

Assembly & Set-Up

3

Contents of Carton

- Tiller (1)
- Hardware Pack (1)
- Engine Operator's Manual (1)
- Handlebar Support (1)
- Wheels/Tines PTO Lever (1)
- Handlebar Assembly (1)
- Operator's Manual (1)



WARNING! To prevent personal injury or property damage, do not start the engine until all assembly steps are complete and you have read and understand the safety and operating instructions in this manual.

Recommended Tools for Assembly

- 3/8" open-end wrench (1)
- 7/16" open-end wrench (2)
- 1/2" open-end wrench (2)
- 9/16" open-end wrench (1)
- 3/4" open-end wrench (1)
- Flat blade screwdriver (1)
- Scissors (to trim plastic ties)
- Tire pressure gauge (1)
- 4-1/2" high wood block to prop machine

Contents of Hardware Pack

- Bottle of Oil (1)
- Clutch Pawl Spring (1)
- Belt Adjusting Tool (1)
- Plastic Cable Ties (2)
- Hex Screw, 1/4-20: 2.5" (1)
- Flanged Lock Nut, 1/4-20 (1)
- Flat Washer .260 x .720 x .060 (1)

NOTE: The following parts (electric start models only), packaged separately.

- Nuts, 1/4-20 for battery terminals (2)
- Screws, 1/4-20 x 3/8 for battery terminals (2)
- Keys in ignition switch (2)

Assembly

Unpacking Instructions

NOTE: Do not severely bend any of the control cables on the tiller.

1. The tiller is heavy. Do not attempt to remove it from the shipping platform until instructed to do so in these assembly steps.
2. Remove all loose parts from the carton. The hardware bag is included in your literature packaging.
3. Check that you have the items listed above (contact your local dealer or the Troy-Bilt Technical Service Department if any items are missing or damaged).

Handle

NOTE: When disassembling the handlebar assembly, keep the left-side clamp and ratchet separated from the right-side clamp and ratchet.

1. Disassemble the handlebar assembly. To do this, remove the height adjustment lever by turning the lever in a counterclockwise direction. See Figure 3-1.

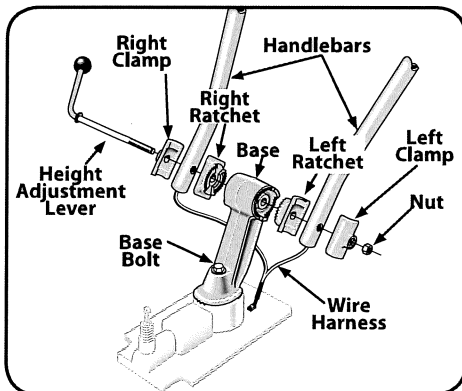


Figure 3-1

2. Place the handlebar ends on either side of the base, with the wire harness toward the rear of the base. See Figure 3-1.
3. Install the height adjustment lever through the right-side clamp, handlebar end, ratchet, and base; then out through the left-side ratchet, handlebar end, and clamp. See Figure 3-1. Secure with the nut, but do not fully tighten.

NOTE: Do not force the height adjustment lever through the handlebars. The interlock wires may be blocking the lever and could be damaged. You may gently move the wires aside if this condition occurs.

4. Raise the handlebars to one of two height settings and tighten the height adjustment lever. Also, make sure all other mounting hardware is securely tightened.

Moving the Tiller off the Shipping Platform

1. Set the Depth Regulator Lever to the "TRAVEL" position. Do this by lifting the tiller by the handlebars, then pulling straight back on the lever and sliding down to the highest notched setting. See Figure 3-2.

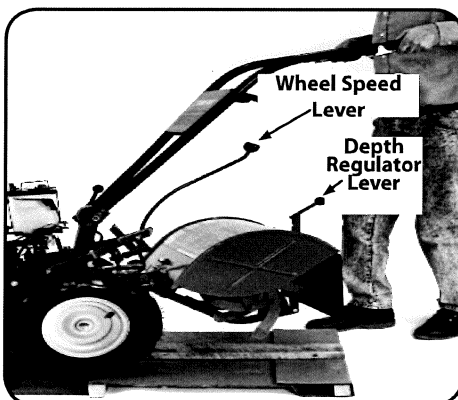


Figure 3-2

2. Set the Wheel Speed Lever to the Freewheel position. To do this, move the lever approximately halfway between the Fast and Slow settings while you rock the tiller forward and backward until the wheels move freely. See Figure 3-2.
3. Lift the Handlebars high enough to clear the tiller tines and pull back firmly to dislodge the tiller from the platform wheel wells.

