



INSTRUCTION BULLETIN

No. 9013158
Machine: T12
Published: 08-2016
Rev. 00

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in the machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials.

Installation instructions for **kit number 9013157**

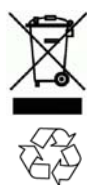
SYNOPSIS:

This kit contains the parts needed to replace the pod assembly / steering tube assembly on T12 scrubbers.

Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 2.5 hours)



PROTECT THE ENVIRONMENT

Please dispose of packaging materials, used machine components such as batteries and fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

PREPARATION:

1. Park the machine on a clean level surface, turn off the machine, and remove the key.

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine, and remove key.

2. Disconnect the machine battery cable from the battery.



WARNING: Always disconnect battery cables from machine before working on electrical components.

3. Remove the electrical access panel from the machine. Set the electrical access panel aside. (Fig. 1)



FIG. 1

INSTALLATION:

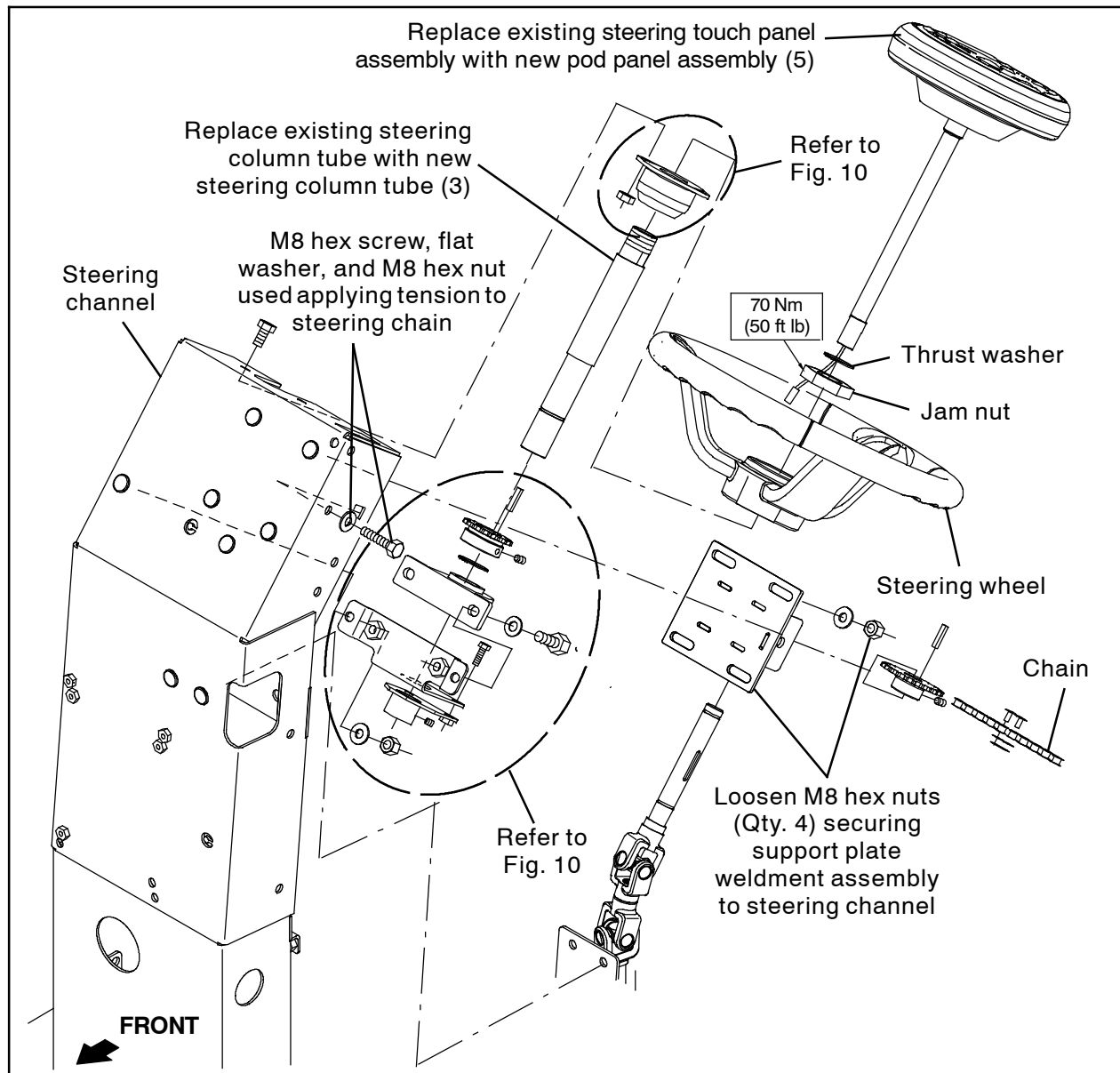


FIG. 2

1. Loosen the socket set screws from the bracket inside the steering weldment. (Fig. 3)
2. Disconnect the main wire harness from the steering touch panel assembly.

