

**130 Special
6000 Series
Air Seeder**

Specifications

130 SPECIAL AIR SEEDER

Specifications and Options

Length	15' 3"	
Height	- Hydraulic Drive	9'
	- Engine Drive	9' 9"
Width	9' 3"	
Weight (Tow Behind - Hyd. Drive with Auger)	4,295 lbs.	
Safety Chain	Standard	
Tank Capacity	- Grain/Fertilizer	65 bushels/4,875 lbs.
	- Total	130 bushels.
Tank Access Screens	Optional	
Fan Speed	Up to 5,000 r.p.m.	
Fan Impeller Diameter	13"	
Gas Engine Drive/Gas Tank Capacity	Optional (20 HP Kohler)/17 Imp. Gal.	
Hydraulic Drive	Optional	
(Closed Centre or Closed Centre Load Sensing systems required)	(Maximum 13 U.S. gal./min.) (Minimum 2100 p.s.i.)	
Loading Auger (7" Diameter)	Optional	
Brush Flighting Kit (Used with peas)	Optional	
Tires - Implement	(3) 12.5L x 15SL - 12 ply rating	
Metering System - Ground Driven	Standard	
Meter Shut Off	Electric	
Number Secondary Runs - Single Shoot	21 to 60	
Number Secondary Runs - Double Shoot	42 to 120	
Primary Hose - Diameter	2 1/2"	
Secondary Hose - Diameter	15/16"	
Frame	Formed heavy wall 4" x 6" tubing	
Walk Through Tank	Standard	
Easy Clean Out System	Standard	
Meter Drive Options:		
-Second Clutch (For spot fertilizing on the go)	Optional	
-Kit (Fertilizer Bander) (For easy one transmission rate setting)	Optional	
Monitor -		
(Shaft Motion (2), Bin Level (2), Fan Speed)	Standard	
Hitch Stand	Optional	
Mechanical Acre Meter	Optional	
Trailing Hitch	N/A	
Granular Applicator	N/A	

Specifications

6000 Series Air Seeder (Tow Behind)

Specifications and Options

Model	6130 Tow Behind	6180 Tow Behind	6180 Tow Between
Length	15' 3"	15' 3"	16' 7"
Height	- Hydraulic Drive 9' - Engine Drive 9' 9"	10' 3" 11' 10"	10' 3" N/A
Width	10' 10"	11' 4"	11' 4"
Weight (Tow Behind - Hyd. Drive)	4,492 lbs.	4,864 lbs.	4,200 lbs.
Safety Chain	Standard	Standard	Standard
Tank Capacity	- Grain/Fertilizer 65 bushels/4,875 lbs. - Total 130 bushels.	90 bushels/6,480 lbs. 180 bushels.	90 bushels/6,480 lbs. 180 bushels.
Tank Access Screens	Standard	Standard	Standard
Fan Speed	Up to 5,000 r.p.m.	Up to 5,000 r.p.m.	Up to 5,000 r.p.m.
Fan Impeller Diameter	13"	13"	13"
Gas Engine Drive/Gas Tank Capacity	Optional (20 HP Kohler)/17 Imp. Gal.	Optional (24 HP Onan)/17 Imp. Gal.	N/A
Hydraulic Drive (Closed Centre or Closed Centre Load Sensing systems required)	Optional (Maximum 13 U.S. gal./min.) (Minimum 2100 p.s.i.)	Optional (Maximum 13 U.S. gal./min.) (Minimum 2100 p.s.i.)	Standard (Maximum 13 U.S. gal./min.) (Minimum 2100 p.s.i.)
Loading Auger (7" Diameter)	Standard	Standard	Standard
Brush Flighting Kit (Used with peas)	Optional	Optional	Optional
Tires - Floatation	(3) 16.5 x 16.1 - 6 ply rating	(3) 21.5 x 16.1 - 6 ply rating	(2) 21.5 x 16.1 - 6 ply rating
Tires - Optional	(3) 21.5 x 16.1 - 6 ply rating	N/A	Standard
Metering System - Ground Driven	Standard	Standard	Electric
Meter Shut Off	Electric	Electric	21 to 80
Number Secondary Runs - Single Shoot	21 to 60	21 to 80	42 to 160
Number Secondary Runs - Double Shoot	42 to 120	42 to 160	2 1/2"
Primary Hose - Diameter	2 1/2"	2 1/2"	15/16"
Secondary Hose - Diameter	15/16"	15/16"	15/16"
Frame	Formed heavy wall 4" x 6" tubing	Formed heavy wall 4" x 6" tubing	Formed heavy wall 4" x 6" tubing
Walk Through Tank	Standard	Standard	Standard
Easy Clean Out System	Standard	Standard	Standard
- Meter Drive Options: -			
-Second Clutch (For spot fertilizing on the go)	Optional	Optional	Optional
-Kit (Fertilizer Bander) (For easy one transmission rate setting)	Optional	Optional	Optional
Monitor - (Shaft Motion (3), Bin Level (3), Fan Speed, Acre Tally, Ground Speed)	Standard	Standard	Standard
Trailing Hitch	Optional	Optional	N/A
Mechanical Acre Meter	Optional	Optional	Optional
Hitch Stand	Optional	Optional	N/A
Scraper (Front Wheel Only)	Optional	Standard	N/A
Granular Applicator	Optional	Optional	N/A
- Capacity	28 cu. ft.	28 cu. ft.	
- Meter shut-off	Electric	Electric	
- Zapper clutch	Standard	Standard	
- Working width	28 ft. to 60 ft.	28 ft. to 60 ft.	
- Metering system	Ground Driven	Ground Driven	

Specifications

6000 SERIES AIR SEEDER (Tow Behind)

Specifications and Options

Model	6240 Tow Behind	6300 Tow Behind
Length	21'	21'
Height	10' 8"	11' 4"
- Hydraulic Drive	12' 3"	12' 11"
- Engine Drive		
Width	12'	12'
Weight (Tow Behind - Hyd. Drive)	5,500 lbs.	7,045 lbs.
Safety Chain	Standard	Standard
Tank Capacity	120 bushels/9,000 lbs.	150 bushels/11,250 lbs.
- Grain/Fertilizer	240 bushels.	300 bushels.
- Total		
Tank Access Screens	Standard	Standard
Fan Speed	Up to 5,000 r.p.m.	Up to 5,000 r.p.m.
Fan Impeller Diameter	13"	13"
Gas Engine Drive/Gas Tank Capacity	Optional (24 HP Onan)/17 Imp. Gal.	Optional (24 HP Onan)/17 Imp. Gal.
Hydraulic Drive	Optional	Optional
(Closed Centre or Closed Centre Load Sensing systems required)	(Maximum 13 U.S. gal./min.) (Minimum 2100 p.s.i.)	(Maximum 13 U.S. gal./min.) (Minimum 2100 p.s.i.)
Loading Auger	Standard	Standard
- 7" Diameter	Optional	Optional
- 8" Diameter		
Brush Flighting Kit (Used with peas)	Optional	Optional
Tires - Front	(2) 21.5 x 16.1 - 6 ply rating	(2) 21.5 x 16.1 - 10 ply rating
- Rear (Standard)	(2) 23.1 x 26 - 8 ply rating	(2) 23.1 x 26 - 12 ply rating
- Rear (Optional)	(2) 23.1 x 26 (Rice) - 10 ply rating	(2) 23.1 x 26 (Rice) - 10 ply rating
Metering System - Ground Driven	Standard	Standard
Meter Shut Off	Electric	Electric
Number Secondary Runs - Single Shoot	21 to 80	21 to 80
Number Secondary Runs - Double Shoot	42 to 160	42 to 160
Primary Hose - Diameter	2 1/2"	2 1/2"
Secondary Hose - Diameter	15/16"	15/16"
Frame	Formed heavy wall 4" x 8" tubing	Formed heavy wall 4" x 8" tubing
Walk Through Tank	Standard	Standard
Easy Clean Out System	Standard	Standard
Meter Drive Options:		
-Second Clutch	Optional	Optional
(For spot fertilizing on the go)		
-Kit (Fertilizer Bander)	Optional	Optional
(For easy one transmission rate setting)		
Monitor -		
(Shaft Motion (3), Bin Level (3), Fan Speed, Acre Tally, Ground Speed)	Standard	Standard
Trailing Hitch	Optional	Optional
Mechanical Acre Meter	Optional	Optional
Hitch Stand	Optional	Optional
Scraper (Front Wheel Only)	N/A	N/A
Granular Applicator	Optional	Optional
- Capacity	40 cu. ft.	40 cu. ft.
- Meter shut-off	Electric	Electric
- Zapper clutch	Standard	Standard
- Working width	28 ft. to 60 ft.	28 ft. to 60 ft.
- Metering system	Ground Driven	Ground Driven

4 Operation

4.1 TRANSPORTING THE 6000 SERIES AIRSEEDER

DISCONNECT MAIN DRIVE CHAIN

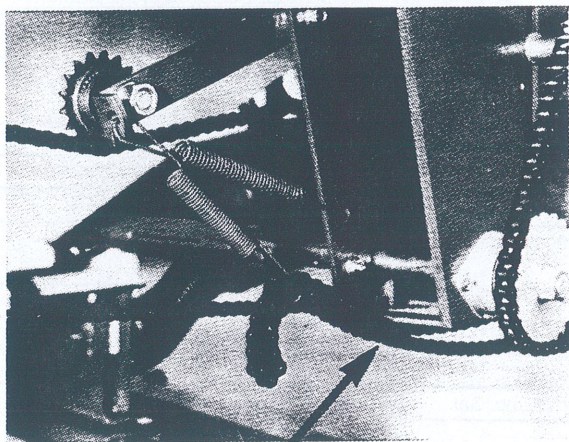


Figure 8
Main Drive Chain

Remove spring from the bottom idler. Remove chain from the jackshaft. Put end of spring through the chain and hook other end of spring to the top idler as shown in Fig. 8.

6130 & 6180 ONLY

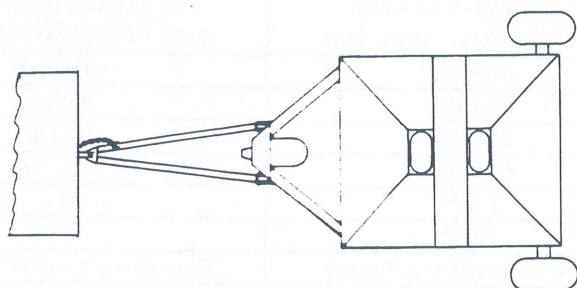


Figure 9
Towed Behind Vehicle (Truck/Tractor)

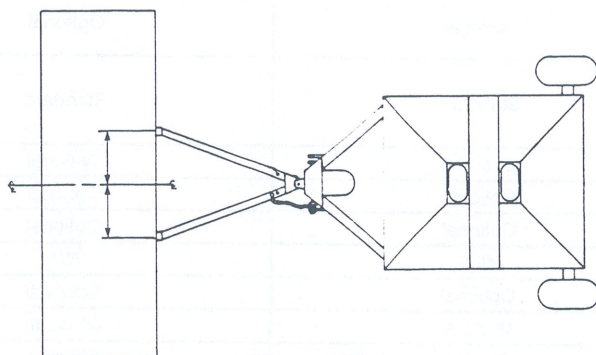


Figure 10
Towed Behind A Chisel Plow



IMPORTANT

**DO NOT
EXCEED
20 M.P.H.**

The front castor tire will contact the mud scraper if towing speeds exceed 20 M.P.H. causing severe damage to the tire and mud scraper.

4.1 TRANSPORTING THE 6000 SERIES AIRSEEDER



CAUTION!

ONLY TOW AT SAFE SPEEDS. IMPLEMENT TIRE MANUFACTURERS RECOMMEND A MAX. OF 20 M.P.H. GROSS VEHICLE WEIGHT MUST EXCEED 5000 G.V.W. lbs.

TURN ON HAZARD LIGHTS EXCEPT WHERE PROHIBITED BY LAW.

LOCK CASTOR WHEEL ON THE AIRSEEDER.

ALWAYS CONNECT THE SAFETY CHAIN PROVIDED TO THE TOWING VEHICLE AND THE HITCH OF THE AIRSEEDER. (See Fig. 9)

ENSURE DRAW PIN IS THE CORRECT SIZE AND A HAIRPIN IS INSTALLED TO PREVENT DISCONNECTION.

ENSURE SMV SIGN IS CONNECTED TO THE REAR OF THE SEEDER IN FULL VIEW OF PASSING TRAFFIC.

NOTE: IF TOWING A CULTIVATOR WITH THE AIRSEEDER THE TOWING VEHICLE MUST HAVE A G.V.W. EQUAL TO/OR GREATER THAN THE COMBINED WEIGHT OF THE SEEDER AND CULTIVATOR. (See Fig. 10).

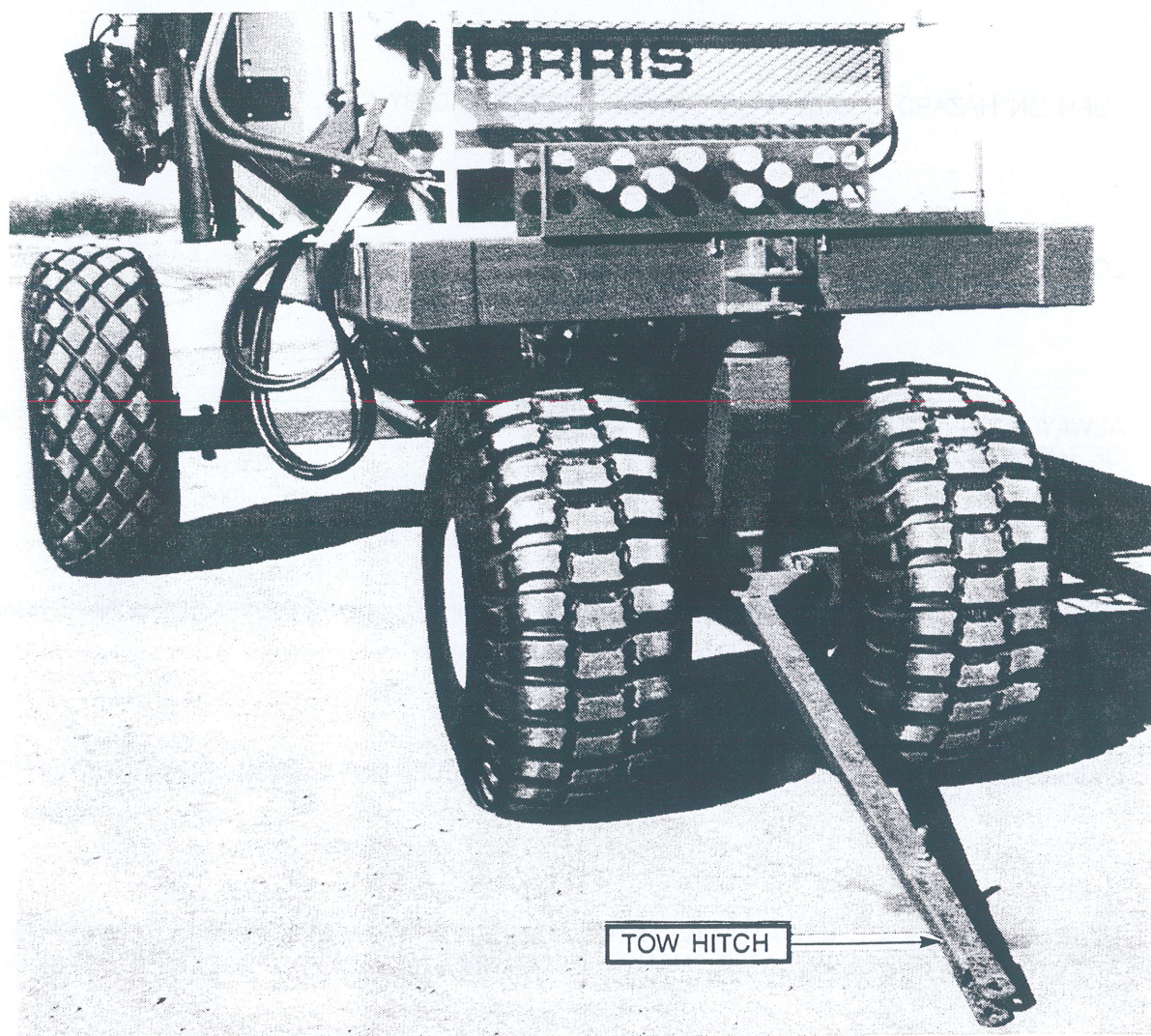
Operation

4.1.1 TRANSPORTING THE 6240 & 6300 SERIES AIRSEEDER



IMPORTANT

When the machines are being towed by a semi tractor or trucks of any description, the units **HAVE** to be towed separately from seeding tool with tow hitch provided.



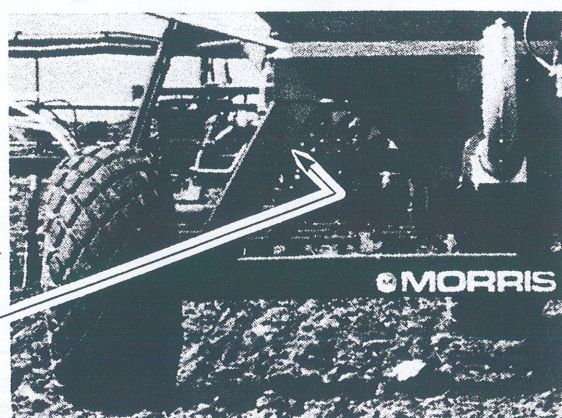
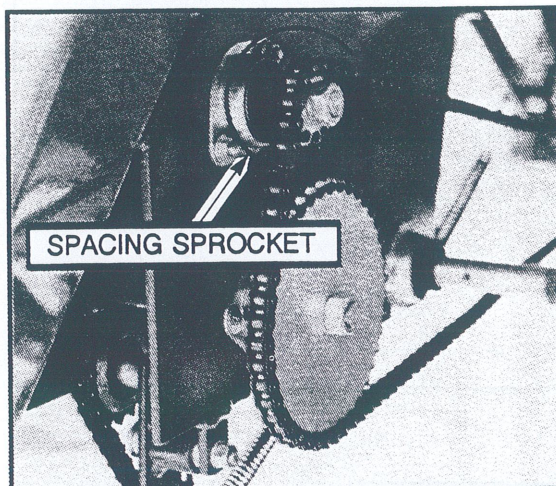
- Attach tow hitch to front axle with two - 1" x 2 1/4" pins. Retain the pins with klik-pins.
- Use tow hitch when travelling without seeding tool.
- **Do Not** use transport hitch with material in tank.

7.6 METERING AND DISTRIBUTION FOR SINGLE SHOOTING

Important: Install correct sprocket for the machine spacing.

9 tooth for 7.2" Spacing
9 Tooth for 7.5" Spacing
13 Tooth for 10" Spacing

10 Tooth for 8" Spacing
11 Tooth for 9" Spacing
15 Tooth for 12" Spacing



7.6.1 METERING WHEELS

The metering wheels come in 4 different sizes. Each one matches to a specific distribution head mounted on the cultivator.

IMPORTANT: It is **very** important that the distribution heads are matched with the correct size metering wheel.

If they are not matched correctly, the distribution accuracy will be adversely affected.

Spacer plates are used to take up the extra space in each metering cup. These spacer plates vary in size according to the size of the metering wheel.

Listed below are the metering wheel and spacer sizes required for the corresponding divider head size.

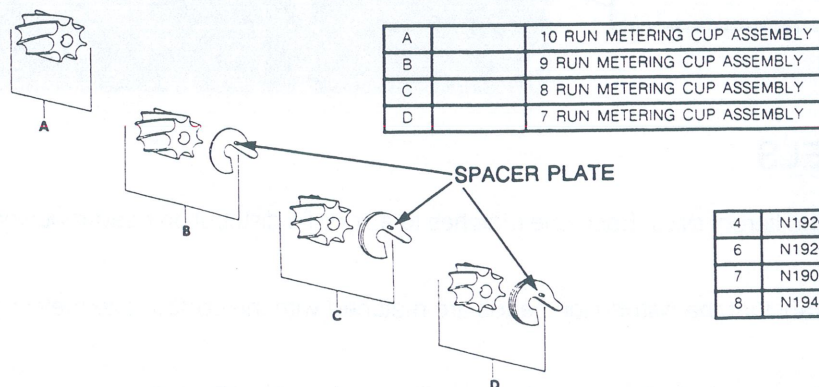
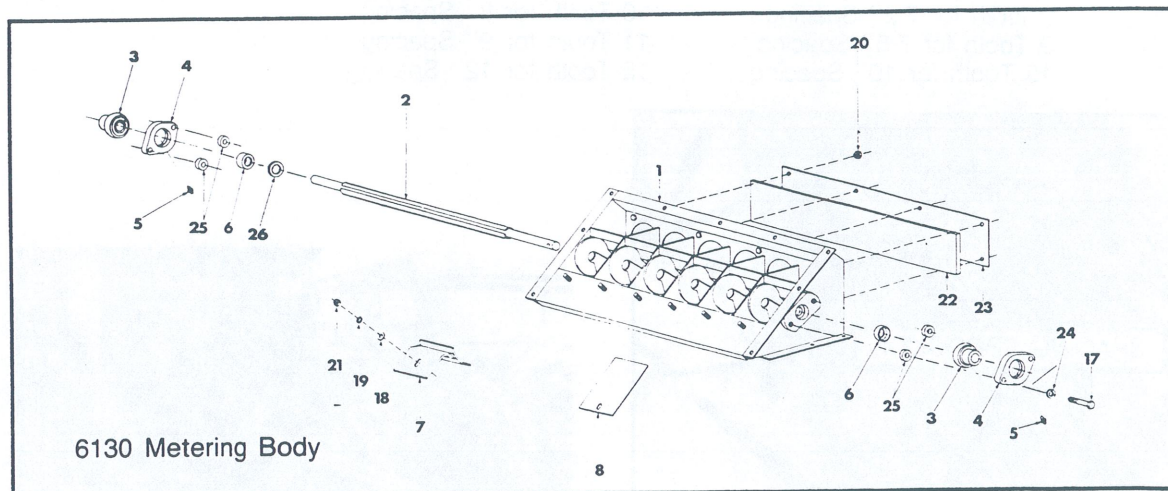
TABLE 1

Divider Head	Metering Wheel #	Metering Wheel Width	Spacer #	Spacer Width
7 outlet	7	1 3/4"	3	3/4"
8 outlet	8	2"	2	1/2"
9 outlet	9	2 1/4"	1	1/4"
10 outlet	10	2 1/2"	-	-

Setup

7.6.2 METERING WHEEL INSTALLATION

The metering wheels can be installed with the metering body mounted to the Airseeder. Refer to Fig. 42.



