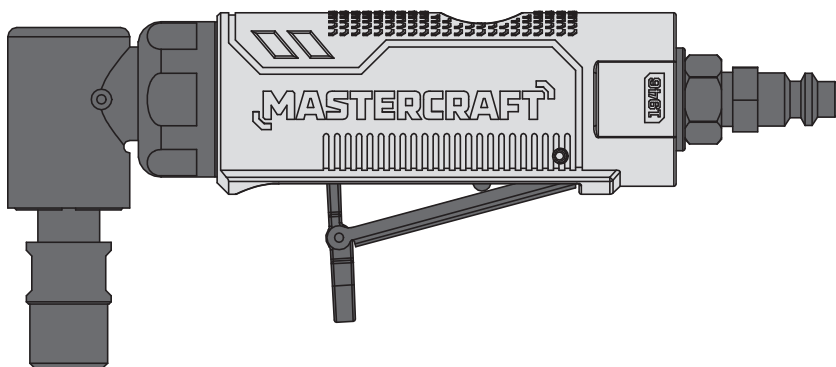


# MASTERCRAFT™

model no. 058-1969-4

## 1/4" AIR RIGHT-ANGLE DIE GRINDER



### IMPORTANT:

For your own safety, read and follow all of the Safety Guidelines and Operating Instructions before operating this die grinder. Keep this manual for future reference.

### INSTRUCTION MANUAL

## TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS	3
SAFETY GUIDELINES	4
KEY PARTS DIAGRAM	10
IMPORTANT INFORMATION	11
OPERATING INSTRUCTIONS	14
MAINTENANCE	16
TROUBLESHOOTING	18
EXPLODED VIEW	19
PARTS LIST	20
WARRANTY	21

**NOTE:** If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-800-689-9928.



### SAVE THESE INSTRUCTIONS

This manual contains important safety and operating instructions. Read all instructions and follow them with use of this product.

COLLET	1/4" (6 mm)
SPEED (NO LOAD)	20,000 RPM
RECOMMENDED OPERATING PRESSURE	90 PSI (6.2 bar )
CFM REQUIREMENT	3.0 CFM @ 90 PSI
AIR INLET	1/4"-18 NPT
AIR HOSE	3/8" (9.5 mm)
WEIGHT	1 lb 2 oz (0.5 kg)

CFM: Cubic Feet per Minute (the volumetric flow rate of air corrected to standardized conditions of temperature and pressure).

NPT: National Pipe Thread.

## SAFETY GUIDELINES

This manual contains information that relates to PROTECTING PERSONAL SAFETY and PREVENTING EQUIPMENT PROBLEMS. It is very important to read this manual carefully and understand it thoroughly before using the product. The symbols listed below are used to indicate this information.



### DANGER!

Potential hazard that will result in serious injury or loss of life.



### WARNING!

Potential hazard that could result in serious injury or loss of life.



### CAUTION!

Potential hazard that may result in moderate injury or damage to equipment.

**Note:** The word “Note” is used to inform the reader of something he/she needs to know about the tool.

## PERSONAL SAFETY

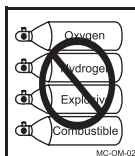
These precautions are intended for the personal safety of the user and others working with the user. Please take time to read and understand them.

## SAFETY GUIDELINES

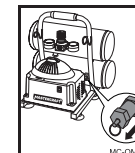
**DANGER!**

Potential hazard that will result in serious injury or loss of life.

- Keep children away from the work area. Do not allow children to handle power tools.
- Do not use a tool that is leaking air, that has missing or damaged parts, or that requires repairs. Verify that all screws are securely tightened.
- Never attempt to override tool safety features.
- Do not use oxygen or any other combustible or bottled gas to power air-powered tools. Failure to observe this warning can cause explosion and serious personal injury or death. Use only the compressed air to power air-powered tools. Use a minimum of 25' (7.6 m) of hose to connect the tool to the compressor. Failure to comply will result in serious injury or loss of life.
- Risk of electric shock: Do not expose a compressor to rain. Store it indoors. Disconnect the compressor from the power source before servicing. Compressor must be grounded. Do not use grounding adaptors.
- Risk of personal injury: Do not direct compressed air from the air hose toward the user or other personnel.



