

# A-dec 311, 411, and 511 Dental Chairs

## Service Reference



Contents



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### Product Service

For service information, contact your local authorized A-dec dealer. To find your local dealer, go to [www.a-dec.com](http://www.a-dec.com).

### Contact Information and Other Resources

See page 1.



### Regulatory Information

Warranty information is provided in the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00), which is available in the Document Library at [www.a-dec.com](http://www.a-dec.com).

### Product Models and Versions Covered in This Document

A-dec uses product versions to indicate significant changes to a product model. Modifications identified by a change to the product version include, but are not limited to, significant changes to features and options, and product compatibility.

Models	Versions	Description
311	A, B	Dental Chairs
411	A	Dental Chairs
511	A	Dental Chairs

## Customer Service Information

For questions not addressed in this document, contact A-dec Customer Service using contact information for your region.

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www.a-dec.co.uk

## A-dec Service Documents

Service Reference documents contain illustrated parts breakdown content and are companions to Service Guides, which contain information for product service, maintenance, and troubleshooting including circuit board components and flow diagrams. Related service documents include:

- *A-dec 311, 411, and 511 Dental Chairs Service Guide* (p/n 86.0380.00)
- *A-dec 300, 400, and 500 Delivery Systems Service Guide* (p/n 86.0382.00)
- *A-dec 300, 400, and 500 Delivery Systems Service Reference* (p/n 86.0383.00)
- *A-dec Dental Lights and Monitor Mounts Service Guide* (p/n 86.0326.00)
- *A-dec Dental Lights and Monitor Mounts Service Reference* (p/n 86.0328.00)

## Genuine A-dec Parts Catalog

The *Genuine A-dec Service Parts Catalog*, p/n 85.5000.00, provides part number and ordering information for A-dec service parts. This catalog details parts for current products and products which are no longer manufactured but are still supported. Refer to this catalog for additional details on parts found in the service document.

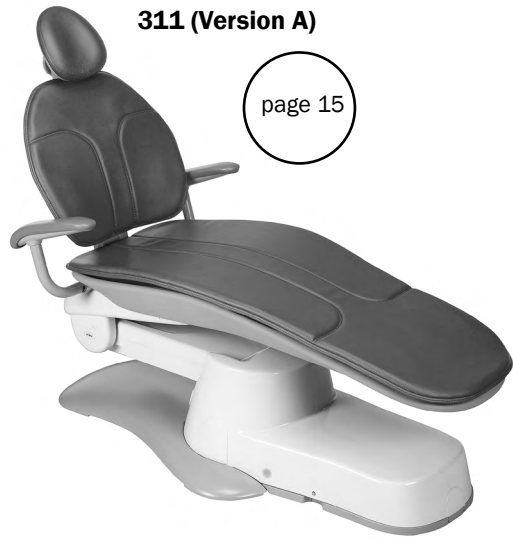
## Electronic Documentation

The latest versions of all A-dec technical documents are available as electronic documents on the A-dec website ([www.a-dec.com](http://www.a-dec.com)). On the website, select Document Library in the upper-right corner of the page. Check this location for the most current technical information about A-dec products.



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**311 (Version B)**

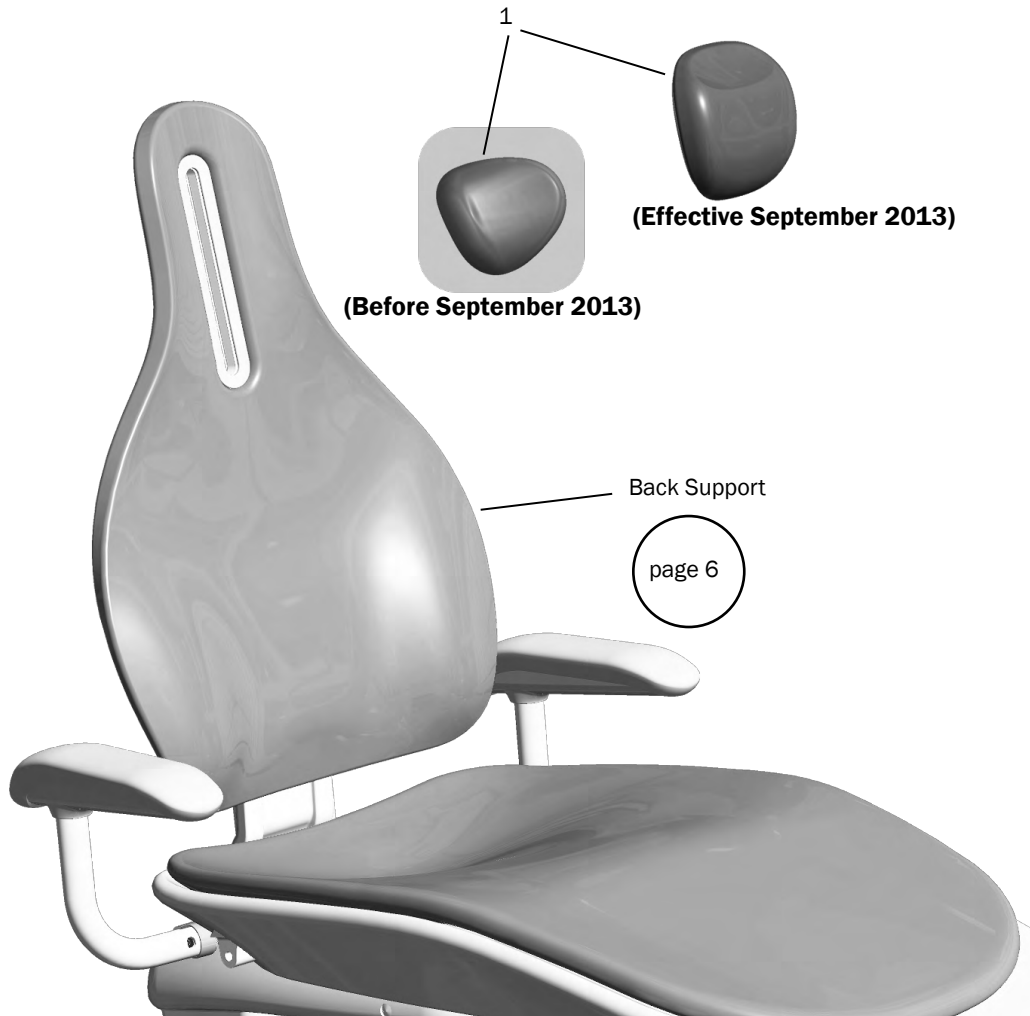
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### Adjustable Neck Support Headrest – 311 (A)

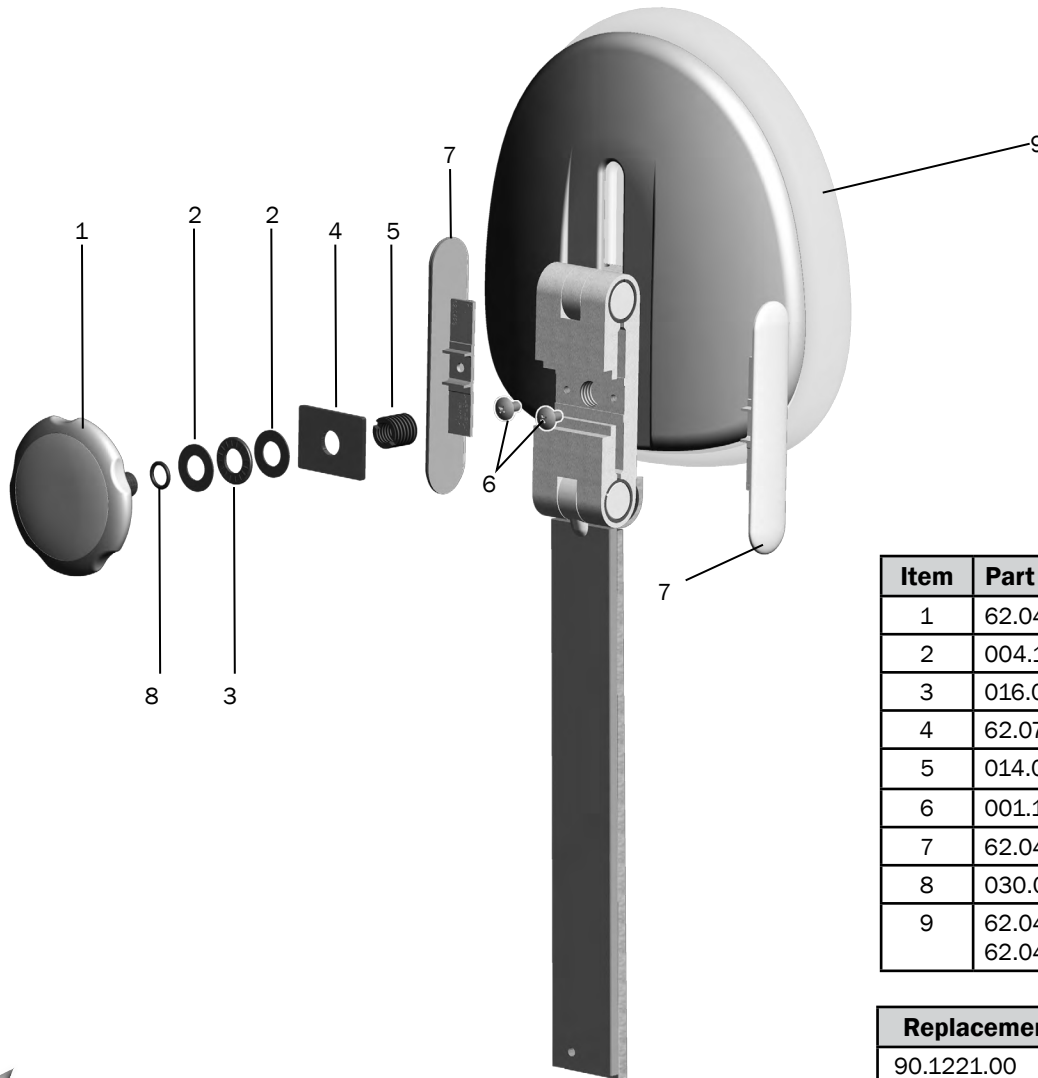


Item	Part Number	Description
1	62.0405.00	Neckrest assembly



### Dual-Articulating Headrest with Locking Knob – 311 (A and B)/411

p/n 62.0631.01 – 311 (A) / 62. 0853.00 – 311(B)/411



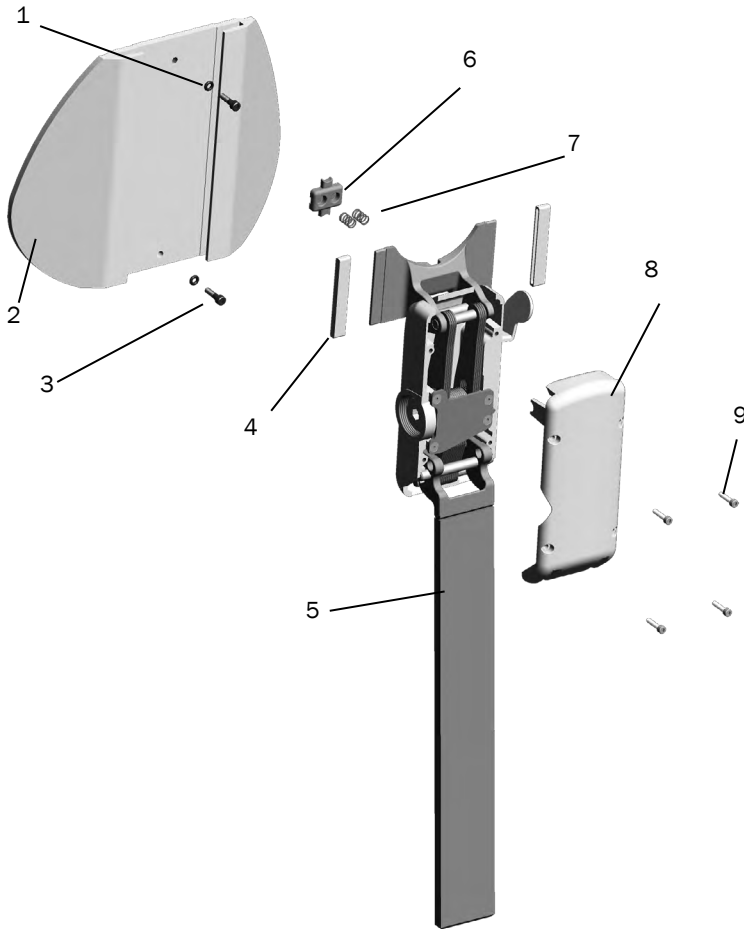
Item	Part Number	Description
1	62.0427.00	Knob assembly
2	004.136.00	Washer, thrust, bearing .0500" ID
3	016.033.00	Bearing, thrust needle, 0.500" ID x 0.937" OD x 0.78" long
4	62.0749.00	Clamp plate
5	014.015.00	Threaded insert, Heli-coil, 1/2 - 13" x 5/8"
6	001.191.01	Screw, Truss Head Phillips, 10-32 x 3/8", patch, steel, zinc
7	62.0429.00	Side cap
8	030.012.02	O-ring, AS568-12, pkg of 10
9	62.0417.01 62.0417.00	Cover, 300 headrest, white2 (311 B/411) Cover, 300 headrest, gray3 (311 A)

Replacement Kit	Part Number	Description
90.1221.00	1 - 4, 8	Knob kit

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### Dual-Articulating Lever Release Headrest (411/511)



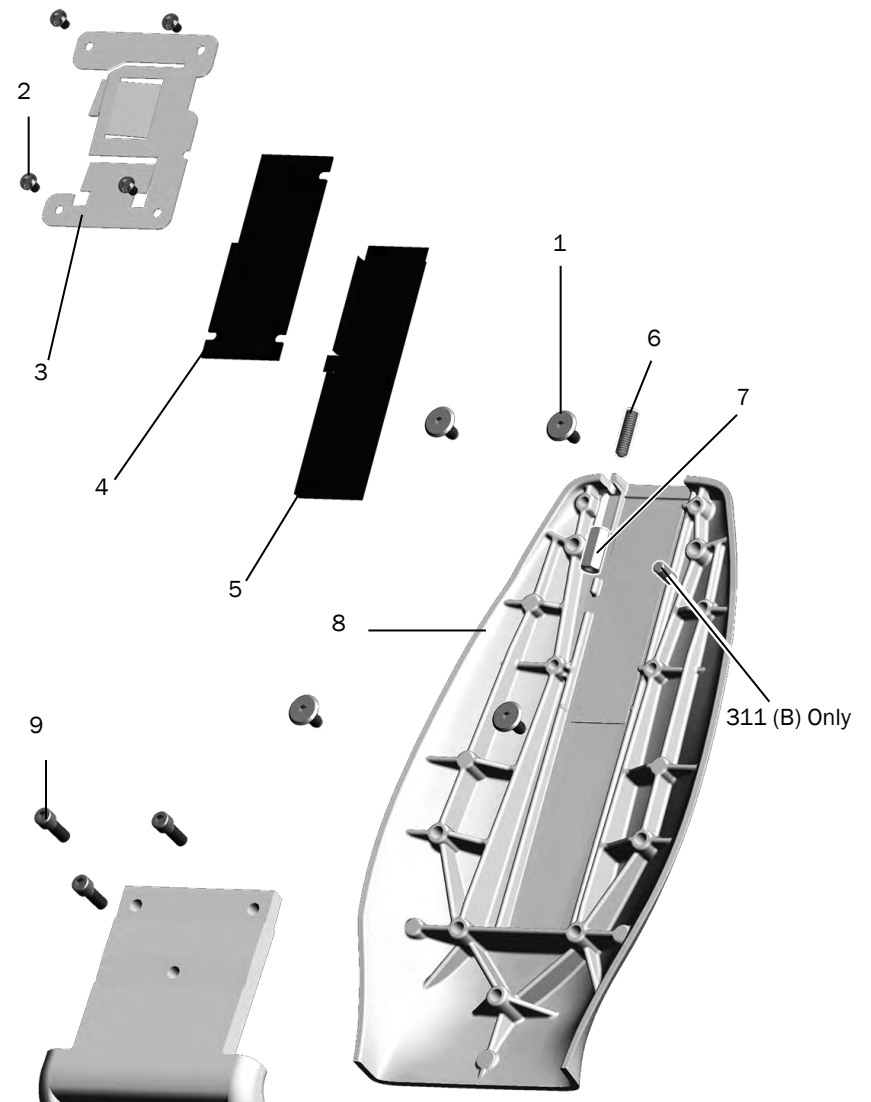
Item	Part Number	Description
1	035.049.01	O-Ring, E1257-70, 0.176" ID x 0.040" wall, pkg of 10
2	90.1092.01 90.1092.00	Cover, headrest cushion, white Cover, headrest cushion, surf
3	001.042.01	Screw, socket head, 6-32 x 1/2", stainless steel, patch
4	62.0021.00	Bearing, slider, headrest cushion
5	90.1091.01 90.1091.00	Headrest assembly, white (includes items 3, 4, 6, 7 and 8) Headrest assembly, surf (includes items 3, 4, 6, 7 and 8)
6	62.0094.00	Bearing, slider, brake, headrest
7	013.005.00	Spring, compression, 0.240" OD x 0.38 free length, stainless steel
8	62.0141.01 62.0141.00	Cap, headrest, white Cap, headrest, surf
9	001.021.00	Screw, socket head, 4-40 x 1/2", stainless steel

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### Back Support – 311 (A)/311 (B)/411/511

Item	Part Number	Description
1	001.244.00	Screw, JCB, socket, 1/4-20 x 15 mm
2	005.138.01	Screw, button head socket, 10-32 x 5/16
3	99.0719.00	Bracket, glidebar brake, kit
4	62.0103.00	Wear pad, upper headrest brake
5	62.0102.00	Wear pad, lower headrest brake
6	007.158.00	Set screw, cone point, 1/4" - 20 x 1", patch, stainless steel
7	006.144.00	Nut, coupling, 1/ 4- 20, steel zinc
8	62.0048.00 62.0944.00 90.1099.00 90.1099.01	Back support, gray, 311 (A) Back support, 311 (B) Back support, surf, 511 Back support, white, 411/511
9	001.245.00	Screw, socket head, 1/4-20 x 3/4", patch, stainless steel



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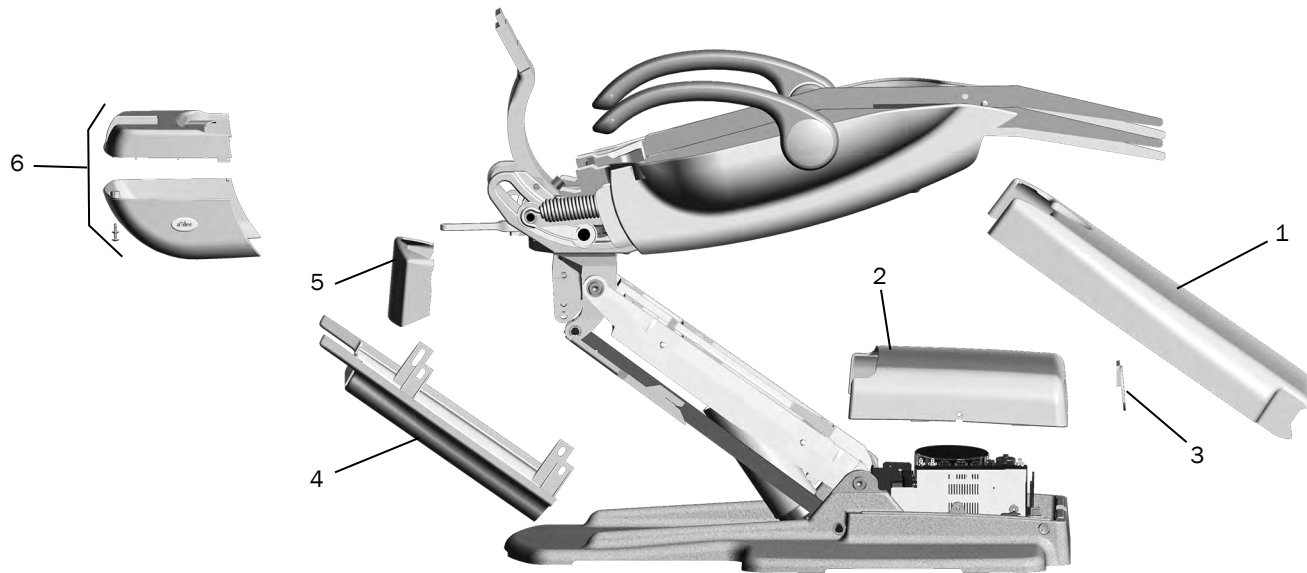
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### Lower Chair Covers – 311 (B)/411



Item	Part Number	Description	Replacement Kit
1	62.0081.01	Lift arm cover	
2	62.0080.01	Motor pump cover	
3	62.0101.01	Pump cover plug	
4	62.0084.01	Stop plate cover	
5	62.0765.00	Swivel cover	
6	62.0786.00	Rear cover assembly	90.1417.00 Upper structure cover kit
7	62.0910.00	Cover, upper, str, rear, intl (311 B)	

## Lower Chair Covers – 511

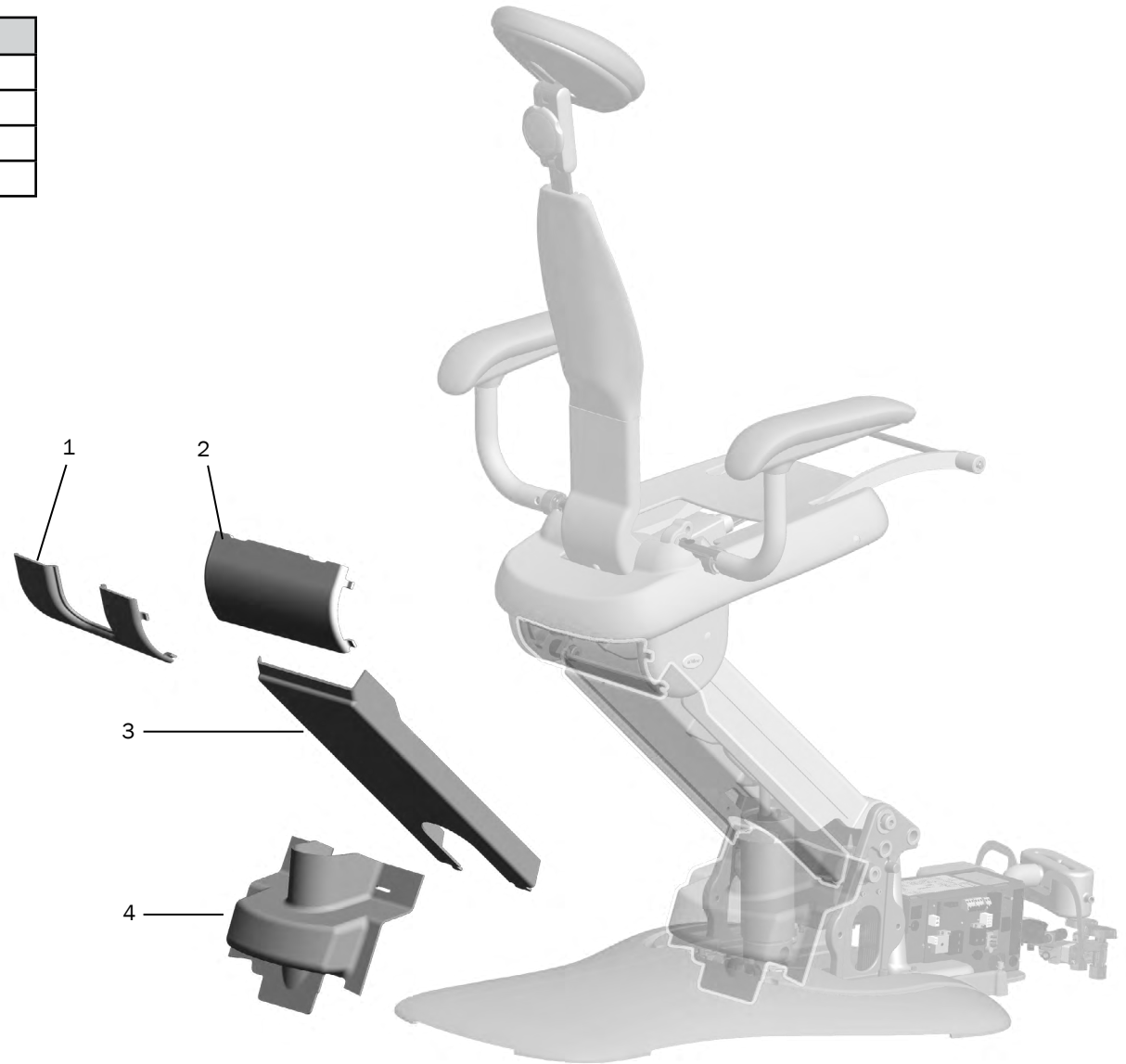


Item	Part Number	Description	Replacement Kit
1	62.0122.01 62.0122.00	Lift arm cover, white Lift arm cover, surf	
2	62.0080.01 62.0080.00	Motor pump cover, white Motor pump cover, surf	
3	62.0101.01 62.0101.00	Pump cover plug, white Pump cover plug, surf	
4	62.0084.01 62.0084.00	Stop plate cover, white Stop plate cover, surf	
5	62.0133.01 62.0133.00	Swivel cover, white Swivel cover, surf	
6	62.0122.01 62.0122.00	Rear cover assembly, white Rear cover assembly, surf	90.1417.00 Upper structure cover kit

## Lift Arm Covers – 311 (A)

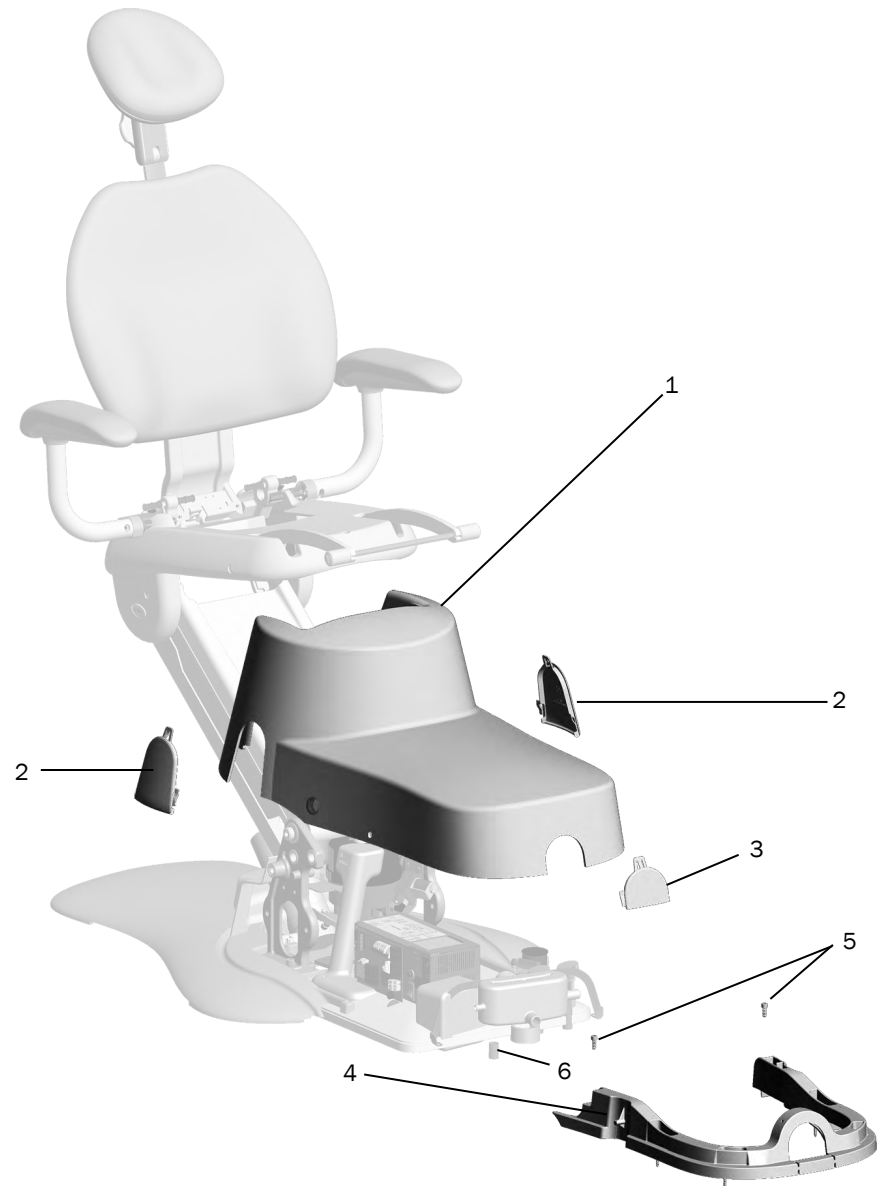
p/n 90.1266.00

Item	Part Number	Description
1	62.0651.00	Upper assistant's lift arm cover
2	62.0662.00	Upper lift arm cover
3	62.0652.00	Lift arm cover
4	62.0653.00	Lower lift arm cover



