# Vehicle Compliance & Analysis

TO: Mercedes-Benz Dealer Principals, General Managers, Sales	FROM: Gregory Gunther, Department Manager, Vehicle
Managers, Service Managers, Parts Managers	Compliance and Analysis, Engineering Services
RE: Service Campaign Launch Notification	
Bolt Replacement on the Steering Rack	
MY12-17 166, 204, 205, 207, 212, 213, 217, 218, 222, 253,	DATE: November 8, 2019
292 (C-Class, CLS-Class, E-Class, GL-Class, GLC-Class, GLE-	
Class, GLK-Class, GLS-Class, M-Class S-Class)	

#### **IMPORTANT SERVICE CAMPAIGN INFORMATION**

Please see the attached documents related to the campaign listed above.

Please note that all customer inquiries should be directed to the Customer Assistance Center at 1-800-FOR-MERCEDES.

Sincerely,

Gregory Gunther

Department Manager, Vehicle Compliance & Analysis

Mercedes-Benz USA, LLC A Mercedes-Benz AG Company

One Mercedes-Benz Drive Sandy Springs, GA 30328 770.705.0600



Service Campaign La	aunch Notification	November 8, 2019							
Campaign No. :	Campaign Desc. :	Bolt Replacement on the Steering							
2019080019	18P4694011	Rack							
2017 C-Class, CLS-Class, E-Class, Gl	Class, GLC-Class, GLE-Class, GLK-C	ng bolts on the steering rack on <u><b>398,527</b></u> Model Year ("MY") 2012- Class, GLS-Class, M-Class, and S-Class (166, 204, 205, 207, 212, will be flagged in VMI as "OPEN" on November 8, 2019.							
	Backgrou	Jung							
Issue What We're Doing	on certain Model Year ("MY") GLK-Class, GLS-Class, M-Clas 222 platforms) vehicles that are operated in high-corrosic levels of corrosion on specif along with certain weighted of MBUSA will conduct a servic seal the affected bolts on th	, the manufacturer of Mercedes-Benz vehicles, has determined that 12-17 C-Class, CLS-Class, E-Class, GL-Class, GLC-Class, GLE-Class, ss, and S-Class (205, 218, 207, 212, 213, 166, 253, 292, 204, 217, are driven for extended periods of time in salt-belt states and that on environments with exposure to road salt may experience varying ic bolts that are used on the power steering rack. This corrosion, driving loads, could result in the fracturing of these bolts. The campaign. An authorized Mercedes-Benz dealer will replace and ne steering gear housing cover and on the steering rack. In some replacement of the power steering rack may be necessary.							
Parts	The remedy is available an								
	Vehicles Af	fected							
Vehicle Model Year(s)	2012-2017	2012-2017							
Vehicle Model		GL-Class, GLC-Class, GLE-Class, GLK-Class, GLS-Class, M-Class, S- 12, 213, 217,218, 222, 253, 292 platform)							
	Vehicle Popu	lations							
Total Campaign Population	398,527								
	Next Steps/	'Notes							
Customer Notification Timeline	The customer letters will be r available.	mailed approximately one week after the remedy becomes							
AOMS/SOMS	AOMs – This campaign may g your dealers ASAP.	generate questions from your dealers. Please forward this notice to							
While we regret any inconvenience this	your dealers ASAP.	generate questions from your dealers. Please forward this notice t o maintain a high level of vehicle quality and customer satisfaction Assistance Center at 1-800-FOR-MERCEDES.							

Mercedes-Benz USA, LLC A Mercedes-Benz AG Company





Campaign No. 2019080019, November 2019

#### TO: ALL MERCEDES-BENZ CENTERS

SUBJECT: Various Models Model Years 2012-2017

**Replace Steering Gear Bolts** 

Mercedes-Benz AG ("MBAG"), the manufacturer of Mercedes-Benz vehicles, has determined that on certain Model Year ("MY") 12-17 C-Class, CLS-Class, E-Class, GL-Class, GLC-Class, GLE-Class, GLK-Class, GLS-Class, M-Class, S-Class (205, 218, 207, 212, 213, 166, 253, 292, 204, 217, 222 platforms) vehicles, the aluminum bolts of the steering gear housing cover and the aluminum bolts on the power steering rack may corrode over time due to moisture intrusion in combination with aggressive road salt. The corrosion, in combination with driving loads could result in the fracturing of the corroded bolt(s). If all the bolts were to fracture, this could lead to a separation of the power steering unit from the steering rack and could result in power steering failure. An authorized Mercedes-Benz dealer will replace the aluminum bolts of the steering gear housing cover and the aluminum bolts on the power steering rack and seal them, or replace the power steering rack if necessary.

