

ALLEN WALKOVER SPRAYERS



THE ALL TERRAIN SPRAYER

OPERATING INSTRUCTIONS & PARTS LIST

KEEP THIS BOOKLET IN A SAFE PLACE



2005 Model

CONTENTS OF THE PACKING CASE

- 1 x Machine body complete
- 2 x Handle bars
- 1 x Boom assembly
- 1 x Bag containing:
 - a) Handle bolts, nuts and washers
 - b) Rectangular clamp and bridge clamp
- 2 x Grey nozzles TF VP 3
- 1 x Instruction Manual and Guarantee Card

ASSEMBLY INSTRUCTIONS

The WALKOVER ALL TERRAIN SPRAYER has been factory tested prior to packing and only requires the handles and boom assemblies to be fitted.

Fit the handlebars into position using the nuts, bolts and washers from the fixing bag.

The boom assembly can be fitted to the main frame in two positions. The upper position should be suitable for most purposes. Take the boom assembly and attach it to the main frame by using the clamps from the fixing bag. The boom is marked showing its centre position, and this should be carefully aligned into the centre of the fixing clamp. BEFORE tightening the clamp the machine should be lifted into its normal working position and the boom nozzles checked to ensure they are parallel to the ground. Adjust the boom position and rotation as necessary, re-check, then tighten the clamp fixings. Attach the inlet wing nut to the boom inlet. The machine is now ready for testing.

TESTING

A trial run should be carried out on a dry concrete surface to check that the nozzles are in alignment. This should be carried out using clean water to ensure everything is in working order. Half fill the container with cold water, replace filler cap and move off at a steady walking pace similar to the speed of mowing. This will prime the pump mechanism and water will spray from the nozzles, showing that all air has been bled from the system.

If an airlock remains in the system, unscrew one of the two diaphragm check valve caps and push machine until water flows through the system. Tighten cap and machine will start to spray. DO NOT over tighten the diaphragm cap.

OPERATING INSTRUCTIONS

When filling the machine add sufficient spray material to cover the area needing treatment or a pro-rata amount if only part filling. Pay careful attention to which colour nozzle is fitted at the time of spraying to avoid any over or under application of chemical. Always follow the chemical manufacturer's instructions relating to the specific area. In many instances dilution rates of chemicals are not critical, but in some cases where a greater volume of water is needed, then two x half strength applications are recommended, spraying where possible in a chequer board fashion in North to South and East to West directions.

SPRAY WIDTH

The ALL TERRAIN SPRAYER has a spray width of 40 inches (1016mm). In common with all WALKOVER sprayers, the spray pattern tails off on the extreme edge of the treated swath which is compensated for when treating the return track. You must therefore always ensure your return track is 40" (1016mm) from the datum point of your previous pass to achieve correct coverage.

Two sets of nozzles are provided with the machine giving alternative coverage areas for the 25 litre (5.5 gallons) loading as follows:

- a) *With standard nozzle fitted, Red TF VP2, one full tank covers 825 sq. metres (1000 sq. yards) equivalent to 298.6 litres/hectare (26.6 gallons/acre)*
- b) *Alternative nozzle, Grey TF VP 3 delivers to one full tank 550 sq. metres (670 sq. yards) equivalent to 449 litres/hectare (40 gallons/acre)*

N.B. The coverage areas for each nozzle may vary plus or minus 5% depending on the speed of operation and variations of the terrain.

NOZZLE ASSEMBLY

The diaphragm control valve assembly is fitted with a quick fit self-aligning cap. When fitting the cap and nozzle, the self-aligning cap will ensure that the nozzle remains in alignment. If the nozzle drips or the spray pattern is distorted, this may be caused by a minute blockage in the diaphragm valve or nozzle. To remove the nozzle tip, rotate the cap a half turn anticlockwise, when viewing from the front. Always ensure the nozzle seal is in place on reassembling.

Treat all components with care, as they are precision made to give long and accurate working life.

PUMP AND WHEEL REMOVAL

Should the pump at any stage during the machine's working life cause trouble it can easily be removed and returned to ALLEN POWER EQUIPMENT LIMITED, for repair or replacement. Work on the inside of the pump can only be carried out by the manufacturer and no attempt should be made to dismantle this unit otherwise the guarantee becomes invalid.

If the tyre of the machine is punctured, the wheel and pump need to be removed as follows:

Remove the stainless steel elbow retaining spring clip and then each of the pipe elbows from pump. These elbows are a push fit and are detached by pulling at a slight angle. Remove the spring dome nuts from either side of the wheel. Pull the pump and axle assembly away from the bearing spacers, taking care to remember their respective positions for re-assembly. To reassemble the unit, reverse the foregoing operation ensuring that the wheel valve is mounted on the opposite side to the pump.

