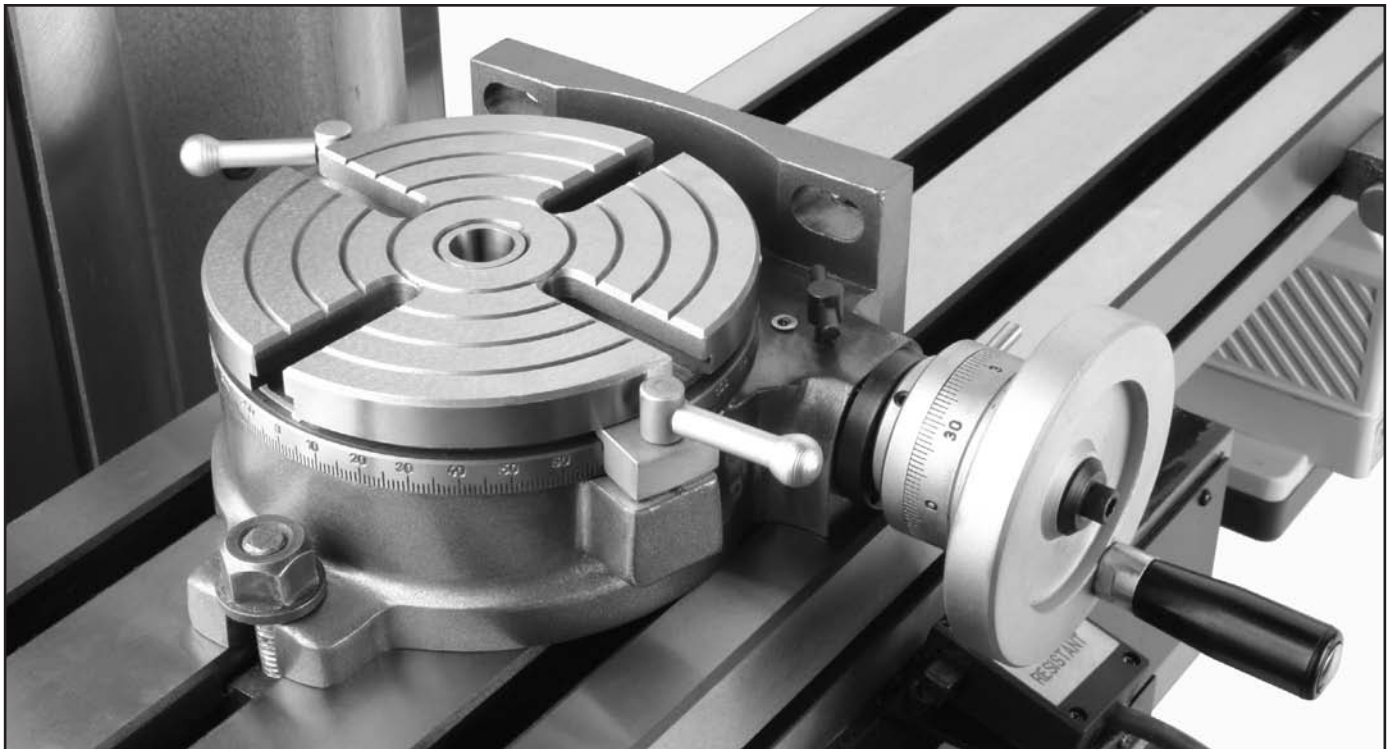


Grizzly *Industrial, Inc.*®

6" VERTICAL & HORIZONTAL ROTARY TABLE WITH DIVIDING PLATES & TAILSTOCK

MODEL H7527

INSTRUCTION MANUAL



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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**

#PC7045 PRINTED IN INDIA

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, cement, and 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.

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INTRODUCTION

Foreword

We are proud to offer the Model H7527 Rotary Table. This machine is part of a growing Grizzly family of fine metalworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model H7527 Rotary Table. It was written to guide you through assembly, review safety considerations, and cover general operating procedures.

The specifications, drawings, and photographs illustrated in this manual represent the Model H7527 Rotary Table as supplied when the manual was prepared. For your convenience, we always keep current Grizzly manuals available on our website at www.grizzly.com. Any updates to your machine will be reflected in these manuals as soon as they are complete.



Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
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Muncy, PA 17756
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Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: <http://www.grizzly.com>



Grizzly
Industrial, Inc.®

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL H7527 6" ROTARY TABLE

Worm Gear Ratio.....	90:1
Table Diameter.....	5.91"
Table Height.....	3.11"
Base Dimensions	W 8" x D 5.85"
Vertical Base Holes.....	1/2" @ 4 1/2" Centers
Center Sleeve.....	MT#2
Weight.....	26 lbs.

