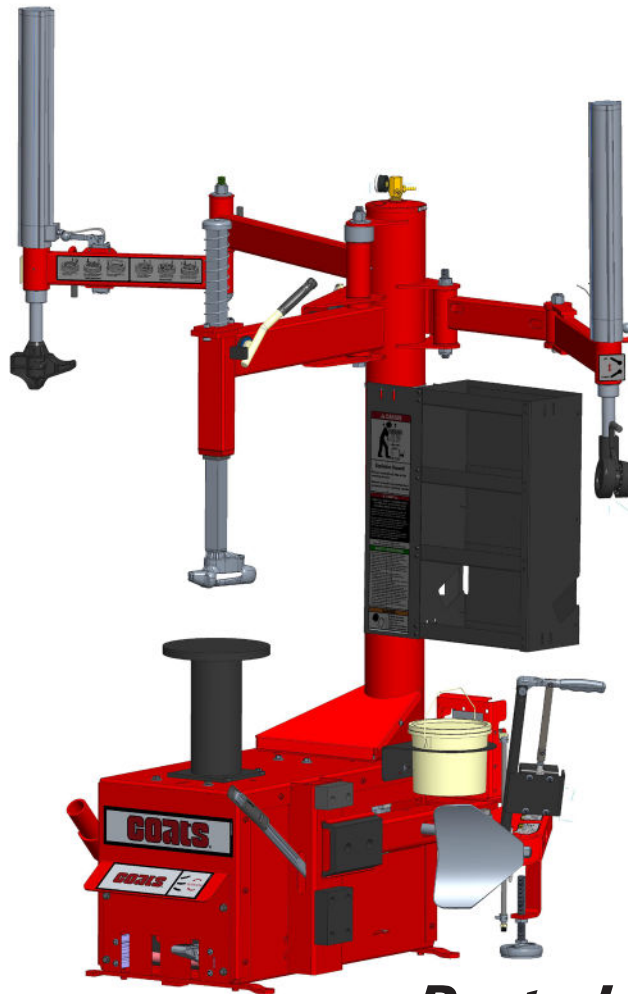


# COATS®

## 80/90C Models

# Center Clamp Tire Changer

For servicing single piece automotive and most light truck tire/wheel assemblies.



## *Parts Identification*

READ these instructions before placing unit in service. KEEP these and other materials delivered with the unit in a binder near the machine for ease of reference by supervisors and operators.

**HENNESSY**  
INDUSTRIES

1601 J. P. Hennessy Drive, LaVergne, TN USA 37086 615/641-7533 800/688/6359 www.coatsgarage.com  
HENNESSY INDUSTRIES LLC Manufacturer of COATS®, AMMCO® and BADA® Automotive Service Equipment and Tools.

Manual Part No.: 85611917 04  
Revision: 01/22

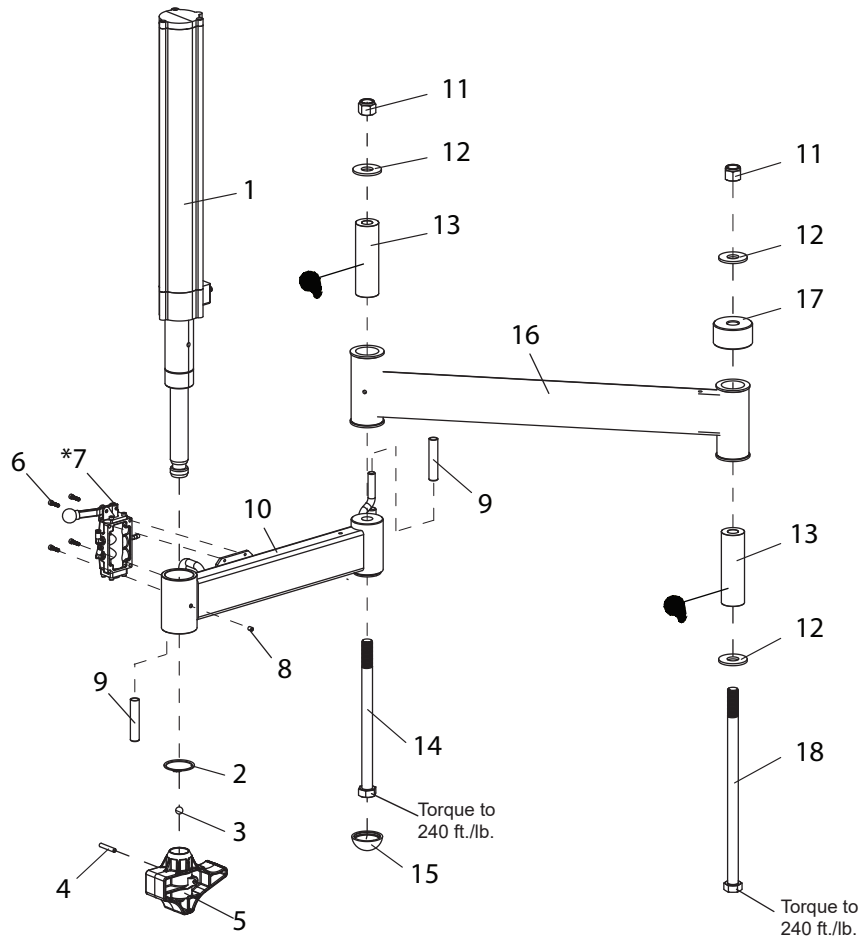
## **Parts Identification**

The following pages include parts breakdowns with exploded view illustrations to help with ordering replacement or spare kits. Assemblies are noted where it is recommended that individual parts not be ordered separately. Note that the parts view illustrations are for multiple models and not all parts shown are on all models. Every effort is made to supply accurate exploded views, however, due to interim changes in manufacturing operations, some units may not be exactly as illustrated.

### **Table of Contents**

<b>Parts Identification .....</b>	<b>2</b>
<b>Robo-Arm® Helper Device Assembly .....</b>	<b>3</b>
<b>Swing Arm Assembly .....</b>	<b>4-5</b>
<b>RoboRoller™ Powered</b>	
<b>Assist Assembly.....</b>	<b>6</b>
<b>Inflation Bracket and Tower Assembly.....</b>	<b>7-8</b>
<b>Chassis System.....</b>	<b>9</b>
<b>BL Arm Assembly .....</b>	<b>10</b>
<b>Foot Pedal Assemblies .....</b>	<b>11-12</b>
Electric Model Foot Pedal Assembly .....	11
Air Model Foot Pedal Assembly.....	12
<b>Pedestal, Transmission and Motor Assemblies.....</b>	<b>13</b>
<b>Valve Assemblies .....</b>	<b>14</b>
<b>Cylinder Assemblies .....</b>	<b>15</b>
BL Arm Cylinder Assembly .....	15
Robo-Arm Cylinder Assembly .....	15
<b>Leverless Assembly .....</b>	<b>16</b>
<b>Pneumatic Diagram.....</b>	<b>17</b>
<b>Electrical Schematics .....</b>	<b>18-19</b>
110V Electrical Schematic .....	18
220V Electrical Schematic.....	19
<b>Decal Layout .....</b>	<b>20</b>
<b>Center Clamp Tire Changer.....</b>	<b>21</b>

# Robo-Arm® Helper Device Assembly



 APPLY GREASE TO THESE LOCATIONS

Item	Part No.	Description
1	85608884	2.5" RC, Cylinder Assembly
2	8183637	2" Ext. Retaining Ring
3	8301017	Dia. Steel Ball, 1/2"
4	905563	Roll Pin, 1/4" Dia x 1-1/2"
5	85009167	Robo Foot
6	8182001	10-24 x 3/4 Lg. SHCS, Screw
7	*8185757	Robo-Arm LR Valve Assembly
8	902308	1/4-20 x 3/8 Knurled Cup PT SHSS
9	7000230	Rubber Hand Grip, 1/2"
10	8561134903	Front Arm Weldment (Red)
11	8182016	3/4-10 Hex Nylock Lock Nut
12	8100994	Flat Washer, 3/4"
13	8181038	Helper Arm Pivot Pin
14	8183703	3/4-10 x 10-1/2" Hex HD Cap Srw
15	5611353	Rubber Cushion
16	81849043	Rear Arm Weldment (Red)
17	8183636	Spacer-.781ID X 2.750 OD X 1.5
18	8183635	Screw, 3/4-10 x 14, HHCS, Gr.5

Item	Part No.	Description
34	†	Hose, Rubber, 1/4, 58" Black
35	†	Plastic Tube, 1/8 x 6"
36	†	Plastic Tube, 1/8 x 16"
38		Wire Tie

