| 4.5. | Load capacity indices | | |
| 4.5.1. | corresponding to nominal speed | : | single: 108, twinned (dual):106 |
| 4.5.2. | corresponding to additional speed | : | single: --- , twinned (dual): --- |
| 5. | Factor 'x' | : | 0.7 |
| 6. | Ply-rating number for diagonal (bias-ply) tyres | : | Not applicable |
| 7. | Rims on which the tyre can be mounted | : | 6 1/2J |
| 8. | Measuring rim and test rim | : | see attached test report |
| 9. | Tyre class | : | C2 / C3 ⁽¹⁾ |
| 10. | State whether the tyre is | : | tubeless / tube type ⁽¹⁾ |
| 11. | Traction tyre | : | Yes / no(see the tread pattern detail in drawing) ⁽¹⁾ |
| 12. | State if special use tyre | : | n.a. |
| | Professional Off-Road | : | Yes / no ⁽¹⁾ |
| | Tread depth | : | n.a. |
| | Void to fill ratio | : | n.a. |
| 13. | Inflation pressure and index for
measuring and testing | : | see attached test report |
| 14. | Submitted for approval on (date) | : | 2020/06/29 |

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.



Pen Hailang



(1) Strike out what does not ap.
(2) Modified points are underlin.

MANUFACTURER'S STAMP

Signature :

.....

