



MODEL T27694 & T27695 15" & 20" INDEXABLE INSERT HELICAL CUTTERHEADS INSTALLATION INSTRUCTIONS

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

Introduction

The T27695 15" and T27694 20" indexable insert helical cutterheads are designed fit Grizzly planer Models G0453, G0453Z, G0454, and G0454Z.

!WARNING

Do NOT modify or alter these cutterheads to make them fit other makes or models of planers for which they aren't designed. Doing so could result in property damage or serious personal injury.

The total procedure of changing the cutterhead and setting up the planer takes approximately three hours. Read these instructions thoroughly before beginning. We strongly recommend replacing the old cutterhead bearings at the time of installation. The T27694 uses (2) 6206ZZ bearings. The T27695 uses (1) 6204ZZ bearing and (1) 6205ZZ 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

T27694

Maximum Width of Cut.....20"
Cutterhead Diameter81mm
Number of Indexable Carbide Inserts 100

T27695

Maximum Width of Cut..... 15"
Cutterhead Diameter 76mm
Number of Indexable Carbide Inserts 75

Recommended Tools

Hex Wrench 5mm.....	1
Wood Blocks 2x4 x 4"	6
Pair of Heavy Leather Gloves	1 Per Person
Wooden or Rubber Mallet	1
Steel Hammer	1
Screw or Bolt M6-1 x 25.....	1
Open-End Wrench 12/14mm	1
Shop Rags.....	As Needed
Drain Pan.....	1
Gear Case Oil ISO 320	As Needed
Oil Funnel	1
Assistants	1-2
Sprocket/Pulley Puller	1
4" Length of 1" I.D. Pipe	1
Open-End Wrench to Fit Pulley Puller.....	1
Flathead Screwdriver #2.....	1
Heavy Cardboard	As Needed
Heavy Tape	As Needed
Replacement Gaskets and Seals.....	As Needed

Inventory

A. Helical Cutterhead.....	1
B. L-Wrench Torx T-20	2
C. Torx Bit T-20	2
D. Flat Head Torx Screws M6-1 x 15.....	3
E. Cutterhead Inserts 15 x 15 x 2.5.....	5

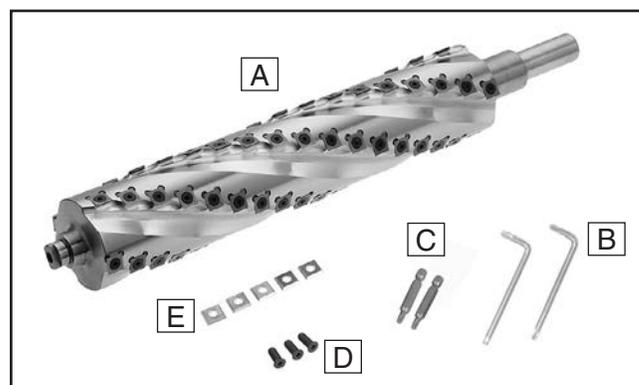


Figure 1. Model T27694/T27695 inventory.

⚠ CAUTION

Cutterhead knives and inserts are razor sharp! Always wear heavy leather gloves when handling cutterheads, and avoid contact with cutters whenever possible. Failure to comply can result in serious cuts or laceration injuries.

Removing Existing Cutterhead

1. DISCONNECT MACHINE FROM POWER!
2. Remove top cover and dust port to expose cutterhead.
3. Remove knives from existing cutterhead.
4. Remove belt cover, and then remove V-belts from pulleys.

Note: This may require loosening belt tension. This procedure is outlined in **SERVICE** section of your planer manual.

5. Remove hex bolt securing cutterhead pulley in place.
6. Rotate cutterhead until cutterhead pulley key is at an upright position.
7. Remove pulley and key. If pulley is difficult to remove, use a pulley puller, as shown in **Figure 2** (see **Page 6** of this instruction sheet if you do not have a pulley puller).

