CENTRALPNEUMATIC®

3” AIR CUT-OFF TOOL WITH 5” EXTENSION

Model 67996

SET UP AND OPERATING INSTRUCTIONS

Visit our website at: http://www.harborfreight.com

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

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

SAVE THIS MANUAL

Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

IMPORTANT SAFETY INFORMATION

In this manual, on the labeling, and all other information provided with this product:

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠DANGER **DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.**

⚠WARNING **WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.**

⚠CAUTION **CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.**

NOTICE **NOTICE is used to address practices not related to personal injury.**

CAUTION **CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.**

General Air Tool Safety Warnings

WARNING Read all safety warnings and instructions. *Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.*
Save all warnings and instructions for future reference.

1. **Work area safety**
   a. **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
   b. **Do not operate air tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Air tools create sparks which may ignite the dust or fumes.*
   c. **Keep children and bystanders away while operating an air tool.** *Distractions can cause you to lose control.*
2. **Personal safety**
   a. **Stay alert, watch what you are doing and use common sense when operating an air tool. Do not use an air tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating air tools may result in serious personal injury.*
   b. **Use safety equipment. Always wear eye protection.** *Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used*

for appropriate conditions will reduce personal injuries.

c. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** *Carrying air tools with your finger on the switch or energizing air tools that have the switch on invites accidents.*

d. **Remove any adjusting key or wrench before turning the air tool on.** *A wrench or a key left attached to a rotating part of the air tool may result in personal injury.*

e. **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the air tool in unexpected situations.*

f. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*

g. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of these devices can reduce dust-related hazards.*

h. **Only use safety equipment that has been approved by an appropriate standards agency.** *Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.*

3. **Air tool use and care**

a. **Do not force the air tool. Use the correct air tool for your application.** *The correct air tool will do the job better and safer at the rate for which it was designed.*

b. **Do not use the air tool if the switch does not turn it on and off.** *Any air tool that cannot be controlled with the switch is dangerous and must be repaired.*

c. **Store idle air tools out of the reach of children and do not allow persons unfamiliar with the air tool or these instructions to operate the air tool.** *Air tools are dangerous in the hands of untrained users.*

d. **Maintain air tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the air tool's operation. If damaged, have the air tool repaired before use.** *Many accidents are caused by poorly maintained air tools.*

e. **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*

f. **Use the air tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the air tool for operations different from those intended could result in a hazardous situation.*

4. **Service**

a. **Have your air tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the air tool is maintained.*

Safety Warnings for Abrasive Cutting-Off Operations

1. **This air tool is intended to function as a cut-off tool. Read all safety warnings, instructions, illustrations**

and specifications provided with this air tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

2. **Operations such as grinding, sanding, wire brushing or polishing are not recommended to be performed with this air tool.** Operations for which the air tool was not designed may create a hazard and cause personal injury.

3. **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your air tool, it does not assure safe operation.

4. **The rated speed of the accessory must be at least equal to the maximum speed marked on the air tool.** Accessories running faster than their RATED SPEED can break and fly apart. Use only 3” Cutting Discs rated at 18,000 RPM and greater.

5. **The outside diameter and the thickness of your accessory must be within the capacity rating of your air tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.

6. **The arbor size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the air tool.** Accessories with arbor holes that do not match the mounting hardware of the air tool will run out of balance, vibrate excessively and may cause loss of control.

7. **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If air tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the air tool at maximum no-load speed for one minute.** Damaged accessories will normally break apart during this test time.

8. **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or work piece fragments. The eye protection must be capable of stopping flying debris generated by various operations.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering out particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

9. **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of work piece or of a broken accessory may fly away and cause injury beyond immediate area of operation.

10. Risk of Electric Shock. This tool is not provided with an insulated gripping surface.

11. **Never lay the air tool down until the accessory has come to a complete stop.** *The spinning accessory may grab the surface and pull the air tool out of your control.*

12. **Do not run the air tool while carrying it at your side.** *Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.*

13. **Regularly clean the air tool's air vents.** *The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.*

14. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

15. Avoid unintentional starting. Prepare to begin work before turning on the tool.

16. Do not depress the spindle lock when starting or during operation.

17. Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control and personal injury.

