



SERVICE ACTION: REWORK THE STEERING GEAR

New information provided by this revision is preceded by this symbol  .

Please perform the procedure outlined in this Service Information on all affected vehicles before customer delivery. In the event the customer has already taken delivery of the vehicle, please perform the procedure the next time the vehicle is in the shop.

This Service Information bulletin replaces SI B32 08 18 dated October 2018

What's New:

- Attachment B320818 updated
- Sublet information

MODEL

| | | | |
|---------------------------|----------------------------|----------------------|----------------------|
| F22 (2 Series Coupe) | F23 (2 Series Convertible) | F30 (3 Series Sedan) | F32 (4 Series Coupe) |
| F36 (4 Series Gran Coupe) | | | |

AFFECTED VEHICLES

This Service Action involves F22, F23, F30, F32 and F36 Series vehicles produced from 10/19/2011 to 5/19/2015.

Vehicles which require this Service Action to be completed, will show it as "Open" when checked either in AIR, the "Service Menu" of DCSnet (Dealer Communication System) or with the Key Reader.

SITUATION

Screws attaching the power pack to the steering gear may be broken. Broken screws result in noises during steering motions and variable steering assistance.

Check Control Message (CCM) may be displayed.

CORRECTION

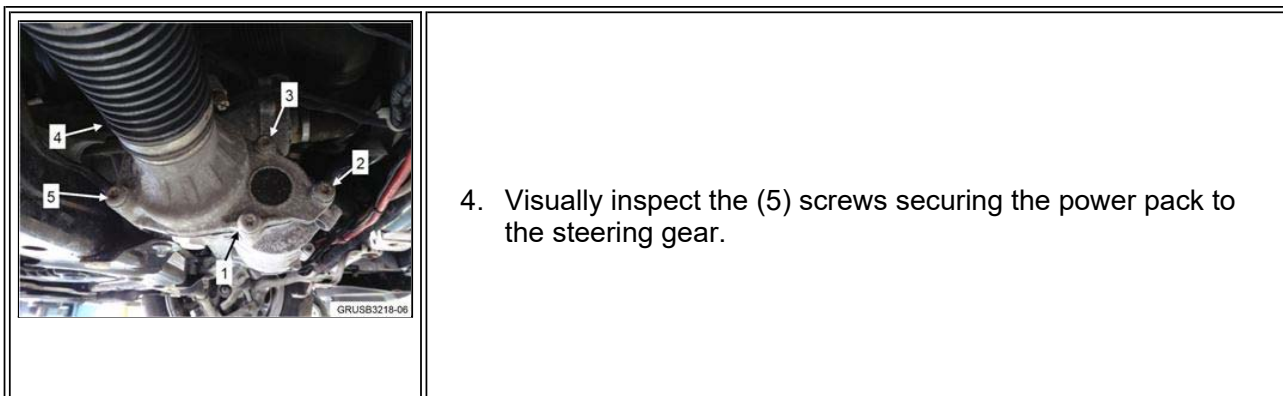
Screw connections of the steering gear power pack must be inspected and repaired per the procedures below.

Steering gear should only be replaced if screws have been broken.

PROCEDURE

For vehicles affected by this Service Action:

1. Disconnect the battery according to **REP 61 20 900**.
2. Remove the front underbody protection according to **REP 51 47 490**.
3. For vehicles with sports suspension settings, remove the underride protection for steering.



Are any of the screws, in the (5) indicated locations, missing or been obviously sheared off?

YES – Go to next step.

NO – Perform the attached Steering Gear Power Supply Attachment Rework procedure.

5. Reconnect the battery.
6. Connect the vehicle to ISTA/D and perform a vehicle test.
7. Following repair instructions **REP 32 13 572**, replace the steering gear.
8. Following repair instructions **REP 32 00 155**, perform a wheel alignment.
9. Work through the measures plan and program the vehicle using ISTA 4.12.30 or higher.

| Model | Target integration level |
|-------------------------|--------------------------|
| F22, F23, F30, F32, F36 | F020-18-07-531 or higher |

Note that ISTA will automatically reprogram and code all programmable control modules that do not have the latest software.

Always connect a BMW-approved battery charger/power supply (SI [B04 23 10](#)).

