Model 2600-2800
Leveling System
Operator Manual

Model 2600: 2600-1048 and above
Model 2800: 2800-1128 and above

(D-010223DJC01C)

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www.hillcotechnologies.com

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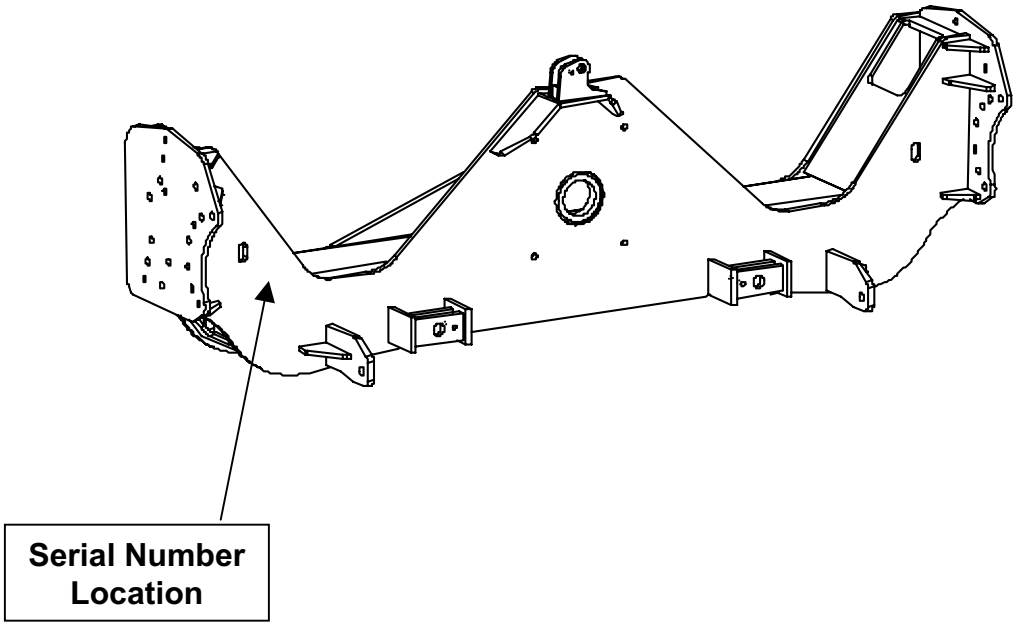
HILLCO TECHNOLOGIES

2000 Series Operator's Manual
Model 2600-2800 Leveling Systems

SERIAL NUMBER LOCATION



Write the serial number of the combine and the Leveling System on the lines provided. Give these numbers to your dealer when you need parts or information for your machine.

COMBINE SERIAL NUMBER

LEVELING SYSTEM SERIAL NUMBER

WARRANTY REGISTRATION

Fill out this card and return it to Hillco Technologies Also fill out the form below the card and retain it for your records.

HILLCO TECHNOLOGIES

Warranty Registration

Product Purchased _____
Model # _____ Serial # _____
(The product name, model # and serial # are located on the serial no. tag.)
Date of Purchase ____/ ____/ ____
Where purchased?_____
Purchased by _____
Mailing Address _____
Shipping Address _____
City, State _____ Zip _____
Phone # (____) _____ Fax # (____) _____
Where did you hear of this product?

_____
_____

IMPORTANT!! This card must be completed and returned to validate the warranty. Thank you for purchasing this Hillco product.

OWNER'S OBLIGATION

WARRANTY REGISTRATION You must complete the Warranty Registration Card and submit it to Hillco Technologies, Inc. within thirty (30) days of the date of delivery to register the new equipment under Hillco's Warranty Policy.

Warranty Void if not Registered!

MAINTENANCE SERVICE The operator's manual furnished to you with the equipment at the time of delivery contains important maintenance and service information. You should read the manual carefully and follow all maintenance and service recommendations. Doing so will result in greater satisfaction with your equipment and help to avoid service and warranty problems. Please remember that failures due to improper maintenance of your

WARRANTY POLICY

HILLCO TECHNOLOGIES

Statement of Limited Warranty

(North American Harvest Products)

Hillco Technologies, Inc. (Hillco) warrants its new products to be free from defects in material and workmanship for a period of twelve (12) consecutive months following the warranty start date.

The warranty start date for Hillco products invoiced by Hillco from October 1st through May 31st is the first day of June following the Hillco invoice date, or the first date of use, whichever is earliest. For Hillco products invoiced by Hillco from June 1st through September 30th the warranty start date is the date of invoice. Once the warranty period has begun, it cannot be stopped or interrupted.

Hillco's obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that, in Hillco's judgment, shows evidence of such defect. Hillco additionally agrees to repair, at no cost to the original purchaser, any physical damage to the product to which the Hillco product is directly attached provided that the damage is directly attributable to a defect in the design or manufacture of the Hillco product, as determined by Hillco, and that the damage occurs during the effective warranty period of the Hillco product.

Hillco warrants genuine Hillco replacement parts and components to be free from defects in material and workmanship for a period of ninety (90) consecutive days following the Hillco invoice date, or the remainder of the original equipment warranty period, whichever is longer.

Limitations to Warranty

This warranty does not cover:

1) Any product damaged by accident, abuse, misuse, negligence, or improper maintenance.
2) Any unauthorized product alteration or modification.
3) Any unauthorized repairs made with parts other than genuine Hillco parts unless specifically authorized by Hillco.
4) Any repairs performed by anyone other than Hillco or an authorized Hillco dealer unless specifically authorized by Hillco.
5) Any claims directly resulting from improper installation, except those installations performed by Hillco.

Warranty Procedure

A Hillco Warranty Registration Form must be fully completed and returned to Hillco within 30 days of sale of the product to the retail customer or the first day of use, whichever is earlier.

All warranty claims must be submitted on a fully completed Hillco Warranty Claim Form.

All warranty work must be performed, and claims submitted, within thirty (30) days of the occurrence of the claim and within the warranty period.

All parts removed during warranty repair should be held for a period of sixty (60) days after the warranty claim has been submitted to Hillco.

Hillco reserves the right to either inspect the product at the original retail purchaser's location, or the authorized Hillco dealer's location; or require it to be returned to Hillco, transportation charges prepaid, for inspection.

Limitation of Liability

Hillco makes no express warranties other than those, which are specifically described herein. Any description of the goods sold hereunder, including any reference to buyer's specifications and any descriptions in circulars and other media published by Hillco is for the sole purpose of identifying such goods and shall not create an express warranty that the goods shall conform to such description.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. There are no implied warranties of merchantability or fitness for a particular purpose. This warranty states Hillco's entire and exclusive liability and buyer's exclusive remedy for any claim for damages in connection with the sale or furnishing of Hillco products, their design, suitability for use, installation, operation, or for any claimed defects herein. HILLCO WILL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, NOR FOR ANY SUM IN EXCESS OF THE PRICE RECEIVED FOR THE GOODS FOR WHICH LIABILITY IS CLAIMED.

No representative of Hillco nor any dealer associated with Hillco has the authority to change the items of this warranty in any manner whatsoever, and no assistance to purchaser by Hillco in the repair or operation of any Hillco product shall constitute a waiver of the conditions of this warranty, nor shall such assistance extend or revive it.

Hillco reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.

D-041201LJH01

INTRODUCTION

Thank you for choosing the Hillco 2000 Series Leveling System to compliment your farming operation. This product has been designed and manufactured to meet the needs of a discriminating buyer for increasing the performance of a combine.

Safe, efficient and trouble free use of your Hillco 2000 Series Leveling System requires that you and anyone else who will be operating or maintaining the leveling system, read and understand the safety, operation, and maintenance information contained in the Operator's Manual.

If extra copies of the operator's manual are needed, contact Hillco at 1-800-937-2461 and ask for the document number found on the front cover page.

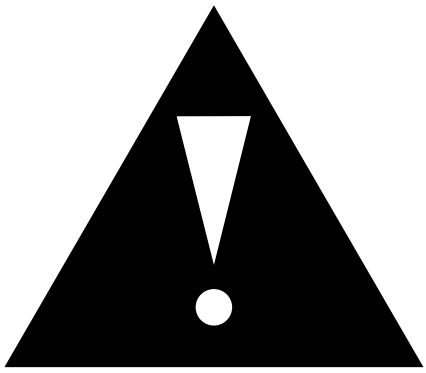
HILLCO MODEL 2800 LEVELING SYSTEM

This manual covers the Hillco 2000 Series Model 2600 (for the 2366) & Model 2800 (for the 2377/2388) Leveling Systems built by Hillco. Use the Table of Contents as a guide when searching for specific information.

Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your Hillco dealer or Hillco if you need assistance or information at 1 (800) 937-2461.

OPERATOR ORIENTATION – The directions left, right, front, and rear, as mentioned throughout this manual, are as seen from the combine operator's seat and facing in the direction of forward travel.

SAFETY ALERT SYMBOL



This Safety Alert symbol means
ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

The Safety Alert symbol identifies important safety messages on the Hillco 2000 Series Leveling System and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

SIGNAL WORDS

Note the use of the signal words **DANGER, WARNING**, and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines:

DANGER - An immediate and specific hazard, which WILL result in severe personal injury or death if the proper precautions are not taken.

