

# BELSPRAY motorised sprayers for cold bitumen emulsion or concrete cure sprayers

## OPERATING INSTRUCTIONS



### BEFORE USE

#### Check that there is oil in the engine and gearbox

All sprayers are shipped **WITHOUT** oil in the engines and gearboxes. Oil is supplied with the sprayer. Follow maker's instructions for starting and maintenance of engine.

#### Check that there is sufficient supply of cleaning solvent available.

For BITUMEN: Use either diesel fuel (gas oil) or paraffin or Leoclean  
For CONCRETE CURE MATERIAL: Please check with your material supplier.

#### Check that there is sufficient fuel for the work

- a stoppage whilst spraying causes a lot of extra work

**Technical helpline: +44 (0) 1243 781970**

**Note:** Bitumen emulsion sprayers are fitted with overload valves. These valves are intended to allow the operator time to return to the sprayer to turn off the engine having turned the spraying off at the lance.

It is not recommended that the sprayer is left for any length of time with the engine idling as this will cause the bitumen to break out of emulsion and clog the pump and hose.

## OPERATING THE BELSPRAY SPRAYER

Before first use, it is recommended that solvent is pumped through the system to remove any traces of oil etc. used in the testing of the sprayer.

If at first the pump fails to suck properly check that the filter bowl is bolted on tightly then pour a litre of solvent down the suction pipe so as to fill the filter bowl and prime the pump.

If the pump still fails to suck properly check that all the hoses are properly fixed so that no air is escaping from them. (See over the page)

**DO NOT** try to start the engine with the suction pipe in a drum of liquid.

When the engine has been started and the choke put into the running position then the inlet pipe may be put into the drum, provided that the lance is being held in position for spraying to start.

**IMPORTANT: DO NOT** stop the engine when the pump is full of bitumen or cure compound as this may block the pump and make it difficult or impossible to restart the engine. If the engine stops whilst pumping, take the inlet pipe out of the drum and turn the engine over using the start cord to clear the pump before attempting to restart the engine.

When nearly at the end of the work to be sprayed, take the inlet pipe out of the drum and continue to hold the lance over the work until it stops spraying. The engine can be left running whilst changing drums but if no further spraying is to be done straight away then clean the pump as described.

# BELSPRAY motorised sprayer for cold bitumen emulsion or concrete cure material

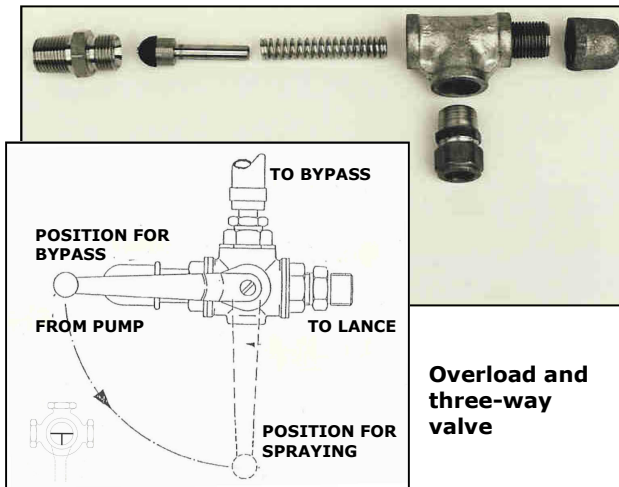
## CLEANING AND MAINTENANCE INSTRUCTIONS

### AFTER USE

**IMPORTANT:** Always clean the pump before switching off the engine. The easiest way is to stand a bucket of solvent on the ground near the sprayer, hold the lance with the nozzle in the bucket, then put the end of the inlet pipe in the bucket. Allow solvent to flow through the system in this manner for about half a minute, turn off tap on lance and run for a further half minute, turn tap back on and run for a few seconds before switching off the engine.

**NOTE: DO NOT** clean the pump with the same diesel that has been used for cleaning tarmac forks as the fines in the tarmac will abrade the pump.

If the pump has been used for spraying aqueous solutions, e.g. weed killer then the pump should be rinsed with paraffin, diesel or a light oil to prevent corrosion in the pump.

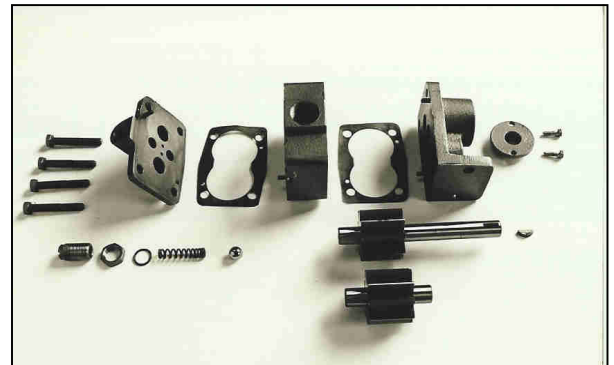


**Overload and three-way valve**

### THE PUMP

If the pump becomes clogged, then remove the back cover of the pump and the half coupling on the pump shaft, remove the two pump gears (see illustration) and clean them with solvent. Reassemble, taking care that the grub screws in the coupling are properly tightened with the tool provided.

The pump overload, at time of manufacture, is set at 65 psi. If the overload valve on the inlet side of the pump is dismantled, please ensure that the locking nut is replaced correctly. Only two or three of the screw threads should be showing from the locking nut. Also, check that the 'O' ring behind the locking nut is seated correctly



**BS03: Pump**

### THE FILTER



**BS11: Filter**

To clean the filter, undo the centre bolt which holds the metal filter bowl in place. Clean all the parts in solvent and check that all parts are correctly reassembled. It is important that there should be no air leaks around the rim of the filter bowl or at the joints of the inlet pipe. If there are any leaks, the pump will not prime itself.

**NOTE:** It is essential that the rim of the filter bowl is correctly seated on the large 'O' ring and NOT on the metal of the head casting. The pump will not prime itself if there is any air around the rim of the filter bowl or at any of the joints of the suction line

## CHECK THE FOLLOWING IF SPRAYER DOES NOT PUMP

**BS03: Pump:** Check pump relief valve (on the inlet side of pump) is not stuck open or insufficiently tightened. Check that the ball valve in the pump overload is in position. Check that the gland packing is not leaking.

**BS11: Filter:** Check that the filter canister is fitted correctly and is seated centrally on the large rubber 'O' ring. Check that the small Dowty seal is fitted in the filter canister.

**BS36: Overload Valve:** Check that the overload valve fitting in the plumbing assembly is not jammed stuck open.

**Others: Suction hose loose on suction pipe:** Check jubilee clips are tight. Increase suction tube diameter by winding electrical tape around the tube. Refit suction hose.