



# Instruction Sheet

## Bi-Directional Brush/Turf Groomer<sup>®</sup>

62900 – Electric Reel Brush/Groomer Drive

62901 – Hydraulic Reel Brush/Groomer Drive

### Groomer Shafts Assembly

62905 – 1/4 Inch Spacing, 22 Inch Groomer Shaft Assembly

62906 – 1/2 Inch Spacing, 22 Inch Groomer Shaft Assembly

### Brush Shafts Assembly

62909 – 22” Stiff Bristle Brush Shaft Assembly

62910 – 22” Medium Bristle Brush Shaft Assembly

62911 – 22” Soft Bristle Brush Shaft Assembly

### Roller Assembly

62927 – 1/4 Inch Spacing, 22 Inch Groomer Roller Assembly

62928 – 1/2 Inch Spacing, 22 Inch Groomer Roller Assembly

62929 – 22” Smooth Roller Assembly

### Optional Quick Change Kit

62934 – Quick Change Kit

### Optional Guide Wheel Kit

62935 – Anti-Scalp Wheel Kit



## WARNING

If incorrectly used, this machine can cause severe injury. Those who use and maintain this machine should be trained in its proper use, warned of its dangers and should read the entire manual before attempting to set up, operate, adjust, or service the machine.

These kits are intended for use on ECLIPSE®2 122F, ECLIPSE® 322 and GP400™ cutting units.

## ⚠ CAUTION

Before you install this kit, read the mower's manual to become familiar with the mower, the controls and proper use of the equipment.

Stay alert for potential hazards and follow all safety precautions. Read all instructions completely and make sure you understand them before proceeding with the assembly.

1. Park the mower on a flat and level surface, fully lower the attachments to the ground, engage the parking brake, turn the ignition switch to the off position, and remove the key.
  - a. Wait for all movement to stop before making any adjustments or modifications.
  - b. Allow sufficient time for the unit to cool down.
  - c. Take this opportunity to thoroughly inspect the equipment and perform other required maintenance.

## Brush/Groomer Identification

1. Three separate kits are required for each reel.
  - One drive kit (62900 or 62901)
    - a. The Drive Kit (62900 or 62901) has been pre-assembled into three assemblies and two bags of parts.
  - One shaft assembly (62905, 62906, 62909, 62910 or 62911).
    - a. Soft bristle brush is identified with one dot on the end of the brush tube.
    - b. Medium bristle brush is identified with two dots on the end of the brush tube.
    - c. stiff bristle brush is identified with three dots on the end of the brush tube.
  - One corresponding roller (62927, 62928 or 62929).
    - a. 1/4" spacing groomer roller (62927) is used with the 1/4" groomer shaft assembly (62905) in the rear mounting position or other shaft assemblies in the forward position.
    - b. 1/2" spacing groomer roller (62928) is used with the 1/2" groomer shaft assembly (62906) in the rear mounting position or other shaft assemblies in the forward position.
    - c. Use smooth roller (62929) with groomer or brush shaft assemblies in the forward position.
2. To help in the assembly process and prevent confusion, completely install each Brush/Groomer before starting on the next reel.
  - a. Open each carton to inspect and familiarize yourself with the contents.
  - b. Keep all components in original carton until ready for assembly.

## ⚠ WARNING

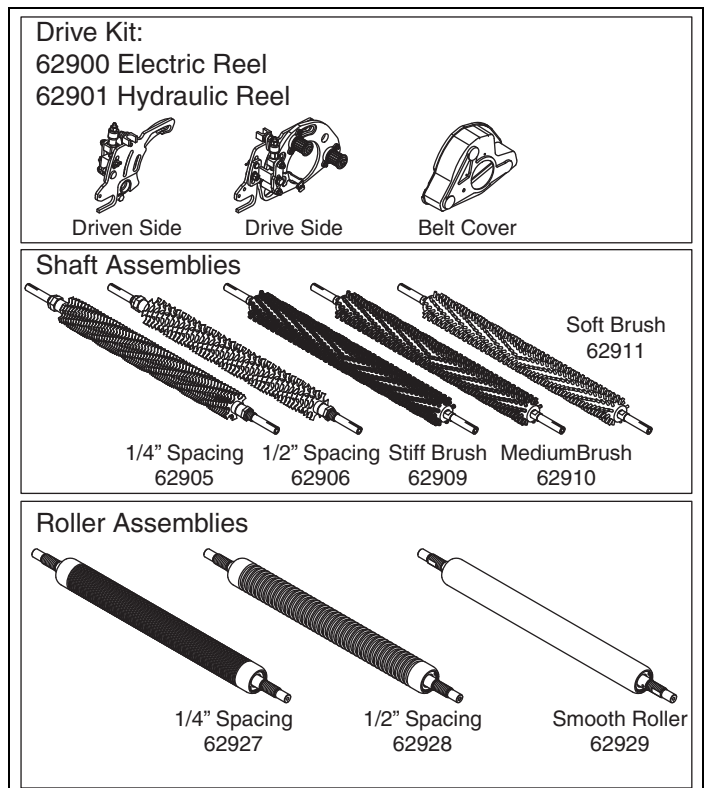
Before you attempt to clean, adjust, or repair any of this equipment, lower the attachments, disengage all drives, shut down the engine and allow the unit to cool. Remove the key from the ignition switch and disconnect the negative battery terminal to prevent accidental discharge and potential bodily injuries.

Be careful to prevent entrapment of the hands and fingers between moving and fixed components of the machine.

To prevent personal injury and damage to the cutting edges, handle the reel with extreme care. Always wear gloves when picking up or moving reels, or groomer blade assemblies.

2. If rear roller brush is used, Cover Kit 4302756 is needed to install the brush belt cover.

3. Remove the reel(s) from the mower, following directions given in the mower's manuals. Move one reel, one drive kit, one shaft assembly and one roller to workbench.
  - c. If rear roller brush kit is also going to be installed, install the Brush/Groomer kits first, then the rear roller brush.



**Figure 1**

## Brush/Groomer Assembly

Call-outs identified with a single letter, **(A)** through **(M)**, are part of the reel. Refer to the mower's manual for part numbers.

Call-outs with a double letters, **(AA)** through **(DP)**, are parts of the brush/groomer kits. Refer to the parts list in this manual for parts identification.

1. If installed, remove carriage bolts **(C)**, flange nuts **(D)**, front roller adjusting brackets **(B)**, existing front roller **(A)** and adjusting knobs **(E)**. See **Figure 2**.
2. Remove hardware **(G and H)** and counterweight **(F)**. See **Figure 2**.

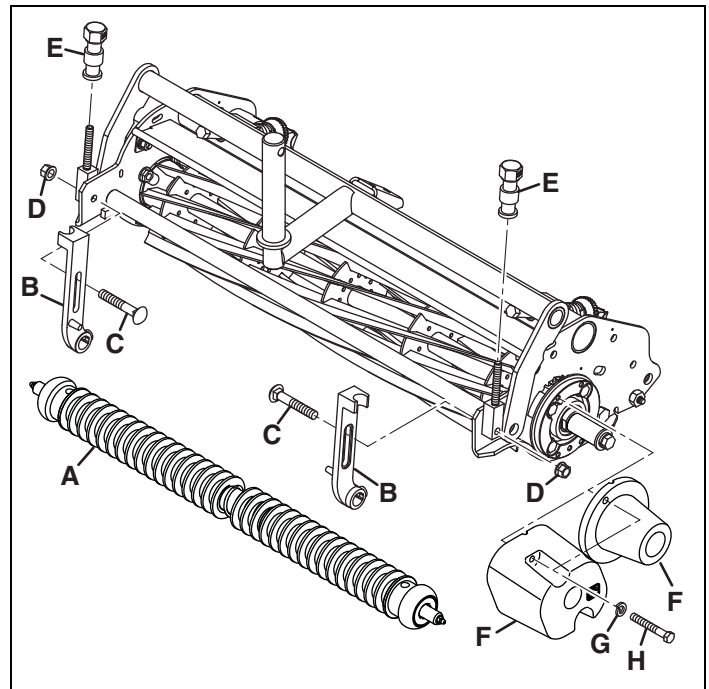


Figure 2

3. Block reel with a piece of wood, remove retaining hardware **(J)** and spacer **(K)**. See **Figure 3**.
4. Slide spacer **(K)** onto reel shaft. Adjust reel nut **(M)** as required so end of spacer is even with the end of reel shaft. Remove spacer and retain for future reel nut adjustment. See **Figure 3**.
5. Remove and discard lift yoke hardware **(L)** from both sides of the reel. Keep lift yoke in position. See **Figure 3**.

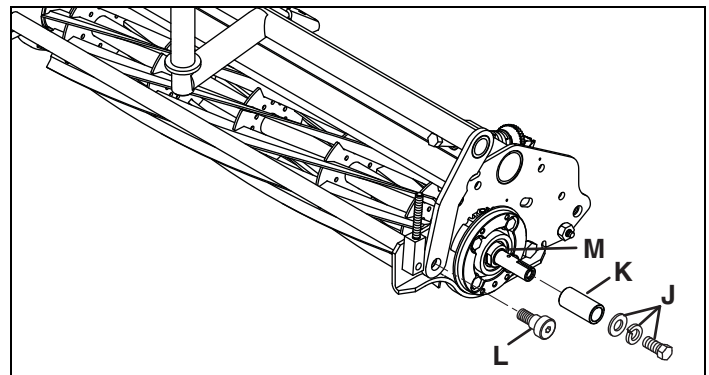


Figure 3

6. Assemble grease fitting **(AB)** to adjuster knob **(AA)**. Assemble adjuster knob **(AA)** to reel adjuster stud. Repeat for opposite end of reel. See **Figure 4**.

**Note:** Adjuster knobs **(AA)** must be set to the same height.

7. Assemble seal **(AC)** to bearing housing. See **Figure 4**.
8. **All Mowers:** Assemble cover plate **(AD)** and weight **(AE)** to bearing housing using two 1/4-20 x 1-1/4" socket head screws **(AG)**, and lockwashers **(AF)**. See **Figure 4**.

**NOTE:** The round cutout in weight **(AE)** must face towards the front of the reel when assembled as shown in **Figure 4**.

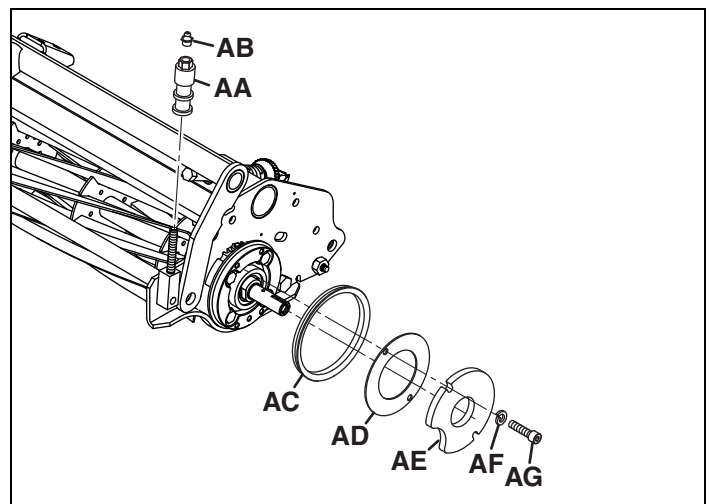


Figure 4

9. Remove nut (AS), screw (AL), spacer (AR), hex spacer (AM), nut (AU), hardware (AV~AY), flange nut (BA) and carriage bolt (AZ). Discard nut (AU). Hold drive assembly (AP) together until assembled to the reel. **See Figure 5.**
10. Assemble 5/16-18 x 2" hex socket screw (AL) and hex spacer (AM) to reel frame. Tighten hex spacer against reel frame.