CLEANING AND STORAGE

Always thoroughly clean the sprayer after use. Flush through the whole system with clean water using a small amount of mild household detergent when toxic chemicals have been used. It is very important not to allow chemicals to dry out in the pump mechanism which could granulate and score the interior surfaces. This could impair the performance of your machine. Where temperatures below zero degrees are likely to be experienced ensure that all the liquid has been drained from the machine by removing the hose from the pump. This elbow is a snap fit and pulls out quite easily at a slight angle. Rotate the drive wheel to empty the pump and pipe work and reconnect the pipe into the pump. A small amount of car anti-freeze introduced into the pipe and pump system will give excellent protection.

DO NOT empty chemicals in areas where contamination may occur.

FILTRATION

A basket filter is located under the filler cap and should remain in position at all times, except when removing for cleaning. Clean as required.

TYRE PRESSURES

The tyre pressure should be maintained at 20 to 25 p.s.i.
DO NOT inflate over 25 p.s.i.

NEVER

1. Add concentrated active ingredients to an empty tank, this will result in pure product entering the delivery pump and pipe lines.
2. Leave the sprayer in winter storage with liquid in the tank or pipe work. Severe frost could distort the pump and burst the pipes.

ALWAYS

Ensure the container is half full of clean cold water at the outset of your spraying operation and the pump primed before adding concentrated chemical.

In the case of highly viscous concentrates and soluble powders, pre-dilute the product to be applied in a watering can or bucket with sufficient water to ensure it is completely dissolved.

Half fill the tank with clean cold water. Add the required amount of product and top up to the 25 litre (5.5 gallon) level with water and replace the cap. Rock the unit backwards and forwards a few times to ensure satisfactory mixing and then commence spraying, maintaining a steady pace. If a smaller area is to be treated fill the tank to the appropriate level.

The WALKOVER machine stops spraying immediately it ceases to travel forward. To move the sprayer in a full condition (from one area to another) without spraying, turn the ON-OFF tap to the OFF position. In this position the liquid in the container is recycled through the pipe work system back into to tank.

PRECAUTIONS

The pump mechanism is set by the manufacturer. Any tampering with the pump setting may change the performance of your machine and will render your Guarantee void.

Some of the chemicals, which can be applied by this machine onto grass areas and driveways, require special precautions for use. Protective clothing including boots, gloves and masks may be necessary and therefore individual manufacturer's recommendations for the particular chemical must be closely adhered to.

ALLEN POWER EQUIPMENT LIMITED disclaim any responsibility for misuse of any proprietary brand of chemical applied by a machine of their manufacture. All reasonable care is taken to ensure correct dosage application of known chemical formulations but ALLEN POWER EQUIPMENT LIMITED do not guarantee either their efficacy or accept any responsibility for damage resulting from users' mistakes in assessing dilution rates.

Experience has shown that combined mixes of chemicals, i.e. fungicides and weed killers, can sometimes interact, resulting in the formation of a gelatinous substance which can crystallise if left in the machine after use. This solidifies within the pump and nozzles and can in extreme instances completely destroy the pump mechanism.

