

SPREADMASTER CUB

CUB SPREADER

OPERATOR INSTRUCTIONS AND PARTS LIST

DEAR CUSTOMER

We take this opportunity of welcoming you as the owner of a Cub Spreader. We want your spreader to be the most efficient and productive piece of equipment you have. This small manual will help you to achieve this objective.

The safe operation and maintenance of your spreader is very important to prevent any personal injury and/or equipment damage. Read and fully understood the following instructions before operating or carrying out maintenance.

WARRANTY

Agriquip warrants new products sold by it to be free from defects in material and workmanship for a period of twelve months for farmers or six months for contractors, after delivery to the initial user. This warranty is for the replacement or repair of any part found to be defective during the warranty period. This warranty excludes any transport freight costs incurred by Agriquip in giving effect to the warranty and specifically excludes all normal maintenance costs.

Replacement parts provided under the terms of this warranty are covered for the remainder of the warranty period applicable to the product in which they are installed as if such parts were original components of that product.

CONTACT DETAILS

Phone: 06 759 8402
Address: 30 Hurlstone Drive, New Plymouth, New Zealand
Postal Address: P O Box 578, New Plymouth, New Zealand

DELIVERY

The machine is delivered fully assembled, however, before use carefully check the entire machine for transit damage and report any problems immediately.

SPREADMASTER CUB

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MACHINE MODELS

1. This manual details the operating instructions for three machine models: Cub 4000 (Single Axle), Cub 4000 (Tandem Axle), Cub 6000 (Tandem Axle). Most parts are inter-changeable between the models, however, where parts are different, the model version will be clearly stated.

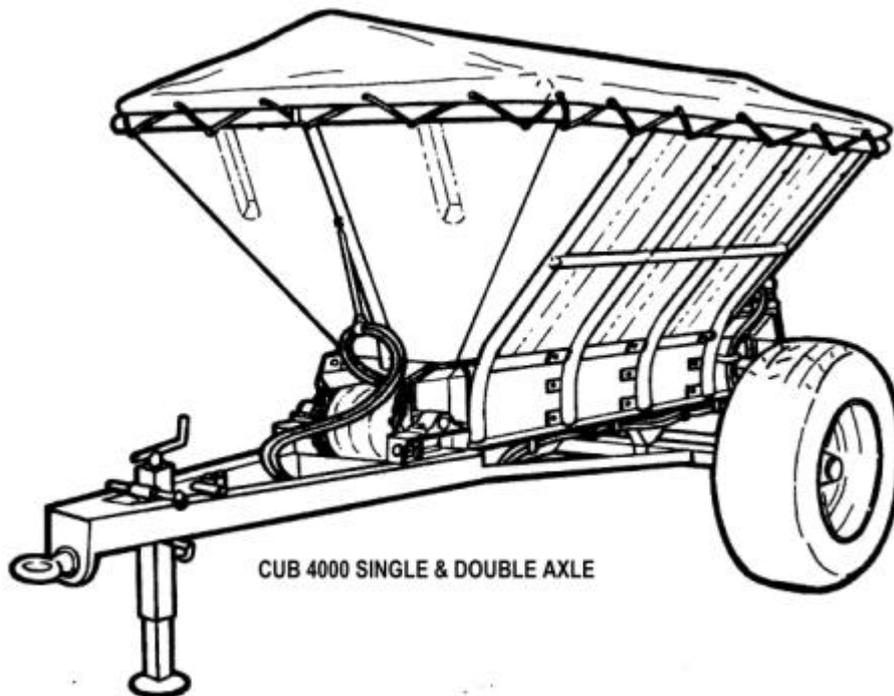
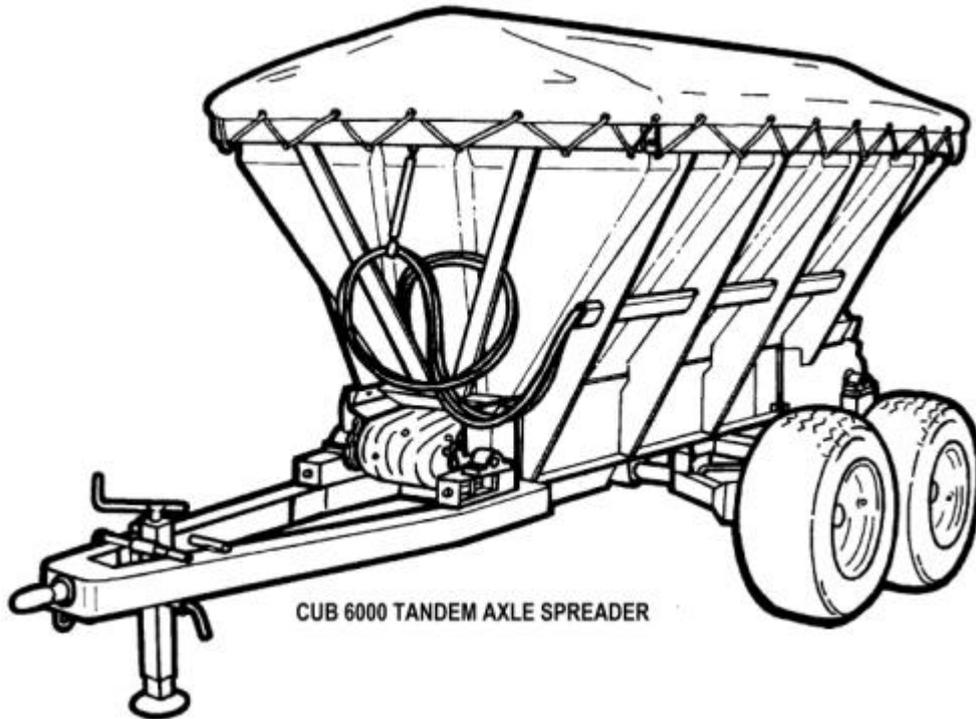


Figure 1

SPREADMASTER CUB

RULES FOR SAFE OPERATION



SAFETY REGULATION - take notice of this sign

Warning and Cautions

- Throughout this manual, the word **WARNING** is used to alert the operator and others to the risk of personal injury during operation of the equipment. **CAUTION** indicates the possibility of damage to the machine.
- Carefully read and take note for the following warnings before attempting to use the spreader.
 - WARNING.** Ensure the tow hitch is in good repair and fit for towing.
 - WARNING.** Ensure the tyres are correctly inflated for the load.
 - WARNING.** Never allow any person to ride on or in the spreader.

Pre Start Checks

- Check the tyres for signs of wear, cuts and impact damage (1). Check the tyre pressure (Fig 2).
- Check the torque on all wheel nuts (2) (Fig 2).
- Check the machine has been greased. Refer to Fig 10 and 11 for the position of the grease points.
- Check the condition of the towing eye (3), tow-bar frame (4), machine chassis (5), axle (6), bin (7) and cover (8) for damage and wear (Fig 2).
- Check the jack (9) is fully raised when the spreader is connected to the tractor (Fig 2).
- Do not exceed the payload of 4.5 tonne (4000 Model) or 6.4 tonne (6000 Model) regardless of the operating conditions e.g. normal working surfaces or rough terrain.

