



INSTRUCTION BULLETIN

No. 9006383
Machine: M20 / T20 /
M30
Published: 07-2010
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 numbers 9006384 (M30) & 9006386 (M20 / T20)**

SYNOPSIS:

This kit contains the parts needed to replace the hydraulic case drain on M20 / T20 / M30 machines. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 2 hours)

When assembling / disassembling hydraulic components:

1. Thoroughly clean outside of hydraulic components **before** disconnecting hydraulic hoses or fittings to prevent contaminants from entering system.
2. Flush hoses and fittings with air, solvent, or hydraulic fluid and cap disconnected hoses or open ports to prevent contaminants from entering system.
3. Mark hydraulic hoses with locations of where they are attached. Markings make it easier to reconnect hoses to proper locations.
4. 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.

PREPARATION:

1. Completely empty the recovery and solution tanks.
2. Park the machine on a clean level surface,
3. Turn off the machine and remove both main brushes from the scrub head. Set the brushes aside.
4. Start the machine and completely lower the scrub head.
5. Turn off the machine, remove the key, and set the parking brake.

6. Chock the back of rear tires and jack up the front end of the machine. Refer to *MACHINE JACKING* in the *MAINTENANCE* section of the Operators Manual for additional information on how to safely jack up the machine.
7. Position jack stands under the front of 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.

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

8. Remove the front skirt assembly from the machine. Set the front skirt assembly and all hardware aside. Refer to Fig. 1.

