

MIDSTATES AIRCRAFT ENGINES

TULSA, OKLAHOMA

The Standard



ENGINE LOG

MID-STATES AIRCRAFT ENGINES, INC.
CERTIFIED REPAIR STATION 265-9
AIRFRAME & ENGINE

MAKE: Continental
MODEL: TSIO-520-J
S/N: 218724-R

DATE: Sept. 23, 1982
W/O: 82512
TIME: _____

Airworthiness directives and factory bulletins, letters or instructions.

A.D. 72-24-03 AMDT. 39-1554 P/C/W, A.D. 80-01-04 AMDT. 39-
3647 N/A, A.D. 77-13-22 AMDT. 39-3188 N/A Logo Case,
A.D. 78-06-01 AMDT. 39-3397 P/C/W, A.D. 81-24-06 AMDT.
39-4260 N/A, A.D. 79-05-09 AMDT. 39-3426 C/W current design.



ENGINE RECORD — GENERAL INFORMATION

MANUFACTURER Continental MODEL T520-520-J

SERIAL 218724-R TYPE CERTIFICATE _____

THIS ENGINE IS CURRENTLY INSTALLED IN AIRCRAFT N 1418 T Left position

MINIMUM OCTANE FUEL _____ OIL GRADE SUMMER _____ WINTER _____

MAGNETO TIME _____ POINT SETTING _____ FIRING ORDER _____

SPARK PLUG GAP _____

MFG. RECOMMENDED OVERHAUL AT _____ HOURS.

The Standard



ENGINE LOG

DATE 1982	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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
11/10/82	460.3	1.5 M.O.	H. 20.6	Annual inspection completed this date. Compression check as follows: #1 70/80 #2 72/80 #3 74/80 #4 74/80 #5 74/80 #6 73/80. Drain oil, change oil. Refill crankcase with 12 qts Aero Shell Grade 80 Non Dart. Check all engine controls for proper movement. Oil all hinge points. See rear of log book for A.D. conclusions.
				I certify that this Airframe/Engine has been inspected in accordance with an annual inspection, and was found to be in an airworthy condition on this date. Gulf H. Maller 11/10/82 A.P. 2135013 J.A.

DATE 1983	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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
10/15	S.M.O.	1.1	290.6	Annual inspection completed this date. Compression check as follows: #1 72/80 #2 72/80 #3 74/80 #4 74/80 #5 75/80 #6 70/80. Drain oil, change oil full. Refill crankcase with 15 qts Phillip 20-50wt. Check mag. to engine timing. Clean fuel nozzles with ultrasonic cleaner & flow check. Check engine fuel pressure. Check fuel and vent. Clean air filter. Clean, gap & rotate spark plugs. Check exhaust system for cracks & distortion. Check all engine controls for proper movement. Oil all hinge points. Clean fuel screen & flush system.
				I certify that this Airframe/Engine has been inspected in accordance with an annual inspection, and was found to be in an airworthy condition on this date. 10/15/83 Gulf H. Maller A.P. 2135013 J.A.

DATE 19 <u>84</u>	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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
10/16	S.M.D.	14.577.7		Annual inspection completed this date. Compression checks as follows #1 72/80 #2 72/80 #3 74/80 #5 74/80 #6 70/80 Drain oil, change oil filter. Refill crankcase with 12 qts Aviation Phillips X-C. Remove fuel nozzle & clean air filter. Check check valve fuel pump pressure. Clean fuel screen & flush clean air filter. Check turbo & exhaust system. Check engine mag timing. Clean, gap & rotate spark plugs. Clean engine & fuel. Check all engine valves for proper movement. Oil all hinge points.
				I certify that this Aircraft Engine has been inspected in accordance with an annual inspection, and was found to be in an airworthy condition on this date. 10/16/84 Gail W. Moller A-P 21350 137.0

