

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

#### Condition

**46 16 01** January 12, 2016 **2010245** Supersedes T. B. V461504 dated August 7, 2015 to update warranty table to include Elsa updates.

Vibration or Noise When Braking (U.S. Only)

### **Technical Background**

Vibration or noise when braking may be due to brake disc corrosion protection which has not been completely removed by normal braking or surface rust built up during transportation.



This Technical Bulletin only applies <u>once</u> at PDI. Please note that vehicles in dealer inventory should be maintained per the recommended 30 days maintenance procedure to prevent excessive rust build up.

#### **Production Solution**

No production change required.



#### **Service**

#### **Vehicle Inspection**



Abide by ALL traffic laws and be mindful of the vehicles around you while operating the vehicle.

- · Check and adjust tire pressure.
- Accelerate vehicle to greater than 55 MPH (80 km/h).
- · Apply brake firmly.



Vehicles requiring front, rear, or both disc cleaning will exhibit vibration and/or noise.

#### **MWARNING**

For vehicles equipped with Electronic Parking Brake (EPB), DO NOT APPLY PARKING BRAKE WHILE VEHICLE IS IN MOTION.

Affected rear discs will have uneven color across the friction surface.

On vehicles with EPB, this will determine if rear discs need to be sanded.

#### The following steps apply to vehicles without Electronic Parking Brake (EPB):

- Accelerate vehicle to 30 MPH (50 km/h).
- Carefully apply parking brake.

#### If vibration or noise IS observed:

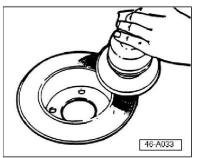
Clean the front brake discs, the rear brake discs, or both the front and rear brake discs depending on the location of the observed vibration/noise.

#### **Disassembly Inspection**

- Remove wheels, disassemble brake calipers, and remove brake disc. See the appropriate Repair Manual for the vehicle you are servicing.
- Paint mark brake discs for reinstallation (Left/Right).
- · Paint mark brake pads for reinstallation (Left/Right, Inner/Outer).
- Inspect all brake components for damage from outside influences.
- Using a micrometer, measure brake disc thickness. See appropriate Repair Manual in Elsa for minimum brake disc thickness.

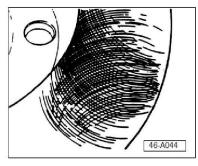


#### **Brake Disc Surface Cleaning**



Remove remaining corrosion protection coating or surface rust as follows:

 Sand brake disc surfaces until clean metal is visible using leading edge of 40-grit sanding disc in a clockwise direction (1-2 minute per surface).



Replace sanding disc prior to moving to next brake disc surface.

To achieve a crosshatch pattern:

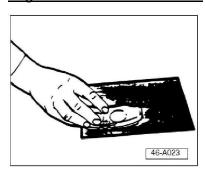
Repeat sanding process using trailing edge of 80-grit sanding disc in a clockwise direction
 Replace sanding disc prior to moving to next brake disc surface.

Clean all brake disc friction surfaces using soap and water solution.



Brake discs must be free of dust and particles left behind due to the sanding process.

#### **Deglaze and Clean Brake Pads**



- Place 80-grit sand paper on flat hard surface.
- · Carefully sand brake pads until the surface glazing is removed.

Note:

Use one new 80 grit sand paper sheet per set of brake pads.



See appropriate Repair Manual in Elsa for new brake pad thickness dimensions.



#### Reassembly

- Install brake discs, brake pads, brake calipers, and wheels. See appropriate Repair Manual in Elsa for vehicle
  you are servicing.
- Road test vehicle to confirm vibration or noise concern is corrected.



### Warranty

To determine if th		dure is co	overed under Warr	anty, always refer	to the W	arranty P	olicies and
Model(s)		ır(s)	Eng. Code(s)	Trans. Code(s)	VIN Ran	ge From	VIN Range To
All (except Routan)	2014-2015		All	All	A	AII	All
All (except Passat)	2016		All	All	A	VII	All
			SAGA	Coding			
Claim Type:		Use app	licable Claim Type	) <sup>1)</sup>		T	
Service Number		Da	ımage Code	нѕт		Damage Location (Depends on Service N	
4650			0020			_	oplicable when ed in Elsa (L/R)
Parts Manufacturer		r	MY14-16 CC/Tigu	Y14-15 Passat, uan/Eos/Touareg, WWO <sup>2)</sup>		O <sup>2)</sup>	
		Jetta/Beetle/Be	tWagen, MY14-16 etle Cabrio, and olf SportWagen	3ME <sup>2)</sup>			
MY14-16 CC			:/Tiguan/Eos				
Front Brake Service Only							
Labor Operation 3): Remove and Reinstall Front Wheels			44052000 = 30 TU				
Labor Operation 3): Remove and Reinstall Front Brake Carriers			46142050 = 90 TU				
Labor Operation 3): Remove and Reinstall Front Discs				46502050	0 = 10 TU		



