



Wheel Horse® Lawn Tractor

For Tractors with 32" and 38" Mowers

Form No. 3328-648

Setup Instructions

Loose Parts

Note: Use the chart below to verify that all parts have been shipped.

Description	Qty.	Use
Front wheels	2	Installing the front wheels
Shim washers (as required)	2	
Flat washers	2	
Cotter pins	2	
Hub caps	2	
Steering wheel	1	Installing the steering wheel
Spirol pin	1	
Seat	1	Installing the seat
Knob	1	
Flat washer	1	
Wire clip (on seat pan)	1	
Bolts—1/4-20 x 3/4 in.	2	Installing the battery cables
Wing nuts	2	
Spring hook	1	Installing the lift assist spring
Wheels	2	Installing the anti-scalp wheels
Wheel bolts	2	
Locknuts—5/16 in.	2	
Keys	2	Using in the ignition and Key Choice® switches
Operator's Manual	1	Reading before operating the tractor
Certificate of Conformance	1	
Noise certificate	1	
Registration Card	1	Filling out and mailing the card to Toro

Installing the Front Wheels

Note: If the wheels are already installed, refer to Checking the Tire Pressure below.

1. Install the shim washers onto the axle.
2. Install the wheel onto the axle with the valve stem facing out.
3. Slide the flat washer onto the axle.
4. Insert the cotter pin through the axle and bend the ends of the pin apart (Fig. 1).

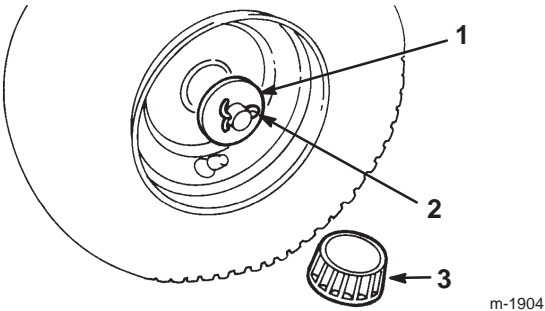


Figure 1

1. Flat washer
2. Cotter pin
3. Hub cap

Note: If the cotter pin does not fit, remove the shim washer(s) as needed.

5. Push the hub cap (Fig. 1) onto the end of the axle.
6. Repeat steps 1 through 5 on the opposite side of the tractor.
7. Grease the wheel bearings until the grease comes out of the bearing seal area.

Checking the Tire Pressure

Check the tires to ensure that they are inflated to the proper level. Refer to Checking the Tire Pressure section in the *Operator's Manual*.

Installing the Steering Wheel

1. Move the front wheels so that they face straight ahead.
2. Slide the steering wheel over the steering shaft and line up the hole in the steering wheel with the hole in the shaft (Fig. 2).

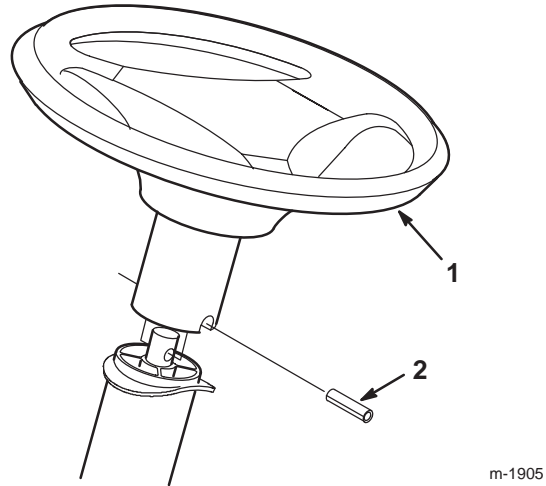


Figure 2

1. Steering wheel
2. Spirol pin

Note: From the seat you should be able to read the brand logo on the steering wheel.

3. To align the holes, insert a punch or long nail partially through the holes in the steering wheel and shaft. Then insert the spirol pin into the hole on the opposite side.
4. Using a hammer, drive the spirol pin in until it is flush with the outside of the steering wheel (Fig. 2).

Installing the Seat

Note: If the seat is already installed, go to Activating the Battery below.