10. Delete the fault memory.
11. For vehicles with sports suspension settings, install the underride protection.
12. Install the front underbody protection according to **REP 51 47 490**.

PARTS INFORMATION

Please refer to Parts Matrix for ordering procedure.

Steering gear screws, rework

| Part Number | Description | Quantity |
|-----------------|---|-----------|
| 32 10 6 891 831 | Repair kit screws | 1 |
| 83 42 0 428 190 | Cavity protection spray (400ml) | In sublet |
| NPN | Non-woven abrasive cloth, Scotch-Brite Hand Pad (locally sourced) | In sublet |

Only order if required - Steering gear, replacement

| Part Number | Description | Quantity |
|-----------------|--------------------------------|----------|
| 32 10 6 891 186 | Steering gear, electrical, LHD | 1 |
| 33 30 6 787 062 | Combination nut | 2 |
| 32 30 6 778 609 | Torx bolt | 1 |
| 32 10 6 797 242 | ASA bolt | 2 |
| 33 32 6 768 884 | Hexagon collar nut | 2 |

WARRANTY INFORMATION

Reimbursement for this Service Action will be via normal claim entry utilizing the following information:

| | | |
|---------------------|-------------------|--|
| Defect Code: | 0032740200 | |
|---------------------|-------------------|--|

The vehicle is already in the workshop for another repair that includes Main work

| Labor Operation: | Labor Allowance: | Description: |
|------------------|-------------------|---|
| 00 66 853 | Refer to KSD2/AIR | Reworking steering gear (includes connecting an approved battery charger/power supply and performing a vehicle test) (Plus work) |

Or:

| Labor Operation: | Labor Allowance: | Description: |
|------------------|-------------------|--|
| 00 66 854 | Refer to KSD2/AIR | Check and replace steering gear with programming and coding vehicle (includes connecting an approved battery charger/power supply, performing a vehicle test, checking wheel alignment with KDS without load and adjusting) (Plus work) |
| Or: | | |
| 00 66 855 | Refer to KSD2/AIR | Reworking and replacing steering gear with programming and coding vehicle (includes connecting an approved battery charger/power supply, performing a vehicle test, checking wheel alignment with KDS without load and |

| | | |
|--|--|------------------------|
| | | adjusting) (Plus work) |
|--|--|------------------------|

Or:

The vehicle arrives at your center and this Service Action shows open (No other main work will be performed/claimed during this workshop visit)

| Labor Operation: | Labor Allowance: | Description: |
|------------------|-------------------|--|
| 00 66 195 | Refer to KSD2/AIR | Reworking steering gear (includes connecting an approved battery charger/power supply and performing a vehicle test) (Main work) |


Or:

| Labor Operation: | Labor Allowance: | Description: |
|------------------|-------------------|--|
| 00 66 196 | Refer to KSD2/AIR | Check and replace steering gear with programming and coding vehicle (includes connecting an approved battery charger/power supply, performing a vehicle test, checking wheel alignment with KDS without load and adjusting) (Main work) |
| Or: | | |
| 00 66 197 | Refer to KSD2/AIR | Reworking and replacing steering gear with programming and coding vehicle (includes connecting an approved battery charger/power supply, performing a vehicle test, checking wheel alignment with KDS without load and adjusting) (Main work) |

Refer to KSD2/AIR for the corresponding flat rate unit (FRU) allowances.

And, when applicable:

Sublet – Bulk Materials

| | | |
|----------------------|--|--|
| Sublet Code 4 |  Up to \$5.00 | Reimbursement for the repair-related bulk materials (Do not use part numbers for claim submission) |
|----------------------|--|--|

Sublet reimbursement calculation for claiming the applicable repair-related bulk materials, for the “quantities used”:

- For the BMW part number, it's a the dealer net price plus your center's handling; and the
- Other material that is not available through BMW and obtained locally, it is “cost plus 20 percent.”

Enter these material costs in sublet and itemize the amounts on the repair order and in the claim comments.

Vehicle Programming and Encoding (with Steering Gear Replacement Only)

During the same workshop visit, if a vehicle also requires another Technical Campaign or repair that also includes programming and encoding the control units, the programming procedure may only be invoiced one time.