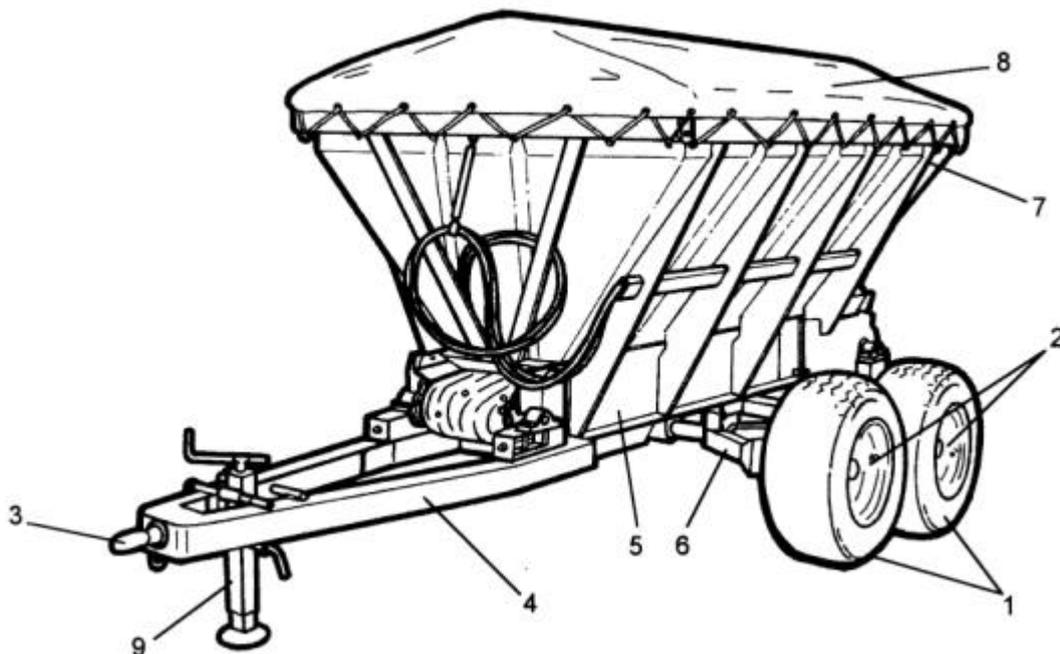


Figure 2

SPREADMASTER CUB

RULES FOR SAFE OPERATION *(continued)*

Pre Start Checks *(continued)*

10. Check the condition and operation of the drive gears (1) the chain (2) and feed belt (3) (Fig 3).
11. Check hydraulic hoses (4) and hydraulic motors (5) for damage and hydraulic fluid leaks (Fig 3).
12. Check the operation of the fertiliser flow control (6) (Fig 3).
13. Check the operation of the hydraulic system control block (7) and check for leaks (Fig 3).
14. Check the condition and operation of the spinners (8) (Fig 3).
15. Check the conditions of the bearing blocks (9) (Fig 3).
16. Check main chain/belt tension by holding a straight-edge underneath spreader between front and rear sprockets. Main chain should sag on slack side of chain no less than 20mm and no greater than 60mm. **Do not over-tighten chain**

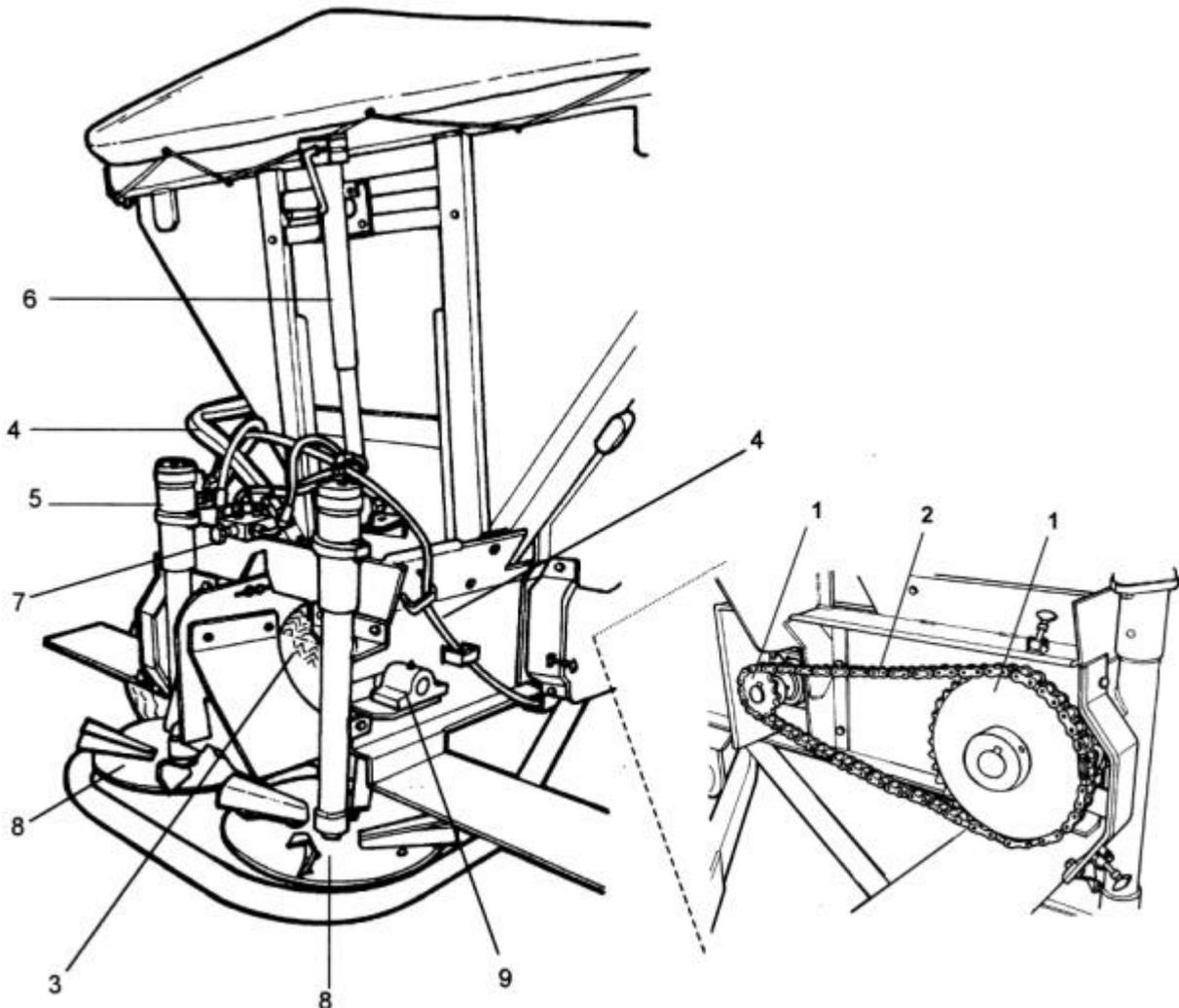


Figure 3 – 6000 Model

SPREADMASTER CUB

OPERATING

17. The spreader hydraulic system is powered from the tractor hydraulic system via two hydraulic hoses (1) (Fig 4). The functions and operation of the spreader are controlled from the tractor.
18. The hoses are connected directly to the tractor hydraulic system (it is recommended to consult the tractor operator manual) which powers the two hydraulic spinner motors and the drive actuating cylinder.
 - a) As it was originally designed, the spreader must operate on a single-acting circuit with an open return to the tractor transmission. This allows the drive actuating cylinder to 'vent to tank' when single-acting control valve goes to neutral thus allowing the cylinder to collapse and disengage ground drive. This is a similar plumbing arrangement to a hydraulic post driver. The Cub Spreaders are designed to handle up to 50 litres/minute maximum flow from tractor, for tractors having higher flow rates than this (at expected spreader use engine rpm) there are two options:
 - i. Adjust flow controls on tractor auxiliary valve controls to regulate down to the above acceptable level.
 - ii. We can offer as an option a high flow control cartridge valve to replace the standard at an additional charge.
 - b) A double-acting circuit can be used only if there is a fourth position float, assuming back pressure caused by pump flow, etc. is low enough so spring can collapse ground drive engagement cylinder to release drive. In operation the only two lever positions used are the third for drive and fourth for disengage. In no case can a double-acting service without float be used as this will lock the fluid when valve is returned to neutral, which does not allow disengagement of the ground drive.
 - c) As an alternative to *b*), a double-acting circuit can be used, but with a separate single-acting circuit for the ground drive actuating cylinder. This arrangement allows continuous spinner operation and independent stop/start of feed belt. This requires a separate hydraulic hose direct from single-acting auxiliary valve on tractor to the cylinder on the spreader. This is an optional extra, and there will be a small charge for this.
 - d) If a spare single-acting circuit is not available on tractor to enable *c*) to be done, a double-acting cylinder can be offered as an optional extra. This is an optional double-acting cylinder and requires two hoses from the tractor auxiliary valve to this cylinder. At all times it should be pointed out that soft engagement/disengagement is desirable for best life.

Note: It is important that the return line has no restriction.

Note: The pressure (or supply) hose is identified by a coloured cable tie attached to the quick-release coupling end.

Note: The hydraulic valve at rear of spreader is marked 'P' for pressure (ie. supply) and 'T' for tank (ie. return).

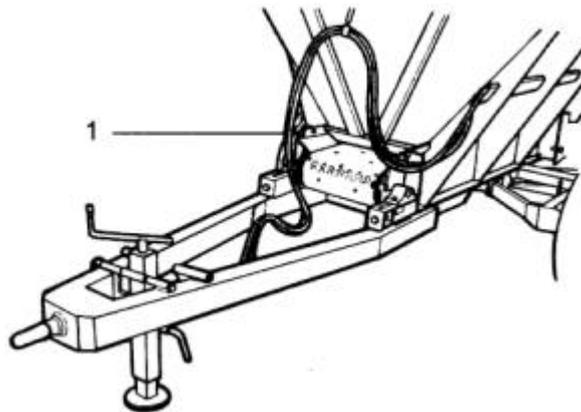


Figure 4

19. The spreader wheels via a chain and gear drive assembly power the feed belt.
20. Figure 5 details the drive assembly (1) in the disengaged position. The drive is held in this position by a hydraulic cylinder (2) (Fig 5).

