

Technical Service Bulletin

Transaction No.: **2015173/21**

46-15-06 - Brake Disc, Pulsation (U.S. Only)

Release date: Sep 25, 2015

Condition

Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
All (except Routan)	2014-2015	All	All	All	All
All (except Passat)	2016	All	All	All	All

46 15 06 September 25, 2015 **2015173** Supersedes Technical Bulletin V461505 dated August 7, 2015 to update warranty table labor time to reflect Saga updates.

Brake Disc Pulsation or Vibration (U.S. Only)

When applying brakes at highway speeds the following symptoms may occur:

- Brake pedal pulsation
- Vibration felt in vehicle body
- Steering wheel shakes

Technical Background

For brake vibration or pulsation concerns, brake disc machining is allowed between 6 and 12 months or 6,000 and 12,000 miles (whichever comes first) from the warranty in service date.

Production Solution

No production change required.

Service

 **Note:**

All policies and procedures outlined in this technical bulletin also apply to sublet brake disc machining. Improperly machined brake discs may cause brake pulsation/vibration after several months in service. The servicing facility will be responsible for these failures.

Procedure:

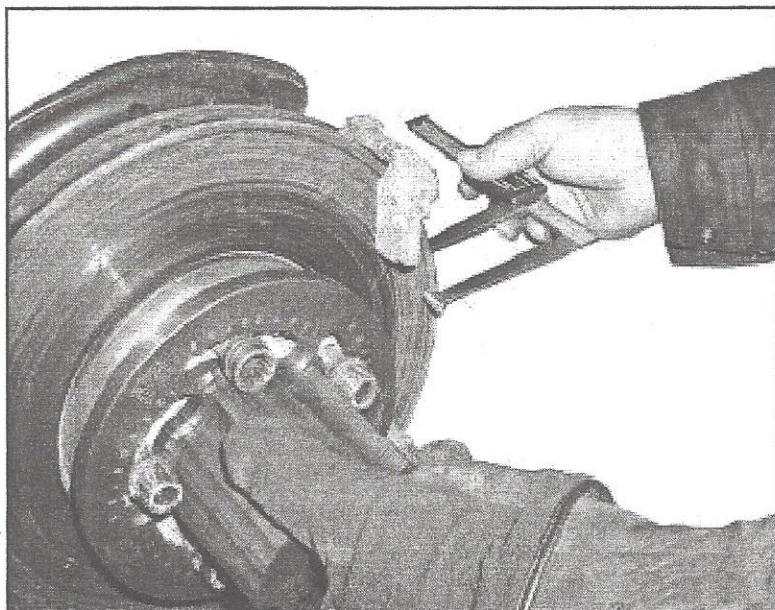
- Remove wheels and separate brake calipers from carrier as outlined in Repair Manual Group 44 – Wheels, Tires, Vehicle Alignment and Group 46 – Brakes – Mechanical components in Elsa.

Brake Disc Inspection

A detailed brake disc inspection is needed to determine if the brake disc should be machined or replaced.

- Inspect brake disc friction surfaces on both sides of the brake disc for:
- Severe discoloration (bluing)
- High heat surface damage (raised hard spots)
- Visible cracks

Brake discs showing any of the above described conditions are **NOT** serviceable. Parts must be replaced in accordance with the Volkswagen Warranty Policy and Procedure Manual.



Disc Thickness Measuring

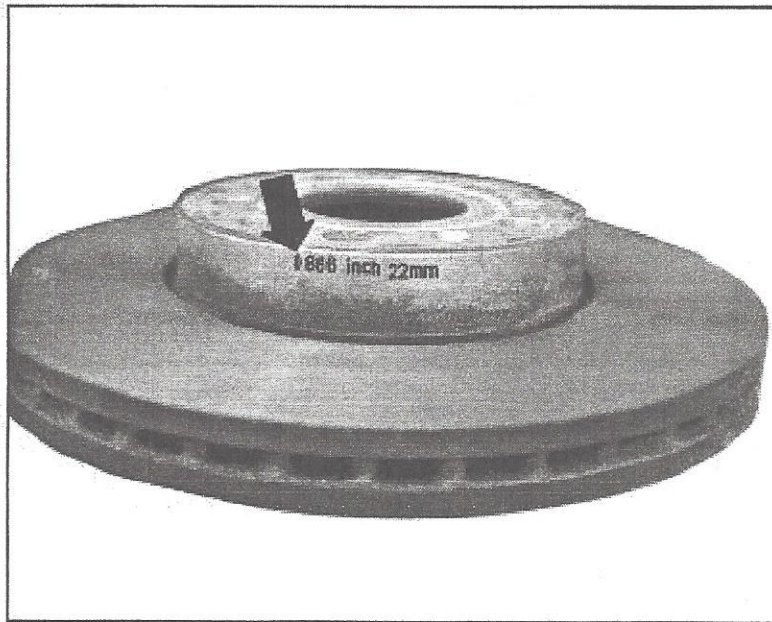
Technician must record the beginning thickness measurements on the back of the repair order.

