

AIR HYDRAULIC PUMP

# IMPORTANT RECEIVING INFORMATION

Visually inspect all parts for shipping damage. If you find shipping damage, notify the carrier at once. Shipping damage is not covered by your warranty. The carrier is responsible for all costs of replacement or repair caused by shipping damage.

## CONTENTS

Parts List for 10590, 10592, 10594 Instructions for retainer replacement

WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects and/or other reproductive harm. Cancer and Reproductive Harm- www.P65Warnings.ca.gov

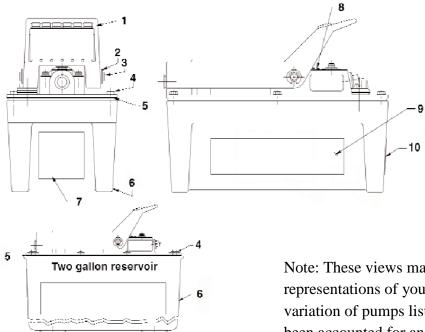
**Note:** Apply Teflon tape to both 3/8" NPT ends of the hydraulic hose. Attach Male coupler to the swivel end of hose and attach the non-swivel end of the hose to the hydraulic pump.

WARNING: DO NOT USE ANY HARDENING PIPE THREAD COMPOUND ON THE ENDS OF ANY HYDRAULIC TOOL FITTINGS AND/OR CONNECTIONS. USE OF ANY PIPE THREAD HARDENING COMPOUND MAY LEAD TO FAILURE OF HYDRAULIC TOOLS AND WILL VOID WARRANTY.



# Air Hydraulic Pump Model 10590, 10592, 10594

# **AIR HYDRAULIC PUMP**



Note: These views may not be exact representations of your pump due to the variation of pumps listed, but all parts have been accounted for and are in this parts list.

| ltem<br>No. | Part No. | No.<br>Req'd | Description                                 | ltem<br>No. | Part No. | No.<br>Req'd | Description  |
|-------------|----------|--------------|---|-------------|----------|--------------|--|
| 1           | 41322    | 1            | Foot Pedal                                  | 7           | *305494  | 1            | Decal (For 10592, 10594)   |
| 2           | *11032   | 2            | Retaining Ring                              | 8           | 302466   | 1            | Spring Clip  |
| 3           | 28386    | 1            | Pin<br>Screw(#9-15 X 1" Lg.;                | 9           | 260154   | 1            | Trade Name Decal   |
| 4           | 211060   | 6            | Torque to 25/35 in. lbs.;<br>For 10590)     | 10          | 251762   | 1            | Warning Decal  |
|             | 252168   | 10           | Screw (Torque to 35/45 in. lbs.; For 10594) |             | PARTS IN | ICLUDED      | BUT NOT SHOWN  |
| 5           | *33853   | 1            | Reservoir Gasket (For<br>10590)             |             | 211060   | 4            | Screw (#9-15 X 1" Lg.; Torque to 25/35 in. lbs.; For pump mounting purposes only; For 10590) |
|             | *46271   | 1            | Reservoir Gasket (For<br>10592)             |             | 252168   | 4            | Screw (1/4-10 X 1 Lg.; For pump<br>mtg. purposes only; For 10594)                            |
|             | *47409   | 1            | Reservoir Gasket (For<br>10594)             |             |          |              |  |
| 6           | 61243    | 1            | Reservoir (Plastic; For<br>10590)           |             |          |              | ed with an asterisk (*) are<br>air Kit see sheet 5 of 6 for                                  |
|             | 64153OR9 | 1            | Reservoir (For 10592)                       |             |          |              | information.   |
|             | 61165    | 1            | Reservoir (2 gal. plastic;<br>For 10594)    |             |          | •            |  |

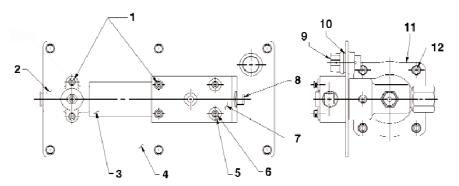




## Air Hydraulic Pump Model 10590, 10592, 10594

#### **TOP & END VIEWS**

Note: These views may not be exact representations of your pump due to the variation of pumps listed, but all parts have been accounted for and are in this parts list.



