

LOGBOOK # 1

1978-8/16/1988

N 101 MP

AIRCRAFT LOG

Log Book Closed out this
 Date 8-16-88 Returned
 Date returned to log book
 #2
 1000 2750 / 100
 1000 1222 / 100
[Signature]

PIPER AIRCRAFT CORPORATION

AIRCRAFT DESCRIPTION

Registration No. N161MP
~~N88294~~

Model: PA-31T Popular Name: Chayenne

Serial No.: 31T-7820061 Type Certificate No.: A8EA

Colors: White-Madrid Red-Hickory Brown-Madrid Red

Engine Manufacturer: Pratt & Whitney Propeller Manufacturer: Wartzell

Original Engine Model: PT-6A-28 Original Propeller Model: HC-B3TN-38 / T10123B-8

Serial Numbers: Single _____ Hub or Serial Number: Single _____

Left PCE-51702

Left BU-8490

Right PCE-51648

Right BU-8476

Blade Numbers

Left

Right

D 90684

D 90735

D 82225

D 90730

D 90790

D 82234

Log Book #2

Cheyenne
PA 317-7820061

Started 8-16-88

ACTT 2730.1

CLOSED

6/8/90

3571.071AF

AIRCRAFT LOG

AL-12P

Type Cert # A8EA

AIRCRAFT DESCRIPTION

MANUFACTURER Piper Cheyenne MODEL PA31T DATE OF MFG. June 1-1978

SERIAL NUMBER 31T-7820061 REGISTRATION NUMBER _____

REGISTERED OWNER Empire Airlines

STREET ADDRESS 1700 South Jefferson

CITY, STATE, ZIP Lebanon Mo 65536

OPERATOR _____

STREET ADDRESS _____

CITY, STATE, ZIP _____

REGISTERED OWNER _____

STREET ADDRESS _____

CITY, STATE, ZIP _____

OPERATOR _____

STREET ADDRESS _____

CITY, STATE, ZIP _____

Inspection Status

[Check one]

F.A.R. 91.169 ANNUAL/100 HOUR

F.A.R. 91.71 PROGRESSIVE

F.A.R. 91.217 SUBPART D

F.A.R. 135.60 A.T.C.O.

OTHER _____

DATE ENTERED 8-16-88

MAINTENANCE RESPONSIBILITY

Empire Airlines

Data Brought Fwd from Log Book #1
Empire Airlines took Possession of this Aircraft 8-16-88
Hobbs Reads 1223.1 HRS ACTT 2730.1 HRS
ELT DUE 8-89 FAR 91.171 & FAR 91.172 (Pilot Static x Powder)
Due 5-6-89 L/E TSO 241.1 HRS 186 Cycles since NSI 241.1 HRS
TR/E TSO 2730.1 HRS 2275 Cycles since NSI 320.1 HRS
Next Hobbs Reads 589.0 - Next Inspection Due EVENT #2
at Hobbs 1307 ACTT 2814 End. J. W. White APP1601066

MANUFACTU

SERIAL NUME

REGISTERED

STREET AD

CITY, STA

OPERATOR

STREET AD

CITY, STA

REGISTERED

STREET AD

CITY, STA

OPERATOR

STREET AD

CITY, STA

Empire

1700 SOUTH JEFFERSON
LEBANON, MO 65536

INCORPORATED

TO:

PA 317-7820061

24007 6-8-90
through
11-3-92

See Book #3 2/1/90

OG

RETURN REQUESTED

AFD-1

1700 SOUTH JEFFERSON
LEBANON, MO 65526

Temp

INCORPORATED

TO
PA-31T-7820061
N4007 11-3-92
through
1-28-99
LOG BOOK #4 EFFECTIVE 11-3-92

RETURN REQUESTED

NO. CHANGED TO
N62286
6-30-93

RETURN REQUESTED

FT LOG

ASA-SA-2

AIRCRAFT DESCRIPTION

MANUFACTURER PIPER MODEL PA31T DATE OF MFG. 1 June 1978

SERIAL NUMBER 31T-7820061 REGISTRATION NUMBER 4007

REGISTERED OWNER EMPIRE GAS / COOP
STREET ADDRESS 1700 South Jefferson
CITY, STATE, ZIP Lebanon Mo 65536

OPERATOR _____
STREET ADDRESS _____
CITY, STATE, ZIP _____

REGISTERED OWNER _____
STREET ADDRESS _____
CITY, STATE, ZIP _____

OPERATOR _____
STREET ADDRESS _____
CITY, STATE, ZIP _____

Inspection Status

[Check one]

F.A.R. 91.169 ANNUAL/100 HOUR

F.A.R. 91.71 PROGRESSIVE

F.A.R. 91.217 SUBPART D

F.A.R. 135.60 A.T.C.O.