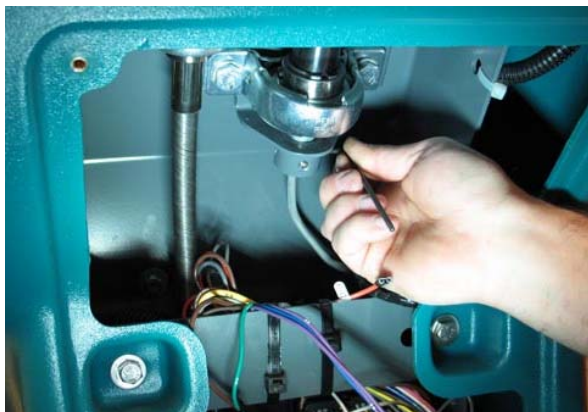


FIG. 3

3. Pull the steering touch panel assembly from the steering assembly. Discard the steering touch panel assembly. (Fig. 4 / Fig. 3)



FIG. 4

4. Remove the 1- 11/16 in jam nut from the steering assembly. Set the jam nut aside. (Fig. 5 / Fig. 3)



FIG. 5

5. Remove the steering wheel. Set the steering wheel aside. (Fig. 6 / Fig. 3)



FIG. 6

6. Remove the hardware used to apply tension to the steering chain from the steering channel. Set the removed hardware aside. (Fig. 7 / Fig. 3)

