



INSTRUCTION BULLETIN

No. 9015276
Machine: T17
Published: 06-2017
Rev. 01

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.

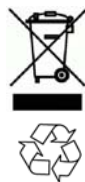
Installation instructions for **kit number 9015274**

SYNOPSIS:

This kit contains the parts needed to replace the propel motor harness on T17 scrubbers.
Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 4 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. Empty the recovery tank and the solution tank before jacking up the machine.
2. Park the machine on a clean level surface, turn off the machine, set the parking brake, and remove the key.

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

3. Disconnect the battery cable from the machine.

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

4. Chock both rear tires.

INSTALLATION:

1. Remove the electric access panel from the steering channel. Set the electric access panel and all mounting hardware aside. (Fig. 1)

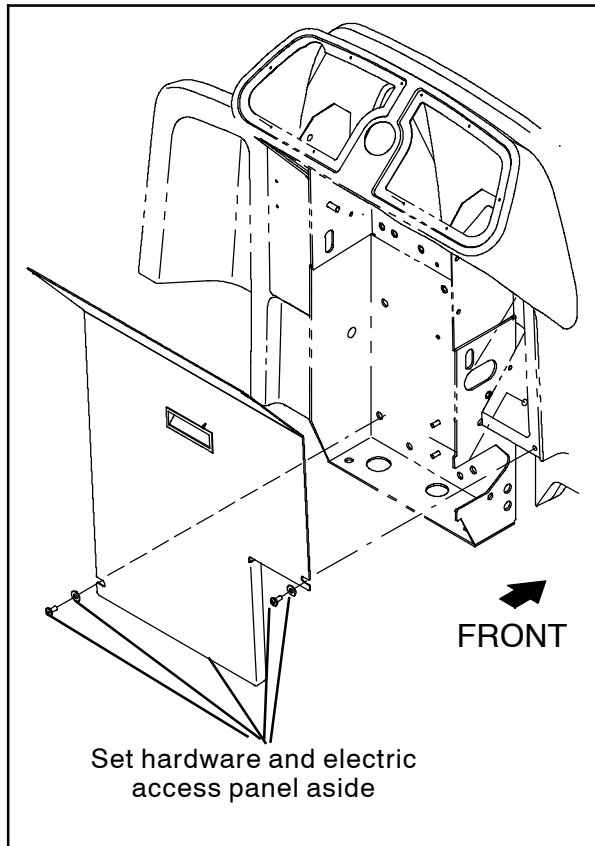


FIG. 1

2. Disconnect the propel motor harness from controller terminals W, U, and V. Set the three M6 hex screws, three flat washers, and three lock washers aside. (Fig. 2)

