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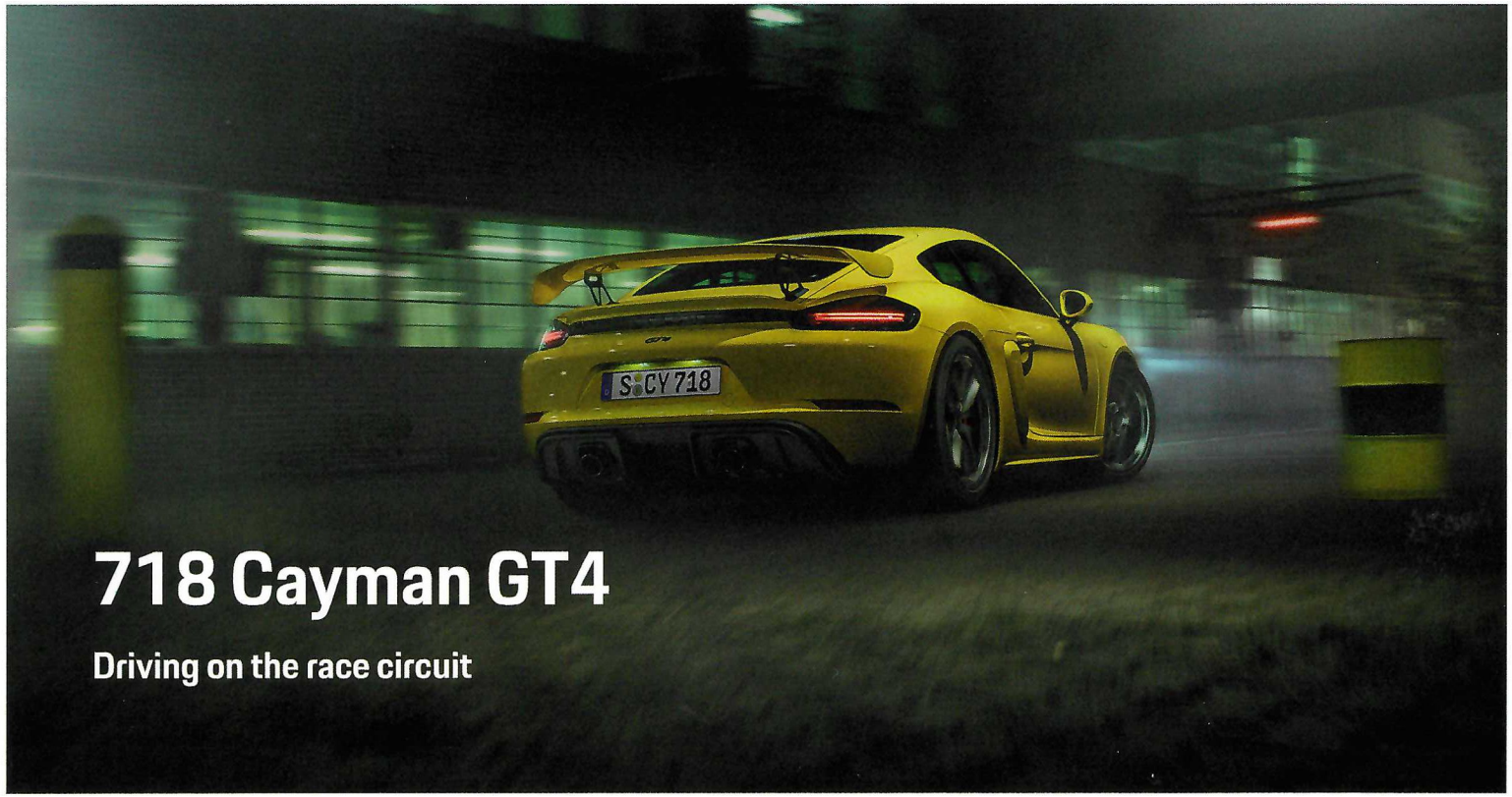

718 Cayman GT4

Driving on the race circuit

Safety instructions, warnings and symbols in this brochure

For your own protection and longer service life of your vehicle, please heed all operating instructions and special warnings. These special warnings contain important messages regarding your safety and/or the potential for damage to your Porsche. Ignoring them could result in serious mechanical failure, serious personal injury or death.