Each brake disc has the minimum allowed thickness cast, stamped or laser-etched into the disc hub.

- Measure the brake disc thickness in 4 locations using either the Pro Cut International™ disc thickness measuring tool Part No. 50-902 or the Hunter Engineering Company disc thickness measuring tool Part No. 25-99-2. Measurements **MUST** be taken at the same distance from the brake disc outer circumference to ensure consistency.

ⓘ Note:

The brake disc thickness measurement must exceed the minimum specification after the machining process is completed in order to be re-used. If the brake disc thickness measurement does not meet this requirement, then replace the brake disc.



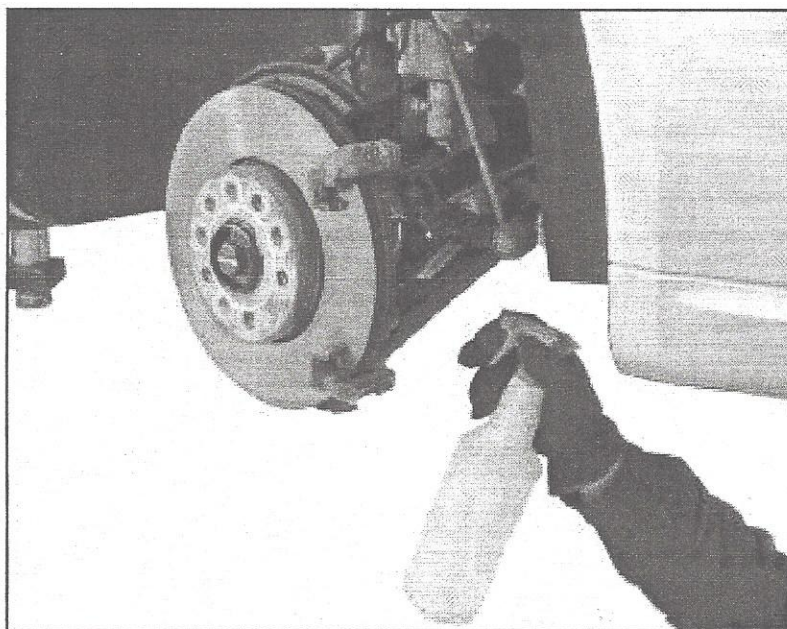
Brake Disc Machining

ⓘ Note:

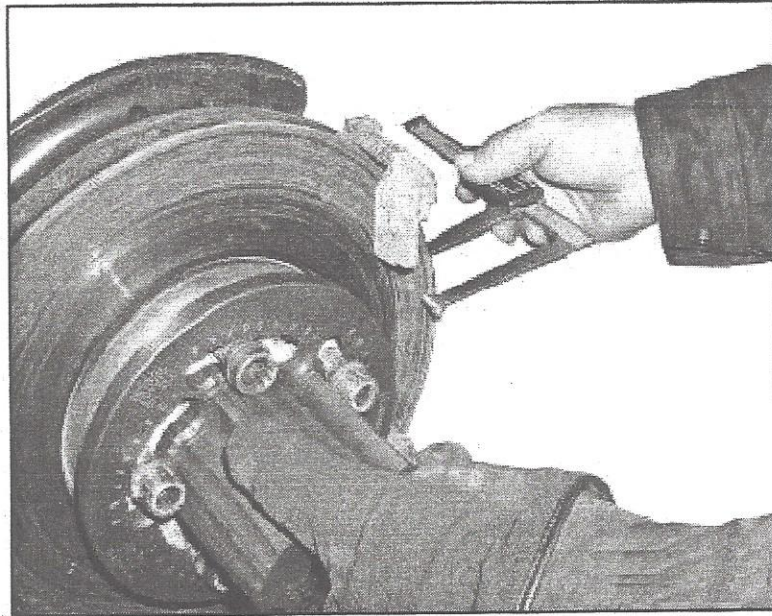
All brake discs must be machined.