Labor Operation 3): Sanding Front Discs and Pads	46503099 = 35 TU				
OR					
Rear Brake	Service Only				
Labor Operation 3): Remove and Reinstall Rear Wheels 44052000 = 30 TU					
Labor Operation 3): Remove and Reinstall Rear Brake Carriers	46152050 = 90 TU				
Labor Operation 3): Remove and Reinstall Rear Discs	46532050 = 10 TU				
Labor Operation 3): Sanding Rear Discs and Pads	46503099 = 35 TU				
0	PR				
Front and Rear	Front and Rear Brake Service				
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				
Labor Operation 3): Sanding Front and Rear Discs and Pads	46503099 = 50 TU				
OR					
MY14-15 Passat					
Front Brake Service Only					
Labor Operation 3): Remove and Reinstall Front Wheels  44052000 = 30 TU					
Labor Operation 3): Remove and Reinstall Front Discs  46502050 = 70 TU					



Labor Operation 3): Sanding Front Discs and Pads	46503099 = 35 TU			
Rear Brake S	Service Only			
Labor Operation 3): Remove and Reinstall Rear Wheels	44052000 = 30 TU			
Labor Operation 3): Remove and Reinstall Rear Discs	46532050 = 70 TU			
Labor Operation 3): Sanding Rear Discs and Pads	46503099 = 35 TU			
0	R			
Front and Rear	Brake Service			
Labor Operation 3): Remove and Reinstall Front and Rear Wheels	44052004 = 50 TU			
Labor Operation 3): Remove and Reinstall Front and Rear Discs	46502050 = 70 TU and 46532050 = 70 TU			
Labor Operation 3): Sanding Front and Rear Discs and Pads	46503099 = 50 TU			
OR				
MY14 Jetta SportWagen, and MY14-16 Jetta/Beetle/Beetle Cabrio				
Front Brake	Service Only			
Labor Operation 3): Remove and Reinstall Front Wheels	44052000 = 30 TU			
Labor Operation 3): Remove and Reinstall Front Discs	<mark>46502050 = 10 TU</mark>			
Labor Operation 3): Remove and Reinstall Front Brake Carriers	46142050 = 90 TU			
Labor Operation 3): Sanding Front Discs and Pads	46503099 = 35 TU			
Rear Brake Service Only				
Labor Operation 3): Remove and Reinstall Rear Wheels	44052000 = 30 TU			



Labor Operation 3): Remove and Reinstall Rear Discs	46532050 = 10 TU			
Labor Operation 3): Remove and Reinstall Rear Brake Carriers	46152050 = 90 TU			
Labor Operation 3): Sanding Rear Discs and Pads	46503099 = 35 TU			
0	R .			
Front and Rear	Brake Service			
Labor Operation 3): Remove and Reinstall Front and Rear Wheels	44052004 = 50 TU			
Labor Operation 3): Remove and Reinstall Front and Rear Discs	46502050 = 10 TU and 46532050 = 10 TU			
Labor Operation 3): Remove and Reinstall Front and Rear Brake Carriers	46142050 = 90 TU and 46152050 = 90 TU			
Labor Operation 3): Sanding Front and Rear Discs and Pads	46503099 = 50 TU			
OR				
MY14-16 Touareg				
Front Brake	Service Only			
Labor Operation 3): Remove and Reinstall Front Wheels	44052000 = 30 TU			
Labor Operation 3): Remove and Reinstall Front Discs	46502050 = 110 TU			
Labor Operation 3): Sanding Front Discs and Pads	46503099 = 35 TU			
OR				
Rear Brake Service Only				
Labor Operation 3): Remove and Reinstall Rear Wheels	44052000 = 30 TU			



Labor Operation 3): Remove and Reinstall Rear Discs	46532050 = 90 TU				
Labor Operation 3): Sanding Rear Discs and Pads	46503099 = 35 TU				
0	R				
Front and Rear	Brake Service				
Labor Operation 3): Remove and Reinstall Front and Rear Wheels	44052004 = 50 TU				
Labor Operation 3): Remove and Reinstall Front and Rear Discs	46502050 = 110 TU and 46532050 = 90 TU				
Labor Operation 3): Sanding Front and Rear Discs and Pads	46503099 = 50 TU				
OR					
MY15-16 Golf SportWagen					
Front Brake	Service Only				
Labor Operation 3): Remove and Reinstall Front Wheels	44052000 = 30 TU				
Labor Operation 3): Remove and Reinstall Front Brake Carriers	46142050 = 80 TU				
Labor Operation 3): Remove and Reinstall Front Discs	46502050 = 10 TU				
Labor Operation 3): Sanding Front Discs and Pads	46503099 = 35 TU				
OR					
Rear Brake Service Only					
Labor Operation 3): Remove and Reinstall Rear Wheels	44052000 = 30 TU				
Labor Operation 3): Remove and Reinstall Rear Discs	46532050 = 90 TU				
Labor Operation 3): Sanding Rear Discs and Pads	46503099 = 35 TU				