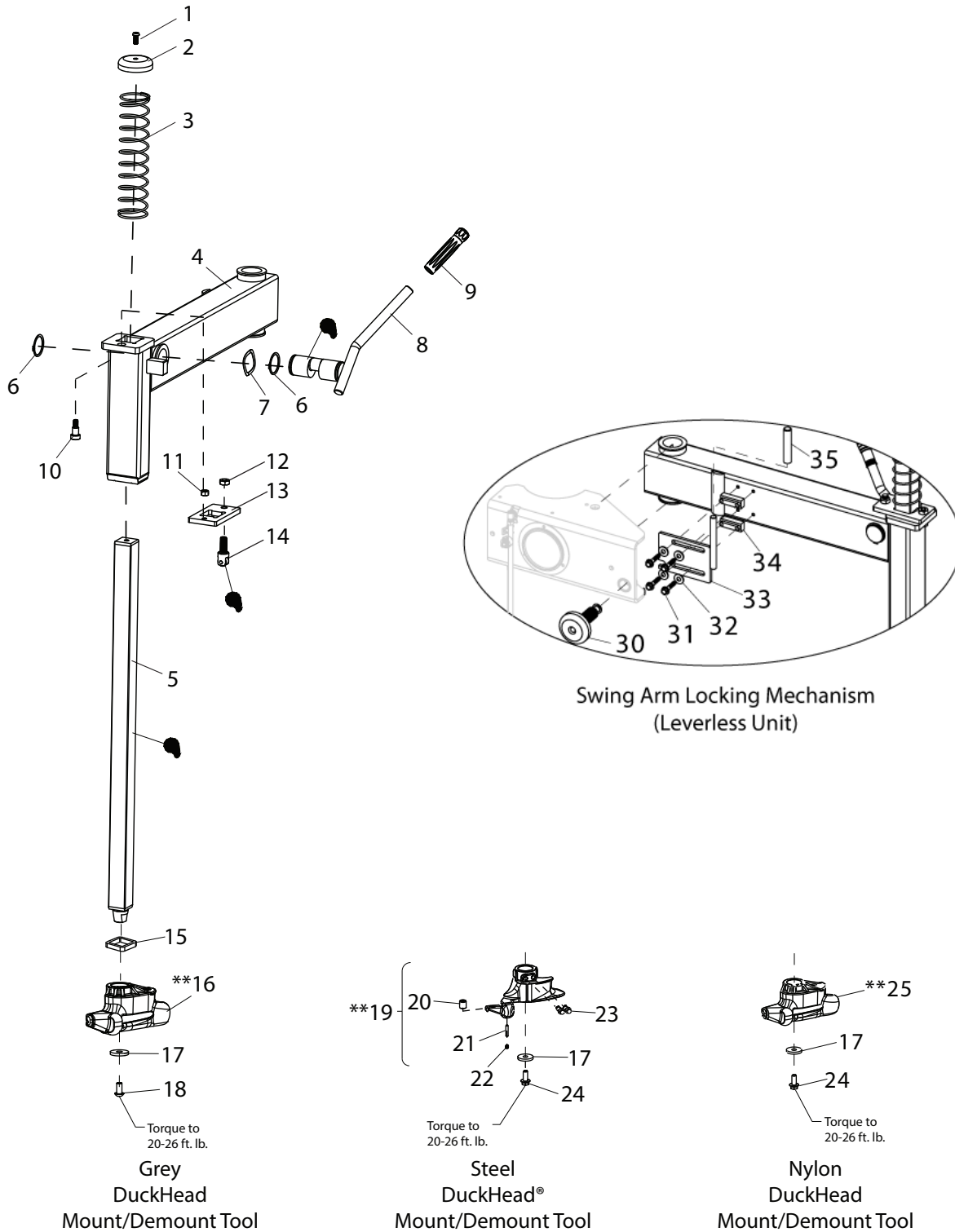
### † Hose Reels

#### LENGTH PART NO. DESCRIPTION

50-ft.	85000375	1/4" ID x 1/2" OD Black Rubber Hose
50-ft.	85000376	1/8" OD x 0.25 Plastic Tube

**\*Valve Assemblies (available only as individual components, see page 13)**

\*\*Accessory Item



 APPLY GREASE TO THESE LOCATIONS

## Swing Arm Assembly

Item	Part No.	Description
1	8183151	5/16-18 x 0.75 SBHCS, Gr.8
2	8181771	Vertical Slide Cap
3	8182028	Vertical Slide Spring
4	8561085201	Swing Arm Assembly
5	85611893	Vertical Slide Shaft
6	8181095	1-5/8 Snap Ring
7	8182371	1-5/8 Dia. Wave Washer
8	85610989	Lock Handle, R.H.
9	8100979	Handle Grip, Black Flex 3/4 I.D.
10	85606344	1/2 x 5/8 Shoulder Screw
11	85610655	3/8-16 Lock Nut
12	8181113	1/2"-13 Jam Nut, Gr. 5
13	85606343	Lock Plate
14	85611540	Cam Roller-Asm
15	8182031	Rubber Bumper
16	8184432	**Duckhead® Mount/Demount Tool Kit (Grey)
17	8182027	7 ga. x .406 ID x 1.28 OD Washer
18	8183055	3/8-16 x 0.750 SBHCS Screw
19	81827881	**Duckhead Mount/Demount Tool Kit (Metal)
20	8182787	0.562 Diameter x 0.515 LG. Roller
21	8182786	5MM x 25MM Dowel Pin
22	8140667	1/4-20 x 1/4 Soc.Hd.Set Scr, Gr.8
23	8182813	3/8-16 x 3/4" Ctr Bore Cap Scr, Gr.8
24	8106302	3/8" Whiz Lock Screw, Gr.5
25	8183061	**Duckhead Mount/Demount Tool Kit (Nylon)
30	85607820	Adjusting Lock Knob
31	85000317	5/16-18 x 1-1/2 HSWHCS Screw Zinc
32	8107635	5/16" Plain Washer
33	85607814	Lock Assembly
34	85607816	Lock Block
35	70002301	1/2 x 3 Handle Grip

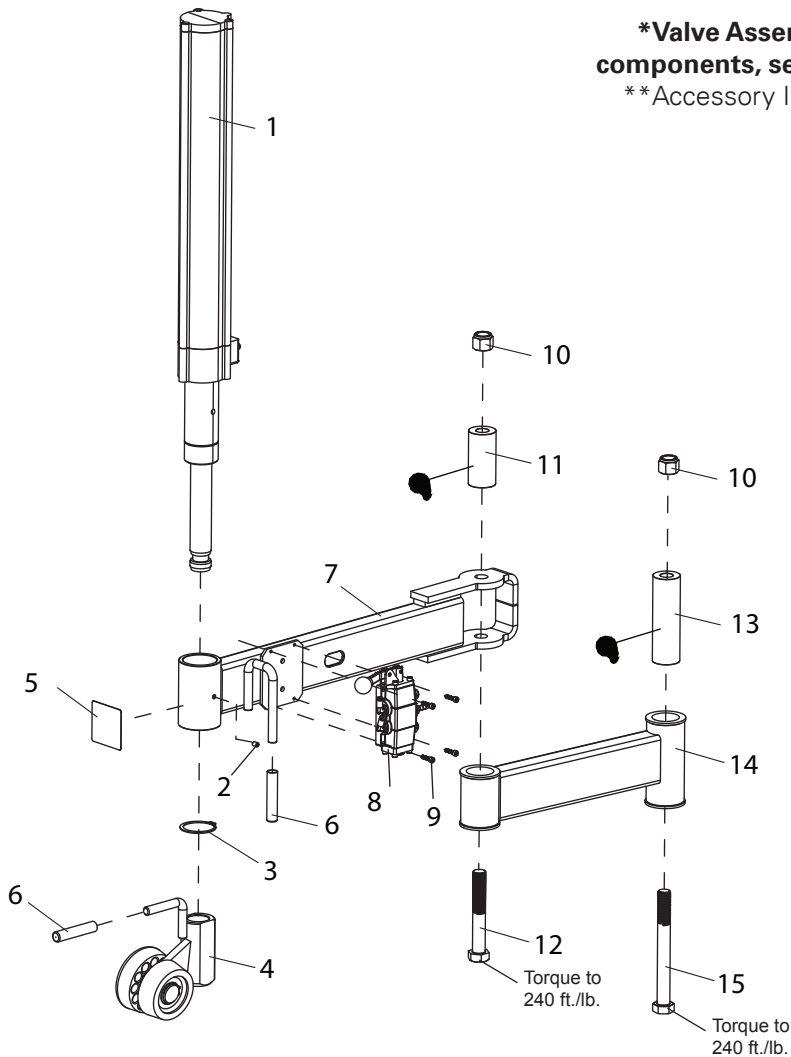
\*\*Accessory Item

# RoboRoller™ Powered Assist Assembly

Item	Part No.	Description
1	85608884	2.5" RC, Cylinder Assembly
2	902308	1/4-20 x 3/8 Knurled Cup PT SHSS
3	8183637	2" Ext. Retaining Ring
4	8185598	Aux. Roller Assembly
5	85000204	UP/DOWN Decal
6	7000230	1/2" Rubber Hand Grip
7	85611802	Front Arm Weldment (Black)
8	85611866	*Valve Assembly
9	8182001	10-24 x 3/4 Lg. SHCS, Screw
10	8182016	3/4"-10 Nylon Insert Lock Nut, Gr.5
11	85611823	Pivot Pin
12	8182579	Hex Head Cap Screw
13	8181038	Helper Arm Pivot Pin
14	85611806	Rear Arm Weldment (Black)
15	85610016	3/4-10 x 7 HHCS Screw, Gr.5

