



Technical Service Department Technical Service Operations

TECHNICAL INFORMATION

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MODELS: Maserati Quattroporte and Ghibli

SUBJECT: Braking system noise

DESCRIPTION

This Technical Information aims at providing guidelines for diagnostics and service of the problems of the braking system concerning noise.

PROCEDURE

The procedure below includes five sections. The first three sections list the inspections required any time you receive complaints about braking system noise. The fourth one features a list of the latest improvements made to the brake callipers in order to eliminate the noise issue. In the fifth one we suggest how to proceed after carrying out the previous checks and inspections.

1. CHECKING DISCS AND PADS FOR WEAR

In order to understand whether the complaint can be due to excessive wear of parts, check disc and pad thickness. Please find below the minimum thickness for front and rear brake pads of Maserati Quattroporte and Ghibli. The type of braking system installed on the vehicle can be easily identified by opening the technical documentation on Modis+. Enter vehicle VIN, read the chart "4 - Braking system" and refer to the description "Available with" to find front and rear brake disc size.

The screenshot shows the Modis+ interface with a sidebar menu on the left and a main content area on the right. The sidebar menu includes sections like '1 MOTORE', '3 CAMBIO', '4 IMPIANTO FRENANTE', '5 COMANDI DI GUIDA', '6 SOSPENSIONI E RUOTE', '7 ORGANI DI SICUREZZA', '8 IMPIANTI E SERVIZI ELETTRICI', '9 CARROZZERIA', and '- ACCESSORI'. The main content area displays the '4.10 - 2 ORGANI FRENANTI SULLE RUOTE ANTERIORI' section, which is highlighted with a red box. Below this section, there are two sub-sections: '04.11 - 1 ORGANI FRENANTI SULLE RUOTE POSTERIORI' and '04.20 - 1 TUBAZIONI'. The '04.11' section is also highlighted with a red box. The '04.20' section is highlighted with a blue box. The '04.90 - 1 SISTEMI DI CONTROLLI DELLA FRENATA' section is highlighted with a blue box. The '04.10' section is highlighted with a red box. The '04.11' section is highlighted with a red box. The '04.20' section is highlighted with a blue box. The '04.90' section is highlighted with a blue box.



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Quattroporte & Ghibli					
Description	Disc size	Initial thickness of Front pads	Minimum thickness of Front pads	Initial thickness of Rear pads	Minimum thickness of Rear pads
Small	Front: \varnothing 345x28 Rear: \varnothing 320x22	9.9 mm	3.6 mm	11.9 mm	2.7 mm
	Rear: \varnothing 330x22			10.7 mm	2.6 mm
Medium	Front: \varnothing 360x32 Rear: \varnothing 350/345x28	9.9 mm	3.6 mm	10 mm	3.6 mm
Big	Front: \varnothing 380x34 Rear: \varnothing 350/345x28	11 mm	3.6 mm	10 mm	3.6 mm

NOTE: All pads are designed to ensure a minimum life longer than first service interval.

Please find here below the minimum allowed thickness for brake discs.

Quattroporte & Ghibli					
Description	Disc size	Initial thickness of Front discs	Minimum thickness of Front discs	Initial thickness of Rear discs	Final thickness of Rear discs
Small	Front: \varnothing 345x28 Rear: \varnothing 320x22	28 mm	26 mm	22 mm	20 mm
	Rear: \varnothing 330x22			22 mm	19 mm
Medium	Front: \varnothing 360x32 Rear: \varnothing 350/345x28	32 mm	30 mm	28 mm	26 mm
Big	Front: \varnothing 380x34 Rear: \varnothing 350/345x28	34 mm	32 mm	28 mm	26 mm

If brake discs and/or pads are worn out, change the required parts. **Please refer to the Spare Parts Catalogue to identify the part numbers to order and refer to the Workshop Manual for assembly instructions.**

Note: Be reminded that Maserati will not accept any warranty claim for this type of service.

Note: Be reminded that all Maserati pads are developed to reduce the noise as much as possible. Do not change the shape of the pads, modifying the smooth already present or adding smooths on the lateral sides of pad friction area.



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2. CHECKING FOR FOREIGN BODIES

Check whether there are foreign bodies between brake disc and pad. They could mark and scratch the disc surface resulting in noise and abnormal wear. Also check for any solid inclusions in the brake pads.



If brake discs and/or pads are worn out and/or damaged, change the required parts. **Please refer to the Spare Parts Catalogue to identify the part numbers to order and refer to the Workshop Manual for assembly instructions.**

Note: Be reminded that Maserati will not accept any warranty claim for this type of service.



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3. CHECKING FOR A POSSIBLE INTENSIVE USE OF THE BRAKING SYSTEM

It is possible to check whether the user made an intensive use of the braking system by visually checking some components as described below:

A. White pad side profile.



B. Polished or vitrified pad surface.





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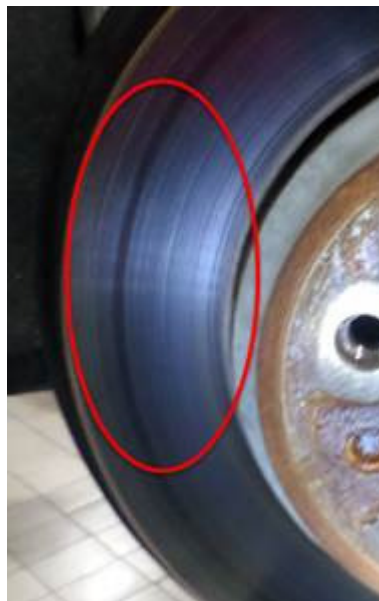
C. Disc cooling holes (if present) clogged by pad material.



