

CLOSED CENTER HYDRAULIC SYSTEM SETUP MANUAL

YETTER MANUFACTURING CO.

FOUNDED 1930

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TRACTOR PREPARATION

CLOSED CENTER HYDRAULIC SYSTEM

TRACTOR HYDRAULIC SYSTEM REQUIREMENTS

For proper operation your tractor hydraulic system must be able to pump 12 gallons per minute at a pressure of 1000 psi. The speed of the blower depends upon the hydraulic capability of the tractor it is attached to.

Hydraulic remote outlet for blower drive motor

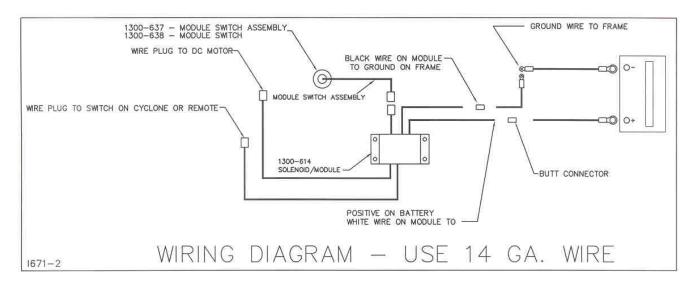
The control lever for the outlet will need to be held in a continuous flow position (closed center system). A selective control valve lever stop must be used to avoid damaging the hydraulic motor seals when shutting off hydraulic oil flow. To shut off blower motor move lever forward into float position. If your tractor has a load sensing system "detent", you should adjust it for operation above 1000 psi. See your tractor operator's manual for instructions on how to adjust the "detent".

The hydraulic motor return line (3/4" not supplied) must be plumbed directly to the tractor oil reserve at a back pressure of 0 psi. If the back pressure exceeds 50 psi. the seals in the hydraulic motor will fail and may damage the motor. Consult your tractor manual or dealer for parts required and installation. NOTE: A quick coupler can be used on the return line, but it must be a full flow non-restricted coupler such as used air/vacuum planter with tractor hydraulic operated blower motor.

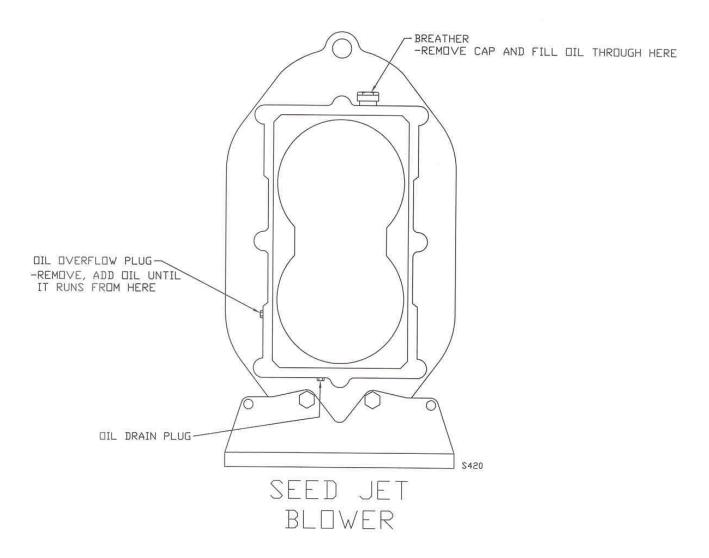
TRACTOR ELECTRICAL REQUIREMENTS

Electrical-minimum 10 amps @ 12 volts surging to 20 amps max. 12-14 ga. wire

connect wire to the 1300-614 solenoid box on the airlock using (2) 2570-612 butt connector 12 ga.



SET UP



Add oil to blower gear case. DO NOT OVERFILL

Use non-detergent, high quality hydraulic or SAE 20 weight.

- 1. Attach the power unit to the frame.
- 2. Plumb hydraulic hoses.
 - A. Connections are tight and no leaks.
- 3. Plumb air hoses.
 - A. Check all connections for no air loss/leaks.
- 4. Install electrical wire.
 - A. Check all electrical connections are tight and wires in good condition.

MAINTENANCE



CAUTION: Never clean, lubricate or adjust a machine that is in motion. Failure to heed may result in serious personal injury or death!

DANGER: Inspect and replace worn or frayed hydraulic hoses. Keep all connections tight. Escaping hydraulic fluid under pressure can have sufficient force to penetrate skin and cause personal serious injury or death. Fluid escaping from a small hole can be almost invisible. Use a piece of cardboard or wood rather that your hands to search for leaks.

