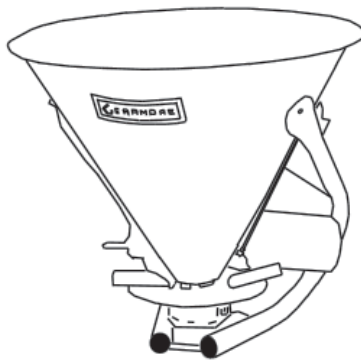


GEARMORE INC.

SPINNER SPREADER



Operation, Service & Parts Manual For Models S203L, S273L & S503L

May 2006

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DATE OF PURCHASE: _____

MODEL NUMBER: _____

SERIAL NUMBER: _____

WELCOME / INTRODUCTION

We would like to thank you for purchasing a Gearmore product and we assure you that you have made a good choice, as now you have a very high quality machine. Please follow all instructions contained in this manual for a long and trustworthy machine life.

TRAINING -

Know your controls. Read this operator's manual and the manual provided with your tractor.

Learn how to stop the tractor engine and spreader quickly in case of an emergency.

DO NOT allow adults without proper instructions or children to operate machinery.

BEFORE OPERATING THE SPREADER -

Before operating the spreader please do the following:

- Inspect for damage and loose or missing parts.
- Make sure all fittings and drive components are secure.
- Lubrication - See *Lubrication Section*.
- Check hopper for any foreign objects.

SPREADER ASSEMBLY

Fig. 1 - Bolt the gearbox to the frame.

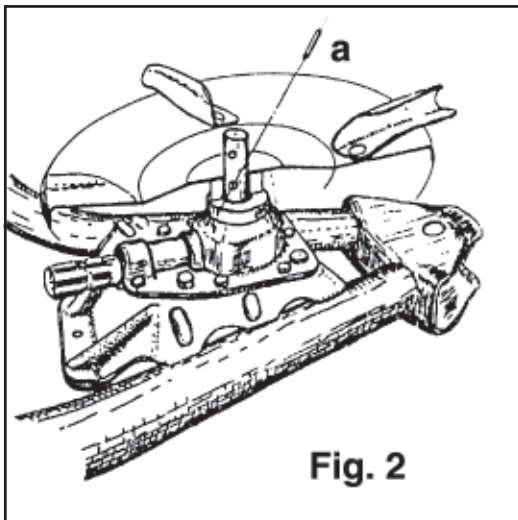
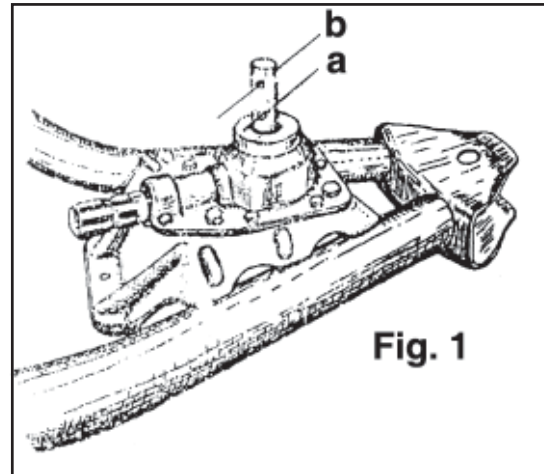


Fig. 2 - Partially install pin into disc before assembling to gearbox shaft. Insert the spinner disc onto the driven output shaft, and align holes and drive in the roll pin "a", which is lower hole. Drive roll pin in until flush with bushing.

Fig. 3 - Insert the roll pins into hole "b". Drive in the pins until the distance is equal on both sides of the shaft.

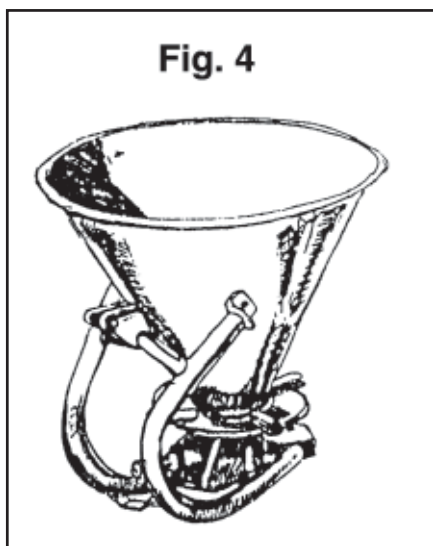
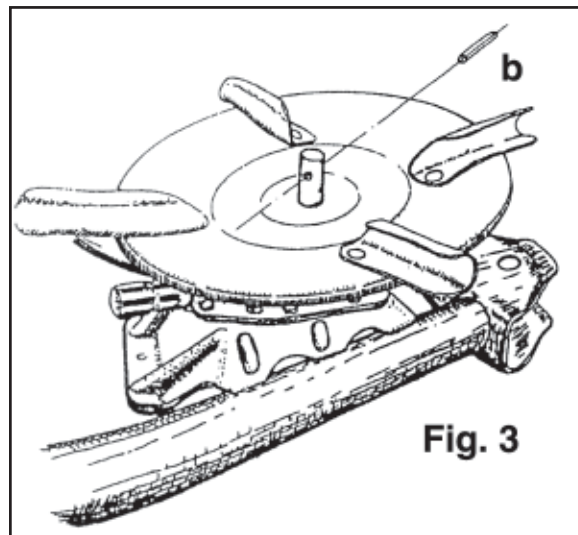