Prior to performing this Service Campaign:

- Please check VMI to determine if the vehicle is involved in the Campaign and if it has been previously repaired. Always Check VMI for any open campaigns, and perform accordingly.
- Please review the entire Service Campaign bulletin and follow the repair procedure exactly as described.
- Take into account the 3 different work procedures based on the different models
- Do not pre-order electric power steering racks for this topic until initial repair procedure is performed.

Approximately 398,527 vehicles are affected.

Order No. P-SC-2019080019

This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Quality Records.

Service Campaign Bulletir

i Important: Take into account the different work procedures.

i Important: Take into account the different parts kits in the parts table.

i the steering has to be replaced, the steering must be returned with all (including any broken off) parts in the original packaging. All parts will be individually checked and analyzed with regard to the cause of the damage.

# Work procedure

## For models 204, 207, 212, 217, 218, and 222

- 1. Remove center section of lower engine compartment lining.
- 2. Remove mounting plate (A, Figure 1) for steering gear.
  - i For basic data, see AR46.20-P-0600EL.
  - i For basic data, see AR46.20-P-0600EF.





#### Figure 2

4. Remove screws (B and C, Figure 2), making absolutely sure to do so individually and one after the other, replace with new steel screws and tighten with the specified torque incl. tightening angle.

i The procedure must be completed so that the power-pack does not twist away from its set position thus resulting in consequential damage.

Here Power-pack screw on steering gear: **5 Nm and 90**° tightening angle.

**i** If a screw should break off or have already broken off, replace the electric power steering rack.

i For basic data, see AR46.20-P-0600EL and AR46.20-P-0600EF.

Li If the steering has to be replaced, the steering must be returned with all (including any broken off) parts in the original packaging. All steering racks will be individually checked and analyzed with regard to the cause of the damage.

5. After replacing the screws, apply a generous coat of wax to the area (D, Figure 3) around the screw heads, screw ends, and the gap between the power-pack and the steering.

i Wax gap between power-pack and steering all-round.



Figure 3

3. Slightly release steering gear and secure against falling down with transmission jack.

P-SC-2019080019

- **6.** Assemble in reverse order.
- 7. Perform wheel alignment check and carry out toe adjustment.
- 8. Reset the learned values for the electric power steering with XENTRY Diagnosis.

in processes – Reset learned values".

 $\fbox{i}$  Then follow the user guidance in XENTRY Diagnosis.

### Work procedure For models 205, 213, 238, and 253

- 1. Remove center section of lower engine compartment lining.
- 2. Remove screws (B and C, Figure 2), making **absolutely sure** to do so **individually and one after the other**, replace with new steel screws and tighten with the specified torque incl. tightening angle.

**I** The procedure must be complied with so that the power-pack does not twist away from its set position thus resulting in consequential damage.

**i** For models 205, 217, 213, 238, 253, and 222, the steering **does not have** to be released from the front <u>axle carrier</u>.

**M** Power-pack screw on steering gear: **5 Nm and 90°** tightening angle.

Li If a screw should break off or have already broken off, replace the electric power steering rack.

**i** For basic data, see **AR46.20-P-0600LW** and **AR46.20-P-0600LWO**.

**i** If the steering has to be replaced, the steering must be returned with all (including any broken off) parts in the original packaging. All steering racks will be individually checked and analyzed with regard to the cause of the damage.



#### Figure 4

3. After replacing the screws, apply a generous coat of wax to the area (D, Figure 3) around the threaded connections and around the gap between the power-pack and the steering.