**Note:** For easier assembly, loosen grass shield mounting hardware to install socket head screw (AL).

11. **ECLIPSE Mowers Only:** Assemble weight (AH) to reel frame using 5/16-18 x 1-1/2" carriage bolt (AJ) and flange nut (AK). **See Figure 5.**
12. Assemble drive side assembly (AP), 7/8 x 1/8" washer (AR), and nylon locknut (AS) to reel. Make certain adjuster bracket (AT) engages bottom notch in adjuster knob (AA). **See Figure 5.**
13. Assemble 3/8-16 x 2" hex socket screw (AY), lockwasher (AX), flat washer (AW) and 1/2 x 29/32" spacer (AV) through drive assembly (AP), lift yoke and into reel frame. Adjust drive side assembly (AP) as required to assemble 5/16-18 x 1-1/2" carriage bolt (AZ) and flange nut (BA). **See Figure 5.**

14. Remove nut (CA), screw (BX), spacer (BZ), nut (CF), hardware (CB~CE), flange nut (CH) and carriage bolt (CG). Discard nut (CF). Hold driven side assembly (BW) together until assembled to the reel. **See Figure 6.**

15. Assemble 5/16-18 x 2" hex socket screw (BX) and hex spacer (BY) to the reel frame. Tighten the hex spacer against the reel frame. Assemble driven side assembly (BW), 7/8 x 1/8" spacer (BZ), and nylon locknut (CA) to reel. Make certain adjuster bracket engages bottom notch in adjuster knob (AA). **See Figure 6.**

**Note:** For easier assembly, loosen grass shield mounting hardware to install socket head screw (BX).

16. Assemble 3/8-16 x 2" hex socket screw (CB), lockwasher (CC), flat washer (CD) and 1/2 x 29/32" spacer (CE) through driven assembly (BW), lift yoke and into reel frame. Adjust driven side assembly (BW) as required to assemble 5/16-18 x 1-1/2" carriage bolt (CG) and flange nut (CH). **See Figure 6.**

17. Slide 7/8 x 21/32" spacer (BB) onto reel shaft. **See Figure 7.**

18. Insert 1/8" square x 7/16" key (BC) into slot on reel shaft. **See Figure 7.**

19. Slide drive pulley (BD) onto reel shaft. Secure pulley with 3/8-24 x 1-1/4" hex head screw (BG), lockwasher (BF) and flat washer (BE). Block reel with a piece of wood and securely tighten screw. **See Figure 7.**

20. Assemble upper and lower slot cover assemblies (DP and DR) to drive side groomer using #8-32 x 1/2" socket head screws (DS), lockwashers (DT) and flat washers (DU). **See Figure 8.**

21. If loosened, tighten grass shield hardware on both ends of the reel.

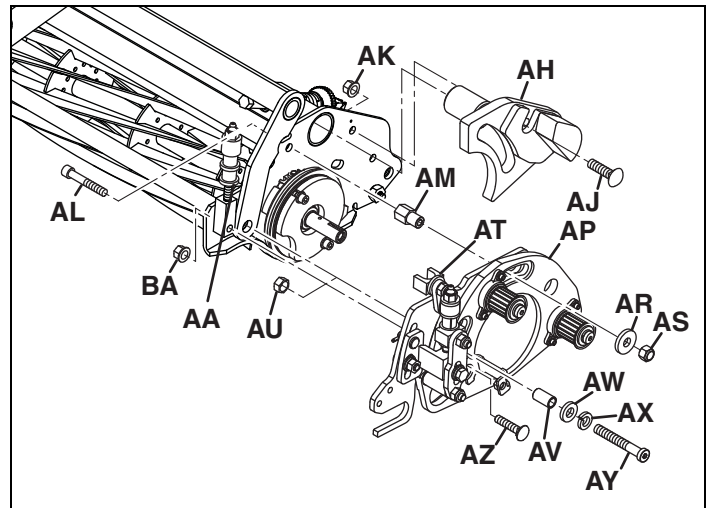


Figure 5

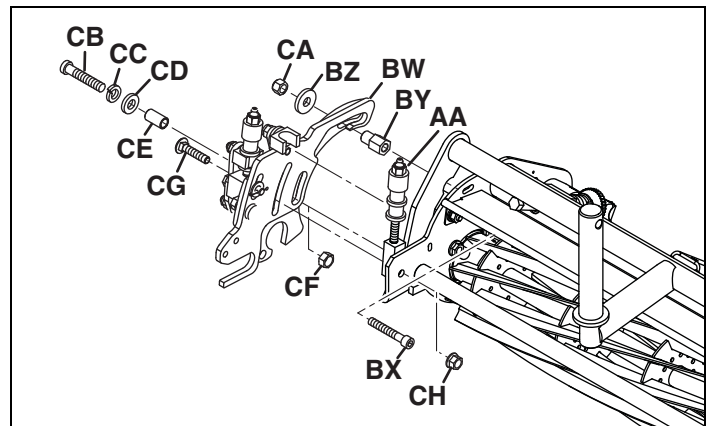


Figure 6

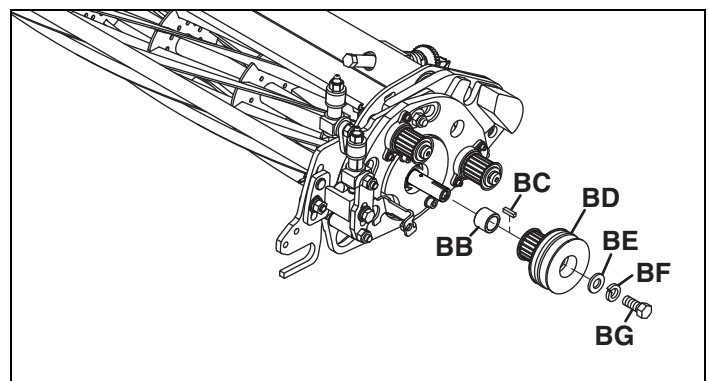


Figure 7

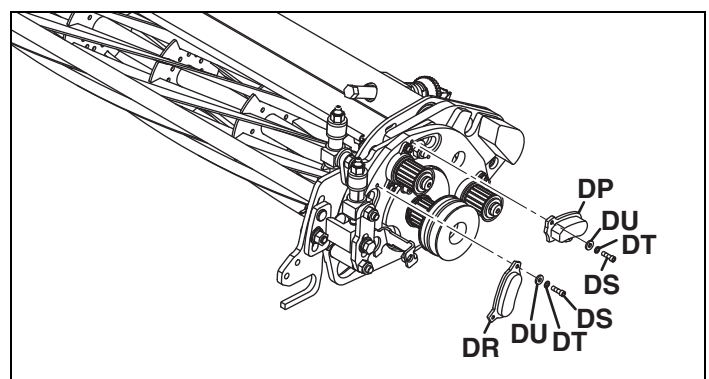


Figure 8

**NOTE:** Assemble the end of brush with the jam nut on the drive side of the reel.

**NOTE:** Assemble the end of the groomer shafts with two nuts on the drive side of the reel.

22. Slide 7/8 x 17/32" spacer (BJ) onto shaft assembly (BH). See Figure 9.

**Note:** 1/4" spacing groomer shaft assembly 67905 shown. All shaft assemblies are assembled in the same manner.

23. Slide shaft assembly (BH) through bearing housing (BK), 7/8 x 1-1/32" spacer (BP). See Figure 9.

24. Insert 1/8" square x 3/4" key (BR) into slot in shaft assembly (BH). Leave approximately 1/8 in. (3 mm) of the key protruding from the end of the shaft. See Figure 9.

25. Apply small amount of anti-seize compound and slide 18 tooth sprocket (BS) onto shaft assembly (BH). Loosely assemble 3/8-24 x 1-1/4" hex head screw (BT), lockwasher (BU) and flat washer (BV). Hardware will be tightened after bearing housing is adjusted. See Figure 9.

26. Slide 7/8 x 1-15/32 spacer (CJ) onto opposite end of shaft assembly (BH). See Figure 9.

27. Slide bearing housing assembly (CS) onto shaft assembly (BH). See Figure 9.

28. Slide 7/8 x 31/32" spacer (BP) onto shaft assembly (BH). Secure with 3/8-24 x 1" hex head screw (CL), lockwasher (CM) and flat washer (CN). See Figure 9.

29. Slide shaft assembly (BH) through plate (CT) and into the opening in drive side assembly. Lift opposite end of shaft into driven side. See Figure 9.

30. Secure bearing housing to driven side assembly using 5/16-18 x 1" hex head screw (CP) and lockwasher (CR). See Figure 9.

**NOTE:** Over tightening screws (BL and CP) can cause Helicoil on the bearing housing to fail.

31. Secure bearing housing (BK) to drive side assembly using 5/16-18 x 1-1/4" hex head screw (BL), lockwasher (BM) and flat washer (BN).

32. Hand tighten jam nut on the shaft assembly (BH) against spacer (BJ) to remove any play in the groomer shaft. Securely tighten screw (BT).

33. Loosen hardware (BL) and make certain shaft assembly moves freely in the belt adjustment slot.

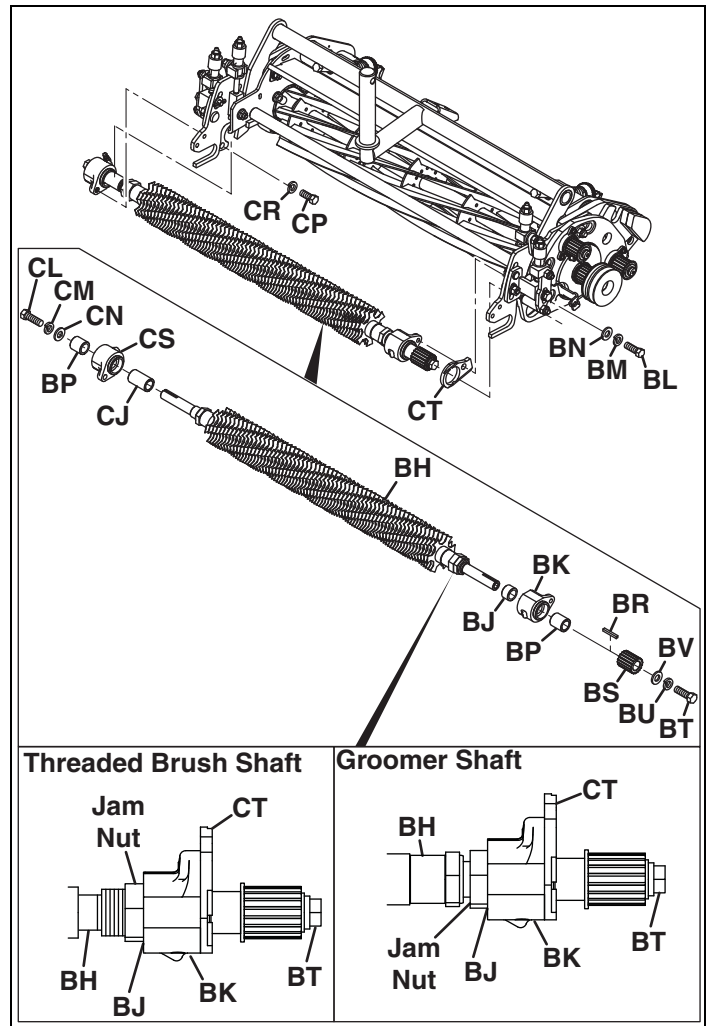


Figure 9

## Drive Belt

The Brush/Groomer can be set for either forward or reverse rotation. Use shorter belt **(DG)** with teeth on one side of the belt for forward rotation. Use longer belt **(DJ)** with teeth on both sides of the belt for reverse rotation.

