



# Light Sport Repair E-Flyer

Check out our new lower prices on our online store:

<http://www.lightsportrepair.com/products.htm>

We carry Pennzoil 2 cycle air cooled engine oil

MAY 15, 2009

NUMBER 10

## 150/300 582 ENGINE COURSE

(C65) Light Sport Repair Services, Inc.

10/23/09 – 5:00-9:00 pm  
10/24/09 – 8:00–5:00 pm  
10/25/09 - 8:00–5:00 pm

Many pilots have expressed an interest in learning how to do a 150/300 hr engine inspection. We have schedule a class

We will teach you how to tear down and inspect your 2-stroke Rotax 582 engine. The inspection will include the ignition system, cooling system, lubrication system, carburetion and the gearbox. You will be learning how to disassemble, clean, inspect and reassemble your Rotax 582 with new gaskets and seals. The 300 hour inspection will teach you how to also install a new crankshaft, new pistons, rings, wrist pins, rotary valve shaft, rotary valve shaft gear and bearings.

If you would like to attend the course please call for details (574)948-0065  
Or email us at: [services@lightsportrepair.com](mailto:services@lightsportrepair.com)

You can bring your engine to the course and we will have all of the parts that you will need to do either the 150 hour or the 300 hour inspection.

## FUEL INTAKE CONTROL

The Float system of the carburetor consists of 2 plastic float elements operating on a metal hinge. The floats are arranged each side of the carburetor venturi so that the carburetor can be tilted very far in all directions without impairing operation. The operation of the float is to maintain the fuel level in the float chamber constant

When the fuel has reached a specified level in the float chamber, the floats lift the hinge mounted on a pin until the float needle is pressed against the seat of the float needle valve, thus preventing any further supply of fuel. When the engine draws fuel from the carburetor, the level in the float chamber drops and so does the float. The float needle opens the valve again and allows fuel to flow in from the tank.

The float needle valve regulates the fuel supply in conjunction with the floats, but it may not act as a positive stop valve when the engine is at a standstill. Minute foreign bodies may be deposited between the valve seat and the needle tip, thus preventing complete closure of the valve. When stopping the engine, therefore, the fuel cock on the tank should always be closed. A **must**, if the tank is located above the carburetor, but also recommended with the fuel tank in the lower than carburetor position. In addition the fuel should be filtered before it reaches the carburetor. The filter should be selected so that foreign bodies greater than 0.1 mm are filtered out and the fuel supply is not impeded to too great an extent.

The float needle contains a spring-loaded plunger which contacts the float hinge. This absorbs vibrations of the float. In addition, the float needle is connected to the float hinge by a retaining spring to prevent it from moving between hinge and valve seat and thus reducing the fuel supply. Spring and retaining guide make a considerable contribution towards keeping the fuel level in the float chamber constant.

When fitting a new float valve; set the float hinge parallel to float chamber by bending the hinge lobe accordingly. With the hinge parallel, the dimension shown should be approximately 10.5 mm. The float chamber is secured to the carburetor housing by a spring clip. A seal is provided between float chamber and carburetor housing. The space above the fuel level is connected to atmosphere by two ducts. If these ducts are blocked, an air cushion forms above the fuel level. The fuel will not lift the float sufficiently to close the needle valve, and the carburetor overflows

The vent duct openings to atmosphere are provided with a hose which prevents ingress of dust and water into the carburetor. Velocity pressure must never act upon venting ducts as it would influence pressure in float chamber, and therefore after the air/fuel mixture.



**PARACHUTE  
AIRWORTHY INSPECTION  
& REPAIRS ON SITE**

**\$125.00**

*Includes a series of tests to determine airworthiness. The result of this inspection is a document recording the pass/fail of each test performed. We test & record the fabric porosity, line strength, fabric rip strength, attachment points, seams, line trim and more. During the inspection we also record any physical damage that we recommend for repair & provide an estimate.*

**16 Hr ELSA  
Courses Seats  
available**

**06/13 – 06/14, 2009  
PPC—Plymouth, IN**

**06/27 – 06/28, 2009  
Airplane – Plymouth, IN**

**For Details Visit us at:  
[www.lightsportrepair.com](http://www.lightsportrepair.com)**

**We will travel to  
your location to  
teach the 16 hr  
ELSA course for  
Airplane or Powered  
Parachute.  
Find out how you  
could get course for  
FREE**