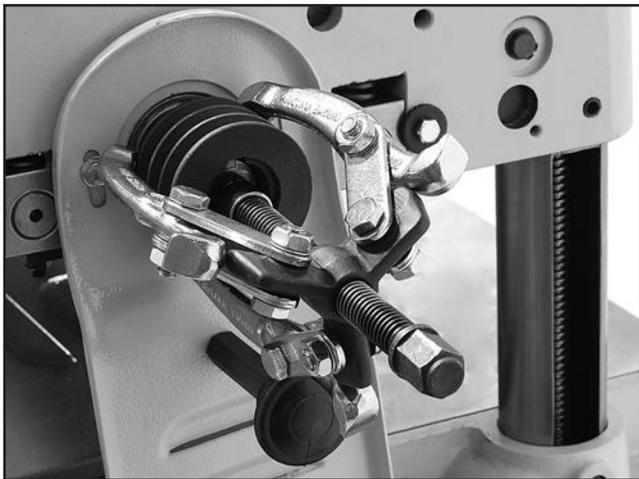


Figure 2. Pulley puller installed on cutterhead.

8. Remove the table elevation handwheel and key.
9. Remove both rear guards from sprocket cover, as shown in **Figure 3**.

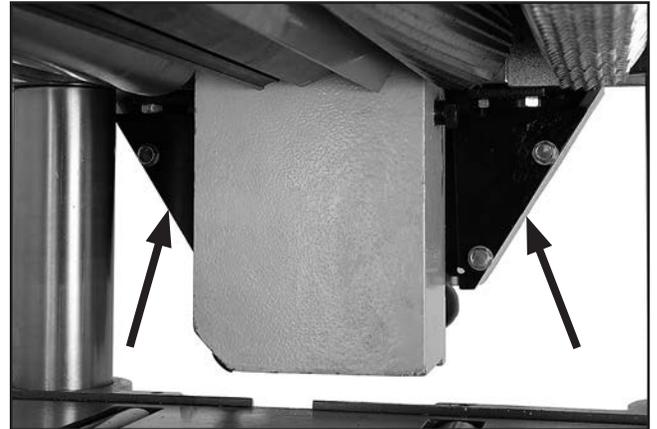


Figure 3. Sprocket cover rear guards.

10. Remove sprocket cover cap screw and sprocket cover.
11. Remove cap screws and washers from three sprockets, shown in **Figure 4**, to expose sprocket keys.
12. Unhook idler spring shown in **Figure 4** and move idler up out of the way.
13. Rotate cutterhead so sprocket keys are in a generally upright position (see **Figure 4**). This prevents keys from falling out.

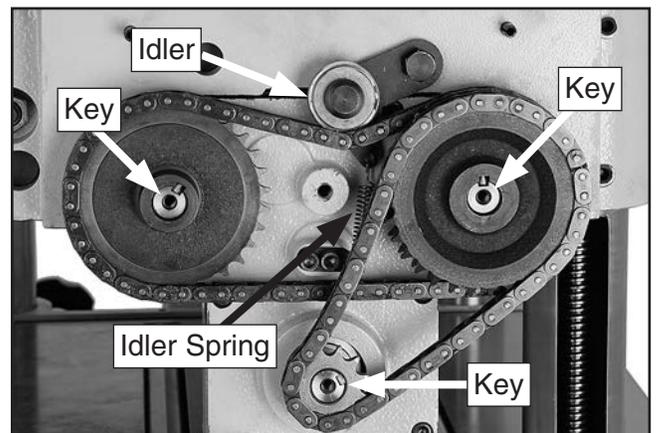


Figure 4. Example of sprockets and chains.

14. Mark outside of sprockets with correction fluid as a way of remembering which side of each sprocket faces outward.



15. Remove sprockets, keys and chains all at once, taking care to keep chains intact.
16. Thoroughly drain planer gearbox into a drain pan by removing drain plug shown in **Figure 5**.