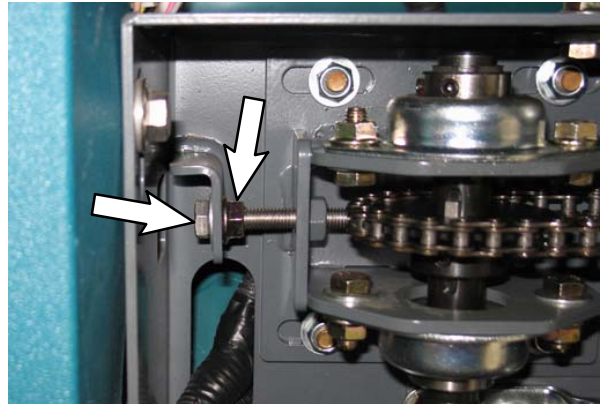


FIG. 7

7. Loosen the M8 hex nuts securing the support plate weldment to the steering channel. (Fig. 8 / Fig. 3)

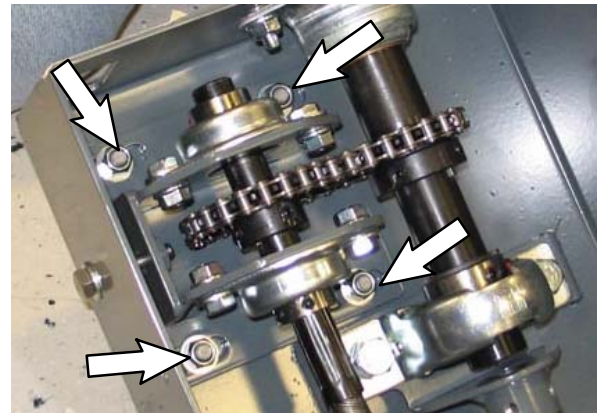


FIG. 8

8. Remove the chain from the steering assembly. (Fig. 9 / Fig. 3)

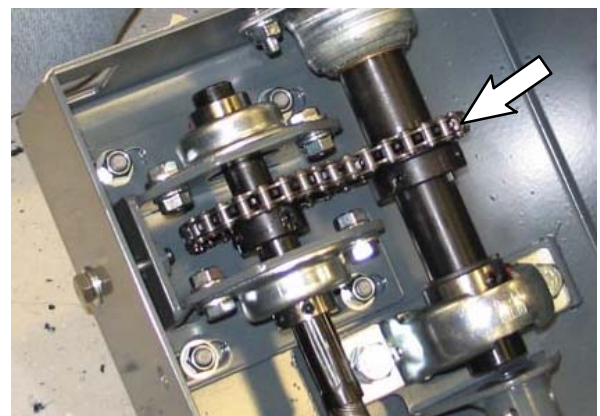


FIG. 9

9. Remove the M8 hex screws and M8 hex nuts securing the flange bearing to the steering channel. Set the M8 hex screws and M8 hex nuts aside. (Fig. 10)
10. Remove the hardware securing the bearing bracket to the steering channel. Set the M8 hex nuts and flat washers aside. (Fig. 10)
11. Remove the steering column tube from the steering channel. (Fig. 10)
12. Remove the flange bearing from the steering column tube. (Fig. 10)
13. Remove the steering sprocket from the steering column tube. Set the steering sprocket, key, both M6 socket set screws, and the snap rings aside. (Fig. 10)
14. Remove the pillow block bearing / bearing bracket / support plate from the steering column tube. Discard the steering column tube. (Fig. 10)
15. Remove the pillow block bearing from the support bracket. Set the pillow block bearing and both M10 hex screws and flat washers aside. (Fig. 10)
16. Remove the M6 socket set screws from the bearing plate. Set the M6 socket set screws aside. Discard the support bracket / bearing plate assembly. (Fig. 10)
17. Install the new bearing bracket (1) onto the steering channel. (Fig. 10)