SPREADMASTER CUB

OPERATING *(continued)*

21. When the spinners are engaged the drive assembly (1) is lowered and connects with the gear on the drive wheels (3) (Fig 5). The power is transmitted via a drive shaft under the feed belt to the other side then back to the feed belt via two gears and a chain drive.

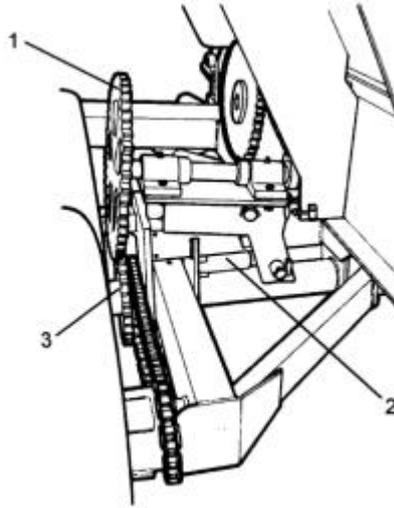


Figure 5 – 6000 Model

22. If surging of the motors and spinners is experienced, the cause is an over supply of oil from the tractor hydraulic system.
23. To stop the surging reduce the oil flow from the tractor. The spreader requires only 40 litres per minute (LPM).
24. If the return line from the spreader is dumping back through the remote it must be connected to a bank with a dump or float facility.

Cub 4000 (Single Axle)

25. Figure 6 details the drive assembly (1) for the single axle spreader. The drive is in the disengaged position and held in this position by a hydraulic cylinder (2).
26. When the spinners are engaged, the drive assembly (1) is lowered and connects with the gear on the drive wheels (3). When the spinners are disengaged, a spring lifts the saddle to the position shown in Fig 6.

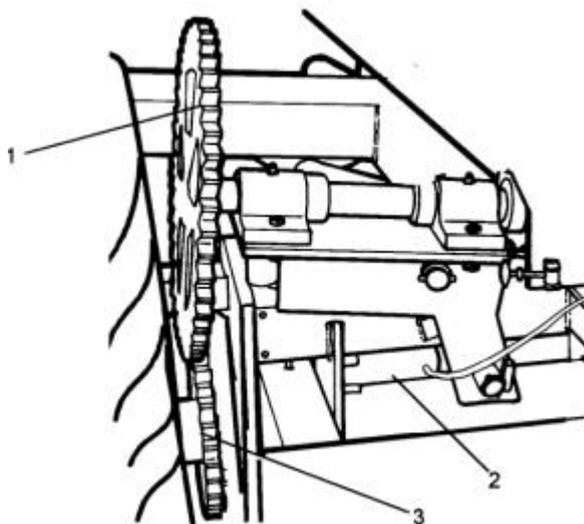


Figure 6

SPREADMASTER CUB

OPERATING *(continued)*

27. Chain tension (1) is maintained by a tension roller (2) (Fig 7).

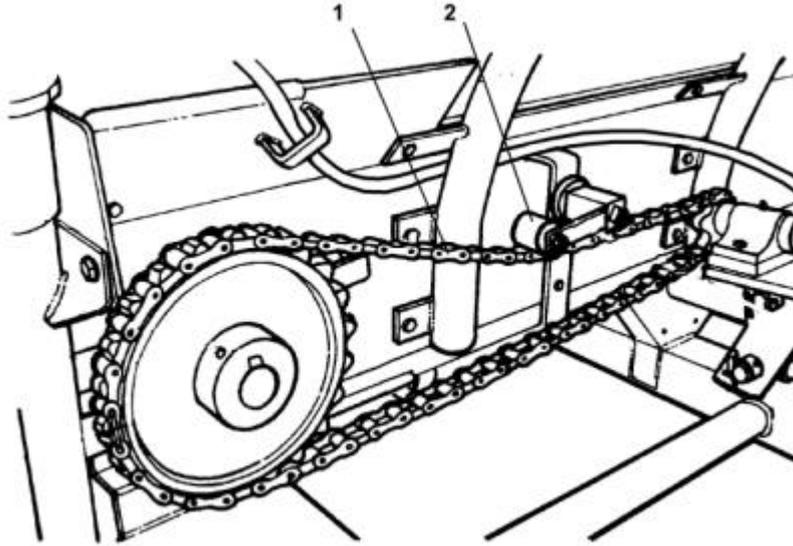


Figure 7

28. When the spinners are engaged, hydraulic oil flows to the motors (1) via a control valve (2). Power from motors (1) is transferred to the spinners (3) via couplers (4) (Fig 8).

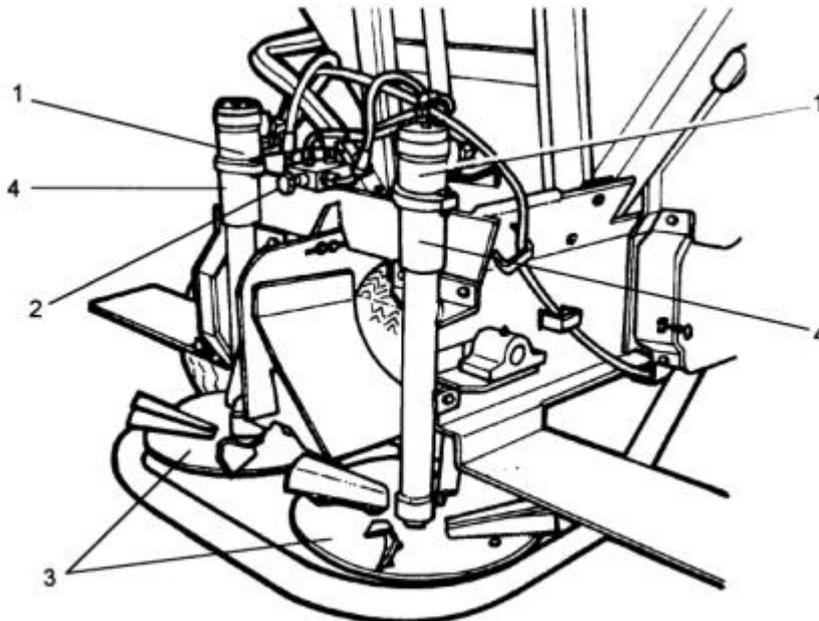


Figure 8

29. The flow of the fertiliser is controlled by a flow control shutter (5). The fertiliser then falls from the belt (6) on to the six finned spinners (3) which throws the fertiliser out in a 25 metre broad span (Fig 9).
30. The flow of the fertiliser out of the bin is controlled by a shutter (1). The screw thread shutter control (2) is manually operated (Fig 9).
31. The volume allowed through on the belt (3) is indicated by a scale (4) on the end of the bin (Fig 9). Each segment on the scale indicates 100 kgs per hectare (approx) or 1 cwt per acre (approx).

SPREADMASTER CUB

OPERATING *(continued)*

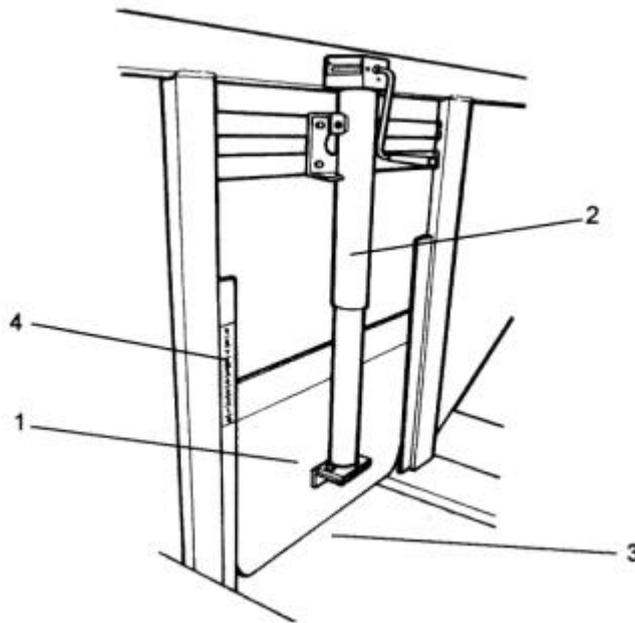


Figure 9

32. Table 1 is a guide to the flow of fertiliser from the bin.

Table 1 - Fertiliser Settings Guide

Scale	Urea @ 24 metres	Super @ 24 metres	Lime @ 10 metres Max. Wide Open	
			Cub 4000	Cub 6000
9		900 Kg/Ha, 9 Cwt/Acre	2250 Kg/Ha	4000 Kg/Ha
8		800 Kg/Ha, 8 Cwt/Acre		
7		700 Kg/Ha, 7 Cwt/Acre		
6	360 Kg/Ha	600 Kg/Ha, 6 Cwt/Acre		
5	300 Kg/Ha	500 Kg/Ha, 5 Cwt/Acre		
4	240 Kg/Ha	400 Kg/Ha, 4 Cwt/Acre	500 Kg/Ha	800 Kg/Ha
3	180 Kg/Ha	300 Kg/Ha, 3 Cwt/Acre		
2	120 Kg/Ha	200 Kg/Ha, 2 Cwt/Acre		
1	60 Kg/Ha	1 00 Kg/Ha, 1 Cwt/Acre		