Name: Ren Hailong

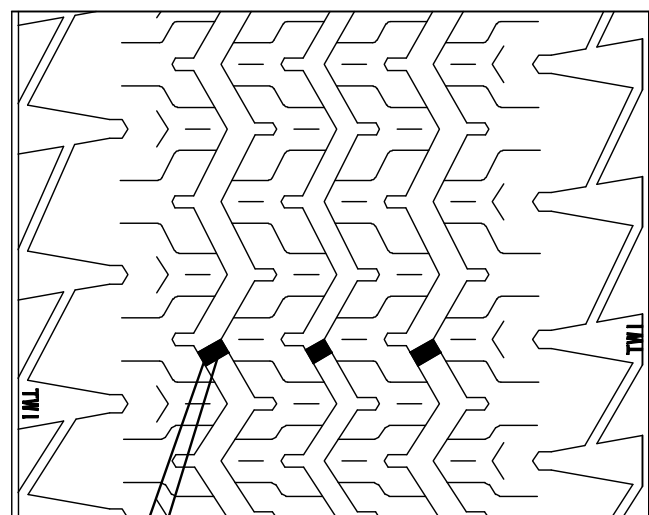
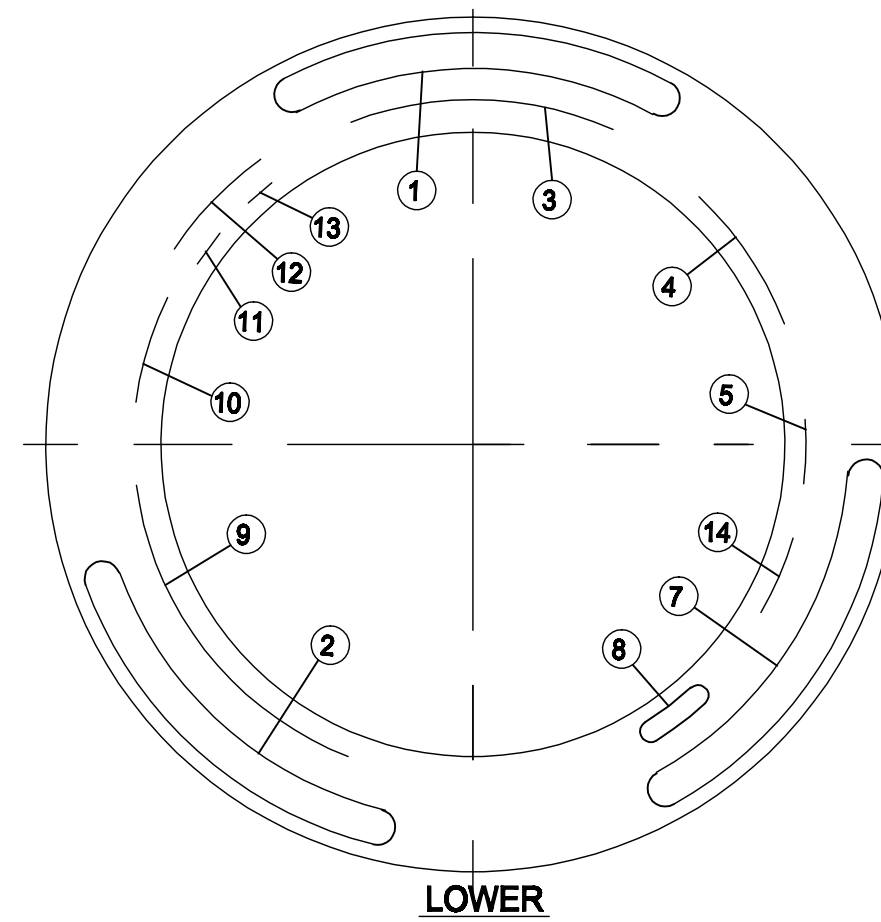
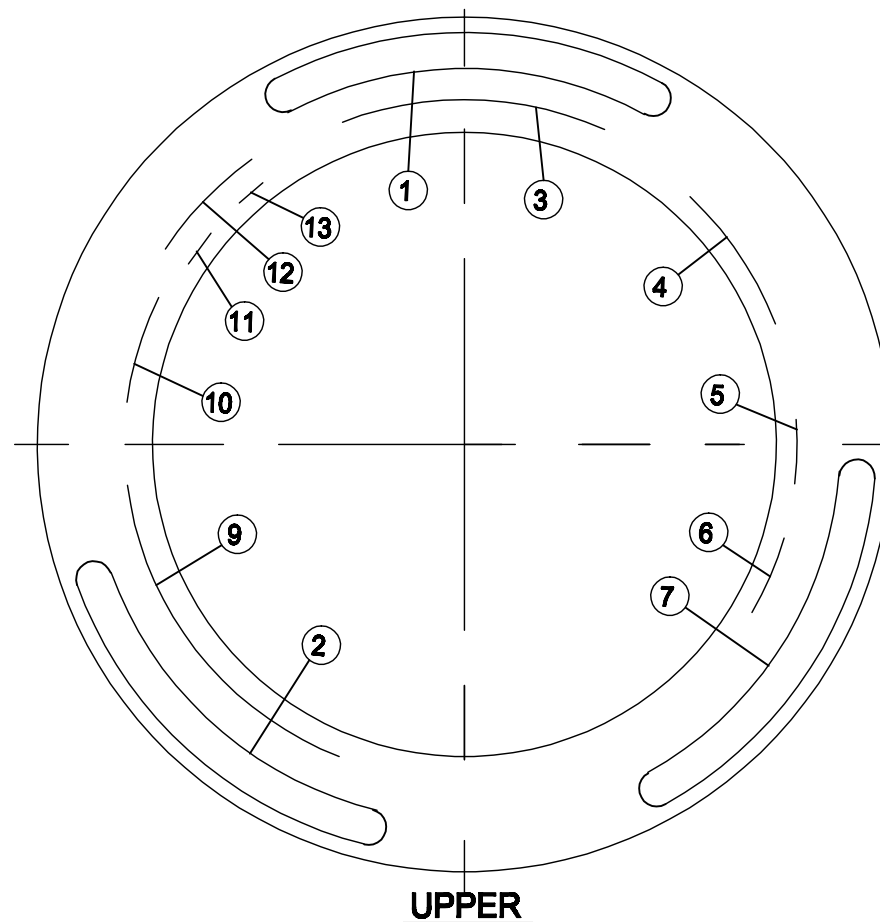
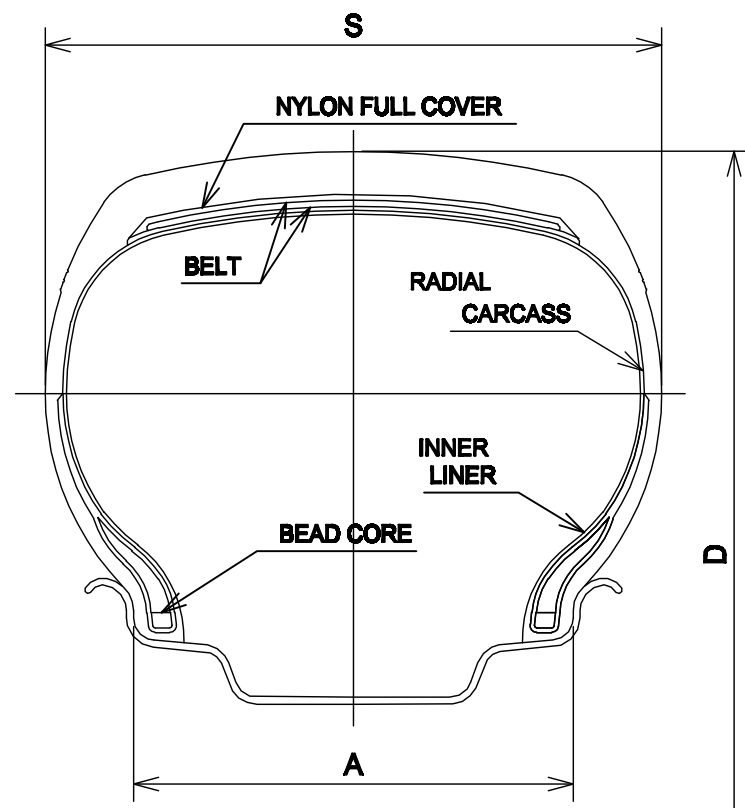
THIS APPLICATION IS ACCOMPANIED BY:

