



The Standard
 -ENGINE LOG

ASA-SE-2

The subject aircraft was involved in an incident / accident on **8/27/2025** rendering it a Constructive Total Loss as not repairable within its insured value. For further details refer to insurance claim: **2905318873US**.

Signed: ***Underwriters Salvage Company***

Date: **10/1/2025**

AI& Aerospace Adjustment Services Inc
3500 Lenox Road, Suite 1100
Atlanta, GA 30326

[illegible]

I certify that this ENGINE
Has been inspected in
Accordance With ANNUAL
Inspection and was determined
To be in Airworthy Condition.

~~Ann E Ball~~
24188 P#21 IA

Engine Record General Information

Manufacturer WARNER Model SS50

Serial SS122E Type Certificate E-104

This engine is currently installed in aircraft: _____

Minimum Octane Fuel 73 Oil Grade Summer SAE 60 Winter SAE 50

Magneto Time 280 BTDC Point Setting .012 Firing Order 1-3-5-7-2-4-6

Spark Plug Gap _____

Manufacturer's Recommended Overhaul at _____ hours

The Standard



ENGINE LOG

ASA-SE-2

[illegible]

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				NC 15345 JULY 8, 1997
				SN 2688 TT 1680.8
				PERFORMED INSPECTION OF WARNER SUPER SCARAB ENGINE SN 122-E. REMOVED ALL ENGINE BAFFLES SO INSPECTION COULD BE MADE OF VALVE PUSH ROD HOUSINGS. NO LEAKS IN EVIDENCE. REPAIRED CARBURETOR HEAT CONTROL FLAPPER IN CARBURETOR HEAT EXCHANGER. CHECKED IGNITION TIMING AND MAGNETO POINTS. LUBRICATED MAGNETOS. INSPECTED ACCESSORY SECTION FOR LEAKS AND LOOSE CONNECTIONS. WHERE ANY EVIDENCE OF OIL DRIPPAGE SEEN TIGHTENED ASSOCIATED CONNECTIONS. INSPECTED ALTERNATOR AND STARTER FOR WIRING AND ATTACHMENT. DRAINED OIL AND REFILLED WITH PHILLIPS 60 WT. MINERAL OIL. LUBRICATED ROCKER ARMS. PERFORMED COMPRESSION CHECK AND ALL WERE WELL WITHIN TOLERANCE. I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HOUR INSPECTION AND IS IN AIRWORTHY CONDITION.
				PERFORMED AN ANNUAL INSPECTION ON THIS ENGINE AND FOUND TO BE IN AIRWORTHY CONDITION AT TIME OF INSPECTION. <i>Cameron Wilson</i> A&P 4501359411A
				<i>Martin R. Engler Jr.</i> MARTIN R. ENGLER JR. A&P 554268062
31/1/98	242.2			Drained and refilled oil reservoir with 50/100 Phillips 60wt mineral oil. Lubricated Rocker Arms - Installed new air Filter Assembly M.R. Engler A&P 574268062

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				NC 15345 SEPT. 1, 1998
				TT 1695
				PERFORMED INSPECTION OF WARNER SUPER SCARAB ENGINE SN 122-E. CHECKED ALL PUSH ROD TUBES AND OIL TUBING CONNECTIONS FOR LEAKS AND TIGHTENED OIL SCREEN BOLTING. CHECKED IGNITION TIMING AND LUBRICATED MAGNETOS. INSPECTED ACCESSORY SECTION FOR LEAKS AND TIGHTENED ANY BOLTS WHERE OIL LEAKAGE IN EVIDENCE. INSPECTED ALTERNATOR AND STARTER FOR WIRING AND ATTACHMENT. LUBRICATED ROCKER ARMS. CLEANED AND INSPECTED SPARK PLUGS. PERFORMED COMPRESSION CHECK- ALL CYLINDERS TESTED OUT AT 80/72 OR ABOVE. DRAINED AND CLEANED FUEL FILTER. DRAINED CARBURETOR BOWL AND CHECKED FILTER. LUBRICATED ALL ENGINE CONTROLS AND CHECKED FOR PROPER OPERATION. I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HOUR INSPECTION AND IS IN AIRWORTHY CONDITION.
				<i>Martin R. Engler Jr.</i> MARTIN R. ENGLER JR. A&P NO. 554268062
				Sept. 1, 1998 Total Time: 1695 Fairchild F24 NC15345 Ser# 2688 Warner Super Scarab Ser# 122-E, Hamilton Stander HSPDWG Hub 1595-D Ser# 29032 Blades 1825 Ser# 15287 & 21580 Preformed an annual inspection on this engine at this time and found to be in airworthy condition at time of inspection.
				<i>Cameron Wilson</i> Cameron Wilson A&P4501359411A

DATE 1993	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
9/25	161.9		1623.35	Greased Rocker Arms - washed down engine. Changed oil M.R. Engler Jr. AIP 554268062
12/1	172.4		1633.9	Removed No. 5 Cylinder and cracked head, removed and replaced cylinder head using existing cerma-chromed cylinder barrel but replacement head. Reground valves and valve seats. Installed new piston rings. Reinstalled cylinder assembly on engine. Run on ground 15 minutes at 600 RPM. Flew direct for 1.9 hours at normal power settings to seat rings. All OK M.R. Engler Jr. AIP 554268062
1/31/94	176.0		1637.5	Installed new battery M.R. Engler Jr. AIP 554268062
4/7/94	186.6		1648.1	Changed oil M.R. Engler Jr. AIP 554268062

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
9/1/94	189.3		1650.8	Greased Rodder Arms - Checked Screens - cleaned engine - Reset Valve Tappets. All as per 100 hour inspection. M.R. E. L. A. S. P. 554268062
5/1/95				
6/10/96	209.9			N15345 SN2688 JUNE 10, 1996 TT 1670.8 Performed major overhaul of Warner Engine. Completely disassembled engine and installed new Cadmium/Silver master rod bearing. Installed three new standard sized ball bearings in front and rear crankcases. Bearing liners were metal sprayed on the outer surface and copper plated on the inner surface to accommodate standard sized ball bearings and to have proper fit in crankcase halves. Following the metal spraying and copper coating the crankcase halves were assembled and line bored. Installed new intake valve seat in number three cylinder. Lapped all intake and exhaust valves. Installed new piston rings in all cylinders. Replaced all push rod packings and induction tube to housing gaskets. All engine components were cleaned, inspected and replaced where necessary. All cam follower guides were machined and an "o-ring" installed to reduce oil leakage. Engine reassembled, valves and magnetos retimed and all valve clearances set at .010 inches. Sparkplugs cleaned, inspected and reinstalled. Replaced Alternator's Voltage Regulator. Martin L. Seibert A.S.P. 554268062

DATE 1942	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
4/4	44.3			Changed Prop Pitch To 14.00 Degrees. Cruise 5500' - 1850 RPM 19" Hg - 95-100 mph.
4/16	47.7			Greased Rocker Arms
5/20	58.0		1519.45	Drained oil - inspected - Found very few flakes that were deemed residual from engine problem. Pulled #4 cylinder to inspect internals - all ok. Sealed lower push rods with Permatex. Reset all Tappets To .010 clearance. Greased Rocker Arms - Added new oil. M.R. Engler AIP 554268062
8/3	83.0		1544.45	changed oil - 5 gal
9/4	96.0		1557.45	Sealed all push rods w/ oil leaks - Reset Tappets. Flushed Exhaust Valves with 200cc Marvel Mystery oil to clean lead deposits on Exhaust Valves. Cleaned spark plugs. M.R. Engler AIP 554268062
10/7	110.2		1571.65	changed oil - 4 1/2 gal. Installed draft Tube to put some cooling air on Radios. M.R. Engler AIP 554268062

DATE 1943	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
2/27	128.4		1589.85	changed oil - greased Rocker Arms M.R. Engler AIP 554268062
6/5	137.2		1598.65	Disassembled engine & low oil pressure. Inspection confirmed 30-40 percent of babbitt peeled off of Master Rod bearing. Installed new Master Rod bearing, inspected all associated parts and reassembled engine. Retimed valves installed new gaskets, replaced push rod housing packing, replaced bolts and nuts as required, retimed magnitos. Added new 1 1/2" Scot Tubing Line to oil cooler shroud. Installed new intake port in Front engine barrel. Changed oil M.R. Engler AIP 554268062
6/15	153.7		1615.15	Greased Rocker Arms - M.R. Engler AIP 554268062

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
3/20/92	37.7		1499.15	Warner engine completely disassembled, all parts cleaned and inspected. Component parts checked for dimensional tolerances in accordance with Warner Aircraft Overhaul Manual. Replaced cam follower and cam follower guide in cylinder Number Four. Replaced Cam Ring with new part. Installed replacement Master rod and number three, four four, five and six link rods. Installed new link rod pin bushings in all link rods and had link rod bushing reamed to proper fit by Mike Conners Aircraft, Leesburg FL. All link pins were replaced. All cylinders were re- worked by means of cera-chrome process and brought back to standard size. New cast iron piston rings installed. Piston pin plugs were re- placed where necessary. Rotating assembly was dynamically balanced by Mike Conners Aircraft. All valves and their seats were reground and

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				Lapped into place. Rebabbed Master Rod bearing. Installed new Thrust Nut. Replaced all push rod packings and all intake Tube pack- ings. Cleaned and Tested all spark plugs. Engine, cylinders and exhaust manifold re- painted. Master rod ^{crank shaft} and link rod magnafluxed. On assembly, valves and magnetos were timed in accordance with Warner Overhaul manual. Engine was "prehubed" prior to start up. Engine break in performed in accordance with recommended procedures of Engine Com- ponents, The Cera-Chrome processors. Martin R. Reight AIP 554268062
3/20/92	37.7		1499.15	I CERTIFY THAT THIS AIRCRAFT HAS BEEN INSPECTED IN ACCORDANCE WITH A (Annual) INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION. IA [Signature]

DATE 1990	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
	000.0		1461.95	SEE Preceding page for description of overhaul performed @ 1461.45 hours. I CERTIFY THAT THIS AIRCRAFT ^{ENGINE} HAS BEEN INSPECTED IN ACCORDANCE WITH A (ANNUAL/) INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION. M.R. Engle A/P 457272776 IA
	08.06		1469.45	Removed Thermometer bulb from sump location and plugged opening. Installed new Thermometer connection in bottom of oil tank and installed Thermometer bulb in this connection. Gauge on panel now indicates temperature of oil going INTO engine. M.R. Engle A/P 554268062 lubricated Rocker Arms -
12/24/90	10.3		1479.75	M.R. Engle A/P 554268062 Adjusted Tappets Tact to .010" M.R. Engle A/P 554268062

DATE 1991	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
2/15	19.9		1481.35	Removed Rocker Arm covers - set all Tappets at .010" - cleaned spark plugs. Replaced two. Lubed Push Rods. Drained carb and cleaned screens. Drained oil and sump. Filled with Sgal new 50 wt mineral oil. Lubed magnetos M.R. Engle A/P 554268062
6/7	33		1494.45	Removed Top 8 Rocker Arm Covers - Lubed All Rocker Arms Oiled Top 8 Valve Rollers. New Air Filter M.R. Engle A/P 554268062
7/27	37.7		1499.15	Inspection disclosed slivers of aluminum in oil Screen. Found one cam follower 90 degrees to cam - Found No 3, 4, 5 & 6 Link Rod pins seized in bushings and bushings. Turning in Mocker Rod - Found cylinder walls scored 4/8 chrome oil control ring installed at last overhaul. Put on pin plugs on several cylinders worn away w/c ridge worn in cylinder by chrome oil control ring.