**NOTE:** To prevent permanent damage to the belt, do not over tighten, twist, fold or bend the belt.

Over-tightening the belt may cause premature belt failure and abrasive wear of the pulley and bearings. Twisting or bending the belt will permanently damage the cord fibers of the belt.

1. Forward Rotation Assembly:
  - a. Assemble shorter belt **(DG)** to sprocket portion of drive pulley **(BD)** and shaft assembly sprocket **(BS)**.
  - b. Store longer belt **(DJ)** for future use.

**NOTE:** Idler sprockets **(DH)** are not used for forward rotation.

2. Reverse Rotation Assembly:
  - a. Assemble longer belt **(DJ)** to idler sprockets **(DH)**, sprocket portion of drive pulley **(BD)** and shaft assembly sprocket **(BS)**. Inside belt teeth should engage the idler sprockets and shaft assembly sprocket **(BS)**. Outside belt teeth should engage drive pulley sprocket.
  - b. Store shorter belt **(DG)** for future use.

3. Using a short screwdriver (6 in. (152 mm) maximum length) against reel cross bar, move shaft assembly away from the reel to remove all excess slack and tension the belt **(DG or DJ)**.

**NOTE:** To prevent permanent damage to the belt, do not over tighten, twist, fold or bend the belt.

4. Tension the belt using a multi purpose belt tensioner. Belt tension should be 20-25 lb. (89-111 N) when

measured at point "X". Torque screws **(BL)** to 16-19 ft. lb. (22-25 Nm) to set the adjustment. Check the belt tension every two weeks or 50 hours of use.

**NOTE:** Jacobsen recommends checking the belt tension using the Gates Sonic Tension Meter-Model 507C (Gates P/N 7420-0507) and the Pencil Type Tension Tester (Gates P/N 7401-0076).

**NOTE:** Over tightening screw **(BL)** can cause Helicoil on the bearing housing to fail.

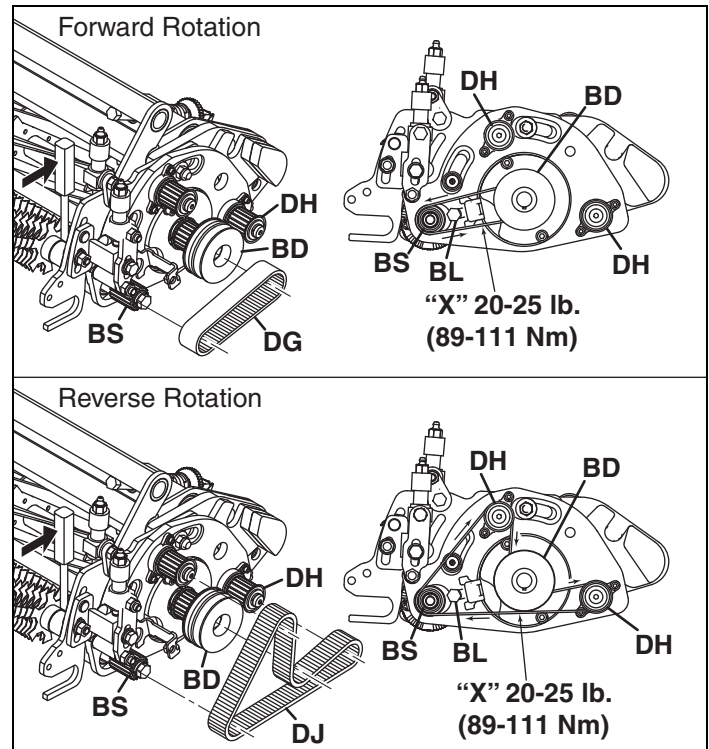


Figure 10

## Groomer Belt Cover

1. Release the cover latch **(DM)**.
2. Assemble belt cover **(DL)** to drive side assembly. Rubber portion of latch should go into hole in drive side assembly. Make certain that the belt cover is seated against bottom of drive side assembly.
3. Secure cover with sealing washer and thumb screw **(DN)**. Close latch **(DM)** to secure back of cover.

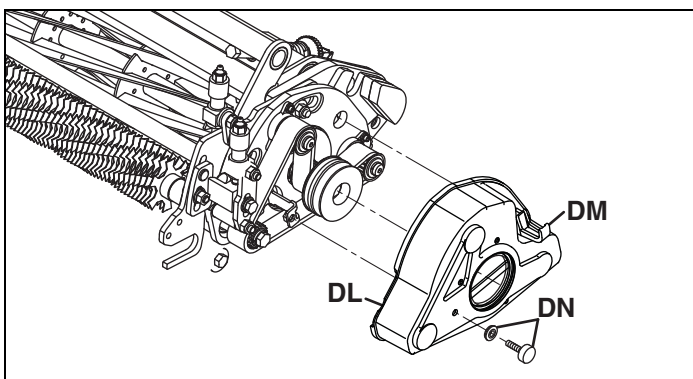


Figure 11

# Front Roller Assembly

1. If installed, remove and discard set screws (**DA**) in nuts (**CU** and **CW**). Remove outside nuts (**CU**) from both ends of roller (**CV**). Thread inside nuts (**CW**) as far as possible onto roller shaft.
  2. Slide one roller plate (**CX**) onto both ends of roller. See **Figure 12** for proper orientation of plates.
  3. Slide roller (**CV**) into slots in drive and driven assemblies. Roller plates (**CX**) should be located inside the drive and driven assemblies.
- NOTE:** When installing groomer rollers on reels with groomer shafts, make certain roller grooves are aligned with the groomer blades.
4. Secure roller plates (**CX**) to inside of drive/driven assemblies using one 5/16-18 x 5/8" hex head screw (**CY**) and lockwasher (**CZ**) on both ends of reel. Make certain roller plates are correctly installed for roller used. See forward/rear position setup in **Figure 12**.
  5. **VERSION 1 UNITS ONLY:** Assemble screw (**CY**) and lockwasher (**CZ**) from outside of drive/driven assembly.
- NOTE:** When installed, only one screw (**CY**) will go through the roller plate (**CX**).
6. Slide one 7/8" washer (**DB**) onto both ends of roller.
  7. **Groomer Shaft Assembly:** Adjust nuts (**CW**) as required to center groomer blades in grooves in the roller. Thread nuts (**CW**) to just touch the roller plates (**CX**).
  8. **Brush Shaft Assembly:** Adjust nuts (**CW**) as required to center roller in reel frame. Thread nuts (**CW**) to just touch the roller plates (**CX**).
  9. Thread nut (**CU**) onto roller shafts and securely tighten.
  10. If installing the **Optional 62935 Guide Wheel Kit**, assemble guide wheels (**DC**) to roller using 5/16-18 x 3/4" hex head screws (**DD**), lockwashers (**DE**) and spacers (**DF**). Make sure guide wheels turn freely.

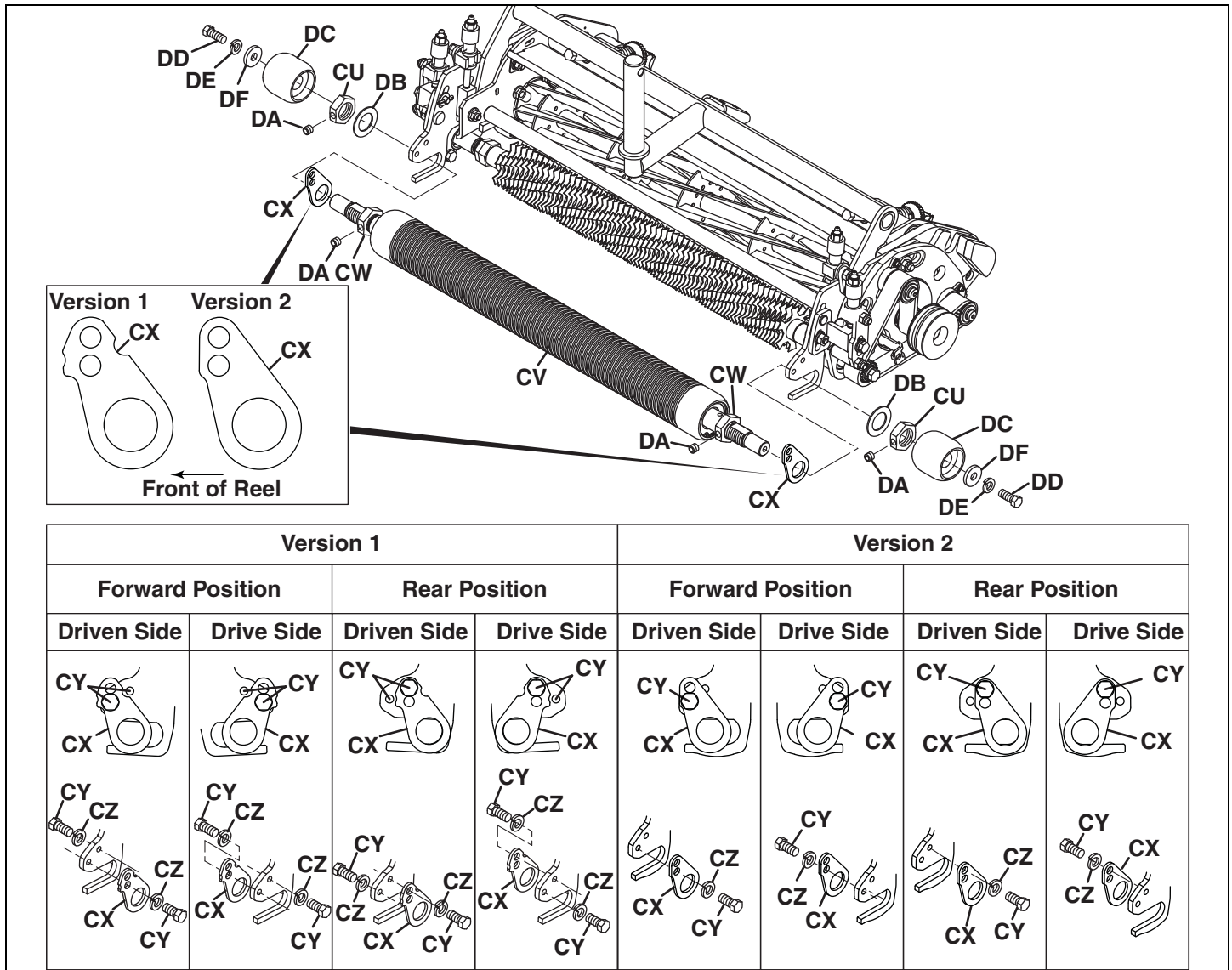


Figure 12

## Optional Quick Change Accessory

The Optional Quick Change Accessory is used to switch between different shaft assemblies.

- Each quick change accessory will require one shaft assembly (62905, 62906, 62909, 62910 or 62911).
- If a different groomer spacing or switching between brush and groomer is desired, a corresponding roller assembly is also required (62927, 62928 or 62829).

