

# Clarke®



## 16/20LTR BACK PACK HAND PUMP SPRAYERS

MODELS: 16BP/20BP

PART NO: 3402272 & 3402277

## USER INSTRUCTIONS

ORIGINAL INSTRUCTIONS

GC0219 ISS2

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## **INTRODUCTION**

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Thank you for purchasing this CLARKE Sprayer, designed only for use with insecticides or other water-based products.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

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## **GUARANTEE**

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This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

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## **GENERAL SAFETY PRECAUTIONS**

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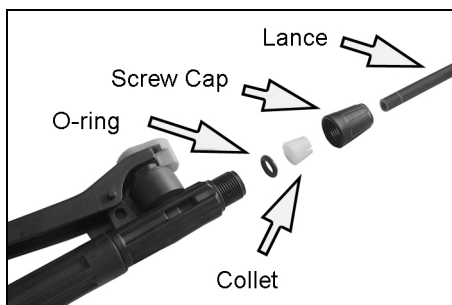
1. Never use this sprayer to store or spray flammable solvent-based chemicals.
2. Empty the contents if the sprayer is not to be used for long periods.
3. If insecticide is being sprayed, always wear a protective mask, safety glasses, footwear, overalls and gloves to protect the skin and face. Never spray chemical products facing into the wind.
4. Never spray pesticide towards other people, animals or foodstuffs.
5. Never use the sprayer for handling hot liquids and avoid operating in excessively hot environments.
6. Always comply with any applicable insecticide manufacturers safety instructions/directives before use.
7. Stop using the sprayer if the container or hose is found to be damaged.
8. Always ensure all hose and lance connections are tight and leak-free.

## ASSEMBLY

The sprayer is supplied with an accessories pack containing the following items. The numbers in brackets refer to the diagram/list on pages 6 & 7. Any deficiencies should be reported to your Clarke dealer.

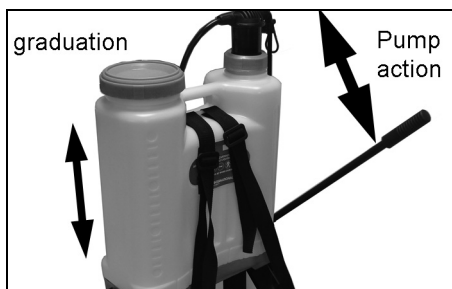
2 x Connecting collets (46)	1 x Handle securing clip (17)
3 x Spray nozzles (Twin headed (53), Conical (54) and Flat Fan (55))	1 x Complete set of O-rings <ul style="list-style-type: none"><li>• 3 x to fit nozzles (53/54/55)</li><li>• 2 x to fit lance (47)</li><li>• 2 x to fit spray gun body (34)</li><li>• 1 x thin/1 x thick to fit trigger valve piston (35/36)</li></ul>
1 x Piston cup seal (4)	

1. Push the lance into the trigger assembly and secure with the screw cap containing the collet and O-ring.
2. Attach one of the nozzles to the other end of the lance and secure with the screw cap.
3. The shoulder straps can be adjusted for length using the buckles, so as to position the sprayer comfortably on the operators back, ensuring they are not twisted.

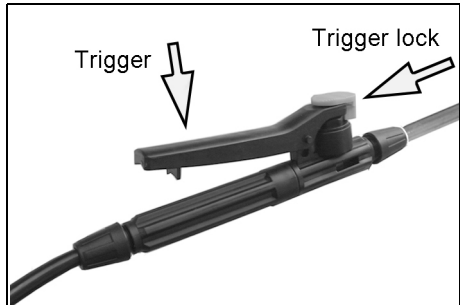


## OPERATION

1. Unscrew the container filler cap and ensure the filter is in place.
2. Fill the container with the required liquid up to the desired graduation on the end and replace the filler cap.
3. Pump the operating arm a few times to pressurise the container until the pump action stiffens.



4. Squeeze the trigger of the spray gun to start spraying.
5. If spraying continuously, squeeze the trigger and engage the trigger lock by sliding it back with your thumb.
6. Pump the operating arm when necessary to maintain pressure.
  - The sprayer will require regular re-pressurising approx every 0.3-0.5L to maintain the optimum output pressure.
7. Secure the operating arm in its retaining clip when not in use. Likewise attach the lance to the clip on the operating arm.




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## MAINTENANCE

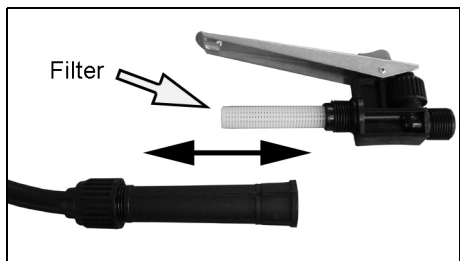
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### AFTER USE

After use, the sprayer should be flushed thoroughly with clean water to avoid the possibility of blockages from product residue, or any cross-contamination between different products.

After extensive use, unscrew the trigger body and remove and clean the filter inside the trigger assembly.

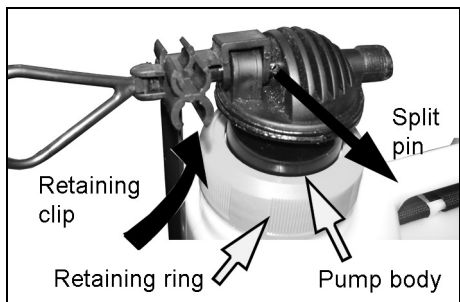
If not used for long periods or used continuously for several days, add a light smear of vaseline to the sealing washers and moving parts to reduce wear and assist free movement.



