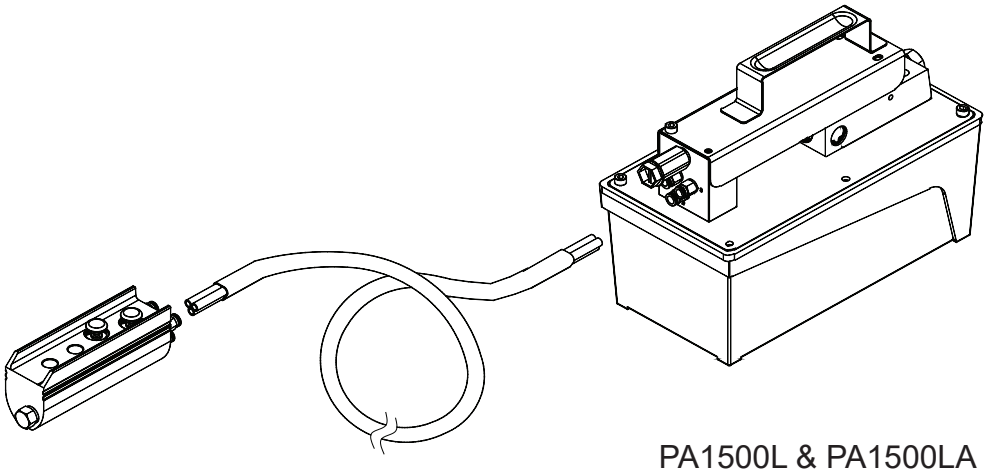
# Air Hydraulic Pumps Instruction Manual

**MODELS: PA1500L, PA1500LA & PA3801L**

SFA Companies 10939 N. Pomona Ave. Kansas City, MO 64153
Tel: 888-332-6419 * Fax: 816-448-2142
E-mail: sales@bvahydraulics.com Website: www.bvahydraulics.com

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

## Maximum Operating Pressure 10,000 PSI



PA1500L & PA1500LA

**Save these instructions.** For your safety, read and understand the information contained within. The owner and operator shall have an understanding of this product and safe operating procedures before attempting to use this product. Instructions and safety information shall be conveyed in the operator's native language before use of this product is authorized. Make certain that the operator thoroughly understands the inherent dangers associated with the use and misuse of the product. If any doubt exists as to the safe and proper use of this product as outlined in this factory authorized manual, remove from service immediately.

**Inspect before each use.** It is recommended that, prior to each use, an inspection be done by qualified personnel and that any missing or damaged parts, decals, warning/ safety labels or signs be replaced with BVA Hydraulics authorized replacement parts only. Any pump that appears to be damaged in any way, is worn, leaking or operates abnormally shall be removed from service immediately until such time as repairs can be made. Any pump that has been or suspected to have been subject to a shock load (a load dropped suddenly, causing the system pressure to exceed 10,000 PSI), shall be removed from service immediately until checked out by a BVA Hydraulics authorized service center. Owners and operators of this equipment shall be aware that the use and subsequent repair of this equipment may require special training and knowledge.

## PRODUCT DESCRIPTION

BVA Hydraulics Air Hydraulic Pumps are engineered to meet most Industrial Standards for Performance and Safety. Its unique hydraulic circuit allows quick displacement of hydraulic fluid under no load conditions and easy pumping in loaded conditions. These air actuated pumps supply compressed hydraulic fluid to compatible applications i.e. rams, presses, spreaders, compactors and crimping machines, anywhere that 10,000 PSI of fluid pressure is needed. Special skill, knowledge and training may be required for a specific task and the product may not be suitable for all the jobs described above. Unsuitable applications would include applications that call for a device to move, level or support persons, animals, hazardous materials, mobile homes/ dwellings in general, mirrors and/or plate glass, and/or to connect/secure hatches, components, etc. between bulkheads. The user must ultimately make the decision regarding suitability of the product for any given task and assume the responsibility of safety for himself or herself and others in the work area.

⚠ **WARNING:** To reduce the risk of personal injury and/or property damage, ensure that the rated working pressure of each pressurized attachment be equal to or greater than the rated working pressure developed by the hydraulic pump.

⚠ Always check connections before using. Alteration of these products is strictly prohibited. Use only those adapters and attachments provided and approved by the manufacturer.

## SPECIFICATIONS

| Model No. | Usable Oil Capacity (Cu. In.) | Reated Pressure (PSI) | Output Flow Rate (Cu. In.) | | Input Air Pressure (PSI) | Output Port Thread | Input Port Thread | Weight (Lbs.) |
|---|---|---|---|---|---|---|---|---|
| | | | No Load | Loaded | | | | |
| PA1500L | 91.5 | 10,000 | 61 | 10 | 110 - 175 | 3/8"-18NPT | 1/4"-18NPT | 19.4 |
| PA1500LA | | | | | | | | 20.1 |
| PA3801L | 231.9 | | | | | | | 30.4 |

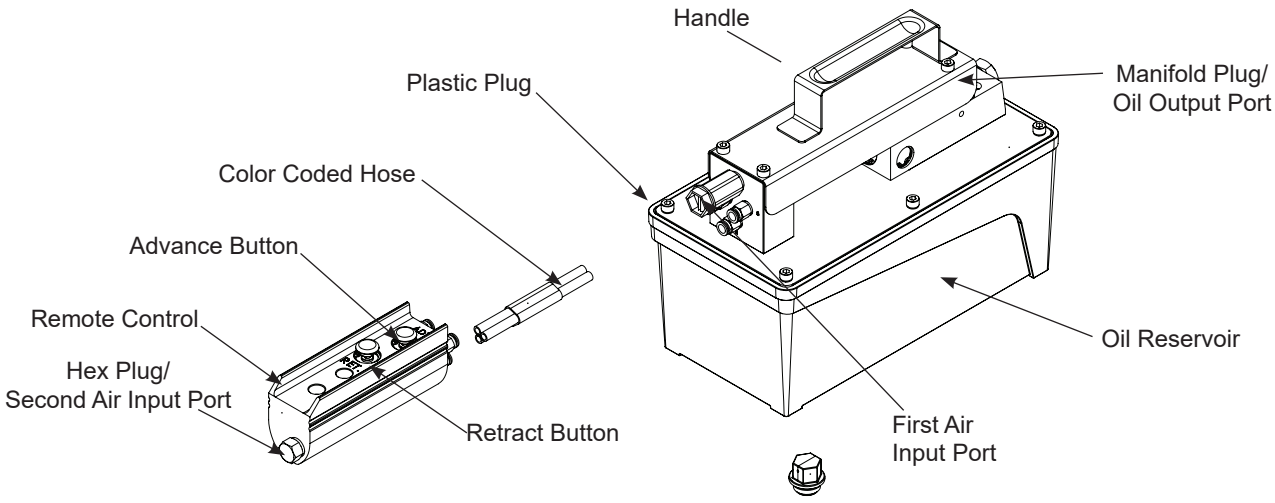



Figure 1 - Model PA1500LA, PA1500L & PA3801L Components (PA1500L shown)

## BEFORE USE

1. Before using this product, read the instruction manual completely and familiarize yourself thoroughly with the product and the hazards associated with its improper use.
2. Know your pump, its limitations and how it operates before attempting to use
3. Use Spare Parts List Illustration on pages 6 & 8 as reference of location and assembly.
4. Replace shipping plug (red color) with air vent plug (black color). Refer to #58 on parts illustration.

## ASSEMBLY

**To hook up pump with remote control:**

1. Connect ***red*** hose into air line coupler number 1 on the pump and then put other end of red hose into corresponding slot on remote control
2. Connect ***purple*** hose into air line coupler number 2 on the pump and then put other end of purple hose into corresponding slot on remote control.
3. Connect ***white*** hose to air line coupler number 3 on the pump and then put other end of the white hose into corresponding slot on remote control.

**Note**: Always secure threaded port connections with non-hardening pipe thread compound. Tighten securely to prevent accidental removal of components while in use. Take care not to introduce compound into port orifices.

