



3-PT. BOOM SPRAYERS

**OPERATION, SERVICE &
PARTS MANUAL
FOR MODEL
GN200D-LP**

August 2009

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1 INTRODUCTION

Congratulations on your choice of the Gearmore 3-point hitch boom sprayer. This equipment is manufactured to precise specifications using the best quality parts and materials available. With proper care and maintenance, this piece of equipment should last for many years. Before operating this machine, thoroughly read and become familiar with this manual.

1.1 OPERATOR'S RESPONSIBILITY

Safe, efficient and trouble free operation of your Sprayer requires that you and anyone else who will be operating or maintaining the machine, read and understand the Safety, Operation, Maintenance and Troubleshooting information contained within the Operator's Manual.

It is the responsibility of the user/purchaser to lubricate and maintain this product according to the recommendations. The user is responsible for inspecting the machine, and for having parts repaired or replaced when continued use of the product would cause damage or excessive wear to other parts. All fasteners should be checked and tightened periodically and as necessary. When supporting the frame or the machine, use stands that are capable of handling the weight of the assembly. Insure that the supports are on a clean, dry surface. It is the user's responsibility to deliver this product to the dealer when repairs that are covered by the standard warranty need to be made.

Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your Gearmore dealer if you need assistance, information or additional copies of the manuals.

OPERATOR ORIENTATION - The directions left, right, front and rear, as mentioned throughout this manual, are as seen from the driver's seat and facing in the direction of travel.

1.2 GENERAL INFORMATION

POWER SOURCE: The sprayer is designed to mount to any 540 /RPM tractor with a 3-point hitch.

PUMP: The pump on the sprayer is a low pressure centrifugal pump, 34 GPM @ 100 PSI. There is one very important point to remember with centrifugal pumps; the pump uses the liquid to cool itself. Thus, if you run the pump dry, it will be damaged quickly.

TANK: The tank comes with a mechanical agitation system. It also has a drain valve, 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 remove yellow filter shut-off valve before removing filter housing ring nut.

Always give your dealer the serial number of your Sprayer when ordering parts or requesting service or other information. Please mark the number in the space provided for easy reference.

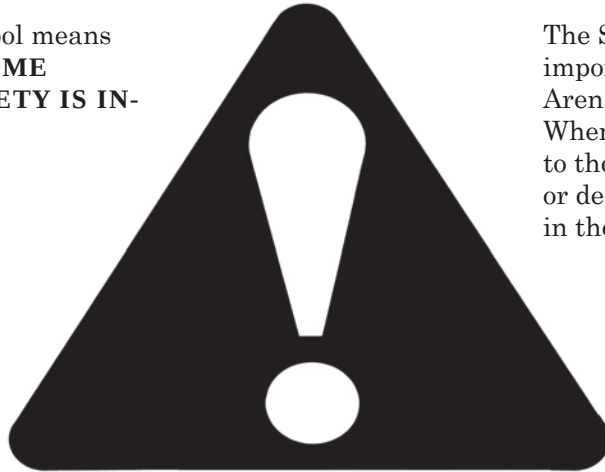
DATE OF PURCHASE: _____

MODEL NUMBER: _____

SERIAL NUMBER: _____

SAFETY ALERT SYMBOL

This Safety Alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



The Safety Alert symbol identifies important safety messages on the Arena-Comb and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

3 Big Reasons

Accidents Disable and Kill

Accidents Cost

Accidents Can Be Avoided

SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guide-lines:

SI NO LEE INGLES, PIDA AYUDA A AIGUIEN QUE SI LO LEA PARA QUE LE TRADUZCA LAS MIDIDAS DE SEGURIDAD.

DANGER - Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING - Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION - Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer.

2 SAFETY (CONTINUED)

2.1 GENERAL SAFETY

YOU are responsible for the **SAFE** operation and maintenance of your Sprayer. **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Sprayer be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be adhered to while operating the Sprayer.

Remember, **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Sprayer owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety feature on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow these. Most accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- **DO NOT** modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- **Think SAFETY! Work SAFELY!**

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining or adjusting the sprayer.



2. Have a first-aid kit available for use should the need arise and know how to use it.

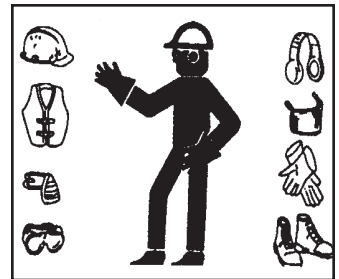


3. Have a fire extinguisher available for use should the need arise and know how to use it.



4. Wear appropriate protective gear. This list includes but is not limited to:

- A hard hat
- Protective shoes with slip resistant soles
- Protective goggles, glasses or face shield
- Heavy gloves
- Protective clothing



5. Install and secure all guards before starting.

6. **DO NOT** allow riders.

7. Wear suitable ear protection for prolonged exposure to excessive noise.



8. Place all controls in neutral, stop tractor engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, or repairing.

9. Clear the area of people, especially small children, before starting.

10. Review safety related items annually with all personnel who will be operating or maintaining the Sprayer.

2 SAFETY (CONTINUED)

2.2 EQUIPMENT SAFETY GUIDELINES

Safety of the operator and bystanders is one of the main concerns in designing and developing a machine. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury or death, study the following precautions and insist those working with you, or for you, follow them.

- **NEVER** use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
- **Under no circumstances should young children be allowed to work with this equipment. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.** Review the safety instructions with all users annually.
- This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible, properly trained and physically able person familiar with farm machinery and trained in this equipment's operations. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.
- Use a tractor equipped with a Roll Over Protective Structure (ROPS) and a seat belt.
- **NEVER** exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.**
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.

In addition to the design and configuration of this implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the tractor and machine manuals. Pay close attention to the Safety Signs affixed to the tractor and the machine.

Think SAFETY! Work SAFELY!

2.3 SAFETY TRAINING

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.

It has been said, "*The best safety feature is an informed, careful operator.*" We ask you to be that kind of an operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. Accidents can be avoided.



Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your tractor, before assembly or operating, to acquaint yourself with the machines. If this machine is used by any person other than yourself, or is loaned or rented, it is the machine owner's responsibility to make certain that the operator, prior to operating:

- a. Reads and understands the operator's manuals.
- b. Is instructed in safe and proper use.

Know your controls and how to stop tractor, engine and machine quickly in an emergency. Read this manual and the one provided with your tractor. Train all new personnel and review instructions frequently with existing workers. Be certain only a properly trained and physically able person will operate the machinery. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.

2 SAFETY (CONTINUED)

2.4 OPERATING SAFETY

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.



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

WITH ONLY LIQUIDS COMPATIBLE WITH THE PUMP COMPONENTS MATERIALS. FAILURE TO FOLLOW THIS WARNING CAN RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID THE PRODUCT WARRANTY.

