5N Data Identifier

"5Nxx" Data Identifiers; Their Formats and Descriptions

Version Table		
Version	**Date**	**Description**
1	Nov 2009	Released
2	Mar 2010	• Restructured data format for 5NB4 and 5NB5. • Renumbered 5NB10 and 5NB11 to 5NC0 and 5NC1 respectively. • Added 5NB0; Reserved For Future Use. • Added Sunset dates to select DIs.

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N01	a1	201_{10} $C9_{16}$	**Tire Conicity Code Letter**. Component of the lateral shift that does not change with the direction of rotation. Represented as "+" or "–" shift codes as defined by the following letters: A: No Split; B: +; C: -; D: Low +; E: High +; F: Low -; G: High -; H: Not Avail	**NA**
5N02	n…6 (nnnn.nn)	202_{10} CA_{16}	**Total Composite Radial Force Variation (Peak-to-peak): Newtons**. The difference between maximum and minimum values of the normal force during one revolution of the tire. The units are Newtons.	**Mar 31, 2011**
5N03	n…6 (nnnn.nn)	203_{10} CB_{16}	**Total Composite Radial Force Variation (Peak-to-peak): kilograms**. The difference between maximum and minimum values of the normal force during one revolution of the tire. The units are kilograms.	**Mar 31, 2011**
5N04	n…6 (nnnn.nn)	204_{10} CC_{16}	**Total Composite Radial Force Variation (Peak-to-peak): pounds**. The difference between maximum and minimum values of the normal force during one revolution of the tire. The units are pounds.	**Mar 31, 2011**
5N05	n…6 (nnnn.nn)	205_{10} CD_{16}	**Radial First Harmonic Force Variation: Newtons**. The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are Newtons.	**Mar 31, 2011**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N06	n…6 (nnnn.nn)	206_{10} CE_{16}	**Radial First Harmonic Force Variation: kilograms.** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are kilograms.	**Mar 31, 2011**
5N07	n…6 (nnnn.nn)	207_{10} CF_{16}	**Radial First Harmonic Force Variation: pounds**. The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are pounds.	**Mar 31, 2011**
5N08	n…6 (nnnn.nn)	208_{10} $D0_{16}$	**Radial Second Harmonic Force Variation: Newtons.** The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are Newtons.	**Mar 31, 2011**
5N09	n…6 (nnnn.nn)	209_{10} $D1_{16}$	**Radial Second Harmonic Force Variation: kilograms.** The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are kilograms.	**Mar 31, 2011**
5N10	n…6 (nnnn.nn)	210_{10} $D2_{16}$	**Radial Second Harmonic Force Variation: pounds**. The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are pounds.	**Mar 31, 2011**
5N11	n…6 (nnnn.nn)	211_{10} $D3_{16}$	**Radial Third Harmonic Force Variation: Newtons.** The peak-to-peak amplitude of the third fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are Newtons.	**Mar 31, 2011**
5N12	n…6 (nnnn.nn)	212_{10} $D4_{16}$	**Radial Third Harmonic Force Variation: kilograms.** The peak-to-peak amplitude of the third fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are kilograms.	**Mar 31, 2011**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N13	n…6 (nnnn.nn)	213_{10} $D5_{16}$	**Radial Third Harmonic Force Variation: pounds**. The peak-to-peak amplitude of the third fundamental frequency component of the Fourier series representing radial force variation. Its frequency is equal to the rotational frequency of the tire. The units are pounds.	**Mar 31, 2011**
5N14	n…6 (nnnn.nn)	214_{10} $D6_{16}$	**Total Composite Lateral Force Variation: Newtons.** The difference between maximum and minimum values of the lateral force during one revolution of the tire. The units are Newtons.	**Mar 31, 2011**