# ⚠WARNING



- Study, understand, and follow all instructions provided with and on this device before use.
- All WARNING statements must be carefully observed to help prevent personal injury.
- No alteration shall be made to this device.
- Always wear protective gear when operating hydraulic equipment.
- Keep hydraulic equipment away from flames and heat. Hydraulic fluid can ignite and burn. Do not operate if leaks are detected.
- **Crush Hazard.** Keep hands and feet away from loading area. Avoid pinch points or crush points that can be created by the load, cylinder, or any equipment of system.
- To avoid crushing and related injuries: NEVER work on, under or around a lifted load before it is properly supported by appropriate mechanical means. Never rely on hydraulic pressure alone to support load.

### HYDRAULIC PUMPS

- The user must be a qualified operator familiar with the correct operation, maintenance, and use of pumps. Lack of knowledge in any of these areas can lead to personal injury.
- Do not exceed rated capacity of the pump or any equipment in the system.
- Never attempt to lift a load weighing more than the capacity of the cylinder.
- Burst hazard exists if hose or connection pressure exceeds rated pressure.
- Do not subject the pump and its components to shock loads.
- Inspect pump, cylinder, hoses and connections before each use to prevent unsafe conditions from developing. Do not use if they are damaged, altered or in poor condition. Do not operate the system with bent or damaged coupler or damaged threads.
- Never hold or stand directly in line with any hydraulic connections while pressurizing.
- Use gauge or other load measuring instrument to verify load.
- Never attempt to disconnect hydraulic connections under pressure. Release all line pressure before disconnecting hoses.
- Use only approved accessories and approved hydraulic fluid.
- Never attach ANY component not authorized by manufacturer.
- Always ensure that the chosen application is stable to work on and around.
- Do not connect to application which can return more oil to the reservoir than the pump reservoir can hold.
- Do not connect pump to hydraulic system powered by another pump.
- This device is not suitable for use as support device! As the system load is lifted, use blocking and cribbing to guard against a falling load.
- All personnel must be clear before lowering load or depressurizing the system.
- Never try to disassemble a hydraulic cylinder, refer repairs to qualified, authorized personnel.

### HYDRAULIC HOSES & FLUID TRANSMISSION LINES

- Avoid short runs of straight line tubing. Straight line runs do not provide for expansion and contraction due to pressure and/or temperature changes.
- Reduce stress in tube lines. Long tubing runs should be supported by brackets or clips. Before operating the pump, tighten all hose connections with proper tools. Do not overtighten. Connections should only be tightened securely and leak-free. Overtightening can cause premature thread failure or high pressure fittings to burst.
- Should a hydraulic hose ever rupture, burst or need to be disconnected, immediately shut off the pump and release all pressure. Never attempt to grasp a leaking pressurized hose with your hands. The force of escaping hydraulic fluid can inflict injury.
- Do not subject the hose to potential hazard such as fire, sharp objects, extreme heat or cold, or heavy impact.
- Do not allow the hose to kink, twist, curl, crush, cut or bend so tightly that the fluid flow within the hose is blocked or reduced. Periodically inspect the hose for wear.
- Do not pull, position or move setup by the hose.
- Hose material and coupler seals must be compatible with hydraulic fluid used. Hoses also must not come in contact with corrosive materials such as battery acid, creosote-impregnated objects and wet paint. Never paint a coupler or hose.
- FAILURE TO HEED THESE WARNINGS MAY RESULT IN PERSONAL INJURY AS WELL AS PROPERTY DAMAGE.

## OPERATION

⚠ To reduce the risk of personal injury and/or property damage, hydraulic connections must be securely fastened before building pressure in the system. Release all system pressure before loosening any hydraulic connection in the system.

⚠ Always monitor pressure, load or position using suitable equipment. Pressure may be monitored by means of an optional manifold and gauge. Load may be monitored by means of a load cell and digital indicator. Correct application position can only be determined by the operator of the equipment.

1. Air connection: Remove plug from first or second air input port (refer to figure 1) and connect to adequate air supply. Install hex plug on unused air input port to prevent air leakage.
2. Hydraulic connection: Remove manifold plug from oil output port and connect to suitable application using 3/8 NPT connection.
3. To operate pump, press and hold on the advance button of the remote control until desired pressure, load or position is reached. Always monitor pressure, load or position using suitable equipment. Pressure may be monitored by means of an optional manifold and gauge (contact **BVA Hydraulics**). Load may be monitored by means of a load cell and digital indicator. Correct application position can only be determined by the operator of the equipment.
4. To retract application, simply press the retract button on the remote control.

**Note:** Both air input ports use a 1/4 NPT air nipple (not included). It is recommended to install an inline air filter and dryer upstream from the pump to provide clean, lubricated air. Contact BVA Hydraulics for necessary accessories.

## MAINTENANCE

**Important:** Use only a good quality hydraulic jack fluid. **Never** use brake fluid, transmission fluid, turbine oil, motor oil, alcohol, glycerin etc. Use of other than good quality hydraulic oil will void warranty and damage the pump, hose, and application. We recommend BVA FJZ01 or equivalent.

1. Inspect hoses and connections daily. Replace damaged components immediately with BVA Hydraulics replacement parts only.
2. Tighten connections as needed. Use non-hardening pipe thread compound when servicing connections.
3. Use only good quality hydraulic fluid. We recommend Mobil BVA FJZ01 or equivalent.

**Adding Hydraulic Fluid**

1. Depressurize and disconnect hydraulic hose from application.
2. With pump in upright, horizontal position, remove the air vent plug located on the top plate of the reservoir.
3. Use a small funnel to fill reservoir to within 3/4" (19mm) of the opening.
4. Wipe up any spilled fluid and reinstall the air vent plug.

**Changing Hydraulic Fluid**

1. For best results, change fluid once a year.
2. Repeat step 2 on Adding Hydraulic Fluid, then pour used fluid into a sealable container.
3. Dispose of fluid in accordance with local regulations.
4. Fill with a good quality hydraulic jack oil as recommended above. Reinstall air vent plug.

**Lubrication**

When pump is operated on daily basis, the manufacturer recommends installing an inline oiler and air dryer. Use SAE grade oil (5W to 30W).

**Storage**

1. When not in use, depressurize and disconnect hydraulic hoses from application.
2. Wipe clean, thoroughly.
3. Store in clean, dry environment. Avoid temperature extremes.
4. For transportation or long storage, replace the air vent plug with shipping plug.
5. Shield pump with a protective cover.

## TROUBLESHOOTING GUIDE

The following information is intended as an aid in determining if problem exists. Pumps should be repaired only by authorized BVA Service Center. For repair service, contact service center in your area.

