

7000Series Third Tank

Specifications

Third Tank

Specifications and Options

	7032	7042
Fits on Air Seeder Model	7130 - 7180	7240 - 7300
Capacity	30 cu. ft. 24.4 bushels/1,702 lbs.	40 cu. ft. 32.4 bushels/2,257 lbs.
Meter shut-off	Electric (Main)	Electric (Main)
Second clutch (Spot fertilizing on the go)	Optional	Optional
Tank Screens	Optional	Optional
Metering System - Ground Driven	Standard	Standard
Number Secondary Runs	21 to 80	21 to 80
Primary Hose - Diameter	2 1/2"	2 1/2"
Secondary Hose - Diameter	15/16"	15/16"
Tank Walk-Way	Standard	Standard
Easy Clean Out System	Standard	Standard
Monitor -(Shaft Motion and Bin Level)	Quick couples to Air Seeder Monitor Standard	Quick couples to Air Seeder Monitor Standard

Note: 7042 is not available on 7300 Tow Between

Metering System

The 7000 Series Air Cart uses a combination of metering wheels and spacers shown below. 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 seeding tool.

The 7000 Series Air Cart can meter all types of seeds and fertilizers by simply adjusting the slider plates. See "Slider Settings" for more details.

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 into the tanks check the following:

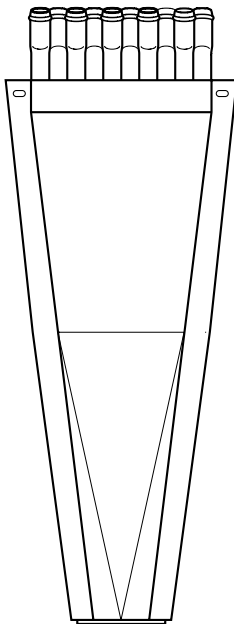
- (a) The slider plates are set correctly for product being applied.
- (b) The Clean-out doors are fully closed and sealed.
- (c) The plastic bag covering the fan is removed.

Important

Ensure distribution system is balanced. It is very important that head outlets only vary by one . (i.e. use only 7 and 8 together, 8 and 9 together, 9 and 10 together)

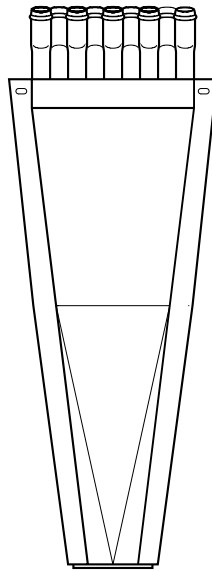
Note: The number of outlets on the divider head must match the metering wheel size.

10 Outlet Head



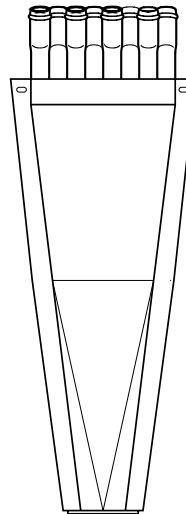
**10 Outlet
Metering Wheel
with no spacer.**

9 Outlet Head



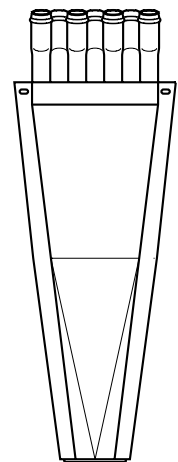
**9 Outlet
Metering Wheel
with a single
spacer.**

8 Outlet Head



**8 Outlet Metering
Wheel with two
single spacers.**

7 Outlet Head



**7 Outlet Metering
Wheel with a
single and one
double spacer.**

Operation

Metering System - Continued

Secondary Hose Installation

The lengths of the 15/16" diameter hoses are **very important**.

For Accurate distribution the secondary hoses have to be arranged by length symmetrically about the centre line.

The **longest** hoses **have to be** in the **centre** of the divider head. These hoses would normally feed the openers furthest away from the head.

- Ensure that the secondary hoses 15/16" diameter do not run higher than 3" above the height of the flat fan divider head.
- Allow an extra 3" of hose before cutting secondary hose for fitting in the seed boot.
- Always ensure that the secondary hoses are sufficiently long to accommodate tripping of trips.
- **Avoid sharp bends** in any of the hoses.
- Check for pinch points and clearances when folding in and out of transport.

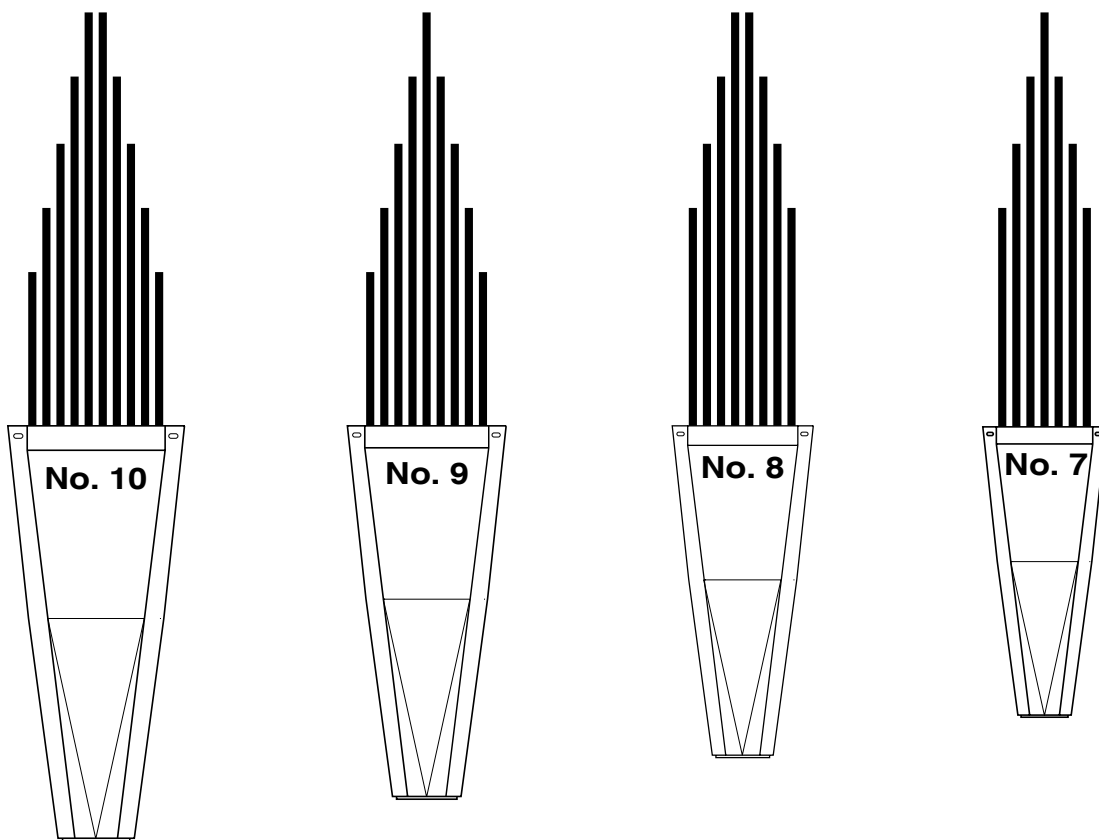
Important

Hot water is the only acceptable lubricant for the installation of the secondary hose.

The supplier advised MORRIS that WD-40 or any other lubricant (i.e. liquid detergent) will have a negative effect on the chemical stability of the hose, resulting in the degradation and failure of the hose due to Environmental Stress Cracking.

Important

Distribution uniformity will be adversely affected if hoses are incorrectly installed.



Slider Setting

The slider plates come in 4 different sizes. Each slider plate matches a specific metering wheel.

Note: The slider plates must match the metering wheel size.

The slider plates have three positions to allow all types of seeds and fertilizers to be metered.

The slider plate positions are **closed**, **open**, and **removed** as indicated on diagrams. (See next page)

- Position slider as indicated below and tighten nut to hold slider tightly in place.
- Position cover plate as indicated below and tighten wing nuts to hold cover plate in place.

Note: For Oats or Coarse Grains, if it appears bridging is occurring, remove sliders and recalibrate.

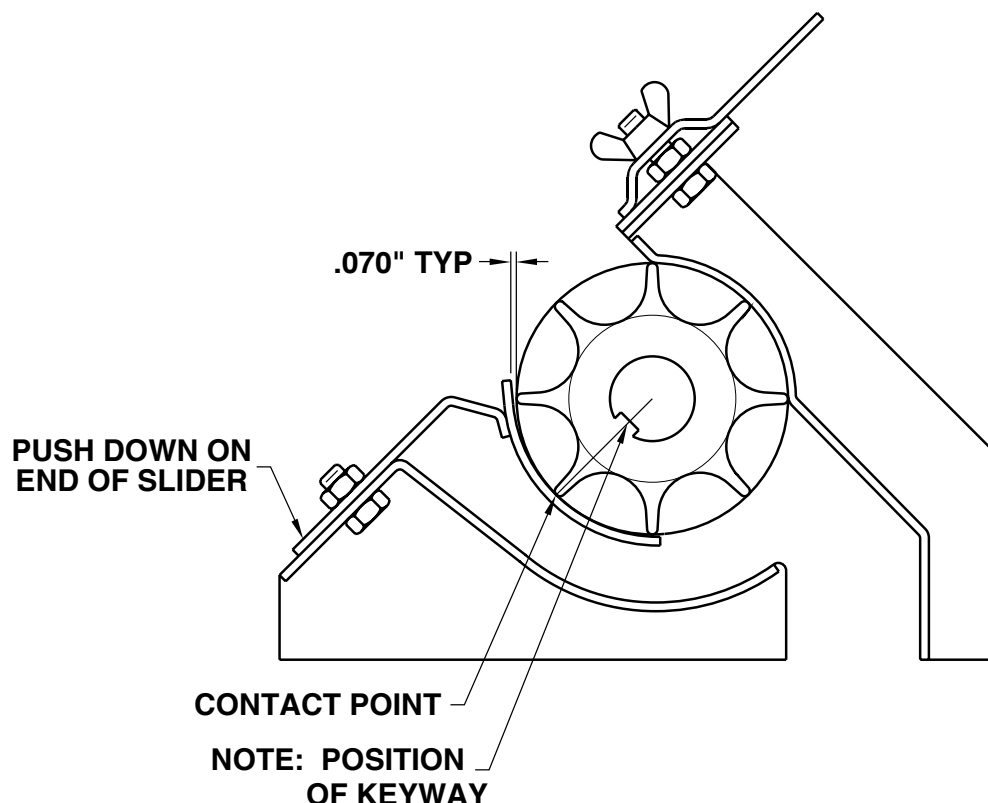
Important

When adjusting the sliders to the closed position follow the procedures below:

- 1) Locate the key-way in the metering wheel. Rotate shaft until high spot is located, this is the key-way location. Mark shaft for future reference.
- 2) Rotate metering shaft until key-way is in location shown below.
- 3) Keep the slider mounting plate flat on the metering body surface. See diagram A.