OR					
Front and Rear	Brake Service				
Labor Operation 3): Remove and Reinstall Front and Rear Wheels	44052004 = 50 TU				
Labor Operation 3): Remove and Reinstall Front Carriers	46142050 = 80 TU				
Labor Operation 3): Remove and Reinstall Front and Rear Discs	46502050 = 10 TU and 46532050 = 90 TU				
Labor Operation 3): Sanding Front and Rear Discs and Pads	46503099 = 50 TU				
OR					
MY14 Golf					
Front Brake	Service Only				
Labor Operation 3): Remove and Reinstall Front Wheels	44052000 = 30 TU				
Labor Operation 3): Remove and Reinstall Front Brake Carriers	46142050 = 90 TU				
Labor Operation 3): Remove and Reinstall Front Discs	46502050 = 10 TU				
Labor Operation 3): Sanding Front Discs and Pads	46503099 = 35 TU				
OR					
Rear Brake Service Only					
Labor Operation 3): Remove and Reinstall Rear Wheels	44052000 = 30 TU				
Labor Operation 3): Remove and Reinstall Rear Brake Carriers	46152050 = 90 TU				
Labor Operation 3): Remove and Reinstall Rear Discs	46532050 = 10 TU				



Labor Operation 3): Sanding Rear Discs and Pads	46503099 = 35 TU			
OR				
Front and Rear	Brake Service			
Labor Operation 3): Remove and Reinstall Front and Rear Wheels	44052004 = 50 TU			
	46142050 = 90 TU			
Labor Operation 3): Remove and Reinstall Front and Rear Carriers	and			
	46152050 = 90 TU			
	46502050 = 10 TU			
Labor Operation 3): Remove and Reinstall Front and Rear Discs	and			
	46532050 = 10 TU			
Labor Operation 3): Sanding Front and Rear Discs and Pads	46503099 = 50 TU			
OR				
MY15-16 Golf/Golf R/eGolf				
Front Brake	Service Only			
Labor Operation 3): Remove and Reinstall Front Wheels	44052000 = 30 TU			
Labor Operation 3): Remove and Reinstall Front Brake Carriers	46142050 = 80 TU			
Labor Operation 3): Remove and Reinstall Front Discs	46502050 = 10 TU			
Labor Operation 3): Sanding Front Discs and Pads	46503099 = 35 TU			
OR				
Rear Brake Service Only				
Labor Operation 3): Remove and Reinstall Rear Wheels	44052000 = 30 TU			
Labor Operation 3): Remove and Reinstall Rear	46152050 = 80 TU			



Brake Carriers				
Labor Operation 3): Remove and R Discs	einstall Rear		46532050 = 10 TU	
Labor Operation 3): Sanding Rear	Discs and Pads		46503099 = 35 TU	
	0	R		
	Front and Rear	Brake Service		
Labor Operation 3): Remove and R Rear Wheels	einstall Front and	44052004 = 50 TU		
Labor Operation 3): Remove and R Rear Carriers	einstall Front and		46142050 = 80 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): Sanding Front and Rear Discs and Pads		46503099 = 50 TU		
Causal Part:		Select 46503099		
Outside Material				
	1 Axle S	Serviced		
40-grit, 6-inch sanding disc And 80-grit, 6-inch sanding disc	ar	17 or equivalent nd 16 or equivalent	\$10.00	
OR				
2 Axles Serviced				
40-grit, 6-inch sanding disc		17 or equivalent	\$20.00	
80-grit, 6-inch sanding disc	Part No: PN01116 or equivaler		423.00	



Diagnostic Time <sup>4)</sup>				
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 2010245" in comment section of Warranty Claim.

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

<sup>2)</sup> Code per warranty vendor code policy.

<sup>3)</sup> Labor Time Units (TUs) are subject to change with ELSA updates.

<sup>4)</sup> Documentation required per Warranty Policies and Procedures Manual.



### **Required Parts and Tools**

No Special Parts required.

Tool Description	Tool No:	Quantity
6-inch Dual Action sander (Blue Point® )	AT441A or equivalent	•
40-grit, 6-inch sanding disc (3M®)	PN01117 or equivalent	4 (One Axle Serviced) or 8 (Two Axles Serviced)
80-grit, 6-inch sanding disc (3M®)	PN01116 or equivalent	4 (One Axle Serviced) or 8 (Two Axles Serviced)
80-grit sand paper	Obtain from local supplier	4 Sheets
Micrometer (7mm-22mm)	•	-
Metric Scale (0mm-20mm)	-	-

### **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.