



Orbital Scrub Head Kit

Models: T500, T500e,



This kit includes the necessary parts to install an Orbital Scrub Head on a headless T500 or T500e model.

NOTICE: This kit installation procedure requires access to the Tennant Service Application Software to reconfigure the machine to an orbital scrub head.

INSTALLATION INSTRUCTIONS:

Installation Time: 1 Hour

Special Tools Required: None

FOR SAFETY: Before servicing machine, stop on level surface, turn off machine, and set parking brake if equipped.

1. If batteries are installed, remove batteries from the machine.

FOR SAFETY: When handling batteries, wear protective gloves and eye protection. Avoid contact with battery acid.



Fig. 1

2. On a non-marring surface, with assistance, carefully lay the machine on its left side (Figure 2)

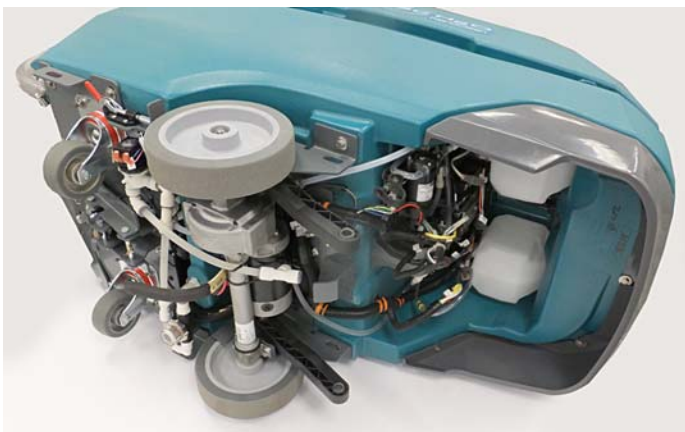


Fig. 2

3. Cut cable-tie, disconnect solution hose and unplug the transaxle harness connector. Carefully remove the transaxle from machine (Figure 3)