WARNING - A specific hazard or unsafe practice, which COULD result in severe personal injury or death if proper precautions are not taken.

CAUTION - Unsafe practices which COULD result in personal injury if proper practices are not taken, or as a reminder of good safety practices.

OPERATION SAFETY

1. Read and understand the Operator's Manual and all safety labels before operating the leveling system.
2. Make sure that all controls are in the manual position before starting the combine.
3. Clear the area of all bystanders, especially children, before starting the leveling system and during operation.
4. Make sure all safety shields are in place before operating the combine. Never operate the machine with the shields removed.
5. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
6. Stay seated in the cab during operation.
7. Operate controls only when sitting in the seat of the combine.
8. To avoid engine damage, do not run the machine for extended periods of time when it is in the leveled over position.
9. Always travel at a safe speed. Use caution when making turns or traversing ditches.
10. The leveling system is equipped with a maximum level warning lamp. This lamp indicates when the machine has reached its maximum leveling capability. There are restrictions as to tread width and tire selection for combines used in harvesting slopes greater than the maximum leveling capability of the leveling system. Refer to page 13 for important information on these restrictions.
11. The use of after-market grain tank extensions is prohibited from use on combines equipped with the Model 26-2800 leveling system.
12. Level Limit Stops should be used on combines that rely on the limit switches to stop the leveling prematurely to prevent sheet metal damage (Refer to Pages 13).

HYDRAULIC SAFETY

1. Do not search for high-pressure hydraulic leaks without hand and face protection. A tiny, almost invisible leak can penetrate skin, thereby requiring immediate medical attention.
2. Use cardboard or wood to detect leaks – never your hands!
3. Double check that all is clear before operating hydraulics.
4. Maintain proper hydraulic fluid levels.
5. Ensure all fittings and hoses are in good repair.
6. Do not make any repairs to the leveling system hydraulic system including: cylinders, valves, hydraulic hoses, adapters, pumps, manifolds, or reservoirs without first contacting you authorized Hillco dealer. These hydraulic components stabilize the chassis of the combine. Improper repair or replacement of these components could lead to uncontrolled leveling of the combine's chassis.

SERVICING AND MAINTENANCE SAFETY

1. Review the Operator's Manual and all safety items before servicing or maintaining the leveling system.
2. Place the Auto/Off/Manual leveling toggle switch in the "Off" position, stop the combine engine, wait for any moving parts to stop, block the tires, the header, and the cylinder areas before servicing, repairing, adjusting, or maintaining the leveling system.
3. Hydraulic oil is under pressure. Use caution when dealing with the hydraulic system.
4. Keep hands, feet clothing and hair away from all moving and/or rotating parts.
5. Clear the area of bystanders, especially children, when carrying out any maintenance, repairs or making any adjustments.

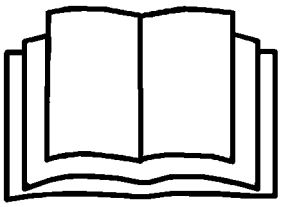
HIGHWAY OPERATION AND TRANSPORT SAFETY

1. Check with local authorities regarding combine transport on public roads. Obey all applicable regulations and laws.
2. Check clearance elevations and widths of combine for travel near power lines, bridges, trees, etc.
3. Make sure the Auto/Off/Manual leveling toggle switch is in the "Off" position for all transport and highway travel situations.
4. Always travel at a safe speed. Use caution when making corners or meeting traffic.

SAFETY LABELS

Familiarize yourself with the location of all safety labels. Read them carefully to understand the safe operation of your machine.

"Read Operator's Manual" Symbol

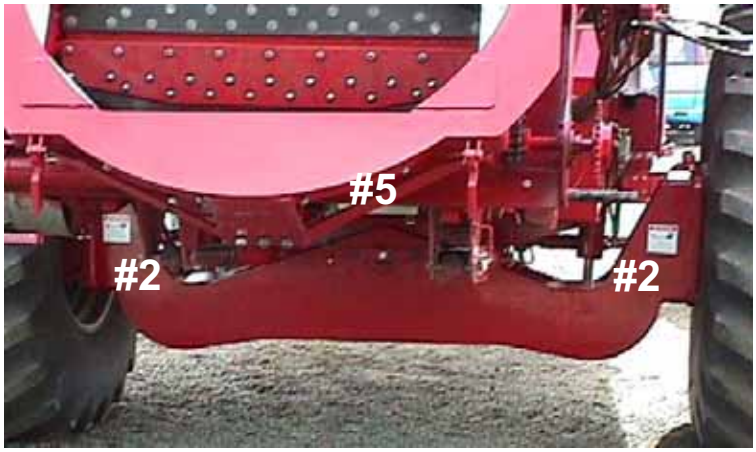


Decals, which display the "Read Operator's Manual" symbol, are intended to direct the operator to the Operator's Manual for further information regarding maintenance, adjustments and/or procedures for particular areas of the leveling system. When a decal displays this symbol refer to the Operator's Manual for further instructions.

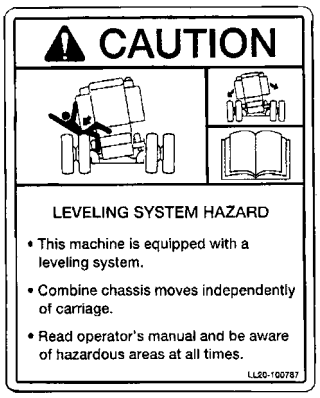
TO APPLY NEW OR REPLACEMENT LABELS:

1. Make sure the label area is smooth by removing any debris such as dirt or old labels.
2. Wash the area with soap and water and then dry it thoroughly.
3. After the area has completely dried, peal the backing off the safety label and place it onto the cleaned area.
4. Make sure all areas of the label have adhered to the machine by pressing down on the entire face of the label, including the corners.

SAFETY LABEL LOCATIONS



SAFETY LABEL SPECIFICATIONS



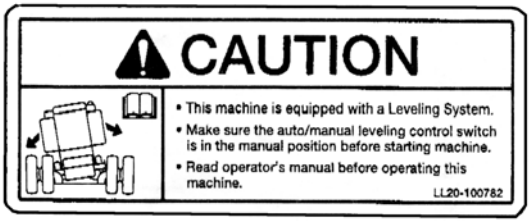
Label #1
Part number: LL20-100787
Locations: 2 (left and right side of combine above front tires)

Label #2
Part Number: LL20-100783
Locations: 6 (front and rear plates of undercarriage and rear sides of combine)

Label #3
Part number: LL20-10784
Locations: 2 (left and right side of upper transition face plate)

Label #4
Part number: LL20-100788
Locations: 3 (main cylinders and hydraulic access door)

Label #5
Part number: LL20-100786
Locations: 1 (front of electrical box)



Label #6
Part number: LL20-100782
Locations: 1 (inside cab window beyond console)

Label #7
Part number: LL20-100785
Locations: 1 (ladder well)

These safety labels should be present and legible at all times. If new labels are needed, or you have any questions concerning safety, please contact Hillco at 1-800-937-2461.

OPERATION, SETUP, AND MAINTENANCE

ELECTRICAL OPERATION

LEVELING SYSTEM CONTROLS

MANUAL LEFT / RIGHT LEVELING SWITCH

LEVEL LEFT: Push the switch to the left.
LEVEL RIGHT: Push the switch to the right.

AUTO / OFF / MANUAL LEVELING SWITCH

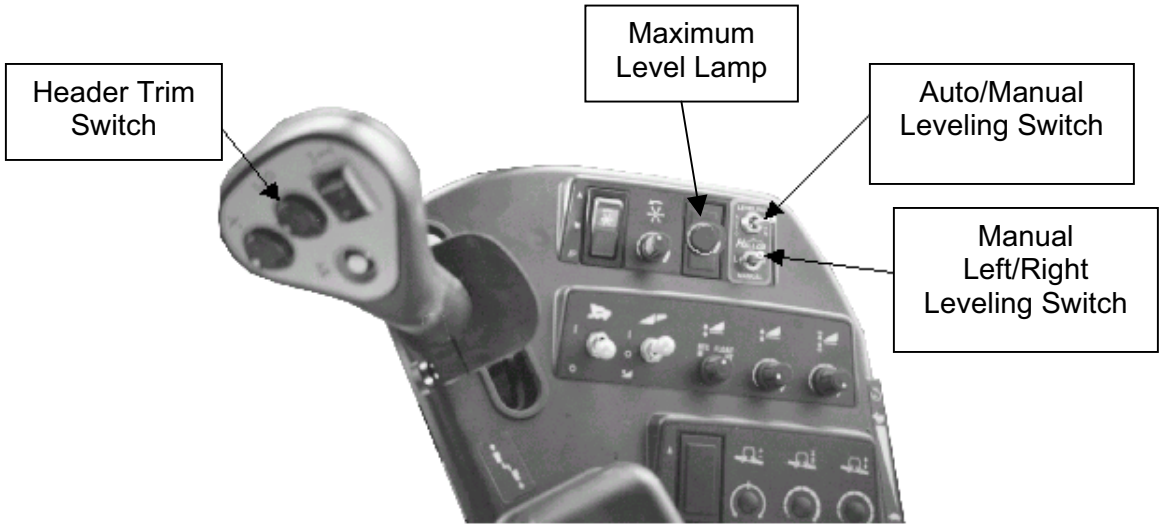
AUTO: Push the Auto/Off/Manual leveling switch to the Auto position to select automatic leveling operation. The automatic leveling controller monitors changes in slope and automatically keeps the chassis of the combine level. The MANUAL LEFT / RIGHT leveling switch will override the automatic leveling controller but when this switch is released the controller will again automatically level the combine chassis.
OFF/MANUAL: Push the Auto/Off/Manual leveling switch to the Off or Manual positions to select manual leveling operation. With the switch in these positions the Manual Left/Right leveling switch will level the combine left and right. When the switch is released the combine chassis will maintain the current chassis position. **THE OFF OR MANUAL POSITIONS ARE SPECIFICALLY FOR TRANSPORT, START-UP AND DURING SERVICE AND MAINTENANCE.**