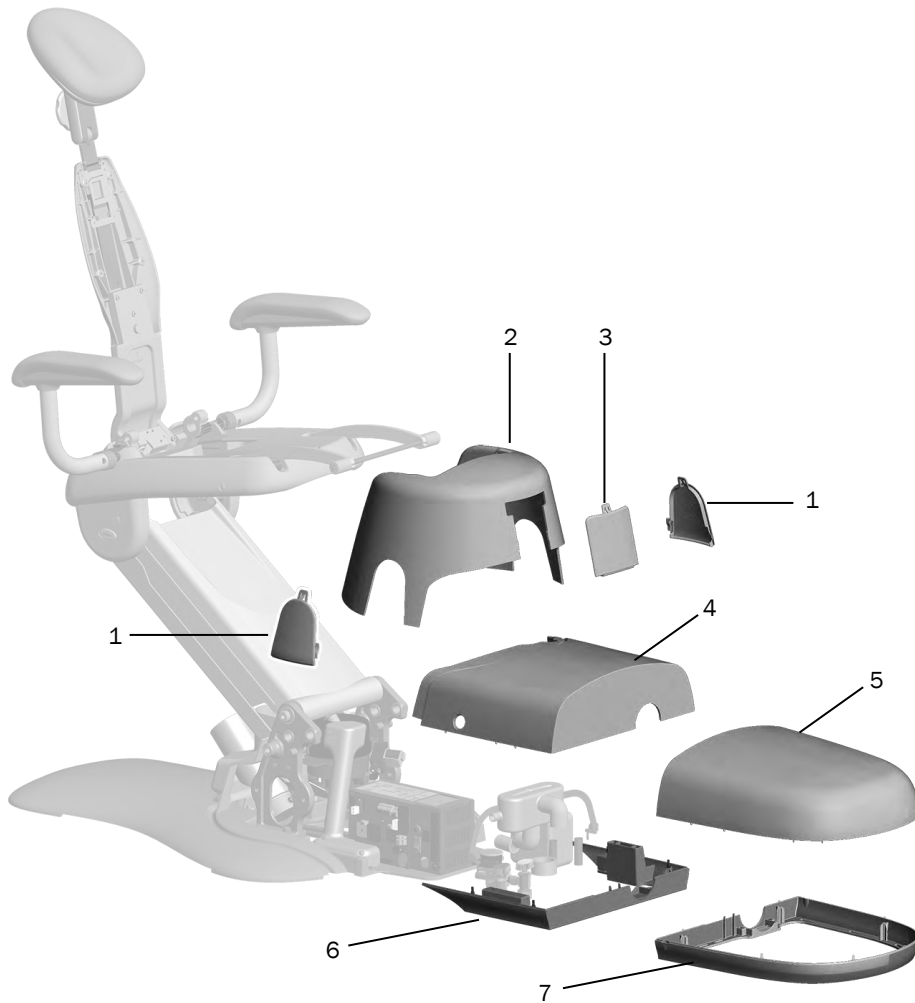
### One Piece Utility Cover – 311 (A)

Item	Part Number	Description
1	62.0296.00	Utility cover
2	62.0347.00	Plug cover
3	62.0348.00	Umbilical plug cover
4	62.0300.00	Utility cover stiffener
5	001.089.00	Socket head screw, 1/ 4 x 20 x 5/8
6	004.043.00	Washer



### Three Piece Utility Covers – 311 (A)

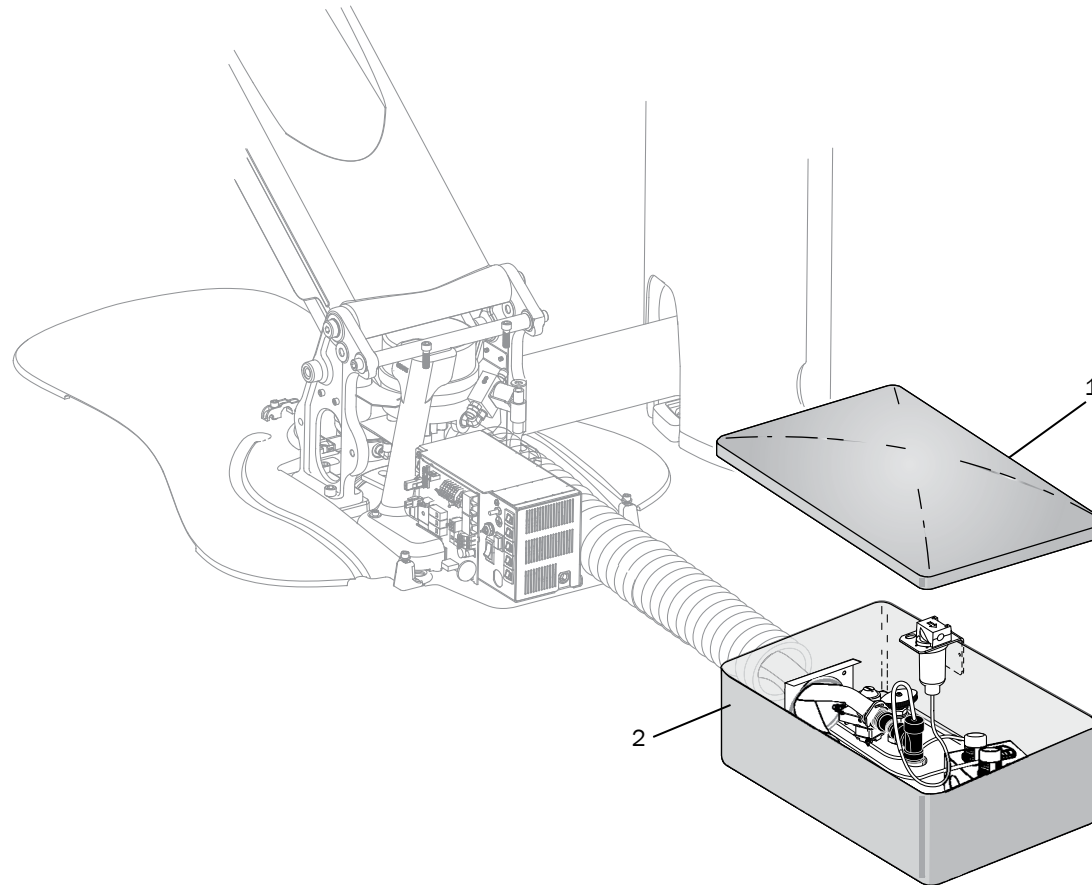
Item	Part Number	Description
1	62.0347.00	Plug cover
2	62.0657.00	Chair pump cover
3	62.0663.00	Radius mount plug cover
4	62.0656.00	Power supply cover
5	62.0655.00	Floor box cover
6	62.0659.00	Power supply frame
7	62.0658.00 </td <td>Floor box frame</td>	Floor box frame



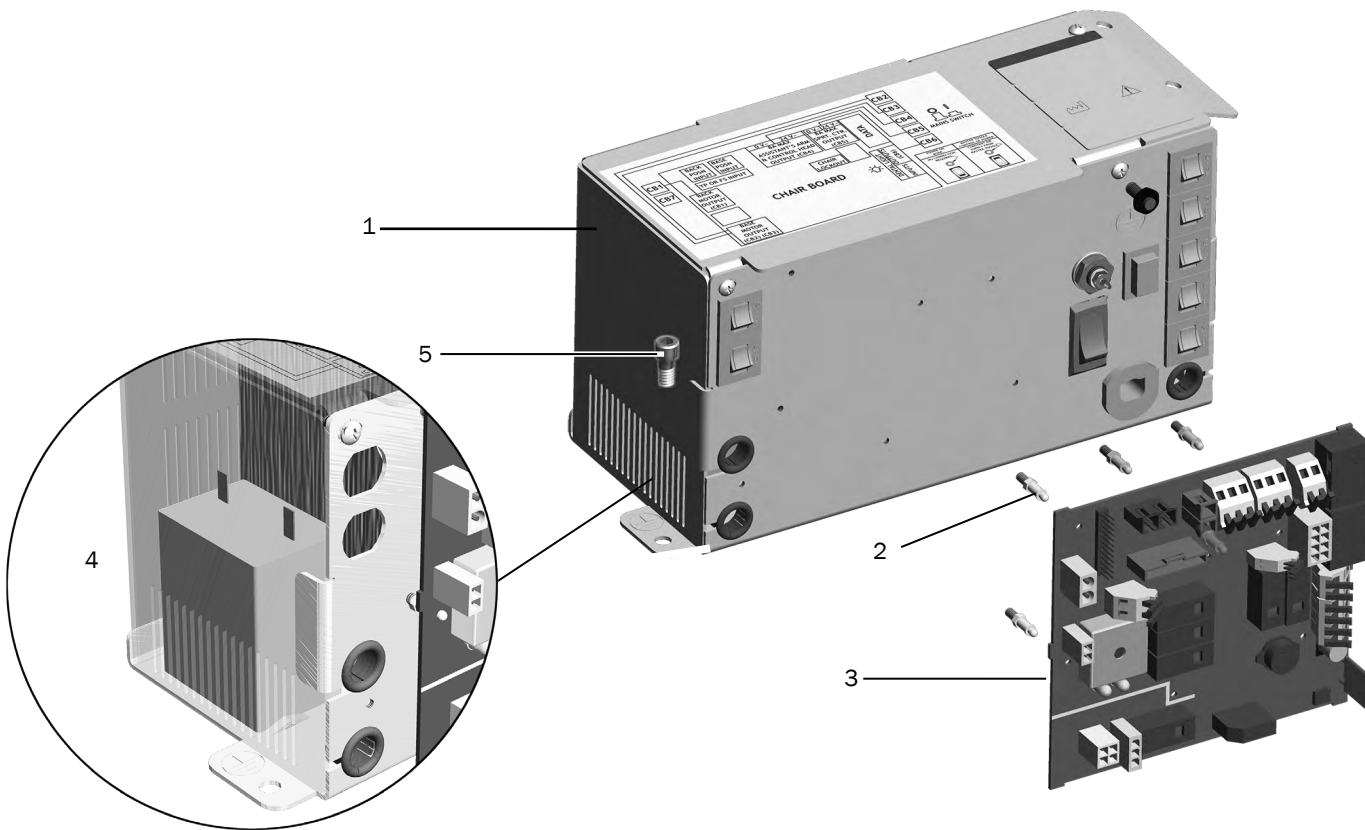


### Remote Floor Box Covers – 311 (A)

Item	Part Number	Description
1	41.0413.01	Cover, Gray
2	41.1507.00	Box



## Power Supply – 311 (A and B)/411



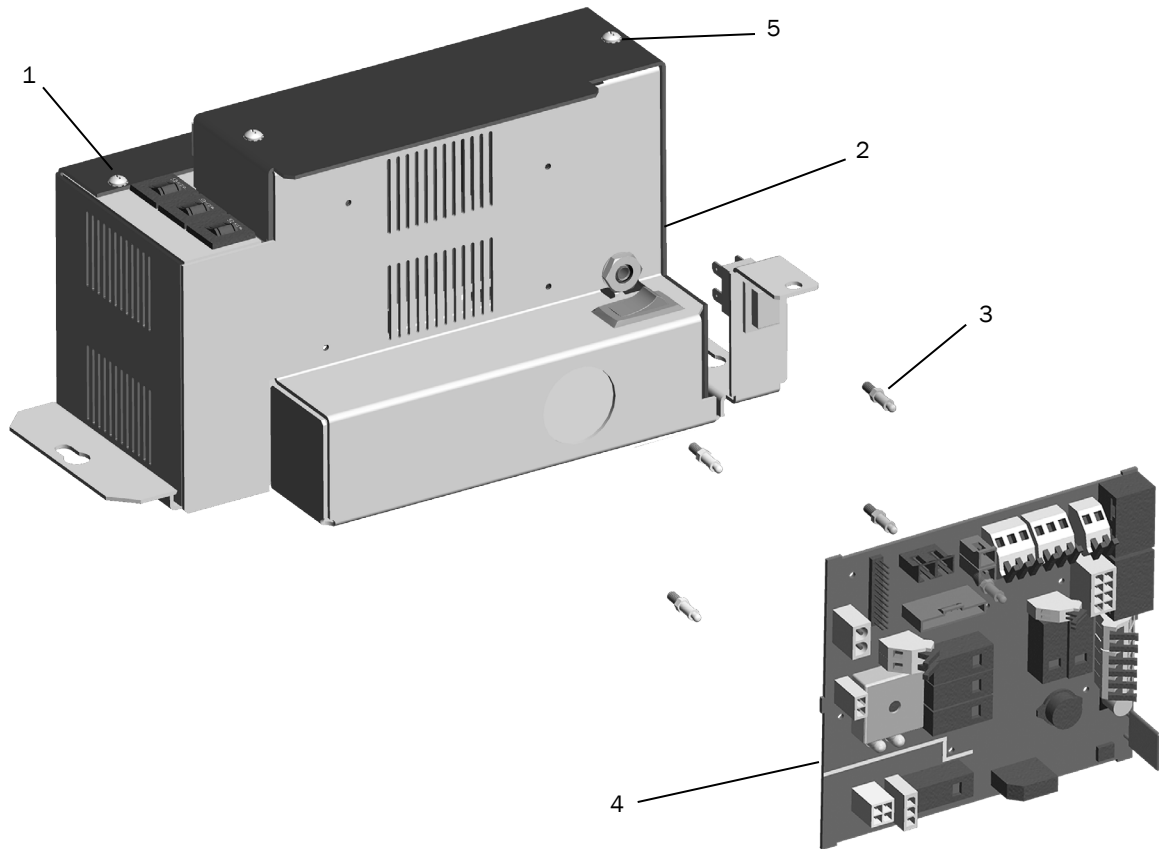
Item	Part Number	Description
1	43.0266.00	300 W 120 V Power supply assembly
	43.0267.00	300 W 240 V Power supply assembly
2	90.1082.00	Standoff, package of 5
3	90.1177.00	Chair circuit board kit
4	90.1199.00	Motor capacitor, 110-120 V kit
	90.1200.00	Motor capacitor, 220-240 V kit
5	002.010.00	Socket head patch screw, 1/4-20 X 3/8

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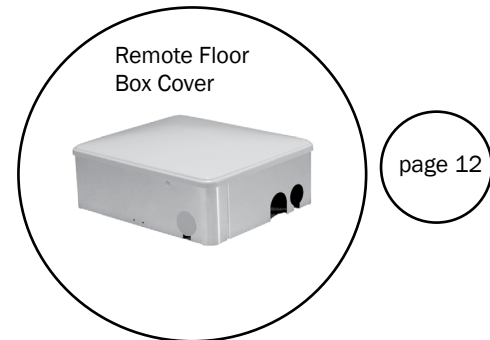
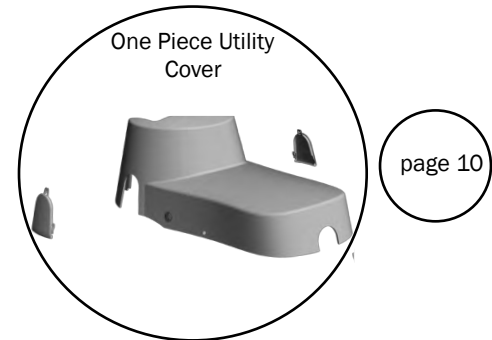
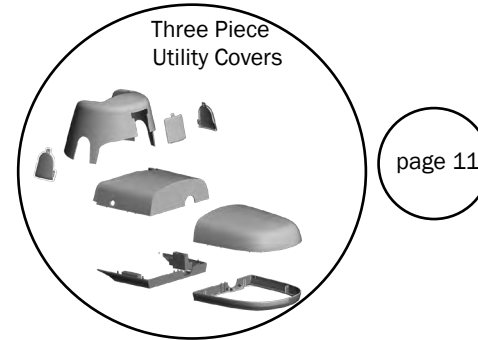
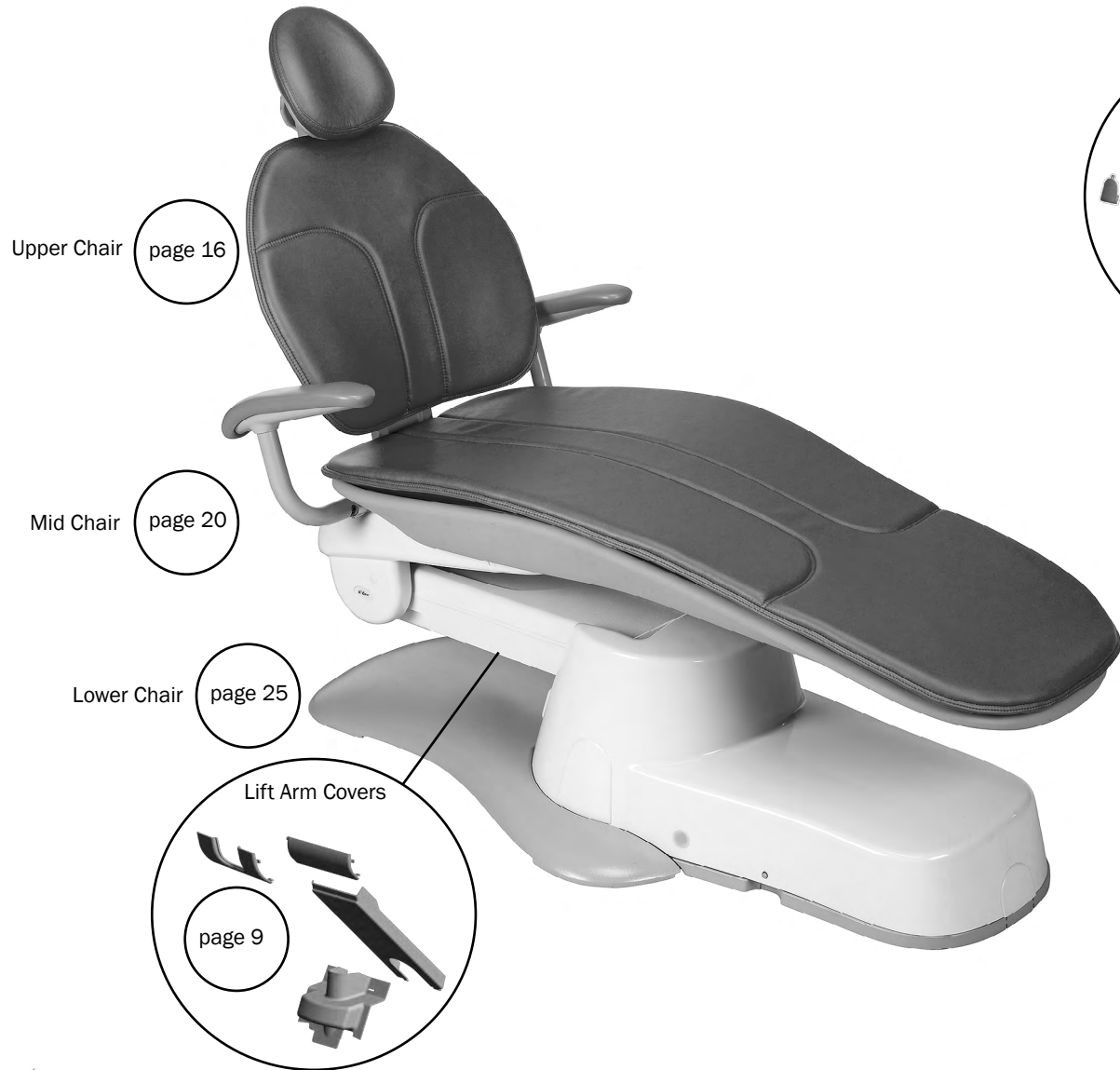
Replacement Kit	Part Number	Description
90.1179.00	1, 2, 5	120 V Power supply kit
90.1180.00		240 V Power supply kit

## Power Supply – 511



Item	Part Number	Description
1	002.010.00	Screw, socket head, patch, 1/4-20 x 3/8" stainless steel
2	90.1073.00 90.1074.00 90.1075.00	Power supply, 100 V Power supply, 120 V Power supply, 240 V
3	90.1082.00	Standoff, package of 5
4	90.1072.00	Chair PCB (includes item #3 standoffs)
5	005.008.01	Screw, 1/4-20 x 1/2"

# 311 (Version A) Dental Chair

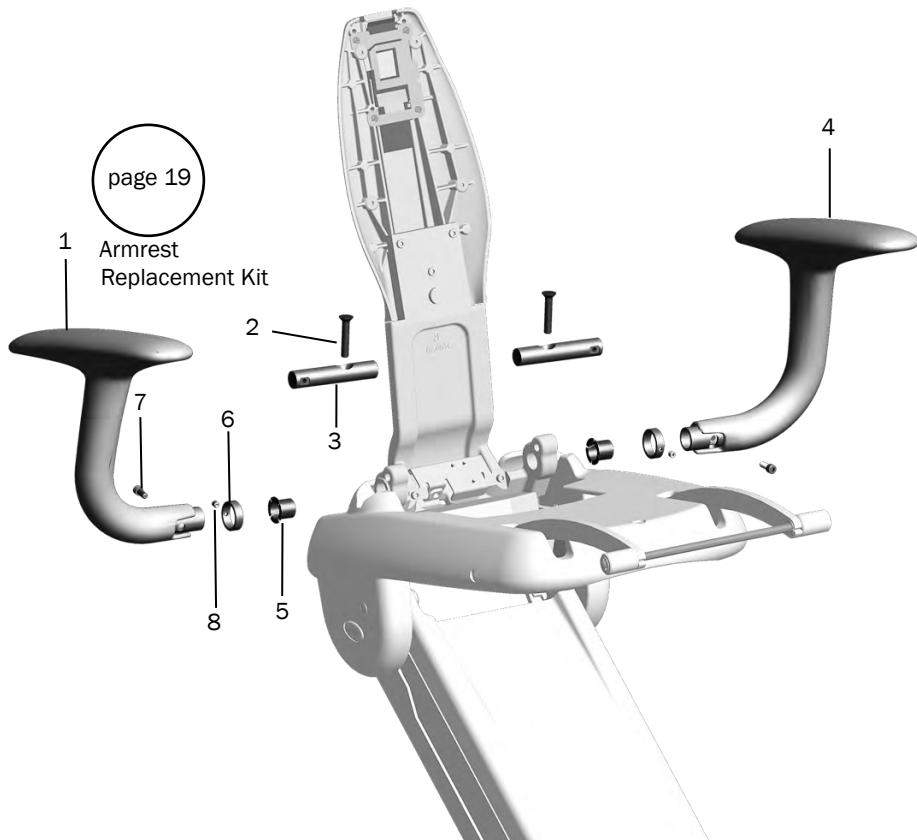


## Upper Chair – 311 (A)

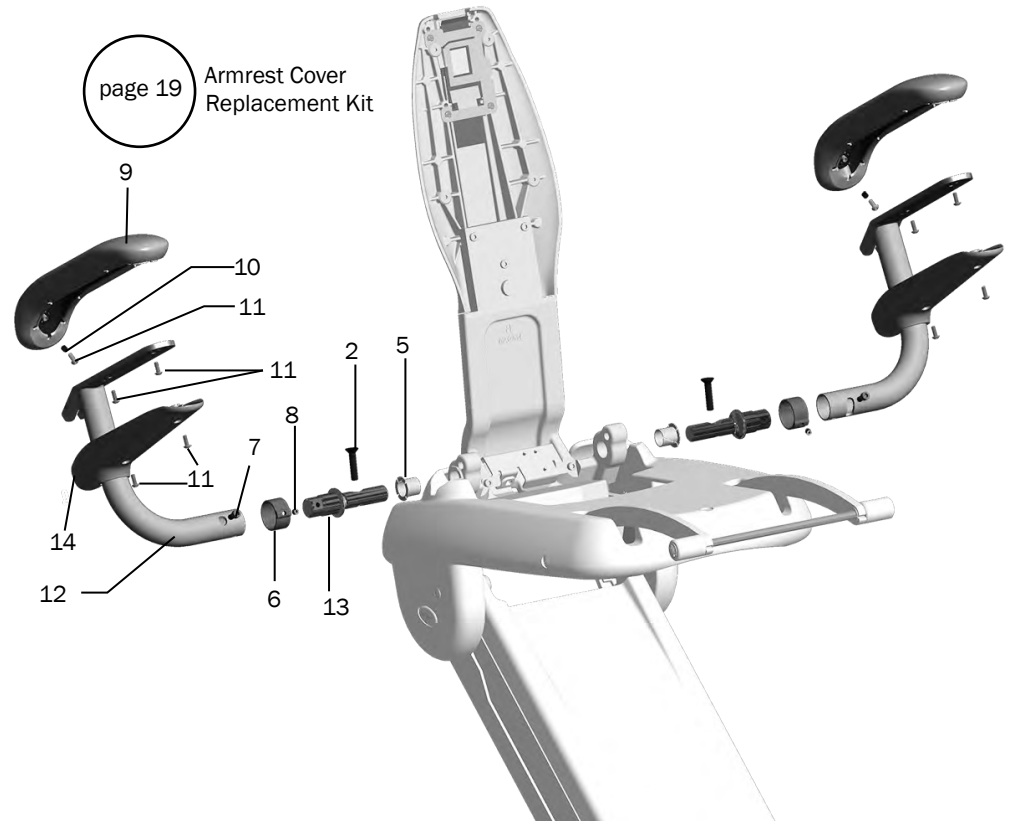


### Armrest – 311 (A)

Before October 15, 2012



Effective October 15, 2012




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**Armrest – 311 (A)**

Item	Part Number	Description	Replacement Kit
1	90.1222.00 OBS	Armrest, right (reference only)	90.1389.00, Armrest replacement kit (includes set of two)
2	001.263.00	Flat head socket screw, 5/16-18 x 1-1/2	
3	62.0339.00 OBS	Pivot pin	
4	90.1223.00 OBS	Armrest, left (reference only)	90.1389.00, Armrest replacement kit (includes set of two)
5	016.047.00	Flanged bearing	
6	62.0393.00 OBS	Collar	
7	001.264.00	Socket cup head screw, 1/4-28 x 1/2	
8	007.056.00	Set screw, socket cup point, 1/4-28 x 1/4"	
9	61.3903.00	311/200 Armrest cap assembly	
10	61.2630.00	Spacer tube, 0.25" OD x 0.20" long, brass	
11	005.110.00	Screw, button head socket, 10-32 x 1/2", patch, stainless steel	
12	62.0815.00	Right side armrest weldment	
13	62.0812.00	Pivot, armrest	
14	62.0813.00	Lower cover	

OBS indicates the individual part is obsolete

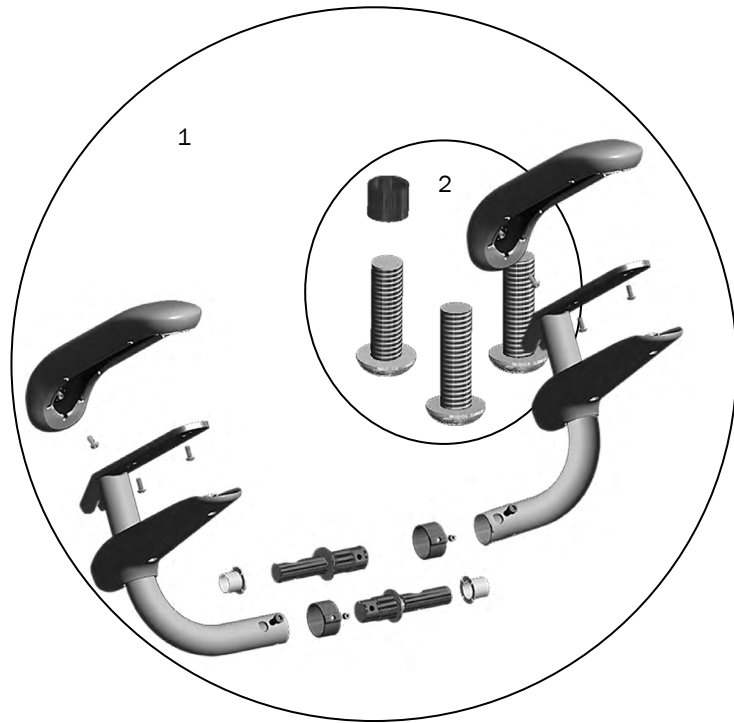
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## Armrest Replacement – 311 (A)

