



# INSTRUCTION BULLETIN

No. 340040  
Machine: 5700  
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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 374009, 374010, and 374011

## SYNOPSIS:

This kit contains the parts needed to install/replace the scrub head on 5700 machines.  
Please follow step-by-step instructions.

## SPECIAL TOOLS / CONSIDERATIONS:

(Estimated time to complete: 2 hours)

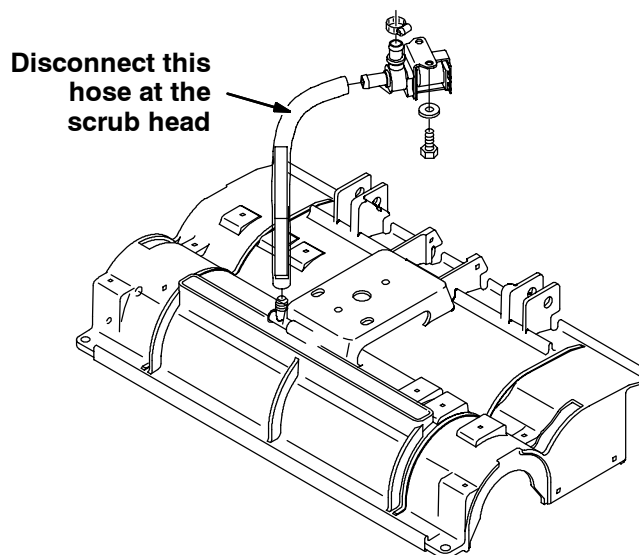
## PREPARATION:

**FOR SAFETY:** Before leaving or servicing machine, stop on level surface and set parking brake (if equipped on machine).

1. Lower the scrub head to the floor. Turn off the machine and remove the key.
2. Drain the solution tank. Raise the solution tank and engage the safety arm.
3. Remove the four M8 screw knob and washers holding the front cover to the machine. Remove the cover.

## SCRUB HEAD REMOVAL: (Refer to Fig. 1, 2, 3, 4, 5, and 6)

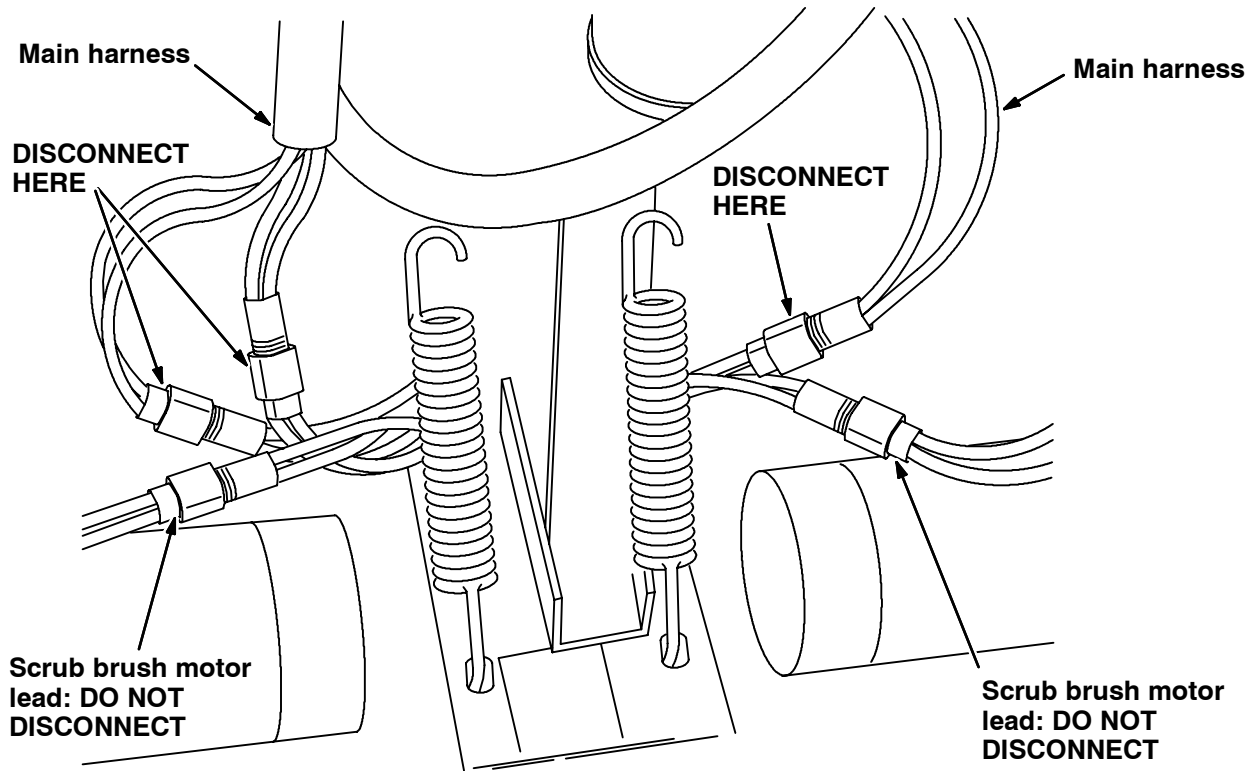
1. Disconnect the solution hose running from the solution tank to the scrub head tee fitting. (Refer to Fig. 1)



**FIG. 1 - Disconnect Solution Hose**

2. Unplug the **three** (two pin) scrub head wire harness connectors from the main harness. (Refer to Fig. 2)

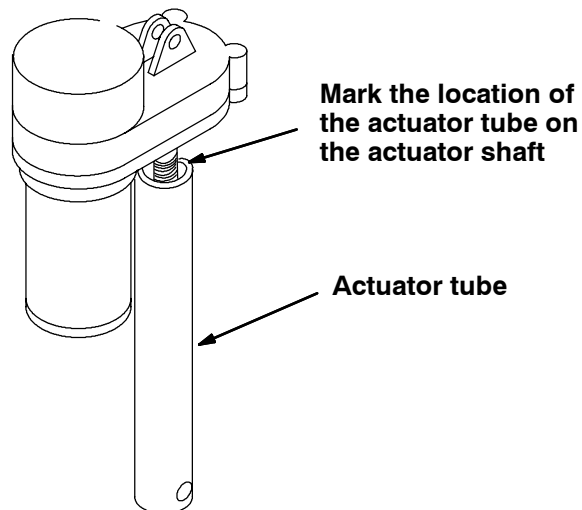
*NOTE: Do not disconnect the scrub brush motors from scrub head harness.*



