

MAXIMIZER BELT CONVEYOR SEED HANDLING SYSTEM 1310-001 OPERATOR'S MANUAL PART IDENTIFICATION

VETTER

YETTER MANUFACTURING CO. FOUNDED 1930 Colchester, IL 62326-0358 Toll free: 800/447-5777

309/776-3222 (Fax) Website: <u>www.yetterco.com</u> E-mail: <u>info@yetterco.com</u> You've just joined an exclusive but rapidly growing club.

For our part, we want to welcome you to the group and thank you for buying a Yetter product.

We hope your new Yetter products will help you achieve both goals-increase your productivity and increase your efficiency so that you may generate more profit.

This operator's manual has been designed into four major sections: Foreword, Safety Precautions, Installation Instructions and Parts Breakdown.

This **SAFETY ALERT SYMBOL** indicates important safety messages in the manual. When you see this symbol, be alert to the possibility of **PERSONAL INJURY** and carefully

read the message that follows.

The word **NOTE** is used to convey information that is out of context with the manual text. It contains special information such as specifications, techniques and reference information of a supplementary nature.

The word **IMPORTANT** is used in the text when immediate damage will occur to the machine due to improper technique or operation. Important will apply to the same information as specified by note only of an immediate and urgent nature.

It is the responsibility of the user to read the operator's manual and comply with the safe and correct operating procedure and to lubricate and maintain the product according to the maintenance schedule in the operator's manual.

The user is responsible for inspecting his machine and for having parts repaired or replaced when continued use of the product would cause damage or excessive wear to the other parts.

It is the user's responsibility to deliver his machine to the Yetter dealer who sold him the product for service or replacement of defective parts, which are covered by the warranty policy.

If you are unable to understand or follow the instructions provided in this publication, consult your local Yetter dealer or contact:

#### YETTER MANUFACTURING CO.

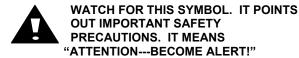
309/776-4111 800/447-5777 309/776-3222 (FAX) Website: www.yetterco.com E-mail: info@yetterco.com

### WARRANTY

Yetter Manufacturing warrants all products manufactured and sold by it against defects in material. This warranty being expressly limited to replacement at the factory of such parts or products as shall appear to be defective after inspection. This warranty does not obligate the Company to bear cost of labor in replacement of parts. It is the policy of the Company to make improvements without incurring obligations to add them to any unit already sold. No warranty is made or authorized to be made, other than herein set forth. This warranty is in effect for one year after purchase.

Dealer \_\_\_\_

Yetter Manufacturing warrants its own products only and cannot be responsible for damages to equipment on which mounted.



#### YOUR SAFETY IS INVOLVED.

It is your responsibility as an owner, operator, or supervisor to know and instruct everyone using this machine at the time of initial assignment and at least annually thereafter, of the proper operation, precautions, and work hazards



- 1. Read and understand the operator's manual before operating this machine. Failure to do so is considered a misuse of the equipment.
- 2. Make sure equipment is secure before operating.
- 3. Always keep children away from equipment when operating.
- 4. Make sure everyone that is not directly involved with the operation is out of the work area before beginning the operation.



- Read and understand instruction manual before operating.
- 2. Keep all safety shields and devices in place.
- 3. Make certain everyone is clear before operating machine.
- 4. Keep hands, feet, and clothing away from moving parts.
- 5. Shut off power to adjust, service, or clean.
- 6. Make sure machine is secured before operating.
- 7. When transporting, shut fuel lever off.
- DO NOT operate machine when guards are removed.

which exist in the operation of the machine in accordance with OSHA regulations.

# Safety Is No Accident

The following safety instructions, combined with common sense, will save your equipment from needless damage and the operator from unnecessary exposure to personal hazard. Pay special attention to the caution notes in the text. Review this manual at least once each year with new and/or experienced operators.

- 5. Make sure all safety devices, shields, and guards are in place and are functional before beginning the operation.
- 6. Shut off power to adjust, service, or clean.
- Keep hands, feet, and clothing away from moving parts. It is a good idea to remove all jewelry before starting the operation.
- 8. Visually inspect the machine periodically during operation for signs of excessive vibration, loose fasteners, and unusual noises.

### Pre-Operating Check List

- 1. Hook up hydraulic hoses. Use thread tape **only** on **pipe thread** connections.
- 2. Fill hydraulic oil to level with the upper hole of the resevoir.
- 3. Adjust the hydraulic pressure regulator.
- 4. Purge air from hydraulic cylinder.
- 5. Service the gas engine and gear reduction box.
- 6. Connect the wire harness to the solenoid switch of the hydraulic system.
- 7. Check all bearings for proper lubrication.
- 8. Check the tube for foreign material.
- 9. Check all belts for proper tension.
- 10. Re-tighten all setscrews.
- 11. Start unit and check tender belt alignment while unit is empty.
- Do not leave electric toggle switch in the "ON" position when not in use – will drain battery.

#### BELT CARE.....

It is suggested that the unit be run every two to three days or more often if possible. This tends to keep the tender belt alive and stops any forming of the belt to the curvature of the tube while the unit is not in use.

NOTE: Belt may deteriorate if not in use and exposed to weather conditions for any prolonged period of time.

### MAINTENANCE

### **Operation Sequence**

- 1. Check drive belt for proper tension.
- 2. Make sure tender belt is properly tensioned.
- 3. Allow unit to run empty for a few minutes to flex tender belt.
- 4. Check tender belt for proper alignment.
- 5. Before shutting power off, be certain drive belt and tender belt are empty of seed.

#### STORAGE.....

Temporary Storage

- 1. Relieve tension from all belts; both v-belt and tender belt.
- 2. Store all belt equipment in a dry place. If equipment cannot be stored out of the weather, cover engine and mechanical parts with waterproof material.

### IMPORTANT

#### Prolonged Storage

- 1. Remove all belts and store in a cool, dark, dry place.
- 2. Wash tender belt thoroughly.
- 3. Wash tender tube both inside and out.
- 4. Lubricate all bearings.
- 5. Store in a dry shelter.

Preventative maintenance is the key to the long life of any mechanical device.

Careful and systematic inspection of the machine will result in maximum, trouble-free service.

#### BELT REPLACEMENT.....

To replace the belt, Remove the splice pin and hand rotate the head roller until belt has been removed. Install appropriate belt as outlined in assembly instructions.