| ltem<br>No. | Part No.  | No.<br>Req'd | Description   | ltem<br>No. | Part No.                | No.<br>Req'd | Description   |
|-------------|-----------|--------------|---|-------------|-------------------------|--------------|---|
| 1           | 11151     | 4            | Cap Screw (10-24 UNC X<br>1-1/4 Lg.; Torque to 50/60 in.<br>lbs.; | 10          | *10273                  | 1            | O-ring (13/16 X 5/8 X 3/32; Nitrile)  |
| 2           | 37199     | 1            | Intake Air Valve Body   | 11          | 64767                   | 1            | Pump Body   |
| 3           | *29992    | 1            | Foam Tube   | 12          | 17428                   | 4            | Soc. Hd. Cap Screw (1/4-20<br>UNC X 3-1/2 Lg.; Torque to 85/95 in.<br>lbs. oiled.                   |
| 4           | 420965BK2 | 1            | Cover Plate (For 10590)   |             |                         |              | Note: Cross torque in increments  |
|             | 58688BK2  | 1            | Cover Plate (For<br>10592)  |             |                         |              | of 30 in. lbs.)<br>Relief Valve (When ordering a  |
|             | 58706BK2  | 1            | Cover Plate (For<br>10594)  |             |                         |              | replacement relief valve refer to<br>stamped number on the outside<br>of the relief valve. See note |
| 5           | 11089     | 2            | Washer (#10 bolt)   |             |                         |              | below. Apply loctite 592 or equiv.  |
| 6           | 11435     | 2            | Soc. Hd. Cap Screw (10-<br>24 UNC x                               |             |                         |              | & torque to 150/170 in. lbs.)   |
| 7           | 58563     | 1            | Release Valve Body  |             | NOTE: Sta               | andard re    | lief valves are set at  |
| 8           | 11127     | 1            | Pressure Plug (3/8 NPTF)  |             |                         |              | Relief valves pre-set at  |
| 9           | 251689    | 1            | Breather/Filler Cap   |             | special se<br>model nur | •            | e available. Refer to your pump   |

Refer to operating instructions Form No. 103544 for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

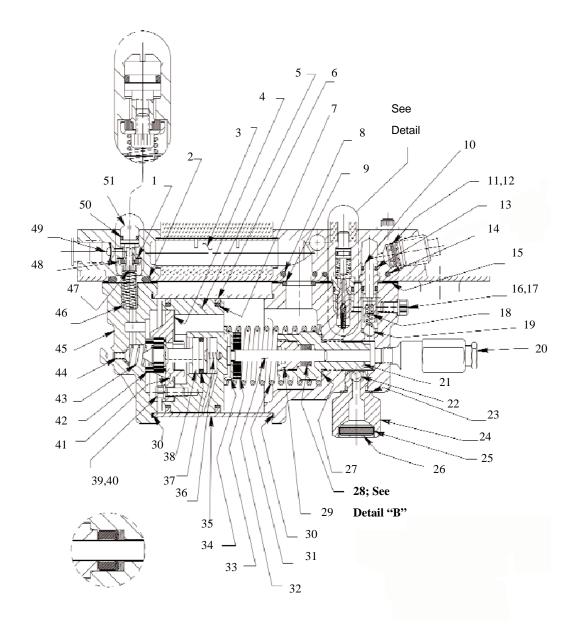




### Air Hydraulic Pump Model 10590, 10592, 10594

# **BASIC PUMP ASSEMBLY**

Note: These views may not be exact representations of your pump due to the variation of pumps listed, but all parts have been accounted for and are in this parts list.







