KIRCHNER MACHINE LTD.

2419 - 2nd. Ave. North Lethbridge, Alberta Canada T1H 0C1

Office - (403)328-5568 Sales - (403)328-5569 Parts - (403)327-3678 FAX (403)328-3883

OPERATORS MANUAL

Model H Swath Fluffer

3 point or pull type - hydraulic motor driven

Introduction
Assembly Instructions
Hooking To Tractor
Hooking Up Hydraulics
Operating Instructions:

Tractor Requirements
Direction of Travel
Setting Tooth Depth & Leveling
Angling
Setting Drum Speed
Rotation of Drum
Installation of Flow Divider Kit
Use Common Sense
Safety

Trouble Shooting
Parts List
Flow Divider Sketch

RETAIL DEALER
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INTRODUCTION

Congratulations on your purchase of a new KIRCHNER Swath Fluffer

KIRCHNER Swath Fluffers were designed to lift and fluff a swath of hay or other material, enabling air to get under the swath, thus enhancing the drying or curing process and allowing harvesting to be completed earlier. KIRCHNER Swath Fluffers accomplish this by going over the top of the swath; the reel turns slower than the forward speed, so the teeth gather, lift and then release the swath, leaving it fluffy and off of the ground. This gentle action results in minimal leaf loss or crop damage.

The Hydraulic motor driven reel and basket can be angled manually with an adjust-a-screw or hydraulically with a cylinder, making the fluffer slightly more aggressive and allows for the swath to be moved very little or to a maximum of 18" to either side. The fluffed swath may be a few inches wider, but it will be much higher and may be blown by high winds.

The speed of the reel must be controlled and set with a flow control valve, either built into the tractor or as an option put into the hydraulic hoses to the tractor (refer to section on "Setting Drum Speed") and adjusted in accordance with tractor ground speed. The reel, which rotates the same direction as the tires of the swath fluffer, should be adjusted to turn at approximately 25% to 30% of the speed of the tires. Fluffing action will start at approximately 4 mph with a maximum speed of approximately 12 mph, most people operate between 6 and 9 mph.

The most significant change to the *KIRCHNER Swath Fluffer* is the heavier spring teeth, which are made from 1\4" diameter hard drawn spring material. Although most tooth breakage in the past was caused by running the teeth into the ground, these new teeth are much stronger and more durable. New teeth will also fit onto older *KIRCHNER Fluffers*.

The KIRCHNER Swath Fluffer has been redesigned as a 3 point machine. When sold as pull type machines they will include a pull hitch and have longer hoses to reach the tractor, and they will not include Cat II 3 point pins (P7-212). The swivel axles (SF-130) have been shortened and have a bracket to prevent the wheels from hitting the hydraulic motor or teeth. Set screw locks are provided for pull type machines, allowing the wheels to be locked once the desired angle has been established. A one-way valve (SF-146) on the motor assures that the drum cannot be rotated backwards. All machines and optional cylinder kits include hoses to reach the tractors quick couplers, but do not include male tips.

Shortening of the swivel axles and pull hitch on the fluffer lessens the distance between the tractors rear tires and the tires on the swath fluffer, therefore placing less weight and strain on the teeth (SFX-104) ad bands (SFX-105).

KIRCHNER Swath Fluffers were originally designed to fluff a wet or rained upon swath of hay, but are now being used on a variety of crops and are used to accelerate the drying or curing time between cutting and harvesting, even in ideal weather conditions.

KIRCHNERS are very proud of their new and improved swath fluffers. Sales are steadily increasing with a distribution area encompassing the four western provinces of Canada, and twenty one of the United States.

Please read the "Operators Instructions" thoroughly, as it will help you achieve the best results and eliminate a poor job or prevent damage to you swath fluffer.

ASSEMBLY INSTRUCTION

FOR DEALERS and/or CUSTOMERS

Most *KIRCHNER Swath Fluffers* are shipped completely assembled or with only the 3 point hitch (SF-123) and pull hitch (if included) not installed. Most are shipped upside down and tied to a pallet so they can be handled with a fork lift.

