OWNER'S MANUAL FOR FOX BICYCLE MOTOR

WARNING
Not to be used by children without adult supervision.

WARNING
Under Federal Law it is unlikely that your bicycle can be made street legal. Therefore, this motor should be used off the street only.

WARNING
The muffler can become hot enough to cause a serious burn if it is touched. Do not under any circumstance touch the muffler for 15 minutes after the motor has been running.

WARNING
This motor burns gasoline (with oil) which is extremely flammable and produces explosive vapors. Use extreme caution in handling the fuel.

WARNING
Do not under circumstance install this motor on any bicycle which does not have good working brakes.

PERATION

Your Fox Bicycle Motor is started by gripping the lutch lever, getting on your bicycle and pedaling it to a peed of approximately 10 MPH. Then release the clutch ever, which will engage the roller to the rear tire and turn he motor over. The easiest starting is usually accomplished by intermittent choking and giving partial throttle until the engine fires. Then quickly declutch so the engine can e revved up and clear itself. Once it seems to be running moothly, gradually release the clutch lever to engage the oller to the tire and you are on your way. When coming to stop, depress the clutch lever at approximately 10 MPH o avoid stalling the motor. To kill the motor, choke and inish kill by releasing the clutch.

IEEDLE VALVE ADJUSTMENTS

There are two needle valves on the carburetor. The ne on the fuel nipple side is the high speed adjustment, nd the one on the opposite side is the low speed adjustment. n both needles, in is leaner and out is richer. The low peed adjustment should be adjusted quite rich in order to rovide the best acceleration. How rich will depend upon ie weight of the rider. Experiment until you find the best osition. The right hand needle should be adjusted so that hen the motor is cold it will four cycle at top speed and s the motor starts to warm up it will lean in and fire every evolution.

FUEL TO USE

Mix 8 ounces of 2 cycle oil with your first gallon of gasoline. Mix 6 ounces of 2 cycle oil with your second gallon of gasoline. Thereafter, mix four ounces of 2 cycle oil with each gallon of gasoline. Unleaded gasoline is less likely to foul the spark plug.

CAUTION

Every time you fill the tank, place 1 drop of oil on the gear and 1 drop of oil on each jack shaft bearing. See photo 2. Any lubricating oil will be okay.

The Fox Bicycle Motor is designed to fit directly over the rear wheels of bicycles having 20", 24", 26", or 27" wheels. We recommend the large balloon tired (2-1/8") cruiser or BMX type bicycles with a coaster brake as the best installation. However, it can be fitted to most bicycles with 20" or larger wheels. The coaster brake is recommended over the hand operated caliper type brake because the handle bar positions used for our throttle and clutch controls make it awkward to operate a hand brake. The large tired bicycles are preferred because they ride easier.

MOTOR INSTALLATION

1. Bolt the two mounting straps to the bottom of the crankcase as shown in photo 1. If your bicycle has a 2-1/8" tire, insert spacers between the straps and the case to increase the tire clearance.

2. Slip the motor into position with vertical strut hole over the axle bolt and positioning the horizontal struts in line with the saddle clamp. When properly mounted, the bottom of the crankcase should be between 1/2" and 1" from the top of the tire to the bottom of the crankcase. The horizontal struts should be set as horizontal as possible. Remove the saddle clamp bolt, and using the longer bolt and spacers provided, install the adjustable links. Attach the adjustable links to the horizontal strut using the holes that seem to line up the best. If the bicycle has a rear fender, it will need the fender trimmed to clear the roller and the swing arm. Once a satisfactory positioning of the motor has been established, remove the rear wheel nuts and permanently attach the bottom of the vertical struts. Tighten everything tight.

3. Mount the clutch release lever on the left handle bar and mount the throttle and choke control on the right handle bar. Run the cables back along the upper frame member and attach according to photo 2.

4. Attach the clutch springs to the holes provided in the swing arm assembly and attach the other end to the vertical mounting struts. Use the least spring tension that will allow the motor to crank. Straighten the bend in your kick stand so that the parked bicycle is more upright than normal. This is necessary because the weight of the motor makes the bicycle want to fall on its side more readily. The installation of your bicycle motor should now be complete.

