#### Model:

12185 Filer

12186 Filer Kit

**12187 Foundry Filer** 

12188 Filer with 12197 Adapter

12190 Saw

12191 Saw Kit

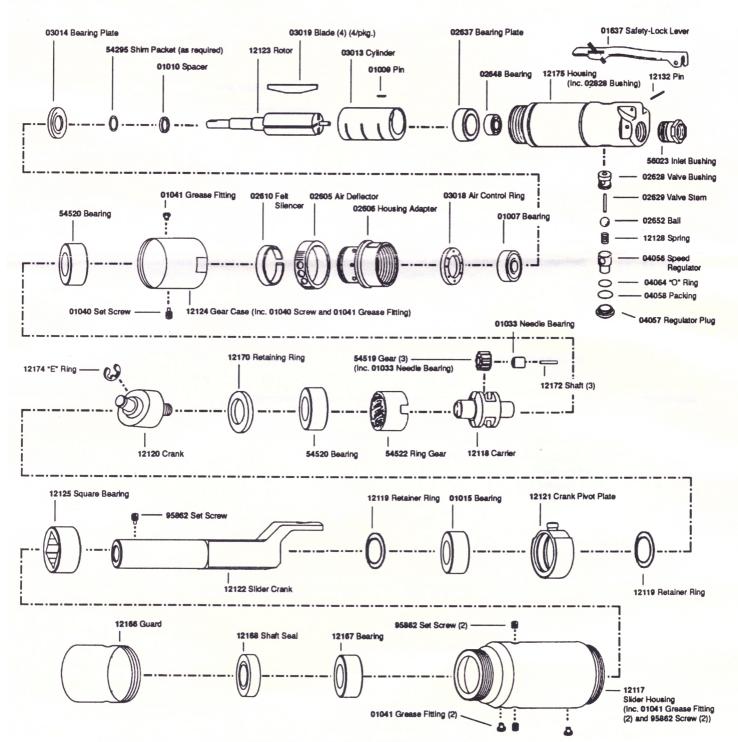
12195 Filer/Saw Kit

## Stockade™ Filer/Saw

Air Powered Reciprocating Filer/Saw (2,400 strokes/minute)



Always operate, inspect and maintain this tool in accordance with the Safety Code for portable air tools (ANSI B186.1) and any other applicable safety codes and regulations. Please refer to Dynabrade's Warning/Safety Operating Instructions for more complete safety information.



Caution: Please refer to PD 91-37 Service/Repair Instructions for proper assembly/disassembly.



# Service/Repair Instructions Stockade Filer/Saw

Please refer to parts page for part identification.

#### To Disassemble:

- 1. Secure machine in vise using wrench flats in 12175 Housing.
- 2. Remove 12166 Guard by using a 1/4" diameter pin in the guard, and a 1/4" diameter pin in the 12117 Slider Housing. Set screw in 12122 Slider crank can now be removed.
- 3. Remove 12117 Slider Housing using a 1/4" diameter pin in the hole provided and 34mm crowsfoot wrench on the 12124 Gear Case. Slider crank can now be removed using 3mm allen wrench supplied.
- 4. Loosen both 95862 Set Screws in 12117 Slider Housing and remove 12125 Square Bearing.
- 5. Remove 12168 Shaft Seal and 12167 Bearing using a (#2) arbor press. Support edges of the 12117 Slider Housing and remove 12125 Square Housing.
- 6. Remove 12124 Gear Case from 02606 Housing Adapter using a 34mm crowsfoot wrench on the gear case and a 33mm crowsfoot wrench on the housing adapter.
- 7. Remove 01040 Set Screw from 12124 Gear Case using a 3/32" allen wrench. Planetary gear assembly can now be removed.
- 8. Disassemble planetary gear assembly as follows:
  - a.) Remove 54520 Bearing from planetary gear assembly using a bearing separator.
  - b.) Remove 54522 Ring Gear and gently tap 12118 Gear Carrier against a wooden surface until 12172 Gear Shafts fall out.
  - c.) Remove 54519 Gears from 12118 Carrier.
  - d.) Insert a drift pin in 12120 Crank and a drift pin in 12118 Carrier (in holes left by the gears). Unscrew 12120 Crank from 12118 Carrier.
  - e.) Remove 12174 "E" Ring from 12120 Crank using a thin screwdriver. Remove 12121 Crank Pivot by using a bearing separator and a (#2) arbor press plate.
  - f.) Using a thin screwdriver, pick out the end of 12119 Retainer Ring and peel out.
  - g.) Remove 01015 Bearing from 12121Crank Pivot Plate using a bearing press tool on the outer race of the bearing while the crank pivot housing is supported by its outer edge.
- 9. Remove 02606 Housing Adapter using a 33mm crowsfoot wrench. Motor may now be removed and disassembled.

#### To Disassemble Motor:

Remove 02637 Bearing Plate and 02648 Ball Bearing by holding motor in one hand and tapping on rear of 12123 Rotor with a
brass drive punch. 01007 Bearing can now be pressed off using a bearing separator. Caution: Do not damage splined end
of 12123 Rotor.

#### To Assemble Complete Tool:

Important: Be certain parts are clean before reassembling.

