



3-POINT BOOM SPRAYERS

**Assembly, Operation &
Parts Manual For
Model GN100D-23,
GN150D-23 & GN200D-23**

February 2004

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Date of Purchase: _____

Model Number: _____

Serial Number: _____

INTRODUCTION

We welcome you as an owner of the *Gearmore 3-Point Hitch, Handgun-Boom Sprayer*.

Before you read on to the operation and maintenance of the sprayer, please read the following general information.

POWER SOURCE - The sprayer is designed to mount to any 540 R.P.M. tractor with a 3-point hitch.

PUMP - The pump on the sprayer is a diaphragm pump. Pistons power the diaphragms that pump the liquid. The unit has protection against corrosion, as the valves are stainless steel and other parts that come in contact with the liquid are plastic coated or brass.

TANK - The tank comes with a mechanical agitation system. It also has a sump so the tank can be completely drained.

STRAINERS - The sprayer is equipped with two strainers. A large filter screen is located under the tank cover and the main strainer located under the tank. When cleaning main strainer screen, make sure to turn shut-off valve handle 90 degrees from parallel position, which is off.

BEFORE OPERATING YOUR NEW SPRAYER

1. Inspect for damage and loose or missing parts. Make sure all fittings and drive components are secure.
2. Lubricate. (*See lubrication section for details*)
3. Check tank for any foreign objects.
4. Fill tank 1/2 full with clean water. **DO NOT** add spray chemicals until sprayer is started, adjusted and calibrated.

SPRAYER OPERATION

1. Connect sprayer to tractor 3-point hitch.
2. Connect up P.T.O. driveshaft, after you have checked to make sure the driveshaft is not too long.
3. Check strainer screen to make sure it is clean.
4. Check strainer shut-off valve, making sure the handle is parallel to piping - the open position.
5. Engage tractor P.T.O. and run for a couple of minutes to make sure your chemical is mixed.
6. Set regulator pressure as required.
IMPORTANT: The pressure regulator valve should be open (no pressure) before operating sprayer. Then gradually adjust to desired pressure. Failure to operate in this manner could cause a sudden surge, which could damage the sprayer pump.
7. If using a handgun to spray, just connect the hose to the hose fitting valve and turn on when using.
8. If you purchased the optional sprayer boom, connect the 3 hoses from the boom to the 3 on-off valves. Turn hand valves on or off depending on your requirements for left, right or full boom spraying.

The boom nozzle spray tips are a general purpose flat fan type. If other sizes or types are required, use "Spray Systems" or equal.

LUBRICATION

DRIVESHAFT - The driveshaft comes not greased, so it must be done before sprayers is put to use. After that, grease *every 8 hours*. It is also necessary, from time to time, to untelescope the driveshaft to clean and re-grease tubings.

PUMP - The clear oil reservoir should be filled to the indicator mark. If oil is low, add SAE 30 weight engine oil, non-foaming. The pump is equipped with a pressure accumulator to prevent vibration.



WARNING: The air pressure in the pulsation damper should *never* exceed the working pressure of the pump. The air pressure in the damper should be 10% of working pressure. Minimum charge should be 10 PSI.

MECHANICAL AGITATOR - The large brass hex nut on the end of agitator shaft has packing inside to prevent leaks. In addition, a grease zerk is provided and should be greased *every 8 hours*. If leaking occurs after greasing, the packing may have to be tightened by turning the brass nut. (Be careful to **NOT** overtighten the nut) If leaking still occurs, the packing may have to be replaced.

GENERAL MAINTENANCE

Carefully follow all instructions as stated in this operator's manual. This includes lubrication, maintenance and operation of the sprayer. The sprayer was designed and built for years of reliable service, if properly cared for. However, a sprayer is a precision machine, thus daily attention is required.

- ✓ Check bolts for tightness.
- ✓ Check sprayer for leaks.
- ✓ Check agitator belt for operation.
- ✓ Check lubrication - *See Lubrication Section*

CLEANING & STORAGE

1. Wash and flush out sprayer after completion of each phase of your spraying program.
2. Flush out sprayer when changing chemicals if there is a possibility of incompatibility.
3. Clean sprayer very thoroughly before storing at the end of the spraying season. If you are in a cold climate, final rinse should be with a sufficiently concentrated anti-freeze to prevent freeze-up in areas that were not thoroughly drained.
4. Check sprayer over for needed repairs before time to spray again.
5. Preparing the sprayer for use in the Spring means completion of all needed repairs, installation of all drain plugs and checking sprayer for leaks with a tank of water.

SAFETY TIPS

- ◆ Sprayer should be operated only by qualified persons.
- ◆ **ALWAYS** fill sprayer slowly to avoid spillage.
- ◆ When starting sprayer, maintain a safe distance from moving parts.
- ◆ **NEVER** run P.T.O. at speeds in excess of 540 R.P.M.
- ◆ **DO NOT** make adjustments when sprayer is running, unless specifically recommended.
- ◆ **NEVER** leave sprayer unattended while it is running.
- ◆ Keep hands, feet and clothing away from all moving parts.
- ◆ Handle chemicals carefully; follow the manufacturer's directions for mixing and applying chemicals.

GENERAL SAFETY INFORMATION



WARNING: DO NOT PUMP FLAMMABLE OR EXPLOSIVE FLUIDS, SUCH AS GASOLINE, FUEL OIL, KEROSENE, ETC. DO NOT USE IN EXPLOSIVE ATMOSPHERES. THE PUMP SHOULD BE USED ONLY WITH LIQUIDS COMPATIBLE WITH THE PUMP COMPONENT MATERIALS. FAILURE TO FOLLOW THIS WARNING CAN RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID THE PRODUCT WARRANTY.

Use of pressure relief device on the discharge side of pump is required to prevent damage from pressure build up if the discharge is closed or blocked while the power source is still running.

DO NOT operate pump above recommended R.P.M.

DO NOT pump at pressure higher than the maximum recommended for the pump (*see Specifications*).

Operate pump between 45° and 145° F liquid temperatures.

Make certain that the power source conforms to the requirements of your equipment.

Provide adequate protection in guarding around the moving parts, such as the shaft and pulleys.

Disconnect power before servicing.

Release all pressure within the system before servicing any component.

Drain all liquids from the system before servicing.

Secure the discharge lines before starting the pump. An unsecured discharge line may whip, causing personal injury and/or property damage.

Check hoses for weak or worn condition before each use. Make certain that all connections are tight and secure.

Periodically inspect the pump and the system components. Perform routine maintenance as required (*see Maintenance Section*).

DO NOT operate a gasoline engine in an enclosed area. Be sure the area is well ventilated.

Use only pipe, hose and fittings rated for maximum rated pressure of pump or pressure at which pressure relief valve is set. Check with local supplier for proper pressure rating. **DO NOT** use used pipe

DO NOT use these pumps for pumping water or other liquids for human or animal consumption.

PUMP MAINTENANCE

The pump is serviced, tested and ready for use. Nevertheless, before starting the pump, we advise checking the oil level.

The oil level should be filled to the mark on the plastic tube.

When adding oil, remove oil filter cap and fill to level mark with SAE 30 weight engine oil.

The pressure accumulator is an important part of the pump, as it prevents pulsation. Therefore, it is necessary to make sure the accumulator pressure is approximately 10% of pump working pressure. To check pressure or add air, remove cap.

- ▶▶ After use, flush pump with clean water.
- ▶▶ Change oil and diaphragms *every 500 hours*. To drain oil from pump, remove drain plug and rotate the shaft until the oil stops flowing out. To fill pump with oil, slowly pour oil into sight tube while turning the pump shaft. Turning the pump shaft purges all the air out of the crankcase. **Always** change oil when replacing diaphragms.
- ▶▶ For winter storage, or if a freezing condition will be encountered, flush pump with a 50/50 mixture of water and anti-freeze.

DIAPHRAGM & VALVE REPLACEMENT

I. Valve and O-Ring Replacement

1. Occasionally debris can cause the valves to not seat properly or damage the o-rings. To check for this problem follow these steps:
 - A. Remove the pump manifold. (*See Parts List for your model.*) With manifold removed, valves can readily be removed and checked for debris or wear.

To replace valves or o-rings, refer to Parts List for appropriate kits.