Fig. 4 - Put control lever rods, for metering gates to the inside of the frame before placing hopper onto the frame.

SPREADER ASSEMBLY

Fig. 5 - Install metering gates to the side of the hopper. Connect the control rods to the metering gates. Center the hopper with the output shaft.

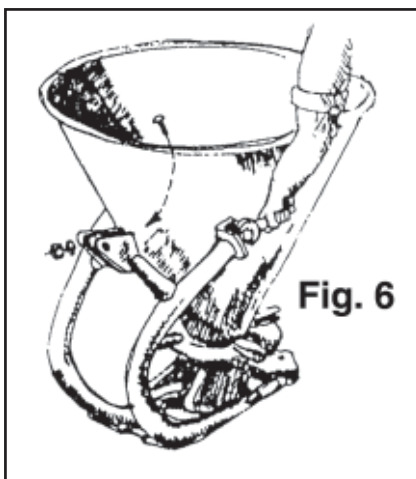
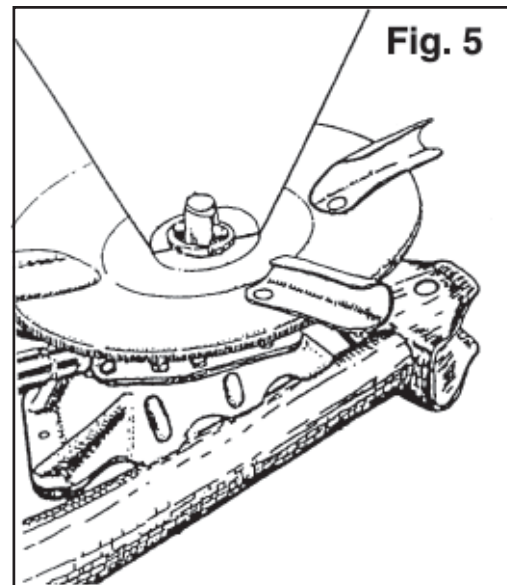
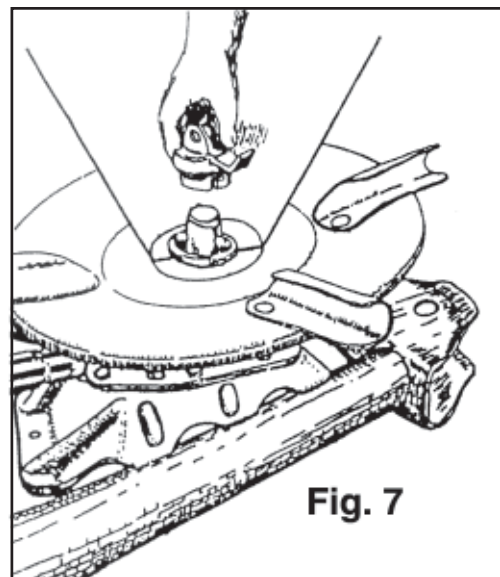


Fig. 6 - Bring the corresponding holes of the hopper and the frame in alignment, and install the bolts from the inside toward the outside, tightening down on the outside with nuts and lock washers. During the final tightening of the hopper bolts to the frame, check for centering of the output shaft with the bottom of the hopper.

Fig. 7 - After hopper is installed, attach agitator over output shaft. Check metering gates, and adjust so they are equally synchronized fully opened and closed.



MAINTENANCE

LUBRICATION -

DRIVESHAFT - The driveshaft must be lubricated before the spreader 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.

GEARBOX - Grease *every 40 hours*.

CLEANING AND STORAGE -

- Wash hopper with water after each use.
- Never let material buildup on shutters or in the hopper.
- Check spreader for needed repairs before using again.

SAFETY INFORMATION -

Safety Tips:

1. Always wear relatively tight and belted clothing when operating spreader. Loose clothing should not be worn, as it could get caught in the moving parts or controls of spreader.
2. Spreader should be operated only by qualified personnel.
3. When starting spreader, always maintain a safe distance from moving parts.
4. Keep hands, feet, and clothing away from all moving parts.