#### HEAD ASSEMBLY TAKE-UP.....

After extended use, the tender belt may stretch to the point that there is not sufficient take-up in the head assembly to tighten it. Obtain additional take-up by cutting a 6" to 8" section from the belt. A new splice lacing may be ordered from your dealer or from Yetter Mfg. Inc.

#### PERIODIC CLEAN-OUT

Due to the characteristics of certain materials, residue sometimes collects between the tender belt and the tube. Check the unit periodically for any material build up in this area. If residue appears excessive, remove the tender belt and thoroughly wash the belt and tube. Allow belt and tube to dry before reinstalling the belt.

#### LUBRICATION.....

All bearings which are fitted with grease zerks should be lubricated at the conclusion of each operating day. Before greasing the bearings, make certain the zerks are free of dirt, otherwise this will be passed into the bearing race. If the unit will be out of service for period of time, purge the bearings.

#### TENDER BELT TRAINING PROCEDURE.....

A tender belt correctly installed and trained will run straight and true. The belt must run centered on all head rollers and tail roller throughout the entire belt length.

Incorrect installation and training can result in severe edge damage, material spillage, material leakage through the skirt rubber at the loading point, and excessive power demands. Material spillage is the usual reason for belt carcass ruptures and pulley covers gouging and stripping, while leakage at the skirt rubber results in excessive conveyor cover wear under the skirts.

#### ALIGNMENT.....

All rotating parts-head roller and tail roller must be at a 90 degree angle to the direction of belt travel, must be level, and the midpoint of each centered on a line when properly aligned.

Alignment is checked by running a tight wire from the center of the head roller to the center of the tail roller.

Level all rotating parts. If a part is not level, the belt will run to the lower side.

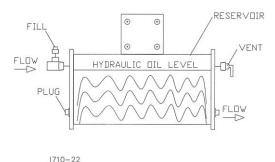
### MAINTENANCE

#### BELT SPLICING.....

A tender belt must not run out at the splice area. Run out will occur if the belt is not cut square or splice is not installed square.

#### HYDRAULIC FLUID......

Use high quality hydraulic oil. Fill oil to level with the upper hole/vent of the reservoir.



### **OPERATION**

- 1. Prior to the start-up, check to see that belt is free from any objects that would bind or tear.
- 2. On starting for the first time, with no load on belt, apply power for a few seconds only to see that the tender belt is well centered in the tube and on the return.
- 3. It should be noted at this time that too much tension on the on the tender belt will make adjustment or training much more difficult, shorten the life of the belt, and waste power. The belt should be tensioned tight enough so the drive roller does not slip.

IMPORTANT Fuel valve: When engine is not in use leave the fuel valve in the <u>OFF</u> position to prevent fuel in the oil crankcase and or carburetor flooding. Shut off the fuel and run the motor completely out of fuel before transporting.

### BELT TRAINING.....

It is essential that the tender belt be properly trained at all times. For this reason, all rotating parts should always be at right angles to the tender belt.

Slight adjustment of roller shafts may be required to keep belts centered on them i.e., if the belt runs to one side of the roller – apply more tension to this side of the belt by advancing the roller shaft on this side.

- 1. One or more rotating parts not in alignment.
- 2. Belt tensions in some part of system (usually at tail section) are below minimum recommendation.
- 3. Belt not loaded centrally.

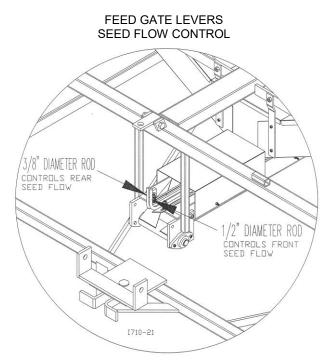
When a belt is initially started, it should be jogged around the system to determine if a major run out occurs which could damage belt and belt edges. If run out occurs at some point of the system, the reason is usually a roller out of alignment before the run out. Alignment should be rechecked before restarting.

After the belt can be safely run without damage, final training should begin with the head roller. The belt must enter the head roller in the center without movement from side to side. If the belt is not centered on the tail pulley, the return strand of the belt should be observed for any section that is not centered.

After the belt is trained empty, the belt should be trained with a load. The take-up adjustments are made to prevent belt slip and keep tensions at all points above minimums recommended when belt is operating with a load.

If slip occurs under, additional belt tension should be adjusting the take-up only enough to prevent slip from occurring under load, and when started with a load.

### 1. Close the feed gates.



- 2. Load seed box onto frame and engage the lock down brackets. Ensure that the seed boxes are secure before transporting.
- 3. Open seed box gate.
- 4. Start the engine.
- 5. Position the tube over the hopper, To raise the tube, open the ball valve on the hydraulic cylinder until the tube reaches the desired height then close the ball valve.
- 6. Set the flow rate with the feed gates.
- 7. Move the toggle switch to control the start and stop of the seed flow.

## CLEANOUT...

- 1. Close the seed box gate <u>before</u> the seeding implement is full, so that the Maximizer belts are empty of seed before transporting.
- 2. Run the conveyor until all the seed that is on the belts has been transferred.
- 3. Close the feed gate.

### TRANSPORTING...

- 1. Lower the tube.
- 2. Shut off fuel supply.
- 3. Run engine empty of fuel.
- 4. DO NOT operate machine on steep slopes.
- 5. Make sure all the lights and reflectors that are required by local highway authorities are in place, are clean and can be seen clearly by all traffic.
- 6. Make sure the seed box gates and the feed gates are closed.
- 7. Make sure the seed boxes are securely seated and locked to the frame.

### SERVICE...

- 1. Check engine oil level daily.
- 2. Change engine oil every 25 hours.
- 3. Check hydraulic oil levels regularly, level should be to the vent elbow fitting.
- 4. Check for oil leaks daily.
- 5. Grease bearings every 50 hours.
- 6. Clean hydraulic filter annually, replace if necessary.
- 7. Check bearings annually.
- 8. Inspect the hydraulic motor shaft couplers annually.
- 9. Check belt tension and adjust as required. Belt tension should be just enough to drive the belt. Belt will require 10 hours of operation to break in. Some adjustment may be required at this time.
- 10. Belt and splice should be in good condition, check daily.

