



ENGINE MAINTENANCE RECORDS

Log No. 2

Aircraft Registration No. N4387W

Engine Manufacturer TCM

Model TS10-360-MB2

Serial No. 317223

Date installed on aircraft 4-22-89

Time Between Overhauls (TBO) 1800 Hours

If used on multi-engine aircraft:

☐ Right

☐ Left

☐ Front

☐ Rear



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PROPELLER

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
	2662.6	1,103.6	203.0	TOTALS brought forward from previous page
14 DEC 07	2706.2	1,147.2	246.6	



December 14, 2007. TSIO-360-MB2, s/n 317223. Hobbs:246.6 All cylinders were removed for overhaul. Cylinders were repaired by Brown Aviation, see yellow tags at the rear of this logbook. Cylinders were re-installed using new P.015" pistons, appropriate rings, new gaskets and seals, 1 new wrist pin, 12 each new rocker shafts, lock tabs, and 2 new RHM38S spark plugs. Injectors were cleaned and installed new 630979-9 O-rings, and new 640612 washers. Changed oil and filter, serviced engine with 8qts 20W50XC Phillips, approved for break in. Fuel pressure, idle mixture and idle speed were adjusted in accordance with SID 97-3. Engine run-up, leak check and test flight satisfactory. No leaks noted at this time.

Michael H. Moore

A&P

SKYWAYS LTD

HURON REGIONAL AIRPORT

Huron (605) 352-9262

DATE	N-NUMBER	MAKE/MODEL	Hobbs	ETT	SMOH
12/27/2007	4387W	TSIO-360	255.7	??	??

Engine

Removed and inspected oil filter, minor metal found due to break in process reconfirm on next oil filter insp to establish trend. New filter installed P/N CH48108-1. Ok for return to service. -END

Handwritten signature

19 JAN 08	HOBBS 261.9	Comp CHECK 1-78/80, 2-76/80, 3-77/80, 4-77/80, 5-78/80, 6-78/80 CLEANED + GAPPED PLUGS, CHANGED OIL WITH PHILLIPS 20-W-50XC, CHANGED + INSPECTED OIL FILTER, NO METAL FOUND. I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IAW A 100 HOUR INSPECTION AND FOUND TO BE IN AIRWORTHY CONDITION			
		SUB-TOTALS this page			
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				TOTALS brought forward from previous page
9/22/08			308.0	REMOVED COWL FLAP MOTOR, CLEANED, LUBRICATED AND REINSTALLED WITH NEW GASKETS. REMOVED #1 ALTERNATOR FOR OVERHAUL BY AEROTECH AND REINSTALLED. REMOVED TURBO CHARGER WASTEGATE & CONTROLLER FOR OVERHAUL BY MAIN TURBO SYSTEMS. REINSTALLED & TEST FLIGHTS O.K. CHANGED OIL & OIL FILTER WITH A.S. 15W50. FILTER INSPECTION GOOD. REMOVED FUEL INJECTION RAILS, CLEANED & NICKEL PLATED & REINSTALLED WITH ALL NEW SEALS & "O" RINGS. PRESSURE CHECKED O.K. REMOVED & NICKEL PLATED ALL ROCKER COVERS & REINSTALLED. [REDACTED] AIP [REDACTED]
2 FEB 09			324.9	CLEANED & GAPPED SPARK PLUGS. REPLACED TWO PLUGS WITH RHM-385 CHAMPIONS. CHANGED OIL WITH AS 15W50. INSTALLED NEW OIL FILTER OLD FILTER INSPECTION WAS GOOD. COMPRESSION CHECK # 1- $\frac{74}{80}$, 2- $\frac{75}{80}$, 3- $\frac{74}{80}$, 4- $\frac{74}{80}$, 5- $\frac{77}{80}$, 6- $\frac{78}{80}$ CHECKED MAGNETO TIMING. I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IAW A 100 HOUR INSPECTION AND FOUND TO BE IN AIRWORTHY CONDITION [REDACTED] AIP [REDACTED]
				SUB-TOTALS this page
				TOTALS -Carry forward to next page