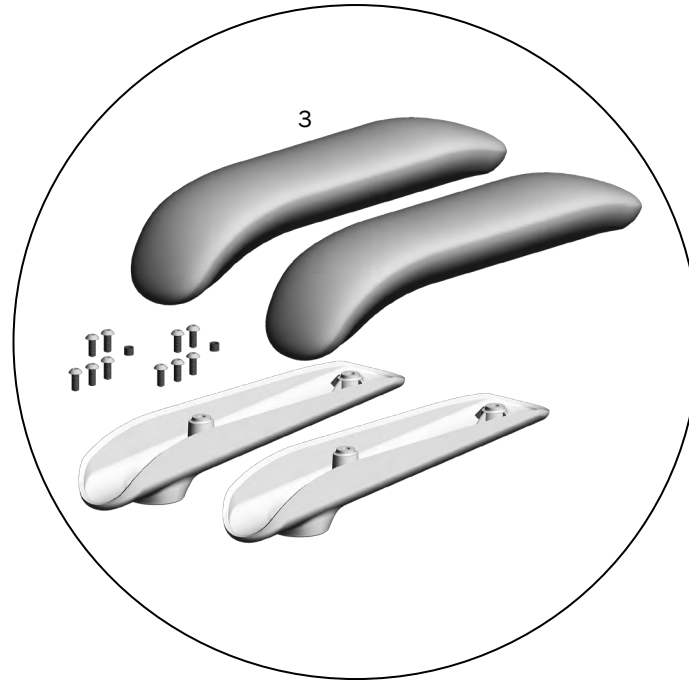
### Armrest Replacement Kit

(Available before October 2012)



### Armrest Cover Replacement Kit

(Available effective October 2012 to February 2014)



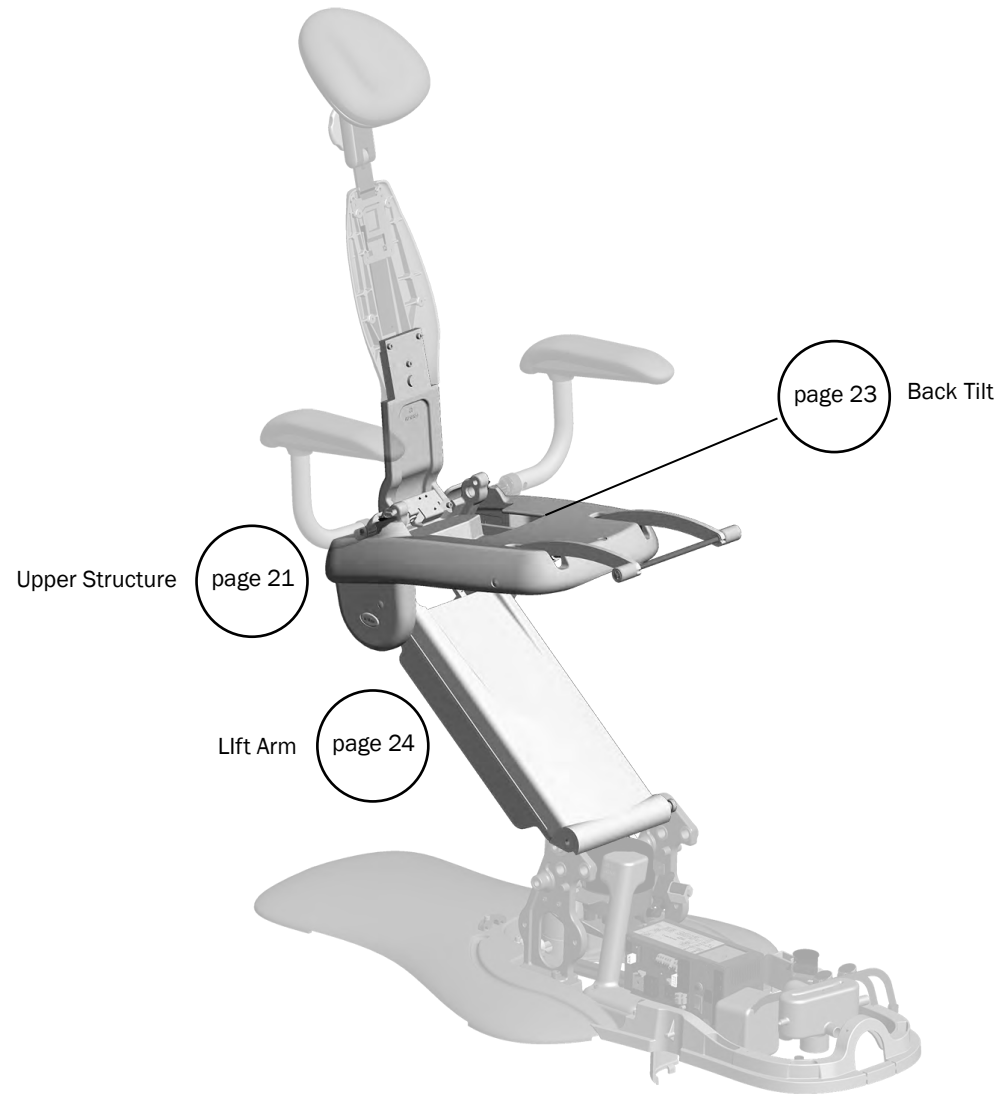
Item	Part Number	Description
1	90.1389.00	Armrest replacement kit (for armrest replacements manufactured before October 2012)
2	61.3904.00	Flat head socket screw, 5/16-18 x 1-1/2
3	90.1434.00	Armrest cover replacement kit (for upholstered armrests manufactured between October 2012 and February 2014)

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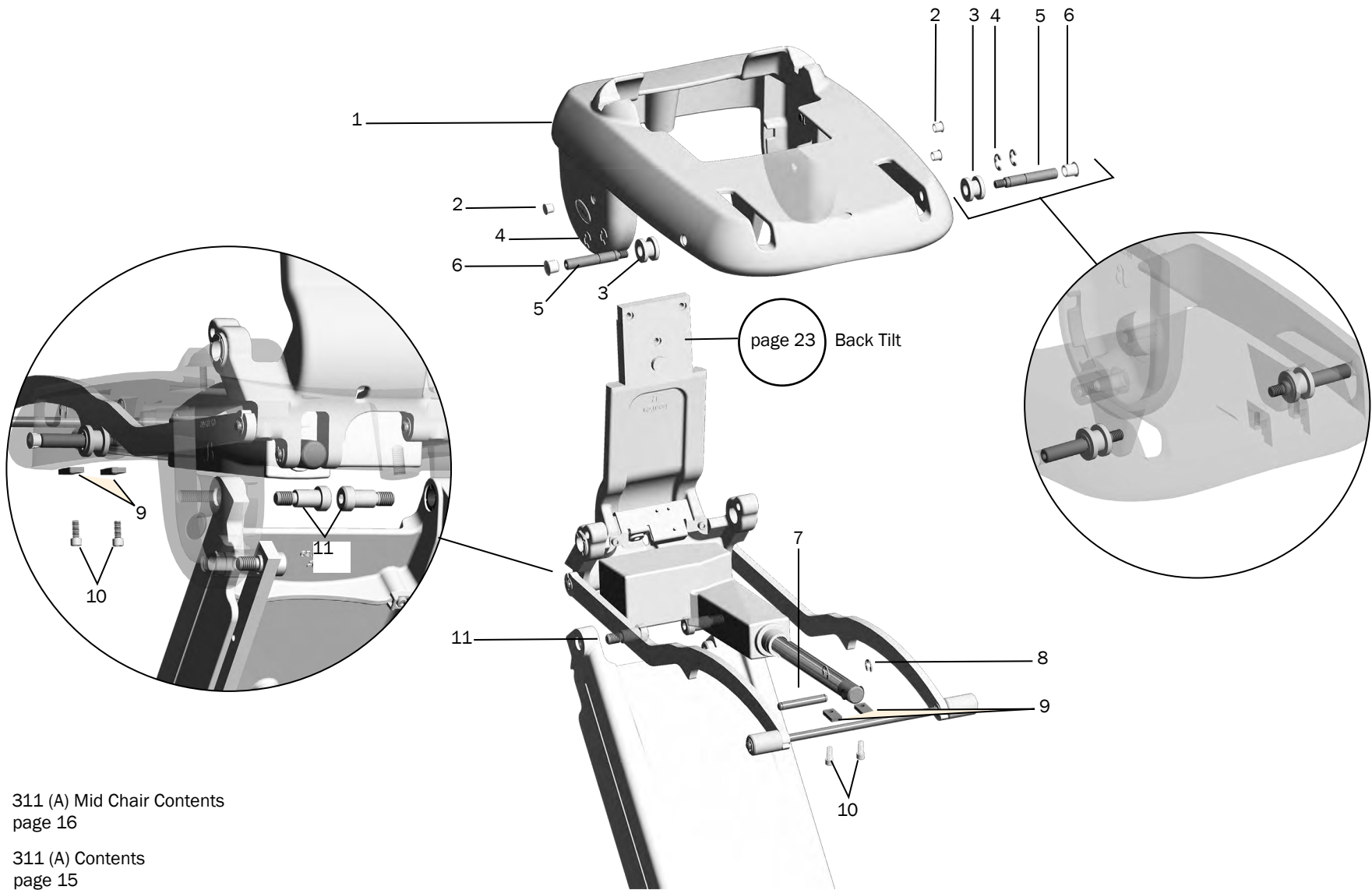
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## Mid Chair – 311 (A)





### Upper Structure – 311 (A)



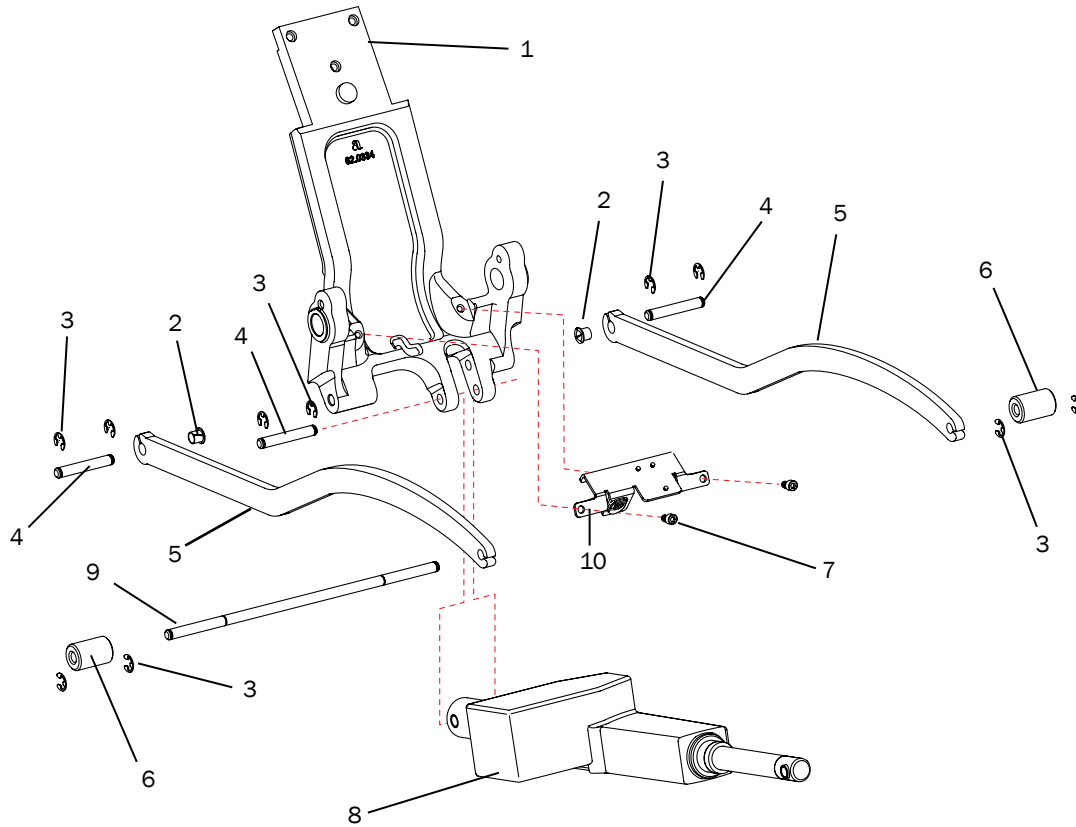
**Upper Structure – 311 (A)**

Item	Part Number	Description
1	62.0247.01	Upper structure
2	018.050.00	Plug, hole, 7/16 DIA, white
3	62.0311.00	Roller cam
4	010.031.01	Retaining e-ring, external 1/2" ID, stainless steel
5	62.0309.00	Bolt, linak, short
6	018.002.06	Plug, hole, 1/2 DIA, white2
7	62.0315.00	Toe board pin
8	010.040.01	Retaining ring, external, E-Ring, .375 ID, SST
9	62.0367.00	Retainer, pin, linak
10	001.089.00	Screw, socket shoulder, 1/2-13 X 5/8 X 7/8, patch, steel black
11	001.165.00	Screw, socket shoulder, 1/2-13 X 5/8 X 7/8, patch, steel black

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**Back Tilt – 311 (A)**



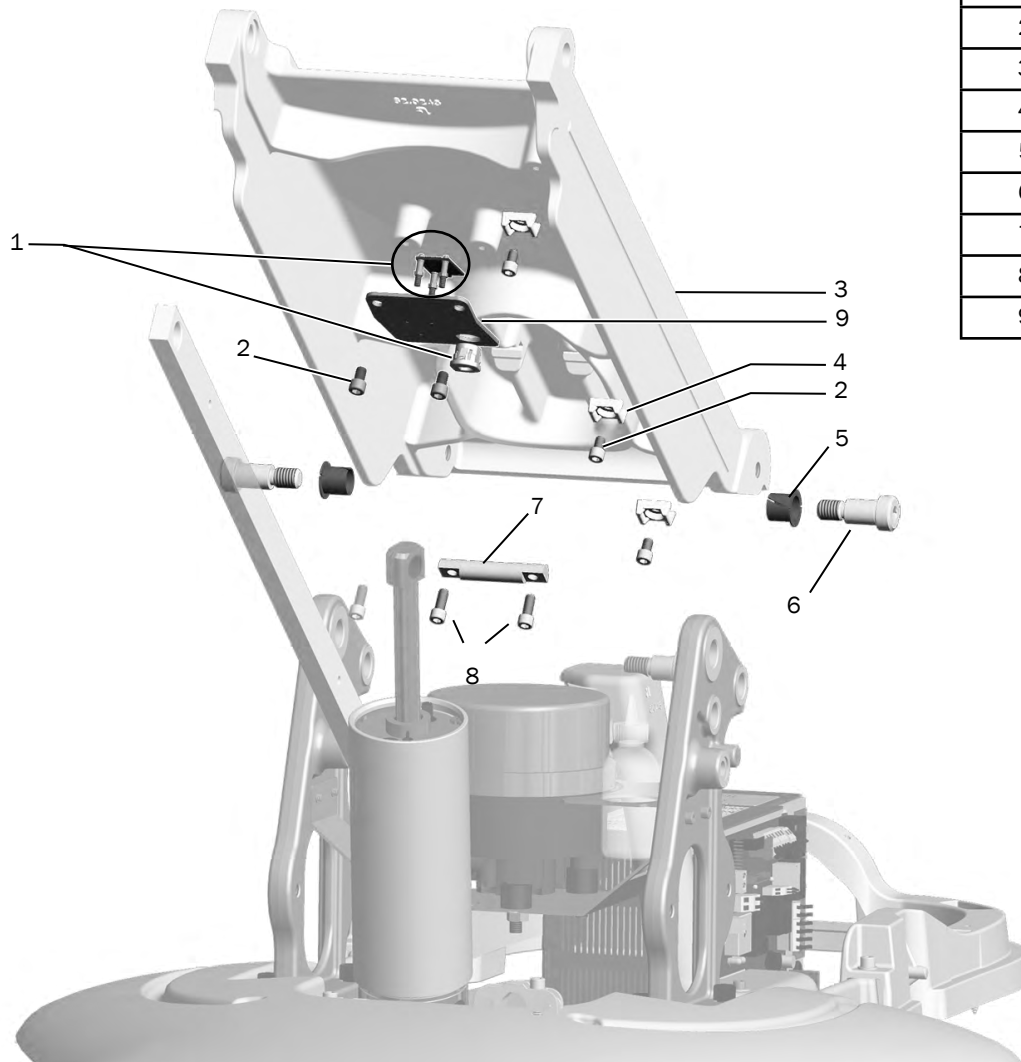
Item	Part Number	Description	Replacement Kit
1	62.0352.00	Back pivot	
2	016.162.00	Bearing, flange	
3	010.040.01	E-ring	
4	62.0315.00	Pin, toeboard, short	
5	62.0290.00	Seat lift cam	
6	62.0351.00	Roller	
7	002.010.00	Screw, socket head, patch, 1/4 - 20 x 3/8"	
8	62.0226.00	Tilt actuator assembly	Part of 90.1228.00 Tilt actuator assembly kit
9	62.0263.00	Trolley pin, long	
10	90.1183.00	Tilt position sensor	

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### Lift Arm – 311 (A)

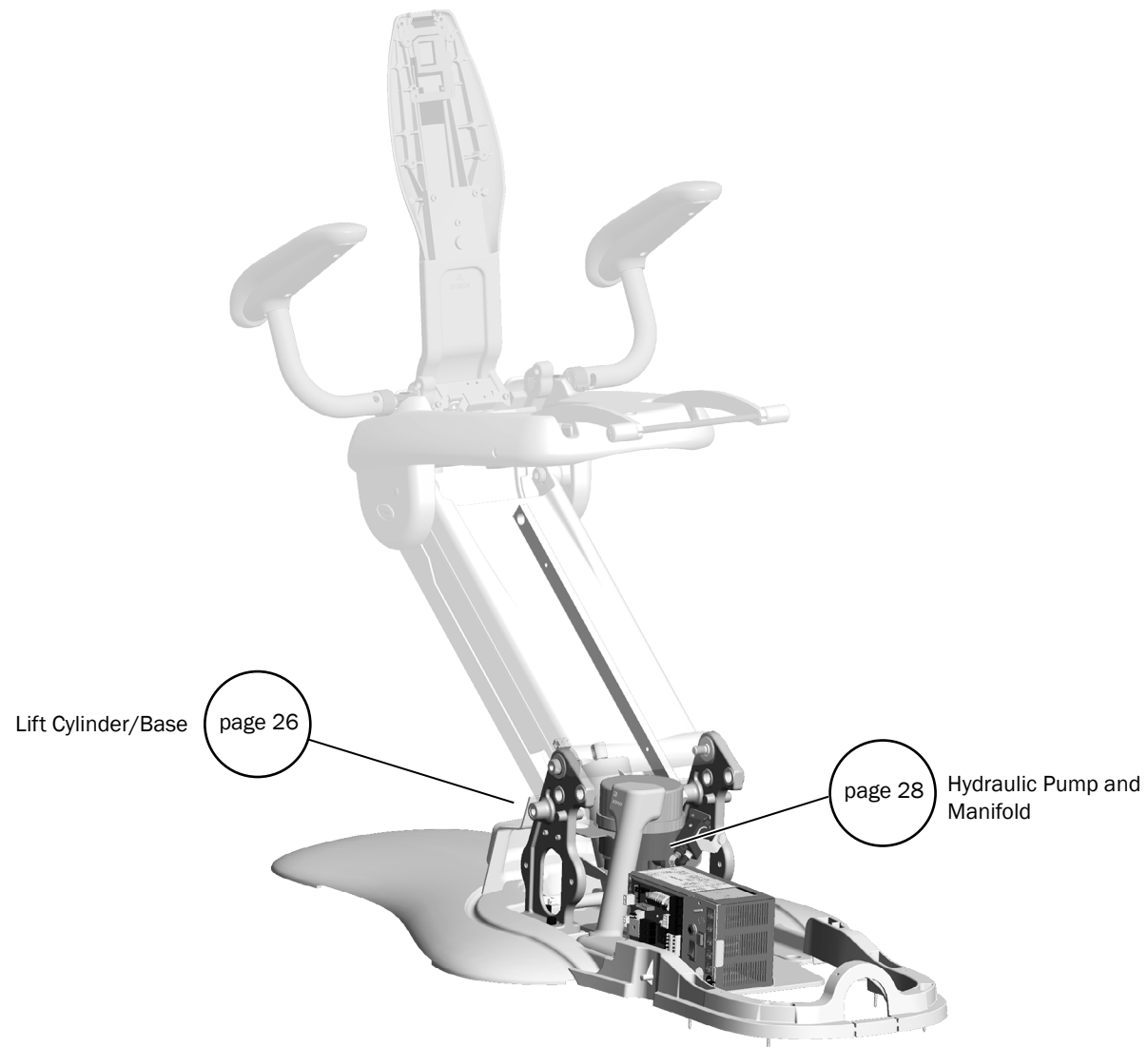
Item	Part Number	Description
1	90.1183.00	Position sensor kit
2	002.010.00	Socket head 1/4-20 x 3/8 patch screw
3	62.0244.00	Lift arm
4	025.072.00	Cable tie mounting block
5	016.164.00	Brg, flange, nylon, 5/8" ID x 5/8 Lg
6	001.165.00	Screw, socket shoulder, 1/2 - 13 x 5/8" x 5/8"
7	62.0350.00	Pin
8	001.089.00	Socket head 1/4-20 x 5/8 screw
9	62.0312.00	Bracket



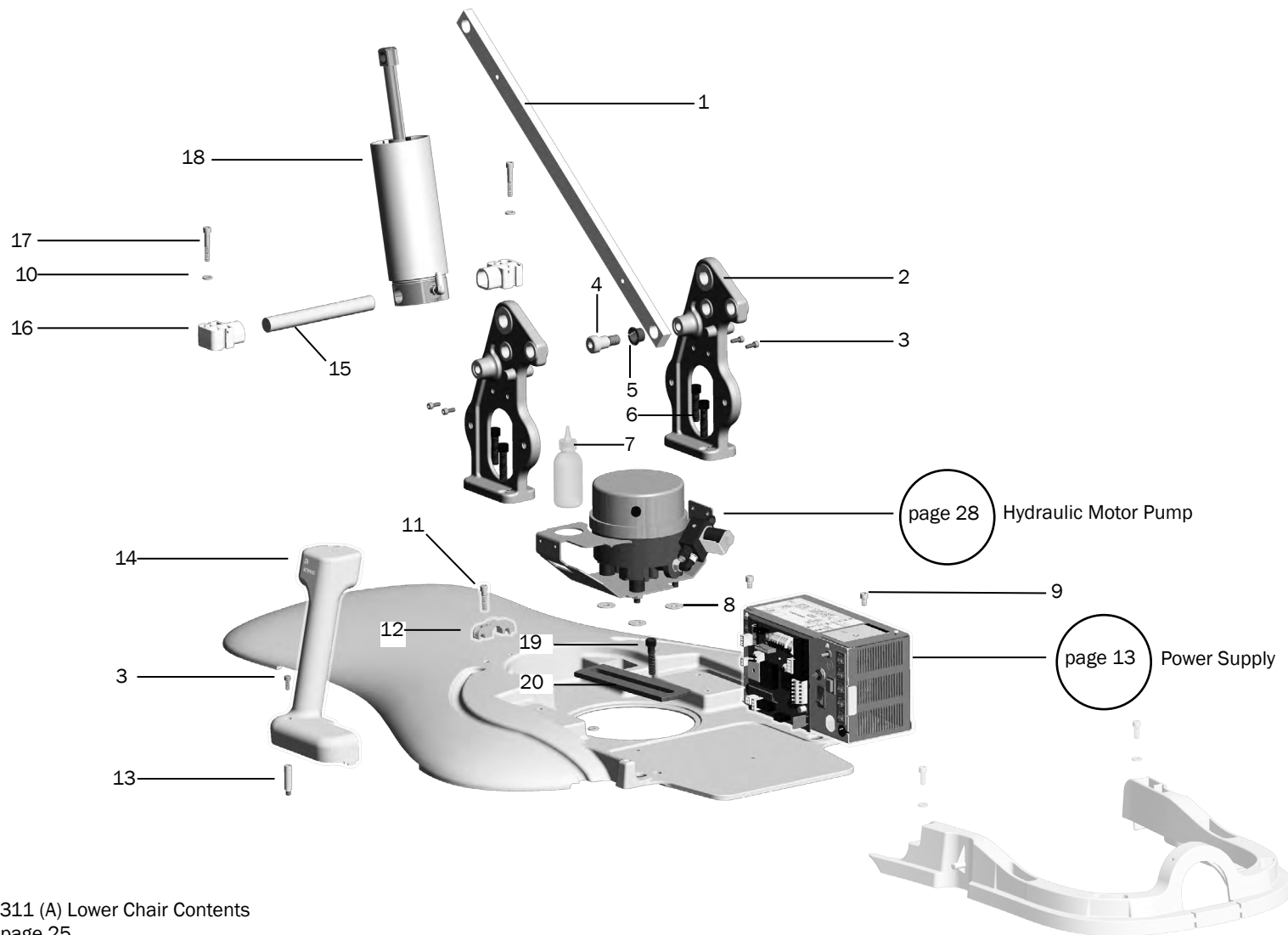
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## Lower Chair – 311 (A)



### Lift Cylinder and Chair Base – 311 (A)





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**Lift Cylinder and Chair Base – 311 (A)**