Wire Harness

1. Ground the green (and red for electric start tillers) wire(s) to the engine block. See Figure 3-3.

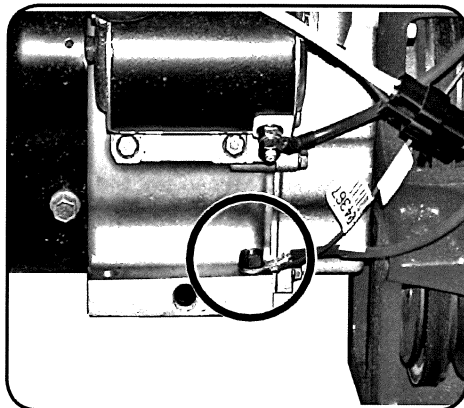


Figure 3-3

2. Connect the safety wire assembly (green and yellow wires). See Figure 3-4.

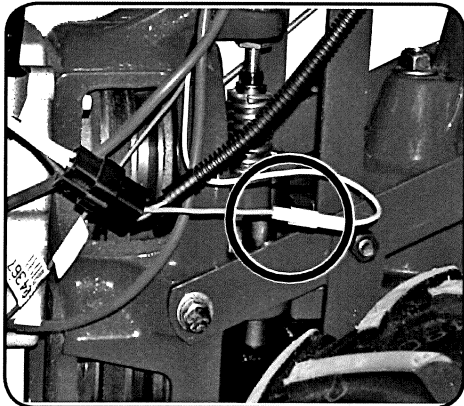


Figure 3-4

3. Connect the tiller's main harness connection to the neutral safety switch receptacle. See Figure 3-5.

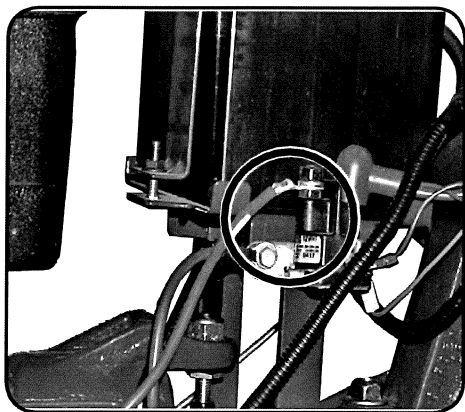


Figure 3-5

Wheels/Tines PTO Drive Lever

1. Loosen the bolt on the handlebar base and swing the handlebars out to the right side. See Figure 3-1.
2. Remove both sets of nuts, star washers, screws, and one bushing from the yoke plates. See Figure 3-6. There is a bushing inside the short link. Be careful not to lose it when removing screw.

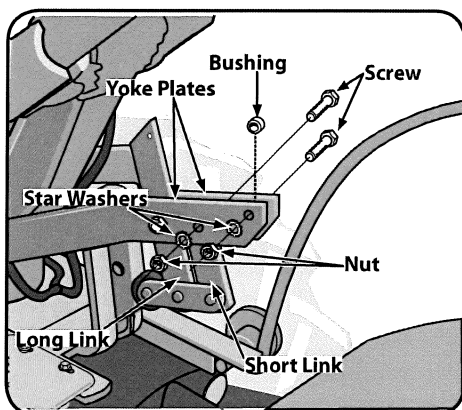


Figure 3-6

3. Slide the plates at the end of the Wheels/Tines/PTO Lever over the yoke plates. See Figure 3-7. To aid in the next step, insert a screw temporarily into the forward most holes of the yoke plates and the lever.

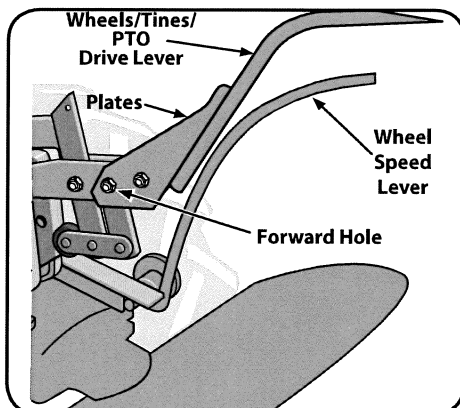


Figure 3-7

4. Align the rear most holes of the yoke plates and the Wheels/Tines PTO Lever. Use long nose pliers to hold the bushing in place while inserting the screw through the lever and yoke plates. See Figure 3-8. Install the star washer and the nut then hand tighten.

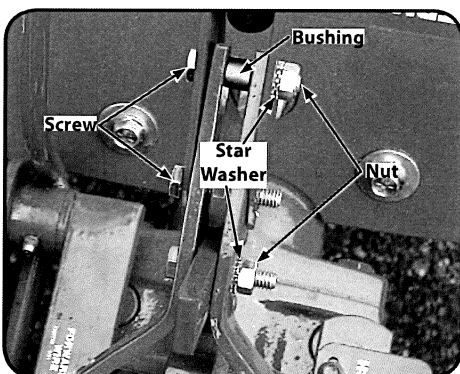


Figure 3-8

5. Retrieve the clutch pawl spring from hardware bag. Remove the temporary screw from the forward holes inserted in Step 3 and move the Wheels/Tines/PTO Lever fully forward. Install the wider hook end of the clutch pawl spring down into the small hole at the end of the handle. Use pliers to insert the other end into the hole in the long link bar. See Figure 3-9.

