

Approved Tires, Wheels and Spacers (20/20)

Revision: This bulletin replaces bulletin Group 4, 7/10, dated July 29, 2010.

Model Year: **As of 2003**

Vehicle Types: **Cayenne/Cayenne S/Cayenne Turbo/Cayenne Turbo S**

Information: Approval of new tire makes and types; May 2020



WARNING

Driving with different tires (mixed tires)

- Uncontrollable vehicle handling
- ⇒ Only use tires of the same make and type, with the same speed index and the same specification code (NO, N1, N2, ...) on a vehicle.



Information

The tire makes and types shown in **bold** in the tables below are **newly approved makes and types**. We recommend that only newly approved tires are used when mounting new tires.

Winter Tires: Winter tires are generally designed for use in the low temperature range and offer distinct advantages for winter-time road conditions, such as snow-covered and icy roads, compared with all-season tires. Specially developed tread compositions and tread patterns have provided targeted improvements in the winter properties whilst maintaining safe handling on wet and dry roads.

| Size | Make and type |
|--------------------------------------|--|
| 235/65 R 17 108H M+S ^{1, 2} | Dunlop SP Winter Sport 3D NO (Rotation) Pirelli Scorpion Ice+Snow NO (Inside/Outside) |
| 235/60 R 18 107H M+S ² | Dunlop Grandtrek WT M2 NO (Rotation) Pirelli Scorpion Ice+Snow NO (Inside/Outside) |
| 255/55 R 18 109V M+S ² | Dunlop SP Winter Sport 3D NO (Rotation) Michelin Latitude Alpin HP N1 (Inside/Outside) Pirelli Scorpion Ice+Snow NO Pirelli Scorpion Ice+Snow N1 |
| 255/50 R 19 107V M+S | Dunlop Grandtrek WT M3 NO (Rotation) Pirelli Scorpion Ice+Snow NO (Inside/Outside) |
| 275/40 R 20 106V M+S ³ | Pirelli Scorpion Ice+Snow NO (Inside/Outside) |

- ¹ Not for Cayenne S and Cayenne Turbo.
- ² Not for Cayenne Turbo with engine power kit "E81", Cayenne Turbo S.
- ³ For Cayenne **with TPM**: For all Cayenne models, the tire size 275/40 R20 and the related pressures for **Part load 2.6/2.9** and **Full load 2.7/3.4** must be coded in the menu "Tire pressure" — "Settings" — "Tire (type)" — "Winter tires" in the user-programmable field for the tire size (using the PIWIS Tester).

All-Terrain Tires: The approved all-terrain tires are designed for all road conditions. In addition to its driving safety on dry and wet roads, the all-terrain tire also features an M+S identification and is thus also suitable for conditional winter driving. For winter road conditions (low outside temperatures, icy roads, etc.), the all-terrain tire cannot compare to a winter tire. In off-road driving situations, the all-terrain tires demonstrate a high level of traction on the most varied surfaces such as dry terrain, gravel, rock, mud, wet grass and sand. Especially on unpaved (amorphous) surfaces, this superior traction is achieved through a good tread self-cleaning effect, which can be influenced by the tread design and an appropriate choice of rubber composition.

| Size | Make and type |
|-----------------------------------|-------------------------|
| 235/65 R 17 108T M+S ⁴ | Pirelli Scorpion A/T N0 |
| 235/60 R 18 107T M+S ⁵ | Pirelli Scorpion A/T N0 |

- ⁴ Not for Cayenne S, Cayenne Turbo, Cayenne Turbo S.
- ⁵ Not for Cayenne Turbo with engine power kit "E81", Cayenne Turbo S.

All-Season Tires: Targeted optimization of the tire compositions and treads has produced a good compromise between the driving characteristics at summer temperatures and driving safety on snow and ice. The all-season tires approved for the Cayenne feature an M+S identification and are suitable for winter driving.

| Size | Make and type |
|--|--|
| 235/65 R 17 108H M+S ⁸ 235/65 R 17 108V M+S ⁸ | Continental 4x4 Contact N1 |
| 255/55 R 18 109V M+S ⁸ | Continental 4x4 Contact N1 Goodyear Eagle LS2 N0 Goodyear Eagle LS2 N1 Michelin Latitude Tour HP N0 Michelin Latitude Tour HP GreenX N1 Pirelli Scorpion Zero N0 |
| 275/45 R 19 108V M+S ⁸ | Continental 4x4 Contact N0 Goodyear Eagle LS2 N0 Michelin Latitude Tour HP N0 |

⁶ Not for Cayenne S, Cayenne Turbo, Cayenne Turbo S.

