



ENGINE MAINTENANCE RECORDS

Aircraft Registration N789UP
Engine Position Lt
Engine Serial No. 503140



ENGINE MAINTENANCE RECORDS

Log No. _____

Aircraft Registration No. _____

Engine Manufacturer TCM

Model T510-520-NB

Serial No. 503140

Date installed on aircraft _____

Time Between Overhauls (TBO) 1600 Hours

If used on multi-engine aircraft:

Right Left

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

Date	Total Time In Service	Total Time Since Overhaul	Recording Meter Time
3/20/08	4324.8	00.0	



RAM Aircraft, Limited Partnership • Waco Regional Airport

TCM TSIO-520-NB Series IV Left Engine S/N 503140

Above referenced engine overhauled to new parts limits per FAR 43.2 (a)(1)(2) to conform w/TCM SM X-30574A. Applicable AD's and Service Bulletin C/W at this time. All gears cleaned, polished when required, inspected, magnafluxed and no cracks found. Finished and dimensional limits within RAM Gear Inspection Specification No 1818, Rev H dated 02/06/07. Above referenced engine modified to TSIO-520-NB 325 HP SE4327SW. Installed new RAM camshaft p/n 1058-1A, s/n I07070 per STC SE4327SW. AD 97-26-17 c/w per installation of new VAR crankshaft p/n 649898, s/n N07FA241 per TCM CSB96-8. AD 99-19-01 n/a per crankshaft date of manufacture I/A/W TCM MSB99-3C. AD 2000-23-21 n/a to crankshaft serial number/date of manufacture I/A/W TCM Mandatory Service Bulletin MSB00-5D. Engine assembled with new ECI crankcase p/n AEC653923-01, s/n 2G-573. Installed new ECI Titan Nickel cylinders. Cylinder hold-down nuts replaced and torqued per Overhaul Manual Supplement. Installed new RAM/FAA/PMA oil cooler P/N 2600-1, S/N 1752733. C/W AD 89-24-01 R1 per installation of starter adapter P/N 642085A4 with current scavenge pump gears. Installed .030 inch undersize starter adapter spring P/N S539800M30 per STC SE09846SC. Installed new RAM/FAA/PMA fuel nozzles P/N 2562-14D. TCM Service Bulletin SB06-1A n/a per installation of RAM fuel nozzles. Installed modified connecting rods P/N 1162 per STC SE4327SW as FAA-PMA approved replacement. AD 86-13-04 R3 and AD 93-10-02 (MSB93-12) N/A per cylinders installed. MSB02-9 (ECI Cylinders) N/A per date of manufacture. AD 2004-08-10 (ECI MSB04-1, Rev. 2) N/A per cylinder serial numbers installed. MSB06-2, Rev. 2 (ECI Cylinders) N/A per cylinder serial numbers installed. Engine accessories exchanged for overhauled or new units exception of prop governor, vacuum pump and tach generator which were not installed per this work order. New Slick magnetos P/N 6320 installed per STC SE4651SW and pressurized. MSB94-8C on magneto timing procedure C/W per timing to STC degree requirements with TDC locator and protractor with pointer. Engine modified to TSIO-520-NB per Continental Service Bulletin M-75-6 Rev. 1. Installed RAM/FAA/PMA rocker arms p/n 1842-3 and 1842-4. AD 98-01-08 n/a per installation of RAM/FAA/PMA rocker arms. Installed RAM/FAA/PMA oil cooler baffle P/N 1253-1. Installed RAM/FAA/PMA rocker box cover gaskets P/N 1387-1. AD 93-08-17 not applicable per engine model. C/W AD 78-06-01 per installation of intake tube P/N 642590. C/W AD 79-05-09 per installation of new current design oil pressure plunger assy. Category 1 thru 3 TCM Service Bulletin Compliance Listing in RAM Manual. Above referenced engine was made eligible for 1600 hr. TBO per TCM SIL98-9 Rev. A, note 2. AD 88-03-06 and AD 91-19-03 are n/a per oil filter installed this date. Aluminum alloy engine parts were coated per RAM Specifications No 1142. Installed RAM/FAA/PMA spring loaded induction clamps P/N 1170-2. C/W AD 93-16-15 per TCM MSB95-6 installation of fuel pump drive coupling P/N 653359. Engine ground run on test stand per RAM specifications for 4 hours. Engine run-in with Phillips 20W-50 Type M mineral oil. See RAM Recommended Oil Grade Maintenance Tip MT-1 for recommended oils. Engine approved for return to service for the work performed. Engine preserved per Service Bulletin SIL99-1 temp. storage up to 90 days. Pertinent details on file under Project No. 4046.

