



ENGINE MAINTENANCE RECORDS

Aircraft Registration _____
Engine Position left
Engine Serial No. 292470-R



ENGINE MAINTENANCE RECORDS

Log No. 1

Aircraft Registration No. _____

Engine Manufacturer TCM

Model GTSIO-520-N

Serial No. 292470-R

Date installed on aircraft _____

Time Between Overhauls (TBO) 1600 Hours

If used on multi-engine aircraft:

Right Left

254/752-8381

Waco Regional Airport • P.O. Box 5219 • Waco, Texas 76708

FAX 254-752-3307

1-800-445-9713

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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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Date	Total Time In Service	Total Time Since Overhaul	Tach or Recording Meter Time
01/19/09	1600.0	00.0	



TCM GTSIO-520-N Left Engine S/N 292470-R

Above referenced engine overhauled to new parts limits per FAR 43.2(a)(1)(2) to conform w/TCM SM X-30045A. Applicable AD's and Service Bulletins c/w at this time. All gears cleaned, polished when required, inspected, magnafluxed, and no cracks found. Finish and dimensional limits within RAM Gear Inspection Specification No. 1818, Rev. J dated 2/19/08. Above referenced engine modified per STC SE8338SW-D. Installed new TCM camshaft p/n 653056, s/n Z08GA222. Installed overhauled VAR crankshaft p/n 653020, s/n N07CA172. Ultrasonic inspection c/w per MSB96-10 and due at next overhaul or when removed. TCM GTSIO-520 series engine crankshaft counterweights, p/n 652833-OH are repaired in accordance with FAA approved procedures per RAM Drawing 2618, Rev. B, dated 10/21/05. Instructions for Continued Airworthiness: Remove p/n 652833-OH counterweights at next engine overhaul and replace with new per TCM SB00-3A or later FAA approved revision, except if repaired by RAM Aircraft, Limited Partnership per latest FAA approved revision of RAM Drawing 2618. Contact RAM Aircraft, L.P. at Karl May Drive, Waco, TX 76708 or (254)752-8381 for replacement parts or service difficulties. AD 99-19-01 n/a per crankshaft date of manufacture I/A/W TCM MSB99-6A. Engine assembled with overhauled TCM heavy style crankcase p/n 654119-11, s/n J7A-7312-ORB. Installed new nickel ECI cylinders. Cylinder hold-down nuts replaced and torqued per Overhaul Manual Supplement. Installed new RAM/FAA/PMA fuel nozzles p/n 2563-19A. TCM Service Bulletin SB06-1A n/a per installation of RAM fuel nozzles. Installed new RAM/FAA/PMA oil cooler p/n 2601-1, s/n 1751489. AD 86-13-04 R3 and AD 93-10-02 (MSB93-12) n/a per cylinder installed. Engine accessories exchanged for overhauled or new units exception of tach generator, vacuum pump, prop governor and hydraulic pump which were not installed per this work order. MSB94-8C on magneto timing procedure c/w per timing to data plate TC degree requirements with TDC locator and protractor with pointer. Engine modified to GTISO-520-N per Continental Service Bulletin M-75-6, Rev. 1. Installed rocker arms p/n 1654-1 and -2. C/W AD 79-05-09 per installation of new current design oil pressure plunger assy. Starter adapter shaftgear and crankshaft gear inspection, AD 2007-05-15 c/w per TCM Service Bulletin MSB94-4G per installation of Service Kit EQ6642 with bushing p/n 654472. Category 1 thru 3 TCM Service Bulletin Compliance Listing in RAM Manual. Relocated turbo oil supply line per RAM Dwg. No. 1224, Rev H, dated 11/18/03 per STC SE8338SW-D. AD 87-04-05 c/w at overhaul. Above referenced engine eligible for 1600 hr. TBO per TCM SIL98-9 Rev. A. CSB02-8 n/a per capacitor with red insulator installed. C/W TCM CSB 04-5A per capacitor replacement c/w at overhaul. AD 82-13-01 is n/a per Kelly Aerospace overhaul magnetos installed. Aluminum alloy engine parts were coated per RAM Specification No. 1142. Installed RAM/FAA/PMA spring loaded induction clamps p/n 1170-1. Installed RAM/FAA/PMA rocker box cover gaskets p/n 1366-1. Engine ground run on test stand per RAM specifications for four (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 ninety (90) days. Pertinent details on file under Project No. 4560.

