

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





### Concerning (1)

- approval granted
- approval extended
- approval refusal
- approval withdrawn
- production definitely discontinued

of a type of tyre for motor vehicles pursuant to Regulation number 30.

### Approval number: E4\*30R02/21\*109483\*03

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)

 $2.1. \quad Brand-name(s)/trademark(s) \qquad \qquad : \quad See \ annex \ 1 \ of \ communication \ form$ 

2.2. Trade description(s)/Commercial name(s) : See annex 1 of communication form

3. If applicable, name and address of the

manufacturer's representative

: Not applicable

4. Summarised description

4.1. Tyre size designation : 215/65R16

4.2. Category of use : normal/snow/special use /temporary use (1)

4.3. Structure : diagonal / bias belted / radial / run flat tyre (1)

4.4. Speed category symbol : H

4.5. Load-capacity index : 102

P.O. Box 777 2700 AT Zoetermeer The Netherlands Tel. +31 (0)79 345 83 02 E-mail typeapproval@rdw.nl www.rdw.nl Type-approval Department



### Approval number: E4\*30R02/21\*109483\*03

applicable, test laboratory approved for

of conformity

4.6. Extended Mobility Tyre : Yes /No<sup>(1)</sup>

5. Technical service and, where : IDIADA Automotive Technology S.A.Institute for Applied

Automotive Research L' Albornar P.O. Box 20

purposes of approval or of verification E-43710 Santa Oliva (Tarragona)

Spain

6. Date of report issued by that service : 2018-04-11; 2020-02-28

7. Number of report issued by that service : extsion number 00; CN20020396

8. Reason(s) of extension (if applicable) : Update of tyre type designation(s)

Upgrade of regulation supplement number

Update of construction variant(s)

Addition of brand names; Addition of trade descriptions; Deletion of

trade description; Modification of manufacturer's name

Change of technical service

9. Any remarks : Not applicable

10. Place : Zoetermeer

11. Date : 27 March 2020

12. Signature :

The list of documents in the approval file which are 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 30.
- The drawing of the tyre's sidewalls, tread and dimensioned cross-section.
- The test report as mentioned in item 7.

Tyres-passenger-vehicle R30-02 v7.00 Page 2 of 2

<sup>(1)</sup> Strike out what does not apply

<sup>&</sup>lt;sup>(2)</sup> A list of Brand name(s)/trademark(s) or Trade description(s)/Commercial name(s) may be annexed to this communication

Approval number: E4\*30R02/21\*109483\*03

#### Annex 1

### 2. Tyre type designation

### 2.1. Brand-name(s)/trademark(s):

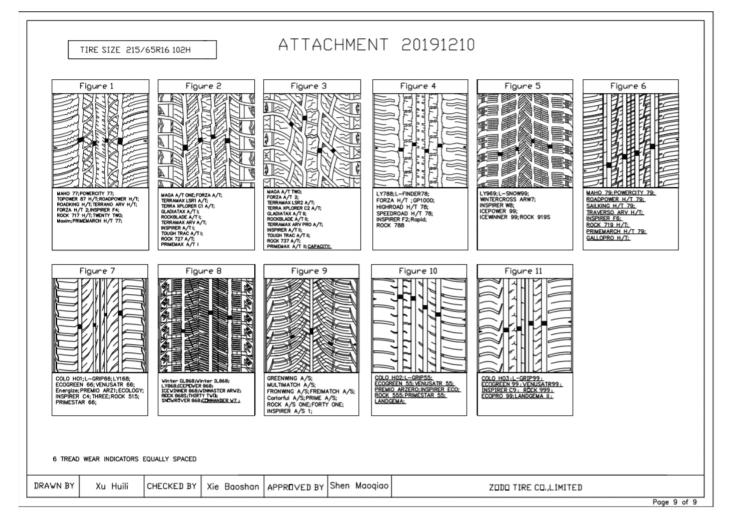
CONSTANCY; ILINK; LUXXAN; RHINO; ARIVO; GRENLANDER; T TYRE; CRYSTAL; ROCKBLADE; FRONWAY; SAILWIN; XBRI; ROADMARCH; KANGS; ZMAX

