

# ENGINE MAINTENANCE RECORDS

Log No.

Registration No. N7286R

Manufacturer Continental

T0520BA1  
o. 280980R

Installed on aircraft 3/2010

Between Overhauls (TBO) 1700 Hours

If used on multi-engine aircraft:

ENGINE MAJOR OVERHAULED TO MANUFACTURERS SPECIFICATIONS  
TT 1738.42 TSMOH 2.1 (test run time only)  
MODEL IO-520-BA S/N 280980-R

The aircraft engine identified above was repaired and inspected in accordance with manufacturers specifications and current Regulations of the Federal Aviation Administration and is approved for return to service. Pertinent details of the repairs are on file at this repair station under,

Work order number 21778

Dated March 08, 2010 Signed Mark L. Lichten for  
Custom Airmotive, Inc.

2702 North Sheridan Road (Bldg. B)  
Tulsa, OK 74115

Ph. 918-836-6836 Fax 918-836-9431

FAA Certified Repair Station DC2R763K

Fuel system and magnetos were also overhauled (see maint. release). Ignition harness, spark plugs and oil filter are new. This engine is equipped with New TCM Steel bore P/N 655469A7 (BP) cylinder kits.

Model IO-520-BA S/N 280980-R WO# 21778 Total Time 1738.42  
A.D. # Method of compliance

77-13-22 C/W BY USE OF HEAVY/BUMPED CASE (CERT. @ DIVCO).

79-05-09 P/C/W; HAD ACCEPTABLE RELIEF VALVE COMPONENTS.

80-01-04 N/A TO THESE NEW TCM CYLINDERS.

81-24-06 C/W BY FUEL SYSTEM O-H @ CRS#1GPR022B.

86-13-04 N/A TO THESE NEW TCM CYLINDERS.

87-14-02 P/C/W; HAD RE-DESIGNED ADAPTER.

88-03-06 C/W BY USE OF CHAMPION FILTER.

88-17-03 P/C/W; HAD RE-DESIGNED ADAPTER.

91-19-03 C/W BY USE OF FILTER W/ACCEPTABLE CODE.

93-10-02 N/A TO THESE NEW TCM CYLINDERS.

93-16-15 P/C/W; HAD 653359 COUPLING.

97-26-17 C/W BY ULTRASONIC INSP. @ O-H (VAR TYPE).

98-01-08 N/A; HAS TCM ROCKER ARMS.

98-17-11 N/A TO THIS CRANKSHAFT (NOT SENT TO NELSON).

99-19-01 C/W BY ULTRASONIC INSP. @ O-H (VAR TYPE).

00-23-21 N/A TO THIS SERVICEABLE SHAFT S/N G019404N.

04-08-10 N/A TO THESE NEW TCM CYLINDERS.

07-04-19 N/A TO THESE NEW TCM CYLINDERS.

09-16-03 N/A TO THESE NEW TCM CYLINDERS.

09-19-07 N/A; MANUF. AFTER AFFECTED DATES.

09-24-52 N/A; AFFECTED P/N LIFTERS NOT INSTALLED.

Signed Mark L. Lichten for CRS# DC2R763K on March 08, 2010

# O'NEILL AIRCRAFT SALES & SERVICE

Norman, Oklahoma

age No. \_\_\_\_\_

MING WORK

3/23/2010  
Tach: 5095.42

N7286R  
ACTT: 5095.42

Engine  
TSOH: 0

Installed this engine using new Lord Mounts PN J10520-1, new mount bolts and nuts, new hose kit from Precision Hose Technology. Installed overhauled bypass valve PN 470906-11 SN 1J0108 by Aircraft Accessories. See 8130-3 WO 40433. Exhaust modified to 4 bolt flange by Tornado Alley Turbo, Inc. and installed using new hardware and seals. Installed rammer II intercooler upgrade per engine technologies NO 35-6760001 Rev A. Replaced induction Air filter PN BA7112. Replaced right forward baffle PN 35-910067-103. Replaced (1) CHT PN 5050A and (1) TiT probe PN m111TiT. Replaced forward baffle material. Installed new battery box duct PN 111716AX2XZ14. C/W AD 01-08-08 Turbo Clamp by Installing new clamp PN 4404C375M. Reinstalled the

# O'NEILL AIRCRAFT SALES & SERVICE

Norman, Oklahoma

following items with continued time: Alternator, starter, vacuum pump, prop governor, turbo. Serviced engine with 12 qts. Aeroshell 80ND oil. Checked systems, Aircraft test flown. **I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in airworthy condition at this time.**

*James P. O'Neill*  
James P. O'Neill  
IA1942027A&P

4/6/2010 Tach 5135.63 Changed oil and Filter. Inspected old Filter.

