



33-SERIES

**4-RWB & 6-ROW  
PEANUT COMBINE  
3374 & 3376**

TO BE USED FOR MACHINES FROM 2000 TO 2011

**OPERATOR'S MANUAL**

**THIS MANUAL TO ACCOMPANY MACHINE**

PART NO. 33-OM-04  
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## 3-YEAR PEANUT COMBINE WARRANTY POLICY

KELLEY MANUFACTURING COMPANY (KMC) warrants that Peanut Combines sold to the original purchaser shall be free of any defects in material and workmanship if used under normal operating conditions. The warranty period begins on the date of purchase by the retail customer and ends thirty-six (36) months thereafter. KMC's sole responsibility is to repair and/or replace the defective part or parts at no cost to purchaser. This remedy is the **SOLE AND EXCLUSIVE REMEDY** of purchaser.

The purchaser must fill out and return the warranty registration form found in the front of the operator's manual. Failure to return the warranty registration form within 30 days shall result in the goods being sold "AS IS", and all warranties shall be excluded.

1. This warranty shall not apply to those items that are by nature worn in normal service, including but not limited to belts, springs, teeth, chains, liners, sprockets, and pulleys, etc.
2. Items such as tires, tubes, gearboxes, hydraulic cylinders, hydraulic motors, drivelines and all other items warranted by the original manufacturer are warranted only to the extent of their individual manufacturer warranty, and KMC is not warranting any of the said items.
3. Warranty shall not apply for any damage caused by foreign objects that enter the combine.
4. Warranty shall not apply for any damage caused by improper lubrication or lack of service.
5. Warranty shall not apply for any damage resulting from transport of the combine after delivery by the dealer.
6. All warranty claims must be made through a KMC licensed dealer, and a warranty form request must be submitted to KMC within 30 days of failure of the warranty provision shall be unenforceable against KMC.

No agent or person has authority to change or add to this warranty as written.

THE ABOVE IS THE ONLY WARRANTY MADE BY KMC AND IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. KMC MAKES NO WARRANTY OF MERCHANTABILITY AS TO ANY GOODS MANUFACTURED BY KMC AND FURTHER, KMC DOES NOT WARRANT ANY SUCH GOODS AS SUITABLE FOR ANY PARTICULAR PURPOSE TO THE RETAIL CUSTOMER. THE SUITABILITY OF GOODS FOR ANY PURPOSE PARTICULAR TO THE CUSTOMER IS FOR THE CUSTOMER, IN HIS SOLE JUDGMENT, TO DETERMINE. KMC FURTHER MAKES NO WARRANTIES WITH RESPECT TO ITS MANUFACTURED GOODS THAT WOULD NORMALLY BE DISCLOSED BY AN EXAMINATION. THIS IS THE FULL AND FINAL EXPRESSION OF ALL WARRANTY LIABILITY OF KMC. NO OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, SHALL BE ENFORCEABLE AGAINST KMC.

**Kelley Manufacturing Co.**

80 Vernon Drive / Zip 31794 P.O. Drawer 1467 / Zip 31793 Tifton, GA



**4 X 36 KMC PEANUT COMBINE**



**6 X 36 KMC PEANUT COMBINE**

## TO THE PURCHASER

The **KMC PEANUT COMBINE** has been carefully designed and manufactured to give years of dependable service. In order to operate it efficiently and maintain it properly, please read the instructions within this manual thoroughly.

While reading the manual through, you will notice that it is divided into sections which clearly explain the assembly and operation of each component of this machine. A Table of Contents is also provided for quick reference to these sections.

Some components of this machine are labeled left or right. The notations are determined facing the direction the machine will travel in use.


## TO THE DEALER

Please refer to this manual for pre-delivery assembly. A review of the operation and maintenance sections with your customer may eliminate needless service calls during the first few days of operation.

Left and right hand parts are determined by standing behind the machine facing the direction of travel. When ordering parts or accessories, please give the part name and part number.

## SAFETY PROCEDURES

Safety and performance are the primary objectives of the designers of KMC equipment. Safety features have been incorporated into this machine where possible and warnings given in other areas. For your safety, please read and observe the following safety procedures.

1. Do not permit any one to ride on the machine.
2. Keep all persons a safe distance away from the rear and sides of the machine while it is in operation.
3. Drive safely during transport; excessive speeds while turning on rough grounds or over hills could cause tractor tip over.
4. Make sure hitch components are attached securely before operating or transporting.
5. Use flashing warning lights when operating on highways, except where prohibited by law.
6. Stop engine and disengage PTO before leaving operator's position to adjust, lubricate, clean or unclog machine.
7. Keep all shield in place.
8. Keep hands, feet, and clothing away from moving parts.
9. Make sure that everyone is clear of machine before starting tractor or operating machine.
10.  **DANGER - Lock** safety valves on both lift cylinders. prior to working under tank. Failure to do so may result in serious injury or death.
11. Be sure combine is on level surface before dumping the tank. **DO NOT** dump tank under power lines
12. Maximum towing speed is 10 MPH loaded . . . 20 MPH empty.
13. Observe all safety decals located on machine.

## HIGH VOLTAGE SAFETY ACT

Georgia Law requires that anyone operating equipment within 10 feet of an overhead high voltage line of more than 750 volts, must contact the Utilities Protection Center (UPC) by telephone at least 72 hours before commencing the work. For more information call (811), toll free (1-800-282-7411) or visit on the web "[www.gaupc.com/laws\\_ga\\_overhead.asp](http://www.gaupc.com/laws_ga_overhead.asp)."



This safety alert symbol is used throughout this manual to identify safety messages. When you see this symbol, read the message which follows as it will advise you of possible injury.

After reading this operators manual, please keep it for reference each season.

To insure procurement of the proper repair parts, please record your machine's serial number and purchase date on the lines below.

**Model No.** \_\_\_\_\_

**Serial No.** \_\_\_\_\_

**Purchase Date** \_\_\_\_\_

***BEING SAFETY CONSCIOUS IS GOOD BUSINESS***

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# ASSEMBLY INSTRUCTIONS

There are several things which may need assembling before the peanut combine is ready for operation. The assembly order will depend on how the machine has been disassembled for shipping.

## ATTACH THE SIX ROW HEADER

Use extreme caution when attaching the head to the combine. It is very heavy and should be handled in a secure manner at all times to avoid injury.

First position the header under the tongue of the combine. Raise and tilt the header so that it fits squarely against both combine side frame and the upper header. Install the 1/2 x 1 1/2 capscrews, flatwashers, lockwashers, and hex nuts (8 of each) that connect the rear of the header to the side frame. Do not fully tighten at this point. Next install the 1/2 x 1 1/2 carriage screws, flatwasher, lockwashers, and hex nuts (12 of each) that connect the top of the detached header to the under side of the tongue supports. Now tighten all bolts securely. Check the joint where the square tube of the drop floor meets the square tube of the #1 concave. The joint should be tight enough so that no peanuts can fall out. There should not be any raised corners or surfaces that could shell or damage peanuts. Adjust each tube position in the slotted holes if necessary.

Next attach quick disconnect couplers to the hydraulic hoses. The hoses for the tank lift, header lift, and tongue shift (if equipped) have 1/2-14 NPT threads. The hoses for header rotation have 3/4-16 O-Ring threads. The header requires a constant flow of high pressure oil and the O-Ring provides a better seal than the pipe threads. Use the appropriate adaptor on each hose.

Six-Row headers will require dealer assembly of the flashing lights on the ends of the header. Connect wires provided, making sure that the right and left sides operate properly.

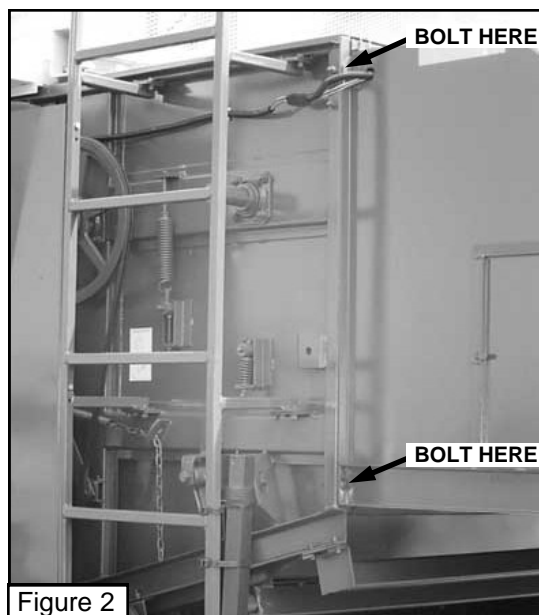
## MOUNT THE TANK TO THE COMBINE

First lift the tank into position using the loops provided on the tank frame, this will help keep the tank near level while working it into position. Align bolt holes and air-lift duct and lower into position and install bolts into support arms. Make sure tank is sitting flat on combine top and square with sides and frame before disconnecting lift front tank. If tank does not sit flat on combine, adjust support arms to right or left as needed to allow tank to sit flat on



frame. Secure tank to combine by tightening attachment bolts previously installed. Next connect hydraulic hoses between combine mainframe and tank using the hoses provided. See Figure 1.

## MOUNT THE REAR HOOD



For some shipping situations, it may be necessary to mount the rear hood. If so, first hang the rear hood onto the mainframe by interlocking the front lip of the hood with the rear lip on the mainframe. Center the hood on the rear support, then secure its position by installing capscrews through mounting holes in edge

of hood and bolt holes in rear tube of combine. See Figure 2. Connect Transport lights.

### 4RWB TIRE AND HUB INSTALLATION

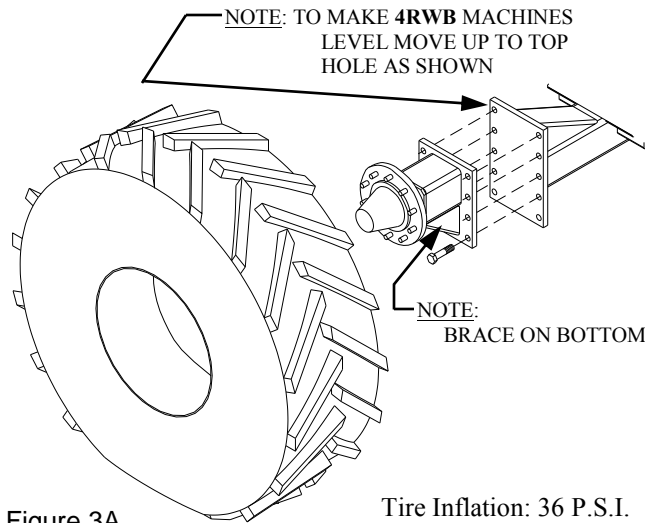


Figure 3A

### 6R TIRE AND HUB INSTALLATION

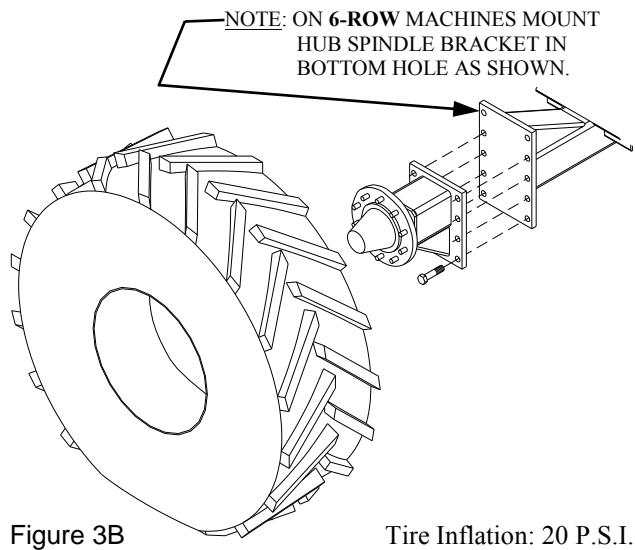
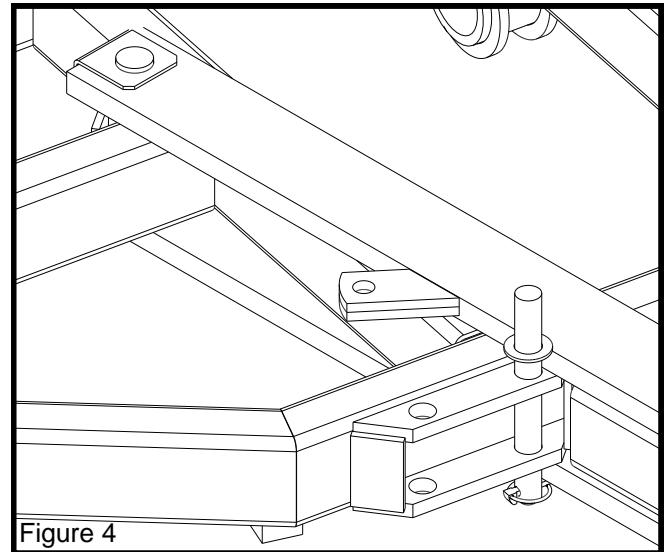


Figure 3B

Due to shipping width restrictions, some combines may require the attachment of hubs and tires. If the hubs have been removed, install the hub assembly on to the end of the axle with the gusset side of the spindle weldment facing downward.

KMC recommends for 4RWB machines to run level mount the hub spindle bracket in the top holes as shown in figure 3A. 6-Row machines should be mounted in the bottom hole with one hole showing at top as shown in figure 3B.

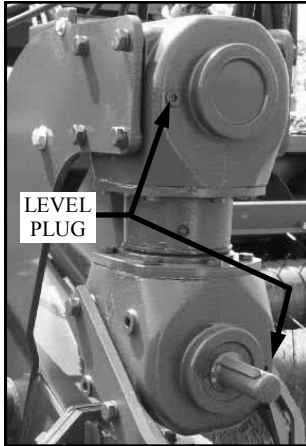
### ATTACH FOUR ROW TONGUE



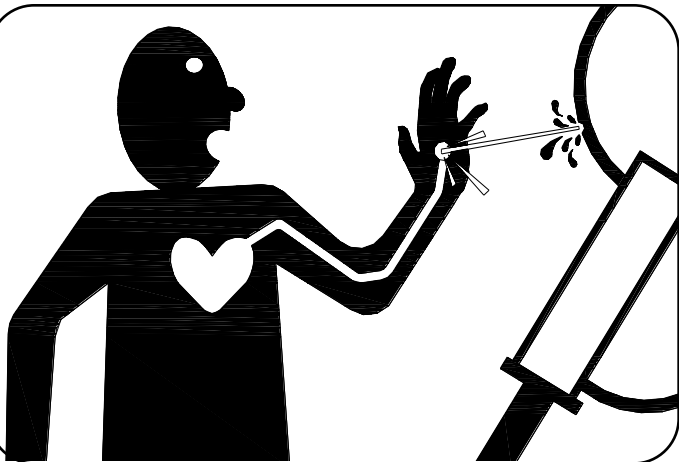
Some combines may require the attachment of the pivot tongue. To do this slide the fork of the tongue over the pivot tube on the tongue support and insert the pivot pin. Secure with the nut and washer provided. Next select either the transport or operation position and move the tongue against the appropriate stop and insert the stop pin. See Figure 4.