NOTES

ENGINE DISASSEMBLED, CLEANED AND INSPECTED. REASSEMBLED IN ACCORDANCE WITH WARNER ENGINE HANDBOOK, FIRST EDITION, DATED AUGUST, 1945. THE FOLLOWING NEW PARTS INSTALLED:

NEW CRANKSHAFT, NEW CRANKSHAFT ROLLER BEARINGS INSTALLED. NEW LINK RODS AND LINK ROD BUSHINGS INSTALLED, NEW WRIST PINS, ALL NEW PISTONS, NEW STYLE HASTINGS PISTON RINGS, FOUR NEW CYLINDER BARRELS, ALL NEW VALVE GUIDES (EXHAUST & INTAKE), ALL NEW VALVES (EXHAUST & INTAKE), ALL ROCKER ARM ROLLER BEARINGS NEW, ALL NEW PUSH RODS, ALL NEW VALVE LIFTERS, ALL STUDS NEW. BLOCK CHAMFERED AS PER AD 51-04-02 PARAGRAPH B, SUB PARAGRAPH 2. NEW "O" RINGS INSTALLED BETWEEN CYLINDER BARRELS AND CRANKCASE. ANY AND ALL PARTS NOT NEW WERE MAGNETIFLUXED PRIOR TO REINSTALLATION. NEW OIL PUMP ASSEMBLY INSTALLED. UPON COMPLETION OF OVERHAUL ENGINE WAS BALANCED, ALL PISTONS AND CYLINDERS ARE STANDARD SIZE. SERVICED WITH SQUIB AEROSHELL 100

Engine Total Time 14461.45

Engine Time since overhaul 000.0

AIRCRAFT Hours Meter 000.0

(CONT NEXT PAGE)

ENGINE RECORD — GENERAL INFORMATION

MANUFACTURER WARNER MODEL SS 50
SERIAL 122-E TYPE CERTIFICATE ATC 104
THIS ENGINE IS CURRENTLY INSTALLED IN AIRCRAFT NC 15345 A FAIRCHILD F24 C8C
MINIMUM OCTANE FUEL 73 OIL GRADE SUMMER 120 WINTER 80
MAGNETO TIME 31° BTDC POINT SETTING .012 FIRING ORDER 1,3,5,7,2,4,6
SPARK PLUG GAP .015 — .020
MFG. RECOMMENDED OVERHAUL AT _____ HOURS.

The Standard



ENGINE LOG

N15345

ENGINE LOG

ENGINE LOG

[illegible]

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

[illegible]

ENGINE LOG

YEAR <u>73</u>		RECORDING TACH. READING	TIME THIS FLIGHT	TOTAL TIME	REMARKS	SIGNATURE
MO.	DAY			<u>1436:45</u>		
7	22		1:15	1438:00	Lakeview - Freedom	Dan Steiner #7
8	26		:30	1438:30	Freedom Local	Dan Steiner
8	31		2:15	1440:45	Freedom - Eau Claire Lakes	Dan Steiner
9	3		2:00	1442:45	E.C. Lakeview - Merrill	Dan Steiner
9	3		:30	1443:15	Merrill Local	Dan Steiner
9	4		1:30	1444:45	Merrill - Freedom	Dan Steiner
9	16		:45	1445:30	Freedom ^{+ Return} - New London	Dan Steiner
9	20		1:30	1447:00	Freed. - Shawano + Return	Dan Steiner
9	23		2:00	1449:00	Freed. - Glendora + Return	Dan Steiner
9	29		1:30	1450:30	FRD - SHAWANO + RETURN	Dan Steiner
10	6		2:15	1452:45	SHAWANO FOR DUAL	Dan Steiner
10	20		:30	1453:15	ATW + Return FRD	Dan Steiner

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

[illegible]

ENGINE LOG

YEAR <u>73</u>		RECORDING TACH. READING	TIME THIS FLIGHT	TOTAL TIME	REMARKS	SIGNATURE
MO.	DAY					
5	20		:15	1424:30	Martens - Freedom	Dan Steiner
6	23		:15	1424:45	Freedom - Appleton	Dan Steiner
6	23		3:00	1427:45	Appleton - ^{search} Bird #66 + 467	Dan Steiner
6	23		2:00	1429:45	App. Omo Wiskapile Osh.	Dan Steiner
6	23		:30	1430:15	Osh - Appleton	Dan Steiner
6	24		2:30	1432:45	Appleton ^{search + return} Bird 525	Dan Steiner
6	24		1:00	1433:45	App. orientation rides	Dan Steiner
6	24		:45	1434:30	App. Nicolet - Freedom	Dan Steiner
6	29		:15	1434:45	Freedom - Shawano	Dan Steiner
6	29		:15	1435:00	Shawano - Freedom	Dan Steiner
7	1		:45	1435:45	Freedom - Loral	Dan Steiner
7	22		1:00	1436:45	Freedom - La Rue	Dan Steiner

CARRY TOTAL TIME TO TOP OF NEXT PAGE

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

[illegible]

ENGINE LOG

YEAR	1972	RECORDING TACH. READING	TIME THIS FLIGHT	TOTAL TIME	REMARKS	SIGNATURE
				1411:30		
	9	10	:15	1411:45	Freedom - Nicholet	Dan Steiner
	9	10	1:45	1413:30	Nicholet - Portage	Dan Steiner
	9	10	1:15	1414:45	Portage - Fond du Lac	Dan Steiner
	9	10	:45	1415:30	Fond du Lac - Freedom	Dan Steiner
	10	1	1:00	1416:30	Freedom - Al Keltch	Dan Steiner
	10	1	1:00	1417:30	Keltch - Freedom	Dan Steiner
	10	7	3:00	1420:30	Freedom - Eau Claire Lakes	Dan Steiner
	10	8	2:00	1422:30	Eau Claire Lakes - Freedom	Dan Steiner
1973	5	19	:15	1422:45	Freedom to Appleton	Dan Steiner
	5	19	:30	1423:15	Appleton - Fond du Lac	Dan Steiner
	5	19	:45	1424:00	Fond du Lac - Freedom	Dan Steiner
	5	20	3:15	1424:15	Freedom - Martins	Dan Steiner

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

[illegible]

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

YEAR		DESCRIPTION OF INSPECTIONS, REPAIRS AND ALTERATIONS Certificated mechanics or repair facilities must endorse all inspections and repairs with name, rating & Cert. No.
MO.	DAY	
		Date <u>9/17/70</u> Engine... has been inspected and was determined to be in good condition. Signature <u>F. Strachel</u> A&P No. <u>1013907-IA</u> MAXAIR, INC. <u>Fred Strachel</u> AYE 1013907 IA June 20, 1972 - Annual inspection completed. Total time 1406:45 hrs. I certify that this engine has been inspected as required by an Annual Insp and is determined to be Airworthy. <u>Fredrick Strachel</u> AYE 1013907 Insp Auth.

ENGINE LOG

YEAR	MO.	DAY	RECORDING TACH. READING	TIME THIS FLIGHT	TOTAL TIME	REMARKS	SIGNATURE
					1379:00		
1970	10	5		1:00	1400:00		Dan Steiner
8	18			:30	1400:30		Dan Steiner
8	21			:30	1401:00		Dan Steiner
8	24			:30	1401:30		Dan Steiner
8	25			:30	1402:00		Dan Steiner
9	1			:30	1402:30		Dan Steiner
9	16			:30	1403:00		Dan Steiner
1971	6	23		1:00	1404:00		Dan Steiner
6	28			:45	1404:45		Dan Steiner
6	29			1:30	1406:15		Dan Steiner

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

YEAR	MO.	DAY	DESCRIPTION OF INSPECTIONS, REPAIRS AND ALTERATIONS			
			Certificated mechanics or repair facilities must endorse all inspections and repairs with name, rating & Cert. No.			
1969	9	10	Annual Inspected completed 1398.45 hrs. Frederick Strachel A+E 1013407 IA			
1970	7	15	100 Hr Insp Completed Total T. 1402. Oiled generator & oil serum, greased rocker arms. Check plugs. Carbonated heat checked. I hereby certify this engine is airworthy Engine run up & checked O.K. A+P 1121456 L. J. [Signature]			

ENGINE LOG

DESCRIPTION OF INSPECTIONS, REPAIRS AND ALTERATIONS

Certificated mechanics or repair facilities must endorse all inspections and repairs with name, rating & Cert. No.

YEAR 68

MO. DAY

7 12

Annual inspection completed at 1395.45 hrs
Frederick Herdahl

IA 1013907

9/4/69

100 Hr Insp. completed Total Time 1399 Hrs

Cleaned gas distributor & oil screen, greased
rocker arms. Washed engine down. May.
checked OK. Added fresh heat intake.

Engine run up & checked OK.

thereby certifying this engine is airworthy

and in accord with AC 43-13-1

AdP 1121456 Hylent

ENGINE LOG

DESCRIPTION OF INSPECTIONS, REPAIRS AND ALTERATIONS

Certificated mechanics or repair facilities must endorse all inspections and repairs with name, rating & Cert. No.

YEAR
MO. DAY

10 12 67 Removed & installed R. magneto coil. Run up engine & checked O.K. I hereby certify that this engine is airworthy in accordance to manual K43-13-1
A&P 1121456

Hayford Otto

7 12 68 1.00 Hr Insp. TOTAL Time 1396 Hrs. 266 Hrs. S.M.O.H.

Replaced a section of Carb. Heat intake greased Rocker arms, cleaned gasculator, washed engine down. Mags checked O.K.

