

Volume #: 1

Opened on: 17 MAR 2012

ENGINE DETAILS

1. Manufacturer Pratt & Whitney Canada Corp.

2. Type/Model/Series E.T.C. E- 6 PT6A- 34 A6 B/S: 975

3. Serial Number PCE- PH 0 761

Section 1: Record of engine maintenance and elementary work

Date --/--/--	Time since new	Time since overhaul	Total cycles	Details of task
17 MAR 2012	○ ○	○ ○	○	New engine final acceptance test and inhibiting run completed satisfactorily and is in condition for safe operation.

Date		Engine Model		Engine Serial Number	
April 30, 2012		PT6A-34AG		PCE-PH0761	
Engine – TSN		Engine – Flights		Engine - Starts	
1.0 Hours		3		3	
				N/A	
Aircraft Make		Aircraft Model		Aircraft Serial Number	
Air Tractor		AT-502B		502B-2823	
				N502RL	
				1.0 Hours	
Engine Performance		Torque		Fuel Flow	
OAT: 27° C BARO: 29.77		Baseline		NG	
		1360 ft-lbs		61 gph	
Actual				55gph	
				95%	
				745°C	
				700°C	

This engine installed, ground run, leak checked, and found to operate satisfactory. The aircraft was test flown in accordance with Air Tractor, Inc. QCPM Manual Section 7: Inspection and Testing, Production Flight Test Procedures and Flight Test Form 1008, Revision Orig., dated 11/1/11. This engine was found to operate satisfactory and is in condition for safe operation. This engine complies with all applicable Airworthiness Directives through Biweekly AD 2012-08, published April 24, 2012.

Terry Wooldridge – Air Tractor, Inc.

d
ily
n.

TRIM SPEED Ng 35653, % Ng MAX: 95.1

Signature

AME
ACA/AMO
SCA/AMO

K. PIVIDOR

Section 1: Record of engine maintenance and elementary work

Date --/--/--	Time since new	Time since overhaul	Total cycles	Details of task

ATS Illinois, Inc.
Logbook entry

September 28, 2012

N502RL

Eng. Model: PT6A-34AG

Engine S/N: PCE-PH0761

Engine TT: 247.0

Starts: 83 Flights: 420

1) Removed RGB for wire strike.

Mark McKinney



FAA Approved Repair Station No. CP2R750K EASA Approved
Pratt & Whitney Canada Designated Overhaul Facility
201 E Airport Rd. Okmulgee, Ok. 74447 Ph: 918-756-7862 Fax: 918-756-3424

Date: October 24, 2012	Hobbs: 247	Engine Model: PT6A-34AG	Engine S/N:PCE-PH0761	Acft. Reg. No: N502RL
Eng. Total Time: 247.0	TSOH: N/A No Overhaul	Eng. Total Cycles: Ref S.B.1302R6	Starts: 83 Flights: 420	Acft. Mod/Ser No: AT502B-2823

Received Power Section from P16A-34AG Eng. S/N PCE-PH0761 For Light Overhaul due to wire strike. Disassembled, cleaned, inspected, N.D.T. and repaired in accordance with Pratt & Whitney Overhaul Manual 3021243R38. The following parts were installed in New Condition: # 6 Bearing P/N 3072721-01 S/N BB0141171. The following part was installed in Overhauled Condition: Rear Housing P/N3044254-01. Balanced assemblies as required. Reassembled Power Section and safetied. Tested T-5 system with results satisfactory. Installed Protective covers. Installed into an approved shipping skid. Prepared for shipment. Note: Requires a satisfactory ground run, operational and leak check prior to being released to service. The following A.D.'S were complied with this visit:2002-23-13(Exhaust Duct),2011-20-51(Gears),2011-25-12(Sun Gear)

MAINTENANCE RELEASE: This certifies that the work specified above was carried out in accordance with Federal Aviation Regulations and current manufacturers specifications. In respect to the work performed, the engine component is approved for return to service. Pertinent details of the repair are on file at this repair station under work order No: **218324**

Authorized Signature: [Redacted] Date: October 24, 2012 COVT056 (Rev0 06-99)

Authorized Signature:

Date: October 24, 2012

COVT056 (Rev0 06-99)

ATS Illinois, Inc.
Logbook entry

Jan. 30, 2013

N502RL

Eng. Model: PT6A-34AG

Engine S/N: PCE-PH0761

Engine TT: 247.0

Starts: 83 Flights: 420

1) Reinstalled RGB after light overhaul by Covington Aircraft.

