



## Instruction for Diesel Engine Control System CUMMINS KTA 19 DM1 ENGINE

No. 1400-0256-4  
Date/sign.: 10Jul98/JaEi  
Page: 5 of 8  
Rev. E: 25Aug05/JaEi

### 2.0 Technical data :

#### 2.1 Electric fuel control unit ( EFC )

Signals : analogue  
Supply voltage : 24 VDC, +/- 15 %  
Nominal Operating Current : 1.3 Amps at 24VDC  
Maxium Operating Current : 3.9 Amps at 24VDC  
Response time of actuator : 15 milliseconds

#### 2.2 Speed sensors connected to EFC and engine monitoring system (PLC)

Type : magnetic pick up  
Threads : 5/8-18 UNF-2A  
Signal at normal speed 1770 +5 / -10 rpm : 4201 / 4165 Hz  
Signal at low speed 1500 +50 / -0 rpm : 3550 / 3669 Hz  
Number of gear teeth at 'flywheel' : 142 pcs.

#### 2.3 Alarm and shutdown data.

| Function                   | Sensel range       | Sensor tolerance | Alarm     | Shutdown            |
|----------------------------|--------------------|------------------|-----------|---------------------|
| Lube.Oil pressure (bar)    | 0 - 10 bar/ 4-20mA | +/- 0.04 bar     | 1.8 +-*** | 1.3+-***            |
| Cool water Temp. (°C)      | 0 -150 °C/ 4-20 mA | +/- 2 °C         | 96 °C     | 100 °C              |
| Lube.Oil temp. (°C)        | 60 -150 °C/ switch | +/- 3 °C         | 120 °C    |                     |
| Overspeed with 1 sec delay |                    |                  | NA        | 1860 rpm<br>4402 Hz |
| Overspeed without delay    |                    |                  | NA        | 1890 rpm<br>4473 Hz |