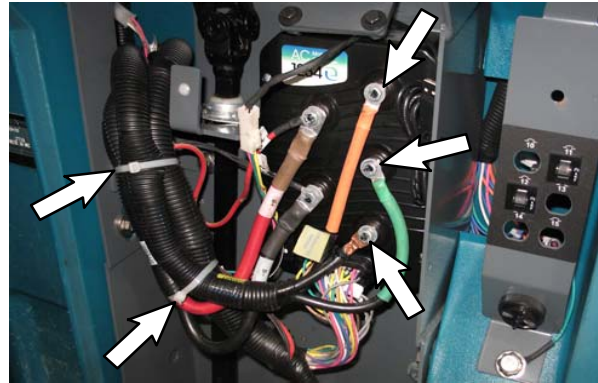


FIG. 2

3. Cut the two cable ties securing the propel motor harness to the main harness from the harnesses. (Fig. 2)

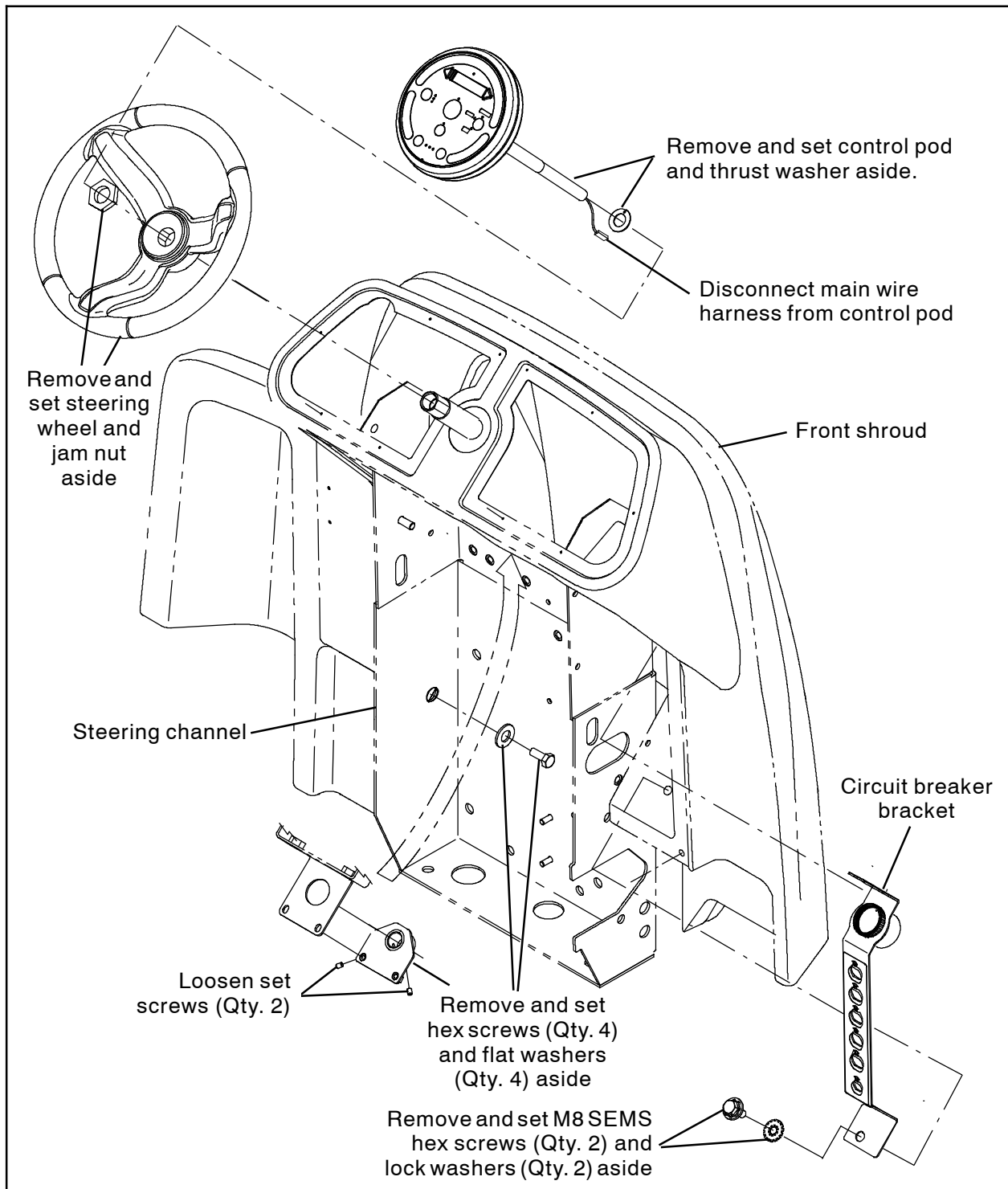


FIG. 3

4. Disconnect the main wire harness from the control pod. (Fig. 3)
5. Loosen the two set screws securing the control pod into the steering assembly and pull the control pod out from the steering assembly. Set the control pod and thrust washer aside. (Fig. 3)
6. Remove the steering wheel from the steering assembly. Set the steering wheel and jam nut aside. (Fig. 3)
7. Remove the M8 SEMS hex screws and lock washers securing the circuit breaker bracket to the machine. Set the M8 SEMS hex screws and lock washers and aside. (Fig. 3)

8. Carefully pull the circuit breaker bracket away from the machine. Do not break any wire connection from the circuit breakers. (Fig. 3)
9. Remove the hardware securing both the left console panel and right console panel to the front shroud. Set the hardware aside. (Fig. 4)



FIG. 4

10. Carefully lift the left console panel from the front shroud and disconnect all harness connections from the left console panel. Set the left console panel aside. (Fig. 5)