For all references in this section, refer to the parts lists in this manual as an aid in removal and assembly.

1. Slide 7/8 x 17/32" spacer (A) onto shaft assembly (B).

**Note:** 1/2" spacing groomer shaft 67906 shown. All shaft assemblies are assembled in the same manner.

2. Slide shaft assembly (B) through bearing housing (C) and 7/8 x 1-1/32" spacer (E).
3. Insert 1/8" square x 3/4" key (F) into slot in shaft assembly (B).
4. Apply small amount of anti-seize compound and slide 18 tooth sprocket (G) onto shaft assembly (B). Loosely assemble 3/8-24 x 1-1/4" hex head screw (H), lockwasher (J) and flat washer (K).
5. Slide 7/8 x 1-15/32 spacer (L) onto the other end of shaft assembly (B).
6. Slide bearing housing assembly (M) onto shaft assembly (B).
7. Slide 7/8 x 31/32" spacer (E) onto shaft assembly (B). Secure with 3/8-24 x 1" hex head screw (P), lockwasher (R) and flat washer (S).
8. If roller needs to be replaced:
  - a. If the optional guide wheel kit is installed, remove hardware (T) and guide wheels (U).
  - b. Remove outer nuts (V), and washers (W).
  - c. Remove hardware (X) and slide existing roller out of brush/groomer assembly.
9. Remove belt cover (AA).
10. Remove hardware (Y and Z). Lower motor end of shaft assembly out of driven side. Slide belt end of shaft out of drive side.
11. Slide shaft assembly (B) through plate (D) and into the opening in drive side assembly. Lift opposite end of shaft into driven side. Secure driven side of shaft assembly using hardware (Z) first, the drive side using hardware (Y). **See Figure 9.**
12. Hand tighten jam nut on the shaft assembly (B) against spacer (A) to remove any play in the groomer shaft. Securely tighten screw (K).
13. Using a short screwdriver (6 in. (152 mm) maximum length) against reel cross bar, move shaft assembly away from the reel to remove all excess slack and tension the belt.
14. Tension the belt using a multi purpose belt tensioner. Belt tension should be 20-25 lb. (89-111 N) when measured at point "X". Assemble and torque hardware (Y) to 16-19 ft. lb. (22-25 Nm) to set the adjustment.
15. Assemble the belt cover.
16. If roller was removed:

- a. Remove roller plates (AB) from old roller and assemble onto new roller.
- b. Slide roller into brush/groomer assembly. Refer to **Figure 9** and assemble hardware (X).
- c. Assemble washers (W) and outer nuts (V).
- d. If the optional guide wheel kit is used, assemble guide wheels (U) and hardware (T).
- e. **Groomer shafts:** Adjust roller nuts as required to center groomer blades in grooves of roller.

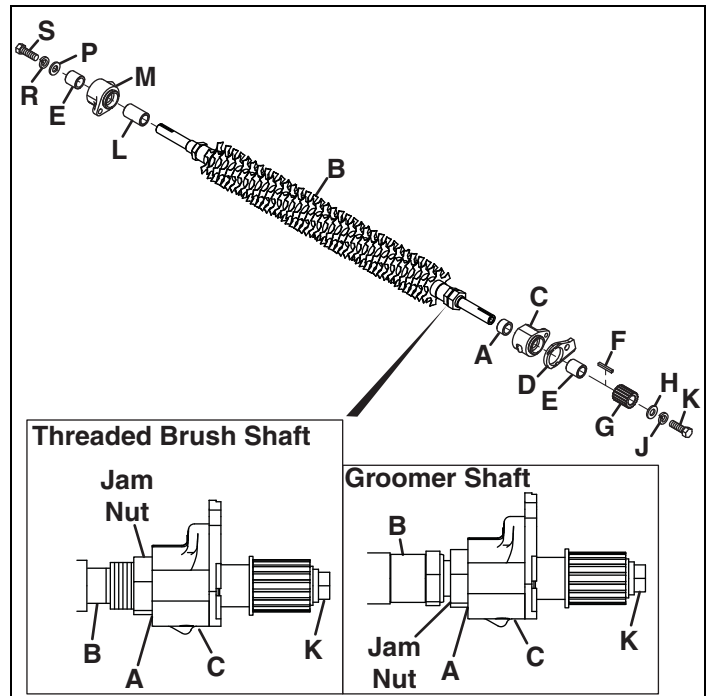


Figure 13

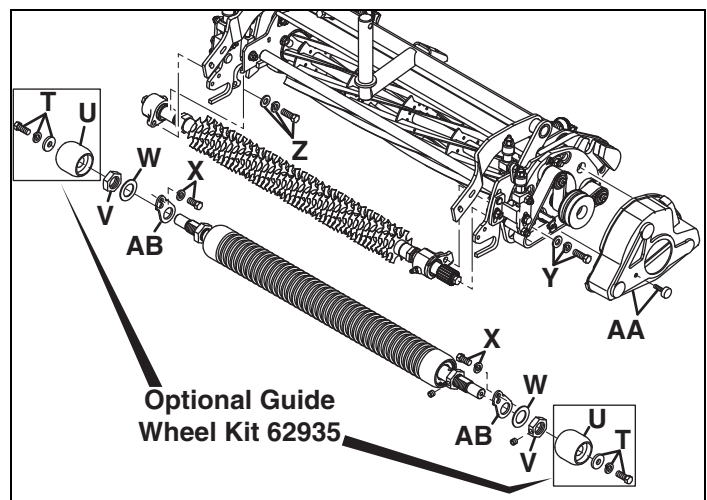


Figure 14



## Adjustments

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### WARNING

Before you attempt to clean, adjust, or repair any of this equipment, lower the attachments, disengage all drives, shut down the engine and allow the unit to cool. Remove the key from the ignition switch and disconnect the negative battery terminal to prevent accidental discharge and potential bodily injuries.

Be careful to prevent entrapment of the hands and fingers between moving and fixed components of the machine.

To prevent personal injury and damage to the cutting edges, handle the reel with extreme care. Always wear gloves when picking up or moving reels, or groomer blade assemblies.

1. Adjustments and maintenance should always be performed by a qualified technician. If proper adjustment cannot be made, contact an authorized Jacobsen Dealer.
2. Do not wear jewelry or loose fitting clothing when adjusting or repairing any equipment.
3. Inspect the equipment on a regular basis; establish a maintenance schedule and keep detailed records.
  - a. Keep the mower clean and moving parts properly adjusted and lubricated.
  - b. Replace worn or damaged parts before operating the machine.
  - c. Keep shields in place and all hardware securely fastened.
4. Use the illustrations in the Parts Catalog as reference for the disassembly and reassembly of components.

## General recommendations

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1. Initially, expect an increased amount of grass removal when using the Groomer or Brush. Also expect an increased amount of wear on the reel and bedknife; therefore, sharpening will be required more frequently. With continued usage, however, the frequency of sharpening will decline.
2. Do not use the Turf Groomer immediately following top dressing as the blades will pick up the top dressing and

pass it through the reel. The groomer should be raised to its highest position.

3. Use the Turf Groomer on a regular basis, however, if you wish to skip a day, the Turf Groomer should be raised to its highest level. The blades will rotate through the grooves in the roller and keep the roller grooves clean.

## Height of cut

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Before this attachment can be put into regular use, several passes should be made over a test area, each pass at a different setting to obtain the best possible results for your turf conditioning needs.

1. Record the settings and conditions during the first test. Examine the test area a few days after the first grooming and record the results.
2. Your requirements will determine the final settings and they will be governed by the type and condition of the grass, temperature and season of the year, the frequency of cut and many other variables.
3. Keep in mind that the conditions and settings will vary from green to green and from one season to the next.

**NOTE:** *Over grooming/brushing can cause severe damage to turf.*

## Reel and Brush/Groomer Height of cut

- To set the cutting height for the reel, loosen the wing nut (**D**), and thread screw (**A**) in or out to obtain the desired height of cut (**B**) on gauge bar (**C**).
  - Use a small metal scale to measure dimension (**B**) as the height of cut. Once dimension (**B**) is obtained, tighten wing nut (**D**).
  - Groomer Shafts:** Loosen wing nut (**G**). Set the groomer height by threading groomer height screw (**H**) in or out. Tighten wing nut. Groomer height must not be less than 1/2 of reel height of cut (**B**).
  - Brush Shafts:** Loosen wing nut (**G**). Set the brush height by threading brush height screw (**H**) in or out. Tighten wing nut. Initially set the brush height at (**B**). Adjust brush height to obtain desired results.

**NOTE: Do not set the blades at ground level or below.** To mow at this level may damage the machine as well as the turf. The Turf Groomer was designed to be a conditioner, not a vertical mower.

**NOTE: Jacobsen does not recommend setting the groomer blades at less than half of the reel cutting height.** This height will also help eliminate natural graining and smooth out uneven grass.

- Loosen hardware (**E**) on both ends of the reel just enough to allow inside knobs (**F**) to raise or lower the roller.

**NOTE: Only use lower notch on groomer knobs.**

- Place gauge bar across the front and rear rollers at one end of the reel.
- Slide the head of screw (**A**) over the bedknife and adjust knob (**F**) to close the gap between the screw head and the bedknife.
- Repeat adjustment on opposite end of reel.
- Recheck both ends of reel for proper adjustment and tighten hardware (**E**).

- Loosen hardware (**J**) just enough to allow outside knobs (**K**) to raise or lower the groomer.
- Place the gauge bar across the front and rear rollers on one end of the reel with head of screw (**A**) over the bedknife.
- Adjust knobs (**K**) to close gap between screw (**H**) and groomer blades. Repeat at other end of reel.
- Tighten hardware (**J**).
- Make absolutely certain that each Turf Groomer is adjusted evenly on both ends and that all the cutting units on the mower are adjusted to the same height.

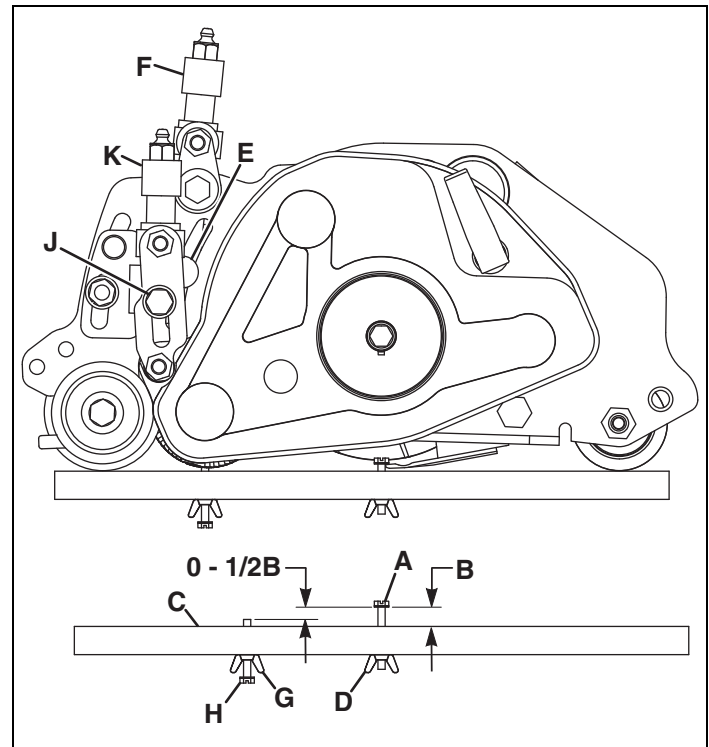


Figure 1

## Raising Brush/Groomer

**Note: The brush/groomer is designed to be always ON whenever the reel is turning.**

- The brush/groomer blades should be raised to their highest position when is not in use.
- To raise or lower the groomer, loosen hardware (**L**) on both ends of the reel and pivot the brush/groomer up or down. Tighten hardware (**L**).
- To return brush/groomer to operating position, loosen hardware (**L**), and fully pivot brush/groomer down until pin (**M**) is at bottom of slot.

