

## Van Dusen Air, Inc. / Limited Piston Engine Warranty

Effective 11/1/86. Van Dusen Air, Inc. (hereinafter "Van Dusen") makes the following warranty to its customer, subject to the limitations, conditions and exclusions set forth below.

**WARRANTY COVERAGE** - For a period of six (6) months after date of delivery to customer, or 240 hours of operation, whichever occurs first, Van Dusen shall repair or replace, at its option, any aircraft engine, accessory, or part which is found to be defective, to Van Dusen's satisfaction, within said warranty period.

For engine warranty after six (6) months from date of delivery to customer and prior to the expiration of the original manufacturer's recommended time between overhaul ("TBO"), the cost of repair or replacement (including the cost of parts and labor), at Van Dusen's option, shall be prorated in the following manner. The customer shall pay the net price for a newly remanufactured engine equal to the current list price for the engine divided by the applicable TBO, and then multiplied by the number of hours on the repaired or replaced engine (which shall be deemed the greater of the actual logbook hours, recorded tachometer hours or hours or time at forty (40) hours per month from the date of delivery). Reasonable labor costs associated with the repair of a warranted engine shall be prorated in the same manner on the basis of a flat rate schedule established by Van Dusen.

After the initial six (6) months from date of delivery or 240 hours of operation, Van Dusen will not assume any responsibility for the repair or replacement of engine accessories, E.G. magneto, starter, alternator, ignition harness, turbocharger, etc.

Replacement parts supplied for warranted engines still covered by manufacturer's warranty are supplied on an exchange basis. Van Dusen will pursue warranty claims with the manufacturer on the owner's behalf. Any allowance by the manufacturer will be credited to the operator's account.

A troubleshooting allowance of up to 15% of the repair cost will be allowed at the discretion of Van Dusen. The repair or replacement of any part under the foregoing warranty shall not extend the periods or warranty coverage set forth above. Van Dusen reserves the right to change the price or specifications of any engine or part at any time.

**CONDITIONS AND PROCEDURES FOR OBTAINING WARRANTY WORK** - The foregoing warranty shall be effective only if the engine or component to be serviced is returned to Van Dusen's facility at customer's expense, together with particulars in writing of the nature of the defect. The customer or his representative should contact Van Dusen for verification and authorization of warranty prior to return and/or repair. Written authorization must be obtained from Van Dusen before repairs

covered by warranty can be performed other than by Van Dusen. In no event shall allowable labor costs exceed local published shop rates. The foregoing warranty shall apply if and only if the engine has been properly installed and maintained in accordance with current approved standards of the FAA and current recommendations of the manufacturer as specified in applicable factory manuals and service bulletins. The performance of recommended inspections and maintenance must be documented by logbook entries which must accompany any engine returned for warranty work. Defects must be discovered within the warranty period and Van Dusen must be given prompt notice thereof in writing, within ten (10) days after discovery.

**LIMITATIONS, EXCLUSIONS, AND DISCLAIMERS** - Van Dusen shall not assume freight charges, transportation or delivery expenses, installation or removal costs, or airframe repairs, all of which are excluded under this warranty. Van Dusen does not warrant parts, materials or services supplied which are covered by manufacturer's warranty. This warranty shall not apply to any engine which has been subject to misuse, neglect, accident or damage from the elements, or which has been installed, repaired or maintained or altered in any manner which, in the judgement of Van Dusen, has had an adverse effect on the engine or part. This warranty shall not apply to any engine which has been operated under conditions which exceed the manufacturer's recommendations. This warranty shall not apply to any engine which has been repaired or altered, in any manner other than by Van Dusen, or it's representative.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION THE WARRANTY OR MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE WHICH WARRANTIES ARE HEREBY EXCLUDED. Van Dusen's liability hereunder shall be limited to the repair or replacement of any engine or part found to be defective within the applicable warranty period as set forth above. IN NO EVENT SHALL VAN DUSEN BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR ECONOMIC LOSS OF ANY NATURE WHETHER ARISING IN CONTRACT OR TORT, INCLUDING STRICT LIABILITY IN TORT OR NEGLIGENCE ON THE PART OF VAN DUSEN. The foregoing limitations and exclusion with respect to implied warranties, and the exclusion of incidental or consequential damages may not apply in those states which prohibit such limitations or exclusions. This warranty gives customer specific legal rights, and the customer may have other rights which vary from state to state.



