

|                                                    |                       |                                                                 |                           |         |                                                   |                |
|----------------------------------------------------|-----------------------|-----------------------------------------------------------------|---------------------------|---------|---------------------------------------------------|----------------|
| Dealer Operation/<br>General Manager               | Sales-<br>Motorcycles | Sales -<br>Used Motorcycles                                     | Business Manager<br>(F&I) | Service | Parts & Accessories                               | Administration |
| Date: December 2008<br>Bulletin #: 27 001 08 (065) |                       | Source: SI 48/2008<br>BMW Motorrad USA<br>Service and Technical |                           |         | Recall Identifier number assigned<br>January 2009 |                |



## BMW Motorrad USA

### Service Information Bulletin

## **\*\*Recall 08V-692\*\***

**Subject:** Threaded fasteners, sprocket to sprocket carrier

**Model:** F 650 GS / F 800 GS (K72)

**Details:** The procedure used in the past for torquing the threaded fasteners securing the sprocket to the sprocket carrier (tightening torque 25 Nm) resulted in excessive fluctuations in preload force, on account of the fact that the nuts used are of the self-locking type with clamping element. This, in turn, meant that individual threaded fasteners worked loose.

**Motorcycles affected:** In order to determine if a specific motorcycle is affected by this Recall Campaign, it will be necessary to verify all motorcycle VINs through a DCS Vehicle History Check. Based on the response of the system, either proceed with the repair or take no further action.

**Note:** In the case of each motorcycle affected, check to ascertain whether Recall Campaign "Threaded fasteners, front brake disc" SIB 34 009 08 (062) applies as well.

**Production Solution:** Introduction of a 2-stage torquing process:

1. Initial torque with 10 Nm
2. Final torque with 90° additional angle of rotation

**After-sales Solution:** Make sure you have read and complied with the following before handing over the motorcycles to the customers: The motorcycles effected must be brought up to the current series production standard by proceeding strictly in accordance with the instructions below. In the case of each motorcycle affected, the 6 threaded fasteners of the sprocket have to be slackened and re-tightened in accordance with the new torquing procedure (see work item 00 60 185).

Threaded fasteners that have worked loose have to be checked for damage (damaged threads or distortion) and, if necessary, replaced (see enclosed work item 27 71 006).

**Use either 00 60 185 or 27 71 006, as applicable.**

**Note:** The Technical Documentation will be updated accordingly as from RSD Repair & Service Data DVD 12/2008. Until then, the repair instructions and specifications in this Service Information bulletin shall apply.

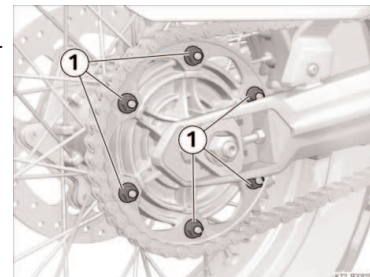
**Work item:** 00 60 185 Campaign - Loosening /tightening sprocket screw connection

Additional work: 46 52 511 Removing and installing the middle stand special tool for motorcycles without center stand.

#### **Slackening/tightening threaded fasteners of sprocket**

Slacken and retighten each nut (1) in turn, while counter holding the screw head.

| Tightening torques                       |                        |
|------------------------------------------|------------------------|
| Chain sprocket to chain-sprocket carrier |                        |
| M8 Mechanical thread lock                | Initial torque - 10 Nm |
|                                          | Final torque - 90°     |



**Finishing work:** Final check of work performed

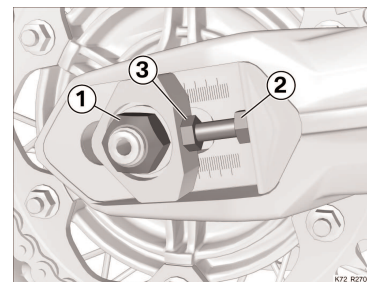
Check that the work performed achieved the intended purpose.

