

Service Manual



600 Series Box Frame Steering Shaft and Segment Gear Servicing

(These procedures are appropriate for box frame tractors produced after November 2002)

IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

This Service Manual is not a substitute for the Operator's Manual. You must read, understand and follow all of the directions in this manual as well as the Operator's Manual before working on this power equipment.

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For Discount White Outdoor Parts Call 606-678-9623 or 606-561-4983

Steering Shaft and Segment Gear Servicing

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600 Series Box Frame Lawn Tractors

600 SERIES BOX FRAME LAWN TRACTORS

BOLENS RIDER SHOWN



1. STEERING SHAFT REMOVAL

NOTE: For ease of repair refer to DECK REMOVAL SECTION

- 1.1. Using a screwdriver, pry the steering wheel cap from the center of the steering wheel. See Figure 1.



Figure 1

- 1.2. Using a 1/2" socket and extension remove the hex cap screw securing the steering wheel to the steering shaft. Remove the steering wheel. See Figure 2.



Figure 2

- 1.3. Raise the rider to gain access to the underside of the unit.
- 1.4. Using an impact gun with a large Phillips head socket, remove the machine screw and cap securing the steering shaft to the frame. See Figure 3.

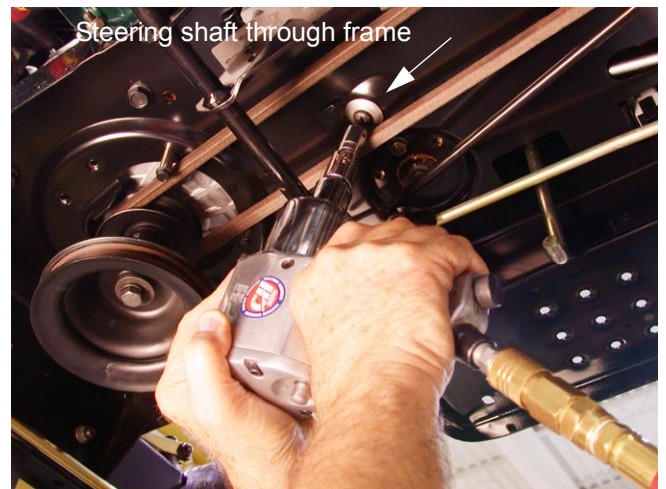


Figure 3

NOTE: During reassembly use Locktite 262 to secure the screw to the shaft.

Steering Shaft and Segment Gear Servicing

- 1.5. Disconnect the headlight wiring connector inside the lower right side of the grill. See Figure 4.



Figure 4

- 1.6. Using a 1/2" socket and extension, remove the two hex screws and flat washers securing the grille to the rider frame. See Figure 4.
- 1.7. Using a 3/8" socket remove the four (two on each side) self-tapping screws securing the rear of each side panel to the dash panel and frame. See Figure 5.

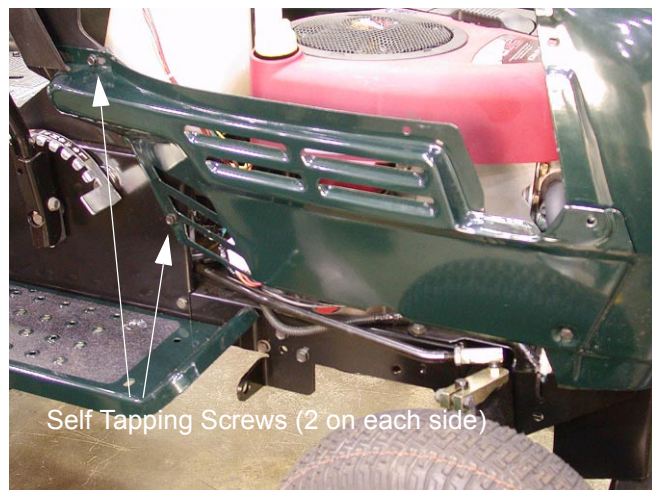


Figure 5

- 1.8. Remove the entire hood assembly from the rider. See Figure 6.



Figure 6

- 1.9. Remove the wiring connector attached to the ignition switch. See Figure 7.



Figure 7

Steering Shaft and Segment Gear Servicing

- 1.10. Using a 3/8" socket, remove the six bolts, two on each side and two on the back, securing the dash panel to the frame. See Figure 8.