#### 2.2. Trade description(s)/Commercial name(s):

MAHO 77; POWERCITY 77; TOPOWER 87 H/T; ROADPOWER H/T; ROADKING H/T; TERRANO ARV H/T; FORZA H/T 2; INSPIRER F4; ROCK 717 H/T; TWENTY TWO; Maxim; PRIMEMARCH H/T 77; MAGA A/T ONE; FORZA A/T; TERRAMAX LSR1 A/T; TERRA XPLORER C1 A/T; GLADIATAX A/T I; ROCKBLADE A/T I; TERRAMAX ARV A/T; INSPIRER A/T I; TOUGH TRAC A/T I; ROCK 727 A/T; PRIMEMAX A/T I; MAGA A/T TWO; FORZA A/T 2; TERRAMAX LSR2 A/T; TERRA XPLORER C2 A/T; GLADIATAX A/T II; ROCKBLADE A/T II; TERRAMAX ARV PRO A/T; INSPIRER A/T II; TOUGH TRAC A/T II; ROCK 737 A/T; PRIMEMAX A/T II; ROCKBLADE A/T II; TERRAMAX ARV PRO A/T; INSPIRER A/T II; TOUGH TRAC A/T II; ROCK 737 A/T; PRIMEMAX A/T II; LY788; L-FINDER78; FORZA H/T; GP1000; HIGHROAD H/T 78; SPEEDROAD H/T 78; INSPIRER F2; Rapid; ROCK 788; LY969; L-SNOW99; WINTERCROSS ARW7; INSPIRER W8; ICEPOWER 99; ICEWINNER 99; ROCK 919S; COLO H01; L-GRIP66; LY168; ECOGREEN 66; VENUSATR 66; Energize; PREMIO ARZ1; ECOLOGY; INSPIRER C4; THREE; ROCK 515; PRIMESTAR 66; Winter GL868; Winter IL868; LY868; ICEPOWER 868; ICEWINNER 868; WINMASTER ARW2; ROCK 868S; THIRTY TWO; SNOWROVER 868; GREENWING A/S; MULTIMATCH A/S; FRONWING A/S; FREIMATCH A/S; Carlorful A/S; PRIME A/S; ROCK A/S ONE; FORTY ONE; INSPIRER A/S 1; CAPACITY; MAHO 79; POWERCITY 79; ROADPOWER H/T 79; SAILKING H/T 79; TRAVERSO ARV H/T; INSPIRER F6; ROCK 719 H/T; PRIMEMARCH H/T 79; GALLOPRO H/T; COMMANDER W7; COLO H02; L-GRIP55; ECOGREEN 55; VENUSATR 55; PREMIO ARZERO; NSPIRER ECO; ROCK 555; PRIMESTAR 55; LANDGEMA; ECOPRO 99; COLO H03; L-GRIP99; ECOGREEN 99; VENUSATR 79; INSPIRER C9; ROCK 999; LANDGEMA II



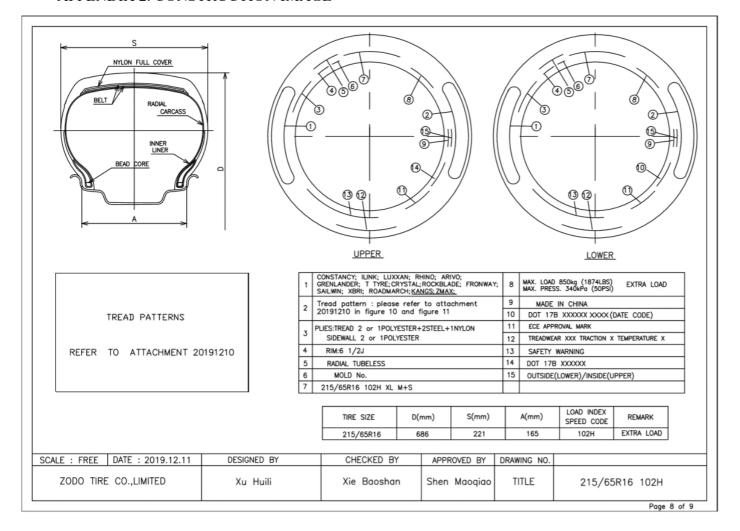
# APPENDIX 1. CONSTRUCTION IMAGE (1)



<sup>(1)</sup> The tyre marking statements are considered leading in case of deviating drawing information.



