

motorize a bike

by [ichael a](#) on February 12, 2009

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intro: motorize a bike

step by step instructions on how to motorize a regular old bike into a great awesome motorbike the bike gets 150+ miles to the gallon





step 1: get you hands on a bike and motor

Things you need

- Bike
- screwdriver
- zip ties 2
- 66 cc motor from Grubee Inc.
- warm place to work
- gas (1 to 20) parts oil
- hammer
- gas tank
- throttle
- kill switch
- muffler
- sprocket
- 318 chain
- chain breaker
- fuel line
- grease

step 2: mounting the motor

mount the motor on the bike by screwing on the clamps under the top side, over the v frame on your bike.

1 the engine mounts on the frame "vee" above the pedal wheel sprocket

2 if the distance between the two bars exceeds the engine mounting span then additional spacers or welding brackets are needed. Mount the seat tube as low as possible and then fir ro the front tube. ideal position it level.



step 3: chain/ sprocket

1 the drive chain sprocket has a 35.9 mm dia. center hole and mounts on axle hub on the left side of the rear wheel against the spokes dish side in. The sprocket must fit over the hub in a perpendicular plane with the axle. this insures that rear chain sprocket spins true with the rear bike wheel. Spin the back wheel and check for wobble if there woble the chain can jump off.

1. for standard kit sprocket installation, locate sprocket on axle hub with curved side next to spokes, shinny side in.
2. If not pre sliced, cut the rubber isolator to the center, in order to fit INSIDE the spokes and around axle. Install the split steel retainer plates next to the rubber isolator and insert 9 bolts. Some kits supplied with 5 or 6 retainer plates for dual locking.
3. Secure with 9 bolts compressing the chain sprocket to the spokes. Note: Rubber isolators may be needed on both sides of sprocket for chain alignment on some non-coaster brake bikes.
4. Chain sprocket on the wheel must align within 1/2 cm to the chain drive sprocket on the engine. The drive chain can be easily shortened to the correct length. Special tools are required to remove and replace the master link when shortening the chain by removing links. Ideally, both your pedal drive chain and your engine drive chain should have the same tension.

part 2

- 1 Remove cover plate from left rear side of engine.
- 2 The engine comes with a drive sprocket to match the chain in the kit. . If the kit has a standard bike chain and a 415 HD heavy duty chain is desired, you must remove the narrow drive sprocket from the engine and install a wider tooth drive sprocket obtained from your dealer to match the 415 chain. Install chain with master link clip on inboard side of the primary drive sprocket teeth.
3. Use spark-plug and wrench to turn engine crankshaft sprocket to feed chain around it.
4. Fit chain, measure and remove excess links to assure proper length. Proper length is when top side of drive chain has one fourth inch to half inch deflection with the bottom side of the chain loop tight. Reconnect the master link, and replace cover plate on engine.
5. Chain tension adjustments can be made by moving rear wheel. If both engine and pedal chains can be made to have equal tension then installing the idler assembly will not be necessary. Mount the chain idler on the wheel strut if the engine drive chain cannot be made as tight as the pedal chain.
6. Install supplied chain safety guard by attaching to engine and wheel axle struts.



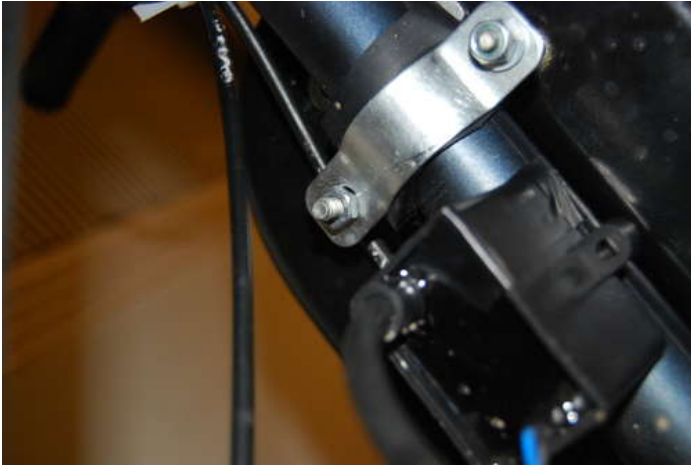
step 4: fuel tank

A) Attach fuel petcock to tank. Use Teflon tape to seal threads.

B) Attach fuel line from tank to carburetor. Best to use USA made fuel line like GoodYear or something . Factory supplied clear plastic line gets hard and crusty over a period of time.

Gas and Oil Mixture for Fuel ratio

The engine is a 2 cycle design, therefore, a gasoline/oil mixture is necessary. During the break-in period (1st gallon of fuel), the ratio should be 18 to 20 parts gasoline to 1 part oil. After the break-in period, the ratio can be increased to 20 - 25 parts gasoline to 1 part oil.



step 5: clutch/ throttle and kill switch

Take clutch lever and slide it on over the handle bar and take the cable and thread it through the lever in the engine. When you pull the clutch the engine should disconnect from the back wheel so you can get it started. Then trim the rest of the cable because it is very sharp and will cut you when you pedal. Make sure you rescrew the screw so it wont come lose.

