

## Rattling noise after engine start for several seconds

Topic number	LI05.10-P-056435
<b>Version</b>	<b>10</b>
Design group	05.10 Timing chain drive, toothed belt drive
<b>Date</b>	<b>11-12-2015</b>
Validity	Engine 157: Up to engine 1579xx 60 047752 Engine 2768: Up to engine 2768xx 30 001281 <b>Engine 2769: Up to engine 2769xx 30 406603</b> Engine 278: Up to engine 2789xx 30 191843 Dealer MUST involve PTSS before performing this LI for engine #'s outside of the identified ranges above
Reason for change	edit

### Complaint:

Engine rattling after engine start for several seconds.

Attachments	
File	Description
Rasselgeräusch nach Motorstart.mp3	Rattling noise after engine start

### Cause:

The secondary chain tensioners produce a rattling noise until the engine oil pressure has built up. No consequential damage is to be expected.

### Remedy:

Replacement of secondary chain tensioners on left and right and installation of a check valve in the oil supply bore of each secondary chain tensioner in the cylinder head on left and right.

Order the chain tensioners from the parts service according to the engine number as per EPC.

Order the check valves from the parts service after checking the diameter of the oil supply bore in cylinder heads.

#### Engine 157:

Up to engine 1579xx 60 022333, install chain tensioners and check valves.

From engine 1579xx 60 022334 to engine 1579xx 60 047752, install chain tensioners only.

#### Engine 2768:

Up to engine 2768xx 30 000790, install chain tensioners and check valves.

From engine 2768xx 30 000791 to engine 2768xx 30 001281, install check valves only.

#### **Engine 2769:**

**Up to engine 2769xx 30 365996, install chain tensioners and check valves.**

276952 30 103682

# XENTRY TIPS

From engine 2769xx 30 365997 to engine 2769xx 30 406603, install check valves only.

Engine 278:

Up to engine 2789xx 30 103675, install chain tensioners and check valves.

From engine 2789xx 30 103676 to engine 2789xx 30 191843, install chain tensioners only.

If the noise problem is not rectified after installing the new chain tensioners and check valves, or if the engine number of the affected engine is higher than the corresponding engine listed under Validity, report the complaint via the PTSS system with the current quick test results

Attachments	
File	Description
Rückschlagventil montieren.pdf	Installation instructions for check valve
assembling of check valve.pdf	Installation instructions for check valve

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC
A 278 050 33 00			Check valve	2	This check valve may only be installed in cylinder heads with a stepped oil supply bore. Please check the bore in accordance with the instructions.	X
A 278 050 40 00			Check valve	2	This check valve may only be installed in cylinder heads with an oil supply bore that is not stepped. Please check the bore in accordance with the instructions.	X
W27658900330 0			Press-in tool	1	Special tool	

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note
01-5702	LEFT FRON COVER		05131 36	
05-7806	RIGHT TENSIONER AND CHECK VALVE		05131 36	
01-5703	RIGHT FRONT COVER		05131 36	
05-7807	LEFT TENSIONER AND CHECK VALVE		05131 36	
01-6853	FOR SOME ENGINE 278 ONLY- ADDITIONAL OP		05131 36	This is for the oil cooler. Some M278 & M157 opcodes include this work in 015702