FOX MANUFACTURING COMPANY

5305 TOWSON AVE. - FORT SMITH, ARK. 72901

PHONE (501) 646-1656

NEWS RELEASE June 11, 1982

FOX BICYCLE MOTOR NOW IN PRODUCTION - At our 50,000 suare foot plant in Fort Smith, Arkansas U.S.A.

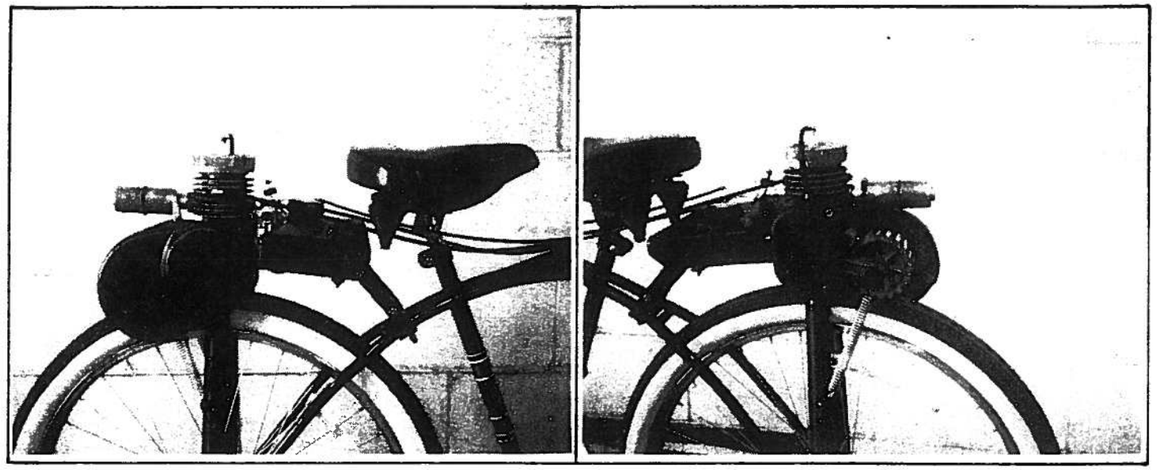
Four years ago Duke Fox surveyed the bicycle motors on the market, past and present. - What a sorry lot. Pull starters to get unstrung, fans to come loose, complicated carburetors to get clogged, drive spools that chewed up a tire in a hundred miles, flimsy mounting brackets, underseat controls - and not enough power on most to be worth the trouble and price - too expensive, even if they had done what was claimed. Even so, quite a few were sold. - - - What a golden opportunity if the job was done right and the price was reasonable.

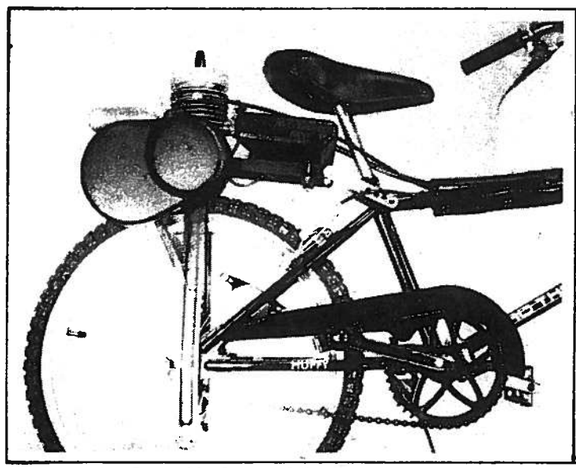
SO - The project was born. Goals were simple to state, but hard to achieve. The motor had to adapt to most bicycles. It had to run better, last longer, and cost less than any on the market. - It had to be good enough so that it would become a factor in the market place.