INSTALLATION OF 3 POINT HITCH FRAME (SF-123)

Set the pallet on the floor and gently roll over onto the teeth, so that the pallet is on top and can be easily removed. **Do not damage teeth or bands.** If the wheels and tires are not on, now is the time to install them, with the ten wheel bolts in the hubs. Loosen the two $\frac{5}{8}$ " x 1 ½" square head set screws on the swivel axle mounting pipes of the main frame. **Do not remove or loosen the four** $\frac{5}{8}$ " x 1 ½" square head set screws in lock rings (SF-132). Swing axles to 90 degrees from the main frame and retighten set screws so axles cannot swivel.

Lift the front of the main frame with a forklift, loader, jacks or chain hoist so that the top is horizontal and the weight is on the wheels. Put blocks or stands under the two front corners and block tires, remove forklift or lifting mechanism.

Remove the 1"x 8" bolt and lock nut from the 3 point hitch. With the lift pins to the bottom, slide the 3 point hitch between the two horizontal 2"x 2" square tubes on the top front of the main frame. When the 1" hole in the 3 point hitch is directly over the hole in the 2"x 2" square tubing of the main frame, put the 1" x 8" bolt in from the top and secure with lock nut on the bottom. Tighten until snug, do not over tighten. The hitch should now be able to swivel freely and securely on this bolt.

Install the adjust-a-screw or $3" \times 8"$ hydraulic cylinder between the $1" \times 2"$ flat on the back of the 3 point hitch and the $1" \times 2"$ block on the top right rear of the main frame. Set the adjust-a-screw or cylinder to $24 \frac{1}{4}"$ from center of pin to centre of pin, which will center the 3 point hitch.

HOOKING TO TRACTOR

MODEL H-1 OR H-2 SWATH FLUFFER TO TRACTOR 3 POINT HITCH

Kirchner 3 pt. Swath Fluffers are shipped with $1^{-1}/8$ " diameter pins for CAT II tractors. If hooking to a CAT I or CAT III tractor replace the pins with proper sized pins or use bushings. Use of a quick attach hitch is not recommended. Place the fluffer on level ground; back the top link of tractor to the top point on the fluffer with a 1" pin or bolt (not supplied) then raise the 3 point hitch, which should lift the fluffer off the ground. Raise the stand by loosening the $\frac{5}{8}$ " x 1 $\frac{1}{2}$ " square head set screws, then lift the stand upwards as far as possible, tighten the set screws to prevent the stand from falling out. The wheels should now be able to swivel, if they don't check and remove set screws in the swivel mount pipes, as they are only required on pull type fluffers (refer to setting tooth depth and leveling swath fluffer section).

HOOKING UP HYDRAULICS

Hook the two hoses which come from the hydraulic motor on the drum into the pair of tractor outlets which are designated for hydraulic motor operation by putting on the proper male tips and plugging them in. Most tractor outlets which are designated for hydraulic motor operation are operated by a lever on the tractor and have a flow control device, commonly with a rabbit-turtle gauge for low or high oil output.

Refer to sections entitled "Installation of external flow divider kit" and also "Direction of rotation of swath fluffer drum". If you have a hydraulic cylinder for angling the swath fluffer, plug the hoses from this cylinder into the pair of tractor outlets designated for external cylinder use. If you are using a pull type swath fluffer, plug the hoses from the depth controlled cylinder on the pull hitch into a pair of tractor outlets designated for external cylinder use.

Install or lower stand on the back of the 3 point hitch cross member which is secured with a ${}^5/{}_8$ " x 1 ${}^1/{}_2$ " square head set screw, so that the base of the stand is on the floor, then retighten set screw. Remove stands or blocks that are holding the front of the main frame. The fluffer is now resting on the stand and two wheels. Run the hoses from the hydraulic motor through the main frames horizontal 2"x 2" piece on the left side of the 3 point hitch. Run the hoses from the 3" x 8" angling cylinder (if used instead of an adjust-a-screw) through the same 2"x 2" piece on the right side of the 3 point hitch. Install male tips (not included) on the hydraulic hoses and hook up to the tractor.

If the 3 point hitch has lift pins installed, it is now ready to be hooked up to the 3 point hitch of a tractor or loaded onto a trailer or truck for delivery from the dealership to the customer.

If the pull hitch is to be installed for towing the machine or for a customer who wants a pull type machine, the lift pins must be removed.