SAFETY INFORMATION



OPERATIONAL SAFETY

It is absolutely necessary to empty the hopper before lowering the spreader to the ground.

Guards and safety shields are for your protection. **DO NOT** operate equipment unless they are in place.

ALWAYS engage tractor PTO at engine idle.

Disengage tractor PTO and shift into neutral before attempting to start engine.

Read and observe all safety decals on the tractor and spreader.

NEVER allow anyone, other than the operator, within 25' of machine while in operation.

DO NOT stop or start suddenly when going uphill or downhill. Avoid operation on steep slopes.

Be alert for holes in terrain and other hidden hazards. **ALWAYS** drive slowly over rough ground.

Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. **BE** careful when changing directions on slopes.

Take all possible precautions when leaving tractor unattended: Disengage PTO, lower spreader, shift into neutral, set parking brake, stop engine, and remove key from ignition.

Front tractor weights or front tire ballast should be used to enhance front-end stability on small tractors.

TO OPERATE SPREADER



WARNING

NEVER put hands or hand held tools in spreader while PTO is engaged and gearbox is turning. Failure to follow warning can result in personal injury and/or damage to the spreader.

- A) Make sure spreader is properly assembled and secure to 3-point hitch.
- B) Before using spreader, make sure that the spreading disc is in a horizontal position, about 2 1/2 feet from the ground.
- C) Engage tractor PTO at engine idle.

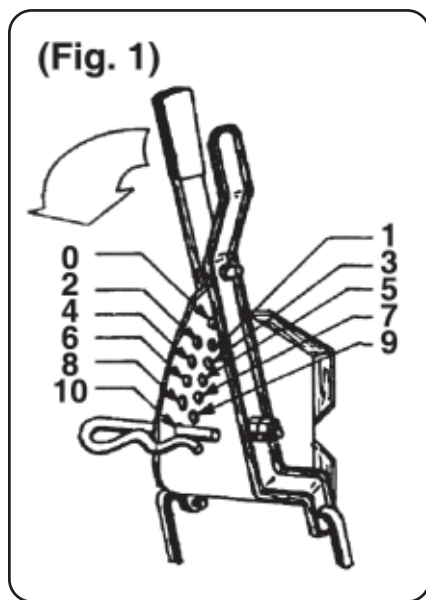
NOTE: Never engage PTO above engine idle.

- D) Place material to be spread in hopper.
- E) Set levers in position needed for your spreading application (See page 5 for tables).

SPREADING TABLES

The figures shown in the table, in particular the spreading quantities, have been established through appropriate practical testing. The figures are only general indications, because a lot of external elements can modify the spreading (the wind, the moisture of fertilizer, etc.).

If the tractor is driven at a speed which differs from that shown from the table, it is necessary to make the right proportions and you must remember that a constant opening and a greater forward speed with constant PTO regime, reduces the quantity of spread for hectar.



THE SPREADING OPERATION

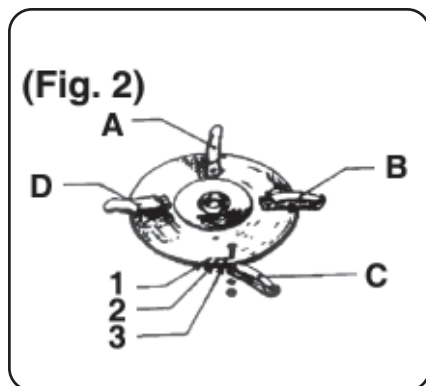
In order to obtain a sufficiently uniform spreading pattern on both sides, it is simply necessary to move the main operating lever until the correct opening is reached. (Fig. 1)

According to the specific weight of the fertilizer to be spread, to obtain uniformity of spreading whether to right or left, it is possible to arrange the distributing blades moving them to the appropriate notch 1-2-3 (Fig. 2).

Normally the position of the blades should be as follows:

Blades (A) and (C) on notch no. 2

Blades (B) and (D) on notch no. 3




By moving all the blades to notch no. 1, there is an increase of spread to the left of the driver.


By moving them to notch no. 3, there is an increase of spread to the right of the driver.

Thus, the adjustment according to the fertilizers used, depends on experience in the use of the machine.


SPREADING TABLES

Quick Lime	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 13.12 foot	2	251	167	125	100	83	71
	3	840	560	420	335	280	239
	4	2119	1413	1059	847	705	604
	5	3513	2342	1756	1405	1170	1002
	6	5937	3958	2968	2374	1978	1694
	7	7309	4873	3654	2923	2434	2086
	8	8263	5514	4131	3305	2753	2359


Spreading application quantity in LBS/ACRE
P.T.O.: 540 min.

