

November 14, 2018

Valley Fliers November Board Meeting

Meeting Called to Order at: 6:34

Present: Eyre, Glassmyer, DeWitt, Scott, Botezatu, Vader plus 8 members and 1 prospective member.

Approval of October Meeting Minutes

Alan moved to approve as written, Florin seconded. Motion carried unanimously.

Treasurer's Report

See Alan's handouts. Alan did some catch-up entries (monthly reports are preliminary). Alan processed some postage invoices from his company that had been hanging around unfiled and paid. Rents haven't changed, but are likely to do so with the new year. 117's registration slip hasn't arrived, but the FAA shows it as registered, so Alan expects it to arrive soon. The total-current-assets number listed in the report is after paying the first \$12000 on the ADS-B installations. We are one member short of the 65, and that is now correctly indicated in the member equity line. In November, Alan expects the club's cash to decrease slightly due to upcoming maintenance costs. Regarding the fuel discrepancy with the airport: the airport has both QuickBooks and the fuel system and the two aren't generally reconciled. Alan needs to work with them during their open hours. Mark Kornei suggested it would be in our best interests to work this out before the end of the year. The system still doesn't require a PIN, but Alan says he will insist on it. Alan also noted that our long-extended tax return has now been filed.

Maintenance Officer's Report

See Florin's handout. The ADS-B installations have had a few bumps. 88L's 430 tried to come out when Florin went to depart KOLM. Jon had to re-insert most of the avionics. 63S came back without issues. Florin says 88L is looking and flying really well. 9MA had issues with the Hobbes meter after the ADS-B installation. Jon is still troubleshooting. Jon will need to add a cooling hose to the transponders because they don't have them. **9MA** actually has a 1000 hour vacuum pump (not the 500 hour previously thought), and its inspection is not due until 800 hours. **63S** The side window was damaged by a BB necessitating the window's replacement. 63S is overdue for a vacuum pump inspection. Jon says that will be done at an oil change soon. **117** has had two flat tires recently, both a nose and a main. Florin and Jon suspect we've purchased some bad tubes. Florin says the mags are overdue for an inspection. **88L** Alan notes the mags show over time. Florin says that will be taken care of it during its upcoming annual.

Florin noted the inspector said 9MA's engine is good another 200 hours. He suggests we fly for those 200 hours. We can use the intervening time to prepare for the engine replacement. Question from the floor: when will 9MA be out of annual? Jon says we could button it up Tuesday, but we are waiting for new parts... The seat parts will be available Monday, the carpet later.

Safety Officer's Report

Randy made GTX335/345 pilot's guides available to the members. Those include instructions for pairing devices to them. He also distributed a focused-flight-review document from AOPA as a resource for members coming up on flight reviews.

Old Business

9MA Engine John opened discussions of engine options and distributed descriptions of several opportunities. Commenter from the floor asks whether 250 HP will get enough speed increase to make a difference. Another commenter noted that 9MA already doesn't pay for itself, and asks if the upgrade will make that worse. Fuel consumption would only increase by about 1 gallon per hour, and it would increase speed 10-12 kph. Commenter from the floor notes that rate of climb and high altitude takeoffs would be more improved than top speeds. Alan says he would prefer better engine instruments over more horsepower, if only one of those could be done. Com-

menter from the floor notes that with as many members as we have, the hotter engine (and requisite attention from the pilot) is asking for trouble. The Texas Skyways 250 HP \$41000 proposal does not include a new prop, but a new prop would not be required. The Jewell upgrade just spins the engine faster. The Pponk includes new 520 cylinders. Pponk is probably the cheapest, then the Jewell, then the Texas Skyways upgrade is the most expensive. Pponk likely won't have the same heat issues because of the larger cylinders. Jon asks what engine mounts the options will require. We may be able to arrange exchange engine mounts and governor. None of the options require cowl mods, though a three blade prop, if we did one, would likely require cowl mods. Alan notes we have a little time. He will check with Penn Yann to see what options they would provide. Alan suggests we need to figure out what we want to do before the end of the year. Then we can prepare and try to get it done before the flying season. Alan will build up a comparison for next month's discussion. Florin notes that we should understand the potential heating issues for the options. Jon suggests we ask all the vendors about the oil filter: does their option get rid of the oil filter AD?

Safety Investigation Follow-up Mark Kornei noted we might need to tighten up member's proficiency requirements (above and beyond legal requirements). Alan notes we lack a mechanism to monitor and enforce those rules. Comment from the floor: having unenforced and or unenforceable rules is a bad idea. Mark notes having the rules might have members do more effective self-checks, and we could hold members accountable if there is a problem. Commenter from the floor notes that it is only a problem then if you get caught?... Mark also suggests we should have potential members assert they've not been thrown out of another club. John notes his new form has that information. Randy suggests maybe we should have an incentive for frequent fliers. Alan says there used to be a discount for folks who flew more than 5 hours per month. John asks what that would do to the bottom line? Alan says it wouldn't be that large, only a handful of people a month would get this discount. Steve Fridley says many frequent fliers reinforce bad practices. Alan notes Schedulmaster might be able to lock out folks who've not flown recently. Mark says he doesn't think it will get solved tonight, but would like it to be discussed and possibly come forward with a proposal at the annual meeting. Alan notes he could produce a report from the billing data about who flew what airplanes how much every month. Scott G. notes we have 4 planes, only one high-powered. Given the discussed power increase in 9MA, the need for re-checkout would be required. Alan notes we might not have to monitor usage on the three lower powered planes. That makes the monitoring requirements smaller and simpler. Mark suggests we revisit the topic next month. Question from the floor: is the overall goal to make sure our pilots are proficient? Answer from Florin and Alan: the primary concern is 9MA. Florin asks whether 90 days is the requirement? Answer: that is commonly required. Comment from the floor: 90 days comes up quickly. Alan notes the club limit could be 120 days or more. We can make the rules. Alan notes we would need to have someone willing to monitor it (other than him). Florin asks if we find someone has damaged a cylinder based on engine monitor logs, what would we do? Jon says we should be able to figure that out pretty quickly by correlating the logs with Schedulmaster. John says we would have to prove negligence to take action. Jon says we could have a conversation with them.

Fall Social Scott G. says it's going to have to be a Christmas party. Time got away from us and it won't happen at this time. Mark Kornei asks if we could make the annual meeting a social event, perhaps on a Saturday? Several commenters note that would be ok.

New Business

Potential New Member John introduced Rob Patterson and Brian Makar. Rob used to interdict drug runners at the Mexico - US border.

Brian got his private in 2015. He just passed his Instrument oral. He will take his practical Sunday. He has 300 hours. He flies for fun. He is an IT business analyst for King County. Ed is Brian's instructor. Alan moves that we accept both prospective members. Randy seconded. The motion carried unanimously.

