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## GEARBOX

### MS Mini Seed Planter

Three different assemblies are possible for the gearbox.

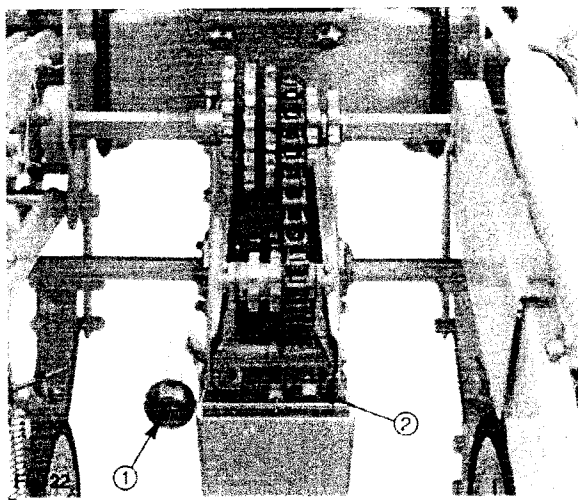
1. Standard, Central assembly: Normal assembly for planters with an even number of rows (4, 6, 8...) and inter-row spacing of 14" or more.
2. Standard, Offset assembly: For planters with an odd number of rows (5, 7, 9...) and inter-row spacing of more than 14".
3. Combination Wheel Block Assembly: For planters with row spacing less than 14". See figure 23.

### SETTING

#### Standard, Central assembly and Offset assembly

The standard spacing gearbox is shown in Fig. 22. The standard gearbox consists of a changeable upper cluster fitted with 6 sprockets (two 3-sprocket clusters) and a lower fixed 3-sprocket cluster. This allows for 16 different gear ratios. The following gearbox chart indicates the distances possible for each distribution disc. A decal placed on the planter will provide the same information for on-the-spot reference.

To change the seed spacing, push the idler lever (1), lock its pawl (2) then align to the proper sprocket combination. The small upper sprocket cluster is fitted with a bolt, (3), which should be tightened to avoid any sliding of the cluster.



#### Combination, Narrow spacing

Each drive wheel block is furnished with an upper 6-sprocket gear cluster and 3 interchangeable drive sprockets: 16 gear are possible.

To change sowing distance, first select the desired spacing from the gearbox chart on the following page. Using the indicated sprocket at the top of the column, take the A, B, or C drive sprocket from its storage place and position it at (3). Align the drive sprocket carefully to the selected sprocket in the cluster (4) before tightening its screw.

The two unused drive sprockets (3) can be stored at the end of the shaft (5).

NOTE: Make sure to use the same sprocket setting on both drive wheel blocks.

NOTE: Position the sprockets as shown on the following gearbox chart. Check that the gearbox lever, its lock and the roller are in good working order.

Poor alignment of the sprockets and stiffness of the chain will cause premature wear of the sprockets. Use chain oil preferably to regular oil for proper lubrication.

