

CENTRAL PNEUMATIC®
Professional
AIR DIE GRINDER
with 3" Shaft

Model 93621

ASSEMBLY AND OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our Web site at: <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY,
READ AND UNDERSTAND ALL WARNINGS
AND INSTRUCTIONS BEFORE USE.**

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For technical questions or replacement parts, please call 1-800-444-3353.

Manual Revised 11h

PRODUCT SPECIFICATIONS

Item	Description
Collet Capacity	1/4"
Working Air Pressure	90 PSI Recommended
Air Consumption	3 CFM @ 90 PSI
Air Inlet Diameter	1/4" - 18 NPT
Maximum RPM	19,500 RPM
Activation Method	Paddle Style Trigger w/Spring Loaded Safety Lever
Overall Dimensions	9-1/2" L x 2-1/2" H x 1-1/2" D
Accessories	Collet Nut Wrenches (Qty. 2)

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List on page 9** 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.

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. 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.

GENERAL SAFETY RULES

IMPORTANT SAFETY INSTRUCTIONS



READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed in the following pages may result in electric shock, fire, and/or serious injury.

SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate pneumatic tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Pneumatic tools create sparks which may ignite flammables.
3. **Keep bystanders, children, and visitors away while operating a pneumatic tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as metal filings and sparks. Provide barriers or shields as needed.

PERSONAL SAFETY

1. **Stay alert. Watch what you are doing, and use common sense when operating a pneumatic tool. Do not use a pneumatic tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating pneumatic tools may result in serious personal injury.
2. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
3. **Avoid accidental starting. Be sure the Trigger (3) is off before connecting to the air supply.** Carrying pneumatic tools with your finger on the Trigger, or connecting pneumatic tools to the air supply with the Trigger on, invites accidents.
4. **Remove adjusting keys or wrenches before turning on the tool.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
6. **Use safety equipment. Always wear ANSI approved safety glasses underneath a full face shield, and hearing protection.**

TOOL USE AND CARE

1. **Use clamps or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand is unstable and may lead to loss of control. Only work on a workpiece that is properly secured.

2. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
3. **Do not use the power tool if the Trigger does not turn it on or off.** Any tool that cannot be controlled with the Trigger is dangerous and must be replaced.
4. **Disconnect the air hose from the tool before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
5. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
6. **Maintain tools with care.** Do not use a damaged tool. Tag damaged tools “Do not use” until repaired.
7. **Check for misalignment or binding of moving parts, breakage of parts, damaged air hose (not included), and any other condition that may affect the tool’s operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
8. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. **When servicing a tool, use only identical replacement parts. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.

SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Die Grinder.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. **To avoid accidental injury, always wear ANSI approved safety glasses, a full face shield, and hearing protection when operating the Die Grinder.**

3. **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.
4. **When connecting to the air supply:** Prior to each use, if an automatic oiler is *not* used, add two drops of air tool oil (not included) into the Air Inlet (20) fitting of the Die Grinder.
5. **Always disconnect the Die Grinder from its compressed air supply source, and squeeze the Trigger (3) to release all compressed air in the tool before performing any maintenance or services.**
6. **Industrial applications must follow OSHA requirements.**
7. **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.)*
8. **WARNING!** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SAVE THESE INSTRUCTIONS