- Application form, relating to ECE approval for pneumatic tyre pursuant Regulation No.54
- A drawing of the tyre's side wall, tread and dimensioned cross section.
- The test report.

(1) Strike out what does not apply.
(2) Modified points are underlined for extension.



RDW
CN20080023

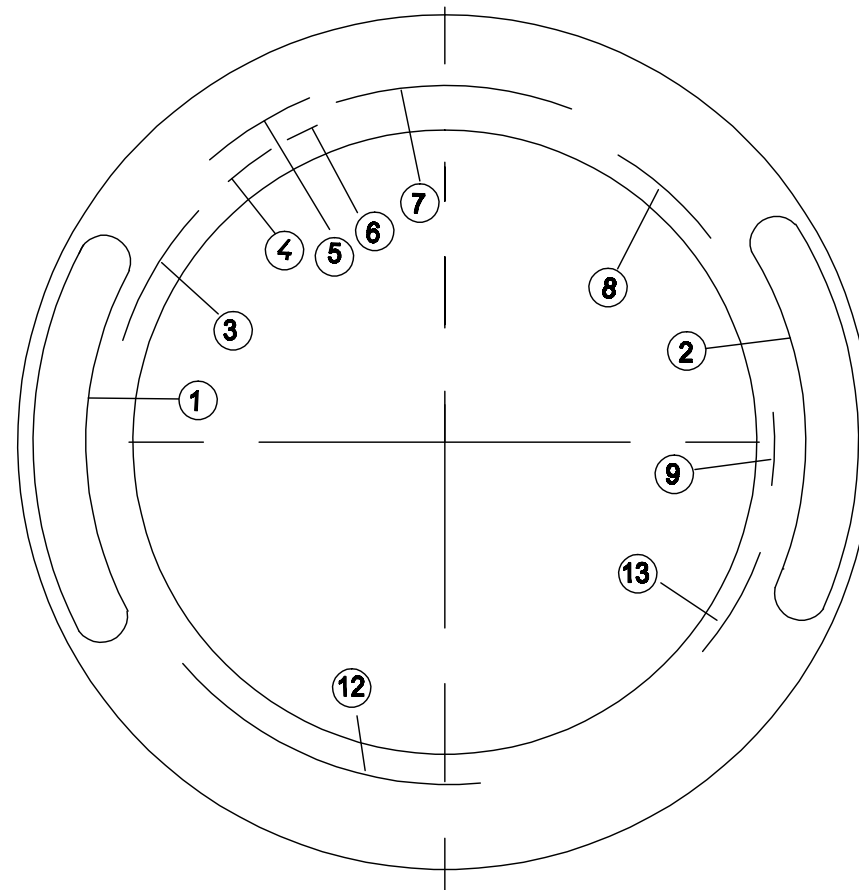
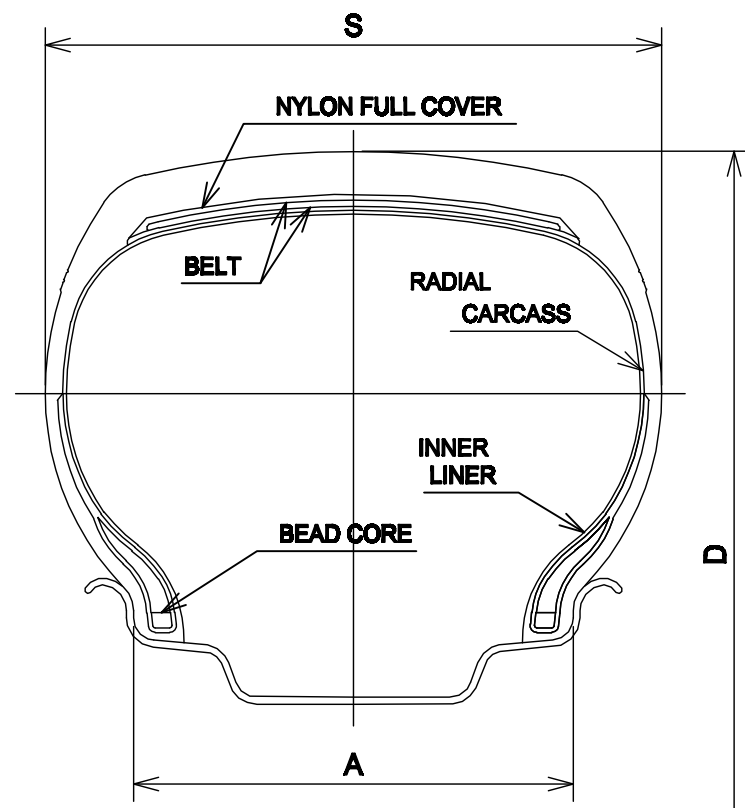


