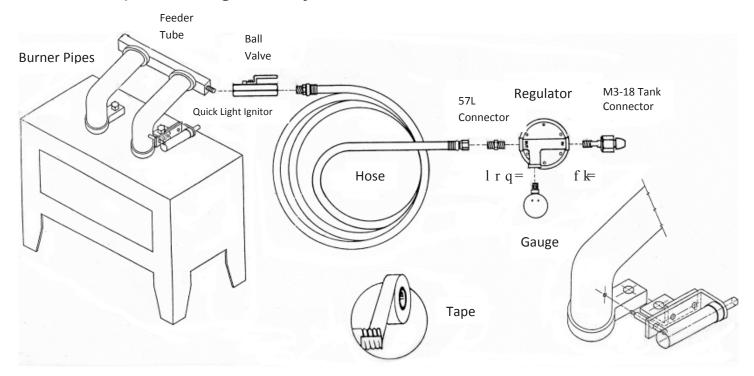
Assembly Instructions

For NC Propane Forges Only



Important: This product is intended for outside use. Read these instructions carefully BEFORE assembling the hose and regulator units. Leaking gas can be extremely dangerous.

Note: Use 3 wraps of teflon tape on all threaded joints, except at the tank connection.

Step 1: Remove bolts from top of forge.

Step 2: Place the burner and quick light on top of forge. Some back and forth pressure may be required when inserting the steel burner into the top liner holes. A tight fit is required.

Step 3: Attach the ball valve to the black feeder tube with the handle pointed away from the burner, in the on position.

NOTE: A vise is a good way to hold the regulator in Steps 3, 4 and 5.

Step 4: The 57L Connector (short brass nipple) is threaded for right hand and left hand threads. Connect this to the side of the regulator marked "OUT" by using the end that has right-hand threads.

Step 5: Attach the tank connector to the regulator on the side marked "IN". The tank connector is made up of 2 pieces of brass.

NOTE: It is not necessary to tape the threads connecting to the tank.

Step 6: Remove the allen screw from the top of the regulator and secure the pressure gauge.

Step 7: Attach male end of the hose to the ball valve.

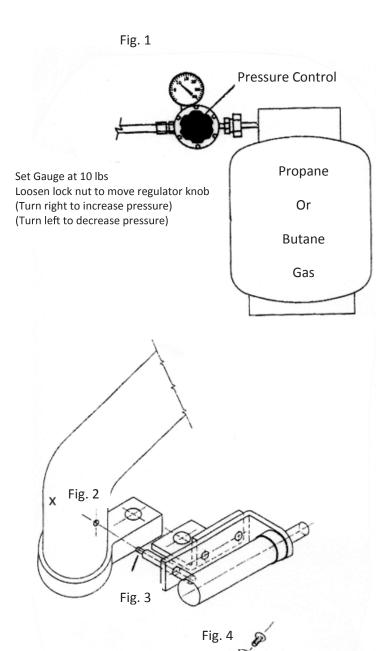
Step 8: Attach the female end of the hose to the 57L connector which has left-hand threads.

NOTE: It is not necessary to force these fittings to the extreme, however, it is important to use the proper wrench size when tightening the parts. Once the unit is assembled, turn the gas pressure on from the tank to the ball valve and use soapy water to check for leaks on all joints.



LIGHTING INSTRUCTIONS

All Models of NC Whisper Forges



NOTE: FOR ALL INSULATED DOOR MODELS -

Open front door of the unit before attempting to light. Failing to open the door could cause damage to the liner as combustion takes place.

Step 1: Set fuel pressure gauge at 10lbs (Fig 1) Normal operating range is from 6 lbs to 15lbs pressure.

Step 2: Open ball valve and you will hear fuel entering combustion chamber. Immediately push the red button on the quick light until it trips. If the gas fails to ignite after two or three quick snaps of the quick light, shut off the gas supply immediately by turning the ball valve to the "off" position.

Step 3: Remove the quick light and check for a crack or broken place in the white ceramic piece. (Fig 3)

Step 4: If this checks out okay, then replace the quick light onto the burner and adjust the ceramic further into the burner hole. Positioning the quick light too far in or out will cause the igniter to ground out and fail. When the quick light is properly adjusted, the spark will jump to the opposite side of the burner, (marked "X", Fig 2), and ignite instantly. It may take a couple of adjustments to achieve the proper adjustment to eliminate misfiring. Be sure to tightly secure the bolt after this adjustment.

CAUTION: Should the smell of gas occur while the unit is in operation, shut down immediately and check all connections. This can be done by applying soapy water to all joints and connections while under pressure. Failing to follow these instructions could result in a serious accident.

CAUTION: Avoid standing or moving to the front of openings and exhaust ports on these units. Extremely high temperatures extend approximately two feet from any openings while in operation.

Trouble Shooting

Should your burner fail to burn evenly or not heat quickly, follow the steps outlined below:

Step 1: Check burner pipes for any foreign object that could interfere with the flow of fuel.

Step 2: Remove the 1/4 inch bolts from the top of the black feeder tube. (Fig 4)

Fig. 5

Step 3: Remove the brass orifices from the bottom of the feeder tube with a 5/16 inch nut driver.

Remove any foreign materials in the tiny orifice holes by forcing air through it. Do not use tip cleaners. (Fig 5)

See next page for more trouble shooting instructions

Burner Adjustment

NOTE: When your NC Forge is first lit, watch the hot spots on the floor for a couple of minutes. If a shadow appears under one burner and does not disappear quickly, that burner needs adjusting.