Stephen Wade

RAM Aircraft, Limited Partnership, P.O. Box 5219, Waco, Texas 76708 CRS VA1R551K

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				TOTALS—Carry forward to next page

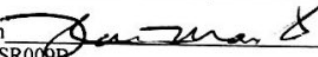
DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
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Good
↓

Clear Star Aviation LLC
4765 Frank Luke Dr., Addison, Texas 75001
972-267-2376
FAA CRS 5CSR009B

N876DS Cessna 421C S/N 421C1213 Hobbs 973.1 TT 3756.5 3808.1 TTAF
Engine: TCM GTSIO 520-N S/N 292470-R
03-02-2009 TSMOH 0.0.
Work Order: 112026

LH ENGINE: TCM GTSIO-520-N S/N 292470-R
This engine was installed on airframe N876DS, S/N 421C1213, with new mounts, P/N J9613-54, after overhaul by RAM Aircraft, CRS VA1R551K. All accessories were installed after inspection and/or overhaul as described in this log entry. The engine fluid lines were flushed as needed. The tailpipe support bracket, P/N 5155186-1, was replaced. The engine manifold tube from the baffle to the intercooler, P/N 5100106-124, was replaced. The engine primer line from the baffle to the primer valve, P/N 643708 was replaced. The engine primer line from the primer valve to the intercooler, P/N 5100113-12, was replaced. Airworthiness Directives were complied with as described in the attached Airworthiness Directive Summary. This Engine was inspected in accordance with a 100 hour inspection; FAR Part 43 Appendix D in scope and detail to items applicable to this aircraft, the TCM 100 hour checklist and the Cessna 421C Series Maintenance Manual, P/N D2515-22-13 (AF) and revisions, Chapter 2. The engine was serviced with 13 quarts of Phillips 15W-50 oil and a CH48109-1 filter. The spark plugs are new this date. The magneto to engine timing was checked in accordance with TCM MSB94-8A. The engine controls were inspected in accordance with TCM SB95-2. See the aircraft log this date for prop governor and tach drive overhauls. This engine was ground run to verify performance criteria and inspected for any fluid leaks. All Airworthiness Directives were complied with in accordance with the Ram Aircraft logbook record. The Engine AD's, were recorded and added to the permanent Engine records.

Russell Martin 
FAA CRS 5CSR009B

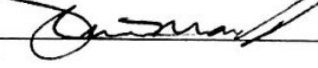
N876DS Cessna 421C S/N 421C1213 Hobbs 997.8 TT 3781.2
Engine: TCM GTSIO 520-N S/N 292470-R
03-23-2009 TSMOH 24.7
Work Order: owner/operator

LH ENGINE: TCM GTSIO-520-N S/N 292470-R

The following maintenance was inspected after being performed by the owner/operator.
The oil and filter was changed and serviced with 12 quarts of Phillips 15W-50 oil and a CH48108-1 filter. This engine was ground run to verify performance criteria and inspected for any fluid leaks.

DF

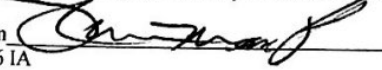
48109-1

Russell Martin 
A&P 2798096 IA

N876DS Cessna 421C S/N 421C1213 Hobbs 1027.4 TT 3810.8
Engine: TCM GTSIO 520-N S/N 292470-R
04-08-2009 TSMOH 54.3
Work Order: owner/operator

LH ENGINE: TCM GTSIO-520-N S/N 292470-R

The following maintenance was inspected after being performed by the owner/operator.
The oil and filter was changed and serviced with 12 quarts of Phillips 15W-50 oil and a CH48109-1 filter. This engine was ground run to verify performance criteria and inspected for any fluid leaks.