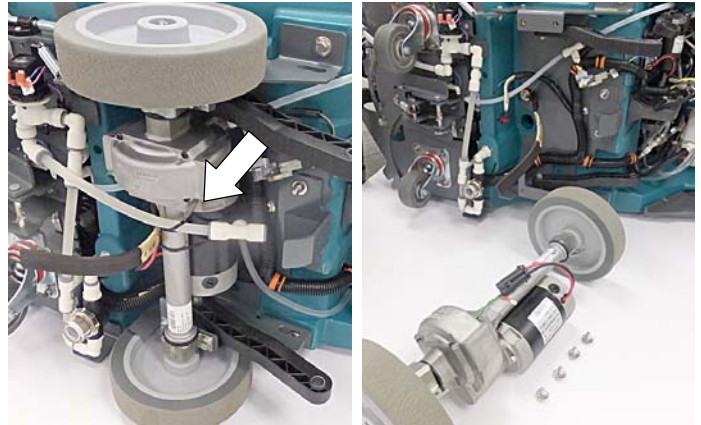


Fig. 3

4. Remove the two plastic lift arms from machine (Figure 4).

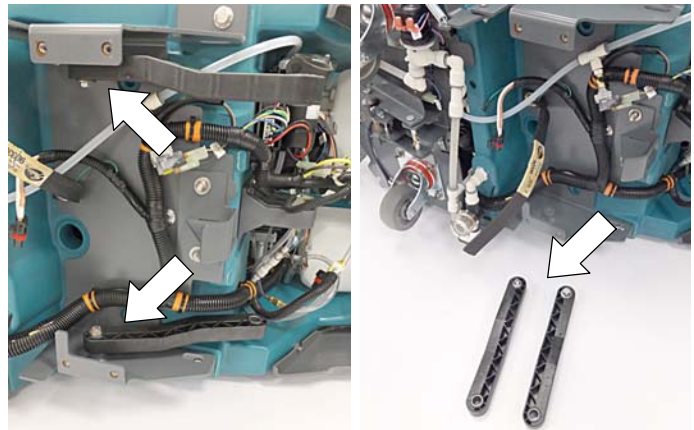


Fig. 4

5. Remove the metal stop bracket and plastic glide bracket from machine (Figure 5).

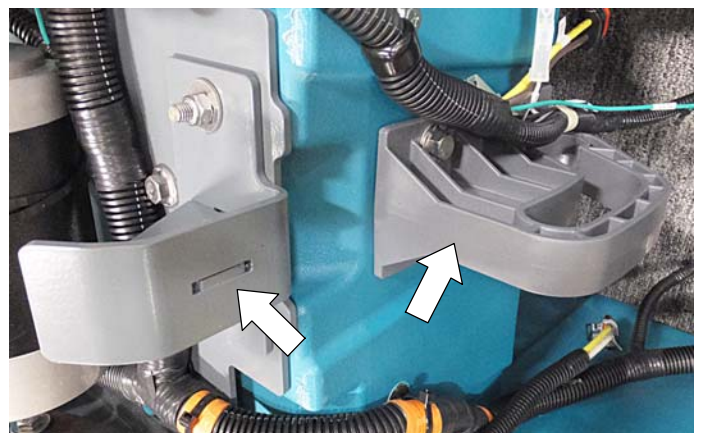


Fig. 5

6. Install the orbital scrub head lift bracket assembly to machine using 2 flange sleeves, 4 nylon flat washers, 2 metal flat washers and 2 M8x1.125x40 hex screws as shown (Figure 6).

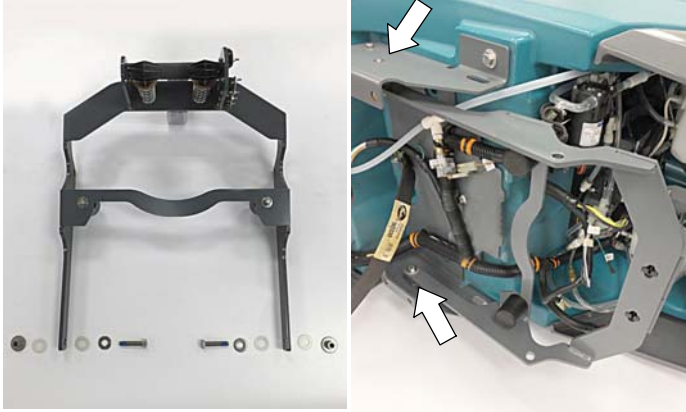


Fig. 6

7. Reinstall the transaxle and reconnect the harness connector and solution hose (Figure 7). Use provided cable-ties to secure solution hose and static strap to the transaxle as shown.

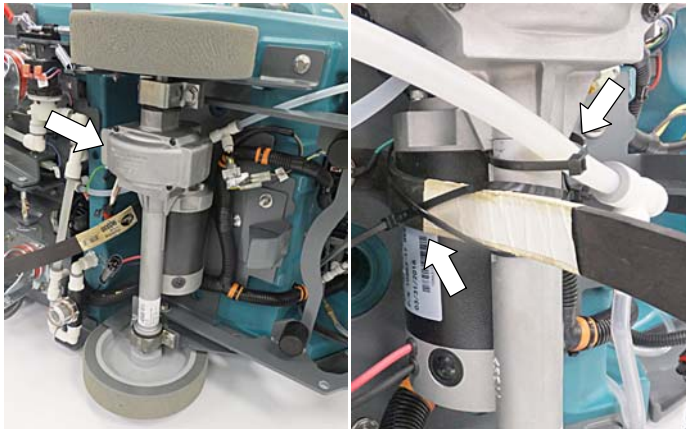


Fig. 7

8. Carefully stand machine upright.
9. Connect the machine's brush pressure electrical harness connectors to the lift bracket switches as shown (Figure 8). The connectors are labeled, TOP SWITCH, MID SWITCH and BOTTOM SWITCH.

NOTE: The T500e model only has two switches, top and bottom. Secure the unused Mid switch connector with a cable-tie.