INSTALLATION OF PULL HITCH

With the cylinder lug on top, put the pull hitch onto the 3 point hitch in the same holes as used for lift pins. The pull hitch fits on the outside of the 3 point hitch using two ³/₄" x 2 ½" bolts with flat washers on both sides and bushings with a lock nut or a nut and a lock washer. Tighten sufficiently to allow the hitch to be lifted securely. Install an adjust-a-screw or 3" x 8" hydraulic cylinder preferably with a depth control between the top lug on the pull hitch and the top of the 3 point frame where the top link of the tractor 3 point hitch fits (see Figure 1). The swath fluffer is now ready to hook to a tractor draw bar or truck bumper hitch. The swivel axles can be lowered by moving the lock rings if more road clearance is required for towing.

If the swath fluffers are ordered completely disassembled, assembly instructions will be included in the bolt kit. If complete assembly instructions are required, they can be sent direct form *KIRCHNER MACHINE LTD*.

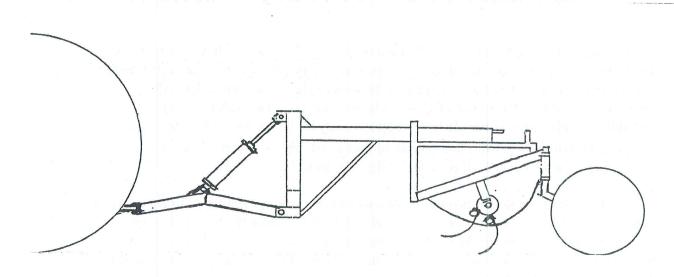


FIGURE 1 PULL HITCH MOUNTED ON SWATH FLUFFER

OPERATING INSTRUCTIONS

KIRCHNER Swath Fluffers are designed to lift and fluff a swath of hay, grain, beans or other material so that air can get under the swathed crop to dry or cure faster and allow harvesting to take place much sooner.

This is accomplished by the teeth of the machine being shaped with a gentle curve to gather the crop and then gradually lift and release the swath. The placement of the 8 bars of teeth was very important in the design of the machine, to keep the outside circumference as small as possible for the proper spacing between each row of teeth to allow room for the teeth to enter the swath and to release without excessive bunching.

When operating, the teeth should be just above the ground. If you set them to low they will grab into the ground and as they release they will spring and flip the swath instead of releasing it too gently and letting it flow away from the back of the swath fluffer. If you set the machine too high the teeth will not get to the bottom of the swath and leave some material untouched.

KIRCHNER Swath Fluffers accomplish the fluffing action because the drum with the teeth on it rotates **slower** than the forward speed of the machine. In other words the drum speed is **retarded** when compared to the forward speed by means of a hydraulic motor. This allows the material in the swath to be pulled forward by the teeth for a short distance before it is picked up and released. The amount of retarding the speed of the drum and the forward speed of the machine is what determines the amount of fluffing you will accomplish. The KIRCHNER Swath Fluffer does not start to create a fluffed swath until they are up to at least 4 mph and most swath fluffing is done from 6 to 12 mph.

On the hydraulic driven swath fluffers, 3 pt or pull type, we have made the basket assembly so that it can be set on an angle by using a hydraulic cylinder or adjust-a-screw between the block on the main frame and the back of the hitch frame. This allows the operator a much wider range of angles available, and when a cylinder is used, the possibility of changing the angle to the opposite way at the end of each windrow thus bringing the windrows closer together or further apart. If you don not have a 3" x 8" cylinder with hoses or and adjust-a-screw they are available as options.

3 pt hydraulic driven swath fluffers now have a bracket welded onto each swivel axle to stop them form swiveling too far and hitting the teeth or the hydraulic motor. When backing up a 3 pt machine, make sure it is raised up with a 3 pt hitch. When backing up a 3 pt machine with a pull type hitch, both set screws must be extra tight to hold the wheels from swiveling.

TRACTOR REQUIREMENTS

The tractor must have adequate clearance, with wheels wide enough to straddle the swath without disturbing or trampling it. You need at least 25 horse power with an adequate hydraulic system with a minimum of 10 G.P.M. with an internal or external flow control valve for hydraulic motor operation, plus one pair of outlets to plug into the motor hoses. For both the H-1 and H-2 swath fluffers, the tractor must have a CAT I, II OR III, 3 point hitch. If the swath fluffer has a hydraulic cylinder to angle the machine, the tractor must have one additional control valve and a pair of couplers to connect the angling cylinder hoses. If using a pull type swath fluffer, the tractor must have one additional valve and a pair of couplers to connect the depth controlled lift cylinder hoses.