Spinner Speeds:
 CUB 4000: 850 rpm
 CUB 6000: 900 rpm

SPREADMASTER CUB

MAINTENANCE

33. Maintenance should be undertaken regularly. Good maintenance will extend the life of the spreader and allow safe use.
34. Check the wheel bearings for play and pack with grease every six months.
35. Check the feed belt for cuts, wear and misalignment.
36. Check the drive chains for wear and damaged chains should be removed and cleaned at the end of the season.
37. Check the hydraulic motors and hoses for leaks.
38. Check all hydraulic hoses for chaffing, loose fittings and leaks.
39. Check the tyres for wear, cuts, bulging and correct pressure (480 kPa, 4.8 Bar, 68 psi).
40. Check that the flow control shutter slide is true and is free to move.
41. Figure 9 and 10 indicates the grease nipples (GP) on the spreader.

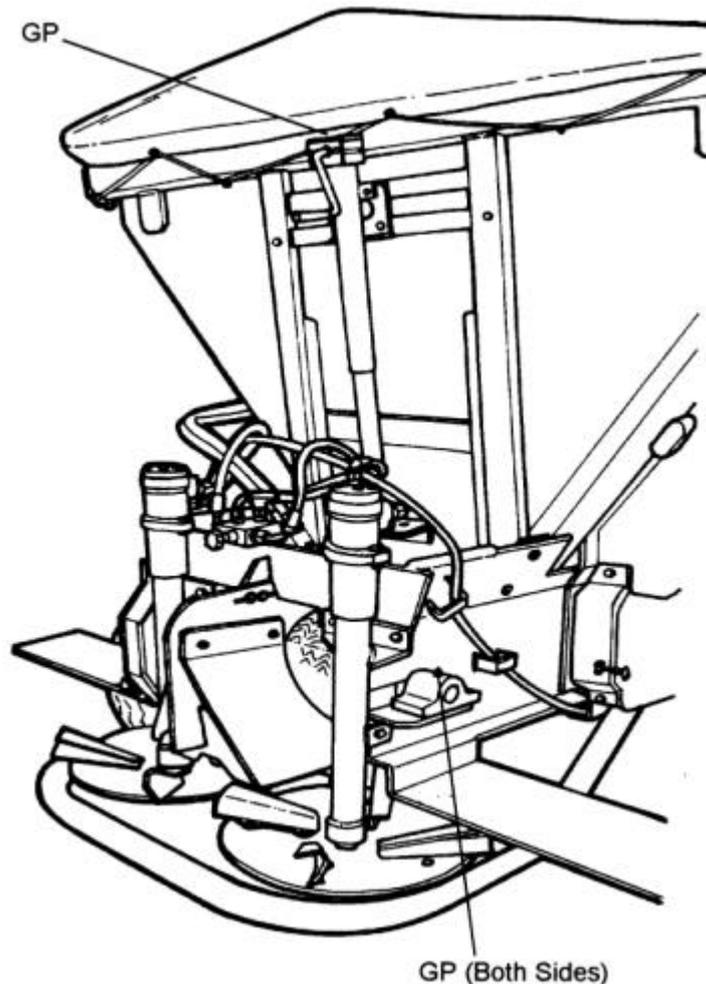


Figure 10 – Grease Points

Critical Greasing

*Initial greasing of the **six** dead eye bearing blocks (Part N° SPU012) is very important for their life.*

Grease at every load for the first ten loads to ensure block becomes impregnated with grease.
Thereafter grease every day when bearing is warm