1. Do not operate pump above recommended RPM.
2. Do not pump at pressure higher than the maximum recommended for the pump (*See Specifications*).
3. Operate pump between 45° and 145° F liquid temperatures.
4. Make certain that the power source conforms to the requirements of your equipment.
5. Provide adequate protection in guarding around the moving parts such as the P.T.O. shaft.
6. Disconnect power before servicing.
7. Release all pressure within the system before servicing any components.
8. Drain all liquids from the system before servicing.
9. Secure the discharge lines before starting the pump. An unsecured discharge line may whip, causing personal injury and/or property damage.
10. Check hoses for weak or worn condition before each use. Make sure that all connections are tight and secure.
11. Periodically inspect the pump and the system components. Perform routine maintenance as required (*See Maintenance Section*).
12. 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!**
13. Do not use these pumps for pumping water or other liquids for human or animal consumption.

2.5 SAFETY TIPS

All things with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes potential hazards and follows reasonable safety practices. Sprayer should be operated only by qualified persons.

If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.

Always fill sprayer slowly to avoid spillage.

When starting sprayer, maintain a safe distance from moving parts. Never place any part of your body where it would be in danger if movement should occur during assembly, installation, operation, maintaining, repairing, removal, or moving. Never place yourself between the tractor and machine while implement is in operation.

Never run P.T.O. at speeds in excess of 540 RPM.

Do not walk or work under a raised machine or attachment unless it is securely blocked or held in position. Do not depend on the tractor hydraulic system to hold the machine or attachment in place.

Do not make adjustments when sprayer is running unless specifically recommended.

Never leave sprayer unattended while it is running.

Never use alcoholic beverages or drugs, which can hinder alertness or coordination, while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.

Do not allow riders on the machine or tractor at any time. There is no safe place for any riders.

Before you operate the machine, check over all pins, bolts and connections to be sure all are securely in place. Replace any damaged or worn parts immediately.

Clear the work area of objects which might be picked up and snagged or entangled in the machine.

Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.

Handle chemicals carefully, follow the manufacturer's directions for mixing and applying chemicals.

2 SAFETY (CONTINUED)

2.6 TRANSPORT SAFETY

1. Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
2. The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
3. At all times, when driving the tractor and equipment on the road or highway under 20 mph (32 kph) use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem. Do not exceed 20 mph (32 kph). Reduce speed on rough roads and surfaces and when making turns.
4. Do not drink and drive.
5. Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when operating near or crossing roadways.
6. Turn into curves or go up or down hills only at a low speed and at a gradual steering angle. Make certain that at least 20% of the tractor's weight is on the front wheels to maintain safe steering. Slow down on rough or uneven surfaces.
7. Never allow riders on either tractor or machine.

2.7 CLEANING & STORAGE

1. Wash and flush out sprayer after completion of each phase of your spraying program. Flush out sprayer when changing chemicals if there is a possibility of incompatibility.
2. 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.
3. Store the unit in a dry, level area away from human activity. Do not permit children to play on or around the stored machine.
4. Check sprayer over for needed repairs before time to spray again. 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.

2.8 MAINTENANCE SAFETY

1. Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
2. Follow good shop practices.
 - Keep service area clean and dry.
 - Be sure electrical outlets and tools are properly grounded.
 - Use adequate light for the job at hand.
3. Make sure there is plenty of ventilation. Never operate the engine in a closed building. The exhaust fumes may cause asphyxiation.
4. Before working on this machine, shut off the engine, set the brakes, and remove the ignition key.
5. Never work under equipment unless it is blocked securely.
6. Use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance work.
7. Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts **must** be used to restore your equipment to original specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.
8. A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment
9. Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.
10. When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.



3 SET-UP & OPERATION

3.1 SET-UP & OPERATION INSTRUCTIONS

- ~ Connect sprayer to tractor 3-point hitch.
- ~ Connect P.T.O. driveshaft, after you have checked to make sure the driveshaft is not too long.
- ~ Check strainer screen to make sure it is clean.
- ~ Make sure yellow filter shut-off valve is locked into filter body.
- ~ Engage tractor P.T.O. and run for a couple of minutes to make sure your chemical is mixed. (Make sure regulator valve is in bypass position)
- ~ Set regulator pressure as required. **IMPORTANT:** The pressure regulator valve should be in bypass position (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.
- ~ Mount the spray 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.

3.2 ADJUSTING REGULATOR VALVE

To control your pressure with an AR1354 control valve, first run the pump for approximately one full minute with the valve in the **BYPASS POSITION**. After one minute put handle to the **WORKING POSITION** and adjust to desired working pressure.

4 MAINTENANCE

4.1 GENERAL MAINTENANCE

Carefully follow all instructions as stated in this operators 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.

- ✓ Regularly check all nuts and bolts and make sure they are tight.
- ✓ Regularly check all pins and lynch pins to make sure they are in place.
- ✓ Check sprayer for leaks.
- ✓ Check lubrication - See *Lubrication*

4.2 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 sight glass on side plug.

When adding oil, remove oil breather plug and fill to level mark with 90 wt. gear oil.

- After use, flush pump with clean water.
- Change oil **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 breather plug while turning the pump shaft. Turning the pump shaft purges all the air out of the gear case.
- For winter storage or if a freezing condition will be encountered, flush pump with a 50/50 mixture of water and anti-freeze.

4.3 LUBRICATION

DRIVESHAFT:

The driveshaft comes not greased, so it must be done before sprayer is put into 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 CP34 pump gearbox has an indicator plug on side of housing. If oil is low, add 90 wt. gear oil.

5 TROUBLE SHOOTING

PROBLEM	CAUSE	POSSIBLE REMEDY
The pump does not draw water	Suction line is plugged or collapsed. Clogged strainer	- Examine suction line. - Clean strainer.
Pressure gauge fluctuates excessively	The pump is sucking in air through the suction union. Air has not been entirely evacuated from the pump.	- Examine the suction hose and make sure it is firmly secured. - Run the pump with the outlet hose open to evacuate air from pump.
Output drops and the pump is noisy	Oil level is too low	Add oil to correct level (halfway up the sight tube).
Water is pumped at little or no pressure	The sealing valve on the pressure control valve is worn	Renew washer and, if necessary, the valve seat.