**\*Valve Assemblies (available only as individual components, see page 13)**

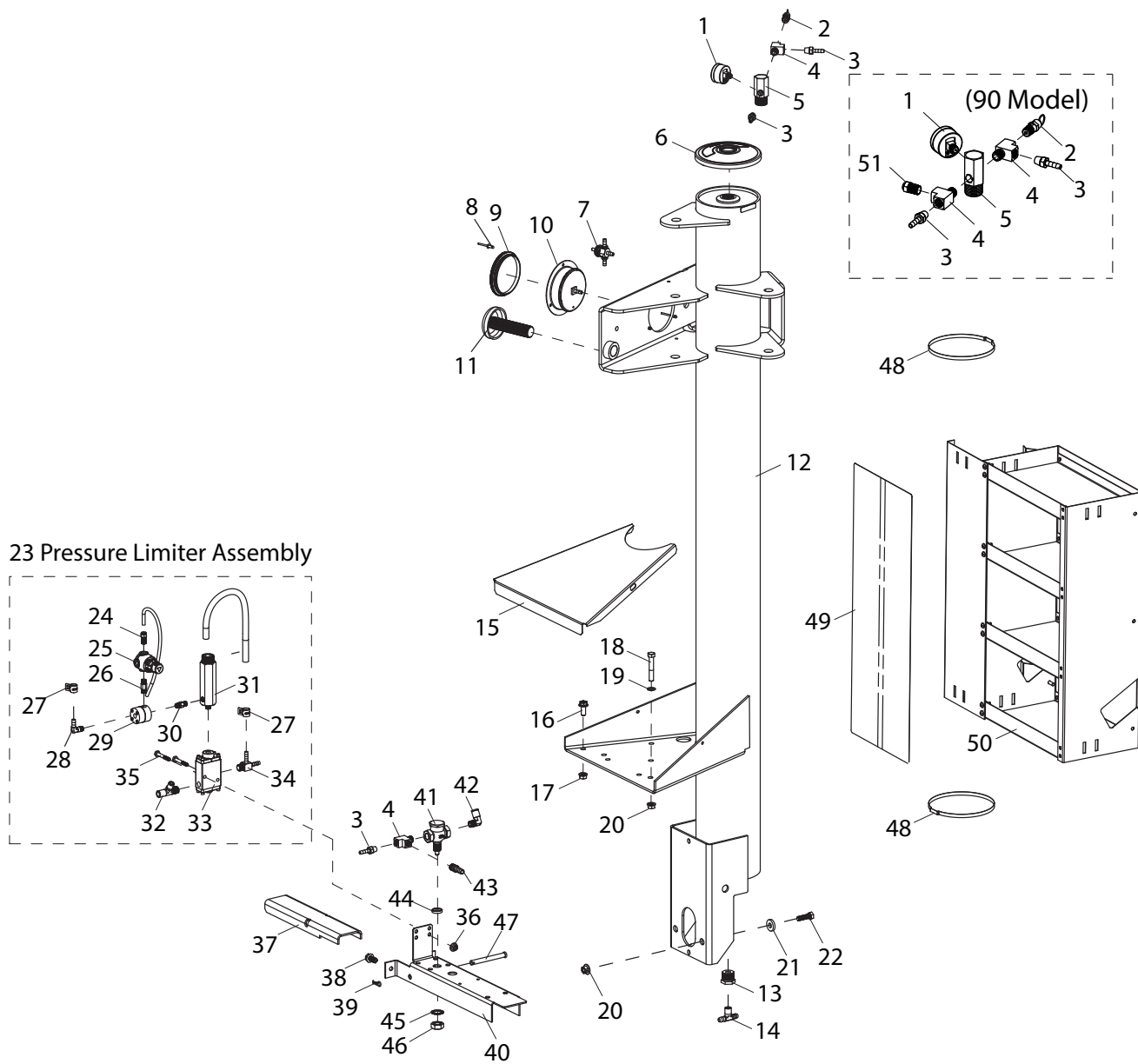
\*\*Accessory Item



 APPLY GREASE TO THESE LOCATIONS

## Inflation Bracket and Tower Assembly

Item	Part No.	Description	Item	Part No.	Description
1	8108968	Air Gauge	36	8143169	1/4-20 Whiz Lock Nut, Gr.5
2	8182599	Safety Valve	37	8181933	Pedal Inflation
3	8000378	1/4" Brass St. Fitting	38	8102459	3/8" Self Tap Screw Gr.5
4	871101642	1/4 NPTMX, 1/4F Tee Fitting	39	8107407	Hitch Pin Retainer
5	8183434	Manifold/Gauge	40	818193204	Inflation Brkt.
6	8182458	Plastic Cap (Tower)	41	8104600	1/4" Valve Comp.
7	8183502	Bleed Valve manifold Assy.	42	81819981	Fitting-ELL,Pkg
8	940341	1/8" OD 0.188 Blk Alum Rivet	43	8101898	St. 1/4" NPT 3/8" Hose Fitting
9	8107517	Gauge Lens, Screw On	44	8104673	Bushing (1/4" Valve)
10	85610708	Air Gauge	45	8104613	5/8" Ext. Tooth Lock Washer
11	8181114	Adjusting Knob Assy	46	8104611	5/8" N.F. Jam Nut Gr.5
12	85611871	Tower/Air Receiver	47	8180103	3/8 x 3-1/4 Clevis Pin
13	8101312	Reducer Fitting	48	8182221	6" Hose Clamp
14	8184467	1/4" NPT x 3/8 BRB x 3/8B Tee Fitting	49	85611363	Decal-Warning, English/French
15	8182805	Tower Support Cover	50	85610105	Accessory Box Assembly
16	8106302	3/8" Whiz Lock Screw, Gr.5	51	85612036	1/4 NPTMX x 6mm
17	8106303	3/8" Whiz Lock Nut, Gr.5			
18	8181137	3/8-16 x 2-1/4 Hex Hd. Cap Scr, Gr.5			**Accessory Item
19	8101018	0.392 x 0.687 x 0.0478 Washer			
20	8120424	3/8"-16 Wash Hd. Lock Nut Gr.5			
21	8000240	Washer 1" OD x 13/32 ID x 3/16"			
22	8107715	3/8-16 x 1-1/4 Hex Hd. Cap Scr, Gr.8.8			
23	85000816	Pressure Limiter			
24	8182035	1/8 NPT x 1/4 Tube Male St. Fit.			
25	8111083	Regulator			
26	8109472	1/8" Inline Filter			
27	85606362	13mm Spring Hose Clamp			
28	8110497	Male Elbow 1/8 NPT x 1/4 Hose			
29	8109468	Pressure Repeater			
30	8109471	1/8" Brass Hex Nipple			
31	8110496	Volume Chamber			
32	8111255	1/4 NPT x 3/8 x 1/4 Spl Tee			
33	8109466	Piloted Valve			
34	8110325	1/4" NPT Male Run Tee			
35	8120408	1/4-20 x 1-3/4 H.H. Cap Scr., Gr.5			



