



AVStar Fuel Systems, Inc.
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Jupiter, FL 33458
561-575-1560
Toll free 1-866-982-7287
www.avstardirect.com
FAA Repair Station V1RR580Y

SERVICE BULLETIN

DOCUMENT: AFS-SB13

REVISION: ORIGINAL

ISSUED: May 20, 2016

PAGE: 1 OF 5

FLOW DIVIDER – MANUFACTURING DEFECT

1.0 APPLICABILITY

This Service Bulletin applies to all AVStar manufactured fuel system Flow Dividers (AV 2524232-2, AV 2576624-1, AV 2576564-1 and AVX3015004-1) manufactured between the dates of October 1, 2015 and March 23, 2016, per the serial numbers listed in Appendix A.

2.0 REASON FOR PUBLICATION

During the manufacturing process, a metal shaving may have been generated and stay lodged between the internal components and the Flow Divider body. The location where the shaving may have been generated is at the back of the Fuel Inlet Port. The shaving could become dislodged and flow further downstream through the Flow Divider and towards or into a fuel nozzle, causing a reduction in fuel flow. The Flow Divider assemblies being investigated are limited to those of AVStar parts numbers manufactured between the dates of October 1st, 2015 to March 23, 2016 and further limited to the serial numbers shown in Appendix A.

Note:

Flow Dividers with applicable serial numbers that have been inspected by AVStar and cleared of any metal shavings will be marked with an “F” following the serial number.

3.0 POSSIBLE ENGINE SYMPTOMS WITH CLOGGED NOZZLE

There are no reports of this condition taking place before the publishing of this service bulletin or data supporting how likely this condition is to occur.

Caution

Failure to complying with this service bulletin can result in an unsafe condition that has the potential to reduce engine performance.



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If a metal shaving was to separate, it could reduce fuel flow to a cylinder by becoming lodged in either the Flow Divider or a Fuel Nozzle. If fuel flow is reduced to a cylinder the operator could experience one or more of the following conditions.

1. Rough running engine, especially at lower engine speeds.
2. Higher than normal engine vibration.
3. Poor idle quality. Idle mixture rise during shut down may become excessive or non-existent depending on the severity of the clog.
4. Engine may back-fire or pop.
5. Engine may experience a higher than normal magneto drop when checked during run-up.
6. (If a pressure-style fuel flow gauge is installed) Higher than normal flow will be indicated. Flow restriction through the clogged nozzle will produce higher pressure giving an erroneous high fuel flow indication.
7. Higher than normal TIT indication (For turbo-charged engines).

If any of the above symptoms are experienced during the pre-flight run-up, discontinue the flight and have an appropriately rated powerplant mechanic comply with section 4.0 of this service bulletin before further flight.

If any of the above symptoms are experienced during the flight, consult the approved pilot's operating handbook and land at the nearest available safe airport. Have an appropriately rated powerplant mechanic comply with section 4.0 of this service bulletin before further flight.

4.0 TIMING AND INSTRUCTIONS FOR COMPLIANCE

IMMEDIATELY – If part of the scope in Appendix A and a significant degradation in flow performance to one or more cylinders has been observed, have an appropriately rated powerplant mechanic perform the following:

- 4.1.1 Remove all fuel nozzles, inspect and clean for possible contamination.
- 4.1.2 If a clogged nozzle is found, the engine and cylinder should be inspected for evidence of over temperature damage.



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4.1.3 Contact AVStar and comply with one of procedures in section 5.0 of this Service Bulletin.

4.2 Within the next 10 hours of engine operation.

4.2.1 Contact AVStar and comply with one of procedures in section 5.0 of this Service Bulletin.

5.0 WARRANTY PART REPLACEMENT / INSPECTION PROCEDURES

Contact AVStar and one of the following procedures can be performed:

- 5.1 For removal of the Flow Divider refer to the latest revision of Lycoming Engines Service Bulletin SB-626, “AVStar Fuel Manifold (Flow Divider) Inspection” and return to AVStar, or an AVStar approved Service Center. Include an attached Warranty form (Appendix B), in order to have the Flow Divider Assembly inspected and/or replaced. A credit will be issued with the returned assembly. For installation of the returned Flow Divider see section 6.0 of this service bulletin.
- 5.2 Upon contact, AVStar will issue Flow Divider Work Instruction AFS-WI-X1. When AVStar receive a written confirmation that the Work Instruction has been complied with, AVStar will provide a credit.

6.0 INSTALLATION OF RETURNED FLOW DIVIDER

For installation of the Flow Divider refer to the latest revision of Lycoming Engines Service Bulletin SB-626, “AVStar Fuel Manifold (Flow Divider) Inspection”



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7.0 APPENDIX A

Part Number AV2524232-2	
Serial Number	
AV207971582	AV2274882
AV207971583	AV2274883
AV207971584	AV2274885
AV207971585	AV2274886
AV207971587	AV2274887
AV207971589	AV2274888
AV207971590	AV2274894
AV207971591	AV2274895
AV2274862	AV2274896
AV2274863	AV2274897
AV2274864	AV2274899
AV2274865	AV22748100
AV2274866	AV22748101
AV2274867	AV22748102
AV2274869	AV22748103
AV2274870	AV22748105
AV2274872	AV22748112
AV2274873	AV22748135
AV2274874	AV22748161
AV2274875	AV22748163
AV2274876	AV22748164
AV2274877	AV22748165
AV2274878	AV22748166
AV2274879	AV22748135
AV2274880	AV22748200

Part Number AV2576624-1	
Serial Number	
AV207971779	AV207971959
AV207971780	AV207971960
AV207971786	AV207971961
AV207971788	AV207971962
AV207971891	AV207971971
AV207971892	AV22748120
AV207971893	AV22748122
AV207971894	AV22748123

Part Number AV2576564-1	
Serial Number	
AV207971844	AV207971949
AV207971846	AV207971987
AV207971850	AV207971989
AV207971931	AV207971979
AV207971933	AV207971981
AV207971936	AV207971984
AV207971937	AV207971986
AV207971938	AV22748117
AV207971939	AV22748177
AV207971771	AV207971827
AV207971812	AV207971830
AV207971813	AV207971832
AV207971814	AV207971887
AV207971823	AV207971889

Part Number AVX3015004-1	
Serial Number	
AV034225	AV033347
AV034226	AV033349
AV034229	

8.0 APPENDIX B

AVStar Fuel Systems, Inc.
1365 Park Lane South
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Tel (561) 575-1560, Fax (561) 575-0795
E-mail: afsi@avstardirect.com
FAA Approved Repair Station V1RR580Y



In order to process your warranty claim, please completely fill out this Warranty Information Sheet and return with your unit. Also, please include a copy of your 8130 with your unit.

Owner's Information

Name and Address _____

Phone # _____

Email Address _____
(send tracking # upon shipment)

Unit Information

P/N: _____ Date of Occurrence: _____

S/N: _____ Date in Service: _____

Engine Model & Serial Number: _____

Total time on unit since installation (hrs): _____

Complaint (Check box)

IDLE OFF-IDLE RATED RPM _____

LEAN RICH AFS-SB13

AVStar Only Approved By: _____