

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

For Model
520 B5E TWIN

The Marshall B5E Twin 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 1100 to 1300 RPM.

ENGINE SPINNER DRIVE

To start the engine, first disengage the jockey pulley clutch so that the drive belts are loose. When the engine has started, carefully engage the jockey pulley clutch.

5 2 0 B 5 E T W I N 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.

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

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.

DRIVE 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.

M U L T I S P R E A D
B T 3 (1100 x 16 TYRES) & B 5 E
 FROM 7/88 PRODUCTION

SUPERPHOSPHATE RATES: Kilograms per Hectare *

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

Pocket 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
tooth to tooth	20 mm	55	50	45	40
	25 mm	70	65	55	50
	30 mm	90	80	70	65
	35 mm	110	95	85	80
	40 mm	135	120	100	95
	45 mm	150	130	120	100
	50 mm	165	150	140	120
	55 mm	180	165	155	130
	60 mm	195	180	170	140
	65 mm	210	195	185	150
	70 mm	225	210	200	160
tooth to tooth	40 mm	260	230	200	180
	45 mm	300	260	230	215
	50 mm	330	285	260	230
	55 mm	365	315	285	255
	60 mm	400	345	310	280
	65 mm	430	370	335	300
	70 mm	460	400	360	320

M U L T I S P R E A D
B T 3 (1100 x 16 TYRES) & B 5 E
 FROM 7/88 PRODUCTION

ERPHOSPHATE RATES (Cont'd) ...

4 tooth to 4 tooth	45 mm	450	395	350	315
	50 mm	500	440	390	345
	55 mm	540	475	515	380
	60 mm	600	530	465	425
	65 mm	630	550	500	450
	70 mm	710	630	550	505
	75 mm	770	680	600	535
	80 mm	845	740	665	585
	85 mm	905	790	710	630
	90 mm	950	835	750	670
	95 mm	1010	885	790	710
	100 mm	1060	925	820	740

* to convert to lbs/Acre deduct 10%

M U L T I S P R E A D

B T 3 (1100 x 16 TYRES) & B 5 E

FROM 7/88 PRODUCTION

EA (and similar fertilizers) RATES: Kilograms per Hectare *

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

rocket 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
tooth to tooth	15 mm	30	25	20	15
	20 mm	50	40	35	30
	25 mm	70	55	50	40
	30 mm	85	70	65	55
	35 mm	100	85	70	65
	40 mm	120	100	85	75
	45 mm	135	110	95	85
	50 mm	160	130	110	95
	55 mm	175	145	120	105
	60 mm	190	160	130	115
tooth to tooth	65 mm	205	170	140	125
	70 mm	220	180	150	135
	35 mm	210	180	150	135
	40 mm	245	205	180	155
tooth to tooth	45 mm	275	230	200	175
	50 mm	300	250	220	190

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M U L T I S P R E A D
B T 3 (1100 x 16 TYRES) & B 5 E
 FROM 7/88 PRODUCTION

A RATES (Cont'd)...

6 tooth	55 mm	330	275	240	210
to	60 mm	360	300	260	230
0 tooth	65 mm	390	325	280	250
Cont'd)	70 mm	420	350	300	270

