The instructions contained in this booklet are for experienced operators. They assume that the operator knows the general principles of operations and safe practice to be followed while operating acetylene equipment. Acetylene manifolds should be operated in accordance with the "Standards of the National Board of Fire Underwriters for the Installation and Operation of Gas Systems for Welding and Cutting," NBFU Pamphlet No. 51.

Before connecting cylinders to the manifold, carefully read Section F of the booklet, "Precautions and Safe Practices" (which is packed with this manifold). Keep these instructions available for reference at all times.

The OXWELD M-18 Manifold is intended only for outdoor service and is designed to supply acetylene only to a single blowpipe. The total acetylene capacity of the cylinders in use on the manifold should be at least seven times the maximum amount of acetylene the manifold will be required to supply per hour.

Never connect the M-18 Manifold to an acetylene piping system that serves multiple welding and cutting stations.

I. OPERATING INSTRUCTIONS

A. To Connect

1. Crack the valves on the cylinders to be used. To do this stand to one side, not over the cylinder outlet and open the cylinder valve slightly for an instant. (This is termed "cracking the valve.") This will blow out dust or dirt that may have collected in the cylinder valve outlets.

2. The pressure in each of the cylinders to be used must not vary more than 50 lb. per sq. in. from the pressure in any other cylinder to be used. To check this:

   a. Connect an OXWELD R-66 Acetylene Regulator, or any other approved acetylene regulator equipped with a cylinder-pressure gauge, to one of the cylinders. Tighten the connection nut with a wrench.

   b. Turn the regulator pressure-adjusting screw to the left (counter-clockwise) until it spins...
freely. Stand to one side, not in front of the regulator gauges and open the cylinder valve slowly about one-quarter of a turn. After the cylinder-pressure gauge hand has stopped moving, note the pressure registered on the cylinder-pressure gauge.

c. Close the cylinder valve and turn the regulator pressure-adjusting screw to the right (clockwise) until the regulator cylinder-pressure gauge hand returns to the pin. Then turn the regulator pressure-adjusting screw to the left (counter-clockwise) until it will spin freely. Remove the regulator from the cylinder. Repeat the operation on each cylinder to be used.

3. Attach the center connection of the manifold to one of the cylinders, making sure that the cylinder is positioned so that the cylinder valve stem is easily accessible. Tighten the union nut which connects the manifold to the cylinder, using a wrench.

4. Connect a cylinder to each manifold lead, positioning all cylinders so that the cylinder valve stems will be easily accessible. Tighten the union nuts at the cylinders, using a wrench.

NOTE: If only 3 or 4 cylinders are to be used, blank off the unused manifold connections with the caps provided. Tighten the caps with a wrench.

5. Check all cylinder connections and all lead connections, tightening them with a wrench.

6. Crack each cylinder valve in turn as described in A-1. This will blow out dust or dirt that may have collected in the manifold.

7. Connect the regulator to the regulator connection and tighten the connection nut with a wrench. Turn the regulator pressure-adjusting screw to the left (counter-clockwise) until it spins freely. Place a PREST-O-LITE acetylene cylinder valve wrench on each cylinder valve. Open each cylinder valve one and one-half turns. Do not remove the wrenches from the cylinder valves while the valves are open.

8. Test all connections with a solution of soap and water. The manifold is then ready for use.

B. To Operate

1. Turn the regulator pressure-adjusting screw to the left (counter-clockwise) until it spins freely.

2. Stand to one side — not in front of the regulator gauges — and open one of the cylinder valves very slowly and only a fraction of a turn. After the cylinder-pressure gauge hand stops moving, open the cylinder valve 1-1/2 turns. Then open each of the other cylinder valves 1-1/2 turns.

NOTE: Each open cylinder should be equipped with a cylinder valve wrench. The wrench should remain on the valve until the valve is closed, then the wrench should be removed.

3. Test all connections with a solution of soap and water.

4. Open the blowpipe acetylene valve and turn the regulator pressure-adjusting screw to the right (clockwise) until the desired pressure reading is obtained. Then light the blowpipe, or close its acetylene valve.

