# Tailpost Service and Inspection

## General

Following are recommended inspection, installation and removal procedures for the Tailpost Housing, Tailpost, Tiller arm, and Steering Cylinders on two wheel drive Wagner Logstackers.

## Tiller Arm Removal

1. Raise and support rear of the main chassis ahead of the tail section to 40" above the ground or shop floor with appropriate blocks or stands.
2. Remove wheels and tires.
3. Remove directional indicator arrow.
4. For forged tailposts: remove cover (Item 38)and nuts (Item 39).
5. Loosen nuts (Item 2) securing the steering tiller assembly to the tailpost. **Do not remove nuts at this time.**
6. Remove the steering cylinder assemblies.
7. Make four heavy steel wedges that can be driven between the tiller arm and the chassis deck. Fabricate wedges so that front and rear blocks overlap each other to contact the tiller arm with maximum surface area.
8. Place two wedges on the forward (cab) side of the tiller and two wedges on the rear side of the tiller arm.
9. Alternately drive the wedges under the tiller arm with a sledge hammer until the arm comes loose from the post or the wedges are forced tightly between the tiller and deck. Heat may be required around the inner diameter of the tiller arm to allow removal. Localize heat to the to the inner diameter of the tiller without applying excessive heat to the tailpost.

**⚠ WARNING**

**Do not remove Nuts Item (2)or washer Item (3). Only loosen them enough to allow the tiller to be forced from the tapered section of the tailpost. Personal Injury can result if the tiller arm is not restrained by the nuts and suddenly "breaks loose from the tailpost".**

10. Remove tiller (Item 5), and key stock (Item 1) from the tailpost, and set aside.
11. Remove dust shield (Item 6), and set aside.
12. Bend tab on item (9) lock, which secures the top jamnut, and remove nut (Item 8) from the tailpost along with both (Item 9) locks.
13. Support tailpost with appropriate fork lift (3000 pound minimum capacity), with tines positioned outboard of the axle mounting plates as close to the post aspossible. Secure the post by a chain or choker around the tine frame of the forklift.

14. Loosen the bottom nut (Item 8) and unscrew until approximately 1 1/2” of thread is still engaged.
15. Slowly lower the post assembly to break it free from the bearing cones, Do not exert pressure on the nut (Item 8).
16. Support the tailpost with a forklift and install a heavy lifting eye in the threaded hole where the directional arrow was removed. Attach a lifting sling or chain (3000 pounds minimum capacity) to the post. Hook the sling to an overhead crane or chain hoist with enough rope to reach the ground.
17. Remove the remaining nut.
18. Slowly coordinate lowering the post to the ground with the forklift and overhead crane. The post will come out at an angle to the rear of the unit. The forklift should back up as the tailpost lowers so no components are damaged**.**