Different types of warnings and symbols are used in this brochure.

⚠ DANGER Serious injury or death

Failure to observe warnings in the "Danger" category will result in serious injury or death.

⚠ WARNING Possible serious injury or death

Failure to observe warnings in the "Warning" category can result in serious injury or death.

NOTICE

Failure to observe warnings in the "Notice" category can result in damage to the vehicle.

Information

Additional information is indicated using the word "Information".

- ▶ Instructions that must be followed.
- ▷ Indicates where you can find more information on a topic.

Race Circuit Driving

Preamble to 718 Cayman GT4 Race Circuit Session

⚠ DANGER Race Circuit Driving

Driving at excessive speeds and risky maneuvers may lead to loss of control over the vehicle.

- Adapt your driving style and maneuvers to your personal ability, the road and weather conditions, as well as the traffic situation.
- Motor sports equipment such as six-point seat belts, emergency cut-off switches or door and A-pillar struts for roll cages must **not** be used on public roads.

▷ Please see chapter "Safety and Driving Pleasure" in the Owner's Manual.

Until only a few years ago, the race circuit performance potential that comes with your 718 Cayman GT4 was exclusive to pure, specially prepared race vehicles.

Compared with driving on roads, driving on race circuits involves disproportionately high vehicle loads, which pure race vehicles are able to withstand thanks to short maintenance and component reconditioning intervals. This includes carrying out checks and replacing individual components where necessary after each race circuit session, up to overhauling entire assemblies after a specified period.

What is meant by "driving on race circuits" is operation of the vehicle close to or at its performance limits during use on race circuits (e.g. in the context of track days, driver training events, slalom competitions etc.) or other courses closed to the public (e.g. hill climb races).

The 718 Cayman GT4 is a high-performance sports car approved for road use, but one that can handle a broad spectrum of driving, from everyday road use through to sessions on a race circuit. However, this broad spectrum requires significantly different servicing in some cases, depending on how the vehicle is used.

Standard servicing intervals may, for example, be absolutely adequate for a "normal" load profile on public roads, whereas for vehicles driven on the race circuit, additional checks must be performed before and after each session.

The maintenance requirements and service intervals which Porsche specifies for normal road use are not sufficient for vehicles used in a race circuit.

For information on service intervals for race circuit driving:

▷ Please see chapter "Vehicle Inspection and Maintenance for Driving on Race Circuits" on page 7.

This chapter explains the most important technical issues to look out for if you drive your vehicle on the race circuit. It also lists the checks that you must carry out before each session.

The main objective here is to help you ensure that your 718 Cayman GT4 remains in good technical condition at all times, including during driving on the race circuit.

Specifics of Individual Vehicle Assemblies

Given the particular vehicle loads associated with race circuit driving, there are certain additional issues that require attention. These are summarized below for the most important assemblies:

Brake system

Loads on the entire brake system during race circuit driving are significantly higher than with "normal" use, partly due to the achievable braking effect and the higher component temperatures associated with this.

Brake pads

During driving on the race circuit, the pads (inner and outer) may exhibit brake pad wear characteristics which cannot be fully detected by the standard brake pad wear indicator. Therefore, it is absolutely essential to visually inspect the pad condition before and after driving on the race circuit.

The standard brake pads are also ideally suited to driving on race circuits, so no special brake pads are required.

NOTICE

Use of non-approved brake pads is not permitted.

Brake disks

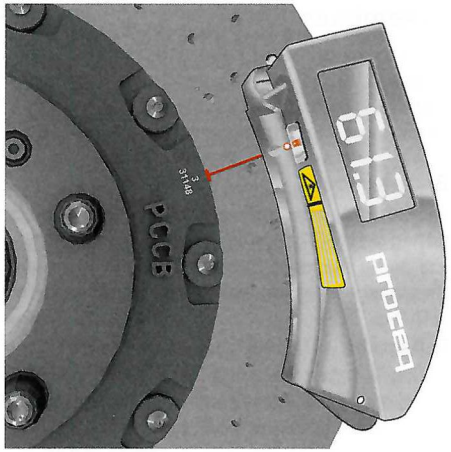

Fig. 1: PCCB wear check

Composite grey cast iron/aluminum brake disks can be tested for wear in the usual way. However, PCCB brake disk assessment can only be carried out using a Carboteq® measuring device (special electronic measuring device). This is not a "residual thickness assessment" but a measurement which uses the current condition of the ceramic compound material as a wear criterion.