6 TREAD WEAR INDICATORS
EQUALLY SPACED

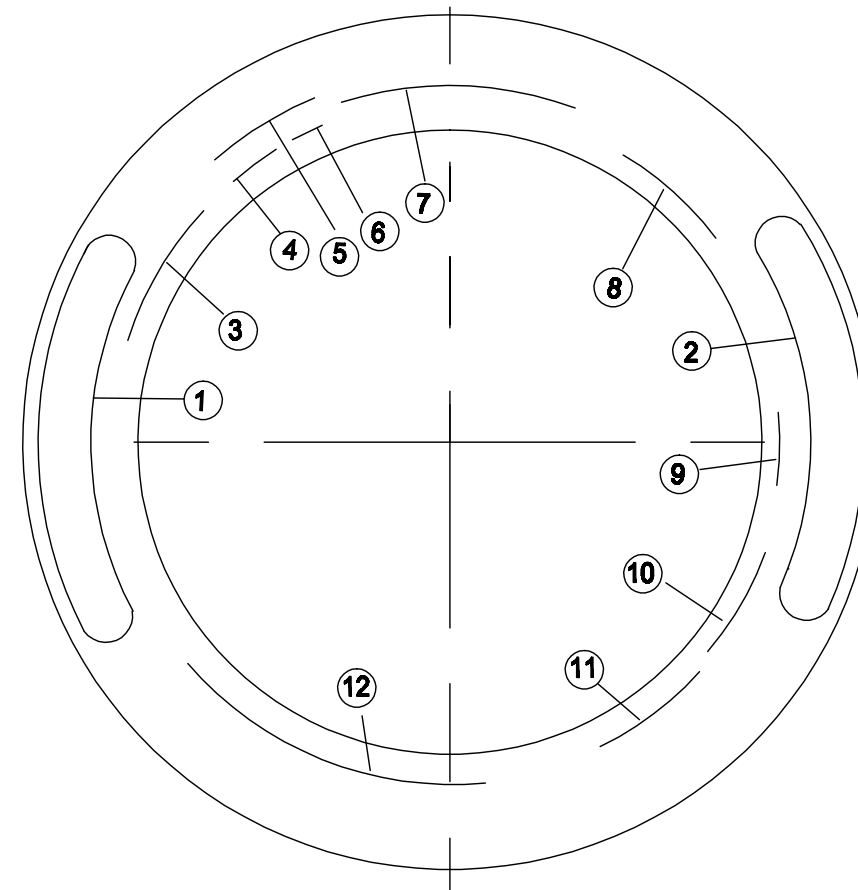
1	CONSTANCY; I LINK; LUXXAN; RHINO; ARIVO; GRENLANDER; T TYRE; CRYSTAL; ROCKBLADE; FRONWAY; SAILWIN; XBRI; ROADMARCH; KANGS; ZMAX; XCENTWAY;	8	ECE APPROVAL MARK
2	L-MAX9; LY399; VANPLUS 09; VANTOUR 09; TRANSITO ARZ6-X; INSPIRER L4; RT28; TWENTY; ROCK 838C; PRIMEVAN 9; MAXCELL 09; Perseverant 902;	9	SAFETY WARNING
3	215/70R16C 108/106R 6PR	10	PLIES:TREAD 2POLYESTER+2STEEL+1NYLON SIDEWALL 2POLYESTER
4	LOAD RANGE C MAX .LOAD SINGLE 1000 kg(2205 LBS) AT 375 kpa (54 PSI) MAX.PRESS. MAX .LOAD DUAL 950 kg(2094 LBS) AT 375 kpa (54 PSI) MAX.PRESS.	11	RIM:6 1/2J
5	MADE IN CHINA	12	RADIAL TUBELESS
6	DOT 17B XXXXXX	13	MOLD No.
7	215/70R16C	14	DOT 17B XXXXXX XXXX (DATE CODE)

