



Connection offline

Technical product information

Transaction No.: 2026513/5

Engine: rattling noises from front/engine compartment when starting engine

Release date: 01-Oct-2012

Customer statement / workshop findings

**Customer statement:**

- Rattling noises from front of vehicle/engine compartment when starting the engine.

**Workshop findings:**

- Rattling noises from front of vehicle/engine compartment when starting the engine.
- Length of timing chain has changed.
- Valve timing do not match, timing chain has jumped off.

Technical background

The length of the timing chain has changed because of wear. This leads to:

- Rattling noises when starting the engine.
- Timing chain jumps off.
- Contact between valves and piston.

Production change

Optimised timing chain from engine number:

- CBZ\* 462774 (Mlada Boleslav).
- CBZ\* 714253 (Salzgitter).



For the identification of the plant observe the sticker on the boost pressure pipe (illustration 1, red mark) or on the intercooler.



### Illustration 1

S = Salzgitter

M = Mlada Boleslav

Measure

**Check/repair:**

### Assessment of timing chain:

If there rattling noises at the start or the length of the timing chain has changed:

Check the valve timing of the engine according to the repair manual.

- If the valve timing is incorrect:
  - Check whether the valves and the pistons have touched each other.
- If they have:
  - Fit a short engine according to the repair manual.
- If the valve timing is correct and valves and pistons have not touched each other:

- Fit the repair kit for timing chain (part number: 03F 198 229 A) according to the repair manual.
- If a chain box without guard is fitted:
  - Fit the optimised chain box with guard (part number: 03F 109 210 C) according to the repair manual (illustration 4, green marks).
- Change the engine oil and the oil filter according to the repair manual.



Illustration 2: old timing chain (inside/outside)

Illustration 3: optimised chain (modified chain clips)