⁷ Not for Cayenne Turbo with engine power kit "E81", Cayenne Turbo S.

⁸ Not for Cayenne Turbo, Cayenne Turbo with engine power kit "E81", Cayenne Turbo S.



Information

The relevant legal regulations must be observed in the export countries!

Summer Tires:

| Size | Make and type |
|--------------------------------|---|
| 235/65 R 17 108V ⁹ | Bridgestone Turanza ER30 N0 Dunlop Grandtrek PT 4000 E N0 Bridgestone Dueler H/P Sport N1 Continental Cross Contact UHP N0 (Inside/Outside) Michelin 4x4 Diamaris N0 (Inside/Outside) |
| 255/55 R 18 109Y ¹⁰ | Bridgestone Turanza ER30 N0 Pirelli P ZERO ROSSO N0 (Inside/Outside) Bridgestone Dueler H/P Sport N1 Continental Cross Contact UHP N1 (Inside/Outside) Continental Sport Contact3 N0 (Inside/Outside) Michelin Latitude Sport N0 (Inside/Outside) Michelin Latitude Sport N1 (Inside/Outside) |
| 275/45 R 19 108Y | Continental 4x4 Sport Contact N0 (Inside/Outside) Michelin 4x4 Diamaris N0 (Inside/Outside) Bridgestone Dueler H/P Sport N0 Michelin Latitude Sport N0 (Inside/Outside) Pirelli P ZERO ROSSO N1 (Inside/Outside) Yokohama Advan Sport N0 (Inside/Outside) |
| 275/40 R 20 106Y | Continental 4x4 Sport Contact N0 (Inside/Outside) Bridgestone Dueler H/P Sport N0 Michelin 4x4 Diamaris N1 (Inside/Outside) Pirelli P ZERO ROSSO N1 (Inside/Outside) Yokohama Advan Sport N0 (Inside/Outside) |

⁹ Not for Cayenne S, Cayenne Turbo, Cayenne Turbo S.

¹⁰ Not for Cayenne Turbo with engine power kit "E81", Cayenne Turbo S.



Information

"N..." = Specification code of the tire, e.g. "N0", "N1", "N2", ...

The complete "N..." code of the tires in question must be shown on the tire sidewall near the tire type designation. Only tires of the same make and type, with the same speed index and the same specification code may be used on a vehicle.

The tire makes and types tested and approved by Porsche are only "XL" (Extra Load) tires.

Instructions for correct mounting of the tires are also given on the tire sidewall.

| | |
|--|--|
| Arrow with inscription "Rotation" | = directional mounting. |
| "Inside/Outside" inscription | = mounting on specified side only. |
| Arrow with both inscriptions "Rotation" and "Inside/Outside" | = directional mounting on specified side only. |

Tire speed ranges (speed index) in km/h (mph)

| | | | | |
|------------------------|------------------------|------------------------|------------------------|------------------------|
| T = max. 190 (119), | H = max. 210 (131), | V = max. 240 (150), | W = max. 270 (169), | Y = max. 300 (187). |
|------------------------|------------------------|------------------------|------------------------|------------------------|



Information

If a tire is damaged and it is not possible to determine with absolute certainty that there is no ply damage - with all of its consequences - or if the tire was thermally and/or mechanically overloaded due to a loss of pressure or other prior damage, replace the tire in question for safety reasons.

Repairs must not be carried out on "V", "W", "Y" and "ZR" tires and inner tubes must not be used in tubeless tires. Please advise your customers accordingly.

If temperatures fall to below **45° F./7°C**, we recommend that you always install winter tires on the vehicle because the vehicle handling features of summer tires are not as good at low temperatures.

Extremely low temperatures can cause permanent damage to summer tires.



WARNING

Incorrect tire pressure

- Uncontrollable vehicle handling
- ⇒ Adjust the tire pressure according to specifications. Never allow the pressure to fall below the minimum pressure.
- ⇒ Check age of tires. Replace tires that are more than 6 years old.
- ⇒ Perform visual inspections.
- ⇒ Use new rubber valves at every tire change.
- ⇒ Use only tires approved by Porsche.

