



# INSTRUCTION BULLETIN

No. 340858  
Machine: Sentinel  
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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 9003498**

## SYNOPSIS:

This kit contains the parts needed to install a cab jack on Sentinel sweepers.  
Please follow step-by-step instructions.

## SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 3 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. Cap disconnected hoses and open ports to prevent contaminants from entering system.
3. Flush hoses and fittings with air, solvent, or hydraulic fluid to prevent contaminants from entering system.
4. Mark hydraulic hoses with locations of where they are attached. Markings make it easier to reconnect hoses to proper locations.
5. 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.

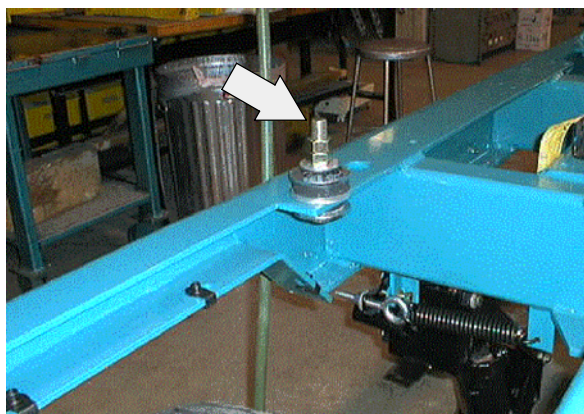
## PREPARATION:

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

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

2. Disconnect the gas springs (one on each side of the cab) from the back of the cab. The gas springs can remain attached to the doors.
3. Use a small cable tie to tie off the windshield washer hose by the wiper arm.
4. Pry the plastic plugs located inside both rear corners of the cab to expose the hardware holding the cab to the machine. Set the plastic plugs aside.

5. Remove the M20 hex nuts and washers holding the cab down to the machine. Set the hex nuts and washers aside. Refer to Fig. 1.



**FIG. 1**

## TILT THE CAB FORWARD

The cab prop arm is located on the passenger side bottom of the cab. Engage the prop arm when the cab is tilted forward. Refer to Fig. 2.

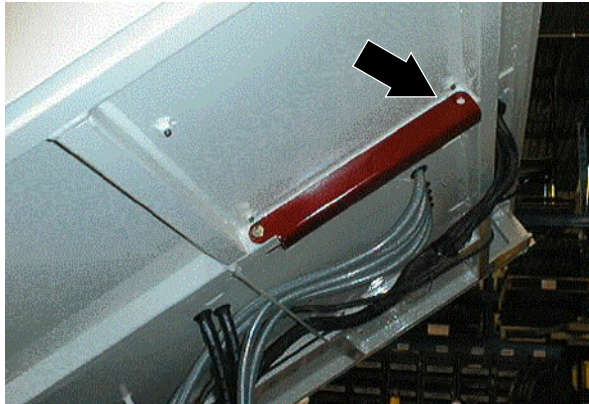


FIG. 2

**CAUTION; DO NOT ATTEMPT TO TILT THE CAB WITHOUT AN OVERHEAD MOTORIZED TROLLEY CRANE.**

1. Hook the overhead hoist chain to the lift bracket located at the top rear of the cab. Refer to Fig. 3.

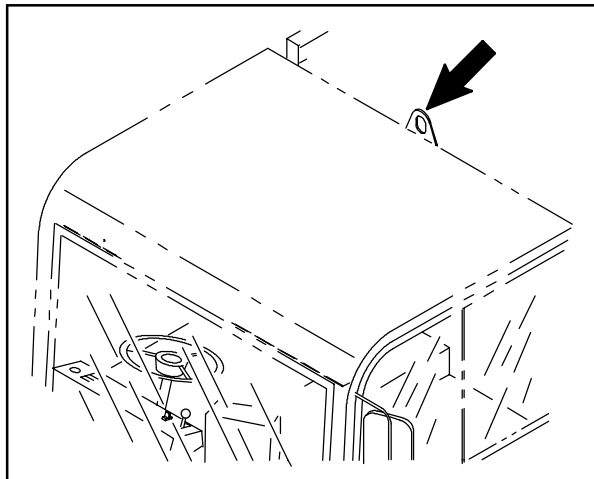


FIG. 3

2. Start lifting the cab and simultaneously moving the hoist toward the front of the machine. The cab is completely tilted when the retaining cable is taut.