18. This product is not a toy. Keep it out of reach of children.

19. 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 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.*)

20. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled air tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of air tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

1. **Maintain a firm grip on the air tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for**

maximum control over kickback or torque reaction during start-up. *The operator can control torque reactions or kickback forces, if proper precautions are taken.*

2. **Never place your hand near the rotating accessory.** *Accessory may kickback over your hand.*

3. **Do not position your body in the area where air tool will move if kickback occurs.** *Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.*

4. **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** *Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.*

5. **Do not attach a saw chain woodcarving blade or toothed saw blade.** *Such blades create frequent kickback and loss of control.*

Safety Warnings Specific for Grinding and Abrasive Cutting-off Operations

1. **Use only wheel types that are recommended for your air tool and the specific guard designed for the selected wheel.** *Wheels for which the air tool was not designed cannot be adequately guarded and are unsafe.*

2. **The guard must be securely attached to the air tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.** *The guard helps to protect operator from broken wheel fragments and accidental contact with wheel.*

3. **Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel.** *Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.*

4. **Always use undamaged wheel flanges that are of correct size and shape for your selected wheel.** *Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. Flanges for cut-off wheels may be different from grinding wheel flanges.*

5. **Do not use worn down wheels from larger air tools.** *Wheel intended for larger air tool is not suitable for the higher speed of a smaller tool and may burst.*

6. **Dress appropriately.** *Wear leather leggings and fire resistant footwear during use. Do not wear pants with cuffs, shirts with open pockets, or any clothing that can catch and hold molten metal or sparks.*

Safety Warnings Specific for Abrasive Cutting-off Operations

1. **Do not "jam" the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** *Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.*

2. **Do not position your body in line with and behind the rotating wheel.** *When the wheel, at the point of operation, is moving away from your body, the possible kickback may propel the spinning wheel and the air tool directly at you.*

3. **When wheel is binding or when interrupting a cut for any reason, switch off the air tool and hold the air tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.** *Investigate and take corrective action to eliminate the cause of wheel binding.*

4. **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully reenter the cut.** *The wheel may bind, walk up or kickback if the air tool is restarted in the workpiece.*

5. **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** *Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.*

6. **Use extra caution when making a "pocket cut" into existing walls or other blind areas.** *The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.*

Vibration Safety

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.

2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.

3. Wear suitable gloves to reduce the vibration effects on the user.

4. Use tools with the lowest vibration when there is a choice between different processes.

5. Include vibration-free periods each day of work.

6. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.

7. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

SAVE THESE INSTRUCTIONS.

SPECIFICATIONS

Max. Air Pressure	90 PSI
Air Consumption	4 CFM @ 90 PSI
Air Inlet	1/4” - 18 NPT (Female)
Max. Rated Speed	18,000 RPM
Arbor Size	3/8”
Cutting Disc Size	3”
Accessories	Hex Key Wrench Spanner

UNPACKING

When unpacking, make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at 1-800-444-3353 as soon as possible.

INITIAL TOOL SET UP

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Unpacking

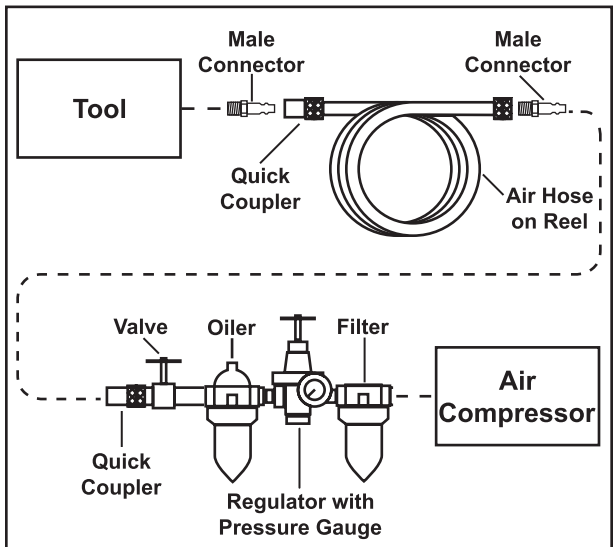
When unpacking, make sure the item is intact and undamaged. If parts are missing or broken, call Harbor Freight Tools at the number shown throughout the manual as soon as possible.

