



PAVEMENT ROUTER DUST CONTROL RETROFIT KIT INSTALLATION INSTRUCTIONS

REV. B

CRAFCO MODEL 30 PAVEMENT ROUTER WITH DUST CONTROL



PRE-ASSEMBLY AND ROUTER DUST CONTROL RETROFIT KIT COMPATIBILITY CHECK

Before starting the assembly process of the Router Dust Control Retrofit Kit (DC Retrofit Kit), verify that the DC Retrofit Kit is compatible with the model pavement router that it is intended to be installed on. The DC Retrofit Kit is compatible with the following Crafcro routers:

- All model 30 routers with an electric clutch
- All model 25 routers with an electric clutch
- Model 200 routers that were built after July of 2004, and have an electric clutch
- The dust control retro-fit kit is not compatible with saw-cut routers
- The dust control retro-fit kit is not compatible with routers that have an Onan, or a Lindemar Engine

Review the parts list to insure that all parts were included with this kit. If not all parts were included with this kit, or there are any questions concerning the assembly or compatibility of this kit, contact us to speak to a Crafcro customer service representative.

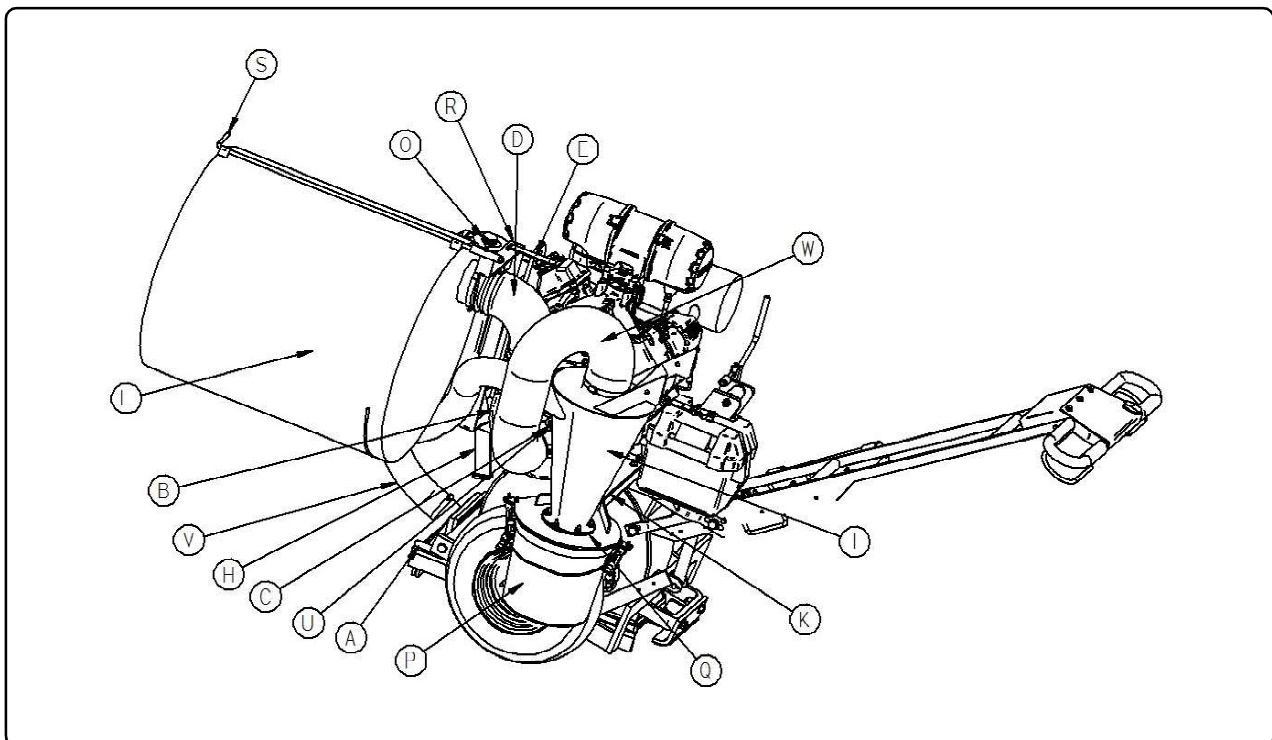
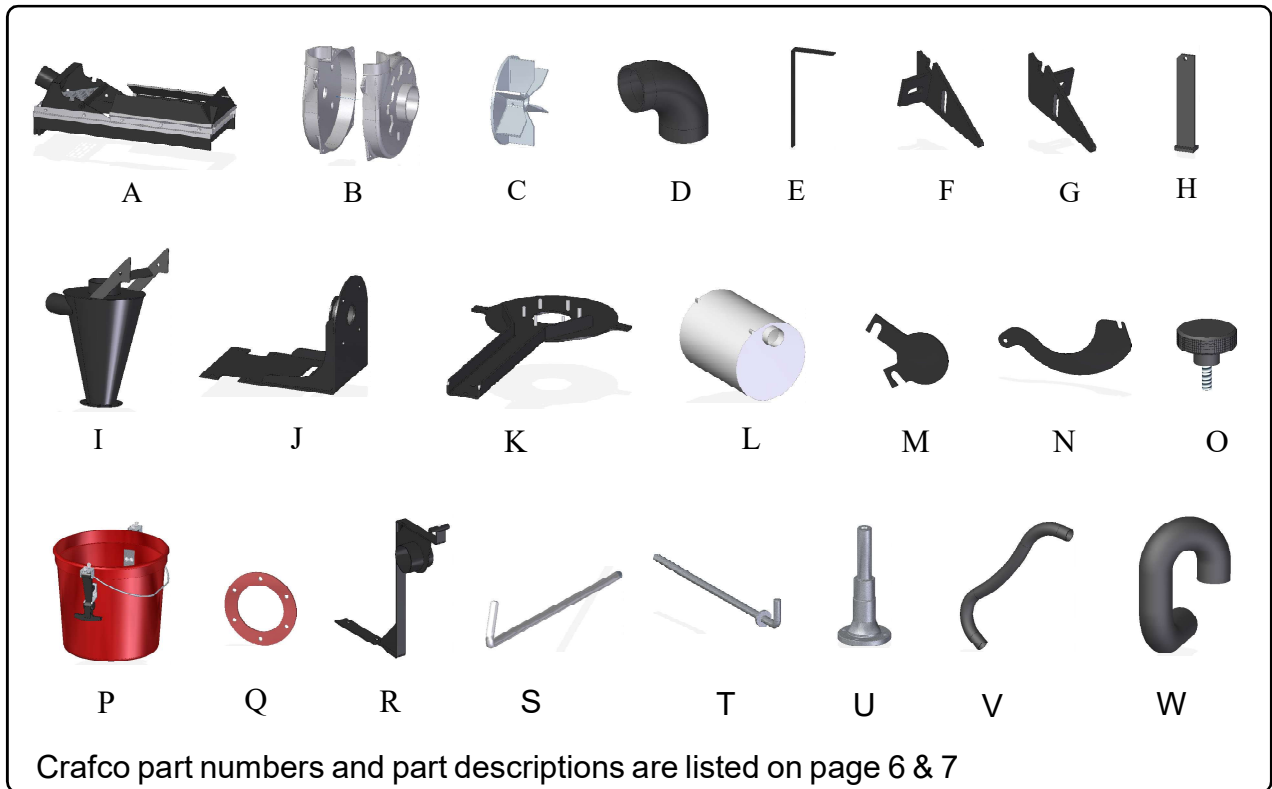
It is recommended that you read through this entire set of instructions before starting the assembly process. These instructions are not meant to be all inclusive, if any problems should arise during the installation of the DC Retrofit Kit, please contact Crafcro before proceeding. Crafcro will not be responsible for improper installation or use of the DC Retrofit Kit.

