

OPERATING INSTRUCTIONS FOR ENYA ENGINES

SPECIAL ATTENTION

1. In general, model engine is very powerful and runs at very high speed. Never handle it carelessly. "Safety first" is most important in all respects when you run model engine.
2. Before you run your engine, take care of following points.
 - Tighten the engine mounting screws and propeller nut once again.
 - Make sure that there are nobody near around (except your assistant).
 - When you fly your plane, or run your boat, it is most important to confirm that your radio control equipment works well.If you find a defective point on it, to fly your plane, and repair it perfectly.

BREAKING IN

To obtain the highest performance, smooth running, and long life from your ENYA engine, it is recommended to break it in carefully during first 1 of 2 hours.

It is important to run the engine with slightly rich mixture during the breaking in period. When the engine has a tendency to slow down or stop, it means that it is not yet fully broken in.

It may take about 2 ~ 4 hours running for the engine to reach its peak in power and smoothness.

FUEL

ENYA engines will operate satisfactorily on most kinds of high quality fuel for model engines sold on the market.

The standard mixing ratios of components are as follows.

STANDARD VOLUMETRIC RATIO OF FUEL COMPONENTS					
	Glow plug engine			Diesel engine	
	No.1	No.2	No.3	Amyl nitrate	1 ~ 3%
Methyl alcohol	80%	75%	70 ~ 60%	Kerosene	37 ~ 36%
Nitro methane	0	5%	10 ~ 20%	Ethyl ether	37 ~ 36%
Castor oil	20%	20%	20%	Castor oil	25%

GLOW PLUG

Almost all 1/4-32 thread glow plugs are suitable for ENYA Glow Engines. But as the glow plug has a very delicate nature, it is recommended that you test your engine with different kinds of glow plug to get the best performance.

ENYA glow plugs are very suitable to ENYA Engines.

PREPARATIONS BEFORE STARTING THE ENGINE

1. Mount your engine securely on the test stand or plane.
2. Clean the fuel tank and line. Dirts in them sometimes cause troubles.
3. Set the fuel tank closely behind the engine in such a position that the height of the fuel surface is nearly equal to the height of the carburetor.
4. Test your battery to be sure that it can heat the glow plug satisfactorily.
5. Attach the glow plug and propeller to the engine securely.

STARTING THE ENGINE

An ENYA Engine starts quite easily with proper handling.

1. Close the needle valve, and fill the fuel tank with fuel.
2. Open the needle valve as follows.
 - ENYA 09, 15, 19: 1 1/2 ~ 2 1/2 turns.
 - ENYA 049, 06, 06-II, 06D-II, 08, 10, 29, 30, 35, 40, 45, 60: 2 ~ 3 turns.Inject several drops of fuel in the air intake, and crank the engine quickly about 10 times.
- In case the carburetor is too high compared with the fuel surface, or the fuel line is too long, it is necessary to choke the engine by holding your finger on the air intake port.
3. Connect one lead from the battery to the glow plug and the other lead to ground.
4. Crank the engine counter-clockwise quickly by flipping the propeller with your finger until it begins to pop and starts.
5. After your engine starts, it will be running slowly due to the rich mixture. Adjust the needle valve carefully to the best running position. It is recommended that you run your engine with a slightly rich mixture while it is new, and not broken in.
6. When the speed of the engine becomes pretty fast, remove the battery connection from the glow plug.
7. Close the needle valve when you want to stop the engine.

ENYA Diesel Engines also start very easily, but read the instructions for them before you begin to handle them.

ENYA THROTTLE VALVE (CARBURETOR)

ENYA throttle valve are especially designed and produced for radio control planes, car and boats. You can get a very wide speed range with them. There are several types in design.

1. ENYA normal barrel type carburetor

This type has a simply designed throttle drum and idling mixture adjusting air valve. Easy to adjust.

ENYA 09-IV, 09-IVBB, 15-V, SS25/30, SS40.

2. ENYA G type carburetor

This type has a precisely machined fuel metering groove on the surface of the throttle drum to feed the engine always with slightly rich mixture from the idling to medium speed. And also the fuel suction is reasonably strong at this speed range. Idling mixture adjusting air valve is equipped for the fine adjustment of idling. The mixture control at full throttle is made by the adjustment of the main needle valve.

ENYA 11CX, 21CX, SS25/30BB, SS40/45BB, 50CX, and ENYA 4 cycle engines.

3. ENYA GM type carburetor

This carburetor is a highly modified model of G type. Read the special instruction for it.

4. ENYA TN type carburetor (2 needle type)

This carburetor has a main needle of normal type and a mixture control needle. The mixture controls the idling and medium speed mixture. As to the details read the special instruction.

CYLINDER HEAD INSTALLATION

Remove one of the head screws. Consider this screw the 12 o'clock position. Next remove the head screws at the 6, 2, 8, 4 and 10 o'clock positions in that order. The reverse procedure is followed when installing a cylinder head.