#### **Models:**

12200 Stockade Filer

12201 Stockade Filer

12202 Stockade Filer Kit

**12203 Stockade Foundry Filer** 

12204 Stockade Sander

12205 Stockade Saw

12206 Stockade Saw Kit

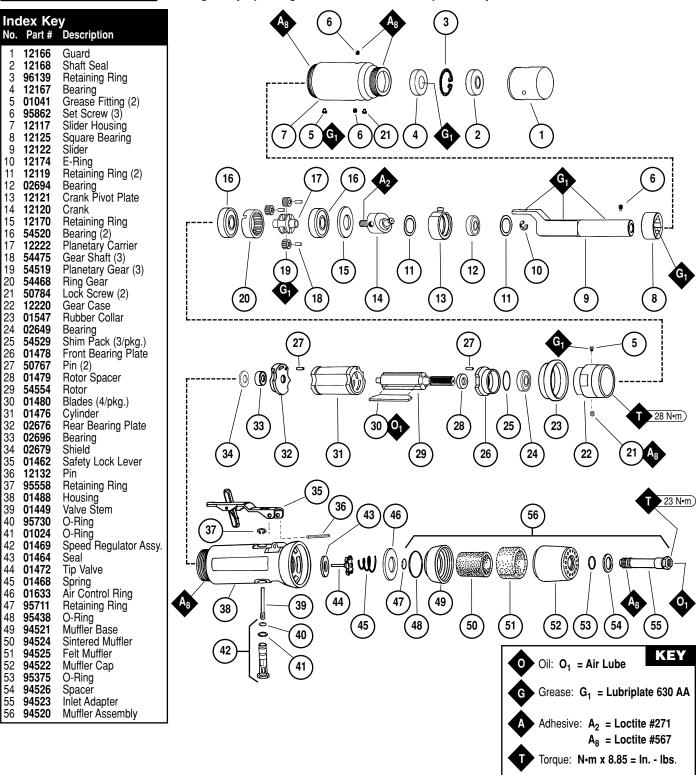
12207 Stockade Filer/Saw Kit

# Stockade Filer/Saw

Air Powered Reciprocating Filer/Saw 2,400 strokes per minute

# **A**WARNING

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.



# Important Operating, Maintenance and Safety Instructions

Carefully read all instructions before operating or servicing any Dynabrade® Abrasive Power Tool.

Warning: Hand, wrist and arm injury may result from repetitive work motion and overexposure to vibration.

Important: All Dynabrade Rotary Vane air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties.

#### **Operating Instructions:**

**Warning:** Eye, face, respiratory, sound and body protection must be worn while operating power tools. Failure to do so may result in serious injury or death. Follow safety procedures posted in workplace.

- 1. With power source disconnected from tool, securely fasten abrasive/accessory on tool.
- 2. Install air fitting into inlet bushing of tool. Important: Secure inlet bushing of tool with a wrench before attempting to install the air fitting to avoid damaging valve body housing.
- 3. Connect power source to tool. Be careful not to depress throttle lever in the process.
- 4. Check tool speed with tachometer. If tool is operating at a higher speed than the RPM marked on the tool or operating improperly, the tool should be serviced to correct the cause before use.
- 5. Air tools are not intended for use in explosive atmospheres and are not insulated for contact with electrical power sources. Sanding/Grinding certain materials can create explosive dust. It is the employers responsibility to notify the user of acceptable dust levels. Sanding/Grinding can cause sparks which can cause fires or explosions. It is the users responsibility to make sure the work area is free of flammable materials.

