GEARMORE®

IN-ROW RETRACTABLE POWER DISCS

Operation, Service & Parts Manual

May 2000

FORM: In-RowDiscBook.QXD

TABLE OF CONTENTS

Date of Purchase: _____

Model Number:_____

Serial Number _____

GENERAL SAFETY INSTRUCTIONS

- If you leave the tractor, even temporarily, verify that the implement has been laid on the ground or positioned in such a way as not to be dangerous for the operator and other people.
- If you leave the tractor, switch the engine off.
- In case of doubt on what to do during the installation, working and maintenance, switch the engine of the tractor off, consult the manual or your dealer.
- Start up the implement only when you are properly seated.
- In case of emergency, immediately switch the engine of the tractor off.
- It is forbidden to execute operations different from those stated in the usage and purpose of the implement.
- If is forbidden to add accessories, optionals and whatever else which has not been contemplated or previously authorized by the manufacturer.
- The machine must not be used by more than one operator at a time.

GENERAL INSTRUCTIONS

PTO ROTATION SPEED

To make the implement work at its best, it is necessary to make sure that the pump unit has the correct number of revolutions in order to obtain enough pressure and oil to perform all the operations.

THE PTO ROTATION SPEED MUST BE 540 R.P.M.

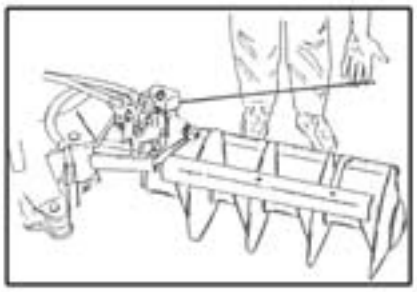
Higher rotational speed can damage the hydraulic circuit components. Lower rotational speed makes the implement useless, because of the lack of pressure and the consequent lack of the power required for the movement of the unridging set of disks. In case of PTO rotational speed different from those here indicated, please consult your dealer.

FIRST STARTING

When first starting or after long periods of non use, it is important to perform the following operations:

Start the tractor and apply the parking brake.

Pict. 11



Lift the implement and run PTO, bring the tractor engine to its minimum RPM.

Only being in front of the set of discs (Pict. 11) and paying the maximum care, operate the sensing device rod in such a way as to simulate an obstacle during the set of discs advancing.

Verify that the discs carry out the whole stroke, i.e. reaches a position which is parallel to the axis of the machine. When the sensing device rod is released, the movements must be continuous and without jolts, as these are signs of air in the hydraulic circuit.

ALL THE START AND FIRST STARTING STAGES MUST BE PERFORMED BY AUTHORIZED PEOPLE OR BY WORKERS TRAINED TO THIS PURPOSE

PUMP UNIT INSTALLATION

TURN OFF THE ENGINE BEFORE PERFORMING THE FOLLOWING OPERATION

Before installing the pump, make sure that the engine of the tractor has been switched off and that ***it can not be started*** beyond the operator's control, who is installing the implement. To set the implement up, follow these directions:

1. Carefully clean the tractor PTO slots, then oil or grease.

2. Verify if there is any foreign matter in the hole spline of the pump unit, remove the dirt which may be found in it, oil or grease.

3. Insert the pump unit into the PTO shaft.

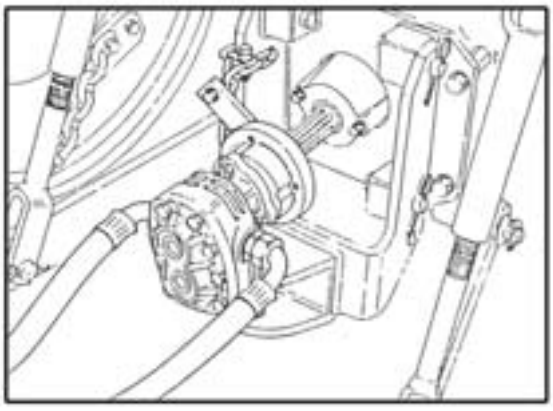
4. Fix the chain free end to one of the holes of the tractor frame by means of the locking bolt.

For safety's sake, and to have a correct installation, the chain between the tractor and the pump unit has to be as short as possible to avoid, during the starting and when the pressure changes, harmful jerks which can damage both the pump unit and the pipes jointed to it.

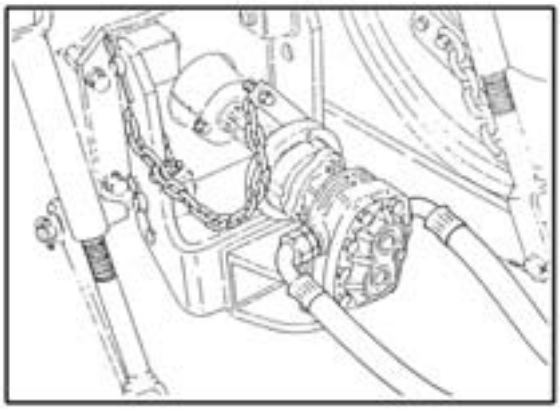
Pict. 09 shows the **correct installation** of the pump unit; the chain between the pump unit and the tractor is as short as possible.

Pict. 10 shows the **incorrect installation**; the chain is too long.

Pict. 09



Pict. 10



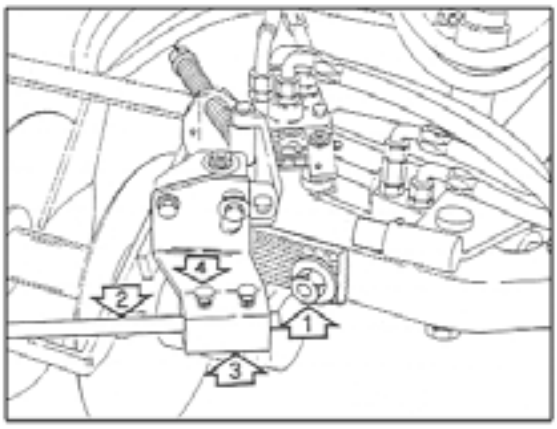
SETTING THE POWER DISC

TURN OFF THE ENGINE BEFORE PERFORMING THE FOLLOWING OPERATION

The power disc performs two operations: it turns the earth and removes weeds, which are harmful to the crop.

To set the disc, follow these directions:

- Start the tractor and lift the back implement about 5 inches, turn off the engine and remove the starting key out of the panel.
- Make sure that nobody in the proximity of the machine can start the controls, which lower the back 3-point hitch of the tractor.
- Carefully clean both the slots, which are in the supporting arm of the disc.
- Mount the set of discs, clean the coupling slot and insert it into the two studs (pict. 12, pos. 1).
- Insert the two spline washers and their appropriate nuts. Before fixing nuts, set the depth of penetration.
- The more you angle the set of discs, the deeper the disc will penetrate the soil. Thus, when working in hard soils, we suggest adjusting the discs to the maximum depth.
- Tighten the two nuts firmly.
- Insert the sensing device rod (pos. 2) into its appropriate clevis (pos. 3) and tighten the appropriate fastening screws (pos. 4).



Pict. 12

SENSING DEVICE ADJUSTMENT

TURN OFF THE ENGINE BEFORE PERFORMING THE FOLLOWING OPERATION

Your in-row blade comes with 3 springs:

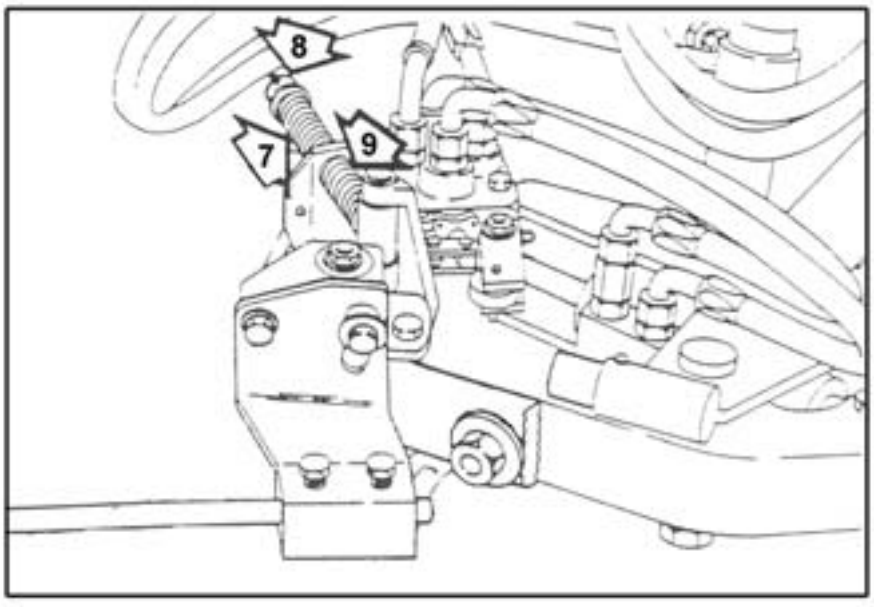
1. Light duty spring for working in young plants or plants with delicate bark.

2. Medium duty spring, which is the spring used in most applications.

3. Heavy duty spring for plants with solid trunks.

To change the return spring (pict. 9 pos. 7) remove the lock pin (pos. 8) take off the flat washer, take off the spring and change it with a spring more adequate to the kind of work you are going to perform.

Special Note: Never remove the spring shown in (pic. 9, pos. 8) unless damaged and then only replace with the same size.



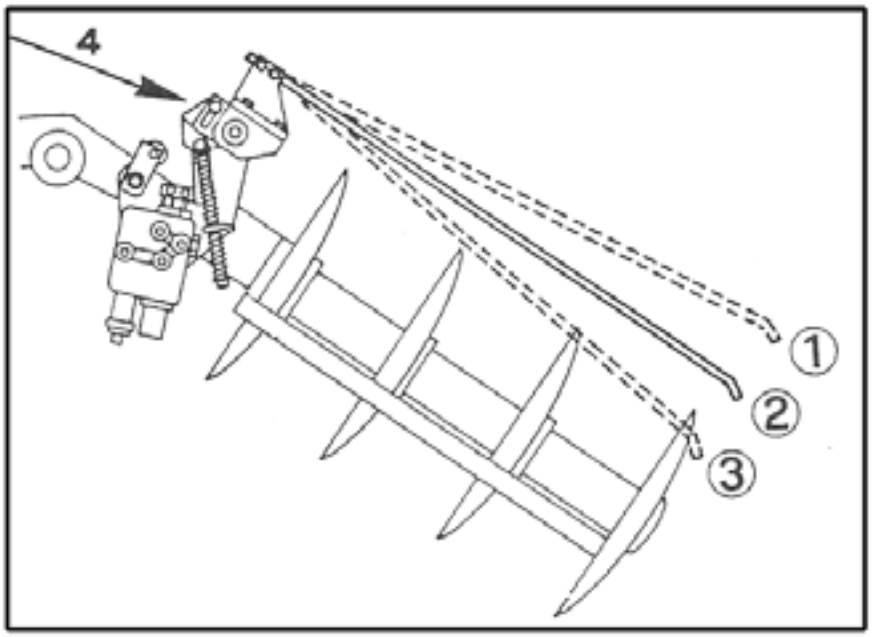
Pict. 9

SENSING ROD ADJUSTMENT

Turn off engine before performing the following operations

To insure that the in-row retractable blade is operating correctly, a few simple adjustments are necessary.

- Make sure the rod is extended to the same length as the blade (pict. 13)
- Make sure the sensing rod is parallel to the blade (pict. 13, pos. 2), which is the correct position for most operations.
- In (pict. 13, pos. 1), the rod is slightly advanced. We suggest this position to work in plants with deformed trunks, such as old vineyards.
- In (pict. 13, pos. 3), the rod is shown in the incorrect position.
- To adjust the advance device, turn the 2 fastening screws (pict. 13, pos. 4).



Pict. 13

HORIZONTAL ADJUSTMENT

Turn off engine before performing the following operations

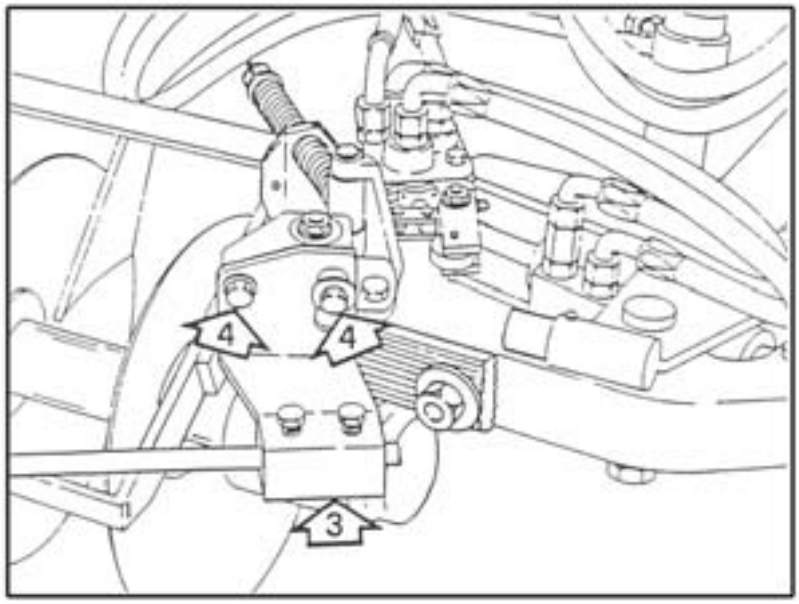
The sensing device rod is also provided with a horizontal adjustment. The sensing device has to be installed at about the midpoint of the set of discs (in line with its axis).