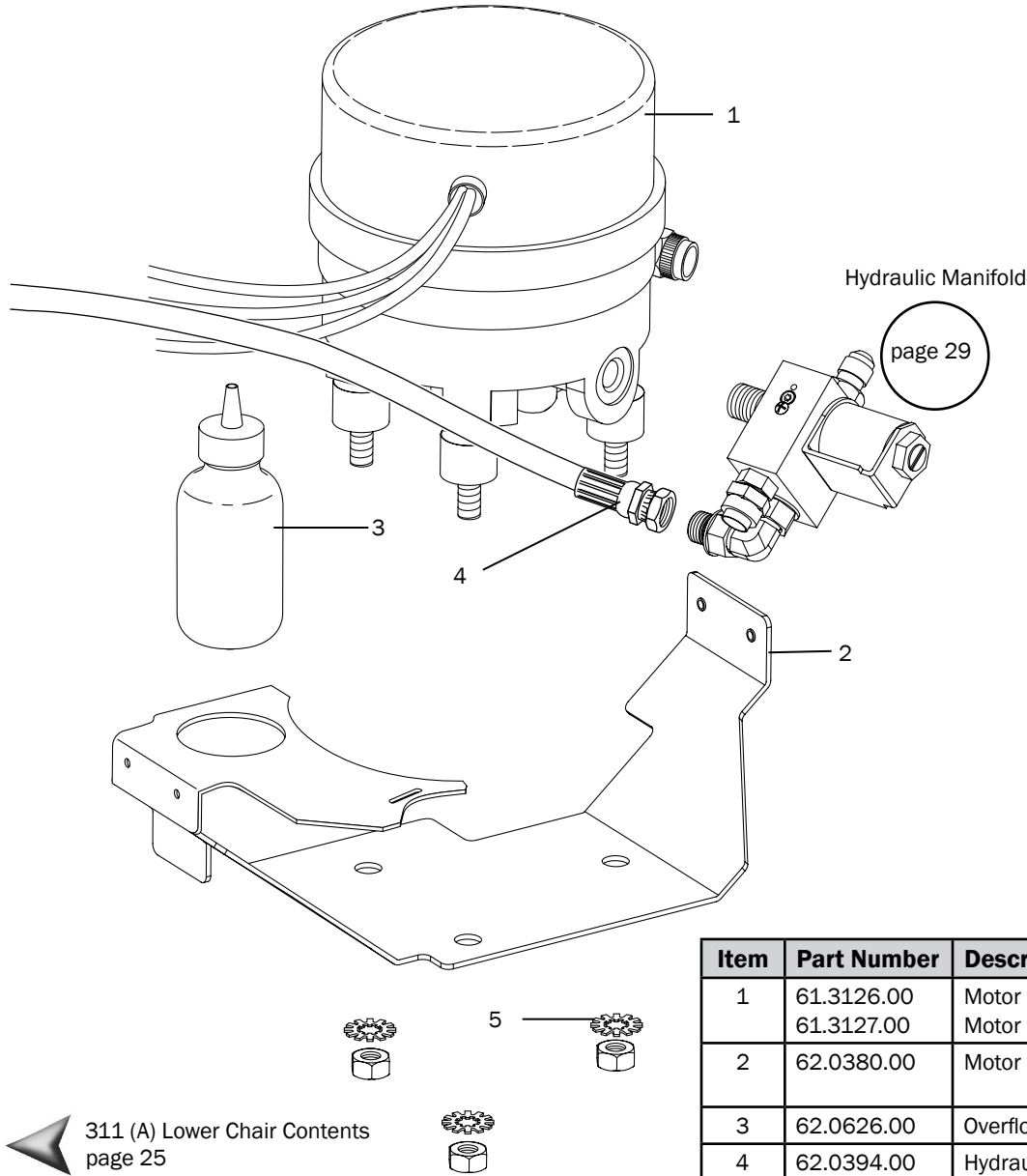
Item	Part Number	Description	Replacement Kit
1	62.0249.00	Link	
2	62.0271.00	Tower	
3	002.135.01	Socket head patch screw, 10-32 x 1/2	
4	001.164.00	Socket shoulder bolt, 1/2-13 x 5/8 x 5/8	
5	016.164.00	Flanged bearing	
6	002.042.01	Socket head screw, 3/8-16 x 1/2	
7	62.0626.00	Overflow bottle	
8	004.091.00	Washer	
9	001.089.00	Socket head screw, 1/4-20 x 5/8	
10	004.043.00	Washer	
11	002.120.00	Socket head patch screw	
12	62.0131.00	Strain relief	
13	037.046.00	Stand off pin	
14	62.0415.00	Motor wires cover	
15	62.0377.00	Lower lift cylinder pin	
16	62.0376.00	Bearing block	
17	002.082.03	Socket head screw, 1/4-20 x 1-1/2	
18	62.0368.00	Lift cylinder	90.1267.00 Lift cylinder kit
19	001.231.00 003.101.00	Hex head anchor bolt, 1/2 x 3-3/4 Lag bolt, 1/2	90.1161.00 Mounting kit, floor, 300
20	62.0285.00	Cleat	

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### Hydraulic Pump and Manifold – 311 (A)



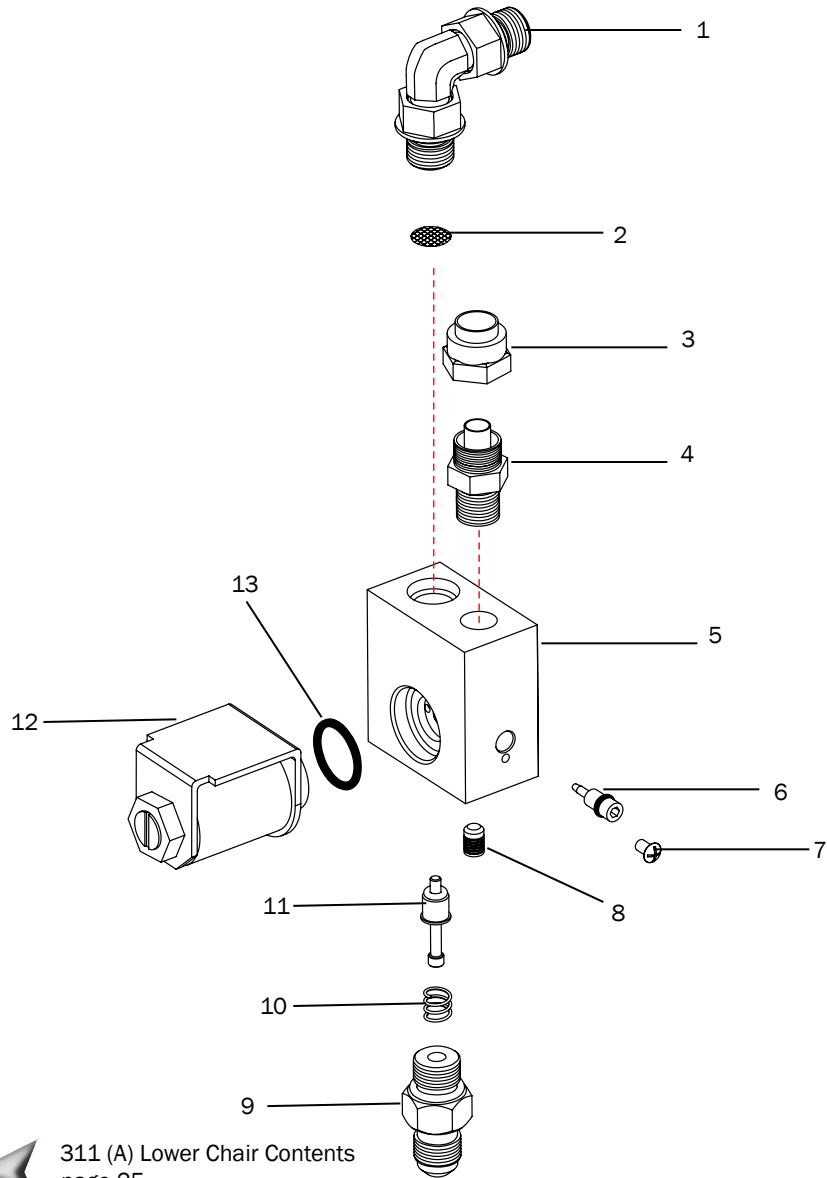
Item	Part Number	Description	Kit Replacement
1	61.3126.00	Motor pump assembly (100/115 V)	90.1429.00 120 V Hydraulic pump kit
	61.3127.00	Motor pump assembly (240 V)	90.1430.00 240 V Hydraulic pump kit
2	62.0380.00	Motor pump tray	90.1429.00 120 V Hydraulic pump kit 90.1430.00 240 V Hydraulic pump kit
3	62.0626.00	Overflow bottle	
4	62.0394.00	Hydraulic hose assembly, straight 90°, 13" long	
5	004.091.00	Lock washer	

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### Hydraulic Manifold – 311 (A)

p/n 62.0402.01 (part of 90.1429.00 100-120 V / 90.1430.00 240 V hydraulic pump kit)



Item	Part Number	Description
1	021.111.00	Elbow with O-rings, 7/16"
2	61.0464.00	Manifold screen, inlet
3	022.014.01	Nut, with sleeve, 3/8" poly
4	022.065.00	Adaptor, 3/8" poly x 1/8" MPT
5	62.0389.00	Manifold
6	61.0460.00	Flow adjustment screw, with O-ring
7	002.118.02	Screw, button head socket, patch, 4-40 x 3/16", package of 5
8	018.057.00	Plug, 3/16" expanding
9	022.049.00	Straight fitting with O-ring
10	013.044.00	Spring, compression, .250 OD x .40 FL
11	61.0461.01	Stem, with O-rings, check valve
12	62.0317.00	Solenoid assembly
13	030.015.02	O-ring AS568-015, .551ID X.070W, package of 10

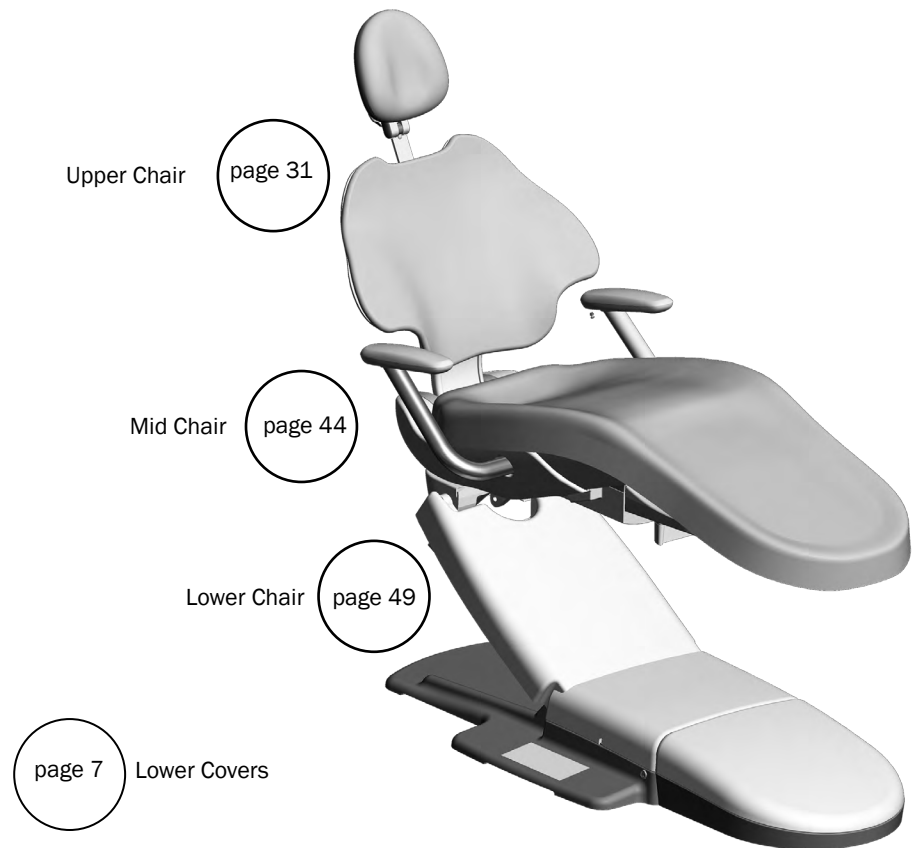
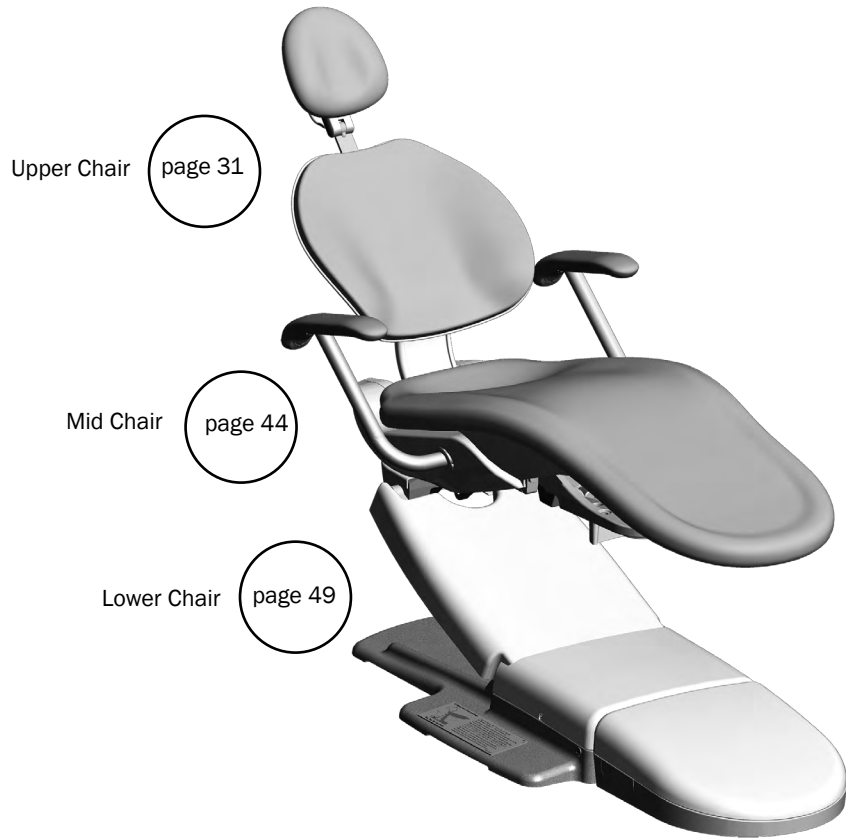
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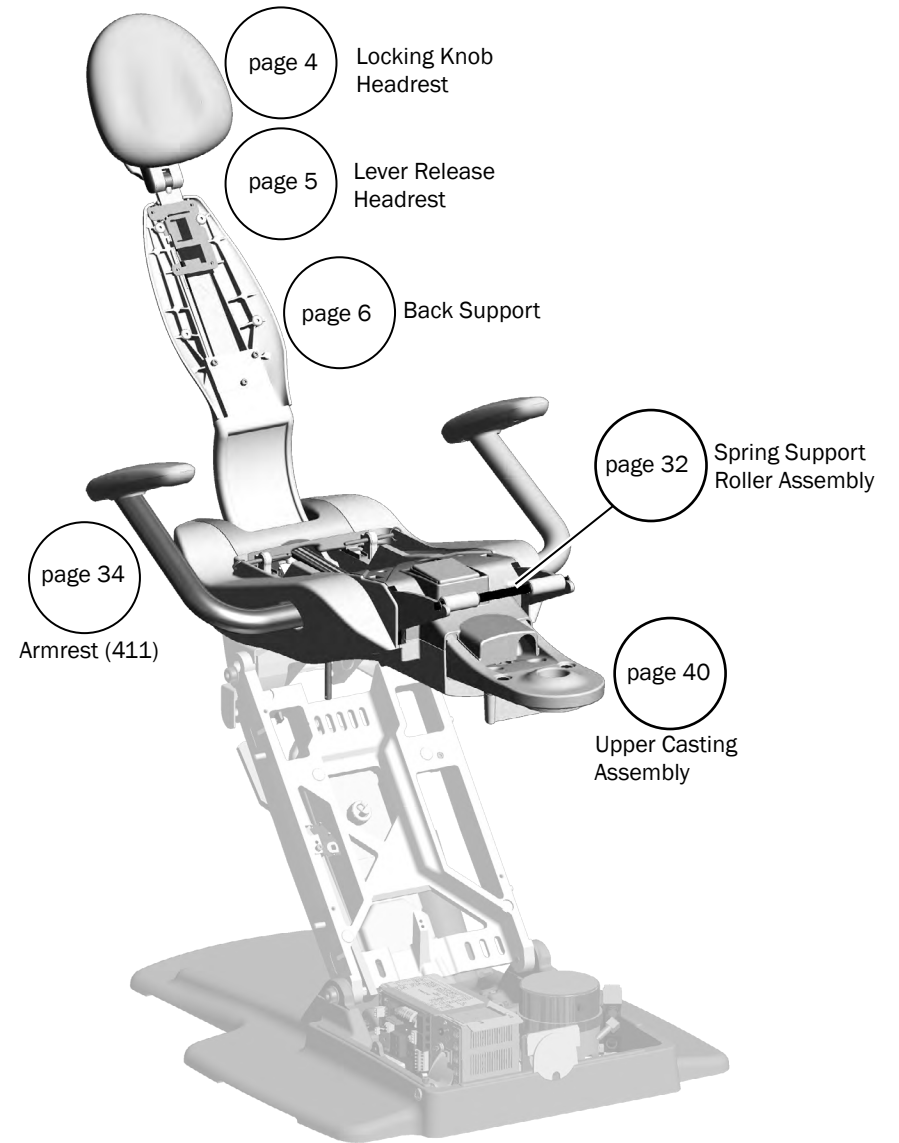
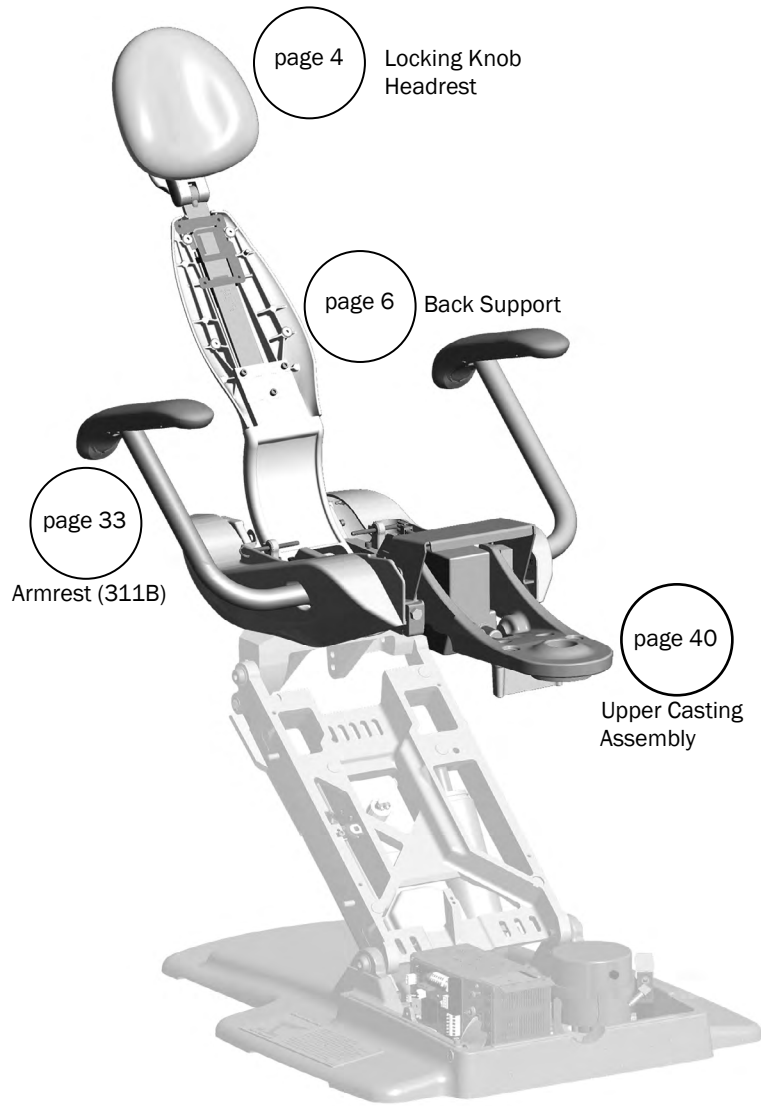
# 311 (Version B) and 411 Dental Chairs

**311 (Version B)**

**411**



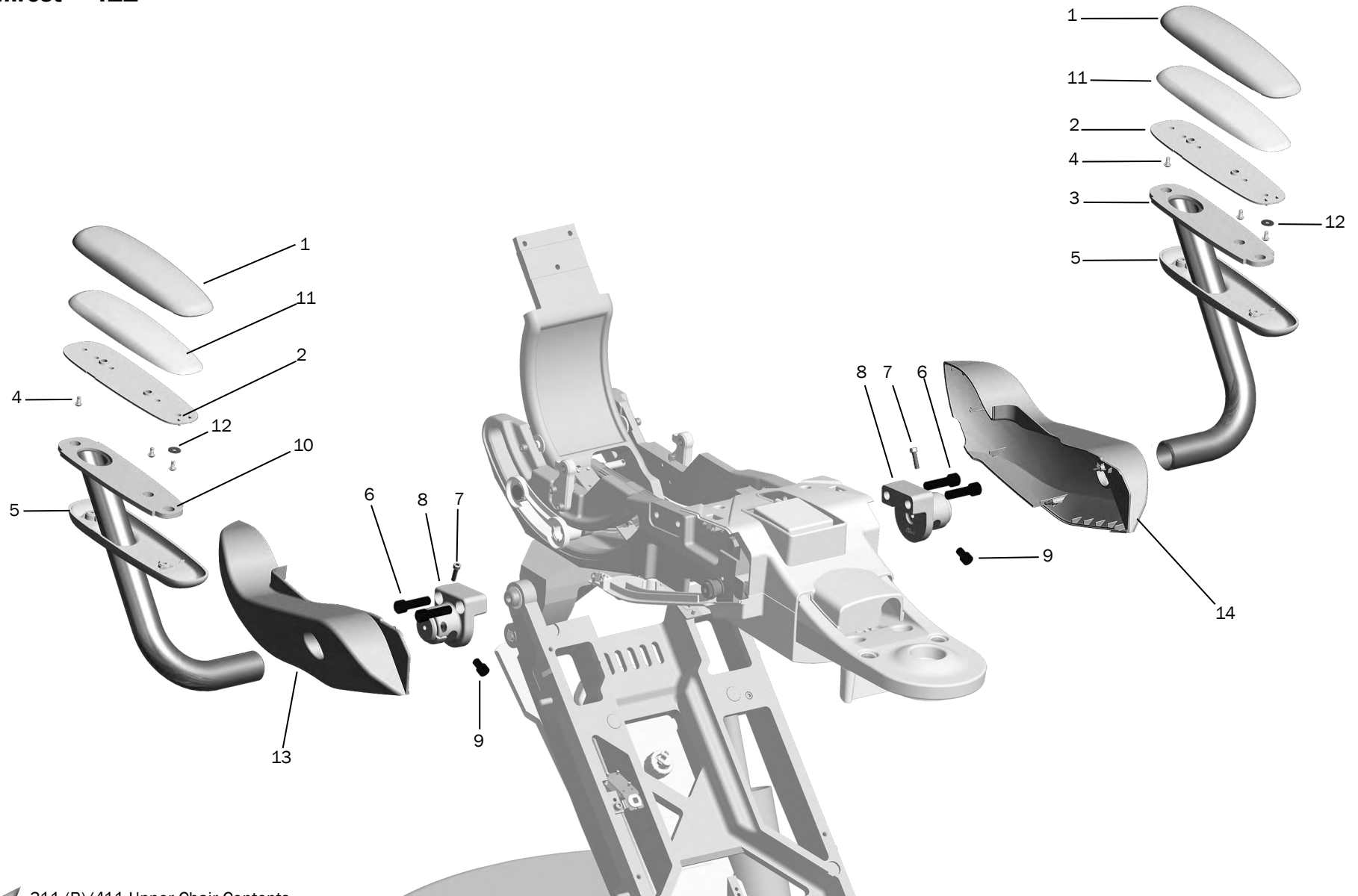
## Upper Chair – 311 (B)/411







### Armrest – 411



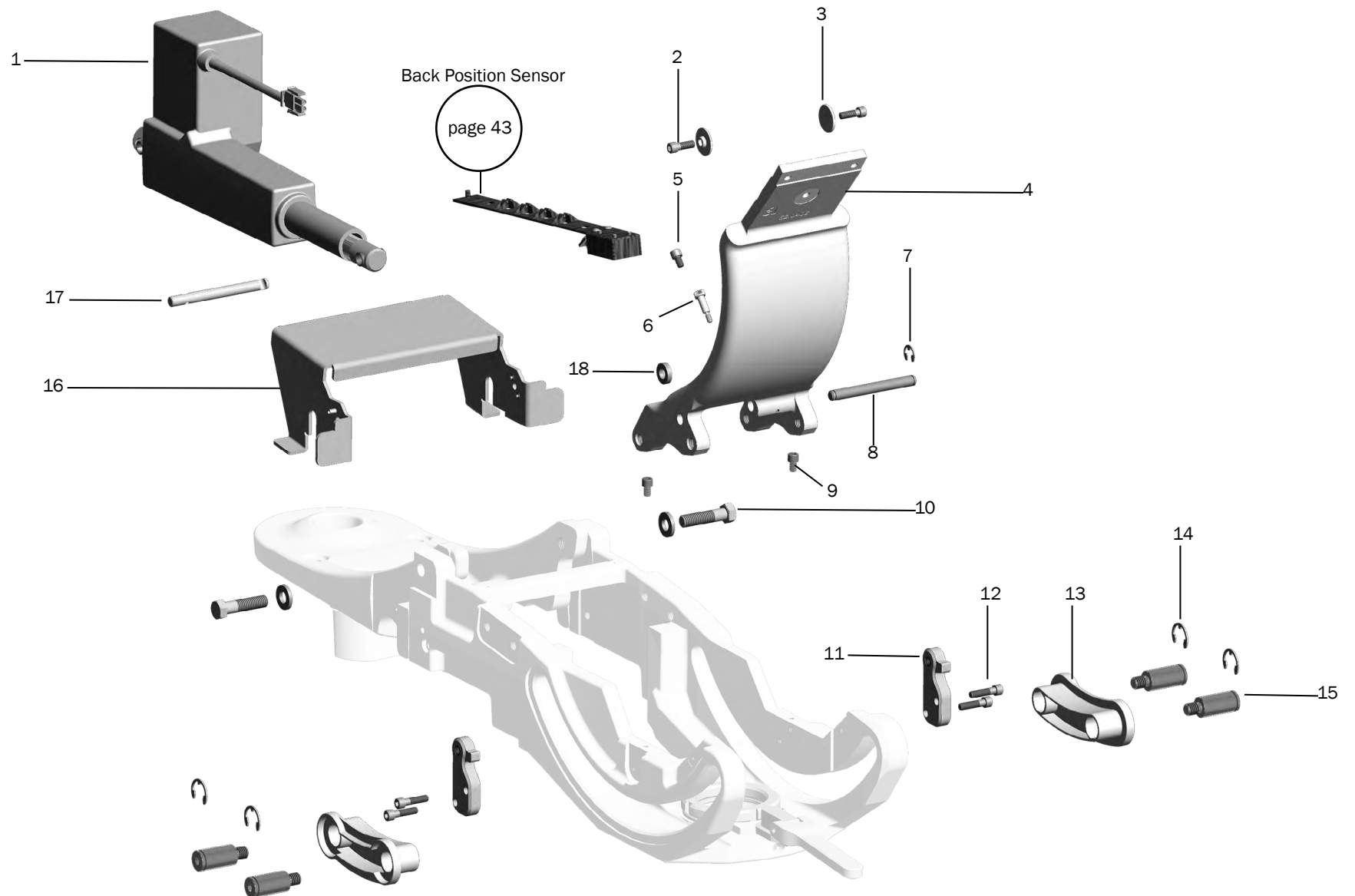
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**Armrest – 411**

Item	Part Number	Description	Replacement Kit
1	62.0828.00	Upper armrest cover	90.1401.00, Armrest cover kit
2	62.0830.00	Armature	90.1401.00, Armrest cover kit
3	62.0785.00	Armrest, weldment, left	90.1402.00 Left armrest kit
4	005.012.03	Button, socket head, patch screw, 10-32 x 3/8	90.1401.00, Armrest cover kit
5	62.0829.00	Lower armrest cover	90.1401.00, Armrest cover kit
6	005.181.00	Socket head cap screw, 7/16-14 x 1-1/2	
7	002.166.00	Socket head screw, 10-32 x 3/4 (black)	
8	62.0780.00	Mount	90.1400.00 Armrest mount kit
9	002.158.00	Socket head screw, 3/8-16 x 1/2, GR8	
10	62.0784.00	Armrest, weldment, right	90.1403.00 Right armrest kit
11	62.0831.00	Foam	
12	004.230.00	Washer	90.1401.00, Armrest cover kit
13	62.0768.00	Right hand upper side cover	90.1398.00 Kit, side cover, right
14	62.0767.00	Left hand upper side cover	90.1397.00 Kit, side cover, left