* to convert to lbs/Acre deduct 10%

520 B5E MULTISPREAD.

ENGINEERING PARTS LIST

LEVEL	PRODUCT NO.	DESCRIPTION	QUANTITY PER	UNIT OF MEASURE
2.....	M1968	BEARING P208 1 1/2in	8.00	EACH
2.....	M2156	BEARING SKF SY 207-104 2FF	4.00	EACH
2.....	M0103	BEARING P207 1 1/4"	5.00	EACH
2.....	M2006	BEARING F208 1 1/2in	4.00	EACH
2.....	M1967	BEARING 6305	2.00	EACH
2.....	M2205	PULLEY 5X2B 1 1/8B	1.00	EACH
2.....	M1970	PULLEY 12X2B 1 1/4B 1/4K	1.00	EACH
2.....	M1832	PULLEY 8X1C DEEP GROOVE 1 1/4B	3.00	EACH
2.....	M1971	PULLEY 11X1C JOCKEY	1.00	EACH
2.....	M1927	PULLEY 6X1B 3/4B F/DOOR SHAFT	1.00	EACH
2.....	M2204	PULLEY TENSION 3X2	1.00	EACH
2.....	M1928	SPROCKET 50B13 3/4B	2.00	EACH
2.....	M2192	SPROCKET 50B17 1/2B 3/8K	3.00	EACH
2.....	M1921	SPROCKET NYLON IDLER 5/8	3.00	EACH
2.....	M2189	SPROCKET 50B48 1 1/2B 3/8K	2.00	EACH
2.....	M2216	SPROCKET 50B60 1 1/2"B 3/8"K	1.00	EACH
2.....	M2190	SPROCKET 50B38 1 1/2B 3/8K	1.00	EACH
2.....	M2191	SPROCKET 50B34 1 1/2B 3/8K	2.00	EACH
2.....	M2133	SPROCKET CHAIN 1 1/2B 3/8K BT4	2.00	EACH
2.....	M2193	SPROCKET 50B26 1 1/2B 3/8K	1.00	EACH
2.....	M2136	IDLER CHAIN 1 1/2B BT4/8	2.00	EACH
2.....	M2195	SHAFT F/CHAIN DRIVE 1130X1 1/2	1.00	EACH
2.....	M2194	SHAFT F/CHAIN IDLER 800X1 1/2	1.00	EACH
2.....	M2196	SHAFT COUNTER 1200X1 1/2	1.00	EACH
2.....	M2206	SHAFT SPINNER DRIVE 3550X1 1/4	1.00	EACH
2.....	M2207	SHAFT COUNTER 1580X 1 1/2	1.00	EACH
2.....	M2014	SHAFT COUNTER 340MM	1.00	EACH
2.....	M1531	SPRING TENSION 7x1	3.00	EACH
2.....	M2199	SPRING TENSION 5X7/8	1.00	EACH
2.....	M1950	CHAIN 5/8 ROLLER 50-1	22.00	EACH
2.....	M1951	CONN LINK 5/8 ROLLER 50-1	2.00	EACH
2.....	M1952	HALF LINK 5/8 ROLLER 50-1	2.00	EACH
2.....	M2053	RUBBER SKIRTING 75X6	6.50	ME
2.....	M1953	BELT 525MM 2PLY	6.00	ME
2.....	M2187	SPINNER 20"BT2/3 TWIN W/VANES	2.00	EACH
2.....	M2160	SLAT JOINER BT2/3	1.00	EACH
2.....	M2200	FEED CHAIN ASSM BT5/B5E	1.00	EACH
2.....	M1957	NYLON WEAR STRIP 75X10	4.70	ME
2.....	M1958	NYLON WEAR STRIP 40X10	4.00	ME
2.....	M1901	WASHER DRIVE SHAFT 1 1/2in	3.00	EACH
2.....	M1911	JOCKEY ARM DRIVE CHAIN	2.00	EACH
2.....	M1912	JOCKEY ARM FRONT V BELT	1.00	EACH
2.....	M1913	ADJUSTER FEED BELT BT2/3	2.00	EACH
2.....	M2184	GUARD REAR V BELT BT2/3 TWIN	1.00	EACH
2.....	M1858	GUARD FRONT V BELT	1.00	EACH
2.....	M1860	HINGE SET REAR BELT GUARD	2.00	EACH

B5E ENGINEERING PARTS LIST AS AT 10 STOCK LE

LEVEL	PRODUCT NO.	DESCRIPTION	QUANTITY PER	UNIT OF MEASURE
2.....	M1845	BRAKE ASSM FEED DOOR	1.00	EACH
2.....	M1863	COLLAR 3/4in	2.00	EACH
2.....	M1961	GRIP HAND RUBBER 19MM	2.00	EACH
2.....	M1962	GRIP HAND RUBBER 10MM	2.00	EACH
2.....	M2188	PLATE LOWER SPINNER BT2/3TWIN	2.00	EACH
2.....	M2055	RUBBER SKIRTING 150X6	1.50	ME
2.....	CC180	VEE BELT DOUBLE SIDED	1.00	EACH
2.....	B78	VEE BELT	2.00	EACH
2.....	M2168	CHAIN 4MM PLATED	2.00	ME
2.....	M2164	PAINT MARSHALL OFF WHITE	4.00	L
2.....	M2165	PAINT MARSHALL GREY	4.00	L
2.....	M2166	PAINT PRIMER	2.00	L
2.....	M2167	PAINT THINNER	4.00	L
2.....	M1956	CLIP DROP LOCK (anti loose?)	2.00	EACH
2.....	M2141	ADJUSTER REAR V-BELT BT4/8	1.00	EACH
2.....	M1988	SHAFT IDLER PULLEY (ex HEC)	1.00	EACH
2.....	M2208	KOHLER 16HP ELECT. START M16S	1.00	EACH
2.....	M2177	BATTERY 12V	1.00	EACH
2.....	M2017	BOX BATTERY	1.00	EACH
2.....	M2016	RIM 4X10 ALLOY 5 STUD	1.00	EACH
2.....	M2175	TYRE/TUBE 10"	1.00	EACH
2.....	M1778	HUB WHEEL DRIVE 4 STUD	1.00	EACH
2.....	M2018	ARM WHEEL DRIVE B6/8E	1.00	EACH
2.....	M1837	LEVER MANUAL WHHEL DRIVE	1.00	EACH