If big bushes or big harmful plant trunks have to be removed, the sensing rod could be placed in a higher position in order to allow the set of discs to uproot bushes instead of digging around them.

To be able to raise the sensing rod with many higher settings, order bracket assembly #0503010.

For horizontal adjustment, use bolts (pict. 14, pos. 4). When adjusting the rod, use locking bolts in bracket (pict. 14, pos. 3).

Pict. 14

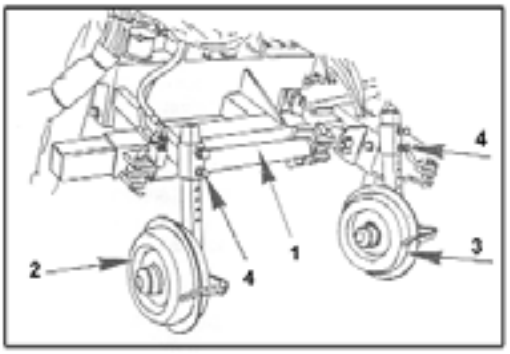


HEIGHT/WIDTH ADJUSTMENT

Turn off engine before performing the following operations

HEIGHT ADJUSTMENT

It is necessary to adjust the two back wheels in order to allow the set of discs to work exactly within the inter-rows (pict. 15 pos. 2 & 3). Therefore, raise the wheels up to the required height, tighten the locking bolts (pos. 4). Before performing any operation, verify that the height of the wheels is always lower than the axis of the set of discs.



Pict. 15

WIDTH ADJUSTMENT

To make the inter-rows implement more effective, a lateral adjustment of the set of discs position is standard. It consists of a sliding arm (pict. 15, pos. 1), which can be directly moved from the drive seat (for most machines pos. "B" of the hydraulic scheme, see next page) or manually locked by the pin.

HEAD UNIT RAISING

The disc unit can be raised from the soil by the hydraulic cylinder (pict. 16, pos. 1), which can be directly operated from the drive seat (pos. "A" of the hydraulic scheme on the next page).

Pict. 16

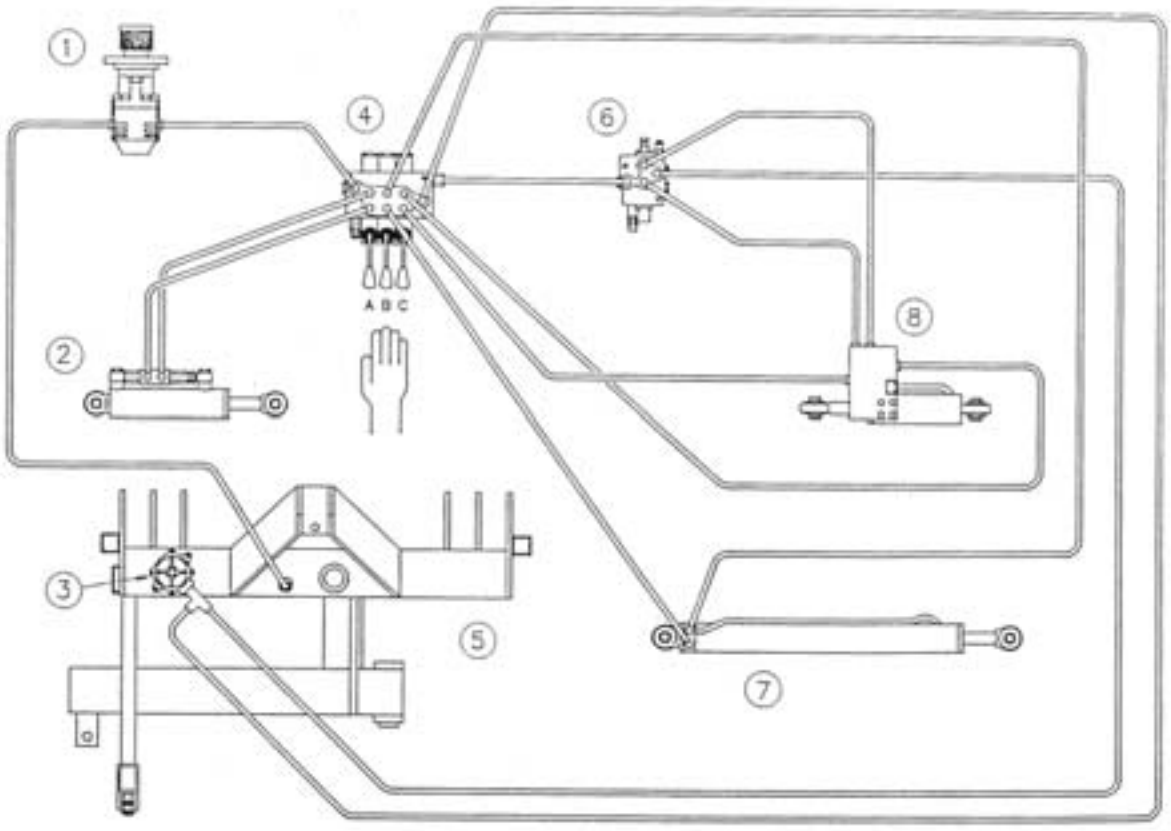
Before performing any operation make sure that nobody is in the effective range of the machine.

If the machine has been parked with the unit raised, make sure that the tractor is off and that only the operator can start it in order to avoid that false movements can make the unit descend causing hazards.

HYDRAULIC SCHEMATIC

1. Pump
2. Hydraulic cylinder for head raising
3. Oil filter
4. Lever control for manual remote valve
5. Tank
6. Remote hydraulic valve
7. Hydraulic cylinder for lateral set of discs sliding out
8. Hydraulic cylinder for set of discs back in

A. Head Control
B. Set of Discs Sliding Out Control
C. Set of Discs Back In Control



BACK FILL INSTRUCTIONS

Turn off engine before performing the following operations

The back fill disc is used to replace the soil that was removed by the power disc.

To set the back fill disc, follow these directions:

1. Start the tractor and lift the implement about 5 inches, switch the engine off and take the starting key out of the panel.

2. Make sure that nobody is in the proximity of the machine that would lower the back 3-point hitch of the tractor.

3. Take the sensing device rod off and its adjustable support, paying attention to retighten the screws of the support in order to keep the threads clean.

4. Remove the power disc by unscrewing nuts and removing the spline washers.

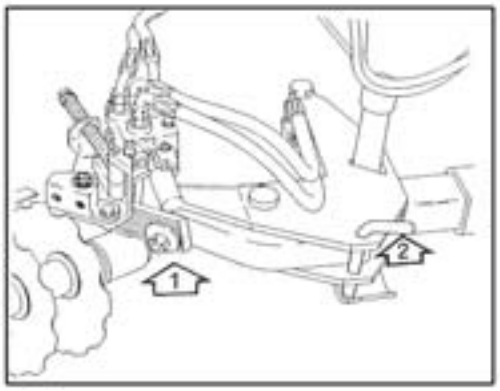
5. Carefully clean both the slot, which is in the supporting arm for back fill disc and the two studs.

6. Mount the back fill disc on to the two studs (pict. 17, pos. 1).

7. Install the two spline washers and their appropriate nuts. Before fixing nuts, adjust the disc so that the axis of the discs is parallel to the soil.

8. Tighten the two nuts firmly.

9. Insert the lockpin (pict. 17, pos. 2) into its appropriate hole in order to lock the set of discs.



Pict. 17

WORKING WITH THE POWER DISC

Make sure you have made all the adjustments so the unit is set correctly.

Before starting work, we suggest you try to get used to the various adjustments.

To save time and, above all, to remove elements which can damage the implement verify that in the soil to be treated:

- There are no very big stones.
- There are no unused stakes stuck in the soil.
- There are no cables, ropes, remains of barbed wire or fences.
- There are no obstacles which are lower than the sensing device rod height.
- Plants which are too young to be noticed by the sensing device must be supported by means of an adequate stake or cane.
- The depth of the discing work do not damage the roots of plants.
- The axle of the set of discs must always be higher than the earth surface.
- The sensitivity of the sensing device is adequate to the plants which have to be disced.

LUBRICATION & MAINTENANCE

EVERY 10 WORKING HOURS (OR EVERY DAY)

Cleaning:

1. Swivel supporting arm for set of discs
2. Eccentric and springs
3. Set of discs

Check:

1. For damages
2. Check oil leaks
3. Eccentric pin efficiency

Grease:

1. Ratchet
2. Eccentric pin

EVERY 50 WORKING HOURS (OR EVERY 2 WEEKS)
(to be carried out in addition to daily maintenance)

Cleaning:

1. General cleaning of machine
2. Hydraulic oil filter (or replace)

Check:

1. Hydraulic oil level

Grease:

1. Spheric joints

EVERY 200 WORKING HOURS (OR EVERY 2 MONTHS)

Cleaning:

1. Hydraulic oil filter (or replace)

Check:

1. Hydraulic circuit

EVERY 1000 WORKING HOURS (OR EVERY YEAR)
(to be carried out in addition to the above mentioned maintenance)

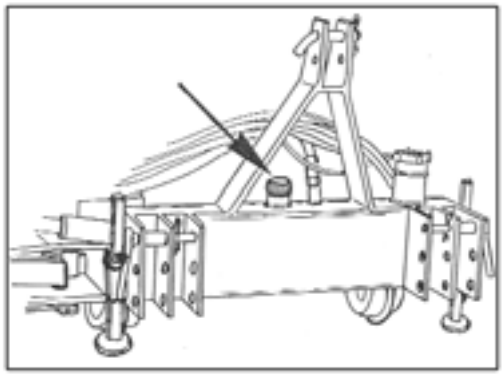
Replace:

1. Hydraulic oil
2. Hydraulic oil filter

HYDRAULIC OIL LEVEL CHECK

Check the oil with level gauge located under the oil filling cap. (Pict. 19)

Pict. 19



If possible, fill with the same kind of oil used in the tractor.

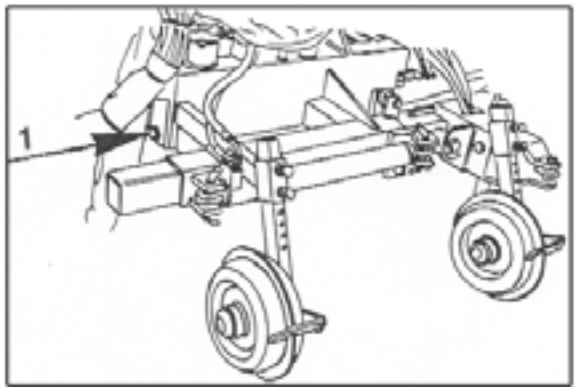
Should the system require too frequent fill-ups, check for possible leaks.

