MODEL T32591
13" SPIRAL CUTTERHEAD FOR DEWALT PLANERS
INSTRUCTIONS

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

Introduction

The T32591 13" Spiral Cutterhead is designed to replace the straight-knife cutterhead on the DeWalt DW735 and DW735X (T22222) Planers.

The total procedure for changing the cutterhead and reassembling the planer takes approximately three hours. Read these instructions thoroughly before beginning. These instructions make reference to many procedures detailed in your planer manual. Always consult your manual for these procedures. We strongly recommend using the new replacement bearings included with the T32591, even if the existing bearings appear to be in good condition. Call Technical Support at (570) 546-9663 if you need help.

⚠WARNING

The Model T32591 13" Spiral Cutterhead is designed to be used only with the DeWalt DW735 and DW735X (T22222) Planers. DO NOT install the T32591 in any other planer model or make. Doing so could result in property damage or serious personal injury.

Specifications

Maximum Width of Cut	13"
Cutterhead Diameter	1⅞"
Number of Cutter Rows	3
Total Number of Indexable Cutters	30

Recommended Tools

Description	Qty
Open-End Wrenches 6, 24 mm	1 Ea.
Deep Well Sockets 32, 40mm	1 Ea.
Retaining Ring Pliers (Internal and External)	1
Hex Wrench 4mm	1
Torx Driver T-30 (Included with DW735/X)	1
Phillips Screwdriver #2	1
Steel Hammer	1
Hex Bolt 5/16"-18 x 2	1
Heavy Leather Gloves	1 Pair
Wood Board (Minimum 12" Length)	1
Scrap Cardboard	As Needed

Inventory (Figure 1)

Description		Qty
A.	Ball Bearing 6202-2NSE	1
B.	Ball Bearing 6204-2NSE	1
C.	Flat Hd Torx Screws T-25 10-32 x ½"	5
D.	Indexable Inserts 15 x 15 x 2.5mm	5
E.	T-Handle Torx Driver T-25	1
F.	Helical Pinion Gear 8T	1
G.	Spiral Cutterhead 13"	1

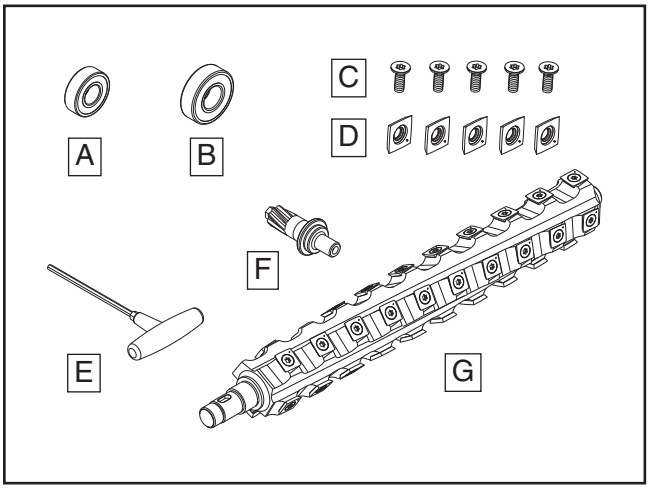


Figure 1. Model T32591 Inventory.

(FOR MODELS MFD. SINCE 05/21) #KS21865 PRINTED IN TAIWAN V1.05.21

⚠CAUTION

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

Removing Existing Cutterhead

1. DISCONNECT MACHINE FROM POWER.

2. Use T-30 Torx driver included with DW735/X to remove screws holding top cover (see **Figure 2**).

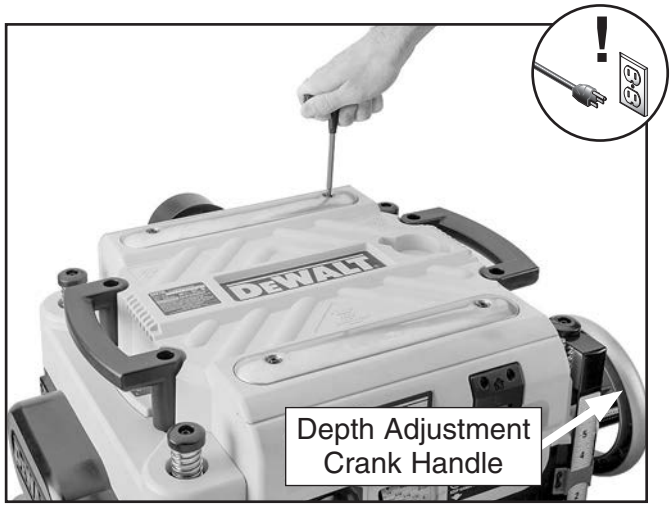


Figure 2. Removing top cover.