TIRE SIZE	D(mm)	S(mm)	A(mm)	LOAD INDEX SPEED CODE	REMARK
215/70R16C	708	221	165	108/106R	_____

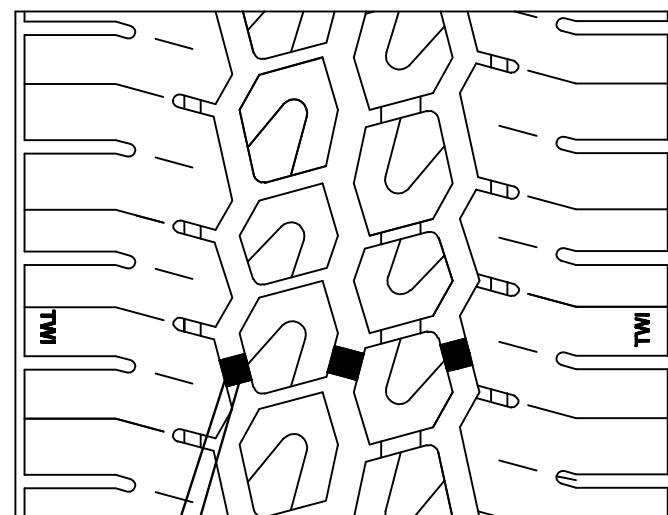
SCALE : FREE	DATE : 2020.06.29	DESIGNED BY	CHECKED BY	APPROVED BY	DRAWING NO.	
ZODO TIRE Co., LIMITED.		Xu Huili	Xie Baoshan	Shen Maoqiao		215/70R16C 108/106R 6PR



UPPER



LOWER



6 TREAD WEAR INDICATORS
EQUALLY SPACED

1	CONSTANCY; I LINK; LUXXAN; RHINO; ARIVO; GRENLANDER; T TYRE; CRYSTAL; ROCKBLADE; FRONWAY; SAILWIN; XBRI; ROADMARCH; KANGS; ZMAX; XCENTWAY;	8	LOAD RANGE C MAX. LOAD SINGLE 1000 kg(2205 LBS) AT 375 kpa (54 PSI) MAX.PRESS. MAX. LOAD DUAL 950 kg(2094 LBS) AT 375 kpa (54 PSI) MAX.PRESS.
2	LY288; L-POWER28; DURAMAX 28; RACINGMAX 28; TRANSITO ARZ6-M; CITYMAX; INSPIRER L6; GTR501; Strength; ROCK 818; PRIMEVAN 28; Perseverant 901;	9	MADE IN CHINA
3	PLIES: TREAD 2POLYESTER+2STEEL+1NYLON SIDEWALL 2POLYESTER	10	DOT 17B XXXXXX XXXX (DATE CODE)
4	RIM: 6 1/2J	11	ECE APPROVAL MARK
5	RADIAL TUBELESS	12	SAFETY WARNING
6	MOLD No.	13	DOT 17B XXXXXX
7	215/70R16C		