I hereby certify this engine airworthy. A&P 1121456 Hayford Otto

ENGINE LOG

YEAR	MO.	DAY	RECORDING TACH. READING	TIME THIS FLIGHT	TOTAL TIME	REMARKS	SIGNATURE
					1390.45		
67	4	1		:30	1391.15		Dan Steiner
	4	5		:30	1391.45		Dan Steiner
	5	16		:15	1392.00		Dan Steiner
	5	25		:45	1392.45		Dan Steiner
	8	24		:45	1393.30		Dan Steiner
	8	25		:30	1394.00		Dan Steiner
	9	28		:30	1394.30		Dan Steiner
	10	1		:30	1395.00		Dan Steiner
	10	16		1:00	1396.00	RT. MAG CUT OUT OK	Dan Steiner
	7	15		1:00	1397.00		Dan Steiner
	12	15		1:00	1398.00		Dan Steiner
	12	15		1:00	1399.00		Dan Steiner

CARRY TOTAL TIME TO TOP OF NEXT

ENGINE LOG

YEAR	MO.	DAY	DESCRIPTION OF INSPECTIONS, REPAIRS AND ALTERATIONS Certificated mechanics or repair facilities must endorse all inspections and repairs with name, rating & Cert. No.	
67	7	21	Annual Inspection completed Total time 1393.45 hrs. Fred Schleibel IA 1013907	
67	6	28	100 Hr Insp. Completed TOTAL Time 1392.45 Removed oil screen & cleaned, Pump pulsator & cleaned, Heat exchanger removed & checked, replaced a section of carb. heat intake. Checked mags OK. of Ruby certify that this engine is airworthy. Hayland Otto Oil added not changed	
			AWE 1121456	

ENGINE LOG

YEAR 65		RECORDING TACH. READING	TIME THIS FLIGHT	TOTAL TIME	REMARKS	SIGNATURE
MO.	DAY			1379:15		
8	16		1:00	1380:15		Dan Steiner
10	4		:30	1380:45		Dan Steiner
10	10		:45	1381:30		Dan Steiner
12	3		1:15	1382:45		Dan Steiner
1966	6	10	1:45	1384:30		Dan Steiner
6	16		:45	1385:15		Dan Steiner
6	17		:45	1386:00		Dan Steiner
9	27		:45	1386:45		Dan Steiner
11	14		45	1387:30		Dan Steiner
12	7		:45	1388:15		Dan Steiner
12	11		1:30	1389:45		Dan Steiner
1967	3	23	1:00	1390:45		Dan Steiner

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

YEAR		DESCRIPTION OF INSPECTIONS, REPAIRS AND ALTERATIONS	SMOH.
MO.	DAY		
		Certificated mechanics or repair facilities must endorse all inspections and repairs with name, rating & Cert. No.	252.30
6/3/65		100 Hr Insp. completed T.T. 1382.45 Hrs.	
		Cleaned & regapped plugs. Removed	
		oil screen & checked O.K. Removed gasculaten	
		& cleaned. Greased rocker Arms, AD 51-42	
		C/w syl. Hold down nuts Torqued. Heater	
		schrowd removed & checked. Checked Mags.	
		I hereby certify that this engine in accordance	
		to CDM 18 is in an airworthy condition	
6	10	66. Annual inspection A.P. 1121456	
		Completed. Total time 1382:45 hrs	
		Frederick Sheels I.A. 1013907	

ENGINE LOG

YEAR	MO.	DAY	RECORDING TACH. READING	TIME THIS FLIGHT	TOTAL TIME	REMARKS	SIGNATURE
65					1375:15		
6	6	16				"I certify that this aircraft has been inspected in accordance with <u>Periodic</u> inspection and was determined to be in airworthy condition."	
						G. W. Laiton, IA 563890	<i>J. W. Laiton</i>
6	6	17		:45	1376:00		Dan Steiner
6	6	18		:15	1376:15		Dan Steiner
6	6	21		:30	1376:45		Dan Steiner
7	7	14		:30	1377:15		Dan Steiner
7	7	23		:30	1377:45		Dan Steiner
8	8	10		:30	1378:15		Dan Steiner
8	8	12		:30	1378:45		Dan Steiner
8	8	15		:30	1379:15		Dan Steiner

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

YEAR		RECORDING TACH. READING	TIME THIS FLIGHT	TOTAL TIME	REMARKS	SIGNATURE
MO.	DAY					
6	4		:45	1367:30		Dan Steiner
6	27		:30	1368:45		Dan Steiner
7	3		3:00	1371:45		Dan Steiner
7	6		:30	1372:15		Dan Steiner
7	10		:30	1372:45		Dan Steiner
7	12		2:30	1375:15		Dan Steiner

CARRY TOTAL TIME TO TOP OF NEXT PAGE

CARRY TOTAL TIME TO TOP OF NEXT PAGE

ENGINE LOG

YEAR		DESCRIPTION OF INSPECTIONS, REPAIRS AND ALTERATIONS Certificated mechanics or repair facilities must endorse all inspections and repairs with name, rating & Cert. No.
MO.	DAY	
6-16-65		100-hr. Inspection Completed: T.T. 1375:15 S.M.O.H. 245: Plugs cleaned, Comp. Check, Rockers greased & Adjust, A.D. 51-4-2 C/W - Cyl. hold down nuts torqued, Throttle Shocks removed to check exhaust stacks, New primer line firewall to engine distributor, Carb. and gasolator drained, Oil changed, screen cleaned. H.H. Fisher H+P 584030.

ENGINE DATA

(THIS PAGE MUST BE FILLED OUT COMPLETELY)

Major overhaul
at 1128 Hrs 5/15/55

MANUFACTURER WARNER MODEL SS-50 SUPER SCARAB SERIAL NO. SS-122-E

DISPLACEMENT 499.8 CU. IN. OIL PRESSURE 40-90 OIL TEMP. MAX. 200°F INLET

WEIGHT 306 LBS RATED H. P. 145 AT 2050 R.P.M.

OIL GRADE: SUMMER 100 WINTER 80 OIL CAPACITY 20 QTS.

FUEL MINIMUM OCTANE 73 OCTANE 73 FIRING ORDER 1, 3, 5, 7, 2, 4, 6,

MAGNETO TIMING 31° B.T.C. MAGNETO POINT SETTING .012"

SPARK PLUG GAP .015" TO .020"

VALVE TAPPET CLEARANCE (COLD) .010"

Battery
AN 3152A

1115345

ENGINE LOG
AND MAINTENANCE RECORD

DATE

19 63

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING: "INSTRUCTIONS FOR USE OF THIS LOG BOOK."

ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

9-18 100 hr. Inspection Completed: TOTAL Time 1350:00 S.M.H. 222.02
 Oil changed - Screen cleaned, A.D. 51-4-2 C/w Cyl. hold down
 nut torque, rescore carb. mixture control cable, carb. drained,
 gasolator drained, tappets checked, rocker ground, Heat muffs
 removed and all exhaust manifold checked for leaks or cracks.
 I certify that this engine has been inspected in accordance with
 100 hr. inspection and was determined to be in satisfactory condition.
 H.H. Lichten P. 584030

9-21 Periodic inspection completed total Time 1350:15
 all A.D. notes check & comply with spec 63-18
 L.H. Lichten A.P. 563890 Inspection Author.

DATE

1962

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

7-2

100 hr. Inspection Torqued cyl. head down nuts,
Replaced spark plugs - G26-, Meas'd rocker arms - adj.
tappets; Replace magneto drive couplings, replace
exhaust gaskets #4 & 5 Cyls; baffle heater duct through firewall,
drained gascolator - install quick drain, check oil screen,
change oil. Engine run and believed to be Airworthy.
7-2-62 J.H. Fisher AP584030

7-2

Periodic inspection completed Total Time 1326:20
all AD notes checked thru 62-14 - G. H. Fauter
ATP 563890
Inspection Auth.

DATE

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR USE OF THIS LOG BOOK."

ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

19

4-5-61 - Periodic inspection completed Total time 1279:30

Periodic inspection in accordance with C.A.M. 18-30.

Frederick Stuebel

A78 1013907

Inspection Airtel

7-8-61 GREASED LOCKER ARMS & PUSH RODS CLEANED PLUGS CHANGED OIL DRAIN^{& CLEAN} CARBURETOR SCREEN & OIL SCREEN

DATE

1961

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

4-4 Fixed oil leak at sump, greased rocker arms & pushrods. Checked & gapped tappets. Checked magnetos & adjusted points. Torqued cylinder holddown nuts. Replaced exhaust stud & gasket on #6 cylinder. Cleaned oil screen & changed oil. Checked finger screen in carburetor & drained fuel line sediment bowl. Cleaned engine & checked all lines, hose clamps & hoses. Cleaned & regapped spark plugs.
Engine test run & found airworthy
A+E 346401 William T. Benson

DATE

19 60

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR USE OF THIS LOG BOOK."

ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

Fixed oil leaks, replaced oil ring seals on push rod tubes. Greased rocker arms + push rods. Checked tappets. Checked magneto. Cleaned + adjusted voltage regulator. Torqued cyl. hold down nuts. Replaced spark plugs with new plugs. Cleaned engine + checked all lines + hose clamps + hoses. Pulled oil screen + gas finger screen in carb. Drained fuel line sediment bowl. Replaced cyl. baffle bolts.

Engine test run + found airworthy.

William T. Beson

A+E 346401

4/22/60 - Periodic inspection completed - Total time 1264.50

Franklin Strobel A+E 1013907

Inspection Authorization

DATE

19 59

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR USE OF THIS LOG BOOK."

ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

1/7/59. I certify that this aircraft engine has been inspected in accordance with a Periodic Inspection and was determined to be in an Airworthy condition. Total Time 1236:30 hrs. A.D. notes complied there 58-26

Frederick Strachel

AGE 1013901

Inspection Authorization

DATE

19

REMARKS
ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-
SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR
USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER
MUST BE SHOWN.

1-3-59 ENGINE WASHED. CYLINDER HOLD
DOWN NUTS TORQUED, PLUGS CLEANED AND
CHECKED POINTS CHECKED, OIL AND GAS
SCREENS CLEANED. INSTALLED NEW EXHAUST
STACKS REPAIRED CARB. HEATER AND
CONTROL. INSTALLED NEW CARB. GREASED
PUSH RODS AND ROCKER ARMS CHECK
TAPPETS. INCREASED PITCH ON PROP
ENGINE TEST RUN (1700 RPM GROUND)
CONSIDERED AIRWORTHY.

William T. Benson
d+E 346401

DATE

19

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR USE OF THIS LOG BOOK."

ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

30422-57 W

WASHED ENGINE, TIGHTED ALL NUTS AND HOSE
CONNECTIONS, TORQUED CYLINDER NUTS, CHECKED
POINTS, CLEANED OIL SCREEN, CHANGED OIL
REMOVED HEATER MUFF, CHECKED EXHAUST STACKS
INSTALLED 8 PLUGS, CHECKED 6 REMAINING PLUGS
GREASED PUSH RODS AND ADJUSTED TAPPETS
TIGHTED RING COWL CHECKED MOUNTING BOLTS
ENGINE TEST RUN 1800 RPM ON GROUND
CONSIDERED AIRWORTHY

7/25/57 100 hr inspection William T. Beson

approved for periodic inspection A & E 346401
also date Fred H. Michael A & E 1013407 Inspection Authorization

DATE

19 56

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

5-30-56 Installed new carburetor, and new gas line washed engine checked all cylinder studs and engine nuts changed oil. Greased rocker arms & push rods checked valve changed battery & installed. Cleaned oil screen changed oil, cleaned fuel strainer, split checked plugs. Checked all oil lines & connections installed new gas line hose & clamps. Checked motor mount bolts. Engine test run & checked out O.K. Airworthy

William T. Beson
A+E 346401

DATE	TIME ON GROUND		TIME IN AIR		TOTAL TIME		SIGNATURE OF PERSON MAKING EACH ENTRY	CERTIFICATE (LICENSE) NUMBER	RATING
19 <u>55</u>									
7-25-55			45		1151	45	RJB		
9-5-55			2 30		1154	15	RJB		
9-8-55			30		1154	30	RJB		
9-13-54			1 45		1156	15	RJB	Changed oil	
5-30-56			1 30		1157	45	RJB		
6-3-56			1 30		1159	45	RJB		
6-12-56			1 00		1160	45			
6-18-56			45		1161	00			
6-19-56			30		1161	30			
6-19-56			1 15		1162	45			
7-3-56			1 30		1163	35			
7-8-56			1 45		1164	50			
TOTALS							CARRY THE TOTALS OF THE THREE "TIME" COLUMNS FORWARD TO TOP OF FRESH PAGE		

DATE	REMARKS	
	ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK UNDER THE HEADING "INSTRUCTIONS FOR USE OF THIS LOG BOOK." ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.	
19 <u>55</u>		
	5-30-56 Installed new carburetor, and new	
	gas line washed engine checked all cylinder	
	studs and engine nuts Changed oil Greased	
	rocker arms & push rods checked valve changed	
	battery & materials Cleaned oil screen	
	changed oil, cleaned fuel strainer,	
	spit checked plugs Checked all oil lines &	
	connections installed new gas line hose &	
	clamps Checked motor mount bolts	
	Engine test run & checked out A.K. Airworthy	
	William T. Beson	
	A+E 346401	

DATE

REMARKS
ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-
SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING: "INSTRUCTIONS FOR
USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER
MUST BE SHOWN.

19

June 11/1955 Periodic inspection on engine
install new gas hose at carburetor Engine runs in as
ground 8 hrs Installed new ground terminals
Wm. H. Palmer AF 16842

REMARKS
ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING: "INSTRUCTIONS FOR USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

7-17-54 GREASED PUSH RODS CHECKED MAGS, CYLINDER STUDS, EXHAUST STACKS, OIL AND GAS LINES
May 15 1955 Engine Major Overhauled at 1128 hrs Engine taken apart and all parts cleaned, installed all new exhaust Valve guides and exhaust Valves, seats ground, all new ex Valve springs Cyl honed to clean up, all new pistons, piston pins and rings installed fit all new knuckel pins, installed all new main ball bearings and thrust bearing assemble engine with all new gaskets all steel parts magnafluxed at Schneek Engine Service all new parts are Warner SS.145E purchased at Schneek Engine Service install new magnets drive couplings and used magnets from another engine also carburetor, install all new ign cable
PALMER AIRCRAFT ENGINE SERVICE Wm. H. Palmer AE-16842

DATE	TIME ON GROUND		TIME IN AIR		TOTAL TIME	SIGNATURE OF PERSON MAKING EACH ENTRY	CERTIFICATE (LICENSE) NUMBER	RATING
1953								
11-14-53			30	1121	00	RJB		
11-15-53			45	1121	45	RJB		
11-12-53			45	1122	30	RJB		
11-20-53			45	1123	15	RJB		
1-10-54			115	1124	30	RJB		
1-23-54			115	1125	45	RJB		
1-24-54			230	1128	15	RJB Major overhaul		
6-10-55			30	1128	45	Test Hrp RJB		
6-10-55			45	1129	30	RJB		
6-12-55			130	1131	00	RJB		
6-13-55			100	1132	00	RJB		
6-14-55			45	1132	45	RJB		
TOTALS				CARRY THE TOTALS OF THE THREE "TIME" COLUMNS FORWARD TO TOP OF FRESH PAGE				

DATE

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-
SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING: "INSTRUCTIONS FOR
USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER
MUST BE SHOWN.

19 53

9-8-53 Checked points and cleaned and regapped
plugs. Cleaned oil and carburetor screens. Checked
engine for oil leaks. Installed some new spark
ends on ignition harness. Cylinder head studs
torqued to 200 in lbs according to A.D. note 57-4-2
Engine run up checked out O.K. and
considered unworthy

William T. Beson

A+E 346401

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING: "INSTRUCTIONS FOR USE OF THIS LOG BOOK."

ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

DATE

19

Removed and cleaned carburetor, greased push rods
& rocker arms checked tappets Changed oil 6-20-53.
Charged battery

DATE

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING, "INSTRUCTIONS FOR USE OF THIS LOG BOOK."

19

ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

1-3-53

Replace all main Bearings & master Rod bearings & Cam & Crank bearing. All new Rings, one new Piston all & valves Ground & Seats Replaced. Engine Run in 8 hrs. & test flown & checked OK.

W O Miller
A + C 494082

DATE

19

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING, "INSTRUCTIONS FOR USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

8-75-2 checked prop & plugs. cleaned carburetor
screws & oil screws. Replaced points in st. mag.
charged battery. washed entire engine and wiped
for cracks & oil leak. all inspection according
to C.A.R. and recommended airman. All A.D.S.
through 52-19-1 completed.

Burnett O'Connell RKE

1143724

DATE

19

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING: "INSTRUCTIONS FOR USE OF THIS LOG BOOK."

ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

4-30-52 - oil change, SAE 50. Retained exhaust & stacks. new plugs. Run & shipped CEC 1143724

7-8-52 Installed new no 7 cylinder & Piston standard size. .002 oversize pin. all new gaskets. Run in 1:30 on gravel.

Run & shipped CEC 1143724

DATE

1951

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING: "INSTRUCTIONS FOR USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

7-16

Removed Plugs, cleaned & regapped, & replaced.
changed oil, Refilled with Penixlight #100.
Repaired Exhaust Stack on # 3 & 4 cylinders.

Paul Lewis Jr.

8-4-51 COMPLETED 100 HOUR INSPECTION ON
AIRCRAFT AND ENGINE. AIRWORTHY, CHECKED
OHES, CHECKED MAGS, REPAIRED EX. STACKS.
ADS 46-21-1, 46-40-1, 46-40-2 PREVIOUSLY
COMPLIED. ADS THRU 51-18 COMPLIED.

George W. Lytle
ATE 522320

DATE

19

REMARKS

ENTER HERE GENERAL DATA WITH REFERENCE TO "LINE" AND "PERIODIC" INSPECTIONS-ACCIDENTS-REPAIRS-ALTERATIONS-SERVICING-AND OVERHAULS-AS OUTLINED IN THE FRONT OF THIS BOOK, UNDER THE HEADING: "INSTRUCTIONS FOR USE OF THIS LOG BOOK."
ALL DATA MUST BEAR THE ENDORSEMENT OF A CERTIFICATED MECHANIC, AND HIS RATING AND CERTIFICATE NUMBER MUST BE SHOWN.

7/1/50 Periodic inspection given. Air worth.
Checked plugs, mag, Prop, mount etc.
Replaced studs on #2 cylinder & replaced all
gaskets that looked like leaks were at.
Cleaned & drained fuel & oil screens. Run engine
O.K. Test flown OK.

Gene E. Freeman A9E557461

ENGINE LOG
AND MAINTENANCE RECORD
Type AP-13

Record of Walter Super Scarab SS-122-E
Make Model Serial

From July 1 1950 To JUNE 30 1963

Detailing Time From 976:05 To 1350:15
Hours—Minutes Hours—Minutes

#3
1/28/44
NICHOLAS-BEAZLEY AIRPLANE CO., INC.

AIR PLANE

MOTORS, SUPPLIES, PARTS, ACCESSORIES

ENGLISH AT NORTH ST

MARSHALL, MISSOURI

6235 SAN FERNANDO ROAD
GLENDALE, CALIFORNIA

FLOYD BENNETT FIELD
BROOKLYN, NEW YORK

LOVE FIELD
DALLAS, TEXAS

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
1944							733	40		
9-2	1850	2050	10		2 00		735	40		
9-10	1850	2050	15		3 00		738	40		
9-16	1850	2050	10		1 00		739	40		
9-17	1850	2050	10		1 20		741	00		
9-18	1850	2050	10		1 10		742	10		C.M.S.
9-19	1850	2050	15		1 35		743	45		
9-23	1850	2050	10		30		744	25		
9-24	1850	2050	10		5 00		749	25	Periodic inspection	
9-28	1850	2050	05		1 25		750	50	10-1-44 M.H. Kelly J.E. 11313	

Place Last Top Overhaul.....

Place Last Complete Overhaul.....

Date.....

Date.....

Date.....

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
Oct 44							750	50		
10-1					10	2 00	753	00		
							752	50		
									5-22-45	
									Remove Hartzel	
									Propeller & install	
									Handler # 29032	
									DWC # 1595-0	
									OK. H. J. Lunsford	
									ATE 11461	

Place Last Top Overhaul.....

Place Last Complete Overhaul.....

Engine Transferred to.....

Date.....

Date.....

Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1944	Bro't Forward						674	15		
4-7	1850	2050	05		1	10	675	25		
4-10	1850	2050	05		1	30	676	55		
4-11	1850	2050	05			30	677	25		
4-12	1850	2050	05			45	678	10		
4-18	1850	2050	05		1	00	679	10		
4-20	1850	2050	05		1	30	680	40		
4-26	1850	2050	05		1	30	682	10		
4-27	1850	2050	15		3	30	685	40		
4-28	1850	2050	05			45	686	25		
			05				687	20		

30 hrs Move
Mistake Made
on 4-20 entry

Place Last Top Overhaul.....Date.....
Place Last Complete Overhaul.....Date.....
Engine Transferred to.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1944	Bro't Forward						687	20		
4-29	1850	2050		10	3	30	690	50		
5-14	1850	2050		05	1	15	692	05		
5-15	1850	2050		05	1	00	693	05		
5-17	1850	2050		10	2	00	695	05		
5-21	1850	2050		05	1	00	696	05		
7-19	1850	2050		15	3	30	729	35		
7-20	1850	2050		10	2	00	731	35		
8-5	1850	2050		05	1	00	732	35		
							733	40		

add 30 hrs

726:05

engine check all change
B.S. 6/12/44

Place Last Top Overhaul.....Date.....
Place Last Complete Overhaul.....Date.....
Engine Transferred to.....Date.....