3. Remove red wing nuts holding dust shroud and set aside (see **Figure 3**).

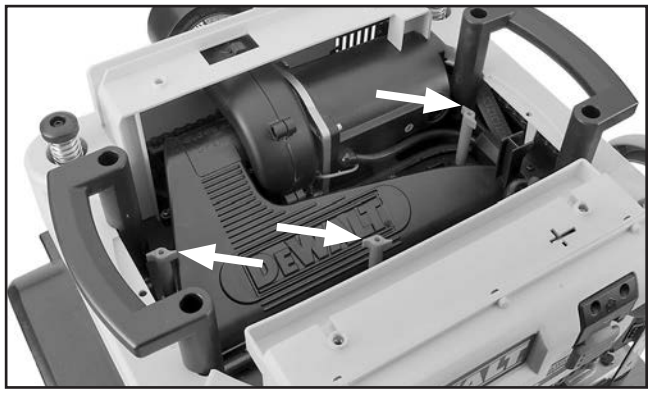


Figure 3. Location of red wing nuts.

4. Rotate dust shroud away from cutterhead so alignment arrow on fan housing aligns with **OPEN** line on dust shroud (see **Figure 4**).

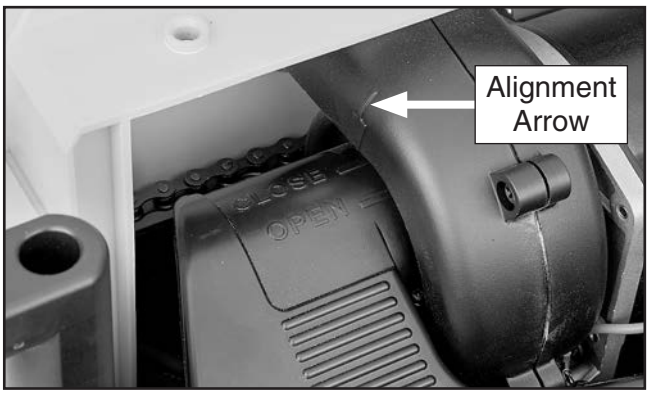


Figure 4. Alignment arrow on dust shroud.

5. Pull dust shroud away from fan housing and remove.

   ⚠CAUTION: *Cutterhead will be exposed at this time.*

6. Remove gearbox cover located behind turret lock on left side of planer.

7. Remove external retaining rings on front and rear rollers (see **Figure 5**).

8. Remove spring from chain tensioner (see **Figure 5**).

9. Remove sprockets and chain (see **Figure 5**).

10. Remove spacer on front roller (see **Figure 5**).

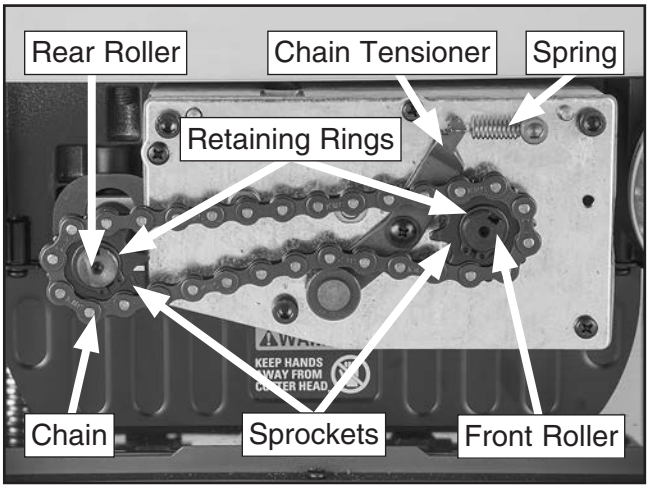


Figure 5. Gearbox area components.

11. Remove depth adjustment crank handle on right side of planer.

12. Remove pulley cover.

13. Remove chain tensioner assembly (see **Figure 6**).

14. Remove sprockets and chain (see **Figure 6**).

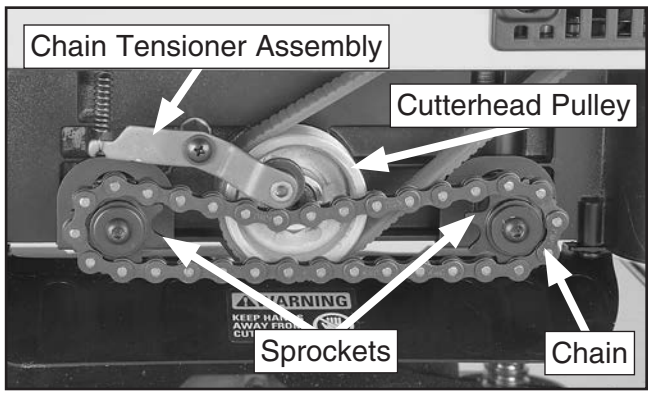


Figure 6. Pulley area components.