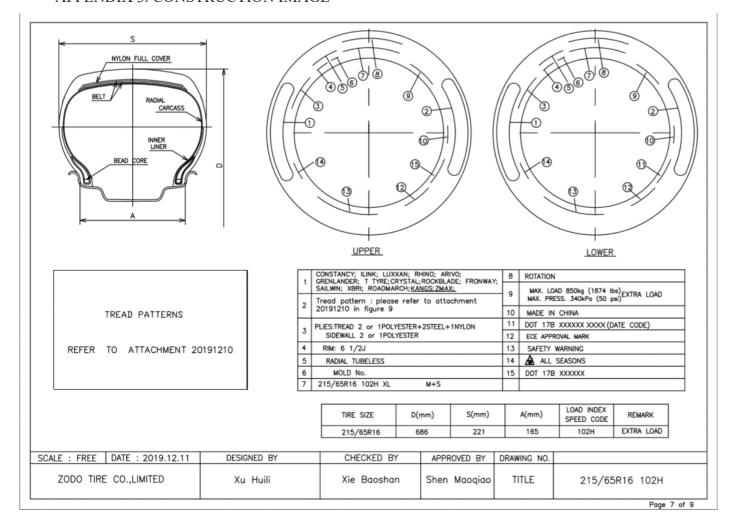
### APPENDIX 2. CONSTRUCTION IMAGE (1)



 $<sup>^{(1)}</sup>$  The tyre marking statements are considered leading in case of deviating drawing information.



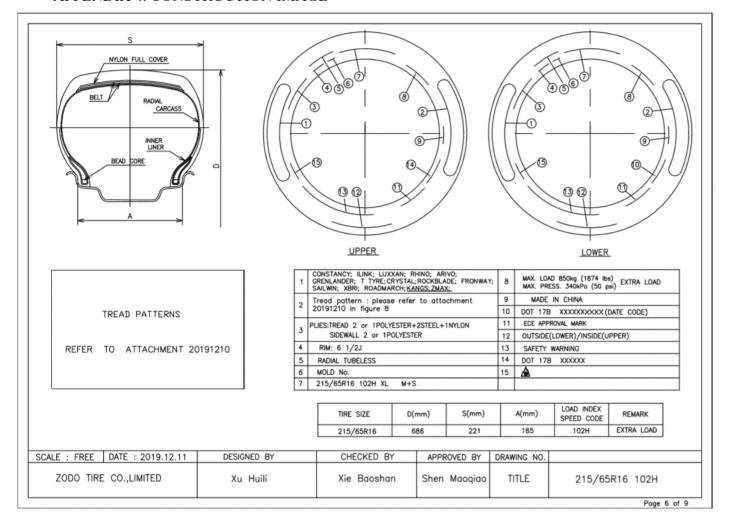
# APPENDIX 3. CONSTRUCTION IMAGE (1)



<sup>(1)</sup> The tyre marking statements are considered leading in case of deviating drawing information.



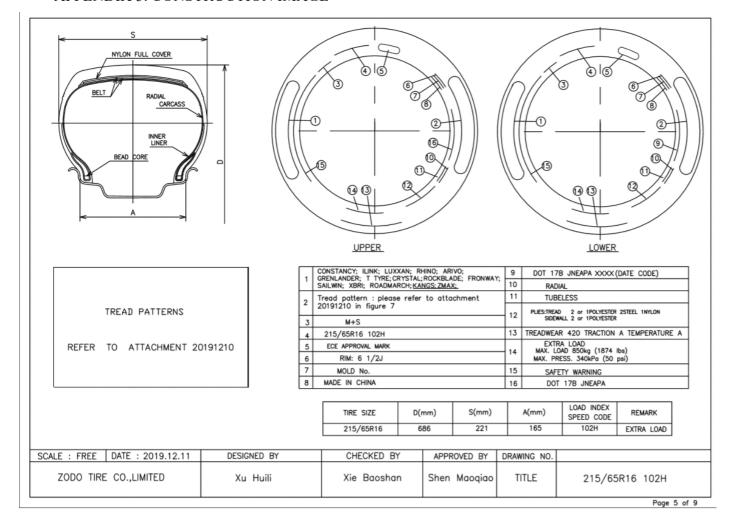
# APPENDIX 4. CONSTRUCTION IMAGE (1)



<sup>(1)</sup> The tyre marking statements are considered leading in case of deviating drawing information.