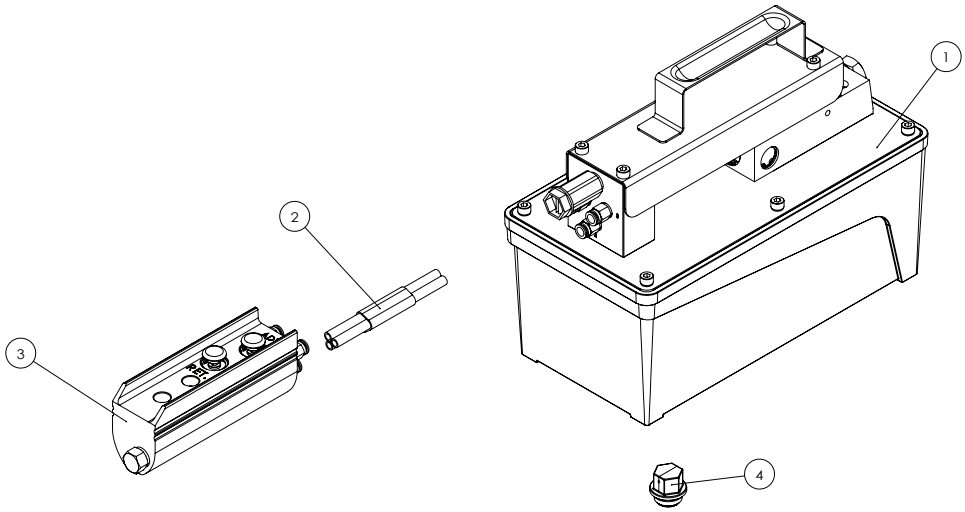
| Symptom | Possible Causes | Corrective Action |
|---|---|---|
| Application does not extend, move or respond to pressurized fluid | • Overload condition<br>• Loose couplers<br>• Faulty couplers<br>• Pump malfunction<br>• Inadequate air supply | • Remedy overload condition<br>• Tighten couplers<br>• Replace couplers<br>• Contact service center<br>• Ensure air source can dedicate 7.8 CFM @ 110~175 PSI |
| Application responds to pressurized fluid, but system does not maintain pressure | • Overload condition<br>• Pump or valve malfunction<br>• Application/connection leaking | • Remedy overload condition<br>• Contact Service Center<br>• Replace application/connection |
| Application responds slower than normal | • Loose connection or coupler<br>• Restricted hydraulic line or fitting<br>• Application/connection leaking | • Tighten connection or coupler<br>• Clean and replace if damaged<br>• Replace application/connection |
| Application does not return fluid to pump (i.e. cylinder will not retract) | • Malfunctioning coupler, damaged application | • **Secure load by other means**. **Depressurize** pump and hose, remove coupler and/or application, then renew or replace |
| Application does not fully extend (cylinder or spreader) | • Reservoir overfilled<br><br>• Fluid level in pump is low | • **Secure load by other means**. **Depressurize** pump and hose, remove application, then drain fluid to proper level<br>• **Secure load by other means**. **Depressurize** pump and hose, remove application, then fill fluid to proper level |
| Poor performance | • Fluid level in pump is low | • Ensure proper fluid level |

# Air Hydraulic Pump Service Parts

## MODEL: PA1500L

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**Note:** Not all components of the pump are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence.




PA1500L

| No. | Description | Part No. | Qty. |
|---|---|---|---|
| 1 | Line control Air pump | A57-1-0009-104 | 1 |
| 2 | Air tubes | A57-6-5309-101 | 1 |
| 3 | Air control assy. | A57-3-5002-107 | 1 |
| 4 | Air Vent Assembly | A57-3-1900-109 | 1 |
| | Repair kit | A57-3-9909-107 | 1 |

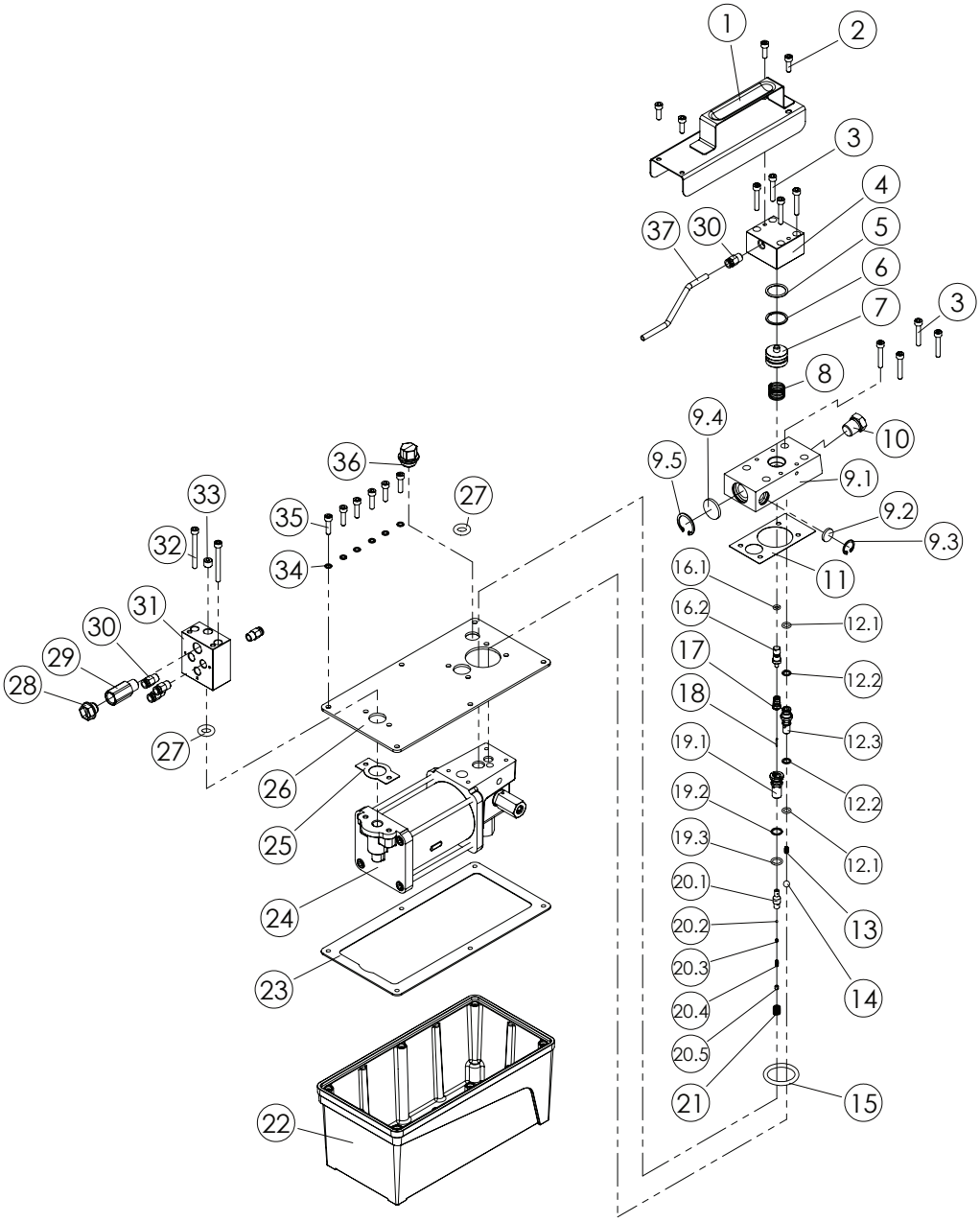
**Note:** To ensure safe and reliable performance, replace worn or damaged parts with BVA Hydraulics Authorized Replacement Parts only.

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**Note:** To ensure safe and reliable performance, replace worn or damaged parts with BVA Hydraulics Authorized Replacement Parts only.

| Item | Description | Part No. | Qty. |
|---|---|---|---|
| 1 | Handle | A57-3-5003-109 | 1 |
| 2 | Screw | 649-1-0050-055 | 4 |
| 3 | Screw | 649-1-0050-046 | 8 |
| 4 | Release cylinder | A57-6-5301-105 | 1 |
| 5 | O-ring | * | 1 |
| 6 | Back-up ring | * | 1 |
| 7 | Release piston | A57-6-5302-107 | 1 |
| 8 | Compressing spring | 510-2-0188-102 | 1 |
| 9 | Oil outlet valve assy | A57-3-4001-100 | 1 |
| 9.1 | Oil outlet valve | A57-5-4001-102 | 1 |
| 9.2 | Muffler | A57-6-3007-105 | 1 |
| 9.3 | C-clip | 666-5-0160-107 | 1 |
| 9.4 | Muffler | A17-6-1002-103 | 1 |
| 9.5 | C-clip | 666-5-0250-108 | 1 |
| 10 | Nut | D05-6-1001-106 | 1 |
| 11 | Pad | A57-6-1604-103 | 1 |
| 12 | Oil outlet valve assy | A57-4-4002-108 | 1 |
| 12.1 | O-ring | * | 2 |
| 12.2 | Back-up ring | * | 2 |
| 12.3 | Oil outlet valve | A57-6-4002-201 | 1 |
| 13 | Compressing spring | 512-2-0043-108 | 1 |
| 14 | Steel ball | 601-7-0009-001 | 1 |
| 15 | O-ring | 511-7-0410-102 | 1 |
| 16 | Release bar assembly | A57-4-3001-101 | 1 |
| 16.1 | O-ring | * | 1 |
| 16.2 | Release bar | A57-6-3001-112 | 1 |
| 17 | Spring | 552-2-0010-105 | 1 |
| 18 | Release nail | * | 1 |
| 19 | Release valve assy | A57-4-3004-107 | 1 |
| 19.1 | Release base | A57-6-3004-307 | 1 |
| 19.2 | Back-up ring | * | 1 |
| 19.3 | O-ring | * | 1 |

