

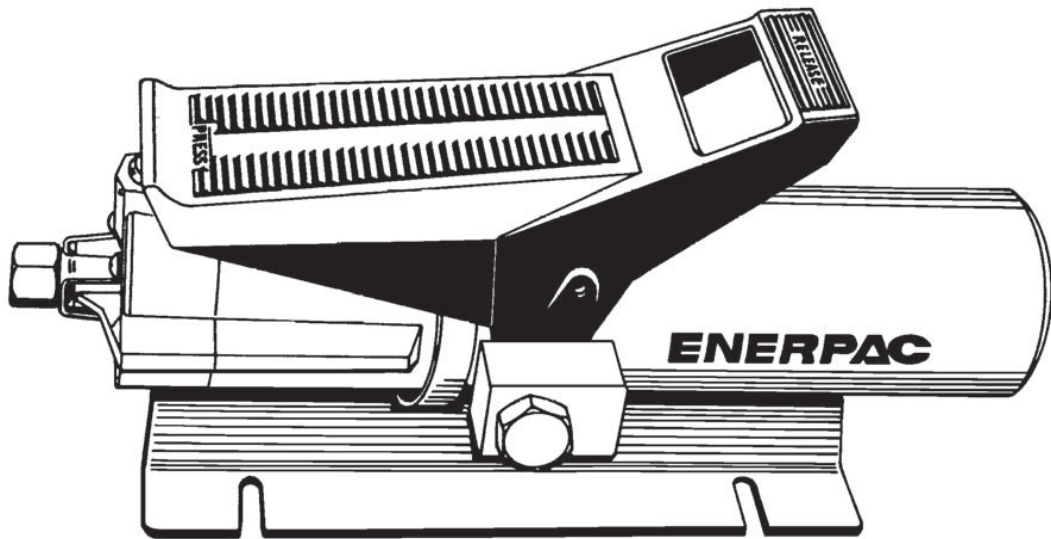
**PA-133, 7001, PA-135, PA-136
AIR HYDRAULIC PUMP**

L1252 Rev. N 10/15

PA135 - For Date Codes Beginning with the Letter "A" or "B"
PA133, 7001 & PA136 - For Date Codes Beginning with the Letter "C" or "D"

To Protect Your Warranty, Use Only ENERPAC Hydraulic Oil.

Enerpac recommends that all kit components be installed to insure optimum performance of the repaired product.