#### **Maintenance Instructions:**

- 1. Some silencers on air tools may clog with use. Clean and replace as required.
- All Dynabrade Rotary Vane air motors should be lubricated. Dynabrade recommends one drop of air lube per minute for each 10 SCFM (example: if the tool specification states 40 SCFM, set the drip rate of your filter-lubricator at 4 drops per minute).
   Dynabrade Air Lube (P/N 95842: 1 pt. 473 ml.) is recommended.
- 3. An Air Line Filter-Regulator-Lubricator must be used with this air tool to maintain all warranties. Dynabrade recommends the following: 11405 Air Line Filter-Regulator-Lubricator Provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components. Operates 40 SCFM @ 100 PSIG, has 3/8" NPT female ports.
- 4. Gear and Slider grease instructions: Apply 2 plunges of dynabrade 95542 Grease with 95541 Grease Gun through all grease fittings for every 16 hours of use.
- 5. Attention: After grease is applied, Dynabrade recommends covering the front end of Slider Housing 12117 to catch a small discharge of grease that may soil or damage the workpiece.
- 6. Use only genuine Dynabrade replacement parts. To reorder replacement parts, specify the Model #, Serial #, and RPM of your machine.
- 7. A Motor Tune-Up Kit (P/N 96261) is available which includes assorted parts to help maintain motor in peek operating condition.
- 8. Mineral spirits are recommended when cleaning the tool and parts. Do not clean tool or parts with any solvents or oils containing acids, esters, keytones, chlorinated hydrocarbons or nitro carbons.
- 9. DO NOT clean or maintain air tools with chemicals that have a low flash point (example: WD-40°).

### Safety Instructions:

Products offered by Dynabrade should not be converted or otherwise altered from original design without expressed written consent from Dynabrade, Inc.







- Important: User of tool is responsible for following accepted safety codes such as those published by the American National Standards Institute (ANSI).
- Operate machine for one minute before application to workpiece to determine if machine is working properly and safely before work begins.
- Always disconnect power supply before changing abrasive/accessory or making machine adjustments.
- Inspect abrasives/accessories for damage or defects prior to installation on tools.
- Please refer to Dynabrade's Warning/Safety Operating Instructions Tag (Reorder No. 95903) for more complete safety information.
- Warning: Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

#### **Notice**

All Dynabrade motors use the highest quality parts and metals available and are machined to exacting tolerances. The failure of quality pneumatic motors can most often be traced to an unclean air supply or the lack of lubrication. Air pressure easily forces dirt or water contained in the air supply into motor bearings causing early failure. It often scores the cylinder walls and the rotor blades resulting in limited efficiency and power. Our warranty obligation is contingent upon proper use of our tools and cannot apply to equipment which has been subjected to misuse such as unclean air, wet air or a lack of lubrication during the use of this tool.

#### **One Year Warranty**

Following the reasonable assumption that any inherent defect which might prevail in a product will become apparent to the user within one year from the date of purchase, all equipment of our manufacture is warranted against defects in workmanship and materials under normal use and service. We shall repair or replace at our factory, any equipment or part thereof which shall, within one year after delivery to the original purchaser, indicate upon our examination to have been defective. Our obligation is contingent upon proper use of Dynabrade tools in accordance with factory recommendations, instructions and safety practices. It shall not apply to equipment which has been subject to misuse, negligence, accident or tampering in any way so as to affect its normal performance. Normally wearable parts such as bearings, sanding pads, rotor blades, etc., are not covered under this warranty.

Model	Motor	Motor	Air Inlet	Sound	Air Flow Rate	Stroke	Strokes	Weight	Length	Height
Number	HP (W)	RPM	Thread	Level	SCFM (LPM)	Inch (mm)	Per Minute	Pound (kg)	Inch (mm)	Inch (mm)
All Models	.26 (194)	2,400	1/4" NPT	79 dB(A)	19 (538)	13/32 (10)	2,400	2.4 (1.08)	10 (254)	1-1/2 (38)

# Disassembly/Assembly Instructions - Stockade Filer/Saw

Important: Manufacturer's warranty is void if tool is disassembled before warranty expires.

Notice: Dynabrade strongly recommends the use of their 52296 Repair Collar (sold separately) during assembly/disassembly activities. Failure to use this collar will highly increase the risk of damage to the valve body of this tool. Please refer to parts breakdown for part identification.