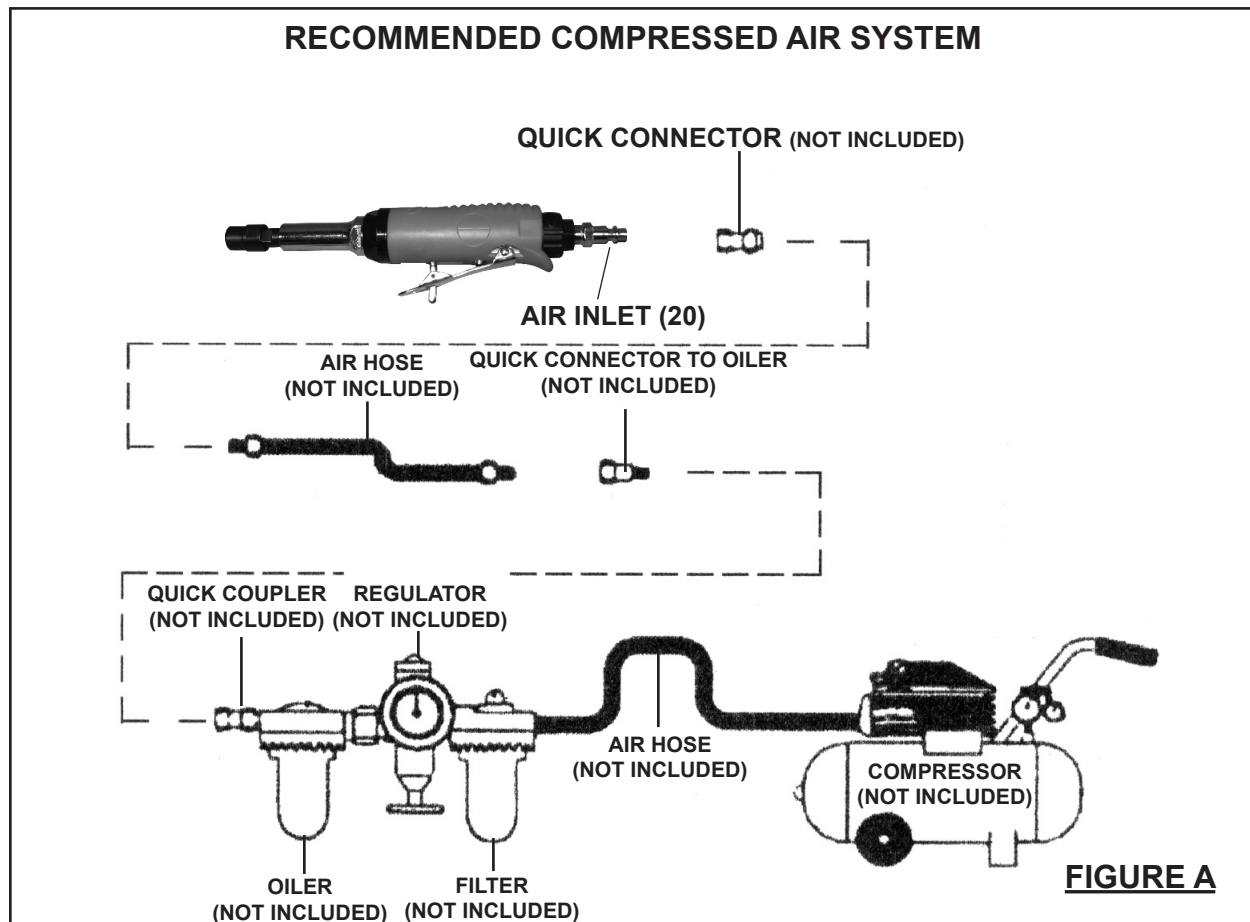
ASSEMBLY AND OPERATING INSTRUCTIONS
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NOTE: For additional references to the parts listed in the following pages, refer to the **Assembly Diagram on page 9.**

To Attach A Quick Connector:

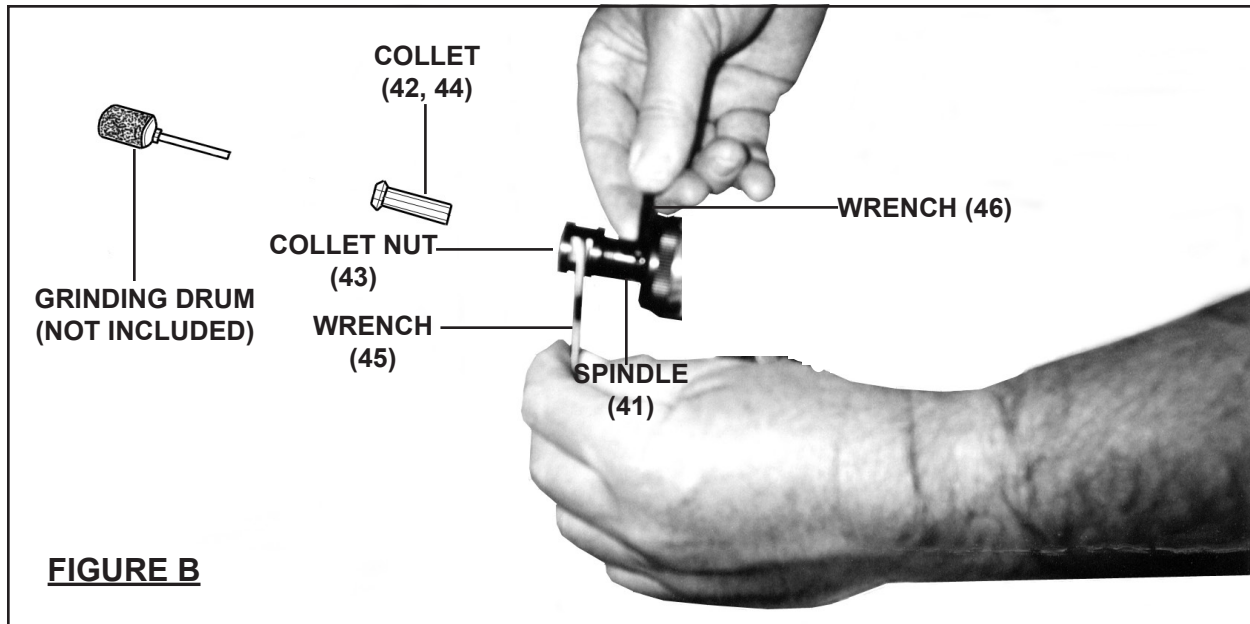
1. **WARNING!** Prior to performing any assembly and/or adjustment procedures, make sure the air supply hose (not included) is disconnected from the Die Grinder.

2. Prior to use, the Die Grinder requires the attachment of a *Quick Connector* (not included) into its Air Inlet (20). To do so, wrap approximately 3" of pipe thread sealer tape (not included) around the male threads of a Quick Connector. Then, firmly tighten the Quick Connector into the Air Inlet. **(See Figure A.)**

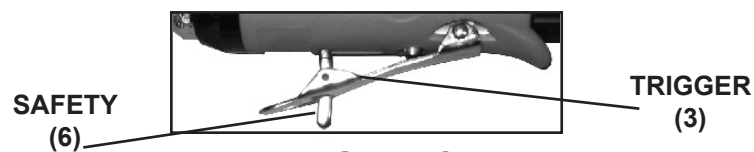


To Operate The Die Grinder:

1. **WARNING!** Always wear ANSI approved safety glasses, a full face shield, and hearing protection when operating the Die Grinder.
2. Use the two Wrenches (45,46) provided to loosen the Collet Nut (43). **(See Figure B, next page.)**
3. Insert the Collet (42,44) into the Spindle (41). **(See Figure B.)**
4. Insert the 1/4" diameter shank of a Grinding Drum (not included) fully into the Collet (42,44). Then, firmly re-tighten the Collet Nut (43) to lock both the Collet and Grinding Drum in place. **(See Figure B.)**




5. Connect the air supply hose to the Quick Connector (not included) on the Die Grinder. Turn on the air compressor, and set its regulator to the recommended 90 PSI for the Die Grinder. **(See Figure A.)**
6. In order to keep the air supply hose out of the way, hang it over your shoulder.
7. **IMPORTANT!** Grip the Die Grinder firmly with **both** hands.
8. Trip the Safety (6) with your finger. Then slowly apply hand pressure to the Trigger (3) until the desired speed is obtained. **NOTE:** The Die Grinder always turns the Grinding Drum *clockwise*. **(See Figure C.)**



9. With a firm grip on the Die Grinder, lightly apply the Grinding Drum to the workpiece, slowly and steadily moving the Grinding Drum to the right and left until you have achieved the desired appearance (finish) on the workpiece.
10. Once the work is completed, release hand pressure on the Trigger (3). The Safety (6) will automatically return to its locked position to prevent the Trigger from accidentally being activated. **(See Figure C.)**
11. Turn off the air compressor. Trip the Safety (6) with your finger, and slowly squeeze the Trigger (3) to release any remaining air pressure from the Die Grinder. Then, disconnect the air hose from the tool. **(See Figure A.)**

12. Remove the Grinding Drum from the Die Grinder. Then, store the tool in a clean, dry location out of reach of children.