HEADER TRIM SWITCH

The header trim switch is the four-position header control switch mounted in the combine's SR control lever. It is used to raise and lower the header as well as trim the header left and right.
TILT LEFT: Push the switch to the left to tilt the header counterclockwise.
TILT RIGHT: Push the switch to the right to tilt the header clockwise

MAXIMUM LEVEL LAMP

The leveling system is equipped with a maximum level warning lamp. This lamp indicates when the machine has reached its maximum leveling capability. Important tire and tread width restrictions apply to the use of combines equipped with the Model 2600 & 2800 Leveling Systems that are intended for use on slopes exceeding the maximum leveling capability. See page 13 for important details of these restrictions.



ELECTRICAL SETTINGS

LIMIT SWITCHES AND MAXIMUM LEVEL LAMP

The leveling system is equipped with left and right level limit switches that disable the automatic/manual leveling when the combine reaches its maximum leveling capability in either direction. These switches are preset by the installer at either the maximum leveling capability of the combine or in some cases at a lesser angle to provide for proper tire clearance. It is important to note that in the event of a limit switch failure the combine may continue to level to its maximum capability. Care should be taken to make sure tire clearances are adequate in the maximum level position to prevent damage to the tire or chassis in the event that a limit switch failure should occur. The limit switches also actuate the maximum level lamp that indicates to the operator when the combine has reached its maximum leveling capability. The operator should daily level the combine to its maximum level position, with the bulk tank empty, using the manual leveling switch to insure the limit switches and maximum level lamp are operational. The maximum level lamp will only light when the manual switch is held into the left or right leveling position or the system is in the automatic mode when the combine reaches maximum level.

IMPORTANT: With certain tire selections the limit switches can be used to prevent the need to modify the sheet metal on the left and right side panels of the combine. Installation of level limit stops is recommended to prevent sheet metal damage in the event of a limit switch failure. (See Below)

HOW TO SET LIMIT SWITCHES

To set the limit switches, park the combine on level ground and set the parking brake. Then raise the feeder spout and drop the header lift cylinder safety stop. Place the auto/manual-leveling switch in the manual position. Lean the combine to the left until either the maximum leveling capabilities of the leveling system are reached or there is approximately one inch of clearance between the tires and any metal that may interfere with them. Next, shut off the machine. The limit switches are located on each side of the gray controller box near the main pivot pin. Loosen the bolt that holds the left limit switch stop in place. Adjust the left limit switch stop up to the point where you can hear the contacts on the limit switch snap and move slightly past this point. Repeat this process for the right limit switch.

If Level Limit Stops are used be sure that the limit switches are set to stop leveling before the level limit stops make contact. Damage to the cylinders or other leveling system components may occur if limit switches aren't set properly.

LEVEL LIMIT STOPS

If the tire selection that is used on the combine creates sheet metal clearance problems and requires using the limit switches to stop leveling prematurely it is **recommended to use Level Limit Stops**. On the Model 2600 Leveling System a Level Limit Bar and Spacer Kit can be bolted to the leveling system's overcarriage to mechanically stop leveling if the limit switches were to fail. To determine how many spacers are needed to create a mechanical stop on the Model 2600 Leveling System follow these steps:

1. Park the combine on level ground and apply the parking brake.
2. Raise the feeder spout and drop the header lift cylinder safety stop.
3. Place the auto/manual-leveling switch in the manual position and lean the combine to the left until the limit switch that was set previously stops leveling.
4. Shut off the machine and measure the distance between the overcarriage base plate (1 inch plate) and the tube on the undercarriage.
5. Write down this dimension and repeat the process for the right side. (Both sides must be measured due to the fact that the combine may level further one direction than the other.)
6. The dimensions obtained will determine how many spacers are needed.

On the Model 2800 Leveling System a Level Limiting Spacer Kit can be clamped on the main leveling cylinders to mechanically stop leveling if the limit switches were to fail. To determine how many spacers are needed to create a mechanical stop on the Model 2800 Leveling System follow these steps:

1. Park the combine on level ground and apply the parking brake.
2. Raise the feeder spout and drop the header lift cylinder safety stop.
3. Place the auto/manual-leveling switch in the manual position and lean the combine to the left until the limit switch that was set previously stops leveling.
4. Shut off the machine and measure the distance between the packing gland on the rod end of the cylinder and the ring that is welded to the rod end.
5. Write down this dimension and repeat the process for the right side. (Both sides must be measured due to the fact that the combine may level further one direction than the other.)
6. The dimensions obtained will determine how many spacers are needed.

There is no additional charge for the level limit stops (Call Hillco with dimensions to order).

If Level Limit Stops are used be sure that the limit switches are set to stop leveling before the level limit stops make contact. Damage to the cylinders or other leveling system components may occur if limit switches aren't set properly.

LEVELING CONTROLLER FUNCTION

The Hillco Model 2600 & 2800 Leveling Systems are equipped with a proportional leveling system with manual control and automatic with manual override control. The clinometer, located in the control box, monitors changes in slope and corrects the position of the combine's chassis using proportional leveling. The clinometer maintains leveling accuracy to +/- 1-½ degrees by sending the leveling signal to the proportional leveling control valve on the manifold. As the combine reaches higher degrees of being out of level, the clinometer sends more voltage to the directional control valve's coil and pulls the spool open further to

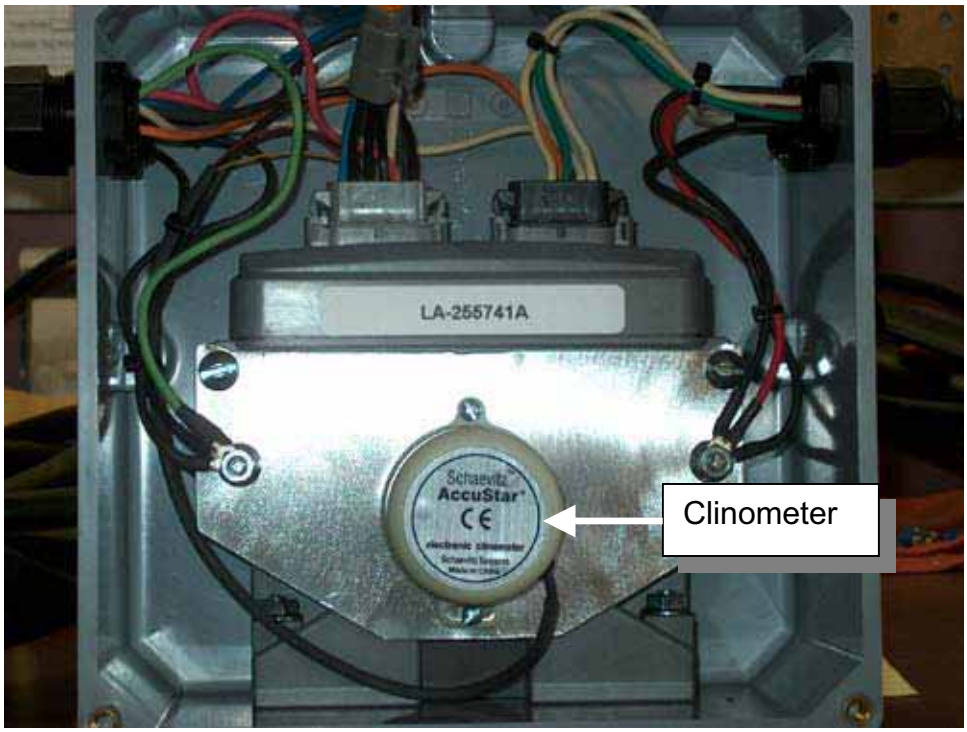
allow oil to flow faster and speed up leveling. As the combine gets closer to +/_ 1-1/2 degrees out of level, less voltage is sent to the coil to slow leveling.

LEVELING CONTROLLER ADJUSTMENT

The clinometer is properly positioned when the combine returns to the level position in the automatic mode from both the left and the right. A 1-1/2 degree dead band each direction from level in the clinometer will prevent the chassis from returning to absolute level. If the combine does not return to the same level point from each side and the chassis leans more one direction than the other, then follow these adjustment steps:

1. Park the combine on level ground, raise the header, turn off the ignition, block the tires, and lock the feeder lift cylinder. It is often helpful to level the combine at low idle during this process so that the leveling speed is reduced during adjustment.
2. Open the control box and loosen the lower & upper mounting screws that mount the clinometer onto the aluminum plate. The bottom hole in the clinometer is slotted to allow the clinometer to be rotated.
3. Move the bottom of the clinometer in the direction you wish the combine to level. Once the clinometer has been moved and the mounting bolts retightened, level the combine to each side and return to level using automatic leveling and again check for level. It is often helpful to level the combine at low idle during this process so that the leveling speed is reduced during adjustment.
4. Repeat as necessary until the combine sits at the same amount out of level from each direction.