PROPELLER

Page No. _____				DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	
				TOTALS brought forward from previous page
2 July 2009			368.1	Changed Oil with Aeroshell 15W50. Changed and inspected oil filter (Champion 48108). No metal in old filter. Ground checked by running engine. No leaks at this time. [REDACTED]
16 MAR 2010			417.2	CHANGED OIL WITH A.S. 15W50, CHANGED & INSPECTED OIL FILTER. COMPRESSION CHECK #1-$\frac{77}{80}$, 2-$\frac{75}{80}$, 3-$\frac{75}{80}$, 4-$\frac{75}{80}$, 5-$\frac{77}{80}$, 6-$\frac{77}{80}$, REMOVED MAGS & INSTALLED NEW BREAKER POINTS, & CONDENSER & CASE SEALS, RESET "E" GAP, REINSTALLED & SET TIMING. INSTALLED NEW BRUSHES IN STARTER MOTOR & NEW SEALS. INSTALLED NEW SEALS & GASKETS ON VACUUM PUMP & PUMP EXTENSION. CLEANED AND GAPPED PLUGS. CLEANED FUEL INJECTORS ^{MC} I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HRS/ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION. [REDACTED] AP/IA [REDACTED]
25 MAR 10			417.2	INSTALLED NEW OVERHAULED STARTER SN-K020252 [REDACTED]
				SUB-TOTALS this page
				TOTALS-Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
25 OCT 2010			460.0	INSTALLED NEW CABIN HEAT MUFF ON RIGHT EXHAUST STACK. TIGHTENED ALL ROCKER COVER SCREWS [REDACTED] AYP [REDACTED]
31 OCT 2010			471.6	Changed Oil with Aeroshell 115W50. Changed and inspected oil filter Champion 48108. No metal in old filter. Ran engine. No oil leaks. [REDACTED]
MARCH 22 11			478.3	CHANGED OIL WITH 15 100W. INSTALLED NEW OIL FILTER, CLEANED AND GAPPED PLUGS. REPLACED ONE CRACKED PLUG WITH NEW IRIIDIUM. REPLACED #4 CYL HEATER PLUG. RESET MAG TIMING. CLEANED FUEL INJECTOR NOZZLES COMPRESSION 1- $\frac{74}{80}$, 2- $\frac{74}{80}$, 3- $\frac{77}{80}$, 4- $\frac{75}{80}$, 5- $\frac{75}{80}$, 6- $\frac{77}{80}$ I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100HR/ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION. [REDACTED] AIP/IA [REDACTED]
25 MAR 11			478.3	Removed fuel pump for repairs. PUMP WAS SENT TO D&G SUPPLY. DETAILS OF REPAIRS ON FILE UNDER W/O 21875. RE INSTALLED AND FUEL SYSTEM ADJUSTED IN ACCORDANCE WITH TCM SID-97-3. RUNUP & TEST FLIGHT SATISFACTORY. [REDACTED] AIP [REDACTED]
				SUB-TOTALS this page SEE YELLOW TAG REAR OF LOG
				TOTALS -Carry forward to next page