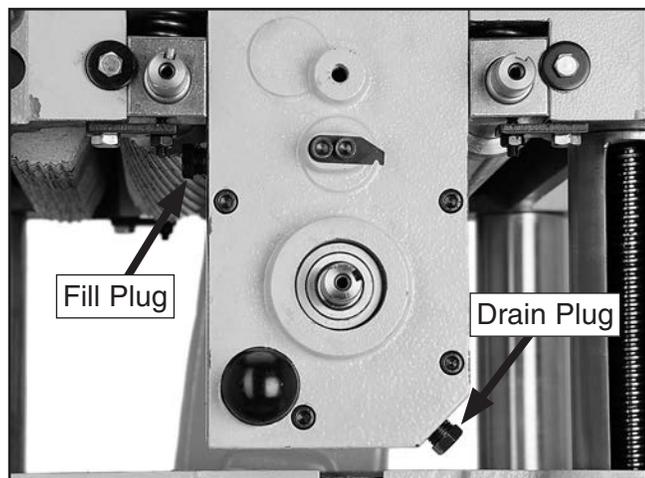


Figure 5. Drain and fill plug locations.

17. Insert (6) 4" 2x4 blocks directly beneath cutterhead, as shown in **Figure 6**.

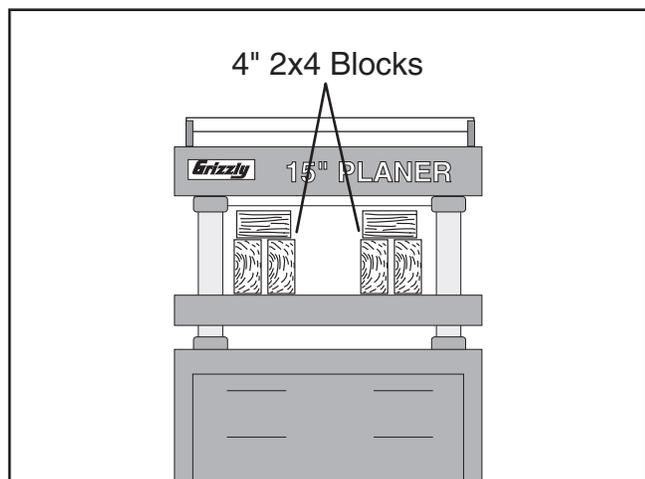


Figure 6. Support block locations.

18. Re-install handwheel and key, and carefully raise table so cutterhead just touches blocks.

19. Remove four cap screws at the top of gearbox, shown in **Figure 7**.

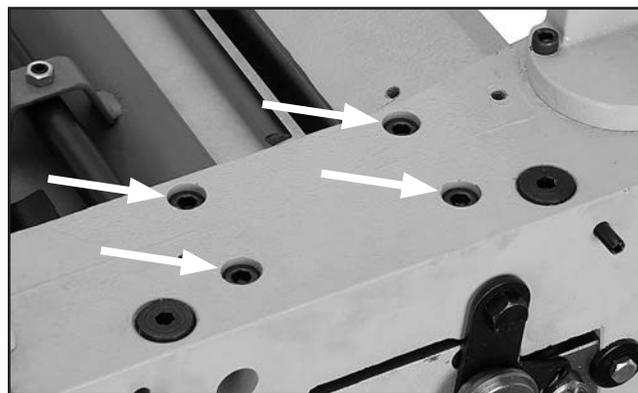


Figure 7. Gearbox cap screw location.

20. Have an assistant hold gearbox steady while you use a rubber or wooden mallet to unseat cutterhead from headstock, as shown in **Figure 8**.

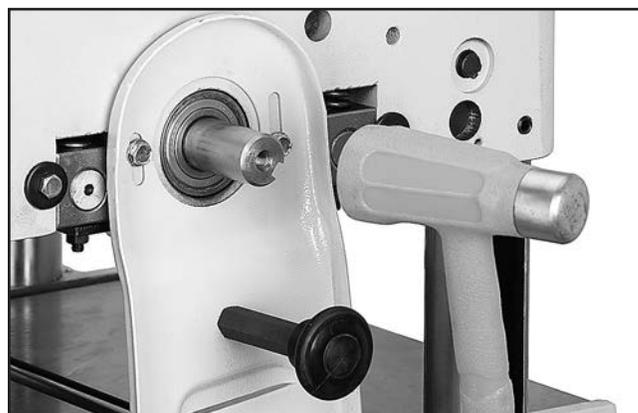


Figure 8. Unseating cutterhead from headstock.