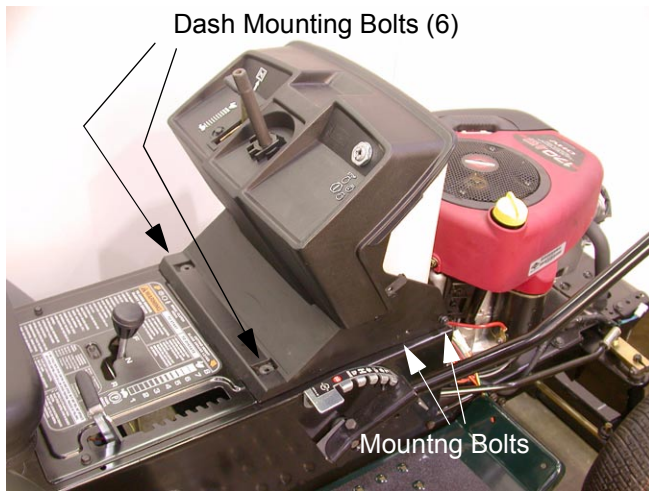


Figure 8

- 1.11. Lift and pivot the dash panel to the left while removing the steering shaft from the hole in the frame by the steering segment gear. See Figure 9.



Figure 9

- 1.12. Slide the steering shaft from the hole in the dash panel. See Figure 9.

- 1.13. Inspect the steering shaft, pressed-on gear, washer, hex flange bearing, cap and machine screw for wear or damage. See Figure 10.

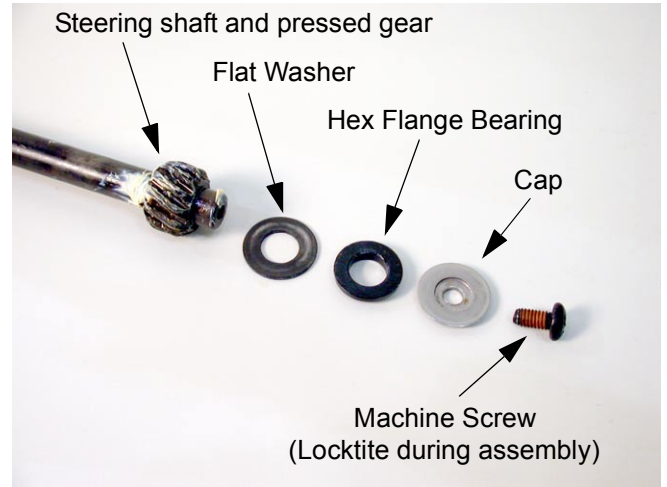


Figure 10

NOTE: Install the steering shaft in the reverse order of disassembly.

NOTE: Figure 11 shows the mounting of the steering shaft and sector gear through the frame. See Figure 11.



Figure 11

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2. STEERING SEGMENT GEAR REMOVAL

NOTE: For ease of repair refer to DECK REMOVAL SECTION.

NOTE: Remove the steering shaft. SEE STEERING SHAFT REMOVAL SECTION.

- 2.1. Set the parking brake by fully depressing the clutch-brake pedal. Move the speed control lever all the way to the rear and release it into the parking brake position. This will allow access to placement of a wrench or socket on the bolt and flange lock nuts holding the steering segment from beneath the rider. See Figure 12.



Figure 12

- 2.2. Using 9/16" box end wrench on the upper side of the hex cap screw and an air gun with a 9/16" socket on the flange lock nut, remove the flange lock nut. See Figure 13.

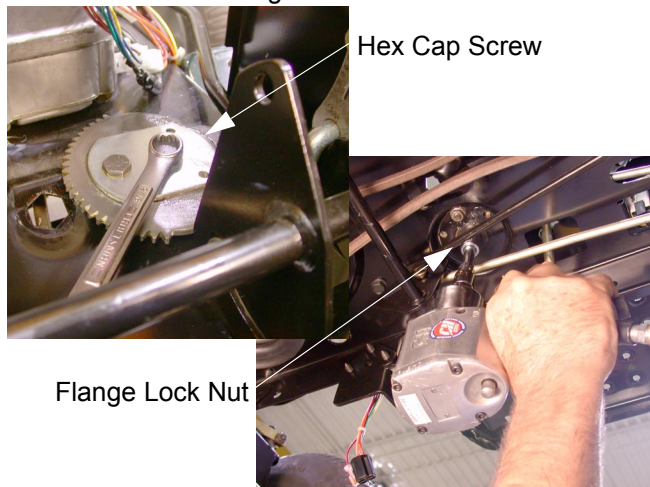


Figure 13

- 2.3. Using a 5/8" box end wrench on the upper side of the shoulder screw and an air gun with a 1/2" socket on the flange lock nut, remove the flange lock nut. See Figure 14.

