



MODEL T27696 12" HELICAL CUTTERHEAD INSTALLATION INSTRUCTIONS

For questions or help with this product contact Tech Support at (570) 546-9663 or techsupport@grizzly.com

Introduction

The Model T27696 indexable insert helical cutterhead is designed to fit Grizzly jointer Models G0609 and G0609X.

! WARNING

The T27696 helical cutterhead is only designed to be used with the Grizzly Model G0609 and G0609X jointers. Do NOT install this cutterhead in any other jointer model or make. Doing so could result in property damage or serious personal injury.

The total procedure of changing the cutterhead and setting up the jointer takes approximately one hour. Read these instructions thoroughly before beginning. We strongly recommend replacing the old cutterhead bearings at the time of installation. The T27696 uses (1) 6206ZZ bearing and (1) 6204ZZ bearing.

Note: Not all pictures in these instructions will exactly reflect your machine. Some photos are provided for representation purposes only to help you better understand the concepts described in the procedure.

Specifications

Maximum Width of Cut..... 12"
Cutterhead Diameter 98mm
Number of Indexable Carbide Inserts 96

Recommended Tools

Hex Wrench 3, 4, 8mm	1 Ea.
Wrench/Socket 10, 14, 19mm.....	1 Ea.
Phillips Head Screwdriver.....	1
Standard Screwdriver	1
Precision Straightedge	1
Feeler Gauge Set	1
Pair of Heavy Leather Gloves	1
Safety Glasses (per person).....	1
Pulley Puller.....	1
Arbor Press 18" Working Height.....	1
Hammer.....	1
Wood Blocks 12" 2x4, 24" 4x4.....	2 Ea.
Flat Piece of Scrap Wood	1
Assistants	2
Shop Rag	1

Inventory (Figure 1)

A. Helical Cutterhead.....	1
B. Torx Drivers T20	2
C. Torx L-Wrenches T20	2
D. Indexable Carbide Inserts 15 x 15 x 2.5	5
E. Flat Head Torx Screws T20 M6-1 x 15	3

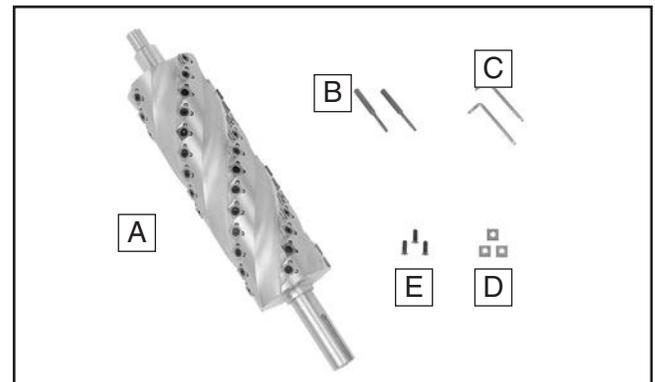


Figure 1. Helical cutterhead inventory.

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Removing Existing Cutterhead

1. DISCONNECT MACHINE FROM POWER!
2. Remove cutterhead guard and rabbet extension table.
3. Remove lock nut securing fence carriage, then remove fence assembly.
4. Remove fence bracket, then remove both side access panels.
5. Open motor access cover, loosen fasteners on tension rod, lift motor up, then remove V-belts.
6. G0609 Only: Remove knives.

—If you have difficulty accessing knives, loosen infeed and outfeed table locks, loosen jam nuts and positive stop bolts located at back of machine, then lower beds farther, as shown in **Figure 2**.

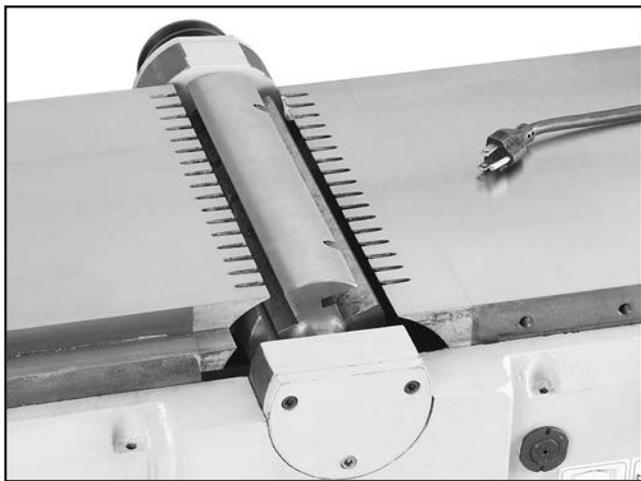


Figure 2. Example of jointer disassembly Steps 1–6.

!WARNING

Jointer knives are extremely sharp. You must remove the jointer knives to avoid the risk of serious personal injury during the following steps.

7. Raise both beds all the way up, then tighten infeed and outfeed table locks. This bed position will make future steps easier while replacing cutterhead.
8. Remove hex nuts and flat washers that secure handwheels, then remove both handwheels.
9. On left side of jointer (facing front of machine), remove (3) Phillips head screws that secure bearing support plate to cabinet (see **Figure 3**).

