



SIM 34 01 14

2020-07-30

Brake Disc and Brake Pad Service and Reference Information

This Service Information Bulletin (Revision #1) replaces SI M34 01 14 **dated October 2014**.

What's New (Specific text highlighted):

- Information 1. Information updated.
- Information 4. Refer to M34 02 15
- Information 5. Refer to M34 04 16
- Information 9. Refer to M34 02 15
- Warranty Information section re-formatted

MODEL

SITUATION

Determining when to service brake components.

INFORMATION

1. Brake Noise

Some brake noise is normal – especially during the break-in (aka running-in) phase. While the noise should lessen after the pads are fully bedded onto the discs, a variety of individual factors will influence the amount of noise including-

- Driving style
- Your local environment
- Ambient weather conditions

Noises occurring in specific conditions such as extremely low and high ambient temperatures usually disappear by themselves when the conditions change.

JCW vehicles: Due to the performance characteristics of the brake pads, brake noises are more likely to occur.

By contrast, if noises are present in every condition, this likely indicates the need of a repair.

Refer to the ISTA Repair Manual (by model) for brake service, diagnostic hints and proper lubrication points.

Do not perform any repair if the brake pads and/or discs are worn below minimum thickness. See attachment [M34 04 16](#) for brake pad maintenance.

Replace the worn brake parts.

Examples of components that do not need to be replaced, including cosmetic guidelines:

2. NAO-specific color transfer since 2009 introduction

Non-asbestos Organic (NAO) brake pad material, by design, reduces brake dust and may generate a visible dark transfer layer between pads and discs. This behavior is



specific to the state-of-the-art technology found in NAO pad material.

The pad compound incorporates nonferrous metal, which can affect the appearance of the brake discs.

Color transfer on friction surfaces:
With heavy or extreme braking, color transfer to the disc from the pads is intensified and may generate dark spots or circular traces. Normal braking will gradually reduce the discoloration.

This will not affect braking performance.

No repair attempt is needed.

3. Light rust on friction surface

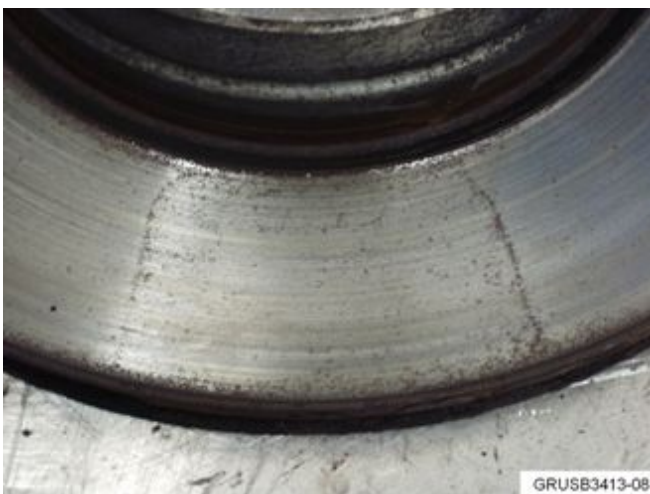


Brake disc friction surfaces consist of exposed metal. When not in use and exposed to environmental elements (moisture, salt, dirt), surface rust can form. During initial braking, this will self-clean and an audible groan and/or noise is temporarily heard until the disc surface is cleaned.

This will not affect braking performance.

No repair attempt is needed.

4. Stained spots/corrosion



Slightly stained:

Slight traces of corrosion on the brake disc friction ring (remains of stained spots): This is the normal condition of a vehicle that is stationary and has not been in use.

This corrosion varies with ambient elements.

The appearance will not affect braking performance and will diminish with everyday use.

No repair attempt is needed.

For vibration complaints refer to [SI M34 02 15](#).



Significantly stained:

Significant signs of corrosion on the friction ring: This is the normal condition of a vehicle that is stationary and has not been in use.

This corrosion varies with ambient elements.

The appearance will not affect braking performance and will diminish with everyday use.

No repair attempt is needed.

For vibration complaints refer to [SI M34 02 15](#)

5. Grooves



Grooves are formed when debris is trapped between the pad and the disc. Debris entry is inherent in the disc brake cooling design.

Current wheel styling exposes more of the brake components.

Grooves in the brake discs can be seen through these wheel openings and are purely visual; this in no way affects braking performance.

No repair attempt is needed.

