

2984 MAVERICK OPENER™

GENERATION II

OPERATOR & PARTS MANUAL

2984-019 – HIGH RESIDUE MAVERICK 2565-685 REV B 11/2016



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.

Dea	aler	•

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

SAFETY

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

DANGER:

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

practices.

WARNING: Denotes a specific potential hazard

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.

WARNING

Never clean, lubricate or adjust a machine that is in motion. Always lower or block the implement before performing service.

If machine must be serviced in the raised position, jack or block it up to prevent it from accidentally falling and injuring someone.

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.



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

CAUTION

Consult your implement and tractor 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.

INTRODUCTION

The 2984 Maverick Opener Unit has been specifically designed for strip-till and those users who demand the utmost in accuracy of fertilizer placement along with the durability and capability to perform at least one other operation in the field simultaneously.

The Maverick Opener is a combination of existing and new technologies. The unit is based on our patented parallel arms and attaches to a toolbar with a rugged clamp bracket casting. The main frames are heavy twin 5/8" x 5" plates, which includes punched holes, for mounting of various attachments. The formed knife plates are attached by 5/8" grade 5 bolts. The fertilizer knife is attached to the lower part of the knife plate using grade 8 bolts. The upper rear part of the knife plate has provisions for attachment of either a disc sealer or a wheel sealer with 4.5 x 16 gauge wheel tires.

This is a very versatile unit that may be complemented by other Yetter attachments, such as the 2984-004 depth control and 2984-020 or 2984-021 or 2984-022 residue managers.

OPERATION

The Maverick Openers is a universal tool designed for use in any fertilizer management program. The Maverick Openers is the ultimate unit when properly equipped for; Fall strip tillage, Spring pre-plant, Summer side-dressing and Fumigation.

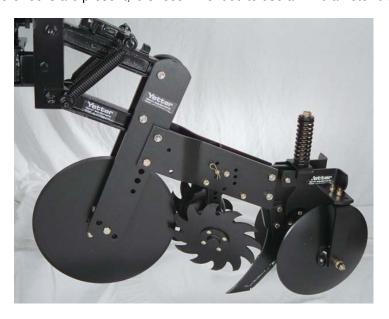
The unit when equipped with sealing wheels is ideal for controlling soil disturbance and leaving a level soil surface with the fertilizer sealed in. The unit equipped with sealing discs may be set up to close the knife slot with the blades pushing or with the blades turned to pull, form a mound or "berm" of soil over the knife slot to seal in the fertilizer.

It is important to remember that the Maverick Opener unit is similar to a planter unit in operation, thus it is very important to adjust the frame height and levelness for best performance.

Soil conditions (i.e.; frozen soil, rocks, heavy, tough residue) have an influence on performance. If damp soil is building up on the wheels, discs or knives then it is less than optimum conditions to operate, thus the Maverick Opener will not work at it's best.

CAUTION Frozen soil or heavy rock population may cause damage to the Maverick Opener ...

Note: In soil where rocks are present, it is recommended to use a 22" diameter blade (2571-196).



GENERAL INFORMATION

Examine all equipment carefully for damage or parts shortages.

2984-019 - MAVERICK, HI-RES, MAIN ASSY

Includes:	2984-105	HUB ASSEMBLY, GEN II MAVERI	1.0000
	2984-118	BOLT BAG, HI-RES MAVERICK	1.0000
	2984-209	REAR RM KNIFE PLATE W.A.	1.0000
	2984-308	MAVERICK HUB PLATE	2.0000
	2984-347	MAVERICK REAR MNT RM BRKT,	1.0000
	2984-348	MAVERICK REAR MNT RM BRKT,	1.0000
	3000-122	PARALLEL ARM ASSEMBLY	1.0000

Optional Equipment

Blade options: 2571-169 – 18" SMOOTH BLADE

2571-178 – 20" SMOOTH BLADE 2571-196 – 22" SMOOTH BALDE

Knife option: 2920-204 – STANDARD NH3 KNIFE

Residue Manager option: 2984-020 R.M., HI-RES MAV., SHARKTOOTH

2984-021 R.M., HI-RES MAV., NOTCH BLADE 2984-022 HI-RESIDUE MAVERICK R.M. KIT

Depth Control option: 2984-004 - DEPTH CONTROL/S.D.G., MAVERICK

Sealing option: 2984-024 - NOTCHED SEALER, HI-RES MAV. (FALL, SPRING)

2984-024 - NOTCHED SEALER, HI-RES MAV. (FALL, SPRING) 2984-023 – 16" DISC SEALER, HI-RES MAV. (FALL, SPRING) 2984-018 – WHEEL SEALER 4.5 X 16 WHEEL (SIDE DRESS, SPRING)

U-bolt mounting kit option: 3000-109 - 4 X 4 U-BOLT KIT

6000-010 - 5 X 7 U-BOLT KIT 6000-011 - 7 X 7 U-BOLT KIT

Note: Toolbars are measured width x height

GENERAL INFORMATION

Note: Right hand and left hand designations are based on sitting in the tractor and facing forward.

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. Torque 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 ft. lbs.

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

Lubricate all bearings and moving parts as assembled and make certain that they work freely.



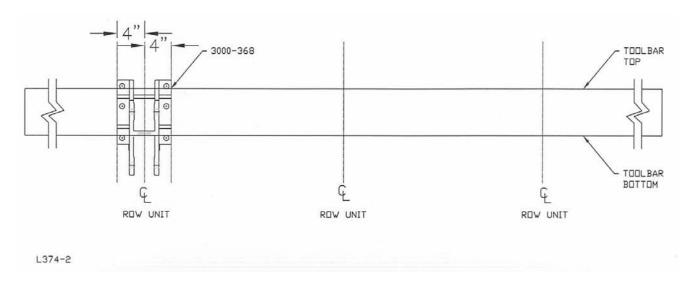
WARNING: Never work around the toolbar / implement while in a raised position without using safety lockups.



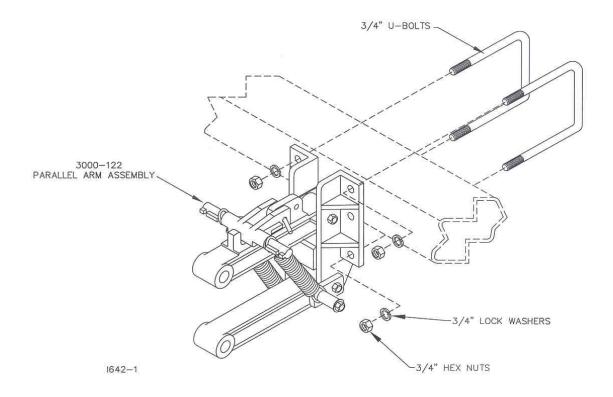
CAUTION: The Maverick opener and its attachments are very heavy. Extra attention to lifting techniques while handling and or maneuvering the opener during assembly. Failure to do so may lead to personal injury.

ASSEMBLY INSTRUCTIONS 2984-019 – MAVERICK OPENER

STEP 1. Mark the location of the center of each row on the toolbar. Then measure from row 4" and place a mark on the rear side of toolbar. This mark will give a reference point to where the edge of the clamp bracket (3000-368) should be located so that the fertilizer knife will be centered directly on the row.

