



SwiftMelt **Mastic Asphalt Mixer**
500 – 1000kg Capacity
Operating & Maintenance Instructions



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I n t r o d u c t i o n

Thank you for choosing to purchase a new W.J. Horrod Ltd SwiftMelt Mastic Asphalt Mixer. All our products are made to a very high, and recognised engineering standard, and if used correctly by a trained, certificated operative, to our operating and maintenance instructions increases the machines longevity.

Operatives must always read the manufacturers operating instructions before attempting to use the machine.

No attempt must be made to carry out any repairs or maintenance whilst equipment is in operation. Safe working practise is a legal requirement and must always be adhered to. Protective clothing should always be worn when operating this equipment.

Faulty equipment should be immediately shut down and reported directly to the supervisor/person in charge, and not used again until the fault has been rectified.

PLEASE NOTE

This unit was manufactured for use with asphalt-based materials (please enquire). Using any other material goes against its intended use.

Using this unit for any other material is done so at your own risk and could nullify the manufacturer's warranty.

Pre-checks before use, general information, and safe working practises.

- 1 Always check the engine fuel, oil, and hydraulic oil levels are correct before starting engine.
- 2 Start and run engine before loading the material, to make sure the engine is running correctly.
- 3 Lubrication Always check before starting (see page 5) regular maintenance will prevent excessive wear on moving parts and prolong the machines life.

4 G A S S Y S T E M P R E - C H E C K S

For machines using LPG propane gas heating systems, all fixtures and fittings MUST be checked prior to every use for any damage or excessive wear & tear.

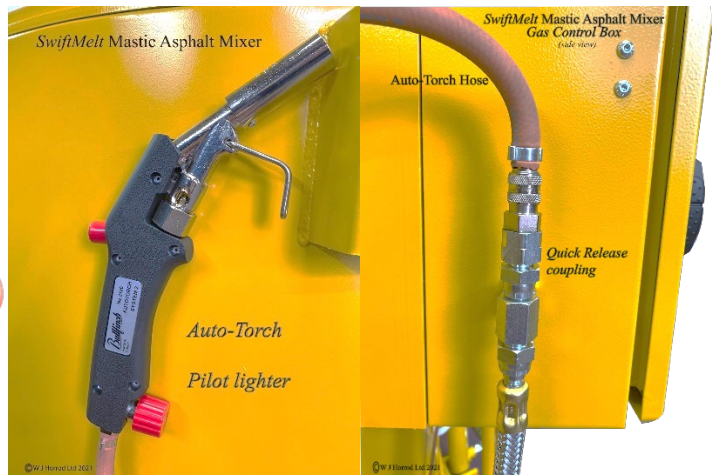
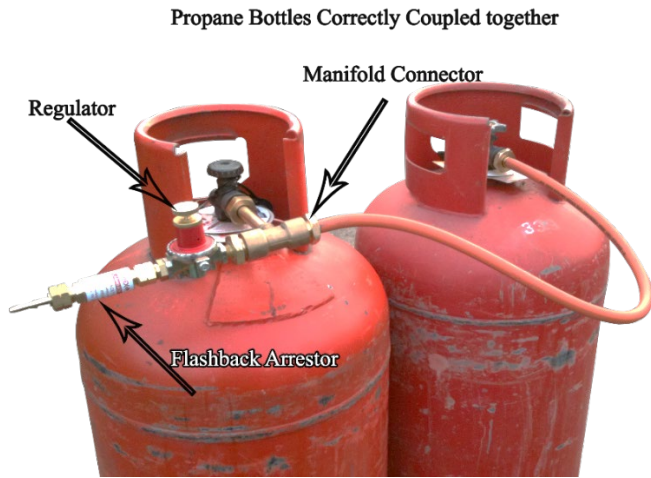
All joins should be leak tested using leak detector spray. **Never use a naked flame to leak test.**

- 5 Before loading commences, check for water in the pan and remove (if materials are in the pan remove any water prior to heating) the engine must be switched off. Always ensure that the material is broken into small pieces. Filling voids with the material, from a cold light up, this will increase efficiency and reduce pan distortion.
- 6 Agitate the material as soon as it is becoming fluid, without causing damage to machine. Do not continually agitate until the material is ready. Please note: the material should be agitated at intervals to prevent burning. Do not engage hydraulic forward drive permanently unless the material is ready to be fully agitated 360° (1 full turn) this will cause a loss of viscosity in the hydraulic oil resulting in damage to hydraulic parts. Agitators will only operate in reverse mode whilst lever is held in reverse position. (This mode should only be used in emergencies and never held in that position for any length of time). Once the material is ready, it can be continually agitated.
PLEASE NOTE Once the material is at the correct laying temperature, replace any used material with new blocks. Permitting the machine to run low/empty, will increase the reheating period.
- 7 Overheating the machine will cause excessive pan and cladding distortion.
- 8 Should machine become 'burnt in' – the following procedure should be implemented.
 - 1 Turn gas off at the cylinder.
 - 2 Close lid(s) if open.
 - 3 Switch off engine.
 - 4 Drain out as much material as possible.
 - 5 Allow machine to go cold. Clean out the 'burnt in' material before attempting to run the machine again.

