

## 2968 FERTILIZER COMBINATION UNIT

**SET-UP & PARTS MANUAL** 

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 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.

$\Box$	eale	•

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

#### 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 those working with you and for you follow the precautions.

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

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.



#### CAUTION

Consult your implement and tractor operator's manual for correct and safe operating practices. Be aware of towed implement width and allow safe clearance.



#### **CAUTION: SAFETY SIGNS**

Safety decals are placed on the implement to alert the operator and others to the risk of personal injury or unsafe operation during normal operations and servicing.

- 1. The safety decals must be kept clean and in good condition to ensure that they are legible.
- 2. Safety decals must be replaced if they are missing or illegible.
- 3. When components are replaced during repair or servicing, check that the new components include the necessary safety signs.
- 4. Replacement safety decals may be obtained from your local dealer.



#### **WARNING**

Read these instructions carefully to acquaint yourself with the Equipment. Working with unfamiliar equipment can lead to accidents.

Never park the equipment on a steep incline or leave the equipment running unattended.

Never clean, lubricate or adjust a machine that is in motion.

Always check that straps are secure.

Make sure latches are in pinned position when moving equipment.

Do not allow children to operate this equipment.

Do not allow riders on the equipment, trailer and/or pick-up.

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

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

If operating on public roadways, where legal, be certain all lighting is operating properly and observe all traffic laws.

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

Be familiar with all controls and be prepared to stop equipment quickly in an emergency.

#### FAILURE TO HEED MAY RESULT IN PERSONAL INJURY OR DEATH.

#### INTRODUCTION

The 2968 Series Fertilizer Combination units are the latest in precision fertilizer placement. This attachment allows for split application of liquid fertilizer either side of the seed row.

The 2968 Series Fertilizer Combination units are designed to apply fertilizer close by each side of the row and to maximize depth of 2" by injection through a nozzle attached close behind the Fertilizer Wheel. A pump with at least 20 psi should be used for best results.

The 2968 Series Fertilizer Combination unit requires that the planter already be equipped with a unit mounted conservation coulter and a Combination Row Cleaner Attachment. For all models except the one used with the Max-Emerge II Unit Coulter, the installation of 2968 attachment will involve the removal of the original coulter bracket. It would be advisable to keep that bracket in case it is needed in the future.

\*Except 2968-007 and 2968-008 which are a complete fertilizer and row cleaner unit.

#### **APPLICATION**

Planter	Coulter	Row Cleaner	Fertilizer Combination
Deere 7000	2969-015	2967-115	2968-001 2968-011
Deere 7200	2960-015	2967-115	2968-002 2968-012
Deere 7000	Deere*	2967-145	2968-003 2968-013
Deere 7000	2960-100	2967-145	2968-004 2968-014
Kinze	Kinze	2967-145	2968-005 2968-015
Deere 7200	Deere**	2967-150	2968-006 2968-016
Deere 7200	None	* * *	2968-007
Deere 7200	None	* * *	2968-008

<sup>\*</sup> This refers to the old Deere unit mounted coulter, made in several styles over the years of 7000 planter production.

<sup>\*\*</sup> This refers to the new/current Deere unit coulter that has cast iron components.

<sup>\*\*\* 2968-007</sup> and 2968-008 are complete fertilizer and row cleaner units.

