

# SERVICE MANUAL

**H7230 / H7330**

**Discbine<sup>®</sup> Mower-Conditioner**

**Part number 84301177**

English

December 2010

*Replaces part number 87548194*



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## Advice - Safety rules

### Important notice to operators

Your machine may be equipped with special guarding or other devices in compliance with local legislation. Some of the guarding or safety devices require active use by the operator.

Check local legislation on the usage of this machine.

### Accident prevention

Farm accidents can be prevented with your help.

No accident prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

To read accident reports from all over the country is to be convinced that a large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it.

It is said that "The best kind of safety device is a careful operator who with care and mature consideration can save more lives and limbs than any accident prevention program which is not adhered to".

Further in this chapter you will find a list of the most important safety precautions.

Take time to read and follow the instructions and furthermore, be careful!

Some pictures in this manual may show the safety guarding open or removed to better illustrate a particular feature or adjustment.

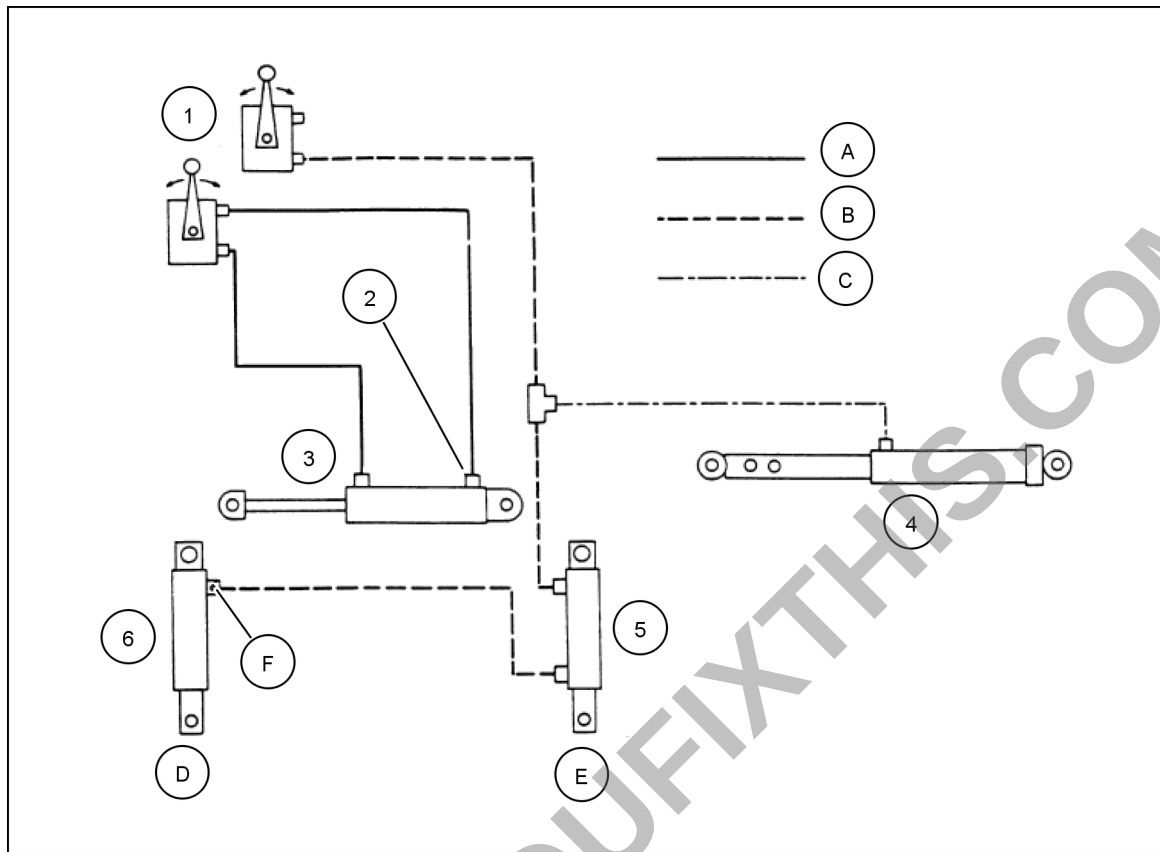
Ensure to close or replace all guards before operating the machine.

### General and operating safety

Most farm machinery accidents can be avoided by the observance of a few simple safety precautions.