3. Pull the pin from the cab prop arm, let arm drop down, install pin into the lower hole on the arm and frame bracket. Refer to Fig. 4.

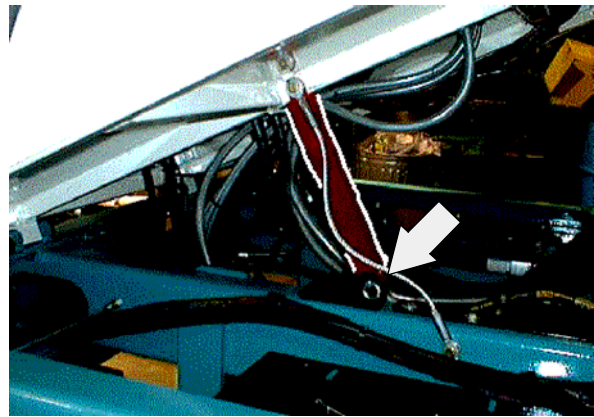


FIG. 4

4. Leave the hoist chain hooked to the cab while working under the cab.

## INSTALLATION:

1. Apply a light coat of PST sealant (37) onto the threads of both straight fittings (11) and the tee fitting (12).
2. Install two straight fittings (11) onto the hydraulic hand pump (1). Refer to Fig. 5.

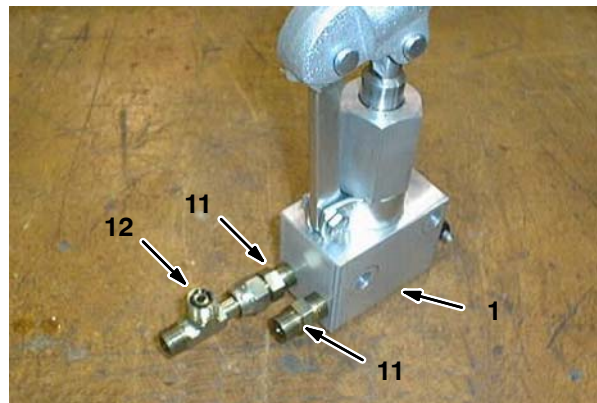
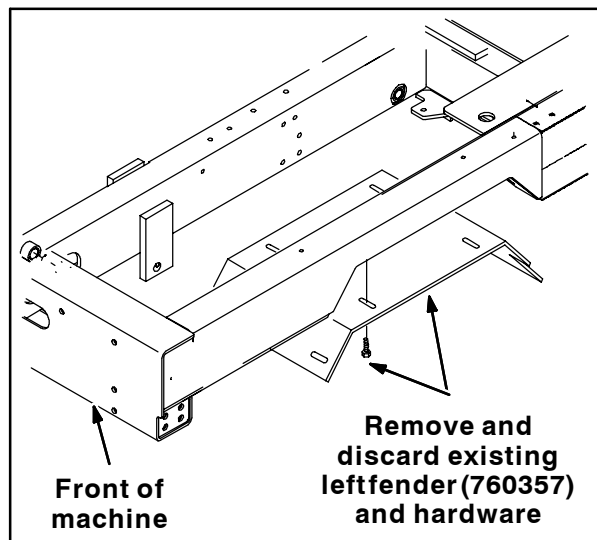


FIG. 5

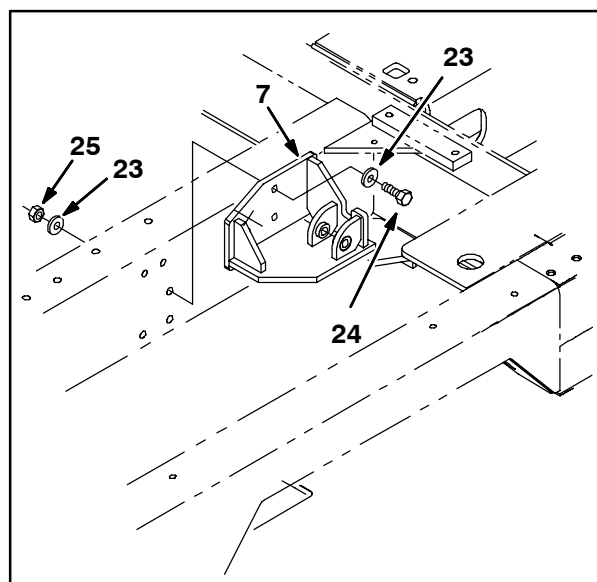
3. Install the tee fitting (12) onto the hydraulic hand pump (1). Refer to Fig. 5.