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PARTS LIST

ROUTER DUST CONTROL RETROFIT KIT



Parts list continued on next page.

PARTS LIST

ROUTER DUST CONTROL RETROFIT KIT

Letter	Part Number	QTY.	Description
A	31730N	1	Cutter Head Dust Shroud
B	31411	1	Blower Housing
C	31412	1	Blower Fan
D	31415	1	90° X 4" ID Rubber Elbow
E	31410	1	Brush Manipulation Tool
F	31726N	1	Dust Shroud Mnt. Bracket, Left Side
G	31727N	1	Dust Shroud Mnt. Bracket, Right Side
H	31535	1	Support Strip Assembly
I	31555	1	Cyclone
J	31570	1	Blower Mounting Bracket Assembly
K	31560	1	Cyclone Mounting Bracket Assembly
L	31414	2	Dust Collection Bag
M	31417	1	Cover, Pin Removal Hole
N	31416	1	Cover, Pin Retaining Hole
O	31409	1	Locking Knob (for filter bag support assembly)
P	31575	2	Large Particle Dust Collection Bin
Q	31433	1	Rubber Gasket, Cyclone
R	31565	1	Filter Bag Support Assembly
S	31567	1	Filter Support Rod
T	31545	1	Dust Shroud Retaining Pin
U	31413	1	Kohler Front Drive Shaft
V	31437	1	2 1/2" Suction Hose
W	31438	1	4" Suction Hose

Parts list continued on next page.