5N15	n…6 (nnnn.nn)	215_{10} $D7_{16}$	**Total Composite Lateral Force Variation: kilograms.** The difference between maximum and minimum values of the lateral force during one revolution of the tire. The units are kilograms.	**Mar 31, 2011**
5N16	n…6 (nnnn.nn)	216_{10} $D8_{16}$	**Total Composite Lateral Force Variation: pounds.** The difference between maximum and minimum values of the lateral force during one revolution of the tire. The units are pounds.	**Mar 31, 2011**
5N17	n…6 (nnnn.nn)	217_{10} $D9_{16}$	**Lateral First Harmonic Force Variation: Newtons.** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing lateral force variation. Its frequency is equal to the rotational frequency of the tire. The units are Newtons.	**Mar 31, 2011**
5N18	n…6 (nnnn.nn)	218_{10} DA_{16}	**Lateral First Harmonic Force Variation: kilograms**. The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing lateral force variation. Its frequency is equal to the rotational frequency of the tire. The units are kilograms.	**Mar 31, 2011**
5N19	n…6 (nnnn.nn)	219_{10} DB_{16}	**Lateral First Harmonic Force Variation: pounds.** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing lateral force variation. Its frequency is equal to the rotational frequency of the tire. The units are pounds.	**Mar 31, 2011**
5N20	n...4 (nnn.n)	220_{10} DC_{16}	**Tire Static Imbalance: inch-ounce.** The radial outward imbalance of a non-rotating tire measured in inch-ounces.	**Mar 31, 2011**
5N21	n...4 (nnn.n)	221_{10} DD_{16}	**Tire Static Imbalance: kilogram-millimeter.** The radial outward imbalance of a non-rotating tire measured in kg-mm.	**Mar 31, 2011**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N22	n...3	222_{10} DE_{16}	**Radial First Harmonic High Point Location.** The angular location of the maximum radial first harmonic force variation of tires expressed in degrees from a mutually agreed reference point.	**Mar 31, 2011**
5N23	n…4 (nnn.n)	223_{10} DF_{16}	**Tire Dynamic Imbalance upper/outer sidewall: inch-ounce.** The upper-sidewall lateral-outward imbalance of a dynamically rotating tire measured in inches-ounces.	**Mar 31, 2011**
5N24	n…4 (nnn.n)	224_{10} $E0_{16}$	**Tire Dynamic Imbalance upper/outer sidewall: kilogram-millimeter.** The upper-sidewall lateral-outward imbalance of a dynamically rotating tire measured in kg-mm.	**Mar 31, 2011**
5N25	n…4 (nnn.n)	225_{10} $E1_{16}$	**Tire Dynamic Imbalance lower/inner sidewall: inch-ounce.** The lower-sidewall lateral-inward imbalance of a dynamically rotating tire measured in inches-ounces.	**Mar 31, 2011**
5N26	n…4 (nnn.n)	226_{10} $E2_{16}$	**Tire Dynamic Imbalance lower/inner sidewall: kilogram-millimeter.** The lower-sidewall lateral-inward imbalance of a dynamically rotating tire measured in kg-mm.	**Mar 31, 2011**
5N27	n…4 (nnn.n)	227_{10} $E3_{16}$	**Tire Dynamic Imbalance Overall: inch-ounce.** The overall lateral side-to-side coupled imbalance of a dynamically rotating tire measured in inches-ounces.	**Mar 31, 2011**
5N28	n…4 (nnn.n)	228_{10} $E4_{16}$	**Tire Dynamic Imbalance Overall: kilogram-millimeter.** The overall lateral side-to-side coupled imbalance of a dynamically rotating tire measured in kg-mm.	**Mar 31, 2011**
5N29	n...3	229_{10} $E5_{16}$	**Center Rib Run Out: millimeters.** The difference between the maximum and minimum undeflected values of the tread surface; measured at the center rib of a tire; rotated on a true wheel; in mm of displacement.	**Mar 31, 2011**