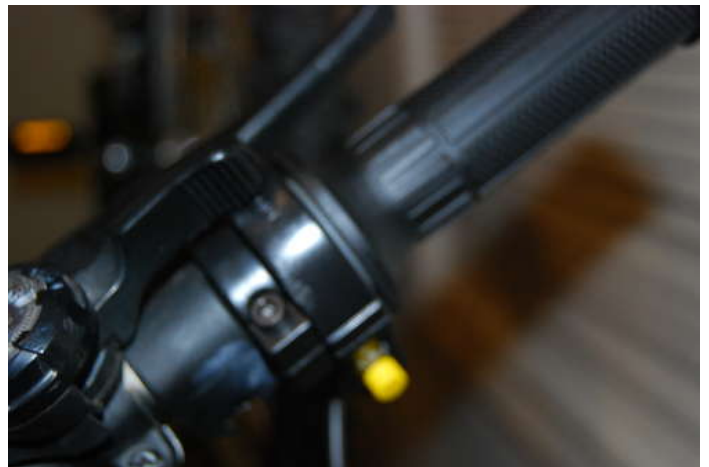
throttle

take the existing grip off the bike and slide the throttle on the right side of the bike. Use an allen wrench to tighten it. take the cable from the throttle and slide it on the carburator so when you pull the throttle you should feel some resistance when you twist it.

kill switch

Take the red wire from the throttle and attach it to the frame, Take the black wire and attach it to the white wire coming from the motor. When you push the kill switch you hold it so it will turn off not just stall.





step 6: spark plug

Take the black box with wires coming off of it and take the black thick part and cap it over the end of the white thing "spark plug" on top of the motor. Attach the white black to the black and blue to blue.

step 7: how to start the motor up

before you start push the tickler button and open the carburator. All the way first pull the clutch down and pedal until going kinda fast then release and twist throttle and pedal until it starts up then just twist to go faster.

Related Instructables



by savagemania



How to Strap a Leaf Blower Engine to a Bike and Go Fast by Jnkyrdguy



The Comprehensive Guide To Saving Money on Gas by RickO5



How To Kick Start a Motorbike. by DoNoTincinerate



Money in your pocket (and help the environment too) by Hougashucka



how to clean a dirtbike/4 wheeler carb and lower polution by nibbler125



48V Electric Flat Tracker by Radioactive_Legos



Electric Motorcycle conversion - 48 volt on a budget by jpmurph

Comments

10 comments

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Rayzorblade says:

Jun 13, 2009. 12:15 AM [REPLY](#)

Have fun with the bikes, just remember to always wear a helmet, get a good quality bike, and carry an extra chain (#41 or 415 depending on the manufacturer) and hold on to your panties



brandon borick says:

May 21, 2009. 11:28 PM [REPLY](#)

hey if your in california can you just ride this like a bike or do you have to be 16 or watever



Domokid says:

May 19, 2009. 1:35 AM [REPLY](#)

Mixing ratio varies.

I would recommend using a synthetic 2 stroke oil such as motul.

Its more expensive but sooooo much better for your engine.

Doesn't carbon up your exhaust rarely fouls plugs (if your carb is tuned right) and prevents seizing.

I usually run a 40:1 oil ratio in my moped.

But it could be entirely different for these little buzzbikes



bobby sissom says:

Feb 17, 2009. 4:29 PM [REPLY](#)

this is only a store bought kit i think the author copied word for word from the instruction manual



lahaina2wins says:

Mar 2, 2009. 2:18 PM [REPLY](#)

there is no instruction manual... i built one of these as well. i wish i would have taken pictures along the way. but did not. if you can tune the carb up correctly, it will scream along at 26-30 miles an hour with the 44 tooth sprocket. faster with a smaller one, i would guess.



pyro13 says:

Feb 17, 2009. 2:41 PM [REPLY](#)

More info please? By the way, I think the mix is 20 gas 1 oil.



ichael a says:

Feb 17, 2009. 3:20 PM [REPLY](#)

sorry it's 20 to 1



rhackenb says:

Feb 17, 2009. 2:33 PM [REPLY](#)

This instructable is essentially worthless as it stands. You need much more detail on where to mount the motor and whatever you describe in step 3. Your photos are so tiny and lacking in detail that they don't make up for your lack of description. I suggest you back up and provide much more detail.



Kiteman says:
Such tiny pictures...

Feb 17, 2009. 12:22 PM [REPLY](#)

I can't help wondering where they are from.



lemonie says:
Can you show a picture with driving chain in place?
(2-stroke mix is 20 gas to 1 oil)

Feb 17, 2009. 12:21 PM [REPLY](#)

L