2) OPS, leak check and power assurance checks satisfactory.

Mark McKinnon

ASE

Signature

AME
ACA/AMO
SCA/AMO

DATE June 3, 2013 HOBBS TIME: 249.0 TOTAL TIME: 249.0
TIME SINCE LAST INSPECTION: 249.0 TSNEW: 249.0

N502RL MODEL: PT6A-34AG S/N: PCE-PH0761

Performed 100 hour inspection IAW manufactures checklist. Washed engine and engine compartment. Removed fuel nozzles and reinstalled O/H nozzles with new seals. Inspected and replaced oil filter. Replaced engine fuel filters. Ground run engine for leak check. Updated AD listing.

AD 2002-23-13 Turbine Exhaust Ducts. n/a repair work not accomplished

AD 97-04-12 Compressor Bleed-off Valve. n/a, s/n

All work done IAW Pratt & Whitney maintenance manual and AC43.13-1B.

I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HR. INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION AND APPROVED FOR RETURN TO SERVICE. END.

Ralph E. Lutes

CERTIFICATE #A&P

ATS Illinois, Inc.
Logbook entry

November 22, 2013

N502RL

Eng. Model: PT6A-34AG

Engine S/N: PCE-PH0761

Engine TT: 599.2

- 1) Performed 100hr inspection. Installed new P/N 6235-3A high pressure fuel filter.
- 2) Cleaned and inspected firewall fuel filter.
- 3) Repaired RGB chip detector circuit. OPS check good.
- 4) Drained RGB, accessory case and oil cooler. Filled engine with Exxon 2380.
- 5) Installed 2 new P/N 205SZZM01U bearings in air conditioner drive.
- 6) Installed new P/N 1761865 oil filter.
- 7) Installed new P/N CCA4850 drain on accessory drain holding tank.
- 8) Installed new P/N BA-409E engine air inlet filter.
- 9) Re-installed fuel nozzles after clean and flow check.
- 10) Installed O/H P/N 3031417CL40 ITT trim stick.
- 11) Performed power recovery and desalination washes.
- 12) OPS, leak and power assurance checks satisfactory.

I certify that I have inspected this powerplant in accordance with a 100hr inspection and have found it to be in airworthy condition.

Mark McKinney

A&P

Section 1: Record of engine maintenance and elementary work

Date --/--/--	Time since new	Time since overhaul	Total cycles	Details of task
------------------	-------------------	------------------------	--------------	-----------------

DATE June 5, 2014 **HOBBS TIME:** 601.0 **TOTAL TIME:** 601.0
TIME SINCE LAST INSPECTION: 352.0 **TSNEW:** 601.0
N502RL **MODEL:** PT6A-34AG **S/N:** PCE-PH0761
 Performed 100 hour inspection IAW manufactures checklist. Ground run engine for leak check.
 Updated AD listing.
 AD 2002-23-13 Turbine Exhaust Ducts. n/a repair work not accomplished
 AD 97-04-12 Compressor Bleed-off Valve. n/a, s/n
 All work done IAW Pratt & Whitney maintenance manual and AC43.13-1B.
I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HR. INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION AND APPROVED FOR RETURN TO SERVICE. END.

Ralph E. Lutes

CERTIFICATE #A&P

ATS Illinois, Inc. Logbook entry

November 20, 2014

N502RL

502B-2923

HM: 952.0

ACTT: 952.0

Eng. Model: PT6A-34AG

Engine S/N: PCE-PH0761

Engine TT: 952.0

Total Starts: 345

Total flights: 1622

- 1) Performed 100hr inspection. Installed new P/N 6235-3A high pressure fuel filter.
- 2) Cleaned and inspected firewall fuel filter. Installed new P/N WF33F552 P3 filter.
- 3) Lubed air-conditioning compressor drive spline.
- 4) AD2009-11-05 N/A to aircraft serial number
- 5) AD2014-11-15 N/A to engine serial number.
- 6) Installed O/H P/N 51076-7 low pressure fuel pump.
- 7) OPS, leak and power assurance checks satisfactory.

I certify that I have inspected this powerplant in accordance with a 100hr inspection and have found it to be in airworthy condition.

