

# *Grizzly* *Industrial, Inc.*®

## MODEL T23083 4" PNEUMATIC ANGLE GRINDER INSTRUCTION MANUAL



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#TS13539 PRINTED IN CHINA

## **WARNING!**

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

## **WARNING!**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

# SAFETY

## **WARNING**

### **For Your Own Safety Read Instruction Manual Before Operating This Equipment**

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

**NOTICE**

This symbol is used to alert the user to useful information about proper operation of the equipment.

## **WARNING**

### **Safety Instructions For Pneumatic Tools**

- 1. READ THIS MANUAL.** This tool may cause personal injury if used incorrectly. This manual contains proper safety and operating instructions that must be followed to reduce this risk.
- 2. WEAR EYE PROTECTION.** This tool may throw small fragments during operation, which may cause serious eye injury. Always wear ANSI approved safety glasses or face shield to reduce your risk from this hazard.
- 3. WEAR A RESPIRATOR.** This tool may produce fine dust during operation, which can cause respiratory injury if inhaled. Always wear a respirator NIOSH approved for the type of material being processed.
- 4. WEAR HEARING PROTECTION.** Operating this tool for prolonged time periods may damage your hearing. Your risk depends on length and frequency of use. To reduce your risk of this hazard, wear hearing protection.
- 5. MAINTAIN SAFETY GUARDS.** Your tool may be equipped with safety guards or other structural components designed to reduce the risk of injury during operation. Never modify or operate this tool with any guards or components removed or damaged.
- 6. KEEP CHILDREN AWAY.** Prevent children from injury by keeping them away from this tool. Disconnect and lock the tool away when not in use.

7. **AVOID ENTANGLEMENTS.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry, which may get caught in moving parts, when operating this tool. Wear a protective hair covering to contain long hair.
8. **USE CORRECT AIR PRESSURE.** Exceeding the maximum PSI rating of this tool may cause unpredictable operation or bursting.
9. **DISCONNECT AIR PRESSURE** before servicing, changing accessories, or moving to another location. Never leave this tool unattended when connected to air.
10. **SECURE TOOLING.** Always verify tooling is secure before operation.
11. **SHARP SURFACES.** DO NOT place hands near the tooling surfaces when in operation.
12. **REMOVE ADJUSTING KEYS AND WRENCHES AFTER USE.** These tools become dangerous projectiles if left on the tool when it is started.
13. **AVOID FLAMMABLES.** Do not use this tool around any flammables that may be ignited by sparks.
14. **SECURE WORK.** Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
15. **MAINTAIN TOOLS WITH CARE.** Keep tools lubricated and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **DO NOT FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
17. **CHECK FOR DAMAGED PARTS BEFORE USING.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect operation. Repair or replace damaged parts before operating.
18. **USE GOOD LIGHTING.** Keep work area well lighted. Dark work areas increase risk of accidental injury.
19. **AVOID UNINTENTIONAL OPERATION.** Always disconnect air when not in use, and do not carry tool with hand on trigger.
20. **USE THE RECOMMENDED ACCESSORIES.** Consult owner's manual for recommended accessories. Using improper accessories may increase the risk of injury.
21. **NEVER ALLOW UNTRAINED USERS TO USE THIS TOOL WHILE UNSUPERVISED.**
22. **IF YOU ARE UNSURE OF THE INTENDED OPERATION, STOP USING TOOL.** Seek formal training or research books or magazines that specialize in pneumatic tools.
23. **BE AWARE OF HOSE LOCATION.** Hoses can easily become a tripping hazard when laid across the floor in a disorganized fashion.
24. **DO NOT USE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL, OR WHEN TIRED.**

## **WARNING**

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

# INTRODUCTION

## Foreword

The specifications, details, and photographs in this manual represent the Model T23083 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly.

If you have any comments regarding this manual, please write to us at the following address:

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Most importantly, we stand behind our tools. If you have any service questions or parts requests, please call or write us at the location listed below.

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## **⚠ CAUTION**

No list of safety guidelines is complete, because every work environment is different. Always consider safety first and use common sense. Failure to use this tool with caution and respect could result in serious personal injury.

## Specifications

Arbor Speed ..... Variable 0–11,000 RPM  
Arbor Size .....  $\frac{5}{8}$ "-11  
Grinding Wheel Diameter ..... 4"  
Grinding Wheel Bore .....  $\frac{5}{8}$ "  
Grinding Wheel Type ..... 27  
Air Inlet Port Size .....  $\frac{1}{4}$ " NPT  
Average Air Consumption ..... 6 CFM  
Maximum Air Pressure ..... 90 PSI  
Weight ..... 3 lbs.