21. Pull cutterhead gearbox assembly off planer and place on workbench.
22. Remove five cap screws from front of gearbox cover.
23. Separate gearbox cover by gently tapping near gasket using mallet and flat head screwdriver.
24. Remove cap screw from inside helical gear, shown in **Figure 9**, and remove gear.

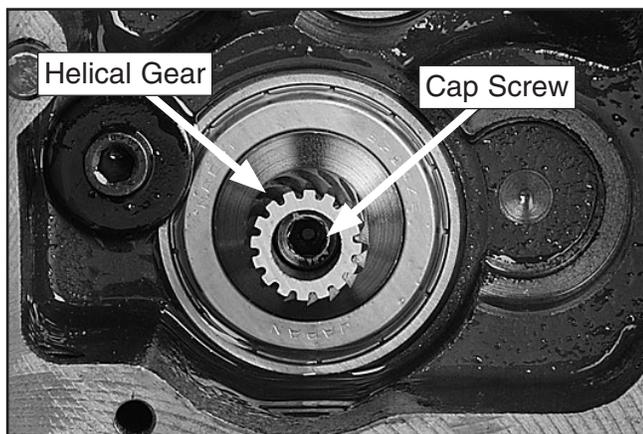


Figure 9. Helical gear and cap screw.

25. Insert spare M6-1 screw or bolt into hole at gearbox end of cutterhead shown in **Figure 10**.

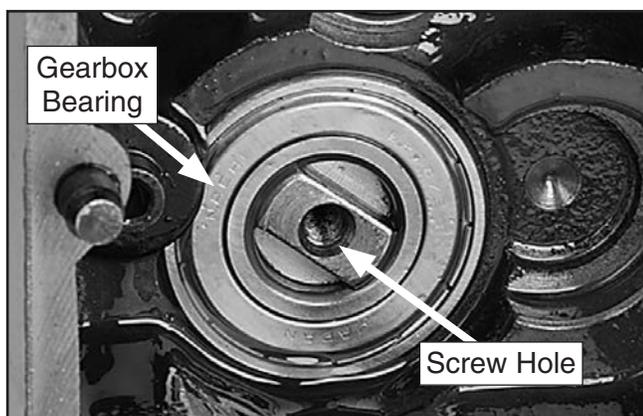


Figure 10. Location of screw hole in cutterhead removal.

26. While supporting gearbox, remove cutterhead by tapping on screw or bolt with a hammer, as shown in **Figure 11**. It may also be necessary to tap on back of gearbox with a rubber or wooden mallet.

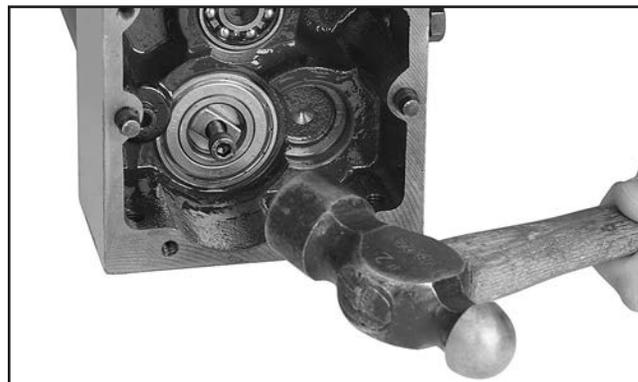


Figure 11. Cutterhead removal.

27. Visually inspect all bearing bores, both on headstock and in gearbox, and remove any burrs or rough spots that are present.

Installing Helical Cutterhead

We recommend that all gearbox seals and gaskets be replaced before cutterhead installation, even if the seals or gaskets appear to be in good condition.

NOTICE

Before removing any seals, note their orientation and how far they are driven into the bore (typically the lip of a seal will face inward toward the oil reservoir or body of liquid). This will aid in the replacement process. Failure to heed this notice can lead to fluid leakage and gearbox failure.