II. Diaphragm Replacement

1. Drain the oil from the pump by removing drain plug. Rotate the shaft to remove excess oil.
2. Remove the pump manifold according to step A in section I - Valve and O-Ring Replacement.
3. Use a 13mm box wrench to remove the diaphragm retaining bolt, support washer and diaphragm.

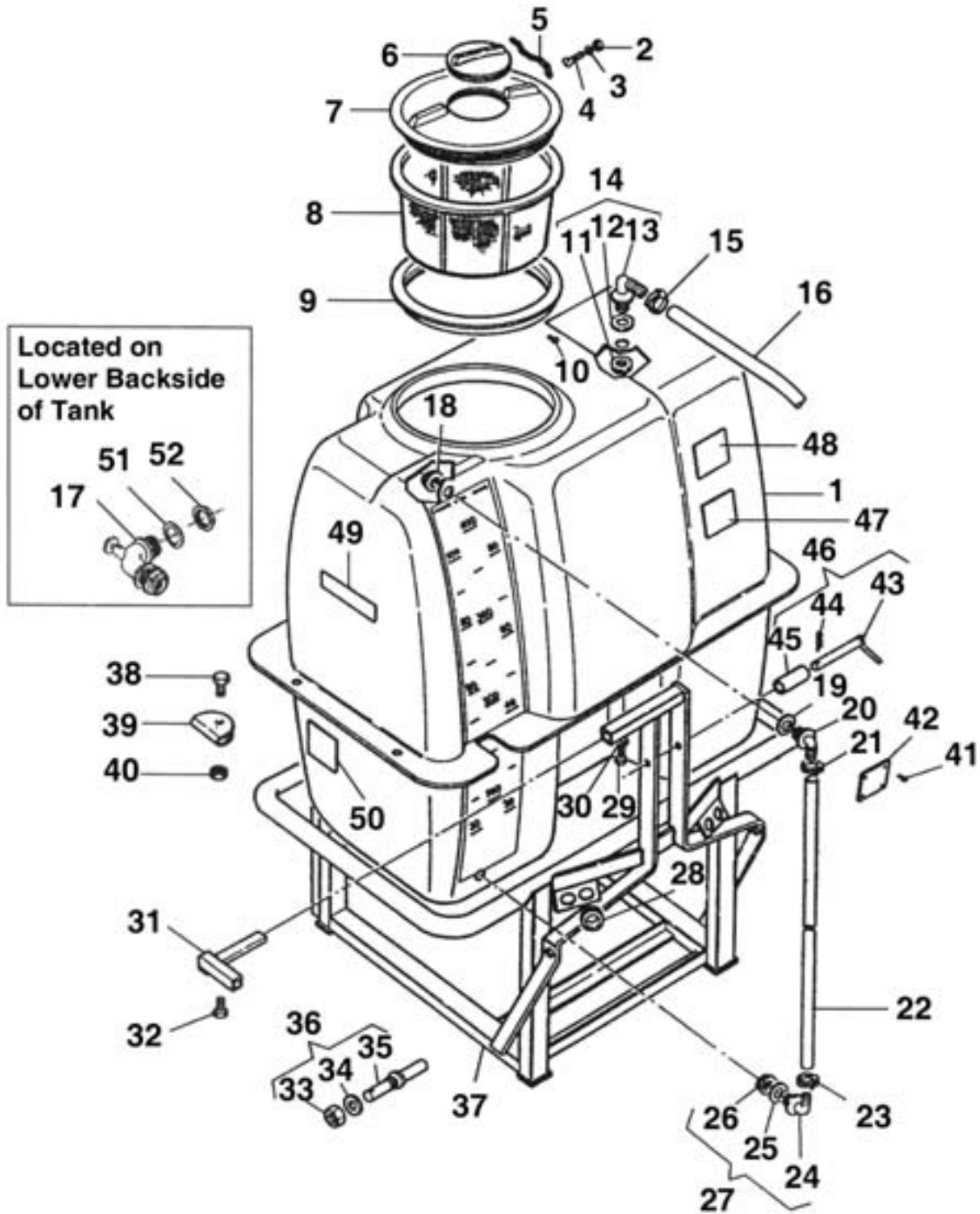
To replace diaphragms order appropriate repair kit. (*see Parts List*)

4. Turn the crankshaft to bring the piston to its downstroke and seat the new diaphragm into the sleeve groove. Install retaining washer and tighten nut.
5. Refill crankcase with 30W oil. Rotate the shaft to distribute oil and fill to proper level.

TROUBLESHOOTING

PROBLEM:	CAUSE:	REMEDY:
The pump does not draw water	<p>One or more valves are seating improperly.</p> <p>Suction line is plugged or collapsed. Clogged strainer.</p>	<p>Examine the valve seatings and clean them.</p> <p>Examine suction line. Clean strainer.</p>
Pressure gauge fluctuates excessively	The pump is sucking in air through the suction union or air has not been entirely evacuated from the pump.	<p>Examine the suction hose and make sure it is firmly secured.</p> <p>Run the pump with the outlet hose open to evacuate air from pump.</p>
The liquid flow is irregular	<p>The charge in the pulsation damper is incorrect.</p> <p>One or more valves are seating improperly.</p>	<p>Check pressure in pulsation damper (10% working pressure).</p> <p>Examine the valve seatings and clean them.</p>
Output drops and the pump is noisy	Oil level is too low.	Add oil to correct level (halfway up the sight tube).
Oil comes out of the discharge port	One or more diaphragms split.	Drain the pump of oil. Dismantle the heads and fit new diaphragms. Fill to correct oil level with motor oil (30W).

