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## ROW MARKERS

### Pull-Type

#### HYDRAULIC ROW MARKER OPERATION

The planters are equipped with a single valve hydraulic system or an optional dual valve hydraulic system. The single valve system requires the planter to be raised in order to lift the markers. Each time the planter is lowered, the row markers will alternately be lowered. If the planter is raised to cross a waterway, the opposite marker will be lowered when the planter is lowered back into the ground. Therefore, it will be necessary to stop and again raise and lower the planter to restore correct marker operation.

If planting in this type of situation, dual valve hydraulics are highly recommend. The optional dual hydraulic system allows the markers to be operated independently of the planter lift cylinders. Each time a marker is raised, the sequencing valve will direct flow to lower the opposite marker.

Both markers can be used at the same time if desired. To do this, lower the planter and the marker that has been selected. Move the tractor control lever to the raise position and immediately return it to the lower position. This will shift the marker control valve and the remaining marker will be lowered. This is useful in planting contours and terraces.



**WARNING** Stand clear and keep others away when raising or lowering the row markers. Lock row markers for transport using the locking pin.

#### MARKER LENGTH ADJUSTMENT

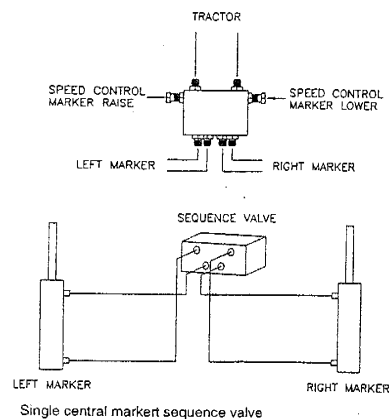
To determine the correct length to set the marker assemblies, multiply the number of rows by the average row spacing in inches. This provides the total planting width. Adjust the marker extension so the distance from the marker shovel to the center line of the planter is equal to the total planting width previously obtained. Both the planter and marker assembly should be lowered to the ground when measurements are taken. The measurement should be taken from the point where the shovel contacts the ground. Adjust right and left marker assemblies equally and securely tighten clamping bolts. An example of marker length adjustments follows:

Number of rows x Row spacing inches = Dimension between planter center line and marker shovel.

**IMPORTANT:** A field test is recommended to ensure the markers are properly adjusted. After the field test is made, make any minor adjustments necessary.

#### MARKER SPEED ADJUSTMENT

Markers come standard with automatic sequence valves. A flow control valve controls the lowering and raising speed of the markers. To adjust the marker speed, loosen the jam nut and turn the control clockwise or 'in' to slow the travel speed and counter clockwise or 'out' to increase the travel speed. The adjusting bolt determines the amount of oil flow restriction through the flow control valve, therefore determining travel speed of the markers.



**DANGER** The flow controls should be properly adjusted before the marker assembly is first put into use. Excessive travel speed of the markers can be dangerous and/or damage the marker assembly.

**NOTE:** When oil is cold, hydraulics operate slowly. Make sure all adjustments are made with warm oil.

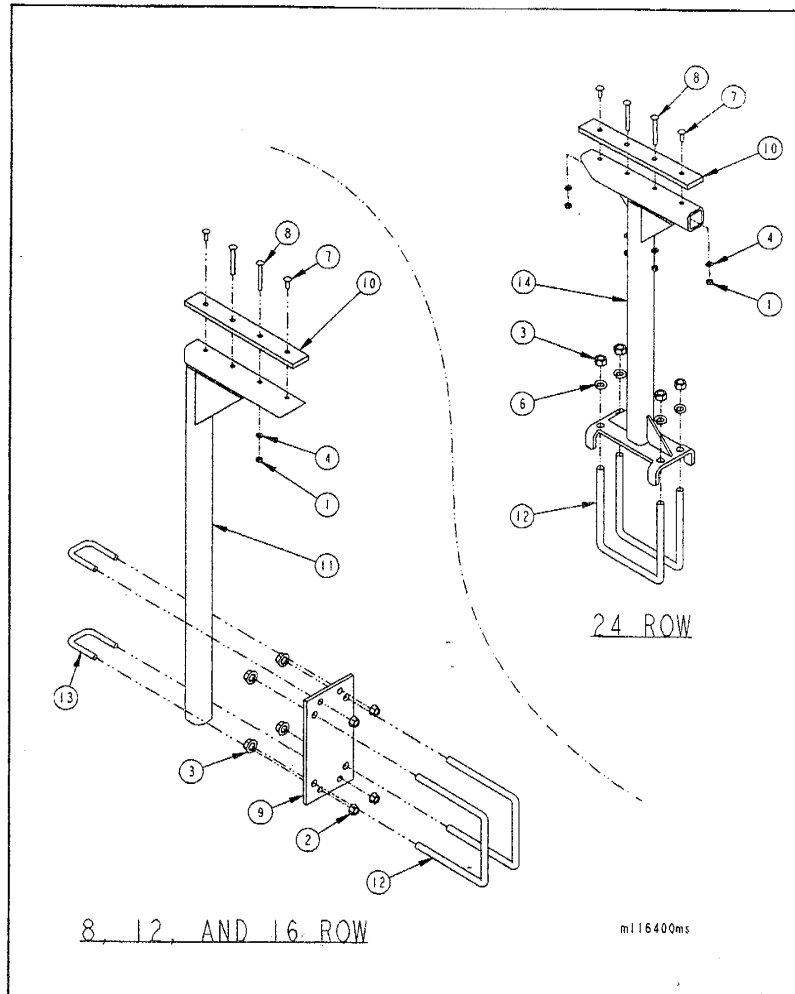
**NOTE:** On a tractor where the oil flow can not be controlled, the rate of flow of oil from the tractor may be greater than the rate at which the marker cylinder can accept it. The tractor hydraulic control lever will have to be held until the cylinder reaches the end of its stroke. This occurs most often on tractors with an open center hydraulic system.

On tractors with a closed center hydraulic system, the tractor's hydraulic flow control can be set so the tractor's detent will function properly.

# ROW MARKERS

## Pull-Type

### ROW MARKER SUPPORT ASSEMBLY

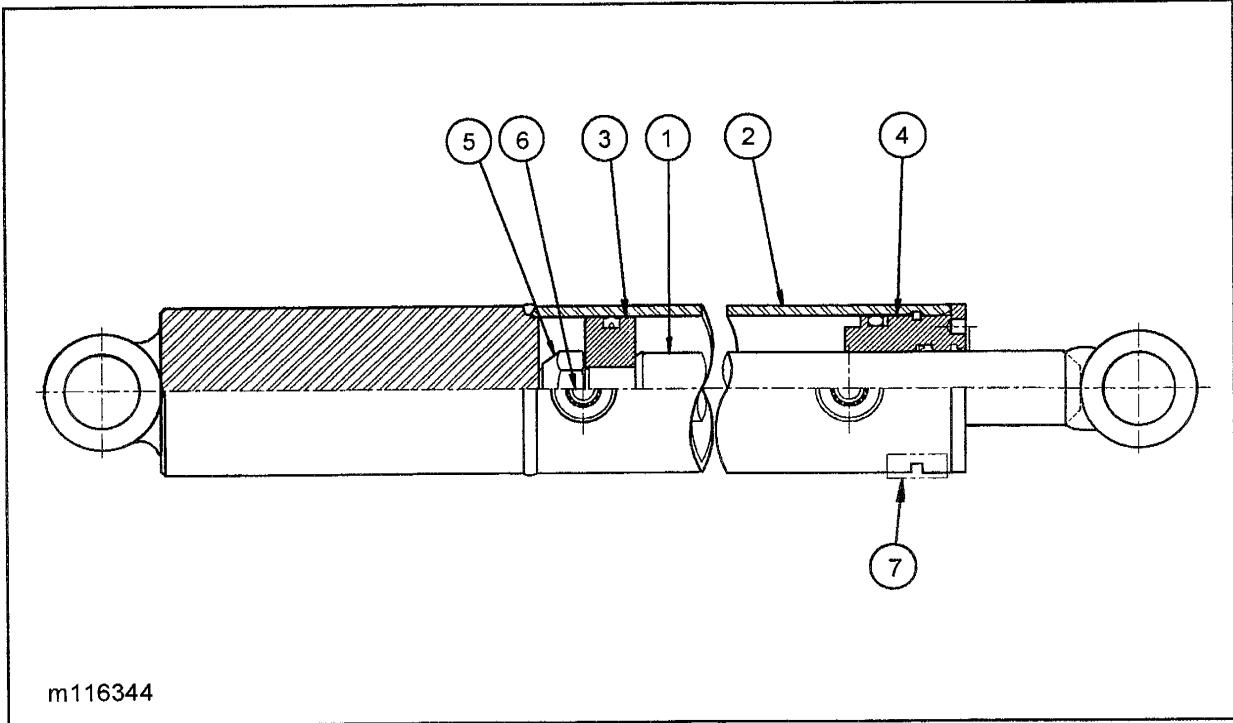


ITEM	PART No.	DESCRIPTION	QTY
1	F36104	Nut, Hex 5/16-18	8
2	F36110	Nut, Hex 1/2-13 (8row 30 & 16-row)	8
3	F36114	Nut, Hex 5/8-11	8
4	33620	Washer, split lock 5/16	8
5	F33626	Washer, split lock 1/2 (16-row)	8
6	F33630	Washer, split lock 5/8	8
7	F21811	Screw, rd head sq neck 5/16-18 x 1 GR5	4
8	F21863	Screw, rd head sq neck 5/16-18 x 3 GR5	4
9	L117184	Plate, marker brace (16-row)	2
10	L117186	Rubber block	2
11	L117185	Brace assembly (16-row)	2
12	4502.S	U-bolt	4
13	KD2721	U-bolt scraper (16-row)	4
14	L125952	Bracket weldment, marker rest (24-row)	2

**ROW MARKERS**

**Pull-Type**

**ROW MARKER CYLINDER ASSEMBLY**

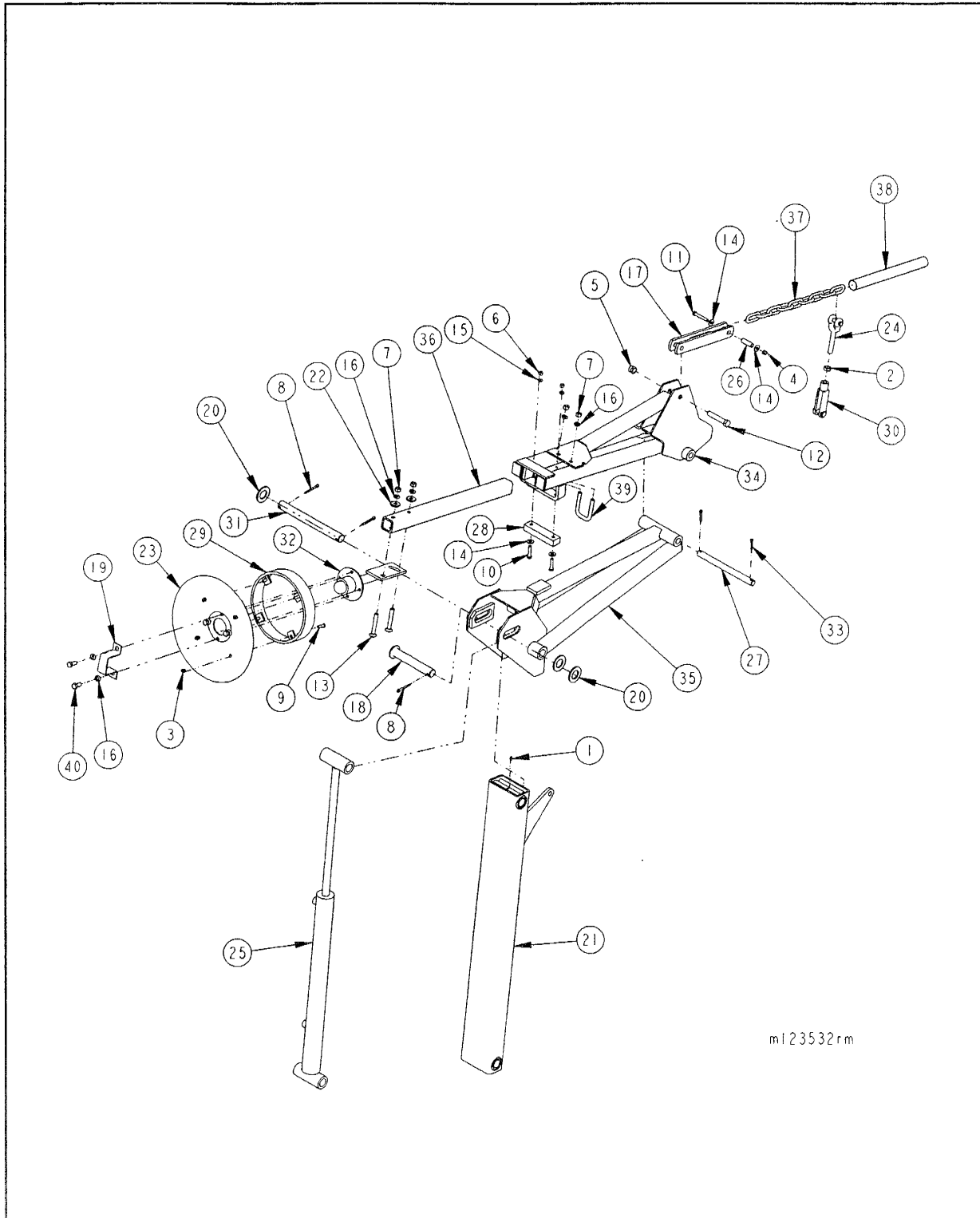


ITEM	PART No.	DESCRIPTION
	L116344	Cylinder, marker 2- 1/2 x 20
1	L120802	Piston rod
2		Butt and tube assembly
3	L117512	Piston
4	L120803	Gland
5	L220000208	Locknut
6	L200300040	Shipping plug
7	L125563	Square wire tape
	L117514	Seal kit, Includes all O-rings and seals

