

Marking Study for Tyre GTR

Status Report

28 September, 2007

JATMA



1st Step : Approach: (Target: End of April 2007)

Review current marking requirements in various regulations

- Regulations of 98 C/P
- Regulations on other countries, such as Middle East area and South America
- GTS 2000 requirements

Categorizing and grouping marking requirements and items

- FMVSS group
- ECE group
- Special marking requirements

Comments and Opinions:

By End of May 2007

2nd Step : Study draft proposal (Target: End of August 2007)

- Review each marking item for requirement
- Construct marking requirements, with reasons for adoption

**Received from
India and ETRTO**

3rd Step : Finalize draft proposal (Target: End of November 2007)

4th Step : Submit final proposal (Target: End of July 2008)



Tyre Markings: Purpose and Function

Select marking requirements based on GTS2000, ECE R30, FMVSS139

- **Information to users to select the correct tyres**
- **Information on tyre quality**
plus
- **Identification of products for traceability**

Symbol Mark: Tyre GTR Mark, replacing local approval markings

Adopt current Tyre Identification Number system of U.S. Federal Regulation

Further study marking items for tyre GTR requirements from the above view points.

Current Tyre Markings reviewed on various tyre regulations

Refer to Attachment 1

How to approach the goal

1998 Contracting Parties :

- Japan
- EU countries
- U.S.A.
- Canada
- China
- India

Reviewed and
Updated
Regulatory
Marking
Requirements

Plus

Other areas :

- Asia & Oceania
- Middle East
- Africa
- Caribbean Area
- Central & South America

Reviewed
&
Grouping

Other **22 countries** are also **1958 C/P**.

Proposal based on;



GTS2000
Requirements

+

UN/ECE
Requirements

+

FMVSS
Requirements



Tyre GTR Mark

Attachment 1: Current Marking Requirements by various Regulations (as of Sep 2007)

(Attachment #1) Current Marking Requirements by various Regulations (as of September 2007)