6 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

Tip Color	Tip No. (Strainer Screen Size)	Liquid Pressure in PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre - 20" Spacing			
				4 M.P.H.	5 M.P.H.	6 M.P.H.	7 M.P.H.
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	24	19.8	17.0
		20	.46	34	27	23.0	19.6
		30	.57	42	34	28.3	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

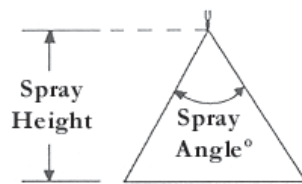
If the nozzle spacing on your boom is different than those tabulated, multiply the tabulated GPA coverages by one of the following factors:

Where Tables Are Based on 20" Nozzle Spacing									
Other Spacing	8"	10"	12"	14"	16"	18"	22"	24"	30"
Conversion Factor	2.5	2	1.67	1.43	1.25	1.11	.91	.83	.66

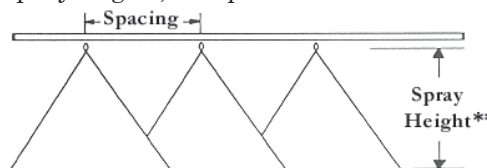
Where Tables Are Based on 40" Nozzle Spacing									
Other Spacing	28"	30"	32"	34"	36"	38"	42"	44"	48"
Conversion Factor	1.43	1.33	1.25	1.18	1.11	1.05	.95	.91	.83

SUGGESTED MINIMUM SPRAY HEIGHTS

Spray Angle°	Spray Height	
	20" Spacing	
65°	22" to 24"	
73°	20" to 22"	
80°	17" to 19"	
110°	10" to 12"	



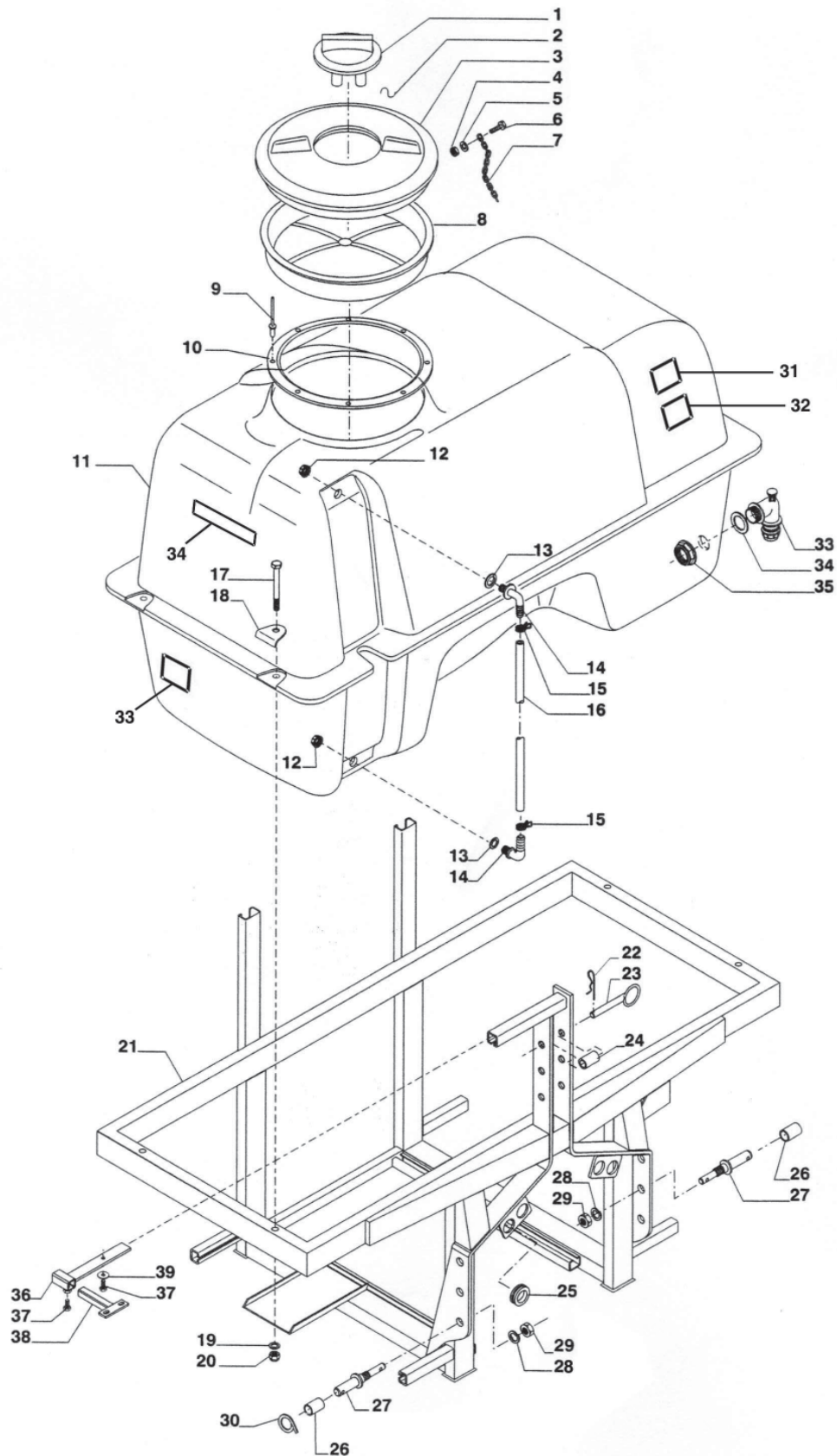
°Spray angles apply to flat spray tips spraying at rated pressure of 40 P.S.I. Lower pressures will result in reduced spray angles, except for the XR TeeJet.



