

***OPERATING  
INSTRUCTIONS***

***MARSHALL  
MULTISPREAD***

***MODEL : 525T***

# **IMPORTANT NOTE :**

## **TRAILER SPREADERS**

**MAXIMUM RECOMMENDED  
SPREADING SPEED  
25KPH**

**HIGHER SPEEDS MAY  
CAUSE DAMAGE TO THE  
FEED BELT DRIVE  
SYSTEM, AXLE/CHASSIS  
AND REDUCE THE  
FERTILIZER SPREAD  
WIDTH**

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

For Model

525T

The Marshall 525T 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 bottom 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

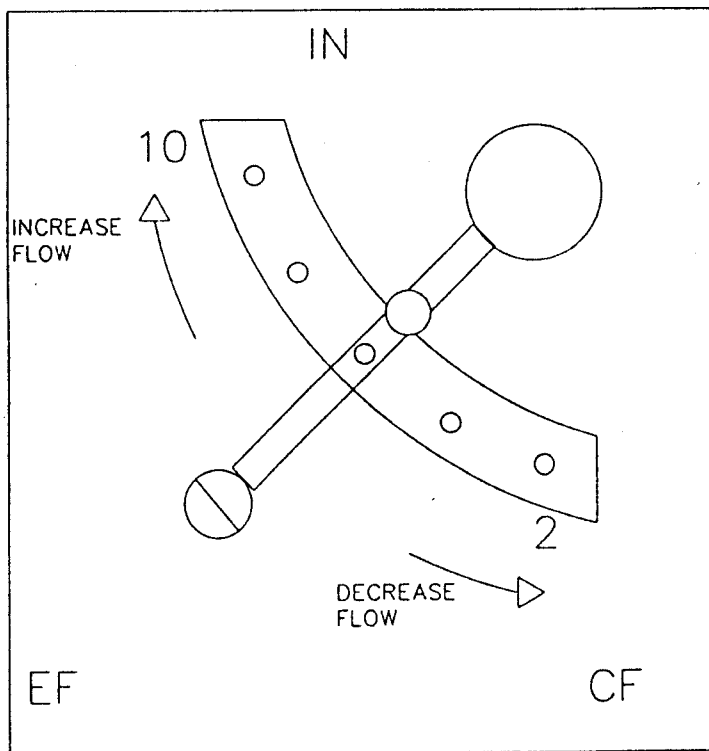
Machines are geared to operate on a tractor with 540 RPM PTO (1000 RPM is optional). To operate the spinner at 700 RPM the tractor PTO should be working at approximately 430 RPM.

## HYDRAULIC SPINNER DRIVE (OPTIONAL)

Machines with optional hydraulic spinner drive require an oil flow from the tractor of at least 10 gpm (45 litres/min). To set the correct spinner speed 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 increase the tractor engine to full throttle and adjust the Flow Control Valve on the spreader so that the spinners are running at 900 RPM - to check the spinners RPM you will need a hand held rev counter. Once the spinners are running at 900 RPM with the tractor at full throttle, the tractor engine speed should be lowered to where the spinners drop below 700 RPM - at this point make a note of this lower tractor engine speed, as you can work from this engine speed up to full throttle without altering the spinners RPM.

### FLOW CONTROL VALVE



## HYDRAULIC SPINNER DRIVE (OPTIONAL)

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.