A. The programming procedure automatically reprograms and encodes all vehicle control modules which do not have the latest software i-level. If one or more control module failures occur “during” this programming procedure:

- Please claim this “consequential” control module-related repair work under the defect code listed in this bulletin with the applicable KSD2/AIR labor operations.

Please explain this additional work (The why and what) on the repair order and in the claim comments section.

B. For control module failures that occurred “prior” to performing this programming procedure:

- When “covered” under an applicable limited warranty, claim this control module-related repair work using the applicable defect code and labor operations (including diagnosis) in KSD2/AIR.

And, as applicable:

Alternative Mobility Solution (AMS) for Vehicle Owners

This Service Action repair qualifies for Alternative Mobility Solution (AMS) expense reimbursement, claim this item under the Defect Code noted above as follows:

- Sublet Code 2 - Itemize the AMS sublet amount on the repair order and in the claim comment section.

Please refer to SI [B01 29 16](#) for additional information.

Overlapping Labor Procedure – Other Repairs

If invoicing the KSD2/AIR flat rate labor operation codes for other repair work results in overlapping labor, for those flat rate labor operations that are affected, you are able to:

- Replace the stated KSD2 “FRU allowance” with a “reduced FRU value” to eliminate the overlapping labor.

For help in identifying the overlapping labor, please refer to the AIR FRU Plausibility Check (Overlapping Labor Tool) that is located in the AIR Client.

Eligible other repair work being claimed under a different defect code will require separate punch times.

On the repair order and in the claim comment section, please identify and itemize those labor operations being claimed with a “reduced FRU value.”

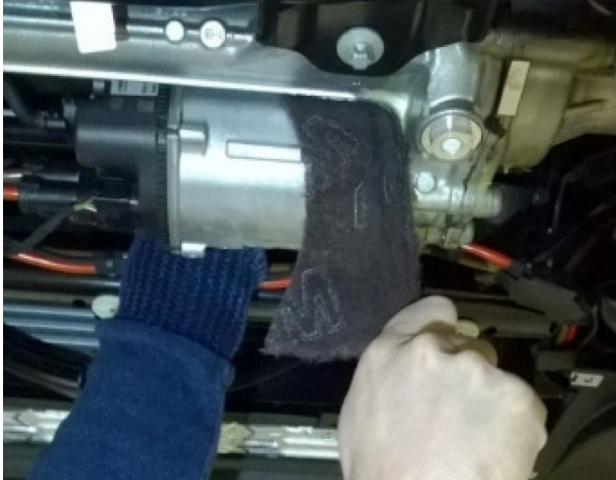
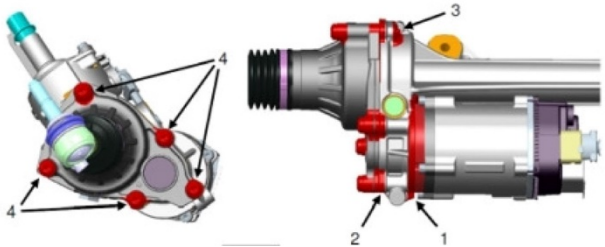

ATTACHMENTS

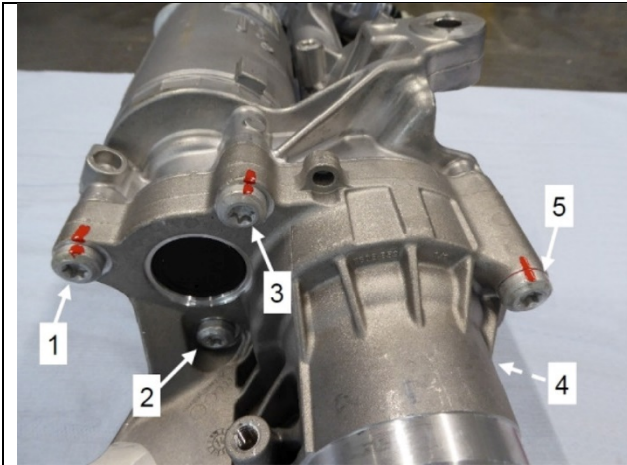
View PDF attachment [B320818 Attachment 1](#).

