

- 36.11. Remove the right hand ball joint from the right hand drag link. See Figure 36.11.



Figure 36.11

- 36.12. Remove the left hand ball joint performing steps 9, 10 and 11 above.
- 36.13. Place the left and right tire assemblies in the straight forward position.
- 36.14. Set the toe-in for the rim assemblies to the straight forward position.
- 36.15. Thread the right hand ball joint onto the right hand drag link until the mounting hole in the right hand axle assembly lines up with the ball joint.
- NOTE:** Count the number of turns the ball joint was rotated onto the drag link. This number should be equal for the left side as well.
- 36.16. Secure the right hand ball joint to the right hand axle assembly with the lock washer and nut removed earlier, using a 1/2" wrench and a 9/16" socket
- 36.17. Secure the right hand ball joint jam nut to the right hand drag link using a 1/2" wrench and an 11/16" wrench.
- 36.18. Install the left hand ball joint using steps 15, 16 and 17.

NOTE: Make certain the same amount of rotations are used on the left ball joint as the right ball joint.

37. PIVOT BAR SERVICE

NOTE: On newer units with a one piece hood see section 2 on hood removal, remove the front bumper and skip to section 36.8

- 37.1. Loosen the plastic wing nuts securing the side panels to the battery hold down bracket and the grille assembly. See Figure 37.1.

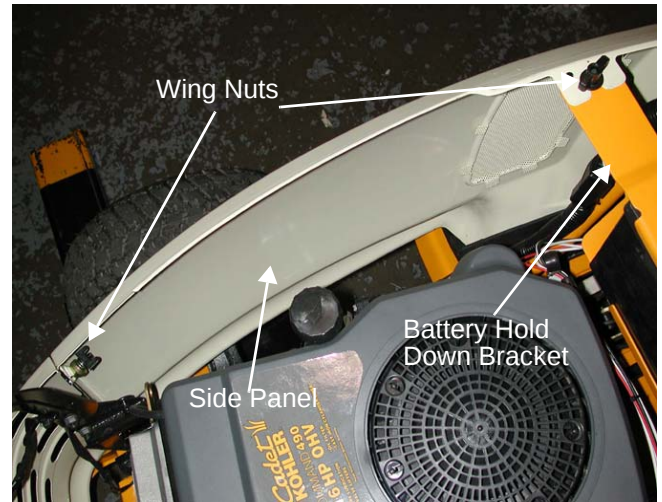


Figure 37.1

- 37.2. Remove the side panels from the tractor.
- 37.3. Remove the hairpins, flat washers and clevis pins (or screws) securing the front bumper to the tractor frame. See Figure 37.3.

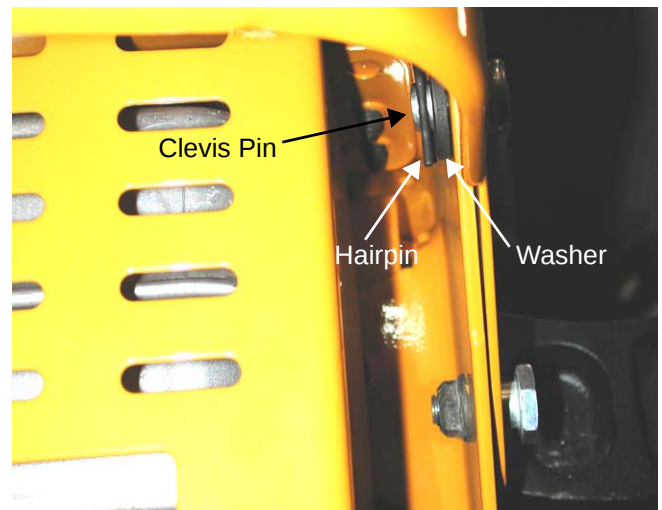


Figure 37.3

- 37.4. Remove the front bumper.

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- 37.5. Disconnect the wiring harness connector from the lighting harness connector. See Figure 37.5.