ENGINE *ATC 104*

TYPE *WARNER Sup. SCARAB* GEAR REDUCTION RATIO _____
 H. P. *145* SERIAL NO. *SS. 122 E* OPER. OIL PRESSURE _____
 WT. COMPLETE (DRY) LBS. *303* DISPLACEMENT _____
 BORE *4 1/8"* STROKE *4 1/4"*
 R. P. M. NORMAL *2050* MAXIMUM *2150*
 B. H. P. NORMAL *145* MAXIMUM *460 ATC*
 PROPELLER...MAKE *HARTZELL-#15593* TYPE *706E* *20 Lbs.*
 ROTATION OF PROPELLER *a/c* PITCH *6'7"* DIA. *6'11"*

MANUFACTURER
 NAME *WARNER AIRCRAFT CORP*
 ADDRESS *Detroit, Mich.*

OWNER
 NAME *Edwin P Dalton*
 ADDRESS *Flushing, Mich.*

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
<i>1-28</i>	<i>1950</i>	<i>2050</i>		<i>15</i>	<i>4</i>	<i>00</i>	<i>688</i>	<i>10</i>		
<i>1-29</i>	<i>1950</i>	<i>2050</i>		<i>05</i>	<i>1</i>	<i>30</i>	<i>692</i>	<i>10</i>		
<i>2-9</i>	<i>1950</i>	<i>2050</i>		<i>10</i>	<i>1</i>	<i>00</i>	<i>694</i>	<i>40</i>		
<i>3-9</i>	<i>1950</i>	<i>2050</i>		<i>10</i>		<i>30</i>	<i>695</i>	<i>10</i>	<i>Engine Check</i>	
<i>3-12</i>	<i>1950</i>	<i>2050</i>		<i>05</i>		<i>30</i>	<i>695</i>	<i>40</i>	<i>oil Change</i>	
<i>3-21</i>	<i>1950</i>	<i>2050</i>		<i>10</i>	<i>1</i>	<i>30</i>	<i>697</i>	<i>10</i>		
<i>3-22</i>	<i>1900</i>	<i>2050</i>		<i>05</i>	<i>1</i>	<i>00</i>	<i>698</i>	<i>10</i>		
<i>3-28</i>	<i>1850</i>	<i>2050</i>		<i>10</i>	<i>1</i>	<i>38</i>	<i>699</i>	<i>55</i>		
<i>4-5</i>	<i>1850</i>	<i>2050</i>		<i>10</i>	<i>3</i>	<i>00</i>	<i>672</i>	<i>55</i>	<i>70255</i>	
				<i>1:20</i>			<i>674</i>	<i>15</i>	<i>704:15</i>	

Place Last Top Overhaul.....Date.....
 Place Last Complete Overhaul.....Date.....
 Engine Transferred to.....Date.....

NICHOLAS-BEAZLEY AIRPLANE CO., INC.

AIRPLANE

MOTORS, SUPPLIES, PARTS, ACCESSORIES

ENGLISH AT NORTH ST

MARSHALL, MISSOURI

6235 SAN FERNANDO ROAD
GLENDALE, CALIFORNIA

FLOYD BENNETT FIELD
BROOKLYN, NEW YORK

LOVE FIELD
DALLAS, TEXAS

Book - #2

9/13/38

TO

1/26/44

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
1-1-44							674	40		
12-25	1950	2050	05		1 00		675	40		
12-28	1950	2050	05			45	676	25		
1-11-44	1950	2050	05			45	677	05		
1-18-44	1950	2050	05			35	677	40		
1-22-44	1950	2050	10		2 00		679	40		
1-23-44	1950	2050	05		1 30		681	10		
1-24-44	1950	2050	10		2 45		683	55		
1-25-44	1950	2050	05		1 45		685	40		
1-26-44	1950	2050	10		1 30		687	10		
1-27-44			1 00				688	10		

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
							648	48		
9-13	1950	2050	05		35		649	23		
9-14	1950	2050	15		3	10	652	33		
9-15	1950	2050	05		1	20	653	53		
9-30	ENGINE CHECK REPLACED TWO SPARK PLUGS REPAIRED EXHAUST SYSTEM. PUT IN 5 GAL. SINCLAIR NO 50 OIL. PONTIAC HERO SERVICE. APPROVED. STATION NO 2361.									
	James Vincent Dal									
	M 154342									

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
							653	53		
9-16	1950	2050			20		658	13		
9-22	1950	2050			10		659	43		
9-23	1950	2050			10		661	28		
10-17	1950	2050			05		662	30		
10-18	1950	2050			05		664	00		
11-8	1950	2050			10		667	00		
11-9	1950	2050			10		669	55		
11-10	1950	2050			10		673	20		
12-17	1950	2050			10		674	40		
					1	20				

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine in

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
							603	15		
6/5				10	4	08	607	23		
6/6	1950	2050		20	9	00	616	23		
6/20	1950	2050		05		30	616	53		
6/29	1950	2050		05	1	00	617	53		
6/30	1950	2050		10	3	52	621	45	Oil Change Battery	
7/5	1950	2050		05		30	622	15		
7/7	1950	2050		05	2	30	624	45		
7/8	1950	2050		05		00	625	45		
7/9	1950	2050		05	2	00	627	45		
7/17	1950	2050		05	2	20	630	05		
			1	15			631	20		

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
							631	20		
7/19	1950	2050		10	2	15	633	35		
7/20	1950	2050		05	1	15	634	50		
7/23	1950	2050		05	1	05	635	55		
7/24	1950	2050		05		30	636	25		
7/25	1950	2050		05	2	15	638	40		
8/4	1950	2050		05	1	23	640	03		
8/10	1950	2050		10	1	45	641	48		
8/28	1950	2050		05	1	15	643	03		
8/31	1950	2050		05	3	30	646	33		
9/5	1950	2050		05	1	15	647	48		
							648	48		
			1	00						

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward						567	15		
1943										
2/22	1900	2050		10	1	00	568	25		
3/8	1850	2050		05		45	569	10		
3/15	1950	2050		05	2	30	571	40		
3/21	1950	2050		05	2	45	574	25		
3/22	1950	2050		05	2	45	576	40		
3/23	1950	2050		05	1	35	578	15		
3/28	1950	2050		10	3	52	582	17		
4/8	1950	2050		05	1	40	583	57		
4/11	1950	2050		05		52	584	49		
			101	50			585	39		

Place Last Top Overhaul.....

Place Last Complete Overhaul.....

Date.....

Date.....

Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward						585	39		
4/12	1950	2050		05	4	15	589	54		
4/19	1950	2050		05		35	590	29	Radio test & check up etc.	
4/20	1950	2050		05	1	22	591	51	Radio test and check up etc.	
5/2	1950	2050		05	1	47	593	38	all clear 92.	
5/7	1950	2050		05	1	03	594	41		
5/9	1950	2050		05	2	04	596	45		
5/30	1950	2050		05	1	30	598	15		
5/31	1950	2050		05	1	30	599	45		
6/3	1950	2050		05	2	35	602	20		
				55			603	15		

Place Last Top Overhaul.....

Place Last Complete Overhaul.....

Engine Transferred to.....

Date.....

Date.....

Date.....

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
1942							552	20		EPO
8/7	1900	2050	70	10		40	553	10		EPA
8/12	1875	2050		10		30	553	40		EPA
8/16	1900	2050		15	1	05	554	55		EPO
9/21	1900	2050		05		55	555	55		EPA
9/22	1900	2050		10	1	20	557	20		EPA
12/7	1900	2050		10	3	40	561	15		EPA
1943										
1/7	1900	2050		10	2	35	564	00		EPA
1/10	1900	2050		10	1	45	565	55		EPA
2/21	1900	2050		05	1	15	567	15	BATTERY CHARGED	EPA

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

DATE	NATURE OF FLIGHT	No. of Flights	No. of Pass.	POUNDS OF MAIL OR EXPRESS	TIME OF FLIGHT		TIME IN AIR		FLOWN MILES	RECEIPT	REPAIRS OR ADJUSTMENTS MADE	SIGNATURE
					UP	DOWN	HRS.	MIN.				
<i>Periodic Inspection prior to</i> <i>release 8-11-41</i> <i>Form 319 is a part here</i> <i>This airplane is Airworthy</i> AIRCRAFT CERTIFICATE RENEWED. AUG. 12, 1941 WILFRED B. BLAIN, C. A. A. INSPECTOR												

DATE AND PLACE OF LAST OVERHAUL

REMARKS

BISHOP FLYING SERVICE, Inc.
 APPROVED REPAIR STATION # 382

BY *Forster Thomas*
 ME 15533

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
1941							546	40		
8/28	1900	2050		05		40	547	25		S. B. S.
9/26	1850	2050		05	1	—	548	30	Battery charged	S. B. S.
10/11	1900	2050		10	1	10	549	50		S. B. S.
10/16	1860	2050		05		20	550	15	Battery Charged	S. B. S.
11/29	1875	2050		15	1	30	552	—	4/6/42	S. B. S.
12/17	1875	2050		10		30	552	40	new Battery	S. B. S.
1942	1900	2050		10		30	552	20	Exide-Type 6-TS-7-1888.	
4/21									Dwg DC 12877	
6/21	Engine check new exhaust valve springs-									
	oil change, 16 qts. Kendall 60.									

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

DATE	NATURE OF FLIGHT	No. of Flights	No. of Pass.	POUNDS OF MAIL OR EXPRESS	TIME OF FLIGHT		TIME IN AIR		FLOWN MILES	RECEIPT	REPAIRS OR ADJUSTMENTS MADE	
					UP	DOWN	HRS.	MIN.			SIGNATURE	
9-41 41							466	25				
8-28 8/28	X-C Pr.				1 hr.		1 hr.		Flint to Lansing Return		M. J. P.	
9/26							1	—				S. S. S.
10/11							1	10				S. S. S.
10/16								20				S. S. S.
11/29							1	30				S. S. S.
12/17								30				S. S. S.
1942 4/21								30				S. S. S.

DATE AND PLACE OF LAST OVERHAUL.....

REMARKS.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
191940	Bro't Forward						526	50		
9/21	1900	2150		05		30	527	35		S.S.S.
9/28	1900	2050		10		3	530	45		S.S.S.
10/13	1900	2050		10		145	532	40		S.S.S.
10/21	1850	2050		10		1	533	50	Battery charged	S.S.S.
11/10	Engine check - new plugs in rear Oil change 16 qts 50 F 2 qts #50 G - Kendall M. G. & Overhaul 10 7 44									
11/10	1900	2050		05		15	534	10		S.S.S.
12/21	1850	2100		10		30	534	50		S.S.S.
1/4/21	1900	2050		10		40	535	40		S.S.S.
4/16	1850	2050		05		15	536	—		S.S.S.

