

**OWNERS MANUAL
FOR FOX 45, 50 AND QUICKEE MOTORS
REVISED FEBRUARY 1993**



We are very proud of these motors and we want yours to give you the best possible service. Please read this Owners Manual in its entirety and follow our instructions to the best of your ability. If you have any questions not covered here, please feel free to call us at 501-646-1656

NOTE:

The Fox 45 and Fox 50 differ in bore size. The crankcase, cylinder, piston, wrist pin, and head button are different for the two models. Other parts are the same.

SUITABLE MODELS:

These motors are suitable for radio control models calling for motor sizes from 40 thru 60.

WARNING:

There is always the possibility you may lose control of your model. Do not fly in any location where your model might strike people or do property damage should this occur.

INSTALLATION:

Your Fox motor mounts in the normal manner. If your airplane calls for a firewall mount, we recommend one that is very rigid. If your plane is designed with a hardwood beam type mount, be sure they are well braced between the two beams, and the beams are gusseted to the firewall, and, preferably, to one another. Flimsy motor mounts will allow the engine to vibrate excessively and may damage the model and cause foaming of the fuel tank. Also, excessive vibration can cause glow plug failure. If a cowling is used, provisions should be made for both air inlet and outlet.

PROPELLERS TO USE:

We recommend you always use a **hardwood** propeller. The sizes shown are a good starting place. However, the essence of model building is experimentation. So as you feel like experimenting, try varying the pitch and diameter.

	Large Model	Small Model
Fox 45	11 x 5	10 x 6
Fox 50	11 x 6	10 x 7

Plastic propellers are not recommended because if you should accidentally get your hand in the propeller arc while running, you will be hurt a lot worse. Wood propellers will usually break before you are seriously hurt.

WARNING:

Always keep clear of the propeller. It is possible for a propeller to cut off a finger or for a piece to come off and put an eye out.

FUEL TO USE:

The best model airplane fuels are a mixture of methanol, pure castor oil and nitromethane to improve ignition, add power and cut down carbon deposits. It is important to use only fuel with a minimum of 17% castor oil lubricant, otherwise, your engine life will be drastically reduced. Nitro is another fuel ingredient that is often used. Its function is to "advance the spark". To determine if you need any, or more nitro, start your engine, open the throttle wide open and set your high speed needle for maximum power, then back it out slightly. Do all this with your booster battery connected. Now remove your booster leads - if your motor slows down, more nitro is indicated. Fox Gold Star (5% Nitro) and Duke's Fuel (10% Nitro) have castor oil lubricant and should work satisfactorily.

WARNING:

Model airplane fuel is both flammable and extremely poisonous. Use the same safety precautions you would use with a can of gasoline or a bottle of poison.

GLOW PLUGS:

This series motors all use the long thread glow plug. We recommend our Miracle Plug because it gives a more reliable idle.

TO START YOUR MOTOR:

Mount your motor securely on a mount that does not put a strain on the mounting leg. #4-40 screws are the size to use. The fuel supply should be so positioned that the fuel level is no more than 1/2" above or below the fuel nipple. The fuel line should not be higher than the fuel level at any point. Use medium size fuel line.

These motors are supplied with our new E-Z carburetor.

All Fox E-Z carburetors are pre-set from the factory.

For easy starting, you may need to fine tune your engine to your own specifications.

To set high speed needle, screw in to bottom (do not over-tighten). Then screw needle out three turns for starting point.

To set idle air adjustment screw, screw it in until point of screw is midway of air inlet hole. To fine adjust idle, turn screw in to richen and out to lean.

Adjust idle adjustment screw to reliable idle. Screw in to increase RPM and screw out to decrease RPM.

WARNING:

A model airplane motor can get hot enough to cause a serious burn. Do not touch the motor right after it has been running.

BREAK IN:

Your Fox 45 or 50 has been test run and should be bench run for a minimum of 1 hour. Alternate between low speed, 1/4-1/2 throttle, and 3/4 throttle at a rich setting to allow all parts to seat properly. The idle, however, will become more reliable as the motor accumulates running time. When you install the muffler, it is important that both screws be tightened tight. A bit of loctite on the threads isn't a bad idea either.

WHEN THINGS DON'T GO SO WELL:

Motor Won't Start

- Bad Plug
- Fuel Tank Empty
- Fuel Line Collapsed, Leaky, or Off
- Weak or Dead Battery

Motor Won't Keep Running with Glow Plug Heater Removed

- Insufficient Nitro for Weather
- Bad Plug - Or Plug Carboned up by Inferior Fuel
- Too Rich a Setting
- Water in Fuel

Motor Goes Lean and Quits after Couple Minutes Running

- Hole in Flopper Tube in Tank
- Too Lean a Carburetor Setting

Glow Plug Burns Out Every Flight

- Over Voltage - Should Glow Orange and Not White
- Excessive Vibration - Loose Motor Mount or Unbalanced Spinner, or Plastic Propeller Flexing
- Crumpled Glow Plug Element - By Cranking with a Flood in Case

IN CASE OF CRASH, DO NOT TURN THE PROP OVER YET!

First - Remove from rest of model

Second - Wash under hot water faucet

Third - Remove plug and rear cover and wash in stoddard solvent

Fourth - Now check and if it turns over freely, it is probably not hurt.

