

## Outer Tie Rod End Replacement

Document Number	Model	Serial Number Range	Part Number
12-80009	520Y / 520M	All Units	AT-1510

### ⚠ WARNING

Before making repairs or adjustments set the parking brake, turn off the engine, and remove the ignition key.

Always disconnect the negative battery cable from the battery when working with electrical components. Always work in a manner that does not put safety at risk!

### ⚠ WARNING

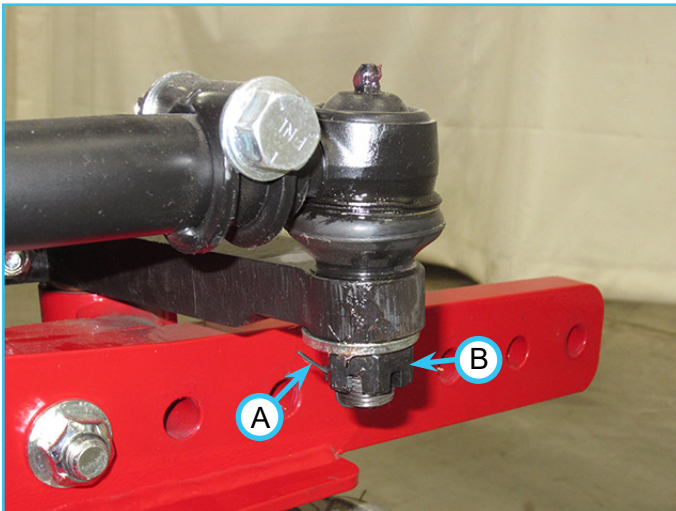
Safety glasses must be worn during installation. Ear (hearing) protection must be worn when using air or power tools.

**Installation Notes:** Right and left hand orientation referred to in these instructions is determined as if facing forward from the operator station.

**Installation Time (estimated)** 1 hour

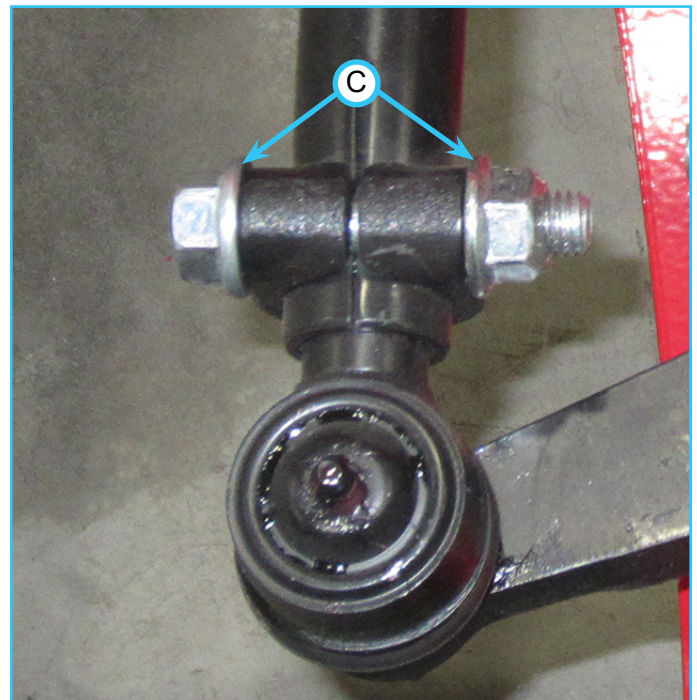
**Tools Required:** 1-1/16" wrench, 3/4" wrench, 3/4" socket, Ratchet, Torque Wrench, Hammer, Tie Rod Puller

1. Park the tractor on a level surface.
2. Engage the parking brake and shut off the engine.
3. Remove the key from the ignition switch.
4. Remove and discard the cotter pin (A).



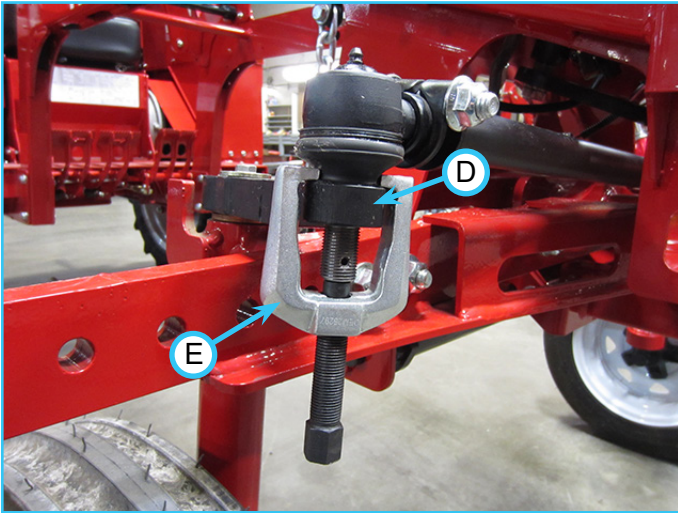
5. Remove the castle nut (B).