**FIG. 2 - Unplug Scrub Head Wire Harness**

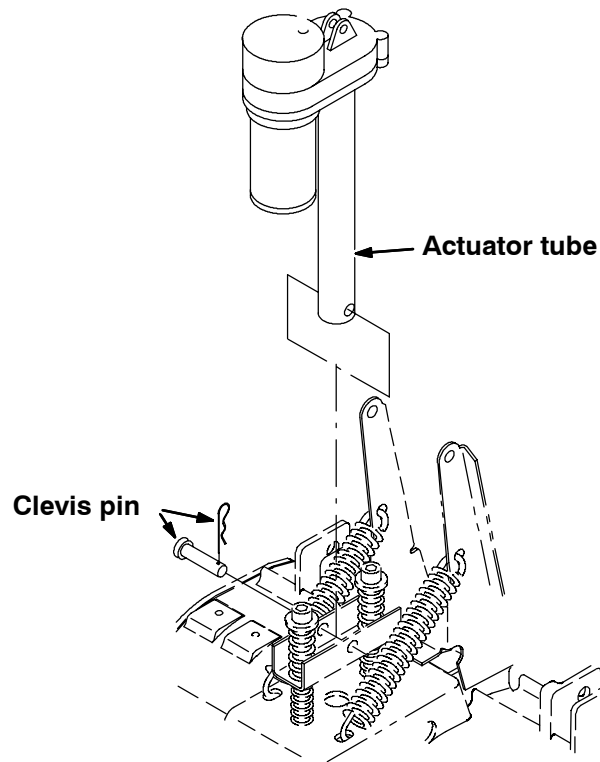
3. Use tape or a marking pen to mark the location of the actuator tube on the actuator shaft. (Refer to Fig. 3)

*NOTE: Be sure to mark the actuator position to keep the scrub head adjustment set correctly.*



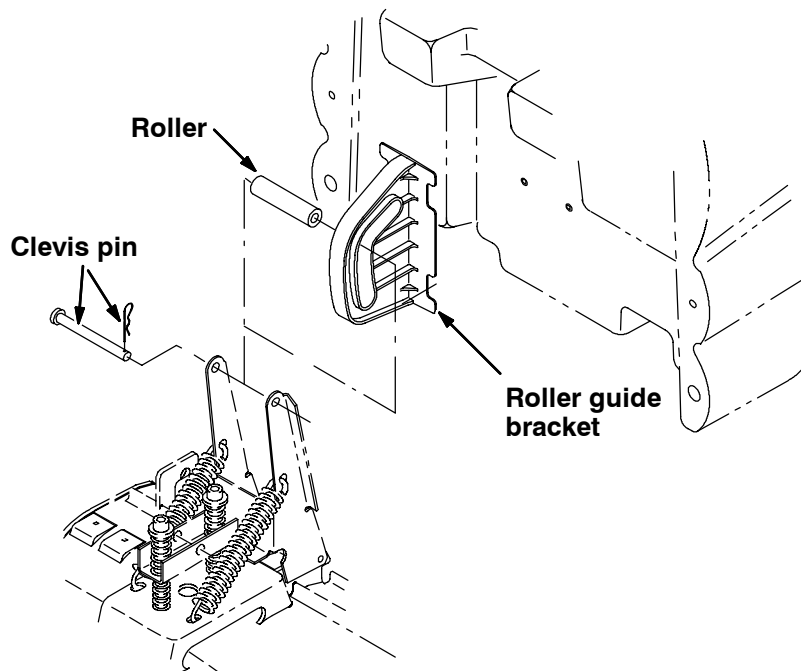
**FIG. 3 - Mark The Actuator Tube**

4. Remove the cotter pin and clevis pin from the bottom of the actuator tube. (Refer to Fig. 4)



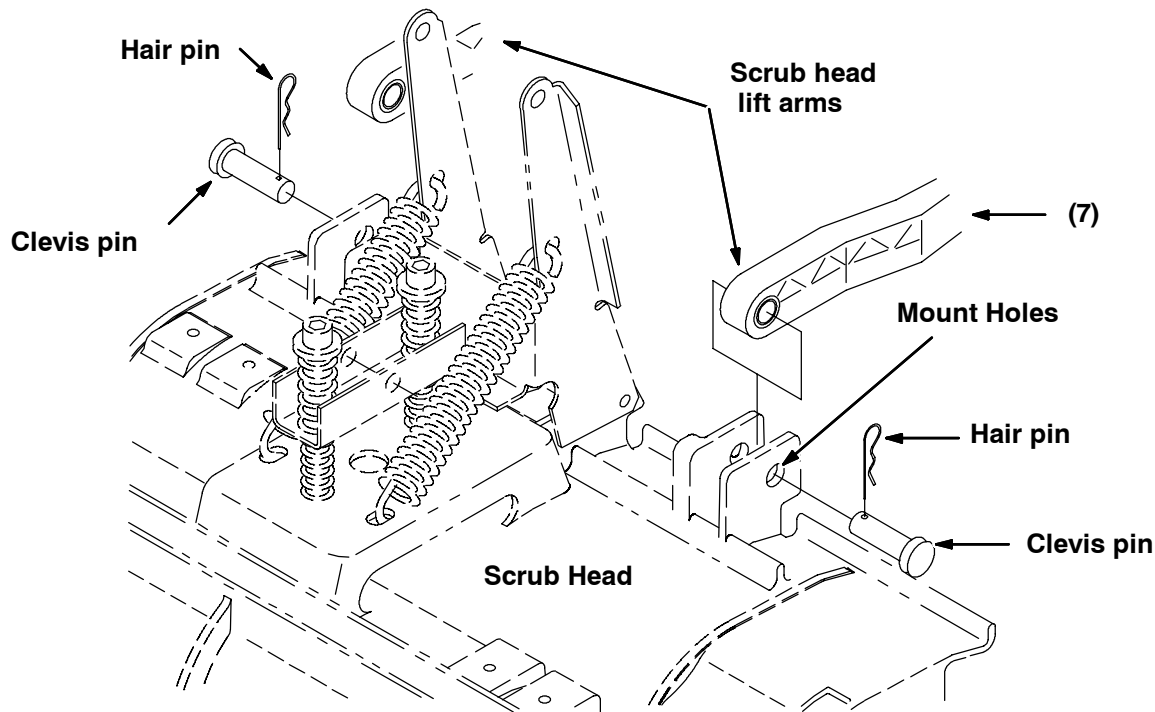
**FIG. 4 - Remove Actuator Tube Cotter And Clevis Pin**