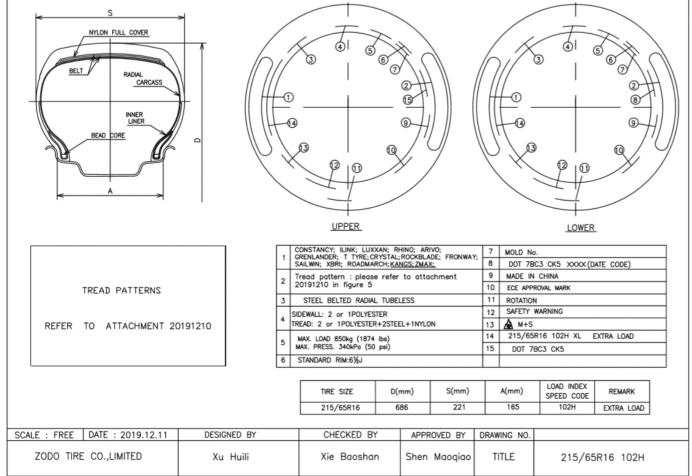
### APPENDIX 5. CONSTRUCTION IMAGE (1)



 $<sup>^{(1)}</sup>$  The tyre marking statements are considered leading in case of deviating drawing information.



### APPENDIX 6. CONSTRUCTION IMAGE (1)

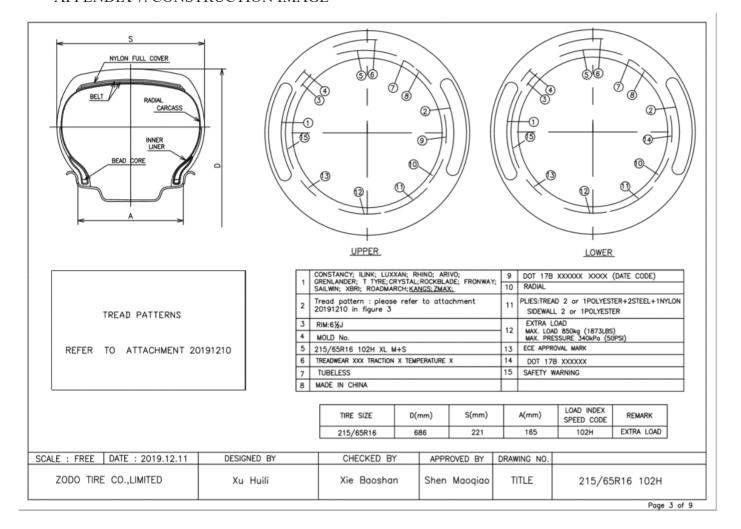


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<sup>(1)</sup> The tyre marking statements are considered leading in case of deviating drawing information.

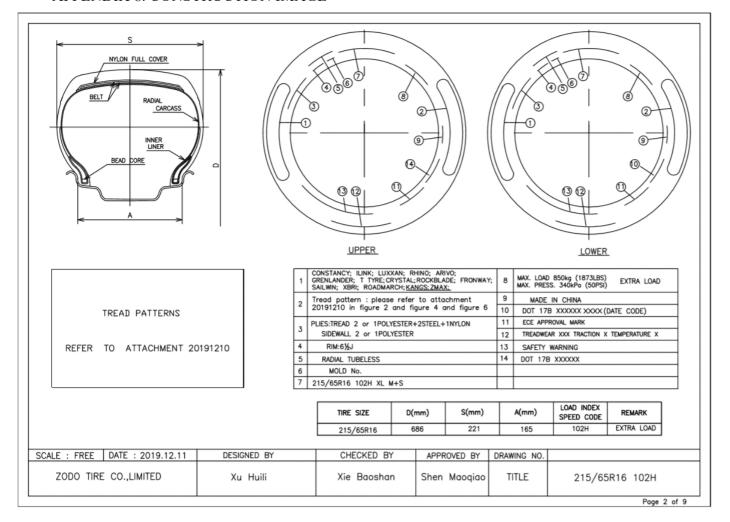
# APPENDIX 7. CONSTRUCTION IMAGE (1)



 $<sup>^{(1)}</sup>$  The tyre marking statements are considered leading in case of deviating drawing information.