FAR 91.409-E-F-4
OTHER

DATE ENTERED 6-8-90

MAINTENANCE RESPONSIBILITY

Empire Airlines
EMPIRE GAS

ALL STAR GAS CORPORATION

119 W. Commercial ★ P.O. Box 303
Lebanon, MO 65536

AIRFRAME LOG # 5
"PIPER PA31T"

S/N 31T-7820061

"N ~~303KZ~~ 5007

EFFECTIVE Date of
This Log 3-26-99

ADDRESS SERVICE REQUESTED

The Standard
 **AIRCRAFT LOG**

ASA-SA-2

...specified in Block 1, it is
...of the country specified in Block 1.
...must contain an installation certification issued in accordance with the

NSN: 0052-00-012-9003

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE
19			

Description of Inspections, Tests, Repairs and Alterations
 Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)

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2/4/09 N5007 S/N7820061 Hobbs 666.2 Total Time A/F 7797.5

R&R flap approach switch, cleaned and checked up & dn flap switches, adjusted up limit switch. Removed and resealed evaporator assy. Reinstalled. CW AD 2004-21-05 Eff. Date 11/19/04 Kelly Aerospace heater pres. Decay test ok. Heater Hobbs 483.5 Replaced pressurization vacuum solenoid. Installed new 5 amp generator control circuit breaker. Replaced HIS indicator circuit breaker p/n 454-687.

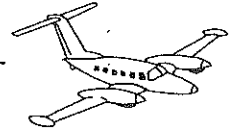
The aircraft, airframe, engine, propeller, or appliance identified above was repaired and inspected in accordance with Regulations of the Federal Aviation Agency and is approved for return to service. Pertinent details of the repair are on file at this agency under Work Order No. 17114

Signed Paul Cawthorn
 Paul Cawthorn
 Des Moines Flying Service FAA CRS G9CR485J



DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
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Piper PA31T S/N 31T-7820061 N5007 Hobbs 727.7 17 Dec 2009.

Jack aircraft cleaned and inspected inboard gear door switches.. Installed new gear warning 5amp Piper PN 454-682 circuit breaker. Adjusted nose gear up travel, installed new rod end bearings on nose gear idler link, adjusted nose gear door travel. Adjusted left and right main gear up travel. Serviced hyd. reservoir and cycled gear 5 times Ops checked normal.

Uncowled right engine and removed spinner. Checked beta switch travel and found out of tolerance. Adjusted beta switch. Reinstalled spinner and cowling. C/W ground operational check found satisfactory.

The aircraft, airframe, aircraft engine, propeller, or appliance listed above, was inspected in accordance with current regulations of the Federal Aviation Agency and is approved for return to service. Pertinent details of the repair are on file at this agency under Work Orders 17444 dated 12/17/2009.