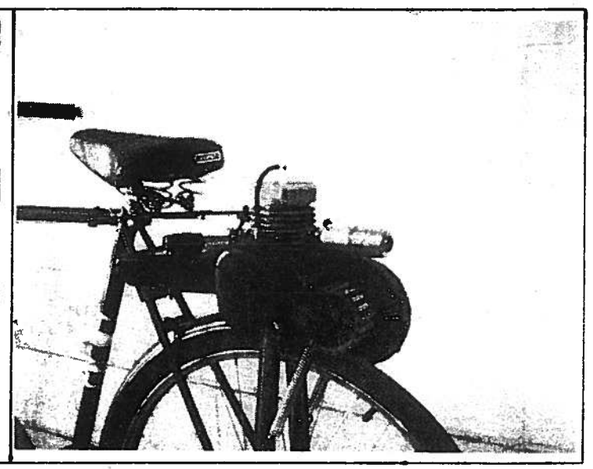
We feel we have succeeded like gangbusters. The motor installs in 10 or 15 minutes, it outperforms MOPEDS, and all the controls are on the handlebars. The large diameter cleated roller and swing arm system solves the tire wear problem. A patent is pending on this system. Test motors have been used by teenagers for over a year now and they continue to run. The few we have pulled down for inspection look like they could go for 10 years more.

The powerhead we designed and made for this purpose. It features schnuerle port design, removable cast iron liner, needle bearings and massive fins that make a fan unnecessary. The magneto is our own design and is unusually compact, as well as being unusually degree tolerant. The carburetor is a simple, model airplane type that has no valves, floats, pumps, or other built in service problems. The motor mounts rigidly to the bicycle rear axle and saddle clamp, and has no pivot points to become worn or begin rattling. The rear mounting does not affect steering, and the noise, exhaust fumes, and heat move away from the rider, not toward him.

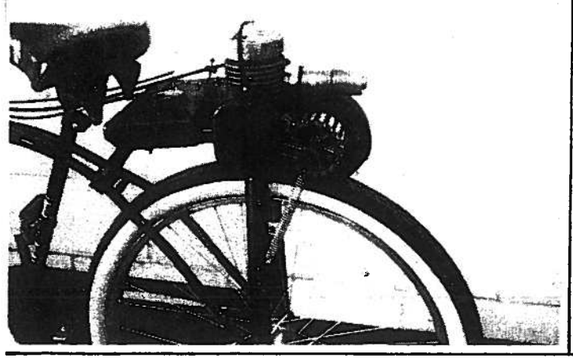
The Fox Bicycle Motor will be marketed on a dealer direct basis. It cannot be obtained from jobbers. Write FOX MANUFACTURING COMPANY, 5305 TOWSON AVENUE, FORT SMITH, ARKANSAS 72901, or call Area Code 501-646-1656.







As Installed on 20" BMX Bicycle



AN AMERICAN-MADE PRODUCT BY

FOX MANUFACTURING CO.

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

FOX MANUFACTURING COMPANY

5305 TOWSON AVENUE ■ FORT SMITH, ARKANSAS 72901 ■ 501/646-1656

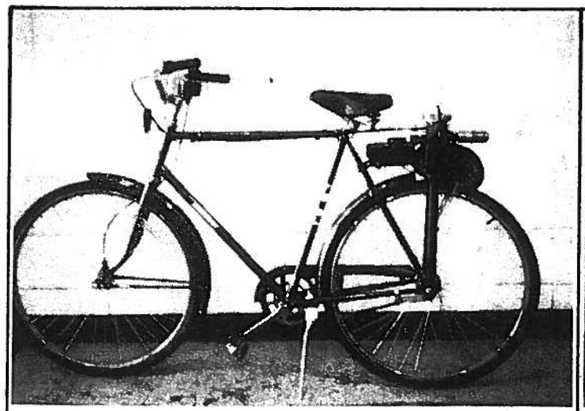
INTRODUCING **THE FOX BICYCLE MOTOR!**

Protected by Patent #3,971,297 and Patents Pending

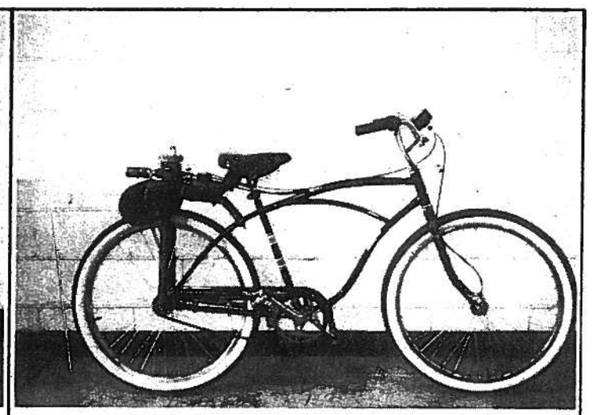
A TOTALLY NEW PRODUCT - PRODUCED IN THE U.S.A. BY AMERICA'S LARGEST INDEPENDENT MODEL AIRPLANE MOTOR MANUFACTURER