INSPECTION, MAINTENANCE, AND CLEANING

1.  **WARNING!** Always make sure the Trigger (3) is in its “OFF” position, and disconnect the Die Grinder from its compressed air supply before performing any inspection, adjustments, maintenance, or cleaning.
2. **Before each use**, inspect the general condition of the Die Grinder. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged air hose, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
3. **Daily:** With a clean cloth, remove all dirt, oil, and grease from the Die Grinder. If necessary, you may use a mild detergent. Do not use solvents, as damage to the Die Grinder may occur. Do not immerse the Die Grinder in any liquids.

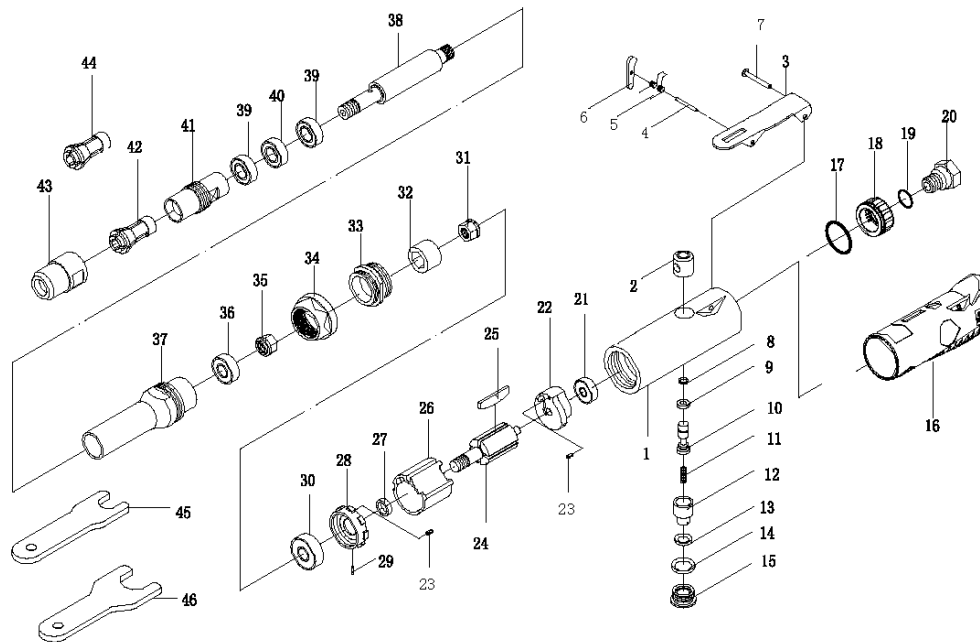
PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR 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

Part #	Description	Qty.	Part #	Description	Qty.
1	Housing	1	24	Rotor	1
2	Valve Bushing	1	25	Rotor Blade	4
3	Trigger	1	26	Cylinder	1
4	Pin	1	27	Bushing	1
5	Spring	1	28	Front Plate	1
6	Safety	1	29	Pin	1
7	Pin	1	30	Bearing	2
9	O-Ring	1	31	Valve Plug	1
9	O-Ring	1	32	Cap	1
10	Valve Stem	1	33	Retainer	1
11	Spring	1	34	Housing Cap	1
12	Adjustment Knob	1	35	Cap	1
13	O-Ring	1	36	Bearing	1
14	O-Ring	1	37	Spindle Housing	1
15	Valve Plug	1	38	Work Spring	1
16	Sleeve	1	39	Bushing	2
17	O-Ring	1	40	Bushing	1
18	Muffle Cover	1	41	Spindle	1
19	O-Ring	1	42	Coilet	1
20	Air Inlet	1	43	CoiletNut	1
21	Bearing	1	44	Coilet	1
22	End Plate	1	45	Wrench	1
23	Pin	2	46	Wrench	1

ASSEMBLY DIAGRAM



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

90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.