Information

Please ask your authorized Porsche dealer for more information about the Carboteq® measuring device.

The vent bores on the grey cast iron friction ring on composite brake disks in particular can become clogged with brake dust. They should therefore be checked and cleaned if necessary before every race circuit session.

Brake fluid

A brake fluid check (boiling point and fill level) is essential before every race circuit session. Generally, brake fluid should not be more than 12 months old if the vehicle is driven on a race circuit.

Brake callipers, hoses and lines

NOTICE

- Before every race circuit session, check the brake calliper dust boots and all brake hoses and lines for signs of damage, and replace if necessary.

Brake cooling

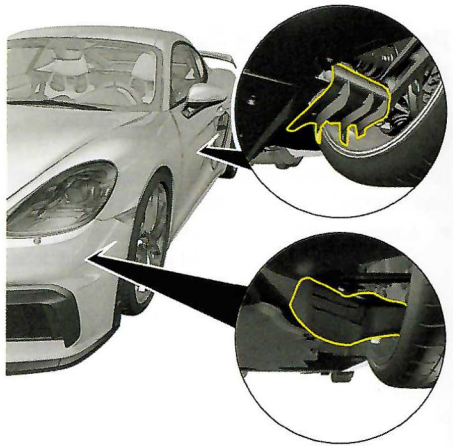

Fig. 2: Brake air spoilers and brake air ducts

To ensure that the brake disks are cooled as required, special brake air spoilers or brake air ducts are fitted on the front and rear axles, allowing sufficient cooling air to reach the disks. Check that these are in perfect condition (in particular that they are damage-free) and correctly mounted before every race circuit session. They can be damaged, for example due to crossing curbs.

Following race circuit sessions, "cooling laps" must be performed to control the temperature reduction of the brake system, which has a particularly strong thermal load. Instantaneous stopping of the vehicle would result in a further rise in component temperature due to stationary heat build-up. This can irreparably damage individual components.

Wheels and tires

Depending upon the race course and driving style, and at high ambient air temperatures, it may be necessary when driving on a race circuit to compensate for the increased pressure in hot tires by releasing air. The general rule is that the specified tire pressure should not be significantly exceeded (maximum 7.3 psi/0.5 bar/50 kPa above specified pressures, and never more than the sidewall maximum) even when the tires have been driven until they are hot.

For driving on a race circuit, you can use Tire Pressure Monitoring System (TPMS) to set and monitor pressures different to those used for road mode.

NOTICE

Releasing air from cold tires before driving on a race circuit can damage the tire structure.

- Air should only be released from warm tires.

Information

- Before driving on public roads, check the tire pressure and correct to the required pressure if necessary.

Fig. 3: Do not use slick tires

⚠ WARNING Slick Tires

The use of slick tires can subject chassis and body components to excessive loads and cause damage as a result.

- Do not use slick tires.

⚠ WARNING Driving Characteristics

Using rims with non-standard dimensions (rim width, rim offset, etc.) changes the driving characteristics. In particular, widening the track by using a lower rim offset on the front axle can be highly detrimental to handling, with significant effects in the high speed range.

- Use only wheels approved by Porsche.
- Do not fit wheel spacers.

Other chassis issues

Chassis setup

The chassis is adjustable with regard to toe-in, camber, vehicle height and anti-roll bar settings. However, the factory basic setting is suitable both for driving on public roads and for driving on race circuits. It provides a balanced compromise between high maximum lateral acceleration and excellent controllability, including on the race circuit.

If you do modify the chassis setup for the race circuit, take account of the fact that setting higher camber values reduces straight-running stability while increasing tire wear, in particular, on the tire inside shoulder.

⚠ WARNING Increased Camber Values

Increased camber values significantly reduce the high-speed resistance of the tires. The tire structure may be overloaded and result in failure of the tire.

