

**THE HERRY TOOL CO., MANUFACTURED BY HERRY TOOLS** 498 So. Belvoir Blvd., South Euclid, OH 44121 U.S.A. Ph: (216) 291-1011 or (800) 826-5257 • Fax: (216) 291-5949 or (800) 303-2800 Email: daviidh@msn.com • Website: www.Henrytools.com



 Models

 48 RA

 48 BRA2

 48 BRA4

 48 BRA4

 48 BRA5

 48 RAS

 48 RAZ

 48 RAZ

 48 RAZ

This tool is designed to operate on 90 psig (6.2 bar) maximum air pressure with 1/4'' (8 mm) hose. Do not use a grinder without recommended wheel guard. Do not use any wheel for which the operating speed listed is lower than the actual free speed of the Grinder.

SAFETY

1. Before operation check spindle speed with a tachometer. If the RPM exceeds the rated speed stamped on tool, servicing is required. 2. Inspect grinding wheels for bends, chips, nicks, cracks or severe wear. If the wheel has any of these, or has been soaked in liquids do not use. On brushes check for loose wires that may fly off in operation. 3. Start new arindina wheels under a steel bench. Run at full

throttle for one

wheels usually

come apart im-

mediately. When

minute. Defective

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|           | Mo  | dels |
|-----------|-----|------|
|           | 48  | RA   |
|           | 48  | BRA2 |
|           | 48  | BRA4 |
|           | 48  | BRAD |
|           | 48  | RAS  |
|           | 48  | RAZ  |
|           | 48  | RAD  |
| NDING PAD | 48  | RAC  |
|           | 101 |      |
|           |     |      |
|           |     |      |
|           |     |      |
|           |     |      |
|           |     |      |
|           |     |      |
|           |     |      |

| PART NUMBER | DESCRIPTION                       |  |
|-------------|-----------------------------------|--|
| 209-1       | COLLET NUT                        |  |
| 209-1/8     | 1/8" INSERT                       |  |
| 209-1/4     | 1/4" INSERT                       |  |
| 209-3/8     | 3/8" INSERT                       |  |
| 300-G-29    | BEARING                           |  |
| 400-G-11    | FRONT BEARING                     |  |
| 400-G-26    | THROTTLE LEVER                    |  |
| 400-G-29    | THROTTLE VALVE-INCLUDES<br>844302 |  |
| 400-G-34    | SPRING                            |  |
| 400-G-42    | 3/8-24 FLANGE (2"-3" WHEELS)      |  |
| 400-G-47    | 3/8-24 JAM NUT                    |  |
| 400-2G      | CYLINDER                          |  |
| 400-5       | ROTOR                             |  |
| 400-6       | BLADE (5 REQ.)                    |  |
| 400-7       | FRONT ENDPLATE                    |  |
| 400-10      | КЕҮ                               |  |
| 400-44      | ROLL PIN                          |  |
| 400-46      | SNAP RING                         |  |
| 400-51      | 0-RING                            |  |
| 402-126     | SAFETY LEVER                      |  |
| 402-127     | SAFETY LEVER PIN                  |  |
| 402-128     | LOCKOUT LEVER                     |  |
| 402-129     | SAFETY LEVER SPRING               |  |
| 402-132     | ALUMINUM CASE (SPECIFY<br>SPEED)  |  |
| 402-132-S   | STEEL CASE (SPECIFY SPEED)        |  |
| 402-134     | MUFFLER                           |  |
| 404-4       | KEY                               |  |
| 404-7       | LOWER OUTPUT SPINDLE BEAR-<br>ING |  |
| 404-9       | REAR MOTOR BEARING                |  |
| 404-19      | REAR ENDPLATE                     |  |
| 404-38      | BEARING COVER                     |  |
| GUARDS      |                                   |  |
| PART NUMBER | DESCRIPTION                       |  |
| 4503        | 3"TYPE 27 GUARD                   |  |
| 4504        | 4"TYPE 27 GUARD                   |  |
| 4505        | 5° TYPE 27 GUARD                  |  |
| 4506        | 6"TYPE 41 GUARD                   |  |
|             |                                   |  |

