

Service Campaign Bulletin

FILE: SERVICE: GROUP 00 OF SERVICE INFORMATION BINDER
PARTS: GROUP I OF INFORMATION _ PARTS & ACCESSORIES BINDER

Campaign No. 2005020003
April 2005

TO: ALL MERCEDES-BENZ CENTERS

SUBJECT: **MODELS 163, 202, 208 210 WITH ENGINES 112,
MODELS 129, 163, 202, 208 210 215, 220 WITH ENGINES 113,
MODEL YEARS 1998 – 2000;
MODEL 170 WITH ENGINE 112, MODEL YEAR 2001
INSPECT, IF NECESSARY REPLACE HARMONIC BALANCER PULLEY**

This Service Campaign has been initiated because DCAG has determined that due to a supplier quality problem the harmonic balancer pulley in certain model year 1998 – 2001 vehicles may, depending upon vehicle use characteristics, be subject to high under-hood temperatures that can, over a long period of time, cause it to deteriorate. Prior to a harmonic balancer pulley deteriorating to a point of affecting vehicle performance and drivability, it will create several different types of driver warnings such as noticeable engine vibrations. Affected vehicles will be checked and the harmonic balancer replaced, as required.

Note:

Please note, due to the volume of affected vehicles, dealer capacity, and to maintain an adequate and uninterrupted parts supply, customer letters will be mailed in stages throughout the remainder of the year. The various stages of mailing will be based on available data concerning vehicle populations, network capacity, parts supply and other factors. **Do not campaign vehicles unless the customer presents a campaign letter. Only in circumstances when the customer reports conditions arising from a deteriorating harmonic balancer or the dealer observes deterioration of the harmonic balancer during normal servicing of the vehicle should the harmonic balancer, in a vehicle not currently campaigned, be replaced.** Future NetStar messages will inform dealers which customers will be receiving campaign letters. Please assure your customers who have inquiries concerning this campaign, but who have not yet received a customer letter, that they will receive a customer letter sometime later in the year.

Attached is a sample copy of a letter which owners of the affected vehicles will receive.

Prior to performing this Service Campaign:

- Please check VMI to insure the vehicle has not been previously repaired for this condition and does not have other open campaigns.
- Please review the entire Service Campaign bulletin.
- Please verify the customer has presented a letter or has a complaint related to the harmonic balancer (explained above).

Approximately 368,836 vehicles are affected.

Order No. P-SC-2005020003

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.

Effective Serial Number Range

| Models | Chassis end number | |
|---------------|---------------------------|-----------|
| | From | To |
| 129068 | F169044 | F196751 |
| 170465 | F160121 | F188963 |
| 202029 | A488715 | A869700 |
| 202029 | F590751 | F831106 |
| 202033 | F670541 | F906121 |
| 208365 | F001037 | F161911 |
| 208370 | F020368 | F161908 |
| 208465 | T000142 | T054450 |
| 208470 | T023042 | T054464 |
| 210065 | A366330 | A999987 |
| 210065 | B000013 | B173052 |
| 210070 | A502461 | A999921 |
| 210070 | B000052 | B173025 |
| 210082 | X000423 | X043576 |
| 210083 | X028837 | X043567 |
| 210265 | A415666 | A999957 |
| 210265 | B000061 | B172971 |
| 210282 | X000451 | X043582 |
| 215375 | A000652 | A007949 |
| 220170 | A000669 | A137742 |
| 220175 | A000671 | A137729 |
| 163154 | A000011 | A202488 |
| 163172 | A030358 | A202485 |

