

Checking generator (GEN) and voltage regulator (VR)

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Check function of free wheeling clutch in ripped V-belt pulley (only AHH - engine)

Vehicles with diesel engine are partly fixed up with generator powered via V-belt pulley with free wheeling clutch.

At present only generator of BOSCH are fixed up with free wheeling clutch. In the built-in state the V-belt pulley with free wheeling clutch can only be distinguished from a V-belt pulley without free wheeling clutch because of its additional protection cap against harmful dust deposits.

Function of ripped V-belt pulley with free wheeling clutch:

A free wheeling clutch is installed in the ripped V-belt pulley. Because of this free wheeling clutch the motive power of the ripped V-belt can only be transmitted from the ripped V-belt pulley to the spindle of the generator if the direction of rotation is correct.

A transmission of motive power in the opposite direction is not possible as the spindle of the generator will then be ungeared from the wheeling clutch so as to render the spindle in the ripped V-belt pulley free-running.

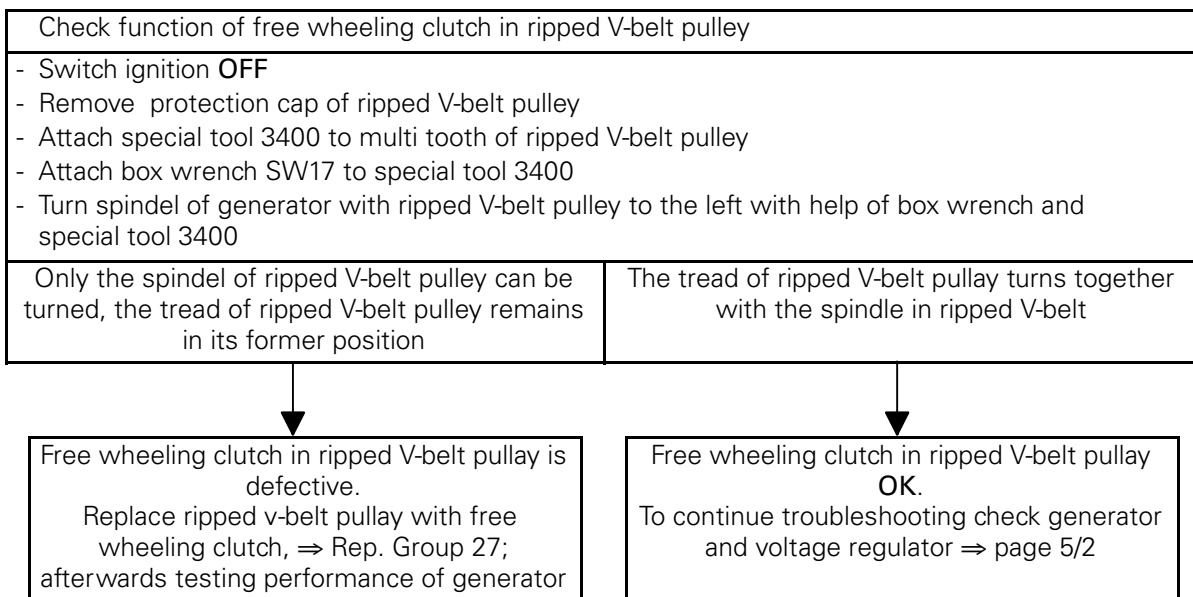
Because of the immense motive power transmitted by the ripped V-belt the free wheeling clutch can be destroyed mechanically. In case of a defective free wheeling clutch the ripped V-belt pulley rotates when the engine is running but the spindle of the generator is not geared. Thus the generator is not powered and there will be complaints about the performance of the generator.

For test procedure is required:

- ◆ Special tool 3400

Test conditions:

- ◆ Ripped V-belt tension and generator mounting OK.



Checking generator (GEN) and voltage regulator (VR) using Sun VAT 40 or Fluke 83

For troubleshooting is required:

- ◆ Sun VAT 40 or Fluke 83
- ◆ Connector Test Kit VW 1594
- ◆ Valid wiring diagram

Test conditions:

- ◆ Wire according and ground connections **OK!**
- ◆ Ripped V - Belt tension and generator mounting **OK!**
- ◆ If existing: Function of free wheeling clutch in ripped V - Belt pulley **OK.**