**i** Wax gap between power-pack and steering **all-round**.

**4.** Assemble in reverse order.

# Work procedure

# For models 166 and 292

- 1. Remove center section of lower engine compartment lining.
- 2. Remove screws (E, Figure 5) connecting the front axle differential to the front axle carrier.
  - **i** Front axle differential remains lying in front axle carrier. It is only slightly lowered.
  - **i** No further threaded connections are released at front axle differential.
  - i For basic data, see AR33.30-P-0525GQ



Figure 5

- 3. Unscrew steering from front axle carrier and tie rods at the steering knuckles (F, Figure 6).
  - $\boxed{\mathbf{i}}$  Steering coupling to steering column is **NOT** released.
  - i For basic data, see AR46.20-P-0600GQ and AR46.40-P-0200EW
  - i Additional threaded connections do not have to be released.
  - i Remove retaining plates (G, Figure 6).



#### Figure 6

4. For vehicles with code 468 (Active Curve System), unscrew the hydraulics block (Figure 7) and slightly press downwards with lines connected.





5. Slightly lift steering on left and right and move towards rear in front axle carrier so that the screws (B and C, Figure 8) are accessible.

i Keep the steering pressed towards the rear with the aid of a helper as shown (Figure 9).



Figure 8





6. Remove screws (B and C, Figure 8), making absolutely sure to do so individually and one after the other, replace with new steel screws and tighten with the specified torque incl. tightening angle.

**i** The procedure must be complied with so that the power-pack does not twist away from its set position thus resulting in consequential damage.

**Important:** Take into account the different screw lengths of screws B and C in models 166 and 292!

Me Power-pack screw on steering gear: **5 Nm and 90°** tightening angle.

Li If a screw should break off or have already broken off, replace the electric steering rack.

**i** For basic data, **see AR46.20-P-0600GQ** and **AR46.40-P-0200EW**.

**i** If the steering has to be replaced, the steering must be returned with all (including any broken off) parts in the original packaging. All steering racks will be individually checked and analyzed with regard to the cause of the damage.

7. After replacing the screws, apply a generous coat of wax to the area (D, Figure 3) around the threaded connections and around the gap between the power-pack and the steering.

**i** Wax gap between power-pack and steering **all-round**.

- 8. Assemble in reverse order.
- 9. Perform wheel alignment check and carry out toe adjustment.

**10.** Reset the learned values for the electric power steering with XENTRY Diagnosis.

i To do this, select menu item "Quick test view – N68 Electric power steering (ES) – Adaptations – Teach-in processes – Reset learned values".

**i** Then follow the user guidance in XENTRY Diagnosis.

Qty.	Part Name	Part Number	Estimated Replacement			
			Rate			
1(As required)	Screw set (204, 207, 212, 217, 218, and 222)	A 212 460 07 01	100%			
1(As required)	Screw set (205, 213, 238, and 253)	A 205 460 86 02	100%			
1(As required)	Screw set (166 and 292)	A 166 460 18 01	100%			
0.1*	Wax	A 000 986 72 70 10	100%			
1(As required)**	Electric power steering	**	0.5%			

\* One wax container is enough for approx. 10 vehicles.

\*\* Determine the correct electric power steering rack in XPPI using equipment code. Do not pre-order parts until bolt replacement is performed.

**I** Note: Small parts such as screws, stop nuts, sealing rings, cable ties, fluids, sealants, etc. are not listed in the parts list. The required small parts (per WIS) are taken into account in the budgeting and can be claimed.

#### Warranty Information

**Operation:** Connect/disconnect battery charger (02-5058)

Star Diagnosis System (SDS), Connect/disconnect (02-4762)

Perform wheel alignment check and toe adjustment (02-9785)\*

Replace 5 screws on steering gear, apply wax (02-2930)

Extra work for: Replace screws on steering gear, with damaged screw (02-2938)

Extra work for: Replace screws on steering gear, apply wax for veh. with code 468, only **models 166 and 292**(02-2931)

Extra work for: Replace screws on steering gear, apply wax for veh. with damaged screw and code 468, only models 166 and 292 (02-2939)

**Includes**: Additional operations for: Replace power steering in case of active roll stabilization Extra work for: Replace screws on steering gear, apply wax for veh. with damaged screw and **code 489**, only **models 166 and 292** (02-2940)

Includes: Additional operations for: Replace power steering system in case of AIRMATIC

Damage Code	Operation Number	Labor Time (hrs.)
46 940 11 7	02-5058	0.1
	02-4762	0.1
	02-9785*	0.9
	02-2930 (204, 207, 212, 217, 218, and 222)	1.0
	02-2930 (205, 213, 238, and 253)	0.6
	02-2930 (166 and 292)	2.2
	02-2938 (204, 205, 207, 212, 218, and 253)	1.1
	02-2938 (217 and 222)	1.2
	02-2938 (213 and 238)	1.3
	02-2938 (166 and 292)	4.2
	02-2931 (166 and 292)	0.1
	02-2939 (166 and 292)	0.9
	02-2940 (166 and 292)	0.5

\*Excludes (205, 213, 238, and 253) unless replacement of steering gear is required.