4. Remove and discard the existing left front fender and hardware. Refer to Fig. 6.



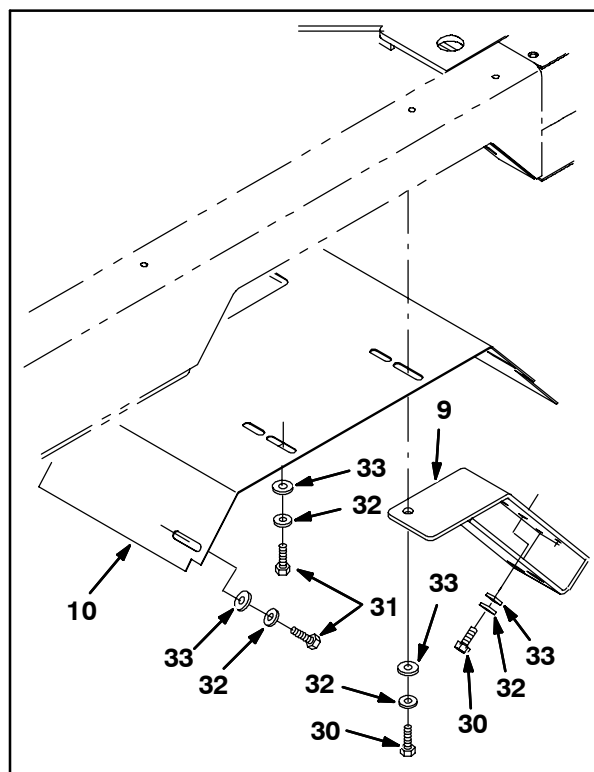
**FIG. 6**

5. Use three hex screws (24), six washers (23), and three hex nuts (25) to install the lower cab tilt bracket (7) onto the frame of the machine. Refer to Fig. 7.



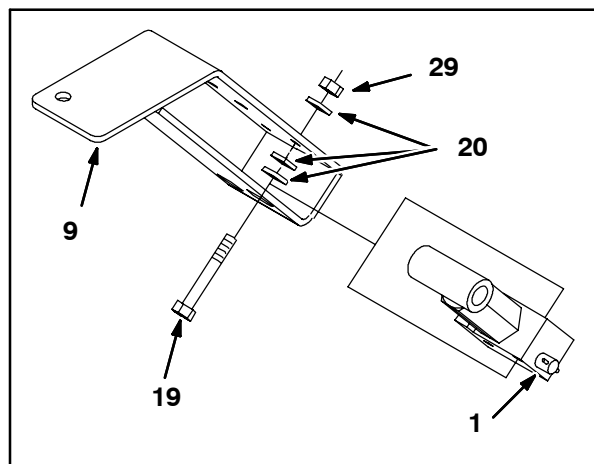
**FIG. 7**

6. Use two hex screws (31), two belleville washers (32), and two fender washers (33) to install the left fender plate (10) onto the frame of the machine. Refer to Fig. 8.



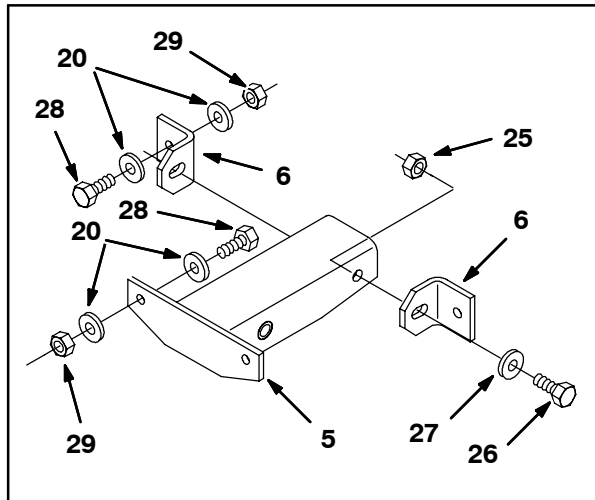
**FIG. 8**

7. Use two hex screws (30), two belleville washers (32), and two fender washers (33) to install the pump tilt bracket (9) onto the left fender plate (10) and frame of the machine. Refer to Fig. 8.
8. Use two hex screws (19), six washers (20), and two hex nuts (29) to install the hydraulic hand pump (1) into the pump tilt bracket (9). Refer to Fig. 9.