Note: The 1 ½ degree trip angle is adjustable in the clinometer only by a trained technician. This trip angle has been pre-set for maximum performance by Hillco and should not be readjusted without first contacting Hillco.



MECHANICAL ADJUSTMENTS

MODEL 2600 TREAD WIDTH – Slope Restrictions

The Model 2600 Leveling System is designed around a main undercarriage length of 88", which is identical to the combine's original 88" axle tube. The final drives can be mounted directly to the 88" undercarriage or any OEM approved axle extension may be used provided the corresponding length drive shafts are used with the extensions.

The minimum allowable tread width for use with a Model 2600 leveling system is 120". **The 120" tread spacing is prohibited from use on slopes that exceed 25% or the maximum leveling capacity of the combine as indicated by the Maximum Level Lamp.** Dual tire extensions are required for combines intended for use on slopes greater than 25%.

On Model 2600 leveling systems the 120" tread width can be achieved by mounting the final drives directly to the undercarriage and dishing the stock combine single wheels outward. Check the tread width using a tape measure to insure your machine is not operating on less than the minimum 120" tread spacing.

When dual tire extensions are mounted to the Model 2600 undercarriage the cross support tie rod is inserted through the length of the undercarriage through the provided holes.

MODEL 2800 TREAD WIDTH - Slope Restrictions

The Model 2800 Leveling System is designed around a main under carriage length of 100", which is identical to the combine's original 100" axle tube. The final drives can be mounted directly to the 100" under carriage or any OEM axle extensions may be used provided the corresponding length drive shafts are used with the extensions.

The minimum allowable tread width for use with a Model 2800 Leveling System is 132". The 132" tread spacing is prohibited from use on slopes that exceed 27% or the maximum leveling capacity of the combine as indicated by the Maximum Level Lamp. Dual tire extensions are required for combines intended for use on slopes greater than 27%.

The 132" tread width can be achieved by mounting the final drives directly to the under carriage and dishing the stock combine wheels outward. Check the tread width using a tape measure to insure your machine is not operating on less than the minimum 132" tread spacing.

When dual tire extensions are mounted to the Model 2800 under carriage the cross support tie rod is inserted through the length of the under carriage through the provided holes.

TIRE SELECTION – Slope Restrictions

Model 2600 Single Tires – Combines equipped with the Model 2600 Leveling System may be equipped with 30.5L-32 or 24.5-32 single tires with a minimum of a 12 Ply rating provided the combine is operated at or below the 25% maximum leveling capability of the leveling system as indicated by the Maximum Level Lamp. **Use of these tire selections is prohibited on slopes greater than 25%.**

Model 2800 Single Tires - Combines equipped with the Model 2800 Leveling System may be equipped with 30.5L-32 single tires with a minimum of a 12 ply rating provided the combine is operated at or below the 27% maximum leveling capability of the leveling system as indicated by the Maximum Level Lamp. **Use of this tire selection is prohibited on slopes greater than 27%.**

Model 26-2800 Dual Tires - Combines equipped with the Model 26-2800 Leveling System that are intended for use on slopes exceeding the maximum leveling capability of the combine, as indicated by the Maximum Level Lamp, must be equipped with dual tires and extensions.

FEEDER ADJUSTMENT FOR TIRE SIZE

Adjust the draw bolts on the feeder adapter to obtain the proper header tip and cutter bar height. The chart supplied in the Axial Flow® Operators Manual will no longer be a correct guide to adjust the feeder adapter because of the height increase needed for the leveling system.

CONVEYOR DRUM FORE / AFT POSITION

After the feeder has been adjusted for the correct tire size, the conveyor drum must be repositioned. The position of the conveyor drum should be set fore or aft so that there is a ½-inch distance between feeder chain slat tip and the paddle beater. The Model 26-2800 transition is narrower than the feeder chain. Use caution to not adjust the feeder chain out into the rear face of the transition.

HEADER AND COMBINE CONNECTION

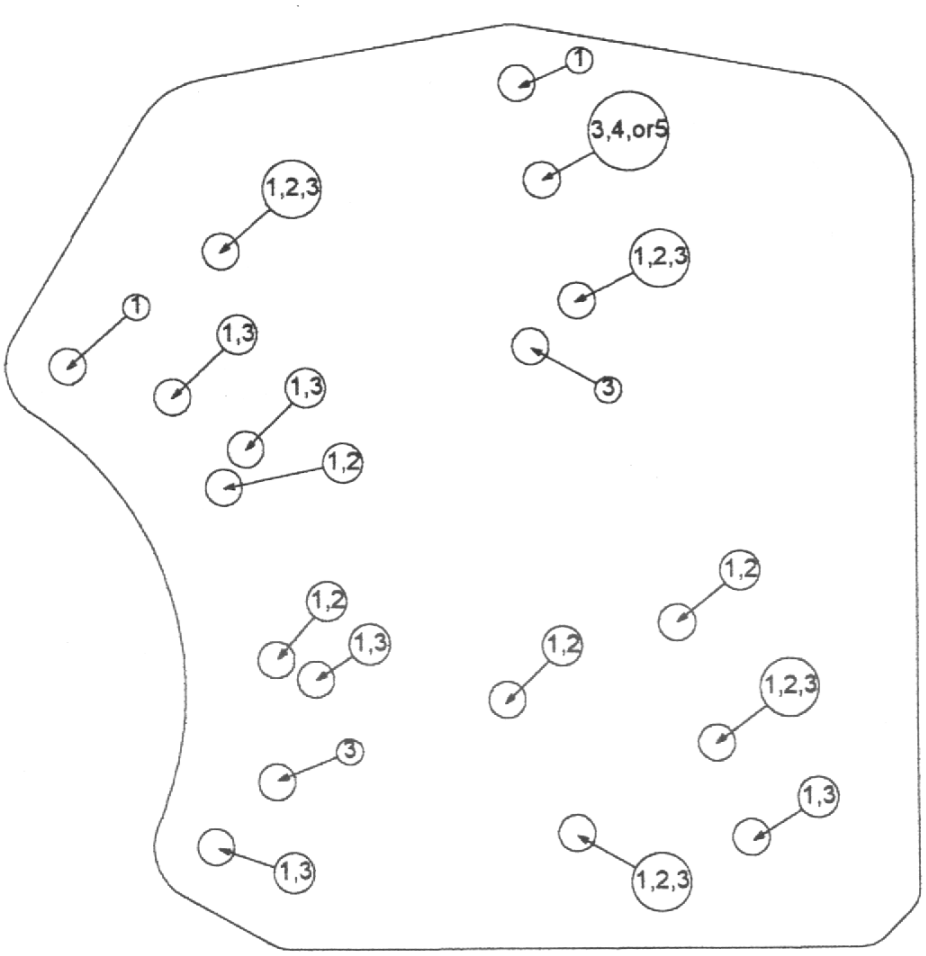
Refer to the Axial Flow® Operator's Manual for instructions on connecting the header to the combine.

Note: If the quick connect mount for the header connections is not remounted to the side of the Model 26-2800 transition, as outlined in the installation manual, hose and wire lengths may need to be lengthened to allow for maximum rotation of the header.

Case-IH 1010 and 1020 headers can be mounted on combines with the Model 2600 or 2800 leveling systems with no modification. All other headers require header kits to function properly. Contact your dealer for additional information on these kits.

FINAL DRIVE MOUNTING

Use the following diagram to determine which bolt holes are used to bolt the final drive housing to the final drive mount plate on the undercarriage. Only the high clearance position is available for 2000 leveling systems



ITEM NO.	QTY.	LOCATION	DESCRIPTION
1	12	H.D. FINAL	HEX CAP 10.9- 20 X 2.5 X 65MM
	12	H.D. FINAL	LW 20MM HD
2	8	STANDARD FINAL	ORIGINAL FASTENERS
3	12	AXLE EXTENSION	ORIGINAL FASTENERS
4	2	H.D. FINAL	SOCKET HEAD CAP 20 X 2.5 X 60MM
	2	H.D. FINAL	LW 20MM HD
5	2	STANDARD FINAL	SOCKET HEAD CAP 3/4-10 X 2-1/4
	2	STANDARD FINAL	LW ¾ HD

REAR AXLE WEIGHTING

Proper rear axle weighting of a combine equipped with a 2000 Series leveling system is critical to the performance and safety of operation. Rear axle weighting increases the tip angle of the combine to improve down hill maneuvers. The appropriate weighting is dependent on such items as feeder house length, header selection, and tire selection. Consult your authorized 2000 Series dealer for weighting information.

Weight can be added to the rear axle through:

1) Hillco Rear Axle Weights (160 lb. Ea, Maximum # 10)
2) Calcium Chloride in rear tires
3) Case Rear Axle Weight System

Do not attempt to use both Hillco and Case weights together. There is not adequate clearance between the weights.