Serviced with 12 qts Aeroshell 15W50 oil. Installed New oil quick drain PN #6250. Washed Pan and checked for oil

leaks. *James P. O'Neill*

IA1942027

# O'NEILL AIRCRAFT      SALES & SERVICE

Norman, Oklahoma

4/18/2011

Tach: 5227.6

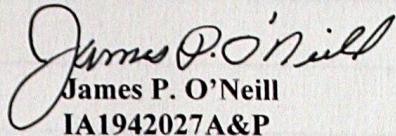
N7286R

ACTT: 5227.6

Engine

TSOH: 132.2

Changed oil and filter. Inspected old filter for metal. Serviced with 12 quarts of Shell 15W50 oil. Pressure checked exhaust. Lubed engine controls and checked for correct travel. Cleaned fuel screen. Replaced induction air filter, p/n: BA7112. Ran compression check: 1) 62/80 2) 70/80 3) 70/80 4) 72/80 5) 68/80 6) 72/80. Cleaned, gapped, and fire tested spark plugs. Washed engine, ran, and checked for oil leaks. **I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in airworthy condition at this time.**

  
James P. O'Neill  
IA1942027A&P

# O'NEILL AIRCRAFT      SALES & SERVICE

Norman, Oklahoma

5/4/2012

Tach: 5295.0

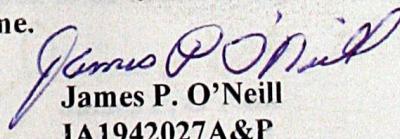
N7286R

ACTT: 5295.0

Engine

TSOH: 199.6

Changed oil and filter. Inspected old filter for metal. Serviced with 12 quarts of Shell 15W50 oil. Pressure checked exhaust. Lubed engine controls and checked for correct travel. Cleaned fuel screen. Replaced induction air filter, p/n: BA7112. Ran compression check: 1) 64/80 2) 62/80 3) 68/80 4) 65/80 5) 61/80 6) 68/80. Replaced (6) lower spark plugs (RHB32E). Tightened EGT clamp. Cleaned, gapped, and fire tested spark plugs. AD 12-03-06 Fuel Servo – N/A. Washed engine, ran, and checked for oil leaks. **I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in airworthy condition at this time.**

  
James P. O'Neill  
IA1942027A&P

# O'NEILL AIRCRAFT      SALES & SERVICE

Norman, Oklahoma

5/15/2013

Tach: 5336.03

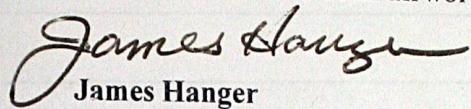
N7286R

ACTT: 5336.03

Engine

TSOH: 240.63

Changed oil and filter. Inspected old filter for metal. Serviced with 12 quarts of Shell 15W50 oil. Pressure checked exhaust. Lubed engine controls and checked for correct travel. Cleaned fuel screen. Replaced induction air filter, p/n: BA7112. Ran compression check: 1) 63/80 2) 68/80 3) 70/80 4) 63/80 5) 65/80 6) 71/80. Minimum is 46/80. Tightened EGT clamp. Cleaned, gapped, and fire tested spark plugs. AD 12-03-06 Fuel Servo - N/A. Washed engine, ran, and checked for oil leaks. **I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in airworthy condition at this time.**



James Hanger  
IA3322759A&P

# O'NEILL AIRCRAFT      SALES & SERVICE

Norman, Oklahoma

6/01/2014

Tach: 5383.0

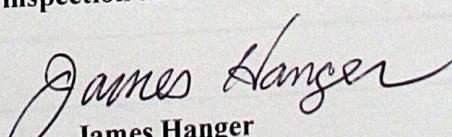
N7286R

ACTT: 5383.0

Engine

TSOH: 287.6

Changed oil and filter. Inspected old filter for metal. Serviced with 12 quarts of Shell 15W50 oil. Pressure checked exhaust. Lubed engine controls and checked for correct travel. Cleaned fuel screen. Replaced induction air filter, p/n: BA7112. Ran compression check: 1) 56/80 2) 65/80 3) 62/80 4) 60/80 5) 66/80 6) 62/80. Minimum is 42/80. Cleaned, gapped, and fire tested spark plugs. Washed engine, ran, and checked for oil leaks. **I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in airworthy condition at this time.**