**Work item: 27 71 006 Removing and installing sprocket carrier**

Additional work: 46 52 511 Removing and installing the middle stand special tool for motorcycles without center stand.

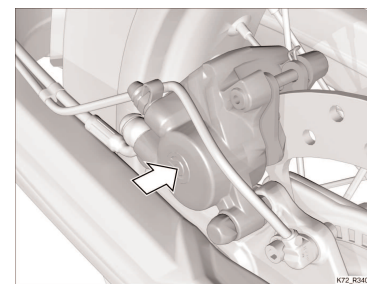
**Relieving chain tension**

Slacken quick-release axle nut (1).  
Slacken locknuts (2) on left and right.  
Tighten adjusting screws (3) and push the wheel forward until the chain is slack.



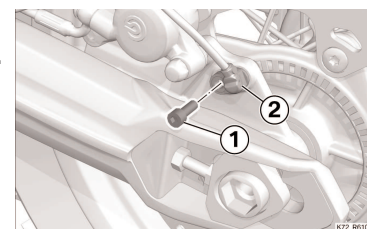
**Removing rear wheel**

Press the brake caliper against the brake disc in order to force the piston back.



**Releasing rear wheel-speed sensor**

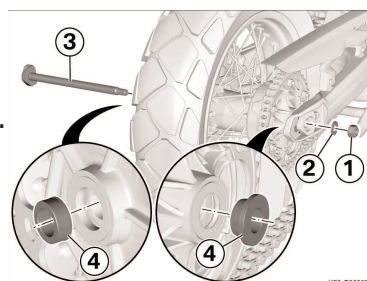
Remove screw (1) and disengage wheel speed sensor (2).



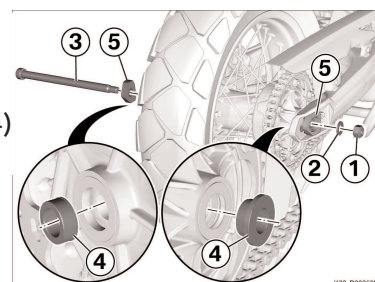
**Note:** There are different construction statuses. Select the appropriate repair path.

Remove nut (1) with washer (2).  
Remove quick-release axle (3).  
Remove the chain from the sprocket.  
Pull the wheel to the rear to remove. Remove bushings (4).

or



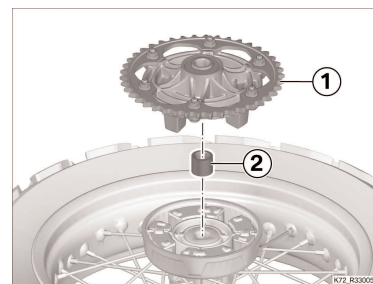
Remove nut (1) with washer (2).  
Remove quick-release axle (3).  
Remove the chain from the sprocket.  
Pull the wheel to the rear to remove. Remove bushings (4) and both chain tensioners (5).



**Attention:** In both construction statuses once the brake calipers or brake pads have been removed, operating a brake lever could result in the pistons being pushed out. Do not operate the brakes. Install the brake pads and brake caliper or insert the piston resetting device.

### Removing sprocket carrier

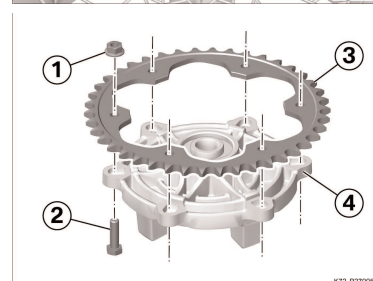
Remove sprocket carrier (1) and remove bushing (2).



### Removing sprocket

Remove nuts (1) and screws (2).

Remove sprocket (3) from carrier (4).