### Chair Back Trolley – 311 (B)



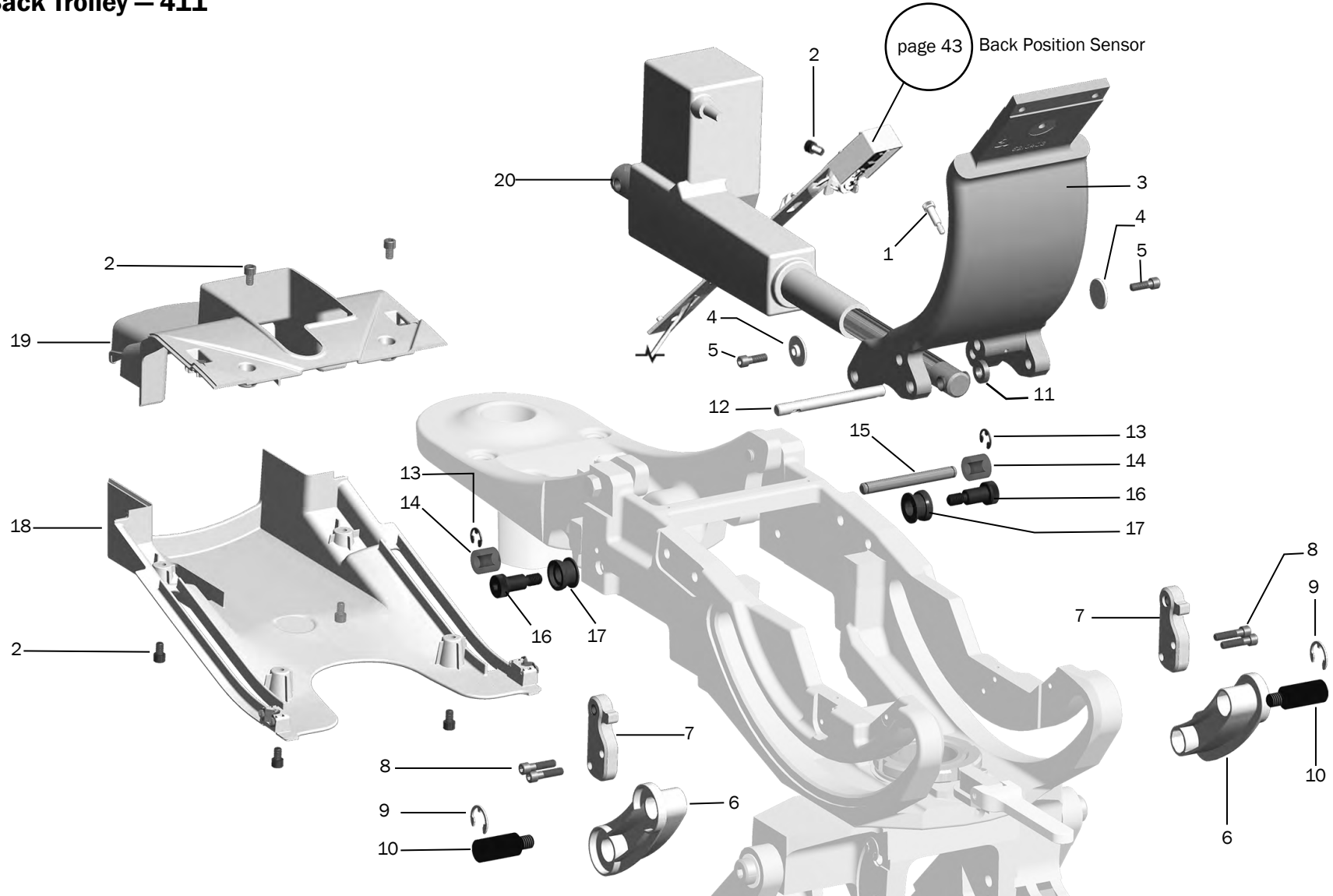
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**Chair Back Trolley – 311 (B)**

Item	Part Number	Description	Replacement Kit
1	62.0726.00	Tilt actuator	90.1406.00 Tilt actuator assembly Kit
2	001.245.00	Socket head cap screw, 1/4-20 x 3/4	
3	62.0070.00	Guide	
4	62.0846.00	Chair back trolley assembly	
5	002.010.00	1/4-20 X 3/8 Socket head patch screw	
6	001.138.00	1/4-20 X 1/2 Pan head Phillips screw	
7	010.040.00	E-ring	
8	62.0761.00	Pin	
9	002.010.00	Socket head patch screw, 1/4-20 x 3/8	
10	001.292.00	Hex screw, 7/16 -14 x 1.75	
11	62.0775.00 62.0774.00	Seat attach bracket kit (includes items 8 and 9)	90.1404.00 Seat attach bracket kit
12	002.120.00	Socket head patch screw, 1/4-20 x 1	90.1404.00 Seat attach bracket kit
13	62.0061.00	Guide	
14	010.083.00	E-ring	
15	62.0202.00	Slider shoulder bolt	
16	62.0906.00	Bracket	
17	62.0858.00	Pin	
18	62.0189.00	Spacer	

### Chair Back Trolley – 411



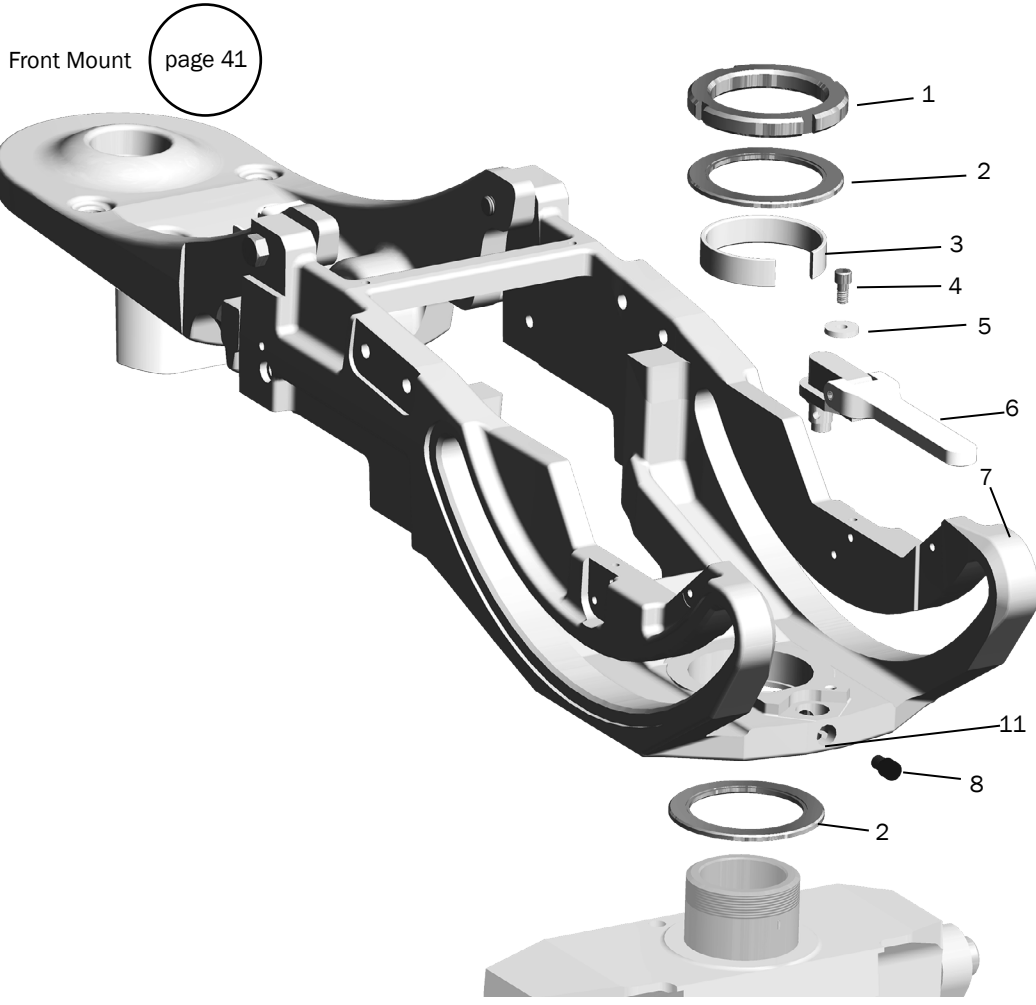
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**Chair Back Trolley – 411**

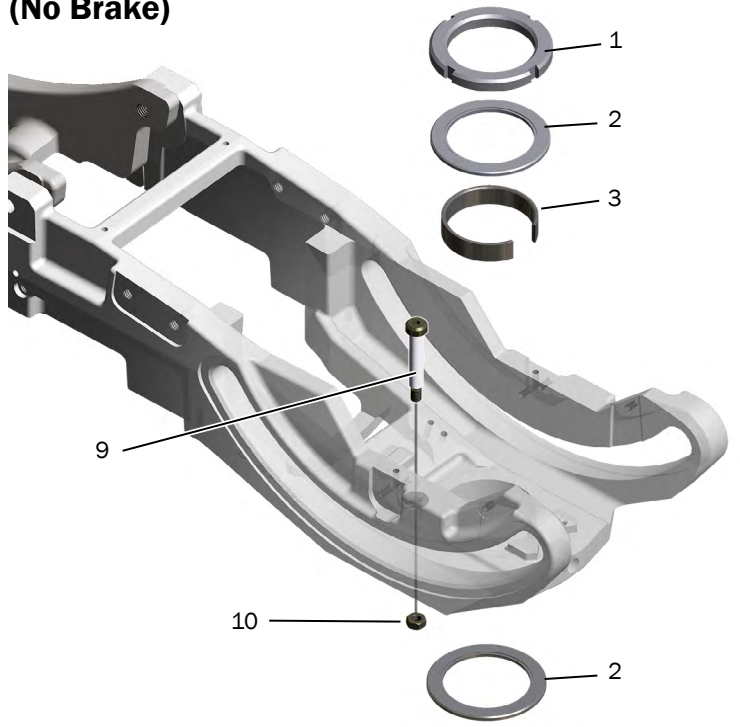
Item	Part Number	Description	Replacement Kit
1	001.138.00	1/4-20 X 1/2 Pan head Phillips screw	
2	002.010.00	1/4-20 X 3/8 Socket head patch screw	
3	62.0846.00	Chair back trolley assembly	
4	62.0070.00	Guide	
5	001.245.00	Socket head cap screw, 1/4-20 x 3/4	
6	62.0061.00	Guide	
7	62.0775.00 62.0774.00	Seat attach bracket kit (includes items 8 and 9)	90.1404.00 Seat attach bracket kit
8	002.120.00	Socket head patch screw, 1/4-20 x 1	90.1404.00 Seat attach bracket kit
9	010.083.00	E-ring	
10	62.0202.00	Slider shoulder bolt	
11	62.0189.00	Spacer	
12	62.0858.00	Pin	
13	010.040.00	E-ring	
14	62.0760.00	Compression spring	
15	62.0761.00	Pin	
16	001.277.00	Socket shoulder screw, 3/8-16 X 1/2 X 3/4	
17	62.0844.00	Flange bushing	
18	62.0771.00	Upper cover bottom	
19	62.0772.00	Upper cover top	
20	62.0726.00	Tilt actuator	90.1406.00 Tilt actuator assembly Kit

### Upper Structure Casting Assembly – 311 (B)/411



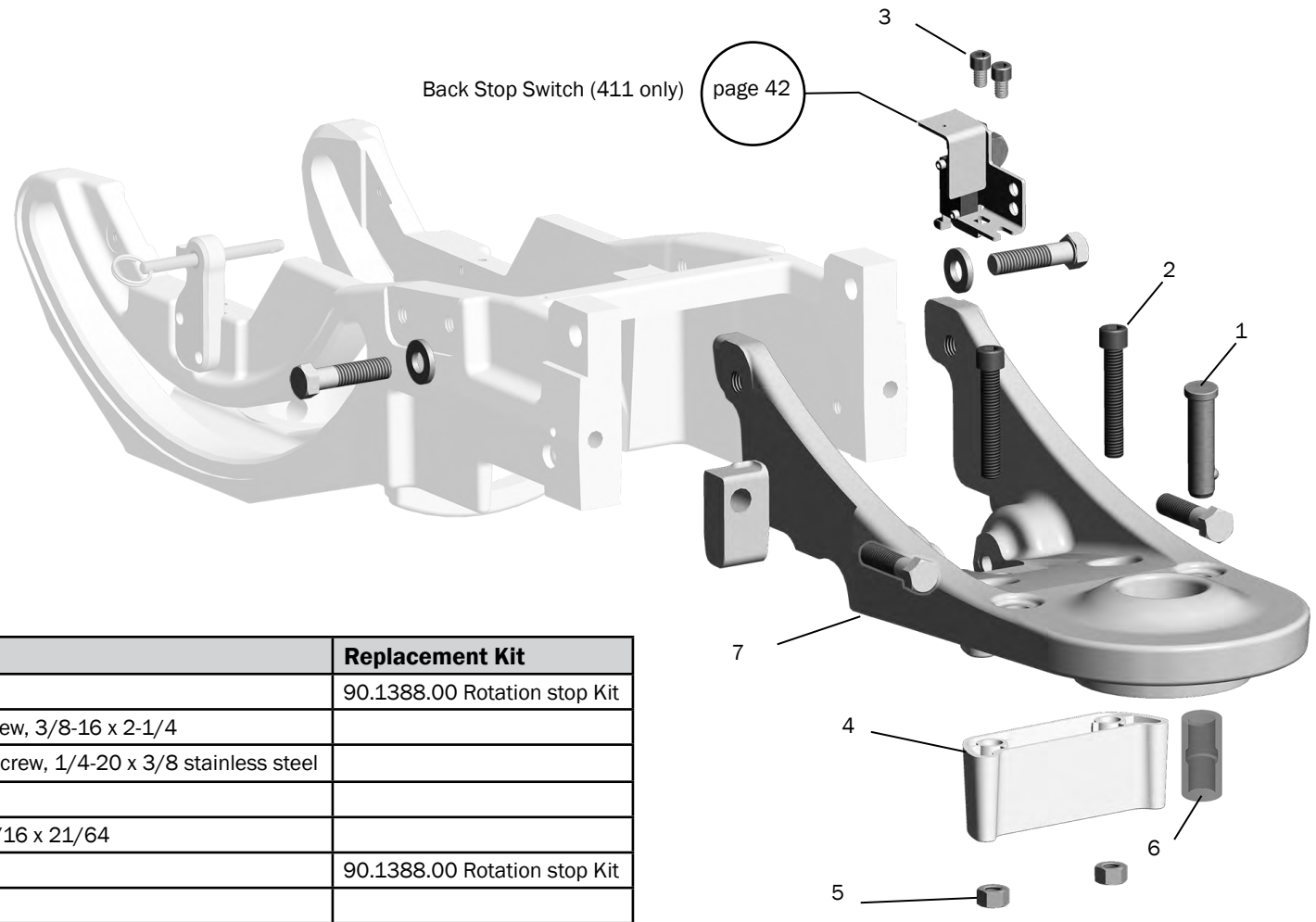
Item	Part Number	Description
1	61.2051.00	Spanner nut
2	016.133.00	Thrust needle bearing
3	62.0237.00	Wear ring
4	005.008.01	1/4-20 x 1/2 Socket head screw
5	004.170.00	Washer
6	62.0218.01	Brake handle assembly
7	62.0727.00	Upper structure casting
8	62.0042.00	Brake adjuster
9	001.289.00	Shoulder bolt
10	006.410.00	Nut
11	62.0043.00	Plunger, brake

### International 311B Casting (No Brake)



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**Front Mount – 311 (B)/411**



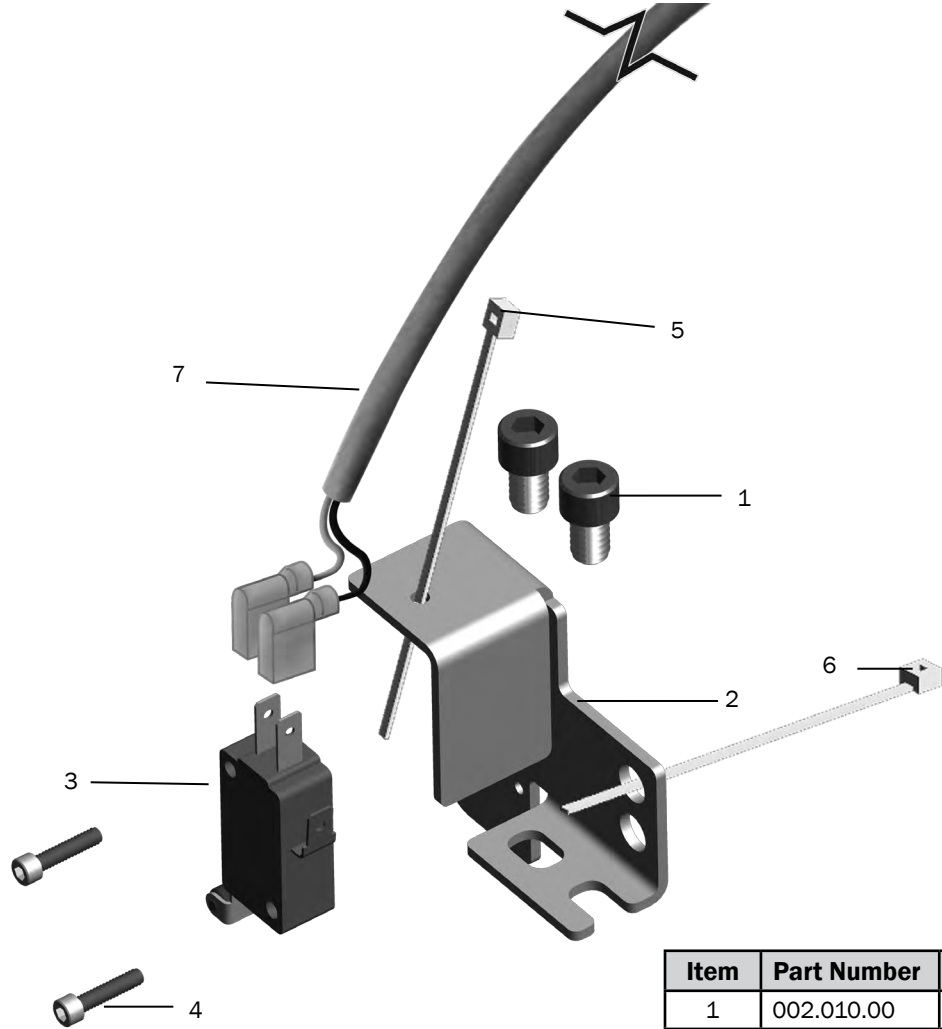
Item	Part Number	Description	Replacement Kit
1	011.140.00	Detent pin	90.1388.00 Rotation stop Kit
2	005.154.00	Socket head cap screw, 3/8-16 x 2-1/4	
3	002.010.00	Socket head patch screw, 1/4-20 x 3/8 stainless steel	
4	77.1170.00	Stop	
5	006.130.00	Hex nut, 3/8-16 x 9/16 x 21/64	
6	77.1258.00	Rotation stop sleeve	90.1388.00 Rotation stop Kit
7	62.0764.00 *	Front mount	

\* Item is factory installed and is not removable

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### Back Stop Switch – 411



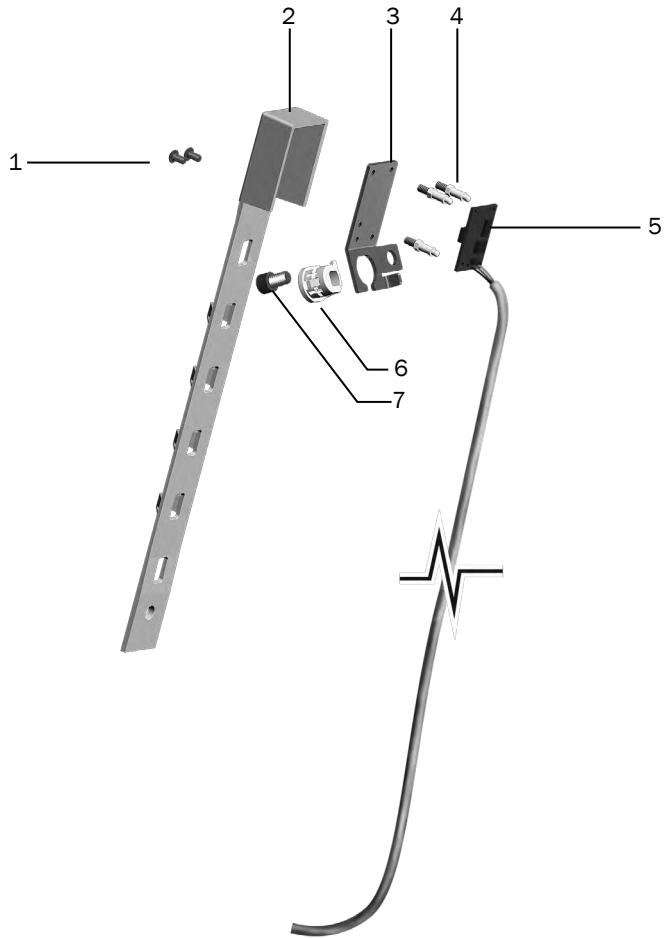
Item	Part Number	Description	Replacement Kit
1	002.010.00	Socket head patch screw, 1/4-20 x 3/8 stainless steel	90.1426.00 Back stop switch kit
2	62.0759.00	Bracket	
3	044.204.00	Micro-switch	90.1426.00 Back stop switch kit
4	001.021.00	Socket head screw, 4-40 x 1/2 stainless steel	90.1426.00 Back stop switch kit
5	025.036.01	Cable tie, package of 10	
6	025.002.01	Cable tie, package of 10	
7	43.0330.00	Electric cable	

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### Position Sensor – 311 (B)/411

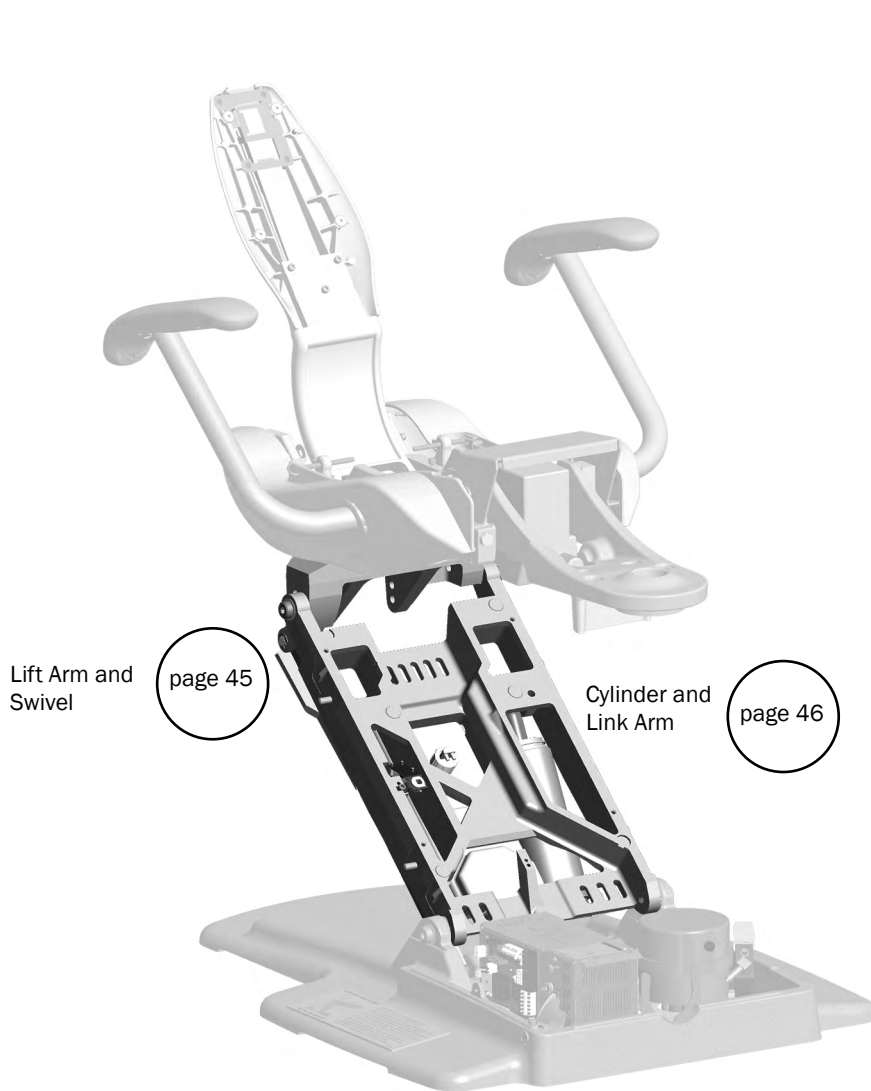
p/n 90.1399.00



Item	Part Number	Description	Replacement Kit
1	002.140.00	1/4-20 Special shoulder screw	90.1399.00 Tilt retain cable kit
2	62.0773.00	Cable retainer	90.1399.00 Tilt retain cable kit
3	62.0335.00	Bracket	
4	90.1082.00	Standoff, package of 5	Included in 90.1183.00 Lift Cylinder Kit
5	43.0102.00	Circuit board	Included in 90.1183.00 Lift Cylinder Kit
6	018.112.00	Bushing strain relief	Included in 90.1183.00 Lift Cylinder Kit
7	002.010.00	6-32 X 2-3/4 Socket head screw	Included in 90.1183.00 Lift Cylinder Kit



## Mid Chair – 311 (B)/411



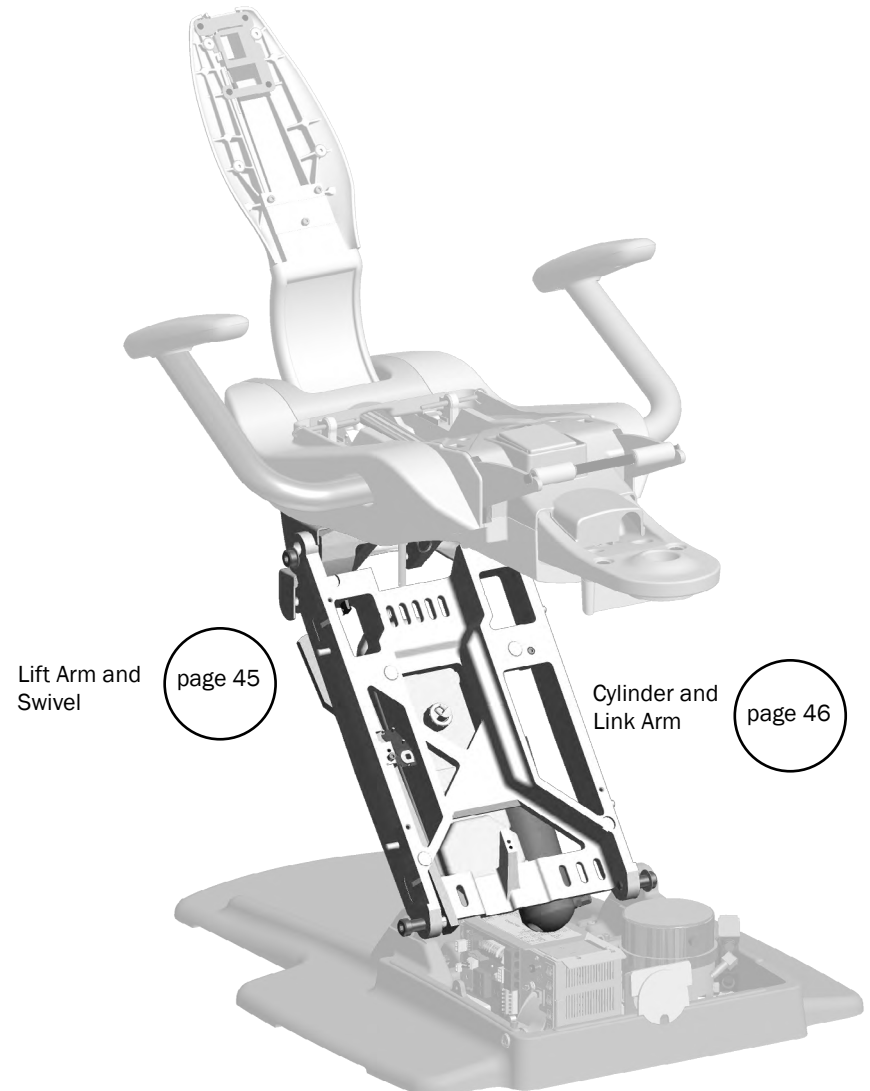
Lift Arm and Swivel

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Cylinder and Link Arm

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**311 (Version B) Dental Chair**