## PRE-DELIVERY CHECKOUT

1. Open all shields and check chains and belts for proper tension.
2. Check setscrews and jam nuts on all sprockets, sheaves, shafts, etc. for proper torque.
3. Check oil level in gear boxes. Remove the level plug (lower one on right angle gearbox) on front face of gear box. Oil should just reach bottom of hole. Add high grade SAE 90 weight oil if necessary.
4. Check hydraulic oil level in tractor. Add as necessary.
5. Check all lubrication points (see chart on page 21) and lubricate accordingly.
6. Connect tongue to tractor (see page 9 for instructions) then connect hydraulic lines for tank and header. Slowly raise and lower the tank and header to work all air out of lines. Check lines for leaks and correct as necessary.
7. Connect hydraulic lines for header rotation. Operate slowly until all air has escaped from the system. If using the flow control kit #33-081-229, be sure to locate it **OUTSIDE** of the cab.
8. Install tractor PTO driveline and secure shield chains. Operate combine at 1/2 speed for 5 minutes. Stop combine and check for loose bolts, nuts, chains, belts, sprockets, etc. and for hot bearings and gear box.
9. Make any necessary corrections and run again at full speed for 10 minutes and check all items again.
10. Check tire pressure and set 4-row tires at 36 PSI and 6-row tires at 26 PSI. Also check lug nuts for proper torque. (400 ft lbs)
11. Disengage all strippers before going to the field. Stripper handles should be rotated as decals indicate. The top (2) strippers are adjusted from the right side of the machine. The lower (6) strippers must be adjusted from both right and left sides of the machine. On the right side the #2 cylinder stripper is adjusted in line with the stripper location, but on the left side the handle is located lower on the frame.



**CAUTION:** Never check for leaks with bare hands as small oil leaks under pressure can penetrate skin and cause serious injury.



## WARNING

### DO NOT GO NEAR LEAKS

- High pressure oil easily punctures skin causing serious injury, gangrene or death.
- If injured, seek emergency medical help. Immediate surgery is required to remove oil.
- Do not use finger or skin to check for leaks.
- Lower load or relieve hydraulic pressure before loosening fittings.



## PRINCIPLES OF PEANUT HARVEST

The KMC Peanut Combine is designed to be used for the removal of peanut pods from peanut vines which have been uprooted. It will then separate the peanuts from the vines, placing the pods in a storage tank on top of the machine, and return the vines to the ground. The combine must be pulled and powered by a farm tractor.

\* Efficiency of the combine is not measured in tons or acres per hour, but in the cleanliness of the sample.

1. The peanuts are lifted off the ground and taken into the combine by the pickup attachment, which delivers them to the threshing cylinders for picking.
2. The threshing cylinders strip the vines pulling the pods off the vines. Additional stripping tines can be engaged into the number one, two, three, and four cylinders to increase the aggressiveness in tough conditions.
3. When the peanut pods are pulled off the vines they fall through separator concaves and onto a shaker pan which conveys them to the cleaning shoe located at the rear of the machine. The concaves prevent most of the vine material from falling onto the shaker pan and cleaning shoe.
4. The peanuts and small vine material which has fallen onto the pan moves on to a comb agitator which tosses the material into a stream of air. Any small vines, leaves or trash are blown out the rear of the machine by this air.
5. Any large material which falls through the agitator comb will fall onto the cleaning shoe. Here a blast of air will lift the lighter of these materials out the back and an oscillating motion will work the heavier items out the back. The cleaning shoe consists of one screen called the chaffer. The opening in this screen is adjustable for different size peanuts and different conditions. It allows the peanuts to fall through but not the trash. The bottom of the cleaning shoe has two rows of stemmer saws to cut the stems off the peanuts.
6. An air delivery chute then takes the peanuts to the storage tank on top of the combine.

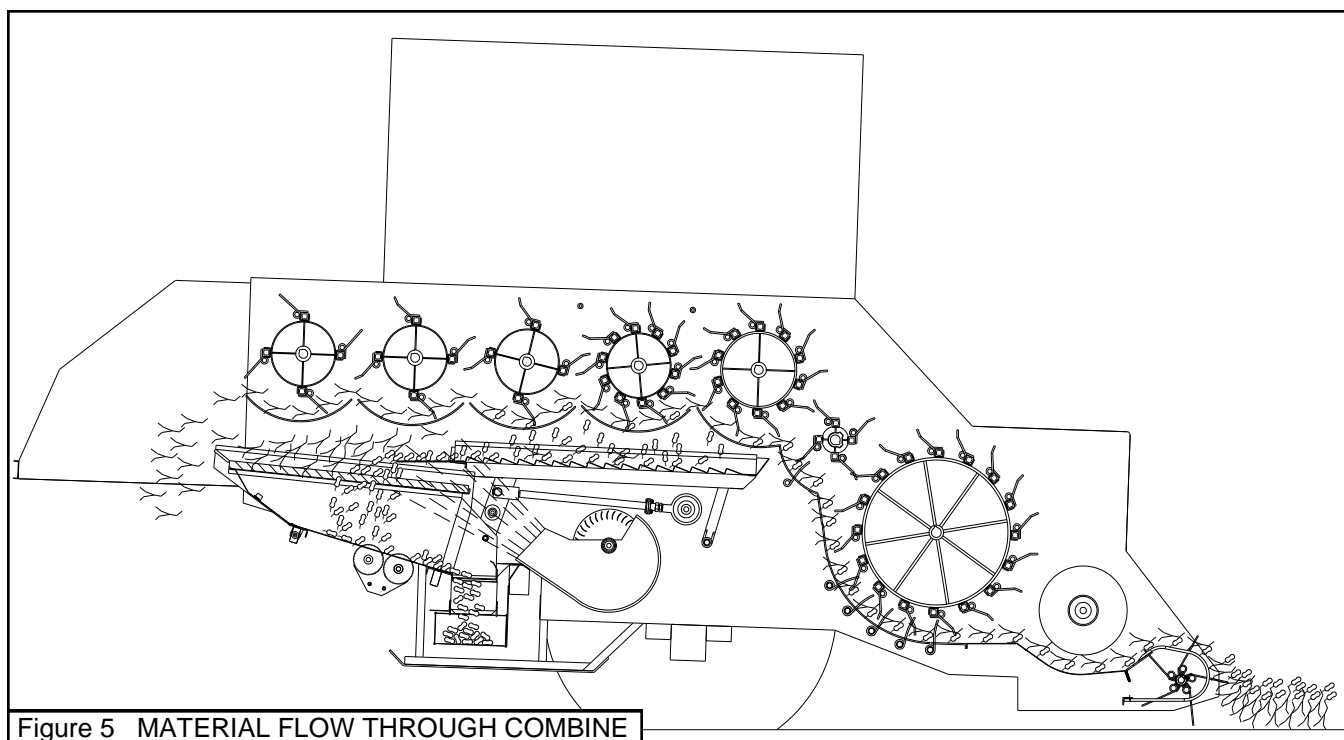


Figure 5 MATERIAL FLOW THROUGH COMBINE

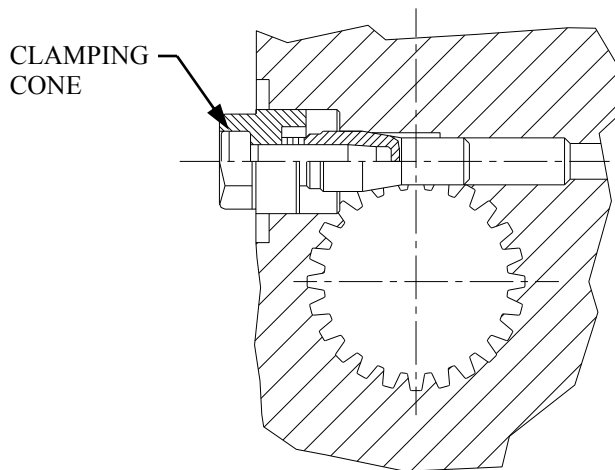
## FUNDAMENTALS FOR GOOD PERFORMANCE

1. The peanut vines must not be too green or good separation will be slow and difficult.
2. Moisture content of the peanut should not be too high or too low, otherwise increased damage or LSK's may result.
3. Keep the windrow centered entering the combine so that the combine does not get overloaded on either side.
4. Make sure combine is properly adjusted for peanut and field conditions.
  - A. Chaffer opening must be adjusted to allow all peanuts to fall through yet minimize foreign material from flowing through.
  - B. Use as much air as necessary to separate peanuts from trash without blowing peanuts out the rear of the combine.
  - C. Select a ground speed that will not overload the combine. Too much ground speed is one of the greatest causes of poor performance in separation.
5. Make sure the operator knows how to operate the combine properly and efficiently.
6. The efficiency of the combine is not measured in acres covered/hour, but in cleanliness of the sample.

## CLAMPING CONE INSTRUCTIONS

(Pertains to Secondary Driveline)

NOTE: ATTACH 1 3/4 END OF DRIVELINE FIRST, THEN THE 1 3/8 END OF THE DRIVELINE.



3. After the first 8-10 hours of operation after installation, the clamping cone must be rechecked for tight and safe fit. The Safe fit then needs to be checked at regular intervals during operation. Re-tighten clamping cone as necessary.
4. To disassemble, loosen clamping cone and remove it from the yoke or clutch. If the clamping cone cannot be removed by hand, it can be released from the opposite side by using a hammer and a pin punch.

**NOTE:** The clamping cone is serviced only as a complete assembly. Do **NOT** attempt to disassemble the clamping cone.

The blue thread locker applied to the clamping cone threads is good for at least 5 connect/disconnect cycles.

1. Clean and grease (Do **NOT** over-grease) the connecting spline shaft. Do not grease or oil the threads of the clamping cone.
2. Slide yoke or clutch onto the connecting shaft. Make sure that the hole for the clamping cone is positioned above the annular groove on the connecting shaft. Start threads of clamping cone by hand, then tighten it to 75 ft-lbs (100 N-m) of torque. While tightening, move the yoke or clutch back and forth in axial direction. Check tight and safe fit of yoke or clutch. A 17mm socket will be needed to tighten the clamping cone.

# OPERATION INSTRUCTIONS

**NOTE: KMC COMBINES SHOULD BE OPERATED AT A PTO SPEED RANGE OF 900 TO 1000 RPM FOR OPTIMUM PERFORMANCE AND FUEL EFFICIENCY.**

## BEFORE HOOKING COMBINE TO THE TRACTOR

If 4-row combine is delivered with the tongue in the transport (center hitch) position, it must be repositioned to (left hitch) position for field use (see figure 6) to reposition tongue:

- Raise header with tongue jack until all pickup springs clear the ground. Place wood blocks or other support under each skid shoe of the header.
- Lower header onto supports and raise jack until it is clear of the ground.
- Remove stop pin and pivot tongue to the operation position (all the way to the left) and reinsert the stop pin, or for tongues with hydraulic tongue option, remove stop pin and activate cylinder.
- Raise the header with the tongue jack and remove the support blocks.

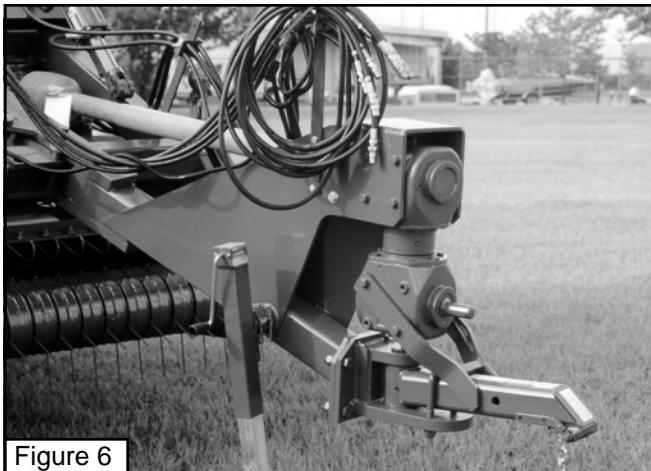
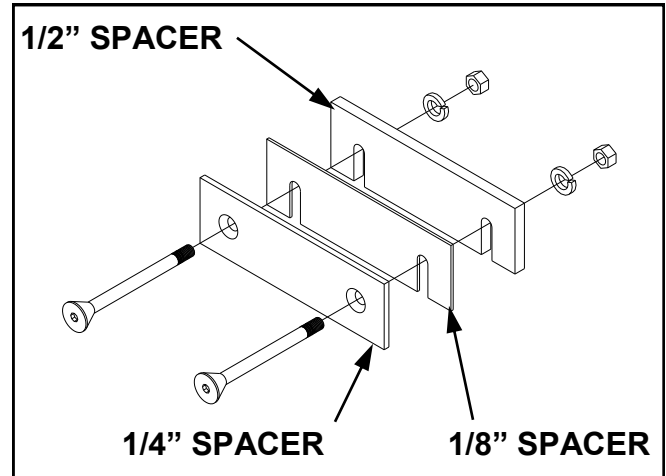


Figure 6

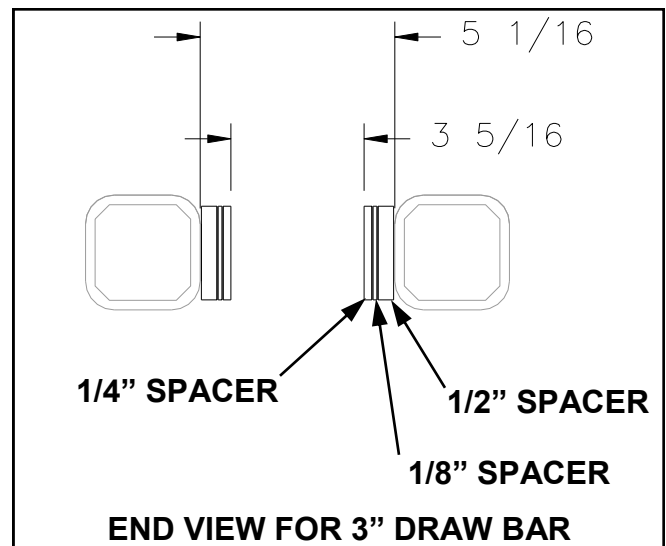
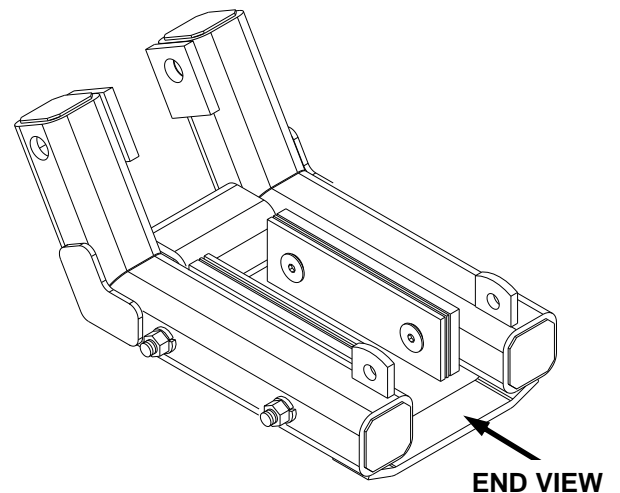


**CAUTION:** Always keep stop pin inserted during normal operation and transport. Personal injury can result from unexpected cylinder movement.

