

Service Campaign Bulletin



Campaign No 2014120001, January 2015

Revision	Date	Purpose
A	01/20/15	Revision to Parts information
-	01/09/15	Initial release

TO: ALL MERCEDES-BENZ CENTERS

SUBJECT: **Model 117 AMG, Model Year 2014 - 2015, Model 156 AMG Model Year 2015**
Check Turbocharger, Replace if Necessary

This Service Campaign has been initiated because Daimler AG (DAG), the manufacturer of Mercedes-Benz vehicles, has determined that the turbo charger may need to be replaced. An authorized dealer will check the turbo charger and replace the engine oil, and only if necessary, replace the turbo charger at the next workshop visit.

Prior to performing this Service Campaign:

- Please check VMI to determine if the vehicle is involved in the Campaign and if it has been previously repaired.
- Please review the entire Service Campaign bulletin and follow the repair procedure exactly as described.

Approximately 900 vehicles are affected.

Order No. P-SC-2014120001

This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Quality Records.


Procedure


A. Inspect Turbocharger

1. Change engine oil and filter using **only the oil filter*** from parts kit: **A 133 180 06 10 05**.

i **Note:**

- *This oil filter cannot be ordered as a separate part.
- The engine oil **must** be drained when the engine is at operating temperature via the drain plug at the oil pan and must **not** be suctioned out.
- Do **not** start the engine after changing engine oil until further steps are performed (as per steps below).
- Engine must be allowed to cool down after the oil change prior to performing the following steps.

2.  Remove air filter housing, refer to WIS: AR09.10-P-1150MTA.

3.  Remove engine cover and turbocharger heat shield.

i **Installation Note:** Torque heat shield bolts to: 9 **Nm**.

4. Loosen profile clamp (1, Figure 1) and move exhaust pipe to one side.

i **Installation Note:**

- Replace profile clamps and bolts
- Torque profile clamp bolt to: 20 **Nm**.

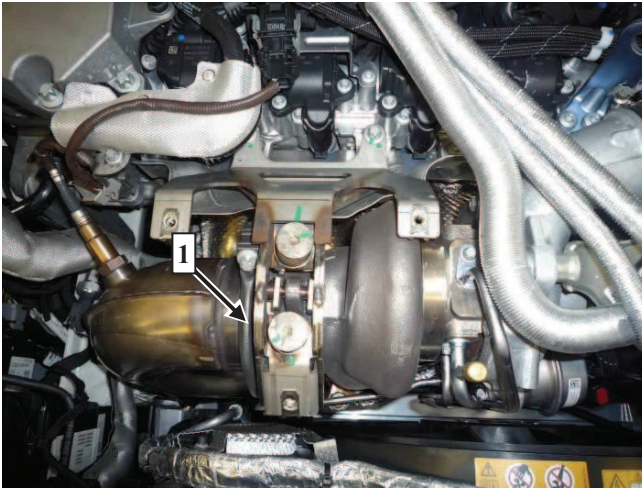


Figure 1

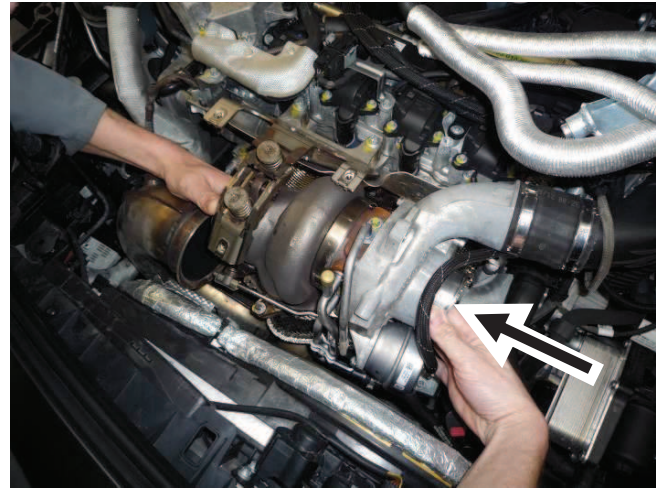



Figure 2

5.  Detach air intake pipe refer to WIS: AR09.10-P-8131MTA.

i **Note:**

Place to one side with connected lines.