Eugene Koll
Eugene Koll
CRS G9CR485J

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DATE	RECORDING TACH	TODAYS FLIGHT	TOTAL TIME IN	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of entries.)
19				
				09/13/2009
				CHEYENNE II PA31T-7820061 N5007
				TOTAL TIME 7841.0 HRS. HOBBS 613.7 709.7
				HEATER HOBBS 483.5
				LH ENGINE TSO 1858.6 CSO 1496
				SHSI 43.5 C/SHSI 12
				TSN 7841
				RH ENGINE TSO 759.8 CSO 488
				SHSI 759.8 C/SHSI 488
				TSN 7841
				LH/RH PROPELLERS TSO 397.1
				CABIN HEATER TSN 63.8
				COMPLIED WITH 100 HOUR INSPECTION EVENTS 1&2 AND PERFORMED SPECIAL INSPECTION ITEMS 100,200, AND 400 HOUR AS PER MANUFACTURES MAINTENANCE PROGRAM. I.A.W. FAR 91.409(E0)(F)(3).
				COMPLIED WITH THE FOLLOWING AD'S
				AD75-11-04 ENGINE CHIP DETECTORS.
				AD80-26-05 LANDING GEAR DOORS.
				AD82-27-13R2 FLAP TRANSMISSION.
				AD2003-24-7 RUDDER TORQUE TUBE.
				AD2004-25-16R1 HEATER FUEL VALVE
				AD2005-18-20 PROPELLER DEICE BOOTS INSPECTION.
				PERFORMED LANDING GEAR RETRACTION AND EMERGENCY EXTENSION.
				OPERATIONAL CHECK OF EMERGENCY EXIT WINDOW.
				AIRCRAFT LUBE.
				ENGINE OIL CHANGE.
				OPERATIONAL CHECKS GOOD.
				ALL WORK PERFORMED I.A.W. MANUFACTURES MAINTEN

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DATE 19	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations <small>Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)</small>
3/2/2010	A/C Hours	7840.1	MORBS 728.8	ELT BATTERY CHANGED. OPS CHECKS GOOD. NEW REPLACEMENT DATE. APRIL 2012. J.R. DeAngelis ACP 8031683

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19				

Crider Aircraft Painting, Inc.
Ph: 479-394-0111

9-25-10 Piper PA-31T S/N 31T-7820061 N515Z WO# 1806
 This aircraft stripped and repainted in accordance with aircraft manufacturer's specifications and paint manufacturers recommendations. Primary flight controls removed balanced and re-installed. All work completed in accordance with Piper PA-31T Maintenance Manual. Weight change negligible
 Paint Brand: Sherwin Williams Jet-Glo Axzo-Nobel Alum-Grip
 Base: Matterhorn White G8003
 Trim: Green T20430 & Las Vegas Gold 10494
 For Crider Aircraft Painting, Inc.

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 Rodger Crider
 A&P3124263

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DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations
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104 Airport Lane, Mena, Arkansas 71953

October 18, 2010, Piper Cheyenne II, N515Z, S/N 31T-7820061

1. Seats were Re-covered in Moore & Giles Leather Aspen Geysler Leather.
2. The existing Sidewall Panels were recovered with Chamois Leather from Wollsdorf Leather.
3. The existing Carpet was replaced with Elan Carpets Golden Flax Carpet.
4. Headliner was recovered in Columbia Tahoma from Douglass Interior Products.
5. All work performed by Boyd Interiors IAW current FAA regulations and applicable sections for FAR 25.853(a) Appendix F Part I (a)(1)(ii).
6. Weight and Balance change was negligible.

FAA Certificate Number 3329279



Brion Dickerson

contain an
worthiness A
install the aircraft
responsibilities

Name (Typed)
Authorized SA
Certifies that
Block 12 was
respect to the
IAC

DATE	RECORDING	TODAYS	TOTAL	Description of Inspections Tests Repairs and Alterations
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18 02/03/2012
CHEYENNE II PA31T-7820061 N515Z
TOTAL TIME 7954.4 AFL 6527
HEATER HOBBS 489.9
LH ENGINE TSO 1972.0 CSO 1558
SHSI 156.4 C/SHSI 74
TSN 7954.4
RH ENGINE TSO 873.2 CSO 550
SHSI 873.2 C/SHSI 550
TSN 7954.4
LH/RH PROPELLERS TSO 510.5
CABIN HEATER TSN 70.2
COMPLIED WITH INSPECTION EVENTS 1&2 AND PERFORMED SPECIAL INSPECTION ITEMS 100,
300, AND 500 HOUR AS PER MANUFACTURES MAINTENANCE PROGRAM. I.A.W. WITH FAR
91.409 (E0)(F)(3).
COMPLIED WITH THE FOLLOWING AD'S
AD75-11-04 ENGINE CHIP DETECTORS.
AD80-26-05 LANDING GEAR DOORS.
AD82-27-13R2 FLAP TRANSMISSION.
AD2003-24-7 RUDDER TORQUE TUBE.
AD2004-25-16R1 HEATER FUEL VALVE.
AD2005-18-20 PROPELLER DEICE BOOTS INSPECTION.
ALL WORK PERFORMED I.A.W. MANUFACTURES MAINTENANCE PROGRAM.