Identification

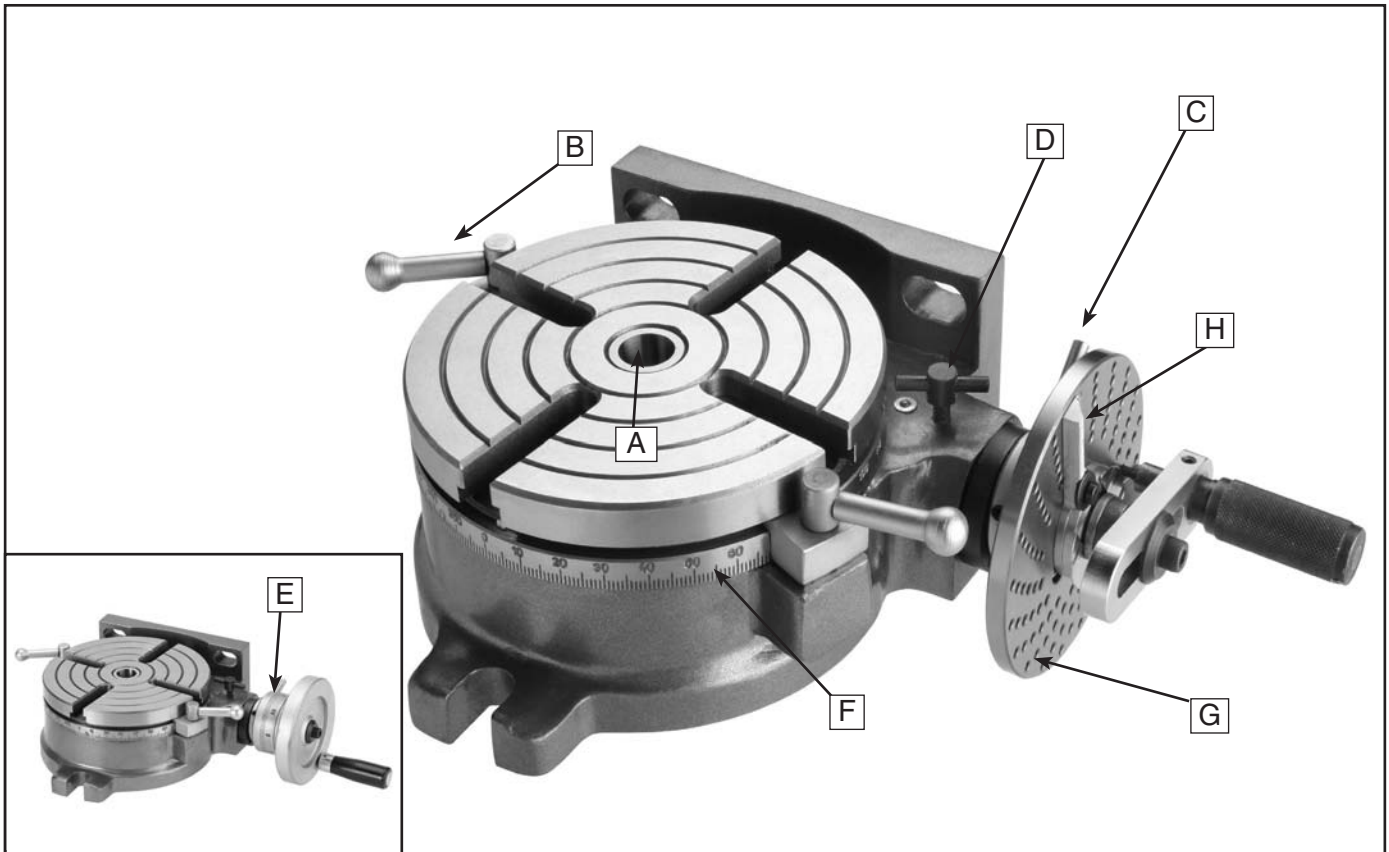


Figure 1. Main view of rotary table features.

- A. MT#2 Center Hole Taper**—Used for quick setups by placing a dead center into the taper and aligning centers, picking up hole centers, etc. and general machining operations.
- B. Rotary Table Locks**—Used during milling operations to extend the life of the rotary table and ensure that accuracy is not compromised. Simply tighten the handles to lock the table.
- C. Free Rotation Lever**—Allows the operator to rotate the table by hand without having to turn the crank handle by disengaging the worm gear.
- D. Free Rotation Lever Lock**—This locks the free rotation lever while keeping the worm gear engaged to maintain accuracy during operation.
- E. Calibrated Scale with Vernier**—Allows precise rotary movements. The handwheel dial has graduation of 2 minutes. The vernier scale has graduations of 20 seconds.
- F. Table Scale**—The scale reads from 0°-360° in one degree graduations.
- G. Dividing Plates**—Allows for precision divisions of a degree.
- H. Sector Arm**—A positioning device that represents a fraction of a hole circle, speeding the process of locating hole position on the dividing plate.



SECTION 1: SAFETY


WARNING

For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

 **DANGER** Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

 **CAUTION** Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE This symbol is used to alert the user to useful information about proper operation of the machine.

WARNING

Safety Instructions for Machinery

- 1. READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 3. ALWAYS WEAR AN ANSI APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

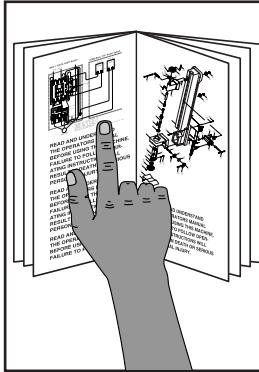
WARNING

Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power **OFF** and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIT.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery **ON**.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
23. **MANY MACHINES WILL EJECT THE WORKPIECE TOWARD THE OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**

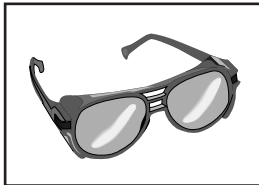
SECTION 2: SET UP

Set Up Safety



!WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



!WARNING

Wear safety glasses during the entire set up process!



Items Needed For Set Up

The following items are needed to complete the set up process, but are not included with your machine:

Description	Qty
• Hex Wrench 5mm	1
• Hex Wrench 2.5mm	1
• Open End Wrench 15mm.....	1
• T-Bolts, Studs & Hex Nuts 1/2".....	2
• Open End Wrench or Socket 3/4"	1
• Clamp Set (optional).....	1



Unpacking

The Model H7527 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, please immediately call Customer Service at (570) 546-9663 for advice.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

When you are completely satisfied with the condition of your shipment, you should inventory the contents.



Inventory

After all the parts have been removed from the two boxes, you should have the following items:

Box 1: (Figure 2)	Qty
A. Rotary Table.....	1
B. Handwheel	1
C. Handwheel Handle	1
D. T-Bolts, Studs, & Nuts 8mm.....	4
E. Step Blocks	2 pair
F. Dividing Plates.....	3
G. Sector Arm	1
H. Sector Arm Spring.....	1
I. Crank Handle w/Pin	1
J. Phillips Head Screws M5-.8 x 10	3
K. Key 3 x 3 x 8	1
L. Cap Screw M6-1 x 15	1
M. Special Washer	1

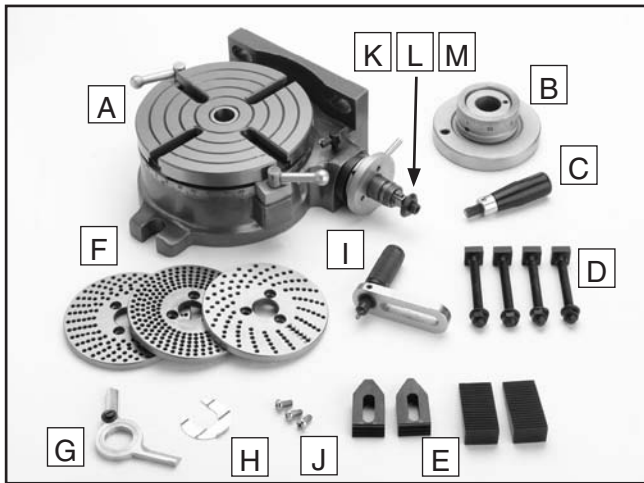


Figure 2. Inventory.

Box 2: (Figure 3)

Qty

A. Tailstock	1
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Figure 3. Tailstock.

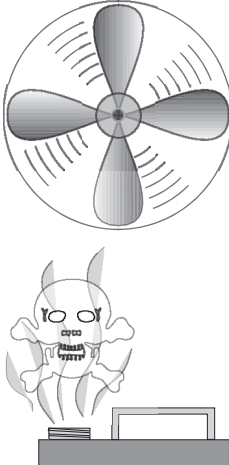
In the event that any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, or for the sake of expediency, replacements can be obtained at your local hardware store.



Clean Up

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. To clean thoroughly, some parts may need to be removed. **For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner, as they may damage painted surfaces should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

	<p>! WARNING Gasoline and petroleum products have low flash points and could cause an explosion or fire if used to clean machinery. DO NOT use gasoline or petroleum products to clean the machinery.</p>
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	<p>! CAUTION Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Lack of ventilation while using these solvents could cause serious personal health risks or fire. Take precautions from this hazard by only using cleaning solvents in a well ventilated area.</p>
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Handwheel Installation

Components and Hardware Needed:	Qty
Handwheel.....	1
Handwheel Handle	1
Key 3 x 3 x 8	1
Cap Screw M6-1 x 15.....	1
Special Washer 6mm	1

Tools Needed:	Qty
Hex Wrench 5mm.....	1
Open End Wrench 15mm.....	1

To install the handwheel:

1. Remove the M6-1 x 15 cap screw and special washer from the shaft.
2. Insert the key into the keyway (see **Figure 4**).
3. Slide the handwheel on the shaft and replace the special washer and the M6-1 x 15 cap screw and tighten.
4. Thread the handwheel handle into the handwheel and tighten with a 15mm wrench.

