



INSTRUCTION BULLETIN

No. 340853
Machine: M20 / T20
Published: 12-2015
Rev. 03

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 9003455**

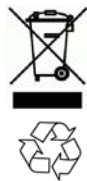
SYNOPSIS:

This kit contains the parts needed to replace scrub vacuum fan assembly on M20 (Serial Numbers 000000- 006877) and T20 (Serial Numbers 000000- 005892) machines.
Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS:

(Estimated time to complete: 3.5 hours)

1. Thoroughly clean outside of hydraulic components **before** disconnecting hydraulic hoses or fittings and flush hoses and fittings with air, solvent, or hydraulic fluid and cap disconnected hoses or open ports to prevent contaminants from entering system.
2. Mark hydraulic hoses with locations of where they are attached. Markings make it easier to reconnect hoses to proper locations.
3. Discard all hydraulic fluid drained from the system. Use only new approved hydraulic fluid to replenish hydraulic reservoir. Hydraulic fluid is potentially dangerous to the environment. Obey all federal, state, and local laws/regulations governing the disposal of environmentally hazardous materials when disposing hydraulic fluid.



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 and engage the parking brake.

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

2. Disconnect the battery cables from the batteries.



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

NOTE: Do not discard removed parts unless instructed to do so. Most parts are reinstalled after the scrub vacuum fan is replaced.

3. Remove the engine cover from the machine. Set the engine cover aside.

4. Remove the coolant reservoir from the bracket and move the reservoir away from the scrub vacuum fan. (Fig. 1)

NOTE: If necessary, unplug spark plug cables before moving the coolant reservoir.



FIG. 1

5. Remove the hardware holding the air cleaner bracket to the machine and move the air cleaner/air cleaner bracket away from the scrub vacuum fan. (Fig. 2)

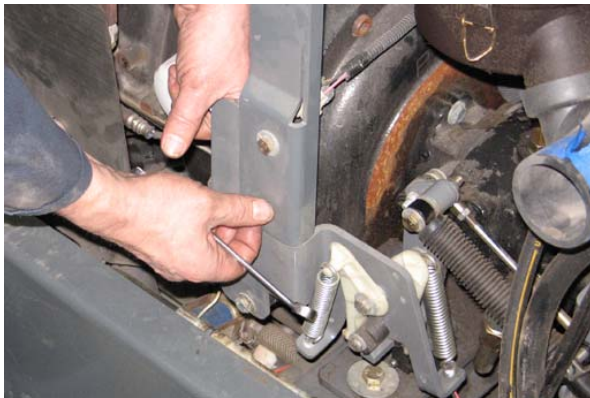


FIG. 2

6. Drain hydraulic fluid from the system.

NOTE: It is not necessary to drain hydraulic fluid if a hydraulic vacuum is used to vacuum down the hydraulic system.

INSTALLATION:

1. **M20 machines serial numbers 000000 - 002699 only:** Disconnect both steel tubes from the lower valve. (Fig. 3)

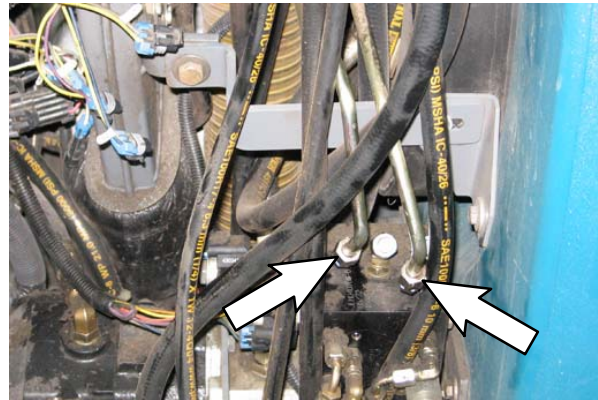


FIG. 3

2. Disconnect the hose attached to location P1 on the scrub valve. (Fig. 4)



FIG. 4

3. Disconnect all main wire harness leads from the scrub valve.
4. Remove the support bracket. Set the support bracket and hardware aside. (Fig. 5)

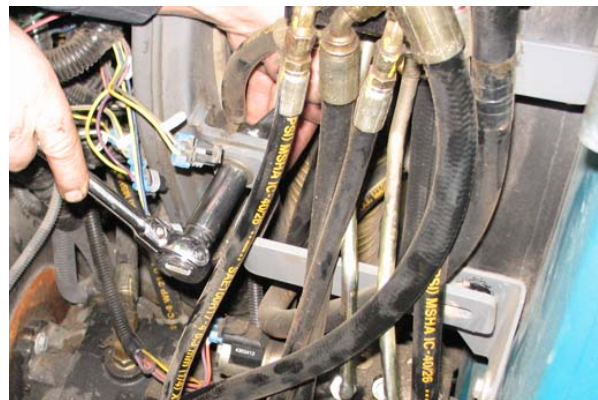


FIG. 5

- Loosen the hardware holding the scrub valve bracket to the solution tank. (Fig. 6)