PA-133, 7001, PA-135, PA-136 Air Hydraulic Pump

Repair Parts List for Figure 1

| Item | Part Number | Qty. | Description | Fig. No. |
|------|--------------|------|--|----------|
| 1 | DA5816900SR | 1 | Air Motor Assembly | |
| 2A | CH210110 | 1 | Spring | |
| 2BB | ★ | 1 | Ball Seal | |
| 2CC | ★ | 1 | O-Ring | |
| 2D | ★ | 2 | Ball Seat | |
| 2DD | CF318028 | 4 | Cap Screw | |
| 2E | ★ | 2 | Ball | |
| 2EE | ★ | 1 | Conical Spring | |
| 2FF | ★ | 1 | Filter | |
| 2G | CH411013 | 1 | Ball Guide | |
| 2H | ★ | 1 | Ball | |
| 2HH | DC1563013 | 1 | Ball Guide | |
| 2L | CH202950SR | 1 | Relief Valve Assy. (PA133 & PA135) (incl. items 9, 10, 14) | 4 |
| 2L | CH207950SR | 1 | Relief Valve Assy. (PA136) (incl. items 9, 10, 14) | 4 |
| 2N | DA2686299SR | 1 | Coupling V-Retainer | |
| 2Z | ★ | 1 | Gasket | |
| 5 | A8009108SR | 1 | Washer (PA133) (incl. items 2A, 8, 52) | |
| 5 | DA1221108SR | 1 | Washer (PA135) (incl. items 2A, 8, 52) | |
| 5 | A8015108SR | 1 | Washer (PA136) (incl. items 2A, 8, 52) | |
| 6 | DA5290900SR1 | 1 | Release Guide Assembly (incl. items 2BB, 2DD, 2EE, 2Z, 10) | 2 |
| 7 | CH203950SR | 1 | Hydraulic Cylinder Assy (PA133, 7001) (incl. items 2D, 2E, 8, 10) | 5 |
| 7 | DA1227950SR | 1 | Hydraulic Cylinder Assembly (PA135) (incl. items 2D, 2E, 8, 10) | 5 |
| 7 | CH208950W | 1 | Hydraulic Cylinder Assembly (PA136) (incl. items 2D, 2E, 8, 10) | 5 |
| 8 | CB180040 | 1 | Plunger (PA133) | |
| 8 | DA1219040 | 1 | Plunger (PA135) | |
| 8 | CB185040 | 1 | Plunger (PA136) | |
| 9 | ★ | 1 | Ball Seat | |
| 10 | ★ | 4 | Gasket | |
| 11 | CL166950SR | 1 | Hydraulic Body Assembly | |
| 14 | ★ | 1 | Plug | |
| 19 | ★ | 1 | Back-Up Washer | |
| 24 | CF692950W | 1 | Coupler Assembly (incl. items 2D, 2G, 2H, 10) | 3 |
| 26 | CB108005SR | 1 | Base | |
| 27 | B1320028 | 2 | Screw | |
| 29 | CB241218W | 1 | Treadle | |
| 31 | CF180900SR | 1 | Reservoir Assembly | |
| 32 | CL164950SR | 1 | Reservoir Cap (incl. item 19, 53) | |
| 34 | A8001018SR | 1 | Filter Kit | |
| 35 | CK352950SR | 1 | Poppet Guide Assembly | |
| 36 | CL163950SR1 | 1 | Coupler Kit | |
| 52 | ★ | 1 | Rubber Washer | |
| 53 | ★ | 1 | O-Ring | |
| 54B | ◆ | 1 | Air Piston (new style) | |
| 55B | ◆ | 1 | Glyd Ring | |
| 56 | ◆ | 1 | O-Ring | |

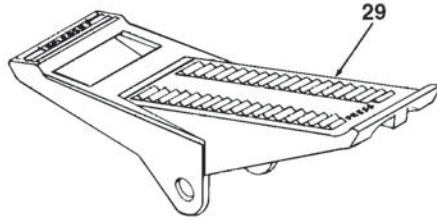
★ Indicates items included in and available only as part of Pump Repair Kit PA133K3.

◆ Indicates items included in and available only as part of Air Piston Repair Kit CK354950SR.

NOTE: The back-up washer, Item 19 (B1014565) may be purchased separately from Pump Repair Kit PA133K3.

NOTE: Changes have been made in the design of the shuttle piston, end cover, and air cylinder that improve air motor performance. The new parts will not work when used with the existing old-style parts. If one of these parts requires replacement, a complete new air motor (DA5816900SR) must be used.