ROW MARKER

8-Row 30" Pull Type

ASSEMBLY



m123532rm

**ROW MARKER**

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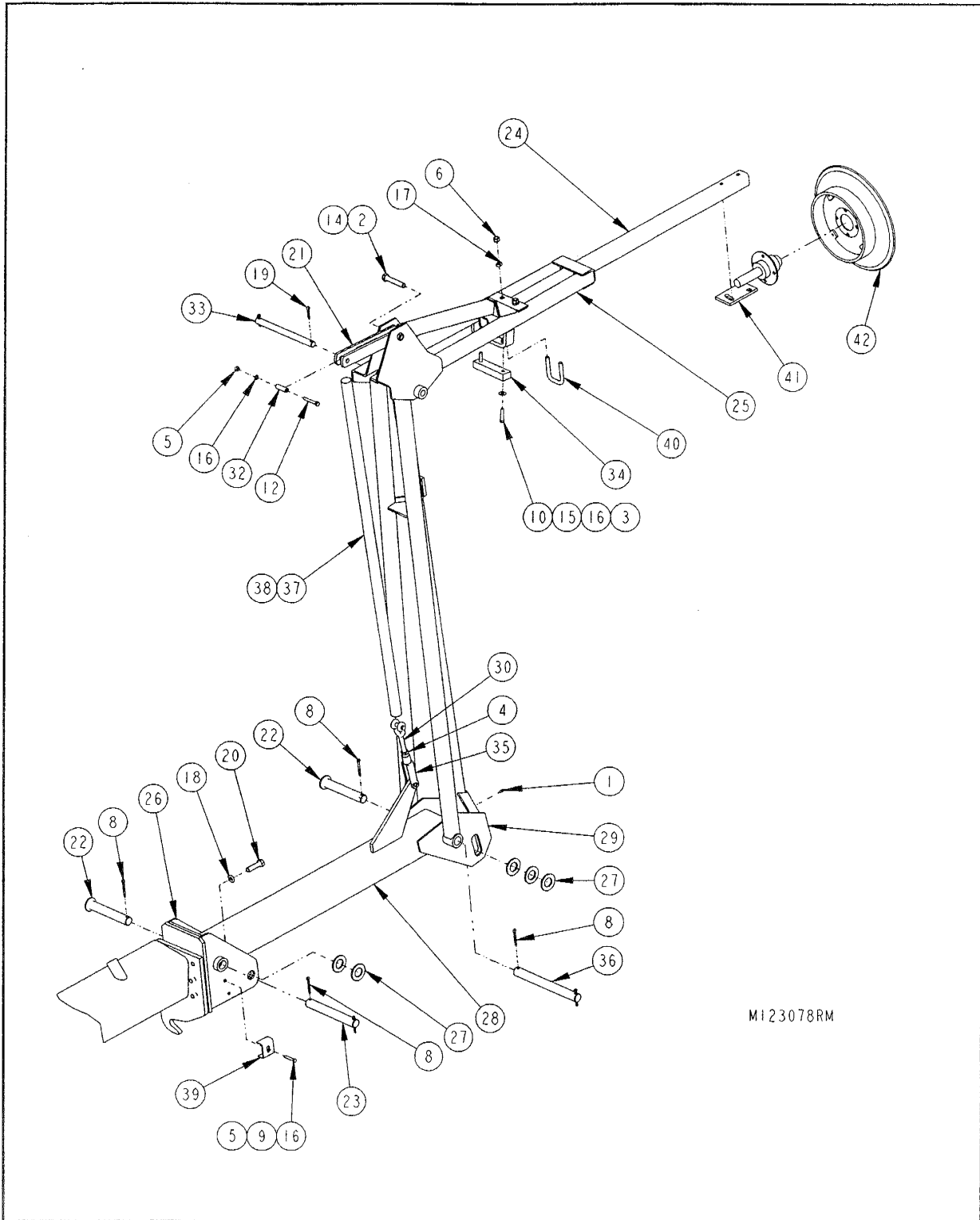
**8-Row 30" Pull Type****ASSEMBLY**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	F58805	GREASE FITTING, 1/4-28
2	F36214	HEX JAM NUT, 5/8-11
3	F37211	REV LOCK NUT, 5/16-18
4	F37212	REV LOCK NUT, 3/8-16
5	F37216	REV LOCK NUT, 5/8-11
6	F36106	HEX NUT, 3/8-16
7	F36110	HEX NUT, 1/2-13
8	F65147	COTTER PIN, 1/4 X 2
9	F13055	SCREW, HEX HEAD CAP, 5-16/18 X 1 GR5
10	F13110	SCREW, HEX HEAD CAP, 3/8-16 X 1-3/4 GR5
11	F13113	SCREW, HEX HEAD CAP, 3/8-16 X 2-1/2 GR5
12	F13317	SCREW, HEX HEAD CAP, 5/8-11 X 3-1/2 GR5
13	F21887	CARRIAGE BOLT, 1/2-13 X 3-1/2 GR5
14	F33008	WASHER, FLAT, 3/8 USS
15	F33622	WASHER, SPLIT LOCK, 3/8
16	F33626	WASHER, SPLIT LOCK, 1/2
17	L116029	LINKAGE WELDMENT
18	L116032	PIN, W/WASHER WELDMENT, 1-1/4 X 7-1/2
19	L116038	RETAINER
20	F33100	WASHER, FLAT, 1-1/4 SAE
21	L116176	ROW MARKER, FIRST ARM WELDMENT
22	L116254	MACHINE BUSHING
23	L116337	BLADE, SMOOTH, 16" DIA.
24	L116339	CLEVIS W/EXTERNAL THREAD, 5/8-11
25	L116344	CYLINDER, 2-1/2 X 20 (NOT SHOWN)
26	L116354	TUBE, 5/8 X 1-7/8
27	L116355	PIN, W/DOUBLE HOLES, 7/8 X 11
28	L116366	RUBBER SPACER, OUTER ARM
29	L116390	DEPTH BAND WELDMENT
30	L116405	CLEVIS W/INTERNAL THREAD 5/8-11
31	L116438	PIN, W/DOUBLE HOLES, 1-1/4 X 12-1/4
32	L116446	LH SPINDLE AND HUB ASSEMBLY
	L116447	RH SPINDLE AND HUB ASSEMBLY
33	F65145	COTTER PIN, 1/4 X 1-1/2
34	L123337	ROW MARKER, OUTER ARM WELDMENT
35	L123338	ROW MARKER, MID ARM WELDMENT
36	L123340	EXTENSION TUBE, 2" SQ
37	L123342	CHAIN
38	L123343	CHAIN COVER
39	KD2721	U BOLT, 2 X 2, 1/2-13
40	K10722	SCREW, HEX HEAD CAP, 1/2-20 X 1

**ROW MARKER**

**8-Row 38, 12-Row, 16-Row Pull Type**

**ASSEMBLY**



M123078RM



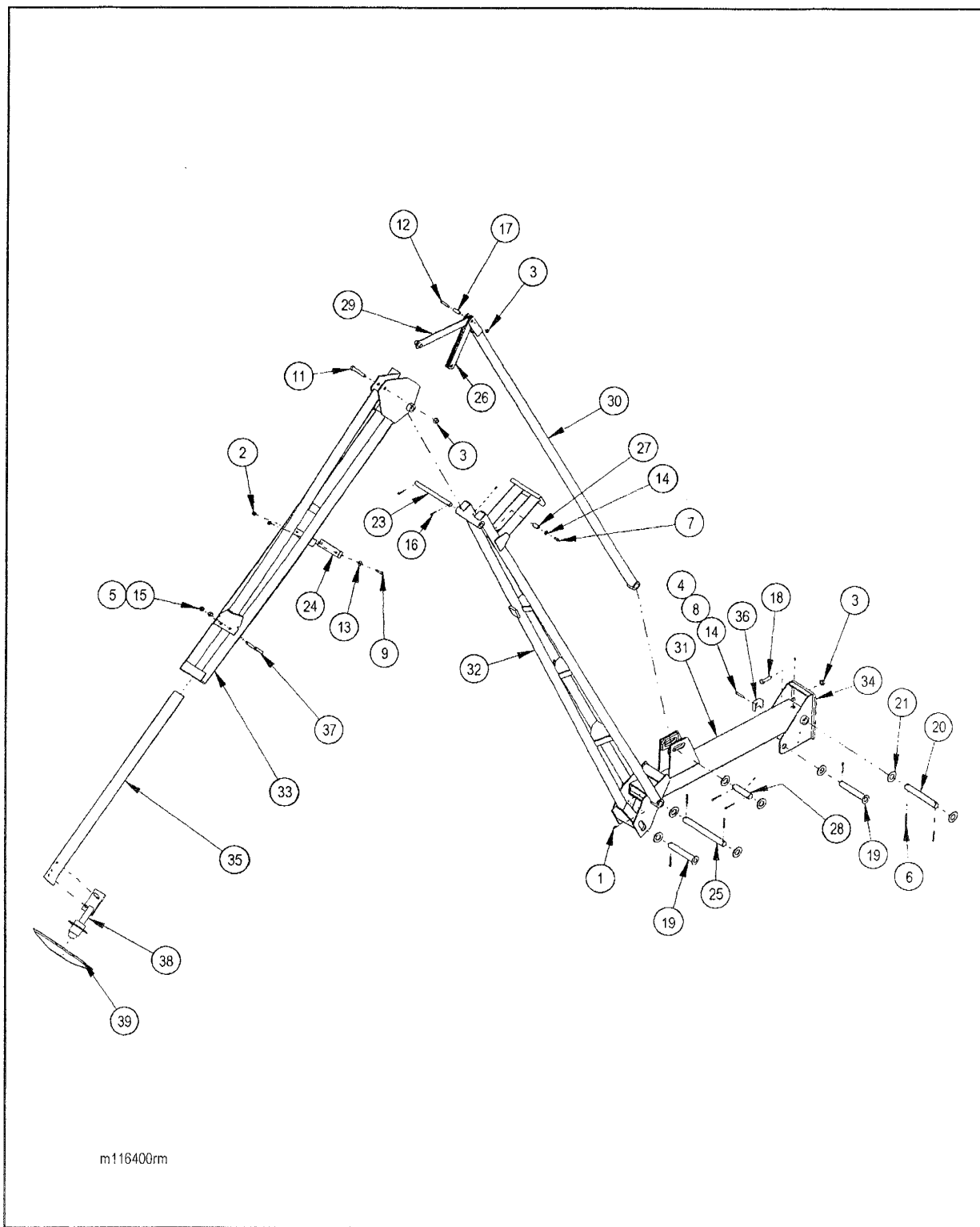
**ROW MARKER****8-Row 38, 12-Row, 16-Row Pull Type****ASSEMBLY**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	F58805	GREASE FITTING, 1/4-28
2	F36214	HEX JAM NUT, 5/8-11
3	F37212	REV LOCK NUT, 3/8-16
4	F37216	REV LOCK NUT, 5/8-11
5	F36106	HEX NUT, 3/8-16
6	F36110	HEX NUT, 1/2-13
8	F65147	COTTER PIN, 1/4 X 2
9	F13111	SCREW, HEX HEAD CAP, 3/8-16 X 2 GR5
10	F13110	SCREW, HEX HEAD CAP, 3/8-16 X 1-3/4 GR5
12	F13113	SCREW, HEX HEAD CAP, 3/8-16 X 2-1/2 GR5
14	F13317	SCREW, HEX HEAD CAP, 5/8-11 X 3-1/2 GR5
15	F33008	WASHER, FLAT, 3/8 USS
16	F33622	WASHER, SPLIT LOCK, 3/8
17	F33626	WASHER, SPLIT LOCK, 1/2
18	F33630	WASHER, SPLIT LOCK, 5/8
19	F65145	COTTER PIN, 1/4 X 1-1/2
20	F15312	SCREW, HEX HEAD CAP, 5/8-11 X 2-1/4 GR8
21	L116029	LINKAGE WELDMENT
22	L116032	PIN, W/WASHER WELDMENT, 1-1/4 X 7-1/2
23	L116034	PIN, W/DOUBLE HOLES, 1-1/4 X 9-1/2
24	L116035	EXTENSTION TUBE, 2" SQ X 50"
25	L116045	ROW MARKER, OUTER ARM WELDMENT (8 ROW 38 & 12 ROW)
	L116454	ROW MARKER, OUTER ARM WELDMENT (16 ROW)
26	L116070	ROW MARKER PIVOT WELDMENT
27	F33100	WASHER, FLAT, 1-1/4 SAE
28	L116176	ROW MARKER, FIRST ARM WELDMENT
29	L123329	ROW MARKER, MID ARM WELDMENT (8 ROW 38)
	L116199	ROW MARKER, MID ARM WELDMENT (12 ROW)
	L116452	ROW MARKER, MID ARM WELDMENT (16 ROW)
30	L116339	CLEVIS W/EXTERNAL THREAD, 5/8-11
31	L116344	CYLINDER, 2-1/2 X 20 (NOT SHOWN)
32	L116354	TUBE, 5/8 X 1-7/8
33	L116355	PIN, W/DOUBLE HOLES, 7/8 X 11
34	L116366	RUBBER SPACER, OUTER ARM
35	L116405	CLEVIS W/INTERNAL THREAD 5/8-11
36	L116438	PIN, W/DOUBLE HOLES, 1-1/4 X 12-1/4
37	L124456	CHAIN (8 ROW 38)
	L120368	CHAIN (12 ROW)
	L120369	CHAIN (16 ROW)
38	L124455	CHAIN COVER (8 ROW 38)
	L120399	CHAIN COVER (12 ROW)
	L120400	CHAIN COVER (16 ROW)
39	L2-181-010001	HOSE CLAMP
40	KD2721	U BOLT, 2 X 2, 1/2-13
41	L116446	LH SPINDLE & HUB
	L116447	RH SPINDLE & HUB
42	L116337	BLADE, SMOOTH