REPLACING HYDRAULIC OIL

We suggest replacing all the hydraulic oil which is contained in the hydraulic system of the machine every 1000 hours as follows:

- Place the in-rows implement on the flat surface and switch the tractor off.
- The drain plug is placed on the left side of the oil tank.
- Prepare an adequate tray under the plug.
- Unscrew the drain plug (pict. 20, pos. 1) and the oil drain cap (pict. 19).
- When the tank is completely empty, start the tractor and operate the PTO for a few seconds to let drain the oil contained in the hoses, then switch the tractor off, wait until the oil tank is completely empty and screw the drain plug in again.
- During the oil drainage, replace the hydraulic oil filter.
- Start filling the tank and, if possible, filter the new oil so than no foreign matter can enter the hydraulic circuit.
- During the tank filling, check constantly the oil level; when near full, slow filling with small oil quantities to allow the air contained in the tank to escape.
- Remount the cap, start the tractor and operate the PTO for some minutes, check that the oil level remains constant; if necessary fill it up again

Pict. 20



OIL FILTER CLEANING OR REPLACEMENT

As shown by the maintenance schedule, once a year it is necessary to clean or to replace the hydraulic oil filter which is placed on the tank, following these instructions:

1. Carefully clean the cover of the hydraulic filter (pict. 21)

2. Unscrew the four nuts on the filter cover

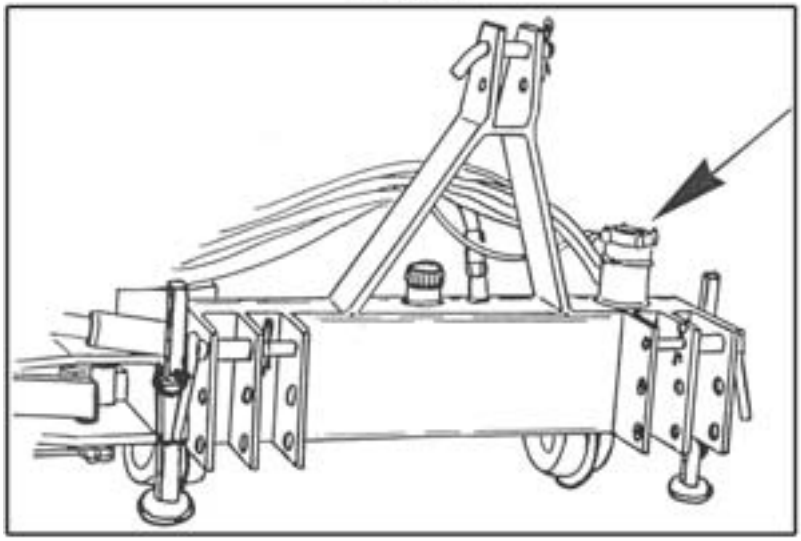
3. Raise the filter cover

4. Take out both the spring and the oil filter cartridge

5. Insert the new filter, locate the spring, press the spring with the cover until the filter is completely closed

6. Screw in the four nuts

Pict. 21

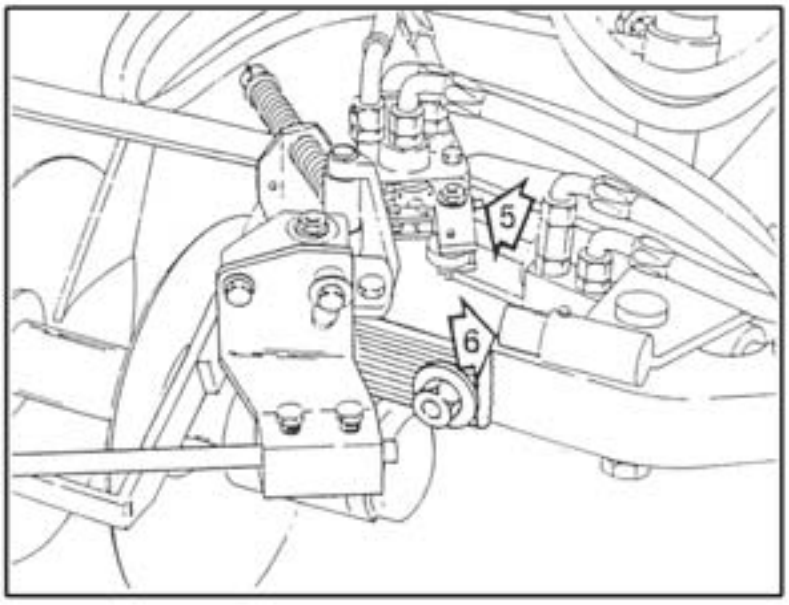


If you are going to clean the oil filter dip the cartridge in a tray full of gasoline. Hours later blow from outside towards inside with low pressure compressed air.

GREASING POINTS

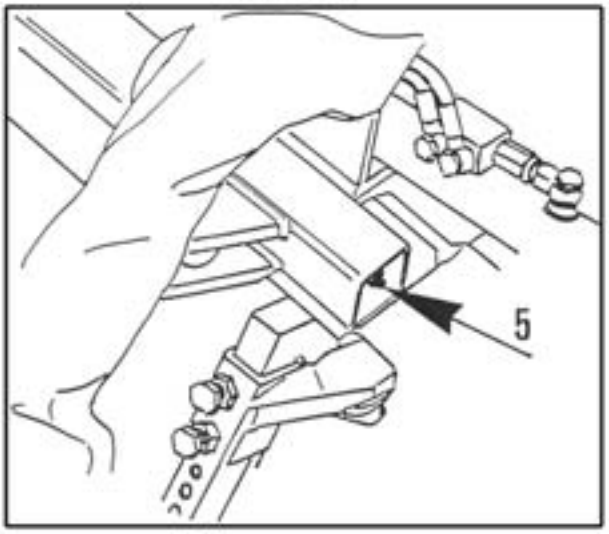
Pict. 22, pos. 5, pict. 23, pos. 5 and pict. 24, pos. 5 point out the location of the grease fittings which periodically, at the previously mentioned fixed dates, will have to be greased by a greasing pump.

Smear the eccentric pin shown in the pict. 22, pos. 6 with grease.

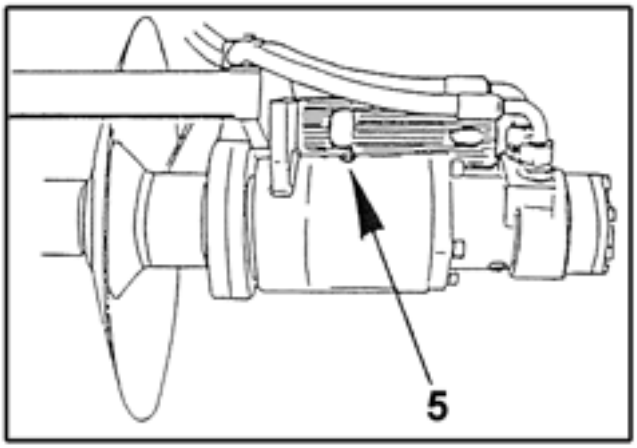


Pict. 22

Pict. 23



Pict. 24



TROUBLES: CAUSES & REMEDIES

Problem: The set of discs do not move or do not keep in position

Cause	Origin	Remedy	
Lack of pressure	PTO is OFF The pump is disconnected The pump is seriously damaged Serious leakage of oil	Turn PTO on Insert the pump on to PTO Replace the pump Check for leaks & repair	
No movement on frame or discs	Extension tube is locked Set of discs support is locked	Remove lock pin Remove lock pin	
Absence of hydraulic control	Absence of the sensing device rod The sensing device is locked The remote hydraulic valve is locked Plunger device is jammed	Insert the sensing device rod Unlock sensing rod Unlock Lubricate plunger	

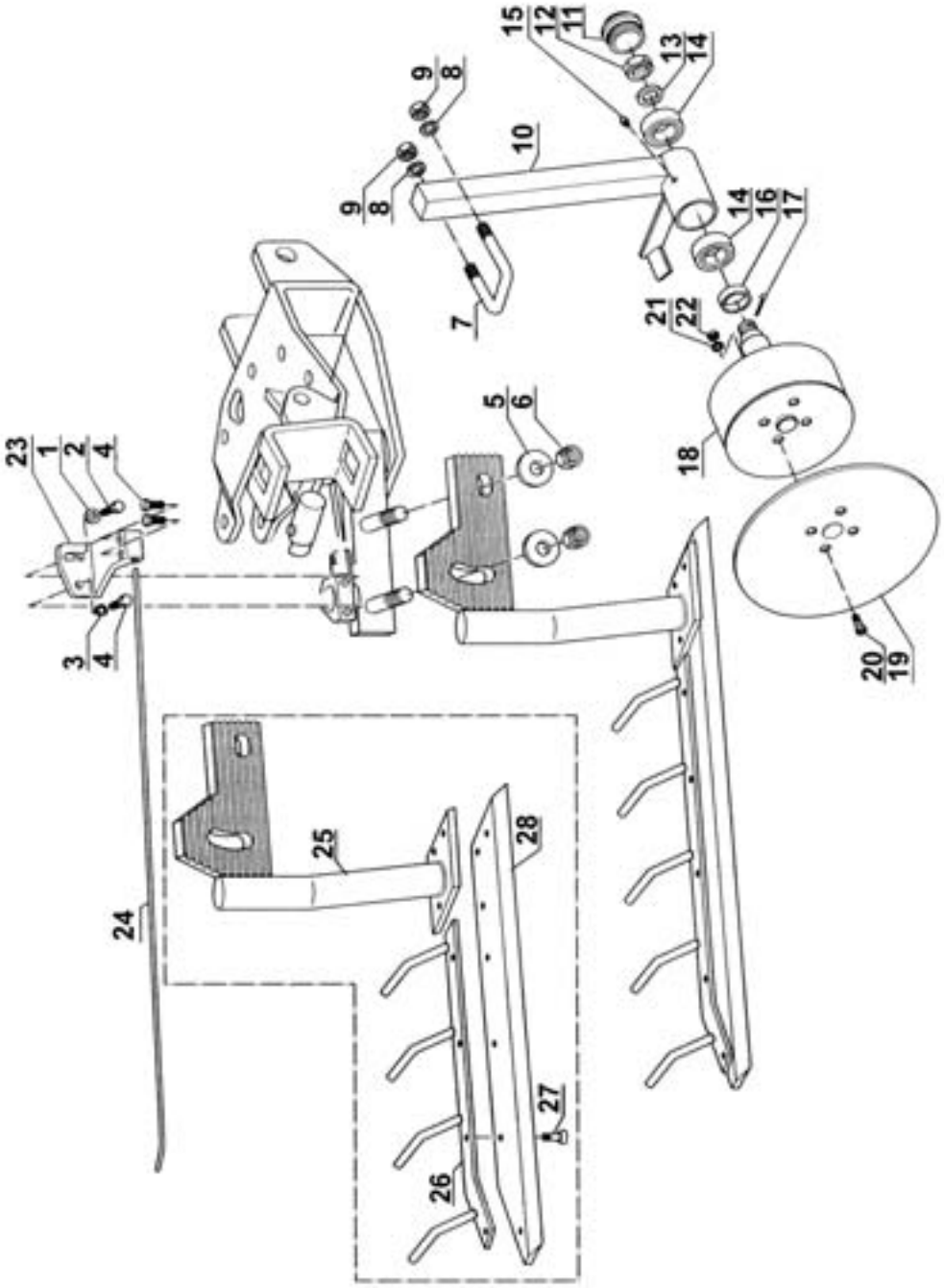
Problem: The set of discs move irregularly

Plunger in spring sensing device	Springs mounting is wrong Springs out of calibration	Verify and reassemble Replace springs	
The pump is worn	The pump is worn	Rebuild or replace	*
Misalignment of the system for neutral positioning	Bearings breaking supporting arm for set of discs	Rebuild or replace	*
Bearings breaking set of discs support	Lack of lubrication Wear	Rebuild or replace	*
Relevant leaks	Leaks from pipes Leaks from pipe fittings Cylinder gaskets damaged	Verify pipes Verify pipe fittings Replace cylinder gaskets	
Spool in control remote valve does not work correctly	The slide valve spring out of calibration Impurities in the remote valve Slack screw in the slide valve Remote valve gaskets damaged or worn Disc spring distributing valve support breaking	Replace Rebuild the remote valve Rebuild & tighten the screw Rebuild and replace Replace	
Low oil flow	The pump is worn Wrong PTO speed	Rebuild or replace Verify PTO speed	
Force of friction	The piston rod is damaged	Replace	
Hydraulic pump overheating	Eccentric pin breaking Free wheel spring breaking The pump is worn	Replace Replace Rebuild or replace	*
Too much oil rate of flow to the limited traverse cylinder	Wrong PTO rotation	Verify PTO	

*** REFER TO THE DEALER SERVICE DEPARTMENT**

RETRACTABLE BLADE F/TPE

M10T1001 24" & M10T1004 31"