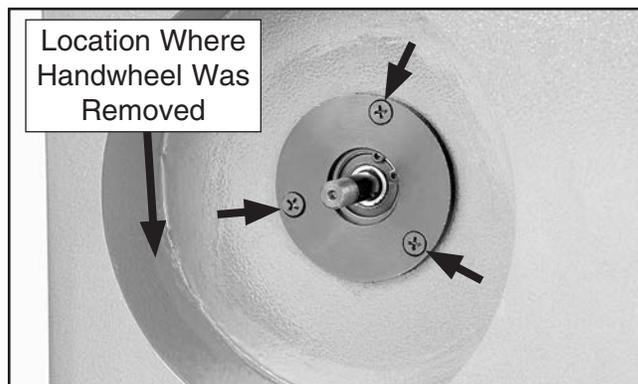


Figure 3. Bearing support plate screws.

10. Loosen set screw that secures collar on helical gear shaft behind P-housing (see **Figure 4**).

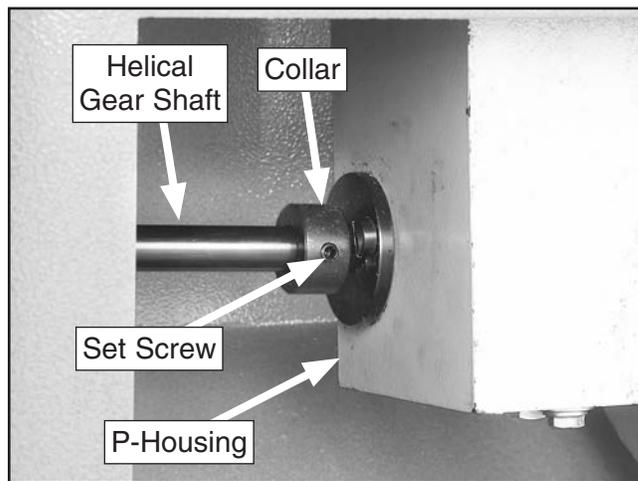


Figure 4. Collar on helical gear shaft.



11. Slide out helical gear shaft assembly (see **Figure 5**) through front of cabinet.

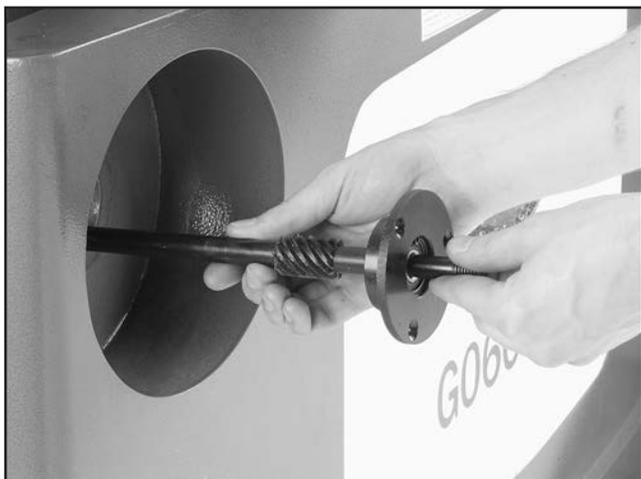


Figure 5. Removing helical gear shaft.

12. Repeat **Steps 9–11** on right side of jointer.
13. Remove M8-1.25 x 25 cap screws and lock washers securing stand to base.
14. During following steps, you will lift base off of cabinet to access cutterhead, so it can be removed. This can be accomplished using power lifting equipment or by using boards.

—If you have a forklift, engine hoist, or boom crane, wrap lifting straps with a 900 lb. capacity around infeed and outfeed tables. Position straps as close to base as possible to prevent damaging tables. With lifting straps positioned evenly, lift jointer off of cabinet four inches. Proceed to **Step 15**.

—If you do not have power lifting equipment, follow **Steps 15–17**.

15. While two assistants lift infeed table, place a 24" long 4x4 board (or two 2x4s nailed together) between cabinet and bed, as shown in **Figure 6**.

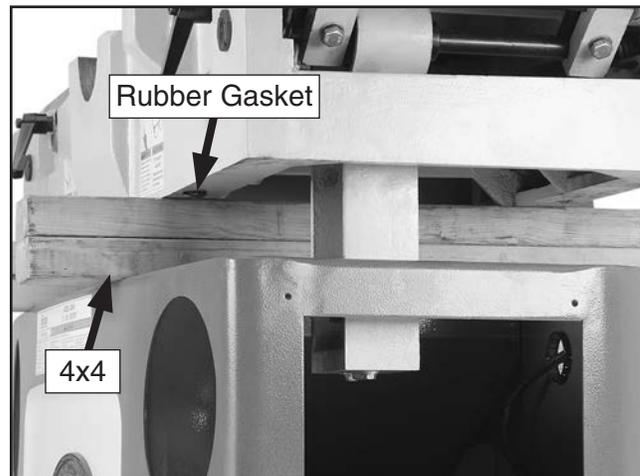


Figure 6. 4x4 placed between cabinet and bed on infeed side of jointer.