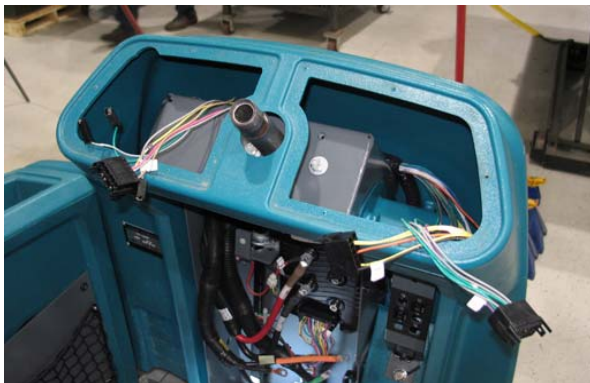


FIG. 5

11. Carefully lift the right console panel from the front shroud and disconnect all harness connections from the right console panel. Set the right console panel aside. (Fig. 5)
12. Remove the four M8 hex screws securing the front shroud to the steering channel. Set the M8 hex screws aside. (Fig. 3)
13. Remove the front shroud from the steering channel. Set the front shroud aside. (Fig. 3)

14. Pull the harness disconnected from controller terminals W, U, and V out from the steering channel. (Fig. 6)



FIG. 6

15. Jack up the front end of the machine high enough to access the cable connections to the drive motor and other components attached to the drive motor and areas near the drive motor. Place jack stands under the machine frame and lower the machine onto the jack stands. Refer to the MAINTENANCE section in the OPERATOR MANUAL for additional information about safely jacking up the machine.

FOR SAFETY: When servicing machine, block machine tires before jacking machine up. Use a hoist or jack that will support the weight of the machine. Jack machine up at designated locations only. Support machine with jack stands.