OTHERWISE, PROCEED TO DISASSEMBLE:

To dis-assemble - remove head, rear cover and carburetor. Lift out the cylinder liner, next slip the con rod off the crankpin. The piston-rod-wrist pin assembly is not readily dis-assembled in a home shop and we recommend they be sent to us if work on these is required. Inspect all parts - discard any that appear damaged or worn. New parts can be obtained directly from the factory by calling (501) 646-1656 during business hours. When re-assembling, use care to get the oil hole in the rod facing the prop. If repairs are more than you want to handle and you desire us to rebuild it for you, mail it directly to us. We will dis-assemble the motor, replace all necessary parts, test run and return the motor to you charges collect. It has not proven practical to make any sort of estimates. We will assure you, however, that our charges will never be more than 50 percent of the list price of a new motor.

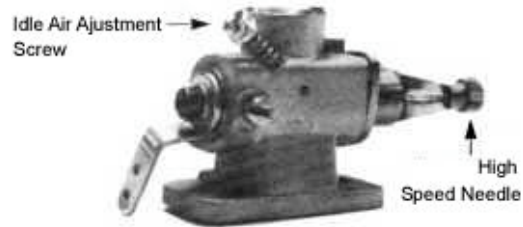
Note: A die cast spinner, back plate and screw are included with some models. The spinner back plate is designed to replace the thrust washer. Sometimes the thrust washer sticks rather tightly on the taperlock. In this case, removal is accomplished by wrapping the thrust washer with two or three wraps of masking or similar tape. Then holding the motor with pliers around the tape and rapping the end of the crank with a wood block.

WARNING:

Never fly a control line model within 200 feet of power lines. Death by electrocution is possible if your model comes near a power line. Direct contact is not necessary.

Be Quiet - Don't aggravate the neighbors if you wish to continue enjoying your hobby. The muffler we supply reduces sound to an acceptable level for most rural flying fields. However, if there is any possibility that your model noise is aggravating someone, we suggest you add our Quiet Muffler.

PART NAME	1993 MODEL FOX 45BB	1993 MODEL FOX 50BB	24097 QUICKEE 500 RACING	24197 QUICKEE 500 SPORT
CRANKCASE	14601-B 28.00	15001 28.00	14601-Q 32.00	14601-B 28.00
CLY. HEAD FIN SECTION -AIRPLANE	14542 10.00	14542 10.00	14542 10.00	14542 10.00
CLY. HEAD FIN SECTION -HELICOPTER	14542H 12.00	14542H 12.00	-	-
CYL. HEAD BUTTON	14643 7.50	15043 7.50	14043Q 7.50	14043S 7.50
CYL. LINER - FOR RING PISTON	14583 18.00	15003 18.00	-	-
PISTON	24504R SOLD AS A MATCHED ASSEM. 36.50	25004 SOLD AS A MATCHED ASSEM. 36.50	4005Q SOLD AS A MATCHED ASSEM. 60.00	14005S SOLD AS A MATCHED ASSEM. 45.00
WRIST PIN				
WRIST PIN KEEPERS				
CONNECTING ROD				
PISTON RING	24518 5.00	25018 5.00	-	-
CRANKSHAFT - NORMAL ROTATION	14608-B 25.00	14608-B 25.00	14608Q 27.00	14608Q 27.00
CRANKSHAFT - REVERSE ROTATION	14628B 27.00	14628B 27.00	-	-
SPINNER BACK PLATE	24541 4.00	24541 4.00	-	-
SPINNER BODY	24542 6.00	24542 6.00	-	-
SPINNER ATTACHING SCREW	24043 2.00	24043 2.00	-	-
THRUST WASHER	26009 8.00	26009 8.00	26009 8.00	26009 8.00
TAPERLOCK	26005 4.00	26005 4.00	26005 4.00	26005 4.00
REAR COVER	14611 11.00	14611 11.00	14611 11.00	14611 11.00
PROP NUT (PK 2)	13512 2.00	13512 2.00	13512 2.00	13512 2.00
PROP WASHER	13513 2.00	13513 2.00	13513 2.00	13513 2.00
SCREW & GASKET SET	14514 3.00	14514 3.00	14514 3.00	14514 3.00
REAR BALL BEARING	26042 20.00	26042 20.00	26042 20.00	26042 20.00
FRONT BALL BEARING	26043 12.00	26043 12.00	26043 12.00	26043 12.00
MUFFLER (TILT DOWN)	90245 21.95	90245 21.95	90245Q 39.95	90245 21.95
MUFFLER (TILT UP)	90246 21.95	90246 21.95	90246Q 39.95	90246 21.95
QUIET MUFFLER (TILT DOWN)	90345 39.95	90345 39.95	-	90345 39.95
QUIET MUFFLER (TILT UP)	90346 39.94	90346 39.94	-	90346 39.94
R.C. CARBURETOR COMPLETE	EZ 27050A 35.00	EZ 27050B 35.00	EZ 27050C 35.00	EZ 27050B 35.00
C.L. INTAKE CASTING & N.V. ASSEMBLY	14530 13.00	14530 13.00	14530 13.00	14530 13.00



PARTS FOR FOX E-Z CARB

#27059	THROTTLE BARREL & CASTING ASSY.	\$22.00
#23663	IDLE STOP SCREW & SPRING (FOR IDLE ADJUSTMENT SCREW & IDLE AIR ADJUSTMENT SCREW)	3.00
#27064	6-40 HIGH SPEED NEEDLE	2.00
#27065	SERVO ATTACHING SCREW LOCK WASHER	2.00
#24066	SERVO ARM	2.50
#24067	FRICTION CLIP (PAIR)	2.50
#27070	6-40 KNURLED NUT	2.00
#27071	JET ASSY WITH FUEL NIPPLE	16.00
#24072	CAM SCREW	2.50
#27073	FUEL NIPPLE	2.50
#27074	JET MOUNTING SCREW (PAIR)	2.00
#24075	CARB MOUNTING SCREWS & GASKET	2.00



FOX MANUFACTURING CO.
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