



Haynes
shows you how

BMW 3-Series and Z4 (99-05) Includes 2006 325ci/330ci Coupe and Convertible models Haynes Online Manual.

5 Cooling fan and viscous coupling (automatic transmission models) - removal and installation

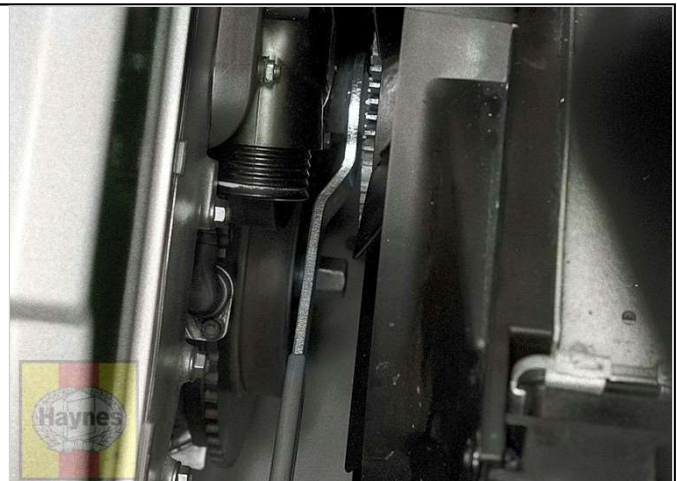
Note:

A special 32 mm narrow open-ended wrench (tool number 11 5 040) will be required to remove the fan and viscous coupling assembly.

Removal

- 1 Remove the expansion rivets mounting the fan shroud to the radiator. Where plastic expansion rivets are installed, lift up the center pin, then pry the entire rivet from place.
- 2 Disconnect the cooling ducts from the shroud and remove them from the engine compartment.
- 3 Disconnect the electrical connectors from the right side of the shroud assembly.
- 4 Release the fan shroud upper retaining clips by pulling out their center pins then lift the shroud upwards and out of position.
- 5 Using the special open-ended wrench (tool number 11 5 040), unscrew the viscous coupling from the water pump and remove the cooling fan (see illustrations) . **Note:** *The viscous coupling has a left-hand thread. If necessary, use a strip of metal bolted to the drive pulley to counterhold the nut.*

5.5a Loosen the cooling fan hub nut using the special open-ended wrench (it has a left-hand thread; turn it clockwise to loosen it) . . .



5.5b . . . and remove the cooling fan



6 Remove the retaining bolts and separate the cooling fan from the coupling noting which way direction the fan is installed.

Installation

7 Reinstall the fan to the viscous coupling and tighten the bolts to the torque listed in [this Chapter's Specifications](#). Make sure the fan is installed facing the correct direction. Screw the fan onto the water pump and tighten the hub nut to the torque listed in [this Chapter's Specifications](#). **Note:** *If the fan is installed the wrong way the efficiency of the cooling system will be significantly reduced.*

8 Engage the fan shroud with the lugs on the radiator and secure it in position with the retaining clips.

9 Reconnect the cooling ducts (where equipped) to the shroud then securely tighten its retaining screws.

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