Hand Hole Seat Grinder

Air Driven

Tube & Pipe Cleaners ○ Tube Testers ○ Tube Plugs ○ Tube Removal ○ Tube Installation

Operating and Maintenance Instructions

www.elliott-tool.com

ELLIOTT TOOL TECHNOLOGIES

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INTRODUCTION

Thank you for purchasing this Elliott product. More than 100 years of experience have been employed in the design and manufacture of this control, representing the highest standard of quality, value and durability. Elliott tools have proven themselves in thousands of hours of trouble-free field operation.

If this is your first Elliott purchase, welcome to our company; our products are our ambassadors. If this is a repeat purchase, you can rest assured that the same value you have received in the past will continue with all of your purchases, now and in the future.

If you have any questions regarding this product, manual or operating instructions, please call Elliott at +1 800 332 0447 toll free (USA only) or +1 937 253 6133, or fax us at +1 937 253 9189 for immediate service.

SAFETY GUIDELINES

Read and save all instructions. Before use, be sure everyone using this machine reads and understands this manual, as well as any labels packaged with or attached to the machine.

⚠ WARNING

To reduce the risk of injury, always unplug your machine before performing any maintenance. Never disassemble the machine or try to do any wiring on the electrical system. Contact Elliott for all repairs.

- Know Your Elliott Tool. Read this manual carefully to learn your tool's application and limitations as well as the potential hazards specific to this tool.
- Avoid Dangerous Environments. Do not use power tools in damp or wet locations
- Keep Work Area Clean and Well Lit. Cluttered, dark work areas invite accidents.
- Dress Properly. Do not wear loose clothing or jewelry. Wear a protective hair covering to contain long hair. It is recommended that the operator wear safety glasses with side shields or a full face shield eye protection. Gloves and water repellant, nonskid footwear are also recommended. Keep hands and gloves away from moving parts.
- Use Safety Equipment. Everyone in the work area should wear safety goggles or glasses with side shields complying with current safety standards. Wear hearing protection during extended use, respirator for a confined space and a dust mask for dusty operations. Hard hats, face shields, safety shoes, respirators, etc. should be used when specified or necessary. Keep a fire extinguisher nearby.
- Keep Bystanders Away. Bystanders should be kept at a safe distance from the work area to avoid distracting the operator and contacting the blade.
- Use The Right Tools. Do not force a tool or attachment to do a job or operate at a speed it was not designed for.
- Use Proper Accessories. Use Elliott accessories only. Be sure accessories are properly installed and maintained.
- Check for Damaged Parts. Inspect guards and other parts before use. Check for misalignment, binding of moving parts, improper mounting, broken parts or any other conditions that may affect operation. If abnormal noise or vibration occurs, turn the tool off immediately and have the problem corrected before further use. Do not use a damaged tool. Tag damaged tools "Do Not Use" until repaired. A damaged part should be properly repaired or replaced by an Elliott service facility. For all repairs, insist on only identical replacement parts.
- Do Not Overreach. Maintain Control. Keep proper footing and balance at all times.
- Stay Alert. Watch what you are doing, and use common sense. DO NOT use a tool when you are tired, distracted or under the influence of drugs, alcohol or any medication causing decreased control.
- Maintain Labels and Nameplates. These carry important information and will assist you in ordering spare and replacement parts. If unreadable or missing, contact an Elliott service facility for a replacement.

GENERAL INFORMATION

The Elliott Handhole Seat Grinder can be adapted to any size and shape handhole opening with few adjustments.

Mounted on the stud of a handhole plate the grinder will grind the adjacent handhole if the distance to the farthest side does not exceed 11-1/2”. For handholes with spacing greater than 11-1/2”, an extension link can be furnished. This is illustrated by Fig 5.

The air-driven unit uses 30 cfm of air at 80-100 psi.

Air unit may be used as a hand tool as shown by Fig 8. and the grinding wheel can be replaced with a cup-type wire brush and used to remove the old gasket from the seat.

The complete grinder with accessories is packed in a case with a shoulder strap for carrying and the case is convenient for storage of the grinder. The grinder is shipped assembled with a coarse grinding wheel and guide roller for the specified width of gasket seat to be ground. Accessories include a cup-type wire brush, inspection mirror, fine grinding wheel and wrenches. Air hose and sight-feed lubricator are included.