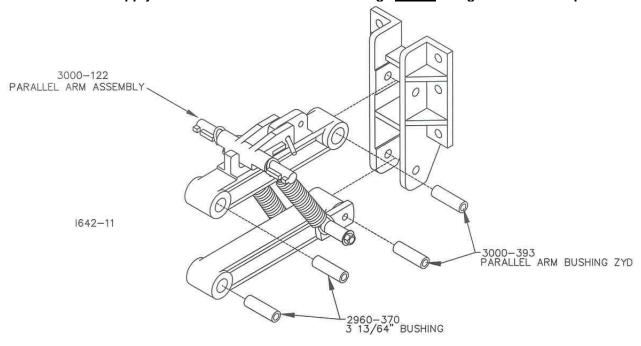


STEP 2. Centering on each row, attach the (3000-122) parallel arm assembly to the toolbar with the appropriate ³/₄" u-bolts, lock washers and hex nuts. Torque the u-bolts to 200 ft. lbs. *Recheck the torque after 10 hours of use.*

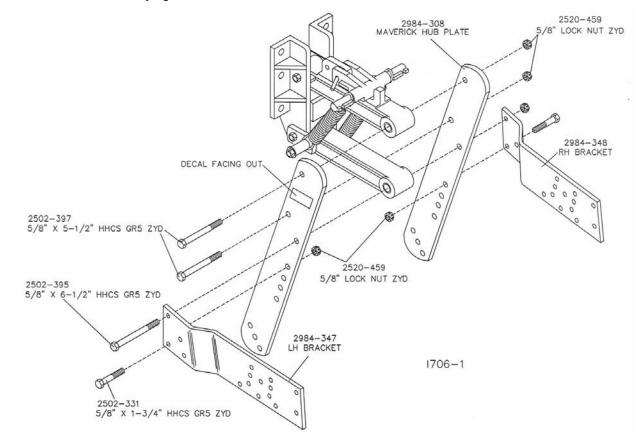


STEP 3. Insert the 2960-370 - 3 13/64" spacer bushings into the parallel arms of 3000-122 parallel arm assembly.

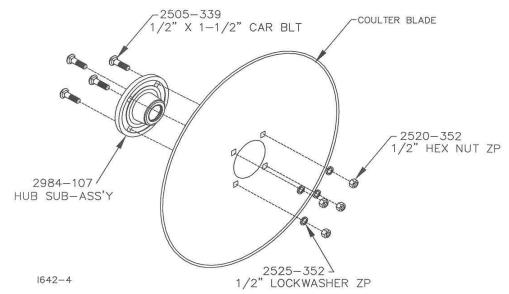
IMPORTANT!!!!! Apply never-seize lubricant to the bushings before using the Maverick Opener™.



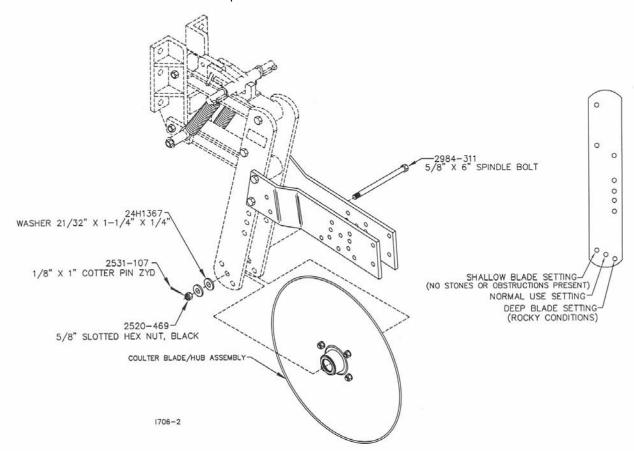
STEP 4. Insert 2) 2502-397 – 5/8" X 5 ½" bolts through the 2984-348 RH bracket and the hub plate 2984-308 (decal should face out from center of the row) and attach to the parallel arm assembly. Place the second hub plate 2984-308 onto the 5/8" bolts, then the 2984-347 LH bracket. Install 2) 2502-331 – 5/8" x 1-3/4" bolts into the lower mounting holes of the 2984-347, 2984-348 and the hub plates, secure with the 5/8" lock nuts, do not fully tighten at this time.



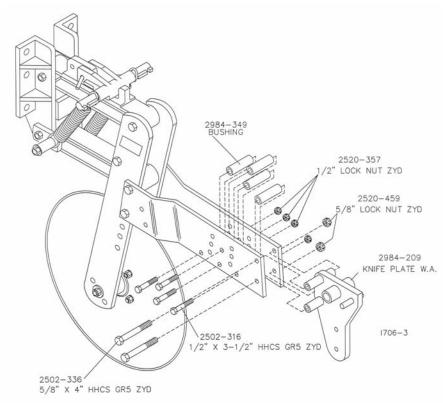
STEP 5. Mount the coulter blade to the hub assembly using 4) $2505-339 - \frac{1}{2}$ " x 1 $\frac{1}{2}$ " carriage bolts, $\frac{1}{2}$ " lock washers and $\frac{1}{2}$ " hex nuts. Torque to 90 ft. lbs.



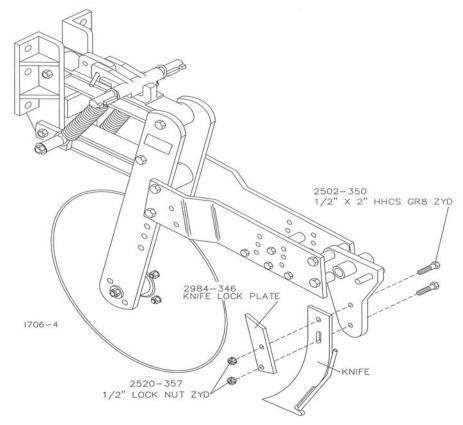
STEP 6. Mount the coulter blade/hub assembly to the lower end of the hub plate using 1) 2984-311 - 5/8" x 6" NF bolt, 2) 21/32" x 1 $\frac{1}{4}$ " x $\frac{1}{4}$ " THK washers and 5/8" castle nut. Do not fully tighten 5/8" castle nut at this time. Do not install $\frac{1}{8}$ " x 1" cotter pin at this time.



STEP 7. Assemble the 4) 2984-349 bushings to the R.H. and L.H. brackets using the $\frac{1}{2}$ " x 3-1/2" bolts and lock nuts. Attach the 2984-209 knife plate to the R.H. and L.H. brackets using 2) $\frac{5}{8}$ " x 4" bolts and lock nuts.

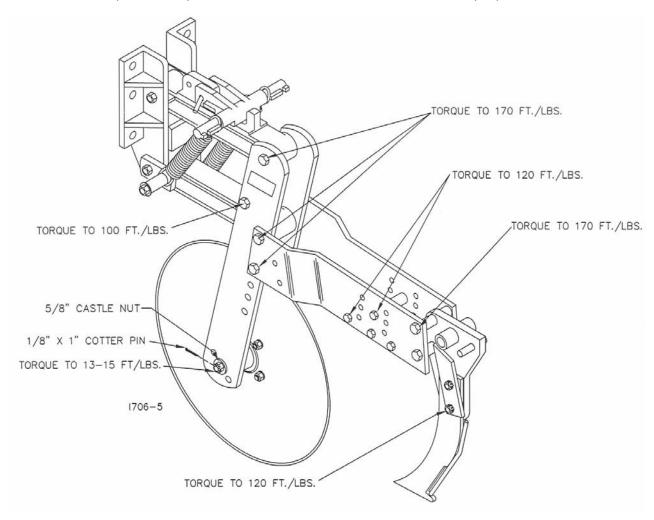


STEP 8. Attach the fertilizer knife and the 2984-346 knife lock plate to the 2984-209 knife plate weldment using 2) ½" x 2" GR. 8 bolts and lock nuts.



STEP 9. Tighten all bolts to recommended torques from table on page 8 of this manual unless the torque is specified.