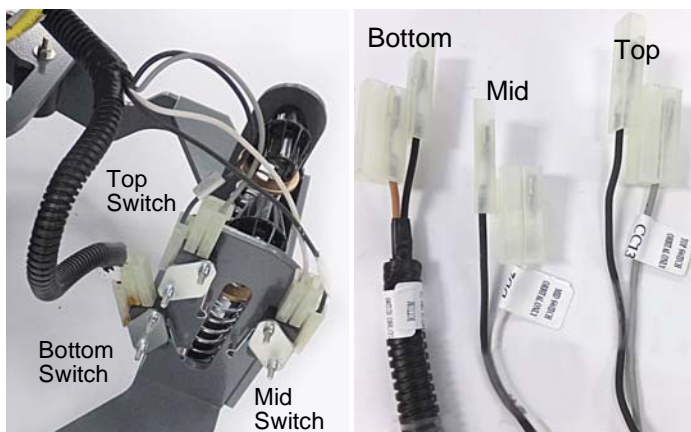


Fig. 8

10. T500e Model Only- Disconnect actuator from machine and install the actuator extend bracket as shown (Figure 9). Reconnect the actuator to the extend bracket.

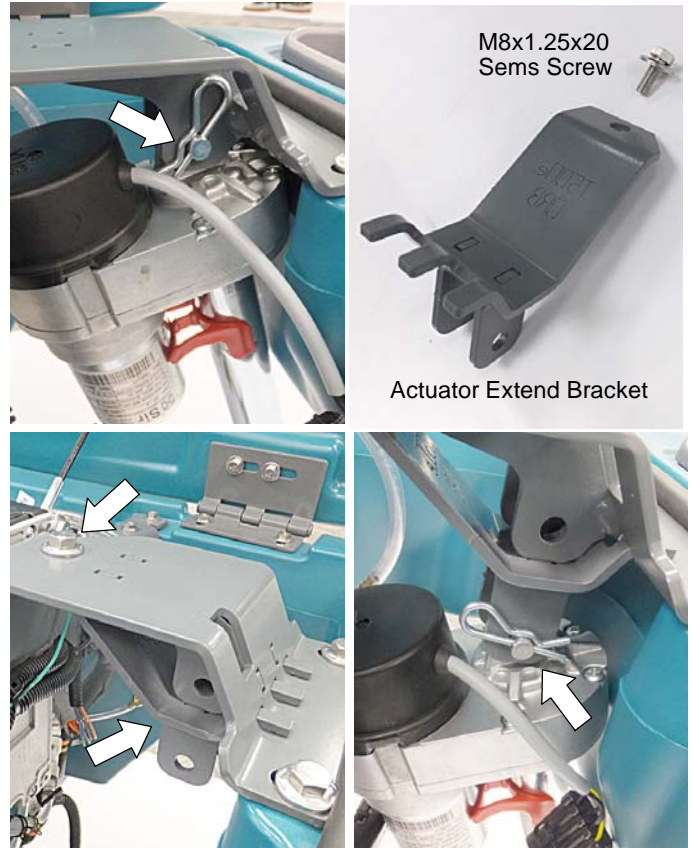


Fig. 9

11. Loosen the two screws on the orbital scrub head alignment bracket (Figure 10). Do not remove bracket.

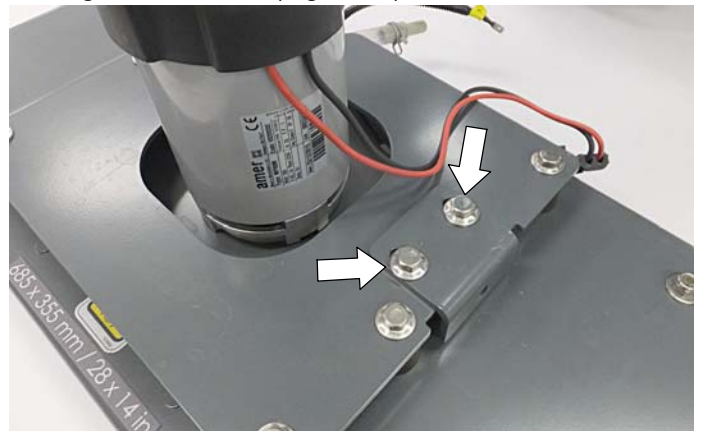


Fig. 10

12. Slide the orbital scrub head assembly under the scrub head lift bracket (Figure 11).

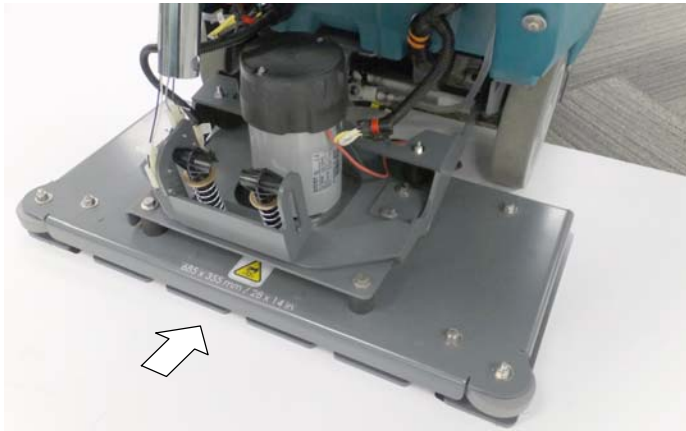


Fig. 11

13. Connect the scrub head's solution hose, ground wire and motor harness to machine (Figure 12).

NOTE: The machine wire harness is equipped with two motor harness connectors to accommodate the dual motor disk and cylindrical scrub heads. For the single motor orbital head use the connector with the white and yellow wires as shown below. Secure the second unused connector with a cable-tie.