#### Slider Housing and Gear Case Disassembly:

- 1. Disconnect tool from power source.
- 2. Secure air tool in a vise by using 52296 Repair Collar placed around the 01488 Housing.
- 3. Remove the 12166 Guard, by turning it counterclockwise.
- 4. Remove the 12117 Slider Housing turning it counterclockwise while holding onto the 12220 Gear Case with a 34 mm crowfoot wrench.
- 5. Use a 3 mm hex key to remove the 95862 Set Screws (3) from the 12122 Slider and 12117 Slider Housing.
- 6. Remove the 12122 Slider and 12125 Square Bearing from the 12117 Slider Housing.
- 7. Remove the 12168 Shaft Seal, 96139 Retaining Ring, and 12167 Round Bearing, (use 96232 #2 Arbor Press to remove round bearing).
- 8. Remove the 12220 Gear Case with a 34 mm crowfoot wrench turning it counterclockwise.
- 9. Remove the 50784 Set Screw from the 12220 Gear Case with a 2 mm hex key and pull the planetary gear assembly from the 12220 Gear Case.
- 10. Place a 2 in. 96346 Bearing Separator between the ring gear and the 54520 Rear Bearing. Place the planetary assembly along with the separator on the table of the arbor press and remove the bearing.
- 11. Remove the ring gear and the planetary gears from the 12222 Planetary Carrier.
- 12. Secure the planetary carrier in a soft (bronze or aluminum) jaw vise, and unscrew the 12120 Crank with a drift pin turning it counterclockwise. Remove the 12170 Spacer Ring.
- 13. Remove 12174 E-Ring from the crank and with a bearing separator and arbor press remove the 12121 Crank Pivot Plate.
- 14. Remove the 12119 Retaining Rings (2) from the 12121 Crank Pivot Plate and remove the 02694 Bearing.
- 15. Press the 12222 Planetary Carrier from the front 54520 Bearing.

Slider Housing and Gear Case Disassembly Complete.

#### **Motor Disassembly:**

- 1. Pull on the pinion gear of the 54554 Rotor and remove the air motor assembly from the 01488 Housing.
- Fasten the 96346 Bearing Separator around the rear portion of the cylinder and place the separator on the table of the 96232 Arbor Press with pinion gear pointing toward
  the floor. Press on the rear shaft of the rotor with flat nose 3/16 in. diameter punch, as a press tool, and remove it from the 02696 Bearing. The vanes can
  now be removed.
- 3. Place the flat side of the 01478 Front Bearing Plate on the 96231 Tool Plate of the arbor press and push the pinion end of the 54554 Rotor from the 02694 Bearing. The 02649 Bearing can be pushed out of the front bearing plate allowing the removal of the 54529 Shims. The 01479 Spacer can be slipped off the rotor.
- 4. Remove the 02696 Bearing from the 02676 Rear Bearing Plate with the 96210 Bearing Removal Tool.

Motor Disassembly Complete.

#### Valve and Silencer Disassembly:

- 1. Position the 01488 Housing in the vise with the 52296 Repair Collar so that the air inlet is pointing up.
- 2. Hold the 94523 Inlet Adapter stationary with a wrench and remove the air fitting.
- 3. Remove the 94523 Inlet Adapter.
- 4. Remove the 95711 Retaining Ring from the inlet adapter and separate the 94521 Muffler Base from the 94522 Muffler Cap. Remove the bronze and felt mufflers.
- 5. Remove the air control ring from the 01488 Housing.
- 6. Use needle nose pliers to remove 01468 Spring, 01472 Tip Valve and 01464 Seal.
- 7. Use a 2.5 mm drive punch and remove 12132 Pin along with throttle lever.
- 8. Remove 95558 Retaining Ring and push 01469 Speed Regulator Assembly from housing. The o-rings can be removed.

Valve and Silencer Disassembly Complete.

#### Valve and Silencer Assembly:

Note: Make sure that all parts are clean and in good order before assembling. Follow all adhesive, lubrication, and torque instructions.