15. Press cutterhead lock lever down to allow cutterhead to rotate (see **Figure 7**).

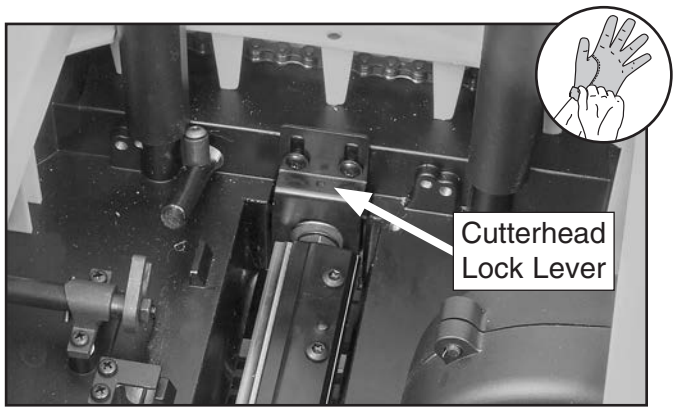


Figure 7. Cutterhead lock lever.

16. Remove drive belt by slowly rotating cutterhead pulley counterclockwise and pulling belt off. Use rear roller to secure belt after removal.

17. Cover table under cutterhead carriage with scrap cardboard to protect surface from dropped parts/tools.

18. Press cutterhead lock lever and rotate cutterhead until T-30 Torx screws are visible on knife clamp (see **Figure 8**).

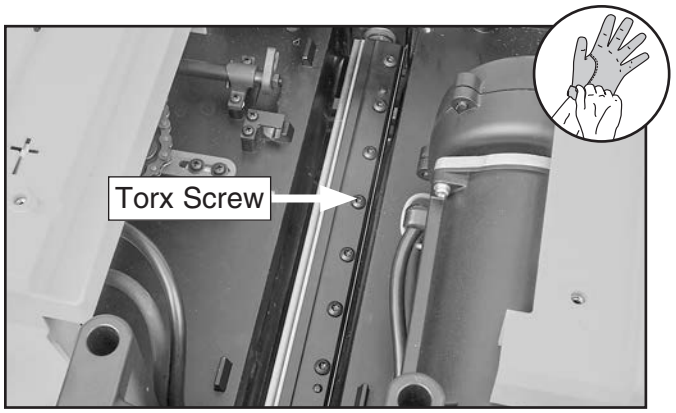


Figure 8. T-30 Torx screws on knife clamp.

19. Remove screws securing knife clamp.

Note: *T-30 Torx driver included with DW735/X has magnets built into handle.*

20. Attract knife clamp with magnet and remove.

21. Attract knife with magnet and remove.

22. Repeat **Steps 18–21** until all three knives have been removed from cutterhead.

23. Remove cutterhead lock lever and spring underneath that is hidden from view.

Note: *Cutterhead lock lever is not compatible with the Model T32591, but should be retained in the event planer is ever returned to original configuration.*

24. Unfasten gearbox attachment screws (see **Figure 9**).

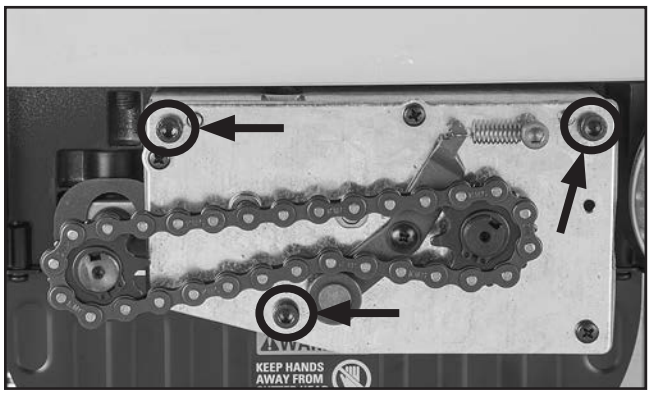


Figure 9. Gearbox attachment screws.