C. To Shut Off

1. Close each cylinder valve and remove the cylinder valve wrench from the valve.

2. Open the blowpipe acetylene valve.

3. Turn the regulator pressure-adjusting screw to the right (clockwise) until the cylinder-pressure gauge hand of the regulator drops to the pin. Then turn the regulator pressure-adjusting screw to the left (counter-clockwise) until it will spin freely.

4. Close the blowpipe acetylene valve.

II. MAINTENANCE INSTRUCTIONS

A. Flash Arrester

Never attempt to repair a flash arrester. In case a flash arrester becomes clogged or is subjected to any damaging force it should be replaced. To do this:

1. Close all cylinder valves and open the blowpipe acetylene valve. Turn the regulator pressure-adjusting screw to the right (clockwise) slowly until the hand on the cylinder gauge returns to the pin. Then turn the pressure-adjusting screw to the left (counter-clockwise) until it spins freely.

2. Disconnect the lead from the flash arrester to be replaced. Hold the outlet cap (located between the arrester and the manifold block) with a wrench, to keep it from turning, and then loosen the arrester with a pipe wrench. Finally screw the arrester off by hand.

(Continued on Page 4.)
Replacement Parts List

FOR
5 CYLINDER ACETYLENE MANIFOLD
TYPE M-18 - PART NO. 10P74

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-168</td>
<td>Union Nipple</td>
</tr>
<tr>
<td>L-1610</td>
<td>Regulator Connection</td>
</tr>
<tr>
<td>39A12</td>
<td>Ball Check Locking Screw (Included in 22R52)</td>
</tr>
<tr>
<td>53A61</td>
<td>Ball Check (Included in 22R52)</td>
</tr>
<tr>
<td>11R94</td>
<td>Flash Arrester (5 Used)</td>
</tr>
<tr>
<td>22R52</td>
<td>Flash Arrester Inlet Cap (5 Used) (Includes 39A12, 53A61 and 41S99)</td>
</tr>
<tr>
<td>22R53</td>
<td>Flexible Lead (5 Used)</td>
</tr>
<tr>
<td>22R54</td>
<td>Cylinder Connection Assembly (4 Used)</td>
</tr>
<tr>
<td>22R55</td>
<td>Cap And Chain Assembly (2 Used)</td>
</tr>
<tr>
<td>41S99</td>
<td>Ball Check Spring (Included in 22R52)</td>
</tr>
<tr>
<td>60S11</td>
<td>Union Nut</td>
</tr>
<tr>
<td>60S12</td>
<td>Collar</td>
</tr>
<tr>
<td>60S13</td>
<td>Flash Arrester Outlet Cap (5 Used)</td>
</tr>
<tr>
<td>60S14</td>
<td>Manifold Block To Regulator Connection Adaptor</td>
</tr>
<tr>
<td>60S17</td>
<td>Union Nipple To Lead Adaptor</td>
</tr>
<tr>
<td>SS-C-101</td>
<td>1/4-in.-20 x 5/16-in. Socket Headless Setscrew (2 Used)</td>
</tr>
</tbody>
</table>
3. Hold the arrester in a vise and remove the inlet cap.

4. Clean the seating surface of the inlet cap and blow it out with air. Blow from the lead connecting end, because the inlet cap contains a ball check to prevent pressure from backing into the cylinder.

5. Screw the inlet cap into the new arrester by hand, then screw the arrester onto the outlet cap which is in the manifold block. Hold the outlet cap with a wrench. Then, using an open end wrench, tighten the inlet cap. By pulling up hard with the wrench, the connection between the arrester and the outlet cap is made tight while the inlet cap is being tightened in the arrester.

6. Apply a good grade of thread sealing compound to the 1/4-in. pipe thread on the flash arrester inlet cap. Then connect the cylinder lead to the flash arrester inlet cap and tighten the connection with a wrench. (Be sure the cylinder connection at the other end of the lead is lined up so as to avoid twisting the lead when connecting to a cylinder.)

7. Open the cylinder valves in the manner described previously and test for leaks.