# **BELT ASSEMBLY INSTRUCTIONS**

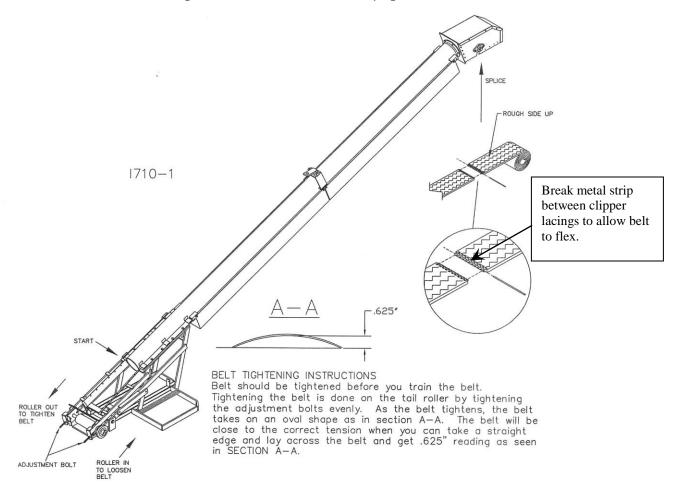
At the start point, see view of head and tail assembly. Feed a cable or rope through the head assembly down to the tail assembly. Now attach the belt to the rope/cable and use the rope/cable to pull the belt through the tube. Make sure the rough side is up and the smooth side is down against the inside wall of the tube.

Route both ends around head and tail roller, slide belt forward and back through tube so ends of the belt meet at a convenient location.

Align and interlace belt and clipper lacings. Slip splice pin through clipper lacings to secure. NOTE: The clipper lacings are connected on a metal strip that needs to be broken to allow the belt to flex.

Tighten belt by turning adjustment nuts on head roller assembly in. Tighten evenly on each side until belt is tight.

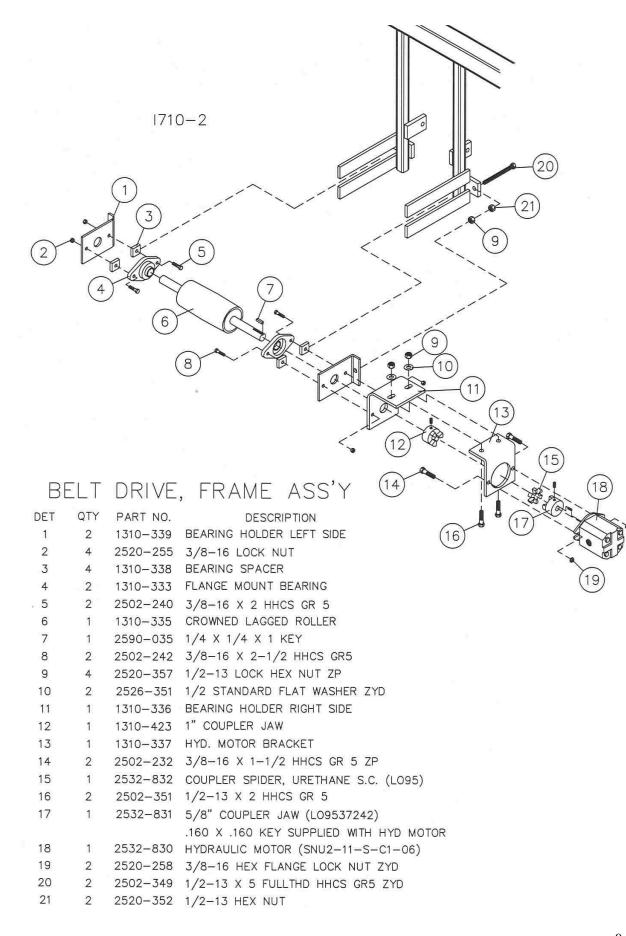
To train belt, see belt training instructions in this manual, page 6.

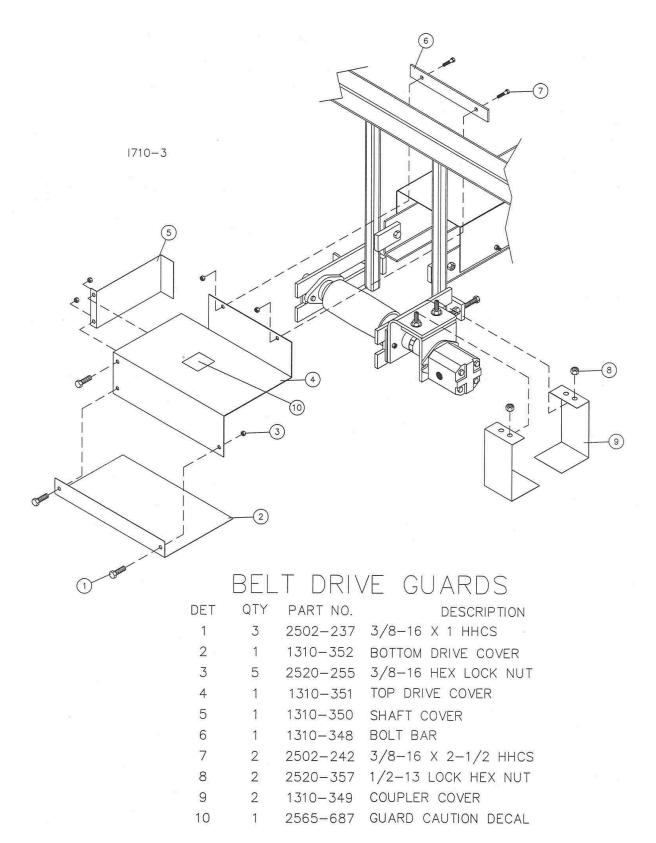


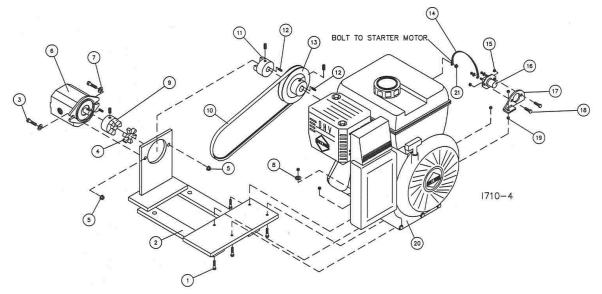
## **TROUBLE SHOOTING**

This is a list of many of the possible problems, causes and solutions to problems that you may encounter. If you have a problem that is not covered, please contact your dealer or Yetter Manufacturing Co. at 1-800-447-5777. Before you call, please have your operator's manual and the model number of the machine.