Mark McKinney
A&P

DATE: April 4, 2015 **HOBBS TIME:** 953.1 **TOTAL TIME:** 953.1
N502RL **MODEL:** AT502B **S/N:** 502B-2823

Removed Starter Generator for O/H. Reinstalled after O/H by Aircraft Systems, Inc.
 Repair Station #KC2R947K. Form 8130 Added to aircraft records.

Ralph E. Lutes

CERTIFICATE #A&P

Signature

AME
ACA/AMO
SCA/AMO

DATE June 2, 2015 HOBBS TIME: 961.0 TOTAL TIME: 961.0

TIME SINCE LAST INSPECTION: 360.0 TSNEW: 961.0

N502RL

MODEL: PT6A-34AG

S/N: PCE-PH0761

Verified 100 hour inspection. Ground run engine for leak check. Updated AD listing.

AD 2002-23-13 Turbine Exhaust Ducts. n/a repair work not accomplished

AD 97-04-12 Compressor Bleed-off Valve. n/a, s/n

All work done IAW Pratt & Whitney maintenance manual and AC43.13-1B.

I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HR. INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION AND APPROVED FOR RETURN TO SERVICE. END.

Ralph E. Lutes

CERTIFICATE #

DATE June 6, 2016 HOBBS TIME: 1404.0 TOTAL TIME: 1404.0

TIME SINCE LAST INSPECTION: 443.0 TSNEW: 1404.0

N502RL

MODEL: PT6A-34AG

S/N: PCE-PH0761

Verified 100 hour inspection. Ground run engine for leak check. Updated AD listing.

AD 2002-23-13 Turbine Exhaust Ducts. n/a repair work not accomplished

AD 97-04-12 Compressor Bleed-off Valve. n/a, s/n

All work done IAW Pratt & Whitney maintenance manual.

I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HR. INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION AND APPROVED FOR RETURN TO SERVICE. END.

Ralph E. Lutes

CERTIFICATE #A&P

**ATS Illinois, Inc.
Engine Logbook Entry**

March 17, 2016

Eng TT: 1396.6 Hrs.

Eng Starts: 410

N502RL

HM: 1396.6 Hrs.

Flights: 2057

P/N: PT6A-34AG

S/N: PC-E PH0761

- 1) Performed 100 Hr inspection, routine maintenance, and lubrication. Cleaned firewall fuel filter.
- 2) Completed 300 Hour A/C drive lubrication.
- 3) Installed new fuel pump outlet filter P/N: AN6235-3A and cleaned inlet filter screen.
- 4) Installed new Beta Arm carbon block P/N: A-3026.
- 5) Installed new flow-divider return hose P/N: 111F417-4-0864.
- 6) Installed new oil filter P/N: 1761865.
- 7) Installed fuel nozzles overhauled by Tennessee Aircraft Co. CRS#: QTFR-573L under WO: 6016.
- 8) Serviced batteries.
- 9) Ops and leak checks satisfactory.

I certify that I have inspected this Powerplant in accordance with a 100 Hour inspection and have found it to be in an airworthy condition.

Mark L. McKinney

A&P

ATS Illinois, Inc.
Engine Logbook Entry
N502RL
HM: 1639.3 Hrs.
Flights: 2430

April 7, 2017
Eng TT: 1639.3 Hrs.
Eng Starts: 523

P/N: PT6A-34AG
S/N: PC-E PH0761

- 1) Performed 100 Hr inspection, routine maintenance, and lubrication. Cleaned firewall fuel filter.
- 2) Performed Pratt & Whitney Periodic Inspection Items i.a.w. MM P/N: 3021242 72-00-00 Table 601 Periodic Inspection.
- 3) Completed 800 Hour A/C drive O/H by installing two new bearings P/N: 205SZZ/MO1U1/1A072 and 300 Hour lubrication. Installed A/C drive with new o-rings P/N: MS28775-137. Torqued and safetied mount bolts.
- 4) Installed new fuel pump outlet filter P/N: AN6235-3A and cleaned inlet filter screen.
- 5) Drained engine oil and filled with 9 qts. Eastman 2380 turbine engine oil.
- 6) Installed fuel nozzles overhauled by Tennessee Aircraft Co. CRS#: QTFR-573L under form tracking #69548-6A5. Installed fuel nozzles with Aviation Laboratories, Inc. fuel nozzle kit P/N: AL-FN-300.
- 7) Installed new AGB FCU/Fuel Pump drive pad seal P/N: 3022375 and o-ring P/N: AS3209-126.
- 8) Re-installed FCU/Fuel Pump after inspecting for possible washout. No discrepancies found. Assemble FCU/Fuel Pump with new Zytel Coupling P/N: 3024973 and O-ring P/N: 3014222. Installed assembly onto engine with new gasket P/N: 3039937.
- 9) Performed power assurance runs, vibration analysis, and propeller balance.
- 10) Ops and leak checks satisfactory.