If the slider is tipped up when set to the closed position interference with the metering wheel will occur.

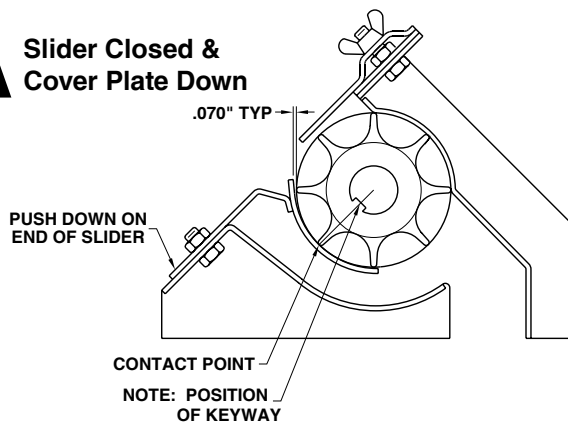
Note: In the closed position there is a gap of .070" between the metering wheel and the top edge of the slider plate.



Operation

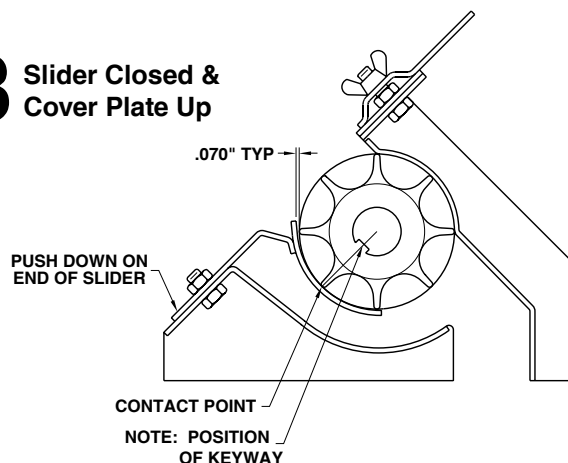
Slider Setting - Continued

A Slider Closed & Cover Plate Down

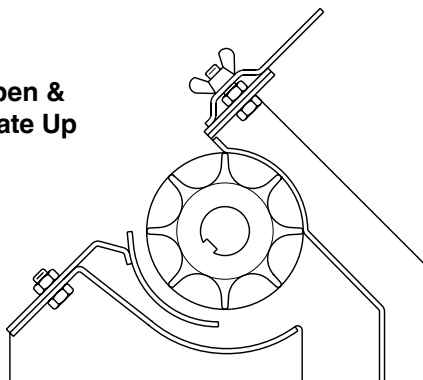


Note: For Oats or Coarse Grains, if it appears bridging is occurring, remove sliders and recalibrate.

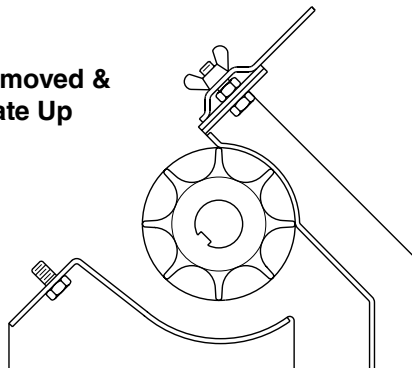
B Slider Closed & Cover Plate Up



C Slider Open & Cover Plate Up



D Slider Removed & Cover Plate Up



Slider Setting Chart

Diagram	Product	Slider Setting	Cover Plate
A	Canola Flax Mustard	Closed	Down
B	Nitragin Nodulator	Closed	Up
C	Barley Lentils Milo Oats Rice Wheat Fine Fertilizer	Open	Up
D	Beans Peas Soybeans Sunflowers 10-46-0-0 11-51-0 Fertilizers containing Sulphur and/or Potash	Removed	Up

Filling Tank

The 7000 Series Third Tank comes in two sizes:

- (1) 7032 Third Tank fits the 7130 and 7180 Air Carts. It has a capacity of 30 cu. ft. which is equivalent to 1702 lbs of 11-51-0 fertilizer.
- (2) 7042 Third Tank fits the 7240 and 7300 Air Carts. It has a capacity of 40 cu. ft. which is equivalent to 2257 lbs of 11-51-0 fertilizer.

Note: Before putting product into the tanks check the following:

- (a) The slider plates are set correctly for product being applied.
 - (b) The Clean-out doors are fully closed and sealed.
 - (c) The plastic bag covering the fan is removed.
- Open lid fully on tank.
 - Check and remove any debris inside tank.
 - Remove clean-out door.
 - Check for debris inside metering body.
 - Check the slider plates are set correctly.
 - Fully close and seal the Clean-out door.
 - Ensure the auger screen is in place.
 - Always use screen to filter debris when filling.
 - Once tank is filled, clean lid seal and ensure lid seal is positioned correctly.
 - Check lid for air leaks with your hands once air seeder fan is operational. See Section 6
 - Check metering body for air leaks.
 - Remove plastic bag which covers fan.

Note: Even small fertilizer lumps can cause problems with plugging. All possible precautions should be taken to prevent lumpy fertilizer from entering the tank.



Warning

Do not enter tank unless another person is present.

Important

Check Metering Wheel keyways in the event the primary lines plug.

Keyways may shear if the collector becomes plugged.



Inspect Metering Body

Operation

Unloading and Cleanout

To empty the Third Tank:

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

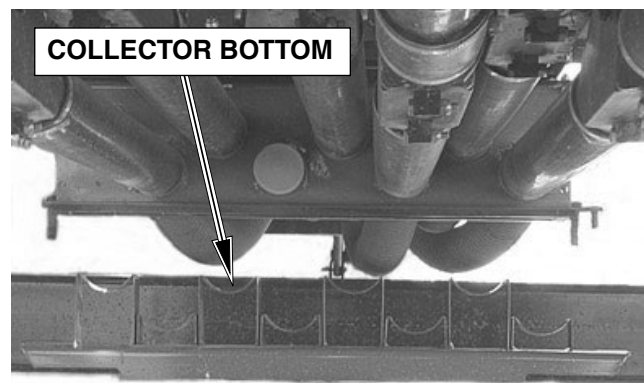
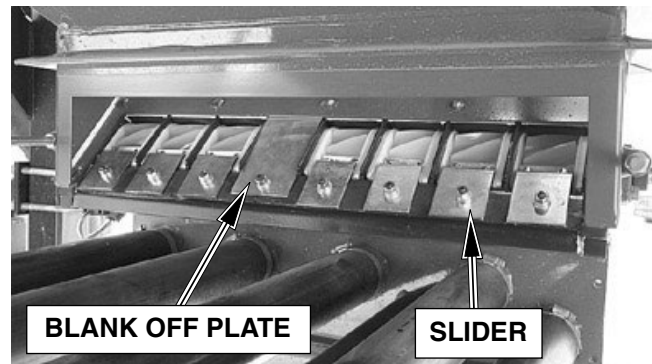
For complete cleanout:

- Remove the collector bottom and cleanout door.
- Run fan.
- Wash the tank interior thoroughly to remove any chemical traces.
- Reinstall the collector bottom and cleanout door.



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.



Metering Rate Adjustment

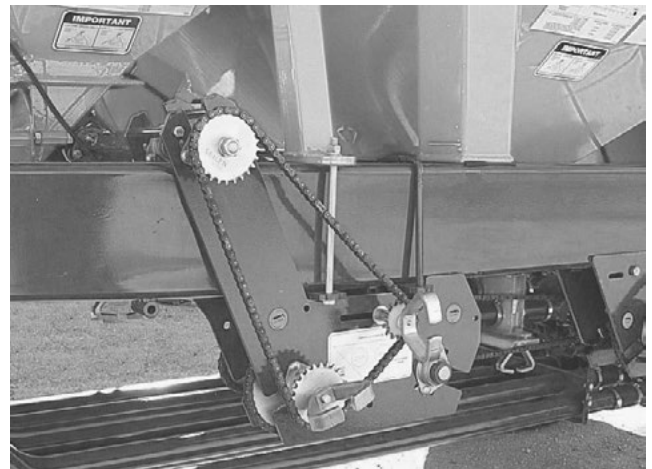
The metering rate adjustment is the same as the Air Seeder. The rate varies with the speed of the metering wheels. A new rate is achieved by changing a sprocket on the Posi-Drive Transmission for the Third Tank.

Refer to the rate charts 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 product size, density, shape, tire pressure and wheel sinkage are all factors that influence the meter rate.

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

Note: Do not over tighten chain, just take slack out of chain.



Transmission

Operation

Rate Charts

Use the rate charts located on the 7000 Series Air Cart.

The charts should only be used as a guide. Specific rates can be achieved by using the rate check method as outlined under *Rate Calibration*.

To determine a seed/fertilizer rate from the chart:

- Go to the desired rate along the line marked "Standard" of a specific graph.
- Go straight up from that point to where that line is intersected by the graph. This will give the sprocket size required to give the particular rate chosen.
- At this intersection go straight across to the vertical line of the graph. This will give the sprocket size required to give the particular rate chosen.
- Change the Quick Change Sprocket and repeat the rate check to confirm the seed rate.
- Repeat the above procedure for the other tank.
- For very low or very high rates, see below.

Note: The rate charts should only be used as a guide. Variation in seed size, density, shape, tire pressure and wheel sinkage are all factors that can influence the seed rate.

Extra Low Rates

Although the charts show a minimum rate of 35 lbs. per acre for fertilizer and 20 lbs. per acre for seed, sometimes this is not low enough, especially when product is being metered from both tanks.

Rates under the values mentioned can be achieved by replacing the standard 25 tooth sprocket on the front of the transmission with either a 35 or 40 tooth sprocket.

The rates obtained when using the 35 and 40 tooth sprocket are shown on the rate charts beside the respective size sprocket.