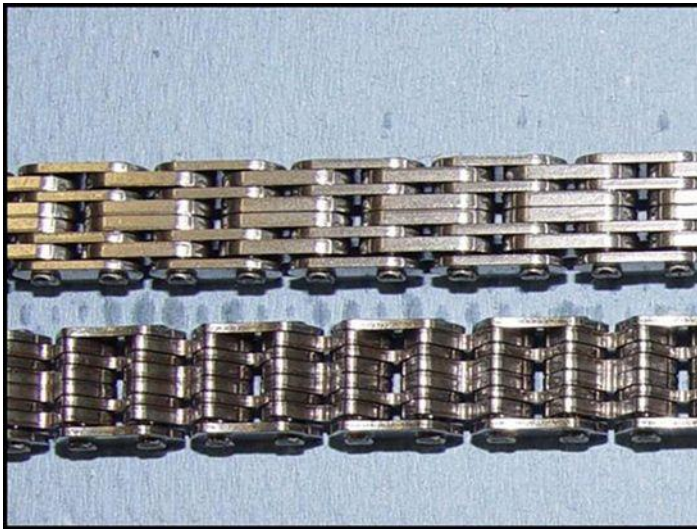


Illustration 2

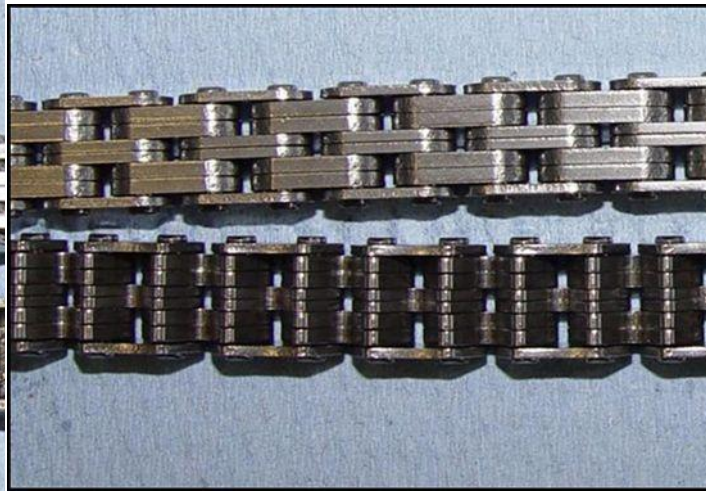
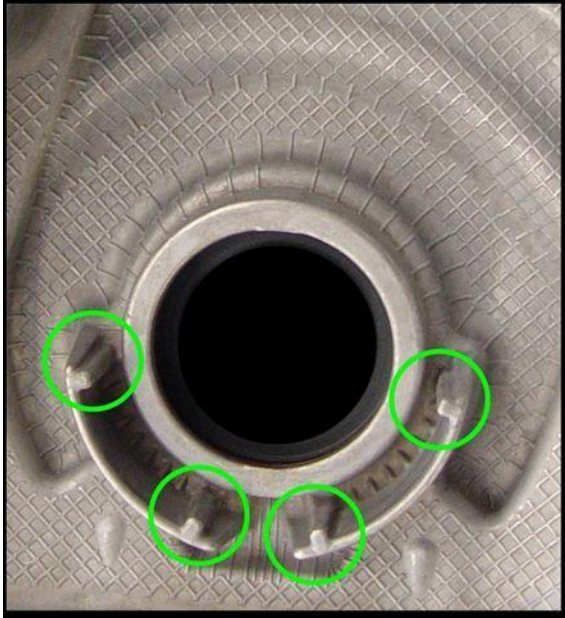


Illustration 3

#### Check chain box:



Check whether a guard for the timing chain available is fitted on the chain box (illustration 4, green areas).



**Illustration 4.**

#### **Assessment of oil pump chain:**



The drive chain of the oil pump can sag. See the attached video file. The video shows the correct condition of the oil pump drive chain. This sagging does not cause the damage and does not justify the replacement of the chain. Groundlessly replaced chains will be redebited.

#### **Warranty accounting instructions**

Service number/damage code/manufacturer: 1535/0010/...



- The labour times are correct at the time of publication. The time units (TU) may differ slightly, if the repair catalogue has been updated. The information in the repair operations catalogue applies, except for the open time items (... 99).
- The necessary time for using the Offboard Diagnostic Information System Service/VAS PC tester is not included; it must be accounted separately with the print-out of the tester.
- Use the repair operations catalogue for the above work.
- If further work is necessary, it can also be accounted. Please explain these repairs in the SAGA2 text field.

#### **Accounting with APOS:**

	Repair operation number	Designation	Time units
Jetta 162, Touran 1T3, Golf Cabriolet 517, Golf Plus 521, Beetle 5C*, Golf 5K1,			

<b>Polo 6R1, Golf Estate AJ5</b>			
Main operation	01 50 00 00	GFF/guided functions	*
Associated operation	27 06 89 50	Charge battery	10 TU
Associated operation	17 30 56 99	Replace oil filter	10 TU1)
<b>The repair operations include all the work of this TPI.</b>			

1) Use the above times only for this TPI.

### Accounting with APOS/2:

Model	Illustration	Position	Number	Designation	Activity	Time units
162, 1T3, 517, 521, 5K1, AJ5, 6R1	STA-02	1	S00032	Guided fault finding	00	*
162, 1T3, 517, 521, 5K1, AJ5, 6R1	STA-02	4	915105	Charge battery	89	*
162, 1T3	115-10	17	115561	Replace oil filter	55	*
517, 521, 5K1, AJ5	115-01	17	115561	Replace oil filter	55	*
6R1	115-06	17	115561	Replace oil filter	55	*
<b>The repair operations include all the work of this TPI.</b>						

Parts information



The part numbers and indexes of this TPI are correct at the time of publication. If the parts catalogue has been updated, use the current part numbers and indexes.

Part number	Designation
03F 198 229 A	Timing chain repair kit
03F 109 210 C	Chain box
Parts catalogue	Engine oil/oil filter