Recommended on-car brake lathes are either the PRO-CUT International™ PFM 9.0, or the Hunter Engineering Company model OCL 400. This design of brake lathe will produce a surface quality which will provide proper brake performance without a brake pad to brake disc break-in period.

To ensure that a high quality brake disc finish is produced, brake lathe cutting tools must be maintained as directed by the lathe or tool manufacturer.



- Follow the brake lathe manufacturer's instructions for set-up and machining.
- Wash the brake disc with a soap and water solution upon completion of resurfacing to remove all machining particles.

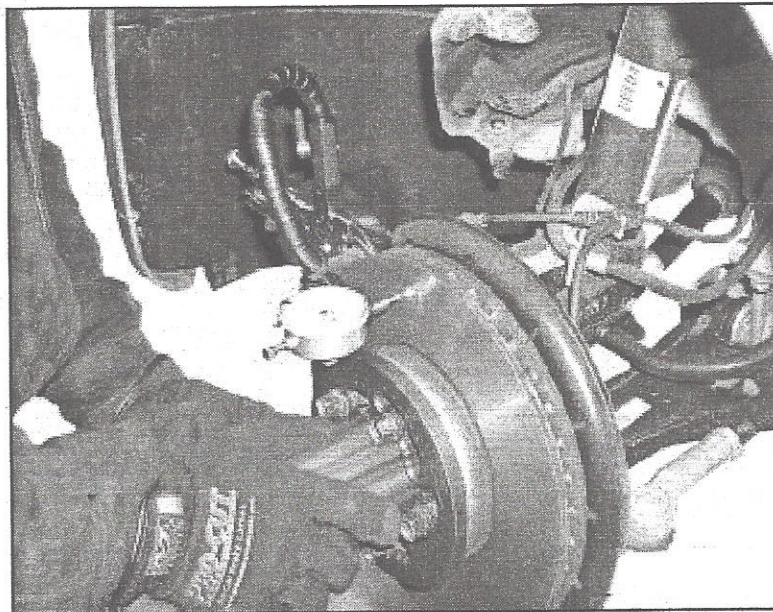


Technician must record the final thickness measurements on the back of the repair order.

- Re-measure brake disc thickness in 4 locations using either the Pro Cut International™ disc thickness measuring tool Part No. 50-902 or the Hunter Engineering Company disc thickness measuring tool Part No. 25-99-2. If recorded brake disc measurement is less than the minimum thickness, the brake disc **MUST** be replaced.

Note:

Always replace brake discs in pairs (front axle or rear axle). Do not replace all 4 brake discs unless it is required.



- Measure brake disc lateral run out using Pro Cut Disc Lateral run out measuring kit Part No. 50-700FC or the Hunter Disc Lateral run out measuring kit Part No. 25-128-2 with a dial indicator.
- Run out must not exceed 0.1mm.
- If brake disc exceed the 0.1mm specification replace the applicable brake discs.

Warranty

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual ¹⁾

Model(s)	Year (s)	Eng. Code(s)	Trans. Code(s)	VIN Range From	VIN Range To
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All (except Routan)	2014- 2015	All	All	All	All
All (except Passat)	2016	All	All	All	All

Claim Type: Use applicable Claim Type ¹⁾

SAGA Coding

Service Number	Damage Code	HST	Damage Location (Depends on Service No.)
4650	0013	--	Use applicable when indicated in Elsa (L/R)
Parts Manufacturer	MY14 Golf, MY14-15 Passat, MY14-16 CC/Tiguan/Eos/Touareg, and MY15-16 Golf R/eGolf		WWO ²⁾
	MY14 Jetta SportWagen, MY14-16 Jetta/Beetle/Beetle Cabrio, and MY15-16 Golf/Golf SportWagen		3ME ²⁾

On Car Lathe is available (All vehicles)

Labor Operation 3): Remove and Reinstall Front and Rear Wheels 44052004 = 50 TU

Labor Operation 3): Front and Rear Disc Resurfacing – On Vehicle 46504699 = 120 TU
And
46534699 = 120 TU