Russell Martin 
A&P 2798096 IA

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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
				TOTALS brought forward from previous page
5-18-09		82.5	1055.6	OIL AND FILTER CHANGE PHILLIPS X-C ZOWSO 48109-1 FILTER DON FONTANA (DF) OWNER
6-17-09		113.0	1086.1	OIL AND FILTER CHANGE PHILLIPS X-C ZOWSO 48109-1 FILTER DON FONTANA (DF) OWNER

N876DS Cessna Model: 421C S/N: 1213 Hobbs: 1125.6 Date: 08/03/2009

Installed Chadwick Vibrex 2000 balancing gear serial number 2327 calibration date of 02/03/2009. Performed balance check on #2 Engine McCouley propeller. Initial balance reading was at 0.23 ips at clock angle 11:18. Made weight change to Spinner bulk head, added 14gm at 6:00 with final reading being at 0.11 ips at 9:56. Removed balancing equipment. This Engine, Propeller, and Spinner combination was found to be in an airworthy condition as to the work performed above and is returned to service-END-

Michael P. Saffersfeld 2791213 A&P: IA
For HeliSquadwk

3960.6
TAAF

TSMOth: 152.5

Last known hobbs: before change

was 1169.3 (11-30-12 logbook)

TSMOth = 196.2

SEE BINDERS FOR MAINT. FROM 2009-2014/
For TSMOth Minus 10.0 ↘

February 17th, 2015 N421SM Continental GTSIO-520-N S/N: 292470-R Hobbs: 100.07 Tach: 239.47
Drained oil. Removed oil filter CH48109-1. Inspected oil filter for contamination. No abnormalities noted. Installed new oil filter CH48109-1. Took oil sample for analysis. Added 12 quarts of Aeroshell W100+. Removed #6 cylinder CHT sensor. Installed new CHT sensor P/N: 081-000047 in #6 cylinder. Operational check performed. No abnormalities noted. All work was performed in accordance to all current applicable service manuals. I certify this repair airworthy and return to service.

TSMOth 286.27
242.57

George Oesterreicher  I/A 3046974

~~152.5 + 90.07 = 242.57~~

196.2 + 90.07 = 286.27 @ Hobbs: 100.07

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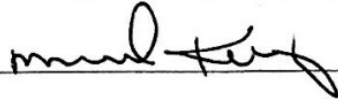
GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
03-20-2015

Hobbs: 108.0
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 304.2

DA

- Performed an **Operation 1** inspection IAW Cessna 421C Progressive care Inspection guide.
- Cleaned engine and cowling.
- Removed and serviced all spark plugs.
- Checked the magneto timing.
- Removed and cleaned the fuel metering unit screen installed with a new gasket.
- Removed and cleaned the fuel nozzles. Installed with new upper deck seals and o-rings.
- Performed a compression check. #1. 78 #2. 75 #3. 74 #4. 74 #5. 76 #6. 73
- Rigged the throttle and mixture control levers for proper spring back at both ends of travel.
- Adjusted the idle speed to 750 and idle mixture to 30 RPM rise.
- Replaced the #3 fuel line from the flow divider to the nozzle. P/N 641485.
- **AD 07-05-15 Starter Adapter Assembly and Crankshaft gear is due. C/W MSB 94-4G Part 2 A. 1 through 18** Inspection / backlash measurement of dampener. All were .06 inches. Next due **100 hours 208.0 Hobbs. Part 3** is due every **400 hours TIS due 204.0 Hobbs**
- Engine was test ran and leak checked before test flight
- I certify this **ENGINE** was inspected IAW an **Operational 1** inspection per Cessna 421C progressive care inspection guide and was in airworthy condition.