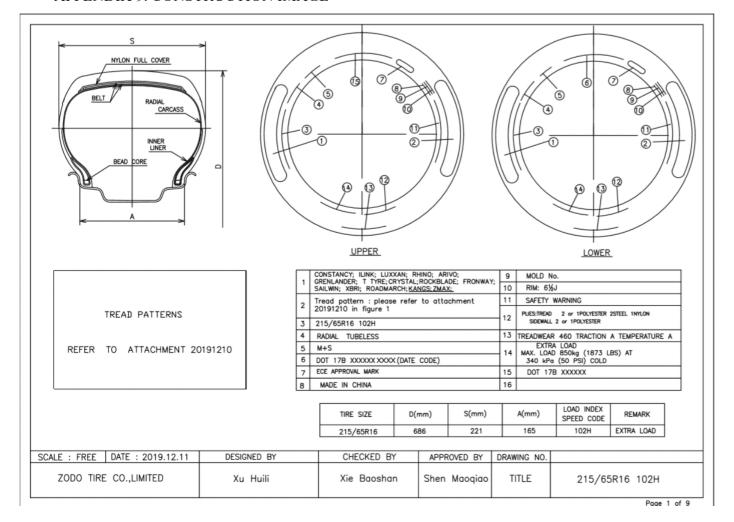
### APPENDIX 8. CONSTRUCTION IMAGE (1)



<sup>(1)</sup> The tyre marking statements are considered leading in case of deviating drawing information.



### APPENDIX 9. CONSTRUCTION IMAGE (1)



(1) The tyre marking statements are considered leading in case of deviating drawing information.



### Test report data delivered by the designated technical service or its laboratory/branch office responsible for conducting the approval tests

Tested in accordance to ECE regulation no. 30, 02 series of amendments, supplement 21

Test reports Date of report Date of test Location of test Reference 2018-04-11 2018-03-12 Heze, China extsion number 00 2020-02-28 2020-01-02 Heze, China CN20020396

Appropriate test facility, calibrated measurement- and test equipment have been used in compliance with the applicable test requirements

Name and address of designated technical service

IDIADA Automotive Technology S.A.Institute for Applied Automotive

215/65R16

L' Albornar P.O. Box 20 E-43710 Santa Oliva (Tarragona)

Spain N.A.

Name and address of branch office of designated technical service

Brand-name(s) / trademark(s) CONSTANCY, ILINK, LUXXAN, RHINO, ARIVO, GRENLANDER, T

N.A.

TYRE, CRYSTAL, ROCKBLADE, FRONWAY, SAILWIN, XBRI,

ROADMARCH, KANGS, ZMAX

Trade description(s) / commercial name(s)

Tyre size designation

MAHO 77, POWERCITY 77, TOPOWER 87 H/T, ROADPOWER H/T, ROADKING H/T, TERRANO ARV H/T, FORZA H/T 2, INSPIRER F4, ROCK 717 H/T, TWENTY TWO, Maxim, PRIMEMARCH H/T 77, MAGA A/T ONE, FORZA A/T, TERRAMAX LSR1 A/T, TERRA XPLORER C1 A/T, GLADIATAX A/T I, ROCKBLADE A/T I, TERRAMAX ARV A/T, INSPIRER A/T I, TOUGH TRAC A/T I, ROCK 727 A/T, PRIMEMAX A/T I, MAGA A/T TWO, FORZA A/T 2, TERRAMAX LSR2 A/T, TERRA XPLORER C2 A/T, GLADIATAX A/T II, ROCKBLADE A/T II, TERRAMAX ARV PRO A/T, INSPIRER A/T II, TOUGH TRAC A/T II, ROCK 737 A/T, PRIMEMAX A/T II, LY788, L-FINDER78, FORZA H/T, GP1000, HIGHROAD H/T 78, SPEEDROAD H/T 78, INSPIRER F2, Rapid, ROCK 788, LY969, L-SNOW99, WINTERCROSS ARW7, INSPIRER W8, ICEPOWER 99, ICEWINNER 99, ROCK 919S, COLO H01, L-GRIP66, LY168, ECOGREEN 66, VENUSATR 66, Energize, PREMIO ARZ1, ECOLOGY, INSPIRER C4, THREE, ROCK 515, PRIMESTAR 66, Winter GL868, Winter IL868, LY868, ICEPOWER 868, ICEWINNER 868, WINMASTER ARW2, ROCK 868S, THIRTY TWO, SNOWROVER 868, GREENWING A/S, MULTIMATCH A/S, FRONWING A/S, FREIMATCH A/S, Carlorful A/S, PRIME A/S, ROCK A/S ONE, FORTY ONE, INSPIRER A/S 1, CAPACITY, MAHO 79, POWERCITY 79, ROADPOWER H/T 79, SAILKING H/T 79, TRAVERSO ARV H/T, INSPIRER F6, ROCK 719 H/T, PRIMEMARCH H/T 79, GALLOPRO H/T, COMMANDER W7, COLO H02, L-GRIP55, ECOGREEN 55, VENUSATR 55, PREMIO ARZERO, NSPIRER ECO, ROCK 555, PRIMESTAR 55, LANDGEMA, ECOPRO 99, COLO H03, L-GRIP99, ECOGREEN 99, VENUSATR99, INSPIRER C9, ROCK 999, LANDGEMA II