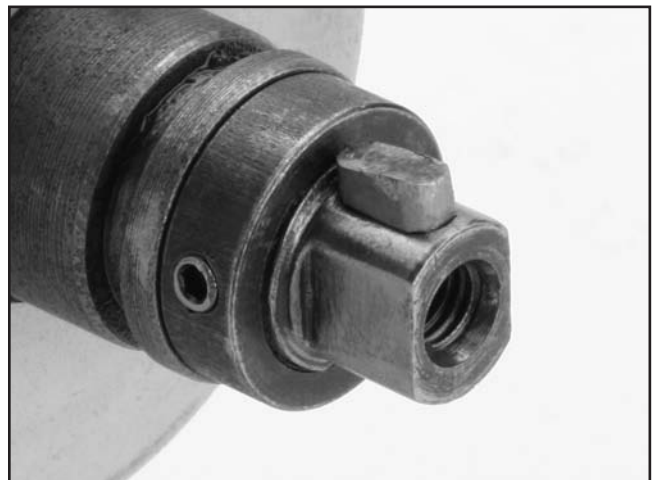


Figure 4. Key placement.



Mounting to Table

Components and Hardware Needed:	Qty
Rotary Table.....	1
T-Bolts, Nuts, Studs & Hex Nuts 1/2".....	2
Clamp Set (optional).....	1

Tools Needed:	Qty
Open End Wrench or Socket 3/4.....	1

Before installing the Model H7527 Rotary Table to your mill table, make sure your mill table and mill spindle are correctly aligned to each other. Refer to your mill manual for this procedure.

To mount the rotary table:

1. **Disconnect power to the milling machine before installing the rotary table!**
2. Position the 1/2" T-bolt slots on the rotary table over the T-slots in the milling table.
3. Insert the T-slot nuts into the milling table grooves.
4. Secure the rotary table making sure the bolts are tight. Holding the table rigid will help with accuracy, efficiency and general safety (see **Figure 5**).

*Note—The T-slots for the vertical set-up of the rotary table are 4.5" between centers. You will need to have the same distance between centers on your milling table to use T-nuts and bolts. If your milling table has different T-slot centers, you will need to use step blocks or clamps to secure the rotary table (see **Figure 6**).*



Figure 5. Mounting to table.

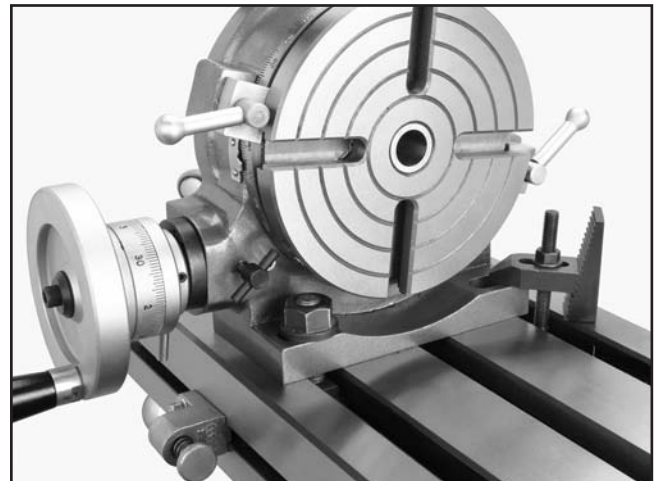


Figure 6. Vertical mounting.

CAUTION

Make sure the rotary table is secured to the milling table. Check the T-slot clamps before each cutting operation. If rotary table is not secured, serious personal injury and damage to your mill and rotary table could result.



Alignment

There are many ways to align the Model H7527 to a vertical mill spindle. However, aligning the center of the rotary table to the spindle is essential for achieving quality results.

After you have mounted the table, you may choose one of the following examples to align the spindle accurately to the center of the rotary table:

1. Use a test indicator to indicate the inside diameter center hole (see Models G9610, G9611 & G9612 in the current Grizzly catalog). Position the spindle over the center of the rotary table and touch the test indicator to the inside diameter of the center hole (see **Figure 7**). Rotate the spindle by hand and note the movement on the dial. Adjust the X & Y axis until the test indicator reads "0" around the complete circumference of the center hole. Lock the table in place and zero out the dials. (Remember to rotate the spindle and not the rotary table.)



Figure 7. Finding the center.

2. Use an edge finder, such as the Grizzly Model H2939, to locate the center of the rotary table by contacting two outside edges (**Figure 8**) and then moving the mill table half of the rotary table diameter in both directions. Adjust the table in the X & Y axis, lock the table in position and zero out the dials.

Note—Account for the edge finder radius and use a precision measuring instrument when determining rotary table diameter.

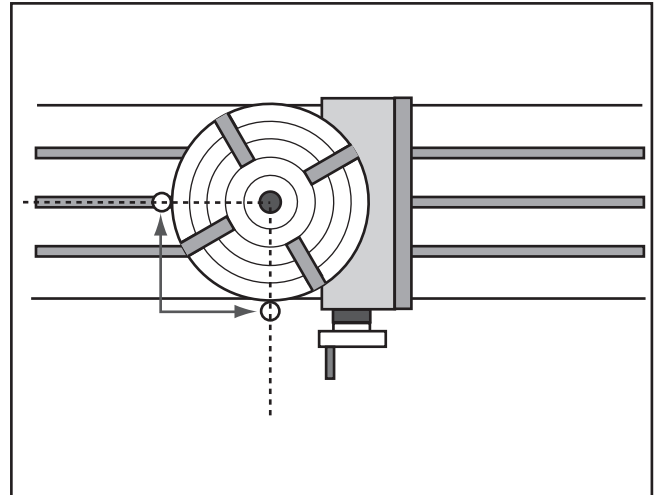


Figure 8. Locations for edge finding.

3. The fastest and most accurate method of centering your rotary table is to make a tapered center finder. If you have access to a lathe, make a simple conical center finder (see **Figure 9**). More advanced machinists may choose to make a center finder that matches the taper of the rotary table center hole. Tighten the rotary table T-bolts. Collet the center finder in the spindle. Lower the quill and center finder into the center hole, adjust the table in the X & Y axis until all surfaces mate equally. Lock the table in place and zero out the dials.

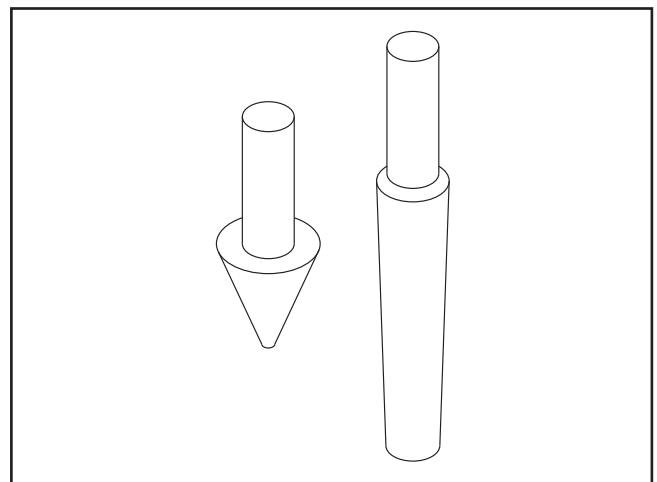


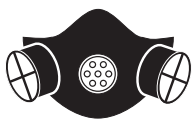
Figure 9. Conical and MT#2 center finders.