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to 4/6/41 - Shield Engine.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1941	Bro't Forward						536	—		
4/25	1875	2050		10		1	537	10		S.S.S.
5/3	1875	2050		05		30	537	45		S.S.S.
5/10	1875	2050		05		15	538	05		S.S.S.
5/16	1900	2050		05		1	539	10		S.S.S.
5/20	1900	2050		05		45	540	—		S.S.S.
5/23	1900	2050		05		1 10	541	15		S.S.S.
6/24	1900	2050		05		1	542	20		S.S.S.
7/3	1900	2050		05		35	543	—		S.S.S.
7/8	1900	2050		05		1 05	544	10		S.S.S.
8/10	1900	2050		05		1 15	545	30		S.S.S.
8/12	1900	2050		10		1	546	40		M.L.P.

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1940	Bro't Forward						518	45		
8/7	1900	2150		05		30	519	20		S.S.S.
8/9	1900	2150		05	1	—	520	25		S.S.S.
8/11	1900	2150		10	1	45	522	20	8-19-1940	S.S.S.
8/15	1900	2150		05		25	522	50	TOTAL TIME	S.S.S.
8/16	1900	2150		05		40	523	25	TO DATE	S.S.S.
1 hour with license 8/21/40									523-25	
9/4	1900	2150		05	1	—	524	30		S.S.S.
9/7	1900	2150		05	1	—	525	35		S.S.S.
9/18	1900	2150		05	1	10	526	50		S.S.S.

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Trans.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
1939			58	50			486	15		
11/25				10		10	486	35		B.B.B.
11/26	1850	2150		10		30	487	05		B.B.B.
12/16	1900	2150		20		30	487	55		B.B.B.
12/23	1850	2150		20	1	25	489	40		B.B.B.
12/26	1900	2150		15		30	490	25	oil change - 450	B.B.B.
1/4/40	1850	2150		15	1	10	491	50		B.B.B.
1/28	1850	2150		15	1	20	493	25		B.B.B.
2/3	1850	2150		10		30	494	05		B.B.B.
2/11	1875	2150		10		30	494	45		B.B.B.
3/6	1875	2150		10		45	495	40		B.B.B.
3/18	1875	2150		20	1	20	497	20		B.B.B.
4/1	1900	2150								

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
1940							497	20		
4/14	1900	2150		10		45	498	15		B.B.B.
4/21	1900	2150		10	1	—	499	25		B.B.B.
4/25	1900	2150		10		20	499	55		B.B.B.
5/17	1875	2150		10		20	500	15		B.B.B.
5/21	1900	2150		05	1	—	501	20		B.B.B.
5/22	1900	2150		05		20	501	45	Oil change	B.B.B.
5/24	1900	2150		05		50	502	40	#70 Gulfpride	B.B.B.
5/25	1890	2150		05		30	503	15		B.B.B.
5/29	1890	2150		05		20	503	50		B.B.B.
6/1	1890	2150		05		45	504	40		B.B.B.
6/4	1900	2150		05		55	505	40		B.B.B.

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
1939			57	00			469	25		
7/19	1900	2150		05		50	470	20		B. B. B.
7/20	1900	2150		05	1	—	471	05		B. B. B.
7/22	1900	2150		05		50	472	—		B. B. B.
7/23	1900	2150		05	1	35	473	40	x	B. B. B.
7/25	1900	2150		05		45	474	30	x	B. B. B.
7/26	1900	2150		05		50	475	25		B. B. B.
7/29	1900	2150		05		20	475	50	x	B. B. B.
8/1	1900	2150		05		50	476	45	Periodic Insp.	B. B. B.
8/7	1900	2150		05		40	477	30	Battery charged.	B. B. B.
8/10	1900	2150		05		45	478	20		B. B. B.
			57	50						

Place Last Top Overhaul.....

Place Last Complete Overhaul.....

Engine Transferred to.....

Date.....

Date.....

Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward									
1939			57	50			478	20		
8/11	1900	2150		05		30	478	55		B. B. B.
8/13	1900	2150		05		40	479	40		B. B. B.
8/25	1900	2150		05		40	480	25		B. B. B.
8/27	1900	2150		05	1	50	482	20	x	B. B. B.
9/2	1900	2150		05		40	483	05		B. B. B.
9/4	1900	2150		05		20	483	30	new storage	B. B. B.
9/11	1900	2150		05	1	15	484	45	Battery	B. B. B.
9/23	1900	2150		05		20	485	05		B. B. B.
10/24	1850	2150		10		30	485	45		B. B. B.
11/13	1850	2150		10		20	486	15		B. B. B.
11/25	Engine check M. & L. crank.								#10744	
			58	50						

Place Last Top Overhaul.....

Place Last Complete Overhaul.....

Date.....

Date.....

Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1939	Bro't Forward		55	10			447	20		
6/12	1900	2150		10	1	—	448	30		B. B. B.
6/13	1900	2150		10	1	—	449	40		B. B. B.
"	1900	2150		05		35	450	20		B. B. B.
6/16	1900	2150		05		30	450	55		B. B. B.
6/17	1900	2150		05		30	451	30		B. B. B.
6/24	1900	2150		05	1	15	452	50		B. B. B.
"	1900	2150		05	1	35	454	30	1 qt oil #60	B. B. B.
6/25	1900	2150		05	1	20	455	55		B. B. B.
6/26	1900	2150		05	1	—	457	—		B. B. B.
7/1	1900	2150		05	1	—	458	05		B. B. B.
7/2	1900	2150		05	1	25	459	05		B. B. B.

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transf.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1939	Bro't Forward		56	15			459	05		
7/3	1900	2150		05	1	15	460	20		B. B. B.
7/5	1900	2150		05		45	461	10		B. B. B.
7/6	1900	2150		05		30	461	45		B. B. B.
7/7	1900	2150		05		45	462	35		B. B. B.
7/8	1900	2150		05		45	463	25	magneto & crank shaft	B. B. B.
7/9	Engine check - oil change - #70 #10744 M.F. Torque									B. B. B.
"	1900	2150		05		15	463	45		B. B. B.
7/11	1900	2150		05	1	—	464	45		B. B. B.
7/12	1900	2150		10	2	35	467	30		B. B. B.
7/15	1900	2150		05	1	—	468	35		B. B. B.
7/16	1900	2150		05		45	469	25		B. B. B.

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward		52	40			428	45		
1939										
3/26	1900	2150		05		30	429	20		B.B.B.
4/10	1900	2150		20		30	430	10		B.B.B.
4/15	1900	2150		10	1	05	431	25		B.B.B.
4/16	1900	2150		10		30	432	05		B.B.B.
4/20	1900	2150		10		40	432	55	x	B.B.B.
4/23	1900	2150		10		65	434	10		B.B.B.
4/25	1900	2150		10	1	15	435	25	Oil change - #60	B.B.B.
5/20	1900	2150		10		25	436	00	(Gulf Pride)	B.B.B.
5/22	1900	2150		05	1	—	437	05		B.B.B.
5/24	1900	2150		05		45	437	50	Battery charged	B.B.B.
5/25	1900	2150		05	1	—	438	55		B.B.B.
				54.20						

Place Last Top Overhaul.....

Date.....

Place Last Complete Overhaul.....

Date.....

Engine Transferred to.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Bro't Forward		54	20			438	55		
1939										
5/27	Engine check M.H. Rank 10744									
5/29	1900	2150		10		45	439	50		B.B.B.
5/30	1900	2150		05	1	—	440	55		B.B.B.
5/31	1900	2150		05		45	441	45	x	B.B.B.
6/2	1900	2150		05		45	442	35		B.B.B.
6/3	1900	2150		05		30	443	10		B.B.B.
6/4	1900	2150		05	1	—	444	15		B.B.B.
6/5	1900	2150		05	1	—	445	20	x	B.B.B.
6/6	1900	2150		05	1	05	446	30	x	B.B.B.
6/8	1900	2150		05		45	447	20		B.B.B.
				55	10					

Place Last Top Overhaul.....

Date.....

Place Last Complete Overhaul.....

Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1938	Bro't Forward		44	05			399	25		
10/9	1900	2150		05		50	400	20	oil change- #50	B. B. B.
10/29	1900	2150		10	1	35	402	05		B. B. B.
10/30	1900	2150		10	1	40	403	55		B. B. B.
11/6	1900	2150		05		15	404	15		B. B. B.
11/11	1900	2150		05	1	10	405	30	Battery charged.	B. B. B.
12/24	1900	2150		15		50	406	35		B. B. B.
12/39	1860	2150		15		45	407	35		B. B. B.
1/7	1900	2150		10		45	408	30		B. B. B.
1/11	1900	2150		10		25	409	05		B. B. B.
1/12	1900	2150		10		40	409	55		B. B. B.
1/14	1850	2150		10	1	30	411	25		B. B. B.

45.50

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

ENGINE LOG

Date	R. P. M.		Time on Ground		Time In Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1939	Bro't Forward		45	50						
1/14	1860	2150		10		45	412	10		B. B. B.
1/19	1860	2150		10		30	412	40		B. B. B.
1/28	Completed Top over haul run in and tested 1/29/39 M.P. track 10744									
1/29	600 to 1000	5	15		20	418	15	oil change #50	B. B. B.	
2/1	1860	2150		15	1	—	419	30		B. B. B.
2/4	1860	2150		15	2	30	422	45		B. B. B.
2/25	1860	2150		15	2	30	425	30	Battery Charged.	B. B. B.
2/22	1900	2150		15	1	10	427	05		B. B. B.
2/23	1900	2150		10		40	427	55		B. B. B.
2/26	1900	2150		05		45	428	45		B. B. B.

52.40

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transferred to.....Date.....

ENGINE A.T.C. 104

TYPE Warner Super Scarab GEAR REDUCTION RATIO _____
 H. P. 145 SERIAL No. S.S. 122-E OPER. OIL PRESSURE _____
 WT. COMPLETE (DRY) LBS. 303 DISPLACEMENT _____
 BORE 4 5/8" STROKE 4 1/4"
 R. P. M. NORMAL 2050 MAXIMUM 2150
 B. H. P. NORMAL 145 MAXIMUM 460-A.T.C.
 PROPELLER---MAKE Hartzell-Serial# 15593 TYPE 706-E
 ROTATION OF PROPELLER a/c PITCH 5-7" DIA. 6'-11"

MANUFACTURER

NAME Warner Aircraft Corp.
 ADDRESS Detroit, Michigan

OWNER

NAME S.S. Stewart
 ADDRESS Flint, Michigan

ENGINE LOG

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs or Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
1938	Bro't Forward		43	10			38	55		
9/13	1900	2150		05	1	05	39	10		S.S.S.
9/16	1900	2150		05		35	39	14		S.S.S.
9/20	1900	2150		10	1	05	39	3		S.S.S.
9/23	1900	2150		05	1	30	39	43	x	S.S.S.
"	1900	2150		05		55	39	53		S.S.S.
9/24	Engine check - Cam-follower guides repacked-									#10744
9/25	1900	2150		10	1	05	39	65		S.S.S.
9/30	1900	2150		05	1	—	39	75		S.S.S.
10/2	1900	2150		05		45	39	84		S.S.S.
10/8	1900	2150		05		35	39	92		S.S.S.
			44	05						

Place Last Top Overhaul.....Date.....