TANK & FRAME ASSEMBLY



TANK & FRAME ASSEMBLY

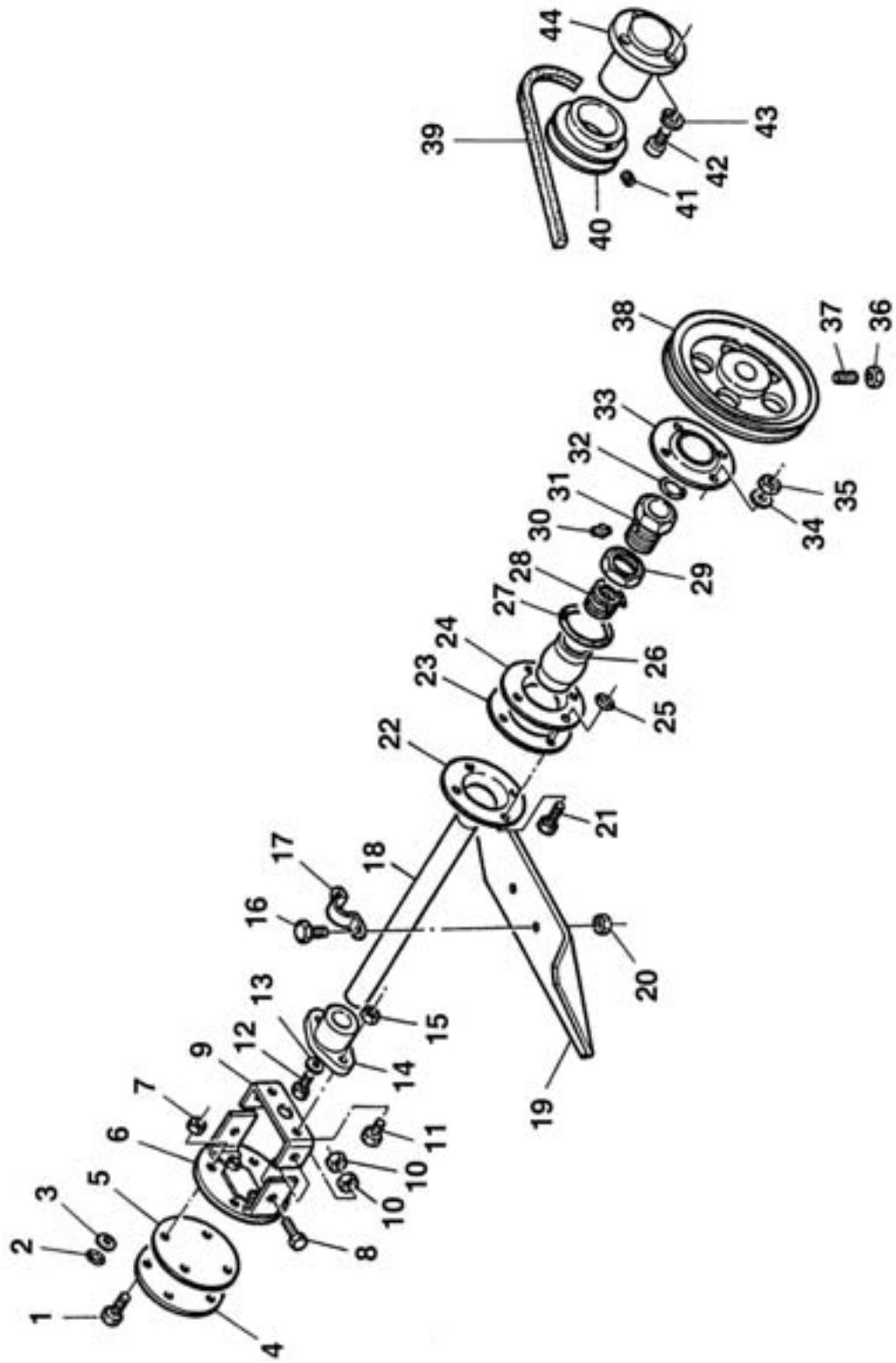
<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	0600031	100 Gallon Tank
1	1	0600030	150 Gallon Tank
1	1	0600021	200 Gallon Tank
2	1	1800177	Nut M5 SS
3	9	1800113	Washer 6.4 x 12.5 SS
4	1	1800003	Bolt TPS M5 x 12 SS
5	1	1400007	Plastic Chain 3.5 L=300
6	1	0600007	Vent Lid
7	1	0600020	Tank Cover GN100D 14" O.D.
7	1	0600006	Tank Cover GN150D/GN200D 17 7/8" O.D.
8	1	0600019	Tank Filter GN100D
8	1	0600005	Tank Filter GN150D/GN200D
9	1	0600054	Tank O-Ring GN100D
9	1	0600014	Tank O-Ring GN150D/GN200D
10	12	1800350	Rivet 3 x 9 Aluminum
11	1	1400001	Ring Nut 1/2
12	1	1700027	O-Ring 27.28 x 20.22 x 3.53
13	1	1400062	Curve Connector 1/2 G
14	1	1400114	Complete Curve Connector 20
15	2	1500003	Strap Ring 18 x 25
16	1	1600170	Hose 20 x 30 10 Bar L=950 - GN100D
16	1	1600174	Hose 20 x 30 10 Bar L=1200-GN150D/GN200D
17	1	1400212	Drain Valve
18	2	0600050	Ring Nut
19	2	0600049	Gasket 17 x 27
20	2	0600048	Curve Connector 13
21	2	0600051	Strap Ring
22	1	0600052	Hose 12 x 17 L=780 - GN100D
22	1	0600055	Hose 12 x 17 L=760 - GN150D/GN200D
23	2	0600051	Strap Ring
24	2	0600048	Curve Connector 13
25	2	0600049	Gasket 17 x 27
26	2	0600050	Ring Nut
27	1	0600053	Complete Curve Connector 13
28	4	2900001	Rubber Protection 22
29	2	1800063	Bolt M10 x 20
30	5	1800131	Washer 11 x 30
31	1	0100236	Valve Register
32	2	1800063	Bolt M10 x 2
33	2	2100021	Nut, Double Pin
34	2	2100020	Washer, Double Pin
35	2	2100022	Double Pin

Continued....

TANK & FRAME ASSEMBLY

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
36	2	2100007	Complete Double Pin
37	1	0100471	Frame GN100D
37	1	0100477	Frame GN150D
37	1	0100472	Frame GN200D
38	4	1800072	Bolt M10 x 80 GN100D
38	4	1800048	Bolt M10 x 120 GN150D/GN200D
39	4	0100206	Tank Washer
40	8	1800186	Self Lock Nut M10
41	12	1800350	Rivet 3 x 9 Aluminum
42	1	2600009	Label Code Small
43	1	0100203	Pin D.18
44	1	2100001	Hair Pin D.3
45	1	2100008	Spacer 19.4 x 25.4 x 51
46	1	0100504	Complete Pin 18
47	1	2600002	Decal "BE CAREFUL"
48	1	2600001	Decal "WARNING"
49	2	2600015	Decal "GEARMORE" 220 x 75
50	1	2600007	Decal "FILTER"
51	1	1700015	Gasket 60 x 40 x 4
52	1	1400009	Ring Nut