5N30	n...3	230_{10} $E6_{16}$	**Center Rib Run Out: inches**. The difference between the maximum and minimum undeflected values of the tread surface; measured at the center rib of a tire; rotated on a true wheel; in inches of displacement.	**Mar 31, 2011**
5N31	n…7 (±nnn.nn)	231_{10} $E7_{16}$	**Tire Conicity Value: Newtons.** Component of the lateral shift that does not change with the direction of rotation. Measured in Newtons, which can be plus or minus.	**Mar 31, 2011**
5N32	n…7 (±nnn.nn)	232_{10} $E8_{16}$	**Tire Conicity Value: kilograms.** Component of the lateral shift that does not change with the direction of rotation. Measured in kilograms, which can be plus or minus.	**Mar 31, 2011**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N33	n…7 (±nnn.nn)	233_{10} $E9_{16}$	**Tire Conicity Value: pounds**. Component of the lateral shift that does not change with the direction of rotation. Measured in pounds, which can be plus or minus.	**Mar 31, 2011**
5N34	n…5 (nnn.nn)	234_{10} EA_{16}	**Tire Pressure Design Load – Front: bars**. The vehicle certification pressure of the front tires (decal pressure) at vehicle design load expressed in bars.	**Mar 31, 2011**
5N35	n…5 (nnn.nn)	235_{10} EB_{16}	**Tire Pressure Design Load – Front: kPa**. The vehicle certification pressure of the front tires (decal pressure) at vehicle design load expressed in kPa.	**Mar 31, 2011**
5N36	n…5 (nnn.nn)	236_{10} EC_{16}	**Tire Pressure Design Load – Front: psi.** The vehicle certification pressure of the front tires (decal pressure) at vehicle design load expressed in psi.	**Mar 31, 2011**
5N37	n…5 (nnn.nn)	237_{10} ED_{16}	**Tire Pressure Design Load – Rear: bars.** The vehicle certification pressure of the rear tires (decal pressure) at vehicle design load expressed in bars.	**Mar 31, 2011**
5N38	n…5 (nnn.nn)	238_{10} EE_{16}	**Tire Pressure Design Load – Rear: kPa**. The vehicle certification pressure of the rear tires (decal pressure) at vehicle design load expressed in kPa.	**Mar 31, 2011**
5N39	n…5 (nnn.nn)	239_{10} EF_{16}	**Tire Pressure Design Load – Rear: psi.** The vehicle certification pressure of the rear tires (decal pressure) at vehicle design load expressed in psi.	**Mar 31, 2011**
5N40	n…5 (nnn.nn)	240_{10} $F0_{16}$	**Tire Pressure Maximum Load – Front: bars.** The vehicle certification pressure of the front tires (decal pressure) at vehicle maximum load expressed in bars.	**Mar 31, 2011**
5N41	n…5 (nnn.nn)	241_{10} $F1_{16}$	**Tire Pressure Maximum Load – Front: kPa.** The vehicle certification pressure of the front tires (decal pressure) at vehicle maximum load expressed in kPa.	**Mar 31, 2011**
5N42	n…5 (nnn.nn)	242_{10} $F2_{16}$	**Tire Pressure Maximum Load – Front: psi.** The vehicle certification pressure of the front tires (decal pressure) at vehicle maximum load expressed in psi.	**Mar 31, 2011**
5N43	n…5 (nnn.nn)	243_{10} $F3_{16}$	**Tire Pressure Maximum Load – Rear: bars.** The vehicle certification pressure of the rear tires (decal pressure) at vehicle maximum load expressed in bars.	**Mar 31, 2011**
5N44	n…5 (nnn.nn)	244_{10} $F4_{16}$	**Tire Pressure Maximum Load – Rear: kPa**. The vehicle certification pressure of the rear tires (decal pressure) at vehicle maximum load expressed in kPa.	**Mar 31, 2011**
5N45	n…5 (nnn.nn)	245_{10} $F5_{16}$	**Tire Pressure Maximum Load – Rear: psi.** The vehicle certification pressure of the rear tires (decal pressure) at vehicle maximum load expressed in psi.	**Mar 31, 2011**
5N46	n…5 (nnn.nn)	246_{10} $F6_{16}$	**Tire Pressure Spare Tire: bars.** The vehicle certification pressure of the spare tire (decal pressure) at vehicle maximum load expressed in bars.	**Mar 31, 2011**

