



The Standard

ENGINE LOG

MENA AIRCRAFT ENGINES, INC.

FAA Certified Repair Station #S9QR340N
103 Aviation Lane Mena, Arkansas 71953
(479) 394-7688 Fax (918) 272-6501

MENA AIRCRAFT ENGINES, INC. - - FAA CRS#S9QR340N

Date: December 11, 2012 Engine Total Time: 1633.70 hrs Time Since Major Overhaul: 00.00
Engine Data: Teledyne-Continental engine model TSIO-520-P Serial Number: 278725-R
Aircraft Data: Cessna Aircraft Model P210L Serial Number: P21000174 Registration #174SF 1978

WORK PERFORMED: inspected and major overhauled in accordance with Teledyne-Continental overhaul manual #X30575A and Teledyne-Continental parts catalog #X30579A.

COMPONENTS

crankshaft/counterweight assembly(TCM s/n H249516N): magnafluxed, inspected, rods STD, ground mains M010 and re-nitrided, polished journals, cadmium plated and baked flange, rebushed damper blades, rebushed counterweights and installed with new pins, plates, and snap rings, ultra-sonic inspected i/a/w TCM mandatory service bulletin #MSB96-10A, crank complies with AD#97-26-17 as VAR, dynamically balanced per procedure #989-002, and certified by Aircraft Specialties of Tulsa, OK w/o 214512 FAA CRS#DD2R764K.,

connecting rods(6): magnafluxed, inspected, resized, rebushed, balanced, and certified by Aircraft Specialties of Tulsa, OK w/o 214512 FAA CRS#DD2R764K.

internal steel(34): cleaned, magnafluxed, inspected, and certified by Aircraft Specialties of Tulsa, OK w/o 214512 FAA CRS#DD2R764K.

camshaft: p/n 535661 – reconditioned and repaired i/a/w FAA approved data and procedures, and certified by Aircraft Specialties of Tulsa, OK w/o 215589 FAA CRS#DD2R764K.

hydraulic valve lifters(12): part numbers 6 each SA628488 and SA646277 – inspected, repaired i/a/w procedure #2002-01, flow matched, and certified by Aircraft Specialties of Tulsa, OK w/o 214512 FAA CRS#DD2R764K.

COMPONENTS CONTINUED

crankcase: casting #6490431, match #L139416R – cleaned, zygloed, inspected, repaired, surfaced, thru-bolt dowels installed, align-bored, stress relieved, and certified by DivCo of Tulsa, OK w/o WDC#108002 FAA CRS#DB2R762K.

cylinders(6): replaced with new SAP Millennium steel cylinder assemblies p/n SA52006-A22P purchased from J & J Air Parts of Pleasanton, TX invoice #105601 dated Oct 12, 2012. serial numbers as follows: 526-H12-10715, 10718, 10717, 10719, 10716, and 10714.

valve rocker arms(12): magnafluxed, inspected, refaced, rebushed, and certified by Aircraft Specialties of Tulsa, OK w/o 214512 FAA CRS#DD2R764K.

assembling hardware: bright cadmium plated i/a/w UPW SP-01 Rev B class3 type II, actual thickness .00025-.00035, hydrogen embrittlement relieve baked @375 +/- 25 degrees F for 3 hours min/no max, i/a/w UPW SP-17 Rev G & UPW SP-01 Rev B, time in: 8/3/10 1200, time out: 8/3/10 1600, and certified by United Plating Works of Tulsa, OK w/o 441341 FAA CRS#FA2R813K.

ACCESSORIES

magneto(LH): p/n 10-349350-4, s/n I089520F, mfg. TCM -inspected, overhauled, tested, and certified by Mena Aircraft Engines, Inc. of Mena, AR w/o 1960A FAA CRS#S9QR340N.

magneto(RH): p/n 10-349350-5, s/n H299506F, mfg. TCM --inspected, overhauled, tested, and certified by Mena Aircraft Engines, Inc. of Mena, AR w/o 1960B FAA CRS#S9QR340N.

starter: p/n 646275-1, s/n A08289507, mfg. TCM – inspected, overhauled, tested, and certified by Aerotech of Louisville, KY w/o 106319 FAA CRS#PU4R453M.

alternator: p/n E3FF10300AA, s/n 1209764, mfg. Ford – inspected, overhauled, tested, and certified by Aerotech of Louisville, KY w/o 106320 FAA CRS#PU4R453M.