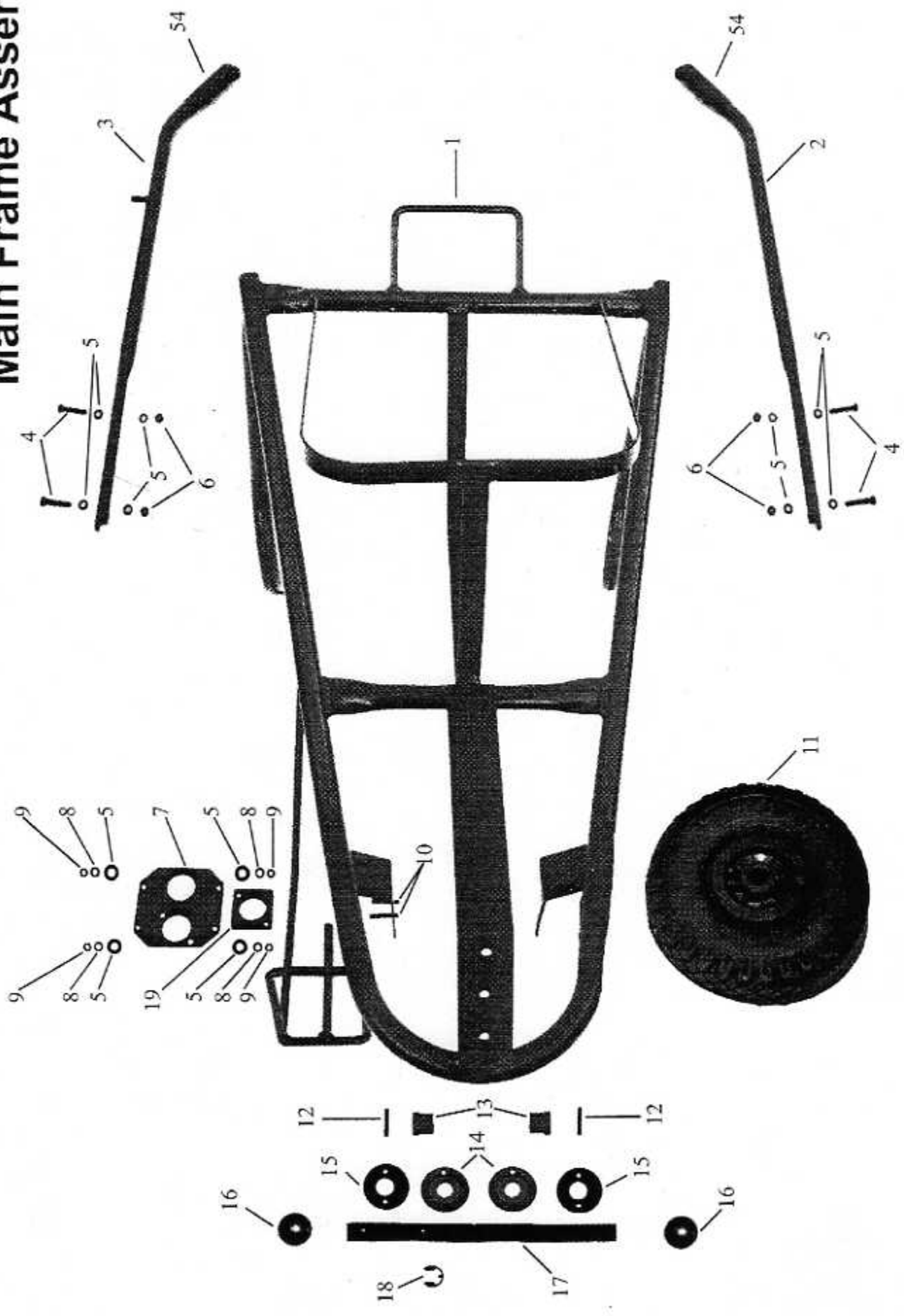
Many proprietary brands of garden and horticultural chemicals are sold in the form of Soluble Powder or Crystals. The Walkover machine will satisfactorily apply these chemicals always providing that the crystals or powder are pre-mixed before adding to the reservoir tank and assuming that the chemical in question is **entirely soluble**.

NEVER leave a soluble powder or a crystal solution, or even an organic product, to stand in the machine for any period of time as sediment may form in the system and the concentration being applied may be too strong and cause scorching. It may also find it's way into the pump mechanism causing damage.