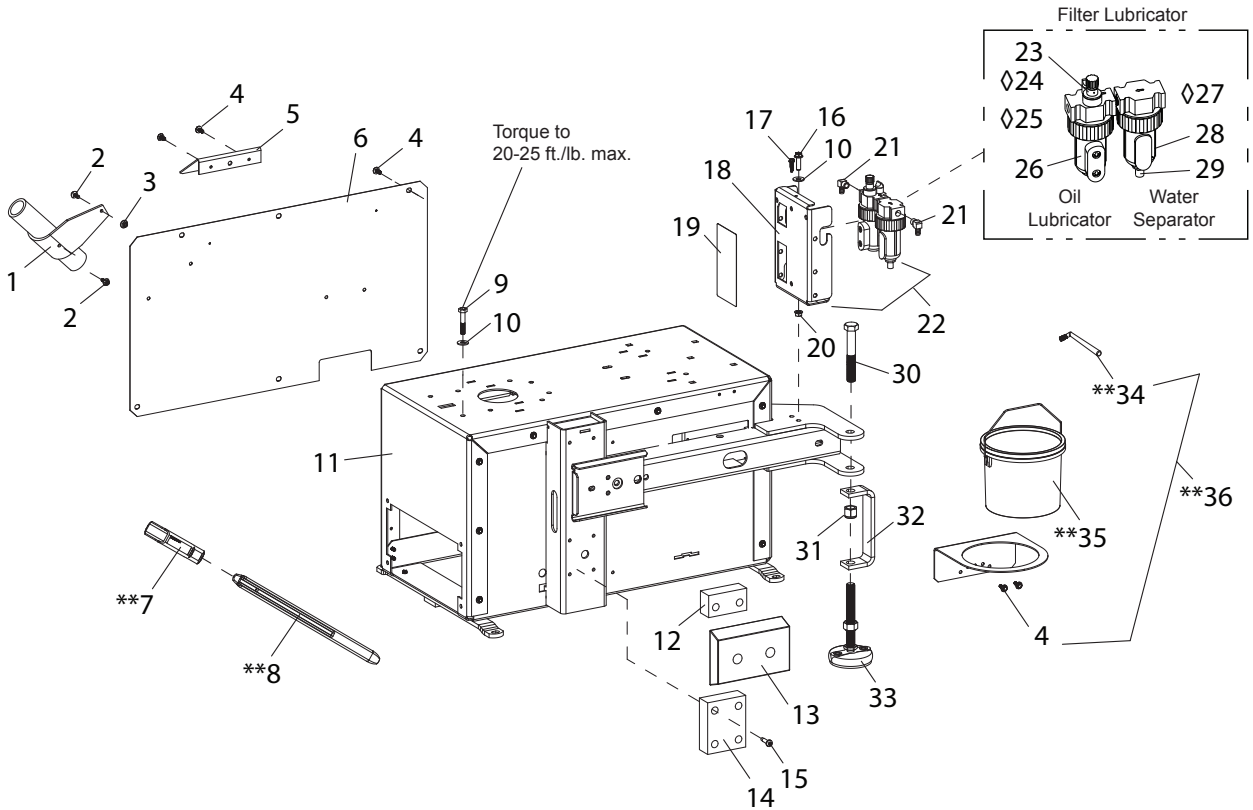


# Chassis System

Item	Part No.	Description
1	85611934	Tool Holder Bracket
2	8143168	1/4-20 x 3/4 Whiz Lock Screw
3	8143169	1/4-20 Whiz Lock Nut, Gr.5
4	8106301	1/4" Hex Hd Self Tap Screw, Gr.5
5	8182811	Inflation Pedal Cover
6	8182807	Metal Side Panel
7	85000783	**Lift Tool Bootie Kit, Pkg of 10
8	8181354	**Bead Lifting Tool
9	8182040	M10-1.5 x 55MM Hex Hd.Cap Scr, Gr.8.8
10	8301032	3/8 Flat Washer, Zinc Plate
11	85611901	Chassis
12	85611898	B.L. Pad
13	8181855	B.L. Center Pad
14	8181851	B.L. Pad
15	8182088	5/16-18 x 1-1/4 TPHST Screw, Gr.5
16	7110070	3/8-16 x 0.250 Whiz Bolt
17	85608367	1/4-20 x 1.00 Self Tap Hex Washer Head Screw
18	8183770	Filter Lubricator Bracket w/Instr.
19	85610370	Maintenance Decal
20	8106303	3/8" Whiz Lock Nut, Gr.5

Item	Part No.	Description
21	8184256	1/4 NPT, 1/4 HSE ELL Fitting
22	8183938	Filter Lubricator Assy w/Bracket
23	8183940	Sight Dome and Fill Cap
24	8183939	◇ Sight Dome w/Bracket
25	8183358	◇ Micro Mist Kit w/O-ring
26	8183361	Oiler Bowl with Sight Dome
27	8183359	◇ Filter Element
28	8183360	Water Bowl with Twist Drain
29	8183315	Auto Drain w/Nut
30	8182579	Hex Head Cap Screw
31	8182016	3/4"-10 Nylon Insert Lock Nut, Gr.5
32	85609978	Foot Bracket
33	85609979	3/4-10 THD Swivel Leveling
34	85000850	**Tire Paste Brush
35	81837101	**Universal Mounting Paste
36	85009048	**Lube Bucket Bracket & Brush Kit

\*\*Accessory Item  
◇Not Shown



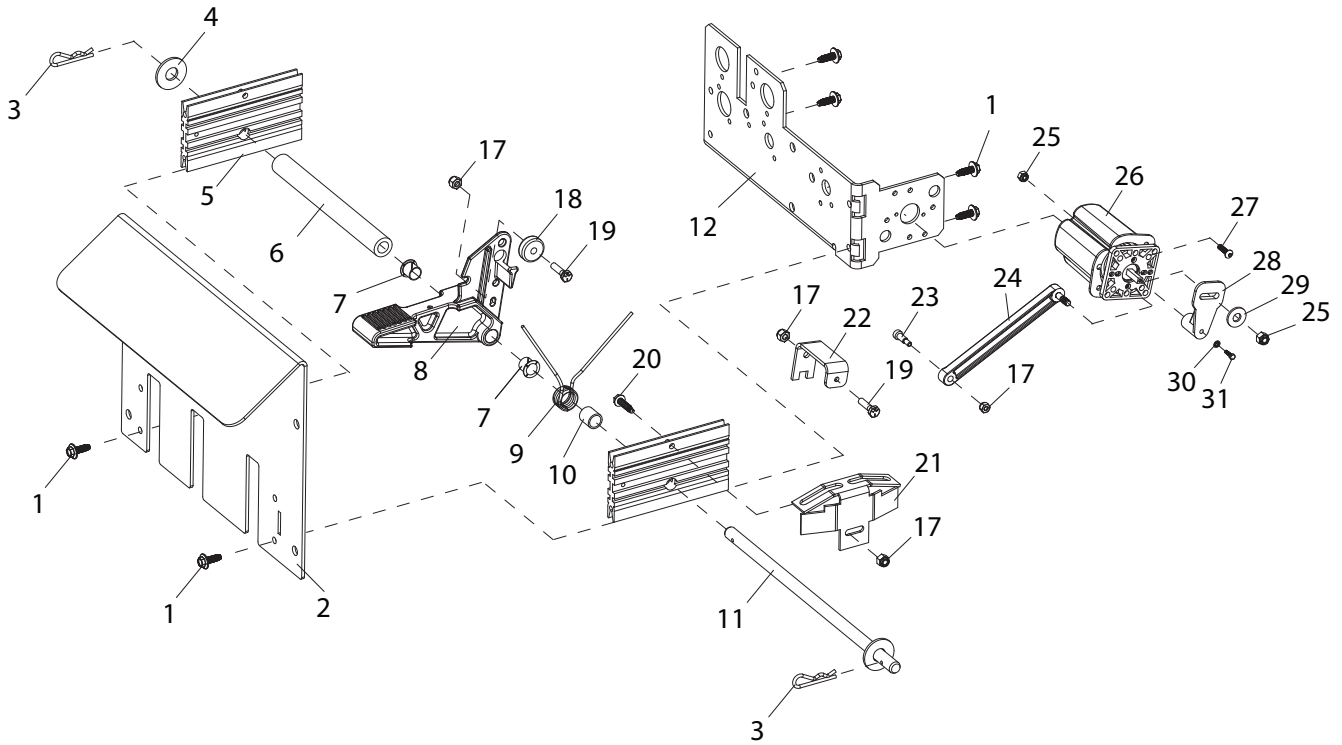


## Foot Pedal Assemblies

### Electric Model Foot Pedal Assembly

Item	Part No.	Description
1	8106301	1/4" Hex Hd Self Tap Screw, Gr.5
2	8182332	Guard-Foot Pedal
3	8107419	Hair Pin Cotter
4	8301121	Washer
5	8181918	Valve Brkt. Spacer Bar
6	85611913	Pedal Spacer
7	8181948	1/2" Nylinder Bearing
8	8181675	Standard Pedal
9	8181707	Torsion Spring
10	8181872	Torsion Spring Sleeve
11	8183398	Pedal Shaft
12	85009985	Valve Mounting Bracket
17	8181369	1/4-20 Lock Nut, Nyl. Ins. Gr.5
18	8181923	Stop Washer
19	8181984	1/4-20 x 1" Hx.Hd.Cp.Scr., Gr.5

Item	Part No.	Description
20	8104945	1/4 x 1 HWHSTC, Gr.5
21	818267004	Spring Stop Bracket
22	818236302	Spacer - Sw Pedal Lever-Red
23	8182743	10-24 x 3/8 SHCSS Gr.8
24	8181699	Lever Assembly - Switch
25	8182682	10-24 Nylon Insert Lock Nut Gr.5
26	85610895	Switch
	81837331	Switch, 110V
27	8181983	10-24 x 5/8 BHSCS, Gr.8
28	8181728	Switch Actuator Lever
29	8107635	5/16" Flat Washer
30	8301072	#6 Internal Tooth Lk Washer
31	8181982	3mm x 0.5 x 12mm Lg HHCS Screw

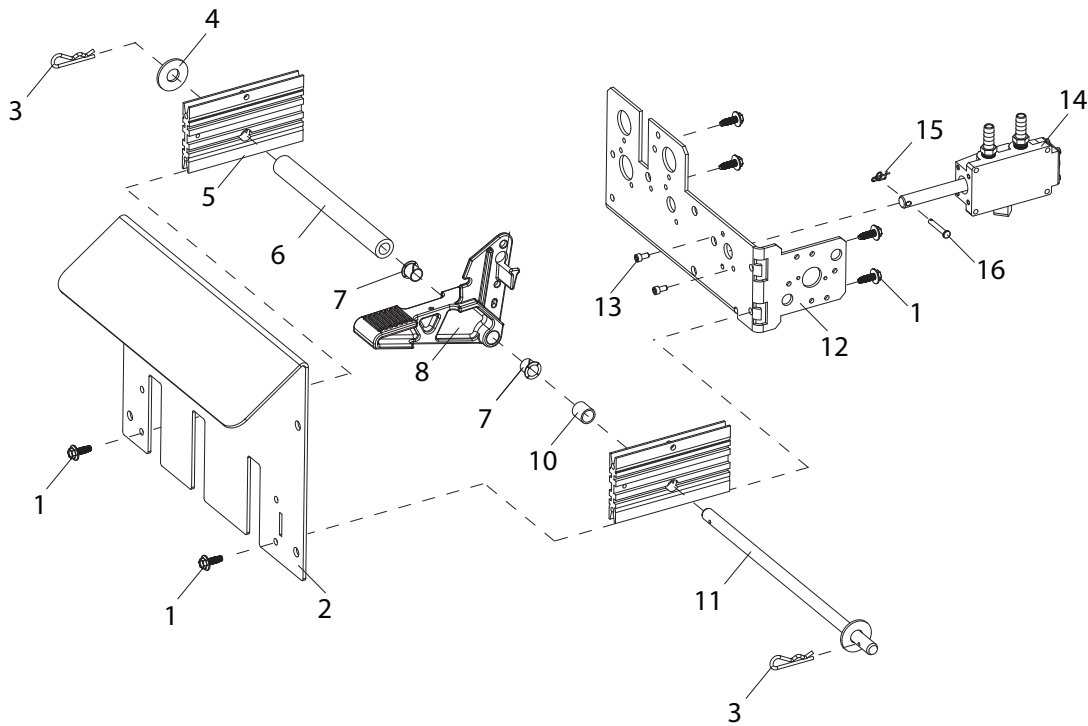


## Air Model Foot Pedal Assembly

Item	Part No.	Description
1	8106301	1/4" Hex Hd Self Tap Screw, Gr.5
2	8182332	Foot Pedal Guard
3	8107419	Hair Pin Cotter
4	8301121	Washer
5	8181918	Bar-Valve Brkt. Spacer
6	85611913	Pedal Spacer
7	8181948	1/2" Nylinder Bearing
8	8181675	Standard Pedal
10	8181872	Torsion Spring Sleeve
11	8183398	Pedal Shaft
12	85009985	Valve Mounting Bracket
13	8181989	10-24 x 3/8 SHCS, Gr.8
14	85611927	*Valve Assembly
15	8120469	Hair Pin Cotter
16	8181977	3/16" x 1-1/2" Clevis Pin