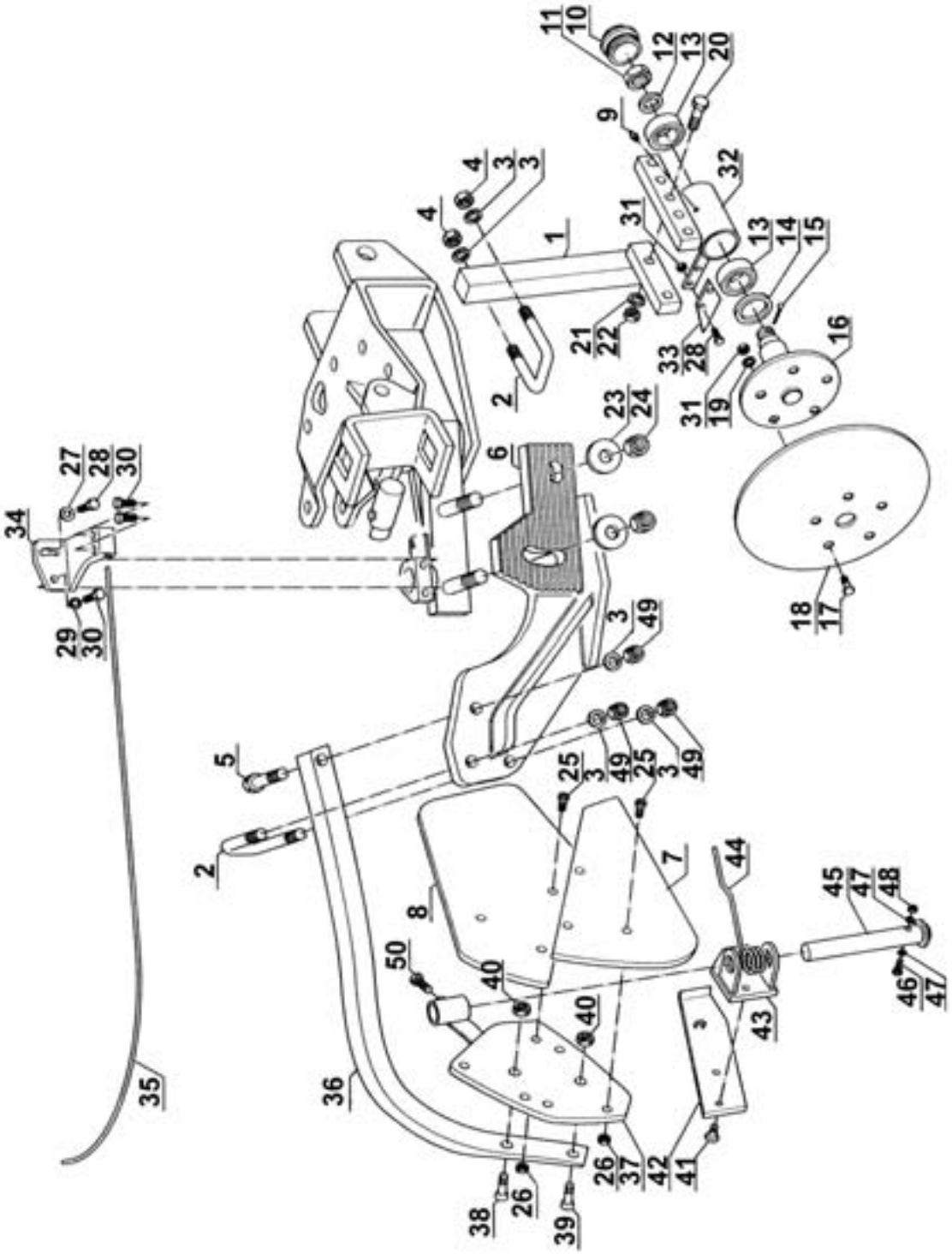
RETRACTABLE BLADE F/TPE

M10T1001 24" & M10T1004 31"

SPARE PARTS

REF#	PART NO.	DESCRIPTION
1	0101514	Flat Washer 12.5 x 6
2	M2TEZ12030	Bolt M12 x 30
3	M2RONP1Z12	Flat Washer
4	M2TEZ12025	Bolt M12 x 25
5	0102503	Knurled Washer 20
6	M2DENZ1M20	Nut M20
7	M2VSDCA010	Bolt, Square M16 x 80 - 41 x 78
8	M2RONP1Z16	Flat Washer 16
9	M2DENZ1M16	Nut M16
10	0135060	Support Arm
11	M40103C062	Dust Cap D62
12	M2DECF1M27	Nut M27 x 2
13	M2RONP1027	Flat Washer 27
14	32206	Bearing
15	M2INGM8125	Grease Nipple M8
16	35X62X10	Oil Seal
17	M2COP00550	Cotter Key 5 x 50
18	0135057	Wheel & Axle
19	M44FD1320L	Disk 320 - 4-Bolt
20	M2TSE10030	Allen Bolt M10 x 30
21	M2RONP1010	Flat Washer 10
22	M2DEN02M10	Nut M10
23	0103509	Rod Clevis D-35 RH
24	0145563	Sensing Rod L=680 RH
24	0145562	Sensing Rod L=850 RH
25	0135053	Blade Support Leg RH
26	0135054	Comb L=630 RH
26	0136054	Comb L=800 RH
27	M2TSE12020	Allen Bolt M12 x 20
28	M4LACL9163	Blade RH 630
28	M4LACL9080	Blade RH 800

M10T1101 FRENCH PLOW F/TPE/TOAL ASSY.



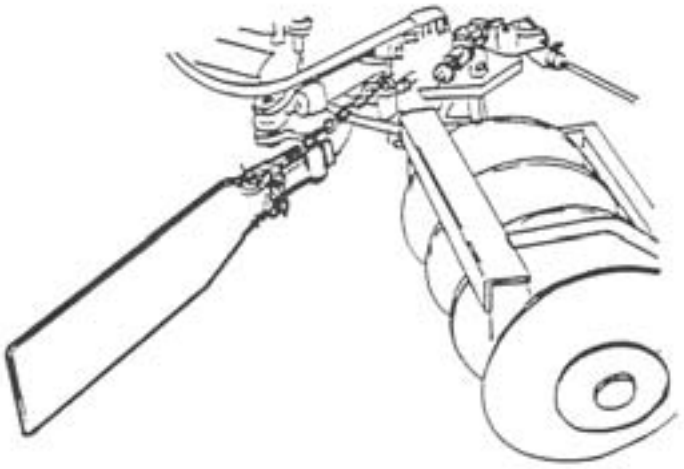
M10T1101 FRENCH PLOW F/TPE/TOAL ASSY.

REF#	PART NO.	DESCRIPTION
1	0126065	Coulter Blade Arm
2	M2VSDCA010	Square Bolt M16
3	M2RONP1Z16	Flat Washer D16
4	M2DENZ1M16	Nut M16
5	M2TEZ16080	Bolt M16 x 80
6	0126057	Mounting Bracket - French Plow
7	1301501	Plow Shear Lower
8	1301502	Plow Shear Upper
9	M2INGM8125	Grease Zerk M8
10	M40103C072	Dust Cap D72
11	M2DECF1M27	Nut M27 x 2
12	M2RONP1027	Flat Washer M27
13	32207	Bearing
14	45X72X10	Oil Seal
15	M2COP00550	Cotter Pin 5 x 50
16	1001051	Axle Coulter
17	M2TTDE1235	Bolt 12 x 35
18	M45FD1410L	Disc 410 5-Bolt
19	M2RONP1012	Flat Washer M12
20	M2TEZ20090	Bolt 20 x 90
21	M2RONGR020	Washer M20
22	M2DENZ1M20	Nut M20
23	0102503	Knurled Washer D20
24	M2DENZ1M20	Nut M20
25	M2TSE10030	Plow Bolt M10 x 30
26	M2DEN02M10	Nut M10
27	0101514	Washer 12.5 x 6
28	M2TE012030	Bolt M12 x 30
29	M2RONP1Z12	Washer M12
30	M2TEZ12025	bolt M12 x 25
31	M2DEN02M12	Nut M12
32	1001064	Hub French Plow Coulter
33	1001531	Scraper
34	0103509	Rod Clevis D35 RH
35	0126503	Sensing Rod L=900 French Plow
36	1301521	Arm French Plow
37	1301061	Plow Shear Rear
38	M2TSE12070	Bolt 12 x 70
39	M2TSE12050	Bolt 12 x 50
40	M2DEM00M12	Nut M12
41	M2TSE12020	Bolt 12 x 20
42	1301157	Vine Wiper Blade
43	1301095	Mounting Bracket Spring Holder
44	1003507	Spring
45	1301156	Shaft
46	M2TEZ10060	Bolt 10 x 60
47	M2RONP1010	Flat Washer 10
48	M2DEA01M10	Nut M10
49	M2DEA01M16	Nut M16
50	0101503	Bolt

SOIL SHIELD

Keeps soil off of cover crops

Surface Mounted
Weight - 29#

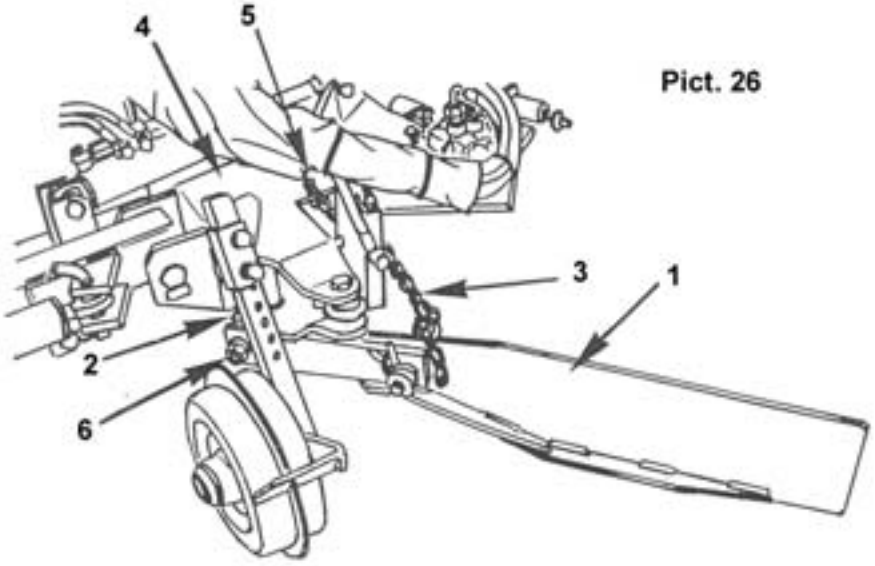


SOIL SHIELD MOUNTING

a - Insert the soil shield hitch (pos. 1) into the wheel support rod (pos. 2)

b - Connect the chain (pos. 3) to the support (pos. 4) through the hitch (pos. 5), adjusting its length according to the work conditions

c - Tighten the bolt (pos. 6) in order to fix the soil shield



Pict. 26

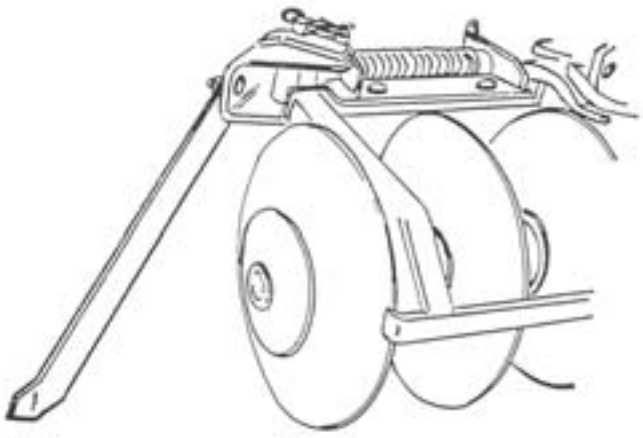
THE SIDE WHERE THE CHAIN IS SLACK MUST BE KEPT BEYOND THE SOIL SHIELD (SEE PICT. 26)

UNHITCH THE CHAIN (POS. 3) ONLY FROM THE POS. 5.
When the device is dismounted the chain **must not** remain connected to the three discs, but it must remain connected to the device and then removed from the three discs.

TRUNK BASE SCRAPER

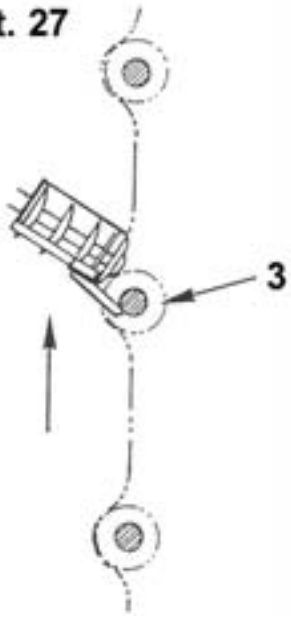
The trunk base scraper removes the clods which surround the trunk (see pict. 27, pos. 3) after the power disc passes.

Weight - 20#

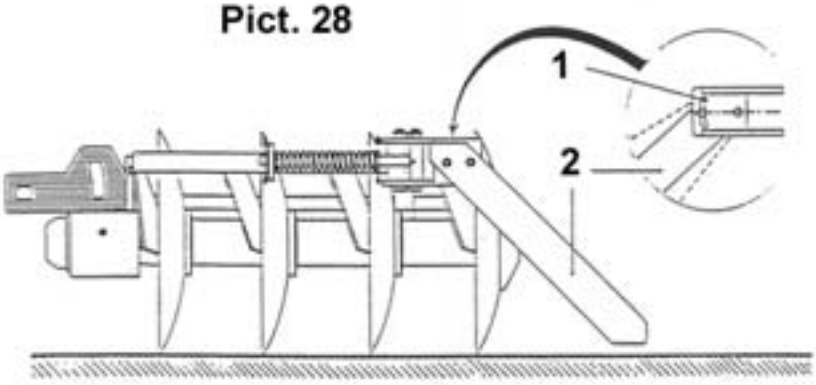


For the working height adjustment of the trunk base scraper (pict. 28, pos. 2), see as shown in (pict. 28, pos. 1).