|               |  | 48  | R |
|---------------|--|-----|---|
| PART NUMBER   | DESCRIPTION  | 10  | 5 |
| 490-3         | PIN SPANNER 48   |     | K |
| 102-SPWR      | WRENCH FOR SANDING PAD   |     | ĸ |
| 1100-044      | 7/16'WRENCH  |     |   |
| 1100-056      | 9/16'WRENCH  |     |   |
| 1100-063      | 5/8" WRENCH  |     |   |
| 1100-068      | 11/16" WRENCH  |     |   |
| 1100-075      | 3/4" WRENCH  |     |   |
| 1100-094      | 15/16" WRENCH  |     |   |
|               |  |     |   |
| ASSEMBLIES    |  |     |   |
| PART NUMBER   | DESCRIPTION  |     | 1 |
| 510240        | MOTOR REPAIR KIT   |     |   |
| 510230        | ANGLE HEAD REPAIR KIT  |     | 1 |
| 402-26        | SAFETY LEVER ASSY.   |     | 1 |
| AA-402-132    | ALUMINUM CASE ASSY.  |     | 1 |
| AA-402-132-K  | CASE ASSY.   |     | 1 |
|               | ALUMINUM SAFETY CASE AS  | SY. |   |
| AA-402-132-S  | STEEL CASE ASSY.   |     |   |
| AA-402-132-SK | STEEL SAFETY CASE ASSY.  |     |   |
| AA-408-1;D    | (SPECIFY SPEED FOR CASE ASSY.)<br>ERICKSON 48RAANGLE HEAD<br>ASSY. |     |   |
|               | (SPECIFY INSERT SIZE)  |     | 1 |
| 404-39        | SNAP RING  |     |   |
| 404-40        | DEAD HANDLE  |     | 1 |
| 406-14A       | MOTOR SPINDLE  |     | 1 |
| 406-38        | LOCKNUT  |     |   |
| 406-39        | MOTOR RETAINER   |     | 1 |
| 406-40        | HEAD RETAINER  |     | 1 |
| 406-41        | COUPLING   |     | 1 |
| 406-42        | SPACER   |     | 1 |
| 408-1         | Gear Head {same as part #4041-1}                                   |     | 1 |
| 410-G-17-S    | STEEL SIDE EXHAUST SLEEVE  |     | 1 |
| 500-G-44      | 3/8 ID FLANGE (4"-5" WHEELS)                                       |     | 1 |
| 700-34        | 5/8-11 JAM NUT   |     | 1 |
| 700-37        | Throttle Lever Pin   |     |   |
| 1100-680      | 5/8 I.D. FLANGE  |     | 1 |
|               | (6" OR SMALLER WHEELS)   |     | ] |
| 1100-682      | 3/8 I.D. FLANGE (5"-6" WHEELS)                                     |     |   |
| `             | OUTPUT HOUSING   |     | 1 |
| 4041-5        | 3/8-24 X .980 OUTPUT SPINDLE                                       |     |   |

HEARY TOOLS, MG. Ph:(216) 291-1011 or (800) 826-5257

DESCRIPTION

**GEAR SPACER** 

**BEARING COVER** 

5/8-11 X .980 OUTPUT SPINDLE

ERICKSON COLLET SPINDLE

SET SCREW (SPECIFY SPEED)

3/8 NPT TO 3/8 NPT BUSHING

3/8 NPT TO 1/4 NPT BUSHING

THROTTLE VALVE CAP

3/8-24 TO 5/8-11 ADAPTER

**BACKING PLATE FOR 490-KR** 

3/8-24 X .980 TYPE 27 ADAPTER

3/8-24 X .580 TYPE 27 ADAPTE

**BACKING PLATE FOR 490-K** 

NUT FOR 490-K & 490-KR

3/8-24 TO 5/8 I.D. TYPE 27

3/8-24 TO 5/81.D. BACKING PLATE

3/8-24 TO 5/8 I.D. ADAPTER NUT

3/8-24 TO 7/8 I.D. ADAPTER NUT

3/8-24 TO 7/8 I.D. TYPE 27

5/8-11 TO 7/8 I.D. TYPE 27

5/8-11 SANDING PAD NUT

3/8-24 SANDING PAD NUT

3/8-24 TO 7/8 I.D. BACKING PLATE

5/8-11 TO 7/8 I.D. BACKING PLATE

0

5/8-11 TO 7/8 I.D. ADAPTER NUT

ADAPTER ASSY.