**\*Valve Assemblies (available only as individual components, see page 13)**

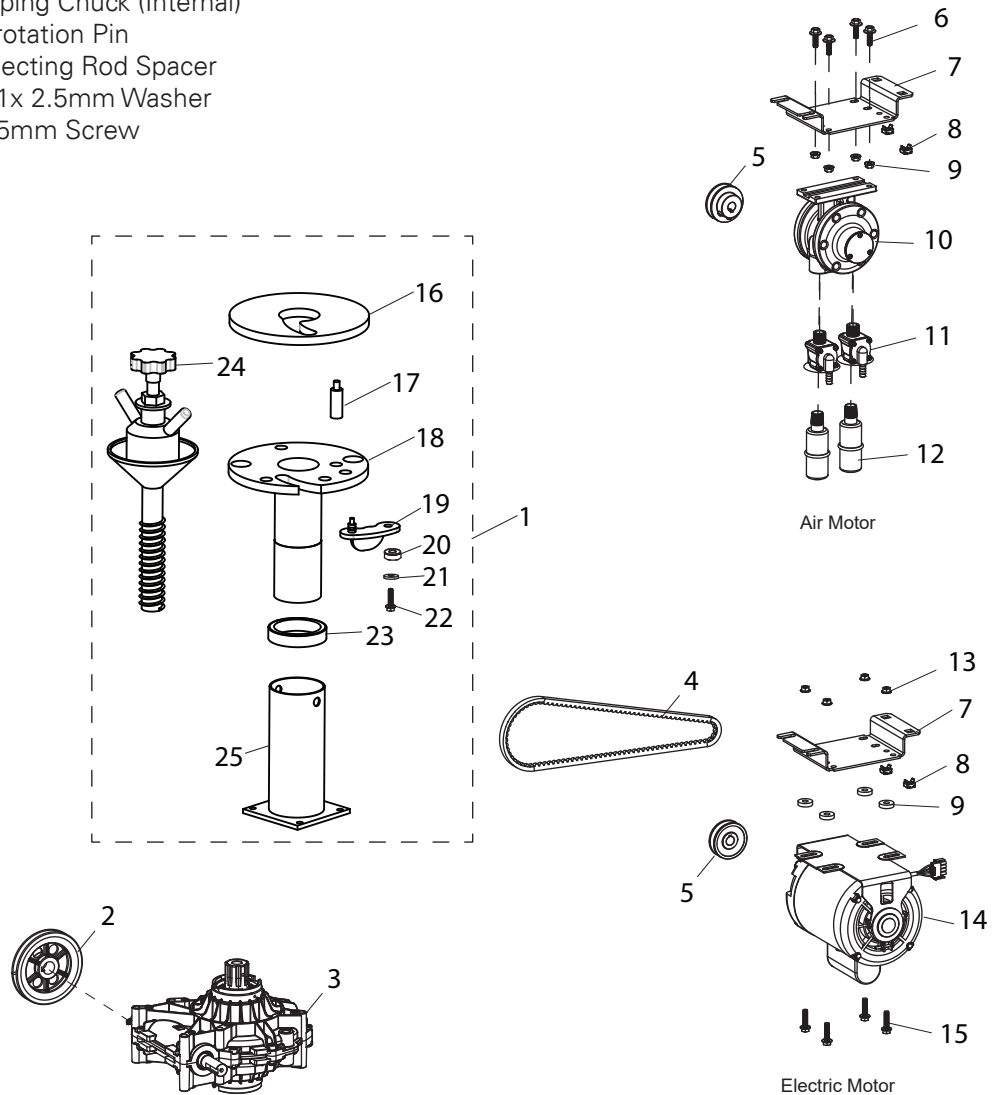
\*\*Accessory Item



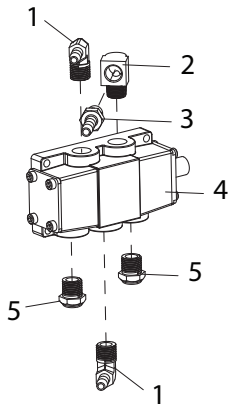
# Pedestal, Transmission and Motor Assemblies

Item	Part No.	Description
1	82046312	Pedestal Service Kit
2	85607708	Transmission Pulley (4-hole)
3	85608497	Transmission Kit
4	85611409	Cogged V-belt
5	8184674	Motor Pulley
6	8120325	5/16 x 1.00 Serrated
7	85609921	Motor Bracket
8	8143044	Tinnerman Sq. Captive Nut 3/8-16
9	8120369	1/4" x 3/8" x 1" Rubber Washer
10	8181190	Air Motor, Gast. 6AM
11	85606398	Exhaust Valve
12	8181206	1/2" NPT Muffler
13	8182178	5/16-18, Hex. Whiz Lock Nut
14	81846911	Motor Pkg, 110V
	818273203	Motor Pkg, 220V
15	940084	5/16-18 x 1 1/4 Ser. Wash.Hd.Scr.
16	83031339	Clamping Chuck Cover
17	83199580	Elastic Pin
18	82133266	Clamping Chuck (Internal)
19	82131342	Anti-rotation Pin
20	83000108	Connecting Rod Spacer
21	84398637	12x21x 2.5mm Washer
22	84398582	12x25mm Screw

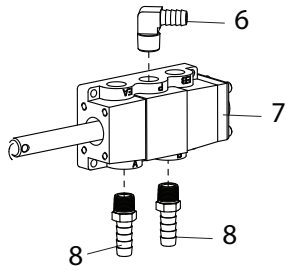
Item	Part No.	Description
23	84296945	Bearing
24	82033343	Manual Lock Assembly
25	86618063	Clamping Chuck (External)



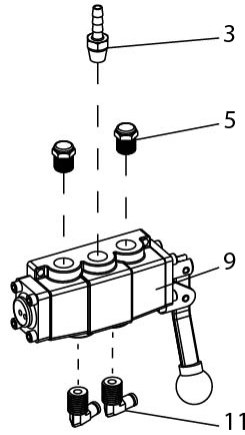
## Valve Assemblies



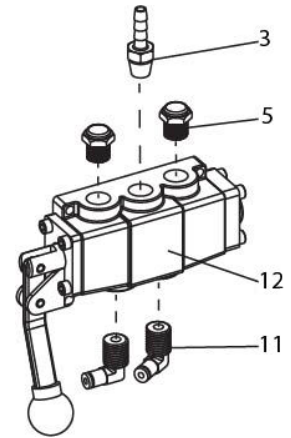
Bead Loosener Arm  
Pedal Valve Assembly