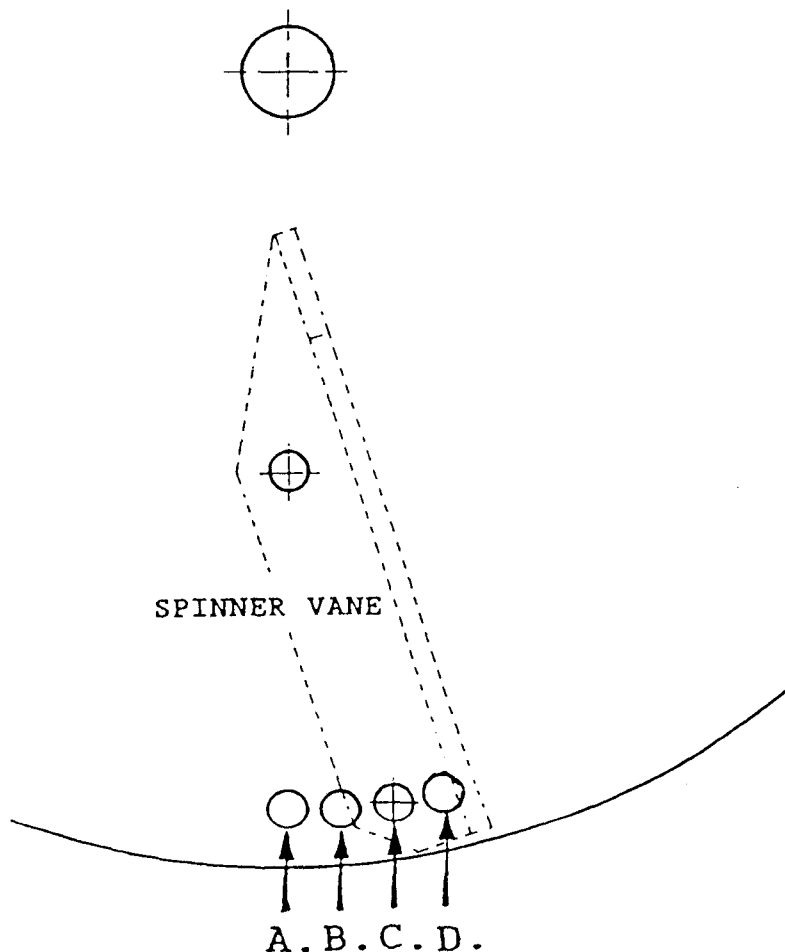
## ADJUSTABLE SPINNER VANES

This machine has adjustable spinner vanes which can be altered for an even spread of granulated fertilizers and seeds to non-granulated materials such as lime, gypsum and manures.

Each vane is attached to the spinner disc by two bolts - an inner and outer bolt. The outer bolt has four positions which will alter the pitch of the vane.

The recommended outer bolt positions are as follows...

- A. For non-granulated materials such as Lime, Gypsum and Manures.
- C. For all granulated fertilizers, grains and seeds.
- B. and D. These positions should not be used unless fine adjustment is needed for any of the above.



525T      M U L T I S P R E A D

**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.

\* \* \* \* \* 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.

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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

M U L T I S P R E A D

525T (1100 X 16 TYRES)

. SUPERPHOSPHATE RATES: Kilograms per Hectare \*

NOTE: These figures are only a guide as fertilizers vary in consistency and cubic weight. Variables such as wind strength and the speed at which the machine is operated at will need to be considered.

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	20 mm	47	43
	25 mm	60	55	47	43
	30 mm	75	70	60	55
	35 mm	95	80	75	70
	40 mm	115	100	85	80
to	45 mm	130	110	100	85
	50 mm	140	130	120	100
48 tooth	55 mm	155	140	130	110
	60 mm	170	155	150	120
	65 mm	180	165	160	130
	70 mm	195	180	170	135
26 tooth	40 mm	225	195	170	155
	45 mm	260	225	195	185
	50 mm	285	245	225	195
to	55 mm	315	270	245	220
	60 mm	345	295	265	240
38 tooth	65 mm	370	320	290	260
	70 mm	395	345	310	275

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M U L T I S P R E A D  
525T (1100 X 16 TYRES)

SUPERPHOSPHATE RATES (Cont'd) ...