  
James Hanger  
IA3322759A&P

# O'NEILL AIRCRAFT SALES & SERVICE

Norman, Oklahoma

7/23/2015  
Tach: 5473.56

N7286R Engine  
ACTT: 5473.56 TSOH: 378.16

Changed oil and filter. Inspected old filter for metal. Serviced with 12 quarts of Shell 15W50 oil. Pressure checked exhaust. Lubed engine controls and checked for correct travel. Cleaned fuel screen. Replaced induction air filter, p/n: BA7112. Ran compression check: 1) 60/80 2) 62/80 3) 65/80 4) 60/80 5) 60/80 6) 62/80. Minimum is 46/80. Replaced induction elbow (35-3750009). Replaced all lower spark plugs (RHB32E). Cleaned, gapped, and fire tested spark plugs. Washed engine, ran, and checked for oil leaks. **I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in airworthy condition at this time.**

Ryan P. O'Neill  
IA3511407A&P

'16 Tach: 5547.45 Changed oil and filter. Cut open old filter and inspected for metal. None noted. Serviced engine w/11qts. Aeroshell 15W50 oil. Washed engine, ran and checked for leaks. Aircraft returned to service for work performed. *Ryan P. O'Neill*  
AP3511407

# O'NEILL AIRCRAFT SALES & SERVICE

Norman, Oklahoma

8/24/2016  
Tach: 5563.47

N7286R Engine  
ACTT: 5563.47 TSOH: 468.07

Changed oil and filter. Inspected old filter for metal. Serviced with 12 quarts of Shell 15W50 oil. Pressure checked exhaust. Lubed engine controls and checked for correct travel. Cleaned fuel screen. Replaced induction air filter, p/n: BA7112. Ran compression check: 1) 62/80 2) 60/80 3) 66/80 4) 61/80 5) 60/80 6) 60/80. Minimum is 46/80. Magneto inspection Rt./Lt. by D and B Aircraft Engines. See 8130-3. Cleaned, gapped, and fire tested spark plugs. Washed engine, ran, and checked for oil leaks. **I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in airworthy condition at this time.**

*Ryan P. O'Neill*  
Ryan P. O'Neill  
IA3511407A&P

# O'NEILL AIRCRAFT SALES & SERVICE

Norman, Oklahoma

9/24/2018  
Tach: 5775.5

N7286R  
ACTT: 5775.5

Engine  
TSOH: 634.1

Changed oil and filter. Inspected old filter for metal. Serviced with 12 quarts of Phillips X/C 20W50 oil. Pressure checked exhaust. Lubed engine controls and checked for correct travel. Cleaned fuel screen. Replaced induction air filter, p/n: BA7112. Ran compression check: 1) 60/80 2) 62/80 3) 61/80 4) 65/80 5) 64/80 6) 65/80. Minimum is 46/80. Replaced (6) lower spark plugs (RHB32E). Found engine data tag held on by one rivet. Reattached tag. Checked all accessories and lines for missing exhaust shroud screw. Checked engine mount and vibration isolators for condition. Cleaned, gapped, and fire tested spark plugs. Washed engine, ran, and checked for oil leaks. I certify that this engine has been inspected in *100hr.* accordance with an annual inspection and was determined to be in airworthy condition at this time.

*R. O'Neill*

Ryan P. O'Neill  
IA3511407A&P

ENTERED IN ORDER  
WRONG DATE  
BY

TOTALS brought forward from previous page

2/27/2015 Tach: 5426 Charged oil and filter. Cut open old filter and inspected for metal. None noted. Serviced engine w/lets. Acroshell 15W50 oil. Washed engine, ran and checked for oil leaks.