When both tanks are being used to meter the same product **without** the Banding Kit, then the 25 tooth sprocket on each transmission must be changed. Now both transmissions will have the same size **metershaft** sprocket.

If the **Banding Kit is installed**, then only the 25 tooth sprocket on the **front or rear** transmission needs to be changed.

Rate Charts - Continued

Extra Low Rates - continued

The same metering chain can be used with these larger sprockets up to a certain size of quick change sprocket.

To determine a rate from the chart:

- Go to the desired rate along the line next to the size of metershaft sprocket used.
- Go straight up from that point to where that line is intersected by the graph line of the particular product being metered.
- At this intersection go straight across to the vertical line of the graph. This will give the sprocket size required to give the particular rate chosen.
- Change the quick change sprocket and repeat the rate check to confirm the seed rate.
- Repeat the above procedure for the other tank.

Extra High Rates

In areas where higher rates of product are required the metershaft sprocket is changed from the standard 25 tooth to a 15 tooth.

Use the method described under EXTRA LOW RATES to determine the required metering rate.

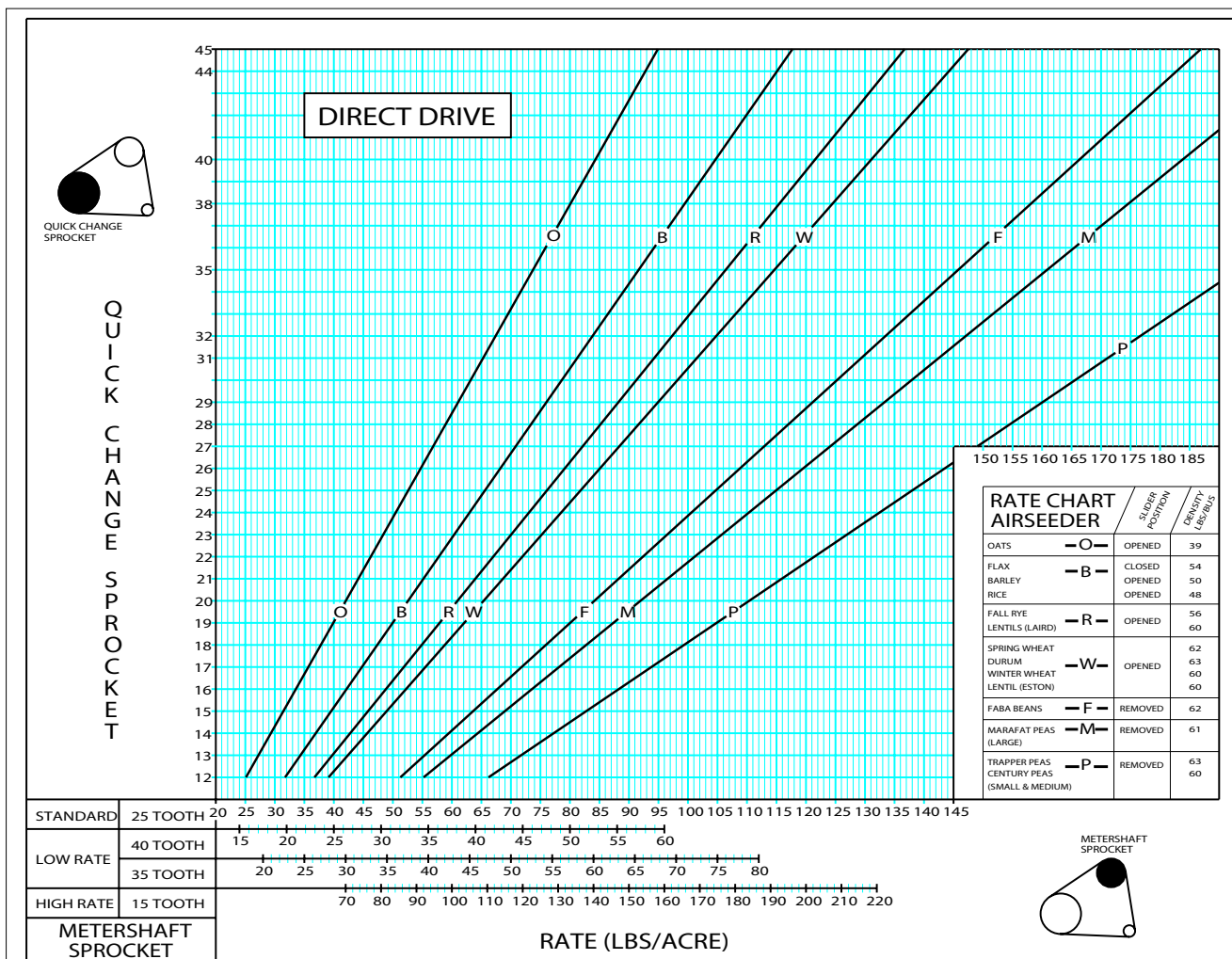
R ate	Metershaft Sprocket Size	Maximum Size of Quick Change Sprocket	Minimum Size of Quick Change Sprocket
Standard	25 Tooth	45 Tooth	12 Tooth
Low Rate (1)	35 Tooth	33 Tooth	12 Tooth
Low Rate (2)	40 Tooth	26 Tooth	12 Tooth
High Rate	15 Tooth	45 Tooth	18 Tooth

Operation

Rate Charts - Continued

Seed Rate Chart

(Located on Front Tank)



NOTE: 1) RATE CHART APPLIES TO 7-1/2", 8", 9", 10" & 12" SPACINGS.

2) CLUTCH OUTPUT SPROCKETS FOR: 7-1/2" SPACING - 12 TOOTH
8" SPACING - 13 TOOTH
9" SPACING - 15 TOOTH
10" SPACING - 17 TOOTH
12" SPACING - 20 TOOTH

3) THIS RATE CHART SHOULD ONLY BE TAKEN AS A GUIDE FOR FINDING THE APPROXIMATE SPROCKET. RATE WILL VARY WITH DIFFERENT MATERIAL DENSITIES AND SEED SIZES. SEE PROCEDURE DESCRIBED IN THE OPERATORS MANUAL TO OBTAIN A PRECISE RATE.

4) THIS RATE CHART IS NOT INDICATIVE OF THE MAXIMUM AMOUNT OF PRODUCT THAT CAN BE APPLIED. CAPACITY WILL VARY WITH GROUND SPEED AND CULTIVATOR WIDTH.

5) **METERSHAFT SPROCKET** **QUICK CHANGE SPROCKETS**

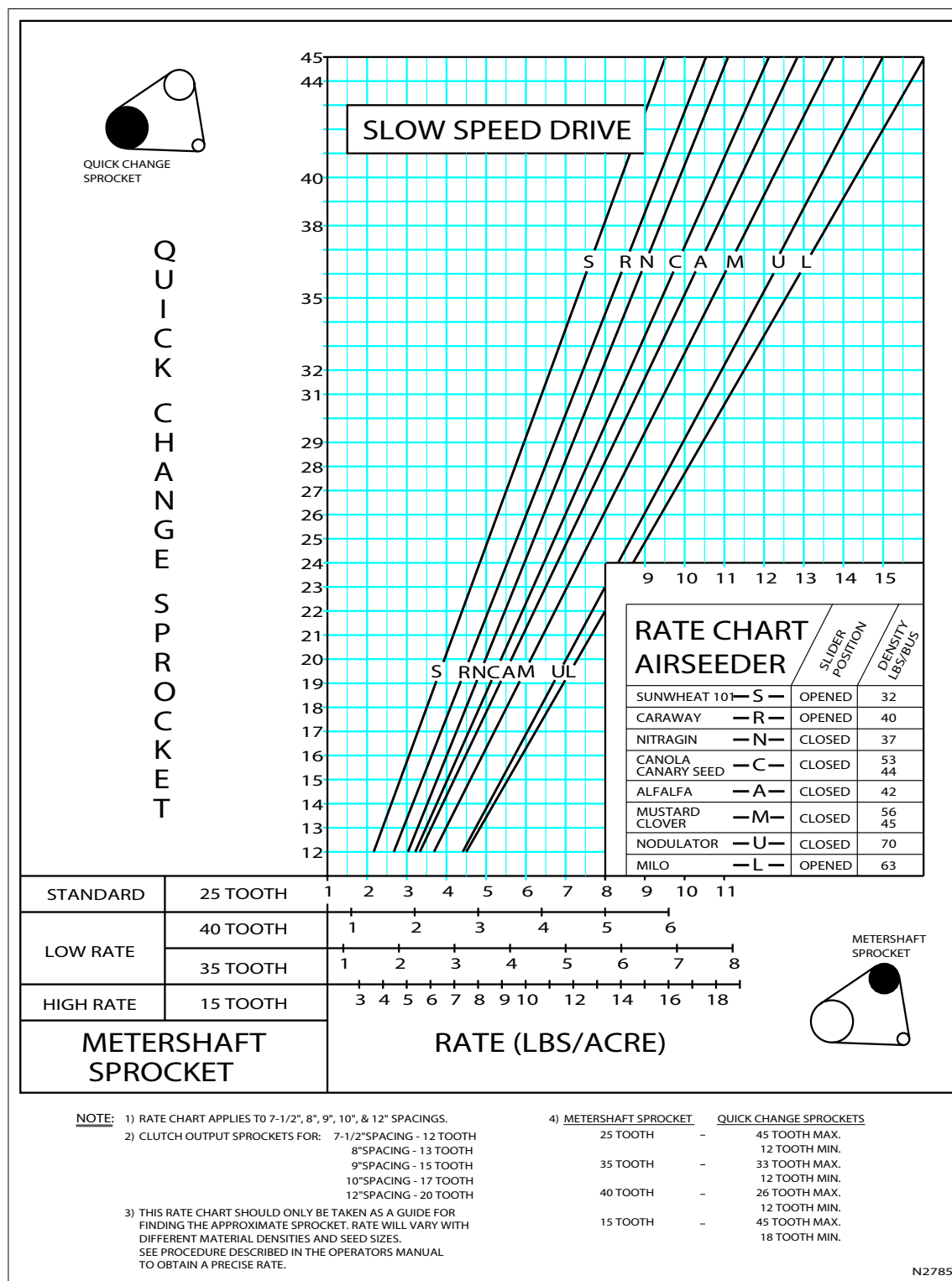
25 TOOTH	-	45 TOOTH MAX. 12 TOOTH MIN.
35 TOOTH	-	33 TOOTH MAX. 12 TOOTH MIN.
40 TOOTH	-	26 TOOTH MAX. 12 TOOTH MIN.
15 TOOTH	-	45 TOOTH MAX. 18 TOOTH MIN.