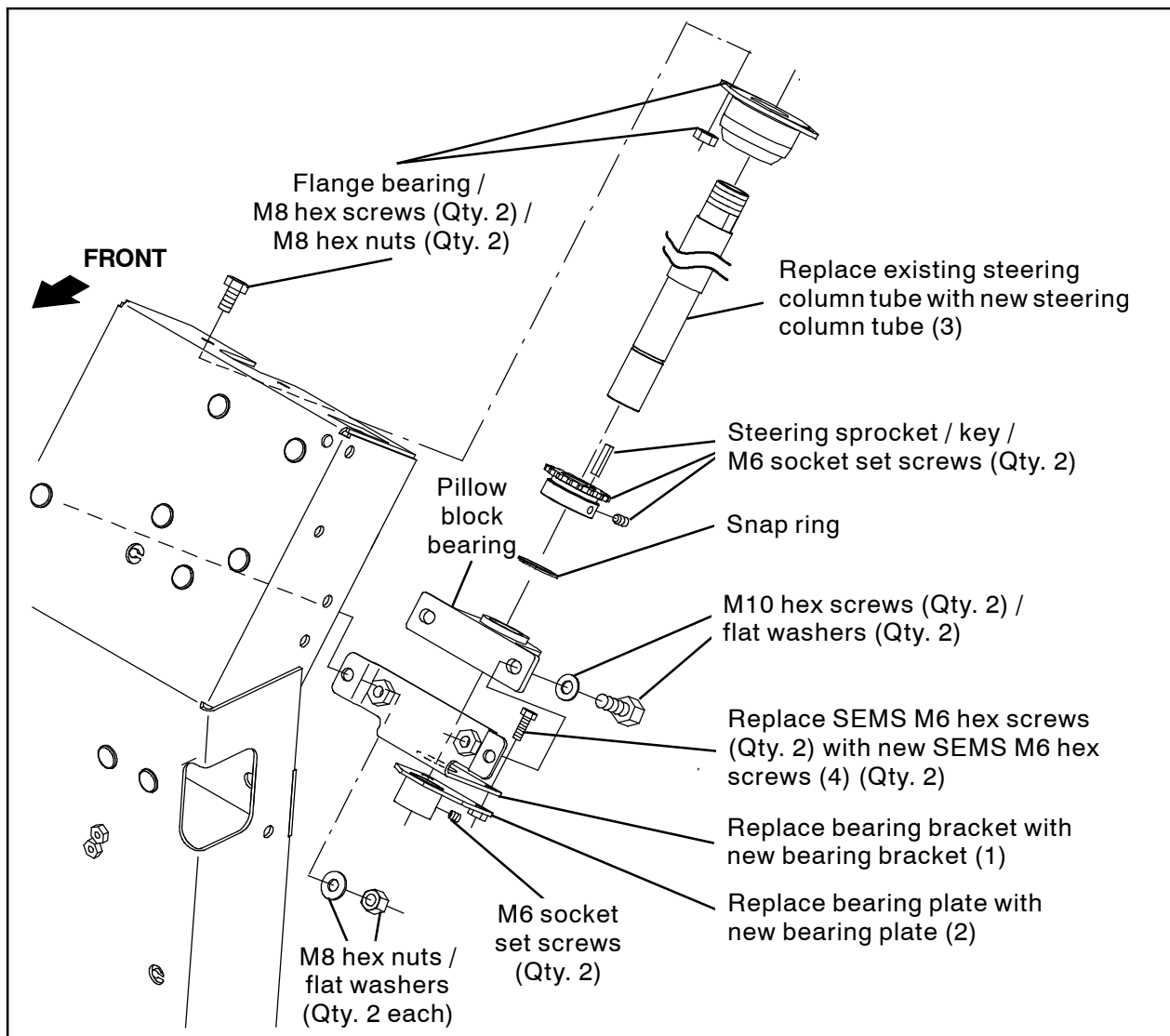


FIG. 10

18. Slide the steering sprocket / key onto the new steering column tube (3) and align one of the socket set screws in the steering sprocket over the key. (Fig. 10)
19. Tighten the socket set screws enough to hold the steering sprocket / key into place on the steering column tube (3). (Fig. 10)
20. Install the snap rings onto the steering column tube (3). (Fig. 10)
21. Install the pillow block bearing and flange bearing onto the steering column tube (3). (Fig. 10)
22. Position the steering column tube (3) into the steering channel and use two M10 hex screws and two flat washers to install the pillow block bearing onto the bearing bracket (1). (Fig. 10)
23. Reinstall the flange bearing onto the steering channel. (Fig. 10)
24. Reinstall the steering chain onto the steering sprockets. (Fig. 11)



FIG. 11

25. Position one of the set screws in the steering sprocket on the steering column tube (3) over the key and align the steering sprocket with the other sprocket installed on the support plate weldment. (Fig. 10)
26. Hold a straight edge across both steering sprockets and tighten the socket set screws in the steering sprocket on the steering column tube (3). Tighten the socket set screw over the key first. Torque to 7.5- 9.8 Nm / 66.4- 86.7 in lbs. (Fig. 10)

27. Reinstall the steering tension hardware and use hardware to tighten the steering chain tension. Tighten the lock nut against channel when through tightening the chain tension. (Fig. 12 / Fig. 10)

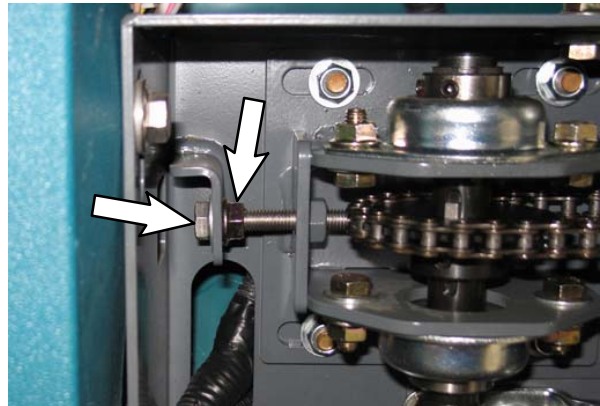


FIG. 12

28. Tighten the M8 hex nuts securing the support plate weldment to the steering channel. Torque to 24 Nm / 18.5 ft lbs. (Fig. 13)



FIG. 13

29. Straighten the front wheel so it is pointing forward. (Fig. 14)

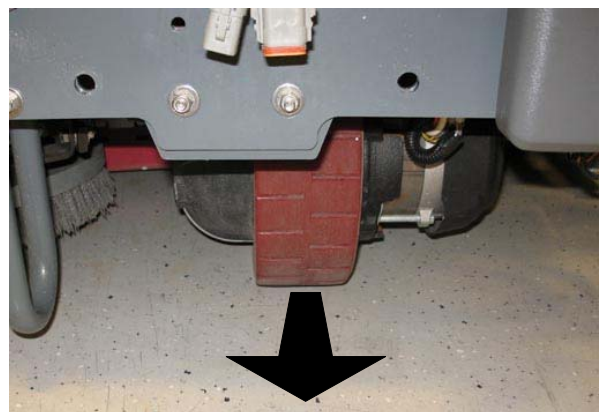


FIG. 14

30. Loosen the hardware to securing the steering shaft to the lower steering shaft and remove the steering shaft from the lower steering shaft. (Fig. 15)

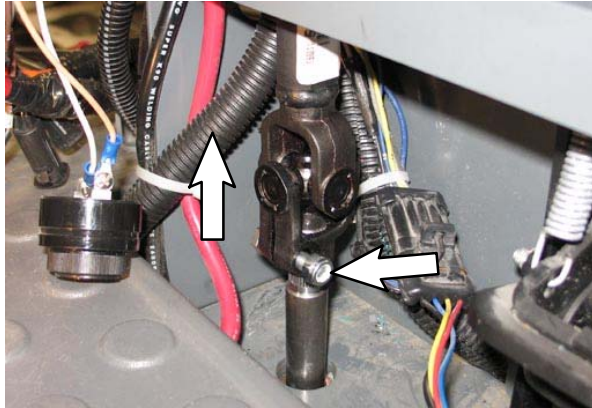


FIG. 15

31. Install the steering wheel onto the steering column tube (3) and align the steering wheel. **DO NOT INSTALL THE JAM NUT ONTO THE STEERING WHEEL / STEERING COLUMN.** (Fig. 16)