PROBLEM	CAUSE	SOLUTION
Drive belt will not run or runs slow.	Pressure regulator is bypassing oil	Turn the adjustment bolt <u>clockwise.</u>
	Hydraulic motor coupling is loose.	Connect the shaft drive coupling.
Belt edge is frayed.	Belt not aligned.	Align and tension belt.
		Make certain belt is not rubbing against anything.
Tender belt will not turn.	V-belt is loose.	Tighten V-belt.
	Key sheared on pulley.	Replace key.
Engine will not start.	Fuel shut off.	Turn on fuel.
	Poor battery connection or dead battery.	Tighten and test battery.
		Make sure toggle switch is off when not in use or disconnect battery ground cable.
Electric switch will not work.	Poor connection.	Check connections.
WOIK.	Broken wire.	Test wire for continuity.
Seed will not flow.	Blockage exists.	Remove blockage.
	Feed gates are shut.	Open feed gate.
Tender tube will not rise with hydraulic cylinder.	Engine not running.	Start engine.
	Hydraulic motor drive coupling is loose.	Connect the shaft drive coupling.

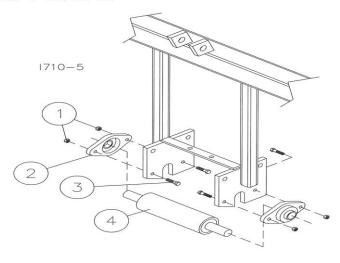




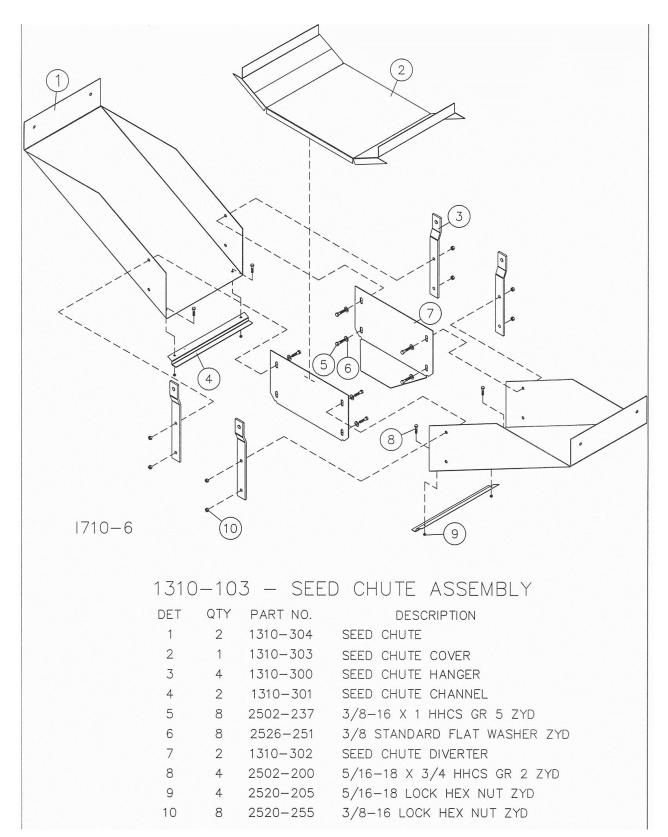


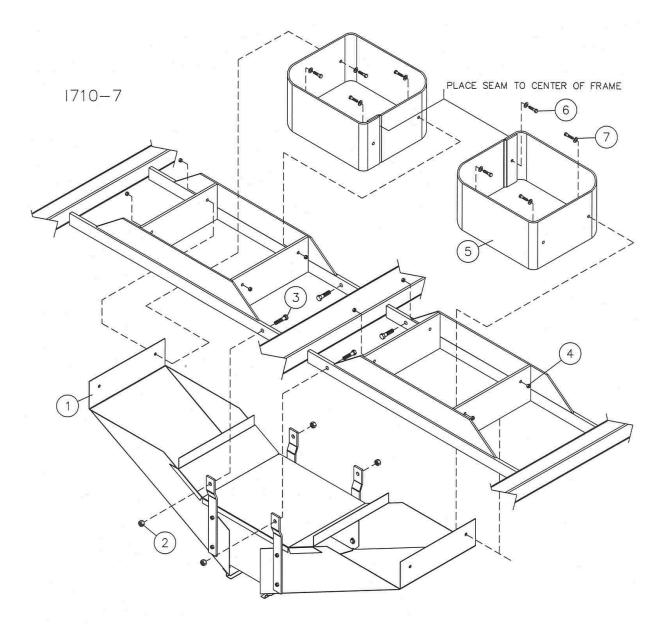
### 1310-104 - MOTOR ASSEMBLY

DET	QTY	PART NO.	DESCRIPTION	DET	QTY	PART NO.	DESCRIPTION
1	4	2502-207	5/16-18 X 2 HHCS	12	2	2590-035	1/4 X 1/4 X 1 KEY
2	1	1310-229	MOTOR MOUNT WA	13	1	1310-416	5.5" PULLEY
3	2	2502-245	3/8-16 X 1-3/4 HHCS	14	1	1310-425	WIRE ASSEMBLY, #690630
4	1	2532-832	COUPLER SPIDER, URETHANE S.C. (L095)	15	2	2520-152	1/4-20 HEX LOCK NUT
5	3	2520-258	3/8-16 FLANGE LOCK NUT ZYD	16	1	1310-424	STARTER SWITCH
6	1	2532-830	HYD MOTOR	17	1	1310-422	STARTER SWITCH MOUNT
7	2	2526-253	3/8 SAE FLAT WASHER	18	2	2502-105	1/4-20 X 3/4 HHCS
8	1	2526-201	5/16 STANDARD FLAT WASHER ZYD.	19	5	2520-205	5/16-18 HEX LOCK NUT
9	1	2532-831	5/8 COUPLER JAW	20	1	1310-415	BRIGGS AND STRATTON, 8 HP, ENGINE
10	1	1310-417	B-64 BELT	21	1	2520-206	5/16-18 FLANGE LOCK NUT
11	1	1310-423	1" COUPLER JAW				