Free flight hour won by: Ed Bryce

Meeting adjourned at: 8:10

Next Meeting: Wednesday, December 12, 2018 @ 6:30 (Food and Social @6:00), Trotters

2:30 PM

11/14/18

Accrual Basis

Valley Fliers
Sales by Item Summary
October 2018

	Oct 18			
	Qty	Amount	% of Sales	Avg Price
Service				
117 (hrs - Flight time: C-172 N-80117)	44.2	3,320.52	23.9%	75.12
63S (hrs - Flight time: PA-28-180F N-5163S)	9.5	766.29	5.5%	80.66
88L (hrs - Flight time: C-172 N-2388L)	30.1	2,211.00	15.9%	73.46
9MA (hrs - Flight time: C-182 N-759MA)	9.3	840.80	6.1%	90.41
Dues - monthly (Membership monthly dues)	59	4,425.00	31.9%	75.00
Minimum flying fee (Minimum flight fee - assessed when no flights made during th...	28.8	2,315.52	16.7%	80.40
Total Service	180.90	13,879.13	100.0%	76.72
TOTAL	180.9	13,879.13	100.0%	76.72

Valley Fliers
Profit & Loss YTD Comparison
 October 2018

	Oct 18	Jan - Oct 18
Ordinary Income/Expense		
Income		
Sales		
N-80117 Flight Time	3,320.52	33,390.12
N-759MA Flight Time	840.80	25,686.44
Aircraft Hull Replacement Fund	0.00	4,090.95
Fees	2,315.52	20,298.77
Membership Monthly Dues	4,425.00	42,585.81
N-2388L Flight Time	2,211.00	19,649.76
N-5163S Flight Time	766.29	12,975.27
Total Sales	13,879.13	158,677.12
Total Income	13,879.13	158,677.12
Gross Profit	13,879.13	158,677.12
Expense		
Re-Registration	0.00	265.00
Depreciation Expense	3,045.31	30,453.10
Meeting Expenses	162.96	1,696.79
G&A		
Mail Services and Supplies	0.00	125.25
Office Supplies	16.42	83.19
Information Technology	100.99	1,490.70
Total G&A	117.41	1,699.14
Bank Service Charges	0.00	0.00
Dues and Subscriptions		
Data 117	0.00	440.00
Data 9MA	0.00	440.00
Data 88L	440.00	440.00
Data 63S	440.00	440.00
Total Dues and Subscriptions	880.00	1,760.00
Fuel		
117 Fuel	1,448.88	12,797.77
9MA Fuel	653.91	14,729.83
Fuel Rebate	-27.83	-379.44
88L Fuel	1,088.53	9,457.84
63S Fuel	473.33	6,566.86
Total Fuel	3,636.82	43,172.86
Insurance		
Aircraft Policy	1,592.50	14,489.00
Total Insurance	1,592.50	14,489.00
Licenses and Permits		
117 Reg & Lic	5.00	5.00
Total Licenses and Permits	5.00	5.00
Miscellaneous	0.00	119.88
Postage and Delivery	0.00	94.70
Rent		
N80117	248.25	2,482.50
N2388L	248.25	2,482.50
N759MA	248.25	2,482.50
Utilities	0.00	691.80
N5163S	248.25	2,482.50
Office Rent	163.61	1,636.10
Total Rent	1,156.61	12,257.90
Repairs & Maintenance		

Valley Fliers
Profit & Loss YTD Comparison
October 2018

	Oct 18	Jan - Oct 18
117 Maintenance	0.00	5,952.31
9MA Maintenance	0.00	6,421.64
Aircraft oil	0.00	2,457.95
Maint Tax Paid	8.46	25.68
88L Maintenance	370.80	3,700.38
Maintenance Supplies	95.56	554.16
63S Maintenance	0.00	3,643.97
Equipment Repairs	0.00	350.00
Repairs & Maintenance - Other	0.00	506.64
Total Repairs & Maintenance	474.82	23,612.73
Taxes		
State	261.63	702.02
Total Taxes	261.63	702.02
Total Expense	11,333.06	130,328.12
Net Ordinary Income	2,546.07	28,349.00
Other Income/Expense		
Other Income		
Interest Income	0.00	22.27
Total Other Income	0.00	22.27
Net Other Income	0.00	22.27
Net Income	2,546.07	28,371.27

Valley Fliers
Balance Sheet
 As of October 31, 2018

	Oct 31, 18
ASSETS	
Current Assets	
Checking/Savings	
Escrow savings account	39,717.80
Checking - Columbia State Bank	42,003.60
Total Checking/Savings	81,721.40
Accounts Receivable	
Accounts Receivable	18,620.85
Total Accounts Receivable	18,620.85
Other Current Assets	
Deposits - Fuel Purchases	7,500.00
Undeposited Funds	19,879.41
Total Other Current Assets	27,379.41
Total Current Assets	127,721.66
Fixed Assets	
N-80117 Accumulated Deprec	-24,635.44
N-80117 Cessna 172M	110,451.95
N-759MA Accumulated Deprec.	-35,640.04
N-759MA Cessna C-182Q	98,946.08
Asset Aquisition in Process	12,000.00
Operating Equipment	17,525.58
Accumulated Depreciation	-14,063.94
N-2388L Cessna 172	147,244.29
N-2388L Accumulated Deprec.	-100,778.89
N-5163S Piper PA-28-180F	147,491.94
N-5163S Accumulated Deprec.	-106,079.57
Total Fixed Assets	252,461.96
TOTAL ASSETS	380,183.62
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
Accounts Payable	4,964.16
Total Accounts Payable	4,964.16
Other Current Liabilities	
Sales Tax Payable	
Sales Tax Paid - Maintenance	-125.72
Taxes Paid - Fuel	-343.65
Sales Tax Payable - Other	1,358.50
Total Sales Tax Payable	889.13
Total Other Current Liabilities	889.13
Total Current Liabilities	5,853.29
Total Liabilities	5,853.29
Equity	
Member Shares - Current Price	128,000.00
Retained Earnings	217,959.06
Net Income	28,371.27
Total Equity	374,330.33
TOTAL LIABILITIES & EQUITY	380,183.62