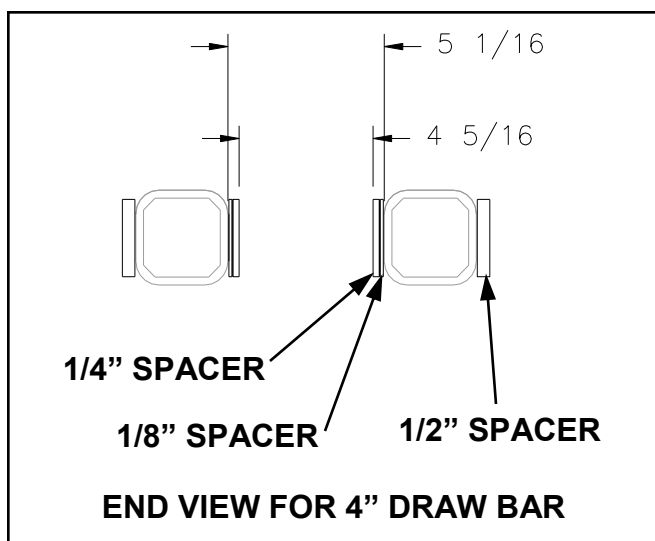
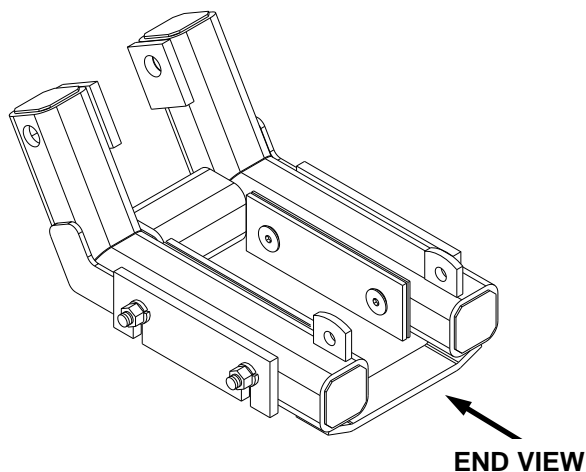
## SETTINGS FOR DRAWBAR YOKES



### 3" DRAWBAR YOKE SETTING



## 4" DRAWBAR YOKE SETTING



## TRACTOR SETUP AND ATTACHING TO THE COMBINE

The distance from the end of the tractor PTO to the center of the hitch pin should be 16" for 1 3/8-21 PTO, and 20" for 1 3/4-20 PTO. Adjust tractor drawbar if necessary to achieve this dimension. Install ball hitch onto drawbar. Make sure to use correct shank size ball to match hole in drawbar.



**CAUTION:** Check drawbar to PTO relationship before installing driveline. Too short of a length could damage tractor or combine.



Figure 7

HITCH BALL SHANK SIZE	RECOMMENDED TORQUE
1 1/4"	415 FT LBS
1 3/8"	555 FT LBS
1 1/2"	760 FT LBS

Use enough flatwashers under drawbar to allow cotter pin to lock castle nut when tightened to correct torque.

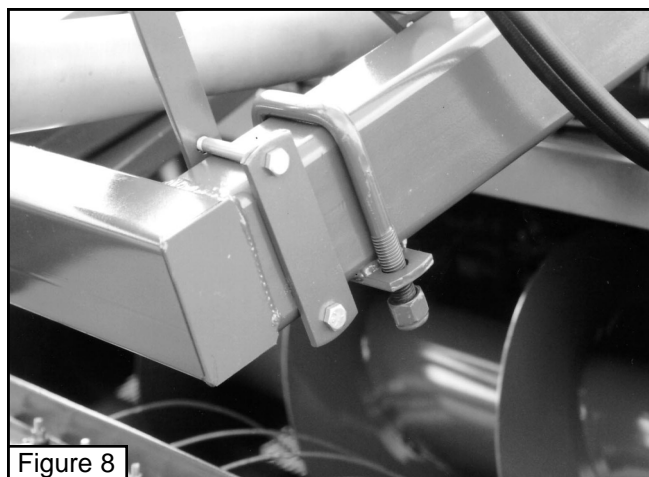


Figure 8

Position tractor directly in front of double gearbox and in line with combine, not tongue. Remove transport u-bolt from tongue extension and store on upper tongue in provided location. Refer to Figure 7 & 8. Turn tongue extension to align with tractor drawbar and back tractor up until ball on drawbar is directly underneath coupler on tongue extension. Lower tongue onto ball using jack. Install drawbar guide onto tongue extension with 1" bolt and washers. Tighten nut until it is tight on guide without



Figure 9

clamping guide onto tongue extension. Lock nut into place with jam nut. See Figure 9. Swing drawbar guide up onto drawbar and install 5/8" bolt with spacer and locknut over drawbar. Attach the driveline to the tractor and lower gearbox, making sure driveline and combine gearbox match. Secure driveline shields upper and lower halves with safety chains provided. See Figure 10. This will insure longer life of the shields which is very important for safe operation.

### SPECIAL ATTACHMENT

A special attachment is required for a John Deere 8520 drawbar when using a 1 1/2" shank ball. It will require a special spacer (33-024-502).

**NOTE: Be sure when switching between 1 3/4" and 1 3/8" P.T.O. sizes that the complete tractor half of the driveline is switched (not just the yoke). The tractor halves are different lengths for the two P.T.O. sizes**

Attach the hydraulic lines for the tank and header. Raise and lower both tank and header to insure proper operation.



Figure 10



**CAUTION: Always install safety latch on tongue when transporting.**

### PICKUP AND HEADER

The KMC combine is equipped with a hydraulic cylinder to raise and lower the pickup attachment.

In operation the pickup height should be set with the springs approximately one inch above ground. This will minimize spring wear and nut losses from lift height.

The pickup speed is variable and should be set to match ground speed. Proper adjustment of the pickup speed will reduce losses. If the pickup is running too fast it will tend to pull the vines apart as they are rising to the header and nuts will be pulled off the vines. If the pickup is running too slow it will push the vines along the ground before picking them up which will also result in excess losses.

If the tractor has a multi-turn precision flow control, connect the motor hoses directly to the tractor. If the tractor has no flow control or one with only a 1/4 turn adjustment, then KMC flow control kit #33-081-229 is required to be able to set the header speed accurately.

For proper header operation, the tractor hydraulic system must be capable of supplying up to 15 gpm at pressure near 3000 psi. If tractor hydraulic flow is too low, then ground speed will be reduced. If tractor hydraulic pressure is too low, then the header will plug more easily.

The pickup speed should be adjusted to match field conditions as they change. Peanuts should feed smoothly from the pickup band to the number one cylinder. This will give a uniform flow of material for threshing and separating.

## PICKUP AUGER ADJUSTMENT AND OPERATION

The purpose of the auger is to transfer vines to the center of the machine after they have been lifted by the pickup reel. **PROPER VINE FLOW IS IMPORTANT AND ALLOWS THE PICKING AND SEPARATION SYSTEMS TO PERFORM EFFICIENTLY AND SAVE MORE PEANUTS.** Ideally, vines should flow to THE REAR of the auger and then be transported to the throat of the machine. If they tend to flow in front of the auger instead of being fed underneath it, they will enter the center of the throat, causing the middle of the picking and separation systems to be overloaded, causing peanut loss.

The auger can be adjusted horizontally or vertically as a means of creating proper vine flow. These adjustments are located on the auger shaft ends.

To raise or lower the auger, loosen the drive chain and the two bolts on the sides of the frame members as shown in Figure 11. Then screw the adjustment bolt out to raise the auger or in to lower it. To move auger forward or backward, loosen the four bolts in the auger bearing mount plate. Re-tighten chain and all bolts securely when either of the above adjustments are made.



Figure 11

**NOTE: In most cases, raising the auger will allow vines to feed in the desired manner (underneath the auger). If vines still do not feed appropriately after auger is raised, it may be necessary to move the auger forward.**

**NOTE: It is important that the auger be positioned low enough to keep the trough swept clean and prevent dirt and trash from building up.**



**CAUTION: MOVING AUGER FORWARD INCREASES THE POTENTIAL FOR VINES TO WRAP OR RE-CIRCULATE AROUND THE AUGER.**

In small vines which feed well under the auger, it may be necessary to move the auger to the rear and/or lower it to prevent vines from wrapping or building in the trough.

**IT IS VERY IMPORTANT THAT VINES FEED FROM THE BACK OF THE AUGER!**

### VINE HOLD DOWN

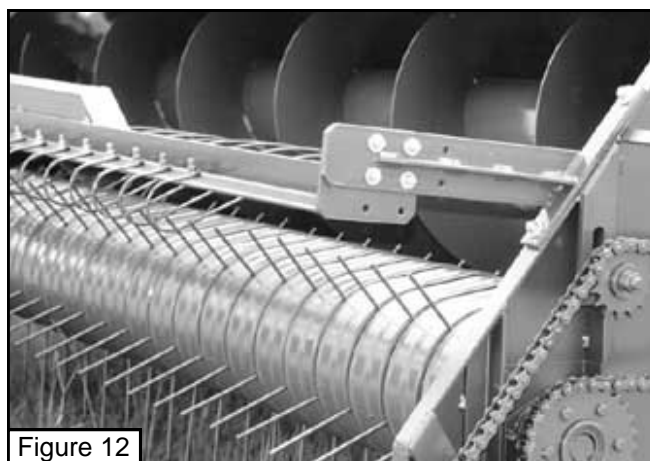


Figure 12

The vine hold down assembly is standard equipment. Proper setting is essential for smooth flow of material into the combine. Both vertical and horizontal adjustments are provided to fit the vine conditions. In small vines that try to roll in front of the leader, lower and extend the tine bar. Larger vines are easier to pick up but more difficult to feed smoothly under the auger. The vine hold down is essential here as well. Smooth feeding at the front of the combine improves efficiency for the whole machine. In larger vines, raise and retract the tine bar toward the auger.

In certain conditions, it is helpful to remove some of the tines from the tine bar. This includes conditions where peanuts are easily knocked off the vines or where large vines have a difficult time turning toward the center of the combine. The most important tines to keep on are the ones directly over the windrows.

## PICKING CYLINDERS

After the windrow has been picked up it moves into a series of cylinders which are equipped with spring tines that pull the peanuts off the vines. The cylinders are rotating at a high rate of speed, therefore it is important to keep a constant and adequate supply of material flowing into the combine to minimize damage and shelling of peanuts. Proper speed of the cylinders is also important, therefore tractor RPM should be maintained at PTO speed or 900 RPM. A quick check can be made by counting the speed of the number one cylinder. THE SPEED OF THE NUMBER ONE CYLINDER IS 114 R.P.M. AT 900 PTO R.P.M. AND 126 R.P.M. AT 1000 PTO R.P.M.

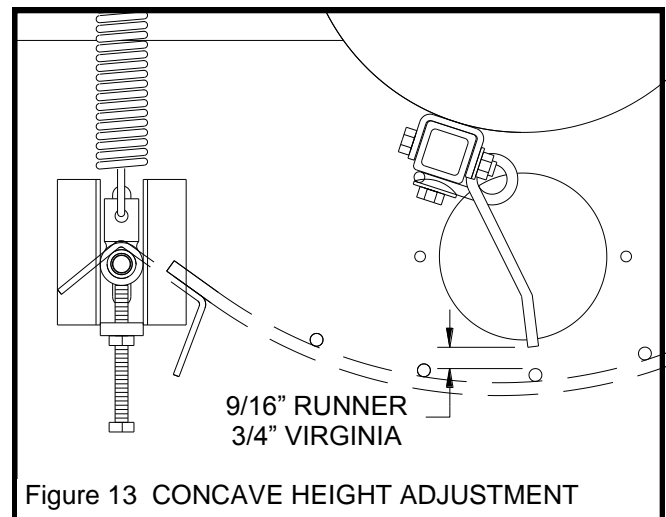


Figure 13 CONCAVE HEIGHT ADJUSTMENT

Underneath each cylinder is a cylinder concave, the rear four are floating concaves. They may need adjusting to achieve the proper clearance between the cylinder spring and the concave. To make this adjustment back off the adjustment nut on the setscrew on bottom of the concave until the springs miss the concave by 9/16 inch for runner peanuts and 3/4 inch for Virginia type nuts. See Figure 14. Closer settings may be necessary for rank vines if they build up on the concaves closing up the holes. Follow this procedure on all cylinder concaves starting with the number four cylinders continuing through the sixth concave. The seventh concave is adjusted differently. It should set so that the concave will just miss the cylinder spring.