4	N19266	LEFT BEARING MOUNT
6	N19268	SEAL
7	N19070	SLIDER
8	N19407	BLANK OFF

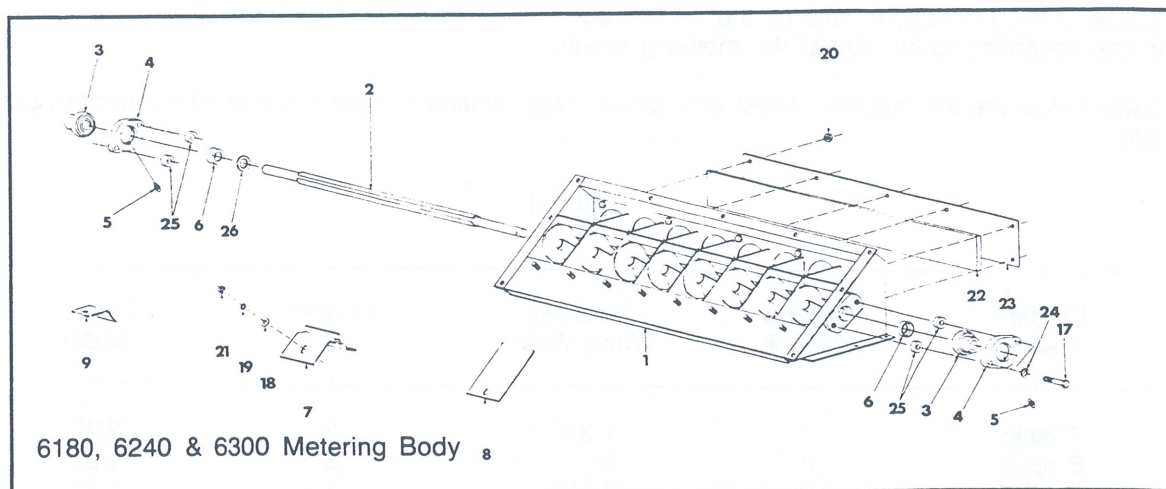
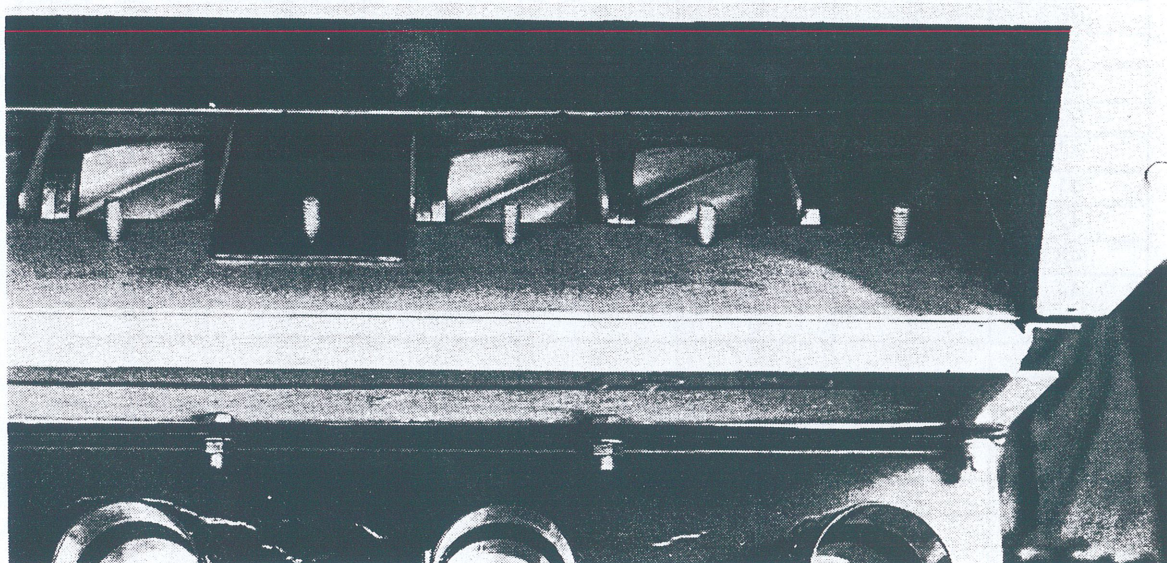


Figure 42

7.6.2. METERING WHEEL INSTALLATION (Continued)

1. Remove the Monitor Donut from the Right Hand Side of the metering body.
2. Loosen the locking collars on the meter shaft bearings.
3. Remove the bolts holding the meter shaft bearings and remove both bearings.
4. Remove the seal and washer from the Right Hand Side of the shaft.
5. Remove the meter shaft from the Right Hand Side.
6. The number of **PRIMARY** runs will determine the specific locations of the metering wheels and blank off plates in the metering body.
The location of each primary run must be the same for both metering bodies. See chart on page 7.8 for the 6130 or 7.9 for the 6180, 6240 & 6300 for metering wheel size and location.
7. **ASSEMBLY HINT:** Mark the metering wheels on the outside of the rib that is next to the key.
8. Smear a **very small** amount of silicone on the pin side of the spacer plates for the 7, 8 and 9 metering cups.

The side with the silicone must be installed against the metering body.



Metering Body With Wheels And Spacers

9. Place all metering wheels and spacers for the particular number of runs required into the metering body. See tables on pages 7.8 for 6130 or 7.9 for the 6180, 6240 & 6300. These tables give the location and size of each wheel for any size of unit.

Setup

7.6.2 METERING WHEEL INSTALLATION (Continued)

Model 6130 - 130 bu. tank. Metering Wheel Size and Location Chart. – Single Shoot

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Meter Body Looking From The Front When Installed

# RUNS	METER WHEEL SIZE TO BOTH FRONT & REAR METER BODIES					
21	7	*	7	*	*	7
22	7	*	8	*	*	7
23	8	*	7	*	*	8
24	8	*	8	*	*	8
25	8	*	9	*	*	8
26	9	*	8	*	*	9
27	9	*	9	*	*	9
28	10	*	9	*	*	9
29	10	*	9	*	*	10
30	10	*	10	*	*	10
31	8	8	*	*	7	8
32	8	8	*	*	8	8
33	8	8	*	*	8	9
34	9	8	*	*	8	9
35	9	9	*	*	8	9
36	9	9	*	*	9	9
37	9	9	*	*	9	10
38	10	9	*	*	9	10
39	10	9	*	*	10	10
40	10	10	*	*	10	10
41	8	8	*	8	8	9
42	9	8	*	8	8	9
43	9	9	*	8	8	9
44	9	9	*	8	9	9
45	9	9	*	9	9	9
46	10	9	*	9	9	9
47	10	9	*	9	9	10
48	10	10	*	9	9	10
49	10	10	*	9	10	10
50	10	10	*	10	10	10
51	9	9	8	8	8	9
52	9	9	8	8	9	9
53	9	9	8	9	9	9
54	9	9	9	9	9	9
55	10	9	9	9	9	9
56	10	9	9	9	9	10
57	10	9	9	9	10	10
58	10	10	9	9	10	10
59	10	10	9	10	10	10
60	10	10	10	10	10	10

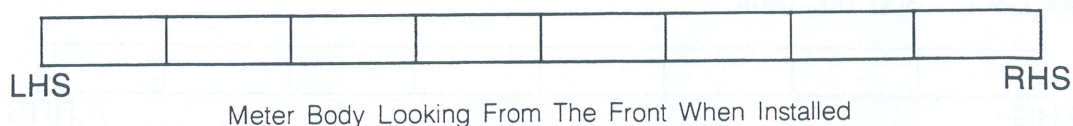
*INSTALL BLANK OFF COVER PLATES

7.6.2 METERING WHEEL INSTALLATION (Continued)

Model 6180 - 180 bu. tank. Metering Wheel Size and Location Chart. – Single Shoot

Model 6240 - 240 bu. tank.

Model 6300 - 300 bu. tank.



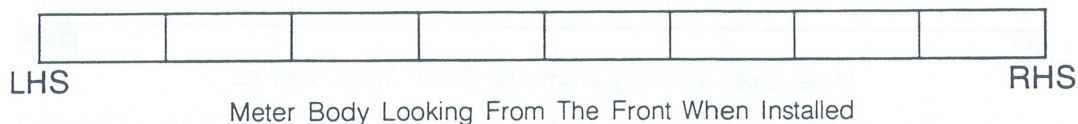
# RUNS	METER WHEEL SIZE FOR BOTH FRONT & REAR METER BODIES							
31	8	8	*	*	*	*	7	8
32	8	8	*	*	*	*	8	8
33	8	8	*	*	*	*	8	9
34	9	8	*	*	*	*	8	9
35	9	9	*	*	*	*	8	9
36	9	9	*	*	*	*	9	9
37	9	9	*	*	*	*	9	10
38	10	9	*	*	*	*	9	10
39	10	9	*	*	*	*	10	10
40	10	10	*	*	*	*	10	10
41	8	8	*	8	*	*	8	9
42	9	8	*	8	*	*	8	9
43	9	9	*	8	*	*	8	9
44	9	9	*	8	*	*	9	9
45	9	9	*	9	*	*	9	9
46	10	9	*	9	*	*	9	9
47	10	9	*	9	*	*	9	10
48	10	10	*	9	*	*	9	10
49	10	10	*	9	*	*	10	10
50	10	10	*	10	*	*	10	10
51	9	9	8	*	*	8	8	9
52	9	9	8	*	*	8	9	9
53	9	9	8	*	*	9	9	9
54	9	9	9	*	*	9	9	9
55	10	9	9	*	*	9	9	9
56	10	9	9	*	*	9	9	10
57	10	9	9	*	*	9	10	10
58	10	10	9	*	*	9	10	10
59	10	10	9	*	*	10	10	10
60	10	10	10	*	*	10	10	10
61	9	9	9	*	8	8	9	9
62	9	9	9	*	8	9	9	9
63	9	9	9	*	9	9	9	9
64	10	9	9	*	9	9	9	9
65	10	9	9	*	9	9	9	10

*INSTALL BLANK OFF COVER PLATES

Setup

7.6.2 METERING WHEEL INSTALLATION (Continued)

Model 6180 - 180 bu. tank. Metering Wheel Size and Location Chart. – Single Shoot
 Model 6240 - 240 bu. tank.
 Model 6300 - 300 bu. tank.



# RUNS	METER WHEEL SIZE FOR BOTH FRONT AND REAR METER BODIES							
66	10	10	9	*	9	9	9	10
67	10	10	9	*	9	9	10	10
68	10	10	9	*	9	10	10	10
69	10	10	10	*	9	10	10	10
70	10	10	10	*	10	10	10	10
71	9	9	9	8	9	9	9	9
72	9	9	9	9	9	9	9	9
73	10	9	9	9	9	9	9	9
74	10	9	9	9	9	9	9	10
75	10	10	9	9	9	9	9	10
76	10	10	9	9	9	9	10	10
77	10	10	10	9	9	9	10	10
78	10	10	10	9	9	10	10	10
79	10	10	10	9	10	10	10	10
80	10	10	10	10	10	10	10	10

*INSTALL BLANK OFF COVER PLATES

7.6.2 METERING WHEEL INSTALLATION (Continued)

ASSEMBLY HINT: Mark metering wheel size on the metering body. This will help in connecting the main distribution hose and secondary divider heads.

- Align the shaft keyway with the marks on the metering wheels. Slide the metering shaft through the metering wheels.

NOTE: Care must be taken that the key ways are aligned, otherwise damage to the key in the wheels may occur.

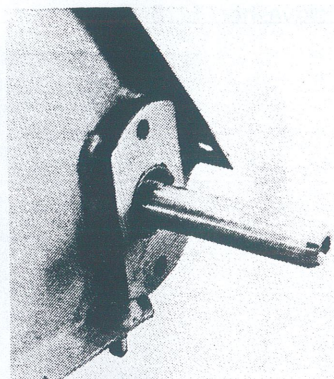
- The metering shaft must be pushed through until the shoulder on the shaft hits the side of the metering body.

7.6.2 METERING WHEEL INSTALLATION (Continued)

12. Install the washer on the shaft and into the housing on the R.H.S. of the metering body.

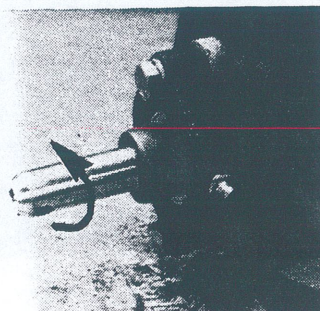


R.H.S. Seal and Washer



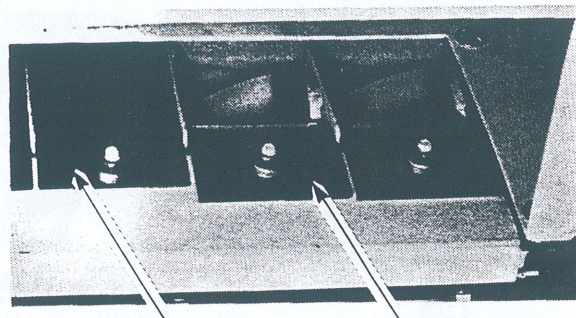
R.H.S. With Seal And Washer Installed

13. **IMPORTANT:** The seal must be installed as shown above. The open side of the seal to the outside. Care must be taken when installing the seal. It is recommended that a brass drift be used to minimize any damage to the seal.
NOTE: The L.H.S. seal is installed at the factory.
14. Reinstall both metershaft bearings and spacers with the grease zerk towards the rear of the machine.



L.H.S. Shown With Shaft Rotation

15. Tighten locking collars by turning the collars in the direction of the shaft rotation. Lock the collar by tapping the collar with a punch in the direction of rotation of the shaft.
16. Re-install monitor Donut on shaft. Ensure Donut is centered to the pick-up. The gap between the pick-up and the Donut must not exceed 1/8". Install the slider plates to all cups with metering wheels.



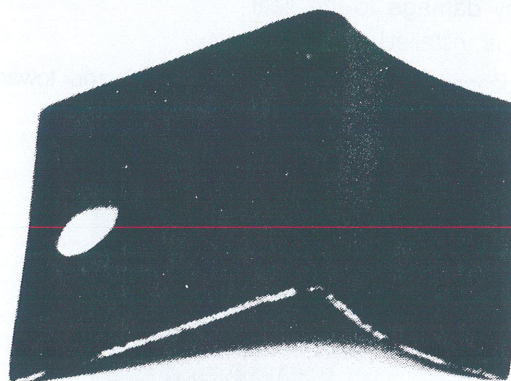
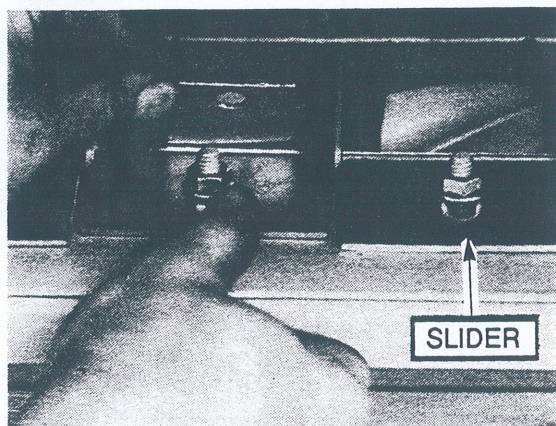
Blank Off Plate and Sliders

NOTE: Install Blank-off covers on cups without wheels. Insert the top of the Blank-off plate under the tank lip. See above.

Setup

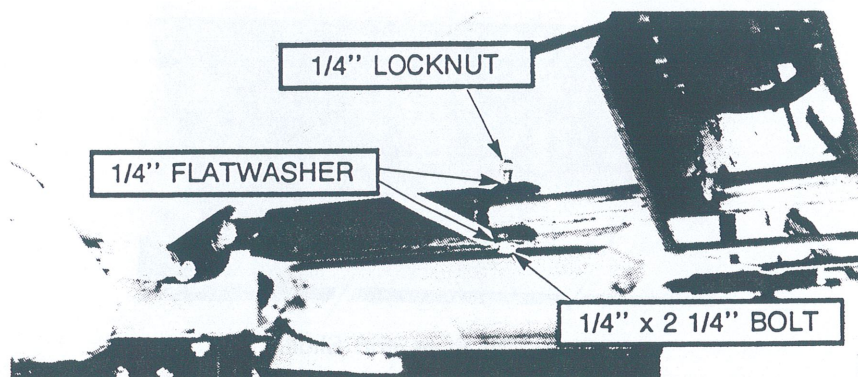
7.6.2 METERING WHEEL INSTALLATION (Continued)

17. Set the sliders with the gauge provided. Tighten sliders with 5/16 stainless steel Nut, 5/16 Lockwasher, 5/16 Flatwasher.



Coarse Seed Gauge

18. Install meter shaft coupler over the meter shaft and transmission Drive shaft.
19. Install the 1/4" x 2 1/4" Lg special bolt with flatwashers and locknuts. Tighten nuts to bottom of threads.



Meter Shaft Coupler Installed

7.6.3 PRIMARY HOSE INSTALLATION - AIRSEEDER ONLY

The Air plenum is supplied with the metering system and should be attached to the fan using the 6" diameter hose clamp.

Connection of hoses from the Plenum to the collector will depend on the number of primary runs used.

- (A) For Units using 3 primaries for up to 30 runs, the plenum should be mounted to the fan and the collectors mounted to the metering bodies as shown in Figure 43.

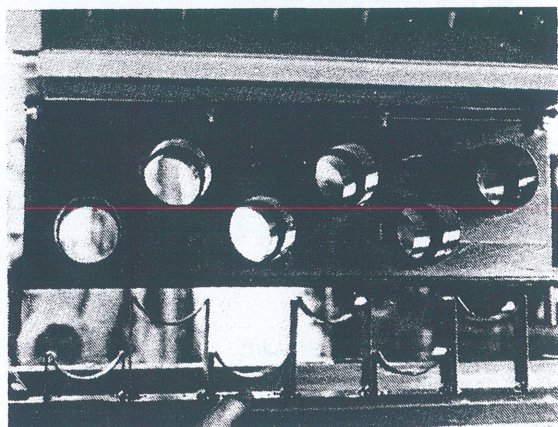
IMPORTANT NOTE: The arrow on the side of the collector **MUST** point in the direction of the Air flow.

Mount the collector to the tank bottom.

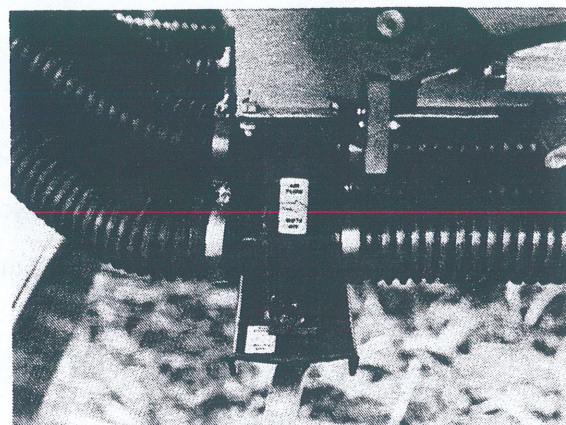
Assemble the collector bottoms to the collector using the large wing nuts.



IMPORTANT! CARE MUST BE TAKEN WHEN INSTALLING THE COLLECTOR BOTTOMS NOT TO DAMAGE THE INSIDE OF THE COLLECTOR.



Collector Bottom Removed



Collector Bottom Installed

CUT 2 1/2" DIAMETER HOSE TO THE REQUIRED LENGTH TO CONNECT THE PLENUM TO THE COLLECTOR.