6. Push turbocharger shaft back and forth repeatedly by hand to relieve any residual oil pressure (Figure 2).

i **Note:**

Do not use any tools.

7. To prepare for subsequent measurement, slide shaft up to end stop in direction of turbine (direction of arrow, Figure 2) by exerting pressure by hand on compressor impeller shaft in.

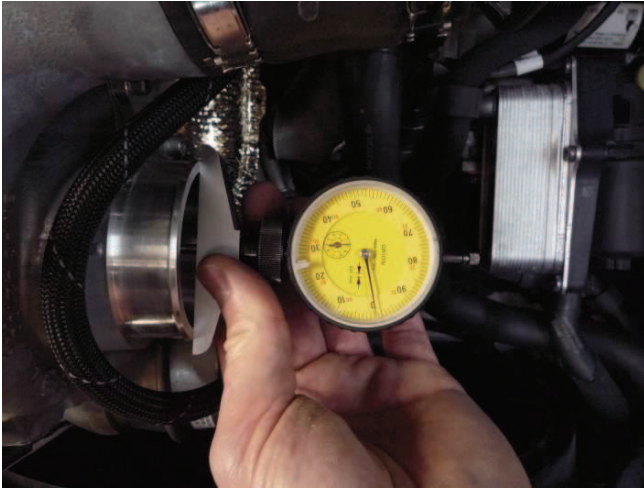


Figure 3

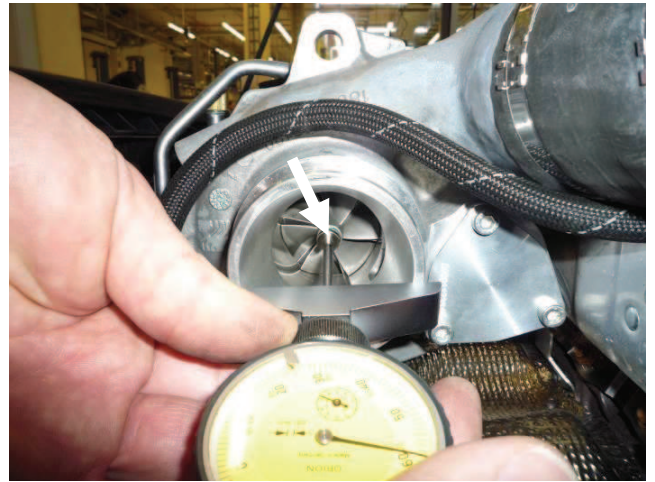


Figure 4

8. Position depth gage with measuring bridge at compressor housing in the middle so that it is level (Figure 3).


i **Note:**

Set depth gage to "ZERO". The measuring tip (arrow, Figure 4) must make level contact with shaft (Figure 4).

9. Measure axial play: Push end shaft up to end stop by hand in direction of compressor (towards dial indicator) by exerting pressure on turbine wheel shaft (exhaust side).

i **Note:**

Do not use any tools.

10.  Read off measurement result of axial play.
- If axial play is *greater than or equal to* 0.08 mm (**NOT OK**): Proceed to Subject B.
 - If axial play is *less than* 0.08 mm (**OK**): Proceed to step 11.
11. Assemble in reverse order.
12. Start engine, check oil level with engine at operating temperature.
13. Check engine oil level **again** after test drive, correct if necessary.

Note:

i Engine oil **must not** be overfilled.

B. Replace Turbocharger

1. Replace turbocharger refer to WIS: AR09.40-P-6020MTA.

i Note:

- Engine must be cold.
- Do not drain coolant from cooling system.
- Do not remove: Coolant lines from coolant hose, coolant line from engine block, exhaust pipes from mounting brackets on body, O² sensors from exhaust system, cable tie at purge lines.
- Do not separate ventilation lines from mounting bracket (step 5 in WIS instructions: AR09.40-P-6020MTA). Place ventilation lines along with air intake duct to one side as an assembly.
- In the event turbo mounting bracket bolt (A, Figure 5) is binding in turbo mounting eyelet (B), cut through bolt (at arrow) with rotary cutting tool (etc.) to remove bolt (A) from turbo.



WARNING! Be sure to wear proper eye protection

- Transfer mounting bracket (C) to new turbo and install new bolt (A, refer to parts table for part number).