TIRE SIZE	D(mm)	S(mm)	A(mm)	LOAD INDEX SPEED CODE	REMARK
215/70R16C	708	221	165	108/106R	

SCALE : FREE	DATE : 2020.06.29	DESIGNED BY	CHECKED BY	APPROVED BY	DRAWING NO.	
ZODO TIRE Co., LIMITED.		Xu Huili	Xie Baoshan	Shen Maoqiao	TITLE	215/70R16C 108/106R 6PR



REPORT No. CN20080023**APPROVAL OF PNEUMATIC TYRES FOR COMMERCIAL VEHICLES
AND THEIR TRAILERS REFERRING TO UN REGULATION NO. 54R00/23**

Approval number : E4*54R00/23*46849*00

Applicant : ZODO TIRE Co., LIMITED

Manufacturer : ZODO TIRE Co., LIMITED
The South of Yalujiang Road Wenzhuang Village, Qinghe
Agency of Cao County Heze City, Shandong Province 274400
China(PRC)

Brand-name(s)/trademark(s) : CONSTANCY; ILINK; LUXXAN; RHINO; ARIVO;
GRENLANDER; T TYRE; CRYSTAL; ROCKBLADE;
FRONWAY; SAILWIN; XBRI; ROADMARCH; KANGS;
ZMAX; XCENTWAY

Trade description(s)/Commercial name(s) : L-MAX9; LY399; VANPLUS 09; VANTOUR 09;
TRANSITO ARZ6-X; INSPIRER L4; RT28; TWENTY;
ROCK 838C; PRIMEVAN 9; MAXCELL 09; Perseverant 902;
LY288; L-POWER28; DURAMAX 28; RACINGMAX 28;
TRANSITO ARZ6-M; CITYMAX; INSPIRER L6; GTR501;
Strength; ROCK 818; PRIMEVAN 28; Perseverant 901

Tyre size designation : 215/70R16C

Place and date of test report issue : L'Albornar, Santa Oliva (Tarragona)
05/08/2020

Tested pneumatic tyre **FULFILS** with the specifications regarding to the type approval of approval of pneumatic tyre referring to the Supplement 23 to the original version of the UN Regulation NO. 54 as specified in the annex of this report.

Performed by:

Zhaocai(frank) Yu
TEST ENGINEER

Revised by:

Josep Masip Gomez
DEPARTMENT MANAGER

ANNEX TO THE REPORT

1. TECHNICAL DESCRIPTION OF THE PNEUMATIC TYRE:

Brand-name(s)/trademark(s)	:	ROCKBLADE
Trade description(s)/Commercial name(s)	:	RACINGMAX 28
Tyre-size designation	:	215/70R16C
Category of use	:	normal / snow / special
Structure	:	diagonal / bias belted / radial
Speed category index	:	nominal : R additional : ---
Load-capacity index	:	nominal: single : 108 twinned : 106 additional: single : --- twinned : ---
X of the manufacturer /	:	0.7
Tyre cross-section	:	See technical documentation

2. TYRE MARKING

2.1. Compulsory Marking

Approval mark	
Approval mark Height $a > 12$ mm	: Yes
Tyre definition marking height	
Tyre size $b > 6$ mm	: Yes
Load and speed index $b > 6$ mm	: Yes

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2.2. Additional Marking

“M+S” / “M.S” / “M&S”	:	N.A.
“TUBELESS”	:	Yes
Index of inflation pressure	:	375 kPa
Ply rating	:	N.A.
“ET” / “ML” / “MPT”	:	N.A.
“REGROOVABLE”	:	N.A.
Date of manufacture	:	1920
Height of these marking $c > 4$ mm	:	YES

3. TEST RESULTS.

Sample Reception date	:	29/05/2020
Place and test dates	:	29/05/2020-01/06/2020 ZODO Testing Center (Heze, China)
Sample Id.	:	CN20080023
Measure rim code	:	6.5 × 16
Test rim Code	:	6.5 × 16

3.1. Pneumatic tyre measurement

Mounting pressure in measuring rim	:	P(1m) = 3.75 bar
Conditioning temperature	:	Temp. = 26 °C
Adjusted pressure before conditioning	:	P(2m) = 3.75 bar
Readjusted pressure after 24 hours	:	P(3m) = 3.75 bar

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3.1.1. Tyre width measurement:

Measures of **overall width** at six equally-spaced points:

Point	Overall width (mm)
1	219.5
2	219.8
3	219.7
4	219.6
5	219.8
6	219.9
Point	Maximum width (mm)
6	219.9

3.1.2. Tyre section width calculation:

S = 221 (mm) given by Annex 5/Calculation

Or

$$S = S_1 + K(A - A_1)$$

Nominal section width (mm)	215
K coefficient	0.4
Measuring rim Width (mm)	165.1
X of the manufacturer	0.70
Theoretical rim Width (mm)	150.5

Maximum measured width (mm)	Section width (mm)	Difference (%)
S_M = 219.9	S = 221	-0.50

The overall width of a tyre may be less than the section or exceed the value by the following percentages: 8% structure diagonal; 4 % structure radial. For section with exceed 305mm shall not exceed the value by the following percentages: 4% structure diagonal; 2 % structure radial of nominal aspect higher than 60.

FULFILS / DOES NOT FULFIL



3.1.3. Outer diameter measurement

Maximum circumference (mm)	Outer diameter (mm) $D_{ext} = \frac{L}{\pi}$
2222	707.3

3.1.4. Tyre outer diameter calculation:

$$D = d + 2H$$

Conventional number of the nominal rim(mm)	d = 406 mm
Nominal section width (mm)	S₁ = 215 mm
Nominal aspect ratio	70
Factor a	0.97
Factor b	Radial: 1.04 (Normal), 1.06 (Special) Diagonal: 1.08 (Normal), 1.09 (Special)
Nominal section height (mm)	H = 151 mm

Dmin $D_{min} = d + 2(H \times a)$	Outer diameter D (measured)	Dmax $D_{max} = d + 2(H \times b)$
698 mm	707.3 mm	720 mm
Dmin < D < Dmax		

FULFILS / DOES NOT FULFIL

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3.2 Load/speed performance test

3.2.1 For tyres with speed category symbol Q and above:

Test Conditions

Speed category	R
Load capacity index	108
Maximum velocity (km/h)	170
Test axle load (kg)	1000
Maximum speed during the test (km/h)	170
Load of axle during the test (kg)	900
Inflation tyre pressure before conditioning(kpa)	375
Conditioning time wheel-tyre assembly(hour)	3
Readjusted tyre pressure after conditioning (kpa)	375
Test wheel diameter (m)	1.7
Temperature (°C)	28

Test cycle

Step	Duration (min)	Speed (km/h)
1	10	0-150
2	10	150
3	10	160
4	30	170
TOTAL	60	

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3.2.2 Tyres with speed category symbol P and below:

Test Conditions

Speed category	N.A.
Load capacity index	N.A.
Maximum velocity (km/h)	N.A.
Test drum speed during the test (km/h)	N.A.
Load of axle during the test (kg) (100%)	N.A.
Inflation tyre pressure before conditioning(kpa)	N.A.
Conditioning time wheel-tyre assembly(hour)	N.A.
Readjusted tyre pressure after conditioning (kpa)	N.A.
Test wheel diameter (m)	N.A.
Temperature (°C)	N.A.

Test cycle

Step	Duration (h)	Load (kg)	
1	N.A.	N.A.	N.A.
2	N.A.	N.A.	N.A.
3	N.A.	N.A.	N.A.
TOTAL	N.A.		

3.2.3 Tyre measurement

Outer diameter measurement at the start of test	707.3 mm
Outer diameter measurement at the end of test	709.2 mm
Percentage of the change in outer diameter measurement (%)	0.27



* THE PRESENTED RESULTS REFER ONLY TO THE TESTED SAMPLE

* THE PARTIAL REPRODUCTION OF THIS REPORT WITHOUT THE PERMISSION OF IDIADA IS COMPLETELY FORBIDDEN

3.3. Test results

3.3.1. The outer diameter of the tyre, measured six hours after the load/speed endurance test, must not differ by more than $\pm 3.5\%$ from the outer diameter as measured before the test.

FULFILLS / ~~DOES NOT FULFIL~~

3.3.2. Once passed the load/speed endurance test, the tyre must not exhibit any tread separation, ply separation, cord separation, chunking or broken cords.

FULFILLS / ~~DOES NOT FULFIL~~

Test Place : ZODO Testing Center (Heze, China)

Test Date : 29/05/2020-01/06/2020



Zhaocai(frank) Yu
TEST ENGINEER