25. While supporting gearbox, turn speed selector switch on front panel clockwise to release (see **Figure 10**).

Note: *Gearbox will separate from planer after turning speed selector switch to speed "2".*

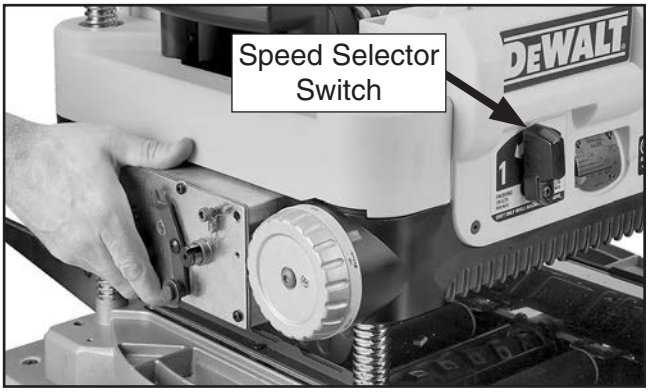


Figure 10. Supporting gearbox while turning speed selector switch.

26. Pull gearbox out and rest it on planer mount.

Note: *Gearbox speed selection rod and positioning pin will prevent gearbox from being completely removed from planer. Secure gearbox to planer with tape or rope to prevent it from shifting during disassembly.*

27. Insert a wood board at least 12" in length between cutterhead and cutterhead carriage (see **Figure 11**). Verify cutterhead no longer rotates.

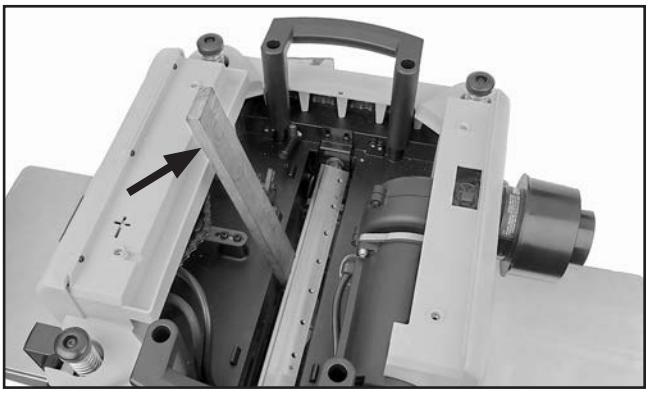


Figure 11. Wood board between cutterhead and carriage.

28. Remove helical pinion gear from cutterhead (see **Figure 12**).

29. Remove retaining ring (see **Figure 12**).

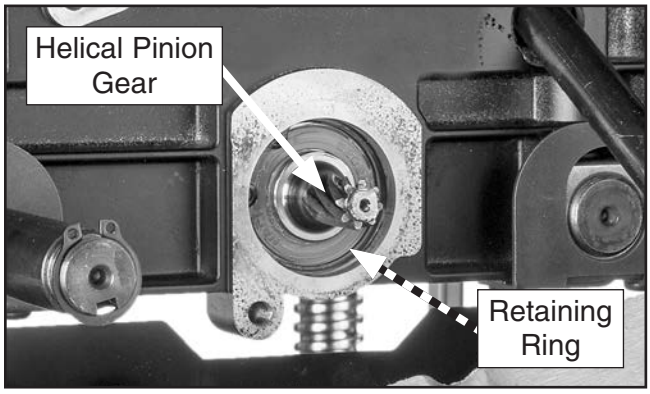


Figure 12. Helical pinion gear and retaining ring.

30. Remove 24mm hex nut from cutterhead pulley (see **Figure 13**).

31. Remove cutterhead pulley, key, and spacer (see **Figure 13**).

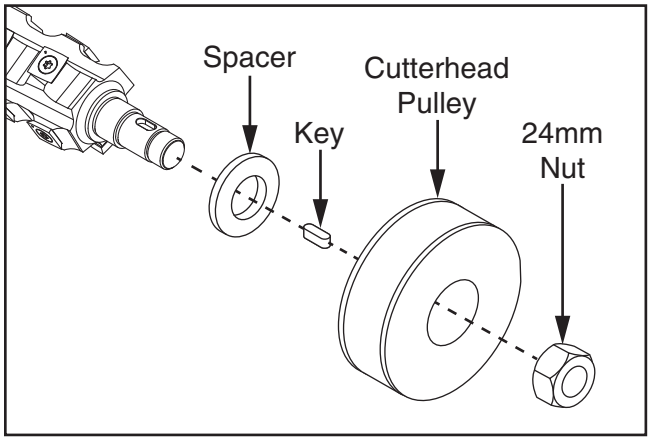


Figure 13. Cutterhead pulley assembly.

32. Remove retaining ring from right bearing bore.

33. Install 5/16"-18 x 2 hex bolt into helical pinion gear threads (see **Figure 14**).

34. Remove wood board and gently tap hex bolt dead center with hammer until cutterhead is unseated from carriage (see **Figure 14**).