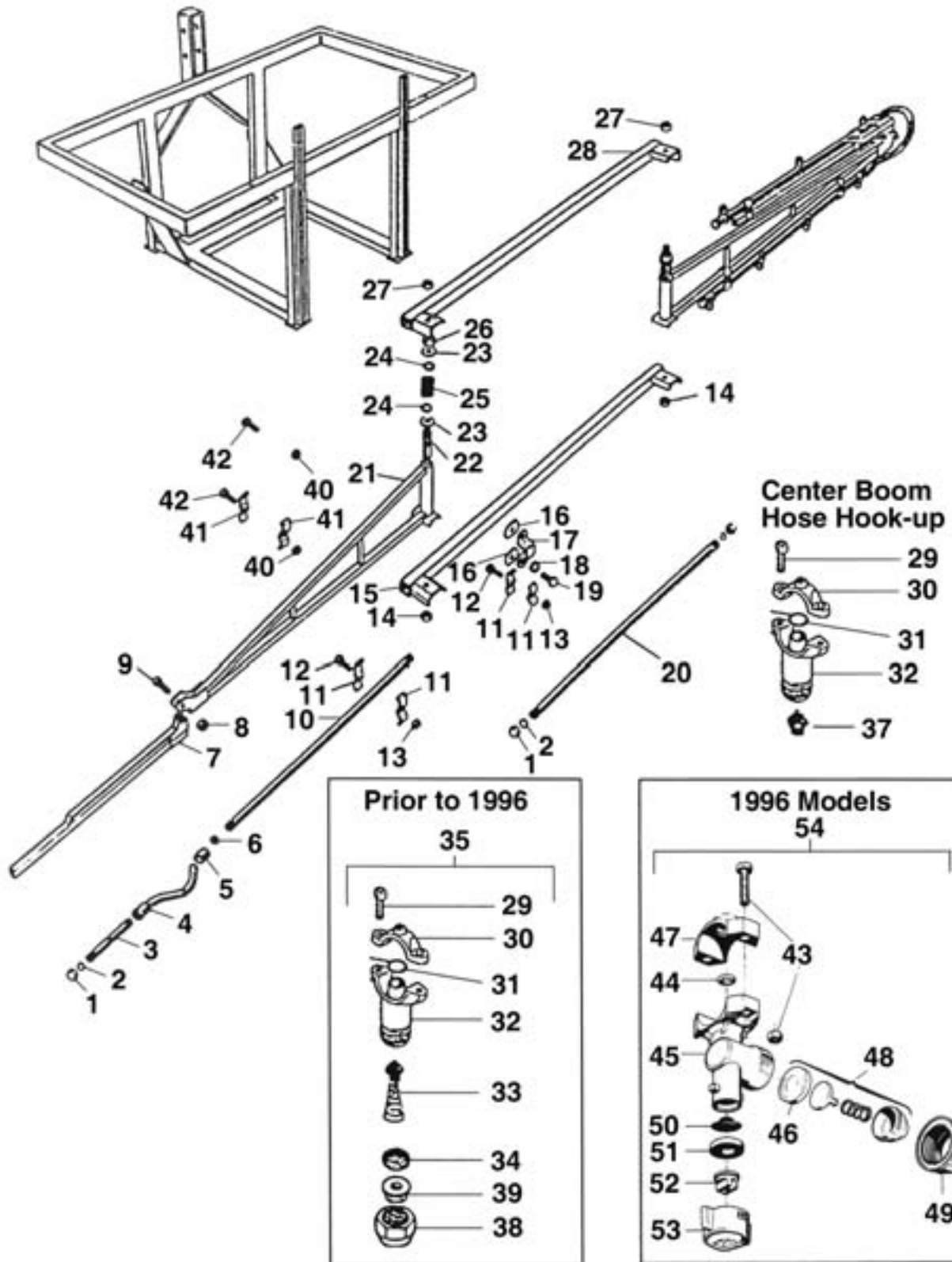
AGITATOR ASSEMBLY



AGITATOR ASSEMBLY

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	12	1800012	Bolt M6 x 25 SS
2	8	1700005	O-Ring 8.84 x 5.28 x 1.78
3	9	1800113	Washer 6.4 x 12.5 SS
4	1	0100039	SS Blind Flange
5	1	1700008	Gasket 80 x 3
6	1	0100044	Female Clamp
7	16	1800182	Nut M6 SS
8	12	1800012	Bolt M6 x 25 SS
9	1	0100430	Male Clamp "A"
10	16	1800182	Nut M6 SS
11	12	1800012	Bolt M6 x 25 SS
12	1	1800079	Bolt TPSEI M6 x 16 SS
13	1	1800125	Washer 9 x 24 SS
14	1	0100431	Shaft Support "A"
15	16	1800182	Nut M6 SS
16	2	1800010	Bolt M6 x 16 SS
17	1	0100041	SS Clamp 16
18	1	0100439	Agitator Shaft 16 L=230 GN100D
18	1	0100438	Agitator Shaft 16 L=360 GN150D/GN200D
19	1	0100204	Agitator Mechanical Fan 200 x 55 x 2
20	16	1800182	Nut M6 SS
21	12	1800012	Bolt M6 x 25 SS
22	3	0100031	SS Flange
23	1	1700007	Gasket 80 x 46 x 3
24	3	0100031	SS Flange
25	8	1700005	O-Ring 8.84 x 5.28 x 1.78
26	1	0100040	Agitator Mechanical Ball
27	1	1700004	O-Ring 44.75 x 37.69 x 3.53
28	1	1700003	Gasket 4 L=450
29	1	0100030	Nut 3/4
30	1	1800300	SS Hydraulic Greaser M6
31	1	0100029	Nut 3/4
32	1	1700002	O-Ring 20.22 x 15.08 x 2.62
33	3	0100031	SS Flange
34	9	1800113	Washer 6.4 x 12.5 SS
35	16	1800182	Nut M6 SS
36	3	1800180	Nut M8
37	1	1800293	Set Screw M8 x 30
38	1	2300001	Pulley 130 1 A/16
39	1	2200019	Belt A 20 GN100D
39	1	2200004	Belt A 23 GN150D/GN200D
40	1	2300002	Pulley 65 1 A/35
41	1	1800290	Set Screw M8 x 10
42	3	1800034	Bolt TCEI M10 x 20
43	3	1800129	Washer Grower 10.5 x 17.5
44	1	0100232	Pulley Support

SPRAYER BOOM



SPRAYER BOOM

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4	0100097	Blind Plug 1/2
2	4	1700021	Gasket 19
3	2	2000011	SS Tube 20/500
4	2	1600024	Complete Hose 10 x 19 L=620
5	4	1300003	Self Lock Nut Connector 10 x 19
6	4	1700010	Gasket
7	2	0100111	Support G28B
8	2	1800186	Self Lock Nut M10
9	2	1800041	Bolt M10 x 45
10	2	2000018	SS Tube 20/500 G14B
10	2	2000002	SS Tube 20/500 G20B
10	2	2000011	SS Tube 20/500 G28B
11	12	0100098	Plate
12	6	1800059	Bolt M8 x 25
13	6	1800180	Nut M8
14	2	1800200	Nut M16
15	1	0100102	Inferior Support G14B & G20B
16	8	0100107	Plate
17	4	0100108	Clamp
18	8	1800130	Washer 10
19	8	1800036	Bolt M10 x 25
20	1	2000012	SS Tube 20/500 G14B & G20B
20	1	2000003	SS Tube 20/500 G28B
21	2	0100118	Support G14B
21	2	0100104	Support G20B
21	2	0100110	Support G28B
22	2	0100105	Pin
23	4	0100106	Washer 20 x 55
24	4	1800165	Washer 20
25	2	2500002	Spring
26	2	1800212	Nut M20 x 1.5
27	2	1800195	Nut M14
28	1	0100103	Superior Support G14B & G20B
29	18-34	1800002	Bolt M5 x 16
30	9-17	0800004	Nozzle Buckle
31	9-17	1700020	O-Ring 10
32	9-17	0800062	Nozzle Body
33	9-17	1400036	Anti-Drip
34	9-17	1400037	Filter
35	9-17	0800076	Complete Nozzle Assembly
36	9-17	1700022	Gasket 10
37	1	1300022	Nipple MF 1/2 - 3/8
38	9-17	0800071	Ring Nut
39	9-17	0800072	80 Boom Nozzle (Brass)
40	6	1800179	Nut M6

Continued.....

SPRAYER BOOM

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
41	2	0100112	Support
42	6	1800014	Bolt M6 x 20
43	18-34	400100	Bolt & Nut
44	9-17	400020.030	O-Ring D.6 x 2.5
45	9-17	402225.010	Nozzle Body
46	9-17	00226010	Diaphragm, Anti-Drip
47	9-17	400020.020	Nozzle Clamp
48	9-17	00226011	Anti-Drip Assembly
49	9-17	00226002	Nut 3/4" GAS
50	9-17	02311000	Filter
51	9-17	02309010	Gasket
52	9-17	30-04F80RE	Jet 80° (Red)
52A	9-17	30-03F220UB	Jet 110° (Blue)
53	9-17	402900	Cap, Quick Coupling
54	9-17	402225	Complete Nozzle Assembly (96)

NOZZLE SPACING

$$\text{GPM (Per Nozzle)} = \frac{\text{GPA} \times \text{MPH} \times \text{W}}{5940}$$

$$\text{GPA} = \frac{5940 \times \text{GPM (Per Nozzle)}}{\text{MPH} \times \text{W}}$$

GPM - Gallons Per Minute

GPA - Gallons Per Acre

MPH - Miles Per Hour

- W - Nozzle spacing in inches for broadcast spraying
- Spray width in inches for single nozzles, band spraying or boomless spraying
- row spacing in inches divided by the number of nozzles per row for directed spraying

Tractor Speeds

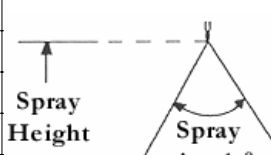
Speed in MPH (Miles Per Hour)	Time Required in SECONDS to Travel a Distance of:		
	100 feet	200 feet	300 feet
3.0	23	45	68
3.5	20	39	58
4.0	17	34	51
4.5	15	30	45
5.0	14	27	41
6.0		23	34
7.0		19	29
7.5		18	27
8.0		17	26
9.0		15	23

If the nozzle spacing on your boom is different than those tabulated, multiply the tabulated GPA coverages by one of the following factors.

Where Tables Are Based on 20" Nozzle Spacing							
Other Spacing	8"	10"	12"	14"	16"	18"	22"
Conversion Factor	2.5	2	1.7	1.4	1.3	1.1	0.9

Where Tables Are Based on 40" Nozzle Spacing							
Other Spacing	28"	30"	32"	34"	36"	38"	42"
Conversion Factor	1.4	1.3	1.3	1.2	1.1	1.1	1

SUGGESTED MINIMUM SPRAY HEIGHTS

Spray Angle	Spray Height	
	20" Spacing	
65	22" to 24"	
73	20" to 22"	

