

# SERVICE BULLETIN

DATE: 20-Oct-15

BULLETIN NUMBER: 277

SUBJECT: Tachometer Calibration

MODELS AFFECTED: All Universal and Westerbeke Propulsion Engines

**PRECAUTION:** The purpose of this bulletin is to stress the importance of proper calibration upon installation of a new Tachometer or a Captain or Admiral instrument panel.

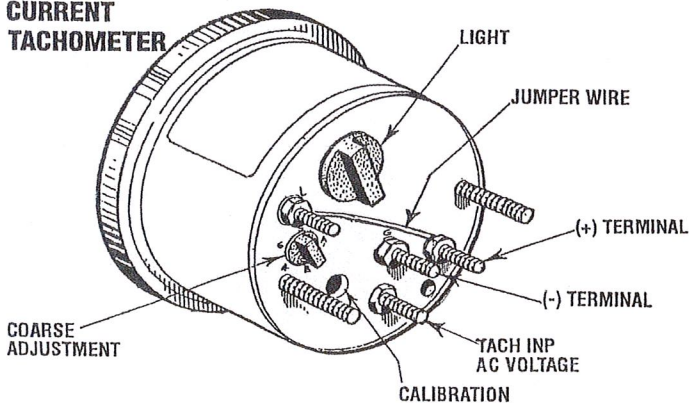
**DETAIL:** Original equipment tachometers in instrument panels or purchased as replacements, shipped from Westerbeke, are not calibrated. The owner / installer of a new instrument panel or replacement tachometer is responsible for appropriate calibration of the tachometer to achieve optimum performance and accuracy.

Proper propeller sizing depends on the engine being able to achieve its rated full load RPM. The instrument panel tachometer must not be considered accurate until it is correctly calibrated using a known good hand held strobe-type or photo electric tachometer.

## TACHOMETER CALIBRATION & IDLE SPEED ADJUSTMENT (New Installation)

**NOTE:** Current model tachometers use a coarse adjustment dial to set the tachometer to the crankshaft pulley rpms. The calibrating screw is then used for fine tuning.

### CURRENT TACHOMETER



When installing a new "Captain" or "Admiral" panel the calibration of the tachometer must be checked using a "known good" hand held, strobe-type or photo electric tachometer.

Refer to the appropriate Operator's or Technical Manual for the correct / optimum engine idle speed setting information.

**NOTE:** In a new installation (commissioning) the tachometer in the instrument panel will not be correctly calibrated to the engine's RPM. The tachometer's calibration must always be checked for accuracy.

1. Place a piece of reflective tape on the outer edge of the front crankshaft pulley.
2. Start the engine and allow the engine to warm up and then set the engine speed at a high idle 1500 rpm, using a photo electric tachometer shooting the front crankshaft pulley's reflective tape for an accurate engine rpm reading.
3. Position the "coarse" adjustment to one of the six selections. Select the one that sets the tachometer reading closest to 1500 rpm.
4. Using the appropriate tool, adjust fine calibration potentiometer to set the tachometer exactly on 1500 rpm.
5. Check the tachometer readings at idle and at high rpm.
6. Adjust the idle speed at an rpm that is not too low in order to reduce vibration and avoid stalling when shifting the transmission.