

Cylinder Assembly Instructions

The cylinder head assembly must be installed on either, the Firestorm PK80, or the ESTORM BT80cc before you begin putting together your engine kit. Begin, by making sure that you have all of the necessary parts to install the cylinder assembly. The items you will need include the lower engine assembly, cylinder assembly #5, piston kit, cylinder assembly to lower engine gasket #7, cylinder head to cylinder assembly gasket #3, Cylinder head #2, you will need 4 each of lock washers #12, flat washers #11, and top retaining nuts #10.

Step #2: Make sure that gasket #7 is seated on the lower engine, install the piston on the connecting rod making sure that the arrow points to the front of the engine.

Step #3: Lightly lubricate the cylinder wall with oil. Slide the assembly down the studs with the intake manifold facing the rear of the engine. Insert piston into cylinder assembly by carefully squeezing the piston ring until it moves up into the cylinder assembly. Repeat with second piston ring. **(Be gentle and take your time with this step as it can be tricky to get the rings into the cylinder assembly and if you are too rough the piston ring could snap or possibly mar the cylinder wall).**

Step #4: Once the piston is seated within the cylinder assembly then seat the cylinder head down on the lower engine. Install head gasket #3 onto the cylinder assembly and then put the cylinder head on top making sure that the spark plug points to the front of the engine. Add a flat washer, then a lock washer, and finally the top nut and tighten.

Step #5: **Torque Cylinder Head to 12 ft/lbs. using an accurate torque wrench and going in a star pattern.**

Step #6: Rotate the engine crank shaft to move the piston up and down in the cylinder assembly and make sure there is compression and movement. ***To turn the crankshaft it is easiest to have the chain on the drive sprocket of the engine while removed from the rear wheel and pull the chain to spin the drive sprocket which will move the crankshaft.**

Step #7: Install Spark Plug and put the rest of the engine kit together on the bicycle.

Step #8: Enjoy the freedom and happiness that comes with being a motorized bicycle rider!!

*The instructions included here are for the Firestorm PK80cc or SkyHawk Angle Fire style engines.

