

ENGINE LOG BOOK



Service Information

Consult the Continental Motors web site at continentalmotors.aero for engine related news or announcements. Continental Motors Internet Service contains useful information for Continental Motors engine owners, including electronic versions of the most current engine Instructions for Continued Airworthiness and service documents that may be pertinent to your engine model.

If Internet access is not available, contact our Customer Service Department at:
1-888-826-5465 Toll free in the United States or
1-251-436-8299 International

Engine Returns

Return engines for core credit with this log book to:

Continental Motors, Inc.
2039 Broad Street
Mobile, AL 36615 USA

Return engines for overhaul with this log book to:

Continental Motors, Inc.
Factory Service Center
8600 County Road 32
Fairhope, Alabama 36532 USA

**USE ONLY FUEL SPECIFIED IN OPERATOR'S
MANUAL OR TYPE CERTIFICATE DATA SHEET
USE OF AUTOMOTIVE FUEL IS PROHIBITED**



Continental Motors

FAA PRODUCTION CERTIFICATE NO. 508







Printed: 09/11/2017










Test Date: 09/11/2017



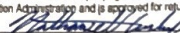





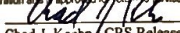
This engine model TSI0550K1B, serial number 1034659 was manufactured by Continental Motors, Inc. in accordance with approved design data and the applicable requirements of 14 CFR, Part 21. The approved design data for this engine incorporates all changes required by applicable FAA Airworthiness Directives and Continental Motors Service Bulletins.

[Signature]
CONTINENTAL MOTORS, INC.

Form 6012-03 (Rev. Sept. 2014)

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	
					Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
	 WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date 11-17-2017 Work Order S8561 N220VF S/N 22T-1622 Flight Time: 26.5 Hobbs Meter: 32.7 Total Time 26.5		ENGINE LOG Eng. S/N 1034659 
Completed Cirrus CMX 25 inspection per Title 14 CFR Part 43 and Part 91 Subpart E, inspection checklist & applicable sections of CDC SR22/22T AMM Rev. B7. Complied with CMI M-16, Table 6-4.3 (100 hour checklist). Drained and cleaned gascolator fuel bowl. Checked tire pressures. Drained oil, installed new CH48108-1 oil filter and (7qts) Phillips 20W50M Mineral Oil. Run-up and leak check satisfactory at this time.					
I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.					
Authorized Signature: <i>[Signature]</i> Chad J. Koehn / CRS Release Authority					
	 WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date 12-14-2017 Work Order S8577 N220VF S/N 22T-1622 Flight Time: 42.8 Hobbs Meter: 51.2 Total Time 42.8		ENGINE LOG Eng. S/N 1034659 
C/W Hartzell Alert Service Bulletin No. 074 by removing original turbos and installing overhauled turbos (2) P/N 646677, RH S/N DHN00112, LH S/N ORO105. Work was performed with reference to M18 Continental motors engine maintenance and overhaul manual (September 2017).					
I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.					
Authorized Signature: <i>[Signature]</i> Chad J. Koehn / CRS Release Authority					
	 WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date 01-10-2018 Work Order S8595 N220VF S/N 22T-1622 Flight Time: 55.9 Hobbs Meter: 66.6 Total Time: 55.9		ENGINE LOG Eng. S/N 1034659 
Completed Cirrus CMX 50 inspection per Title 14 CFR Part 43 and Part 91 Subpart E, inspection checklist & applicable sections of CDC SR22/22T AMM Rev. B7. Complied with CMI M-16, Table 6-4.3 (100 hour checklist). Drained and cleaned gascolator fuel bowl. Checked tire pressures. Drained oil, installed new CH48108-1 oil filter and (7qts) Phillips 20W50 X/C. Run-up and leak check satisfactory at this time.					
I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.					
Authorized Signature: <i>[Signature]</i> Chad J. Koehn / CRS Release Authority					

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	
					Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
Carrier					
	WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date: 03-08-2018 Work Order: S8630 N220VF S/N 22T-1622 Flight Time: 94.4 Hobbs Meter: 112.5 Total Time: 94.4		ENGINE LOG Eng. S/N 1034659
	<p>Performed Cirrus CMX 100 hour inspection per the CMX 100 hour inspection checklist. Performed engine differential compression test, results as follows - #1 64/80, #3 67/80, #5 48/80, #2 72/80, #4 73/80, #6 70/80, M.O. 46/80. Drained engine oil and collected sample for oil analysis. Removed, cut and inspected oil filter element; no discrepancies noted. Installed new oil filter P/N CH48108-1 and serviced engine with Phillips 20W50 X/C.</p> <p>- CAV SB2X-79-07 by securing of the affected oil line with the following new P/N's MS21919WDG10, MS21919WDG12, AN3-5A, MS21045-3 & NAS1149F0332P as required by this service document.</p> <p>All Mandatory Service Bulletins and AD's up to date. Work was performed with reference to applicable sections of CDC Doc. # 13773-002 Rev. 1, CMI Doc. # M-0 Chg. 5 & CMI Doc. # M-18 Chg. 0. Post-inspection run-up and leak check was satisfactory at this time.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Nathaniel Hershberger / CRS Release Authority</p>				
					
	WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date: 04-19-2018 Work Order: S8658 N220VF S/N 22T-1622 Flight Time: 144.4 Hobbs Meter: 167.9 Total Time: 144.4		ENGINE LOG Eng. S/N 1034659
	<p>Performed a Cirrus CMX 50 Hour Inspection with reference to the CMX 50 Hour Inspection checklist, CMI M-16, Table 6-4.3 (100 hour checklist) & applicable sections of CDC SR22/22T AMM Doc. #13773-002 Rev. 1. Drained and cleaned gascolator fuel bowl. Cleaned & reassembled engine fuel drain check valve. Drained oil hot & collected sample for lab analysis. Removed, cut-open & inspected oil filter element, no discrepancies noted. Installed a new AA48108-2 oil filter and service engine with (7qts) Phillips 20W50 X/C. All work was performed with reference to applicable sections of CDC SR22/22T AMM Doc. #13773-002 Rev. 1. Run-up and leak check satisfactory at this time.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Chad J. Koehn / CRS Release Authority</p>				
					
	WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date: 06-12-2018 Work Order: S8677 N220VF S/N 22T-1622 Flight Time: 192.7 Hobbs Meter: 223.0 Total Time: 192.7		ENGINE LOG Eng. S/N 1034659
	<p>Performed Cirrus CMX 100 & 200 hour inspection per the CMX 100 & 200 hour inspection checklists. Performed engine differential compression test, results as follows - #1 60/80, #3 48/80, #5 74/80, #2 70/80, #4 66/80, #6 66/80, M.O. 47/80. Drained engine oil and collected sample for oil analysis. Removed, cut and inspected oil filter element, no discrepancies noted. Installed new oil filter P/N AA48108-2 and serviced engine with Phillips 20W50 X/C. Checked engine set up, adjusted idle mixture down to 40 RPM rise. All other engine numbers settings are correct. Checked engine data and downloaded files to evaluate RPM surge reported by owner. Nothing noted and RPM is within limits.</p> <p>All Mandatory Service Bulletins and AD's up to date. Work was performed with reference to applicable sections of CDC Doc. # 13773-002 Rev. 1, CMI Doc. # M-0 Chg. 5 & CMI Doc. # M-18 Chg. 0. Post-inspection run-up and leak check was satisfactory at this time.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Chad J. Koehn / CRS Release Authority</p>				

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	
					Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
Carrier					
	WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date: 08-28-2018 Work Order: S8734 N220VF S/N 22T-1622 Flight Time: 249.6 Hobbs Meter: 285.7 Total Time: 249.6		ENGINE LOG Eng. S/N 1034659
	<p>Performed a Cirrus CMX 50 Hour Inspection with reference to the CMX 50 Hour Inspection checklist & applicable sections of CDC SR22/22T AMM Doc. #13773-002 Rev. 1. Performed engine oil and filter change. Drained engine oil hot and collected Metal Check sample for oil trend analysis. Removed filter, cut open and inspected filter element; no particles noted at this time. Installed new Tempest oil filter P/N AA48108-2 & serviced aircraft with 7qts of Phillips 20W50 X/C. Work was performed with ref. to CDC SR22 / 22T AMM P/N 13773-002 Rev. 1, Sec. 12-10. Post-run and leak check was satisfactory.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Nathaniel Hershberger / CRS Release Authority</p>				
					
	WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date: 11-07-2018 Work Order: S8763 N220VF S/N 22T-1622 Flight Time: 287.2 Hobbs Meter: 328.0 Total Time: 287.2		ENGINE LOG Eng. S/N 1034659
	<p>Performed a 100 Hour Inspection in accordance with FAR 91.409 and the requirements outlined in FAR 43 App. D, with ref. to the Cirrus SR22/22T AMM P/N 13773-002 Rev. B1, Chapter 5 & CMI M-18 (September 2017) Sec. 6-3.4. Performed cylinder differential compression test, results as follows: #1 60/80, #2 66/80, #3 56/80, #4 64/80, #5 10/80, #6 56/80 - M/O 46/80. Drained engine oil after pre-compression test, and collected sample for lab analysis (P/N GA001-SP). Removed and inspected oil filter element, no discrepancies noted at this time. Installed new oil filter P/N AA48108-2 & serviced engine with 7 quarts of Phillips 20W50 M. Replaced #3 cylinder assembly S/N AC17FB366 with new P/N 658595A3, S/N AC18DA035. Replaced #5 cylinder assembly S/N AC17FB419 with new P/N 658595A3, S/N AC18DA103. Replaced rocker arm hold-down lock tab washers in #3, #5 & #6 cylinder assemblies with (12) new P/N 501868. Replaced four cylinder drain grommets with (4) new P/N 633958. Compression test on cylinders after replacement & post-run was as follows - #3 76/80, #5 75/80, #6 76/80. Replaced #1, #2, & #4 exhaust gaskets with (3) new P/N 652458.</p> <ul style="list-style-type: none"> - All applicable AD's have been complied with at this time. - All applicable SB's have been complied with at this time. <p>All work was performed with ref. to applicable sections of the Cirrus SR22/22T AMM P/N 13773-002 Rev. 1 and CMI TSIO-550-B, C, E, G, K and N Permodal series Engine Maintenance and Overhaul Manual, M-18 (September 2017). Post-run and leak check was satisfactory at this time.</p> <p>I certify that this Engine (TSIO-550-K, S/N 1034659) has been inspected in accordance with a 100 Hour Inspection and was determined to be in an Airworthy Condition.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired / inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of the repair / inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Nathaniel Hershberger / CRS Release Authority</p>				
					
	WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com		Date: 12-06-2018 Work Order: S8802 N220VF S/N 22T-1622 Flight Time: 312.5 Hobbs Meter: 358.1 Total Time: 312.5		ENGINE LOG Eng. S/N 1034659
	<p>Complied with 25 CMX hour oil change after cylinder replacement. Drained engine oil hot and collected sample for lab analysis (P/N GA001-SP). Removed and inspected oil filter element; no discrepancies noted at this time. Installed new oil filter P/N AA48108-2 & serviced engine with 7 quarts of Phillips 20W50. All work was performed with ref. to applicable sections of the Cirrus SR22/22T AMM P/N 13773-002 Rev. 1 and CMI TSIO-550-B, C, E, G, K and N Permodal series Engine Maintenance and Overhaul Manual, M-18 (September 2017). Post-run and leak check was satisfactory at this time.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired / inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of the repair / inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Chad J. Koehn / CRS Release Authority</p>				

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	

Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins

Carrier



WELLS AIRCRAFT, INC.
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HUTCHINSON, KS 67501-1953
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Date: **02-26-2019**
Work Order: **S8818**
N220VF S/N: 22T-1622
Flight Time: **361.1**
Hobbs Meter: **415.0**
Total Time: **361.1**

ENGINE LOG
Eng. S/N 1034659



Performed a Cirrus **CMX 50 Hour Inspection** with reference to the CMX 50 Hour Inspection checklist & applicable sections of CDC SR22/22T AMM Doc #13773-002 Rev 1. Performed engine oil and filter change. Drained engine oil hot and collected Metal Check sample for oil trend analysis. Removed filter, cut open and inspected filter element, no particles noted at this time. Removed bottom fitting on oil cooler that was leaking, cleaned and resealed #6 Tanis probe wiring broken, P/N TTP2771-115/50 volt - ordered replacement for next service. Installed new Tempest oil filter P/N AA48108-2 & serviced aircraft with 7qts of Phillips 20W50 X/C. Work was performed with ref to CDC SR22 / 22T AMM P/N 13773-002 Rev 1, Sec 12-10. Post-run and leak check was satisfactory. I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.

Authorized Signature:
Chad J. Koehn / CRS Release Authority



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Date: **06-21-2019**
Work Order: **S8917**
N220VF S/N: 22T-1622
Flight Time: **415.8**
Hobbs Meter: **476.1**

ENGINE LOG
Eng. S/N 1034659



Performed a Cirrus **CMX 100 Hour Inspection** with reference to the CMX 100 Hour Inspection checklist & applicable sections of CDC SR22/22T AMM P/N 13773-002 Rev 1. Drained engine oil after pre-run and collected Metal Check sample for oil trend analysis. Removed filter, cut open and inspected oil filter element, no particles noted at this time. Installed new Tempest oil filter P/N AA48108-2 & serviced aircraft with 7qts of Phillips 20W50 X/C. Replaced #6 cylinder Tanis heater element with new P/N TTP2771-115/50. Replaced left rear engine baffle with new P/N 15473-009. Replaced #6 intake gasket with new P/N 649950. Replaced seal ring on left turbocharger inlet with new P/N 29486-001. Replaced oil pump scavenger hose with new P/N 646644S10S18 00. Cleaned connector contacts at rear engine baffle.

- Complied with Continental **SB18-08A** by inspection and modification of cylinder assemblies as required by this service document. Cylinder head assembly S/N's modified per this service bulletin #1 AC17GA327, #2 AC17GA345, #3 AC18DA035, #4 AC17GA365, #5 AC18CB179 & #6 AC18DA103

Work was performed with reference to applicable sections of CDC SR22/22T AMM P/N 13773-002 Rev 1, CMI TSIO-550-B, C, E, G, K and N Permod series Engine Maintenance and Overhaul Manual, M-18 (September 2017) & Tanis Aircraft Products Doc. #TN02771, Rev. E. Post-run and leak check was satisfactory at this time.