Category of use Snow Radial Structure EMT (Extended Mobility Tyre) Ν Η Speed category symbol Load capacity index 102 Protective rib Ν Standard / reinforced / T-type temporary use Reinforced Ply-rating number of diagonal (bias-ply) tyres N.A. 0.7 Maximum speed for speed symbol Y for load rating

determination

Tread-wear indicators

1.70 mm Height of lowest tread-wear indicator Height of tallest tread-wear indicator 1.73 mm Number of transverse rows of wear indicators 6

Special use tread pattern features N.A.



### 1 Test data

### 1.1 Construction variant 1 - 1

### 1.1.1 MEASURING DATA (ACCORDING TO ANNEX 6)

1.1.1.1 Measuring rim width : 6.5 inch

1.1.1.2 Conditioning

Mounting pressure: 3.1 barAdjusted pressure: 2.2 barConditioning time: 24 hrsTest room temperature: 25 °CReadjusted pressure: 2.2 bar

1.1.1.3 Measurements

Overall width measured : 220.6 mm Calculated outer diameter : 686.6 mm

1.1.1.4 Plies of tyre subject for type approval

Material	Side wall	Tread	
Polyester	2	2	
Steel	0	2	
Nylon	0	1	

### 1.1.2 LOAD SPEED PERFORMANCE TEST (ACCORDING TO ANNEX 7)

1.1.2.1 Reference is made to a worst case tyre out of the tyre range : N

1.1.2.2 Test setup

Test drum diameter : 1.70 mTest rim width : 6.5 inchTest axle load : 680 kg

1.1.2.3 Conditioning

 $\begin{array}{lll} \mbox{Test inflation pressure} & : & 3.2 \mbox{ bar} \\ \mbox{The test inflation pressure differs from those given under} & : & N \end{array}$ 

Annex 7 paragraph 1.2

1.1.2.5 Test procedure

Time from zero to initial test speed : 10 min

Test steps : Step

Step	Duration (min)	Speed (km/h)	
1.	10	170	
2.	10	180	
3.	10	190	
4.	20	200	

1.1.2.6 Test results

Traces of tread separation, ply separation, cord separation, : N

chunking or broken cords after the load/speed test

Superficial blistering after the load/speed test caused by : N

the specific test equipment and conditions

Conditioning time after test : 6 hrs
Calculated outer diameter of measured circumference after : 689.5 mm

test

Change in outer diameter after test : 0.29 %



### 1.2 Construction variant 2 - 2

### 1.2.1 MEASURING DATA (ACCORDING TO ANNEX 6)

1.2.1.1 Measuring rim width : 6.5 inch

1.2.1.2 Conditioning

1.2.1.3 Measurements

Overall width measured : 221.4 mm Calculated outer diameter : 685.6 mm

1.2.1.4 Plies of tyre subject for type approval

Material	Side wall	Tread
Polyester	1	1
Steel	0	2
Nylon	0	1

### 1.2.2 LOAD SPEED PERFORMANCE TEST (ACCORDING TO ANNEX 7)

1.2.2.1 Reference is made to a worst case tyre out of the tyre range : N

1.2.2.2 Test setup

Test drum diameter : 1.70 m
Test rim width : 6.5 inch
Test axle load : 680 kg

1.2.2.3 Conditioning

Test inflation pressure : 3.2 barThe test inflation pressure differs from those given under : N

Annex 7 paragraph 1.2

Conditioning time : 3 hrsTest room temperature :  $25 \,^{\circ}\text{C}$ Readjusted pressure : 3.2 bar1.2.2.4 Outer diameter before test : 687.2 mm

1.2.2.5 Test procedure

Time from zero to initial test speed : 10 min

Test steps :

Step	Duration (min)	Speed (km/h)
1.	10	170
2.	10	180
3.	10	190
4.	20	200

1.2.2.6 Test results

Traces of tread separation, ply separation, cord separation, chunking or broken cords after the load/speed test

Superficial blistering after the load/speed test caused by

the specific test equipment and conditions

Conditioning time after test : 6 hrs
Calculated outer diameter of measured circumference after : 689.5 mm

: N

: N

test

Change in outer diameter after test : 0.33 %



### 2 TYRE MARKINGS

# STATEMENT (1)

2.1	Brand name or trade mark	:	Marked
2.2	Trade description / commercial name	:	Marked
2.3	Date of manufacture	:	Marked
	- character height >= 4 mm	:	Y

2.4 Upper side wall markings

"TEMPORARY USE ONLY" : N.A.
"INFLATE TO 420kPa (60 psi)" : N.A.