FIG. 6

- Lift the scrub valve assembly up from the hardware and away from the solution tank. (Fig. 7)

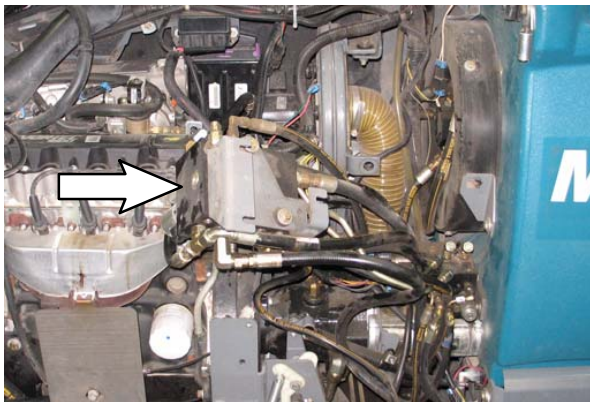


FIG. 7

- Disconnect the intake hose from the sweep fan. Move the intake hose away from the scrub vacuum fan. Set the hose clamp aside. (Fig. 8)

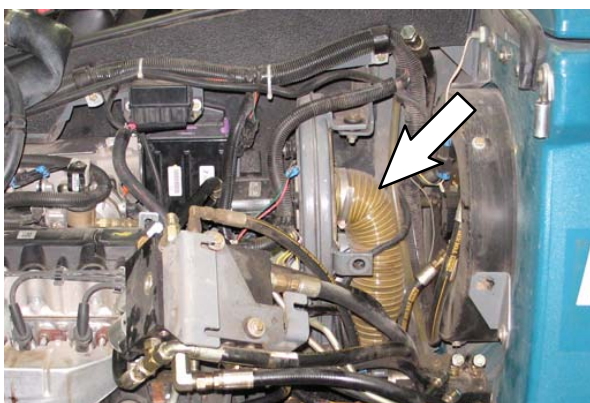


FIG. 8

- Disconnect the four hydraulic hoses (A), (B), (C), and (D) from the fittings on the scrub fan motor. (Fig. 9)

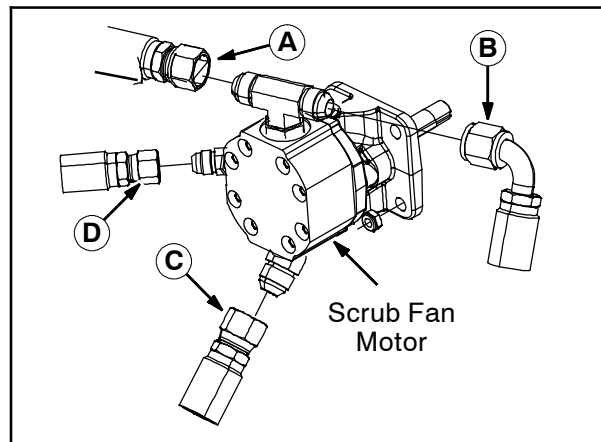


FIG. 9

NOTE: If working on an LP machine, the fuel tank can be removed to make access to scrub vacuum fan easier. Refer to Operators Manual for instructions how to remove LP tank.

NOTE: If working on a diesel or gasoline machine without FaST, ES, or spray hose options, the operator station removable panel can be removed to make access to scrub fan easier. Set the panel and hardware aside. (Fig. 10)