5. Remove the clevis pin and roller from the scrub head roller guide bracket. (Refer to Fig. 5)



**FIG. 5 - Remove Clevis And Roller From Guide Bracket**

6. Remove the two hair pins and two clevis pins connecting the scrub head to the scrub head lift arms. (Refer to Fig. 6)
7. Pull the scrub head out and away from the machine.



**FIG. 6 - Remove Lift Arm Clevis Pins**

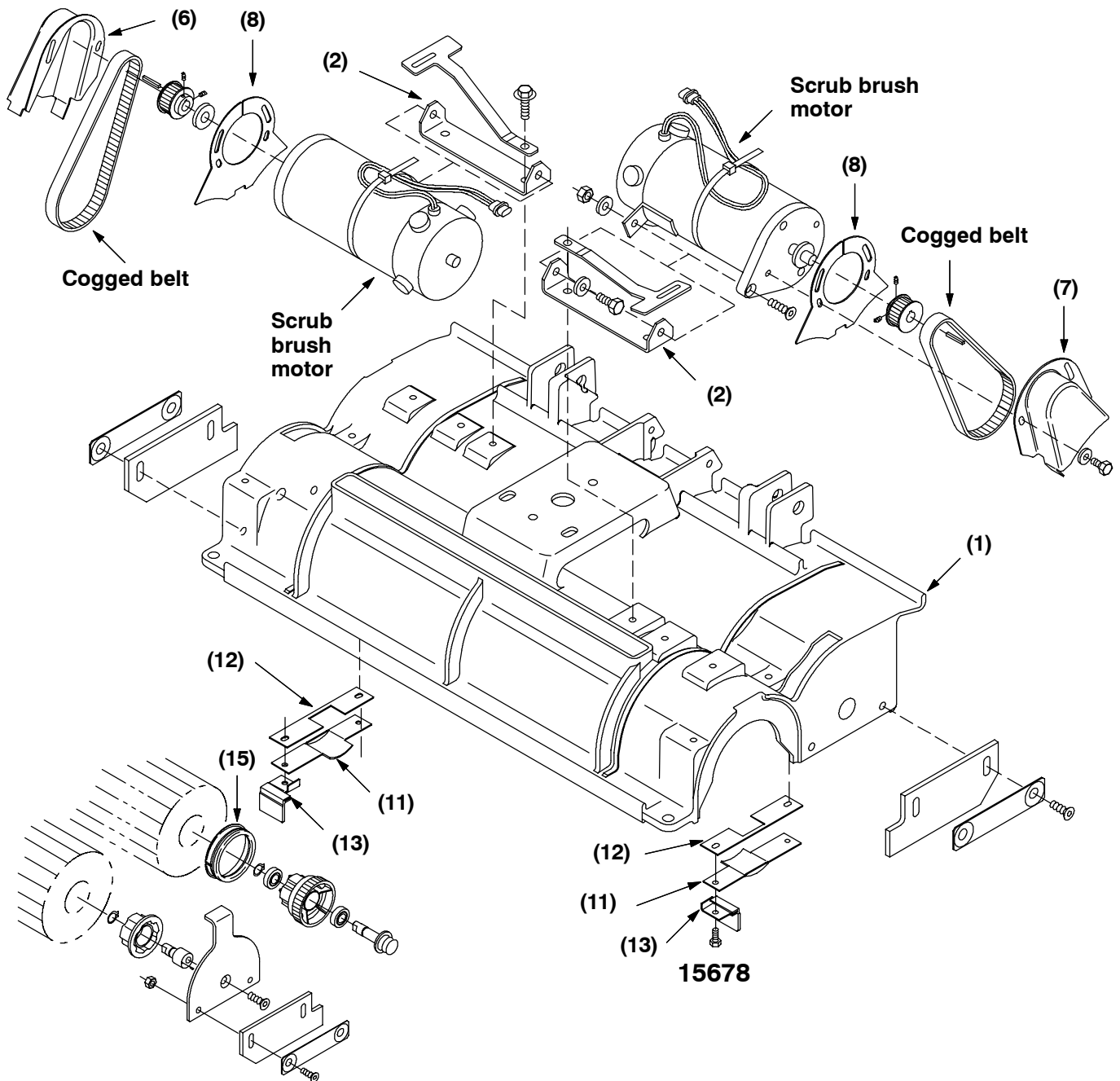
**SCRUB HEAD ASSEMBLY: (Refer to Fig. 7)**