PARTS LIST

ROUTER DUST CONTROL RETROFIT KIT

Part Number	Qty	Description
29041	4	M8-1.25 x 25mm Bolt
28646	4	5/16" Lock Washer
28538	9	3/8"-16 Upset Nut
28672	25	3/8" Flat Washer
28647	8	3/8" Lock Washer
28502	8	3/8"-16 Hex Nut
28732	4	3/8"-16 x 1 1/4" Bolt
28735	4	3/8"-16 x 2" Bolt
31407	4	3/8"-16 x 1 1/4" Flat Head Socket Cap Screw
28670	8	1/4" Flat Washer
28642	4	1/2" Grade 8 Flat Washer
28645	6	1/4" Lock Washer
28500	6	1/4"-20 Hex Nut
28764	2	1/2"-13 x 2" Bolt
28540	2	1/2" Upset Nut
28992	4	3/16 Blind Rivit - 7/8 LG.
29657N	1	Locking Pin, Coiled Bent-Wire
26092	4	Gear Clamp, SAE #64
31408	4	3/8"-16 x 1 1/2" Threaded Stud
31739N	2	Clamp, 2-1/2" SDBC
31418	1	Adjustible Quick Release Gear Clamp
31738N	1	Modified Keyway, Blower Shaft
28536	1	1/4" Upset Nut
28703	1	1/4" x 1 1/4" Bolt
21320	1	Model 30 Router Manual
31543	1	Decal, Dust Shroud Storage
31544	1	Decal, Dust Shroud Attachment
31409	1	1/4"-20 x 3/4" Knob w/Threaded Stud
31439N	1	RTV Silicone Tube
31736N	1	Blower Shaft, Inner Seal
31737N	1	Blower Shaft, Outer Seal

INSTALLATION INSTRUCTIONS

ROUTER DUST CONTROL RETROFIT KIT

Step 1 Turn the fuel valve on the gas tank to the off position. Disconnect the negative battery cable and remove the following parts: Belt guard and belts, router lifting bracket, deflector chain assembly, and the rubber rock deflector. Remove the flywheel cover from Kohler engine, and then remove the grass screen. Retain hardware for later installation.

Step 2 Install Kohler front drive shaft onto the flywheel of the Kohler engine using (4) M8-1.25 x 25mm long bolts and 5/16" lock washers. Torque bolts to 20 ft/lbs. (Figure 1)



Figure 1

Step 3 Securely hold flywheel cover against bench and drill out center with 1 5/8" hole saw. Drill out center of grass screen in the same manner. (Figure 2) Reattach the grass screen and the flywheel cover to the engine with existing hardware.



Figure 2

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 4 Layout and cut opening in the rock deflector mounting plate. (Figure 3)
If a plasma cutter isn't available, a grinder with a cutoff wheel can be used.

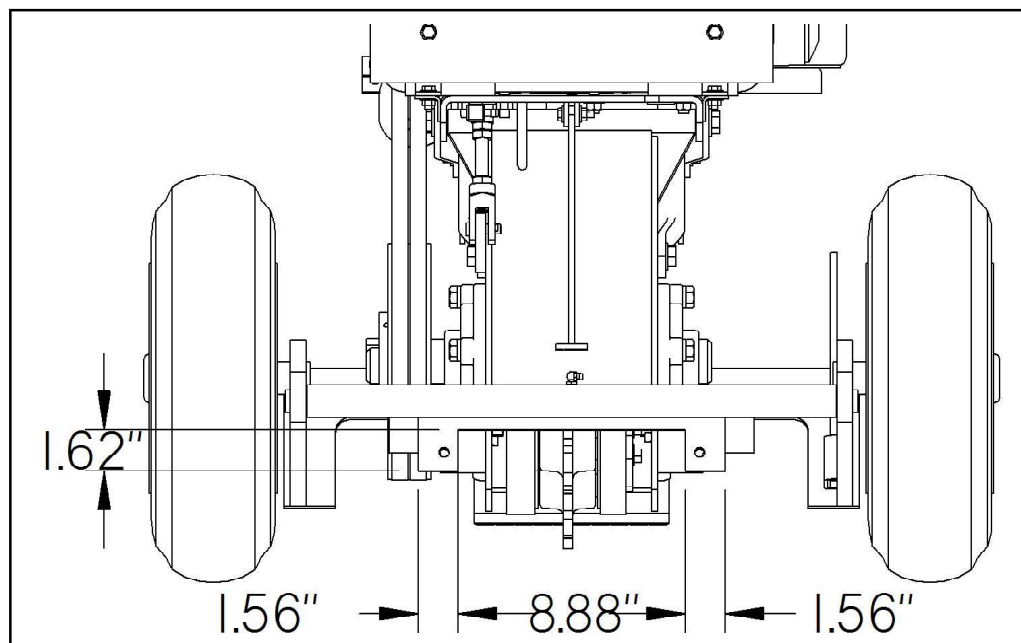


Figure 3

Step 5 Attach the dust shroud mounting brackets with 3/8" x 1 1/4" bolts, 3/8" flat washers, and 3/8" upset nuts supplied with kit. Insure that the brackets are pressed firmly against the rock deflector mounting plate before tightening. (Figure 4)



Figure 4

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 6 Place the router on (2) 4"x4" wood blocks as shown in (Figure 5), and remove the wheels.



