



# MODEL T27698 6" HELICAL CUTTERHEAD INSTALLATION INSTRUCTIONS

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

The Model T27698 indexable insert helical cutterhead is designed to replace the straight-knife cutterhead on the Grizzly jointer Models G0452, G0452P, G0654, G0813, G0814, and the G1182 Series.

## **!WARNING**

**Do NOT modify or alter these cutterheads if they are not a direct fit. Doing so could result in serious personal injury or property damage.**

The total installation/setup procedure takes approximately one hour. Read these instructions thoroughly before beginning. Also, we strongly recommend replacing the old cutterhead bearings at the time of installation. The T27698 uses (1) 6202-2RS ball bearing and (1) 6203-2RS ball 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 instructions given.

## Specifications

Maximum Width of Cut.....6"  
Cutterhead Diameter ..... 65mm  
Number of Indexable Carbide Inserts ..... 30  
Indexable Carbide Insert Size ... 15 x 15 x 2.5mm

## Recommended Tools

Hex Wrench 4, 6mm.....	1 EA
Wrench/Socket 10, 13, 17, 19mm .....	1 EA
Precision Straightedge .....	1
Feeler Gauge Set.....	1
Pair of Heavy Leather Gloves .....	1
Safety Glasses (per person).....	1
Pulley Puller.....	1
Rubber Dead Blow Hammer .....	1
Wood Block 12" 4x4 .....	1
Wood Blocks 8" 2x4 .....	2
Shop Rag .....	1
Degreaser.....	As Needed
Flat Piece of Scrap Wood .....	1

## Inventory (Figure 1)

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

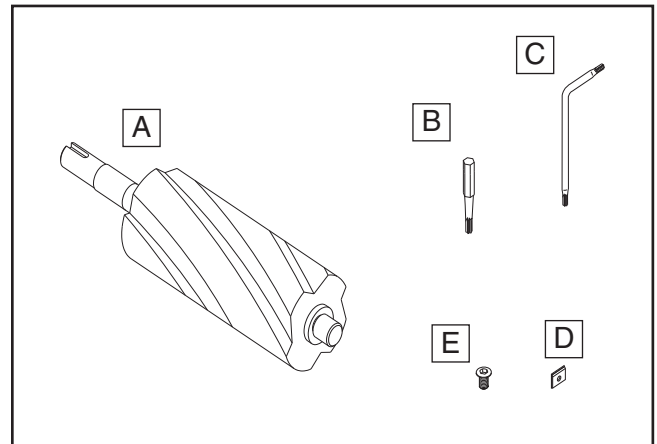


Figure 1. Spiral cutterhead inventory.

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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.**

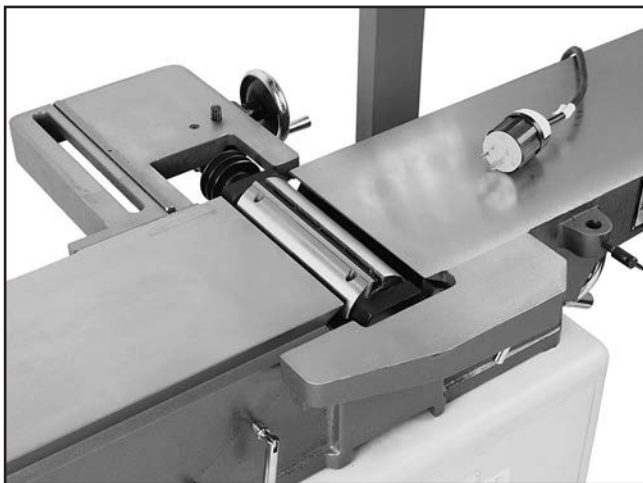
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## Installation

1. DISCONNECT JOINTER FROM POWER!
2. Remove the jointer fence and cutterhead guard.
3. Remove the V-belt from the pulleys.
4. Lower both beds to make enough room for the cutterhead to come out, as shown in **Figure 2**.