SPREADMASTER CUB

Maintenance *(continued)*

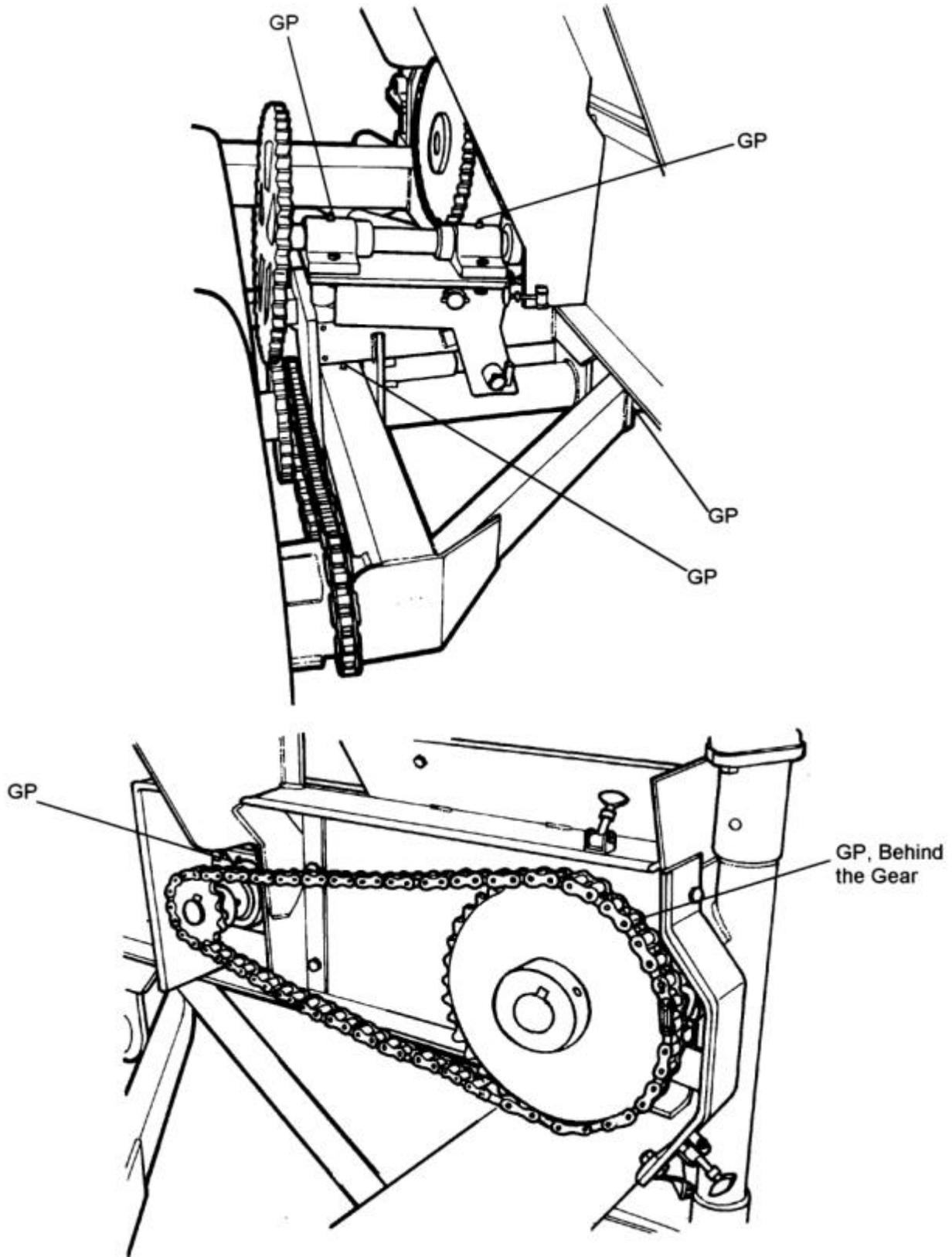


Figure 11 – Grease Points

SPREADMASTER CUB

Maintenance *(continued)*

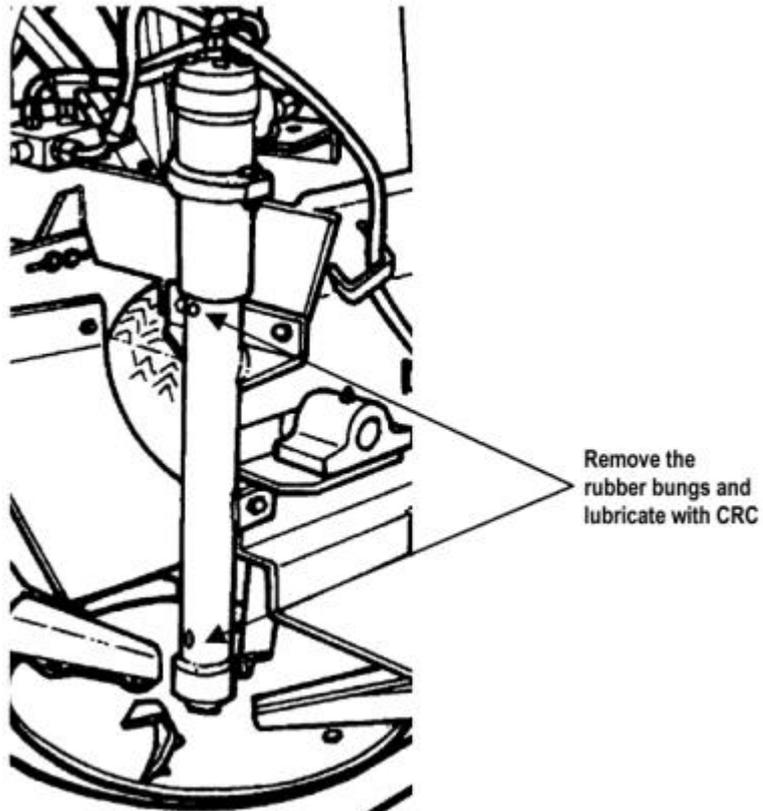


Figure 12 – Lubrication Points

NOTE: Grease Nipples now fitted in place of rubber bungs on the following units with taper roller bearings in spinner tube assemblies:

Model 4000: after serial number 0509157

Model 6000: after serial number 0601172

Lubrication Requirements: 1 pump per grease nipple per 10 hours operation

SPREADMASTER CUB

Maintenance *(continued)*

SPINNER SHAFT DISASSEMBLY

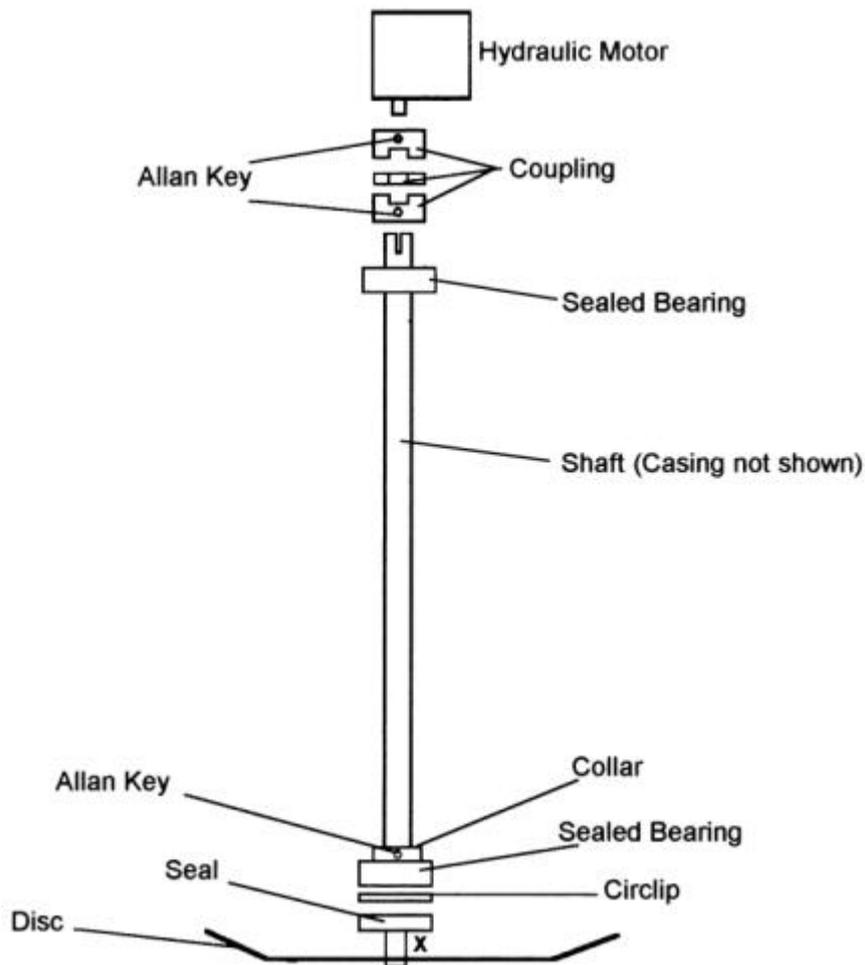


Figure 13 – Spinner Shaft

42. Disassemble the spinner shaft as follows:
- Remove the hydraulic motor.
 - Remove the two rubber bungs in the shaft casing.
 - Measure the gap at point 'X' before disassembly (approximately 20mm).
 - Knock the spinner shaft up until the Alien key aligns with the top and bottom rubber bung hole in the casing.
 - Unscrew the Alien key and drive the shaft down until it is removed completely with the disc. Remove the seal, circlip and bearing.

The assembly above applies to CUB 4000: up to serial number 0509157
 CUB 6000: up to serial number 0601172

NOTE: Grease Nipples now fitted in place of rubber bungs on units with taper roller bearings in spinner tube assemblies – see pages 22 & 23.