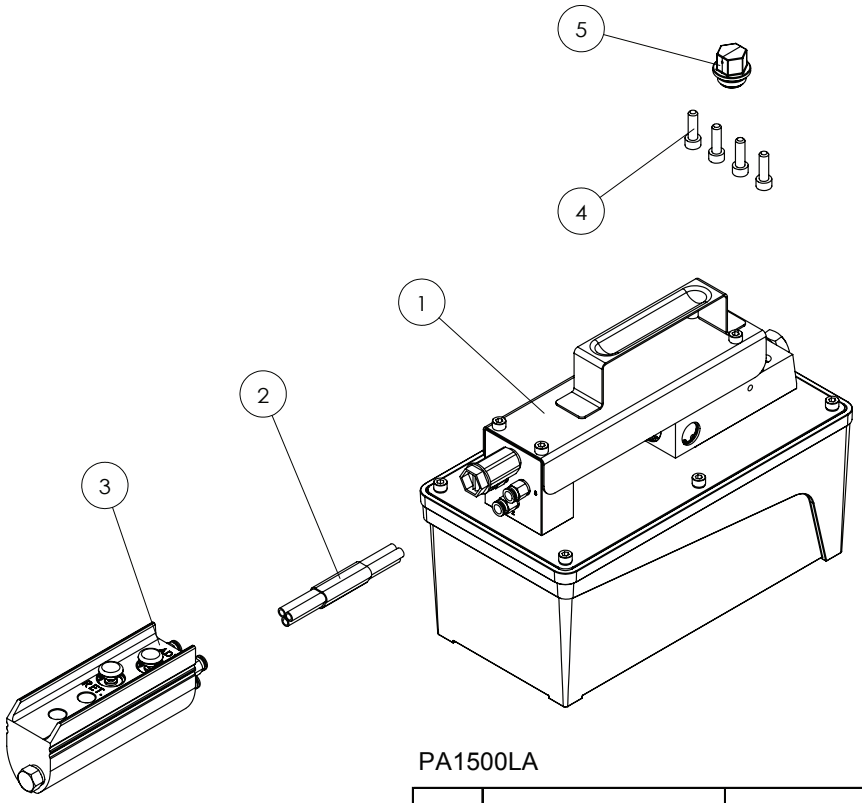
| Item | Description | Part No. | Qty. |
|---|---|---|---|
| 20 | Release valve assy | A57-4-3003-105 | 1 |
| 20.1 | Release valve | A57-6-3003-305 | 1 |
| 20.2 | Steel ball | 601-7-0003-009 | 1 |
| 20.3 | Spring cap | 503-9-0035-100 | 1 |
| 20.4 | Compressing spring | 512-2-0033-105 | 1 |
| 20.5 | Screw | 644-1-0040-204 | 1 |
| 21 | Compressing spring | 512-2-0061-100 | 1 |
| 22 | Reservoir | A57-6-1601-107 | 1 |
| 23 | Pad | * | 1 |
| 24 | Air motor assy | A57-3-1001-105 | 1 |
| 25 | Gasket | A57-6-1605-105 | 1 |
| 26 | Reservoir cover | A57-6-1603-202 | 1 |
| 27 | O-ring | 511-7-0140-200 | 2 |
| 28 | Plastic cover | A17-6-1105-103 | 1 |
| 29 | Connector | A57-6-2062-108 | 1 |
| 30 | Coupler | 651-7-0063-108 | 5 |
| 31 | Air entrance base | A57-6-5305-901 | 1 |
| 32 | Screw | 649-1-0050-091 | 2 |
| 33 | Screw | 641-1-0098-103 | 1 |
| 34 | Copper washer | * | 6 |
| 35 | Screw | 649-1-0050-303 | 6 |
| 36 | Plug assy | A57-3-5007-107 | 1 |
| 37 | Air tube | A57-6-5303-120 | 1 |
| * | Repair Kit | A57-3-9909-107 | 1 |

# Air Hydraulic Pump Service Parts

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PA1500LA

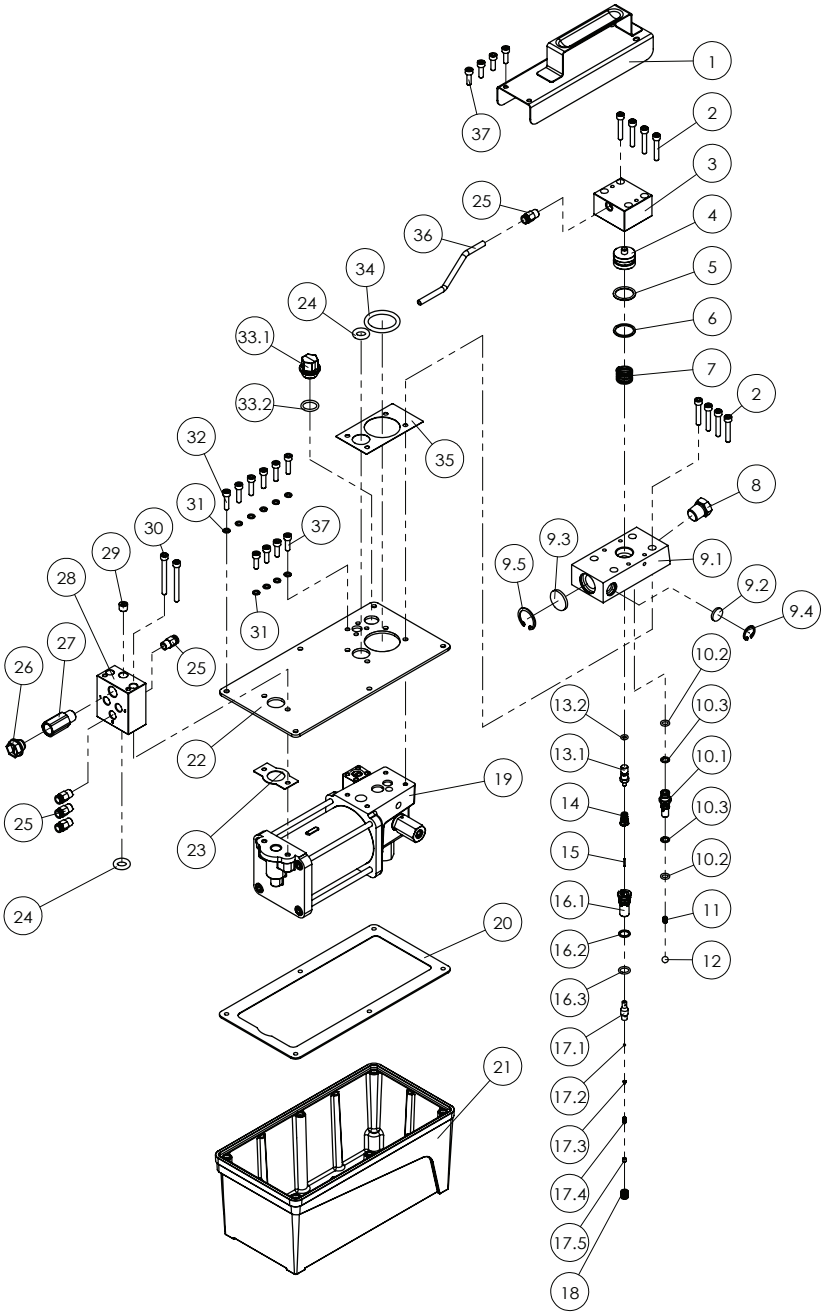
| No. | Description | Part No. | Qty. |
|---|---|---|---|
| 1 | Air Pump | A57-1-0039-103 | 1 |
| 2 | Air Tubes | A57-6-5309-101 | 1 |
| 3 | Air Control Assy. | A57-3-5002-107 | 1 |
| 4 | Screw | 649-1-0060-020 | 4 |
| 5 | Air Vent Assy. | A57-3-1900-109 | 1 |
| * | Repair Kit | A57-3-9939-106 | |