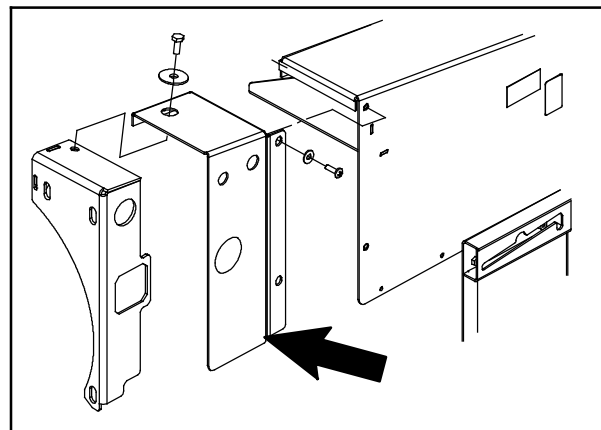


FIG. 10

9. Remove the hardware holding the scrub vacuum fan to the solution tank. Set the hardware aside. (Fig. 11)

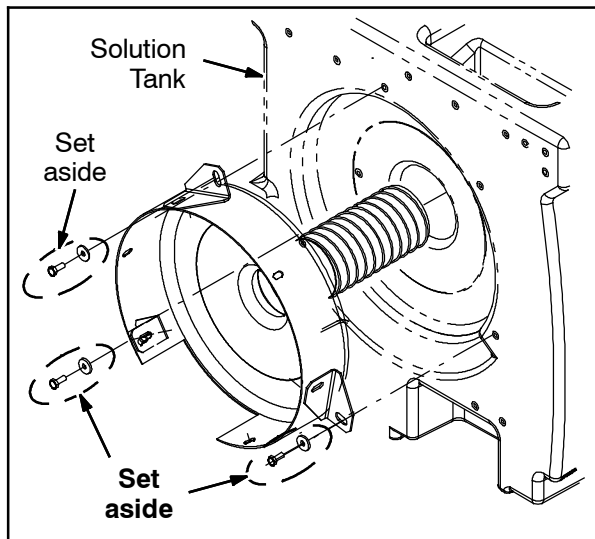


FIG. 11

10. Disconnect the hose from the scrub vacuum fan. Set the hose clamp aside. (Fig. 12)

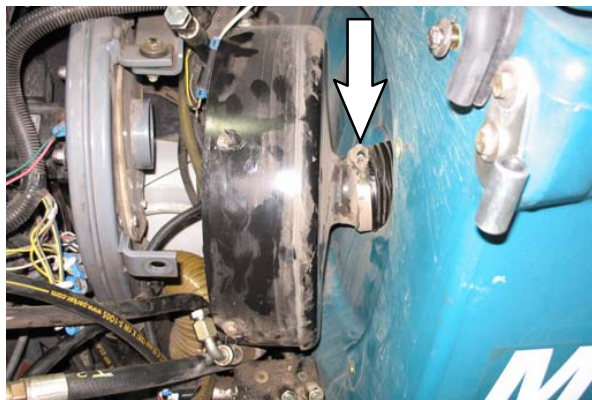


FIG. 12

11. Remove the scrub vacuum fan from the machine. (Fig. 12)

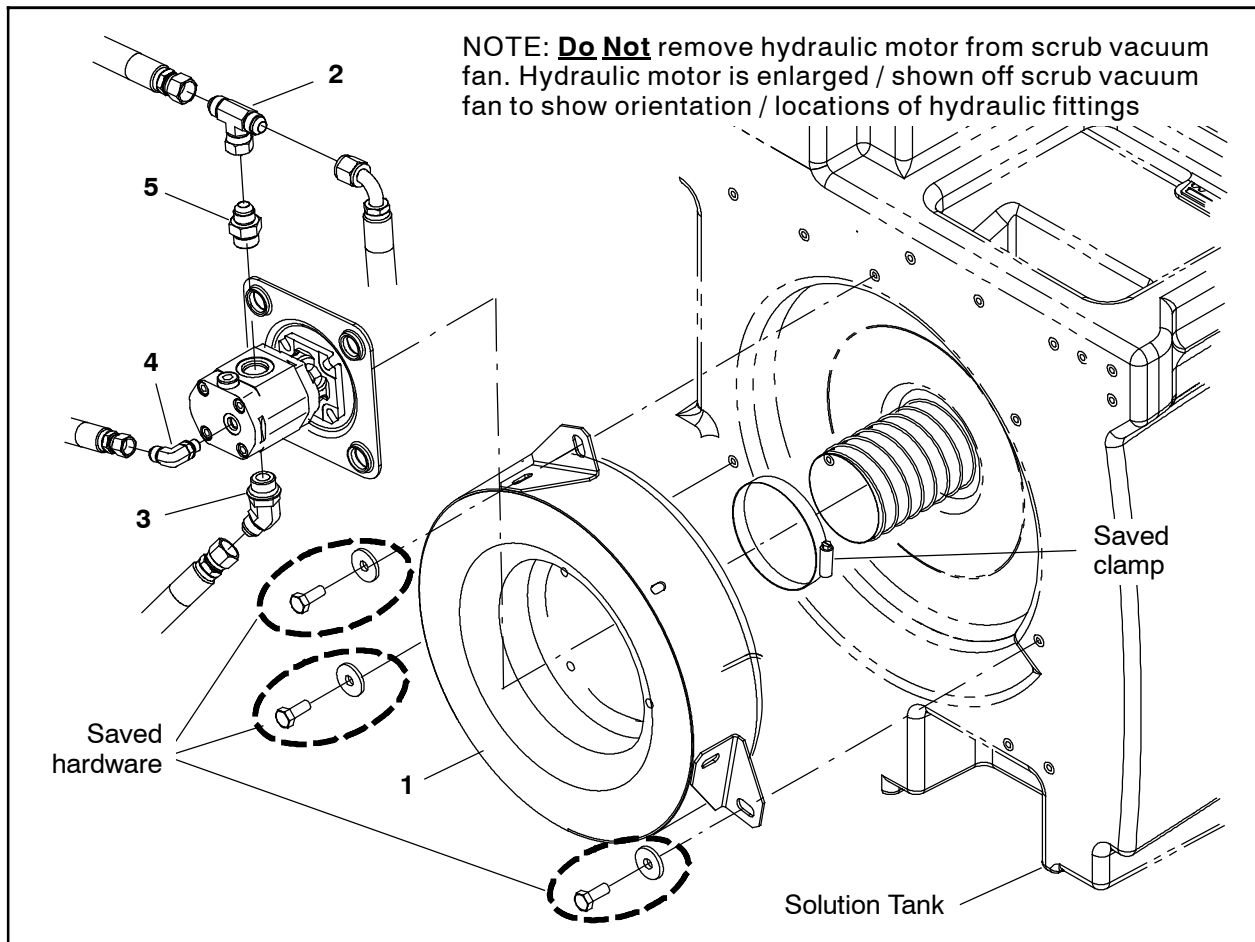


FIG. 13

12. Remove the plugs from the new scrub vacuum fan (1) motor. (Fig. 13)
13. Install the straight fitting (5) into the vacuum fan (1) motor. (Fig. 13)
14. Install the t-fitting (2) into the straight fitting (5) installed into the scrub vacuum fan (1) motor. Do not completely tighten t-fitting. The t-fitting is tightened during later adjustment. (Fig. 13)