OPERATION INSTRUCTIONS

The handhole seat grinder is assembled with the grinding wheel ahead of the spindle collar for use in grinding heavy headers. For thin headers it will be necessary to assemble the spindle collar in front of the grinding wheel. Before setting up the grinder, measure the distance between the top of the header and the top of the yoke. This should be approximately 2”. If it is less, use washers between the leveling plate and the top of the yoke. A good job of leveling the grinder reduces the grinding time and results in a smoother seat.

1. Remove the leveling plate from the grinder assembly by unthreading the ball nut.
2. In a handhole within reach of the grinder, assemble a handhole plate and yoke, then thread the leveling plate on the stud (plate has a 1” US thread) and set up tight. For other thread sizes of studs an adapter is used between the stud and leveling plate.
3. Insert the grinding wheel in the handhole to be refaced. Turn the adjusting lock nut clockwise to the limit of travel.
4. Assemble the grinder onto the leveling plate, adjust the grinder to the best working position and tighten the ball nut by hand.
5. While turning the drive nut with he fingers, turn the adjusting lock nut counter-clockwise until the grinding wheel contacts the gasket face lightly. See Fig 3 for this operation.
6. Turn the adjusting screws, with the T-handle wrench, while twirling the drive nut, until the wheel contact is uniform around the entire seat. See Fig 3.
7. Turn the adjusting lock nut clockwise to remove the grinding wheel from contact with the gasket seat.
8. Attach the motor drive unit by threading the motor onto the housing lock nut.
9. Connect the air hose to an air supply line with a tee, mount the lubrication the branch of the tee. Fill the lubricator with a good grade of compressor oil and adjust to feed to 15 drops per minute.
10. Turn on the power, rotate the grinder clockwise with the guide roller in contact with the side of handhole.

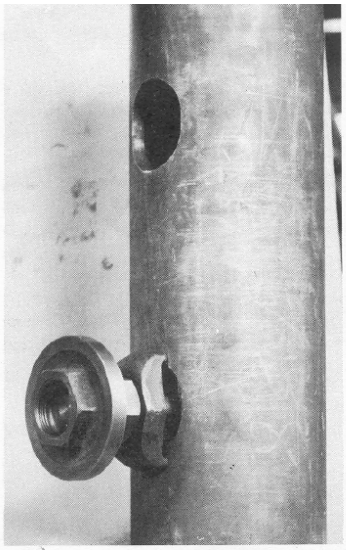

Fig. 2—Leveling plate screwed on handhole plate stud.

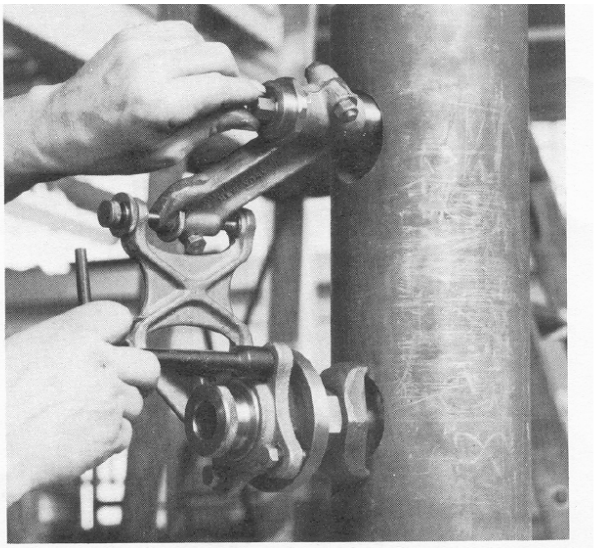

Fig. 3—Leveling.