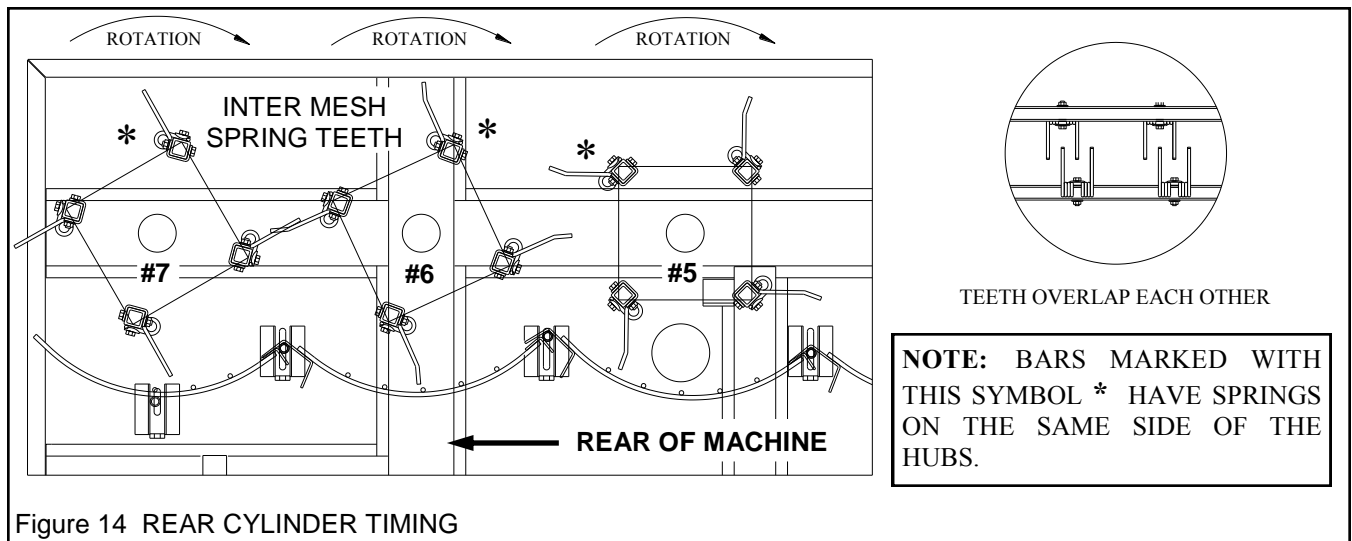


Figure 14 REAR CYLINDER TIMING

In certain tough conditions, the vines may not break up easily and may tend to wrap around the last few cylinders in the combine. If this becomes a problem, it can be improved by timing the last 3 cylinders. Cylinders 5, 6, & 7 turn the same speed. The springs on each bar should interlace and pull on the vines as they pass each other. Figure 14 shows the correct setting. Remove the drive chains and rotate the cylinders into position. Reattach the drive chains.



Figure 15 UPPER STRIPPER ADJUSTMENT

The aggressiveness of the picking cylinders can be adjusted by increasing or decreasing the number of strippers engaged in the picking cylinders. When first beginning a new field or new conditions **START WITH ALL STRIPPERS DISENGAGED**. If you find peanuts still attached to the vines which have gone through the machine, engage the first stripper to the center position. If this is not enough then engage the second stripper to the center position and proceed through all five strippers until all are engaged half-way. If additional aggressiveness is needed engage the second stripper fully proceeding as before. See Figure 16 & 17.

If still more aggressiveness is needed, begin to engage #2 cylinder stripper. Use upper strippers last, engaging them progressively until you reach a point where there are no longer any peanuts being left on the vine. In extremely dry peanuts where LSK's sometimes occur reverse the order of stripper engagement, start at the rear bottom and work forward. The rear bottom strippers are not as aggressive as the front bottom strippers. **DO NOT USE**



**UPPER STRIPPERS IN DRY PEANUTS.** This usually results in fewer LSK's. It is important to balance ground speed and stripper engagement to minimize LSK's and



Figure 16 RIGHT SIDE LOWER STRIPPERS

damage. **NOTE:** As conditions change from morning to afternoon strippers may need to be removed to minimize damage.

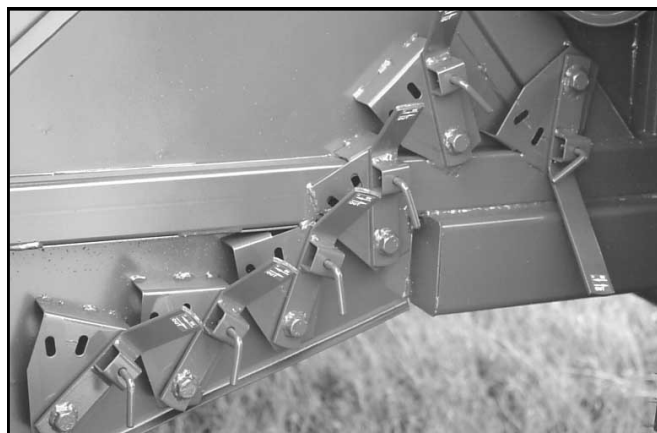


Figure 17 LEFT SIDE LOWER STRIPPERS

**NOTE: Use a 15/16" wrench to make adjustments easier.**

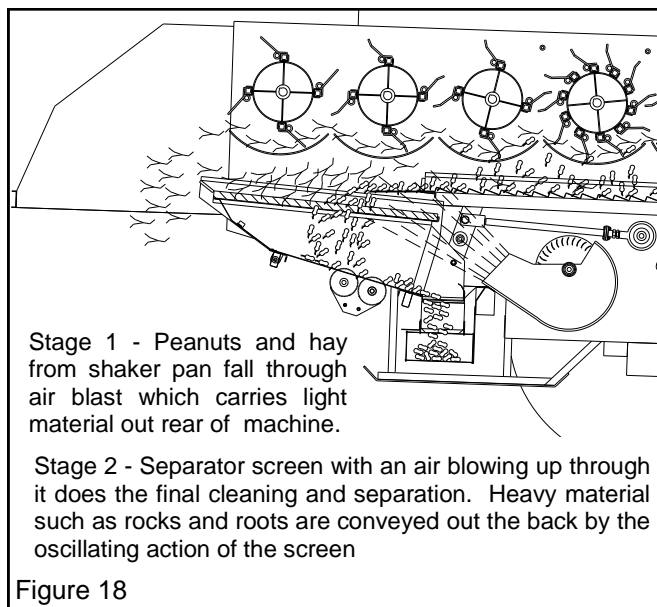


Figure 18

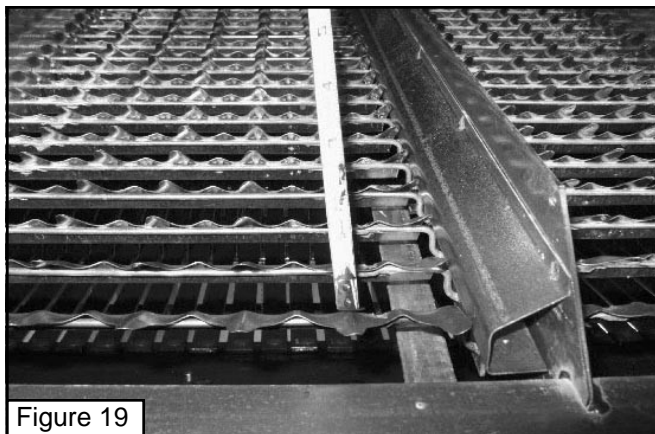
The most important area of the combine is the separation system. More peanuts are lost and more poor grades are received due to improper adjustments of the cleaning shoe and separator fan than any other area. The KMC peanut combine has a unique separation system which gives improved performance in grades and capacity. There are two stages to the KMC system, first the peanuts and foreign material coming off the shaker are tossed into an air stream which blows most of the lighter hay material out the back of the combine. This pre-cleans and lessens the amount of material which the cleaning shoe has to work with. It is easier for the peanuts to fall through the screen under these conditions. The second stage of cleaning is by an oscillating cleaning shoe. A fixed separator screen is now standard on the 4 and 6-row machines. The same fixed screen is used in Virginia, runner and spanish varieties. We supply an optional adjustable chaffer on 4 and 6-row machines upon request. The chaffer has adjustable openings for different size peanuts. The chaffer is available in two



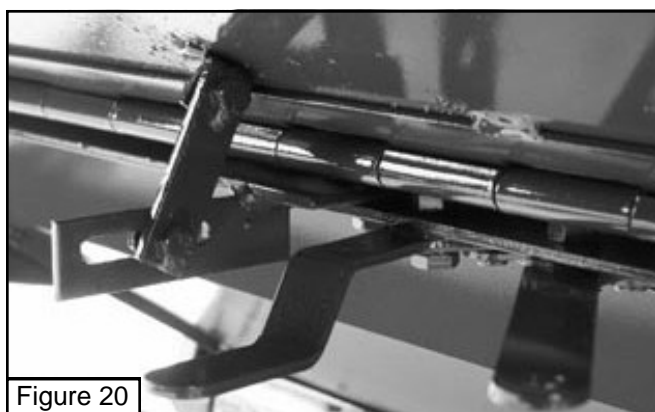
sizes, one with a wide spacing 2 1/4" between rows of fingers and one with a small 1 5/8" spacing.

The openings are controlled by two levers in the center of the screen, see figure 20. The purpose of the chaffer is to separate the peanuts from materials that are close in size and weight to the peanut. Although vine and field conditions will influence the final setting of the chaffer the following recommendations are made for initial start-up.

	SPANISH	RUNNER	VIRGINIA
CHAFFER	5/8"	7/8"	1 1/8"



The larger the screen openings the greater the possibility of getting all the peanuts into the tank, however, this also increases the potential of foreign material being put into the tank. Therefore a balance must be found to give optimum performance. The two handles allow different settings for the front and rear sections of screens. This allows greater flexibility in fine-tuning screen setting for cleanest samples. Located at the rear of the chaffer is an adjustable tailboard. Its purpose is to retain lighter peanuts which do a lot of bouncing before falling through the chaffer. The tail board is normally set in an upward position. This should be lowered if high amounts of foreign material are found in the peanuts. See Figure 20.



## AXLE HEIGHT ADJUSTMENT

The 3374 and 3376 Model combines have an increased body to ground angle for improved separation performance. However, in certain rocky or heavy clod conditions or areas, it maybe more difficult for rocks and clods to exit the combine. If this occurs, and if the problem cannot be resolved by lowering tailboard, increasing PTO speed, and/or increasing separator fan speed, an adjustment is provided on the axle to lower the combine angle. In order to do this, the shields must first be raised to allow for the adjustment on the tires.



**DANGER:** Be very careful when handling shields, which are heavy. Lack or misuse of proper lifting and securing devices may result in serious injury or death.

- 1) Open the shields and attach a lifting device with chains to both ends of the shield, and remove 3/8" bolts holding hinge leg onto side of combine.
- 2) Lower shield to ground and move both hinges on each shield according to the following instructions:
  - a) Release compression on spring by loosening 3/4" nuts all the way back to weld.
  - b) Remove 1/2" locknut and bolt from hinge, then pull hinge leg, spring guide rod, spring guide top, 3/4" flat washer, and spring out of hinge body.
  - c) Remove 3/8" bolts holding hinge body to shield and move hinge on shield to lower position.
  - d) Install and tighten 3/8" lock washers and bolts. **Be very careful not to over tighten and strip threads.**
  - e) Set spring, spring guide top, 3/4" flat washer, spring guide rod, and hinge leg back in hinge body just as they were removed.
  - f) Install and tighten 1/2" bolt and lock-nut until it is just snug on hinge body, but not clamping hinge body down on hinge leg.
  - g) Tighten 3/4" nut back down on spring until spring is compressed to 7 3/4". Lock nut in place with jam nut.
- 3) Raise shields with a lifting device as before, install and tighten 3/8" flat washers, lock washers, and bolts. **Be very careful not to over tighten and strip threads.**

- 4) Lift combine and set on blocks which will keep tires clear of ground.
- 5) Remove wheels from hubs and hub assemblies from axle end plates. On 6-row combines, remove lower shields from axle end plates.
- 6) Mount hub assemblies on axle end plates in upper holes so that two holes are exposed at bottom instead of top. On 6-row combines, install lower shields on top two bolts holding hub assemblies on axle end plates. The four extra bolts may be stored in exposed holes.
- 7) Torque all 1" bolts to 680 ft-lbs.
- 8) Install wheels and torque lug nuts to 400 ft-lbs.
- 9) Lower combine to ground. It will be 4" lower at the axle than the factory setting.

**Note: If more height is needed rather than less, the hub assemblies may be turned upside down and installed in the top or bottom position, which would increase axle height by 4" or 8", respectively, from the factory setting.**



**DANGER :** Be very careful when lifting and lowering combine. Only do this on a concrete or similar hard and level surface. Use jack or crane with a minimum 8-ton capacity to lift each side, and use solid blocks to support combine after lifting. Stay clear of combine while lifting and lowering, and only perform work on combine when it is fully resting on solid blocks. Failure to follow these precautions may result in serious injury or death.

The MAIN FAN is an essential part of the separation process. The principle of separation is air and gravity, as the peanuts and foreign material fall from the agitator rods onto the cleaning shoe gravity begins to pull the peanuts downward, air then blows the hay and foreign material out the back. Therefore, the right combination of air for conditions must be determined.

First START WITH 1100 RPM on the fan tachometer. On 4-Row combines, start with the fan drive belt on the small (outer) sheave. Check behind the combine to see if peanuts are being blown out, this can best be determined by someone other than the operator observing the materials flowing off the rear of the screen.

If excessive peanut loss is occurring from too much air, reduce the fan speed by changing to larger driven sheave. On 6-row combines, turn the control handle CCW and/or reduce tractor RPM. On 4-row combines, place the fan drive belt on the large (inner) sheave and/or reduce tractor RPM.

Each fan housing has an access door that may be opened to remove rocks or to service fan.



