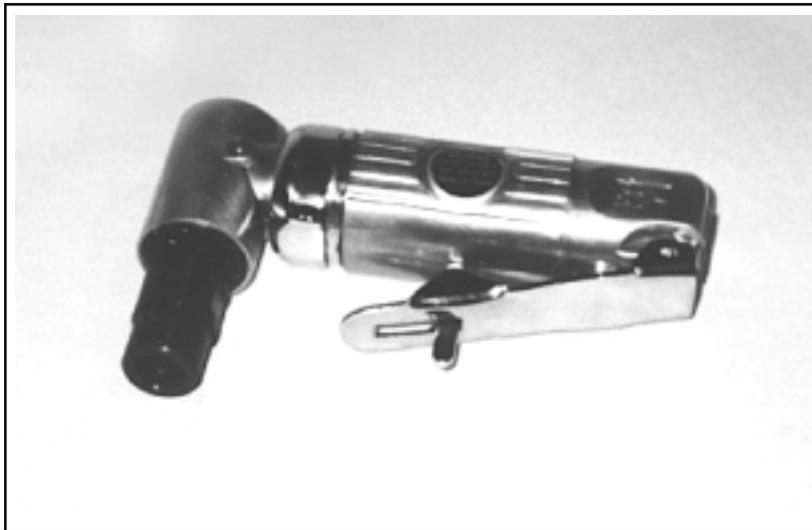


**CENTRAL PNEUMATIC.**

**AIR ANGLE DIE GRINDER  
FRONT EXHAUST**

**Model 52848**

**Operating and Maintenance Instructions**



Distributed exclusively by  
Harbor Freight Tools®.

3491 Mission Oaks Blvd., Camarillo, CA 93011

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**For technical questions please call 1-800-444-3353**

## SPECIFICATIONS

ITEM	DESCRIPTION
Max. Air Pressure	90 PSI
Air Speed	20,000 RPM
Fitting Size	1/4" NPT
Collet Sizes	1/4" 1/8"
Accessories	11 mm Collet Wrench (Qty: 1) 17 mm Collet Wrench (Qty: 1)

## SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, operating and maintenance procedures, parts lists and diagrams. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

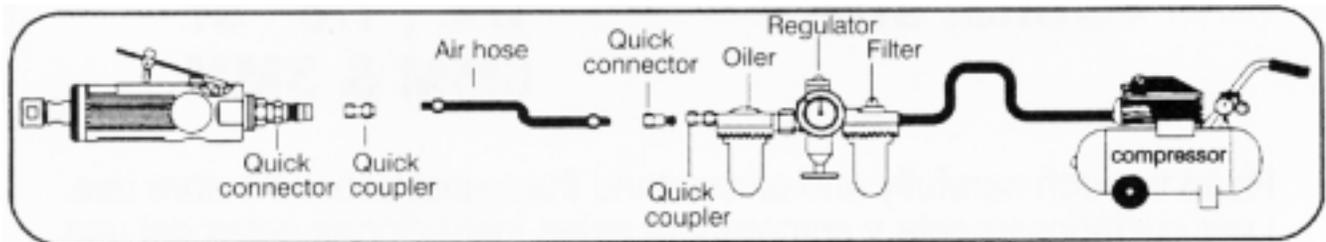
## SAFETY WARNINGS AND PRECAUTIONS

1. **KEEP WORK AREA CLEAN AND DRY.** Cluttered, damp or wet work areas invite injuries.
2. **KEEP CHILDREN AWAY FROM WORK AREA.** Do not allow children to handle the Air Angle Die Grinder.
3. **STORE IDLE EQUIPMENT.** When not in use, the Air Angle Die Grinder should be stored in a dry location to inhibit rust. Always lock up the Air Angle Die Grinder and keep out of reach of children.
4. **DO NOT USE THE AIR TOOL KIT IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this product.
5. **USE EYE AND HEARING PROTECTION.** Wear ANSI approved safety impact eye glasses and ANSI approved hearing protection when working with the Air Angle Die Grinder. ANSI approved safety impact eye glasses and hearing protection are available from Harbor Freight Tools.
6. **DRESS SAFELY.** Non-skid footwear or safety shoes should be used when working with this product. Do not wear loose clothing or jewelry as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts. If wearing a long sleeve shirt, roll the sleeves up above the elbows.
7. **DO NOT OVERREACH.** Keep proper footing and balance at all times to prevent tripping, falling, back injury, etcetera.