Place Last Complete Overhaul.....Date.....

Engine Transf.....Date.....

ENGINE LOG BOOK

1938

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		42	15			379	50		
8/3	1900	2150		05	1	—	380	55	Battery charged	S.S.S.
8/5	1900	2150		05		45	381	40	1-28 oil - #60	S.S.S.
8/6	1900	2150		05	2	—	383	45		S.S.S.
8/8	1900	2150		05	1	—	384	50		S.S.S.
8/9	1900	2150		05		40	385	35		S.S.S.
8/22	1900	2150		05		20	385	55		n.m.n
8/23	1900	2150		05	1	10	387	05		n.m.n
8/23	1900	2150		05		20	387	40		n.m.n
9/1	1900	2150		05		30	388	15		S.S.S.
9/2	1900	2150		05	1	10	389	30		S.S.S.
9/9	1900	2150		05		20	389	55		S.S.S.
Total Time to Date			43	10						

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____

Date _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		40	05			357	50		
6/9	1900	2150		05		35	358	30		B. B. B.
6/11	1900	2150		05		35	359	10		B. B. B.
6/12	1900	2150		05	1	-	360	15	Oil changed - #60	B. B. B.
6/26	1900	2150		05		50	361	05		B. B. B.
6/27	1900	2150		05	1	-	362	05		B. B. B.
6/29	1900	2150		05		45	362	50		B. B. B.
7/1	1900	2150		05		50	363	40	*	B. B. B.
7/3	1900	2150		10	1	-	364	50		B. B. B.
7/4	1900	2150		05	1	-	365	55		B. B. B.
7/7	1900	2150		05		45	366	40		B. B. B.
7/8	1900	2150		05		45	367	90		B. B. B.
Total Time to Date			41	05			367	90		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____

7/9/38
Engine checked
M. K. Kordak 10744

Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		34	20			326	30		
9/2	1900	2150		05	30		329	05		B. B. B.
9/3	1900	2150		05	25		327	30	Mag. Breaker ass'n.	B. B. B.
9/4	1900	2150		05	20		327	55	New rocker box gaskets	B. B. B.
9/8	1875	2150		05	1 10		329	05		B. B. B.
11/7	1900	2150		10	2		331	05		B. B. B.
9/18	1900	2150		10	1 10		332	15		B. B. B.
9/26	1900	2150		10	1 10		333	25	New storage battery	B. B. B.
10/3	1875	2150		10	1 10		334	45	very installed	B. B. B.
11/7	1900	2150		10	1 20		336	15	oil changed - #50	B. B. B.
11/11	1875	2150		10	1 05		337	30		B. B. B.
11/24	1850	2150		15	35		338	20		B. B. B.
Total Time to Date			35	55			338	20		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____

Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		35	55			338	20		
11/27	1875	2150		10	30		339	—		B. B. B.
12/5	1850	2150		10	30		337	40		B. B. B.
12/11	Engine checked								M. F. Kovak #10, 744	
12/13	1850	2150		20	1 10		340	50		B. B. B.
12/18	1850	2100		15	35		341	40		B. B. B.
12/19	1850	2100		20	30		342	30		B. B. B.
12/15	1850	2100		20	1 15		343	55		B. B. B.
12/19	1850	2100		20	45		345	—		B. B. B.
12/19	1850	2100		30	1 40		346	40		B. B. B.
12/16	1850	2100		15	30		347	25		B. B. B.
12/24	1850	2100		10	50		348	25		B. B. B.
Total Time to Date			38	35						

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____

Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		32	30			309	30		
7/20	1900	2150		05		45	310	20		B. B. B.
"	1900	2150		05		50	311	10		B. B. B.
7/22	1900	2150		05		45	312	05		B. B. B.
7/23	1900	2150		05		40	312	50		B. B. B.
7/24	25 V.R.								1 qt. #60 Oil. Carburetor changed. M. F. Tank.	10744
7/27	1860	2150		05		45	313	35		B. B. B.
7/29	1875	2150		05		30	314	10		B. B. B.
7/30	1875	2150		05		25	314	40		B. B. B.
7/31	1890	2150		05		50	315	35	Battery changed.	B. B. B.
Total Time to Date			33	15			315	35		

Date and Place of Last Top Overhaul _____
 Date and Place of Last Complete Overhaul _____
 Engine Transferred to _____ Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		33	15			315	35		
8/7	1890	2150		10		20	315	55	magneto breaker-points overhauled & adjusted	B. B. B.
8/8	1870	2150		05		45	316	40		B. B. B.
8/9	1890	2150		05		35	317	20		B. B. B.
8/11	1890	2150		05		55	318	20		B. B. B.
8/11	1890	2150		05		25	318	50		B. B. B.
8/14	1900	2150		05		1	319	55	3 gal. oil	B. B. B.
"	1900	2150		05		50	320	50		B. B. B.
8/15	1900	2150		05		45	321	40		B. B. B.
8/21	1900	2150		05		20	322	05	30 gal. oil changed - #60	B. B. B.
8/22	1900	2150		05		115	323	25	26 gal	B. B. B.
8/25	1900	2150		10		2	326	00		B. B. B.
Total Time to Date			34	20			326	00		

Date and Place of Last Top Overhaul _____
 Date and Place of Last Complete Overhaul _____
 Engine Transferred to _____ Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		30	30			291	25		
4/30	1900	2150		10	1	10	292	45		B. B. B.
5/1	1875	2150		05			293	35		B. B. B.
5/2	1900	2150		05		25	294	05		B. B. B.
5/4	1875	2150		05		45	294	55		B. B. B.
5/7	1900	2150		05		20	294	15		B. B. B.
5/8	1900	2150		05		35	294	55		B. B. B.
5/10	1900	2150		05	1	-	296	-		B. B. B.
5/11	1900	2150		05		30	296	30	Gas.	B. B. B.
5/12	1900	2150		05	1	10	297	45		B. B. B.
5/15	1900	2150		05		50	298	40		B. B. B.
5/19	1920	2150		05		55	299	35		B. B. B.
Total Time to Date			31	30			299	35		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		31	30			299	35		
4/21	1875	2150		05		45	300	20		B. B. B.
4/22	1875	2150		05		105	301	25		B. B. B.
4/26	1900	2150		05		105	302	30	1905-#60 oil	B. B. B.
4/27	1900	2150		05		115	303	50		B. B. B.
7/1	1850	2150		05		55	304	50		B. B. B.
7/3	1850	2150		10		105	306	05		B. B. B.
7/4	1850	2150		05		55	307	05		B. B. B.
7/5	1875	2150		05		15	307	25	2905-#60 oil	B. B. B.
7/6	1875	2150		05		1	308	30		B. B. B.
7/10	1900	2150		05		35	309	05		B. B. B.
7/18	1900	2150		05		20	309	30		B. B. B.
Total Time to Date			32	30			309	30		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		28	15			27	50		
4/12	1900	2150		05	20		27	55		B. A. B.
4/14	1900	2150		05	45		27	60		B. A. B.
4/17	1900	2150		05	1		27	65		B. A. B.
4/20	1900	2150		05	1		27	70	Battery charged.	B. A. B.
4/23	1900	2150		05	30		27	75		B. A. B.
4/25	1900	2150		10	50		28	00		B. A. B.
4/28	1900	2150		05	25		28	05		B. A. B.
4/29	1900	2150		05	25		28	10		B. A. B.
5/1	1900	2150		05	1		28	15		B. A. B.
5/2	1900	2150		10	50		28	25	Oil changed #60	B. A. B.
5/15	1900	2150		10	30		28	35		B. A. B.
Total Time to Date			29	25			28	45		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		29	25			28	45		
5/15	1900	2150		05	50		28	50		B. A. B.
5/18	1900	2150		10	50		28	55		B. A. B.
"	1900	2150		10	50		28	60		B. A. B.
5/20	1900	2150		10	50		28	65		B. A. B.
"	1875	2150		05	30		28	70		B. A. B.
5/22									2.5 hour check - Carburator changed. M.A. K. mark 10744	B. A. B.
5/23	1875	2150		10	1		28	75		B. A. B.
5/25	1900	2150		05	40		29	00		B. A. B.
5/26	1900	2150		05	35		29	05		B. A. B.
5/29	1875	2150		05	40		29	10		B. A. B.
Total Time to Date			30	30						

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1936-1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		23	05			255	40		
1/1	1850	2150		10	30		256	20		S.S.S.
1/5	1850	2150		10	30		256	50		S.S.S.
1/16	1860	2150		10	20		257	20		S.S.S.
1/19	1850	2150		15	40		258	15	Gasline annealed	S.S.S.
1/23	1850	2150		15	45		259	15		S.S.S.
1/27	1850	2150		15	35		260	05		S.S.S.
1/29	1875	2150		35	20	05	262	45		S.S.S.
1/31	1875	2150		10	30		263	25		S.S.S.
1/6	Engine Check								New Ex. Valve Washers	
1/15	1875	2150		25	10		265	00		S.S.S.
Total Time to Date			25	30			265	00		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1937

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		25	30			265	00		
2/24	1850	2150		15	20		265	35	Cabin heater installed 2/2/37	S.S.S.
2/26	1850	2150		15	30		266	20		S.S.S.
2/27	1850	2150		15	15		266	50		S.S.S.
2/28	1850	2150		15	1		268	05	Boy born	S.S.S.
3/2	1875	2150		15	30		268	50	Oil changed - #50	S.S.S.
3/3	1875	2150		20	10	05	270	15		S.S.S.
3/6	1900	2150		20	1	20	271	55		S.S.S.
3/17	1875	2150		10	35		273	40		S.S.S.
3/18	1850	2150		15	35		273	30		S.S.S.
"	1850	2150		15	40		274	35		S.S.S.
3/19	1900	2150		10	30		275	05		
Total Time to Date			28	15			275	05		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____ Date _____

Engine Transferred to _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		18	40						
							236			
10/3	1900	2150		15	1	05	237	05	10/13/36 - oil	S. S. S.
10/4	1900	2150		10		40	237	55	changed to S.A.E.-50	S. S. S.
									10/31/36	
									25 hour check	
									Engine License #	
11/6	1875	2150		10		40	238	45	10744	S. S. S.
11/10	1900	2150		10		30	239	25		S. S. S.
11/11	1850	2150		10		20	239	55		S. S. S.
11/13	"	"		10		20	240	25		S. S. S.
11/22	1875	"		10		30	241	05		S. S. S.
Total Time to Date			19	55			244	40		