#### INSTALLATION

#### ALL MODELS EXCEPT 2968-006, 2968-007, 2968-008 AND 2968-016.

- 1. <u>If</u> the planter is already equipped with a unit mounted coulter and Residue Manager Combination Unit the will have to be removed first to allow installation of the new bracket onto the face plate of the planter.
- 2. Attach the new Fertilizer Combination Bracket to the face plate of the planter with bolts from the unit mounted coulter.
- 3. Attach the unit coulter arm to the Fertilizer Combination Bracket with hardware from the unit coulter. It may be useful to refer to the operation manual for your unit mounted coulter at this time.
- 4. Attach the Residue Manager Combination Unit Arm to the Bracket and insert Adjustment Pin to hold arm in place.
- 5. Attach a Fertilizer Combination Arm to each side of the unit with ½" bolts and locknuts. The Arm on the left side should be mounted on the inside. The Arm on the right side should be mounted on the outside for more clearance on units that include coulter Arms.
- 6. Assemble the Fertilizer Wheels and hubs. Place a 3/16" thick washer on 'D' bolt and insert through the hub assembly and then assemble wheel cap with 5/16" carriage bolts and locknuts.
- 7. Insert threaded end of 'D' bolt through 'D' hole in Fertilizer Combination Arm and secure with 5/8 lock washer and nut. Torque 150 ft.lbs.
- 8. Assemble 3" stainless steel nipple, stainless steel coupler and nozzle tip (not supplied). Slide this assembly into the Combo Nipple Holder and lock into position with the 3/8" set-screw and jam nut.
- 9. Thread one ½" nut and Flat washer onto Combo Nipple Holder an insert the stud through hole of Arm. Install another Flat washer and another ½" nut onto stud and adjust the nozzle to be directly behind the Fertilizer Wheel. Tighten nuts securely.
- 10. Plumb your fertilizer lines to the attachment. Check that hoses do not become pinched as the planter unit moves up and down.

## INSTALLATION 2968-006, 2968-016.

- 1. <u>If</u> the planter is already equipped with a unit mounted coulter and Residue Manager Combination Unit the will have to be removed first to allow installation of the new bracket onto the face plate of the planter.
- The new Fertilizer Combination Bracket is assembled between the Deere coulter bracket and the face plate of the planter with bolts from the Residue Manager combination.
- 3. Attach the Residue Manager Combination Unit Arm to the Bracket and insert Adjustment Pin to hold arm in place.
- 4. Attach a Fertilizer Combination Arm to the left side of the unit with ½" bolts and locknuts. Attach a Fertilizer Combination Arm to the right side with ½" x 1-1/2" bolts.
- 5. Assemble the Fertilizer Wheels and hubs. Place a 3/16" thick washer on 'D' bolt and insert through the hub assembly and then assemble wheel cap with 5/16" carriage bolts and locknuts.
- 6. Insert threaded end of 'D' bolt through 'D' hole in Fertilizer Combination Arm and secure with 5/8 lock washer and nut. Torque 150 ft.lbs.
- 7. Assemble 3" stainless steel nipple, stainless steel coupler and nozzle tip (not supplied). Slide this assembly into the Combo Nipple Holder and lock into position with the 3/8" set-screw and jam nut.
- 8. Thread one ½" nut and Flat washer onto Combo Nipple Holder an insert the stud through hole of Arm. Install another Flat washer and another ½" nut onto stud and adjust the nozzle to be directly behind the Fertilizer Wheel. Tighten nuts securely.
- 9. Plumb your fertilizer lines to the attachment. Check that hoses do not become pinched as the planter unit moves up and down.

#### INSTALLATION 2968-007 AND 2968-008.

- 1. Attach the new Fertilizer Combination Bracket to the face plate of the planter with the  $\frac{1}{2}$ " x 1-1/2" bolts provided.
- 2. Attach a Fertilizer Combination Arm to each side of the unit with ½" bolts and locknuts.
- 3. Assemble the Fertilizer Wheels and hubs. Place a 3/16" thick washer on 'D' bolt and insert through the hub assembly and then assemble wheel cap with 5/16" carriage bolts and locknuts.
- 4. Insert threaded end of 'D' bolt through 'D' hole in Fertilizer Combination Arm and secure with 5/8 lock washer and nut. Torque 150 ft.lbs.
- 5. Assemble the Spoke Wheels and hubs as described in 2965, 2966, 2967. Instruction Manual #2565-631.
- 6. Insert threaded end of 'D' bolt through 'D' hole in Fertilizer R.M. Stem and secure with 5/8 lock washer and nut. Torque 150 ft.lbs.
- 7. Assemble 3" stainless steel nipple, stainless steel coupler and nozzle tip (not supplied). Slide this assembly into the Combo Nipple Holder and lock into position with the 3/8" set-screw and jam nut.
- 8. Thread one ½" nut and Flat washer onto Combo Nipple Holder an insert the stud through hole of Arm. Install another Flat washer and another ½" nut onto stud and adjust the nozzle to be directly behind the Fertilizer Wheel. Tighten nuts securely.
- 9. Attach Fert. R.M. Stem to the Fertilizer Combination Bracket using the Furrowing Attachment Pin. Adjust.
- 10. Plumb your fertilizer lines to the attachment. Check that hoses do not become pinched as the planter unit moves up and down.