DIRECTION ON TRAVEL

In most circumstances, try to follow the same direction that the swather went when you are fluffing the crop. In some cases, depending on the type of swather, etc., travel in the opposite direction will not adversely affect the fluffed swath.

SETTING THE DEPTH & LEVELING SWATH FLUFFER

To achieve a perfect setting for a swath fluffer when hooked to the tractor on level ground, is to have the teeth ½" above the ground and the 3 point frame setting level in the working position (refer to Figure 2). This is accomplished by adjusting the height of the 3 point hitch or the depth control cylinder on the pull type fluffer to set the front of the fluffer. To set the back of the fluffer, raise or lower the swivel axles. A bubble level can be used on the top of the 3 point frames if necessary.

The swivel axles are adjustable by means of lock rings, which fit above and below the swivel mount pipes on the main frame. The lock rings are secured onto the swivel axles with $\frac{5}{8}$ " x 1 ½" square head set screws, which thread through the nut on the lock ring and bite into the pipe of the swivel axles. Refer to **Figures 3 and 4**, illustrating a lower and a higher positioning rather than level. If the back of the fluffer is lower than the front, the fluffer will be **more aggressive**; if the back is higher, the fluffer will be **less aggressive**. This adjustment may have to be repeated in the field to raise or lower the fluffer.

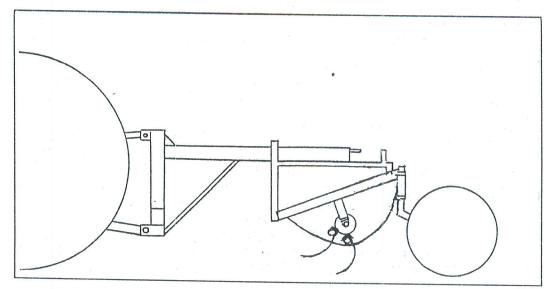


Figure 2: Swath Fluffer Set Level

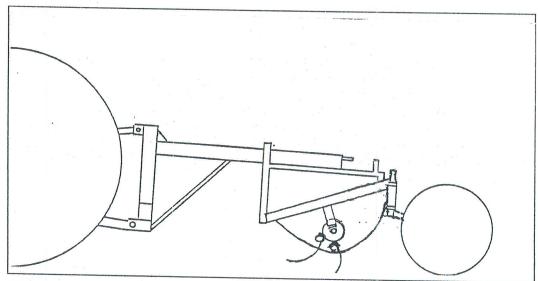


Figure 3: Swath Fluffer with Back End Lower

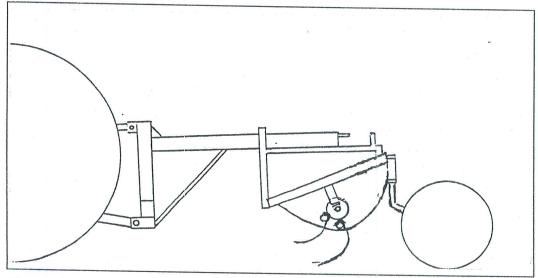


Figure 4: Swath Fluffer with Back End Higher

ANGLING SWATH FLUFFER

KIRCHNER Swath Fluffers are built to fluff and aerate the swath, then return the swath to the same ground when set in the centre position, i.e. 24 1/4" from the centre of the pin to the centre of the pin on the adjust-a-screw or hydraulic cylinder. Extending or retracting the adjust-a-screw or hydraulic cylinder, will angle the fluffer to the left or right. Any angle can be obtained, and will move the swath from very little to a maximum of 18" in either direction in each fluffing operation. To move the swath further may require a faster ground speed, and we have observed twisting of some of the material doing this. To move the swath completely off of wet ground, swath twice, allowing some time between operations.

When operating the swath fluffer on an angle and moving the swath, the performance of the fluffer will be slightly more aggressive. When fluffing with the machine on an angle, of either direction, the teeth will be closer to the ground on one side. To level, adjust the height of the swivel axles by setting one side higher or lower than the other. On 3 point swath fluffers, leveling can be achieved by adjusting one of the tractors 3 point lift arms higher or lower than the other. On the pull type swath fluffers, once the angle for the operation has been established, you must tighten the $\frac{5}{8}$ x 1 ½ square head set screw in the swivel axle mount pipes of the frame, locking the axle in position, otherwise they may swivel and interfere with backing up. Running a fluffer at the furthest angle in either direction continuously will result in the teeth wearing more quickly, as they will be rubbing on the bands.