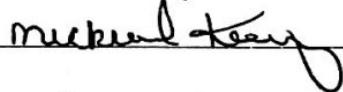
Michael Koontz  I/A 564294175

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
04-06-2015

Hobbs: 124.6
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 320.8

- Changed the oil and filter with 12 quarts of Aeroshell 100 Plus oil and one **CH48109-1** oil Filter. Took and sent an oil sample in for analysis.
- Test ran and leak checked engine.

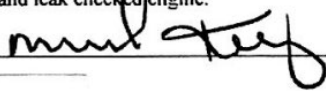
Michael Koontz  I/A 564294175

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
05-02-2015

Hobbs: 149.0
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 345.1

- Changed the oil and filter with 12 quarts of Aeroshell 100 Plus oil and one **CH48109-1** oil Filter. Took and sent an oil sample in for analysis.
- Test ran and leak checked engine.

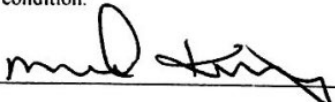
Michael Koontz  I/A 564294175

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
05-11-2015

Hobbs: 159.3
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 355.4

- Performed an **Operation #2** Inspection IAW Cessna Progressive Care Maintenance Program.
- Replaced the #5 EGT probe with a new part.
- Removed and sent out the fuel pump and throttle body for bench test and repair. Sent to Western Skyways where the fuel pump was repaired. Installed the same units on engine and test ran and adjusted the idle speed and mixture and the high end fuel flow.
- I certify this aircraft was inspected IAW Cessna 421C Operation #2 Progressive Care Inspection Program and is in Airworthy condition.

Michael Koontz  I/A 3799094

TOTALS—Carry forward to next page

Hours Analysis Since Air Frame Log Revision (08/23/2015)

Pa	3/20	4/6	5-2	6-3	7-1
Hobbs	108.0	124.6	149.0	176.0	192.5
LH Eng	304.2	320.8	345.1	372	388.5
RH Eng	1193.3	1209.9	1234.3	1261.2	1277.7
AFTT	4112.3	4128.9	4153.3	4180.2	4196.7

See Airframe Log - 03/20/2015



NorthStar Aircraft Maintenance
 5600 N Hwy 95, Bldg H100
 Lake Havasu City, AZ 86404
 Ph. (928) 764-1999

Date: 8/07/2015; Aircraft: N421SM; Type: 421C; S/N: 421C1213; Hobbs: 192.5; Total Time *4196.8* Work performed on Engine # 1; Engine 1 Type: TCM GTSIO-520-N, S/N: 292470-R, Time: *388.5*
 Shop Order #: HII-15-1334
 Hobbs: 192.5, AFTT: *4196.8* Unknown

This is a permanent part of the LH Engine Records. Pertinent details of the work performed are on file at this agency. The following inspections, repairs or component part repairs or component part replacements were accomplished.

1. Obtained SOAP sample and sent to lab for analysis. Removed and Replaced Oil Filter with New PN CH48109-1. Drained oil and replaced with Aeroshell 100W. Ops and Leak check Ok.

I certify this aircraft / component has been repaired and/or inspected in accordance with applicable Federal Aviation Regulations and found to be in airworthy condition with respect to the work performed.

[Signature]
 Rod Carrier AP2962072

GENERAL AVIATION
 340 WITHERSPOON WAY
 EL CAJON CA 92020
 08-27-2015

Hobbs: 208.3
LEFT ENGINE LOG

N421SM
 GTSIO 520-N
 S/N: 292470-R
 TSMOH: 403.0

- Performed an **OPERATION 3** Inspection IAW Cessna 421C Progressive care inspection program.
- Replaced the #6 CHT probe with a new probe.
- Set the oil pressure down ¼ of a turn.
- I certify this **ENGINE** was inspected IAW an "Operation 3" inspection per Cessna 421C progressive care inspection guide and was in airworthy condition.