**NOTE: DO NOT adjust brush/groomer height by loosening hardware (L) and pivoting the brush/groomer assembly, only use the height knobs (F and K).**

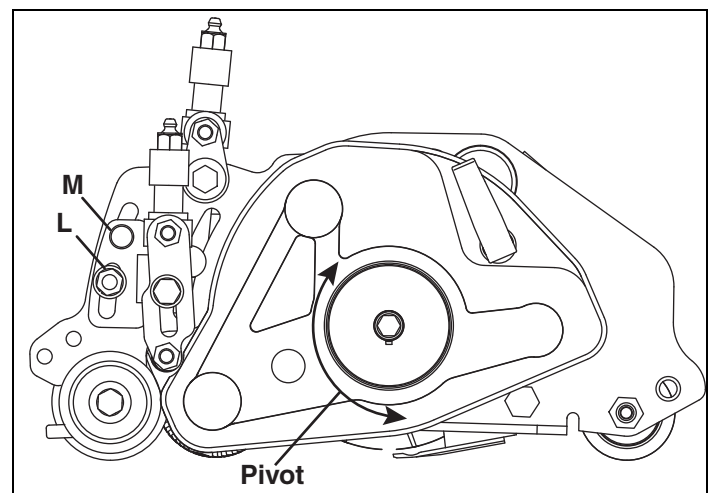


Figure 2

## Access to Bedknife Mounting Bolts

Access to the bedknife adjusting bolts can be achieved using one of two methods.

**First Method:** The first method involves lowering the groomer assembly and front roller to the lowest possible position using the adjustment knobs (**F** and **K**) to access the bedknife bolts (**N**). Height of cut and groomer height must be adjusted after using this method.

**Second Method:** The second method involves removing screw (**J**), nut (**P**) and bracket (**R**). Pivot groomer down to access bedknife bolt (**N**). Pivot groomer up and assemble bracket (**R**), nut (**P**) and screw (**J**). Height of cut and groomer height is not changed using this method.

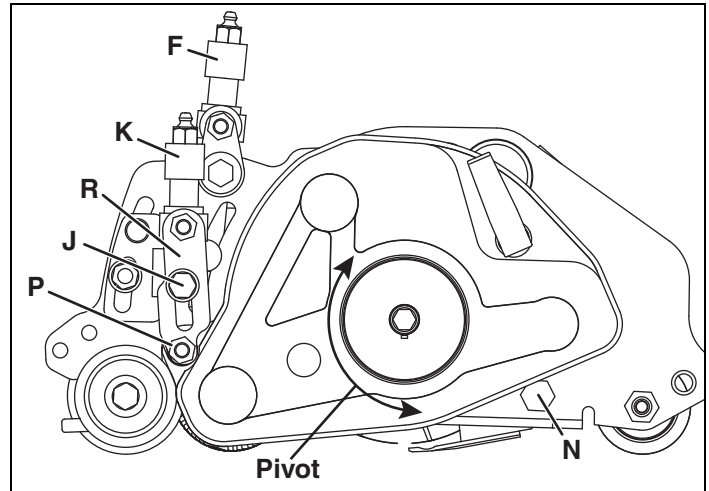


Figure 15

## Belt

**NOTE:** To prevent permanent damage to the belt, do not over tighten, twist, fold or bend the belt.

Over-tightening the belt may cause premature belt failure and abrasive wear of the pulley and bearings. Twisting or bending the belt will permanently damage the cord fibers of the belt.

## Lubrication

Lubrication intervals are based on operating from 8 to 10 hours per day, 5 days per week under normal operating conditions.

All maintenance intervals must be performed more frequently when operating in extremely dusty conditions.

1. Always clean the grease fitting before and after lubricating.
2. Lubricate with grease that meets or exceeds NLGI Grade 2 specifications.
3. Apply grease with a manual grease gun and fill slowly until pressure is felt. Do not use compressed air guns to prevent damage to seals.

Grease each of the following points not more than once a month.

1. Periodic inspections of the belt will be required to check for wear. Check the belt tension every two weeks or 50 hours of use.
2. Spare belts should be stored individually and not compressed or bent into any form other than elliptical.

- a. Reel Height of Cut Knob (2 Fittings) (**N**)
- b. Roller bearings (2 Fittings) (**R**)
- c. Groomer Height Knob (2 Fittings) (**S**)
4. Apply **Mobil Polyrex EM** grease (Jacobsen Part No. **4322096**) to the groomer bearing housings (2 fittings) (**P**) not more than once a month.
5. Apply grease as required to the belt cover seal to prevent overheating.
6. For smooth operation of pivot points and other friction points, apply several drops of SAE 30 wt. oil every 40 hours, or as required.

Clean and lubricate individual parts and components as required. Apply Anti-seize compound between groomer plates.

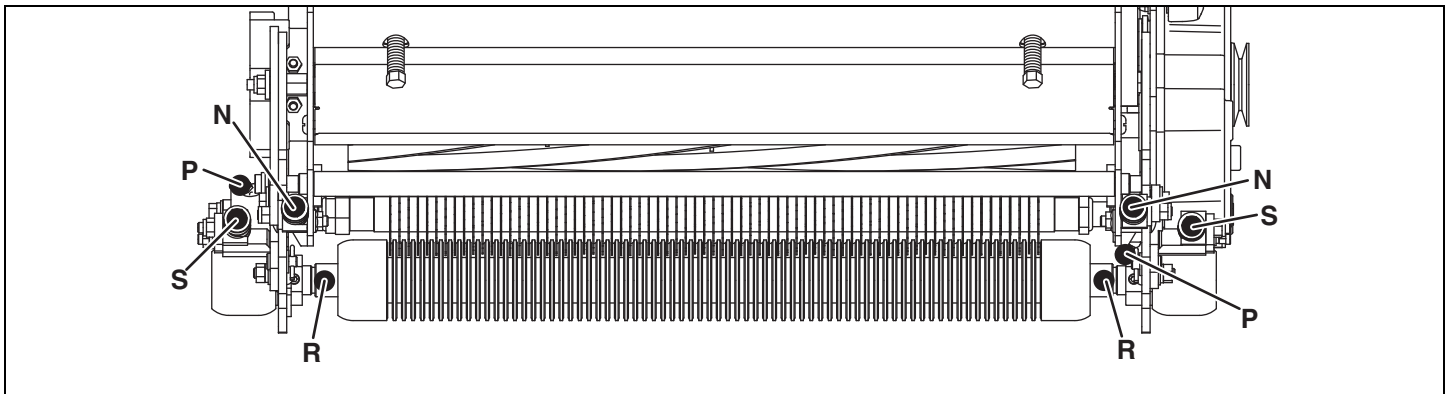
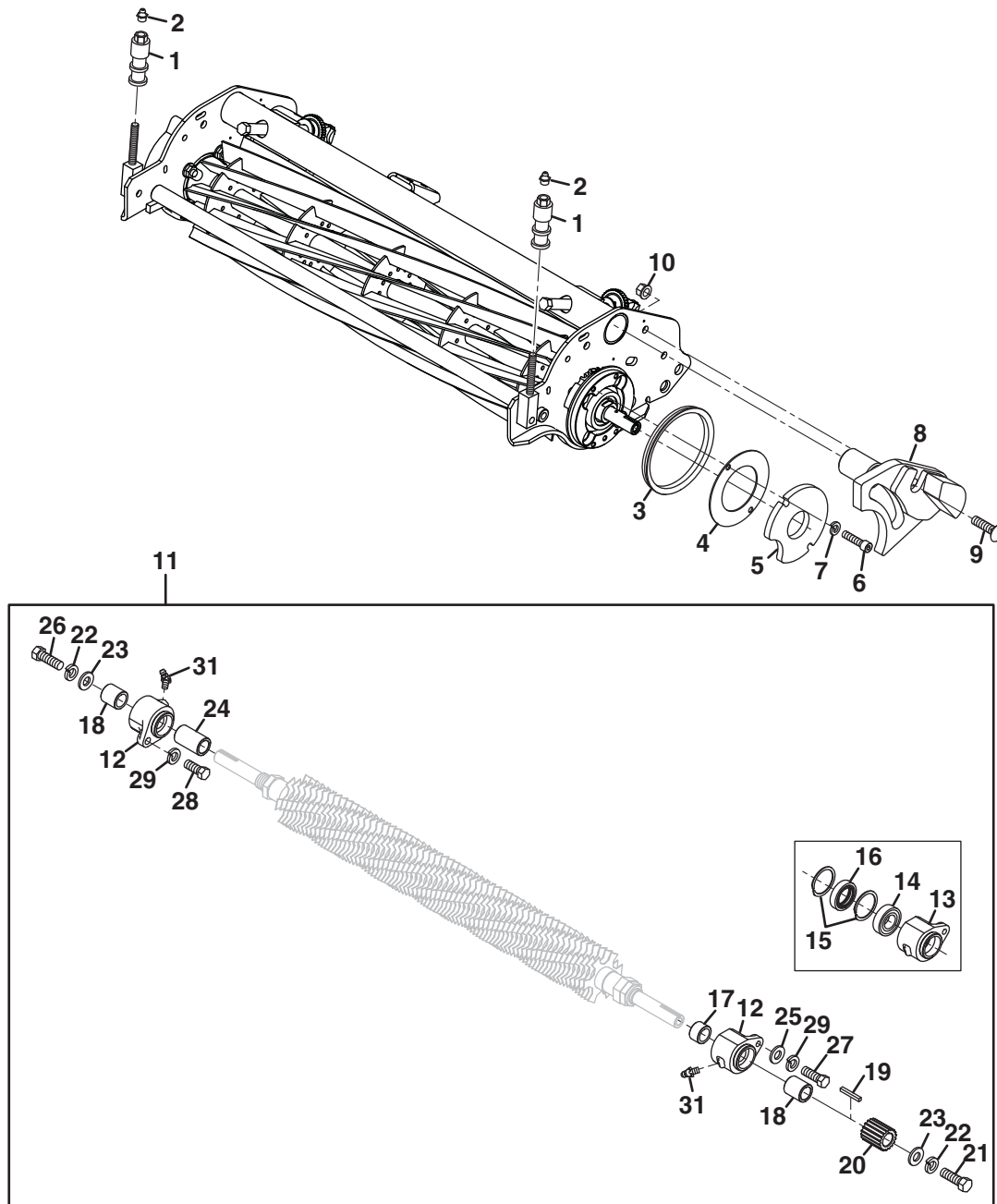