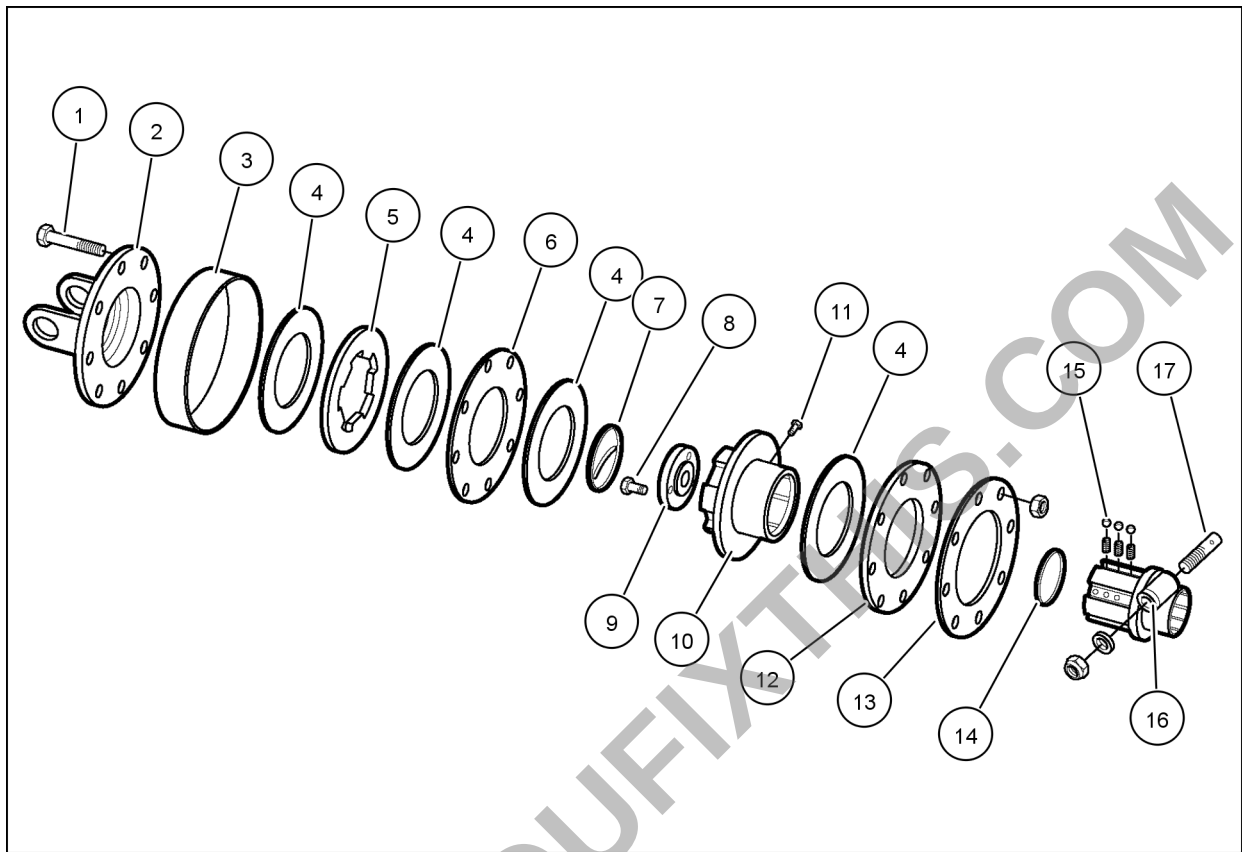
1. The machine must only be used by a skilled operator familiar with all the controls and harvesting techniques on cultivated land with slopes up to maximum **26 % ( 15 ° )** uphill and downhill.
2. Do not permit anyone other than the operator to ride on the machine.
3. Before starting the engine, ensure everyone is clear of the machine.
4. Warn bystanders by sounding the horn several times.
5. Keep children away from and off the machine at all times.
6. When driving on public roads, observe traffic regulations, adapt your speed to road and traffic conditions and ensure that all lights and other safety mechanisms on the machine (if they are required) are fitted and work properly.
7. Ensure the hazard warning signs provided are installed at the front and the rear of the machine and use the rotating amber traffic warning beacon(s) (if equipped) when driving on public roads to indicate the vehicle is of abnormal size and is slow-moving.
8. Do not brake abruptly to avoid tipping of the machine.
9. Do not exceed **20 km/h (12.5 mph)** when driving downhill. If necessary, change into a lower gear before starting the descent.
10. Never travel at high speed in crowded areas.
11. Avoid making turns at high speed.
12. When driving on public roads, always be aware and conscious of its size.
13. Before operating the machine ensure that all safety guards are installed.
14. Check the wheel nuts torque as described in MAINTENANCE.
15. Do not attempt to clean, lubricate or carry out any adjustments on the machine while it is in motion or while the engine is running.

## Cylinder - Hydraulic schema



| Reference | Description    | Reference | Description                     |
|-----------|----------------|-----------|---------------------------------|
| A         | Tongue Shift   | 1         | Tractor Remote Outlets          |
| B         | Header Lift    | 2         | Orifice <b>2 mm (0.0785 in)</b> |
| C         | Header Tilt    | 3         | Shift Cylinder                  |
| D         | Left Side      | 4         | Tilt Cylinder                   |
| E         | Right Side     | 5         | Master Cylinder                 |
| F         | Bleed Air Here | 6         | Slave Cylinder                  |

## Clutch - Exploded view of the slip with overrunning clutch



86065291 1

1. Bolt
2. Flange Yoke
3. Adjustment Band
4. Friction Lining
5. Driving Plate
6. Inner Plate
7. Locking Plate
8. Allen Bolt
9. Overrunning Clutch Plug

10. Overrunning Clutch Housing
11. Grease Fitting
12. Pressure Plate
13. Belleville Spring
14. Snap Ring
15. Key and Spring Kit
16. Hub
17. Tapered Pin

## HYDRAULIC - PNEUMATIC - ELECTRICAL - ELECTRONIC SYSTEMS

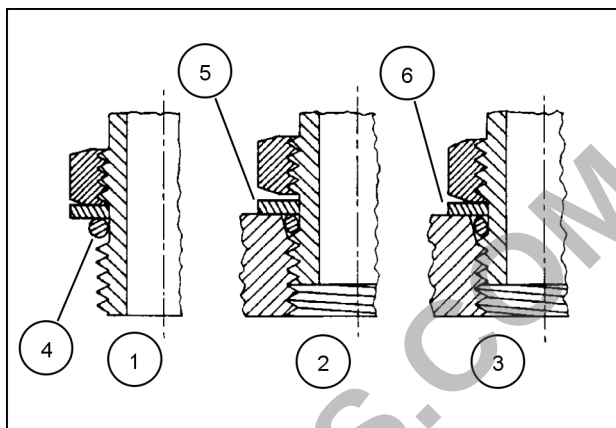
### - Torque - Standard torque data for hydraulics

#### INSTALLATION OF ADJUSTABLE FITTINGS IN STRAIGHT THREAD O RING BOSSES

1. Lubricate the O-ring by coating it with a light oil or petroleum. Install the O-ring in the groove adjacent to the metal backup washer which is assembled at the extreme end of the groove (4).
2. Install the fitting into the SAE straight thread boss until the metal backup washer contacts the face of the boss (5).

**NOTE:** Do not over tighten and distort the metal backup washer.

3. Position the fitting by turning out (counterclockwise) up to a maximum of one turn. Holding the pad of the fitting with a wrench, tighten the locknut and washer against the face of the boss (6).