Lift Arm and Swivel

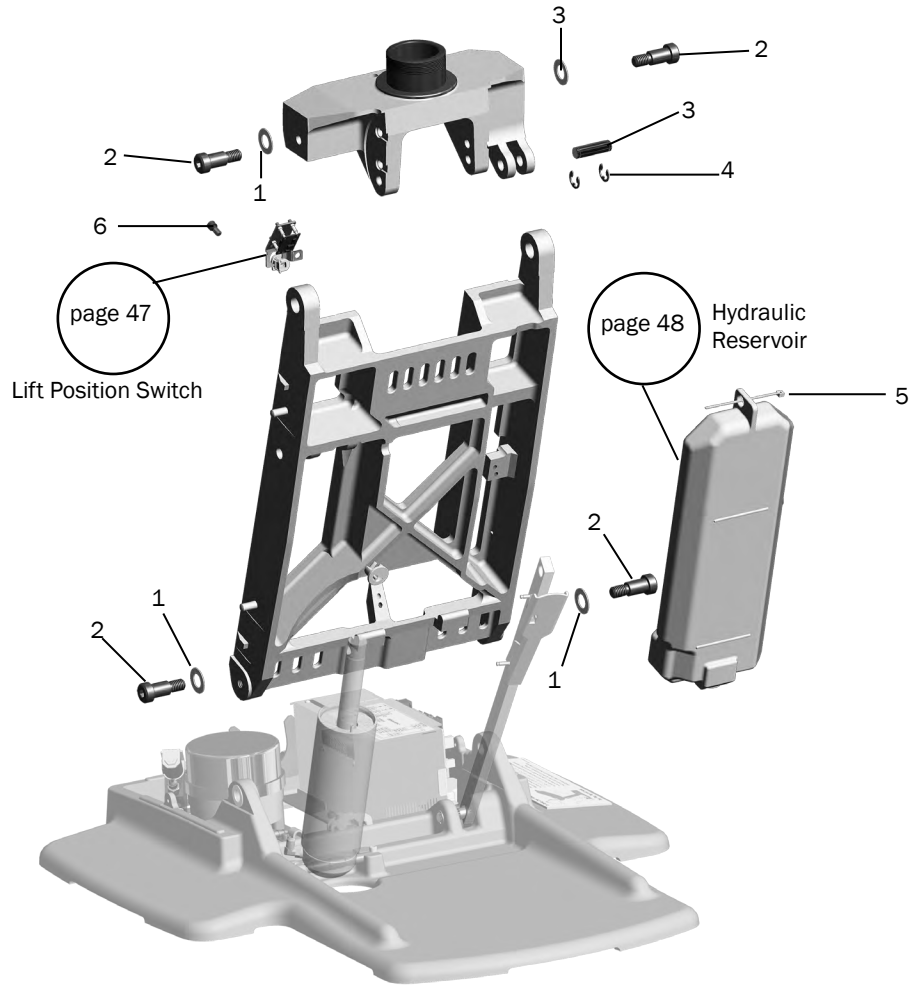
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Cylinder and Link Arm

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**411 Dental Chair**

### Lift Arm and Swivel – 311 (B)/411

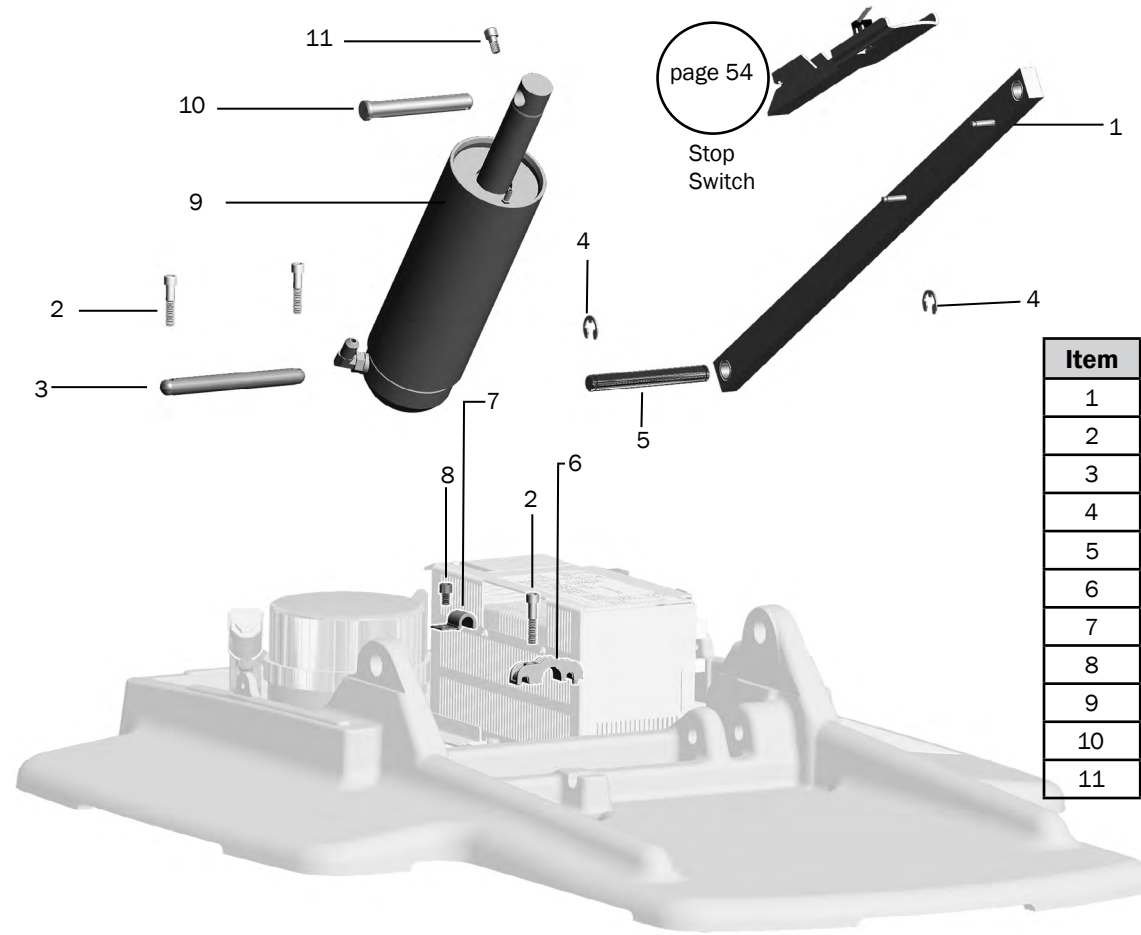


Item	Part Number	Description
1	004.148.00	Washer
2	001.165.00	Socket shoulder screw
3	62.0077.00	Link arm pin
4	010.031.01	Retaining ring
5	025.036.01	Cable tie, package of 10
6	005.008.01	Socket head screw, 1/4-20 x 1/2

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### Cylinder and Link Arm – 311 (B)/411

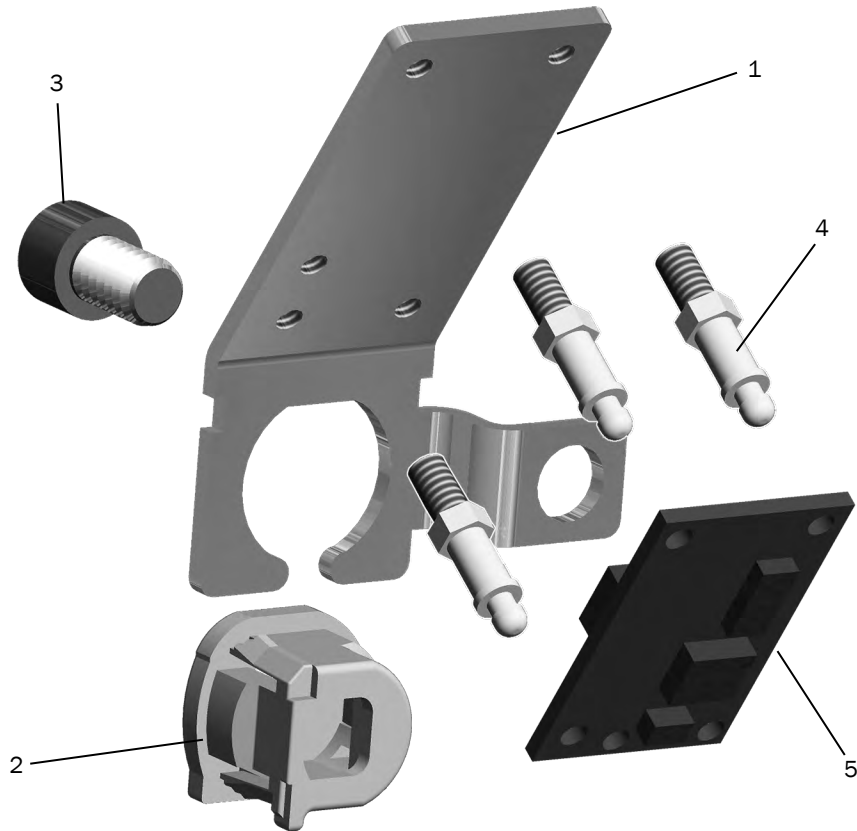


Item	Part Number	Description	Replacement Kit
1	62.0078.00	Link arm	62.0078.01
2	001.093.01	Socket head screw, 1/4-20 x 1/4	
3	62.0135.00	Pin	
4	010.031.00	Retaining clip	
5	62.0134.00	Pin	
6	62.0131.00	Strain relief	
7	025.112.00	Half clamp	
8	002.010.00	Socket head patch screw, 1/4 x 3/8	
9	62.0085.02	Lift cylinder	90.1083.01
10	011.124.00	Pin	90.1083.01
11	005.008.01	Screw	

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### Lift Position Switch – 311 (B)/411

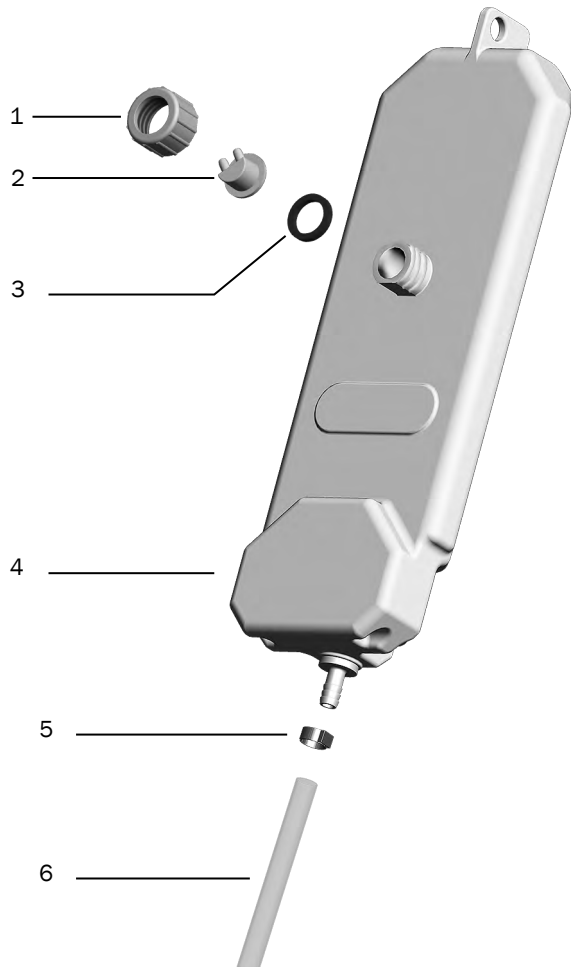


Item	Part Number	Description	Replacement Kit
1	62.0335.00	Bracket	
2	018.112.00	Strain relief	90.1183.00 Position sensor
3	002.010.00	Screw, socket head patch, 1/4 - 20 x 3/8	
4	041.662.00	Standoff	
5	43.0102.00	Position sensor circuit board	90.1183.00 Position sensor

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**Hydraulic Reservoir – 311 (B)/411/511**  
**p/n 90.1393.00**

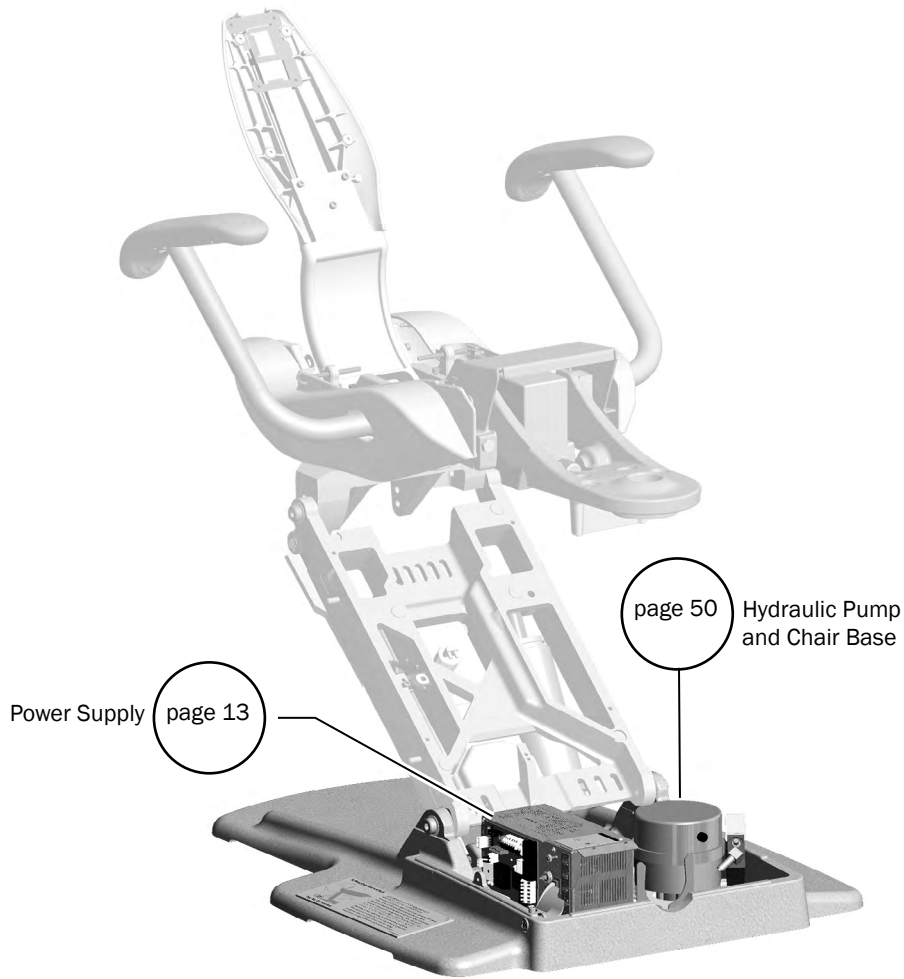


Item	Part Number	Description
1	006.112.00	Reservoir cap
2	62.0195.00	Vent barb
3	004.161.00	Washer
4	62.0030.00	Hydraulic oil reservoir
5	025.111.00	Hose clamp
6	036.117.00	Clear tubing, 27"

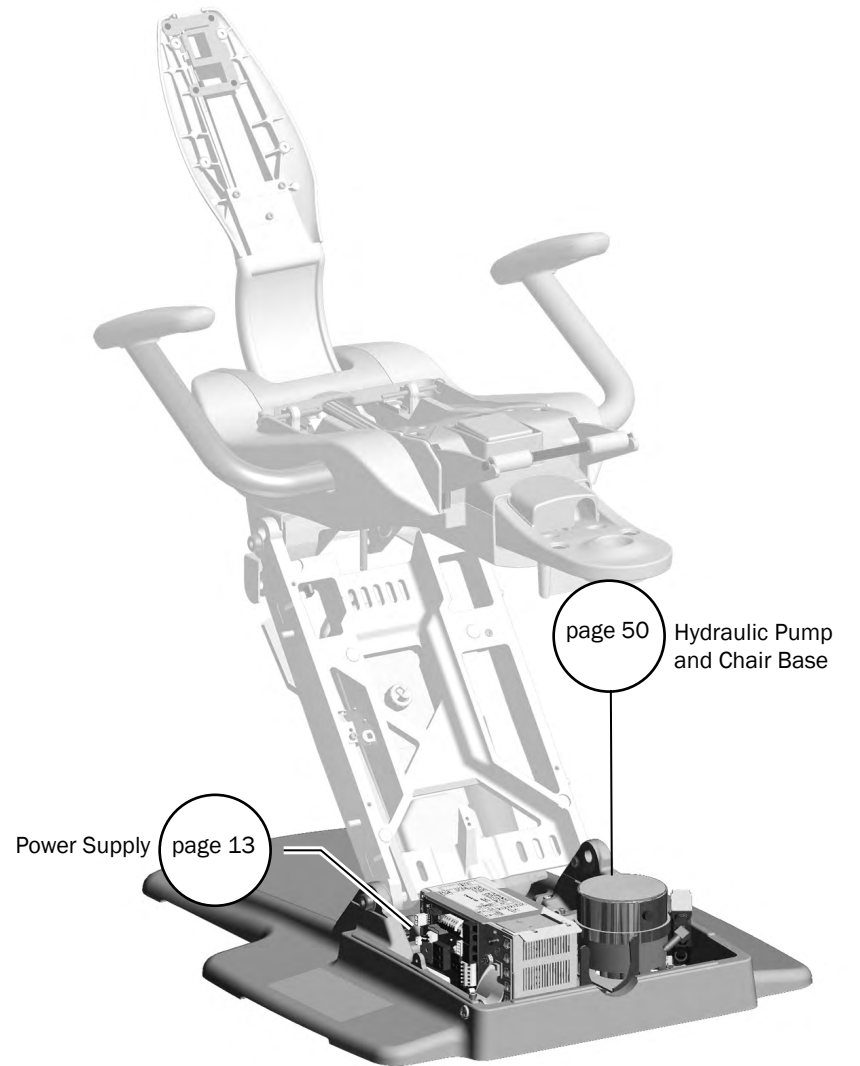
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## Lower Chair – 311 (B)/411

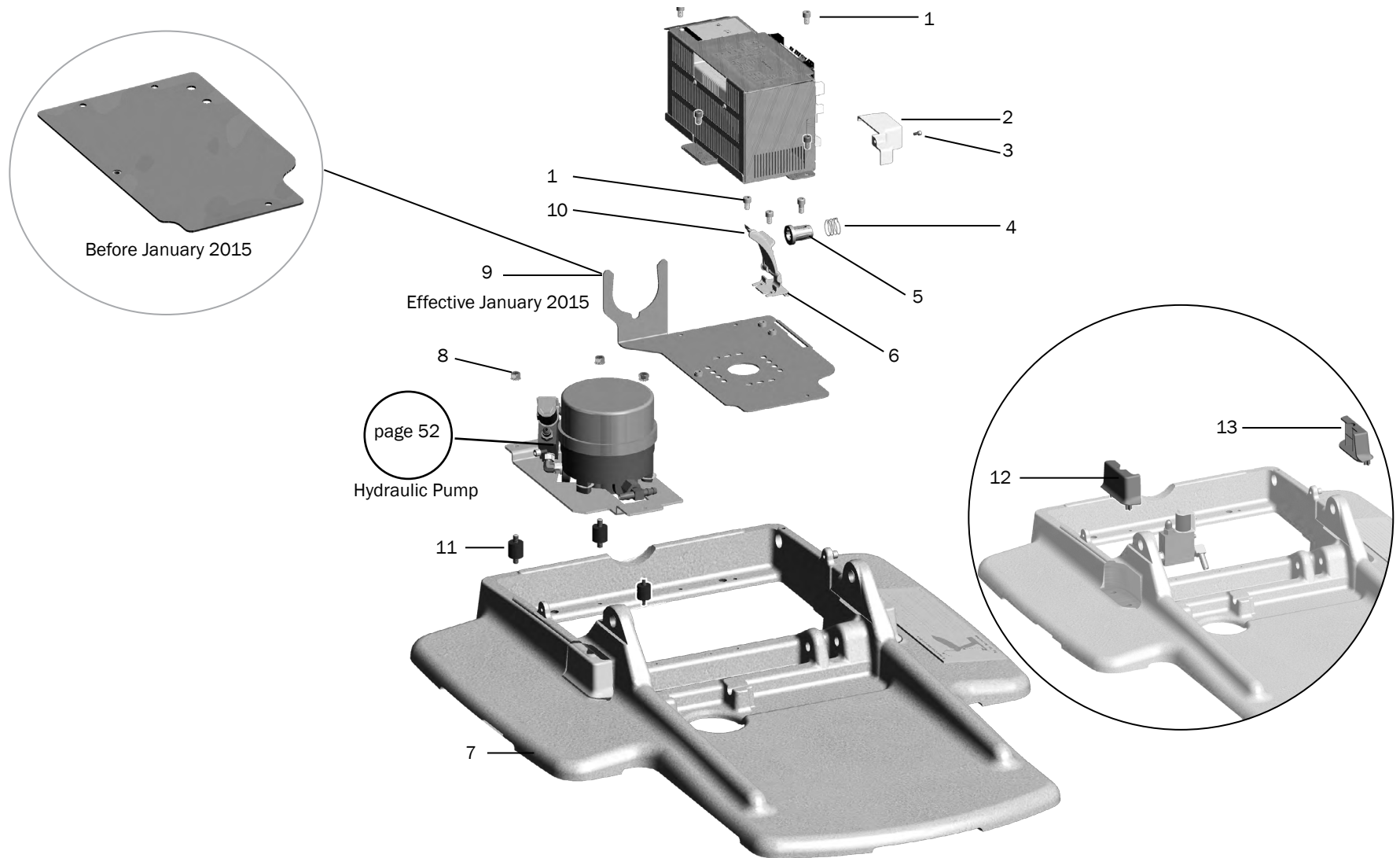


**311 (Version B) Dental Chair**



**411 Dental Chair**

### Hydraulic Pump and Chair Base – 311 (B)/411





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**Hydraulic Pump and Chair Base – 311 (B)/411**

Item	Part Number	Description
1	002.110.00	Screw
2	62.0827.00	Wire connector cover
3	001.034.00	Screw
4	013.124.00	Spring
5	62.0148.00 62.0148.01	Power button, surf6 Power button, gray3
6	62.0832.00	Power button bracket
7	62.0029.01 62.0896.00	Baseplate, gray3 International baseplate
8	006.141.00	KEPs hex nut
9	62.0742.00	Power supply mounting pan
10	62.0753.00	Power button adaptor
11	037.040.00	Isolator
12	62.0909.00	Left hand plug (International baseplate only)
13	62.0924.00	Right hand plug (International baseplate only)

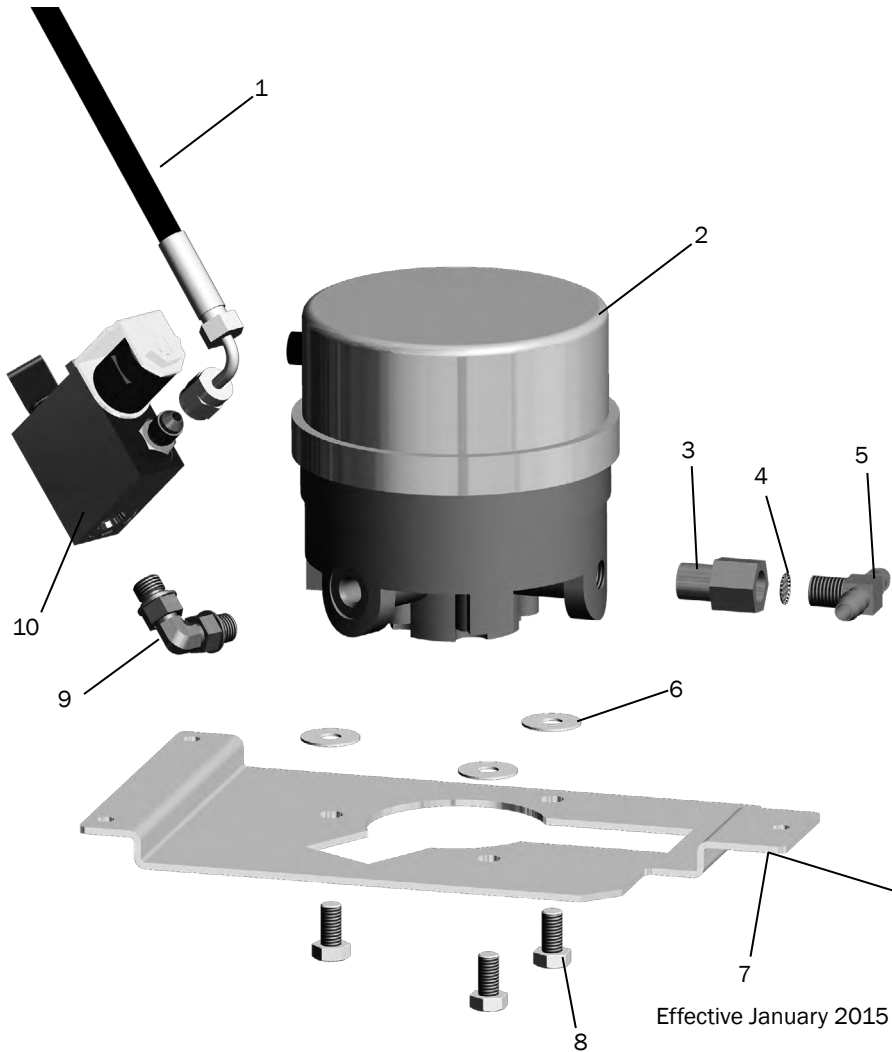
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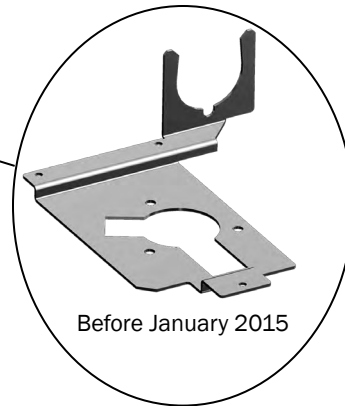


### Hydraulic Pump Assembly – 311 (B)/411

90.1427.00 100 - 120 V/90.1428.00 240 V



Item	Part Number	Description
1	62.0395.00	Hydraulic hose
2	61.3126.00 61.3127.00	Motor pump assembly, 120V Motor pump assembly, 240V
3	022.110.00	Adaptor
4	61.3869.00	Screen
5	021.109.00	Tee adaptor
6	004.091.00	Washer
7	62.0733.00	Mounting pan
8	005.179.00	Screw, 8 x 1.25 6 mm
9	021.111.00	Elbow fitting
10	62.0776.00	Chair lift manifold assembly



Effective January 2015

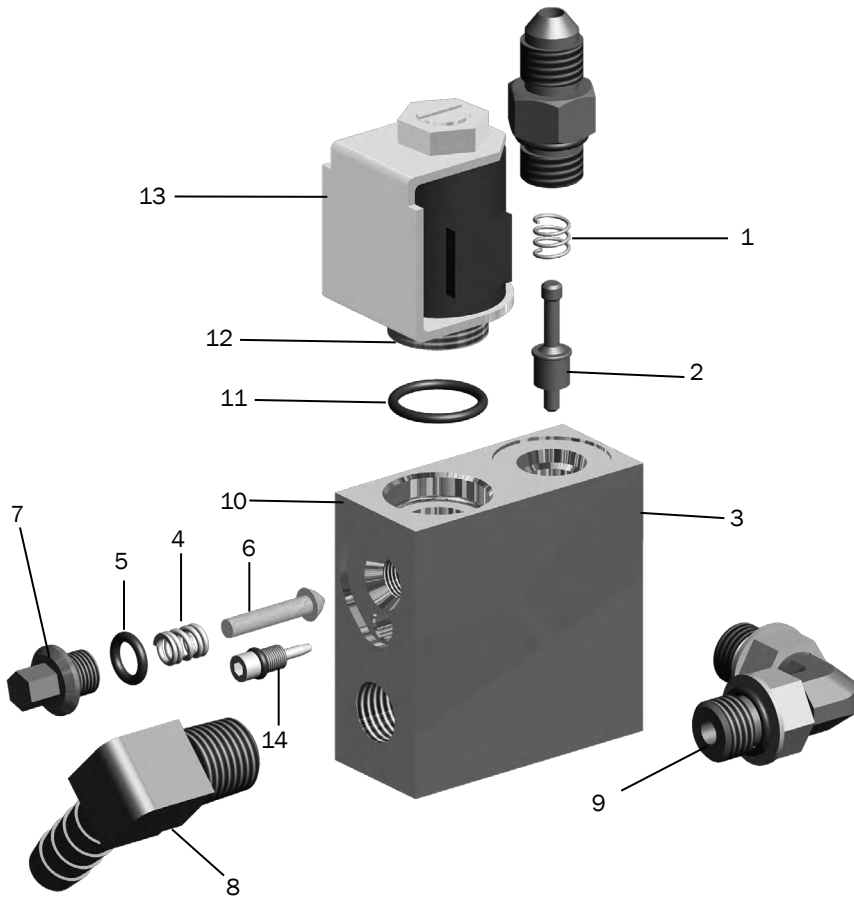
Before January 2015

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### Chair Lift Hydraulic Manifold – 311 (B)/411

p/n 62.0776.00 (part of 90.1427.00 100 - 120 V/90.1428.00 240 V hydraulic pump kit)