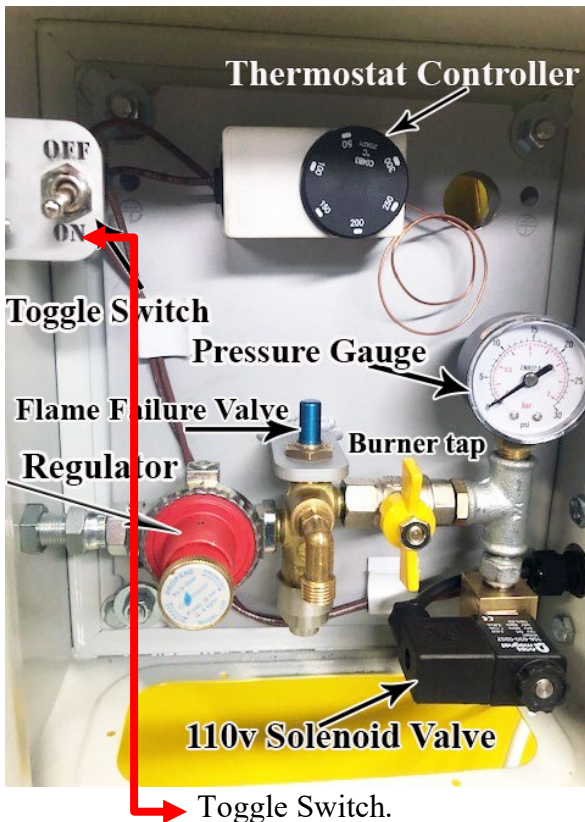
- 9 Never clean the mixer pan by heating it up and applying cold water. This is a practise called 'blowing' and is occasionally employed by some operatives. This practise will harden the pan steel, causing distortion, reducing the pan life and is extremely dangerous to operate safely.
- 10 The correct method of cleaning the pan; Empty the material and switch the engine off, rake out as much of the remaining material as is possible, and allow machine to go cold overnight. You can then clean out, carefully with a compressed air/electric mechanical chisel.
- 11 Regular servicing and maintenance is not only necessary but a legal requirement. Service agreements are available for all types of machines. For further details on service agreements and mixer man training contact the office.
- 12 Please make sure that the area around and under either static or trailer mounted machines is free of combustibles.
- 13 The engine should always be running when the burner is in use. The battery powering the thermostat unit can only be charged with the engine running. If the engine is switched off, the solenoid valve and thermostat will deplete the battery below the voltage required for the engine to keep the battery charged.

Thermostat Control Gas System Lighting Instructions

- 1 Connect 2 No. 19kg propane gas cylinders via a manifold connector (see below left). Connect the auto-torch to the quick release connector.

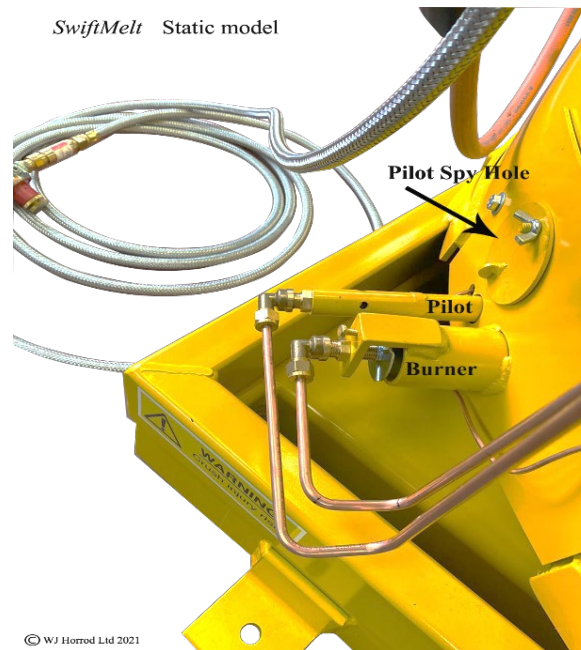


- 2 Open burner control box and ensure that all gas valves are in the 'OFF' position.



