



## Service Information

15.01.2015

Technical Campaigns and Special Processes

## Replace the chain tensioner and, if required, the timing chain

0011540300

E6x E8x E9x N47

### Situation

On the vehicles concerned, in individual cases, the chain tensioner may not compensate for the extension of the timing chain. Exceeding the maintenance intervals and the presence of deviations in the oil quality lead to an increased extension of the timing chain.

### Effect

The timing chain may wear prematurely.

### Vehicles concerned

E6x E8x E9x N47

According to VIN selection

### Measure

1. Determine the vehicle mileage/km.
2. Depending on the vehicle mileage/km, replace the chain tensioner or use a measuring chain tensioner to determine the timing chain extension.
3. Depending on the measuring result, replace the chain tensioner or, if required, replace the upper timing chain and chain tensioner, or the upper and lower timing chain and chain tensioner.

### Procedure



You must always replace the chain tensioner.

1. If the vehicle's mileage is below 75,000 km, only replace the chain tensioner.  
To replace the chain tensioner, proceed as recommended in Repair

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- Instructions 11 31 090 Remove and refit/replace the chain tensioner piston (N47 D20 O1).
2. If the vehicle's mileage is above 75,000 km, you must also check the timing chain. For this, proceed as recommended in Repair Instructions 11 31 540 Check the timing chain for extension and replace the chain tensioner (N47 D/C K/U/O/T 0/1) and follow the instructions from the diagnostics module.
  3. Depending on the measuring result for the timing chain, you must follow the instructions from the diagnostics module.
  4.
    - a. **Always** select the field "SW27" in the diagnostics module. => Continue in the diagnostics module.
    - b. Then **always** select the "Calk present" field. => Continue in the diagnostics module.
  5. If only the upper timing chain is replaced, proceed as described in repair instructions RA: 11 31 544 Check the timing chain for extension and replace the top timing chain (N47 D/C K/U/O/T 0/1).  
If both timing chains are replaced, proceed as described in repair instructions RA: 11 31 548 Check the timing chain for extension and replace both timing chains (N47D/C K/U/O/T 0/1).
  6. Reassemble the vehicle in the reverse sequence.

### **Parts return (special damaged component process):**

In selected cases, the diagnostics module requests that you send in replaced timing chains and/or chain tensioners for analysis.

If the diagnostics module requests that you send parts in, proceed as follows. Send back the replaced upper timing chain and chain tensioner, along with the vehicle identification number, the part number and the dealer number, to the following address for analysis as special damaged components:

#### **BMW AG**

Gewährleistungsteilezentrum GWTZ

Werk 01.01 / Gebäude 23.0

Heidemannstrasse 164

80935 Munich

Germany

**German market:** See PuMA measure 4811067

The recipient pays the costs for returning the parts.

**All other markets:**

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Send only via DHL Airflight (DHL Express) with Account/Impex no.: 951 531 547 /  
Pass by: -EX works- Attention please: The account/impex no. has changed.  
Number to be used is exclusively for special parts requests.

## Parts

For all vehicles

| <b>Part number</b> | <b>Description</b>  | <b>Quantity</b> |
|--------------------|---------------------|-----------------|
| 11 31 8 586 699    | Top chain tensioner | 1               |

Optional for vehicles with a measured chain extension

- In the case of a measured chain extension, you must also replace the upper timing chain:

| <b>Part number</b> | <b>Description</b>      | <b>Quantity</b> |
|--------------------|-------------------------|-----------------|
| 11 31 8 578 943    | Timing chain repair kit | 1               |

- In the case of a measured chain extension, you must replace both timing chains.

The cylinder head cover and cylinder head gasket sealing kits must be selected depending on the engine version (N47 or N47N).

| <b>Part number</b> | <b>Description</b>               | <b>Quantity</b> |
|--------------------|----------------------------------|-----------------|
| 11 31 8 509 926    | Camshaft chain wheel             | 1               |
| 11 31 7 797 898    | Tensioning rail                  | 1               |
| 11 31 7 797 899    | Guide rail                       | 1               |
| 11 31 8 572 503    | Timing chain                     | 1               |
| 13 52 7 797 906    | High-pressure pump chain 1 wheel | 1               |
| 13 52 7 797 905    | Chain tensioner (bottom)         | 1               |
| 13 52 8 575 471    | Chain                            | 1               |
| 13 52 8 573 158    | Guide rail                       | 1               |
| 13 52 8 573 159    | Tensioning rail                  | 1               |
| 11 41 7 797 896    | Chain (oil pump)                 | 1               |
| 11 12 8 513 128    | Set of screws for cylinder head  | 1               |