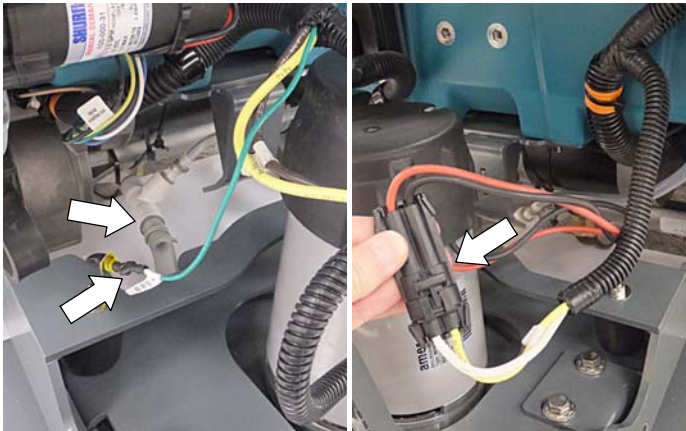


Fig. 12

14. Install two cable-tie clips into the two machine inserts as shown. Secure the motor harness connector with cable-ties as shown (Figure 13).

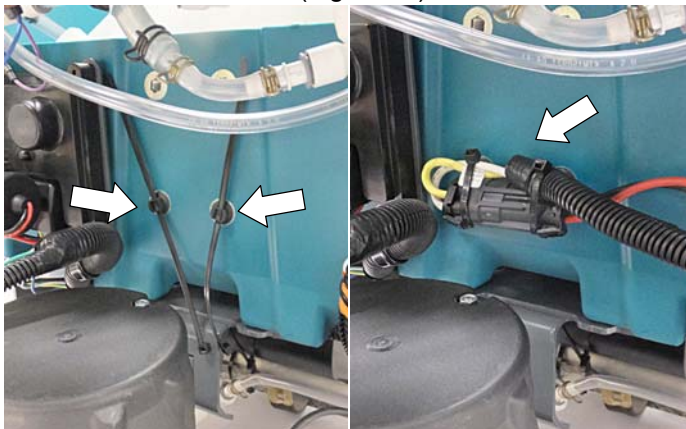


Fig. 13

15. Attach the right side of the orbital scrub head to the lift bracket using 1 flange sleeve, 2 nylon flat washers, 1 metal flat washers and 1 M8x1.125x30 hex screw (Figure 14).

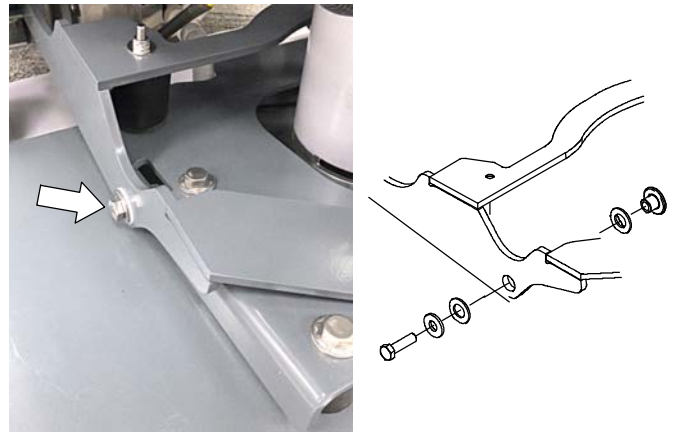


Fig. 14

16. Attach the left side of the orbital scrub head to the lift bracket using 1 flange sleeve, 2 nylon flat washers, 1 metal flat washers and 1 M8x1.125x30 hex screw (Figure 15). After attaching the scrub head tighten the two alignment bracket screws.