Procedure

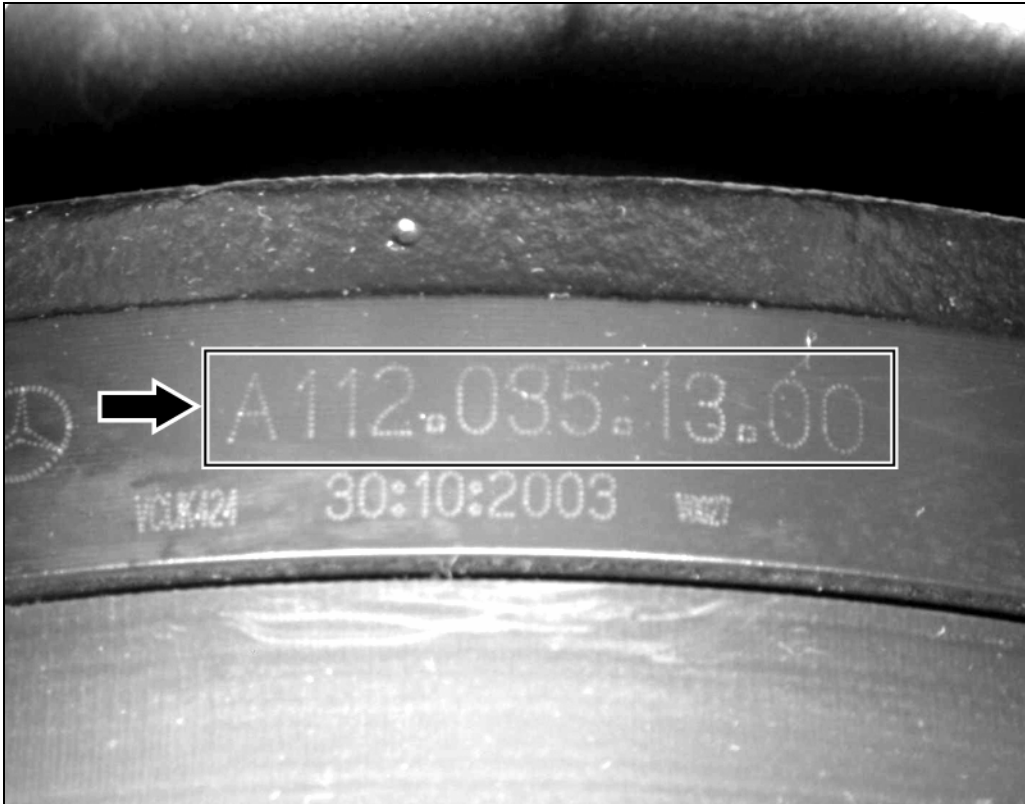


Figure 1

P03.30-2093-11

Sample only shown. Refer to specific part numbers below in step 2.

A. CHECK PART NUMBER OF HARMONIC BALANCER PULLEY

1. Turn crankshaft in direction of normal rotation until the part number (arrow, Figure 1) of the harmonic balancer pulley is visible.
2. If the harmonic balancer pulley has one of the part numbers listed below, it must be replaced (for replacement procedure refer to next step):

Note:

ONLY these 2 part numbers (below) require replacement.

- A112 035 00 00
 - A112 035 06 00
3. Replacement procedures for harmonic balancer pulley:
 - Engines 112 and 113 with viscous engine fan (non AMG models) refer to subject B.
 - Engines 112 and 113 with electric engine fan (non AMG models) refer to subject C.