N27852

Rate Charts - Continued

Seed Rate Chart

(Located on Front Tank)



N27851

Operation

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.

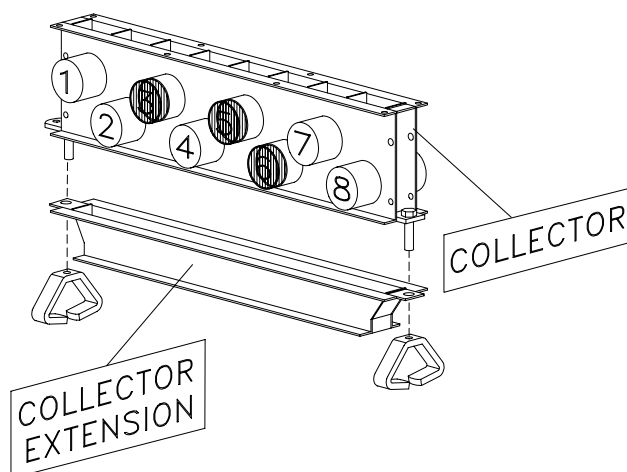
Checking the rate on the 7000 Series Air Cart is very simple.

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

- Refer to calibration chart for the correct number of turns of the crank. (See following pages)
- Remove the wing nuts on the collector bottom.
- Remove the bottom of the collector and install the collector extension with the wing nuts.
- Remove the metering chain from the other transmissions that are **not** being checked.
- Check that the desired rate change sprocket is installed in the transmission.
- Turn the crank until material begins to fall through the collector extension.
- Slide rate check box onto the collector extension.
- Turn the crank in direction of the arrow (Counter Clockwise) the required number of turns.

Note: Incorrect rates will occur if crank is rotated clockwise.

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



For **Fine Seeds** it is recommended to take a large 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 with a 7130:

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.

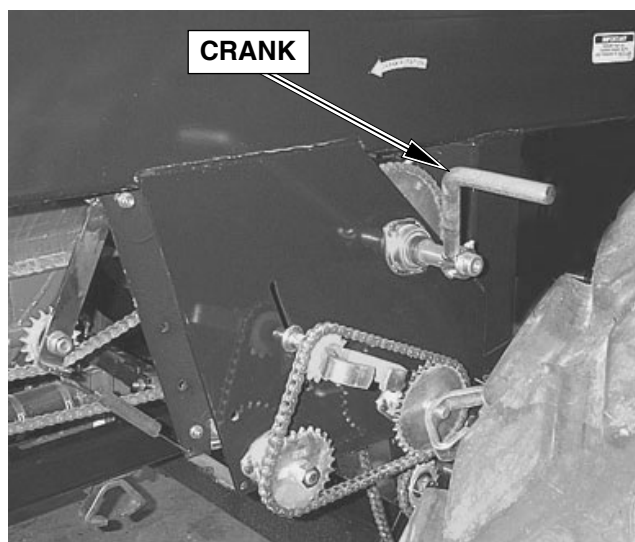
From the chart on page 5-18

Turns required for 1/10 acre = 21.08

Turns required for 1/2 acre = 21.08 x 5 = 105.4

Rate = lbs/acre

= 1/2 acre sample weight (lbs.) x 2



Rate Calibration - continued

- Weigh the sample by using tarp straps to hook rate check box to spring scale.

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

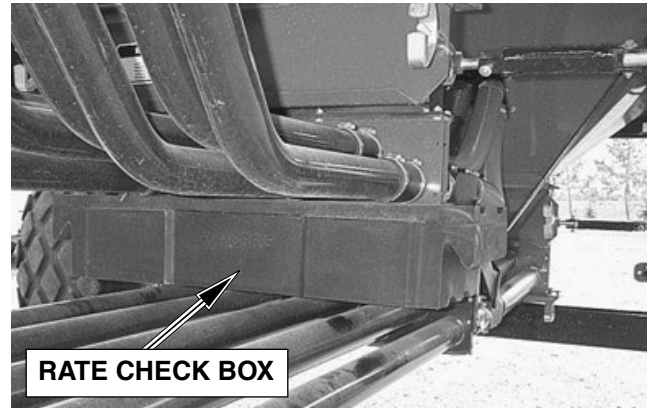
- Check this rate against rate required.

For 1/10 acre sample:

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

- 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.
- Replace the bottom of the collector.

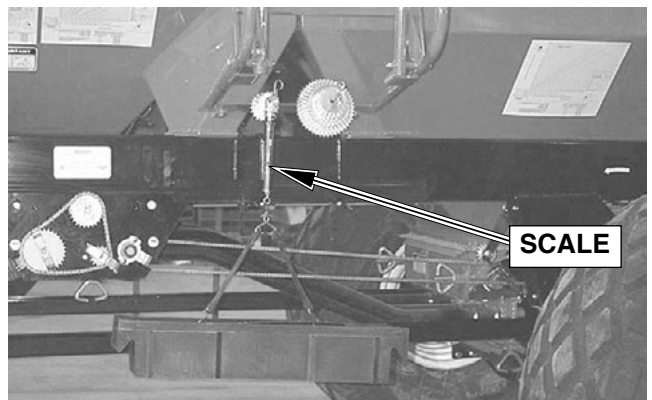
Note: Arrow directions on the collector bottom must point in the same direction as the ones on the collector body.



Alternative Rate Calibration

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

See the Monitor Section 6 (Application Rate) in the 7000 Series Air Cart Manual. 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

Imperial Rate Calibration Chart

7130 and 7180

Calibration Chart based on 1/10 of an Acre.

W = Machine Width (Feet)

F = Optional Mechanical Acre Tally Factor = 56/R

R = Crank Rotation - turns

for 1/10 acre = 527.1/W for 7130 with 16.5 x 16.1 All Weather Tires.

for 1/10 acre = 464.6/W for 7130 & 7180 with 21.5 x 16.1 All Weather Tires.

for 1/10 acre = 460.8/W for 7180 with 21.5 x 16.1 Sure Grip Tires.

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

$$\text{New Crank Rotations} = \left(\frac{D \times 12}{\text{Tire Circumference}} \right) \times \frac{48}{15} \times \frac{18}{48}$$

See Rear of book for
Metric calibration chart.

7000 Series Air Seeder															
IMPERIAL RATE CALIBRATION CHART															
WIDTH [W] (ft)	AIRSEEDER MODEL						DISTANCE [D] (ft)	WIDTH [W] (ft)	AIRSEEDER MODEL						DISTANCE [D] (ft)
	7130		7180						7130		7180				
	Tire 16.5 x 16.1		Tire 21.5 x 16.1		Sure GripTire 21.5 x 16.1				Tire 16.5 x 16.1		Tire 21.5 x 16.1		Sure GripTire 21.5 x 16.1		
	[R]	[F]	[R]	[F]	[R]	[F]			[R]	[F]	[R]	[F]	[R]	[F]	
21	25.10	2.23	22.13	2.53	21.94	2.55	207.43	51	10.34	5.42	9.11	6.15	9.03	6.20	85.41
22	23.96	2.34	21.12	2.65	20.94	2.67	198.00	52	10.14	5.52	8.94	6.26	8.86	6.32	83.77
23	22.92	2.44	20.20	2.77	20.03	2.80	189.39	53	9.95	5.63	8.77	6.39	8.69	6.44	82.19
24	21.96	2.55	19.36	2.89	19.20	2.92	181.50	54	9.76	5.74	8.60	6.51	8.53	6.57	80.67
25	21.08	2.66	18.59	3.01	18.43	3.04	174.24	55	9.58	5.85	8.45	6.63	8.38	6.68	79.20
26	20.27	2.76	17.87	3.13	17.72	3.16	167.54	56	9.41	5.95	8.30	6.75	8.23	6.80	77.79
27	19.52	2.87	17.21	3.25	17.06	3.28	161.33	57	9.25	6.05	8.15	6.87	8.08	6.93	76.42
28	18.83	2.97	16.59	3.38	16.45	3.40	155.57	58	9.09	6.16	8.01	6.99	7.94	7.05	75.10
29	18.18	3.08	16.02	3.50	15.89	3.52	150.21	59	8.93	6.27	7.88	7.11	7.81	7.17	73.83
30	17.57	3.19	15.49	3.62	15.36	3.65	145.20	60	8.79	6.37	7.74	7.24	7.68	7.29	72.60
31	17.00	3.29	14.99	3.74	14.86	3.77	140.52	61	8.64	6.48	7.62	7.35	7.55	7.42	71.41
32	16.47	3.40	14.52	3.86	14.40	3.89	136.13	62	8.50	6.59	7.49	7.48	7.43	7.54	70.26
33	15.97	3.51	14.08	3.98	13.96	4.01	132.00	63	8.37	6.69	7.38	7.59	7.31	7.66	69.14
34	15.50	3.61	13.67	4.10	13.55	4.13	128.12	64	8.24	6.80	7.26	7.71	7.20	7.78	68.06
35	15.06	3.72	13.28	4.22	13.16	4.26	124.46	65	8.11	6.91	7.15	7.83	7.09	7.90	67.02
36	14.64	3.83	12.91	4.34	12.80	4.38	121.00	66	7.99	7.01	7.04	7.95	6.98	8.02	66.00
37	14.25	3.93	12.56	4.46	12.45	4.50	117.73	67	7.87	7.12	6.93	8.08	6.88	8.14	65.01
38	13.87	4.04	12.23	4.58	12.12	4.62	114.63	68	7.75	7.23	6.83	8.20	6.78	8.26	64.06
39	13.52	4.14	11.91	4.70	11.81	4.74	111.69	69	7.64	7.33	6.73	8.32	6.68	8.38	63.13
40	13.18	4.25	11.62	4.82	11.52	4.86	108.90	70	7.53	7.44	6.64	8.43	6.58	8.51	62.23
41	12.86	4.35	11.33	4.94	11.24	4.98	106.24	71	7.42	7.55	6.54	8.56	6.49	8.63	61.35
42	12.55	4.46	11.06	5.06	10.97	5.10	103.71	72	7.32	7.65	6.45	8.68	6.40	8.75	60.50
43	12.26	4.57	10.81	5.18	10.71	5.23	101.30	73	7.22	7.76	6.36	8.81	6.31	8.87	59.67
44	11.98	4.67	10.56	5.30	10.47	5.35	99.00	74	7.12	7.87	6.28	8.92	6.23	8.99	58.86
45	11.71	4.78	10.33	5.42	10.24	5.47	96.80	75	7.03	7.97	6.20	9.03	6.14	9.12	58.08
46	11.46	4.89	10.10	5.54	10.02	5.59	94.70	76	6.94	8.07	6.11	9.17	6.06	9.24	57.32
47	11.21	5.00	9.89	5.66	9.80	5.71	92.68	77	6.85	8.18	6.03	9.29	5.98	9.36	56.57
48	10.98	5.10	9.68	5.79	9.60	5.83	90.75	78	6.76	8.28	5.96	9.40	5.91	9.48	55.85
49	10.76	5.20	9.48	5.91	9.40	5.96	88.90	79	6.67	8.40	5.88	9.52	5.83	9.61	55.14
50	10.54	5.31	9.29	6.03	9.21	6.08	87.12	80	6.59	8.50	5.81	9.64	5.76	9.72	54.45

Imperial Rate Calibration Chart

7180, 7240, 7252 and 7300

Calibration Chart based on 1/10 of an Acre.