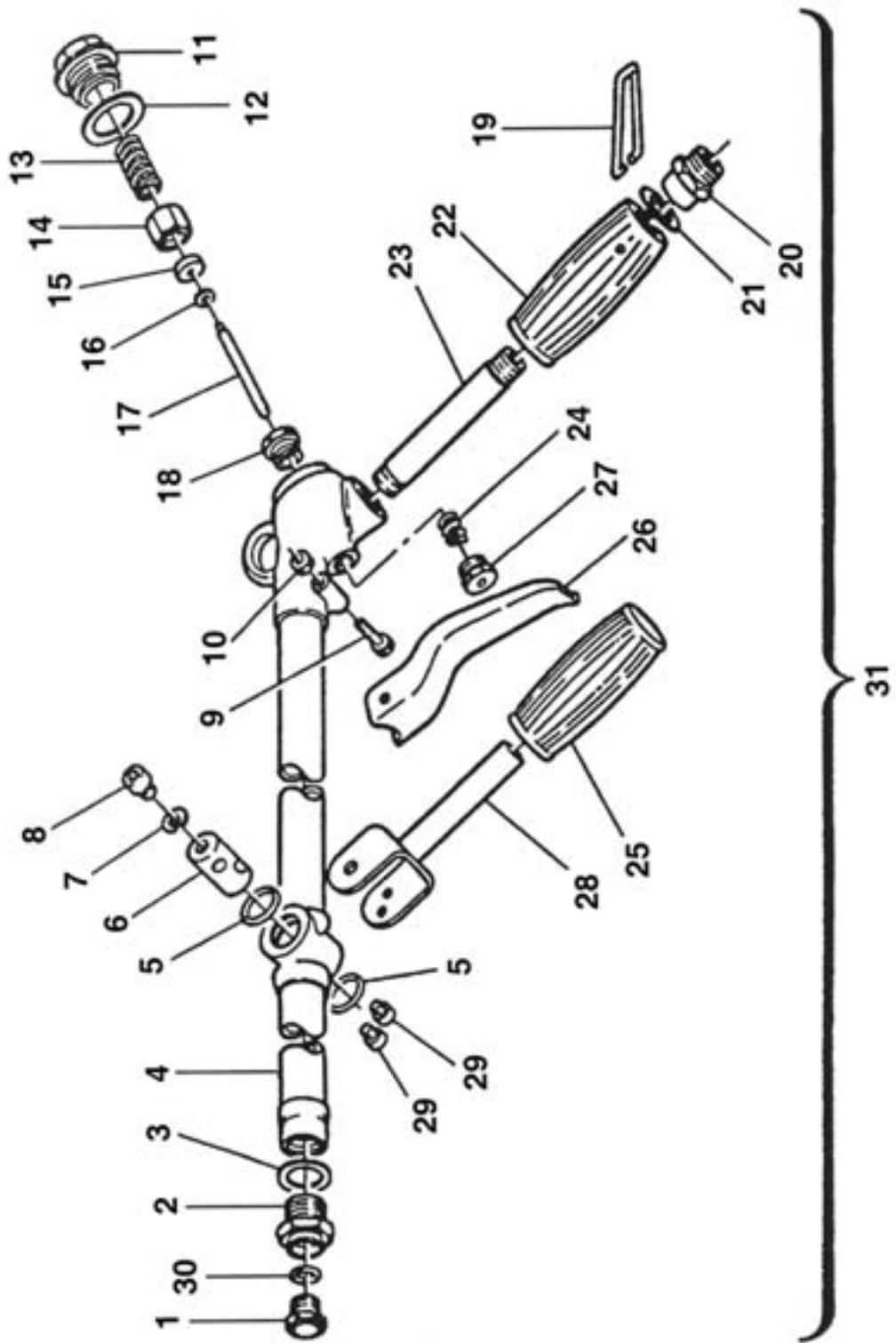
°Spray angles apply to flat spray tips spraying at rated pressure of 40 P.S.I. Lower pressures will result in reduced spray angles, except for the XR Teejet.



**Adjust spray height in the field to overlap approximately 30% of each edge of pattern.

Tip Color	Tip No. (Strainer Screen Size)	Liquid Pressure in PSI	Capacity 1 Nozzle in GPM	Gallons Per acre - 20" Spacing			
				4 MPH	5 MPH	6 MPH	7 MPH
Orange	8001 LP (100 Mesh)	15	.10	7.4	5.9	5.0	4.2
		20	.12	8.6	6.9	5.7	4.9
		30	.14	10.5	8.4	7.0	6.0
		40	.16	12.1	9.7	8.1	6.9
Green	80015 LP (50 Mesh)	15	.15	11.1	8.9	7.4	6.4
		20	.17	12.9	10.3	8.6	7.4
		30	.21	15.8	12.6	10.5	9.0
		40	.24	18.1	14.5	12.1	10.4
Yellow	8002 LP (50 Mesh)	15	.20	14.9	11.9	9.9	8.5
		20	.23	17.2	13.7	11.4	9.8
		30	.28	21.0	16.8	14.0	12.0
		40	.33	24.0	19.4	16.1	13.8
Blue	8003 LP (50 Mesh)	15	.30	22	17.8	14.9	12.7
		20	.35	26	21.0	17.2	14.7
		30	.42	32	25.0	21.0	18.0
		40	.49	36	29.0	24.0	21.0
Red	8004 LP (50 Mesh)	15	.40	30	27	19.8	17.0
		20	.46	34	27	23.0	19.6
		30	.57	42	34	28.0	24.0
		40	.65	48	39	32.0	28.0
Brown	8005 LP (50 Mesh)	15	.50	37	30	25	21
		20	.58	43	34	29	25
		30	.71	53	42	35	30
		40	.82	61	48	40	35
Grey	8006 LP (No Strainer)	15	.60	45	36	30	25
		20	.69	51	41	34	29
		30	.85	63	50	42	36
		40	.98	73	58	48	42
White	8008 LP (No Strainer)	15	.80	59	48	40	34
		20	.92	69	55	46	40
		30	1.10	84	67	56	48
		40	1.30	97	78	65	55
	8010 LP (No Strainer)	15	1.0	74	59	50	42
		20	1.2	86	69	57	49
		30	1.4	105	84	70	60
		40	1.6	121	97	81	69

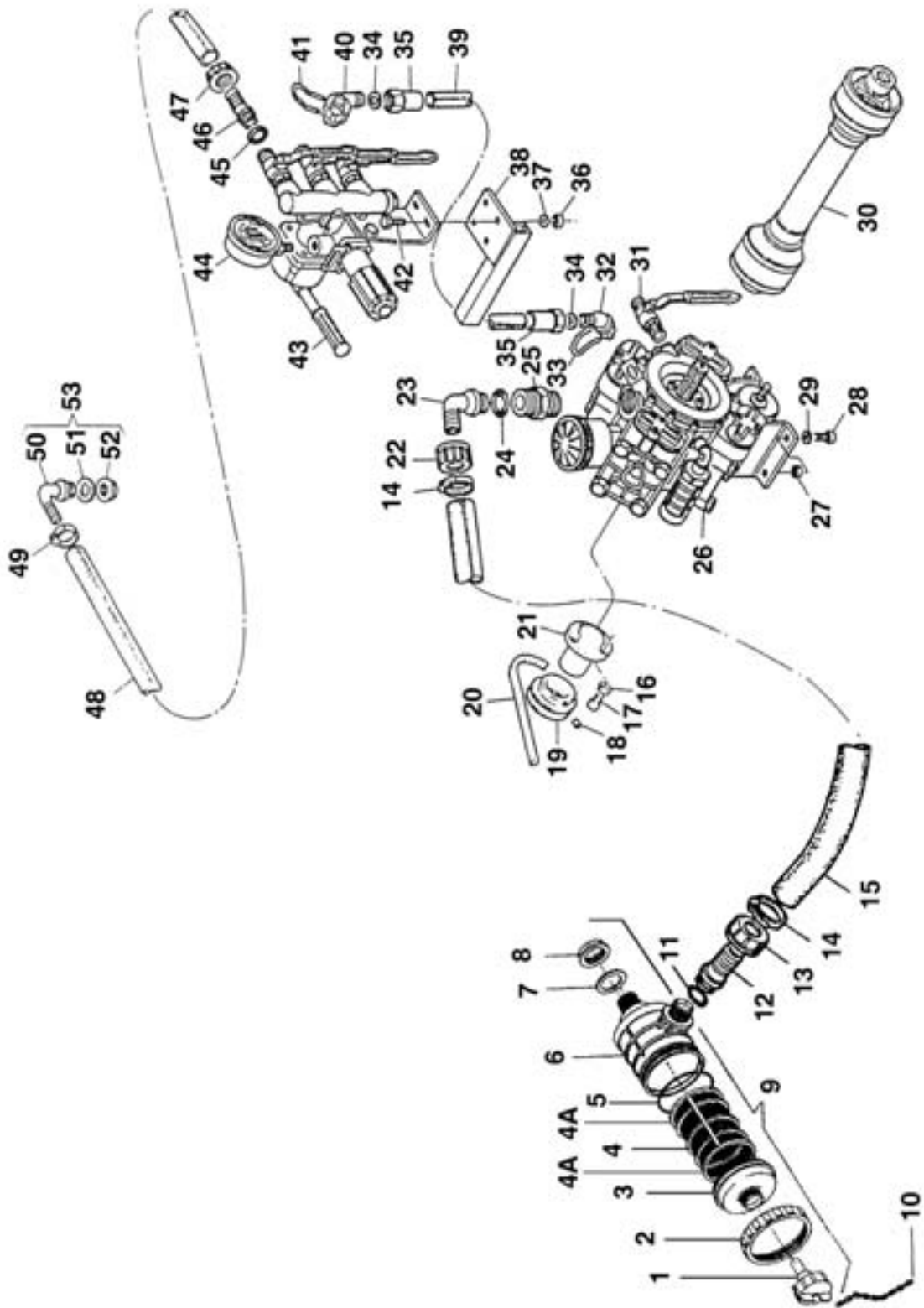
TOMMY GUN (GHT)