Michael Koontz *[Signature]* I/A 3799094

GENERAL AVIATION
 340 WITHERSPOON WAY
 EL CAJON CA 92020
 09-11-2015

Hobbs: 222.1
LEFT ENGINE LOG

N421SM
 GTSIO 520-N
 S/N: 292470-R
 TSMOH: 418.2

- Changed the oil and filter with 12 quarts of Aeroshell W100S oil and CH 48109-1 filter. Took an oil analysis.
- Engine was test ran and leak checked.

Michael Koontz *[Signature]* I/A 3799094

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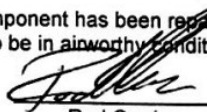
NorthStar Aircraft Maintenance
5600 N Hwy 95, Bldg H100
Lake Havasu City, AZ 86404
Ph: (928) 764-1999

Date: 10/02/2015; Aircraft: N421SM; Type: 421C; S/N: 421C1213; Hobbs: 228.5; Total Time: **4233.0**
Shop Order #: HII-15-1387

This is a permanent part of the LH Engine Records. Pertinent details of the work performed are on file at this agency. The following inspections, repairs or component part repairs or component part replacements were accomplished.

1. Remove Fuel Control P/N 643315-10 S/N J179725AR from LH engine and sent to Western Skyways CRS# WS9R575J. Unit was repaired under WO W051924. Reinstalled fuel control unit and adjusted engine fuel flow and RPM IAW Continental GTSIO-520-N maintenance manual. Ops and leak check good.

I certify this aircraft / component has been repaired and/or inspected in accordance with applicable Federal Aviation Regulations and found to be in airworthy condition with respect to the work performed.

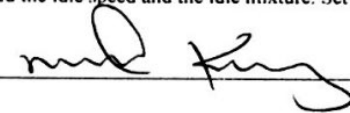

AP2962072
Rod Carrier

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
09-24-2015

Hobbs: 225.6
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 421.7

- Replaced the left engine driven fuel pump with an overhauled unit.
- Adjusted the idle speed and the idle mixture. Set the high end fuel flow.

Michael Koontz  I/A 3799094

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
10-17-2015

Hobbs: 250.7
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 446.80

- Changed the oil and filter. Serviced the engine with 12 quarts of oil and one CH48109 filter.
- Took an oil sample.
- Replaced the #4 cylinder EGT probe with a new probe.
- Engine was test ran and leak checked.


Michael Koontz  I/A 3799094

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
11-19-2015

Hobbs: 257.5
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 453.6

- Performed **Operation #4** IAW Cessna 421C Progressive Care Inspection Program
- C/W AD 00-01-16 EXHAUST RELYIBILITY INSPECTION Paragraph (b).
- I certify this engine was inspected IAW Cessna 421C Progressive Care Inspection Program **Operation #4** Inspection And was in airworthy condition.

Michael Koontz  I/A 3799094

SUB-TOTALS this page

TOTALS—Carry forward to next page

Pa

Date	Total Time In Service	Total Time Since Overhaul	Tach or Recording Meter Time
3-3-16	4356.6	447.6	290.8



CONTINENTAL GTSIO-520-N Left Engine S/N 292470-R

On above referenced engine installed new Hartzell ALV-9610 alternator, s/n H-P120132 and new gear assy. clutch s/n AEC646655, s/n 111193-04. See weight and balance change. Run-up and leak checked satisfactory. Pertinent details are on file under Project No. 7979.