2.5 Lower side wall markings

Approval mark in accordance to article 3.2, 3.4, 5.4 and  $\phantom{0}$ :  $\phantom{0}$  Y

Annex 2

Tyre structure letter code : R
Tyre to rim fitment code : N.A.

Service description

- marked within brackets : N.A. - immediately after tyre size designation Y - character height >= 6mm Y Marked "RADIAL" - character height >= 4 mm Y "B" and "BIAS BELTED" N.A. "TUBELESS" Marked - character height >= 4 mm Y N.A. Run flat symbol EMT (Extended mobility tyre) symbol N.A. "REINFORCED" or "EXTRA LOAD" Marked - character height >= 4 mm Y "M+S"/"M.S"/"M&S" Marked - character height >= 4 mm Y "ET" N.A. "POR" : N.A. Location of the applicable mandatory markings : In lower area

Symmetrical tyres marked on both sidewalls : Y
Asymmetrical tyres marked at least on the outer tyre side : Y

wall

Nominal envelop dimensions of the inflated tyre mounted on the measuring rim (1)

S : 221 mm D : 686 mm A : 165 mm



<sup>(1)</sup> The tyre marking statements are considered leading in case of deviating drawing information.

## APPLICATION FOR APPROVAL OF A TYPE OF PNEUMATIC TYRE FOR TYRES FOR MOTOR VEHICLES AND THEIR TRAILERS ACCORDING TO ECE REGULATION No. 30, 02 SERIES OF AMENDMENTS, SUPPLEMENT 21

4.1 Name and address of manufacturer (applicant) : ZODO TIRE Co., LIMITED

The South of Yalujiang Road, Wenzhuang Village Qinghe Agency of Cao

County Heze City

Shandong Province 274400

China(PRC)

N.A.

Name and address of branch office of designated technical service (manufacturers duly accredited representative)

4.1.1 Tyre size designation 215/65R16

> CONSTANCY, ILINK, LUXXAN, RHINO, ARIVO, GRENLANDER, T Brand-name(s) / trademark(s)

TYRE, CRYSTAL, ROCKBLADE, FRONWAY, SAILWIN, XBRI,

ROADMARCH, KANGS, ZMAX

4.1.2.2 Trade description(s) / commercial name(s)

4.1.2.1

MAHO 77, POWERCITY 77, TOPOWER 87 H/T, ROADPOWER H/T, ROADKING H/T, TERRANO ARV H/T, FORZA H/T 2, INSPIRER F4, ROCK 717 H/T, TWENTY TWO, Maxim, PRIMEMARCH H/T 77, MAGA A/T ONE, FORZA A/T, TERRAMAX LSR1 A/T, TERRA XPLORER C1 A/T, GLADIATAX A/T I, ROCKBLADE A/T I, TERRAMAX ARV A/T, INSPIRER A/T I, TOUGH TRAC A/T I, ROCK 727 A/T, PRIMEMAX A/T I, MAGA A/T TWO, FORZA A/T 2, TERRAMAX LSR2 A/T, TERRA XPLORER C2 A/T, GLADIATAX A/T II, ROCKBLADE A/T II, TERRAMAX ARV PRO A/T, INSPIRER A/T II, TOUGH TRAC A/T II, ROCK 737 A/T, PRIMEMAX A/T II, LY788, L-FINDER78, FORZA H/T, GP1000, HIGHROAD H/T 78, SPEEDROAD H/T 78, INSPIRER F2, Rapid, ROCK 788, LY969, L-SNOW99, WINTERCROSS ARW7, INSPIRER W8, ICEPOWER 99, ICEWINNER 99, ROCK 919S, COLO H01, L-GRIP66, LY168, ECOGREEN 66, VENUSATR 66, Energize, PREMIO ARZ1, ECOLOGY, INSPIRER C4, THREE, ROCK 515, PRIMESTAR 66, Winter GL868, Winter IL868, LY868, ICEPOWER 868, ICEWINNER 868, WINMASTER ARW2, ROCK 868S, THIRTY TWO, SNOWROVER 868, GREENWING A/S, MULTIMATCH A/S, FRONWING A/S, FREIMATCH A/S, Carlorful A/S, PRIME A/S, ROCK A/S ONE, FORTY ONE, INSPIRER A/S 1, CAPACITY, MAHO 79, POWERCITY 79, ROADPOWER H/T 79, SAILKING H/T 79, TRAVERSO ARV H/T, INSPIRER F6, ROCK 719 H/T, PRIMEMARCH H/T 79, GALLOPRO H/T, COMMANDER W7, COLO H02, L-GRIP55, ECOGREEN 55, VENUSATR 55, PREMIO ARZERO, NSPIRER ECO, ROCK 555, PRIMESTAR 55, LANDGEMA, ECOPRO 99, COLO H03,