6. Remove the 1/2" bolt and nut (C) from the tie rod link.





7. Lift the tie rod end upward to remove the tie rod from the steering spindle. It may be necessary to tap the side of the steering spindle (D) with a hammer, to loosen the tie rod end. It may be necessary to use a tie rod puller (E).



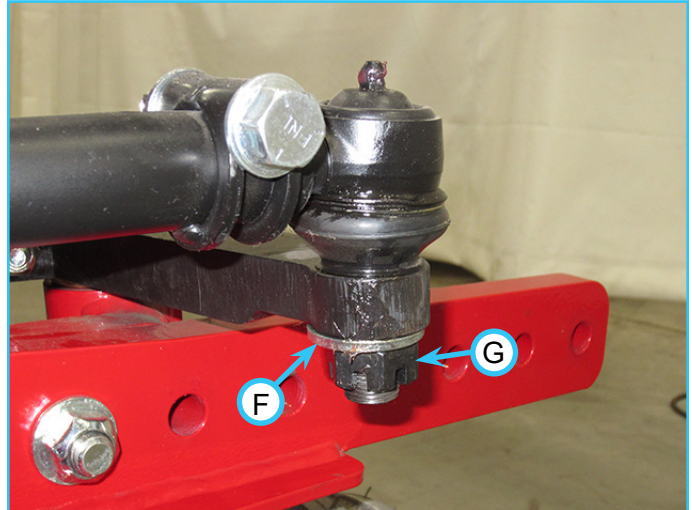
8. Remove the tie rod from the tie rod link as shown below.



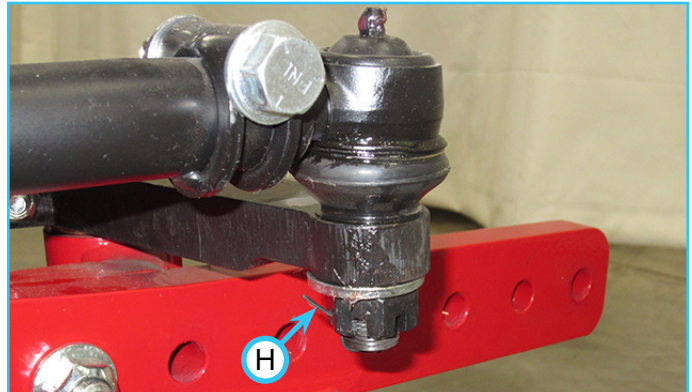
9. Position the new tie rod into the tie rod link and through the steering spindle as shown below.



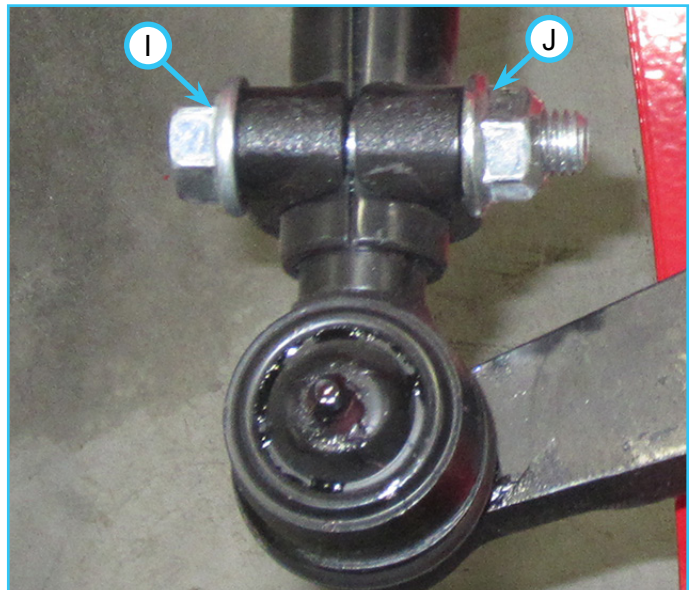
10. Install the washer (F) and castle nut (G) onto the tie rod end. Tighten the castle nut down and then back off the castle nut one flat.



11. Install the cotter pin (H) to hold the castle nut in place.



12. Install the 1/2" bolt (I) through the tie rod end link. Secure the bolt in place with a 1/2" flange nut (J).



13. Torque the 1/2" bolt to 75 ft-lbs 102 Nm.  
14. Grease the tie rod end.