## Inventory

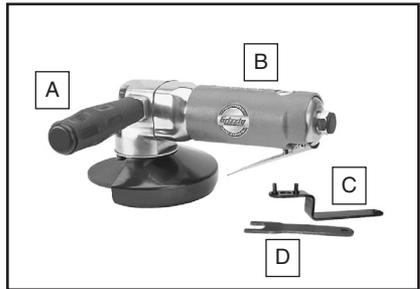


Figure 1. Model T23083 Inventory.

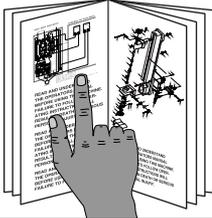
Description	Qty
A. Handle.....	1
B. Angle Grinder Assembly w/Wheel .....	1
C. Flange Spanner Wrench.....	1
D. Arbor Wrench.....	1

## Assembly

Thread the handle into the housing, as shown in **Figure 1** above.

# OPERATIONS

## **!WARNING**



Read the manual before operation. Become familiar with this tool, its safety instructions, and its operation before beginning any work. Serious personal injury may result if safety or operational information is not understood or followed.

## Changing Grinding Wheels

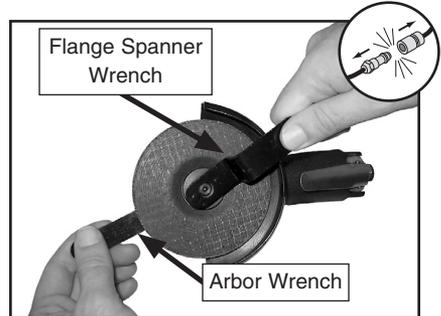
The Model T23083 uses Type 27, 4" grinding wheels with a  $\frac{5}{8}$ " bore. See the Grizzly catalog or [www.grizzly.com](http://www.grizzly.com) for a complete listing of available grinding wheels.

## **!WARNING**

An incorrect size or type of grinding wheel will not work properly with this grinder and could fly apart and cause operator injury. Always make sure to install only Type 27, 4" grinding wheels with a  $\frac{5}{8}$ " bore on this grinder.

To change the grinding wheel:

1. DISCONNECT GRINDER FROM AIR!
2. Position the arbor wrench on the arbor flats behind the inner arbor flange (see **Figure 2**).



**Figure 2.** Loosening the outer arbor flange.

3. Insert the prongs of the flange spanner wrench into the holes on the outer arbor flange, then rotate the flange counterclockwise to unthread it from the arbor.
4. Remove the grinding wheel.
5. Use the wrenches to make sure the inner arbor flange is tight, then slide the replacement grinding wheel onto the arbor.
6. Make sure the protruding lip of the outer arbor flange is seated into the grinding wheel bore, then use the wrenches to fully tighten the flange and secure the grinding wheel.

<b>⚠ WARNING</b>	
	<b>EYE INJURY HAZARD!</b> <b>Wear protective equipment when using this tool.</b>

## Using Grinder

Always test the grinder on a scrap piece of material similar to the workpiece. Trial and error is the best way to determine the ideal setup.

### To use the grinder:

1. Make sure the workpiece is securely held in a vise or a similar device that will ensure the workpiece does not unexpectedly move during operation.
2. Attach the grinder to an air supply set at 90 PSI.
3. Hold the grinder securely, turn the grinder **ON** by depressing the trigger, then ease the grinding wheel against the workpiece with a light, but steady, pressure.

**Note:** *Vary the grinding wheel speed by the pressure used on the trigger.*

4. To turn the grinder **OFF**, release the trigger.

**Note:** *To avoid accidental start up, disconnect the grinder from the air supply when it is not in use, and replace the protective cap into the air inlet port.*

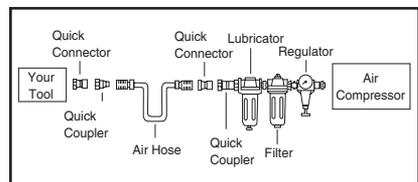
<b>⚠ WARNING</b>	
	<b>LUNG/EAR INJURY HAZARD!</b> <b>Wear protective equipment when using this tool.</b>
	<b>ACCIDENTAL START HAZARD!</b> <b>Disconnect before service or tool changes.</b>
	<b>AIR PRESSURE HAZARD!</b> <b>Never exceed max PSI rating for tool.</b>

## Daily Maintenance

The angle grinder **MUST** have 4-5 drops of pneumatic tool oil directly dropped into the air inlet port before and after each use. In addition, add oil after 3–4 hours of continuous use or install an in-line filter, lubricator, and regulator, as shown in **Figure 3**.