**Note:** When lowering, make sure that the fence support does not come in contact with the cutterhead pulley.



**Figure 2.** Example of jointer disassembly Steps 1-4.

5. Remove the nut and lock washer on the bearing block stud, as shown in **Figure 3**, and repeat on the other side.

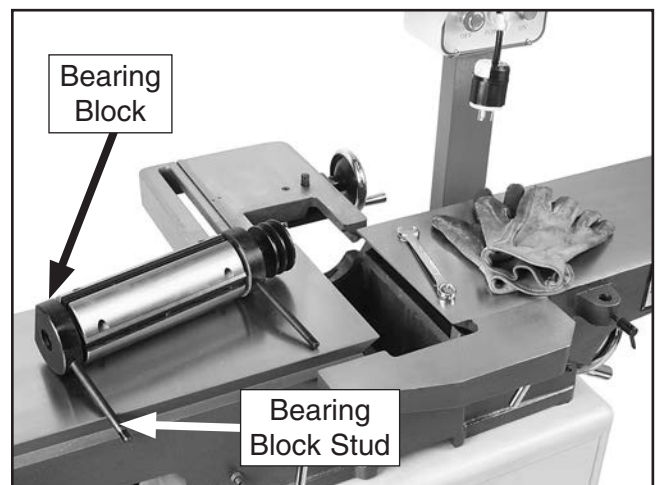


**Figure 3.** Example of removing nut and lock washer on bearing block stud.

6. Wearing heavy leather gloves, carefully remove the cutterhead from the casting (see **Figure 4**).

**Note:** Your cutterhead may have paper 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.

7. Remove bearing block studs (see **Figure 4**).

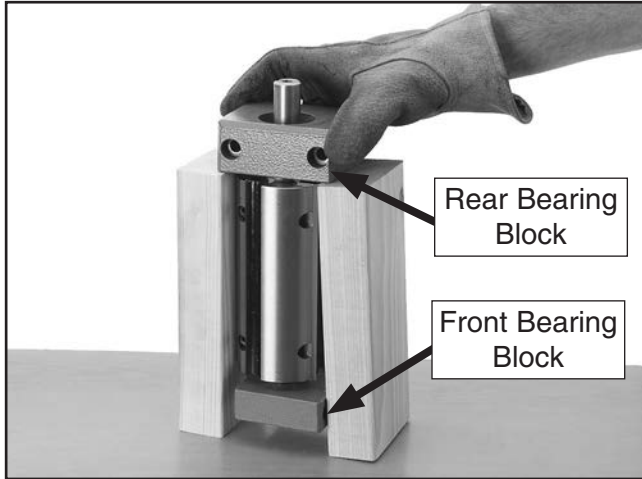


**Figure 4.** Example of cutterhead removed.



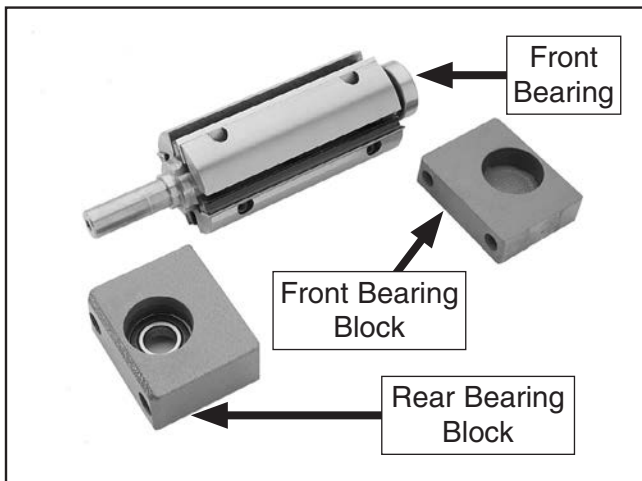
8. Cut a 2x4 into two 8" pieces.
9. Place cutterhead assembly on workbench or flat surface with pulley side of cutterhead shaft facing up, then place 2x4 blocks under rear bearing block, as shown in **Figure 5**.

