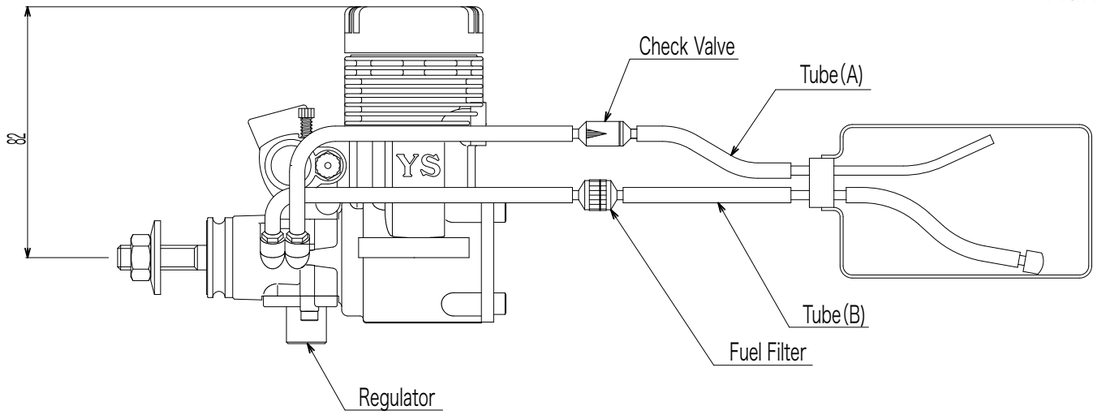
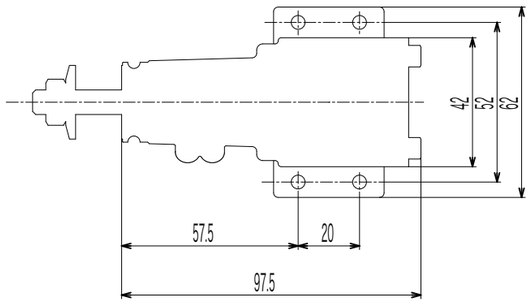
FIG.1





SPECIFICATIONS	
Bore	24mm
Stroke	22mm
Displacement	9.95cc
Weight	545g
Pracrical rpm	1,800～18,000rpm

GLOW PLUG

Select the most appropriate glow plug from those designed specifically for R/C operation. The selection of glow plug greatly affects the maximum engine output and low flying stability. If rpm's decrease or stop when the booster cord is removed, replace the plug.

INSTALLATION

1. *Connect the engine to the tank as shown in fig.1. Since high pressure is applied to the tank, tighten all connections carefully. Care must be taken to prevent pressure leakage due to undertightening of the check valve or by kinking the fuel lines.*
2. *Use a fuel filter in the fuel line. We recommend the YS filter.*
3. *Match the direction of the check valve arrow to fig.1.*

START-UP

1. *Remove the tube (B) from the filter, remove tube (A) from the check valve, then fill the tank. (Caution; If tank is filled, remove tube (A) first; then tube (B). Fuel will eject if tube (B) is removed first while the tank is pressurized.)*
2. *Open the needle valve three turns from the fully closed position.*
3. *Open the throttle fully and slowly turn the propeller ten turns. This primes the system by pressurizing the tank and feeding fuel to the carburetor.*
4. *Pour several drops of fuel into the carburetor.*
5. *Close the throttle approximately 25% and connect the glow plug cord.*
6. *Start the engine.*

BREAK-IN

To maximize engine performance and increase durability, use this break-in procedure;

1. *Use the same size or smaller propeller as you intend to use in flying.*
2. *Use any good quality 2 stroke fuel, which includes synthetic or castor oil additives.*
3. *During the break-in operation, open the throttle fully.*
4. *Rotate the propeller two or three turns, operating the needle valve as far as needed without stopping. Then rotate the needle valve 1/2 turns back from peak position and run for 30 minutes.*
5. *Mount the engine and fly it ten times at a speed 1,000rpm lower than peak rpm. This concludes the break-in procedure. It is advisable to keep the needle valve open a bit more than necessary so as to keep the moving parts lubricated, even after the break-in period.*

HIGH SPEED ADJUSTMENT

1. *Adjustment of high speed is done by the carburetor needle valve. When the needle valve is turned clockwise, the mixture is leaner. When it is turned counterclockwise, the mixture is richer.*
2. *When the engine is started, open the throttle gradually. Next, find the peak position(high rpm) by adjusting the needle valve. Set the rpm slightly less than peak (the needle should be turned 30-45 degrees to the left of peak position). The engine may stop if the throttle is opened to full immediately after start-up. Wait until the engine temperature rises and then open the throttle slowly.*
3. *For flying, it is advisable to use a slightly richer mixture setting. By using a richer mixture, the engine temperature is maintained and rpm stability improves.*

LOW SPEED ADJUSTMENT

Carburetor adjustment for low speed is factory pre-set. No adjustment is required until after the break-in period. After break-in use this procedure if necessary.