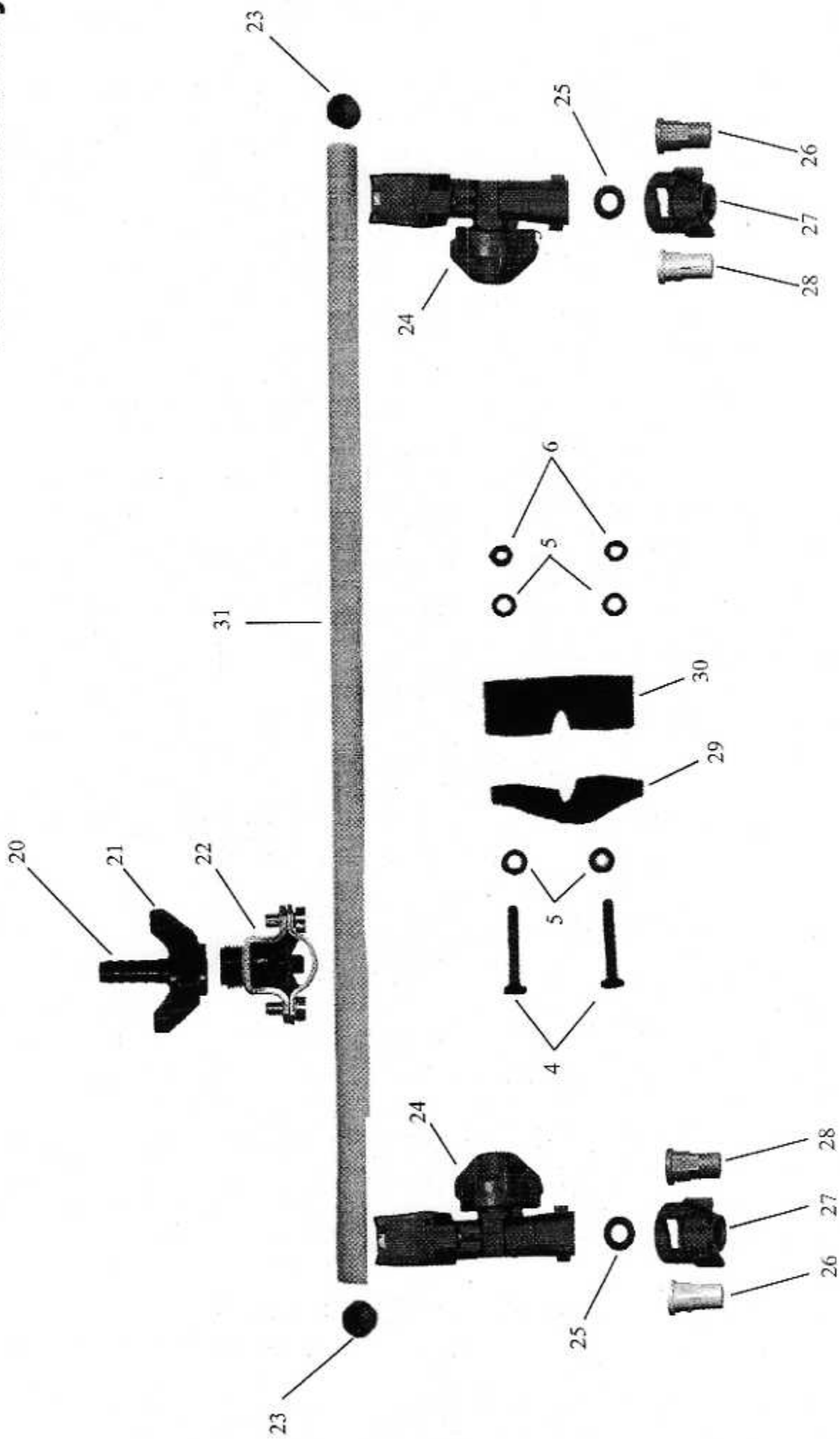
DO NOT mix proprietary brands of chemicals unless assured of their compatibility

N.B. THE WALKOVER LAWN SPRAYER IS NOT SUITABLE FOR USE WITH CRYSTALS OF SODIUM CHLORATE.

