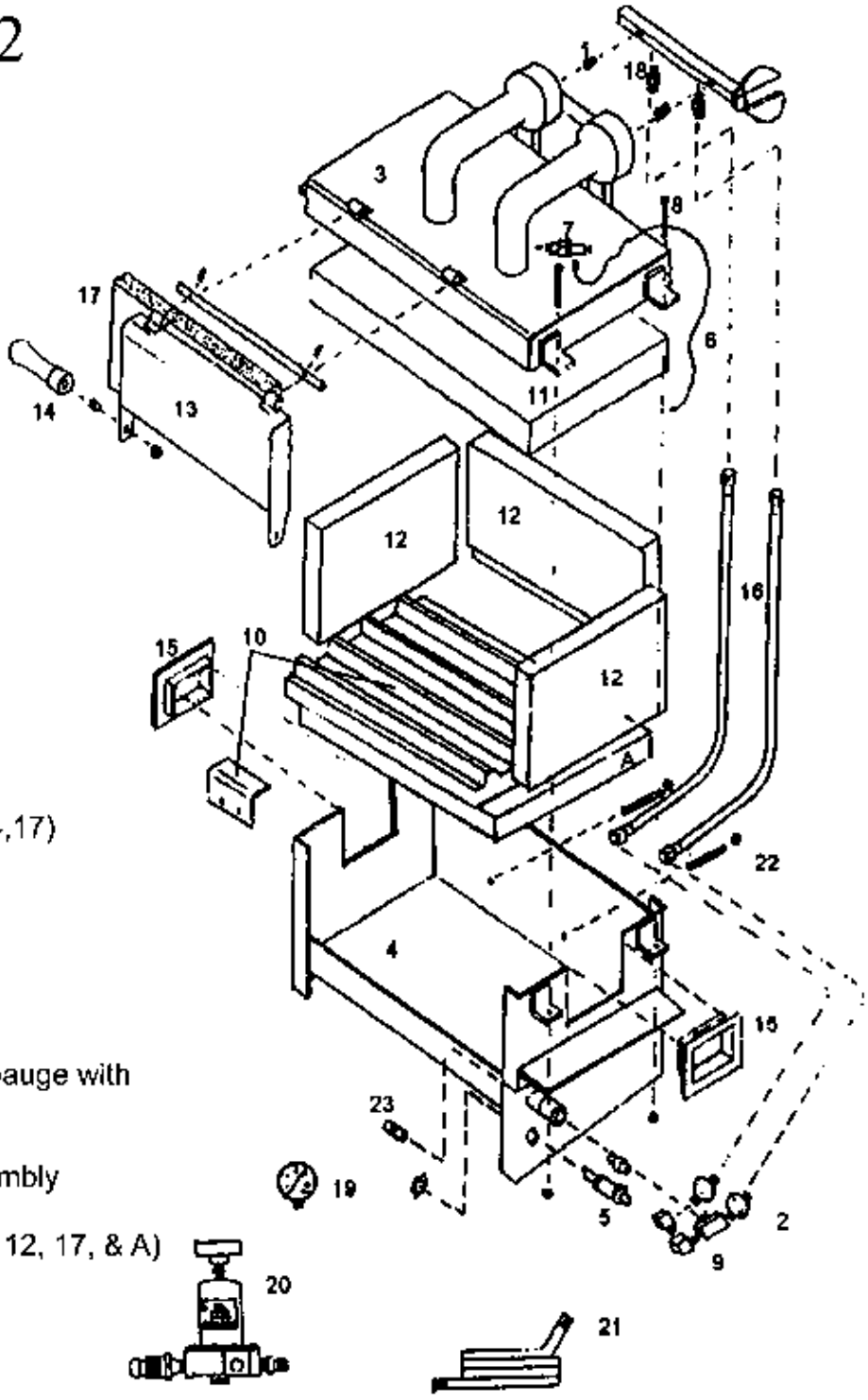
Forgemaster™

BLACKSMITH DUAL VALVE

Model 50002

BLACKSMITH DUAL VALVE FORGE
Model No. 50002
Part List:

1. 10101 – Orifice
2. 10102 – Brass Valve
3. 50100 – Housing Top
4. 50101 – Housing Base
5. 10105 – Ignitor
6. 10106 – Lead Wire w/Terminal
7. 10107 – Spark Plug
8. 10108 – Hold Down Bolt w/Nut
9. 60104 – Dual Valve Assembly
10. 20104 – Hearth Brick w/Clip
11. 20109 – Top Liner
12. 20112 – Wall Reliner Kit
13. 50105 – Door Assembly (incl. 14,17)
14. 30113 – Door Handle Assembly
15. 30108 – Window Guard
16. 50106 – 28" Fuel Hose
17. 30107 – Door Liner
18. 50107 – Brass Flare Adapter
19. 10122 – Gauge
20. 10126 – LP Regulator Kit (incl. gauge with Assembled Fittings)
21. 10127 – 9' LP hose
22. 10130 – Hearth Set Screw Assembly
23. 50109 – Brass Nipple
24. 50103 – Reliner Kit (incl. 10, 11, 12, 17, & A)



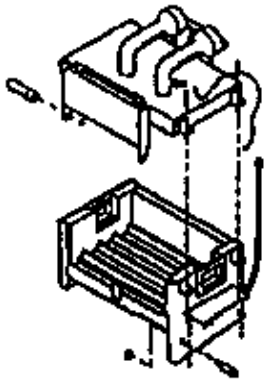
(See Reverse Side of Assembly and Operation)

BLACKSMITH DUAL VALVE

Model 50002 www.forgemaster.com

ASSEMBLY INSTRUCTIONS:

1. Place the forge top onto the forge base with the heat shield to the front of the forge.
2. Using two 7/16" wrenches or sockets connect the forge top to the base with the four bolts and lock nuts provided. DO NOT OVER-TIGHTEN! As the forge lining cures it will shrink
3. Wrap all fuel line connections with Teflon Tape.
4. Connect the free end of the 28" fuel hose to the Brass Flare Adapters on the Dual Valve Distributors using a ¾" wrench.
5. Insert the spark igniter into the hole in the forge base and secure with the igniter nut. Connect the small end of the lead wire to the ignitor and the large end to the spark plug with the wire going underneath and to the back of the forge.
6. Place the door handle into either the left or right hole on the door and secure using the jam nut provided.
7. Connect the stationary end of 9' hose to Brass Nipple on inside of base housing using a 5/8" wrench.
8. Connect the regulator to an approved LP tank (Note: This is a left-hand thread).
9. Connect the large, swivel end of the 9' LP fuel hose to the LP regulator using a ¾" wrench (Note: This is a left-hand thread).
10. Check for gas leaks. Refer to Owners Manual.



OPERATION:

After for Checking for Gas Leaks...

1. Close <u>all</u> valves.
2. Open tank valve and set regulator pressure at 10-12 psi.
3. Open the door.
4. Close butterfly choke.
5. STAND CLEAR OF ALL FORGE OPENINGS.
6. Open forge control valve one turn, wait 3 seconds and push ignitor button several times. If forge does not light after pushing the ignitor button 1 or 2 times, immediately CLOSE the forge valve and allow the gas in the burner to clear <u>before</u> attempting to re-ignite.
7. Repeat procedure until forge has lit.

IMPORTANT: The forge has ignited correctly when <u>blue</u> flame is observed in the heat chamber and heat temperature is sufficient for desired use within 3 minutes. In the event of forge falls to ignite properly, see <u>Troubleshooting</u> section of Owners Manual

8. Open butterfly choke.
9. Increase regulator pressure as desired.

NOTE: Operating forge pressure below 5 psi. will result in below standard temperatures. Operating forge pressure above 15 psi will result in excessive fuel consumption and NOT increase forge performance.