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July 12, 2011			493.3 HRS	Removed wastegate controller seat to Mesa Turbo systems for bench test. Reinstalled on engine, see FAA form 8130-3 dated June 16, 2011. Removed all rocker arms, 8 rocker arms were replaced with serviceable units due to excessive wear. Installed new rocker arm fulcrum bushings P/N 627693 in all 12 rocker arms, honed to proper clearance per TCM O/H manual. Installed rocker arms with new 656703 rocker shafts and new lock tabs. Lifter (dry) clearances were verified to be within service limits. Engine run up and ops check satisfactory. [Redacted Signature] ATP [Redacted]
July 12, 2011			493.3	Changed oil w/ AS 100. Ran engine. No leaks. [Redacted Signature] [Redacted]
July 27, 2011			519.1	Replaced vacuum pump with overhauled unit from Holley Aero, see maintenance release form dated 10/20/10. Resealed starter base o-ring. Adjusted oil pressure to proper setting. Replaced oil filter CH48108-1, inspected filter for contaminants, none found. Engine run up and test flight satisfactory. [Redacted Signature] ATP [Redacted]
				SUB-TOTALS this page
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DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	Page No. 104 DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
12-10-11	HOBBS	543.5		Removed wastegate controller for bench test. by MAIN TURBO. see FAA form 8130 dated November 9, 2011. Controller was reinstalled engine run up and operational test satisfactory As P [REDACTED]
1-4-2012	HOBBS	544.1		Adjusted wastegate controller to proper settings for take off. Operational check and flight test satisfactory. [REDACTED] ATP [REDACTED]
2012 7 APRIL		552.6		CHANGE OIL WITH AS W100 CHANGED OIL FILTER & INSPECTED OLD FILTER. NO METAL FOUND. CLEANED & GAPPED PLUGS & REPLACED #5 TOP PLUG WITH NEW IRIIDIUM. CHECKED MAGNETO TIMING. CLEANED INJECTORS COMPRESSION CHECK 1- ⁷⁴ / ₁₀₀ , 2- ⁷⁰ / ₁₀₀ , 3- ⁷⁴ / ₁₀₀ , 4- ⁷⁷ / ₁₀₀ , 5- ⁷⁷ / ₁₀₀ , 6- ⁷⁷ / ₁₀₀ I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED I.A.W. AN ANNUAL / 100 HOUR INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION [REDACTED] ATP/IA [REDACTED]
8 APRIL 2013		597.7		INSTALLED NEW TIT PROBE PN 86309 [REDACTED] ATP [REDACTED] IA
				SUB-TOTALS this page forward to next page

DATE 2013	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
10 MAY 2013			602.7	CHANGED OIL WITH A.S. W100+. INSTALLED NEW OIL FILTER & INSPECTED OLD FILTER. CLEANED & GAPPED SPARK PLUGS & CLEANED INJECTORS. REPLACED #3 INTAKE PIPE PN 655224-1 AND MODIFIED IAW MOONEY SB M88-13. REMOVED BOTH MAGNETOES & RESET E GAPS & INSPECTED & REINSTALLED & SET TIMING. PERFORMED COMPRESSION CHECK # 1-$\frac{74}{80}$, 2-$\frac{74}{80}$, 3-$\frac{70}{80}$, 4-$\frac{75}{80}$, 5-$\frac{75}{80}$, 6-$\frac{75}{80}$. AD'S CHECKED & CURRENT TO DATE. I CERTIFY THAT THIS AIRCRAFT ENGINE HAS BEEN INSPECTED IAW A 100 HR/ANNUAL INSPECTION AND DETERMINED TO BE IN AIRWORTHY CONDITION. [REDACTED] ACP [REDACTED] IA
22 MAY 2014			624.1	CHANGED OIL WITH A.S. W100. INSTALLED NEW OIL FILTER & INSPECTED OLD FILTER. CLEANED & GAPPED SPARK PLUGS. INSTALLED ONE NEW PLUG # 2 CYL TOP. CHECKED MAGNETO TIMING. CLEANED FUEL INJECTORS. COMPRESSION CHECK # 1-$\frac{75}{80}$, 2-$\frac{74}{80}$, 3-$\frac{74}{80}$, 4-$\frac{74}{80}$, 5-$\frac{74}{80}$, 6-$\frac{74}{80}$. AD'S CHECKED AND COMPLIED WITH TO THIS DATE. I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HR/ANNUAL INSPECTION AND DETERMINED TO BE IN AIRWORTHY CONDITION. [REDACTED] ACP [REDACTED] IA
				SUB-TOTALS this page
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DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
2015				TOTALS brought forward from previous page
2 JUN 15		640.1		CHANGED OIL WITH A.S. 100W. CHANGED OIL FILTER & INSPECTED OLD FILTER OK. CLEANED & GAPPED SPARK PLUGS AND CHECKED MAGNETO TIMING. CLEANED INJECTORS. COMPRESSION 1- ⁷⁵ / ₈₀ , 2- ⁶⁸ / ₈₀ , 3- ⁷² / ₈₀ , 4- ⁷⁴ / ₈₀ , 5- ⁶⁸ / ₈₀ - ⁷⁴ / ₈₀ ADS CHECKED AND FOUND CURRENT TO THIS DATE I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IAW A 100HR INSPECTION AND DETERMINED TO BE IN AIRWORTHY CONDITION
				[REDACTED] AIP [REDACTED] IA