Figure 21 6-ROW SEPARATOR FAN DRIVE

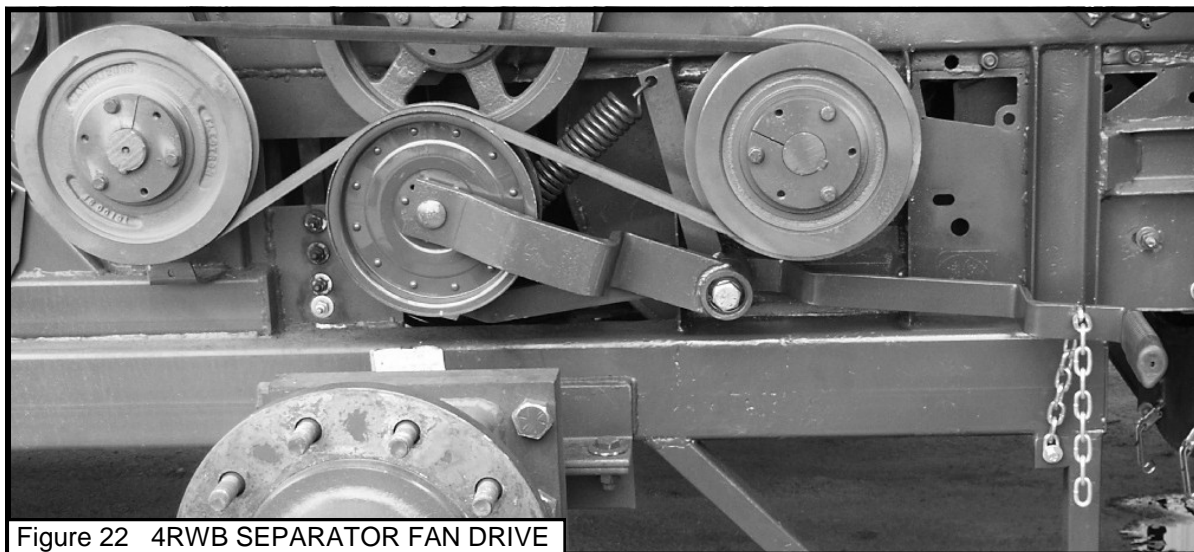


Figure 22 4RWB SEPARATOR FAN DRIVE

## STEMMER SAWS

As the peanuts fall from the chaffer they fall onto a set of stemmer saws. These saws remove the stems from the peanuts and dispose of the vine fragments. The saws turn in opposite direction which rotates most all peanuts into position for stem removal.

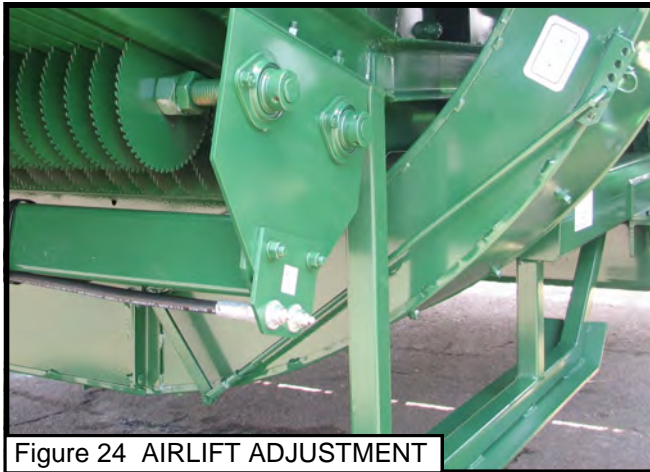


Figure 24 AIRLIFT ADJUSTMENT

The airlift fan supplies the energy to lift the peanuts into the storage tank on top of the combine. The amount of air can be varied to meet field conditions by means of a damper in the lower end of the fan housing. The control lever can be set from high to low. See Figure 24. The recommended settings are high for heavy yield peanuts, medium for dry light peanuts and low for small low yield peanuts. Inadequate air flow will result in the delivery duct plugging. Too much air will result in increased LSK's. Always inspect peanuts in tank when first starting up, this will help determine the proper air flow. Proper air adjustment is for the peanuts to just reach the far side of the tank when its empty.

In some conditions it may be necessary to actually increase the number of air lift fan blades from 6 blades to 12 blades. This is usually necessary when picking a 6000 lb plus yield.

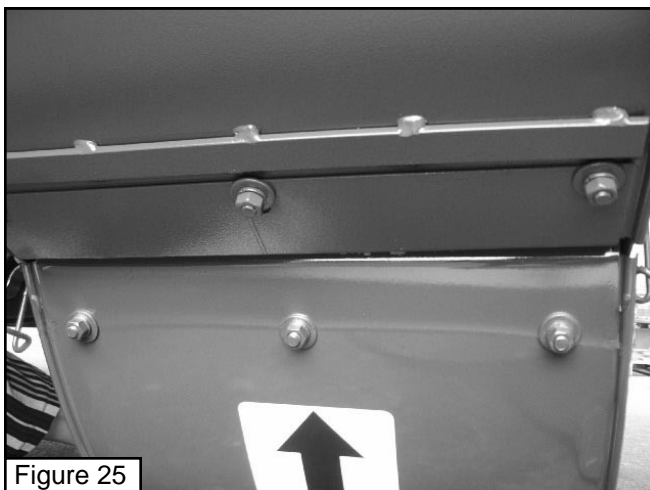


Figure 25

In the event of duct plugging, 3 clean-out doors are provided. **Make sure these doors are installed properly; if not, they can create increased LSK's.** (Refer to Figure 25)

Check delivery liners each day. Replace if worn

## THE COMBINE TANK



Figure 26A COMBINE TANK

The tank is located on top of the combine. Care should be taken not to over fill the tank as excess peanuts will plug the delivery system and eventually spill on to the ground. The tank is emptied by two hydraulic cylinders which lift the bottom of the tank until it reaches a vertical position. The peanuts exit through a door on the top right side of the tank.



**DANGER: BE SURE TO LOCK SAFETY VALVES ON BOTH LIFT CYLINDERS BEFORE WORKING UNDER RAISED TANK. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH!!**



Figure 26B SHOWN IN UNLOCKED POSITION

Be sure to **lock** safety valves on both cylinders before attempting to work under the tank. Make sure valves are **unlocked** before lowering the tank.

Periodic cleaning of the air release grid on the top of the tank delivery duct may be necessary. See Figure 26B. A heavy buildup of vines and roots in the grid can cause shelling of peanuts.



**DANGER: NEVER LIFT TANK WHILE UNDERNEATH POWER LINES.**

## COMBINE TRANSPORT

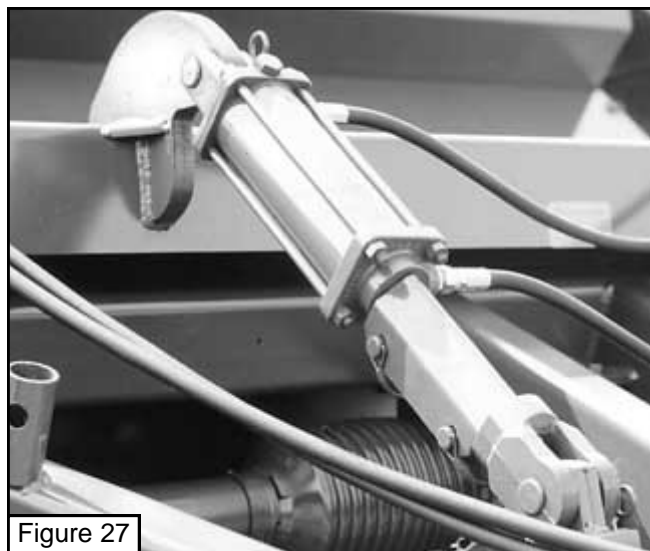


**WARNING: THE FOLLOWING PROCEDURE MUST BE CAREFULLY FOLLOWED FOR SAFE TRANSPORT BEHIND A VEHICLE WITHOUT A DRAWBAR.**

1. Remove hydraulic lines from tractor. Disconnect short driveline from tractor and lower end of double gearbox.
2. Place jackstand on tongue in vertical position and raise coupler off ball hitch.
3. Remove 5/8" and 1" nuts and bolts from drawbar yoke and remove yoke from drawbar and tongue extension.
4. Install u-bolt (from storage location on upper tongue) over tongue extension through holes in lower pivot plate and snug down with locknuts.
5. On 4-row combines, move the tractor to line ball up with coupler, then lower coupler onto ball. Reconnect swing cylinder lines to tractor, then move tongue over to transport position (center) and lock in place with pin. Disconnect swing cylinder hydraulic lines and raise coupler back off ball.

On 6-row combines, Step 5 is not necessary.  
The combine is now ready to be transported.

When towing the combine on public roads be sure that the weight of the towing vehicle is equal to or greater than the weight of the combine which is 18,500 lbs., 4-row and 19,000 lbs., 6-row. **We do not recommend speeds of greater than 20 MPH empty or 10 MPH loaded.**



When towing machine make sure cylinder transport lock is properly engaged for safe transport. See Figure 27.

PROBLEM	POSSIBLE CAUSE AND SOLUTION
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1. Vines rolling in front of pickup, not being picked up by header.	<ol style="list-style-type: none"> <li>Small vines or high winds will not allow springs to penetrate vines. Install vine hold down attachment and for extreme conditions bend pickup spring up slightly 1" from end.</li> <li>Make sure pickup speed is matched to ground speed.</li> </ol>
2. Peanuts bunching in front of pickup before entering combine.	<ol style="list-style-type: none"> <li>Pickup speed is too slow. Increase speed of pickup by adjusting hydraulic valve.</li> </ol>
3. Pickup pulling vines apart and losing peanuts on the ground.	<ol style="list-style-type: none"> <li>Pickup speed is too fast. Reduce speed of pickup by adjusting hydraulic valve.</li> </ol>
4. Peanuts left on vines after going through combine.	<ol style="list-style-type: none"> <li>Combine not running up to speed. Be sure tractor is running at proper PTO speed. For extremely tough vines, it is OK to increase PTO speed to 1000 RPM.</li> <li>Strippers not set aggressively enough. Engage stripper springs starting with first bar until all peanuts are remove from vines. Do not engage more strippers than are absolutely necessary.</li> <li>If No. 2 does not solve the problem then:               <ol style="list-style-type: none"> <li>check for broken or loose stripper springs or</li> <li>reduce ground speed to meet tough field conditions.</li> </ol> </li> </ol> <p><b>Note: The spring coils may still be attached to the bar and just the tine broken off. Look closely when checking stripper springs.</b></p> <ol style="list-style-type: none"> <li>Use only KMC brand stripper springs. Alternative brands are weaker, will break easier and are not as aggressive.</li> </ol>
5. Excessive LSK's  First, determine where LSK's are originating. If you find only kernels in the tank and hulls on the ground, it usually means that the shelling is taking place inside the machine. (Use solutions 1-3)  If you find kernels and hulls in the tank it usually means that the shelling is taking place in the delivery system. (Use solutions 4-8)	<ol style="list-style-type: none"> <li>Too many strippers engaged. Back out strippers if possible without creating peanut loss.</li> <li>Reduce PTO speed for less aggressive action in picking cylinders.</li> <li>Check picking cylinder and concave setting, (Page 12) and for obstructions in concaves. Remove if necessary.</li> <li>Too much air to delivery duct. Reduce air by closing damper in fan duct.</li> <li>Foreign material in airlift duct. Clean out duct and check for misalignment between duct and hopper.</li> <li>Stemmer saws plugged. Clean out stemmer saws and reduce opening in sieve to reduce chance of re-plugging.</li> <li>Damaged delivery duct or liners. Repair or replace damaged parts.</li> <li>Clean out doors not installed properly.</li> </ol>

## PROBLEM

## POSSIBLE CAUSE AND SOLUTION

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|--|--|
| 6. Excessive foreign material in sample. | <ol style="list-style-type: none"><li>1. Too little air through separator. Turn control handle to increase air. CW-6R, CCW-4R.</li><li>2. If material is small and dry, reduce aggressiveness of stripper springs.</li><li>3. If material is small clods of soil, re-shaking of vines may be necessary.</li><li>4. If material is vines and hay, reduce the openings of chaffer. Make sure peanuts will still fall through chaffer.</li><li>5. Check fan housing for material buildup. Clean out if necessary.</li></ol> |
|--|--|
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- |   |  |
|---|--|
| 7. Excessive peanuts found in loose hay behind combine. | <ol style="list-style-type: none"><li>1. Peanuts being blown out back. Reduce air velocity of fan by turning control handle CCW-6R, CW-4R.</li><li>2. Insufficient breakup of hay. Engage more strippers.</li><li>3. Chaffer opening too small. Increase openings by 1/16th inch increments. Check screen for buildup of hay, sticks or mud.</li><li>4. Insufficient air to take loose hay off screens. Increase air flow by turning control handle CW-6R, CCW-4R.</li><li>5. Combine running too fast for conditions. Slow ground speed down.</li></ol> |
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|--------------------------|---|
| 8. Airlift duct plugging | <ol style="list-style-type: none"><li>1. Too little air. Increase damper openings for more air flow.</li><li>2. Check for damaged duct or fan. Repair or replace as necessary.</li><li>3. Check tension on airlift drive belt. Adjust or replace if necessary.</li><li>4. Make sure combine is running at proper PTO speed.</li></ol> |
|--------------------------|---|
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| 9. Tank will not dump | <ol style="list-style-type: none"><li>1. Check hydraulic coupling engagement to tractor.</li><li>2. Improper hose coupling for tractor model.</li><li>3. Faulty cylinder. Replace as necessary.</li><li>4. Insufficient hydraulic pressure.</li></ol> |
|-----------------------|---|
-

## PROBLEM

## POSSIBLE CAUSE AND SOLUTION

10. Excessive machine vibration.

1. Check eccentric drive belts on BOTH sides of the machine to be sure they are tight.



**CAUTION: Avoid over tightening of the belt on the right side as this could cause the shaft to bend due to an excessive overhung load.**

2. Check the setscrews in the eccentric bearing cams and in the rocker arms to be sure they are tight. Make sure that the shaker pan and stemmer frame are centered in the combine before tightening.
3. Check the jam nuts on the push rod adjustment. If they have loosened, retighten as follows. Set the distance of one push rod to 29 5/16" from inside of the clevis at the rear of the push rod to the flat surface on the eccentric housing. Lock the jam nuts against the bearing housing. Adjust the other rod length until the 7/8 x 3 capscrew in the push rod clevis can be easily installed. Lock jam nuts. (See Diagram Below.)
4. If rubber bushings and/or hanger arms have been replaced, make sure the eccentric bearings were rotated to mid-stroke before tightening cap-screws. If not, loosen and tighten with eccentric bearings in correct position.
5. Check the setscrews in the picking cylinder ends. Re-tighten if they have loosened.
6. Check the rocker shaft, bearings, eccentric bearings, and push rod bearings. Loose and excessive play in worn out bearings will create shock loads and vibrations. Replace as necessary.