RAM Aircraft, Limited Partnership, [Redacted], Waco, Texas 76708 CRS VA1R551K

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DATE: 4/17/08
INV:3647

LEFT ENGINE
N789UP

TT: 4324.8
TACH: 1554.9
TSOH: 0

- 1. INSTALLED** ENGINE IN AIRCRAFT N789UP SN#0495 LEFT POSITION., DURING ANNUAL INSP.
- ENGINE INSTALLED AND RUN OPERATIONAL CHECK PER CESSNA 414A MAINT MANUAL AND TELEDYNE CONTINENTAL IO-520 M.M. AND RAM INSTRUCTIONAL PAPERWORK.
- FILL ENGINE 12QTS PHILLIPS 20W-50W TYPE M OIL.
- I CERTIFY THIS ENGINE WAS INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND HAS BEEN DETERMINED TO BE IN AIRWORTHY CONDITION.
- BERNARD PAQUETTE AP [REDACTED] IA [REDACTED]



DATE: 9-18-08
WO: 4262

LEFT ENGINE
N789UP

HOBBS: 1583.5
MODEL: 414A

- OPERATOR REQUESTS OIL CHANGE SERVICE.
- RAN UP ENGINE TO PROPER OPERATING TEMPERATURE.
- DRAINED OIL, REINSTALLED OIL SUMP PLUG WITH NEW CRUSH GASKET AND SAFTIED.
- REMOVED FILTER, CUT OPEN AND CHECKED FOR METAL, NO METAL FOUND.
- SECURED NEW **AA48109** FILTER.
- SERVICED ENGINE WITH 12QTS **PHILLIPS X/C 20W-50** OIL.
- PERFORMED GROUND FUNCTIONAL TEST OF ENGINE AND RELATED SYSTEMS, ALL CHECKS OK, NO LEAKS PRESENT.
- AIRCRAFT AIRWORTHY.

CHRISTOPHER A SZABO [REDACTED]

ENGINE MODEL: TS10-520-N9
ENGINE SN (L): 503140
REG. NO. N789UP
WORK ORDER: 05003-06-2009

US Flight Aircraft Maintenance

White Plains, NY 10504
Phone: [REDACTED]

DATE: 15 July 2009
A/C TSN: 7874 E
ENG TT (L): 4325
TSMOH (L): 41.2
HOBBS: 1586.2

Left Engine Entries

- 42 Installed 5 cylinder base engine pre-heater elements due to prior engine change.
- 49 Replaced left engine cylinder #1 engine preheater band assembly, Reiff P/N CH36-20R. Performed satisfactory ground function check of preheater.

I certify that this engine has been approved for return to service

DATE: 15 July, 2009

SIGNED:

Bernard Paquette, A&P [REDACTED]

Work Order: 05003-06-2009

Printed by EBis 3 (dalcomedia.com)

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ENGINE MODEL
TS10-520-NB
ENGINE S/N (L): 503140
REG. NO. N789UP
WORK ORDER
04955-08-2009

US Flight Aircraft Maintenance

White Plains, NY 10604
Phone [REDACTED]

DATE: 15 July, 2009
A/C TSN: 7874 B
ENG TT (L): 4366
TSM/DH (L): 41.2
HOBS: 1566.2

Left Engine Entries

(2) Complied with annual inspection, performed pre-inspection ground functional check. Drained oil and took sample for analysis. Performed compression test: 1) 78/80 2) 78/80 3) 79/80 4) 79/80 5) 79/80 6) 78/80. Removed, opened, and inspected oil filter for metal with none found. Torqued and secured new AA48109 filter.