SECTION 3: OPERATIONS

Operation Safety

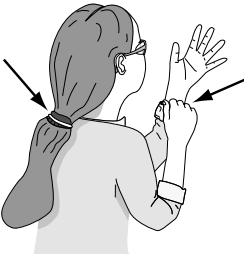
⚠️ WARNING

Damage to your eyes, lungs, and ears could result from using this machine without proper protective gear. Always wear safety glasses, a respirator, and hearing protection when operating this machine.



⚠️ WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.



NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.



Rotary Table

The primary use of the rotary table is for machining shapes, holes, and arcs. Dividing plates, also known as index plates, can be added when equal divisions of a circle are required.

Locking the free rotation lever and then turning the handwheel engages a precision worm gear. The worm gear ratio is 90:1. Ninety turns rotate the table 360 degrees. One complete turn of the handwheel rotates the table 4 degrees. Locking the free rotation lever lock ensures the gear stays engaged and maintains your reference (see **Figure 10**).

Disengaging the free rotation lever allows the table to rotate freely without turning the handwheel. After doing this, the table scale will need to be calibrated to the handwheel scale so the zeroes meet. The easiest way to do this is to engage the gear, return the table to the zero position, then loosen the set screw on the handwheel dial, and position it to zero.

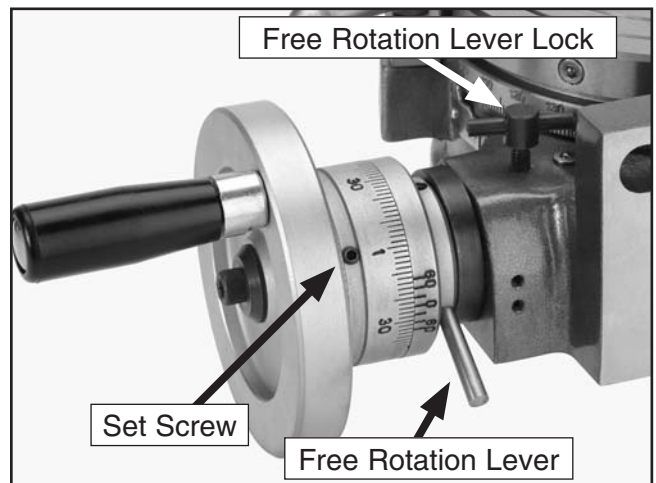


Figure 10. Worm gear controls.



Vernier Scale

The Model H7527 Rotary Table comes supplied with a scale marked in whole degrees along the edge of the table. The handwheel dial is marked with degrees with divisions in 2 minutes (2'). Graduations of 20 seconds (20") are on the vernier scale in **Figure 11**.

When the handwheel is rotated clockwise, graduations to the left of the "0" on the vernier scale are used. When the handwheel is rotated counterclockwise graduations on the right hand side are used.

We will be setting the table to $16^{\circ} 10' 40''$ in the first example below. This exercise assumes the table position starts at 0° , as read along the edge of the table, and that the "0" on the handwheel dial and the "0" on the vernier scale are aligned. For these instructions, refer to **Figure 11**.

Example 1:

1. Rotate the handwheel 4 times in the clockwise direction. Watch for the "0" marker on the dial and slow down the rotation as the "0" comes into view the 4th time. Stop on the "0". You are at 16° (see **Figure A**).
2. Now rotate the dial clockwise 5 graduations to align with the "0" on the vernier. You are now at $16^{\circ} 10'$ (see **Figure B**).
3. On the left of the vernier is the 40" mark highlighted in **Figure B**. The first graduation on the dial to the left of the 40" mark needs to be aligned with the 40" mark on the vernier as shown in **Figure C**. You are now at $16^{\circ} 10' 40''$.

Note— *The handwheel should not be rotated past this point. If it is, rotate it counterclockwise one full turn and "sneak" up on the mark again. Once you are satisfied with the table position lock it in place with the table locks.*

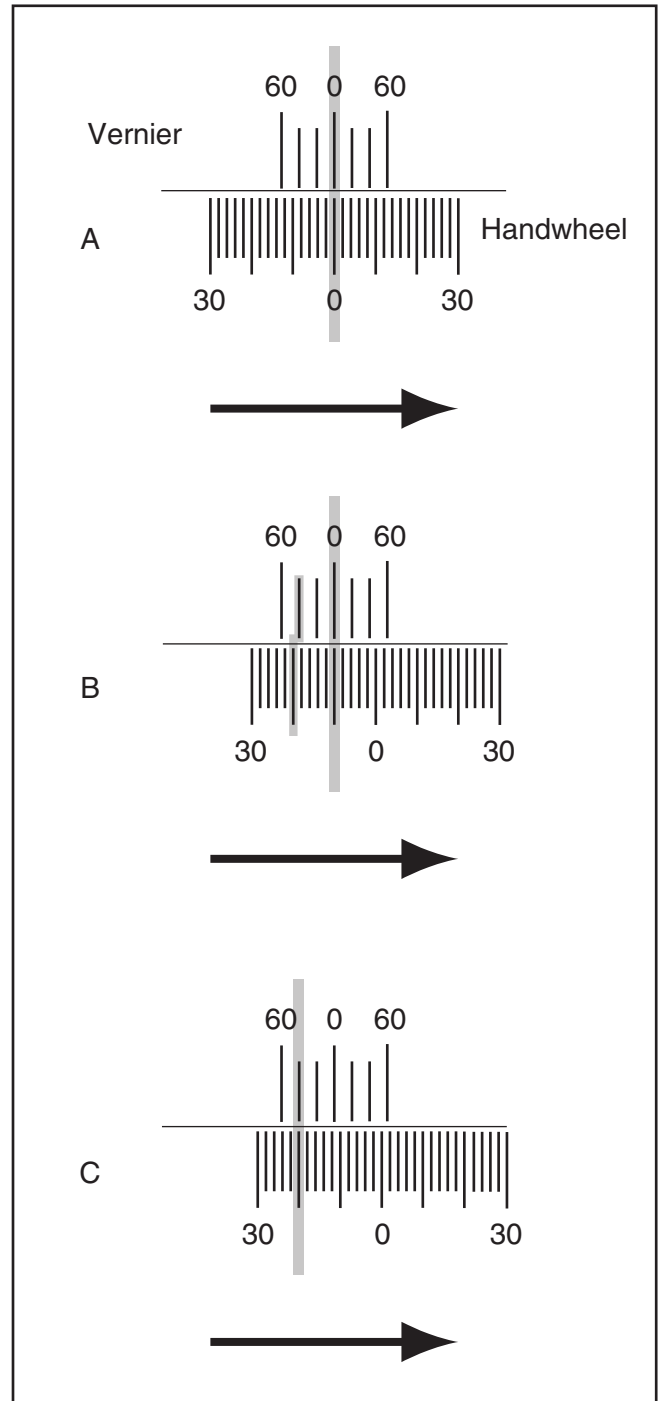


Figure 11. Vernier scale adjustments.