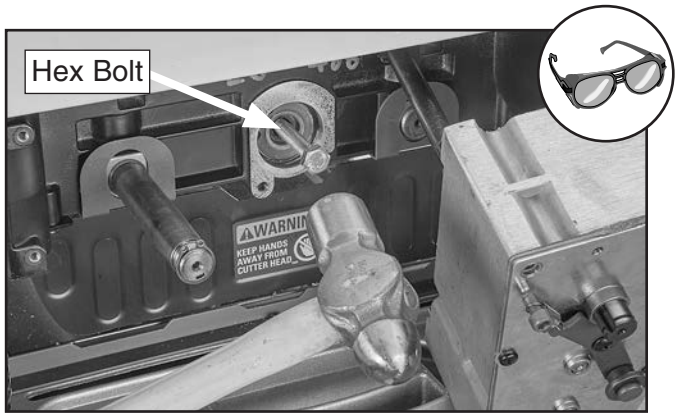


Figure 14. Hex bolt in helical gear threads.

35. Pull cutterhead through right bearing bore.

36. Use a 32mm deep well socket or wood block to remove left bearing from bore.

Note: *Focus impact to bearing on outer race (see **Figure 15**). Take care not to damage rubber seal.*

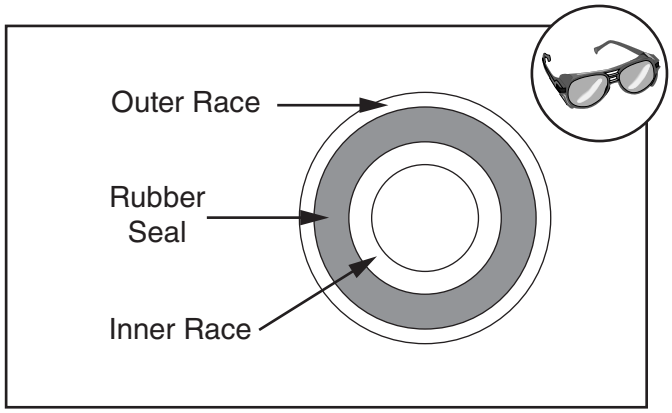


Figure 15. Bearing outer race.

Installing T32591 Spiral Cutterhead

We strongly recommend using the new replacement bearings included with the Model T32591, even if the existing bearings appear to be in good condition.

Wrap the new bearings and place them in a freezer overnight. This will cause the bearing metal to contract, making them easier to install.

1. Remove spiral cutterhead from packaging.

2. Lightly oil left and right bearing bore surfaces and remove any dust or dirt.

3. Lower cutterhead into carriage while guiding threaded end through right bearing bore (see **Figure 16**).

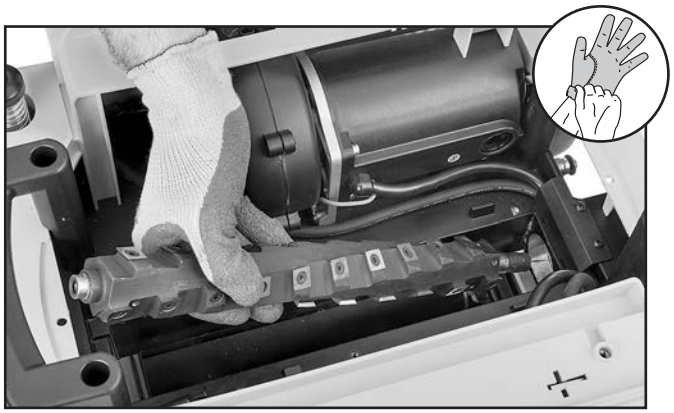


Figure 16. Example of guiding cutterhead.

4. Install 5/16"-18 x 2 hex bolt into helical pinion gear threads.

5. Seat 6202-2NSE ball bearing into left bearing bore using hex bolt as an alignment guide.

6. Use a 32mm deep well socket or wood block to gently tap bearing into bore until retaining ring groove is visible. Bearing will be flush with internal carriage wall when fully seated.

Note: *If using a wood block to install bearings, ensure that impact is evenly distributed around outer race to prevent bearing tilt (see **Figure 17**).*

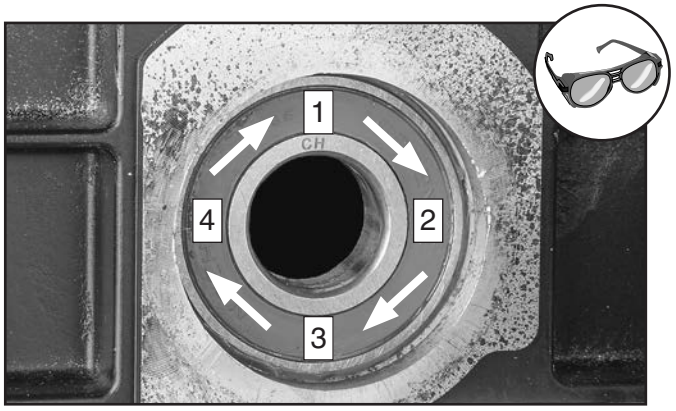


Figure 17. Bearing impact distribution.

