



INSTRUCTION BULLETIN

No. 340115
Machine: 7200
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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 369441** (900 mm [36 in] Rollout Battery Kit), **369447** (900 mm [36 in] Rollout Battery Pack Kit), and **369862** (700mm [28 in] Rollout Battery Kit).

SYNOPSIS:

This kit contains the parts needed to install the Rollout Battery option on 7200 machines. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: Touch up paint
(Estimated time to complete: 4 hours)

PREPARATION:

1. Turn on the machine and park the machine on a clean level surface.
2. Lower the scrub head.
3. Turn off the machine and remove the key.

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

INSTALLATION: (Refer to Fig. 1 through Fig. 10) Scrub Head Lift Group Removal, Disk Brush System:

1. Remove the bumper from the right side of the machine. Set the seven mounting bolts aside.
2. Locate the tool lift channel weldment underneath the machine. Refer to Fig. 3.
3. Remove the two front clevis pins from the tool lift channel weldment, disconnecting the tool lift channel weldment from the machine and the actuator. Set the pins aside. Refer to Fig. 3.

NOTE: The rear clevis pin cannot be removed without removing the disc motor on the head side of the clevis pin.

4. Turn the machine on and raise the lift actuator once it is disconnected from the scrub head.
5. Turn off the machine, remove the key, and disconnect the battery cables from the batteries.



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

6. Disconnect the two stabilizer bars from the machine. Refer to Fig. 3.

NOTE: Do not disassemble or adjust the length of the stabilizer bars to remove them. Remove the nuts mounting the ends to the machine for disassembly.

7. Disconnect the water line from the plastic tee fitting. Refer to Fig. 1.
8. Disconnect the electric motors from the main wiring harness.
9. Carefully slide the scrub head group from underneath the right side of the machine.

NOTE: Note which motor the head of the rear clevis pin is facing.

10. Remove the scrub brush on the head side of the clevis pin. Refer to Fig. 4.

11. Remove the brush drive hub. Set aside the brush, hub and mounting hardware. Refer to Fig. 4.
12. Carefully turn the scrub head over and remove the four bolts mounting the brush motor to the disk weldment. Refer to Fig. 4.
13. Lift the brush motor off the head weldment. Refer to Fig. 4.
14. Remove the rear clevis pin and the channel weldment.
15. Insert two flange bearings (11) in the rear holes of the new weldment (10). Replace the old channel weldment with the new weldment (10). Replace the clevis pin. Refer to Fig. 7.
16. Reassemble the motor assembly. Refer to Fig. 4.
17. Remove the lift bracket from underneath the machine and four screw buttons mounting it to the machine. Refer to Fig. 3.

Scrub Head Lift Group Removal, Cylindrical Brush System:

1. Remove the bumper from the right side of the machine. Set the seven mounting bolts aside.
2. Locate the tool lift channel weldment underneath the machine. Refer to Fig. 3.
3. Remove and set aside the two front clevis pins with their cotter pins from the tool lift channel weldment. Refer to Fig. 3.
4. Turn the machine on and raise the lift actuator once it is disconnected from the scrub head.
5. Turn off the machine and disconnect the battery cables from the batteries.



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

NOTE: The rear clevis pin cannot be removed without removing the cylindrical scrub head drive motor on the head side of the clevis pin.

6. Disconnect the two stabilizer bars from the machine. Refer to Fig. 3.

NOTE: Do not disassemble or adjust the length of the stabilizer bars to remove them. Only remove the nuts mounting the ends to the machine for removal.

7. Disconnect the water line from the plastic tee fitting. Refer to Fig. 1.
8. Disconnect the electrical motors from the main wiring harness.

9. Carefully slide the scrub head group from underneath the right side of the machine.
10. Remove the drive motor that the rear clevis pin head is facing. Refer to Fig. 5.
11. Remove the last clevis pin and channel weldment from the scrub head. Refer to Fig. 5 and Fig. 7.
12. Replace the old channel weldment with the new channel weldment and secure with the clevis pin (10). Refer to Fig. 7.
13. Reinstall the drive motor to the brush head group. Refer to Fig. 3.
14. Remove the lift bracket from underneath the machine and four screw buttons mounting it to the machine. Refer to Fig. 3.

Battery and Seat Group Removal:

1. Raise the operators seat.
2. Remove and set aside all the battery wire assemblies and the battery wire harness. Remove the batteries and foam spacers from the machine and set aside. Refer to Fig. 10.
3. Remove and set aside the cup holder. Refer to Fig. 2.
4. Disconnect the safety seat switch.
5. Remove and set aside the operators seat and slide rails and mounting hardware from the seat weldment. Refer to Fig. 2.
6. Disconnect the water valve rod from the water valve control lever. Set the washer and hairpin cotter key aside. Refer to Fig. 1.
7. Disconnect the opposite end of the water valve rod from the water valve arm w/stop. Set the washer and hairpin cotter key aside. Refer to Fig. 1.
8. Remove and set aside the water valve control lever and mounting hardware. Refer to Fig. 1.
9. Remove the two front bolts and washers mounting the seat support weldment to the actuator support bracket.
10. Remove the seat weldment and seat support weldment from the machine. Set aside the hardware. Remove and set aside the hinges, seat lock bracket, and mounting hardware. Refer to Fig. 2.
11. Remove the seat prop weldment and spring mount from the top of the actuator support bracket. Disassemble the actuator and spring mountings from the channel weldment. Set the springs and sleeves aside. Refer to Fig. 3.

12. Remove the actuator support bracket and mounting hardware from the machine. Refer to Fig. 3.
13. Break out the marked opening in the frame for the new lift arm position. Refer to Fig. 6.

NOTE: Some machines may already have the opening for the lift arm broken out. After breaking out the opening, file or sand any remaining rough spots. Paint bare metal.

Rollout Battery Seat Support Group Installation:

1. Install the rollout battery seat support (33) with hardware from original seat support, washers and socket screw (50). Refer to Fig. 6.
2. Mount the high density polyethylene plate (46) to the front interior of the seat support (33) with mounting hardware. Refer to Fig. 6.
3. Mount the seat brace weldment (34) to the machine and seat support (33) with mounting hardware and washers (36). Refer to Fig. 6.
4. Mount the seat lock bracket to the seat support (33) with set aside hardware. Refer to Fig. 6.
5. Loosely mount the seat hinges to the new seat plate weldment (37). Refer to Fig. 6.
6. Connect the new seat plate weldment hinges to the seat support weldment (33) with the set aside hardware. When hinges are connected to both weldments, tighten the hinges. Refer to Fig. 6.
7. Mount the seat prop arm weldment (38) to the seat plate weldment (37). Insert the opposite end of the seat prop into the seat brace weldment (34). Refer to Fig. 6.

Rollout Battery, Disk and Cylinder Scrub Head Lift Group Installation:

1. Mount the tool lift mounting panel (12) to the machine using mounting hardware. Refer to Fig. 7.
2. Assemble the actuator group with shield bolt, springs, steel tubes, channel weldment (16), actuator, clevis pin (17) and the channel weldment spring mtg (18). Refer to Fig. 7.
3. Pin the actuator into the tool lift panel (12) with the hitch pin (19). Refer to Fig. 7.
4. Mount the two bearing mounting plates (1) to the frame of the machine with hex screws (3), washers (4) and nuts (5). Refer to Fig. 7.
5. Press one flanged bearing (2) with two retaining rings (9) onto the right side of the tool lift shaft weldment (6). Refer to Fig. 7.

