

SI B34 10 16 Brakes September 2018 Technical Service

## BRAKE PAD MAINTENANCE SERVICES: BRAKE DISC RESURFACING GUIDELINES

New information provided by this revision is preceded by this symbol

This Service Information bulletin supersedes SI B34 10 16 dated January 2018.

#### 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 or Non-Ceramic Brake Disc/Rotors)

### SITUATION

Vehicle comes to the workshop for a:

• Brake pad maintenance service (CBS/CBR 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:

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

And, your center'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 BMW approved "oncar" brake lathe.

E7X "M" vehicles and vehicles equipped with QMVH rear differential are excluded from rear rotor

resurfacing.

#### BMW Approved "On-Car" Brake Disc/Rotor Lathes:

For the list of BMW approved "on-car" brake disc/rotor lathe machines, refer to BMW Equipment Program (www.bmwcentersolutions.com).

# Attention: The BMW approved "on-car" brake lathe has been added to your workshop's list of

#### required equipment (found in TIS/Tools & Equipment / BMW Workshop Equipment List).

By **February 15, 2017**, BMWNA will be providing a one-time Manufacturer's discount of \$1,500 per center applied as a miscellaneous credit to your center's non-vehicle billing account.

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

On and after **May 1, 2017**, all BMW centers will be required to follow the corresponding service information bulletins. Any rotors submitted for reimbursement under Warranty will be subject to review by the Warranty Parts Return Center 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 <u>warrantydealerreviews@bmwna.com</u>.

### PROCEDURE

- 1. Compare the discs/rotors condition from the repaired vehicle, with the "classification" examples provided in the "Attachment\_B341016\_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 BMW 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 requires documented 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 also requires documented shop foreman authorization.

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.

3. UPDATED In order to ensure the rotors are within BMW specifications after cutting, the minimum thickness measurement per axle must be noted after resurfacing.

#### Attachment Categorization: CATEGORY 3

Replace the brakes discs/rotors.

P 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.

**Note\*:** Replace only as outlined in the "Attachment Categorizations."

### WARRANTY INFORMATION

#### Per the attachment, when Categorizations 2 and 3 Apply

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

When one of the following programs are active:

• BMW Maintenance Program (up to 4/50) - Up to and including model year 2016 vehicles; or the

• Optional BMW Ultimate Care + "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:		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 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:		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:

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

When one of the following programs are active:

• BMW Maintenance Program Optional Upgrade (4/50 to 6/100) - Up to and including model year 2016 vehicles; or the

• Optional BMW Ultimate Care + "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 hrepla#ement) 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

85820175MP	Brake Pads – Front in conjunction with brake disc resurface/replace	
Labor Allowance:	Description:	
Refer to KSD2	Service, front brakes	
Refer to KSD2	Fine grind both sides of both front brake discs (Brake caliper removed)	
2 FRU	Associated work: Work time to perform an additional finish cut (one or both sides) when required.	
	Labor Allowance:   Refer to KSD2   Refer to KSD2   Refer to KSD2	

34 11 613	Refer to KSD2	Removing and installing or replacing front brake discs (Brake pads removed)
Or:		
34 11 612		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)	

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.

Posted: Monday, September 10, 2018

### **ATTACHMENTS**

View PDF attachment Attachment\_B341016\_Categorization.

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## **CATEGORIZATION OF BRAKE DISC-CORROSION**

<u>CATEGORY 1</u> – NO CORROSION FOUND: OK TO USE NEW BRAKE PADS (RESURFACING NOT NEEDED)



## CATEGORIZATION OF BRAKE DISC-CORROSION <u>CATEGORY 2</u> –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**

<u>CATEGORY 3</u> – SEVERE CORROSION: RESURFACING NOT POSSIBLE. ROTORS MUST BE REPLACED



## **CATEGORIZATION OF BRAKE DISC-GROOVES**

<u>CATEGORY 1</u> – NO GROOVES: OK TO USE NEW BRAKE PADS. (RESURFACING NOT NEEDED)



## **CATEGORIZATION OF BRAKE DISC-GROOVES**

## <u>CATEGORY 2</u> – 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 <u>CATEGORY 3</u> – DEEP GROOVES\* : RESURFACING NOT POSSIBLE, ROTORS MUST BE REPLACED

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