Note: Do not over tighten the spindle bolt and castle nut. Torque the spindle bolt to 13-15 ft. lbs. or until the hub/blade assembly has a slight drag when turned by hand. Tighten the nut one slot position on the castle nut to line up the cotter pin hole. Secure the nut with the 1/8" x 1" cotter pin provided.

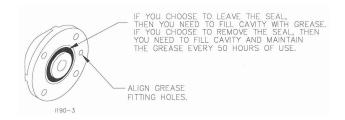


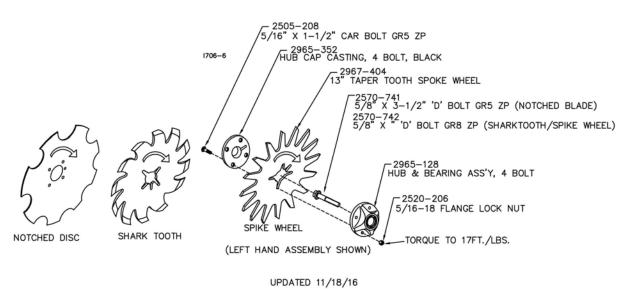
Recheck the torque on these bolts after 10 hours of operation and then every 50 hours after that. Do a routine inspection of the opener at this time for best performance and less down time.

2984-020, 2984-021, 2984-022 - RESIDUE MANAGER

STEP 1. Assemble the residue manager wheel to the 2965-352-hub cap and the 2965-128-hub/bearing assembly. Insert the D-bolt through the hub/bearing assembly. Use 4) $5/16 \times 1^{-1/2}$ carriage bolts and 5/16-18 lock nuts per wheel.

NOTE: Assemble one wheel as a right hand wheel rotation and one wheel as a left hand wheel rotation.





NOTE: Be certain to align the grease zerk with the slot in the wheel and the hub cap so that the grease can flow freely.

STEP 2. Attach the wheel assemblies to the 2967-200-stem bracket through the rear holes of the stem. NOTE: The rotation of the wheel, left hand wheel assemblies mount to L.H. side of the stem and the right hand wheel assemblies mount to the R.H. side of the stem. Torque 150 ft.lbs.

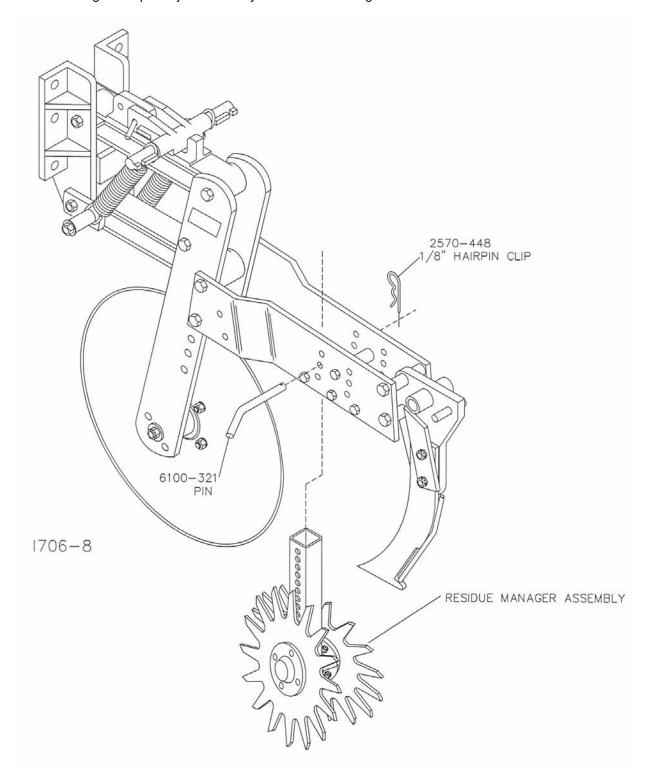


2984-020, 2984-021, 2984-022 - RESIDUE MANAGER

STEP 3. Install the wheel stem assembly onto the Maverick, secure with 6100-321 pin and 2570-448-hairpin clip.

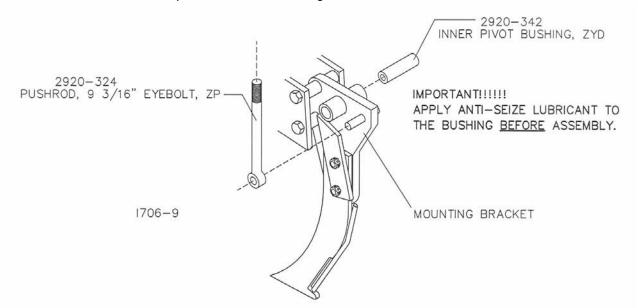
<u>Initial Adjustment</u> for the residue manager needs to be set at soil surface. For example: fertilizer is to be placed 6" deep, the residue manager should be adjusted 6" above the tip of the knife.

<u>Field adjustment</u>: In field adjustments to the residue manager will need to be done for best performance of residue manager. As conditions change, soil types, tilth, moisture, amount of residue, type of residue, the residue manager's depth adjustment may also need to change.

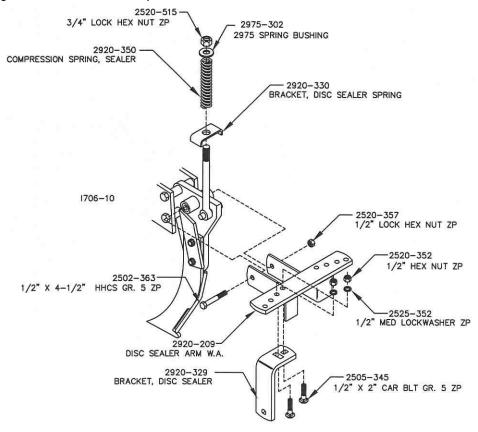


2984-024 – NOTCHED DISC SEALER KIT 2984-023 – SMOOTH DISC SEALER KIT

STEP 1. Insert the 2920-342 pivot bushing (lubricate with anti-seize) into the pivot collar of the mounting bracket. Install the 2920-324 push rod to the mounting bracket.

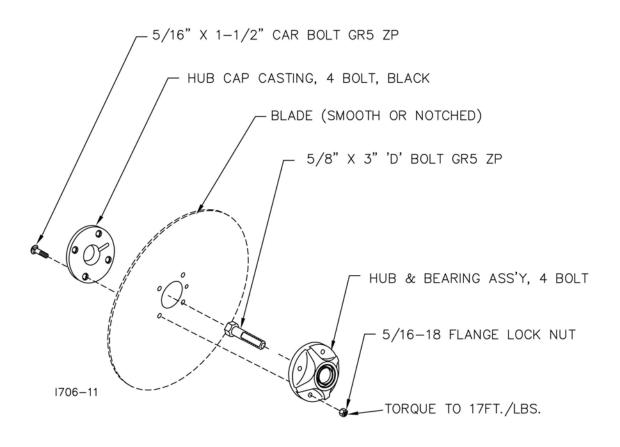


STEP 2. Attach the 2920-209 disc sealer arm to the mounting bracket using 1) $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " bolt and $\frac{1}{2}$ " lock nut. Attach the 2) 2920-329 L-brackets to the 2920-209 arm using 4) $\frac{1}{2}$ " x 2" carriage bolts, $\frac{1}{2}$ " lock washers and $\frac{1}{2}$ " hex nuts. Next, assemble the 2920-330 pushrod bracket, 2920-350 spring, 2975-302 spring bushing and $\frac{3}{4}$ " lock nut on the pushrod.