AIAG

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N47	n…5 (nnn.nn)	247_{10} $F7_{16}$	**Tire Pressure Spare Tire: kPa.** The vehicle certification pressure of the spare tire (decal pressure) at vehicle maximum load expressed in kPa.	**Mar 31, 2011**
5N48	n…5 (nnn.nn)	248_{10} $F8_{16}$	**Tire Pressure Spare Tire: psi.** The vehicle certification pressure of the spare tire (decal pressure) at vehicle maximum load expressed in psi.	**Mar 31, 2011**
5N49	n12 (YYYYMMDDHHMM)	249_{10} $F9_{16}$	**Date / Time of Tire Assembly: Format YYYYMMDDHHMM. (24 hour; local plant time).** Date / Time the tire was assembled (as defined by the manufacturer) in the tire manufacturer's plant. If unused, minutes may be padded with zeros.	**Mar 31, 2011**
5N50	n12 (YYYYMMDDHHMM)	250_{10} FA_{16}	**Date / Time of Tire Cure: Format YYYYMMDDHHMM. (24 hour; local plant time).** Date / Time the tire was cured in the tire manufacturer's plant. If unused, minutes may be padded with zeros.	**Mar 31, 2011**
5N51	n12 (YYYYMMDDHHMM)	251_{10} FB_{16}	**Date / Time of Tire Uniformity Test: Format YYYYMMDDHHMM. (24 hour; local plant time).** Date / Time the tire's uniformity measurement was taken in the tire manufacturer's plant. If unused, minutes may be padded with zeros.	**Mar 31, 2011**
5N52	n12 (YYYYMMDDHHMM)	252_{10} FC_{16}	**Date / Time of End-of-Line: Format YYYYMMDDHHMM. (24 hour; local plant time).** Date / Time the tire was released from manufacturing, available for sale / to the shipping system. If unused, minutes may be padded with zeros.	**Mar 31, 2011**
5N53	n12 (YYYYMMDDHHMM)	253_{10} FD_{16}	**Date / Time of Mutually Defined Location: Format YYYYMMDDHHMM. (24 hour; local plant time).** Date / Time at a mutually defined location. If unused, minutes may be padded with zeros. **NOTE:** For DIs 5N49 through 5N53. For a mutually definable date format without time, see ANS MH 10.8.2 Data Identifier "6D."	**Mar 31, 2011**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N54	an...69 See **Data Field Description** for details	254_{10} FE_{16}	**RECOMMENDED: Wheel Identification Code (WIC); Label**. A 69-character (not counting ISO/IEC 15434 overhead) coding structure for wheel identification - using a label - as used in this standard. This data field is made up of the following information. It **SHALL** be built according to the following order and character count requirements for each sub-data field. No characters **shall** be left out. Unused characters shall be left-padded with "_". **1) Wheel Standardizing Body** a) Format: a..1 i) Standards bodies include: T&RA (T), JATMA (J), ETRTO (E). (1) Units shall be dictated by the standards body referenced, except where noted. **2) Wheel Size** a) Format: nn.nXnn.nn i) Example: 16.5X07.00 **3) Rim Profile** a) Format: (preceded by "_" separator) a..2 i) Pad with leading "_" if fewer than 2 characters are used. (1) Example: _JJ, or __J **4) Wheel Offset** a) Format: ±nnn.n i) Units are millimeters (mm) (1) Example: –050.0, or +015.5 **5) Balance Weight Flange Type** a) Format: a..2 **6) Material Type** a) Format: (preceded by "_" separator) a..1 i) "F" for ferrous material; "A" for non-ferrous material. **7) Wheel Manufacturing Facility Code or DUNS Number** a) Format: (preceded by "_" separator) an..9 **8) Part Number or Mutually Agreed Upon Number** a) Format: (preceded by "_" separator) an..15 **9) Date and Time of Mutually Defined Point in Manufacture** a) Format: (preceded by "_" separator) YYYYMMDDHHMM **10) Unique Serial Number** a) Format: (preceded by "_" separator) an..5 i) **NOTE**: **Unique Serial Number data field FOR LABEL ONLY** Example 5N54T16.5x07.00__J-050.0MC_F_123A5Y7IP_1234567890ABCDE_200203121130_A1B2C	**Mar 31, 2011**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N55	an...63 See **Data Field Description** for details	255_{10} FF_{16}	**RECOMMENDED: Wheel Identification Code (WIC); RFID Tag.** A 63-character ISO/IEC 15961 / 15962-based coding structure for wheel identification - using an RFID tag. This data field is made up of the following information. It **SHALL** be built according to the following order and character count requirements for each sub-data field. No characters **shall** be left out. Unused characters shall be left-padded with "_": **1) Wheel Standardizing Body** a) Format: a..1 i) Standards bodies include: T&RA (T), JATMA (J), ETRTO (E). (1) Units shall be dictated by the standards body referenced, except where noted. **2) Wheel Size** a) Format: nn.nXnn.nn i) Example: 16.5X07.00 **3) Rim Profile** a) Format: (preceded by "_" separator) a..2 i) Pad with leading "_" if fewer than 2 characters are used. (1) Example: _JJ, or __J **4) Wheel Offset** a) Format: ±nnn.n i) Units are millimeters (mm) (1) Example: –050.0, or +015.5 **5) Balance Weight Flange Type** a) Format: a..2 **6) Material Type** a) Format: (preceded by "_" separator) a..1 i) "F" for ferrous material; "A" for non-ferrous material. **7) Wheel Manufacturing Facility Code or DUNS Number** a) Format: (preceded by "_" separator) an..9 **8) Part Number or Mutually Agreed Upon Number** a) Format: (preceded by "_" separator) an..15 **9) Date and Time of Mutually Defined Point in Manufacture** a) Format: (preceded by "_" separator) YYYYMMDDHHMM Example: 5N55T16.5x07.00__J-050.0MC_F_123456789_1234567890ABCDE_200203121130	**Mar 31, 2011**

