

2960-130

UNIT MOUNTED DOUBLE ARM CONSERVATION COULTER

YETTER MANUFACTURING CO.

FOUNDED 1930

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FOREWORD

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 increased productivity and increased efficiency so that you may generate more profit. This operator's manual has been designed into six major sections.

Foreword, Safety Precautions, assembly instructions, Operation, parts identification and troubleshooting.

Throughout the manual references may be made to left side and right side. These terms are used as viewed from the operator's seat facing the front of the tractor.

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, reference information and other 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 that are covered by the warranty policy.

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

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309/776-4111 800/447-5777 309/776-3222 (FAX)

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WARRANTY POLICY

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 will 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.

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

SAFETY

A brief description of signal words that may be used in this manual.

CAUTION: Used as a general reminder of good safety practices or to direct attention to unsafe practices.

WARNING: Denotes a specific potential hazard.

DANGER: Denotes the most serious specific potential hazard.

SAFETY PRECAUTIONS

You can make your farm a safer place to live and work if you observe the safety precautions given. Study these precautions carefully and insist that they be followed by those working with you and for you.

Finally, remember this: an accident is usually caused by someone's carelessness, neglect or oversight.



Never clean, lubricate or adjust a machine that is in motion. Always install the transport lock pins and bracket when transporting for any length of time or on public roadways.

If required to service unit in raised position, be sure to install all transport lock pins and locking bracket.

Be sure the implement is securely locked in the 3-point quick hitch before operating.

Do not allow children to operate this equipment.

Do not allow riders on the tractor or implement.

Use speeds and caution dictated by the terrain being traversed. Do not operate on any slope steep enough to cause tipping or loss of control.

Be sure all personnel are clear of the immediate area before operating.

Read and understand the operator's manual and require all other persons who will operate the equipment to do the same.

In operating on public roadways, where legal, be certain all lighting is operating properly and observe all traffic laws. Ensure slow moving vehicle emblem on tractor is visible.

Maximum towing speed is 20 mph when conditions permit.

Beware of increased stopping distances and control effort when operating with implements attached.

Be familiar with all tractor and implement controls and be prepared to stop engine and implements quickly in an emergency.



Consult your implement and tractor's operator's manual for correct and safe operating practices.

Beware of towed implement width and allow safe clearance.

FAILURE TO HEED MAY RESULT IN PERSONAL INJURY OR DEATH.

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BOLT TORQUE

READ THESE INSTRUCTIONS FIRST:

- 1. Improperly tightened bolts will result in damage, breakage, expense, and down time.
- 2. Always replace bolts with the specified grade and type.
- 3. Torque properly before first use of the machine and every 2-4 hours of use until you are sure bolts are staying tight.
- 4. The chart below is a guide for proper torque. Use it unless a specified torque is called out elsewhere in the manual.
- 5. Toque is the force you apply to the wrench handle or the cheater bar, times the length of the handle or bar.
- 6. Use a torque wrench whenever possible.

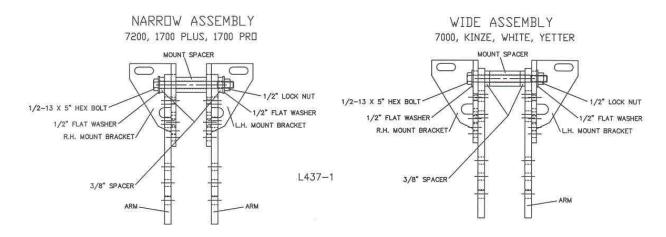
The following table shows torque in foot pounds.

BOLT DIA. AND THREADS PER INCH	GRADE 2	GRADE 5 A-325	GRADE 8
1/4	6	10	14
5/16	12	20	30
3/8 -16	25	35	50
7/16 - 14	35	55	80
1/2 - 13	55	85	125
9/16 - 12	75	125	175
5/8 - 11	105	170	235
3/4 - 10	185	305	425
7/8 – 9	170	445	690
1-8	260	670	1030
1 1/8 – 7	365	900	1460
1 1/4 - 7	515	1275	2060
1 3/8 -6	675	1675	2700
1 1/2 - 6	900	2150	3500
1 3/4 - 5	1410	3500	5600

INTRODUCTION

The 2960-130 Unit Mounted Double Arm Conservation Coulter has been designed as a 'universal' fitment for several makes of planter units.

