# **Dismantling and assembling engine** Ribbed belt drive for vane pump, alternator and viscous fan

# Note:

Mark the running direction with chalk or felt pen before removing the ribbed belt. If the belt runs in the opposite direction when it is refitted, this can cause breakage.

### 1. Fan wheel

For viscous fan "FRONT" marked on outer race must point in direction of travel Removing and installing =>Page <u>19-20</u>

# 2. Viscous coupling

Switching temperature: 72...80°C ambient temperature at the viscous coupling Checking => Page <u>19-23</u> Removing and installing =>Page <u>19-20</u>

#### 3. Ribbed belt

Check for wear Do not kink Removing and installing =>Page <u>13-8</u>

Routing of ribbed belt=>Fig.<u>13-7</u>

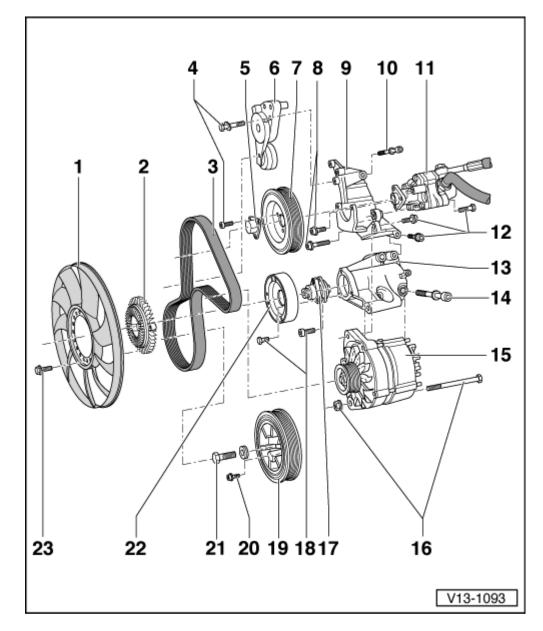
Ribbed belt on vehicles with air conditioner=>Fig.<u>13-7</u>

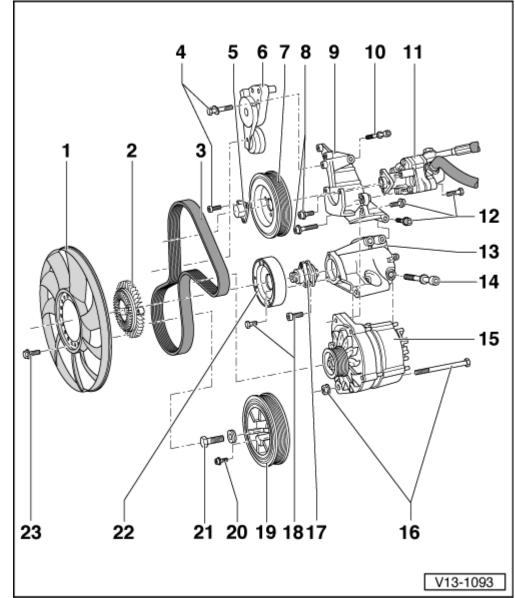
# 4. 20 Nm

To release and pick up pulley counterhold with oil filter strap wrench if necessary.

### 5. Hexagon flange

For turning the engine by hand using wrench 32 A/F





#### 6. Tensioner for ribbed belt

Swivel with open-ended spanner to slacken ribbed belt => Page  $\underline{13-8}$ 

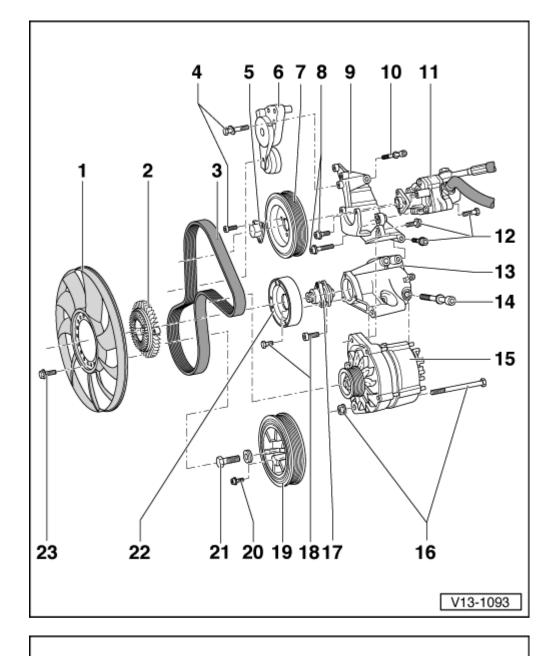
Secure in position with mandrel 3204

#### 7. Belt pulley

- For vane pump
- 8. 20 Nm 9. Bracket
  - For vane pump
- 10. 20 Nm
- 11. Vane pump
  - For power steering Removing and installing:

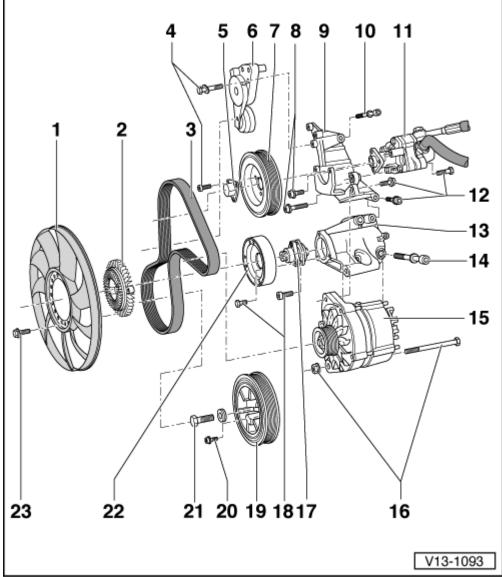
=> FWD and 4WD Running Gear; Repair group 48; Exploded view: Vane pumps

- 12. 20 Nm
- 13. Bracket
  - For alternator
- 14. 45 Nm
- 15. Alternator
  - Removing:
  - Disconnect battery earth strap
  - Removing ribbed belt =>Page <u>13-8</u> Disconnect wiring from alternator
  - Unplug connector, lay the wiring aside.
  - Unscrew bolts from top and bottom from bracket.
  - Remove alternator
  - To facilitate attachment of the alternator drive back bush for lower securing bolt slightly at bracket





- 17. Mounting
  - For viscous fan
  - Check for ease of movement
  - Removing and installing =>Page 19-20
- 18. 10 Nm
- 19. Vibration damper
  - Assembly on the sprocket/crankshaft only possible in one position: The lug on the sprocket must engage in the bore of the belt pulley
  - Removing and installing=>Page <u>13-12</u>
- 20. 20 Nm



#### 21. Central bolt

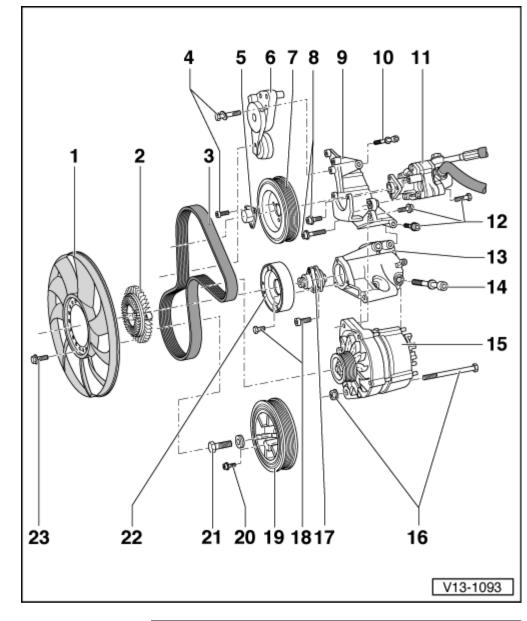
Replace Coat thread and contact surface of bolt head with sealing paste Sealing paste

=> Parts List

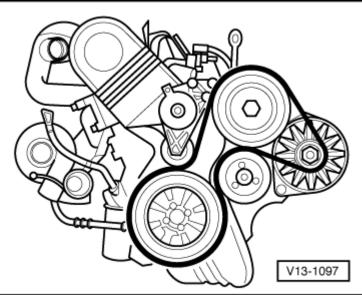
Counter hold with 3256 to loosen and tighten Tightening torque 200 Nm + 270°(3/4 turn) Removing and installing=>Page  $\underline{13-12}$  22. Belt pulley

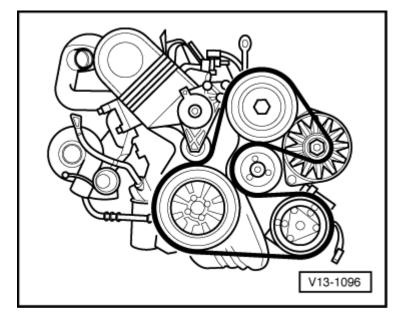
For viscous fan Removing and installing =>Page <u>19-20</u>

23. 10 Nm



 $\rightarrow$  Fig.1 Ribbed belt routing on vehicles without air conditioner





 $\rightarrow$  Fig.2 Ribbed belt routing on vehicles with air conditioner