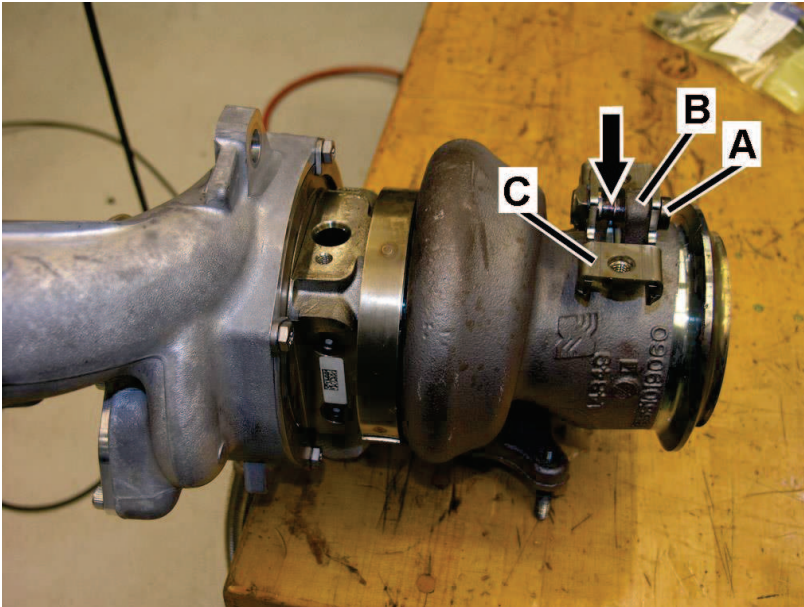


Figure 5

i Note:

Important: The parts kit (A 133 090 03 80 05) can still include the following replacement parts:

- 1x oil filter (A 278 180 00 09)
- Oil feed lines (1x A133 090 03 77 and 1x A133 090 04 77)
- 2x locking plate (A 133 141 01 85)
- 2x screw/bolt (A 210 990 09 04) (they are already included in parts kit A 133 180 06 10 05)

These parts must not be installed. Please make sure that these are disposed of.

i Note (regarding referenced WIS documents):

- Replace O-ring on turbo's oil feed line (1, Figure 6) with new O-ring found on new oil feed line (part no.: A 133 090 03 77) included in turbocharger parts kit (A 133 090 03 80 05). Be careful not to damage new O-ring when removing from new oil feed line, do not use sharp instrument to remove new O-ring. Torque bolt (6) to 9 Nm.

