* * * * * C A U T I O N * * * * *

TURN OFF TRACTOR ENGINE (OR SPREADER ENGINE IF FITTED) WHEN MAKING ANY ADJUSTMENTS TO THE V-BELTS AND SPROCKETS ON THE MACHINE OR WHEN CARRYING OUT NORMAL MAINTENANCE. REPLACE ALL SAFETY GUARDS AFTER MAKING ADJUSTMENTS.

DO NOT STAND OR WORK NEAR THE SPINNERS WHILE ROTATING. DO NOT OPERATE THE SPREADER WHERE IT CAN CAUSE DAMAGE TO PROPERTY OR INJURY TO BYSTANDERS.

M U L T I S P R E A D H A N D B O O K

For Model
BT4

The **Marshall BT4 Multispread** will spread all types of granulated fertilizer as well as Lime, Gypsum, Cow and Fowl Manures.

GROUND DRIVE FEED SYSTEM

Feed of fertilizer etc., from the hopper to the spinner is driven by a vee belt which runs on the inside of the wheel hub. The jockey pulley which runs on the top side of the vee belt is used as the feed clutch. When towing the spreader at highway speeds remove the vee belt from the pulleys. NOTE: DO NOT REVERSE THE MACHINE WHILE THE VEE BELT IS ENGAGED.

APPLICATION RATES

Application rates are altered by a combination of feed belt speed, which is controlled by the change sprockets on the left side of the machine and the hopper feed door opening. Spreading rate charts for fertilizers are included in this hand book. When spreading Lime, Gypsum, Cow and Fowl Manures some initial testing and adjustment will be necessary as the materials vary in consistency and the weight per cubic metre depending on moisture content.

SPINNER SPEED

The recommended spinner speed for spreading all types of material is 700 to 900 RPM.

PTO SPINNER DRIVE

Machines are geared to operate on a tractor with 540 RPM PTO (1000 RPM is optional).

HYDRAULIC SPINNER DRIVE

Machines require an oil flow from the tractor of at least 8 gpm (35 litres/min). To set the correct spinner follow this procedure.

Connect the two hoses to the tractor couplings - the pressure hose is the one marked IN on the flow valve on the spreader. Run the tractor until the oil has reached operating temperature. Then run the tractor engine at full throttle and adjust the flow valve on the spreader so that the spinner is running at 800 RPM - to check the spinner RPM you will need a hand held rev counter. Once the spinner is running at 800 RPM with the tractor at full throttle the tractor engine speed should be lowered to where the spinner drops below 700 RPM - at this point make a note of the tractor engine speed as you can work from this engine speed up to full throttle without altering the spinner RPM.

MAINTENANCE

GREASING BEARINGS

The machine is fitted with sealed self aligning bearings, however, due to the abrasive qualities of fertilizer etc., grease must be applied at least once daily in order to force out any particles of dust. Take care not to fracture the bearing seals by forcing in too much grease at a time.

FEED BELT CHAINS

The feed belt roller chains should be kept well lubricated at all times, particularly before the machine is stored for any length of time. For best results use RENOLD CHAIN LUBRICANT.

VEE BELTS

Check for wear and tension.

WHEEL BEARINGS

Check regularly.

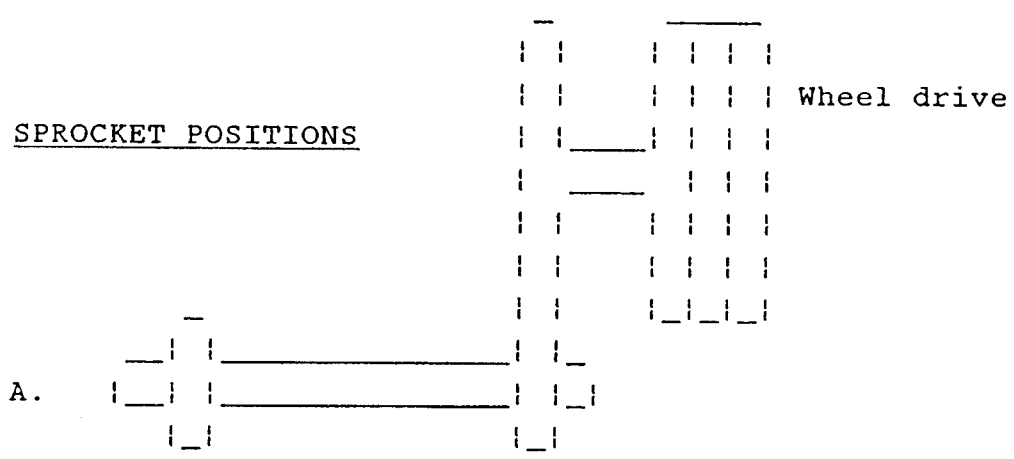
WHEEL NUTS

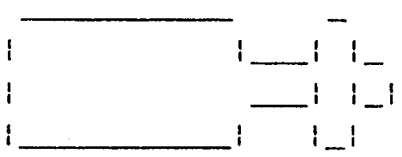
Check tension before using the machine and at regular intervals.