Warranty No. 37230

Engine Serial No. L-8453-51

Aircraft Registration No. \_\_\_\_\_

*Van Dusen*  
PISTON PRODUCTS

**Van Dusen Piston Products**  
1701 East Main Street  
Griffith, Indiana 46319  
Tel.: (219) 924-7110

| DATE<br>19__ | RECORDING<br>TACH<br>TIME | TODAYS<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF<br>MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.) |
|--------------|---------------------------|------------------|-----------------------------|---|
|--------------|---------------------------|------------------|-----------------------------|---|

This is to certify that the engine described hereafter has been rebuilt to manufacturer's new parts limits by Van Dusen Piston Products.

Engine disassembled, cleaned, inspected and reassembled in accordance with manufacturer's overhaul instructions. All steel parts magnafluxed. Engine test run in F.A.A. approved test cell. All applicable Airworthiness Directives and Manufacturer's Service Bulletins are in compliance. A description of these repairs is on file at this agency under:

JOB NO. 37230 DATED JANUARY 16, 1987  
MFG. AVCO Lycoming MODEL IO-360-B1B  
Serial No. L-8453-51 Time in svc. 1405.2 hr.



*Van Dusen*  
PISTON PRODUCTS

1701 E. Main St., Griffith, IN 46319  
Telephone: (219) 924-7110

*D. L. Wymann*  
Authorized Signature

C.R.S. #3125

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| DATE<br>1990 | RECORDING<br>TACH<br>TIME | TODAYS<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF<br>MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.) |
|--------------|---------------------------|------------------|-----------------------------|---|
| 5/24         | Hr. Mtr. 3015.3           |                  |                             | Compression check all cyls. 78/80.  |
|              |                           |                  |                             | Cleaned + gapped spark plugs. Adjusted mag.<br>timing. Changed oil + filter (Phillips 4/4 20W50 oil)  |
|              | AD 90-04-06               | Para (a), (1)    |                             | complied with by insp.<br>support clips found to be properly installed.   |
|              |                           |                  |                             | I certify that this engine has been<br>inspected in accordance with an Annual   |
|              |                           |                  |                             | inspection and was found to be in an Airworthy<br>condition.  |
|              |                           |                  |                             | Total time SMOH 322.1   |
|              |                           |                  |                             | John M. Petrus A+P 1546718 IA   |
|              |                           |                  |                             |   |
|              |                           |                  |                             |   |
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| DATE<br>19__ | RECORDING<br>TACH<br>TIME | TODAYS<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF<br>MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)  |
|--------------|---------------------------|------------------|-----------------------------|--|
| 3-1-91       | Notts                     | 310/12           |                             | Complied with AD 90-04-06 by installing<br>new gear oil line with steel nuts<br>Steven Daw<br>T. W. SMITH ENGINE CO.<br>HANGER #1, LUNKEN AIRPORT<br>CINCINNATI, OHIO 45226<br>CERTIFIED REPAIR<br>STATION No. CB1R054K  |
| 6/1/91       | Av. Mtr.                  | 3129.9           |                             | Compression check all cyls 78/80.<br>Cleaned spark plugs. Checked mag. timing.<br>Changed oil + filter. Phillips x/c 2w50 oil.<br>I certify that this engine has been inspected<br>in accordance with an Annual inspection and was<br>found to be in an Airworthy condition.<br>June 1, 1991 John M. Peters<br>TSMO 350.8 A+P 1546718 IA |
|              |                           |                  |                             |  |
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NUMBER OF ENTRIES.)