- This air tool may be shipped with a protective plug covering the air inlet. Remove this plug before set up.

Air Supply

WARNING **TO PREVENT EXPLOSION:**

Use only clean, dry, regulated, compressed air to power this tool. Do not use oxygen, carbon dioxide, combustible gases, or any other bottled gas as a power source for this tool.



Recommended Air Line Components

1. Incorporate an in-line oiler, shut-off valve, regulator with pressure gauge, and filter for best service, as shown in the diagram above. **An in-line shutoff valve is an important safety device because it controls air supply even if the air hose is ruptured.**

Note: If an automatic oiler system is not used, add a few drops of Pneumatic Tool Oil to the airline connection before operation. Add a few more drops after each hour of continual use.

2. Attach an air hose to the compressor’s air outlet. Connect the air hose to the air inlet of the tool. A 1/4”-18 NPT Male Quick Connector (not included) is required. Then connect the Quick

Coupler of an hose (not included) onto the Quick Connector.

⚠**WARNING! TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Do not install a female quick coupler on the tool.** Such a coupler contains an air valve that will allow the air tool to retain pressure and operate accidentally after the air supply is disconnected.

Note: Air flow, and therefore tool performance, can be hindered by undersized air supply components.

3. The air hose must be long enough to reach work area with enough extra length to allow free movement while working.

4. Make sure tool's throttle or switch is in the off position; refer to Operation section for description of controls.

5. Close the in-line safety valve between the compressor and the tool.

6. Turn on air compressor according to manufacturer's directions and allow it to build up pressure until it cycles off.

7. Adjust air compressor's output regulator so that air output is enough to properly power the tool, but the output will not exceed the tool's maximum air pressure at any time. Adjust the pressure gradually, while checking the air output gauge to set the right pressure range.

8. Inspect air connections for leaks. Repair any leaks found.

9. If tool will not be used at this time, turn off and detach air supply, safely discharge any residual air pressure, and release throttle to prevent accidental operation.

Note: Residual air pressure should not be present after the tool is disconnected from the air supply. However, it is a good safety measure to attempt to discharge the tool in a safe fashion after disconnecting to ensure that the tool is disconnected and unpowered.

OPERATING INSTRUCTIONS

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

⚠WARNING TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Turn the Power Switch of the tool off and unplug the tool from its electrical outlet before installing accessories.

Installing the 3" Cutting Wheel

1. The Cutting Wheel MUST be:
   - rated to at least 18,000 RPM.
   - no larger than 3" in diameter with a 3/8" arbor hole.
   - dry and clean.
   - proven undamaged by inspection.

⚠WARNING TO PREVENT SERIOUS INJURY: Do not operate this tool without the Wheel Guard properly installed.

2. Use Spanner (44) to hold Spindle (35) in place while, at the same time, loosening the Hex Bolt (41) and Flange (40) with Hex Key Wrench (45). See Figure 1, below.
3. Insert 3” Cutting Wheel onto Spindle, using Spanner to hold Spindle in place.
4. Insert the Hex Bolt through the Washer (40) and the Cutting Wheel, and back into the Spindle.
5. Use the Hex Key Wrench (45) to tighten the Hex Bolt on the Spindle until the Cutting Wheel is secure.

Work Piece and Work Area Set Up

1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent injury and distraction.
2. Route the air hose along a safe route to reach the work area without creating a tripping hazard or exposing the air hose to possible damage. The air hose must be long enough to reach the work area with enough extra length to allow free movement while working.
3. Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.
4. There must not be hazardous objects (such as utility lines or foreign objects) nearby that will present a hazard while working.