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| Item | Description | Part No. | Qty. |
|---|---|---|---|
| 1 | Handle | A57-3-5003-109 | 1 |
| 2 | Bolt | 649-1-0050-046 | 8 |
| 3 | Release Cylinder | A57-6-5301-105 | 1 |
| 4 | Release Piston | A57-6-5302-107 | 1 |
| 5 | O-ring | * | 1 |
| 6 | Back-up Ring | * | 1 |
| 7 | Compressing Spring | 510-2-0188-102 | 1 |
| 8 | Nut | D05-6-1001-106 | 1 |
| 9 | Oil Outlet Base Assy. | A57-3-4001-100 | 1 |
| 9.1 | Oil Outlet Base | A57-5-4001-102 | 1 |
| 9.2 | Silencer | A57-6-3007-105 | 1 |
| 9.3 | Silencer | A17-6-1002-103 | 1 |
| 9.4 | C-clip | 666-5-0160-107 | 1 |
| 9.5 | C-clip | 666-5-0250-108 | 1 |
| 10 | Oil Outlet Valve Assy. | A57-4-4002-108 | 1 |
| 10.1 | Oil Outlet Valve | A57-6-4002-201 | 1 |
| 10.2 | O-ring | * | 2 |
| 10.3 | Back-up Ring | * | 2 |
| 11 | Compressing Spring | 512-2-0043-108 | 1 |
| 12 | Steel Ball | 601-7-0009-001 | 1 |
| 13 | Release Bar Assy. | A57-4-3001-101 | 1 |
| 13.1 | Release Bar | A57-6-3001-112 | 1 |
| 13.2 | O-ring | * | 1 |
| 14 | Bevel Comp Spring | * | 1 |
| 15 | Release Neddle | * | 1 |
| 16 | Release Base Assy. | A57-4-3004-107 | 1 |
| 16.1 | Release Base | A57-6-3004-307 | 1 |
| 16.2 | Back-up Ring | * | 1 |
| 16.3 | O-ring | * | 1 |
| 17 | Release Valve Assy. | A57-4-3003-105 | 1 |
| 17.1 | Release Valve | A57-6-3003-305 | 1 |
| 17.2 | Steel Ball | 601-7-0003-009 | 1 |

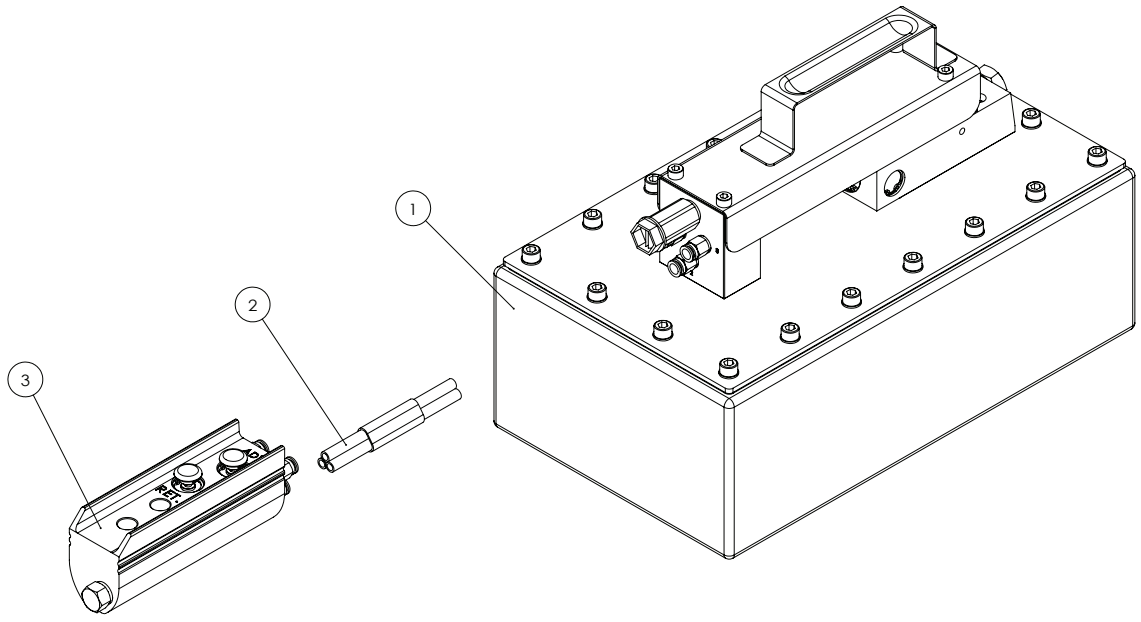
| Item | Description | Part No. | Qty. |
|---|---|---|---|
| 17.2 | Steel Ball | 601-7-0003-009 | 1 |
| 17.3 | Steel Ball Block | 503-9-0035-100 | 1 |
| 17.4 | Compressing Spring | 512-2-0033-105 | 1 |
| 17.5 | Screw | 644-1-0040-204 | 1 |
| 18 | Compressing Spring | 512-2-0061-100 | 1 |
| 19 | Air Motor Assy. | A57-3-1032-106 | 1 |
| 20 | Pad | * | 1 |
| 21 | Reservoir | A57-6-1601-107 | 1 |
| 22 | Reservoir Cover | N/A | 1 |
| 23 | Pad | A57-6-1605-105 | 1 |
| 24 | O-ring | 511-7-0140-200 | 2 |
| 25 | Coupler | 651-7-0063-108 | 5 |
| 26 | Plug | A17-6-1105-103 | 1 |
| 27 | Connector | A57-6-2062-108 | 1 |
| 28 | Air Entrance Valve Cover | A57-6-5305-901 | 1 |
| 29 | Screw | 641-1-0098-103 | 1 |
| 30 | Bolt | 649-1-0050-091 | 2 |
| 31 | Copper Washer | * | 10 |
| 32 | Screw | 649-1-0050-303 | 6 |
| 33 | Plug Assy. | A57-3-5007-107 | 1 |
| 33.1 | Plug | A57-6-5007-105 | 1 |
| 33.2 | O-ring | 511-7-0160-408 | 1 |
| 34 | O-ring | 511-7-0410-102 | 1 |
| 35 | Pad | * | 1 |
| 36 | Air Tube | A57-6-5303-120 | 1 |
| 37 | Screw | 649-1-0050-055 | 8 |
| * | Repair Kit | A57-3-9939-106 | 1 |

