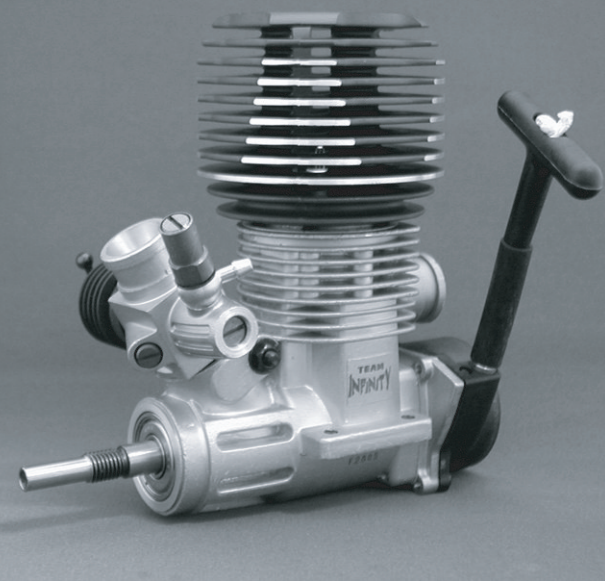


ENGINE INSTRUCTION MANUAL .27

TEAM INFINITY



Hobbies Creative International Co., Ltd.

INTRODUCTION

Congratulations on your purchase of TEAM INFINITY engine. This engine has been designed by industry experts in engine design and manufacturing techniques. Only the latest CAD/CAM equipment has been used in the design and manufacture of your engine. Major engine components are machined from the highest quality materials using state-of-the art CNC manufacturing techniques, resulting in consistently high performance and reliability. This engine is equipped with dual ball-bearings, Schnuerle porting and mixture control carburetors.

IMPORTANT

Be certain to completely read all of the instructions supplied with you engine, and pay close attention to the part of "SAFETY INSTRUCTIONS".

When a pull type starter is equipped, pull up the grip to start the engine.

*** DO NOT EVER PULL THE ROPE MORE THAN 30cm.**

SPECIFICATION

Displacement	4.43c.c.
Bore	18.5mm
Stroke	16.5mm
Practical RPM Range	4,500 ~ 40,500R.P.M.
Weight	410g

SAFETY INSTRUCTIONS

~Before starting product operation~

- * Read these "Safety instructions" and "Instruction manual" carefully, before you operate your engine, so that you can use it properly.
- * Keep these manuals in a place so you know where they are at all times.
- * Follow the instructions shown here carefully. These manuals will help to prevent injuries to users and other as well as protecting objects from damage.

Graphic indications

The following words and graphic indications are used in these instruction manuals. Be sure you understand these meanings fully before reading the text.



Danger: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
Warning: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
Caution: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderated injury, or damage of objects nearby.

Example of graphic indications:

The mark urges warning or caution. The illustration indicates the contents of the warning or cautions. This graphic means be careful of high temperatures.	The mark indicates actions are prohibited. The actions prohibited are indicated in or near the illustration. This left graphic means do not touch.	The mark compels or instructs certain actions. You must follow them carefully. This graphic means compulsory.
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Remember that the engine you have purchased is not a toy. It is a precision manufactured machine. You must understand that this machine can injure to you or other nearby. It can also damage property. It is very important to pay attention as indicated in this manual. Improper use of the machine can be very dangerous. You must always remember that you alone are responsible for operating your engine safely. Act with discretion and pay special attention at all times.

Installing the engine

Danger

When you break-in your engine by a propeller, never use a propeller that has any cracks, scratches, or even the slightest signs of breakage.

Warning

This model engine is designed exclusively for installation into car models. Never use it for other purpose. It may cause personal injury or mechanical failure.

Fix the engine to the model body firmly, using tough bolts and nuts with lock washers to prevent loosening. Do not clamp the engine in a vise. To test the engine, use a durable engine test stand sold in model shops. If not fixed perfectly, it may cause the engine to jump off the stand during operation.

Caution

In order to avoid ear damage, use effective silencer (muffler) for sound reduction.

Exhaust gas sound emits annoying noise to surrounding people. Pay attention to location and time for use.

Starting the engine

Warning

Keep loose objects such as shirt sleeves, neckties, and scarves away from the spinning tires, propeller, flywheel and gear. Be careful not to drop utensils such as screwdrivers and pencils into the spinning tires, propeller, flywheel and gear. If these objects contact the spinning propeller, it may cause the propeller to break and fly off.



Prohibition

When you operate an engine, keep children and other who might be hurt away from you and the engine. Anyone who is not operating the engine must be at least 6 meters away from the engine. If the propeller or engine fly off, it may cause injury.



Prohibition

Never operate the engine in an enclosed area such as a basement or a garage. Model engines like automobiles also emit gas poisonous to humans during operation. Only operate the engines outdoors where there is good ventilation.



do not touch

Make certain the glow plug clip or booster cables is not in the way of the spinning tires, propeller, flywheel and gear. If they contact the spinning tires, propeller, flywheel and gear, it may cause damage.