OPERATION INSTRUCTIONS

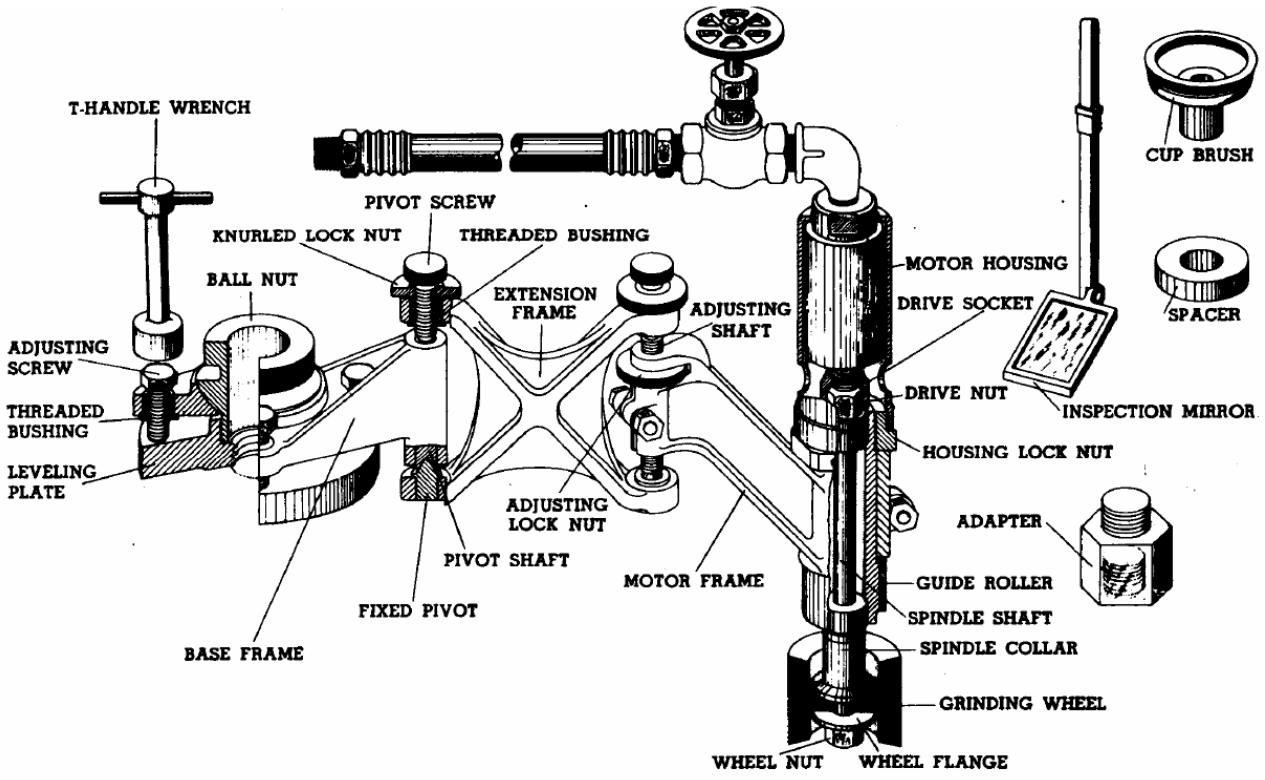

Fig. 4—Assembly of air-driven handhole seat grinder, showing names of parts.

11. Turn the adjusting lock nut counter-clockwise, bringing the grinding wheel in contact with the seat.
12. Give light feeds. Keep the grinder moving steadily. Do not feed so heavily that the motor slows down. A shower of sparks from the wheel is not necessary.
13. Before stopping to inspect the seat, turn the adjusting lock nut clockwise until the grinding wheel is clear of the seat, then shut off the power.
14. Remove the motor frame only to inspect the progress of the work. Loosen the pivot screw that holds the motor frame to the extension frame. Do not disturb the leveling adjustment until certain that the seat is satisfactory.

The face of the grinding wheel is beveled to reduce the drag and to permit faster grinding. Dress the wheel if necessary. When changing the grinding wheel always use heavy paper washers under the wheel flanges that clamp the wheel to the spindle.

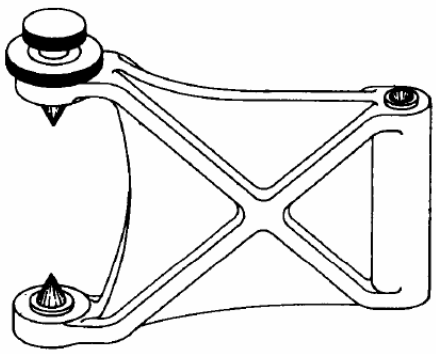

Fig. 5—The extension link is inserted between the extension frame and base frame by loosening the pivot screw in the extension frame and removing from the base frame.

GUIDE AND WHEEL SELECTION

For different widths of gasket seat it is necessary to have the correct combination of guide roller and diameter of grinding wheel. Measure the width of the handhole plate as shown in Fig. 6 and select the correct guide roller and diameter of wheel according to dimension “X” in the tabulation.