# Air Hydraulic Pump Service Parts

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PA3801L

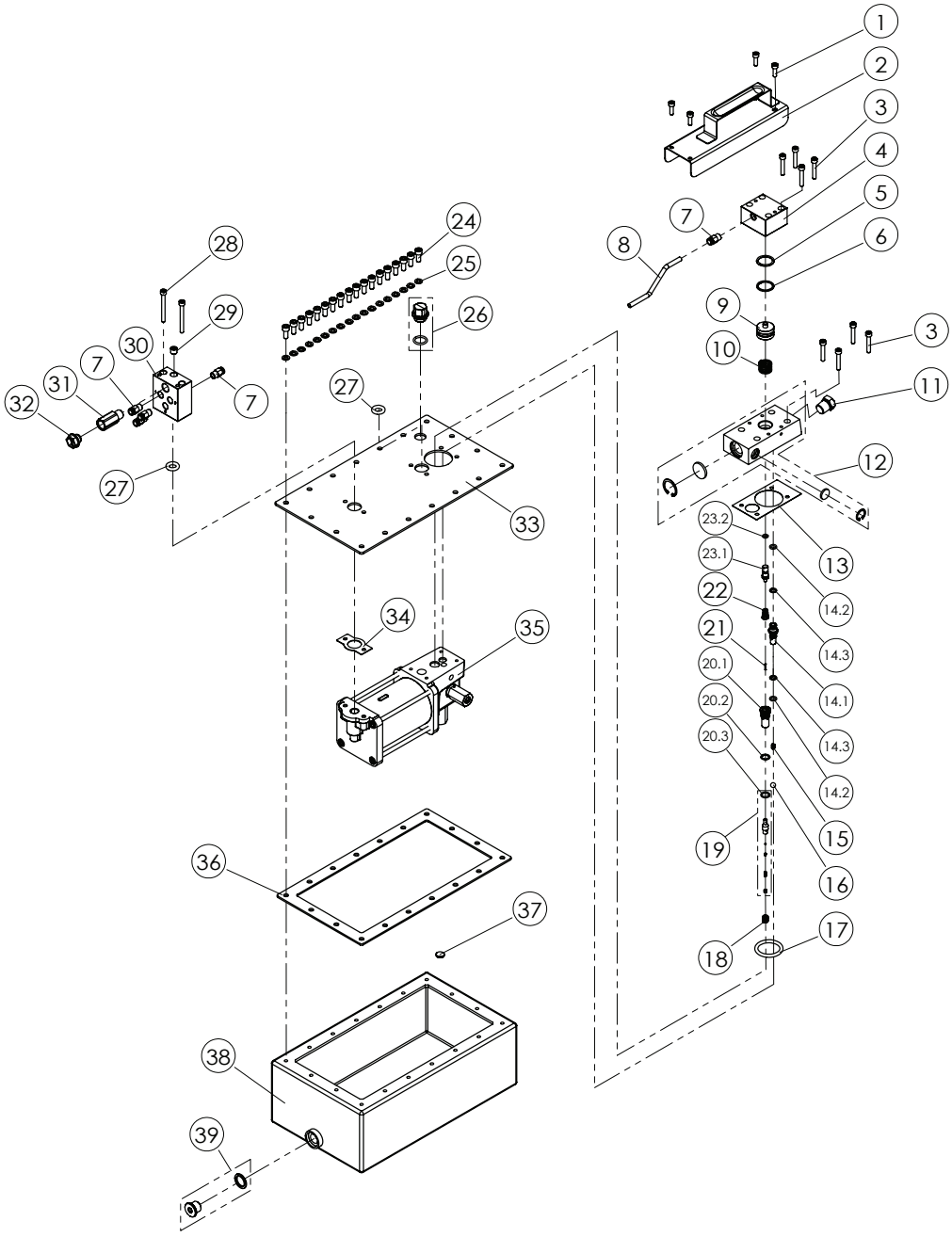
| No. | Description | Part No. | Qty. |
|---|---|---|---|
| 1 | Line control Air pump | A57-1-0014-107 | 1 |
| 2 | Air tubes | A57-6-5309-101 | 1 |
| 3 | Air control assy. | A57-3-5002-107 | 1 |
| | Repair kit | A57-3-9914-100 | |

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**Note:** Not all components of the pump are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence.



# Air Hydraulic Pump Service Parts

## MODEL: PA3801L

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**Note:** Not all components of the pump are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence.

| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 649-1-0050-055 | Screw | 4 |
| 2 | A57-3-5003-109 | Handle | 1 |
| 3 | 649-1-0050-046 | Screw | 8 |
| 4 | A57-6-5301-105 | Release Cylinder | 1 |
| 5 | * | O-ring | 1 |
| 6 | * | Back-up Ring | 1 |
| 7 | 651-7-0063-108 | Coupler | 5 |
| 8 | A57-6-5303-120 | Air Tube | 1 |
| 9 | A57-6-5302-107 | Release Piston | 1 |
| 10 | 510-2-0188-102 | Compressing Spring | 1 |
| 11 | D05-6-1001-106 | Nut | 1 |
| 12 | A57-3-4001-100 | Oil Outlet Valve Assy. | 1 |
| 13 | * | Pad | 1 |
| 14 | A57-4-4002-108 | Oil Outlet Valve Assy. | 1 |
| 14.1 | N/A | Oil Outlet Valve | 1 |
| 14.2 | * | O-ring | 2 |
| 14.3 | * | Back-Up Ring | 2 |
| 15 | 512-2-0043-108 | Compressing Spring | 1 |
| 16 | 601-7-0009-001 | Steel Ball | 1 |
| 17 | * | O-ring | 1 |

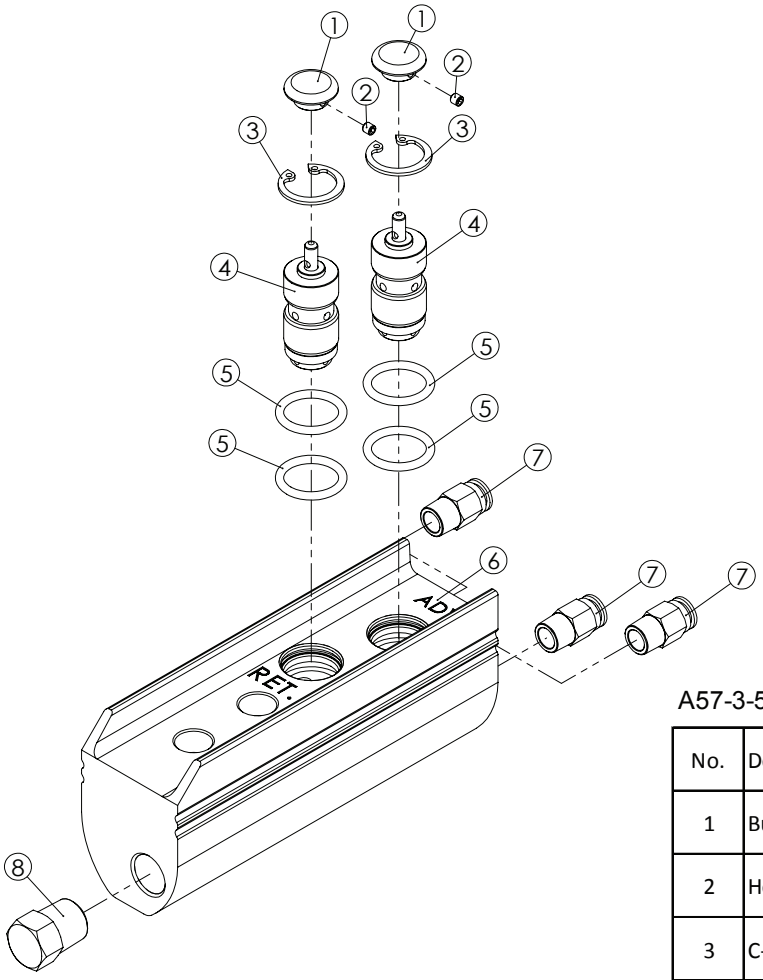
| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 18 | 512-2-0061-100 | Compressing Spring | 1 |
| 19 | A57-4-3003-105 | Release Valve Assy. | 1 |
| 20 | A57-4-3004-107 | Release Valve Assy. | 1 |
| 20.1 | N/A | Release Base | 1 |
| 20.2 | * | Back-up Ring | 1 |
| 20.3 | * | O-ring | 1 |
| 21 | * | Release Nail | 1 |
| 22 | 552-2-0010-105 | Spring | 1 |
| 23 | A57-4-3001-101 | Release Bar Assy. | 1 |
| 23.1 | A57-6-3001-112 | Realease Bar | 1 |
| 23.2 | 511-7-0050-300 | O-ring | 1 |
| 31 | A57-6-2062-108 | Connector | 1 |
| 32 | A17-6-1105-103 | Plastic Cover | 1 |
| 33 | A57-6-6008-102 | Reservoir Top Plate | 1 |
| 34 | * | Gasket | 1 |
| 35 | A57-3-0011-103 | Air Motor Assy. | 1 |
| 36 | * | Pad | 1 |
| 37 | H23-6-1000-102 | Magnet | 1 |
| 38 | A57-3-6007-203 | Reservoir | 1 |
| 39 | E05-3-9901-103 | Drain Plug Assembly | 1 |
| * | A57-3-9914-100 | Repair Kit | |

