

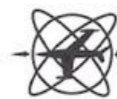
Lycoming O-320-C3A
s.n. L-1464-39



The Standard

ENGINE LOG

ASA-SE-1



The Standard

ENGINE LOG

ASA-SE-1

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P N R A S A - S E - 1



9 781560 271659

Engine Record General Information

Manufacturer LYCOMING Model 0-320-EXP 160HP

Serial L-1464-39 Type Certificate 0-320-C3A

This engine is currently installed in aircraft HOMEBUILT SAFARI
HELICOPTER VERT. OPERATION

Minimum Octane Fuel 100LL Oil Grade: Summer 50W Winter 15-50W

Magneto Time 25° BTDC Point Setting _____ Firing Order 1324

Spark Plug Gap .016-018

Manufacturer recommended overhaul at 1200 hours

MAX CYL. HEAD TEMP _____ 475°F
OIL PRESS @ 2000 RPM _____ 60-85 PSI
MAX OIL TEMP _____ 235°F

CHECK MAG TIMING BEFORE START UP

Registered Owner Record

Address		
State	From	To
Address		
State	From	To
Address		
State	From	To
Address		
State	From	To
Address		
State	From	To
Address		
State	From	To

Notes

ENGINE BUILT FROM PARTS TO OSMON PER LYCOMING MANUAL WITH MODIFICATIONS FOR USE IN HOMEBUILT SAFARI HELICOPTER, VERT. OPERATION. CRANKSHAFT REGROUND MAINS MOD3. RODS - STD. NEW BEARINGS, NEW CAMSHAFT O.H. LIFTERS BY ECI. O.H. M/D CONICAL MOUNT CRANKCASE. O.H. CERMINIL CYLINDERS W/ ECI. MOLY RINGS. NEW PISTONS, BRONZ PIN PLUGS. NEW EXHAUST VALVES. NEW OIL PUMP (STEEL GEARS) SL18109A-S NEW GASKETS & SEALS, NEW SLICK MAGS & HARNESS, LREM40E PLUGS. O.H. CARB WITH ALL UPDATES. ENGINE IS IN AIRWORTHY COND. R.E. BARROWS A&P 31309409 5/18/01

YEAR:	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations
2002	HOBBS			Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
9/12		.3	.3	First eng run ^{cyl temps 300°} oil temp 185°
8/4/2010				2008-NE-01-AD cyl. part #'s checked Complied with Adm p Marshall 2753427
11-8-2010	20.2	—	20.2	DRAINED OIL, REMOVED OIL FILTER. CLEANED AND REPLACED AIR FILTER. FILLED THE OIL TANK WITH 8.0 QUARTS OF AEROSHELL 100 SAE -50 STRAIGHT MINERAL OIL. REPLACED OIL FILTER WITH K&N PERFORMANCE GOLD OIL FILTER HP-1002. TUNED UP ENGINE & PERFORMED LEAK CHECK. ALL WAS SATISFACTORY. Specpiece #1479149

YEAR:	RECORDING TACH TIME
DATE	
3/24/11	29.5
5/31/12	49.6
8/17/14	57.8

Technician or Repair
 479149
 ENGINE 9
 = Gold Oil
 ED OIL
 RE-50
 8.0
 FILTER.
 TER.
 427
 427

YEAR:	RECORDING	TODAY'S	TOTAL	DATE
	TACH	FLIGHT	TIME IN	
	TIME		SERVICE	
	29.5		29.5	3/24/11
	49.6	1.0	50.6	5/31/12
	57.8	/	57.8	8/17/14
Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)				
Remove main crankshaft oil seal & installed new 76940 oil seal, completed with SI132YB.				
Performed 50 Hr. inspection as per				
Safari maintenance manual. Drained oil, replaced oil & air filter. Refilled with 7qts. Aeroshell 15-50 oil. Oil filter # HP-1002 K&N for performance Gold.				
Air filter # Bracket BA6205.				
Get Manual 2753427				
Installed (4) new silicone rubber valve cover gaskets.				
Get Manual 2753427				

Rodin J. Munday 2753427

YEAR: _____ DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
10/13/14	57.8	.5	58.3	Removed cylinders. Repair shop installed 0.320tt piston & rings. Re-installed cylinders as per Lycoming overhaul manual. sections 6-121 thru 6-142 where applicable. pistons installed to upgrade for higher 120 horse power. Test run & hover .5 all checks ok. Arthur J. Marshall 2753427
1/20/15	61.7	1.3	63.0	Installed new LYC-LW13792 crankshaft oil seal. Run up and two flights total 1.3 hrs. AJP 2753427 Arthur J. Marshall

YEAR: 2017 DATE	RECORDING TACH TIME
1/28/17	71.1
6/27/17	72.6
6/29/17	72.6

Technician or Repair
 installed
 lled cyl-
 haul man-
 applicable.
 or higher
 over .5
 2753427
 2
 two
 752427

YEAR:	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations
2017				Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				
1/28/17	71.1	.4	71.5	Flight to warm up engine & gear boxes. Drain engine oil & replace oil filter K&N HP-1002. Refill with 7qts. Aeroshell W15W-50 oil. Inspect engine. Arden J. Marshall 2753427
6/27/17	72.6			Remove alternator for repair
6/29/17	72.6		72.6	Re-install alternator after repair. (Voltage regulator replaced) brief run of engine, alternator charging OK. Arden J. Marshall 2753427

01/06/2020 N774JM Hobbs 107.2 TSMOH: 107.2 ENGINE INSPECTION

Performed **Condition Inspection** of engine using 14 CFR appendix D to part 43 as a guide.