ACCESSORIES CONTINUED

fuel injection system: p/n 649054A16-R, mfg. TCM – fuel pump p/n 646768-1, s/n H259514BR; flow divider p/n 634326-4A22, s/n H259512CR; control valve p/n 629703-11, s/n H259524AR – inspected, overhauled, bench tested, and certified by Mike's A/C Fuel Metering Service of Tulsa, OK w/o 25185 FAA CRS#HK2R875K.

starter adapter assembly: p/n 643259A18R, s/n , mfg. TCM – inspected, overhauled, and certified by Aircraft Specialties of Tulsa, OK w/o 214512 FAA CRS#DC2R763K.

oil cooler: p/n 20444A, s/n E96-1989-904, mfg. TCM – inspected, overhauled, tested, and certified by American Cooler Service of Arlington, TX w/o 48256 FAA CRS#OC8R986J.

ACCESSORIES SUPPLIED, NOT INSTALLED

propeller governor: replaced with new PCU5000 governor, p/n AT210937, serial number 12303692, purchased from South Coast Propeller Governor of Bessemer, AL invoice #SS-3541 11/8/2012.

turbocharger: p/n 465680-9004, s/n VD-L0101 – inspected, overhauled, and certified by Main Turbo of Visalia, CA w/o 44943 FAA CRS#MAMR190K.

controller: p/n 470688-8, s/n HH0258 – inspected, overhauled, tested, and certified by Main Turbo of Visalia, CA w/o 44950 FAA CRS#MAMR190K.

waste gate: p/n 470908-12, s/n JEO612, - inspected, overhauled, tested, and certified by Main Turbo of Visalia, CA w/o 44951 FAA CRS#MAMR190K.

pressure relief valve: p/n 470944-3, s/n HIO157 - inspected, overhauled, tested, and certified by Main Turbo of Visalia, CA w/o 44949 FAA CRS#MAMR190K.

NEW PARTS INSTALLED

Major overhaul gasket and seal set, crankshaft oil seal p/n 641250, crankshaft damper bushings, counterweight bushings, counterweight pins, plates, and snap rings, connecting rod bushings, connecting rod nuts, connecting rod bearings STD, main bearing set/thrust washers M010, crankshaft attaching screws, camshaft gear attaching screws, cam gear woodruff key, crankcase thru-bolt dowels and o rings, starter adapter pilot needle bearing, piston pins, Superior steel cylinder assemblies with valves, springs, retainers, keepers, roto-coils, valve rocker shafts, rocker shaft bolts and washers, pistons, and piston rings, valve rocker arm bushings, silicone valve cover gaskets, Real Gasket push rod seal kit, 12-point cylinder base nuts, spark plugs p/n RHB32E, ignition harness, fuel pump drive coupling p/ 631683, magneto drive cushions, oil pressure kit, oil pressure relief valve plunger, nose seal retaining plates, induction tube hoses and clamps, internal crankcase nuts, dipstick housing hose and clamps, crankcase thru-bolts, magneto attaching nuts, oil filter p/n CH48108-1, upper deck tube seals, fuel nozzle rubber and steel washers, oil filler cap assembly, oil temperature vernatherm valve, alternator drive belt, throttle support bushings. supplied exhaust nuts and gaskets.

Engine Test Run and Sign-Off: this engine overhauled and test run in accordance with current and applicable FAA data and procedures and is approved for return to service. pertinent details of the overhaul are on file at this repair station #S9QR340N under work order #12H1960 by Mena Aircraft Engines, Inc. of Mena, AR *Robert J. Smith* #2549814 December 11, 2012

[illegible]

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S 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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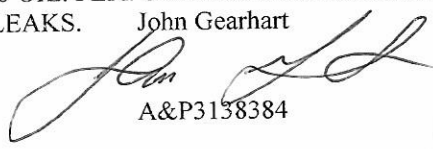
N174SF

TACH: 4147.5

TSOH: 17.2

DATE: 04/19/2013

COMPLIED WITH MENA AIRCRAFT ENGINES, INC SERVICE INSTRUCTION #1 IAW FORM NO: M10. CHANGED OIL AND FILTER. EXAMINED OLD FILTER FOR CONTAMINATION AND FOUND NONE. INSTALLED NEW CH48108-1 OIL FILTER AND SERVICED ENGINE WITH AEROSHELL 100 OIL. PERFORMED GROUND RUN. ENGINE OPERATED NORMALLY. NO EVIDENCE OF LEAKS. John Gearhart