#### STANDARD TORQUE DATA FOR HYDRAULIC TUBES AND FITTINGS

| TUBE NUTS FOR 37° FLARED FITTINGS |                    |             |                                 | O-RING BOSS PLUGS<br>ADJUSTABLE FITTING<br>LOCKNUTS, SWIVEL<br>JIC- 37° SEATS |
|-----------------------------------|--------------------|-------------|---------------------------------|-------------------------------------------------------------------------------|
| SIZE                              | TUBING OD          | THREAD SIZE | TORQUE                          | TORQUE                                                                        |
| 4                                 | 6.4 mm (1/4 in)    | 7/16-20     | 12 - 16 N·m (9 - 12 lb ft)      | 8 - 14 N·m (6 - 10 lb ft)                                                     |
| 5                                 | 7.9 mm (5/16 in)   | 1/2-20      | 16 - 20 N·m (12 - 15 lb ft)     | 14 - 20 N·m (10 - 15 lb ft)                                                   |
| 6                                 | 9.5 mm (3/8 in)    | 9/16-18     | 29 - 33 N·m (21 - 24 lb ft)     | 20 - 27 N·m (15 - 20 lb ft)                                                   |
| 8                                 | 12.7 mm (1/2 in)   | 3/4-16      | 47 - 54 N·m (35 - 40 lb ft)     | 34 - 41 N·m (25 - 30 lb ft)                                                   |
| 10                                | 15.9 mm (5/8 in)   | 7/8-14      | 72 - 79 N·m (53 - 58 lb ft)     | 47 - 54 N·m (35 - 40 lb ft)                                                   |
| 12                                | 19.1 mm (3/4 in)   | 1-1/16-12   | 104 - 111 N·m (77 - 82 lb ft)   | 81 - 95 N·m (60 - 70 lb ft)                                                   |
| 14                                | 22.2 mm (7/8 in)   | 1-3/16-12   | 122 - 136 N·m (90 - 100 lb ft)  | 95 - 109 N·m (70 - 80 lb ft)                                                  |
| 16                                | 25.4 mm (1 in)     | 1-5/16-12   | 149 - 163 N·m (110 - 120 lb ft) | 108 - 122 N·m (80 - 90 lb ft)                                                 |
| 20                                | 31.8 mm (1-1/4 in) | 1-5/8-12    | 190 - 204 N·m (140 - 150 lb ft) | 129 - 158 N·m (95 - 115 lb ft)                                                |
| 24                                | 38.1 mm (1-1/2 in) | 1-7/8-12    | 217 - 237 N·m (160 - 175 lb ft) | 163 - 190 N·m (120 - 140 lb ft)                                               |
| 32                                | 50.8 mm (2 in)     | 2-1/2-12    | 305 - 325 N·m (225 - 240 lb ft) | 339 - 407 N·m (250 - 300 lb ft)                                               |

These torques are not recommended for tubes of 12.7 mm (1/2 in) OD and larger with wall thickness of 0.889 mm (0.035 in) or less. The torque is specified for 0.889 mm (0.035 in) wall tubes on each application individually.

Before installing and torquing 37° flared fittings, clean the face of the flare and threads with a clean solvent or Loctite cleaner and apply hydraulic sealant **LOCTITE® 569** to the 37° flare and the threads.

Install fitting and torque to specified torque, loosen fitting and retorque to specifications.

## CUTTING Rotary disc cutting - Troubleshooting for Roll Units

| Problem                                                                                                                                | Possible Cause                                                          | Correction                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Leaves damaged or stripped off stems.                                                                                                  | Too much pressure on the rolls.                                         | Reduce the pressure until the leaves are not damaged.                                        |
| Leaving ragged or long stubble.                                                                                                        | Ground speed too fast.                                                  | Reduce the ground speed.                                                                     |
|                                                                                                                                        | Dull, bent, or broken knives.                                           | Turn over or replace the knives.                                                             |
|                                                                                                                                        | Knives installed on wrong discs.                                        | Install knives on correct discs.                                                             |
|                                                                                                                                        | PTO speed too slow.                                                     | Maintain RPM on the tractor PTO. (Do not overspeed.)                                         |
|                                                                                                                                        | Cutting too high.                                                       | Remove high stubble kit, if installed. Increase header tilt.                                 |
| Excessive breakage of the knives.                                                                                                      | Header flotation too light.                                             | Adjust flotation springs to increase header flotation weight.                                |
|                                                                                                                                        | Cutting too low in stony conditions.                                    | Raise the cutting height with header tilt. Install high stubble kit.                         |
|                                                                                                                                        | Header flotation too heavy for stony fields.                            | Adjust the flotation springs to float the header with <b>45 kg (100 lb)</b> force, per side. |
| Not cutting short enough in down material.                                                                                             | Ground speed too high in stony conditions.                              | Reduce ground speed.                                                                         |
|                                                                                                                                        | Ground speed too fast.                                                  | Reduce ground speed.                                                                         |
|                                                                                                                                        | Broken, bent, or dull knives.                                           | Replace the knives or turn over the knives.                                                  |
|                                                                                                                                        | Cutting height too high.                                                | Lower the cutting height by tilting the header.                                              |
| Strip of run-down, uncut material.                                                                                                     | Tractor PTO speed too slow.                                             | Maintain tractor PTO RPM. (Do not overspeed.)                                                |
|                                                                                                                                        | Ground speed too fast.                                                  | Use slower ground speed.                                                                     |
|                                                                                                                                        | Crowding of the uncut material.                                         | Do not crowd the uncut material.                                                             |
|                                                                                                                                        | Missing or dull knives.                                                 | Replace or turn over the knives.                                                             |
| Forming poor or bunchy windrow                                                                                                         | Material buildup on cutter bar.                                         | Clean off cutter bar. Tilt cutter bar back towards horizontal to reduce material buildup.    |
|                                                                                                                                        | Tractor PTO speed too slow.                                             | Maintain RPM on the tractor PTO. (Do not overspeed.)                                         |
|                                                                                                                                        | Incorrect swath gate adjustment.                                        | Adjust the swath gate to even discharge flow.                                                |
| Pulling material out of the ground when cutting back swath or tall material is leaning into the machine. Excessive power requirements. | Incorrect windrow shield adjustment.                                    | Adjust the windrow shields.                                                                  |
|                                                                                                                                        | Excessive roll pressure.                                                | Reduce roll pressure or increase roll clearance.                                             |
| Material being discharged out of the left side of the machine.                                                                         | Ground speed too slow.                                                  | Use faster ground speed.                                                                     |
|                                                                                                                                        | Cutter bar not taking a full cut; #1 disc not running in standing crop. | Shift unit right into standing crop to take full cut.                                        |
| Soil buildup on front of cutter bar.                                                                                                   | Inner left side curtain worn or damaged.                                | Replace inner left side curtain.                                                             |
|                                                                                                                                        | Very wet crop conditions.                                               | Adjust flotation springs to reduce header flotation weight.                                  |
|                                                                                                                                        |                                                                         | Raise the cutting height with header tilt.                                                   |
|                                                                                                                                        |                                                                         | Install high stubble kit.                                                                    |