Figure 3

# TURF GROOMER

## Counterweight and Quick Change Kit

Serial No. All



# TURF GROOMER

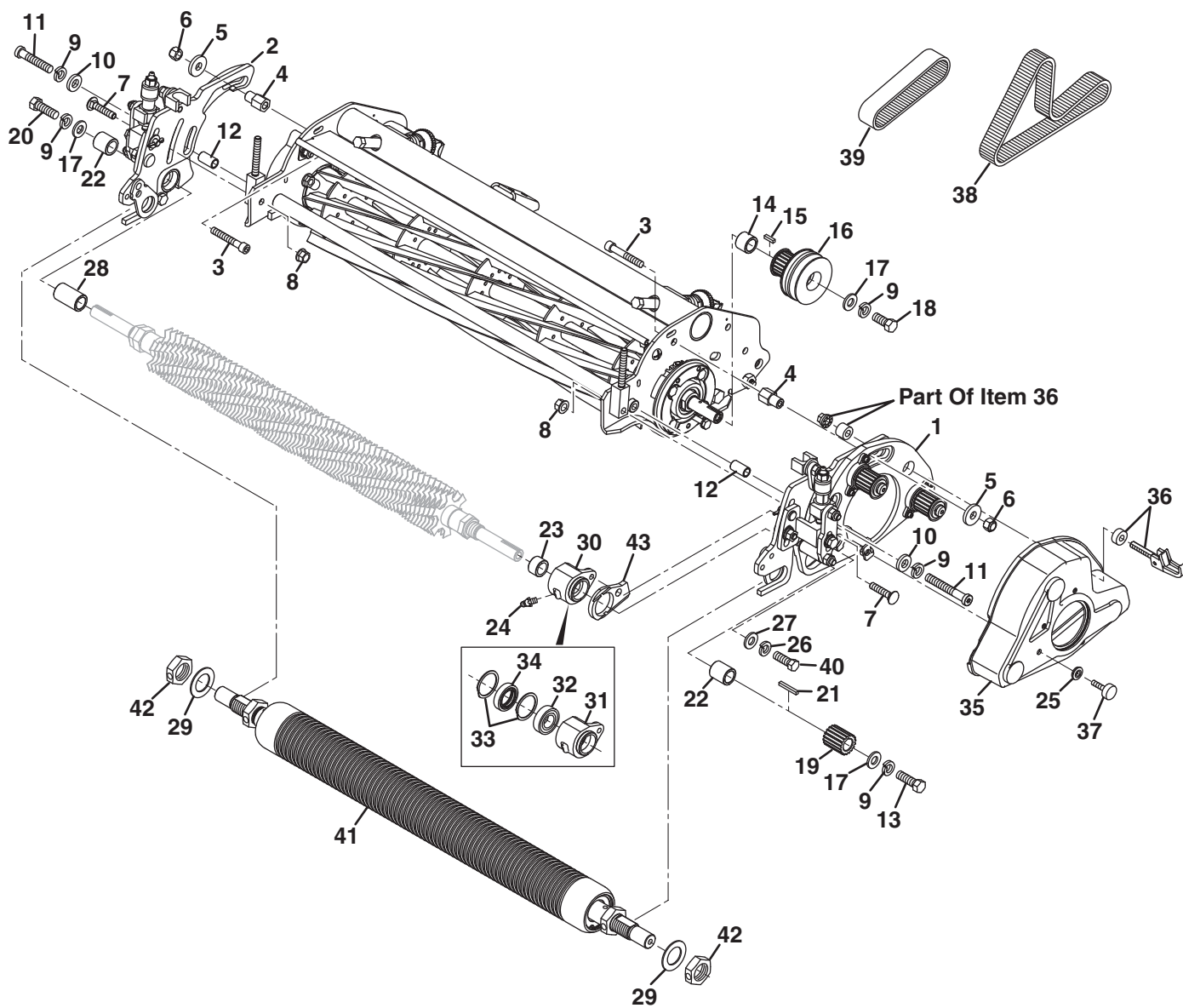
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4156919	2	Knob, Adjustment	
2	471219	2	Grease Fitting, 1/8 NPT	
3	4181442	1	Seal, V-Ring	Included in 62900 and 62901
4	365226	1	Cover, Plate	Included in 62900 and 62901
5	4186084	1	Plate, Counterweight	Included in 62900 and 62901
6	434023	2	Screw, 1/4-20 x 1-1/4" Socket Head	Included in 62900 and 62901
7	446130	2	Lockwasher, 1/4 Heavy	Included in 62900 and 62901
8	4291873	1	Counterweight	Included in 62900 Only
9	441677	1	Carriage Bolt, 5/16-18 x 1-1/2"	Included in 62900 Only
10	445795	1	Nut, 5/16-18 Spiralock Flange	Included in 62900 Only
11	62934	1	Quick Change Accessory	
12	4294092	1	• Bearing Housing Assembly	
13	4294091	1	• • Housing, Bearing	
14	365229	1	• • Bearing, Ball	
15	458461	2	• • Snap Ring, 1-3/8 Internal	
16	336962	1	• • Seal, Grease	
17	367165	1	Spacer, 5/8 x 7/8 x 17/32"	
18	4311346	2	Spacer, 5/8 x 7/8 x 1-1/32"	
19	331143	1	Key, 1/8 x 1/8 x 3/4"	
20	4288984	1	Sprocket, Groomer/Brush Shaft	
21	400090	1	Screw, 3/8-24 x 1-1/4" Hex Head	Loctite Patch
22	446142	2	Lockwasher, 3/8 Heavy	
23	453011	2	Flat Washer, 3/8	
24	4288986	1	Spacer, 7/8 x 1-15/32"	
25	453009	1	Flat Washer, 5/16	
26	400298	1	Screw, 3/8-24 x 1" Hex Head	
27	400190	1	Screw, 5/16-18 x 1-1/4" Hex Head	
28	400188	1	Screw, 5/16-18 x 1" Hex Head	
29	446136	2	Lockwasher, 5/16 Heavy	
30				

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# TURF GROOMER

## Drive and Driven Assembly

Serial No. All



# TURF GROOMER

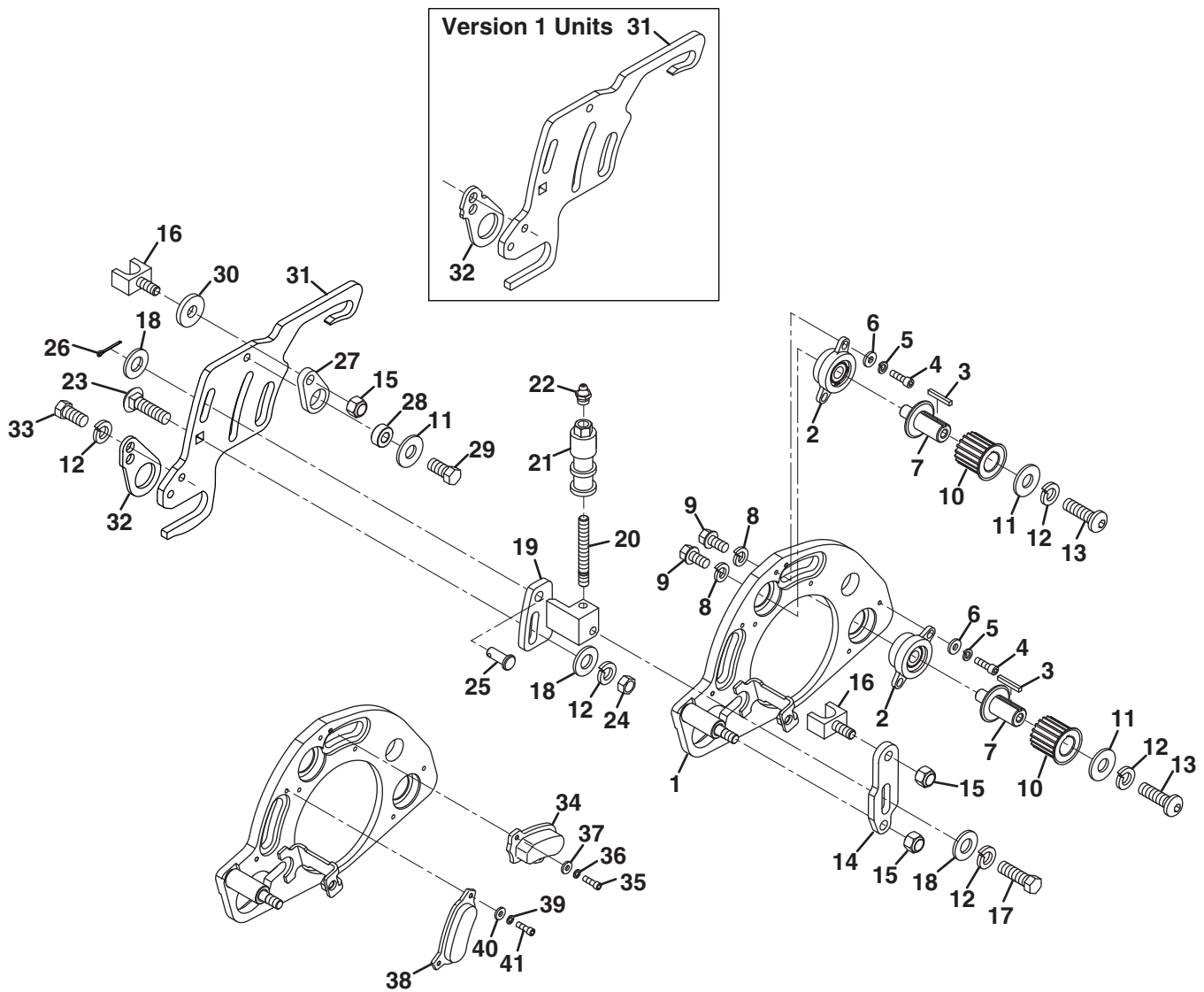
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Drive Side Assembly	See Drive Side Assembly
2	N/S	1	Driven Side Assembly	See Driven Side Assembly
3	434049	2	Screw, 5/16-18 x 2" Hex Socket	
4	4288978	2	Hex Spacer, Slide	
5	364441	4	Spacer, 5/16 x 7/8 x 1/8"	
6	445802	2	Nut, 5/16-18 Nylon Insert Hex	
7	441677	2	Carriage Bolt, 5/16-18 x 1-1/2"	
8	445795	2	Nut, 5/16-18 Spirallock Flange	
9	446142	5	Lockwasher, 3/8 Heavy	
10	453011	2	Flat Washer, 3/8	
11	400089	2	Screw, 3/8-16 x 2" Hex Socket	
12	4159397	2	Spacer, 3/8 x 1/2 x 29/32"	
13	400090	1	Screw, 3/8-24 x 1-1/4" Hex Head	Loctite Patch
14	4301255	1	Spacer, 5/8 x 7/8 x 21/32	
15	365239	1	Key, 1/8 x 1/8 x 7/16" Square	
16	4300352	1	Pulley, Drive	21 Tooth Sprocket
17	453011	3	Flat Washer, 3/8	
18	400300	1	Screw, 3/8-24 x 1-1/4" Hex Head	
19	4288984	1	Sprocket, Groomer/Brush Shaft	18 Tooth
20	400298	1	Screw, 3/8-24 x 1" Hex Head	
21	331143	1	Key, 1/8 x 1/8 x 3/4"	
22	4311346	2	Spacer, 5/8 x 7/8 x 1-1/32"	
23	367165	1	Spacer, 5/8 x 7/8 x 17/32"	
24	471227	1	Grease Fitting, 1/4-28 45°	
25	4194845	1	Washer, Sealing	
26	446136	1	Lockwasher, 5/16 Heavy	
27	453009	1	Flat Washer, 5/16	
28	4288986	1	Spacer, 7/8 x 1-15/32"	
29	365409	AR	Washer, 7/8	
30	4294092	1	Bearing Housing Assembly	
31	4294091	1	• Housing, Bearing	
32	365229	1	• Bearing, Ball	
33	458461	2	• Snap Ring, 1-3/8 Internal	
34	336962	1	• Seal, Grease	
35	4300355	1	Cover, Groomer	
36	4291851	1	• Latch, Swell	
37	4194843	1	Screw, M6-1 x 25 mm Thumb	
38	4288975	1	Belt, Reverse Drive	
39	4288983	1	Belt, Forward Drive	
40	400190	1	Screw, 5/16-18 x 1-1/4" Hex Head	
41	REF	1	Roller Assembly	See Roller Assemblies
42	4157260	2	• Nut, 7/8-14 Hex Jam	
43	4183661	1	Plate, Bearing Housing	