- Risk of inhalation: Never directly inhale the air produced by the compressor.
- Risk of bursting: Do not adjust the pressure switch or safety valve for any reason. They have been preset at the factory for this compressor's maximum pressure. Tampering with the pressure switch or the safety valve may cause personal injury or property damage.
- Risk of burns: The pump and the manifold generate high temperatures. In order to avoid burns or other injuries, do not touch the pump, the manifold, or the transfer tube while the compressor is running. Allow the parts to cool down before handling or servicing. Keep children away from the compressor at all times.
- Risk of bursting: Make sure the regulator is adjusted so that the compressor outlet pressure is set lower than the maximum operating pressure of the tool. Before starting the compressor, pull the ring on the safety valve to make sure the valve moves freely. Drain water from tank after each use. Do not weld or repair tank. Relieve all pressure in the hose before removing or attaching accessories.





**WARNING!**

Potential hazard that could result in serious injury or loss of life.

- Do not allow unskilled or untrained individuals to operate a die grinder or any other air-powered tool.
- Always ensure that the workpiece is firmly secured leaving both hands free to control the tool.
- Always keep your air tool clean and lubricated. Daily lubrication is essential to avoid internal corrosion and possible failure.
- Do not overload the tool. Allow the tool to operate at its optimum speed for maximum efficiency. Excessive overload can cause the tool casing to split, and may also lead to excessive wear on moving parts and possible failure.
- Use only the lightweight coil hoses for connecting the tool to the compressor coupling. Do not fit quick-change couplings onto the tool, as the vibration can lead to damage or failure of the coupling.
- Always ensure that the tool has stopped before connecting it to the air supply.
- Always ensure that the accessories are rated/designed for use with the tool.
- Ensure that the accessories are correctly and securely fastened before connecting the tool to the air supply. Failure to comply could result in serious injury or loss of life.
- Locate the compressor in a well-ventilated area for cooling, at a minimum of 12" (31 cm) away from the nearest wall.
- Protect the air hose and the power cord from damage and puncture. Inspect them for weak or worn spots every week, and replace them if necessary.
- Always wear hearing protection when using the air compressor. Failure to do so may result in hearing loss.
- Do not carry the compressor while it is running.
- Do not operate the compressor if it is not in a stable position.
- Do not operate the compressor on a rooftop or in an elevated position that could allow the unit to fall or be tipped over.
- Always replace a damaged gauge before operating the unit again.

**CAUTION!**

Potential hazard that may result in moderate injury or damage to equipment.

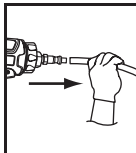
- Do not wear watches, rings, bracelets, or loose clothing when using any air tool.
- Keep proper footing at all times in order to ensure correct balance.
- For optimal safety and tool performance, inspect the tool daily in order to ensure free movement of the trigger, safety mechanisms, and springs.
- Keep the work area clean. A cluttered or dirty workbench may lead to an accident. Floor should be kept clear.
- This tool is not a toy. Use it with caution.
- Handling and storage of oil: Use with adequate ventilation. Avoid contact of oil with eyes, skin and clothing. Avoid breathing spray or mist. Store in a tightly closed container in a cool, dry, well-ventilated area free from incompatible substances.
- Do not use the tool near or below the freezing temperatures, as doing so may cause tool failure.
- Do not store the tool in a freezing environment to prevent ice formation on the operating valves of the tool, as doing may cause tool failure.



**CAUTION!**

Potential hazard that may result in moderate injury or damage to equipment.

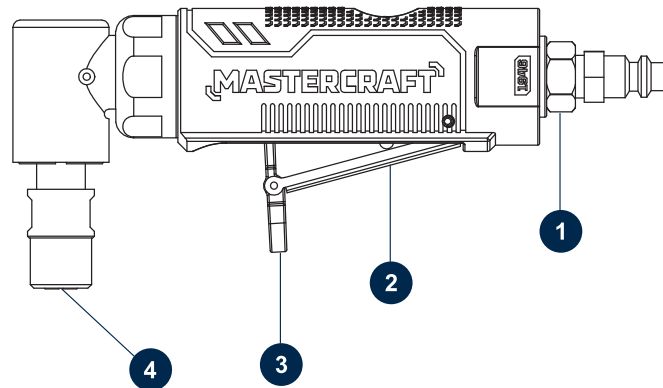
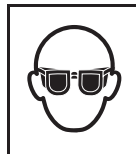
- Disconnect the tool from the air supply and turn off the compressor before changing accessories, before servicing any type of tools, when the tool is not in use, when it is being handed to another person, and when it is left unattended. Failure to comply may result in moderate injury or damage to equipment.



- Use safety goggles and ear protection: Wear safety glasses with side shields when operating the tool/compressor and verify that others in the work area are also wearing safety glasses. Safety glasses must conform to American National Standards Institute (ANSI Z87.1) requirements and must provide protection from flying particles from the front and the sides.



Air-powered tools are loud and the sound can cause hearing damage. Always wear ear protection to help prevent hearing damage and loss. Failure to comply may result in moderate injury.