Valley Fliers
Statement of Cash Flows
October 2018

	<u>Oct 18</u>
OPERATING ACTIVITIES	
Net Income	2,546.07
Adjustments to reconcile Net Income to net cash provided by operations:	
Accounts Receivable	5,368.62
Accounts Payable	2,231.11
Membership Equity Shares Traded	-8,000.00
Sales Tax Payable	-4,166.70
Sales Tax Payable:Sales Tax Paid - Maintenance	1,034.20
Sales Tax Payable:Taxes Paid - Fuel	1,090.67
	<hr/>
Net cash provided by Operating Activities	103.97
INVESTING ACTIVITIES	
N-80117 Accumulated Deprec	916.42
N-759MA Accumulated Deprec.	558.65
Accumulated Depreciation	254.67
N-2388L Accumulated Deprec.	717.59
N-5163S Accumulated Deprec.	597.98
	<hr/>
Net cash provided by Investing Activities	3,045.31
FINANCING ACTIVITIES	
Member Shares - Current Price	8,000.00
	<hr/>
Net cash provided by Financing Activities	8,000.00
Net cash increase for period	11,149.28
Cash at beginning of period	90,451.53
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Cash at end of period	<u><u>101,600.81</u></u>

Tacometer Readings

(add 3,452.3)

Date	C-182		C-172		C-172		PA-28	
	N759MA	Hours	N2388L	Hours	N80117	Hours	N5163S	Hours
10/4/17	4,094.4	0.0	4,010.1	0.0	3,998.4	0.0	2,454.2	6.0
10/10/17	4,094.4	0.0	4,010.1	0.0	4,020.4	22.0	2,458.6	4.4
10/26/17	4,111.9	17.5	4,010.1	0.0	4,041.8	21.4	2,468.4	9.8
11/7/17	4,121.5	9.6	4,010.1	0.0	4,057.5	15.7	2,475.9	7.5
11/15/17	4,121.5	0.0	4,010.1	0.0	4,064.2	6.7	2,475.9	0.0
12/6/17	4,133.6	12.2	4,014.1	4.0	4,064.2	0.0	2,486.2	10.3
12/12/17	4,137.8	4.2	4,020.2	6.1	4,064.2	0.0	2,487.6	1.4
1/1/18	4,137.8	0.0	4,020.2	0.0	4,080.8	16.6	2,487.6	0.0
1/7/18	4,151.2	13.4	4,034.2	14.0	4,082.4	1.6	2,496.2	8.6
1/28/18	4,160.7	9.5	4,044.4	10.2	4,085.9	3.5	2,496.2	0.0
1/31/18	4,160.7	9.5	4,044.4	10.2	4,085.9	0.0	2,504.9	8.7
2/10/18	4,163.8	3.1	4,047.0	2.6	4,089.9	4.0	2,508.4	3.5
3/1/18	4,179.6	15.8	4,050.2	3.2	4,099.9	10.0	2,511.9	3.5
4/4/18	4,205.6	26.1	4,053.3	3.1	4,116.7	16.8	2,523.6	11.7
3/22/18	4,205.6	0.0	4,058.3	0.0	4,129.7	13.0	2,523.6	11.7
4/7/18	4,205.6	0.0	4,058.3	0.0	4,132.5	2.8	2,523.6	11.7
4/12/18	4,205.6	0.0	4,063.3	5.0	4,132.5	0.0	2,523.6	0.0
5/5/18	4,205.6	0.0	4,063.3	5.0	4,181.0	48.5	2,538.1	14.5
5/9/18	4,231.7	26.1	4,081.1	17.8	4,192.0	11.0	2,538.3	0.2
5/29/18	4,249.5	17.8	4,097.8	16.7	4,241.0	49.0	2,538.3	0.0
6/5/18	4,249.5	0.0	4,097.8	0.0	4,241.0	0.0	2,554.5	16.2
6/13/18	4,249.5	0.0	4,097.8	0.0	4,255.9	14.9	2,558.0	3.5
6/16/18	4,257.0	7.6	4,097.8	0.0	4,255.9	0.0	2,558.0	0.0
6/27/18	4,282.2	25.2	4,125.4	27.6	4,279.0	23.1	2,573.0	15.0
7/11/18	4,290.8	8.6	4,125.4	0.0	4,294.4	15.4	2,577.6	4.6
7/21/18	4,314.1	23.3	4,155.8	30.4	4,308.7	14.3	2,588.2	10.6
7/27/18	4,319.7	5.6	4,157.7	1.9	4,313.9	5.2	2,593.1	4.9
8/2/18	4,319.7	5.6	4,157.7	1.9	4,313.9	5.2	2,596.7	3.6
8/7/18	4,356.4	36.7	4,173.7	16.0	4,333.6	19.7	2,599.1	2.4
8/15/18	4,356.4	0.0	4,178.5	4.8	4,333.6	0.0	2,599.1	0.0
8/18/18	4,363.6	7.2	4,180.9	2.4	4,343.2	9.6	2,607.2	8.1
8/26/18	4,363.6	0.0	4,180.9	0.0	4,352.3	9.1	2,607.2	0.0
9/6/18	4,375.1	11.4	4,204.7	23.8	4,368.9	16.6	2,619.5	12.3
9/18/18	4,385.9	10.8	4,208.6	3.9	4,373.9	5.0	2,619.5	0.0
9/26/18	4,389.4	3.5	4,208.6	0.0	4,386.0	12.1	2,622.5	3.0
10/10/18	4,404.9	15.6	4,224.6	16.0	4,400.7	14.7	2,627.5	5.0
10/16/18	4,404.9	0.0	4,224.6	0.0	4,413.6	12.9	2,627.5	0.0
11/13/18	4,408.0	3.1	4,256.6	32.0	4,441.0	27.4	2,639.4	11.9

Valley Fliers Aircraft Maintenance Summary

Date of Report: 11/13/2018

	Total Airframe Hours:	4,408	4,257	4,441	6,092
Aircraft	N759MA	N2388L	N80117	N5163S	
Next Oil Change (50 hrs)	50.0	26.7	22.6	7.3	
Hours Before TBO (2,000 hrs)	(595.2)	(117.2)	1,495.9	730.4	
Hours Since Top Overhaul	1,952.9	572.1	504.1	269.5	
Prop Hours (Since OH)	2,051.2	2,117.2	504.1	1,269.6	
Next Annual Inspection Date	10/30/18	11/30/18	1/31/19	5/30/19	
Hours to Next 250 hr Inspection	(46.1)	3.5	(110.2)	148.7	
Magneto OH Due (Rec. - 500 hrs)	203.9	(72.1)	(4.1)	184.6	
Vacuum Pump Due (Rec. - 500 hrs)	333.8	(72.1)	139.8	(31.2)	
Pitot-Static/Altimeter Insp Due	10/30/20	10/30/20	4/30/19	1/31/20	
Transponder Inspection Due	10/30/20	10/30/20	4/30/19	1/31/20	
ELT Battery Due (5yrs)	4/30/21	1/31/22	11/30/21	4/30/21	
ELT Registration Expires (2yrs)	2/18/20	2/18/20	2/18/20	2/18/20	
Fin & Rudder AD Due (1,000 hrs)	703.9				
Fuel Cap Placard AD Due (Annl)	10/30/18				
Seat Tracks AD & Seats (100 hrs)	100.0		11.3		
Rear Seat AD Due (Annl Insp)				Annual	
Induction Paper Filter AD (500 hrs)		368.80			
Bendix Ignition AD Due(2000 hrs)	1,823.7		1,639.8		
Fuel Inj. Insp. AD Due (100 hrs)		76.70			
FAA Reg Exp (App 3-5 mo prior)	7/31/19	1/31/21	11/30/18	1/31/21	
Carbon Monoxide Indicator Due	11/17/19	7/19/19	11/17/19	11/17/19	
Oil Hoses Replaced at TAC				2,409.0	