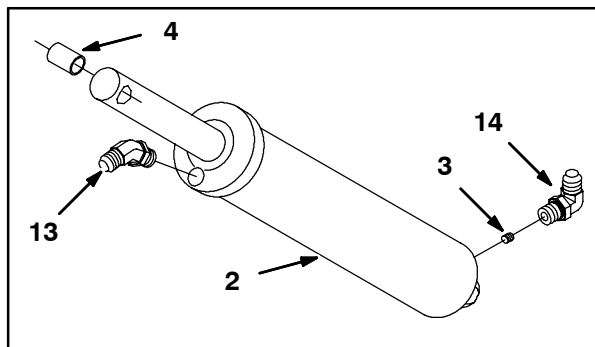
**FIG. 9**

9. Use a hex screw (26), a washer (27), and a hex nut (25) to install each angle (6) onto the cab tilt bracket (5). Do not completely tighten hardware. These items are tightened in the following steps. Refer to Fig. 10.



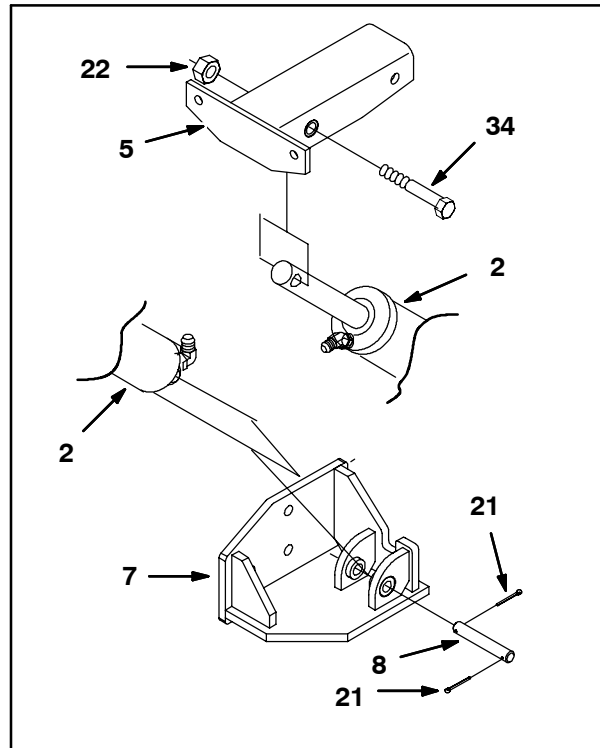
**FIG. 10**

10. Use four hex screws (28), eight washers (20), and four hex nuts (29) to install the cab tilt bracket (5), with the two angles (6) already installed, to the under side of the cab. Do not completely tighten hardware. These items are tightened in the following steps. Refer to Fig. 10.
11. Tighten the hex screws (28) and hex nuts (29) holding the cab tilt bracket (5) under the cab. Refer to Fig. 10.
12. Tighten the hex screws (28) and hex nuts (29) holding the the angles (6) attached to the cab tilt bracket (5) under the cab. Refer to Fig. 10.
13. Tighten the two hex screws (26) and two hex nuts (25) holding the two angles (6) to the cab tilt bracket (5). Refer to Fig. 10.
14. Install the sleeve bushing (4) into the rod of the hydraulic cylinder (2). Refer to Fig. 11.



**FIG. 11**

15. Tighten the orifice plug (3) into the other end of the hydraulic cylinder (2). Refer to Fig. 11.
16. Install the 45° fitting (13) and 90° fitting (14) into the hydraulic cylinder (2). Refer to Fig. 11.
17. Use a pin (8) and two cotter pins (21) to install the hydraulic cylinder (2) onto the lower cab tilt bracket (7). Refer to Fig. 12.



