

4 in. Right Angle Air Grinder

Stock Number M658

OWNER'S MANUAL

SPECIFICATIONS:

Wheel Diameter (IN):	4
Air pressure (P.S.I.):	90
Average air consumption (C.F.M.):	.6
Free speed (R.P.M.):	11,000
Air inlet (N.P.T.):	1/4
Hose size (I.D.):	3/8 in.
Length (IN):	9.8
Weight (LBS.):	3.7

Specifications are subject to change without notice.



WARNING!

READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE OPERATING THIS TOOL. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID WARRANTY.

**Performance
Tool®**

TROUBLESHOOTING

INSUFFICIENT POWER:

Probable Cause	Solution
Dirty or clogged air passages.....	Flush and lubricate tool, drain air tank and supply line
Insufficient air supply.....	Increase line pressure, Make sure compressor matches tool's air pressure and consumption needs
Air leakage.....	Use PTFE tape at all fittings and joints. Check tool for worn or damaged O-rings & seals.
Worn/damaged wear & tear parts...	Replace as necessary.
Tool matching	Be sure you are using a tool suited for the torque requirements of the job at hand.

LIMITED WARRANTY

PERFORMANCE TOOL® extends only the following warranties, and only to original retail purchasers. These warranties give specific legal rights. Except where prohibited by local law, the law of the State of Washington governs all warranties and all exclusions and limitations of warranties and remedies. There may be other rights which vary from state to state.

PERFORMANCE TOOL® warrants the product to be free from defects in materials and workmanship under normal use and service. A defective product may be returned for a free replacement within 90 days from the date of purchase, provided that product is returned to place of purchase immediately after discovery of defect. After 90 days and up to one year from date of purchase, PERFORMANCE TOOL® will replace at no charge any parts which our examination shall disclose to be defective and under warranty.

These warranties exclude blades, bits, punches, dies, bulbs, fuses, hoses, and other consumables which must be replaced under normal use and service. These warranties shall not apply to any product or part which is used for a purpose for which it is not designed, or which has been repaired or altered in any way so as to affect adversely its performance or reliability, nor shall these warranties apply to any product or part which has been subject to misuse, neglect, accident or wear and tear incident to normal use and service.

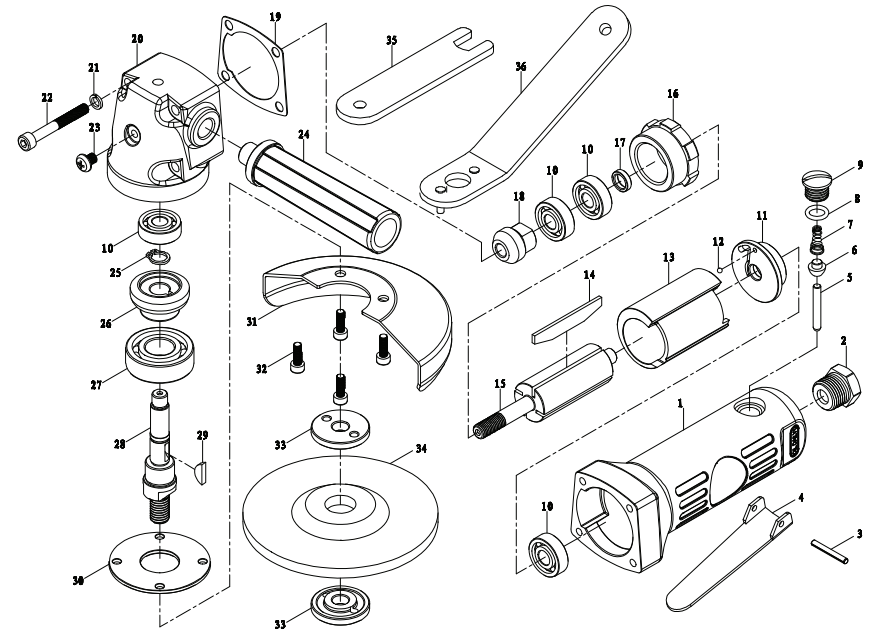
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The laws on limitation of implied warranties may differ from state to state, so the above limitations may not apply in all cases.

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PARTS LIST



No.	DESCRIPTION	QTY	No.	DESCRIPTION	QTY
1.	Housing	1	19.	Gasket	1
2.	Air Inlet	1	20.	Angle Housing	1
3.	Trigger Pin	1	21.	Washer	4
4.	Trigger	1	22.	Housing Screw	4
5.	Valve Stem	1	23.	Oil Screw	1
6.	Valve Bushing	1	24.	Handle	1
7.	Valve Spring	1	25.	Retaining Ring	1
8.	O-Ring	1	26.	Rotor Bevel Gear	1
9.	Valve Cap	1	27.	Bearing	1
10.	Bearing	1	28.	Mandrel	1
11.	End Cover	1	29.	Key	1
12.	Alignment Ball	1	30.	Backing Plate	1
13.	Cylinder	1	31.	Blade Cover	1
14.	Rotor Blade	4	32.	Screw	4
15.	Rotor	1	33.	Disc Spacer	2
16.	Front Plate	1	34.	4 in. Grinding Wheel	1
17.	Washer	1	35.	Mandrel Wrench	1
18.	Bevel Wheel	1	36.	Spacer Wrench	1

AIR SOURCE

Clean air of correct air pressure is recommended for the power supply for this tool. A maximum of 90 PSI at the tool is recommended for most air tools of this class. Check specifications section for recommended pressure. (Depending on length of air hose and other circumstances, air pressure at compressor may need to be increased to 100 PSI to ensure 90 PSI at the tool.)