**i** Note: Only wheel alignment check and toe adjustment are covered within this campaign. All other alignment adjustments needed are considered pre-existing and not included. Pre-existing conditions are to be evaluated by the dealer and managed outside of the campaign.

**I** Note: Operation times are subject to change



SERVICE CAMPAIGN# 2019080019 Bolt Replacement on the Steering Rack Mercedes-Benz USA, LLC

Christian Treiber Vice President Customer Services

November 2019



Dear Mercedes-Benz Owner:

On behalf of Mercedes-Benz USA, LLC ("MBUSA"), thank you for being a part of the Mercedes-Benz family. We hope that you're enjoying your vehicle. Here at MBUSA, we are committed to delivering an exceptional ownership experience.

In our continuing efforts to ensure the proper performance and quality of your vehicle, we are writing to inform you about a Service Campaign for vehicles that are driven for extended periods of time in salt-belt states. Certain Mercedes-Benz models that are operated in high-corrosion environments with exposure to road salt may experience varying levels of corrosion on specific bolts that are used on the power steering rack. This corrosion, along with certain weighted driving loads, could result in the fracturing of these bolts.

To address this situation, we ask that you please contact an authorized Mercedes-Benz dealer who will replace and seal the affected bolts on the steering gear housing cover and on the steering rack. In some extreme cases of corrosion, replacement of the power steering rack may be necessary. These repairs are provided free of charge under this Service Campaign. We are dedicated to delivering a best-in-class customer experience, and respect for your time is a top priority. While the repair times range from 2 to 9 hours depending on the model, your dealer can provide you with a better estimate of the overall time for this service visit.

#### What should YOU DO?



To find the most convenient authorized Mercedes-Benz dealer from your smartphone, scan the QR code to the left.

For additional information and to schedule an appointment, please contact your preferred authorized Mercedes-Benz dealer at your earliest convenience. To locate authorized dealers see www.mbusa.com. **Please mention you are scheduling an appointment to replace bolts on the steering rack under Service Campaign # 2019080019.** 

You may be asked for your 17-digit Vehicle Identification Number (VIN), which for your convenience is located above your name at the top of this letter.

In the event that you are no longer the vehicle owner, or have had a change of address, please complete the reverse side and return the updated information in the enclosed envelope.

Should you have any questions or encounter any difficulty regarding this Service Campaign, please contact an authorized Mercedes-Benz dealer. If for any reason a dealer is unable to remedy your situation, we are always happy to hear from you. Please contact us at 1-(800) FOR-MERCEDES (1-800-367-6372).

We apologize for any inconvenience this situation may cause you.

Sincerely,

The Turber

Mercedes-Benz USA, LLC A Daimler Company One Mercedes-Benz Drive Sandy Springs, GA 30328 Phone (770) 705-0600 IMPORTANT

VIN:

If for any reason YOU NO LONGER OWN THIS VEHICLE OR have a CHANGE OF ADDRESS, please COMPLETE THE SECTION BELOW, place in the ENCLOSED ENVELOPE, and DROP IN ANY MAIL BOX. If possible, provide the name and address of the present owner so that we may contact them.

<ul> <li>EXPORTED</li> <li>LEASE, VEHICLE RETURNED</li> <li>SCRAPPED</li> <li>NEW OWNER INFORMATION</li> </ul>											SOLD         STOLEN         OTHER         MY NEW NAME OR ADDRESS IS:																	
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- Proof of payment of repair (copy of front and back of cancelled check or copy of credit card receipt).
- Reimbursement will be made by check from your dealer.

Please speak with your dealer concerning this matter. THANK YOU FOR YOUR COOPERATION.