- Inspect daily the air inlet screen on the blower intake, clean or replace as required.
- Inspect daily and re-tighten as required all bolt on the power unit and airlock.
- Inspect daily and repair as required all air hoses, hydraulic hoses, fittings and/or electrical wires.
- After season, coat internals of blower cylinder with nox-rust No. VCI10 or equivalent and cap or seal to avoid evaporation. Repeat after each season of use or if the Seed Jet will not be used again for more than a month except if atmospheric conditions producing rapid corrosion, the blower should be protected immediately.
- After season, clean and inspect airlock, remove any dirt, debris, seed and or seed treatments, paint the airlock vanes and the inside exposed surfaces of the airlock housing with nox-rust X-110 or equivalent. Seal the inlet and discharge openings with tape, if any part is left open to the atmosphere it will corrode. Prior to startup, remove tape and inspect internals to insure absence of rust. After this, turn the drive shaft be hand to make sure that the vanes turn freely at all points. Then connect the air piping to the inlet and discharge connections.

OPERATION CLOSED CENTER HYDRAULIC SYSTEM

Tractor – Preparing The Hydraulics

Do Not allow dust, dirt or other contaminants to get into the hydraulic system during installation. Prepare a remote hydraulic connecting point and be sure flow control is operational. Review operation of the detent position of the hydraulic control lever for the selected remote hydraulics. Service the hydraulic system as to filtration and cooling, top up the oil level in the hydraulic reservoir.

NOTE: Most tractors are <u>NOT</u> equipped with return line plumbing from the hitch point to the hydraulic oil reservoir. Always follow tractor manufactures recommendations for suggested installation procedures for a 0 psi. return line.

Connecting Hydraulic Lines To Tractor

- Pressure detent valve must be in "float" position with tractor engine shut off <u>before</u> connecting lines.

IMPORTANT: Always hook up return lines first.

Disconnecting Hydraulic Lines From Tractor

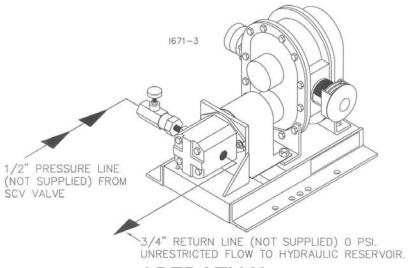
 Pressure detent valve must be in "float" position with tractor engine shut off <u>before</u> disconnecting lines.

IMPORTANT: Always disconnect pressure lines first.

NOTICE: Always disconnect hoses and wires when unhitching.

CHECK HYDRAULIC CONNECTIONS

IMPORTANT: Damage to the blower motor may occur if hydraulic hoses are assembled incorrectly. Check the following hydraulic connection before operating the blower motor.

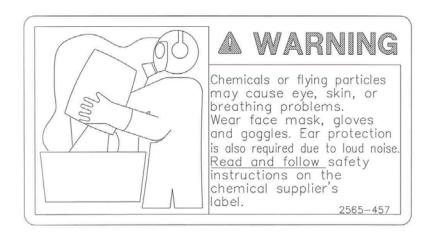


OPERATION

CLOSED CENTER HYDRAULIC SYSTEM

Operation of the Seed Jet hydraulic system requires continuous hydraulic oil flow. A selective control valve lever stop must be used to avoid damaging the pump motor seals when shutting off hydraulic oil flow. The stop will prevent the selective control valve lever from returning to the neutral position. Install SCV lever stop in tractor console before operating Seed Jet system. Only operate the Seed Jet hydraulic system with the SCV lever lock installed. The blower motor will operate when SCV lever is in forward "detent" position. To shut off pump motor, move lever forward into "float" position.

IMPORTANT: DO NOT return SCV lever to "neutral" position to shut off the blower.