> Change from previous revision

# TURF GROOMER

## Drive Side Assembly

Serial No. All





# TURF GROOMER

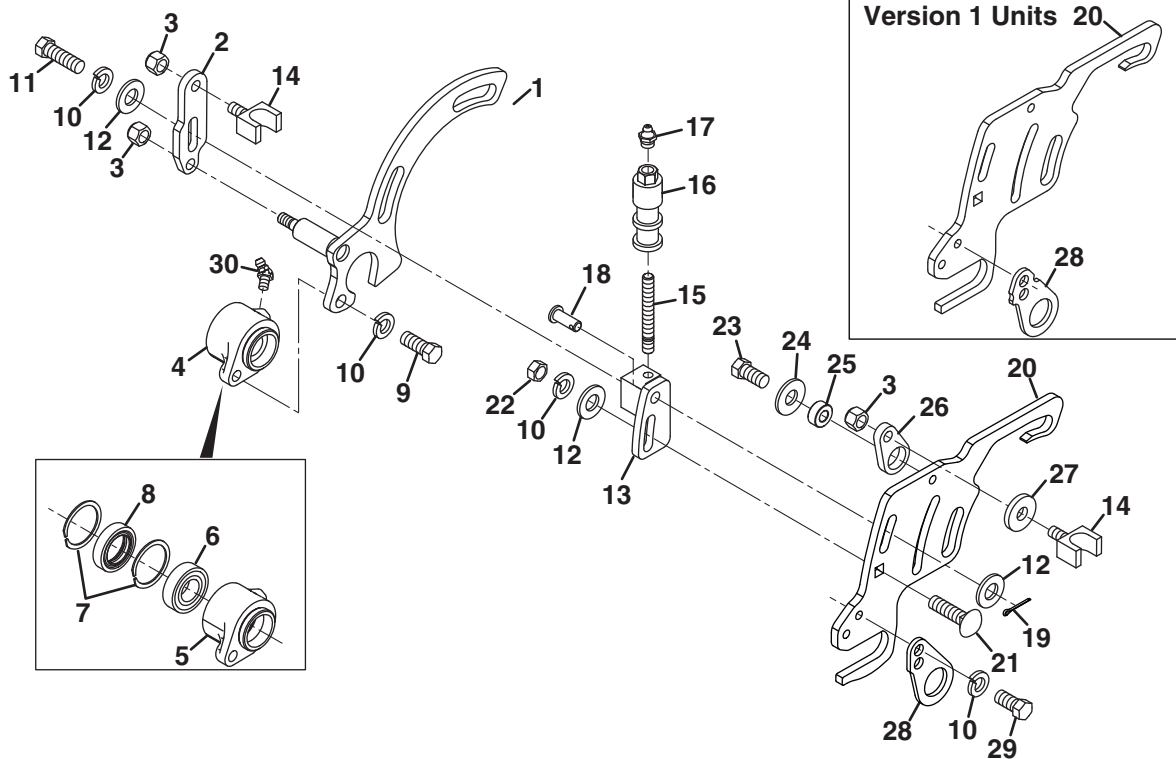
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4290292	1	Groomer Pivot, Left Side	
2	4301254	2	Bearing Assembly	
3	331143	2	Key, 1/8 x 1" Square	
4	400093	4	Screw, #8-32 x 1/2" Hex Socket	
5	450419	4	Lockwasher, M4	
6	450387	4	Flat Washer, M4	
7	4288976	2	Shaft, Sprocket	
8	403753	2	Screw, 1/4-20 x 1/2" Hex Flange	
9	446130	2	Lockwasher, 1/4 Heavy	
10	4288982	2	Sprocket, 18 Tooth	
11	452006	3	Flat Washer, 5/16	
12	446136	5	Lockwasher, 5/16 Heavy	
13	403784	2	Screw, 5/16-18 x 3/4" Pan Head	
14	4288987	1	Plate, Adjusting	
15	445802	3	Nut, 5/16-18 Nylon Insert Hex	
16	364061	2	Bracket, Adjuster	
17	400188	1	Screw, 5/16-18 x 1" Hex Head	
18	453009	3	Flat Washer, 5/16	
19	4159395	1	Lift Bracket, Left Side	
20	343616	1	Stud	
21	4156919	1	Knob, Adjustment	
22	471219	1	Grease Fitting, 1/8 NPT	
23	440082	1	Carriage Bolt, 5/16-18 x 1"	
24	443106	1	Nut, 5/16-18 Hex	
25	4156913	1	Clevis Pin	
26	460026	1	Cotter Pin, 1/8 x 3/4"	
27	4159374	1	Plate, Push	
28	4181441	1	Spacer	
29	400183	1	Screw, 5/16-18 x 5/8" Hex Head	
30	364441	1	Spacer	
31	4288972	1	Plate, Roller Pivot	Version 1 Units, Use with 4288985
31	4309835	1	Plate, Roller Pivot	Version 2 Units, Use with 4309836
32	4288985	1	Tab, Roller	Version 1 Units, Use with 4288972
32	4309836	1	Tab, Roller	Version 2 Units, Use with 4309835
33	400182	1	Screw, 5/16-18 x 5/8" Hex Head	
34	4303481	1	Slot Cover, Upper	
35	400093	2	Screw, #8-32 x 1/2" Socket Head	
36	450419	2	Lockwasher, M4	
37	450387	2	Flat Washer, M4	
38	4303482	1	Slot Cover, Lower	
39	400093	2	Screw, #8-32 x 1/2" Socket Head	
40	450419	2	Lockwasher, M4	
41	450387	2	Flat Washer, M4	

> Change from previous revision

# TURF GROOMER

## Driven Side Assembly

Serial No. All



# TURF GROOMER

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4288974	1	Groomer Pivot, Right Side	
2	4288987	1	Plate, Adjusting	
3	445802	3	Nut, 5/16-18 Nylon Insert Hex	
4	4294092	1	Bearing Housing Assembly	
5	4294091	1	• Housing, Bearing	
6	365229	1	• Bearing, Ball	
7	458461	2	• Snap Ring, 1-3/8 Internal	
8	336962	1	• Seal, Grease	
9	400188	1	Screw, 5/16-18 x 1" Hex Head	
10	446136	5	Lockwasher, 5/16 Heavy	
11	400188	1	Screw, 5/16-18 x 1" Hex Head	
12	453009	3	Flat Washer, 5/16	
13	4159392	1	Lift Bracket, Right Side	
14	364061	2	Bracket, Adjuster	
15	343616	1	Stud	
16	4156919	1	Knob, Adjustment	
17	471219	1	Grease Fitting, 1/8 NPT	
18	4156913	1	Clevis Pin	
19	460026	1	Cotter Pin, 1/8 x 3/4"	
20	4288972	1	Plate, Roller Pivot	Version 1 Units, Use with 4288985
20	4309835	1	Plate, Roller Pivot	Version 2 Units, Use with 4309836
21	440082	1	Carriage Bolt, 5/16-18 x 1"	
22	443106	1	Nut, 5/16-18 Hex	
23	400183	1	Screw, 5/16-18 x 5/8" Hex Head	
24	452006	1	Flat Washer, 5/16	
25	4181441	1	Spacer	
26	4159374	1	Plate, Push	
27	364441	1	Spacer	
28	4288985	1	Tab, Roller	Version 1 Units, Use with 4288972
28	4309836	1	Tab, Roller	Version 2 Units, Use with 4309835
29	400182	1	Screw, 5/16-18 x 5/8" Hex Head	
30	471227	1	Grease Fitting, 1/4-28 45°	

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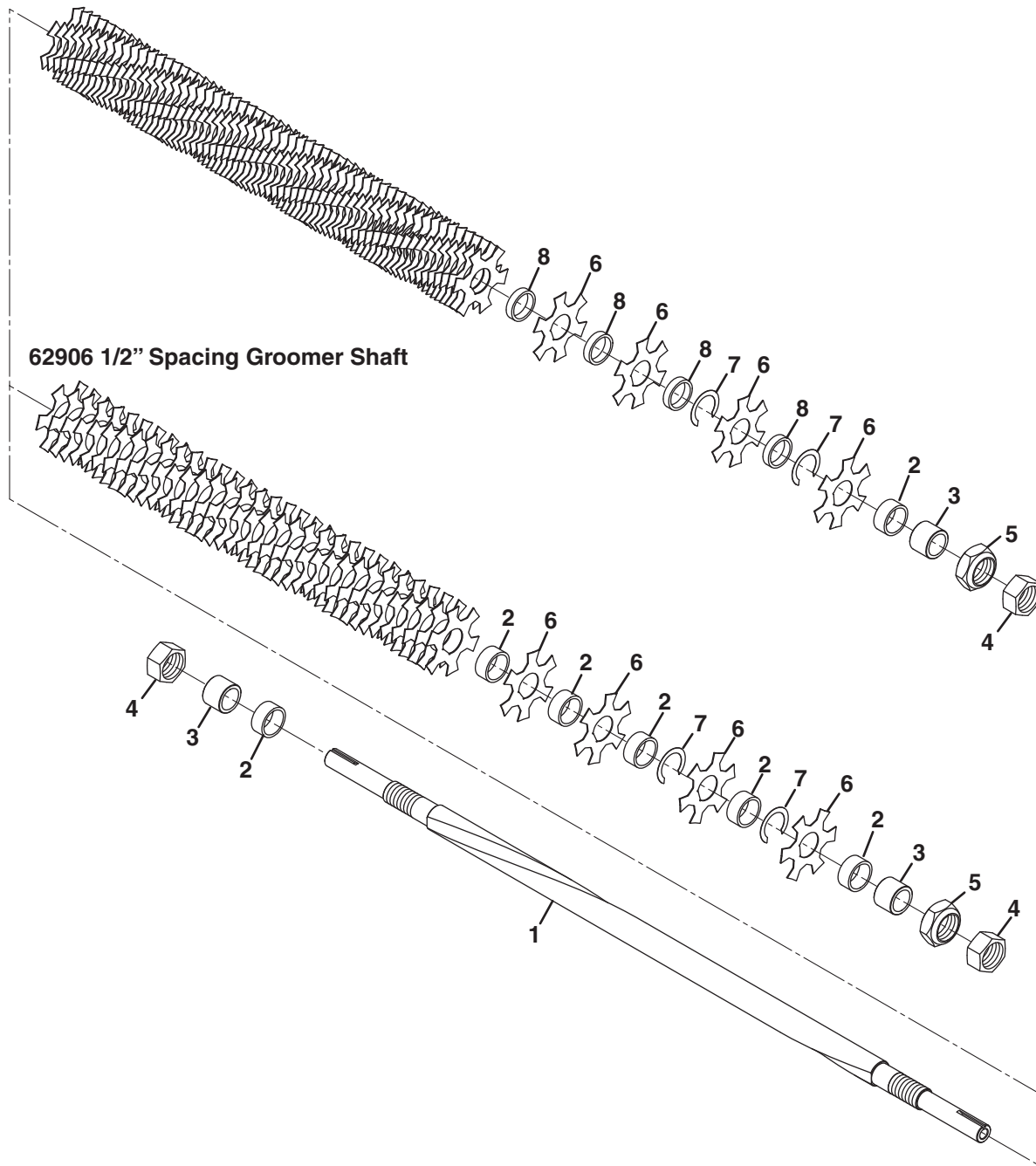
# TURF GROOMER