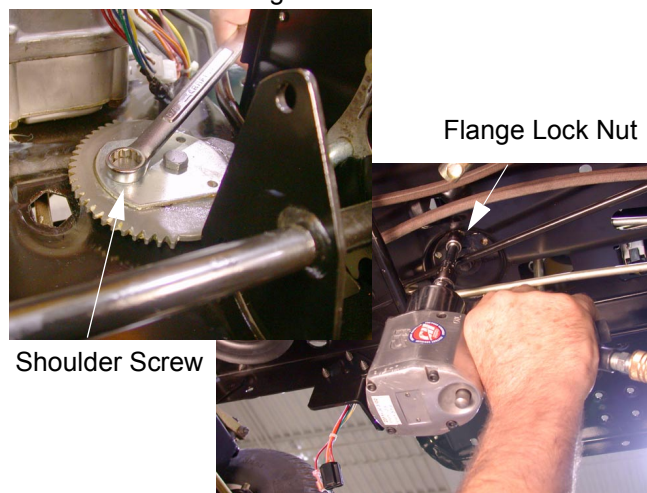


Figure 14

- 2.4. Using a 1/2" opened end wrench on the top and a 9/16" opened end wrench on the bottom, remove the ball joint from the steering arm. See Figure 15.

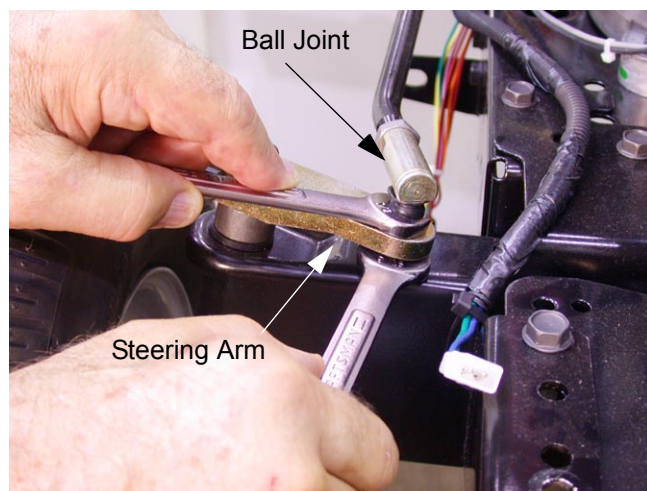


Figure 15

Steering Shaft and Segment Gear Servicing

- 2.5. Remove the segment gear, steering drag link, and ball joint as one assembly from the rider and inspect for any wear or damage. Pay particular attention to the segment gear teeth. See Figure 16.

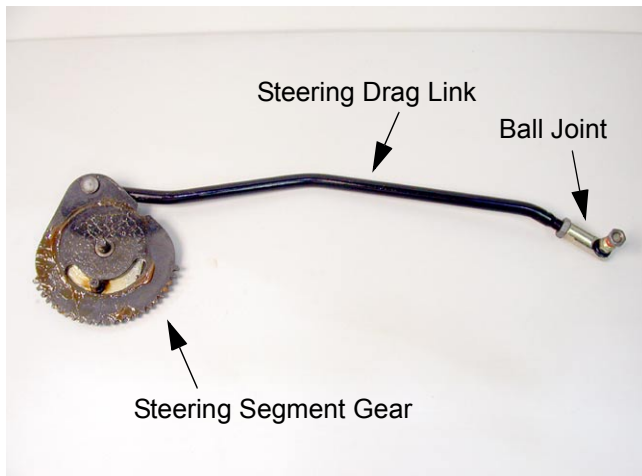


Figure 16

IMPORTANT: There is a spacer in the center of the segment gear that also acts as a bushing.

NOTE: Removing the Segment gear in the manner maintains the correct toe-in for the tractor.

NOTE: Install the steering segment gear in reverse order of disassembly.

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