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
19 _____				<p data-bbox="722 367 1437 472">12-19-2012 Removed Janitrol blower motor p/n 94E56-3 from nose compartment and sent out for repair. See 8130-3 tag for details of CRS repair. Reinstalled. Ops checked good. A/C returned to service. N515Z Hobbs: 876.1</p> <p data-bbox="722 493 1339 525">Jay Foster AP2821198IA FostAir LLC, Lebanon, MO 417-425-7660</p>
4-8-2013	983.2			<p data-bbox="722 682 1559 1071">Replaced main tires & tubes, Replaced brake discs & all linings on both main gear, in accordance with Cheyenne Service Manual Sect. 2 para 2-40 + sect 7 para 7-73, 7-74, 7-75, 7-76, 7-77. The aircraft identified above was inspected & repaired in accordance with above references and is approved for return to service <i>[Signature]</i> A.P. 2785793</p>

DATE 19 ____	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
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Date: 2/17/2014

Hobbs: 922.6

S/N: 31T-7820061

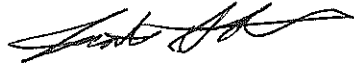
Make: Piper

Model: PA-31T

Reg: N515Z

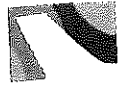
Airframe Log

Removed: King ADF Control KFS 580 B, King ADF Receiver KDF 805, VHF NAV King KFS 560B Control, King VHF NAV Receiver KNR630, King VHF Comm Control KFS 590B, King Comm Transceiver KTR 905. Installed Garmin 530W STC SA01933LA-D. A copy of the flight manual supplement and new weight and balance has been added to the aircraft flight manual. See 337 Dated 2/17/2014.



AP 2739131

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06/30/2014 N515Z PIPER PA 31T SN 31T-7820061
HOBBS: 930.5 TOTAL: 8061.8 HEATER HOBBS: 499.5

	MAKE	MODEL	SERIAL No	TOTAL	SMOH
L ENGINE	P&W	PT6A-28	PCE-51702	8061.8	2079.4
R ENGINE	P&W	PT6A-28	PCE-51648	8061.8	980.6
L PROP	HARTZELL	HC B3TN-3B	BUA24366		617.9
R PROP	HARTZELL	HC B3TN-3B	BUA20744		617.9

Complied with an Event 1 and 2 Inspection per Piper Cheyenne Progressive Inspection 100 Hour Cycle Manual, PN 761-644 dated 10/27/1994

1. C/W AD 2012-10-09 effective date 06/29/2012 per Piper SB1235 Part 1, data plate marked correctly.
2. C/W AD 2004-21-05 effective date 11/19/2004 cabin combustion heater, C/W by pressure decay test per paragraph (e) (1) (i), paragraph (e) (1) (ii) NA per PN combustion air pressure switch. *Heater hourmeter 499.5*
3. C/W AD 82-27-13R2 dated 08/18/1983 Flap System Inspection Reference Piper SB 494B dated 07/17/1979, system found serviceable at this time.
4. Complied with Annual / 1000 hr window Inspection IAW Piper PA-46-500TP Maintenance Manual 56-00-00. No defects noted.
5. C/W 100 Special inspection items, cockpit aileron sprocket, flap system and emergency exit window.
6. C/W 1000 LH and RH wing flap and aileron hinge inspection.
7. Complied with AD 2004-25-16 R1 Amendment 39-14076 dated 06/20/2005 inspected the heater fuel regulator shutoff valve for fuel leakage on 05/22/2014, at 499.5 hours heater Hobbs in accordance with paragraphs (e) (1) (2) and the procedures in Kelly Aerospace Power Systems Service Bulletin No. A-107A, Issue Date: September 6, 2002, for the visual inspection. No defects noted at this time.
8. Removed rubber protective boots from lock rods, NOTE: 3 boots where torn, deteriorated and replaced with new PN 453-206 boots. Lubricated and inspected lock rods per S.L. 755C part 1 instructions.
9. Remove and replace elevator to bell crank bolt PN 402-317 and nut PN 409-530.
10. Remove and replace RH firewall filter drain valve PN 492-063.

