POWER TRIM ADJUSTMENT FOR C13 OIL TEST ENGINE SOFTWARE

If the special fuel flow rate control system exceeds 4.5 volts (at the ECM) or drops below 0.5 volts to maintain 1200 g/min fuel flow rate, the software will exceed the design control range. This will be due to some sort of engine operating efficiency change, either from electronic or mechanical causes. If a lab chooses to continue operation in this condition, the following procedure may be followed to adjust the control signal voltage to an operable range:

1. Engine must not be operating, but the ECM must be powered up and connected to Caterpillar Engine Technician (R) (CET) software.
2. Lab contacts Cat oil test engine support engineer to get new factory passwords.
3. Lab opens "Configuration" menu in CET and opens "FLS/FTS" parameters.
4. Cat engineer opens factory password utility and prepares to enter lab data.
5. Lab answers Cat questions based on readout in CET window.
6. Cat engineer gives lab two passwords that enable lab to change FLS and FTS settings.
7. If control signal has been operating near 4.5 volts, lab increments the FTS parameter by (+25) points.
8. If control signal has been operating near 0.5 volts, lab increments the FTS parameter by (-25) points.
9. Lab saves the data and restarts the engine.
10. Lab may choose to keep the new setting for future tests or return the FTS parameter to the original setting by getting new passwords.

Experience showed that a +25 point FTS increment gave a 0.7 volt signal reduction. No change is required for the FLS parameter since this engine only operates full load at 1800 rpm.