Figure 5

Step 7 Place pin retaining hole cover against cutter housing and push the inside arch of the cover against the shaft bearing. Rotate the cover until the center of the front mounting hole measures 7/8" up from the rock deflector gusset. Mark the front hole and outline the rear slot with a marker. (Figure 6)



Figure 6

Step 8 Place the pin removal hole cover against the cutter housing. Center the cover over the center of the pin removal hole and align the bolt slots as shown in (Figure 7). Outline the slots with a marker. Before proceeding, temporarily place the belt guard back into position and insure that the location of the threaded studs will not interfere with the belt guard.



Figure 7

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 9 Center punch all four hole marks for the two hole covers. Drill (4) 5/16" dia. holes and tap to 3/8-16 NC thread. To access the drill points with a hand drill it will be necessary to raise or lower the router frame with the actuator up/down switch (reconnect the negative battery cable to the battery and turn the key to the on position to raise/lower the frame). (Figure 8)

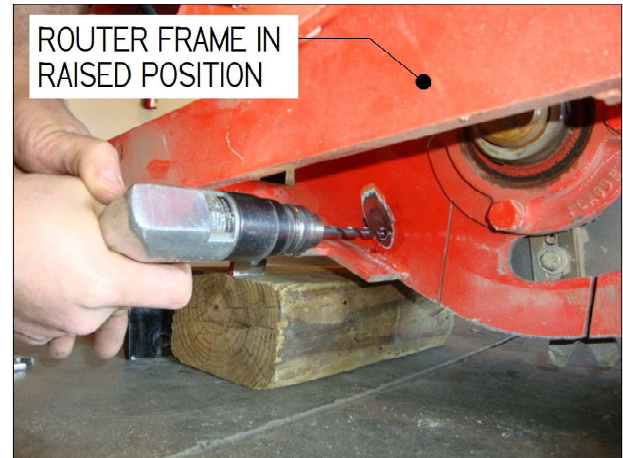


Figure 8

Step 10 Apply thread locking compound to the short side of the 3/8-16 x 1 1/4" threaded studs and thread into four threaded holes. Install two 3/8" hex nuts on the long thread side of the threaded stud and apply apposing force with two 9/16" wrenches to lock the two nuts together. The nuts can now be used to tighten the studs into the cutter housing. After the studs are tight, rotate the cutter head to insure that the threaded studs are not hitting the cutter head. Remove the two hex nuts and install the hole covers and secure with 3/8" flat washers, 3/8" lock washers, and 3/8" hex nuts. (Figure 9) Reinstall the wheels and remove the wood blocks, Disconnect the negative battery cable.

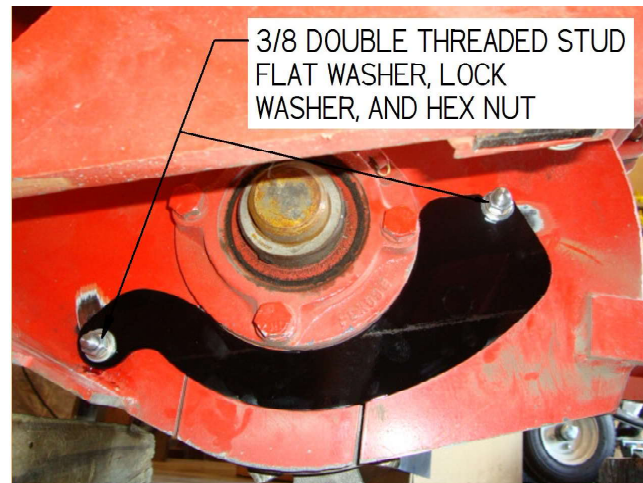


Figure 9

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 11 Disconnect the positive battery cable from the battery. Disconnect the red wire with the in-line fuse coming from the router handle and going to the engine. Disconnect the electric clutch wires. If the engine has a carbon canister installed, disconnect the fuel return line from the filler spout of the gas tank. Be careful not to break the barbed fitting on the fuel tank when detaching the fuel line. It may be necessary to split the fuel line at the fitting with a razor knife to separate it from the fitting. Remove the four engine mounting bolts. If no hoist is available, have someone assist with the removal of the engine from the engine mounting plate. Place the engine on the floor next to the router. This can be accomplished without disconnecting the fuel line from the bottom of the fuel tank by rotating the engine to the non-clutch side and to the front of the router. (Figure 10)



Figure 10

Step 12 If installing the DC Retrofit Kit on a Model 200 Pavement Router, layout and center punch holes for the cyclone mounting plate according to (Figure 11). If installing the DC Retrofit Kit on a Model 25 Pavement Router or a Model 30 Pavement Router, layout and center punch holes for the cyclone mounting plate according to (Figure 12). Drill the two holes through engine mounting plate with a 3/8" dia. drill bit.