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id Certificate Number of
for other specific entries.)

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06/30/2014

N515Z

PIPER PA 31T

SN 31T-7820061

HOBBS: 930.5

TOTAL: 8061.8

HEATER HOBBS: 499.5

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ertificate Number of
ther specific entries.)

11. Troubleshoot and determined pneumatic regulator releasing air continuous. Installed overhauled pressure regulator PN 2H30-17.SN 4142-8 and c/w operational check of pneumatic system per PA31T maintenance manual section 14-60
12. Troubleshoot, found top door switch out of adjustment. Gained access by removing cabin headliner, removed switch and inspection revealed switch bad, removed and replaced upper door switch PN 587-817, operation checks good, reinstall headliner.
13. Troubleshoot, C/W S.A.S calibration procedure per PA31T maintenance manual section 11-168, could not adjust S.W. potentiometer. Removed center instrument panel and co-pilots instrument panel to access warning horn NOTE REMOVED ALSO FOR CO-PILOTS WINDSHIELD CHANGE. Installed new stall horn flasher p/n SC648AN. Installed serviceable stall computer PN 20LMOD B SN 9791, install serviceable horn PN 565-323. C/W calibration procedure per PA31T MM section 11-68. Reinstall center instrument panel and co-pilot instrument panel.
14. Gained access, removed avionics and avionic tray to find hydrostatic date. reinstalled avionics tray and avionics. Customer declines to accomplish work required to repair. Reinstalled equipment. Customer decided to do work, removed equipment again. Removed oxygen bottle. Reinstalled oxygen bottle P/N 48 CU FT S/N 760455/5470 after hydrostatic check and regulator overhau P/N 800114-03 S/N 5470 both were done by Aerospace Turbines Maintenance release tags dated 5-30-14
15. Gained access and ohms checked both windshields. Pilots checked ok, Co-Pilots windshield Ohms in the low side element is not within specs. Switched windshield timers and found no power to co-pilot heat solenoid do to inoperative temp sensor in windshield. Circuit breaker missing for co-pilots. Installed new co-pilots windshield heat circuit breaker p/n 454-686. Function checked thermostat in pilots windshield and operation checked ok. Co-pilot windshield bad. Remove co-pilot windshield, removed old sealant from window frame and windshield frame collar, primed window frame and frame collar, installed new windshield PN 45213-05 SN 14106H2638, used new screws around perimeter of window, painted windshield frame screws and sealant edging. Work done I/A/W Piper PA31T MM chapter 4-41 and 4-42.
16. Troubleshoot and determined one right propeller de-ice boot bad and left prop de-ice timer bad, remove and replace LH de-ice timer PN 3E1150-12 SN IN U0104, PN 3E1150-10 SN G1935 OUT. Installed new de-ice boot on right propeller PN 6975-11.



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06/30/2014
HOBBS: 930.5

N515Z
TOTAL: 8061.8

PIPER PA 31T

SN 31T-7820061

HEATER HOBBS: 499.5

Repairs and Alterations
and Certificate Number of
(as for other specific entries.)