R. P. O'Neill  
IA3511407

## O'NEILL AIRCRAFT SALES & SERVICE

Norman, Oklahoma

9/25/2017  
Tach: 5657.56

N7286R  
ACTT: 5657.56

Engine  
TSOH: 526.16

Changed oil and filter. Inspected old filter for metal. Serviced with 12 quarts of Phillips X/C 20W50 oil. Pressure checked exhaust. Lubed engine controls and checked for correct travel. Cleaned fuel screen. Replaced induction air filter, p/n: BA7112. Ran compression check: 1) 55/80 2) 58/80 3) 60/80 4) 48/80 5) 54/80 6) 30/80. Minimum is 46/80. Cylinders for top overhaul by D&B Aircraft Engines. See 8130-3. Reinstalled and torqued per TCM maintenance manual. Replaced (6) lower spark plugs. Replaced worn mixture control rod end bolt. Replaced # 4, 6 GAMi injectors due to damaged threads. Replaced missing exhaust shroud screw. Checked all accessories and lines for missing exhaust shroud screw. Checked engine mount and vibration isolators for condition. Cleaned, gapped, and fire tested spark plugs. Washed engine, ran, and checked for oil leaks. I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in airworthy condition at this time.

R. P. O'Neill  
Ryan P. O'Neill  
IA3511407A&P

10/21/2017 Tach: 5674.76 <small>TOTALS brought forward from previous page</small>		
Charged oil and filter. Cut open old filter and inspected for metal. None noted. Serviced engine w/11quarts Phillips X/C 20W50 oil. Washed engine, ran and checked for leaks. Aircraft returned to service for work performed. 1/8/2021 AP3511407		
Date: 03/08/2020      Hours: Actt: 5810.8, Tach:5810.8, Engine SMOH: 669.4 Tail#: N7286R Make: Continental      Model: IO-520-BA1      S/N: 280980R Performed cylinder compression check with the following results: #1 68/80, #2 65/80, #3 62/80, #4 70/80, #5 64/80, #6 68/80. Drained oil, Replaced oil filter P/N: CH48109-1 and serviced engine with 11 qts. Phillips XC20W-50 oil. R&R spark plugs, cleaned and gapped with new gaskets. Checked magneto timing and cleaned engine. Replaced engine turbo intake and fresh air ducting. Note: AD: 01-08-08 V band clamps inspection due Actt: 5873.56 Note: No new or current AD's due on this engine at this time. I certify this engine has been inspected in reference to a 100 hr inspection and was determined to be in airworthy condition.		
Name: Russell Scott      Cert: A&P 3401594 IA Co: Scotty A.I.R.      Sign: <u>R. Scott</u>		
Date: 07/26/2021      Hours: Actt: 5838.93, Tach:5838.93, Engine SMOH: 697.53 Tail#: N7286R Make: Continental      Model: IO-520-BA1      S/N: 280980R Performed cylinder compression check with the following results: #1 70/80, #2 68/80, #3 65/80, #4 70/80, #5 65/80, #6 68/80. Drained oil, Replaced oil filter P/N: CH48109-1 and serviced engine with 11 qts. Phillips XC20W-50 oil. R&R spark plugs, cleaned and gapped with new gaskets. Replaced one spark plug on Cyl # 3 and one plug on cyl #6 P/N: RHB32E. Checked magneto timing and cleaned engine. Note: AD: 01-08-08 V band clamps inspection due Actt: 5873.56 Note: No new or current AD's due on this engine at this time. I certify this engine has been inspected in reference to a 100 hr inspection and was determined to be in airworthy condition.		
Name: Russell Scott      Cert: A&P 3401594 IA Co: Scotty A.I.R.      Sign: <u>R. Scott</u>		
<small>TOTALS-Carry forward to next page</small>		

Date: 01/01/2023 Hours: Actt: 5858.04, Tach:5858.04, Engine SMOH: 716.64

Tail#: N7286R

Make: Continental

Model: IO-520-BA1

S/N: 280980R

MED-  
ERFC

Performed cylinder compression check with the following results: #1 72/80, #2 70/80, #3 78/80, #4 72/80, #5 76/80, #6 68/80. Drained oil, Replaced oil filter P/N: AA48109-2 and serviced engine with 11 qts. Phillips Type M, straight mineral oil. R&R spark plugs, cleaned and gapped with new gaskets. Removed Cyl # 3 for overhaul by Gibson aviation, W.O. # 20625. Reinstalled cylinder using new gasket kit. Removed upper deck rails and installed new gaskets and O'rings. Performed SID 97 3-G continental fuel injection adjustment. Cleaned injectors and performed engine run-up. Ops check was good.

Note: AD: 01-08-08 V band clamps inspection due Actt: 5873.56

Note: No new or current AD's due on this engine at this time.

I certify this engine has been inspected in reference to a 100 hr inspection and was determined to be in airworthy condition.

Name: Russell Scott

Co: Scotty A.I.R.

Cert: A&P 3401594, IA  
Sign: R.W.Scott