1. *Adjustment of low speed revolution is done by the diaphragm/regulator valve screw.When the diaphragm is turned clockwise, the mixture is leaned. When it is turned counterclockwise the mixture is richened. (For reference: The engine is assembled with the head of the diaphragm valve screw flush with the regulator body. Adjustments should be made in 1/8 to 1/4 turn increments.)*
2. *The diaphragm valve can be set after the high speed needle valve has been set. Close the throttle gradually; then fully open the throttle just before the engine stops. The adjustment condition is satisfactory at low speed if revolution is smooth at this time. Set the number of idling revolutions by throttle barrel limit screw. If the throttle is quickly opened and the mixture is too rich, turn the diaphragm adjustment screw clockwise 1/8 to 1/4 turn at a time to achieve smooth throttle response. If the mixture is too rich it is possible to stop the engine (flooding) when the throttle is opened.*
3. *When the revolution is stabilized, close the throttle further and repeat the above adjustment to idle evenly at 2,500rpm or less.*

PROPELLER AND MUFFLER SELECTION

The YS engine is designed for use with a tuned pipe. The intermediate length between the muffler and exhaust adaptor depends mainly on the propeller size and the type of fuel. Generally, when the diameter and pitch of the propeller increase, the intermediate(header) length should increase as well. It must also be increase with lower nitro content fuel blends.

DIAPHRAGM AND CHECK VALVE DISASSEMBLY

Diaphragm;

1. *Remove the adjustment screw of the valve, and then remove the inside valve and spring.*
2. *Clean the inside with alcohol or appropriate cleaner. Reassemble.*
3. *Screw in the valve adjustment screw until flush with the diaphragm body. Refer to "LOW SPEED ADJUSTMENT".*

Check valve;

1. *Open the valve by rotating the body counterclockwise.*
2. *Reassemble the check valve carefully.*

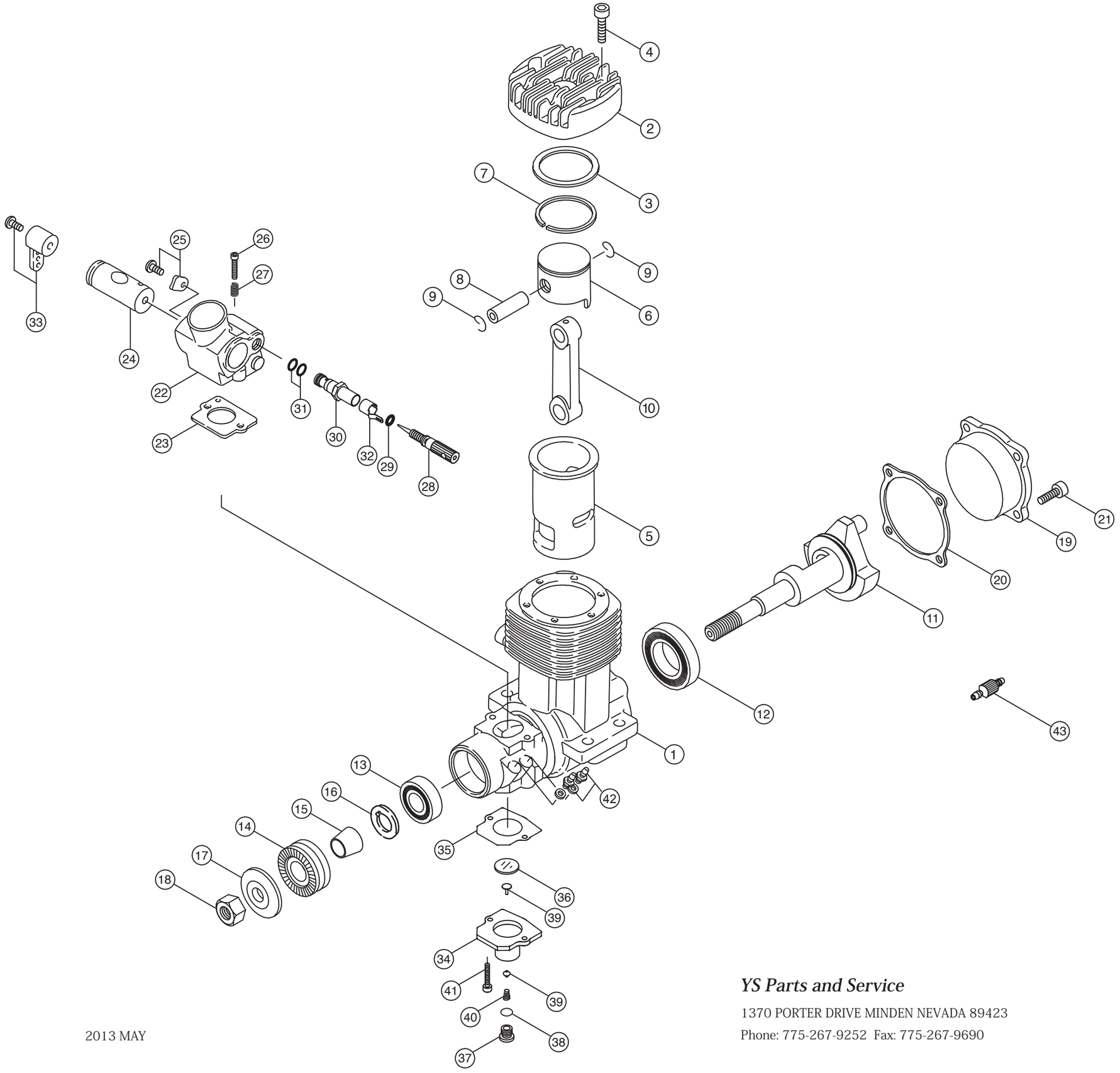
IMPORTANT!