17. C/W AD2003-24-07 dated 02/09/2004 inspection of rudder torque tube, Inspection revealed surface rust on torque tube. C/W Piper SB1105A Part II, Removed rudder and disassembled rudder to the point necessary to replace rudder torque tube PN 40040-007 torque tube assembly. Reinstall rudder onto aircraft and associated hardware. Inspection due annually.
18. Remove ELT and disassemble, found battery leaking and corrosion evident, remove and replace battery pack PN BP-1026, battery expiration August 2016. Also replaced broken ELT bracket PN 53093-04. Complied with ELT inspection per CFR 91.207 (d) (1) Proper installation;(2) Battery corrosion;(3) Operation of the controls and crash sensor; and(4) The presence of a sufficient signal radiated from its antenna.
19. Remove and replace RH engine firewall filter drain valve PN 492-063.
20. Installed overhauled cabin comfort box PN 48021-000 SN 733..
21. Lubricated and inspected lock rods per S.L. 755C part 1 instructions. Installed new boot covers PN 453-206.
22. Remove and replace elevator to bell crank bearing PN 452-719, bolt PN 402-317 and nut PN 409-530.
23. Removed bolt and replaced with new, still has alot of movement, suspect bearing bad. Removed rudder assembly and installed (3) new rudder hinge bearings PN 452-386. Replaced hinge bolts AN174-12. Rudder installed per PA31T maint. manual section 4-33.
24. C/W 1000 Hour special inspection, P&W SB 1002R29 regarding rotor component life. All rotor components within service life limits.
25. Remove and replace LH and RH inboard flap rollers PN 86102-106,bushings PN 41413-05 and PN 408-837 spring washers
26. Drill LH and RH engine de-ice door attach brackets off and rivet new brackets in place PN 50319-02 and PN 50319-03
27. Remove and replace left side elevator trim guide PN 49689-02, (2) trim guides PN 54814-02, (1) PN 452-480 rod end and (1) 48635-005 plate.
28. Removed push tubes found surface corrosion on both. Bead blasted and repainted push tubes. Replaced LH/RH aileron control rod ends with new PN 452-722. Operation checked ok.
29. Remove and replace LH and RH hydraulic pumps PN 1213-HBG TYPE 310A LH SN ON 0G0-1768 SN OFF 2066 and RH SN ON 0I1-C353 SN OFF 2052. Installed new accessory drive seals that were leaking on the hydraulic drive (2) PN 3022375 and AS3209-029 o-rings and seal PN 484-827.

DATE

19



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06/30/2014
HOBBS: 930.5

N515Z

TOTAL: 8061.8

PIPER PA 31T

SN 31T-7820061

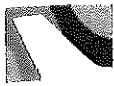
HEATER HOBBS: 499.5

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30. Removed LH and RH inboard gear doors, pressed bearings out of hinges and pressed new bearings into hinges (4) PN 452-808, reinstalled gear doors onto aircraft.
31. Remove and replace tail position bulb PN 34-0428070-64.
32. Checked wiring and found wiring to recognition switch, in overhead switch panel, not connected. Removed forward overhead switch panel and found wire ends above and behind head liner. Attached wiring and operational check.
33. C/W 2 Year fuel cell inspection, fuel drained from LH and RH fuel cells, inspected cells and cleaned debris from inboard fuel cells. Replaced both inboard fuel drain valves that were bad (2) PN 492-100. Reinstalled fuel into fuel cells.
34. Replaced RH MLG inboard door actuator seals with new. PN 762-550, 762-551 and MS28775-018 installed.
35. C/W Piper SL 1092B inspection and replacement for the MLG retraction arm. Installed new arm and hardware, PN 42042-002 and 41789-002 fork C/W landing operational check per PA31T maintenance manual section VII
36. C/W 1000 Hour LH and RH fuel shutoff valve inspection, removed, disassembled, replaced (4) 757-256 (2) 757-257 o-rings, reassemble valve and reinstall onto aircraft, operation checks good and no leaks.
37. C/W Piper SB 1233A MLG Actuator rod end replacement PN (2) 758-440 on both MLG.
38. Removed gear, stall and annunciator warning horn assembly and installed new annunciator warning horn PN 91B8578 and bench test the other 2 horns. Installed horn assembly and tested horn operation.
39. Removed aircraft heater, A/C evaporator assembly and oxygen bottle forward cover assembly to gain access to top nose strut upper housing bolts. Removed NLG assembly and installed serviceable NLG assembly P/N 45333-005, resealed and serviced with hydraulic fluid and nitrogen. TT of NLG assembly installed 6874.60 Cycles 6869. Installed heater, evaporator, new dehydrator p/n 552-209 and oxygen cover. Installed missing placard PN 581-156. Installed new air duct hose for a/c evaporator assembly PN 49990-004. Serviced A/C with 4 1/2 pounds freon.
40. Removed nose wheel assembly and installed serviceable nose wheel assembly P/N 551-758 S/N 570, installed original tire on wheel assembly and balanced. Also changed wheel bearing cups that were bad PN (2) 763-287.
41. C/W Piper SB 1248 replacement of LH and RH oil inlet hoses PN 565-936. Life limit 8 years..