SPREADMASTER CUB

REPLACEMENT PARTS

43. To order replacement parts please quote the spreader type, serial number and date of manufacture

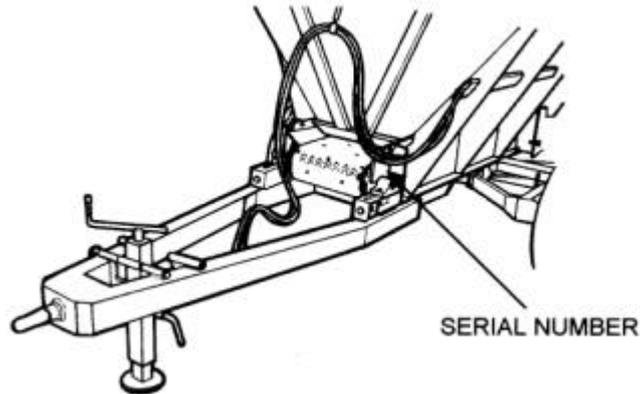


Figure 14

SPREADMASTER CUB PARTS LIST



SPREADMASTER CUB

Parts List *(continued)*

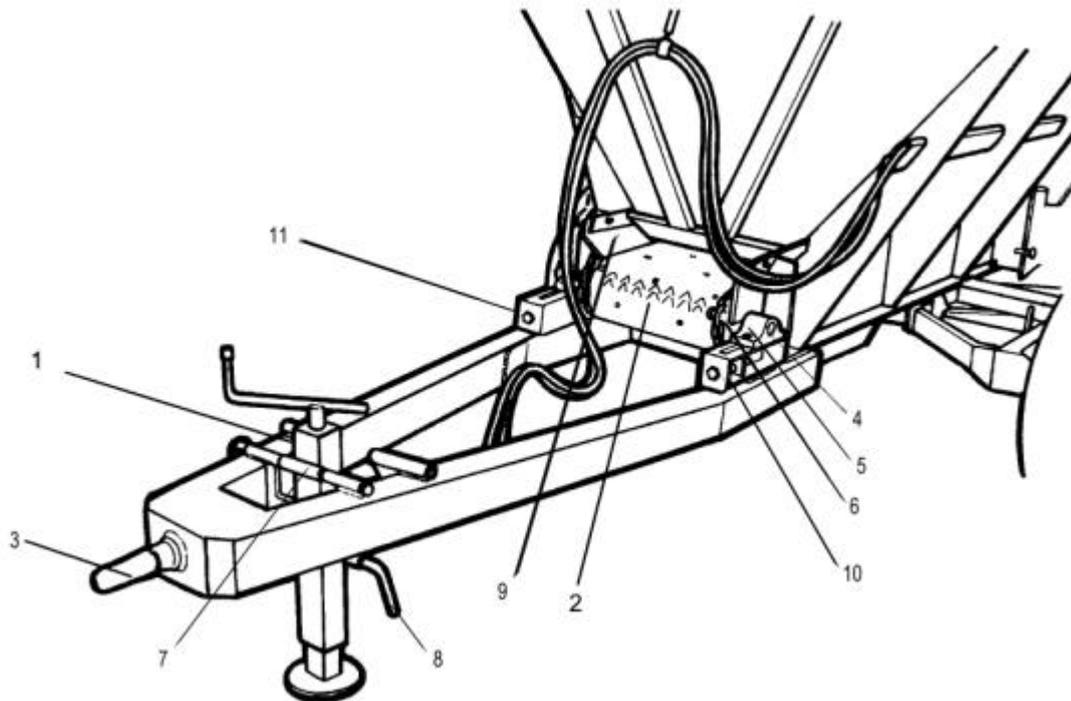


Figure 15 – Front of Spreader

Table 2

Item	Part Number		Description	Qty	Remarks
	4000	6000			
1	SPU053		JACK	1	<i>Refer Note 1</i>
1a	SPU053T		THRUST BEARING, Jack	1	
2	SP4055	SP6055	BELT	1	<i>Belt only</i>
2a	SP4055J	SP6055J	JOINER, Belt	1	
2b	SP4055JR	SP6055JR	JOINER ROD, Belt	1	
2c	SP4074	SP6074	FLOOR MAT & CHAIN ASSY	1	<i>Complete assembly</i>
2d	SP4101	SP6104	CHAIN SLAT ASSY ONLY	1	<i>No belt</i>
2e	SP4084	SP6084	BELT TO CHAIN RIVET KIT	1	
3	SPU032		TOW EYE	1	<i>Quote lettering on original</i>
4	SP4100	SP6100	SHAFT	1	<i>Refer Note 2</i>
5	SPU012		BEARING, Dead Eye	2	<i>40mm shaft</i>
5a	SPU012I		DEAD EYE 1½"	2	<i>1½" shaft</i>
6	SPU101		SPROCKET, Floor Drive 6-T	4	
6a	SP4103	SP6103	SPROCKET CLEANER ASSY	2	<i>For front only</i>
7	SP4075	SP6075	LONG JACK PIN	1	
8	SP4076	SP6076	SHORT JACK PIN	1	
9	SP4102	SP6102	BELT SKIRT	2	
9	SP4082	SP6082	BELT SKIRT INCLUDING BOLTS	2	
10	SP4083	SP6083	BELT ADJUSTOR KIT	2	
11	SPU091		BELT ADJUSTER BOLT	2	
11a	SPU092		BELT ADJUSTER SLIDE	2	

NOTE 1: Later models have box section to plug into draw-bar (no pins).

NOTE 2: Earlier models used 1½" shaft, later models used 40mm shaft – check before ordering.

SPREADMASTER CUB

Parts List (continued)

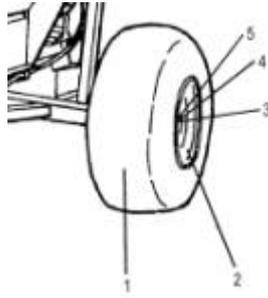


Figure 16 – Wheel Assembly

Table 3

Item	4000SS / 6000SS	6000SA	4000TA	6000TA	Description	SS/SA	TA
1	SPU155	SPU153	SPU040		TYRE	2	4
2	SPU142	SPU154	SPU156		RIM	2	4
3a	SPU145		SPU128	SPU131	INNER WHEEL BEARING	2	4
3b	SPU146		SPU129	SPU132	OUTER WHEEL BEARING	2	4
3c	SPU147		SPU127	SPU133	SEAL	2	4
3d	SPU148		SPU126	SPU135	SEAL RING	2	4
3e	SPU141		SPU139	SPU140	STUB CASTELLATED NUT	2	4
4	SPU150		SP4079	SP6079	HUB CAP	2	4
5a	SPU151		SPU130	SPU134	STUB AXLE	2	4
5b	SPU152		SPU136	SPU137	HUB	2	4

SA = Single Axle; **SS** = Super Single; **TA** = Tandem Axle

NOTE When ordering parts for stub axles state: lettering on hubcap
stub axle square size.

SPREADMASTER CUB

Parts List (continued)

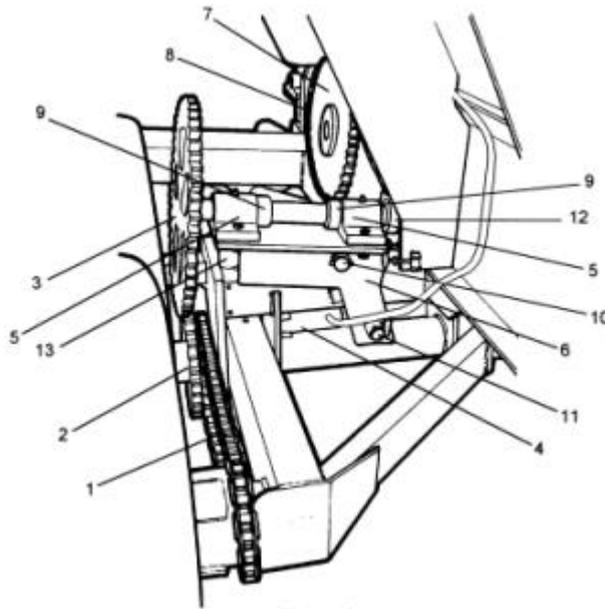


Figure 17 (6000 Model pictured)

Table 4

Item	Part Number		Description	Qty	Remarks
	4000 T/A	6000			
1	SPU066a		CHAIN	1	
1a	SPU066J		JOINING LINK		
1b	SPU066I		INNER LINK		
1c	SPU066.5		CRANK (1/2 LINK)		
2	SPU056		GEAR, 24T/23T	1	<i>Gear sprocket – idler unit only</i>
2a	SPU121		SEAL RING	1	<i>For seal to run on</i>
2b	SPU122		SEAL	1	
2c	SPU123		INNER BEARING	1	
2d	SPU124		OUTER BEARING	1	
2e	SPU078		DUST CAP	1	
2f	SPU160		CASTELLATED NUT	1	
3	SP4016	SP6016	GEAR 48T / SHAFT ASSY	1	<i>Refer Note 1</i>
4	SPU057		CYLINDER, Engage	1	<i>Single acting</i>
4a	SPU125		CYLINDER SEAL KIT		<i>S.A. seal kit – press. seal & wiper</i>
4b	SPU162		DBL ACTING CYLINDER		<i>Double acting ram for engagement</i>
4c	SPU163		DBL ACTING SEAL KIT		
4d	SPU161		HOSE KIT FOR D.A. CYL		
5	SPU012		BEARING, Dead Eye	2	<i>40mm shaft – Refer Note 2</i>
5a	SPU012I		BEARING, Dead Eye	2	<i>1 1/2" shaft</i>
6	SPU058		BRACKET, Saddle	1	
7	<i>see fig 18</i>	SP6011	GEAR	1	<i>40mm shaft</i>
8	<i>see fig 18</i>	SP6066b	DRIVE CHAIN	1	<i>see items 1a, 1b, 1c for links & joiners</i>
9	SPU059		COLLAR, Shaft	2	<i>Refer Note 1</i>
10	SPU060		PIN, Saddle	1	
11	SPU061		PIN, Cylinder	1	
11a	SPU081		CYL. SPIGOT LOCATOR	1	<i>Fits end of cylinder</i>
11b	SPU138		CYL. PIN WASHER	2	<i>Square washer</i>
12	<i>see fig 18</i>	SP6022	GEAR	1	<i>Refer Note 1</i>
13	SPU062		SPRING, Disengage	1	<i>Double spring on later models</i>
14	SP4015	SP6015	DRIVE SPROCKET/HUB	1	<i>23T sprocket welded to hub</i>

NOTE 1: Earlier models used 1 1/2" shaft, later models used 40mm shaft – check before ordering.

NOTE 2: Early model 55mm wide approx., later model 75mm wide – check before ordering.