To install helical cutterhead:

1. Wrap new cutterhead in cardboard and securely fasten it with heavy tape.
2. Install new bearing on cutterhead by very gently tapping it using a mallet and a 4" length of 1" inside diameter (I.D.) pipe, as shown in **Figure 12** on **Page 5**.

Tip: *Place wrapped cutterhead in a freezer overnight before installing a new bearing. This will cause cutterhead metal to contract, making bearing easier to install.*

Important: *The pipe should contact the inside race of the bearing only, as shown in **Figure 12**. Force on any other portion of the bearing WILL ruin the bearing!*



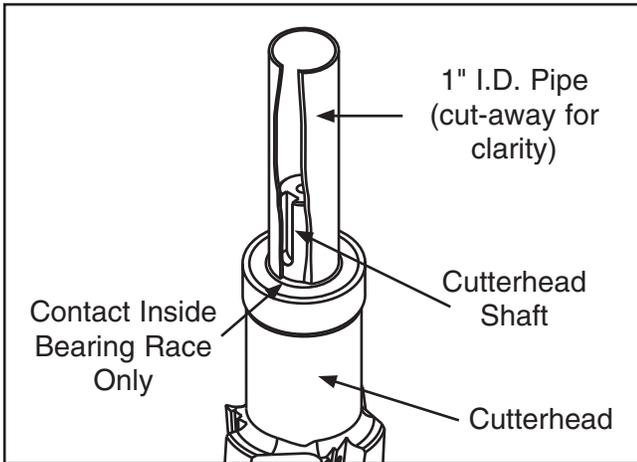


Figure 12. Close-up of bearing installation.

3. Install cutterhead in gearbox by fitting it into place, and seat it by tapping on pulley end with wooden or rubber mallet. Ensure cutterhead end is flush with inside face of gearbox bearing, as previously shown in **Figure 10** on **Page 4**.
4. Re-install helical gear and cap screw, ensuring helical gear and cutterhead are engaged.
5. Ensure that gasket surfaces are clean and free of oil, grit or contaminants. If these are damaged, replace them.
6. Re-assemble gearbox, taking care to seat rubber gasket in alignment with gearbox covers.
7. Install cutterhead-gearbox assembly into planer. Seat cutterhead shaft bearing by tapping on gearbox with rubber or wooden mallet, as shown in **Figure 13**.

8. Secure gearbox in place with cap screws removed in **Step 19** of **Cutterhead Removal** instructions.
9. Refill gearbox with ISO 320 gear oil via fill plug shown in **Figure 5** on **Page 3**.
10. Rotate all sprocket shafts so keyways are in a generally upward position. This prevents keys from falling out during installation of sprockets.
11. Re-install sprockets, chains and idler. Fasten sprockets using washers and cap screws removed in **Step 11** on **Page 2**.
12. Re-install sprocket cover, including both rear guards, on sprocket cover.
13. With cutterhead shaft keyway in an upright position, install cutterhead pulley key into keyway.
14. Slide cutterhead pulley onto shaft, and secure with hex bolt removed in **Step 5** of **Cutterhead Removal** instructions.
15. Remove the protective cardboard and tape from around the cutterhead.
16. Re-install all belts and belt cover. Re-adjust V-belt tension if it was loosened in **Step 4** of **Cutterhead Removal** instructions.
17. Re-install all remaining covers and guards.
18. Follow the procedures outlined in your planer manual for adjustment and calibration of your planer.

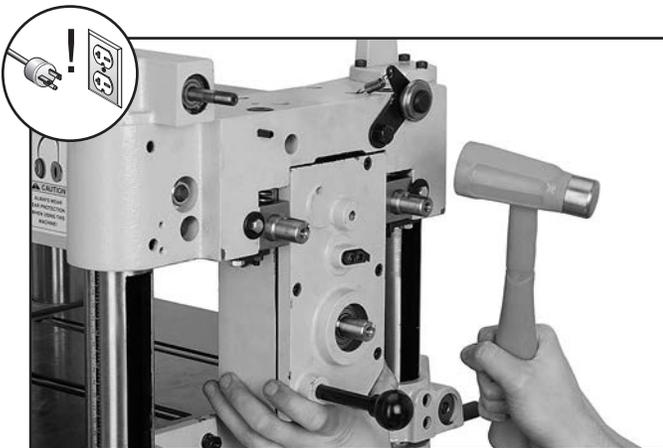


Figure 13. Example of seating cutterhead-gearbox assembly.