Ammonium Nitrate	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 23 foot							
	3	186	124	92	73	61	-
	4	442	295	221	176	146	126
	5	639	426	319	255	212	182
	6	966	544	483	386	321	275
	7	1190	793	595	476	396	339


Spreading application quantity in LBS/ACRE
P.T.O.: 540 min.

Magnesium Mari	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 13.12 foot	2	392	261	196	156	130	111
	3	1309	873	654	523	435	373
	4	2765	1843	1383	1105	920	789
	5	3753	2500	1876	1501	1250	1071
	6	5854	3902	2927	2343	1950	1671


Spreading application quantity in LBS/ACRE
P.T.O.: 540 min.

Rhe-Ka-Phos	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 26.2 foot							
	3	248	165	124	99	82	70
	4	492	328	245	197	163	140
	5	819	546	409	327	272	233
	6	1270	846	634	507	423	326
	7	1521	1014	760	608	506	433
		1726	1151	863	690	575	-
	9	1752	1168	875	700	583	-
	10	1944	1296	972	777	647	-


Spreading application quantity in LBS/ACRE
P.T.O.: 540 min.

Thomas Slag (Phosphate)	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 13.12 foot	2	260	173	129	103	85	73
	3	872	581	435	348	289	248
	4	1803	1202	901	720	600	514
	5	2478	1652	1239	990	825	708
	6						


Spreading application quantity in LBS/ACRE
P.T.O.: 540 min.

Ammonium Sulphate	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 26.2 foot							
	3	342	228	191	136	113	97
	4	751	501	375	300	250	214
	5	1032	688	515	413	343	294
	6	1532	1021	766	613	510	437
	7	1806	1204	902	721	601	514

Spreading application quantity in LBS/ACRE
P.T.O.: 540 min.


(Granular) Potassium	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 13.12 foot	2	111	74	55	44	37	-
	3	373	249	186	149	124	106
	4	816	543	407	325	271	232
	5	1197	798	599	478	398	341
	6	1795	1197	897	718	597	512


Spreading application quantity in LBS/ACRE
P.T.O.: 540 min.


Thomas Potassium (Grains)	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 26.2 foot							
	3	272	182	136	109	91	77
	4	664	442	332	265	220	188
	5	977	651	488	390	325	299
	6	1496	998	748	598	498	423
	7	1812	1208	906	724	604	517
	8	2072	1381	1036	829	690	591
	9	2093	1396	1046	837	697	597
	10	2322	1548	1161	928	773	662


Spreading application quantity in LBS/ACRE
P.T.O.: 540 min.


SPREADING TABLES

Grained Potassium	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 29.5 foot Spreading application quantity in LBS/ACRE P.T.O.: 540 min.							
	3	154	103	77	62	51	-
	4	378	253	189	151	126	108
	5	591	394	295	235	196	168
	6	918	612	459	367	305	262
	7	1096	730	548	438	364	312
	8	1218	812	609	486	406	347
	9	1237	825	618	494	411	352
	10	1415	944	707	566	471	404

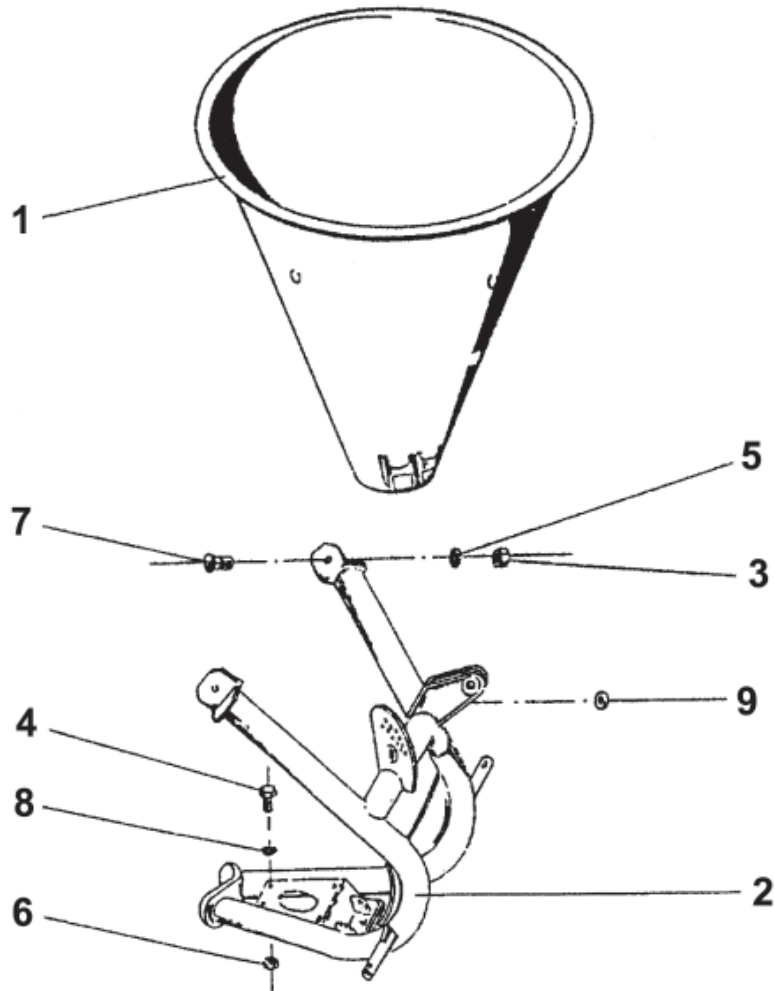
Superphosphate	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 32.8 foot Spreading application quantity in LBS/ACRE P.T.O.: 540 min.	2	46	31	23	-	-	-
	3	160	107	80	64	53	-
	4	410	273	205	163	136	117
	5	627	418	313	251	208	179
	6	959	639	479	383	319	273
	7	1110	740	555	443	369	316
	8	1223	815	611	488	406	349
	9	1255	837	627	502	417	358
	10	1444	963	721	577	480	412