ROW MARKER \_\_\_\_\_

24-Row Pull Type

ASSEMBLY



m116400rm

**ROW MARKER**

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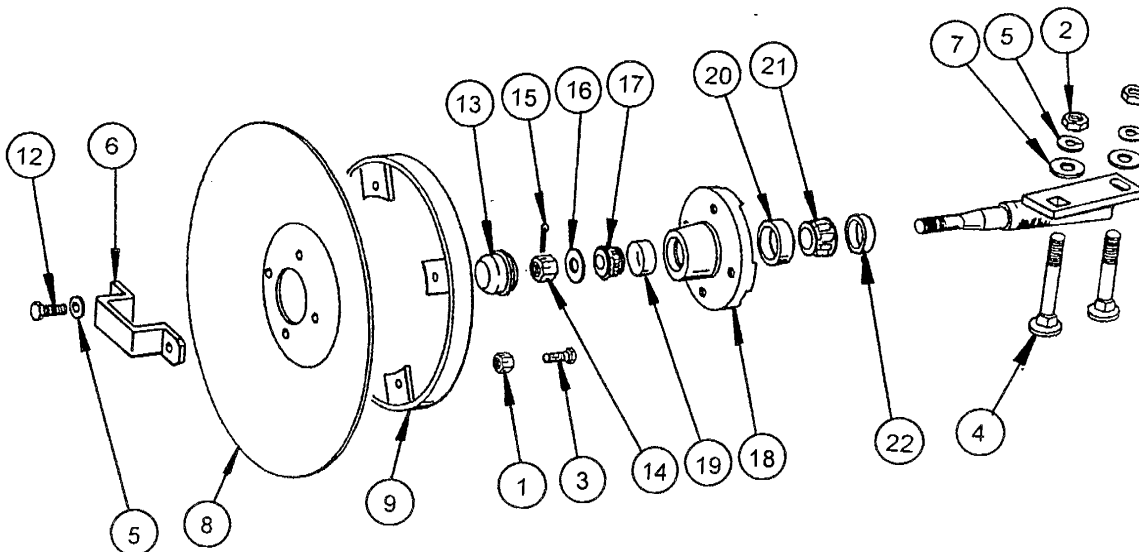
**24-Row Pull Type****ASSEMBLY**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	F58805	GREASE FITTING, 1/4-28
2	F37212	REV LOCK NUT, 3/8-16
3	F37216	REV LOCK NUT, 5/8-11
4	F36106	HEX NUT, 3/8-16
5	F36110	HEX NUT, 1/2-13
6	F65147	COTTER PIN, 1/4 X 2
7	F13103	SCREW, HEX HEAD CAP, 3/8-16 X 3/4 GR5
8	F13111	SCREW, HEX HEAD CAP, 3/8-16 X 2 GR5
9	F13110	SCREW, HEX HEAD CAP, 3/8-16 X 1-3/4 GR5
11	F13315	SCREW, HEX HEAD CAP, 5/8-11 X 3 GR5
12	F13113	SCREW, HEX HEAD CAP, 3/8-16 X 2-1/2 GR5
13	F33008	WASHER, FLAT, 3/8 USS
14	F33622	WASHER, SPLIT LOCK, 3/8
15	F33626	WASHER, SPLIT LOCK, 1/2
16	F65145	COTTER PIN, 1/4 X 1-1/2
17	L107389	TUBE, 5/8 X 1-3/4 X 11GA
18	F15312	SCREW, HEX HEAD CAP, 5/8-11 X 2-1/4 GR8
19	L116032	PIN, W/WASHER WELDMENT, 1-1/4 X 7-1/2
20	L116034	PIN, W/DOUBLE HOLES, 1-1/4 X 9-1/2
21	F33100	WASHER, FLAT, 1-1/4 SAE
22	L116344	CYLINDER, 2-1/2 X 20 (NOT SHOWN)
23	L116355	PIN, W/DOUBLE HOLES, 7/8 X 11
24	L116366	RUBBER SPACER, OUTER ARM
25	L116438	PIN, W/DOUBLE HOLES, 1-1/4 X 12-1/4
26	L117275	BAR, LINKAGE 12-1/2
27	L117278	BUSHING, LINKAGE, THREADED 3/8-16
28	L117289	PIN, W/DOUBLE HOLES, 1-1/4 X 5
29	L117292	LINKAGE WELDMENT
30	L117293	LINKAGE TUBE WELDMENT
31	L117294	ROW MARKER FIRST ARM
32	L117295	ROW MARKER MID ARM WELDMENT
33	L117296	ROW MARKER OUTER ARM WELDMENT
34	L117297	ROW MARKER BASE, PIVOT ASSEMBLY
35	L117298	TUBE EXTENSION, 2" SQ X 50"
36	L2-181-010001	HOSE CLAMP
37	KD2721	U BOLT, 2 X 2, 1/2-13

# ROW MARKER

## Pull Type

### MARKER SPINDLE / HUB / BLADE ASSEMBLY



ITEM	PART NO.	DESCRIPTION
1	F37211	REV LOCK NUT, 5/16-18
2	F36110	HEX NUT, 1/2-13
3	F13055	SCREW, HEX HEAD CAP, 5-16/18 X 1 GR5
4	F21887	CARRIAGE BOLT, 1/2-13 X 3-1/2 GR5
5	F33626	WASHER, SPLIT LOCK, 1/2
6	L116038	RETAINER
7	L116254	MACHINE BUSHING
8	L116337	BLADE, SMOOTH, 16" DIA.
9	L116390	DEPTH BAND WELDMENT
10	L116446	LH SPINDLE AND HUB ASSEMBLY (ITEMS 13-22)
11	L116447	RH SPINDLE AND HUB ASSEMBLY (ITEMS 13-22)
12	K10722	SCREW, HEX HEAD CAP, 1/2-20 X 1
13	L125612	HUB CAP
14	K10725	HEX NUT SLOTTED, 5/8-18
15	F65105	COTTER PIN, 5/32 X 1-1/2
16	L125617	WASHER, FLAT, 5/8
17	L70336915	OUTER CONE (P752231)
18	L125614	HUB WITH CUPS (ITEMS 19-20)
19	L70336914	OUTER CUP (P702218)
20	L70336916	INNER CUP (P702215)
21	L125613	INNER CONE (P752316)
22	L125611	GREASE SEAL (P602123)

## ROW MARKERS

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### TROUBLE SHOOTING

<b>Problem</b>	<b>Possible Cause</b>
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PROBLEM: If both markers are lowering, but only one is raising at a time,

- The hoses from the cylinders to the valve may be connected backwards. Check the hose diagram in manual to correct.

PROBLEM: If the same marker is always operating,

- The spool in sequencing valve may not be shifting. Remove spool and inspect for foreign material to make sure all ports in the spool are open. Clean spool and reinstall.

PROBLEM: If both markers lower and raise at the same time,

- There may be foreign material under the check ball in the sequencing valve. Remove and clean the hose fitting, spring and balls. Remove and clean the spool as well.
- Make sure there is not a ball missing or incorrectly installed in the sequencing valve. Disassemble and correct if this is the case.

PROBLEM: If the marker is setting down while in the raised position,

- The O-ring in the marker cylinder may be damaged or the piston may be cracked. Disassemble the cylinder to inspect for damage, repair any damage.
- The spool in sequencing valve may not be shifting completely because of a defective ball or because the spring is missing. Check the valve assembly and install parts as needed.
- The spool in sequencing valve may be shifting back towards the center position. Restrict the flow of hydraulic oil from the tractor to the sequencing valve.

PROBLEM: If neither marker will move,

- The flow control may be closed too much. Loosen the locking nut and turn the flow control adjustment bolt out, or counterclockwise, until the desired speed is set.

PROBLEM: If the markers are moving too fast,

- The flow control may be open too much. Loosen the locking nut and turn the flow control adjustment bolt in, or clockwise, until the desired speed is set.

PROBLEM: If the marker operation speed is sporadically changing,

- The needle may be sticking open in the flow control valve. Remove the flow control, inspect and repair or replace.



## AIR INSECTICIDE SYSTEM

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### 6200 Series for 12-row 22-24" Mounted, or 12-row 30" & 24-row 22" Pull-Type

#### CONSOLE MOUNT

Mount the console in a convenient location in vehicle cab using hardware provided. Connect 4-contact and 2-contact connectors of console wiring to 12' 4-contact and 2-contact wire assemblies and route to the tractor hitch.

Wrap the wiring in the flex guard loom. Place the rings of power and ground wires for console on the corresponding positive and negative terminals of battery.

#### MONITOR

When the shaft is turning, the green light should be blinking. When the planter is lifted and the shaft is not turning, the light should stay a constant green.

The yellow light indicates air pressure and will stay a constant yellow when you have air pressure. Due to the small amount of pressure used, however, the yellow light may be erratic.

#### AIR PRESSURE

Air pressure is regulated by opening or closing the spring loaded shutter located on the turbofan manifold.

When not using insecticide, for example: when planting large seeds such as edible beans, it is recommended to remove the chain going to the Gandy drive. **Have the turbofan manifold in a raised position with the shutter completely open.** This will allow maximum vacuum pressure.

When using insecticide, it is recommended to run approximately 2-5 oz<sup>2</sup> of air pressure on the Gandy gauge. Too little air pressure may cause the hoses to plug with chemical. Too much air pressure tends to over-spread the chemical on the ground.

It is recommended to run air through the hoses each morning for a couple of minutes before use. This will help dry any moisture which may have condensed in the hoses overnight.