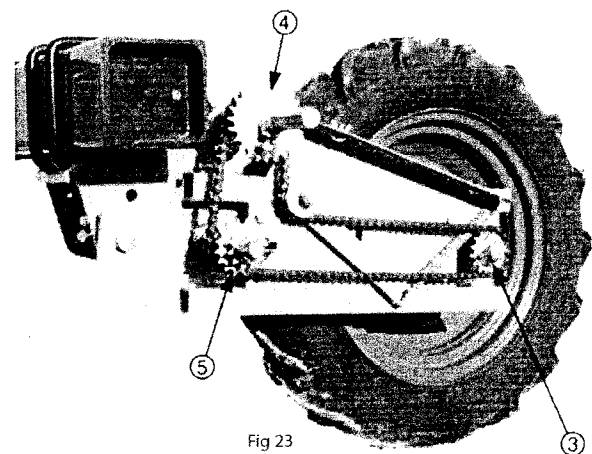


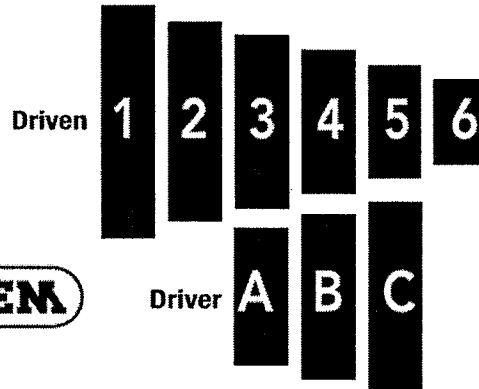
Fig 23

**GEARBOX**

**MS Mini Seed Planter**

**SOWING DISTANCES**

# Planting Distances



**MONOSEM**

Driver **A B C**

Type **MS**

**USE FOR DRIVE WHEEL TIRE SIZE 5.90x15**

C	C	B	C	B	A	C	A	C	B	C	B	A	B	A	A
6	5	6	4	4	5	3	4	2	3	1	2	3	1	2	1

18	in.	5 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	9 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>2</sub>	14 <sup>7</sup> / <sub>8</sub>
	cm	13.0	14.0	15.0	17.0	19.5	20.0	22.0	23.5	24.5	25.5	27.0	28.5	30.5	31.5	34.5	38.0
30	in.	3	3 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	4	4 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>4</sub>	6	6 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>8</sub>	9
	cm	7.5	8.5	9.0	10.0	11.5	12.0	13.0	14.0	14.5	15.5	16.0	17.0	18.5	19.0	20.5	22.5
36	in.	2 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	3	3 <sup>1</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	5	5 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	6	6 <sup>1</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>
	cm	6.0	7.0	7.5	8.5	10.0	10.0	11.0	11.5	12.0	13.0	13.5	14.5	15.5	16.0	17.0	19.0
60	in.	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	2	2 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>8</sub>	3	3 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	4	4 <sup>1</sup> / <sub>2</sub>
	cm	4.0	4.5	4.5	5.0	6.0	6.0	6.5	7.0	7.5	7.5	8.0	8.5	9.0	9.5	10.5	11.5
72	in.	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>		1 <sup>5</sup> / <sub>8</sub>		2	2 <sup>1</sup> / <sub>8</sub>		2 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>		2 <sup>3</sup> / <sub>4</sub>	3	3 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>
	cm	3.0	3.5		4.0		5.0	5.5		6.0	6.5		7.0	7.5	8.0	8.5	9.5
120	in.	<sup>3</sup> / <sub>4</sub>		<sup>7</sup> / <sub>8</sub>	1		1 <sup>3</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>		1 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	1 <sup>11</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	2	2 <sup>1</sup> / <sub>4</sub>
	cm	2.0		2.2	2.6		3.0	3.2		3.6	3.8	4.0	4.2	4.6	4.8	5.2	5.6
180	in.	<sup>1</sup> / <sub>2</sub>		<sup>9</sup> / <sub>16</sub>		<sup>3</sup> / <sub>4</sub>		<sup>7</sup> / <sub>8</sub>		<sup>15</sup> / <sub>16</sub>	1		1 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>
	cm	1.2		1.6		2.0		2.2		2.4	2.6		2.8	3.0	3.2	3.4	3.8

v. 09.08 part # st0221

These planting distances were obtained with a standard assembly and sprocket system. Additional settings are possible by using different combinations or special sprockets. Consult Monoem for nonstandard requirements. Important: Poor alignment of the sprockets of the seed spacing gearbox and stiffness of the chain will cause premature side wear on the pinions. Make sure the chains are tight and properly lubricated, and the tires are properly inflated. The indicated spacings are theoretical and may vary from 5-10% depending on soil conditions.

**IMPORTANT!** As of July 2008, The Tire on the Drive Wheel is 5.90 x 15.

Prior to July 2008, The Tire on the Drive Wheel was 5 x 15.

The size of the tire affects the planting distances.

The chart shown above reflects seed distances for the newer wheel, 5.9 x 15. This change is in effect as of July 2008.

Prior to July 2008 the planters had a drive wheel of 5 x 15.