1. Remove all parts from the old scrub head. Discard the old scrub head. (Refer to Fig. 7)
2. Save all existing hardware and parts except the following: bottom shields, deflector skirts, motor mounts, right and left hand belt guards, and the belt shields. (Refer to Fig. 7)
3. Install the old drive plug assembly to the scrub head casting. Use blue thread adhesive on the shaft threads
4. Install the shield gasket (12) on the scrub head casting (1) with the sticky side toward the scrub head. (Refer to Fig. 7)
5. Use four M6 x 20mm thread forming screws (14) to install the shield bracket (11) and water deflector (13) on the bottom of the scrub head. (Refer to Fig. 7)
6. Install the new ring seals (15). Apply RTV sealant (19) around the ring seals.
7. Use four M8 x 25mm thread forming hex screws to install the new motor mount brackets (2) and old door springs on scrub head casting (1).
8. Install the new motor adjustment bolts (16) in the new scrub head (1). Use M8 thread forming screws to make the threads. (Refer to Fig. 7)
9. Install the motor assemblies and brush drive belts on the new scrub head. Use M8 x 25mm flat screws and M8 x 20 mm screws and nuts on the tab end of the motor. (Refer to Fig. 7)

**NOTE:** Use grease or oil on the thread rolling hardware to ease installation.

10. Use the motor adjustment bolts (16) to tension the belt by applying 2.5 – 2.7 lbs. of force per belt at the middle of the span that is opposite the belt travel with a deflection of 0.10 inch. (Refer to Fig. 7)

11. Install the shields (8) and belt guards (6 & 7) with four M6 x 16mm hex screws (9) and four 1/4 in. flat washers (10). Use RTV (19) to fill unused holes in the scrub head. (Refer to Fig. 7).
12. Tighten the hardware. Use blue loctite (20) on the skirt mounting screws, belt adjusting screws, and cogged belt mounting shaft. (Refer to Fig. 7)



**FIG. 7 - Scrub Head Assembly**

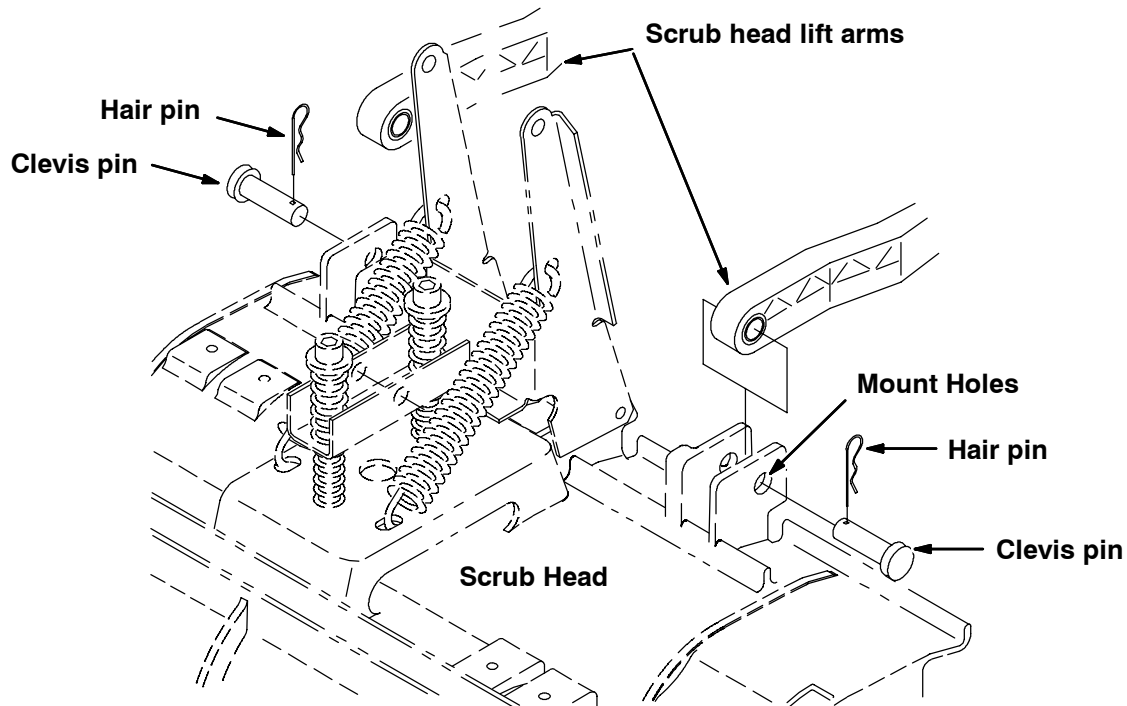
13. Install the old skirts and retainers to the new casting using four M8 x 25mm screws. Use M8 thread forming screw to make threads in the casting.

**NOTE:** Use grease or oil on the thread rolling hardware to ease installation.

14. Install the new scrub head in the machine.

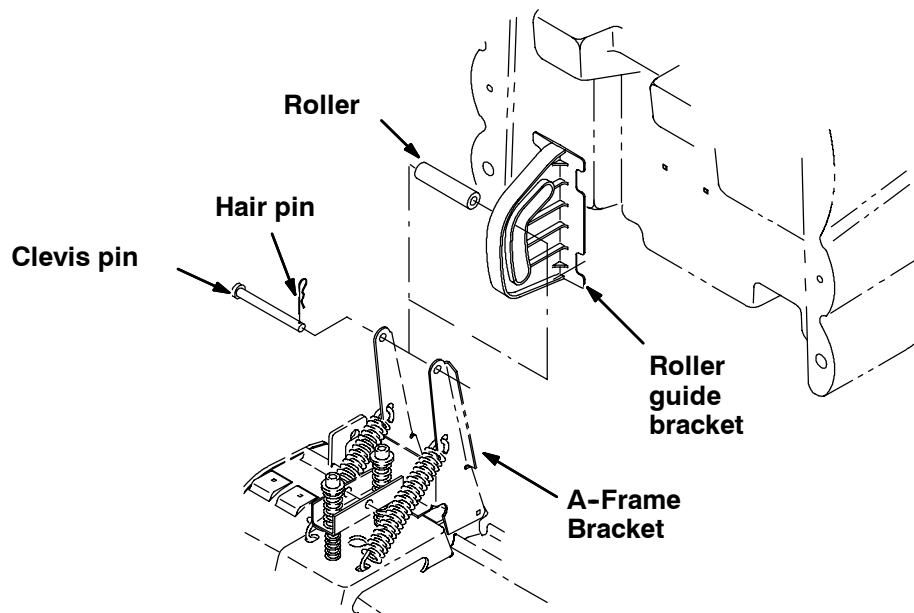
## SCRUB HEAD INSTALLATION: (Refer to Fig. 8, 9, 10, 11, 12, and 13)