| DATE        | RECORDING TACH TIME | TODAYS FLIGHT | TOTAL TIME IN SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)   |
|-------------|---------------------|---------------|-----------------------|--|
| 1992<br>7/1 | Hv Mtr.             | 3241.9        |                       | Compression check -<br>#1 75/80, #2 78/80, #3 76/80, #4 78/80<br>Changed oil + filter. Aeroshell 15w 50 oil<br>I certify that this engine has been inspected in accordance with an Annual inspection and was found to be in an Airworthy condition. John M. Petrus A&P 1546718 IA  |
| 8/1/93      | Hv Mtr.             | 3347.7        |                       | Compression - #1 76/80, #2 78/80, #3 76/80, #4 77/80<br>Cleaned spark plugs. Checked mag. timing.<br>Repaired alternate air box linkage + bushings.<br>Changed oil + filter, Aeroshell 15w 50 oil.<br>I certify that this engine has been inspected in accordance with an Annual inspection and was found to be in an Airworthy condition.<br>John M. Petrus<br>A&P 1546718 IA |

| DATE<br>19 <sup>94</sup> | RECORDING<br>TACH<br>TIME | TODAYS<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF<br>MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)  |
|--------------------------|---------------------------|------------------|-----------------------------|--|
| 4/11                     | Hr. Mtr. 3409.7           |                  |                             | Changed oil + filter<br>Acrosnell 15w50 oil<br>John M. Petrus<br>A+P 1546718   |
| 9/1/94                   | Hr Mtr. 3440.8            |                  |                             | Compression #1 $\frac{76}{80}$ , #2 $\frac{77}{80}$ , #3 $\frac{75}{80}$ , #4 $\frac{78}{80}$<br>Installed all new spark plugs. Installed new coil<br>in left mag. AD94-01-03 TCM Bendix C/w both<br>mags as per S/B #637. Changed oil + filter.<br>I certify that this engine has been<br>inspected in accordance with an Annual<br>inspection and was found to be in an Airworthy<br>condition.<br>Sept. 1, 1994<br>SMOH 747.6<br>John M. Petrus<br>A+P 1546718 IA |

| DATE<br>19 <sup>95</sup> | RECORDING<br>TACH<br>TIME | TODAYS<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF<br>MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.) |
|--------------------------|---------------------------|------------------|-----------------------------|---|
| 10/1                     | Hr. Mtr.                  | 3499.3           | 3                           | SMOH 806.1  |
|                          |                           |                  |                             | Compression #1 78/80, #2 72/80, #3 66/80, #4 66/80  |
|                          |                           |                  |                             | Checked spark plugs + mag. timing.  |
|                          |                           |                  |                             | Changed oil + filter. Aeroshell 15w50 oil.  |
|                          |                           |                  |                             | AD 93-02-05 Fuel Ing. Lines Insp. c/w   |
|                          |                           |                  |                             | I certify that this engine has been inspected in accordance with an Annual inspection and was found to be in an Airworthy condition.  |
|                          |                           |                  |                             | Oct. 1, 1995  |
|                          |                           |                  |                             | John M. Petrus AIP 1546718 IA   |
| 7-10-96                  | Hr. Mtr.                  | 3535.5           |                             | Installed new Lycoming cylinder   |
|                          |                           |                  |                             | assembly in #2 position. All new gaskets +  |
|                          |                           |                  |                             | seals used. Engine ground run, no leaks found.  |
|                          |                           |                  |                             | John M. Petrus AIP 1546718  |