View PDF attachment [Customer Letter Rework Steering Gear 0918](#).

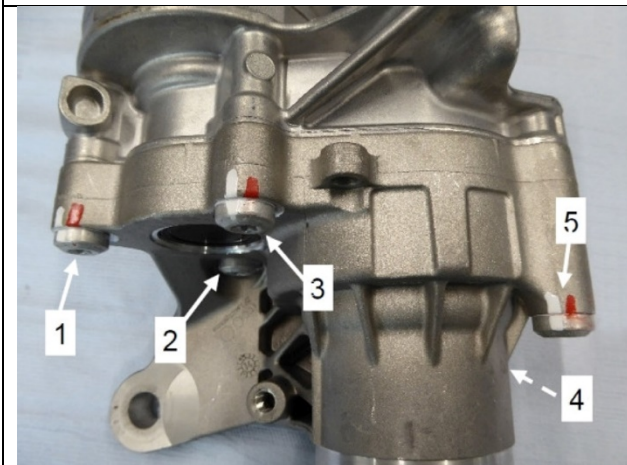
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STEERING GEAR POWER SUPPLY ATTACHMENT REWORK

| | |
|--|--|
|  | <p>1. Clean the outside of the steering gear, especially in the vicinity or seals, using non-woven abrasive cloth.</p> <ul style="list-style-type: none"> • Approved non-woven abrasive is Scotch-Brite Hand Pad. |
|  | <p>2. Clean the flange on the interface from the housing to the differential cover (areas indicated in red on illustration) so that wax can be applied and adhere to the flange surface.</p> <p> Warning: Steering gear subject to corrosion if improperly cleaned!</p> <p>Steel or brass brushes used to clean the steering gear may cause corrosion. Do not use steel or brass brushes!</p> <ul style="list-style-type: none"> • Carefully clean around the five screws (callout #4 in illustration). • Using compressed air, blow off any loose dirt. |
| | |



3. Mark screws with red paint pen.



 **Warning: Do not loosen more than one screw at a time or damage to the steering system may occur!**

4. Replace the five indicated screws, **one at a time**, using the following procedure.



Note: If at any time during this procedure, a screw in the steering gear flange breaks, abort this procedure and replace the steering gear as detailed in the main bulletin **B32 08 18**.