I certify that I have inspected this Powerplant in accordance with a 100 Hour inspection and have found it to be in an airworthy condition.

Mark L. McKinney

A&P

DATE 10 May, 2017 HOBBS TIME: 1641.0 TOTAL TIME: 1641.0
TIME SINCE LAST INSPECTION: 237.0 TSNEW: 1641.0
N502RL MODEL: PT6A-34AG S/N: PCE-PH0761
Verified 100 hour inspection. Ground run engine for leak check. Updated AD listing.
AD 2002-23-13 Turbine Exhaust Ducts, n/ repair work not accomplished

AD 97-04-12 Compressor Bleed-off Valve. n/a, s/n

All work done IAW Pratt & Whitney maintenance manual.

I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HR. INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION AND APPROVED FOR RETURN TO SERVICE. END.

Ralph E. Lutes

CERTIFICATE #A&P

ATS Illinois, Inc.
Engine Logbook Entry
N502RL
HM: 1887.7 Hrs.
Flights:

February 13, 2018
Eng TT: 1887.7 Hrs.
Eng Starts:

P/N: PT6A-34AG
S/N: PC-E PH0761

- 1) Performed Hot Section Inspection IAW MM P/N: 3021242 72-00-00 Step 10 Table 603. Installed hot section with qty. 16 new key washers P/N: MS9276-09. Local grind tight spots to .012" clearance. Installed CT disc torqued and safetied bolt with new key washer P/N: 3009022. Installed combustion liner. Installed power section. Power assurance runs satisfactory.
- 2) Performed 100 Hr inspection, routine maintenance, and lubrication. Cleaned firewall fuel filter.
- 3) Performed Pratt & Whitney Periodic Inspection Items IAW MM P/N: 3021242 72-00-00 Step 7 Table 601 Periodic Inspection.
- 4) Completed 300 Hour A/C drive lubrication. Installed A/C drive with new o-rings P/N: MS28775-137. Torqued and safetied mount bolts.
- 5) Performed oil analysis. Samples analyzed by Aviation laboratories dated 1/31/2018 sample #41, "Sample appears normal".
- 6) Installed new A/C Drive quill shaft P/N: 51640-1.
- 7) Installed new fuel pump outlet filter P/N: AN6235-3A and cleaned inlet filter screen.
- 8) Installed new P3 filter P/N: WF334552.
- 9) Drained engine oil and filled with 11 qts. Eastman 2380 turbine engine oil.
- 10) Installed fuel nozzles overhauled by Tennessee Aircraft Co. CRS#: QTFR-573L under form tracking #71197-6A5. Installed fuel nozzles with Aviation Laboratories, Inc. fuel nozzle kit P/N: AL-FN-300.
- 11) Installed new AGB FCU/fuel pump drive pad seal P/N: 3022375 and o-ring P/N: AS3209-126.
- 12) Re-installed FCU/Fuel Pump after inspection for washout. No discrepancies found. Assemble FCU/Fuel Pump with new Zytel Coupling P/N: 3024973 and O-ring P/N: 3014222. Installed assembly onto engine with new gasket P/N: 3039937.
- 13) Installed new propeller governor gasket P/N: VE206684.
- 14) Performed power assurance runs.
- 15) Ops and leak checks satisfactory.

I certify that I have inspected this Powerplant in accordance with a 100 Hour inspection and have found it to be in an airworthy condition.

Mark L. McKinney

A&P

February 13, 2018
Air Tractor AT-502B
S/N: 502B-2823

ATS Illinois, Inc.
Airframe Logbook Entry
N502RL
HM: 1887.7 Hrs

ACTT:1887.7 Hrs.

AME
ACA/AMO
SCA/AMO

- 1) Performed Air Conditioning system cleaning. Cleaned evaporator coil, condenser coil, lines, and hoses. Installed new receiver/dryer P/N:60733-1 and expansion valve P/N:60735-1. Installed all new o-rings. Serviced compressor with 8 oz. PAG oil. Serviced system with 3 lbs. R-134A freon. Installed new evaporator air filter P/N:60803-1.
- 2) Installed new throttle quadrant washer P/N:A-1417-A, spring P/N:A-1503-A, bushing P/N:A-1415-A, and knob P/N:A-2165-A.

