5. Electronic Tachometer (dia 52 mm)

5.6 Setting

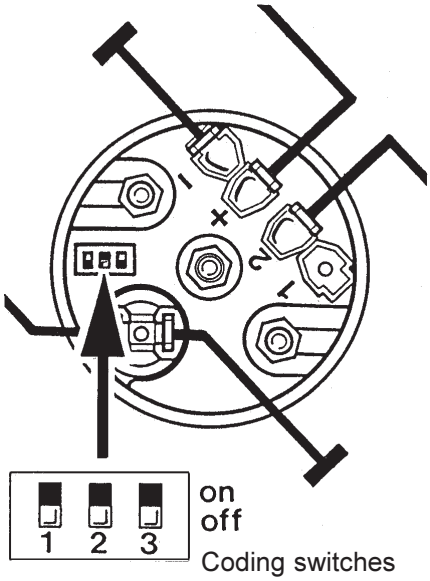
Diesel engine setting

Set the coding switches per coding table if the pulse ratio is known (coarse setting).

Coding table

Diesel engine, terminal W					
Switches			RPM		
1	2	3	4000	6000	8000
off	off	off	6 - 9	8 - 12	6 - 9
off	off	on	9 - 13	12- 17	9 - 13
off	on	off	13 - 20	17 - 24	12 - 18
			Pulses per revolution		

Example: off, off, off
(at 6000 RPM 10 pulses per revolution)



Coding switches

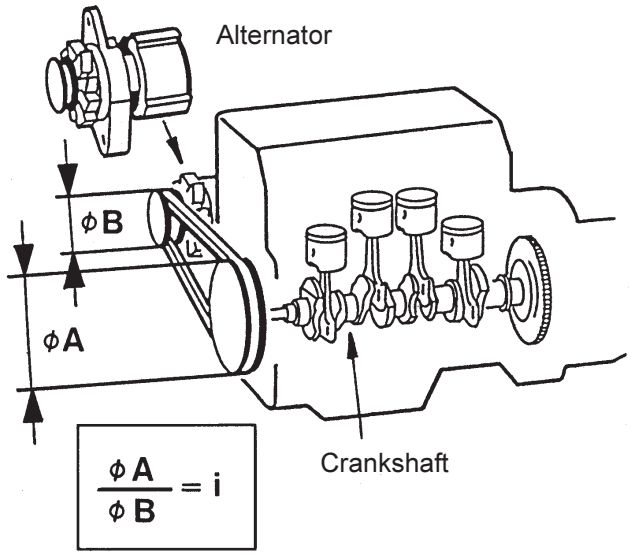
Make the fine adjustment with the potentiometer (see page 5 - 13).

5. Electronic Tachometer (dia 52 mm)

5.6 Setting

Diesel engine setting

The following formula can be used to calculate an unknown pulse ratio, which is then set as described on page 5 - 11.



Example:
dia. A = 280 mm
dia. B = 132 mm

$i = \frac{280}{132} = 2.12$

i x 6 = the pulse ratio

pulses per revolution
number of alternator pole pairs
2.12 x 6 = 12.72
= 13 pulses per revolution

Set the coding switches to 'off, off, off' first if the number of alternator pole pairs is not known. Make the fine adjustment with the potentiometer.
Select a different coding switches position and the potentiometer if the indication cannot be matched to the reference instrument indication.

Calculate the pulse ratio as follows if the frequency (Hz) is known, and not the pulse ratio:

Example 1733 Hz:

$\frac{\text{Hz x 60 sec.}}{\text{full scale speed}}$ = pulses/revolution

$\frac{1733 \times 60}{8000} = 12.99 = 13$ pulses/revolution

Formula for frequency (Hz):

Example:

$\frac{\text{pulses/revolution x full scale speed}}{60 \text{ sec.}}$ = Hz

$\frac{13 \times 8000}{60} = 1733$ Hz

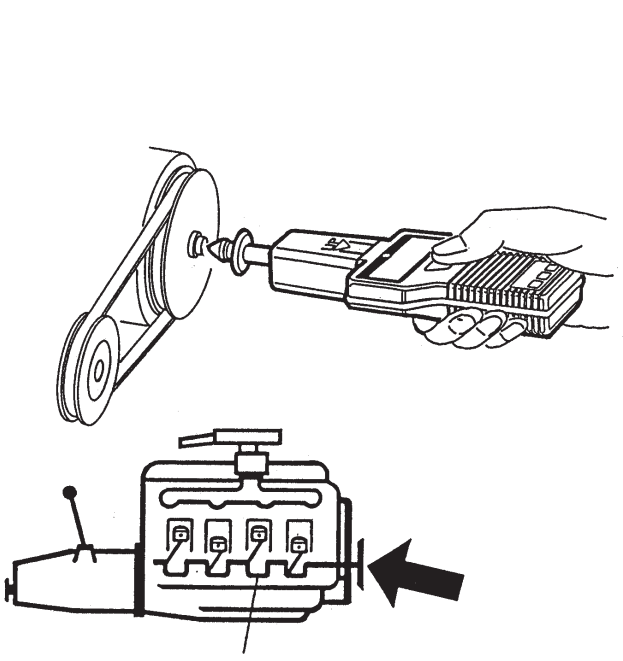
5. Electronic Tachometer (dia 52 mm)

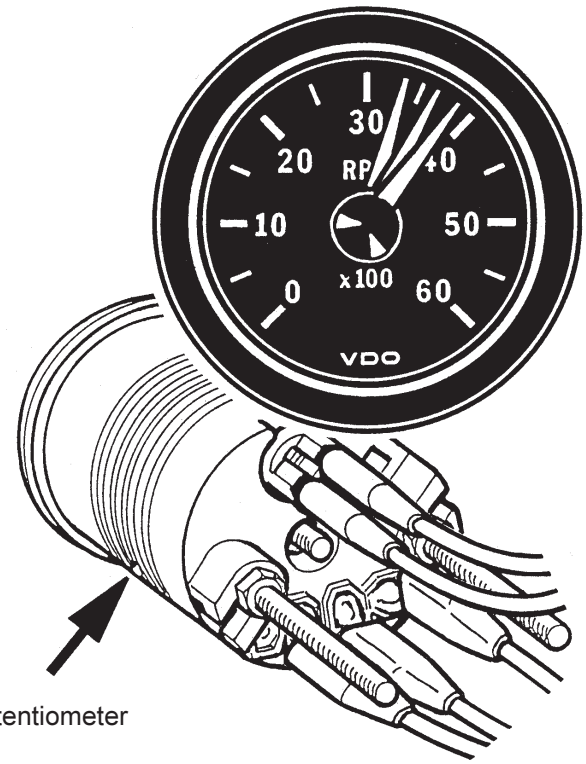
5.6 Setting

Diesel engine setting

Fine adjustment with potentiometer

The fine adjustment using the potentiometer is only possible between 30% and 100% of the indicating range. Use a reference tachometer (hand-held tachometer) to compare the engine speed indications.
The adjustment must be made by two people, one of them adjusting the instrument, the other one using the hand-held tachometer.
Measure the engine speed at the crankshaft stub of the engine with the hand-held tachometer.
Be very careful! Do not wear loose clothing!





Adjust potentiometer with an insulated screwdriver to speed indication matches the indication of the hand-held tachometer.