I certify that this engine has been approved for return to service.

DATE: 15 July, 2009

SIGNED

Bernard Paquette, IA [REDACTED]

Work Order: 04955-06-2009

Printed by EBis-3 (datcomedia.com)



Business Aircraft Group, Inc.

Cleveland, OH 44114

Act Mfg: Cessna Date: Jan. 26, 2010 Eng Mfg.
Model: 414A Hobbs: 1651.7 Eng Model: 9617
S/N 0495 Act TT: 7930.3 Left Eng ~~7930.3~~ Left Cycle
Reg# N789UP Act Cycle Right Eng TT 24 Right Cycle

Changed oil and installed new filter.

By [REDACTED]
For Business Aircraft Group

Cert #

AFP [REDACTED] IA



[REDACTED] East Alton, IL 62024 TEL [REDACTED] FAX [REDACTED]
Registration: N789UP W/O: 317577
Serial#: 414A-0495 Date: 16MAR2010
Engine 1 SN 503140 TSO 72.8 Hour Meter: 1686.0 Engine T.T. 4397.6

Completed the following maintenance IAW the Cessna 414/414A Service Manual Rev34 and Teledyne TS10-520 M.M.

Section 2A

> This aircraft has been removed from the Cessna Progressive Inspection Program 91.409 (d) and now is inspected IAW 91.409 (i) Annual Inspections per FAR 43 Appendix D

Section 9

- > Replaced the LH engine Bracket foam air filter with a new paper filter PN P12-8156 per customer's request.
- > Replaced the engine oil with new PN Phillips X/C 20W50 oil. Replaced the oil filter with a new unit PN CH48108-1. Completed a leak and performance check with no faults found
- > Completed a SOAP sample with normal results

AD's completed this visit:

- > Completed the 50 hr recurring visual inspection per AD2000-01-16 part (b) to the LH engine exhaust. Next due in 50 hrs.

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the FAA and the aircraft identified above has been inspected and determined to be airworthy with respect to the work performed and is presently approved for return to service.

Date: 16MAR2010 Inspected By: Andrew Crossman [REDACTED] for West Star Aviation, Inc. CRS PAZR068H

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DA



East Alton, IL 62024 TEL [redacted] FAX [redacted]

Registration: N789UP W/O: 317674
Serial#: 414A-0495 Date: 23MAR2010
Engine I SN 503140 TSO 83.4 Hour Meter: 1696.6 Engine T.T. 4408.2

Completed the following maintenance IAW the Cessna 414/414A Service Manual Rev34 and Teledyne TSIO-520 M.M.

Section 9

- > Operator reports fuel flow is not correct at take off power. Adjusted the fuel controls to make the proper fuel flow. Completed a ground run with no faults found. Crew will monitor on next flights. *Flight check good 24 MAR 2010*
- > Replaced the engine oil pressure relief valve with a new unit PN 639305. Completed a functional & leak check with no faults found.

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the FAA and the aircraft identified above has been inspected and determined to be airworthy with respect to the work performed and is presently approved for return to service.

Date 23MAR2010 Inspected By: Andrew Crossman [redacted] for West Star Aviation, Inc. CRS PAZR068H



East Alton, IL 62024 TEL [redacted] FAX [redacted]

Registration: N789UP W/O: 317757
Serial#: 414A-0495 Date: 16APR2010
Engine I SN 503140 TSO 127.2 Hour Meter: 1729.8 Engine T.T. 4452.0

Completed the following maintenance IAW the Cessna 414/414A Service Manual Rev34 and Teledyne TSIO-520 M.M.

