

Inspection report regarding the tyre/road noise emission of a tyre in accordance with the Council Directive, Annex V to Directive 92/23/EEC, as last amended by Directive 2005/11/EC and ECE Regulation no. 117.

Part1-Report

- | | | | |
|-----|--|---|--|
| 1. | Type approval authority or Technical Service | : | RDW |
| 2. | Name and address of applicant | : | Hankook Tire China Regional Headquarters
3F, Xingyuan building, 410 Guiping Road,
200233, Shanghai, China |
| 3. | Test report No. | : | K055-A0-0308-0300 |
| 4. | Manufacturer and Brand Name or Trade description | : | HANKOOK W411 KINGSTAR W411 |
| 5. | Tyre Class (C1, C2 or C3) | : | C1 |
| 6. | Category of use | : | snow |
| 7. | Sound level according to paras. 4.4. and 4.5. of Annex 3 of :
ECE R 117 and paras. 4.4. and 4.5. of Annex V appendix1
of the Directive 92/23 EC at reference speed of 70 or
80km/h | : | 71 dB(A) / 80 km/h |
| 8. | Tyre/Road Noise level according to paras. 6.1.1. through
paras 6.1.3. of ECE R 117 and paras.4.2.1 through 4.2.3 of
Annex V of the Directive 92/23 EC at reference speed of
70 or 80km/h (strike out what does not apply) | : | Limit value expressed in dB(A) according to
Regulation & Directive :
C1 category ;
** 145 and lower 72 dB(A), over 145 up to 165 73 dB(A),
over 165 up to 185 74 dB(A), over 185 up
to 215 75 dB(A), over 215 76 dB(A) * C1a 71(72) dB(A);
C1b 72(73) dB(A); C1c 73(74) dB(A);
C1d 75 dB(A); C1e 76 dB(A)
XL/+ 1 dB(A) & Special/+ 2dB(A)
* () means for 92/23/EEC ** () means for ECE R117
C2 category ;
Normal 75 dB(A), Snow 77 dB(A), Special 78 dB(A)
C3 category ;
Normal 76 dB(A), Snow 78 dB(A), Special 79 dB(A) |
| 9. | Comments (if any) | : | The actual test of the tyre was not required and results
of the previous tests are still valid. |
| 10. | Date of test report | : | April 11, 2008 |
| 11. | Signature | : | |




Part2-Test data

- 1. Date of test: : March 14, 2008
- 2. Test vehicle (Make, model, year, modifications, etc.) : HYUNDAI New Avante XD
VIN: KMHDN41DP4U877452/2004
- 2.1. Test vehicle wheelbase : 2650 mm
- 3. Location of test track : GTRACK
#433 Myungam-ri, Jewon-Myun, Geumsan-gun, Chungnam, 312-824, Korea
- 3.1 Date of track certification to ISO 10844:1994 : April 13, 2007
- 3.2. Issued by : RDW TCL/DB/2003-1, K038-A1-0306-0208
- 3.3. Method of certification : Residual void content, Sound absorption coefficient, Texture depth
- 4. Tyre test details
- 4.1. Tyre size designation/DOT Number : 205/55R16 / 2707
- 4.2. Tyre service description : Standard / ~~Reinforced~~
- Load Index : 91
- Speed Category : T
- 4.3. Reference inflation pressure : 250 kPa
- 4.4. Test data

	Front left	Front right	Rear left	Rear right
Test mass (kg)	530	530	483	483
Tyre load index (%)	79.0	79.0	72.0	72.0
Inflation pressure (cold)(kPa)	190	190	180	180

- 4.5. Test rim width code : 6.5J x 16
- 4.6. Temperature measurement sensor type : Digital Thermometer(KESTREL K2000)

5. Valid test results

Run No.	Speed km/h	Direction of run	Sound level left 2/ measured dB(A)	Sound level right 2/ measured dB(A)	Air temp. C	Track temp. C	Sound level left 2/ temp.corrected dB(A)	Sound level right 2/ temp.corrected dB(A)	Comments
1	72.8	North-South	69.8	71.9	15.1	22.0	69.8	71.9	-
2	74.1	North-South	70.0	72.4	15.8	23.0	70.1	72.5	-
3	76.8	North-South	70.8	72.5	16.9	25.0	70.9	72.6	-
4	78.7	North-South	71.4	72.9	16.4	24.0	71.5	73.0	-
5	82.2	North-South	72.5	73.0	15.7	24.0	72.6	73.1	-
6	84.3	North-South	72.5	74.6	14.9	23.0	72.6	74.7	-
7	86.5	North-South	73.0	74.8	16.6	24.0	73.1	74.9	-
8	88.2	North-South	73.3	74.5	15.6	24.0	73.4	74.6	-

5.1. Regression line slope : a = -44.14

5.2. Sound level after temperature correction-according to para.4.3 of Annex 3 of ECE R117 and para. 4.3 of Annex V appendix 1 of the Directive 92/23 : 72.69 dB(A)

5.3. The final result of sound level according to para.4.4. of annex 3 of ECE R117 and para. 4.4 of Annex V appendix 1 of the Directive 92/23 : 71 dB(A)

List of modifications

Correction of : - --

Modification of : - --

Addition of : - --

Deletion of : - --



RDW

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 with regard to rolling sound emission level pursuant to Regulation number 117.