#### BEARING ASSEMBLY AND LUBRICATION

#### **Practice Safety**

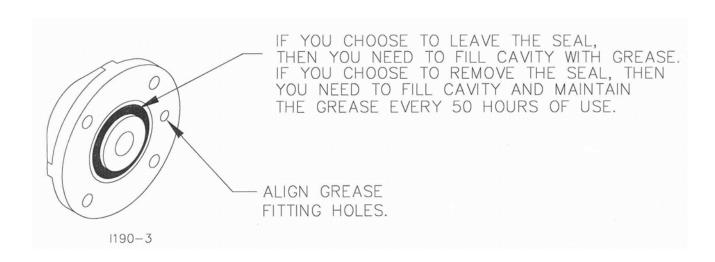
Understand and practice safe service procedures before doing work. Follow ALL the operating, maintenance and safety information in the equipment operator manual. Clear the area of bystanders, especially small children, when performing any maintenance or adjustments. Keep work area clean and dry. Use adequate lighting for the job. Use only tools, jacks and hoists of sufficient capacity for the job.

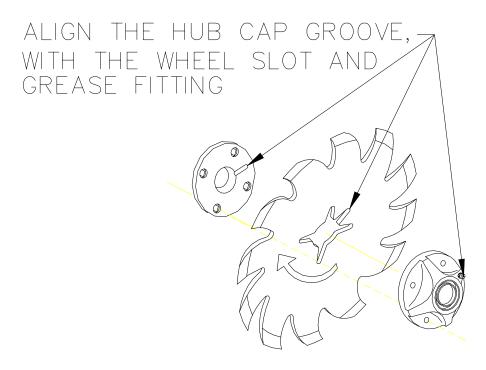
Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven moving and rotating parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground and stop the engine. Remove the key. Wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.

Securely support any machine elements with blocks or safety stands that must be raised for service work.

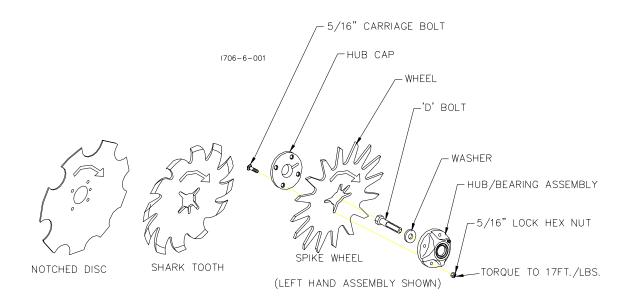
Keep all parts in good condition and properly installed. Fix damaged equipment immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris. Make sure all guards are in place and properly secured when maintenance work is completed.