15. Install the 90° fitting (4) and 45° fitting (3) into the scrub vacuum fan (1) motor. Note orientation of both fittings on the hydraulic motor. (Fig. 13)
16. Place the new scrub vacuum fan (1) where the old scrub vacuum fan was previously installed. (Fig. 12 / Fig. 13)
17. Clamp the vacuum hose onto the scrub vacuum fan (1). (Fig. 12 / Fig. 13)
18. Use the saved hardware to install the scrub vacuum fan (1) onto the solution tank. (Fig. 13)

19. Hold hydraulic hoses (A) and (B) to the t-fitting (10) installed on the hydraulic motor (1) and note distance t-fitting must be adjusted for hose installation. (Fig. 14)

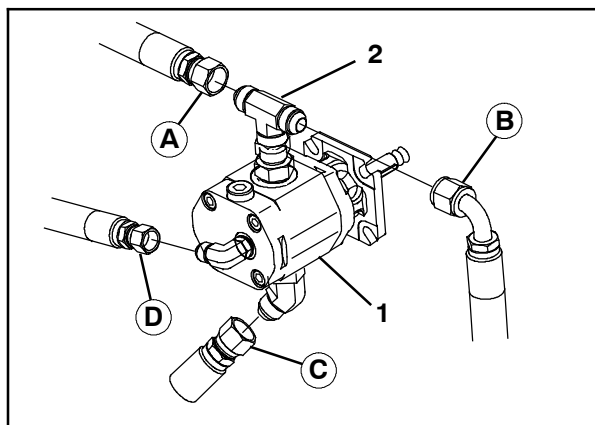


FIG. 14

20. Adjust the t-fitting (10) as necessary to connect hydraulic hoses (A) and (B). (Fig. 14)
21. Connect hydraulic hoses (A), (B), (C), and (D) to the scrub fan motor (1). (Fig. 14)