Note: Be careful not to knock off rubber gaskets (see **Figure 6**) located on bottom of base. If you accidentally knock gaskets loose, place them in a safe location for later re-installation.

16. Repeat **Step 15** on other side to support outfeed table (see **Figure 7**).

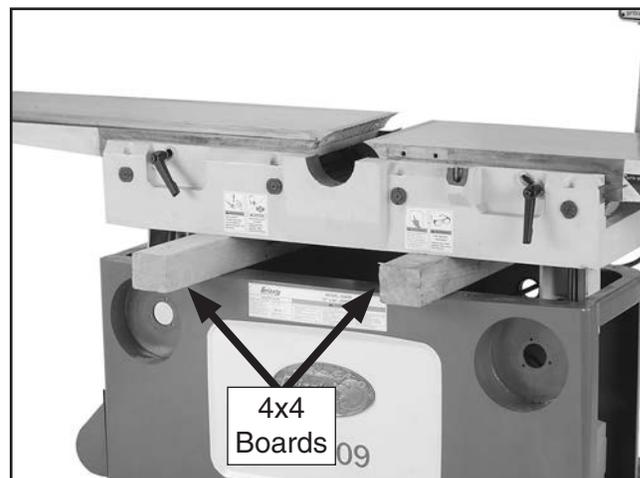


Figure 7. Jointer bed supported with 4x4s on both ends.



17. Reach inside base and remove hex bolts and lock washers that secure cutterhead to base (see **Figure 8**).

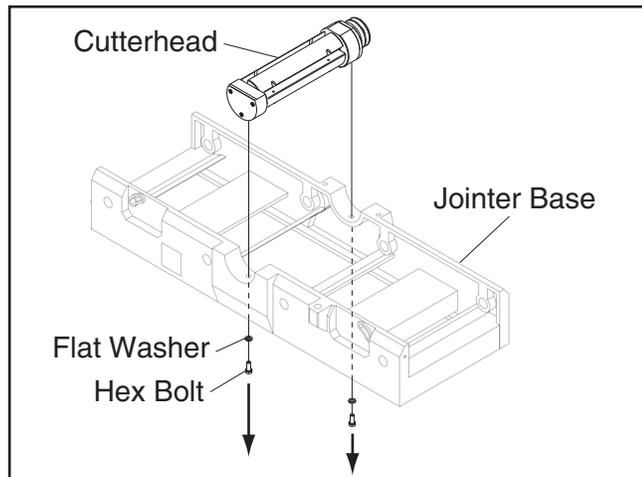


Figure 8. Removing cutterhead fasteners.

18. Mark side of front bearing block that faces front of machine (see **Figure 9**) with tape or a felt marker to make it easier to re-install bearing blocks later.

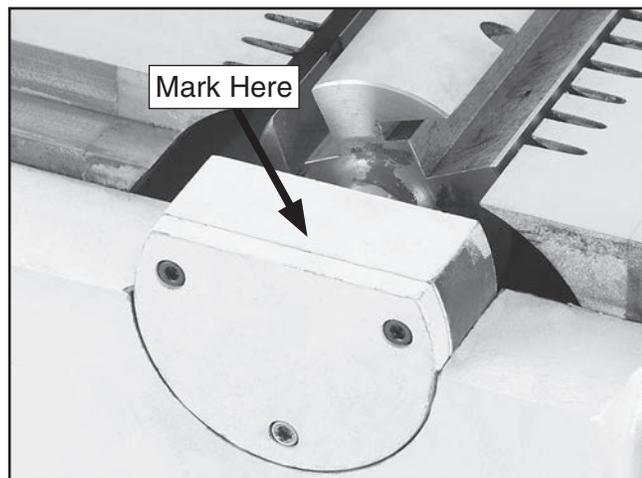


Figure 9. Location to mark front bearing block.

19. Carefully slide cutterhead assembly out the back of jointer (see **Figure 10**).



Figure 10. Example of cutterhead removed.

Note: Your cutterhead may have paper or metal shims stuck to the bearing block or the part of the casting where the bearing block rests. These were included at the factory when they calibrated your cutterhead even with the outfeed table. If you see these, carefully pull them off and set them aside for later use, or keep them with your cutterhead in the event that you reinstall it later. Also, mark the side of the cutterhead where they were used, so the future install will go smoothly. Your new cutterhead may or may not need these.

20. Place cutterhead on a work bench.
21. Remove left-hand-thread hex bolt and flat washer that secure pulley, use a pulley puller to remove pulley from cutterhead (see **Figure 11**), then remove the key.