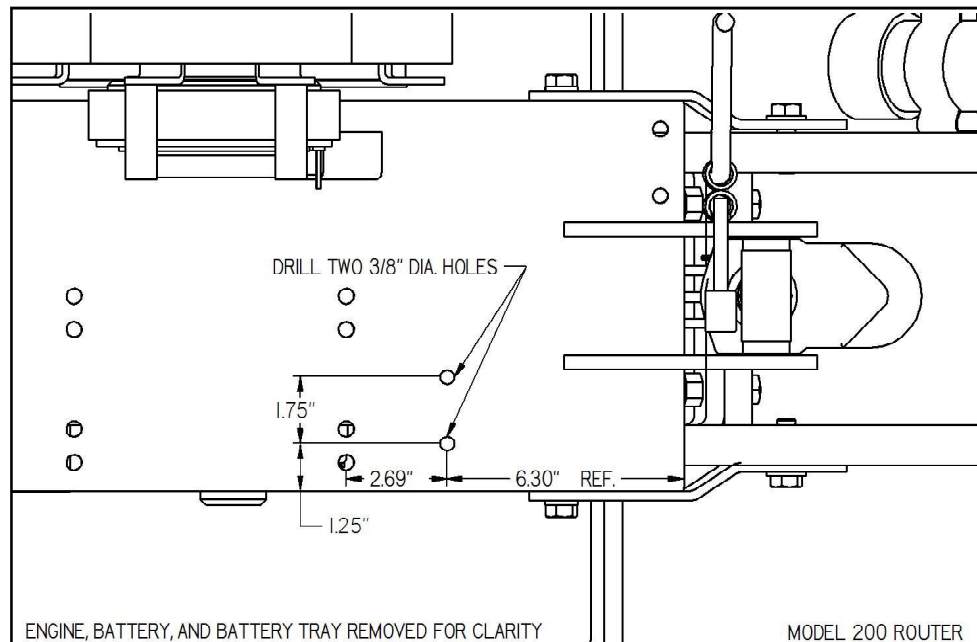


Figure 11

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

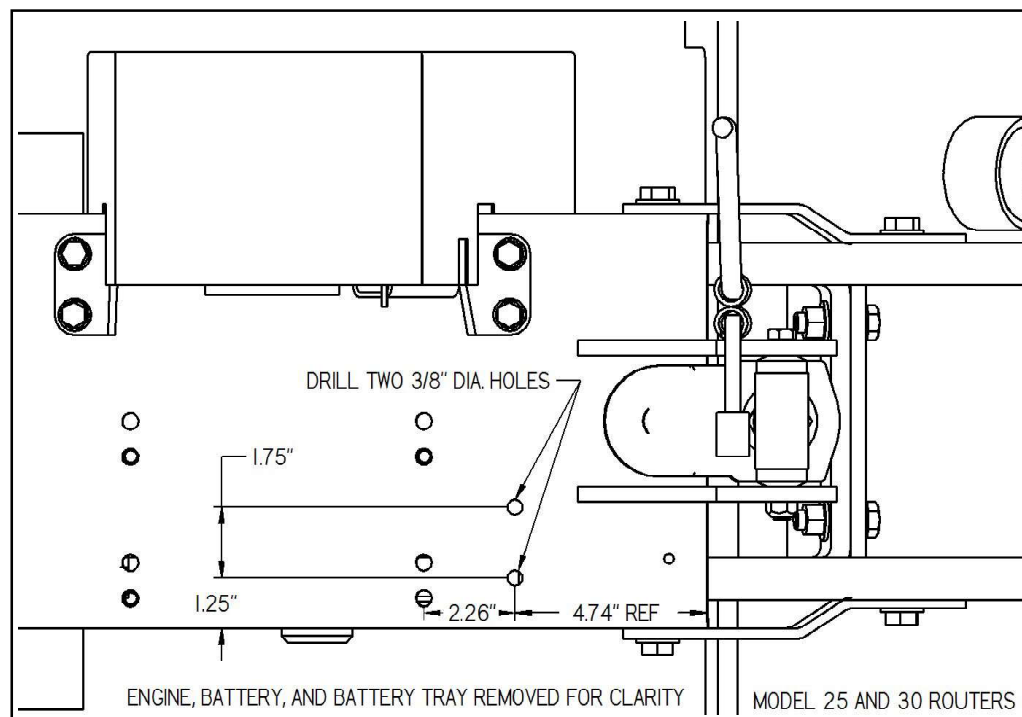


Figure 12

Step 13 Return the engine to the engine mounting plate. Place the blower mounting plate between the engine and the engine channel assembly. (Figure 13) Be sure the hole in the blower mounting plate is centered with the drive shaft. When attaching the battery ground cable to engine, turn the eyelet so the cable is running toward the clutch side of the engine. This is so the cable will not rub on the cyclone mounting plate when it is installed in the next step. (Figure 14) Secure the engine and blower plate to engine mounting channel with 3/8-16 x 2" bolts, 3/8" flat washers, and 3/8" upset nuts supplied with kit.

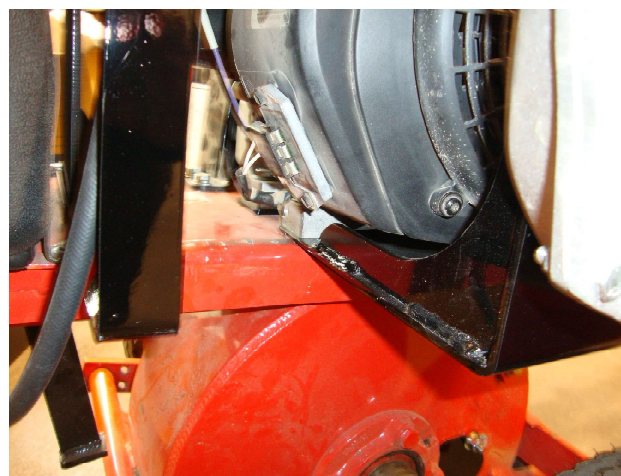


Figure 13

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 14 Place the cyclone mounting plate on top of the engine mounting plate and secure with 3/8-16 x 1 1/4" bolts, 3/8" flat washers, and 3/8" upset nuts. (Figure 14) Be sure the battery cable is not rubbing on the bracket.

Step 15 Reconnect the clutch wires and the red power wire with the in-line fuse, and reconnect the fuel line. Reinstall the belts using the proper tensioning method (see pgs. 33 & 34 of the operator's manual supplied with the kit). Install the belt guard.



Figure 14