1. Position the scrub head in front of the machine.
2. Align the mounting holes in the rear of the scrub head with the holes in the end of the scrub head lift arms. Install the two clevis pins and two hair pins. (Refer to Fig. 8)



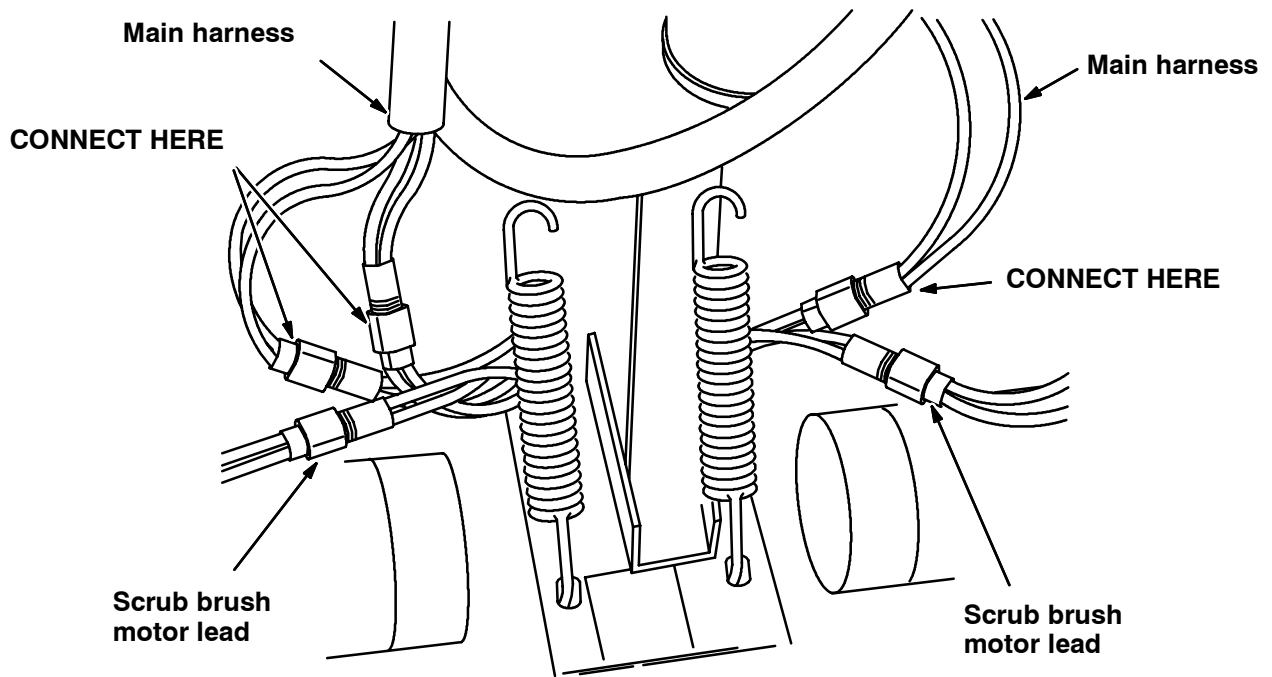
**FIG. 8 - Install Lift Arm Clevis Pins**

3. Align the mounting hole in the top of the scrub head A-frame bracket with the roller after it is placed through the roller guide bracket slot. Install the long clevis pin and hair pin. (Refer to Fig. 9)



**FIG. 9 - Install Clevis And Roller From Guide Bracket**

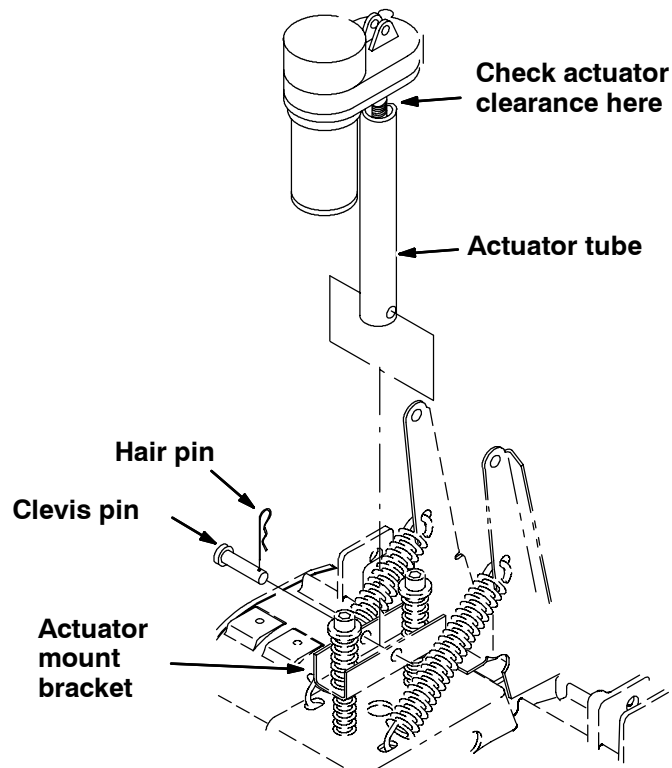
4. Plug the scrub head wire harness into the main harness. (Refer to Fig. 10)



**FIG. 10 - Connect Scrub Head Wire Harness**

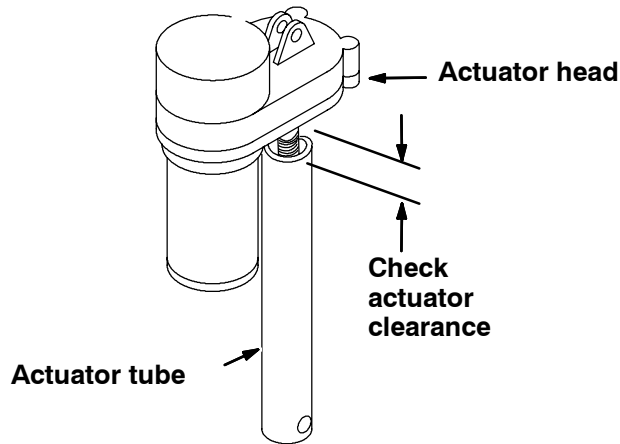
**NOTE:** If changing a scrub head, be sure the actuator tube is aligned with the mark made on the actuator shaft. If not, turn the actuator tube until it is aligned.