CATEGORY	MARKING ITEMS	MARKING (Examples)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
			REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD	REG'S & STD
			Global	International	JAPAN	UNECE 1958 C/P	EUROPEAN UNION	U.S.A.	CANADA	CHINA	CHINA	INDIA	INDIA	KOREA	AUSTRALIA	MIDDLE EAST
			GTS2000	ISO 4000-1:2001	MLIT Safety Reg's for Road Vehicles	UNECE R30	EU Dir. 92/23/EEC	NHTSA Federal Regulation FMVSS159/109	Transport Canada MVSR Safety Std 109	AQSIQ CCC	AQSIQ CCC	MoSRTH CMVR	Proposed BIS Certification Std	KS Ordinance No. KS M6750-2005	ADR23:01	GSO
Production	Manufacture	1 MAKER	Yes	N	Yes	N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N
Production	Manufacture	2 TRADE NAME OR MARK	Yes	N	Yes	Yes	Yes	N	Yes	Yes	Yes	Yes	Yes	Yes	N	N
Production	Manufacture	3 COUNTRY OF ORIGIN	N	N	N	N	N	(Yes Dot Rule)	N	N	N	N	N	N	N	Yes
Production	Manufacture	4 MFR. & PLANT CODE	N	N	N	N	N	Yes FR Part 574	Yes	N	N	Yes	Yes	N	N	N
Production	Tyre ID No.	5 SIZE CODE	N	N	N	N	N	Yes FR Part 574	Yes	N	N	N	N	N	N	N
Production	Tyre ID No.	6 OP. CODE	N	N	N	N	N	Yes FR Part 574	Yes	N	N	N	N	N	N	N
Production	Tyre ID No.	7 DATE CODE	Yes	N	Yes	Yes	Yes	Yes FR Part 574	Yes	Yes	Yes	Yes	Yes	N	Yes	Yes
Production	Inspection	8 INSPECTION MARK	N	N	N	N	N	N	N	Yes	Yes	N	N	N	N	N
Production	Inspection	9 BATCH NUMBER	N	N	N	N	N	N	N	N	N	N	N	N	N	Yes
Dimensions	Tyre Size	10 TIRE SIZE DESIGNATION	245/45R18	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions	Tyre Size	11 Identification of the tyre and rim flange configuration	Yes	N	Yes	Yes	N	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Service Description	12 SPEED SYMBOL	90W	Yes	N	Yes	Yes	JATMA Yes TRA, ETRTO N	JATMA Yes TRA, ETRTO N	Yes	Yes	Yes	Yes	N	Yes	Yes
Tyre Construction & Service Description	Service Description	13 LOAD INDEX	90W	Yes	N	Yes	Yes	JATMA Yes TRA, ETRTO N	JATMA Yes TRA, ETRTO N	N	Yes	Yes	Yes	N	Yes	Yes
Tyre Construction & Service Description	Service Description	14 Ply Rating	6	N	N	N	N	N	N	N	N	(Yes)	(Yes)	N	N	N
Tyre Construction & Service Description	Service Description	15 Tread Wear Indicator Position	△	N	N	N	N	N	N	Yes	Yes	Yes	Yes	N	N	N
Tyre Construction & Service Description	Service Description	16 STANDARD RIM	STANDARD RIM 5J	N	N	N	N	N	N	Yes	N	N	N	N	N	N
Tyre Construction & Service Description	Construction	17 The word "TUBELESS"	TUBELESS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N
Tyre Construction & Service Description	Construction	18 The word "TUBETYPE"	TUBETYPE	N	N	N	N	Yes	Yes	N	N	N	N	N	N	N
Tyre Construction & Service Description	Construction	19 R for Radial ply construction	245/45R18	N	Yes	Yes	Yes	N	N	Yes	Yes	Yes	Yes	N	Yes	Yes
Tyre Construction & Service Description	Construction	20 The word "RADIAL"	RADIAL	Yes	N	Yes (opt)	Yes (opt)	Yes (opt)	Yes	Yes	Yes	Yes (opt)	Yes (opt)	Yes	Yes	N
Tyre Construction & Service Description	Construction	21 None or B for Diagonal ply construction	None or "D"	N	Yes	Yes	Yes	N	N	Yes	Yes	Yes	Yes	N	Yes (Opt)	Yes
Tyre Construction & Service Description	Construction	22 B for Bias-Belted construction	"B"	N	Yes	Yes	Yes	N	N	Yes	Yes	Yes	Yes	N	Yes	Yes
Tyre Construction & Service Description	Construction	23 The word "BIAS-BELTED"	BIAS-BELTED	Yes	Yes	Yes (opt)	Yes	N	N	N	N	Yes	Yes	N	Yes	N
Tyre Construction & Service Description	Construction	24 The letter "F" for run flat tyre	245/45 RE 18	N	N	Yes	Yes	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Service Description	25 REINFORCED or EXTRA LOAD	REINFORCED	Yes	Yes	N	Yes	N	N	N	Yes	N	N	N	N	N
Tyre Construction & Service Description	Service Description	26 LL or the word "LIGHT LOAD"	LIGHT LOAD	N	Yes	N	N	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Service Description	27 MAX. LOAD RATING	710KG (1564LBS)	Yes (No LI)	N	N	N	N	Yes	Yes	Yes	Yes	Yes (+P.R.)	Yes (+P.R.)	N	Yes or Load Index
Tyre Construction & Service Description	Service Description	28 MAX. INFLATION PRESSURE	240KPA (35PSI)	N	N	N	N	N	Yes	Yes	Yes	Yes	Yes	Yes	N	N
Tyre Construction & Service Description	Construction	29 PLY CORD MATERIAL, ACTUAL NUMBER OF PLYS	SIDEWALL-POLYESTER 2	N	N	N	N	Yes	Yes	Yes	Yes	N	N	N	N	N
Tyre Construction & Service Description	Construction	30 The word "RAYON"	RAYON	Yes	N	N	N	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Service Description	31 Outside marking for asymmetrical tyres	OUTSIDE	N	N	N	N	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Construction	32 The word "RUNFLAT"	RUNFLAT	N	N	N	N	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Construction	33 Runflat marking / Snail marking	Snail marking	N	N	Yes	Yes	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Construction	34 The word "SNOW"	SNOW	N	N	N	N	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Construction	35 Snow tyre marking M+S or M&S or M/S	M+S	Yes	N	Yes	Yes	N	N	N	Yes	Yes	Yes	Yes	N	N
Tyre Construction & Service Description	Construction	36 Snow tyre symbol for sever snow	Alpine symbol	N	N	N	N	N	Yes (opt)	N	N	N	N	N	N	N
Tyre Construction & Service Description	Construction	37 The word "REGROOVABLE" or symbol "U"	"REGROOVABLE"	N	N	N	N	N	N	N	N	Yes	Yes	N	N	N
Tyre Construction & Service Description	Service Description	38 ULTRA LIGHT TRUCK	ULTRA LIGHT TRUCK or Code	N	N	N	N	N	N	N	N	N	N	Yes	N	N
Tyre Construction & Service Description	Service Description	39 LIGHT TRUCK	LIGHT TRUCK or Code	N	N	N	N	N	N	N	N	N	N	Yes	N	N
Tyre Construction & Service Description	Service Description	40 TEMPORARY USE SPARE TYRES	TEMPORARY USE ONLY	N	Yes	Yes	Yes	N	N	N	Yes	N	N	Yes	N	N
Tyre Construction & Service Description	Service Description	41 TEMPORARY USE T-TYPE SPARE TYRES	INFLATE TO 420kPa (60PSI)	Yes	N	Yes	Yes	N	Yes	Yes	N	N	N	Yes	N	N
Tyre Construction & Service Description	Service Description	42 Direction of mounting		N	Yes	N	N	N	N	N	N	N	N	N	N	N
Tyre Construction & Service Description	Service Description	43 Direction of rotation		N	Yes	N	N	N	N	N	Yes	N	N	N	N	N
Tyre Construction & Service Description	Service Description	44 Type of tread pattern		N	Yes	N	N	N	N	N	N	N	N	N	N	N
Certification	Approval Marking	45 E MARK	E4 0212262	Yes	N	N	Yes	N	N	N	N	N	N	N	N	N
Certification	Approval Marking	46 E Mark with Noise & Wet	E4 0212262-SW	Yes	N	N	Yes	N	N	N	N	N	N	N	N	N
Certification	Approval Marking	47 EU MARK	e4 0225199	Yes	N	N	N	Yes	N	N	N	N	N	N	N	N
Certification	Approval Marking	48 EU TYRE NOISE EMISSION MARK	e4 0225196-S	Yes	N	N	Yes	Yes	N	N	N	N	N	N	N	N
Certification	Approval Marking	49 DOT MARK	DOT	Yes	N	N	N	Yes FR Part 574	N	N	N	N	N	N	N	N
Certification	Approval Marking	50 CCC MARK	CCC A008294	Yes	N	N	N	N	N	Yes	Yes	N	N	N	N	N
Certification	Approval Marking	51 I MARK	1 008	Yes	N	N	N	N	N	N	N	N	N	N	N	N
Certification	Approval Marking	52 SNI MARK (sticker allowed)	SNI or "SNI" Sticker	Yes	N	N	N	N	N	N	N	N	N	N	N	N
Certification	Approval Marking	53 KPS MARK (sticker allowed)	"KPS" Sticker	Yes	N	N	N	N	N	N	N	N	N	Yes	N	N
Certification	Approval Marking	54 UTQG TREAD WEAR GRADE	TREAD WEAR 300	N	N	N	N	N	N	N	N	N	N	N	N	Yes
Certification	Approval Marking	55 UTQG TRACTION GRADE	TRACTION A	N	N	N	N	N	N	N	N	N	N	N	N	Yes
Certification	Approval Marking	56 UTQG TEMPERATURE GRADE	TEMPERATURE A	N	N	N	N	N	N	N	N	N	N	N	N	Yes
Warning	PL	57 Safety Warning		N	N	N	N	N	N	N	N	N	N	N	N	N
Warning	PL	58 Safety Warning (for RUNFLAT)		N	N	N	N	N	N	N	N	N	N	N	N	N