STARTS BY PEDALING.
CONTROLS LIKE A MOTORCYCLE.
SPEEDS TO 30 M.P.H.
MILEAGE - ABOUT 150 MPG.
FITS 26" AND 27" WHEEL BICYCLES WITH COASTER BRAKE.

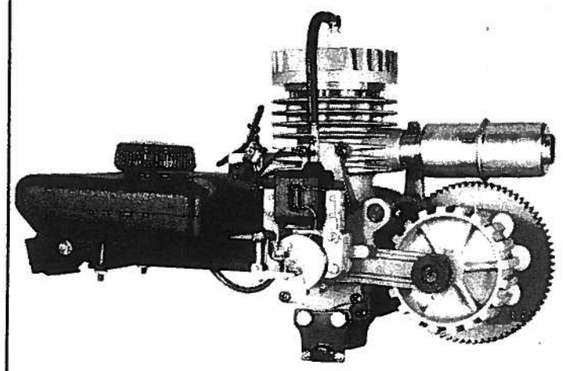
INSTALLED WEIGHT - 14 LBS.
DISPLACEMENT - 49CC
FUEL - GASOLINE WITH 2 CYCLE OIL
DRIVE - GEARED ROLLER



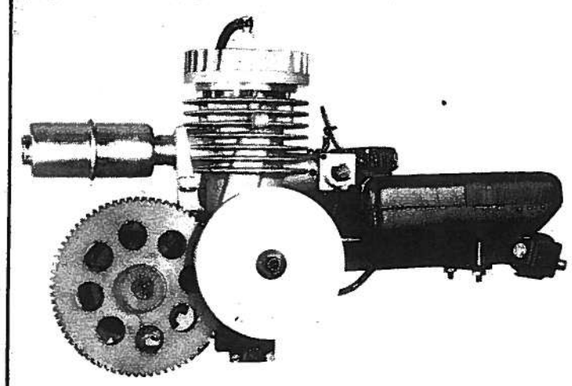
As Installed on a Standard Bicycle



As Installed on a BMX Type Bicycle



Magneto Side



View - Flywheel Side.

TURN PAGE FOR QUESTIONS AND ANSWERS ABOUT THIS MOTOR.

QUESTIONS AND ANSWERS ABOUT THE FOX BICYCLE MOTOR

QUESTION - What bicycles will this fit on?

Answer: Most 27", 26", 24" and 20" bicycles. (not with banana seat)
The most desirable installations are those with large tires and coaster brakes.

QUESTION - Why the coaster brake?

Answer: Because the right hand handle bar position is used by the throttle and the choke and the left hand handle bar position is used to operate the clutch. Using a handle bar brake would be a little awkward. Also, the mounting of the motor sometimes interferes with the placement of a rear caliper brake.

QUESTION - How fast will it go?

Answer: On the average about 26 or 27 MPH wide open with a 200 pound plus rider and about 33 or 34 MPH with a 100 pound rider.

QUESTION - Is this intended for children or adults?

Answer: Both. But primarily children over eight years old.

QUESTION - What are the licensing requirements for a motorized bicycle?

Answer: This varies widely from area to area. Check with your local authorities so you can answer this question for your local area. Generally, smaller towns and rural areas have no limitations.

QUESTION - What kind of service problems can we expect?

Answer: The most usual is fouled spark plugs, dirt in the gas line or carburetor, and something external broken when the bicycle falls over or is hit. In thousands of miles of testing we have not had one single case of internal wear or damage to the powerhead. One case of gear damage did occur when the customer did not oil the gear regularly as instructed. Quite a number of problems from curious users who took the motor apart to see how it was built and did not get it put back together correctly.