D. Presence of cracks on disc surface.



E. Disc blueish colour.





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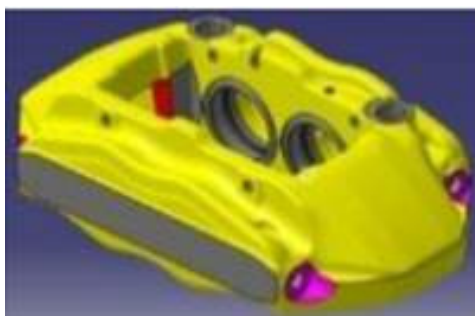
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Should you find any of the above faults, it is recommended to change the affected parts. **Please refer to the Spare Parts Catalogue to identify the part numbers to order and refer to the Workshop Manual for assembly instructions.**

Note: Be reminded that Maserati will not accept any warranty claim for this type of service.

4. PRODUCT IMPROVEMENTS

In order to improve the front brake callipers of the “Small” braking system, their weight and shape have been modified.



These changes have flown into production starting from assembly numbers as specified below.

Colour	Quattroporte	Ghibli
	1 st assembly	1 st assembly
Oxidised	4019884	5025960
Black	4019635	5031716
Red	4019883	5028353
Blue	4019298	5028613
Silver	4023802	5029248



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5. LATER INTERVENTIONS

If the noise is not caused by any of the faults described above under point 1, 2 and 3, it is necessary to proceed as follows:

- A. Should you find a noisy front braking system on a vehicle equipped with “Small” braking system with an assembly number lower than those specified in the table under point 4, proceed as explained below. Refer to the Workshop Manual for assembly instructions:
- Change both brake discs making reference to the spare parts catalogue.
 - Change both brake callipers ordering the PN specified in the table below. You will receive pads together with the brake callipers.

Quattroporte & Ghibli				
System	Colour	PN	RH	LH
Small	Oxidised	670034945		X
Small	Oxidised	670034946	X	
Small	Black	670034947		X
Small	Black	670034948	X	
Small	Red	670034949		X
Small	Red	670034950	X	
Small	Blue	670034951		X
Small	Blue	670034952	X	
Small	Silver	670034953		X
Small	Silver	670034954	X	

Open a BOL ticket as Warranty Claim Approval Request and attach a video clip as evidence of the claimed fault.

- B. Change the pads if noise comes from the “Small” rear system or if the vehicle assembly number is higher than the one specified in the table at point 4 or if it is equipped with “Medium” or “Big” system. **Please refer to the Spare Parts Catalogue to identify the part numbers to order and refer to the Workshop Manual for assembly instructions.**
- C. If noise comes from the “Small” front system during driving conditions without applying any braking force, it is strictly connected with the lack of copper grease on the lateral sides of the pads and loss of spring preload. In this case, it is necessary to clean the brake callipers and pads, apply the grease (Molykote Cu-7439) and replace the pads spring. The spring is now available as spare part separately. The P/N is 673001648 (the kit includes one spring and two pins).



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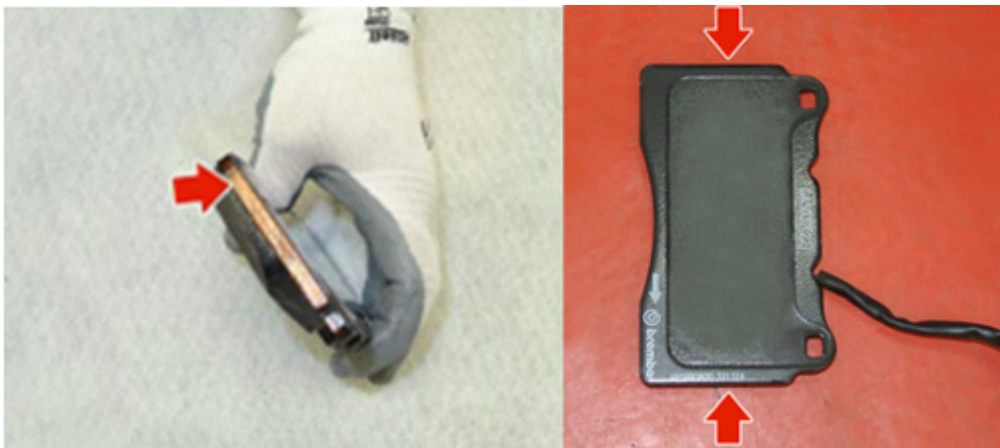
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Refer to the following procedure for the correct grease application.

Pay utmost attention to properly smear the copper grease. Here below are a few examples for the various types of brake pads:

NOTE: Do not apply grease on the rear side of the pad in contact with the callipers and on the mating surface between pad and disc.

- Front pads for “Medium” and “Big” systems. Smear both pad sides with grease as shown in the figure below.



- Front pads for “Small” system. Smear both pad sides with grease as shown in the figure below.





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- Rear pads for “Medium” and “Big” systems. Smear both pad sides with grease as shown in the figure below.



- Rear pads for “Small” system. Smear both pad sides with grease as shown in the figure below.



D If the problem still persists after the above-detailed procedures, open a BOL ticket as Support request.

We remind you that our ABMs are available for any questions or support, and we kindly ask your full cooperation in complying with the above mentioned indications.

Thank you for your attention.

Best regards.

Technical Service Operations

Luca Evangelisti