## CUTTING Rotary disc cutting - Troubleshooting for Flail Units

| Problem                               | Possible Cause     | Correction                                        |
|---------------------------------------|--------------------|---------------------------------------------------|
| Leaves damaged or stripped off stems. | Over conditioning. | Raise rotor hood. Slow speed rotor. Smooth liner. |

## General specification

### Conditioner Roll Units Only

|                                           |                                                                                                                |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Overall Width</b>                      |                                                                                                                |
| <b>Standard Tongue and Drawbar Swivel</b> |                                                                                                                |
| Transport position                        | 3429 mm ( 11 ft 3 in)                                                                                          |
| Field position                            | 4877 mm ( 16 ft 0 in)                                                                                          |
| <b>2 pt Swivel</b>                        |                                                                                                                |
| Transport position                        | 3429 mm ( 11 ft 3 in)                                                                                          |
| Field position                            | 5360 mm ( 17 ft 7 in)                                                                                          |
| <b>Overall Length</b>                     |                                                                                                                |
| <b>Standard Tongue</b>                    |                                                                                                                |
| Transport position                        | 5131 mm ( 16 ft 10 in)                                                                                         |
| Field position                            | 4750 mm ( 15 ft 7 in)                                                                                          |
| <b>Swivel Tongue with Drawbar Hitch</b>   |                                                                                                                |
| Transport Position                        | 5715 mm ( 18 ft 9 in)                                                                                          |
| Field Position                            | 5334 mm ( 17 ft 6 in)                                                                                          |
| <b>Swivel Tongue with 2 pt Hitch</b>      |                                                                                                                |
| Transport Position                        | 5740 mm ( 18 ft 10 in)                                                                                         |
| Field Position                            | 5360 mm ( 17 ft 7 in)                                                                                          |
| <b>Height</b>                             |                                                                                                                |
| Transport position                        | 1600 mm ( 5 ft 3 in)                                                                                           |
| Cutting position                          | 1346 mm ( 4 ft 5 in)                                                                                           |
| Ground Clearance (transport)              | 457 mm (18 in)                                                                                                 |
| <b>Wheel Tread Width</b>                  | 2643 mm ( 8 ft 8 in)                                                                                           |
| <b>Weight</b>                             |                                                                                                                |
| Standard Tongue                           | 1864 kg (4100 lb)                                                                                              |
| Swivel Tongue                             | 1928 kg (4250 lb)                                                                                              |
| <b>Driveline</b>                          |                                                                                                                |
| Tractor Requirement                       | 60 kW (80 Hp) Minimum with two remote circuits with minimum of 1043 kPa or 103 bar (1500 psi) relief pressure  |
| Input Speed                               | 540 RPM or 1000 RPM Standard Tongue                                                                            |
|                                           | 540 RPM only for Swivel Tongue                                                                                 |
| Drive Protection                          | Main driveline - slip clutch with overrunning clutch, conditioner roll drive - V belt with spring loaded idler |
| <b>Header</b>                             |                                                                                                                |
| Cutting Width                             | 3160 mm ( 10 ft 4 in)                                                                                          |
| Flotation                                 | Vertical and radial                                                                                            |
| Windrow Width                             | 914 - 2134 mm (36 - 84 in)                                                                                     |
| Header Lift                               | Hydraulic (master-slave system)                                                                                |

**Roll Conditioning units only**

| DESCRIPTION                           | After First 8 Hours | After First 50 Hours | Every 8 Hours or Daily | Every 50 Hours | Every 100 Hours | Every 200 Hours | Every 500 Hours or Yearly |
|---------------------------------------|---------------------|----------------------|------------------------|----------------|-----------------|-----------------|---------------------------|
| PTO Slide Collar                      | X                   |                      |                        | X              |                 |                 |                           |
| Primary PTO Universal Joints          | X                   |                      | X                      | X              |                 |                 |                           |
| Primary PTO Sliding Shaft             | X                   |                      |                        | X              |                 |                 |                           |
| Secondary PTO Sliding Shaft           | X                   |                      |                        | X              |                 |                 |                           |
| Secondary PTO Universal Joint         |                     |                      |                        | X              |                 |                 |                           |
| Slip Clutch / Overrunning Clutch      | X                   |                      |                        | X              |                 |                 |                           |
| Roll Drive Shafts                     | X                   |                      | X                      |                |                 |                 |                           |
| Cutter Bar Drive Shaft                | X                   |                      | X                      |                |                 |                 |                           |
| Conditioner Bearings                  | X                   |                      | X                      |                |                 |                 |                           |
| Wheel Arms                            | X                   |                      | X                      |                |                 |                 |                           |
| Header Lift Arms                      | X                   |                      | X                      |                |                 |                 |                           |
| Tongue Pivot Pin                      | X                   |                      | X                      |                |                 |                 |                           |
| Cutter Bar Mounting Bolts             | X                   |                      | X                      |                |                 |                 |                           |
| Roll Pressure Crank                   | X                   | X                    |                        |                | X               |                 |                           |
| Wheel Bearings                        |                     | X                    |                        |                |                 |                 | X                         |
| Check Oil Level in Bevel Gearbox      |                     | X                    |                        | X              |                 |                 |                           |
| Change Oil in Bevel Gearbox           |                     | X                    |                        |                |                 | X               |                           |
| Check Oil Level in Roll Drive Gearbox |                     | X                    |                        | X              |                 |                 |                           |
| Change Oil in Roll Drive Gearbox      |                     | X                    |                        |                |                 | X               |                           |
| Check Oil Level in Cutter Bar Modules |                     | X                    |                        | X              |                 |                 |                           |
| Change Oil in Cutter Bar Modules      |                     | X                    |                        |                |                 | X               |                           |
| Check Oil Level in Step-up Gearbox    |                     | X                    |                        | X              |                 |                 |                           |
| Change Oil in Step-up Gearbox         |                     | X                    |                        |                |                 | X               |                           |
| Check Oil Level in Swivel Gearboxes   |                     | X                    |                        | X              |                 |                 |                           |
| Change Oil in Swivel Gearboxes        |                     | X                    |                        |                |                 | X               |                           |

**NOTE:** The machine must be checked daily for oil leaks. Any leak must be fixed immediately.

**NOTE:** Clean the area around all plugs and grease fittings prior to removing or greasing.

**NOTE:** All oil levels are checked with the cutter bar level both from front to back and side to side.

## Grease Fittings

Grease fittings are identified in the following figures.

Recommended lubrication intervals are listed after each description.