SETTING DRUM SPEED

This is the most important adjustment of the *KIRCHNER Swath fluffer*. Improper drum speed in accordance with the tractor ground speed will result in poorly fluffed swaths, bunching, and or plugging, as well as damage to teeth and other parts of the swath fluffer. The most common problems occur as a result of the operators running the drum too fast. **Please follow the steps as outlined below to obtain the best results**.

- 1. Decide what ground speed you plan to use.
- 2. Decide what tractor gear and what engine RPM you will use to achieve the speed required.
- 3. Drive the tractor to the first windrow and straddle with the front tractor tires.
- 4. Lower fluffer with 3 point or with cylinder (pull type) as explained in the "Setting Tooth Depth & Leveling" section.
- 5. With tractor clutch in or in neutral gear, put the hydraulic valve in position so that the swath fluffer drum is rotating.
- 6. With the tractor running at pre-determined RPM, move the flow control lever first, to allow the drum to rotate as fast as possible, gradually slow the rotation down until the drum is rotating **VERY SLOWLY**.
- 7. With the tractor now in gear, release clutch and proceed, straddling the windrow. Gradually increase drum speed by adjusting flow control valve as you watch the fluffed swath come out of the back of the swath fluffer.
- 8. When you achieve the proper drum rotation speed you will see the swath flow from the back of the swath fluffer without bunching. Adjust the flow control valve slightly; slower or faster drum speed, until it is perfect.
- 9. When you stop the tractor to inspect your fluffing job, you must also unlock the control valve, allowing it to go to neutral at the same time. Failure to do so may result in pilling of the swath.
- 10. Inspect your work, making sure you are not going to deep or to shallow. Refer to the "Operating Clearance" section. If you are moving the swath, refer to section on "Setting Basket on Angle".
- 11. After making the proper adjustments, get back on the tractor and continue fluffing.
- 12. If you move to another field you may need to start again at #1 of this section, as soil or swath condition may be different.
- 13. If you are still having problems, see section on "Trouble Shooting".

DIRECTION OF ROTATION OF H-1 SWATH FLUFFER DRUM

A one way valve has been installed in one port of the hydraulic motor to prevent it from being reversed. The drum of the swath fluffer must turn **counter-clockwise** when viewed from the **left** end of the fluffer. The drum must turn the **same direction as the tires** when the swath fluffer is moving **forward**. In the rare event that the one way valve was installed in the wrong motor port, the drum will turn backwards. If this occurs, remove the one way valve, install in the other port of the hydraulic motor and reconnect the hoses.

When the tractor control valve is moved to foreword or reverse position, the drum of the swath fluffer will begin to turn; it will not turn when in neutral or in the other position, The tractor relief valve may be heard in the opposite to running position. The tractor control must be locked, hooked or tied into the position that results in the drum rotating in the proper direction.

INSTALLATION OF EXTERNAL FLOW DIVIDER KIT

If the tractor being used with a *KIRCHNER H-1 Swath Fluffer* does not have a built in flow control, we suggest that a optional flow divider kit be purchased form a *KIRCHNER DEALER*. The diagram (**Figure 5**) on the last page illustrates how everything is connected. If an external flow divider is to be used, the following additional parts will be required:

- $2 \frac{1}{2}$ " x 48" hose assembly
- 2 ½" male x ½" female swivel adapters
- 1 ½" tee fitting
- 1 1/2" nipple