Yes : Marking Requirement N : No Marking Requirement

Ref. to 3.4 of 92/23 EEC for marking position



FMVSS based requirements:

Several countries in other areas, such as Asia, Central and South America have adopted some or all the marking items from FMVSS109.

Ex; Tube type, Ply cord name and actual number of plies, Max. load rating and Max. inflation pressures,

WP29 CP - China (GB), India (AIS & BIS), Malaysia (MS), Korea (KS),

**No CP - Jamaica (JS), Trinidad and Tobago (TTS), Venezuela (COVENIN),
Colombia (NTC), Ecuador (NTE INEN),**

ECE R30 based requirements:

Some countries have adopted all the marking items from ECE R30, those are not member states of the 1958 Agreement Contracting Parties.

Ex;

Brazil (RTQ41), Argentina (CHAS), Uruguay (Decree no. 349/998),



Markings to be retained for further analysis

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ver7

2	TRADE NAME OR MARK	BRIDGESTONE or Trade mark "B"
3	COUNTRY OF ORIGIN COUNTRY OF PRODUCTION	MADE IN JAPAN
4	MFR . & PLANT CODE	EM
5	SIZE CODE	UP
6	OP CODE	JAF
7	DATE CODE	(EMUP JAF) 3400
10	TIRE SIZE DESIGNATION	245/45R18
11	Identification of the tyre and rim fitment configuration	
12	SPEED SYMBOL	96W
13	LOAD INDEX	96W
18	The word "TUBETYPE"	TUBETYPE
19	R for Radial ply construction	245/45R18
24	The letter "F" for run flat tyre	245/45 RE 18
25	REINFORCED or EXTRA LOAD	REINFORCED
26	LL or the word "LIGHT LOAD"	LIGHT LOAD
33	Runflat marking / Snail marking	Snail marking
35	Snow tyre marking M+S or M&S or M/S	M+S
36	Snow tyre symbol for severe snow	Alpine symbol