8. **STAY ALERT.** Watch what you are doing at all times. Use common sense. Do not use the Air Angle Die Grinder when you are tired or distracted from the job at hand.
9. **CHECK FOR DAMAGED PARTS.** Before using the Air Angle Die Grinder, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of the Air Angle Die Grinder. Replace or repair damaged or worn parts immediately.
10. **REPLACEMENT PARTS AND ACCESSORIES.** When servicing, use only identical replacement parts. Only use tools and accessories intended for use with this Air Angle Die Grinder. Approved tools and accessories are available from Harbor Freight Tools.
11. **MAINTAIN THESE PRODUCTS WITH CARE.** Keep this tool and accessories clean and dry for better and safer performance.
12. **MAINTENANCE:** For your safety, service and maintenance should be performed regularly by a qualified technician.
13. **USE THE RIGHT PRODUCTS FOR THE RIGHT JOB.** There are certain applications for which this Air Angle Die Grinder was designed. Do not use a small tool or accessory to do the work of a larger industrial tool or accessory. Do not use this Air Angle Die Grinder for a purpose for which it was not intended.

### **SPECIFIC PRODUCT WARNINGS AND PRECAUTIONS**

1. **USE CLEAN, DRY, REGULATED COMPRESSED AIR AT 90 PSI.** Do not exceed the recommended 90 PSI. Never use oxygen, carbon dioxide, combustible gases or any other bottled gas as a power source for this tool.
2. **DO NOT MODIFY THE SAFETY AIR SHUT-OFF SWITCH LOCATED ON THE THROTTLE LEVER (PART #2).** The Air Angle Die Grinder features a Shut-Off Switch which, when pressure is released from the Throttle Lever, will automatically shut down the unit. For your safety and the safety of others, do not modify the Shut-Off Switch in any way.
3. **WHEN CONNECTING TO THE AIR SUPPLY:**
  - A. If an automatic oiler is not used, add two drops of air tool oil into the air inlet of the Air Angle Die Grinder. **(See Figure A.)**
  - B. Turn on the compressor and set the regulator to the recommended 90 PSI for this tool.
4. **ALWAYS DISCONNECT TOOL FROM ITS AIR SUPPLY AND RELEASE ALL BUILT UP AIR PRESSURE BEFORE PERFORMING ANY SERVICES OR MAINTENANCE** such as cleaning or changing accessories on the Air Angle Die Grinder, leaving the work area, moving the Air Angle Die Grinder from one location to another, handing the Air Angle Die Grinder to another person, etcetera. **(See Figure A on page 4.)**
5. **WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain 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 and cement or 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. *(California Health & Safety Code § 25249.5, et seq.)*