662.1

N4387W M20K Hobbs: 26.6- ACTT: Date: 10/28/2015

#5 cylinder found to have compression below limits, Repaired as follows. After gaining access removed #5 cylinder, piston and pin. Inspected pushrods, pushrod housings, rocker arms, and sparkplugs for damage and found to be in good condition. Installed new continental cylinder Kit # 658190A2 with new wrist pin P/N 629690. Reinstalled push rods and pushrod housing with new seals included in kit, intake and exhaust with new gaskets P/N 654227 and 649959 reinstalled spark plugs with new gaskets. Replaced Oil filter with new and oil with 7 qts. AeroShell 100 straight mineral oil Replaced both magneto harnesses with new Assy. P/N M2778. Engine test run checked good.

All work and test performed IAW Continental TSIO-360 overhaul manual.

Airline Maintenance Service Inc.
Tupelo, MS 38801
www.airlinems.com

Joshua K. Hollis AP [REDACTED]



662.1

N4387W M20K S/N M20K25-1125 Hobbs: 26.6 ACTT: Date: 10/28/2015

Removed propeller for overhaul. Sent to first flight propeller for overhaul (see yellow tag). Reinstalled overhauled propeller. Propeller TSMOH - 0.0

All work performed IAW M20K AMM and TSIO-360 overhaul manual.

Airline Maintenance Service Inc.
Tupelo, MS 38801
www.airlinems.com

Joshua K. Hollis AP [REDACTED]

PROPELLER

AVIATION

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
2019				
	2,975.8	1,617.8	717.2	TOTALS brought forward from previous page
15/NOV/19				CLEANED + GAPPED SPARK PLUGS. CLEANED INJECTORS, CHECKED MAGNETO TIMING. COMPRESSION CHECK #1 - $\frac{76}{80}$, 2 - $\frac{75}{80}$, 3 - $\frac{75}{80}$, 4 - $\frac{74}{80}$ 5 - $\frac{78}{80}$, 6 - $\frac{78}{80}$. CHANGED OIL WITH A.S. 15W50 CHANGED + INSPECTED OLD OIL FILTER OK I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IAW A 100 HR INSPECTION AND DETERMINED TO BE IN AIRWORTHY CONDITION [REDACTED] AT [REDACTED] IA

Date: 15FEB2020	
Continental HOBBS: 723.2 SMOH: 1623.8 TSIO-360-MB2 SN: 317223	Accomplished 100 hour inspection within the scope and detail of FAR 43(d). Serviced with 8 Qts of Aeroshell 15W50. Installed new CH48108-1 oil filter. Accomplished compression checks #1 76/80, #2 64/80, #3 70/80, #4 62/80, #5 72/80, #6 74/80. Removed, cleaned, tested & gapped all spark plugs. Installed with new M674 gaskets. Checked magneto to engine timing. Inspected all lines and hoses. Replaced induction filter new Donaldson part #EDO04011, due to time. Lubricated all engine controls and checked for proper operation. Inspected exhaust system. Ground ran engine, run up and leak checks satisfactory. Checked all ADs through ATP as of 14FEB2020. I certify this engine has been inspected IAW a 100 hour inspection and was found to be in airworthy condition at this time.
N4378W	[REDACTED] Glenn MacDermod [REDACTED] AP