Section 9

- > Completed the oil change. Serviced the engine with 20W50 X/PC oil. Replaced the engine oil filter with a new unit PN CH48108-1. Completed a visual inspection of filter with no faults found. Completed a leak check with no faults found.
- > Customer requested a compression check. 1 - 72/80 2 - 77/80 3 - 79/80 4 - 72/80 5 - 77/80 6 - 79/80

AD's completed this visit:

- > Completed the 50 hr recurring visual inspection per AD2000-01-16 part (b) to the RH engine exhausts. Part (b) due at Hour meter 1779 hrs. or at T.T. of 7991 on 17MAR2010, Part (c) due in JUL2010, Part (d) due at T.T. 8348 hrs, Part (e) due in JUL2010, Part (f) N/A multi-segment V-band clamps not installed, Part (g) due at 9124 hrs or FEB2012.

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the FAA and the aircraft identified above has been inspected and determined to be airworthy with respect to the work performed and is presently approved for return to service.

Date 16APR2010 Inspected By: Andrew Crossman [redacted] for West Star Aviation, Inc. CRS PAZR068H

5-17-10 Left engine log entry for N789UP

Hobbs 1781.0

Changed oil and filter opened filter found satisfactory, refilled Aeroshell 15W50, engine ran and leak checked in accordance with Cessna 414 maintenance manual.

I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# 7039 Date 5/17/10

Tach/Hobbs: 1781.0 Signed [redacted]
LORAYCO Services, Inc. Central Illinois Regional Airport, Bloomington, IL 61704
FAA Approved Repair Station #OLKR571L

MR-T

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6-28-2010 Left engine log entry for N789UP

Hobbs 1829.9

Complied with oil and filter change in accordance with Cessna 414-A maintenance manual. Refilled with Aeroshell 15W50. Opened filter and found satisfactory. Complied with AD 2000-01-16 Exhaust inspection found satisfactory no defects noted. next due 1879.9.

I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# 2022 Date 6/28/10
Tach/Hobbs: 1829.9 Signed _____
LORAVCO Services, Inc. Central Illinois Regional Airport, Bloomington, IL 61704
FAA Approved Repair Station #OLKR571L MR-1

Lt. Engine 789UP 09/01/2010 HM 1882.7 ATT 8161.3 TSO 327.7 TT 4652.5
Inspected and serviced this Engine IAW the Cessna 414A Maint. Manual. Compression #1 76/80, #2 77/80, #3 77/80, #4 70/80, #5 70/80, #6 70/80. Changed oil and filter. Inspected filter. Installed CH48108 filter and added Aeroshell 15W50 oil. C/W AD 2000-01-16, 2/15/00, Part (b), (c), (d), and (e). Next due Part (b) at Att 8211.3, Part (c) and (e) 9/2011, and Part (d) at ATT 8661.3. AD 2010-11-04, 6/16/10 N/A by Overhaul Date. A.D.'s checked thru 2010-18. Ground ran. Ops and leak check good.

I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed and that this Engine has been inspected in accordance with an Anacot and is determined to be in an airworthy condition. Pertinent details are on file at this agency under W.O.# R7095
Date 09/01/2010 Aircraft # 789UP Hobbs 1882.7 TTIS 327.7 Signed _____
LORAVCO Services, Inc. Central Illinois Regional Airport, Bloomington, IL 61704
FAA Approved Repair Station # OLKR571L MR-3

10/11/2010 HM 1927.5 Changed oil and filter. Inspected filter. Installed CH48108 filter and added Aeroshell 15W50 oil. Gnd run. Ops and leak check good. C/W A.D. 2000-01-16 PT. (b), (c), (d), (e) Insp. of Exhaust System. Next due HM 1977.5

I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# R7137 Date 10/11/2010
Tach/Hobbs: 1927.5 Signed _____
LORAVCO Services, Inc. Central Illinois Regional Airport, Bloomington, IL 61704
FAA Approved Repair Station #OLKR571L MR-1

12/13/2010 HM 1946.3 ATT 8224.9 TSO 391.3 TT 4716.1
Removed engine from Air. Disassembled. Crankshaft overhauled and inspected by G+N Aircraft, W.O.# 67356. Engine reassembled using new Crankshaft Bearings P/N SA646592-A1, Connecting Rod Bearings P/N 642398, Rod Bolts P/N 655961, Rod Nuts P/N 654490, Piston and Plug Assy P/N 630046, and gasket set 646550A1. All work was performed IAW the TCM TS10-520 Maint. Manual.