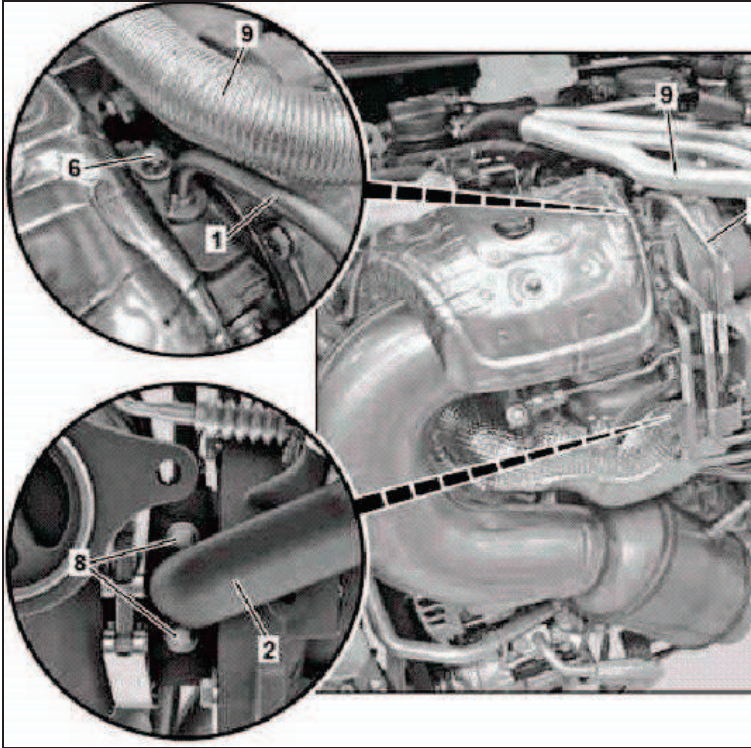



Figure 6

- Install new metal seal on the turbocharger oil drain line (2, Figure 6) from turbo charger installation kit (A 133 090 03 80 05). Ensure that the metal seal is seated correctly and that the bolts (8) are tightened to 9 Nm.
- When installing mounting brackets for turbo oil lines and coolant lines, position lines at installed position on turbo (do not tighten at this time) then install mounting brackets (securing coolant lines and oil lines).
Be sure to torque all bolts to proper specifications; refer to referenced WIS documents: AR18.30-P-6850MTA and AR20.20-P-7440MTA for torque specifications **Nm** and additional pictures.
-  Check coolant level and top-off coolant (shop supply) if necessary.
- 2. Assemble in reverse order.
- 3. Start engine, check oil level with engine at operating temperature.
- 4. Check engine oil level again after test drive, correct if necessary.

i Note:

Engine oil **must not** be overfilled.

i Note:

Requested parts must be returned to the designated QEC test center in accordance with the warranty parts return requirements section found in the policy and procedures manual.

Optional Special Tools Information

For dealers who need to order a bridge and already have a depth gage (with assorted stems) please refer to the following links:

- For all standard 3/8th shank depth gages use this link:
<http://www.flexbar.com/shop/pc/V-ANGLE-DEPTH-GAGE-BASE-4-BASE-52p4776.htm>

V-ANGLE DEPTH GAGE BASE-4" BASE

[Our Products: Inspection & Measurement](#) > [Dimensional Measurement \(Gages and Accessories\)](#) > [Digital & Dial Indicators & Accessories](#)

Model #: 16838

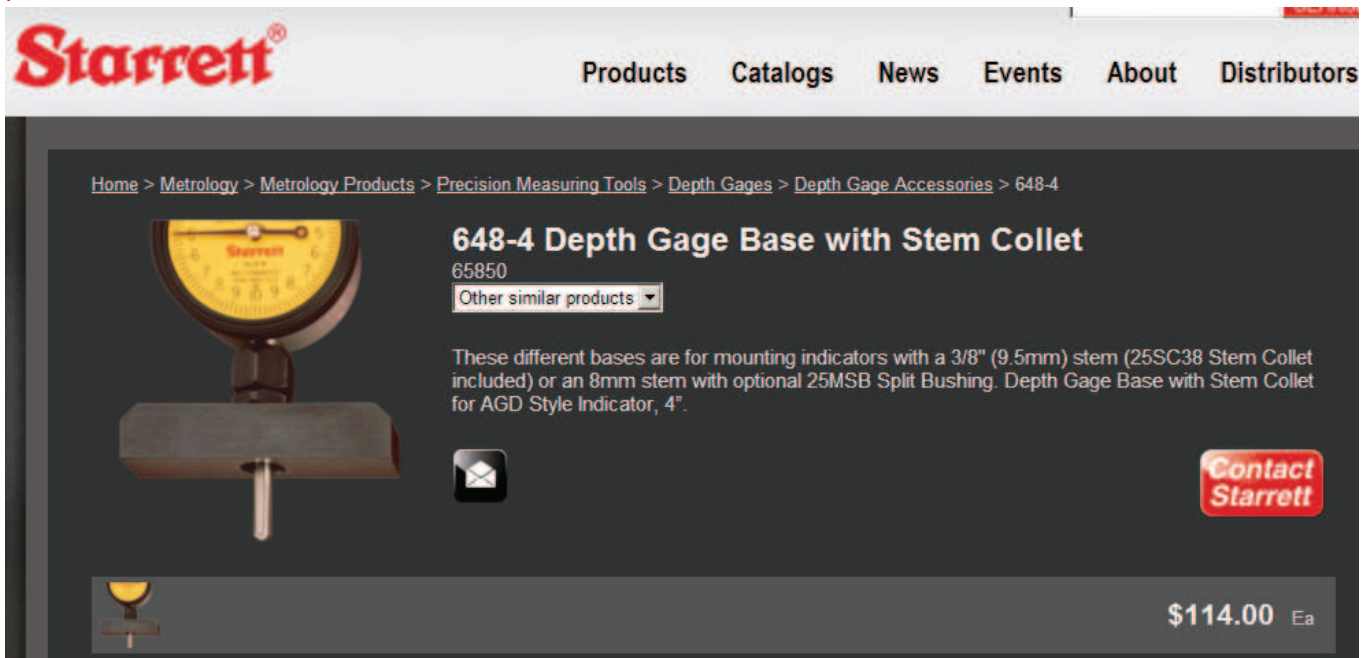
ADDITIONAL DIAL INDICATOR DEPTH GAGE BASES

Precision ground and hardened Depth Base accepts any standard AGD Dial Indicator with 3/8" stem. Manufactured from hardened Steel, ground for flatness, and Black Ox plated. Model No. 16838, V-Angle Depth Gage Base 4" Base.