AIAG

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N56	n12 (YYYYMMDD HHMM)	256_{10} 100_{16}	**Wheel Manufacture Date and Time:** A date and time stamp of mutual agreement between wheel manufacturer and customer representing a known point in the manufacturing process. An example might be the date / time of wheel uniformity measurement. Example: 5N56200204211200	**Mar 31, 2011p**
5N57	n12 (YYYYMMDD HHMM)	257_{10} 101_{16}	**Disc Manufacture Date and Time:** A data field containing the date and time of disc manufacture. Example: 5N57200204211201	**Mar 31, 2011**
5N58	n12 (YYYYMMDD HHMM)	258_{10} 102_{16}	**Rim Manufacture Date and Time:** A data field containing the date and time of rim manufacture. Example: 5N58200204211202	**Mar 31, 2011**
5N59	n12 (YYYYMMDD HHMM)	259_{10} 103_{16}	**Wheel Casting Date and Time**: A data field containing the date and time of wheel casting. Example: 5N59200204211203	**Mar 31, 2011**
5N60	an...6	260_{10} 104_{16}	**Wheel Casting Lot Number**: Manufacturing casting lot number of the wheel. Example: 5N60G4026D	**Mar 31, 2011**
5N61	n...4	261_{10} 105_{16}	**Maximum Wheel Load Capacity: kilograms (kgs).** The maximum rated wheel load, expressed in kg. No padding is required. Examples: 5N611310 5N61955	**Mar 31, 2011**
5N62	n...4	262_{10} 106_{16}	**Maximum Wheel Load Capacity: pounds (lbs).** The maximum rated wheel load, expressed in lbs. No padding is required. Examples: 5N622888 5N622100	**Mar 31, 2011**
5N63	n...3	263_{10} 107_{16}	**Maximum Rated Wheel Pressure: pounds per square inch (psi).** The maximum tire pressure for which the wheel is rated, expressed in psi. Example: 5N6333	**Mar 31, 2011**
5N64	n...3	264_{10} 108_{16}	**Maximum Rated Wheel Pressure: kilo-Pascals (kPa).** The maximum tire pressure for which the wheel is rated, expressed in kPa. Example: 5N64228	**Mar 31, 2011**
5N65	n...6/n...6 nnn.nnn/nnn.nnn	265_{10} 109_{16}	**Pilot Hole Diameter; Maximum/Minimum: millimeters (mm).** Defines the pilot hole diameter range in mm. This data field is fixed length. Pad unused positions with zeros. Example: 5N65086.940/086.860	**Mar 31, 2011**

5N Data Identifier

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5N66	n...6/n...6 nnn.nnn/nnn.nnn	266_{10} $10A_{16}$	**Pilot Hole Diameter; Maximum/Minimum: inches (in).** Defines the pilot hole diameter range in inches. This data field is fixed length. Pad unused positions with zeros. Example: 5N6603.4228/03.4197	**Mar 31, 2011**
5N67	n...2Xn...5 nnXnnn.nn	267_{10} $10B_{16}$	**Bolt Pattern:** Defines the number of bolt holes and the basic bolt circle diameter. Left-pad unused positions with "_". Examples: 5N67_5X100.00 5N67_5X__4.25 (this example has two underscores after the "X") 5N67_7X107.95	**Mar 31, 2011**
5N68	an…9	268_{10} $10C_{16}$	**Material and Heat Treatment Code:** Defines the type of material used in the wheel construction and the heat treatment applied to that material. **NOTE:** Use only the characters needed; no padding allowed. Examples: 5N68SAEJ1010 5N68A356-T6 5N68AA6061-T6	**Mar 31, 2011**
5N69	n…2	269_{10} $10D_{16}$	**Valve Stem Angle, Design:** Defines the designed nominal valve stem angle in degrees, as defined by the Wheel Standardization body. Left-pad unused positions with "_". Examples: 5N6930 5N69_5	**Mar 31, 2011**
5N70	n...4 n.nnn	270_{10} $10E_{16}$	**Average Radial Beadseat Runout: inches (in).** The peak-to-peak amplitude of the average radial runout of the inboard and outboard wheel beadseats measured simultaneously, in inches. Example: 5N700.036	**Mar 31, 2011**
5N71	n...4 n.nnn	271_{10} $10F_{16}$	**Average Radial Beadseat Runout: millimeters (mm).** The peak-to-peak amplitude of the average radial runout of the inboard and outboard wheel beadseats measured simultaneously, in mm. Example: 5N710.914	**Mar 31, 2011**
5N72	n...4 n.nnn	272_{10} 110_{16}	**Outboard Radial Beadseat Runout: inches (in).** The peak-to-peak amplitude of the outboard radial beadseat runout, in inches. Example: 5N720.036	**Mar 31, 2011**