L-GRIP99, ECOGREEN 99, VENUSATR99, INSPIRER C9, ROCK 999,

LANDGEMA II

Snow

N.A.

Radial

Η

Y

N

102

Reinforced

4.1.3 Category of use

4.1.3.1 For the tyres belonging to the category of use "special use tyre" those which may bear the inscription M+S or M.S or M&S

4.1.4 Structure

4.1.5 Speed category symbol 4.1.6 Load capacity index

4.1.7 Tubeless

4.1.8 Standard / reinforced / T-type temporary use

EMT (Extended mobility tyre) 4.1.9

Ply-rating number of diagonal (bias-ply) tyres; except for T-4.1.10

type temporary use spare tyres

4.1.11 The overall dimensions: overall section width and outer

Values per construction variant

#	Overall section width (mm)	Outer diameter (mm)	
1	220.6	686.6	
2	221.4	685.6	

4.1.12 The rims on which the tyre can be mounted

4.1.13 The measuring rim and test rim 6.5 inch

Values per construction variant

#	Measuring rim (inch)	Test rim (inch)
1	6.5	6.5
2	6.5	6.5

4.1.14 The test pressure where the manufacture requests the application of Annex 7 paragraph 1.3 to this Regulation

Val	ues per construction variant	ath		
#	Test inflation pressure (bar)	(S2) (S2) \		
1	N.A.			
2	N.A.	RDW		

4.1.15 The factor 'x' 0.7

- 4.1.16 For tyres suitable for speeds in excess of 300 km/h, the maximum speed permitted by the tyre manufacturer and the load carrying capacity allowed for that maximum speed
- 4.1.17 The identification of the bead retention rim contours specific for the "flat tyre running mode" of "run flat tyres"
- 4.2 The application for approval is accompanied by drawings or images of
  - 1. The tyre tread pattern
    - 2. Envelope of the inflated tyre mounted on the measuring rim, showing the relevant dimensions (see paragraphs 6.1.1 and 6.1.2)
    - 3. The side wall showing the relevant markings
- 4.4 Reference to Worst-case tyre has been made for the load-speed test. The worst case tyre selection criteria can be obtained from the approval authority.

: N.A.

: N.A.

: Y : Y

: Y

Values per construction variant

# Worst case
1 N
2 N



Reason(s) of extension

Update of tyre type designation(s);
Upgrade of regulation supplement number;

Update of construction variant(s);

Change of technical service;

Addition of brand names; Addition of trade descriptions; Deletion of trade

description; Modification of manufacturer's name

The applicant, as defined in article in 4.1, declares that:

• This application is in compliance with the scope as defined in chapter 1 of the regulation.

- All data for this application are unambiguously and thruthfully given.
- The type approval application for the subject component is submitted only at RDW as Contracting party pursuant to this UN regulation.
- · Appropriate test facility, calibrated measurement en test equipment have been used in compliance with the applicable test requirements.

Company

: IDIADA Automotive Technology S.A.Institute for Applied Automotive

Research

Lluís Sans Gomis

lsans@idiada.com

DEPARTMENT MANAGER

Name of person responsible for the submitted application data

Function of above mentioned authorised person

E-mail address of department or above mentioned authorised

person

Place of submission : L'Albornar, Santa Oliva (Tarragona)

Submitted for approval on (date) : 19/03/2020 22:36:46

Reference id of the application given by the applicant