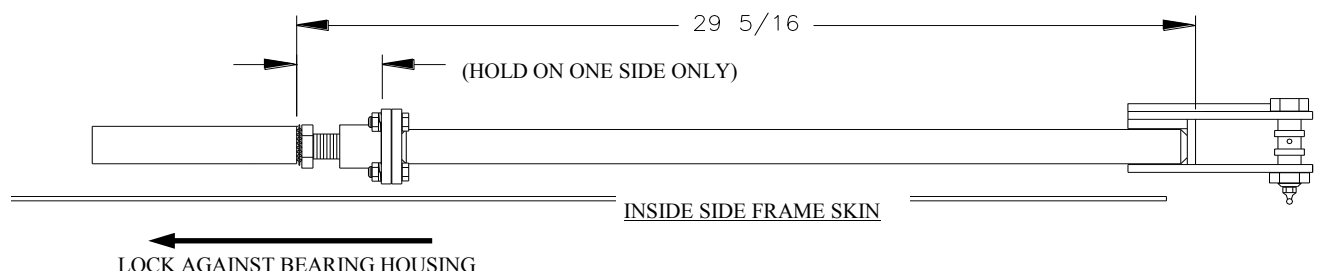
11. Header Speed Control Valve makes a high pitched noise and speed changes.

1. Incorrect plumbing. Correct the by-pass line in the circuit.

12. Vines wrapping around rear cylinders.

1. Vine conditions tough. Adjust the rear cylinder timing as shown in Figure 14, Page 12.

### PUSH ROD SETTINGS





# MAINTENANCE

There are certain things which need daily or regular attention to keep your combine in good operating condition.

**LUBRICATION** is the most important of these. The following chart shows points that require lubrication and the intervals at which they require it. The cylinder bearings on the combine are prelubed and non-re-lubricatable. This is because most often these bearings are over greased. This attracts dust and dirt to the seals of the bearings which eats them away and allows the dirt to penetrate the bearing and cause it to fail. Also improper cleaning of the grease fitting allows dirt to be pumped directly into the bearing which causes premature failure.

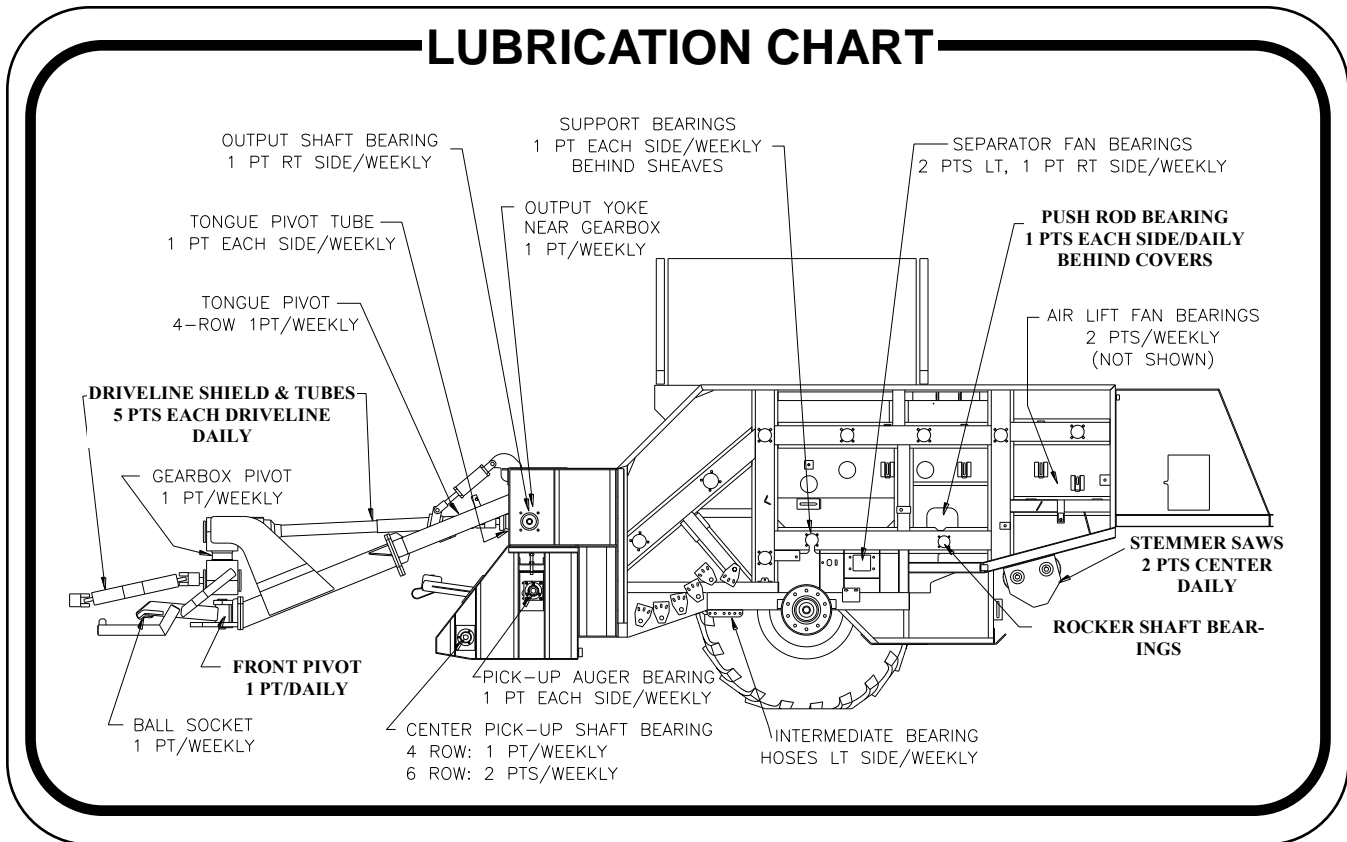


Figure 28 LUBRICATION CHART

## LUBRICATION REQUIREMENTS

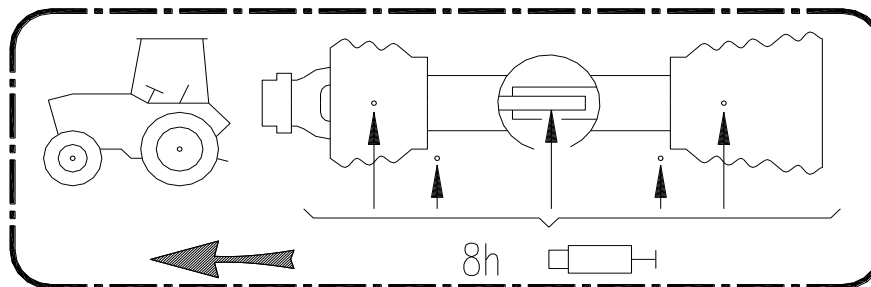


Figure 29 DRIVELINES



**SPRING MAINTENANCE** should be performed daily to insure peak performance of the combine.

1. Pickup springs should be checked for broken or bent tines and for excessive rubbing on the pickup bands. Broken or bent springs can be replaced through the access opening underneath and at the rear of the pickup. Pickup should have some pivotal action to allow for misalignment of bands and springs.
2. Cylinder springs should be checked for broken or bent tines. Replacement of springs on the number one and two cylinders can be made by access through the front top cover. Replacement of the number three and four cylinders can be made by raising the storage tank.



**DANGER: BE SURE TO LOCK SAFETY VALVES ON BOTH LIFT CYLINDERS BEFORE WORKING UNDER RAISED TANK. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH!!**

Replacement of the numbers five, six, and seven cylinders can be made by removing the top rear cover.

3. Stripper springs should also be checked for broken or bent tines. Replacement of these springs require the removal of the stripper bar. To accomplish this remove the stripper handle by removing the capscrow adjacent to the inside wall of the frame, then remove the capscrows on the center pivot post located under the #1 concave. Drop the bar out of the machine, remove any springs between the end of the bar and the damaged spring, then replace the damaged spring. Next reinstall the bar.



**CAUTION: ENGAGING STRIPPER HANDLES PAST THE BRACKETS WILL CAUSE PREMATURE SPRING BREAKAGE.**

### SEPARATION SYSTEM

If the rubber torsional bushings in the pan or stemmer hangers ever need replacing, be sure that the bushing is pressed in properly. When reinstalling on combine place the eccentric in the middle of a stroke before tightening the bushing. **NEVER** lubricate these bushings.

Check fan air-ducts daily to make certain that they are clear of obstructions.

Check chaffer assembly daily to make sure it is secure and adjusted properly and clean of sticks and stems.

The drives for the combine should be inspected daily. The drives for all the cylinders and header are chain drives. These chains should be set where all the slack is taken out but not so that they are preloaded which can cause premature wear and failure. Usually 1" of movement in the tight side of the chain will be obtainable. The following photographs show the proper installation of chain drives.

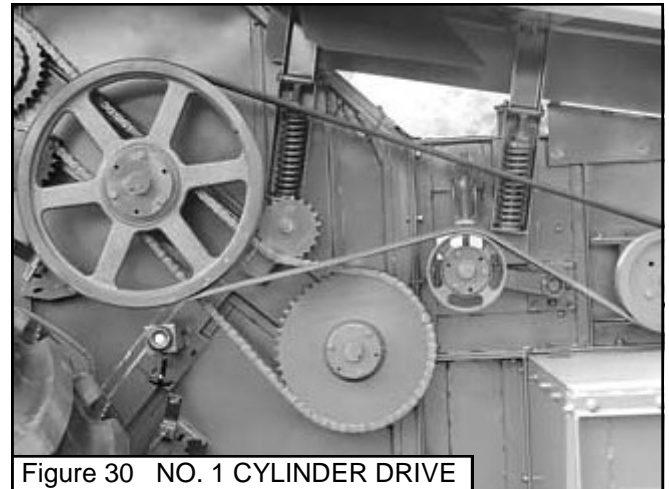


Figure 30 NO. 1 CYLINDER DRIVE

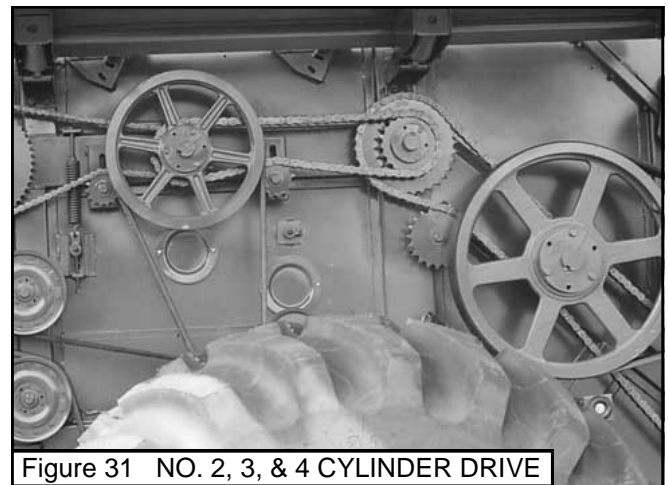


Figure 31 NO. 2, 3, & 4 CYLINDER DRIVE

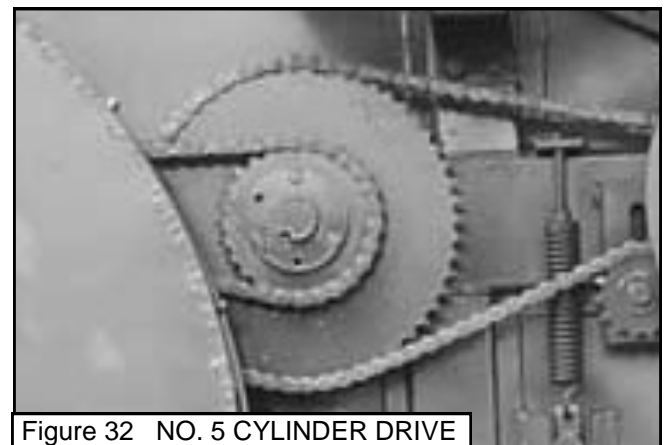
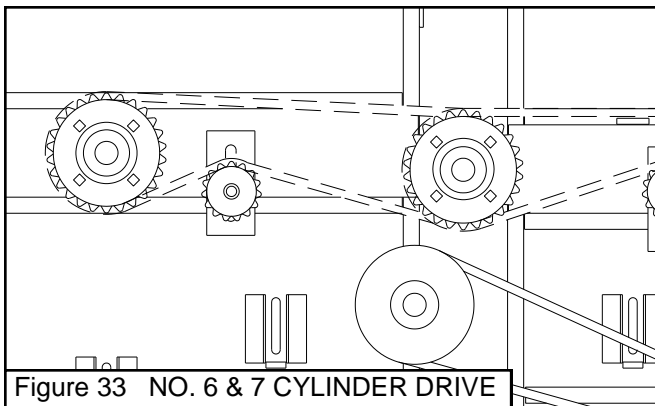
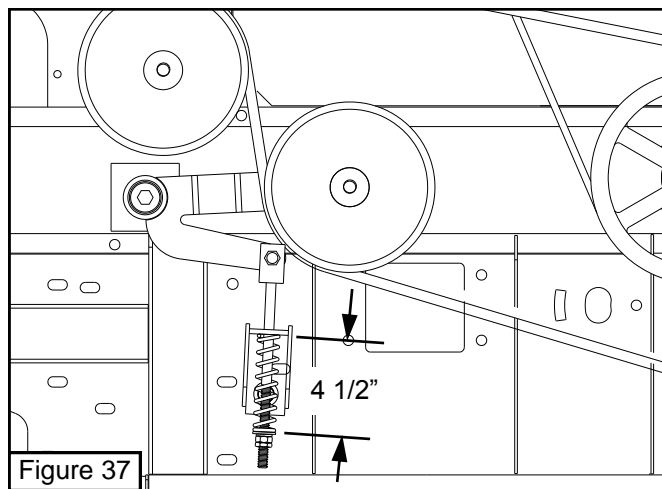
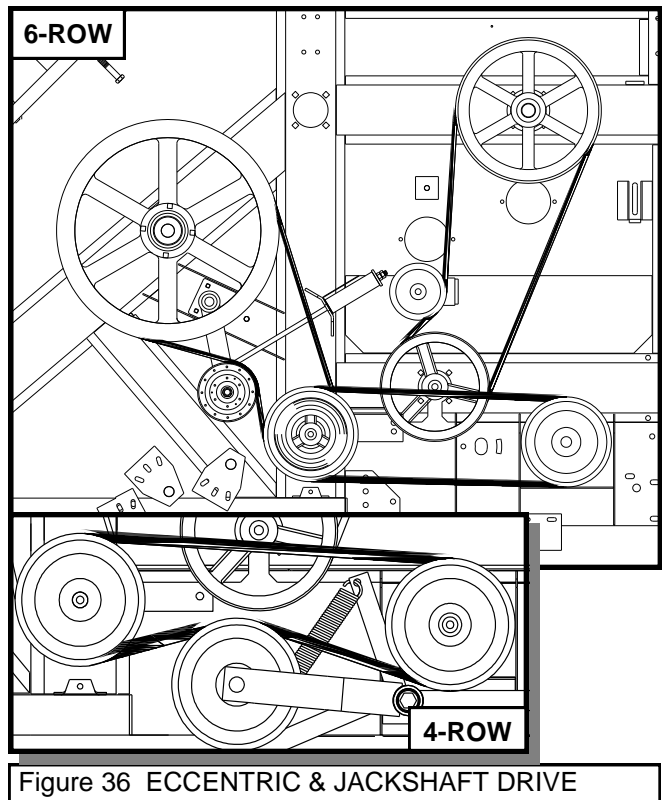