W = Machine Width (Feet)

F = Optional Mechanical Acre Tally Factor = 56/R

R = Crank Rotation - turns

for 1/10 acre = 368.9/W for 7180 with 18.4 x 26 All Weather Tires.

for 1/10 acre = 348.5/W for 7240, 7252 & 7300 with 23.1 x 26 All Weather Tires.

for 1/10 acre = 316.8/W for 7240, 7252 & 7300 with 23.1 x 26 Rice Tires.

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

$$\text{New Crank Rotations} = \left(\frac{D \times 12}{\text{Tire Circumference}} \right) \times \frac{48}{15} \times \frac{18}{48}$$

See Rear of book for
Metric calibration chart.

7000 Series Air Seeder IMPERIAL RATE CALIBRATION CHART																	
WIDTH		AIRSEEDER MODEL						DISTANCE	WIDTH		AIRSEEDER MODEL						DISTANCE
[W]	7180		7240/7252/7300				[D]	[W]	7180		7240/7252/7300				[D]		
	Tire		Tire		Rice Tire				Tire		Tire		Rice Tire				
	18.4 x 26		23.1 x 26		23.1 x 26				18.4 x 26		23.1 x 26		23.1 x 26				
(ft)	[R]	[F]	[R]	[F]	[R]	[F]	(ft)	(ft)	[R]	[F]	[R]	[F]	[R]	[F]	(ft)		
21	17.57	3.19	16.59	3.38	15.09	3.71	207.43	51	7.23	7.75	6.83	8.20	6.21	9.02	85.41		
22	16.77	3.34	15.84	3.54	14.40	3.89	198.00	52	7.09	7.90	6.70	8.36	6.09	9.20	83.77		
23	16.04	3.49	15.15	3.70	13.77	4.07	189.39	53	6.96	8.05	6.57	8.52	5.98	9.36	82.19		
24	15.37	3.64	14.52	3.86	13.20	4.24	181.50	54	6.83	8.20	6.45	8.68	5.87	9.54	80.67		
25	14.76	3.79	13.94	4.02	12.67	4.42	174.24	55	6.71	8.35	6.34	8.83	5.76	9.72	79.20		
26	14.19	3.95	13.40	4.18	12.18	4.60	167.54	56	6.59	8.50	6.22	9.00	5.66	9.89	77.79		
27	13.66	4.10	12.91	4.34	11.73	4.77	161.33	57	6.47	8.66	6.11	9.17	5.56	10.07	76.42		
28	13.18	4.25	12.44	4.50	11.31	4.95	155.57	58	6.36	8.81	6.01	9.32	5.46	10.26	75.10		
29	12.72	4.40	12.02	4.66	10.92	5.13	150.21	59	6.25	8.96	5.91	9.48	5.37	10.43	73.83		
30	12.30	4.55	11.62	4.82	10.56	5.30	145.20	60	6.15	9.11	5.81	9.64	5.28	10.61	72.60		
31	11.90	4.71	11.24	4.98	10.22	5.48	140.52	61	6.05	9.26	5.71	9.81	5.19	10.79	71.41		
32	11.53	4.86	10.89	5.14	9.90	5.66	136.13	62	5.95	9.41	5.62	9.96	5.11	10.96	70.26		
33	11.18	5.01	10.56	5.30	9.60	5.83	132.00	63	5.86	9.56	5.53	10.13	5.03	11.13	69.14		
34	10.85	5.16	10.25	5.46	9.32	6.01	128.12	64	5.76	9.72	5.44	10.29	4.95	11.31	68.06		
35	10.54	5.31	9.96	5.62	9.05	6.19	124.46	65	5.68	9.86	5.36	10.45	4.87	11.50	67.02		
36	10.25	5.46	9.68	5.79	8.80	6.36	121.00	66	5.59	10.02	5.28	10.61	4.80	11.67	66.00		
37	9.97	5.62	9.42	5.94	8.56	6.54	117.73	67	5.51	10.16	5.20	10.77	4.73	11.84	65.01		
38	9.71	5.77	9.17	6.11	8.34	6.71	114.63	68	5.43	10.31	5.12	10.94	4.66	12.02	64.06		
39	9.46	5.92	8.93	6.27	8.12	6.90	111.69	69	5.35	10.47	5.05	11.09	4.59	12.20	63.13		
40	9.22	6.07	8.71	6.43	7.92	7.07	108.90	70	5.27	10.63	4.98	11.24	4.53	12.36	62.23		
41	9.00	6.22	8.50	6.59	7.73	7.24	106.24	71	5.20	10.77	4.91	11.41	4.46	12.56	61.35		
42	8.78	6.38	8.30	6.75	7.54	7.43	103.71	72	5.12	10.94	4.84	11.57	4.40	12.73	60.50		
43	8.58	6.53	8.10	6.91	7.37	7.60	101.30	73	5.05	11.09	4.77	11.74	4.34	12.90	59.67		
44	8.38	6.68	7.92	7.07	7.20	7.78	99.00	74	4.99	11.22	4.71	11.89	4.28	13.08	58.86		
45	8.20	6.83	7.74	7.24	7.04	7.95	96.80	75	4.92	11.38	4.65	12.04	4.22	13.27	58.08		
46	8.02	6.98	7.58	7.39	6.89	8.13	94.70	76	4.85	11.55	4.58	12.23	4.17	13.43	57.32		
47	7.85	7.13	7.41	7.56	6.74	8.31	92.68	77	4.79	11.69	4.53	12.36	4.11	13.63	56.57		
48	7.69	7.28	7.26	7.71	6.60	8.48	90.75	78	4.73	11.84	4.47	12.53	4.06	13.79	55.85		
49	7.53	7.44	7.11	7.88	6.47	8.66	88.90	79	4.67	11.99	4.41	12.70	4.01	13.97	55.14		
50	7.38	7.59	6.97	8.03	6.34	8.83	87.12	80	4.61	12.15	4.36	12.84	3.96	14.14	54.45		

Operation

Seeding Fine Seeds (Canola, Mustard, etc.)

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.

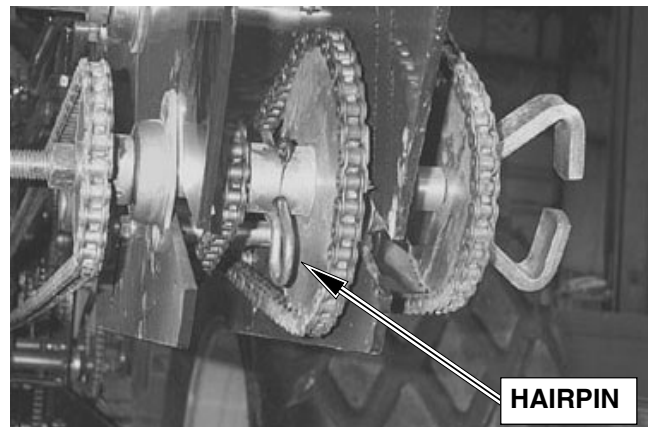
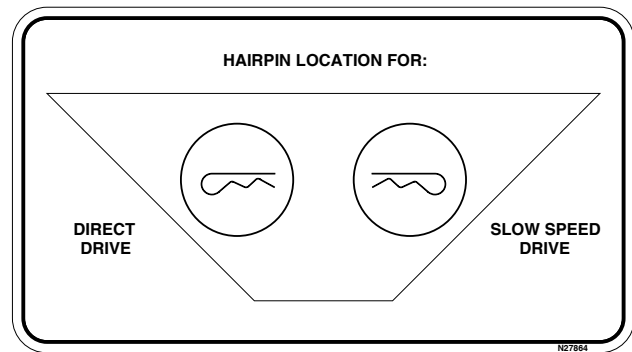
The slow speed transmission is incorporated in the **FRONT** Posi-Drive Transmission.

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

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

- 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 rpm when seeding fine seeds. See *Fan Speed* for specific fan speeds.

Note: Seed must be placed in the front tank.



Applying Inoculant

When inoculant is applied at the time of seeding, then once the Air Cart has been filled, the fill-lids should be left open and the fan run for 5-10 minutes at full rpm to dry the seed.

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

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

Lubrication

Greasing pivot points prevents wear and helps restrict dirt from entering. However, once dirt does enter a bearing, it combines with the lubricant and becomes an abrasive grinding paste, more destructive than grit alone.

- Apply new lubricant frequently during operation to flush out old contaminated lubricant.
- Use a good grade of **lithium based grease**.
- Use a good grade of machine oil.
- Clean grease fittings and lubricator gun before applying lubricant.

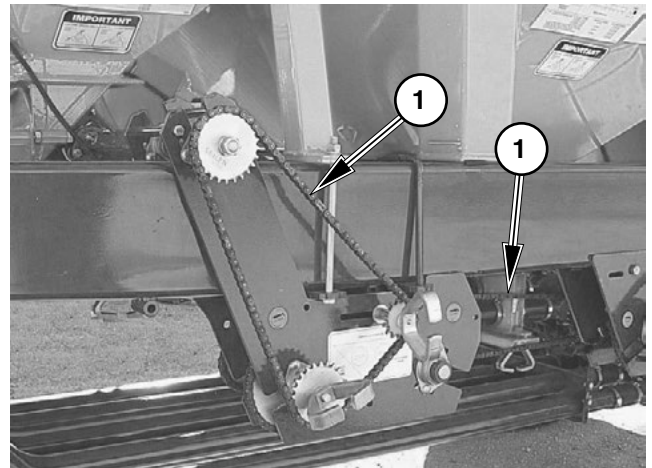
Refer to the photo below for grease fitting locations.