7. Re-install retaining ring into bearing bore groove.

8. Seat 6204-2NSE ball bearing into right bearing bore using threaded cutterhead end as an alignment guide.

9. Use a 40mm deep well socket or wood block to gently tap bearing into bore until retaining ring groove is visible. Bearing will be flush with internal carriage wall when fully seated.

10. Re-install retaining ring into bearing bore groove.

11. Insert a wood board at least 12" in length between cutterhead and cutterhead carriage. Verify cutterhead no longer rotates.

12. Install spacer, key, and cutterhead pulley onto cutterhead end (see **Figure 18**).

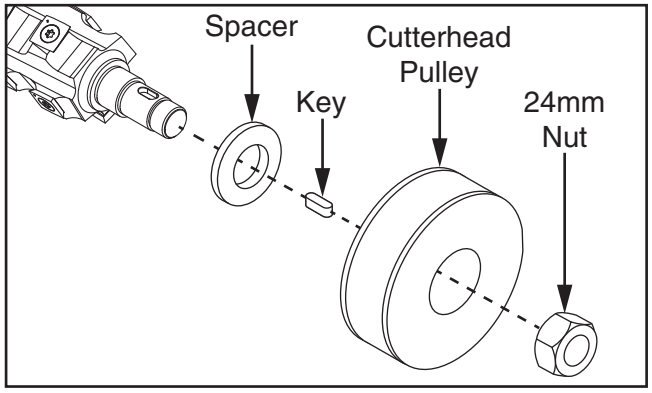


Figure 18. Cutterhead pulley assembly.

13. Re-install 24mm hex nut on cutterhead pulley.

14. Remove hex bolt and install helical pinion gear.

15. Remove wood board.

16. Remove drive belt cover located on right side (see **Figure 19**) and verify that drive belt is centered on drive wheel.

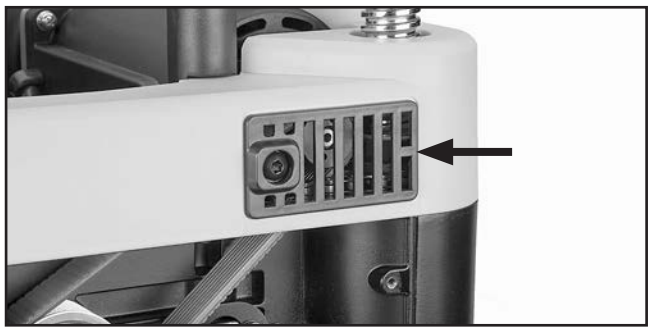


Figure 19. Drive belt cover location.

17. Gently stretch drive belt over cutterhead pulley while slowly rotating pulley clockwise until belt is centered.

    Note: *Drive belt and pulley wheels have grooves along their surface for alignment.*

18. Verify drive belt is centered on cutterhead and drive pulleys before re-installing drive belt cover.

19. Turn speed selector switch clockwise to speed "2".

20. Re-install gearbox by aligning both locating pins on gearbox assembly with both alignment holes on planer (see **Figure 20**).

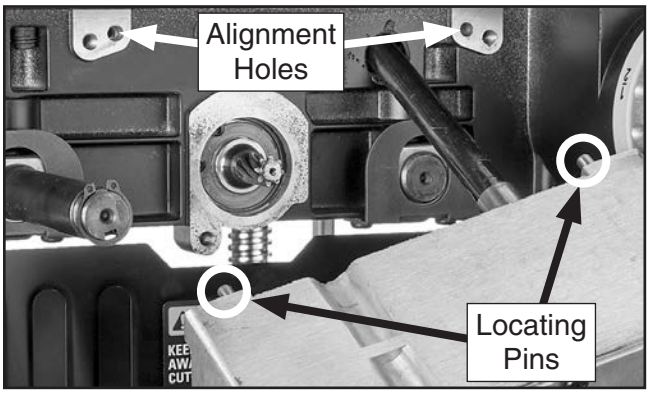


Figure 20. Gearbox locating pin alignment.

21. While installing gearbox, confirm that "U" bracket attached to speed selector switch engages with positioning pin on gearbox speed selection rod (see **Figure 21**).