- For operation the vehicle at high speed, it is essential that the chassis setup values specified by Porsche are observed.
- ▷ Please see chapter "Chassis setup" in the Owner's Manual.

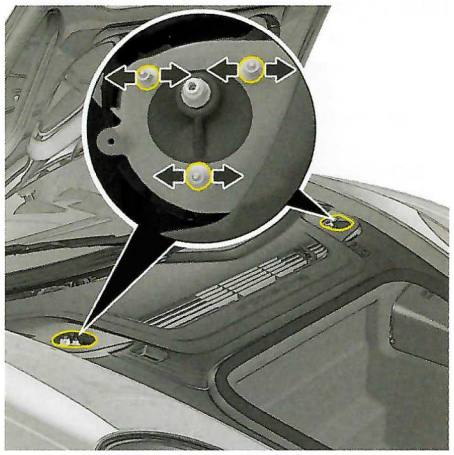

Fig. 4: Setting the camber via the supporting mount

Camber changes on the front axle should basically be carried out using the adjustable supporting mount. If the camber is also to be increased through the use of shims on the lower wishbone, ensure adequate thread overlap (min. 0.87 in. (22 mm)) at the tie rod.

Generally, if additional camber shims are used on the lower wishbones of the front and rear axle, contact between tire and wheel housing liner is possible under certain circumstances.

This aspect must always be taken into account in the case of changes to the factory basic setting.

Suspension alignment/Wheel clearance

The 718 Cayman GT4, like pure race vehicles, is very sensitive to small changes in the chassis setup.

For optimum handling, it is essential that suspension alignment is properly performed, in exact compliance with nominal values and tolerances.

In order to ensure the required wheel clearance under extreme conditions (e.g. when encountering compression during driving on the race circuit) it is essential that the chassis height does not fall below the setpoint.

The relevant values can be obtained from your authorized Porsche dealer if required.

Porsche recommends regular checks of the entire chassis setup (suspension alignment) as it has such a great influence on handling.

Aerodynamic components

Fig. 5: Rear wing adjustment

The aerodynamic stability of the vehicle is greatly affected by the front end lip and rear wing at high speeds. These components therefore need to be checked for signs of damage and to ensure they are correctly mounted before every race circuit session.

Fig. 6: Removing the insert from the diffusor duct

For driving on race circuits, the overall downthrust on the vehicle can be further increased through a steeper angle of attack of the rear wing (steep setting to 4° position; rear fastening screws of rear wing at bottom end of slot) in conjunction with removal of both inserts from the diffusor ducts in front of the front wheels.

In this event, it is essential that both measures are performed together, in order to maintain the overall balance of the vehicle and to prevent the center of gravity from being shifted towards the rear or the front.

As in the case of the chassis, factory basic settings for the vehicle's overall aerodynamic stability on the race circuit or elsewhere are a balanced compromise between downthrust on both axles and the resulting drag.

Information

- Replace the fastening screws for the rear wing following removal.

Information

Setting the rear wing to a steep angle of attack is not permitted for driving on public roads.

- Following each race circuit session, return the rear wing to the standard position (flat setting in 1°; rear fastening screws of rear wing at top end of slot) and install both inserts in the left and right diffusor ducts.

Engine oil

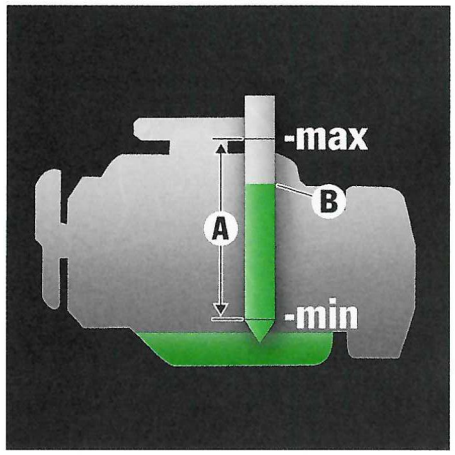

Fig. 7: Measuring engine-oil level

A Difference approx. 1 quart (1 liter)
B Oil level for optimum engine operation

The recommended oil level for optimum engine operation, including during race circuit driving, is approx 75 % of the display area **B**. When topping up, be aware that the difference **A** between the minimum and maximum marks is approx. 1 quart (1 liter). Overfilling with oil must always be avoided.