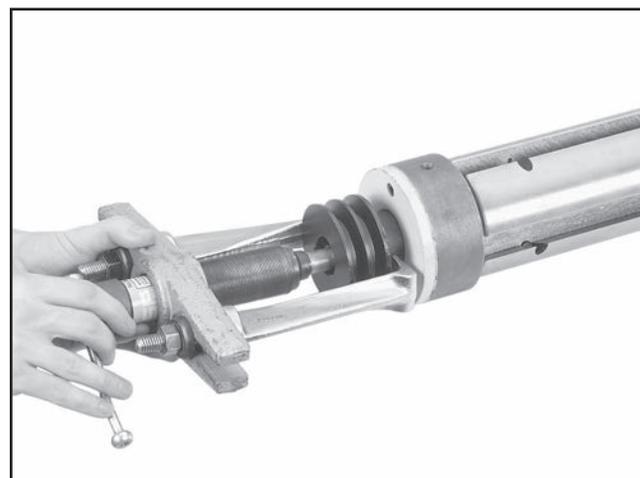


Figure 11. Removing pulley.



22. Cut a 2x4 into two 8" pieces.
23. Place 2x4 blocks under rear bearing block, as shown in **Figure 12**.

Tip: Wrapping tape around blocks can help hold them together during the next step.

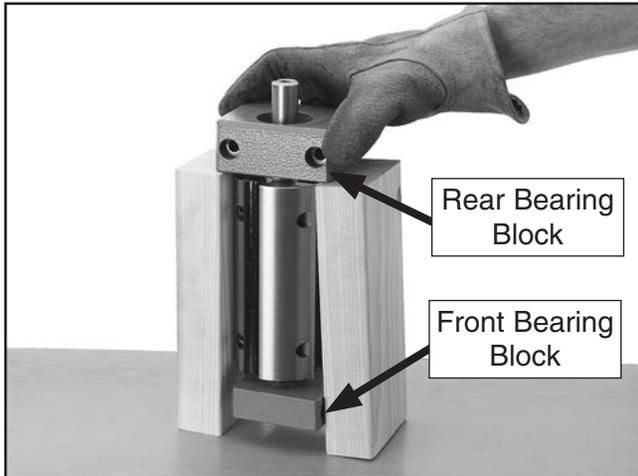


Figure 12. Example of removing rear bearing block.



24. Tap top of cutterhead shaft with a rubber dead blow hammer and a 4x4 block. This should separate cutterhead from rear bearing block.
25. Remove (3) cap screws that secure front bearing block cap, then remove cap with a standard screwdriver.
26. Remove hex bolt and flat washer that secure bearing on cutterhead.
27. Repeat **Steps 23–24** in a similar manner to remove cutterhead from front bearing block and bearing. **Figure 13** shows disassembled components.

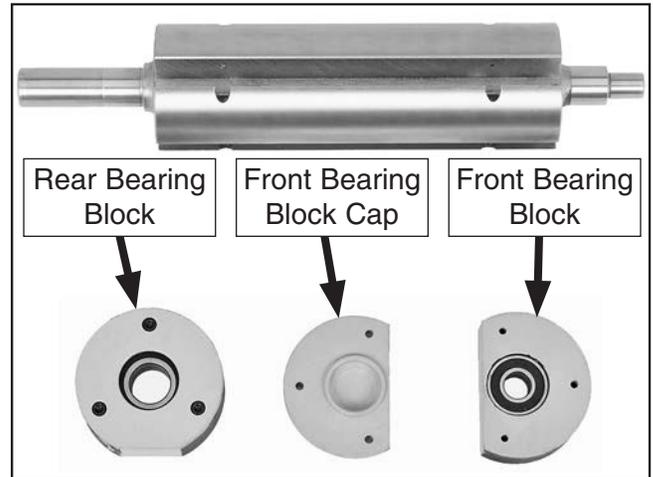


Figure 13. Disassembled cutterhead assembly.



Installing Helical Cutterhead

1. Slide rear bearing block as far as possible onto longer cutterhead shaft, as shown in **Figure 14**.

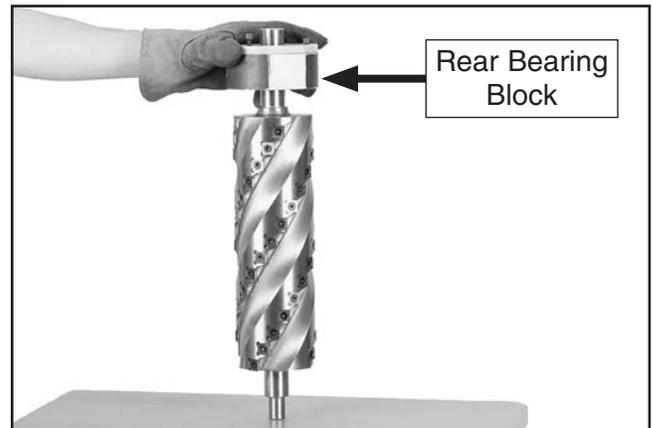


Figure 14. Re-installing rear bearing block assembly.



- Stand cutterhead upright between two 8" 2x4 blocks (see **Figure 15**), with the rear bearing block side down. Use a hammer and a wood block to seat cutterhead into rear bearing block. Tap wood block on cutterhead until it meets resistance.