N759MA

Hobbs Problem
 HI & MP gauge - no built-in light
 345 cooling hose not attached
 Vac pump Checked. Nxt @ 800Hrs
 ADSB- Installed

N5163S

Broken window replaced
 ADSB- Installed

N80117

Flap switch button repl.
 Nose Strut ok
 Repl. Leacky tube on one main gr.
 ADSB is getting Installed @ KOLM

N2388L

Head set Jacks Repaired w. aluminium doubler
 Repl fuel gauge bulbs
 Re-set avionix in their trys - Fixed PTT
 Needs cooling hose attached to the 345
 New Battery
 ADSB- Installed

AOPA Focused Flight Review

<https://elearning.aopa.org/client/app.html#/courses/70001>

Topics:

- 1) Positive Aircraft Control
- 2) Weather and CFIT
- 3) Fuel, Engines and other Systems
- 4) Instrument Proficiency
- 5) Takeoffs, Landings and Go Arouns
- 6) Mountain and Backcountry Flying



"Serving to Serve Again"

We appreciate your consideration of Texas Skyways as the supplier of your next aircraft engine. We have obtained many F.A.A. approvals for improving aircraft performance and reliability. Several of these approvals are for more powerful engines. Other approvals are for various models of propellers. So, your consideration of these engines and propeller options is well justified.

One of our favorite engine models is the 250 HP O-470-U/TS built by the Continental Motors factory and modified by Texas Skyways. This factory rebuilt or new engine comes with the same crankcase and cylinder head casting as those of the 300 HP 520 and 550 engines. Many of the other internal parts are the same as the 520 and 550 engines.

The O-470-U engine is very much overbuilt for 230 HP. That's why we selected it to increase the RPM and horsepower rating and then increase the TBO to 2500 hours. And speaking of 2500 hour TBO, the exclusive Texas Skyways Total Drain™ oil sump along with the large non congealing oil cooler and oil filter have a lot to do with that.

Along with the speed increase of your aircraft, about 10-12 KTAS, and shortened takeoff distance of about 15 percent, the rate of climb and *value* of your aircraft are increased. Yes, you can fly your aircraft for 1000 hours and still have a full 1500 hour TBO remaining. The added TBO of the engine is worth the additional cost above a shop overhaul and then the added performance is free.

This engine is approved for two and three blade propellers. Usually we have overhauled two blade propellers available at about half the cost of a new three blade.

The 250 HP O-470-U/TS engine is more like having a new airplane, firewall forward, and with a lot more power. You may select the engine and propeller that best fit your needs. We have already designed the engine and propeller to fit your airplane.

You will be pleased and even surprised with the increase performance of your aircraft when equipped with a New or Factory Rebuilt Zero Time 250 horsepower engine. What a difference a Texas Skyways engine makes...ask the pilot who's flown one!

If you have any questions, please call me at 1-800-899-SKYS (7597).



"Serving to Serve Again"

**ADVANTAGES
OF THE
FACTORY O-470-U/TS 250 HP ENGINE
1953-1986 CESSNA 180 & 182**

REPLACES ANY O-470-A, J, K, L, R, S OR U ENGINE

2500 HOUR TBO AND PRO-RATED WARRANTY

FACTORY REBUILT OR NEW, ZERO TIME ENGINE

FACTORY NEW CYLINDERS

LATEST DESIGNED PHASE III CRANKCASE

LATEST TYPE CRANKSHAFT WITH FOUR VIBRATION
DAMPNERS

LARGE NON-CONGEALING OIL COOLER
ABOUT ONE THIRD LARGER THAN STANDARD

LATEST TYPE OIL PUMP WITH FILTER

TOTAL DRAIN™ OIL SUMP

TWO AND THREE BLADE PROPELLERS APPROVED

NO INJECTOR NOZZLES TO CLOG

NO FUEL RESERVOIR TANK IN COCKPIT

NO FUEL PUMP TO FAIL OR OVERHAUL

FUEL IS GRAVITY FED

NO RESTRICTION OF FLAPS

NO AIRFRAME OR COWLING MODIFICATIONS

EXCHANGE OLDER MODEL ENGINE FOR LATEST DESIGN

Continental Zero-Time Factory-Rebuilt or New Engine



"Serving to Serve Again"

**Continental Zero-Time Factory-Rebuilt or New Engine
Modified to Texas Skyways Model O-470 U/TS
Featuring 250 HP and 2500 hour TBO
2000 hour TBO for Skydiving or Banner Towing**

Applicable To Cessna 180 and 182 '53 through '86

ENGINE

Continental Rebuilt Zero Time Model O-470-U/TS

Equipped with:

- > Starter
- > Starter Adapter
- > Spark Plugs
- > Magnetos
- > Latest Designed Oil Pump with Integral Oil Filter
- > Factory New Cylinders – Standard
- > Total Drain Oil Sump (exclusive to Texas Skyways engines)
- > Ignition Harness
- > Carburetor
- > VAR Crankshaft
- > Oil Cooler, "Non-Congeaing"

Exchange **\$ 40,789.00**
Includes STC paperwork for installation

Factory New Engine Add \$7,000.00

PROPELLERS

Propeller 3-Blade Hartzell Buccaneer 8068	New	Exchange	\$9,990.00
D5732-P Hartzell Spinner	New	Exchange	\$1,341.25
Propeller 2-Blade McCauley C204 (Overhauled)		Exchange	\$6,000.00
McCauley Spinner – Pre-Owned		Exchange	\$600.00

STANDARD ENGINE REMOVAL AND INSTALLATION

Including:

- Labor
- Remove Engine and Engine Mount
- Reinstall Engine Mount using new engine mount bolts
- Install New Quick Drain in Oil Sump
- Scat hoses, and Miscellaneous Nuts, Bolts, & Cleaning Supplies
- Repair Baffles
- **This price includes 6 hours labor to repair baffles – additional hours
To repair or new baffles will be at an additional cost

