

ENGINE MAINTENANCE RECORDS

Log No. 1

Aircraft Registration No. N509CE

Engine Manufacturer TCM

Model IO-550-N

Serial No. 917889

Date installed on aircraft 21 Apr 2011

Time Between Overhauls (TBO) 2000 Hours

If used on multi-engine aircraft:

- Right Left
- Front Rear



(All applicable information must be filled in)

AEROTECH PUBLICATIONS INC.

P.O. Box 1359 / Southold, NY 11971-0965
(631) 765-9375
1-800-235-6444
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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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POWERMASTER AIRCRAFT ENGINES

9027 S. Airport Way
Jones/Riverside Airport
Tulsa OK 74132
918-299-0269
FAA CRS # P46R287Y

Engine Overhaul Record

Engine Make: Continental

Model: IO-550N

Serial Number: 917889

PAE Work Order # 110414-1

Date of Overhaul: 4-14-2011

Total Time: 1700.00 TSMOH-"0"

This entry certifies that this engine has been overhauled to manufacturers new part tolerances. This engine was disassembled, cleaned, inspected, overhauled and tested in accordance with TCM manual # X30568A with the exception of, Crankcase Mating Surface Sealant, use as approved by Form 8110-3, Report 41410. New parts count exceeds that set forth in TCM Service Bulletin 97-6, Mandatory Replacement Parts.

The following accessories were overhauled and installed on this engine at the time of overhaul:

<u>Component</u>	<u>Part Number</u>	<u>Serial Number</u>
LH Magneto:	10-500556-101	D02KA056
RH Magneto:	10-500556-101	D02KA052
Fuel Pump:	ETI-SR22-2-12	GP-3675
Thr-Body/Controller:	653353-8A1	A06IA102
Manifold:	646433-9A4	C06IA117
Starter Drive unit:	642085-A15	CAS-2616

Hydraulic lifters PN-646277 (6), & 628488(6), Installed. AD2010-11-04, NA due to PN of lifters installed New TCM Cylinders, PN-655465-A4, SN-AC10AB091, AC10AB088, AC10AB096, AC09LA985, AC09KB427, AC09KB422.

The engine and accessories identified above were inspected and overhauled in accordance with current Federal Aviation Regulations and were found airworthy for return to service. Details of this overhaul are on file at this repair station under Work Order # 110414-1

Signature _____

William R. Cunningham
William R. Cunningham
FAA CRS #P46R287Y

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TORNADO ALLEY TURBO INC.
300 AIRPORT RD
ADA, OK 74820

ENGINE LOG BOOK ENTRY

1 APRIL 2011

TORNADO ALLEY TURBO, INC.



N509CE CIRRUS SR22-G2 SN: 979 ACFT HOBBS: 2119.8 FLIGHT: 2119.8
TCM IO-550-N SN: 917889 ENG TT: UNK ENG TSMOH: 0.0

REMOVED PREVIOUS ENGINE AND INSTALLED NEWLY OVERHAULED ENGINE ON THIS DATE AND THESE AIRFRAME HOURS. ENGINE WAS OVERHAULED BY POWER MASTER ENGINES. SEE ENGINE LOG BOOK ENTRY FOR DETAILS. INSTALLATION COMPLETED IN ACCORDANCE WITH TCM AND CIRRUS INSTRUCTIONS. INSTALLED NEW ENIGNE MOUNT ISOLATORS. INSTALLED ALL NEW FLAMABLE FLUID CARRING HOSES. INSTALLED ALL NEW ENGINE AND PROP CONTROL CABLES. INSTALLED NEWLY OVERHAULE PROP GOVERNOR C290D3R/T23 SERIAL NUMBER 040471. INSTALLED NEWLY OVERHAULED ALTERNATOR 646843 SERIAL NUMBER 005JA153. INSTALLED NEW SKY-TEC STARTER MODEL C24ST3 SERIAL NUMBER 4C3-501010.

David R. Landreth
DAVID R. LANDRETH A&P 2651512 IA

TORNADO ALLEY TURBO INC.
300 AIRPORT RD
ADA, OK 74820

ENGINE LOG BOOK ENTRY

21 APRIL 2011

TORNADO ALLEY TURBO, INC.