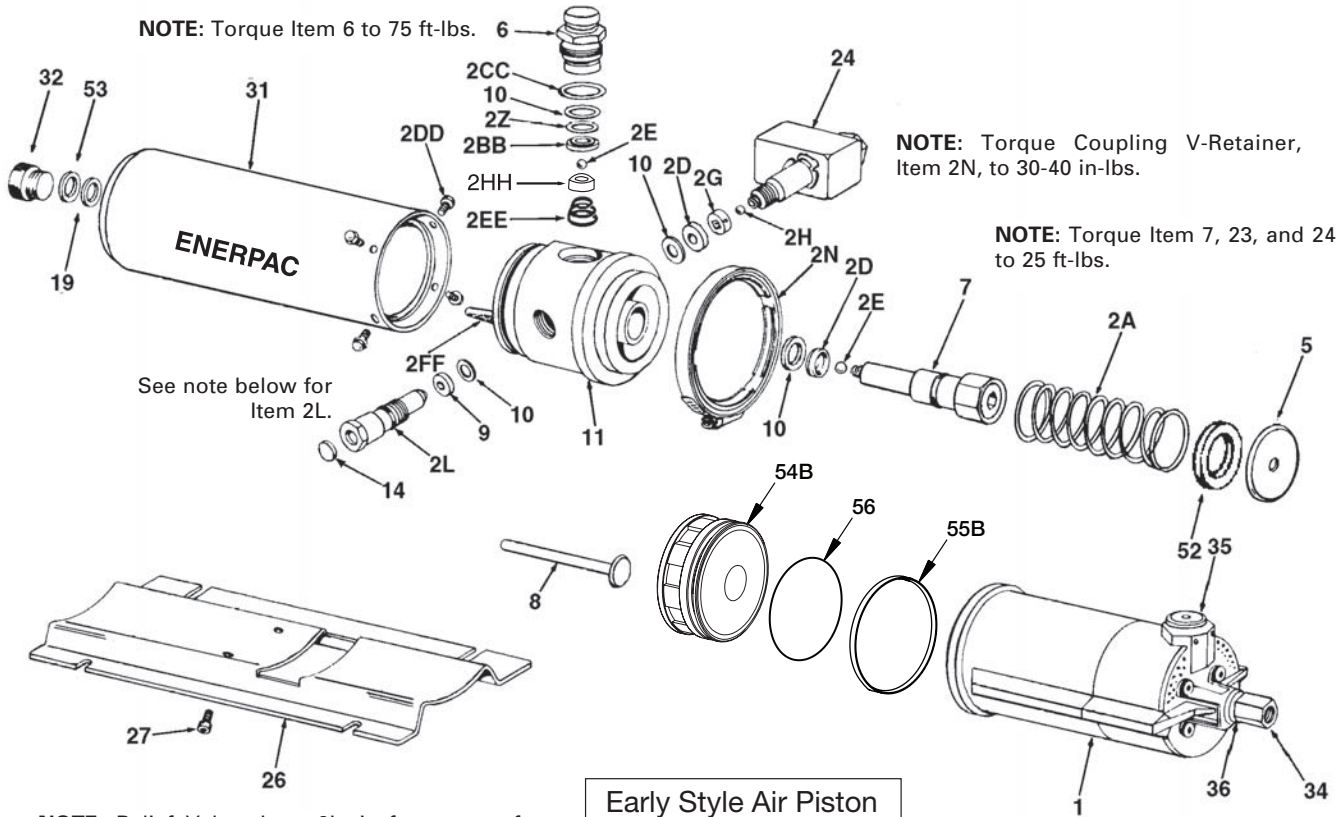
NOTE: Reservoir fill plug, Item 32, should be HAND TIGHTENED only. Do not use a pliers or wrench. Over-tightening will tear the reservoir bladder. Oil leaking out of the vent hole located at the rear of the reservoir is an indication of a torn bladder.



NOTE: Assemble ball guide, Item 2G, with outside chamfer facing ball seat, Item 2D).

NOTE: Closed end of spring, Item 2EE, must go toward the bottom of the hole.

NOTE: Torque Item 6 to 75 ft-lbs.

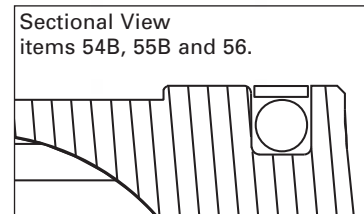


NOTE: Torque Coupling V-Retainer, Item 2N, to 30-40 in-lbs.

NOTE: Torque Item 7, 23, and 24 to 25 ft-lbs.

NOTE: Relief Valve, Item 2L, is factory set for maximum pressure according to pump model. DO NOT adjust to a higher pressure.

When setting the relief valve, it should only be adjusted up to the desired pressure setting. To adjust for a lower pressure than that set at the factory, back off the adjusting screw and then adjust up to the desired pressure.



WARNING: To insure that the internal relief valve setting is correct, check the model number when servicing the product. The setting may require adjustment based on the pressure setting designated by the dash code (-XXXX) of the model number.

Figure 1, PA133, 7001, PA135, PA136 Air Hydraulic Pump

IMPORTANT:

Early style air piston assembly (items 54A and 55A) is no longer available.

If replacement is required, new style air piston assembly (items 54B, 55B and 56) must be used. Order Repair Kit CK354950SR.

To replace an early style air piston assembly:

- Remove early style style air piston (item 54A) and U-Cup seal (item 55A) from open end of air motor (item 1). These parts will not be reused and can be discarded.
- If not pre-installed, install O-Ring (item 56) and Glyd Ring (item 55B), into groove on new style air piston (item 54B).
- Apply grease to Glyd Ring (item 55B).
- Install new style air piston assembly (items 54B, 55B and 56) through open end of air motor (item 1).