Inspected filter for metal - none found. Installed new HP1002 filter.

Engine condition found safe for flight at this time.

Justin T. Dix A&P 3347687IA

Justin Dix

336-514-2724

repair

				LYCOMING D-320-C3A, S/P. L-1464-39
2/8/2023		2600 HRS EST.	TOTAL	EST SMOH 170 HRS
				EST 63 HRS SINCE NEW PISTONS + RINGS.

Converted engine to housing to check oil by visual inspection okay, re-inspection crankgear and crank cylinders to inspect gaskets and seals.

New Parts Installed

- 1 - AELSTD-2213 Crank
- 1 - LW18639 Lockplate
- 2 - STD-1433 Oil Pick
- 4 - STD-1196 Intake H
- 3 - SL-73413 Pistons
- 1 - 18109A-S Gasket
- 8 - UREM38E Spark P

All new locking hardware

All engine work done

Records

Lycoming O-320-C3A s.n. L-1464-39
February 8, 2023 2610 estimated hrs.

repair


Converted engine back to standard configuration from helicopter set-up, 120 hrs. SMOH on May 18, 2001. Removed assesory housing to check oil pump A.D. 96-09-06 for compliance, serviceable SL18110 and LW18109 gears installed. Checked AD 98-02-08 by visual inspection crankshaft, s.n. 1-966P48471.01, in accordance with Lycoming Service Bulletins 530 and 505 for corrosion, all okay, re-inspection and continued compliance not mandatory due to 150 HP. C/W AD 2004-10-14 by inspecting and assembling crankgear and crankshaft with new AELSTD-2213 bolt and LW18639 locking tab in accordance with Lycoming SB 475C. Removed cylinders to inspect and replace pistons. Refaced all the valves and valve seats. Reassembled using the following new parts, gaskets and seals.

New Parts Installed

- 1 - AELSTD-2213 Crank Screw
- 1 - LW18639 Lockplate
- 2 - STD-1433 Oil Pick-up Bolts
- 4 - STD-1196 Intake Hoses
- 3 - SL-73413 Pistons (1- used LW-73413 with approx. 500 hrs since new).
- 1 - 18109A-S Gasket Kit
- 8 - UREM38E Spark Plugs

All new locking hardware and other hardware as needed.

All engine work done I/A/W Lycoming Direct Drive Overhaul Manual 60294-7-14.

 A+P 399782276

June 9, 2023

Piper PA-12

N3866M

ration

number of Technician or Repair

Accessories Installed on Lyc. 0-320-C3A

s.n L-1464-39

Right Mag: 10-163045-3
s/n E-03155
(215 hrs. since new)

Starter: MZ 4206
s.n.

Left Mag: 10-51360-37
s.n. 714126

Generator: Delco 12V, 15Amp

Carb: MA-4SPA (overhauled)
P.N. 10-3678-32
s.n. MSONJK01

Duffy's Air

June 9, 2023
Lycoming
2610 est.

Removed
new AEL-
SL73818
see airframe
Installed
10-35717
carb, see
Test ran a

I certify th
airworthy

Technician or Repair

Duffy's Aircraft Sales & Leasing, Inc.

June 9, 2023
Lycoming O-320-C3A
2610 est. Hours Total

Piper PA-12
s.n. L-1464-39
2069 Hours Tach

N3866M
110 Hours SMOH

Removed accessory housing and inspected crank and crank gear to comply with with A.D. 2004-10-14, reinstalled using new AEL-STD-2213 and LW18639 lockplate in accordance MSB 475C. Reassembled using new SL68972 sump gasket, SL73818 assessorly gasket, 4 SL69603 hoses and 4 SL12032 cylinder gasket kits. Installed on Piper PA-12 s.n. 12-2775, see airframe entry. Installed 8 new UREM40E plugs. See Feb. 8, 2023 entry for more details.
Installed left mag p/n 10-51360-37 s/n 714126 with new coil p.n. 10-357164-1, condenser p/n 10-51676, and points p/n 10-357174. Installed serviceable right mag p/n 10-163045-3 s/n E-03155. Installed overhauled MA-4SPA s.n. MSONJK01 carb, see 8130. Serviced with 8 qts. Phillips 20W50M.
Test ran and leak check o.k.

I certify that this engine has been inspected in accordance with a 100 hr./annual inspection and was determined to be in airworthy condition.

Allan Hatz
A&P 399782276 I.A.