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06/30/2014 N515Z PIPER PA 31T SN 31T-7820061
HOBBS: 930.5 TOTAL: 8061.8 HEATER HOBBS: 499.5

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and Certificate Number of
s for other specific entries.)

42. Installed new pressurization control filters PN 754-831.
43. C/W 7 Year LH and RH engine/nacelle pneumatic hose replacement (4) PN 49990-010 and Stratoflex 193-8 hose.
44. C/W 1000 Hour MLG upper bearing block inspection SB 779B. Disassembled MLG struts and inspected for wear. Replaced lower bushings and internal seals, PN (2) 40296-000, (2) 494-722 (2) 485-036 (2) MS28775-236. Re-assembled and service with Mil-5606 and nitrogen IAW PA-31T AMM Sec 7.
45. Remove and replace upper and lower MLG torque link bushings PN (4) CA70737-040 and (4) PN 20737-040 bushings.
46. Remove and replace a/c belts PN 49370-02. Aligned and tensioned.
47. C/W AD 2009-13-06 R1 effective date 11/03/2011 nose baggage door. Installed new lock assembly and replaced all life limited parts per Piper SB 1194A Part 1 due every 1000 hours, Part II inspection and lubrication due every 100 hour.
48. Installed 27 boot patches p/n 74-451-167 on wing, vertical and horizontal stabilizers de-ice boots.
49. Installed LH and RH flap abrasive strips PN 43508-000.
50. Disassembled Lamar dimmer assembly, tested transistors and replaced defective transistor with same mil specification part numbers as was installed. unit bench tested correctly.
51. Removed cockpit instrument panel to gain access to rudder shaft mounting to the center pedestal. Fabricated doubler patch over affected area and riveted into place, done per AC 43.13- 1b
Remove cockpit instrument panel to gain access to rudder shaft block attachment area.
Removed center instrument panel and radio's to gain access to affected area. Removed rudder block from attaching structure and fabricated doubler plate per AC 43.13-1B . Installed doubler and reattached rudder shaft block to mounting. Reinstalled instrument panel.
52. Removed left engine ignition box attachment bracket from engine, sent out for weld repair, reinstalled bracket and ignition box after repair.
53. Installed as removed pilot and co-pilot oxygen masks PN 479-445, operational checks good.
54. Remove and replace LH engine air inlet de-ice boot PN 50520-04 installed. Installed new electrical plug pins and applied sealant edging around de-ice boot.

DATE

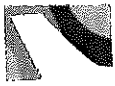
RECORDING
TACH

TODAYS
FLIGHT

TOTAL
TIME IN
FLIGHT

Description of Inspections, Tests, Repairs and Alterations

Entries must be endorsed with Name, Rating and Certificate Number of Inspector. Repair Facility. (See back pages for other specific entries.)



DES MOINES
FLYING SERVICE

INTERNATIONAL AIRPORT
PO BOX 35126 - DES MOINES, IOWA 50315-0302
TELEPHONE (515) 256-5300 - FAX (515) 256-5537
dmfs.com

06/30/2014

HOBBS: 930.5

N515Z

TOTAL: 8061.8

PIPER PA 31T

SN 31T-7820061

HEATER HOBBS: 499.5

- 55. Remove RH engine air inlet duct assembly from engine, screen is spot welded in place, had to separate screen from duct with grinder and chisel. Installed new screen PN 50363-007 and spot welded in place. Reinstalled duct assembly back onto engine with associated hardware.
- 56. Customer informed that ammeter was bad, removed overhead electrical panel, removed ammeter, installed serviceable amp indicator and overhead panel. Operation checks good.

I certify that this *Aircraft* has been inspected in accordance with an *Event 1 and 2* Inspection following the inspections and procedures of the Approved Inspection Program of this aircraft under CFR Part 91.409 (f) Option 3 and was determined to be in an *airworthy* condition. Other details of this inspection are on file at this agency under Work Order No. **18877**.

Date Signed 06/30/2014:

Paul Cawthorn
Paul Cawthorn



Des Moines Flying Service, Inc., FAA CRS G9CR485J