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

7 PARTS LIST

7.1 TANK & FRAME ASSEMBLY

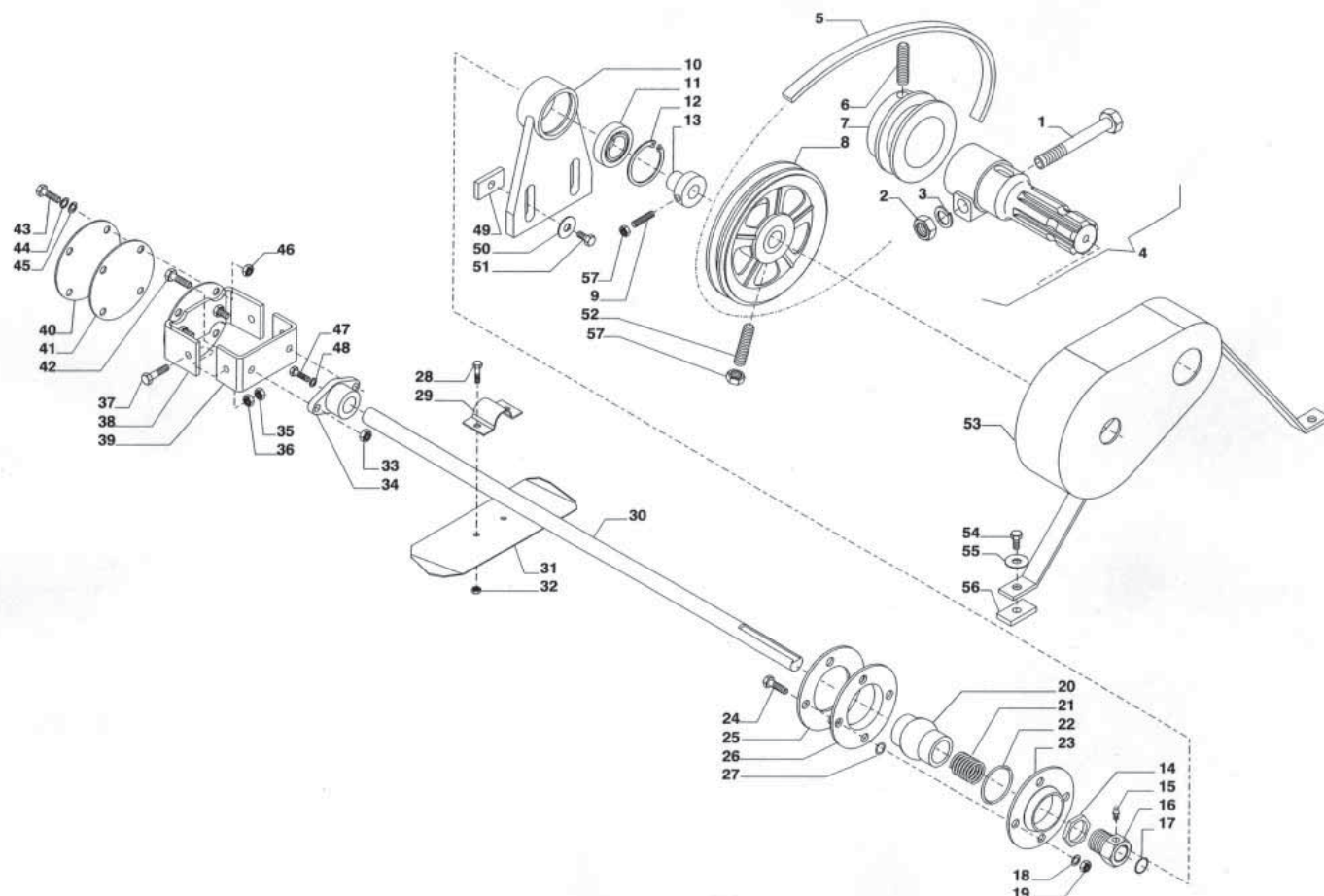


7 PARTS LIST (CONTINUED)

<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	0600007	Vent Lid
2	1	1900056	Hook For Chain
3	1	0600006	Tank Cover (Includes Vent Lid)
4	1	1800177	Nut M5 A2 UNI 5587
5	1	1800113	Washer M6 Piana 6592 A2
6	1	1800009	Bolt TPS M5 x 12 UNI 6109-4.8 Galvanized
7	1	1900053	Chain Steel D.3 L=500
8	1	AG300126	Basket Filter D.400 x 380 x 185
9	8	1800350	Rivet 3 x 9
10	1	0600014	Threaded Ring
11	1	0600021	Tank - 200 Gallon
12	2	1400001	Ring Nut 1/2
13	2	1700001	Gasket D.32 x 21 x 2
14	2	1400130	Elbow Fitting D.13 1/2
15	2	1500030	Clamp 16.8 x 17.7
16	1	0600052	Hose Vipla Crystal 12 x 17 L=780
17	4	1800048	Bolt TE M10 x 120 UNI 5737-8.8 Galvanized
18	4	0100206	Tank Washer
19	4	1800130	Plain Washer UNI 6592 M.10
20	4	1800186	Nut Aut. High CL.8 M 10
21	1	0100472	Frame GN200D-LP
22	1	2100001	Hair Pin
23	1	0100203	Pin D.18
24	1	2100008	Bushing 25.4 x 22.4 L.45
25	4	2900001	Rubber Protection D.32 mm 35 x 50 x 3 H=10
26	2	2100135	Bushing 28.4 x 22.4 L.45
27	2	2100007	Lift Pin Cat. 1/2
28	2	2100020	Washer Grower Double Pivot
29	2	2100021	Nut Double Pivot
30	2	2100163	Pin D.10
31	1	2600001	Decal "Warning"
32	1	2600002	Decal "Be Careful"
33	1	2600007	Decal "Filter"
34	2	2600015	Decal "Gearmore"

7 PARTS LIST (CONTINUED)

7.2 AGITATOR ASSEMBLY



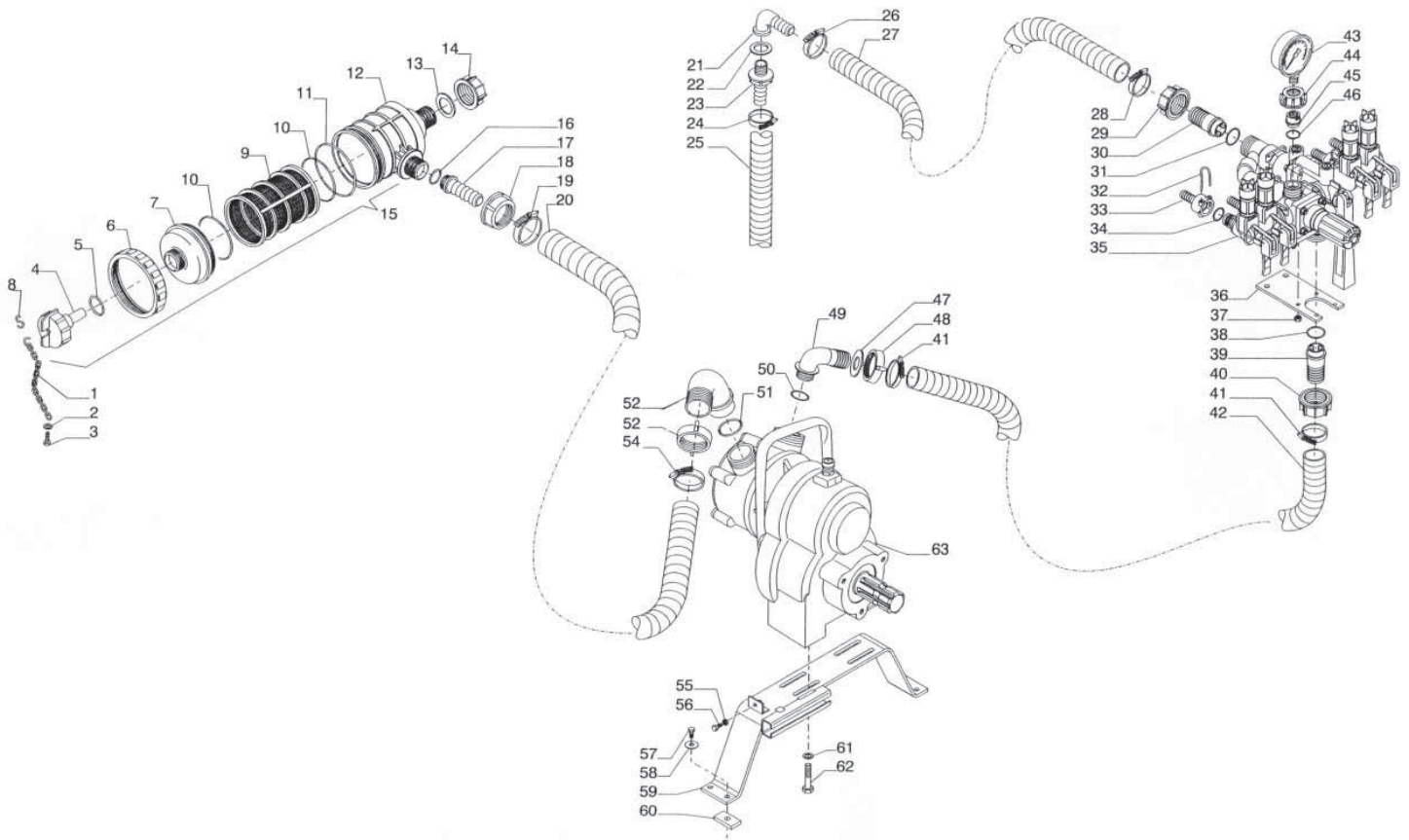
<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	1800089	Bolt TE M 12 x 70 Galvanized
2	1	1800190	Nut M 12 Galvanized
3	1	1800139	Washer Grower 13 x 21 Galvanized
4	1	2400002	Adapter 1 3/8" Bolt
5	1	2200025	Belt A 22
6	1	1800346	Set Screw
7	1	2300002	Pulley 65 1 A/35
8	1	2300001	Pulley 130 1 A/16
9	1	1800293	Bolt STEI M 8 x 30
10	1	0100208	Bearing Support
11	1	1000057	Bearing 20 x 47 x 18 2RS
12	1	1200013	Circlip I47
13	1	2100008	Bushing 25.4 x 19.4 L=51
14	1	0100030	Nut 3/4