**FIG. 12**

18. Use a hex screw (34) and hex nut (22) to install the other end of the hydraulic cylinder (2) to the cab tilt bracket (5). Refer to Fig. 12.
19. Connect one hydraulic hose (15) to the 45° fitting (13) attached to the hydraulic cylinder (2), route the hose to the hydraulic hand pump (1), and attach the hose to the tee fitting (12) on the hydraulic hand pump. Refer to Fig. 16.
20. Connect another hydraulic hose (15) to the 90° fitting (14) attached to the hydraulic cylinder (2), route the hose to the hydraulic hand pump (1), and attach the hose to the straight fitting (11) on the hydraulic hand pump. Refer to Fig. 16.

21. Remove the cap fitting from the hydraulic return tube and install a 45° fitting (16) where the cap fitting was previously installed. Discard the cap fitting. Refer to Fig. 13.

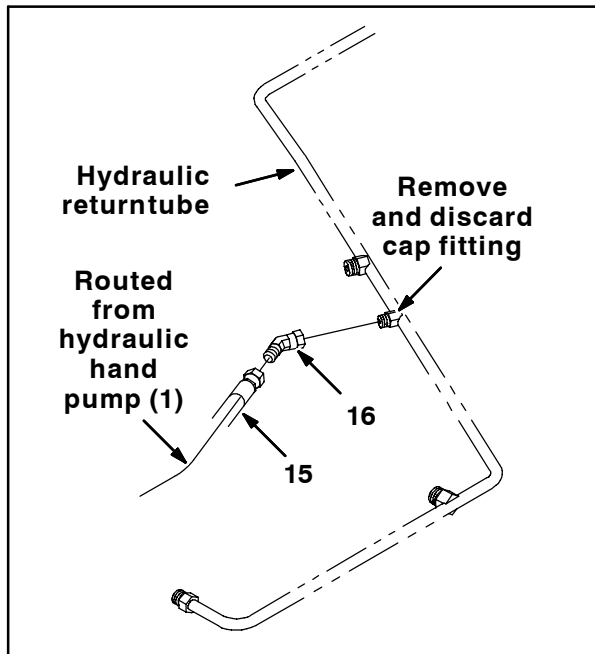


FIG. 13

22. Connect the remaining hydraulic hose (15) to the tee fitting (12) on the hydraulic hand pump (1), route the hose to the hydraulic return tube, and attach the hose to the 45° fitting (16) on the hydraulic return tube. Refer to Fig. 13 and Fig. 16.

23. Drill two 13/64" holes into the floor of the cab. Refer to Fig. 14 for locations of holes.

24. Use a pan screw (18), washer (35), and hex screw (36) to install each clip (17) onto the floor of the cab. Refer to Fig. 14.

25. Insert the handle of the hydraulic hand pump (1) into the clips (17) installed in the previous step. Refer to Fig. 14.