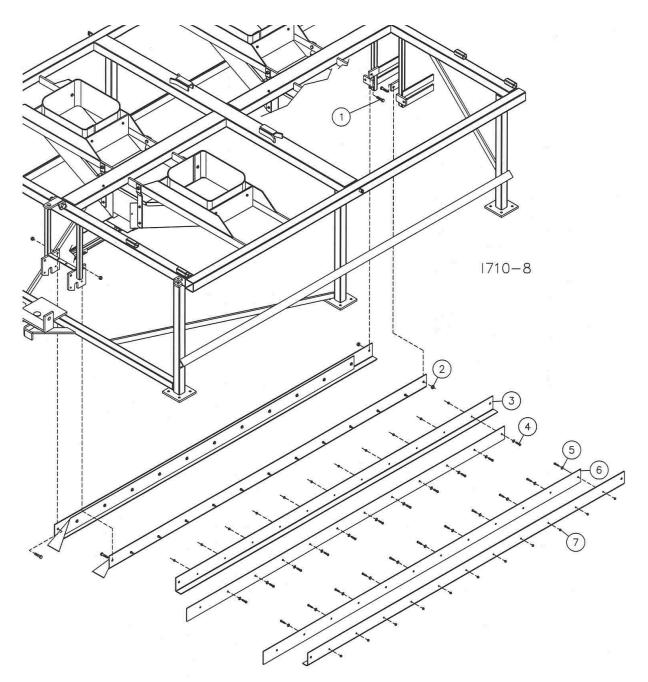
FRC	dnt	ROLLER,	FRAME ASS'Y
DET	QTY	PART NO.	DESCRIPTION
1			3/8-16 LOCK HEX NUT ZYD
2	2	1310-333	FLANGE MOUNT BEARING
3	4	2502-232	3/8-16 X 1 1/2 HHCS GR 5 ZYD
4	1	1310-334	FLAT LAGGED ROLLER



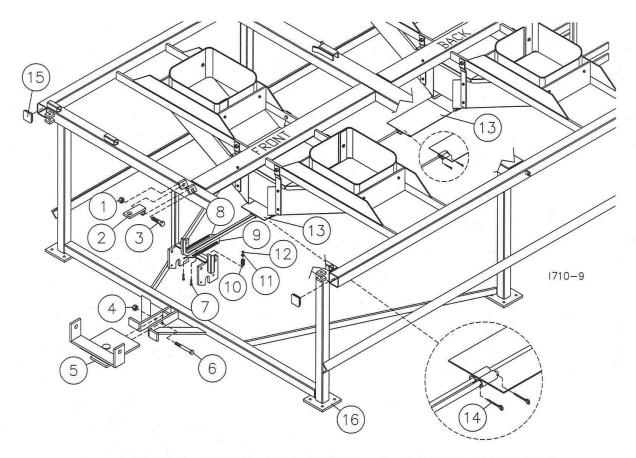


# SEED SKIRT AND HOPPER ASSEMBLY

DET	QTY	PART NO.	DESCRIPTION
1	2	1310-103	SEED CHUTE ASSEMBLY
2	8	2520-357	1/2-13 LOCK HEX NUT ZYD
3	8	2502-294	1/2-13 X 1-1/2 HHCS ZYD
4	16	2520-255	3/8-16 LOCK HEX NUT ZYD
5	4	1310-332	SEED CHUTE SKIRT
6	16	2502-252	3/8-16 X 1-1/2 HHCS ZYD
7	16	2526-251	3/8 STANDARD FLAT WASHER ZYD

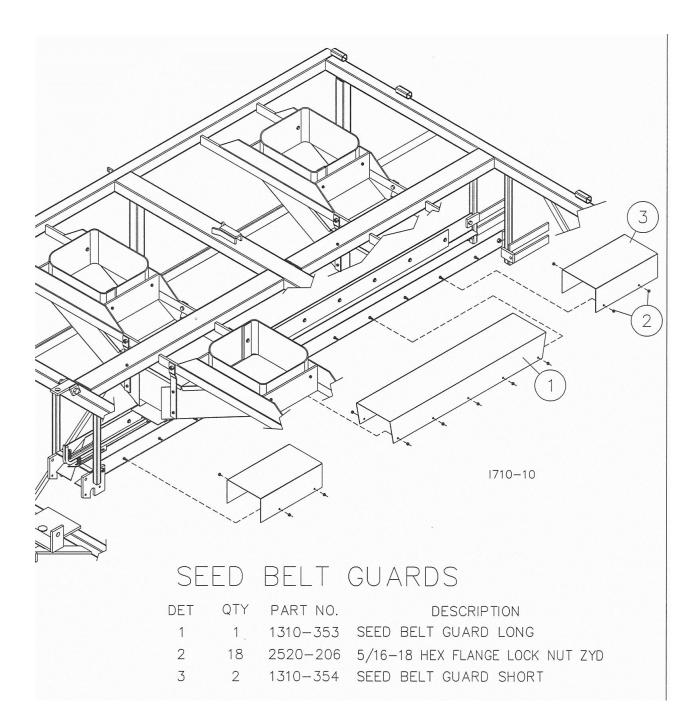


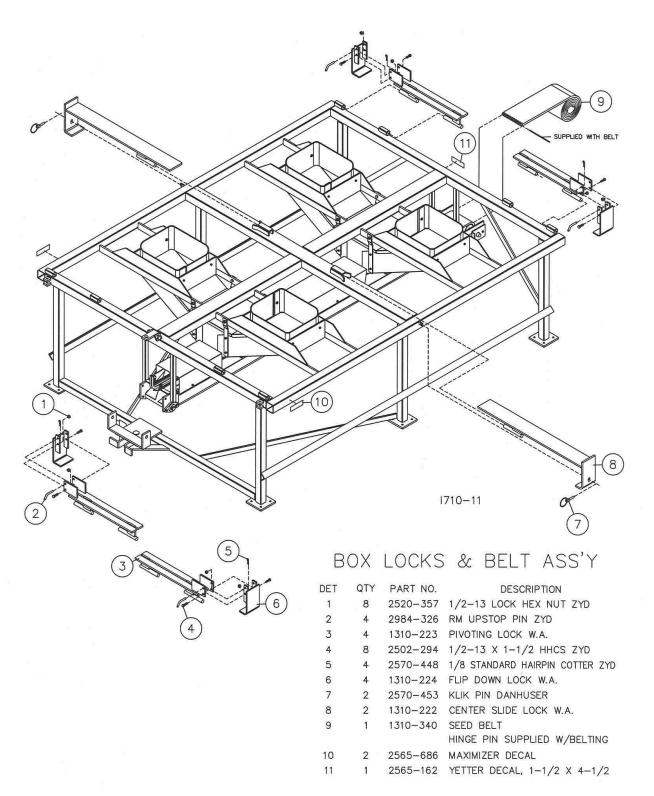
BELT	RAILS	& SEED BELT SKIRTS
QTY	PART NO.	DESCRIPTION
4	2502-294	1/2-13 X 1-1/2 HHCS
4	2520-357	1/2-13 HEX NUT LOCK
2	1310-341	SEED BELT RAILS
22	2502-198	5/16-18 X 1 HHCS GR 5 ZYD
22	2526-201	5/16 STD FLAT WASHER ZYD
2	1310-342	SEED CHUTE SKIRT
22	2520-205	5/16-18 LOCK HEX NUT ZYD
	QTY 4 2 22 22 22 2	QTY PART NO. 4 2502–294 4 2520–357 2 1310–341 22 2502–198 22 2526–201 2 1310–342

