



## Impact Arm Kit

Groundsmaster © 4000D

Part No. 105-4555

### Installation Instructions

1. Position machine on a level surface, lower cutting units to the floor, engage parking brake, be sure traction pedal is in neutral position, PTO lever in OFF position, shut engine OFF and remove key from switch.
2. Remove hairpin cotter and clevis pin securing height of cut link to height of cut bracket on deck (Fig. 1).

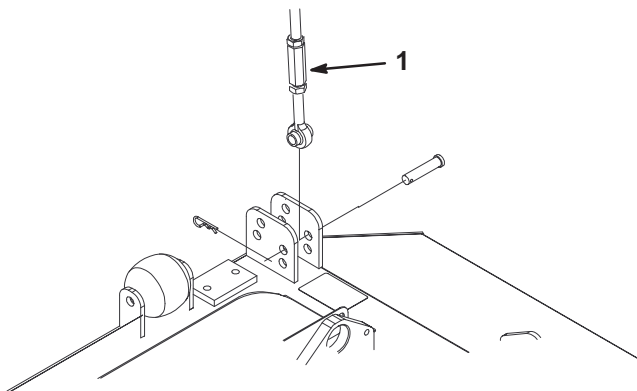


Figure 1

1. Height of cut link

3. Remove bolt and locknut securing impact arm ball joint to mower mount brackets (Fig. 2).

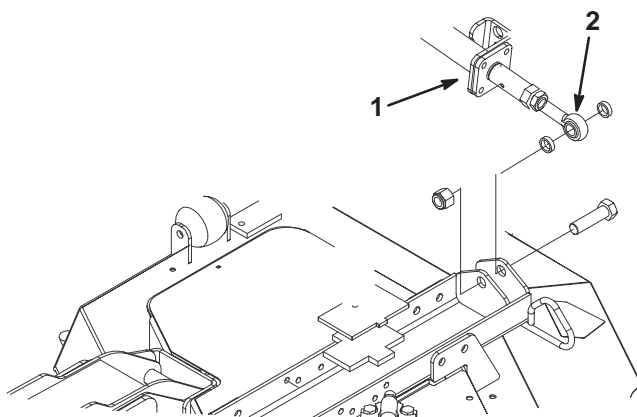


Figure 2

1. Impact arm ball joint
2. Rod end

4. Remove nut, washer and pivot shaft securing impact arm assembly to lift arm pivot hub (Fig. 3).

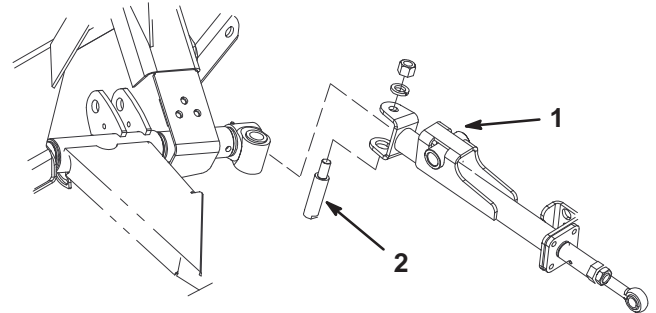


Figure 3

1. Impact arm assembly
2. Pivot shaft

5. Remove (4) bolts and nuts securing impact arm plate to impact arm assembly (Fig. 4). Remove all components from impact arm housing.

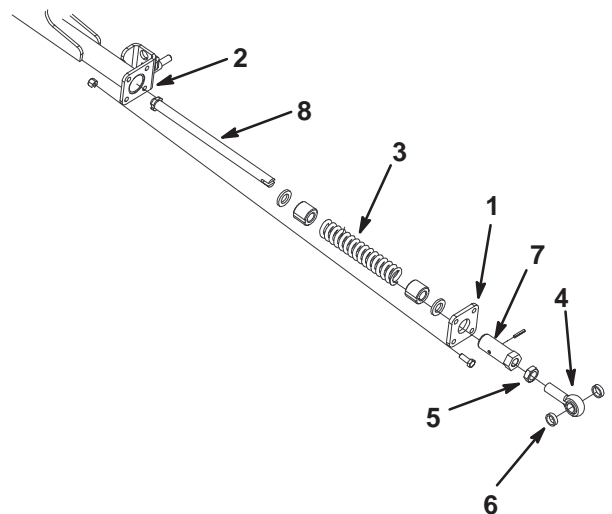
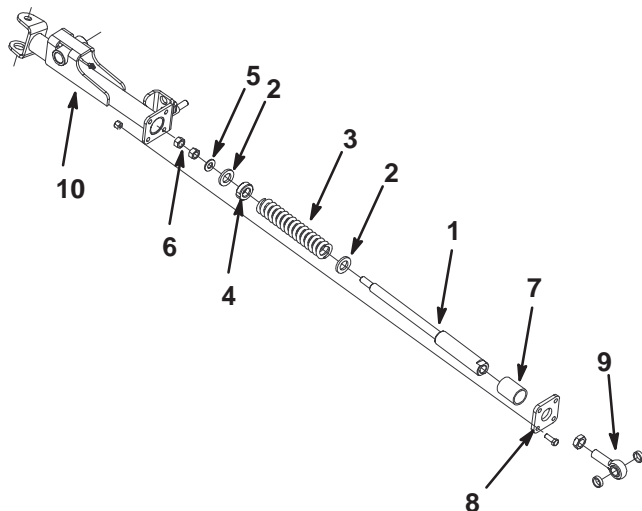