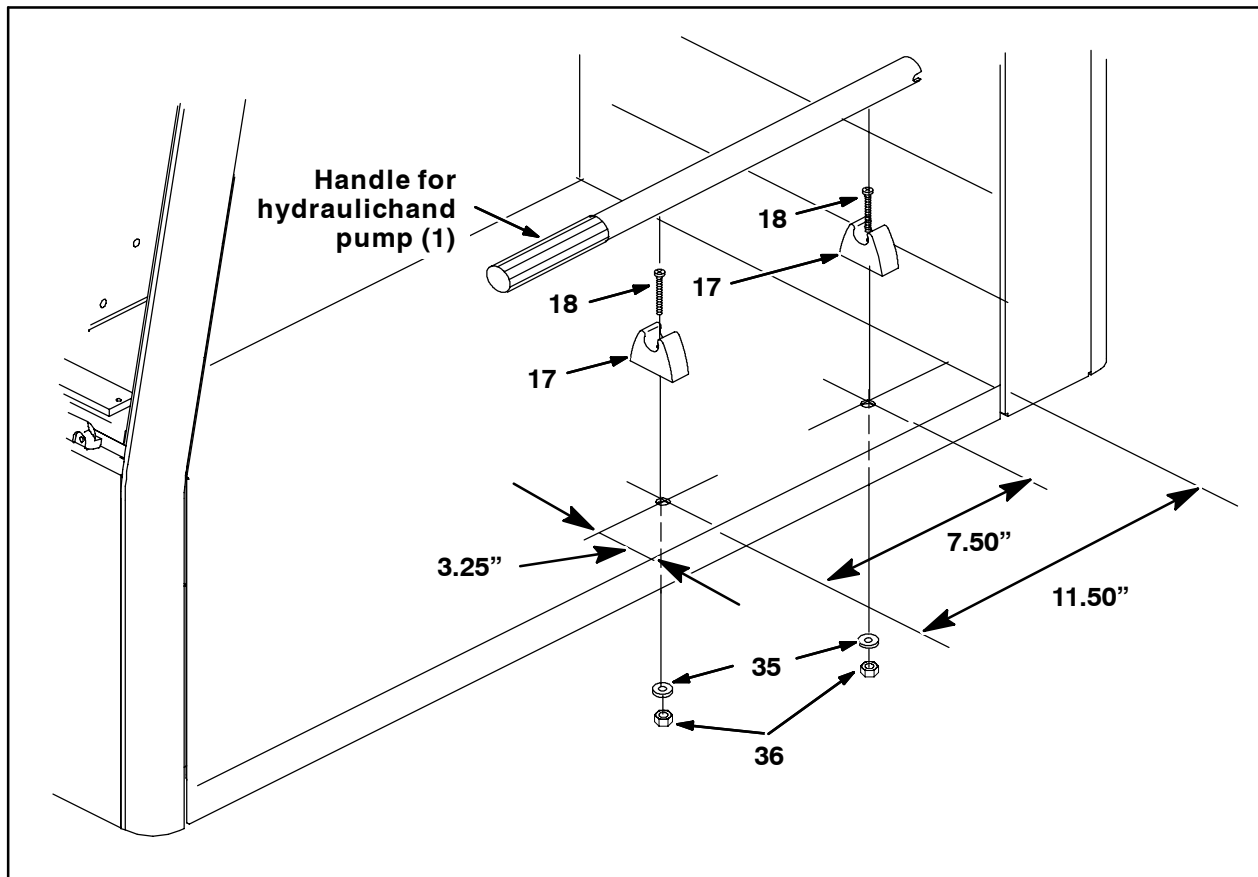
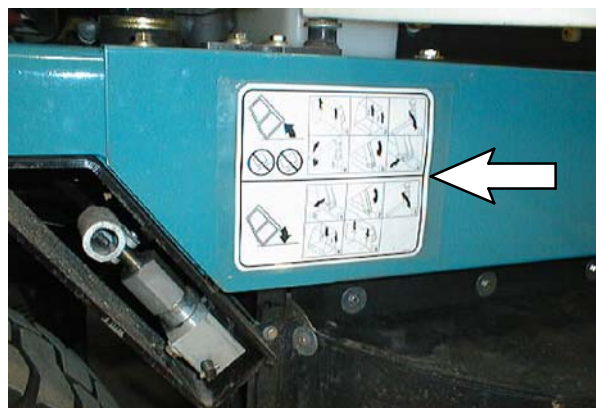


FIG. 14

26. Apply the tilt cab instruction label (30) onto the frame of the machine, above and to the rear of the pump assembly. Refer to Fig. 15.



**FIG. 15**

27. Use the cab jack to slightly raise the cab and remove the weight of the cab from the pin in the cab prop arm.

*NOTE: Since the newly installed hydraulic lines are empty, it may take longer the first time the pump is used.*

28. Remove the pin from the prop arm and disengage the prop arm.
29. Lower the cab. **Machines equipped with wet dust control:** Observe the cab as it lowers to ensure no water lines are sheared or pinched.
30. Reinstall the M20 hex nuts and washers to secure the cab to the frame of the machine and reinstall the plastic plugs into the holes in the cab.
31. Reinstall the gas springs to the brackets located on the back of the cab.
32. Remove the cable tie from the washer fluid line.