**FIGURE A**

## UNPACKING

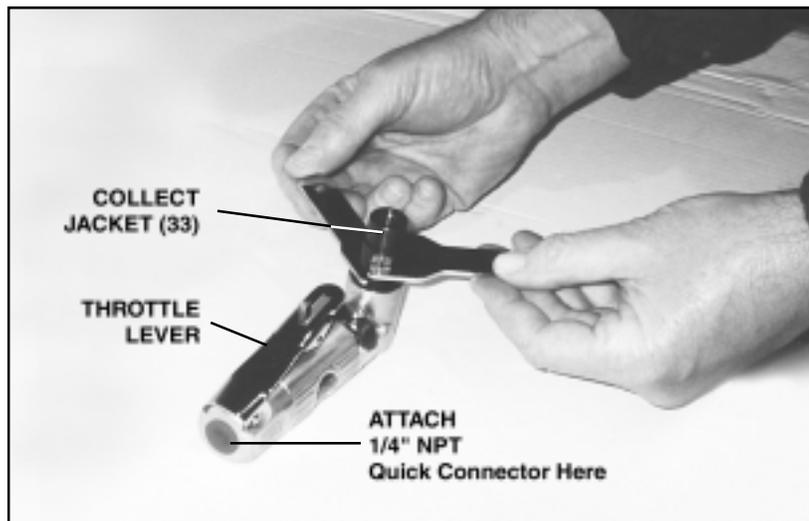
When unpacking, check to make sure all parts shown on the Parts List and Assembly Diagram are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

## OPERATING INSTRUCTIONS

**ALL PARTS BELOW REFER TO THE PARTS LISTED AND SHOWN IN THIS MANUAL.**

### To Connect The Air Angle Die Grinder To An Air Hose:

1. The Air Angle Die Grinder requires the attachment of a 1/4" NPT Quick Connector (available from Harbor Freight Tools). **(See Figure A and Figure B.)**
2. Wrap the male threads of the Quick Connector with about 3" of Teflon tape. Then, wrench tighten the Quick Connector into the Air Inlet of the Air Angle Die Grinder.
3. Next, connect the Quick Coupler of an air hose onto the Quick Coupler of the Air Angle Die Grinder. *The Air Die Grinder is now ready for use.*



**FIGURE B**

### To Insert/Change Collets In The Air Angle Die Grinder:

1. The Air Angle Die Grinder comes with two Collets: A 1/8" Collet and a 1/4" Collet (part #32). This allows the Air Angle Die Grinder to accept grinding wheels with either a 1/8" or 1/4" shank. **(See Figure B and Assembly Diagram.)**

2. To change Collets (part #32) you will need to use the two accessory Collet Wrenches.
3. With one Wrench hold the Work Spindle (part #30) in place. Use the other Wrench to turn the Collet Jacket (part #33) counterclockwise.
4. Remove the Collet Jacket (part #33) and insert the appropriate size Collet (part #32) into the Work Spindle (part #30).
5. With one Wrench, hold the Work Spindle (part #30) in place. Use the other Wrench to turn the Collet Jacket (part #33) clockwise to tighten and lock the Collet firmly in place.

**To Install A Grinding Wheel:**

1. With one Wrench hold the Work Spindle (part #30) in place. Use the other Wrench and turn the Collet Jacket (part #33) counterclockwise to loosen. **(See Figure B and Assembly Diagram.)**
2. Insert the shank of a grinding wheel in the appropriate size Collet (part #32). **(See above for installing/changing Collets.)**
3. With one Wrench, hold the Work Spindle (part #30) in place. Use the other Wrench to turn the Collet Jacket (part #33) clockwise to tighten and lock the grinding wheel firmly in place.