Step 16 Install the Blower Shaft Outer Seal over the drive shaft (Ref figure 15) and attach the drive side blower half to the blower mounting bracket with 3/8 x 1 1/4" flat head socket cap screws, 3/8" flat washers, 3/8" lock washers, and 3/8" hex nuts. The outlet port on the blower half should be pointing up. The hole in the drive side blower half should be centered around the shaft (Figure 15)

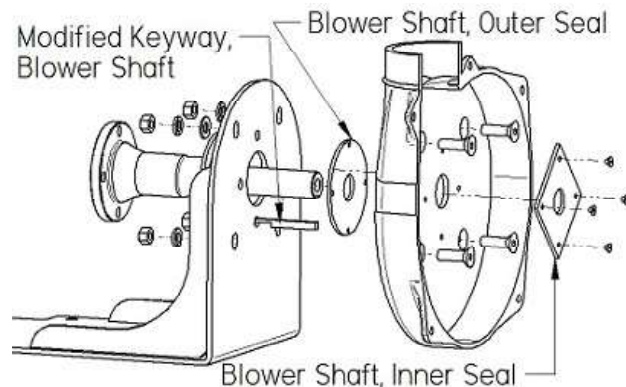


Figure 15

Step 16a Install the Blower Shaft Inner Seal over the drive shaft. Orient the seal so the four corners point between the blowers mounting holes and drill through the aluminum blower housing and the blower shaft outer seal with a 13/64 drill bit. The holes should align with the clearance holes in the blower mounting bracket. Secure the blower shaft inner seal with four 3/16" dia blind rivets. (Ref figure 15).

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 17 Install the blower fan onto the drive shaft with supplied keyway. Keyway should be flush with end of shaft, with the milled end protruding through the shaft seals and blower housing. Install the fan so that there is a 5/16" space between the blower housing and the drive side of the fan. (Figure 16)

Before tightening the set screws, temporarily hold the inlet half of blower housing against the drive half of the blower housing to insure the fan is evenly spaced between the two housing half's. Once the fan is centered, torque the fan set screws to 65 inch lbs., starting with the set screw that is over the keyway, and then tighten the second set screw onto the shaft.