Serial No. All

## Groomer Shaft Assemblies

62905 and 62906

62905 1/4" Spacing Groomer Shaft



# TURF GROOMER

Item	Part No.	Qty.	Description	Serial Numbers/Notes
	4292696	1	1/4" Spacing Groomer Shaft	
	4301253	1	1/2" Spacing Groomer Shaft	
1	390857	1	• Shaft, Groomer	
2	4195520	2	• Spacer, 7/8 x 15/32"	4292696
2	4195520	41	• Spacer, 7/8 x 15/32"	4301253
3	367161	2	• Spacer, 3/4 x 3/4"	
4	443832	2	• Nut, 3/4-16 Hex Jam	
5	367029	1	• Locknut, 3/4-16 Hex Jam	
6	4291997	71	• Blade, Groomer	4292696
6	4291997	40	• Blade, Groomer	4301253
7	364040	AR	• Shim, Washer	
8	4192802	70	• Spacer, 7/8 x 1/4"	4292696

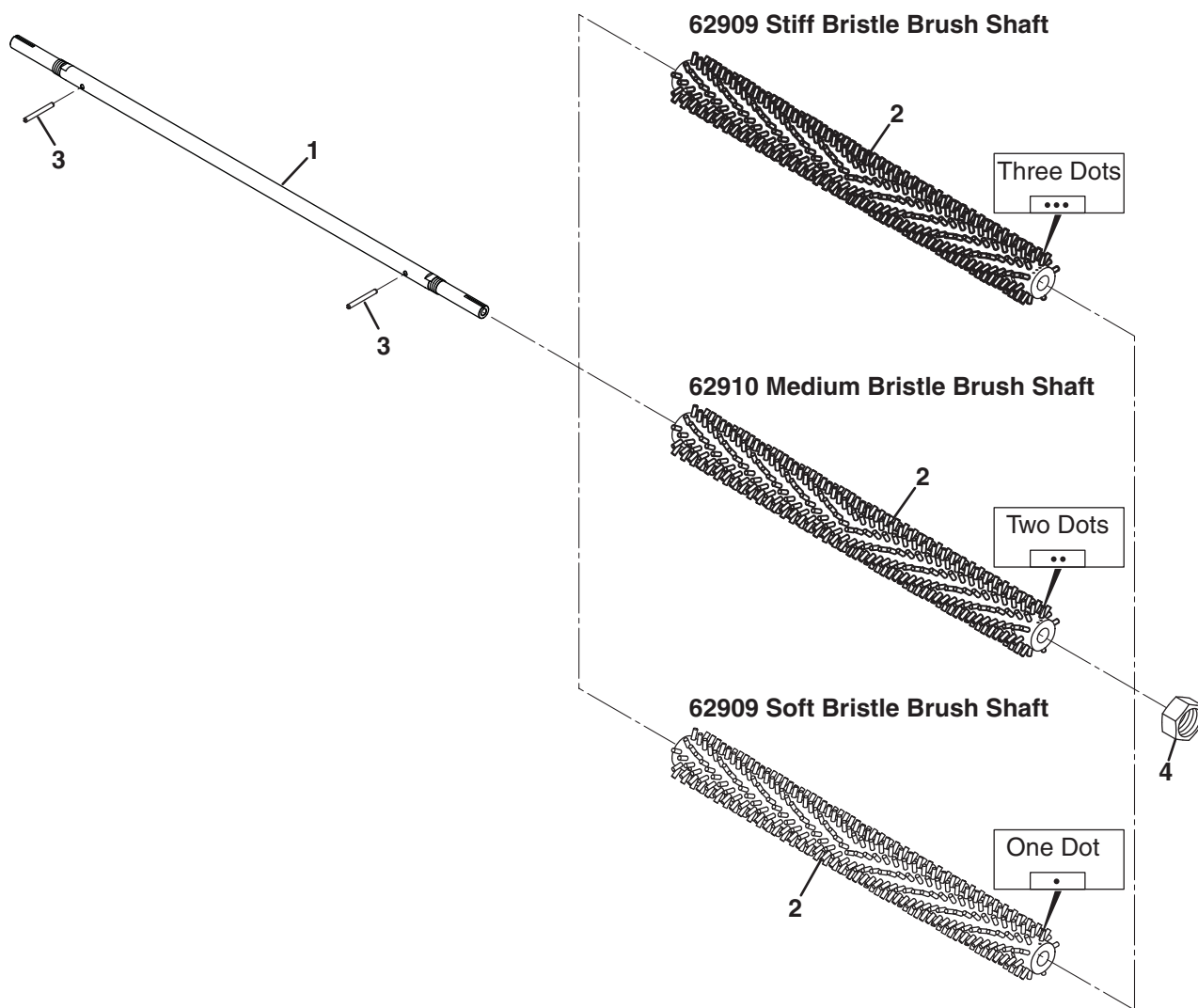
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# TURF GROOMER

Serial No. All

## Brush Shaft Assemblies

67909, 67910 and 67911



# TURF GROOMER

Item	Part No.	Qty.	Description	Serial Numbers/Notes
	4294934	1	Stiff Bristle Brush Shaft	
	4300362	1	Medium Bristle Brush Shaft	
	4300364	1	Soft Bristle Brush Shaft	
1	4291996	1	• Shaft, Brush	
2	4294933	1	• Brush, Stiff Bristle Herringbone	4294934
2	4300361	1	• Brush, Medium Bristle Herringbone	4300362
2	4300363	1	• Brush, Soft Bristle Herringbone	4300364
3	461409	2	• Roll Pin, 3/16 x 1-3/4"	
4	400094	1	Nut, M18-1.5 Wide Jam	

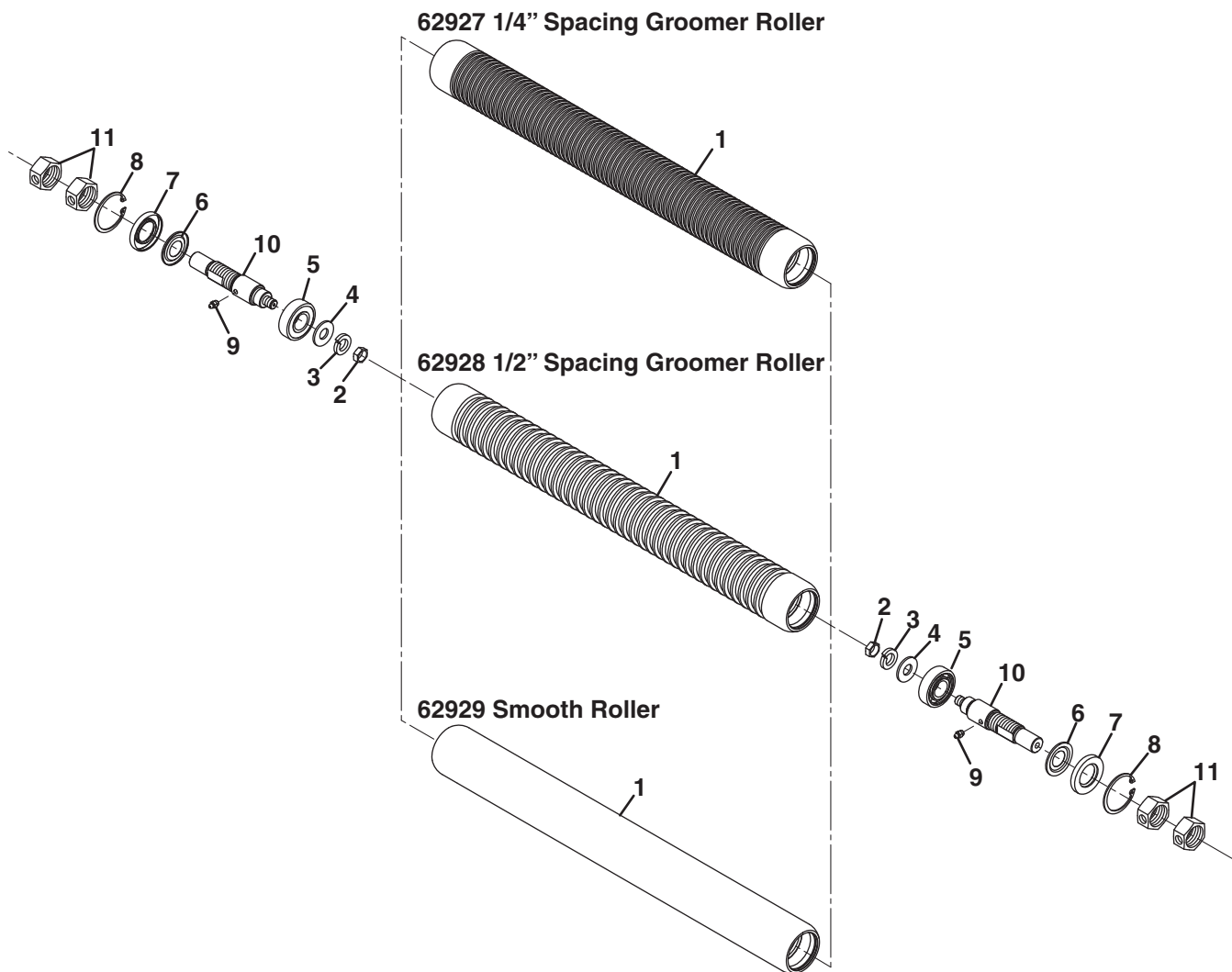
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# TURF GROOMER

Serial No. All

## Roller Assemblies

67927, 67928 and 67929





# TURF GROOMER

Item	Part No.	Qty.	Description	Serial Numbers/Notes
	2500224	1	1/4" Groomer Spacing 22" Roller	Used with 62905
	2500226	1	1/2" Groomer Spacing 22" Roller	Used with 62906
	4294935	1	22" Smooth Roller	Used with 62909-62911
1	390899	1	• 22" Roller Tube, 1/4" Spacing	2500224
1	390900	1	• 22" Roller Tube, 1/2" Spacing	2500226
1	4300354	1	• 22" Smooth Roller Tube	4294935
2	443816	2	• Nut, 7/16-20 Hex Jam	
3	446148	2	• Lockwasher, 7/16 Heavy	
4	452008	2	• Flat Washer, 7/16"	
5	365330	2	• Bearing, Ball	
6	365345	2	• Nilos Ring	
7	338773	2	• Oil Seal	
8	458113	2	• Retaining Ring, Internal	
9	471214	2	• Grease Fitting, 1/4-28 Straight	
10	4169260	2	• Shaft, Roller	
11	4157260	4	• Nut, 7/8-14 Hex Jam	

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