Use caution when using individual turning brakes. Installation of a Hillco Leveling System transmits additional weight to the rear axle of the combine. Excessive braking to turn can damage your combine chassis.

The responsibility for making the final determination of appropriate rear axle weighting lies with the operator.

When first operating the 2000 Series leveling system in hillside conditions, begin operation on gradual slopes and work up to more severe slopes only after you have determined that rear axle weighting is appropriate for downhill maneuvers. The first indication of insufficient rear axle weighting is sluggish or unresponsive steering while traveling down hill. This effect will worsen if the operator decelerates. Make sure rear axle weighting is sufficient for safe down hill maneuvers, under normal deceleration, in your most severe down hill conditions.

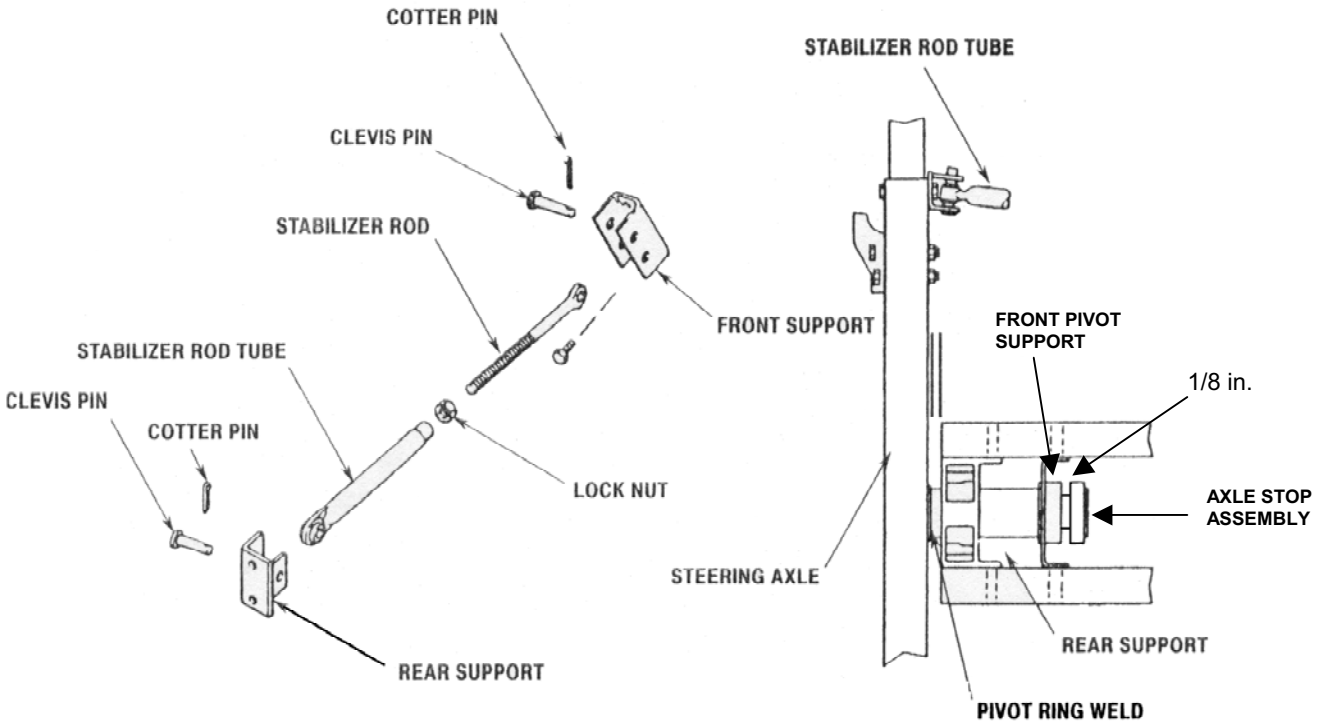
Use of grain tank extensions is strictly forbidden. Use of such extensions voids both the Hillco and Case Corporation new equipment warranties.

STEERING AXLE PIVOT SUPPORT POSITION

The steering axle pivot support position may need to be adjusted after the correct tires and header are installed on the combine. The combine should sit level to two inches high in the rear. If it does not, then the steering axle pivot support will have to be adjusted. Consult your combine's operator manual for more information on adjusting the pivot support position. Use the high clearance column of the tables to select the proper steering axle pivot support position.

AXLE STABLIZER

After the steering axle pivot support is in the correct position the axle stabilizer may need to be adjusted. Adjust the axle stabilizer in the front support so it is as close to parallel to the drop axle pivot pin as possible with the combine sitting level on level ground. The front support may have to be repositioned to get the axle stabilizer horizontal. **If the axle stabilizer isn't sitting parallel to the drop axle pivot pin binding will occur and may cause damage to the combine frame and the axle stabilizers**. Adjust the length of the axle stabilizer to achieve 1/8 inch of distance between the front edge of the front pivot support and the axle stop assembly.



REAR AXLE TOE IN

If the rear tire and wheel size changed after the proper sized rear tires were installed the toe in should be checked. Consult your combine's operator's manual on the correct toe in for your tire and wheel size.

FEEDER CONVEYOR SLIP CLUTCH

The feeder conveyor slip clutch should be adjusted yearly to make sure it would protect all of the feeder drive components. Consult your combine's operator's manual on the correct procedure for adjusting the slip clutch.

TRANSITION DRIVE CHAIN

Check to see that the transition drive chain is in proper alignment and has proper tension. Misalignment of these sprockets will cause premature wear of the sprockets and chain. Chain tension is maintained with the idler sprockets that are bolted to the left side of the

transition. There is an idler sprocket for both the 80-pitch and 60-pitch chains. Do not over tighten these sprockets or premature chain and sprocket wear will occur.

TRANSITION SLIP CLUTCH

The transition slip clutch is preset at the factory so that damage will not occur to any of the transition drive components; it cannot be adjusted and will never require any adjustment. See page 22 for lubrication information.

LADDER

If the ladder doesn't extend and retract properly check to see that there is proper spring tension. Moving the top of the spring up on the chain links can increase the spring tension. If spring tension doesn't seem to be a problem then inspect the aluminum slide tubes and the slide tube bushing assemblies and make sure that the ladder isn't bound.

If the ladder is bound then remove the 3/8 roll pins on each ladder handle and take the handles out of the tubes. Remove the two springs from the top spring mount and slide the ladder assembly out of the slide tube bushing assemblies. Measure the distance between the two aluminum slide tubes at the bottom and the top. If the distance varies step on the ladder step and spring the tubes in or out until the same distance is obtained at the two previously mentioned locations. Lay the ladder down on the back of the step on a level surface and check to see that the tops of the aluminum tubes and the step touch evenly. If not, spring the tubes fore and aft until the step lays flat and both tubes touch.

Clean all the dirt and debris out of the slide tube bushing assemblies. Reinstall the ladder assembly into the slide tubes and reconnect the springs. Place the ladder handles into the aluminum slide tubes and tap the 3/8 roll pins into place. A properly adjusted ladder should extend and retract smoothly and stay fully retracted.

SHIPPING SPACERS

The shipping spacers that are sent with the combine from the factory to prevent the combine from tipping over during shipment if the leveling cylinders were to fail, can be used for leveling cylinder maintenance or for winter storage. On the Model 2800 Leveling System the shipping spacers will have to be trimmed if a Level Limiting Spacer Kit has been used for a mechanical safety stop. The Model 2600 Leveling System shipping spacers will require no modification even if a Level Limit Bar and Spacer Kit has been installed.

GENERAL SHIELDING

Before operating the combine all shields must be in place and in working condition.

Shield to tire clearance needs to be checked once the correct tires are installed on the combine. Check to see if the clearance is correct by having someone watch the tire and shields as the operator leans the combine to the far right and far left. Some tire selections require limit switches to be set slightly early to allow enough tire clearance between the left and right front side panels.

HYDRAULIC SETTINGS

Refer to the Hydraulic Safety section located on page 6 for precautions regarding the hydraulic system.

The Model 26-2800 Leveling System utilizes the existing auxiliary combine hydraulic system for its hydraulic requirements with the exception of the addition of a leveling manifold section into the original combine hydraulic manifold. Starting in 2004 all combines that are dealer installed will have a stand-alone manifold due to the inability to add valve sections to the Case manifold stack. The following hydraulic schematics on pages 26 & 27 cover the leveling system circuitry. Consult your combine's operator's manual or contact your Case-IH dealer for diagnostics and maintenance regarding the remainder of the hydraulic system.

IMPORTANT: All adjustments on the hydraulic system are preset at the factory for optimal leveling and header trim performance. DO NOT MAKE ANY ADJUSTMENTS TO THESE SETTINGS WITHOUT FIRST CONTACTING YOUR AUTHORIZED HILLCO DEALER.

HYDRAULIC HOSES

Inspect hydraulic system for leaks, damaged hoses, improper routing, and loose fittings.

Hydraulic hoses that are not routed correctly could become worn from working against abrasive edges or moving parts. If abrasions or holes do occur, the hydraulic hoses can only be repaired by replacement. **Do not attempt repairs with tape or cements.** High pressure will burst such repairs and cause system failure and possible injury.

Hydraulic Hose Connections – When tightening loose hoses on the cylinders, pump, etc., always use one wrench to keep the hose from twisting and another wrench to tighten the union. Excessive twisting will shorten hose life and allow the fitting to loosen during operation. Do not over-tighten fittings or adapters.