5. Align the mounting hole in the bottom of the actuator tube with the hole in the scrub head actuator mount bracket. Install the clevis and hair pin. (Refer to Fig. 11)



**FIG. 11 - Connect Actuator Tube Cotter And Clevis Pin**

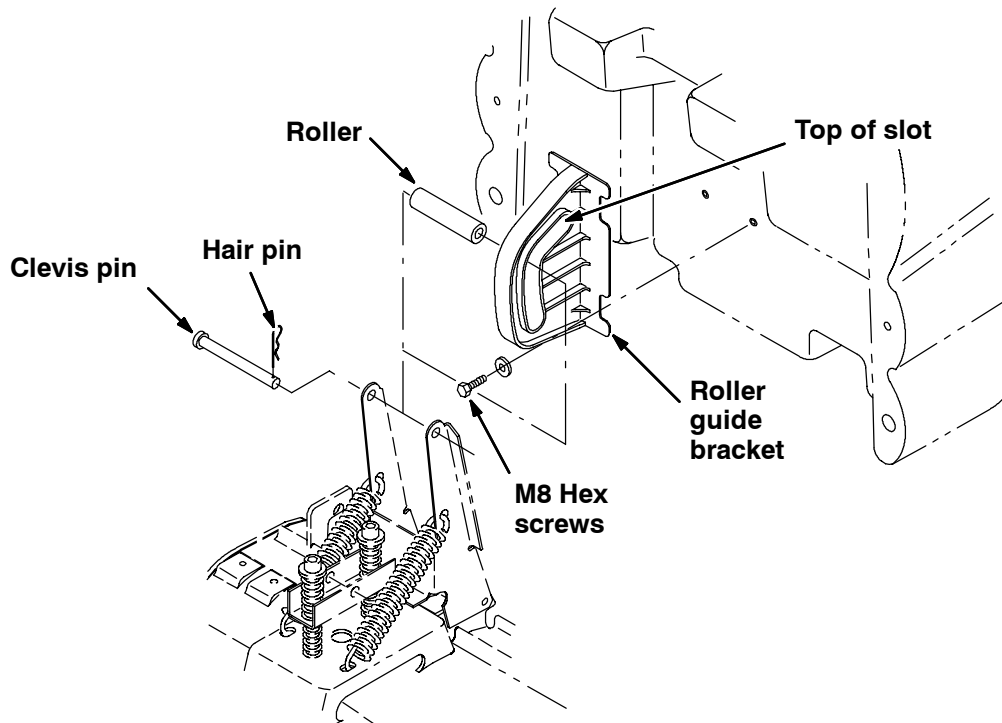
6. **5700:** Check the actuator by raising the scrub head until the top of the actuator tube is 9 mm (3/8 in.) from the bottom of the actuator head. If the actuator tube does not stop at that dimension with the brush switch on, remove the bottom clevis pin and turn the tube to achieve the proper dimension, then reinstall the clevis pin. (Refer to Fig. 12)



**FIG. 12 - Check The Actuator Tube Clearance**

**5700XP and 5700XPS:** Check the actuator by turning on the key and gently rotating the speed handle forward until the propel circuit is lightly activated. Press the *scrub brush up and off* button. When the scrub brush stops going up, press the *scrub brush up and off* button once more. This will properly adjust the actuator.

7. The scrub head guide roller should almost be at the top of the slot on the roller guide bracket. If the roller is not at the top of the slot, loosen the four M8 hex screws and adjust the roller guide bracket so the roller just touches or is slightly away from the end of the slot. Retighten the screws to 18 – 24 Nm (15 – 20 ft lb). (Refer to Fig. 13)



**FIG. 13 - Check Scrub Head Guide Roller Clearance**



### ADJUST CYLINDRICAL BRUSH SCRUB HEAD (Refer to FIG. 14, 15, 16, and 17)

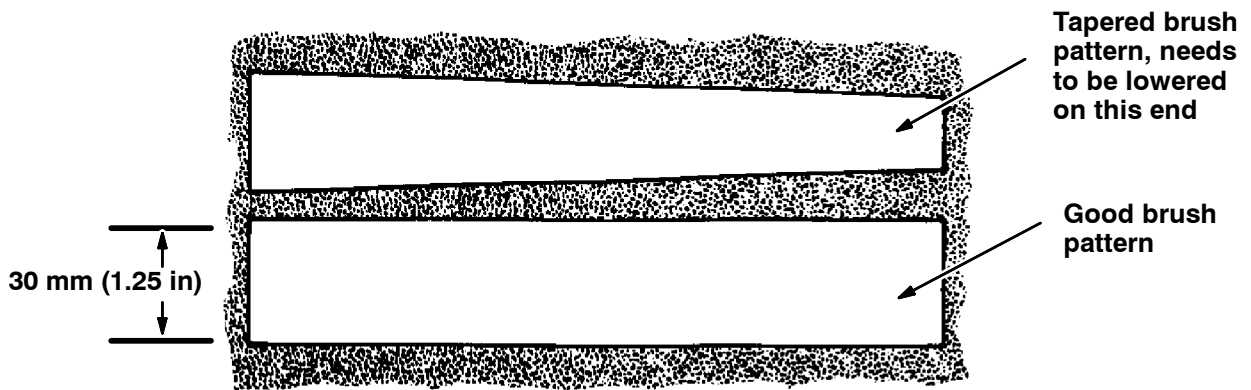
1. Apply chalk, or some other material that will not blow away easily, on a smooth, level floor.
2. With the scrub head up, position the machine scrub head over the test area.
3. If the machine is equipped with a parking brake, engage it now. Lightly turn the propel handles just enough to allow the scrub head to lower and operate, but not enough to move the machine forward.