I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.

Authorized Signature:
Nathaniel Hershberger / CRS Release Authority



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800 AIRPORT ROAD
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HUTCHINSON, KS 67501-1953
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(620)663-1546
www.wellsac.com

Date: **08-29-2019**
Work Order: **S8961**
N220VF S/N: 22T-1622
Flight Time: **463.9**
Hobbs Meter: **530.2**

ENGINE LOG
Eng. S/N 1034659



Performed a Cirrus **CMX 50 Hour Inspection** with reference to the CMX 50 Hour Inspection checklist & applicable sections of CDC SR22/22T AMM P/N 13773-002 Rev 2. Drained engine oil after pre-run and collected Metal Check sample for oil trend analysis. Removed filter, cut open and inspected oil filter element, no particles noted at this time. Installed new Tempest oil filter P/N AA48108-2 & serviced aircraft with 7qts of Phillips 20W50 X/C.

Work was performed with reference to applicable sections of CDC SR22/22T AMM P/N 13773-002 Rev 2, CMI TSIO-550-B, C, E, G, K and N Permod series Engine Maintenance and Overhaul Manual, M-18 (September 2017) Post-run and leak check was satisfactory at this time.

I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.

Authorized Signature:
Nathaniel Hershberger / CRS Release Authority

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	

Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins

Carrier 1



Engine					
Tail Number:	N220VF	AC SN:	1622	Flight Time:	491.4
AC TT:	491.4	Eng PN:	TSIO-550-K	Eng SN:	1034659
Eng TT:	491.4	Prop PN:		Prop SN:	

- Removed Ignition harness. Installed new harness from Continental, PN 10-421674-21 on both magnetos, replaced right gasket PN 10-357520.
- Performed ground run to check for leaks and proper operation. No discrepancies noted at this time.

MAINTENANCE RELEASE

I certify this engine has been inspected/serviced/repared using Continental Installation Instructions.

Date: **4 October 2019**

Signed:
E. Russell Booher A&P 3809270

-----End-----



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800 AIRPORT ROAD
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Date: **11-26-2019**
Work Order: **S9012**
N220VF S/N: 22T-1622
Hobbs Meter: **586.1**
Flight Meter: **512.8**
TTAF: **512.8**
TTE: **512.8**

ENGINE LOG
Eng. S/N 1034659



Performed a **100 Hour Inspection** in accordance with FAR 91.409 and the requirements outlined in FAR 43 App. D, with reference to CDC SR22/22T AMM P/N 13773-002 Rev 2, sec. 5-20. Performed differential compression test, results were as follows: #1 48/80, #2 58/80, #3 66/80, #4 66/80, #5 64/80, #6 62/80 - M/O 45/80. Drained engine oil after pre-run and collected sample for lab analysis. Removed and inspected oil filter element, no discrepancies noted at this time. Serviced engine with 7 quarts of Phillips 20W50 X/C and one AA48108-2 filter. Replaced rocker cover gaskets on cylinder #'s 1, 2 & 4 with (6) new P/N 658735. Replaced all spark plugs with (12) new P/N URH32E. Replaced left (S/N D17GA143) & right (S/N D17GA139) magnetos with (2) rebuilt P/N BL-500556-101, S/N's D18LA110R (left) & D19GA319R (right) and (2) new gaskets P/N 649954, timed to engine as required. Replaced #5 cyl. EGT probe with new P/N 24585 (01).

- Complied with **FAA ASB No. 081 Rev. A. (Cirrus SA19-18)** by visual inspection, replaced hex-nut cotter pin with new P/N MS24665-302 & reinstalled alternator with new gasket P/N 653981

- All applicable AD's have been complied with at this time.

All work was performed with reference to applicable sections of the Cirrus SR22/22T AMM P/N 13773-002 Rev 2 & CMI TSIO-550 Permod Series Maintenance & Overhaul Manual M-18 (Sept. 2017). Post-run and leak check was satisfactory at this time.

I certify that this Engine (TSIO-550-K(1), S/N 1034659) has been inspected in accordance with a **100 Hour Inspection** and was determined to be in an Airworthy Condition.

I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of the repair/inspection are on file at this Certified Repair Station CRS NT2R043L.

Authorized Signature:
Nathaniel Hershberger / CRS Release Authority



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HUTCHINSON, KS 67501-1953
CRS NT2R043L
(620)663-1546
www.wellsac.com

Date: **05-20-2020**
Work Order: **S9100**
N220VF S/N: 22T-1622
Flight Time: **559.3**
Hobbs Meter: **640.5**

ENGINE LOG
Eng. S/N 1034659















Performed a Cirrus **CMX 50 Hour Inspection** with reference to the CMX 50 Hour Inspection checklist & applicable sections of CDC SR22/22T AMM P/N 13773-002 Rev. 3. Drained engine oil after pre-run and collected Metal Check sample for oil trend analysis. Removed filter, cut open and inspected oil filter element, no particles noted at this time. Installed new Tempest oil filter P/N AA48108-2 & serviced aircraft with 7qts of Phillips 20W50 X/C.

Work was performed with reference to applicable sections of CDC SR22/22T AMM P/N 13773-002 Rev. 3, CMI TSIO-550-B, C, E, G, K and N Permod series Engine Maintenance and Overhaul Manual, M-18 (September 2017) Post-run and leak check was satisfactory at this time.

I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired/inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair/inspection are on file at this Certified Repair Station CRS NT2R043L.

Authorized Signature:
Nathaniel Hershberger / CRS Release Authority

Total Time	Time Since Last Overhaul	Engine Service and Maintenance Record																									
 <p>WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com</p>		<p>Date 11-04-2020 Work Order S9205 N220VF S/N 22T-1622 Hobbs Meter 706.9 Flight Meter 618.2 TTAF 618.2 TTE 618.2</p> <p>ENGINE LOG Eng S/N 1034659</p> 																									
<p>Performed a 100 Hour Inspection in accordance with FAR 91.409 and the requirements outlined in FAR 43 App. D, with reference to Cirrus SR22/22T AMM P/N 13773-002 Rev. 3, Chapter 5, sec. 5-20. Performed differential compression test, results were as follows: #1 56/80, #2 64/80, #3 50/80, #4 56/80, #5 56/80, #6 60/80 - M/O 45/80. Drained engine oil after pre-run and collected sample for lab analysis. Removed and inspected oil filter element, no discrepancies noted at this time. Serviced engine with 7 quarts of Phillips with GA001-SP sample kit, 20W50 X/C and one AA48108-2 filter.</p> <p>- Complied AD2020-20-11, reference MSB18-08B & Cirrus SA18-11R1. PCW 6/21/2019 at 415.8 hours on S8917.</p> <p>- All applicable AD's have been complied with at this time to AD2020-16-11.</p> <p>All work was performed with reference to applicable sections of the Cirrus SR22/22T AMM P/N 13773-002 Rev. 3 & CMI TSIO-550 Permol Series Maintenance & Overhaul Manual M-18 (Sept. 2017). Post-run and leak check was satisfactory at this time. I certify that this Engine (TSIO-550-K(1), S/N 1034659) has been inspected in accordance with a 100 Hour Inspection and was determined to be in an Airworthy Condition.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired / inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of the repair / inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Chad J. Koehn / CRS Release Authority</p>																											
 <p>WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com</p>		<p>Date 07-28-2021 Work Order S9391 N220VF S/N 22T-1622 Flight Time 725.7 Hobbs Meter 833.0</p> <p>ENGINE LOG Eng S/N 1034659</p> 																									
<p>Drained engine oil after pre-run and collected Metal Check sample P/N GA-001SP for oil trend analysis. Removed filter, cut open and inspected oil filter element, no particles noted at this time. Installed new Tempest oil filter P/N AA48108-2 & serviced aircraft with 7qts of Phillips 20W50 X/C.</p> <p>Work was performed with reference to applicable sections of CDC SR22/22T AMM P/N 13773-002 Rev. 3, CMI TSIO-550-B, C, E, G, K and N Permol series Engine Maintenance and Overhaul Manual, M-18 Rev. 1, (March 2020). Post-run and leak check was satisfactory at this time.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired / inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of repair / inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Chad J. Koehn / CRS Release Authority</p>																											
<p> Engine</p> <table border="1"> <tr> <td>Tail Number:</td> <td>N220VF</td> <td>AC SN:</td> <td>1622</td> <td>Flight Time:</td> <td>672.2</td> <td>AC TT:</td> <td>672.2</td> </tr> <tr> <td>Eng PN:</td> <td>TSIO-550-K</td> <td>Eng SN:</td> <td>1034659</td> <td>Eng TSO:</td> <td>672.2</td> <td>Eng TT:</td> <td>672.2</td> </tr> <tr> <td>Prop PN:</td> <td></td> <td>Prop SN:</td> <td></td> <td>Prop TSO:</td> <td>672.2</td> <td>Prop TT:</td> <td>672.2</td> </tr> </table> <p>1. Removed upper and lower right cowling. Drained oil, removed, cut open & inspected oil filter for contaminants. No abnormalities noted. Installed new CH48108-1 and safetied.</p> <p>2. Sent sample to Blackstone Labs for analysis. Serviced engine with 11 qt Phillips 20w-50 X/C.</p> <p>3. Installed cowling & test ran engine. No discrepancies noted at this time.</p> <p>Date: 5 April 2021. Signed:  E. Russell Booher A&P 3809270</p>				Tail Number:	N220VF	AC SN:	1622	Flight Time:	672.2	AC TT:	672.2	Eng PN:	TSIO-550-K	Eng SN:	1034659	Eng TSO:	672.2	Eng TT:	672.2	Prop PN:		Prop SN:		Prop TSO:	672.2	Prop TT:	672.2
Tail Number:	N220VF	AC SN:	1622	Flight Time:	672.2	AC TT:	672.2																				
Eng PN:	TSIO-550-K	Eng SN:	1034659	Eng TSO:	672.2	Eng TT:	672.2																				
Prop PN:		Prop SN:		Prop TSO:	672.2	Prop TT:	672.2																				

Total Time	Time Since Last Overhaul	Engine Service and Maintenance Record	
 <p>WELLS AIRCRAFT, INC. 800 AIRPORT ROAD MUNICIPAL AIRPORT HUTCHINSON, KS 67501-1953 CRS NT2R043L (620)663-1546 www.wellsac.com</p>		<p>Date 12-14-2021 Work Order S9395 N220VF S/N 22T-1622 Flight Meter 758.8 Hobbs Meter 871.5 TTAF 758.8 TTE 758.8</p> <p>ENGINE LOG Eng S/N 1034659</p> 	
<p>Performed a 100 Hour / Annual Inspection in accordance with FAR 91.409 and the requirements outlined in FAR 43 App. D, with reference to Cirrus SR22/22T AMM P/N 13773-002 Rev. 3, Chapter 5, sec. 5-20. Performed differential compression test, results were as follows: #1 42/80, #2 62/80, #3 48/80, #4 42/80, #5 50/80, #6 62/80 - M/O 44/80, #1, #3, #4 & #5 to be replaced. Replaced LH rear accessory drive seals with (1) each P/N 25102, 653487 & 654012. Removed (4) P/N's 658595A1 cylinders, S/N's #1 AC17GA327, #3 AC18DA035, #4 AC17GA365 & #5 AC18CB179, installed new cylinders P/N (4) 658815A3, S/N's #1 AC21JA235, #3 AC21JB492, #4 AC21JA231 & #5 AC21JA223 using new gaskets & hardware listed on work order. Replaced cylinders #1 & #2 exhaust lifters (2) 658077. Updated Compressions after break in are: #1 77/80, #2 64/80, #3 76/80, #1 76/80, #5 75/80, #6 62/80 - M/O 44/80. Drained engine oil after pre-run and collected sample for lab analysis P/N GA001-SP. Removed and inspected oil filter element, no discrepancies noted at this time. Serviced engine with 8 quarts of Phillips 20W50M replaced (1) P/N AA48108-2 filter.</p> <p>CAW AD2020-16-11 by inspecting cylinders on aircraft for compliance with MSB18-08B, Cirrus SA18-16R1 S/N's #1-AC21JA235, #2 AC17GA345, #3 AC21JB492, #4 AC21JA231, #5 AC21JA223 & #6 AC18DA103, #2 and #6 modified per MSB18-08B on S8917 6/21/2019 at 415.8 flight hours. #1, #3, #4 & #5 cylinders installed new on 12/3/2021 P/N 658815A3 at 758.8</p> <p>- All applicable AD's have been complied with at this time to AD2020-20-11.</p> <p>All work was performed with reference to applicable sections of the Cirrus SR22/22T AMM P/N 13773-002 Rev. 3 & CMI TSIO-550 Permol Series Maintenance & Overhaul Manual M-18 (March 2020). Post-run and leak check was satisfactory at this time. I certify that this Engine (TSIO-550-K(1), S/N 1034659) has been inspected in accordance with a 100 Hour Inspection and was determined to be in an Airworthy Condition.</p> <p>I have reviewed the file on this aircraft and the accompanying forms. The aircraft, airframe, aircraft engine, propeller, or appliance identified was repaired / inspected in accordance with current requirements of the Federal Aviation Administration and is approved for return to service. Pertinent details of the repair / inspection are on file at this Certified Repair Station CRS NT2R043L.</p> <p>Authorized Signature:  Joseph Swadler / CRS Release Authority</p>			
05-17-2022	Airframe Total Time 790.8 Tachometer 789.9	N220VF S/N 22T-1622	Continental TSIO-550-K S/N 1034659
<p>Performed engine oil change. Drained engine oil, removed filter, cut open & visually inspected for foreign materials with no defects noted. Installed new CH48108-1 Champion oil filter & safety wired. Serviced engine w/8 quarts of Phillips 66 X/C 20W50 AD Engine oil. Performed operational ground run/leak check w/no defects noted. Reinstalled cowling & returned aircraft to service.</p> <p>Joel Elder  A&P 2760368 IA</p>			

SO#	22-33631	Ross Aviation Flight Maintenance			DATE	09/15/2022
REG.	N220VF	Lincoln Municipal Airport [LNK]			ACTT	837.1
MAKE	TCM	MODEL	TSIO-550-K	ETT:	837.1	FLIGHT
		SERIAL NO.	1034659	ETSOH:	N/A	HOUR

Maintenance Engine Record

- Performed 100 hour / 12 month inspection. Ran engine to check for function. Took cylinder compressions MO 47/80, #1 72, #2 68, #3 72, #4 73, #5 78, #6 60. Removed, cleaned, inspected, gapped, tested, rotated, and reinstalled spark plugs. Drained oil and removed oil filter. Cut open filter to inspect for contaminants with no defects noted at this time. Installed new filter P/N AA48108-2 and added 7 quarts of Phillips X/C 20w50 oil. Ran engine to check for leaks and function with no defects noted. Reference Cirrus SR22T Maintenance Manual Chapter 5-20. Next due at 937.1 hours total time or Sep 2023.
- Performed 100 hour lubrication schedule. Reference Cirrus SR22T Maintenance Manual Chapter 12-20. Next due at 937.1 hours total time.