Continued on next page 

Example 2:

For this example we will use a measurement of $17^{\circ} 11' 20''$. Since the graduated dial has $2'$ divisions, one extra step is needed to arrive at the odd number minute. We will need to add sixty seconds on the vernier to make one additional minute on the handwheel dial.

Again, this exercise assumes the table position starts at 0° , as read along the edge of the table, and that the "0" on the handwheel dial and the vernier scale are aligned. For these instructions, refer to **Figure 12**.

1. As in the previous example, rotate the handwheel 4 times in the clockwise direction. Continue past $\frac{1}{4}$ turn or 1° , to the number 1 on the dial. You are now at 17° (see **Figure A**).
2. On the left of the vernier is the $60''$ mark highlighted in **Figure B**. The nearest graduation on the dial to the left of the $60''$ mark needs to be aligned with the $60''$ mark on the vernier. You are now at $17^{\circ} 11'$. We just added the sixty seconds we needed to make the odd numbered minute. (From $10'$ to $11'$.)
3. **Figure C** highlights the $20''$ mark. The nearest graduation on the dial to the left of the $20''$ mark needs to be aligned with the $20''$ mark on the vernier. You are now at $17^{\circ} 11' 20''$ (see **Figure D**).

Note— *The handwheel should not be rotated past this point. If it is, rotate it counterclockwise one full turn and "sneak" up on the mark again. Once you are satisfied with the table position, lock it in place with the table locks.*

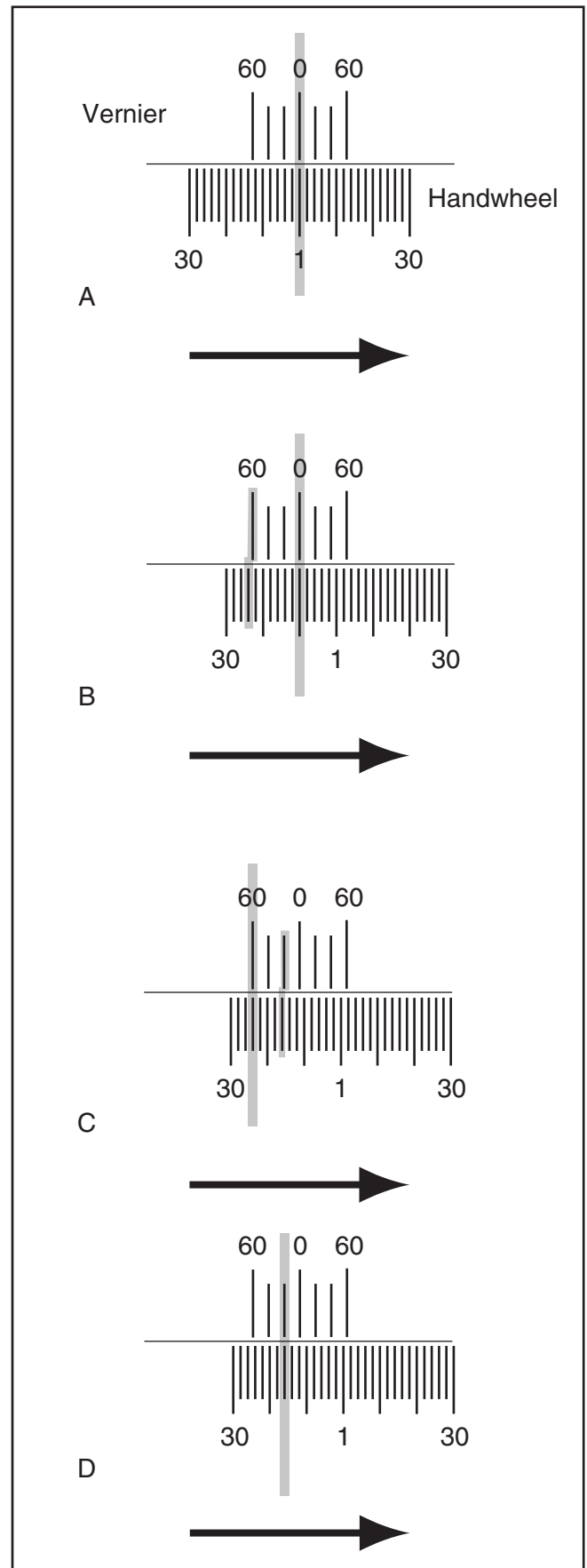


Figure 12. More vernier scale adjustments.

Angular Indexing

Basic Example:

You are making a flange and need to place six holes 60° apart for the bolt pattern in **Figure 13**.

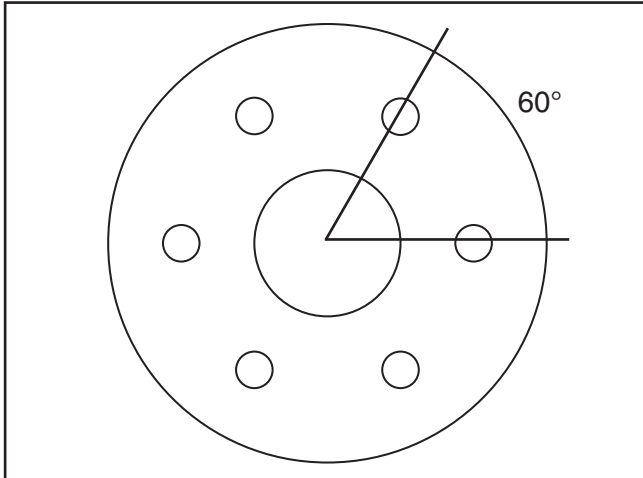


Figure 13. Flange layout.

$$\text{Crank turns} = \frac{90}{N}$$

N = the desired division number (6).
 $\frac{90}{6} = 15$ full crank turns
 15 turns = 60°

1. Turn the handwheel before making the first hole to take up any play in the worm gear.
2. Make your first hole then turn the crank 15 times.

Note—When you are cranking to a desired number and crank too far, do not back up to the number. You must back up one revolution then dial back to the desired number, then lock the table in place to locate the second hole. This procedure eliminates backlash in the worm gear.



Installing Dividing Plates

Three dividing plates are included with the Model H7527.

Components and Hardware Needed:	Qty
Dividing Plate 15, 16, 17, 18, 19 & 20 hole	1
Dividing Plate 21, 23, 27, 29, 31 & 33 hole	1
Dividing Plate 37, 39, 41, 43, 47 & 49 hole	1
Sector Arm	1
Sector Arm Spring	1
Crank Handle w/Indexing Pin	1
Phillips Head Screws M5-.8 x 10	3

Tools Needed:	Qty
Hex Wrench 5mm	1
Phillips Head Screwdriver	1

To install a dividing plate:

1. Remove the crank handle cap screw and special washer.
2. Remove the handwheel and key from the shaft. Tape the key to the handwheel for safe keeping.
3. Insert the dividing plate, counter bores facing out, and secure it with the provided screws.
4. Place the sector arm assembly over the shaft **Figure 14**).