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| DATE<br>19 <u>97</u> | RECORDING<br>TACH<br>TIME | TODAYS<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF<br>MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.) |
|----------------------|---------------------------|------------------|-----------------------------|---|
| 12/19                | Hr. Mtr.                  |                  | 3680.4                      | SMOH 987.2  |
|                      |                           |                  |                             | Compression #1 $\frac{79}{80}$ , #2 $\frac{78}{80}$ , #3 $\frac{78}{80}$ , #4 $\frac{78}{80}$   |
|                      |                           |                  |                             | Cleaned + gapped spark plugs. Checked mag.  |
|                      |                           |                  |                             | timing. Installed new Brackett air filter.  |
|                      |                           |                  |                             | Lubed starter drive. AD93-02-05 Fuel Inj  |
|                      |                           |                  |                             | Lines Insp. c/w. Changed oil + filter.  |
|                      |                           |                  |                             | Acrosnell 15W50 Oil.  |
|                      |                           |                  |                             | I certify that this engine has been   |
|                      |                           |                  |                             | inspected in accordance with an Annual  |
|                      |                           |                  |                             | inspection and was found to be in an  |
|                      |                           |                  |                             | Airworthy condition.  |
|                      |                           |                  |                             | John M. Peter   |
|                      |                           |                  |                             | A&P 1546718 IA  |

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| DATE<br><u>2006</u><br><u>19</u> | RECORDING<br>TACH<br>TIME | TODAYS<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF<br>MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)  |
|----------------------------------|---------------------------|------------------|-----------------------------|--|
| 4/14                             | Hr. Mtr.                  | 4000.7           | SMOH 1309.5                 | <p>Compression check - all cyls. within limits.<br/>           Checked spark plugs + mag. timing.<br/>           AD 2002-26-01 F/I lines &amp; w by inspection<br/>           Changed oil + filter (Aeroshell 15w 50 oil)<br/>           Run-up + leak check OK</p> <p>I certify that this engine has been inspected<br/>           in accordance with an Annual inspection and<br/>           was found to be in an Airworthy condition.</p> <p>John M. Petrus A+P 1546718 IA</p> |
| 8/18/06                          | Hr. Mtr.                  | 4046.0           |                             | <p>Installed breather tube fitting.<br/>           Changed oil + filter. Aeroshell 15w 50 oil<br/>           Run-up and leak check OK.</p> <p>John M. Petrus<br/>           A+P 1546718</p>  |
|                                  |                           |                  |                             |  |
|                                  |                           |                  |                             |  |
|                                  |                           |                  |                             |  |
|                                  |                           |                  |                             |  |







INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS  
 ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF  
 FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)

**IO-360-B1B**  
**Hobbs: 4096.2**  
 Overhauled/exchange unit, S/N: H052880.  
 Installed new ring gear, P/N: 72566, onto  
 generator drive belt. Torqued and safetied  
 cooler. Ground run operational and leak  
 free.  
 A&P3221132 w/o 24427

1438.6  
 7/80 #3 7/80 #4 7/80  
 spark plugs. Checked mag.  
 cover cover gaskets at #2  
 push rod tube seals at  
 BA-7805 air filter.  
 nuts at alternate air box.  
 checked by insp.  
 (Acrosheil 15w50 oil)  
 -up + leak check OK

| DATE        | RECORDING TACH TIME | TODAYS FLIGHT | TOTAL TIME IN SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)   |
|-------------|---------------------|---------------|-----------------------|--|
| 2008<br>4/4 | 4129.8              |               |                       | I certify that this engine has been inspected in accordance with an Annual inspection and was found to be in an Airworthy condition.<br>John M. Petrus A+P 1546718 IA  |
| 7/1/09      | 4170.1              |               | 1478.9                | SMOH<br>Compression - #1 78/80 #2 78/80 #3 78/80 #4 77/80<br>Cleaned, gapped + rotated spark plugs. Checked mag. timing. AD 2008-14-07 F/I Lines c/w by insp. due next Annual or 4270.1 hrs. Installed Sky-Tec 149-NL starter eligible for installation under Lycoming S/I No. 1154. Changed oil + filter. (Acrosheil 15w50 oil)<br>I certify that this engine has been inspected in accordance with an Annual inspection and was found to be in an Airworthy condition.<br>John M. Petrus<br>A+P 1546718 IA |