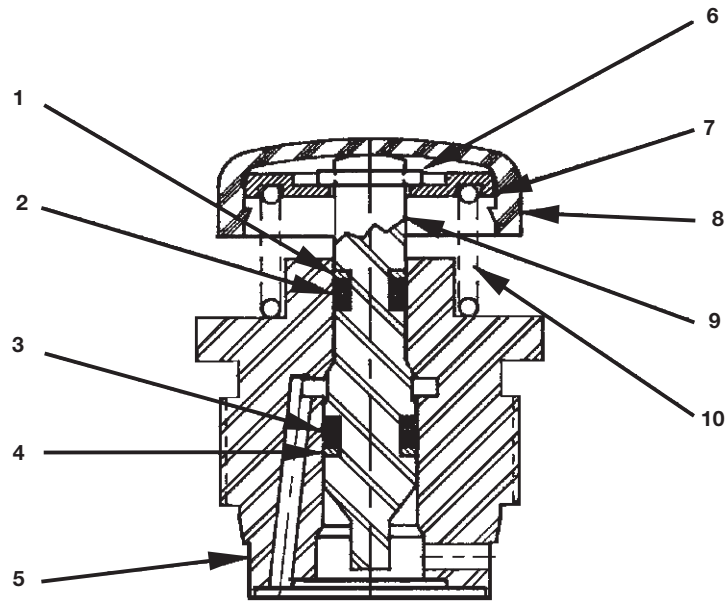


Figure 2, Release Plunger

| Repair Parts List for Figure 2 | | | |
|--------------------------------|--------------|------|------------------------|
| Item | Part Number | Qty. | Description |
| 1 | ★ | 1 | Back-Up Washer |
| 2 | ★ | 1 | O-Ring |
| 3 | ★ | 1 | O-Ring |
| 4 | ★ | 1 | Back-Up Washer |
| 5 | DA5290900SR1 | 1 | Release Guide Assembly |
| 6 | ★ | 1 | Retaining Ring |
| 7 | DA4848108 | 1 | Spring Washer |
| 8 | ★ | 1 | Cap |
| 9 | DA4832040 | 1 | Release Plunger |
| 10 | ★ | 1 | Spring |

★ Indicates items included in and available only as part of Release Plunger Kit DA4832040KR.

NOTE: The Release Plunger Repair Kit (DA4832040KR) and Release Guide Assembly (DA5290900SR1) also include items 2BB, 2CC, 2E, 2EE, 2Z, and 10 from the Air Pump Assembly (Figure 1).

NOTE: Repair Kit PA133K3 includes (1) DA4832040KR.

NOTE: Pumps manufactured prior to November 1991 have a release plunger assembly that uses a roller in place of the cap now being used. The roller (CB923281), dowel pin (CH200061), and spring washer (CH198108) are available for service in Roller Replacement Kit CB923281SR. To replace the release plunger or release body, order a complete assembly (DA5290900SR1).