#### **Assembly**

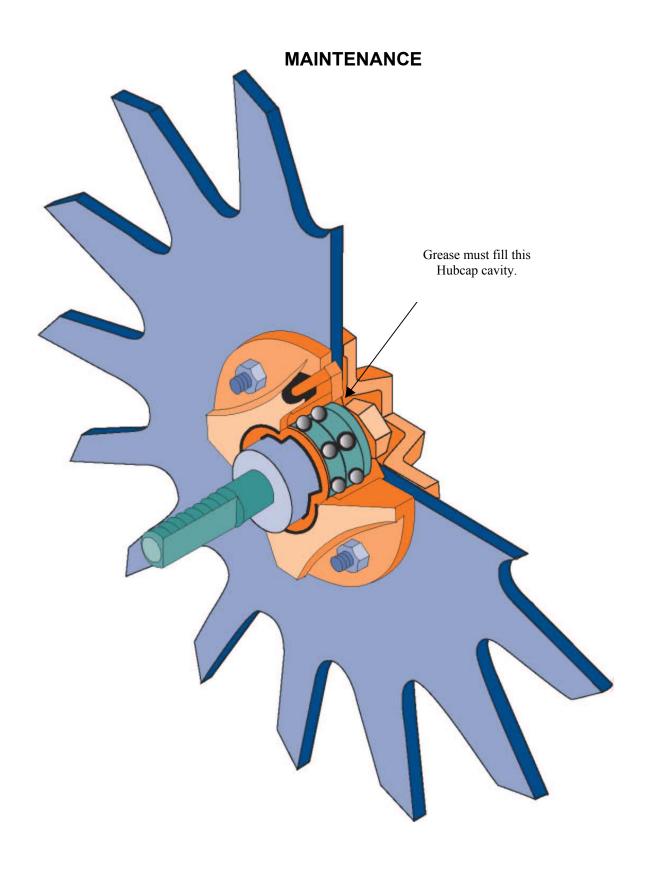




**NOTE:** Be certain to align the grease fitting with the slot in the wheel and the hubcap so that the grease can flow freely.



**IMPORTANT**: THE 2527-530 WASHER MUST BE INSTALLED OR THE WHEEL AND HUB ASSEMBLY WILL FALL OFF DURING USE.



#### Lubrication

CAUTION: To help prevent serious injury or death to you or others caused by unexpected movement, service machine on a level surface. Lower machine to ground or sufficiently lock or block raised machine before servicing. If machine is connected to tractor, engage parking brake and place transmission in "PARK", shut off engine and remove key. If machine is detached from tractor, block wheels and use shop stands to prevent movement.

CAUTION: Do not clean, lubricate, or adjust machine while in motion.

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

Use a multi-purpose lithium, water resistant, moderate speed, and NLGI grade #2 grease.

Other greases may be used if they meet the following **NLGI Performance** 

**Classification: GC-LB** 

IMPORTANT: Some types of grease thickener are not compatible with others.

Consult your grease supplier before mixing different types of grease.

#### **Alternative Lubricants**

Conditions in certain geographical areas may require special lubricants and lubrication practices which do not appear in the operator's manual. If there are any questions, consult Yetter Manufacturing Co. to obtain latest information and recommendation.

PART #	DESCRIPTION	OUNCES OF GREASE		
2967-404	13" TAPER TOOTH R.M. WHEEL	1.12 OZ		
2967-602	13" SHARK TOOTH R.M. WHEEL	1.12 OZ		
2967-186	FLOATER WHEEL KIT W/R.M. WHEEL	2.08 OZ		
2967-596	HEAVY DUTY OR BEVEL R.M. WHEEL W/	2.40 OZ		
	FLOATER WHEEL KIT			

#### **Storing Lubricants**

Your machine can operate at top efficiency only if clean lubricants are used.

Use clean containers to handle all lubricants.

Store them in an area protected from dust, moisture and other contaminants.

#### **Lubrication Symbols**

CLubricate with grease at hourly interval indicated on symbol.

#### **Lubrication Intervals**



IMPORTANT: The recommended service intervals are based on normal conditions; severe or unusual conditions may require more frequent lubrication.

Perform each lubrication and service procedure at the beginning and end of each season.

Clean grease fittings before using grease gun, to avoid injecting dirt and grit into the bearing. Replace any lost or broken fittings immediately. If a fitting fails to take grease, remove and clean thoroughly, replace fitting if necessary. Also check for failure of adjoining parts.

#### BEARING REPLACEMENT INSTALLATION

- 1. If you wish to be able to grease the bearings in the hubs, remove the seal from one side of the bearings as illustrated before assembly. Otherwise the bearings may be left "sealed for life".
- 2. When assembling the spoke wheels, bearing assembly and hubcap, be sure to align the grease transfer hole in the spoke wheel with the groove in the hubcap and hole in the hub to allow grease passage.
- Install/assemble the wheels, hubs and caps. IMPORTANT: THE 2527-530
  WASHER MUST BE INSTALLED OR THE WHEEL AND HUB ASSEMBLY WILL
  FALL OFF DURING USE.
- 4. Grease the wheel/hub/bearing assembly.

