Universal bracket and pulley kit for power take off is now on stock in Gent for the 03 engine family. Part numbers: **Universal bracket kit: 3809865** (fig. 1)  
**Pulley kit: 3809866** (fig. 2)

**Note:** There is no alternator included in either kit!  
Volvo Penta recommends Mastervolt  
Alternate is to be chosen and purchased by the customer.

Fig. 1

- Added length of engine:  
  - Total tube(1) length: min. 150 mm
  - 900 mm
- Added width of engine:  
  - Total bracket(6) width: min. 160 mm
  - 760 mm

Fig. 2

The diagrams below (fig. 3) show torque limits depending on the direction of belt tension from the driven unit/s.

Fig. 3
PTO with stub shaft.

To increase the outtake of power from the front end of the 03 engine, beyond the limits set for the belt and pulley system, a stub shaft can be used where the torque is taken out without additional radial loads on the engine. The torque limit for 03 with stub shaft is: 400 Nm.

How to read the power diagram (fig. 3)

Torque diagram below is for a 06-350 and can NOT be applied for engines with different configurations. Shown example is only a theoretical case.

The calculation is based on a configuration as described in the top left picture below (fig. 4).

Angles are for $A = 20^\circ$ and for $B = 135^\circ$.

Let's say the torque for $A = 36$ Nm (26.6 lbf ft) and $B = 27$ Nm (20 lbf ft) then the composant vector will result in a torque at 34.5 Nm (25.5 lbf ft) with a direction of force at 65.5°.

As shown in the picture below right (fig. 5), the composant vector is within the permissible torque area.