    Note: *If gearbox **does not** fully seat during **Steps 20–21**, slowly rotate cutterhead pulley back-and-forth to re-align helical pinion gear with gearbox.*

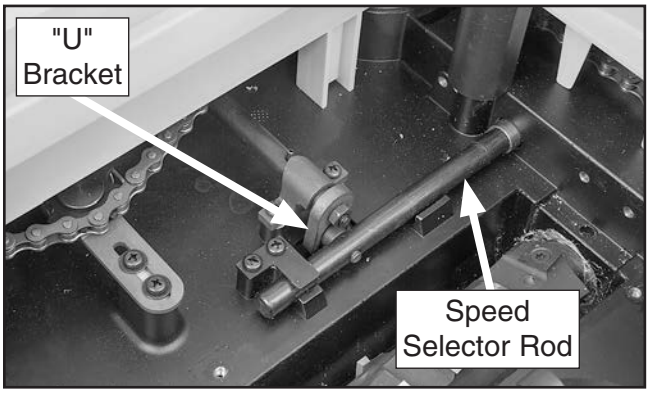


Figure 21. Speed selector rod and "U" bracket.

22. Turn speed selector switch counterclockwise to speed "1" to grasp positioning pin with "U" bracket.

23. Re-install screws removed from gearbox in **Step 24** on **Page 3** of **Removing Existing Cutterhead** instructions.

24. Test for smooth operation of speed selection assembly by cycling speed selector switch from "1" to "2" and then back to "1".

25. Re-install spacer on front roller.

26. Re-install sprockets and chain on front and rear rollers (see **Figure 22**).

27. Re-attach spring to chain tensioner. Verify tensioner is engaged with chain, as shown in **Figure 22**.

28. Re-install retaining rings on front and rear rollers (see **Figure 22**).

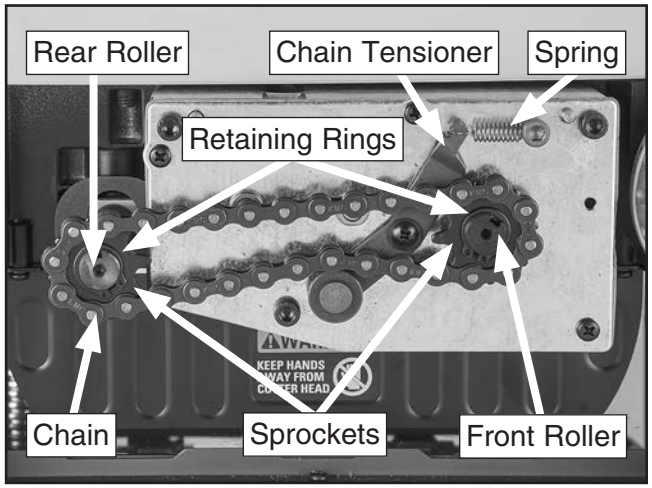


Figure 22. Gearbox area components.

29. Re-install gearbox cover**.**

30. Re-install sprockets and chain on front and rear rollers in pulley area (see **Figure 23**).

31. Re-install chain tensioner and re-attach spring. Verify tensioner is engaged with chain (see **Figure 23**).

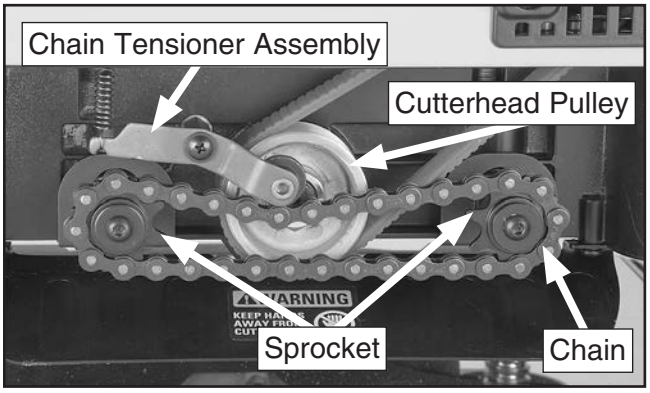


Figure 23. Pulley area components.

32. Re-install pulley cover.

33. Re-install dust shroud into fan housing.

Note: *DO NOT re-install cutterhead lock lever! Cutterhead lock lever is not compatible with the Model T32591.*

34. Rotate dust shroud towards cutterhead. Verify alignment arrow on fan housing aligns with **CLOSED** line on dust shroud.