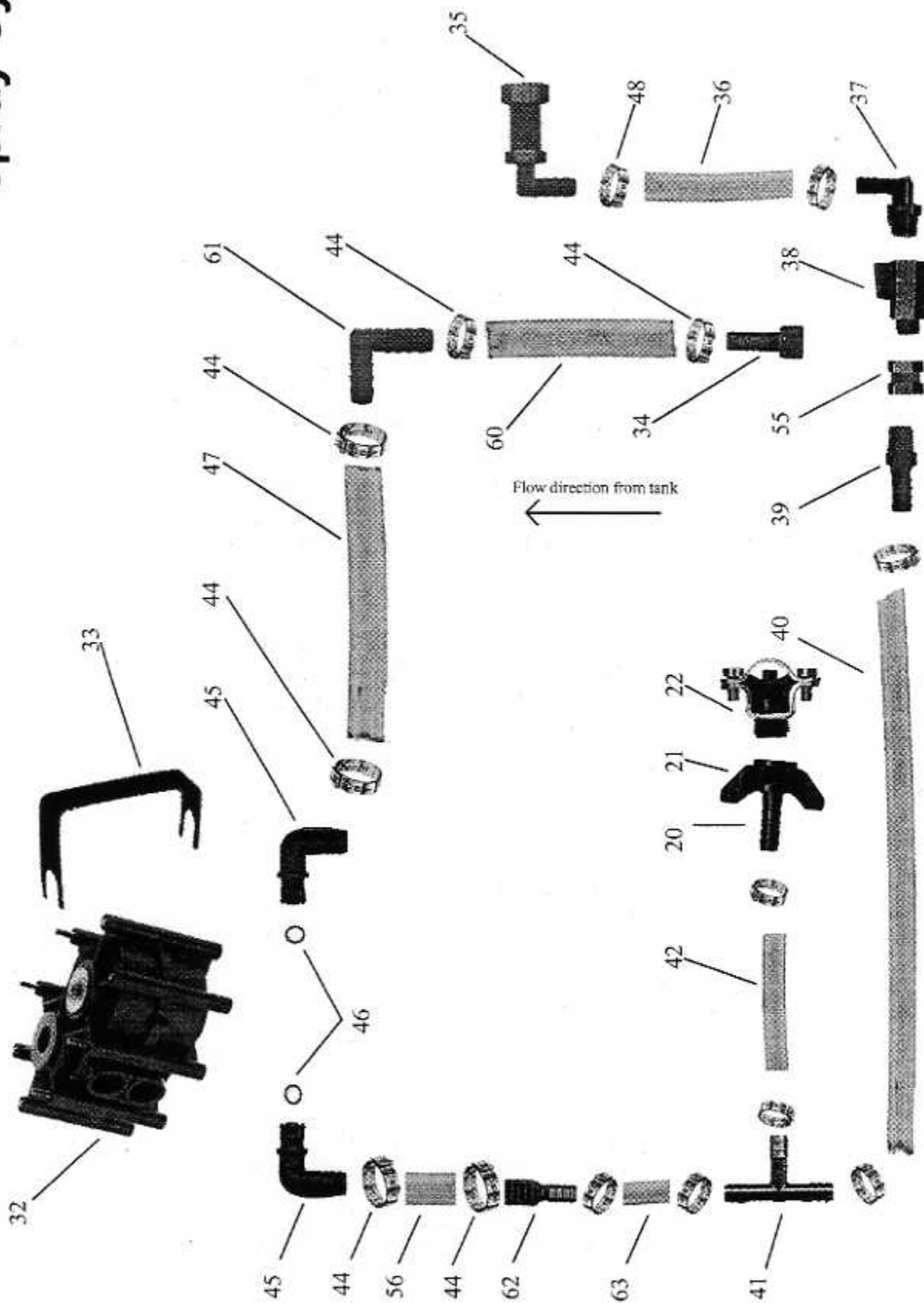
Main Frame Assembly



Boom Assembly

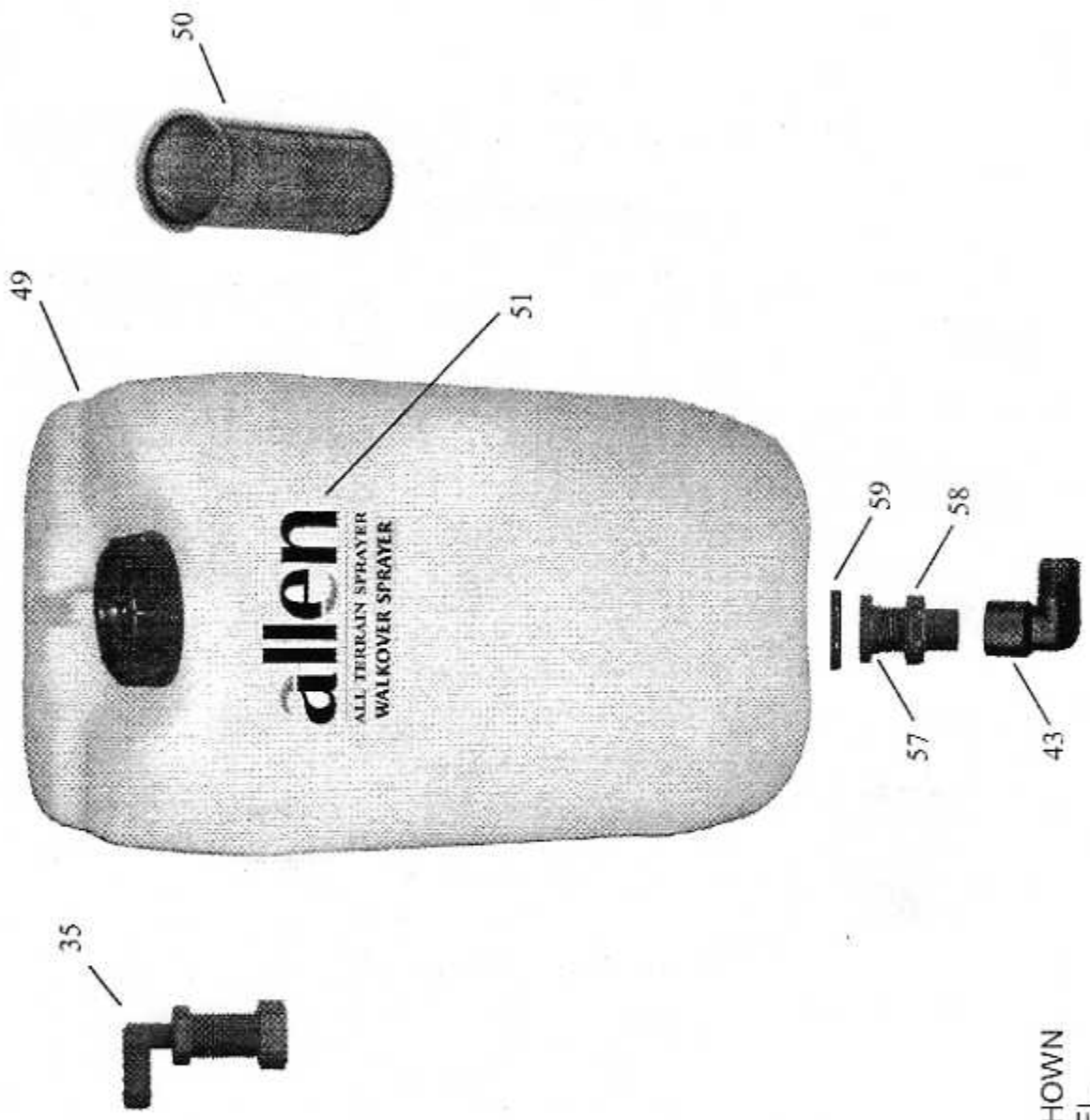