N509CE CIRRUS SR22-G2 SN: 979 ACFT HOBBS: 2119.8 FLIGHT: 2119.8
TCM IO-550-N SN: 917889 ENG TT: UNK ENG TSMOH: 0.0





INSTALLATION OF CIRRUS TURBO NORMALIZING SYSTEM KIT SERIAL NUMBER A1024, COVERED UNDER STC SA10588SC AND STC SE10589SC, IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS REPORT 215-9 REV B DATED 1 APR 2008 AND MASTER DRAWING LIST ETI-G2-1 REV F. SEE FLIGHT MANUAL SUPPLEMENT FOR OPERATION AND CONTINUED AIRWORTHINESS.
INSTALLED NEW TURBO PART NUMBER 466304-3 SERIAL NUMBER NFL00120 ON THE RIGHT SIDE.
INSTALLED NEW TURBO PART NUMBER 466304-3 SERIAL NUMBER NCL00071 ON THE LEFT SIDE.
INSTALLED NEW WASTEGATE VALVE PART NUMBER 477233-0003 SERIAL NUMBER INF16-0005 ON THE RIGHT SIDE. INSTALLED NEW WASTEGATE ASSEMBLY PART NUMBER 470842-0004 SERIAL NUMBER NBN00124 ON THE LEFT SIDE. INSTALLED NEW MANIFOLD PRESSURE CONTROLLER PART NUMBER 470688-5 SERIAL NUMBER MIN00125.
INSTALLED NEW PRESSURE RELIEF VALVE PART NUMBER 470944-17 SERIAL NUMBER MAN00129.
TURBO NORMALIZED COMPONENTS SUCH AS STARTER DRIVE ADAPTER, FUEL PUMP, GAMI FUEL INJECTORS, AND PRESSURIZED MAGNETOS WERE INSTALLED AT THE ENGINE BUILDER. SEE ENGINE BUILDER LOG ENTRY FOR DETAILS.
INSTALLED CHAMPION CH48108-1 OIL FILTER AND SERVICED ENGINE WITH 8 QUARTS OF PHILLIPS 20W/50 OIL. ALL SUPPORTING DOCUMENTS ARE KEPT ON FILE AT THIS FACILITY AND THE ENGINE BUILDER FACILITY.
RUN UP, OP'S, AND LEAK CHECK OK.

David R. Landreth
DAVID R LANDRETH A&P 2651512 IA

6/21/11		2173.7	On Change. MAINT Release Posted in AIC Log Book

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				TOTALS brought forward from previous page
				<p>ENGINE MODEL: IO550 N ENGINE S/N: 917889 REG NO: N509CE WORK ORDER: 28958-02-2012</p>  <p>Commander Aero, Inc. 10570 Springboro Pike Miamisburg, Ohio 45342 USA Phone: 888-881-5580</p> <p align="right">DATE: 3/16/2012 A/C TSN: 2225 3 ENG TT: 28 1 TSMOH: 105 5 HOBBS: 2225 3</p> <p>Engine Entries (3) Complied with 100 Hour Engine Inspection.... (5) Cleaned, gaped, and tested spark plugs.... (8) Cleaned, inspected, and serviced K&N induction filter.... (11) Cleaned fuel nozzles... (12) Re Timed left and right mags to 21.5 degrees.... (14) Torqued all rocker covers.... (15) Checked Compression - 1)75 /80; 2)72 /80; 3)71 /80; 4)73 /80; 5)72 /80; 6) 72 /80.</p> <p>I certify that this aircraft was inspected in accordance with an annual inspection and found to be airworthy. The aircraft and/or component(s) on N509CE was repaired and inspected in accordance with current FARs rules of the Federal Aviation Regulations and was found Airworthy for return to service. Pertinent details of the repair are on file at this repair station under Work Order No. 28958-02-2012.</p> <p>DATE: 3/16/2012 SIGNED:  Work Order: 28958-02-2012 Printed by EBis 3 (datcomedia.com)</p>
				1 of 1
				<p>ENGINE MODEL: IO550 N ENGINE S/N: 917889 REG NO: N509CE WORK ORDER: 29303-03-2013</p>  <p>Commander Aero, Inc. Repair Station No. 15A5R-371M 10570 Springboro Pike Miamisburg, Ohio 45342 USA Phone: 888-881-5580</p> <p align="right">DATE: 4/10/2013 A/C TSN: 2336 ENG TT: 266 2 TSMOH: 266 2 HOBBS: 2336</p> <p>Engine Entries (3) Complied with 100 Hour Engine Inspection.... (5) Checked Compression - 1)76 /80; 2) 63e /80; 3) 77/80; 4) 71 /80; 5) 78 /80; 6) 78 /80.... (6) Drained oil, changed oil filter and added 7 quarts of Aeroshell 15w50.... (7) Borescoped #2 cylinder and staked valves, rechecked compression 66 psi at this time.... (8) Wash down engine ran and leak checked.... (10) Cleaned, inspected and serviced K&N induction filter.... (11) Clean, gap, and test and install spark plugs.</p> <p>I certify that this aircraft was inspected in accordance with an annual inspection and found to be airworthy. The aircraft and/or component(s) on N509CE was repaired and inspected in accordance with current FARs rules of the Federal Aviation Regulations and was found Airworthy for return to service. Pertinent details of the repair are on file at this repair station under Work Order No. 29303-03-2013.</p> <p>DATE: 4/10/2013 SIGNED:  Work Order: 29303-03-2013 Minzler, Alan Certified Repair Station No. 15A5R-371M Printed by EBis 3 (datcomedia.com)</p>
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ENGINE MODEL: IO550 N
ENGINE S/N: 917889
REG. NO: N509CE
WORK ORDER:
29655-05-2014



Commander Aero, Inc.
Repair Station No. GA5R-876M
10570 Springboro Pike
Miamisburg, Ohio 45342 USA
Phone 888-881-5580

