

ENGINE MODEL:
GTSIO-520-L
ENGINE S/N (L): 241032-R
REG. NO: 297DB
WORK ORDER:
[REDACTED]



Premier Aircraft Service, Inc.
Fort Lauderdale, FL 33309
[REDACTED]

DATE: 9/7/2011
A/C TSN: 6920.7
ENG TT (L): 4937.6
TSMOH (L): 193.3
HOBBS: 1482.6

RMING WORK

Left Engine Entries

(8) CW ANNUAL INSPECTION ON THIS ENGINE I.A.W FAR 43 APPENDIX D USING CESSNA 421C M/M SECTION 2 INSPECTION CHECKLIST AS A GUIDE. CHECKED MAG TO ENGINE TIMING. CLEANED, REGAPPED AND CHECKED SPARK PLUGS. PERFORMED COMPRESSION CHECK: 77-76-78-78-77-78/80. ENGINE WAS GROUND RUN AND LEAK CHECKED OK.WORK DONE IAW GTSIO-520-L MM. ADs CHECKED THROUGH 2011-17..... (9) CW AD 2000-01-16 DETECT AND CORRECT CRACKS AND CORROSION IN THE EXHAUST SYSTEM. PART (b)(c)(d)(e) FROM COMPLIANCE TABLE. NO DEFECTS NOTED AT THIS TIME. NEXT INSPECTIONS AS FOLLOWS: PART (b) EVERY 50 HRS OR 30 DAYS WHICHEVER OCCURS FIRST. PART (c)(e) EVERY 12 CALENDAR MONTHS & PART (d) EVERY 500 HRS.

MAINTENANCE RELEASE: IN REFERENCE TO THE WORK PERFORMED, THIS AIRCRAFT, AIRFRAME, AIRCRAFT ENGINE, PROPELLER, AND / OR APPLIANCE WAS REPAIRED AND INSPECTED I.A.W. CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE. ALL WORK WAS PERFORMED IAW CURRENT APPLICABLE AIRCRAFT, ENGINE, OR APPLIANCE MAINTENANCE MANUALS AND INSTRUCTIONS.

DATE: 9/7/2011

SIGNED: [REDACTED]

Work Order: [REDACTED]

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WINDWARD AVIATION

[REDACTED]
2015 Lantana Road, Ste 100
Lantana, FL 33462 [REDACTED]

N297DB S/N: 421C0826 1980 CESSNA 421C HOBBS: 1503.9 HOURS 21 OCTOBER 2011
TCM GTSIO-520L S/N: 241032R HOBBS: 1503.9 HOURS ETT: 4958.9 HOURS ETSMOH: 214.6 HOURS LEFT POSITION

DRAINED OIL AND OBTAINED SAMPLE. REPLACED OIL FILTER CH48111-1. NO ABNORMAL DEBRIS FOUND IN OLD FILTER. SERVICED WITH 12 QUARTS AEROSHELL W100 OIL. GROUND TEST GOOD.

[REDACTED]
[Signature]

WINDWARD AVIATION

[REDACTED]
Lantana, FL 33462 [REDACTED]

N297DB S/N: 421C0826 1980 CESSNA 421C HOBBS:1,519.4 HOURS ACTT: 6957.4 HOURS 18 NOVEMBER 2011
TCM GTSIO-520-L S/N: 241032R ETT: 4974.3 HOURS ETSMOH: ~~2406.3~~ 230.10 HOURS LEFT POSITION

PERFORMED TCM SID 97-3E. NO ADJUSTMENTS REQUIRED. GROUND TEST GOOD.