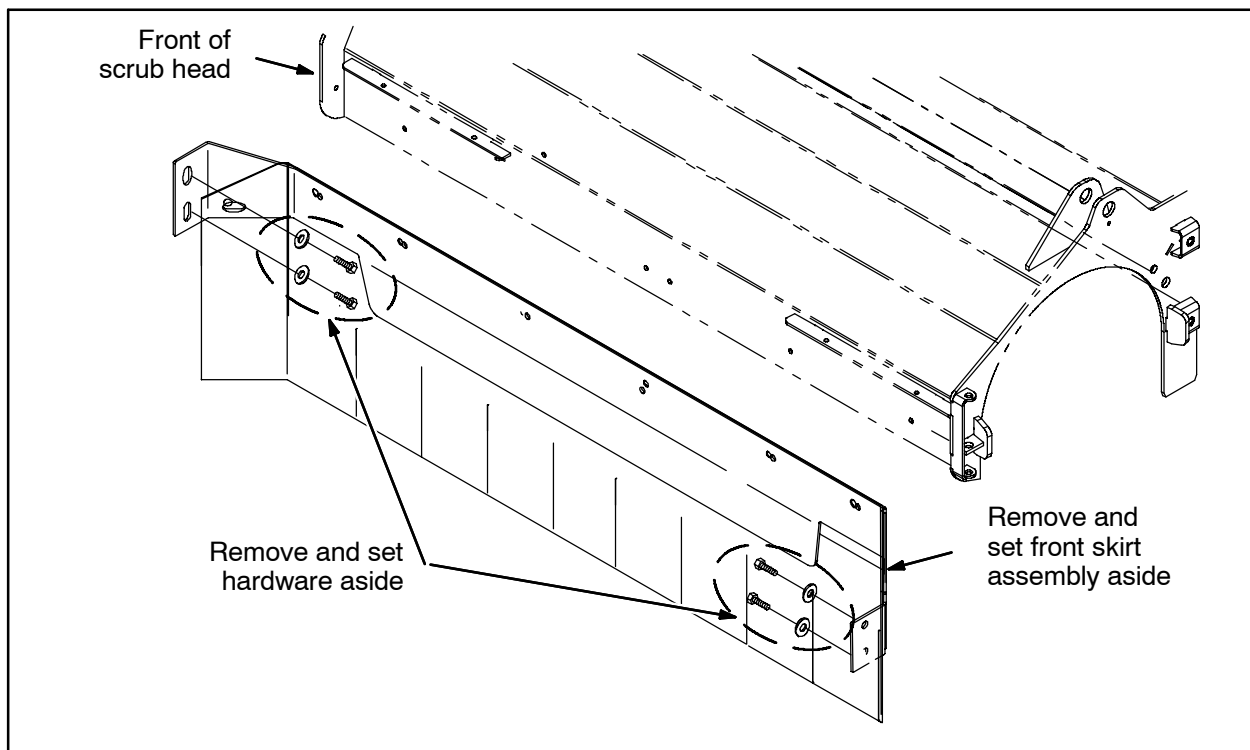


FIG. 1

9. Remove the brush return tube from the scrub head. Discard the brush return tube. Refer to Fig. 2.

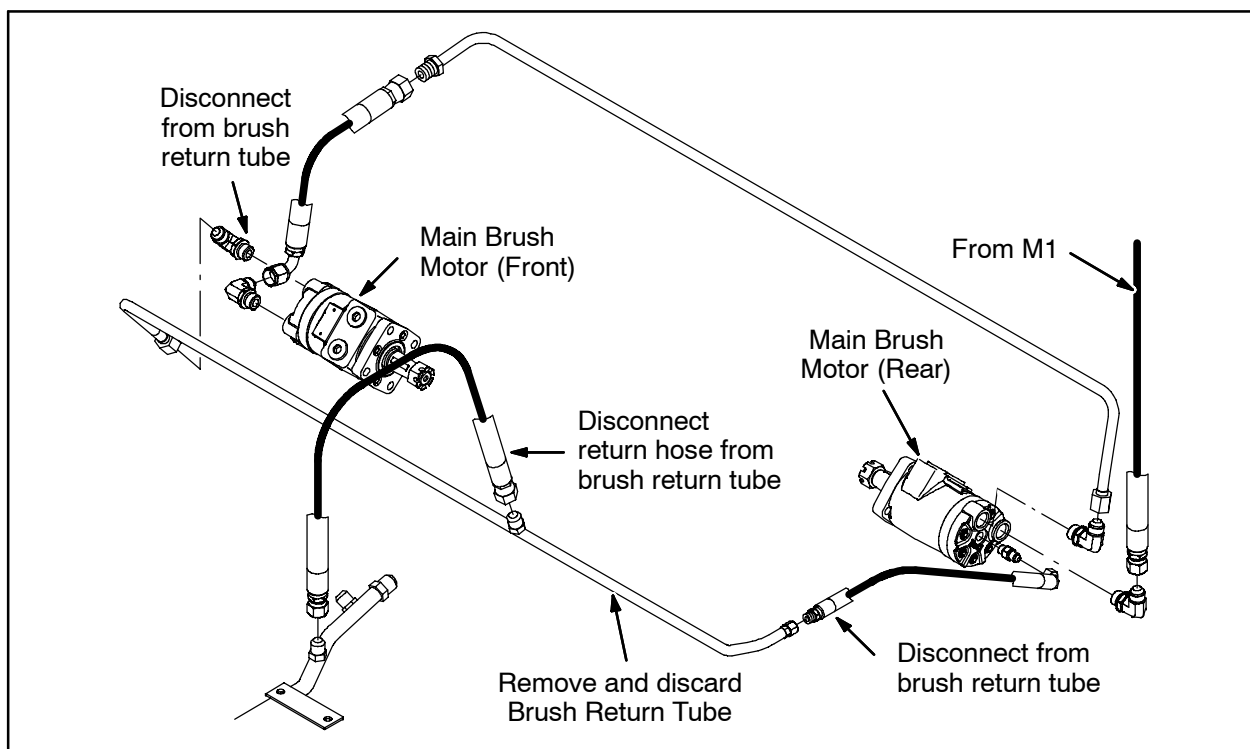


FIG. 2

INSTALLATION:

1. Remove the plug from the center port of the front brush motor. Refer to Fig. 3.

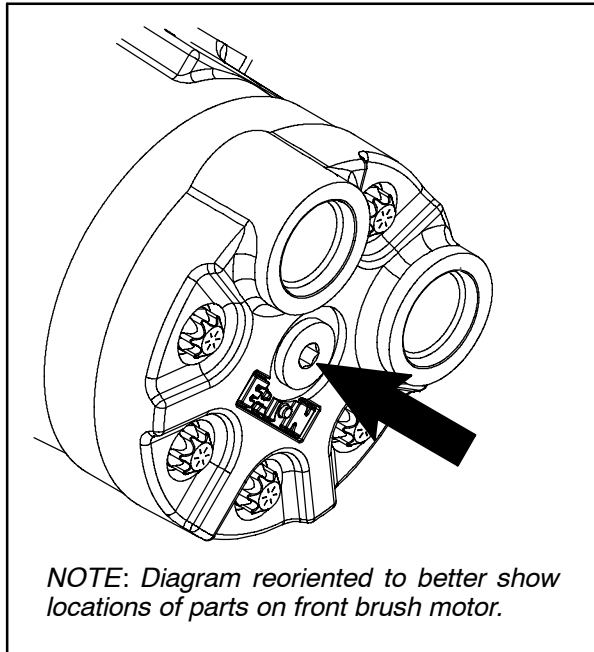


FIG. 3

2. Install the straight fitting (1) into the center port of the front brush motor. Refer to Fig. 3 and Fig. 7.
3. Connect the 20" hydraulic hose (2) to the straight fitting (1). Refer to Fig. 3, Fig. 4, and Fig. 7.

NOTE: The 20" hydraulic hose must be oriented on the straight fitting (1) / front brush motor as shown in Fig. 4.



FIG. 4

4. Install the 90° fitting (3) onto the new brush return tube (5). Orient the 90° fitting so it is pointing out parallel with brush return tube. Refer to Fig. 5 and Fig. 7.

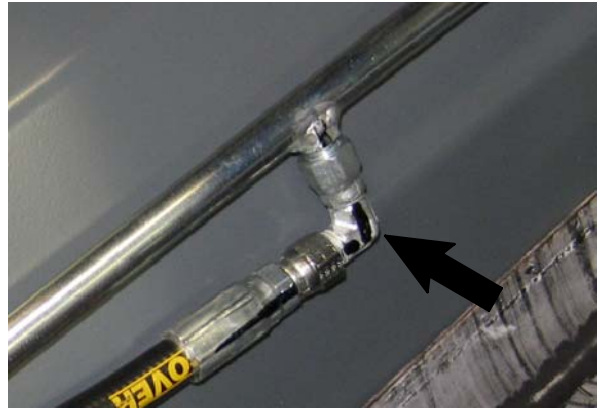


FIG. 5

5. Position new the brush return tube (5) onto the scrub head where the old one had previously been located and connect the hose from the rear brush motor to the brush return tube. Refer to Fig. 2 and Fig. 7.
6. Connect the other end of the brush return tube (5) to the 90° fitting on the front brush motor. Refer to Fig. 2 and Fig. 7.
7. Connect the return hose to the brush return tube (5). Refer to Fig. 2 and Fig. 7.
8. Route the 20" hydraulic hose (2) along the brush return tube (5) and attach the hose to the 90° fitting (3) on the brush return tube. Refer to Fig. 6.

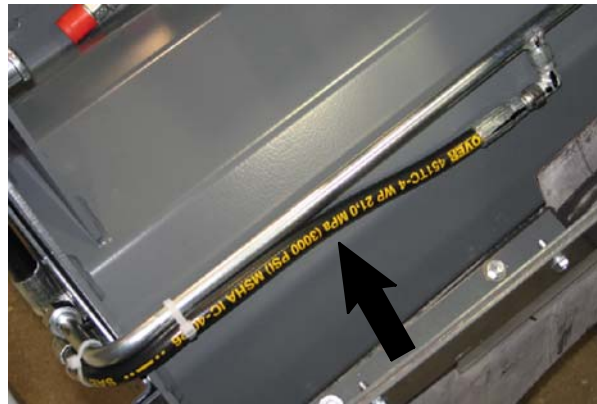


FIG. 6

9. Use several cable ties (4) to secure the 20" hydraulic hose (2) to the brush return tube (5).
10. Reinstall the front skirt assembly onto the machine. Refer to Fig. 1.