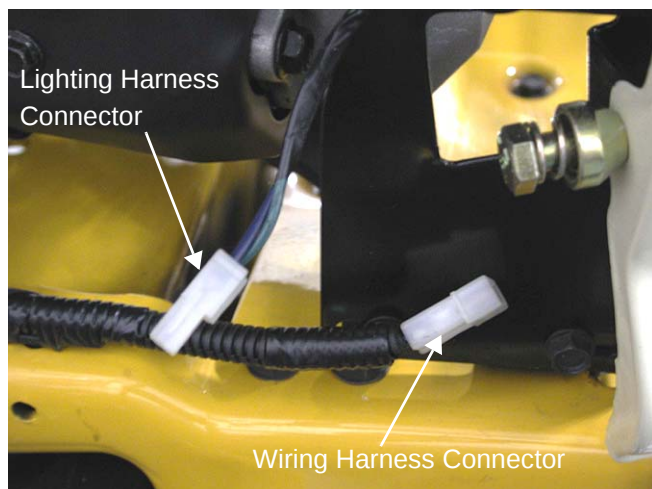


Figure 37.5

- 37.6. Remove the hex bolts securing the front grille assembly to the front frame assembly using a 1/2" socket and extension. See Figure 37.6.

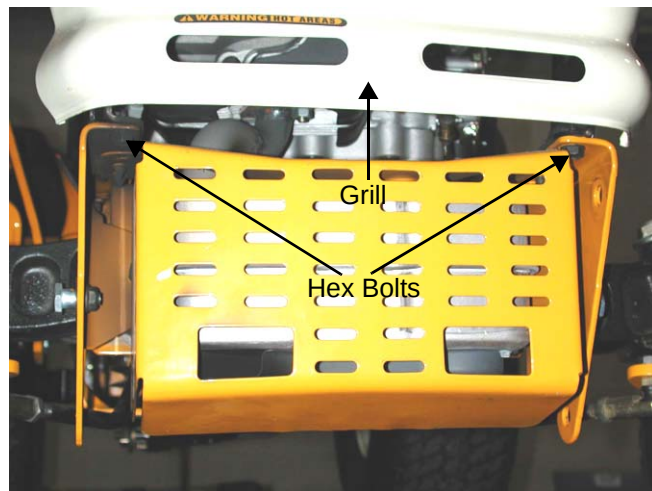


Figure 37.6

- 37.7. Remove the grille and hood assembly together.
- 37.8. Remove the muffler and muffler guard as one unit.
- 37.9. Secure the front of the tractor off of the ground, behind the pivot bar.

- 37.10. Loosen the large hex flange nut securing the left axle assembly to the pivot bar using a 15/16" socket. See Figure 37.10.

NOTE: Some models will have a push cap. In that case you would remove the push cap and discard it. Do not reuse push caps.

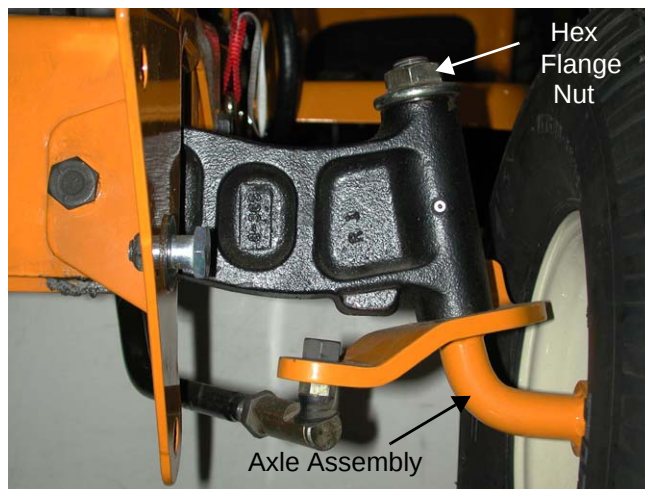


Figure 37.10

- 37.11. Remove the lock nut securing the left ball joint to the left axle assembly using a 9/16" socket and a 1/2" wrench.
- 37.12. Loosen the large hex flange nut or remove the push cap securing the right axle assembly to the pivot bar using a 15/16" socket. See Figure 37.12.

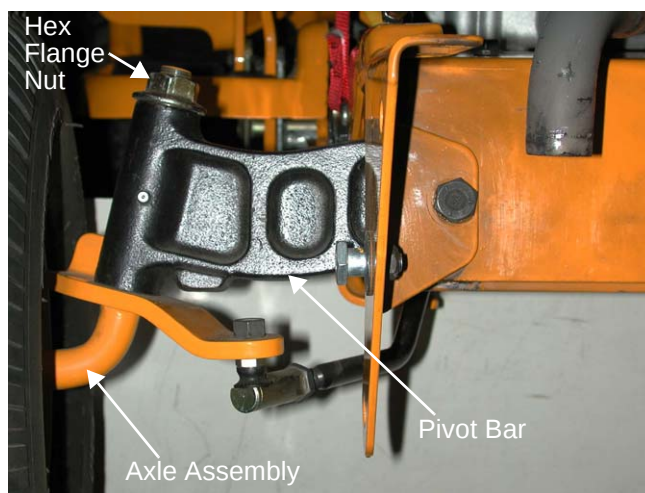


Figure 37.12

- 37.13. Remove the lock nut securing the right ball joint to the right axle assembly using a 9/16" socket and a 1/2" wrench.