**Note:** There are different construction statuses. Select the appropriate repair path.

### Installing sprocket

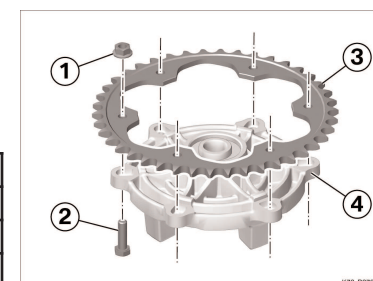
Hold sprocket (3) in position on carrier (4) and install screws (2) and nuts (1) to secure.

**Note:** Replace M8 nuts (1) when installing sprocket.

#### Tightening torques

##### Chain sprocket to chain-sprocket carrier

|                        |                        |
|------------------------|------------------------|
| M8, Replace nuts M8    | Initial torque - 10 Nm |
| Mechanical thread lock | Final torque - 90°     |



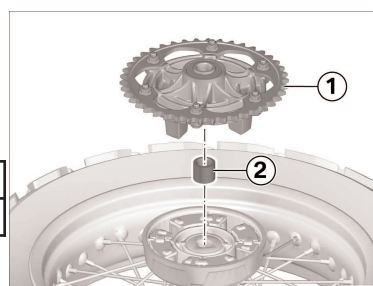
### Installing sprocket carrier in rear wheel

Lubricate the friction face of spacing bushing (2).

Install bushing 2 and install sprocket carrier (1).

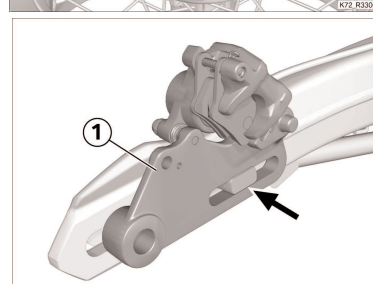
#### Fluids and lubricants

Staburags NBU 30 PTM (07 55 9 056 992)



### Installing rear wheel

Locate brake caliper (1) on the locator (arrow) on the swinging arm.



Clean and lubricate the friction faces of the shaft sealing rings.

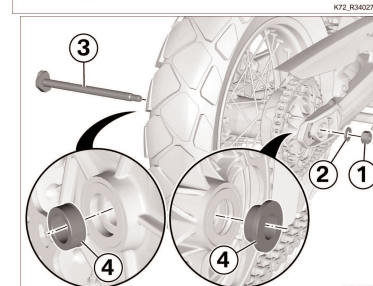
Insert bushings (4) into the wheel.

Manoeuvre the wheel into position, taking care not to damage the wheel-speed sensor, brake disc and wheel rim.

Roll the rear wheel forward and loop the chain over the sprocket.

Install quick-release axle (3).

Install nut 1 with washer (2), leaving the nut loose.



or

Clean and lubricate the friction faces of the shaft sealing rings.

Clean and lubricate quick-release axle (3).

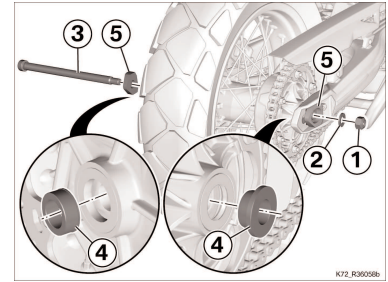
Insert bushings (4) into the wheel.

Manoeuvre the wheel into position, taking care not to damage the wheel-speed sensor, brake disc and wheel rim.

Roll the rear wheel forward and loop the chain over the sprocket.

Install quick-release axle (3) with chain tensioner (5).

Install nut 1 with washer (2), leaving the nut loose.



#### Fluids and lubricants

|                        |                                        |
|------------------------|----------------------------------------|
| Shaft sealing rings    | Staburags NBU 30 PTM (07 55 9 056 992) |
| Quick-release axle (3) | Optimoly TA (18 21 9 062 599)          |

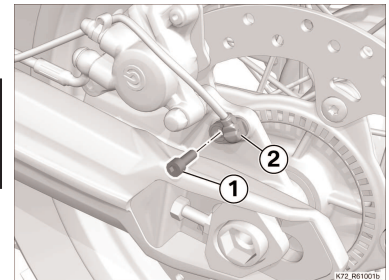
#### Securing rear wheel-speed sensor

Install wheel-speed sensor (2). Install screw (1).

