"PUMA 13588845-03 incidence recorded by BMW and its repair: [link to document]

Diligence-number Item
43863106-03 N47, N47S, N47T, rustling sound in the engine, timing chain rubs.

Approval date (day.month.year) Status Organization
Approved 14.12.11 Germany, automobiles

Vehicles affected
E Series Motor Body
E60 E61 E81 E82 E83 N47 N47DKO N47S N47T E61 E60 E81 E82 E83 N47 N47S N47T N47DKO
E84 E87 E88 E90 E91 E87 E84 E88 E90 E91
E92 E93 F10 F11 F25 E93 E92 F10 F11 F25

Feedback Comment Feedback (From / to) on the production interval diligence (day.month.year) to (day.month.year)
/ 01.03.11 / 01.03.11

Complaint
Sound of friction drag on the engine from about 1500 rpm, which is visible from the inside.
The noise can be perceived in area of the gearbox housing and the oil pan.

Cause
Excessively sharp edges on the sprockets, the chain does not flow evenly over the guides.

Measures
We must distinguish two cases:

Case 1:
For engines N47, N47DKO, N47S, interval from 01.03.2007 to production 05.01.2009.

In case of customer complaint must change the following parts:
(See Annexes, Figures 1 to 7.) - Nov. 21 7803479 Sutitución the crankshaft bearings.

Caution: Use only crankshafts with a production date back to 5. 1. 1. 2009 2009
The production date is printed on crankshaft sprocket (see page 2 of the Annex)

Meaning of the figures:
The first two indicate the assembly line. The 6 following year (two digits), month, day. Last 5 indicate the reference number of the crankshaft. Thus, the crankshaft shown on page 2 of the annex was built on October 21, 2009. 41 -11 7,797,896 chain oil pump.
11 31 8 506 652 Timing Chain bottom.
13 52 7 797 906 sprocket for driving the high pressure pump.
11 27 7 800 523 sprocket (intermediate for balance shafts).
11 8,510,014 31 Supply Chain superior.
-11 7,797,899 31 Timing Chain Guide above.
-13 7,797,904 52 Timing Chain Guide below.

Note: Adjusting the intermediate gear shafts accurately balanced according to workshop manual. In case this intermediate sprocket and the balance shafts are not sufficiently fit, the motor can still giving rise to noise despite the new crankshaft.

See November 21 workshop manual 500 "crankshaft replacement."

Note: In the case of vehicles to which a previous repair and they replaced the crankshaft: Proceed with these vehicles as detailed in "Case 2".

Case 2:

N47 engine, N47DKO, N47S, N47T production interval 05.01.2009 - 01.03.2011

In case of customer complaint replace the following parts:
(See Appendix, Art 8 to 10)
-11 8,506,652 31 Supply Chain bottom.
- 13 52 7 797 906 sprocket high pressure pump.
- 11 31 8 510 014 Supply Chain superior.
-11 7,797,899 31 Timing Chain Guide above.
-13 7,797,904 52 Timing Chain Guide below.

Note: There is no need to release the binding thread of the intermediate toothed wheel balancer shafts.

Note: As of March 2011 there are new guidelines. These guidelines do not bring reinforcing ribs.

(See Appendix, pp. 7 and 10.)
In this way the inner surface of the guides is smooth throughout its length and the timing chain runs easily on them. They have not changed the references.

Note: During the repair make sure guides are mounted without lateral veins (in the Annex, Art 7 and 10.)
Attention:
No repairs are allowed in vehicles with production date after 03/2011 and vehicles in which all existing measures have already been made. The sound now is the moment, the normal state of this world! No risk of broken chain!

Not allowed engine change because of this claim!"