QUESTION - How long can we expect the motor to last?

Answer: We don't know. We haven't been able to wear one out yet.

QUESTION - Doesn't the roller cause abnormal tire wear?

Answer: Somewhat faster than as if it were used without the roller, but not a great deal faster.

QUESTION - How does this compare to a Moped in performance?

Answer: It performs slightly better than most 50CC Mopeds because it is lighter.

QUESTION - What kind of mileage can we expect?

Answer: On the average use, about 150 MPG. Of course, like automobiles, this is less if it is all start and stop.

QUESTION - Am I going to find this in the discount houses just when I succeed in getting it popularized in my area?

Answer: Very unlikely. Our one price to all policy is not attractive to discount houses whose policy it is to buy a whole lot at a real low price and push them out.

QUESTION - Your price seems unreasonably low. Why?

Answer: We think there is a huge untapped market for bicycle motors provided they are priced low enough so that they are not competing with Mopeds. We feel that we can maintain our price at about 30 percent of a Moped.

QUESTION - How come there is no pull starter or fan?

Answer: We think that these are unnecessary and are constant sources of trouble. Our pedal start is much more touble free and our generous sized finning makes a fan unnecessary.

QUESTION - How come the gear drive? Isn't that an extra source of trouble?

Answer: A small diameter roller does not have enough contact area to transmit the power efficiently without excessive roller pressure and the result is abnormal tire wear and an inability to start the motor by pedaling. The gear reduction makes is possible to use a generous size roller and to keep the drive ratio correct. Also, this way we can mount the motor rigidly to the frame and achieve a clutching action by swinging the jackshaft. The gear is quite trouble free provided it is oiled regularly (every time you fill the tank). This must be impressed upon the buyer.

QUESTION - I have never seen a magneto this small. Does it work as well as the big one?

Answer: Yes, the magneto is our own design and manufactured by us and does the job as well as a bigger one with much less bulk and troubles.

QUESTION - Do we sell these installed or does the customer do it himself?

Answer - Installation is simple and most customers can install it themselves. We suggest you sell the box and tell them that if they have any trouble come back and see you.

QUESTION - How long does it take to install it on a bicycle?

Answer: The average buyer will probably take an hour or so, although our personnel can do it in a few minutes.

QUESTION - What spare parts should we stock?

Answer: Extra spark plugs, an extra muffler, and perhaps an extra carburetor assembly.

QUESTION - Who is this Fox Manufacturing Company?

Answer: Fox Manufacturing Company has been building model airplane motors since 1944. They are the most successful builder of model airplane motors in the U.S. and are the only one remaining independent. Over a million Fox motors have been produced and enjoy an unexcelled reputation for reliable products at modest cost.

WHEN THINGS QUIT WORKING

The design of the Fox Bicycle Motor is simple enough you should be able to handle most repairs yourself. Parts can be obtained direct from the factory by calling Area Code 501-646-1656 and asking for the Bicycle Motor Parts Department.

If the motor refuses to start or fires erratically, suspect a fouled spark plug.

If the motor won't keep running without choking, suspect dirt in the fuel line or carburetor. Solution - Pull fuel line off carburetor and let fuel drain for a few seconds. Remove both needles and blow through.

If you are getting no spark at all, check the breaker points. They should open between .015 and .020. Adjustment is made by loosening the fixed point lock nut and screwing the fixed point in or out.

If you are unable to get things working right and wish us to do a factory repair, we will be happy to do so. Box up the motor assembly less the controls and send them to us via UPS prepaid. Be sure and insure. Enclose a letter giving your name, address, phone number, and tell us what the trouble seems to be. Your motor will be repaired, test run, boxed up, and returned to you UPS C.O.D. It has not proven practical to give any estimates. However, users of thousands of factory repaired Fox motors say our charges are modest.