No.	Description	No.	Description
1	Air inlet plug	3	Safety lock
2	Trigger	4	Chuck screw

**Note:** Recycle unwanted materials rather than disposing of them as waste. Sort the tools, hoses, and package in specific categories and take to the local recycling centre, or dispose of them in an environmentally safe way.

## Compatible compressors

### GUIDELINES FOR PROPER USE AND OPERATION

Be sure to use a proper air compressor with Mastercraft® air-powered tools. The compressor should be able to supply a minimal air delivery of 3 CFM @ 90 PSI to ensure the compressor can run continuously with the Mastercraft® Air Right-Angle Die Grinder.

### General use

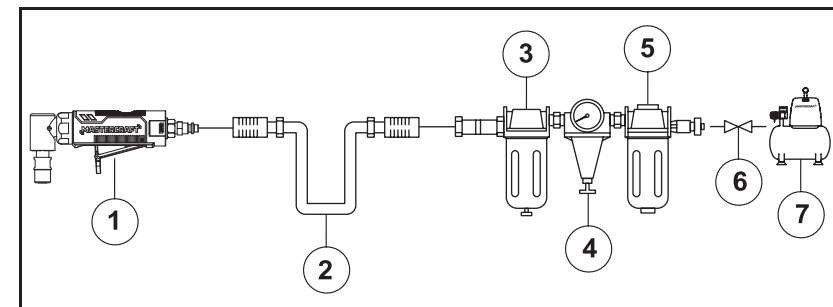
This Mastercraft® Air Right-Angle Die Grinder is provided with an automatic in-line filter-regulator-lubricator for increased tool life and for maintaining the tool in sustained operation mode. The **die grinder** has a durable, lightweight composite housing that helps in reducing vibration. The grinder is provided with a safety lock. The in-line lubricator has to be regularly checked and filled with pneumatic tool oil. The in-line lubricator has to be adjusted properly by placing a sheet of paper next to the exhaust ports and holding the throttle opened for about 30 seconds. The lubricator is properly set when a light stain of oil is formed on the paper. Excessive amounts of oil should be avoided. The tool is ideal for light welding, grinding, porting, and polishing applications.

In the event of storage of the tool for an extended period of time ( weekend, etc.), generous amount of lubrication must be provided. The tool should be run for approximately 30 seconds to ensure that oil has been uniformly distributed throughout the tool. The tool should be stored in a clean and dry environment.

Air Compressor Size & Power	2 HP	2 1/2 HP	3+ HP
5-6 Gallons	Light duty and intermittent use	Light duty and intermittent use	Medium duty and intermittent use
8 - 11 Gallons	Light duty and intermittent use	Medium duty and intermittent use	Heavy duty and continuous use
15+ Gallons	Medium duty and intermittent use	Heavy duty and continuous use	Heavy duty and continuous use

## Air system

- Always use clean, dry, regulated, compressed air at the recommended pressure (see section "Technical specifications").
- Maintain the air pressure at 90 PSI and airflow according to the recommended specifications. Do not exceed the maximum or minimum pressures. Operating the tool at the inappropriate pressure (too low or too high) will cause excessive noise or rapid wear of tool.
- Increase line pressure to compensate for unusually long air hoses, where the minimum hose diameter has to be 1/4" ID and the fittings used must have same dimensions.
- Ensure that air valve is in "off" position before connection to the air supply.
- Clean the filter and the air inlet on a weekly basis.
- Clean the compressor tank daily as water in the air supply line can damage the angle die grinder.
- Verify that all connections in the air supply system are sealed in order to prevent air leakage.



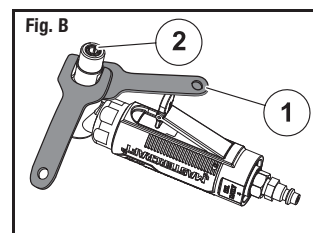
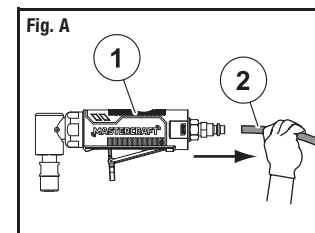
No.	Description	No.	Description
1	Mastercraft® Air Right-Angle Die Grinder	5	Filter
2	Air hose	6	Cut-off valve
3	Lubricator	7	Air compressor
4	Regulator 0 - 123 PSI (0 to 8.5 bar)		

Read this Instruction Manual carefully before using the tool.

- Read and follow all the safety instructions at the beginning of this manual. Inspect the die grinder prior to each use in order to:
  - Ensure that the proper power source is being used.
  - Verify that the tool is in proper working order.