\$5,300.00



OPTIONS FOR THE ABOVE ENGINE

Propeller 2-Blade McCauley C204	Overhauled	Exchange	\$6,000.00
McCauley Spinner – Pre-owned	Optional	Exchange	\$600.00
Vibration Isolators for Original Engine Mount			\$630.00
Fuel and Oil Hoses (estimate)			\$350.00
New Prop Governor		Exchange	\$2,055.00
Heavy Duty engine mount with thicker vibration isolators		Exchange	\$5,000.00



"Serving to Serve Again"

Optional Accessories Available O-470-U/TS 250 HP ENGINE

Propeller 2-Blade McCauley C204 (Overhauled)	Exchange	\$6,000.00
McCauley Spinner – Pre-Owned	Exchange	\$600.00
New Propeller Governor	Exchange	\$2,055.00
Vibration Isolators for Standard Engine Mount		\$630.00
TSI Heavy Duty Engine Mount with thicker isolators	Exchange	\$5,000.00
Tachometer Electronic (brochure included)	Exchange	\$711.25
Alternator (New Light Weight)	Exchange	\$625.00
Alternator Belt		\$65.00
**Alternator Kit (including breakers) to replace generator	Exchange	\$1,015.00
**Includes Voltage Regulator, Noise Suppressor, Mounting Bracket and Breakers		
Vacuum Pump – New	Exchange	\$448.00
Vacuum Pump – Overhauled	Exchange	\$385.00
Intake System Heat Deflectors		\$363.00
Engine Mount Heat Shields		\$175.00
Vernier Mixture Control Cable		\$375.00
Exhaust Pipe Extension including STC		\$300.00
Starter Warning Indicator System parts		\$300.00
(Parts and Installation)		\$550.00
Rosen Sun Visors		\$425.00
Exhaust Pipe Fairing		\$300.00
Intake Fairing		\$300.00
Weigh Aircraft		
Fixed Gear		\$425.00
Retractable Gear		\$625.00
Propeller Balancing (Dynamic)		\$525.00
JPI Engine Analyzer	Call for Pricing and TSI Discounts	
JPI Fuel Flow	Call for Pricing and TSI Discounts	
JPI Engine Analyzer & Fuel Flow	Call for Pricing and TSI Discounts	
Door Stewards		\$380.00
Modify original exhaust system		\$1,500.00
Replace engine mount with standard mount (approximate)		\$2,895.00



"Serving to Serve Again"

TERMS AND CONDITIONS

TERMS – Invoices are broken into three payments for installations at Texas Skyways:

1. A deposit of 20% of the total for the engine, prop, and mount is required when the order is placed.
2. A payment of 80% of the total for the engine, prop, and mount is due at the time of engine shipment from the Continental factory.
3. The remaining balance is due upon completion of installation.

TERMS FOR ENGINES SHIPPING TO OTHER DESTINATIONS – Invoices are broken into two payments for engines shipping to other destinations:

1. A deposit of 20% of the total for the engine, prop, and mount is required when the order is placed.
2. The remaining balance is due when the engine is ready to ship.

CREDIT CARDS – a 3% surcharge will be added to all payments made by credit card.

ENGINE CORE RETURN POLICY - STANDARD CMI Policy - Exchange core must be acceptable by the Continental factory. Exchange core should be complete with like accessories. An unacceptable core will result in additional cost to the customer. Core must be returned in Continental's original shipping crate.

CORE RETURNS AND STC DOCUMENTS- Customers can elect to have Texas Skyways hold the original STC paperwork in lieu of a core deposit. The original STC paperwork will be sent once the core has been received and approved by Texas Skyways. Core must be received within 60 days.

If customer elects to pay for core with engine order, original STC paperwork will be sent with engine order. Core reimbursement will be given to customer once core is received and approved by Texas Skyways. Core must be received within 60 days.

TEXAS SALES TAX - Engines sold to and delivered to customers within the state of Texas are subject to Texas state tax. However, sales tax does not apply if engine is installed at Texas Skyways but delivered to customers outside of the state of Texas.

FREIGHT CHARGES - Freight charges will be added to the TSI engine quote and will vary. Any special shipping including expedited, international or other special requests will incur additional freight charges.

EXPORTATION - Additional charges apply for export inspections, documentation and crating.

SPECIAL ORDER - Items not listed on Texas Skyways quotation are considered special order and as such must be paid for at the time the order is placed.

PROPELLER ALLOWANCE - Allowance for exchange propellers may vary depending upon model and conditions. Prices shown reflect "normal run out" conditions on all exchange propellers.

VARIANCES ON CERTAIN AIRCRAFT - Cessna 180 aircraft, model 1953, 1954 and some 1955, require engine mount, propeller governor, baffle and exhaust change or modification. Prices of engine mounts and propeller governors may vary depending upon model and availability.

Rev. 01/02/2014



Dependable aircraft maintenance since 1966 - Family owned and operated since 1977

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STC Services - C182



FAA Approved Supplemental Type Certificates (STC)

Better than new plane performance, at less than a new plane price.

John Jewell Aircraft, Inc offers engine and propeller upgrades, along with a 3-blade prop-only option for the C182 Legacy series aircraft.



McCAULEY

Our 252hp – O470U upgrade for all legacy models through 1986 "Better than new plane performance, without Better than new plane price" is accomplished through:

- Modified accessories in the C182-252
 - STC modified carburetor.

o Larger diameter balance tube (induction cross-over tube).
The JJA C182-252 STC does not require any external cowling modifications.

■ RPM increased to 2625

o Prop Blade angle change

o McCauley Prop Governor change

■ Requires engine, prop, accessories change for models

through 1976

The JJA C182-252 STC power plant used is not considered "highly modified"

1977-1986 models

engines and therefore O470U engine & prop options. C204 (McCauley 2-blade) & Hartzell 3-blade) NOTE: 3-blade option

retains full core value for future overhauls and exchanges. The STC requires additional STC engine mount change

documentation/data plates provide the information required continuing the

252hp performance into future overhauls of your STC'd C182.

252hp performance into future overhauls of your STC'd C182.

overhauls of your STC'd C182.

This conversion allows upgrade to an O470U (2000 hour TBO) along with a 252hp @ 2625 rpm conversion. Two prop options are available: McCauley 2-blade 204 or Hartzell 7691 3-blade.

NOTE: 1977 and newer C182 models are factory equipped with O470U and McCauley C204 prop, therefore existing equipment may be used.