- 1. Install 01469 Speed Regulator Assembly (with o-rings) into the 01488 Housing securing it with the 95558 Retaining Ring.
- 2. Position the 01488 Housing in the vise with the 52296 Repair Collar so that the air inlet is pointing up.
- Install 01464 Seal into housing.
- 4. Insert the 01449 Valve Stem into 01469 Speed Regulator Assembly so that the hole in the valve stem is visible through the air inlet opening.
- 5. Holding the valve stem in position and use a needle nose pliers to install the 01472 Tip Valve so that it intersects with the valve stem. Install the 01468 Spring (small end against the tip valve).
- 6. Install the bronze and felt mufflers into 94522 Muffler Cap. Install the 94521 Muffler Base onto muffler cap.
- 7. Install 95438 O-Ring into the groove on the muffler base. Place 95375 O-Ring and 94526 Spacer into the recessed area of the muffler cap.
- 8. Slip 94523 Inlet Adapter through muffler assembly and install 95711 Retaining Ring into the groove on the inlet adapter.
- 9. Install 01633 Air Control Ring over the male thread of the inlet adapter and apply a small amount of Loctite® #567 (or equivalent) to the male threads of the inlet adapter and install the entire muffler assembly onto the 01488 Housing (torque to 23 N•m/200 in. lbs.).
- 10. Hold the 94523 Inlet Adapter with a wrench when installing the air fitting.
- 11. Install the throttle lever and 12132 Pin.

Valve and Silencer Assembly Complete.

#### **Motor Assembly:**

- 1. Slip 01479 Spacer onto the pinion end of the 54554 Rotor.
- 2. Place a .002 in. shim into the **01478** Front Bearing Plate and install **02649** Bearing into the front bearing plate. Press this assembly onto the **54554** Rotor by using the **96240** Bearing Press Tool.
- 3. Check the clarence between the rotor and the bearing plate by using a .001 in. feeler gauge. The proper clarence should be .001 in. to .0015 in. If it is necessary, adjust clarence by repeating steps 1-3, adding or removing shims as required.
- 4. Once proper rotor gap clarence is achieved, install lubricated (oiled) vanes into the rotor slots, (use 95842 Dynabrade Air Motor Oil or equivalent).
- 5. Install the 01476 Cylinder so that it rests against the 01478 Front Bearing Plate while making sure that the air inlet holes of the 02676 Rear Bearing Plate align properly with the air holes in the 01476 Cylinder.
- 5. Use the 96216 Bearing Press Tool to install the 02696 Bearing into the 02676 Rear Bearing Plate and to press the bearing plate with bearing onto the 54554 Rotor.
  Note: The pinion end of the 54554 Rotor should be supported on the tool plate of the arbor press while pressing the rear bearing and bearing plate assembly onto the rotor.
  (Continued on next page)

# Disassembly/Assembly Instructions-Stockade Filer/Saw(continued)

- 7. Important: The fit must be snug between the bearing plates and the cylinder. If it is too tight, the rotor will not turn freely. Press fit must be loosened so that it will turn freely while still maintaining a snug fit.
- 8. Apply a small amount of grease to the exposed seal of the 02696 Bearing and install the 02679 Shield so that it will stick against the bearing.
- 9. Position the 01488 Housing in the vise so that the motor opening in the housing is pointing up.
- 10. Install the motor assembly into the 01488 Housing so that the motor drops all the way into the housing. Note: Align the rear bearing bearing plate node inside the housing. Motor Assembly Complete.