Rotating/Changing Carbide Inserts

Tools Needed:

T-Handle Torx Driver T20	1
L-Handle Torx Driver T20	1

Number of Inserts

Model T27694	100
Model T27695	75

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 14**).

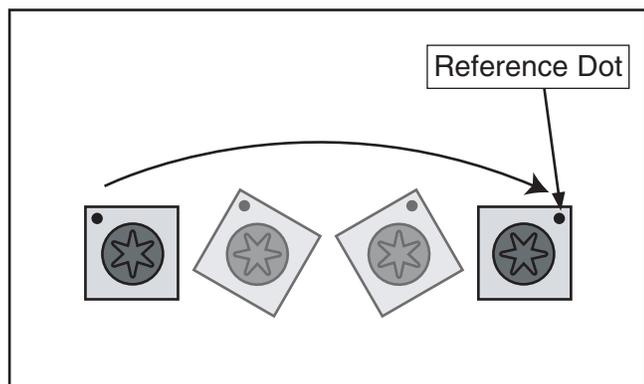


Figure 14. Carbide insert rotating sequence.

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.*

5. Lubricate Torx screw threads with light machine oil, wipe off excess oil, and torque Torx screw to 48-50 inch/pounds.

Note: *Excess oil may squeeze between the insert and cutterhead, thereby lifting the insert slightly and affecting workpiece finishes.*

Accessories

G8995—4" Heavy-Duty Pulley Puller

Indispensable for pulling gears or pulley off of press-fit shafts. 4" jaw fingers can be used in either a 2 or 3 jaw configuration.

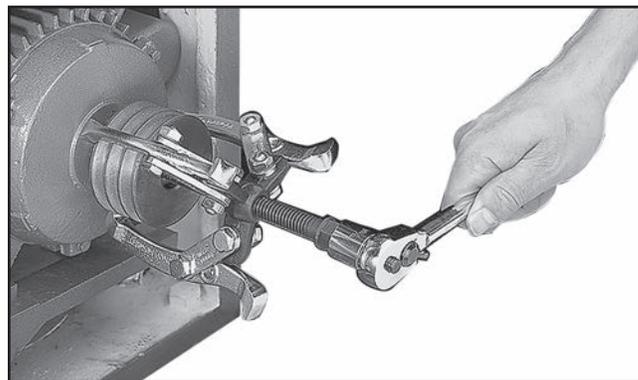


Figure 15. G8995 4" Heavy Duty Pulley Puller.

T27714—10 Pack of Indexable Carbide Inserts

Replacement carbide inserts for T27694 and T27695 cutterheads.