6/8/2012

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DOOR LINER INSTALLATION

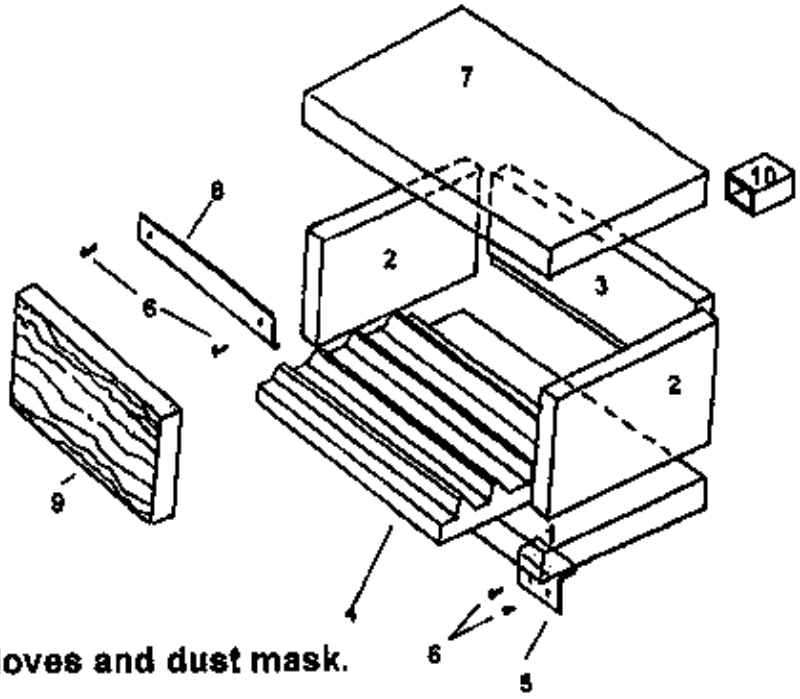
PLEASE REVIEW THIS ENTIRE MANUAL BEFORE INSTALLING YOUR DOOR LINER!

DOOR LINER

Model No. 30107 – Blacksmith/E-1 Door Liner
Model No. 40113 – Excalibur Door Liner

Part List:

1. Door Liner Item # 9



Always wear gloves and dust mask.

1. Prepare the door liner by cutting a small slit in each end to correspond with the steel tabs on the inside of the door. Install the liner (item No. 9) by compressing half behind the tabs and the half in front of the tabs. (Model #30000, 40000, 50000, 60000). When the door liner is installed properly the insulation will stick out approximately 3/8" to 1/2" past the door frame. When the door is closed it will seal around the top and down the sides, sometimes there will be a small gap along the bottom edge of the door, this is "ok" and after continual use the insulation will compress at the top and the gap will close.

2. Once the door liner is in place; with a knife cut insulation for the flue opening. (Model #30000, 40000)

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9. Avoid having your cylinders (tanks) overfilled. This can be a dangerous situation. Propane tanks should be filled to 80% capacity. Overfilling creates several problems that can result in a fire or explosion. Propane boils (vaporizes) at the temperature of –44 degrees F. Any temperature above –44 degrees F may result in the liquid in the tank vaporizing. Normally the remaining 20% + tank capacity left after filling can accommodate the vaporization. However, a newly filled tank left in the summertime temperatures in the excess of 90 degrees F could result in the tank pressure relief safety valve releasing propane vapors into the atmosphere. The accumulation of vapors may create a dangerous situation. CONSULT YOUR PROPANE SUPPLIER FOR FURTHER DETAILS.
10. If the tank is carried in your work vehicle it should be separated from any passenger area. The tank should be vented to the outside of the vehicle, so that if the pressure relief safety valve opens, any vapors are directed outside the vehicle.
11. Never travel with the fuel delivery system on. Close the system in sequence from tank to forge burner before transport.

NOTE: PROPANE HAS A DISTINCTIVE ODOR. Get familiar with it. If you smell propane while the forge is running, shut off the tank valve and check for leaks immediately. Use common sense when working with propane. Handle with care.

ASSEMBLY: ***(see instruction sheet enclosed.)***

TESTING FOR GAS LEAKS:

1. Mix dish soap and water into a sudsy lather.
2. Close all valves.
3. Brush the soapsuds onto ALL connections.
4. Open tank valve, set regulator pressure at 10 psi.
5. **Check all connections, and note where expanding bubbles are occurring, if any.**
6. Shut off the tank valve.
7. **Open the forge valve.**
8. Close the forge valve. (Closing the valves in this order will fully bleed all fuel lines.)
9. FIX ANY LEAKS BEFORE OPERATING THE FORGE. Repairs may be done by tightening the connection or applying Teflon tape to the connections.
10. Repeat testing procedure as needed to ensure safe operation.
11. Wipe off any soap residue when finished.

Note: Inspect your forge before each use, and check periodically for leaks using this method.

OPERATION: ***(see instruction sheet enclosed)***

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*REVIEW THIS ENTIRE MANUAL **BEFORE** OPERATING YOUR FORGE!*

All forges should be handled and operated by trained personnel only. Forgemaster is not responsible or liable for damages or incidents directly or indirectly caused by our equipment, all liability resides with the user of the equipment in any and all circumstances.