- 1. Press 01009 Pin into face of 02637 Bearing Plate.
- Press 02648 Bearing into 02637 Bearing Plate. Note: To correct for bearing tolerances, it is necessary to use shims to maintain correct clearence between ends of rotor and bearing plates.
- 3. Assemble 01010 Spacer over 12123 Rotor (splined end) along with a 54295 Shim (as required).
- 4. Assemble 03014 Bearing Plate making sure that the countersink is facing away from the rotor.
- Assemble 01007 Bearing onto rotor by pressing on the inner race of the bearing and supporting the rotor on the opposite end.
   Be sure the bearing is pressed tight against 01010 Spacer.
- 6. Check for rub:
  - a.) Hold rotor in left hand and 01007 Bearing in right hand.
  - b.) Apply an outward (pulling) pressure and observe spacing between end of rotor and bearing plate.
  - c.) This should be flush (not rubbing) to .002" maximum.
  - d.) If the rotor rubs the bearing plate, reduce the spacing between the bearing and the bearing plate by removing the .002 shim entirely, or by substituting a .001 shim for the .002 shim.
- 7. Insert 03019 Blades.
- 8. Support assembly squarely on the pinion end of the rotor.
- 9. Assemble 03013 Cylinder so that the inlet holes are facing upwards.
- 10. Place 02637 Bearing Plate over the rotor so that the 01009 Pin is facing the rotor. Using a press tool press on the inner race of 02648 Bearing just enough to bring the bearing plate against the cylinder. There should be a slight drag between the bearing plates and the cylinder when these are moved with the fingers. Position cylinder until motor turns "finger free".

(continued on other side)

- 11. Insert motor into 12175 Housing.
- 12. Assemble 03018 Air Control Ring over splined end of 12123 Rotor.
- 13. Assemble 02606 Housing Adapter to 12175 Housing using a 33mm crowsfoot torqued to 300 in. lb.. Caution: Make sure the 03018 Air Control Ring is centered and concentric with the inner race of 01007 Bearing.

### To Assemble Planetary Assembly:

- 1. Assemble 12119 Retainer Ring into 12121 Crank Pivot Plate.
- 2. Press 01015 Bearing into 12121 Crank Pivot Plate until it touches 12119 Retainer Ring..
- Assemble 12119 Retainer Ring into 12121 Crank Pivot Housing.
- Press 12121 onto 12120 Crank. Using a thin screwdriver, 12174 "E" Ring onto 12120 Crank so that it retains 12121 Plate from axial motion.
- 5. Press 54520 Bearing onto 12118 Carrier on threaded side.
- 6. Set 12170 Retaining Ring over 54520 Bearing and thread 12120 Crank into 12118 Carrier. Use two drift pins to tighten the crank on the crank on the carrier.
- 7. Assemble 54519 Ring Gear over 12118 Carrier making sure that the bearing hole is still in line with the carrier hole. Assemble 12172 Shafts to retain gear in carrier. Assemble all three gears.
- 8. Assemble 54522 Ring Gear over 12118 Carrier so that the slots in the carrier face away from the 12120 Crank.
- 9. Assemble 54520 Bearing over 12118 Carrier so that the bearing holds the carrier face away from the 12120 Crank.
- 10. Pick up planetary gear assembly in left hand holding 12120 Crank. Pick up 12124 Gear Case in right hand. Turn planetary gear assembly so that the slots in 54522 Ring Gear line up with the set screw hole in 12124 Gear Case.
- 11. Check to see that the set screw hole in 12124 Gear Case line up with the slot in the 54522 Ring Gear. Use a thin screwdriver to align them.
- 12. Assemble 01040 Set Screw in 12124 Gear Case.
- 13. Assemble 02610 Felt Silencer inside 02605 Air Deflector.
- 14. Assemble 02605 Air Deflector over 02606 Housing Adapter with the ridge on 02605 Air Deflector facing away from 02606 Housing Adapter.
- 15. Attach 12124 Gear Case onto Housing Adapter using a 34mm crowsfoot wrench and a 33mm crowsfoot wrench. Torque to 200 in. lbs...
- 16. Press 12167 Bearing into 12117 Slider Housing (small opening).
- 17. Press 12168 Shaft Seal into 12117 Slider Housing on top of 12167 Bearing making sure 12168 Shaft Seal has hollow portion facing in.
- 18. Assemble 12125 SquareBearing into 12117 Slider Housing (large opening).
- 19. Assemble 95862 Set Screw in 12117 Slider Housing to secure 12125 Square Bearing.
- 20. Assemble 12122 Slider Crank into 12117 Slider Housing. Assemble 95862 Set Screw.
- 21. Assemble 95542 Grease using 95541 Grease Gun to the inside of 12117 Slider Housing. Note: Throughly lubricate 12122 Slider Crank hole where 12121 Crank Pivot housing Assembles.
- 22. Assemble 12117 Slider Housing by pushing 12122 Slider Crank Plate. Screw on the 12117 Slider Housing using the housing provided and a 34mm crowsfoot wrench on 12124 Gear Case. Torque to 250 in. lbs..
- 23. Assemble 12166 Guard. Note: Tighten 12166 Guard onto 12117 Slider Housing so that it doesn't vibrate free.

### TO INDEX FILE/SAW TO MOST COMFORTABLE POSITION, FOLLOW THESE INSTRUCTIONS EXACTLY!

- 1. Hold tool with 12122 Slider Crank (nose of tool) facing the ground.
- 2. Loosen both 95862 Set Screws.
- 3. Pull 12122 Slider Crank down until it is extended all the way. Then rotate to desired position.
- 4. With nose of tool still facing the ground, lightly tap the side of the housing to make sure the 12125 Square Bearing slides into correct position.
- 5. Tighten 95862 Set Screws.

Caution: If this procedure is not followed, 12125 Square Bearing will slide out of position and cause a failure.

Loctite is a registered trademark of the Loctite Corp.