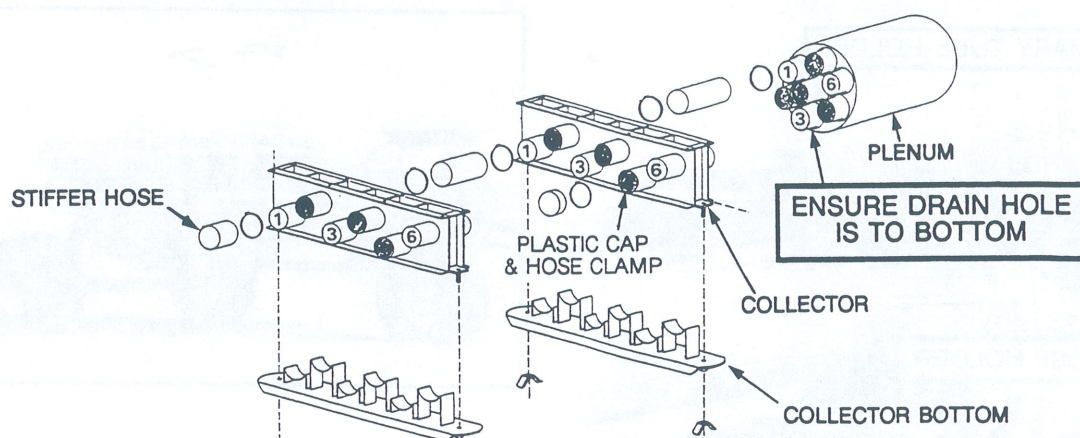


Figure 43

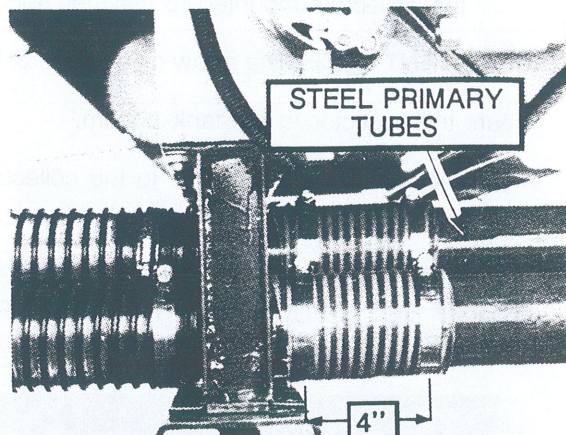
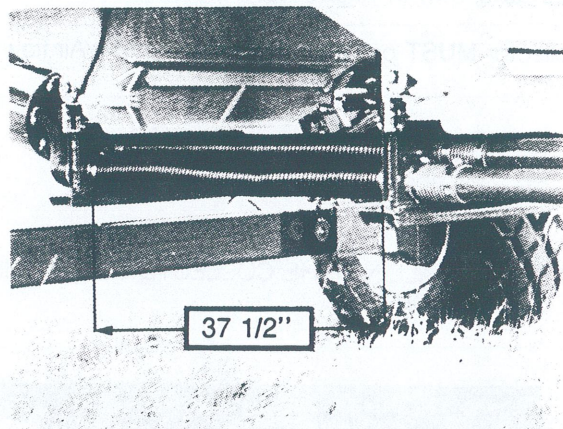
Setup

7.6.3 PRIMARY HOSE INSTALLATION - AIRSEEDER ONLY (Continued)

On 6130 & 6180, cut 3 lengths of 2 1/2" Diameter Hose 37 1/2 long and install between the collectors.
On 6240 & 6300, steel tubes are used between the collectors with the 4" stiffer hose shown below.

All UNUSED ports **MUST** be blanked off using a plastic cap and hose clamp.

Ensure all clamps are tight.



Install the 4" cut lengths of 2 1/2" Diameter hose onto the lower end of the steel primary tubes.

NOTE: Use the stiffer style of hose in this position.

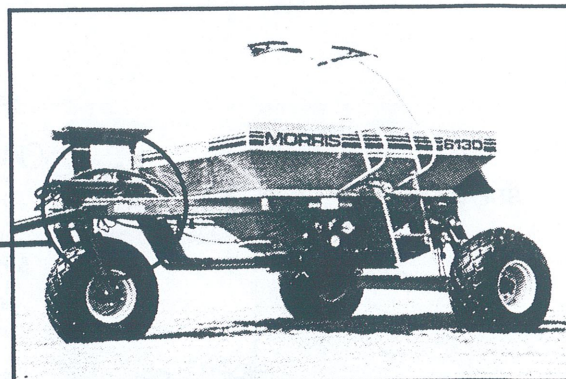
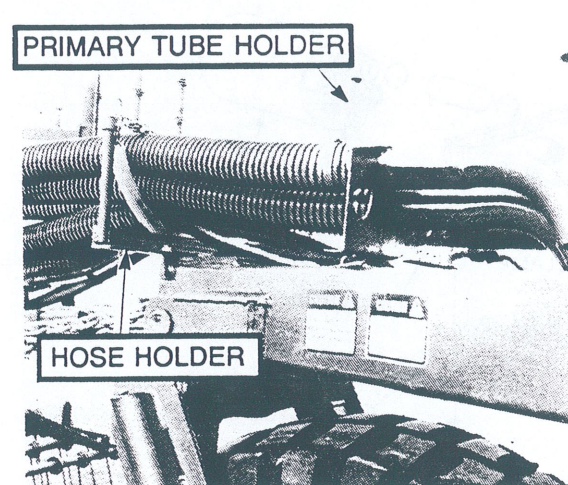
When installing ensure there is a 1" gap between the collector body outlet and the steel primary tube.

Install the front primary hose support onto the Airseeder frame using 2 - 3/8" x 2 1/4" Lg. bolts, 3/8" lockwashers and nuts.

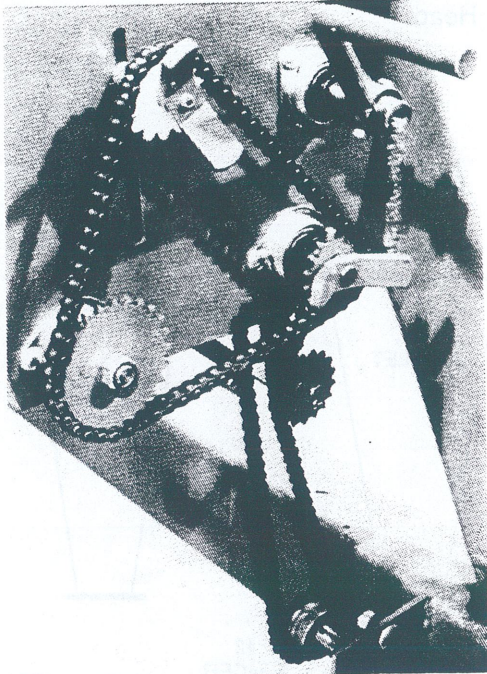
Install the primary tube holder onto the front of the airseeder, using 2 - 3/8" x 1" Lg. bolts, 3/8" lockwashers and nuts.

Insert the bare end of the steel primary tubes into the holder and install the other end onto the respective collector outlets.

Ensure collector outlets and tube holder holes correspond.



4.5 INSTALLATION OF MAIN DRIVE CHAIN



Drive Chain In Field Working Position

To install main Drive Chain.

- Unhook idler spring.
- Position chain on the jack shaft and idler sprockets. (See Fig. 25).
- Connect idler spring to transmission brace with idlers as shown in Fig. 25.

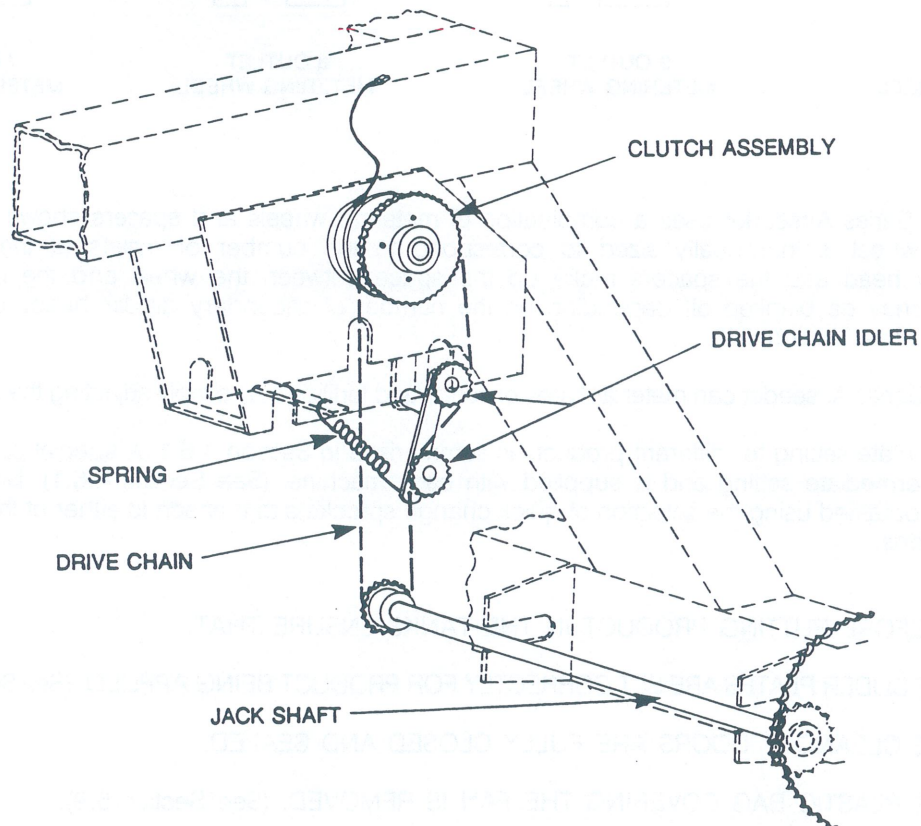
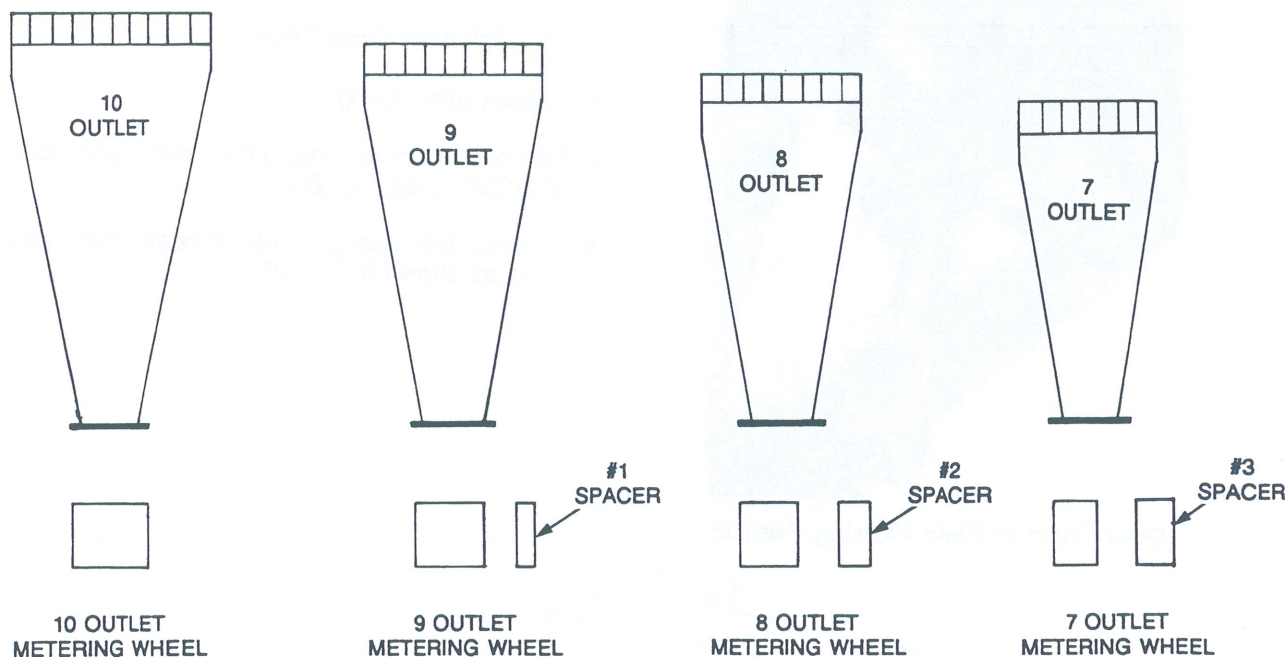


Figure 25

Operation

4.6 METERING SYSTEM

Secondary Divider Head



The 6000 Series Airseeder uses a combination of metering wheels and spacers shown above. The metering wheel is individually sized to correspond to the number of outlets at the connected secondary head and the spacers make up the space between the wheel and the body. Some openings may be blanked off depending on the number of secondary divider heads used on the cultivator. (See Section 7.6).

The 6000 Series Airseeder can meter all types of seeds and fertilizers by simply adjusting the slider plates.

The slider plate setting for different products is summarized in Section 4.6.1. A special gauge is used for the intermediate setting and is supplied with each machine. (See Section 4.6.1). Different rates are easily obtained using the selection of quick change sprockets that attach to either of the two meter transmissions.

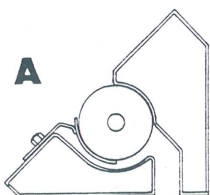
NOTE: BEFORE PUTTING PRODUCT IN THE TANKS ENSURE THAT:

- (a) THE SLIDER PLATES ARE SET CORRECTLY FOR PRODUCT BEING APPLIED. (See Section 4.6.1).
- (b) THE CLEANOUT DOORS ARE FULLY CLOSED AND SEALED.
- (c) THE PLASTIC BAG COVERING THE FAN IS REMOVED. (See Section 5.9).

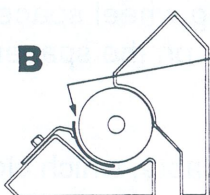
Operation

4.6.1 SLIDER SETTING

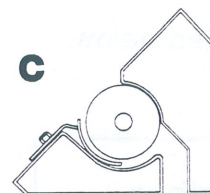
Locate slider as indicated and tighten nut to hold slider tightly in place.



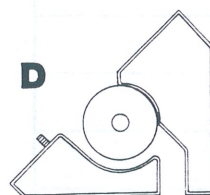
FINE SEEDS



COARSE SEEDS

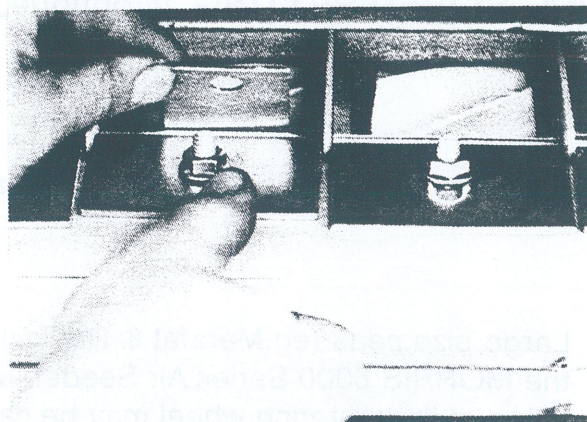


COARSE FERTILIZERS
(11-51-0)

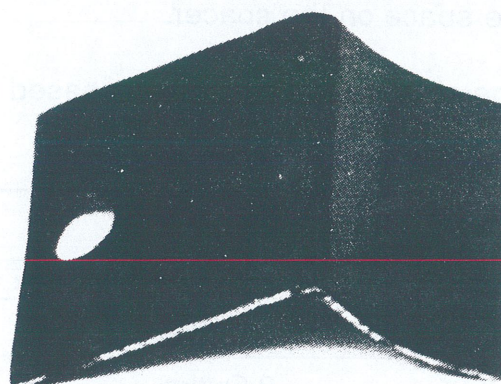


LARGE SEEDS & FERTILIZERS CONTAINING SULPHUR AND/OR POTASH

See Page 4.10.1 for more details.



Setting For Coarse Seed



Seed Gauge

SLIDER SETTING CHART

FINE SEEDS (A)	Canola Mustard Flax	Slider pushed up against wheels
FINE FERTILIZERS COARSE SEEDS (B)	Oats Barley Wheat Fine Fertilizers	Slider pushed up against seed gauge. (.075 gap).
COARSE FERTILIZERS (C)	Coarse Fertilizers (11-51-0)	Slider opened completely.
LARGE SEEDS SULPHUR/POTASH FERTILIZERS (D)	Peas Beans Fertilizers containing Sulphur and/or Potash	Slider removed completely. See Page 4.10.1 for more details. NOTE: Fertilizer Rates will be higher than shown on rate chart. Calibrating must be done to confirm rates.

Operation

4.6.1 SLIDER SETTING (Continued)

Reference: Large size peas (e.g.. Marafat & Radley)

Large size peas (eg.Marafat & Radley) can jam on the metering wheel spacer on the MORRIS 6000 Series Air Seeder. When the large peas jam on the spacer the flutes of the metering wheel may be damaged.

To prevent the peas from jamming, special slider plates are available, which closes the space on the spacer.

The slider plates can be purchased under the part numbers listed below.

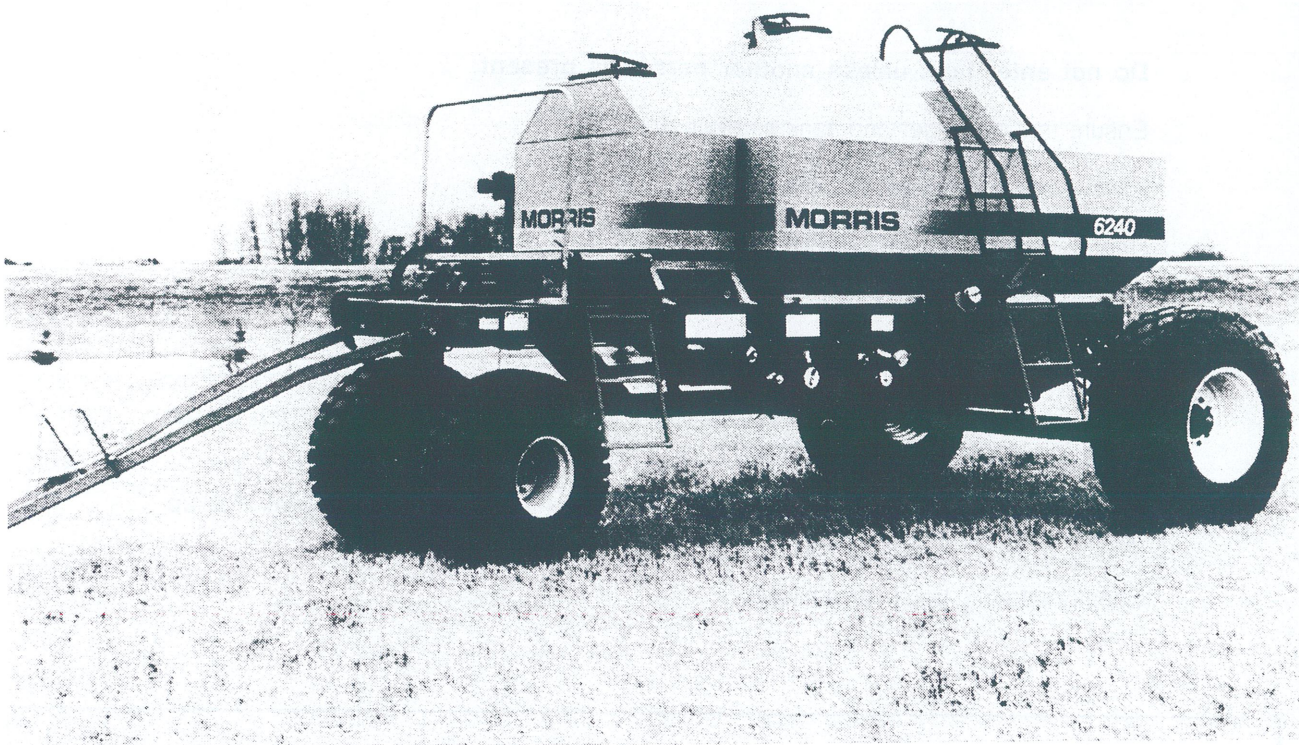
Meter Wheel Size	Slider Part Number
7 Outlet	N27527
8 Outlet	N27528
9 Outlet	N27529
10 Outlet	N27530

NOTE: The special slider plates are for use with large seeds only. Use the standard slider plates for all other seeds and fertilizer.

Warranty Void if the special slider plates are not used when seeding large peas and damage occurs to the Spiral Fluted Metering Wheels.

Operation

4.7 FILLING TANK



The Morris 600 Series Airseeder is equipped with 2 tanks. The front tank is for seed and the rear tank is for fertilizer. However, BOTH tanks can be used for the same product.

The capacity of the Airseeder tanks are as follows:

- 6130 is a total of 130 bu (167 cu/ft.) or 65 bu (83.5 cu/ft.) per tank.
- 6180 is a total of 180 bu (231 cu/ft.) or 90 bu (115 cu/ft.) per tank.
- 6240 is a total of 240 bu (308 cu/ft.) or 120 bu (154 cu/ft.) per tank.
- 6300 is a total of 300 bu (385 cu/ft.) or 150 bu (192.5 cu/ft.) per tank.

NOTE: Before putting product in the tanks ensure that the cleanout doors are closed and sealed. Check that slider plates are set correctly for product being metered.

NOTE: Even small fertilizer lumps can cause problems with plugging. All possible precautions should be taken to prevent lumpy fertilizer from getting into the machine.

Open lid fully on tank being filled. The rear bolt of the lid linkage should hook on the Spring Latch (see Section 5.14).

Remove the screen, check the tank for debris, replace the screen.

Operation

4.7 FILLING TANK (Continued)



WARNING!

Do not enter tank unless another person is present.

Ensure that all auger and tank screens are in place.

Always use screen to filter when filling.

Remove the plastic bag covering fan.

Once tank is filled, clean lid seal and ensure lid seal is positioned correctly.

Ensure all auger and tank screens are in place.

NOTE: Before seeding it is recommended that after a rain or dew that fan be run momentarily (30 sec.) to get rid of moisture in the system.

Check lids for air leaks with your hands once airseeder fan is operational. Pull up on corner of lid if air escapes, tighten lid latch. (See Section 5.8).

Check metering body for air leaks.



WARNING

While entry into the tank is **not** recommended, if an individual does enter the tank, another person must be present and the lid should be properly adjusted with the lid seal in place. The lid adjustment procedure is described in Section 5.7 of the Operator's Manual.

4.8 METERING RATE ADJUSTMENT

The metering rate adjustment for both tanks is done in the same manner. The rate varies with the speed of the metering wheels. A new rate is achieved by changing a sprocket on the Posi-Drive Transmission.