Price: \$38.50



- For Starrett Depth Gages please use this link:
<http://www.starrett.com/metrology/product-detail/Precision-Measuring-Tools/Precision-Hand-Tools/Depth-Gages/Depth-Gage-Accessories/648-4>



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648-4 Depth Gage Base with Stem Collet
65850

Other similar products ▾

These different bases are for mounting indicators with a 3/8" (9.5mm) stem (25SC38 Stem Collet included) or an 8mm stem with optional 25MSB Split Bushing. Depth Gage Base with Stem Collet for AGD Style Indicator, 4".

Contact Starrett

\$114.00 Ea

Information for those dealers who need to buy a complete Depth Gage, base/bridge and extensions. link:

Complete Kit: Fowler standard/ metric Electronic Depth Gage p/n 54-125-777

Website with best prices:

- \$158.00 @
<http://www.higherprecision.com/products/depth-gages/x-depth-electronic-depth-gage>
 and
- \$200.80 @
http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Dindustrial&field-keywords=Fowler%2054-125-777

Parts Information (check/test)

Qty.	Part Name	Part Number	Estimated Replacement Rate
1	Kit (check/test)	A 133 180 06 10 05	100%
1	Profile clamp	A 000 995 22 33	
1	Profile clamp	A 000 995 23 33	

**Note:**

Do not order profile clamps: A 000 995 22 33 and A 000 995 23 33 if turbo is **NOT OK**. These parts will be included in the turbocharger parts kit (below).

Parts Information (if turbo is NOT OK)

Qty.	Part Name	Part Number	Estimated Replacement Rate
4	O-rings (coolant line to turbo)	A 027 997 06 45	25%
1	Oil drain plug washer	N007603 014106	
1	Hose clamp	A 007 997 08 90	
1	Turbocharger w/ parts kit ¹⁾	A 133 090 03 80 05	
6 qts. ²⁾	5.5 l engine oil per Specifications 0W- 40 for Operating Fluids, Sheet 229.5	BQ 109 0010 through BQ 109 0016 ³⁾ or	
	5.5 l engine oil per Specifications 5W- 40 for Operating Fluids, Sheet 229.5	A0009898301USB6 through A0009898301USB9 ³⁾	

¹⁾ Do not install the following parts from turbocharger parts kit:

- 2x locking plates (part no.: A133 141 01 85)
- 1x oil filter: (part no. A 278 180 00 09)
- Oil feed lines (1x A133 090 03 77 and 1x A133 090 04 77)
- 2x screw/bolt (A 210 990 09 04) (they are already included in parts kit A 133 180 06 10 05)

²⁾ Oil Capacity: 5.5 l for engine oil change with filter (**do not overfill**).

³⁾ Choose appropriate engine oil part number based on packaging

i Note:

- Please be aware that only the part number(s) referenced in the Campaign Bulletin is/are approved for use to repair the vehicle. Repairs performed using any other part(s) will not have been performed in accordance with the campaign. Accordingly, warranty claims submitted with reference to an improper part number(s) will be denied.
- The following allowable labor operation should be used when submitting a warranty claim for this repair:

Warranty Information**Repair 1**

Operation: Check turbocharger (02-8721)

Damage Code	Operation Number	Labor Time (hrs.)
09 931 01 7	02-8721*	1.7

* Includes: perform engine oil and filter change

Repair 2

Operation: Check turbocharger (02-8721)
Replace turbocharger (02-8722)

Damage Code	Operation Number	Labor Time (hrs.)
09 931 01 7	02-8721*	1.7
	02-8722	1.9

* Includes: perform engine oil and filter change

Note

Operation Number labor times are subject to change