7 PARTS LIST (CONTINUED)

<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
15	15	1800300	Grease Zerk M6
16	1	0100029	Nut 3/4
17	1	1700002	O-Ring 15.08 x 2.62
18	9	1800113	Washer M6
19	16	1800182	Nut M6
20	1	0100040	Ball Joint
21	1	1700003	Packing 5 x 5 L=450
22	1	1700004	O-Ring 37.69 x 3.53
23	2	0100031	Flange Agitator
24	12	1800012	Bolt M6 x 25
25	2	0100031	Flange Agitator
26	1	1700007	Gasket 80 x 46 x 3
27	8	1700005	O-Ring 5.28 x 1.78
28	2	1800010	Bolt M6 x 16
29	1	0100041	SS Clamp 16
30	1	0100238	Agitator Shaft D.16 L=550
31	1	0100204	Propeller 200 x 55 x 2 Mechanical Agitator
32	16	1800182	Nut M6
33	16	1800182	Nut M6
34	1	0100431	Shaft Support "A"
35	16	1800182	Nut M6
36	16	1800182	Nut M6
37	12	1800012	Bolt M6 x 25
38	1	0100044	F. Clamp
39	1	0100430	Male clamp "A"
40	1	0100039	SS Blind Flange
41	1	1700008	Gasket 80 x 3
42	12	1800012	Bolt M6 x 25
43	12	1800012	Bolt M6 x 25
44	9	1800113	Washer M6
45	8	1700005	O-Ring 5.28 x 1.78
46	16	1800182	Nut M6
47	1	1800003	Bolt M5 x 12 Galvanized
48	1	1800125	Washer M8 x 24 F.L. A2
49	1	0100107	Plate
50	1	1800131	Washer F.L.M. 10 x 30 x 2.5 Galvanized
51	1	1800036	Bolt M10 x 25 Galvanized
52	1	1800293	Bolt STEI M8 x 30
54	1	1800036	Bolt TE M10 x 25 Galvanized
55	1	1800131	Washer F.L.M. 10 x 30 x 2.5 Galvanized
56	1	0100107	Plate
57	2	1800180	Nut M8

7 PARTS LIST (CONTINUED)

7.3 RUN OF FLUIDS



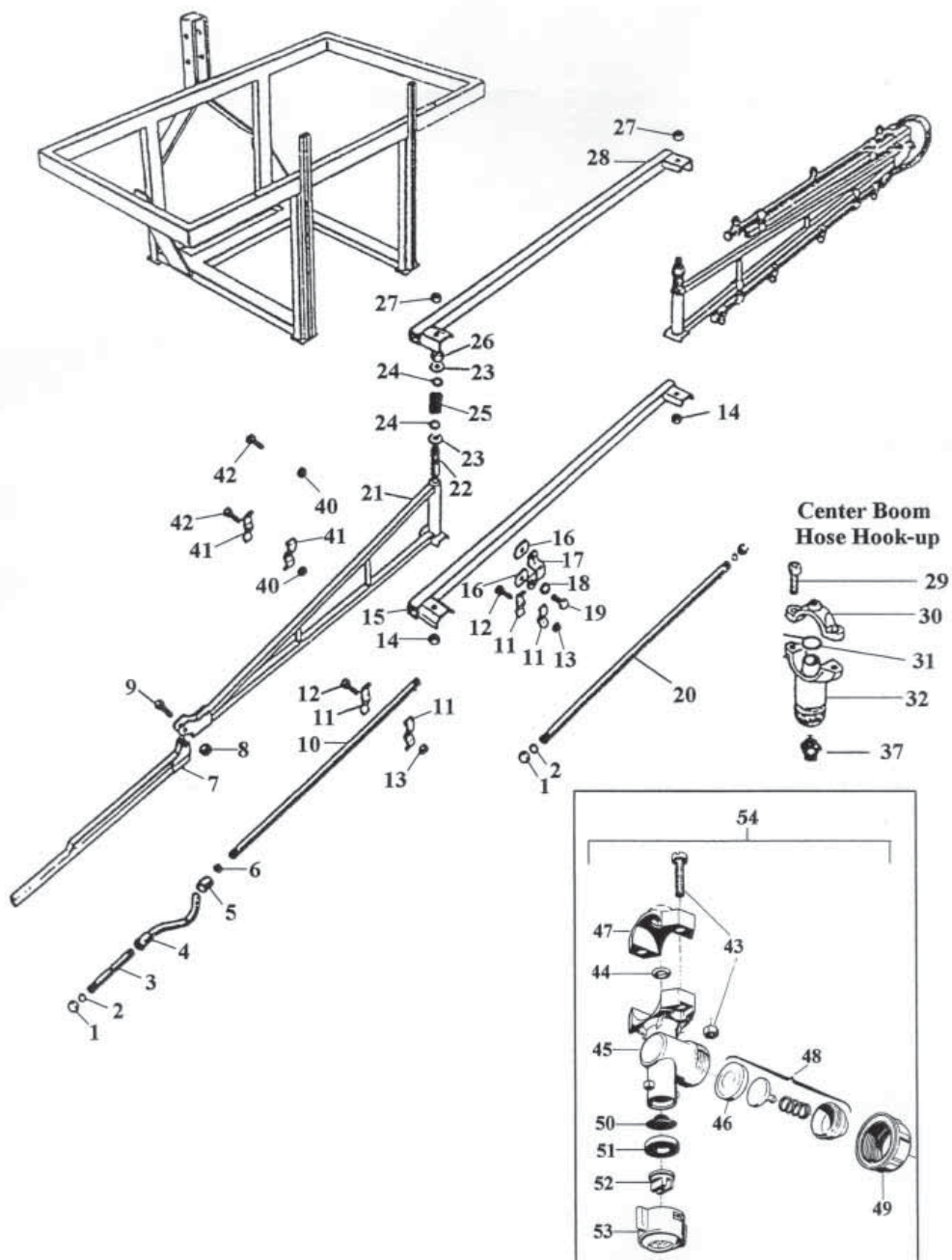
<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	1400007	Plastic Chain D.3.5 L=300
2	1	1800120	Flat Washer M.8 Galvanized
3	1	1800021	Bolt 8 x 20 Galvanized
4	1	1400205	Cover Filter Plug
5	1	1700051	O-Ring, Viton 31.0 x 2.5
6	1	1400089	Ring Nut
7	1	1400323	Cover
8	1	1900056	Hook for Chain
9	1	1400029	Filter
10	1	1700052	O-Ring 71.10 x 2.6
11	1	1400209	O-Ring 94.62 x 5.33
12	1	1400090	Filter Body
13	1	1700026	Gasket 67 x 47 x 3
14	1	1400020	Ring Nut 1 1/2"
15	1	1400196	Filter Assembly
16	1	0200142	O-Ring 3.0 x 25
17	1	106640	Barb, Straight D.40