16. Disconnect the cable connector from the propel cable. (Fig. 7)



FIG. 7

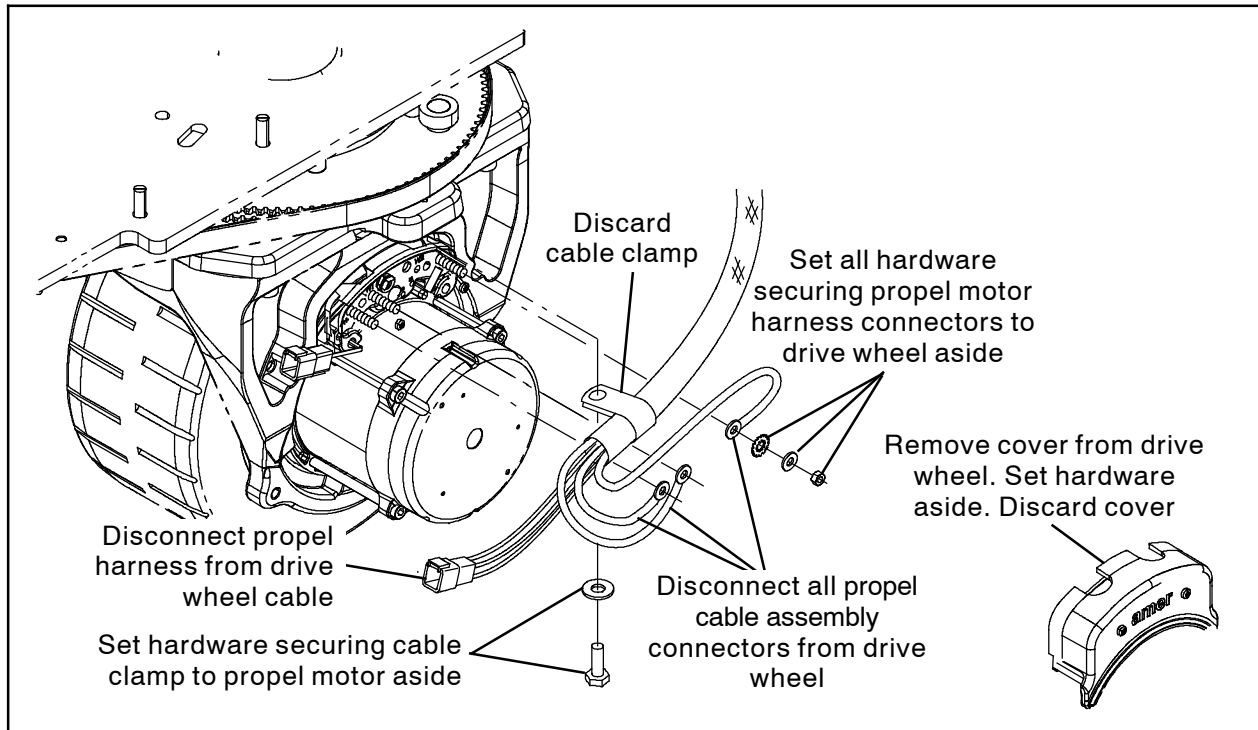


FIG. 8

17. Remove the clamp securing the propel cable assembly to the frame of the machine. Set the mounting hardware aside. Discard the clamp. (Fig. 9)



FIG. 9

18. Remove the cable clamp securing the propel cable assembly to the wheel assembly. Set the mounting hardware aside. Discard the cable clamp. (Fig. 8)
19. Turn the drive wheel to allow easier access to the propel motor harness connection to the drive wheel. (Fig. 8)

20. Cut the wire tie(s) from the harness and drive wheel harness connectors. (Fig. 10)



FIG. 10

21. Disconnect the harness from the drive wheel. (Fig. 8)
22. Remove the cover from the drive wheel. Set the mounting hardware aside. Discard the cover. (Fig. 8)
23. Disconnect the propel motor harness / propel cable assembly from the drive wheel and remove the propel motor harness / propel cable assembly from the machine. Set all mounting hardware aside. Discard the removed propel motor harness / propel cable assembly. (Fig. 8)

24. Use two M8 hex screws (13), two flat washers (15), and two M8 hex lock nuts (14) to install the cable restraint bracket (9) onto the frame of the machine. Position the cable restraint bracket as close to the front of the machine as possible before tightening the hardware. (Fig. 11)

NOTE: The M8 hex lock nuts (14) are needed if installing cable restraint bracket (9) onto machines equipped with optional side scrub.



FIG. 11

25. Route the new propel cable assembly (1) up through the channel in the frame of the machine, along the steering channel, and into the steering channel. (Fig. 12 / Fig. 13)



FIG. 12



FIG. 13

26. Connect the propel cable assembly (1) to controller terminals W, U, and V. (Fig. 14)

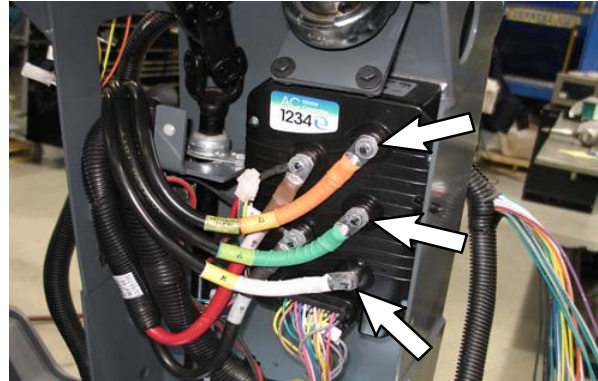


FIG. 14

27. Use the hook / loop fastener (3) to secure the propel cable assembly (1) to the main wire harness. (Fig. 15)

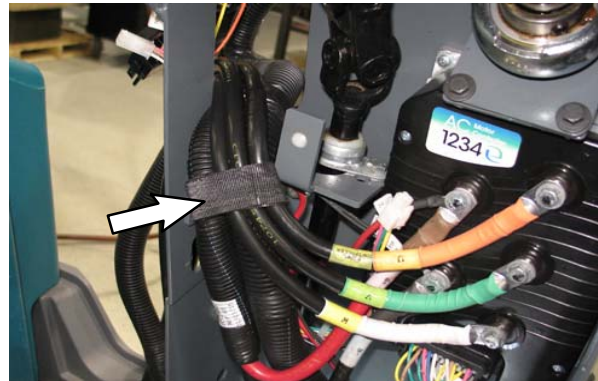


FIG. 15

28. Cut the wire tie clip from the steering channel. (Fig. 16)



FIG. 16

29. Cut the longer end from two of the wire support clamps (10) so all of the ends are the same length. (Fig. 17 / Fig. 18)