#### FIELD CALIBRATION

1. Fill the hopper and set up a test course using two stakes placed 436 feet apart.
2. Read the label and cautionary statements of the agricultural chemical, fertilizer or recommended rates for seed you are using. Determine the rate you need to apply in pounds per acre.
3. Look up the rate chart for the chemical and deflector/tube spacing. Caution: Be sure the correct rate chart and the correct metering wheels are used for your application. Set the speed-control on the applicator for your rate according to the rate chart. Be sure you align the marks by viewing gauge at eye level. (If no chart is available for your material, estimate the speed-control setting for a trial run.) Set the speed control on the applicator for your rate according to rate chart. Note: The 62 Series implemented mounted Orbit-Air models' rate control units have a scale range of increments. Each printed number refers to 10 increments. Example: If a setting of 20 is suggested on the rate chart, align the speed control marker with number 2 by running the adjustment crank.
4. Place a plastic bag around each deflector or tube end, securing it around the plastic tube, leaving one-half of the top open to allow air to escape. Note: take precaution so bags are not dragged or torn while making calibration run.
5. Adjust the manifold to produce 2-5oz/in<sup>2</sup> of air pressure if applying granular chemicals or light seeds, 14-20 oz/in if applying fertilizer. With heavier materials the higher air pressures may be needed. Check to see that all the bags are still in place.
6. Travel the 436 foot course at normal speed.
7. Weigh the total contents of all the bags in pounds.
8. Divide weight collected in pounds by the width of the implement in feet and multiply by 100 to get pounds per broadcast acre.

9. Adjust speed control if needed and repeat steps 4 through 8. Example: Collecting from 12 outlets with 22" tube spacing, you collect 2 pounds.

$$2 \text{ lb} \div 48 \text{ ft. implement) } \times 100 = 9.1 \text{ lb/acre}$$

Note: If you wish to collect from fewer deflectors, follow the above procedures until you get to Step 8, then divide pounds collected by acres covered to get pounds per broadcast acre. To calculate acres covered: (Collected width in feet) x 436 ft  $\div$  43,560 ft<sup>2</sup> = acres covered.

Example: By using 3 tubes with 22 inch spacing you collect .5 lb. Therefore, total width collected is 5.5 feet.

1.  $(5.5 \text{ ft} \times 436 \text{ ft}) \div 43,560 \text{ ft}^2 = .055 \text{ acres}$
2.  $.5 \text{ lb} \div .055 \text{ acres} = 9.1 \text{ lb/acre}$

### **INTERCHANGING METERING WHEELS**

Each unit is furnished with one set of metering wheels as ordered. However additional sets may be ordered to apply other materials. They may be interchanged according to the following procedure:

1. Detach nylon spur gear from drive end of metering wheel shaft by removing cotter pin. Loosen the two hex bolts on the flangette bearing at each end. Lift out shaft and wheel assembly. Loosen and remove locking collar on drive end.
2. Remove wheels and slide on new set of wheels, aligning them in metering cups. Re-install flangettes and locking collar on outside of mounting plate tab. Tighten hex bolts on each flangette bearing, then lock collar by tapping with punch to run collar on shaft, and secure with set screws.

Note; If your operation demands metering wheels be interchanged often, additional wheel sets and shafts can be ordered, or complete bottom metering wheels and mounting plate assemblies can be ordered for quick interchange using 'j' bolts.



## AIR INSECTICIDE SYSTEM

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### CONVERSION FOR METRIC RATES (KG/HECTARE)

1. Determine ground speed in miles per hour.

2 miles per hour =	3.2 km per hour
3 miles per hour =	4.8 km per hour
4 miles per hour =	6.4 km per hour
5 miles per hour =	8.0 km per hour
6 miles per hour =	9.7 km per hour
7 miles per hour =	11.3 km per hour
8 miles per hour =	12.9 km per hour
9 miles per hour =	14.5 km per hour
10 miles per hour =	16.1 km per hour

2. Determine rate in pounds per acre.

Multiply your rate in kilograms per hectare by .89 to obtain rate in pounds per acre. Use this number when following the instructions on the front cover.

### LEGAL EQUIVALENTS ADOPTED BY ACT OF CONGRESS JULY 28, 1886

#### Length

1 centimeter =	.3937 in
1 meter =	39.7 inches= 3.28 feet
1 kilometer =	.621 statute miles
1 inch =	2.540 centimeters
1 foot =	30.48 centimeters
1 yard =	0.914 meters
1 rod (16.5 ft) =	5.029 meters
1 statute mile (5280 ft) =	1.61 kilometers

#### Area

1 hectare (10,000 sq m) =	2.471 acres
1 acre =	0.405 hectars

#### Weight

1 gram =	0.035 ounces
1 kilogram =	2.205 pounds
1 ounce =	28.35 grams
1 pound =	0.4536 kilograms

#### Weight per Area

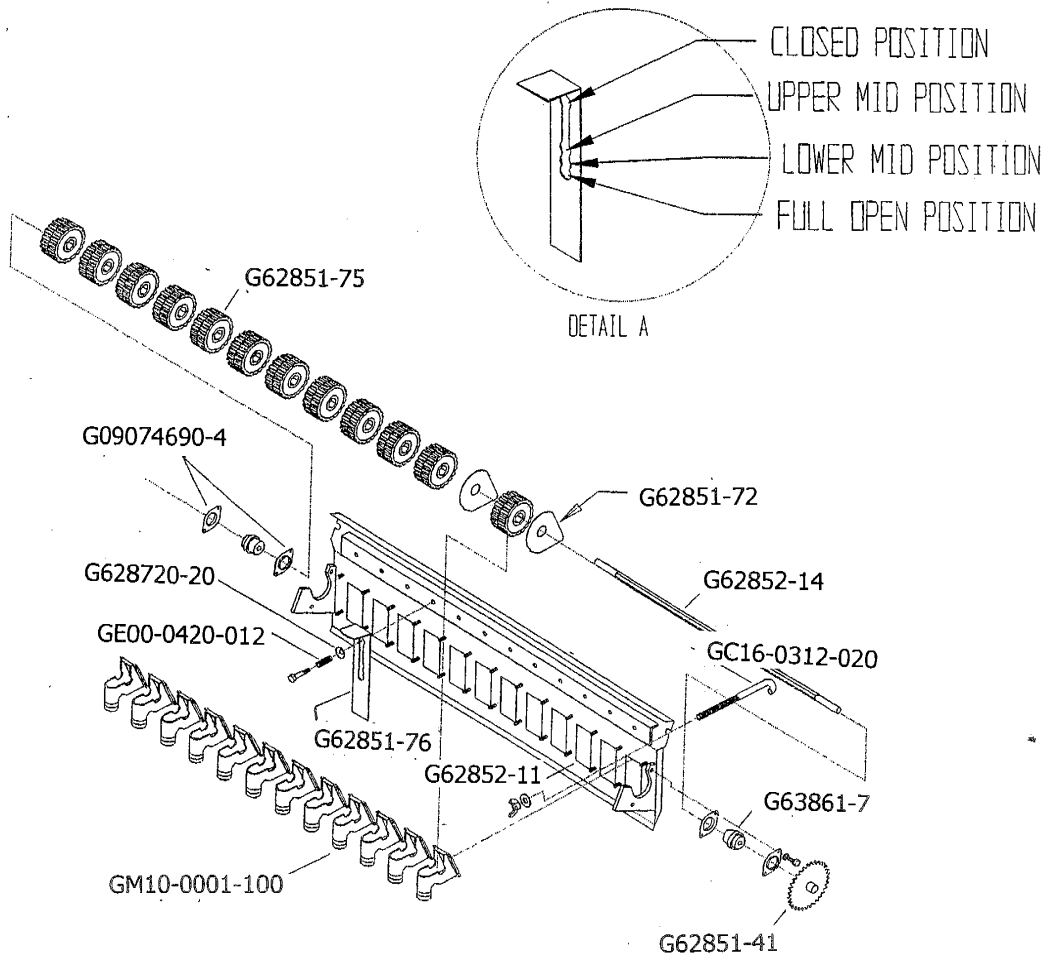
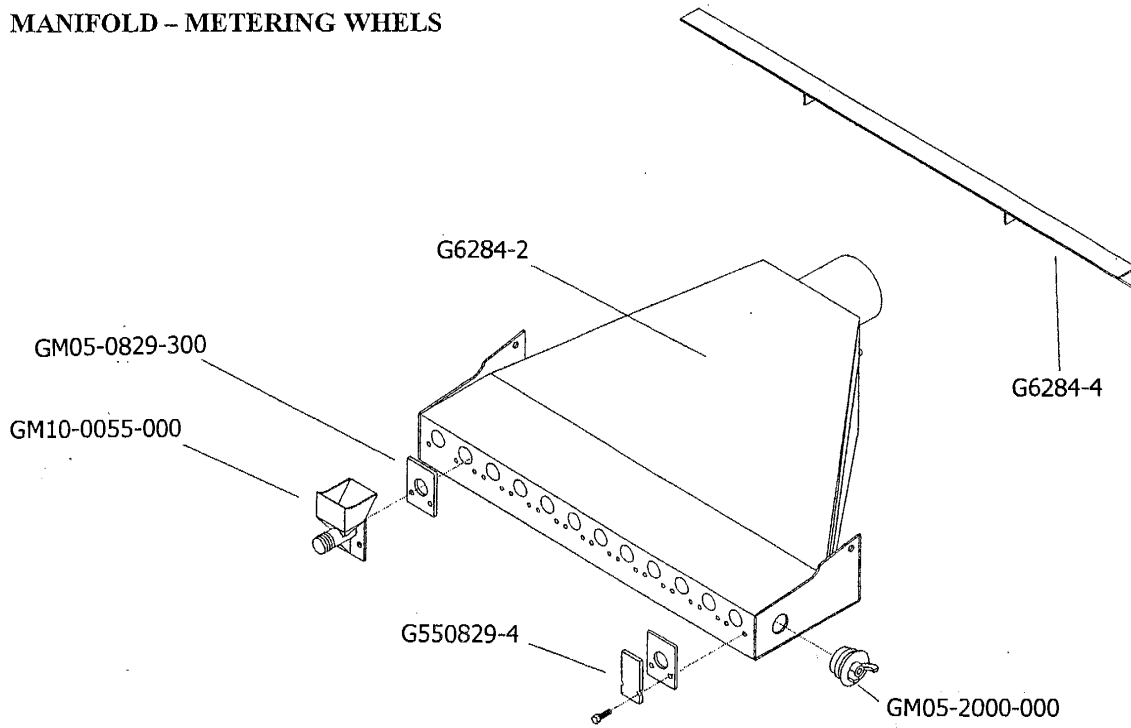
1 pound per acre =	1.120 kilograms per hectare
1 kilogram per Hectare =	0.892 pounds per acre
1 ounce per 1000 ft =	9.30 grams per 100 meters