#### **Storing the Equipment**

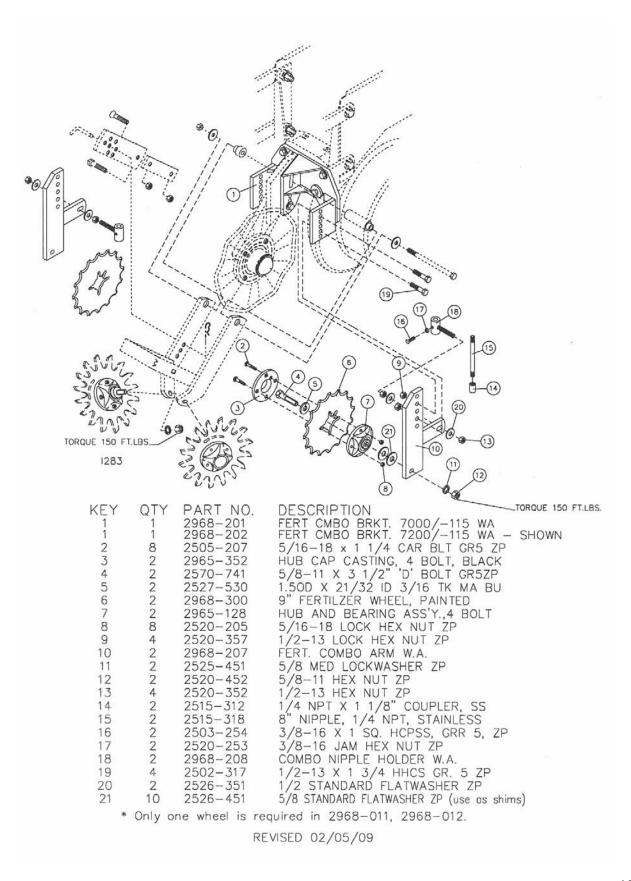
Store the machine in an area away from human activity Store machine in RAISED position.

Install service locks on all wheel cylinders.

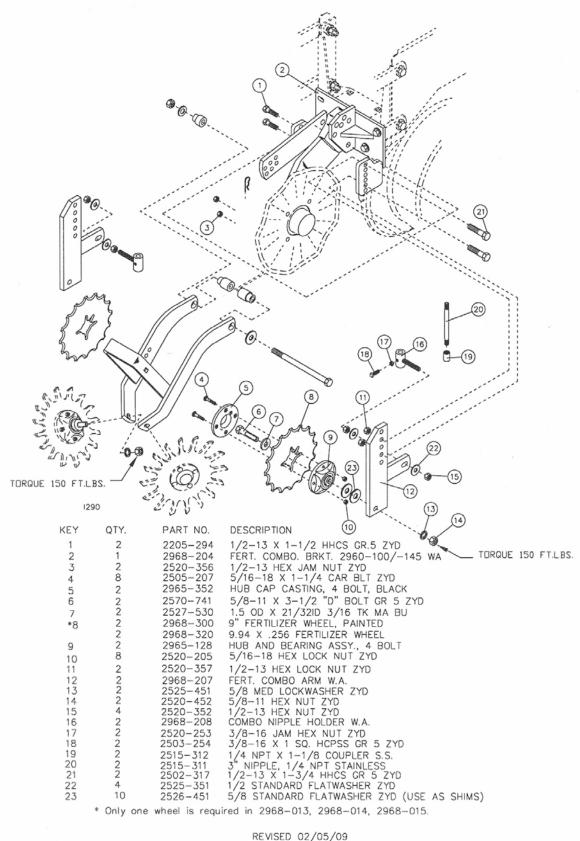
At the end of the season, the machine should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components to prevent down time at the start of the next season. Store machine under cover with all parts in operating condition.