FIG. 17

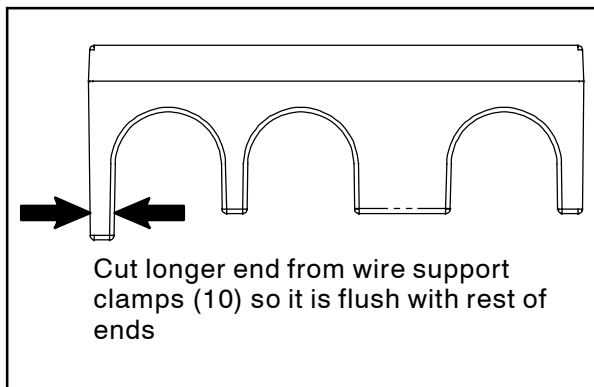


FIG. 18

30. Insert the propel cable assembly (1) into one wire support clamp (10) cut in the previous step and use a M6 hex screw (5) and flat washer (4) to secure the wire support clamp / propel cable assembly to the steering channel (where the wire tie clip was previously removed). (Fig. 19 / Fig. 16)



FIG. 19

31. Insert the propel cable assembly (1) into the other previously cut other wire support clamp (10) and use a M6 hex screw (6) and flat washer (4) to secure the wire support clamp / propel cable assembly to the steering channel (near the bottom). (Fig. 20)



FIG. 20

32. Apply Loctite® 243™ onto the threads of one M6 flange hex nut (11).
33. Insert the propel cable assembly (1) into another wire support clamp (10) and use the M6 flange hex nut (11) from the previous step to secure the wire support clamp / propel cable assembly to the front weld screw on the cable restraint bracket (9). (Fig. 21)

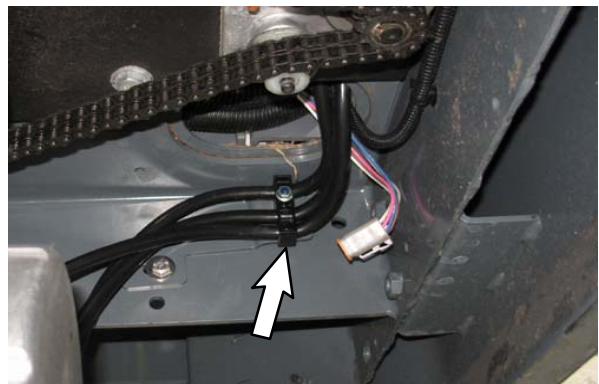


FIG. 21

34. Slide the 20 in. (508 mm) nylon sleeve (16) onto the propel cable assembly (1) and then slide the propel motor harness (2) into the nylon sleeve. (Fig. 22)