I certify this (aircraft) (engine) (propeller) has been inspected in accordance with a/an Annual inspection as per 14 CFR part 91.409, (a)(1), and was determined to be in an airworthy condition.
Dated September 15, 2022, W/O. 22-33631 Signed Benjamin Taylor
Ross Aviation Flight Maintenance CRS# LNKR128E
Lincoln, NE 68524



Continental Motors

Engine Component Information Sheet

Printed: 09/11/2017

Serial: 1034659

Assembled: 09/07/2017

Spec: TSI0550K1B

Shipped: / /

New/Rebuilt: (NEW)

Packed: 09/11/2017

Customer Name: CIRRUS DESIGN CORPORATION

Shipping Address: DULUTH INTERNATIONAL AIRP

Component	Serial Number	Component	Serial Number
CAMSHAFT	362171	L. TURBO	H-UFL00137
CRANKSHAFT	N17FA037	R. TURBO	H-UFL00066
CRANKCASE	R17FA099	WASTEGATE	H-TKN00083
CONNROD	AE17GA729	OIL COOLER	H17-14006-376
CONNROD	AE17GA730	CYLINDER-1	AC17GA327
CONNROD	AE17GA677	CYLINDER - 2	AC17GA345
CONNROD	AE17GA679	CYLINDER - 3	AC17FB366
CONNROD	AE17GA752	CYLINDER - 4	AC17GA365
CONNROD	AE17GA751	CYLINDER - 5	AC17FB419
L MAGNETO	D17GA143	CYLINDER - 6	AC17FA781
R MAGNETO	D17GA139	NOZZLE - 1	1515
FUEL PUMP	B17EA145	NOZZLE - 2	2531
MANIFOLD VALVE	C17HA069	NOZZLE - 3	3531
METERING UNIT	A17HA121	NOZZLE - 4	4531
STARTER	H-R030301	NOZZLE - 5	5520
ALTERNATOR	H-R072266	NOZZLE - 6	6526

Pack Inspection Stamp



All of the information provided herein is subject to verification by the user. Continental Motors, Inc. makes no representation or warranty concerning the accuracy or completeness of the information and assumes no responsibility with respect thereto.

United States of America
 Department of Transportation Federal Aviation Administration
Supplemental Type Certificate

Number SA01708SE

This certificate, issued to:

Precise Flight, Inc.
 63354 Powell Butte Road
 Bend, OR 97760

certifies that the change in the type design for the following product with the limitations and conditions, therefore as specified herein meets the airworthiness requirements of Part 23 of the Federal Aviation Regulations.

Original Product—Type Certificate Number: A00009CH
Make: Cirrus Design Corporation
Model: SR22, SR22T

Description of the Type Design Change: Fabrication of the fixed oxygen system in accordance with Precise Flight Engineering Drawing Lists

102N0000	Revision F	100N0000	Revision AH	051A0000	Revision B
027N0000	Revision E	026N0000	Revision E	020N0000	Revision G
010N0000	Revision H	016N0000	Revision C	012N0000	Revision IR
011N0000	Revision A	010A0000	Revision IR	009N0000	Revision C

or later FAA-approved revisions. Installation in accordance with Precise Flight Engineering Drawing List 102N0000, Revision F, or later FAA-approved revision. Maintained in accordance with the Instructions for Continued Airworthiness (ICA) Precise Flight Document 102NMAN0003, Revision E, dated February 23, 2010, or later FAA-approved revision or document

Limitations and Conditions. Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of these models on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft.
 (See Continuation Sheet on Page 3)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: August 01, 2006

Date received:

Date of issuance: October 04, 2006

Date amended: October 12, 2007, May 30, 2008, April 13, 2010



By direction of the Administrator

[Signature]

 Acting Manager, Seattle Aircraft Certification Office
 (Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.
 This certificate may be transferred in accordance with FAR 21.47



Document Number: 102NMAN0003
Revision Number: G
Aircraft Serial Number: 1622

63354 POWELL BUTTE ROAD
BEND, OR 97701, USA
800- 547-2558
www.precsieflight.com

Instructions for Continued Airworthiness Cirrus SR22/SR22T Built-In Oxygen System

STC Number SA01708SE



NOTICE

The Airworthiness Limitations Section (Section 2.6) is FAA Approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA Approved.

These documents must be kept with the aircraft records.

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF THE PRECISE FLIGHT, INC. (PFI) COMPANY, AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE, OR SELL ANYTHING IT MAY CONTAIN OR DESCRIBE IN ANY WAY. REPRODUCTION, DISCLOSURE, OR USE WITHOUT SPECIFIC PRIOR WRITTEN CONSENT OF PFI IS STRICTLY PROHIBITED.



INSTRUCTIONS FOR CONTINUED AIRWORTHINESS – STC SA01708SE
Cirrus Design SR22/SR22T Built-In Oxygen System

REVISION HISTORY

Rev.	DESCRIPTION OF CHANGES	Author	Date	Approved By	Approved Date
-	Original Release	STP	9/7/2006	JNS	9/7/2006
A	Revised document to include remote filler, and final oxygen system wire routing.	JNS	9/27/2006	JNS FAA	9/27/2006 10/3/2006
B	Revised document to include the A5 constant flowmeter, the PreciseFlow® Oxygen Conservor, added Section 2.7.1 inspection checklist for ease of maintenance, updated wire schematics adding the remote Annunciator option, added Section 3.0 IPC to this document for ease of maintenance for Cirrus Customers and Service Centers.	JNS	4/27/2007	JNS/FAA	7/23/2007
C	Added section 2.4.7 for either ground or flight testing of the O2 Required Pressure Sensor, added a ground test procedure for sensor test, allowed the owner/pilot to perform the 50, 200, and 500hr inspections on the breathing equipment. Corrected typo on item 1, Figure 19 for the Bottle Assembly. Added Trouble Shooting Flow Charts figures 5-11.	JNS	2/8/2008	JNS	2/8/2008
D	Removed owner/pilot notes for 50, 200, and 500hr inspections on the breathing equipment as required per the FAA. Corrected page numbering error do to formatting.	JNS	3/21/2008	JNS	3/21/2008
E	Updated ICA for Cirrus Perspective Installations; Added new SR22T model throughout document; changed Hydrostatic pressure test to every 5 yrs. (was: 3 yrs.);	W. Ashforth	2/22/10	CRB	2/23/10
F	Added 5 port manifold data, changed CPC O-ring service interval to 5 years, removed A4 from IPC, corrected typos.	R. Norris	5/27/2011	CRB	6/22/11
G	Corrected typo in table 1 of section 2.7. Updated system wire diagram section 2.8. Added 051A0330-2 to BOM section 3.7.3. Added 102N0420-2 to BOM section 3.8 fig 25. Added 102N0401 (3.8.1) to section 3.8. Added renamed conservor X3 to all sections.	J. Noland R. Norris	02/04/2016	CRB	02/15/2016

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS – STC SA01708SE
Cirrus Design SR22/SR22T Built-In Oxygen System

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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS – STC SA01708SE

Cirrus Design SR22/SR22T Built-In Oxygen System

2.0 INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

2.1 INTRODUCTION

The contents of this section provide the instructions for continued airworthiness for the Cirrus SR22/SR22T Built-In Oxygen System. The majority of the installation does not affect the standard airworthiness of the aircraft; only the key Oxygen System items that exist different are noted in this section. All structure and general maintenance must be performed in accordance with existing approved maintenance practices, the aircraft maintenance manual or other FAA Approved document(s).

2.2 SYSTEM DESCRIPTION

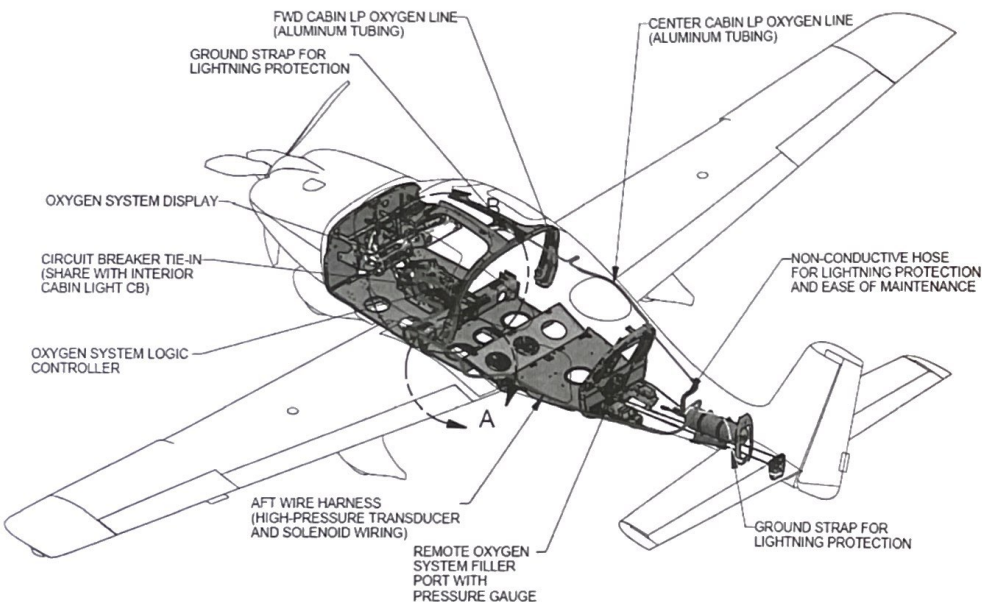


Figure 1 - SR22/SR22T Built-In Oxygen System Overview

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS – STC SA01708SE

Cirrus Design SR22/SR22T Built-In Oxygen System

The Built-In Oxygen System consists of a few simple components for supplying sufficient oxygen to the crew and passengers of the Cirrus SR22/SR22T aircraft. These components follow:

Oxygen Bottle

- Stores 77 cu Ft. of Oxygen at 1800 psig

Regulator Assembly

- Converts the high bottle pressure to a usable 70 psig for cabin distribution. This is actuated through a latching solenoid assembly with an electrical connection to the aircraft cockpit. The regulator assembly allows the bottle to be filled through a separate fill port and a fill gage. The fill gage allows the maintenance personnel to monitor the fill operation. An overpressure burst disc is incorporated to dissipate excess pressure and protect the bottle. A high pressure transducer electrically transmits bottle pressure to the cockpit display.

Oxygen Remote Filler Station

- Allows for easy filling of the oxygen system and incorporates a manual pressure gage for filling, and preflight. Located for convenient access through the baggage door on the left hand side of the aircraft, just above the floor on the center of the baggage compartment aft wall. An easy access door covers the filler port to prevent damage to the filler from shifting baggage.

Oxygen Distribution Lines and Electrical Wiring Connections

- The oxygen distribution lines allow oxygen to safely enter the aircraft cabin. The electrical connections allow the bottle and oxygen cabin pressure to be transmitted to the cockpit and for cockpit selection of oxygen in the aircraft cabin.

Oxygen Distribution Manifold

- Allows the crew and passengers to connect to the Oxygen System with four (4) or five (5) quick disconnect fittings with the capability of sealing oxygen flow to the cabin when disconnected.

Oxygen System Display and Display-Logic Controller (DLA)

- The Oxygen System display provides control over the oxygen delivery to the aircraft cabin. This display supports an Annunciator to indicate when oxygen is to be used (above 12,000 Ft. PA) and an indication of cabin oxygen or electrical actuation fault. The cabin oxygen flashing fault illuminates if cabin oxygen is not – between 60 psig and 85 psig. The electrical actuation fault illuminates if there is an electrical short or open circuit to the latching solenoid at the regulator. The oxygen controller supports these functions and ensures a short duration signal to drive the latching solenoid.

Breathing Equipment

- The breathing equipment can consist of either constant flow and/or demand flow regulator breathing stations. Both use a connection to the distribution manifold. Precise Flight A4 or A5 constant flow devices or "Flowmeters" indicate the flow of oxygen with an integral valve to control the quantity of oxygen reaching the crew or passenger. The PreciseFlow or X3 demand flow conservers are calibrated and adjusted by the user for altitude to supply oxygen to either dual lumen cannulas up to 18,000ft, or dual sensing masks. The flow indicator on this flow device is labeled with appropriate oxygen flow for increasing aircraft altitude. The constant flowmeter or demand regulator is attached to the appropriate approved mask or cannula to deliver oxygen to the crew or passengers.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS – STC SA01708SE
Cirrus Design SR22/SR22T Built-In Oxygen System

2.3 SPECIAL TOOLS REQUIRED

- Plastic reservoir hand pump
- Chemical-resistant gloves
- Protective eyewear with side shields

Refer to the installation instructions, or drawings for the Precise Flight Built-In Oxygen System.

2.4 MAINTENANCE INSTRUCTIONS

CAUTION: INSTALL PROTECTIVE COVERS ON ALL OPEN LINES AND COMPONENT FITTINGS IMMEDIATELY AFTER THEY ARE DISCONNECTED.

Maintain aircraft structure and wiring in accordance with aircraft maintenance manual and FAA AC43.13.

Precise Flight Inc., www.preciseflight.com, is the approved Overhaul Facility

2.4.1 BOTTLE REMOVAL AND REPLACEMENT

The Built-In Oxygen System bottle removal and replacement procedure follows:

WARNING: OXYGEN SYSTEM MUST BE BLED TO ZERO PSI BEFORE ANY MAINTENANCE.