ADAPTER ASSY.

ADAPTER ASSY.

**GEAR SET** 

**SNAP RING** 

SCREW

0-RING

GASKET

0-RING

DESCRIPTION

ASSY.

ASSY.

SNAP RING



PART NUMBER

4041-9

4041-10

4041-13

4041-14

591100

591106

592016

594016

832636

841552

841553

844302

869311

400-78

405-24

490-K

490-KR

490-1

490-2

1100-660

1100-661

1100-662

1100-664

1100-666

1100-668

1100-692

1100-694

1100-696

849259-A

849259

**ACCESSORIES** 

PART NUMBER

4041-17-625

4041-17-DA





|                       | 48 BRA2<br>48 BRA4<br>48 BRAD<br>48 RAS |
|-----------------------|---|
|                       | 10 D A 7                                |
| DESCRIPTION           | 40 KAZ                                  |
| 5/8-11 4" SANDING PAD | 48 RAD                                  |
| (MAX 12000 RPM)       | <b>48 RAC</b>                           |
| 3/8-24 4" SANDING PAD | ]                                       |
| (MAX 12000 RPM)       | _                                       |
| 5/8-11 5" SANDING PAD | ]                                       |

Models

| SA | ١F | ET | Y ( | co | nti | inu | ed) |  |
|----|----|----|-----|----|-----|-----|-----|--|
|    |    |    | - 1 |    |     |     | /   |  |

PART NUMBER

889271

889271-A

849848

849913

fit properly on arbor, do not use bushings or wheel flanges to adapt a wheel to any arbor unless recommended by the manufacturer. (Wheel flanges should be at least 1/3 the diameter of the grinding wheel.)

(MAX 10000 RPM)

(MAX 8500 RPM)

5/8-11 7" SANDING PAD

9. Wear safety goggles and other protective clothing. Continuous exposure to vibration may cause injury to your hands and arms.(See regulations.)

10. Properly maintained air tools are less likely to fail or cause accidents. If tool produces an unusual sound or vibrations repair immediately.

# 11. NEVER MODIFY ANY PART OF THE TOOL OR ACCESSORIES!!

#### **Disassembly First Steps**

1. Disconnect tool from air supply and remove all wheels and accessories.

2. Secure the tool in an aluminum jawed vise vertically with angle head

toward the upward direction. Clamp onto flats of the motor housing (402-132).

3. Unscrew lock nut (406-38) with a wrench. The angle head assembly will disconnect from motor housing. Set angle head assembly aside.

4. Remove coupling (406-41), exhaust sleeve (410-G-17S), o-ring (400-51) and exhaust screen (402-134).

5. Unscrew and remove motor retainer (406-39) carefully on flats with wrench.

6. Pull motor assembly out of motor housing. Remove from vise.

## The Motor Disassembly

7. Remove snap ring (404-39) if present from rear of motor assembly with use of snap ring pliers.

8. Lift out bearing cover (404-38) and o-ring (594016) if present.

9. Remove snap ring (592016) out of spindle groove with use of snap ring pliers.

10. Secure the motor assembly vertically in the vise with the geared end toward the downward direction. Lightly clamp onto the outside

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|-------------------|------------|
|                   |            |







diameter of cylinder (400-2G) and rear endplate (404-19). 11. *Lightly* tap the spindle (406-14) out of rear bearing (404-9) with use of a 3/16" punch. Be sure not to drop the front motor assembly when it becomes free. Remove from vise.

12. Push or tap the rear bearing out of the read endplate with use of a small punch or screwdriver.

13. Remove rotor (400-5), blades (400-6), key (400-10) and front endplate (400-7) from the front motor assembly.

14. Remove retaining ring (400-46) wih snap ring pliers. 15. Support the front spindle assembly vertically on a suitable drill block. Press spindle through front bearing (400-G-11) with an arbor press. (Using a hammer can destroy the spindle).