SPREADMASTER CUB

Parts List (continued)

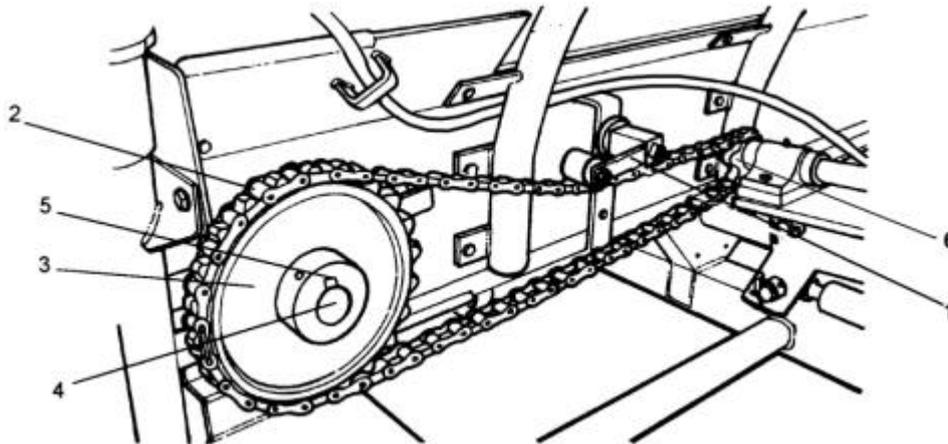


Figure 18 – 4000 Model

Table 5A – 4000 Model only (applies to machines up to S.N° 507144)

Item	Part Number	Description	Qty	Remarks
1	SP4070	TENSIONER	1	
2	SP4071	CHAIN	1	
2a	SP4071J	JOINING LINK		
2b	SP4071I	INNER LINK		
2c	SP4071.5	CRANK (1/2 LINK)		
3	SP4011	GEAR 22T	1	40mm Shaft
3a	SP4011I	GEAR 22T	1	1 1/2 Shaft
3b	SP4011X	GEAR 17T or 18T	1	40mm Shaft – to speed up mat
4	SP4013	SHAFT 40mm	1	Refer Note 1
5	SP4072	KEY	2	
6	SP4085	GEAR 6T	1	40mm Shaft
6a	SP4085I	GEAR 6T	1	1 1/2 Shaft

NOTE 1: Earlier models used 1 1/2" shaft, later models used 40mm shaft – check before ordering.

Table 5B – 4000 Model only (applies to machines from S.N° 507146)

Item	Part Number	Description	Qty	Remarks
1	SP4070	TENSIONER	1	
2	SP4071B	CHAIN	1	
2a	SPU066J	JOINING LINK		
2b	SPU066I	INNER LINK		
2c	SPU066.5	CRANK (1/2 LINK)		
3	SPU011	GEAR 36T		40mm Shaft
3a	SP4011XB	GEAR 27T	1	40mm Shaft – to speed up mat
4	SP4013	SHAFT 40mm	1	
5	SP4072	KEY	2	
6	SP4085B	GEAR 11T	1	40mm Shaft

Table 6A – 4000 Super Single Model only (applies to machines up to S.N° 507144)

Item	Part Number	Description	Qty	Remarks
3	SP4011X	GEAR 17T	1	Standard 40mm
3c	SP4011XX	GEAR 13T	1	To speed up mat

Table 6B – 4000 Super Single Model only (applies to machines from S.N° 507146)

Item	Part Number	Description	Qty	Remarks
3	SP4011XB	GEAR 30T	1	Standard 40mm
3c	SP4011XXB	GEAR 23T	1	To speed up mat

SPREADMASTER CUB

Parts List (continued)

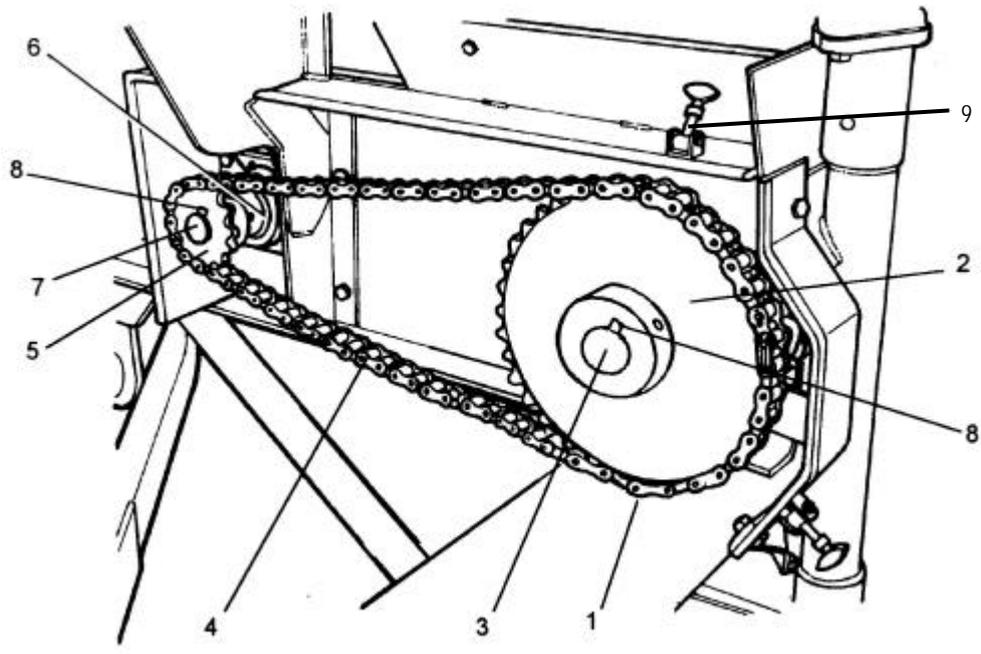


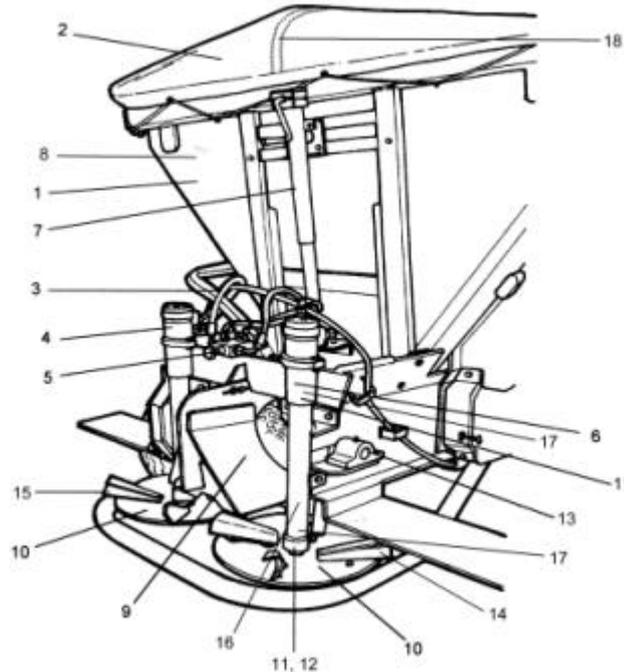
Figure 19 – 6000 Model

Table 7 – 6000 Model only

Item	Part Number	Description	Qty	Remarks
1	SPU012	BEARING (<i>behind sprocket</i>)	1	40mm shaft
2	SPU011	GEAR, 36T	1	40mm shaft
3	SP6065	SHAFT	1	40mm shaft
4	SPU066c	CHAIN, Floor Drive	1	
4a	SPU066J	JOINING LINK		
4b	SPU066I	INNER LINK		
4c	SPU066.5	CRANK ($\frac{1}{2}$ LINK		
5	SP6022	GEAR, 13 Teeth	1	
6	SP6068	BRG HOUSING & INSERT	2	40mm shaft
7	SP6069	SHAFT	1	40mm shaft
8	SP6063	KEY	2	
9	SP6106	CATCH	4	
n/s	SP6085	CHAIN COVER, LH	1	Not shown
n/s	SP6086	CHAIN COVER, RH	1	Not shown

SPREADMASTER CUB

Parts List (continued)



PARTS NOTE
When ordering parts for spinner assembly, check length as this varies with age/model.