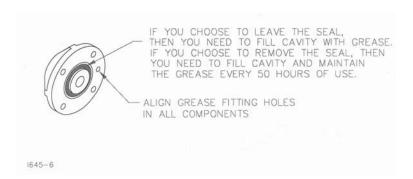


2984-024 – NOTCHED DISC SEALER KIT 2984-023 – SMOOTH DISC SEALER KIT

STEP 3: Assemble the blades to the 2965-hub and bearing assembly, 5/8" x 4" D-bolt. Bolt the cap, blade and hub assembly together using 4) 5/16" x 1-1/4" carriage bolts and 5/16" lock nuts.



UPDATED 10/27/16

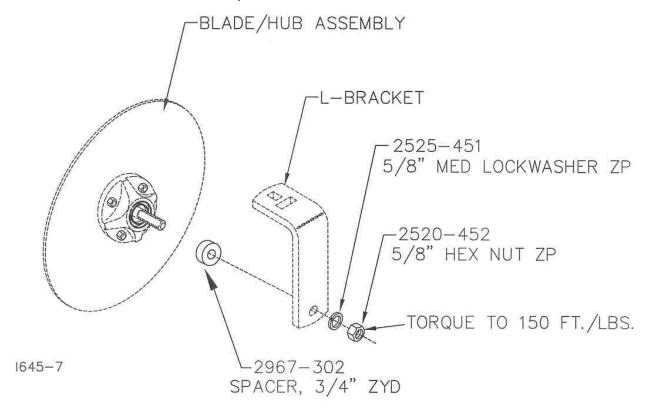


NOTE: During assembly be sure to align the grease-fitting hole in all the components to assure proper lubrication of the bearing. Use general-purpose grease before use of the openers.

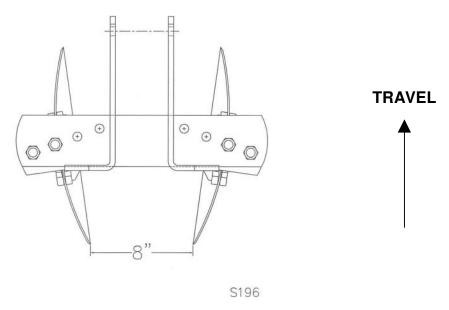
Service Tip: For extra protection against bearing contamination use silicon caulking between the contact areas of the hub cap, blade and hub/bearing assembly.

2984-024 - NOTCHED DISC SEALER KIT 2984-023 - SMOOTH DISC SEALER KIT

STEP 4. Attach the blade/hub assembly to the 2920-329 L-bracket using the D-bolt through 1) 3/4" spacer, 5/8" lock washer and 5/8" hex nut. Torque 150 ft.lbs.



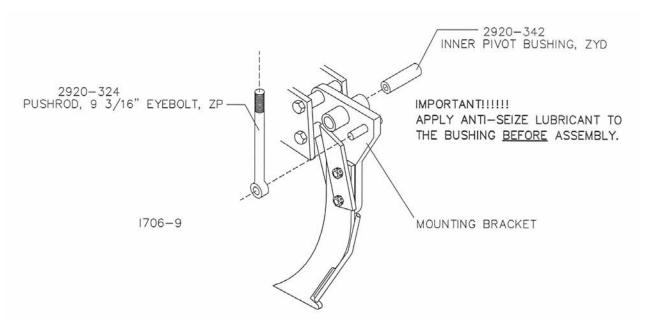
STEP 5. Adjust the angle of the disc blades so that the blades are approximately 8" apart and 4" from the center of the knife.



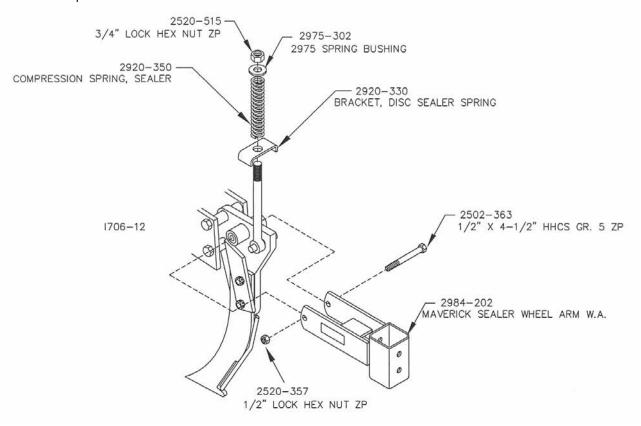
STEP 6. Tighten all of the hardware to the recommended torque unless otherwise stated.

2984-018 - SEALING WHEEL KIT

STEP 1. Install the 2920-324 pushrod to the mounting bracket. Insert 2920-342 pivot bushing into the mounting bracket – lubricate with anti-seize.

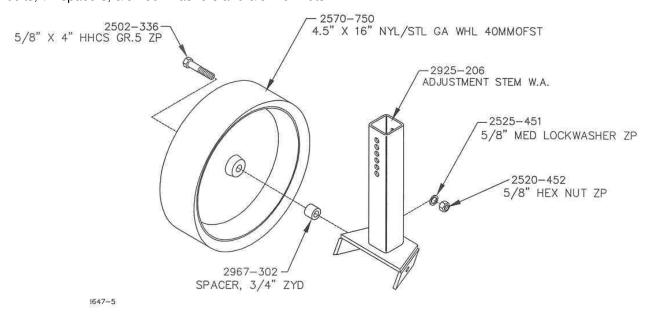


STEP 4. Attach the 2984-202 sealer wheel arm to the mounting bracket using 1) $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " bolt and $\frac{1}{2}$ " lock nut. Next, assemble the 2920-330 pushrod bracket, 2920-350 spring, 2975-302 spring bushing and $\frac{3}{4}$ " lock nut onto the pushrod.

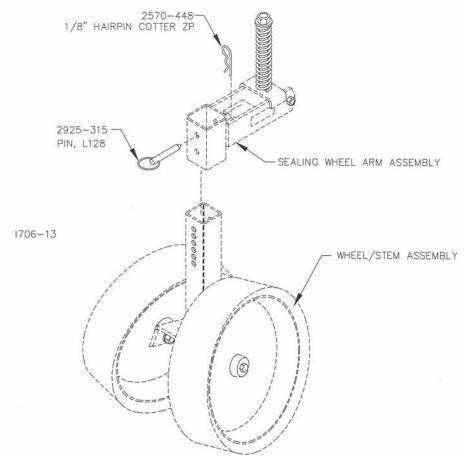


2984-018 - SEALING WHEEL KIT

STEP 5. Attach the 2) 2570-750 4.5" X 16" wheels to the 2925-206 adjustment stem using 2) 5/8" x 4" bolts, $\frac{3}{4}$ " spacers, $\frac{5}{8}$ " lock washers and $\frac{5}{8}$ " hex nuts.



STEP 6. Insert the wheel/stem assembly into the wheel arm and hold it in position with the 2925-315 pin and 1/8" hairpin cotter.



STEP 7. Tighten all hardware to the recommended torque setting unless otherwise stated.

YETTER model 2984 Maverick Opener is a multi-functional tool designed for use in a fertilizer management system. The Maverick Opener fully equipped, is capable of residue management, precision fertilizer placement, soil tilth and soil berm/mound building all in one pass. Thus creating a seedbed that will increase your Return On Investment.

It is important to know that the Maverick Openers unit is similar to a row crop planter unit in operation, thus it is very important to adjust the frame height and levelness for best performance. Soil conditions (i.e.; frozen soil, rocks, heavy, tough residue) have a major influence on the performance of the Maverick Openers. If damp soil is building up on the wheels, discs or knives then conditions are less than ideal and the Maverick Openers will not perform at its best.