Photo 1

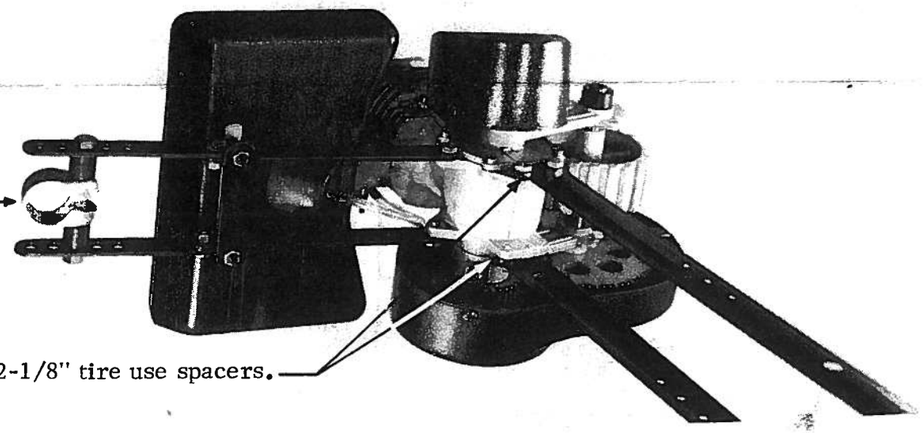
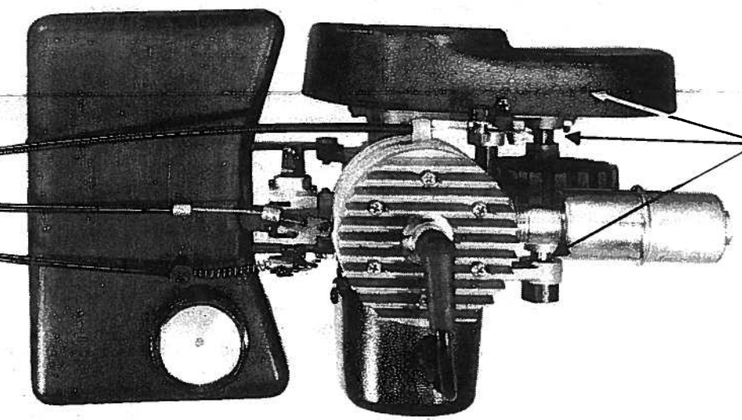


Photo 2

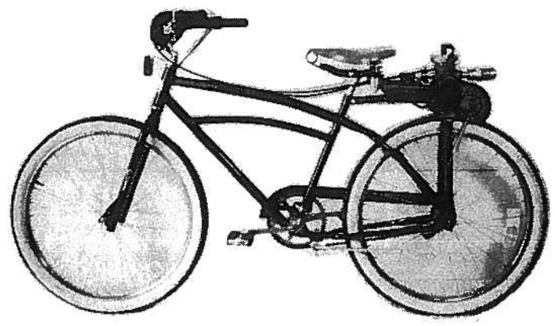


FOX MFG. CO.

5305 TOWSON AVE.
FORT SMITH, ARK. 72901
501 / 646-1656

THE ULTIMATE GIFT FOR YOUR BOY (8-14)
THE FOX BICYCLE MOTOR.
GREAT FOR GROWNUPS TOO

As Installed on 20" BMX Bicycle



As Installed on 26" BMX Bicycle

SAFER than a moped or motorcycle. Average weight of a Fox powered bicycle is only 40 lbs. Less likely to hurt your boy if it falls on him, or hurt another if he hits someone. Also he will be riding a machine he has already learned to handle.

EDUCATIONAL - Ultra simple construction can be understood by a boy. He can take it apart to find out why it runs and usually get it back together without your help.

SPECIAL SUMMER DEAL!

ONLY **$124.95**

Send us your check or ask for c.o.d. shipment.

Dealer inquiries invited.

- Adds only 14½ lbs. to weight of bicycle.
- Motorcycle type controls.
- Burns 2 cycle gas-oil mix.
- Speed limiters available.
- Increases tire wear less than 20%.
- Starts by pedaling.
- Speeds to 35 MPH (without speed limiter).
- Kit contains all mounting brackets and controls to install on his bicycle - no extras to buy.
- Motor will outlast the bicycle it's mounted on.

FOX MFG. CO.
5305 Towson Ave.
Fort Smith, Arkansas 72901
501-646-1656