**NOTE:** Lithium-based EP high temperature grease must be used at all grease points.

## GEARBOXES

Oil for the gearboxes and cutter bar modules are available from your authorized dealer.

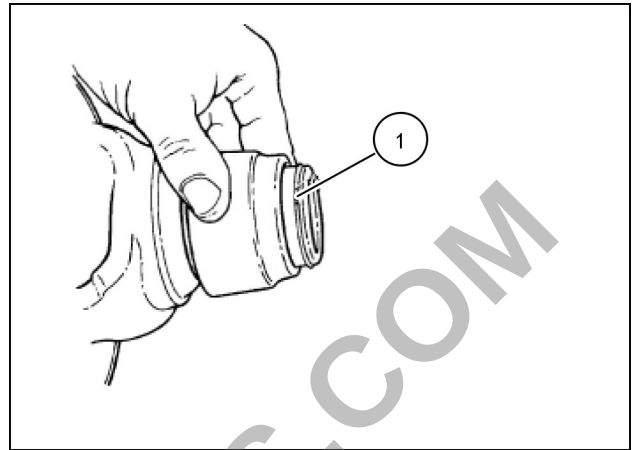
Maintain oil level using **NEW HOLLAND AMBRA HYPOIDE 90 GEAR LUBE** or **NEW HOLLAND AMBRA HYPOIDE SSL GEAR LUBE**.

**NOTE:** Failure to use the correct specification of oil may lead to premature failure of the gearbox components.

**NOTICE:** The oil in all gearboxes must be changed after the first 50 hours of use to remove any contaminants from the break-in process.

## PTO POWER IN - Disassemble slide lock

1. Pull back the collar to expose the retaining ring. Use a screwdriver or spring pick to remove the retaining ring from the barrel.

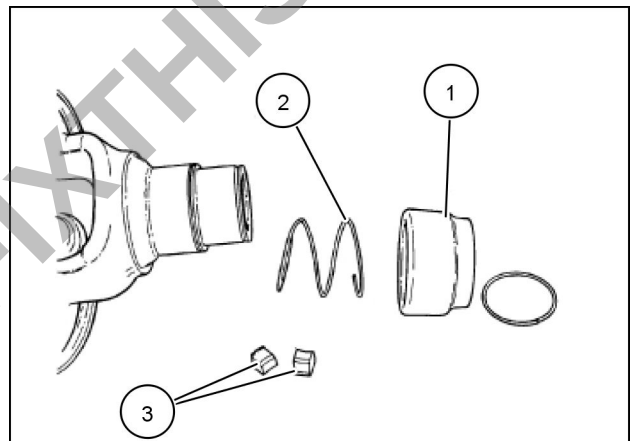


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2. Slide the collar (1) off of the yoke, and remove the spring (2).

**NOTE:** The spring is an interference fit, and will have to be worked off the yoke.

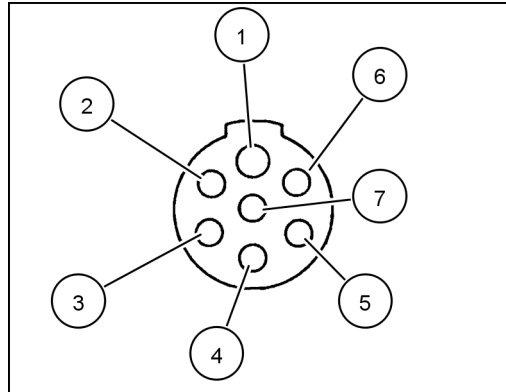
3. Remove the pawls (3) by reaching into the yoke bore and pushing the pawls outwards, so that they can be grabbed and removed.
4. Clean the bore and pawl holes. Replace the yoke if damage or excessive wear is found.



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## INSTALLING THE SOCKET

Use the tractor wiring diagram or, if necessary, use a test light to identify the tractor wires. Connect the wires to the socket as follows:



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| Pin | Connector ID | Attached To             |
|-----|--------------|-------------------------|
| (1) | White (WHT)  | Ground wire, all lights |
| (2) | Black (BLK)  | Not used/work lights    |
| (3) | Yellow (YEL) | Left side amber light   |
| (4) | Red (RED)    | Brake lights            |
| (5) | Green (GRN)  | Right side amber light  |
| (6) | Brown (BRN)  | Taillights              |
| (7) | Blue (BLU)   | Not used/auxiliary      |

**NOTE:** On some tractors the wire color will not agree with this chart.

Standard SAE J560 provides that the number 4 conductor socket of the propelling vehicle be connected to the brake light circuit so that the brake lights activate when the brake pedal is depressed.

Most newer model tractors are wired to provide the brake light signal through the number 4 pin in the connector socket. Older model tractors do not provide this capability. On these tractors, the brake lights on trailing implements will not function; however, hazard, turn, and tail lamps will function.

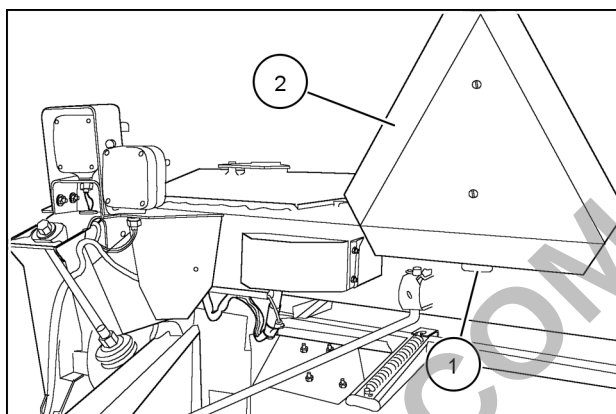
**NOTE:** On some competitive tractors, the number 4 pin in the socket is utilized for other functions. Therefore, this circuitry may be on all the time or any time the key switch is on. This will cause the trailing implement brake lights to be on all the time.

## TRANSPORTING THE MOWER-CONDITIONER

### SLOW-MOVING VEHICLE EMBLEM

Some states and provinces require Slow-Moving Vehicle (SMV) emblems on machines traveling at speeds under **40 km/h (25 mph)**. Consult local regulations for information and mounting requirements.

A SMV mounting bracket **(1)** is located on the left rear frame. The SMV emblem **(2)** and mounting bracket are furnished as standard equipment on the mower-conditioner. Attach the emblem as shown.