- Clean machine thoroughly to remove all dirt, debris and crop residue, which would hold moisture and cause rusting.
- Inspect machine for worn or broken parts. See your Yetter Farm Equipment dealer during the off-season so that parts or service can be acquired when machine is not needed in the field.
- Lubricate bearings as outlined in the Lubrication section
- Paint all parts which are chipped or worn and require repainting.
- Store machine in a clean, dry place with the planting unit out of the sun.
- If the machine cannot be stored inside, cover with a waterproof tarpaulin and tie securely in place.
- Do not allow children to play on or around the machine

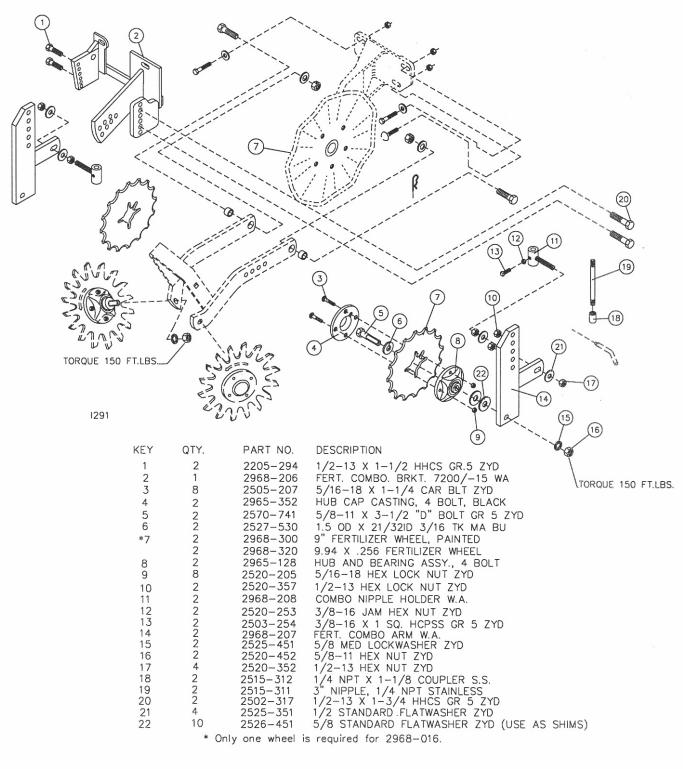
## 2968 FERTILIZER COMBINATION UNITS FOR YETTER 2960-015 & 2967-115