[REDACTED]
[Signature]

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Engine Previous Total: 1522.6 (SFR)
 Since Major Overhaul: 0.0
 Date: 09-13-06



RAM Aircraft, Limited Partnership • Waco Regional Airport

TCM GTSIO-520-L Right Engine S/N 292489-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. G dated 08-28-06. Above referenced engine modified per STC SE8338SW. Installed new camshaft p/n 653056, s/n Z06AA249. Installed new VAR crankshaft p/n 653020, s/n N05AA174. Ultrasonic inspection per MSB96-10 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 11-15-05. Instructions for Continued Airworthiness: Removed 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 7505 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 new TCM heavy style crankcase p/n 656935-12A1, s/n R06GA141. 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 1751183. AD 86-13-04 R3 and AD 93-10-02 (MSB93-12) n/a per cylinders installed. Engine accessories exchanged for overhauled or new units with exception of tach generator, vacuum pump, prop governor and hydraulic pump which were not installed per this work order. MSB94-8A on magneto timing procedure c/w per timing to data plate TC degree requirements with TDC locator and protractor with pointer. Installed rocker arms p/n 1654-1 and -2. Cadmium plating of engine hardware and associated lines and fittings per QQ-P-416C Class 2, Type II. C/W AD 79-05-09 per installation of new current design oil pressure plunger assy. Starter adapter shaftgear and crankshaft gear inspection, AD 2005-20-04 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. AD 87-04-05 n/a per engine model. 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 ground stud torque check. AD 82-13-01 is n/a per Kelly Aerospace overhauled magnetos installed. Unpainted 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. [REDACTED]

RAM Aircraft, Limited Partnership, P.O. Box 5219, Waco, Texas 76708 [REDACTED]

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ENGINE MODEL:
GTSIO-520-L
ENGINE S/N (R): 292489-R
REG. NO: 297DB
WORK ORDER:



Premier Aircraft Service, Inc.
Fort Lauderdale, FL 33309

DATE: 9/7/2011
A/C TSN: 6920.7
ENG TT (R): 2369.6
TSMOH (R): 847
HOBBS: 1482.6

ENDING WORK

Right Engine Entries

(7) C/W ANNUAL INSPECTION ON THIS ENGINE I.A.W FAR 43 APPENDIX D USING CESSNA 421C M/M SECTION 2 INSPECTION CHECKLIST AS A GUIDE. CHECKED MAG TO ENGINE TIMING. CLEANED, REGAPPED AND CHECKED SPARK PLUGS. PERFORMED COMPRESSION CHECK: 74-75-71-77-74-77/80. ENGINE WAS GROUND RUN AND LEAK CHECKED OK WORK DONE IAW GTSIO-520-L MM. ADS CHECKED THROUGH 2011-17.... (10) C/W AD 2000-01-16 DETECT AND CORRECT CRACKS AND CORROSION IN THE EXHAUST SYSTEM. PART (b)(c)(d)(e) FROM COMPLIANCE TABLE NO DEFECTS NOTED AT THIS TIME. NEXT INSPECTIONS AS FOLLOWS: PART (b) EVERY 50 HRS OR 30 DAYS WHICHEVER OCCURS FIRST. PART (c)(e) EVERY 12 CALENDAR MONTHS & PART (d) EVERY 500 HRS.

MAINTENANCE RELEASE: IN REFERENCE TO THE WORK PERFORMED, THIS AIRCRAFT, AIRFRAME, AIRCRAFT ENGINE, PROPELLER, AND / OR APPLIANCE WAS REPAIRED AND INSPECTED I.A.W. CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE. ALL WORK WAS PERFORMED IAW CURRENT APPLICABLE AIRCRAFT, ENGINE, OR APPLIANCE MAINTENANCE MANUALS AND INSTRUCTIONS.

DATE: 9/7/2011

SIGNED: _____

Work Order: _____

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WINDWARD AVIATION

Lantana, FL 33462

N297DB S/N: 421C00826 1980 CESSNA 421C HOBBS: 1503.9 HOURS 21 OCTOBER 2011 RIGHT POSITION
TCM GTSIO-520-L S/N: ETT: 2390.9 HOURS ETSMOH: 868.3 HOURS

DRAINED OIL AND OBTAINED SAMPLE. REPLACED OIL FILTER, P/N: CH48111-1. NO ABNORMAL DEBRIS FOUND IN OLD FILTER. SERVICED WITH 12 QUARTS AEROSHELL W100. PERFORMED TCM SID 97-3E. ADJUSTED MAX RPM UNMETERED FUEL PRESSURE. RESEATED #4 AND #6 PUSHROD TUBE SEALS. REPLACED FUEL FLOW DIVIDER VALVE MOUNT BRACKET. GROUND TEST GOOD.