 A&P3138384

Twelve Stone Aviation

802 Airport Ave. Hanger 5

Springdale, AR 72764


479-799-8065

N174SF

HOBBS: 4156.0

DATE: 07/11/2013

DRAINED ENGINE OIL. REMOVED OIL FILTER. EXAMINED FOR CONTAMINATION AND FOUND NONE. INSTALLED NEW CH48108-1 FILTER. SERVICED ENGINE WITH AEROSHELL 100W PLUS OIL. GROUND RUNS PERFORMED. NO EVIDENCE OF LEAKS. John Gearhart


 A&P3138384

YEAR 20 <u>15</u> DATE	RECORDING TACH TIME	TODAY'S 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.)
04/10	4247.3		1750.7	<p>TSMOH 117.0 Compression checked 1-78/80, 2-74/80, 3-68/80, 4-69/80, 5-74/80, 6-78/80. Mag timing checked. Spark plugs cleaned and rotated. Oil changed, serviced with 10 qt Aeroshell W100 Plus⁺ CH 48108-1. Inspected old filter media - no abnormalities found. Runup and leak checked. A.D.S C/W to date, see separate listings. I certify that this engine has been inspected IAW an annual inspection and was determined to be in airworthy condition. JH 0-12 IA 2788694 A4P</p>

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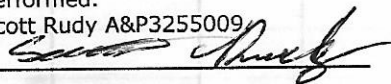
Gavilan
AVIATION, INC.
200 Skylane Dr.
Hollister, Ca 95023
(831)637-9100

Reg. #: 174SF	Tach: 4273.1	Airframe Log
Date: 10-1-15	W/O #: 011	

Changed oil & filter this date, serviced engine with 9.5 qts
Aeroshell W100+ & ch48108-1 filter. Run up & leak check
good.

I certify that this AIRCRAFT is airworthy with respect to the work
performed.

Scott Rudy A&P3255009



YEAR
20 16
DATE
4-27-16
TACH
SMCH
YEAR

YEAR 20 <u>16</u> DATE	RECORDING TACH TIME	TODAY'S 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.)
4-27-16				<p>completed Annual inspection this date. Compression. 1, 76. 2, 74. 3, 74. 4, 76. 5, 75. 6, 73 over 80. Changed oil and Filter. Serviced engine with 8^{QTS} AeroShell w/cont and ch48108-1 Filter. Sampled oil cut & inspected Filter media no metal found. Removed, cleaned, gaped and tested Spark plugs. Checked mag to engine timing. Run up & opps check good. I certify that this Engine has been inspected I/A/w an Annual inspection and was determined to be in Airworthy condition. Scott Rudy I.A. 3255009. Hollister Jet center.</p>
TACH	4299.8			
SMOH	169.5			
YECW	52.5			

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S 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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Hollister Jet Center

200 Skylane Dr. Hollister, Ca 95023 (831)637-9100

Reg. #: 174SF Tach: 4308 Airframe Log
Date: 5-24-16 W/O #:

Installed customer supplied
vacuum pump PN AA3216CW
SNOAF411. Run up 3 opps check
good.

I certify that this AIRCRAFT is airworthy with respect to the work performed.

Steve Rudy AIP 3255009.

YEAR 20 _____ DATE	RECORDING TACH TIME	TODAY'S 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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Hollister Jet Center

200 Skylane Dr. Hollister, Ca 95023 (831)637-9100

Reg. #: 174SF	Tach: 4344.8	Engine Log
Date: 5-1-17	W/O #: 173	Engine TT: 214.5

Completed Annual inspection this date. Compression 1.72. 2.74. 3.70. 4.76. 5.74. 6.70. Drained oil removed and cut oil filter no metal found. Serviced engine with 9 qts Aeroshell w100+ & ch48108-1 filter, sampled oil. Checked mag to engine timing. Pressure tested exhaust system. Made a detailed visual inspection of engine bay and related systems. Run up and leak check good.

I certify that this ENGINE has been inspected IAW an ANNUAL inspection and is airworthy in respect to the work performed.