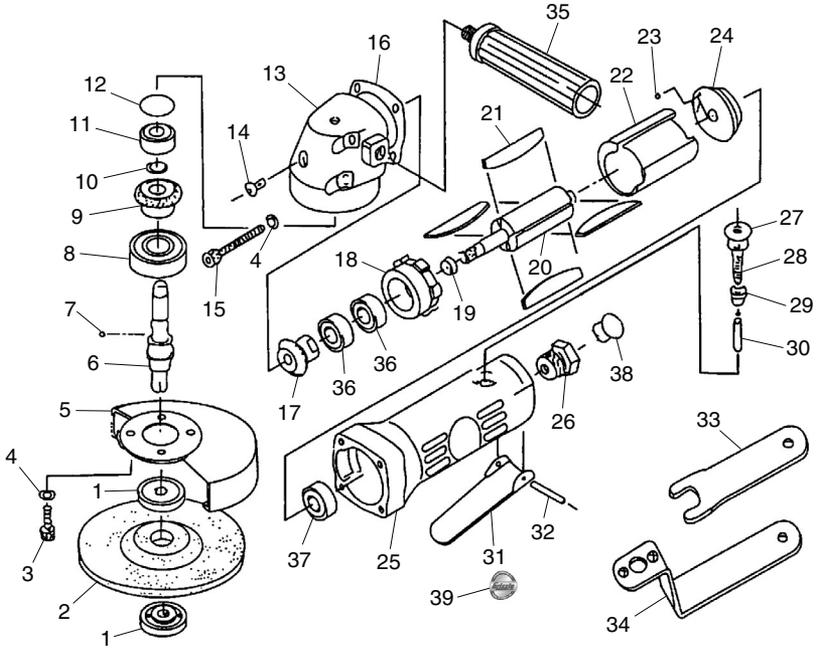
### These procedures should be done after each use:

- Wipe the grinding housing with a dry cloth, or blow off the dust and debris with compressed air.
- Check for damage to grinding wheels, hoses, housing, or other accessories.



**Figure 3.** Installed filter lubricator regulator.

# PARTS



REF PART #	DESCRIPTION
1	PT23083001 ARBOR FLANGE
2	PT23083002 GRINDING WHEEL 4 X 5/8" TYPE 27
3	PCAP50M CAP SCREW M5-.8 X 10
4	PLW01M LOCK WASHER 5MM
5	PT23083005 WHEEL GUARD
6	PT23083006 ARBOR 5/8"-11
7	PK122M KEY 10 x 10 x 18
8	P6202-2RS BALL BEARING 6202-2RS
9	PT23083009 BEVEL GEAR
10	PR45M INT RETAINING RING 10MM
11	P608-2RS BALL BEARING 608-2RS
12	PT23083012 SPACER
13	PT23083013 ANGLE HOUSING
14	PS68M PHLP HD SCR M6-1 X 10
15	PCAP108M CAP SCREW M5-.8 X 45
16	PT23083016 HOUSING GASKET
17	PT23083017 PINION GEAR
18	PT23083018 ROTOR CYLINDER FRONT CAP
19	PT23083019 BEARING SPACER
20	PT23083020 ROTOR

REF PART #	DESCRIPTION
21	PT23083021 ROTOR BLADE
22	PT23083022 ROTOR CYLINDER
23	PSTB007M STEEL BALL 2.5MM
24	PT23083024 ROTOR CYLINDER REAR CAP
25	PT23083025 ROTOR HOUSING W/GRIP
26	PT23083026 AIR INLET PORT 1/4" NPT
27	PT23083027 VALVE CAP
28	PT23083028 COMPRESSION SPRING
29	PT23083029 VALVE SEAL RUBBER
30	PT23083030 VALVE STEM
31	PT23083031 TRIGGER
32	PRP16M ROLL PIN 3 X 25
33	PT23083033 ARBOR WRENCH
34	PT23083034 FLANGE SPANNER WRENCH
35	PT23083035 HANDLE
36	P608-2RS BALL BEARING 608-2RS
37	P608-2RS BALL BEARING 608-2RS
38	PT23083038 AIR INLET PROTECTIVE CAP
39	PT23083039 GRIZZLY LOGO LABEL