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



**Figure 5.** Removing rear bearing block.

10. Tap top of cutterhead shaft with a rubber dead blow hammer and a 4x4 block. This should separate cutterhead from rear bearing block.
11. Remove front bearing block and bearing from cutterhead—if it has not already dropped off. **Figure 6** shows disassembled components.

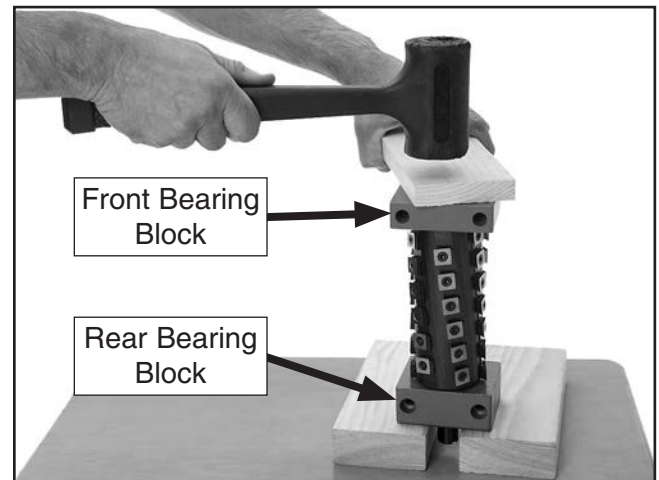


**Figure 6.** Disassembled cutterhead assembly.

## **!WARNING**

**Jointer carbide inserts are extremely sharp. Wear leather gloves to avoid the risk of serious personal injury during the following steps.**

12. Install or replace bearing removed in **Step 11** onto front end (shorter shaft) of your Model T27698 helical cutterhead, then press bearing into front bearing block.
13. Stand cutterhead upright between two 8" 2x4 blocks, then use a piece of scrap wood and a dead blow hammer to seat cutterhead into bearing blocks, as shown in **Figure 7**.

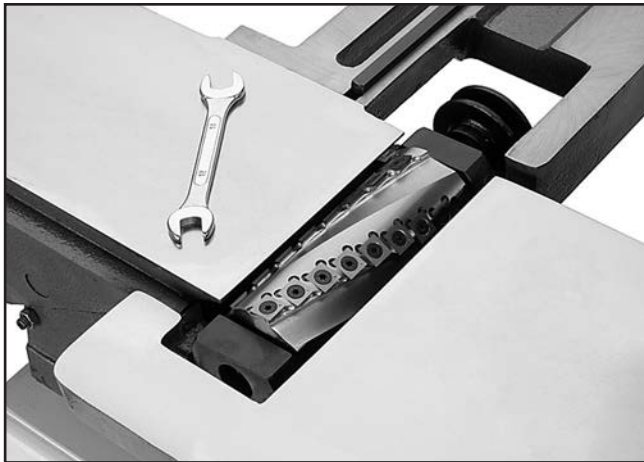


**Figure 7.** Seating rear bearing block onto helical cutterhead.

14. Re-install the key onto the keyway, then press the pulley onto the new cutterhead shaft.
15. Reinstall the bearing block studs onto the bearing blocks.