William Randall 3-3-16 0031d217 JA

RAM Aircraft, Limited Partnership, P.O. Box 5219, Waco, Texas 76708 CRS VA1R551K

Date	Total Time In Service	Total Time Since Overhaul	Recording Meter Time
3-21-2016	2058.3	458.3	301.4



Continental GTSIO-520-N Left Engine S/N 292470-R

On above referenced engine removed starter adapter installed 3-3-2016 as part of Service Kit p/n EQ6642-FR. Removed crankshaft gear that was NOT replaced 3-3-2016. Installed new gear p/n 653580 I/AW MSB94-4G instructions and reinstalled starter adapter, completing Service Kit p/n EQ6642-FR installation. Comply with Part 2 of MSB 94-4G per AD2007-05-15 by checking backlash of viscous damper and shaft gear. Backlash; #1 is .05", #2 is .05", #3 is .05" and #4 is .05". Inspection per Part 2 next due each 100 hours or annual inspection, whichever occurs first. Inspection per Part 3 of MSB94-4G due upon the accumulation of 400 hours time in service (hour meter reading 690.7) and each 400 hours time in service thereafter. Installed new RAM FAA/PMA fuel injection line p/n 2180-4 on No. 1 cylinder. Installed new RAM FAA/PMA clamp p/n2266C050-240-M on wastegate elbow to tailpipe. Installed new tailpipe support bracket p/n 5155186-1. Comply with AD2000-01-16 by visual inspection per Paragraph (b) and pressure test per Paragraph (e) with no discrepancies noted. Next inspection per Paragraph (b) due in 50 hours TIS or 30 calendar days, whichever occurs later. Next inspection per Paragraph (e) due each 12 calendar months. Adjusted takeoff RPM and manifold pressure, oil pressure and fuel pump pressure/ flow per Continental and Cessna specifications. Installed new No. 4 EGT probe. Ground run-up and leak checked satisfactory. Pertinent details on file under Project No. 8005.

Robert Franklin

RAM Aircraft, Limited Partnership, P.O. Box 5219, Waco Texas 76708 CRS VA1R551K

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
04-08-2016

Hobbs: 317.7
LEFT ENGINE LOG

N42ISM
GTSIO 520-N
S/N: 292470-R
TSMOH: 474.6

- Combined Operation #1 and #2 together and completed each inspection IAW Cessna Progressive Care Maintenance Program.
- Changed the oil and filter / using 12 quarts of Aeroshell 100 Plus oil and CH48109 filter. Replaced the crush washer. Took an oil sample.
- Engine was test ran and leak checked then performance ran.
- I certify this engine was inspected IAW Cessna Progressive Care Maintenance Program Operational Check #1, #2 and was in airworthy condition.

Michael Koontz *Michael Koontz* I/A 3799094

SUB-TOTALS this page

TOTALS—Carry forward to next page

DAT

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
05-31-2016

Hobbs: 343.1
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 500.0

- Changed the oil and filter / using 12 quarts of Aeroshell 100 Plus oil and CH48109 filter. Replaced the crush washer. Took an oil sample.
- Engine was test ran and leak checked then performance ran.

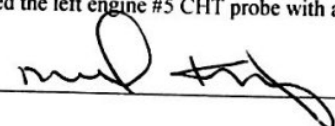
Michael Koontz  I/A 3799094

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
07-15-2016

Hobbs: 352.3
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 509.2

- Replaced the left engine #5 CHT probe with a new part. Engine was test ran and probe functions normal.

Michael Koontz  I/A 3799094

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
08-04-2016

Hobbs: 364.7
LEFT ENGINE LOG

N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 521.6

- Changed the oil and filter and took an oil sample. Used 12 quarts of Aeroshell AS100WP oil and a CH48109-1oil filter.
- Replaced the turbocharger mount bracket and turbo gasket with new parts from Ram Aircraft.
- Engine was test ran and leak checked then performance ran.

