

OWNERS MANUAL FOR THE FOX HAWK 60RC

WARNING:

The Fox Hawk 60RC has several unconventional features that may require handling different from the motors you are accustomed to using. Read this instruction manual completely before attempting to operate or disassemble.

SUITABLE MODELS:

The Fox Hawk 60RC has been developed specifically for Multi Channel pattern type radio-controlled model airplanes. With optional large throat carburetor it is suitable for Carrier type control line models, speed boats, and Pylon racers.

INSTALLATION:

Your Hawk 60 should be mounted in the most rigid and secure manner possible. If the airplane design calls for a firewall mount we recommend the Fox one piece metal mount as it is very rigid. If your airplane is designed for hardwood beam type mounts be sure that they are well braced between the two beams. A plywood firewall alone without cross bracing and gussets just doesn't do the job right. A flimsy motor mount could result not only in structural damage due to vibration, but can damage the engine due to foaming of the fuel.

RECOMMENDED PROPELLER:

Your Hawk 60 seems to like to turn up so we recommend that you do not use a propeller larger than 11-7. We recommend the narrow blade variety such as the power prop blade pattern. In some cases you may want to tip the propeller slightly or drop to a 6" pitch. Fox Hawks have been run at speeds in excess of 25,000 RPM without damage, so do not be uneasy about a higher than average RPM.

RECOMMENDED FUELS:

Your Hawk 60RC is quite tolerant to fuel so long as the fuel has at least 20% oil. We have found no oil equal to castor oil and recommend that you avoid fuels using synthetic oils exclusively. Duke's Fuel or Missile Mist work fine and if you want to go the economy route your Hawk 60 will run quite nicely on a fuel composed of four parts methanol and one part castor oil.

RECOMMENDED PLUG:

The Fox long RC plug is recommended.

FUEL TANK INSTALLATION:

The closer you can keep the back of the fuel tank to the carburetor, the less lean the engine will become in a prolonged climb or large loop. For this reason we favor the shorter, fatter type of fuel tank whenever a plane design will permit. If you use the muffler it is recommended that the tank be connected to the fitting on the muffler as this seems to help in vertical maneuvers.

BREAK-IN:

No special break-in is required. Go ahead and install it in your airplane and fly. We do recommend you keep your carburetor set on the rich side at all times. In the interests of good compression and long life we have fitted our Hawk as tight as we dare. In the event yours is fit too close and you have trouble with the piston seizing (engine stops abruptly on lean) or the bearing binding (engine loses all power on lean), return it to us and state your problem and we will hone it out at no charge.

CARBURETOR ADJUSTMENTS:

The Fox carburetor is of unique design and it is important that you understand its operation. Basically, the carburetor has two rotary valves, both on the same rotating member. Large notches line up with the air passage and meter the air flow. On the bypass side there is a smaller notch contoured which gives matching fuel flow as the barrel is rotated. The contour is such that the mixture will be lean at idle and very rich at full throttle position. Additional fuel is provided at idle through another passage which can be adjusted by the small thumb screw on the exhaust side. To bring in the high speed adjustments a fuel limiting needle is positioned on the by-pass side. Both needles screw in to lean and out to richen. For normal tank installations and flight conditions, we recommend that the low speed mixture adjustment be made for maximum RPM and then slowly back the needle out until the motor speed slows down 500 RPM. The high speed is the same way, screw the high speed in until maximum RPM is obtained then back the high speed needle out until the motor slows down 500 RPM. We recommend you use rubber or neoprene fuel line with I.D. .080 or larger. Vinyl type fuel line tends to harden and leak, and the silicone

(white semi-transparent) type fuel line tends to slip off badly. The Fox Hawk carburetor is made from the same casting and parts as our Fox Eagle carburetor, however, the orifice sizes are different, and the body casting and barrel are different.

PERIODIC INSPECTIONS:

We recommend that you make the following inspections every fifty flights:

1. Tighten all screws as tight as practical, including the rear cover screws.
2. Replace the glow plug with a new one.
3. If you have been using a muffler, we recommend you remove the muffler and run a tank of fuel through the engine at wide open throttle.

DISASSEMBLING PROCEDURE:

To disassemble your Fox Hawk 60RC - first remove the rear cover and the six cylinder head screws. Remove the rear cover and lift the head and the cylinder out. Do not attempt to remove the rod at this time. The wrist pin snap ring and wrist pin are now exposed and must be removed before attempting to remove the connecting rod. A special tool is normally used to remove the snap ring. To remove the crankshaft, first remove the thrust washer, prop washer and nut. The crankshaft can then be forced back out of its bearings and this process will slide off the aluminum taper lock.

RE-ASSEMBLING PROCEDURE:

Re-assembling your Hawk is the reverse of disassembly. Two precautions must be taken, however.

1. When re-installing the crankshaft be sure that the taper lock is pushed all the way up against the crankshaft shoulder. It is usually necessary to support the crankshaft from the inside on a peg of some kind and tap the taper lock down hard against the crank shoulder. If this is not done a starter may push the crankshaft back far enough so that the crank pin will chew up the rear cover.
2. Position the piston so that the ring pin is on the exhaust side of the wrist pin otherwise, the ring might catch in the ports, which will make an awful mess. When inserting the cylinder over the piston be sure that the gap on the ring is positioned over this pin.

HAWK 60RC PARTS LIST

Crankcase	26101	15.00
Cylinder Head	26102	10.00
Cylinder Liner	26103	20.00
Piston	26104	12.00
Wrist Pin	26106	2.00
Wrist Pin Snap Rings	26140	.50
Connecting Rod	26107	8.00
Crankshaft	26108	18.00
Thrust Washer	26109	3.00
Thrust Washer Taper Lock	26005	1.00
Rear Cover	26111	4.00
Prop Nut	26012	.50
Prop Washer	26013	.75
Screw & Gasket Set	26114	1.50
Bearing – Rear Main	26042	5.00
Bearing – Front Main	26043	4.00
Carburetor Assembly Complete	26150	16.00

CARBURETOR PARTS

Throttle Casting	26160	7.50
Throttle Barrel	26161	6.00
Idle Stop Screw & Spring	26062	.50
Low Speed Mixture Control	26063	1.00
High Speed Mixture Control	26064	1.00
Idle Stop Arm	26065	2.00
Servo Arm	26066	.75
High Speed Needle Clip	26068	.50
Spacer	26069	.25
¼-32 Nuts	26070	.25

FOX MFG. CO.

5305 TOWSON AVE.,
FT. SMITH, ARK. 72901