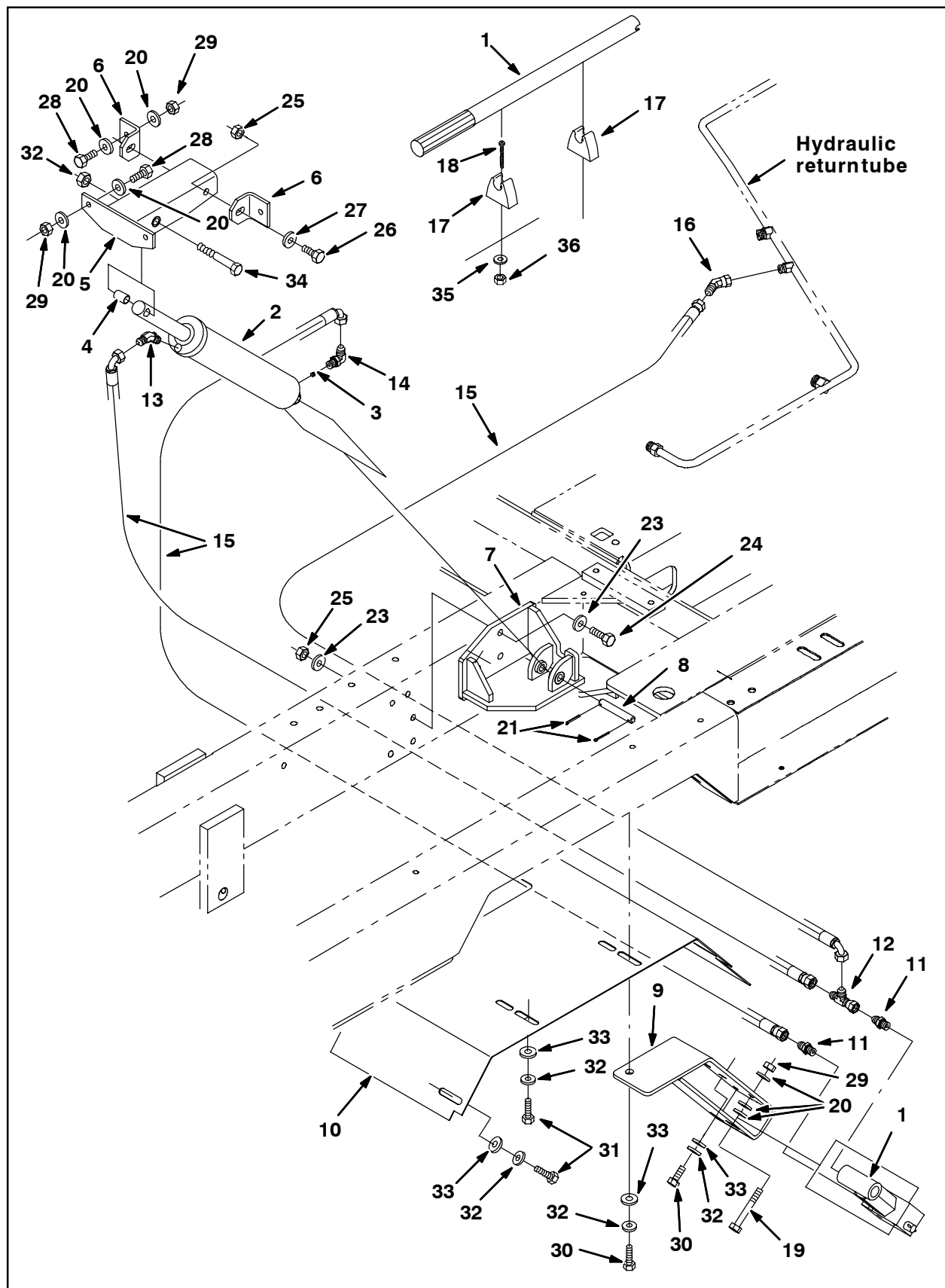


FIG. 16

**Bill of Materials for Cab Jack, Kit, CI-9003498**

|    | <b>Ref.</b> | <b>Tennant<br/>Part No.</b> | <b>Description</b>                      | <b>Qty.</b> |
|----|-------------|-----------------------------|---|-------------|
| ▽  |             | 9003498                     | Cab Jack, Kit, CI                       | 1           |
| ▲  | 1           | 771059                      | Pump, Hyd, Piston, Hand, 0.55 2800      | 1           |
| ▲  | 2           | 1028063                     | Cyl, Hyd, 2.0B, 19.0L, 12.0Strk, 2500   | 1           |
| ▲  | 3           | 771058                      | Plug, Orifice, 0.040                    | 1           |
| ▲  | 4           | 363616                      | Bushing, Sleeve, 0.50B 0.59D 0.95L, Fgl | 1           |
| ▲  | 5           | 1009226                     | Bracket, Wldt, Tilt, Cab                | 1           |
| ▲  | 6           | 1009227                     | Angle                                   | 2           |
| ▲  | 7           | 1007150                     | Bracket, Wldt, Tilt, Cab, Lower         | 1           |
| ▲  | 8           | 1009099                     | Pin, 0.50D 03.2L 2/.11H, 2 Cham         | 1           |
| ▲  | 9           | 1008571                     | Bracket Wldt, Tilt, Pump                | 1           |
| ▲  | 10          | 1009676                     | Plate, Fender, LH                       | 1           |
| ▲▽ |             | 771070                      | Hose Kit, Hyd, [830-III Cab Tilt]       | 1           |
| ▲▲ | 11          | 771079                      | Fitting, Hyd, Str, FM04/PM04            | 2           |
| ▲▲ | 12          | 767422                      | Fitting, Hyd, Tee, FF04/FM04/FM04, Run  | 1           |
| ▲▲ | 13          | 79874                       | Fitting, Hyd, E45, FM04/OM04            | 1           |
| ▲▲ | 14          | 762427                      | Fitting, Hyd, E90, FM04/OM04            | 1           |
| ▲▲ | 15          | 767255                      | Hose, Hyd, TC04, FF04E90/FF04Str, 034.5 | 3           |
| ▲▲ | 16          | 1011123                     | Fitting, Hyd, E45, FF04/FM04            | 1           |
| ▲  | 17          | 760660                      | Clip                                    | 2           |