#### Weight per Area with speed change

1 ounce per 1000 feet @ 1 mph = 14.88 g/100 meters 1 kph

AIR INSECTICIDE SYSTEM

MANIFOLD - METERING WHEELS



## AIR INSECTICIDE SYSTEM

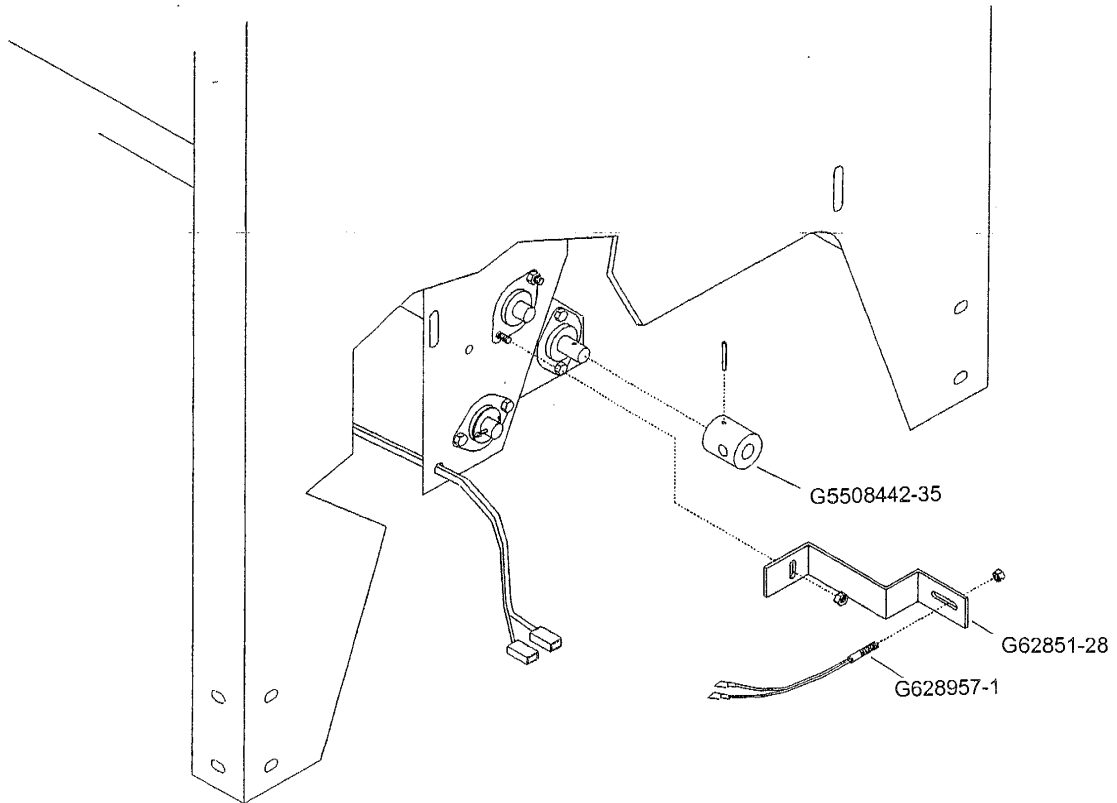
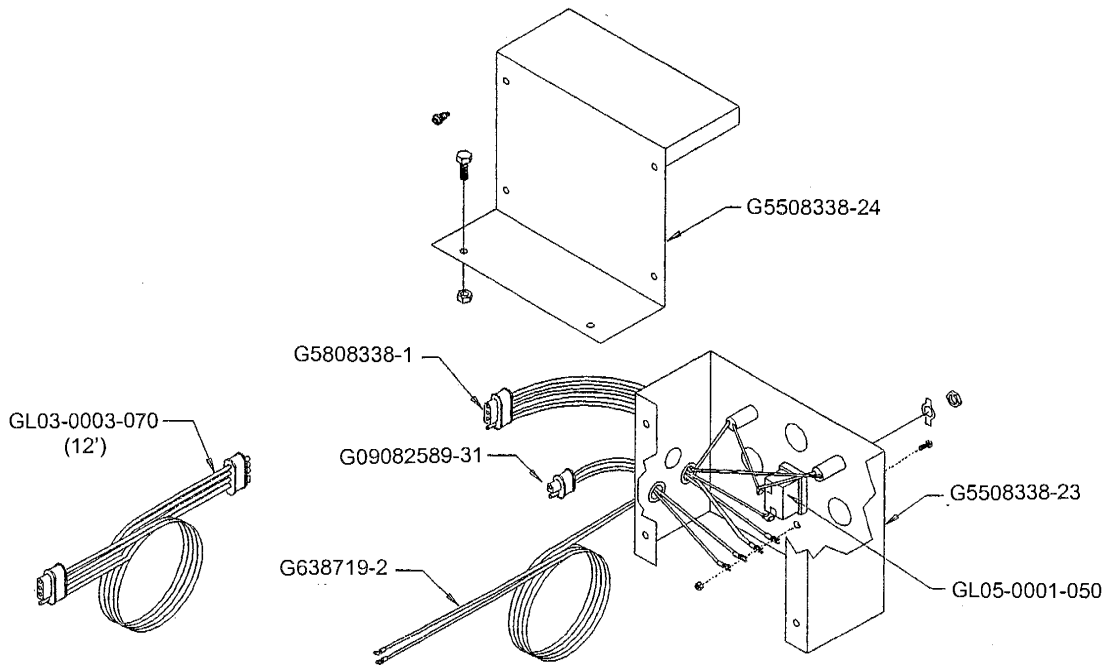
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### MANIFOLD - METERING WHEELS

<b>PART No.</b>	<b>DESCRIPTION</b>
G6284-2	Air Chamber 4 Hex bolt (3/8x3/4) 2 Lock washer (3/8) 2 Hex nut (3/8) 2 Whiz lock flange nut (3/8)
G6284-4	Angle support, manifold 2 Hex bolt (3/8x1) 2 Whiz lock flange nut
G62851-75	Metering wheels, chemical, black with insert
G62851-76	Hole closure, slotted 12 Lock washer (5/16) 12 Spring 12 Hex bolt (5/16x 1 3/4)
G62852-14	Hex shaft, 31-9/16"
G62851-41	Sprocket, 21 tooth, 5/8 bore 1 Cotter pin 3/16x 1 1/4
G62851-72	Wear plate, stainless
G62852-11	Mounting plate, metering cups, 12 openings 2 'J' bolt 2 SAE washer (5/16) 2 Wing nut (5/16)
G628720-20	Washer, extruded
G63861-7	Bearing, plastic
G550829-4	Air Chamber cover plate
G09074690-4	Flangette, bearing 4 Hex bolt (1/4x1/2) 4 Lock washer (1/4)
GC16-0312-020	Washer
GE00-0420-012	Spring
GM05-0829-300	Gasket, mixing chambers
GM05-2000-000	Plub
GM10-0001-100	Metering cup, 1 1/4" 26 Small flange nut 1024 (3/16)
GM10-0055-000	Mixing chambers 24 Hex hd TC screw (5/16x3/4)

AIR INSECTICIDE SYSTEM

CONSOLE - SHAFT SENSOR - DRIVE SPROCKET LISTING



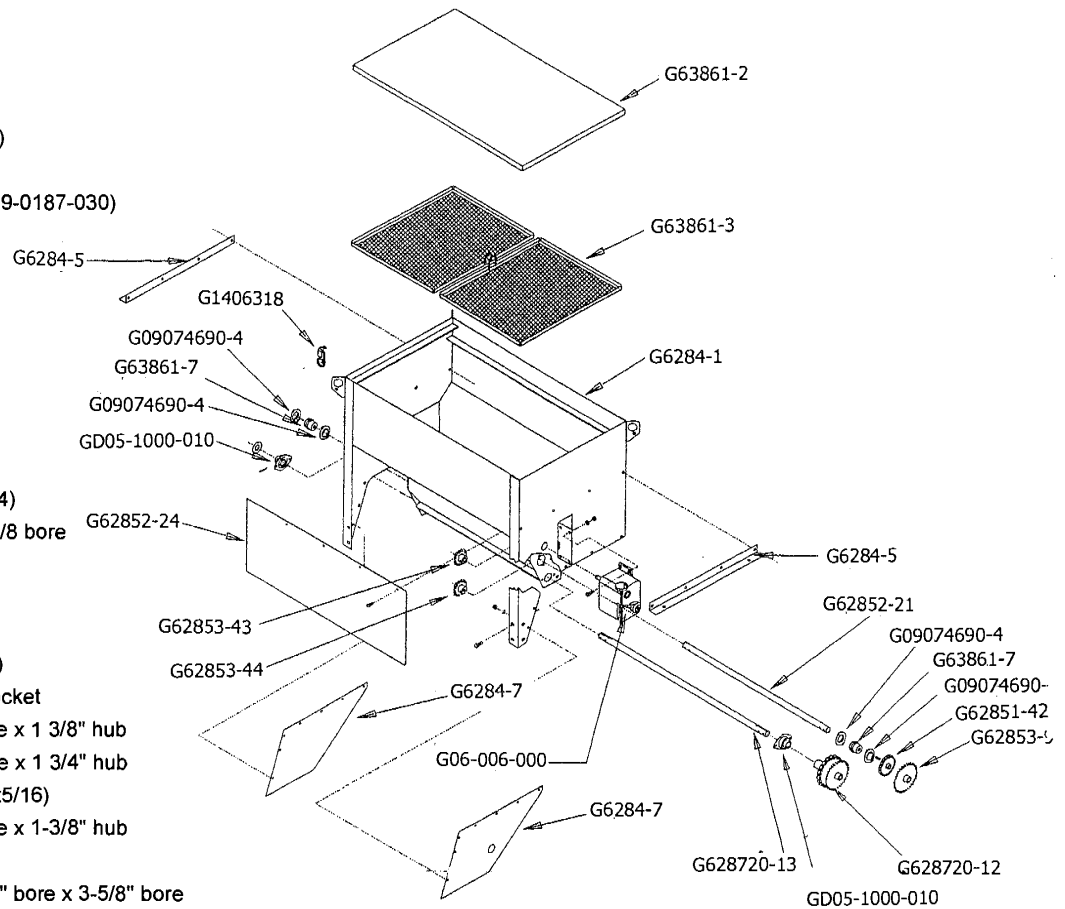
CONSOLE - SHAFT SENSOR - DRIVE SPROCKET LISTING

<u>PART No.</u>	<u>DESCRIPTION</u>
G62851-28	Mounting bracket, sensor
G628957-1	Sensor with tabs installed
G638719-2	Power and ground wire, 16 ga.x11'
G09082589-31	Moulded connector, 16 ga.x8"
G5508338-23	Enclosed console, front 3 Rubbger grommet 3/8" ID
G5508338-24	Enclosed console, back 2 Hex bolt (1/4x3/4) 2 Small flange nut (1/4) 4 Phillips sheet metal screw (#10-16x5/16)
G5508442-35	Magnetic hub 1 Spring pin (3/16x1)
G5808338-1	Molded connector, female 8" with terminal
GL03-003-070	Molded connector, 4 contact M & F 144" wire
GL05-0001-050	Toggle switch #90-0001
GL05-0008-000	Amber indicator light
GL05-0008-020	Green indicator light
<u>Drive Sprocket Listing - 24-Row</u>	
G00104040	40 tooth sprocket
G00104035	35 tooth sprocket
KA5105	15 tooth sprocket
<u>Drive Sprocket Listing - 7 x 7 Mounted</u>	
G00104040	40 tooth sprocket
G00104036	36 tooth sprocket
KA5105	15 tooth sprocket
<u>Drive Sprocket Listing - Stacking Toolbar</u>	
G0104042	42 tooth sprocket
G00104040	40 tooth sprocket
KA5105	15 tooth sprocket
<u>Drive Sprocket Listing- 5 x 5 Mounted</u>	
G00104040	40 tooth sprocket
G00104038	38 tooth sprocket
KA5105	15 tooth sprocket
K3310-80	No. 40 chain / 80 pitch w/link
G04017E08	Idler sprocket 17t #40 1/2"

# AIR INSECTICIDE SYSTEM

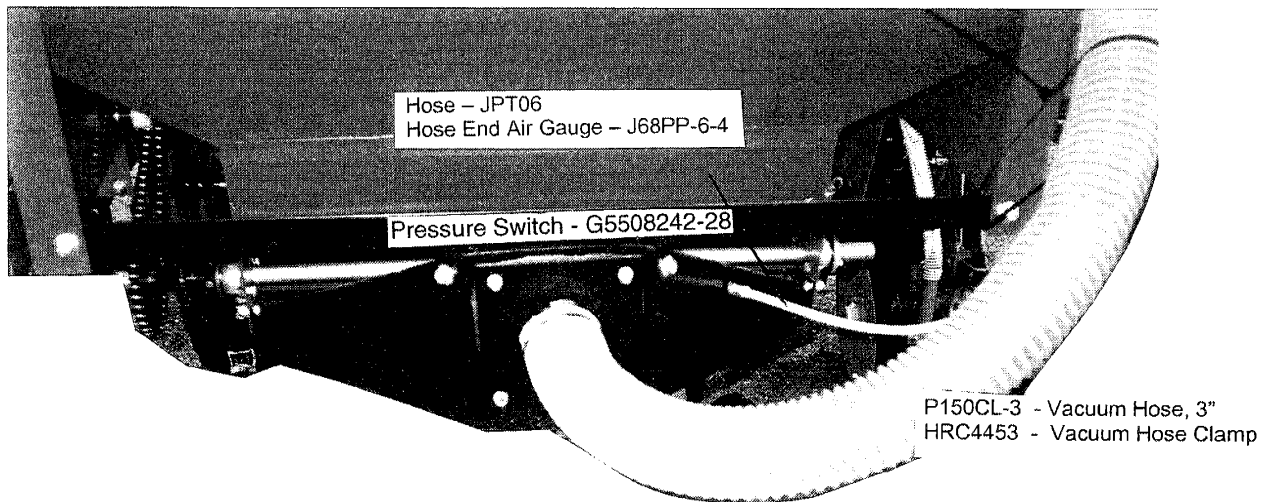
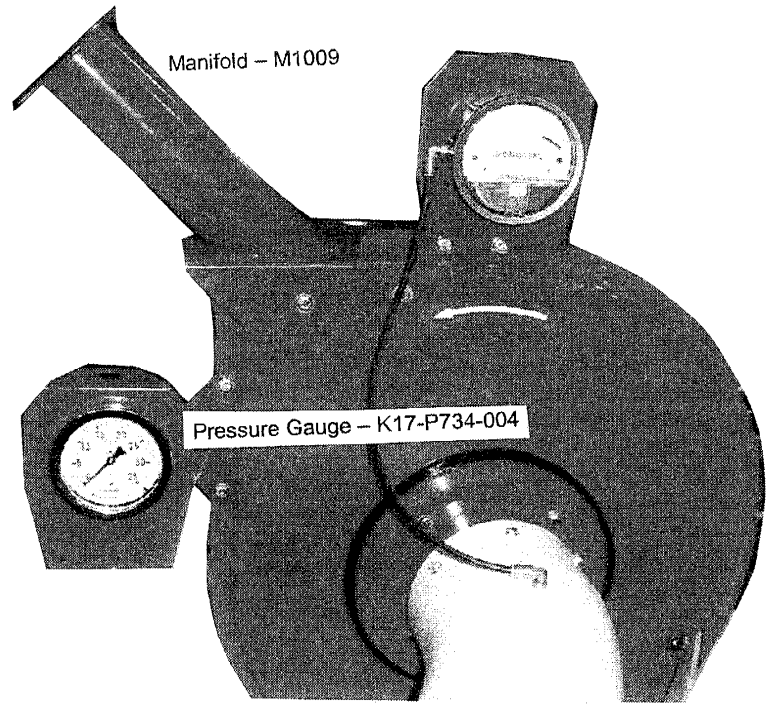
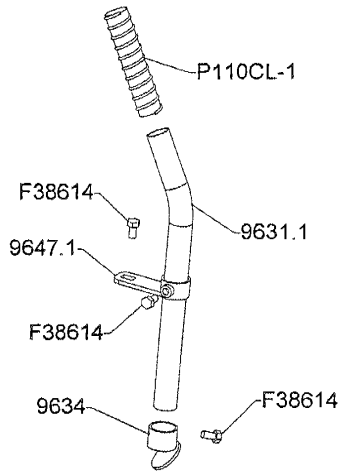
## HOPPER ASSEMBLY