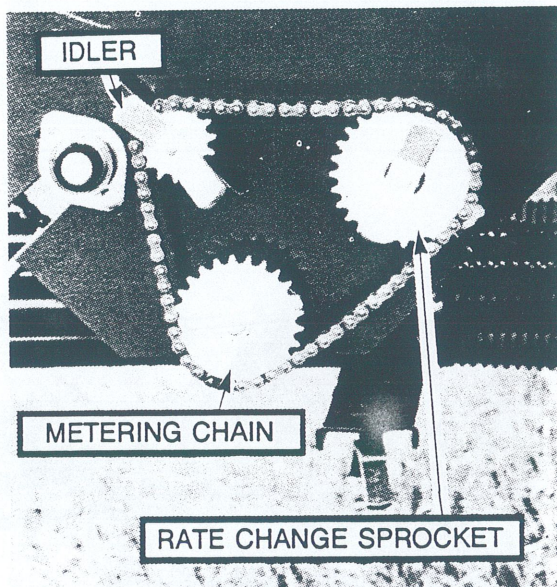


Figure 26 - Drive Transmission

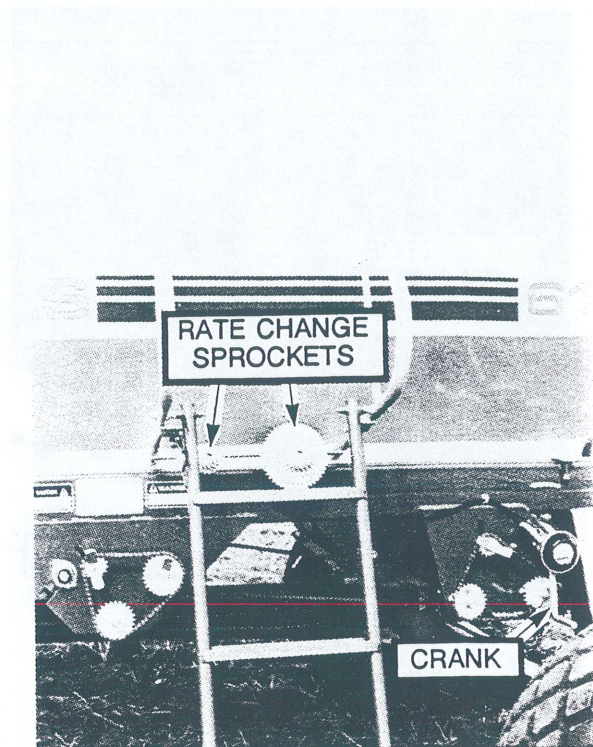


Figure 27

Refer to the rate charts Section 4.15 for desired application rate and sprocket selection.

NOTE: The Rate Charts should only be used as a guide. Even though actual product was used to determine the chart variation in seed size, density, shape, tire pressure and wheel sinkage are all factors that can influence the seed rate.

- Loosen metering chain on posi-drive transmission, by loosening the idler. (See Figure 26 & 27).
- Spin off wing nut and remove rate change sprocket.
- Install desired rate change sprocket and tighten wing nut.
- Tighten chain by adjusting idler.

NOTE: Do not overtighten chain, just take slack out of chain.

4.8.1 RATE CALIBRATION

The practice of doing a rate calibration is strongly recommended as it will confirm the **actual** amounts of product being put into the ground.

Operation

4.8.1 RATE CALIBRATION (Continued)

Checking the rate on the 6000 Series Airseeder is very simple.

The following procedure is one that should be followed for every rate calibration or change of product.

NOTE: The fan must not be running when a rate check is performed.

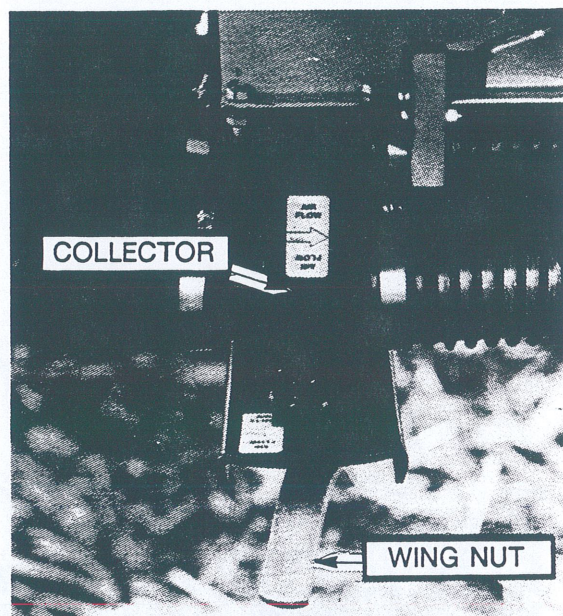


Figure 28 - Collector Bottom

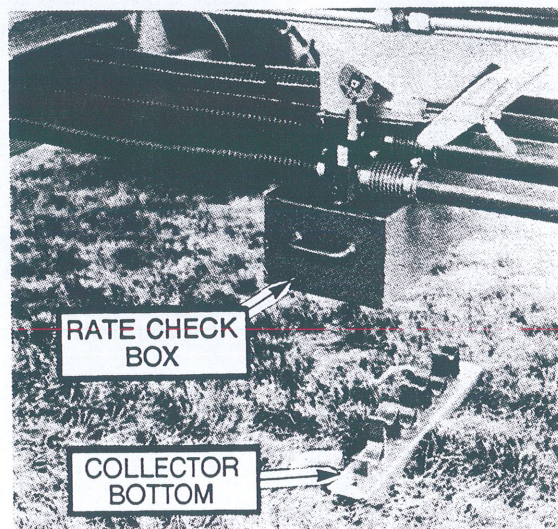


Figure 29 - Collector Bottom Removed

- Refer to calibration chart for the correct number of turns of the crank. (Page 4.15).
- Remove the Wing Nuts. (See Fig. 28).
- Remove the bottom of the collector. (See Fig. 29).
- Remove the metering chain from the transmission that is **not** being checked. (See Fig. 26).
- Check that the desired rate change sprocket is installed in the transmission. (See rate charts and Fig. 26 & 27).
- Turn the crank until material begins to fall through the collector body. (See Fig. 28).
- Slide rate check box on to the collector body. (See Fig. 29).
- Turn crank in direction of the arrow (counter clockwise) the required number of turns.

NOTE: Incorrect rates will occur if crank is rotated **Clockwise**.

- Weigh the sample by using tarp straps to hook rate check box to spring scale. (See Fig. 30).

NOTE: Remember to subtract the weight of the rate check box from the total sample weight.

4.8.1 RATE CALIBRATION (Continued)

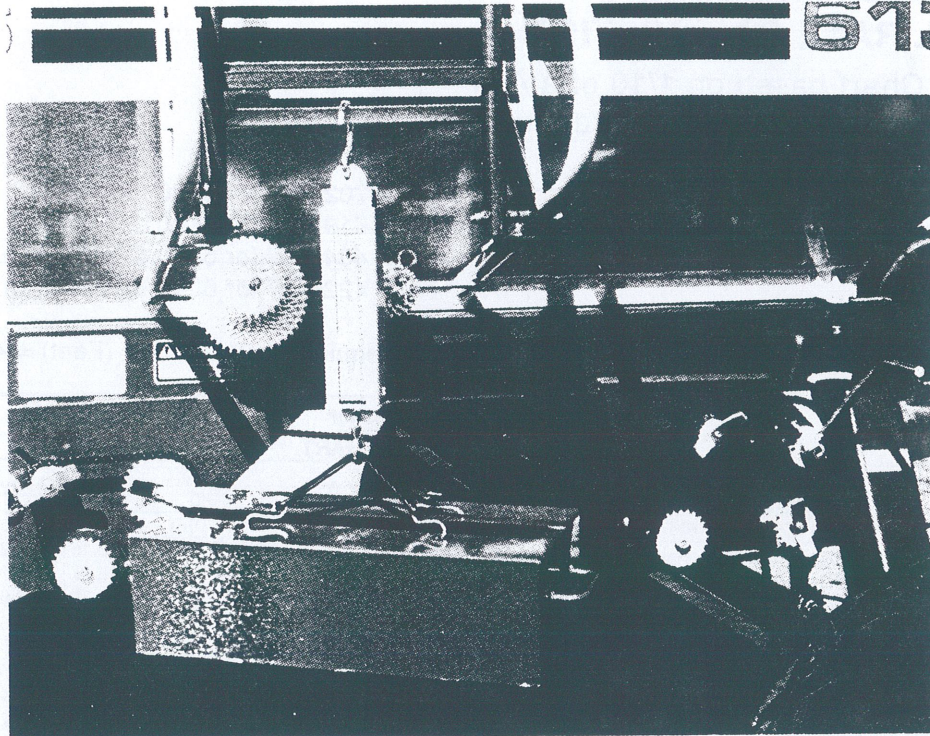


Figure 30

- (j) Check this rate against rate required. If a different rate is required then increase or decrease the size of the rate change sprocket. Increasing the sprocket size will increase the rate and vice versa.
- (k) Replace the bottom of the collector.

NOTE: Arrow directions on the collector **bottom** must point in the same direction as the ones on the collector **body**. (See Fig. 28) On newer models, the collector bottom can only be assembled one way.

- (l) Check the rate of the other tank similarly.

NOTE: Remember to remove the metering chain from the first transmission.

- (m) For 1/10 acre sample:

$$\text{Rate} = \text{lbs} / \text{acre} = \text{Sample Weight (lbs)} \times 10$$

For **Fine Seeds** it is recommended to take a larger sample. Typically to take a sample for 1/2 acre or 1 acre.

Example:

For 1/2 acre sample for a 25 ft. wide cultivator:

The number of crank turns required for a 1/2 acre is the number of turns required for 1/10 acre for a specific machine width x 5.

From the chart on page 4.15

Turns req. for 1/10 acre = 28.13

Turns req. for 1/2 acre = 28.13 x 5 = 140.65

Rate = lbs/acre = 1/2 acre sample wt. (lbs) x 2

Operation

4.8.1 RATE CALIBRATION (Continued)

6000 SERIES AIR SEEDER IMPERIAL RATE CALIBRATION

Calibration Chart based on 1/10 of a Acre.

See rear of book for Metric calibration chart.

W = Machine Width (Feet)

F = Optional Mechanical Acre Tally
Factor = 56/R

R = Crank Rotation - turns

for 1/10 Acre = 702.8/W for 6130

for 1/10 Acre = 619.5/W for 6180

for 1/10 Acre = 464.6/W for 6240 & 6300 with All Weather Tires.

for 1/10 Acre = 422.4/W for 6240 & 6300 with Rice Tires.

D = Distance required for 1/10 Acre (Feet) = 4356/W

6000 Series Air Seeder																				
RATE CALIBRATION CHART																				
WIDTH [W] (ft)	AIRSEEDER MODEL								DISTANCE [D] (ft)	WIDTH [W] (ft)	AIRSEEDER MODEL								DISTANCE [D] (ft)	
	6130		6180		6240/6300		6240/6300				6130		6180		6240/6300		6240/6300			
	[R]	[F]	[R]	[F]	[R]	[F]	[R] Rice	[F] Rice			[R]	[F]	[R]	[F]	[R]	[F]	[R] Rice	[F] Rice		
21	33.47	1.67	29.50	1.90	22.12	2.53	20.11	2.78	207.43	51	13.78	4.06	12.15	4.61	9.11	6.15	8.28	6.76	85.41	
22	31.95	1.75	28.16	1.99	21.12	2.65	19.20	2.92	198.00	52	13.52	4.14	11.91	4.70	8.93	6.27	8.12	6.90	83.77	
23	30.56	1.83	26.93	2.08	20.20	2.77	18.37	3.05	189.39	53	13.26	4.22	11.69	4.79	8.77	6.39	7.97	7.03	82.19	
24	29.28	1.91	25.81	2.17	19.36	2.89	17.60	3.18	181.50	54	13.01	4.30	11.47	4.88	8.60	6.51	7.82	7.16	80.67	
25	28.11	1.99	24.78	2.26	18.58	3.01	16.90	3.31	174.24	55	12.78	4.38	11.26	4.97	8.45	6.63	7.68	7.29	79.20	
26	27.03	2.07	23.83	2.35	17.87	3.13	16.25	3.45	167.54	56	12.55	4.46	11.06	5.06	8.30	6.75	7.54	7.43	77.79	
27	26.03	2.15	22.94	2.44	17.21	3.25	15.64	3.58	161.33	57	12.33	4.54	10.87	5.15	8.15	6.87	7.41	7.56	76.42	
28	25.10	2.23	22.13	2.53	16.59	3.38	15.09	3.71	155.57	58	12.12	4.62	10.68	5.24	8.01	6.99	7.28	7.69	75.10	
29	24.23	2.31	21.36	2.62	16.02	3.50	14.57	3.84	150.21	59	11.91	4.70	10.50	5.33	7.87	7.12	7.16	7.82	73.83	
30	23.43	2.39	20.65	2.71	15.49	3.62	14.08	3.98	145.20	60	11.71	4.78	10.33	5.42	7.74	7.24	7.04	7.95	72.60	
31	22.67	2.47	19.98	2.80	14.99	3.74	13.63	4.11	140.52	61			10.16	5.51	7.62	7.35	6.92	8.09	71.41	
32	21.96	2.55	19.36	2.89	14.52	3.86	13.20	4.24	136.13	62			9.99	5.61	7.49	7.48	6.81	8.22	70.26	
33	21.30	2.63	18.77	2.98	14.08	3.98	12.80	4.38	132.00	63			9.83	5.70	7.37	7.60	6.70	8.36	69.14	
34	20.67	2.71	18.22	3.07	13.66	4.10	12.42	4.51	128.12	64			9.68	5.79	7.26	7.71	6.60	8.48	68.06	
35	20.08	2.79	17.70	3.16	13.27	4.22	12.07	4.64	124.46	65			9.53	5.88	7.15	7.83	6.50	8.62	67.02	
36	19.52	2.87	17.21	3.25	12.91	4.34	11.73	4.77	121.00	66			9.39	5.96	7.04	7.95	6.40	8.75	66.00	
37	18.99	2.95	16.74	3.35	12.56	4.46	11.42	4.90	117.73	67			9.25	6.05	6.93	8.08	6.30	8.89	65.01	
38	18.49	3.03	16.30	3.44	12.23	4.58	11.12	5.04	114.63	68			9.11	6.15	6.83	8.20	6.21	9.02	64.06	
39	18.02	3.11	15.88	3.53	11.91	4.70	10.83	5.17	111.69	69			8.98	6.24	6.73	8.32	6.12	9.15	63.13	
40	17.57	3.19	15.49	3.62	11.62	4.82	10.56	5.30	108.90	70			8.85	6.33	6.64	8.43	6.03	9.29	62.23	
41	17.14	3.27	15.11	3.71	11.33	4.94	10.30	5.44	106.24	71			8.73	6.41	6.54	8.56	5.95	9.41	61.35	
42	16.73	3.35	14.75	3.80	11.06	5.06	10.06	5.57	103.71	72			8.60	6.51	6.45	8.68	5.87	9.54	60.50	
43	16.34	3.43	14.41	3.89	10.80	5.19	9.82	5.70	101.30	73			8.49	6.60	6.36	8.81	5.79	9.67	59.67	
44	15.97	3.51	14.08	3.98	10.56	5.30	9.60	5.83	99.00	74			8.37	6.69	6.28	8.92	5.71	9.81	58.86	
45	15.62	3.59	13.77	4.07	10.32	5.43	9.39	5.96	96.80	75			8.26	6.78	6.19	9.05	5.63	9.95	58.08	
46	15.28	3.66	13.47	4.16	10.10	5.54	9.18	6.10	94.70	76			8.15	6.87	6.11	9.17	5.56	10.07	57.32	
47	14.95	3.75	13.18	4.25	9.89	5.66	8.99	6.23	92.68	77			8.05	6.96	6.03	9.29	5.49	10.20	56.57	
48	14.64	3.83	12.91	4.34	9.68	5.79	8.80	6.36	90.75	78			7.94	7.05	5.96	9.40	5.42	10.33	55.85	
49	14.34	3.91	12.64	4.43	9.48	5.91	8.62	6.50	88.90	79			7.84	7.14	5.88	9.52	5.35	10.47	55.14	
50	14.06	3.98	12.39	4.52	9.29	6.03	8.45	6.63	87.12	80			7.74	7.24	5.81	9.64	5.28	10.61	54.45	

4.9 ALTERNATIVE RATE CALIBRATION

An alternate rate calibration method takes into account wheel sinkage and variations in tire circumference.

1. See the Monitor Section on Page 4.30. Instead of turning the calibration crank, the metering drive clutch is engaged and the seeder is pulled through a distance that equals at least 1/10 of an acre.

NOTE: Fan should not be running for either rate check method.

Operation

4.10 SEEDING FINE SEEDS (CANOLA, MUSTARD, ETC.)

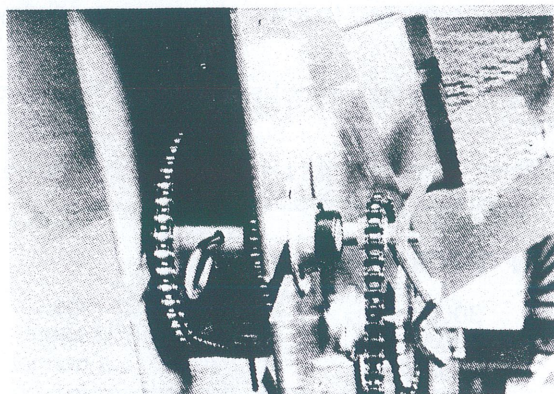
NOTE: Seed must be placed in the front tank.

When seeding fine seeds such as canola or mustard, the slow speed transmission has to be engaged to ensure the low rates required for these products.

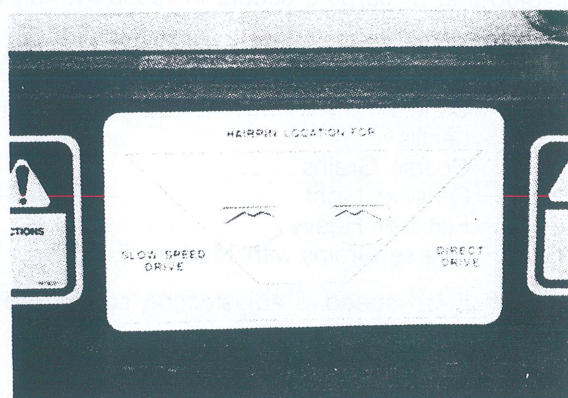
The slow speed transmission is incorporated in the **FRONT** Posi-Drive Transmission.

To engage the slow speed, remove the large hairpin from the rear shaft and install through the sleeve and shaft located at the front of the transmission.

NOTE: Shaft will have to be rotated to align holes for pin insertion.



Slow Speed Engaged



Direction of Pin

To disengage the slow speed, reverse the above procedure.

Rate checks can be performed the same way as for other seeds.

Usually it is necessary to reduce the fan r.p.m. when seeding fine seeds. See section 4.12 for specific fan speeds.

4.11 SEEDING LEGUMES (PEAS, BEANS, ETC.)

When inoculant is applied at the time of seeding, then once the Airseeder has been filled, the fill-lids should be left open and the fan run for 5 - 10 min. at full r.p.m. to dry the seed.

If the seed is not dried then the seed will have a tendency to bridge and not meter into the air stream.

Calibration must be done **after** the seed is dried otherwise the calibration will be incorrect.

Operation

4.12 FAN SPEEDS

Adequate air volume is necessary at all times to carry the product in the air stream. Air volume can be controlled by adjusting hydraulic oil flow (on hydraulic fan drives) or adjusting engine speed on engine fan drive models.

Air volume hence fan speed requirements will vary with:

- (a) Ground speed.
- (b) Metering rate.
- (c) Number of primary runs.
- (d) Width of machine.
- (e) Density and size of material.

Excessive fan speed can cause seed damage, seed bouncing and premature wear of the system.

NOTE: It is recommended that after a rain or dew the fan be run two to three minutes to expel any moisture in the system.

Generally fan speed is adequate if product flows through the hoses without surging and the hoses empty quickly and evenly when the system shuts down.

The Table below lists initial fan speeds for certain products. These should be used only as a guide. If plugging or surging occurs increase the fan speed to eliminate the problem.

SUGGESTED MINIMUM FAN RPM SETTINGS

Canola	3000 RPM	} Settings when applying product. NOTE: It is normal for fan speed to drop when not applying product.
Lentils	3800 RPM	
Coarse Grains	4000 RPM	
Fertilizer Light	4000 RPM	
Fertilizer Heavy	4500 RPM	
Coarse Grains with Medium Fertilizer	4500 RPM	

NOTE: If fan speed is adjusted be sure to adjust the monitor fan alarm setting accordingly. (See Section 4.19.4)

4.13 FAN SPEED SETTING - HYDRAULIC FAN DRIVE

The hydraulic motor used on the 6000 Series Air Seeders requires a load sensing or closed centre hydraulic system with flow control.

These systems provide only the necessary amount of oil to operate the fan at a specific speed.

THE HYDRAULIC MOTOR WILL ALSO WORK ON SOME OPEN CENTRE SYSTEMS, HOWEVER THE RESPECTIVE TRACTOR MANUFACTURER SHOULD BE CONSULTED BEFORE THE HYDRAULIC DRIVEN FAN IS INSTALLED.



IMPORTANT:

Run hydraulic fan drive at low R.P.M. (1000 - 2000) for 5 minutes before operating at set R.P.M. This is required to warm up the hydraulic fluid. Cold hydraulic fluid will cause pressure spikes in the system that will damage the case drain seal in the orbit motor.

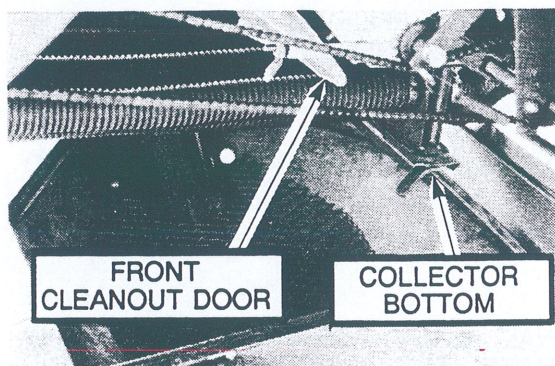
4.22 UNLOADING AND CLEANOUT



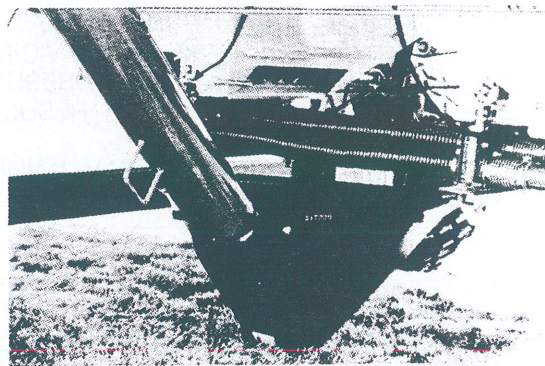
DANGER! KEEP ALL SHIELDS IN PLACE. KEEP HANDS, FEET AND CLOTHING AWAY FROM AUGER INTAKE, FAILURE TO DO SO WILL RESULT IN SERIOUS INJURY OR DEATH.