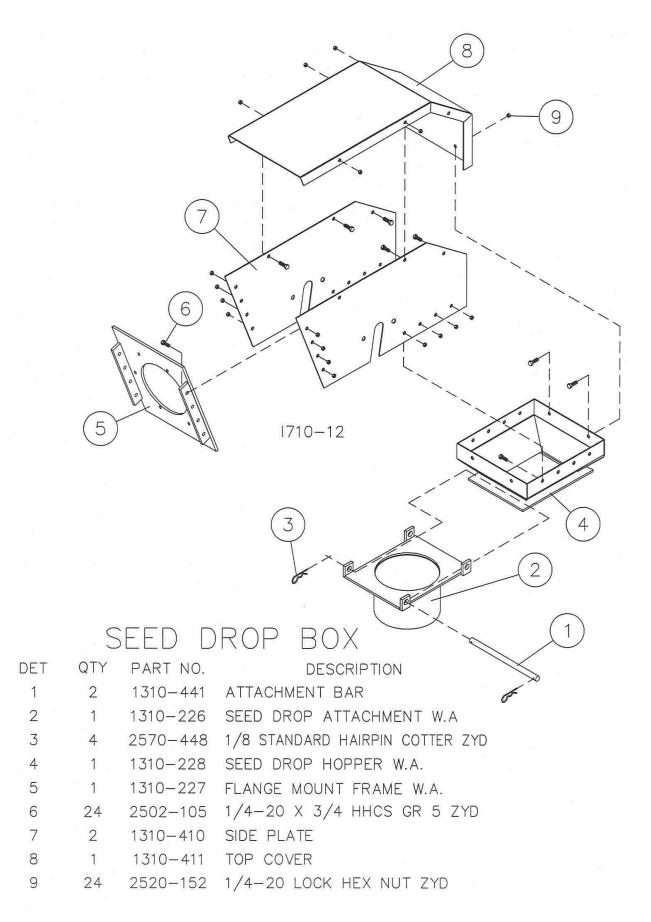


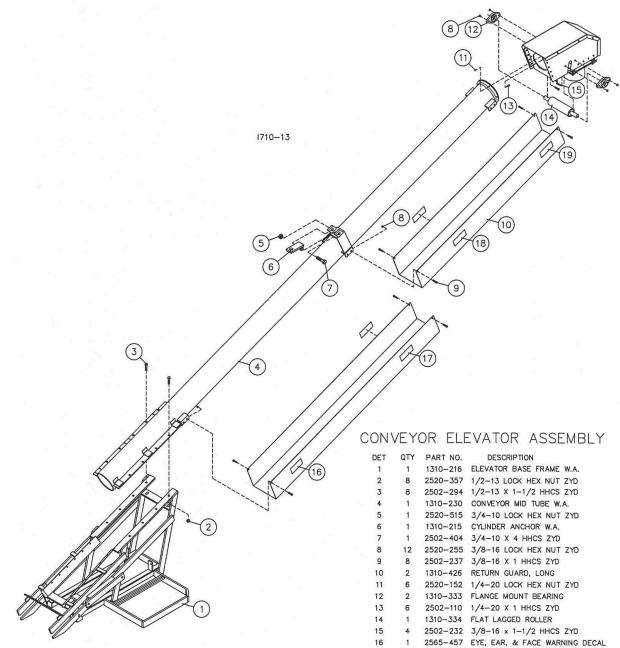
SLIDE GATE, ADJ. RODS, & PIVOT ANCHORS

DET	QTY	PART NO.	DESCRIPTION
1	1	2520-515	3/4-10 LOCK HEX NUT ZYD
2	1	1310-215	CYLINDER ANCHOR W.A.
3	1	2502-404	3/4-10 X 4 HHCS GR 5
4	1	2520-357	1/2-13 LOCK HEX NUT ZYD
5	1	1310-214	PIVOT BRACKET W.A.
6	1	2502-364	1/2-13 X 4 HHCS GR 5 ZYD
7	2	2502-252	3/8-16 X 1-1/2 HHCS
8	1	1310-212	BACK SLIDE GATE ADJ. W.A.
9	1	1310-211	FRONT SLIDE GATE ADJ. W.A.
10	2	2550-769	SPRING, ADJUSTMENT PIN ZYD
11	2	2526-251	3/8 STANDARD FLAT WASHER ZYD
12	2	2520-255	3/8-16 LOCK HEX NUT ZYD
13	2	1310-213	SLIDE GATE W.A.
14	4	2531-123	1/8 X 1-3/4 COTTER PIN ZYD
15	4	2515-709	END CAP, 3 X 3 BAR
16	1	1310-200	4 BOX MAIN FRAME W.A.