Check the engine oil level before each race circuit session and top up if necessary.

The engine oil and oil filter must be changed after 6,000 mls (10,000 km) of race circuit driving at the latest.

Coolant

Fig. 8: Measuring the engine coolant level

Check the coolant level before each race circuit session and top up if necessary.

▷ Please see chapter "Checking the coolant level and adding coolant" in the Owner's Manual.

General information

Following race circuit sessions, "cooling laps" must be performed to control the temperature reduction of assemblies with a particularly strong thermal load (brake system, engine). Instantaneous stopping of the vehicle would result in a further rise in component temperature due to stationary heat build-up. This can irreparably damage individual components.

Motor sports equipment that is not approved for public roads, such as six-point seat belts, emergency cut-off switches or door and A-pillar struts for roll cages, may only be used where Federal Motor Vehicle Safety Standards do not apply.

The same applies to the changes to the chassis and aerodynamic components mentioned in previous sections.

The vehicle checks in the next section serve to ensure that your 718 Cayman GT4 remains in good condition during race-circuit driving and therefore also helps to ensure your personal safety.

If necessary, your authorized Porsche dealer can help you carry out the specific vehicle inspection for your race circuit session.

Vehicle Inspection and Maintenance for Driving on Race Circuits

For vehicles driven on the race circuit, in addition to the scope of regular maintenance at standard servicing intervals, the following checks must be carried out before each session:

	✓
Wheel mounting	
– Check tightening torque (118 ftlb./160 Nm) of wheel bolts.	

	✓
Check threaded connections of chassis setup	
Front axle:	
– Threaded connection for toe-in adjustment at tie rod.	
– Adjust camber via strut mounts on body.	

Rear axle:	
– Toe-in at tie rod via eccentric screw.	
– Adjust camber via eccentric screw.	

Front and rear axle:	
– Adjust camber inside wishbone.	
– Height adjustment at strut.	
– Connecting link on anti-roll bar.	

Wheel control joints	✓
– Check joints for play, replace if necessary.	

Chassis setup	✓
– Check vehicle height and, if necessary, measure and adjust chassis.	

Brakes	✓
– Check for wear/condition of pads and disks, replace if necessary.	
– **Steel brake disk**: clean perforation holes if necessary.	
– **PCCB brake disk**: Check wear using a Carboteq® measuring device (special electronic measuring device).	
– Check brake calliper dust boots for damage.	
– Check brake lines and hoses for damage.	
– Check brake fluid (boiling point, fill level).	
– Check brake vents on both axles for damage and correct seating.	

Tires	✓
– Check tires for damage.	
– Tire pressure: take account of race-circuit driving (warm tires).	

Drive shafts	✓
– Check drive shaft boots for damage.	

Engine oil	✓
– Check the engine oil level and top up if necessary. ▷ Please see chapter "Engine oil" on page 5.	

Coolant	✓
– Check coolant level and top up coolant if necessary. ▷ Please see chapter "Checking the coolant level and adding coolant" in the Owner's Manual.	

Aerodynamic components	✓
– Check aerodynamic components for damage and make sure they are securely mounted.	

Side air intakes	✓
– Clean side air intakes (before and after each race circuit session).	

For vehicles driven on the race circuit, in addition to the scope of regular maintenance at standard servicing intervals, the following maintenance must be carried out at specific intervals:

Engine oil	✓
Every 6,000 mls (10,000 km) of race circuit driving: (corresponds to a distance of approx. 2.5 x "Nürburgring 24 Hours")	
– Change engine oil and replace oil filter.	

Wheel mounting	✓
Every 6,000 mls (10,000 km) of race circuit driving: (corresponds to a distance of approx. 2.5 x "Nürburgring 24 Hours")	
– Replace wheel hubs and wheel bearings on rear axle.	

Every 12,000 mls (20,000 km) of race circuit driving:	
– Replace wheel hubs and wheel bearings on front axle.	

Race circuit log

Date	Name of race circuit	Distance driven	Average speed	Remarks

Date	Name of race circuit	Distance driven	Average speed	Remarks