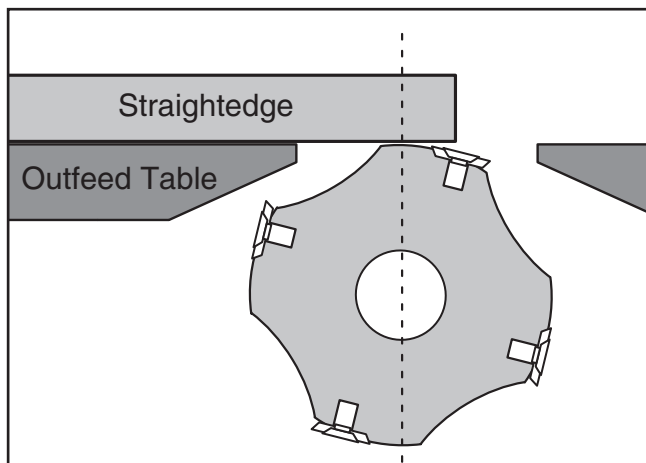


16. Install the cutterhead (see **Figure 8**) with the lock washers and hex nuts removed in **Step 5**.



**Figure 8.** Example of spiral cutterhead installed.

17. Tighten the spiral cutterhead in place, and ensure both pulley set screws are tight.
18. Using the straightedge and feeler gauge set, inspect the cutterhead parallelism with the outfeed table as shown in **Figure 9**. With the straightedge in position, raise or lower the outfeed table until the cutterhead body (not the carbide insert) just touches the straightedge.



**Figure 9.** Checking cutterhead parallelism.

19. Move the straightedge to the other side to determine if one end of the cutterhead body is higher/lower than the other. (Place the feeler gauge between the cutterhead body and the straightedge to determine the height difference.)

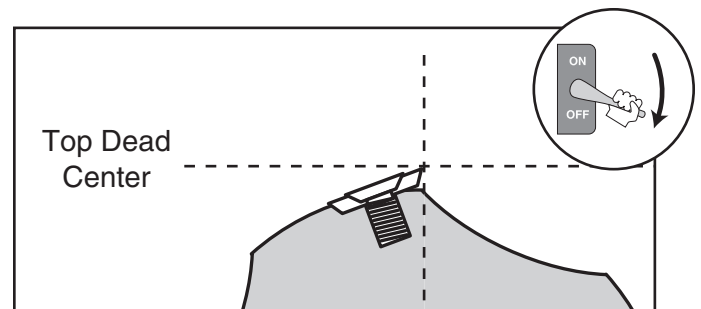
—If the cutterhead is even or within 0.004" with the outfeed table from one side to the other, skip to **Step 20**.

—If the cutterhead is over 0.004" from one side to the other, go to **Step 18**.

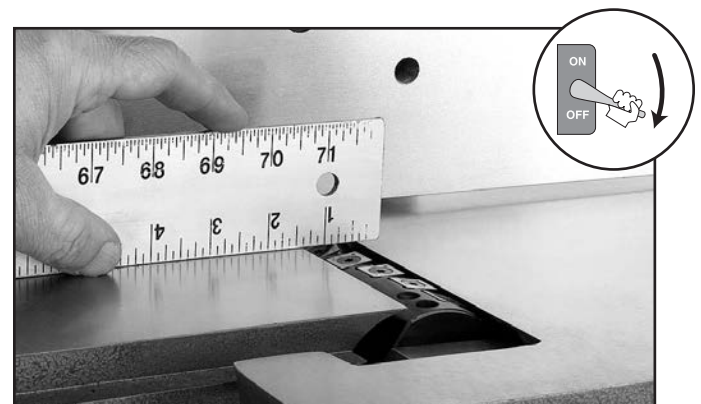
20. Loosen the hex nuts securing both bearing block studs, lift the spiral cutterhead slightly, then place a shim beneath the bearing block that needs to be adjusted.

**Note:** Use the shims from your old cutterhead if available. If not available, newspaper is approximately 0.003" thick and will work for shimming (we don't recommend shimming more than 0.004" on either side, as this may affect how the bearing block seats in the casting).

21. Repeat **Steps 14–16** and adjust if necessary, then tighten the hex nuts on the bearing block studs.
22. Place a straightedge on the outfeed table so it extends over the cutterhead, and rotate the cutterhead pulley until one of the carbide inserts is at top-dead-center (TDC), as shown in **Figures 10 & 11**.