7 PARTS LIST (CONTINUED)

<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
18	1	1400038	Ring Nut 1 1/2"
19	2	1500005	Clamp 32-52/12
20	1	1600345	Spiral Hose D.40 L=900
21	1	1400042	Elbow Fitting D.25 - 3/4"
22	1	1700011	Gasket D.40 x 25 x 4
23	1	1400193	Connector D.25 M 3/4"
24	1	1500008	SS Clamp 21 x 38/12.7
25	1	1600375	Hose PVC 25 x 34 25 Bar L=750
26	4	1500004	Clamp Perfect 21 x 38
27	1	1600226	Hose PVC 25 x 34 25 Bar L=1200
28	4	1500004	Clamp Perfect 21 x 38
29	2	AR550242	Ring Nut
30	2	AR550210	Barb, Straight D.25
31	2	AR550350	O-Ring 23.81 x 2.62
32	4	AR392580	Fork UCM
33	4	AR392590	Hose Tail
34	4	AR640070	O-Ring 13.95 x 2.62
35	1	AR1354	Regulator Valve
36	1	AR394820	Bracket
37	4	AR390440	Nut
38	1	AR550350	O-Ring 23.81 x 2.62
39	1	AR550210	Barb, Straight D.25
40	2	AR550242	Ring Nut
41	4	1500004	Clamp Perfect 21 x 38
42	1	1600758	Hose AGRI/40 13 x 21
43	1	AR391240	Pressure Gauge
44	1	AR550450	Ring Nut
45	1	AR394800	Pressure Gauge Attachment
46	1	AR180101	O-Ring 17.5 x 2
47	1	0101746	Spacer PVC 49 x 41 x 2.5
48	1	1300006	Ring Nut
49	1	1400349	Elbow Fitting D.25 x 1 1/2"
50	1	1700004	O-Ring 37.69 x 3.53
51	1	1700033	O-Ring 39.34 x 2.62
52	2	0200152	Elbow Fitting with Ring Nut
54	2	1500005	Clamp 32 - 52/12
55	4	1800180	Nut M8 Galvanized
56	1	1800066	Bolt M8 x 70 Galvanized
57	10	1800036	Bolt M10 x 25 Galvanized
58	8	1800130	Plain Washer M.10
59	1	0101790	Support, Pump GN200D-CP34
60	4	0100107	Plate
61	7	1800131	Washer 10 x 30 x 2.5 Galvanized
62	10	1800036	Bolt M10 x 25 Galvanized
63	1	0200486	Pump Assembly CP34

7 PARTS LIST (CONTINUED)

7.4 SPRAYER BOOM



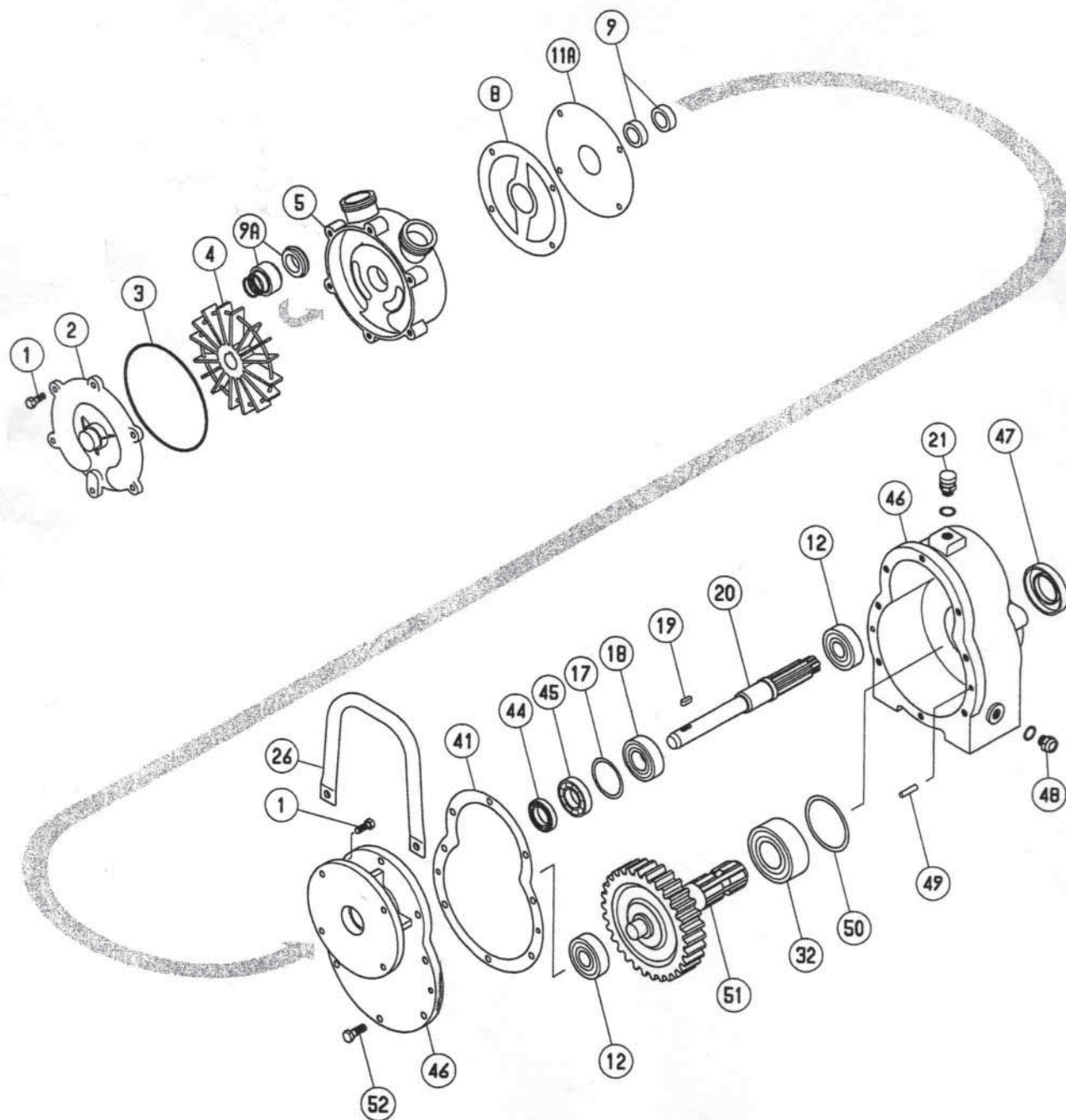
<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4	0100097	Blind Plug 1/2
2	4	1700021	Gasket 19
3	2	2000011	SS Tube 20/500
4	2	1600024	Complete Hose 10 x 19 L=620
5	4	1300003	Self Lock Nut Connector 10 x1 9
6	4	1700010	Gasket
7	2	0100111	Support G28B
8	2	1800186	Self Lock Nut M10
9	2	1800041	Bolt M10 x 45
10	2	2000018	SS Tube 20/500 G14B