| DATE  | RECORDING TACH TIME | TODAYS FLIGHT | TOTAL TIME IN SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.) |
|-------|---------------------|---------------|-----------------------|--|
| 2010  |                     |               |                       |  |
| 10/12 | 4287.2              |               | 1596.0                | SMOH   |
|       |                     |               |                       | Compression-#1 75/80 #2 76/80 #3 74/80 #4 74/80  |
|       |                     |               |                       | Cleaned, gapped & rotated spark plugs. Checked   |
|       |                     |               |                       | mag. timing. Installed new push rod tube seals   |
|       |                     |               |                       | at #2 cyl. Removed oil drain valve, cleaned  |
|       |                     |               |                       | and re-installed. Adjusted idle speed & mixture.   |
|       |                     |               |                       | Changed oil & filter. (Aeroshell 15w50 oil.)   |
|       |                     |               |                       | Ground run & leak check OK.  |
|       |                     |               |                       | I certify that this engine has been  |
|       |                     |               |                       | inspected in accordance with an Annual   |
|       |                     |               |                       | inspection and was found to be in an   |
|       |                     |               |                       | Airworthy condition.   |
|       |                     |               |                       | John M. Petrus   |
|       |                     |               |                       | A+B 1546718 IA   |

| DATE | RE |
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1. Engine u #3- 76/
2. All upper
3. All new b
4. Oil drain
5. Oil filter
6. New CH
7. AD listin
8. AD 2008 TTAF.
9. Noted c EVENT
10. AD Com
11. Ground
12. Leak che

I certify that condition.

INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS  
ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF  
FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)

76/80 #3 74/80 #4 74/80

spark plugs. Checked  
new push rod tube seals  
oil drain valve, cleaned  
set idle speed + mixture.  
Aeroshell 15W50 oil.  
check OK.

engine has been  
with an Annual  
and to be in an

John M. Peters  
A+B 1546718 IA

| DATE | RECORDING<br>TACH<br>TIME | TODAYS<br>FLIGHT | TOTAL<br>TIME IN<br>SERVICE | DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS<br>ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF<br>MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.) |
|------|---------------------------|------------------|-----------------------------|---|
| 19__ |                           |                  |                             |   |

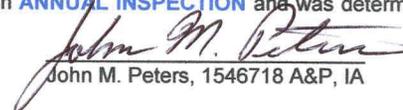
Laytonsville Aircraft Services, LLC  
Davis Airport  
7200 Hawkins Creamery Road  
Laytonsville, MD 20872  
301-253-2897

**RIGHT ENGINE**

MAKE: Lycoming MODEL: IO-360-B1B SERIAL NUMBER: L-8453-51  
AIRCRAFT NUMBER: N8831M DATE: 11/11/11 HOBBS: 4361.0 TOTAL TIME: 4361.0 SMOH: 1669.8

1. Engine uncowed, serviced and inspected IAW a compliant checklist. Compression : #1-74/80, #2-76/80, #3-76/80, #4-70/80.
2. All upper spark plugs removed, inspected, cleaned, gapped, tested and reinstalled using high temperature antisieze.
3. All new bottom Tempest spark plugs, P/N UREM 40E, installed using high temperature antisieze.
4. Oil drained and refilled with 7 quarts of Phillips X/C 20W50 oil.
5. Oil filter removed, drained, opened and inspected with no unacceptable contents found.
6. New CH48110-1 oil filter installed using Dow Novaguard 624 lubricant.
7. AD listing using current Triton Aviation Data software.
8. AD 2008-14-07 CW by reinspection IAW Para (h), (j) and (k) and found to be acceptable. **NEXT DUE @ 4461.0 TACH & TTAF.**
9. Noted continued CW AD 2004-10-14 by no known strike as defined in Para (i), (j) since last overhaul. **ACTION DUE ONLY IN EVENT OF DEFINED STRIKE OR @ OTHER ENGINE TEARDOWN.**
10. AD Compliance Record updated.
11. Ground run-up and taxi checks performed and found to be satisfactory.
12. Leak check performed after run-up with none observed.

I certify that this engine has been inspected in accordance with an **ANNUAL INSPECTION** and was determined to be in airworthy condition.

  
John M. Peters, 1546718 A&P, IA