Water in the air hose and compressor tank contributes to reduced performance and damage of the air tool. Drain the air tank and filters before each use and as necessary to keep the air supply dry. Hose length over 25' causes loss in line pressure. Increase hose I.D. or increase compressor pressure to compensate for the pressure loss. Use an in-line pressure regulator with gauge if air inlet pressure is critical.

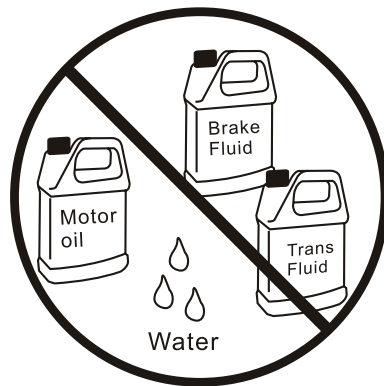
LUBRICATION & MAINTENANCE

Oil tool before each use. 4 to 5 drops of a good grade Air Tool Oil placed in the air inlet is sufficient. Use proper air pressure and CFM rating listed for this tool.

Drain water from hoses and compressor tank. Water in the air supply line will cause gumming and loss of power. Clean the air filter on the supply line and flush the tool with gum solvent or a 50/50 mix of air tool oil and kerosene. It may be necessary to disassemble the tool to properly clean and re-lubricate.



Yes



No

IMPORTANT SAFETY INFORMATION

WARNING!

READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE OPERATING THIS TOOL. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID WARRANTY.

1. Use only 4 in. grinding wheels with a 5/8 in. arbor and depressed center. **DO NOT USE 4-1/2 in. OR LARGER DIAMETER GRINDING WHEELS OR YOU MAY CAUSE DAMAGE TO TOOL OR INJURY TO USER.**
2. Make sure sanding pad RPM rating matches Free Speed rating of this tool.
3. Wear a dust mask while operating this tool. Read, follow and understand manufacturers instructions on paint, primer, paint preps, glazing, body filler, etc. for additional respirator and ventilating requirements.
4. Always use approved eye and ear protection when using air powered tools. If raising dust/debris, wear a suitable mask. Do not wear loose clothing or jewelry.
5. Always operate tool a safe distance from yourself and others in the work area. Keep footing and balance at all times.
6. Make sure work piece is secure to allow safe operation of the tool with both hands. Do not hold the work piece in your hand, lap or against any part of your body.
7. Make sure trigger is in the "off" position before connecting or disconnecting the tool from air source. Disconnect tool from air source before changing accessories, performing service and when not in use.
8. Follow air source manufacturer's directions for connection of regulators, filters and other accessories to air source. Do not install quick couplers directly at tool air inlet. This causes inlet failure due to excess weight and vibration. Use a whip hose between tool and quick couplers.
9. **DO NOT OVERLOAD!** Do not force tool. Match tool capacity to work load requirement. Use tool within its rated capacity and only for its designated purpose. Overloading air tools will cause premature wear and/or permanent damage of internal and external drive parts and will void warranty.
10. Inspect hoses and fittings for wear and damage prior to using tool. Do not carry or drag tool by the air hose. Keep air hose free from obstruction, twisting and binding.

ASSEMBLY

1. Thread the Side Handle (24) into the side of the Gear Housing (20) until tight.
2. Place Grinding Wheel (34) onto lower Disc Spacer (33) making sure depressed center is down.
3. Thread upper Disc Spacer (33) onto Mandrel (28) and hand tighten.
4. Place Mandrel Wrench (35) on Mandrel (28) and Spacer Wrench (36) on upper Disc Spacer (33) and firmly tighten.

SETUP

1. Designate a clean and well-lit work area. Work area must not allow access by children or pets to prevent distraction and injury.
2. Route the air hose along a safe path to reach the work area without creating a tripping hazard or exposing the air hose to possible damage. Make sure air hose is long enough to reach work area with enough slack to allow free movement while working.
3. Secure loose work pieces using a vise or clamps to prevent movement while working.
4. Make sure there are no hazardous objects (such as utility lines or foreign objects) nearby that will present a hazard while working.
5. If an automatic oiler is not used, put a few drops of Pneumatic Tool Oil into tool at air inlet connection before use. Add a few drops more after each hour of continual use.
6. Set the compressor to 90 PSI.

OPERATION

1. Attach grinding wheel as indicated in Assembly.
2. Grip the tool with both hands and place onto the area to grind.
3. Squeeze the trigger. You can vary the speed of the tool to suit your needs by varying the amount of pressure applied.
4. Move the tool in a uniform pattern, either up or down or side to side to ensure even grinding.
5. Periodically check the tool for any potential wear. Replace used grinding wheel when necessary.
6. If the tool requires more force to accomplish the task, verify that the tool receives sufficient, unobstructed airflow (CFM) and increase the pressure (PSI) output of the regulator up to the maximum air pressure rating of this tool.

CAUTION! To prevent tool and accessory failure, resulting in injury: Do not exceed tools maximum air pressure rating.

7. If the tool still does not have sufficient force at maximum pressure and sufficient airflow, a larger tool may be required.
8. To prevent accidents, turn off the tool, detach the air supply, safely discharge air pressure, and release the trigger. Clean external surfaces of the tool with clean, dry cloth, and apply a thin coat of tool oil. Then store the tool indoors out of children's reach.