TOMMY GUN (GHT)

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	0800080	Nozzle 1.5
1	1	0800081	Nozzle 1.8
1	1	0800082	Nozzle 2.0
1	1	0800083	Nozzle 2.8
1	1	0800084	Nozzle 3.0
1	1	0800085	Nozzle 3.5
2	1	0800086	Jet Support
3	1	0800087	Gasket
4	1	0800088	Body
5	2	0800089	Gasket
6	1	0800090	Bushing
7	1	0800091	Washer
8	1	0800092	Bolt
9	1	0800093	Bolt
10	1	0800094	Nut
11	1	0800095	Plug
12	1	0800096	Gasket
13	1	0800097	Spring
14	1	0800098	Nut
15	1	0800099	Washer
16	1	0800100	Washer
17	1	0800101	Pin
18	1	0800102	Nut
19	1	0800103	Spring
20	1	0800104	Plug
21	1	0800105	Gasket
22	1	0800106	Handle
23	1	0800107	Shaft
24	1	0800108	Gasket
25	1	0800109	Handle
26	1	0800110	Lever
27	1	0800111	Plug
28	1	0800112	Fork
29	2	0800113	Bolt
30	1	0800114	Gasket
31	1	GHT	Complete Handgun

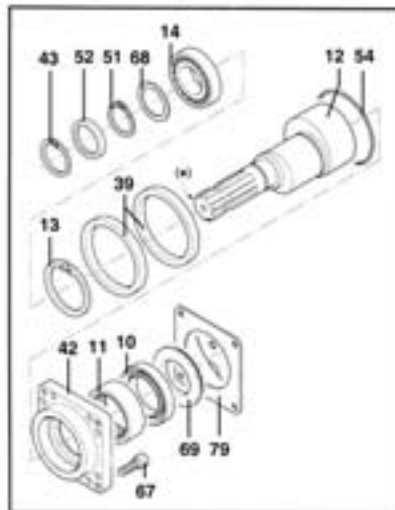
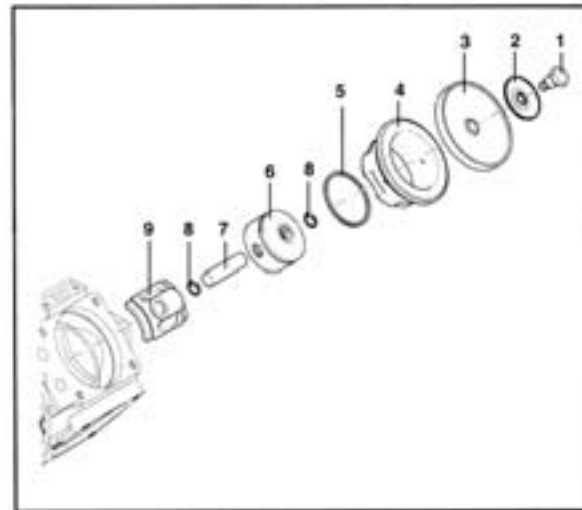
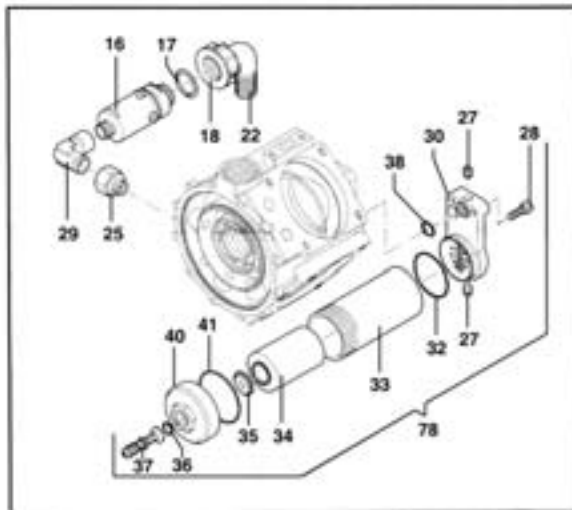
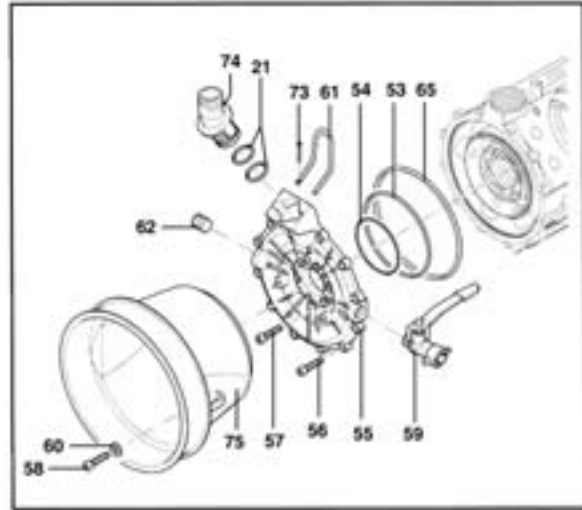
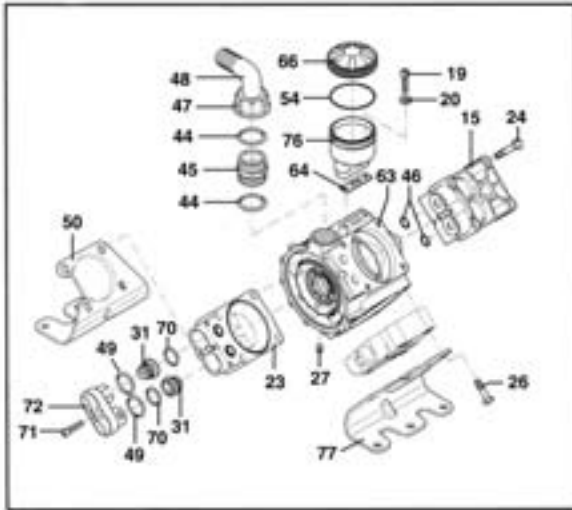
RUN OF FLUIDS