Pict. 27



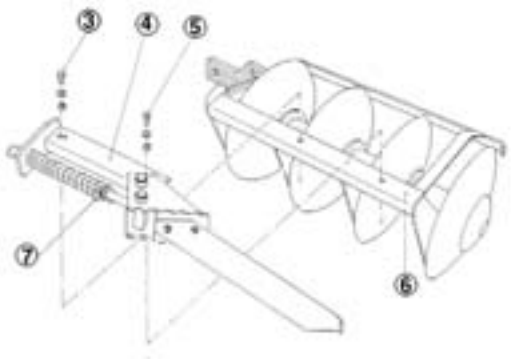
Pict. 28



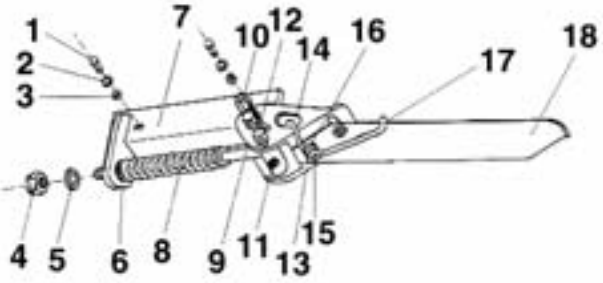
M10T0510 BLADE VINE CLEARANCE

a.) Remove the bolts (pos. 3 and 5) and place the trunk base scraper angle (pos. 4) on the soil scraper angle (pos. 6).

b.) Insert the bolts (pos. 3 and 5), and after having tightened the nuts, start operating, taking into account that the trunk base scraper edge must always hit the colds which lay at the base of the trunk (see pict. 27 on previous page).



c.) To adjust spring tension, use pins (pos. 7).



REF#	PART NO.	DESCRIPTION
1	M2TEZ12040	Bolt M12 x 40
2	M2RONP1Z12	Washer
3	M2DEA01M12	Nut M12
4	M2DEAF1M20	Nut M20
5	M2RONP1A20	Washer
6	M2RONP1Z20	Washer
7	0125025	Connection with Bushing
8	RT00002881	Spring D7
8	RT00002882	Spring D6
8	RT00002883	Spring D45
9	0125026	Pin
10	M2COPLA005	Cotter Pin
11	M2INGM8125	Greaser
12	0125504	Pin L=120
13	0101514	Washer 12.5/36x6
14	0125503	Fork Plant Trimming Blades
15	M2TEZ12065	Bolt M12 x 65
16	0125510	Spring Pin
17	0125505	Blade Spring D7
17	17.012506	Blade Spring D6
18	0125511	Blade New
18	180125501	Blade Old

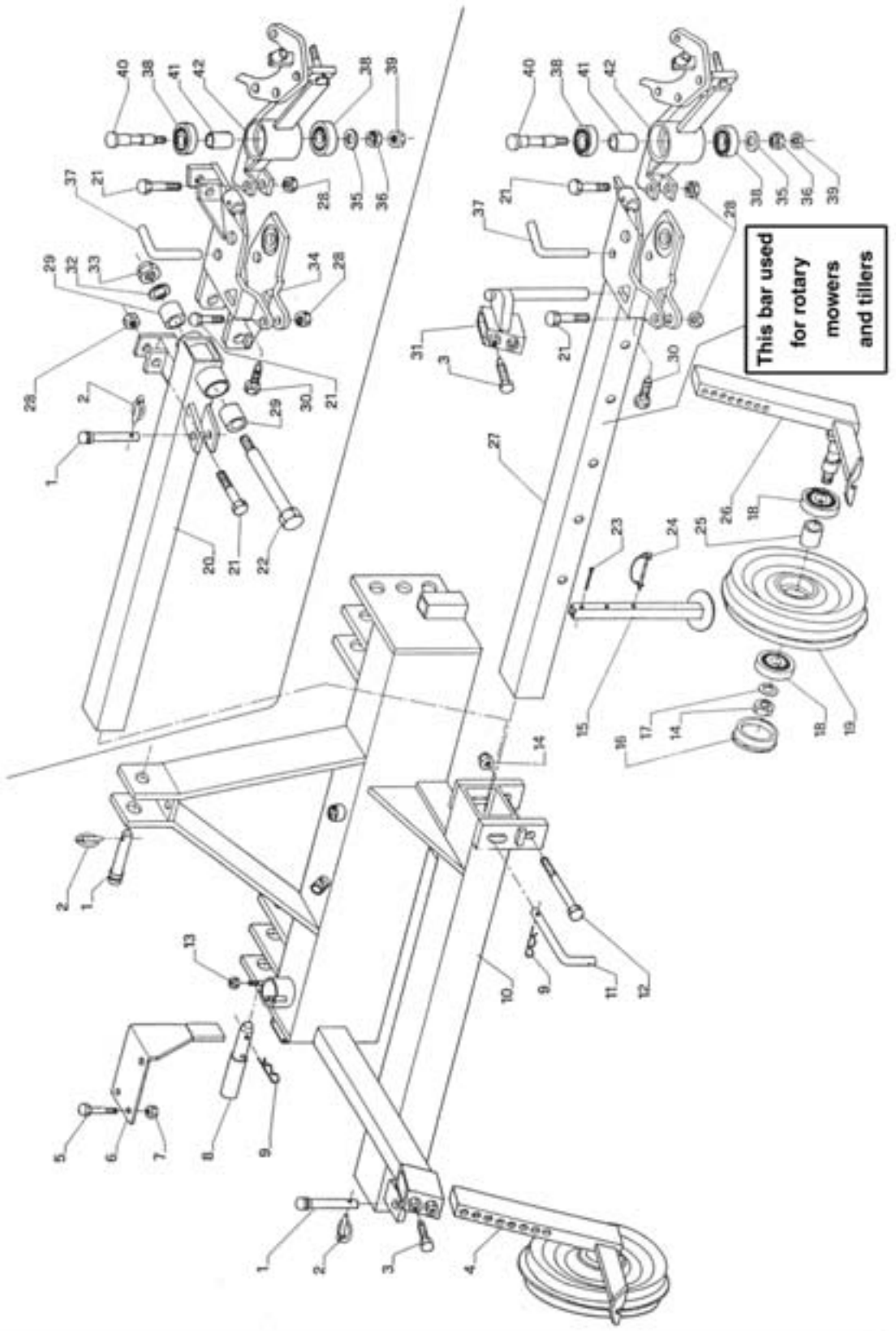
SPARE PARTS

THE FOLLOWING PAGES ARE THE SPARE PARTS

Before ordering parts from your local Gearmore dealer, please make sure that you have the following information:

1. Model Number
2. Year Purchased
3. Code or Part Number
4. Description
5. Quantity Required

MAIN FRAME

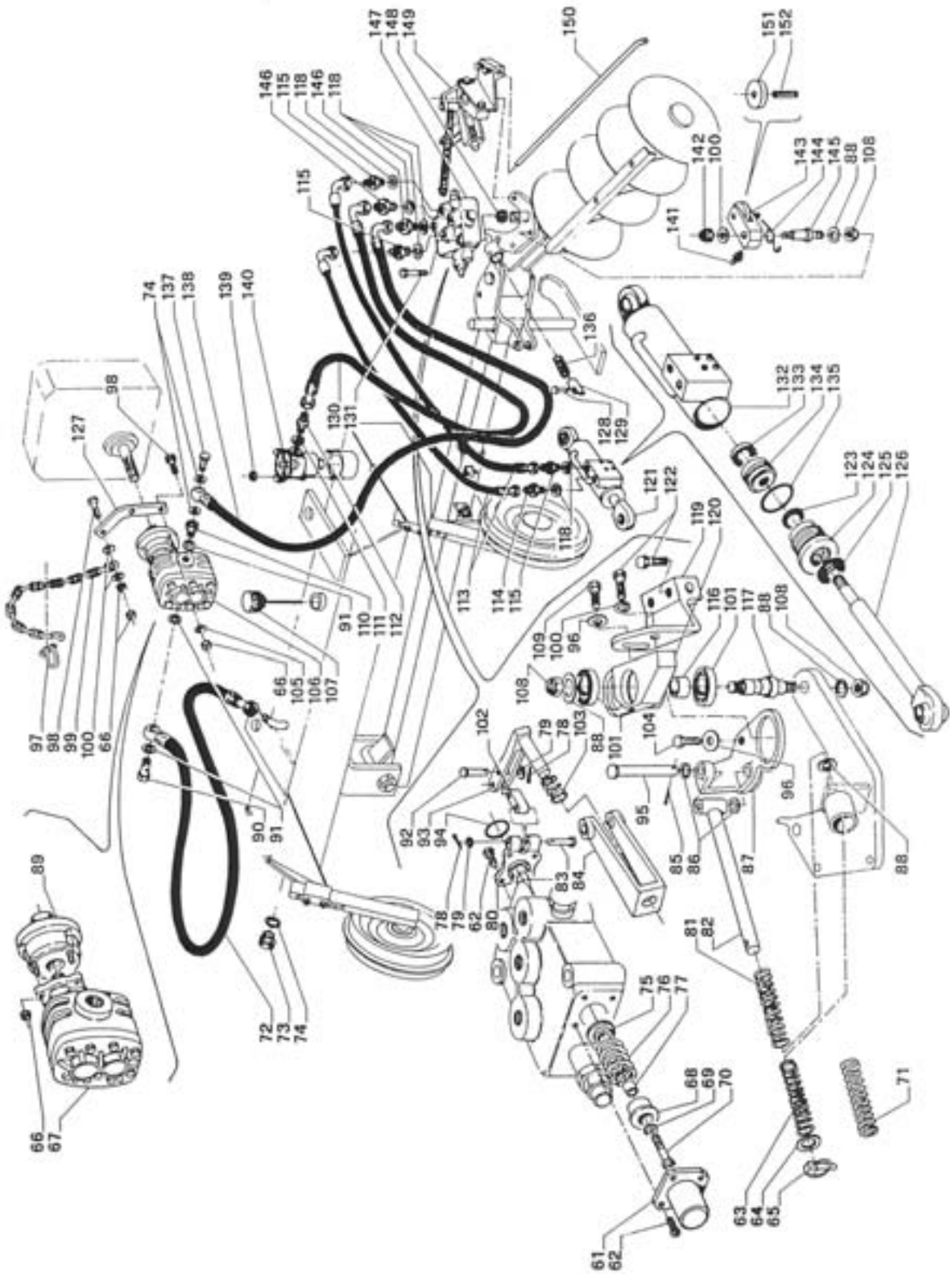


MAIN FRAME

REF. #	PART NO.	DESCRIPTION
1	M4S0201501	Lockpin
2	M2COPSC011	Split pin with release 011
3	0101503	Wheel clamping screw
4	0501015	Wheel with relative support
5	M2TEZ08060	TE 8 x 60 screw
6	0501061	Remote valve clevis
7	M2DEA01M08	M8 self-locking nut
8	M4S3601063	Lockpin
9	M2COPLA004	Split pins 04
10	0501051	Frame
11	0101513	Rod locking pin
12	M2TEZ20150	TE 20 x 150 screw
13	M2DEN02M06	M6 5588 nut
14	M2DEA01M20	M20 self-locking nut
15	0501056	Stand
16	M40101C062	Cover 062
17	M2RONPI020	Flat washer 020
18	6206-2RS	30.62.16 RS bearing
19	M40101R251	Wheel
20	0501062	T. S. sliding rod f/Power disc
21	0101505	Cylinder locking screw
22	0501502	Articulation locking pin for head
23	M2COP00650	6 x 50 split pin
24	M2COPMO008	Split pin with release 08
25	0101511	Spacing bar
26	0501055	Wheel support
27	0101059	Sliding rod f/Rotary mower & tiller
28	M2DEZF2M18	M18 x 1.5 5588 nut
29	M6B3038030	38.30.30 bushing
30	0101504	Locking screw
31	0501054	Wheel clevis
32	M2RONPI027	Flat washer 027
33	M2DEAF1M27	M27 self-locking nut
34	0501064	Arm clevis
35	M2RONPI030	Flat washer 030
36	M2DESF2M30	M30 x 2 5588 nut
37	0201503	Locking pin
38	M6C63060RS	30.72.19 RS bearing
39	M2DENF3M30	M30 x 2 5589 nut
40	0101506	Lockpin
41	0101507	Spacing bar
42	0101060	Supporting arm for set of discs