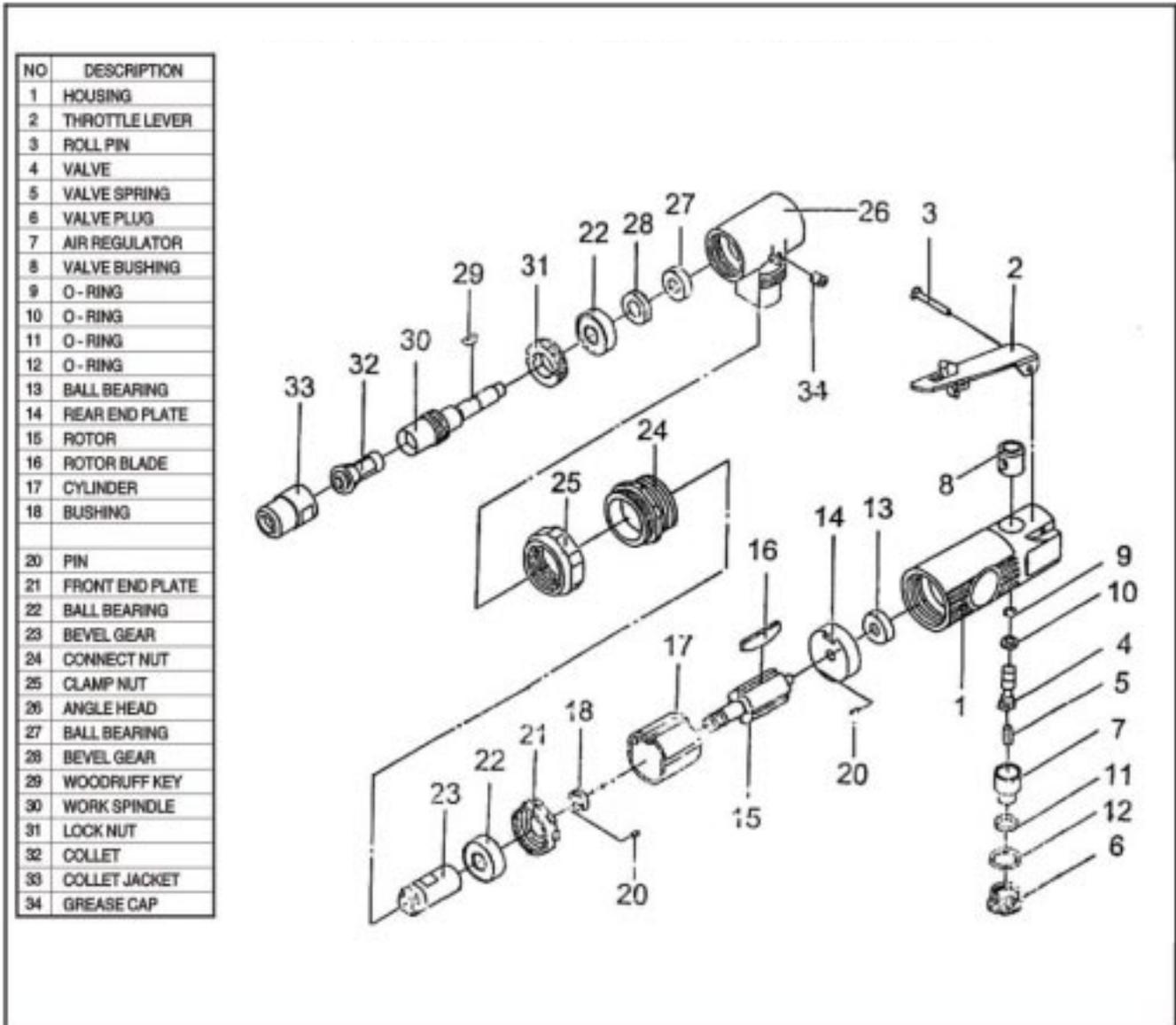
## **CLEANING AND MAINTENANCE**

1. Before each use, examine the general condition of the entire compressor system. Inspect guards, switches, power plug and cord assembly, extension cord, and air hoses for damage. Check for loose screws, misalignment, binding of moving parts, improper mounting, broken parts and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, turn off the air compressor immediately and have the problem corrected before further use. **Do not use a damaged tool.**
2. **Caution:** Always disconnect the Air Angle Die Grinder from its air supply source and release all built up air pressure before performing any cleaning, servicing, or maintenance.
3. To clean the outside of the Air Angle Die Grinder, wipe with a clean, damp cloth and dry. If necessary, use a mild detergent. Do not immerse the Air Angle Die Grinder in liquids.

## **PLEASE READ THE FOLLOWING CAREFULLY**

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

## PARTS LIST / ASSEMBLY DIAGRAM



**NOTE:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.