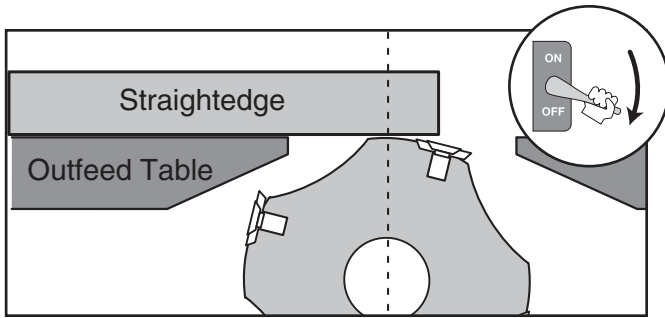
**Figure 10.** Cutterhead insert at top-dead-center.



**Figure 11.** Setting outfeed table height.



When correctly set, the carbide insert will just touch the straightedge when the insert is at its highest point of rotation (see **Figure 12**).



**Figure 12.** Using a straightedge to align outfeed table height with insert at TDC.

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

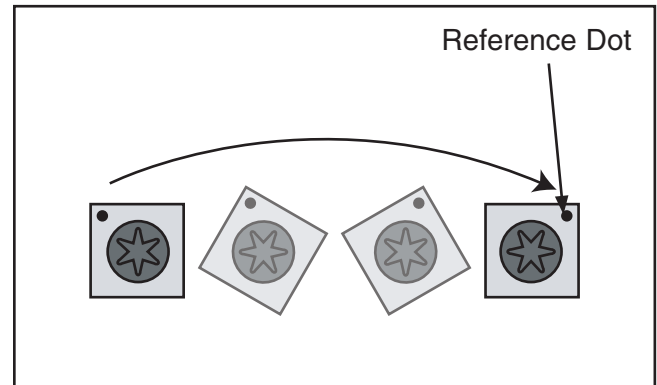
23. Lock the outfeed table, then reinstall the fence.
24. Install the cutterhead guard back over the cutterhead, making sure that the spring tension in the guard is properly set so the guard springs back over the cutterhead when it is pulled back and released.
51. Re-adjust the infeed table.

## Rotating/Changing Carbide Inserts

### Tools Needed:

L-Handle Torx Driver T20 ..... 1

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 13**).



**Figure 13.** Rotating indexable carbide inserts.

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.

### 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 plane.*



## Accessories

**T27714—10 Pack of Indexable Carbide Inserts**  
Replacement 15 x 15 x 2.5mm carbide inserts for T27697 and T27699 cutterheads.

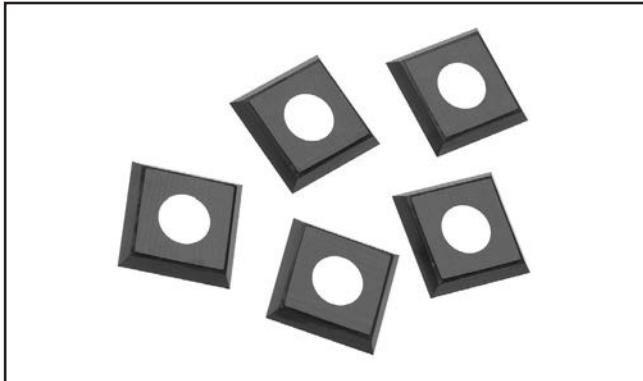


Figure 14. T27714 Indexable Carbide Inserts.

**G8995—4" Heavy Duty Pulley Puller**  
Indispensable for pulling gears or pulleys 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.

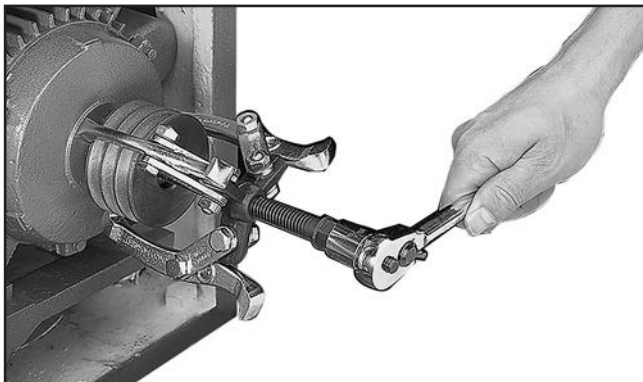


Figure 15. G8995 4" Heavy Duty Pulley Puller.