Tire Pressure: **Cayenne (V6)**

| Tire type | Part load ¹¹ FA/RA | Full load FA/RA |
|--|----------------------------------|--------------------------|
| All-season/all-terrain (all), winter (235/65 R 17 108H M+S, 255/55 R 18 109V M+S, 255/50 R 19 107V M+S) | 2.4 bar / 2.7 bar | 2.7 bar / 3.4 bar |
| Summer (all), winter (275/40 R 20 106V M+S) | 2.6 bar / 2.9 bar | 2.7 bar / 3.4 bar |

¹¹ approx. **225 kg**; according to the EU framework guideline, this corresponds to 3 persons + **21 kg** of luggage.

Cayenne S

| Tire type | Part load ¹² FA/RA | Full load FA/RA |
|--|----------------------------------|--------------------------|
| All-season/all-terrain (all), winter (235/65 R 17 108H M+S, 255/55 R 18 109V M+S, 255/50 R 19 107V M+S) | 2.4 bar / 2.7 bar | 2.7 bar / 3.4 bar |
| Summer (all), winter (275/40 R 20 106V M+S) | 2.6 bar / 2.9 bar | 2.7 bar / 3.4 bar |

¹² approx. **225 kg**; according to the EU framework guideline, this corresponds to 3 persons + **21 kg** of luggage.

Cayenne Turbo/Cayenne Turbo S

| Tire type | Part load ¹³ FA/RA | Full load FA/RA |
|-----------|----------------------------------|--------------------------|
| All | 2.6 bar / 2.9 bar | 2.7 bar / 3.4 bar |

¹³ approx. **225 kg**; according to the EU framework guideline, this corresponds to 3 persons + **21 kg** of luggage.



Information

The specified air pressures apply only to the tire makes and types approved by Porsche (including all tire types: winter, all-terrain, all-season and summer) and are specified for cold tires (approx. **68° F/20°C**). In vehicles with a tire pressure monitoring system, use the rocker switch to select the type of load on the on-board computer via "Main menu > Tire pressure > Settings > Load".

Sizes:

Permissible tire and wheel sizes
(RO=rim offset in mm)

| Tires | Wheels | Notes |
|------------------------------------|----------------------|--|
| 235/65 R 17 108T/H/V ¹⁴ | 7.5 J x 17 H2, RO 53 | T = all-terrain H = all-season, winter V = all-season, summer |
| 235/65 R 17 108T/H/V ¹⁴ | 7.5 J x 17 H2, RO 53 | T = all-terrain H = all-season, winter V = all-season, summer 17-mm spacer per wheel permitted on rear axle ¹⁶ |
| 235/60 R 18 107T/H ¹⁵ | 8 J x 18 H2, RO 57 | T = all-terrain H = winter |

| Tires | Wheels | Notes |
|----------------------------------|-----------------------------------|--|
| 235/60 R 18 107T/H ¹⁵ | 8 J x 18 H2, RO 57 | T = all-terrain H = winter 17-mm spacers permitted on rear axle only for wheels with Part No. 955.362.136.10.9A1 ¹⁶ |
| 255/55 R 18 109V/Y ¹⁵ | 8 J x 18 H2, RO 57 | V = all-season, winter Y = summer |
| 255/55 R 18 109V/Y ¹⁵ | 8 J x 18 H2, RO 57 | V = all-season, winter Y = summer 17-mm spacers permitted on rear axle only for wheels with Part Nos. 955.362.136.10.9A1 and 7L5.601.025.A ¹⁶ |
| 255/50 R 19 107V | 9 J x 19 H2, RO 60 | Only winter tires Snow chains can only be installed on rear axle |
| 275/45 R 19 108V/Y | 9 J x 19 H2, RO 60 | V = all-season ¹⁸ Snow chains can only be installed on rear axle Y = summer ¹⁵ Snow chains cannot be installed |
| 275/45 R 19 108V/Y | 9 J x 19 H2, RO 60 | V = all-season ¹⁸ Y = summer ¹⁵ 17-mm spacer per wheel permitted on rear axle ¹⁶ |
| 275/40 R 20 106V/Y | 9 J x 20 H2, RO 60 | V = winter Y = summer, snow chains cannot be installed |
| 275/40 R 20 106V/Y | 9 J x 20 H2, RO 60 | V = winter Y = summer, 17-mm spacer per wheel permitted on rear axle ¹⁶ , snow chains cannot be installed |
| 275/40 R 20 106V/Y | 10 J x 20 H2, RO 55 ¹⁷ | V = winter Y = summer, snow chains cannot be installed |

¹⁴ Not for Cayenne S, Cayenne Turbo, Cayenne Turbo S.