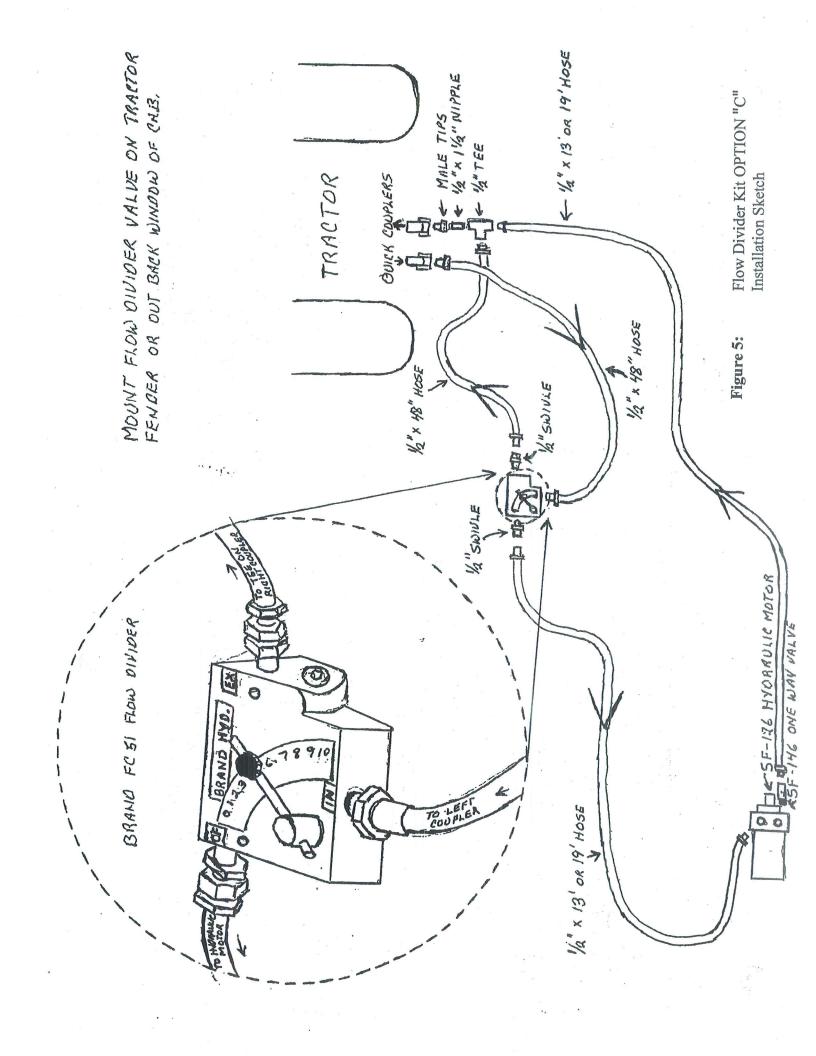
We suggest that the external flow divider valve be mounted where it can be easily controlled by the tractor operator, perhaps on one of the rear fenders or outside of a cab window that opens on the tractor.

USE COMMON SENSE

Do not try to fluff a swath if it is wet, let the top dry out or the machine will not be effective. Do not try to fluff your swaths on windy days, as it will just blow away. Use your *KIRCHNER Swath Fluffer* as a regular part of your haying operation, it will reduce those precious days of curing time and establish a system timed in advance of your baling operation. Cut and condition hay, wait approximately 2 days, fluff your swath, and you will be surprised how quickly you can start baling.

SAFETY

Play it safe! Any machine can be dangerous. Keep away from rotating drum. Do not let anyone ride on the swath fluffer. Keep children and pets a safe distance away.