Bleeding Procedure:

1. Aircraft battery power ON, oxygen display panel ON.
2. Connect Flowmeter breathing device to overhead distribution panel and turn Flowmeter to full flow until oxygen is purged from the System and the flashing red 200 PSI quantity LED has been illuminated for 10 minutes and no more oxygen is flowing through the breathing device.
3. Oxygen panel display OFF, aircraft power OFF.

Bottle Removal Procedure:

1. Remove aft fuselage access panel fasteners.
2. Remove and store access panel in a safe location.
3. Detach flexible oxygen line and cap both lines.
4. Disconnect electrical harness.
5. Release the two band clamp restraints.
6. Remove bottle and regulator assembly by first moving the assembly forward and to the left. Remove bottle and regulator assembly aft end of the bottle first.
7. Installation is opposite of removal – Tighten wing nuts until snug and then two more turns to ensure proper tension on clamp bolt.
8. Perform a functional system check following installation (purging per next step can be accomplished during the functional test).
9. Purge the oxygen system by filling the main tank to a minimum of 500psig and bleeding the system down between 50-100psig by following the bleeding procedure prior to filling the system for use.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS – STC SA01708SE
Cirrus Design SR22/SR22T Built-In Oxygen System

2.4.2 FILLER STATION CLEANING

The filler port requires cleaning periodically, and prior to filling, to keep clean of dirt, dust, and oils to prevent fire.

2.4.3 LINE CLEANING

Line Cleaning Procedure:

1. Preparation
 - a. Obtain a suitable container for collecting fluid waste.
 - b. Wear protective gloves and eyewear.
 - c. Assemble a reservoir pump and drain line, see Fig 1.
2. Flushing
 - a. Fill 2 qt reservoir with 1% Alconox or Liquinox detergent solution. www.alconox.com
 - b. Attach reservoir pump to cabin oxygen line.
 - c. Pump 2 qt Alconox or Liquinox through oxygen line.
 - d. Undo pump connection and rinse pump with clear water.
 - e. Fill 2 qt reservoir with clear tap water.
 - f. Attach reservoir pump to cabin oxygen line.
 - g. Pump 2 qt water through oxygen line.
 - h. Repeat steps A through D, rinsing the pump with the next cleaning material.
 - i. Pump 1 qt Methyl Alcohol through oxygen line.
 - j. Pump 1 qt ASAHIKLIN AK-225 through oxygen line. www.agcchem.com
 - k. Purge the line of AK-225 by passing clean dry air through the line.
 - l. With the air still flowing, sniff the air exiting the drain line. The absence of odors will verify the line is free of AK-225.
 - m. Reconnect lines and restore System to service.

2.4.4 Functional Test

The following test procedure will evaluate the Built-In Oxygen System installation in the aircraft:

1. Check wiring and connections before applying aircraft battery power.
2. Fill Oxygen System with aviators oxygen (see Maintenance Manual or Flight Manual Supplement), leave access panel open.
3. Switch the Oxygen System ON at the oxygen control panel and verify that the Oxygen System quantity display indicates the same oxygen pressure shown at the aft fill port gauge.
4. Connect Flowmeter breathing device to overhead distribution panel.
5. Ensure oxygen flow through a breathing device.
6. Switch the Oxygen System OFF at the oxygen control panel.
7. Turn aircraft battery power off.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS – STC SA01708SE
Cirrus Design SR22/SR22T Built-In Oxygen System

2.4.5 Oxygen System Installation

Refer to Precise Flight Inc. drawing list 102N0000 Cirrus Design Built-In Oxygen System for installation and removal of the oxygen system components.

2.4.6 Oxygen System Bleed-Down (Purging)

Use the following procedure to bleed-down the oxygen system should any of the hard lines, non-conductive line be opened, or bottle removed and re-installed/replaced. This procedure is required to prevent contamination, or moisture inside the system.

1. Attach the filler line to the filler port, making sure to purge the line prior to attaching to the aircraft.
2. With the System ON, and flowmeters (or open Connectors) installed in the distribution ports, initiate flow for 1-2min.
3. Remove the flowmeters from the distribution port, and turn the oxygen System OFF, and fill to 650psig.
4. Perform leak checks as required.
5. Turn the System ON and using flowmeters (or open connectors) installed in the distribution ports; bleed the system down to below 50psig (but above 0psig).
6. Repeat steps 3-5 once. (Leak check not required on second purge)
7. Remove the flowmeters from the distribution port, and turn the oxygen System OFF, and fill to 1500psig.
8. Perform Final leak check.
9. Fill System to 1800-2000psig as required.

2.4.7 Oxygen Required Pressure Calibration Check

The Precise Flight, Inc. Fixed Oxygen System is designed with an additional safety feature to indicate O2 is required if the system is off, or there is no pressure at the outlet, when the cabin pressure is at 12,000ft Pressure Altitude (PA). This pressure sensor is internal to the Display Logic Controller (DLA). To ensure this safety feature is functioning properly a check of its function is required during the annual inspection. This may be done by a flight test to altitude, or by a ground test.

Note: The Altitude Sensor in the Oxygen System Display Logic Assembly is NOT connected to the aircraft static system.

Note: Not All aircraft are equipped with a Display Logic Assembly where a test port is available. In these cases the flight test is the only approved method for testing the calibration.

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2.4.7.1 Flight Test (Method A)

Method A of checking the calibration is by flight test. This flight is intended to be done during the maintenance release flight following the annual inspection. The procedure is to fly to 11,000ft PA (alt setting of 29.92inHg) and during the climb to 12,500ft PA with the oxygen system OFF, note the altitude which the O2 Required Amber light begins to flash. This should occur between 11,500ft PA and 12,500ft PA if the system is operating normally.

2.4.7.2 Ground Test (Method B)

Method B for checking the calibration is by ground test. The ground test requires the removal of pilots side Aft Trim Panel to gain access to the Display Logic Controller (DLA), and is recommended that this be performed with the seats removed, and the LH (Pilots) side Aft Trim Panel must be removed.

Note: This should be performed during the Cabin Group Inspection as part of the Annual inspections. In the case of a progressive Maintenance Program, this test should be accomplished as close to once every year, not to exceed 18months.

Use the following procedure for the ground test method for the DLA pressure calibration check:

1. Remove the Pilot Seat if not already removed as part of the annual maintenance check, cabin group.
2. Remove the LH Aft Trim Panel if not already removed as part of the annual maintenance check, cabin group to gain access to the DLA. (See Figure 2)

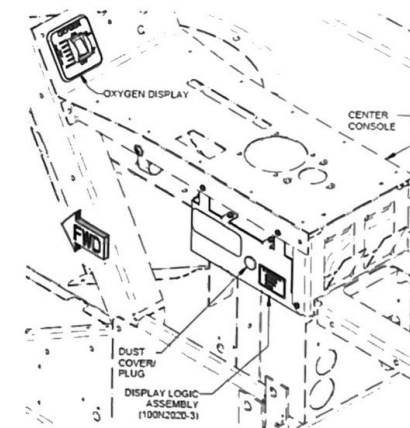


Figure 2 - Location of Oxygen System Display Logic Controller

3. Check general condition of the wiring, and DLA.
4. Remove the Dust Cover/Plug. (See Figure 3)

9. Verify the altitude where the indication first occurred.
 - a. If indication is between 11,500ft PA and 12,500ft PA, then proceed to the next step.
 - b. If the indication is outside of this range, re-verify the indication. If the DLA fails a second time, remove the DLA and replace, or contact PFI for re-adjustment.
10. Turn Aircraft power off.
11. Remove the pressure tubing taking extra care not to damage the DLA pressure transducer.
12. Re-install the dust cover/plug.
13. Note passing test as required.

2.5 TROUBLE SHOOTING GUIDE

2.5.1 Oxygen System Fails to Operate

- a. Check circuit breaker.
- b. Check connector plugs for security and contact insertion.
- c. Check wiring diagram against aircraft installation. See Section 2.8.
- d. Check the system function per section 2.5.2.

2.5.2 Oxygen System Trouble Shooting Flow Chart

This section is for reference when troubleshooting the PFI Fixed Oxygen System, if used, and parts returned, please copy steps taken for reference.

CAUTION: Pressures above 105psig on the low-pressure side will damage the low-pressure transducer and will require the transducer to be replaced.

Installation Complete, Purging and Leak Check Complete. System Fully charged for Service

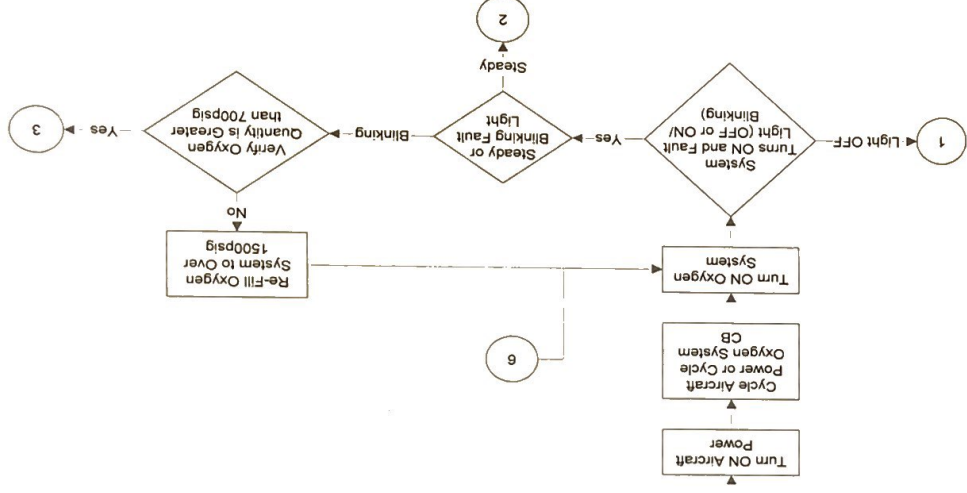


Figure 5 - Trouble Shooting FlowChart (6)

5. Using a soft rubber or similar tube with an inside diameter (ID) of 7/64in, connect one end to the pressure sensor nipple, and the other to the static line on a Pitot-Static Test system with pump.

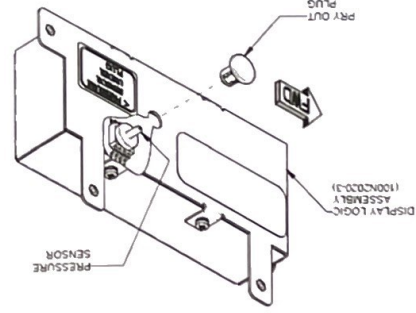


Figure 3 - Removal of the Dust Cover Plug

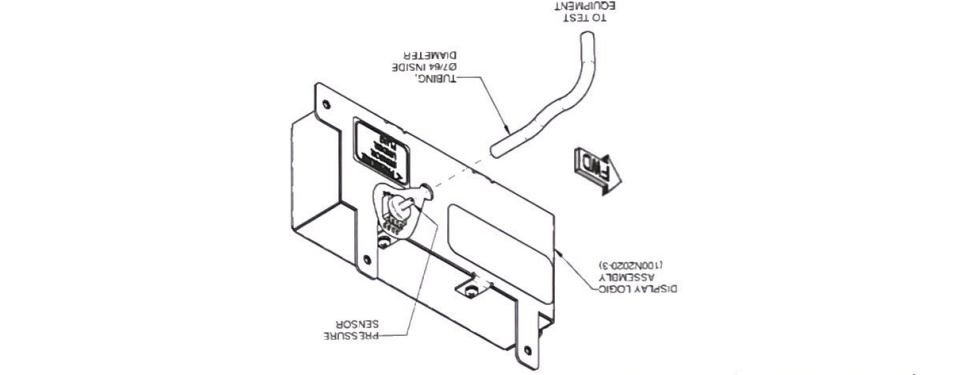


Figure 4 - Attachment of the Static Test Hose

CAUTION: CARE MUST BE TAKEN DURING THE INSTALLATION AND REMOVAL OF THE 7/64" INSIDE DIAMETER TUBING TO PREVENT DAMAGE TO THE SENSOR AND/OR THE CONTROLLER CIRCUIT. DO NOT YANK, OR PULL EXCESSIVELY DURING THE REMOVAL OR DAMAGE WILL OCCUR AND THE UNIT MUST BE REPLACED.

6. With the aircraft in a safe condition to power up the Main Bus 2, turn ON the main bus 2 with the oxygen system off.
7. Cycle the system ON and OFF to ensure the system is functioning, use a breathing device to ensure flow is present. With the system OFF, let the oxygen bleed down prior to removing the breathing device.
8. Using the static portion of the Pitot-Static tester, increase the static altitude slowly to 11,000ft PA. Continue increasing the altitude and note when the display indicates "O2 required" as signified on the display by the flashing amber LED. Note the altitude which this occurred.