#### Tightening torques

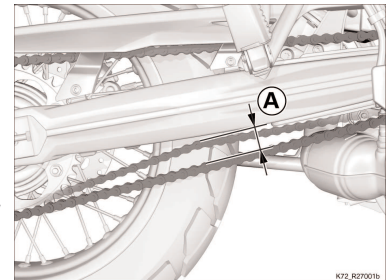
##### Wheel-speed sensor, rear

|         |      |
|---------|------|
| M6 x 16 | 8 Nm |
|---------|------|



#### Adjusting chain tension (deflection)

Measure/adjust chain deflection (A) halfway along the bottom chain run. Chain stretch is not uniform, so it is important to make adjustments with the chain at the point of least deflection. Use tensioning screws (3) to adjust chain deflection, making sure that the rear wheel is aligned to track correctly (same scale readings arrow on both sides of the rear wheel swinging arm).



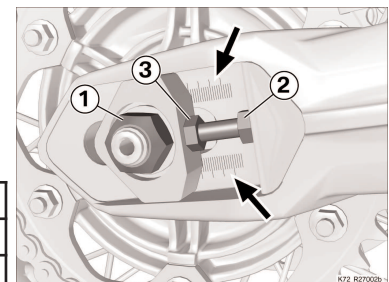
#### Technical data

|                  |                                                                |            |
|------------------|----------------------------------------------------------------|------------|
| Chain deflection | Motorcycle with no weight applied, supported on its side stand | 35...45 mm |
|------------------|----------------------------------------------------------------|------------|

Tighten locknuts (2) on left and right.

Tighten quick-release axle nut (1).

Complete the operation by re-checking that wheel alignment is true (same scale readings arrow on both sides of the rear wheel swinging arm).



#### Tightening torques

##### Locknut of the final-drive chain tensioning screw

|    |       |
|----|-------|
| M8 | 19 Nm |
|----|-------|

##### Rear quick-release axle in swinging arm

|           |        |
|-----------|--------|
| M16 x 1.5 | 100 Nm |
|-----------|--------|

**Attention:** Any difference in the settings of the two adjusting screws will throw the rear wheel out of alignment and it will not track correctly. Make sure that the marks on left and right show that there is no difference between the settings of the two screws.

#### Finishing work:

#### Final check of work performed

Check that the work performed achieved the intended purpose.

**NHTSA Statement:** Under the National Traffic and Motor Vehicle Safety Act of 1966, as amended, if there has been a recall campaign, dealers must assure that all new vehicles and new items of replacement equipment are free of safety defects and comply with all applicable Federal Motor Vehicle Safety Standards at the time of delivery to the consumer. This means that dealers may not deliver new motor vehicles or new items of replacement equipment to consumers unless the safety defect or noncompliance has been remedied before delivery.

**Warranty:** The repair described in this bulletin is covered under warranty regardless of time or mileage. Reimbursement for this Recall Campaign will be via normal claim entry utilizing the following information:

**Warranty Information:** Defect code: 00 00 27 09 00 Threaded fastener, sprocket  
FRU code: 00 60 185 Campaign- loosening / tightening sprocket screw connection 5 FRUs  
Use **only** this labor operation when loosening / tightening the sprocket threaded fasteners.

or

27 71 006 Removing and installing sprocket carrier, 6 FRUs  
Use **only** this labor operation when replacement of threaded fasteners is required.

Under no circumstances are you to claim **both** labor operations.

Part No.: 07 11 9 905 977 Hex nut as needed up to 6x  
07 11 9 906 181 Hex screw as needed up to 6x

**Contact:** Service and Technical Manager