Engine Transferred to _____ Date _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward									
11/26	1850	2150		20		30	244	40		S.S.S.
11/27	1850	2150		20		20	246	10		S.S.S.
11/28	1850	2150		30	1	20	248	—		S.S.S.
11/29	1850	2150		20	1	10	249	30		S.S.S.
12/2	1850	2150		15		30	256	10		S.S.S.
12/5	1850	2150		20	1	—	251	30		S.S.S.
12/8	1850	2150		15		45	252	30		S.S.S.
12/12	1850	2150		15		45	253	30		S.S.S.
12/13	1850	2150		10		45	254	25		S.S.S.
12/15	1860	2150		10		30	255	05	Battery charged	S.S.S.
12/19	1850	2150		15		20	255	40		S.S.S.
Total Time to Date			23	05			255	40		

Engine Transferred to _____ Date _____

1936

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		15	40			214	15		
8/3	1900	2150		05		45	215	05	8/9/36-	B.B.B.
8/4	1900	2150		10		15	215	30	Changed spark plugs	B.B.B.
8/5	1900	2150		10		20	216	-		B.B.B.
8/15	1900	2150		05		30	216	35		B.B.B.
8/16	1900	2150		05		30	217	05		B.B.B.
8/19	1900	2150		05		20	217	30		B.B.B.
8/20	1900	2150		05		30	218	-		B.B.B.
8/21	1900	2150		05	1	15	219	20		B.B.B.
"	"	"		05		25	219	45		B.B.B.
8/22	1900	2150		05		55	220	40		B.B.B.
8/23	1900	2150		05	1	10	221	55		B.B.B.
Total Time to Date			16	55			221	55		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1936

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		16	55			221	55		
8/24	1900	2150		05		30	222	20		B.B.B.
8/27	1900	2150		10		30	223	-		B.B.B.
8/29	1900	2150		15	5	-	228	15		B.B.B.
8/30	1900	2150		10		30	228	55		B.B.B.
8/31	1900	2150		10		30	229	35		B.B.B.
9/1	1900	2150		05		40	230	15		B.B.B.
9/17	1900	2150		10		45	231	25		B.B.B.
9/18	1900	2150		10		45	232	35	9/22/36	B.B.B.
9/20	1900	2150		10		45	233	15	Gas tanks repaired	B.B.B.
9/26	1900	2150		10	2	05	235	20		B.B.B.
9/28	1900	2150		10		30	236	-		B.B.B.
Total Time to Date			18	40						

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1936

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		13	40			190	50		
7/21 1900	2150		10		60		193	00	Det. City Airport	B. B. B.
7/22 1900	2150		10		60		193	10	Engine overhauled	B. B. B.
7/23 1900	2150		10		60		194	20	Wilmington	B. B. B.
7/26 1900	2150		05		40		195	05	do.	B. B. B.
7/27 1900	2150		05		30		195	40	Practice	B. B. B.
7/10 1900	2150		05		40		196	20	Wilmington	B. B. B.
7/11 1900	2150		10		145		198	55		B. B. B.
7/12 1900	2150		05		50		199	45		B. B. B.
7/13 1900	2150		05		75		201	50		B. B. B.
7/14 1900	2150		05		30		202	25	196 60 oil 60	B. B. B.
7/16 1900	2150		05		60		203	30		B. B. B.
Total Time to Date			14	55			203	30		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1936

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		14	55			203	30		
7/18 1930	2150		10		250		207	40		B. B. B.
7/19 1900	2150		05		45		208	30		B. B. B.
7/20 1900	2150		05		60		209	35		B. B. B.
7/30 1900	2150		05		30		210	45		B. B. B.
7/31 1900	2150		05		30		211	20	oil changed.	B. B. B.
8/1 1875	2100		05		40		212	05	to Detroit	B. B. B.
									20 hour check.	
									Clean and re-gap spark plugs.	
									Engine License # 10744	
8/1 1925	2150		05		30		212	35		B. B. B.
8/2 1925	2150		05		95		214	15		B. B. B.
Total Time to Date			15	40			214	15		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____ Date _____

Engine Transferred to _____

1936.

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		11	00			174	30		
3/21	1875	2150		15	55		175	40		
3/22	1875	2150		10	50		176	40		
3/29	1900	2150		10	60		177	50	Greased ROCKER ARMS	
4/19	1900	2150		15	35		178	40		
4/20	1900	"		10	30		179	20		
4/23	1900	2150		10	50		180	20		
5/7	1950	2150		10	30		181	00		
5/19			Change oil to 60		20				20 hour check	
"	1900	2150							Col. Combs	
									ETG LIC. #5405	
				10	70		182	20		
Total Time to Date			12	30						

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

1936

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		12	30			182	20		
5/16	1900	2150		15	90		184	05		
5/17	1900	2150		05	45		184	55		
5/24	1900	2150		05	55		185	55		
5/29	1900	2150		10	50		186	55		
6/30	1900	2150		10	30		187	35		
6/4	1900	2150		10	60		188	45		
6/5	1900	2150		05	45		189	30		
6/17	1900	2150		10	70		190	50		
6/20										
Total Time to Date			13	40						

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		6	05			153	40		
12-2	1900	2150		10	4	25	158	15		
12-3									Engine removed for overhaul.	L. D. Turner
12-6	COMPLETE OVERHAUL BY WARNER AIRCRAFT CORP. ENGINE INSTALLED OIL CHANGED WARNER AIRCRAFT CORP.									
12-15	1900	2150		10	2	00	160	25		
12-23	1900	2150		5		20	161	00		
Total Time to Date			6	30			161	00		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____

Date _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		6	30			161	00		
1935										
1/24	1900	2150		15		45	162	00		
1/30	1900	2150		25		40	163	05		
1/19	1875	2150		45	1	10				
1/25	1875	2150		30	1	00	164	35		
1/26	1875	2150		30		55	166	55		
1/29	1900	2150		20		45	168	00		
2/11	1875	2150		20		50	169	10		
2/22	1875	2100		20	1	00	170	30		
2/29	1875	2150		35	1	15	172	20		
3/1	1875	2150		40	1	30	174	30		
Total Time to Date			11	00						

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____

Date _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		3	30			88	30		
9-16	1900			05	15		88	58		L. J. Fawcett
9-18	"			05	15		89	10		L. J. Fawcett
9-19	"			10	20		91	50		L. J. Fawcett
9-20	"			05	10		92	55	Engine Check & Oil Change.	L. J. Fawcett
9-22	"			05	20		96	00		L. J. Fawcett
9-23	"			05	21		97	15		L. J. Fawcett
9-24	"			05	30		97	50		L. J. Fawcett
9-25	"			05	10		98	55		L. J. Fawcett
9-26	"			10	50		104	25		L. J. Fawcett
9-27	"			10	60		110	35		L. J. Fawcett
9-28	"			10	40		115	15		L. J. Fawcett
Total Time to Date			4	45			115	15		L. J. Fawcett

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		4	45			115	15		
1-29	1900			10	3	30	115	55		L. J. Fawcett
1-30	"			10	4	25	124	30		L. J. Fawcett
9-1	"			15	8	25	132	10	Engine Check & Oil Change.	L. J. Fawcett
10-30	"			10	3	40	137	00		L. J. Fawcett
10-31	"			5	2	30	149	35		L. J. Fawcett
11-12	"			5	2	00	141	40		L. J. Fawcett
11-14	"			5		45	142	30		L. J. Fawcett
11-18	"			5	2	00	144	35	Installed new propeller.	L. J. Fawcett
11-20	"			5	3	30	148	10		L. J. Fawcett
11-21	"			5	2	40	150	55		L. J. Fawcett
11-22	"			5	2	40	153	40		L. J. Fawcett
Total Time to Date			6	05			153	40		L. J. Fawcett

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____ Date _____

Engine Transferred to _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward			55			25	35		
8-16	1900			05	3	10	28	50		<i>R. O. Jones</i>
8-16	"			05	1	10	30	00		<i>R. O. Jones</i>
8-17	"			05	2	20	32	35		<i>R. O. Jones</i>
8-17	"			05	2	00	34	40		<i>R. O. Jones</i>
8-19	"			05		45	35	30		<i>R. O. Jones</i>
8-20	"			05	3	10	38	50		<i>R. O. Jones</i>
8-22	"			05	3	40	42	35		<i>R. O. Jones</i>
8-23	"			05	2	35	45	10		<i>R. O. Jones</i>
8-24	"			05	1	00	46	15		<i>R. O. Jones</i>
9-1	"			05	2	50	49	05		<i>R. O. Jones</i>
1-1	"			05	1	00	50	05		<i>R. O. Jones</i>
Total Time to Date			1	50			50	05		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward		1	50			50	05		
9-3	1900			05	3	05	53	15	Engine check and change	R. O. Jones
9-6	1900			05	1	00	53	20		R. O. Jones
9-6	1900			05	2	55	56	00		R. O. Jones
9-7	1900			05	3	10	59	15		R. O. Jones
9-8	"			05	3	10	62	30		R. O. Jones
9-10	"			05	1	15	64	50		R. O. Jones
9-11	"			05	2	15	67	10		R. O. Jones
9-12	"			15	6	10	75	35		R. O. Jones
9-13	"			05	5	00	80	40		R. O. Jones
9-14	"			05	3	40	84	25		R. O. Jones
9-15	"			05	4	00	88	30		R. O. Jones
Total Time to Date			3	30			88	30		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____ Date _____

Engine Transferred to _____

ENGINE

Type Warner Super Scarab
 H. P. 145 Serial No. SS 122-E - A.T.C. 104

Weight Complete (DRY) Lbs. 303 Bore 4 5/8" Stroke 4 1/4"

R. P. M. { Normal 2050
 Maximum 2150 B. H. P. { Normal 145
 Maximum _____

Gear Reduction Ratio _____ Rotation of Propeller a/c

Certified Correct _____ Date 7-23-35

OWNER { Name WARNER AIRCRAFT CORP.
 Address DETROIT, MICH.
S. S. Stewart - Flint, Mich. 7/24/35

MANUFACTURER { Name _____
 Address _____

Date	R. P. M.		Time on Ground		Time in Air		Total Time		Repairs and Adjustments	Signature
	Ground	Air	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.		
	Brought Forward									
7-23	1850			05	3	10	3	15		<i>[Signature]</i>
7-23	1900			05	4	00	7	20		<i>[Signature]</i>
8-1	"			05		40	8	00		<i>[Signature]</i>
8-4	"			05						<i>[Signature]</i>
8-6	"			05	3	00	11	05		<i>[Signature]</i>
8-7	"			05	4	50	16	00		<i>[Signature]</i>
8-8	"			05	1	55	18	00		<i>[Signature]</i>
8-10	"			05	1	00	19	05		<i>[Signature]</i>
8-10	"			05	2	45	21	55		<i>[Signature]</i>
8-11	"			05		45	22	45		<i>[Signature]</i>
8-14	"			05	1	55	24	45		<i>[Signature]</i>
				05		45	25	35		<i>[Signature]</i>
Total Time to Date				55			25	35		

Date and Place of Last Top Overhaul _____

Date and Place of Last Complete Overhaul _____

Engine Transferred to _____ Date _____