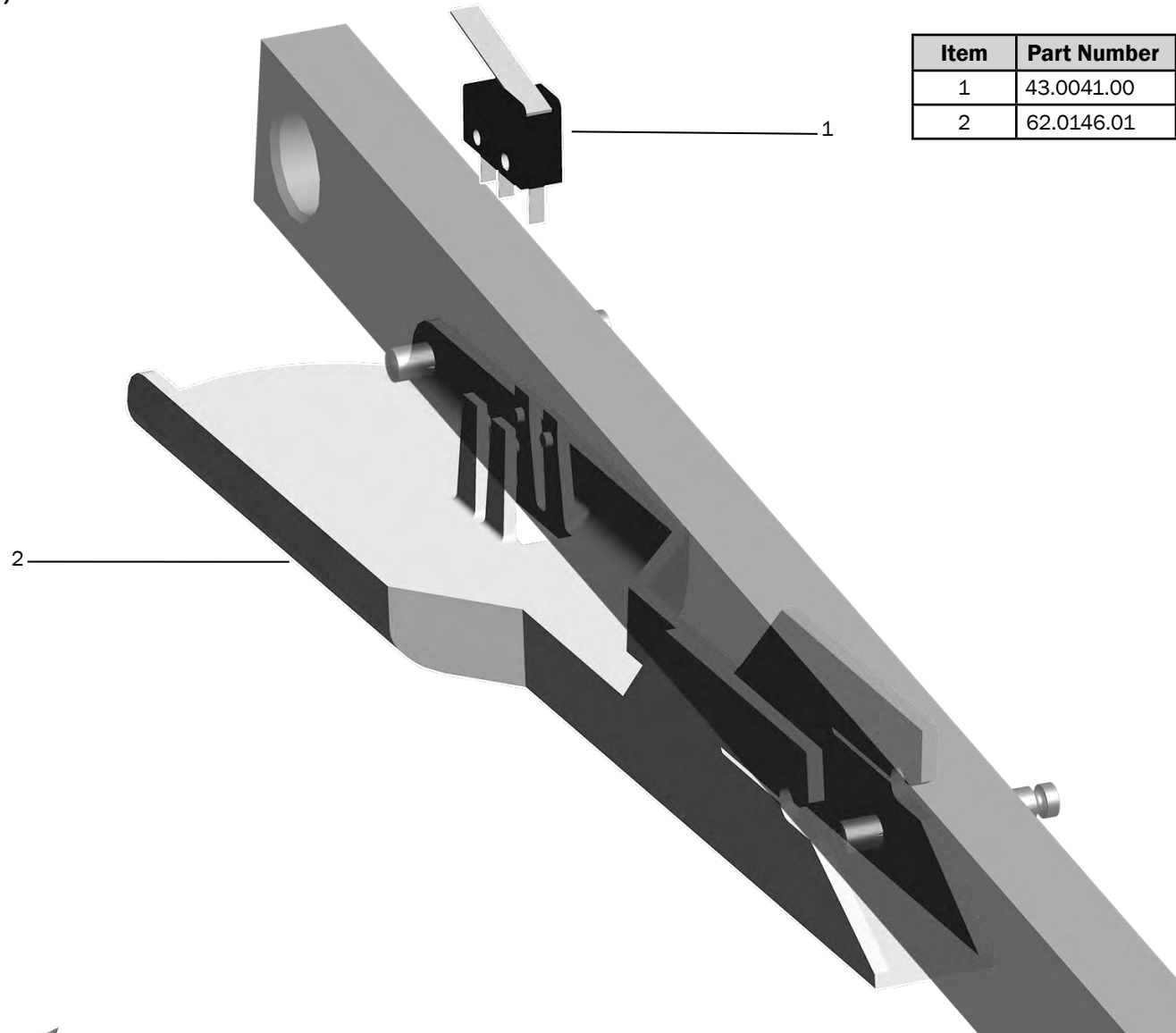


Item	Part Number	Description	Replacement Kit
1	62.0317.00	Solenoid assembly	90.1392.00 – Hydraulic Manifold Rebuild kit
2	030.015.02	O-ring, package of 10	90.1392.00 – Hydraulic Manifold Rebuild kit
3	026.192.00	Press-in orifice	
4	013.136.00	Lock release spring	90.1392.00 – Hydraulic Manifold Rebuild kit
5	030.010.02	O-ring, package of 10	90.1392.00 – Hydraulic Manifold Rebuild kit
6	62.0757.00	Poppet	90.1392.00 – Hydraulic Manifold Rebuild kit
7	62.0758.00	Lock release retainer	
8	022.106.00	90 Degree brass adaptor	
9	021.111.00	90 Degree elbow	
10	62.0748.00	Hydraulic manifold block	
11	61.0461.00	Check valve stem	90.1392.00 – Hydraulic Manifold Rebuild kit
12	013.044.00	Conical compression spring	90.1392.00 – Hydraulic Manifold Rebuild kit
13	022.049.00	Fitting with O-ring	
14	61.0460.00	Flow adjustment screw	

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**Stop Switch – 311 (B)/411**  
**p/n 90.1095.01**

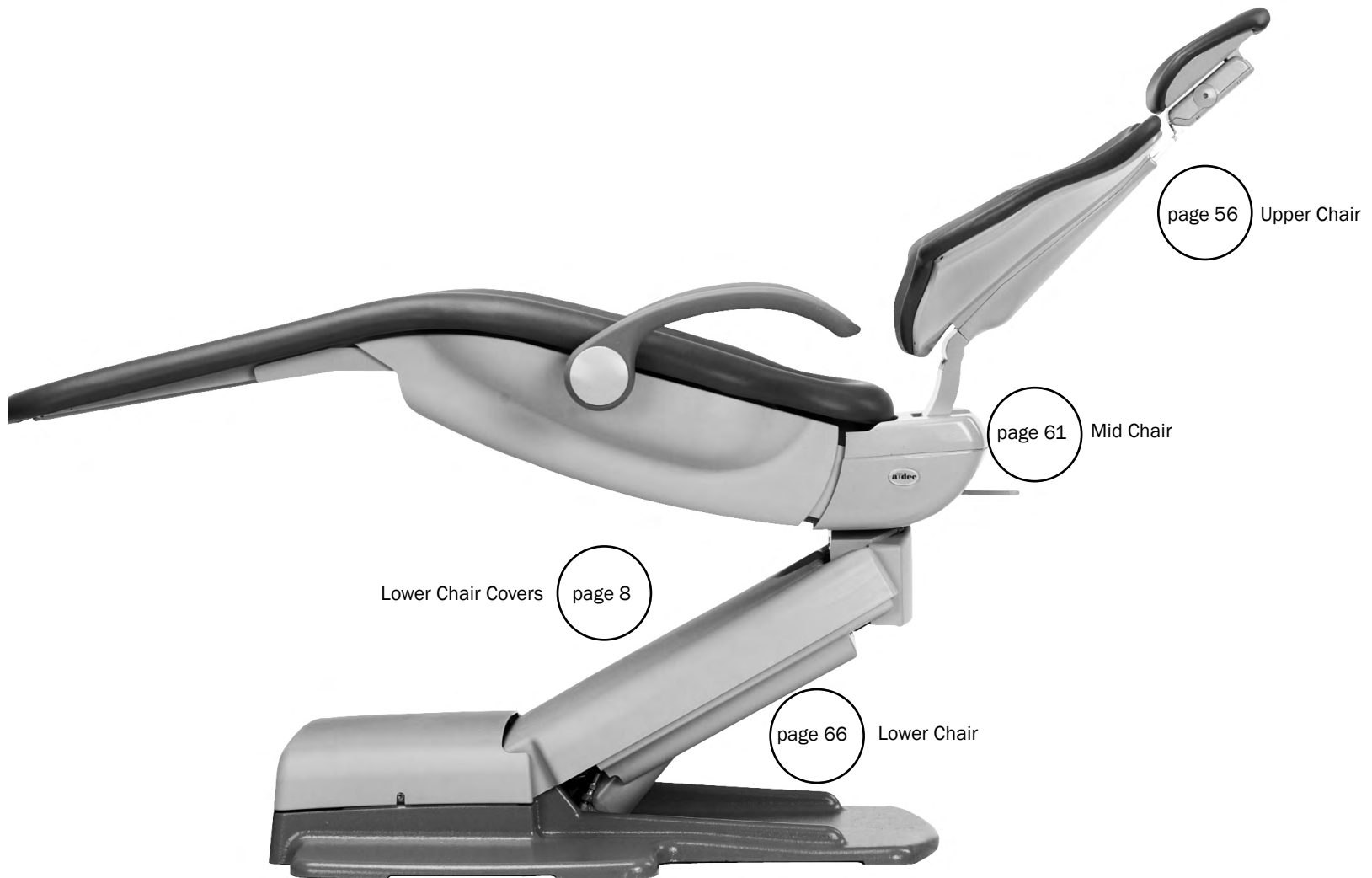


Item	Part Number	Description	Replacement Kit
1	43.0041.00	Stop Switch	90.1095.01
2	62.0146.01	Stop plate swivel knuckle	90.1095.01

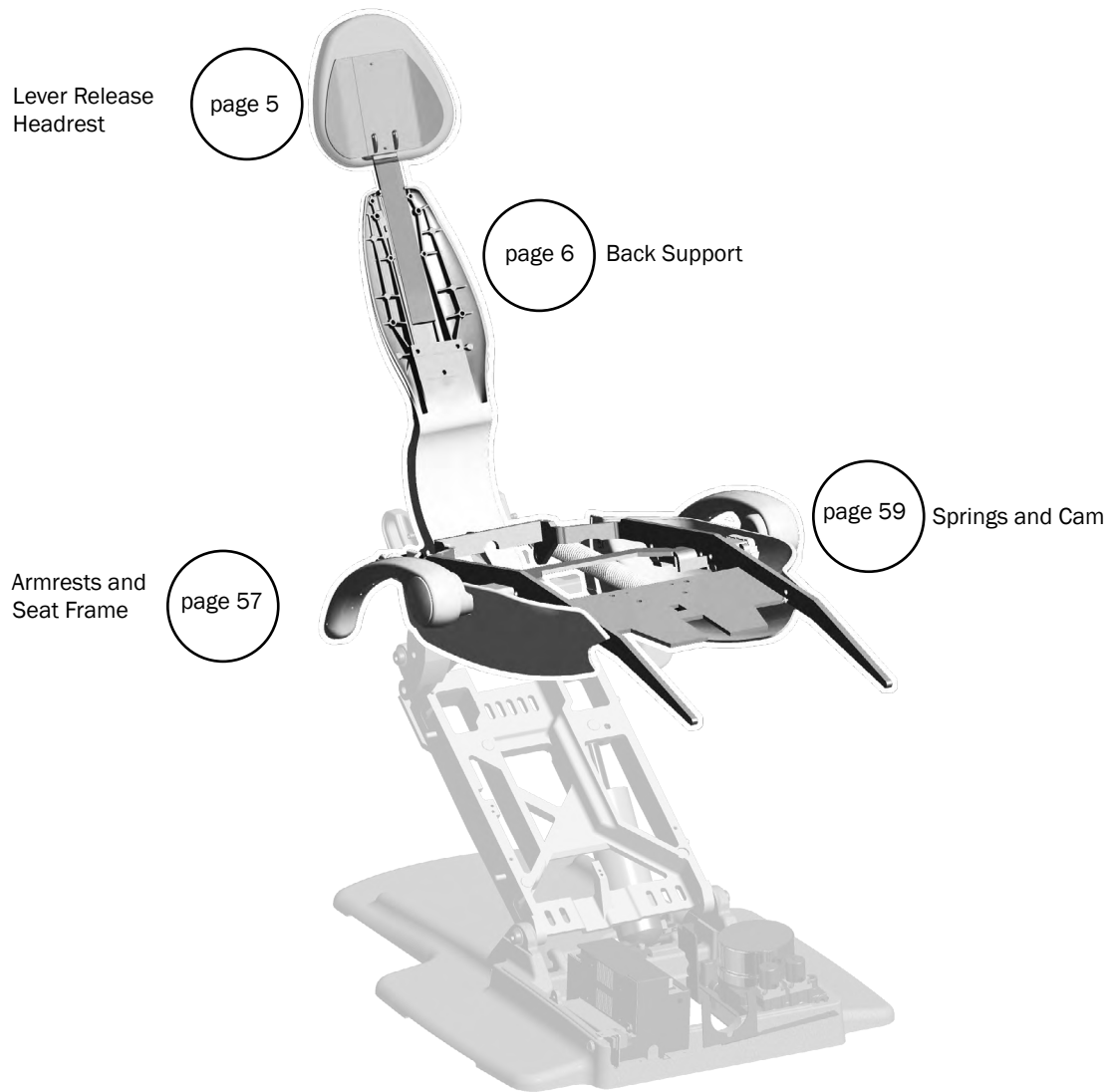
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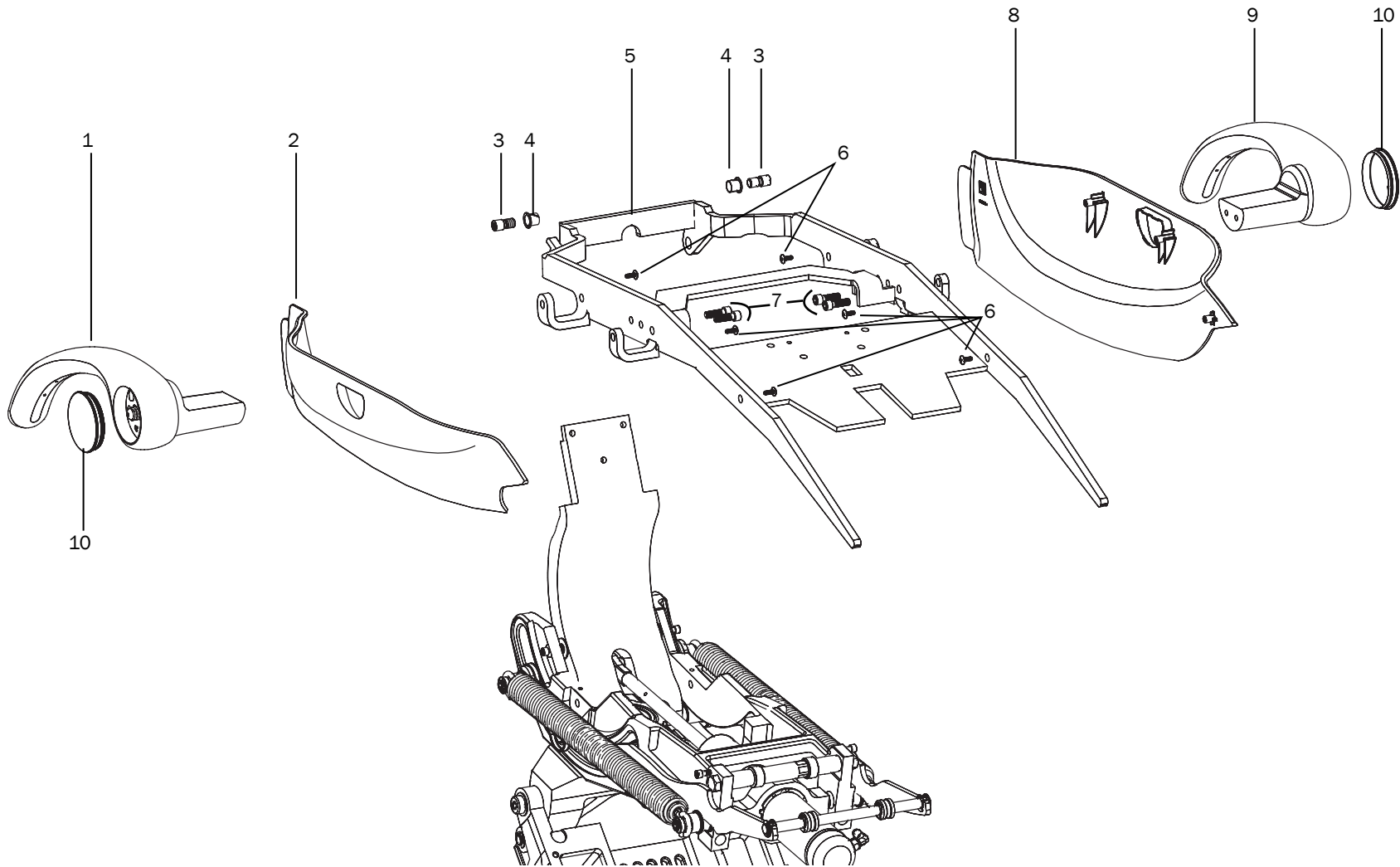
# 511 Dental Chair



## Upper Chair – 511



## Armrest and Seat Frame Assemblies – 511



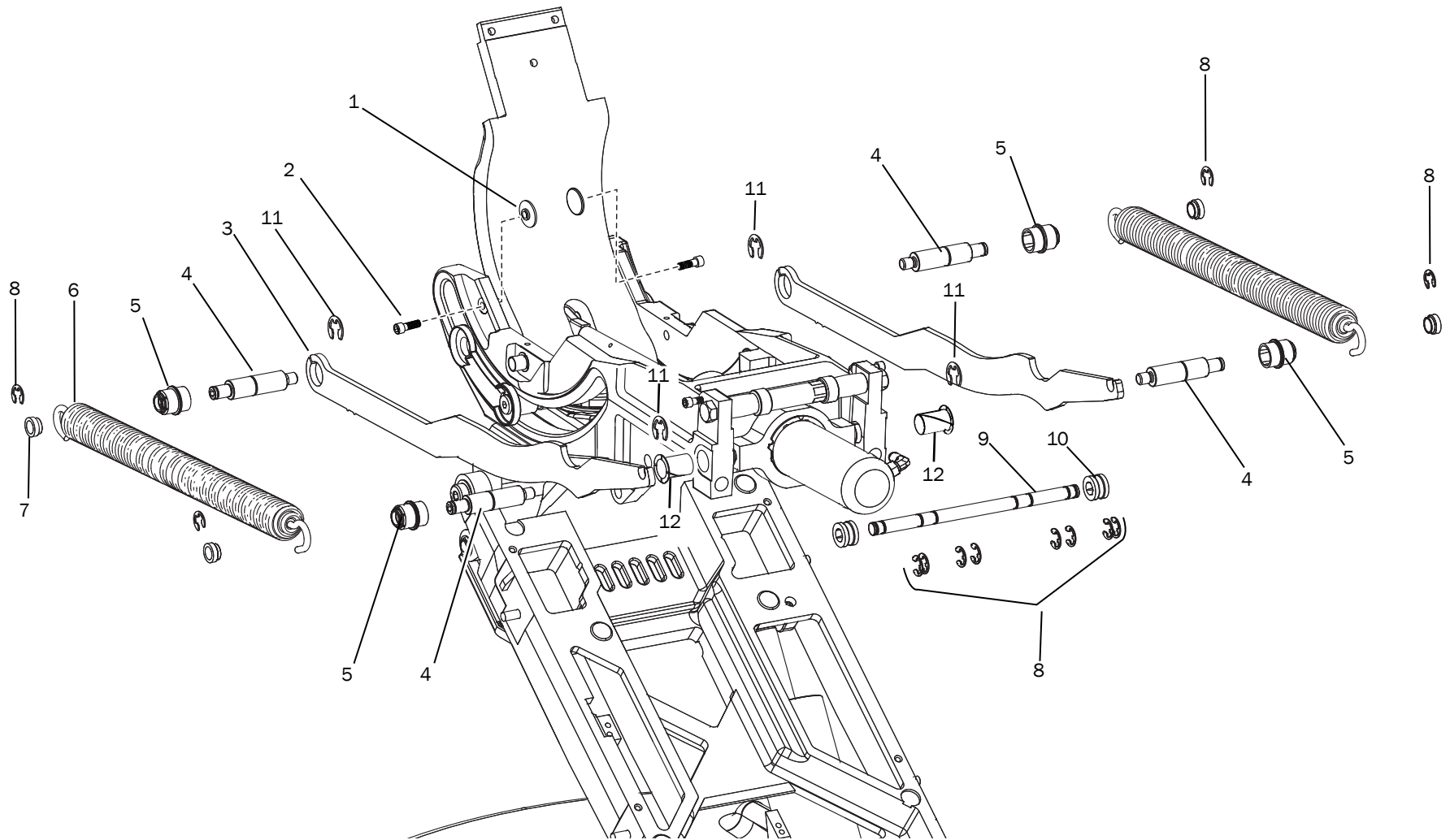
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**Armrest and Seat Frame – 511**

Item	Part Number	Description	Replacement Kit
1	62.0107.01 62.0107.00	Right armrest assembly, gray Right armrest assembly, surf	Part of 90.1181.00 Armrest kit, gray Part of 90.1181.00 Armrest kit, surf
2	62.0106.01 62.0106.00	Right seat frame cover, white Right seat frame cover, surf	
3	62.0196.00	Mounting stud	62.0039.01, Seat frame, white 62.0039.00, Seat frame, surf
4	016.065.00	Flanged bearing	62.0039.01, Seat frame, white 62.0039.00, Seat frame, surf
5	62.0039.01 62.0039.00	Seat frame assembly, white Seat frame assembly, surf	90.1103.01 Seat frame replacement kit, white 90.1103.00 Seat frame replacement kit, surf
6	003.116.00	Phillips truss head screw, 10 x 1/2	
7	002.149.00	Socket head screw, 3/8-24 x 1-3/4	
8	62.0105.00 62.0105.01	Left seat frame cover, surf Left seat frame cover, white	
9	62.0108.01 62.0108.00	Left armrest assembly, gray Left armrest assembly, surf	Part of 90.1181.01 Armrest kit, gray Part of 90.1181.00 Armrest kit, surf
10	62.0110.01 62.0110.00	Armrest cover, white Armrest cover, surf	

## Springs and Cam – 511




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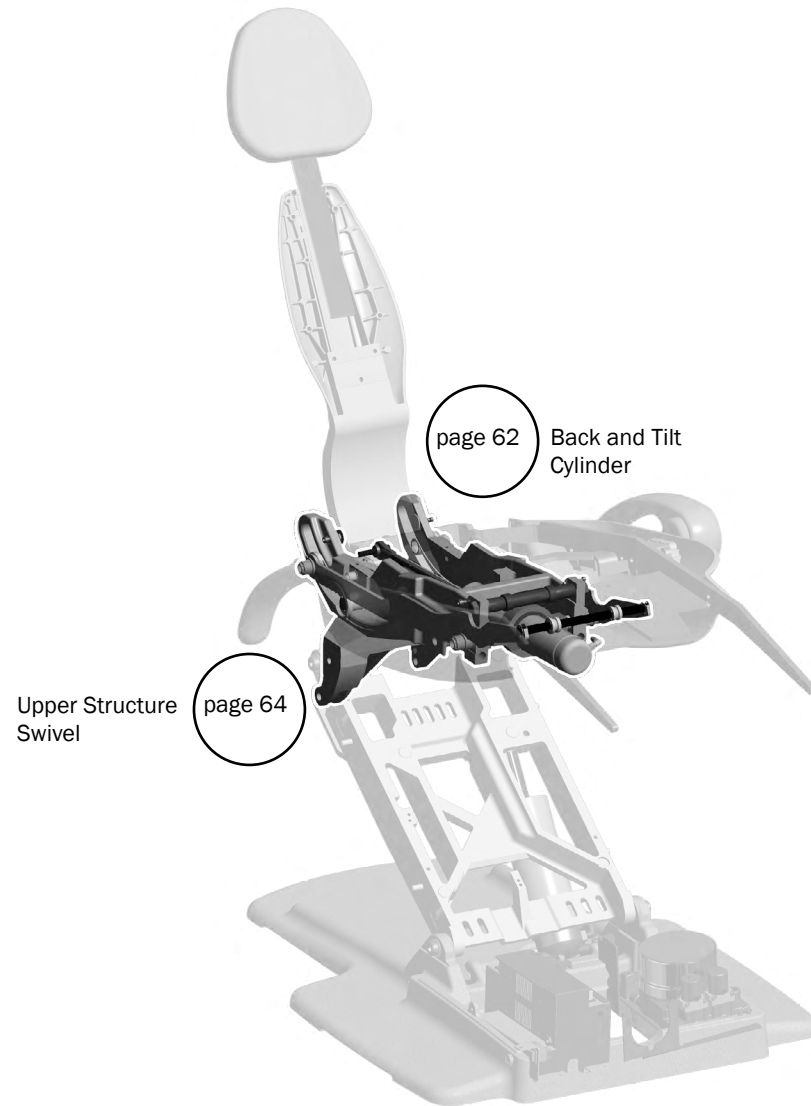
## Springs and Cam – 511

Item	Part Number	Description	Replacement Kit
1	62.0070.00	Guide, lateral	
2	001.245.00	Screw, socket head, cap, 1/4-20 x 3/4"	
3	62.0062.00	Seat lift cam	
4	62.0201.00	Spring support bolt	
5	62.0067.00	Roller, cam, natural	
6	013.114.00	Spring	90.1187.00 Replacement spring kit
7	62.0185.00	Spring, support	
8	010.031.01	Retaining e-ring, external 1/2" ID, stainless steel	
9	62.0069.00	Lift bar	
10	62.0065.00	Seat frame roller	
11	010.083.00	Retaining e-ring	
12	016.145.00	Flanged bearing	

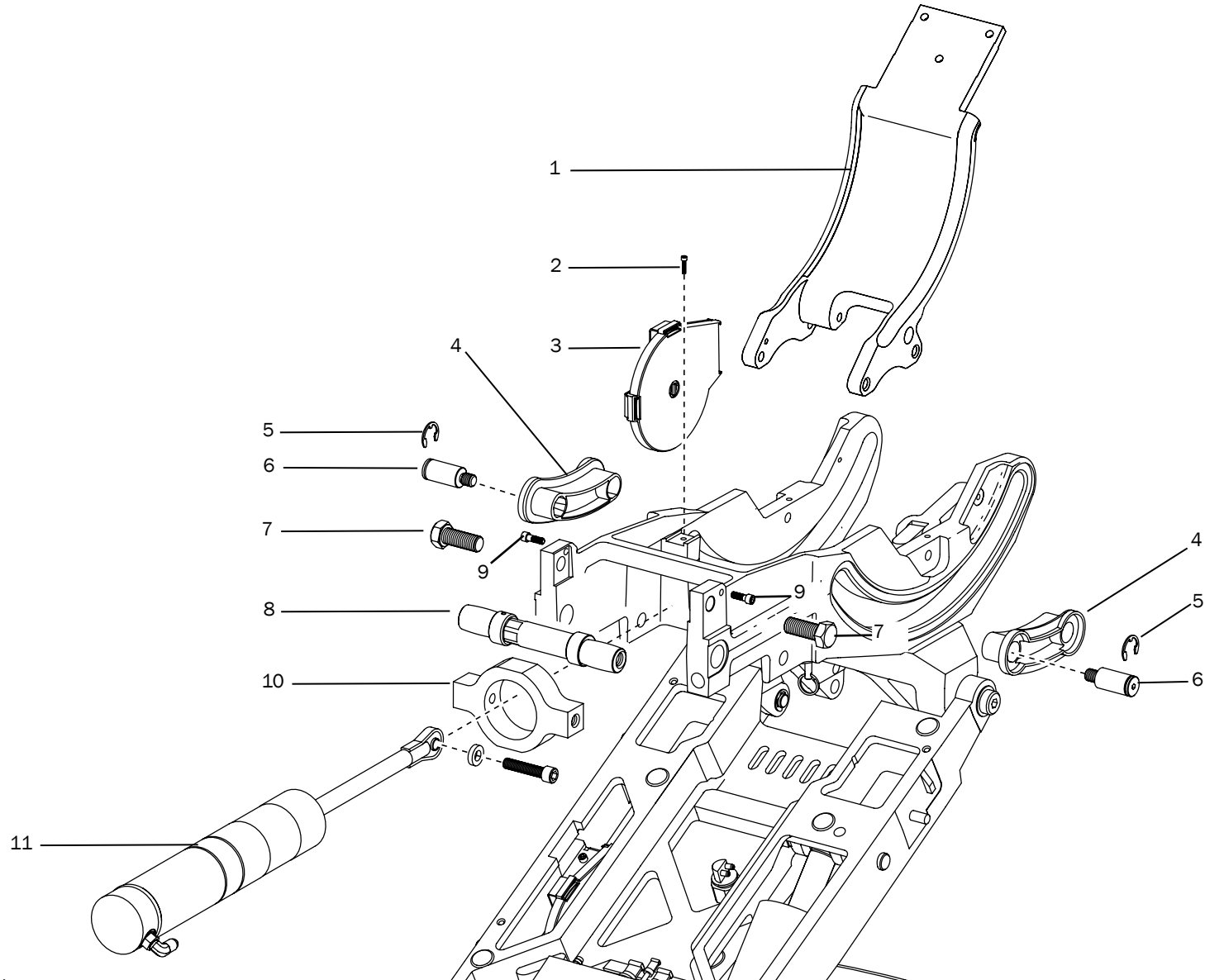
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## Mid Chair — 511