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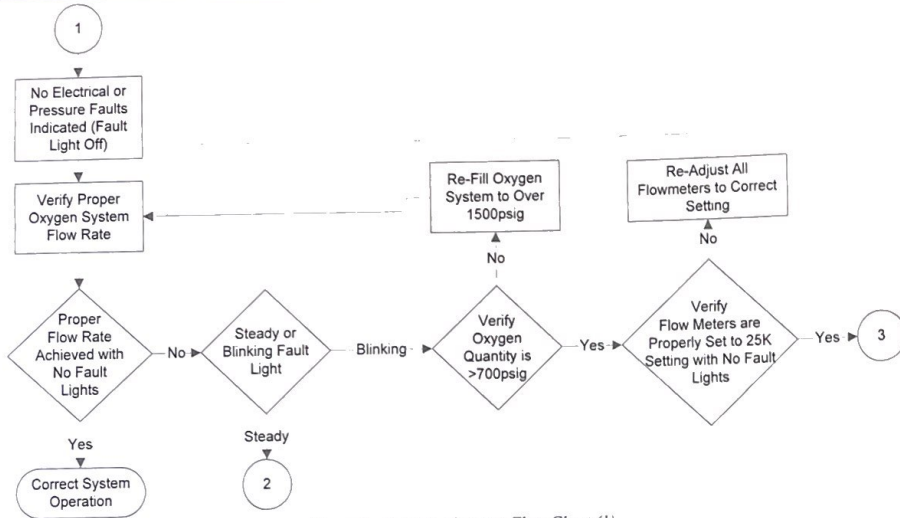


Figure 6 - Trouble Shooting Flow Chart (1)

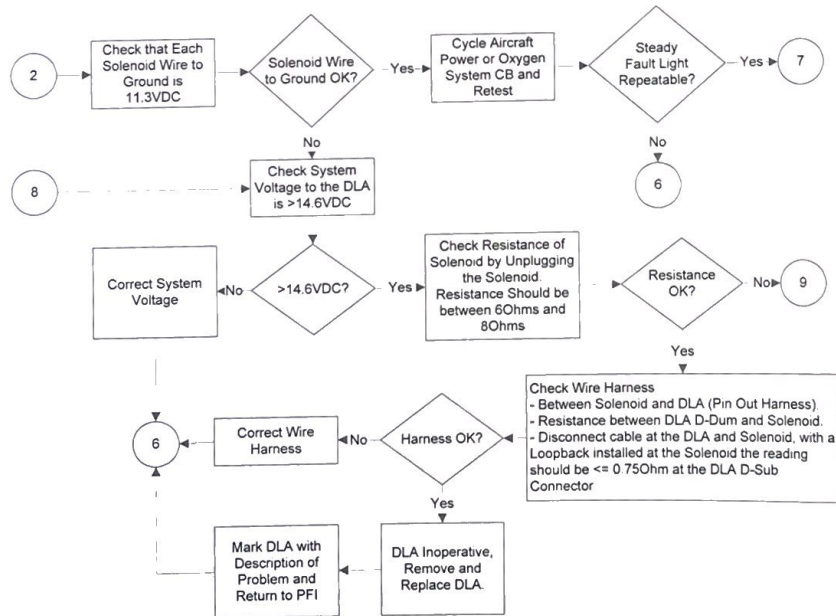


Figure 7 - Trouble Shooting Flow Chart (2 & 8)

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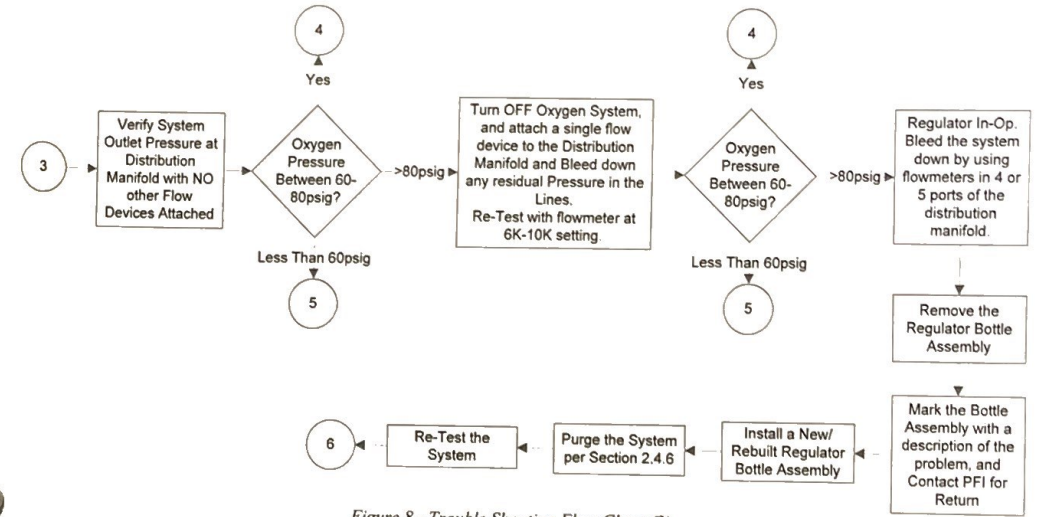


Figure 8 - Trouble Shooting Flow Chart (3)

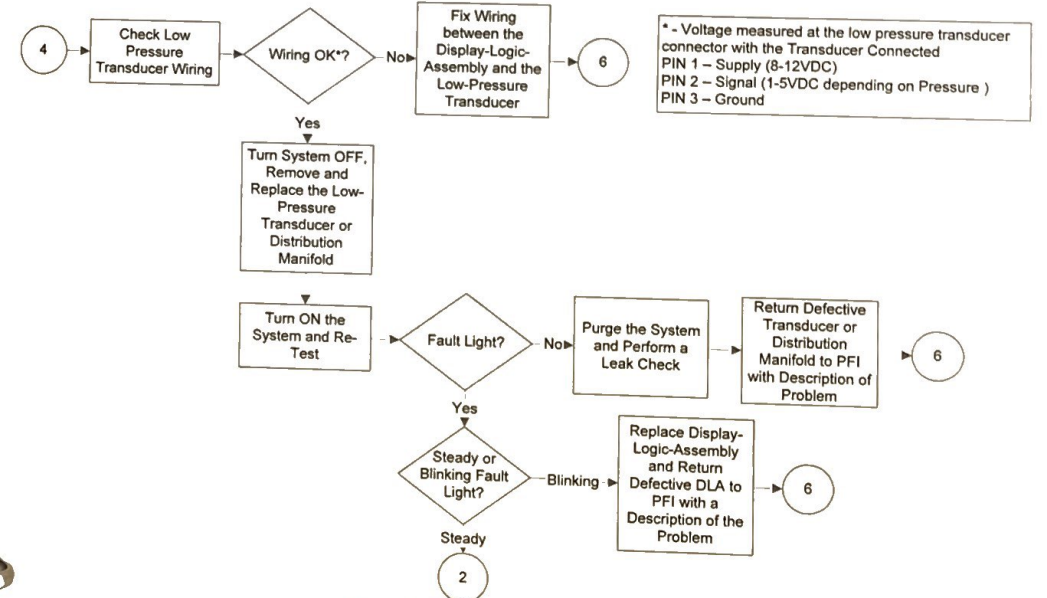


Figure 9 - Trouble Shooting Flow Chart (4)

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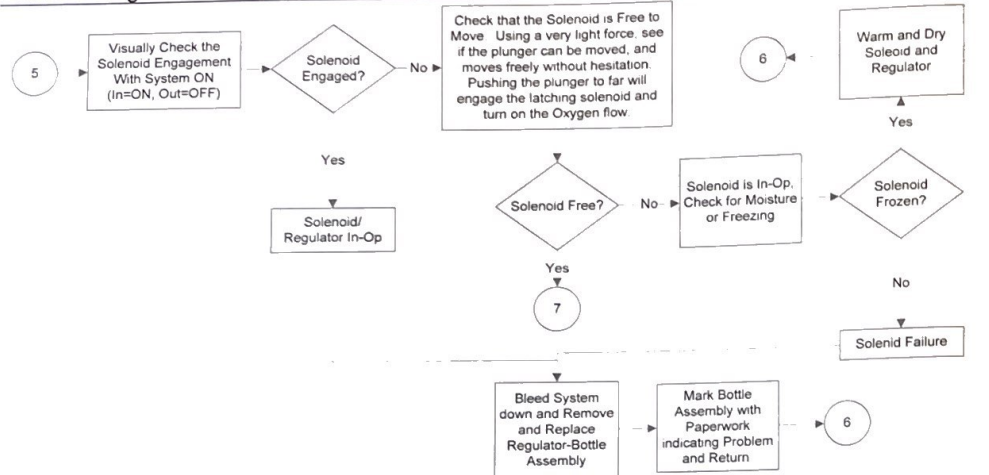


Figure 10 - Trouble Shooting Flow Chart (5)

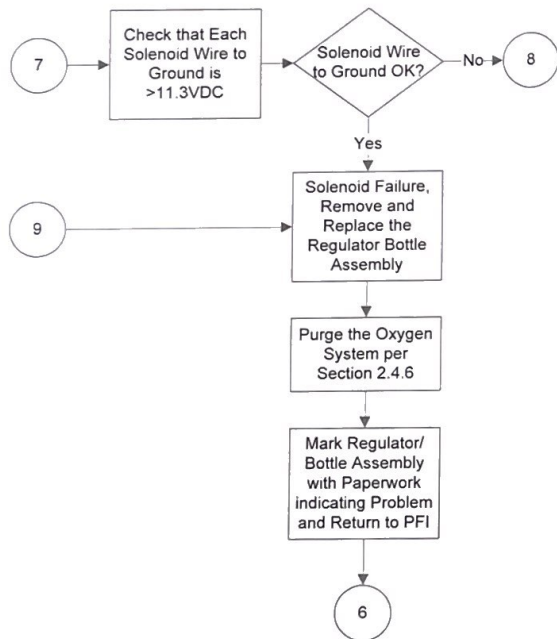


Figure 11 - Trouble Shooting Flow Chart (7 & 9)

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2.5.3 Additional Technical Assistance

Please call Precise Flight, Inc., www.preciseflight.com, 800-547-2558 or 541-382-8684.

2.6 AIRWORTHINESS LIMITATIONS

This Airworthiness Limitations Section is FAA Approved and Specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA Approved.

None – The operation of the Built-In Oxygen System does not impact the airworthiness limitations, and is not required for normal flight.

Note: To maintain the altitude capability of the aircraft, the Scheduled Maintenance Intervals and Inspections must be maintained.

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2.7 SCHEDULED MAINTENANCE INTERVALS AND OVERHAUL INTERVALS FOR INSPECTIONS FOR CONTINUED AIRWORTHINESS

For this section, the 50hr, 200hr, and 500hr are time of oxygen system in use. Annual and yearly inspection intervals are calendar intervals. Section 2.7.1 and Table 2 provides a checklist version of this for maintenance work.

Table 1 - Scheduled Maintenance Intervals and Inspections

	15 YEARS	5 YEARS	3 YEARS	ANNUALLY	EACH 500 HOURS OF USE	EACH 200 HOURS OF USE	EACH 50 HOURS OF USE
Cirrus Design SR22/SR22T BUILT-IN OXYGEN SYSTEM							
1. Check flexible lines for security of connections, kinks or tube discoloration.				*			
2. Replace oxygen cannulas and/or oxygen masks.				*			
3. Replace or overhaul microphone oxygen mask.				*			
4. Perform functional test per Section 2.4.3. Follow Cirrus Maintenance Manual and this document for general aircraft wiring system checks and headliner removal. Oxygen Wiring Diagram is in the Appendix. Check security of oxygen bottle mounting, re-torque wing nuts to snug and two turns tight. If contamination is found, clean oxygen lines. See 2.4.2. Check security of oxygen lines, and check bonding continuity on cabin oxygen line to ensure resistance to aircraft ground is no more than 0.0025Ω (2.5mΩ) between any metal to metal connections on the System. Clean and check condition of the filler port and ensure filler cap or rubber pad is present. Confirm that "O2 REQ'D" annunciator illuminates at 12,000 Ft. ± 500 Ft. Pressure Altitude.				*			
5. Replace O-Ring in CPC Connector Assembly on the breathing stations.				*			
6. Purge Oxygen System. See Maintenance Manual. Remove and hydrostatically test the oxygen cylinders from date marked on cylinder. Overhaul regulator/valve assembly – replace O-Rings, verify regulator pressure setting. If contamination is found, clean oxygen lines. See 2.4.2. Inspect oxygen lines and fittings for leaks, cracks or damage. Leak check with Snoop or equivalent. www.swagelok.com. Replace flexible oxygen lines on breathing stations. Replace O-Ring in CPC connector assembly identified on the breathing stations. Overhaul A4 and/or A5 Constant Flowmeters.				*			
7. Replace composite wrapped oxygen cylinder. Overhaul regulator/valve assembly – replace O-Rings, verify regulator pressure setting. Replace non-conductive low-pressure oxygen line between the regulator and the AL hard-lines. Inspect oxygen lines and fittings for cracks, leaks or damage. Leak check with Snoop or equivalent. www.swagelok.com. Purge Oxygen System. Replace flexible oxygen lines on breathing stations. Replace O-Ring in CPC connector assembly identified on the breathing stations. Overhaul A4, and/or A5 Constant Flowmeters and PreciseFlow or X3 Demand Conservers.				*			

Notes:

1. Applicable to aircraft with Solid Green (Kevlar) Oxygen Bottle (PFI P/N 026N2001-3)
2. Applicable to aircraft with Striped Green (Carbon) Oxygen Bottle (PFI P/N 026N2003-3)

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2.7.1 Scheduled Maintenance Checklist

For this section, the 50hr, 200hr, and 500hr are time of oxygen system in use. Annual and yearly inspection intervals are calendar intervals.