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|                 |   |   |
|-----------------|---|---|
| 11 31 7 801 703 | Profile seal                                      | 4 |
| 11 12 7 807 017 | Cylinder head cover seal set, N47                 | 1 |
| 11 12 8 506 128 | Asbestos-free cylinder head gasket (1-hole), N47  | 1 |
| 11 12 8 506 129 | Asbestos-free cylinder head gasket (2-hole), N47  | 1 |
| 11 12 8 506 130 | Asbestos-free cylinder head gasket (3-hole), N47  | 1 |
| 11 12 8 511 814 | Cylinder head cover seal set, N47N                | 1 |
| 11 12 8 509 146 | Asbestos-free cylinder head gasket (1-hole), N47N | 1 |
| 11 12 8 509 147 | Asbestos-free cylinder head gasket (2-hole), N47N | 1 |
| 11 12 8 509 148 | Asbestos-free cylinder head gasket (3-hole), N47N | 1 |

Select other small parts, auxiliary and operating fluids after you have entered the vehicle identification number for the vehicle concerned from the Electronic Parts Catalogue (EPC).

### **Note:**

Operating fluids required for topping up to correct levels must be billed at the net price under outside service code 04.

### **Note:**

In principle, parts requiring replacement as part of a Technical Campaign are not subject to the PartsClearing process.

## **Reimbursement**

Claims are subject to current warranty terms.

**Special defect code: 00 11 54 03 00**

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Warranty type: 1

Warranty stage: 1

| Flat-rate unit number | Description   | Labour   |
|-----------------------|---|--|
| 00 62 882             | Replace the upper chain tensioner.  | 3 FRUs (E60, E61, E81, E82, E87, E88, E90, E91, E92, E93); 5 FRUs (E83)  |
| 00 62 883             | Use a measuring chain tensioner to measure the chain extension and replace the chain tensioner.                                   | 11 FRUs (E60, E61); 12 FRUs (E81, E82, E87, E88, E90, E91, E92, E93); 15 FRUs (E83)  |
| 00 62 884             | Use a measuring chain tensioner to measure the chain extension and replace the chain tensioner and upper timing chain.            | 54 FRUs (E83); 55 FRUs (E61); 56 FRUs (E60, E81 N47, E82 N47, E87 N47, E88 N47); 57 FRUs (E81 N47S, E82 N47S; E87 N47S, E88 N47S, E90, E92); 58 FRUs (E91, E93)  |
| 00 62 885             | Use a measuring chain tensioner to measure the chain extension and replace the chain tensioner and upper and lower timing chains. | 156 FRUs (E81 118d N47 SCH, E87 118d N47 SCH); 159 FRUs (E81 120d N47 SCH, E87 120d N47 SCH, E88 118d N47 SCH); 160 FRUs (E82 120d N47 SCH); 161 FRUs (E88 120d N47 SCH); 167 FRUs (E81 118d N47 AUT, E81 120d N47 AUT, E87 118d N47 AUT, E87 120d N47 AUT); 168 FRUs (E61 SCH, E82 120d N47 AUT, E88 120d N47 AUT, E90 318d N47 SCH, E90 320d N47 SCH, E92 320d N47 |

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SCH); 169 FRUs (E60  
SCH);  
170 FRUs (E88 118d N47  
AUT, E93 320d N47  
SCH); 171 FRUs (E91  
318d N47 SCH, E91 320d  
N47 SCH); 174 FRUs  
(E92 320d N47 AUT); 176  
FRUs (E90 318d N47  
AUT, E90 320d N47 AUT);  
177 FRUs (E61 AUT); 178  
FRUs (E60 AUT);  
179 FRUs (E91 318d N47  
AUT, E91 320d N47 AUT);  
186 FRUs (E81 123d  
N47S SCH, E87 123d  
N47S SCH); 187 FRUs  
(E82 123d N47S SCH);  
188 FRUs (E81 123d  
N47S AUT, E87 123d  
N47S AUT, E88 123d  
N47S SCH);  
189 FRUs (E82 123d  
N47S AUT) 190 AW (E88  
123d N47S AUT); 195  
FRUs (E90 320d Xdrive  
N47 SCH, E92 320d  
Xdrive N47 SCH); 198  
FRUs (E91 320d Xdrive  
N47 SCH); 204 FRUs  
(E83 SCH); 209 (E90  
320d Xdrive N47 AUT);  
212 FRUs (E91 320d  
Xdrive N47 AUT); 216  
FRUs (E83 AUT)

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Only one of the above job numbers may be quoted for reimbursement purposes.  
Engine oil and radiator antifreeze that is required for setting the correct filling level  
can be billed with the net price under outside service code 04.

**Bayerische Motoren Werke Aktiengesellschaft**  
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