WINDWARD AVIATION

Lantana, FL 33462

N297DB S/N: 421C0826 1980 CESSNA 421C HOBBS:1,519.4 HOURS ACTT: 6957.4 HOURS 18 NOVEMBER 2011
TCM GTSIO-520-L S/N: 292489R ETT: 2406.33 HOURS ETSMOH: 883.7 HOURS RIGHT POSITION

REPLACED RIGHT AND LEFT MAGNETOES BY INSTALLING RAM STC SE4591SW-D PRESSURIZED MAGNETO KIT, SEE FORM 337 AND FORMS 8130-3 FROM INDIVIDUAL MAGNETOES(LEFT S/N: F10JA215R; RIGHT S/N: F10KA076R). REPAIRED ALL SPARK PLUG HELICOIL THREADS. REPLACED ALL SPARK PLUGS WITH RHB32S FINE WIRE SPARK PLUGS. REPLACED ONE #3 CYLINDER IGNITION LEAD SUPPORT. REPLACED ENGINE-DRIVEN FUEL PUMP WITH P/N: R-646210-25A1, S/N: B111A136R. PERFORMED TCM SID 97-3E. ADJUSTED MAX RPM FUEL PRESSURE. GROUND TEST GOOD.

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WINDWARD AVIATION [REDACTED] Lantana, FL 33462 [REDACTED]				
<p>N297DB S/N: 421C0826 1980 CESSNA 421C HOBBS:1,520.5 HOURS ACTT: 6958.5 HOURS 23 NOVEMBER 2011 TCM GTSIO-520-L S/N: 292489R ETT: 2407.42 HOURS ETSMOH: 884.8 HOURS RIGHT POSITION</p> <p>REMOVED, TESTED AND REINSTALLED # 2 SPARK PLUGS. PERFORMED COMPRESSION LEAK CHECK FOR #2 CYLINDER: 73/80 PSI; TEST ORIFICE: 44/80 PSI. REPLACED #2 CYLINDER FUEL INJECTOR NOZZLE, P/N: 639368-19. GROUND TEST GOOD.</p> <p>[REDACTED]</p>				
WINDWARD AVIATION [REDACTED] Lantana, FL 33462 [REDACTED]				
<p>N297DB S/N: 421C0826 1980 CESSNA 421C HOBBS:1,534.8 HOURS ACTT: 6972.8 HOURS 6 JANUARY 2012 TCM GTSIO-520-L S/N: 241489R ETT: 2421.8 HOURS ETSMOH: 899.2 HOURS RIGHT POSITION</p> <p>DRAINED OIL AND OBTAINED SAMPLE. REPLACED OIL FILTER. NO ABNORMAL DEBRIS FOUND IN OLD FILTER. SERVICED WITH 12 QUARTS AEROSHELL W100 OIL. INSTALLED GENERAL AVIATION MODIFICATIONS, INC. GAMJECTORS KIT TIGT520-19A, S/N: 21470, IN ACCORDANCE WITH STC SE09963SC AND INSTALLATION PROCEDURE NO. IP-2001-01, DATED MAY 25, 2001. REMOVED AND REINSTALLED #2 INTAKE MANIFOLD TO ACCESS FUEL INJECTOR. REPLACED #2 CYLINDER INTAKE GASKET. GROUND TEST GOOD.</p> <p>[REDACTED]</p>				
WINDWARD AVIATION [REDACTED] Lantana, FL [REDACTED]				
<p>N297DB S/N: 421C0826 1980 CESSNA 421C HOBBS:1,549.5 HOURS ACTT: 6987.5 HOURS 20 MARCH 2012 TCM GTSIO-520-L S/N: 292489R ETT: 2436.43 HOURS ETSMOH: 913.8 HOURS RIGHT POSITION</p> <p>REPLACED DEFECTIVE RIGHT MAGNETO SPARK PLUG HARNESS TO CYLINDERS 1,3,5 TOP AND CYLINDERS 2,4,6 BOTTOM. REPLACED 5 DEFECTIVE SPARK PLUGS IN LOWER POSITIONS 1,3,4, 5, AND 6 WITH RHB32S FINE WIRE SPARKPLUGS. GROUND TEST GOOD.</p> <p>[REDACTED]</p>				



N297DB (Right Engine Log)

Changed oil and filter Filter Inspection OK. Serviced with Aeroshell W100Plus.