The unit when equipped with sealing wheels is ideal for controlling soil disturbance and leaving a level soil surface with the fertilizer sealed in. The unit equipped with sealing discs may be set up to close the knife slot with the blades pushing or with the blades turned to pull, form a mound or "berm" of soil over the knife slot to seal in the fertilizer.



CAUTION Frozen soil or heavy rock population may cause damage to the Maverick Opener-s.



IMPORTANT: For proper operation, the toolbar frame must operate level (for, aft and side to side) and at the correct height, typically 24".

In hard or rocky soil conditions, the desired operating depth of the knife may not be possible. Increase the spring pressure to obtain the desired depth rather than lower the toolbar frame below the 24" recommended setting. Toolbar weight may limit operating depth in hard soil conditions, add ballast to the toolbar frame. Example 200#'s per opener have been added to the frame to achieve the desired depth. Operating depth of the Maverick Opener is affected by spring tension, toolbar height, levelness of toolbar and soil tilth. As soil conditions change, toolbar settings and coulter adjustments will need to be changed as well.

Toolbar gauge wheel kits are optional but advocated for use with the Maverick Opener ◆ because of toolbar frame height being critical for proper operation, 24".

- 1. Set/mount coulter blades to run perpendicular to the soil. Operation depth and blade wear can be affected if the coulter 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 13 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 REUSE WORN OR DAMAGED PARTS.



Never clean, lubricate or adjust a machine that is in motion. Always lower or block the implement before performing service.

If machine must be serviced in the raised position, jack or block it up to prevent it from accidentally falling and injuring someone.

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.

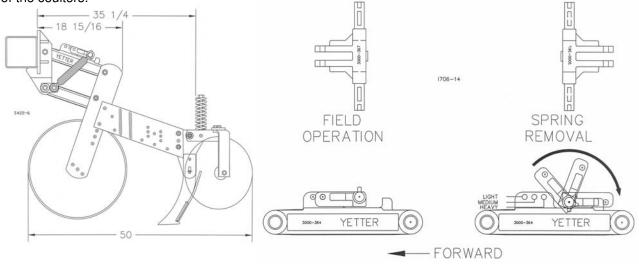
Be familiar with all tractor and implement controls and be prepared to stop engine and implements quickly in an emergency.

FAILURE TO HEED MAY RESULT IN PERSONAL INJURY OR DEATH.

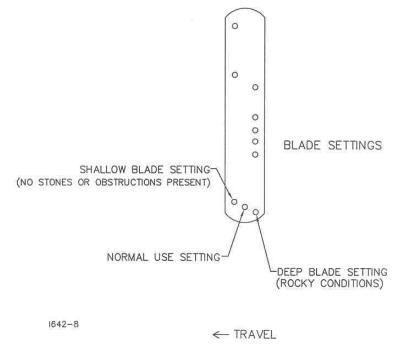
NOTE: Adjustments to the Maverick Opener are best done while in the field where the unit is to be operated.

STEP 1. Set the toolbar frame height for 22"-24". 24" from the top of the soil to the bottom of the toolbar seems to work for the best performance of the Maverick Opener. Adjust the toolbar gauge wheels up or down to get the 24" from the bottom of the gauge wheel to the bottom of the toolbar. Adjust the spring tension on the upper parallel arm; forward for lighter setting and rearward for heavier setting (TWO ADDITIONAL SPRINGS ARE AVAILABLE IF NEEDED). The pin must be installed to hold the spring bar at the desired setting. Add or remove weight to the toolbar to achieve the proper toolbar frame height.

NOTE: Toolbar frame levelness and height adjustments are very important settings for correct performance of the coulters.



STEP 2. Set the coulter depth based on soil conditions, (i.e. tilth, stones or crop residue). For proper operation of the Maverick Opener
, the coulter must cut through crop residues including roots. For best performance 3"-4" depth is recommended, maximum depth is 6". Raising the blade helps to cut residue rather than pushing it ahead and not cutting. Operating the blade deep puts the hub and mounting plates close to the surface and may create plugging in heavy residue.



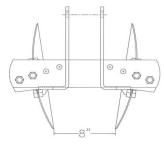
NOTE: When properly adjusted the Maverick Opener will ride up and over rocks and other obstacles if present in the soil.

STEP 3. Set the depth of the knife by adjusting toolbar height and spring tension on the parallel arms.

STEP 4. Adjust the residue manager to move crop residue aside and not move any soil. Adjustments to the residue manager may have to be made when changing field conditions and type and amount of residue. **ROW CLEANER DO's AND DON'T's**

- 1. DO NOT move soil, Residue Managers are designed to move crop residue only.
- 2. DO NOT operate toolbar at slow speeds, ground speed affects how aggressive the spoke wheels are; operate at sufficient speed (5-7 mph) to maintain good residue flow.
- 3. DO NOT expect 100% of crop residue to be cleared, it is not necessary and would necessitate engaging the soil. The width of path cleared depends on ground conditions, depth setting and ground speed.
- 4. DO expect to see wheels occasionally quit turning, indicates ideal (shallow) setting which is not moving soil.
- 5. DO adjust toolbar frame height 24" and levelness. Very important to ensure Maverick Opener will follow ground contours properly.
- 6. DO adjust Maverick Opener down pressure kit correctly to prevent excessive depth.

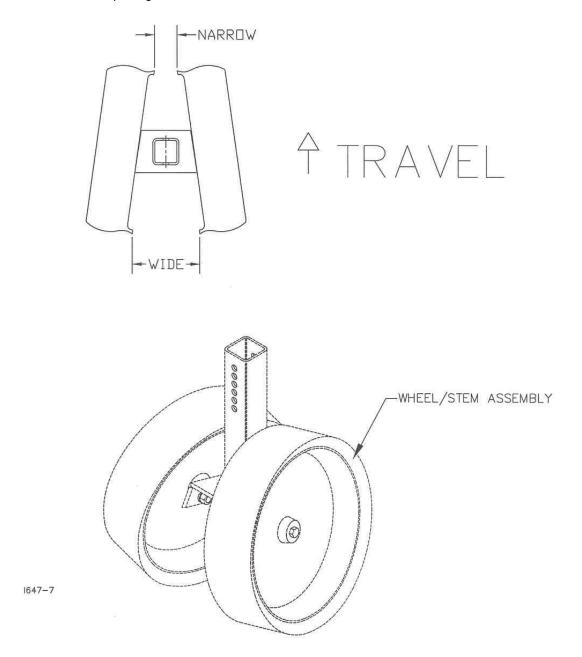
STEP 5. Adjust the Sealing Discs/Wheels. The width and height of the mound/berm depends on ground conditions, depth setting, spring tension, blade angle and ground speed. A popular setting for the blade adjustment is 8" at the rear of the blades, equal distance from the center of the row.



STEP 5. CONTINUED

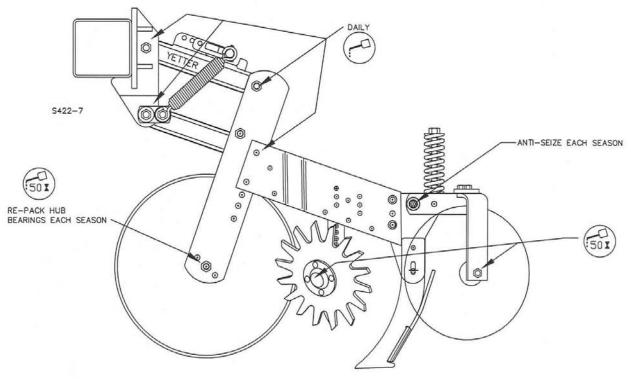
Proper adjustment of the sealing wheels is that the soil surface is left flat and appears to be virtually undisturbed. To adjust the tension on the spring, tighten or loosen the ¾" lock nut. To adjust the height of the sealing wheels, remove the adjustment pin and raise or lower the stem, reinstall pin in the aligning adjustment holes.