35. Re-install red wing nuts on dust shroud.

36. Re-install top cover.

37. Remove any cardboard used to protect planer table.

38. Connect machine to power and follow all procedures outlined in your planer manual for adjustment and calibration.

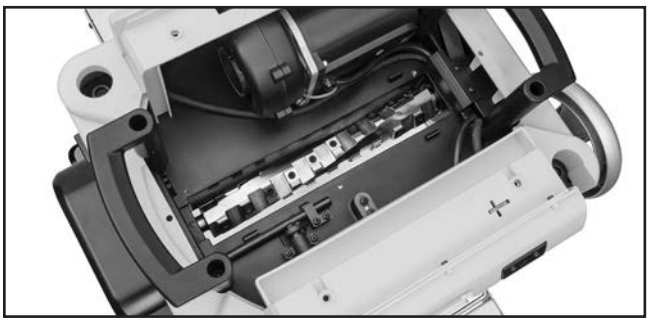


Figure 24. Cutterhead installed in planer.

Rotating/Replacing Indexable Inserts

Items Needed:

Heavy Leather Gloves ..... 1 Pair
T-Handle Torx Driver T-25 1
T-30 Torx Driver (Included with DW735/X) 1
Torque Wrench 0–50 in.-lb. 1
Clean Shop Rags ..... As Needed
Degreaser ..... As Needed
Light Machine Oil ..... As Needed

The Model T32591 is equipped with 30 indexable carbide inserts. Each insert can be rotated to reveal any one of its four cutting edges. If one cutting edge becomes dull or damaged, rotate it 90˚ to reveal a fresh cutting edge (see **Figure 25**).

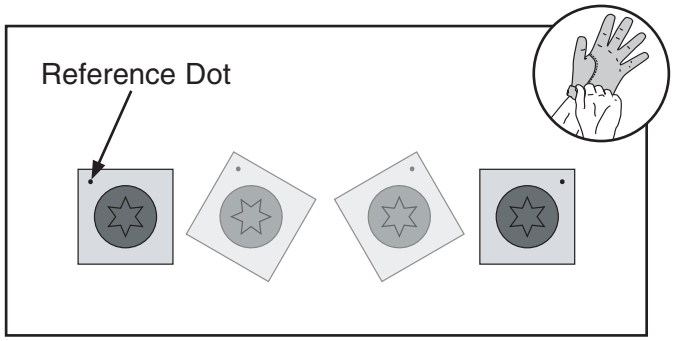


Figure 25. Rotating indexable insert.

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 the reference dot revolves back to its starting position, the insert should be replaced.

To rotate or replace an indexable insert:

1. DISCONNECT MACHINE FROM POWER.

2. Gain access to cutterhead by performing **Steps 2–6** of **Removing Existing Cutterhead** instructions.

3. Remove Torx screw and indexable 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. Contaminants trapped between the insert and cutterhead will slightly raise the insert, making noticeable marks on your workpieces the next time you plane.*

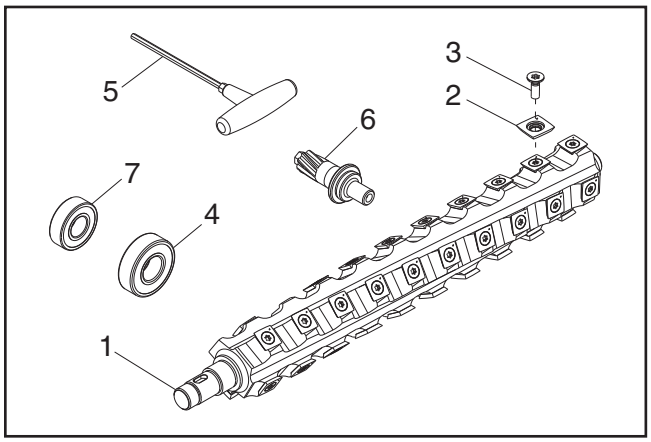
5. Lubricate Torx screw threads with a light machine oil, wipe excess oil off threads, and torque screw to 48–50 inch/pounds.

6. Return planer to its original configuration by following **Steps 34–39** on **Page 7** of **Installing T32591 Spiral Cutterhead** instructions.

Accessories

T32861—10 Pack of Indexable Carbide Inserts
Replacement indexable carbide inserts for T32591 13" Spiral Cutterhead.

Parts Breakdown & List



REF	PART #	DESCRIPTION
1	PT32591001	SPIRAL CUTTERHEAD 13"
2	PT32591002	CARBIDE INSERT 15 X 15 X 2.5MM (10PK)
3	PT32591003	FLAT HD TORX SCR T-25 10-32 X 1/2
4	PT32591004	BALL BEARING 6204-2NSE
5	PT32591005	T-HANDLE TORX DRIVER T-25
6	PT32591006	HELICAL PINION GEAR 8T
7	PT32591007	BALL BEARING 6202-2NSE

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.*