DATE 5/19/2012	HOBBS 1561.2
[REDACTED]	

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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WINDWARD AVIATION

Lantana, FL 33462

N297DB S/N: 421C0826 1980 CESSNA 421C HOBBS:1571.6 HOURS ACTT: 7009.6 HOURS 9 JULY 2012
TCM GTSIO-520-L S/N: 292489R ETT: 2458.53 HOURS ETSMOH: 935.9 HOURS RIGHT POSITION

ADJUSTED IDLE RPM. ADJUSTED MAX RPM FUEL PRESSURE IN ACCORDANCE WITH TCM SID 97-3E. COMPLIED WITH AD 2007-05-15 STARTER ADAPTER VISCOUS DAMPER AND SHAFTGEAR BACKLASH INSPECTION - BACKLASH 0.020" (LIMIT: 0.060"), NO DEFECTS NOTED; NEXT DUE HOBBS: 1671.6 HOURS, OR ACTT: 7109.6 HOURS. GROUND TEST GOOD.

WINDWARD AVIATION

Lantana, FL 33462

N297DB S/N: 421C0826 1980 CESSNA 421C HOBBS: 1601.9 HOURS ACTT: 7039.9 HOURS 3 DECEMBER 2012
TCM/RAM GTSIO-520L(2) S/N: 292489R ETT: 2488.9 HOURS TSMOH: 966.3 HOURS RIGHT POSITION

THIS ENGINE WAS INSPECTED IN ACCORDANCE WITH A CESSNA 100 HOUR/ANNUAL INSPECTION MANUAL AND FAR 43 APPENDIX D. PERFORMED COMPRESSION TEST: 1: 71/80; 2: 76/80; 3: 72/80; 4: 71/80; 5: 70/80; 6: 78/80. TEST ORIFICE: 44/80 PSI. DRAINED OIL AND OBTAINED SAMPLE. REPLACED OIL FILTER, NO ABNORMAL DEBRIS FOUND IN OLD FILTER. SERVICED WITH 11 QUARTS AEROSHELL W100 OIL. BORESCOPED CYLINDERS. NO ABNORMAL VALVE DISCOLORATION OR CYLINDER WALL SCORING. TIGHTENED OIL LINE FITTINGS AS REQUIRED. ADJUSTED IDLE MIXTURE.

VERIFIED COMPLIANCE WITH: AD 79-05-09 OIL PRESSURE RELIEF VALVE - N/A; AD 80-09-11 STARTER - N/A; AD 80-25-06R1 TRUST WASHER - N/A; AD 81-24-06 FUEL PUMP - N/A; AD 86-13-04R3 CYLINDERS - N/A; AD 88-03-06 OIL FILTER - N/A; AD 91-19-03 OIL FILTER - N/A; AD 93-10-02 CYLINDER VALVE RETAINER - N/A; AD 95-21-15 ENGINE TEARDOWN - N/A; AD 98-17-11 CRANKSHAFT - N/A; AD 99-19-01 CRANKSHAFT FAILURE - N/A; AD 2004-08-10 ECI CYLINDERS - N/A; AD 2005-12-06 BENDIX MAGNETO IMPULSE COUPLING INSPECTION - NOT DUE NOW, NEXT DUE HOBBS: 2019.4 HOURS; AD 2007-05-15 STARTER ADAPTER INSPECTION, NEXT DUE HOBBS: 1671.6; AD 2010-11-04 TCM LIFTER RECALL - N/A BY DOM, AD 2012-03-06 AVSTAR FUEL SERVO - N/A. ALL AD'S COMPLIED WITH, SEE AD LOG. GROUND AND FLIGHT TESTS GOOD. THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A CESSNA 100 HOUR/ANNUAL INSPECTION MANUAL AND FAR 43 APPENDIX D AND IS DETERMINED TO BE IN AIRWORTHY CONDITION AS OF THIS DATE.

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