By using two different arrangements of the same parts, the coulter assembly will fit several makes and models of planters. One arrangement of the faceplate mount brackets will fit the John Deere MaxEmerge 2, Plus, and Pro type planters. Another arrangement of the faceplate mount brackets will fit the 7000 John Deere units, Kinze, White 6000 and 8000 units, and the Yetter planter row units. Several styles of blades are available for every tillage practice, every soil type, and every residue condition, so you can choose the one that's right for you.

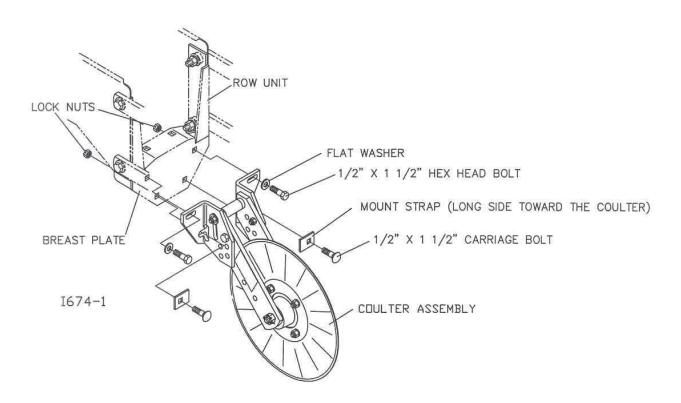


NOTE: The coulter is factory assembled as a wide assembly. If you are mounting the coulter to a planter that uses a narrow assembly, rearrange the mounting brackets and spacers at this time.

		BL	ADE CHO	ICE			
FACTOR		SMOOTH (S)	RIPPLE	BUBBLE	8 WAVE (W)	13 WAVE (SW)	25 WAVE (MW)
SIZE	14-5/8"				X		X
	16"	Х	Х	Х	Х	Х	Х
AGGRESSIVE	LOW	X	Х				
	MEDIUM			Х			
	HIGH				Х	Х	Х
SPEED	SLOW			Х			X
	NORMAL	X	Х	Х		Х	Х
	FAST	Х	Х		Х		
SOIL	DRY	X	Х	Х	X	X	X
CONDITION	DAMP/STICKY	Х	Х				
	SANDY		Х	Х	Х	Х	Х
	HEAVY		Х	Х	Х	Х	Х

COULTER INSTALLATION

- 1. Attach the double arm coulter assembly to the planter row units at the upper breastplate mounting holes using 2) ½" x 1 ½" bolts, flat washers and lock nuts.
- 2. Insert the 2) ½" x 1 ½" carriage bolts through the mount straps (long side toward center of row) breast plate mounting holes and secure with lock nut.



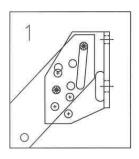
- 3. Align the coulter blade with the planter opener blades by sliding the coulter assembly on the planter breastplate, and then tighten the fasteners (torque to 85 ft. lbs.) securing the coulter assembly to the planter unit.
- 4. After coulter assembly is tightened to planter unit, the upper coulter depth adjustment bolt can be tightened (torque 85 ft/lbs.). By tightening this bolt last, the coulter will be allowed to move freely when making future depth adjustments.

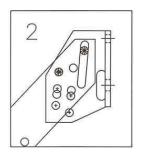
OPERATION

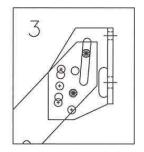
		W/15" PLANTER BLADES		W/15" PLANTER BLADES
		JD 7000 AND KINZE PLANTERS		JD 1700, 7200 AND 7300 PLANTERS
		ALL WHITE 6000-8000 PLANTERS		
	BOLT		BOLT	
	POSITION#		POSITION#	
	1	1" ABOVE	1	1/2" ABOVE
	2	5/8" ABOVE	2	1/8" ABOVE
16" COULTER	3	1/4" ABOVE	3	1/4" BELOW
BLADE	4	1/8" BELOW	4	5/8" BELOW
	5	1/2" BELOW	5	1" BELOW
	6	7/8" BELOW	6	1 3/8" BELOW
	7	1 1/4" BELOW	7	1 3/4" BELOW
	8	1 5/8" BELOW	8	2 1/8" BELOW

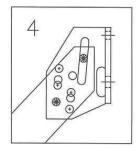
Note: This is a reference guide table – all measurements were taken with the row unit and planter frame level/parallel to the soil.