Refer to the Axial Flow's Operators Manual for information regarding hydraulic oil, check intervals, and reservoir fluid levels. High speed leveling, low speed leveling and header trim speeds are preset at the factory. If different speeds are desired please contact your Hillco dealer.

HYDRAULIC CYLINDERS

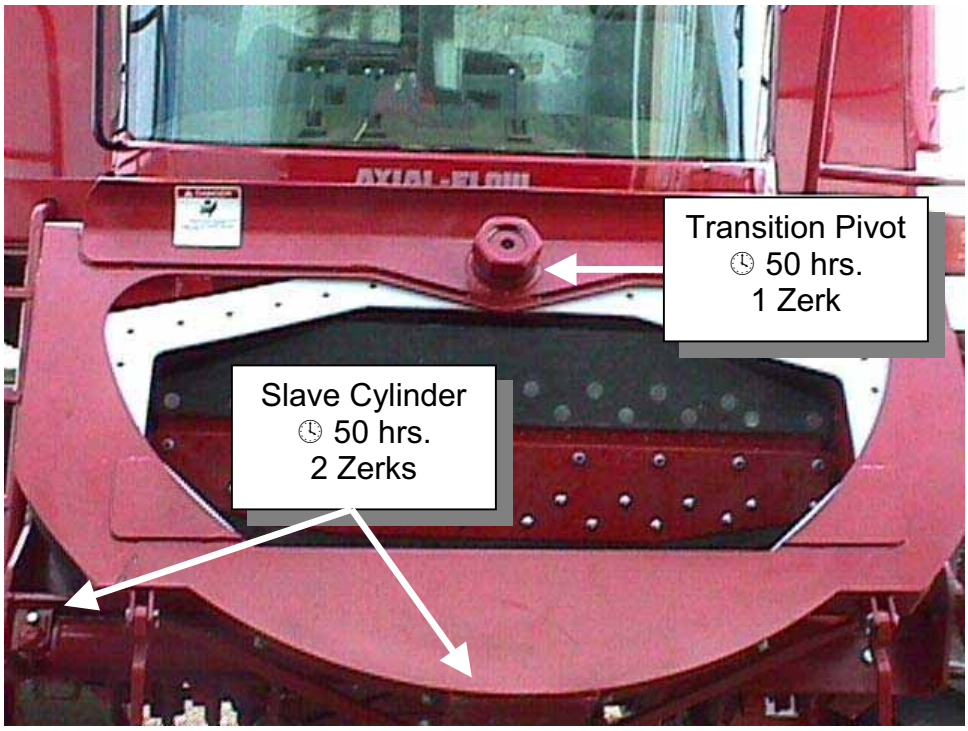
IMPORTANT: Each leveling cylinder is equipped with a safety valve that is in place to prevent unintentional leak down of the cylinder. These safety valves are preset at the factory, and should not be adjusted.

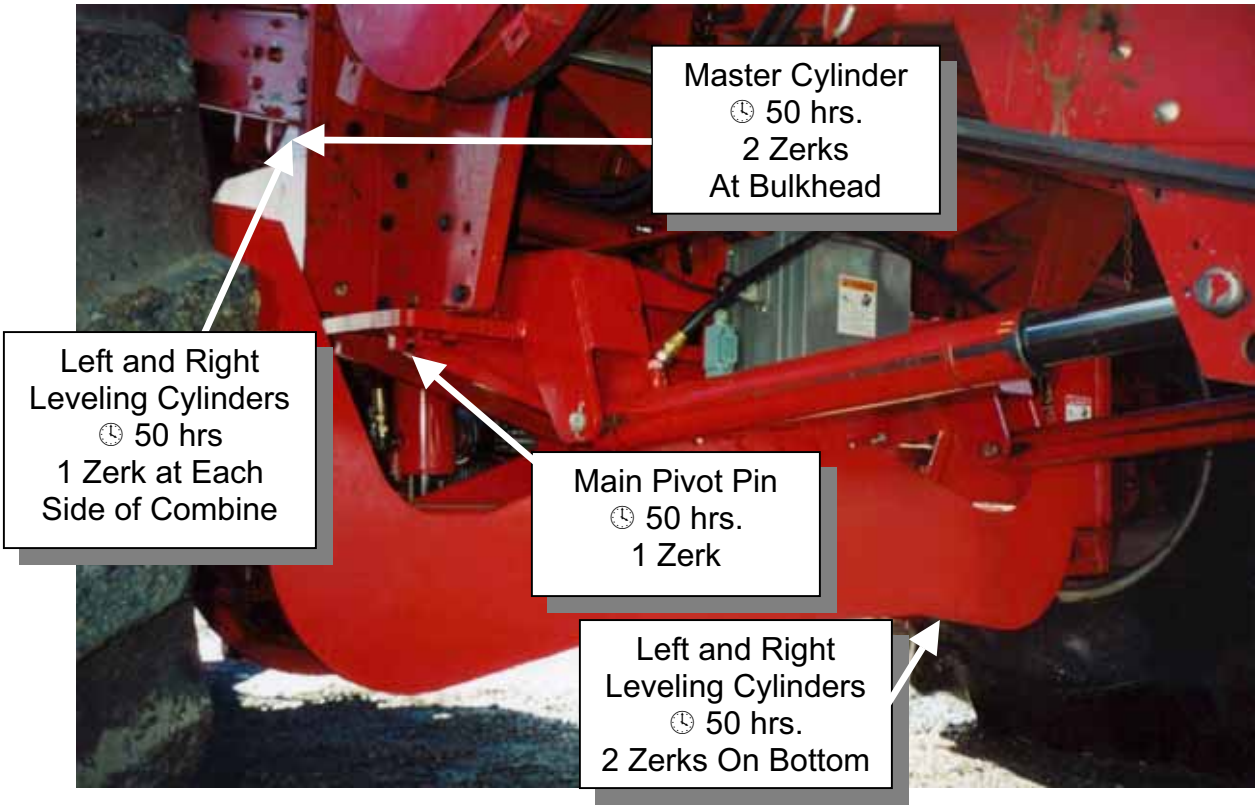
DANGER: Do not make any repairs to the cylinders, disconnect valves, or disconnect any hoses connected to the cylinders, counterbalance valves, bulkhead mount or manifold without first contacting your authorized Hillco dealer. These hydraulic components stabilize the chassis of the combine. Improper repair or replacement of these components could lead to uncontrolled leveling of the combine's chassis. The leveling system's shipping spacers can be used to prevent accidental tipping of the combine during repair.

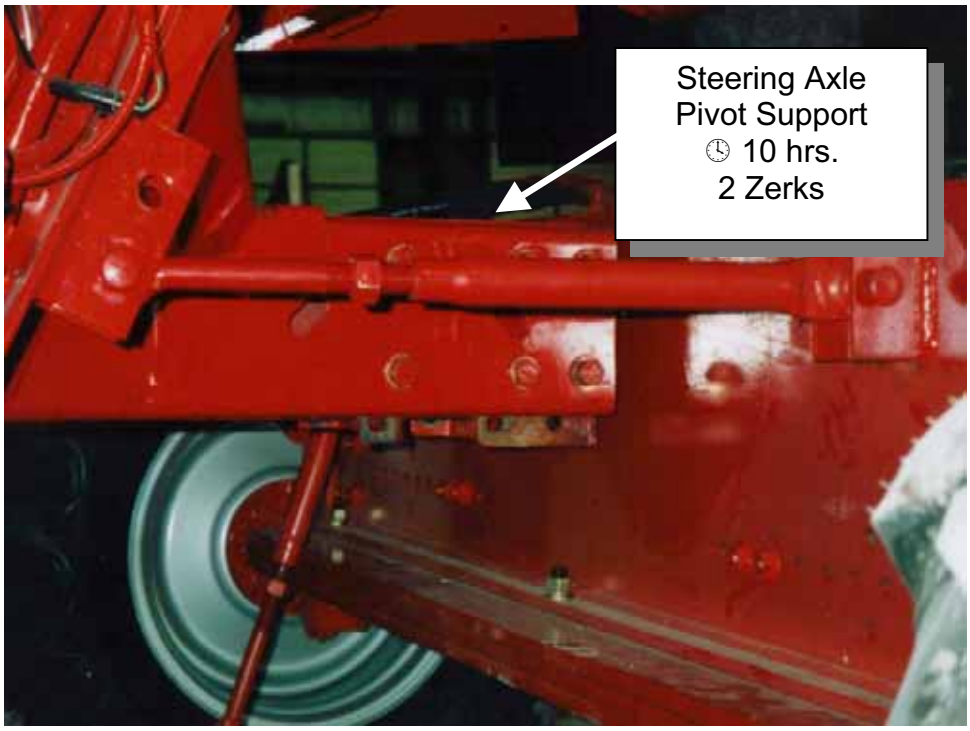
Hydraulic schematics for this leveling system are located at the end of this manual.