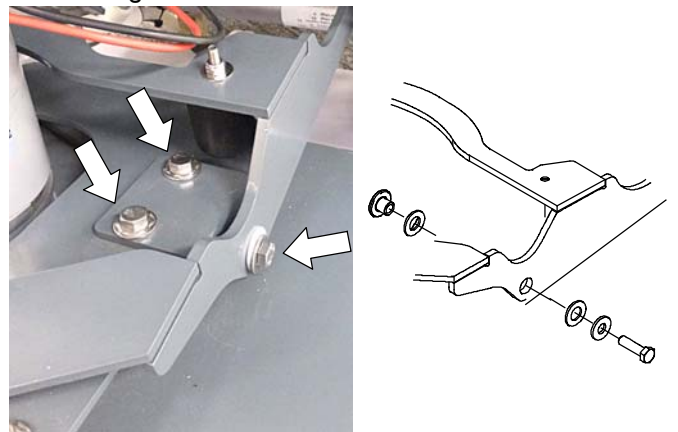


Fig. 15

17. Install batteries and connect battery cables as shown (Figure 16).



Fig. 16

18. Connect the actuator to the scrub head using the hardware shown (Figure 17). To lower the actuator in place, enter the manual mode as described below.



Fig. 17

Pro- Panel (LCD) Machines:

a. Enter manual mode code 083957530 (Figure 18).



Fig. 18

b. Select Manual Mode (Figure 19).



Fig. 19

c. Scroll to the “M01:ScrubAct” mode (Figure 20). Press the [+] button to set the actuator in the extend direction.

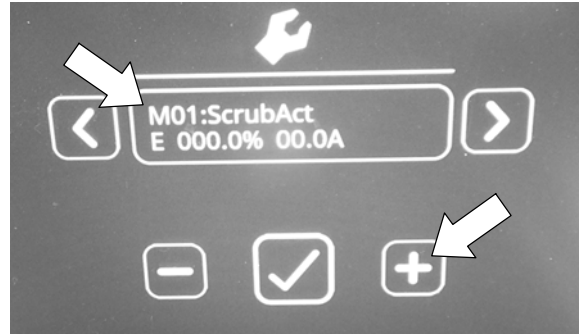


Fig. 20

d. Two people are required to perform this step. Grip actuator tube by hand and slowly pull the start bail to lower the actuator (Figure 21). Insert pin when tube is aligned with scrub head bracket.

IMPORTANT: DO NOT allow tube to spin freely. The set point will be lost.



Fig. 21

Membrane Panel Machines:

a. To enter manual mode, press and hold the 1- Step button while turning the key on. Release the button when the brush pressure light turns on (Figure 22).



Fig. 22

b. Press the brush pressure button to toggle the actuator direction. Set the direction to the (+) brush pressure indicator position as shown (Figure 23).



Fig. 23

c. Two people are required to perform this step. Grip actuator tube by hand and slowly pull the start bail to lower the actuator (Figure 24). Insert pin when tube is aligned with scrub head bracket.

IMPORTANT: DO NOT allow tube to spin freely. The set point will be lost.

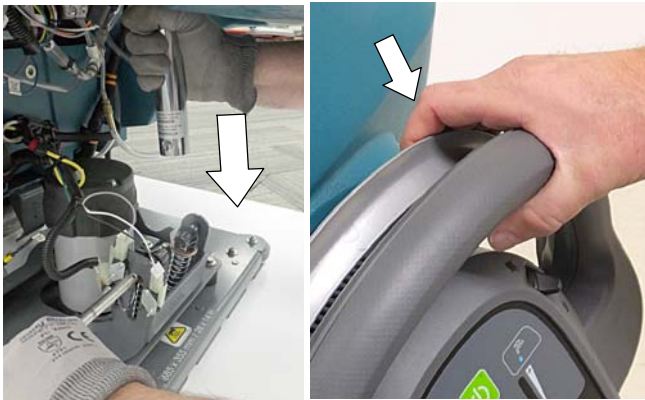


Fig. 24

19. Using the Tennant Service Application software, reconfigure machine with Orbital scrub head (Figure 25).

NOTE: The Service Application software is pre-installed on ServiceLink computers or can be downloaded from the "My Tennant" website.