1. Drive Chains

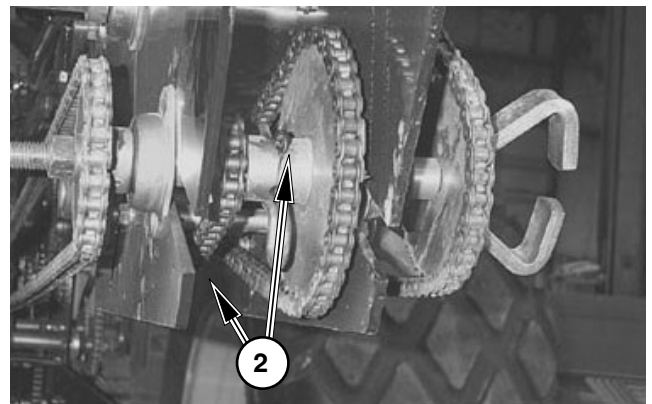
- Oil every 50 hours.

2. Slow Speed Drive

- Oil every 50 hours.



1. Drive Chains



2. Slow Speed Drive

Maintenance

Daily Maintenance

(Every 10 Hours)

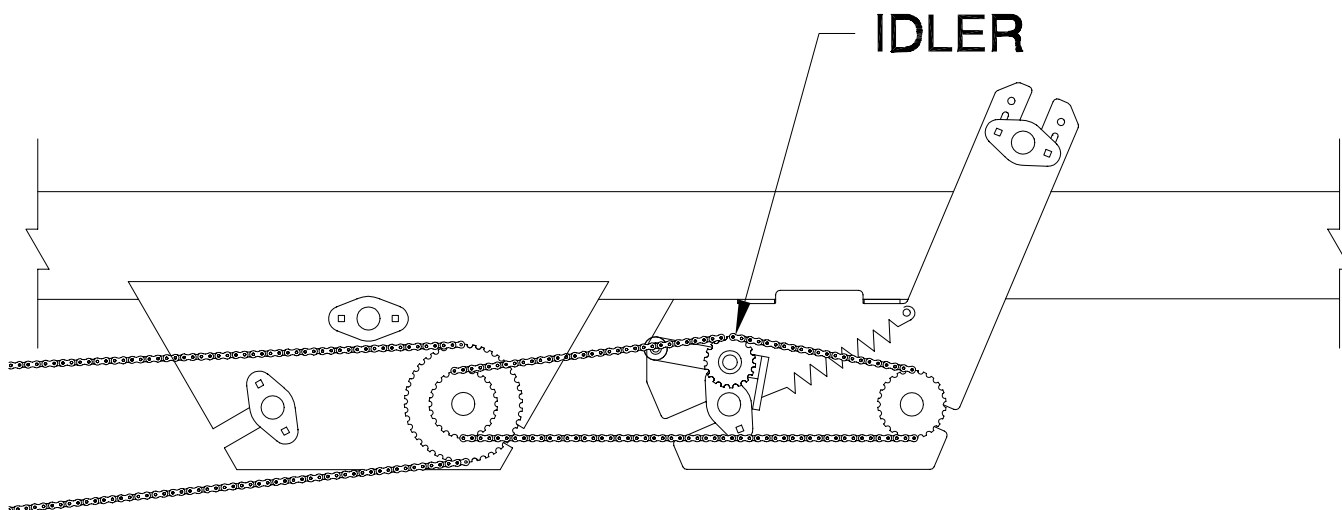
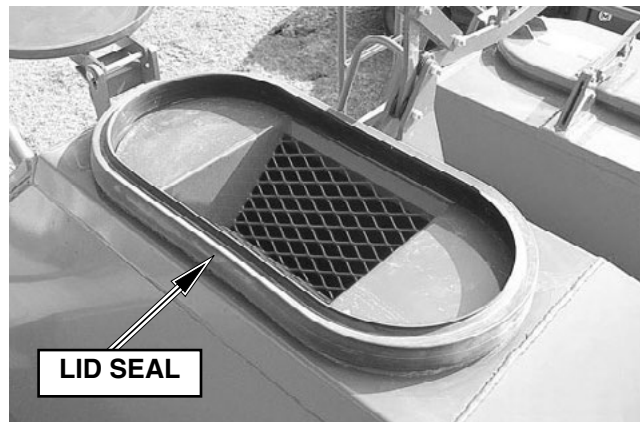
- Check for and remove any water in primary collectors after rainy weather. Remove cleanout door and collector bottom to drain water from the tanks and collectors.
- Reinstall collector bottom and cleanout door.

Important: Care must be taken when reinstalling collector bottoms to prevent damage to the inside of the collector.

- 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.

- Check lid seals for damage, and that they are sitting properly on the steel rings.
- Check plenum and metering body for leaks.
- Check that cleanout doors are sealed.
- Check that all monitor sensor wires are properly routed and retained.
- Check for plugged hoses.
- Assure drive chains are cleared of debris.



Air System Maintenance

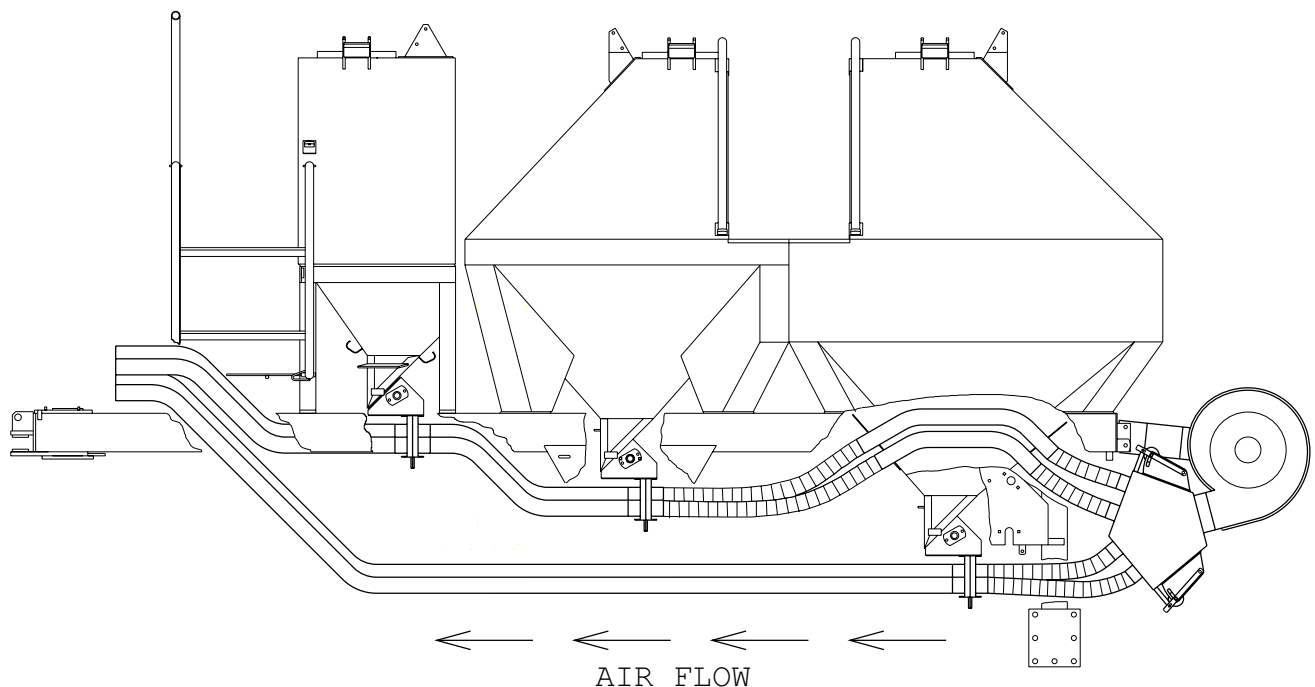
- Regularly check that all hoses are free from kinks or blockages.
- Keep fan inlet screen clear and free from debris.
- Place a plastic bag over the fan when the unit is not in use. This helps prevent moisture from entering the system.
- Check periodically and at the end of each season for air leaks at hose connections.
- Check periodically and at the end of each season for air leaks at the following:
 1. Lid Seals.
 2. Metering body to tank interface.
 3. Collector to metering body interface.
 4. Fan to plenum.
 5. Plenum to collector.
 6. Cleanout doors.
 7. Couplers between seeder and cultivator.



Caution

Care should be taken when working near the Air Seeder while the fan is running. Product blowing out of the system could cause personal injury.

Note: There must not be any air leaks from the tank. Air leakage causes air turbulence in the tank which can result in inaccurate metering rates.



CAUTION



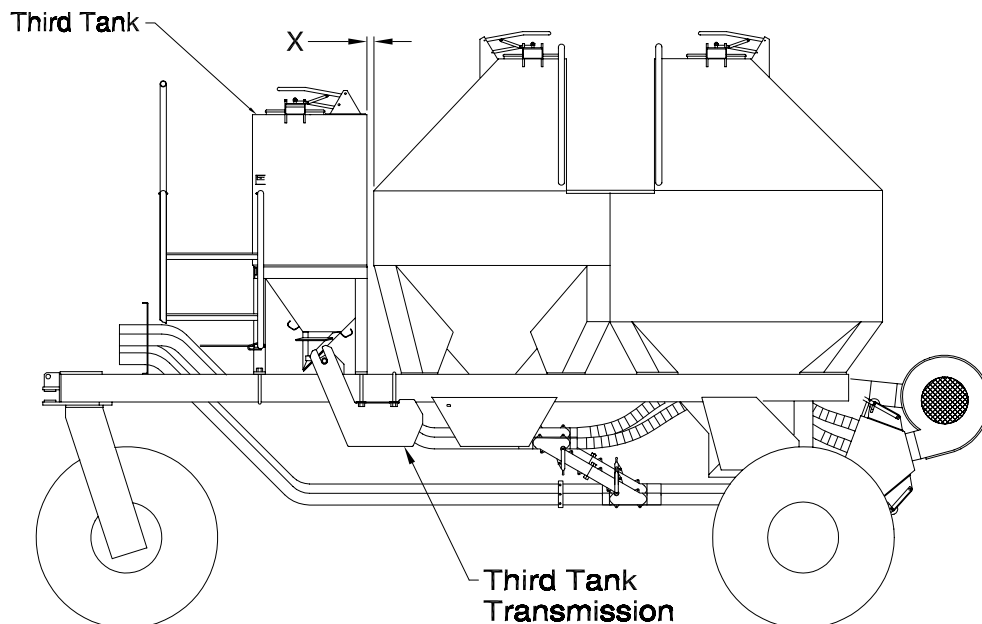
BE ALERT

SAFETY FIRST

**REFER TO SECTION 1 AND REVIEW ALL
SAFETY RECOMMENDATIONS.**

Tank Placement

- Place the Third Tank on the Air Cart frame.
- **Distance “X”** between the front Air Seeder Tank and the Third Tank is as follows:
 - 7180 Tow Between and Tow Behind **1 1/2” gap**
 - 7240 & 7300 Tow Between **1 1/2” gap**
 - 7240 & 7300 Tow Behind **2 3/4” gap**
- Use the U-bolts supplied to hold the tank to the frame.
- The Left Hand Rear Leg uses 1/2” bolts, securing transmission to the frame. See Transmission Installation.