Michael Koontz  I/A 3799094

GENERAL AVIATION
340 WITHERSPOON WAY
EL CAJON CA 92020
10-10-2016

Hobbs: 383.1
LEFT ENGINE LOG

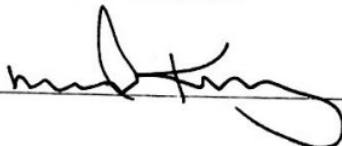
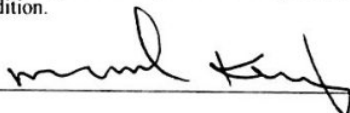
N421SM
GTSIO 520-N
S/N: 292470-R
TSMOH: 540.0

- Removed the left engine propeller governor to repair the propeller sync. Sent governor out to American propellers for bench test. The test revealed that the governor needed to be overhauled. Installed the governor after overhaul and test flew aircraft to check the performance of the Propeller sync system. Propeller sync and governors both performed normally. Propeller Governor P/N: DCFS290D9C76 S/N: 950230.

Michael Koontz  I/A 3799094

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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
				TOTALS brought forward from previous page
				<p>GENERAL AVIATION 340 WITHERSPOON WAY EL CAJON CA 92020 11-09-2016</p> <p style="text-align: center;">Hobbs: 393.4 LEFT ENGINE LOG</p> <p style="text-align: right;">N42ISM GTSIO 520-N S/N: 292470-R TSMOH: 550.4</p> <ul style="list-style-type: none"> • Changed the oil and filter with 12 quarts of Aeroshell W100 Plus oil and a CH-48109 filter. • Took an oil sample. • Engine was test ran and leak checked. <p>Michael Koontz  I/A 3799094</p>
				<p>GENERAL AVIATION 340 WITHERSPOON WAY EL CAJON CA 92020 01-15-2017</p> <p style="text-align: center;">Hobbs: 405.7 LEFT ENGINE LOG</p> <p style="text-align: right;">N42ISM GTSIO 520-N S/N: 292470-R TSMOH: 562.6</p> <ul style="list-style-type: none"> • Performed Operation #3 and #4 IAW Cessna 421C progressive care program. • Performed a cylinder differential pressure test of cylinders. #1 74 #2 71 #3 75 #4 73 #5 73 #6 70.. • Checked the magneto timing. • For troubleshooting purpose the left alternator is now in the right position. The Right alternator in left position has a new Drive Gear installed and it is still kicking offline at high RPM. Replaced the left alternator with a warrantee unit from Ram. Installed with the same new drive gear. ALV 9610 S/N H-R010877. New installed on Left engine. Test flew alternator works normally. • Serviced the spark plugs. Cleaned, gapped, tested, rotated, installed and proper torque applied. • AD 07-05-15 Starter Adapter Assembly and Crankshaft gear is due. C/W MSB 94-4G Part 2 A. C/W MSB 94-4G Part 2 A. measuring the gear backlash. #1 position .05 #2 .05 #3 .05 #4 .05. Due every 100 hours, due again 505.7 Hobbs time and part 3 is due every 400 hours and is due again at 690.7. • I certify this Left Engine was inspected IAW Operational 3 and 4 Cessna progressive care Program and was in airworthy condition. <p>Michael Koontz  I/A 3799094</p>

ENGINE MODEL: GTSIO-520-N
 ENGINE S/N (L): 292470-R
 REG. NO: N42ISM
 WORK ORDER: 20170220-1M



Hangar One Avionics
 Repair Station No. 1HGR058B
 2026 Palomar Airport Road
 Carlsbad, CA 92011
 Phone: 760-929-2270

DATE: 2/24/2017
 A/C TSN:
 ENG TT (L):
 HOBBS: 412

Left Engine Entries


Drained oil and removed filter, cut open filter and found no contaminants, installed new oil filter P/N CH48109-1, new drain plug gasket P/N MS35769-11 and serviced engine with 13 qts of ASW100 "Plus" oil.

Ground run, operational and leak check satisfactory.

This aircraft, airframe, or appliance identified above has been repaired and/or inspected in accordance with current Regulations of the Federal Aviation Administration and Manufacturer data and is approved for return to service.

DATE: 2/24/2017

SIGNED:


 Mike Clingerman
 Certified Repair Station No. 1HGR058B

Work Order: 20170220-1M

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