

Title (en)

CALIBRATION OF A TRANSPONDER FOR A TIRE PRESSURE MONITORING SYSTEM

Title (de)

TRANSPONDER- KALIBRIERUNG FÜR EINE REIFENÜBERWACHUNGSVORRICHTUNG

Title (fr)

ETALONNAGE D'UN TRANSPONDEUR POUR SYSTEME DE SURVEILLANCE DE LA PRESSION DE GONFLAGE

Publication

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Application

**EP 99967303 A 19991214**

Priority

US 9929606 W 19991214

Abstract (en)

[origin: WO0143997A1] A method (650) of calibrating a transponder (200, 604) capable of measuring temperature data (NT) and pressure data (NP) in an object (e.g., a tire, (104)) and transmitting a data stream (Figure 3C) to an external reader/interrogator (106, 400). The transponder includes memory (238) for storing measurements, calibration data (662), transponder ID number and the like. Since the transponder combines temperature and pressure information in the "pressure" data, the ratio NT/NP is a direct indicator of pressure-only, and is also relatively insensitive to transponder power variations. The calibration method employs a calibration chamber (602) containing reference pressure (614) and temperature (612) sensors. The transducer to be calibrated is placed in the chamber and exposed (652) to a number of predetermined temperatures and pressures (as measured by the reference sensors) at a number of calibration points. At each calibration point, a temperature reading (NT) and a pressure reading (NP) sensed by the transponder are recorded along with the reference temperature and pressure. From these readings and reference measurements the calibration constants (NT<sub>25</sub>, mT, NT/NP<sub>700,25</sub>, mP) are calculated (658).

IPC 1-7

**B60C 23/04**

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