DATE 19 <u>85</u>	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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
3/11/85		TT-3066.6		SMOH 647.8 hrs. TURBO + WASTEGATE REMOVED & OH BY SW COOLER SVC. ENGINE TESTED & RETURNED TO SERVICE. Jay W. Johnson A-P 506605128
5/30/85		TT-3,145.2		SMOH 726.4 hrs Hobbs - 453.7 Changed oil & FILTER. CUT FILTER & FOUND CLEAN. ADDED 11 qts 50 WT Jet AeroShell. TEST RUN FOR LEAKS. CLEANED & GAPPED SPARK PLUGS. Jay W. Johnson A-P 506605128

LEFT

DATE 1985	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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
Aug 28, 1985				Hobbs - 489.8 SMOH - 846.4 hrs. TT - 3,245.2 AF
				Changed oil & FILTER. CUT & FOUND CLEAN. ADDED 11 qt. Shell 50WT Del. INSTALLED ON TAC GENERATOR. REPAIRED Ignition LEADS AS REQD. WASHED ENGINE.
				Jay W. Johnson
				A & P 506605728

DATE 1985	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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
Nov 15, 1985				TAC - 574.1 hrs.
				100 hr Inspection
				Engine washed. Compression Check - #1 - 180, #2 - 180, #3 - 180 #4 - 180, #5 - 180, #6 - 180. Control CABLES lubricated & checked for proper travel. ALTERNATOR REMOVED & DRIVE GEAR inspected. AD 70-02-07 CW BY inspection of ALTERNATOR bearings. SPARK PLUGS REPLACED WITH NEW. magneto Timing to engine checked. New Exhaust Risers installed on LH, RH overhauled (See yellow tags) New TAIL PPE installed Engine test run & checked for leaks. IT IS CERTIFIED THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 hr. Inspection & WAS DETERMINED TO BE IN AIR WORTHY CONDITION.
				Jay Johnson
				A & P 506605728
				McCOOK FLYING SERVICE, INC.
				P. O. BOX 315 PHONE 345-1999
				McCOOK, NEBRASKA 69001

I certify that I have inspected this engine in accordance
with the requirements of the Federal Aviation Regulations and have found it to be in
airworthy condition.

Signature: Hobbs Time: 574.1 Hours

Date: 11-15-85

Signature: C. J. Bennke

C. J. BENNKE
A.P. License 1. A.

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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
1985				
Dec 21, 1985			TAC - 597.4 hrs.	
				Change oil & FILTER. CUT FILTER & FOUND CLEAN. ADDED 11 qts Phillips X-C II oil. Test Run & CHECKED FOR LEAKS.
				Jay W. Johnson A+P 506605128
Dec 9, 1986			TAC - 748.4 hrs. SMOTH - 1,041.1 hrs.	
				Engine WASHED. Compression Check - #1-76/80, #2-75, #3-76, #4-76, #5-76, #6-75. Oil & FILTER CHANGED. 11 qts AeroShell 15W50 ADDED. FILTER CUT OPEN & FOUND CLEAN. SPARK PLUGS CLEANED & GAPPED. MAGNETO TIMING CHECKED. Absolute Pressure controller OK (See YELLOW TAG). Prestolite AD 76-02-07 CW BY INSPECTION & GREASING. DUE @ 868 hrs. Engine controls lubricated & CHECKED FOR PROPER TRAVEL. Engine Test Run. IT IS CERTIFIED THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION & WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION.
				Jay W. Johnson A+P 506605128 IA