RUN OF FLUIDS

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	1400205	Shut-Off Valve
2	1	1400206	Ring Nut
3	1	1400207	Filter Cap
4	2	1400208	Strainer 50 Mesh
4A	2	OR7112262	O-Ring 71.12 x 2.62
5	1	OR9462533	O-Ring 94.62 x 5.33
6	1	1400210	Filter Body
7	1	1700015	Gasket 60 x 40 x 4
8	1	1400009	Ring Nut 1 1/2"
9	1	1400197	Filter Assembly
10	1	1400007	Plastic Chain D.3.5 L=300
11	1	1700012	O-Ring 31.89 x 26.65 x 2.62
12	1	1400048	Connector 30
13	1	1400013	Ring Nut 1 1/4"
14	2	1500005	Strap Ring 35 x 50
15	1	1600058	Hose 30 x 42 10 Bar L=650
16	3	1800129	Washer Grower 10.5 x 17.5
17	3	1800034	Bolt TCEI M 10 x 20
18	1	1800293	Bolt STEI M 8 x 10
19	1	2300002	PULley 65 1 A/35
20	1	2200019	Belt A 20
21	1	0100232	Pulley Support
22	1	0200042	Ring Nut
23	1	0200043	Connector 30
24	1	390290	O-Ring 29 x 3
25	1	580030	Inlet Nipple 1 1/4 x 1 1/4 M-M
26	1	AR1064	Pump
27	8	1800186	Self Lock Nut M10
28	4	1800036	Bolt TE M 10 x 25
29	5	1800131	Washer 11 x 30
30	1	7104056FFT077	Cardan Shaft #4
31	4	30491	Valve 3/8 - 1/2 Right Hand
32	1	1040760	Pressure Outlet 3/4 "G" Male
33	2	0200091	Fork
34	2	1700025	O-Ring 23 x 17 x 3
35	2	1300004	Complete Self Lock Connector 13 x 24 3/4
36	2	1800180	Nut M8
37	2	1800120	Washer 8.4 x 17
38	1	0100503	Valve Support VDR
39	1	1600064	Complete Hose 13 x 24 75 Bar L=750 Conn. 3/4
40	1	1040770	Fitting
41	2	1040690	Lock Clip
42	2	1800021	Bolt TE M 8 x 20
43	1	VDR50S	Valve VDR 50 S
44	1	0200058	Gauge 50 Bar 1/4"
45	1	0200049	O-Ring 23.81 x 2.62 T.132
46	1	0200072	Connector 25
47	1	0200051	Ring Nut
48	1	1600170	Hose 20 x 30 10 Bar L=950
49	2	1500003	Strap Ring 18 x 25
50	1	1400042	Connector 25 3/4"
51	1	1700011	Gasket 40 x 26 x 2
52	1	1400026	Ring Nut 3/4
53	1	1400115	Complete Curve Connector

AR1064 PUMP ASSEMBLY



AR1064 PUMP ASSEMBLY

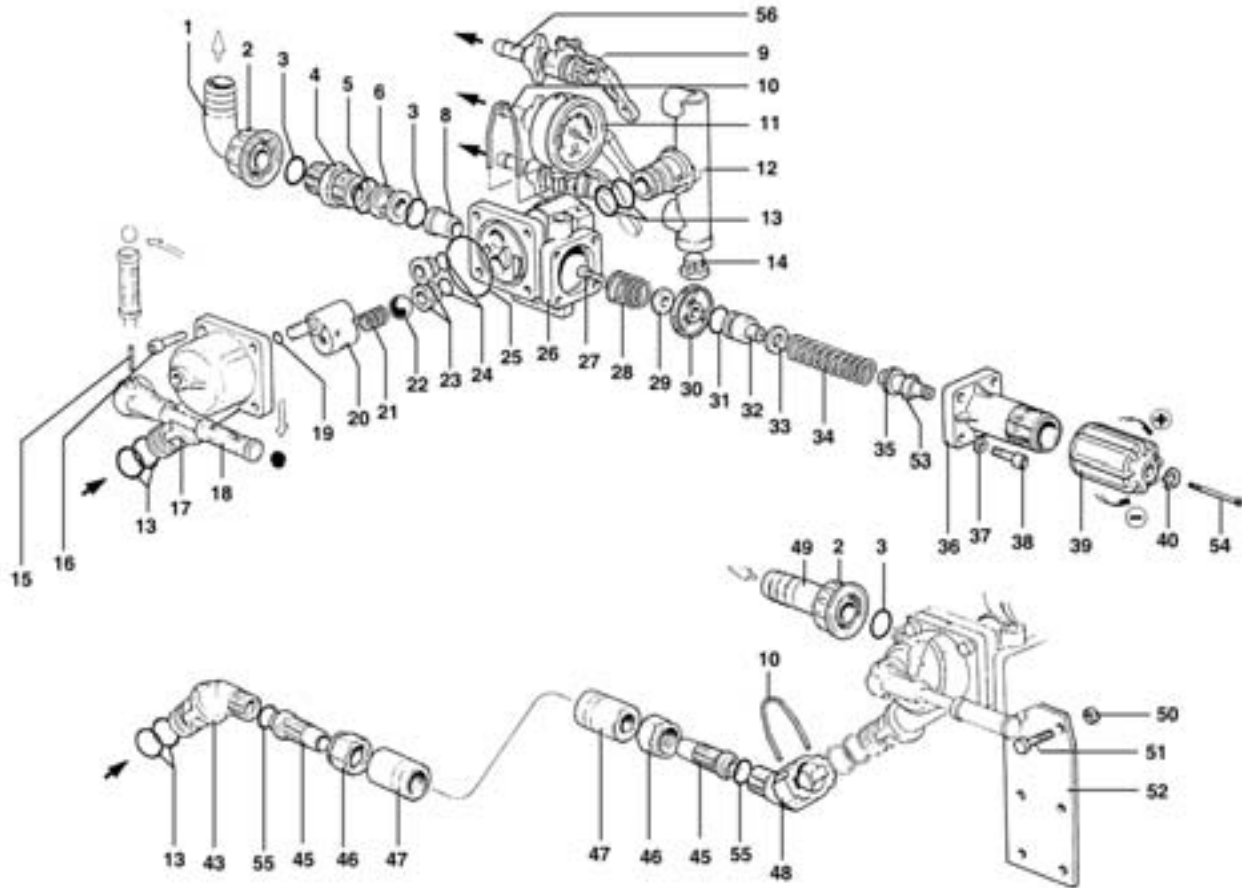
<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4	580361	Bolt, Diaphragm
2	4	1040180	Washer, Retainer
3	1	1953	Diaphragm Kit
4	4	1500080	Sleeve
5	4	650190	Piston Ring
6	4	1040120	Piston
7	4	1040070	Pin, Piston
8	8	1040270	Clip
9	4	1800050	Connecting Rod
10	1	1400150	Seal Ring
11	1	DNK68-25A	Bearing
12	1	1800200	Crankshaft
13	1	161050	Circlip
14	2	1800170	Bearing
15	2	1040551	Head, Pump R.H.
16	1	1434	Relief Valve
17	1	880831	O-Ring 15.54 x 2.62
18	1	550450	Nut
19	2	680350	Bolt M8 x 35
20	2	380241	Washer
21	2	OR1872262	O-Ring 18.72 x 2.62
22	1	550460	90° Elbow
23	2	1040552	Head, Pump L.H.
24	8	1480040	Bolt M12 x 60
25	1	881461	Adapter
26	8	750060	Bolt M12 x 65
27	3	1040470	Plug
28	2	320360	Bolt M8 x 22
29	1	881560	Adapter Elbow
30	1	1800320	Body, Air Chamber
31	1	1964	Valve Kit (Includes Ref. #70)
32	1	OR4412262	O-Ring 44.12 x 2.62
33	1	1800280	Air Chamber Tube
34	1	1800300	Semi Air Chamber
35	1	1800310	Plate
36	1	650542	Gasket
37	1	1800350	Air Valve
38	1	OR1395262	O-Ring 13.95 x 2.62
39	2	1040340	Spacer Ring
40	1	1800270	Cover, Air Chamber
41	1	OR5682262	O-Ring 56.82 x 2.62
42	1	1800210	Flange
43	1	1460490	Circlip
44	2	OR3617262	O-Ring 36.12 x 2.62
45	1	540530	Adapte
46	8	OR1877178	O-Ring 18.77 x 1.78
47	1	540540	Nut

AR1064 PUMP ASSEMBLY

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
48	1	540550	90° Elbow
49	8	OR3305178	O-Ring 33.05 x 1.78
50	1	1820080	Left Base
51	1	1040570	Circlip
52	1	35X47X7	Oil Seal
53	1	1800161	O-Ring 113.97 x 2.62
54	3	1040060	O-Ring 72.69 x 2.62
55	1	1800150	Manifold
56	12	1040370	Bolt M6 x 22
57	6	780060	Bolt M6 x 25
58	3	1343510	Bolt M6 x 14
59	1	130491	Ball Valve
60	3	881710	Washer D.6
61	1	1040690	Lock Clip
62	1	1800240	Plug
63	1	1820040	Housing, Pump
64	1	750040	Gasket
65	1	1400120	O-Ring 145.72 x 2.62
66	1	1800060	Cap, Oil Tank
67	8	180030	Bolt M8 x 20
68	1	550460	90° Elbow
69	1	1400110	Flange
70	8	OR2580353	O-Ring 25.80 x 3.53
71	8	620610	Bolt M8 x 30
72	4	1300190	Valve Cap
73	1	1040950	Cotter Pin
74	1	1040760	Coupling
75	1	1500470	Shield
76	1	750030	Oil Tank
77	1	1820070	Mount Bracket R.H.
78	1	1538	Air Chamber Assembly
79	1	1400140	Flange Plate