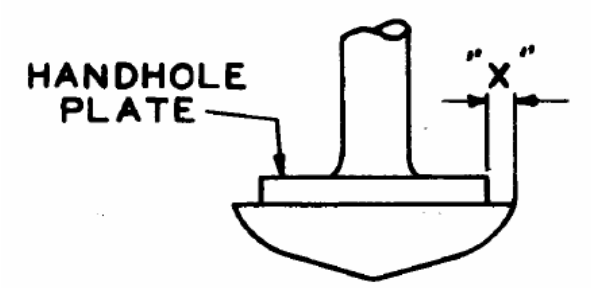

Fig. 6

Seat Width		Guide Roller		Grinding Wheels		Cup Brush	Wheel & Brush Diameter	
inch	mm	No.	Part Number	Coarse	Fine		Inch	mm
0.187	4.75	10	702628-3	7026-21	7026-22	702630	2.00	50.80
0.218	5.54	11	702628-2					
0.250	6.35	11X	702628					
0.281	7.14	12	702628-1					
0.312	7.92	10	702628-3	7026-23	7026-24	702830-1	2.25	57.15
0.343	8.71	11	702628-2					
0.375	9.53	11X	702628					
0.406	10.31	12	702628-1					
0.437	11.10	10	702628-3	7026-25	7026-26	702830-2	2.50	63.50
0.468	11.89	11	702628-2					
0.500	12.70	11X	702628					
0.531	13.49	12	702628-1					
0.562	14.27	10	702628-3	7026-27	7026-28	702830-3	2.75	69.85
0.593	15.06	11	702628-2					
0.625	15.88	11X	702628					
0.656	16.66	12	702628-1					

To change the guide roller, remove the grinding wheel and the housing lock nut, loosen the clamp bolt and the spindle assembly will then slip out of the motor frame. Remove the guide roller from the spindle housing and replace with another size.

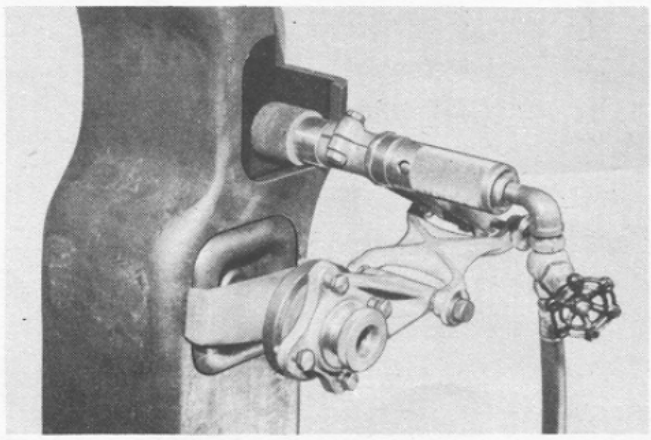

Fig. 9—Air-driven handhole grinder as used on sinuous or square header.

WARRANTY

Should any part, of Seller's own manufacture, prove to have been defective in material or workmanship when shipped (as determined by Seller), Seller warrants that it will, at its sole option, repair or replace said part f.o.b., point of manufacture, provided that Buyer notifies, in writing, of such defect within twelve (12) months from date of shipment from the manufacturing plant.

On request of Seller, the part claimed to be defective will be returned, transportation, insurance, taxes and duties prepaid, to the factory where made, for inspection. Any item, which has been purchased by Seller, is warranted only to the extent of the original manufacturer's warranty to Seller.
Seller shall not be liable for any damages or delays caused by defective material or workmanship.

No allowance will be made for repairs or alterations made by others without Seller's written consent or approval. If repairs or alterations are attempted without Seller's consent, Seller's warranty is void.

THE WARRANTIES PROVIDED IN THE OBLIGATIONS AND LIABILITIES OF SELLER HEREUNDER, AND THE RIGHTS AND REMEDIES OF BUYER HEREUNDER ARE EXCLUSIVE AND IN SUBSTITUTION FOR, AND BUYER HEREBY WAIVES ALL OTHER WARRANTIES, GUARANTEES, OBLIGATIONS, CLAIMS FOR LIABILITIES, RIGHTS AND REMEDIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY FOR MERCHANTABILITY AND FITNESS FOR PURPOSE.

Seller's total liability is limited to the lower of the cost of repair or replacement.

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Contact Us

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