03MAY2021	
Continental HOBBS: 726.8 SMOH: 1627.4 TSIO-360-MB2 SN: 317223	Accomplished 100 hour inspection within the scope and detail of FAR 43(d). Removed and replaced oil filter with new pn: AA48108-2, cut open old oil filter and inspected media, no abnormalities noted at this time. Accomplished ground run, run-up and leak check is good. Accomplished compression checks #1 76/80, #2 66/80, #3 70/80, #4 64/80, #5 74/80, #6 74/80. Removed, cleaned, tested & gapped all spark plugs. Installed with new M674 gaskets. Checked magneto to engine timing. Inspected all lines and hoses. Serviced Donaldson induction filter. Lubricated all engine controls and checked for proper operation. Inspected exhaust system. Ground ran engine, run up and leak checks satisfactory. Checked all ADs through ATP as of 28APR2021. I certify this engine has been inspected IAW a 100 hour inspection and was found to be in airworthy condition at this time.
N4387W	[REDACTED] Glenn MacDermod [REDACTED] AP

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTAL S brought forward from previous page
				N4387W 7/28/22 Hobbs: 733.0 Hrs SMOH: 1633.6 Hrs Washed down engine areas for inspection. Inspected engine general areas and wiring bundles. No defects found. Lubed all engine controls. Performed oil change with new Tempest AA48108-2 filter and 8 quarts of Philips 20W-50, cut filter open no defects noted. Performed differential compression check as follows: #1 69/80, #2: 62/80, #3: 66/80, #4: 66/80 #5: 70/80 #6 68/80. Cleaned, inspected, and tested spark plugs. Installed with new M-674 gaskets. Torqued to manufactures specifications. Performed magneto to engine timing, and found to be within limits per mfg.'s specifications. Complied with Inspected induction air filter and found no defects, AD 84-26-02. Performed ground run, and leak check. No leaks or defects were noted at this time. All operations normal at this time. This ENGINE has been inspected IAW Annual INSPECTION and is approved for return to service. All AD's CW through this date.  Keith E Simpson AP  A
				N4387W 09/08/23 Tach: 736.4 Hrs SMOH: 1637.0 Hrs Washed down engine areas for inspection. Inspected engine general areas and wiring bundles. No defects found. Lubed all engine controls. Performed oil change filled with Phillips 66 7 qts, cut filter open no defects noted. Performed differential compression check as follows: #1 62/80, #2: 50/80, #3: 60/80, #4: 62/80 #5: 68/80 #6: 63/80. Cleaned, inspected, and tested spark plugs. Installed with new M-674 gaskets. Torqued to manufactures specifications. Performed magneto to engine timing, and found to be within limits per mfg.'s specifications. Performed ground run, and leak check. No leaks or defects were noted at this time. All operations normal at this time. This ENGINE has been inspected IAW Annual inspection and is approved for return to service. All AD's CW through this date.  Keith E Simpson A&P  IA
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Date: 03/19/2024 Hours: HOBBS: 736.7 JPI TACH: 0142.9 JPI HOBBS: 143.0

Tail#: N4387W

Make: Mooney

Model: M20K

S/N: 25-1125

Complied with TCM CSB19-01A Fuel Diverter Valve Assembly. Removed Valve M/N 55P56HD5E-608 and associated parts in table 1. Installed NEW TCM Hose P/N 646644S4S24.00 and 1 QTY Plug P/N 2024. Cap & stow wiring as needed. Secured hose as needed to prevent chaffing.

Removed oil filter & Installed new Champion CH48108-1 Filter. Cut filter open and found no metal. Safety wired.

Washed engine down and checked for leaks. No new leaks noted at this time. IAW M20K series MM and found safe to return to service at this date. --- END --

Name: Wesley Zimmer

Co: AGL Aviation Services, LLP

Cert: AP [REDACTED] A

Sign: [REDACTED]

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PROPELLER