B. ENGINES 112 AND 113 WITH VISCOUS ENGINE FAN

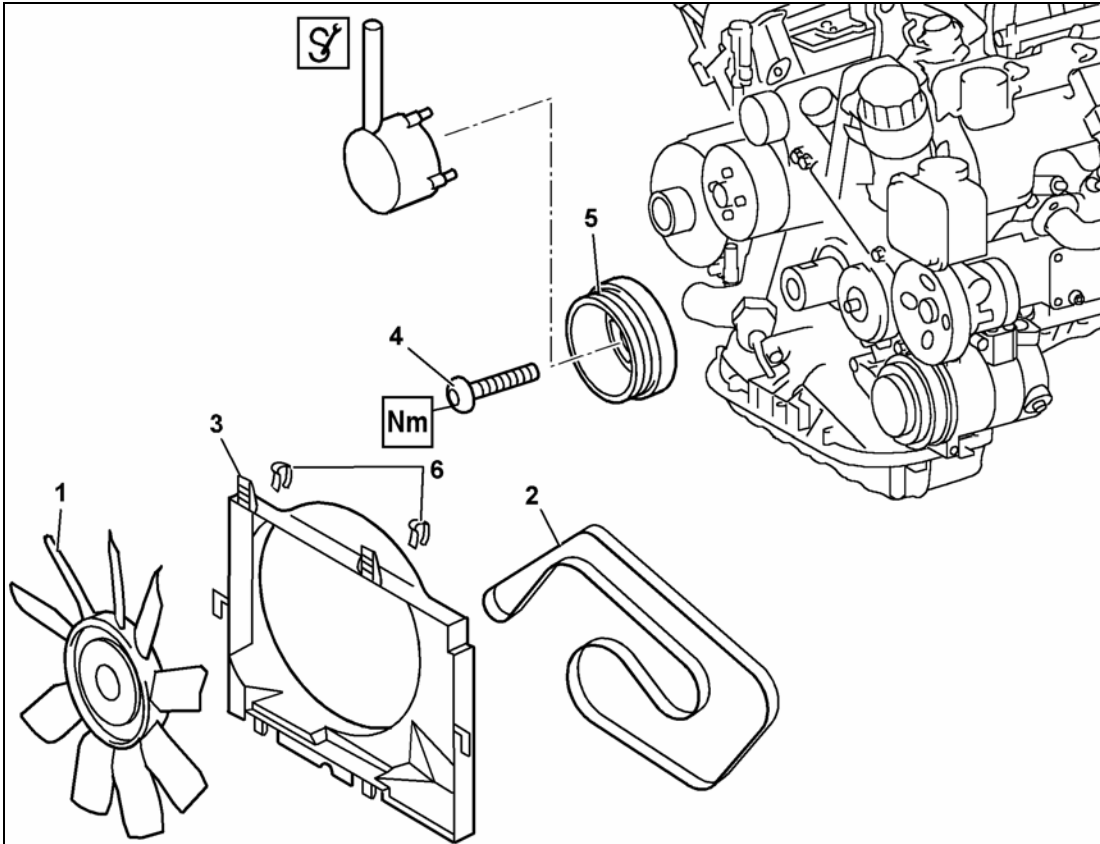


Figure 2

P03.30-0281-06

1. Remove lower engine cover (only on model 163.172) refer to WIS: AR61.20-P-1105GH.
2. Remove front air filter cover or engine cover (as necessary).
3. Remove viscous fan (1, Figure 2), refer to WIS: AR20.40-P-5660C.
4. Remove clips (6), remove fan shroud (3).

Note:
Models 163.154/172: Remove two 2 screws at bottom of fan shroud.
5. Remove engine belt (2) refer to WIS: AR13.22-P-1202B (special tool: external torx set W001 589 76 09 00).

Note:
Replace engine belt only if belt is damaged due to a deteriorated harmonic balancer pulley. Replacement of belt due to normal wear may not be claimed under this campaign.
6. Remove harmonic damper pulley bolt (4):
 - Position harmonic damper pulley at 40 ° ATDC.
 - Counter hold crankshaft with special tool: counter holder W112 589 00 40 00 and extension (refer to WIS: WF58.50-P-0330-02A).

 **CAUTION!**

For vehicles **with** automatic transmissions:

Do not counter hold crankshaft at ring gear to remove central bolt (4, Figure 2). Counter hold crankshaft **only** at spokes of the harmonic damper pulley due to high (harmonic balancer pulley) bolt (4) torque.

- Remove harmonic damper pulley bolt (4).

Note:

Undamaged harmonic damper pulley bolt may be reused.