**T20501—Face Shield Crown Protector 4"**  
**T20502—Face Shield Crown Protector 7"**  
**T20503—Face Shield Window**  
**T20452—"Kirova" Anti-Reflective S. Glasses**  
**T20451—"Kirova" Clear Safety Glasses**  
**H0736—Shop Fox® Safety Glasses**  
**H7194—Bifocal Safety Glasses 1.5**  
**H7195—Bifocal Safety Glasses 2.0**  
**H7196—Bifocal Safety Glasses 2.5**



Figure 16. Eye protection assortment.

**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.

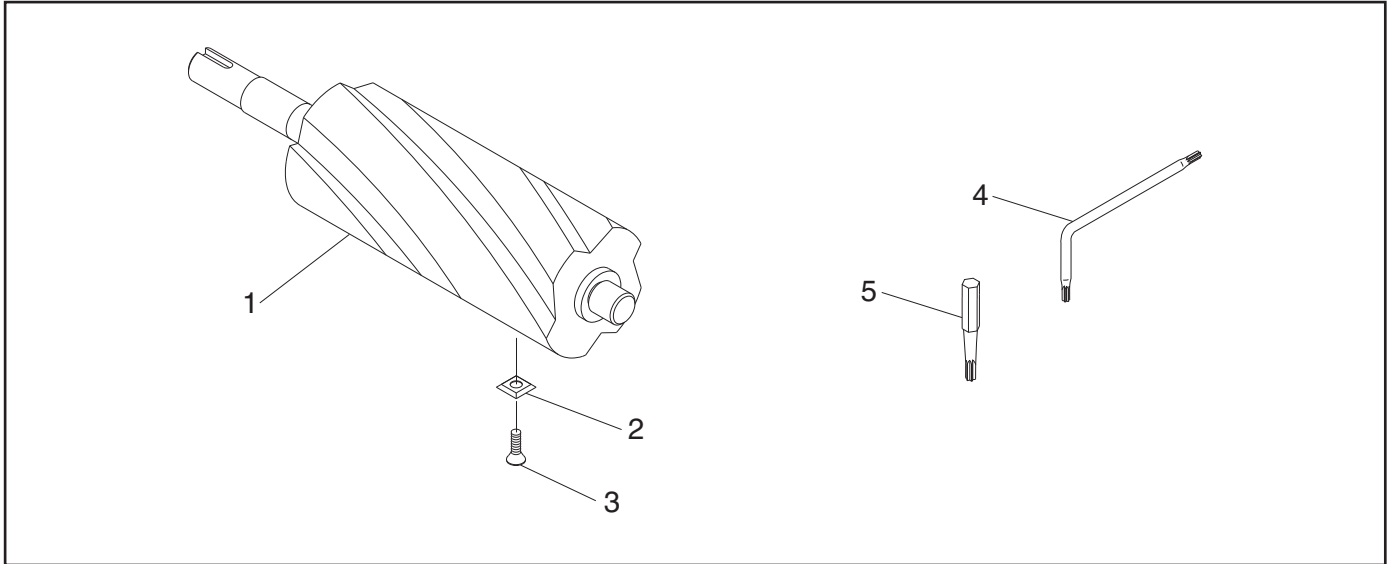


Figure 17. Precision straightedges.

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# T27698 Parts Breakdown and List



REF PART #	DESCRIPTION
1	PT27698001 CUTTERHEAD 6" HELICAL
2	PT27698002 INDEXABLE INSERT 15 X 15 X 2.5
3	PT27698003 FLAT HD TORX SCR T20 M6-1 X 15

REF PART #	DESCRIPTION
4	PT27698004 L-WRENCH TORX T20
5	PT27698005 DRIVER BIT TORX T20



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