

ENGINE SENSOR HARNESS EXERCISE FOR MERCEDES BENZ OM 906 LA (Industrial Engines)

1. Define Closed Circuit.

2. Define Open Circuit.

3. Define Short Circuit.

4. Define Grounded Circuits.

5. Define Continuity.

6. Find the **Charge Air Pressure / Temperature Sensor** on the schematic. What wire Pin numbers correspond to which circuits?

- I. Supply 5VDC wire # _____
- II. Sensor Ground wire # _____
- III. Pressure Sensor Return wire # _____
- IV. Temperature Sensor Return wire # _____

7. To which cavities of the Engine Harness connector is the **CTS** wired into?

- I. _____
- II. _____

8. To which cavities of the Engine Harness connector is the **FTS** wired into?

- I. _____
- II. _____

9. Connect the **TDC Sensor** to the Engine Harness. With a Volt-Ohm Meter find the **RESISTANCE** across the cavities for sensor signal and sensor return.

- I. Wire # _____
- II. Wire # _____
- III. Resistance is _____

10. If wire # N3-16 has a break in it what condition would apply?

- I. Inoperable #1 Unit Pump
- II. Inoperable #2 Unit Pump
- III. Inoperable #3 Unit Pump
- IV. Inoperable #1-2-3 Unit Pumps

11. If wire # N3-9 and N3-45 are touching (through the insulation) what condition would apply?

- I. Open circuit
- II. Closed circuit
- III. Grounded circuit
- IV. Short circuit

12. Find the **Oil Pressure / Temperature Sensor** on the schematic. What wire Pin numbers correspond to which circuits?

- IV. Supply 5VDC wire # _____
- V. Sensor Ground wire # _____
- VI. Pressure Sensor Return wire # _____
- VII. Temperature Sensor Return wire # _____

13. To which cavities of the Engine Harness connector is the **Crank Angle Position Sensor** wired to?

- I. _____
- II. _____

14. There are two ground wires running from the Battery to Connector – X1. What cavities are they wired to?

- I. _____
- II. _____

15. What is Terminal 15

- I. Supply Ground
- II. Supply Voltage
- III. Ignition
- IV. Start Signal

16. What cavities are used for the CAN connections from the PLD to the FMR?

- I. _____
- II. _____
- III. _____
- IV. _____

17. Why are the CAN wires twisted together?

- I. _____

18. On a 906 LA engine what color are the wires that are used on the # 2 Electronic Unit Pump?

- I. _____
- II. _____

19. What is the difference between a short circuit and unintentional grounding?

- I. _____