CLEANING AND STORAGE

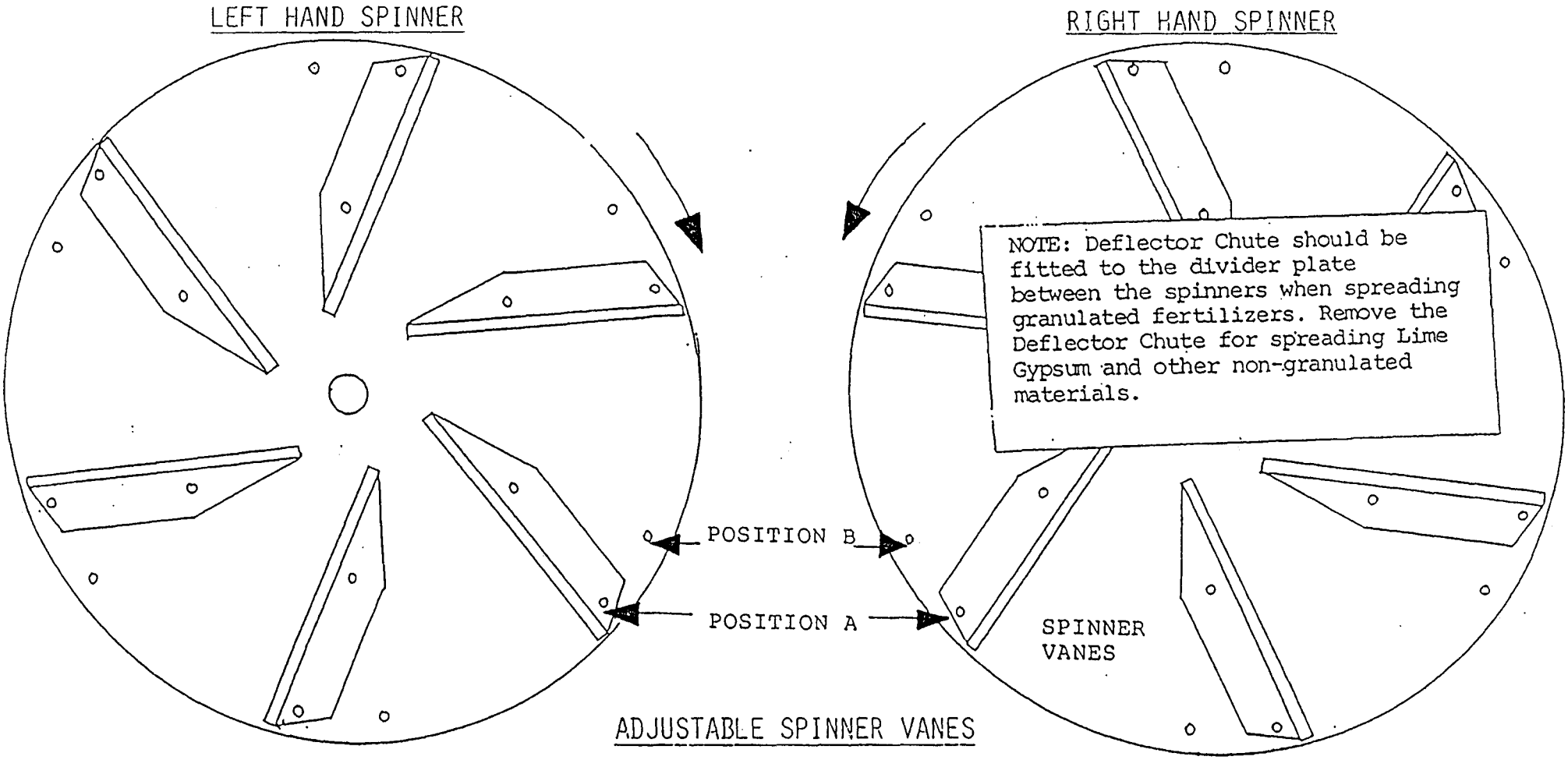
After using the spreader all fertilizer etc., should be removed from the hopper and spinner areas - then wash down with water (high pressure if available), DO NOT USE OIL OR DIESEL. Store the machine under cover and in a dry place - do not allow direct sunlight on the feed belt.

SPROCKET POSITIONS





Feed Belt Drive



ADJUSTABLE SPINNER VANES

This machine is equipped with adjustable spinner vanes - they can be set for spreading non-granulated materials such as Lime and Gypsum or adjusted to spread granulated fertilizers like superphosphate.

Each spinner vane is attached to the disc by two bolts - and inner and outer. The outer bolts have two positions on the disc - position "A" and position "B".

POSITION A: For spreading all granulated fertilizers, seeds and grains, very light applications of dry lime and gypsum.

POSITION B: For spreading normal applications of lime, gyspum, manure and other non-granulated materials.