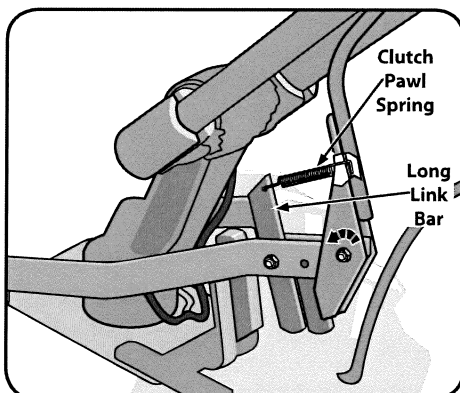


Figure 3-9

NOTE: Do not bend or over stretch the spring while installing.

6. Pull the Wheels/Tines/PTO Lever back to align the forward most holes in the yoke plate with the holes in the lever plates. Also align the bushing that is inside the short link bar. Install the screw, star washer, and nut, then tighten securely. Securely tighten all other hardware. Also ensure that the spring is properly seated at both ends. Completed assembly should appear as illustrated in Figure 3-10.

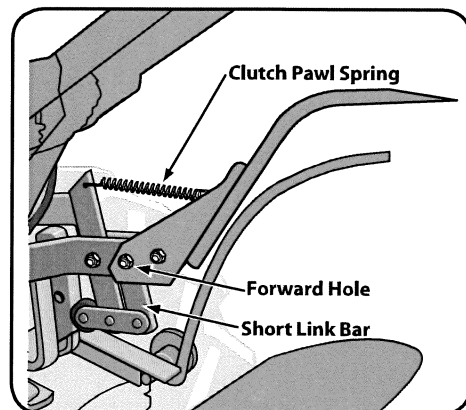


Figure 3-10

7. Test the operation of the Wheels/Tines/PTO Lever. Push the lever down until it engages in the Forward position. The clutch roller must rest beneath the adjustment block. Next, move the lever up to the Neutral position. See Figure 3-11.

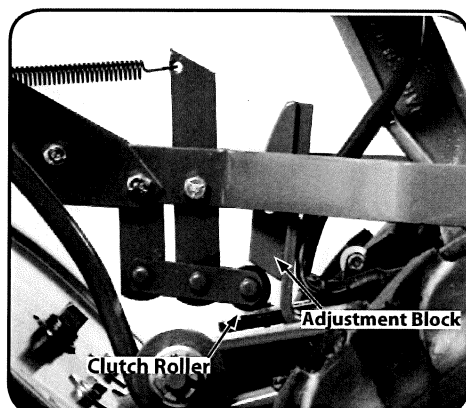


Figure 3-11

8. To test Reverse, lift and hold the lever all the way up in the Reverse position, then let it go. The lever should automatically return to the Neutral position. See Figure 3-12. If not, do not use the tiller. See your local authorized dealer or call the Troy-Bilt Technical Service Department for instructions.

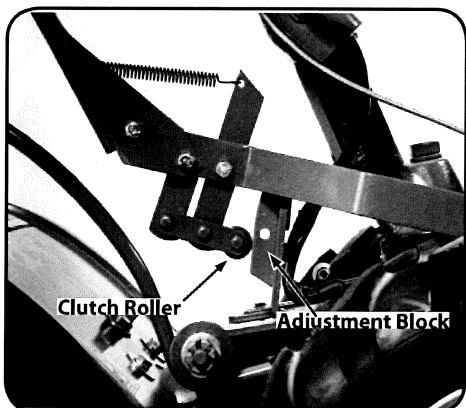


Figure 3-12

Engine Throttle Lever and Cable

For shipping purposes, the throttle cable, together with the throttle lever, is wound around the engine. Carefully unwind the cable. If the throttle control label is covered with a clear protective coating, peel it off.



WARNING! To avoid electric shock from a short circuit (electric start tillers only), never allow the throttle cable to touch the battery. Route the cable below the battery, on the outside of the battery holder.