Spray System



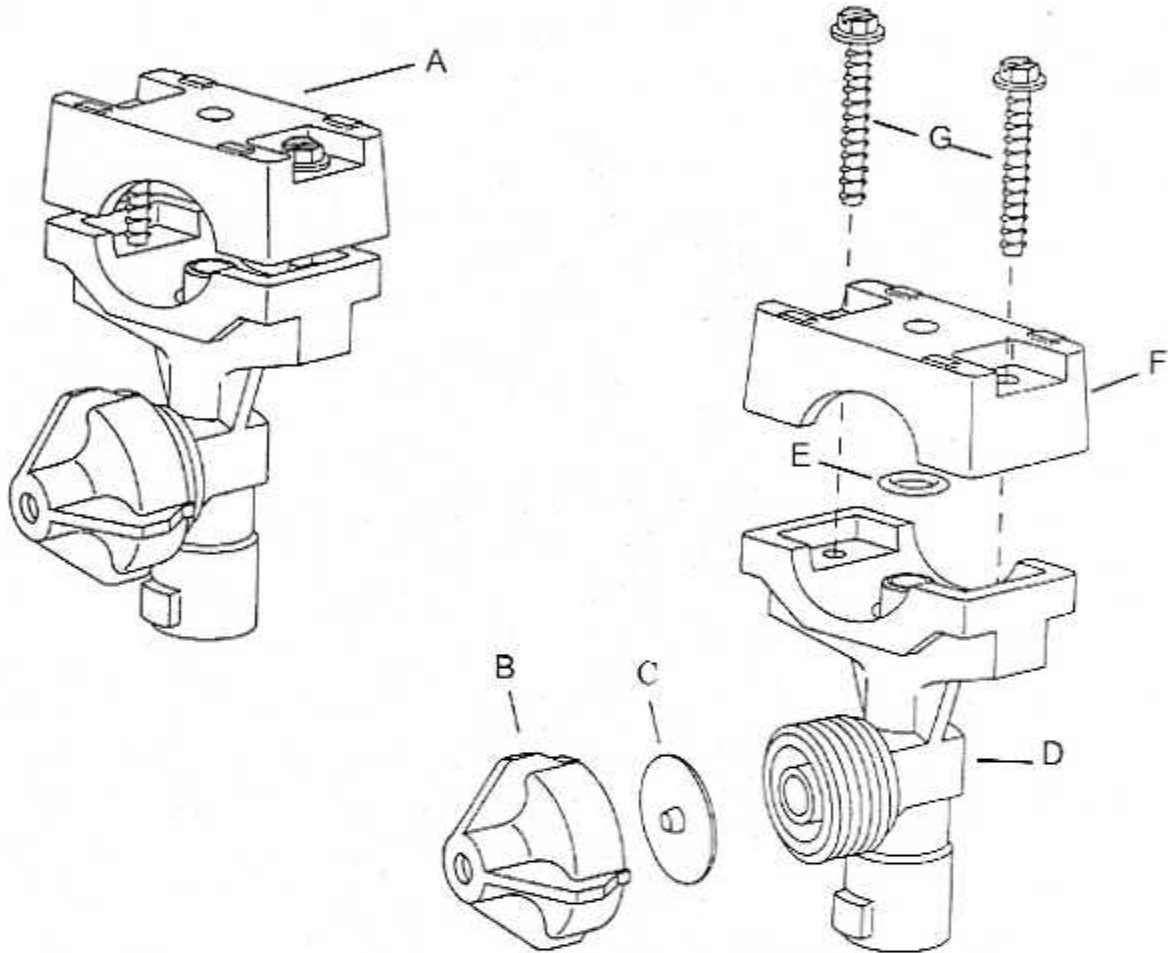
All pipe clips not numbered are as item number 48