Ammonium and Calcium Nitrate	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 29.5 foot Spreading application quantity in LBS/ACRE P.T.O.: 540 min.							
	3	137	91	68	-	-	-
	4	327	218	163	130	108	93
	5	494	329	246	197	163	140
	6	783	522	391	313	260	223
	7	955	637	478	381	317	272
	8	1082	721	540	432	360	308
	9	1089	726	544	435	362	310
	10	1242	828	621	496	413	354

N.P.K. Types	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 31.8 foot Spreading application quantity in LBS/ACRE P.T.O.: 540 min.							
	3	130	87	64	52	-	-
	4	345	230	172	137	115	98
	5	537	358	268	214	178	153
	6	842	561	421	336	280	240
	7	1028	685	513	411	342	293
	8	1164	796	582	465	387	332
	9	1185	790	592	473	394	338
	10	1350	900	675	540	440	385

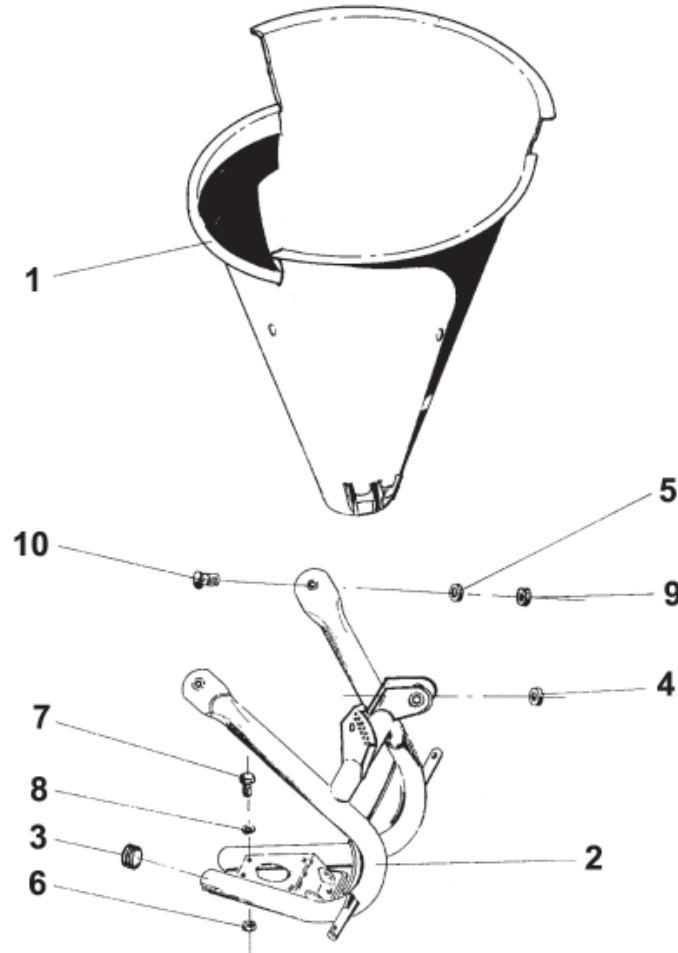
Coarse Grained Potassium	Feed Set	2.48	3.72	4.97	6.2	7.4	8.7
		M.P.H.					
 32.8 foot Spreading application quantity in LBS/ACRE P.T.O.: 540 min.							
	3	135	91	67	54	-	-
	4	360	240	180	144	119	102
	5	550	367	275	219	182	156
	6	862	575	431	344	287	245
	7	1069	712	534	427	355	305
	8	1232	821	615	492	410	351
	9	1250	833	624	499	415	356
	10	1402	935	701	580	467	400

