

Kettle Afterburner And Safety Loader

Instruction and safety information

Read before operating the afterburner and safety loader

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Warning

- Park the kettle on firm and level ground away from doorway.
- Always keep the instruction manual with the machine for reference.
- Make sure all three-fire arrester screens are in place and in good condition before operation or serious injury/death or equipment damage could occur due to backfire and/or explosion.
- Do not open the kettle lids when afterburner is running.

Warning labels have been included on the equipment. If the warning labels wear off, please request new ones.

Misuse of the afterburner may result in injury or damage. SPAR-Marathon provides instructions for its safe use and relies on the purchaser to ensure that these instructions are given to the personnel who will actually be using the equipment.

It is the responsibility of the purchaser to ensure that the personnel operating the afterburner are trained in the proper operating procedures and all safety regulations.

The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to work environment to control or eliminate any hazards or other exposure to illness or injury.

Regulations governing the use, selection and maintenance of personal protective and lifesaving apparatus regulations must be followed.

The SPAR-Marathon afterburner is designed and manufactured for use on kettle only. Any other use of this equipment will void any warranty or responsibility, expressed or implied, on the part of the manufacturer.

Do not change or modify the equipment. Any unauthorized change or modification of the equipment will void the warranty and responsibility.

The afterburner should be operated by experienced personnel only. It is a good idea to barricade the kettle area and to keep unauthorized persons away from it.

⚠ Warning Do not operate the equipment until all the operator manuals come with the equipment have been read carefully and fully understood by the operator who will actually operate this equipment.

Do not operate this equipment if you have question about the operation procedure or not understanding the operator manual. Call SPAR-Marathon for information before proceed.

Setting up the afterburner

⚠ Warning Use vapour withdrawal LP gas cylinder only. Serious injury or death could occur if liquid LP gas and any other fuel type are used.

Use approved LP gas pipe thread sealant only on all thread.

Check the LP gas cylinder and all its components, hoses and valves for damage, repair or replace if damage.

- 1) Open the exhaust stack cover.
- 2) Clean the three stainless steel fire arrester screens each time before operation. Tar and asphalt remover can be used to clean the screens. Let screens to be fully dry before putting back into the stack. Replace the screens if damaged. Make sure all three-fire arresters are in place before operation or serious injury/death or equipment damage could occur due to backfire and/or explosion.
- 3) Check to make sure all the afterburner valves and regulator valve are closed. Connect one end of the LP gas hose to the afterburner valve and the other end to the regulator at the vapour LP gas cylinder. Move the vapour LP gas cylinder to upwind from the kettle and away from any heat or open flame. Check local by-laws for minimum distance from kettle. Secure the vapour LP gas cylinder to avoid it from tip over.
- 4) Slightly turn on the vapour LP gas cylinder valve. Check for leak with soap solution and smell for distinctive smell. If leaking is found, turn off the valve and tighten the connection or replace any damage component. Repeat the leak test procedure. Do not use a flame to check leak.

Loading the kettle

- 1) Before lightening up the burners in the kettle, load the kettle with chopped bitumen through the skim opening. Level the bitumen in the kettle.
- 2) Close the skim door.
- 3) Refer to kettle operation manual to prepare for lightening up the kettle burners.
- 4) After the bitumen is melted, the safety loader must be used to add additional bitumen.

To operate the safety loader

- 1) Open the safety loader door and put in chopped bitumen to the bitumen holder inside. Smaller size of chopped bitumen should be used. It will melt faster and will be circulated away from the loading area and avoid pile up of solid bitumen under the safety loader.
- 2) Close and lock the safety loader door.
- 3) Rotate the safety loader handle up and let the chopped bitumen to fall into the kettle.
- 4) Repeat loading through the safety loader until the bitumen level reach the full mark.
- 5) Check bitumen level frequently through the slim door.

⚠ Warning Pay extra care when open any kettle lids. Stand as far as possible and use wooden handle to open the cover. Do not lean head or any part of body close to the opening. Hot vapour or backfire may cause serious personal injury.

Operation of the afterburner

⚠ Warning Do not operate the afterburner without all three fire arrester screens in place. Serious injury/death or equipment damage could occur due to backfire and/or explosion.

Do not touch the afterburner chimney. It is very hot and will cause serious burn and injury if contact with the skin.

Keep all the kettle lids closed when afterburner is operating. Extra care when open any kettle lids. Hot vapour or backfire may cause serious personal injury.

Never leave the lighted kettle burner or the lighted afterburner unattended.

Do not turn the afterburner valve fully open or the excessive heat may damage the stack.

The afterburner should be lighted when first sight of smoke is visible from the exhaust stack.

- 1) Open the exhaust stack cover.
- 2) Make sure all the afterburner valves are closed.
- 3) Turn on the vapour LP gas cylinder valve fully open.
- 4) Set the regulator reading to maximum 7 lbs pressure.
- 5) Open the afterburner service door at the bottom of the exhaust stack.
- 6) Have a hand torch ready and hold the torch close to the afterburner inside the stack.
- 7) Light the afterburner with the hand torch while turning on the afterburner valve slowly.
- 8) If flame dies out or does not light up right away, turn off the afterburner valve. Repeat step 6 to light the afterburner.
- 9) Close the afterburner service door.
- 10) Adjust the afterburner valve slowly until smoke is not visual from the stack. Do not turn the afterburner valve fully open or the excessive heat may damage the stack.

Shutting down after operation

Note: Operator should shut down the kettle burner and let the bitumen in the kettle to cool down before shutting down the afterburner.

- 1) Turn off the main valve on the vapour LP gas cylinder first to let the gas in the line to burn out.
- 2) After the flame burn out by itself, turn off all the valves on the afterburner.
- 3) Disconnect the hose from the afterburner valve and the vapour LP gas cylinder and store in a safe place.
- 4) Close the cover on the emission stack.

Maintenance of the afterburner

Clean the three stainless steel fire arrester screens each time before operation. Tar and asphalt remover can be used to clean the screens. Let the screens to be fully dry before put back to the stack. Replace the screen if damage with cut or hole is found. Make sure all three-fire arresters are in place before operation or serious injury/death or equipment damage could occur due to backfire and/or explosion.

⚠ Warning Do not operate the afterburner if any of the fire arrester screens is damage with cut or hole. Damage screen must be replaced before operation or serious injury/death or equipment damage could occur due to backfire and/or explosion.

KETTLE AFTERBURNER AND SAFETY LOADER