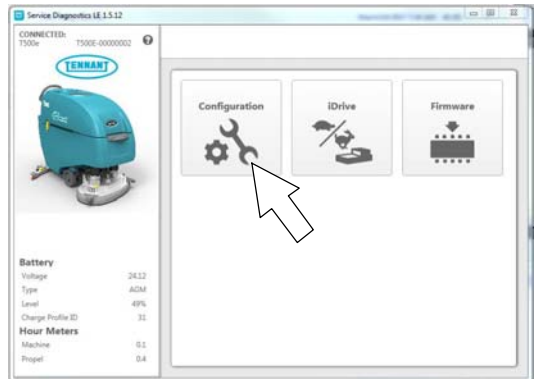
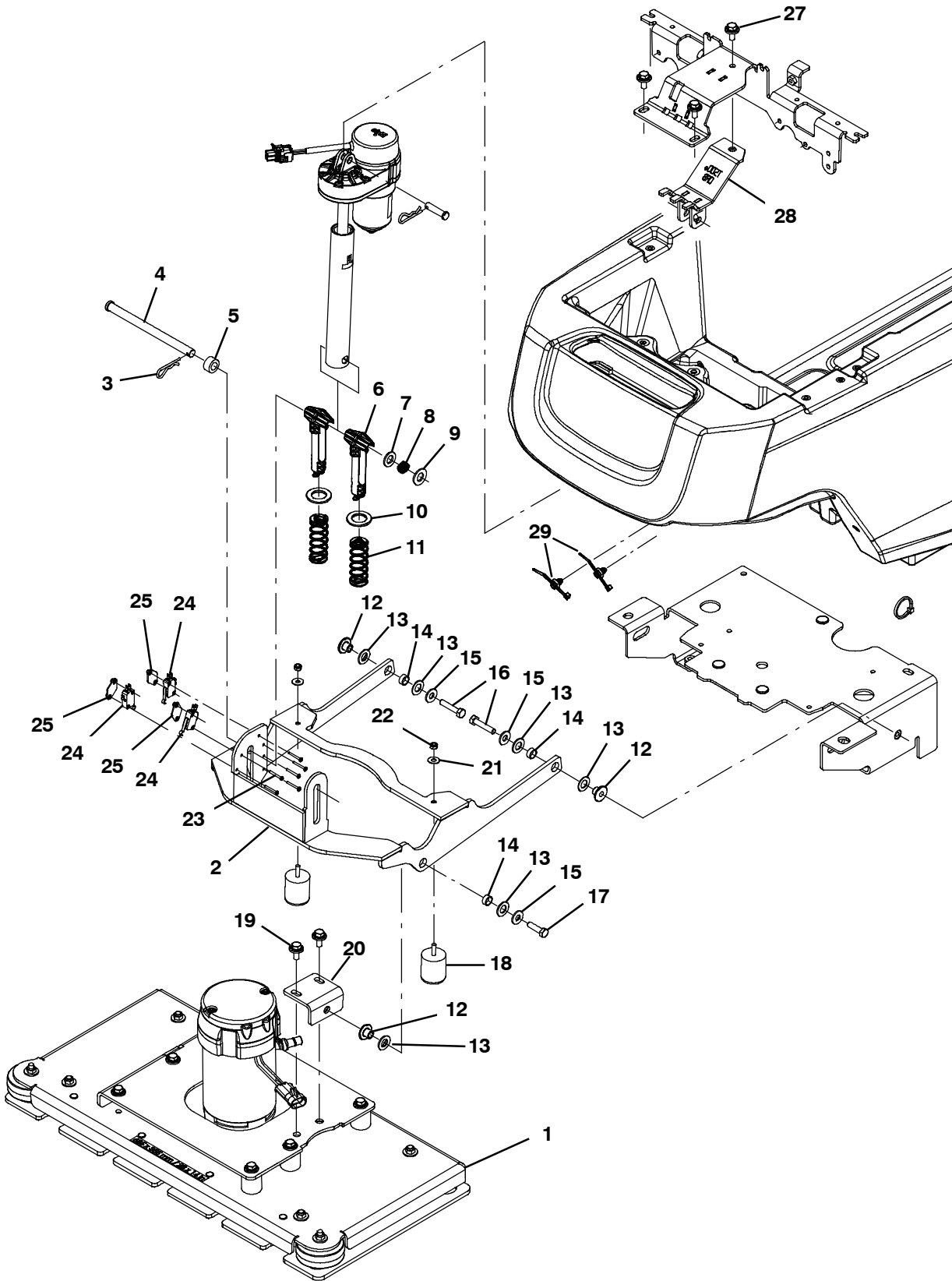