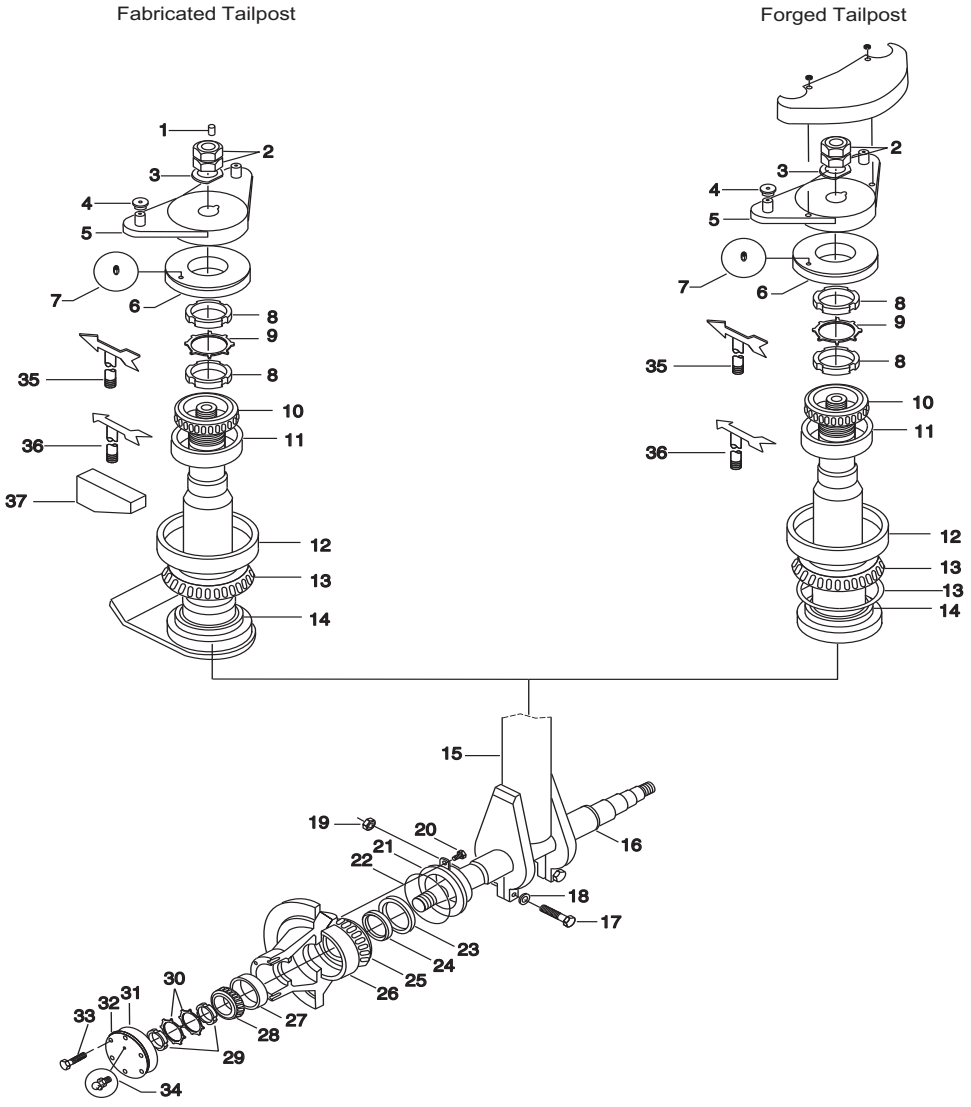


*Figure 1: Forged Vs. Fabricated Tailposts*

Note: Be sure there is enough clear area around the machine while lowering the tailpost.

Note: The tailpost housing is packed with grease. Before installation of a new assembly be sure that the housing is cleaned out and the grease properly contained and disposed of per applicable laws and regulations.

# Pre-Assembly Inspection

1. Check the upper and lower bearing bore in the tailpost bearing housing diameters for proper taper and concentricity.

   The upper bearing bore should measure between 8.750 and 8.753 inches and the lower bearing bore should be between 11.501 and 11.503 inches for both forged and fabricated tailposts.
2. Check the tailpost bearing surface diameters for taper and concentricity.

   For forged tailposts: The upper bearing seat diameter should be between 5.9975 and 5.9995 inches. The lower bearing seat diameter should be between 8.0625 and 8.0635 inches.

   For fabricated tailposts: The upper bearing seat diameter should be between 5.9975 and 5.9995 inches. The lower bearing seat diameter should be between 7.8775 and 7.8776 inches.
3. Inspect the threads, key (Item 1), tiller cylinder pins (Item 4), and the key slot for looseness or damage.

# Tailpost Assembly Procedure

1. Install the upper bearing cup (Item 11) and lower bearing cup (Item 12) into the tailpost bearing housing.

   Check clearance with a feeler gauge to ensure that the cups are fully seated. There must be no gap between the cup and its seat for proper installation.
2. Pack the bearing cones (Items 10 and 13) with EP grease. For forged axles only: Install spacer (Item 40) onto lower bearing seat. Place the seal (Item 14) over the tailpost with its lip facing up. Then install the lower bearing cone (Item 13).