27	MAX . LOAD RATING
28	MAX . INFLATION PRESSURE
30	The word "RAYON"
40	TEMPORARY USE SPARE TYRES (Full Size)

Need further discussion
inside tyre industry



Marking items not required for GTR (1)

2007/9/28

ver7

1	MAKER
8	INSPECTION MARK
9	BATCH NUMBER
14	Ply Rating
15	Tread Wear Indicator Position
16	STANDARD RIM
17	The word "TUBELESS"
20	The word "RADIAL"
21	None or D for Diagonal ply construction
22	B for Bias-Belted construction
23	The word "BIAS-BELTED"
29	PLY CORD MATERIAL, ACTUAL NUMBER OF PLYS

31	Outside marking for asymmetrical tyres
32	The word "RUNFLAT"
34	The word "SNOW"
37	The word "REGROOVABLE" or symbol "U"
38	ULTRA LIGHT TRUCK
39	LIGHT TRUCK
41	TEMPORARY USE T-TYPE SPARE TYRES
42	Direction of mounting
43	Direction of rotation
44	Type of tread pattern

Red: Items agreed to deleted.
Black: Items the scope does not cover.

Local approval markings to be replaced by Tyre GTR Marking.

45	E MARK	E4 0212262
46	E Mark with Noise & Wet	E4 0212262-SW
47	EU MARK	e4 0225199
48	EU TYRE NOISE EMISSION MARK	e4 0225196-S
49	DOT MARK	DOT
50	CCC MARK	CCC A008294
51	I MARK	I 008
52	SNI MARK (sticker allowed)	SNI or "SNI" Sticker
53	KPS MARK (sticker allowed)	"KPS" Sticker
54	UTQG TREAD WEAR GRADE TREADWEAR GRADING	TREAD WEAR 300
55	UTQG TRACTION GRADE TRACTION GRADING	TRACTION A
56	UTQG TEMPARATURE GRADE TEMPERATURE GRADING	TEMPERATURE A



GTR Marking vs. Local certification markings:

Local certification mark includes the compliance with;

- 1) The test protocol and performance requirements,
- 2) Marking requirements, and
- 3) The certification scheme

(Application approval, Factory Audit, COP and Products Approval)

The **GTR Marking** covers item 1) and 2) indicating that the products with GTR mark have met the requirements of the unified / global technical prescription.

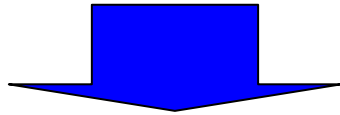
The certification scheme is not addressed in the 1998 Agreement.



Tyre Identification Number (TIN)

Improvement of product traceability using current TIN system

Capability for future situation?

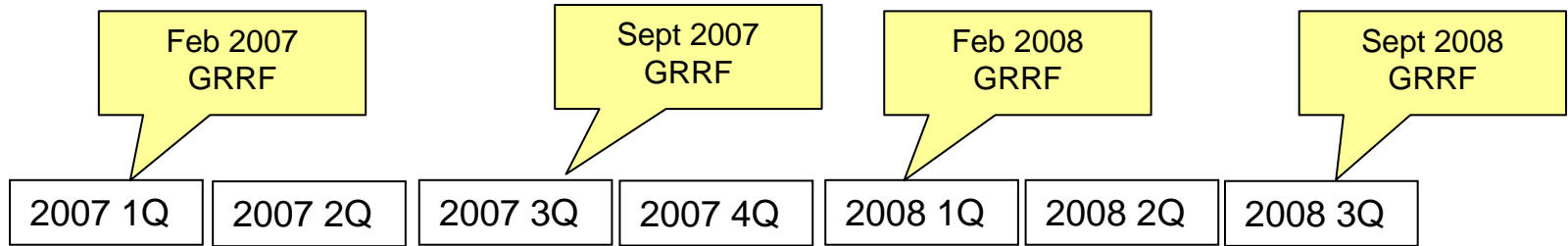


Study and review current VIN system.


ETRTO will compare TIN and VIN systems.



- Drafting marking requirements (items & draft provisions) for proposal
(By Feb 2008)
- Establishment of Tyre GTR Mark
 - Marking Design,
 - Dimensions,
 - Guidelines for administration, etc.
- Study the requirements for improved marking visibility
 - Font type, Min. height of characters, Location,
 - Language versus Symbol
 - Study other methods for communicating consumer information



Step 1: 

Step 2: 

Step 3: 

Step 4: 



Submit draft proposal
for GRRF informal WG
for tyre GTR



Submit final proposal for
GRRF informal WG for
tyre GTR