Approval number: E4-117R-000219

Extension number: 00

Approval mark:



000219 S

1. Manufacturer's name and address(es) : Hankook Tire China Regional Headquarters
3F, Xingyuan building, 410 Guiping Road,
200233, Shanghai, China
2. If applicable, name and address of
manufacturer's representative : not applicable
3. "Tyre class" and "category of use" of the
type of tyre : C1 / snow
4. Brand(s) name(s) and/or Trade
description(s) of the type of tyre : HANKOOK W411 KINGSTAR W411
5. Technical service and, where appropriate,
test laboratory approved for purposes of
approval or of verification of conformity
tests : TÜV NORD Mobilität GmbH & Co. KG
Institut für Fahrzeugtechnik und Mobilität
Adlerstrasse 7, D-45307 Essen
6. Sound level of the representative tyre size, see Paragraph 2.5. of Regulation number 117, as per item
7. of the test report: 71 dB(A) at reference speed of 70/80 km/h ⁽¹⁾.
7. Number of report issued by that service : K055-A0-0308-0300
8. Date of report issued by that service : April 11, 2008
9. Reason(s) of extension (if applicable) : not applicable



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Vehicle Approval and Information

10. Any remarks :
11. Place : Zoetermeer
12. Date : 18-APR-2008
13. Signature


F.E. Plancius



14. Annexed to this communication are: Information folder no; JPQA-07A1001
- 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.
- 14.2. A list of tread-pattern designations: Specify for each trademark or brand name and trade description the list of tyre size designations adding, in the case of Class C1 tyres, the mark "Reinforced" or "Extra Load", if applicable.

⁽¹⁾ Strike out what does not apply.



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Date: MAR. 10, 2008

INFORMATION DOCUMENT No. JPQA-07A1001 RELATING TO EC TYPE APPROVAL FOR A TYPE
OF TYRE RELATING TO TYRE/ROAD NOISE EMISSION
(Annex V to Directive 2001/43/EC)

1. GENERAL

- 1.1 Mnfacturer's name : Hankook Tire China Regional Headquarters
(Hankook Tire China Co.,Ltd. Shanghai Office)
- 1.2 Name and address of applicant : Hankook Tire China Regional Headquarters
(Hankook Tire China Co.,Ltd. Shanghai Office)
3F,Xingyuan building
410 Guiping Road 200233,Shanghai,China
- 1.3 Address(es) of manufacturing plant(s) : Plant 1
JIANGSU HANKOOK TIRE CO.,LTD.
1# South Hantai Road ,Huai'an Economic
Development Zone,223002,Jiangsu Province,
China
Plant 2
HANKOOK TIRE CHINA CO.,LTD.
Dongfang Road, Jiaxing Economic Development
Zone, zhejiang province, China
- 1.4 Brand name(s), Trade description(s) or Trade mark(s) : HANKOOK/KINGSTAR

2. TYRES

- 2.1 Tyre classification (class C1, C2 or C3) : Class C1
- 2.2 Category of use (normal, snow or temporaty use) : snow
- 2.3 Details of the major features, with respect t the effects : W411 – see Drawing No.200803-PBN-W411
on tyre/road noise emission, of the tread pattern(s) to
be used on the disignated range of tyre sizes. This
may be by drawing, photograph or description but must
be sufficient to allow the type approval authority or
technical service to determine whether any subsequent
changes to the major features will adversely affect the
tyre/road noise emission

- 2.3 Tyre structure (Bias, Bias-belted or Radial) : Radial
- 2.5 List of tread-pattern designations : see the attached tyre type list



Yoo Yun Soon

YOO YUN SOON (Team Manager)
Quality Assurance Team
Hankook Tire China Regional Headquarters
(Hankook Tire China Co.,Ltd. Shanghai Office)

Pattern of Tires

W411

SIZE		Limit (dB)
155/80R13Q	79Q	73
165/80R13Q	83Q	
175/65R14T	82T	74
175/70R13T	82T	
175/70R14T	84T	
185/60R15S	84S	
185/65R14T	86T	
185/65R15T	88T	
185/70R14T	88T	
185/75R14S	89S	
195/60R15T	88T	75
195/65R15T	91T	
195/70R14S	91S	
195/75R14S	92S	
205/55R16T	91T	
205/60R16S	92S	
205/65R15T	94T	
205/70R15S	96S	
205/75R14S	95S	
205/75R15S	97S	

Test Size : 205/55R16 91T

Reason of choice : Widest

Lowest aspect ratio

Biggest rim size



Drawing No.: 200803-PBN-W411

Date : 2008-3-10

Drawing of the tread pattern (Measured tire)

Manufacture's name	HanKOOK Tire China Regional Headquarters (HanKOOK Tire China Co., Ltd. Shanghai office)
Pattern name	W411
Tire size	205/55R16 91T
Max. Load	615kg
Pitch number	52
Pitch ratio (Max./Min.)	1.298
Groove area ratio (%)	33.70%
Width : main grooves (mm)	8.5 / 8 / 8.5
Depth : center grooves (mm)	11
Depth : shoulder grooves (mm)	11
Pattern	

