

## MULTISPREAD HANDBOOK

For Model

BT3

The Marshall BT3 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 500 to 700 RPM.

### PTO SPINNER DRIVE

Machines are geared to operate on a tractor with 540 RPM PTO (1000 RPM is optional). To operate the spinner at 700 RPM the tractor PTO should be working at approximately 430 RPM.

## HYDRAULIC SPINNER DRIVE

Machines require an oil flow from the tractor of at least 5 gpm (22 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 700 RPM - to check the spinner RPM you will need a hand held rev counter. Once the spinner is running at 700 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.

\* \* \* \* \* 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.

## **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.

BT3 MULTISPREAD ... 1100x16 TYRES

SUPERPHOSPHATE RATES: Kilograms per Hectare \*

Note: These figures are only a guide as fertilizers will vary in consistency and cubic weight.

Sprocket Settings	Door Opening	WIDTH OF PASS (distance from your previous pass)			
		14 metre 46 feet	16 metre 52 feet	18 metre 59 feet	20 metre 65 feet
17 tooth to 48 tooth	20 mm	70	60	55	50
	25 mm	90	80	70	65
	30 mm	115	100	90	80
	35 mm	140	120	110	100
	40 mm	170	150	130	120
	45 mm	190	165	150	130
	50 mm	210	190	175	150
26 tooth to 38 tooth	25 mm	180	160	140	130
	30 mm	230	200	180	160
	35 mm	280	250	220	200
	40 mm	330	290	260	230
	45 mm	380	330	290	270
	50 mm	420	360	330	290
34 tooth to 34 tooth	35 mm	390	340	300	270
	40 mm	470	410	370	330
	45 mm	570	500	440	400
	50 mm	630	560	490	440

...Continued

**SUPERPHOSPHATE RATES (Cont'd)**

<b>34 tooth</b>	55 mm	680	600	654	480
	60 mm	760	670	590	540
	65 mm	800	700	630	570
	70 mm	900	800	700	640
	75 mm	975	860	760	680
<b>to</b>	80 mm	1070	940	840	740
<b>34 tooth (Cont'd)</b>	85 mm	1150	1000	900	800
	90 mm	1200	1060	950	850
	95 mm	1280	1120	1000	900
	100 mm	1340	1170	1040	940

\* to convert to lbs/acre deduct 10%

BT3 MULTISPREAD ... 1100 x 16 TYRES

UREA (and similar fertilizers) RATES: Kilogram per Hectare \*

Note: These figures are only a guide as fertilizers will vary in consistency and cubic weight.

Sprocket Settings	Door Opening	WIDTH OF PASS (distance from your previous pass)			
		10 metre	12 metre	14 metre	16 metre
		33 feet	39 feet	46 feet	52 feet
17 tooth  to  <i>48 Tooth</i>	15 mm	35	30	25	20
	20 mm	60	50	45	35
	25 mm	90	70	60	50
	30 mm	110	90	80	70
	35 mm	130	110	90	80
	40 mm	150	130	110	95
	45 mm	170	140	120	105
50 mm	200	165	140	120	
26 tooth  to  30 tooth	25 mm	170	140	120	105
	30 mm	210	180	150	130
	35 mm	270	225	190	170
	40 mm	310	260	225	195
	45 mm	350	290	250	220
50 mm	380	320	275	240	

\* to convert to lbs/Acre deduct 10%

MODEL BT3

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.

Rate 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 Settings	Feed Door Opening	Kilograms per Hectare	Width of Pass
17 to 48 tooth	50 mm to 100 mm	100 to 1000	4 metres to 8 metres
26 to 38 tooth	100 mm to 200 mm	1000 to 2000	4 metres to 8 metres
34 to 34 tooth	100 mm to 200 mm	2000 to 4000	4 metres to 8 metres