6. Press the other flanged bearing (2) onto the opposite side of the tool lift shaft weldment (6). Slide the tool lift arm weldment (7) onto the shaft after the flanged bearing (2). Refer to Fig. 7.

NOTE: The shaft arm weldment should face only one direction when assembled. Check the illustration to make sure the arm is assembled correctly.

7. Firmly press the roll pin (8) through the lift arm (7) and shaft (6) weldments to hold the flanged bearing (2) and lift arm (7) into place. Refer to Fig. 7.
8. Gently slide the scrub head group back under the machine.
9. Reconnect the brush motors and the water line from the machine back to the tee-fitting. Refer to Fig. 1.
10. Guide the shaft weldment (6) under the machine, align the bearings (2) with mounting plates (1) and the arm weldment (7) in the new opening in the floor frame. Refer to Fig. 7.
11. Raise the flanged bearings (2) on the shaft weldment (6) up to the bearing mounting plates (1) and guide the arm weldment (7) up to channel weldment (18). Refer to Fig. 7.
12. Mount the flanged bearings (2) to the mounting plates (1) with the hex screws, washers, and hex nuts. Refer to Fig. 7.
13. Connect the arm weldment (7) to the spring mounting channel weldment (18) with the clevis pin and hairpin cotter key. Refer to Fig. 7.
14. Mount the water control lever to the new tool lift panel (12) using set aside hardware.
15. Connect one end of the new water control valve rod (23) to the valve stop arm with the set aside washer and hairpin cotter key. Refer to Fig. 1.
16. Connect the other end of the water control valve rod (23) to the water control lever. Refer to Fig. 1.
17. Mount the shaft weldment (6) to the tool lift channel (10) with the two set aside clevis pins and cotter keys. Refer to Fig. 7.
18. Connect the stabilizer bars back to the machine. Refer to Fig. 3.
19. Mount the tool lift angle cover (20) with mounting hardware. Refer to Fig. 7.

Rollout Battery Case Group Installation:

1. Slide the battery roller assembly under the seat support bracket and mount to the frame with mounting hardware. Refer to Fig. 8.
2. Mount the battery stop arm (39) to the seat brace (34) with hex screw (41), washers (42), and nyloc nut (41). Refer to Fig. 8.
3. Mount the knob (45) to the battery stop arm (39) with leveler (44). Refer to Fig. 8.
4. Mount the rollout battery bumper (51) to the machine with hex screws (55). Refer to Fig. 9 or Fig. 10.
5. Mount the wall roller wheels (52) to the 900mm (36 inch) rollout battery bumper (51) with the clevis pins (53) and cotter keys (54). Refer to Fig. 9.
6. Insert battery rollout housing (43) into the machine. Close the battery stop arm (39). Turn the knob (45) clockwise until the housing is tight against the backstops. Refer to Fig. 8.

NOTE: Batteries are heavy and difficult to maneuver. Batteries may also be installed into the battery rollout housing on the rollout battery dolly, and then rolled into the machine.

7. Assemble batteries and cables in the battery rollout housing. Connect battery cables to the batteries. Refer to Fig. 11.
8. Close the operators seat.
9. Turn on the machine.
10. Raise and lower the scrub head to check for proper lift and operation.
11. If necessary, adjust the stabilizer bars to ensure the scrub head travels at a level height.