- 17 2 2565-162 YETTER DECAL, 1-1/2 X 4-1/2
- 18 2 2565-800 DANGER DECAL
- 19 1 2565-686 MAXIMIZER DECAL

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			I LIN CONVETOR		
	DET QTY	PART NO.	DESCRIPTION		
	1 4	2520-255	3/8-16 LOCK HEX NUT ZYD		//
			2		
			FLANGE MOUNT BEARING		
	3 2	1310-436	BELT ADJ. ANCHOR		
	4 2	1310-437	SPACER		
	5 2	1310-339	BEARING HOLDER, L.H.		
	6 4		3/8-16 X 2 HHCS GR5		// //
					// //
	7 1		CROWNED LAGGED ROLLER		/ //
	8 6		1/2-13 FLANGE WZLOCK NUT	ZYD	
	9 2	1310-231	BELT ADJ. W.A.		
8	10 1	1.310 - 4.35	4" PULLEY W/SET SCREW		
	11 1		1/4 X 1/4 X 1 KEY		$\sim 1$
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	12 2	2502-284	1/2-13 X 3 HHCS GR 5 ZYD		2º
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### GUARD & MOTOR MOUNT ASSEMBLY

DET	QTY	PART NO.	DESCRIPTION
1	5	2502-351	1/2-13 X 2 HHCS GR 5 ZYD
2	5	2520-357	1/2-13 LOCK HEX NUT ZYD
3	2	2502-237	3/8-16 X 1 HHCS GR 5 ZYD
4	1	2526-402	9/16 ID X 1-3/4 OD X 1/4 M.B.
5	1	1310-231	BELT ADJ W.A.
6	1	1310-401	V-BELT COVER
7		2520-361	1/2-12 FLANGE WIZOCK NUT ZYD
8	1	2565-687	GUARD CAUTION DECAL
9	1	1310-439	PULLEY GUARD COVER
10	2	2520-255	3/8-16 LOCK HEX NUT ZYD
11	1	1310-104	MOTOR ASSEMBLY
12	5	2526-351	1/2 STD FLAT WASHER ZYD
13	2	2520-258	3/8-16 FLANGE WIZLOCK NUT ZYD
14	1	1310-440	BELT TENSION EXTENDER
15	1	1310-399	8" Z-TOP BELT
			10/

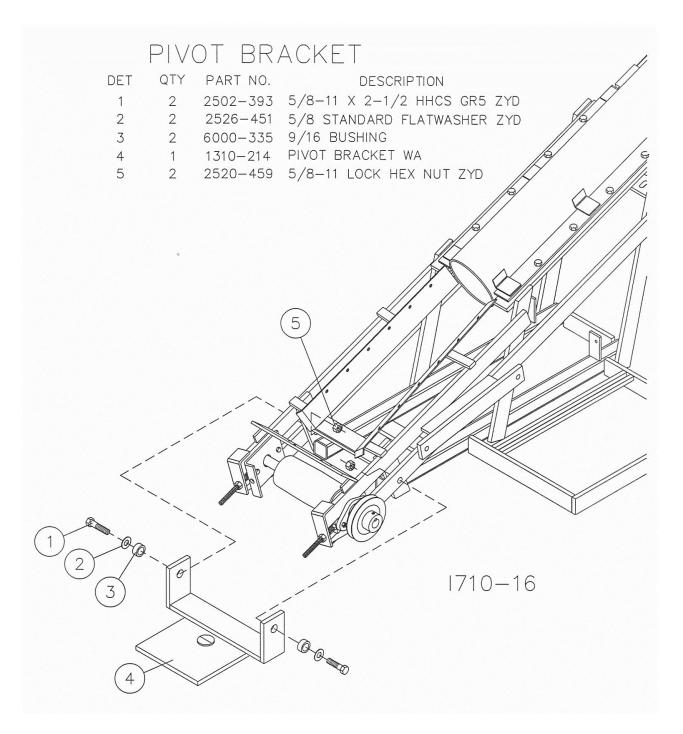
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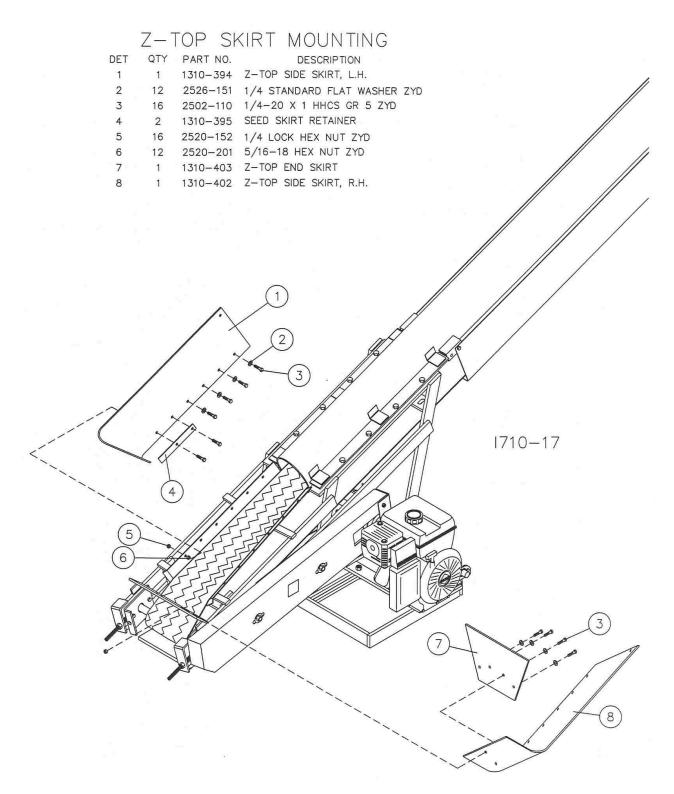
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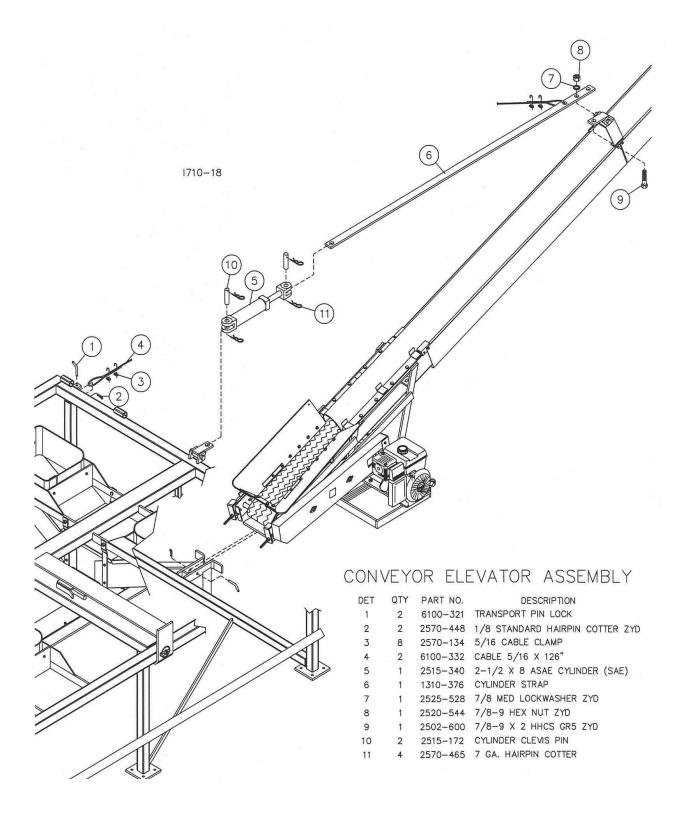
ROUGH SIDE UP