7 PARTS LIST (CONTINUED)

<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
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
36	9 - 17	1700022	Gasket 10
37	1	1300022	Nipple MF 1/2 - 3/8
40	6	1800179	Nut M6
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	30-03F110UB	Jet 110° (Blue)
53	9 - 17	402900	Cap, Quick Coupling
54	9 - 17	402225	Complete Nozzle Assembly (96)

7 PARTS LIST (CONTINUED)

7.5 PUMP ASSEMBLY - 0200486

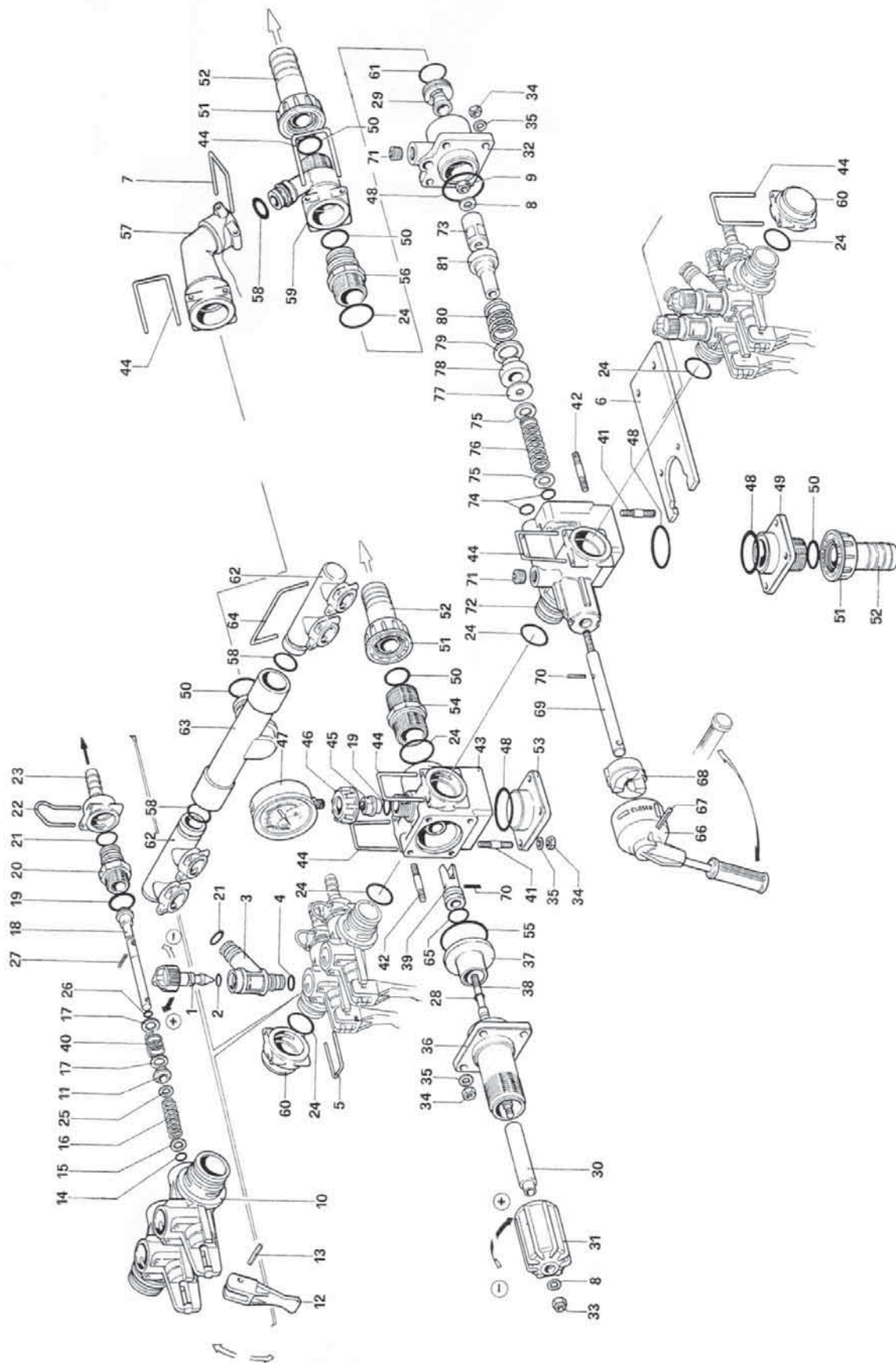


7 PARTS LIST (CONTINUED)

<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	LI1403061012	Bolt
2	1	LI34206003	Cover Bronze
3	1	LI1102001332	O-Ring
4	1	LI34341004	Impeller, Bronze
5	1	LI34201044	Housing, Bronze
8	1	LI34601025	O-Ring
9	1	LI1101000401	Lip Seal
9A	1	LI1131121900	Mechanical Seal
11A	1	LI34343067	Gasket, Stainless Steel
12	2	LI106304	Bearing 6304
17	1	LI1913012000	Spacer D.52
18	1		Bearing
19	1	LI1463041214	Keyway
20	1	LI34371004	Shaft
21	1	LI1603152101	Breather Plug 14 x 2.5
26	1	LI34431002	Handle
32	1	LI103207	Bearing 3207
41	1	LI34343028	Gasket
44	1	LI1101007100	Seal 25 x 40 x 7
45	1		Bearing
46	1	LI36665101	Housing & Cover
47	1	35X62X10	Seal 35 x 62 x 10
48	1	LI1601012103	Sight Plug 14 x 1.5
49	1		Pin
50	1	LI1913012200	Spacer D.72
51	1	LI34371003R	Input Shaft
52	8	LI1403081307	Bolt M8 x 22