HYDRAULIC SYSTEM - 1

Without Remote Auxiliary Control Valves



HYDRAULIC SYSTEM - 1

REF. #	PART NO.	DESCRIPTION
61	M50103011	Remote valve cover
62	M2TCE05016	TCEI 5 x 16 screw
63	0103524	Spring (wire 03)
64	M2RONPIZ15	Flat washer 014 x 42
65	M2COPSC004	Split pin with release 04.5
66	M2DEN02M10	M10 5588 nut
67	M50103135	Oil pump
68	M50103017	Disc for spring (up)
69	M50103013	Flat washer 05
70	M50103014	TCTC 5 x 18 screw
71	0103523	Spring (wire 02.5)
	0103526	Spring (wire 03.5)
72	0103581	Suction pipe
73	M50103501	Plug
74	M50103601	3/4" copper washer
75	M50103015	Disc for spring (down)
76	M50103016	Return spring
77	M50103012	Spacing bar
78	M2COP00220	Split pin 02 x 20
79	M2RONPI006	Flat washer 06
80	M50103018	Remote valve flange
81	0103522	Spring (wire 0 2)
82	0103051	Tie
83	0103519	Lockpin for flange
84	0103513	Bracket
85	M2COP00325	Split pin 3 x 25
86	M2RONPI010	Flat washer 010
87	0103516	Adjust bracket
88	M2RONPIZ14	Flat washer 014
89	M50103137	Pump support
90	M5BUCA001	1" hollow screw
91	M50103602	1" copper washer
92	0103518	Lockpin for shackle
93	0103512	Fork
94	M50103019	OR remote valve
95	0103517	Lockpin for tie connection
96	0101514	Washer 012.5 x 6
97	M2GR000008	Connection ring 08
98	M2TE010040	TE 10 x 40 screw
99	0103502	Pump chain
100	M2RONPIZ12	Flat washer 012
101	M6C62020RS	15.35.11 RS bearing
102	M50103023	Shackle
103	0103520	Spring (wire 0 3 L=29)
104	M2TEZ12040	TE 12 x 40 screw
105	M2RONGR010	Grower washer 010
106	M50103131	Pump with support
107	M50103504	Dip stick
108	M2DEA01M14	M14 self-locking nut

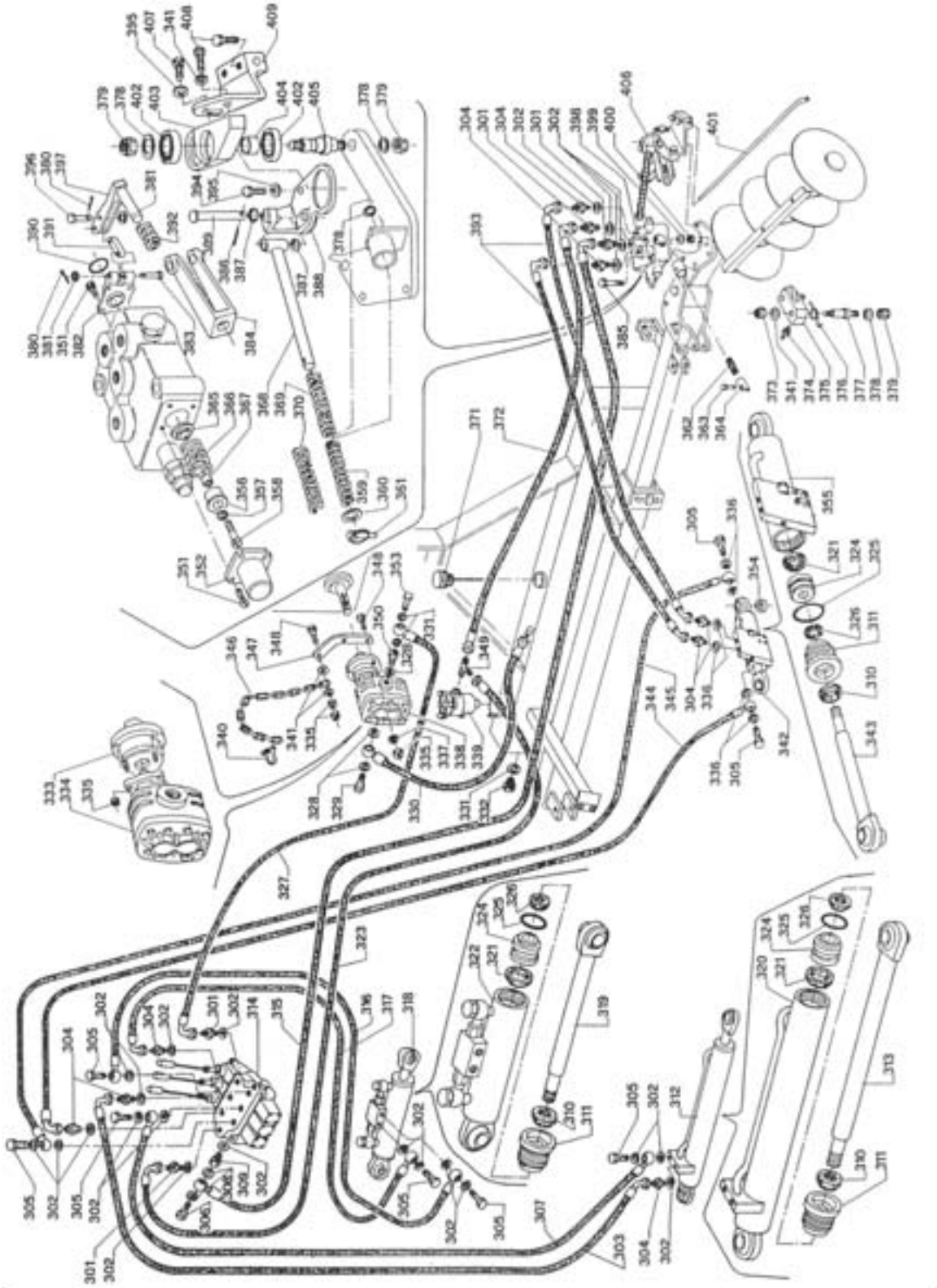
Continued...

HYDRAULIC SYSTEM - 1

REF. #	PART NO.	DESCRIPTION
109	M2TEZ12030	TE12 x 30 screw
110	M5RI00005	M1 "F3/4" nipple
111	M50103603	1/2" copper washer
112	M50103505	1/2" nipple
113	0104509	Pipe for cylinder
114	M50103507	3/8" nipple (up)
115	M50103506	3/8" nipple
116	0103507	Spacing bar
117	0103508	Lockpin
118	M50103604	3/8" copper washer
119	0103509	Rod clevis mod. D-35
	0103562	Rod clevis mod. D-38
	0112501	Rod clevis mod. D-25
120	0103510	Support
121	0103505	D. E. cylinder
122	M2TEZ12025	TE 12 x 25 screw
123	M50103211	B 129098/1 ring
124	M50103212	Sleeve
125	M50103213	WRM 098129 ring
126	M50103214	D. E. piston rod
127	0103503	Lever for pump locking
128	0103504	Lockpin for eccentric pin
129	0103514	Eccentric lockpin
130	0104503	Drain pipe
131	M2TEZ08070	TE 8 x 70 screw
132	M50103215	D. E. cylinder barrel
133	M50103216	EGR 50 ring
134	M50103217	Piston
135	M50103218	OR sleeve
136	0103521	Lockpin for eccentric spring
137	RT0000T139	3/4" hollow screw
138	0504507	Feed pipe
139	M2DEN02M06	M6 5588 nut
140	M50103301	Oil filter
141	M2INGM8125	M8 greaser
142	M2DEAF1M12	M12 x 1.25 self-locking nut
143	0103001	Complete jack
144	0103525	Return spring for jack
145	0103511	Pin
146	M50103508	1/2" 3/8" nipple
147	M50103001	Remote valve
148	M2DEA01M08	M8 self-locking nut
149	0103002	Complete control rod
150	0145563	Sensing device rod L=680 RH
	0145562	Sensing device rod L=850 RH
	0126503	Rod for french plow
151	0103515	Roller
152	M5SSP10045	Spirol lockpin 10 x 45

HYDRAULIC SYSTEM - 2

With Remote Auxiliary Control Valves



HYDRAULIC SYSTEM - 2

REF. #	PART NO.	DESCRIPTION
301	M50103508	1/2" 3/8" reduction
302	M50103604	3/8" copper washer
303	0504506	Hose 1/4 - 3/8F90° - 3/8F90° L=2700
304	M50103506	3/8" nipple
305	M5BUCA038	3/8" hollow screw
306	M5BUCA012	1/2" hollow screw
307	0504505	Hose 1/4 - 3/8BJ - 3/8BJ L=2700
308	M50103603	1/2" copper washer
309	M5RI00009	M3/8" F1/2" reduction
310	M50103213	WRM 098129 ring
311	M50103212	Sleeve
312	1203501	Set of discs sliding out cylinder
313	M50503233	Set of discs sliding out piston rod
314	M5DE00016	3 levers remote valve
315	0104506	Hose 1/2 - 1/2BJ - 3/8F90° L=4300
316	0104508	Hose 1/4 - 3/8BJ - 3/8BJ L=3800
317	0104507	Hose 1/4 - 3/8BJ - 3/8F90° L=3800
318	0203515	Head unit raising cylinder
319	M50203212	Head unit piston rod
320	M50503232	Set of discs sliding out cylinder barrel
321	M50103216	EGR 50 ring
322	M50203222	Head unit cylinder barrel
323	0504502	Hose 1/2 - 1/2F90° - 1/2F L=2200
324	M50103217	Piston
325	M50103218	OR sleeve
326	M50103211	B 129098/1 ring
327	0104502	Hose 1/2 - 1/2F90° - 3/4BJ L=2200
328	M50103602	1" copper washer
329	M5BUCA001	1" hollow screw
330	0103581	Hose 3/4 - 1"BJ - 3/4F L=1500
331	M50103601	3/4" copper washer
332	M50103501	Plug
333	M50103137	Pump support
334	M50103135	Oil pump
335	M2DEN02M10	M10 5588 nut
336	M5RB000038	3/8" bonded washer
337	M2RONGR010	Grower washer 010
338	M50103131	Pump with support
339	M50103301	Oil filter
340	M2GR000008	Connection ring 08
341	M2RONPIZ12	Flat washer 012
342	0103559	D.E. jolly cylinder
343	M50103214	D.E. piston rod
344	0104504	Hose 3/8 - 3/8F90° - 3/8BJ L=5000
345	0104505	Hose 3/8 - 3/8BJ - 3/8BJ L=5000
346	0103502	Pump chain
347	0103503	Lever for pump locking
348	M2TE010040	TE 10 x 40 screw

Continued...

HYDRAULIC SYSTEM - 2

REF. #	PART NO.	DESCRIPTION
349	M50203502	T 1/2' pipe fittings
350	M5RI00005	M1 "F3/4" reduction
351	M2TCE05016	TCEI 5 x 16 screw
352	M50103011	Remote valve cover
353	RT0000T139	3/4" hollow screw
354	0103556	Spacing bar
355	M50103222	Jolly cylinder barrel
356	M50103017	Disc for spring (up)
357	M50103013	Flat washer 05
358	M50103014	TCTC 5 x 18 screw
359	0103524	Spring (wire 03)
360	M2RONPIZ15	Flat washer 014 x 42
361	M2COPSC004	Split pin with release 04.5
362	0103521	Lockpin for eccentric spring
363	0103504	Lockpin for eccentric spring
364	0103514	Eccentric lockpin
365	M50103015	Disc for spring (down)
366	M50103016	Return spring
367	M50103012	Spacing bar
368	0103051	Tie
369	0103522	Spring (wire 02)
370	0103523	Spring (wire 02.5)
	0103526	Spring (wire 03.5)
371	M50103504	Dip stick
372	0504501	Hose 1/2 - 1/2F - 1/2F90° L=2000
373	M2DEAF1M12	M12 x 1.25 self-locking pin
374	M2INGM8125	M8 greaser
375	0103001	Complete jack
376	0103525	Return spring for free wheel device
377	0103511	Lockpin
378	M2RONPIZ14	Flat washer 014
379	M2DEA01M14	M14 self-locking nut
380	M2COP00220	Split pin 02 x 20
381	M2RONPI006	Flat washer 06
382	M50103018	Remote valve flange
383	0103519	Lockpin for flange
384	0103513	Bracket
385	M2TEZ08070	TE 8 x 70 screw
386	M2COP00325	Split pin 03 x 25
387	M2RONPI010	Flat washer 010
388	0103516	Adjust bracket
389	0103517	Lockpin for tie connection
390	M50103019	OR remote valve
391	M50103023	Shackle
392	0103520	Spring (wire 03 L=29)
393	0104509	Hose 3/8 - 3/8F90° - 3/8F90° L=600
394	M2TEZ12040	TE 12 x 40 screw
395	0101514	Washer 012.5 x 6