Note: You can also use an arbor press to re-install rear bearing block.

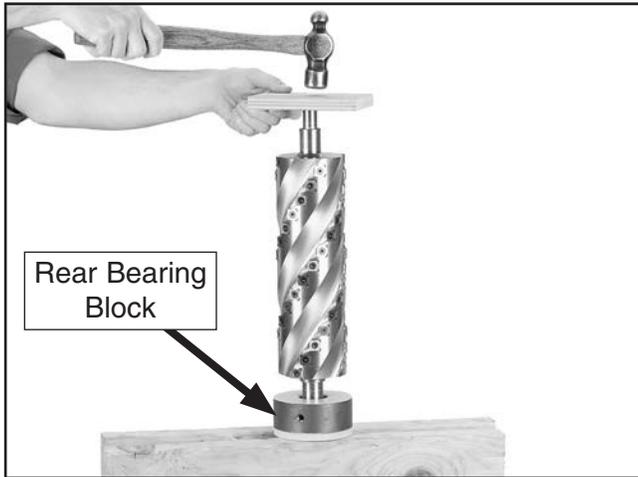


Figure 15. Seating rear bearing block.

- Use a hammer and a scrap piece of wood to seat front bearing block onto cutterhead shaft, as shown in **Figure 16**. Tap front bearing block until it meets resistance.

Note: You can also use an arbor press to re-install front bearing block.

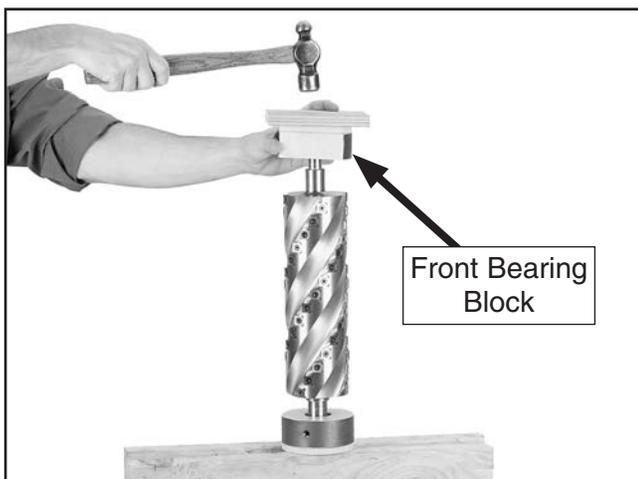


Figure 16. Re-installing front bearing block.

- Secure front bearing block with hex bolt and flat washer removed in **Step 26** on **Page 5**, then re-install cap with (3) cap screws.
- Place cutterhead on a bench, slide key into keyway, push pulley onto cutterhead shaft, then secure pulley with left-hand thread hex bolt and flat washer removed in **Step 21** on **Page 4**.
- Wipe down part of casting where bearing blocks will rest to remove sawdust.
- Move cutterhead to jointer. Using mark from **Step 18** on **Page 4**, install cutterhead so front bearing block is positioned at front of machine (see **Figure 17**). Be careful not to chip carbide inserts on jointer beds.

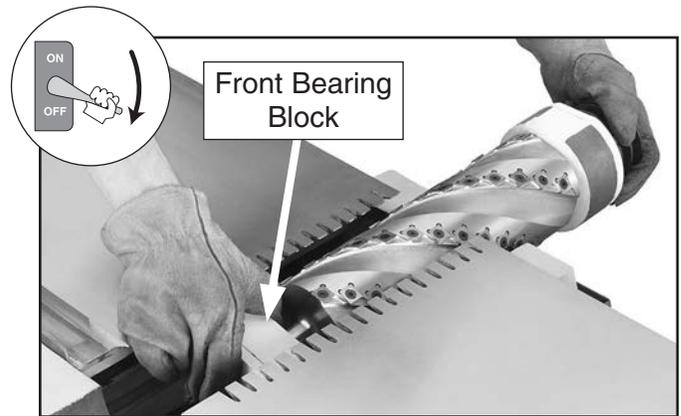


Figure 17. Installing helical cutterhead.

- Secure cutterhead assembly bearing blocks to casting with hex bolts and lock washers removed in **Step 17** on **Page 4**, as shown in **Figure 18**.

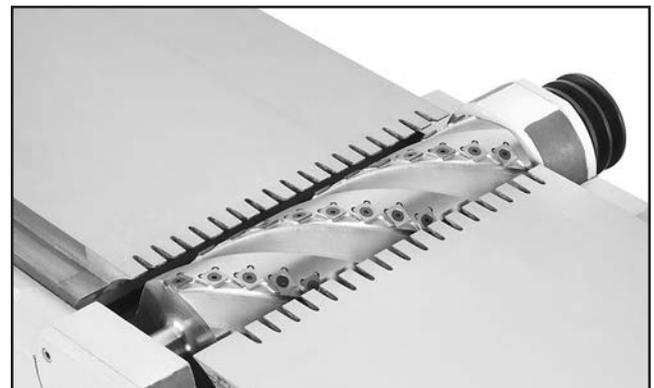


Figure 18. T27696 helical cutterhead secured with hex bolts and lock washers.



