Diagnostic Sheet
FROM: Maserati TSO
TO: Maserati Network

Maserati
PERSONAL SERVICE LAB
MASTERS OF CARE

BSG Belt Diagnosis

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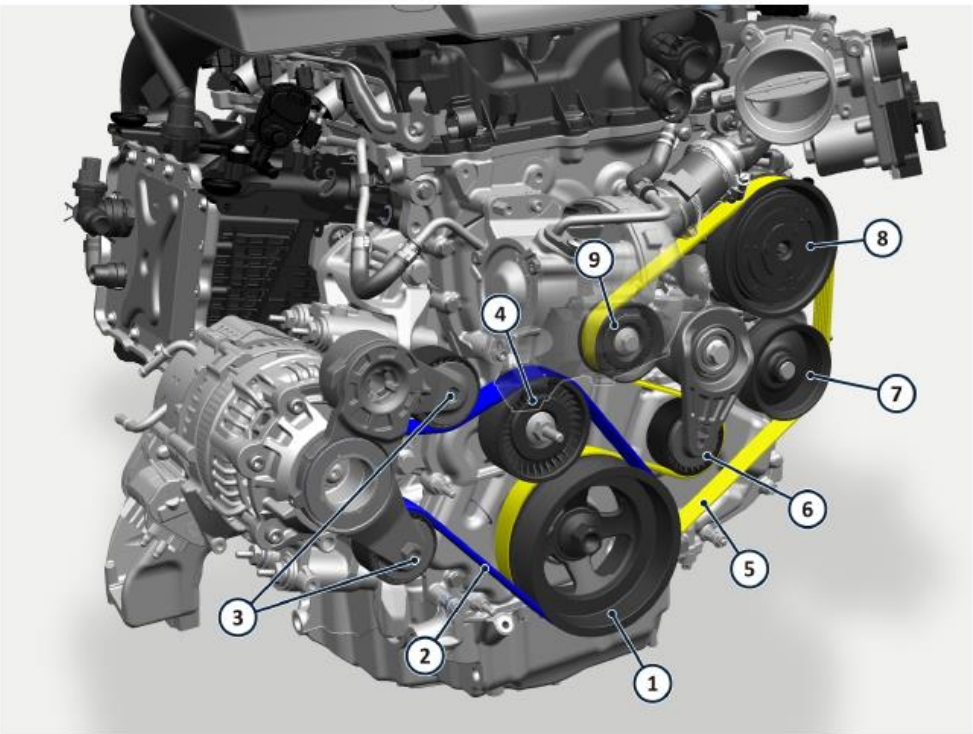
This document aims to provide diagnostic information regarding problems of abnormal noise or breakage of the BSG (Belt Starter Generator) belt. **This diagnostic sheet requires a BOL under "Support Request" to be opened.**

MODELS: M182 Grecale (L4 engines only) – All MYs

SUBJECT: Diagnosis of abnormal noise or breakage of the BSG belt



1. Crankshaft pulley
2. BSG belt
3. BSG belt tensioner
4. BSG belt idle pulley
5. Accessory belt
6. Accessory belt tensioner
7. Coolant pump pulley
8. A/C compressor pulley
9. Accessory belt idle pulley

CHECKLIST:

1) Collect the following information from the customer:
   a. Driving conditions at the first occurrence of the complaint (e.g. during acceleration, idling, etc.)
   b. Did the problem appear when the engine was cold/hot?
   c. Environnemental conditions (e.g. external temperature, climate conditions, etc.)
   d. Location of vehicle usage (e.g. 100% urban, mixed, mostly highway, etc.)

2) Provide a complete PDF scan report of all ECUs.

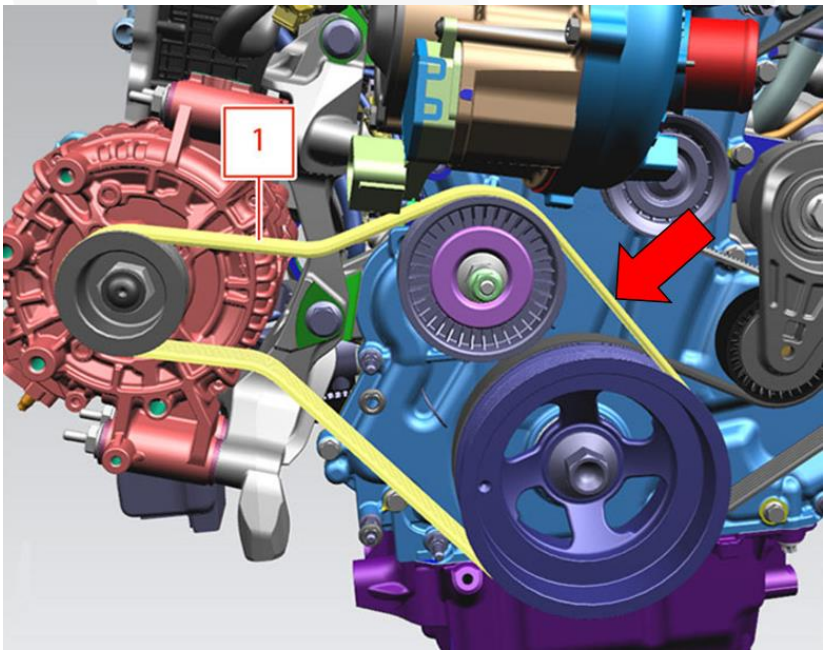
3) Provide photographic documentation of the components before carrying out any rework (front and top views).

4) If the BSG belt is noisy, please provide a short video that clearly shows the problem under the following conditions:
   a. with cold engine
   b. with warm engine
   c. during engine acceleration, with the gearbox in P
   d. at idle, with the gearbox in P

5) In case of breakage, even partial, recover and keep any pieces of the belt.

6) Remove the BSG protective cover and provide additional photographic documentation.

7) If possible, measure the belt tension **with the engine cold** (by using a Clavis Tension Meter, or equivalent). Carry out three measurements at the point indicated by the red arrow in the image below and report the frequency values found (in Hz).

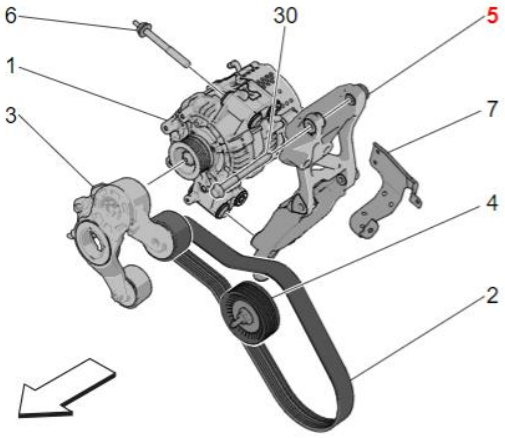


8) Manually check the movement of the BSG belt tensioner (component n.3 on page one). Is there any abnormal movement? Is the BSG support moving? Record a short video during the check.

9) Manually check the rotation of the BSG idler pulley (component n.4 on page one). Record a short video during the check.

10) Using a torque wrench, check the tightening of the BSG fixing screws, referring to the nominal torques reported in the workshop manual. Report any anomalies.

11) Manually check that there is no relative movement between the BSG and its fixing bracket (component number "5", in the figure below), and between the bracket and the crankcase. If abnormal movements are found, document the problem with a video.



12) Open a BOL as a "Support Request", reporting all the information collected during the diagnosis and related attachments. The compromised elements (BSG, belt, belt tensioner, and idler pulley) will be requested back for further analysis.

TECHNICAL SERVICE OPERATIONS