Air Motor Pedal  
Valve Assembly



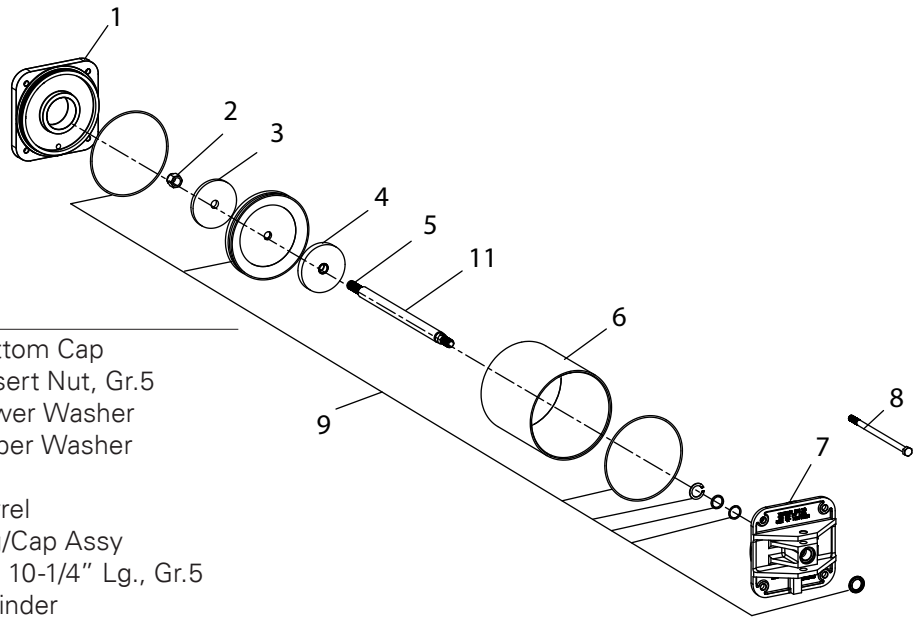
Robo-Arm®  
Valve Assembly



RoboRoller™ Arm  
Valve Assembly

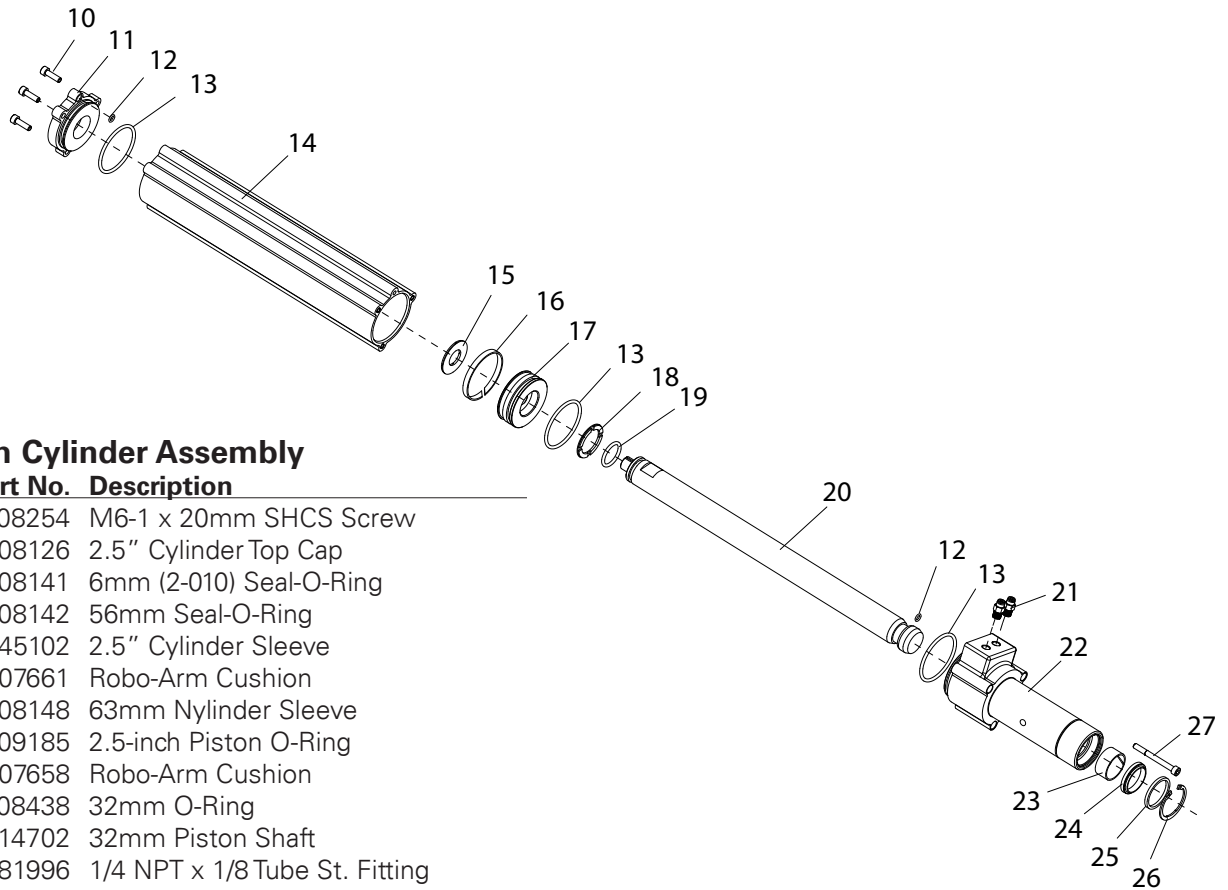
Item	Part No.	Description
1	8000376	ELL 90° 1/4 Hose Fitting
2	8000372	1/4 NPT, 90° St. ELL Fitting
3	8000378	1/4" Brass St. Fitting
4	8184878	4-way Valve, Pedal Operated
5	85607855	1/4" NPT Small Muffler
6	8184256	1/4 NPT, 1/4 HSE ELL Fitting
7	81843693A	4-Way w/Pull Pin Valve
8	8101898	3/8" Barb
9	8185585	3 Position Valve
11	85612818	90° Elbow 1/4 NPT x 1/8" Fitting
12	85611865	3 Position Valve

## Cylinder Assemblies



### BL Arm Cylinder Assembly

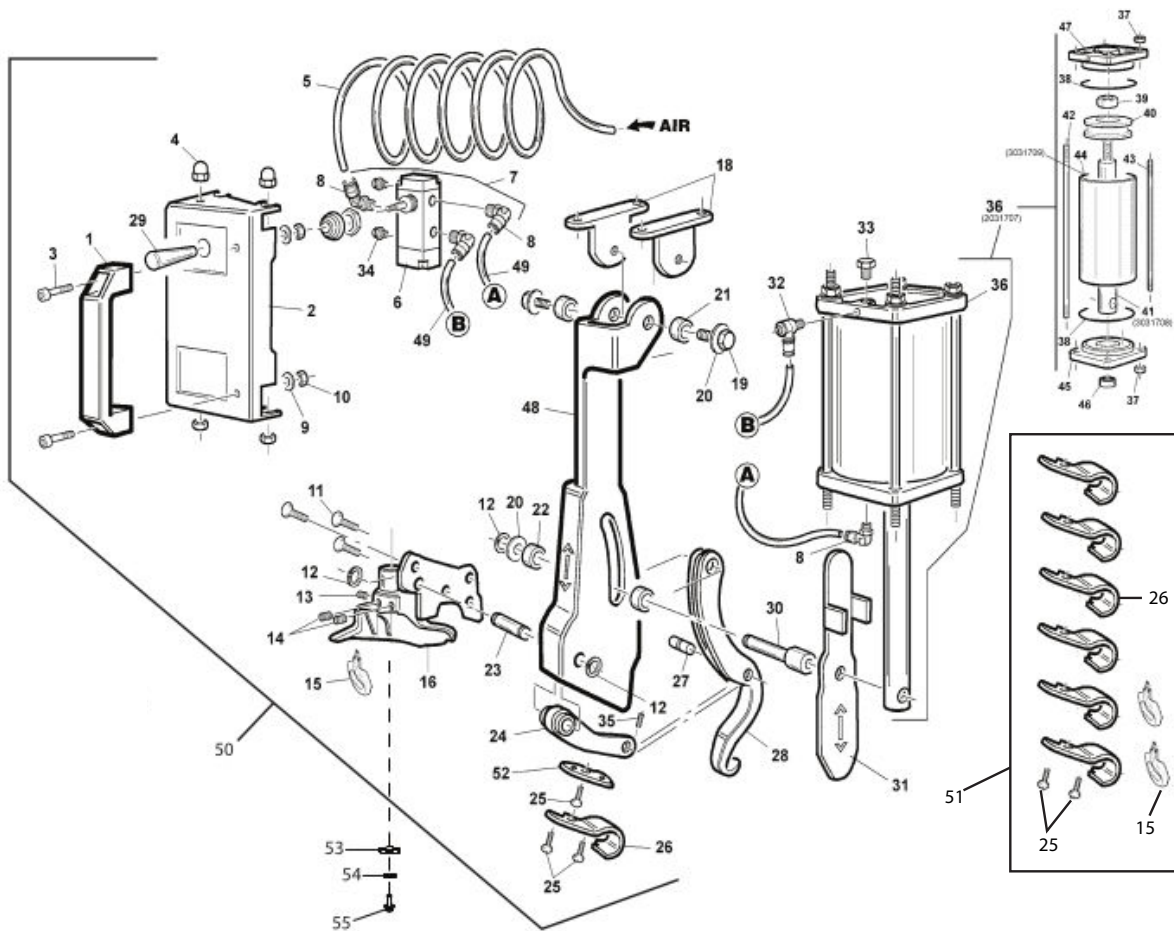
Item	Part No.	Description
1	8183310	B.L. Cylinder Bottom Cap
2	8182016	3/4"-10 Nylon Insert Nut, Gr.5
3	8181860	B.L. Cylinder Lower Washer
4	8181863	B.L. Cylinder Upper Washer
5	85607881	O-ring
6	8181574	B.L. Cylinder Barrel
7	85609719	Cylinder-Bushing/Cap Assy
8	8181862	Tie Bolt, 1/2-13 x 10-1/4" Lg., Gr.5
9	8182079	Seal Kit, B.L. Cylinder
10	8000376	ELL 90° 1/4 Hose Fitting - Hand B/L
11	85608568	Piston Rod, Hand B.L. w/ Heim Joint