WARNING: The set screws must be tightened to the proper torque. DO NOT use an air driven tool. These tools could weaken or strip the threads in the fan.

The set screws have a nylon "locking patch" on the threads of the set screws. The head of the screws have a "knurled cup-point head". These two features are only good for one time use, but will prevent the set screws from vibrating loose. If for any reason, the set screws should need to be backed off after tightening, disregard and use new set screws. Apply a medium strength thread locking compound on the new screws.

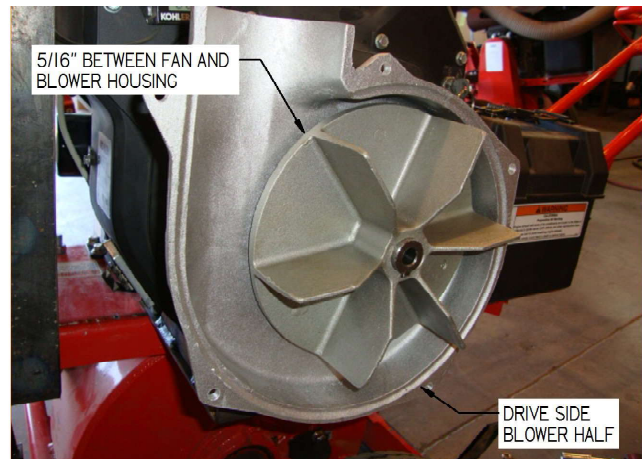


Figure 16

Step 18 Run a bead of supplied silicone around the mating surface of the inlet blower housing half. This silicone acts as a sealant and an adhesive. Mate the two surfaces together and secure them with 1/4" x 1" bolts and 1/4" serrated flange hex nuts supplied with kit. (Figure 17)



Figure 17

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 19 Install six hole flange gasket on cyclone mounting bracket. Place cyclone on cyclone mounting bracket so that the inlet port is pointing to the front of the router. Secure with 1/4" flat washers, 1/4" lock washers, and 1/4" hex nuts. (Figure 18)

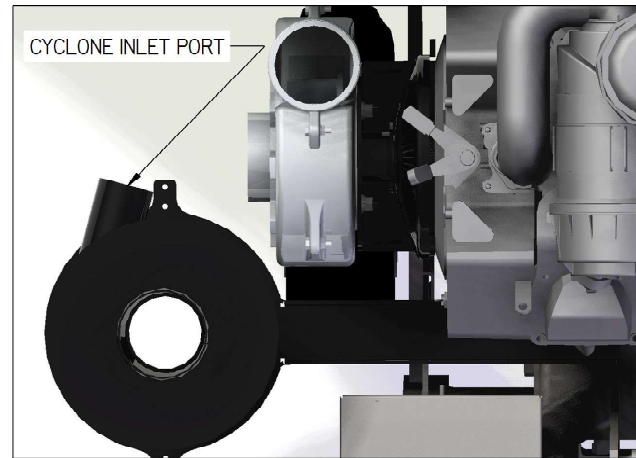


Figure 18

Step 20 Install rubber pull latches for the large particle dust collection bin to the cyclone mounting bracket with 10/32" x 1/2" round head screws, #10 lock washers, and 10/32" hex nuts. Attach the large particle dust collection bin to the cyclone mounting bracket. (Figure 19)



Figure 19

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 21 Mount the filter mounting bracket between the motor mounting plate and the router lifting bracket. (Figure 20)
Replace the 1/2" x 1 3/4" bolts with 1/2" x 2" bolts, re-use 1/2" flat washers, and use new upset lock nuts to secure the two brackets in place.

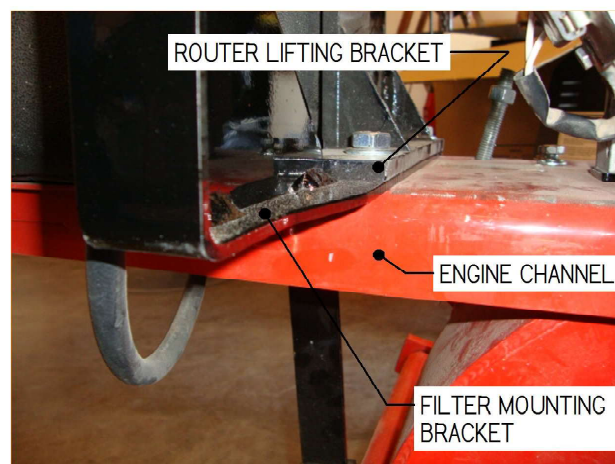


Figure 20

Step 22 Install 4" x 90° rubber elbow between blower outlet and the filter mounting bracket, secure with SAE #64 gear clamps. (Figure 21)