Tank Assembly



ITEM 52 NOT SHOWN
CONTENT LABEL

Nozzle & Diaphragm Assembly



Nozzle & Diaphragm Assembly

Item	Part No.	Description	
A	W1566	Split Eyelet Connector DVC 1/2" Pipe	QJ17560-1/2"-NYB
B	W1596	Chemsaver End Cap Assembly	21950-10-NYB
C	W1597	Diaphragm EPDM Rubber	CP21953-EPR
D	W1602	Nylon Body	CP22403-NYB QJ17560-1/2"-NYB
E	W1601	'O' Ring BUNA-N	CP7717 2-110-UB
F	W1600	Upper Clamp Nylon	CP24276- NYB
G	W1621	Screw	Type 430, Stainless Steel

Parts List

Item Number	Quantity	Part Number	Description
1	1	W1106	Main Frame
2	1	W1619	Handle L/H
3	1	W1633	Handle R/H
4	6	W1130	M6 x 35 Hex Head Set Screw
5	10	W1036	M6 Plain Washer
6	6	W1041	M6 Nut
7	1	W1108	Plate - Pump
8	4	W1068	M4 Spring Washer
9	4	W1043	M4 Nut
10	2	W1113	Dowel Pin
11	1	W1345	12" Pneumatic Wheel PW400-4-4/11
12	2	W1028	Dowel Pin
13	2	W1112	Bush
14	2	W1110	Bush
15	2	W1111	Drive Washer
16	2	W1033	³ / ₈ " Spring Dome Nut
17	1	W1109	Axle
18	1	W1132	Circlip
19	1	W1353	Washer - Square
20	1	W1571	Hose Shank Connector NYB 8400-406
21	1	W1570	Wing Nut CP1803A - NYB
22	1	W1569	Inlet Connector ¹ / ₂ " Pipe QJ7421- ¹ / ₂ " - NYB
23	2	W1572	End Plug
24	2	W1566	Split Eyelet DCV for ¹ / ₂ " Tube QJ17560- ¹ / ₂ " NYB
25	2	W1568	Seal CB19438 EPR
26	2	W1574	2.0 TF VP Nozzle - Red
27	2	W1581	Nozzle Cap CP25599 - 1 NYB
28	2	W1575	3.0 TF VP Nozzle - Grey
29	1	W1116	¹ / ₂ " Bridge Clamp
30	1	W1117	¹ / ₂ " Rectangular Clamp
31	1	W1573	¹ / ₂ " IDx22" Long Durapipe PP ¹ / ₂ " Class 'E'47335
32	1	W2057	Pump
33	1	W1069	Outlet Securing Clip
34	1	W1279	¹ / ₂ " BSP Cap and Liner
35	1	W1276	Elbow & Nut ¹ / ₁₆ " NPT x ³ / ₈ " Hose Tail
36	1	W1415	³ / ₈ " ID x ¹ / ₈ " x 27" Long Tube (Tap to Tank)
37	1	W1166	¹ / ₄ " BSP x ³ / ₈ " Hose Tail Elbow
38	1	W1628	¹ / ₄ " BSP Ball Valve
39	1	W1121	¹ / ₄ " BSP x ³ / ₈ " Hose Tail
40	1	W1414	³ / ₈ " ID x ¹ / ₈ " x 24" Long Tube (Tap to Tee)
41	1	W1125	³ / ₈ " Equal Tee
42	1	W1413	³ / ₈ " ID x ¹ / ₈ " x 18" Long Tube (Tee to Boom Inlet)
43	1	W1276	Street Elbow ¹ / ₂ " BSP Male/Female
44	5	W1096	Stepless Clamp 22.6
45	2	W1006	Elbow
46	2	W1004	Elbow 'O' Ring
47	1	W1667	³ / ₈ " ID x ¹ / ₈ " x 8 ¹ / ₂ " Long Tube (Pump to Elbow)
48	8	W1126	Stepless Clamp 14.5
49	1	W1126	Tank Only
50	1	W1046	Filter
51	1	W1590	Decal
52	1	W1139	Content Label (not shown)
53	1	W3004	Tank Assembly (includes items 35,44,47,49,51,52,56,57,58,59,60,61)
54	1	W1134	Handle Grip - Black
55	1	W1629	Extension Tube ¹ / ₄ " Female/Female
56	1	W1668	⁵ / ₈ " ID x 2 ¹ / ₂ " Long Tube
57	1	W1635	¹ / ₂ " BSP Tank Connector - 8050151
58	1	W1636	¹ / ₂ " BSP Back Nut - 8042151
59	1	W1637	Gasket Washer - G00002008
60	1	W1666	⁵ / ₈ " ID x ¹ / ₈ " x 3 ¹ / ₂ " Long Tube (Elbow to Tank)
61	1	W1665	³ / ₈ " x ³ / ₈ " Hose Tail Elbow - 5858

