A200-201B-6 Installation Instructions

200 Series Fuel Flow Sensor 1-60gph

WARNING

This document provides instructions for the installation of the A200-201B-6 1-60gph Fuel Flow Sensor, Rev 1.0. Use of these instructions with any other product revision voids all warranty and certifications.

Functional Summary

The A200-201B-6 is a fuel flow sensor to be used in applications where the measureable flow does not exceed 60gph.

Items Required for Installation – Not Included with Kit

In order to successfully install the fuel flow sensor the following items must be available:

1. Aeroquip AE102-24 (1 ½" I.D.) Firesleeve, cut to required length applicable to the specific installation (see Physical Installation Step 4 below)
2. 2 X Aeroquip 900591B-3C clamps.
3. 2 X Fuel hoses (see Pre-installation notes below) of the required length for the specific installation, that meet TSO-C53a Type C or D standard.
4. Adel clamps for mounting and securing for the fuel flow sensor assembly.
5. Red, high temperature, RTV sealant.
6. 2 X fuel flow sensor attachment fittings (if required) from the new fuel hoses to the sensor. These must **NOT** be aluminum or aluminum based fittings.

Pre-installation Notes and Tasks

1. The fuel flow sensor must be mounted with the wires in an upright position and in the horizontal plane through the direction of flow. The sensor incorporates a vapor venting design that will only function correctly when used in this position.

2. Do not use thread lock, pvc tape or any sealant on the threads of the sensor. Use only a metal-to-metal contact.

3. Do not over tighten the threaded attachments to the sensor. The sensor is fabricated from cast aluminum. Excessive tightening will damage the attachment threads. Such damage will not be covered as warranty.

4. Only connect flexible fuel lines to the sensor.

5. Remove the existing fuel hose from the carburetor (for normally aspirated engines) or between the throttle body and flow divider (for fuel injected engines).

6. Measure and acquire two new fuel hoses allowing for sensor dimensions and mounting attachments. The new fuel hoses must have the same inside diameter as the fuel line and must meet TSO-C53a Type C or D standard.

Physical Installation

1. Ensure that all the required items listed in (1) above are available and that all items noted in (2) above have been complied with.

2. Install the new hose attachment fittings into the sensor body. Reminder: These must not be aluminum, must be a metal-to-metal attachment and must not be over tightened.

3. Attach the new fuel hose assemblies to the hose attachment fittings. If they are of different lengths, note the flow direction indicated on the sensor and attach them to the appropriate location.

4. Cut a piece of Firesleeve of sufficient length that it extends at least three inches either side of the sensor.

5. Puncture a small hole of sufficient size to feed the three wires from the sensor through the center point of the Firesleeve.

6. Slide the Firesleeve over the sensor and fuel hose assembly, feeding the three wires through the hole. Note the direction of flow indicated on the sensor and mark this on the outside of the Firesleeve.

7. Position the Firesleeve such that the wires from the sensor exit the Firesleeve directly above their attachment point to the sensor.

8. Place a Aeroquip 900591B-3C clamp on each end of the Firesleeve at a point of at least one inch from each end of the Firesleeve.

9. Seal the exit hole and wires to the Firesleeve using Red, high temperature, RTV sealant and allow to properly cure before continuing.

10. Now attach the “IN” side of the assembly to the fuel tank side of the fuel line and the “OUT” to the engine side.

11. Attach each side of the fuel flow assembly using Adel clamps to the aircraft such that the assembly remains in the horizontal plane and the wires exit at the top of the assembly.

12. Comply with any specific Service Bulletin’s for the specific engine relating to fuel flow and/or pressure adjustment.

Electrical Connection

1. Connect the red/black/white wires to the corresponding color wires from the instrument harness.

Post Sensor Installation

After both sensor and instrument have been fully installed and are functioning, perform the following:

1. Start the engine and, on aircraft equipped with electric boost pumps, ensure the boost pump is on and the appropriate operating fuel pressure is observed.

2. Run the engine for approximately one minute then shut down the engine and inspect for any fuel leaks. If any leaks are detected, correct the problem and repeat steps (1) and (2).

3. Provided no leaks are detected in step (2), repeat steps (1) and (2) but for a period of no less than five minutes in step (2).

4. If no leaks are detected and the instrumentation is functioning correctly the installation is deemed compliant.