### Air Hydraulic Pump Model 10590, 10592, 10594

# **BASIC PUMP ASSEMBLY**

| 1              | *28182                      | 1           | Air Valve Poppet   | 26             | 2′             |
|----------------|-----------------------------|-------------|--|----------------|----------------|
| 2<br>3         | *251717<br>28387            | 1<br>1      | O-ring (1" x 5/8 x 3/16)<br>Muffler  | 27<br>28       | *1<br>*1       |
| 4              | *28239                      | 1           | Gasket   | 29             | *3             |
| 5              | 52390                       | 1           | Piston Body  | 30             | *1             |
| 6              | *14265                      | 2           | Piston Ring  | 31             | *1             |
| 7<br>8<br>9    | *251835<br>*10276<br>*10272 | 2<br>1<br>1 | O-ring (2-5/16 x 2-1/8 x 3/32)<br>O-ring (1" X 3/4 X 1/8)<br>O-ring (3/4 X 9/16 X 3/32)  | 32<br>33<br>34 | 28<br>20<br>21 |
| 10             | 34378                       | 1           | Check Valve Body   | 35             | 37             |
| 11             | *250638                     | 1           | Filter Disc  | 36             | *1             |
| 12<br>13<br>14 | *11088<br>*12522<br>*11841  | 2<br>2<br>1 | Retaining Ring (9/16 hole)<br>O-ring (3/8 X 1/4 X 1/16; Urethane)<br>O-ring (1-5/8 x 1-3/8 x 1/8)  | 37<br>38<br>39 | *2<br>3(<br>*1 |
| 15             | *351021                     | 1           | Gasket   | 40             | 21             |
| 16             | *10442                      | 1           | Washer (3/8 X 1/4 X 1/32)  | 41             | 33             |
| 17             | 10002                       | 1           | Cap Screw (1/4-20 UNC X 3/8 Lg.; Torque to 90/110 in. lbs.)  | 42             | *2             |
| 18             | *10445                      | 1           | Compression Spring   | 43             | *2             |
| 19             | *10423                      | 1           | Steel Ball (9/32 Dia.; For 10590, 10592)   | 44             | *2             |
|                | *10423                      | 2           | Steel Ball (9/32 Dia.; For 10594)  | 45             | 5′             |
| 20             |                             | -           | Relief Valve (When ordering a replacement<br>relief valve refer to stamped number on the<br>outside of the relief valve. See note below.<br>Apply loctite 592 or equiv. & torque to 150/170<br>in. lbs.) | 46             | 12             |
| 21             | 45278                       | 1           | Piston Cylinder (Torque to 90/100 ft. lbs. oiled.)   | 47             | 13             |
| 22             | *10375                      | 1           | Steel Ball (1/4 Dia.; For 10590, 10592)  | 48             | 28             |
| 23             | *10261                      | 1           | Copper Washer (3/4 X 19/32 X 1/32)   | 49             | *2             |
| 24             | 308893                      | 1           | Filter Adapter (Torque to 40/50 ft. lbs. oiled.; For 10590, 10592)See sheet 5 of 6 for pumps with 2 gal. reservoirs.)  | 50             | *1             |
| 25             | 214578                      | 1           | Filter (For all reservoir sizes except 2 gal. reservoirs built after June 1, 1998)   |                |                |
|                |                             |             |  |                |                |

Part numbers marked with an asterisk (\*) are contained in a Repair Kit see sheet 5 of 6 for individual repair kit information.

|         |   | Retaining Ring (Internal; For all reservoir  |
|---------|---|--|
| 214586  | 1 | sizes except 2 gal. Reservoirs built after June 1, 1998)   |
| *10263  | 1 | Copper Washer (1" X .765 X 1/32)   |
| *13934  | 1 | U-cup & Backup   |
| *304295 | 1 | Retainer (Note:See "INSTRUCTIONS FOR<br>RETAINER REPLACEMENT" sheet 6 of 6)  |
| *17429  | 2 | Backup Washer (2-15/16 X 2-3/4 X .045)   |
| *13938  | 1 | Compression Spring (1.452 O.D. X 4-7/16 Lg.)   |
| 28226   | 1 | Piston   |
| 203143  | 1 | Bumper   |
| 210994  | 1 | Spring Guide   |
| 37434   | 1 | Air Cylinder (Note: Locate groove on upper<br>half (top) of pump with chamfered tube end<br>towards rear head as shown.) |
| *12692  | 1 | Compression Spring (3/16 O.D. X 1-11/16 Lg.)   |
| *211052 | 1 | O-ring (.900 X .706 X .097)  |
| 305475  | 1 | Exhaust Valve Stem   |
| *10241  | 3 | Lockwasher (For #10 bolt)  |
| 211054  | 3 | Screw (#10-24 X 1/2 Lg.; Torque to 50/55 in. lbs.)   |
| 33822   | 1 | Piston End Plate   |
| *28183  | 1 | Piston Poppet  |
| *205679 | 1 | Compression Spring (.485 O.D. X .915 Lg.)  |
| *205674 | 1 | Screw (8-32 UNC X 3/8 Lg.; Torque to 12/18 in. lbs.)   |
| 51480   | 1 | Rear Head  |
|         |   |  |
| 12691   | 1 | Compression Spring (3/8 O.D. X 1- 1/2 Lg.)   |
| 13936   | 1 | Soc. Hd. Cap Screw (8-32 UNC X 1/4 Lg.)  |
| 28198   | 1 | Seal Guide   |
| *216296 | 1 | Filter Disc  |
| 210200  | ' |  |
| *10267  | 1 | O-ring (7/16 X 5/16 X 1/16)  |

NOTE: Standard relief valves are set at 10,100/10,700 PSI. Relief valves pre-set at special settings are available. Refer to your pump model number.