General Operating Instructions

1. If an automatic oiler is not used, add a few drops of Pneumatic Tool Oil to airline connection before use. Add a few drops more after each hour of continual use.
2. Always check the Cutting Wheel (39) for possible wear. Do not use a worn, cracked, or defective cutting wheel.
3. Position the Cut-Off Tool so that the attached Wheel Guard (38) is in position between you and the workpiece to protect you from flying debris.
4. The Wheel Guard must always be attached to the Cut-Off Tool

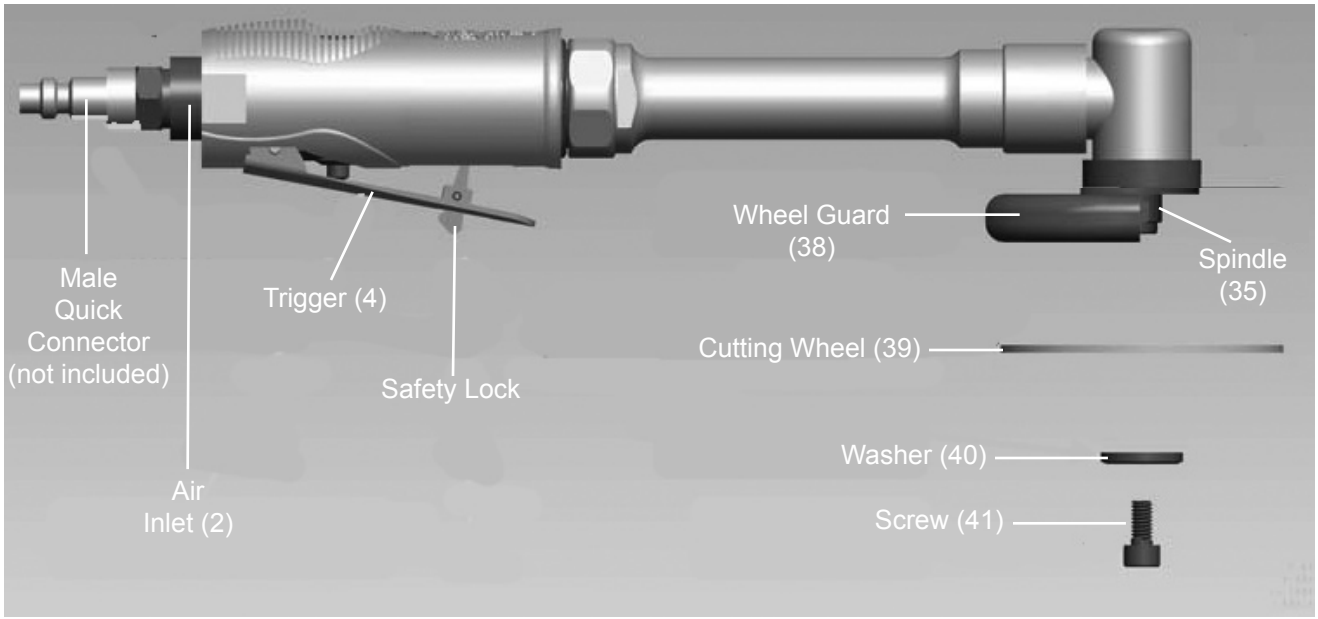


Figure 1

5. Set the compressor to 90 PSI. **Do not exceed 90 PSI.**

6. Connect the Air Line to the Tool as explained in the Air Supply section.

7. Mark area on workpiece you wish to cut.

8. Grip Housing (3) and press down on Trigger (4), pressing Lever's safety lock forward. **WARNING! Use both hands to grip the Cut-Off Tool.**

9. Allow Cut-Off Tool to run for a few seconds before approaching workpiece.

10. **NOTE:** The Cut-Off Tool's speed is variable. Pressing down on Trigger will increase Tool's speed. Easing back on Trigger will decrease Tool's speed. Use only enough speed as needed to cut the workpiece.

11. Carefully press the edge of the Cutting Wheel onto the surface of the workpiece.

12. **WARNING!** Do not force, or apply undo pressure, onto Tool. Applying too much force will stall the Tool.

13. If tool requires more force to accomplish the task, verify that tool receives sufficient, unobstructed airflow (CFM) and increase air pressure (PSI). **CAUTION! TO PREVENT TOOL AND ACCESSORY FAILURE, RESULTING IN INJURY: Do not exceed the tool's maximum air pressure rating.** If the tool still does not have sufficient force at maximum pressure and sufficient airflow, then a larger tool may be required.

14. To prevent accidents, detach air supply, safely discharge any residual air pressure in the tool, and release the throttle after use. Clean external surfaces of the tool with clean, dry cloth. Then store the tool indoors out of children's reach.