### Robo-Arm Cylinder Assembly

Item	Part No.	Description
10	85608254	M6-1 x 20mm SHCS Screw
11	85608126	2.5" Cylinder Top Cap
12	85608141	6mm (2-010) Seal-O-Ring
13	85608142	56mm Seal-O-Ring
14	8560845102	2.5" Cylinder Sleeve
15	85607661	Robo-Arm Cushion
16	85608148	63mm Nylinder Sleeve
17	85609185	2.5-inch Piston O-Ring
18	85607658	Robo-Arm Cushion
19	85608438	32mm O-Ring
20	8560814702	32mm Piston Shaft
21	8181996	1/4 NPT x 1/8 Tube St. Fitting
22	85608855	2.5" Cylinder Bottom Cap
23	85608396	1.25 x 0.625 Nylinder Sleeve
24	85608419	1.25" Wiper Seal
25	85608908	Spacer
26	85608907	Snap Ring
27	85608256	M6-1 x 60mm SHCS Screw

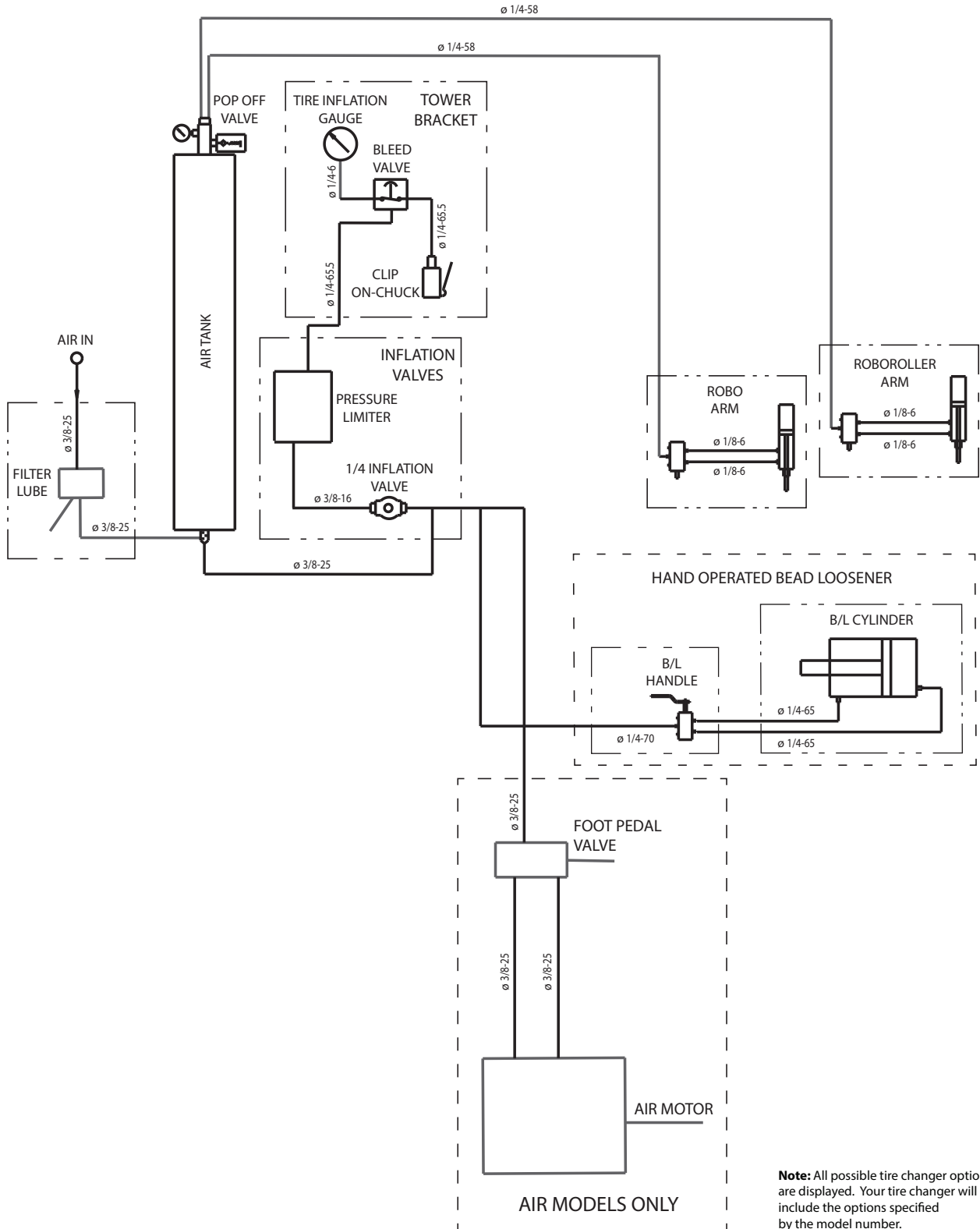
# Leverless Bead Lifter



Item	Part No.	Description	Item	Part No.	Description
1	84297851	Handle	29	83010284	D.14 x 45 M5 Control Handle
2	87019215	Valve Box	30	83019211	Cylinder Pin
3	84399954	8 x 20 Screw	31	83019561	Support Plate
4	84395374	M8 Nut	32	84194004	MR 41 6 M6 Union
5	83030571	6 x 4 Spiral Hose, L=1500	33	84199161	1/8" Plug
6	84198285	5-way Valve	34	84199610	1/8" Silencer
7	82006996	Valve	35	84399957	6 x 8 Screw
8	84198618	1/8" Union	36	82031707	Cylinder Unit
9	84399829	8 (8, 4 x 16 x 1,5) Washer	37	84399976	Nut M8
10	84399900	M8 Self-locking Nut	38	84298822	O-ring D.68, 26 x 3, 53
11	84393957	0 x 12 Screw	39	84399865	Self-locking Nut M12
12	84399864	D.12 Seeger Ring	40	84198856	D.75 Piston
13	84395530	12 x 2 Screw	41	83031708	Cylinder Shaft
14	84393346	Screw	42	83019208	8 x 1, 25 x 180 Special Screw
15	83019305NE	Back Slide	43	83019204	M8 X 1, 25 x 164 Special Screw
16	83033830	Touchless Mounting Tool	44	83031709	Cylinder Liner L=125
18	83019202	Connection Plate	45	83015024	Flange
19	84399434	12 x 20 Screw	46	83199601	Scraper
20	84398637	ID 12 x 21 x 2, 5 Washer	47	83019467	D.75 SO Side Hole M6 Back Flange
21	83017334	12/18/8, 2 Bush	48	87019199	Tool Holder
22	83017302	12/18/6, 5 Ferrule	49	83019959	6 x 6 Hose L=240
23	83019210	Pin - 54mm long	50	89243318	Leverless Device
24	83019214	Connection Rod	51	89233409	Leverless Bootie Kit
25	84393753	5 x 8 Screw	52	83031595	Threaded Tab
26	83033278NE	Front Slide	53	84395804	2 x 35 x 5, G Type 14, Washer
27	83019212	Tool Pin - 26mm long	54	84395805	2 x 21 x 4, C Type 10, Washer
28	83019213	Touchless Tool	55	8106302	3/8-16 UNC HSWF Screw, L=.875"



# Pneumatic Diagram

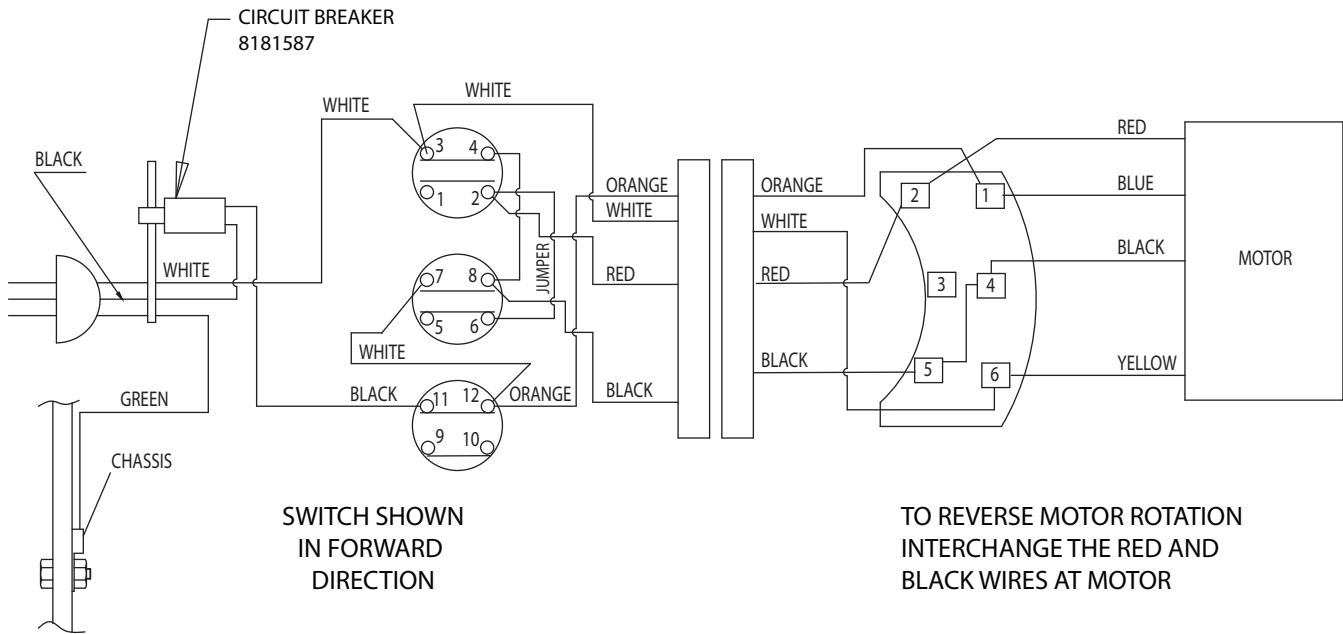


**Note:** All possible tire changer options are displayed. Your tire changer will include the options specified by the model number.