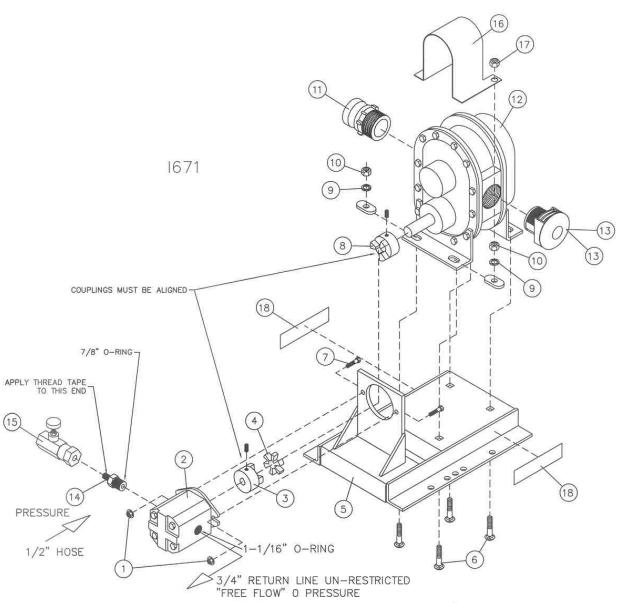


HOW TO TRANSFER SEED:

- 1. Allow the tractor hydraulic oil to warm up.
- 2. Move SCV lever to "detent" position this will start the blower turning and will force air through the hoses out to the cyclone seed discharge.
- 3. Open the slide gate on the airlock to allow seed to flow into the top of airlock. NOTE: DO NOT overload the system with too much seed.
- 4. While securely holding onto the cyclone, move the electrical toggle switch to the "on" position. Momentarily see will start flowing out of the bottom of the cyclone and into the seed hopper.
- 5. To stop seed flow, turn the toggle switch to the "off" position.

 NOTE: Seed will continue to flow until the discharge hose is emptied of seed. Turn off the toggle switch before the seed hopper is full.
- 6. Turning the electrical toggle switch on and off controls the operation of the 12 volt DC motor on the airlock/ hopper assembly.
- 7. Once the seed has been transferred and stopped flowing from the cyclone, move the SCV lever to the "float" position to stop the blower.

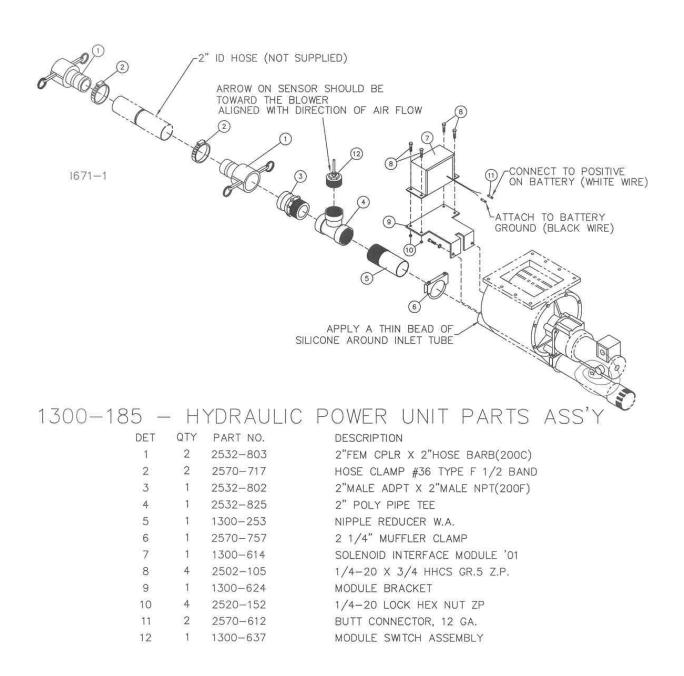
PARTS IDENTIFICATION



1300-186 - HYDRAULIC POWER UNIT ASS'Y

DET	QTY	PART NO.	DESCRIPTION	DET	QTY	PART NO.	DESCRIPTION
1	2	2520-258	3/8-16 HEX FLANGE LOCK NUT ZP	10	4	2520-352	1/2-13 HEX NUT ZP
2	1	2532-830	HYDRAULIC MOTOR (SNU2-11-S-C1-06)	11	1	2532-802	2"MALE ADPT X 2"MALE NPT(200F)
			SEAL KIT#B22120-0040K SAUER/SUNDSTRAND	12	1	1300-404	BLOWER, ROOTS 33 URAL, BLACK
3	10	2532-831	5/8" COUPLER JAW (L09537242)	13	1	2532-828	2" VENT CAP W/SCREEN
4	1	2532-832	COUPLER SPIDER, URETHANE S.C. (L095)	14	1	2532-834	ADAPTER, 1/2 TO 7/8
5	1	1300-254	HYD. BLOWER FRAME W.A.	15	1	2532-835	FLOW VALVE (FRIA15H4P-11)
6	4	2505-344	1/2-13 X 1-3/4 CAR BLT GR 5 ZP	16	1	1300-625	HYDRAULIC DRIVE SHIELD
7	2	2502-232	3/8-16 X 1 1/2 HHCS GR 5 ZY	17	2	2520-357	1/2-13 LOCK HEX NUT ZP
8	1	2532-833	3/4" COUPLER JAW (L09511087)	18	2	2565-446	SEED JET II DECAL, SMALL
9	4	2525-352	1/2 MED LOCKWASHER ZP				