**PRE-OWNED PPC'S [http://www.lightsportrepair.com/for\\_sale.htm](http://www.lightsportrepair.com/for_sale.htm)**



**PRICE REDUCED**

**N numbered 2001 Buckeye Skyhawk \$10,500**  
2 seat 230 hours, Neon Yellow w/black trim &  
Seats -Electric Start, 6 Blade Ivo Prop, Radiator  
Louvers, Disc Brakes, Saddle Bags, -Glide  
Shield, Rotax 582 Blue Head **MAKE OFFER**



**N Numbered 2003 Summit PPC - \$10,500**

13.7 hrs Total Time Since New, -65 hp Rotax  
582(Bluehead) with E-Drive (Electric Start),-ASAP  
Mustang S-500 Parachute, 10 gallon fuel tank, -  
Strobe Light, Ceramic Coated Exhaust, -Taskem EFI  
instruments



**2 Buckeye Dream Machines**

A 1996 Green Dream Machine with an Elan 500 SX Multi colored parachute. N396MS  
serial #3420 with 198.9 hours Rotax 582 Blue head -62" Ivo Prop **\$6000**

A 2001 Blue Dream Machine with an Apco 500 Red-White and Blue parachute.  
N396Z serial #6164 with 96.9 hours Rotax 503 engine -62" Ivo Prop **\$6000**



503 Rotax with electric start  
123 hrs. 2-seat  
2001 enclosed gray custom trailer w/heavy  
duty hitch lock w/built-in shelves  
Dual Comtronics helmets  
**\$7,700 or Best Offer**

## Light Sport News and Events

**10 DAY SPORT PILOT  
TRAINING CENTER**  
now open at the  
Plymouth, IN Airport  
(C65)

**1<sup>ST</sup> ANNUAL MICHIANA  
FLY-IN**  
AUGUST 8-9, 2009  
(C65) Plymouth, IN

*Come in on Friday the 7<sup>th</sup> &  
camp at the airport for a  
weekend of flying & fun.  
Engine seminars, lots of  
prizes with the raffle ticket  
proceeds going to the  
Boys & Girls Club  
(574)948-0065*

May 30-31: Virginia  
Regional Festival of  
Flight at Suffolk  
Executive Airport (SFQ)  
in Suffolk, Virginia.  
There will be two days  
of family fun from  
8a.m.to 5p.m  
General fly-in information  
phone: 703.590.9112.

Mark's Park & airfield  
June 18 and 21.  
Camping, fireworks, RC air  
show on Saturday  
Info: 920-982-0981  
[www.wisconsinppa.org](http://www.wisconsinppa.org) •  
[www.marksparkandairfield.com](http://www.marksparkandairfield.com)

18th Annual Yankee  
Ultralight Fly-In  
July 10-12, 2009.  
Sanderson's Field,  
Greenland, New  
Hampshire.  
Fixed Wing Ultralights,  
Trikes, Powered  
Parachutes, Rotorcraft,  
Light Sport and General  
Aviation Aircraft are all  
welcome. Great food and  
fun for all. Yankee  
Ultralight Flyers.

<http://www.lightsportrepair.com/catalog.htm>

BR8ES Spark Plugs	<b>On sale now</b>	\$ 2.00
BR8ES (Box of 10)		\$19.00
NGK Spark Plug Caps		\$ 3.00
Fuel and Primer Line		\$ 0.55/ft
Pulse Line		\$ 1.50/ft
Fuel Primer		\$10.50
Fuel/Oil Filters		\$ 1.75
Air Filter Service Kit		\$14.00
Mikuni Fuel Pump Rebuild Kit (OEM)		\$13.95
Stainless Steel Exhaust Clamps		\$39.00
Mr. Funnel (Original)		\$20.00
Mr. Funnel (Deluxe)		\$25.00
K&N Air Filter Single (All 36mm)		\$28.54
K&N Air Filter Dual (All 36mm)		\$47.00

### **Tune Up Kit \$40.00**

**4 Spark Plugs, Fuel & Oil Filter & tee  
10 foot Fuel Line with 15 clamps  
10 foot Primer Line with 8 clamps  
15 inches Impulse Line & 1 Primer**

### **ICOM-A14 \$235.00**



Patch Cords and Push to talks cables for  
Radios and Intercom  
**\$85-\$110**

**If you don't see it here or in our store, just ask**