7 PARTS LIST (CONTINUED)

7.6 REGULATOR VALVE ASSEMBLY AR1354



7 PARTS LIST (CONTINUED)

<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4	395430	Adjustment Knob
2	4	395590	O-Ring 8 x 2.5
3	4	395420	Body
4	4	390080	O-Ring 11.91 x 2.62
5	4	395410	Clip
6	1	394820	Bracket
7	1	850730	Clip
8	2	392551	Washer
9	1	395390	Nut M6
10	2	395400	Two Valve Assembly
11	4	395470	Seat, Valve
12	4	394690	Handle
13	4	390330	Roll Pin 3 x 20
14	4	390341	O-Ring 5 x 2
15	4	390312	Washer 6 x 12 x 1
16	4	395480	Spring
17	8	390313	Washer 9 x 15 x 1
18	4	395450	Shaft
19	5	180101	O-Ring 17.5 x 2
20	4	392600	Nipple 20 x 1.5
21	8	640070	O-Ring 13.95 x 2.62
22	4	392580	Clip
23	4		Barb D.
24	7	390291	O-Ring 28.25 x 2.62
25	4	395490	Washer 6 x 10 x 1
26	4	1080190	O-Ring 2.90 x 1.78
27	4	393300	Roll Pin 3 x 10
28	1	480480	O-Ring 4.48 x 1.78
29	1	392542	Seat
30	1	395560	Stem
31	1	394790	Handle
32	1	394910	Body
33	1	391560	Nut M6
34	16	390440	Nut M6
35	12	550331	Washer 6.5 x 12.5 x 1.5
36	1	394780	Body
37	1	395570	Sleeve
38	1	395541	Stem
39	1	395551	Plunger, Sleeve
40	4	395460	Spring
41	8	394830	Stud M6 x 34
42	8	392330	Stud M6 x 30
43	1	394700	Body
44	7	395530	Clip
45	1	394800	Seat
46	1	550450	Nut

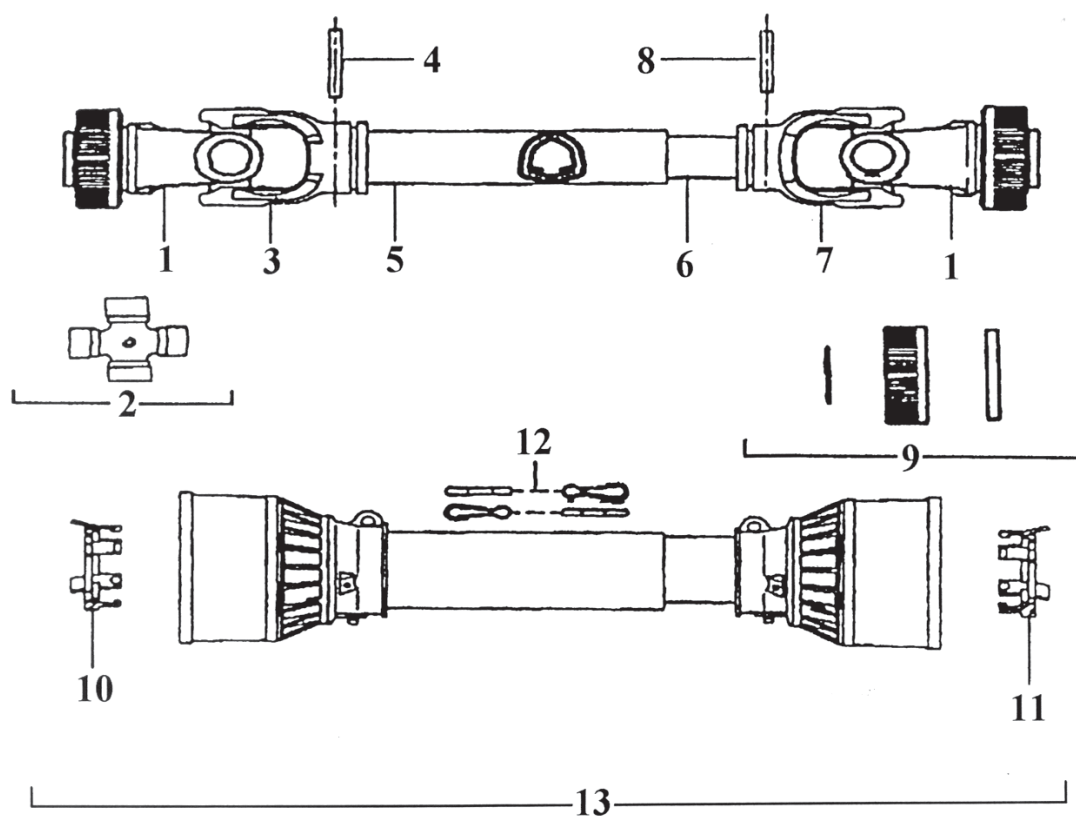
7 PARTS LIST (CONTINUED)

<u>REF.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
47	1	391240	Gauge
48	3	660170	O-Ring 31.42 x 2.62
49	1	394810	Body
50	5	550350	O-Ring 23.81 x 2.62
51	3	550242	Nut
52	2	550210	Barb D.25
53	1	394840	Cap
54	1	550340	Nipple 1" - 1"
55	1	393000	O-Ring 44.17 x 1.78
56	2	395000	Nipple
57	1	395520	Slip Elbow
58	3	390060	O-Ring 20.63 x 2.62
59	1	395020	Body
60	2	395440	Cap
61	1	770260	O-Ring 23.52 x 1.78
62	2	395500	Body
63	1	395510	Body
64	2	395580	Clip
65	1	880830	O-Ring 15.54 x 2.62
66	1	394990	Lever
67	1	680540	Roll Pin 5 x 24
68	1	394980	Sleeve
69	1	394960	Shaft
70	2	392120	Roll Pin 3 x 14
71	2	621240	Plug 1/4"
72	1	394900	Body
73	1	394920	Guide
74	2	1020230	O-Ring 9.92 x 2.62
75	2	395870	Washer 10 x 18 x 1.5
76	1	394970	Spring
77	1	391470	Washer 6 x 22 x 1.5
78	1	394950	Valve
79	1	394940	Washer 19 x 29 x 1.5
80	1	391420	Spring
81	1	394930	Valve

KIT 1970 (OR)				KIT 1971 (Pronto Intervento)					
Ref.	Qty.	Ref.	Qty.	Ref.	Qty.	Ref.	Qty.	Ref.	Qty.
2	4	48	3	2	4	51	1	78	1
4	4	50	5	11	2	58	3	81	1
14	4	55	1	12	2	60	1		
19	5	58	3	14	4	61	1		
21	8	61	1	18	4	65	1		
24	7	73	4	24	7	68	1		
26	4	74	2	39	1	73	3		
28	1	65	1	44	2	74	1		

7 PARTS LIST (CONTINUED)

7.7 DRIVELINE ASSEMBLY 7104071UCR07R07 Bondioli & Pavesi



<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
	1	7104071UCR07R07	Complete Driveline Assembly

Please specify driveline manufacturer when ordering parts.

8 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.