Caution



Compulsory

Check the throttle linkage connections before model car starts running. If any of connections fails, it may cause personal injury.



Compulsory

Recommend wearing safety eyeglasses or safety shields when you operate an engine.



Inflammable

Remember that the model engine fuel is highly flammable and must be handle with the extreme caution. Keep the objects creating fire risks such as cigarettes away from the engine and fuel supply system. There should be no smoking person nearby.

Operating the engine

Caution



Prohibition

Keep your face, hands, and body away from the spinning tires, propeller, flywheel and gear surface to prevent severe injury. If the tires, propeller, flywheel and gear breaks, pieces may hit your face or body.



Compulsory

When you bring your model with the engine running, be especially careful about keeping it away from you and other.



Compulsory

To stop the engine, reduce engine revolution to the lowest speed and stop the fuel supply by picking and choking the fuel pipe. In this operation, pay attention not to touch any of the rotating parts. Careless touch will cause injury.

Instructions after operation and related matters

Warning



Inflammable

Fuel is easily flammable. The fuel storage place must always be safe. Avoiding places where sparks may occur, temperature is high, or fuel becomes highly inflammable. Mishandling may cause fires. Keep all engine fuel in a safe place away from any danger of sparks, excessive heat or anything which could ignite the fuel.



Compulsory

Fuel for model engines contains highly volatile and poisonous ingredients such as methanol. Store the fuel where small children cannot reach it, so that children cannot have accidents. If someone's skin or face has been splashed with fuel, first wash it away with soap and water. Then consult a doctor. If you swallow fuel, immediate medical treatment from a doctor is imperative. Failure to undergo such treatment may endanger your life.



Prohibition

Do not operate the model installed with the engine alone. Airplanes, helicopters, boats, or automobiles powered by model engines may harm other persons or objects, if you loose control for some reason. Remember that operating any model with your engine requires skill and continuous safety precautions. When you operate a model, you should ask an experienced person who can accompany you, recognize the situation nearby in an emergency, and has enough experience in avoiding possible dangers.

Caution



Elevated Temperature

Never touch any part of the engine while it is running, or immediately after the engine has stopped. Some portions of model engines become considerable heat during operation. If you touch them carelessly, you may get burned.



Prohibition

On checking electric conduction to the plug, use a tool or clamp to handle. Never touch the plug or cable by hand directly. In this event, keep your face off from the heated portion. Seething fuel may spout out and cause a skin burn.



Prohibition

After the engine has stopped, it may restarts if cranked even without plug heating. Be cautious to avoid such case that may cause personal injury or failure.

FUEL

For break-in and general running purpose, use high quality fuel being marketed containing 20% lubricant and 15~30% nitro-methane by volume ratio.

Although you can obtain more power by increasing nitro-methane content, it will advance plug consumption and shorten the engine life.

GLOW PLUG

The type and quality of glow plug used in your engine will have a major impact on overall performance and reliability.

This engine operates best with a plug such as TEAM INFINITY Silver and Gold, Nova Rossi, O.S. No.8 or ENYA No.3 and No.4. Look glow plugs as consumables. Life of plugs changes by way of use.

AIR-FILTER

Do not run engine without installing air-filter.

Air-filter has an important role to protect the engine from invading dusts and strange particles. Because it influences the life of the engine considerably, select good air-filter and apply frequent maintenance.

BREAK-IN AND ENGINE ADJUSTMENT

This engine is composed of components manufactured with the latest technology machine tools and using high quality materials. Therefore you do not need to apply break-in running mounted on a test bench.

However it is necessary to practice some breaking-in process for maintaining of the proper performance of the engine.

First, set the engine in place of the model car body.

Breaking-in process begins by starting the engine for the first time. Only a few people pay attention at this stage, the way of handling this stage effects the life of the engine considerably.

Start the engine following to the instruction, and turn the main needle valve counter-clockwise, taking attention of the engine not stalling, and open it towards full throttle of the engine.

Open the main needle valve furthermore, and run the engine with very thick (rich) mixture about 2 tank quantity. Then run car using 3 tanks of fuel gradually throttling the main needle clockwise to find the appropriate needle position. The position will be found about 3 and 3/4 revs ~ 4 and 1/2 revs counter clockwise from the fully closed position.

By completing the appropriate needle valve adjustment, the engine will immediately respond to throttle operation showing vivid response. If you pick and choke the fuel pipe right before the carburetor, the engine will increase revs instantaneously and then stops. If engine stops immediately without increasing revs, it means needle setting is too thin. (lean)

Low end needle is precisely adjusted with each individual engine at the factory. If you want to adjust it, the adjustment must be kept within very narrow range.

Do not touch the spray nozzle.