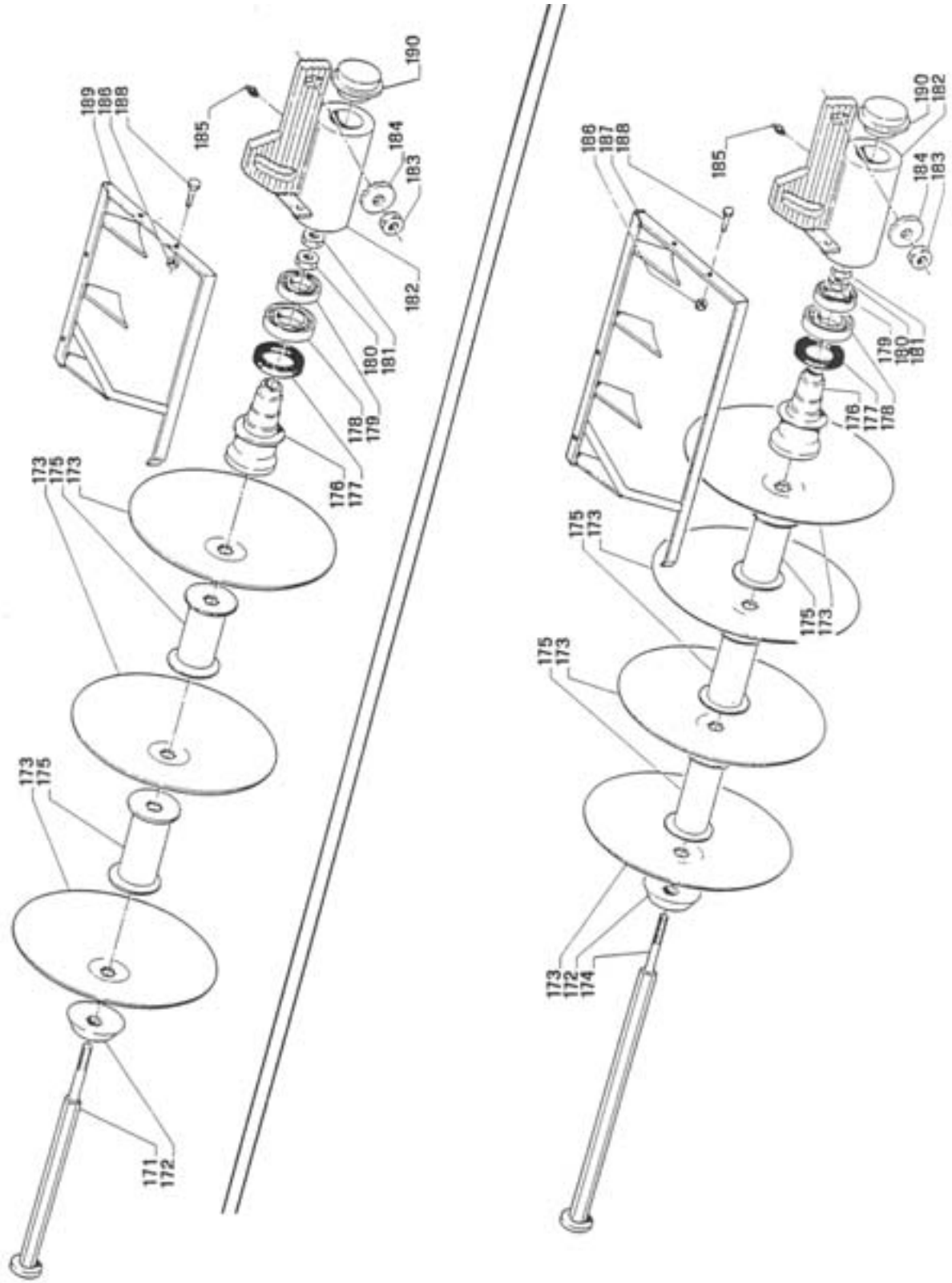
Continued...

HYDRAULIC SYSTEM - 2

REF. #	PART NO.	DESCRIPTION
396	0103518	Lockpin for shackle
397	0103512	Fork
398	M50103001	Remote valve
399	M2MDE18091	Spring for elastic disc
400	M2DEA01M08	M8 self-locking nut
401	0145563	Sensing device rod 9 L=680
	0145562	Sensing device rod 9 L=850
	0126503	Sensing device French Plow
402	M6C62020RS	15.35.11 RS bearing
403	0103510	Support
404	0103507	Spacing bar
405	0103508	Lockpin
406	0103002	Complete control rod
407	M2TEZ12030	TE 12 x 30 screw
408	M2TEZ12025	TE 12 x 25 screw
409	0103509	Rod clevis mod. D-35
	0103562	Rod clevis mod. D-38
	0112501	Rod clevis mod. D-25

MANUAL POWER DISC ASSEMBLY- 1

1st Generation

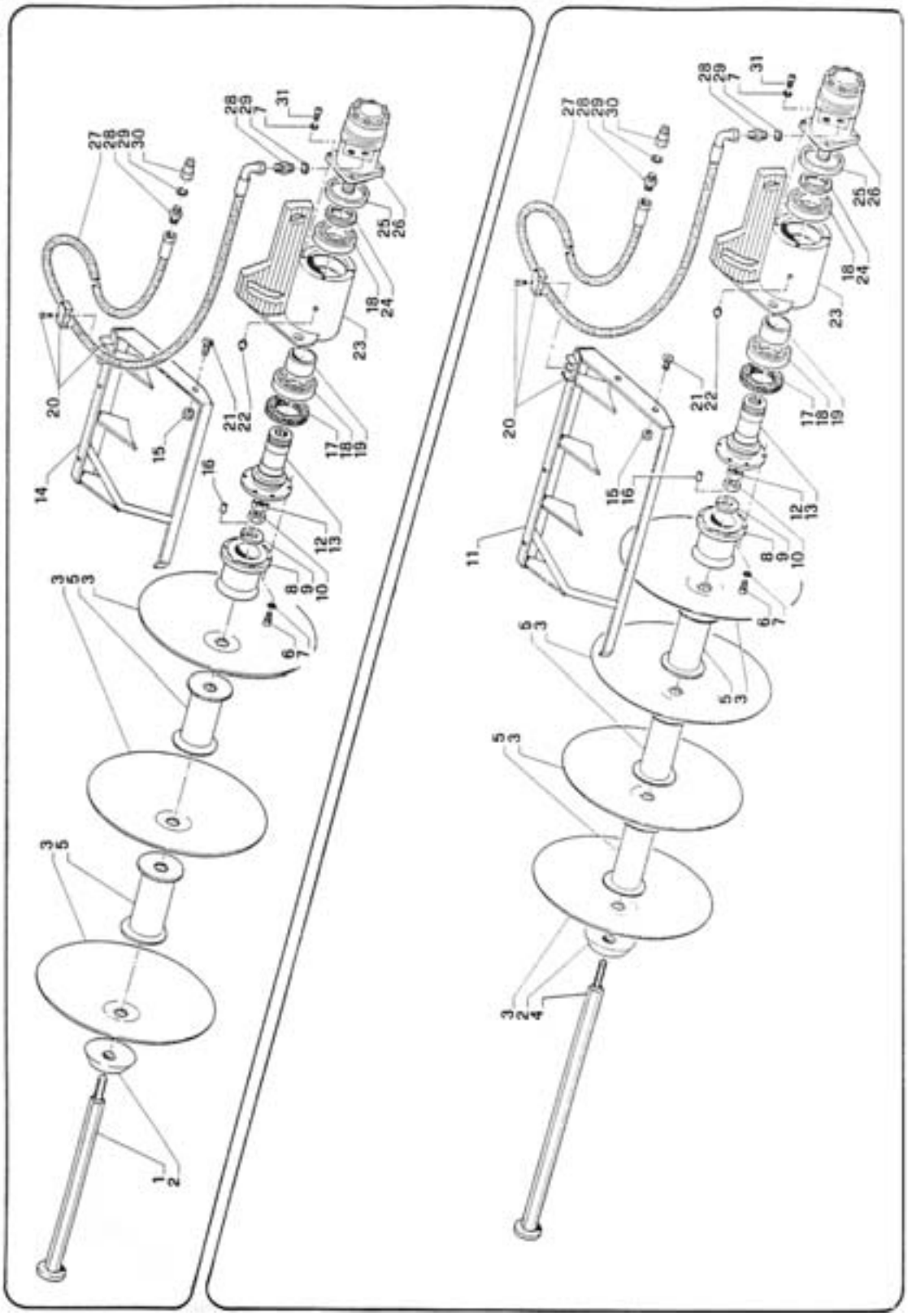


MANUAL POWER DISC ASSEMBLY - 1

REF. #	PART NO.	DESCRIPTION
171	0202071	3 discs lockpin
172	M4SARF3703	Concave washer for discs locking
173	M401DE350L	Disc 0 350
174	0102061	4 discs lockpin
175	M4SLGA170	170 spacing bar
176	0102052	Supporting bearing for spacing bar
177	62X90X10	62-90-10 grease seal
178	6210	50-90-20 bearing
179	6307	35-80-21 bearing
180	M2DESF2M27	M27 x 2 5588 nut
181	M2DENF3M27	M27 x 2 5589 nut
182	0102075	Support
183	M2DENZ1M20	M20 5587 nut
184	0102503	Knurled washer 0 20
185	M2INGM8125	M8 greaser
186	M2DEN01M14	M14 5587 nut
187	0102081	4 discs soil scraper
188	M2TE014050	TE 14 x 50 screw
189	0202061	3 discs soil scraper
190	M40102C080	Cover 0 80