9. Re-install any gaskets that were knocked off during disassembly.
10. Place base back on cabinet using power lifting equipment or two lifting assistants.
 - If you used power lifting equipment to raise bed off of cabinet to remove existing cutterhead, make sure 900 lb. capacity straps are wrapped correctly around infeed and outfeed tables, remove 4x4 boards, then lower bed onto cabinet.
 - If you did not use power lifting equipment but only placed boards between base and cabinet, have two lifting assistants carefully lower each side of base onto cabinet while you remove 4x4 boards between cabinet and beds.
11. Re-install helical gear shafts and handwheel assemblies by repeating **Steps 8–12** on **Pages 2–3** in reverse order.
12. Raise outfeed table up as far as possible.
13. Using straightedge and feeler gauge set, inspect cutterhead parallelism with outfeed table, as shown in **Figure 19**. With straightedge in position, raise or lower outfeed table until cutterhead body (not carbide insert) just touches straightedge.

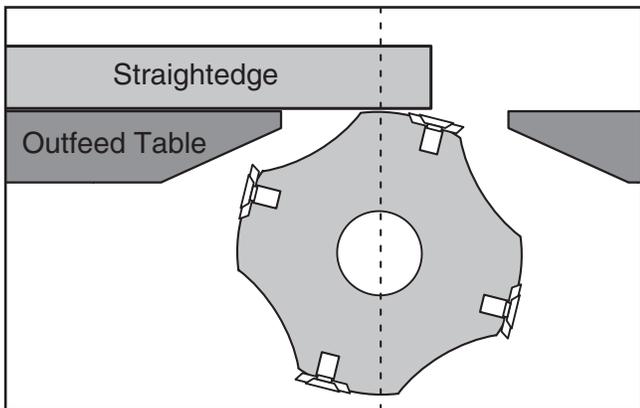


Figure 19. Checking cutterhead parallelism.

14. Move straightedge to other side to determine if one end of cutterhead body is higher/lower than the other. (Place feeler gauge between cutterhead body and straightedge to determine height difference.)
 - If cutterhead is even or within 0.004" of outfeed table from one side to the other, skip to **Step ??**.
 - If cutterhead is over 0.004" from one side to the other, follow instructions in your G0609 manual on **Pages 38–39** for checking infeed table parallelism and adjusting table parallelism. Once tables are parallel to cutterhead, proceed to **Step 15**.
15. Secure jointer base to stand with M8-1.25 x 25 cap screws and lock washers removed earlier.
16. Re-install V-belts on pulleys. (Refer to instructions in your jointer manual for details.)
17. Place a straightedge on outfeed table so it extends over cutterhead, and rotate cutterhead pulley until one of the carbide inserts is at top-dead-center (TDC), as shown in **Figures 20 & 21**.

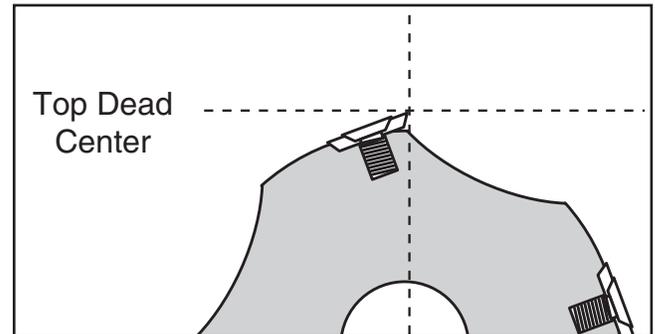


Figure 20. Cutterhead insert at top-dead-center.



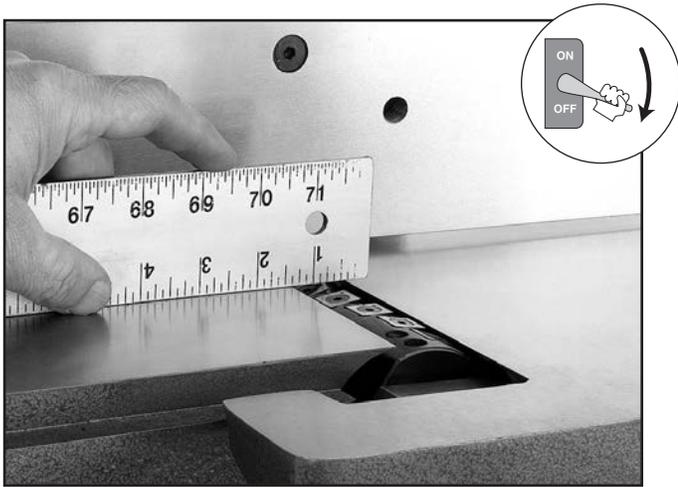


Figure 21. Setting outfeed table height.