*NOTE: Be sure the scrub head side skirts are not holding the scrub head and brushes off the floor when checking the brush pattern. It may be necessary to adjust the skirts up or pull them to the side.*

4. Lower the scrub head and allow the brushes to spin on the floor in one spot for 15 to 20 seconds.

*NOTE: If no chalk or other material is available, allow the brushes to spin for 1 to 2 minutes.*

5. Raise the scrub head and drive the machine from the test area. Check both brush patterns. They should be the same width, *approximately 30 mm (1.25 in)*, from side to side. If both brush patterns look good, the adjustment procedure is complete. If either brush shows a tapered pattern proceed to Step 6. (Refer to FIG. 14)



**FIG. 14 - Cylindrical Scrub Head Brush Pattern**

6. Turn off the machine and remove the key. Remove the front cover. Remove the idler plate from the brush that showed a taper. (Refer to FIG. 15 and FIG. 16)

*NOTE: Be sure to install the idler doors on the side they were removed from to avoid having to readjust the brush taper.*

7. Put a open end wrench on the flat of the idler eccentric shaft, loosen the flat head screw with a 7/32 in. allen wrench, and turn eccentric shaft to raise or lower that end of the brush. **Retighten** the flat head screw while holding the flat of eccentric shaft. (Refer to FIG. 15 and FIG. 16)

8 Reinstall the idler and recheck the brush pattern. Repeat these steps until the brush pattern is even. (Refer to FIG. 14)

**NOTE:** Fall the idler doors onto side from which they were previously removed to avoid having to readjust the brush taper.

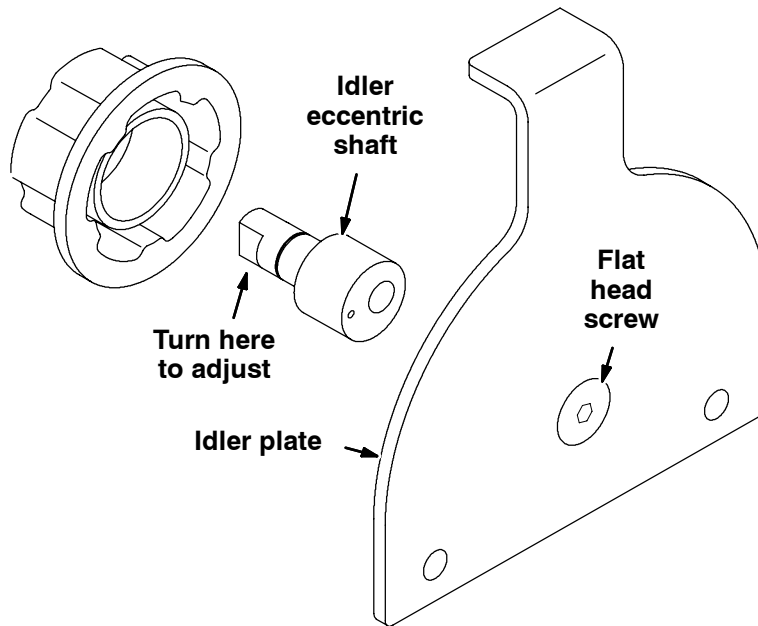


FIG. 15 - Idler Plate Breakdown

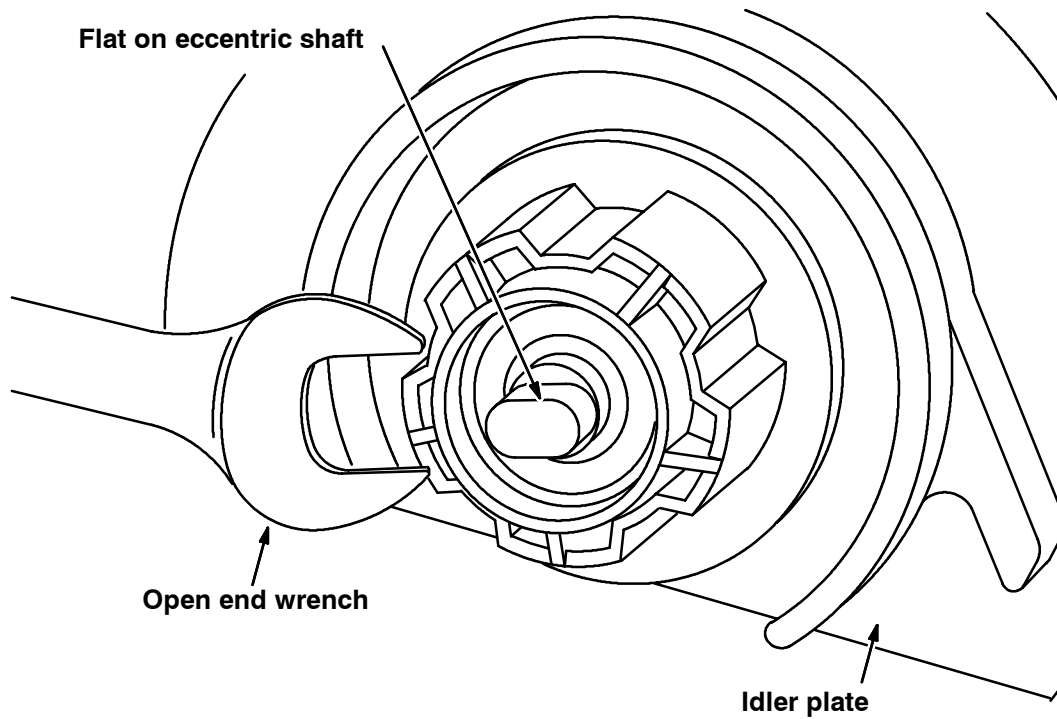
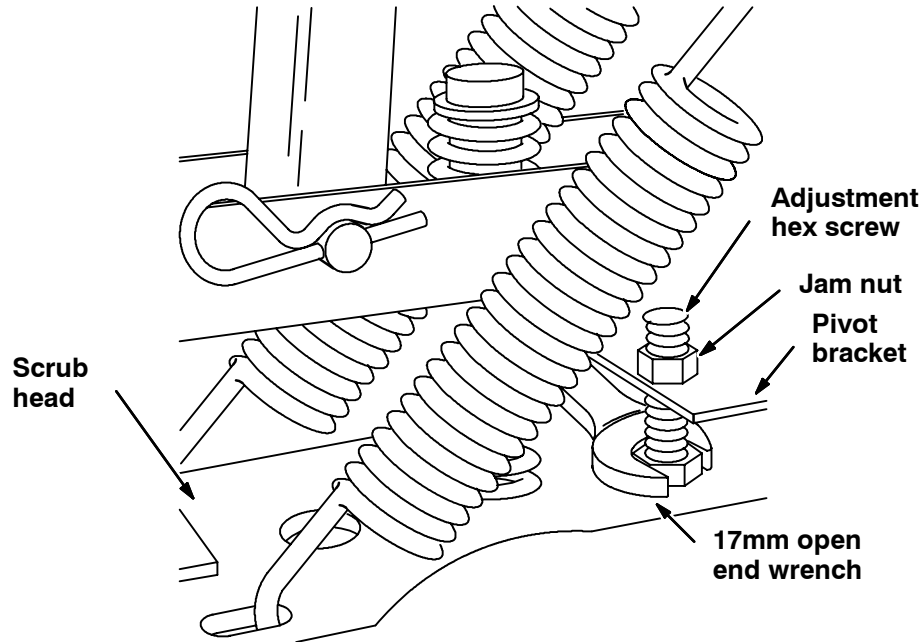