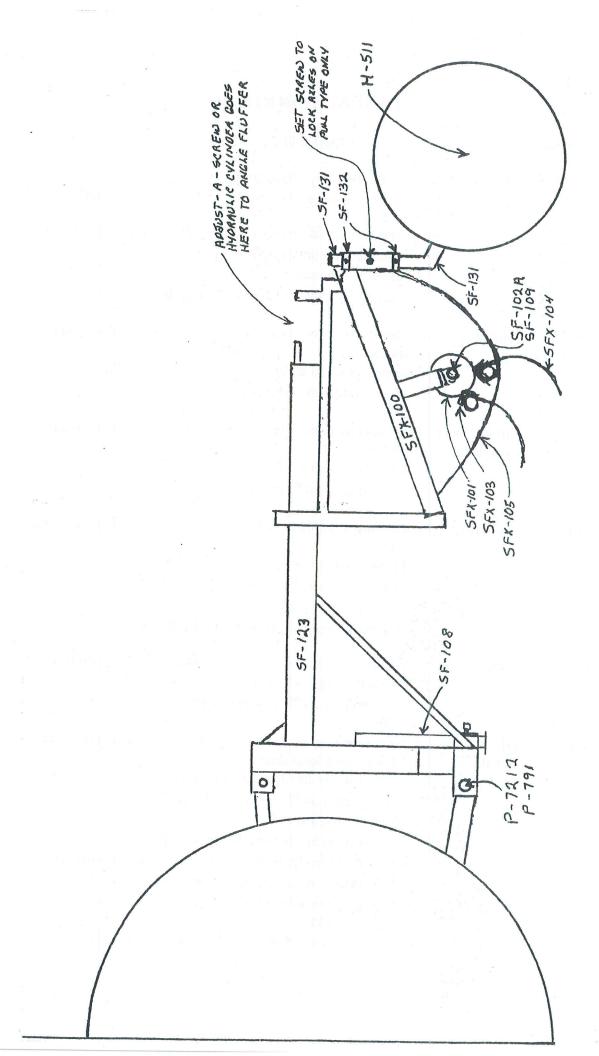


Figure 6:

TROUBLE SHOOTING

PROBLEM

SOLUTION

Tooth Breakage

- teeth to deep, hitting ground
- See section on "Setting Tooth Depth & Leveling"

Bunching

- 1. Improper speed of drum in accordance with ground speed
 - See section on "Setting Drum Speed"
- 2. Machine not level
 - see section on "Setting Tooth Depth & Leveling"

Swath Not Fluffing

- 1. Moving to slow must be above 4 mph increase ground speed.
- 2. Improper drum speed or drum speed to fast
 - See section on "Setting Drum Speed"

Swath not Moving Over with Fluffer Angled

- 1. Moving to slow must be above 4 mph increase ground speed.
- 2. Improper drum speed
 - See section on "Setting Drum Speed"

Leaf Loss, Shattering or Shelling

- 1. Fluffing in the heat of the day try early morning or when there is dew
- 2. Improper drum speed
 - See section on "Setting Drum Speed"
- 3. To much of an angle
 - See section on "Angling Swath Fluffer"

Material Wrapping Around Drum

- 1. Drum speed to fast or ground speed to slow, or combination
- 2. Drum turning backwards
 - See section on "Rotation of Drum"

Swath is Matted Fluffer will Not Lift

- 1. New crop may be growing up through the swath if it has been down a long time
 - Try going in the opposite direction
 - See section on "Direction of Travel"
- 2. Readjust drum speed
 - See section on "Setting Drum Speed"
- 3. Try angling fluffer, even if you didn't want to move swath
 - See section on "Angling Swath Fluffer"
- 4. Try a higher or a lower ground speed
- 5. Set teeth lower
 - See section on "Setting Tooth Depth & Leveling"

SWATH FLUFFER – PARTS LIST (See Figure 6)

Parts List Code

SF	- Swath Fluffer
X	- Basket Assembly
R	- Right - from rear of machin

L - Left - from rear of machine

Quantity	Basket Ass'y SFX Parts	Color
1 1 2 2 8 128 31 1 2	SFX 100 Main Frame 105 1/2 x 36 1/2 SFX-101 Drum & Shaft Ass'y SFX-102 A Pillow Blk Mtg (less brg) SFX-109 1" Bearing c/w Lock Collar SFX-103 Angle c/w 16 Holes & 3 Slots SFX-104 Tooth H.D. 1/4" Diam. SFX-105 Band-curved 3/16x1"c/w 3 Holes SFX-147 Block for Pillow SFX-148 Pipe Spacers (on ends of drums)	Yellow Black Black Yellow Black Yellow Black Black
	Hardware Required To Assemble Complete Ba	asket Assy (Above)
128 24 4 32	3/8 x 1" Carriage Bolt c/w Nut and Lock Washer 1/2 x 1 1/2" c/w Lock Washer 1/2 x 2 1/2" c/w Nut and Lock Washer 1/2" Flat Washer 3 Point Hitch & Pull Hitch	
1 2 2 1 1 2	SF-123 3pt Hitch Frame P7212 1 1/8"Cat II Lift Pins c/w Nut & Lock P791 Klick Pins SF-108 Stand 2" Square x 24" SF-F Pull Hitch SF-F1 Bushings 1"O/D 3/4"I/D x 1 1/4" Long	Black Cad Cad Yellow Black Black
	Hardware Required To Assemble & Mount His	tches
1 1 2	5/8 x 1 1/2" Sq HD Set Screw (in stand) 1 x 8" Bolt c/w Lock Nut 3/4 x 2 1/2" c/w Nut, Lock washer & Flat Washer	(pull hitch)