Benefits of the 252hp STC

- 2000 TBO (2200 TBO on engine serial numbers 1006000 and greater)
- Available 252hp @ 2625 rpm
- Maximum horsepower achieved without expense of fuel injection modification
- Up to 400 fpm increase in rate of climb
- 5-8 kts increase in cruise, at gross weight
- Average fuel consumption remains unchanged &ndash to one gph increase
- Most economical cost-to-value C182 Performance Upgrade for Legacy C182's
- Decrease in operation costs over original 230hp engine
- True airspeeds in excess of 170mph!

Frequently Asked Questions

FAQ: What is difference between my existing O470-R or S and the O470U?

The O470-R/S models were designed to only produce 230 horsepower. The O470U is a carbureted version of the IO470 model that was designed to produce up to 260 horsepower as an injected model. The JJA 252 STC allows the O470U to produce 252hp at 2625 RPM without the expense of injection modification.

FAQ: Can I convert my existing O470-R or S to an O470U?

In most cases no. Some O470S models can be converted by crankcase modification, using different crankshaft, counterweights and cylinders. However, most times, converting existing engines becomes cost prohibitive.

FAQ: Is there a core difference when exchanging my O470-R or S with the Factory for an O470U?

No. The O470-R, -S, and -U all have the same core value.

FAQ: Am I required to purchase an O470U from the Factory to install this STC?

No. However, an "unlike core" exchange with the Factory in most cases is the easiest and most economical.

FAQ: Can I reuse my existing 2-blade prop from the O470-R or S?

No. One of the differences between the O470R/S models and the O470U is the number of counterweights. The 2-blade prop that is used with the O470-R/S mates with a 2-counterweight engine. The O470U is a 4-counterweight system and the prop must also match accordingly.

FAQ: Am I required to purchase a brand new C204 prop from the Factory?

No. Our price for brand a new prop is usually most economical over other sources for brand new props. Our props will be supplied with the blade angles factory-set for the STC limitations. However, you and your installation facility are welcome to use a C204 prop from the vendor of choice. The prop blade angles required for C182-252 installation will not be the same as used on a stock O470U. Inform the prop vendor of this in order for the proper blade angles to be included at "build-up".

FAQ: Since I will have to purchase a new prop when changing from an O470-R or S, would it not be best to go ahead and go 3-bladed?

Not necessarily. Some applications do require extremely short take-offs. However, JJA has found that the over-all best value and performance is to *remain 2-blade propeller when remaining carbureted*. When increasing the horsepower, along with the 3-blade propeller, the engine mount cradle must be changed. The 3-blade prop will give better climb; however, in cruise the 2-blade prop will be more efficient with equal performance.

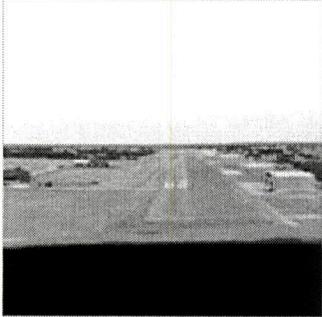
FAQ: I already have Factory-equipped O470U and C204 prop. What labor is required?

We estimate approximately 10 hours for STC installation when engine is not being exchanged. New STC requires exchange of carburetor, prop governor, balance tube (proper fitting for clearance on some serial numbers) and exchange of mechanical tach and R&R of prop for blade angle change

FAQ: Are there additional services that are required?

When aircraft is equipped with digital tachs, the mechanical tach is optional. However, the digital tach may require changes for the RPM limitation changes. Refer to the digital equipment's manufacturer.

For existing C204 prop installations, the prop blade angles will require change for the change in RPM's. This can be accomplished at prop overhaul at no additional charge. However, prop overhaul is not necessarily required. The nature of the C204 hub does not allow for blade angle change to be accomplished externally. A prop shop usually can perform this for a nominal fee. Consult log books and installation facility.



CESSNAFLYER.ORG

Cessna Flyer Association - More Mods, More Modern: Even More Good Things for the 182

Modifications for the Cessna 182.

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Power to get you there, and back again

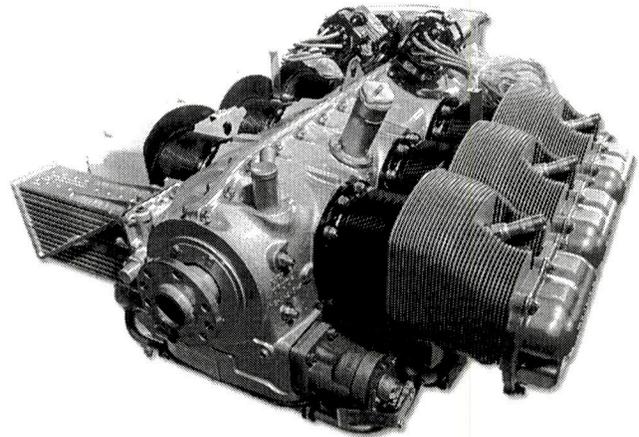
- [Warranty Information \(/pponk/warranty/\)](/pponk/warranty/)
- [0-470-50 Service Information \(/pponk/service-bulletin\)](/pponk/service-bulletin/)
- [Additional Engine Conversions \(/pponk/additional-engines\)](/pponk/additional-engines/)

Super Eagle Engine Conversion

Continental O-470-50

The Super Eagle Engine conversion is designed for Cessna 180 and 182 models currently equipped with Continental 470k through U engines.

It is basically a carbureted Continental O-520. We call it the "Dash Fifty" for short. The Super Eagle conversion utilizes your existing engine mount, baffling, exhaust and cowling. No airframe modifications are required. Total additional weight of the engine is approximately +4 pounds.



[Contact Us for More Info \(/order-form/\)](/order-form/)

To create the Dash Fifty (-50), we modify eligible stock Continental O-470 and 520 models. Although these engines require different modifications, the end result is the same.....the Super Eagle O-470-50. It will dramatically increase the performance of your aircraft by improving thrust, and giving you the capability of higher cruise speeds with little if any increase in fuel consumption. Being a carbureted engine, there is virtually no change in operation or maintenance procedure.

With the Super Eagle Engine, you can reach your destination sooner which means fewer hours on both your engine and airframe. Flight tests have produced speeds up to 189 MPH using aircraft that do not have any airframe speed modifications installed.

The Super Eagle Engine was tested on a dynamometer to determine two horsepower (HP) ratings:

Free HP: Total horsepower (HP) without any accessories installed.

Installed HP Total horsepower (HP) after accessories are installed.