1. Insert the seat switch wire cable through the hole in the seat base (Fig. 3).

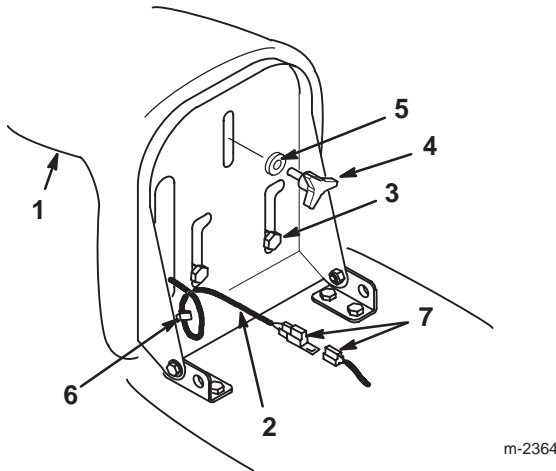


Figure 3

1. Seat
 2. Wire and connector
 3. Shoulder bolts
 4. Knob
 5. Flat washer
 6. Wire clip
 7. Connectors
2. Position the seat onto the seat base by inserting 2 shoulder bolts through the key hole openings at the end of both slots (Fig. 3).
 3. Thread the knob and flat washer through the slot and into the rear center hole in the seat (Fig. 3).
 4. Adjust the seat and tighten the knob.
 5. Push the seat switch connector fully into the wire harness connector (Fig. 3).
 6. Secure the seat switch wire cable to the seat base with the wire clip (Fig. 3).

Note: Check the seat switch wire routing. Ensure that the wire is not pinched in the seat brackets.

Activating the Battery



Warning



Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

Purchase bulk electrolyte with 1.260 specific gravity from a local battery supply outlet.

Important Never fill the battery with electrolyte while the battery is installed in the tractor. Electrolyte could be spilled on other parts and corrode them.

1. Remove the battery and battery box from the tractor; refer to Removing the Battery in the *Operator's Manual*.



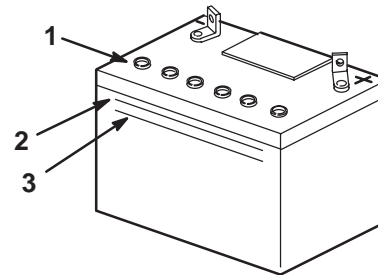
Danger



Battery electrolyte contains sulfuric acid, a deadly poison that can severely burn you and others.

- Do not drink electrolyte and avoid contact with skin, eyes, or clothing. Wear safety glasses to shield your eyes and rubber gloves to protect your hands.
- Fill the battery where clean water is always available for flushing the skin.
- Follow all instructions and comply with all safety messages on the electrolyte container.

2. Remove the vent caps from the battery.
3. Slowly pour electrolyte into each battery cell until the electrolyte level is up to the Upper line on the battery case (Fig. 4).



m-5004

Figure 4

1. Vent caps
2. Upper line
3. Lower line

Important Do not overfill the battery because electrolyte (sulfuric acid) can severely corrode and damage the chassis.

4. Wait 5 to 10 minutes after filling the battery cells.
5. Add electrolyte, if necessary, until the electrolyte level is up to the Upper line (Fig. 4) on the battery case.
6. Install the battery vent caps.

7. Charge the battery for 10 to 15 minutes at 25 to 30 amps or 30 minutes at 4 to 6 amps (Fig. 5). **Do not overcharge the battery.**

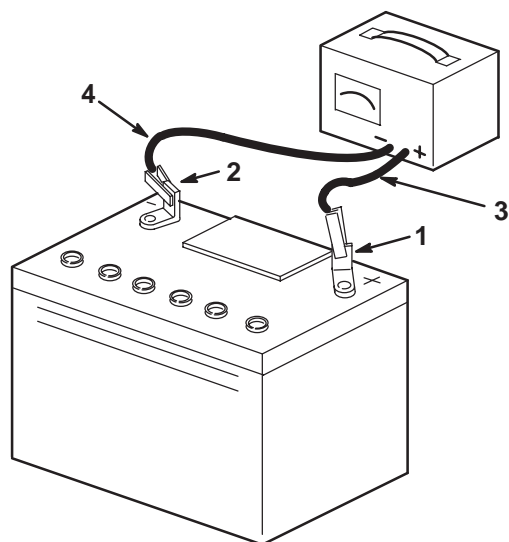


Figure 5

- | | |
|------------------|---------------------------|
| 1. Positive post | 3. Charger red (+) wire |
| 2. Negative post | 4. Charger black (-) wire |



Warning



Charging the battery produces gasses that can explode.