Scott Rudy IA 3255009

Scott Rudy

Hollister Jet Center

200 Skylane Dr. Hollister, Ca 95023 (831)637-9100

Reg. #: N174SF Tach: 4369 Engine Log
Date: 9-11-17 W/O #:

Changed oil this date, serviced engine with 8qts Aeroshell w100 oil and CH48108-1 filter. Inspected old filter no metal found. Sampled oil. Run up and leak check good.

I certify that this ENGINE is airworthy with respect to the work performed.
Scott Rudy A&P 3255009.

Scott Rudy

Hollister Jet Center

200 Skylane Drive • Hollister, California 95023
Phone: (831) 637-9100 • Fax: (831) 637-9117

6/25/19 TACH 44553 N174SF

Removed & replaced #3 cylinder EGT
probe with new unit P/S SPI M-III
Ran up and ops check good.

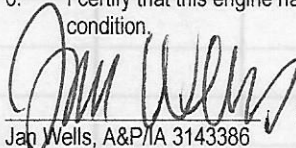
TBrown AP 2932628

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S 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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Engine: Continental TSIO-520-P – S/N 278725-R
 Installed on: Cessna P210 – S/N P21000174 – N174SF
 TACH: 4395.2 hours
 SMOH: 264.9 hours

Hollister Jet Center
 200 Skylane Drive • Hollister, California 95023
 Phone: (831) 637-9100 • Fax: (831) 637-9117

1. Performed inspection and maintenance on engine in accordance with TCDS E8CE and AC 43.13-1B/2B
2. **Compression checks:** 1: **70/80**, 2: **72/80**, 3: **78/80**, 4: **74/80**, 5: **78/80**, 6: **78/80**.
3. **Spark plugs:** serviced sparkplugs and reinstalled on engine with new gaskets (M674)
4. **Oil change:** drained existing oil, removed and cut open existing oil filter (CH48108-1) – no metal particles found. Installed a new oil filter (CH48108-1) and filled engine with 9 qts of fresh Aeroshell 100W engine oil.
5. **Magnetos:** timed and synchronized magnetos to engine at 22 degrees BTC.
6. I certify that this engine has been inspected in conjunction with an annual inspection of aircraft and was determined to be in an airworthy condition.


 Jan Wells, A&P/IA 3143386 5/18/2018

Hollister Jet Center

200 Skylane Drive • Hollister, California 95023
Phone: (831) 637-9100 • Fax: (831) 637-9117

9/12/18

TACH 4421.5

N174SF

Oil changed this date. Sample taken. cut open filter, no metal found. Serviced with 9 qts Aeroshell w100 + 1 pint Camguard, new CH48108-1 filter. leak check good. Returned to service. Bled right brake

[Signature] #3664563

Hollister Jet Center

200 Skylane Dr. Hollister, Ca 95023 (831)637-9100

Reg.N174SF Tach:4446.3 **Engine Log**

Date:05-09-19 Smoh:316.0 Engine TT:

1)72, 2)72, 3)75, 4)76, 5)78, 6)75. Cleaned, gapped and rotated spark plugs. Changed oil w/9qts Aeroshell w100 and filter w/new CH48108. Filter insp'd w/no abnormalities noted. Replaced entire exh sys with new Acorn Welding parts. (See EASA form one's.) Pressure ck'd exh installation w/no leaks noted. Cw'd AD81-23-03r2 exh insp. 88-25-04 mag check.

I certify that this **ENGINE** has been inspected IAW an **ANNUAL** inspection and is **AIRWORTHY** and ok for return to service.

T Brown 29326287A

Inspections, Tests, Repairs and Alterations
Recorded with Name, Rating and Certificate Number of Facility. (See back pages for other specific entries.)

YEAR
IN
DATE

N174SF
Oil
Serv
w/100
+ 1 pint
Camguard
leak
check

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S 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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Hollister Jet Center

200 Skylane Drive • Hollister, California 95023
Phone: (831) 637-9100 • Fax: (831) 637-9117

N174SF

TACH 4474.1

10/7/19

Oil changed this date.
Serviced with 8 qts Aeroshell
W100 & CH48108 filter, &
1 pint camguard. No metal
found in old filter. Run up &
leak check good

#3664563

[Signature]

Hollister Jet Center

200 Skylane Dr. Hollister, Ca 95023 (831)637-9100

Reg. N174SF Tach: 4501.8 **Engine Log**

Date: 06-01-20 Smoh: 371.5

1) 72, 2) 70, 3) 78, 4) 72, 5) 78, 6) 71. Cleaned,
gapped and tested spark plugs ok. Pressure ck'd exh
for leaks. Changed oil with 8 qts Aeroshell W100 and
new CH48108 filter. Installed M-20 Air/Oil separator
(see 337) STC SA02033AT.