PARTS IDENTIFICATION



TROUBLESHOOTING

Problem	Cause	Solution	
Hydraulic motor will not run.	Pressure hose in return outlet. Hydraulic check valves backwards. Insufficient tractor hydraulic pressure.	Switch pressure & return hoses. Check and install correctly. Repair tractor.	
	pressure.	Reconnect hoses.	
	Incorrect hydraulic connections.	Install lever stop in tractor console.	
	SCV lever stop not installed.	Re-cut lever stop.	
	SCV lever stop cut to wrong length.		
	Tractor SCV linkage is mistimed.	Tractor SCV linkage must be readjusted.	
	"Flow Checking" at SCV prevents return oil flow-50 Series tractors.	Install auxiliary return line coupler kit in SCV.	
	Control valve failed.	Replace control valve.	
	Tractor oil level low.	Add oil.	
	Faulty fan motor.	Repair motor.	
Oil leakage at the fan motor.	Hydraulic hose fittings not tight. Motor bolts not tight. Faulty fan motor shaft seal.	Apply thread sealant and tighten. Tighten motor bolts. See your dealer. Some wetness is expected.	
	Faulty fan motor. Return line not connected.	Return for service. See your dealer. Connect return line, replace motor seal.	
Oil showing up on hydraulic lines.	Shaft seal failure on hydraulic motor seal.	Replace seal. WARNING: DO NOT DISASSEMBLE HYDRAULIC MOTOR!! THE SHAFT SEAL S AN EXTERNAL REPLACEMENT ITEM.	
Hydraulic motor slow.	Tractor is not putting out adequate oil.	Have tractor dealer inspect tractor hydraulics. Bad couplers. Check couplers on tractor and hoses. Try different couplers.	
	Hydraulic motor malfunction.	Repair or replace motor.	
	Tractor hydraulic valve not retained in detent position.	Adjust valve detent.	

TROUBLESHOOTING

Problem	Cause	Solution
Blower speed is uneven.	Operating with open center hydraulic system. Tractor oil filters are plugging. Low hydraulic fluid level in tractor.	Recommend closed center or load sensing system. Service tractor hydraulic filters. Maintain adequate oil levels.
	Faulty flow control valve.	Service tractor hydraulic system.
Hydraulic oil is too hot.	Insufficient oil cooling. Plugged cooling radiator. Cooling radiator is too small. No cooling radiator. Oil reservoir is too small. Oil bypass rate is very high. Low hydraulic fluid level in the tractor.	Review fan drive requirements. Clear radiator cooling fins. Increase cooling capacity. Add cooling capacity. Increase reservoir size. Reduce bypass rate. Increase fan speed. Maintain adequate oil levels.
Hydraulic control lever in tractor not holding detent position.	Hydraulic line pressure exceeds the detent setting. Pressure spikes in the hydraulic system. Faulty detent mechanism.	Hold the lever to maintain operating position. Operate selector and spool valves gently. Service as required.
No seed being transferred.	Seed gate closed. Tractor oil cold. Seed hose plugged.	Open gate. Run tractor to warn oil. Disconnect hose and clear.
Airlock will not turn.	Low power to electric motor.	Check wiring connections.
		Check battery voltage.
	Airlock vane blocked.	Remove blockage. Example: wet seed.
	Faulty electric motor.	Test/Replace electric motor.
	Module switch open.	Blower not running.
	Poor or damaged wiring.	Inspect and repair motor module and switch wiring and connections.
	Blown fuse.	Module fuses.
	Module switch out of adjustment.	Adjust so switch is open when blower not running. Closed when blower is running.
	Faulty remote switch.	Replace remote switch.
	Failed module.	Replace relay or module.

NOTES:

Our name Is getting known

Just a few years ago, Yetter products were sold primarily to the Midwest only. Then we embarked on a program of expansion and moved into the East, the South, the West and now north into Canada. We're even getting orders from as far away as Australia and Africa.

So, when you buy Yetter products . . .you're buying a name that's recognized. A name that's known and respected. A name that's become a part of American agriculture and has become synonymous with quality and satisfaction in the field of conservation tillage.

Thank you.

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