GREASE LOCATIONS

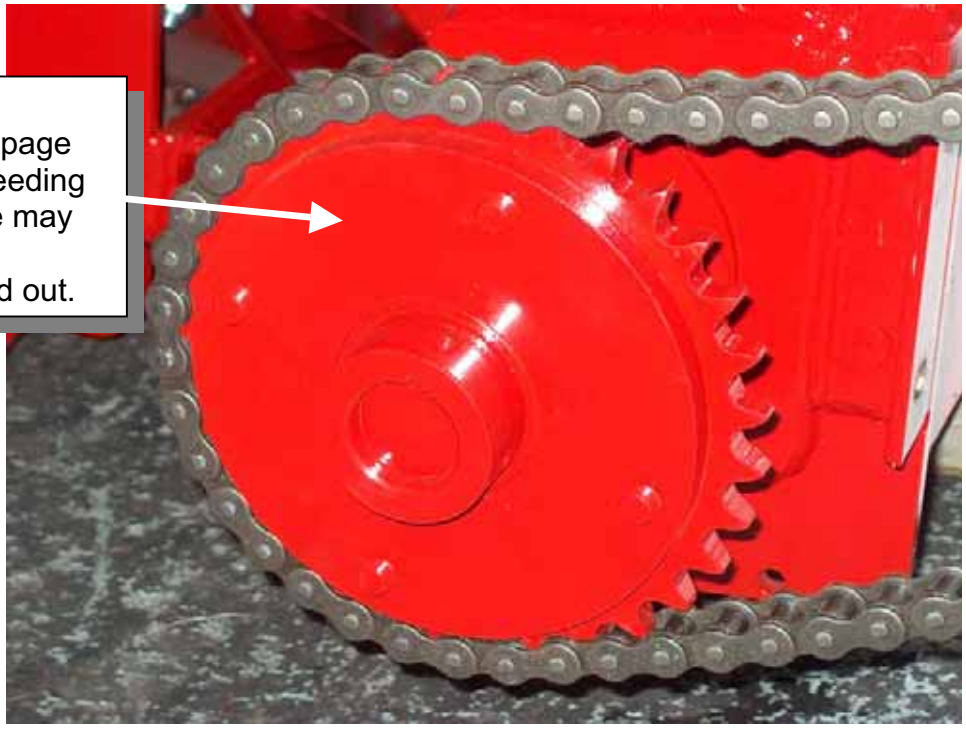
Use Case-IH 251H EP grease or equivalent NLGI No. 2 Multi-Purpose Lithium Grease.







Transition Slip Clutch
50 hrs. Little To No Slippage
Grease Daily in Adverse Feeding
Conditions where slippage may
occur more often.
Pump until grease is forced out.



FASTENERS

Check Bolt Tightness

- After the first 10 hours of operation
- Every season

The following bolts are torqued to special specifications because of the application in which they are used.

Transmission Mount Bolts:	Case IH® torque specifications
Final Drive Housing Bolts:	Case IH® torque specifications
Drive Wheel Hub Bolts:	Case IH® torque specifications
Steering Wheel Hub Bolts:	Case IH® torque specifications

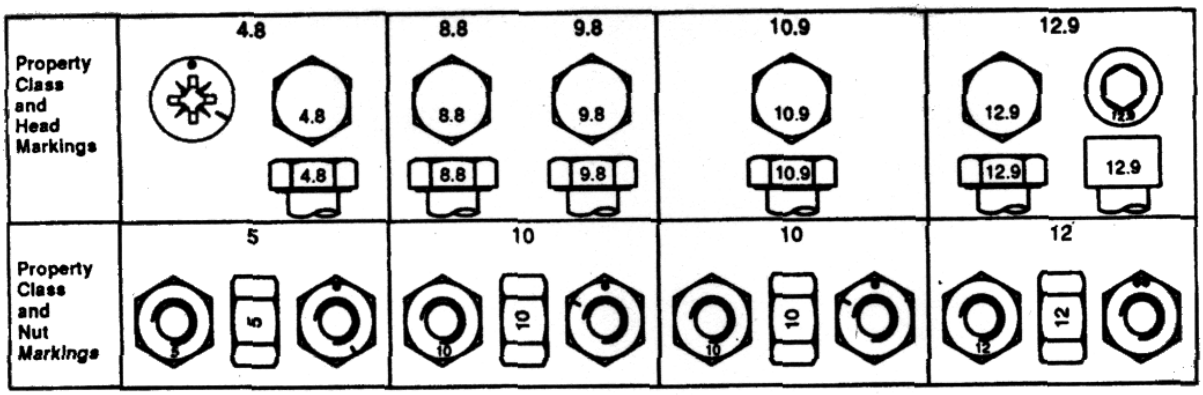
IMPORTANT: Consult your Case IH® operator's manual to verify that correct bolts and spacers are used for the wheel application.

The following two pages shows torque charts for metric and standard fasteners. Use these charts for checking torques on bolts not shown above.

METRIC TORQUE CHART

Bolt and Cap Screw Torque Values

(for HIIIco 2000 Leveling Systems Only)



	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated [a]		Dry [b]		Lubricated [b]		Dry [b]		Lubricated [b]		Dry [b]		Lubricated [b]		Dry [b]	
Size	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft
M6	4.8	3.5	6	4.5	9	6.5	11	8.5	13	9.5	17	12	15	11.5	19	14.5
M8	12	8.5	15	11	22	16	28	20	32	24	40	30	37	28	47	35
M10	23	17	29	21	43	32	55	40	63	47	80	60	75	55	95	70
M12	40	29	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	47	80	60	120	88	150	110	175	130	225	165	205	150	260	190
M16	100	73	125	92	190	140	240	175	275	200	350	255	320	240	400	300
M18	135	100	175	125	260	195	330	250	375	275	475	350	440	325	560	410
M20	190	140	240	180	375	275	475	350	530	400	675	500	625	460	800	580
M22	260	190	330	250	510	375	650	475	725	540	925	675	850	625	1075	800
M24	330	250	425	310	650	475	825	600	925	675	1150	850	1075	800	1350	1000
M27	490	360	625	450	950	700	1200	875	1350	1000	1700	1250	1600	1150	2000	1500
M30	675	490	850	625	1300	950	1650	1200	1850	1350	2300	1700	2150	1600	2700	2000
M33	900	675	1150	850	1750	1300	2200	1650	2500	1850	3150	2350	2900	2150	3700	2750
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2750	4750	3500

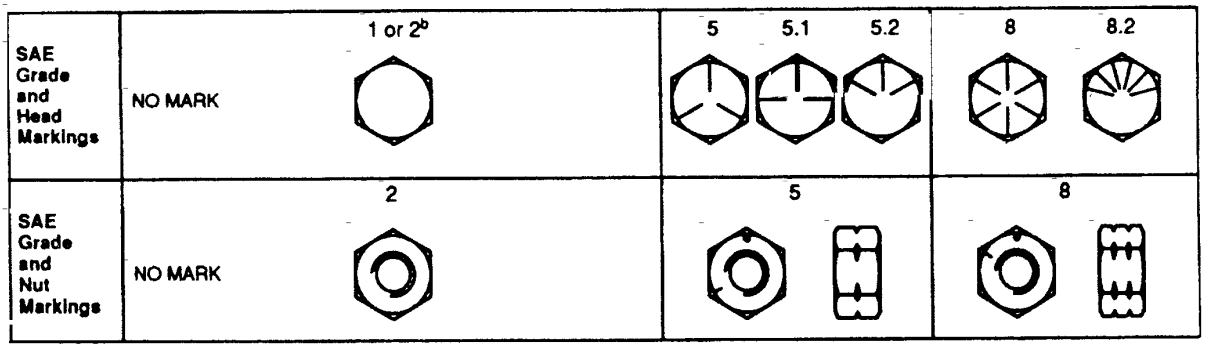
[a] "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings.

[b] "Dry" means plain or zinc plated without any lubrication.

STANDARD TORQUE CHART

Unified Inch Bolt and Cap Screw Torque Values
(for Hillco 2000 Series Leveling Systems Only)

SAE Grade and Head Markings	NO MARK	1 or 2[b]	5 5.1 5.2	8 8.2
SAE Grade and Nut Markings	NO MARK	2	5	8



	Grade 1 [a]				Grade 2 [b]				Grade 5, 5.1, or 5.2				Grade 8 or 8.2			
	Lubricated [c]		Dry [d]		Lubricated [d]		Dry [d]		Lubricated [d]		Dry [d]		Lubricated [d]		Dry [d]	
Size	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft
1/4	3.7	2.8	4.7	3.5	6	4.5	7.5	5.5	9.5	7	12	9	13.5	10	17	12.5
5/16	7.7	5.5	10	7	12	9	15	11	20	15	25	18	28	21	35	26
3/8	14	10	17	13	22	16	27	20	35	26	44	33	50	36	63	46
7/16	22	16	28	20	35	26	44	32	55	41	70	52	80	58	100	75
1/2	33	25	42	31	53	39	67	50	85	63	110	80	120	90	150	115
9/16	48	36	60	45	75	56	95	70	125	90	155	115	175	130	225	160
5/8	67	50	85	62	105	78	135	100	170	125	215	160	240	175	300	225
3/4	120	87	150	110	190	140	240	175	300	225	375	280	425	310	550	400
7/8	190	140	240	175	190	140	240	175	490	360	625	450	700	500	875	650
1	290	210	360	270	290	210	360	270	725	540	925	675	1050	750	1300	975
1-1/8	400	300	510	375	400	300	510	375	900	675	1150	850	1450	1075	1850	1350
1-1/4	570	425	725	530	570	425	725	530	1300	950	1650	1200	2050	1500	2600	1950
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2150	1550	2700	2000	3400	2550
1-1/2	1000	725	1250	925	990	725	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

[a]Grade 1 applies for hex cap screws over152 mm (6-in.) long, and for all other types of bolts and screws of any length.