- 3 Turn on gas cylinder.
- 4 Light auto-torch. Depress blue flame failure valve button and light through inspection (spy) hole located above pilot burner. Hold the flame failure button down for approximately 15 seconds then release, after which the pilot will stay alight. If in the unlikely event that the pilot should fail to stay alight, repeat the lighting procedure above.

Thermostat Control Gas System Lighting Instructions continued



- 5 Turn off auto-torch and disconnect from gas supply.
- 6 Switch main burner toggle switch to the 'ON' position, slowly open main burner gas valve situated to the right of the flame failure valve, main burner will now ignite. Now check all gas connections using a leak detector spray.
- 7 Adjust regulator to the required gas pressure i.e., 10-PSI. Set thermostat to the required material working temperature. When the material has reached the set temperature the main burner will automatically switch off and re-light when the temperature drops.
- 8 We recommend that the machine should not be operated above 10 PSI from a cold light. Each machine is designed around heat input and flue output, increasing pressure will cause excessive heat, which will distort the pan bottom and inner casing.

Shutting Down and Making Safe

- 1 Turn gas off at the cylinders.
- 2 When the pilot and main burner has both gone out, turn off all gas valves and switches then lock the burner control box.
- 3 Turn regulator pressure control anticlockwise to relieve pressure.
- 4 Always remember to remove engine ignition key and keep in a safe place. **IMPORTANT** you must turn off toggle switch and ignition key otherwise if left on they will discharge the battery.



Lubrication & General Maintenance

Lubrication Checks Daily

Top stirrer shaft 4 bolt flange bearing (grease nipple)
Engine oil level – see manufacturers handbook.
Engine fuel level – see manufacturers handbook.

Gas Equipment Checks

Bottle to 0-2 bar regulator connection.
Hose tail to regulator connection.
Hose to control box connection.
All gas carrying connections in control box.
Auto torch connection to control box, auto torch head to handle.
Rubber hose on auto torch for damage.
Copper pipe fittings from control box to burner & pilot.

Maintenance Monthly

Stirrer arm bolts – checked and tightened.
Engine holding down bolts – checked and tightened.
Gearbox fixing bolts – checked and tightened.
Gearbox stirrer shaft coupling – checked and tightened.
Clean burner housing and burners.

We recommend always having the following to hand when using this machine

1 No. Thermo-couple.

Leak Detector Spray.

Machine Handling/ Usage / Transport options

The SwiftMelt mixer is designed as a compact and versatile machine. Available in as static free standing, static truck mounted or trailerised models. Some of the available types are listed below, along with the materials and purposes for which the machine is currently used.

Transporting

Mounting: Truck mounted.
 Conventional trailer mounted (i.e., Ifor Williams).
 Dedicated purpose-built trailer.
 Mounted on 4 No. Heavy-duty swivel brake casters.

Where the SwiftMelt is mounted on a purpose-built trailer there are two very IMPORTANT WARNINGS that must be adhered to.

- 1 Before uncoupling the trailer from towing vehicle apply the handbrake and lower the front jockey wheel.
- 2 Never use the mixer tilting ram without first lowering rear prop stands. **(This only applies if the machine has been un-coupled from the towing vehicle).**

Usage

Hot charged mastic asphalt transporter.
Specialist Highways machine (Pacopatch System)
Small Quantity restricted access areas (Roofing Contracts)
Small Vehicle axle loads (Transit etc.)

Handling

Dedicated fork-lifting facility built into base frame as standard.

Optional: Tested crane lifting eyes.
 Test certificate available for tested lifting eyes at additional cost if required.

Health & Safety

- 1 Equipment should only be used by a trained, certified operative.
- 2 Protective clothing and full-face mask should *always be worn* when operating the *SwiftMelt* or when loading any material.
- 3 Never leave the *SwiftMelt* *unattended* when alight or running.
- 4 If a fault occurs, shut down immediately and report the fault to the person directly responsible.
- 5 Always turn the engine, and the burners off and allow to go cold before maintenance or repairs are carried out.
- 6 When the *SwiftMelt* is being used in an area where the general public may come into contact 'Hot Surface' warnings should be posted on, or around machine.
- 7 Last, but not least, remember that safety is everyone's responsibility, never do anything that is likely to put yourself, or anybody else at risk.
- 8 Please see machine handling uses and fitting options for special instructions for the purpose-built trailers – details page 6.

Regulators must be marked BS:3016 or BS: EN:12864 or BS: EN:16129. Any regulator marked BS:3016 will be over 10 years old and should be replaced.

Use only certified hoses to BS:3212 or BS: EN:1763-1 or BS: EN:16436-1 which bear the year and name of manufacturer or stainless-steel convoluted hoses marked EN:10380 as LPG attacks and erodes natural rubber.

Operator Notes