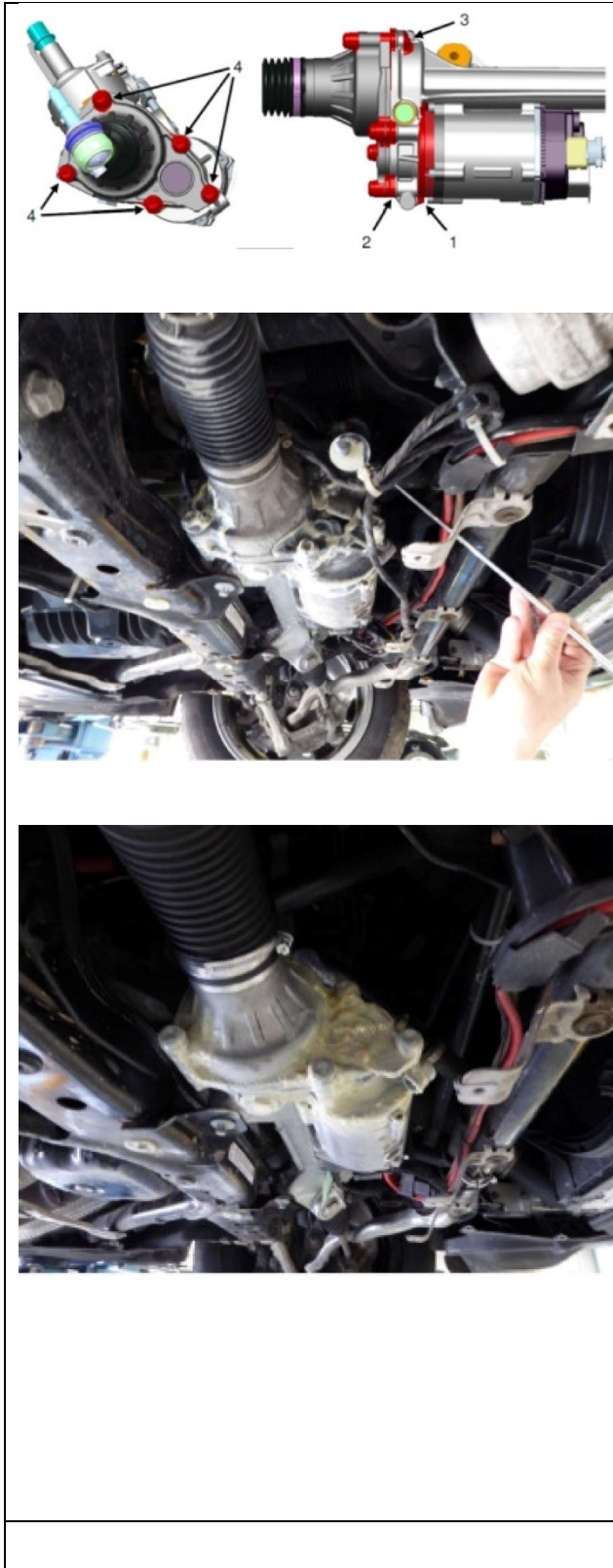


Note: Tools used must be periodically tested for accuracy. Specified torque is applicable to a hand-operated torque wrench.

- A. Remove screw 1.
- B. Discard the screw.
- C. Install a new screw using an electronic torque wrench.

Torque: 5 Nm (+/- 0.5 Nm) +90° angle of rotation (+0° / -20°).

- D. Mark the installed screw with a white paint pen (similar to illustration).
- E. Repeat the procedure for remaining screws 2, 3, 4, and 5, verifying replacement status on the basis of the paint marks.



5. The following areas must be coated with body cavity protection spray (wax), where indicated.
 - Flange interface from housing to engine (1)
 - Flange interface from housing to differential cover (2)
 - Both through-holes (3)
 - All five screw heads (4)
 - A. **UPDATE!** Using the normal air vent, for the lower area, and the air vent with spraying pipe for the upper, spray the steering gear flange (1 & 2) and screws with wax.
 - B. Using a mirror where necessary, check for complete coverage. If required, spray any areas missed, again.
 - C. Wait three minutes for the wax to dry slightly.
 - D. **UPDATE!** Using the air-vent with spraying pipe, re-spray the entire area again.
 - E. Check for complete coverage and re-spray, as needed.
6. Reconnect the battery.
7. Connect the vehicle to ISTA/D and perform a vehicle test. Check the repair list.
8. Clear the fault memory.
9. For vehicles with sports suspension settings, install the underride protection.
10. Install the front underbody protection according to REP 51 47 490.
11. Test the steering function.

BMW



DRAFT

September **xxxx**, 2018

Dear BMW Owner / Lessee:

VIN: **xxxxx**

BMW of North America is dedicated not only to providing premium vehicles for our customers, but exceptional service as well. To ensure our vehicles are of the highest industry standards, BMW performs ongoing quality analyses throughout a model's life cycle.

Description of Issue

During a recent quality analysis, it was determined that corrosion may possibly lead to the breakdown of the connecting screws between the steering gear and power pack. This may result in noises while steering and possible varying steering assistance. If this occurs, the error may be displayed via a corresponding Check Control message.

Description of Repair

To ensure that your vehicle is in proper working order, the steering gear will be re-worked.

We kindly request that you contact the service department of your authorized BMW center at your earliest convenience to arrange a service appointment. The staff will schedule an ideal time for you to drop off the vehicle and advise how long it will take to complete the repair. The work will be performed free of charge by your authorized BMW center.

Additional Information

If you are no longer the owner of this vehicle, please use the enclosed postage-paid postcard to provide us with the name and address of the new owner. If you are a lessor of this vehicle, please forward this letter to your lessee.

Should you have any questions, please contact your authorized BMW center or BMW Customer Relations and Services at 1-800-831-1117 or via email at CustomerRelations@bmwusa.com.

BMW remains committed to maintaining the highest level of automotive excellence, and we apologize for any inconvenience this repair may cause.

Sincerely,

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