#### Slider Housing and Gear Case Assembly:

- 1. Install one of the 12119 Retaining Rings into the 12121 Crank Pivot Plate and use the 96216 Bearing Press Tool to press the 02694 Bearing into the pivot plate. Install the second 12119 Retaining Ring into the crank pivot plate.
- 2. Use the 96216 Bearing Press Tool to press the 12121 Crank Pivot Plate with bearing onto the 12120 Crank and install the 12174 E-Ring onto the crank.
- 3. Use 96239 Bearing Press Tool to press the front 54520 Bearing onto the threaded side of the 12222 Planetary Carrier. Hold the planetary carrier in the soft (bronze or aluminum) jaw vise so that the threaded side of the carrier with the bearing is pointing up. Place the 12170 Spacer Ring on top of the 54520 Bearing. Apply a small amount of Loctite® #271 (or equivalent) to the threads of the 12120 Crank and install it into the planetary carrier.
- 4. Remove the planetary carrier from the vise and install the **54519** Planetary Gears with bearings (3) along with **54475** Gear Shafts (3). **Note:** Apply a small amount of **95542** Grease to the needle bearings and planetary gears.
- 5. Place the 54468 Ring Gear over the planetary carrier so that the notches face away from the crank pivot plate.
- 6. Press the second 54520 Bearing onto the rear of the planetary carrier.
- Slide the planetary gear assembly into the 12220 Gear Case so that the notches line up with the lock screw hole and 01041 Grease Fitting. Apply a small amount of Loctite® # 567 Pipe Sealant (or equivalent) to the 50784 Lock Screw and install.
- 8. Slip 01547 Rubber Collar onto 12220 Gear Case, apply a small amount of Loctite® #567 Pipe Sealant (or equivalent) to the threads of the 01488 Housing and install the gear case assembly onto the 01488 Housing. (Torque to 28 N•m/250 in. lbs.)
- 9. Press 12167 Round Bearing into the 12117 Slider Housing. Install the 96139 Retaining Ring and press the 12168 Seal into the slider housing.
- 10. Place the 12125 Square Bearing into the slider housing and secure it in place with (2) 95862 Set Screws. Note: Apply a small amount of Loctite® #567 Pipe Sealant (or equivalent) to the threads of the set screws, before installation.
- 11. Apply a film of 95542 Grease to the round and square surfaces of the 12122 Slider. Install slider into the slider housing assembly.
- 12. Apply a small amount of Loctite® # 567 Pipe Sealant (or equivalent) to the threads of the 12117 Slider Housing and a dab of grease to the pivot hole in the 12122 Slider. Engage the hole in the slider with the pivot plate and thread the 12117 Slider Housing into the 12220 Gear Case, securing it in place.
- 13. Install 95862 Set Screw into the 12122 Slider.
- 14. Install 12166 Guard onto 12117 Slider Housing.

Slider Housing and Gear Case Assembly Complete.

Note: The file mounting set screw can be aligned with the access holes in the 12166 Guard by pointing the slider toward the floor, loosening the (2) 95862 Set Screws in the slider housing and then rotating the 12122 Slider to the desired position and securing the (2) 95862 Set Screws back in place.

Important: The slider must remain pointing toward the floor during this process.

Gear and slider grease instructions: Apply 2 plunges of Dynabrade 95542 Grease with 95541 Grease Gun through all grease fittings for every 16 hours of use. Tool Assembly Complete. Please allow 30 minutes for adhesives to cure before operating tool.

Important: Motor should now be tested for proper operation at 90 PSIG. If motor does not operate properly or operates at a higher RPM than marked on the tool, the tool should be serviced to correct the cause before use. Before operating, place 2-3 drops of Dynabrade Air Lube (P/N 95842) directly into air inlet with throttle lever depressed. Operate tool for 30 seconds to determine if tool is operating properly and to allow lubricating oils to properly penetrate motor Loctite® is a registered trademark of Loctite Corp.

# **Optional Accessories**



12211 Foundry Filer Adapter

• For use with **90905** Foundry File.



**12212** Saw Holder Adapter and **12183** Saw Guide

· For use with small saws.



12197 Filer Adapter

· For use with small files.



#### Dynabrade Angle Gear Oil

- Specifically formulated to saturate wick system in right angle gear head.
- Easy to apply using Dynabrade P/N 95541 Oil Gun.
   Apply 3 plunges every 8 hours of operation into tools lubrication fitting.

**95848:** 2 oz. tube **95849:** 10 oz. tube



#### Dynabrade Air Lube

- Formulated for pneumatic equipment.
- Absorbs up to 10% of its weight in water.
- Prevents rust and formation of sludge.
- Keeps pneumatic tools operating longer with greater power and less down time.

**95842:** 1pt. (473 ml) **95843:** 1 gal. (3.8 L)



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