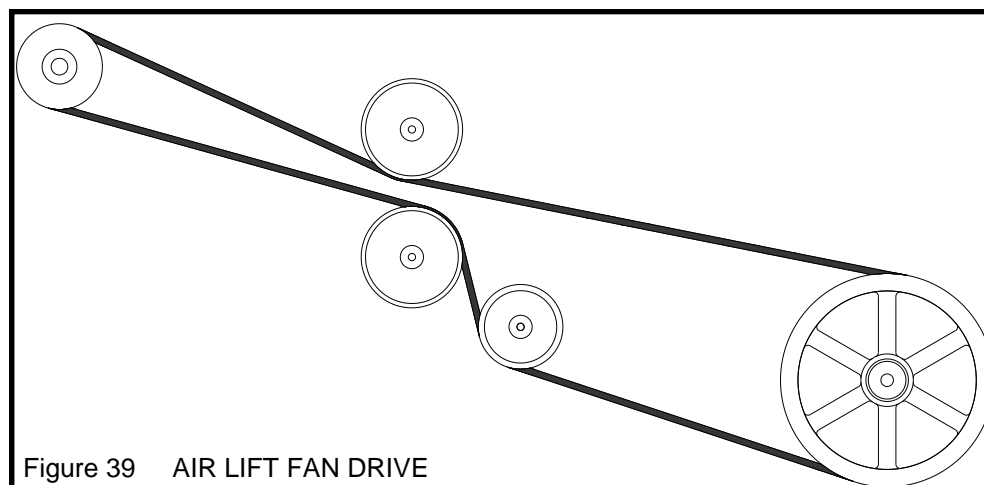
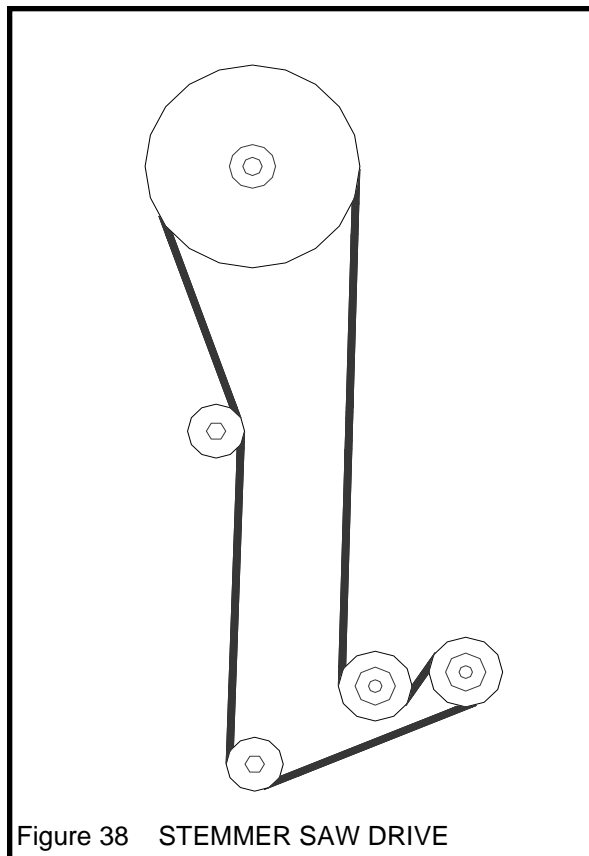
Figure 32 NO. 5 CYLINDER DRIVE



The main drive, both fans, eccentric, and stemmer saws are all driven by V-belts. Proper installation and tension of the belts is necessary for optimum performance. There are no twisted belts on the combine, however, the airlift fan and stemmer saw have a back wrap belt arrangements to achieve proper rotation and contact area. **All belts should be adjusted after two hours of operation to take-up looseness caused by initial stretch of belt.** Check regularly and tighten as needed; loose belts contribute to poor performance of the combine. The following pictures and illustrations show proper installation of drive belts.



Spring must be compressed to 4 1/2" to maintain proper tension on airlift belt.



## AFTER SEASON MAINTENANCE

1. Clean the combine thoroughly to remove all dirt and moisture holding materials.
2. Repaint worn and scratched parts if possible or coat machine with light oil or other rust inhibitor.
3. Loosen all belts to take tension off bearings and shafts.
4. Remove and clean all chains, store in oil if possible during off season. If not saturate and re-install, leave loose.
5. Grease all fittings, driveline, bearings, bushings, and pivot joints. **NOTE: MAKE SURE ALL WATER IS PURGED FROM BEARINGS TO PREVENT RUSTING AND PITTING.**
6. Store under shelter if possible. Collapse all hydraulic cylinders to prevent rods from rusting and pitting.

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## SPECIFICATIONS

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**HITCH:** Stationary tractor drawbar types

**PICKUP REEL:** Low profile, 5-bar, camless, 212" wide on six row machines, 132" wide on four row machines.

**THRESHING SYSTEM:** 7 cylinders, 8 stripper bars (individually adjusted), floating concaves under 4 rear cylinders.

**DRIVELINE:** 1000 RPM driveline, safety shielded.

**TANK CAPACITY: (Hydraulic Operated)** 324 cubic feet or 260 bushels. 124 to 128" dumping height.

**MACHINE WEIGHT:** Four Row - 18,500 lbs  
Six Row - 19,000 lbs

**MACHINE HEIGHT:** 155" 4-ROW, 165" 6-ROW

**MACHINE WIDTH:** Four Row - 151"  
Six Row - 251"

**TIRE SIZE:** 4R - 18.4 x 28 ATU R4  
6R - 28L x 26 SAT 23° R1

**TIRE INFLATION:** 4R - 36 P.S.I.  
6R - 20 P.S.I

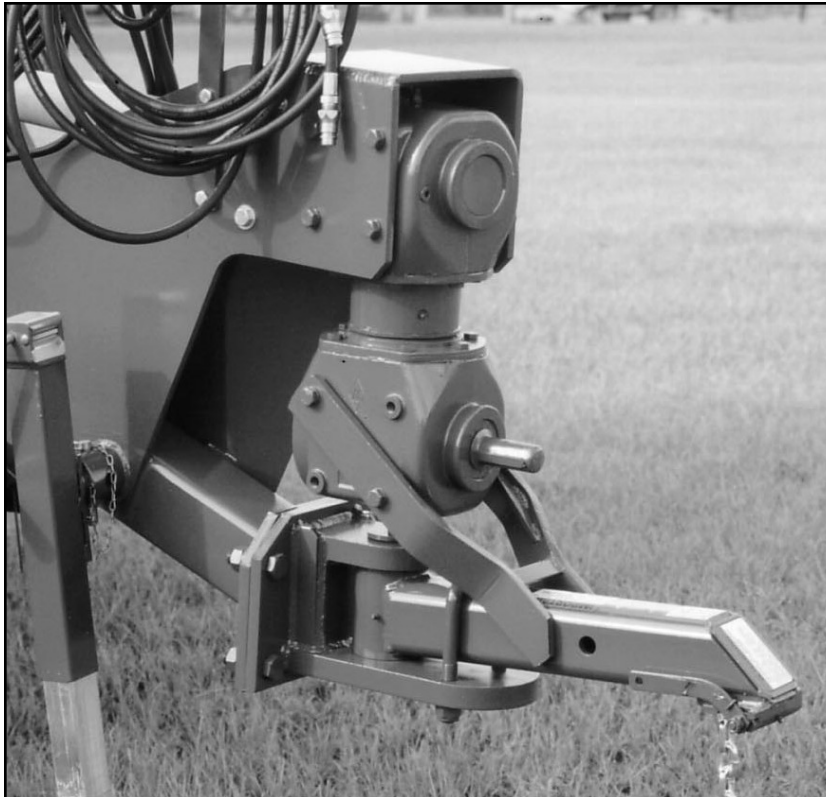
**WHEEL BASE:** (CL/Outside)  
Four Row - 133"/ 151"  
Six Row - 161"/ 188"

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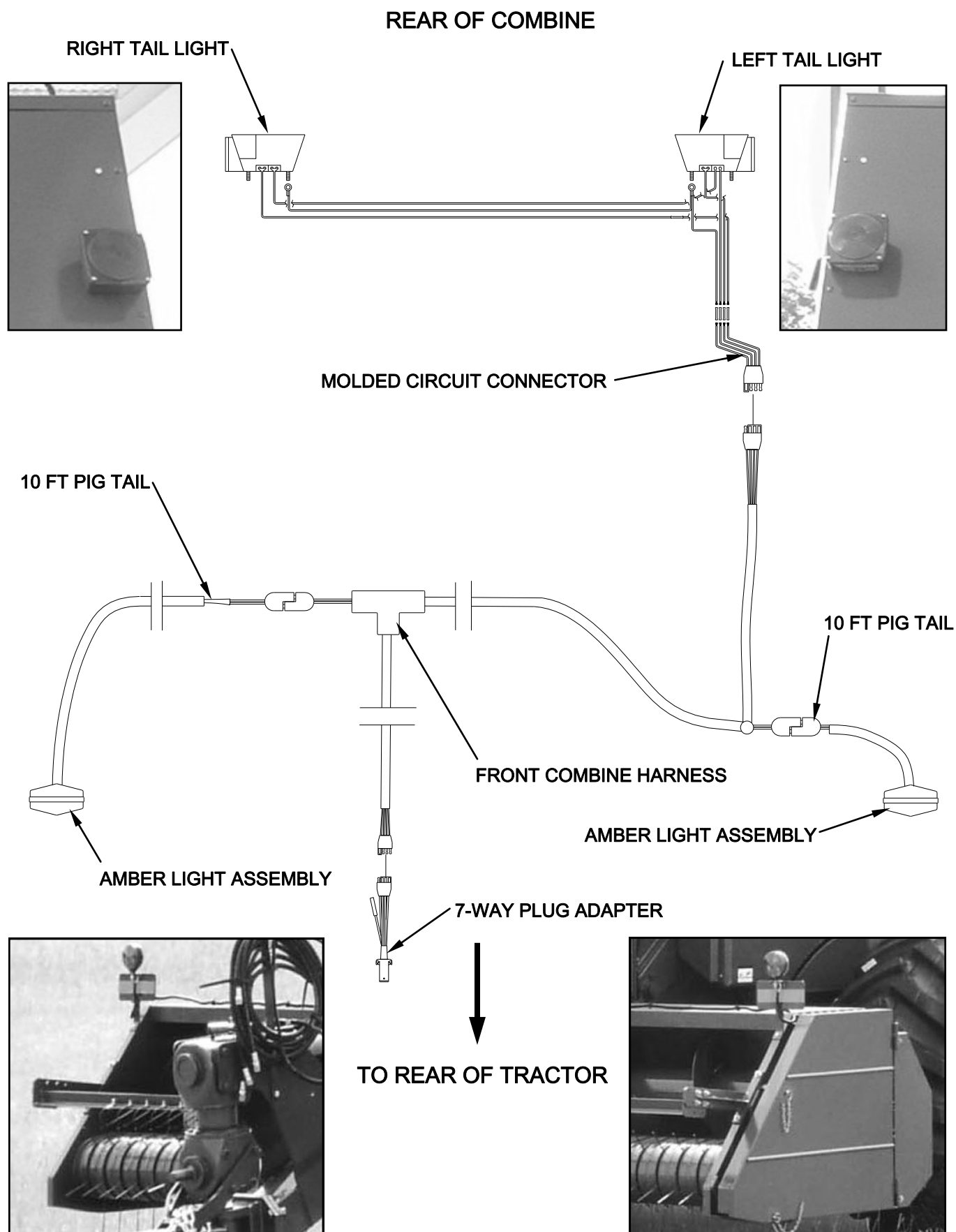
## DOUBLE SWIVEL GEARBOX MAINTENANCE

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Oil should be changed after the first 30 to 50 hours of operation, then every 500 hours or annually. The recommended oil is KMC part # 03-050-080.