When replacing brake pads refer to Attachment [M34 04 16](#) Categorization on how to service the brake discs

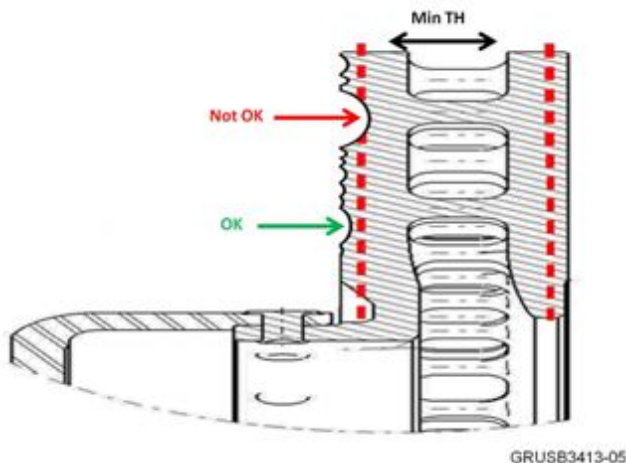
However, the groove depth must be evaluated to determine if replacement is necessary.

If the groove's or grooves' depth goes beyond the minimum thickness, disc replacement is necessary.

NOTE:

- Always refer to the Repair Manual for model-specific information.
- Always replace discs in pairs (per axle).
- Install new brake pads when replacing discs.

Attach a hang tag (refer to #7) to the inside rearview mirror after completion of repair



work.

6. Embedded material in brake pad



Improper “bedding in” of the new brake pads and discs can cause the rotor material to flake off. This debris can become lodged in the pads and cause this appearance.

This appearance will not affect braking performance.

No repair attempt is needed.

7. Customer Notification



A hang tag can be found in the box of new brake pads. It is advisable to make extra copies for explanation to the customer.

Attach the hang tag to the inside rearview mirror after completion of the repair work.

Advise the customer to avoid extreme braking for the first 125 miles.

This initial “bedding in” is important for the brake component cosmetics and overall service life.

8. Minimum thickness

MINI brake discs are stamped with a minimum thickness value. The stamped minimum thickness is used to determine if the brake discs require replacement during a brake service.

Some motor vehicle inspection procedures (state-dependent) require measurement of the brake discs for safety consideration. A separate minimum thickness specification is



provided in the Repair Manual. An example of the specifications is described below.

The Minimum Thickness for general inspection (Motor Vehicle Inspection) is defined as follows:

New disc thickness minus 2.4 mm

NOTE:

- Always refer to the Repair Manual for model-specific information.
- Always replace discs in pairs (per axle).
- Install new brake pads when replacing discs.

Attach the hang tag to the inside rearview mirror after completion of repair work.

9. Brake-induced vibration



Brake disc thickness variation is the result of lateral runout in the face of the brake disc.

A brake disc with lateral runout while driving will slightly contact the brake pad once per revolution resulting in a thin spot on the brake disc.

This consistent contact will eventually cause the brake disc to wear unevenly.

Refer to [SI M34 02 15](#).

10. Brake overheating



Discoloration and/or visible hard spots indicate brakes that have overheated.

Inspect the brake components for error-free operation (calipers binding, hydraulic restrictions, etc.).

If no mechanical/hydraulic defects are found, this can be attributed to improper brake usage. In this case, the discs must be replaced (not under warranty).

NOTE:

- Always refer to the Repair Manual for model-specific information.

- Always replace discs in pairs (per axle).
- Install new brake pads when replacing discs.

Attach the hang tag to the inside rearview mirror after completion of repair work.

WARRANTY INFORMATION

This Service Information Bulletin provides the corresponding Technical Information that will help in understanding the situations and assist you in addressing the issues described above.

QUESTIONS REGARDING THIS BULLETIN

Technical inquires	Submit feedback at the top of this bulletin
Warranty inquires	Submit an IDS ticket to the Warranty Department
Parts inquiries	Submit an IDS ticket to the Parts Department

Supporting Materials

[picture_as_pdf M340114 Attachment M340416 Categorization.pdf](#)

[picture_as_pdf M340114 Attachment reference M34 04 16.pdf](#)



Service Information

Brakes

M34 04 16

Technical Service

This Service Information bulletin replaces SI M34 04 16 dated **October 2017**

BRAKE PAD MAINTENANCE SERVICES: BRAKE DISC RESURFACING GUIDELINES

New information provided by this revision is preceded by this symbol



What's New:

- Procedure: Category 2, Step 3 Rotor thickness measurement required to be noted after resurfacing

MODEL

All	With standard brake discs/rotors (Non-Drilled)		
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SITUATION

When a vehicle arrives at your workshop for a:

- Brake pad maintenance service (CBS displaying “Recommended” or “Due - brake pads are at or below 4 mm).