S203L FRAME ASSEMBLY



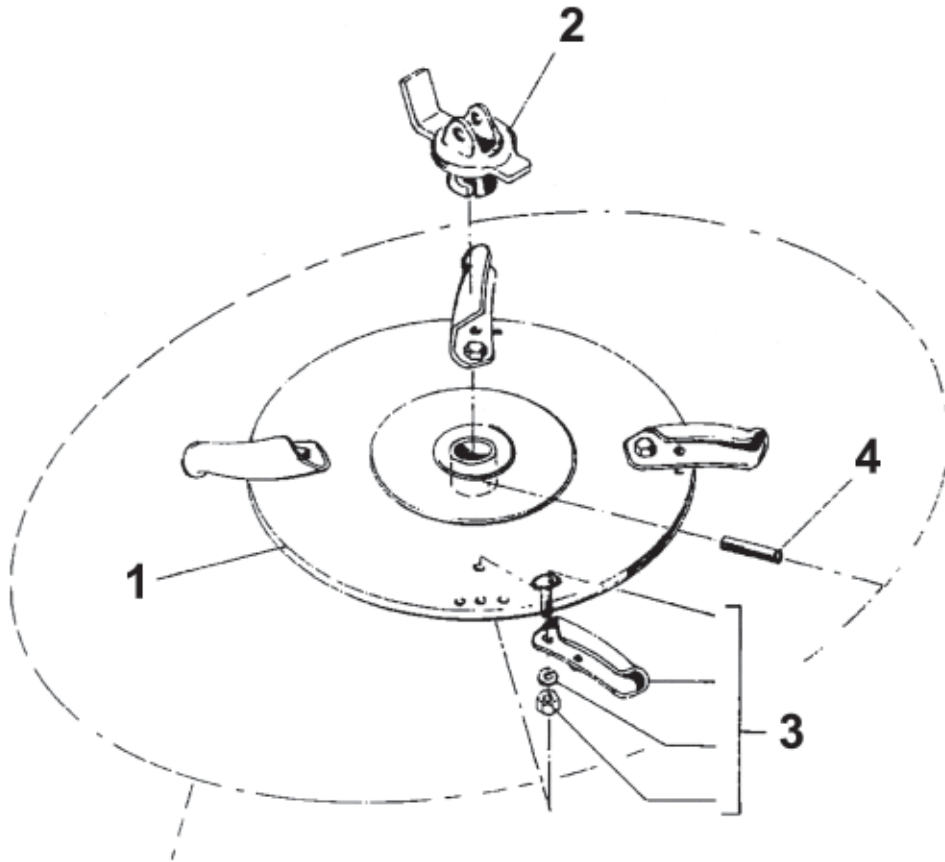
<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	C016019	Hopper
2	1	T003049	Frame
3	2	D001002	Nut M10
4	4	V003016	Bolt M10 x 20
5	2	R004002	Washer
6	4	D001002	Nut M10
7	2	V003002	Carriage Bolt M10 x 20
8	4	R004002	Washer
9	1	R005037	Washer

S273L/S503L FRAME ASSEMBLY



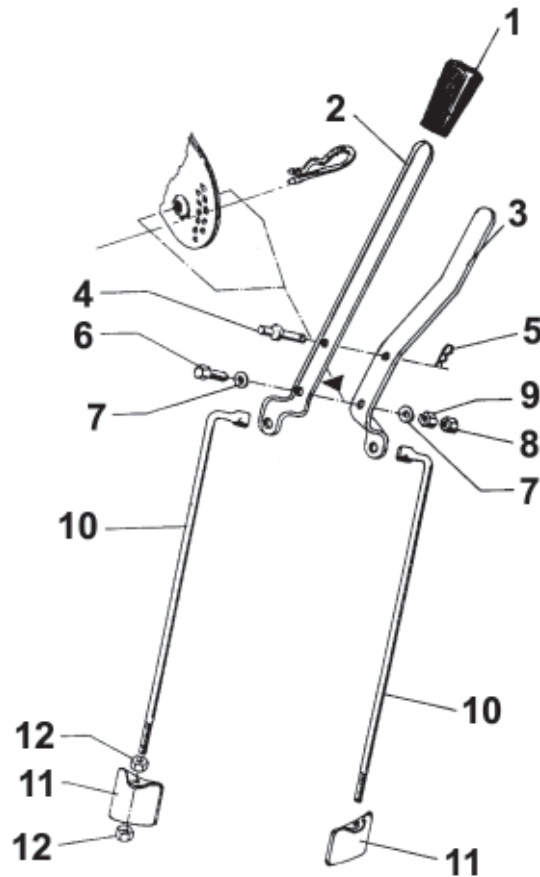
<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	C016033	Hopper S273L
1	1	C016035	Hopper S503L
2	1	T003100	Frame
3	2	T017015	Plug
4	1	R005037	Washer
5	2	R004002	Washer
6	4	D001002	Nut M10
7	4	V003010	Bolt M10 x 20
8	4	R004002	Washer
9	2	D001002	Nut M10
10	2	V003002	Carriage Bolt M10 x 20