5N Data Identifier

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5N73	n...4 n.nnn	273_{10} 111_{16}	**Outboard Radial Beadseat Runout: millimeters (mm).** The peak-to-peak amplitude of the outboard radial beadseat runout, in mm. Example: 5N730.914	**Mar 31, 2011**
5N74	n...4 n.nnn	274_{10} 112_{16}	**Inboard Radial Beadseat Runout: inches (in).** The peak-to-peak amplitude of the inboard radial beadseat runout, in inches. Example: 5N740.036	**Mar 31, 2011**
5N75	n...4 n.nnn	275_{10} 113_{16}	**Inboard Radial Beadseat Runout: millimeters (mm).** The peak-to-peak amplitude of the inboard radial beadseat runout, in mm. Example: 5N750.914	**Mar 31, 2011**
5N76	n...4 n.nnn	276_{10} 114_{16}	**Wheel Average Radial First Harmonic: inches (in).** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing the average radial runout of the outboard and inboard wheel beadseats measured simultaneously, in inches. The frequency is equal to the rotational frequency of the wheel. Example: 5N760.008	**Mar 31, 2011**
5N77	n...4 n.nnn	277_{10} 115_{16}	**Wheel Average Radial First Harmonic: millimeters (mm).** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing the average radial runout of the outboard and inboard wheel beadseats measured simultaneously, in mm. The frequency is equal to the rotational frequency of the wheel. Example: 5N770.203	**Mar 31, 2011**
5N78	n...3 nnn	278_{10} 116_{16}	**Wheel Average Radial First Harmonic Low Point Location:** The angular location of the low point of the average radial first harmonic runout of the wheel expressed in degrees from the valve hole. Range is 0 to 359 degrees. Do not pad. Examples: 5N7856 5N78275	**Mar 31, 2011**
5N79	n...4 n.nnn	279_{10} 117_{16}	**Wheel Outboard Beadseat Radial First Harmonic: inches (in).** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing the radial runout of the outboard wheel beadseat, in inches. The frequency is equal to the rotational frequency of the wheel. Example: 5N790.008	**Mar 31, 2011**

5N Data Identifier

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5N80	n...4 n.nnn	280_{10} 118_{16}	**Wheel Outboard Beadseat Radial First Harmonic: millimeters (mm).** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing the radial runout of the outboard wheel beadseat, in mm. The frequency is equal to the rotational frequency of the wheel. Example: 5N800.203	**Mar 31, 2011**
5N81	n...4 n.nnn	281_{10} 119_{16}	**Wheel Inboard Beadseat Radial First Harmonic: inches (in).** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing the radial runout of the inboard wheel beadseat, in inches. The frequency is equal to the rotational frequency of the wheel. Example: 5N810.008	**Mar 31, 2011**
5N82	n...4 n.nnn	282_{10} $11A_{16}$	**Wheel Inboard Beadseat Radial First Harmonic: millimeters (mm).** The peak-to-peak amplitude of the fundamental frequency component of the Fourier series representing the radial runout of the inboard wheel beadseat, in mm. The frequency is equal to the rotational frequency of the wheel. Example: 5N820.203	**Mar 31, 2011**
5N83	n...4 n.nnn	283_{10} $11B_{16}$	**Wheel Average Radial Second Harmonic: inches (in).** The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing the average radial runout of the outboard and inboard wheel beadseats measured simultaneously, in inches. Its frequency is equal to the second rotational frequency of the tire. Example: 5N830.007	**Mar 31, 2011**
5N84	n...4 n.nnn	284_{10} $11C_{16}$	**Wheel Average Radial Second Harmonic: millimeters (mm).** The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing the average radial runout of the outboard and inboard wheel beadseats measured simultaneously, in mm. Its frequency is equal to the second rotational frequency of the tire. Example: 5N840.178	**Mar 31, 2011**
5N85	n...4 n.nnn	285_{10} $11D_{16}$	**Wheel Outboard Beadseat Radial Second Harmonic: inches (in).** The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing the radial runout of the outboard wheel beadseat, in inches. Its frequency is equal to the second rotational frequency of the tire. Example: 5N850.007	**Mar 31, 2011**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N86	n...4 n.nnn	286_{10} $11E_{16}$	**Wheel Outboard Beadseat Radial Second Harmonic: millimeters (mm).** The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing the radial runout of the outboard wheel beadseat, in mm. Its frequency is equal to the second rotational frequency of the tire. Example: 5N860.178	**Mar 31, 2011**
5N87	n...4 n.nnn	287_{10} $11F_{16}$	**Wheel Inboard Beadseat Radial Second Harmonic: inches (in).** The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing the radial runout of the inboard wheel beadseat, in inches. Its frequency is equal to the second rotational frequency of the tire. Example: 5N870.007.	**Mar 31, 2011**
5N88	n...4 n.nnn	288_{10} 120_{16}	**Wheel Inboard Beadseat Radial Second Harmonic: millimeters (mm).** The peak-to-peak amplitude of the second fundamental frequency component of the Fourier series representing the radial runout of the inboard wheel beadseat, in mm. Its frequency is equal to the second rotational frequency of the tire. Example: 5N880.178	**Mar 31, 2011**
5N89	n...4 n.nnn	289_{10} 121_{16}	**Wheel Outboard Lateral Beadseat Runout: inches (in).** The peak-to-peak amplitude of the outboard lateral beadseat runout, in inches. Example: 5N890.035	**Mar 31, 2011**
5N90	n...4 n.nnn	290_{10} 122_{16}	**Wheel Outboard Lateral Beadseat Runout: millimeters (mm).** The peak-to-peak amplitude of the outboard lateral beadseat runout, in mm. Example: 5N900.889	**Mar 31, 2011**
5N91	n...4 n.nnn	291_{10} 123_{16}	**Wheel Inboard Lateral Beadseat Runout: inches (in).** The peak-to-peak amplitude of the inboard lateral beadseat runout, in inches. Example: 5N910.035	**Mar 31, 2011**
5N92	n...4 n.nnn	292_{10} 124_{16}	**Wheel Inboard Lateral Beadseat Runout: millimeters (mm).** The peak-to-peak amplitude of the inboard lateral beadseat runout, in mm. Example: 5N920.889	**Mar 31, 2011**
5N93	n...4 n.nnn	293_{10} 125_{16}	**Wheel Average Lateral Beadseat Runout: inches (in).** The peak-to-peak amplitude of the average lateral beadseat runout measured simultaneously, in inches. Example: 5N930.035	**Mar 31, 2011**