Mark L. McKinney

A&P

Section 5: Record of engine major modifications and repairs, and supplemental Instructions for Continued Airworthiness (ICA)

Date embodied --/--/--	STC/RDA/PDA	Description of changes	ICA (Y/N)
17 MAR 2012		For the list of SBs incorporated at manufacture, see attached Engine Build Record Status Report sheet.	

[illegible]

PRATT & WHITNEY CANADA

ENGINE BUILD RECORD STATUS

THE FOLLOWING SERVICE BULLETINS ARE BASIC TO :

ENGINE SERIAL NO. PCE-PH0761

ENGINE MODEL PT6A-34AG

BUILD SPEC 975

SERVICE BULLETINS

1223	1224	1231	1232	1247	1255	1259	1261	1263
1270	1276	1277	1280	1281	1283	1288	1293	1296
1300	1306	1310	1315	1318	1320	1321	1322	1326
1327	1332	1338	1339	1346	1352	1354	1357	1358
1361	1367	1370	1372	1374	1379	1381	1389	1390
1391	1393	1394	1395	1397	1404	1410	1416	1426
1427	1430	1434	1439	1441	1445	1446	1457	1459
1469	1472	1473	1474	1475	1477	1478	1479	1481
1484	1486	1487	1488	1489	1490*	1492	1493	1495
1498	1500	1501	1503	1506	1508	1513	1516	1518
1519	1520	1522	1524	1527	1528	1534	1537	1538
1540	1544	1545	1550	1553	1554	1556	1560	1562
1564	1566	1567	1568	1570	1572	1578	1583	1584
1591	1598	1613	1614	1621	1627	1630	1637	1638
1642	1647	1650	1651	1652	1654	1655	1658	1659
1660	1661	1662	1663	1664	1666	1668	1670	1673
1678	1679	1681	1689	1693				

* DENOTES PARTIAL INCORPORATION OF SERVICE BULLETIN

SB# PARTS INTRODUCED AT ENGINE BUILD.

1490 3039939 3116033-01 3116679-01

K. PIVDOR

APPROVED BY:

DATE: 2012.03.17

Engine Airworthiness Directives

WVC 2371 (2009-06)
QUALITÉ - MONTAGE ET ESSAIS - ÉT. 01 - QUALITY ASSEMBLY AND TEST - PLANT 01 (4570)



Pratt & Whitney Canada
A United Technologies Company

Pratt & Whitney Canada Corp.
1000, Marie-Victorin
Longueuil, Quebec
Canada J4G 1A1

Engine S/N	PCE-PH0761
---------------	------------

Reference	A.D.'s	Sign	Lic. # or Stamp	Date
FAA A.D. 80-08-12	To preclude wear of the fuel pump drive coupling splines S.B. 1316, 3139, or 12025 or their later revision or superseding S.B. incorporated at manufacture.	K. PIVIDOR [Redacted]	[Redacted]	17 MAR 2012
FAA A.D. 90-12-05	Not Applicable. The engine serial number is not listed in the Applicability section of the A.D.	K. PIVIDOR [Redacted]		17 MAR 2012
FAA A.D. 97-04-12	To preclude malfunction of the compressor bleed off valve SB 1538R2, 3344, 4204, 12134, 13287 & 14251 or their later revision or superseding SB incorporated at manufacture.	K. PIVIDOR [Redacted]		17 MAR 2012
FAA A.D. 2002-23-13	Not Applicable. Compliance to this A.D. is only required for engines that have been overhauled or where the turbine exhaust duct has been subjected to a shop visit where it has been modified, altered or repaired.	K. PIVIDOR [Redacted]		17 MAR 2012
FAA A.D. 2011-20-51	Not Applicable. The manufacturer, part number and serial number of the First Stage Reduction Sun Gear installed during engine manufacture not listed in the Applicability section of the A.D.	K. PIVIDOR [Redacted]		17 MAR 2012
FAA A.D. 2011-25-12	Not Applicable. The manufacturer, part number and serial number of the First Stage Reduction Sun Gear and associated Planetary Gear Set installed during engine manufacture not listed in the Applicability section of the A.D.	K. PIVIDOR [Redacted]		17 MAR 2012