7. Remove harmonic balancer pulley (5, Figure 2).

8. Installation is in reverse order.

Note:

- The (fixed) installation position of the harmonic balancer pulley (5) on the crankshaft is specified by the parallel (woodruff type) key installed on the crankshaft (refer to WIS: GF03.30-P-1600-01C).
- Lubricate the harmonic balancer pulley bolt head (4) contact surface (where bolt head contacts pulley) with **clean** engine oil.
- **Torque harmonic balancer bolt (4)** in two stages:
First torque bolt to: 200 Nm then turn bolt 95 °.

C. ENGINES 112 AND 113 WITH ELECTRIC ENGINE FAN

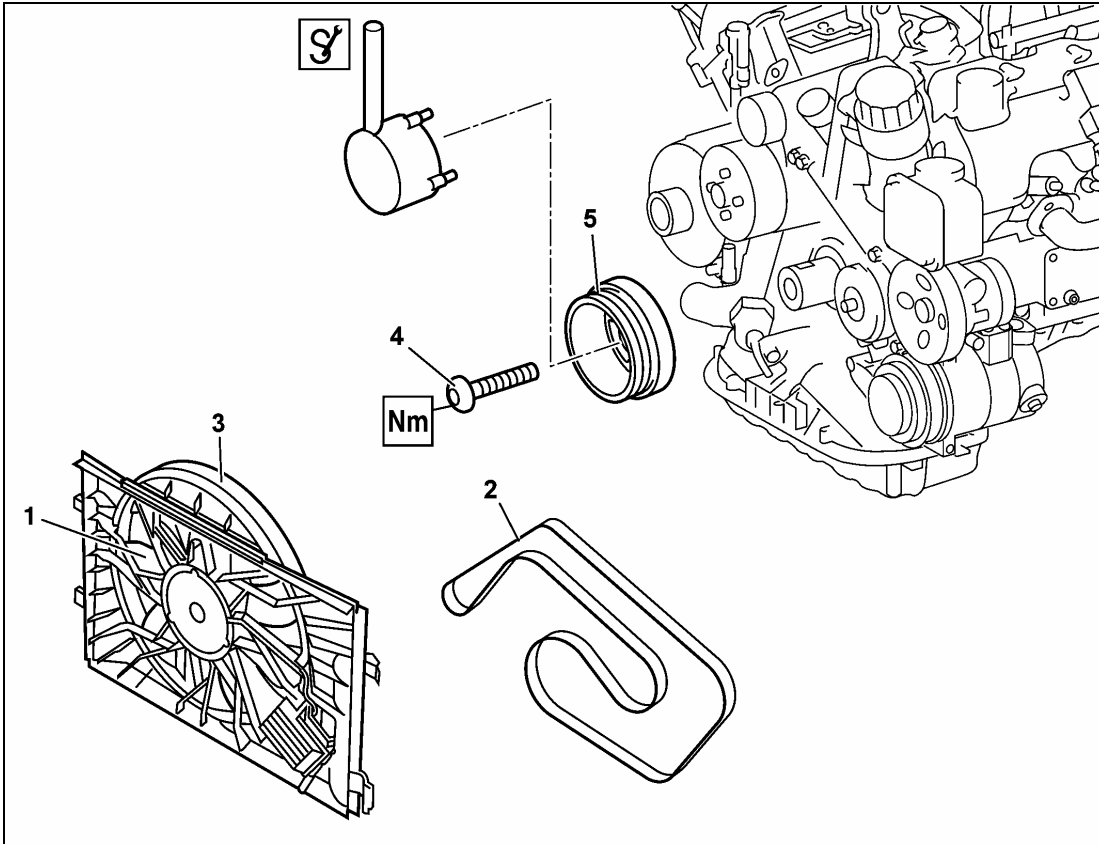


Figure 3

P03.30-2028-06

1. Remove front air filter cover or engine cover as necessary.
2. Remove electric fan (1, Figure 3) and fan shroud (3):
 - Model 163: refer to WIS: AR20.40-P-5000GH
 - Models 208: remove clips securing fan to radiator, disconnect fan harness connector, remove fan (1) and shroud (3) as an assembly.
 - Model 170: refer to WIS: AR20.40-P-5000SV.
3. Remove engine belt (2):
 - Model 163 refer to WIS: AR13.22-P-1202BA
 - Models 208, 210, 215, 220 refer to WIS: AR13.22-P-1202BA
 - Model 170.465 refer to WIS: AR13.22-P-1202SV.
 - Special tool: external torx set W001 589 76 09 00