# Electrical Schematics

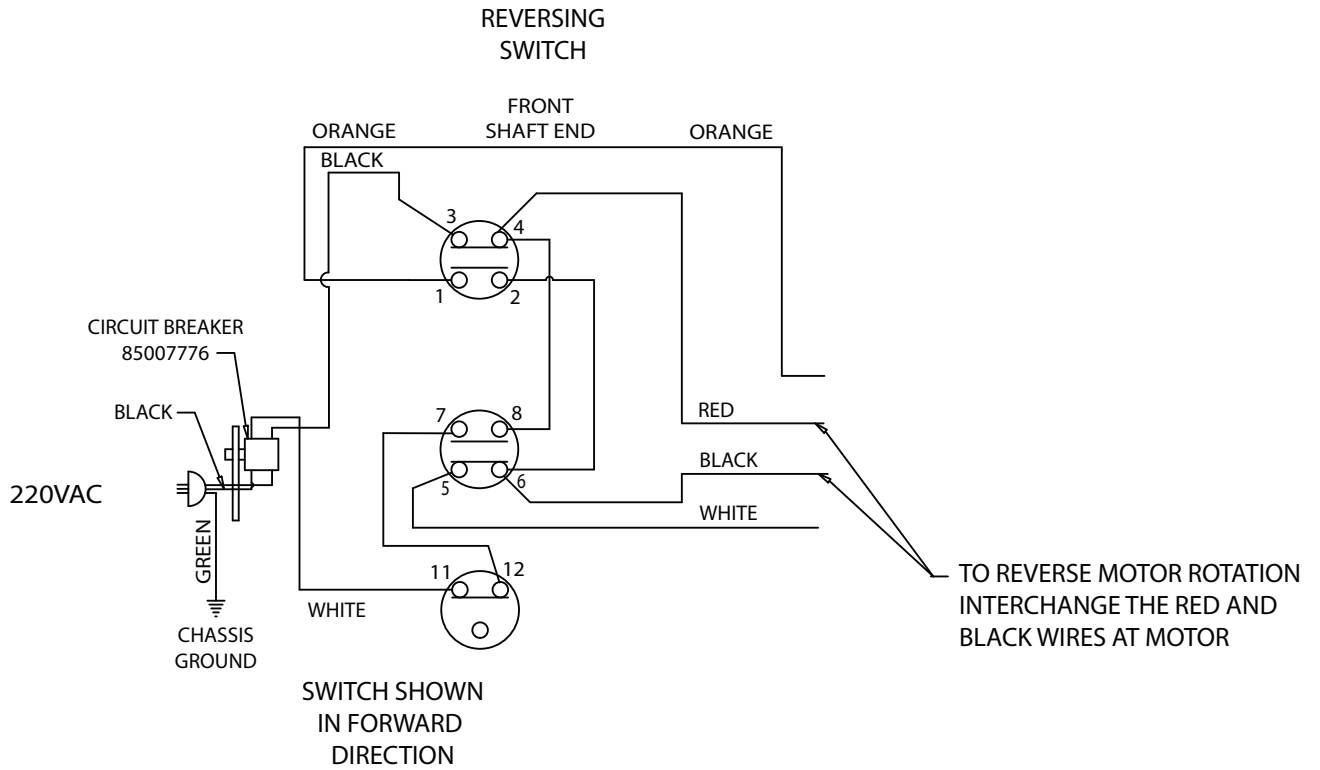
## 110V Electrical Schematic

Part No.	Description
85610349	110V Power Cord Assembly
85610403	110V Switch Cable
85609550	Switch

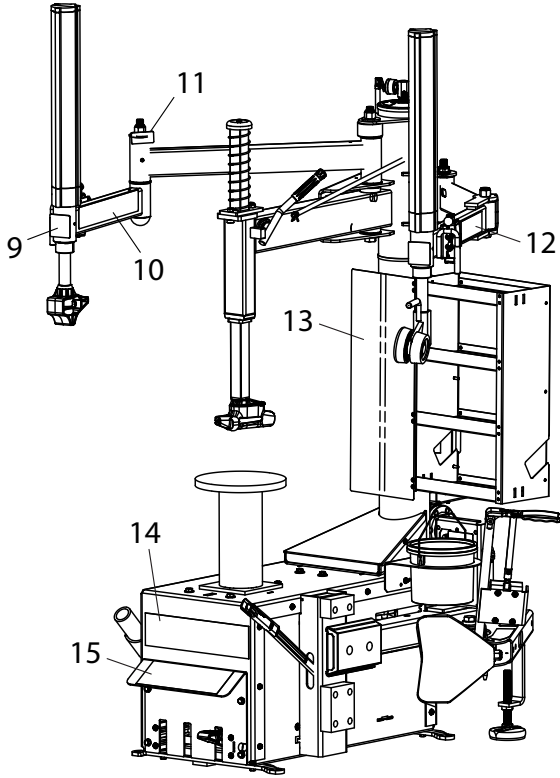
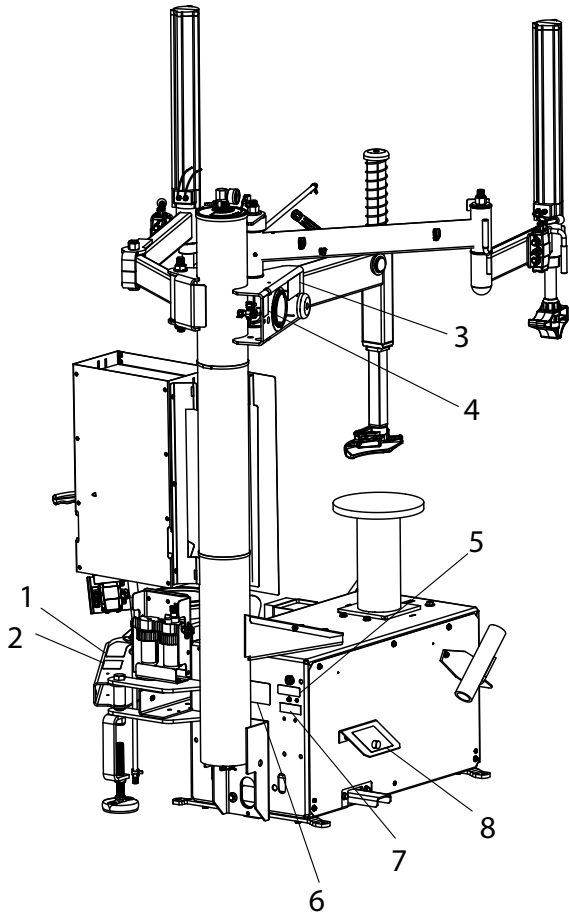


## 220V Electrical Schematic

Part No.	Description
85611137	250V Power Cord Assembly
85609029	220V Switch Cable
85609550	Switch



## Decal Layout



Item	Part No.	Description
1	n/a	BL Arm Instructions Decal
2	85611207	BL Arm Caution Decal
3	8109888	Inflation Warning Decal
4	n/a	Bleed Valve Decal
5	85610437	220V Caution Decal
	8180237	115V Caution Decal
6	8140963	Caution Decal
7	n/a	Patent Notice Decal
8	n/a	Inflation Pedal Decal
9	n/a	Up/Down Decal
10	n/a	Arm Directions Decal
11	n/a	Torque Decal
12	n/a	Coats Decal
13	85611363	Warning Decal
14	n/a	Coats Decal
15	n/a	Foot Pedal Decal

## Center Clamp Tire Changer

### All-Air Unit Compressed Air Requirements

COATS® Center Clamp tire changers that are powered entirely by air (no electric motor) require a single compressed air power source. Refer to the table below for exact specifications.

Tire Changer Model	Compressor Size	Capable of
All	5 HP	14-15 SCFM at 150 PSI

### Oil Maintenance

The oil level in the oil reservoir should be checked regularly. When fluid level is at the “add” mark, do the following:

1. Disconnect inlet air supply at oil reservoir.
2. Remove cap from oil reservoir and add Chevron Regal® R & O 32 oil to the “full” mark.
3. Replace cap and clean up any spilled oil.
4. Reconnect inlet air supply at oil reservoir.

### Air Gauge Check and Recalibration

1. Inflate a standard 15" passenger car tire/wheel assembly to 32 PSI. Use a high quality stick-type pressure gauge to verify pressure. Attach tire changer's inflation hose to the valve stem and check pressure reading on air gauge. If it does not read 32 PSI, recalibrate the gauge.

2. Remove the screw-on lens. Loosen 2 screws on face of the gauge. Loosen them just enough so that the gauge face moves. Do not remove screws.

3. Rotate gauge face until the 32 PSI mark is aligned with gauge needle. Tighten 2 screws and replace lens.

### Danger, Warning, Caution, and Instructional Decals

Always make the cleaning of these important decals a part of your regular maintenance routine. If they are damaged or illegible, replace them immediately. Your safety, and the safety of others is involved!

*Regal® is a trademark of Chevron Products Company*

# Notes