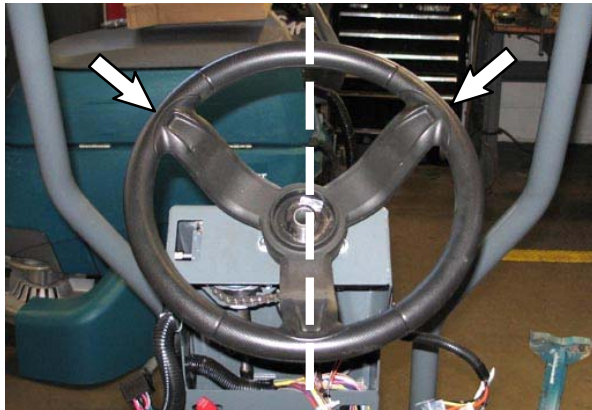


FIG. 16

32. Reinstall the steering shaft onto the lower steering shaft and tighten the previously loosen hardware to secure the steering shaft to the lower steering shaft. (Fig. 17)

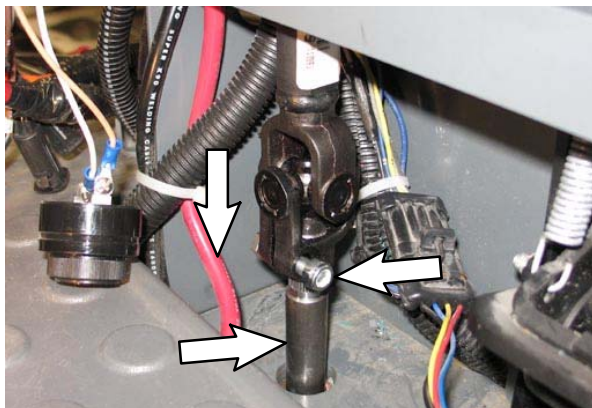


FIG. 17

33. Chock the rear wheels of the machine and jack the machine up until the front wheel is approximately 25 mm (1 in) off the floor.
34. Turn the steering wheel in both directions through the entire range of motion. Listen for unusual noises (grinding, popping, rubbing, etc...) indicating the steering sprockets / chain are not properly adjusted / aligned. Readjust the steering sprocket / chain as necessary.
35. Turn the steering wheel so the front wheel is again pointing straight to the front of the machine.
36. Lower the machine to the floor and remove the jack from under the machine.
37. Reinstall the jam nut to secure the steering wheel to the steering column tube (3). Torque the jam nut to 68 Nm (50 ft / lbs). (Fig. 16 / Fig. 2)
38. Install the thrust washer onto the steering column tube (3) / steering wheel. (Fig. 16 / Fig. 2)
39. Insert the pod panel assembly (5) into the steering column tube (3). Position the pod panel assembly so controls are oriented properly for operation.
40. Install the saved M6 socket set screws into the new bearing plate (2). (Fig. 10)
41. Use two SEMS M6 hex screws (4) to install the bearing plate (2) onto the bearing bracket (1). (Fig. 10)
42. Tighten the M6 socket set screws in bearing plate (2) to secure the pod panel assembly (5) in the steering column tube (3). (Fig. 2)
43. Connect the main wire harness to the pod panel assembly (5) harness.
44. Reinstall the electrical access panel onto the machine.
45. Reconnect the battery cable to the battery.
46. Start and test the machine. Operate the controls on the pod panel assembly (5) to ensure all the controls operate properly. Drive the machine and turn the machine in both directions. Ensure the steering functions correctly without any binding or excessive noise when it is turned in either direction.

Bill Of Materials For Panel Assy, Steering Pod, CI [T12] - 9013157

Ref.	Tennant Part No.	Description	Qty.
1	1208622	Bracket Wldt, Brg	1
2	1208625	Plate Wldt, Brg	1
3	1214182	Tube Assy, Column, Steering	1
4	1034731	Screw, Hex, M6 X 1.00 X 16, SEMS, SS	2
5	9017295	Panel Assy, Pod W/Pkg [T12/T16]	1

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