Free HP O-470:	230
Free HP Super Eagle:	265 (275 if cylinders are equipped with venturi seats)
Installed HP O-470:	195 to 200
Installed HP Super Eagle:	235
Super Eagle Recommended TBO:	1700 Hrs with an oil screen 2000 Hrs with an oil filter installed since major overhaul

Engine / Aircraft Performance Comparison

MP	RPM	Altitude	OAT C	Stock O-470	Super Eagle
24	2450	4000	22	N/A	158ktas / 182mpht
23.5	2600	4000	24	N/A	164ktas / 189mpht
23	2400	4000	22	142ktas / 163mpht	154ktas / 178mpht
22	2400	6000	19	142ktas / 163mpht	155ktas / 178mpht
22	2500	6000	19	145ktas / 167mpht	158ktas / 182mpht
21	2300	8000	15	138ktas / 159mpht	152ktas / 175mpht

Continental O-470 engines may be modified only at P. Ponk Aviation or at a facility we have authorized.

To convert a stock Continental O-470 engine to the Super Eagle requires several internal changes, but the first and most obvious is to exchange the O-470 cylinders for O-520 cylinders which increase the engine displacement by 50 cubic inches. Super Eagle Engines are equipped with 4-counterweighted crankshafts. (Most O-470-R and S models will require a crankshaft change.) The crankshaft counterweights are reconfigured and the case is modified. The cylinders are equipped with 7.5 to 1 compression pistons which are precision balanced to within .5 grams. The carburetor is also modified. The original external accessories are serviced as needed or upgraded as desired, and installed.

Piston Comparison:

- Stock O-470: 7 to 1 compression pistons
- Super Eagle O-470-50: 7.5 to 1 compression pistons
- Stock IO-520D or F: 8.5 to 1 compression pistons

Continental 520 engines may be converted by one of our authorized facilities, or at the facility of your choice, subject to authorization and purchase of STC paperwork, currently \$1550. The TSIO-520-C, H, R, M, P, T or IO-520-D or F engine blocks may be converted. Conversion of eligible TSIO-520 models to the Super Eagle Engine

requires mostly external modifications. Most noticeably is the removal of the turbo charger and fuel injection system, and installation of a modified carburetor. Cylinders are equipped with 7.5 to 1 compression pistons, precision balanced to within .5 grams. The oil pan is exchanged for the original oil pan installed on the Cessna 180 or 182.

Carburetor Modification

Modification of an eligible MA4-5 carburetor is required for use with the O-470-50 engine. Overhaul of the carburetor at the time of modification is recommended unless it has been recently overhauled, or is in excellent condition. Eligible MA4-5 Part Numbers are: 10-3965-12-1, 10-4893-1, 10-5192 or 10-5284. With authorization from P Ponk, the carburetor modification (and overhaul as well) may be accomplished by AvStar Fuel Systems in Florida, Professional Aircraft Accessories in Ohio, or LyCon Rebuilding in California.

Whether converting a Continental 470 or 520 to the Super Eagle Engine, the end product is essentially the same – a carbureted Continental O-520 which rated 265-275 HP.

A precision balanced engine offers several advantages, including significantly improved performance, smoother operation, less maintenance, and a longer TBO. A smooth running engine also reduces pilot fatigue and increases passenger comfort.

Engine prices are not addressed here as we do not control pricing or warranty of the shops we have authorized to perform the engine conversion. There are many parts and accessory options available including choice of cylinders that affect pricing, so please contact us or one of our authorized engine builders to discuss your specific needs.

Approximate PPA O-470-50 Engine Power Settings

Normal lean mixture at approximately 2500 feet

Full Manifold Pressure	27 to 28"	+ 2700 RPM =	100% power
Full Manifold Pressure	24"	+ 2400 RPM =	75% power
Full Manifold Pressure	23"	+ 2300 RPM =	65% power
Full Manifold Pressure	22"	+ 2200 RPM =	56% power

Approximate Fuel Consumption

Approved for 100 octane fuel.

- 11.5 gal per hour at 2150 squared
- 16 to 17 gal per hour at 2500 to 2600 squared.

-50 engine provides better fuel economy than the standard O-470 at the same power settings:

- O-470 engine 10 miles per gallon
- -50 engine 11 miles per gallon

Contact Us for More Info ([/order-form/](#))

Propellers for the Super Eagle O-470-50 Engine

P Ponk -50 STC's for Cessna 182:

Best all-around performance of the O-470-50 engine is attained with installation of a 3-blade propeller. Hartzell, McCauley and MT offer excellent products with similar performance figures, but they have different flight characteristics. It is best to match the propeller with the kind of flying you intend to do.

The McCauley offers a little more thrust and acts somewhat like a speed brake when setting up for landing. (Very helpful in and out of short strips with heavy loads.) The Hartzell is a little faster, and also a quieter prop if you are operating in noise sensitive areas. The MT is a lighter weight option.

Following are 2018 prices for factory new 3-blade propeller and spinner "kits", including STC for installation:

- Hartzell \$10,949 to \$12,772 (depending upon propeller length)
- McCauley \$11,640
- MT \$16,450 (2017) Call for current price

Shipping from the factory is additional.

Please Note:

P Ponk STC for -50 engine installation includes installation of approved McCauley propellers.

P Ponk STC for installation of approved Hartzell propellers is separate, and is included with purchase of a Hartzell propeller from P Ponk Aviation.

An MT Prop option and STC for installation with the -50 engine is available through Flight Resources.