	45 mm	385	340	300	270
	50 mm	430	375	335	295
	55 mm	465	410	445	325
34 tooth	60 mm	515	455	400	365
	65 mm	540	475	430	385
to	70 mm	610	540	475	435
	75 mm	660	585	515	460
34 tooth	80 mm -	725	635	570	505
	85 mm	780	680	610	540
	90 mm	815	720	645	575
	95 mm	870	760	680	610
	100 mm	910	795	705	635

\* to convert to lbs/Acre deduct 10%

M U L T I S P R E A D  
525T (1100 X 16 TYRES)

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

NOTE: These figures are only a guide as fertilizers will vary in consistency and cubic weight. Variables such as wind strength and the speed at which the machine is operated at will need to be considered.

Sprocket Settings	Door Opening	WIDTH OF PASS (distance from your previous pass)			
		10 metre 33 feet	12 metre 39 feet	14 metre 46 feet	16 metre 52 feet
17 tooth to 48 tooth	15 mm	25	21	17	13
	20 mm	43	34	30	25
	25 mm	60	50	45	35
	30 mm	75	60	55	50
	35 mm	85	75	60	55
	40 mm	105	85	75	65
	45 mm	115	95	80	75
	50 mm	135	110	95	80
	55 mm	150	125	105	90
	60 mm	165	140	110	100
65 mm	175	145	120	110	
70 mm	190	155	130	115	
26 tooth to 30 tooth	35 mm	180	155	130	115
	40 mm	210	175	155	135
	45 mm	235	200	170	150
	50 mm	260	215	190	165

... Continued

M U L T I S P R E A D  
525T (1100 X 16 TYRES)

UREA RATES (Cont'd)...

26 tooth	55 mm	285	235	205	180
to	60 mm	310	260	225	200
30 tooth	65 mm	335	280	240	215
(Cont'd)	70 mm	360	300	260	230

\* to convert to lbs/Acre deduct 10%

APPLICATION RATE CHART - Kilograms per Hectare

MULTISPREAD Model : 525T on 1100 x 16 tyres

Type of material : **ECOMIN** - 1600kg/cubic metre

The rates shown below are to be used as a guide only, as different makes and types of fertilizers will vary in consistency. The procedure to check the fertilizer you are using can be found under "Application Rate Calculations".

Drive Sprocket Settings	Feed Door Opening	Width of Pass		
		7 metre (23')	8 metre (26')	9 metre (29')
17 tooth to 48 tooth	20mm	130	120	110
	25mm	170	155	130
	30mm	210	195	170
	35mm	265	225	210
	40mm	320	280	240
	45mm	365	310	280
	50mm	390	365	335
	55mm	435	390	365
	60mm	475	435	420
	65mm	505	460	450
	70mm	545	505	475

APPLICATION RATE CHART - Kilograms per Hectare

MULTISPREAD Model : 525T on 1100 x 16 tyres

Type of material : DYNAMIC LIFTER - 650kg/cubic metre

The rates shown below are to be used as a guide only, as different makes and types of fertilizers will vary in consistency. The procedure to check the fertilizer you are using can be found under "Application Rate Calculations".

Drive Sprocket Settings	Feed Door Opening	Width of Pass		
		7 metre (23')	8 metre (26')	9 metre (29')
17 tooth to 48 tooth	20mm	60	55	50
	30mm	110	95	85
	40mm	135	115	105
	50mm	160	140	125
	60mm	210	185	165
	70mm	260	225	200
	80mm	310	270	240
	90mm	355	310	275
	100mm	390	345	305
26 tooth to 38 tooth	20mm	105	90	80
	30mm	180	160	140
	40mm	260	225	200
	50mm	350	310	270
	60mm	450	395	350
	70mm	500	440	390
	80mm	615	535	480
	90mm	710	625	555
	100mm	805	705	625
34 tooth to 34 tooth	20mm	150	130	115
	30mm	265	230	205
	40mm	375	330	295
	50mm	505	440	395
	60mm	630	550	490
	70mm	760	665	590
	80mm	905	790	705
	90mm	1075	940	835
	100mm	1225	1070	950