| ▲  | 18          | 06935                       | Screw, Pan, M5 X 0.80 X 25, 4.8         | 2           |
| ▲  | 19          | 06964                       | Screw, Hex, M10 X 1.5 X 70, 8.8         | 2           |
| ▲  | 20          | 32485                       | Washer, Flat, 0.38, SAE                 | 14          |
| ▲  | 21          | 08179                       | Pin, Cotter, .094 X 1.00                | 2           |
| ▲  | 22          | 32985                       | Nut, Hex, Lock, .50-13, NL              | 1           |
| ▲  | 23          | 32486                       | Washer, Flat, 0.50, SAE                 | 6           |
| ▲  | 24          | 06969                       | Screw, Hex, M12 X 1.75 X 40, 8.8        | 3           |
| ▲  | 25          | 08711                       | Nut, Hex, Lock, .M12 X 1.75, NL         | 5           |
| ▲  | 26          | 06968                       | Screw, Hex, M12 X 1.75 X 35, 8.8        | 2           |
| ▲  | 27          | 32493                       | Washer, Flat, 0.50, Std                 | 2           |
| ▲  | 28          | 06963                       | Screw, Hex, M10 X 1.5 X 60, 8.8         | 4           |
| ▲  | 29          | 41430                       | Nut, Hex, Lock, .M10 X 1.5, NL          | 6           |
| ▲  | 30          | 39285                       | Screw, Hex, M10 X 1.5 X 40, 8.8         | 2           |
| ▲  | 31          | 03192                       | Screw, Hex, M10 X 1.5 X 30, 8.8         | 2           |
| ▲  | 32          | 763042                      | Washer, Flat, Belleville, M10           | 4           |
| ▲  | 33          | 763072                      | Washer, Flat, M10, Fender               | 5           |
| ▲  | 34          | 32895                       | Screw, Hex, .50-13 X 3.50, G5           | 1           |
| ▲  | 35          | 19066                       | Washer, Flat, #10                       | 2           |
| ▲  | 36          | 06549                       | Nut, Hex, Lock, .M5 X 0.80, NL          | 2           |
| ▲  | 37          | 04415                       | Sealant, 06.0ML [PST]                   | 1           |
| ▲  | 38          | 1009154                     | Label, Instr, Tilt, Cab                 | 1           |

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