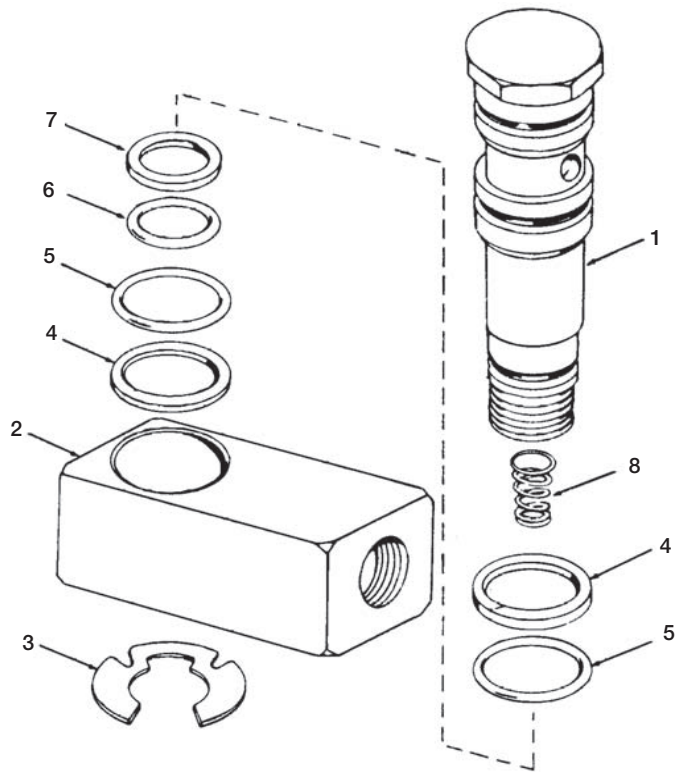


Figure 3, Swivel Coupler Assembly

| Repair Parts List for Figure 3 | | | |
|--------------------------------|-------------|------|----------------|
| Item | Part Number | Qty. | Description |
| 1 | CJ205416 | 1 | Coupler Stem |
| 2 | CJ204190 | 1 | Coupler Body |
| 3 | ★ | 1 | Retaining Ring |
| 4 | ★ | 2 | Back-Up Washer |
| 5 | ★ | 2 | O-Ring |
| 6 | ★ | 1 | O-Ring |
| 7 | ★ | 1 | Back-Up Washer |
| 8 | ★ | 1 | Spring |

★ Indicates items included in and available only as part of Swivel Coupler Kit CF692950K1.

NOTE: The Swivel Coupler Kit (CF692950W) contains items 2D, 2H, and 10 from the Air Pump Assembly (Figure 1).

NOTE: Repair Kit PA133K3 includes (1) CF692950K1.