Note:

Replace engine belt only if belt is damaged due to a deteriorated harmonic balancer pulley. Replacement of belt due to normal wear may not be claimed under this campaign.

4. Remove harmonic damper pulley bolt (4):
 - Position harmonic damper pulley at 40 ° ATDC.
 - Counter hold crankshaft with special tool: counter holder W112 589 00 40 00 and extension (refer to WIS: WF58.50-P-0330-02A).

 **CAUTION!**

For vehicles **with** automatic transmissions:

Do not counter hold crankshaft at ring gear to remove harmonic balancer pulley bolt (4, Figure 3). Counter hold crankshaft **only** at spokes of the harmonic damper pulley due to high bolt (4) torque.

- Remove harmonic damper pulley bolt (4)

Note:

Undamaged harmonic balancer pulley bolt may be reused.

5. Remove harmonic balance pulley (5, Figure 3).
6. Installation is in reverse order.

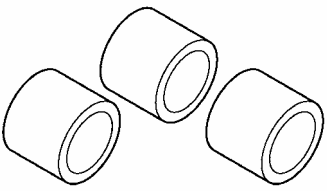
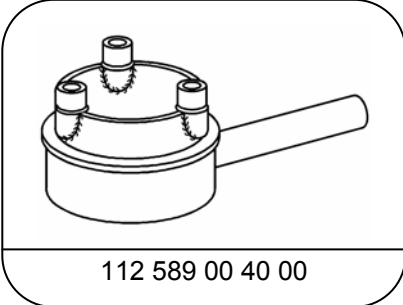
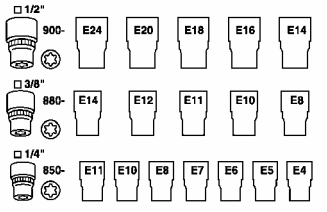
Note:

- The (fixed) installation position of the harmonic balancer pulley (5) on the crankshaft is specified by the parallel (woodruff type) key installed on the crankshaft (refer to WIS: GF03.30-P-1600-01C).
- Lubricate the harmonic balancer pulley bolt head (4) contact surface (where bolt head contacts pulley) with **clean** engine oil.
- **Torque harmonic balancer pulley bolt** (4) in two stages:
First torque bolt to: 200 Nm then turn bolt 95 °.

Note (regarding special tool referred to in procedures):

Please inspect your Special Tool 112 589 00 40 00 Counter Holding Tool for harmonic damper pulley (front of crankshaft) and assure that the three aluminum sleeves are in place and are in good condition. Note that replacement sleeves are available and can be ordered using the Special Tool Number: 112 589 00 40 01

Special Tools

| | | |
|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
|  <p>112 589 00 40 01</p> |  <p>112 589 00 40 00</p> |  <p>001 589 76 09 00</p> |
| <p>Spare part to Special Tool</p> | <p>Should already be in dealer special tool inventory</p> | |

Parts Information

| Qty. | Part Name | Part Number |
|------|--------------------------|------------------------------|
| 1 | Harmonic balancer pulley | A112 035 13 00 05 |
| 1 | Bolt (if required) | A006 990 70 04 |
| 1 | Belt (if required) | A011 997 97 92 ¹⁾ |

¹⁾Parts are in critical supply and will be limited, please see the PAC weekly status report on parts availability status and delivery expectations. This report is located on the PAC website.