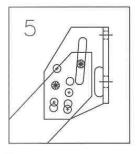
COULTER BLADE DEPTH ADJUSTMENT BOLT LOCATION

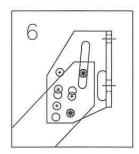


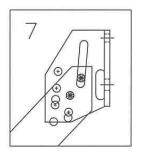


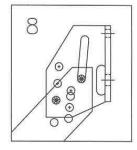












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Adjustment:

Adjust coulter blade depth equal to or above the planter opener blades. Adjust the blade depth as required for blade wear. Planter blades that are worn to $14 \frac{1}{4}$ " or smaller in diameter should be replaced. Example: $14 \frac{1}{4}$ " blades will have a 3/8" shallower planting depth than 15" blades at the same gauge wheel adjustment setting. For replacement parts a $14 \frac{5}{8}$ " wavy blade is available in your choice of 8 wave (2571-164) or 25 wave (2571-166).

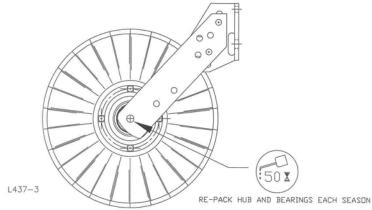
OPERATION

- 1. Set/mount coulter blades to run perpendicular to the soil. Operation depth and blade wear can be affected if the coulter is mounted crooked or if the toolbar is not level side to side.
- 2. After a few hours of use, check all bolts for tightness and proper torque.
- 3. After a day of use (10-12 hours) check coulter hubs for loose bearings. There should be no endplay in the hub bearings allowing the blade to wobble. If necessary, remove cotter pin and adjust the slotted nut to remove wobble, recommended torque of 15 ft. lbs. and re-insert cotter pin. If the wobble or looseness cannot be corrected, the bearings, cups and seals will need to be replaced.

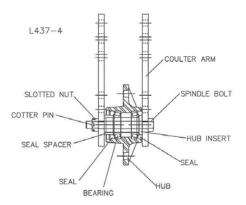
DO NOT USE WORN OR DAMAGED PARTS.

MAINTENANCE

LUBRICATION: USE #2 MULTI-PURPOSE LITHIUM GREASE



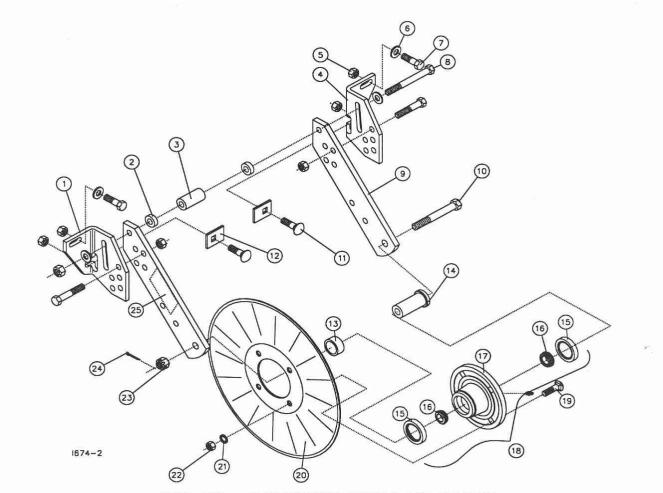
To ensure longevity and reliability of the 2960-130 coulter, the recommended lubrication schedule should be followed using multi-purpose grease at hourly intervals as indicated.



BEARING ADJUSTMENT:

- 1. Raise the toolbar until the blade is clear of the ground. Place a safety stand under the toolbar. Remove the cotter pin, slotted nut, washer and bolt from the hub assembly. Remove the blade from the hub assembly.
- 2. Remove bearing cones and seals from hub.
- 3. Wash the old grease from the hub, bearing cups, spindle spacers, seals and bearing cones. Inspect the condition of the bearing cups, cones and seals. Replace if necessary.
- 4. Apply #2 multi-purpose lithium grease on each bearing. Make sure the space around each roller is filled. Lubricate the bearing cups.
- 5. Position the bearing in the cup and install the seal. Lubricate the seal lips and proceed with reassembly of the removed parts including the blade. Blade bolt torque is 90 to 96 ft. lbs.
- 6. Tighten the slotted nut to 15 ft. lbs. or until a definite drag is felt when the blade is turned by hand. Tighten the nut one slot position to line up the cotter pin hole with a slot. Secure the nut with a new cotter pin.