Figure 21

Step 23 Install 4" flex hose between the blower inlet port and the cyclone outlet port. Secure with SAE #64 gear clamps. Temporarily install the cutter head dust shroud onto the router according to the instructions on page 14 of the Model 30 Pavement Router manual. Run the 2 1/2" flex hose from the cyclone inlet port to the cutter head dust shroud and secure with 2-1/2" SBDC clamp. (Figure 22)



Figure 22

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 24 Install the dust collection bag onto the filter mounting bracket by threading the hanging loops over the filter support rod, and pulling the inlet hole of the dust collection bag over the outlet tube of the filter support bracket. Secure the dust collection bag with adjustable quick release gear clamp. (Figure 23)

Adjust the clamp so that it is just tight enough to hold the dust collection bag in place. Do not over tighten the clamp as this may damage the dust collection bag. Place the brush manipulation tool in it's storage slot on the filter mounting bracket.

Note: The filter support rod can be slid into a rearward position for transportation of router when space is limited. (Figure 24)

Step 25 Remove the cutter head dust shroud from the cutter head and place the shroud in the shroud holder on top of the cyclone. (Figure 24)

Note: To prevent deformation of the seal brushes, the cutter head dust shroud should be stored in the storage bracket located on the cyclone when the router is not in use.

Step 26 Remove the existing router support strip assembly and replace with new router support strip assembly supplied with kit. (Figure 25)

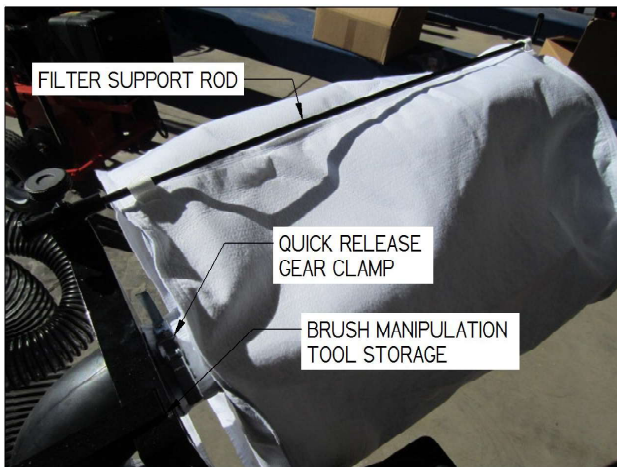


Figure 23



Figure 24



Figure 25

INSTALLATION INSTRUCTIONS (Continued)

ROUTER DUST CONTROL RETROFIT KIT

Step 27 On the rear support strip, drill a new 5/16" hole according to (Figure 26). Reconnect the negative battery cable.

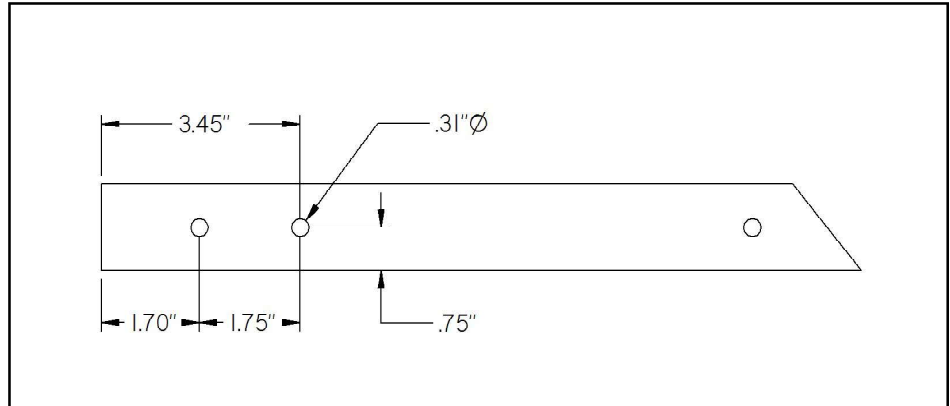


Figure 26

POST INSTALLATION INSPECTION

ROUTER DUST CONTROL RETROFIT KIT

After assembly of the DC Retrofit Kit, inspect the entire router. Make sure that all parts were properly installed. Make sure all nuts and bolts are in place and are properly tightened. Make sure all wiring and hoses are connected. Start the engine and run at low idle for a few minutes. Listen for any abnormal sounds or machine vibration. Increase engine to full throttle, make sure engine does not go above 3750 RPM's, and adjust if necessary. Listen for any abnormal sounds or machine vibration. Make sure the actuator is in its full upright position and check the electric clutch by engaging the pull handle and releasing to make sure it is working properly.

For operation, safety precautions, and maintenance of the Crafcro Router with Dust Control, see the Model 30 Pavement Router Manual supplied with kit.



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