Aircraft Registration Number	Aircraft Serial Number	Total Time	Hobbs Time	Inspection Completion Date

Table 2 - Scheduled Maintenance Checklist

Item	Inspection Criteria	Breathing Station Group						
		50hr	200hr	500hr	Annual	3 Year	5 Year	15 Year
1	Check Breathing Stations a) Check tubing connections for security b) Check tubing for kinks or discoloration and general cleanliness c) Check condition of flowmeters or PreciseFlow or X3 d) Check flow indicator on PreciseFlow or X3 for cracks, stickiness, general condition e) Check Cannulas and Masks for general condition, cleanliness, or discoloration Initials: _____ Date: _____		*					
2	Replace Oxygen Cannulas and Standard (Clear) Masks a) Replace Standard Cannula as required and mark in-service date on new part. b) Replace Oxymizer Cannula as required and mark in-service date on new part. c) Replace PreciseFlow or X3 Dual Lumen Cannula as required and mark in-service date on new part. d) Replace Standard (Clear) Facemask as required and mark in-service date on new part. e) Replace Standard (Clear) PreciseFlow or X3 Facemask as required and mark in-service date on new part. Initials: _____ Date: _____			*				
3	Replace/Overhaul Oxygen Facemasks with Microphone (Blue) a) Replace or Overhaul Facemask with Microphone (Blue) as required and mark in-service date on New or Overhauled part. b) Replace or Overhaul PreciseFlow or X3 Facemask with Microphone (Blue) as required and mark in-service date on New or Overhauled part. Initials: _____ Date: _____				*			
4	Replace O-Rings in CPC connectors on Breathing Stations. Initials: _____ Date: _____							*

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2.8 SYSTEM WIRING DIAGRAM

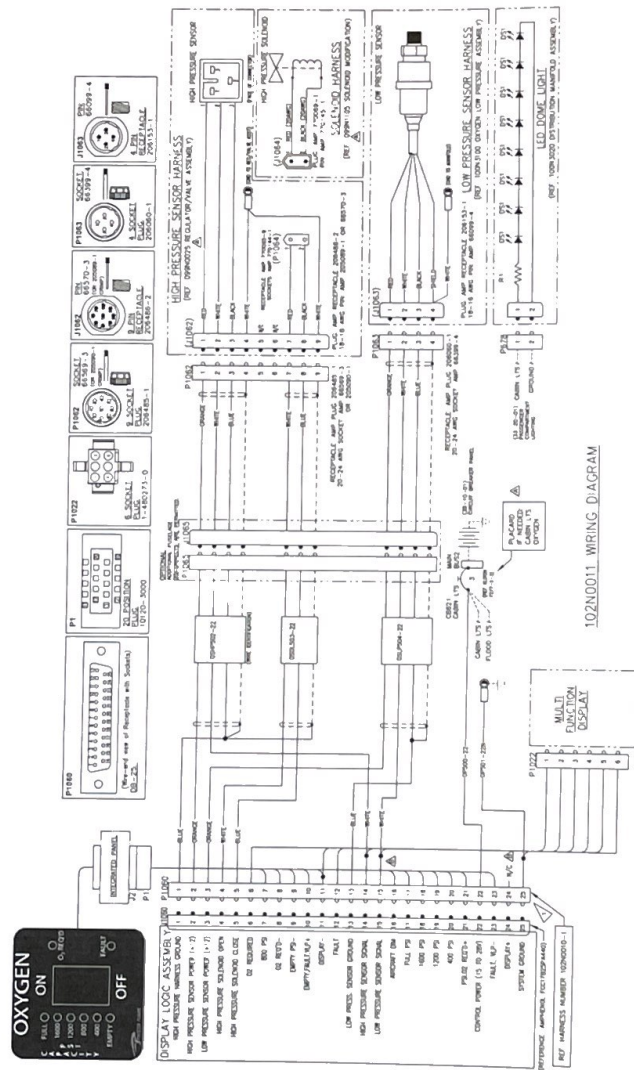


Figure 12 Typical System Wire Diagram (Standard Installation)

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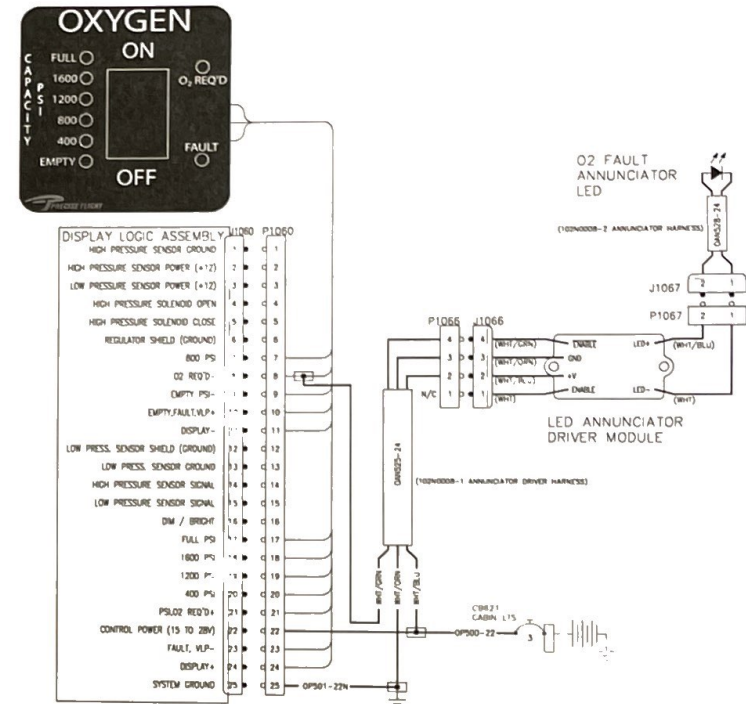


Figure 13 - OPTIONAL - Remote Annunciator Wire Diagram

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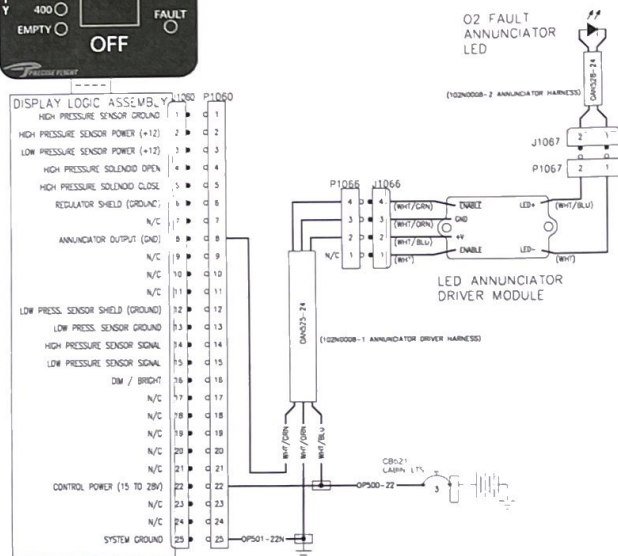
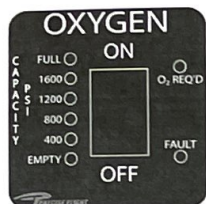


Figure 14 - OPTIONAL - Remote Annunciator Wire diagram (Ribbon Cable Installations)

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3.0 ILLUSTRATED PARTS CATALOG

3.1 PURPOSE

This section is not FAA accepted or FAA Approved and is for information only to aid in the maintenance and ordering replacement parts for the Precise Flight Built-In Oxygen System.

3.2 OVERVIEW

See Figure 1 for system overview picture.

3.3 BREATHING STATIONS

This section lists the replacement breathing station equipment available for the Cirrus SR22/SR22T Built-In Oxygen System.

3.3.1 Constant Flow Breathing Equipment

NOTE:

The original Precise Flight, Inc. A4 Constant Flowmeter has been replaced by the A5 Constant Flowmeter for replacement parts. The Masks and Cannulas are interchangeable between the Constant Flow Meters Only.

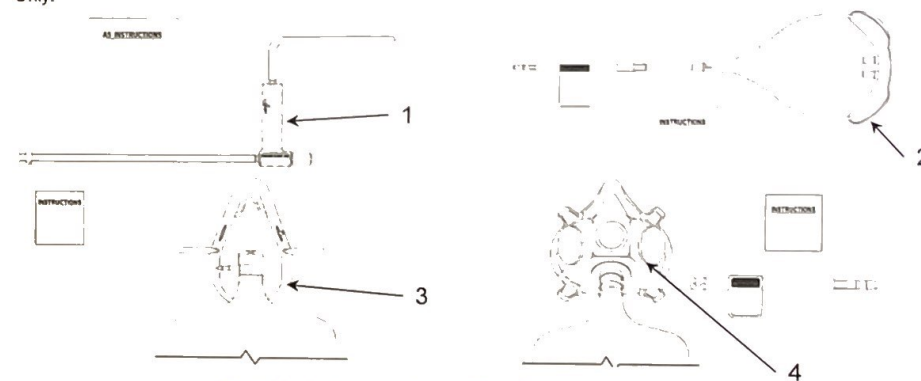


Figure 15 - Replacement Constant Flow Breathing Equipment

Fig.	Item	PFI Part Number*	Nomenclature	Effective
Figure 15	1	027N0003-1	A5 Flowmeter with CPC Connector	All
Figure 15	2	020N0001-1	Oxymizer Cannula	All
Figure 15	3	020N0002-1	Face Mask	All
Figure 15	4	020N0005-1	Face Mask with Microphone "Blue"	All

* Or equivalent foreign language version.

PFI Kit Part Number	Fig.	Item	Qty.	PFI Part Number	Nomenclature
027N0305-1	-	-	-	-	A5 Assembly with Cannula - Face Mask, CPC, Kit
	Figure 15	1	1	027N0003-1	A5 Flowmeter with CPC Connector
	Figure 15	2	1	020N0001-1	Oxymizer Cannula
027N0306-1	-	-	-	-	Face Mask
	Figure 15	3	1	020N0002-1	Face Mask
027N0306-1	-	-	-	-	A5 Assembly with Cannula - Face Mask with Microphone, CPC, Kit
	Figure 15	1	1	027N0003-1	A5 Flowmeter with CPC Connector
	Figure 15	2	1	020N0001-1	Oxymizer Cannula
	Figure 15	4	1	020N0005-1	Face Mask with Microphone "Blue"

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3.3.2 PreciseFlow or X3 Demand Flow Breathing Equipment

NOTE:

The Cirrus Built-In Oxygen System requires the PreciseFlow or X3 with CPC and In-Line Regulator. The PFI Semi-portable oxygen systems use a different pressure and are not compatible with the Built-In Oxygen System.

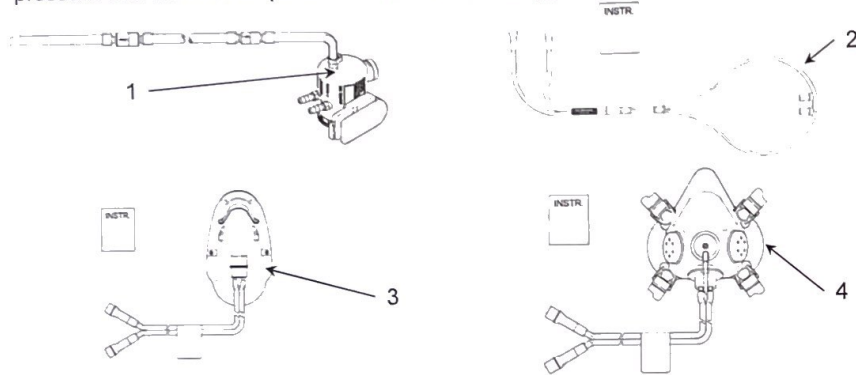


Figure 16 - Replacement PreciseFlow Demand Breathing Equipment

Fig.	Item	PFI Part Number*	Nomenclature	Effective
Figure 16	1	027N1002-1	Conservor and Inline Regulator Assembly, CPC	All
Figure 16	2	020N0050-1	Conservor (Dual Lumen) Cannula	All
Figure 16	3	020N0060-1	Conservor Face Mask	All
Figure 16	4	020N0070-1	Conservor Face Mask with Microphone	All

* Or equivalent foreign language version.

PFI Kit Part Number	Fig.	Item	Qty.	PFI Part Number	Nomenclature
027N1101-6	-	-	-	-	Conservor with Cannula/Face Mask, Inline Regulator Kit
	Figure 16	1	1	027N1002-1	Conservor and Inline Regulator Assembly, CPC
	Figure 16	2	1	020N0050-1	Conservor (Dual Lumen) Cannula
	Figure 16	3	1	020N0060-1	Conservor Face Mask
027N1102-6	-	-	-	-	Conservor with Cannula/Microphone Face Mask, Inline Regulator, Kit
	Figure 16	1	1	027N1002-1	Conservor, Inline Regulator Assembly, CPC
	Figure 16	2	1	020N0050-1	Conservor (Dual Lumen) Cannula
	Figure 16	4	1	020N0070-1	Conservor Face Mask with Microphone

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3.4 OVERHEAD DISTRIBUTION MANIFOLD INSTALLATION

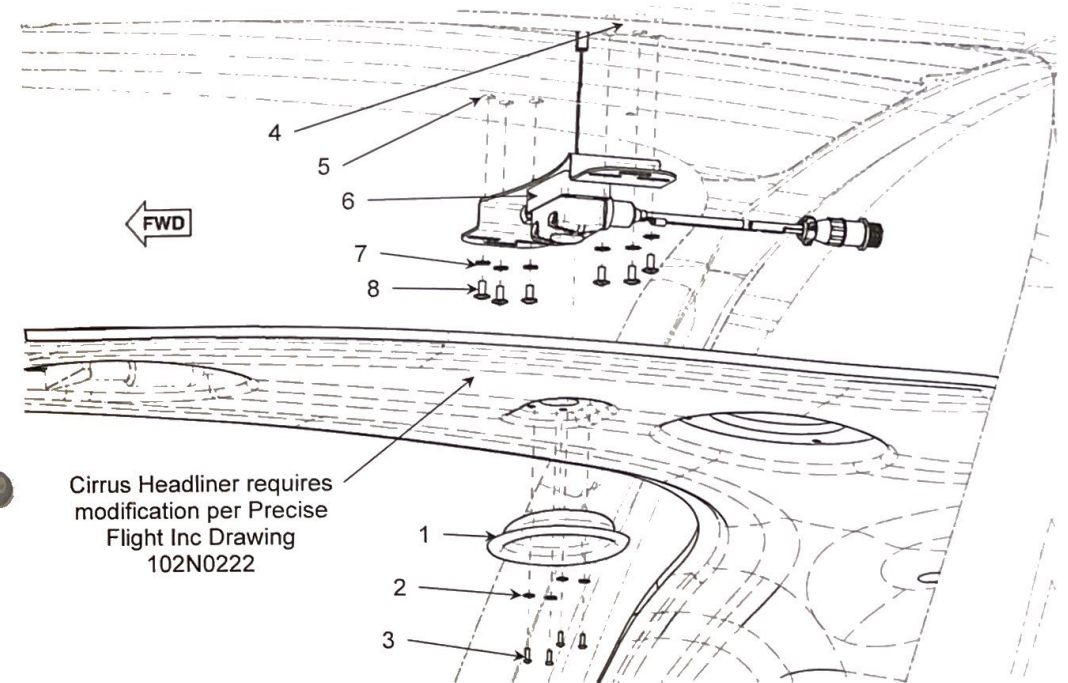


Figure 17 – Overhead Distribution Manifold

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 17	1	102N0221-1	Manifold Trim Ring	All
Figure 17	2	HD 07091	#4 Black Oxide Washer	All
Figure 17	3	HD 07090	4-40 x 3/8 Button Head Cap Screw, Black Oxide	All
Figure 17	4	EL 03046	Copper Foil Tape, Tin Plated 4"	All
Figure 17	5	CDC 50379-002	Insert	All
Figure 17	6	NAS1329A3-80	4 port Manifold and Bracket Assembly	4 port A/C
		OR		
Figure 17	7	102N0235-1	5 port Manifold and Bracket Assembly	5 port A/C
Figure 17	8	MS 35335-32	#10 Ext. Star Lock Washer	All
Figure 17	8	AN525-10R7	10-32 x 7/16 Washer Head Machine Screw	All

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3.5 OXYGEN LOW PRESSURE LINE INSTALLATION