And, if applicable, this brake pad maintenance task is done in conjunction with either a:

- Vehicle inspection to address a customer’s brake-related concern; and/or
- Complimentary multi-point or State mandated inspection;

And, your dealer’s inspection of the vehicle confirms that the:

- **The brake discs/rotors surfaces are not suitable for the installation of new brake pads “alone” due to grooving/scoring and/or corrosion as described in the attachment to this bulletin.**

CORRECTION

When an axle’s brake disc/rotor measured thicknesses are still above the minimum specification, the procedure of resurfacing the brake discs/rotors has been implemented as an alternative to their replacement, as outlined in this bulletin.

For each axle, as required and when permissible, resurface the brake discs/rotors with a MINI approved “on-car” brake lathe.

MINI Approved “On-Car” Brake Disc/Rotor Lathes:

For the list of MINI approved “on-car” brake disc/rotor lathe machines, refer to MINI Equipment Program (www.minidealersolutions.com).



Attention: The MINI approved “on-car” brake lathe has been added to your workshop’s list of required equipment (found in TIS/Tools & Equipment / MINI Workshop Equipment List).

By **February 15, 2017**, MINI USA provided a one-time Manufacturer’s discount of \$1,500 per center that was applied as a miscellaneous credit to your dealer’s non-vehicle billing account.

This discount was to be used to purchase one of the approved machines listed in the **Equipment Program**. In exchange for this discount, all MINI dealers were required to submit their purchase order for the On-Car Brake lathe by **April 15th, 2017**.

On and after **May 1, 2017**, all MINI dealers are required to follow all the corresponding service information bulletins. Any rotors submitted for reimbursement under Warranty will be subject to review by the Warranty Parts Return Center (WPRC) and subject to debit, if found suitable for machining.

If you have any concerns about making the purchase of the On-Car Brake Lathe, please contact the Warranty Department at warrantydealerreviews@bmwna.com.

PROCEDURE

1. Compare the discs/rotors condition from the repaired vehicle, with the “classification” examples provided in the “M340416 Attachment Categorization”.
2. Measure the brake disc/rotor thicknesses on the applicable axle(s).
3. Proceed as follows:

Brake Discs/Rotors are “at or below” the Minimum Specification

- **All Attachment Categorizations:**

If a brake disc/rotor thicknesses on an axle are at or **below the minimum** specification, **replace** the brake discs/rotors.

Brake Discs/Rotors are “above” the Minimum Specification

- **Attachment Categorizations: CATEGORY 1**

If the brake disc/rotor thickness measurements are **above the minimum** specification, **re-use** the existing discs/rotors when performing a brake pad maintenance service (**resurfacing or replacement is not necessary**).

- **Attachment Categorizations: CATEGORY 2**

If the measured brake disc/rotor thicknesses are:

Above the minimum thickness specification (stamped on the rotor, or from the ISTA “Brake Replacement” repair instruction/Technical Data) PLUS 0.5 mm;

Then the brake discs/rotors on that axle should be **resurfaced** using a MINI approved on-car brake disc lathe



Note: It is recommended to make one pass and remove **0.125mm** from the inner and outer friction surface (**total 0.250mm**) of the brake disc/rotor.

1. In some cases an additional pass may be necessary to achieve an acceptable friction surface for the new brake pads. This additional pass will require shop foreman authorization.
2. In some rare cases where the machining has to be aborted due to rotor runout above 0.1mm or taper greater than 0.15mm, the attempt to cut and exchange of the brake disc/rotor will be reimbursed. The aborted attempt will require shop foreman authorization.



Note: All rotors where the attempt to cut has been aborted due to run-out or taper will be on return to the WPRC for measurement.

UPDATE!

3. The lowest thickness rotor measurement per axle is required to be noted after resurfacing to ensure rotor is within MINI specifications after fine grinding.

- **Attachment Categorization: CATEGORY 3**

Replace the brakes discs/rotors.



Note: Claims for brake discs which are replaced, the parts may be requested by WPRC for return/inspection.