HYDRAULIC POWER DISC ASSEMBLY - 2

2nd Generation Without Drain Line

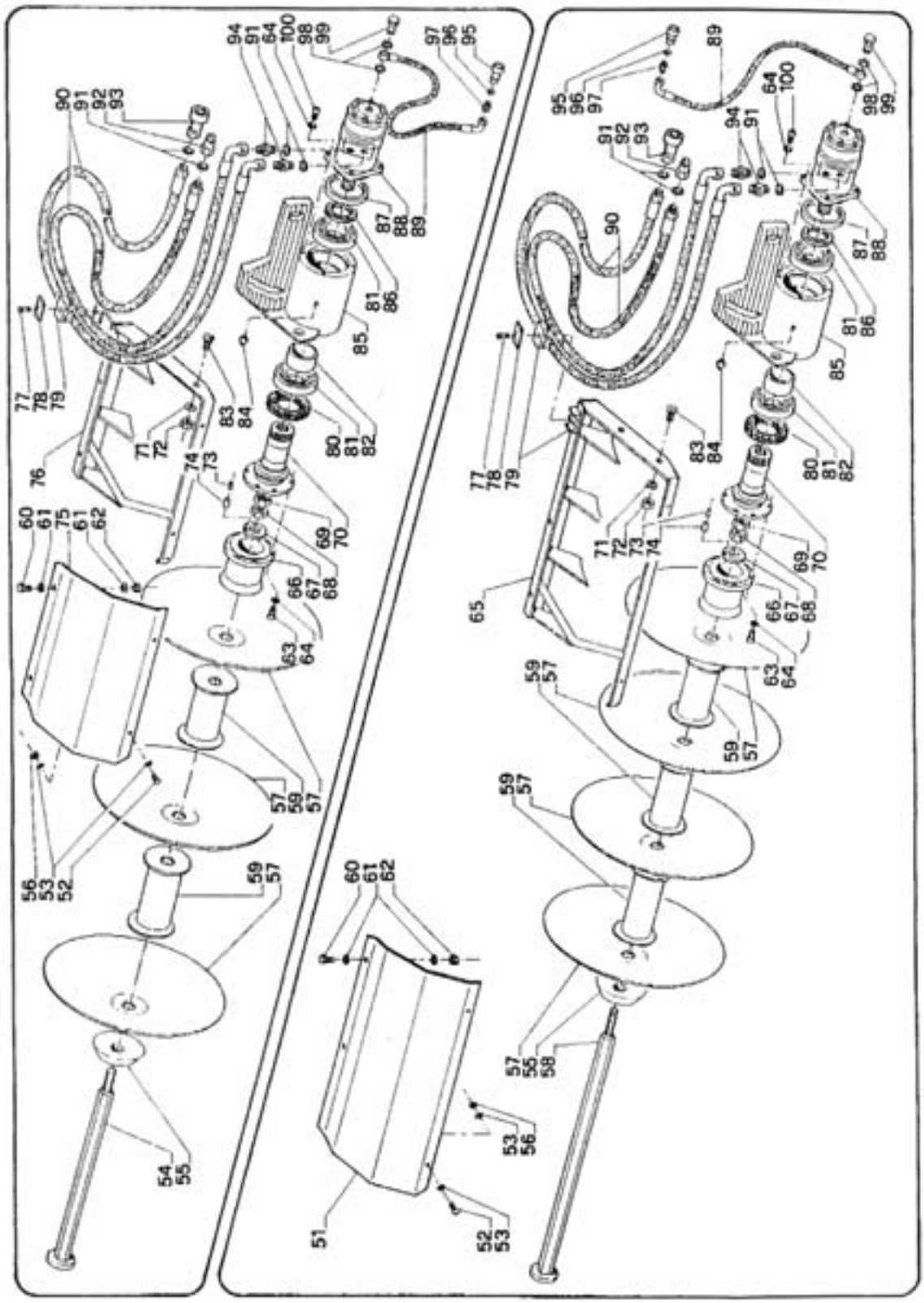


HYDRAULIC POWER DISC ASSEMBLY - 2

REF. #	PART NO.	DESCRIPTION
1	0145053	3 discs lockpin
2	M4SARF3703	Concave washer for discs locking
3	M401DE351L	Disc 0 350
4	0145054	4 discs lockpin
5	M4SLGA1701	170 spacing bar
6	M2TCE10025	TCEI 10 x 25 screw
7	M2RONGRP10	Grower washer
8	0145061	Spacing bar
9	0145501	Centering washer
10	M2DESF2M30	M30 x 2 5588 Nut
11	0145072	4 discs unridging soil scraper
12	M2DEAF1M30	M30 x 2 self-locking nut
13	0145062	Supporting bearing for spacing bar
14	0145071	3 discs unridging soil scraper
15	M2DEN01M16	M16 5587 nut
16	M2SSP08020	Spirol pin 8 x 20
17	62X90X10	Grease seal
18	6210	Bearing
19	0145502	Spacing bar
20	M5CD12022	Double collar
21	M2TSE16050	TSPEI 16 x 50 screw
22	M2INGM8125	M8 greaser
23	0145063	Unridging support
24	M2GHA05015	M50 x 1.5 self-locking ring nut
25	0145503	Centering ring
26	M5MOID004	AGS/160 motor
27	0504504	Oil pipe L=3500
27	0104510	Oil pipe L=4500
28	M50103505	Nipple 1/2"
29	M50103603	Copper washer 1/2"
30	M5IR07M12	Male hydraulic coupler 1/2"
31	M2TCE10035	TCEI 10 x 35 screw
32	0145531	Shield 4-blade (not shown)

POWER DISC ASSEMBLY - 3

3rd Generation M10T2108 3-Blade & M10T2109 4-Blade



POWER DISC ASSEMBLY - 3

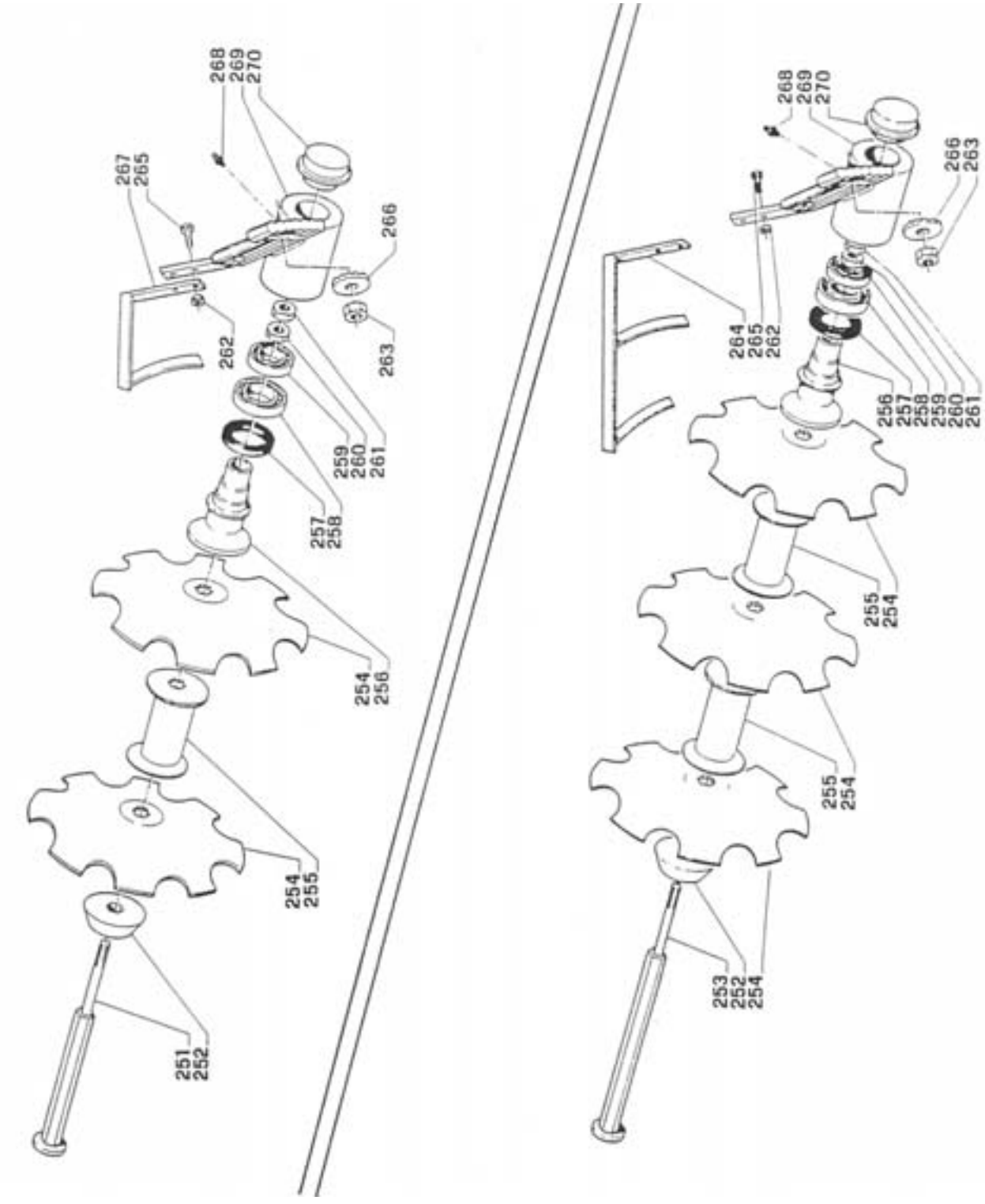
REF. #	PART NO.	DESCRIPTION
51	0145531	Shield 4 Blade
52	M2TBE08025	Bolt 8 x 25
53	M2RONP1Z08	Washer D8
54	0145053	Axle 3 Blade
55	M4SARF3703	Cast End spool
56	M2DEA01M08	Nut M8
57	M401DE351L	Disc Blade D350
58	0145054	Axle 4 Blade
59	M4SLGA1701	Spool L-170
60	M2TEZ12030	Bolt M12 x 30
61	M2RONP1Z12	Washer D12
62	M2DEA01M12	Nut M12
63	M2TCE10025	Bolt M10 x 25
64	M2RONGRP10	Washer D10
65	0545072	4-Blade Mud Scraper
66	0145061	Spool
67	0145501	Washer
68	M2DESF2M30	Nut M30 x 2
69	M2DEAF1M30	Nut M30 x 2
70	0145062	Drive Hub
71	M2RONGRP16	Washer D16
72	M2DEN01M16	Nut M16
73	M2SSP05016	Roll Pin 5 x 16
74	M2SEL08016	Roll Pin 8 x 16
75	0145530	Shield 3-Blade
76	0545071	3-Blade Mud Scraper
77	M2TEZ08045	Bolt M8 x 45
78	M5CDC2200	Hose Clamp Upper
79	M5CDE2200	Hose Clamp Lower
80	62X90X10	Seal
81	6210	Bearing
82	0145502	Spacer
83	M2TSE16050	Bolt M16 x 50
84	M2INGM8125	Grease Zerk M8 x 1.25
85	0145063	Drive Housing
86	M2GHA05015	Nut M50 x 1.5
87	0145503	Spacer Ring
88	M5MO1D008	Hydraulic Motor ARS250 DS32

POWER DISC ASSEMBLY - 3

REF. #	PART NO.	DESCRIPTION
89	0204561	Hose L=900
90	0504501	Hose L=2000
90	0505523	Hose L=2200
90	5203502	Hose L=4000
90	0504519	Hose L=4500
91	M5RB00012	Washer 1/2" Bonded
92	M51R21M12	Hyd. Coupler Male 1/2
93	M51R21F12	Hyd. Coupler Female 1/2
94	M50103505	Nipple 1/2"
95	M51R21F38	Hyd. Coupler Female 3/8
96	M5RB00038	Washer 3/8" Bonded
97	M50103506	Nipple 3/8"
98	M5RB00014	Washer 1/4" Bonded
99	M5BUCA014	Bolt 1/4 Banjo
100	M2TCE10035	Bolt M10 x 35

BACK FILL 18” BLADES

M10T5201 2-Blade & M10T5203 3-Blade

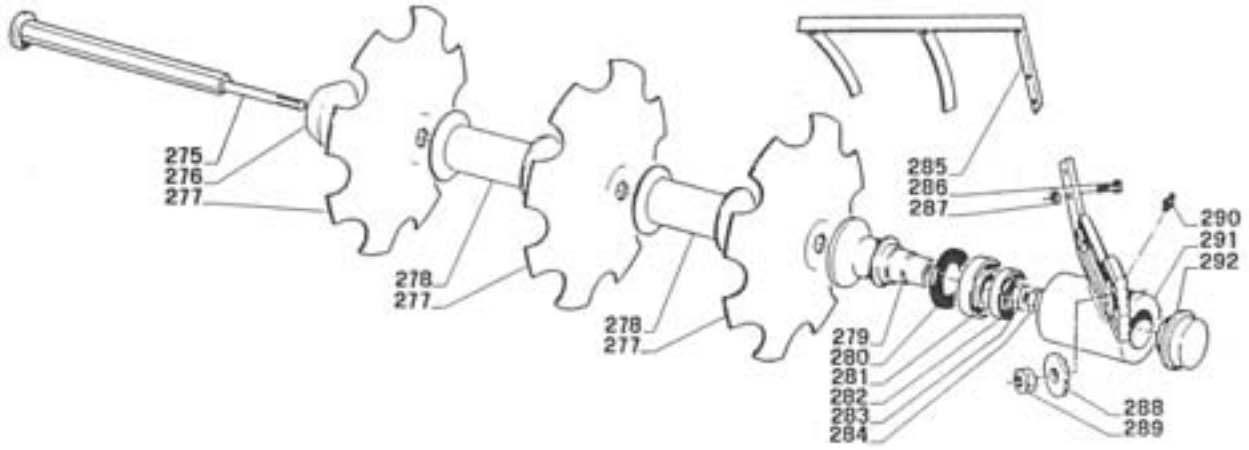


BACK FILL 18” BLADES

REF. #	PART NO.	DESCRIPTION
251	0202073	2 disc lockpin
252	M4SARF3705	Convex washer for disc locking
253	0102064	3 disc lockpin
254	M401DE460D	Disc 0 460 18” blade
255	M4SLGA2001	200 spacing bar
256	0102051	Supporting bearing for spacing bar
257	62X90X10	62-90-10 grease seal
258	6210	50-90-20 bearing
259	6307	35-80-21 bearing
260	M2DESF2M27	M27 x 2 5588 nut
261	M2DENF3M27	M27 x 2 5589 nut
262	M2DEN01M14	M14 5587 nut
263	M2DENZ1M20	M20 5587 nut
264	0102057	3 disc soil scraper
265	M2TE014050	TE 14 x 50 screw
266	0102503	Knurled washer 0 20
267	0202057	2 disc soil scraper
268	M2INGM8125	M8 greaser
269	0102053	Support
270	M40102C080	Cover 0 80

BACK FILL 14” BLADES

M10T5205 3-Blade



REF. #	PART NO.	DESCRIPTION
275	0112062	3 disc lockpin
276	M4SARF3705	Convex washer for discs locking
277	M401DE351D	Disc 0 350
278	M4SLGA1701	170 spacing bar
279	0102051	Supporting bearing for spacing bar
280	62X90X10	62-90-10 grease seal
281	6210	50-90-20 bearing
282	6307	35-80-21 bearing
283	M2DESF2M27	M27 x 2 5588 nut
284	M2DENF3M27	M27 x 2 5589 nut
285	0102085	3 disc soil scraper
286	M2TE014050	TE 14 x 50 screw
287	M2DEN01M14	M14 5587 nut
288	0102503	Knurled washer 020
289	M2DENZ1M20	M20 5587 nut
290	M2INGM8125	M8 greaser
291	0102053	Ridging support
292	M40102C080	Cover 0 80

LIMITED WARRANTY

GEARMORE INC.

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 warranties 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.