NOTE: For proper operation of the sealing wheels, the narrowest gap between the wheels should be forward and the widest spacing to the rear.

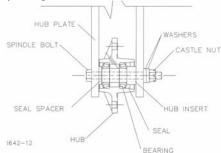


OPERATION MAINTENANCE

LUBRICATION: USE #2 MULTI-PURPOSE POLYUREA GREASE



To ensure longevity and reliability of the Maverick Openers, the recommended lubrication schedule should be followed using multi-purpose grease at 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 seal from the hub.
- 3. Wash the old grease from the hub, bearing cups, spindle spacers, seals and bearing cones. Inspect the condition of bearing cups, cones and seals. Replace if necessary.
- 4. Apply #2 multi-purpose polyurea 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 10 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.

KNIFE WEAR:

The lower portion of the knife and tube are subject to wear during operation. The rate of wear will depend on a variety of factors and in abrasive soil conditions the wear will be more rapid.

NOTE: In certain areas, replacement knives should be kept in stock, replacing worn knives as needed.

BEARING ASSEMBLY AND LUBRICATION

Practice Safety

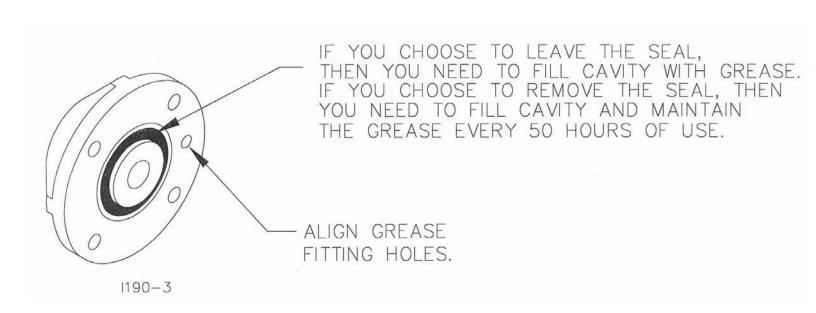
Understand and practice safe service procedures before doing work. Follow ALL the operating, maintenance and safety information in the equipment operator manual. Clear the area of bystanders, especially small children, when performing any maintenance or adjustments. Keep work area clean and dry. Use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

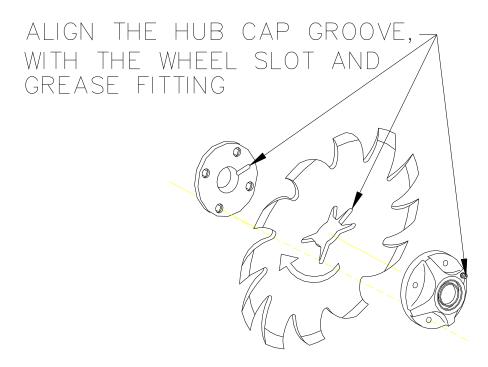
Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven moving and rotating parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground, stop the engine. Remove the key. Wait for all moving parts to stop before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

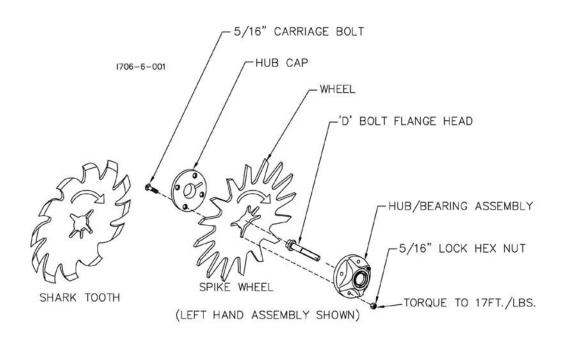
Make sure all guards are in place and properly secured when maintenance work is completed.

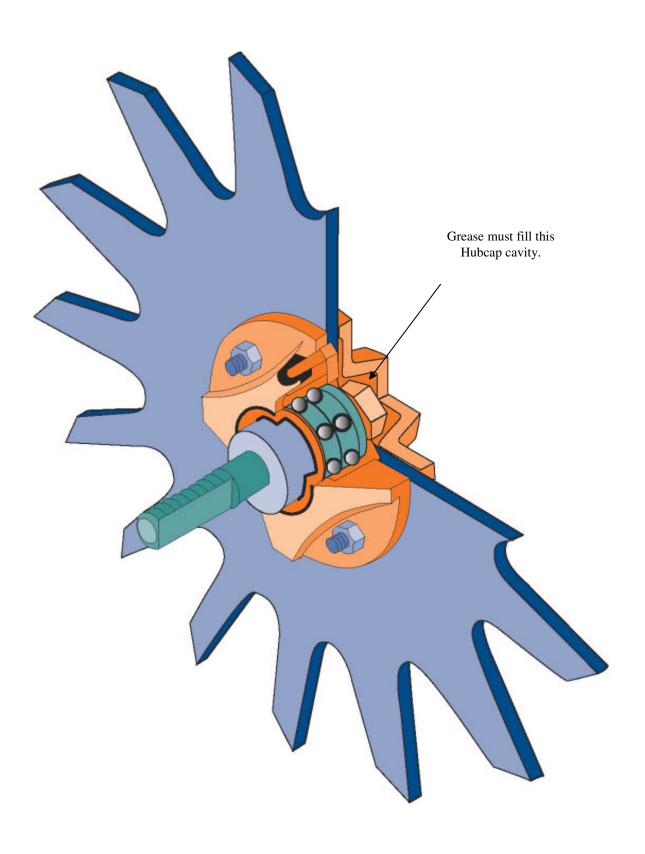
Assembly





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





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 polyurea, 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

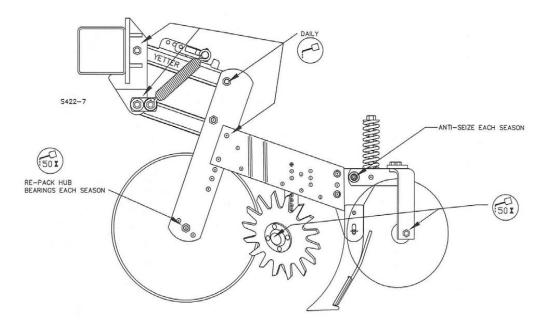
Your machine can operate at top efficiency only if clean lubricants are used. Use clean containers to handle all lubricants.