PART No.	DESCRIPTION
G6284-1	Hopper, 10 cu.ft. 2 Hex bolt (3/8x1) 2 Whiz lock flange nut (3/8) 2 Site window (610851/26) 12 Pop rivet (3/16x3/8) (C19-0187-030) 4 Rails (610851/27)
G6284-5	Mounting angle 4 Hex bolt (5/16x3/4) 4 Lock washer (5/16) 4 Hex nut (5/16)
G6284-7	End windshield 13 Wrought washer (1/4) 13 Hex bolt (1/4x1/2) 13 Whiz lock flange nut (1/4)
G62851-42	Chain sprocket, 21 tooth, 5/8 bore
G62852-24	Clear windshield 5 Hex bolt (1/4x1/2) 5 Wrought washer (5/16) 5 Whiz lock flange nut (1/4)
G62852-21	Shaft, gear and driven sprocket
G62853-9	Sprocket, 24 tooth, 5/8 bore x 1 3/8" hub
G62853-43	Sprocket, 16-tooth, 5/8 bore x 1 3/4" hub 2 Socket set screw (10-24x5/16)
G62853-44	Sprocket, 16 tooth, 1/2 bore x 1-3/8" hub
G628720-7	Coupler
G628720-12	Chain sprocket, 35 tooth, 1" bore x 3-5/8" bore 1 Clevis pin (1/4x1-1/2) 1 Cotter pin (3/32x3/4)
G628720-13	Shaft, 1"x3/8
G63861-2	Cover 2 Clevis pin (1/4x2x5/8) 2 Cotter pin (3/32x3/4)
G63861-3	Screen
G63861-7	Bearing, plastic
G06-0060-000	Speed control 4 Hex bolt (3/8x1) 4 Lock washer (3/8) 4 Hex nut (3/8)
G09074690-4	Flangette, bearing 4 Hex bolt (1/4x1/2) 4 Lock washer (1/4)
G1406318	Cover Lock 2 Cotter pin (3/32x3/4)
GD05-1000-010	Bearing 4 Hex bolt (1/4x3/4) 4 Lock washer (1/4) 4 Hex nut (1/4)



AIR INSECTICIDE SYSTEM

HOSES, INSECTICIDE SPREADER TUBE, PRESSURE GAUGE, MANIFOLD







**AIR INSECTICIDE SYSTEM**

Gandy Rate Chart  
Orbit Air Applicators for MONOSEM Planters

**DIPEL 10G  
ABBOTT LAB.**

TUBE SPACING IN INCHES									STANDARD ZERO-MAX SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									
1.7	1.8	1.9	2.3	2.7	2.9	3.0	3.2	3.9	3.5
2.8	3.0	3.1	3.8	4.3	4.7	4.9	5.1	6.3	5.5
3.5	3.7	3.9	4.7	5.4	5.9	6.2	6.4	7.9	7.5
4.6	4.8	5.1	6.1	7.0	7.6	7.9	8.3	10.1	9.0
5.3	5.6	5.9	7.1	8.2	8.9	9.3	9.7	11.9	11.0
6.2	6.6	6.9	8.3	9.6	10.4	10.9	11.3	13.9	12.5
7.1	7.5	7.9	9.4	10.9	11.8	12.3	12.9	15.7	14.0
8.5	9.0	9.5	11.4	13.1	14.2	14.8	15.5	18.9	16.5
10.3	10.8	11.4	13.7	15.8	17.1	17.8	18.7	22.8	19.0
10.9	11.5	12.1	14.6	16.8	18.2	19.0	19.9	24.3	20.0
12.0	12.6	13.3	16.0	18.5	20.0	20.9	21.8	26.7	21.5
13.7	14.4	15.2	18.2	21.0	22.8	23.8	24.9	30.4	23.5
18.6	19.6	20.7	24.8	28.6	31.0	32.3	33.8	41.3	25.5
19.9	20.9	22.1	26.5	30.6	33.1	34.5	36.1	44.1	27.5
21.8	23.0	24.3	29.1	33.6	36.4	38.0	39.7	48.5	29.0
23.3	24.6	25.9	31.1	35.9	38.9	40.6	42.4	51.9	30.0

**DYFONATE 20G  
ZYNECA**

TUBE SPACING IN INCHES									STANDARD ZERO-MAX SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									
1.9	2.0	2.1	2.6	3.0	3.2	3.3	3.5	4.3	3.5
2.9	3.0	3.2	3.8	4.4	4.8	5.0	5.2	6.4	5.5
3.8	4.0	4.3	5.1	5.9	6.4	6.7	7.0	8.5	7.5
4.5	4.7	5.0	6.0	6.9	7.5	7.8	8.2	10.0	9.0
5.0	5.2	5.5	6.6	7.7	8.3	8.7	9.1	11.1	10.0
7.5	7.9	8.3	10.0	11.5	12.5	13.0	13.6	16.7	12.5
8.5	9.0	9.5	11.4	13.1	14.2	14.8	15.5	18.9	14.0
10.1	10.6	11.2	13.4	15.5	16.8	17.5	18.3	22.4	16.5
12.1	12.8	13.5	16.2	18.6	20.2	21.1	22.0	26.9	19.0
12.9	13.6	14.3	17.2	19.8	21.5	22.4	23.5	28.7	20.0
14.2	14.9	15.7	18.9	21.8	23.6	24.6	25.7	31.5	21.5
16.1	17.0	17.9	21.5	24.8	26.9	28.1	29.3	35.9	23.5
18.2	19.1	20.2	24.2	28.0	30.3	31.6	33.1	40.4	25.5
19.9	20.9	22.1	26.5	30.6	33.1	34.5	36.1	44.1	27.5
21.8	23.0	24.3	29.1	33.6	36.4	38.0	39.7	48.5	29.0
23.5	24.7	26.1	31.3	36.1	39.1	40.8	42.7	52.1	30.0

**AIR INSECTICIDE SYSTEM**

**Counter 15 G  
AMERICAN CYANAMID**

TUBE SPACING IN INCHES								STANDARD ZERO-MAX SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX	
38	36	30	26	24	23	22	18	Y-41	
<b>RATE IN POUNDS PER ACRE</b>									
2.1	2.3	2.7	3.1	3.4	3.5	3.7	4.5	3.5	
3.2	3.4	4.1	4.7	5.1	5.3	5.6	6.8	5.5	
4.3	4.5	5.4	6.3	6.8	7.1	7.4	9.1	7.5	
5.6	5.9	7.0	8.1	8.8	9.2	9.6	11.7	10.0	
6.4	6.7	8.1	9.3	10.1	10.5	11.0	13.5	11.0	
7.5	7.9	9.4	10.9	11.8	12.3	12.9	15.7	12.5	
8.5	9.0	10.8	12.5	13.5	14.1	14.7	18.0	14.0	
11.1	11.7	14.0	16.2	17.5	18.3	19.1	23.3	16.5	
13.3	14.0	16.8	19.4	21.0	21.9	22.9	28.0	19.0	

**COUNTER CR  
AMERICAN CYANAMID**

TUBE SPACING IN INCHES								STANDARD ZERO-MAX SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX		
40	38	36	30	26	24	23	22	18	Y-41	
<b>RATE IN POUNDS PER ACRE</b>										
3.8	4.0	4.3	5.1	5.9	6.4	6.7	7.0	8.5	5.0	
4.6	4.8	5.1	6.1	7.0	7.6	7.9	8.3	10.1	6.0	
5.3	5.5	5.9	7.0	8.1	8.8	9.2	9.6	11.7	7.0	
6.0	6.3	6.7	8.0	9.2	10.0	10.4	10.9	13.3	8.0	
6.9	7.2	7.6	9.2	10.6	11.5	12.0	12.5	15.3	9.0	
7.6	8.0	8.5	10.2	11.7	12.7	13.2	13.9	16.9	10.0	
8.5	9.0	9.5	11.4	13.1	14.2	14.9	15.5	19.0	11.0	
9.5	10.0	10.5	12.6	14.6	15.8	16.5	17.2	21.0	12.0	
10.4	10.9	11.5	13.9	16.0	17.3	18.1	18.9	23.1	13.0	
11.2	11.8	12.5	14.9	17.2	18.7	19.5	20.4	24.9	14.0	
12.1	12.8	13.5	16.2	18.7	20.2	21.1	22.1	27.0	15.0	
13.0	13.7	14.5	17.4	20.1	21.7	22.7	23.7	29.0	16.0	
14.0	14.7	15.5	18.6	21.5	23.3	24.3	25.4	31.0	17.0	
14.9	15.7	16.5	19.8	22.9	24.8	25.9	27.0	33.1	18.0	
15.9	16.8	17.7	21.3	24.5	26.6	27.7	29.0	35.4	19.0	
16.9	17.8	18.7	22.5	26.0	28.1	29.3	30.7	37.5	20.0	
18.0	18.9	20.0	23.9	27.6	29.9	31.2	32.7	39.9	21	
19.1	20.1	21.2	25.4	29.3	31.8	33.1	34.6	42.3	22	
20.1	21.2	22.4	26.9	31.0	33.6	35.0	36.6	44.8	23	
21.2	22.3	23.5	28.2	32.6	35.3	36.8	38.5	47.1	24	
22.3	23.4	24.7	29.7	34.3	37.1	38.7	40.5	49.5	25	
23.3	24.6	25.9	31.1	35.9	38.9	40.6	42.5	51.9	26	
24.4	25.7	27.1	32.6	37.6	40.7	42.5	44.4	54.3	27	
25.5	26.9	28.3	34.0	39.2	42.5	44.4	46.4	56.7	28	
26.6	28	29.5	35.4	40.9	44.3	46.2	48.3	59.0	29	
27.6	29.1	30.7	36.9	42.5	46.1	48.1	50.3	61.4	30	