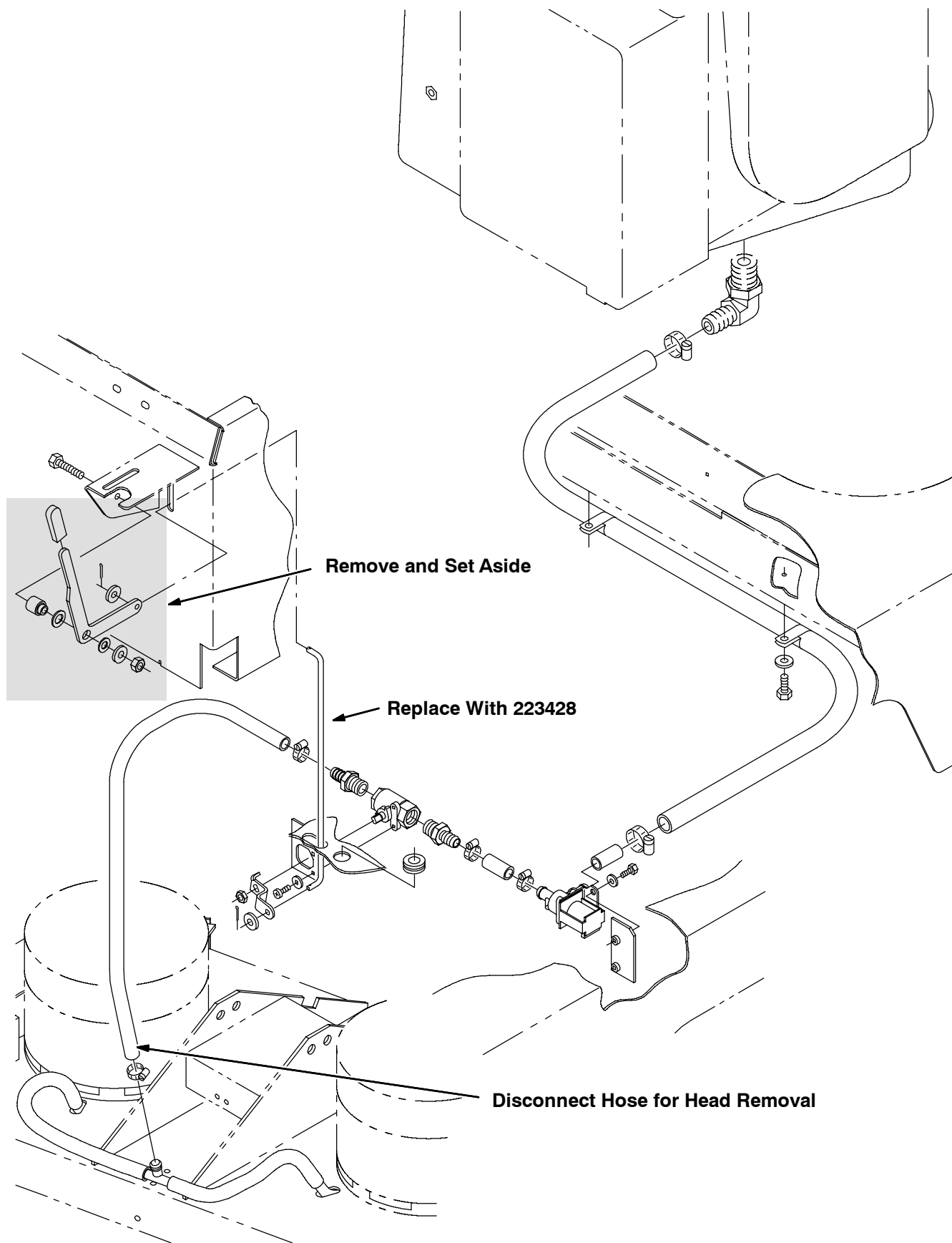


FIG. 1-Solution Control Group / Handle and Rod Removal

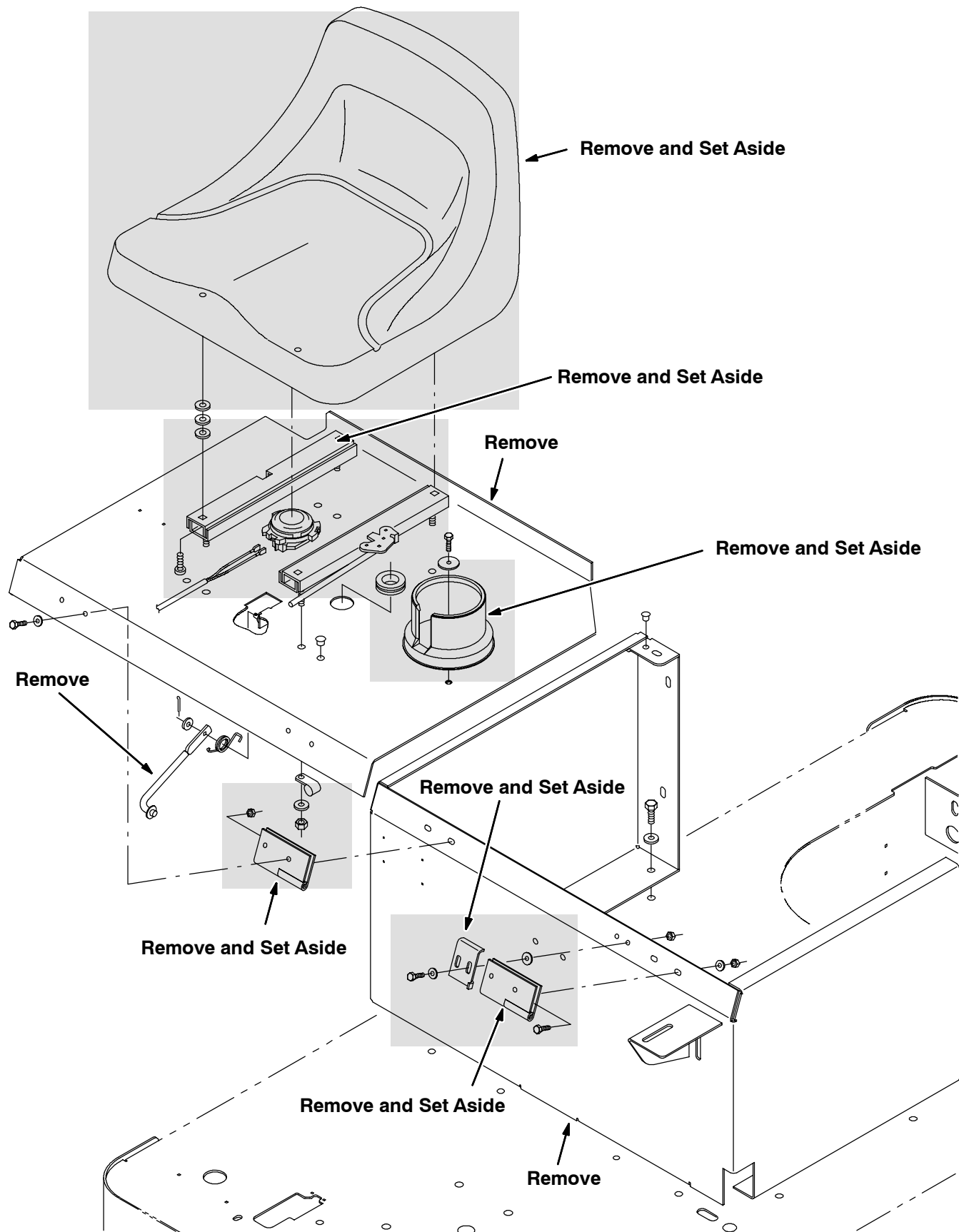


FIG. 2-Seat Group Removal

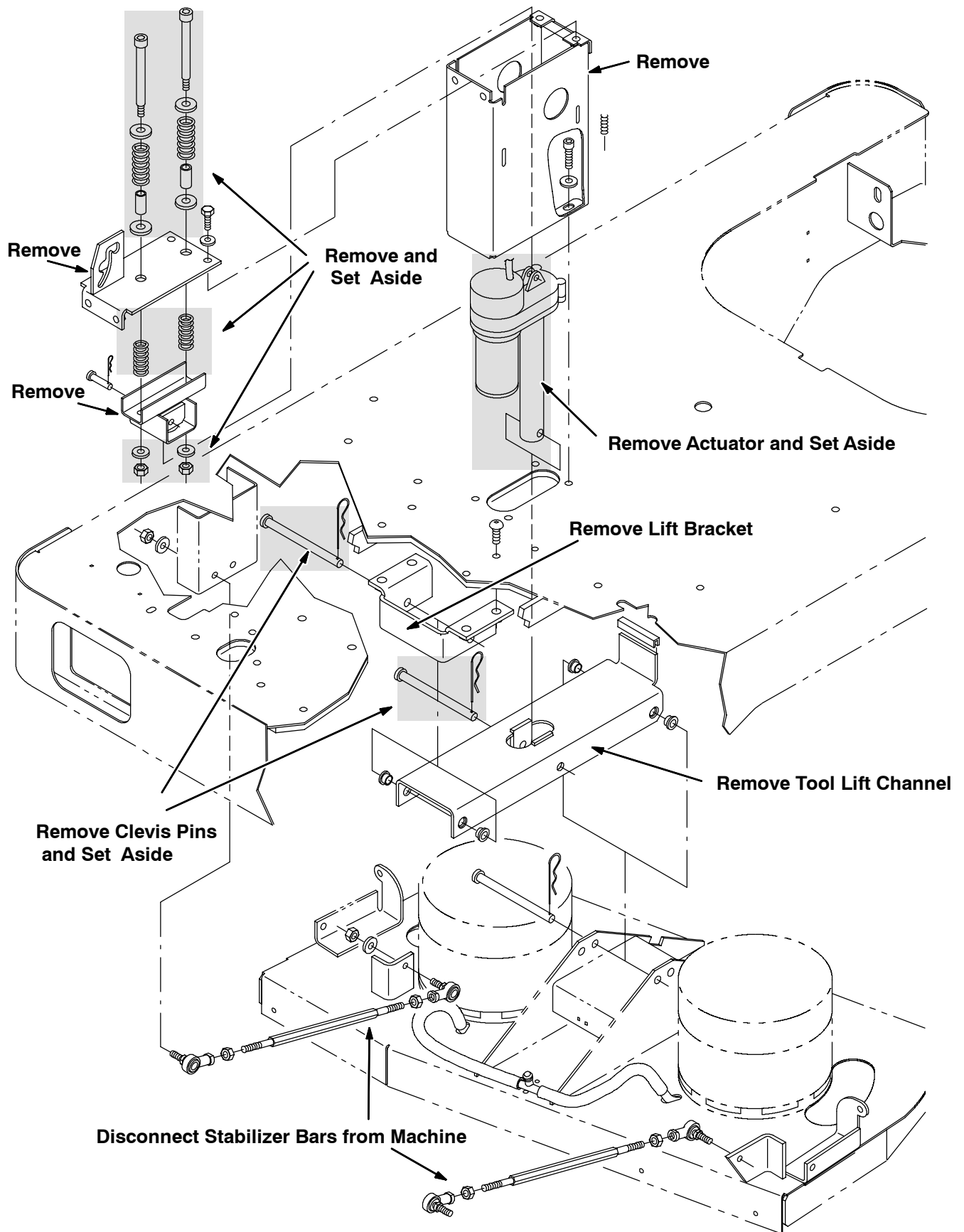


FIG. 3-Scrub Head Lift Group Removal

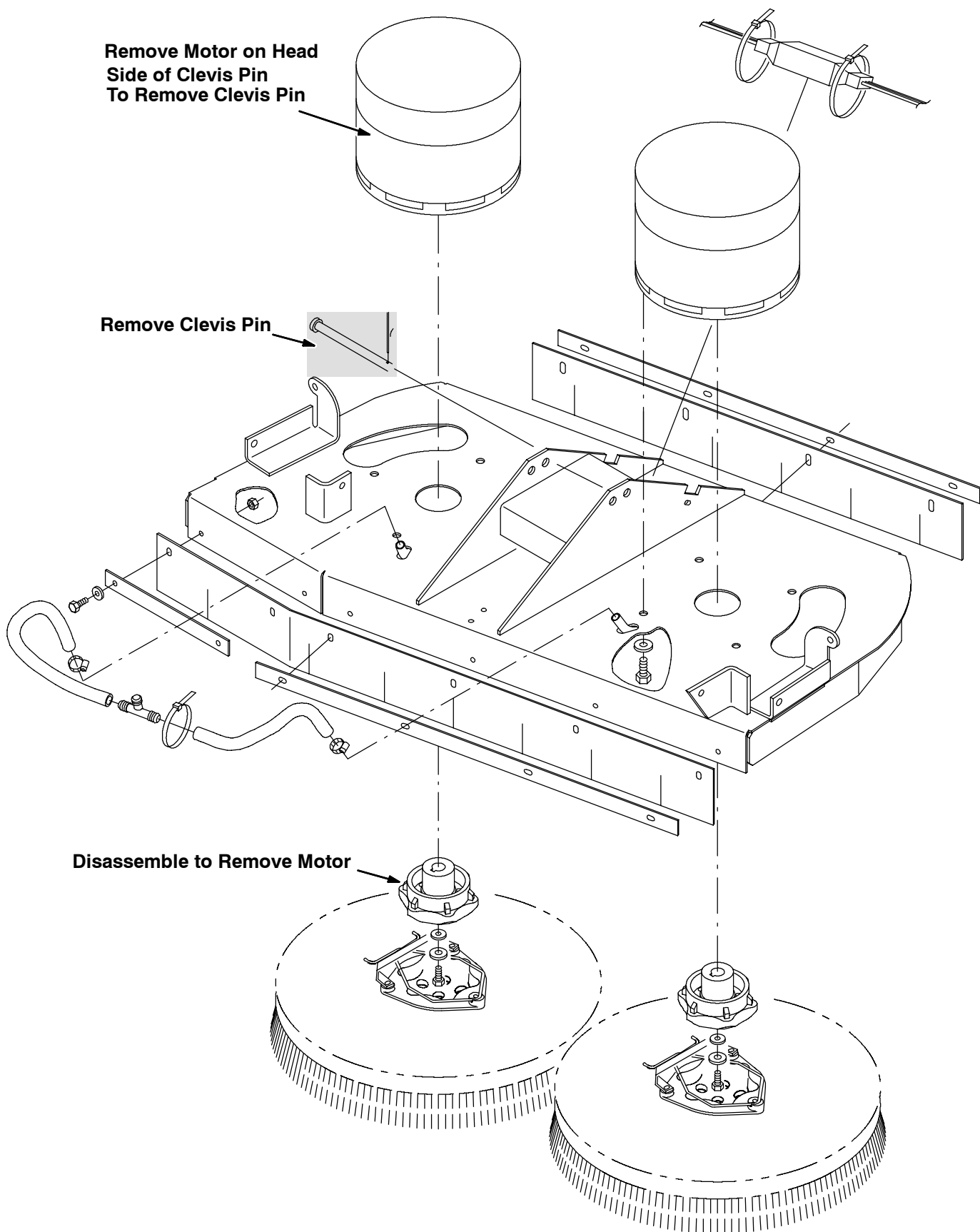


FIG. 4-Disk Brush System, Motor Removal

**Remove Motor on Head
Side of Clevis Pin
To Remove Clevis Pin**

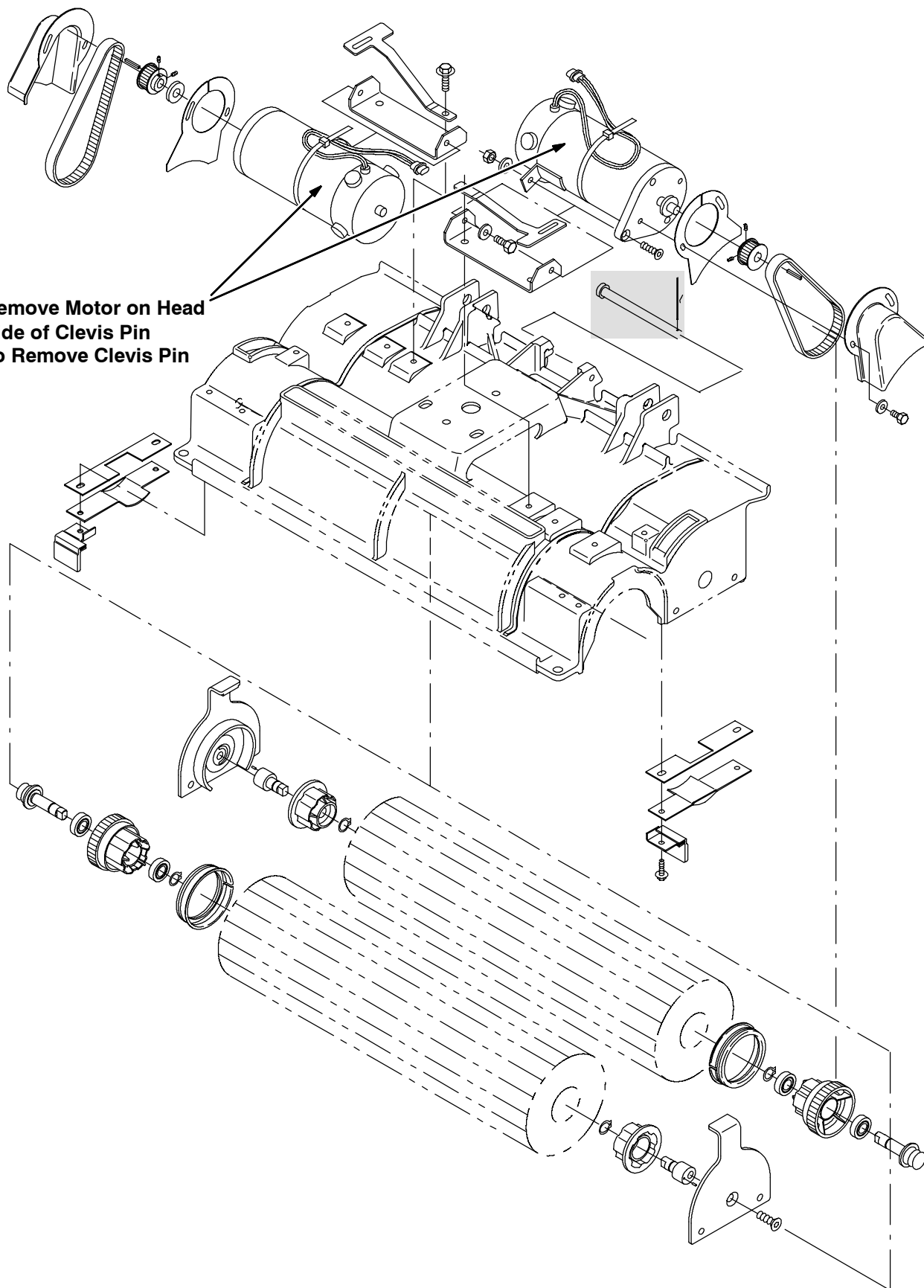


FIG. 5-Cylindrical Brush System, Motor Removal

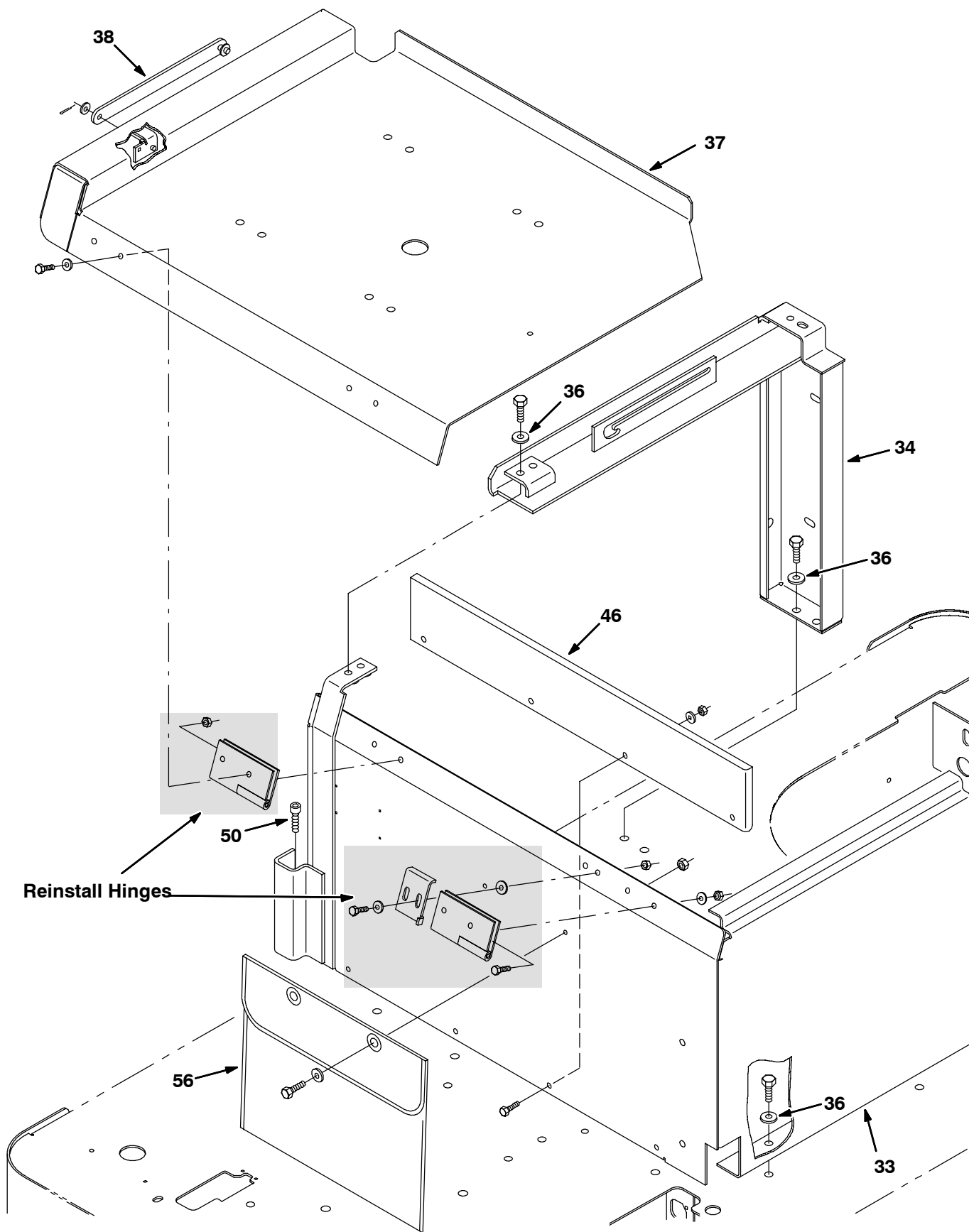


FIG. 6-Rollout Battery Seat Support Group