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DATE 1988	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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
JAN 5, 1988			TAC- 904.0 hrs. SMOH- 1,176.7 hrs.	
				ANNUAL INSPECTION
				ENGINE WASHED. COMPRESSION CHECK- #1- 78/80, #2- 75/80 #3- 75/80, #4- 77/80, #5- 76/80, #6- 78/80. OIL + FILTER CHANGED. 11 qts Pennshell 15W50 ADDED. SPARK PLUGS REPLACED. PRESTOLITE ALTERNATOR MOD. ALV 9407'S S/N 1040084 REMOVED + REPLACED WITH PRESTOLITE ALTERNATOR ALV 9510 S/N A-51961. PRESTOLITE AD 76-02-07 NO LONGER REQUIRES INSPECTION. WASTEGATE P/N 470908-12, S/N CA 0104 REMOVED + REPLACED WITH AIRESEARCH P/N 470908-9012 S/N Q1120123. MAGNETO'S DISASSEMBLED CLEANED. REASSEMBLED + TIMED. IGNITION HARNESS TESTED. FUEL INJECTORS CLEANED + CHECKED. FLEX ELBOWS INSPECTED FOR SECURITY + CONDITION. LEFT ELBOW TO BE REPLACED WITHIN NEXT 10 HRS. AD 78-06-01 CW. ENGINE TEST RUN + FOUND SATISFACTORY. IT IS CERTIFIED THAT THIS ENGINE HAS BEEN INSPECTED TAIN AN ANNUAL

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				INSPECTION + WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION.
				Jay W. Schryer A.P. 20605128 IA
1988				
2/25	H/M 930.0		S.M. 0.4. 1,202.7	Install new flex elbow on left side. Also 1/4" A.D. 78-06-01. Install new air filter. Set & adjust fuel pressure. Install new brushes a slip ring for prop. de-rig. Clean engine & cal with alcohol. Return engine to service. GUDON Mallal A.P. 2135013
1988				
3/17	H/M 940.2			Drain oil, change oil filter. Clean engine & cal. Refill carburetor with 12 qts Pennshell 15-50. Run engine GUDON Mallal A.P. 2135013

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3/17	H/m 949	1		Carb not engage starter. Remove starter & starter clutch assembly. Install new clutch spring & bearing. Reinstall on engine. G.D. H. Mallet A-P2135013
6/20/88	H/m 975	1		Drain oil, change oil filter. Refill crankcase with 11 qts Aero Shell 15-50. Clean engine & carb. Run compressor. All cylinders are 70 or better. Clean spark & intake spark plugs. Check mag to engine timing. C/w A.D. 87-23-11 by inspection for fuel line chafing. Run engine all checks fine. G.D. H. Mallet A-P2135013-7A

DATE 1988	RECORDING H/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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
8/1/88	1026.2	1 S.	H.O.H.	1298.9 Drain oil, change oil filter. Refill crankcase with 12 qts Aero Shell 15-50. Clean engine & carb. Service air lines. Run engine, all checks fine. G.D. H. Mallet A-P2135013.

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DATE: 02-10-89 TACH: 1106.2 ENGINE S/N: 218724-R
TOTAL TIME: 1378.7 SMOH: 000.0

Completed engine major overhaul this date in accordance with Continental overhaul manual no. X30574A, parts manual no. X30580A and all applicable service bulletins. This engine has been overhauled to new factory fits & limits. Crankcase align bore certified, new camshaft, crankshaft ultrasonic inspected per TCM SB M87-5 Rev. 1 (AD87-23-08) & certified, connecting rods align bored & certified. Engine accessories were overhauled or exchanged as follows. Fuel injection system, magnetos, new ignition harness & spark plugs, propeller governor, turbocharger, turbo wastegate, turbo controller, starter, alternator, tach generator. Serviced engine with 40 wt Aeroshell non-det. oil. Engine was test run on dynamometer as per overhaul manual and approved for return to service. All maintenance release tags and list of C/W ADs in back of logbook. For complete details concerning this overhaul, refer to W.O.# 01317 on file at this overhaul facility. END.