- 37.14. Remove the large hex flange nuts securing the axles to the pivot bar.
- 37.15. Remove the front axles and tire assemblies from the pivot bar.
- 37.16. Remove the pivot bar stop bolts and hex nuts using a 3/4" socket and a 9/16" wrench.
- NOTE:** On units with the J-bolt style deck stabilizer rod, the mounting plate will come off with the pivot bar stop bolts.
- 37.17. Squeeze in on the wiring harness locking tab at the right muffler bracket and release the wiring harness using needle nose pliers.
- 37.18. Remove the hex screws securing the left and right muffler support brackets to the frame using a 1/2" socket. See Figure 37.18.

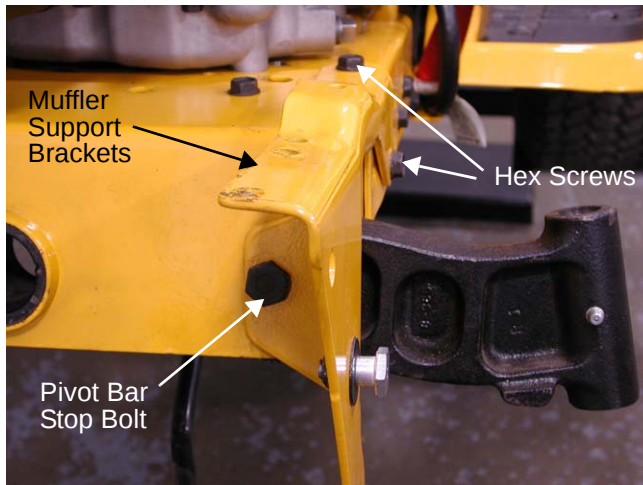


Figure 37.18

- 37.19. Remove the left and right muffler support brackets.

CAUTION: On newer production units the muffler support brackets cover the front pivot axle bracket. When you remove the muffler support brackets take care to prevent the pivot axle from falling off.

NOTE: The brackets are marked for correct installation.

- 37.20. Remove both self tapping screws securing the front pivot axle bracket to the frame using a 1/2" socket. See Figure 37.20.

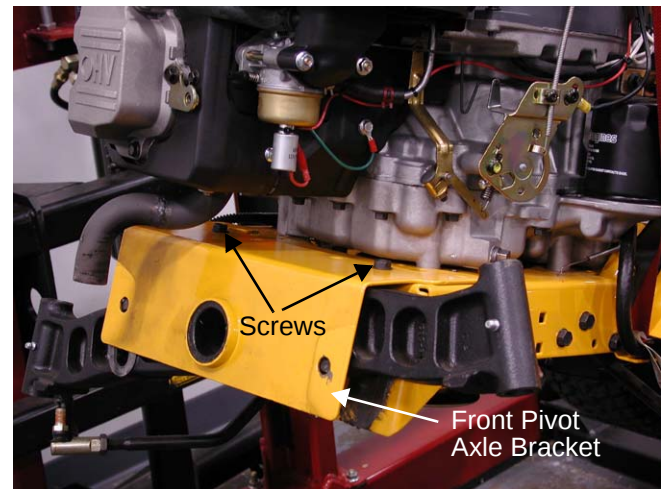


Figure 37.20

- 37.21. Remove the front pivot axle bracket.
- 37.22. Reassemble in reverse order.

38. ELECTRICAL SYSTEM

- 38.1. **Introduction:** The electrical system for the 1000 and 1500 series tractors can be classified into three categories:

- RMC
- Pre-RMC

- 38.2. The **RMC module contains electronic logic circuits**. When diagnosing anything that is connected to the RMC module, high impedance test light or a high impedance digital volt-ohm meter (DVOM) should be used. The amperage draw of a standard incandescent test light may over-burden some internal electronic circuits, burning-out the module.

NOTE: These tools are not outrageously expensive or exotic. High impedance test lights (Thexton model 125 is typical) can be purchased locally from stores like NAPA for under \$30.00. Appropriate multi meters can be purchased for under \$100.00, and are an invaluable tool for any competent technician.

- It is typical when industries **shift from electro-mechanical to electronic controls** that diagnosis shifts from tracing through a number of independent circuits to checking the in-inputs to and out-puts from a central processor. This is similar