Never smoke near the battery and keep sparks and flames away from battery.

8. When the battery is fully charged, unplug the charger from the electrical outlet, then disconnect the charger leads from the battery posts (Fig. 5).
9. Install the battery and battery box in the tractor and connect the battery cables; refer to Installing the Battery in the *Operator's Manual*.

Checking the Engine Oil Level

The tractor comes from the factory with oil in the engine crankcase; however, you may need to add oil. Refer to Servicing the Engine Oil in the *Operator's Manual* for oil type, viscosity, and crankcase capacity. Add only enough oil to raise the level to the Full mark on the dipstick.

Installing the Anti-Scalp Wheels

For 38" Mowers only

1. Mount the wheels onto the wheel brackets with the wheel bolts and 3/8 in. locknuts (Fig. 6).

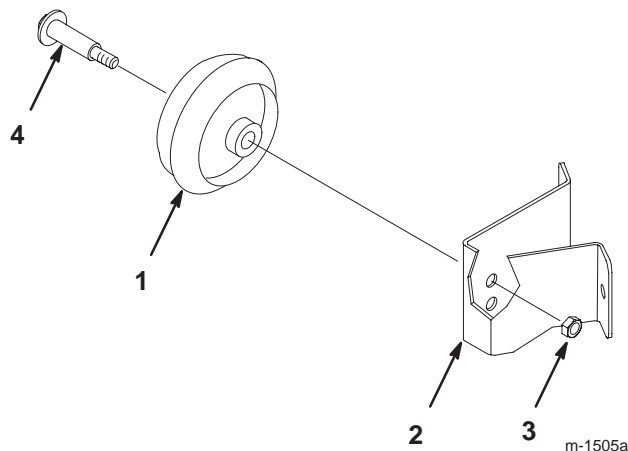


Figure 6

- | | |
|------------------|---------------|
| 1. Wheel | 3. Locknut |
| 2. Wheel bracket | 4. Wheel bolt |

Note: Use the same hole height on both sides; refer to Adjusting the Mower Wheels in the *Operator's Manual*.

Preparing the Mower Discharge Chute

For 38" Mowers only

1. Remove the roll pin from the discharge chute spring and discard the pin.

Note: The roll pin is for shipment only.

2. Ensure that the spring returns the discharge chute to the full down position.

Checking the Mower Adjustment

For 32" Mowers only

The mower was leveled at the factory. However, if the mower is not cutting level, adjust the side-to-side level and the front-to-rear blade slope. See the *Operator's Manual* for the proper procedures.



Warning



An improperly adjusted mower can cause the drive belt to engage the blade at the highest height-of-cut setting when the blade control (PTO) lever is in the Disengaged position. Operating the mower at the highest height-of-cut setting during or soon after setup may expose you or others to a rotating blade, causing injury or death.

Never put your hands or feet under the mower or through any openings in the mower.

To ensure that the mower is properly functioning at the highest height-of-cut setting during or soon after setup, do the following:

1. Raise the mower to the highest height-of-cut setting.
2. Ensure that the blade control (PTO) lever is in the Disengaged position.
3. Start the engine and have someone check if the drive belt engages or tries to engage the blade.
4. If the drive belt tries to engage or engages the blade, operate the mower for several minutes at different height-of-cut settings.

Note: The length of the long rod extending out of the front of the adjusting block on the sides of the chassis (Fig. 7) is set to 3/4 in. (19 mm) at the factory. **The next time you adjust the front-to-rear blade slope, set the length of long rod that extends out to 5/8 in. (16 mm).**