**AIR INSECTICIDE SYSTEM**

**FORCE 1.5 G  
ZENECA**

TUBE SPACING IN INCHES									STANDARD ZERO-MAX SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									
3.5	3.7	3.9	4.7	5.4	5.9	6.2	6.4	7.9	7.5
4.5	4.7	5.0	6.0	6.9	7.5	7.8	8.2	10.0	9.0
5.3	5.6	5.9	7.0	8.1	8.8	9.2	9.6	11.7	11.0
6.2	6.5	6.9	8.2	9.5	10.3	10.7	11.2	13.7	12.5
7.0	7.4	7.8	9.4	10.8	11.7	12.2	12.8	15.6	14.0
9.6	10.1	10.7	12.8	14.8	16.0	16.7	17.5	21.3	16.5
11.5	12.1	12.8	15.4	17.7	19.2	20.0	20.9	25.6	19.0
12.2	12.9	13.6	16.3	18.8	20.4	21.3	22.3	27.2	20.0
13.0	13.6	14.4	17.3	19.9	21.6	22.5	23.6	28.8	21.5
13.7	14.4	15.2	18.2	21.0	22.8	23.8	24.9	30.4	23.5
18.6	19.6	20.7	24.8	28.6	31.0	32.3	33.8	41.3	25.5
19.9	20.9	22.1	26.5	30.6	33.1	34.5	36.1	44.1	27.5
21.8	23.0	24.3	29.1	33.6	36.4	38.0	39.7	48.5	29.0
23.3	24.6	25.9	31.1	35.9	38.9	40.6	42.4	51.9	30.0
23.8	25.1	26.5	31.8	36.6	39.7	41.4	43.3	52.9	30.5
25.8	27.2	28.7	34.4	39.7	43.0	44.9	46.9	57.3	32.0

**FULL-BACK**

TUBE SPACING IN INCHES									STANDARD ZERO-MAX SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									
2.8	3.0	3.1	3.8	4.3	4.7	4.9	5.1	6.3	7.0
3.1	3.2	3.4	4.1	4.7	5.1	5.3	5.6	6.8	8.0
4.6	4.9	5.1	6.2	7.1	7.7	8.0	8.4	10.3	9.0
5.0	5.2	5.5	6.6	7.7	8.3	8.7	9.1	11.1	10.0
5.6	5.9	6.3	7.5	8.7	9.4	9.8	10.3	12.5	11.0
6.2	6.6	6.9	8.3	9.6	10.4	10.9	11.3	13.9	12.0
6.8	7.2	7.6	9.1	10.5	11.4	11.9	12.4	15.2	13.0
7.4	7.8	8.3	9.9	11.4	12.4	12.9	13.5	16.5	14.0
8.0	8.5	8.9	10.7	12.4	13.4	14.0	14.6	17.9	15.0
8.8	9.2	9.7	11.7	13.5	14.6	15.2	15.9	19.5	16.0
9.5	10.0	10.5	12.6	14.6	15.8	16.5	17.2	21.1	17.0
10.1	10.7	11.3	13.5	15.6	16.9	17.6	18.4	22.5	18.0
10.9	11.4	12.1	14.5	16.7	18.1	18.9	19.7	24.1	19.0
11.6	12.2	12.9	15.4	17.8	19.3	20.1	21.1	25.7	20.0
23.8	25.1	26.5	31.8	36.6	39.7	41.4	43.3	52.9	30.5
25.8	27.2	28.7	34.4	39.7	43.0	44.9	46.9	57.3	32.0

**AIR INSECTICIDE SYSTEM**

**LORSBAN  
DOWELANCO**

TUBE SPACING IN INCHES								STANDARD ZERO-MAX SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX	
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									<b>Y-41</b>
1.3	1.3	1.4	1.7	1.9	2.1	2.2	2.3	2.8	3.5
1.9	2.0	2.1	2.6	3.0	3.2	3.3	3.5	4.3	5.5
2.5	2.7	2.8	3.4	3.9	4.2	4.4	4.6	5.6	7.5
3.2	3.4	3.6	4.3	5.0	5.4	5.6	5.9	7.2	9.0
3.8	4.0	4.3	5.1	5.9	6.4	6.7	7.0	8.5	11.0
4.5	4.7	5.0	6.0	6.9	7.5	7.8	8.2	10.0	12.5
5.1	5.4	5.7	6.8	7.8	8.5	8.9	9.3	11.3	14.0
6.7	7.1	7.5	9.0	10.3	11.2	11.7	12.2	14.9	16.5
8.0	8.5	8.9	10.7	12.4	13.4	14.0	14.6	17.9	19.0
8.6	9.0	9.5	11.4	13.2	14.3	14.9	15.6	19.1	20.0
9.4	9.9	10.4	12.5	14.4	15.6	16.3	17.0	20.8	21.5
13.7	14.4	15.2	18.2	21.0	22.8	23.8	24.9	30.4	23.5
18.6	19.6	20.7	24.8	28.6	31.0	32.3	33.8	41.3	25.5
19.9	20.9	22.1	26.5	30.6	33.1	34.5	36.1	44.1	27.5
21.8	23.0	24.3	29.1	33.6	36.4	38.0	39.7	48.5	29.0
23.3	24.6	25.9	31.1	35.9	38.9	40.6	42.4	51.9	30.0

**MOCAP 15G RHONE-POULENC**

TUBE SPACING IN INCHES								SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX	
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									<b>Y-41</b>
1.4	1.5	1.5	1.8	2.1	2.3	2.4	2.5	3.1	3.5
2.1	2.2	2.3	2.8	3.2	3.5	3.7	3.8	4.7	5.5
2.8	2.9	3.1	3.7	4.2	4.6	4.8	5.0	6.1	7.5
3.5	3.7	3.9	4.6	5.4	5.8	6.1	6.3	7.7	9.0
4.2	4.4	4.7	5.6	6.5	7.0	7.3	7.6	9.3	11.0
4.9	5.2	5.5	6.6	7.6	8.2	8.6	8.9	10.9	12.5
5.6	5.9	6.2	7.4	8.6	9.3	9.7	10.1	12.4	14.0
7.0	7.4	7.8	9.4	10.8	11.7	12.2	12.8	15.6	16.5
8.4	8.8	9.3	11.2	12.9	14.0	14.6	15.3	18.7	19.0
9.0	9.5	10.0	12.0	13.8	15.0	15.7	16.4	20.0	20.0
9.8	10.4	10.9	13.1	15.1	16.4	17.1	17.9	21.9	21.5
11.3	11.9	12.5	15.0	17.4	18.8	19.6	20.5	25.1	23.5
12.7	13.3	14.1	16.9	19.5	21.1	22.0	23.0	28.1	25.5
13.2	13.9	14.7	17.6	20.3	22.0	23.0	24.0	29.3	27.5
14.5	15.3	16.1	19.4	22.3	24.2	25.3	26.4	32.3	29.0
15.6	16.4	17.3	20.8	24.0	26.0	27.1	28.4	34.7	30.0
15.8	16.7	17.6	21.1	24.4	26.4	27.5	28.8	35.2	30.5
17.2	18.1	19.1	22.9	26.4	28.6	29.8	31.2	38.1	32
18.5	19.5	20.6	24.7	28.5	30.9	32.2	33.7	41.2	33.5
19.9	20.9	22.1	26.5	30.6	33.1	34.5	36.1	44.1	35
20.2	21.3	22.5	27	31.1	33.7	35.2	36.8	44.9	36
20.9	22	23.2	27.8	32.1	34.8	36.3	38.0	46.4	37

**AIR INSECTICIDE SYSTEM**

**M-PERIL  
MYCOGEN**

TUBE SPACING IN INCHES									SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									
5.9	6.2	6.5	7.8	9.0	9.8	10.2	10.7	13.1	5.0
7.3	7.7	8.1	9.8	11.3	12.2	12.7	13.3	16.3	6.0
8.7	9.2	9.7	11.6	13.4	14.5	15.1	15.8	19.3	7.0
10.1	10.7	11.3	13.5	15.6	16.9	17.6	18.4	22.5	8.0
11.6	12.3	12.9	15.5	17.9	19.4	20.2	21.2	25.9	9.0
13.1	13.8	14.5	17.4	20.1	21.8	22.7	23.8	29.1	10.1
14.6	15.3	16.2	19.4	22.4	24.3	25.4	26.5	32.4	11.0
16.1	16.9	17.9	21.4	24.7	26.8	28.0	29.2	35.7	12.0
17.6	18.5	19.5	23.4	27.0	29.3	30.6	32.0	39.1	13.0
19.4	20.4	21.5	25.8	29.8	32.3	33.7	35.2	43.1	14.0
20.9	22.0	23.2	27.8	32.1	34.8	36.3	38.0	46.4	15.0
22.8	24.0	25.3	30.4	35.1	38.0	39.7	41.5	50.7	16.0

**POUNCE  
FMC**

TUBE SPACING IN INCHES									SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX
40	38	36	30	26	24	23	22	18	Y-41
4.1	4.3	4.5	5.4	6.3	6.8	7.1	7.4	9.1	6.0
4.9	5.1	5.4	6.5	7.5	8.1	8.5	8.8	10.8	7.0
5.7	6.0	6.3	7.6	8.8	9.5	9.9	10.4	12.7	8.0
6.5	6.8	7.2	8.6	10.0	10.8	11.3	11.8	14.4	9.0
7.3	7.7	8.1	9.8	11.3	12.2	12.7	13.3	16.3	10.0
8.2	8.7	9.1	11.0	12.6	13.7	14.3	14.9	18.3	11.0
9.1	9.5	10.1	12.1	13.9	15.1	15.8	16.5	20.1	12.0
10.0	10.5	11.1	13.3	15.3	16.6	17.3	18.1	22.1	13.0
10.9	11.4	12.1	14.5	16.7	18.1	18.9	19.7	24.1	14.0
11.8	12.4	13.1	15.8	18.2	19.7	20.6	21.5	26.3	15.0
12.1	12.8	13.5	16.2	18.6	20.2	21.1	22.0	26.9	16.0
13.1	13.8	14.5	17.4	20.1	21.8	22.7	23.8	29.1	19.0
13.9	14.7	15.5	18.6	21.4	23.2	24.2	25.3	30.9	20.0

**AIR INSECTICIDE SYSTEM**

**TEMIK 15G  
RHONE-POULENC**

TUBE SPACING IN INCHES									SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									<b>Y-41</b>
1.9	2.0	2.1	2.5	2.9	3.1	3.2	3.4	4.1	3.5
2.8	2.9	3.1	3.7	4.2	4.6	4.8	5.0	6.1	5.5
3.7	3.9	4.1	4.9	5.6	6.1	6.4	6.7	8.1	7.5
4.3	4.5	4.7	5.7	6.6	7.1	7.4	7.7	9.5	9.0
5.6	5.9	6.2	7.4	8.6	9.3	9.7	10.1	12.4	11.0
6.5	6.8	7.2	8.6	10.0	10.8	11.3	11.8	14.4	12.5
7.4	7.8	8.2	9.8	11.4	12.3	12.8	13.4	16.4	14.0
10.3	10.9	11.5	13.8	15.9	17.2	17.9	18.8	22.9	16.5
12.4	13.0	13.7	16.5	19.0	20.6	21.5	22.5	27.5	19.0
13.2	13.9	14.7	17.6	20.3	22.0	23.0	24.0	29.3	20.0
14.4	15.2	16.0	19.2	22.2	24.0	25.0	26.2	32.0	21.5
16.5	17.0	18.3	22.0	25.4	27.5	28.7	30.0	36.7	23.5
18.6	196.0	20.7	24.8	28.6	31.0	32.3	33.8	41.3	25.5
19.9	20.9	22.1	26.5	30.6	33.1	34.5	36.1	44.1	27.5
21.8	23.0	24.3	29.1	33.6	36.4	38.0	39.7	48.5	29
23.3	24.6	25.9	31.1	35.9	38.9	40.6	42.4	51.9	30

**THEMIT 15G & 20G  
AMERICAN CYNAMID**

TUBE SPACING IN INCHES									SETTINGS FOR MONOSEM APPLICATORS WITH ZERO-MAX
40	38	36	30	26	24	23	22	18	Y-41
<b>RATE IN POUNDS PER ACRE</b>									<b>Y-41</b>
2.2	2.3	2.4	2.9	3.3	3.6	3.8	3.9	4.8	3.5
3.2	3.4	3.6	4.3	5.0	5.4	5.6	5.9	7.2	5.5
4.3	4.5	4.8	5.8	6.6	7.2	7.5	7.9	9.6	7.5
5.6	5.9	6.2	7.4	8.6	9.3	9.7	10.1	12.4	10.0
6.5	6.8	7.2	8.6	10.0	10.8	11.3	11.8	14.4	11.0
7.5	7.9	8.3	10.0	11.5	12.5	13.0	13.6	16.7	12.5
8.5	9.0	9.5	11.4	13.1	14.2	14.8	15.5	18.9	14.0
10.1	10.6	11.2	13.4	15.5	16.8	17.5	18.3	22.4	16.5
12.1	12.8	13.5	16.2	18.6	20.2	21.1	22.0	26.9	19.0
12.9	13.6	14.3	17.2	19.8	21.5	22.4	23.5	28.7	20.0
14.2	14.9	15.7	18.9	21.8	23.6	24.6	25.7	31.5	21.5
16.1	17.0	17.9	21.5	24.8	26.9	28.1	29.3	35.9	23.5
18.2	19.1	20.2	24.2	28.0	30.3	31.6	33.1	40.4	25.5
19.9	20.9	22.1	26.5	30.6	33.1	34.5	36.1	44.1	27.5
21.8	23.0	24.8	29.1	33.6	36.4	38.0	39.7	48.5	29
23.5	24.7	26.1	31.3	36.1	39.1	40.8	42.4	52.1	30