Emptying tanks is quick and easy to do.

1. Position auger under the tank to be emptied.
2. Start auger.
3. Loosen front cleanout door on metering body.
4. Regulate flow from the tank by loosening or tightening front cleanout door as required.
5. Once all material stops flowing, remove cleanout door completely and brush out remaining material in the corners.

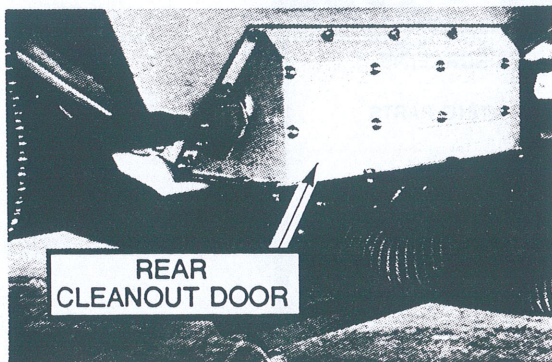
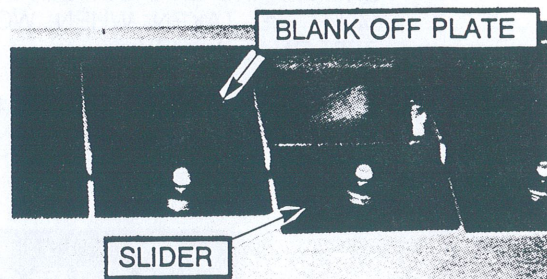


Front Cleanout Door

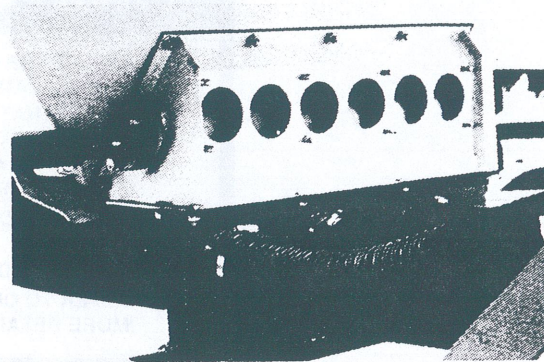


Front Cleanout Door Removed

6. For complete cleanout:
 - (a) Remove all sliders and Blank off Plates.
 - (b) Remove the collector bottom.
 - (c) Run fan.
 - (d) Remove rear cleanout door and either blow or wash out any remaining material in the openings.
 - (e) Re-install the sliders, Blank off Plates, collector bottom, front and rear cleanout doors.



Rear Cleanout Door



Rear Cleanout Door Removed

5 Maintenance

5.1 DAILY MAINTENANCE (Every 10 Hours)



CAUTION! TRACTOR ENGINE SHOULD BE STOPPED AND WHEELS LOCKED TO PREVENT ANY MOVEMENT DURING SERVICING.

ALWAYS WEAR SAFETY GOGGLES, BREATHING APPARATUS AND GLOVES WHEN WORKING ON SEEDER FILLED WITH FERTILIZER. FOLLOW MANUFACTURERS RECOMMENDED SAFETY PROCEDURES WHEN WORKING WITH FERTILIZERS OR TREATED SEEDS.

DO NOT FEED LEFT OVER TREATED SEED TO LIVESTOCK OR HAUL SEED TO ELEVATOR, TREATED SEED IS POISONOUS AND MAY CAUSE HARM TO PERSONS OR LIVESTOCK.

ALWAYS MAKE SURE THAT PRESSURE IS RELIEVED FROM HYDRAULIC CIRCUITS BEFORE SERVICING OR DISCONNECTING FROM TRACTOR. FAILURE TO DO SO MAY RESULT IN HYDRAULIC FLUID BEING INJECTED INTO THE SKIN WHICH MAY RESULT IN GANGRENE.

TO PREVENT PERSONAL INJURY, DO NOT WALK WITHIN RADIUS OF RAISED CULTIVATOR WINGS.



WARNING! TO PREVENT PERSONAL INJURY KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING PARTS. KEEP ALL COVERS, SHROUDS AND GUARDS IN PLACE.

ENGINE AND EXHAUST BECOME EXTREMELY HOT FROM OPERATION, CARE MUST BE TAKEN WHEN WORKING AROUND THE ENGINE TO PREVENT PERSONAL INJURY.

GASOLINE IS EXTREMELY FLAMMABLE. KEEP PERSONAL SAFETY IN MIND, KEEP GASOLINE AWAY FROM OPEN FLAMES, SPARKS OR CIGARETTES.

IMPORTANT

- MAKE SURE FAN INLET SCREEN IS KEPT CLEAN.
 - CHECK THAT ALL ROTATING PARTS ROTATE FREELY.
 - IF FAN VIBRATES EXCESSIVELY WHILE OPERATING, CHECK FOR:
 - A) DIRT OR DEBRIS BUILD UP ON BLADES
 - B) DAMAGED ROTOR.
- REFER TO OPERATORS MANUAL FOR MORE DETAILS.

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Maintenance

5.1 DAILY MAINTENANCE (Every 10 Hours) (Continued)

- Check for and remove any water in primary collectors after rainy weather. Remove both front and rear cleanout doors and collector bottom to drain water from the tank and collectors. (See Fig. 31, A, B & C).
- Reinstall collector bottoms.
- Assure fan screen is clear of debris.

NOTE: Start fan and run for 3 - 5 minutes prior to loading machine to get rid of accumulated moisture.

ATTENTION **IMPORTANT!**
Care must be taken when reinstalling collector bottoms to prevent damage to the inside of the collector.



Figure 31

ATTENTION **IMPORTANT!**
Air flow arrows must point to the front of the airseeder.

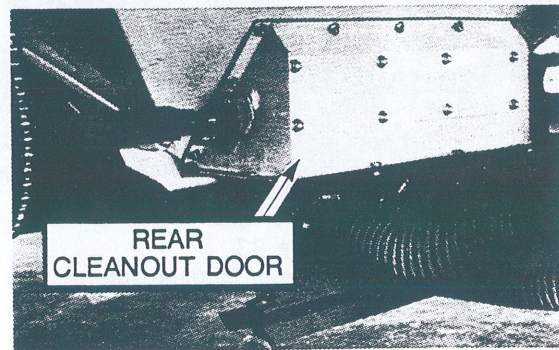


Figure 31B

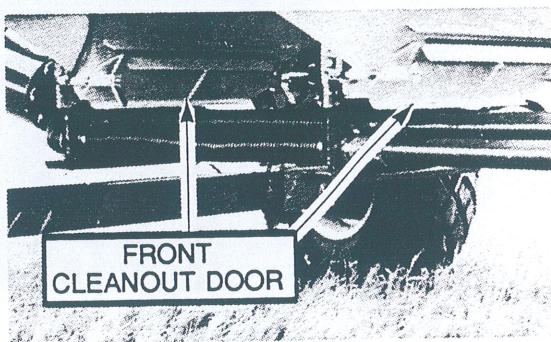


Figure 31C
Front Cleanout Door

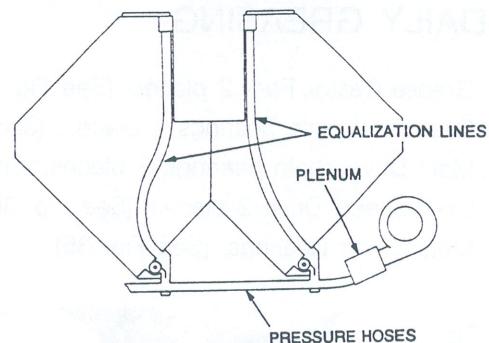


Figure 32

- Check lid seals for damage, and that they are sitting properly on steel ring.
- Check tank pressure hoses and equalization lines for leaks, cracks or plugging. (See Fig. 32).
- Check plenum and metering body for leaks. (See Fig. 32).
- Check that cleanout doors are sealed.
- Check monitor wiring that all sensor wires are properly routed and retained.
- Check for plugged hoses.



WARNING! Check hydraulic hoses for leaks. Do not search for leaks without hand and face protection. A tiny, almost invisible leak can penetrate the skin, requiring immediate medical attention.

Maintenance

5.1 DAILY MAINTENANCE (Every 10 Hours) (Continued)

Check for free movement of spring loaded chain tension idlers. (See Fig. 33).

Assure drive chains are cleared of mud and debris.

Visually inspect wheel bolts for looseness.

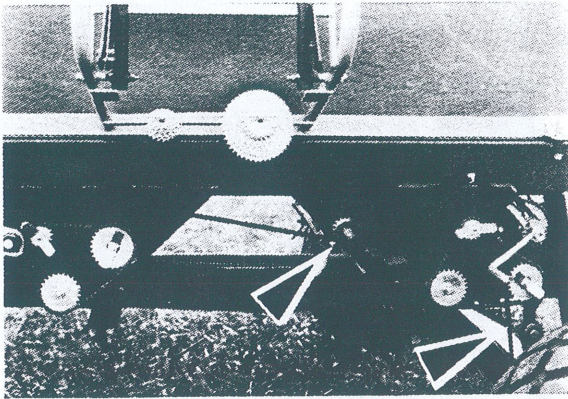


Figure 33
Spring Loaded Chain Tension Idlers

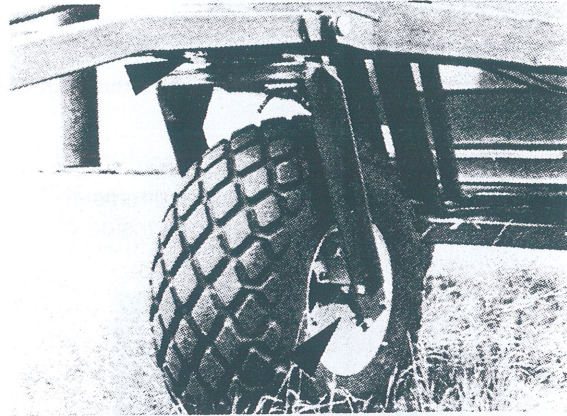


Figure 34

5.1.1 DAILY GREASING

- (a) Grease Castor Fork 2 places. (See Fig. 34).
- (b) Castor fork axle bearings 2 places. (See Fig. 34).
- (c) Main Drive chain bearings 2 places. (See Fig. 36).
- (d) Slow Speed Drive 2 places. (See Fig. 36A).
- (e) Meter Shaft Bearings. (See Fig. 35).

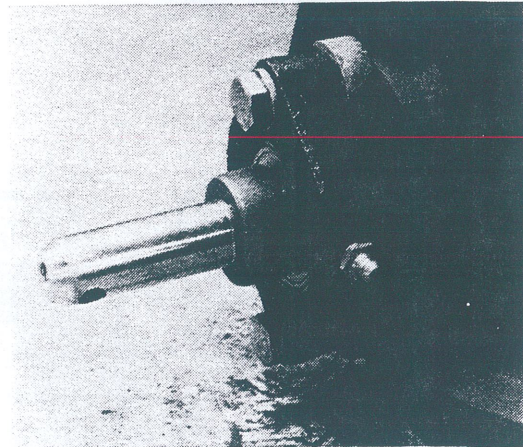


Figure 35

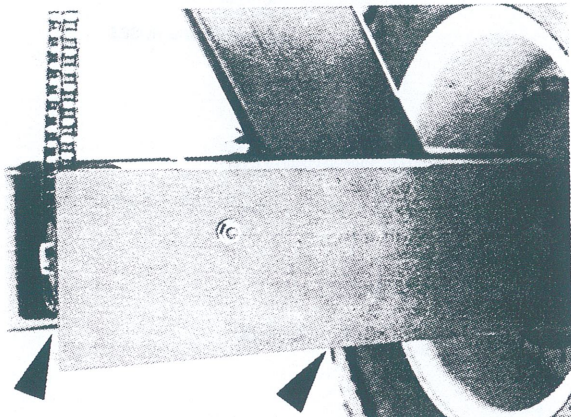


Figure 36

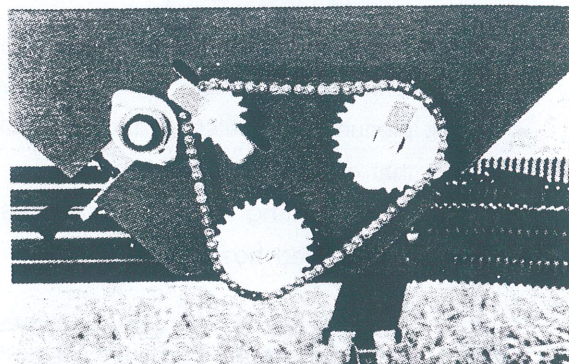


Figure 36A

Maintenance

5.12 TIRE SPECIFICATIONS

AIRSEEDER	FRONT	REAR
6130	(1) 16.5 x 16.1 6 ply tubeless @ 24 p.s.i.	(2) 16.5 x 16.1 6 ply tubeless @ 24 p.s.i.
6180	(1) 21.5 x 16.1 6 ply tubeless @ 24 p.s.i.	(2) 21.5 x 16.1 6 ply tubeless @ 24 p.s.i.
6240	(2) 21.5 x 16.1 6 ply tubeless @ 24 p.s.i.	(2) 23.1 x 26 All Weather Tire 8 ply tubeless @ 20 p.s.i.
6240 (Optional)	(2) 21.5 x 16.1 6 ply tubeless @ 24 p.s.i.	(2) 23.1 x 26 Rice Tire 10 ply tubeless @ 20 p.s.i.
6300	(2) 21.5 x 16.1 10 ply tubeless @ 28 p.s.i.	(2) 23.1 x 26 All Weather Tire 12 ply tubeless @ 28 p.s.i.
6300 (Optional)	(2) 21.5 x 16.1 10 ply tubeless @ 28 p.s.i.	(2) 23.1 x 26 Rice Tire 10 ply tubeless @ 20 p.s.i.

5.13 AIR LEAKS ON AIRSEEDERS

It is imperative that no air leaks occur in the air seeder tank as even the smallest air leak from the lid will lead to material bridging in the tank thereby causing misses in the field.

To prevent this from occurring, it is strongly recommended that a pressure test be conducted prior to seeding time. This can be performed very easily and simply by completing the following steps:

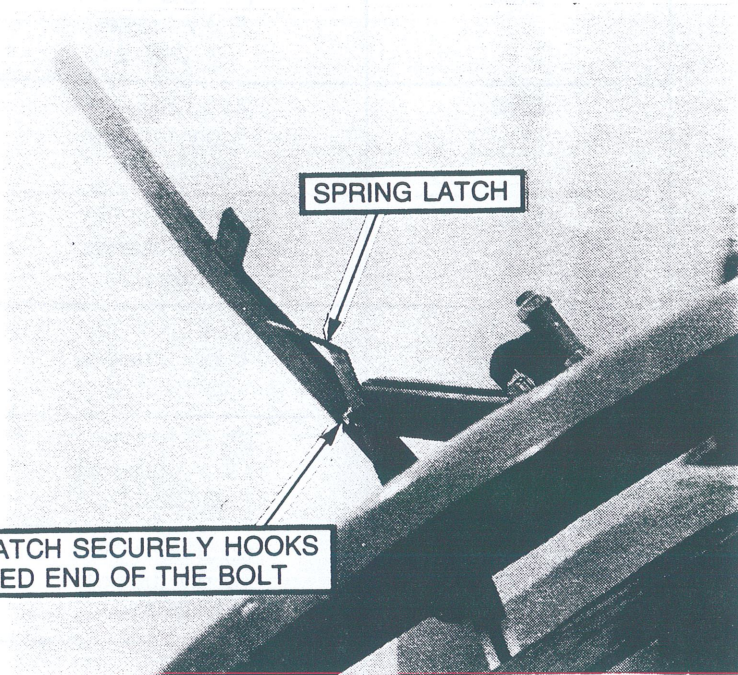
- Disconnect the 2 1/2" diameter primary hoses from the rear of the cultivator at the primary hose coupler(s) by loosening the four 3/8" bolts.
- Install the blank off plate that is supplied with the Airseeder at each coupler and retighten the 3/8" bolts. If the blank off plates are not readily at hand a piece of cardboard can be used in its place.
- Once the blank off plates have been installed, start the fan and run at maximum speed. With the fan running at maximum speed, check the following areas for air leaks: tank clean-out doors; rear clean-out doors of the metering body; collector assembly seals; and tank lids.
- If any of the above areas leak, remove the parts to check the seal. Replace, if necessary. Ensure upon reassembly that the parts are tightened sufficiently to prevent air leakage.
- Remove the blank off plates before using the Airseeder.

NOTE: Use the spring scale provided with the machine to check the tank lid opening force. With the lid closed place one end of the scale one inch from the end of the tank lid lever. Pull straight up on the scale and note the maximum force it takes to open the lid. The force needed to open the lid **must be greater than 65 lbs.** Adjust the tank lid adjusting bolt as necessary. The lid lever should close with a **snap**. This will ensure that the lid is sufficiently tight and prevent any leaks.

Maintenance

5.14 CHECK SPRING LATCH OPERATION

- Open Lid fully.
- The rear bolt of the Lid Linkage should hook on the Spring Latch.
- If the Spring Latch does not hook on the bolt check the following and make corrections:
 - Ensure bolt is installed correctly.
 - Bolt worn or is too short, replace if required.
 - Ensure Spring Latch is installed correctly.
 - Spring Latch bent.

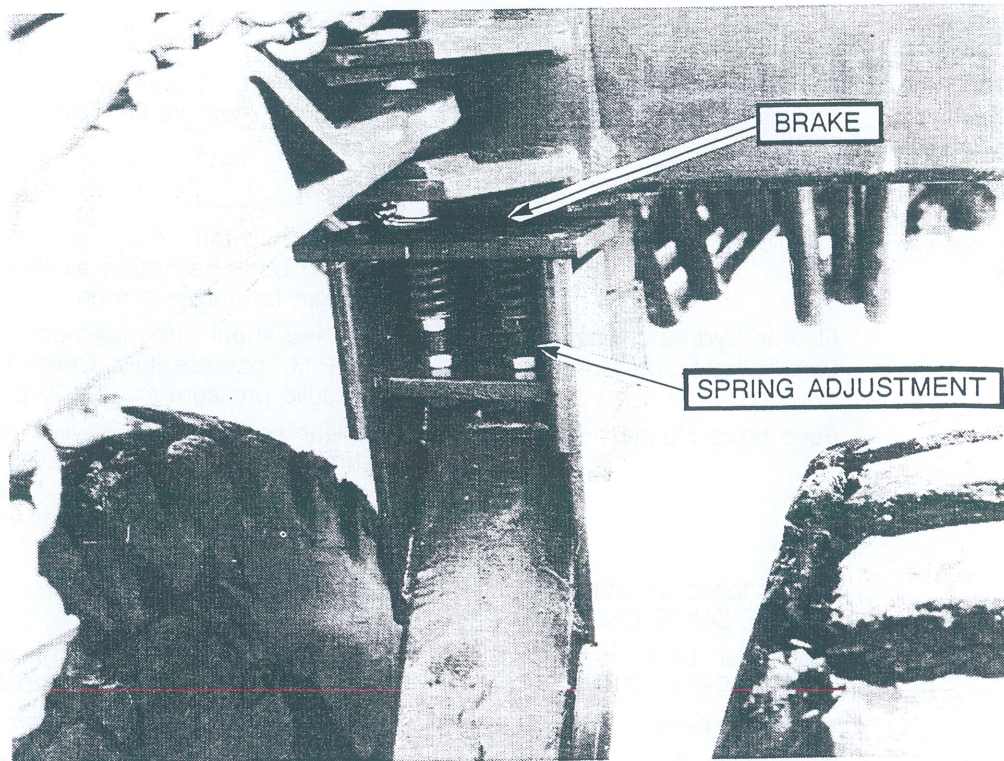


WARNING

While entry into the tank is **not** recommended, if an individual does enter the tank, another person must be present and the lid should be properly adjusted with the lid seal in place. The lid adjustment procedure is described in Section 5.7 of the Operator's Manual.

Maintenance

5.11 FRONT CASTOR BRAKE ADJUSTMENT 6240 & 6300



IMPORTANT

Dual wheel brake should provide sufficient pressure to stabilize caster at all travel speeds. Avoid setting more pressure on brake pad than required to maintain stability.

- The brake is pre-adjusted at the factory and need only be adjusted if the castor wheels start to shimmy in the field, or on the road.
- Increase the spring pressure on the brake to stop the castor wheels from shimmying in the field or on the road.

NOTE: Do not overtighten the springs. Excessive spring pressure will prevent wheels from castoring.