Fig. 25

Orbital Scrub Head Kit Parts List



Orbital Scrub Head Kit Parts List

| Ref. | Part No. | Description | Qty. |
|------|----------|--|------|
| 1 | - | Scrub Head Assembly, 700mm Orbital | 1 |
| 2 | 1221043 | Arm, Wldt, lift [Orbital] | 1 |
| 3 | 140626 | Pin, Cotter, Hair, 0.25d .125 Wir | 1 |
| 4 | 1226754 | Pin, Clevis, .50d X 7.00l | 1 |
| 5 | 1226759 | Spacer, .500 Id X .875 Od | 1 |
| 6 | 1224233 | Pin, Guide, Spring, Head | 2 |
| 7 | 1013936 | Washer, Flat, 0.51b 0.94d .10, Nyl | 1 |
| 8 | 1226640 | Spring, Wave, .512 Id X .709 Od X .375 | 1 |
| 9 | 32486 | Washer, Flat, 0.53b 1.06d .10, Stl, PI | 1 |
| 10 | 1225960 | Washer, Thrust, 0.89b 1.50d 0.13w, Bnz | 2 |
| 11 | 1227036 | Spring, Cmpr, 1.10od .085wir 03.0l | 2 |
| 12 | 1059990 | Sleeve, Flng, 0.32b 1.00/0.50d 0.6l, Ss | 3 |
| 13 | 608562 | Washer, Flat, 0.51b 0.94d .06, Nyl | 6 |
| 14 | 630188 | Bearing, Journal, .50id X .25l | 3 |
| 15 | 01685 | Washer, Flat, 0.38b 0.88d .08, Ss | 3 |
| 16 | 74440 | Screw, Hex, M8 X 1.25 X 40, NI, Ss | 2 |
| 17 | 1016399 | Screw, Hex, M8 X 1.25 X 30, NI, Ss | 1 |
| 18 | 1212543 | Isolator, Neoprene, 1.25" X 1.25", M8 | 2 |
| 19 | 1020341 | Screw, Hex, M8 X 1.25 X 20, Ss, Sems | 2 |
| 20 | 1224295 | Brkt Wldt, Lift | 1 |
| 21 | 01685 | Washer, Flat, 0.38b 0.88d .08, Ss | 2 |
| 22 | 08713 | Nut, Hex, Lock, M8 X 1.25, NI, Ss | 2 |
| 23 | 33933 | Screw, Pan, Phl, M3 X 0.50 X 25, Ss | 6 |
| 24 | 1215716 | Switch, 0.1a, Spdt [Micro, Gold Contacts] (For T500e kit it requires 2 switches) | 3 |
| 25 | 1013705 | Plate, Thread, Switch, M3 Nut, 96hr PI | 3 |
| 26 | 49263 | Tie, Cable, Nyl, 11.4l .19w 3.0 Max D | 5 |
| 27 | 1020341 | Screw, Hex, M8 X 1.25 X 20, Ss, Sems (Included in T500e Kit 9015315) | 3 |
| 28 | 1225990 | Bracket Wldt, Mount, Actuator (Included in T500e Kit 9015315) | 1 |
| 29 | 1210807 | Wire, Tie [W/.25" Fir Tree Clip] | 2 |