

Hauula, HI
369E N593C SN 0201E
16 April 2019

Sensor, Fuel Qty PN 369D296303-3 (MDHI Info)
Liquid Level Sender PN 7740 00213 J85 (Rochester Gauges Info)
Serial Number not observed
Low level wiring 35 lbs w/510 ohm resistor

NOTE 1: If the FUEL LEVEL LOW warning light glows (vs steady bright light) when the fuel quantity is above 35 lbs or it flickers, a 510-ohm resistor is to be installed. A 3-band resistor (green, red, red) was observed installed, which equates to a 5.2 k ohm (5200 ohm) resistor (green = 5, red = 2, red = x100). If, in fact, the red bands were actually brown, then the bands would equate to a 510-ohm resistor (green = 5, brown = 1, brown = x10).

NOTE 2: Multi meter used for testing was calibrated on October 29, 2018 and is due on October 29, 2019. The reference data used was from the sensor manufacture, Rochester Gauges, Inc. Dallas, Texas. Dated 03/15/2013.

Note 3: Juan B. Sanchez, HNL-Aviation Safety Inspector, conducted the inspection /testing of sensor on April 16 2019 at 0940.

Tests conducted:

1. FUEL LEVEL LOW Warning Light Operation (PNP Transistor)
 - a. Depressed PRESS TO TEST switch – light illuminated
 - b. Lowered float arm to simulate empty fuel – light did not illuminate
Note: See 4. Resistors Operation, b. below
 - c. Disconnected sensor (including transistor); grounded female connector at hole D – light illuminated
2. Wiring Continuity
 - a. Continuity of wires from male connector to sensor – continuity on all wires (B, D, E, H) established
3. Fuel Gauge Operation (Rheostat/Potentiometer)
 - a. Raised float arm to simulate fuel level above 35 pounds – indicator needle moved appropriately
 - b. Lowered float arm to simulate empty fuel – indicator needle moved appropriately
Note: Fuel gauge followed the movement of the float arm.
4. Resistors Operation
 - a. Used multi meter to test resistance of 510 ohm resistor – 499 ohm
Note: Resistor was removed from the circuit board prior to testing.
 - b. Used multi meter to test resistance of 1k ohm (1000 ohm) resistor – “open” (infinity)
Note: In the process of removing the 1k ohm resistor from the circuit board, the wire on one end of the resistor was found to be disconnected/broken/corroded.

5. Ohms Readings (Connector)
 - a. Raised float arm to simulate full fuel – all pins (B, D, E, H) indicated “open” (infinity)
 - b. Lowered float arm to simulate empty fuel – all pins (B, D, E, H) indicated 0.001 ohm
6. Ohm Readings (Circuit Board)
 - a. Used multi meter to test resistance from pin D to circuit board –
 - Pin D to 1 = 0 ohm
 - Pin D to 2 = 281 ohm
 - Pin D to 3 = 621 ohm
 - Pin D to 4 = 621 ohm
 - Pin D to 5 = 281 ohm
 - Pin D to 6 = 0 ohm
 - Pin D to 7 = 0 ohm
 - Pin D to 8 = 621 ohm



OHM'S Reading from Pin "D"

- ① = 0
- ② = 281
- ③ = 621
- ④ = 621
- ⑤ = 281
- ⑥ = 0
- ⑦ = 0
- ⑧ = 621

NOTES

CONTINUITY of wires from
TRANSMITTER TO plug
reading ~~was~~ good.

NO open wires

(E, H, D, AND B)