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12/3/2010				Engine re-installed on LT. side of N7894P. Installed a CH48108 filter and added Acrosnell 15W50 oil. Gnd. run. Ops and leak check good.
<p>I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# <u>R7152</u> Date <u>12/03/2010</u> Tech/Hobbs: <u>1946.3</u> Signed <u>[Redacted]</u> LORAVCO Services, Inc. Central Illinois Regional Airport, Bloomington, IL 61704 FAA Approved Repair Station #OLKR571L MR-1</p>				
1/3/2011	HM	1977.6	A77 8256.2 TSO 422.6 TT 4811.0	Changed oil and filter. Inspected filter. Installed CH48108 filter and added Acrosnell 15W50 oil. Gnd. run. Ops and leak check good.
<p>I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# <u>R7170</u> Date <u>01/03/2011</u> Tech/Hobbs: <u>1977.6</u> Signed <u>[Redacted]</u> LORAVCO Services, Inc. Central Illinois Regional Airport, Bloomington, IL 61704 FAA Approved Repair Station #OLKR571L MR-1</p>				
8/5/2013	HM	2007.6	ATT 8286.2 TSO 452.6 Eng. TT 4777.4	Inspected and serviced this engine IAW the Cessna 440A Maint. Manual and FAA 43 App. D. The Minimum Acceptable Cylinder Pressure Leakage Limit is 50/80 IAW TCM Service Bulletin SB 03-3. Compression #1 72/80, #2 76/80, #3 76/80, #4 54/80, #5 70/80, #6 52/80. Changed oil and filter. Inspected filter. Installed CH48108 filter. Added Acrosnell 15W50 oil. A.D. 2012-03-06, 2/24/12 N/A by AVSTER. Fuel Servo Diaphragm not being installed. A.D. 2012-10-13, 6/8/12 N/A by Time on Starter Adapter. A.D.1 checked thru 2013-25. Gnd. run. Ops and leak check good.
<p>I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed and that this <u>Engine</u> has been inspected in accordance with an <u>Annual</u> and is determined to be in an airworthy condition. Pertinent details are on file at this agency under W.O.# <u>R7614</u> Date <u>08/05/2013</u>/Aircraft Tech/Hobbs <u>2007.6</u> TTIS <u>452.6</u> Signed <u>[Redacted]</u> SYNERGY FLIGHT CENTER LLC., Central Illinois Regional Airport, Bloomington, IL 61704 FAA Approved Repair Station # MR-3 AT <u>[Redacted]</u> ZA</p>				
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*******MUNCIE AVIATION CO. CRS#AJVR135C*******

Left DATE Hobbs
N789UP 12/5/2013 2017.8
 Set up Engine Fuel System using SID97-3F
 Replaced #5 & #6 Fuel Nozzles with Pam P/N 2562-14D
 Using New "O"rings P/N 630979-9
 adjusted idle mixture to hit idle cutoff stop, adjusted Fuel
 flow regulator to adjusted fuel pressure recommend
 to be sent in for repair customer deferred
 replaced worn fiber lock nuts on wastegate controller
 and adjusted M.P. to 41"
 Adjusted prop Low pitch stop per Hartzell MM

Make Cessna Ser.No. 414A0495
 Model 414A Reg.Mark N789UP
 The aircraft/component identified above was repaired
 inspected in accordance with current Regulations of the
 Federal Aviation Administration and found airworthy, and
 is approved for return to service for work performed
 Pertinent details of the repair are on file at the agency
 Work Order Number S000547 Date 12/5/2013
 Signed _____ Inspector for
 MUNCIE AVIATION CO. CRS#AJVR135C
 MUNCIE, IN 47308



12/19/13 HA 2020.4 Installed P/N 642085A4 Starter Adapter
 O/H'd by Ram Aircraft. S/N of 805030 M030. S/N on 315121 M030.
 O/H ran. Ops all look check good.