[b]Grade 2 applies for hex cap screws (not hex bolts) up to 152 mm (6 in.) long.

[c]"Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings.

[d]"Dry" means plain or zinc plated without any lubrication.

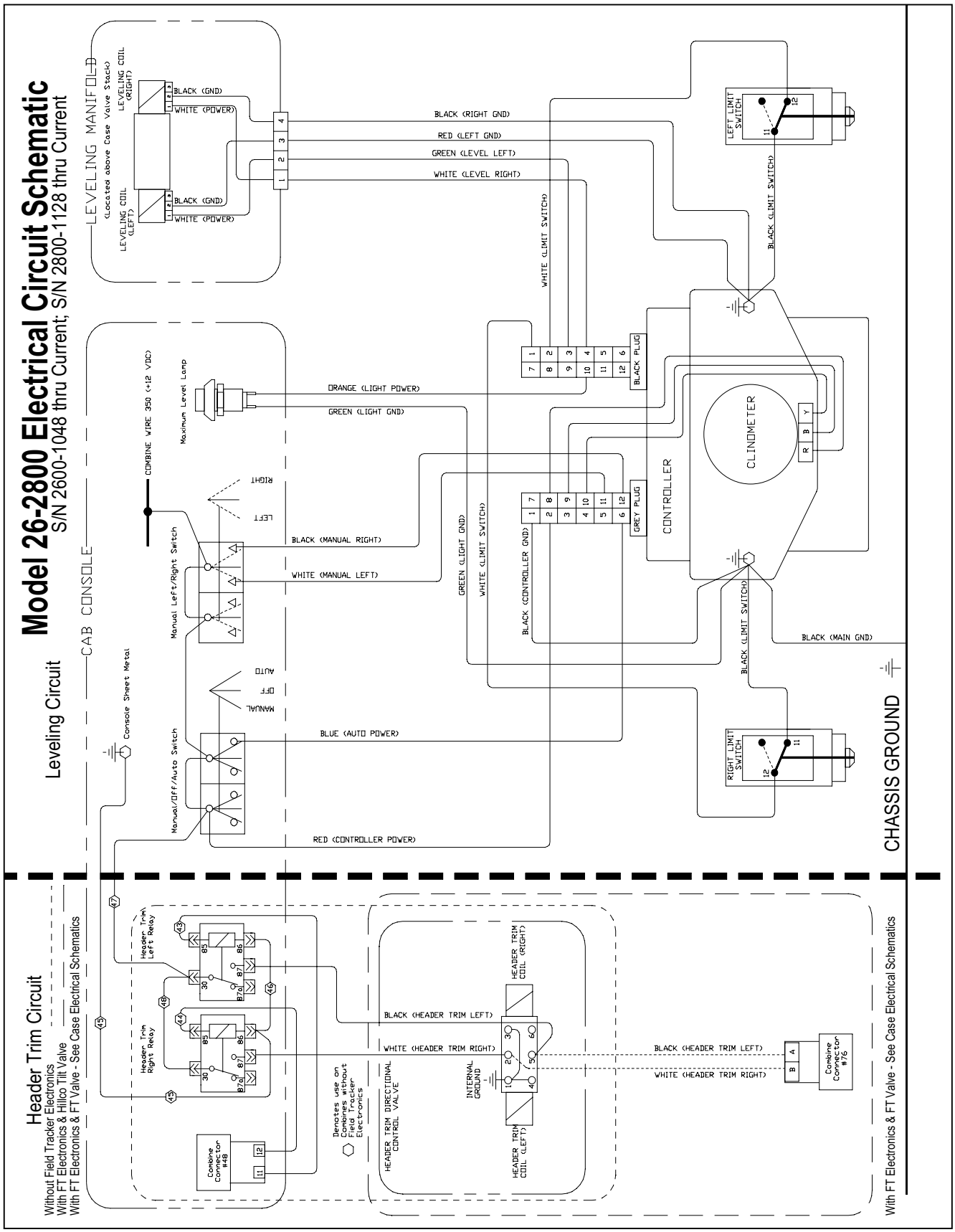
TIRE INFLATION

Keep the tires properly inflated to the pressures shown in the combine's operator's manual for the front and rear tires. Both under-inflation and over-inflation are detrimental to tire life. Don't re-inflate a tire that has been run flat or when there is obvious or suspected damage to the tire or wheel components. Check the tire pressure weekly or after 50 hours of operation.

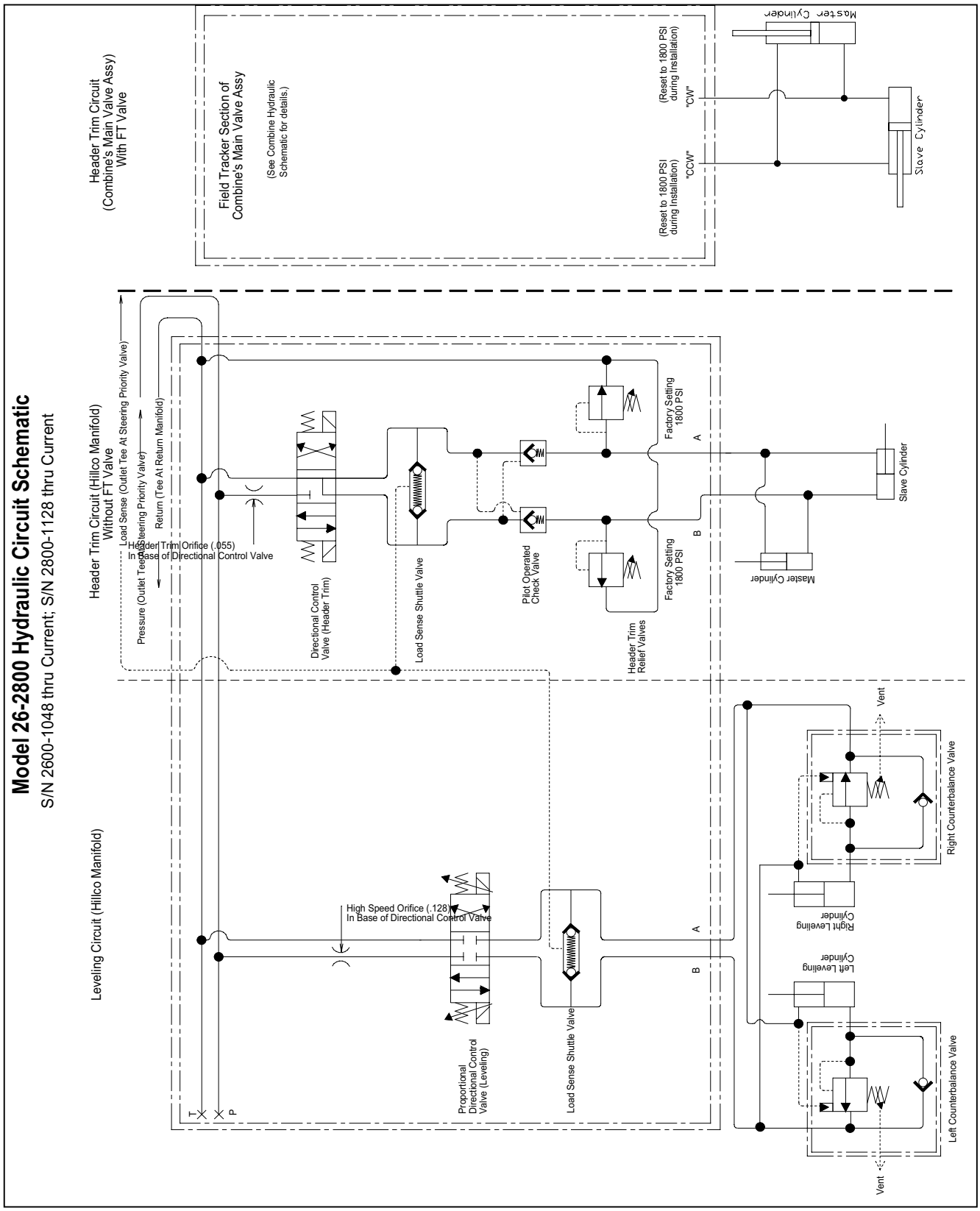
WARNING: *When inflating tires, use a clip on air chuck and extension hose long enough to allow you to stand to one side and NOT in front or over the tire assembly. Use a safety cage if available.*

WARNING: *A tire can explode during inflation and cause serious injury or death. Never increase air pressure beyond 35 PSI to seat the bead on the rim. Replace a tire if it has a defect. Replace a wheel rim, which has cracks, wear or severe rust. Make sure that all the air is removed from a tire before removing the tire from the rim. Never use force on an inflated or partially inflated tire. Make sure the tire is correctly seated before inflating.*

26-2800 ELECTRICAL CIRCUIT SCHEMATIC



26-2800 HYDRAULIC CIRCUIT SCHEMATIC



Notes

Notes