6 Troubleshooting

Problem	Cause	Correction
Excessive Front Castor Wheel Shimmy 6240 & 6300 only	Insufficient Brake Pressure	Increase Brake Pressure.
Front Castor Wheel Will Not Castor 6240 & 6300 only	Excessive Brake Pressure	Reduce Pressure On The Brake.
Delivery hoses plugged	Insufficient air flow	Speed up fan Seed boots restricting air flow Clean fan intake screen.
	Flow to hydraulic motor Low hydraulic pressure	Speed should be maximum of 5000 R.P.M. increase flow. Check hydraulic pressure min. 2100 p.s.i.
	Seed boots plugged with dirt	Clean seed boots. Always have tractor moving forward when lowering cultivator in the ground. Raise cultivator when turning sharp. Sweeps worn out.
	Pulleys loose on shaft ENGINE DRIVE ONLY	Properly fix pulley to shaft.
	Broken fan belts ENGINE DRIVE ONLY	Replace belts. Ensure fan is rotating clockwise facing the impeller.
	Loose fan belts .	Tighten fan belt adjusting springs.
	Hose obstruction	Remove obstruction from hose.
	Air delivery hose partly off manifold	Re-install hose properly on manifold.
	Kinked hoses	Straighten hoses and properly secure them to framework.
	Obstruction in divider head	Check hoses and clear obstruction from appropriate outlets - be sure to use appropriate screens when filling.
	Exceeding machine's delivery capabilities	Slow down ground speed and speed up fan.
	Poorly mounted hoses	See set-up section 7.63 for proper hose set-up.
Plugged boots	Backing up with openers near or in the ground	Lift machine all the way up before backing up.
	Turning very sharp with openers near or in the ground	Lift machine all the way up when making sharp turns.
	Lowering machine without any forward motion	Always have forward motion when lowering machine.
	Worn openers or sweeps	Replace openers.

Troubleshooting

Problem	Cause	Correction
	Severely bent or damaged boots	Straighten or replace as required.
Clutch slipping	Low power supply	Ensure good connections at the power supply. Battery voltage must be 12V.
	Faulty clutch	Replace clutch.
Material not being metered out	Metering clutch not engaged	Engage Switch in tractor cab.
	Main drive chain not installed	Install drive chain properly on Drive Sprocket. See Operation Section.
	Drive chain or chains broken	Install new chain. Ensure connecting link is installed correctly. Curved part of spring clip should face the direction of chain travel.
	Sheared roll pin on coupler	Replace with new roll pin.
	Massive air leak in tank, resulting in material being blown up out of the metering cup	Repair the air leak.
	Key sheared on metering wheel	Change metering wheel and check for cause of metering shearing.
	Collector bottom installed incorrectly	Be sure to install with arrows in same direction as on collector.
	Material caked up in tank	Remove material and completely clean out the tank.
Material not being accurately metered out of the metering body	Excessively wet material in tank	Remove wet material and use reasonably dry material.
	Air delivery hoses loose, cracked or pulled off	Tighten the hoses, replace cracked hoses or install hoses pulled off their respective locations.
	Inlet screen to fan blocked off	Clean off material that is blocking the fan screen.
	Damaged fan impeller	Replace impeller.
	Slider plate adjusted incorrectly	Adjust sliders so they are all the same for the product being metered. See operation Section for correct clearances.

Troubleshooting

Problem	Cause	Correction
	Material caked up above one or more of the metering cups	Clean out caked up material.
	Excessively damp material in tank	Use reasonably dry, fresh material only.
	Foreign obstruction in tank above metering wheels	Remove obstruction, and always fill tanks through the screens.
	Caked up metering wheels on some or all of the metering cups	Clean out the metering cups and wheels.
	Damaged metering wheels	Replace broken metering wheels.
	Bottom collector door installed incorrectly	Install door with arrows in same direction as collector.
	Dual shooting hoses not routed correctly	See Section 7.7
	Metering wheels mismatched to secondary outlet	Install correct wheels to head. 1 3/4" wide wheel for 7 head 2" wide wheel for 8 head 2 1/4" wide wheel for 9 head 2 1/2" wide wheel for 10 head Be sure appropriate spacers are also used.
	Incorrect machine size sprocket	Install correct sprocket on back of transmission. See Section 7.6.
	Crank rotated wrong way when taking sample	Crank must be rotated counter clockwise.
Material flowing thru system when unit is stationary and the fan running.	Damaged metering wheel.	Replace metering wheel.
	Pressurization hose inside tank disconnected or broken.	Install or replace pressurization hose.
Material not being divided in distribution head	Head partially blocked	Remove blockage and re-install hose.
	Kinked hose running to shank	Straighten or replace hose.
	Damaged distribution section on head	Replace head with new one.
	Bent or damaged diffuser pipe	Straighten or replace diffuser pipe.
Engine stops or lacks power	Dirt in fuel line	Replace fuel filters. Clean filters as outlined in Maintenance Section 5.
	Dirty Air filter element	Use regular or preferably unleaded gasoline.
	No fuel or improper fuel	

Troubleshooting -

Problem	Cause	Correction
Engine will not start or is hard to start	Faulty spark plugs	Replace.
	High temperature	Clean air screen and cooling fins. See Maintenance Section 5.
	Low oil pressure	Incorrect oil level.
	Dirt in fuel lines	Replace fuel filters.
Engine knocks or pings, operates erratically, skips, backfires, misfires or overheats	Dirty air filter elements	Clean filter as outlined in Maintenance Section.
	No fuel or improper fuel	Use regular or preferably unleaded gasoline.
	Faulty spark plugs	Replace
	Dirt in fuel filter	Replace fuel filter.
High fuel consumption	Dirty Air filter elements	Clean filter as outlined in Maintenance Section 5.
	Faulty Spark Plugs	Replace.
	Incorrect oil level	Add oil.
	Dirty Airscreen and/or cooling fins	Clean as outlined in Maintenance Section 5.
Hydraulic fan will not turn	Selector valve in wrong position	Switch the selector to fan position.

Setup

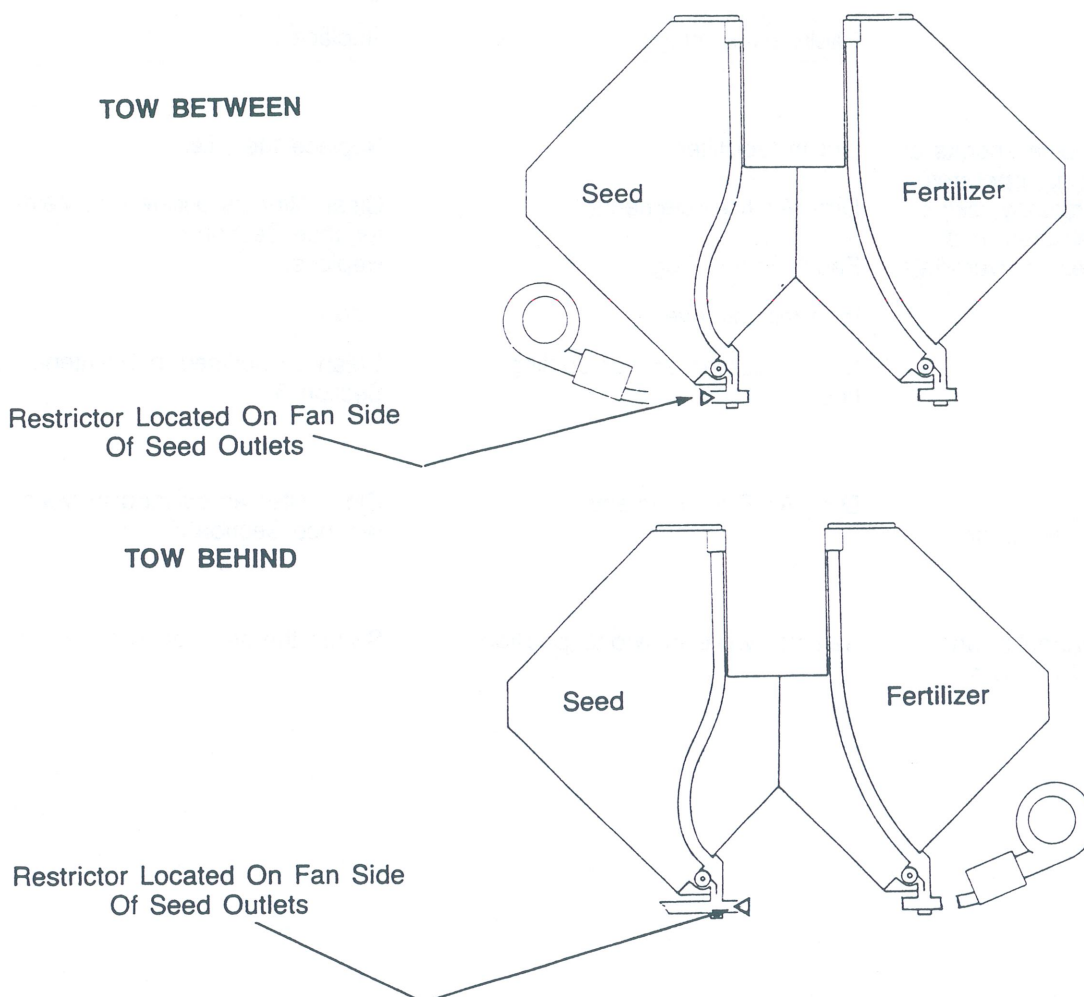
7.7 DOUBLE SHOOTING

This is where TWO DIFFERENT products are placed at TWO DIFFERENT positions in the ground.

There has to be two separate air systems to be able to Double Shoot.

The metering wheels and spacers are set up in the metering body the same way as in Section 7.6.2. However, because of Double Shooting the collector is different for the first 40 runs on the 6130 and for the first 50 runs on the 6180, 6240 & 6300. Instead of 6 outlets the 6130 collector has 8 outlets, 4 of which have openings to allow product to be dropped into the airstream while the other 4 are solid only allowing air to travel through the part. Instead of 8 outlets the 6180, 6240 & 6300 has 10 outlets, 5 of which have openings to allow product to be dropped into the air stream while the other 5 are solid only allowing air to travel through the part.

The 6130 can Double shoot up to 60 runs. Illustrated on page 7.39 is the set up required for the metering bodies. The 6180, 6240 & 6300 can Double shoot up to 80 runs. Illustrated on page 7.40 is the set up required for the metering bodies.



A restrictor is installed into the inlet of the seed tubes of the collector located on the seed tank in both the tow behind and tow between models.

7.7 DOUBLE SHOOTING (Continued)

Model 6130 - 130 bu. tank.

Metering Wheel Size And Location Chart

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Meter Body Looking From The Front When Installed

# RUNS	METER WHEEL SIZE FOR BOTH FRONT AND REAR METER BODIES					
21	7	*	*	*	7	7
22	8	*	*	*	7	7
23	8	*	*	*	7	8
24	8	*	*	*	8	8
25	8	*	*	*	8	9
26	9	*	*	*	8	9
27	9	*	*	*	9	9
28	9	*	*	*	9	10
29	10	*	*	*	9	10
30	10	*	*	*	10	10
31	8	8	*	*	7	8
32	8	8	*	*	8	8
33	8	8	*	*	8	9
34	9	8	*	*	8	9
35	9	9	*	*	8	9
36	9	9	*	*	9	9
37	9	9	*	*	9	10
38	10	9	*	*	9	10
39	10	9	*	*	10	10
40	10	10	*	*	10	10
41	8	8	*	8	8	9
42	9	8	*	8	8	9
43	9	9	*	8	8	9
44	9	9	*	8	9	9
45	9	9	*	9	9	9
46	10	9	*	9	9	9
47	10	9	*	9	9	10
48	10	10	*	9	9	10
49	10	10	*	9	10	10
50	10	10	*	10	10	10
51	9	9	8	8	8	9
52	9	9	8	8	9	9
53	9	9	8	9	9	9
54	9	9	9	9	9	9
55	10	9	9	9	9	9
56	10	9	9	9	9	10
57	10	9	9	9	10	10
58	10	10	9	9	10	10
59	10	10	9	10	10	10
60	10	10	10	10	10	10

*INSTALL BLANK OFF COVER PLATES

Setup

7.7 DOUBLE SHOOTING (Continued)

Model 6180 - 180 bu. tank

Model 6240 - 240 bu. tank

Model 6300 - 300 bu. tank

Metering Wheel Size And Location Chart



Meter Body Looking From The Front When Installed

# RUNS	METER WHEEL SIZE FOR BOTH FRONT AND REAR BODIES							
25	8	*	*	9	*	*	*	8
26	9	*	*	8	*	*	*	9
27	9	*	*	9	*	*	*	9
28	9	*	*	10	*	*	*	9
29	10	*	*	9	*	*	*	10
30	10	*	*	10	*	*	*	10
31	8	8	*	*	*	7	*	8
32	8	8	*	*	*	8	*	8
33	8	8	*	*	*	8	*	9
34	9	8	*	*	*	8	*	9
35	9	9	*	*	*	8	*	9
36	9	9	*	*	*	9	*	9
37	9	9	*	*	*	9	*	10
38	10	9	*	*	*	9	*	10
39	10	9	*	*	*	10	*	10
40	10	10	*	*	*	10	*	10
41	8	8	*	8	*	8	*	9
42	9	8	*	8	*	8	*	9
43	9	8	*	8	*	9	*	9
44	9	9	*	8	*	9	*	9
45	9	9	*	9	*	9	*	9
46	10	9	*	9	*	9	*	9
47	10	9	*	9	*	9	*	10
48	10	9	*	9	*	10	*	10
49	10	10	*	9	*	10	*	10
50	10	10	*	10	*	10	*	10

*INSTALL BLANK OFF COVER PLATES

Setup

7.7.1 PRIMARY HOSE INSTALLATION

Follow guidelines as listed in Section 7.6.4 for general set up.

Double shooting requires that the 2 1/2" diameter hoses running between the two metering bodies be connected as shown in the following illustrations. Figures 44 and 45 for the 6130, and Figures 46, 47 and 48 for the 6180.

IMPORTANT: If this is not done then mixing of the two products will occur.

TOW BETWEEN

21 - 30 RUN DISTRIBUTION (Model 6130 Only)

For units that are Double Shooting up to 30 runs the plenum should have hoses cut to the required length and attached using the following pattern on the plenum. All unused outlets must be sealed using the plastic caps and hose clamps (See Fig. 44)

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

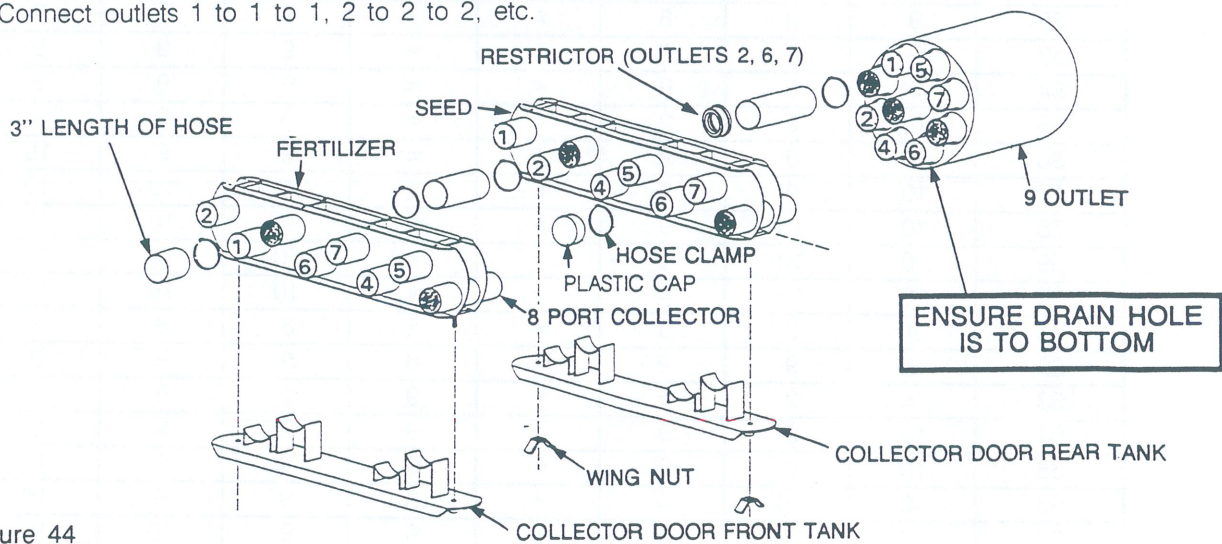


Figure 44

TOW BEHIND

21 - 30 RUN DISTRIBUTION (Model 6130 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 45). Any unused outlets must be sealed using the plastic caps and hose clamps provided.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

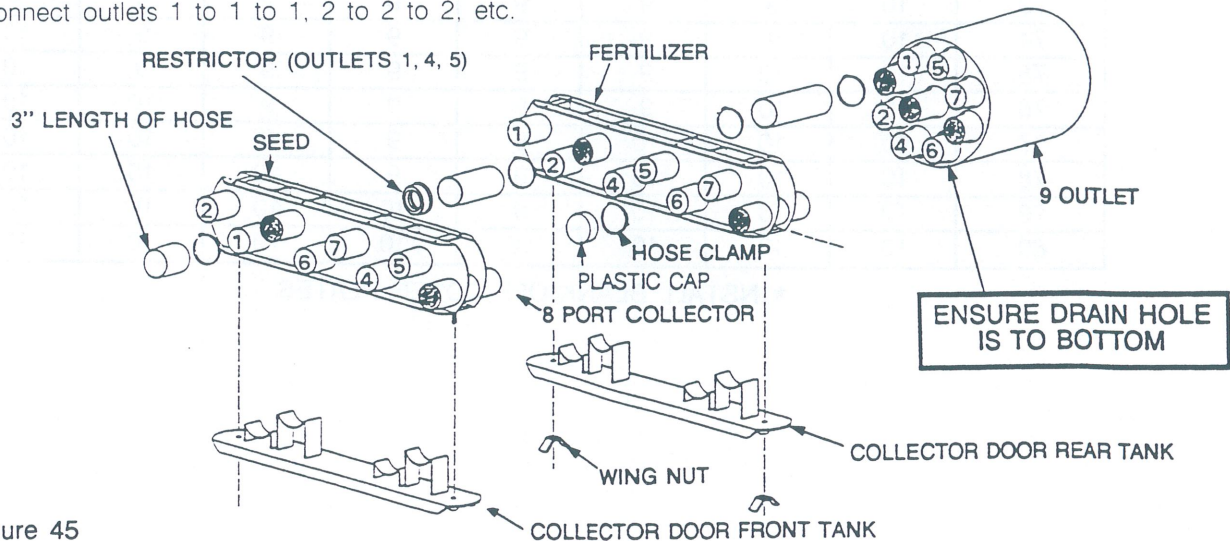


Figure 45

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

21 - 30 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 46). All unused outlets must be sealed using the plastic caps and hose clamps.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

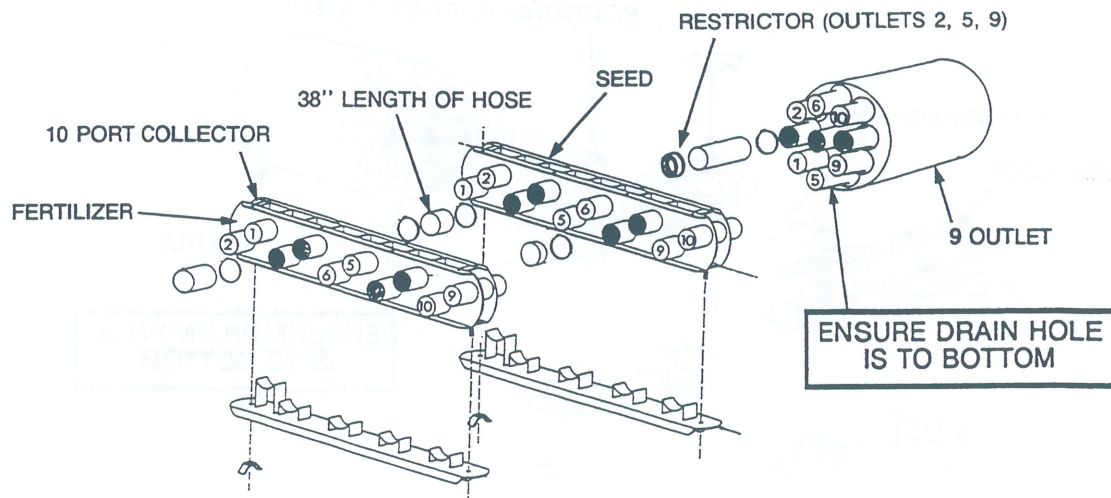


Figure 46

TOW BEHIND

21 - 30 RUN DISTRIBUTION (Model 6180, 6240 & 6300)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 47). Any unused outlets must be sealed using the plastic caps and hose clamps provided.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc:

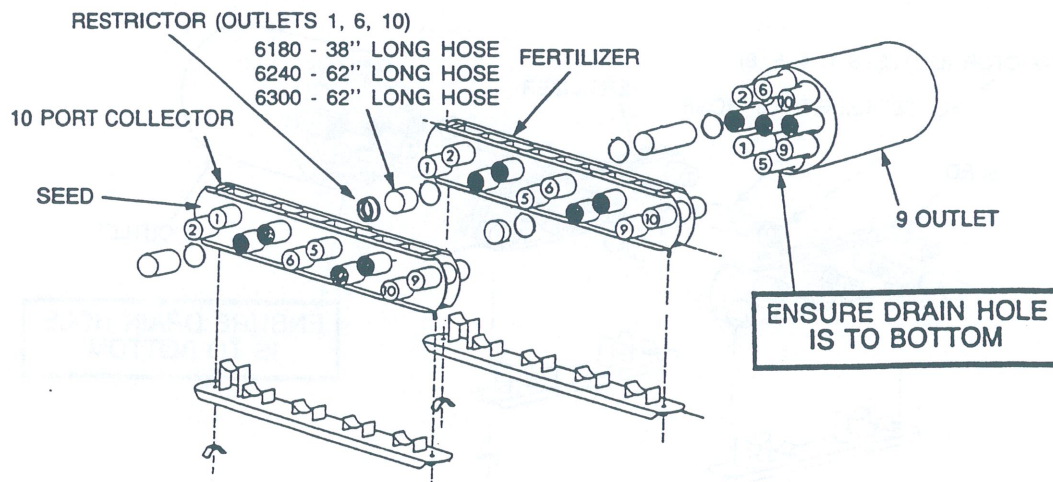


Figure 47

Setup

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

31 - 40 RUN DISTRIBUTION (Model 6130 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 48). All unused outlets must be sealed using the plastic caps and hose clamps.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