I certify that this **ENGINE** has been inspected IAW an **ANNUAL** inspection and
is **airworthy** in respect to the work performed.

T Brown 2932628 IA

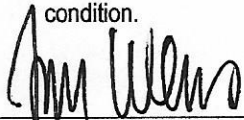
YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
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Hollister Jet Center • 200 Skyline Drive • Hollister, CA 95023 • Tel: (831) 637-9100 • Fax: (831) 637-9117

Engine: Continental TSIO-520-P – S/N 278725-R
 Installed on: Cessna P210 – S/N P21000174 – N174SF
 TACH: 4561.8 hours
 SMOH: 431.5 hours

ENGINE LOGBOOK

1. Performed inspection and maintenance on engine in accordance with TCDS E8CE and AC 43.13-1B/2B
2. **Compression checks:** 1: 70/80, 2: 60/80, 3: 72/80, 4: 74/80, 5: 70/80, 6: 76/80.
3. **Spark plugs:** serviced sparkplugs and reinstalled on engine with new gaskets (11x M674)
4. **Oil change:** drained existing oil and removed filter from engine. Installed new filter (1x CH48108-1) and added 9 qts of fresh Aeroshell 100W engine oil into engine.
5. **Magnetos:** verified magnetos synchronized to engine at 22 degrees BTC.
6. I certify that this engine has been inspected in accordance with a 100 hours inspection and was determined to be in an airworthy condition.



7/7/2021

Jan Wells, A&P 3143386

6/1/22
 Oil
 old filter
 Serviced
 w/100
 to leak

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Continental TSIO-520-P – S/N 278725 – TCDS E8CE
Location: 1978 Cessna P210N – S/N P21000174 – TCDS 3A21 – N174SF
TACH: 4614.5 hours
SMOH: 484.2 hours

ENGINE LOGBOOK

1.

Performed inspection and maintenance on engine in accordance with TCDS E8CE and AC 43.13-1B/2B.
2.

Differential compressions of cylinders: 1: 66/80, 2: 60/80, 3: 68/80, 4: 74/80, 5: 70/80, 6: 74/80.
3.

Ignition system:

-

Spark plugs: serviced sparkplugs (12x URHB32S), rotated and reinstalled on engine with new gaskets (12x M674)

-

Magnetos: verified magnetos synchronized to engine at 22 degrees BTC.
4.

Fuel system: removed, cleaned and inspected injector nozzles – no discrepancies noted. Reinstalled same nozzles on same locations with new hardware (6x 640612, 6x 628556, 6x, 633958-3, 12x MS29513-010).
5.

I certify that this engine has been inspected in accordance with a 100 hrs scope of inspection and was determined to be in an airworthy condition.



8/1/2022

Jan Wells, A&P 3143386

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S 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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Hollister Jet Center

200 Skyline Drive Hollister, CA 95023 (831)637-9100

Reg: N174SF	Tach: 4683.5	ENGINE LOG
Date: 09/01/23	SMOH: 533.2	

1) 68 2) 68 3) 78 4) 62 5) 75 6) 76

Cleaned, gapped, tested and rotated all spark plugs. Checked magnet to engine timing. Changed oil and cut open filter, no metal found. Sample taken. Serviced with 9 qts Aeroshell w100+ and CH48108-1 filter. Removed and cleaned injectors. Pressure tested exhaust to check for leaks, none noted. Torqued all H/W firewall forward. Solvent washed engine and inspected for leaks. Replaced Vac reg filters with new. Run up and leak/operations check satisfactory. All regular maintenance performed. Cw'd AD's 22-16-03 S-1200 mag bearings DNA by S/N, 23-02-12 Intake valve failure DNA by date, 23-05-16 crankshaft counterweight retaining rings DNA by date, 564-28-10 DNA by date.

I certify that this **ENGINE** has been inspected IAW an **ANNUAL** inspection and is **Airworthy** in respect to the work performed. *78* *29326287A*