I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# R7667 Date 12/19/2013
 Tech/Hobbs 2020.4 Signed _____
 SYNERGY FLIGHT CENTER LLC. Central Illinois Regional Airport, Bloomington, IL. 61704
 FAA Approved Repair Station # _____ MR-1

12/31/2013 HA 2020.4 Removed cas from LT side of
 Cessna 414A, S/N 414A 0495, N789UP.

I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# R7635 Date 12/31/2013
 Tech/Hobbs 2020.4 Signed _____
 SYNERGY FLIGHT CENTER LLC. Central Illinois Regional Airport, Bloomington, IL. 61704
 FAA Approved Repair Station # _____ MR-1

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The aircraft and or component identified below was repaired and inspected in accordance with current Federal Air Regulations and was found airworthy for return to service. Pertinent details of the repair are on file at this agency under Work Order Number 70060

RMED—
PERFORMING WORK

Engine Model TS10-520-NB Serial Number: 503140

Date: 02/27/2014 Signed: [REDACTED]



G&N AIRCRAFT, INC
MASTER ENGINE BUILDERS

F.A.A. CRS MW2R020L

Griffith, IN 46319

02/27/14 14:03:11 DISASSEMBLED, CLEANED, INSPECTED, REPAIRED AS PAGE
NEEDED, REASSEMBLED, & DYNO TESTED
USING THE FOLLOWING PARTS:

Item Num:	Item Description	Quantity
AA48109	Oil Filter	1
CRANK-6R	6-Cylinder crankshaft	1
MS29513-011	O Ring **	4
MS35756-8	Key **	1
MS9970-116	O Ring	1
MS9970-117	O Ring	1
O-PARTS	628437-S 90 Elbow Serviceable	1
O-PARTS	633381-4A1-s RodLink Servicabl	1
RG-534B5/	Gasket	6
SA630916	Gasket **	1
1058-1A	CAMSHAFT (RAM)TS10 520BCNB	1
24802	Lock	24
2500	Pin	2
470836-9020 O/R	CONTROLLER-TURBO	1
501867	Washer Lock Tab	3
530658	Bushing	6
537690	Washer	2
538600-1	Seal	2
625327-2	Washer	2
629104	Ring	16
630046	Pin & Plug	6
630979	O Ring	2
630979-20	O Ring	2
630979-9	O Ring	12
6320	MAG	1
6320	MAG	1
633189	Plug	1
636242P005	GUIDE VALVE(SS FROM 643767P005	6
641250	Seal	1
641909	Tablock **	2
642398	Bearing	12
643629	Plate	16
646550A1	Gasket Set	1
646552A1	Gasket set **	1
646592AZM010	Bearing Set	1
646605	Nut	8
646985	Seal **	6
649205	Bolts	4
649983	Gasket	1
652984	Rocker Shaft **	12
654441	Spring	12
654442	Spring	12
654490	Nut	12
654587 .44	Cam bolt **	4
655269	Bushing	4
655771	EXHAUST VALVE	6
655961	BOLT CONNECTING	12
656980	SCREW:312	6

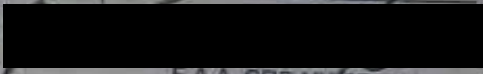
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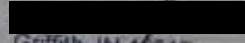
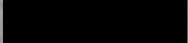
The aircraft and or component identified below was repaired and inspected in accordance with current Federal Air Regulations and was found airworthy for return to service. Pertinent details of the repair are on file at this agency under Work Order Number: 70060