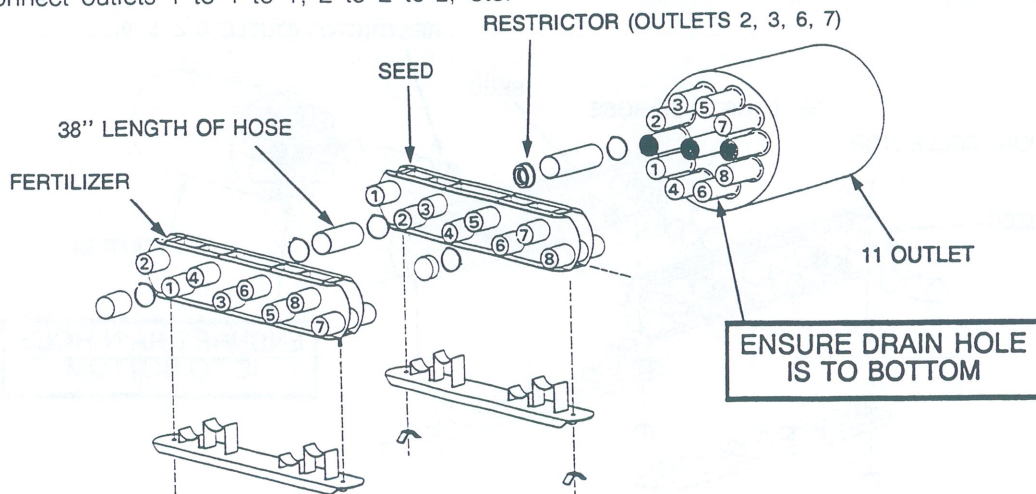


Figure 48

TOW BEHIND

31 - 40 RUN DISTRIBUTION (Model 6130 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 49). Any unused outlets must be sealed using the plastic caps and hose clamps provided.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

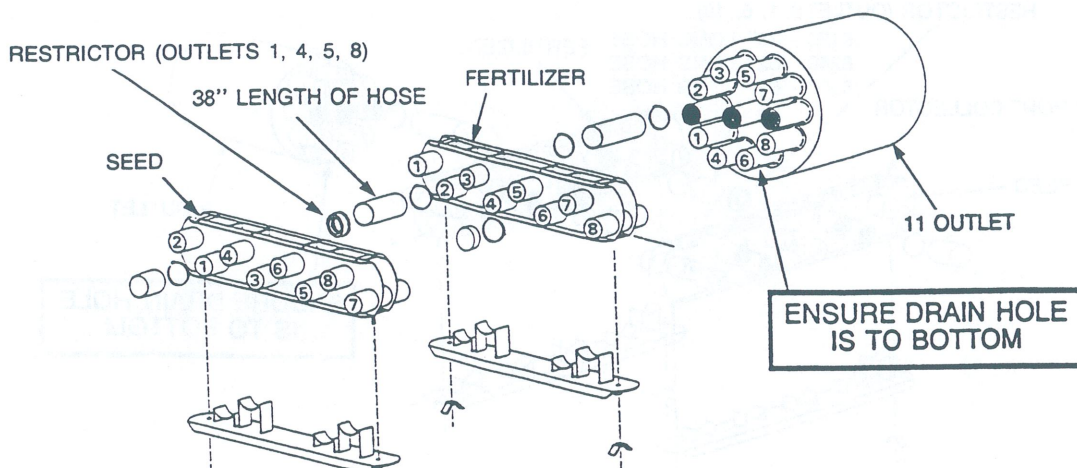


Figure 49

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

31 - 40 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 50). All unused outlets must be sealed using the plastic caps and hose clamps.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

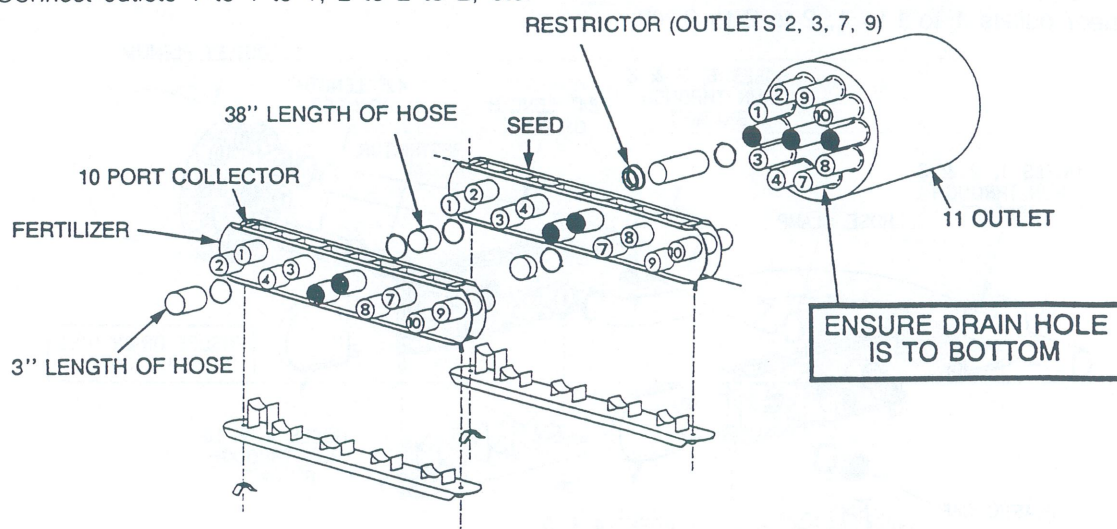


Figure 50

TOW BEHIND

31 - 40 RUN DISTRIBUTION (Model 6180, 6240 & 6300)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 51). Any unused outlets must be sealed using the plastic caps and hose clamps provided.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

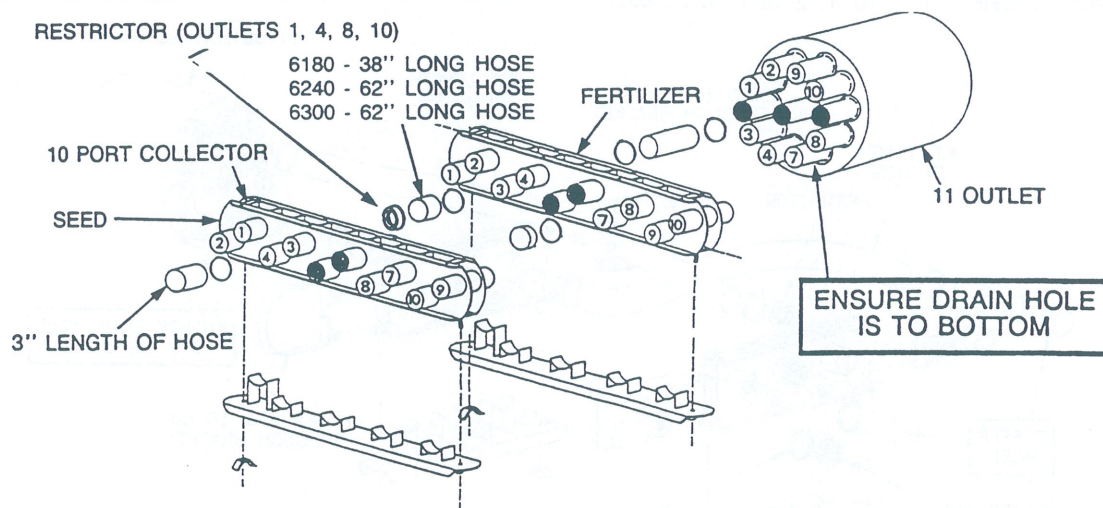


Figure 51

Setup

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

41 - 50 RUN DISTRIBUTION (Model 6130 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 52). All unused outlets must be sealed using the plastic caps and hose clamps. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

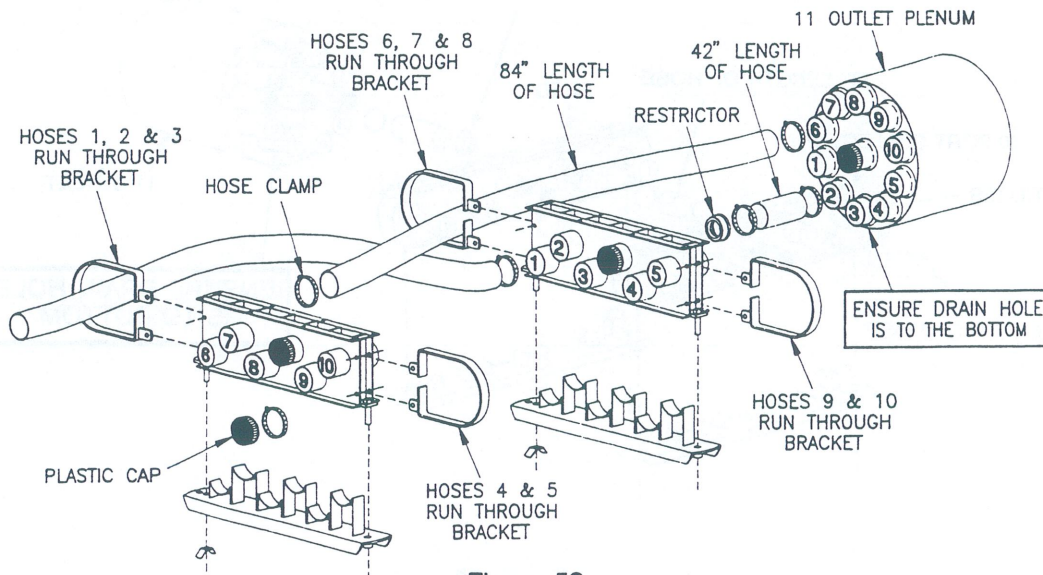


Figure 52

TOW BEHIND

41 - 50 RUN DISTRIBUTION (Model 6130 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 53). Any unused outlets must be sealed using the plastic caps and hose clamps provided. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

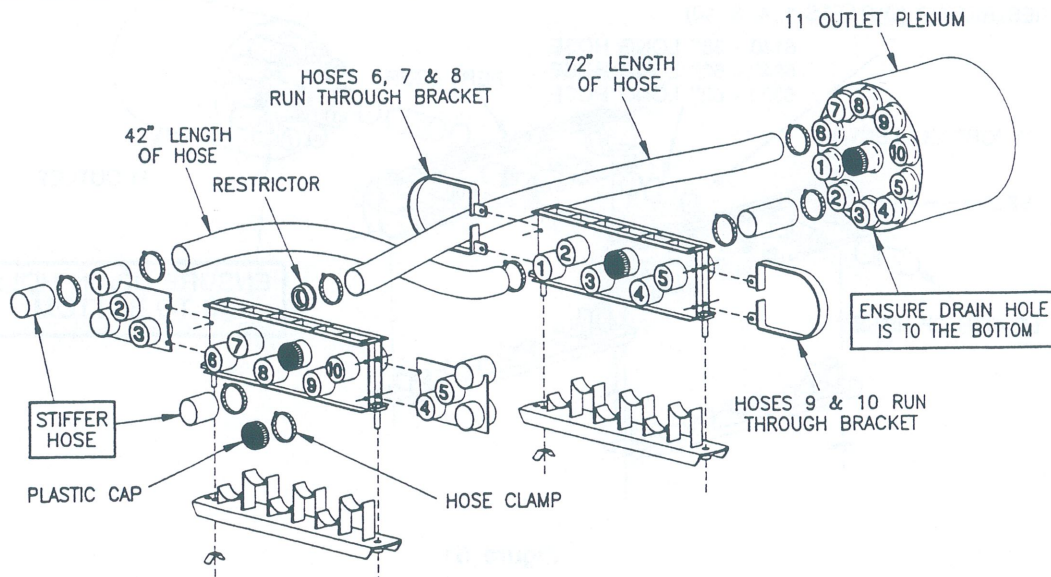


Figure 53

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

41 - 50 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 54). All unused outlets must be sealed using the plastic caps and hose clamps. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

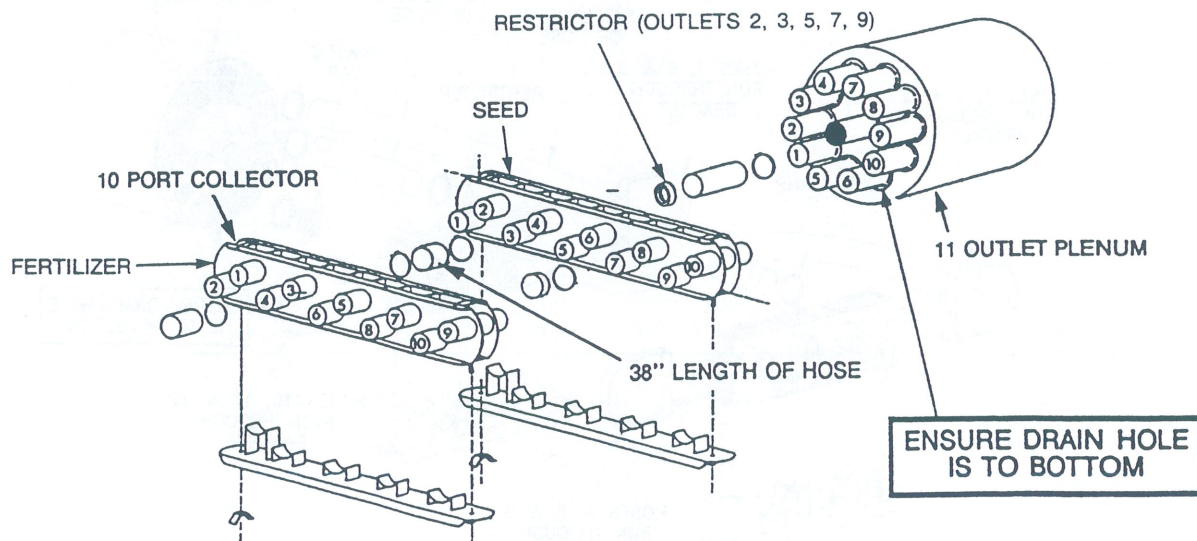


Figure 54

TOW BEHIND

41 - 50 RUN DISTRIBUTION (Model 6180, 6240 & 6300)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 55). Any unused outlets must be sealed using the plastic caps and hose clamps provided. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

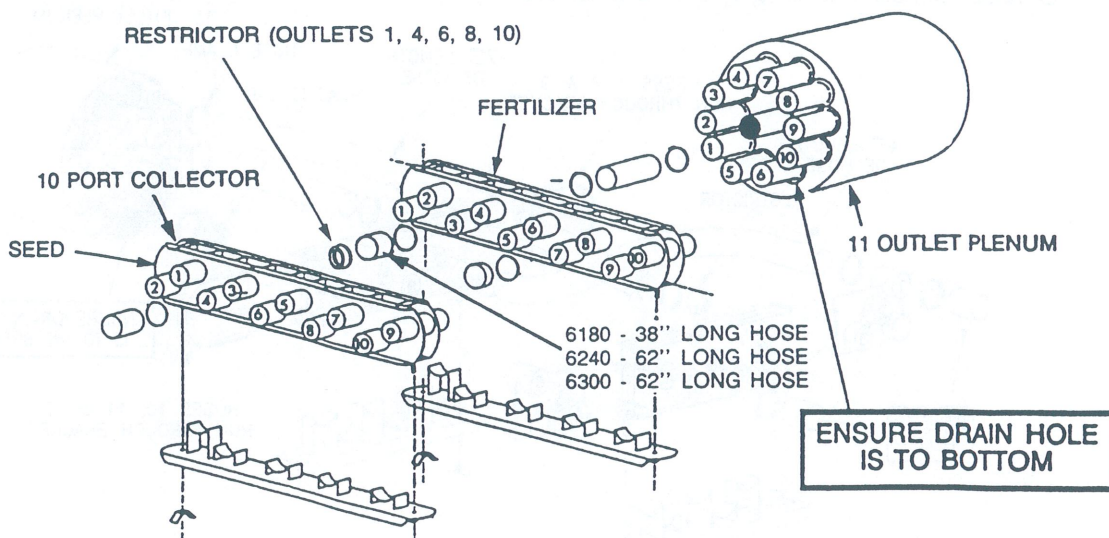


Figure 55

Setup

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

51 - 60 RUN DISTRIBUTION (Model 6130 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 56). All unused outlets must be sealed using the plastic caps and hose clamps. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

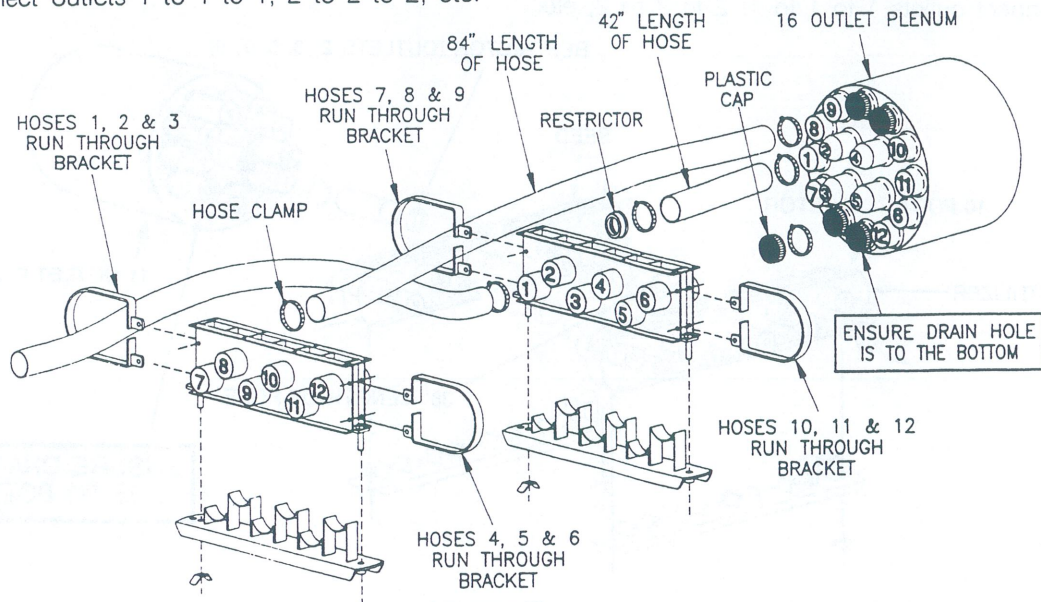


Figure 56

TOW BEHIND

51 - 60 RUN DISTRIBUTION (Model 6130 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 57). Any unused outlets must be sealed using the plastic caps and hose clamps provided. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

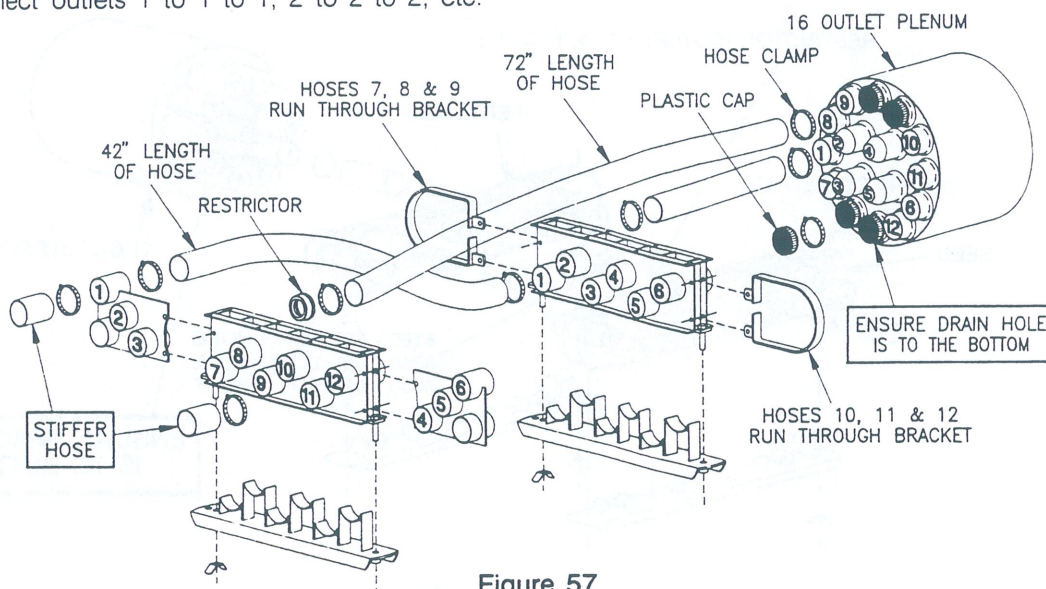


Figure 57

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

51 - 60 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 58). All unused outlets must be sealed using the plastic caps and hose clamps.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

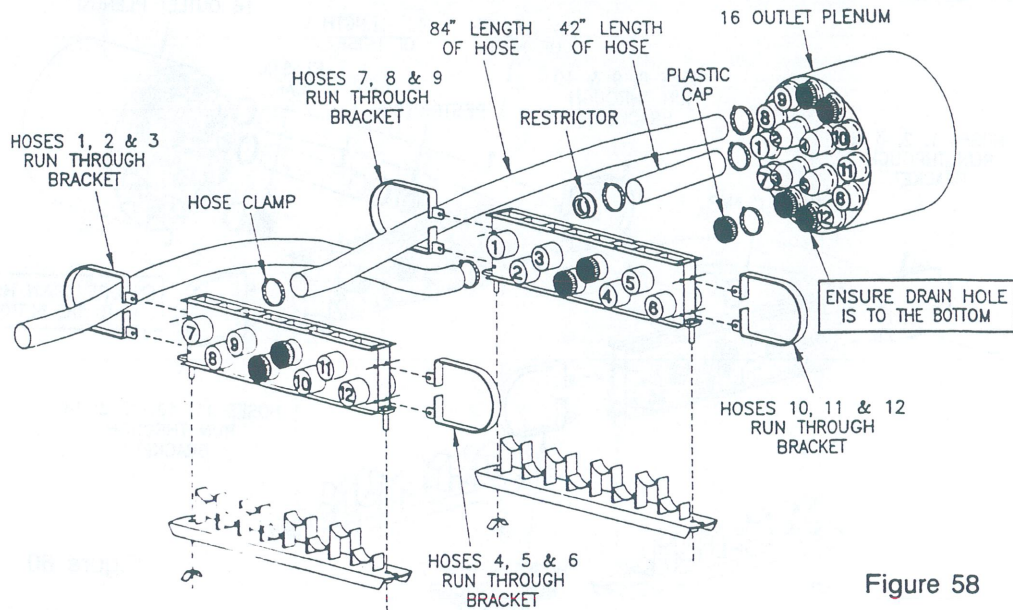


Figure 58

TOW BEHIND

51 - 60 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 59). Any unused outlets must be sealed using the plastic caps and hose clamps provided.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