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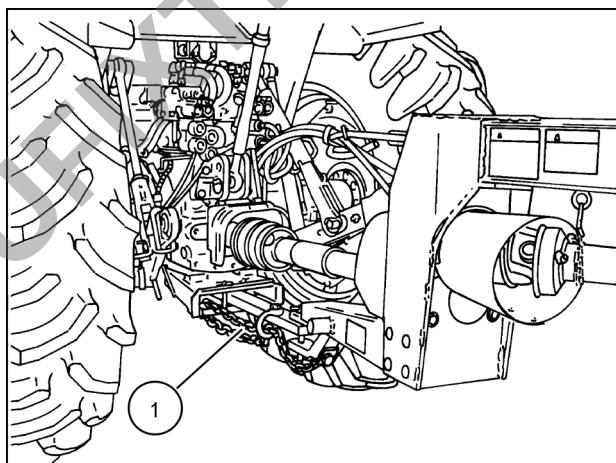
### TRANSPORTING ON HIGHWAYS

Do not tow equipment that does not have brakes:

- At speeds over **32 km/h (20 mph)** or
- That when fully loaded, weighs more than **1.5 t (3300 lb)** and more than 1.5 times the weight of the towing unit.

### SAFETY CHAIN

The safety chain **(1)** shown should be used when towing the mower-conditioner on a public road. The safety chain is intended to keep the machine under control in the event of loss or failure of the hitch pin.



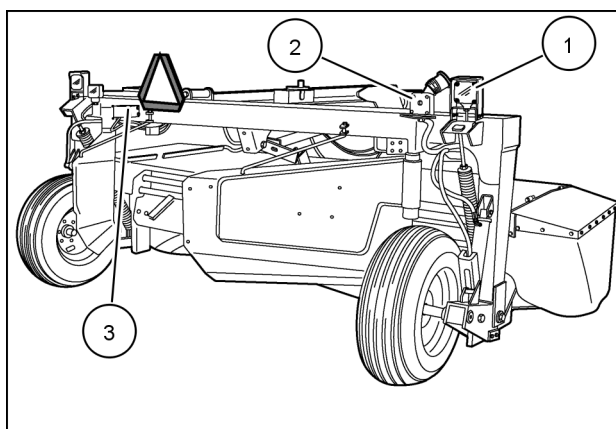
1411-01 9

### TRAILING LIGHTS

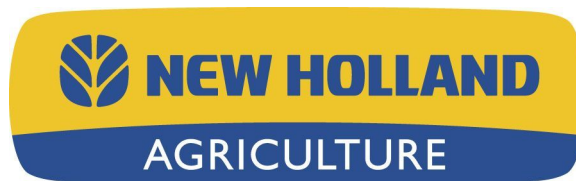
The trailing lights, as shown, should be used when towing the mower-conditioner on a public road.

The trailing lights consist of two red tail/brake lights **(1)**, two amber flashing lights **(2)** and a lighting control box **(3)** that controls the signals from the tractor to the mower-conditioner and connecting wire harnesses.

This lighting system is intended to improve the machine visibility on public roads. This machine is equipped with a lighting system which conforms to ASAE S279.10.



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## INTRODUCTION

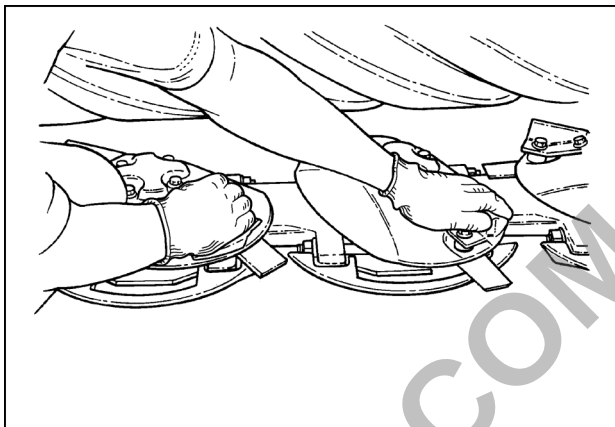
PREVIEW - YOUFIXTHIS.COM

**CAUTION**

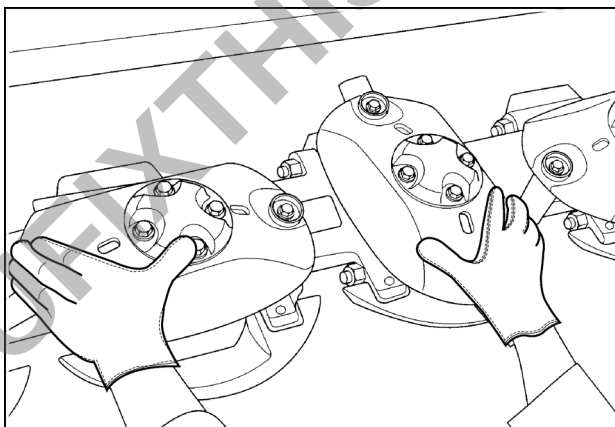
**Sharp object! Wear gloves when handling worn discs. Failure to comply could result in minor or moderate injury.**

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- Starting at the left end of the cutter bar, grab both the #1 and #2 discs, and slowly rotate both discs while applying pressure to one of the discs against the direction of rotation. If one disc suddenly moves, it may indicate damage to the gear teeth in that module. Excessive free play between discs, or if one disc may be turned freely without the other disc moving, may indicate excessive wear or failure of the intermodule shaft. Some rotational free play [ **5 mm (3/16 in)**] between adjacent discs is normal, as a result of the backlash in both gear sets.
- Check all disc modules by working across the cutter bar, checking each disc to the next disc. If a problem is discovered, contact your authorized dealer for repair assistance.