SPREADING DISC ASSEMBLY



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	D002001	Spreading Disc S203L
1	1	D002003	Spreading Disc S273L/S503L
2	1	T011001	Drag Spindle
3	4	P001001	Vane Kit
4	1	S006001	Roll Pin M5 x 45
4	1	S006002	Roll Pin M8 x 45

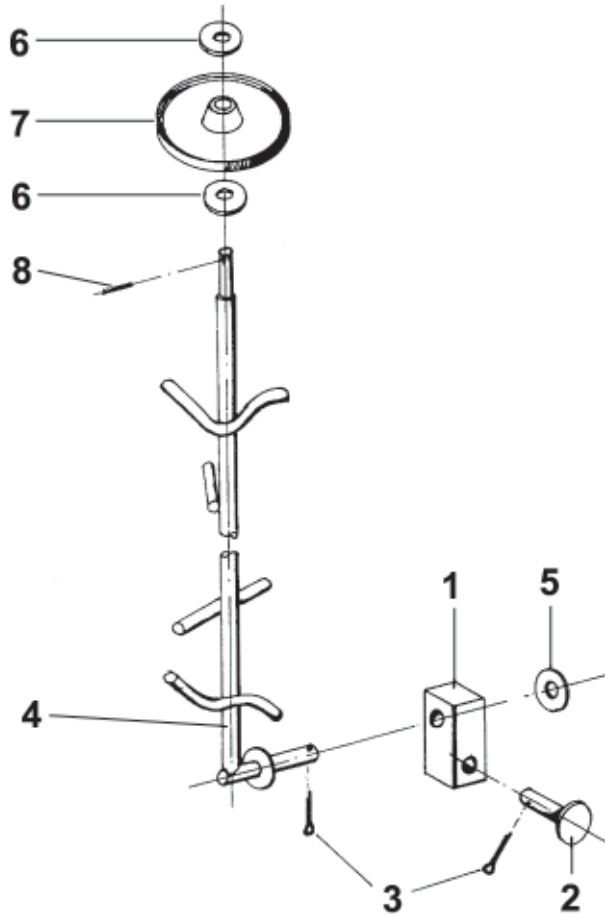
LEVER CONTROLS



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	I006001	Grip
2	1	L003002	Lever, Left
3	1	L003001	Lever, Right
4	1	P004002	Pin
5	1	C019001	Hair Pin
6	1	V003036	Bolt M12 x 45
7	2	R005001	Washer
8	1	D001003	Nut
9	1	D001004	Nut
10	2	T008001	Tie Rod S203L
10	2	T008002	Tie Rod S273L
10	2	T008003	Tie Rod S503L
11	1	S012001	Shutter, Right Side
11	1	S012002	Shutter, Left Side
12	4	D001002	Nut