## Loading and operation

1. Disconnect the tool (1) from the air hose (2) (Fig. A).



2. Use the two wrenches (1) to loosen the chuck (2). Insert a suitable grinding accessory into chuck, and firmly retighten the chuck to lock the grinding accessory in place using the wrenches (Fig. B).



### WARNING!

Potential hazard that could result in serious injury or loss of life.

- Do not use the tool if it is not in proper working order.
- Do not use oxygen, CO<sub>2</sub> (carbon dioxide), or any other combustible, or bottled gas to power this tool.
- Do not use this tool in the presence of any flammable liquids or gases. Failure to comply could result in serious injury or loss of life.

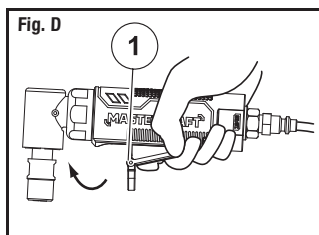
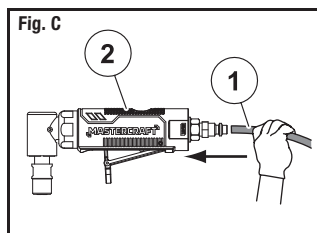


### DANGER!

Potential hazard that will result in serious injury or loss of life.

- Do not use grinding accessories other than those that are specifically designed for use with this die grinder. Failure to comply will result in serious injury or loss of life.

3. Plug in compressor, turn it on set the pressure regulator to 90 PSI. Attach one end of the air hose to the compressor and the other end of the air hose (1) to the tool (2). Use plumber's tape to avoid air leak (see section "Technical specifications") (Fig. C).

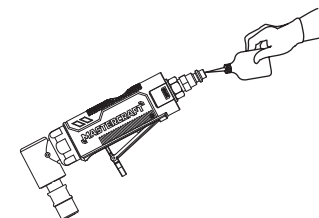


4. With a firm grip on the tool, lightly press the trigger (1) and apply accessory to workpiece, slowly and steadily moving tool until achieving desired finish on the workpiece (Fig. D).

## Maintenance

MAINTENANCE REQUIRED	DESCRIPTION	TOOLS OR MATERIALS REQUIRED	MAXIMUM SERVICE INTERVAL		
			Each use or every 2 hrs.	Monthly	As Needed
In-depth inspection	Worn or broken parts			X	X
Replace worn or broken parts					X
Lubrication	See below	Pneumatic tool oil	X		

- Lubrication:** If the die grinder and compressor are not equipped with an in-line lubrication system, place up to 6 drops of pneumatic tool oil into the air inlet before each work day or after every 2 hours of continuous use, depending on the characteristics of the workpiece used.



### WARNING!

Potential hazard that could result in serious injury or loss of life.

- Hold the tool firmly with both hands. Always point abrasive material away from you while operating the tool. Failure to comply could result in serious injury or loss of life.



### DANGER!

Potential hazard that will result in serious injury or loss of life.

- Disconnect the tool from the air compressor before performing maintenance/ service, adjusting, and when it is not in use.
- Repairs must be performed by a qualified service technician only. Failure to comply will lead to serious injury or loss of life.

- Clean the die grinder after use.
- Check the air supply for power loss or erratic action due to the following reasons:
  - excessive drain, moisture, or restriction on the air pipe.
  - improper size or type of hose connectors.
- Check whether there are grit or gum deposits in the grinder, flush the grinder with gum solvent oil or an equal mixture of SAE No 10 oil and paraffin, and allow tool to dry before use.
- Disconnect the tool from the air supply, clean the tool, and store the tool in a safe, dry, childproof location.

**Note:** When temperatures are below freezing, maintain the tool in a warm condition using any safe, convenient method.



### DANGER!

Potential hazard that will result in serious injury or loss of life.

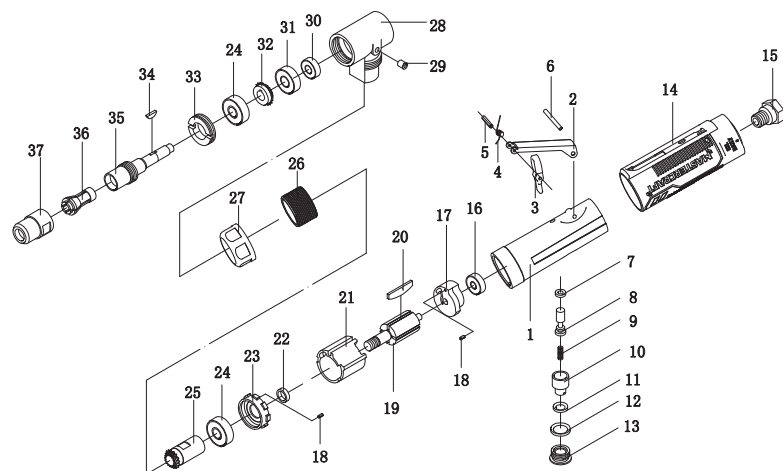
- If any of the following problems appear while the tool is in use, turn it off and disconnect it from the air supply immediately. Failure to comply will lead to serious injury or loss of life.
- Disconnect the tool from the air supply before making any adjustments.
- Repairs must be performed by a qualified service technician only.