# Air Hydraulic Pump Model 10590, 10592, 10594

#### **BASIC PUMP ASSEMBLY**

| 1              | *28182                      | 1           | Air Valve Poppet  | 26             | 2 |
|----------------|-----------------------------|-------------|---|----------------|---|
| 2<br>3         | *251717<br>28387            | 1<br>1      | O-ring (1" x 5/8 x 3/16)<br>Muffler   | 27<br>28       | * |
| 4              | *28239                      | 1           | Gasket  | 29             | , |
| 5              | 52390                       | 1           | Piston Body   | 30             | , |
| 6              | *14265                      | 2           | Piston Ring   | 31             | , |
| 7<br>8<br>9    | *251835<br>*10276<br>*10272 | 2<br>1<br>1 | O-ring (2-5/16 x 2-1/8 x 3/32)<br>O-ring (1" X 3/4 X 1/8)<br>O-ring (3/4 X 9/16 X 3/32)                                       | 32<br>33<br>34 |   |
| 10             | 34378                       | 1           | Check Valve Body  | 35             | 3 |
| 11             | *250638                     | 1           | Filter Disc   | 36             | ł |
| 12<br>13<br>14 | *11088<br>*12522<br>*11841  | 2<br>2<br>1 | Retaining Ring (9/16 hole)<br>O-ring (3/8 X 1/4 X 1/16; Urethane)<br>O-ring (1-5/8 x 1-3/8 x 1/8)                             | 37<br>38<br>39 |   |
| 15             | *351021                     | 1           | Gasket  | 40             | 2 |
| 16             | *10442                      | 1           | Washer (3/8 X 1/4 X 1/32)   | 41             | 3 |
| 17             | 10002                       | 1           | Cap Screw (1/4-20 UNC X 3/8 Lg.; Torque to 90/110 in. lbs.)   | 42             | , |
| 18             | *10445                      | 1           | Compression Spring  | 43             | , |
| 19             | *10423                      | 1           | Steel Ball (9/32 Dia.; For 10590, 10592)  | 44             | , |
|                | *10423                      | 2           | Steel Ball (9/32 Dia.; For 10594)<br>Relief Valve (When ordering a replacement<br>relief valve refer to stamped number on the | 45             | Ę |
| 20             |                             | -           | outside of the relief valve. See note below.<br>Apply loctite 592 or equiv. & torque to 150/170<br>in. lbs.)                  | 46             |   |
| 21             | 45278                       | 1           | Piston Cylinder (Torque to 90/100 ft. lbs. oiled.)  | 47             |   |
| 22             | *10375                      | 1           | Steel Ball (1/4 Dia.; For 10590, 10592)   | 48             | 2 |
| 23             | *10261                      | 1           | Copper Washer (3/4 X 19/32 X 1/32)<br>Filter Adapter (Torque to 40/50 ft. lbs.  | 49             | , |
| 24             | 308893                      | 1           | oiled.; For 10590, 10592)See sheet 5 of 6 for pumps with 2 gal. reservoirs.)  | 50             | , |
| 25             | 214578                      | 1           | Filter (For all reservoir sizes except 2 gal. reservoirs built after June 1, 1998)  |                |   |
|                |                             |             |   |                |   |

Part numbers marked with an asterisk (\*) are contained in a Repair Kit see sheet 5 of 6 for individual repair kit information.

| 214586  | 1 | Retaining Ring (Internal; For all reservoir sizes except 2 gal. Reservoirs built after June 1, 1998)                     |
|---------|---|--|
| *10263  | 1 | Copper Washer (1" X .765 X 1/32)   |
| *13934  | 1 | U-cup & Backup   |
| *304295 | 1 | Retainer (Note:See "INSTRUCTIONS FOR<br>RETAINER REPLACEMENT" sheet 6 of 6)  |
| *17429  | 2 | Backup Washer (2-15/16 X 2-3/4 X .045)   |
| *13938  | 1 | Compression Spring (1.452 O.D. X 4-7/16 Lg.)   |
| 28226   | 1 | Piston   |
| 203143  | 1 | Bumper   |
| 210994  | 1 | Spring Guide   |
| 37434   | 1 | Air Cylinder (Note: Locate groove on upper<br>half (top) of pump with chamfered tube end<br>towards rear head as shown.) |
| *12692  | 1 | Compression Spring (3/16 O.D. X 1-11/16 Lg.)   |
| *211052 | 1 | O-ring (.900 X .706 X .097)  |
| 305475  | 1 | Exhaust Valve Stem   |
| *10241  | 3 | Lockwasher (For #10 bolt)  |
| 211054  | 3 | Screw (#10-24 X 1/2 Lg.; Torque to 50/55 in. lbs.)   |
| 33822   | 1 | Piston End Plate   |
| *28183  | 1 | Piston Poppet  |
| *205679 | 1 | Compression Spring (.485 O.D. X .915 Lg.)  |
| *205674 | 1 | Screw (8-32 UNC X 3/8 Lg.; Torque to 12/18 in. lbs.)   |
| 51480   | 1 | Rear Head  |
| 10001   |   |  |
| 12691   | 1 | Compression Spring (3/8 O.D. X 1- 1/2 Lg.)   |
|         |   |  |
| 13936   | 1 | Soc. Hd. Cap Screw (8-32 UNC X 1/4 Lg.)  |
| 28198   | 1 | Seal Guide   |
| *216296 | 1 | Filter Disc  |
|         |   |  |
| *10267  | 1 | O-ring (7/16 X 5/16 X 1/16)  |
|         |   |  |

