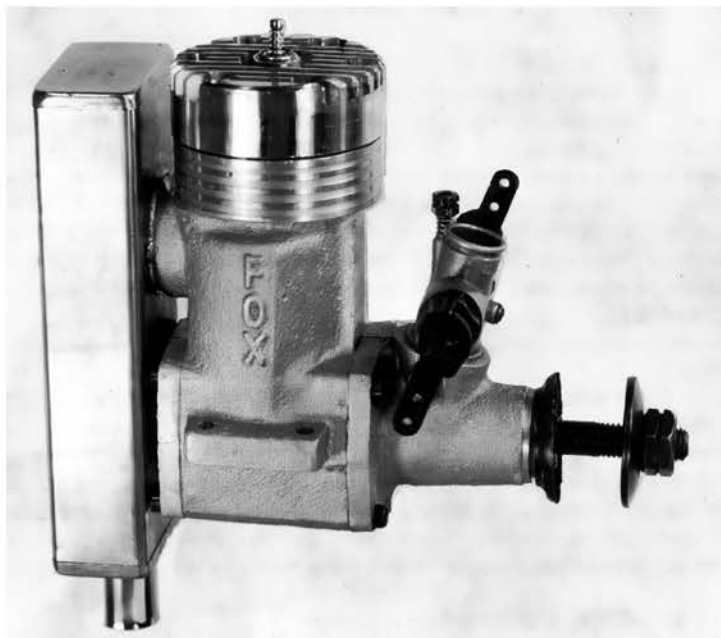




MAY 1980
OWNER'S MANUAL FOR 1980 MODEL FOX MOTORS
#23899 Fox 36 Rear Exhaust

MESSAGE FROM DUKE FOX

We are very proud of our Fox 36 Rear Exhaust motor and want yours to give you the very best possible service. Please read this Owner's 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.

SUITABLE MODELS

These motors are primarily intended to power sport type radio control model airplanes, and are also suitable for scale, free flight, and control line models. With auxiliary cooling provisions, they are suitable for model helicopters and model boats.

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 should be mounted in the most rigid and secure manner possible. If the airplane design calls for a firewall mount, we recommend the part #50403 Fox one piece metal mount as it is very rigid. If your airplane is designed for hardwood beam type mounts, be sure they are well braced between the two beams. A plywood firewall alone without cross bracing and gussets just does not 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.

FUEL TO USE

Any Fox Fuel works well in the Fox 36 Rear Exhaust. We would normally use Duke's fuel. Nitro is not necessary and your motor works quite well on fuel with no nitro.

WARNING

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

PROPELLERS TO USE

Your Fox 36 Rear Exhaust seems happiest running in the 11,000 to 13,000 RPM range. We suggest you use a 10-6 narrow blade propeller for average size five pound radio control models. For very large models, try an 11-4 or 11-5, and for small, racing type models use a 9-7 or 9-8 propeller. Only maple, cherry, or other hardwood propellers should be used. Gum wood or other soft wood propellers will mash down and could possibly come off in flight. Tighten your propeller nut very tight. We dislike plastic propellers because they usually vibrate more than wood, and will hurt you worse if you should accidentally put your hand in it.

WARNING

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

GLOW PLUGS TO USE

Your Fox 36 Rear Exhaust should be fitted with Fox Long Thread Glow Plugs. For a good idle on throttle type motors, the idle bar type plug seems better. However, these motors work surprisingly well on the cheaper standard variety.

TO START YOUR FOX MOTOR

1. Mount your motor securely on a mount that does not put a strain on the lugs. #4-40 screws are the size to use. The fuel supply should be positioned so the fuel level is no more than $\frac{1}{2}$ " above or below the fuel nipple. The fuel line should not be higher than the fuel level at any point. Use Fox medium silicone fuel tubing (.080 ID).
2. Close the throttle - adjust the idle stop screw (the one on the top), so you can see a hairline opening in the intake when the throttle is pushed closed.
3. Holding the throttle shut, screw the low speed needle (the one on the exhaust side) in until it is snug, then back out $\frac{1}{4}$ turn.
4. Screw the high speed needle in until it is snug, then back out 4 turns.
5. Set throttle at $\frac{1}{3}$ open position, connect the glow plug wire and crank counterwise with a quick, snappy flipping motion. If it does not start in a few flips, try choking it a turn or two. It should start and run at these settings.

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

No special break-in is required. Go ahead and install it in your airplane and fly. We do recommend keeping your carburetor set slightly rich at all times. In the interest of good compression and long life we have fitted your motor 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. You should be aware, however, that it takes about $1\frac{1}{2}$ hours running time to seat the rings and the main bearing. For this period any motor is likely to stop at idle speed, and it is really futile to try to fine tune the idle until the motor has been run this amount of time.

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.

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FACTORY SERVICE

We want your Fox engine to perform well for you. Technical advice can be obtained directly from Duke Fox by phoning Area Code 501-646-1656. If your motor has become worn or crashed, and you desire our factory repair service, mail it directly to us. We will disassemble 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 60% of the list price of a new motor.

PARTS FOR 1980 MODEL MOTORS

PART NAME	PART No.	PRICE
Crankcase	23801	14.00
Crankcase Front	23801-A	12.00
Cylinder Head	23802	7.00
Cylinder Head Button	23843	5.00
Cylinder Liner	23803	12.00
Piston	23804	10.00
Wrist Pin	23806	2.00
Wrist Pin Keepers	14040	.75
Piston Ring	23818	2.50
Connecting Rod	23807	8.00
Crankshaft	23808	12.00
Thrust Washer	13509	2.00
Rear Cover	23611	7.00
Prop Nut (Pkg of 2)	13512	1.00
Prop Washer	13513	1.00
Screw & Gasket Set	23614	1.50
Muffler	23822	17.50
Carburetor, complete	23650	16.00
Throttle Casting	23660	7.00
Throttle Barrel	23661	7.00
Idle Stop Screw and Spring	23662	1.50
Low Speed Mixture Control	23663	2.00
High Speed Mixture Control	23664	1.50
Servo Arm	23666	1.00
Needle Clip (Pair)	23668	1.00
$\frac{1}{4}$ -32 Nut (Pair)	26070	1.00



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