22. Reconnect the intake hose to the sweep fan. (Fig. 15)

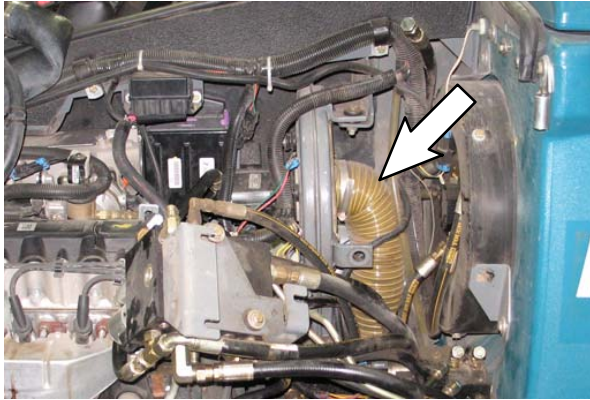


FIG. 15

23. Reinstall the scrub valve assembly onto the solution tank. (Fig. 16)

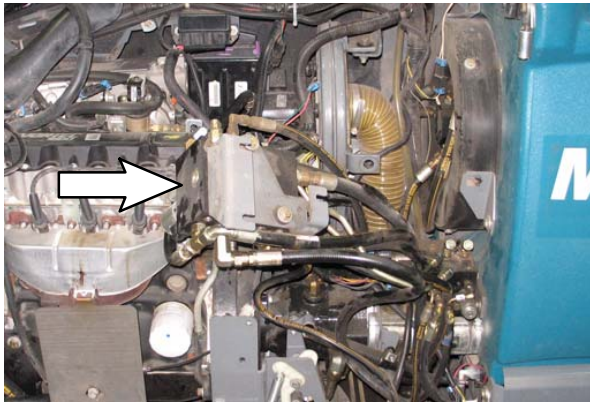


FIG. 16

24. Reconnect the hose removed from location P1 on the scrub valve. (Fig. 17)



FIG. 17

25. Reconnect both steel tubes to the lower valve. (Fig. 18)

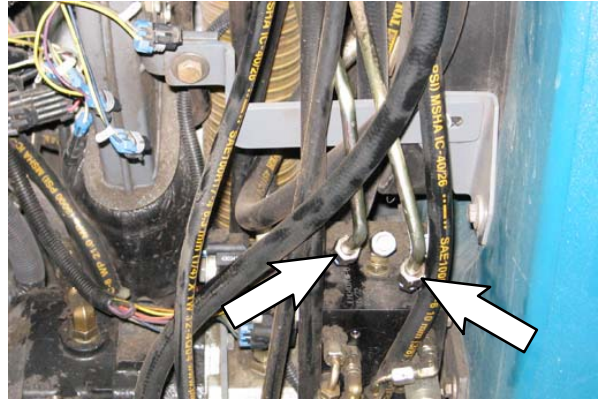


FIG. 18

26. Reconnect the main wire harness leads to the scrub valve.

27. Reinstall the support bracket. (Fig. 19)



FIG. 19

28. Reinstall the air cleaner assembly/air cleaner assembly bracket onto the machine. (Fig. 20)

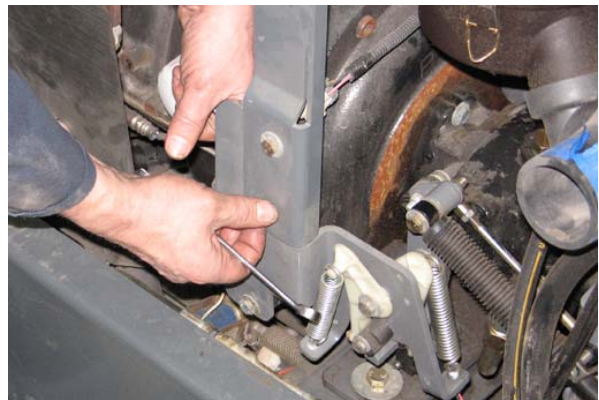


FIG. 20

29. Reinstall the coolant reservoir onto the bracket. (Fig. 21)



FIG. 21

30. If hydraulic fluid was drained to install this kit, replenish the hydraulic system with Tennant approved hydraulic fluid. Refer to the Operators Manual for additional information.

31. Reinstall the LP tank, operator station removable panel, and other parts/ components removed to install the new vacuum fan assembly onto the machine.

32. Reconnect the battery cables to the battery.

33. Start and test the machine. Observe the scrub vacuum fan and other hydraulic components that had fittings / hoses removed / replaced for leaks. Run the scrub vacuum fan to ensure it operates.

Bill of Materials for Fan Kit, Scrub, Replmt [M20 & T20] - 9003455

| Ref. | Tennant Part No. | Description | Qty. |
|-------------|-------------------------|---------------------------------------|-------------|
| ▽ | 9003455 | Fan Kit, Scrub, Replmt [M20 & T20] | 1 |
| ▲ | 1 1022559 | Housing Wldt, VacFan, Rear | 1 |
| ▲ | 2 76315 | Fitting, Hyd, Tee, JF08/JM08/JM08, Br | 1 |
| ▲ | 3 47513 | Fitting, Hyd, E45, JM08/OM10 | 1 |
| ▲ | 4 77098 | Fitting, Hyd, E90, JM06/OM04 | 1 |
| ▲ | 5 56692 | Fitting, Hyd, Str, JM08/OM10 | 1 |

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