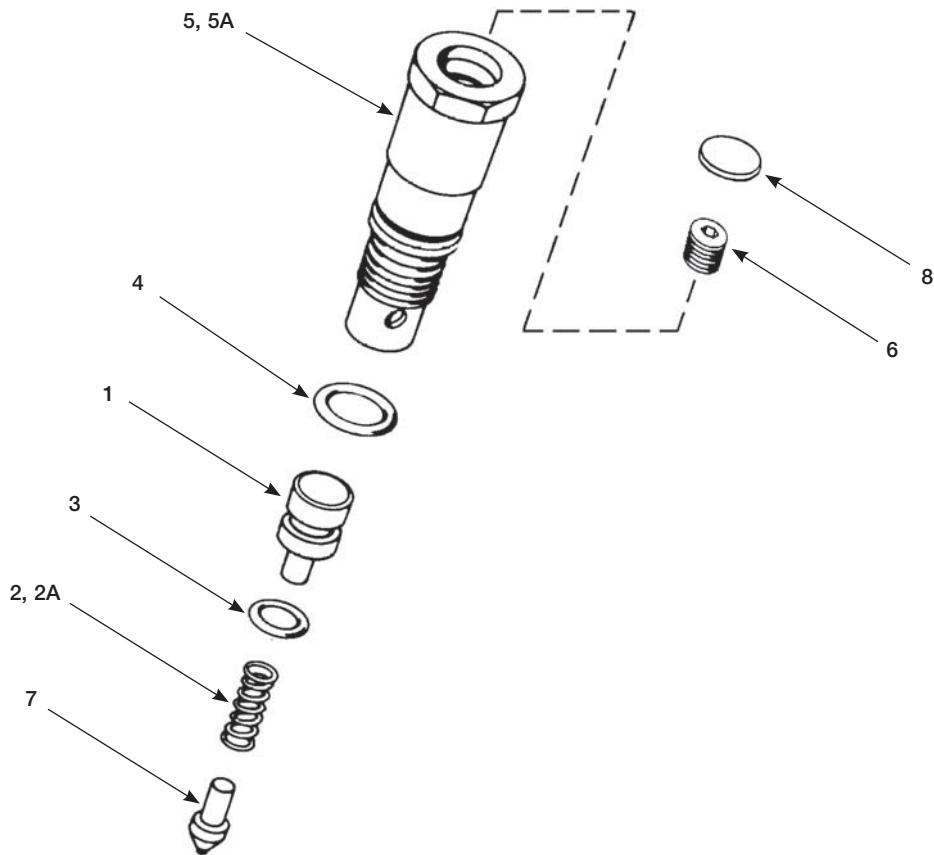


Figure 4, Relief Valve Assembly

| Repair Parts List for Figure 4 | | | |
|--------------------------------|-------------|------|--|
| Item | Part Number | Qty. | Description |
| 1 | A8005007 | 1 | Plug |
| 2 | ★ | 1 | Spring (PA133 & PA135) |
| 2A | ★ | 1 | Spring (PA136) |
| 3 | ★ | 1 | O-Ring |
| 4 | ★ | 1 | O-Ring |
| 5 | CH202950SR | 1 | Release Valve Assembly (PA133 & PA135) |
| 5A | CH207950SR | 1 | Release Valve Assembly (PA136) |
| 6 | L86028 | 1 | Set Screw |
| 7 | CH180950W | 1 | Ball Guide Assembly |
| 8 | ★ | 1 | Plug |

★ Indicates items included in and available only as part of Relief Valve Repair Kit CH202950K.

NOTE: The Relief Valve Repair Kit also includes Items 9 and 10 from the Air Pump Assembly, Figure 1.

NOTE: Relief Valve Repair Kit CH202950K contains two sizes of springs (item 2/2A). Use the spring from the kit that matches the spring removed from the relief valve.

NOTE: Repair Kit PA133K3 includes (1) CH202950K.

NOTE: Relief valve adjustments should only be performed by an Enerpac Authorized Service Center utilizing prescribed procedures and proper test equipment.

Apply one drop of Loctite #242 to threads or stake threads in Item 7 in only one place after assembly.

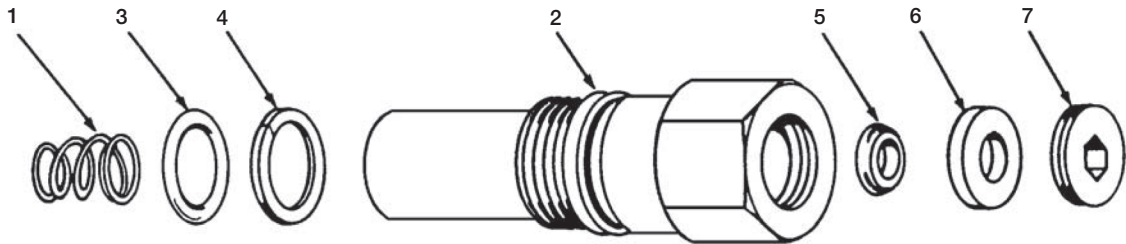


Figure 5, Hydraulic Cylinder

| Repair Parts List for Figure 5 | | | |
|--|-------------|------|-----------------------------|
| Item | Part Number | Qty. | Description |
| Model PA133, 7001 | | | |
| 1 | ★ | 1 | Spring |
| 2 | CH203950SR | 1 | Hydraulic Cylinder Assembly |
| 3 | ★ | 1 | O-Ring |
| 4 | ★ | 1 | Back-Up Washer |
| 5 | ★ | 1 | U-Cup |
| 6 | ★ | 1 | Back-Up Bearing |
| 7 | ★ | 1 | Bearing Retainer |
| Model PA135 | | | |
| 1 | ★ | 1 | Spring |
| 2 | DA1227950SR | 1 | Hydraulic Cylinder Assembly |
| 3 | ★ | 1 | O-Ring |
| 4 | ★ | 1 | Back-Up Washer |
| 5 | ★ | 1 | U-Cup |
| 6 | ★ | 1 | Back-Up Bearing |
| 7 | ★ | 1 | Bearing Retainer |
| Model PA136 | | | |
| 1 | ★ | 1 | Spring |
| 2 | CH208950W | 1 | Hydraulic Cylinder Assembly |
| 3 | ★ | 1 | O-Ring |
| 4 | ★ | 1 | Back-Up Washer |
| 5 | ★ | 1 | U-Cup |
| 6 | ★ | 1 | Back-Up Bearing |
| 7 | ★ | 1 | Bearing Retainer |
| ★ Indicates items included in and available only as part of Hydraulic Cylinder Repair Kit HCRK1. | | | |
| NOTE: HCRK1 is a universal kit and will service any of the three hydraulic cylinders listed. | | | |
| NOTE: Hydraulic Cylinder Repair Kit HCRK1 also includes Items 2D, 2E, and 10 from the Air Pump Assembly (Figure 1). | | | |
| NOTE: Repair Kit PA133K3 includes (1) HCRK1. | | | |

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