**Step 1**

Drain all fluid from the cylinder. Clamp front block (A) or bottom of cylinder barrel (B) in a soft-jawed vise.

**Step 2**

Remove the six alignment screws that secure the nose guide or mounting block and middle separator to the barrel. Be especially careful to not throw away any of the cylinder set screws since they are specially ground for the cylinder.

**Step 3**

Continue by carefully pulling the working piston out of the cylinder so that the barrel does not become scored. The front block will slide out with the piston.

**Step 4**

Look inside the barrel, you'll notice that the internal intensifier piston rod has been threaded to accept a 1/4-20 dowel puller.

**Step 5**

This threaded hole can be used to secure a threaded rod to the piston in order to pull both the middle separator and the intensifier piston out of the cylinder barrel.

**Step 6**

Carefully pull the middle separator and intensifier piston out of the cylinder barrel using the threaded rod.

**Step 7**

Remove all seals and o-rings. Use an o-ring pick if necessary, be careful not to scratch the barrel.

**Step 8**

Once all cylinder parts including the inside of the barrel with a non-abrasive cleaning solvent. If the barrel appears to be scored, it should be returned to CenterLine's Automation Components Division for proper repair or replacement.
Step 1: Install all the seals. With the exception of the two high pressure seals, the OHMA cylinder makes use of standard seals; therefore replacing these seals is a straightforward process. Be sure to lubricate all seals and components with the lubricant provided with the replacement seal kit.

Step 2: On the side of the middle separator stamped with a “PZ”, install the high pressure seal into the groove. With lips toward the working piston, squeeze the seal on the side to form a saddle shape. Insert one end into the groove. Gently work seal into the groove and run your finger along the seal to ensure proper installation. If this cannot be done by hand, use a small dull instrument to properly seat the seal. Be careful not to damage the seal.

Step 3: Next, invert the middle separator and install the high pressure seal into the groove. The lips of the high pressure seal must face the same direction as the high pressure seal side of the middle separator. Apply lubricant to both seals. If this cannot be done by hand, use a small dull instrument to properly seat the seal. Be careful not to damage the seal.

Step 4: Place the intensifier piston into the middle separator by inserting the piston rod into the side NOT stamped with a “PZ”.

Step 5: Carefully push intensifier piston and middle separator assembly into the working barrel using evenly distributed pressure.

Step 6: Line up the screw holes and the fluid port on the middle separator with the screw holes on the barrel.

Step 7: Carefully push the middle separator and intensifier piston into place and tighten the alignment screws. Remember, the separator has a high pressure seal (the side stamped with the "PZ") this should face toward the working piston. Do not force the components back into the barrel since this may cut the seals. Once in position, install the middle separator screws. Lubricate barrel again.

Step 8: Install working piston into front block, apply lubricant to assembly.

Step 9: Line up the screw holes in the front block with the screw holes in the barrel then push the nose guide and working piston into place.

Step 10: While securing the screws, slide the working rod up and down to ensure that the alignment screws aren’t too tight, this will prevent binding.

Step 11: Install bleeder screw and o-ring in working rod.

Testing the Cylinder

Put low pressure air into return port, located in the front end of the barrel (A). This will return both pistons (B).

Remove the connection from the return port and attach air line to the advance port (C). This will cause the working piston to stroke forward (D).

Remove the connection from the advance port and attach air line to the intensifier port. This will cause the intensifier piston to stroke forward. This can be witnessed when looking through the fluid port.

Check the open ports for air leakage. If no leaks can be located, the cylinder should be functioning properly. Other problems in the circuit may be causing apparent cylinder malfunction.