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