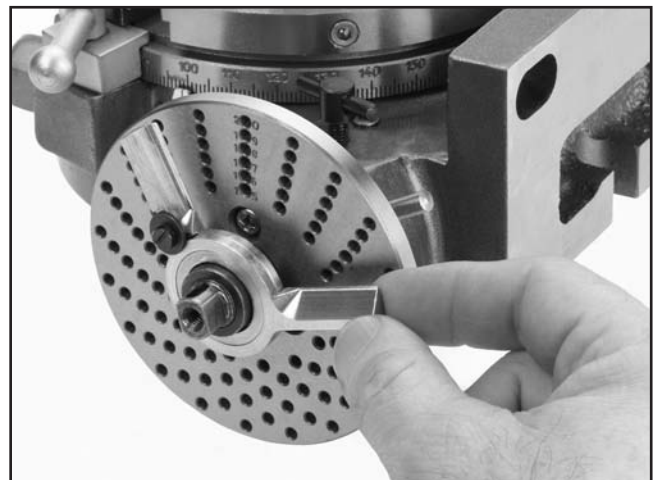


Figure 14. Installing dividing plate.

Simple Indexing

- Slide the sector arm spring into the slot on the shaft to hold the sector arms tight against the dividing plate (see **Figure 15**).

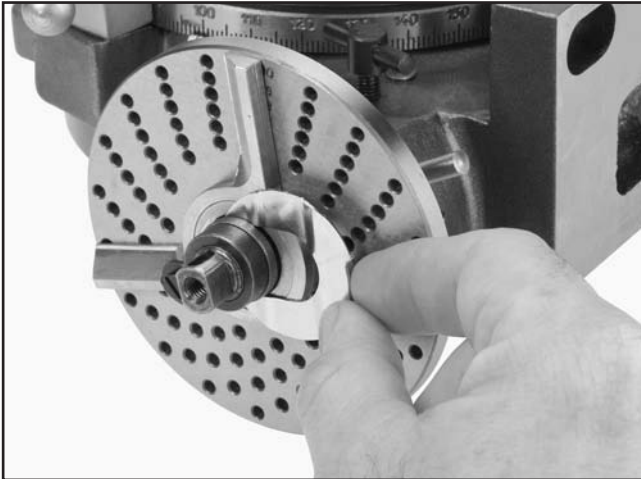


Figure 15. Inserting sector arm spring.

- Install the crank handle with the indexing pin and secure it with the special washer and cap screw (see **Figure 16**).

Note—The crank handle slot adjusts so the indexing pin sits directly above the hole circle chosen. To ease installation, place the pin in the desired hole circle, then tighten the cap screw.



Figure 16. Crank on shaft and pin engaged.



Simple or plain indexing is the most common form of indexing used because of the large number of divisions available with the speed, repeatability and precision attained.

The Model H7527 has three dividing plates with the following hole circles:

Plate: 15, 16, 17, 18, 19, 20.

Plate: 21, 23, 27, 29, 31, 33.

Plate: 37, 39, 41, 43, 47, 49.

Basic Example:

You are now making a flange with a hole pattern that has 17 holes.

$$\text{Crank turns} = \frac{90}{N}$$

N = the desired division number (17).

$$\frac{90}{17} = 5 \frac{5}{17}$$

- On the index table on **Page 17**, look up **17** in the *number of divisions* column to find the correct index circle plus the required number of turns. The number of turns required in this case is $5 \frac{5}{17}$ turns. The 17 hole circle dividing plate is needed for the $\frac{5}{17}$ of a turn.
- Install the 17 hole circle dividing plate onto the rotary table as described earlier. Set the crank handle and the indexing pin to index the 17 hole circle.
- Check to see that the worm gear is engaged and locked into position.
- Turn the handwheel to take up any play in the worm gear and zero the table. Set the crank arm pin into one of the 17 hole circle holes.

Note—It is important to always turn the handle the same direction to avoid backlash and maintain accuracy.

- Set the sector arms so there are 5 holes plus the hole the indexing pin is located in.

Note—What is actually being counted is the spacing between the holes. Five spaces need to be on the 17th hole circle between the sector arms (see **Figure 17**) .

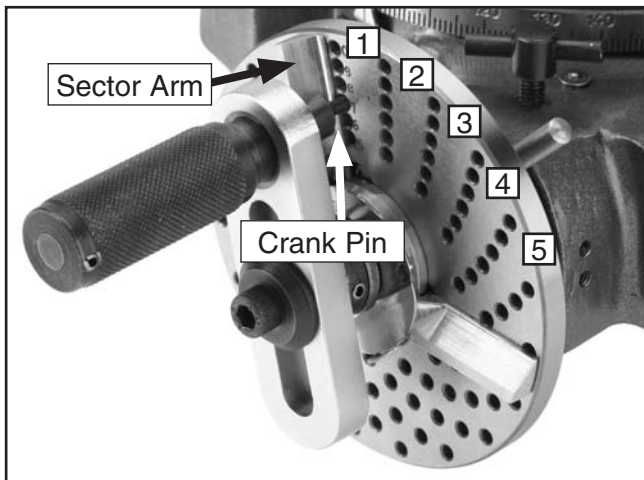


Figure 17. Hole spacing.

- Tighten the set screw on the sector arms to fix the spacing of the sector arms.
- Move the sector arm so it rests against the crank arm pin as shown in **Figure 17**.
- Make your first hole.
- Pull back on the crank handle spring loaded pin to remove the pin from the dividing plate hole. Pull the pin out far enough to clear the tops of the sector arms while you crank so you won't bump the sector arms and lose your position.
- Turn the crank 5 full turns.
- After completing the 5th full turn, continue cranking past the 5 holes on the 17 hole circle to rotate exactly $\frac{5}{17}$ of a turn. Set the pin in the 5th (last) hole of the sector (see **Figure 18**).



Figure 18. Setting the pin in the last hole.

- Rotate the sector arm so the arm rests on the pin once again (see **Figure 19**).

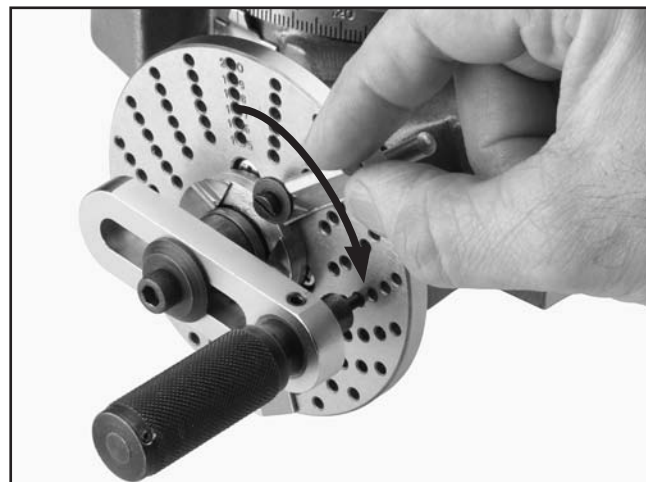


Figure 19. Rotating the sector arm to rest against new position.

- From this new starting point, repeat **Steps 8-12** for the remaining holes.