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

Lubrication Symbols

Lubricate 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

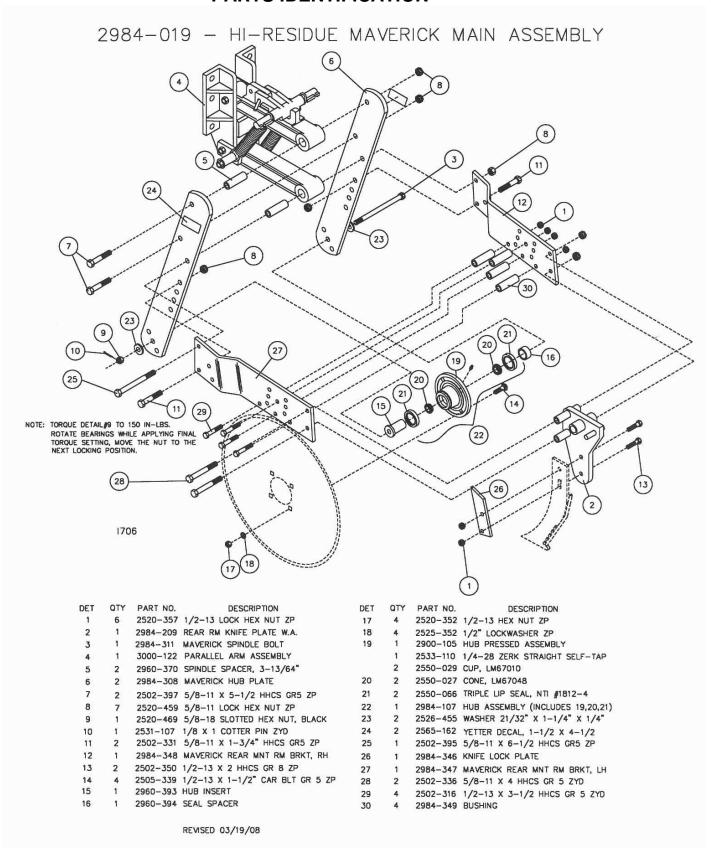
- 1. If you wish to be able to grease the bearings in the hubs, remove the seal from one side of the bearings as illustrated before assembly. Otherwise the bearings may be left "sealed for life".
- 2. When assembling the spoke wheels, bearing assembly and hubcap, be sure to align the grease transfer hole in the spoke wheel with the groove in the hubcap and hole in the hub to allow grease passage.
- 3. Install/assemble the wheels, hubs and caps
- 4. Grease the wheel/hub/bearing assembly.

Storing the Equipment

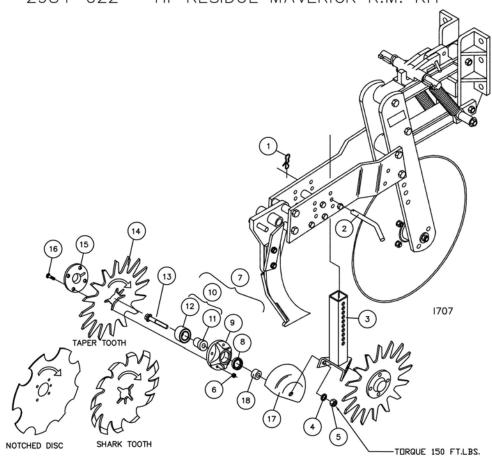
Store the machine in an area away from human activity
Store machine in RAISED position.
Install service locks on all wheel cylinders.

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



2984-020 - R.M., HI-RES MAV., SHARKTOOTH 2984-021 - R.M., HI-RES MAV., NOTCH BLADE 2984-022 - HI-RESIDUE MAVERICK R.M. KIT

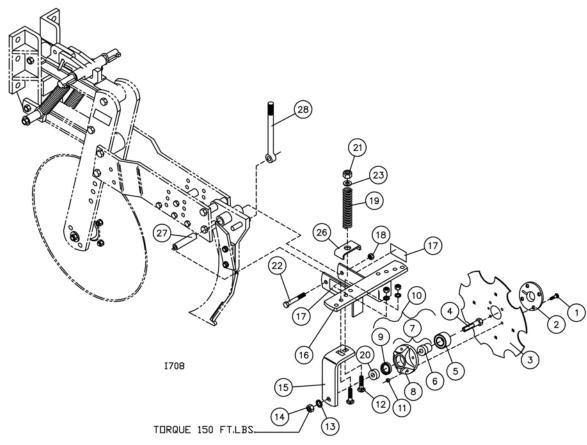


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DET
      QTY PART NO.
                                DESCRIPTION
            2570-448 1/8 BOWTIE LOCKING COTTER ZYD
           6100-321 TRANSPORT PIN LOCK ZYD
       1 2967-200 RESIDUE MANAGER STEM W.A.
           2525-451 5/8 MED LOCKWASHER ZP
      2 2520-452 5/8-11 HEX NUT ZP
       8 2520-206 5/16-18 FLANGE LOCK NUT
           2965-128 HUB & BEARING ASS'Y, 4 BOLT
       1 2550-069 SEAL, TRIPLE LIP, NTI# 1812-5
      1 2965-351 HUB CAST., MACHINED, 4 BOLT
           2965-127 BEARING & INSERT ASS'Y
      1 2570-715 BEARING INSERT, TRASHMASTER
      1 2570-594 BEARING, 2 ROW NTN# DF0654L
2 2570-742 5/8-11 X 4" 'D' BOLT GR5 ZP
12
13
      2 2967-404 13" TAPER TOOTH SPOKE WHEEL(2984-022)
       2 6001-495 MARKER DISC, NOTCH, PUNCH, 4-BOLT(2984-021)
2 2967-602 13" SHARK TOOTH WHEEL(2984-020)
      2 2965-352 HUB CAP CASTING, 4 BOLT, BLACK

    2505-208 5/16-18 X 1-1/2 CAR BOLT GR5 ZP
    2967-336 R.M. SHIELD, PAINTED

16
17
      2 2967-302 SPACER, 3/4" ZYD
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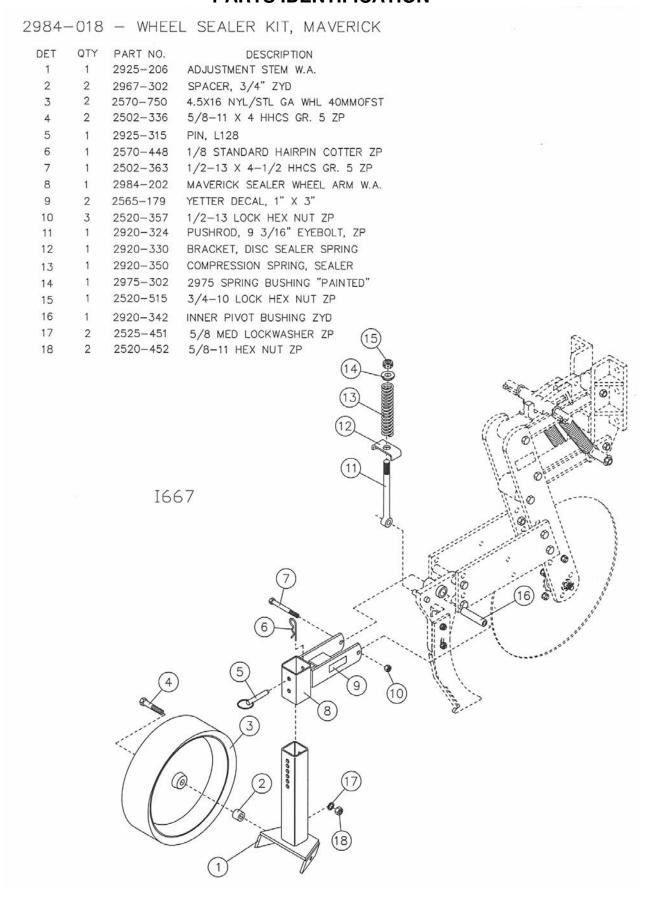
REVISED 11/18/16



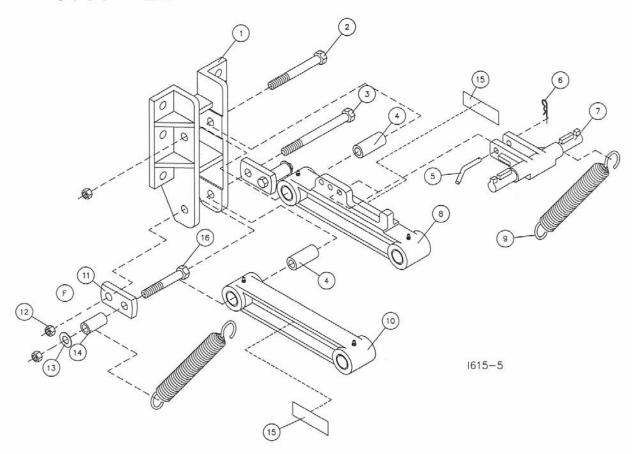
2984-023 - 16" DISC SEALER, HI-RES MAV. 2984-024 - NOTCHED SEALER, HI-RES MAV.