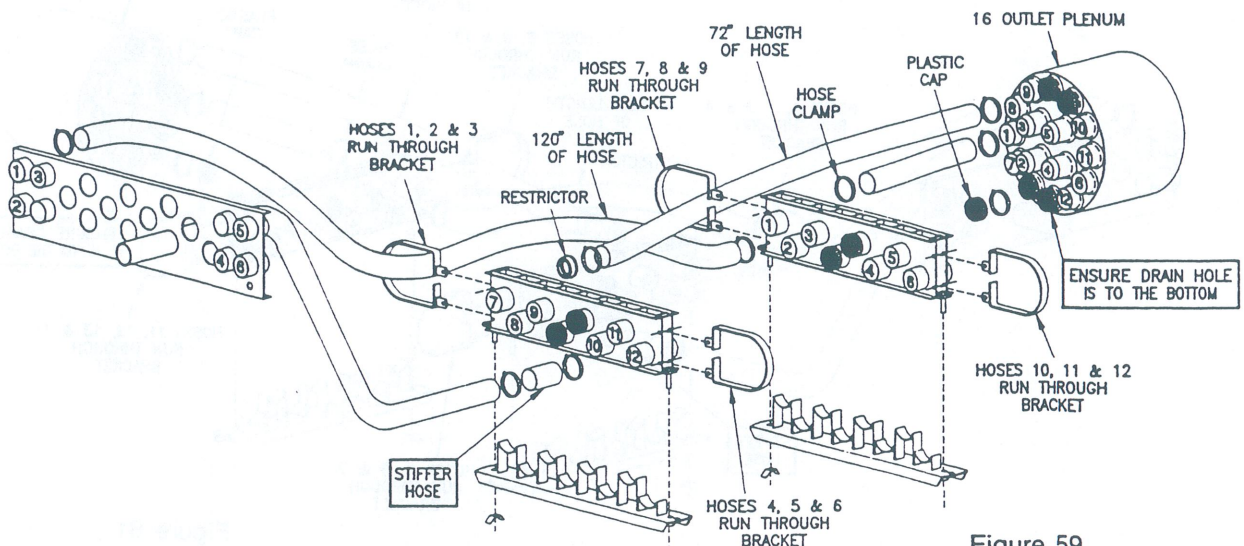


Figure 59

Setup

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

61 - 70 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 60). All unused outlets must be sealed using the plastic caps and hose clamps. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

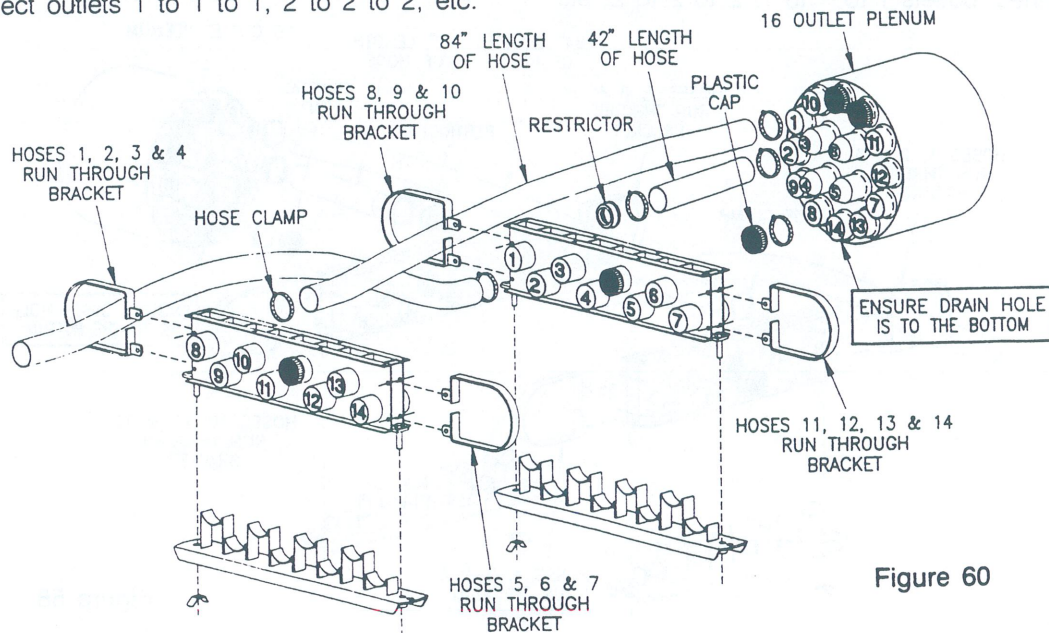


Figure 60

TOW BEHIND

61 - 70 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 61). Any unused outlets must be sealed using the plastic caps and hose clamps provided. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

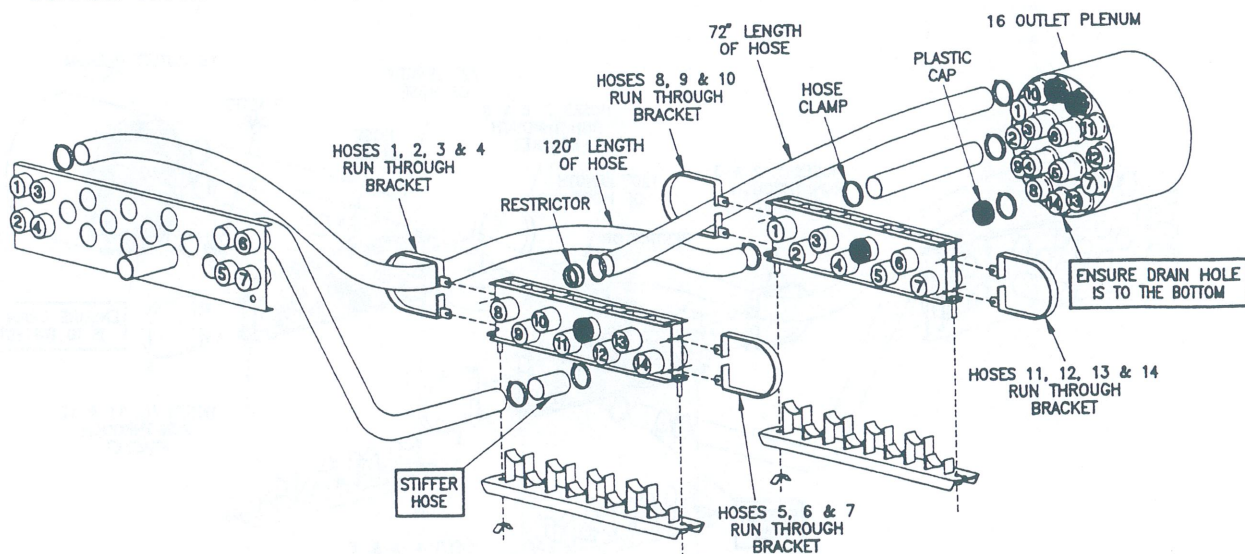


Figure 61

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BETWEEN

71 - 80 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 62). All unused outlets must be sealed using the plastic caps and hose clamps.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

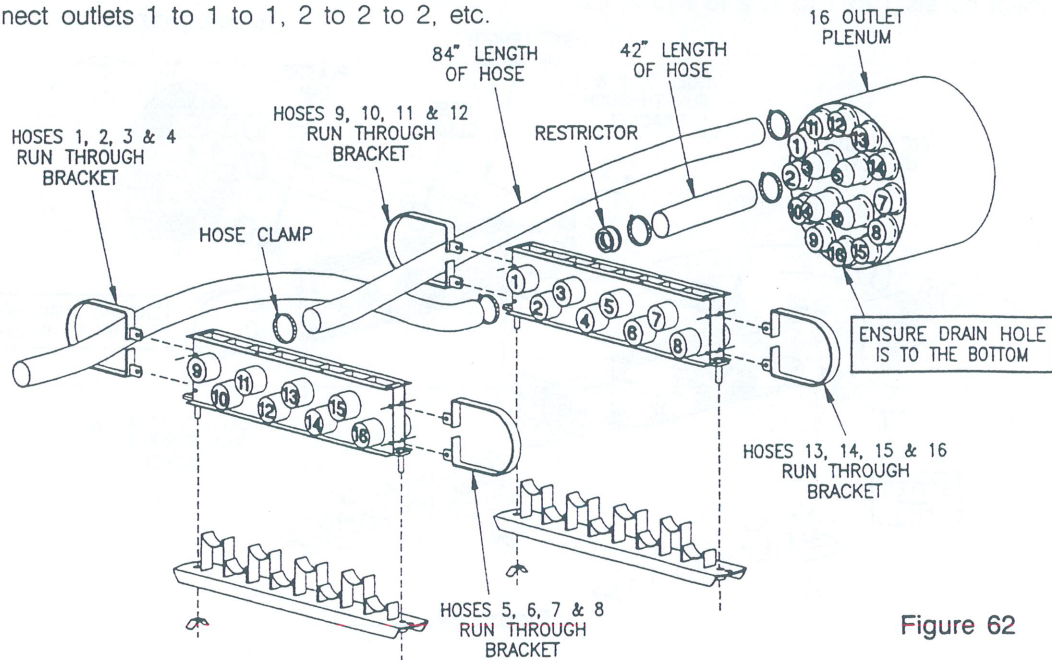


Figure 62

TOW BEHIND

71 - 80 RUN DISTRIBUTION (Model 6180 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 63). Any unused outlets must be sealed using the plastic caps and hose clamps provided.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

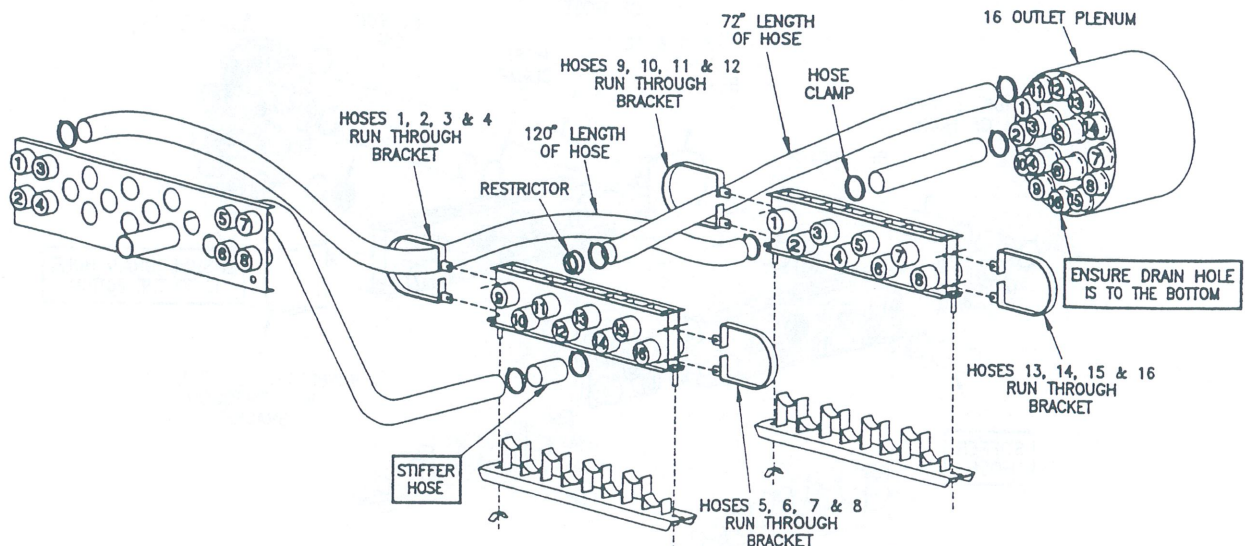


Figure 63

Setup

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BEHIND

51 - 60 RUN DISTRIBUTION (Model 6240 & 6300 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 64). All unused outlets must be sealed using the plastic caps and hose clamps. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

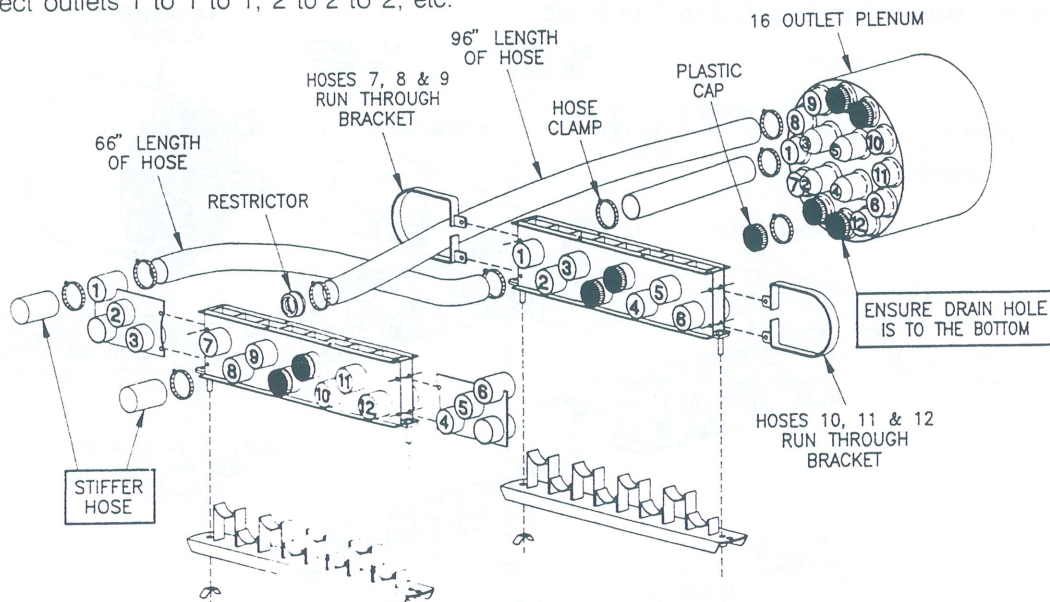


Figure 64

TOW BEHIND

61 - 70 RUN DISTRIBUTION (Model 6240 & 6300 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum. (See Fig. 65). Any unused outlets must be sealed using the plastic caps and hose clamps provided. Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

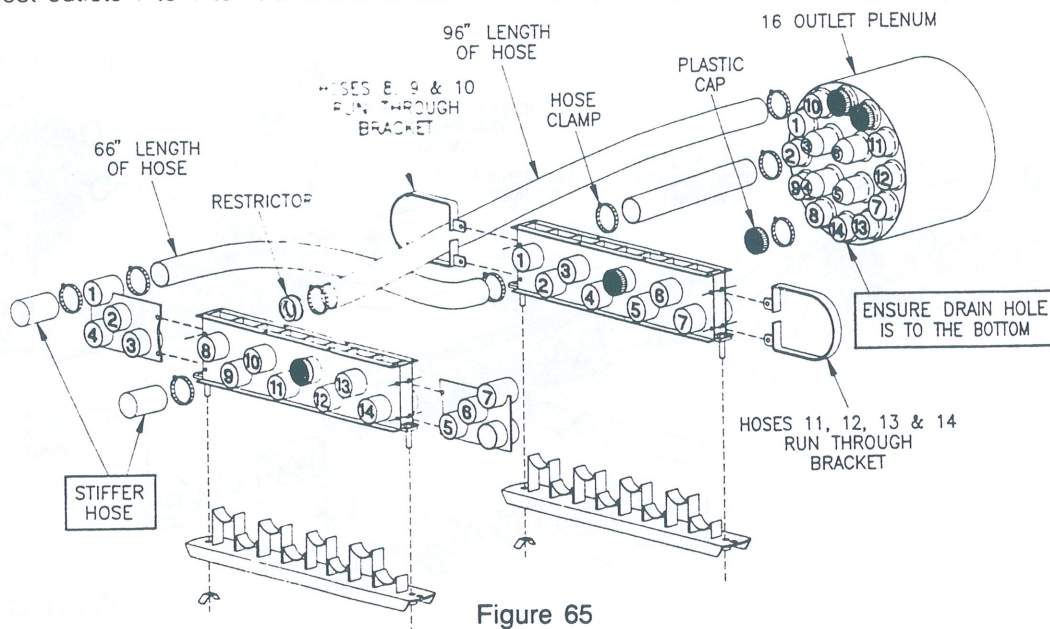


Figure 65

7.7.1 PRIMARY HOSE INSTALLATION (Continued)

TOW BEHIND

71 - 80 RUN DISTRIBUTION (Model 6240 & 6300 Only)

The hoses should be cut to the required length and attached using the following pattern on the plenum (See Fig. 66). All unused outlets must be sealed using the plastic caps and hose clamps.

Connect outlets 1 to 1 to 1, 2 to 2 to 2, etc.

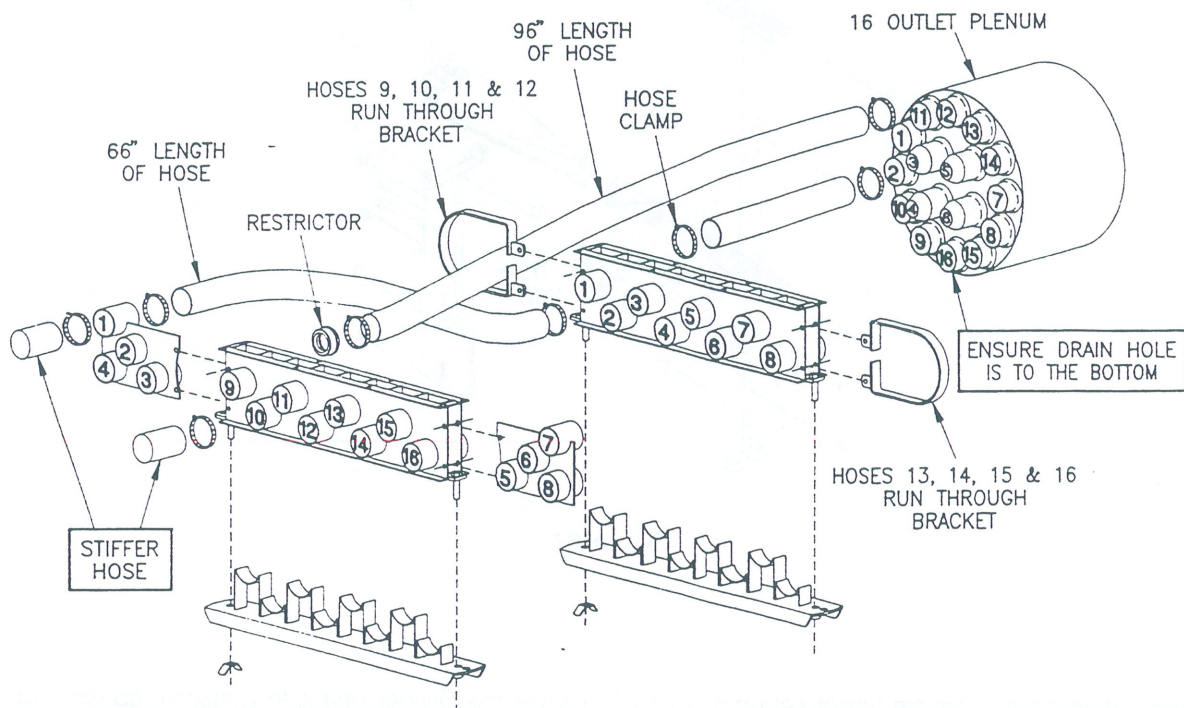


Figure 66

Setup

7.7.2 SECONDARY DIVIDER HEAD INSTALLATION (Continued)

Follow the guidelines as listed in Section 7.6.5 for general set up.

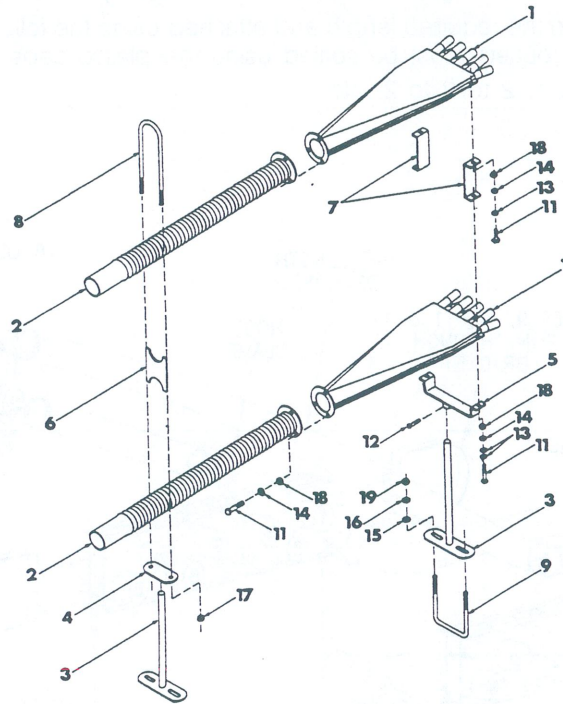


Figure 67

Depending on the Double Shoot set up it is usual to stack the Divider heads to conserve space and prevent interference with other cultivator parts. Illustrated in Fig. 49 is a typical set up for Double Shooting.

Use the schematics in Section 7.6.6 for Divider head locations.

For Double Shooting the heads will be stacked as shown in Fig. 49.