FIG. 16 - Cylindrical Brush Taper Adjustment

9. If the brush patterns are not both  $40 \pm 5$  mm ( $1.5 \pm 0.25$  in) wide, use the M10 hex screw, located on the pivot bracket, to adjust the angle of the scrubber head. Retighten the M10 jam nut. (Refer to FIG. 17)



**FIG. 17 - Scrub Head Adjustment Screw**

**BILL OF MATERIALS FOR SCRUB HEAD REPLACEMENT KIT 374009 (28 IN.)**

Ref.	TENNANT Part No.	Description	Qty.
1	223571	Scrub head housing (28 in.)	1
2	223564	Motor mount bracket	2
3	76099	Thread forming screw, M8x25mm	4
4	74077	Flat screw M8x25mm	2
5	09740	Hex screw, S.S., M8x20mm	2
6	223560	Right hand belt guard	1
7	223561	Left hand belt guard	1
8	223563	Belt shield	2
9	06942	Hex screw, M6x16mm	4
10	01684	Flat washer, 1/4 in.	4
11	223566	Shield bracket	2
12	223569	Shield gasket	2
13	223568	Water deflector	2
14	12459	Thread forming screw, M6x20mm	4
15	222820	Ring seal	2
16	33401	Hex screw, M8x50mm (full thread)	2
17	07786	Hex nut, M8	4
18	07810	Flat screw, M8x25mm	4
19	08317	RTV sealant (3 oz.)	1
20	32676	Thread adhesive, 242 blue	1

**BILL OF MATERIALS FOR SCRUB HEAD REPLACEMENT KIT 374010 (32 IN.)**

<b>Ref.</b>	<b>TENNANT Part No.</b>	<b>Description</b>	<b>Qty.</b>
1	<b>223573</b>	Scrub head housing (28 in.)	1
2	223564	Motor mount bracket	2
3	76099	Thread forming screw, M8x25mm	4
4	74077	Flat screw M8x25mm	2
5	09740	Hex screw, S.S., M8x20mm	2
6	223560	Right hand belt guard	1
7	223561	Left hand belt guard	1
8	223563	Belt shield	2
9	06942	Hex screw, M6x16mm	4
10	01684	Flat washer, 1/4 in.	4
11	223566	Shield bracket	2
12	223569	Shield gasket	2
13	223568	Water deflector	2
14	12459	Thread forming screw, M6x20mm	4
15	222820	Ring seal	2
16	33401	Hex screw, M8x50mm (full thread)	2
17	07786	Hex nut, M8	4
18	07810	Flat screw, M8x25mm	4
19	08317	RTV sealant (3 oz.)	1
20	32676	Thread adhesive, 242 blue	1

**BILL OF MATERIALS FOR SCRUB HEAD REPLACEMENT KIT 374011 (36 IN.)**

<b>Ref.</b>	<b>TENNANT Part No.</b>	<b>Description</b>	<b>Qty.</b>
1	<b>223575</b>	Scrub head housing (28 in.)	1
2	223564	Motor mount bracket	2
3	76099	Thread forming screw, M8x25mm	4
4	74077	Flat screw M8x25mm	2
5	09740	Hex screw, S.S., M8x20mm	2
6	223560	Right hand belt guard	1
7	223561	Left hand belt guard	1
8	223563	Belt shield	2
9	06942	Hex screw, M6x16mm	4
10	01684	Flat washer, 1/4 in.	4
11	223566	Shield bracket	2
12	223569	Shield gasket	2
13	223568	Water deflector	2
14	12459	Thread forming screw, M6x20mm	4
15	222820	Ring seal	2
16	33401	Hex screw, M8x50mm (full thread)	2
17	07786	Hex nut, M8	4
18	07810	Flat screw, M8x25mm	4
19	08317	RTV sealant (3 oz.)	1
20	32676	Thread adhesive, 242 blue	1

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