Number of Divisions	Index Circle	Number of Turns on Crank	Number of Divisions	Index Circle	Number of Turns on Crank	Number of Divisions	Index Circle	Number of Turns on Crank
1	ANY	90	34	17	2 11/17	67	N/A	
2	ANY	45	35	21	2 12/21	68	N/A	
3	ANY	30	36	20	2 10/20	69	23	1 7/23
4	20	22 10/20	37	37	2 16/37	70	21	1 6/21
5	ANY	18	38	19	2 7/19	71	N/A	
6	ANY	15	39	39	2 12/39	72	20	1 5/20
7	21	12 18/21	40	20	2 5/20	73	N/A	
8	20	11 5/20	41	41	2 8/41	74	37	1 8/37
9	ANY	10	42	21	2 3/21	75	20	1 4/20
10	ANY	9	43	43	2 4/43	76	N/A	
11	33	8 6/33	44	N/A		77	N/A	
12	20	7 10/20	45	ANY	2	78	39	1 6/39
13	39	6 36/39	46	23	1 22/23	79	N/A	
14	21	6 9/21	47	47	1 43/47	80	16	1 2/16
15	ANY	6	48	16	1 14/16	81	18	1 2/18
16	16	5 10/16	49	49	1 41/49	82	41	1 4/41
17	17	5 5/17	50	20	1 16/20	83	N/A	
18	ANY	5	51	N/A		84	N/A	
19	19	4 14/19	52	N/A		85	N/A	
20	20	4 10/20	53	N/A		86	43	1 2/43
21	21	4 6/21	54	18	1 12/18	87	29	1 1/29
22	33	4 3/33	55	33	1 21/33	88	N/A	
23	23	3 21/23	56	N/A		89	N/A	
24	20	3 15/20	57	19	1 11/19	90	ANY	
25	20	3 12/20	58	29	1 16/29	91	N/A	
26	39	3 18/39	59	N/A		92	N/A	
27	18	3 6/18	60	20	1 10/20	93	31	30/31
28	N/A		61	N/A		94	47	45/47
29	29	3 3/29	62	31	1 14/31	95	19	18/19
30	ANY	3	63	21	1 9/21	96	16	15/16
31	31	2 28/31	64	N/A		97	N/A	
32	16	2 13/16	65	39	1 15/39	98	49	45/49
33	33	2 24/33	66	33	1 12/33	99	33	30/33
						100	20	18/20

Figure 20. Index table.

Tailstock

The Model H7527 comes with a tailstock for the rotary table. The tailstock is used when the rotary table is in the vertical position. This tailstock allows the operator to support larger workpieces that normally cannot be supported while maintaining a high level of accuracy.

To install the tailstock to your milling table:

1. Secure the rotary table in the vertical position on the milling table.
2. Install the tailstock onto the milling table so the dead center of the tailstock is roughly in line with the center of the rotary table.
3. Install a MT#2 dead center into the center hole of the rotary table.
4. Install a center drilled workpiece between the two centers. Note—*In this example the workpiece should be checked for concentricity. Any error can be factored in during alignment.*
5. Mount a dial indicator in the mill spindle and indicate off of a horizontal center line of the workpiece (see **Figure 21**).
6. Run the table back and forth along the X axis, adjust the position of the tailstock half the distance of the offset and recheck. (see **Figure 22 & 23**).
7. Continue to make this adjustment until zero movement is indicated all along the travel.
8. Tighten the bolts and recheck.

To align the Z axis:

1. Repeat **Steps 5-7** from above except indicate off the vertical center line of the workpiece.
2. Make your adjustments by slightly loosening the adjustment bolts and raising or lowering the tailstock dead center in the appropriate direction (see **Figure 24**).
3. Tighten the bolts and recheck.



Figure 21. Indicating surface.



Figure 22. Determining offset.

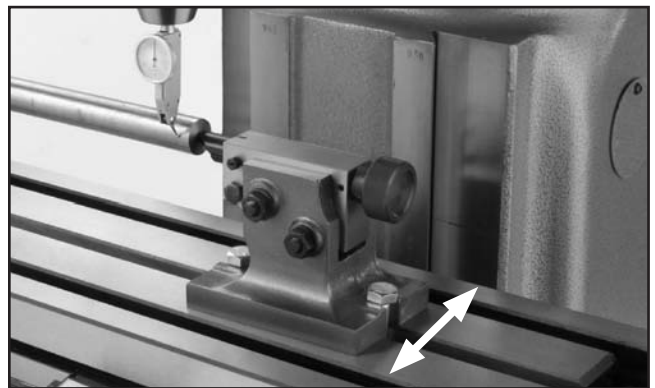


Figure 23. Adjusting for offset.

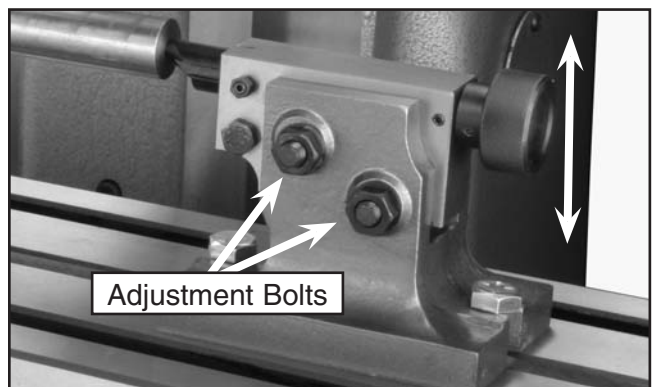


Figure 24. Vertical tailstock adjustment.

SECTION 4: MAINTENANCE

	<p>! WARNING Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.</p>
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Rotary Table Maintenance

Clean your rotary table after every use. A few drops of oil in the ball fittings will keep the worm gear sufficiently lubricated (see **Figure 25**). To prevent oxidation to the rotary table or mill table, do not leave it mounted for extended periods of time.

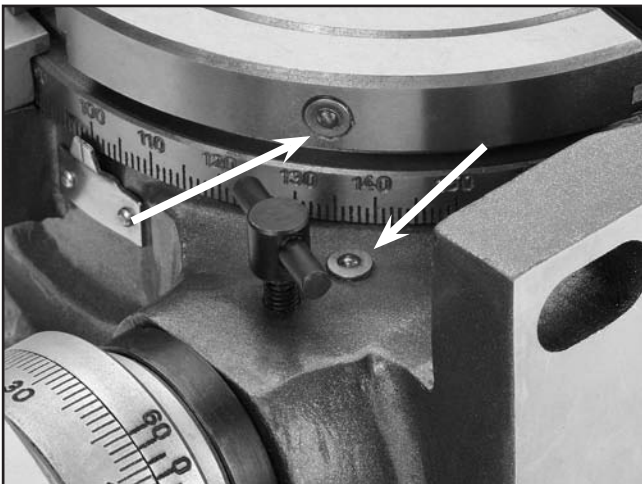


Figure 25. Lubrication points.