¹⁵ Not for Cayenne Turbo with engine power kit "E81", Cayenne Turbo S.

¹⁶ Spacers must be removed in order to install emergency spare wheel or snow chains.

¹⁷ Only permitted on rear axle.

¹⁸ Not for Cayenne Turbo, Cayenne Turbo with engine power kit "E81", Cayenne Turbo S.

⚠ WARNING

Wheel electronics units not detected, incorrectly secured or loose on vehicles without Tire Pressure Monitoring (TPM)

- Risk of damage to wheels and/or tires
- Uncontrollable vehicle handling

⇒ Do not mount wheels with wheel electronics units on vehicles without TPM.

Wheels:

Overview of Porsche wheels for all-terrain, all-season and summer tires

Identification on the inside/outside of the wheel disc:

wheel size, rim offset (RO) in mm, order and part number, and Porsche logo
(the order number is not shown on the part).

7.5 J x 17 H2, RO 53

Part Nos.

955.362.126.00 9A1 and

7L5.601.025.P



17-inch Cayenne wheel

8 J x 18 H2, RO 57

Part Nos.

955.362.136.10 9A1 and

7L5.601.025.A



18-inch Cayenne S wheel

8 J x 18 H2, RO 57

Part Nos.

955.362.136.30 9A1 and

7L5.601.025.C



18-inch Turbo wheel

9 J x 19 H2, RO 60

Part Nos.

955.362.138.20 9A1 and
7L5.601.025.B



19-inch Design wheel

9 J x 20 H2, RO 60

Part Nos.

955.362.140.50 9A1 ¹⁹ and
7L5.601.025.E¹⁹
955.362.140.80 9A1 and
7L5.601.025.N



20-inch Sport Design wheel

9 J x 20 H2, RO 60

Part Nos.

955.362.140.60 9A1 ¹⁹ and

7L5.601.025.F ¹⁹

(only permitted on vehicles with 18-inch brake system)

955.362.140.91 9A1 and

7L5.601.025.CH



20-inch Sport Techno wheel

Front: 9 J x 20 H2, RO 60

Part Nos.

955.362.140.60 9A1 ¹⁹ and

7L5.601.025.F ¹⁹

(only permitted on vehicles with 18-inch brake system)

955.362.140.91 9A1 and

7L5.601.025.CH

Rear: 10 J x 20 H2, RO 55

Part Nos.

955.362.142.009A1 and

7L5.601.025.Q



20-inch Sport Techno wheel

¹⁹ Not for Cayenne Turbo with engine power kit "E81", Cayenne Turbo S



Information

Improper handling can damage the wheel surface.

Carry out tire removal and mounting using a bead holding-down device only.

Use a leather pad on the rim flange to support the valve insertion tool.

Only use the Porsche centering clamping set for balancing.

Do not use brushes to clean the wheels because brushes can cause deep scratches that cannot be removed by polishing.

Never use solvents or other chemical substances on tires.



WARNING

Incorrectly installed snow chains

- **Uncontrollable vehicle handling**

⇒ **Do not exceed the maximum speed of Speed 30 mph/50 km/h.**

⇒ **Observe installation instructions from the chain manufacturer.**

Snow Chains: The best possible handling characteristics are achieved when snow chains are installed on all four wheels of the vehicle. However, it is also possible to install snow chains on only one axle (preferably the rear axle).

Porsche offers the following snow chains as accessories:

| Tire size | Porsche part no. | Type of snow chain |
|-------------|------------------------------|-------------------------|
| 235/65 R 17 | 955.044.600.07 | Link-type chain, 5.0 mm |
| 235/60 R 18 | 955.044.600.07 | Link-type chain, 3.5 mm |
| 255/55 R 18 | 955.044.600.08 | Link-type chain, 3.5 mm |
| 255/50 R 19 | 955.044.600.08 ²⁰ | Link-type chain, 3.5 mm |
| 275/45 R 19 | 955.044.600.08 ²⁰ | Link-type chain, 3.5 mm |

²⁰ Only permitted on rear axle.

Wheel
Mounting:

Tightening torque 160 Nm (118 ftlb.)

Removing/installing: Before installing or removing a wheel, screw the assembly aids (threaded bolts for installing wheel, Part No. 999.571.074.30) into the wheel hub instead of the two wheel bolts. Only then should you remove the three remaining wheel bolts and remove the wheel carefully, without touching the brake discs.