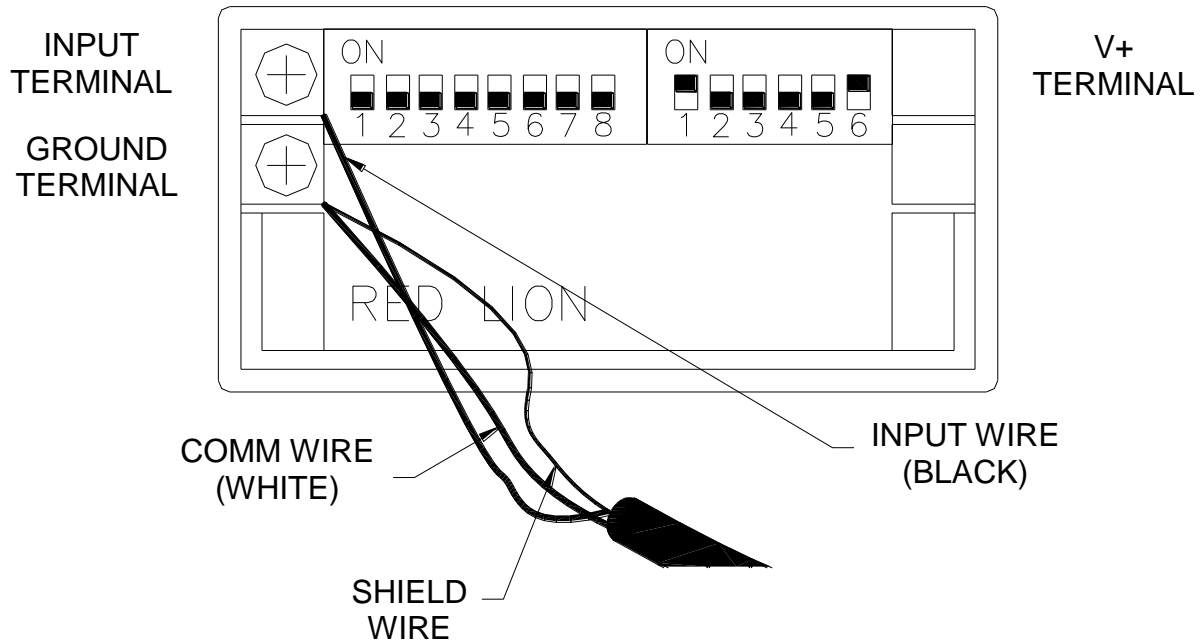
# WIRING HARNESS FOR LIGHTS



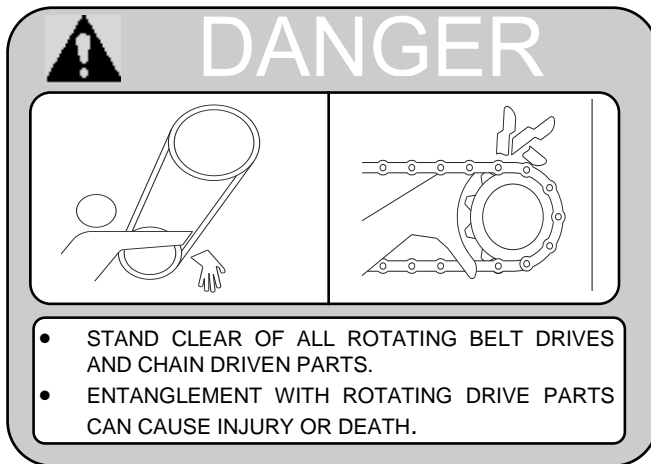
# TACHOMETER WIRING

## DT8 TACHOMETER WIRING INSTRUCTIONS

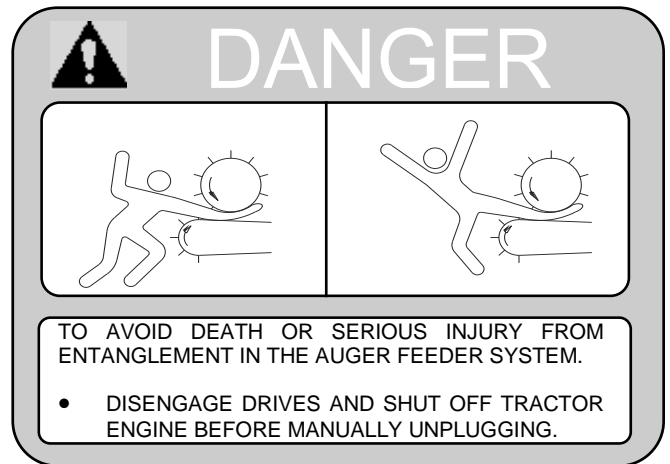
### BACK SIDE OF TACHOMETER



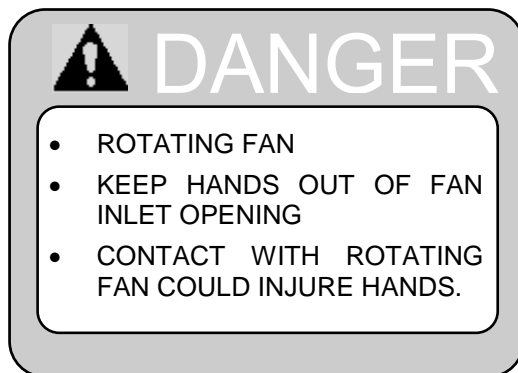
- Connect the shield wire and white wire to the ground terminal.
- Connect the black wire to the input terminal.
- Nothing connects to the V+ terminal.



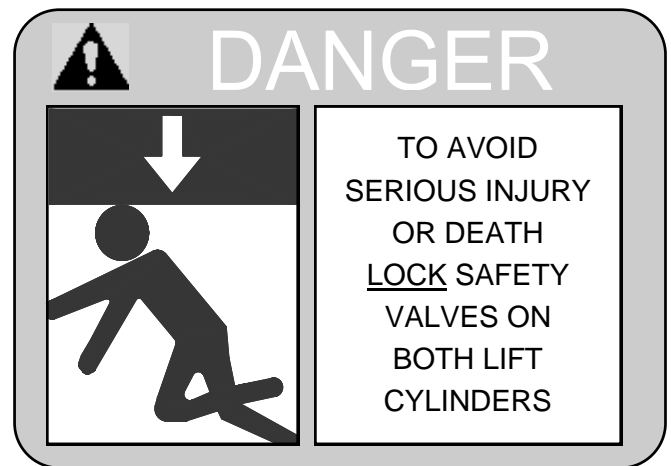
33-050-248



33-050-247



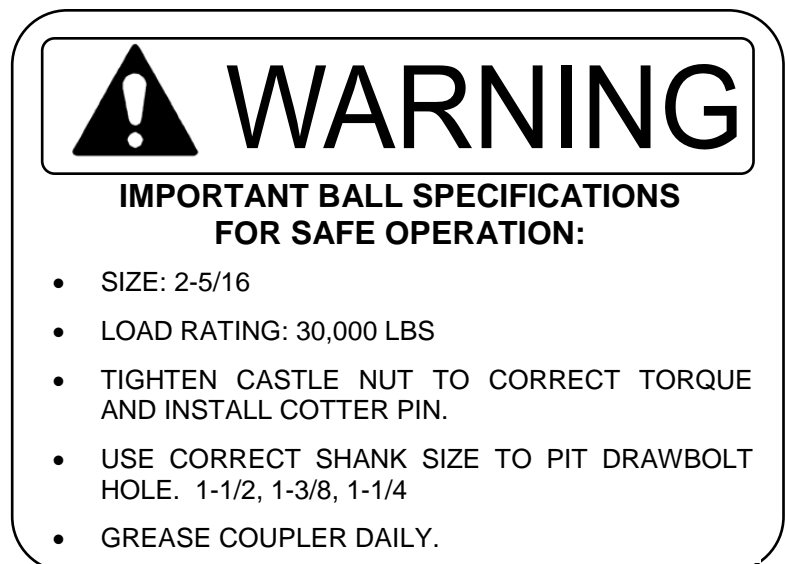
33-050-036




33-050-413



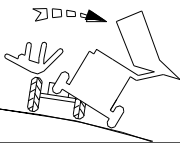
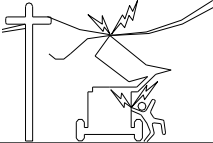
33-050-039



48-050-019



# WARNING

**TO AVOID SERIOUS INJURY OR DEATH:**

- AVOID BANKS AND DITCHES.
- REDUCE SPEED ON TURNS, SLOPES, AND ROUGH TERRAIN.
- AVOID IMPLEMENT CONTACT WITH ELECTRICAL POWER LINES
- NEVER RAISE TANK UNDER POWERLINES OR ALLOW IMPLEMENT TO COME IN CONTACT WITH ELECTRICAL POWERLINES.
- NEVER RAISE FULL TANK WHILE ON STEEP SLOPES, TERRACES, OR DITCHES. TIP OVER MAY RESULT.

33-050-146

## IMPORTANT!


BE SURE WHEN SWITCHING BETWEEN 1 3/4" AND 1 3/8" P.T.O. SIZES THAT THE COMPLETE TRACTOR HALF OF THE DRIVELINE IS SWITCHED (NOT JUST THE YOKE). THE TRACTOR HALVES ARE DIFFERENT LENGTHS FOR THE TWO P.T.O. SIZES.

33-050-415


## IMPORTANT!

DO NOT OPERATE BEFORE REMOVING TRANSPORT U-BOLT AND INSTALLING DRAWBAR YOKE.

33-050-371



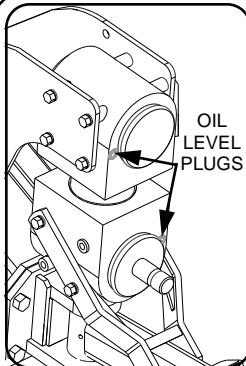
## CAUTION



WHEN TRANSPORTING ON PUBLIC ROADS BE SURE THAT TOWING VEHICLES WEIGHT IS EQUAL TO OR GREATER THAN THE LOADED WEIGHT OF IMPLEMENT AND SAFETY CHAINS ARE USED.

MAXIMUM TOWING SPEED  
20 M.P.H. EMPTY    10 M.P.H. LOADED


33-050-034



## IMPORTANT!

- Do not overfill the gear-boxes
- With the gearboxes level, fill to bottom of front holes on both boxes.
- Use GL5 gear lube 80w-90 (KMC# 03-050-080)

33-050-420

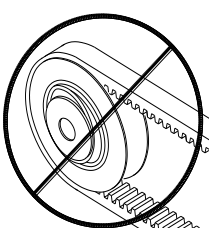



## CAUTION

**TO ENSURE CART WILL DUMP PROPERLY:**

- FILL TANK AS EVENLY AS POSSIBLE.
- LIFT AND DUMP ON LEVEL GROUND ONLY.

48-050-008





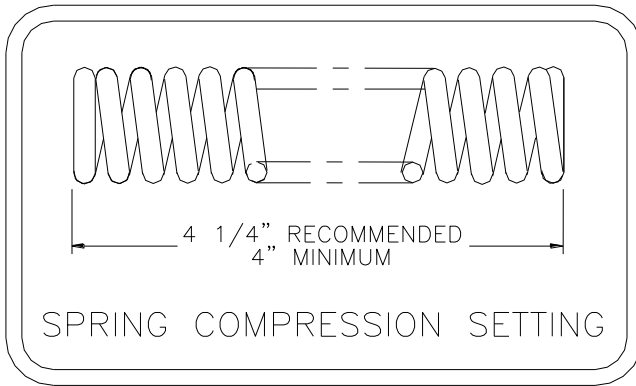
## CAUTION

DO NOT OPERATE WITH TOP SURFACE OF BELT ABOVE THE OUTER EDGE OF THE VARIABLE SPEED SHEAVES.

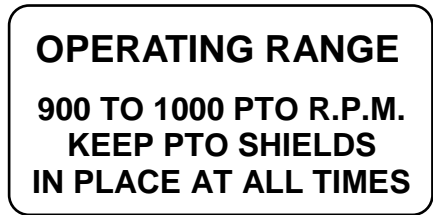
EXCESS BELT WEAR AND SHEAVE DAMAGE CAN OCCUR.

33-050-251





33-050-374



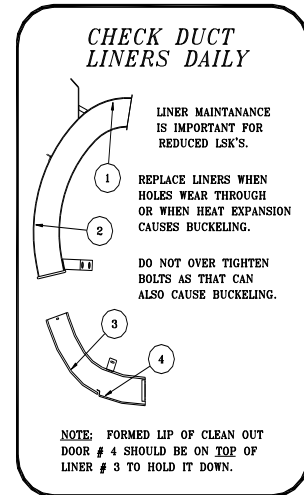
33-050-258



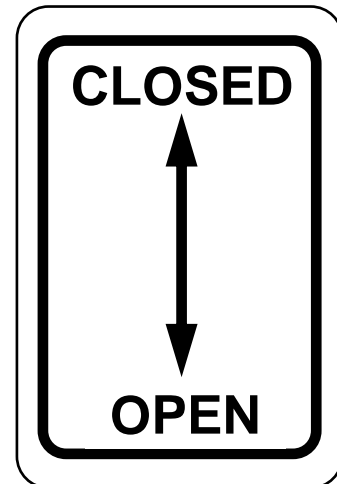
33-050-300



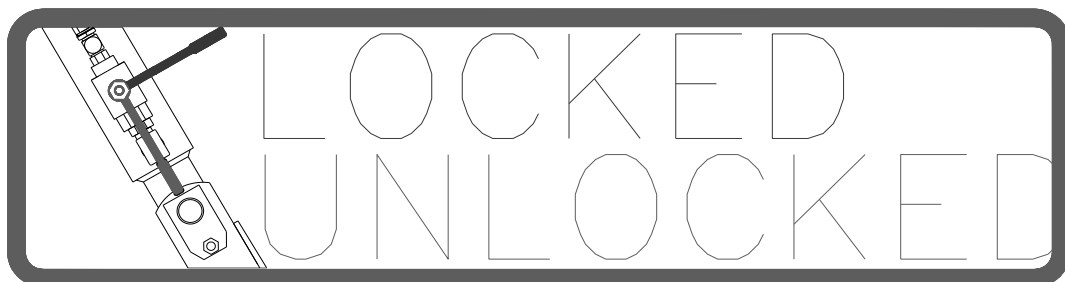
33-050-133



33-050-263



33-050-233



33-050-414

[illegible]

The following is a list of serial numbers issued to our machines at the beginning of each year. To determine when a unit was made, find the range within which the particular serial number falls. It would have been produced between January 1 to December 31 of that year.

<b>YEAR</b>	<b>SERIAL NUMBERS</b>
1985	27986-29695
1986	29696-31095
1987	31096-33234
1988	33235-35548
1989	35549-38496
1990	38497-41771
1991	41772-44466
1992	44467-47001
1993	47002-48750
1994	48751-51549
1995	51551-54262
1996	54263-56661
1997	56662-59465
1998	59466-62097
1999	62098-63986
2000	63987-65692
2001	65693-67340
2002	67341-68699
2003	68700-70482
2004	70483-72646
2005	72647-74866
2006	74867-76368
2007	76369-77883
2008	77884-79891
2009	79892-80944
2010	80945-81775
2011	81776-83453
2012	83454-



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