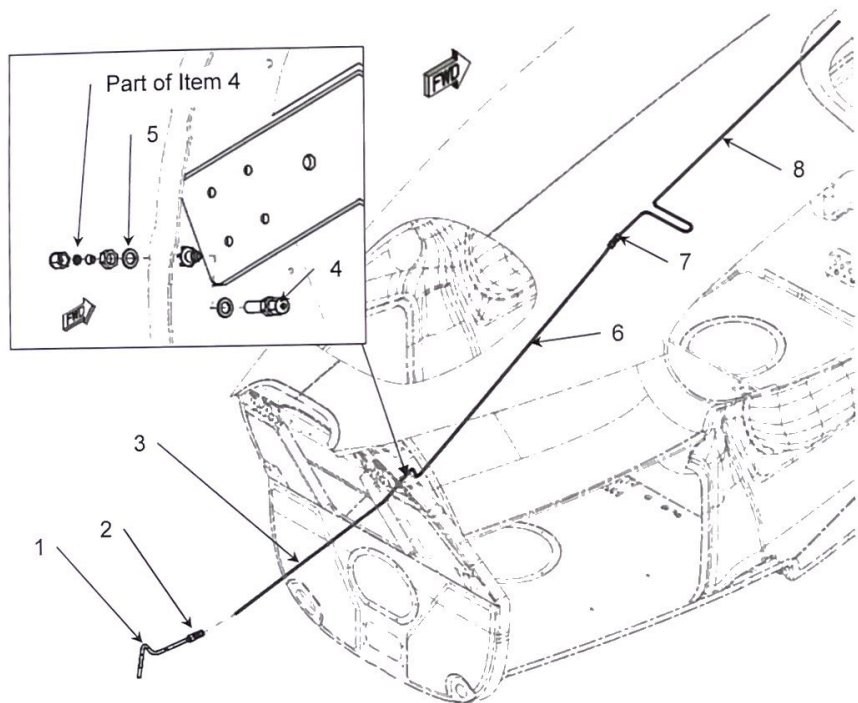


Figure 18 - Low Pressure Line Installation

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 18	1	102N0253-1	Flexible Tubing Sub-Assembly	All
Figure 18	2	HD 07107	Fitting, Reducing Union	All
Figure 18	3	102N0252-1	Aft Fuselage Low Pressure Line	All
Figure 18	4	HD 06057	Bulkhead Union Fitting	All
Figure 18	5	NAS1149F0632P	3/8ID x 5/8OD Washer	All
Figure 18	6	102N0251-2	Aft Cabin Low Pressure Line	All
Figure 18	7	HD 07094	Fitting, 3/16 Comp Union	All
Figure 18	8	102N0251-1	Forward Cabin Low Pressure Line	All

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3.6 OXYGEN BOTTLE INSTALLATION

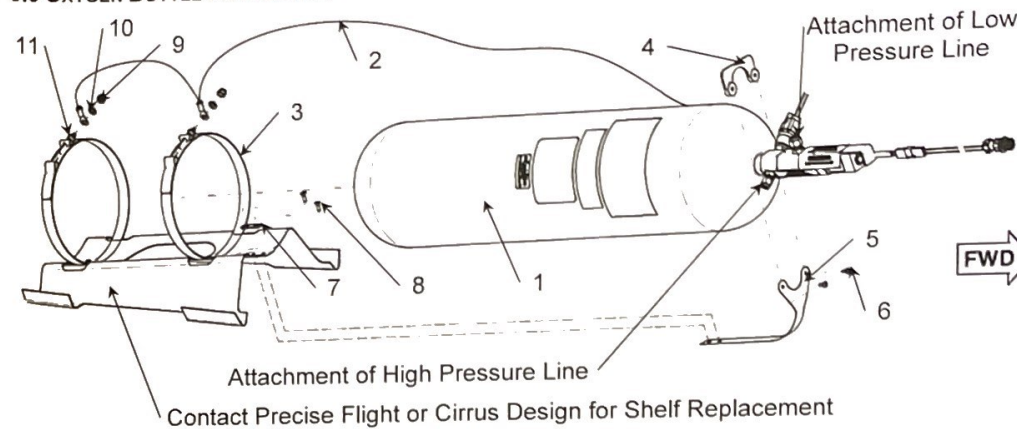


Figure 19 - Bottle Installation

Fig.	Item	Part Number	Nomenclature	Effective
Figure 19	1	100N0020-4 w/ 099N0024-1 or 100N1020-4 Regulator	Bottle Assembly, 77cuft, Remote Fill, 70psig ¹	4 port manifold A/C only
Figure 19	1	100N0020-5 w/ 099N0025-1 or 100N1020-5 Regulator	Bottle Assembly, 77cuft, Remote Fill, SAE, 70psig ¹	4 port manifold A/C only
Figure 19	1	100N0020-4 w/ 099N0024-2 Regulator	Bottle Assembly, 77cuft, Remote Fill, 70psig ¹	4 or 5 port manifold
Figure 19	1	100N0020-5 w/ 099N0025-2 Regulator	Bottle Assembly, 77cuft, Remote Fill, SAE, 70psig ¹	4 or 5 port manifold
Figure 19	2	102N0006-1	Cirrus Fixed Oxygen System – Ground Strap	All
Figure 19	3	102N0120-1	Band Clamp Assembly, 77cuft Bottle	All
Figure 19	4	CDC 16524-002	U-Clamp, Oxygen Bottle	All
Figure 19	5	CDC 16523-001	Strap, Oxygen Bottle	All
Figure 19	6	MS27039-0805 NAS1149FN832P	Screw, Pan Head Structural #8-32 Washer, 0.32" Thick	All
Figure 19	7	CDC 16522-001	Pad, Aluminum, Oxygen Bottle	All
Figure 19	8	MS24694S5 MS21083N08 NAS1149FN832P	Screw, Counter Sunk, Structural #8-32 Nut, #8-32 Washer, 0.32" Thick	All
Figure 19	9	(Part of item 3)	1/4-28 Nylock Nut	All
Figure 19	10	(Part of item 3)	AN960-4R – 1/4 Washer	All
Figure 19	11	(Part of item 3)	AN316-4R - 1/4-28 Nut	All

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Notes: 1 – Bottle assembly is available in NPT or SAE ports for the filler line and low pressure outlet connections, and standard or high flow regulators. Verify part number prior to ordering a replacement.

3.7 DISPLAY/LOGIC ASSEMBLY INSTALLATION

NOTE:

The Cirrus Built-In Oxygen System has three (3) display/controller configurations. When replacing components take extra care to make sure the correct part is ordered or replaced per the Precise Flight, Inc. installation drawings.

3.7.1 DISPLAY AND CONTROLLER INSTALLATIONS - STANDARD INSTALLATION

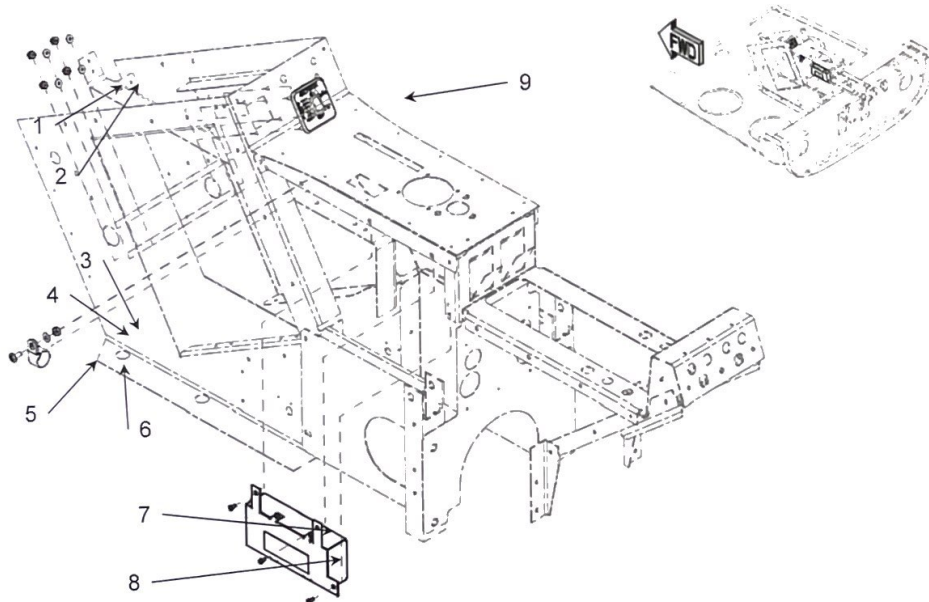


Figure 20 - Display and Logic Assembly Installation

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 20	1	AN365-632A	6-32 Nylock Nut	All
Figure 20	2	AN960-6	#6 Flat Washer	All
Figure 20	3	AN365-1032A	10-32 Nylock Nut	All
Figure 20	4	AN960-10L	#10 Flat Washer 0.032 THK.	All
Figure 20	5	AN525-10R7	10-32 x 0.4375L Washer Head Machine Screw	All
Figure 20	6	MS21919-DG6	#6 Adel Clamp With Cushion	All
Figure 20	7	100N2020-3	Display Logic Assembly, Remote – Low Profile	All
Figure 20	8	MS35206-213	Screw 4-40 x 1/4 PH HD	All
Figure 20	9	100N2120-2	Display Assembly, Low Resolution	All

Notes: Special care must be taken when replacing the Display Logic Assembly, and/or the Display Assembly to make sure they are compatible with the wire harness.

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3.7.2 DISPLAY AND CONTROLLER INSTALLATIONS - RIBBON CABLE

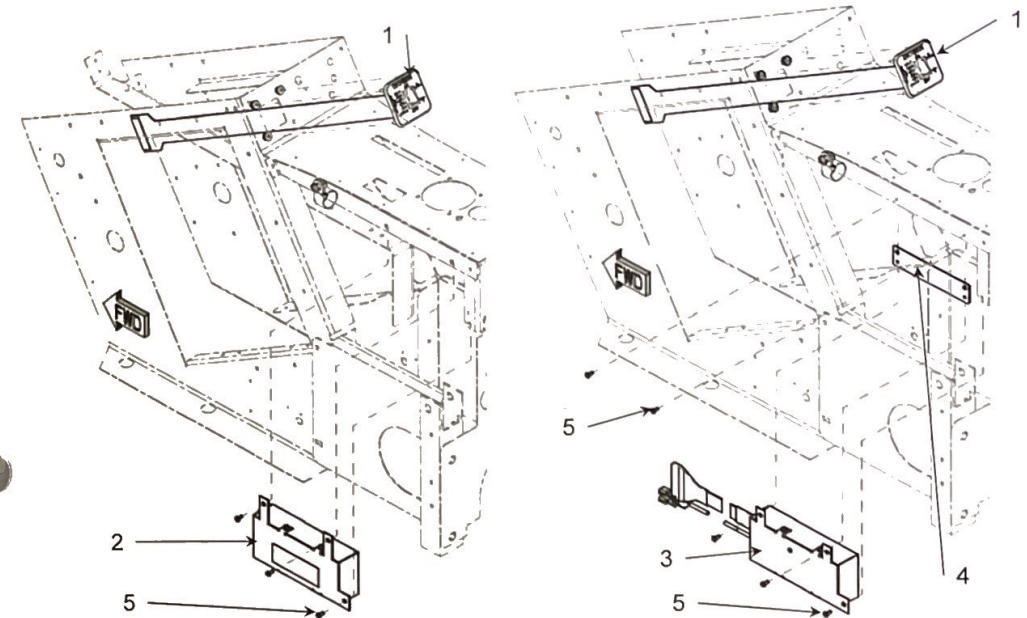


Figure 21 - Alternate Display and Logic Assembly Installations

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 21	1	100N2120-1	Display Assy, Low Resolution, with Ribbon Cable	All
Figure 21	2	100N2020-3	Display Logic Assy, Remote – Low Profile	All
Figure 21	3	100N2020-1	Display Logic Assy, Remote – Low Profile, Slide Lock	All
Figure 21	4	102N0320-1	Spacer Plate Adapter	All
Figure 21	5	MS35206-213	Screw, 4-40 x 1/4 PH HD	All

Notes: Special care must be taken when replacing the Display Logic Assembly, and/or the Display Assembly to make sure they are compatible with the wire harness. If a direct part number replacement is not available, contact Precise Flight Inc. with part numbers for the Wire Harness, Display, and Display Logic Assembly. (New installations are in the Figure 20 configuration)

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3.7.3 DISPLAY AND CONTROLLER INSTALLATION – CIRRUS PERSPECTIVE

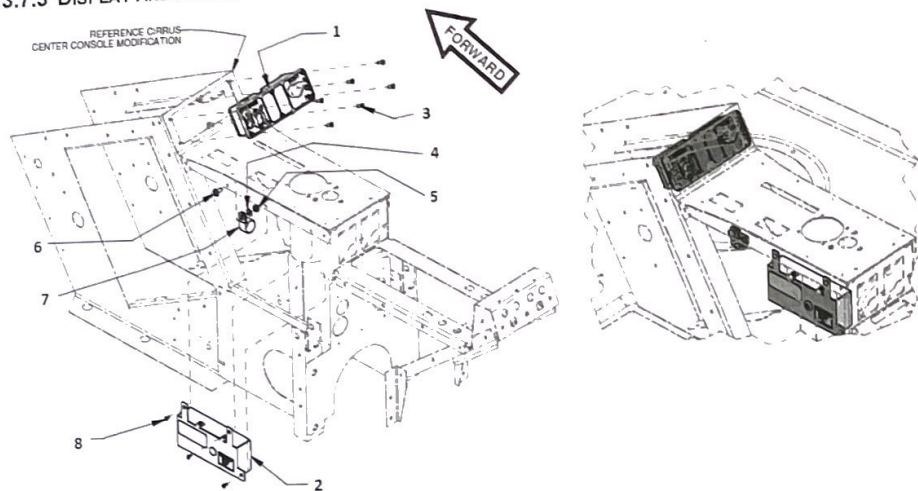


Figure 22 - Display and Logic Assembly Installations - Cirrus Perspective

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 22	1	051A0330-1 OR 051A0330-2	IFS Panel Assy. 104 – Flap, Oxygen	See Note 1
Figure 22	2	100N2030-1	IFS Panel Assy. 110 – Flap, Oxygen Display Logic Assembly, MFD	See Note 2
Figure 22	3	MS24693BB28	6-32 x 1/2" 100° Black Machine Screw	All
Figure 22	4	AN960-10L	#10 Flat Washer 0.32 Thk.	All
Figure 22	5	AN364-1032A	10-32 Nylock Nut	All
Figure 22	6	AN525-10R7	Screw, 10-32 x 7/16 Washer HD	All
Figure 22	7	NAS1712D4-19S	Clamp, Cushioned Loop	All
Figure 22	8	MS35206-213	Screw, 4-40 x 1/4 PN HD	All

- Notes:
- MODEL SR22T S/N's 0001 THRU 0441
MODEL SR22 S/N's 3026 THRU 3914
 - MODEL SR22T S/N's 0442 & SUBSEQUENT
MODEL SR22 S/N's 3915 & SUBSEQUENT
 - Special care must be taken when replacing the Display Logic Assembly, and/or the Display Assembly to make sure they are compatible with the wire harness. If a direct part number replacement is not available, contact Precise Flight Inc. with part numbers for the Wire Harness, Display, and Display Logic Assembly.