Note:

The following allowable labor operation should be used when submitting a warranty claim for this repair:

Warranty Information**Repair 1**

Operation: Vibration damper - part number, Check (02-4567)

| Damage Code | Operation Number | Labor Time (hrs.) | Model Indicator(s) |
|---------------------------|------------------|-------------------|-------------------------------------------------------------------------------------|
| 03 900 22 8 Check only | 02-4567 | 0.3 hrs. | 98, C5, C6, E4, E6, E7, E8, E9, F2, G3, H1, H2, H3, H4, K1, K2, M1, M2, N1 |

Repair 2

Operation: Vibration damper - part number, Check (02-4567)
Vibration damper - (after check), Replace (02-4568)
(Includes belt and bolt replacement if necessary)

| Damage Code | Operation Number | Labor Time (hrs.) | Model Indicator(s) |
|----------------------------------|------------------|-------------------|-----------------------------------|
| 03 900 22 7 Check and Replace | 02-4567 | 0.3 hrs. | M1, M2, N1 |
| | 02-4568 | 1.1 hrs. | |
| | 02-4567 | 0.3 hrs. | 98, E4, E6, E7, E8, E9, F2, G3 |
| | 02-4568 | 1.2 hrs. | |
| | 02-4567 | 0.3 hrs. | C5, C6, H1, H2, H3, H4 |
| | 02-4568 | 1.3 hrs. | |
| | 02-4567 | 0.3 hrs. | K1, K2 |
| | 02-4568 | 1.4 hrs. | |

NOTE REGARDING CUSTOMER REIMBURSEMENT

Reimbursement to customers for repairs performed prior to this service campaign:

If the customer already paid to have this service campaign condition repaired and provides adequate documentation to support their claim of a non-warranty repair of this item, they may be eligible to receive reimbursement.

Requests for reimbursement may include parts, labor, fees and taxes. Reimbursement is limited to the amount the repair of the harmonic balancer pulley, bolt and serpentine belt would have cost if completed by an authorized Mercedes-Benz dealer under this campaign.

See "Reimbursement to Customer for repairs performed prior to recall" under Netstar "News Channel", dated January 15, 2003 for details concerning reimbursement requests.

Please note the claim submitted for customer reimbursement will **not** close the campaign (if still open). If the customer is still in possession of the vehicle with an open campaign, please arrange to close the campaign in the usual manner as described in this bulletin.

Service Campaign #2005-020003

April, 2005

Dear Mercedes-Benz Owner,

Your vehicle is equipped with a harmonic balancer pulley on the front of the engine's crankshaft which drives a serpentine belt that powers the alternator, power steering pump, air conditioner and other vehicle accessories. Due to a supplier quality problem the harmonic balancer pulley in certain model year 1998 – 2001 vehicles may, depending upon vehicle use characteristics, be subject to high under-hood temperatures that can, over a long period of time, cause it to deteriorate. Prior to a harmonic balancer pulley deteriorating to a point of affecting vehicle performance and drivability, it will create several different types of driver warnings such as noticeable engine vibrations.

Our records indicate that your vehicle is included in the affected population of vehicles. Your authorized Mercedes-Benz dealer will inspect, and if required, replace the harmonic balancer pulley in your vehicle free of charge. The working time required is approximately two hours. Please contact your authorized Mercedes-Benz dealer to schedule an appointment at your earliest convenience. Please mention Service Campaign #2005-020003

If you are no longer the vehicle owner, or have a change of address, please complete the reverse side of this letter and return the complete letter in the enclosed envelope. If this is a leased vehicle and the lessor and registered owner receive this notice, please forward this information by first class mail to the lessee. If you have paid to have this condition corrected prior to this notice you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

Please contact your authorized Mercedes-Benz dealer should you have any questions or encounter any difficulty regarding this service. If your dealer is unable to remedy your situation please contact us at 1-(800) FOR-MERCEdes (1-800-367-6372).

We apologize for any inconvenience this situation may cause you.

Sincerely,

Klaus Ulkann
Vice President, Customer Services