PARTS INFORMATION

Part Number	Description	Quantity
Refer to ETK	Front brake pads (Set)	1
Refer to ETK	Rear brake pads (Set)	1
Refer to ETK	Brake pad paste	Per axle as needed

And, if necessary

Refer to ETK	Front brake Discs/Rotor*	2
Refer to ETK	Rear brake Discs/Rotor*	2

Also refer to ETK (EPC) and the repair instructions for information about onetime use fasteners, other screws/bolts, gaskets and seals that must also be replaced while performing this repair.

WARRANTY INFORMATION

Per the attachment, when Categorizations 2 and 3 Apply

MINI Maintenance Programs (up to and including 4 years or 50,000 miles)

When one of the following programs are active:

- MINI Maintenance Program (**Up to 3/36 or 4/50 as applicable**) - Up to and including model year 2016 vehicles; or the
- MINI Maintenance + "Full Maintenance Programs" (**Up to 3/36 or 4/50 as applicable**) - Model year 2017 vehicles and newer:

Brake disc resurfacing, or as required, replacement (front, rear or both), in conjunction with a required brake pad maintenance service task (replacement) is covered.

Claim and submit the brake disc repair portion **separately** from the brake pad maintenance service task as follows (in additional to the Standard scope):

Front Brakes

Defect Code:	85810175MP	Brake Pads – Front in conjunction with brake disc resurface/replace
Labor Operation:	Labor Allowance:	Description:
00 00 612	Refer to KSD2	Service, front brakes

And, as applicable, claim the front brake disc repair portion **separately** as follows:

Defect Code:	3411005400	Brake disc, front – Scratches, score marks
	Or:	
	3411007500	Brake disc, front – Corroded
Labor Operation:	Labor Allowance:	Description:
34 11 667	Refer to KSD2	Fine grind both sides of both front brake discs (Brake caliper removed)
And, as needed:		
34 99 000	2 FRU	Associated work: Work time to perform an additional finish cut (one or both sides) when required.
Or:		
34 11 613	Refer to KSD2	Removing and installing or replacing front brake discs (Brake pads removed)
Or:		
34 11 612	Refer to KSD2	Removing and installing or replacing front brake discs (Brake caliper removed)

Or:

Rear Brakes

Defect Code:	85810275MP	Brake Pads – Rear in conjunction with brake disc resurface/replace
Labor Operation:	Labor Allowance:	Description:
00 00 614	Refer to KSD2	Service, rear brakes

And, as applicable, claim the rear brake disc repair portion **separately** as follows:

Defect Code:	3421005400	Brake disc, rear - Scratches, score marks
	Or:	
	3421007500	Brake disc, rear – Corroded
Labor Operation:	Labor Allowance:	Description:
34 21 947	Refer to KSD2	Fine grind both sides of both rear brake discs (Brake caliper removed)
And, as needed:		
34 99 000	2 FRU	Associated work: Work time to perform an additional finish cut (one or both sides) when required.
Or:		
34 21 932	Refer to KSD2	Removing and installing or replacing rear brake discs (Brake pads removed)
Or:		
34 21 931	Refer to KSD2	Removing and installing or replacing rear brake discs (Brake caliper removed)

Or:

Front and Rear Brakes

Defect Code:	85810375MP	Brake Pads – Front and Rear in conjunction with brake disc resurface/replace
Labor Operation:	Labor Allowance:	Description:
00 00 613	Refer to KSD2	Service, front brake/rear brake

And, as necessary, in conjunction with the **Defect Code 85 81 03 75 MP** line item:

- Claim the applicable front and/or rear brake disc repair portion (**Defect Codes, labor operations and parts**) **separately** from the brake pad maintenance service task the same as noted above.

Within 4/50 Summary: Brake Pads and Discs - Defect Code Summary:

Axle	Front	Rear	Front and Rear
Vehicle's Current: Age/Mileage	Up to 50,000 miles		
Up to and including Month 48	85 81 01 75 MP	85 81 02 75 MP	85 81 03 75 MP
	34 11 00 54 00	34 21 00 54 00	34 11 00 "54 or 75" 00
	34 11 00 75 00	34 21 00 75 00	34 21 00 "54 or 75" 00

Or:

MINI Maintenance Programs (beyond 4 years or 50,000 miles)

When one of the following programs are active:

- MINI Maintenance Program Optional Upgrade (**3/36 [4/50] to 6/100**) - Up to and including model year 2016 vehicles; or the
- MINI Maintenance + “Full Maintenance Programs” (**60/75, 72/100 or 84/125 as applicable**) - Model year 2017 vehicles and newer.