When correctly set, carbide insert will just touch straightedge at its highest point of rotation (see **Figure 22**).

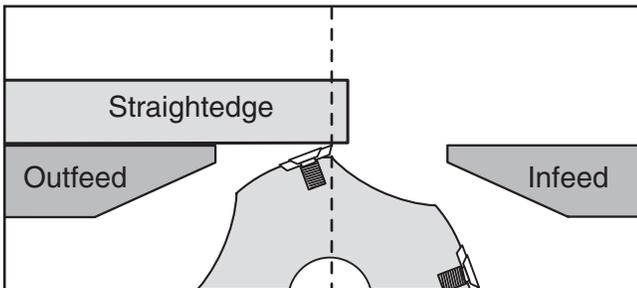


Figure 22. Using a straightedge to align outfeed table height with insert at TDC.

- If your outfeed table is correctly set, no adjustments are necessary.
- If insert lifts straightedge off table, or table is below straightedge, adjust outfeed table height with outfeed table handwheel until straightedge just touches an insert at its highest point of rotation.

18. Lock outfeed table lock, re-install fence bracket and fence assembly, then secure fence carriage with lock nut.
19. Re-install rabbet extension table.
20. Re-install cutterhead guard back over cutterhead, making sure spring tension in guard is properly set so guard springs back over cutterhead when it is pulled back and released.
21. Re-adjust infeed table.
22. Reset positive stop bolts on infeed and outfeed tables.
23. Re-install motor cover and side access panels.



Rotating/Changing Carbide Inserts

Tools Needed:

L-Handle Torx Driver T20 1

Number of Inserts:

T27696 96

Each insert can be rotated to reveal any one of its four cutting edges. Therefore, if one cutting edge becomes dull or damaged, simply rotate it 90° to reveal a fresh cutting edge (see **Figure 23**).

In addition, each insert has a reference dot on one corner. As the insert is rotated, the reference dot location can be used as an indicator of which edges are used and which are new. When reference dot revolves back around to its starting position, the insert should be replaced.

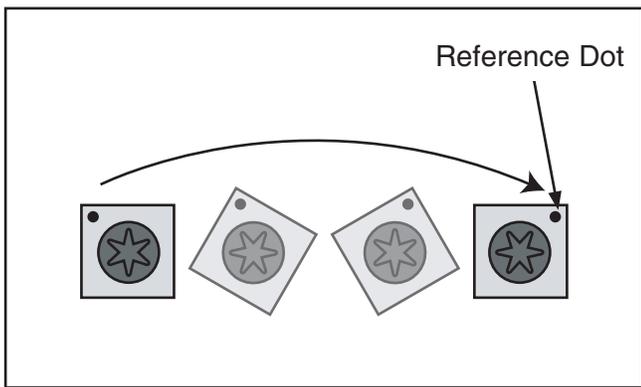


Figure 23. Rotating indexable carbide inserts.

To rotate or change a carbide insert:

1. DISCONNECT MACHINE FROM POWER!
2. Remove any sawdust from head of carbide insert Torx screw.
3. Remove Torx screw and carbide insert.
4. Clean all dust and dirt off insert and cutterhead pocket from which insert was removed, and replace insert so a fresh, sharp edge is facing outward.

Note: *Proper cleaning is critical to achieving a smooth finish. Dirt or dust trapped between the insert and cutterhead will slightly raise the insert, and make a noticeable marks on your workpieces the next time you joint.*



Accessories

G8995—4" Heavy-Duty Pulley Puller

Indispensable for pulling gears or pulley off of press-fit shafts. Can be used in either a 2 or 3 jaw configuration. The 4" jaw fingers are also reversible so they can grab an outside or inside diameter. The forcing screw has a live center and is made of tough hardened steel. Keep one of these handy in your tool box.

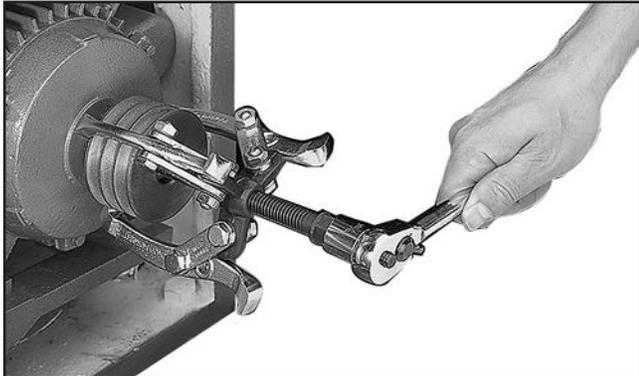


Figure 24. G8995 4" Heavy-Duty Pulley Puller.

T27714—10-Pack of Indexable Carbide Inserts

15 x 15 x 2.5 Replacement carbide inserts for T27696 cutterhead.