Trouble shooting guide for Walkover Sprayers

Faults	Action to take
1. Nozzles failing to spray together.	<p>Check that the diaphragm control valve units are not over tightened. Slacken all control valve units and retighten finger tight, just stopping leaks when operating the machine.</p> <p>Diaphragm control valves should never be over tightened</p>
2. Nozzles failing to spray.	<p>Check your walking speed. You could be walking too slow to operate the unit.</p> <p>Taps in off position.</p> <p>Nozzle strainer or inline filter blocked.</p> <p><i>Air Lock.</i> Unscrew one diaphragm control valve unit, push or pull the machine until liquid flows. Tighten diaphragm control valve as in 1 above. Do not over tighten.</p> <p><i>Blocked Nozzle.</i> Remove nozzle cap by turning the cap one half turn anti-clockwise. Clean nozzle or replace. Replace cap and try machine again.</p>
3. Blocked tubes or tank.	<p>Remove diaphragm control valves and nozzle caps. Disconnect a convenient tube joint. Using the water pressure from a garden hose, force blockage through the system, increasing the water pressure as necessary. Reassemble when blockage is clear.</p>
4. Drop in pressure.	<p><i>Leak from pump.</i> Remove the pump from the machine and return to dealer for repair.</p> <p><i>Worn Pump.</i> If the pressure drops as your walking speed increases the pump is worn. Replace the pump.</p>

Faults	Action to take
4. Drop in pressure....continued	<p><i>Leak in pipe work or at pipe joints.</i> Replace pipe tube as necessary. Tighten or replace pipe clips as required.</p> <p><i>If pneumatic wheels fitted.</i> Check that the wheel is not spinning on the axle. Tighten the wheel nut as necessary.</p> <p>Change to a larger type nozzle</p>
5. Streaking - uneven spray pattern.	<p><i>Blocked or damaged nozzle.</i> Remove as in 2 and clean or replace.</p> <p><i>Material build up on nozzle.</i> Clean nozzle cut out, with stiff card.</p> <p><i>Nozzle incorrectly aligned.</i> Release nozzle cap by turning the cap one half turn anti-clockwise, realign nozzle and retighten the cap.</p> <p><i>Mixed nozzles.</i> You may have different nozzles fitted. Refit matching nozzles as required.</p>
<p><i>Machines fitted with a tap.</i></p> <p>6. Machine still sprays when the tap is turned off.</p>	<p>The return tube to the tank is blocked. Remove and flush with garden hose to clear blockage.</p> <p>If the unit is being towed, the towing speed is too fast.</p>

These instructions also apply to Walkover SiteLine machines.

Conversion Tables

To Convert	Multiply By
Feet to Metres	0.3048
Metres to Feet	3.2808
Yards to Metres	0.9144
Metres to Yards	1.9361
Sq. Metres to Sq Feet	10.7638
Sq Feet to Sq Metres	0.092903
Sq Yards to Sq Metres	0.83612
Sq Metres to Sq Yards	1.19599
Acres to Hectares	0.40468
Hectares to Acres	2.47105
Gallons to Litres	4.545
Litres to Gallons	0.22

1 Sq Foot	=	144 Sq Inches	=	0.0929 Sq Metres
1 Sq Yard	=	9 Sq Feet	=	0.8361 Sq Metres
1 Acre	=	4840 Sq Yards	=	4046.9 Sq Metres
1 Gallon	=	8 Pints	=	4.5461 Litres
American Liquid				
1 US Pint (16 fl. oz)	=	0.8327 Imp. Pints	=	0.4732 Litres
1 US Gallon	=	0.8327 Imp Gallons	=	3.7853 Litres

User Notes