Or

If On Car Lathe is unavailable:

MY14-16 CC/Tiguan/Eos

Labor Operation 3): Remove and Reinstall Front and Rear Wheels 44052004 = 50 TU

Labor Operation 3): Remove and Reinstall Front and Rear Carriers 46142050 = 90 TU
And
46152050 = 90 TU

Labor Operation 3): Remove and Reinstall Front and Rear Discs

46502050 = 10 TU

And

46532050 = 10 TU

46504699 = 160 TU

And

46534699 = 160 TU

Labor Operation 3): Front and Rear Discs Machining

Or

MY14 Jetta SportWagen, MY14-15 Passat, and MY14-16 Jetta/Beetle/Beetle Carbio

Labor Operation 3): Remove and Reinstall Front and Rear Wheels

44052004 = 50 TU

46502050 = 70 TU

Labor Operation 3): Remove and Reinstall Front and Rear Discs

And

46532050 = 70 TU

46504699 = 160 TU

Labor Operation 3): Front and Rear Discs Machining

And

46534699 = 160 TU

Or

MY14-16 Touareg

Labor Operation 3): Remove and Reinstall Front and Rear Wheels

44052004 = 50 TU

46502050 = 110 TU

Labor Operation 3): Remove and Reinstall Front and Rear Discs

And

46532050 = 90 TU

46504699 = 160 TU

Labor Operation 3): Front and Rear Discs Machining

And

46534699 = 160 TU

Or

MY15-16 Golf SportWagen

Labor Operation 3): Remove and Reinstall Front and Rear Wheels

44052004 = 50 TU

Labor Operation 3): Remove and Reinstall Front Carrier

46142050 = 80 TU

46502050 = 10 TU

Labor Operation 3): Remove and Reinstall Front and Rear Discs

And

46532050 = 90 TU (includes carrier)

46504699 = 160 TU

Labor Operation 3): Front and Rear Discs Machining

And

46534699 = 160 TU

Or

MY14 Golf

Labor Operation 3): Remove and Reinstall Front and Rear Wheels

44052004 = 50 TU

Labor Operation 3): Remove and Reinstall Front and Rear Carrier

46142050 = 90 TU

And

46152050 = 80 TU

Labor Operation 3): Remove and Reinstall Front and Rear Discs

46502050 = 10 TU

And

46532050 = 10 TU

Labor Operation 3): Front and Rear Discs Machining

46504699 = 160 TU

And

46534699 = 160 TU

Or

MY15-16 Golf/Golf R/eGolf

Labor Operation 3): Remove and Reinstall Front and Rear Wheels

44052004 = 50 TU

Labor Operation 3): Remove and Reinstall Front Carrier

46142050 = 80 TU

Labor Operation 3): Remove and Reinstall Front and Rear Discs

46502050 = 10 TU

And

46532050 = 90 TU (carrier included)

46504699 = 160 TU

Labor Operation 3): Front and Rear Discs Machining

And

46534699 = 160 TU

Outside Labor: Sublet Machining

Sublet Machining not to exceed Elsa SRT

Causal Part:

Select Labor

Diagnostic Time ⁴⁾

GFF Time expenditure	01500000 = 00 TU max.	NO
Road Test	01210002 = 10 TU	YES
	01210004 = 10 TU	
Technical Diagnosis	01320000 = 00 TU max.	NO

Claim Comment: Input "As per Technical Bulletin 2015173" in comment section of Warranty Claim.

¹⁾ Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only

²⁾ Code per warranty vendor code policy.

³⁾ Labor Time Units (TUs) are subject to change with Elsa updates.

⁴⁾ Documentation required per Warranty Policy Procedures Manual.

Required Parts and Tools

No Special Parts required.

Description	Part No:	Quantity
Pro Cut TM Disc Thickness Measuring Tool	50-902	1
Hunter Disc Thickness Measuring Tool	25-99-2	1
Pro Cut Disc Lateral Run out Measuring Tool	50-700FC	1
Hunter Disc Lateral Run out Measuring Tool	25-128-2	1
PRO-CUT International TMPFM 9.0	PCIPFM90VW	1
Hunter Engineering Company Model OCL 400	HUNOCL400VW	1

Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.

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