   Check with a feeler gauge to ensure the cone is seated properly. There must be no gap between the cone and its seat.
3. Pack the lower cone with grease.
4. Install the lifting eye and lift the tailpost (Item 15) into the tailpost housing. Place blocks under the tailpost and remove the lifting eye.

   **IMPORTANT: The bottom seal should be recessed 1/8 inch past the bottom edge of the housing.**
5. Fill the housing cavity around the tailpost with EP grease.

6. Install the upper cone (Item 10) and lock nut (Item 8). Torque the lock nut to 2400 lb-ft.

   NOTE: The bevel side of the lock nut must face up.

7. Install the nut lock (Item 9). Install the second nut lock (Item 8) with the bevel side down, and torque it to 2400 lb-ft. Bend the nut lock tabs into the tabs into the slots on both nuts.
8. Pack EP grease over the top bearing and nuts. Install dust cover (Item 6).
9. Set the tiller arm (Item 5) down on the tailpost taper, without the key. This is to assure that the top of the tailpost taper is at least 1/4 inch below the top of the tiller arm boss surface. If it is not, contact Wagner Product Support. If it is below the surface, continue with the assembly procedure.
10. Remove the tiller arm and heat the tiller arm evenly, to a temperature of at least 500 ºF.
11. Install the tiller arm with the key. Strike the tiller arm with a sledgehammer, a one strong blow is preferred, to assure that the tiller arm seats properly without binding.
12. Install the flat washer (Item 3) and first nut (Item 2). Tighten the nut while striking the tiller arm, until the nut remains tight.
13. Torque the first nut between 800 and 1000 lb-ft. lbs.
14. Install a second nut and torque between 800 and 1000 lb-ft.
15. Install the steering cylinders and slave cylinder if so equipped.
16. Install the directional arrow (Item 35 or 36) and align it with the wheels.
17. Grease all of the steering fittings with EP grease.
18. For forged axles only: install cover (Item 38) with nuts (Item 39).
19. Check the steering pressure, and adjust as necessary.

# TailPost Axle Assembly

1. Install axle shaft (16) in axle mounting plates. Torque capscrew(s) (17).

   Note: Forged Tailposts manufactured prior to 1994 use a single, 1 1/4 NC x 11 capcrew (17). Acceptable torque for this capscrew is between 1400 and 1500 ft lbs.

   Forged tailposts manufactured after 1994 use two 1 NC X 11 capscrews (17). Acceptable torque for these capcrews is 750 to 800 ft lbs.

2. Slide the seal retainer (21) onto the axle shaft.
3. Install seal race (24) with the chamfer facing away from the ground. Heat the race slightly so it can easily slide onto the shoulder of the axle shaft.

4. Install o-ring (22) and seal (23) onto the seal retainer assembly (seal lip on outside of hub).Ensure the assembly slides completely onto axle shaft.
5. Pack inner bearing (25,26) with grease and install onto the shaft.
6. Cover axle shaft with grease and install the hub. Fill the hub with grease.
7. Pack outer bearing (27,28) with grease and install in the hub.
8. Install the first lock nut (29) (taper side way from tailpost). Tighten lock nut to 35-45 ft. lbs rolling torque (removing all bearing free play).
9. Install both lock washer spiders (30), then second lock nut (taper side away from tailpost).Torque outside lock nut to 1500 - 1800 ft. lbs. Bend lock washer tabs to secure both lock nuts.
10. Fill completely with grease. Install gasket (31) and cover (32). Torque 3/8" capscrews to 25-30 ft. lbs.
11. Install inner seal retainer assembly (21) onto inner seal race and bolt to hub.

Note: Torque 3/8" capscrews to 25-30 ft. lbs.

Intentionally Blank