**AIR INSECTICIDE SYSTEM**

**DENSITY RATE CHART FOR BLACK METERING WHEELS**

**18" Tube Spacing**

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	15	16	17	18	19	20	20	21	22	23	24	25
12	20	21	22	24	25	26	27	28	29	31	32	33
14	25	26	28	29	31	32	34	35	37	38	40	41
16	31	33	35	36	38	40	42	44	46	47	49	51
18	36	38	40	42	44	46	49	51	53	55	57	59
20	41	43	46	48	50	53	55	58	60	62	65	67
22	49	52	54	57	59	62	64	67	69	72	74	77
24	57	60	62	65	68	71	73	76	79	82	84	87
26	65	68	71	74	77	80	82	85	88	91	94	97
28	73	76	79	82	85	88	92	95	98	101	104	107
30	81	84	88	91	94	97	101	104	107	110	114	117
32	91	94	98	101	105	108	112	115	119	122	126	129
34	100	104	107	111	115	118	122	125	129	133	136	140
36	109	113	117	121	125	129	132	136	140	144	148	152
38	119	123	127	131	135	139	143	147	151	155	159	163
40	128	132	137	141	145	149	154	158	162	166	171	175

**DENSITY RATE CHART FOR RED 1 1/4" METERING WHEELS**

**18" Tube Spacing**

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	27	29	30	32	34	35	37	38	40	42	43	45
12	37	39	41	43	45	47	50	52	54	56	58	60
14.0	47	50	52	55	57	60	62	65	67	70	72	75
16.0	55	58	61	64	67	70	73	76	79	82	85	88
18.0	65	68	72	75	79	82	86	89	93	96	100	103
20.0	75	79	83	87	91	95	98	102	106	110	114	118
22.0	88	93	97	102	106	111	115	120	124	129	133	138
24.0	102	107	112	117	122	127	133	138	143	148	153	158
26.0	117	122	128	133	139	144	150	155	161	166	172	177
28.0	130	136	142	148	154	160	167	173	179	185	191	197
30.0	143	150	156	163	170	177	183	190	197	204	210	217
32.0	162	169	177	184	191	198	206	213	220	227	235	242
34.0	180	188	195	203	211	219	226	234	242	250	257	265
36.0	198	206	215	223	231	240	248	257	265	273	282	290
38	217	226	234	243	252	261	269	278	287	296	304	313
40	235	244	254	263	272	282	291	301	310	319	329	338

**AIR INSECTICIDE SYSTEM**

**DENSITY RATE CHART FOR BLACK METERING WHEELS**

24" Tube Spacing

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	11	12	12	13	14	15	15	16	17	18	18	19
12	15	16	17	18	19	20	20	21	22	23	24	25
14	19	20	21	22	23	24	26	27	28	29	30	31
16	23	24	26	27	28	30	31	33	34	35	37	38
18	27	29	30	32	33	35	36	38	39	41	42	44
20	31	33	34	36	38	40	41	43	45	47	48	50
22	37	39	41	43	45	47	48	50	52	54	56	58
24	43	45	47	49	51	53	55	57	59	61	63	65
26	49	51	53	56	58	60	62	64	66	69	71	73
28	55	57	60	62	64	66	69	71	73	75	78	80
30	61	63	66	68	71	73	76	78	81	83	86	88
32	68	71	73	76	79	81	84	86	89	92	94	97
34	75	78	80	83	86	89	91	94	97	100	102	105
36	82	85	88	91	94	97	99	102	105	108	111	114
38	89	92	95	98	101	104	107	110	113	116	119	122
40	96	99	102	106	109	112	115	118	121	125	128	131

**DENSITY RATE CHART FOR RED 1 1/4" METERING WHEELS**

24" Tube Spacing

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	20	21	23	24	25	26	28	29	30	31	33	34
12	27	29	30	32	34	35	37	38	40	42	43	45
14	34	36	38	40	42	44	46	48	50	52	54	56
16	42	44	47	49	51	53	56	58	60	62	65	67
18	49	52	54	57	60	62	65	67	70	73	75	78
20	56	59	62	65	68	71	74	77	80	83	86	89
22	66	69	73	76	80	83	87	90	94	97	101	104
24	77	81	84	88	92	96	99	103	107	111	114	118
26	87	91	95	100	104	108	112	116	120	125	129	133
28	98	102	107	111	116	120	125	129	134	138	143	147
30	108	113	118	123	128	133	137	142	147	152	157	162
32	122	127	133	138	143	148	154	159	164	169	175	180
34	135	141	147	152	158	164	170	176	182	187	193	199
36	149	155	161	168	174	180	186	192	198	205	211	217
38	162	169	175	182	189	196	202	209	216	223	229	236
40	176	183	190	197	204	211	219	226	233	240	247	254



**AIR INSECTICIDE SYSTEM**

**DENSITY RATE CHART FOR BLACK METERING WHEELS**

**30" Tube Spacing**

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	9	10	10	11	11	12	12	13	13	14	14	15
12	12	13	13	14	15	16	16	17	18	19	19	20
14	15	16	17	18	19	20	20	21	22	23	24	25
16	18	19	20	21	22	23	25	26	27	28	29	30
18	22	23	24	26	27	28	29	30	31	33	34	35
20	25	26	28	29	30	32	33	35	36	37	39	40
22	30	31	33	34	36	37	39	40	42	43	45	46
24	34	36	37	39	41	42	44	45	47	49	50	52
26	39	41	42	44	46	48	49	51	53	55	56	58
28	44	46	48	49	51	53	55	57	59	60	62	64
30	49	51	53	55	57	59	60	62	64	66	68	70
32	54	56	58	61	63	65	67	69	71	74	76	78
34	60	62	64	67	69	71	73	75	77	80	82	84
36	86	68	71	73	75	77	80	82	84	86	89	91
38	71	73	76	78	81	83	86	88	91	93	96	98
40	77	80	82	85	87	90	92	95	97	100	102	105

**DENSITY RATE CHART FOR RED 1 1/4" METERING WHEELS**

**30" Tube Spacing**

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	16	17	18	19	20	21	22	23	24	25	26	27
12	22	23	25	26	27	28	30	31	32	33	35	36
14	28	30	31	33	34	36	37	39	40	42	43	45
16	33	35	37	38	40	42	44	46	48	49	51	53
18	39	41	43	45	47	49	52	54	56	58	60	62
20	45	47	50	52	54	57	59	62	64	66	69	71
22	53	56	58	61	64	67	69	72	75	78	80	83
24	61	64	67	70	73	76	80	83	86	89	92	95
26	70	73	77	80	83	86	90	93	96	99	103	106
28	78	82	85	89	93	96	100	103	107	111	114	118
30	86	90	94	98	102	106	110	114	118	122	126	130
32	97	101	106	110	114	119	123	128	132	136	141	145
34	108	113	117	122	127	131	136	140	145	150	154	159
36	119	124	129	134	139	144	149	154	159	164	169	174
38	130	135	141	146	151	156	162	167	172	177	183	188
40	141	147	152	158	164	169	175	180	186	192	197	203

**AIR INSECTICIDE SYSTEM**

**DENSITY RATE CHART FOR BLACK METERING WHEELS**

36" Tube Spacing

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	7	12	12	13	14	15	15	16	17	18	18	13
12	10	16	17	18	19	20	20	21	22	23	24	17
14	13	20	21	22	23	24	26	27	28	29	30	21
16	15	24	26	27	28	30	31	33	34	35	37	25
18	18	29	30	32	33	35	36	38	39	41	42	29
20	21	33	34	36	38	40	41	43	45	47	48	33
22	25	39	41	43	45	47	48	50	52	54	56	39
24	29	45	47	49	51	53	55	57	59	61	63	43
26	33	51	53	56	58	60	62	64	66	69	71	49
28	37	57	60	62	64	66	69	71	73	75	78	53
30	41	63	66	68	71	73	76	78	81	83	86	59
32	45	71	73	76	79	81	84	86	89	92	94	65
34	50	78	80	83	86	89	91	94	97	100	102	70
36	55	85	88	91	94	97	99	102	105	108	111	76
38	59	92	95	98	101	104	107	110	113	116	119	81
40	64	99	102	106	109	112	115	118	121	125	128	87

**DENSITY RATE CHART FOR RED 1 1/4" METERING WHEELS**

36" Tube Spacing

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	14	15	16	16	17	18	19	20	21	21	22	23
12	19	20	21	22	23	24	25	26	27	28	29	30
14	24	25	27	28	29	30	32	33	34	35	37	38
16	28	29	31	32	34	35	37	38	40	41	43	44
18	33	35	36	38	40	42	43	45	47	49	50	52
20	38	40	42	44	46	48	49	51	53	55	57	59
22	44	46	49	51	53	55	58	60	62	64	67	69
24	51	54	56	59	61	64	66	69	71	74	76	79
26	59	62	64	67	70	73	75	78	81	84	86	89
28	65	68	71	74	77	80	84	87	90	93	96	99
30	72	75	79	82	85	89	92	96	99	102	106	109
32	81	85	88	92	96	99	103	106	110	114	117	121
34	90	94	98	102	106	110	113	117	121	125	129	133
36	99	103	107	112	116	120	124	128	132	137	141	145
38	109	113	118	122	126	131	135	140	144	148	153	157
40	118	123	127	132	137	141	146	150	155	160	164	169

**AIR INSECTICIDE SYSTEM**

**DENSITY RATE CHART FOR BLACK METERING WHEELS**

**40" Tube Spacing**

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	7	7	8	8	8	9	9	10	10	10	11	11
12	9	10	10	11	11	12	12	13	13	14	14	15
14	11	12	12	13	14	15	15	16	17	18	18	19
16	14	15	16	16	17	18	19	20	21	21	22	23
18	16	17	18	18	19	20	21	22	23	23	24	25
20	19	20	21	22	23	24	25	26	27	28	29	30
22	22	23	24	26	27	28	29	30	31	33	34	35
24	26	27	28	30	31	32	33	34	35	37	38	39
26	29	30	32	33	34	36	37	39	40	41	43	44
28	33	34	36	37	38	40	41	43	44	45	47	48
30	37	38	40	41	43	44	46	47	49	50	52	53
32	41	43	44	46	47	49	50	52	53	55	56	58
34	45	47	48	50	52	53	55	56	58	60	61	63
36	49	51	52	54	56	58	59	61	63	65	66	68
38	53	55	57	58	60	62	64	66	68	69	71	73
40	58	60	62	64	66	68	69	71	73	75	77	79

**DENSITY RATE CHART FOR RED 1 1/4" METERING WHEELS**

**40" Tube Spacing**

FERTILIZER DENSITY IN POUNDS PER CUBIC FOOT

ZERO-MAX SETTING	48	50	52	54	56	58	60	62	64	66	68	70
10	13	14	14	15	16	17	17	18	19	20	20	21
12	17	18	19	20	21	22	22	23	24	25	26	27
14.0	22	23	24	25	26	27	29	30	31	32	33	34
16.0	25	26	28	29	30	32	33	35	36	37	39	40
18.0	30	32	33	35	36	38	39	41	42	44	45	47
20.0	34	36	37	39	41	43	44	46	48	50	51	53
22.0	40	42	44	46	48	50	52	54	56	58	60	62
24.0	46	48	51	53	55	57	60	62	64	66	69	71
26.0	53	55	58	60	63	65	68	70	73	75	78	80
28.0	59	62	64	67	70	73	75	78	81	84	86	89
30.0	65	68	71	74	77	80	83	86	89	92	95	98
32.0	73	76	80	83	86	89	93	96	99	102	106	109
34.0	81	85	88	92	95	99	102	106	109	113	116	120
36.0	89	93	97	100	104	108	112	116	120	123	127	131
38	98	102	106	110	114	118	121	125	129	133	137	141
40	106	110	114	119	123	127	131	135	139	144	148	152