To attach the throttle lever and cable:

1. Run the throttle cable up the inside edge of the right handlebar and position the lever as shown in Figure 3-13.

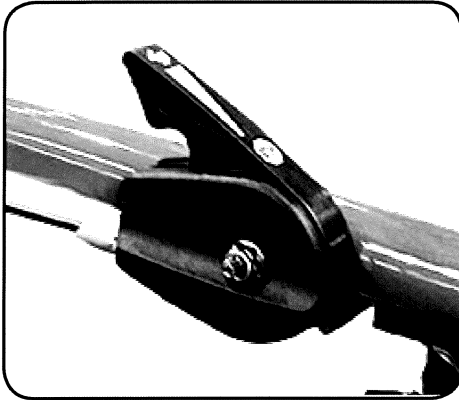


Figure 3-13

2. From the outside of the handlebar, insert the 2.5" hex screw from the hardware pack through the flat washer, the handlebar and the center hole in the throttle lever mounting bracket. See Figure 3-13.
3. Loosely install the flanged lock nut and pull the throttle lever back to the STOP position.
4. Ensure the groove in the throttle housing is flush with the handlebar. Securely tighten the flanged lock nut and the hex screw. See Figure 3-13.
5. Use two plastic ties to secure the throttle cable to the right handlebar in two places. Loop each tie around the handlebar and cable (serrated side faces in) and pull the ties tight. Trim the ends.

Electric Start System (If Equipped)

The following steps explain how to install and charge the battery on electric start tillers. For your safety, follow all steps and observe all accompanying safety messages. The Maintenance & Adjustments section contains other general battery maintenance and recharging instructions.



WARNING! Battery produces explosive gases. Keep away sparks, flames, and cigarettes. Ventilate area when charging or using battery in an enclosed space. Make sure battery vent tube is always open after battery is filled with acid.



WARNING! Remove metal jewelry before working near the battery or near the electrical system. Failure to comply may cause a short circuit, resulting in electrical burns, a shock, or battery gas explosion.

NOTE: If the battery is put into service after the date shown on the top of the battery, charge for a minimum of one hour at 6-10 amps. Refer to the Maintenance & Adjustments section of this manual for more detailed instructions regarding proper battery charging procedure.



WARNING! Never jump start the battery with a vehicle battery or charging system. This may produce a battery explosion, causing acid or electrical burns.

1. Before installing the battery and its hold-down clamp, insert the plastic wire harness receptacle into the prongs of the keyswitch located on the hold-down clamp. See Figure 3-14.

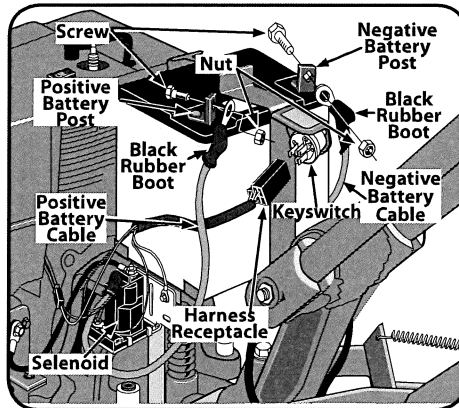


Figure 3-14

2. Remove the ignition keys from the keyswitch and store them safely away. Do not insert the key into the keyswitch until you complete this section and read the Operation section. See Figure 3-14.
3. Use a 5/8" long screw and 1/4-20 hex nut to connect the positive (+) battery cable to the positive (+) battery post. Make sure that this is the cable on the left side, with one end attached to the selenoid. See Figure 3-14.



WARNING! To Avoid Personal Injury or Property Damage: Do not touch the positive battery terminal and any surrounding metal objects with tools, jewelry or other metal items. Failure to comply could cause a short circuit leading to electrical burns or an explosion of battery gases. Never bring a gas can near the positive (+) battery terminal. A short circuit could occur leading to an explosion of the gasoline or the battery gases. Always fill the engine fuel tank from the front or side of the engine.

4. Slide the black rubber boot completely over the battery post and cable connector. See Figure 3-14.
5. Use a 5/8" long screw and 1/4-20 hex nut to connect the negative (-) battery cable to the negative (-) battery post and secure with screw and nut. See Figure 3-14.
6. Slide the black rubber boot completely over the battery post and cable connector. See Figure 3-14.

Set-Up

Tires

For shipping purposes, the tires may be overinflated. Check the air pressure in each tire and adjust them to between 10 and 20 pounds per square inch. You must inflate each tire to equal air pressures to prevent the tiller from pulling to one side.

Gas & Oil Fill-Up

Service the engine with gasoline and oil as instructed in the Engine Operator's Manual packed separately with your tiller. Read the instructions carefully.



WARNING! Use extreme care when handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Never fuel the machine indoors or while the engine is hot or running. Extinguish cigarettes, cigars, pipes and any other sources of ignition.

Transmission Gear Oil

The transmission was filled with gear oil at the factory. However, be sure to check the oil level at this time to make certain it is correct. See the Maintenance & Adjustments section for instructions on checking and adding transmission gear oil.