USER-MAINTENANCE INSTRUCTIONS

Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠WARNING **TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Turn off tool, detach air supply, safely discharge any residual air pressure in tool, and release the throttle before performing any inspection, maintenance, or cleaning procedures.**

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE: Do not use damaged equipment. If abnormal noise, vibration, or leaking air occurs, have problem corrected before further use.

TO PREVENT EXPLOSION: Lubricate the tool only with specified lubricants. Lubricate the air inlet using only pneumatic tool oil. Lubricate the internal mechanism using only white lithium grease. Other lubricants may damage the mechanism and may be highly flammable, causing an explosion.

Cleaning, Maintenance, and Lubrication

Note: These procedures are in addition to the regular checks and maintenance explained as part of the regular operation of the air-operated tool.

1. **Daily - Air Supply Maintenance:** Every day, perform maintenance on the air supply according to component manufacturers' instructions. The lubricator's oil level needs to be maintained and the moisture filter must be regularly drained. Performing routine maintenance on the air supply will allow the tool to operate more safely and will also reduce wear on the tool.
2. **Quarterly (every 3 months) - Tool Disassembly, Cleaning, and Inspection:** Have internal mechanism cleaned, inspected, and lubricated by qualified technician. If vanes need replacement, all vanes should be replaced as a set.
3. After each use, wipe down Cut-Off Tool with clean cloth, remove all dirt, oil and grease from Cut-Off Tool. If necessary, use a mild detergent. Do not use solvents, as damage to Tool may occur. Do not immerse Tool in any liquids.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Decreased output.	1. Not enough air pressure and/ or air flow.	1. Check for loose connections and make sure that air supply is providing enough air flow (CFM) at required pressure (PSI) to the tool's air inlet. **Do not exceed 90 PSI maximum air pressure.**
	2. Obstructed trigger.	2. **Clean around trigger to ensure free movement.**
	3. Incorrect lubrication or not enough lubrication.	3. Lubricate using air tool oil and grease according to directions.
	4. Blocked air inlet screen (if equipped).	4. Clean air inlet screen of buildup.
	5. Air leaking from loose housing.	5. Make sure housing is properly assembled and tight.
	6. Mechanism contaminated.	6. Have qualified technician clean and lubricate mechanism. Install in-line filter in air supply as stated in Initial Set Up: Air Supply.
	7. Vane wear or damage.	7. Replace all vanes.
Housing heats during use.	1. Incorrect lubrication or not enough lubrication.	1. Lubricate using air tool oil and grease according to directions.
	2. Worn parts.	2. Have qualified technician inspect internal mechanism and replace parts as needed.
Severe air leakage. (Slight air leakage is normal, especially on older tools.)	1. Cross-threaded housing components.	1. Check for incorrect alignment and uneven gaps. If cross-threaded, disassemble and replace damaged parts before use.
	2. Loose housing.	2. Tighten housing assembly. If housing cannot be tightened properly, internal parts may be misaligned.
	3. Damaged valve or housing.	3. Replace damaged components.
	4. Dirty, worn or damaged valve.	4. Clean or replace valve assembly.

Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect air supply before service.

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.
1	Inlet	1
2	End Cap	1
3	Housing	1
4	Trigger	1
5	Spring Pin	1
6	Bushing	1
7	O-Ring	1
8	Valve	1
9	O-Ring	1
10	Spring	1
11	Speed Control	1
12	O-Ring	1
13	O-Ring	1
14	Valve-Screw	1
15	Ball Bearing	2
16	End Plate	1
17	Ball	3
18	Rotor	1
19	Vane	5
20	Cylinder	1
21	Front End Plate	1
22	Bushing	1
23	Ball Bearing	5