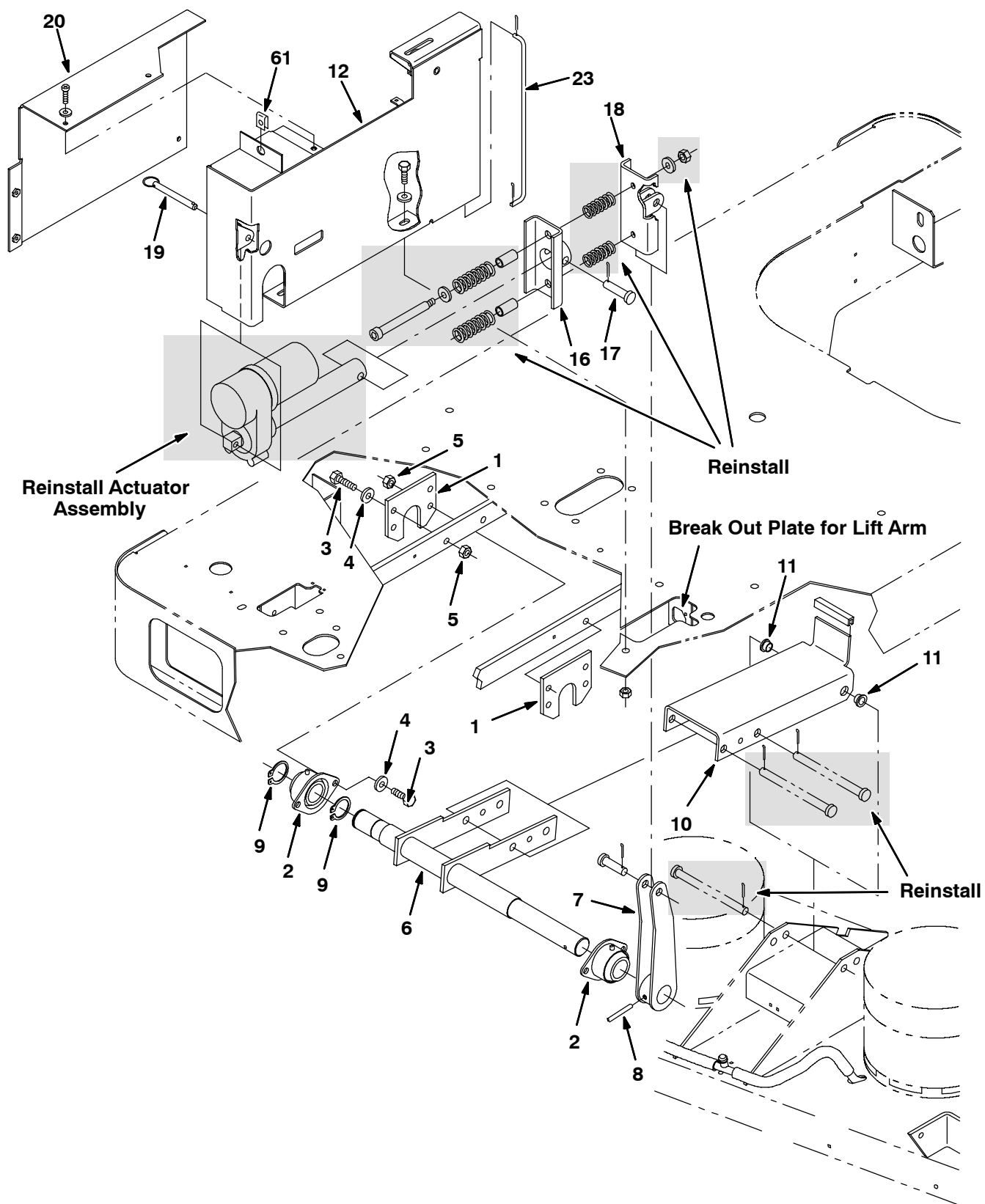


FIG. 7-Rollout Battery Scrub Head Lift Group

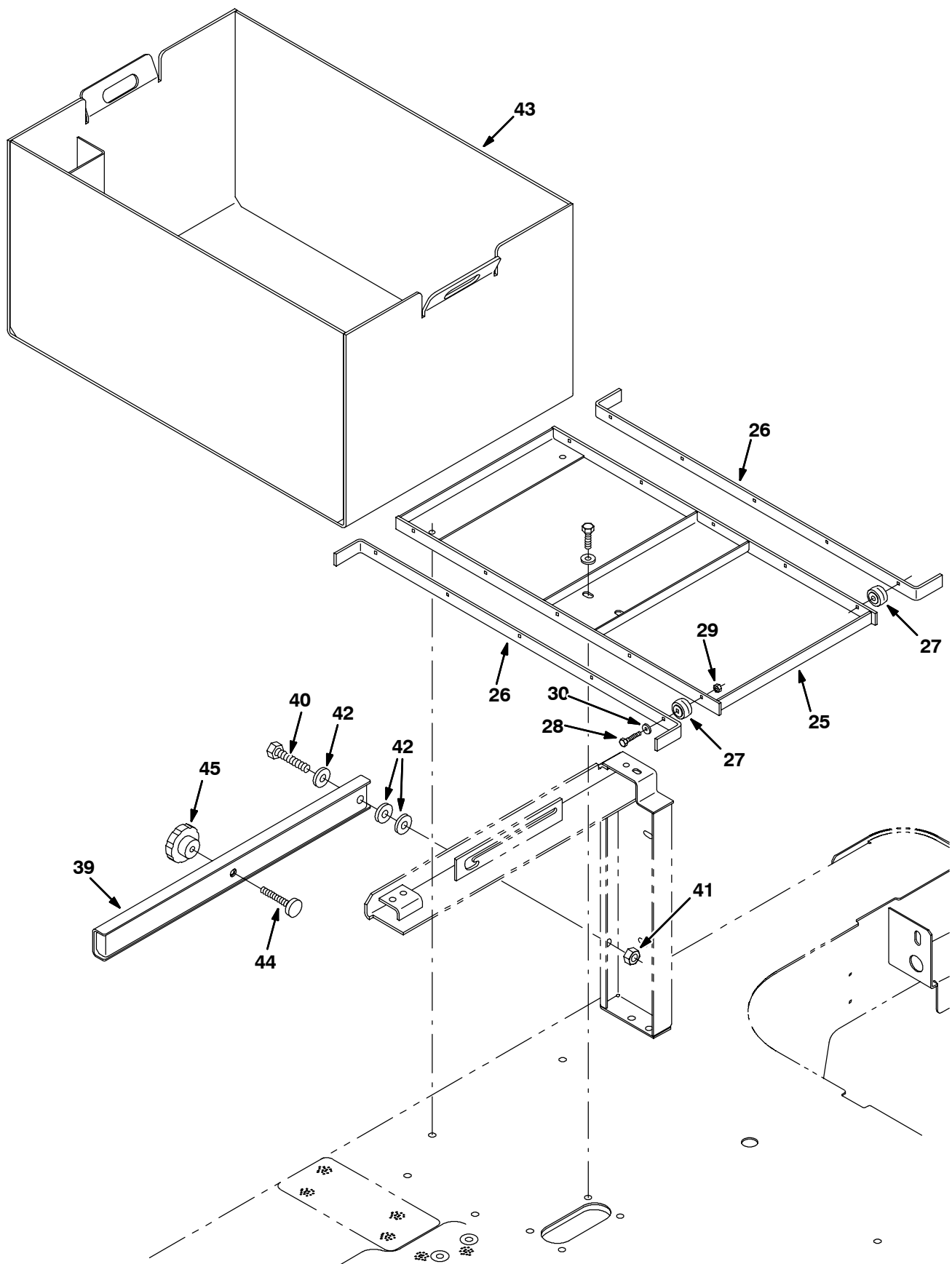


FIG. 8-Rollout Battery Case Group

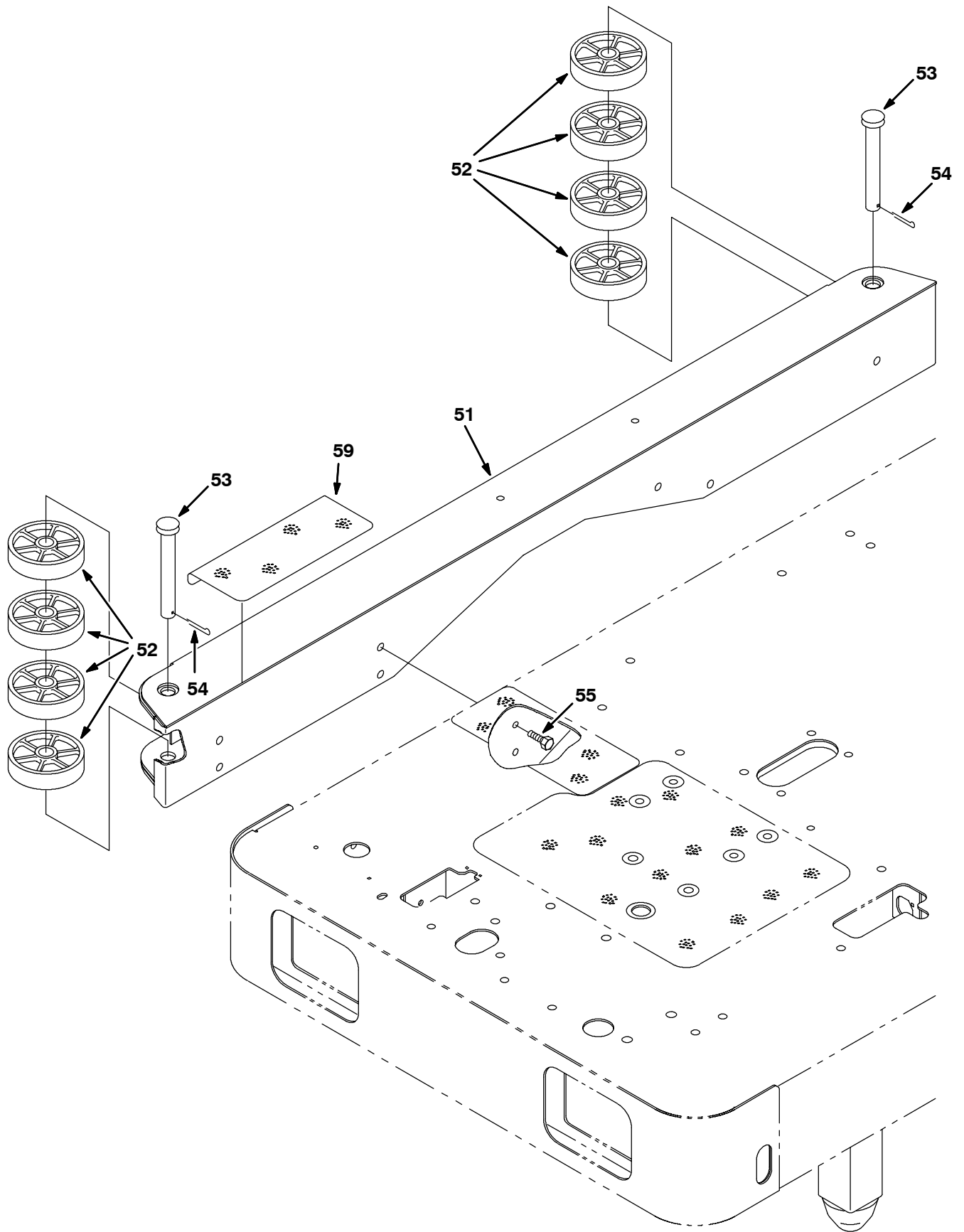


FIG. 9 Rollout Battery Side Bumper Group 900mm (36in)

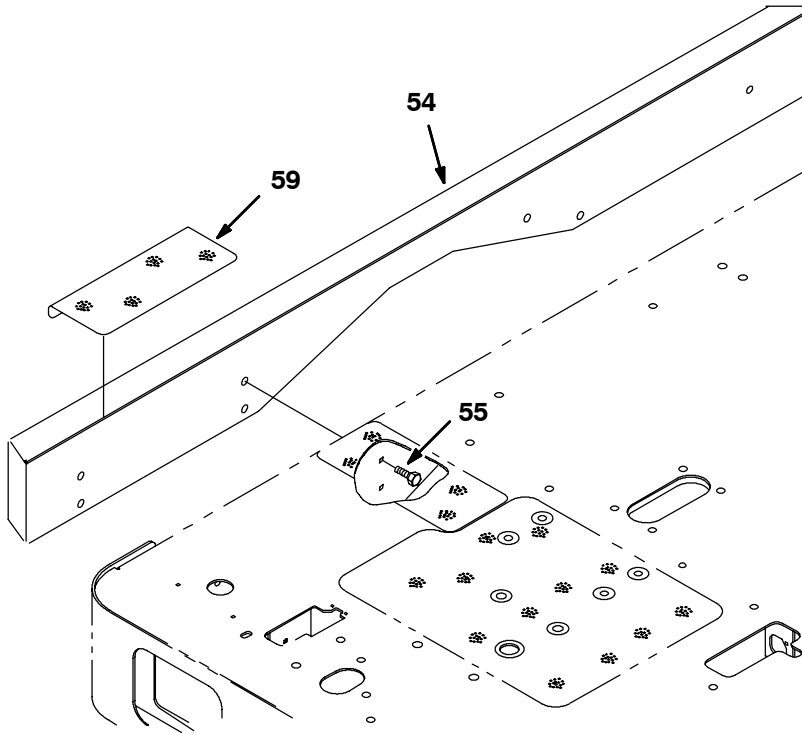


FIG. 10 Rollout Battery Side Bumper Group 700mm (28in)

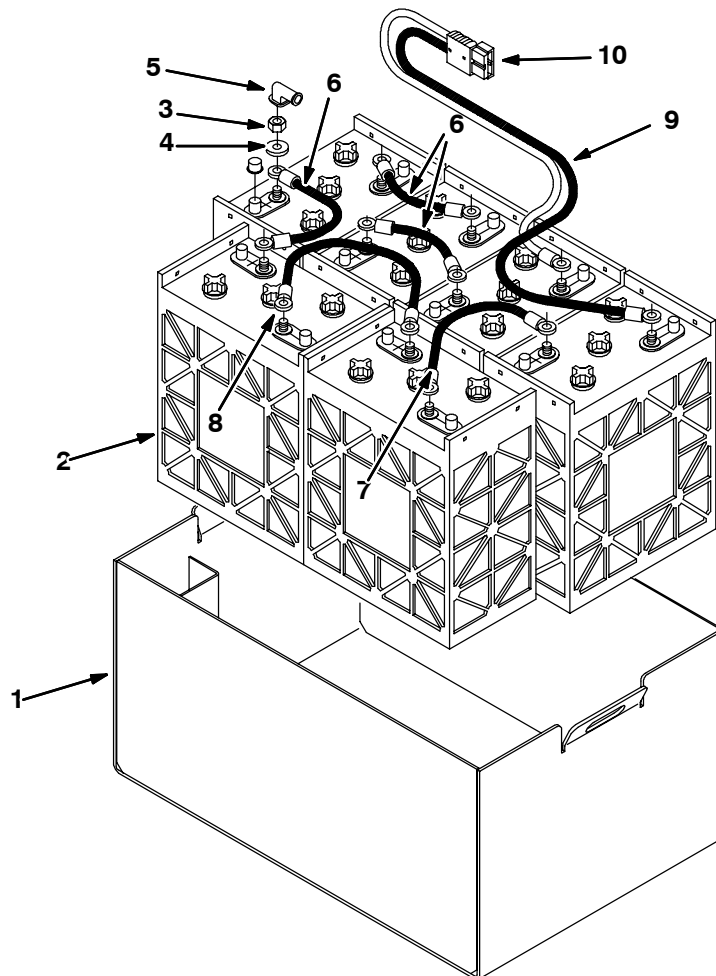


FIG. 11-Rollout Battery Pack Kit 369447

BILL OF MATERIALS FOR KIT, DI, BATTERY, R/O [7200] 900MM -369441

Ref.	TENNANT Part No.	Description	Qty.
1	369402	Plate, Brg, Mtg	2