Engine Model TSIO-520-NB Serial Number 503140

Date: 02/27/2014 Signed: 



G&N AIRCRAFT, INC
MASTER ENGINE BUILDERS

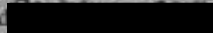
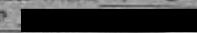
FAA, CRS MW2R020L

Griffith, IN 46319


02/27/14 14:03:11 DISASSEMBLED, CLEANED, INSPECTED, REPAIRED AS PAGE NEEDED, REASSEMBLED, & DYNO TESTED USING THE FOLLOWING PARTS:

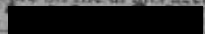
Item Num.	Item Description	Quantity
658077	LIFTER	6
658084	LIFTER ASM.	6

*** END OF REPORT ***

3/11/14 HM 2020.4 ATTS 8299.0 TSO 465.4 ETT 4789.2
Installed this engine on the LT. side of N789UP,
Cessna 414A, S/N 414A0495. Added Aeroshell 100 mineral
oil. Good run. Adjusted RPM, manifold press. and fuel
flows. All work performed IAW TCM TSIO-520 and RAM
Maint. Manual.

I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# R7675 Date 03/11/2014
Jack/Hobbs, 2020.4 Signed:  AP 
SYNERGY FLIGHT CENTER LLC, Central Illinois Regional Airport, Bloomington, IL 61704
FAA Approved Repair Station # MR-1

6/10/14 HM 2048.4 Changed oil and filter. Inspected filter.
Installed CH 48108 filter. Added Aeroshell 15w 50 oil. Good run.

I certify that this work described above has been inspected and is determined to be in an airworthy condition with respect to the work performed. Pertinent details are on file at this agency under W.O.# R7738 Date 06/10/2014
Jack/Hobbs, 2048.4 Signed: 
SYNERGY FLIGHT CENTER LLC, Central Illinois Regional Airport, Bloomington, IL 61704
FAA Approved Repair Station # 8SGR199C MR-1

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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
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LOGBOOK ENTRY
LEFT ENGINE

MODEL: TSIO-520-NB DATE: 10/01/2014
ENGINE S/N: 503140 HOBBS: 2068.3
N7891P SMOH: 513.3
S/N: 414A 0495 ETT: 4837.1

Tech Aviation

CASA 15 82208

_____))

SCHEDULED MAINTENANCE

- 1.) Performed an **Annual Inspection** IAW Cessna Service manual and FAR 43 appendix D.
- 2.) Cylinder compression check results are as follows: 1= 73/80, 2= 76/80, 3= 76/80, 4= 74/80, 5= 75/80 & 6= 76/80.
- 3.) Drained old oil, removed filter element. Cut open to check for metal. None found. Installed new oil Filter P/N: CH48108-1 and refilled.
- 4.) Serviced engine with 10 quarts of Aeroshell 15W50 engine oil.
- 5.) Removed, disassembled, cleaned, reassembled and reinstated the air-oil separator IAW TCM TSIO-520-NB maintenance manual.
- 6.) Re-timed LH mag to engine timing to 21 deg. per RAM STC.
- 7.) Removed and replaced a new section of upper deck air hose P/N: Aeroquip 306-8H.
- 8.) Safetied the over-boost valve mounting screws with .032 safety wire.
- 9.) Removed 10 massive spark plugs and replaced with 10 fine wire type plugs: 1/RHR325.
- 10.) Checked AD's through 2014-19.
- 11.) Complied with AD 2008-01-16 part C: Tail pipe inspection. No defects noted. Next inspection due: 10/2015.
- 12.) Washed down engine.
- 13.) Ran engine. Functional and leak checks are satisfactory.

I certify that this engine has been inspected in accordance with a 100 hr. inspection and was determined to be in an airworthy condition and is approved for return to service.

Additional details of this work are on file under Work Order # 3009

SIGNED _____

Norman Walters
A&P _____

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