Transmission Installation

1. Remove output shaft (top shaft) from Third Tank Transmission.

2. Install the Third Tank Transmission.

On the **7032** install the 1/2" x 8" bolts, 1/2" serrated locknuts through the rear tank leg and the front of the Third Tank Transmission. Fasten rear of Third Tank Transmission with 1/2" U-bolt. **Do not tighten nuts** until transmission output shaft is installed and aligned with the metershaft.

On the **7040** install the 1/2" x 10" bolts, 1/2" serrated locknuts through the rear tank leg and the front of the Third Tank Transmission. Fasten rear of Third Tank Transmission with 1/2" U-bolt. **Do not tighten nuts** until transmission output shaft is installed and aligned with the metershaft.

3. Install the idler assembly with the 3/8" x 3 1/2" bolt as shown in the diagram.
4. Install both 5 1/2" long spacers between the top two holes of the transmission (near output shaft) with 3/8" x 6 1/2" bolts and 3/8" serrated locknuts.
5. Remove the nut and lockwasher from the input sprocket (40 tooth 7130) (35 tooth 7180) (26 tooth for 7240 & 7300 with All Weather Tires) (24 tooth for 7240 & 7300 with Rice Tires).

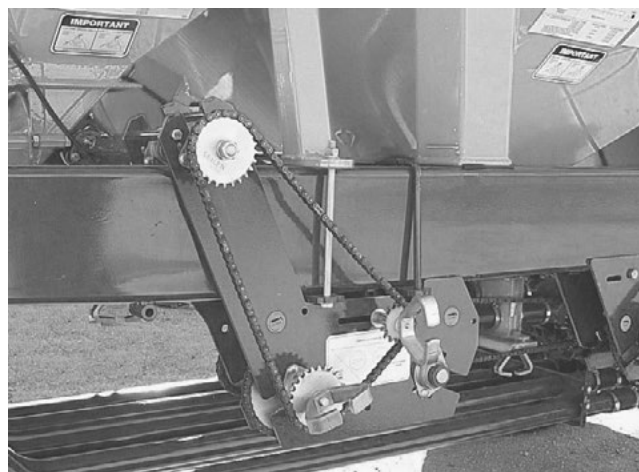
Install the 7/8" long spacer, drive pin, and a 24 tooth sprocket. (See diagram)

Re-install the nut and lockwasher.

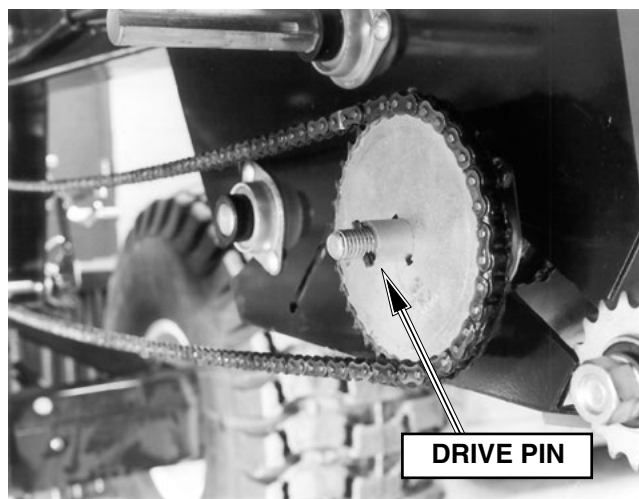
6. Install the main drive chain: 63.5" long chain - 7032, 81.5" long - 7042 between the front transmission and Third Tank Transmission.

Note: Remove offset links from drive chain on 7042 mounted at a 1 1/2 tank gap.

7. Install 3/8" x 2 1/2" bolt and two nuts in the hole near the top of the transmission plate. Connect idler spring to the idler and the bolt previously installed.



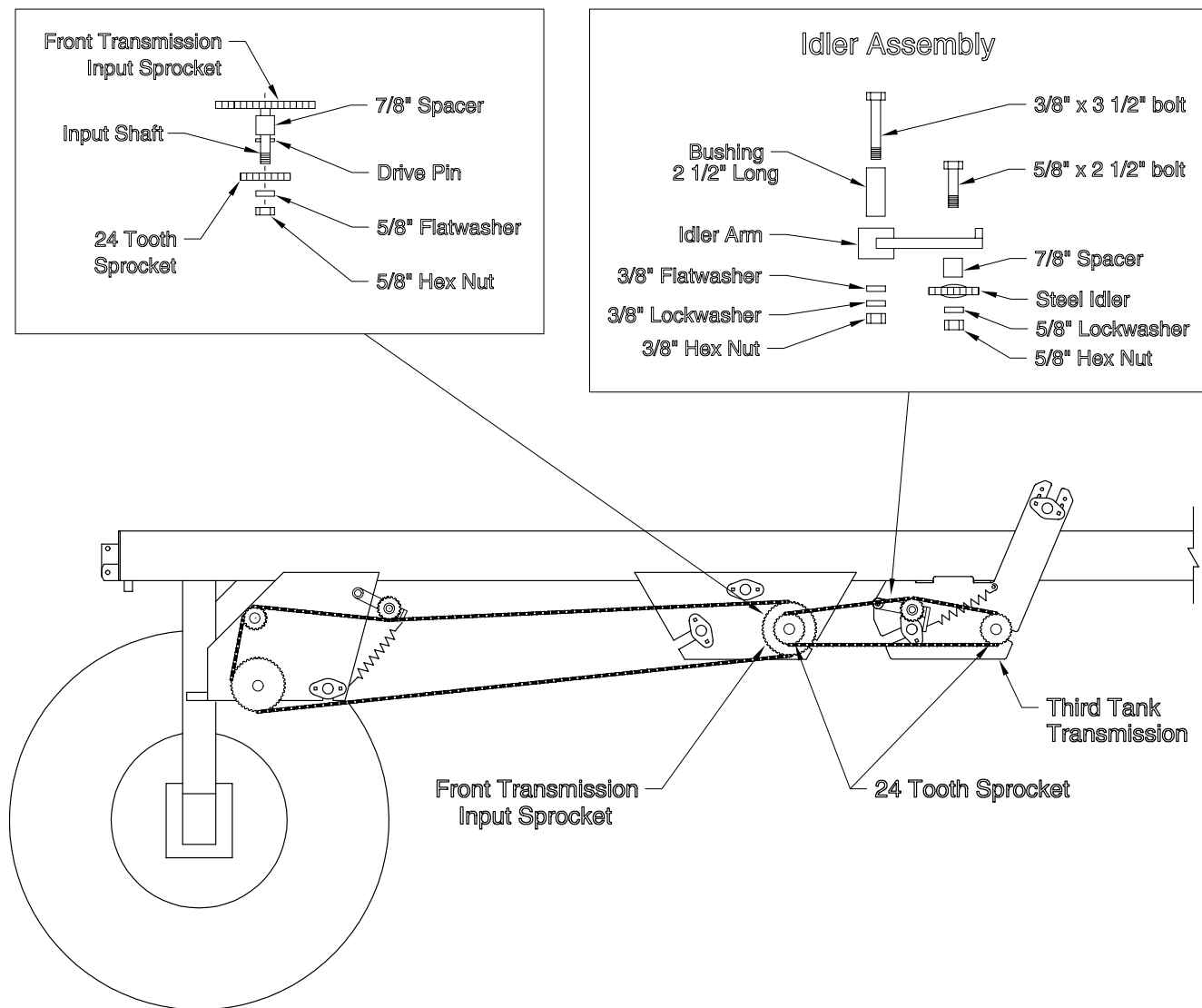
Transmission



Drive Pin

Assembly

Transmission Installation - Continued



Primary Hose Installation

General:

- Mount the collector to the bottom of the meter body.

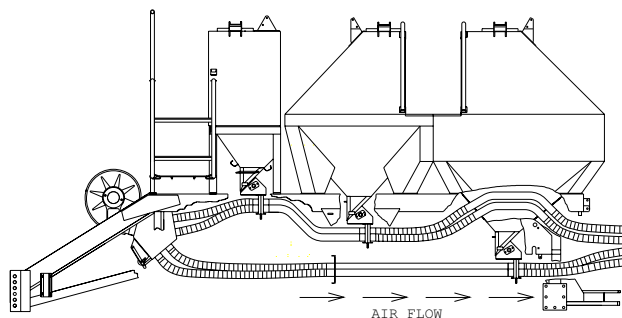
Important: Ensure the “Air Flow” decal on the collector is pointing in the correct direction.

- Assemble the collector bottom and the collector extension to the collector using the large wing nuts.

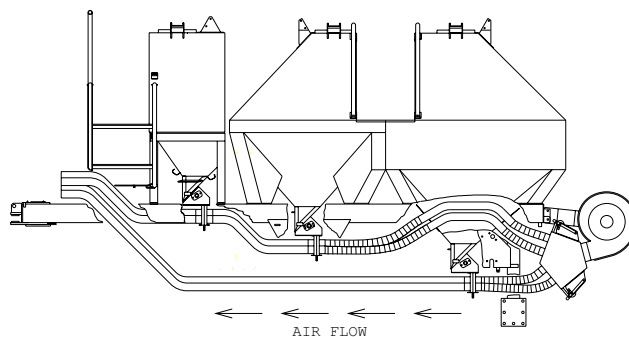
Important: Care must be taken when installing the collector bottom not to damage the inside of the collector.

- All unused ports must be blanked off using a plastic cap and hose clamp with or without the optional collector plug N28174 shown below.