### Angle Head Disassembly

16. Secure right angle head assembly in vise so that the angle head neck is vertical. Clamp onto the dead handle bosses.

17. Remove head retainer (406-40) using a wrench on the wrench flats.

18. Lift off lock nut. Remove angle head from vise.

19. Grasp end of pinion gear (406-112) and pull pinion gear assembly from angle head.

20. Secure the pinion gear assembly in vise vertically with gear head (4041-110) in downward direction. Clamp onto the side of gear spacer (406-42) and rear most bearing (300-G-29).

21. Tap the pinion gear stem through the rear bearing with use of a

3/16"punch. Remove from vise.

22. Secure the pinion gear stem with a wrench on the wrench flats.

23. Unscrew and remove the pinion gear head with use of a wrench on the wrench flats.

24. Support the pinion gear stem assembly vertically on a suitable drill block. Press the pinion gear stem off of bearing (300-G-29) with use of an arbor press.

25. Remove retaining ring (4041-14) with snap ring pliers. 26. Lift out the bearing cover (4041-13).

27. Grasp spindle (4041-5) and pull assembly free from right angle head (4041-1).

28. Secure the output spindle assembly in a vise vertically with output toward downward direction. Clamp onto the flats of the spindle.

29. Remove screw (591100) from end of spindle assembly. Remove from vise.

30. Support the spindle assembly vertically on

a suitable drill block. Press spindle through bearings (300-G-29) & (404-7), spacer (4041-9), ring gear (4041-10), and key (404-4).

**Reassembly of Motor** 

1. Be sure all parts are clean and free from abrasives before assembly.

2. Support bearing (400-G-11) on a suitable drill block. 3. Press spindle (406-14A) through bearing until it bottoms on shoulder.

4. Place retaining ring (400-46) into groove in spindle.

5. Slide front endplate (400-7) over spindle and onto front bearing.

Models 48 RA 48 BRA2 48 BRA4 48 BRAD 48 RAS 48 RAS

**48 RAD** 

- 6. Place key (400-10) into keyway in spindle.
- 7. Slide rotor (400-5) over spindle.
- 8. Place 5 blades (400-6) into slots.
- 9. Slip cylinder (400-2G) over rotor so pin is facing upwards.
- 10. Install rear endplate (404-19) locating cylinder pin in smaller hole of the rear endplate.

11. Place bearing (404-9) in rear endplate. Tap in place with suitable bearing driver.

12. Place snap ring (592016) in spindle groove.

13. Place o-ring (594016)if present, washer (404-38) if present and snap ring (404-39) if present into rear of end plate. STEP THIRTEEN IS OPTIONAL. The snap ring (592016) is mandatory.

14. Secure case (402-132) in vise vertically. Slip motor assembly into case.

15. Install o-ring (400-51), exhaust screen (402-134), and exhaust deflector (410-G-17S).

16. Screw motor retainer (406-39) into case and tighten. (Flats are provided for a wrench).

## Angle Head Assembly

17. Press bearing (300-G-29) on gear stem (406-112) with an arbor press.

18. Hold the gear stem firmly in a vise. Screw on and tighten gear pinion head (4041-110). Remove from vise.

19. Press spacer (406-42) and bearing (300-G-29) onto end of gear stem with arbor press.

20. Press bearing (404-7) onto spindle (4041-5).

21. Place key (404-4) in slot of spindle.

22. Align keyway in ring gear (4041-10) with key in spindle and press together with an arbor press. (DO NOT damage the teeth of the gear.) 23. Place spacer (4041-9) and bearing (300-G-29) over end of spindle. Press in place with arbor press.

24. Thread screw (591100) in end of spindle and tighten.

25. Apply grease to gear teeth generously. Place spindle assembly into housing (4041-1). Place pinion gear assembly in housing.

26. Replace bearing cover (4041-13) over spindle in front of tool.

27. Place retaining ring (4041-14) into groove in front of angle head. 28. Slide lock nut (406-38) over end of housing and tighten retainer (406-40).

29. Place coupling (406-41) on spline on end of motor spindle. Place angle head onto end of motor housing. Align splined adaptor (406-41) inside coupler. Tighten lock nut on motor case and run tool.

30. Replace guard on tool.

31. Check Speed of tool with a reliable tachometer.

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