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5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5N94	n...4 n.nnn	294_{10} 126_{16}	**Wheel Average Lateral Beadseat Runout: millimeters (mm).** The peak-to-peak amplitude of the average lateral beadseat runout measured simultaneously, in mm. Example: 5N940.889	**Mar 31, 2011**
5N95	n...4 n.nnn	295_{10} 127_{16}	**Wheel Static Imbalance: inch-ounce**. The radial outward imbalance of a non-rotating wheel, measured in inch-ounces.	**Mar 31, 2011**
5N96	n...4 n.nnn	296_{10} 128_{16}	**Wheel Static Imbalance: kilogram/millimeter (or gram/meter).** The radial outward imbalance of a non-rotating wheel, measured in kg-mm.	**Mar 31, 2011**
5N97	n...4 n.nnn	297_{10} 129_{16}	**Wheel Dynamic Imbalance Outboard Flange: inch-ounce.** The outer flange imbalance of a dynamically rotating wheel, measured in inch-ounces.	**Mar 31, 2011**
5N98	n...4 n.nnn	298_{10} $12A_{16}$	**Wheel Dynamic Imbalance Outboard Flange: kilogram-millimeter (or gram-meter).** The outer flange imbalance of a dynamically rotating wheel, measured in kg-mm.	**Mar 31, 2011**
5N99	n...4 n.nnn	299_{10} $12B_{16}$	**Wheel Dynamic Imbalance Inboard Flange: inch-ounce.** The inner flange imbalance of a dynamically rotating wheel, measured in inch-ounces.	**Mar 31, 2011**
5NA0	n12 (YYYYMMDD HHMM)	300_{10} $12C_{16}$	**Heat Treat Date and Time:** Date and Time of the wheel heat treatment.	**Mar 31, 2011**
5NA1	n...4 n.nnn	301_{10} $12D_{16}$	**Wheel Dynamic Imbalance Inboard Flange: kilogram-millimeter (or gram-meter).** The inner flange imbalance of a dynamically rotating wheel, measured in kg-mm.	**Mar 31, 2011**
5NA2	n...4 n.nnn	302_{10} $12E_{16}$	**Wheel Dynamic Imbalance Overall: inch-ounce.** The overall lateral side-to-side coupled imbalance of a dynamically rotating wheel, measured in inch-ounces.	**Mar 31, 2011**
5NA3	n...4 n.nnn	303_{10} $12F_{16}$	**Wheel Dynamic Imbalance Overall: kilogram-millimeter (or gram-meter).** The overall lateral side-to-side coupled imbalance of a dynamically rotating wheel, measured in kg-mm.	**Mar 31, 2011**
5NA4	n12 (YYYYMMDD HHMM)	304_{10} 130_{16}	**Fluoroscopic Inspection Date / Time:** Date and Time of manufacturing fluoroscopic inspection.	**Mar 31, 2011**
5NA5	n12 (YYYYMMDD HHMM)	305_{10} 131_{16}	**Leak Check Date / Time:** Date and Time that the leak check was performed.	**Mar 31, 2011**
5NA6	an...15	306_{10} 132_{16}	**Tire Pressure Monitor Part Number**: Part number of the TPM.	**Mar 31, 2011**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5NA7	an...15	307_{10} 133_{16}	**Tire Pressure Monitor Serial Number**: Serial number of the TPM.	**Mar 31, 2011**
5NA8	n12 (YYYYMMDD HHMM)	308_{10} 134_{16}	**Machining Date and Time**: Date and Time that the wheel was machined.	**Mar 31, 2011**
5NA9	an...3	309_{10} 135_{16}	**Final Inspector Code:** The code identifying the final inspector.	**Mar 31, 2011**
5NB0	**Reserved for future use**			**NA**
5NB1	an...2	310_{10} 136_{16}	**Speed Symbol:** Coded according to ETRTO (European Tyre & Rim Technical Organisation).	**NA**
5NB2	n...3	311_{10} 137_{16}	**Load Index:** Coded according to ETRTO (European Tyre & Rim Technical Organisation).	**NA**
5NB3	an2	312_{10} 138_{16}	**Tire Type:** Code examples include: First character general tire type: A = all season tire B = summer tire C = winter tire D = studded tire E = spare tire Z = other tire type Second character for run flat: A = no run flat tire B = SST (self-supporting tire) C = CT tire D = PAX tire E = sealant tire Z = other run flat tire	**NA**
5NB4	n7...n31 (111#222…333 4445556667778 88999000)	105_{10} 69_{16}	**Measured Pressure & Tread Depth – psi, 32nds of an inch:** A concatenation of measured pressure (in psi) and nonskid values (in inches). Example: **111#222333444**, where: **111** = Measured tire pressure in psi; 3 digits. # = Number of observations that follow (1, 2, 3); 1 digit. **222** = Measured Nonskid 1, in inches; 3 digits **333** = Measured Nonskid 2, in inches; 3 digits. **444** = Measured Nonskid 3, in inches; 3 digits	**NA**

