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Instructions for 12029 Tune-Up Kit Disassembling 3800

1. Remove screws on top ends of casting. Use screw drivers on each side in between casting and plate to pry off base.



2. Remove clips on ends, and 1808 rubber supports. Remove 1813 Bearing Cup. Use bearing pusher to remove bearings on arbor press. Check bearings for wear. Check that holes are clean and not worn. Your shoe & pad assembly are now completely apart.



3. With a screwdriver remove the 4 screws holding in the motor. If you use a screw gun we recommend flattening the bit slightly this will prevent stripping the screw threads. Use a Phenolic hammer to tap on base to remove motor from casting.



4. Use an allen wrench to loosen the large 1814 counterweight. To remove the top screw, Hold a screwdriver on the 1814, and unscrew the upper counterweight. This prevents the motor from spinning.



6. Use a 5/64 allen wrench to remove allen screw in top of motor. Place longer screw in top of motor, and lightly tap with phenolic hammer. The 1821C & 1821CW will come off. Remove vanes & cylinder. Tap again to remove 1824 rotor.



8. Remove key from Crankshaft. Place bearing plate onto arbor press, and press out the counterweight. Use the bearing pusher to remove bearing from both 1821C plates.



Assembling 3800

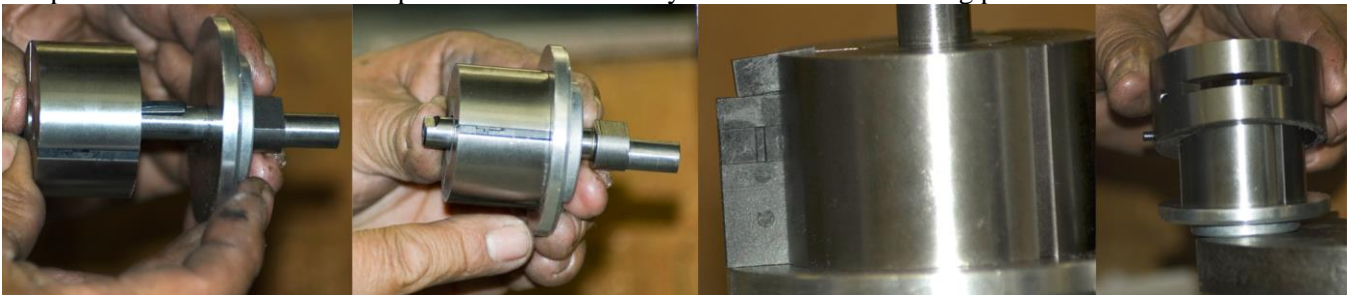
1. Insert 1810 bearing into 1821-C. Press down with arbor press. Place 1819-1 into 1821-C. Press down with arbor press. Drop 1821-CW onto 1819-1 shaft.



2. Place 1820 key into keyway in 1819-1. Press down in arbor press. Place 1822 on 1820 key.



3. Slide 1824 rotor on crankshaft lining up keyway. Press down. Place 1823-3 motor vanes in 1824 rotor. This is a two piece vane. The large piece goes in first followed by the small piece. Hold motor in left hand and put the first vane in with the slot facing you in the 9:00 o'clock position and rotate rotor in clockwise position until all vanes are in place. Put the 1825-2 cylinder on with the timing pin down.



4. Place the 1821-cw on the crankshaft, put the top 1821-C on and press down with an arbor press. Flip the motor over to press the bearing plate tight.



- Place the 1847 washer on the top of the crankshaft, put the 1826 upper counterweight on and then put the 1827 screw in place. Turn the motor over and put the 1814 counterweight on and tighten the 1814-1 screw. Tap the top of the motor with a phenolic hammer to make sure the motor is free.



- Place the motor in the 1815-1 motor housing. You must match the pin on the motor with the keyway on the casting. The large counterweight 1814 should be on the top. Wiggle to get into place.



- Place the 1843-T washers on casting and use 1843-1 screws to lock down motor. Check to make sure counterweight spins free. If not, tap casting with a phenolic hammer until it spins easily.



- Bottom Assembly instructions 1813 to 1804 to 1802 to 1808S to 1906S.

- Build bearing cup assembly as follows. Insert first 1809 insulator with the flange facing down in 1813 bearing cup. Insert 1810 bearing into insulator, place second 1810 bearing in and put 1809 insulator over bearing with flange facing out. Place 1813 complete assembly on 1804 base. Insert 1803 screws through 1813 cup assembly and tighten nuts. Nuts with lock washers must be used.



10. Place pad on bottom of base. Hand press screws through pad and affix the four 1808 supports until tight. Put clip screws through pad and pad shoe and put clips on and tighten. Use 1905-3s for model 3804.



11. Now you can combine both pad assembly to motor housing. Line up pad shoe with solid part of the pad shoe facing forward and punched hole to the rear. Press or pound in center of pad shoe to press crankshaft into 1813 bearing cup. Insert four 1801 screws through casting into supports and tighten. Make sure supports do not twist while doing this.