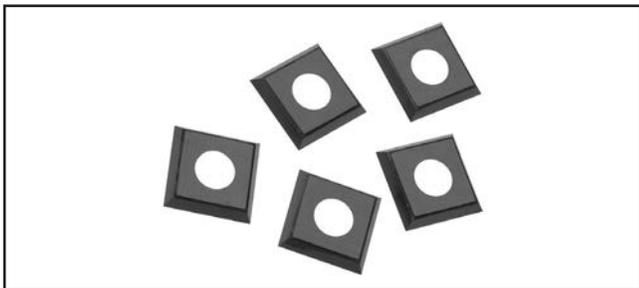


Figure 25. T27714 Indexable Carbide Inserts.

G9644—12" Precision Straightedge

H2675—16" Precision Straightedge

Is your straightedge really straight? These grade 00 heavy-duty stainless steel straightedges are manufactured to DIN874 standards for professional results in setup and inspection work.



Figure 26. Precision straightedges.

6204ZZ—Ball Bearing

6206ZZ—Ball Bearing

These bearings are direct replacements for the cutterhead bearings on the Model G0609 and G0609X jointers.



Figure 27. Model G0609 & G0609X replacement cutterhead bearings.

T21272—Golden Pigskin Gloves

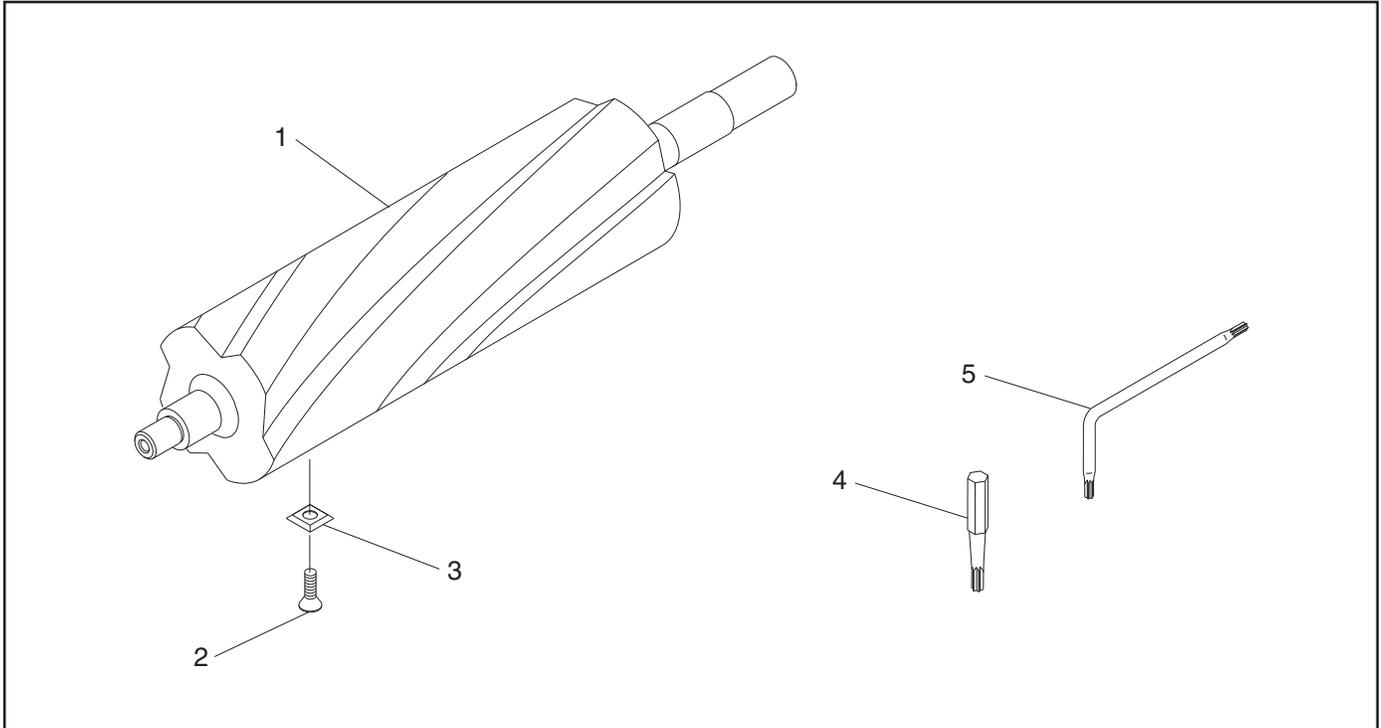
These durable gloves will help keep your hands safe while working with all types of parts and machinery. Features include suede pigskin palm, safety cuff, and wing thumb.



Figure 28. T21272 Golden Pigskin Gloves.



Parts Breakdown & List



REF PART #	DESCRIPTION
1	PT27696001 HELICAL CUTTERHEAD 12"
2	PT27696002 FLAT HD TORX SCR T20 M6-1 X 15
3	PT27696003 INDEXABLE CUTTER 15 X 15 X 2.5

REF PART #	DESCRIPTION
4	PT27696004 DRIVER BIT TORX T20
5	PT27696005 L-WRENCH TORX T20



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