### Back and Tilt Cylinder – 511




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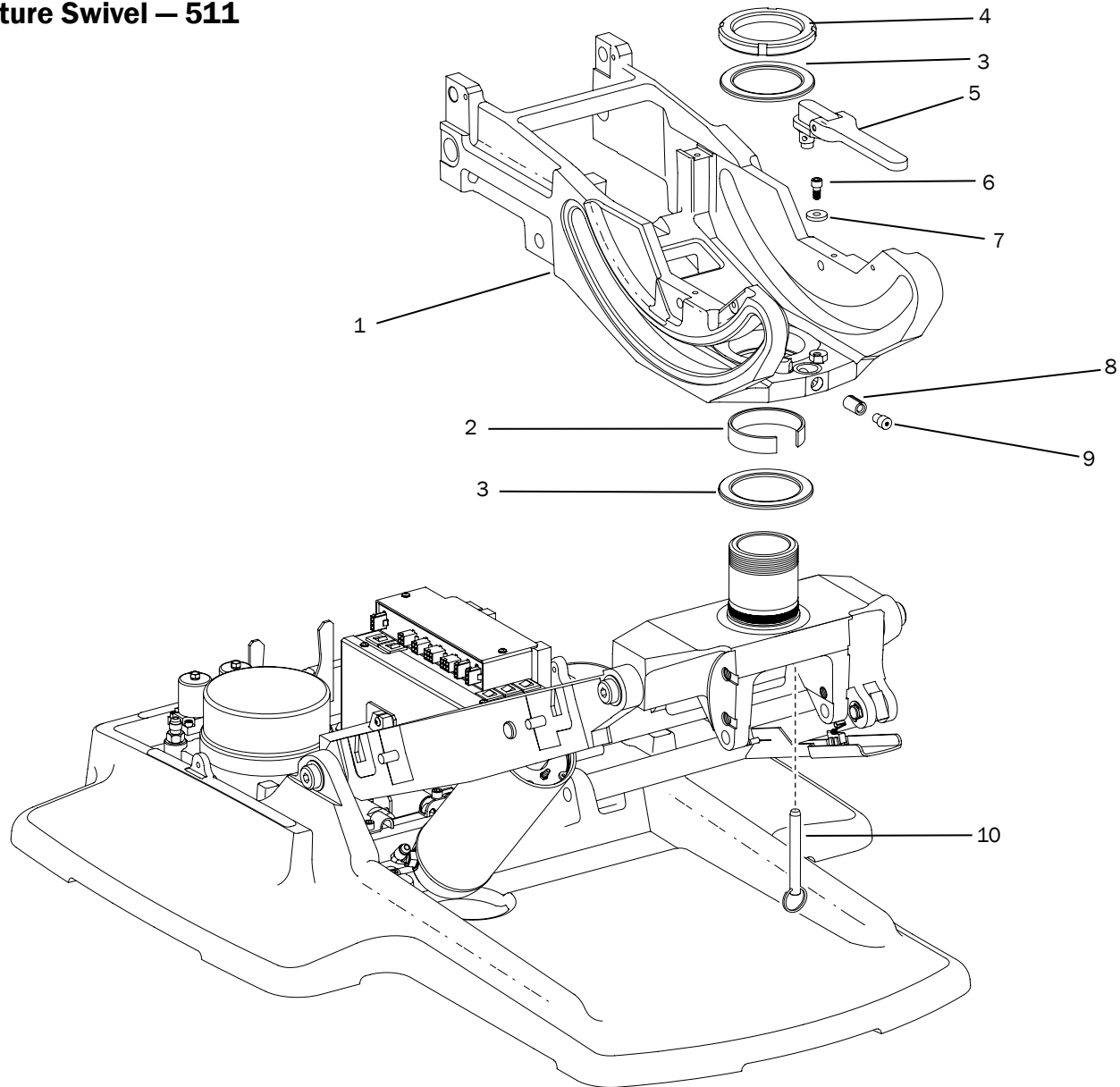
**Back and Tilt Cylinder – 511**

Item	Part Number	Description
1	62.0404.01 62.0404.00	Trolley, chair back, white Trolley, chair back, surf
2	002.010.00	Screw, socket head patch, 1/4-20 x 3/8" stainless steel
3	90.1069.00	Potentiometer
4	62.0061.00	Back track slider
5	010.083.00	Retaining ring
6	62.0202.00	Bolt, slider, shoulder
7	001.163.00	Hex head cap screw, 1/2-13 x 1-1/4
8	77.0206.00	Dual cam
9	002.120.00	Socket head patch screw, 1/4-20 x 1
10	62.0200.00	Trunnion
11	90.1085.00	Tilt cylinder assembly

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## Upper Structure Swivel – 511

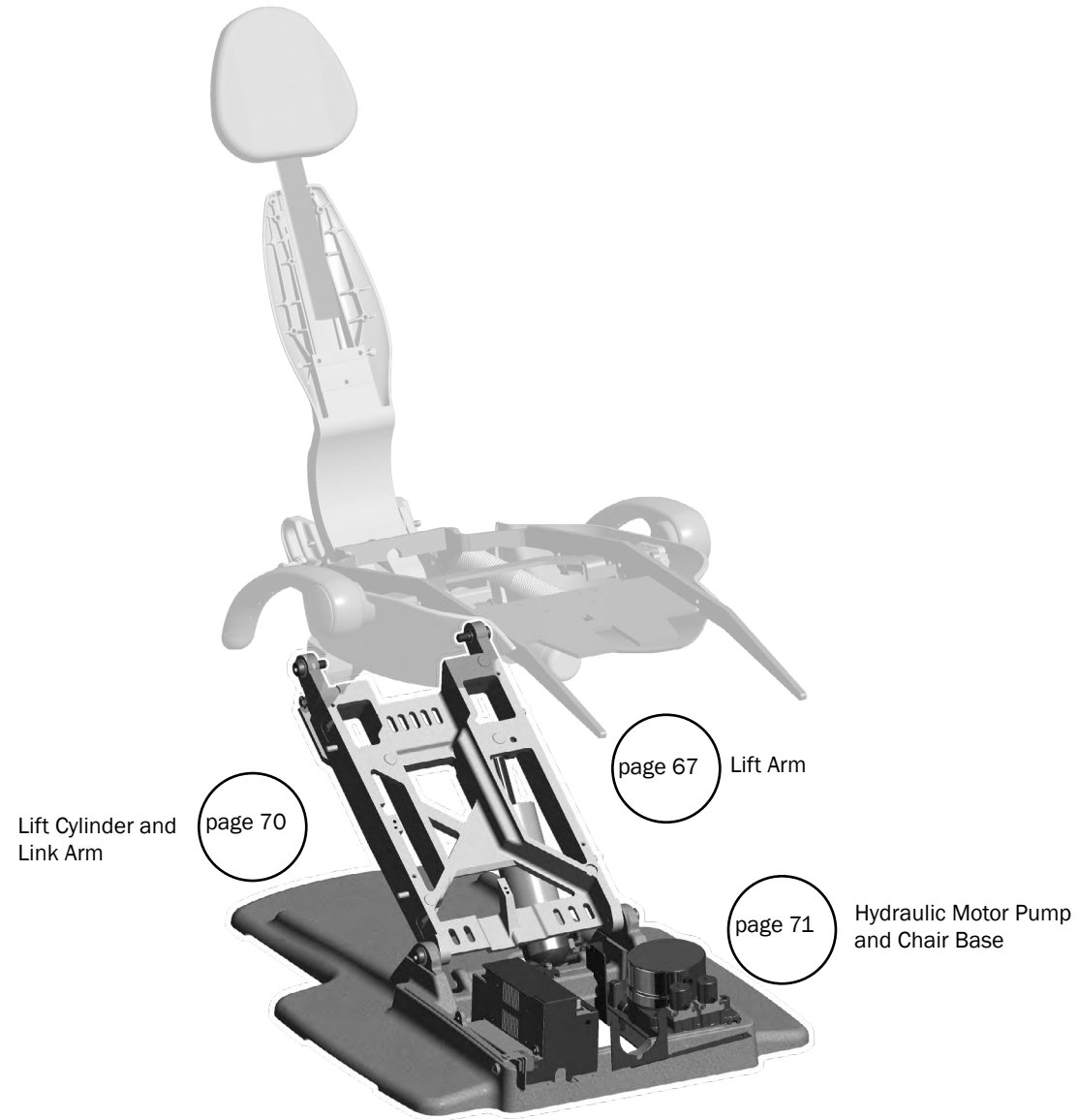


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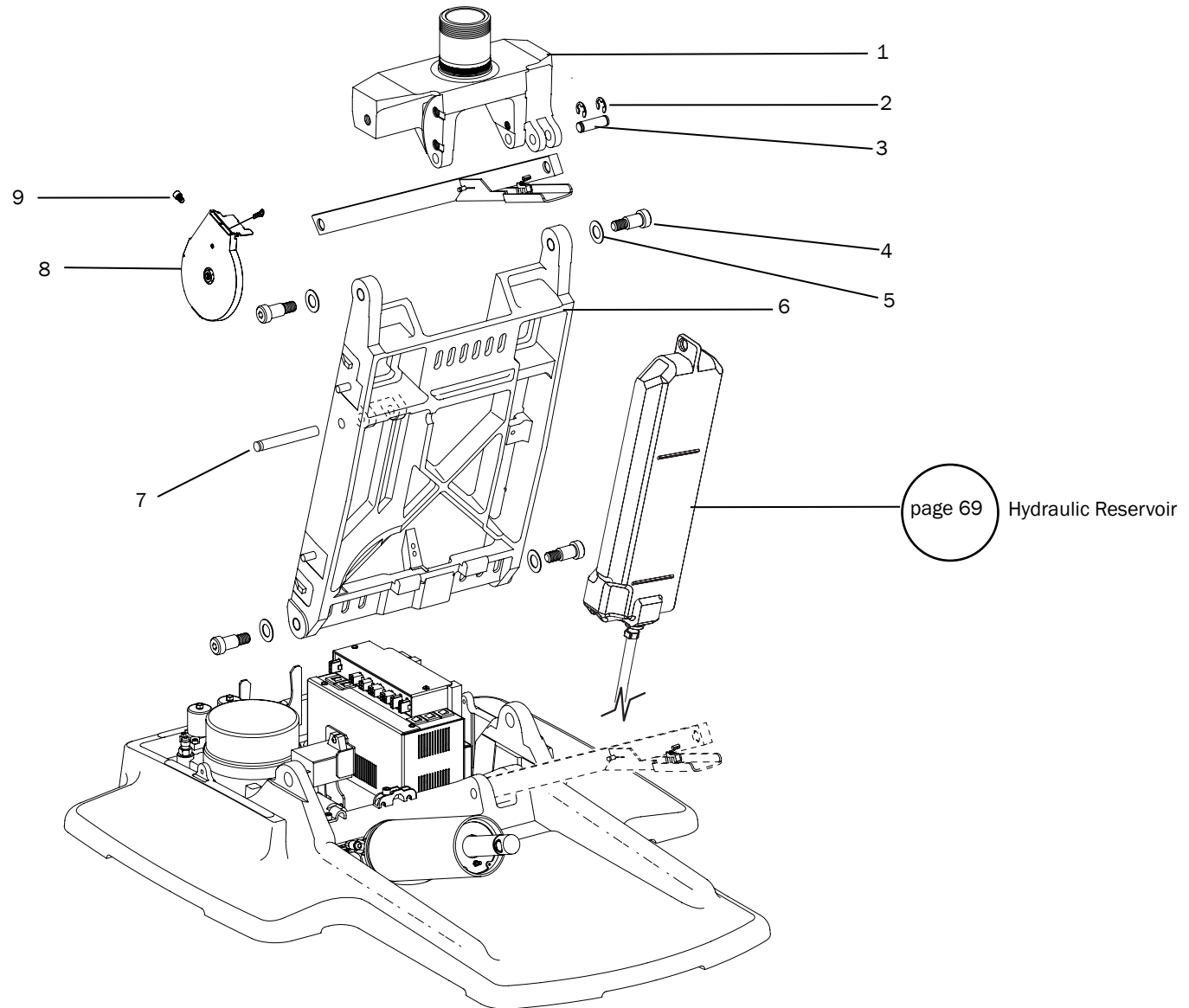
**Upper Structure Swivel – 511**

Item	Part Number	Description
1	62.0050.01 62.0701.00	Upper structure, white (before April 2011) Upper structure, white (effective April 2011)
2	62.0237.00	Wear ring, 2-3/4 OD x 5/8"
3	016.133.00	Thrust bearing
4	61.2051.00	Locknut, spanner
5	62.0218.01 62.0218.00	Brake handle assembly, white Brake handle assembly, surf
6	005.008.01	Screw, 1/4-20 x 1/2" socket head
7	004.170.00	Washer, flat, nylon
8	62.0043.00	Plunger, brake
9	62.0042.00	Adjuster, brake
10	011.097.00	Ship pin

## Lower Chair – 511



## Lift Arm – 511



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**Lift Arm – 511**

Item	Part Number	Description	Replacement Kit
1	62.0091.00 62.0091.01	Swivel mount, white Swivel mount, surf	
2	010.031.01	Retaining e-ring, external 1/2" ID stainless steel	
3	62.0077.00	Pin, link arm	
4	001.165.00	Screw, socket shoulder, 1/2-13 x 5/8 x 7/8	
5	004.148.00	Washer, flat nylatron	
6	62.0089.01 62.0089.00	Lift arm, white Lift arm, surf	
7	011.124.00	Pin, clevis	90.1083.01 Lift cylinder kit, white 90.1083.00 Lift cylinder kit, surf
8	90.1069.00	Potentiometer	
9	002.010.00	Screw, socket head patch, 1/4-20 x 3/8" stainless steel	

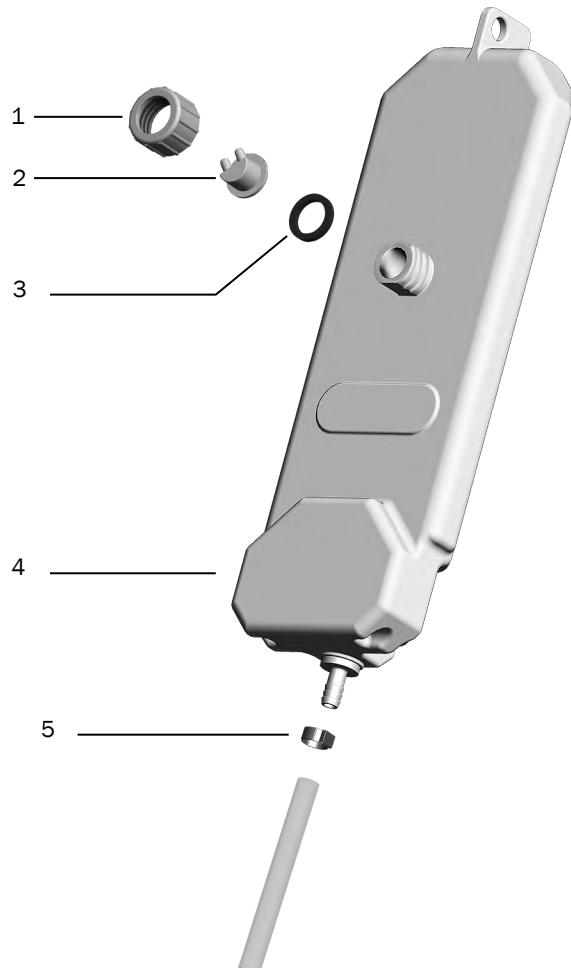


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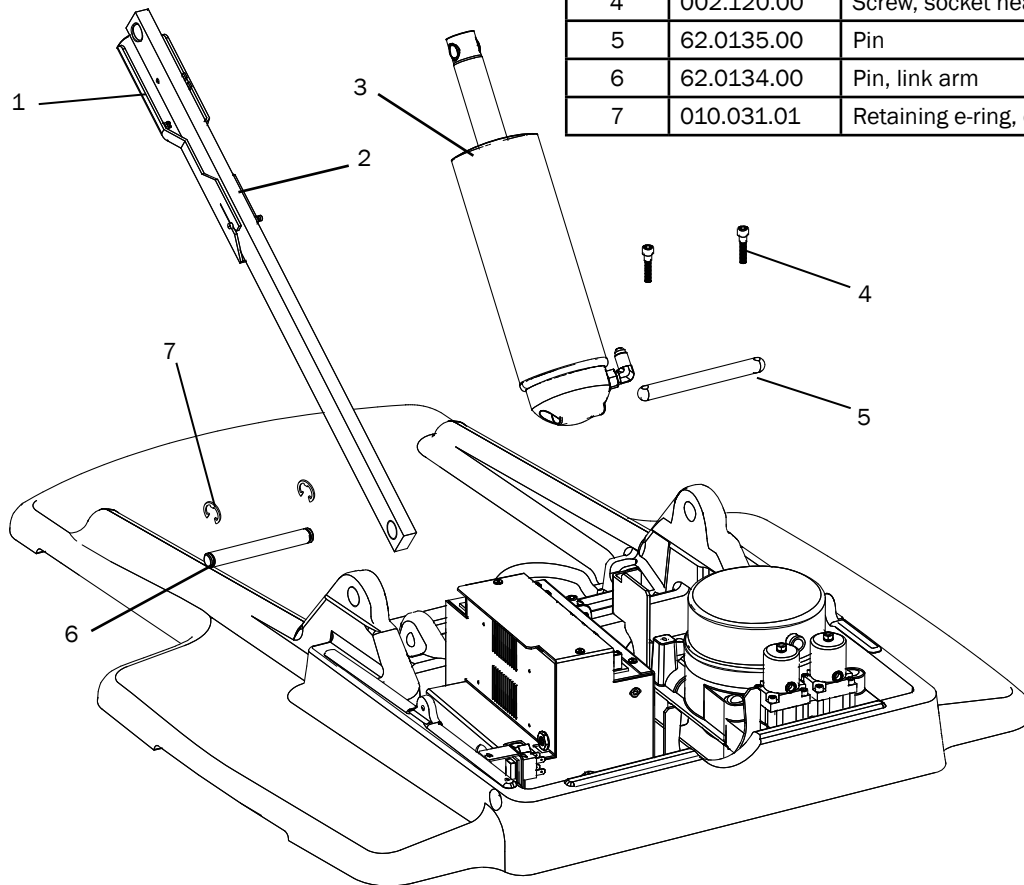
**Hydraulic Reservoir – 511/311(B)/411**  
**p/n 90.1393.00**





Item	Part Number	Description
1	006.112.00	Reservoir cap
2	62.0195.00	Vent barb
3	004.161.00	Washer
4	62.0030.00	Hydraulic oil reservoir
5	025.111.00	Hose clamp
6	036.117.00	Clear tubing, 27"

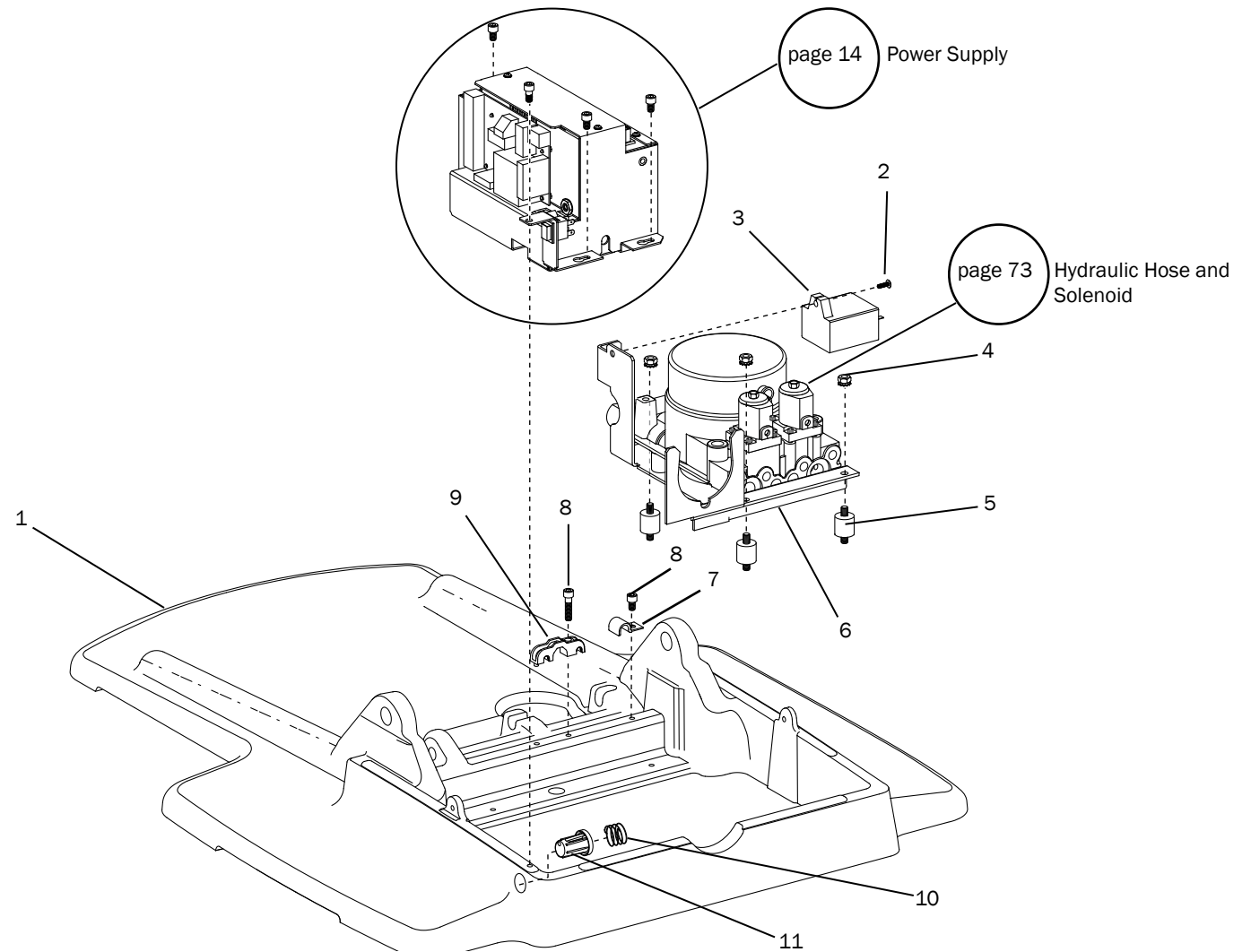
### Lift Cylinder and Link Arm – 511

Item	Part Number	Description	Replacement Kit
1	62.0146.01 62.0146.00	Stop plate swivel knuckle, white Stop plate swivel knuckle, surf	90.1095.01 Kit, Stop switch replacement, white 90.1095.00 Kit, Stop switch replacement, surf
2	62.0078.01	Link arm	
3	90.1083.01 90.1083.00	Lift cylinder assembly, white Lift cylinder assembly, surf	
4	002.120.00	Screw, socket head patch, 1/4-20 x 1" stainless steel	
5	62.0135.00	Pin	
6	62.0134.00	Pin, link arm	
7	010.031.01	Retaining e-ring, external 1/2" ID, stainless steel	



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## Hydraulic Pump and Chair Base – 511





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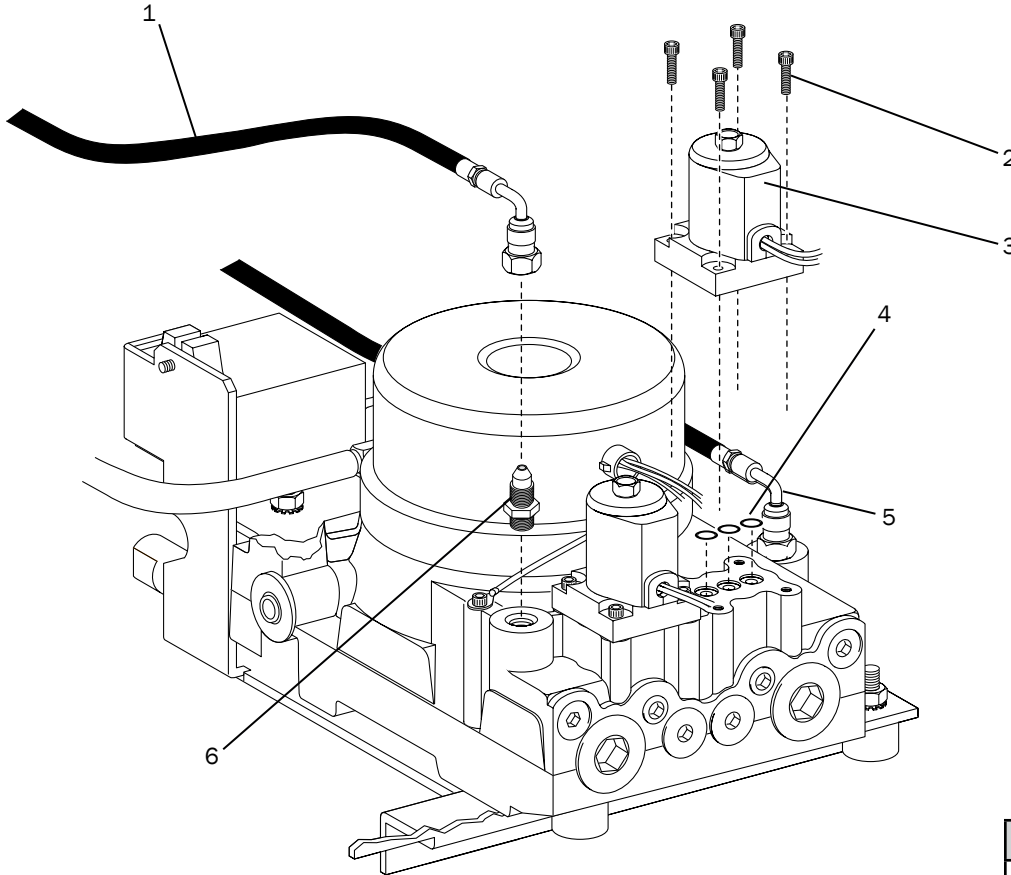
**Hydraulic Pump and Chair Base – 511**

Item	Part Number	Description
1	62.0029.01 62.0029.00	Baseplate, gray Baseplate, surf
2	001.229.00	Screw, truss head, Phillips, 6-32 x 1/2", stainless steel
3	041.642.00 041.643.00 041.644.00	Capacitor, 100 V Capacitor, 110-120 V Capacitor, 220-240 V
4	006.141.00	Nut, hex, KEPs 1/4-20
5	037.040.00	Isolator
6	90.1094.00 90.1094.01 90.1094.02	Hydraulic motor pump assembly, 100 V Hydraulic motor pump assembly, 120 V Hydraulic motor pump assembly, 240 V
7	025.112.00	Clamp, half type
8	002.120.00	Screw, socket head, patch, 1/4-20 x 1" stainless steel
9	62.0131.00	Strain relief
10	90.1068.01 90.1068.00	Mains on/off switch kit, gray (includes button 62.0148.01 and spring 013.024.00) Mains on/off Switch Kit, surf 6 (Includes button 62.0148.00 and spring 013.024.00)
11	041.640.00	Push switch (can be part of item #2)

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## Hydraulic Hose and Solenoid – 511



Item	Part Number	Description
1	62.0046.00	Hydraulic hose, lift
2	001.250.00	Screw, socket head cap, 8-32 x 5/8", black
3	90.1070.00 90.1071.00	Solenoid, 110-120 V, kit Solenoid, 220-240 V, kit
4	035.055.00	O-ring, 5.8 mm ID x 1.9 W, Buna
5	62.0047.00	Hydraulic hose, tilt
6	022.049.00	Filling with O-ring JIC, 37 degree straight

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