The wheels are secured with standard wheel bolts (M14 x 1.5 x 51), Part No. 955.361.203.01. Never grease the wheel bolts. Only "Original Cayenne wheel bolts" may be used!

Install wheel bolts and tighten evenly in diagonally opposite sequence. Start at the top when tightening.



Information

The relevant legal regulations must be observed in the export countries!

- Wheel Storage:
- Tires must be stored in a cool, dry and dark room with adequate ventilation.
 - Tires must never come into contact with fuel, oil, grease or chemicals.
 - Do not store summer tires in storage areas with ambient temperatures of less than 5° F (-15° C).
 - Complete wheel & tire assemblies can be stacked for storage; we recommend that you increase the tire pressure by approximately 6 psi (0.4 bar).

- Optimum conditions for storage of the complete wheels are provided by the Original Porsche storage trolley, Part No. 000.044.000.38.
- If the tires are not mounted on wheels, it is best to store them in a vertical position.
- We recommend that you turn tires stored in this position every two weeks in order to prevent flat spots.
- Tires that are stacked in a horizontal position will become severely deformed and cannot be seated properly in the rim flange when they are mounted.

General
Information:

- Always use new valves when changing tires.
- Always observe any possible instructions concerning the rolling direction and/or specifying which side the tires must be mounted on.
- Coat the tire beads and humps with mounting lubricant before mounting the tire. This ensures that the tire beads will slide over the humps easily.
- In order to prevent the tire from turning on the wheel, avoid extreme driving maneuvers (acceleration and braking) during the first 100 to 200 miles with new or recently mounted tires.
- In order to optimize smoothness of rolling, it is appropriate - and necessary in individual cases - to mount the tire in a certain (favorable) position with respect to the wheel (matching).

Matching (uncontrolled and controlled) is explained below: Uncontrolled matching:

- Turning the tire on the wheel by 90° or 120° if necessary in order to achieve an acceptable value with regard to rolling smoothness (true running, imbalance and weight distribution of balance weights).

Controlled matching:

- With a balancing machine with matching program. In most cases, this produces an even better result with regard to the rolling smoothness (true running, imbalance and weight distribution of the balance weights) than can be achieved with uncontrolled matching.
- Maximum permissible radial runout and lateral runout of the wheels < 0.7 mm. Maximum permissible radial runout and lateral runout of the wheels with tires < 1.25 mm. Values < 1.50 mm - ideally approx. 0.5 mm - are desirable.
- The mounting pressure (seating pressure) of 58 psi/4.0 bar overpressure must not be exceeded before both tire beads are evenly seated on the rim flange.

New Tires (Replacements):

- If new tires are to be mounted or the tires of one axle are to be replaced, tires of the same make, type and with the same specification code must always be used on each of the two axles.
- If tires are replaced on one axle only, the different tread depth from that on the other axle can cause a noticeable change in the familiar handling.
- This is especially the case if new tires are mounted on the rear axle.
- This effect decreases with increasing tire mileage.

When replacing a tire on an axle, make sure that the tread depth of the new tire does not differ from that of the other tire by more than 30 %.

Refer to WM 449503 for specific details of the vehicle you are working on.

- >The 2mm specification will be given here.
- > If there is none listed then the default is 30%.

Repairs to Tires:

- If a tire is damaged and it cannot be determined with absolute certainty that there is no ply damage - with all of its consequences - or if the tire was thermally or mechanically overloaded due to a loss of pressure or other prior damage, we recommend replacement of the tire in question for safety reasons.
- Repairs on "ZR" tires are not permissible, as is the use of inner tubes in tubeless tires.

Tire Aging:

- Tires age due to chemical and physical processes, which can impair their function.
- Tires that are stored unused for an extended period harden and become brittle faster than tires that are in continual use.
- Hairline aging cracks can occur on older tires.
- On tires in continual use, the kneading action activates the plasticizer in the rubber and thereby prevents hardening and cracking.
- Therefore, attention should be paid not only to the tread depth but also to the age of the tire.
- Tires should not be older than 6 years.
- The age of the tire can be determined via the DOT code on the sidewall, which indicates the production date of the tire: e.g. DOT 2201 = 22nd week of 2001.

References: ⇒ *Workshop Manual '44 Wheels and tyres'*
 ⇒ *Workshop Manual '440519 Removing and installing wheel'*
 ⇒ *Workshop Manual '44 General information on Tyre Pressure Monitoring (TPM)'*

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