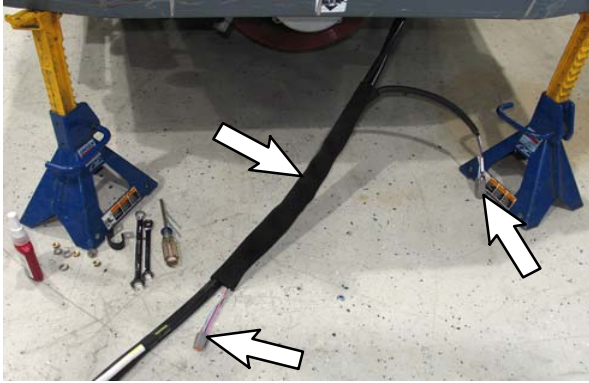


FIG. 22

35. Connect the propel motor harness (2) to the main wire harness. (Fig. 23)

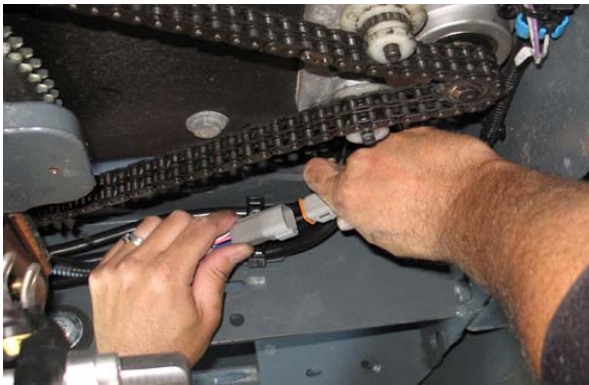


FIG. 23

36. Apply Loctite® 243™ onto the threads of the remaining M6 flange hex nut (11).
37. Insert the propel cable assembly (1) into the remaining wire support clamp (10) and use the M6 flange hex nut (11) from the previous step to secure the wire support clamp / propel cable assembly to the rear weld screw on the cable restraint bracket (9). (Fig. 24)



FIG. 24

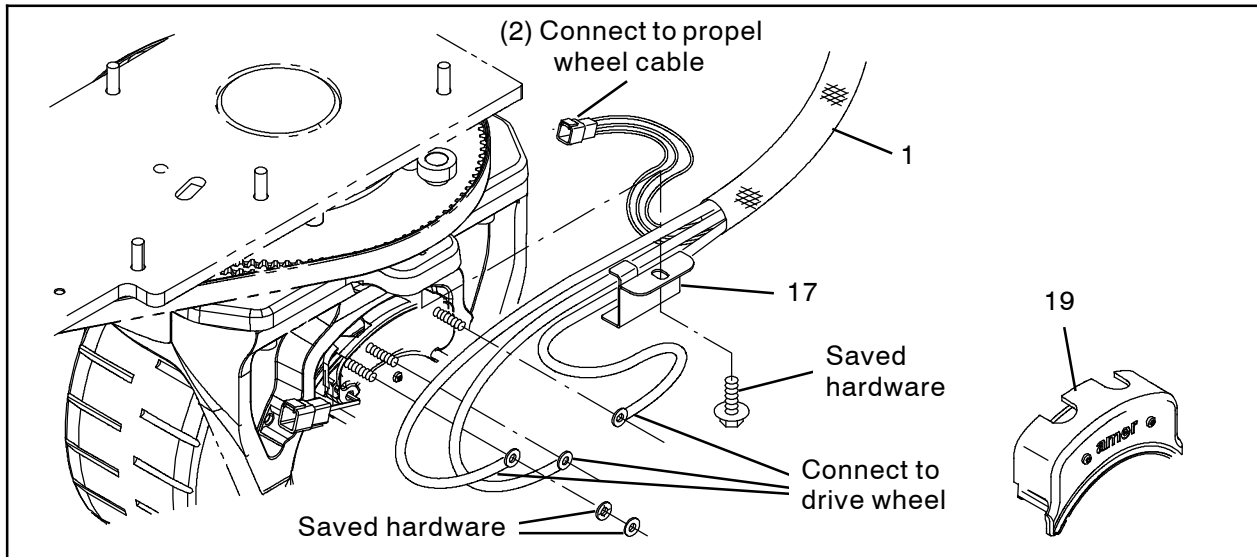


FIG. 25

38. Route the propel cable assembly (1) / propel motor harness (2) to the electrical connections on the drive wheel assembly. (Fig. 25)

39. Insert the propel motor harness (2) / propel cable assembly (1) into the cable clamp (17) and use saved hardware to install the cable clamp onto the drive wheel assembly. (Fig. 25 / Fig. 26)



FIG. 26

40. Connect the propel cable assembly (1) to the drive wheel assembly and the propel motor harness (2) to the drive wheel cable. (Fig. 25 / Fig. 27)

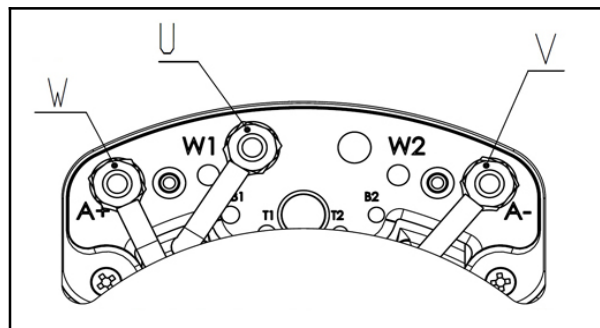


FIG. 27

41. Use a cable tie (12) to secure the propel cable assembly (1) lead going to the drive wheel assembly V terminal to the cable clamp (17). (Fig. 25 / Fig. 28)