NOTE: Standard relief valves are set at 10,100/10,700 PSI. Relief valves pre-set at special settings are available. Refer to your pump model number.

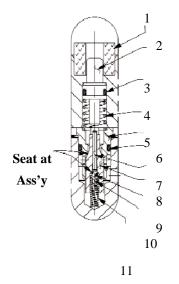






# Air Hydraulic Pump

Model 10590, 10592, 10594

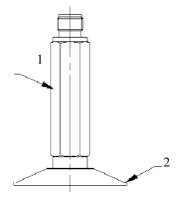


| <b>BASIC PUMP ASSEMBLY</b> |
|----------------------------|
|----------------------------|

| ltem<br>No. | Part No. | No.<br>Req'd | Description                                      |
|-------------|----------|--------------|--|
| 1           | *206504  | 1            | Foam Tube  |
| 2           | 28227    | 1            | Release Valve Button                             |
| 3           | *10266   | 1            | O-ring (3/8 X 1/4 X 1/16)                        |
| 4           | *13944   | 1            | Compression Spring (3/8 O.D. X 1/2 Lg.)          |
| 5           | 34377    | 1            | Poppet Retainer                                  |
| 6           | *15279   | 1            | O-ring (1/2 X 3/8 X 1/16)                        |
| 7           | 13937    | 1            | Dowel Pin (Note: Place tapered end toward ball.) |
| 8           | 29037    | 1            | Release Valve Poppet                             |
| 9           | *14443   | 1            | Steel Ball (3/32 Dia.)                           |
| 10          | 209736   | 1            | Ball Retainer                                    |
| 11          | *13959   | 1            | Compression Spring (1/8 O.D. x 1/2 Lg.)          |

Part numbers marked with an asterisk (\*) are contained in a Repair Kit see below for individual repair kit numbers.

#### FILTER ADAPTER ASSEMBLY AFTER 6/1/98 For 2 Gallon Reservoirs Only (Reference Part Number 48007)



| ltem<br>No. | Part No. | No.<br>Req'd | Description    |
|-------------|----------|--------------|----------------|
| 1           | 422016   | 1            | Adapter Filter |
| 2           | 29682    | 1            | Filter         |

| <u>No.</u> | 300805 |  |
|------------|--------|--|
| 10590      |        |  |

REPAIR KITSNo. 300831No. 3008481059210594





# Air Hydraulic Pump Model 10590, 10592, 10594

# **INSTRUCTIONS FOR RETAINER REPLACEMENT**

Your pump's retainer is locked into place by one of the following methods. Determined which method was used on your pump's retainer. Then followed the appropriate steps to remove the old and install and stake the new.

# Method 1 – Retainer shows no sin of stake marks

- 1. This retainer has been locked in place with a Locite product. To replace it, a moderate amount of heat needs to be applied to the cylinder nut (in the area of the retainer) to soften the existing Locite allowing it to be removed.
- 2. Install the new retainer into the cylinder nut and torque to 80/100 in. lbs. Note: Do not use a Locite product this time but stake the new retainer in place according to instructions in Step 3.
- 3. To lock retainer into place, use a center punch positioned in the seam between the retainer and the cylinder nut and stake the new retainer in two places approximately 180° apart.

# Method 2 – Retainer has two stake marks in the seam between the retainer and the cylinder nut.

- 1. For replacement of this retainer, the stake marks must be removes. Using 1/8" or larger diameter drill bit, remove the exiting stakes by drilling a short distance into the stale marks. Remove the retainer.
- 2. Install the new retainer into the cylinder nut and torque to 80/100 lbs.
- 3. To lock retainer into place, use a center punch positioned in the seam between the retainer and the cylinder nut and stake the new retainer in two places approximately 180° apart.

#### NOTE: Do not stake in the old stake marks.