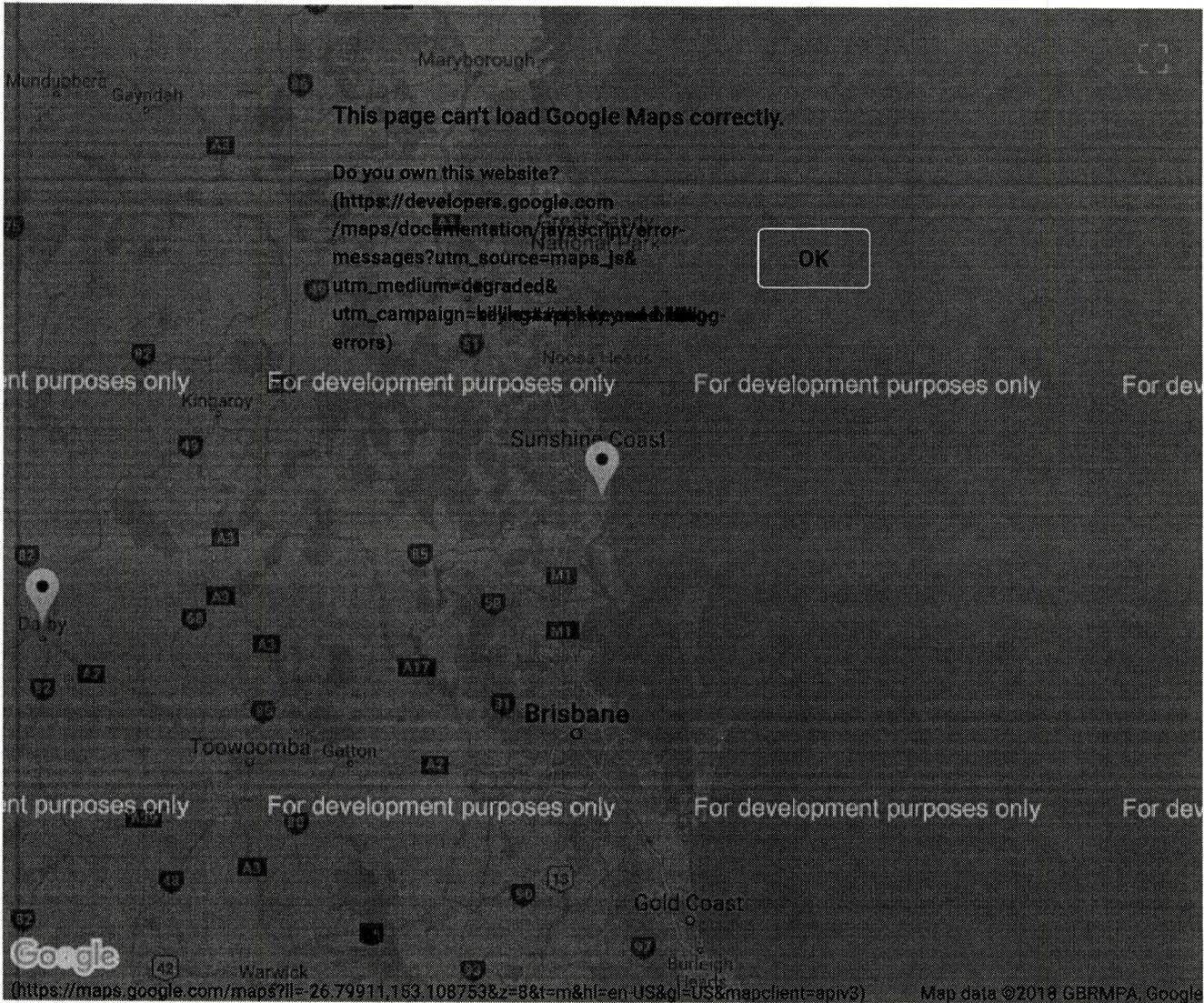
- Modification of O-470K, L, M, R, S and U to PPA O-470-50.
- Modification of TSIO-520-C engine to PPA O-470-50.
(TSIO-520H, R, M, P, T or IO-520-D or F engine blocks may also be used.)
- Installation of -50 engine in all Cessna 182, and 182A through R Models.
- Installation of the following propellers:
 - McCauley D2A34C58/90AT-8 (2 blade)
 - McCauley 2A34C66/90AT-8 (2 blade)
 - McCauley D2A37C230/90REB-8 (2 blade)
 - McCauley D3A32C90/82NC-2 (3 blade)
 - McCauley D3A34C401/90DFA-10 (80" | 3 blade | Cessna 182 H through R)
 - McCauley D3A34C401/90DFA-8 (82" | 3 blade | Cessna 182 through G)
 - Hartzell PHC-C/G3YF-1RF/8068 (82" | 3-blade | C/G = C or G Hub)
 - Hartzell PHC-C/G3YF-1RF/8068+2 (84" | 3-blade | C/G = C or G Hub Seaplane Only or Landplane with approved nose fork and larger tires.

P Ponk -50 STC's for Cessna 180:

- Modification of O-470K, L, M, R, S and U to PPA O-470-50.
- Modification of TSIO-520-C engine to PPA O-470-50.
(TSIO-520H, R, M, P, T or IO-520-D or F engine blocks may also be used.)
- Installation of -50 engine in all Cessna 180 and 180A through 180K Models.
- Installation of the following propellers:
 - McCauley D3A34C401/90DFA-4 to -12 78" to 86" 3-blade
 - Hartzell PHC-C/G3YF-1RF/8068 (82") or 8086+2 (84") 3-blade (C/G = C or G Hub)

Authorized Engine Builders

Contact any of the qualified builders below to modify your Continental engine into a Super Eagle O-470-50.



Aero Engines LLC.

Tom Schwietz

615 Airport Road #109

Winchester, VA 22602

Voice: (540) 678-1661

Fax: (540) 678-1661

aeroenginesllc@gmail.com

(mailto:aeroenginesllc@gmail.com)

America's Aircraft Engines Inc.

Lycon, Inc.

Les Switzer & Dean Altman

5117 E. Roadrunner Dr.

Mesa, AZ 85215

Voice: (480) 981-0876

Fax: (480) 654-2820

info@lyconarizona.com

(mailto:info@lyconarizona.com)

Ly-Con Rebuilding Company

Ken Tunnell & Loren Lemen

8231 West Doe Avenue

Dalby Air Maintenance

Glen Shaw

Hangar 4 Aerodrome Road

Dalby Aerodrome

Dalby 4405 QLD Australia

Voice: 011 617 4662 2063

Fax: 011 617 4662 3628

dalbyairmaint@bigpond.com

(mailto:dalbyairmaint@bigpond.com)

Suncoast Aero Engines Pty Ltd.

Stephen Fowler
 2505 West Broadway
 Collinsville OK 74021
 918 371-3000
 info@overhaul.com
 (mailto:info@overhaul.com)

Avian Aeronautics, Inc.

Pat Heseltine
 8900 State Highway 3 SW Suite
 102
 Port Orchard, WA 98367
 Voice: (360) 674-2244
 Fax: (360) 674-2551
 avianinc@oz.net
 (mailto:avianinc@oz.net)

Corona Aircraft Engine Inc.

Ben Ocon
 1965 Aviation Dr #A
 Corona, CA 92880
 Voice (951) 736-6452
 Fax (951) 736-6801
 coronaengines@gmail.com
 (mailto:coronaengines@gmail.com
)

Custom Aircraft Inc.

Richard Walker
 821 E. Aircraft Road
 Palmer, AK 99645
 Voice (907) 745-6030
 Fax (907) 745-6032
 customaircraft@mtaonline.net
 (mailto:customaircraft@mtaonline.net)

Horizon Aircraft Engine Services

Visalia CA 93291
 Voice: (559) 651-1070
 Fax: (559) 651-3212
 Lycon@lycon.com
 (mailto:Lycon@lycon.com)

One Stop Aviation, Inc.

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 Fax: (760) 721-1399
 rick@onestopaviation.com
 (mailto:rick@onestopaviation.com)

Premier Aircraft Engines

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 jimd@premieraircraft.net
 (mailto:jimd@premieraircraft.net)

Tim's Aircraft Engines Inc.

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 Long Beach, CA 90805
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 (mailto:tim@timsaircraft.com)

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