Excessive feathery flame coming from the front of the unit could be an indication that the burners are not adjusted properly or there is debris in the brass orifices located in the feeder tube. (Fig 5)

Anytime the feeder tube has been removed, it is necessary to re-adjust the burner pipes to assure proper air-fuel mixture and peak performance of this unit.

NOTE: ADJUST ONE BURNER AT A TIME.

- **Step 1:** Loosen the bolts at the base of the burner for easier movement.
- **Step 2:** Loosen the bolts that hold the feeder tube U clamps and burner pipe in place.(Fig. 4)
- **Step 3:** Light the forge and watch the flame while moving the burner pipe slightly from side to side. Once a strong blue flame is achieved and the hot spot on the floor of the unit has no shadows present, a peak flame performance has been achieved.
- **Step 4:** After the proper adjustments have been made, tighten the U clamps and secure the feeder tube only. Follow the same procedures on the remaining burners.
- Step 5: When all burners have been adjusted, tighten the bolts at burner base.

Safety and Warnings

Failure to follow the Cautions and Warnings contained in this Assembly Instruction may result in serious bodily injury or death, or may result in a fire or an explosion causing damage to property.

- 1. WARNING Improper assembly of forge may be dangerous. Follow the assembly instructions carefully.
- **2. WARNING** Do not use the forge unless all parts are in place. The forge must be properly assembled according to the assembly instructions by a qualified professional.
- **3. CAUTION!!!** Never under any circumstances should the exhaust ports be closed off completely on the doors or open end ports. This could cause serious damage and possible body injury.
- 4. This unit is intended for outside use. When the forge is fired, fibers of carcinogenic potential are released from the ceramic fiber liner. Therefore, it must be fired in a well ventilated area. The venturi burners require large amounts of air for proper performance. Use of this equipment without proper ventilation could result in asphyxiation.
- 5. Avoid standing or moving to the front of openings and exhaust ports. Extremely high temperatures extend approximately two feet from any openings while in operation. When retrieving objects from a hot forge approach it from the side or bottom. A little practice will help you acquire a skill for this procedure.
- 6. Station the anvil approximately four to five feet to the side of the forge opening to avoid heat when the forge is in operation.
- 7. The unit will heat large objects to forging temperature with the door open, but it will take a little longer.
- 8. Never leave the line pressure on when not in use. Always cut the ball valve and tank valve off for storage.
- 9. Propane gas has a strong odor. Never continue to run the unit if the smell of gas is present. Shut the unit down and check all connections with soapy water for leaks. NEVER use flame to check for gas leaks. Do not resume use until proper repairs are made by a qualified gas company or until you contact the manufacturer for assistance.
- 10. All valves, gauges, regulators, and hoses should be checked weekly for wear. Replace as needed. Good maintenance is a must with gas equipment.
- 11. When the ceramic fiber liner becomes thinner than one inch, proper insulation is not achieved. Replacement liners can be purchased from your local dealer or the manufacturer. Be sure to give model number and style of forge when ordering. When it is time to reline your forge, you should wear gloves and a dust mask when handling the used liner. The old liner should be wet down thoroughly with a spray bottle of water before removal. After removal, it should be placed in a plastic bag and disposed of immediately. Complete instructions are included with the purchase of a new liner.
- 12. Do not allow the hose to come in contact with hot steel or flames.
- 13. During operation, the user should always stay in the immediate vicinity of the forge. Never leave fired forge unattended.



Welding Instructions

For

Bar Shoes

Step 1 Set pressure at 10 lbs and pre-heat the forge for 3 minutes.

Step 2 Place lapped bar directly under burner and let it reach maximum temperature.

Note: The quicker this next step is executed, the better the results. Cleaning the bar with a wire brush is not recommended.

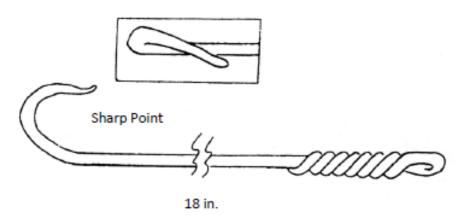
Step 3 Withdraw the shoe and apply the welding compound before the temperature drops on the outer surface of the shoe. Quickly, place the shoe back under the flame for approximately 15 seconds.

Note: Leaving the shoe under the flame too long will cause the flux to become dry and result in no bond. Excessive amounts of flux are not necessary and will damage the bottom brick in the forge.

Step 4 Have a hammer in hand, retrieve the shoe and strike 3 or 4 fast, light blows on each side of the bar.

Note: The first blow should be made as quickly as the shoe touches the anvil to avoid cooling of the bar and a non-weld. A cold anvil is almost impossible to weld on. Heating a ½" x 3" x 3" steel plate and placing it on the anvil face makes a good hot surface to weld on. If the anvil has been worked hot long enough to be warm, the plate does not apply.

Step 5 Place more welding compound on the bar and repeat Step 2 - 4. If this does not complete the weld, the bar should be cleaned with a wire brush before repeating the same procedure. A little practice will improve your welding skills greatly. Good luck!



GAS FORGE POKER

Let this be one of your first projects.

A poker made from 1/4" rod is a necessary tool for pulling out small shoes or bar stock that falls too far to the rear of forge to be removed with tongs