DET	QTY	PART NO.	DESCRIPTION	DET	QTY	PART NO.	DESCRIPTION
1	8	2505-208	5/16-18 X 1 1/2 CAR BLT GR5 ZP	14	2	2520-452	5/8-11 HEX NUT ZP
2	2	2965-352-DISC	HUB CAP CASTING, 4 BOLT, BLACK	15	2	2920-329	BRACKET, DISC SEALER
3	2	6001-495	MARKER DISC, NOTCH, PUNCH, 4 BOLT	16	1	2920-209	DISC SEALER ARM W.A.
	2	2571-173	DISC, .138" X 16", 4-BOLT	17	2	2565-162	YETTER DECAL, 1-1/2 X 4-1/2
4	2	2570-742	5/8-11 X 4" 'D' BOLT GR. 5 ZYD	18	1	2520-357	1/2-13 LOCK HEX NUT ZP
5	2	2570-594	BEARING, 2 ROW NTN# DF0654LU	19	1	2550-745	COMP. SPRING, .393 W, 1 5/8"ID
6	2	2570-715	BEARING INSERT, TRASHMASTER	20	2	2967-302	SPACER, 3/4" ZYD
7	2	2965-127	BEARING & INSERT ASS'Y	21	1	2520-515	3/4-10 LOCK HEX NUT ZP
8	2	2965-351	HUB CAST., MACHINED, 4 BOLT	22	1	2502-363	1/2-13 X 4-1/2 HHCS GR. 5 ZP
9	2	2550-069	SEAL, TRIPLE LIP, NTI# 1812-5	23	1	2975-302	2975 SPRING BUSHING "PAINTED"
10	2	2965-128	HUB AND BEARING ASS'Y.,4 BOLT	24	4	2525-352	1/2 MED LOCKWASHER ZP
11	8	2520-206	5/16-18 FLANGE LOCK NUT	25	4	2520-352	1/2-13 HEX NUT ZP
12	4	2505-345	1/2-13 X 2 CAR BLT GR. 5 ZP	26	1	2920-330	BRACKET, DISC SEALER SPRING
13	2	2525-451	5/8 MED LOCKWASHER ZP	27	1	2920-342	INNER PIVOT BUSHING, ZYD
				28	1	2920-324	PUSHROD, 9 3/16" EYEBOLT, ZP

REVISED 11/18/16

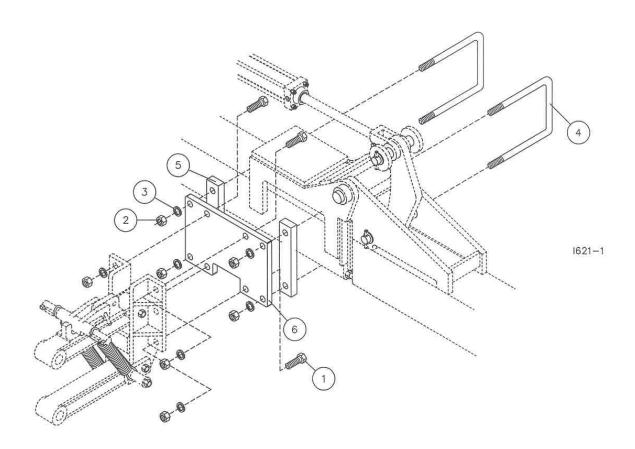


3000-122 - PARALLEL ARM ASSEMBLY



DET	QTY	PART NO.	DESCRIPTION
1	1	3000-368	CLAMP BRACKET (MACHINED)
2	1	2502-510	3/4-10 X 6 HHCS GR. 5 ZYD
3	1	2502-509	3/4-10 X 7 HHCS GR. 5 ZYD
4	2	3000-393	PARALLEL ARM BUSHING (1 1/40D X 3)
5	1	2965-305	PIN, FURROWING ATTACHMENT ZYD
6	1	2570-448	1/8 STD HAIRPIN COTTER
7	1	2555-174	UPPER SPRING BAR
8	1	3000-133	UPPER PARALLEL ARM ASSEMBLY
	2	2528-363	1 1/4IDX1 1/20DX3 BRONZE BSHNG
	2	2533-110	1/4-28 ZERK STRAIGHT SELF-TAP
9	2	2550-754	EXT. SPRING, 1-5/8 OD X .262 BLK
10	1	3000-134	LOWER PARALLEL ARM ASSEMBLY
	2	2528-363	1 1/4IDX1 1/20DX3 BRONZE BSHNG
	2	2533-110	1/4-28 ZERK STRAIGHT SELF-TAP
11	2	2984-304	SPRING ANCHOR TAB
12	4	2520-515	3/4-10 LOCK HEX NUT ZP
13	2	2526-504	3/4 SAE FLATWASHER
14	2	2984-305	SPACER, SPRING ANCHOR (1 1/80D X 2 1/4)
15	2	2565-162	YETTER DECAL, 1-1/2 X 4-1/2
16	2	2502-404	3/4-10 X 4 HHCS GR 5 ZYD

3000-131 PLATE SHIPPING ASSEMBLY



KEY	QTY.	PART NO.	DESCRIPTION
1	4	2502-407	3/4-10 X 2-1/2" HHCS GR.5, ZP.
2	8	2520-504	3/4-10 HEX NUT, ZP.
3	8	2525-501	3/4 MED. LOCKWASHER, ZP.
4	2	2570 - 484	3/4 X 7 X 10 U-BOLT, ZP.
5	2	6001 - 477	1" SPACER, 7" BAR
6	1	3000-394	MOUNTING PLATE

TROUBLESHOOTING

Problem	Cause	Solution
Poor overall performance	Toolbar not adjusted correctly	Adjust the toolbar so that during operation it is level and at a height of 24" from the bottom of the toolbar to the soil surface.
	Unit is not set correctly	See page 20-23 for proper opener adjustments
Toolbar height too high	Too much down pressure spring tension	Remove two outer springs & set in light pressure setting
	Toolbar gauge wheels adjusted too low	Raise gauge wheels
Shallow knife penetration	Speed too slow	Operate at 5 mph min.
	Toolbar height too high	Must have toolbar operating at 24" above the soil surface
	Insufficient down pressure	Set down pressure spring adjustment to the rear hole Inspect springs for breakage and/or wear Adjust toolbar height lower. Normally 24"
Disc Sealer blade & hub fall off	Washer not installed in the disc assembly.	See page 16 for proper assembly.
Disc Sealer not creating a mound or too small of a mound	Speed too slow	Operate at 5mph min.
	Blades are not set aggressively enough	Increase the angle of the front edge of blade to the row.
	Down pressure spring is loose	Tighten the coil spring by compressing; tighten the 3/4" hex nut onto the pushrod.
	Toolbar is not level-probably nose down	Level toolbar at a height of 24" from soil surface.
Wheel Sealer not creating a mound	Not designed to create a mound	The disc sealer option is recommended for mound building.
Wheel Sealer not closing the knife trench	Down pressure spring is loose	Tighten the coil spring by compressing; tighten the 3/4" hex nut onto the pushrod.

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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