



STATUS OF TPMS RULEMAKING

2005 SAE Government/Industry Meeting

May 10, 2005

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TIRE PRESSURE MONITORING SYSTEMS – BACKGROUND

2002 Final Rule (Vacated)

- On June 5, 2002, NHTSA published a final rule establishing FMVSS No. 138, Tire Pressure Monitoring Systems, in response to the TREAD Act of 2000 (67 FR 38704)
- FMVSS No. 138 required installation of tire pressure monitoring systems (TPMS) on light vehicles with a gross vehicle weight rating (GVWR) of 10,000 lbs or less



TIRE PRESSURE MONITORING SYSTEMS – BACKGROUND

2002 Final Rule (Vacated)

- Compliance phase-in was to begin in November 2003
- 13 Petitions for Reconsideration were received
- Petitioners' main areas of concern were:
 - Replacement tire requirements
 - Compliance Test Procedure needed more details



TIRE PRESSURE MONITORING SYSTEMS – BACKGROUND

Court Decision

- On August 6, 2003, the U.S. Court of Appeals for the Second Circuit issued an opinion in Public Citizen v. Mineta, which vacated FMVSS No. 138
- The Court ruled that a TPMS must be capable of detecting low tire pressure in one to four tires, in order to meet the TREAD Act's requirements



TIRE PRESSURE MONITORING SYSTEMS – BACKGROUND

Court Decision (Cont'd)

- Court supported NHTSA's decision to require TPMS telltale to illuminate at 25% below placard pressure
- NHTSA published a notice in November 2003 (68 FR 65404), which vacated the standard



TIRE PRESSURE MONITORING SYSTEMS – 2004 NPRM

- On September 16, 2004, NHTSA published a new NPRM for TPMS that conforms with the Court's decision (69 FR 55896)
- The NPRM also responded to relevant issues in the Petitions for Reconsideration filed in response to the 2002 final rule



TPMS -2005 FINAL RULE HIGHLIGHTS

- Final Rule was published on April 8, 2005 (70 FR 18136)
- The new standard is technology-neutral and allows any TPMS design that complies with the performance requirements



TPMS -2005 FINAL RULE HIGHLIGHTS

- The standard requires TPMS performance testing with original tires only
- A Malfunction Indicator Lamp (MIL) is required for all vehicles, effective September 1, 2007 (MY08)



TPMS -2005 FINAL RULE HIGHLIGHTS

- The standard designates the Southern Loop of the Uniform Tire Quality Grading Treadwear Course in San Angelo, Texas, as the site for all compliance testing
- Procedures for conducting system calibration, low tire pressure detection, and system malfunction testing are specified



TPMS -2005 FINAL RULE HIGHLIGHTS

- The standard allows for a vehicle to be driven under normal conditions in order to calibrate the TPMS, and to detect low tire pressure/TPMS malfunction
- Test conditions for ambient temperature, and vehicle speed range during calibration and detection phases are established

TPMS -2005 FINAL RULE HIGHLIGHTS

- A minimum activation pressure (MAP) for ‘P-metric’ and ‘LT’ tires is included in the standard
- The standard requires that a statement about TPMS be placed in the vehicle owner’s manual of all compliant vehicles
- The acronym “TPMS” is required by the standard as the telltale for a dedicated malfunction indicator lamp



MALFUNCTION INDICATOR LAMP (MIL)

- The purpose of the MIL is to warn the driver when the TPMS is not functioning properly
- Malfunctions may be caused by incompatible tires or a failure of TPMS components



MALFUNCTION INDICATOR LAMP (MIL)

- The standard allows two types of MILs, one with a dedicated telltale and one that combines the MIL with the low tire pressure telltale
- When a vehicle manufacturer chooses to use a combined Low tire warning/MIL telltale, the telltale is required to 'flash' when a system malfunction is detected



COMPLIANCE TEST PROCEDURE

- The time period allowed for system calibration, low tire pressure detection, and system malfunction detection is 20 minutes, while the vehicle is being driven, if necessary
- Procedures are specified for determining elapsed driving time during the calibration procedure, the low tire detection test, and the malfunction detection test



COMPLIANCE TEST PROCEDURE

- Final Rule Phase-in Schedule
 - **20% MY06**
 - **70% MY07**
 - **100% MY 08 and thereafter**
- The owner's manual statement must reflect the two types of MIL telltales, and advise consumers that tire pressure should be checked regularly

MINIMUM ACTIVATION PRESSURE

- The standard requires that the low tire warning lamp illuminate when tire pressure is 25% below placard pressure or when a minimum activation pressure specified in the standard is reached, whichever is higher
- The MAP is based on tire testing that has established a minimum pressure for safe tire operation

SYMBOL FOR DEDICATED MIL

- The symbol for the dedicated MIL telltale proposed in the NPRM has been replaced in the final rule by the acronym 'TPMS'
- Comments argued that the proposed symbol was confusing because of its close resemblance to the symbol for the low tire pressure warning telltale

PETITIONS FOR RECONSIDERATION

- Agency allows 45 days after Final Rule for submitting Petitions for Reconsideration
- May 23, 2005 is the closing date for TPMS Petitions for Reconsideration



TPMS FINAL RULE DOCKET

THE TPMS FINAL RULE AND
ASSOCIATED DOCUMENTS CAN BE
ACCESSED THROUGH THE INTERNET
WEBSITE:

<http://dms.dot.gov>

Click on 'simple search'

Enter docket number '20586'