Figure 4

1. Impact arm plate
2. Impact arm housing
3. Compression spring
4. Rod end
5. Jam nut
6. Spacers (2)
7. Coupler
8. Impact arm shaft

**Note:** If components are stuck in impact arm housing, tap on opposite end of shaft to remove.

6. Remove roll pin securing coupler to impact arm shaft (Fig. 4). Unscrew coupler from shaft.
7. Disassemble all impact arm components. Retain compression spring, rod end, jam nut and rod end spacers. Discard remaining components.
8. Slide a large flat washer, spring, plastic bearing, another large flat washer and small flat washer onto spring shaft. Loosely secure components to shaft with (1) jam nut (Fig. 5).
9. Slide the straight bushing and impact arm plate onto other end of spring shaft (Fig. 5).



**Figure 5**

- |                       |                        |
|-----------------------|------------------------|
| 1. Spring shaft       | 6. Jam nut (2)         |
| 2. Large flat washer  | 7. Straight bushing    |
| 3. Compression spring | 8. Impact arm plate    |
| 4. Plastic bearing    | 9. Rod end w/jam nut   |
| 5. Small flat washer  | 10. Impact arm housing |
10. While holding flats on end of spring shaft, rotate jam nut (on other end of assembly) until components are snug but spring is not compressed.
  11. Insert assembly into impact arm housing.
  12. From open end of impact arm housing, insert a 3/4" socket onto spring shaft jam nut. Tighten jam nut all the way.
  13. Mount impact arm plate to impact arm housing with (2) bolts and nuts previously removed. Shaft can now be moved freely in and out of housing. Grasp end of spring shaft. Push inward and pull outward on shaft to determine looseness in assembly.
  14. Loosen jam nut, 1/2 turn at a time, until all freeplay in shaft is removed.

**Important** All freeplay must be removed from assembly to allow proper operation and ensure long life.

15. Remove (2) bolts and nuts securing impact arm plate to impact arm housing. Remove assembly from housing.
16. Thread remaining jam nut onto end of spring shaft and tighten to lock adjustment.
17. Install assembly into housing and secure plate with (4) bolts and nuts. Make sure spring is thoroughly packed with grease before assembling.
18. Reinstall impact arm assembly to lift arm pivot hub.
19. Thread rod end w/jam nut into end of spring shaft assembly (Fig. 5).
20. Reinstall impact rod end to mower brackets.
21. Reinstall height of cut link to height of cut bracket on deck.
22. Check deck alignment to traction unit as follows:
  - A. Make sure the machine is on a level hard surface.
  - B. Place a square or straight edge against the deck weldment that contains the castor fork assembly (Fig. 6). Do not use the Caster Fork Assembly itself.



**Figure 6**

- C. Measure from the inset bead of the rim (not the outer edge of the rim) to the straight edge at two locations as indicated in figure 6. Rim and paint irregularities make the outer edge an unreliable point of measure. These two measurements should be the same within a tolerance of 1/8" (3 mm).
- D. If misalignment is detected, loosen the jam nut on the rod-end of the impact arm assembly (Fig. 5). Rotate spring shaft until correct dimension is attained,. Shaft will rotate freely inside the assembly. All adjustments must be made with the rod end of the impact arm bolted to the deck.
- E. Raise and lower the deck and recheck dimensions for correct alignment. Tighten jam nut to 114 ft/lbs. (155 N.m) on the impact arm assembly.

**Note:** Due to differences in grass conditions and the counterbalance setting of traction unit, it is advised that grass be cut and appearance checked before formal cutting is started. Refer to Operator's Manual for correcting cutting unit mismatch procedures.