# Air Hydraulic Pump Service Parts

## Air Control Assembly

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A57-3-5002-107

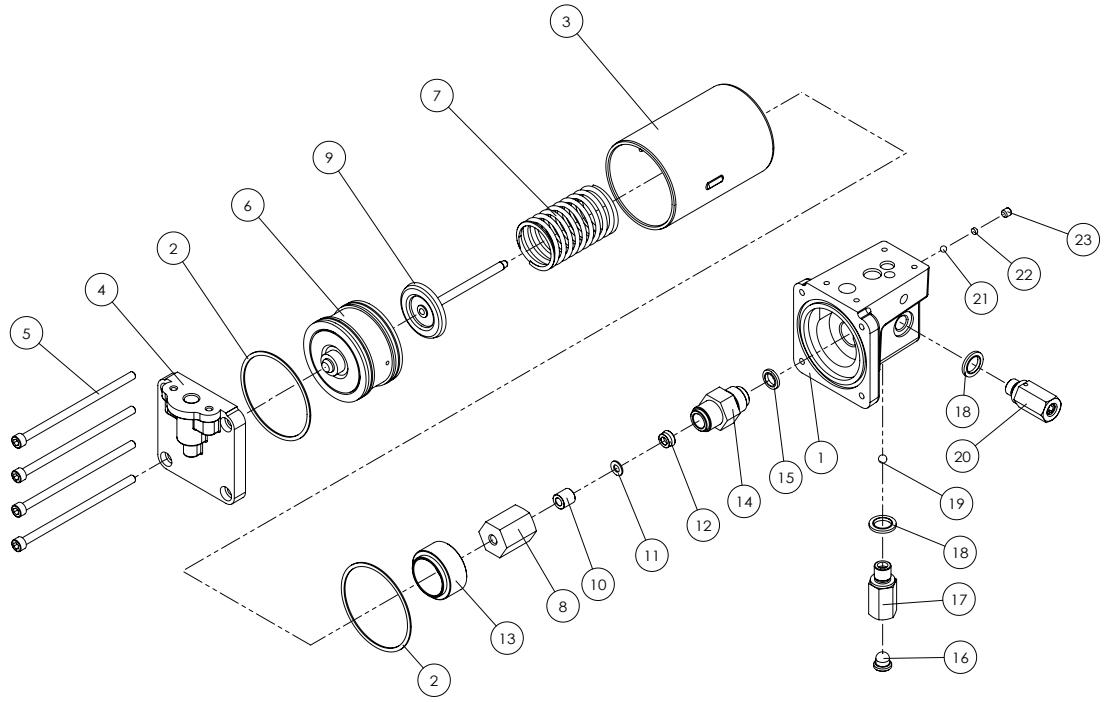
| No. | Description | Part No. | Qty. |
|---|---|---|---|
| 1 | Button | A57-6-5102-109 | 2 |
| 2 | Hex Socket Bolt | 644-1-0030-100 | 2 |
| 3 | C-Clip | 666-5-0180-103 | 2 |
| 4 | Air Valve | A57-3-5001-105 | 2 |
| 5 | O-Ring | 511-7-0160-105 | 4 |
| 6 | Valve Block | N/A | 1 |
| 7 | Adapter | 651-7-0063-108 | 3 |
| 8 | Hex Bolt | H39-5-8104-103 | 1 |

# Air Motor Assembly Service Parts

## MODEL: A57-3-1001-105

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**Note:** Not all components of the pump are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence.




| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | N/A | Valve Base | 1 |
| 2 | * | Washer | 2 |
| 3 | A57-6-1003-107 | Cylinder | 1 |
| 4 | A57-6-1002-105 | Cylinder Cover | 1 |
| 5 | 649-1-0060-122 | Bolt | 4 |
| 6 | A17-4-2100-500 | Air Piston Assy. | 1 |
| 7 | 512-2-0410-017 | Compressing Spring | 1 |
| 8 | A57-6-1014-102 | Cover | 1 |
| 9 | A57-3-1011-108 | Piston Assy. | 1 |
| 10 | A57-6-2023-108 | Bush | 1 |
| 11 | * | Back-Up Ring | 1 |
| 12 | * | U-Cup | 1 |

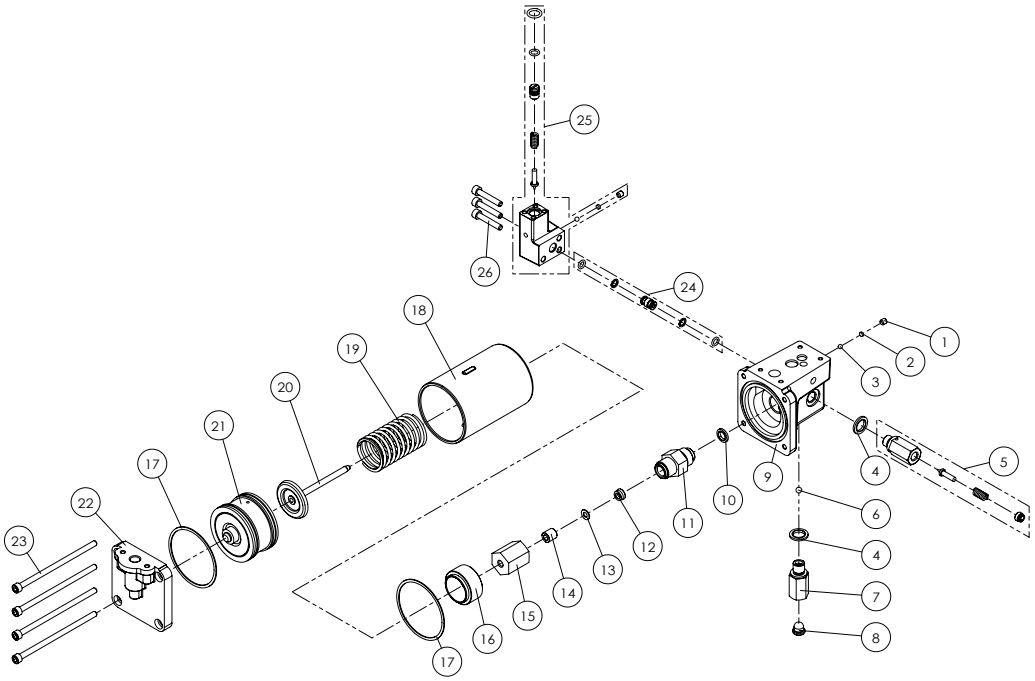
| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 13 | A57-6-1016-106 | Washer | 1 |
| 14 | A59-6-1013-105 | Cylinder | 1 |
| 15 | * | Special Washer | 1 |
| 16 | 520-8-0134-101 | Filter | 1 |
| 17 | A59-6-1015-108 | Oil Entrance Valve | 1 |
| 18 | * | Special Washer | 2 |
| 19 | 601-7-0008-009 | Steel Ball | 1 |
| 20 | A59-3-1018-106 | High Pressure Valve Assembly | 1 |
| 21 | 601-7-0006-005 | Steel Ball | 1 |
| 22 | 503-9-0050-106 | Steel Ball Block | 1 |
| 23 | 644-1-0060-05311 | Screw | 1 |
| * | A57-3-9916-104 | Repair Kit | 1 |

# Air Motor Assembly Service Parts

## MODEL: A57-3-1032-106

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**Note:** Not all components of the pump are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence.




| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 644-1-0060-05311 | Screw | 1 |
| 2 | 503-9-0050-106 | Steel Ball Block | 1 |
| 3 | 601-7-0006-005 | Steel Ball | 1 |
| 4 | * | Special Washer | 2 |
| 5 | A59-3-1018-106 | High Pressure Seat Assy. | 1 |
| 6 | 601-7-0008-009 | Steel Ball | 1 |
| 7 | A59-6-1015-108 | Oil Entrance Valve | 1 |
| 8 | 520-8-0134-101 | Oil Filter | 1 |
| 9 | N/A | Base | 1 |
| 10 | * | Special Washer | 1 |
| 11 | A59-6-1013-105 | Pump Cylinder | 1 |
| 12 | * | U-cup | 1 |
| 13 | * | Back-up Ring | 1 |
| 14 | A57-6-2023-108 | Bust | 1 |

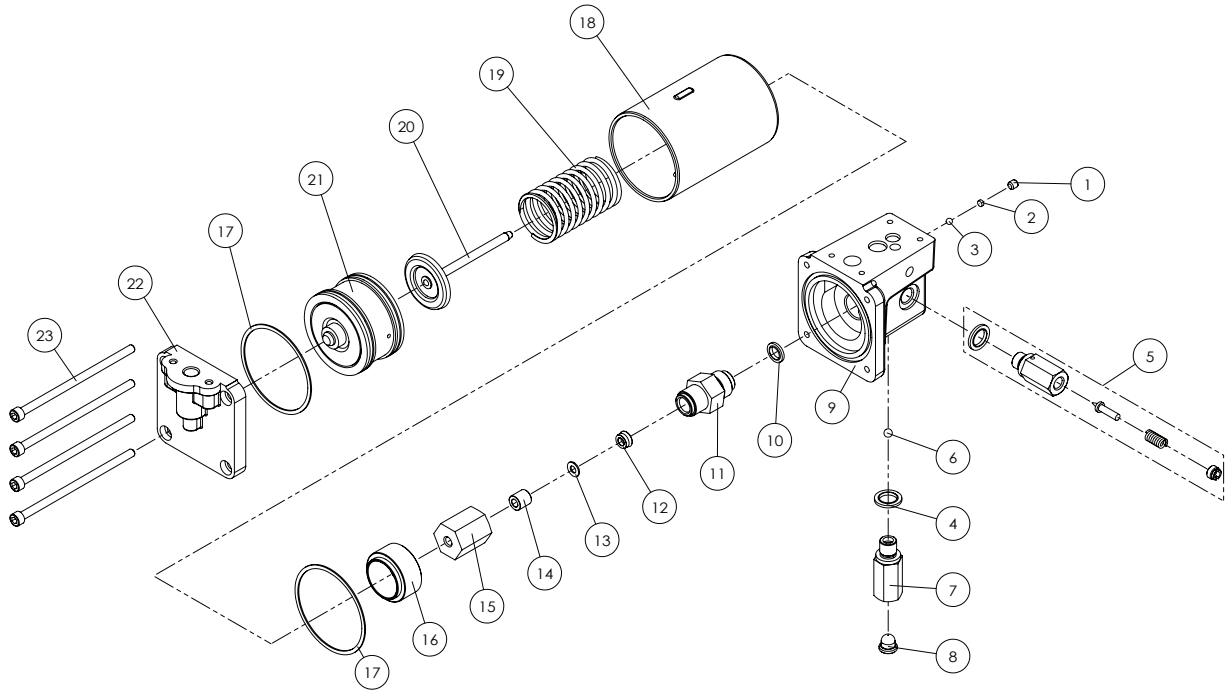
| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 15 | A57-6-1014-102 | Pump Cover | 1 |
| 16 | A57-6-1016-106 | Washer | 1 |
| 17 | * | Cylinder Washer | 2 |
| 18 | A57-6-1003-107 | Cylinder | 1 |
| 19 | 512-2-0410-017 | Compressing Spring | 1 |
| 20 | A57-3-1011-108 | Piston Assy. | 1 |
| 21 | A17-4-2100-500 | Air Piston Assy. | 1 |
| 22 | A57-6-1002-105 | Cylinder Cover | 1 |
| 23 | 649-1-0060-122 | Screw | 4 |
| 24 | H28-4-1701-107 | Oil Outlet Tube Assy. | 1 |
| 25 | A57-4-6011-109 | Pressure Adjusting Valve Assy. | 1 |
| 26 | 649-1-0060-609 | Screw | 3 |
| * | A57-3-9962-101 | Air Pump Assy Repair Kit | 1 |

# Air Motor Assembly Service Parts

## MODEL: A57-3-0011-103

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**Note:** Not all components of the pump are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence.




| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 644-1-0060-05311 | Bolt | 1 |
| 2 | 503-9-0050-106 | Steel Ball Block | 1 |
| 3 | 601-7-0006-005 | Steel Ball | 1 |
| 4 | * | Special Washer | 2 |
| 5 | A59-3-1018-106 | High Pressure Seat Assy. | 1 |
| 6 | 601-7-0008-009 | Steel Ball | 1 |
| 7 | A57-6-6006-108 | Oil Entrance Valve | 1 |
| 8 | 520-8-0134-101 | Oil Filter | 1 |
| 9 | N/A | Base | 1 |
| 10 | * | Special Washer | 1 |
| 11 | A59-6-1013-105 | Pump Cylinder | 1 |
| 12 | * | U-cup | 1 |

| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 13 | * | Back-up Ring | 1 |
| 14 | A57-6-2023-108 | Bust | 1 |
| 15 | A57-6-1014-102 | Pump Cover | 1 |
| 16 | A57-6-1016-106 | Washer | 1 |
| 17 | * | Cylinder Washer | 2 |
| 18 | A57-6-1003-107 | Cylinder | 1 |
| 19 | 512-2-0410-017 | Compressing Spring | 1 |
| 20 | A57-3-1011-108 | Piston Assy. | 1 |
| 21 | A17-4-2100-500 | Air Piston Assy. | 1 |
| 22 | A57-6-1002-105 | Cylinder Cover | 1 |
| 23 | 649-1-0060-122 | Screw | 4 |
| * | A57-3-9916-104 | Air Pump Assy Repair Kit | 1 |

## LIMITED LIFETIME WARRANTY

BVA Hydraulics®, represented in the United States by SFA Companies [“SFA”] warrants this product to be free from defects in material and workmanship for the life of the product as long as the original purchaser owns the product. The warranty is non-transferable and is subject to the terms, exclusions, and limitations described below:

- Damaged components, including but not limited to bent rams, dented or crushed cylinder walls, broken welds or couplers as well as worn out seals, o-rings and springs are the result of misuse and not covered by warranty and BVA Hydraulics will not provide any warranty credit for such damaged components.
- This warranty does not cover ordinary wear and tear, overloading, alterations (including repairs or attempted repairs not performed by BVA Hydraulics or one of its authorized personnel), improper fluid use, or use of the product in any manner for which the product was not intended or the use of which is not in accordance with the instructions or warnings provided with the product.
- In the unlikely event that a BVA Hydraulics product fails due to material defect in workmanship, you may contact SFA for disposition. In such cases, the customer’s sole and exclusive remedy for any breach or alleged breach of warranty is limited to the repair or replacement of the defective product.
- Under no circumstances is BVA Hydraulics liable for any consequential or incidental damage or loss whatsoever.
- THIS WARRANTY IS LIMITED TO NEW PRODUCTS SOLD THROUGH AUTHORIZED DISTRIBUTORS AND OTHER CHANNELS DESIGNATED BY BVA HYDRAULICS. NO AGENT, EMPLOYEE OR OTHER REPRESENTATIVE OF BVA HYDRAULICS IS AUTHORIZED TO MODIFY THIS WARRANTY.
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- Components not manufactured by BVA Hydraulics including certain motor systems, gasoline engines, and others are not covered by this warranty and instead are covered by the manufacturer’s separate manufacturer’s warranty provided in the package.
- BVA Hydraulics’ liability in all cases is limited to, and will not exceed the purchase price paid for the product.

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# Note Page

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