#### 2968 SERIES FERTILIZER COMBINATION UNITS FOR 'OLDSTYLE' UNIT MOUNTED COULTERS

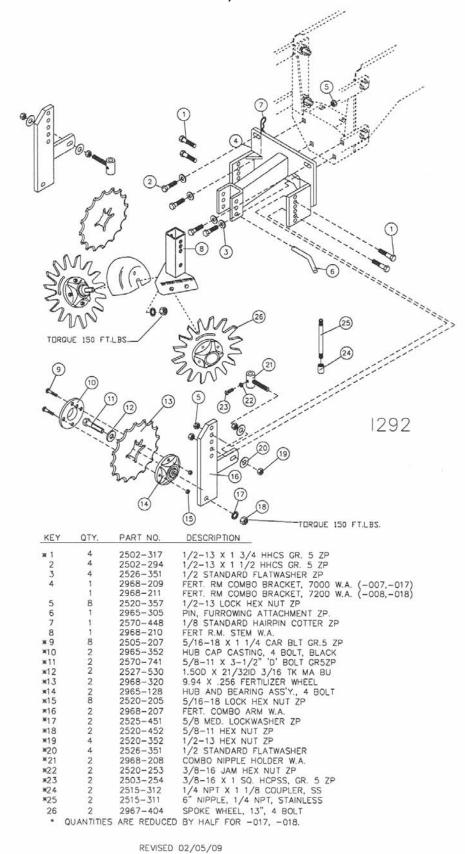


#### 2968 SERIES FERTILIZER COMBINATION UNIT FOR 7200 PLANTER WITH 2967-150 RESIDUE MANAGER ATTACHMENT

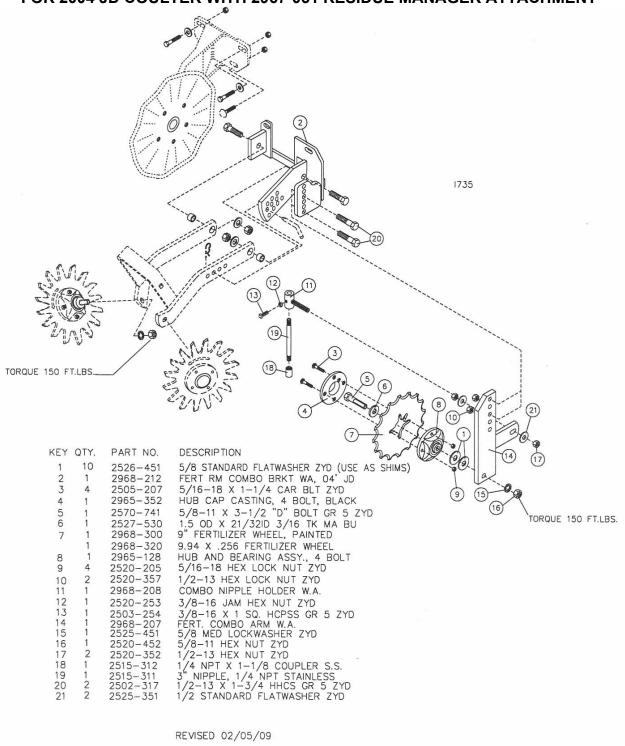


REVISED 02/05/09

## 2968 SERIES FERTILIZER R.M. COMBO UNIT 2968-007 FOR 7000 PLANTERS, 2968-008 FOR 7200 PLANTERS



#### 2968-019 - FERTILIZER COMBINATION UNIT FOR 2004 JD COULTER WITH 2967-051 RESIDUE MANAGER ATTACHMENT



#### **TROUBLESHOOTING**

Problem Cause Solution

Overall settings. Planter not set Ensure that in operation Correctly. Ensure that in operation the planter frame is at

correct height

(20"-22") and level the

tool bar.

Soil build-up on Fertilizer not deep

Planter gauge wheels. Enough.

Adjust wheels deeper.

Set nozzle closer to ground surface.

Use higher pressure

fertilizer delivery.

Hair-pinning residue. Residue Manager

Combination not set

correctly.

Adjust wheels to clear residue more efficiently.