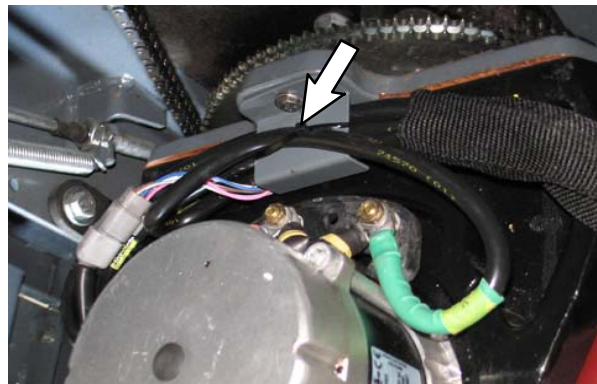


FIG. 28

42. Use a cable tie (12) to secure the main wire harness to the propel cable assembly (1) near where the wire support clamp (10) is located at the top of the steering channel. Secure the main wire harness to only one of the propel cable assembly (1) cables. Securing the main harness to multiple cables could create “hot spots”. (Fig. 29)



FIG. 29

43. Use another cable tie (12) to secure the main wire harness to the propel cable assembly (1) near where the wire support clamp (10) is located at the bottom of the steering channel. Secure the main wire harness to only one of the propel cable assembly cables. Securing the main harness to multiple cables could create “hot spots”. (Fig. 30)



FIG. 30

44. Move the drive wheel assembly in the full range in both directions and observe the newly install cables / components. The cables should not impede drive wheel assembly movement or become caught in the drive wheel assembly. If necessary, make necessary adjustments and use additional cable ties to secure the cables away from the drive wheel assembly.

45. Reinstall the front shroud onto the steering channel.
46. Reconnect the main wire harness to the left console panel and the right console panel and reinstall both panels onto the front shroud.
47. Reinstall the circuit breaker bracket onto the machine.
48. Orient the drive wheel assembly so the front wheel is pointing straight forward.
49. Reinstall the steering wheel onto the steering assembly. Be sure the steering wheel is correctly aligned before completely tightening the jam nut.
50. Raise the machine from the jack stands, remove the jack stands from under the machine, and lower the machine to the floor.
51. Insert the control pod into the steering assembly and tighten both set screws to secure the control pod into place.
52. Reconnect the main wire harness to the control pod.
53. Reinstall the electric access panel onto the steering channel.
54. Reconnect the battery cable to the machine.
55. Start and test the machine. Drive and steer the machine in the full range of motion in both directions.

Bill Of Materials For Drive Kit, Replmt [T17] - 9015274

Ref.	Tennant Part No.	Description	Qty.
1	1074570	Cable Assy, 02ga [M17/T17, Propel]	1
2	1075150	Harness, Ele, Propel Motor [M17, T17]	1
3	1209444	Fastener, 11.00l [Hook & Loop]	1
4	32483	Washer, Flat, 0.25, SAE	3
5	06946	Screw, Hex, M6 X 1.00 X 35, 8.8	1
6	06948	Screw, Hex, M6 X 1.00 X 45, 8.8	1
7	08708	Nut, Hex, Lock, M6 X 1.00, NL	2
8	386063	Washer, Flat, 0.25b 1.12d .12, SS	1
9	1219273	Bracket Wldt, Restraint, Cable	1
10	1221794	Clamp, Sppt, Wire	4
11	07790	Nut, Hex, Flng, M6 X 1.00	2
12	763114	Tie, Cable, 11.3l, 2.75d Max	10
13	09011	Screw, Hex, M8 X 1.25 X 30, SS	2
14	08713	Nut, Hex, Lock, M8 X 1.25, NL, SS	2
15	01685	Washer, Flat, 0.38b 0.88d .08, SS	2
16	13773	Sleeve, Nyl, 1.63id 20.0l	1
17	1217751	Clamp, Cable	1
18	1210807	Wire, Tie [W/.25" Fir Tree Clip]	4
19	9015278	VR, Cover, Wire, Wheel, Propel [T17]	1

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