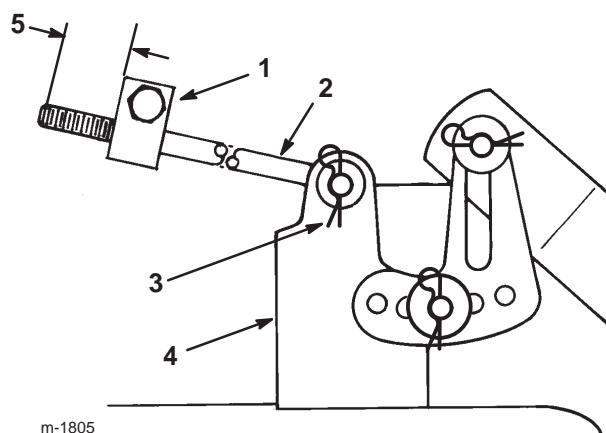


Figure 7

- | | |
|------------------------------|-------------------------------------|
| 1. Adjusting block | 4. Mower mount |
| 2. Long rod | 5. Length of long rod extending out |
| 3. Hairpin cotter and washer | |

Lubricating the Tractor

Ensure that all of the necessary points on the tractor are lubricated; refer to Greasing and Lubricating the Tractor in the *Operator's Manual*.

Checking the Safety Interlock System

Refer to Testing the Safety Interlock System in the *Operator's Manual*.

Purging the Hydro Transaxle

For Hydro Drive Tractors only

Shipping and handling can introduce air into the hydro transaxle. For proper performance, remove all the trapped air.

1. Move the tractor to a flat, level surface.
2. Place the drive control in the Push position (Fig. 8).

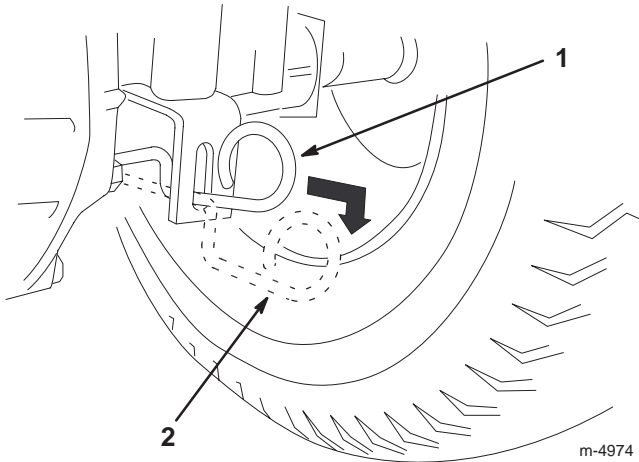


Figure 8

1. Operate position
2. Push position

3. Run the engine at a low idle and move the traction control pedal forward for 5 seconds, then reverse for 5 seconds. Repeat this step 3 times.
4. Place the drive control in the Operate position (Fig. 8) and drive the tractor forward about 5 feet (1.5 m), then reverse for about 5 feet (1.5 m). Repeat this step 3 times.

Checking the Hydro Neutral Position



For Hydro Drive Tractors only

Ensure that the neutral position is set properly. If the tractor moves when the traction control pedal is not depressed, adjust the neutral position.

1. Run the engine at a low idle and move the traction control pedal forward, then release.
2. Move the traction control pedal to reverse, then release. If the tractor moves while it is in the Neutral position, do the following:
3. Run the tractor for 5 to 10 minutes to warm up the transaxle.
4. Disengage the blade (PTO).

5. Set the parking brake.
6. Stop the engine and wait for all moving parts to stop.
7. Remove the ignition key.
8. Raise the right rear wheel off the ground and support it with a jack stand.

Note: Ensure that the left rear wheel stays on the ground.

**Danger**

Mechanical or hydraulic jacks may fail to support the tractor and cause a serious injury.

- Use jack stands when supporting the tractor.
- Do not use hydraulic jacks.

Note: To gain access to the adjusting puck (Fig. 9), you may need to remove the tire.