## Troubleshooting

The following chart lists common issues and solutions. Please read it carefully and follow all instructions closely.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Tool runs at normal speed but loses control under load.	1. Worn or damaged motor parts. 2. Cam clutch is worn or stuck due to insufficient lubrication.	1. Lubricate clutch housing. 2. Check for excess clutch oil as the clutch requires only fifty percent of oil fill. Overfilling can cause dragging of high speed parts. <b>Grease Lubrication:</b> Heat usually indicates an insufficient amount of grease. Severe operating conditions may require frequent lubrication.
Tool runs slowly and air flows slightly from exhaust.	1. Motor parts are jammed. 2. Power regulator is in closed position. 3. Air flow is blocked due to dirt.	1. Check filter and air inlet for blockage. 2. Pour pneumatic tool oil into air inlet as per instructions. 3. Operate the tool in forward and/or reverse rotations within short duration. Repeat the above steps as per requirements. If this fails, return the tool to the service centre.
PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Tool is not running. Air flows freely from exhaust.	Motor vanes are stuck due to material build up.	1. Pour pneumatic tool oil into air inlet. 2. Operate the tool in forward and/or reverse rotations within short duration, wherever applicable. 3. Tap motor housing gently with plastic mallet. 4. Disconnect the air supply. Operate the motor manually by rotating drive shank, wherever applicable. 5. If tool remains jammed, return to service centre.
Tool does not shut off.	O-rings or throttle valve is dislodged from valve seat .	1. Replace O-rings or return to service centre.

**Note:** For further repair information, please call 1-800-689-9928.



No.	Description	Qty.	No.	Description	Qty.
1	Gun body	1	24	Bearing 608z	1
2	Trigger	1	25	Gear wheel	1
3	Safety lock	1	26	Connect ring	1
4	Spring	1	27	Hex nut	1
5	Pin 2 x 16	1	28	Elbow assembly	1
6	Pin 3 x 24	1	29	Oil valve	1
7	O-ring 3.75 x 1.8	1	30	Bearing R4	1
8	Pin	1	31	Oil storage felt	1
9	Spring	1	32	Gear wheel	1
10	Adjusting knob	1	33	Clamp nut	1
11	O-ring 7 x 2	1	34	Semicircular key	1
12	O-ring 11 x 2	1	35	Axis of rotation	1
13	Nut	1	36	Chuck	1
14	Housing	1	37	Chuck screw	1
15	Air inlet plug	1			
16	Bearing 625z	1			
17	Rear cover	1			
18	Pin 2 x 6	2			
19	Rotor	1			
20	Rotor blade	4			
21	Cylinder	1			
22	Bushing	1			
23	Front cover	1			

If any parts are missing or damaged, or if you have any questions, please call 1-800-689-9928.

### 3-Year Limited Warranty

This product is guaranteed for a period of three (3) years from the date of original retail purchase against defects in workmanship and materials, except for the following component:

**Component A:** Accessories, which are guaranteed for a period of one (1) year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating thereto.

These warranties are subject to the following conditions and limitations:

- a) A bill of sale verifying the purchase and purchase date must be provided.
- b) This warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect, or lack of proper installation, operation, or maintenance (as outlined in the applicable instruction manual or operating instructions), or which is being used for industrial, professional, commercial, or rental purposes.
- c) This warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product which are expected to become inoperative or unusable after a reasonable period of use.
- d) This warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups, or adjustments.
- e) This warranty will not apply where damage is caused by repairs made or attempted by others (i.e., persons not authorized by the manufacturer).
- f) This warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing).

- g) This warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons.
- h) This warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, or abrasives and chemical cleaners.
- i) This warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

### Additional limitations

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential, or exemplary damages arising in connection with the sale, use, or inability to use this product.

### Notice to consumer

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim, or exclude any statutory warranties set forth in any applicable provincial or federal legislation.

### Made in China

Imported by Mastercraft Canada Toronto, Canada M4S 2B8