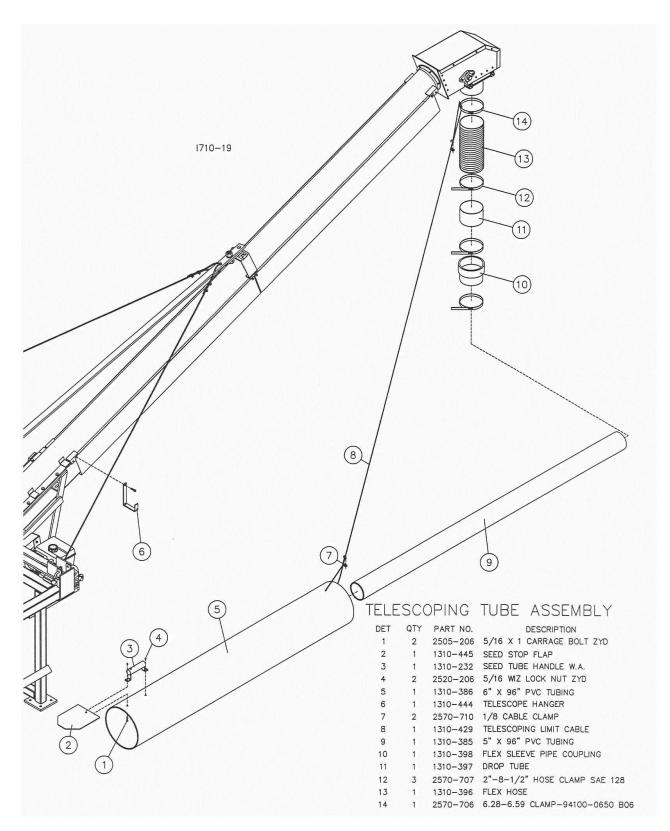
IN SUPPLIED WITH BELT

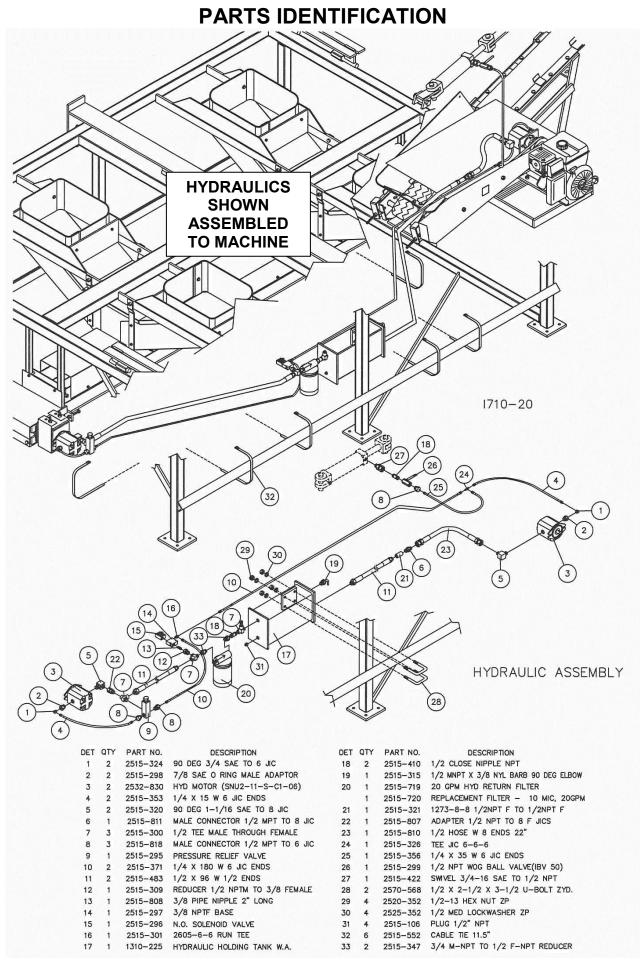
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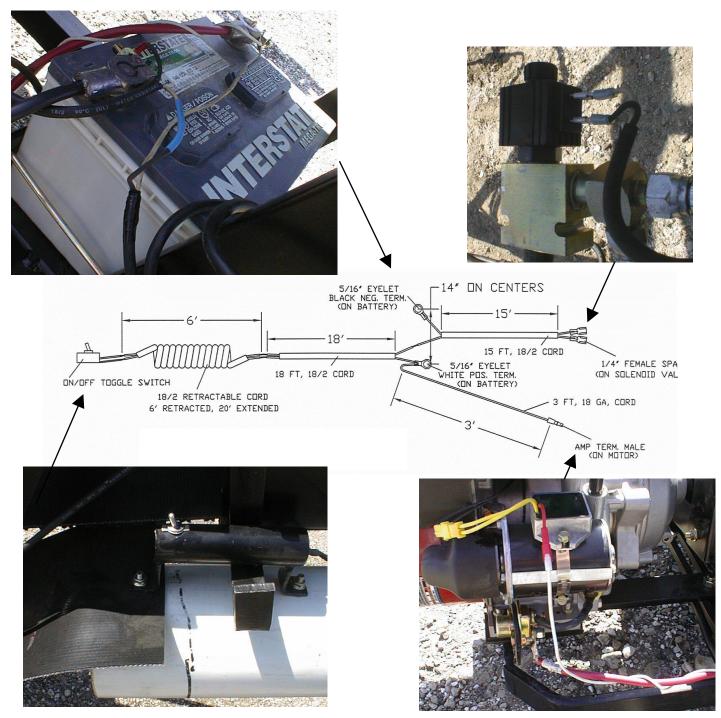






# WIRING SCHEMATIC & ASSEMBLY

1310-434 WIRE HARNESS



Each photo shown is actual location of the wiring harness hook up.

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 productsyou'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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