DATE: 7/11/2014
A/C TSN: 2535
ENG TT: 2535
HOBBS: 2535

Engine Entries

(3) Complied with 100 Hour Engine Inspection.... (5) Checked Compression - 1) 68/80; 2) 64/80; 3) 70/80; 4) 66/80; 5) 68/80; 6) 72/80.... (7) Changed oil & filter. Serviced with X/C 20w50 Washed down engine ran and leak checked.... (9) Clean gapped and tested plugs.... (13) Installed new KN air filter.... (23) Complied with TAT SB12-02 check for fuel leakage at engine driven fuel pump.... (24) Complied with TAT SB 11-04 Turbo charger oil supply inlet screens inspection and cleaning.... (25) Complied with TAT Mandatory SB 10-02 Tail pipe hangar inspection.... (26) Complied with TAT Mandatory SB 10-01 Alternate Air Door Hinge pin Inspection.... (27) Complied with TAT 11-01 Recommended Slip Joint Inspection.... (28) Complied with TAT SB 09-01 Exhaust manifold inspection.... (29) Complied with TAT SB 11-03 Turbo Charger support bracket inspection.... (30) TAT SA11-09 Service Advisory, Continental motors Service Bulletin MSB11-4 Starter Adapter Inspection not applicable per starter adapter serial number.... (35) Complied with 350 hour V Band clamp replacement.... (37) Sent left exhaust manifold to Tornado Alley for rework due to frozen slip joints. Reinstalled and leak checked satisfactorily.... (38) Lubricated and freed up right side exhaust slip joint at #5 to #3 slip joint.... (39) Sent right exhaust stack to Tornado Alley for rework due to leak at waste gate elbow. Reinstalled and leak checked satisfactorily.... (40) Installed new right side turbo shield.... (41) Replaced corroded exhaust studs on cylinders 1-5-6-4.... (42) Complied with Continental SID97-3E Fuel Flow Injection.

I certify that this aircraft was inspected in accordance with an annual inspection and found to be airworthy.
The aircraft and/or component(s) on N509CE was repaired and inspected in accordance with current FARs rules of the Federal Aviation Regulations and was found Airworthy for return to service. Pertinent details of the repair are on file at this repair station under Work Order No. 29655-05-2014.

DATE: 7/11/2014

SIGNED:

Work Order: 29655-05-2014

Minzler, Alvin
Certified Repair Station No. GA5R-876M

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ENGINE MODEL: IO550 N
ENGINE S/N: 917889
REG. NO: N509CE
WORK ORDER:
29934-07-2015



Commander Aero, Inc.
Repair Station No. GA5R-876M
10570 Springboro Pike
Miamisburg, Ohio 45342 USA
Phone 888-881-5580

DATE: 8/28/2015
A/C TSN: 2679 5
ENG TT: 2679 5
TSMOH: 559 7
HOBBS: 2679 5

Engine Entries

(3) Complied with 100 Hour Engine Inspection.... (6) Checked Compression - 1) 45/80; 2) 56/80; 3) 72/80; 4) 62/80; 5) 65/80; 6) 72 /80.... (7) Changed oil & filter. Serviced with Philips X/C 20w50, Washed down engine ran and leak checked.... (8) Complied with OSK oil analysis (11) Installed new Magneto Pressurization Filter P/N 04-6700015, Due again 8/2018.... (15) Complied with TAT SB 10-02 Tail pipe hangar inspection.... (16) Complied with TAT SI08-01 Crankcase Breather Discharge Tube Inspection.... (17) Complied with TAT 11-01 Slip Joint Inspection.... (18) Complied with TAT SB 09-01 Exhaust manifold inspection. Installed new right exhaust manifold P/N 22-6850003.... (19) Complied with TAT SI08-04 Inspecting and testing Cabin Heat Augmenter/Tailpipe assembly for cracks.... (20) Complied with TAT SI08-05 Air Filter Inspection and Cleaning.... (21) Complied with TAT SB11-04 Turbocharger oil supply inlet screens clean and inspect.... (22) Complied with TAT SB 10-02 Alternate Air Door Hinge pin Inspection.... (23) Complied with TAT SB12-02 check for fuel leakage at engine driven fuel pump. Fuel pump due for reseat at 785 hours or 8/ 2019 which ever comes first.... (24) Installed new clamp on Right Exhaust aft heat shield.... (25) Removed 1 cylinder and installed overhauled cylinder from power master engines.... (33) Removed 2 cylinder and installed overhauled cylinder from power master engines.... (34) Cleaned and leak checked fuel nozzles.... (35) Removed exhaust and cleaned and anti seized exhaust slip joints between number 6 and number 4 cylinder.... (36) Installed new aft outboard exhaust manifold stud in number 4 cylinder head P/N 640482.... (37) Installed new Tempest Spark plugs P/N URHB32E.

I certify that this aircraft was inspected in accordance with an annual inspection and found to be airworthy.
The aircraft and/or component(s) on N509CE was repaired and inspected in accordance with current FARs rules of the Federal Aviation Regulations and was found Airworthy for return to service. Pertinent details of the repair are on file at this repair station under Work Order No. 29934-07-2015.

DATE: 8/28/2015

SIGNED:

Work Order: 29934-07-2015

Minzler, Alvin
Certified Repair Station No. GA5R-876M

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