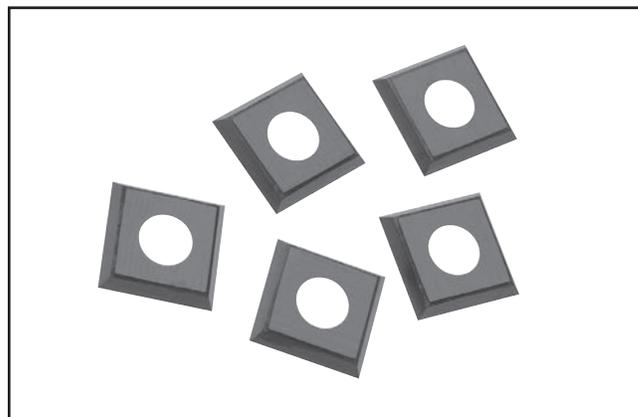
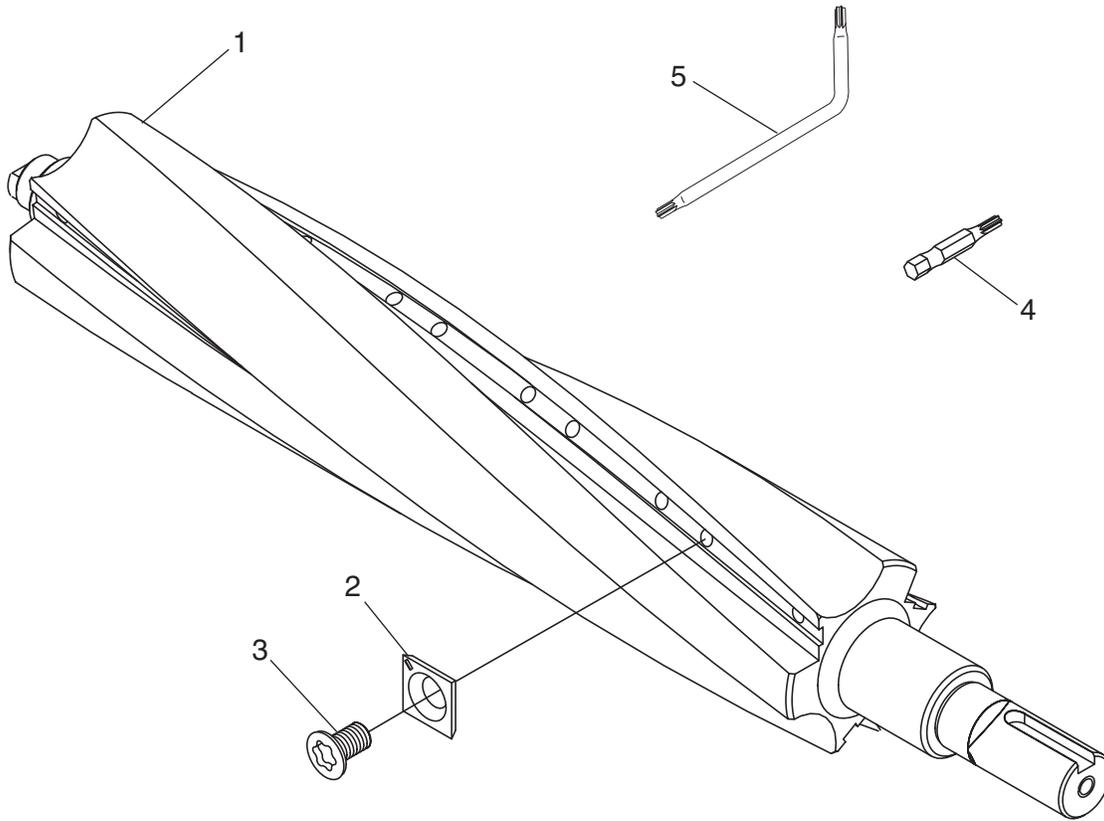


Figure 16. T27714 Indexable Carbide Inserts.



Parts Breakdown & List



T27694 Parts

REF PART #	DESCRIPTION
1	PT27694001 HELICAL CUTTERHEAD 20"
2	PT27694002 INDEXABLE CUTTER 15 X 15 X 2.5
3	PT27694003 FLAT HD TORX SCR T20 M6-1 X 15

REF PART #	DESCRIPTION
4	PT27694004 TORX BIT T-20
5	PT27694005 L-WRENCH TORX T-20

T27695 Parts

REF PART #	DESCRIPTION
1	PT27695001 HELICAL CUTTERHEAD 15"
2	PT27695002 INDEXABLE CUTTER 15 X 15 X 2.5
3	PT27695003 FLAT HD TORX SCR T20 M6-1 X 15

REF PART #	DESCRIPTION
4	PT27695004 TORX BIT T-20
5	PT27695005 L-WRENCH TORX T-20

Please Note: We do our best to stock replacement parts whenever possible, but we cannot guarantee that all parts shown here are available for purchase. Call (800) 523-4777 or visit our online parts store at www.grizzly.com to check for availability.



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