2	369337	Bearing, Flange, 2-Hole, 1.25B	2
3	09291	Screw, Hex, M10 X 1.5 X 20, SS	8
4	01686	Washer, Flat, 0.44B 1.0 .08, SS	12
5	08714	Nut, Hex Lock, M10 X 1.5, NL, SS	8
6	223430	Shaft Wldt, Lift, Tool	1
7	223433	Arm Wldt, Lift, Tool	1
8	51317	Pin, Roll, .375D X 2.0L, .375/.382	1
9	59861	Ring, Retaining, Ext, 1.25D.	2
10	223414	Channel Wldt, Tool, Lift	1
11	15648	Sushing, Flange 0.50B 0.59D 0.38L	2
12	369431	Panel Wldt, Mtg, Tool Lift	1
13	16931	Screw, Hex, M8 X 1.25 X 20, 8.8	6
14	32491	Washer, Flat, 0.31 Std	6
15	08709	Nut, Hex, Lock, M8 X 1.25, NL	2
16	223450	Channel Wldt, Mtg, Actuator	1
17	51534	Pin, Clevis, 0.50D X 2.00L	1
18	223447	Channel Wldt, Mtg, Spring	1
19	369359	Pin, Hitch, .375D X 3.12L, ZN	1
20	369490	Angle, Cover, Tool Lift	1
21	09164	Screw, Pan, M6 X 1.0 X 20, 4.8	6
22	32490	Washer, Flat, 0.25 Std	6
23	223428	Rod, Water Cntrl Valve	1
24	08170	Pin, Cotter, .062 X 0.50	2
25	223466	Bar Wldt, Mtg, Battery Rlr	1
26	223476	Channel, Stiffener, Battery Roll	2
27	369415	Bearing, Needle, 0.25B 0.88D 0.50W	10
28	33930	Screw, Hex, M6 X 1.0 X 40, SS	10
29	08712	Nut, Hex, Lock, M6 X 1.0, SS, NL	10
30	01684	Washer, Flat, 0.25 SS	10
31	09028	Screw, Hex, M10 X 1.5 X 25, SS	2
32	32491	Washer, Flat, 0.44B 1.0 .08, SS	4
33	369426	Support Wldt, Seat	1
34	369421	Brace Wldt, Mtg, Seat, OHG	1
35	16931	Screw, Hex, M8 X 1.25 X 20, 8.8	10
36	01685	Washer, Flat, 0.31 SS	8
37	369418	Pan, Mtg, Seat	1
38	369434	Arm Wldt, Safety, Seat	1
39	385600	Arm Wldt, Stop, Battery	1
40	02930	Screw, Hex, .50-13 X 2.50, SS	1
41	02931	Nut, Hex, Lock, .50-13, NL, SS	1
42	41619	Washer, Flat, 0.56B 1.38D .11, SS	1
43	369483	Box Wldt, Battery, R/O [No Battery]	1
44	369488	Stop, Leveler	1
45	06506	Knob, Rnd, 2.37D 1.30L 0.38H Plstc	1