5N Data Identifier

Data Identifier	Data Format	Assigned Relative OID	Data Field Description	Sunset Date
5NB5	n7…n31 (111#222…333 4445556667778 88999000)	106_{10} $6A_{16}$	**Measured Pressure & Nonskid – kPa, mm:** A concatenation of measured pressure (in kPa) and nonskid values (in mm's). Example: **111#222333444**, where: **111** = Measured tire pressure in kPa; 3 digits. # = Number of observations that follow (1, 2, 3); 1 digit. **222** = Measured Nonskid 1, in mm; 3 digits **333** = Measured Nonskid 2, in mm; 3 digits. **444** = Measured Nonskid 3, in mm; 3 digits	**NA**
5NB6	n14 (11111112222 222)	107_{10} $6B_{16}$	**Accumulated Tire / Vehicle Miles:** A concatenation of accumulated tire and vehicle miles. Example: **11111112222222**, where: **1111111** = Accumulated tire mileage **2222222** = Accumulated vehicle mileage	**NA**
5NB7	n14 (11111112222 222)	108_{10} $6C_{16}$	**Accumulated Tire / Vehicle Kilometers:** A concatenation of accumulated tire and vehicle kilometers. Example: **11111112222222**, where: **1111111** = Accumulated tire kilometers **2222222** = Accumulated vehicle kilometers	**NA**
5NB8	an...10	109_{10} $6D_{16}$	**Branded Sidewall Tire ID:** Up to 10 alphanumeric characters. This is NOT the U.S. DOT Code.	**NA**
5NB9	n2	26_{10} $1E_{16}$	**Number of times the tire casing has been retreaded:** 2 numeric digits.	**NA**
5NBC0	n…7	435_{10} $1B3_{16}$	**Vehicle mileage; an odometer reading or other specific recording mechanism that provides mileage data.** There will be no decimal points in the data.	**NA**
5NBC1	n…7	436_{10} $1B4_{16}$	**Vehicle Kilometers; an odometer reading or other specific recording mechanism that provides Kilometer data.** There will be no decimal points in the data.	**NA**