PARTS IDENTIFICATION



2960-130 - UNIT MOUNTED DOUBLE ARM COULTER

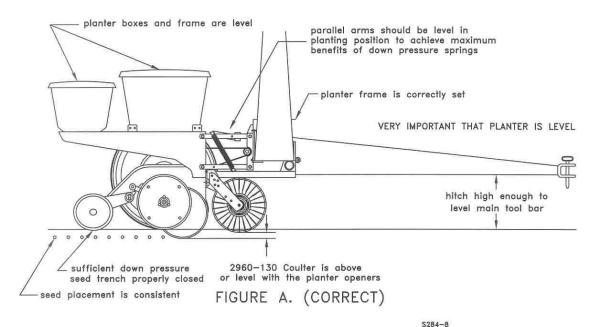
2960-388	LININGERSAL MOUNT ANGLE DU				
	UNIVERSAL MOUNT ANGLE, RH	18	1	2984-107	HUB SUB ASSEMBLY, MAYERICK (INCLUDES 15, 16, 17
2960-391	3/8" SPACER	19	4		1/2-13 X 1 1/4 CAR BOLT GR5 ZP
2960-389	MOUNT SPACER	20	1		.157 X 16" BUBBLE BLADE
2960-387	UNIVERSAL MOUNT ANGLE, LH				
2520-357	1/2-13 LOCK HEX NUT ZP		1		.157 X 15.81" 25 FLUTE BLADE
2526-355	1/2 FLATWASHER, HARD'ND, P.C.		1		.157 X 15.94" RIPPLE BLADE
	W.,		1	2571-206	.197 X 16" SMOOTH BLADE
			1	2571-156	.157 X 16" BUBBLE BLADE
			1		.157 X 15.937" 13 FLUTE BLADE
			1911		
2960-392	SPINDLE BOLT, 5/8-18 X 5 HHCS GR5 ZP		1		.157 X 14.56", 8 FLUTE BLADE
2505-339	1/2-13 X 1-1/2 CAR BOLT GR5 ZP	022			.157 X 14.56", 25 FLUTE BLADE
2960-390	MOUNTING STRAP	-			1/2 MED LOCKWASHER ZP
		22	4	2520-352	1/2-13 HEX NUT ZP
		23	1	2520-469	5/8-18 SLOTTED HEX NUT, BLACK
2960-393	HUB INSERT	24	1	2531-102	1/8 X 1-1/4 COTTER PIN BLACK
2550-066	TRIPLE LIP SEAL	25	2	2565-162	YETTER DECAL, 1-1/2 X 4-1/2
2550-027	CONE, LM67048				
2900-105	HUB PRESSED ASSEMBLY		NOTE:	TORQUE SPINE	DLE BOLT BEFORE
553,500 U1055				TIGHTENING AL	NY OTHER BOLTS.
	[발표] [[[[[[[[[[[[[[[[[[[TORQUE TO 1.	5 FT-LBS.
2000 025					INGS WHILE APPLYING FINAL
			200		NG, TIGHTEN THE NUT TO THE
	2520-357 2526-355 2502-294 2502-362 2960-386 2960-392 2505-339 2960-394 2960-393 2550-066 2550-027 2900-105 2533-110	2520-357 1/2-13 LOCK HEX NUT ZP 2526-355 1/2 FLATWASHER, HARD'ND, P.C. 2502-294 1/2-13 X 1-1/2 HHCS GR5 ZP 2502-362 1/2-13 X 5 HHCS GR5 ZP 2960-386 COULTER ARM 2960-392 SPINDLE BOLT, 5/8-18 X 5 HHCS GR5 ZP 2505-339 1/2-13 X 1-1/2 CAR BOLT GR5 ZP 2960-390 MOUNTING STRAP 2960-394 SEAL SPACER 2960-393 HUB INSERT 2550-066 TRIPLE LIP SEAL 2550-027 CONE, LM67048 2900-105 HUB PRESSED ASSEMBLY 2533-110 1/4-28 ZERK STRAIGHT SELF-TAP	2520-357 1/2-13 LOCK HEX NUT ZP 2526-355 1/2 FLATWASHER, HARD'ND, P.C. 2502-294 1/2-13 X 1-1/2 HHCS GR5 ZP 2502-362 1/2-13 X 5 HHCS GR5 ZP 2960-386 COULTER ARM 2960-392 SPINDLE BOLT, 5/8-18 X 5 HHCS GR5 ZP 2505-339 1/2-13 X 1-1/2 CAR BOLT GR5 ZP 2960-390 MOUNTING STRAP 2960-394 SEAL SPACER 2960-394 HUB INSERT 2550-066 TRIPLE LIP SEAL 2550-027 CONE, LM67048 2900-105 HUB PRESSED ASSEMBLY 2533-110 1/4-28 ZERK STRAIGHT SELF-TAP	2520-357 1/2-13 LOCK HEX NUT ZP 2526-355 1/2 FLATWASHER, HARD'ND, P.C. 2502-294 1/2-13 X 1-1/2 HHCS GR5 ZP 2502-362 1/2-13 X 5 HHCS GR5 ZP 2960-386 COULTER ARM 2960-392 SPINDLE BOLT, 5/8-18 X 5 HHCS GR5 ZP 2505-339 1/2-13 X 1-1/2 CAR BOLT GR5 ZP 2960-390 MOUNTING STRAP 2960-394 SEAL SPACER 2960-393 HUB INSERT 2960-393 HUB INSERT 2550-066 TRIPLE LIP SEAL 2550-027 CONE, LM67048 2900-105 HUB PRESSED ASSEMBLY 2550-029 CUP, LM67010	2520-357 1/2-13 LOCK HEX NUT ZP 2526-355 1/2 FLATWASHER, HARD'ND, P.C. 1 2571-161 2502-294 1/2-13 X 1-1/2 HHCS GR5 ZP 1 2571-156 2502-362 1/2-13 X 5 HHCS GR5 ZP 2960-386 COULTER ARM 2960-392 SPINDLE BOLT, 5/8-18 X 5 HHCS GR5 ZP 2505-339 1/2-13 X 1-1/2 CAR BOLT GR5 ZP 2960-390 MOUNTING STRAP 2960-394 SEAL SPACER 2960-395 HUB INSERT 2571-166 2505-027 CONE, LM67048 2900-105 HUB PRESSED ASSEMBLY 2550-029 CUP, LM67010 1 2571-161 2571-162 2571-164 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-166 2571-1