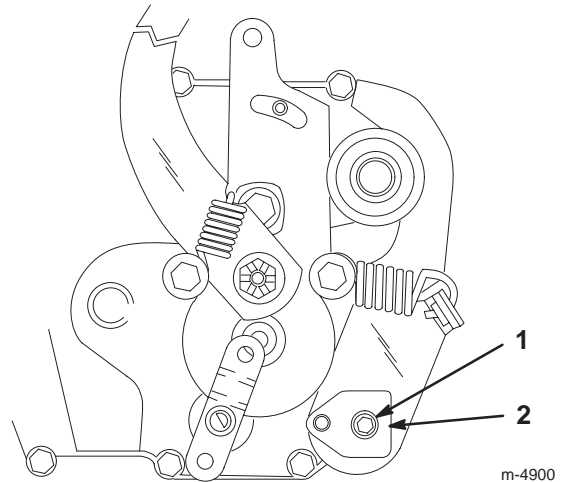


Figure 9

1. Adjusting puck screw
2. Adjusting puck

9. Loosen the adjusting puck screw (Fig. 9).
10. Start the engine and run it at full throttle.
11. Rotate the adjusting puck (Fig. 9) in both directions until you find the midpoint where the axle no longer rotates forward or reverse.
12. Hold the puck with an adjustable wrench so that it will not move and torque the adjusting puck screw to 21 to 27 ft-lb (28 to 36 N•m).
13. Stop the engine and wait for all moving parts to stop.
14. Remove the ignition key.
15. Lower the tractor from the jack stand.
16. Check the adjustment again by repeating step 1.

Checking the Traction Control Pedal

For Hydro Drive Tractors only

You can adjust the traction control pedal for optimum forward and reverse speeds.

1. Loosen the screws below the right footrest.
2. Slide the pedal forward for a faster reverse speed or backward for a faster forward speed (Fig. 10).

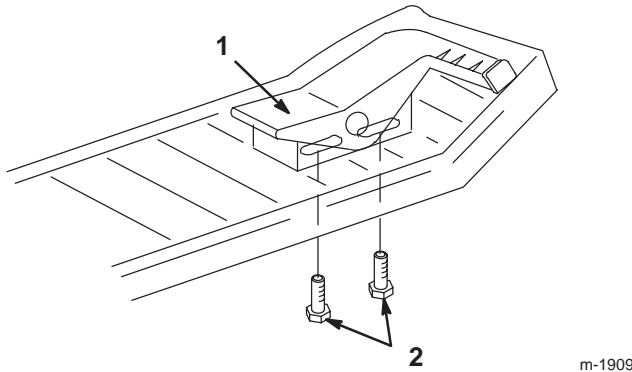


Figure 10

1. Traction control pedal
2. Adjusting screws

3. Tighten the screws.
4. Check the traction control pedal.

Checking the Shift Cable Adjustment

For Gear Drive Tractors only

Adjust the shift cable if either the ground speed lever does not shift firmly toward the numbers on the shift plate when you release the lever or if it is difficult to shift on-the-go (Fig. 11).

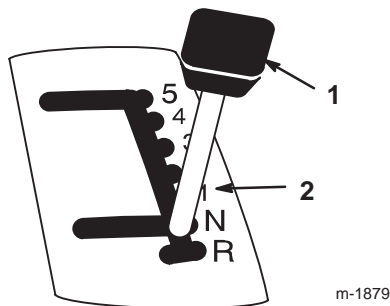


Figure 11

1. Ground speed lever
2. Numbers

1. If either of the above conditions exist, turn the engine off and ensure that the belt guides are no more than 1/8 inch away from the engine and the transmission pulleys.
2. Check the cable tension. The cable should be taught and have 1/2 in. (13 mm) movement when you apply a slight pressure to the cable (Fig. 12).

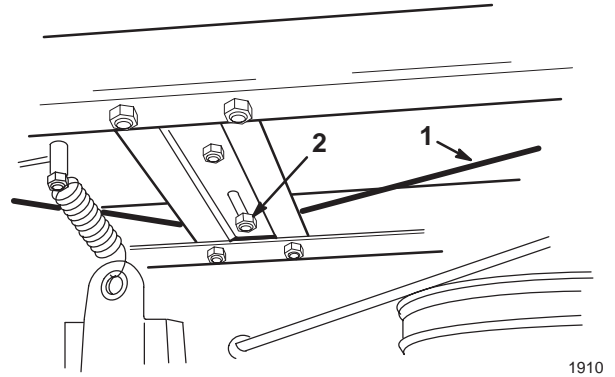


Figure 12

1. Cable
2. Cable guide

3. Move the ground speed lever and note the gap between the lever and the edge of the gate. There should be about 1/4 in. (6 mm) of free play before the cable is taught.
4. Adjust the cable tension by loosening the front cable guide located on tractor brace above the pulley.
5. Slide the guide sideways as needed, for proper tension (Fig. 12).

Test Driving the Tractor

To ensure that all electrical and mechanical systems are operating properly, see the *Operator's Manual*.