Ref.	TENNANT Part No.	Description	Qty.
46	369386	Plate, HDPE	1
47	06944	Nut, Hex, M6 X 1.0 X 25, 8.8	4
48	08708	Nut, Hex, Lock, M6 X 1.0, NL	4
49	32490	Washer, Flat, 0.25 Std	4
50	09278	Screw, Soc, M8 X 1.25 X 30, 12.9	1
51	385603	Bumper Wldt, Battery, R/O	1
52	364085	Wheel, 4.0D 0.98W 0.78B	8
53	54660	Pin, Clevis, 0.75D X 5.50L	2
54	08181	Pin, Cotter, .094 X 1.50	2
55	09010	Screw, Hex, M8 X 1.25 X 25, SS	7
56	48790	Pouch	1
57	06943	Screw, Hex, M6 X 1.0 X 20, 8.8	2
58	32490	Washer, Flat, 0.25 Std	2
59	223350	Tread, Non-Skid, 04.5W 10.0L	1
60	08708	Nut, Hex, Lock, M6 X 1.0, NL	2
61	58595	Nut, U, M08 X 1.25	1

BILL OF MATERIALS FOR KIT, DI, BATTERY, R/O [7200] 700MM -369862

Ref.	TENNANT Part No.	Description	Qty.
1	369402	Plate, Brg, Mtg	2
2	369337	Bearing, Flange, 2-Hole, 1.25B [Indiv Pkg]	2
3	09291	Screw, Hex, M10 X 1.5 X 20, SS	8
4	01686	.Washer, Flat, 0.44 1.0 .08, SS	8
5	08714	Nut, Hex, Lock, M10 X 1.5, NL, SS	8
6	223430	Shaft Wldt, Lift, Tool	1
7	223433	Arm Wldt, Lift, Tool	1
8	51317	Pin, Roll, .375 D X 2.00L, .375/.382	1
9	59861	Ring, Retaining, Ext, 1.25D	2
10	223414	Channel Wldt, Tool, Lift	1
11	15648	Bushing, Flng, 0.50B 0.59D 0.38L	2
12	369431	Panel Wldt, Mtg, Tool Lift	1
13	16931	Screw, Hex, M8 X 1.25 X 20, 8.8	6
14	32491	Washer, Flat, 0.31 Std	6
15	08709	Nut, Hex, Lock, M8 X 1.25, NL	2
16	223450	Channel Wldt, Mtg, Actuator	1
17	58595	Nut, U, M08 X 1.25	1
18	390665	Channel, Input, Tool, Lift [7100]	1
19	369359	Pin, Hitch, .375D X 3.12L, ZN	1
20	369490	Angle, Cover, Tool Lift	1
21	09164	Screw, Pan, M6 X 1.0 X 20, 4.8	6
22	32490	Washer, Flat, 0.25 Std	6
23	223428	Rod, Water Control Valve	1
24	08170	Pin, Cotter, .062 X 0.50	2
25	223466	Bar Wldt, Mtg, Battery Rlr	1
26	223476	Channel Stiffener, Battery Roll	2
27	369415	Bearing, Needle, 0.25B 0.88D 0.50W	10
28	51534	Pin, Clevis, 0.50 D X 2.00L	1
29	11211	Pin, Clevis 0.50 D X 2.25L	1
30	86866	Pin, Hair Cotter, 0.38 D .072WIR	2
31	33930	Screw, Hex, M6 X 1.0 X 40, SS	10
32	08712	Nut, Hex Lock, M6 X 1.0, SS, NL	10
33	369426	Support Wldt, Seat	1
34	369421	Brace Wldt, Mtg, Seat, OHG	1
35	16931	Screw, Hex, M8 X 1.25 X 20, 8.8	10
36	01685	Washer, Flat, 0.31 SS	8
37	369418	Pan, Mtg, Seat	1
38	369434	Arm Wldt, Safety, Seat	1
39	385600	Arm Wldt, Stop, Battery	1
40	02930	Screw, Hex, .50-13 X 2.50, SS	1
41	02931	Nut, Hex, Lock, .50-13, NL, SS	1
42	41619	Washer, Flat, 0.56B 1.38D .11, SS	1
43	369483	Box Wldt, Battery, R/O [No Battery]	1
44	369488	Stop, Leveler	1
45	06506	Knob, Rnd, 2.37D 1.30L 0.38H Plstc	1

Ref.	TENNANT Part No.	Description	Qty.
46	369386	Plate, HDPE	1
47	06944	Screw, Hex, M6 X 1.0 X 25, 8.8	4
48	08708	Nut, Hex, Lock, M6 X 1.0, NL	4
49	32490	Washer, Flat, 0.25 Std	4
50	09278	Screw, Soc, M8 X 1.25 X 30, 12.9	1
51	01684	Washer Flt .25 ss	10
52	09028	Scr Hexss M10 X 1.5	2
53	01686	Washer Flt .38 ss	4
54	385739	Bumper wldt, rollout, battery 700MM (28in)	1
55	09010	Screw, Hex, M8 X 1.25 X 25, SS	7
56	48790	Pouch	1
57	06943	Screw, Hex, M6 X 1.0 X 20, 8.8	2
58	32490	Washer, Flat, 0.25 Std	2
59	223350	Tread, Non-Skid, 04.5W 10.0L	1
60	08708	Nut, Hex, Lock, M6 X 1.0, NL	2

BILL OF MATERIALS FOR KIT, CI, PACK, BATTERY, R/O [7200]-369447

Ref.	TENNANT Part No.	Description	Qty.
1	369483	Box Wldt, Battery, R/O [No Battery]	1
2	222846	Battery, 06VDC, 335AH, Wet	6
3	87435	Nut, Hex, Flexlock, .31-18	12
4	01685	Washer, Flat, .031 SS	12
5	02076	Boot, 90Deg .50ID .57ID X .84ID 1.0L Blk	12
6	223355	Cable, 04Ga 08.0L Blk .34Ring/.34Ring	3
7	223356	Cable, 04Ga 12.0L Blk .34Ring/.34Ring	1
8	223364	Cable, 04Ga 18.0L Blk .34Ring/.34Ring	1
9	223361	Cable Assy, 04Ga .34Ring/.34Ring, 175A	1

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