Figure 20 – Rear of Spreader

Table 8

Item	Part Number		Description	Qty	Remarks
	4000	6000			
1	SP4BIN	SP6BIN	BIN	1	
2	SP4C	SP6C	COVER	1	
3	SP4043	SP6043	HOSE KIT	1	
4	SPU003		MOTOR	2	
4a	SPU003SK		MOTOR SEAL KIT	2	
5	SPU004		HYDRAULIC VALVE	1	
6	SPU005		COUPLING	2	Consists of 2 halves & spider/element
6a	SPU073		COUPLING SPIDER/ELEMENT	2	
7	SP4131	SP6131	FLOW CONTROL SCREW	1	
8	SP4T	SP6T	TRANSFER SET		Sheet of transfers with all labels
9	SP4046	SP6046	SEPERATOR DEFLECTOR	1	
10	SPU047		SPINNER SHAFT DISC	2	Refer Note 1
11	SPU049		BEARING, Spinner Shaft	2	
11a	SPU110		CIRCLIP, Spinner Bearing	2	
12	SPU050		SEAL, Spinner Shaft	2	
13	SPU012		BEARING, Dead Eye	2	Refer Note 2
14	SP4051	SP6051	SPINNER FLIGHT, Right	4	Later model
	SP4051E		SPINNER FLIGHT, Right	4	Earlier model, narrower style
15	SP4052	SP6052	SPINNER FLIGHT, Left	4	Later model
	SP4052E		SPINNER FLIGHT, Left	4	Earlier model, narrower style
14a, 15a	SPU05B		BOLT, Spinner Flight	4	Stainless Steel
14b, 15b	SPU05N		NUT NYLOC, Spinner Flight	4	Stainless Steel
16	SPU090		SPINNER TUBE BARE	2	
16a	SPU111		COLLAR, Spinner Shaft	2	
16b	SPU077		SPINNER TUBE ASSY	2	Complete, less: flights/motor/coupling
17	SPU120		BUNG, Spinner Tube	2	To seal access hole
18	SP4089	SP6089	COVER BAR	1	

NOTE 1: Early models have exposed shaft, later models vary in overall length – check before ordering.

NOTE 2: Early model 55mm wide approx., later model 75mm wide – check before ordering.

NOTE 3: Spinner assembly parts apply to machines up to the following serial numbers:

CUB 4000: 0509157 CUB 6000: 0601172 see pages 22 & 23 for later taper roller version

SPREADMASTER CUB

Parts List *(continued)*

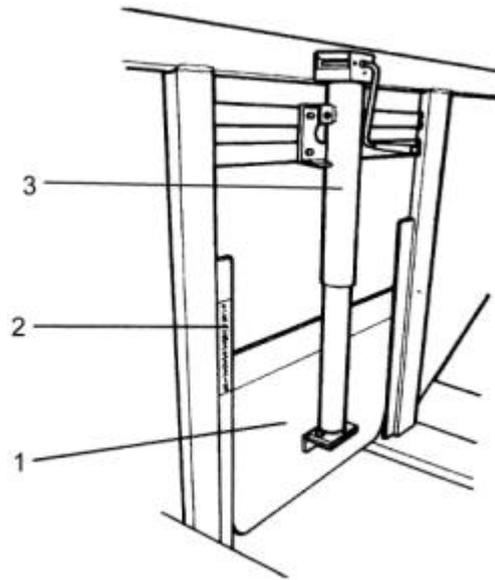


Figure 21

Table 9

Item	Part Number		Description	Qty	Remarks
	4000	6000			
1	SP4042	SP6042	CONTROL DOOR	1	
2	SPU041	SPU041	SCALE DECAL	1	
3	SP4131	SP6131	FLOW CONTROL SCREW ASSY	1	

SPREADMASTER CUB

Parts List (continued)

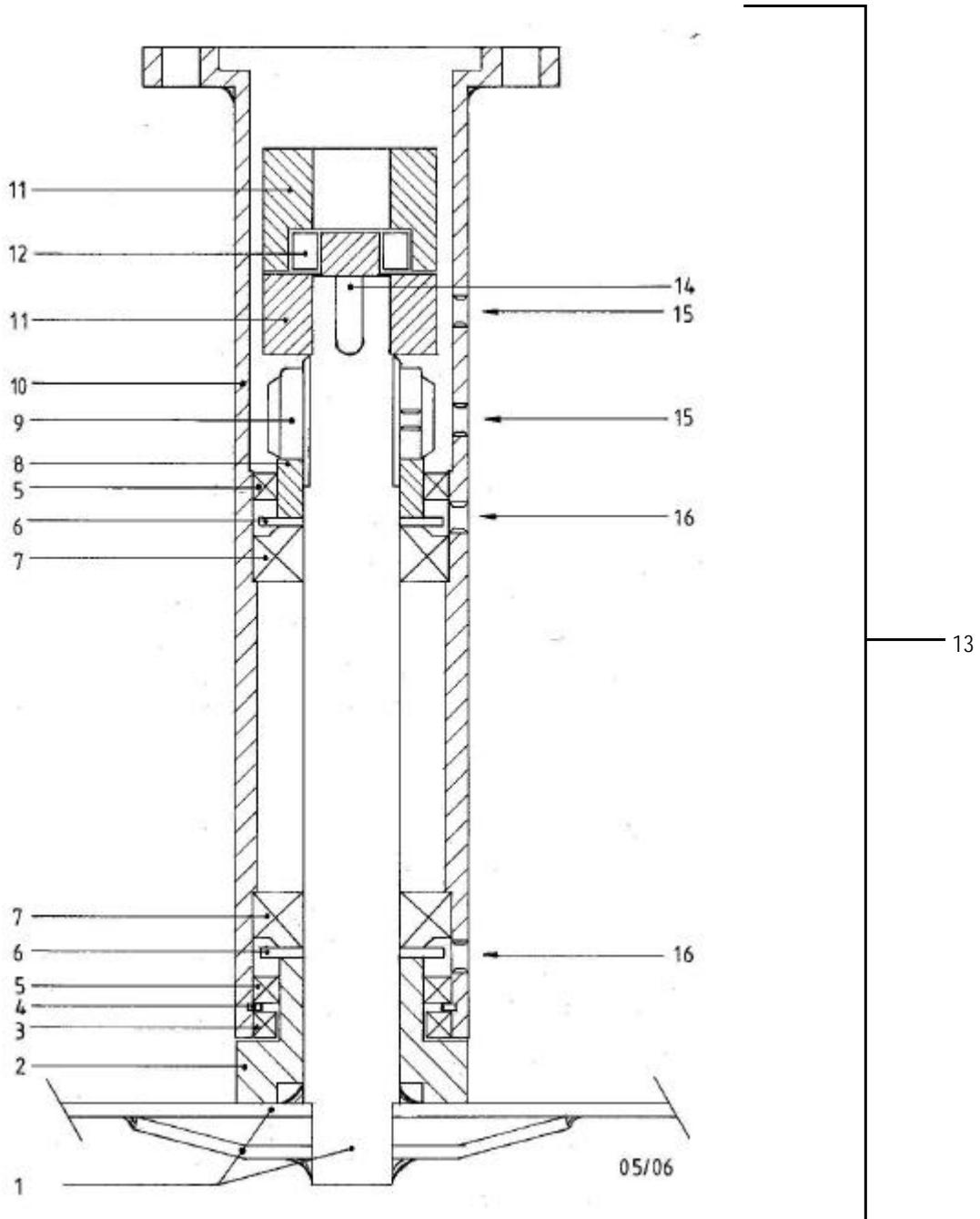


Figure 22 – CUB 4000 & 6000 Spinner Assembly
Taper Roller Bearings

Used on CUB 4000 after serial number 0509157
CUB 6000 after serial number 0601172

SPREADMASTER CUB

Parts List *(continued)*

Table 10 – CUB 4000 & 6000 Spinner Assembly
Taper Roller Bearings

Item	Part Number	Description	Qty	Remarks
1	SPU047T	SPINNER SHAFT/DISC	2	
2	SPU175	LOWER BUSH	2	PETP
3	SPU176	THRUST BUSH	2	NYLOIL
4	SPU110	CIRCLIP	2	
5	SPU181	OIL SEAL	4	
6	SPU178	M.S. WASHER	4	
7	SPU182	BEARING	4	Taper Roller
8	SPU177	UPPER BUSH	2	PETP
9	SPU179	NYLOC NUT	2	With grubscrew lock
10	SPU090T	SPINNER TUBE, BARE	2	
11	SPU005	COUPLING	2	Consists of 2 halves & spider/element
12	SPU073	COUPLING SPIDER/ELEMENT	2	
13	SPU077T	SPINNER TUBE ASSY	2	Complete, less flights/motor/coupling
14	SPU180	KEY	2	
15	SPU183	PLUG 1/8"	4	BSPT thread/access to grubscrews
16	SPU184	GREASE NIPPLE 1/8"	4	BSPT thread

NOTE: Spinner flights as shown in Fig. 20 page 20.

applies to:

Model 4000 after serial number 0509157
Model 6000 after serial number 0601172