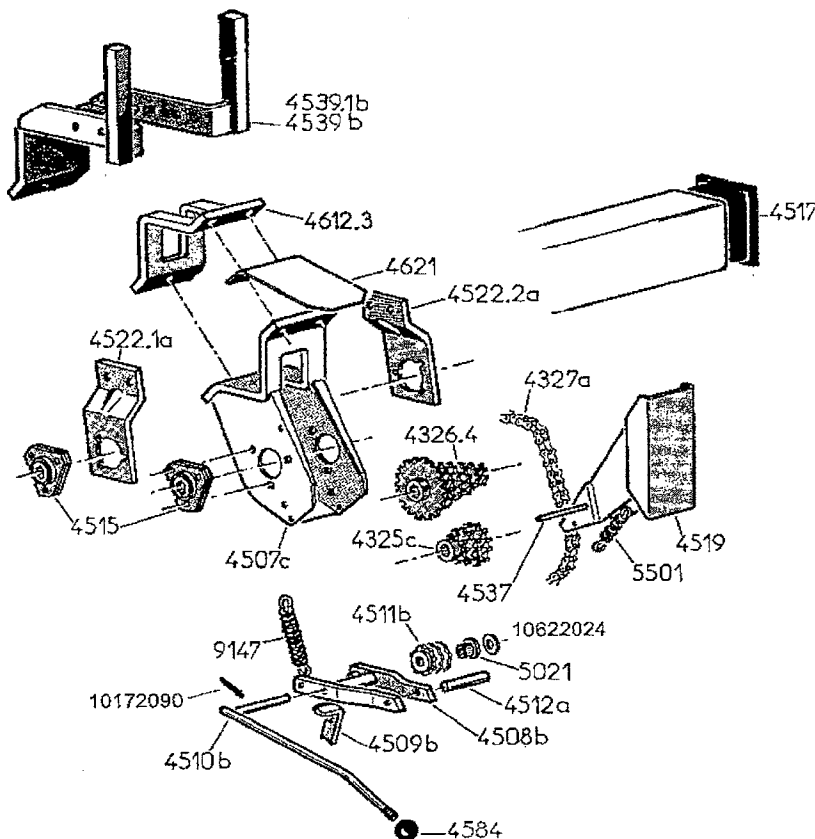
To use the old chart (pre July 2008) with new tire (5.9 x 15), multiply distance on old chart by 1.07

To use the new chart (post July 2008) with old tire (5 x 15), divide distance on new chart (above) by 1.07

## GEARBOX

### MS Mini Seed Planter

#### ASSEMBLY



#### PART No. DESCRIPTION

4325.c	Lower Three Sprocket Cluster (10-12-14 Tooth)
4326.4	Standard 6-Tooth Upper Sprocket Cluster (10-11-13-17-19-21 Tooth)
4327.a	Drive Chain (13N, 36 links w/conn. Link)
4507.c	Gearbox Housing
4508.b	Chain Idler support frame
4509.b	Lever Lock
4510.b	Gearbox Handle
4511.b	Chain Tightener Roller (with 5021 Bushing)
4512.a	Pin
4515	Bearing Complete with Flangettes
4515.1	Bearing Only (205KRRB2, 7/8 Hex Bore)
4515.2	Flangettes (2) (3 bolt hole)
4517	Toolbar cap
4519	Gearbox Door
4522.1a	Left Support Bracket (for Hex Shaft)
4522.2a	Right Support Bracket (for Hex Shaft)
4537	Pin for Gearbox Door
4539.1b	Gearbox Mounting Bracket without Turbofan Stand
4539.b	Gearbox Mounting Bracket with Turbofan Stand
4584	Knob for Handle
4612.3	Counter clamp
4621	Shield, Gearbox

#### PART No. DESCRIPTION

5021	Bushing (Self Lubricating, B25)
5501	Spring, Gearbox Door
9147	Spring, for Tightening Drive Chain
10172090	Roll pin, 6 x 25
10502012	Bolt, 10 x 15 (to secure sprocket cluster)
10622024	Washer, 16.5 x 26 x 1