A&P 508862875

Joseph F. Folchert

FIREWALL FORWARD, INC.
5212 CESSNA DR.
LOVELAND, CO. 80538
303-669-6185

DATE 1989	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 MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
3-1	TACH REPAIRS 1106.2	T.S.M.O. 00.00		INSTALLED THIS ENGINE IN M1618 LEFT SIDE. SET UP TO FACTORY SPECS & TEST RUN. SEE PREVIOUS PAGE FOR REPAIR WORK FOR DETAILS. MAINTENANCE RELEASE CARDS. I CERTIFY THIS ENGINE HAS BEEN INSPECTED (AUI) PERMANENT INSPECTION & WAS FOUND TO BE IN AN AIRWORTHY CONDITION. PAUL BARTON A/P 505852765 1A
3-1-89				PROP OVERHAULED AT THIS TIME. SEE PROP LOG P. BARTON
3/14/89	1129.7			Disassembled, cleaned, and inspected. Reassembled with Dgls Aeroshell 44 N.D. 80. Run engine all clear for test. G. H. M. A.P. 508503

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19__				
(cont)				generator. Removed variable absolute pressure controller for repair by Medallion Engines of Las Vegas & reinstalled & adjusted. Anton R. Lockman #P18025384
8-8-91			22854	① Compression Check 180 #1 68 #2 67 #3 50 #4 60 #5 65 #6 58 #7 1 #8 1 ② Performed 100hr Annual Inspection Day ③ Repaired #2 bottom spark plug lead. ④ Installed new #38 "8" nut. ⑤ Installed Serviceable cylinder in number 3 position. ⑥ Serviced with Aeroshell 50wt N.C.
I certify that this <u>Engine</u> has been inspected in accordance with a <u>100hr/Annual</u> inspection and was determined to be in airworthy condition. Total Time <u>657.6</u> Tach. <u>62</u> Mechanic <u>Anton R. Lockman</u> No. <u>CPPR352</u> NAVAJO AVIATION BUCHANAN FIELD 145 JOHN GLENN DRIVE FAA CRS COPR 935C (415) 685-1150				

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19__				
8/31/91			78.5	① Adjusted fuel flow on both TOP & BOTTOM end. Adjusted mixture & idle RPM. ② Serviced prop accumulator with Nitrogen. ③ Adjusted Exhaust Slip joints & tensioned springs. ④ Replaced defective alternator S/N D. 11R 000052 off S/N D. 0081655 "on". ⑤ Replaced defective Bush Block on Prop. ⑥ Replaced 4 TOP C/C Valve Bolts. ⑦ Replaced intake (M.R.) Coupler to water cooler. ⑧ Exhaust Leak checked.
4550.6 669.0 DATE <u>8/31/91</u> A/C TIME _____ ENG. TIME _____ W.O. # <u>8813</u> The maintenance operations described above were inspected and, with respect to the work performed, the aircraft and/or component is airworthy for return to service. Details are on file at this agency under above referenced work order. SIGNED: <u>[Signature]</u> for PACIFIC STATES AVIATION INC. - REPAIR STATION NO. CPFR948C				
11/20/91				HRM: _____ 50 hour inspection - 50 hour inspection completed. Changed oil. 12 Qt of Aeroshell 50wt. Inspected

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				Replaced oil filter. cleaned, gapped & tested spark plugs. checked compression #(1) 73/80 #(2) 64/80 #(3) 74/80 #(4) 70/80 #(5) 64/80 #(6) 70/80 ① Press. leak checked Exhaust System. ② Replaced defective No 5 Bottom Cylinder L. Neg. Lead. ③ Replaced cracked R.F. Magneto S/N 10 H139101FR. ④ fabricated Brackets for oil separator.
				11/20/91 4584.7 702.7 8915 DATE A/C TIME ENG. TIME W.O. # The maintenance operations described above were inspected and, with respect to the work performed, the aircraft and/or component is airworthy for return to service. Details are on file at this agency under above referenced work order. SIGNED: <u>[Signature]</u> for PACIFIC STATES AVIATION INC. - REPAIR STATION NO. CPER948C

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				Eng. Removed 750.8 HRS Eng Removed for O/H <u>[Signature]</u> CPER948C New log book started