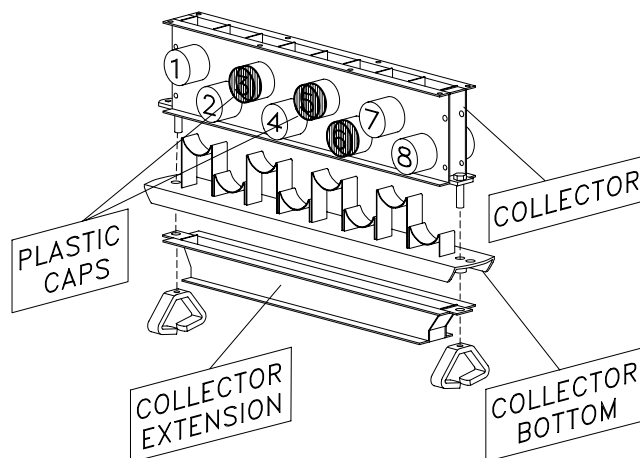
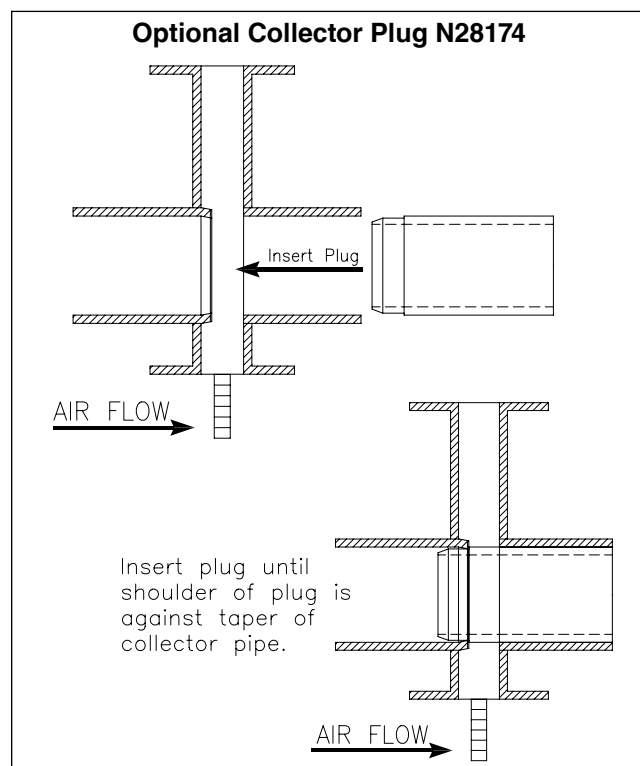
Note: The Collector Extension is required for retrieving a sample in the Rate Check Box.



Air Flow Diagram Tow Between



Air Flow Diagram Tow Behind



Note: Arrow directions on the collector bottom must point in the same direction as the ones on the collector body.

Assembly

Primary Hose Installation

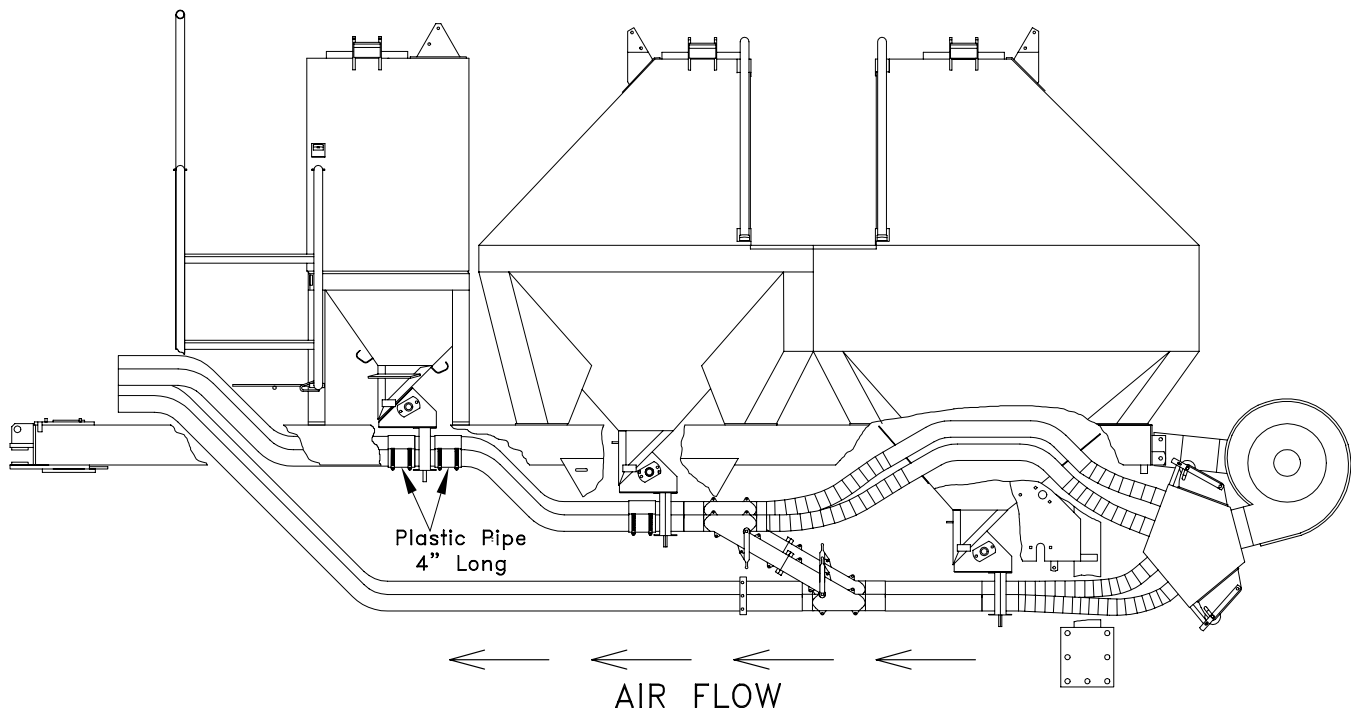
Tow Behind:

- Slide the 4" length of 2 1/2" plastic hose onto either end of the steel tubes.
- Insert the steel tubes between the collectors.
- Slide the 4" length hose onto the collector outlets.
- Secure the steel tubes with hose clamps.
- Install the front primary steel tubes to the front collector outlets with 4" length hose.
- Secure the steel tubes with hose clamps.
- 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.

Important

Hot water is the only acceptable lubricant for the installation of the 2 1/2" Black Coupler Hose.

WD-40 or any other lubricant (i.e. liquid detergent) will have a negative effect on the chemical stability of the hose, resulting in the degradation and failure of the hose due to Environmental Stress Cracking.



Note: Ensure there is a 1" gap between the collector body outlets and the steel tubes.

Primary Hose Installation - Continued

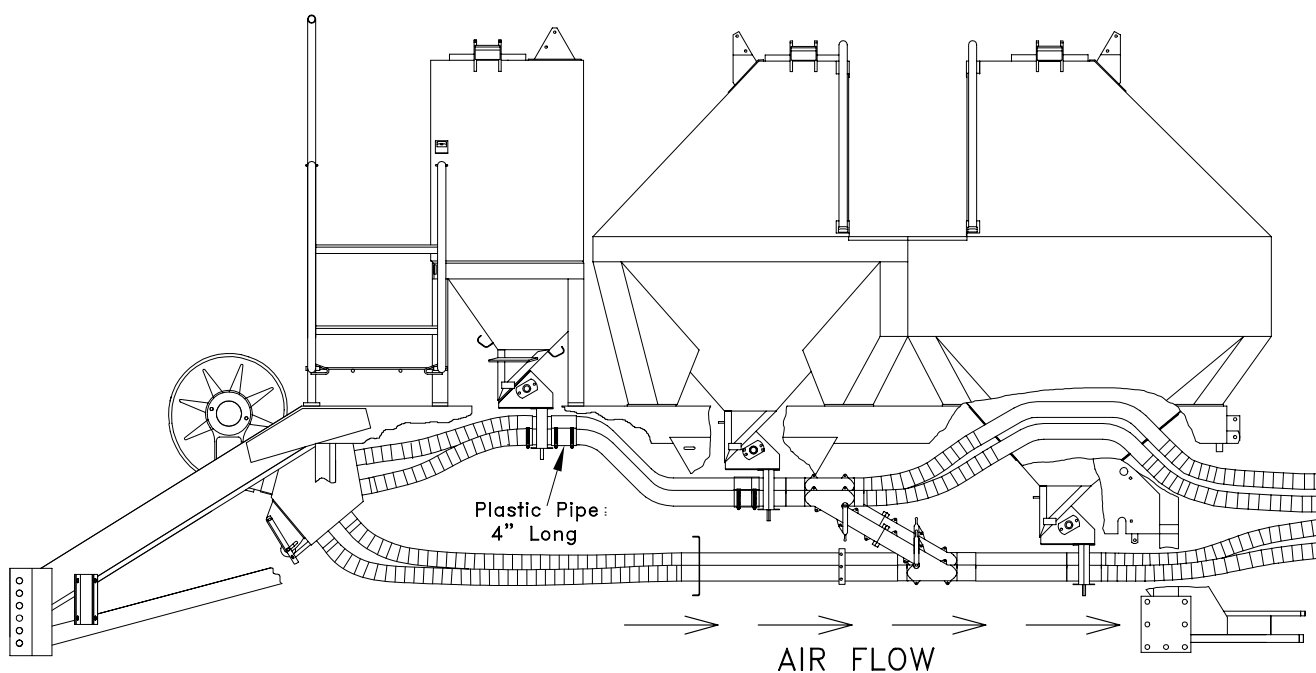
Tow Between:

- Cut the 2 1/2" diameter primary hose to the required length to connect the plenum to the collector on the Third Tank.
- Slide the 4" length of 2 1/2" plastic hose onto either end of the steel tubes.
- Insert the steel tubes between the collectors.
- Slide the 4" length hose onto the collector outlets.
- Secure the steel tubes with hose clamps.

Important

Hot water is the only acceptable lubricant for the installation of the 2 1/2" Black Coupler Hose.

WD-40 or any other lubricant (i.e. liquid detergent) will have a negative effect on the chemical stability of the hose, resulting in the degradation and failure of the hose due to Environmental Stress Cracking.



Note: Ensure there is a 1" gap between the collector body outlets and the steel tubes.

Assembly

Notes