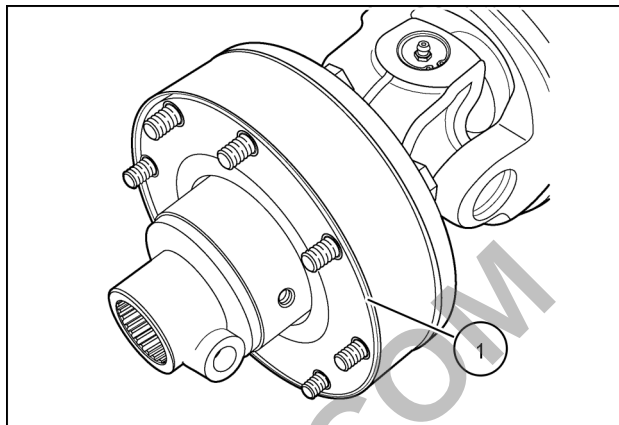
**Roll Conditioning**

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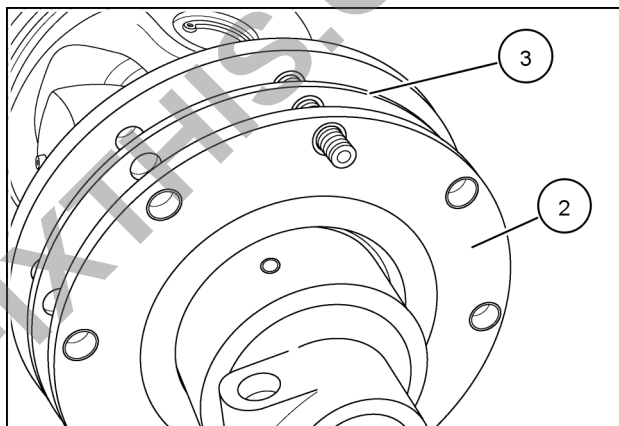
**Flail Conditioning**

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5. Remove the adjustment band (1) pressure plate (2) and friction lining (3).

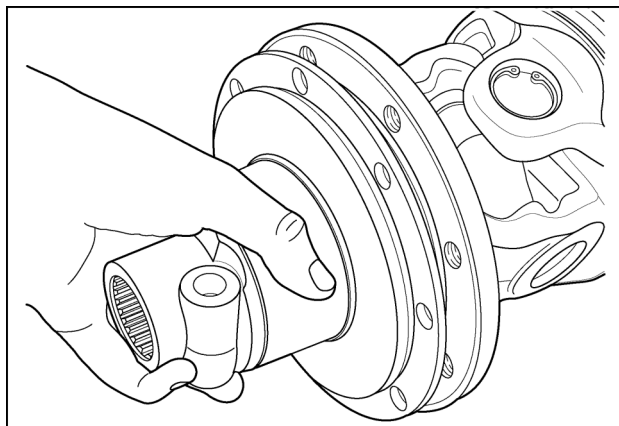


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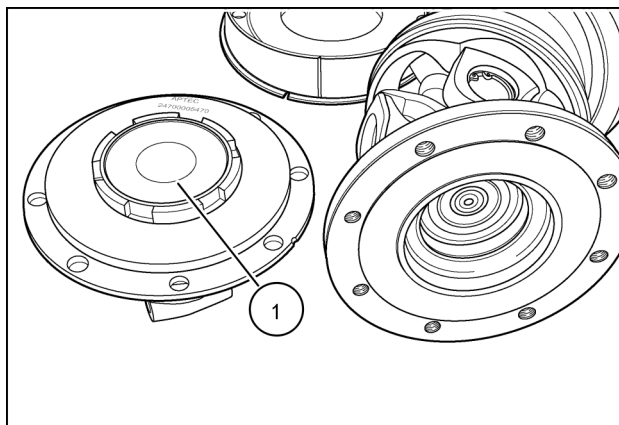
86065290 5

6. Grab hold of the overrunning clutch housing with hub, rotate clockwise, and counterclockwise swiftly to work loose. Remove.



86065274 6

7. With the hub facing down, remove the friction linings, inner plate, and driving plate. Keep in order.



86065275 7

## Gearbox - Remove swivel gearbox



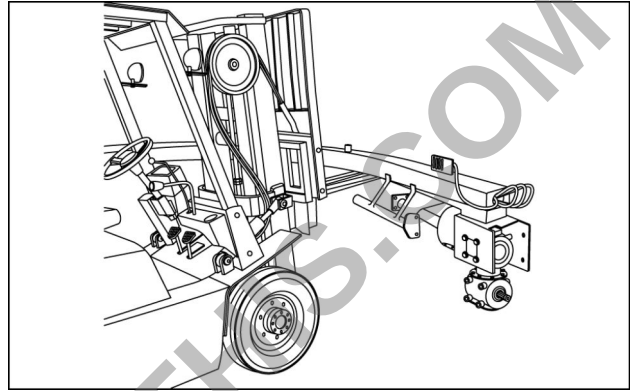
### WARNING



**Heavy object! Death or serious injury could result. ALWAYS use adequate lifting equipment (heavy-duty hoist, loader, or forklift) to lift the component.**

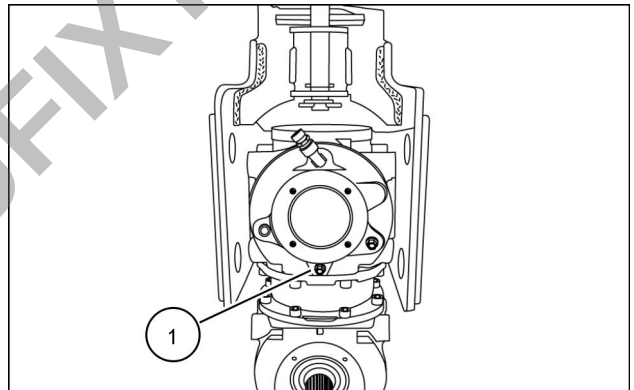
M1782

1. Support the swivel tongue with a suitable lifting device or forklift. If the swivel tongue is equipped with a drawbar hitch, use the jack stand to support the tongue.
2. Remove the hitch option (2 pt or drawbar), not shown, from the swivel gearbox.