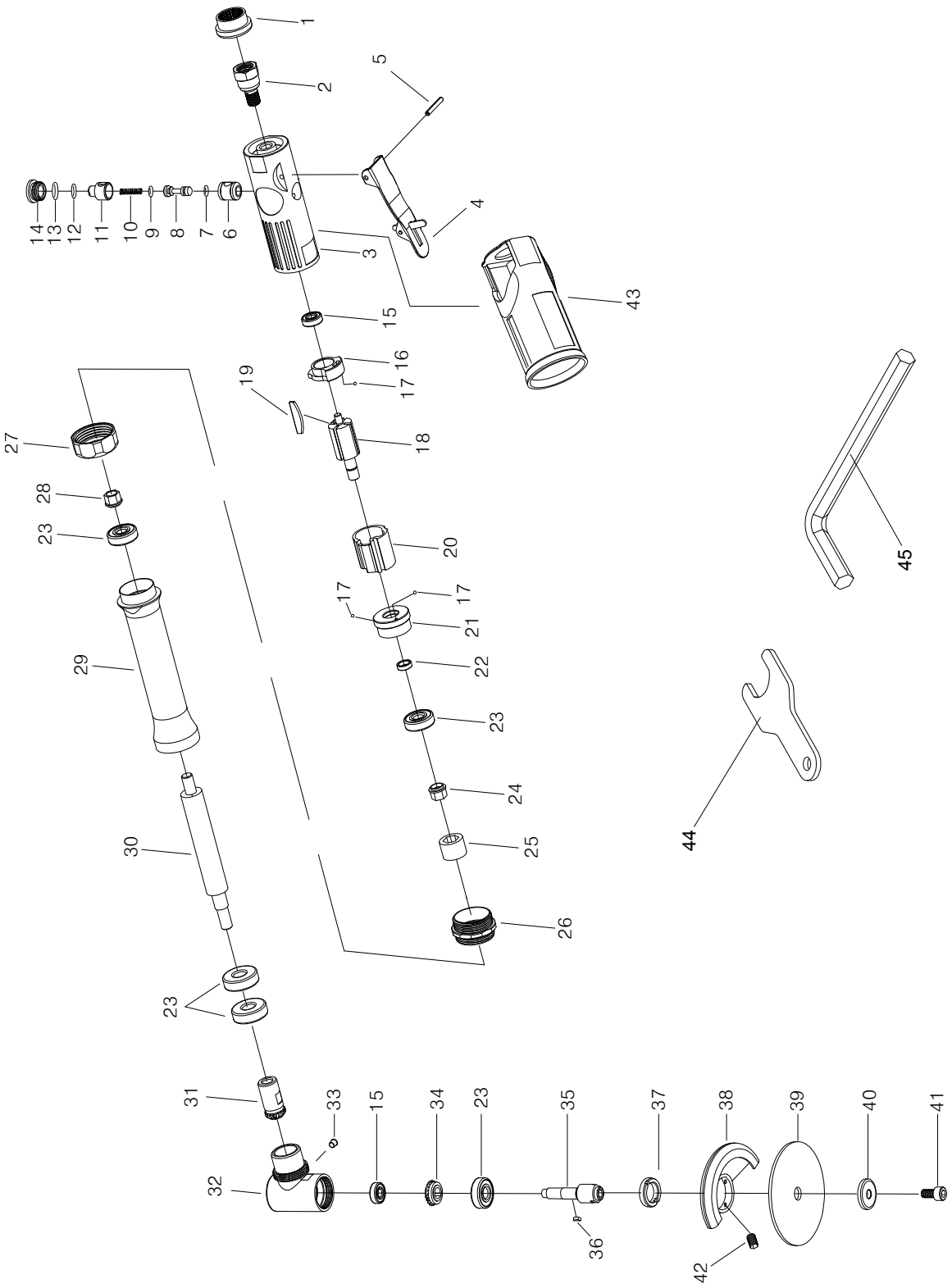
Part	Description	Qty.
24	Cap	1
25	Valve Plug	1
26	Nipple	1
27	Nut	1
28	Cap	1
29	Spindle Housing	1
30	Work Spindle	1
31	Bevel Gear	1
32	Angle Head	1
33	Grease Cap	1
34	Bevel Gear	1
35	Chuck Spindle	1
36	Key	1
37	Nipple	1
38	Wheel Guard	1
39	Cutting Wheel	1
40	Washer	1
41	Screw	1
42	Screw	3
43	Sleeve	1
44	Wrench	1
45	Hex Wrench	1

Record Product's Serial Number Here:_____

Note: If product has no serial number, record month and year of purchase instead.

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

ASSEMBLY DIAGRAM



LIMITED 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.

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