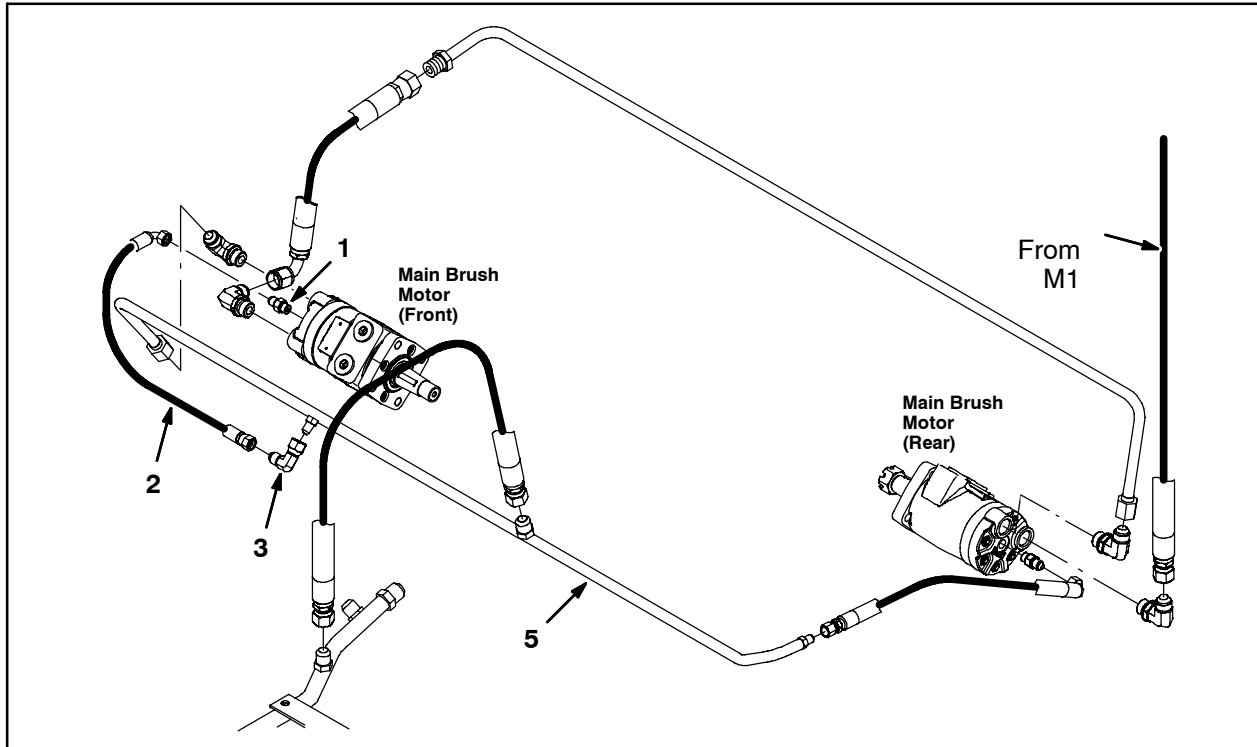


FIG. 7

11. Remove the jack stands from under the machine and lower the machine to the ground.
12. If necessary, top off the hydraulic system with new hydraulic fluid.
13. Reinstall both main brushes into the scrub head.
14. Start and test the machine. Raise and lower the scrub head and operate the brushes to ensure they are functioning properly. Observe all new hydraulic connections for leaks.

BILL OF MATERIALS FOR TUBE KIT, HYD, CASE DRAIN [M30] - 9006384

| Ref. | Tennant Part No. | Description | Qty. |
|------|------------------|---|------|
| ▽ | 9006384 | TUBE KIT, HYD, CASE DRAIN [M30] | 1 |
| ▲ | 1 55586 | FITTING, HYD, STR, JM04/OM04 | 1 |
| ▲ | 2 387281 | HOSE, HYD, TC04, JF04E90/JF04STR, 020.0 | 1 |
| ▲ | 3 39210 | FITTING, HYD, E90, JF04/JM04 | 1 |
| ▲ | 4 763115 | TIE, CABLE, 6.0L, 1.25D MAX | 4 |
| ▲ | 5 1055153 | TUBE, HYD, BRUSH RETURN, W/ CD [M30] | 1 |

BILL OF MATERIALS FOR TUBE KIT, HYD, CASE DRAIN [M20/T20] - 9006386

| Ref. | Tennant Part No. | Description | Qty. |
|------|------------------|--|------|
| ▽ | 9006386 | TUBE KIT, HYD, CASE DRAIN [M20/T2] | 1 |
| ▲ | 1 55586 | FITTING, HYD, STR, JM04/OM04 | 1 |
| ▲ | 2 387281 | HOSE, HYD, TC04, JF04E90/JF04STR, 020.0 | 1 |
| ▲ | 3 39210 | FITTING, HYD, E90, JF04/JM04 | 1 |
| ▲ | 4 763115 | TIE, CABLE, 6.0L, 1.25D MAX | 4 |
| ▲ | 5 1055139 | TUBE, HYD, BRUSH RETURN, W/ CD [M20/T20] | 1 |

TENNANT COMPANY
P. O. Box 1452
Minneapolis, MN 55440-1452