KIT 1953		KIT 1964		Kit 2378				Kit 2379					
Ref. #	Qty.	Ref. #	Qty.	Ref. #	Qty.	Ref. #	Qty.	Ref. #	Qty.	Ref. #	Qty.	Ref. #	Qty.
3	4	31	8	21	2	17	1	1	4	46	8	76	1
		70	8	32	1	65	1	3	4	47	1	49	8
				38	1	41	1	10	1	48	1	73	1
				44	2			21	2	52	1	65	1
				46	8			31	8	53	1	34	1
				53	1			32	1	54	3		
				54	3			36	1	61	1		
				70	8			38	1	66	1		
				49	8			44	2	70	8		

VDR50S VALVE ASSEMBLY



<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	550370	Input Hose Tail
2	1	550242	Fly Nut Input Outlet
□⌘3	2	550350	O-Ring 132 23.81 x 2.62
4	1	1040780	Threaded Nipple
□⌘5	1	550040	O-Ring 3106 26.65 x 2.62
6	1	1040670	Piston
⌘8	1	1040660	Valve Seat
9	5	30490	Control Valve
⌘10	2	1040690	Nipple
11	1	550545	Pressure Gauge
12	1	1040680	Body
□⌘13	8	390180	O-Ring 3075 18.72 x 2.62
14	3	30171	Plug
⌘15	1	1040820	Elastic Pin
16	4	180030	Pulley 8M x 20
17	1	1040720	Control Body
18	1	1040730	Handle
□⌘19	1	1080200	O-Ring 5.6 x 2.2

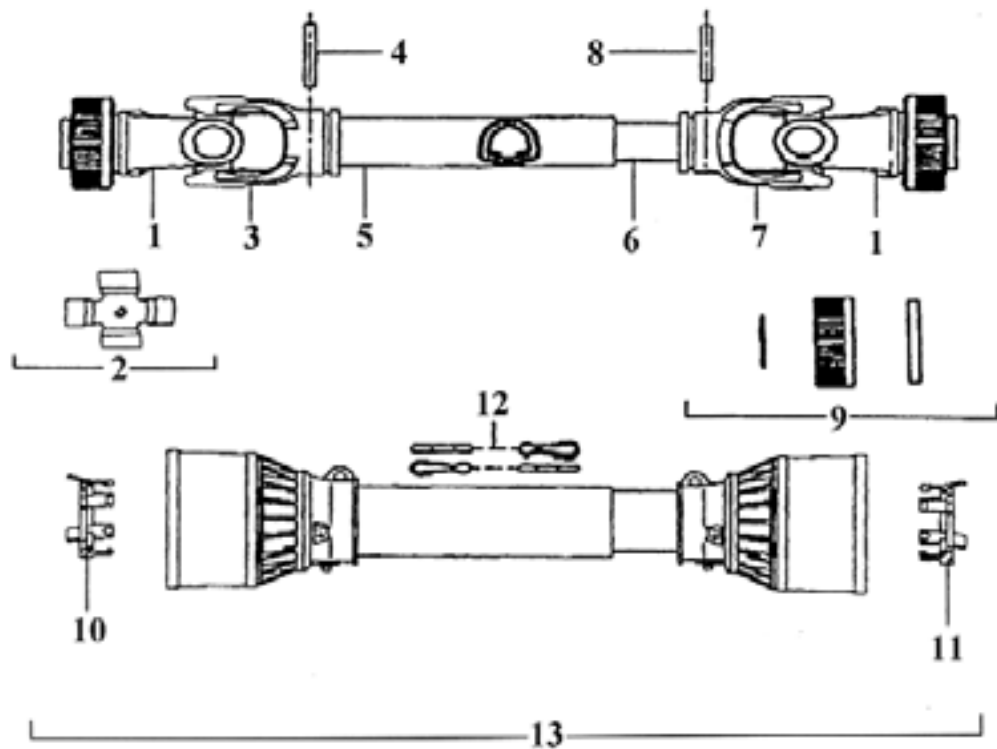
VDR50S VALVE ASSEMBLY

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
20	1	1040700	Control Body Shaft
⌘21	1	850680	Spring
⌘22	1	850660	Outlet Valve 13/16"
⌘23	2	850650	Outlet Seat
□⌘24	2	740290	O-Ring 2056 14 x 1.78
25	1	1040710	O-Ring
26	1	104060	Main Body
27	1	680560	Screw 6M x 15
⌘28	1	1040650	Spring
⌘29	1	1040640	Valve
⌘30	1	1040630	Diaphragm
□⌘31	1	880830	O-Ring 3062 15.54 x 2.62
32	1	1040620	Piston
33	1	850440	Spring Seat
34	1	1040830	Spring
35	1	394770	Spring Body
36	1	1040610	Valve Body
37	4	550331	Lock Washer
38	4	1040370	Allen Bolt
⌘39	1	394790	Valve Handle
40	1	480550	Circlip
45	1	1040810	Hose Fitting
46	1	1040790	Nut
47	1	1040800	Sleeve
48	1	1040770	Fitting
49	1	550210	Input Tube
50	2	390270	Nut 8M H 6.5
51	2	180370	Pulley 8M x 25
52	1	850690	Bracket
53	1	770130	O-Ring 20.35 x 1.78
54	1	1150650	Bolt M3 x 60
55	2	960160	O-Ring 17.86 x 2.62

REPAIR KIT FOR VDR50 CONTROL VALVE

KIT 1955 (O-Ring) "□"		KIT 1956 (Internal Parts) "⌘"			
Part Number	Qty.	Part Number	Qty.	Part Number	Qty.
390180	4	1040640	1	390180	4
1080200	1	1040630	1	1080200	1
740290	2	850660	1	740290	2
550350	2	850680	1	550350	2
550040	1	850650	2	550040	1
880830	1	394790	1	880830	1
1040710	1	1040650	1	1040710	1
960160	2	1040690	2	770130	1
770130	1	1040820	1		

DRIVELINE ASSEMBLY 7104056FFT077



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	572040351	RS Yoke 1 3/8 6 Spline
2	2	41204	#4 Cross Kit
3	1	204046851	Outer Tube Yoke
4	1	341038000	Roll Pin O.T.
5	1	225120860	Outer Drive Tube 860 mm
6	1	225100860	Inner Drive Tube 860 mm
7	1	204046852	Inner Tube Yoke
8	1	341048000	Roll Pin I.T.
9	2	240002451	RS Collar Kit
10	1	255040005	Shield Bearing Outer
11	1	255040006	Shield Bearing Inner
12	2	252000001	Safety Chain
13	1	5F04086F6	Complete Shield w/Bearings

LIMITED WARRANTY



GEARMORE, INC., warrants each new Gearmore product to be free from defects in material and workmanship for a period of twelve (12) months from date of purchase to the original purchaser. This warranty shall not apply to implements or parts that have been subject to misuse, negligence, accident, or that have been altered in any way.

Our obligation shall be limited to repairing or replacement of any part, provided that such part is returned within thirty (30) days from date of failure to Gearmore through the dealer from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature, direct, consequential or contingent, to person or property. This warranty does not extend to loss of crops, loss because of delay in harvesting or any other expenses, for any other reasons.

Gearmore in no way warrants engines, tires, or other trade accessories, since these items are warranted separately by these respective manufacturers.

Gearmore reserves the right to make improvements in design or changes in specification at any time, without incurring any obligations to owners or units previously sold.

GEARMORE, INC.
13477 Benson Ave.
Chino, CA 91710

Always refer to and heed machine operating warning decals on machine.

The serial number of this product is stored in our computer database, thus submitting a warranty registration card is not required.