SAFETY INSTRUCTIONS:

LP Gas can be dangerous if not handled properly, it can cause a fire or explosion. Before you light any propane appliance take a few moments to follow these guidelines.

- NEVER CONNECT HOSES OR A REGULATOR TO YOUR GAS SUPPLY NEAR AN OPEN FLAME, A SMALL LEAK CAN CAUSE A HAZARDOUS CONDITION!
- LEAK TESTS SHOULD BE COMPLETED EVERYTIME GAS IS APPLIED!
- NEVER SETUP A FORGE, CHECK FOR LEAKS OR OPERATE A FORGE WHILE SMOKING OR HANDLING ANY OTHER IGNITION SOURCE!

1. CHECK FOR GAS LEAKS BEFORE OPERATING THE FORGE. To check for leaks, follow this procedure:
   - A. Confirm that all valves are closed before testing. (including the propane tank or gas supply valve)
   - B. Apply a soap water solution to all joints, fitting, or connections along the fuel supply line.
   - C. Opening valve in succession from tank to forge burner, look for expanding bubbles from the soapy solution at all connections.
   - D. If expanding bubbles are detected, YOU HAVE A GAS LEAK!
   - E. If a gas leak is detected, SHUT OFF ALL VALVES AND REPAIR. Some leaks may be fixed a simply as tightening the connections, other may require that you separate the fittings and apply a joint compound and then reconnect. But whatever it takes DO IT! Gas leaks are serious and must be repaired immediately!
   - F. When repairs have been completed, open valves in sequence and repeat test procedures.
   - G. Repeat leak test procedures when changes are made to the fuel line system. (i.e. changing fuel tank, etc.)
2. Keep all of the fuel lines in good repair. CHECK THE FUEL HOSES DAILY FOR DAMAGE AND REPLACE AS NECESSARY!
3. Keep the propane tank away from flames and sparks. Always have the tank secured so that it cannot be tipped over.
4. Keep all combustible material away from the forge and the propane tank.
5. Protect yourself from sparks, slag from heated steel, or flame brilliance at all times. Appropriate protective eyewear should be worn at all times. As with any forging operation, wear protective apron and sleeves to avoid slag burns and injury.
6. Adequate ventilation is required to avoid the concentration of toxic fumes and to allow oxygen to be brought into the forging area.
7. Always have a properly operating fire extinguisher accessible to the work area.
8. Do not store propane near open flames, heaters, or combustible material or in direct sunlight. DO NOT USE OR STORE CYLINDERS INDOORS. Cylinders should not be store in an area where they are likely to be exposed to temperatures in excess of 120 degrees F.

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CARE AND HANDLING:

Forgemaster™ Forges are designed to withstand the rugged demands of the traveling farrier and blacksmith. The following recommendations can make your Forge last even longer.

1. **KEEP IT DRY!** The lining material is made of ceramic fiberboard and will absorb moisture. The insulation loses its insulation value, until it is dry again.
2. **SECURE IT WHEN TRAVELING.** Vibrations and bouncing may loosen and damage the lining.
3. **CHECK FOR OBSTRUCTIONS**. Dust and debris may also build up in burners or orifice(s) during periods of non-use. Be sure to check for obstructions and remove before operation.
4. **BLEED GAS LINES**. Propane, when left in fuel lines and fittings, will break down into a waxy resin that may clog the system. Therefore, when you finish using your forge, follow this procedure:

    A. Shut off the fuel tank.
    B. Open the forge valve.
    C. Close forge valve.

TROUBLESHOOTING:

In the event your forge fails to ignite properly check for the following conditions:

Problem:	Solution:
Leak in fuel system	See *Testing for Leaks*
Obstruction in burner	See *Care and Handling*
Regulator pressure set too low	See *Operation*
Obstruction at orifice head	See *Care and Handling*
No ignition spark	A. Check spark plug B. Check to see that spark plug gap is not corroded, clean as need. C. Check to see that gap is set at 5/32" spacing. D. Check to see that lead wire is secure connected to spark plug and igniter. E. Check Lead wire for cracks, nicks, or tears.

WARRANTY

Forgemaster™ Warrants any of its manufactured products for the expected life of the product against deficiency in material or workmanship. This limited warranty does not extend to the products manufactured by Forgemaster™, that in Forgemaster™ judgment was improperly used, altered, abused or repaired by others.