B T 4 M U L T I S P R E A D

SUPERPHOSPHATE RATES: Kilograms per Hectare *

* The Width of Pass is the distance between passes when working in the paddock. Some initial testing will be required to determine the correct width of pass for the particular fertilizer being used.

Sprocket Position		Feed Door Opening	WIDTH OF PASS* (allow for wind conditions and fertilizer consistency)		
A	B		16 Metre 52 Foot	18 Metre 59 Foot	20 Metre 66 Foot
14 th	70 th	10 mm	25	20	17
		15 mm	35	30	25
		20 mm	40	35	25
		25 mm	45	40	35
		30 mm	55	50	40
		35 mm	60	55	50
		40 mm	65	60	55
		45 mm	75	65	60
		50 mm	80	75	65
		55 mm	90	85	75
		60 mm	100	90	80
		65 mm	110	95	90
		70 mm	120	105	95

...Continued

SUPERPHOSPHATE RATES (Continued)...

30 th	60 th	25 mm	95	85	75
		30 mm	125	111	100
		35 mm	160	140	130
		40 mm	170	150	140
		45 mm	180	165	145
		50 mm	200	180	160
		55 mm	215	190	167
		60 mm	230	205	185
		65 mm	255	225	205
		70 mm	280	250	225
50 th	38 th	25 mm	330	285	255
		30 mm	390	345	300
		35 mm	420	390	345
		40 mm	480	435	390
		45 mm	540	480	435
		50 mm	585	525	465
		55 mm	660	600	540
		60 mm	720	645	570
		65 mm	780	690	630
		70 mm	840	750	675

* to convert to lbs/acre deduct 10%

B T 4 M U L T I S P R E A D

UREA RATES: Kilogram per Hectare *

Sprocket Position		Feed Door Opening	WIDTH OF PASS (allow for wind conditions and fertilizer consistency)			
A	B		10 metre 33 foot	12 metre 39 foot	14 metre 46 foot	15 metre 49 foot
14 th	70 th	10 mm	25	20	18	15
		15 mm	35	30	25	20
		20 mm	40	35	30	25
		25 mm	45	40	35	30
		30 mm	55	45	40	35
		35 mm	65	55	45	45
		40 mm	70	60	50	50
		45 mm	80	65	60	55
		50 mm	90	75	65	60
		55 mm	100	85	70	65
		60 mm	105	90	75	70

* to convert to lbs/Acre deduct 10%

B T 4 M U L T I S P R E A D

UREA RATES: Kilogram per Hectare *

Sprocket Position		Feed Door Opening	WIDTH OF PASS (allow for wind conditions and fertilizer consistency)			
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		15 mm	35	30	25	20
		20 mm	40	35	30	25
		25 mm	45	40	35	30
		30 mm	55	45	40	35
		35 mm	65	55	45	45
		40 mm	70	60	50	50
		45 mm	80	65	60	55
		50 mm	90	75	65	60
		55 mm	100	85	70	65
		60 mm	105	90	75	70

* to convert to lbs/Acre deduct 10%

B T 4 M U L T I S P R E A D

A GUIDE TO SPREADING RATES FOR LIME, GYPSUM AND MANURES

Due to the great variation of weight per cubic metre, as well as moisture content, the chart below is intended as a guide only.

Rare adjustments are made by the following...

1. Changing the drive sprocket settings,
2. Adjusting the feed door opening,
3. Varying the width of pass. (The closer the pass, the heavier the application)

Sprocket Positions	Feed Door Opening	Kilograms per Hectare	Width of Pass
14 tooth to 70 tooth	50mm to 100mm	100 to 1000	4 metres to 9 metres
30 tooth to 60 tooth	100mm to 200mm	500 to 3000	4 metres to 9 metres
50 tooth to 38 tooth	100mm to 200mm	2000 to 7000	4 metres to 9 metres

B T 4 M U L T I S P R E A D

SUPERPHOSPHATE RATES: Kilograms per Hectare *

* The Width of Pass is the distance between passes when working in the paddock. Some initial testing will be required to determine the correct width of pass for the particular fertilizer being used.

Sprocket Position		Feed Door Opening	WIDTH OF PASS* (allow for wind conditions and fertilizer consistency)		
A	B		16 Metre 52 Foot	18 Metre 59 Foot	20 Metre 66 Foot
14 th	70 th	10 mm	25	20	17
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		20 mm	40	35	25
		25 mm	45	40	35
		30 mm	55	50	40
		35 mm	60	55	50
		40 mm	65	60	55
		45 mm	75	65	60
		50 mm	80	75	65
		55 mm	90	85	75
		60 mm	100	90	80
		65 mm	110	95	90
		70 mm	120	105	95

...Continued

B T 4 . . M U L T I S P R E A D

SUPERPHOSPHATE RATES (Continued)...

30 th	60 th	25 mm	95	85	75
		30 mm	125	111	100
		35 mm	160	140	130
		40 mm	170	150	140
		45 mm	180	165	145
		50 mm	200	180	160
		55 mm	215	190	167
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		70 mm	840	750	675

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