Brake disc resurfacing, or as required, replacement (front, rear or both), in conjunction with a required brake pad maintenance service task (replacement) is covered.

Claim and submit the brake disc repair portion **together** with the corresponding brake pad maintenance service task Defect Code as follows:

Front Brakes

Defect Code:	85820175MP	Brake Pads – Front in conjunction with brake disc resurface/replace
Labor Operation:	Labor Allowance:	Description:
00 00 612	Refer to KSD2	Service, front brakes
And:		
34 11 667	Refer to KSD2	Fine grind both sides of both front brake discs (Brake caliper removed)
And, as needed:		
34 99 000	2 FRU	Associated work: Work time to perform an additional finish cut (one or both sides) when required.
Or:		
34 11 613	Refer to KSD2	Removing and installing or replacing front brake discs (Brake pads removed)
Or:		
34 11 612	Refer to KSD2	Removing and installing or replacing front brake discs (Brake caliper removed)

Or:

Rear Brakes

Defect Code:	85820275MP	Brake Pads – Rear in conjunction with brake disc resurface/replace
Labor Operation:	Labor Allowance:	Description:
00 00 614	Refer to KSD2	Service, rear brakes
And:		
34 21 947	Refer to KSD2	Fine grind both sides of both rear brake discs (Brake caliper removed)
And, as needed:		
34 99 000	2 FRU	Associated work: Work time to perform an additional finish cut (one or both sides) when required.
Or:		
34 21 932	Refer to KSD2	Removing and installing or replacing rear brake discs (Brake pads removed)
Or:		

34 21 931	Refer to KSD2	Removing and installing or replacing rear brake discs (Brake caliper removed)
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Or:

Front and Rear Brakes

Defect Code:	85820375MP	Brake Pads – Front/Rear in conjunction with brake disc resurface/replace
Labor Operation:	Labor Allowance:	Description:
00 00 613	Refer to KSD2	Service, front brake/rear brake

And, as necessary, under **Defect Code 85 82 03 75 MP:**

- Claim the applicable front and/or rear brake disc repair portion (**labor operations and parts**) **“together”** with the brake pad replacement as noted above.

Work time labor operation code 34 99 000 is not considered a Main labor operation. Also, since the “work time” FRU allowance to be claimed is specified, a separate punch time is not required.

Under Defect Code 85 82 03 75 MP, when applicable, claim labor operation 34 99 000 for either 2 or 4 FRU that applies to the scope of the repair performed.

Beyond 4/50: Brake Pads and Discs - Defect Code Summary:

Axle	Front	Rear	Front and Rear
Vehicle’s Current: Age/Mileage	50,001 miles and higher as allowable by the “MP” Upgrade		
Month 49 and older as allowable by the “MP” Upgrade	85 82 01 75 MP	85 82 02 75 MP	85 82 03 75 MP



Note: The brake pad replacement flat rate labor operations include measuring the thickness of the corresponding brake discs/rotors.

[ATTACHMENTS](#)

View PDF attachment M340416 Attachment Categorization.