Silicone rubber is used in many parts of the YS engine. Use only glow fuel or methanol for cleaning. Gasoline and other volatile solutions will damage the silicone if used.

Warranty

We strictly inspect each process of production from parts to final assemble for keep good quality. If a performance deteriorates or part fails due to a manufacturing error under normal usage will repair no charge with in 1 year starting from the date of purchase. Warranty will not cover normal wear. Even with in 1 year warranty term, improper disassemble or assemble, under improper usage, any modification will avoid this warranty and there will be normal charge for parts and labors.

NO.	ITEM NO.	NAME	QTY
1	YS7020	Crankcase (rear)	1
2	YS7025	Cylinder head	1
3	YS2420	Cylinder head gasket	1
4	YS1015	Cylinder head screws	6
	YS7030	Liner & piston set (rear)	
5	YS7035	Liner	1
6	YS7040	Piston (rear)	1
7	YS2380	Piston ring	1
8	YS7045	Wrist pin	1
9	YS4803	Wrist pin retainer	2
10	YS2390	Con rod	1
11	YS7050	Crankshaft	1
12	YS1045	Rear bearing	1
13	YS1050	Front bearing	1
14	YS4325	Drive washer	1
15	YS4330	Drive washer reatiner	1
16	YS1220	Drive washer spacer	1
17	YS0425	Prop washer	1
18	YS0400	Prop nut	1
19	YS1060	Back plate	1
20	YS1065	Back plate gasket	1
21	YS1070	Back plate screws	4
	YS7055	Carburetor assembly	
22	YS7060	Throttle body	1
23	YS1080	Throttle body gasket	1
24	YS7065	Throttle barrel	1
25	YS1090	Throttle barrel retainer	1
26	YS0785	Throttle stop screw	1
27	YS1095	Throttle stop spring	1
	YS2740	Needle valve assembly	
28	YS2690	Needle valve	1
29	YS2695	Needle valve O ring	1
30	YS2700	Needle valve socket	1
31	YS2705	Needle valve socket O-rings	2
32	YS0385	Needle valve detent	1
33	YS0200	Throttle arm set	1
	YS1180	Regulator assembly	
34	YS1120	Regulator body	1
35	YS1125	Regulator gasket	1
36	YS0730	Diaphram	1
37	YS0195	Regulator adjusting screw	1
38	YS0725	Regulator adjusting screw O-ring	1
39	YS1145	Plunger	1
40	YS0180	Plunger spring	1
41	YS1155	Regulator screws	2
42	YS0420	Fuel nipples	2
	YS1190	Gasket set	3
	YS7070	O-ring set	4
43	YS0405	Check valve	1



2013 MAY

YS Parts and Service

1370 PORTER DRIVE MINDEN NEVADA 89423

Phone: 775-267-9252 Fax: 775-267-9690