UPDATED 02/27/08

TROUBLESHOOTING

Problem	Cause	Solution	
Cannot adjust coulter depth shallow enough.	Planter frame not set correctly.	Ensure that in operation the planter frame is at correct height (20"-22") and level the toolbar, refer to opposite page.	
	Coulter blade is too big.	Blade must be 16" diameter or smaller.	
	Planter opener blades worn.	Replace planter opener blades if worn smaller than 14 1/4" diameter.	
Cannot adjust coulter deep enough.	Coulter blade worn too small.	Replace coulter blade.	
Coulter will not penetrate.	Lack of spring tension.	Increase spring tension.	
Coulter penetrates too much.	Excessive spring down pressure.	Reduce spring tension.	
Seed placement is too deep.	Coulter blade set too deep relative to openers.	Shallow up coulter depth.	
Optional wavy blade disturbs too much soil.	Soil too damp or loose.	Reduce ground speed.	
disturbs too much soil.		Install a less aggressive blade. Example: smooth or ripple.	
Drive chain rubs on springs.	Close fitting parts.	Not detrimental to operation of planter.	
No spring tension.	Planter frame not set correctly.	Check planter frame settings, see above.	
	Spring adjustment pin not installed properly.	Check installation of pin.	
	Broken springs.	Replace broken or damaged parts.	

PLANTER HEIGHT ADJUSTMENT



planter boxes are not level

planter frame is incorrectly set

The 2960-130 Coulter is operating too deep.

insufficient down pressure seed trench not properly closed

FIGURE B. (INCORRECT)

Figure A. – The planter hitch and frame are both 20" off the ground. To ensure this, visually check to see that the planter boxes are level and that the planter unit parallel arms are also parallel with the ground. **When using planter attachments located in front of the planter unit, this setting is very important.**

Figure B. – The planter hitch is set too low while the planter frame remains at 20" off the ground! Notice from the illustration that the unit mounted coulter is running deeper in the ground than the planter unit. This condition can result in the formation of an air pocket below the seed bed which will in turn dramatically decrease seed growth.

NOTE: Both illustrations are strictly for reference only. They are intended to show that proper adjustment of the hitch height is critical. Consult your planter operator's manual for the proper height adjustment of the hitch.

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.

YETTER MANUFACTURING CO.

Website: www.yetterco.com
E-mail: info@yetterco.com

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