CATEGORIZATION OF BRAKE DISC-CORROSION

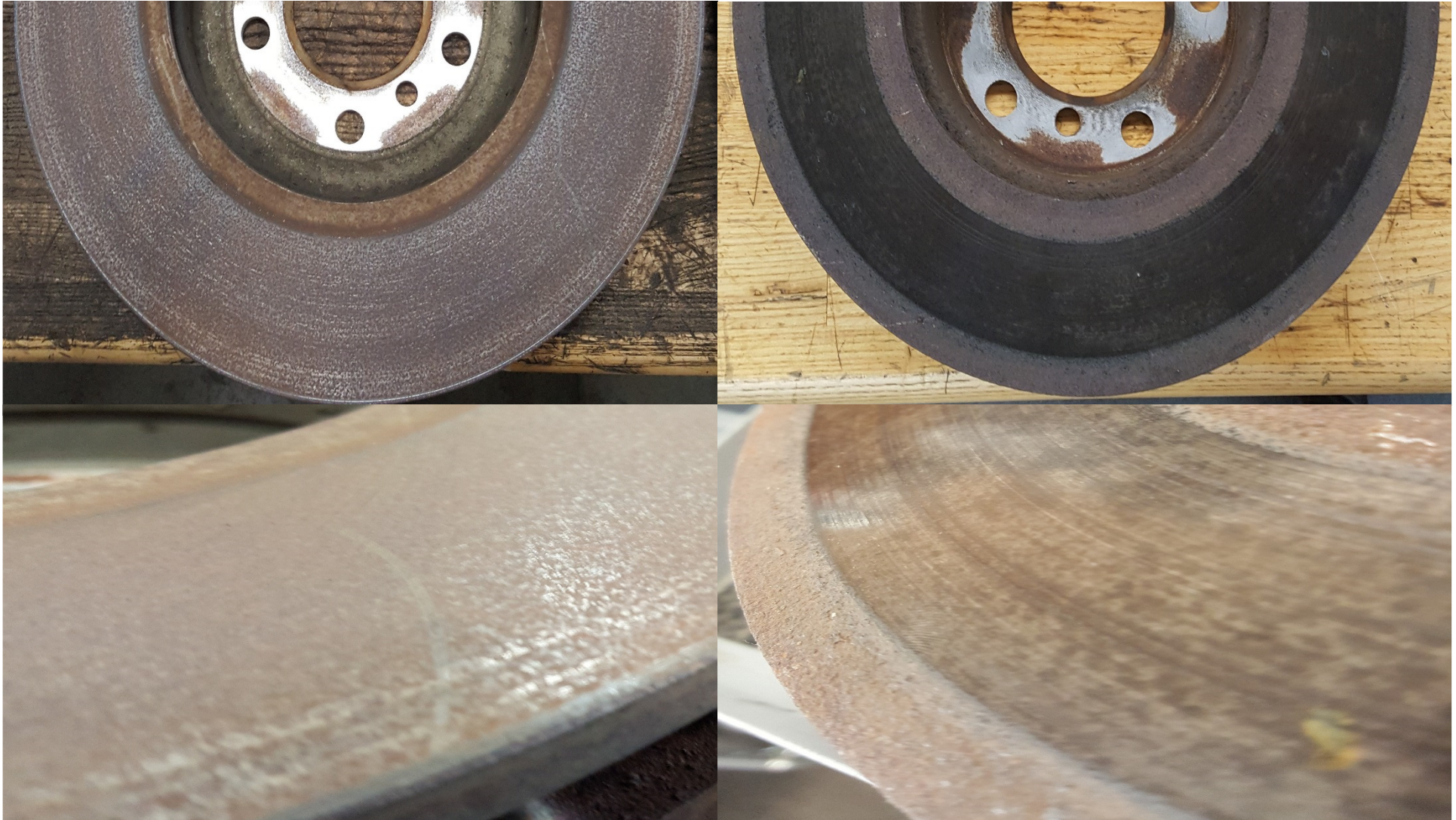
**CATEGORY 1 – NO CORROSION FOUND: OK TO USE NEW BRAKE PADS
(RESURFACING NOT NEEDED)**



CATEGORIZATION OF BRAKE DISC-CORROSION

**CATEGORY 2 –CORROSION: CANNOT BE USED WITH NEW PADS.
OK TO RESURFACE* . AFTER CUTTING, USE NEW BRAKE PADS**

*** - IF MEASURED ROTOR THICKNESS IS ABOVE MINIMUM THICKNESS PLUS 0.5 MM**



CATEGORIZATION OF BRAKE DISC-CORROSION

**CATEGORY 3 – SEVERE CORROSION: RESURFACING NOT POSSIBLE.
ROTORS MUST BE REPLACED**



CATEGORIZATION OF BRAKE DISC-GROOVES

**CATEGORY 1 – NO GROOVES: OK TO USE NEW BRAKE PADS.
(RESURFACING NOT NEEDED)**



CATEGORIZATION OF BRAKE DISC-GROOVES

**CATEGORY 2 – GROOVES: CANNOT BE USED WITH NEW PADS.
OK TO RESURFACE*. AFTER CUTTING, USE NEW BRAKE PADS**

* - IF MEASURED ROTOR THICKNESS IS ABOVE MINIMUM THICKNESS PLUS 0.5 MM



CATEGORIZATION OF BRAKE DISC-GROOVES

CATEGORY 3 – DEEP GROOVES* : RESURFACING NOT POSSIBLE, ROTORS MUST BE REPLACED

*** - IF MEASURED ROTOR THICKNESS IN THE DEEPEST GROOVE IS BELOW MINIMUM THICKNESS PLUS 0.5 MM**