OPTIONAL AGITATOR ASSEMBLY

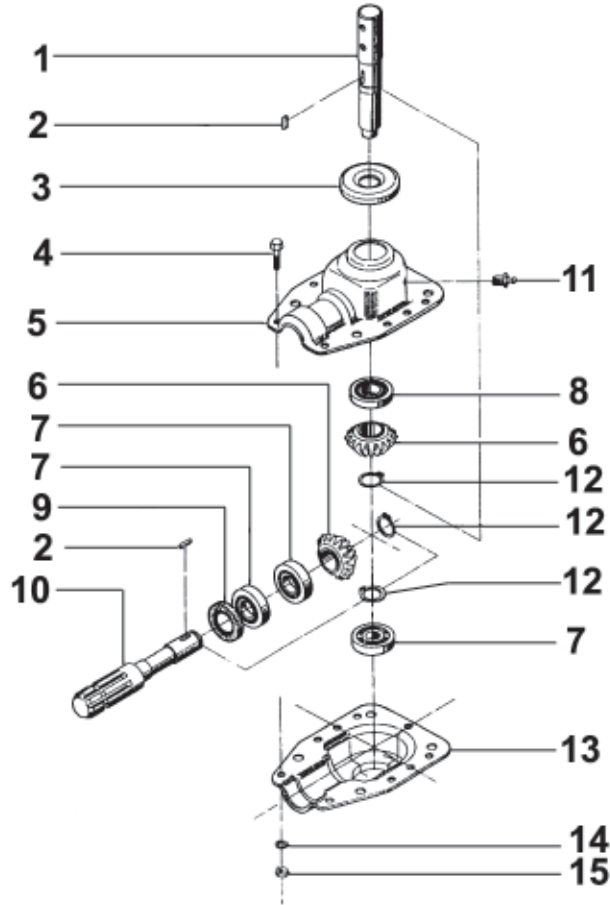
A002001



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	S004001	Joint
2	1	P004003	Pin
3	2	C019002	Cotter Key
4	1	T003005	Agitator
5	1	R005002	Washer
6	2	R005003	Washer
7	1	R008007	Rubber Wheel
8	1	S006003	Cotter Key M4 x 20

GEARBOX ASSEMBLY

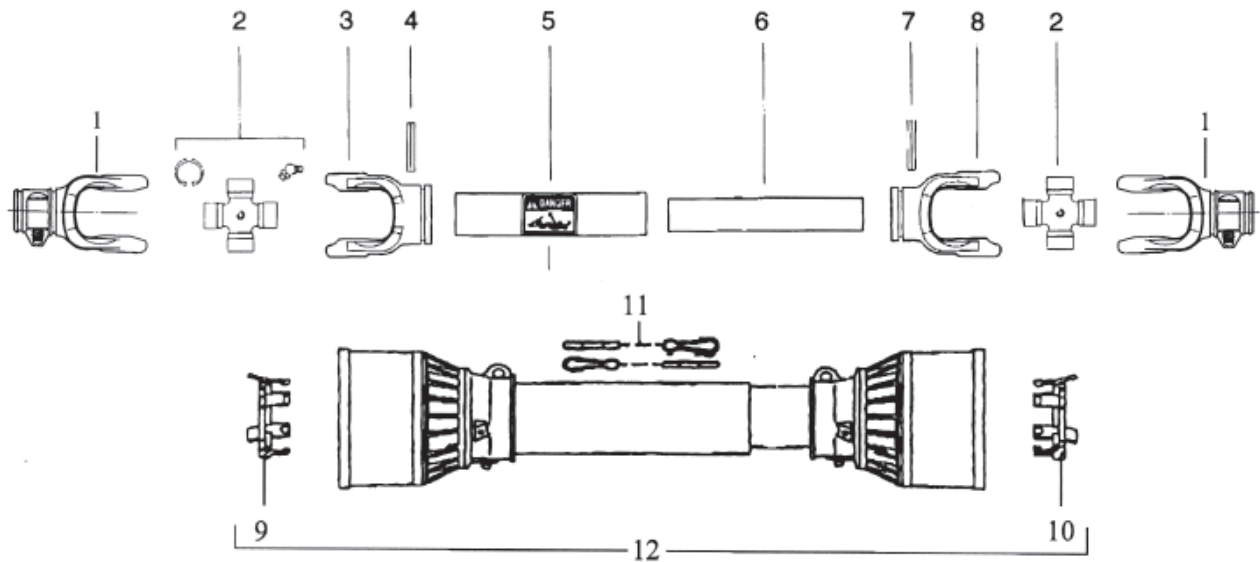
G005009



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	A005064	Shaft, Output
2	2	L005014	Key 7 x 8 x 20
3	1	F005001	Cover, Dust
4	8	V003003	Bolt M8 x 16
5	1	S002001	Housing, Upper 1/2
6	2	R009072	Pinion Gear 11 Tooth
7	3	6205	Bearing
8	1	6205-2RS	Bearing
9	1	35x52x10	Oil Seal
10	1	A005059	Input Shaft
11	1	I002002	Grease Zerk
12	3	S011001	Circlip E25
13	1	S002002	Housing, Lower 1/2
14	8	R004001	Washer
15	8	D001001	Nut M8

DRIVELINE ASSEMBLY

C005210



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	507010351	Yoke 1 3/8", 6-Spline
2	2	41201	Cross Kit #1
3	1	204016851	Outer Tube Yoke
4	1	341036000	Roll Pin
5	1	225020933	Outer Drive Tube
6	1	225010933	Inner Drive Tube
7	1	341037000	Roll Pin
8	1	204016852	Inner Tube Yoke
9	1	255010005	Outer Shield Bearing
10	1	255010006	Inner Shield Bearing
11	2	252000001	Safety Chain
12	1	5N01086N1	Complete Shield

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.