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3.7.4 OPTIONAL – REMOTE ANNUNCIATOR (OPTIONAL)

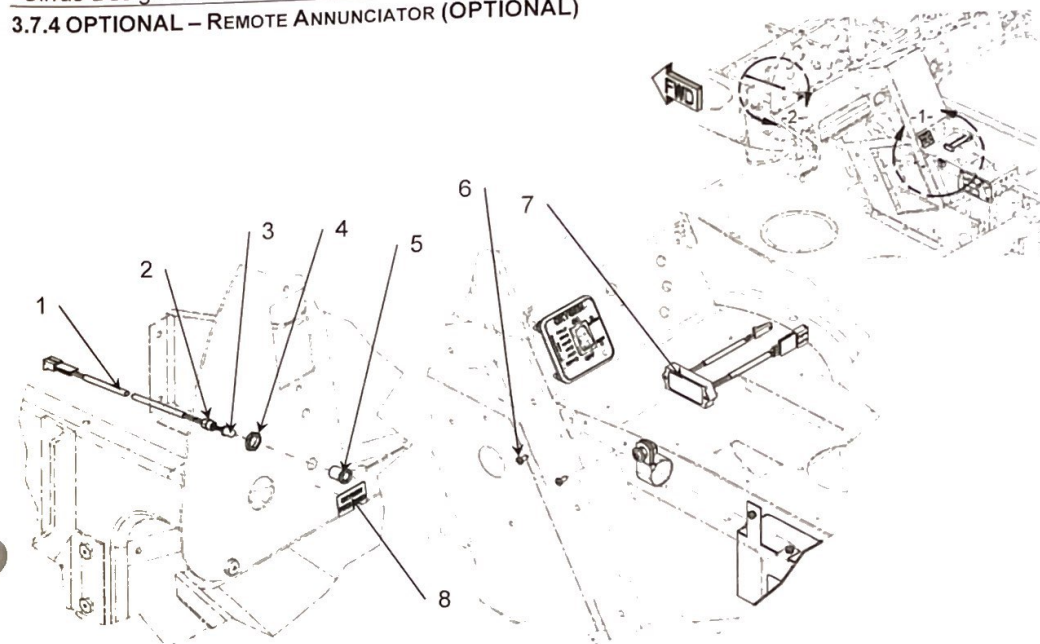


Figure 23 - Remote Annunciator

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 23	1	102N0008-2	Annunciator Wire Harness	All
Figure 23	2	Part of Item 1	LED Lamp Holder, Black, Holder Retainer	All
Figure 23	3	Part of Item 1	LED, Amber (EL03021)	All
Figure 23	4	Part of Item 1	LED Lamp Holder, Black, Nut	All
Figure 23	5	Part of Item 1	LED Lamp Holder, Black, Bezel	All
Figure 23	6	MS 35206-213	Screw, 4-40 x 1/4 PN HD	All
Figure 23	7	010A0101-1	LED Annunciator, Driver Assembly	All
Figure 23	8	102N0051-1	Placard, Annunciator Dash, Oxygen Required	All
Figure 23	-	010A0101-1	Annunciator Driver Wire Harness (NOT SHOWN)	All

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS – STC SA01708SE
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3.8 FILLER PORT AND LINE INSTALLATION

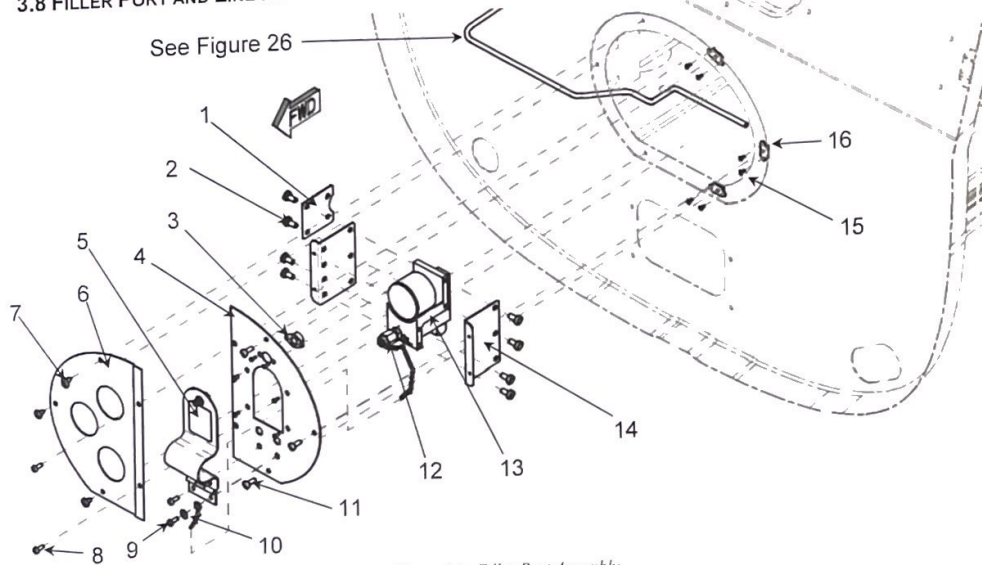


Figure 24 - Filler Port Assembly

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 24	1	102N0414-1	Bracket, TKS Proportioning Valve (OPTIONAL)	All
Figure 24	2	MS 07084, MS 07052, Or MS 07060	Screw, 10-32 x 3/8 WH, Cd Stl (AN525-10R6) Screw, 10-32 x 1/2, PHP, SS (MS51958-63) Screw, 10-32 x 7/16, PHP, SS (MS51958-62)	All
Figure 24	3	HD 07104	Receptacle, Camloc (212-12N)	All
Figure 24	4	102N0412-1	Access Panel Oxygen	All
Figure 24	5	102N0415-1	Door Assembly, Oxygen Filler	All
Figure 24	6	102N0411-1	Access Panel, Modification	All
Figure 24	7	-	See Cirrus IPC for Access Panel Screws	All
Figure 24	8	MS 01513	Screw, 6-32 x 3/8 PHP (MS35206-228)	All
Figure 24	9	MS 01513	Screw, 6-32 x 3/8 PHP (MS35206-228)	All
Figure 24	10	MS 01099 MS 01708	Flat Washer, #6 (AN960-6 or NAS1149FN616P) Screw, 8-32 x 1/2 WHD, Cd Stl (AN525-832R8)	All
Figure 24	11	Or MS 01743	Screw, 8-32 x 7/16, PHP (MS35206-244)	All
Figure 24	12	OX MI124	Filler Check Valve (MS22066-3)	All
Figure 24	13	102N0450-1	Remote Filler with Pressure Gage Assembly	All
Figure 24	14	102N0413-1	Bracket, Remote Filler	All
Figure 24	15	MS 07064	Rivet, Blind (CCR264xS-3-0x)	All
Figure 24	16	MS 01338	Nutplate, 8-32 Floating (MS21059-L08)	All

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3.8.1 ALTERNATE FILLER PORT AND LINE INSTALLATION

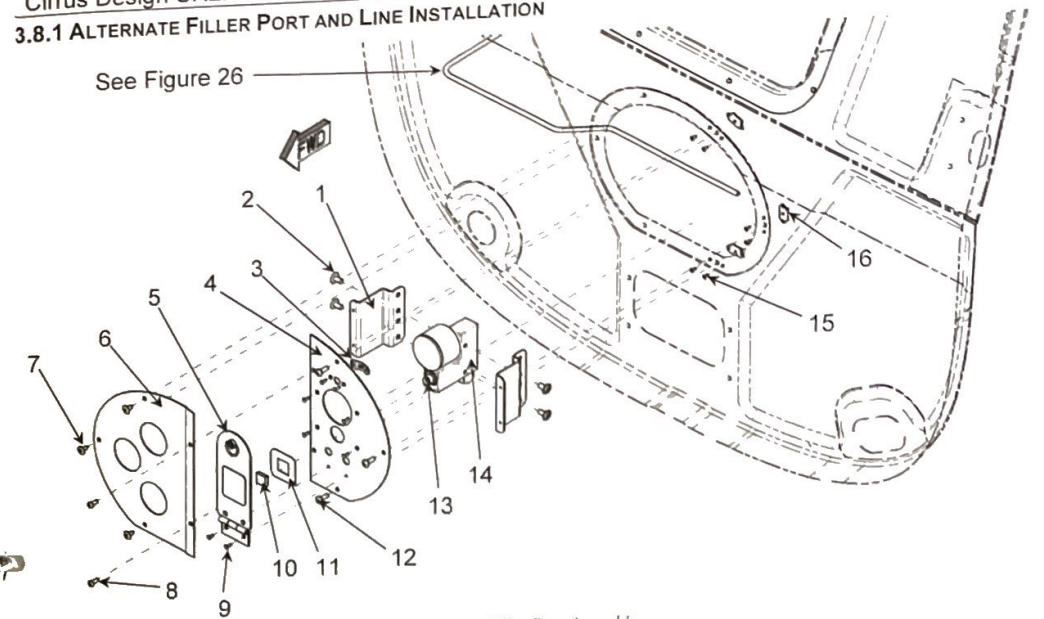


Figure 25 - Filler Port Assembly

Table 3

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 25	1	035N1413-1	Bracket, Remote Filler	All
Figure 25	2	MS 07084, MS 07052, Or MS 07060	Screw, 10-32 x 3/8 WH, Cd Stl (AN525-10R6) Screw, 10-32 x 1/2 PHP, SS (MS51958-63) Screw, 10-32 x 7/16 PHP, SS (MS51958-62)	All
Figure 25	3	HD 07276	Recept, 1/2 Turn, Southco (82-35-295-15 or 82-35-295-20)	All
Figure 25	4	102N0453-1	Access Panel, Oxygen, Flat Door	All
Figure 25	5	035N0415-1	Door Assembly, Flat - Oxygen Filler	All
Figure 25	6	102N0411-2	Access Panel, Modification, wide	All
Figure 25	7	-	See Cirrus IPC for Access Panel Screws	All
Figure 25	8	MS 01513	Screw, 6-32 x 3/8 PHP (MS35206-228)	All
Figure 25	9	MS 01350	Rivet, 3/32 x 1/4 (MS20426AD3-4)	All
Figure 25	10	HD 07277	Bumper, square, silicone (3592K6)	All
Figure 25	11	035N0425-1 MS 01708	Placard, Bumper Locator Screw, 8-32 x 1/2 Washer Head (AN525-832R8)	All
Figure 25	12	Or MS 01743	Screw, 8-32 x 7/16 PHP (MS35206-244)	All
Figure 25	13	OX 020245	Filler Check Valve (MS22066-1)	All
Figure 25	14	035N0210-1	Remote Filler with Pressure Gage Assembly	All
Figure 25	15	MS 07064	Rivet, Blind (CCR264xS-3-0x)	All
Figure 25	16	MS 01338	Nutplate, 8-32 Floating (MS21059-L08)	All

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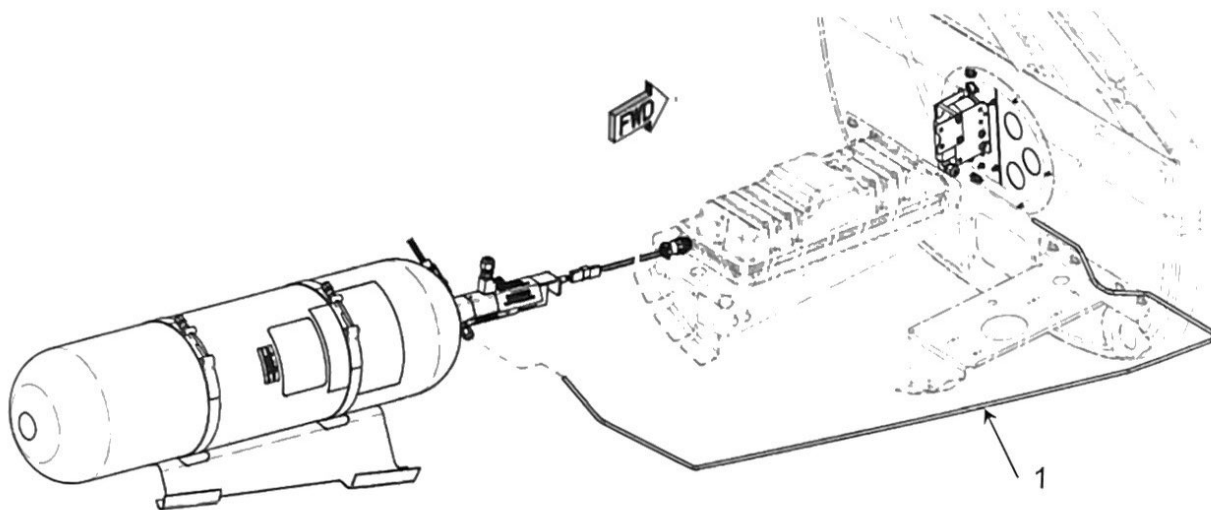


Figure 26 - High-Pressure Line Installation

Fig.	Item	PFI Part Number	Nomenclature	Effective
Figure 26	1	102N0420-1 Or 102N0420-2 Or 102N0421-1	High Pressure Oxygen Line Note: 102N0421-1 replaces 102N0420-1 and 102N0420-2. Cable tie mounts may need to be relocated for a new line installation.	All



Continental Motors, Inc.