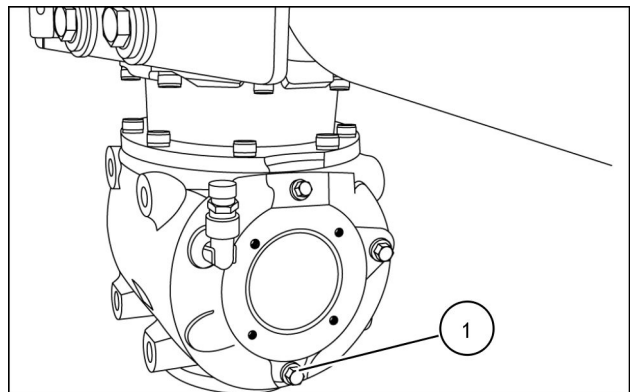
93098052 1

3. Place a suitable drain pan under the swivel gearbox and remove the drain plug (1) to empty the upper gearbox.



930900472 2

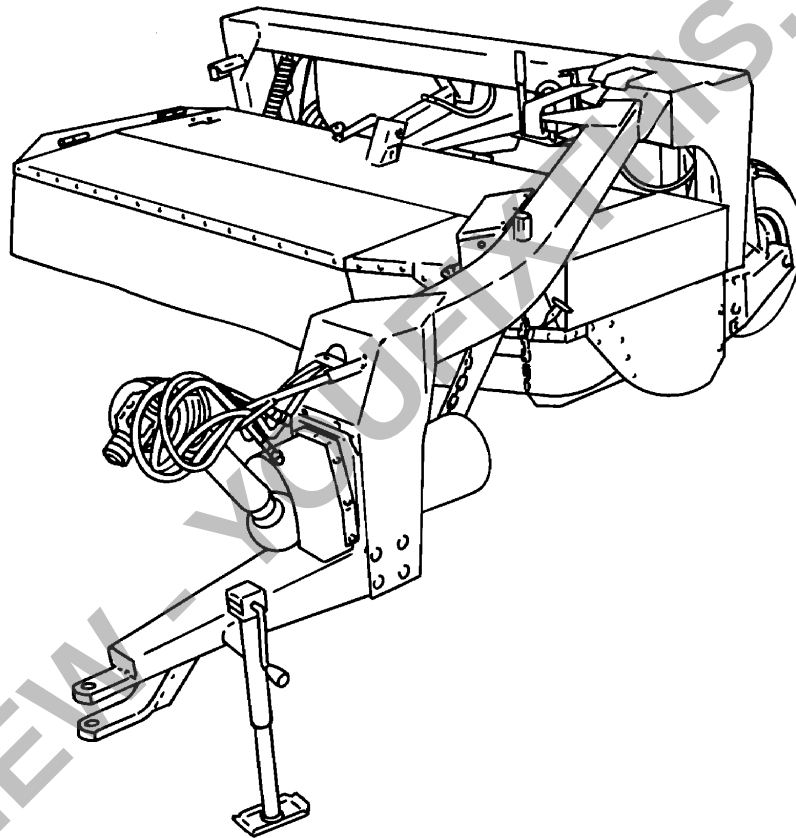
4. Place a suitable drain pan under the swivel gearbox and remove the drain plug (1) and empty the lower gearbox.



930900473 3

# SERVICE MANUAL

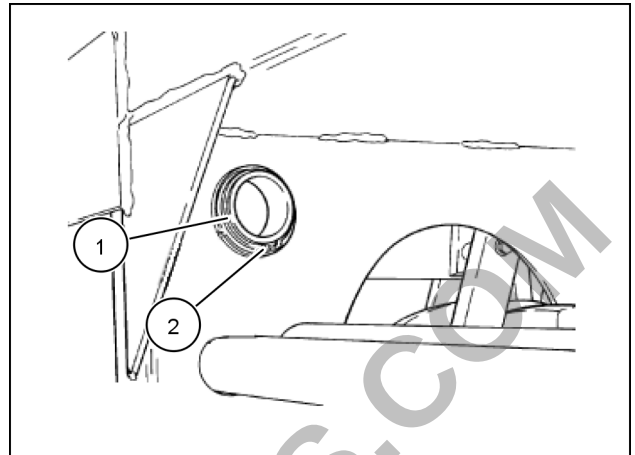
## CROP PROCESSING



**H7230**  
**H7330**

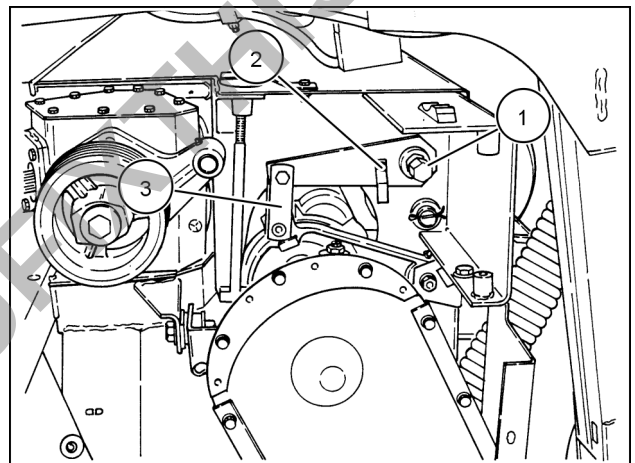
## Tension system - Assemble left side torsion arm and bar

1. Install a new bushing in the header frame by driving it in flush with the tube. Apply permanent lubricant to the bushing inner surface and the tension arm shaft, and insert the tension arm through the frame. Retain with a washer (1) and snap ring (2).



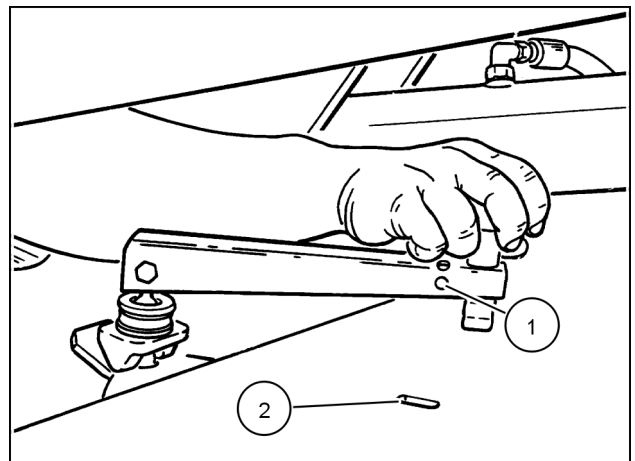
1431-7-28 1

2. Apply a permanent lubricant to the hex bores of the adjusting tube and the tension arm (1). Apply permanent lubricant to the ends of the torsion bar, and slide it through the tension arm until the inner end engages in the adjusting tube.
3. Continue to slide the torsion bar in until it is fully seated in the tension arm. Swing the retaining clip (2) up over the end of the torsion bar and tighten the cap screw. Lift the tension arm up until the tension straps (3) are aligned with the bushing in the upper roll pivot arm. Install the cap screw and tighten securely.



A5044-16 2

4. Adjust the roll tension to a starting point by rotating the adjusting handle (1) clockwise until all slack is taken up, and then apply eight additional turns. Reengage the retaining clip in the notch (2) in the header frame.



3658-3 3

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