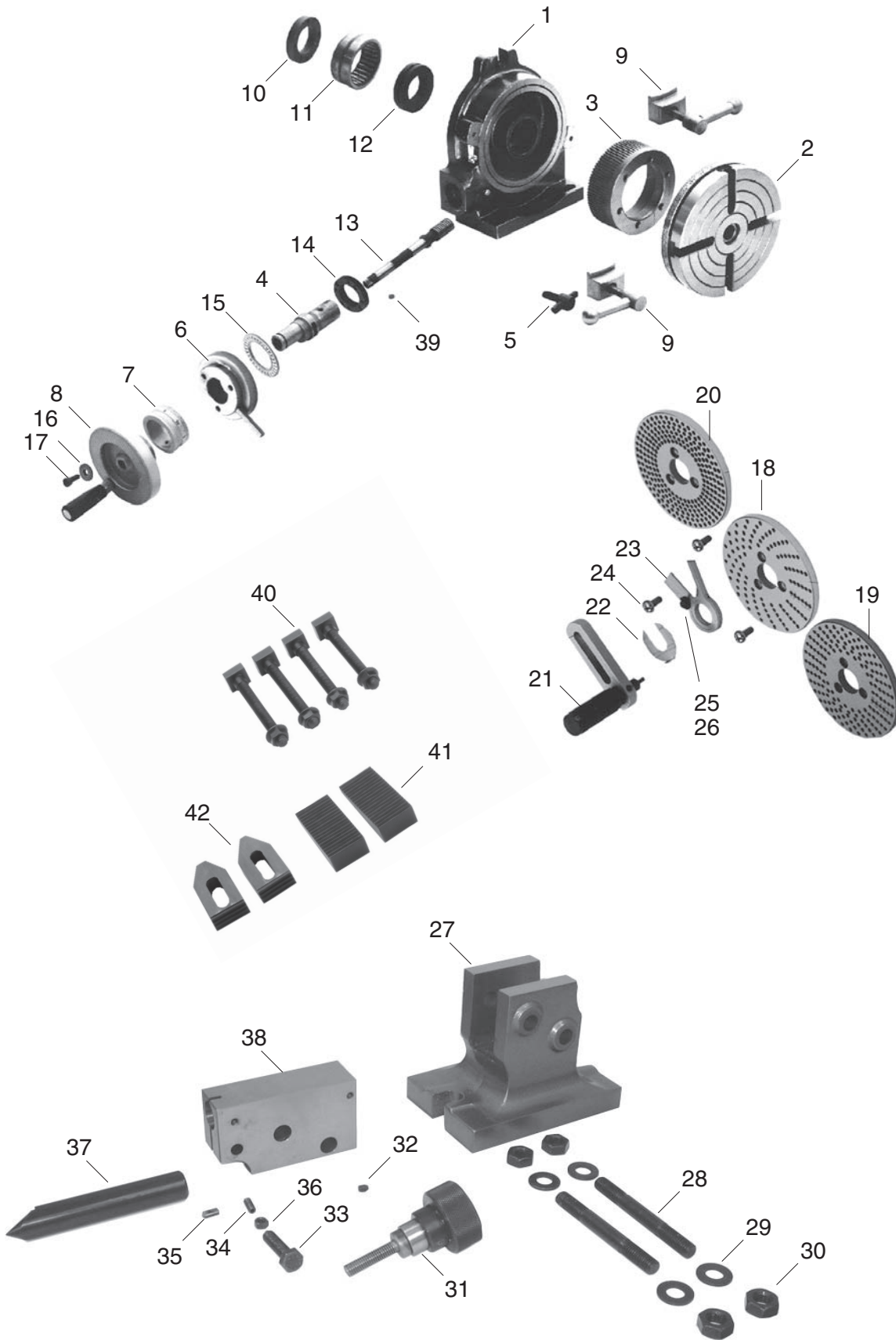
Unpainted Cast Iron

Protect the unpainted cast iron surfaces on the table by wiping the table clean after every use—this ensures moisture does not remain on bare metal surfaces.

Keep table rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9.



H7527 Parts Breakdown



H7527 Parts List

REF	PART #	DESCRIPTION
1	PH7527001	MAIN BODY
2	PH7527002	TABLE
3	PH7527003	WORM WHEEL
4	PH7527004	SHAFT
5	PH7527005	WORM LOCK THUMB SCREW
6	PH7527006	VERNIER RING
7	PH7527007	GRADUATED COLLAR
8	PH7527008	HANDWHEEL
9	PH7527009	CLAMP
10	PH7527010	THREADED COLLAR
11	PH7527011	SPECIAL BEARING
12	PH7527012	COLLAR
13	PH7527013	WORM
14	PH7527014	COLLAR
15	PH7527015	LOCK RING
16	PH7527016	SPECIAL WASHER
17	PH7527017	HEX BOLT M6-1 X 15
18	PH7527018	DIVIDING PLATE 15-20
19	PH7527019	DIVIDING PLATE 21-33
20	PH7527020	DIVIDING PLATE 37-49
21	PH7527021	CRANK HANDLE

REF	PART #	DESCRIPTION
22	PH7527022	SECTOR ARM SPRING
23	PH7527023	SECTOR ARM
24	PS09M	PHLP HD SCR M5-.8 X 10
25	PSS79M	SET SCREW M4-.7 X 6
26	PW05M	FLAT WASHER 4MM
27	PH7527027	TAILSTOCK BASE
28	PH7527028	STUD M10-1.5 X 85
29	PW04M	FLAT WASHER 10MM
30	PN02M	HEX NUT M10-1.5
31	PH7527031	KNURLED KNOB
32	PSS26M	SET SCREW M5-.8 X 6
33	PB26M	HEX BOLT M8-1.25 X 30
34	PSS53M	SET SCREW M5-.8 X 12
35	PH7527035	KEY 3 X 4 X 5
36	PN06M	HEX NUT M5-.8
37	PH7527037	DEAD CENTER
38	PH7527038	TAILSTOCK BODY
39	PK108M	KEY 3 X 3 X 5
40	PH7527040	T-BOLT & NUT M8-1.25
41	PH7527041	STEP BLOCK
42	PH7527042	SERRATED END CLAMP

WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

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 products.

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The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

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Thank you again for your business and continued support. We hope to serve you again soon.



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Advertisement Friend Catalog
 Card Deck Website Other:

2. Which of the following magazines do you subscribe to?

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<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Popular Science	<input type="checkbox"/> Wood
<input type="checkbox"/> Hand Loader	<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Handy	<input type="checkbox"/> Practical Homeowner	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Home Shop Machinist	<input type="checkbox"/> Precision Shooter	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Journal of Light Cont.	<input type="checkbox"/> Projects in Metal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Live Steam	<input type="checkbox"/> RC Modeler	<input type="checkbox"/> Woodworker West
<input type="checkbox"/> Model Airplane News	<input type="checkbox"/> Rifle	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Modeltec	<input type="checkbox"/> Shop Notes	<input type="checkbox"/> Other:
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Shotgun News	

3. What is your annual household income?

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 \$50,000-\$59,000 \$60,000-\$69,000 \$70,000+

4. What is your age group?

20-29 30-39 40-49
 50-59 60-69 70+

5. How long have you been a woodworker/metalworker?

0-2 Years 2-8 Years 8-20 Years 20+ Years

6. How many of your machines or tools are Grizzly?

0-2 3-5 6-9 10+

7. Do you think your machine represents a good value?

Yes No

8. Would you recommend Grizzly Industrial to a friend?

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9. Would you allow us to use your name as a reference for Grizzly customers in your area?

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10. Comments: _____

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