## LIQUID FERTILIZER APPLICATION RATE AND PRESSURE CHART TABLES ARE BASED ON 30" NOZZLE SPACING

			GALLONS PER ACRE (USING WATER)					
TIP#	LIQUID PRESSURE IN # PSI	CAPACITY 1 NOZZLE IN GPM	4 MPH H2O	5 MPH H2O	5.5 MPH H20	6 MPH H2O	7 MPH H20	8 MPH H20
111 11	20	0.11	5.45	4.36	3.96	3.63	3.11	2.72
	25	0.12	5.94	4.75	4.32	3.96	3.39	2.97
00015	30	0.13	6.44	5.15	4.68	4.29	3.68	3.22
0010	40	0.15	7.43	5.94	5,40	4.95	4.24	3.71
	50	0.17	8.42	6.73	6.12	5.61	4.81	4.21
	60	0.18	8.91	7.13	6.48	5.94	5.09	4.46
933	20	0.14	6.93	75.54	5.04	4.62	3.96	3.47
	25	0.16	7.92	6.34	5.76	5.28	4.53	3.96
002	30	0.17	8.42	6.73	6.12	5.61	4.81	4.21
	40	0.20	9.90	7.92	7.20	6.60	5.66	4.95
	50	0.23	11.39	9.11	8.28	7.59	6.51	5.69
	60	0.25	12.38	9.90	9.00	8.25	7.07	6.19
	20	0.21	10.40	8.32	7.56	6.93	5.94	5.20
	25	0.24	11.88	9.50	8.64	7.92	6.79	5.94
003	30	0.26	12.87	10.30	9.36	8.58	7.35	6.44
	40	0.30	14.85	11.88	10.80	9.90	8.49	7.43
	50	0.34	16.83	13.46	12.24	11.22	9.62	8.42
	60	0.37	18.32	14.65	13.32	12.21	10.47	9.16
	20	0.28	13.86	11.09	10.08	9.24	7.92	6,93
	25	0.32	15.84	12.67	11.52	10.56	9.05	7.92
0004	30	0.35	17.33	13.86	12.60	11.55	9.90	8.66
	40	0.40	19.80	15.84	14.40	13.20	11.31	9.90
	50	0.45	22.28	17.82	16.20	14.85	12.73	11.14
	60	0.49	24.26	19.40	17.64	16.17	13.86	12,13
	20	0.35	17.33	13.86	12.60	11.55	9.90	8.66
ra-unin	25	0.40	19.80	15.84	14.40	13.20	11.31	9.90
0005	30	0.43	21.29	17.03	15.48	14.19	12.16	10.64
	40	0.50	24.75	19.80	18.00	16.50	14.14	12.38
	50	0.56	27.72	22.18	20.16	18.48	15.84	13.86
	60	0.61	30.20 20.79	24.16	21.96	20.13	17.25	15.10
	20	0.42	23.27	16.63	15.12	13.86	11.88	10.40
0006	25 30	0.47 0.52	25.74	18.61 20.59	16.92 18.72	15.51 17.16	13.29 14.71	11.63 12.87
0000	40	0.60	29.70	23.76	21.60	19.80		14.85
	50	0.67	33.17	26.53	24.12	22.11	16.97 18.95	16.58
	60	0.74	36.63	29.30	26.64	24.42	20.93	18.32
	20	0.57	28.22	22.57	20.52	18.81	16.12	14,11
	25	0.63	31.19	24.95	22.68	20.79	17.82	15.59
0008	30	0.69	34.16	27.32	24.84	22.77	19.52	17.08
	40	0.80	39.60	31.68	28.80	26.40	22.63	19.80
	50	0.89	44.06	35.24	32.04	29.37	25.17	22.03
	60	0.98	48.51	38.81	35.28	32.34	27.72	24.26
	20	0.71	35.15	28.12	25.56	23.43	20.08	17.57
	25	0.79	39.11	31.28	28.44	26.07	22.35	19.55
0010	30	0.87	43.07	34.45	31.32	28.71	24.61	21.53
	40	1.00	49.50	39.60	36.00	33.00	28.29	24.75
	50	1.12	55.44	44.35	40.32	36.96	31.68	27.72
	60	1.23	60.89	48.71	44.28	40.59	34.79	30.44
	20	1.06	52.47	41.98	38.16	34.98	29.98	26.24
	25	1.19	58.91	47.12	42.84	39.27	33,66	29.45
0015	30	1.30	64.35	51.48	46.80	42.90	36.77	32.18
	40	1.50	74.25	59.40	54.00	49.50	42.43	37.13
	50	1.68	83.16	66.53	60.48	55.44	47.52	41.58
	60	1.81	89.60	71.68	65.16	59.73	51.20	44.80
OW SP	ACING	10" X 3.3	15" X 2.0	18" X 1.66	20" X 1.5	36" X .83	38" X .79	40" X .75

GPA = (Per Nozzle)

5940 X GPM MPH X W H2O = WATER
GPA = GALLON PER ACRE
GPM = GALLONS PER MINUTES
MPH = MILES PER HOUR
W = WIDTH

This table is reference only. Please calibrate your equipment to insure proper rate of application.

The information contained in this issue is offered in good faith by Yetter Mfg. Co. to further the understanding of liquid fertilizer application. However, the use of the information provided is beyond the control of Yetter Mfg. Co. and in no case shall Yetter Mfg. Co. or any of its products be responsible for any damages, which may occur from the use of this information.

## NOTES:

### **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.

#### YETTER MANUFACTURING CO.

Colchester, IL 62326-0358 • 309/776-4111 Toll Free 800/447-5777 Fax 309/776-3222

Website: <u>WWW.YETTERCO.COM</u> E-MAIL: <u>INFO@YETTERCO.COM</u>

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