### REPLACING THE PISTON CUP SEAL

In order to lubricate or replace the piston cup seal with the spare item supplied, the pump assembly can be removed as follows:

1. Remove the split pin and release the retaining clip from the operating rod.
2. Withdraw the operating rod from the top of the pump assembly.



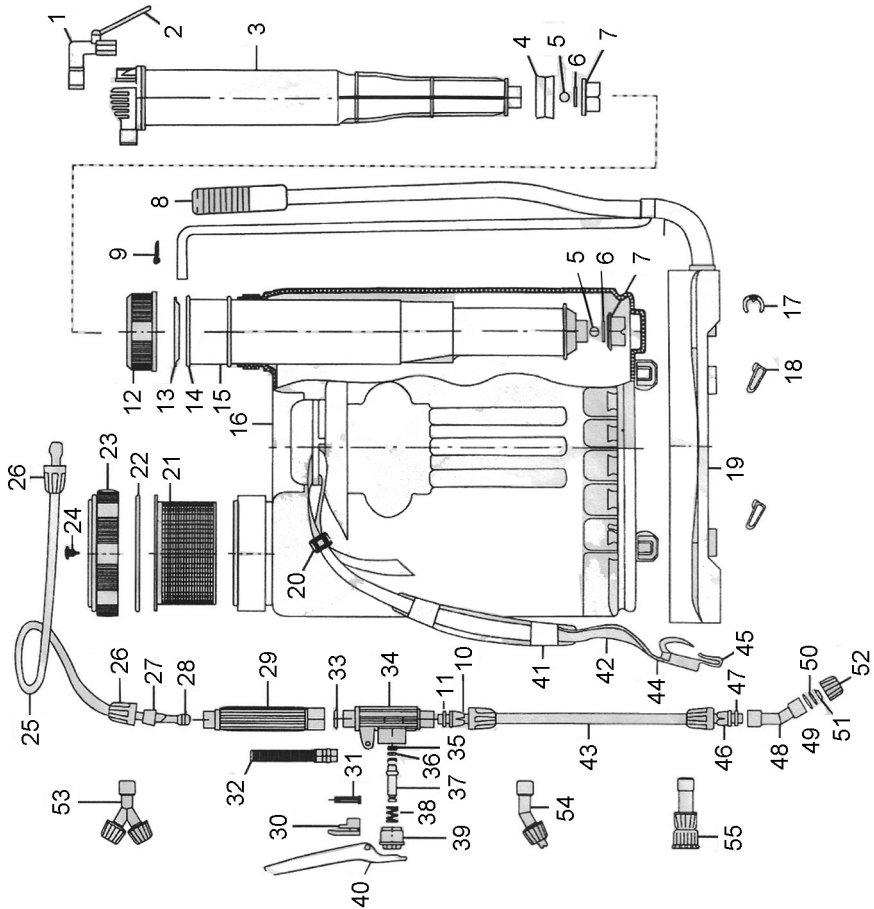
3. Unscrew the retaining ring and withdraw the pump from the container.
  - The pump will lift out of the container, complete with felt seal and rubber o-ring.
4. Draw the piston out of the cylinder to expose the cup seal.
5. Prise the cup seal off the piston and fit the replacement, making sure to smear a layer of vaseline before re-assembly.
6. Re-assemble the components in reverse order.



## FAULTFINDING

Symptom	Cause	Remedy
Poor delivery and leaking lance.	Loose connections or damaged connecting collets/o-rings.	Inspect condition of connecting collets and o-rings & replace if necessary.
Operating handle stiff/hard to move.	Filter screen or spray head is blocked.	Clean out the filter screen and spray head.
After pumping the unit to pressurize the chamber, pressure is quickly lost as soon as the pump is operated.	The piston, sealing ball or sealing ring may be damaged or out of position.	Dismantle unit and refit loose or damaged parts.
After pumping the unit to pressurize the chamber, the lever rises slowly when released.	The chamber valve is not seating correctly due to wear or foreign material present.	Clean or replace the valve.
Handle is hard to operate and sprayer only discharges air without water.	The hose in the air chamber may have come off.	Remove end nut and drain out any water. Insert suction hose tightly into the plastic tube and apply waterproof adhesive to the joint.

# COMPONENT PARTS



## COMPONENT PARTS

No	Description
1	Fixing clamp
2	Handle securing clip
3	Air chamber
4	Piston cup seal
5	Ball
6	O-ring 20.5 x 2.5
7	Locking nut
8	Operating handle
9	Split pin
10	Collet
11	O-ring
12	Air chamber lid
13	Felt ring
14	Pump cylinder gasket
15	Pump cylinder
16	Container
17	Handle securing clip
18	Locking wedges
19	Base
20	Buckle
21	Filter screen
22	Sealing ring
23	Container lid
24	Vent plug
25	Flexible hose
26	Locking cap
27	Collar
28	Internal bush

No	Description
29	Spray gun handle
30	Trigger lock
31	Pivot pin
32	Filter
33	Sealing washer
34	Spray gun body
35	O-ring
36	O-ring
37	Trigger valve piston
38	Spring
39	Screw cap
40	Trigger
41	Shoulder pad
42	Shoulder strap
43	Straight tube
44	Strap sleeve
45	Strap hook
46	Collet
47	O-ring
48	Nozzle body
49	O-ring
50	O-ring
51	O-ring
52	Nozzle cap
53	Twin headed nozzle
54	Conical style nozzle
55	Fan style nozzle
56	Lance Assembly (complete)

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# Clarke®

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