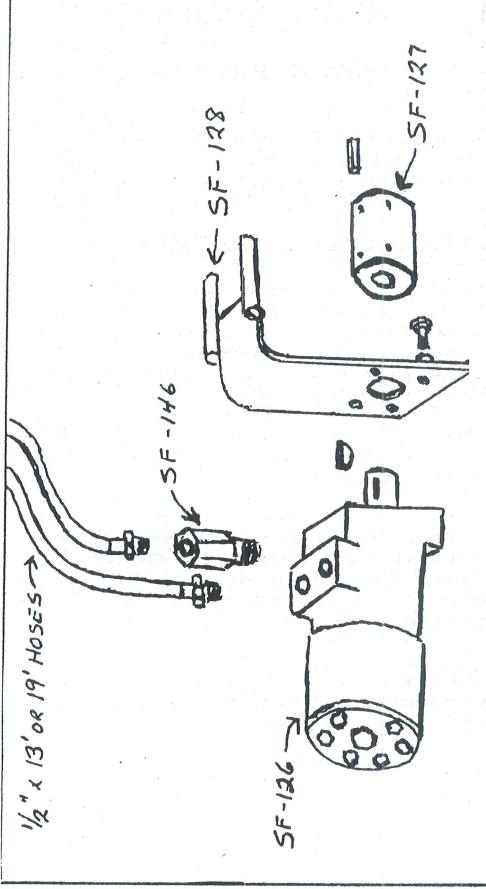


Figure 7:

HYDRAULIC MOTOR & MOUNTING PARTS

<u>Hydraulics, Hydraulic Mounting Parts & Adjust-a- Screw</u>

1 1 1 2	SF-126 Hydraulic Motor 151-7029 SF-146 One Way Valve 7133.001 SF-127 Coupling 1" ID c/w4 Set Screws SF-128 Motor Torque Bar SF-13 1/2 x 13' Hyd Hose (3pt)	Black Cad Black Black
2 1 or 2	SF-19 1/2"x 19" Hyd Hose (pull type) SF-B Adjust-a-Screw	
	Hardware Required to Mount Hydraulics	
4 4 1 1	3/8 x 1" c/w Lock Washer 5/16 x 3/4" Sq. HD Set Screws (Coupling) 1/4 x 1/4 x 2" Key Woodruff Key (in motor shaft)	
	Wheels & Axles	
1 1 4	SF131R Right Swivel Axle w/spindle only SF131L Left Swivel Axle w/spindle only SF132 Lock Rings	Black Black Yellow
	Hardware Required To Mount Axle Assy's	
6 2	Hardware Required To Mount Axle Assy's 5/8 x 1 1/2" Sq Head Set Screws Grease Zerks	
2 2 2	5/8 x 1 1/2" Sq Head Set Screws Grease Zerks H511 Hub Assy Complete (less Spindle) Cast Hub Only c/w Races Pressed In	Black Black
2 2 2 2 2 2 2	5/8 x 1 1/2" Sq Head Set Screws Grease Zerks H511 Hub Assy Complete (less Spindle)	
2 2 2 2 2 2 2 2 2 2	5/8 x 1 1/2" Sq Head Set Screws Grease Zerks H511 Hub Assy Complete (less Spindle) Cast Hub Only c/w Races Pressed In Large Bearing (LM-67048) Small Bearing (LM-11949) Large Race (LM-67010) Small Race (LM-11910) Spindle (H-45-511) Welds On	
2 2 2 2 2 2 2 2 2 2 2 2 2	5/8 x 1 1/2" Sq Head Set Screws Grease Zerks H511 Hub Assy Complete (less Spindle) Cast Hub Only c/w Races Pressed In Large Bearing (LM-67048) Small Bearing (LM-11949) Large Race (LM-67010) Small Race (LM-11910)	
2 2 2 2 2 2 2 2 2 2	5/8 x 1 1/2" Sq Head Set Screws Grease Zerks H511 Hub Assy Complete (less Spindle) Cast Hub Only c/w Races Pressed In Large Bearing (LM-67048) Small Bearing (LM-11949) Large Race (LM-67010) Small Race (LM-11910) Spindle (H-45-511) Welds On Grease Seal (SE-11) Hub Cap (DC-12)	

