

Operator's Manual

Challenger[®]

Rotary Disc Mower

1373

1376

North America
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Original Operator's Manual

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English

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1.1.6 This manual

This manual covers general safety practices for this machine. The operator manual must always be kept with the machine.

Right-hand and left-hand, as used in this manual, are determined by facing the direction the machine will travel when in use.

The photos, illustrations, and data used in this manual were current at the time of printing, but due to possible in-line production changes, your machine can vary slightly in detail. The manufacturer reserves the right to redesign and change the machine as necessary without notification.



WARNING:

In some of the illustrations and photos used in this manual, shields or guards may have been removed for clarity. Never operate the machine with any shields or guards removed. If the removal of shields or guards is necessary to make a repair, they must be replaced before operation.

The Operator Manual is stored in the holder on the machine. After using the Operator Manual, return the manual to the storage location.

1.1.6.1 Operator manual holder

The operator manual holder (1) holds the operator manual.

After you use the operator manual, put the operator manual back into the operator manual holder.

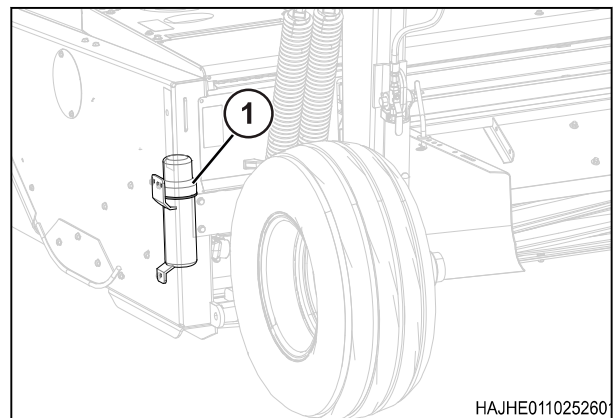


Fig. 4

1.4.5 Tire safety

Examine the tires for cuts, bulges, and correct pressure. Replace tires with too much wear and damaged tires. When tire servicing is necessary, have an approved tire mechanic do the servicing on the tire. Tire replacement can be very dangerous and must be completed by an approved tire mechanic with the correct tools and equipment.

Tire explosion and injury or death can be a result of too much tire inflation. Do not put too much air pressure in the tires.

Do not inflate a tire that is seriously under inflated or has been used while flat. Have the tire examined by an approved tire mechanic.

Do not weld on the rim when a tire is installed. Welding will make an air/gas mixture that can cause an explosion and burn with high temperatures. This danger applies to all tires, inflated or deflated. Deflating the tire or breaking the bead is not sufficient. The tire must be fully removed from the rim before welding.

Related Links

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Fig. 25

1.4.6 Weld on the machine precautions

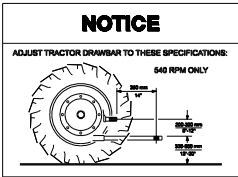
Before you weld on the machine:

- Disconnect battery terminals and put them out of the way.
- Disconnect all controllers and monitors.
- Connect the welding ground as close as possible to the weld area.


If you do not disconnect the electrical components, the component can be damaged.

When you connect the electrical connections, connect the battery cables last.

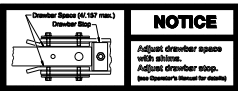
1.6.13 Drawbar hitch

Drawbar hitch	
 <p style="text-align: center;">HAJHE011047970</p>	<p>Adjust the tractor drawbar to these specifications.</p> <p>Read the Operator Manual for safety information and operation instructions before machine operation.</p>

1.6.14 Oil notice

Oil notice	
 <p style="text-align: center;">HAJHE011047980</p>	<p>Contaminated oil from initial break-in will cause accelerated wear of cutterbed drive components. Change oil after first 40 hours of operation. Change oil again at 100 hour intervals up to 240 hours of operation.</p> <p>Thereafter, change oil in cutterbed every 250 hours of operation, or at the beginning of each season, whichever comes first.</p> <p>Do not overfill cutterbed. Excess oil will cause failure of cutterbed due to overheating.</p> <p>Read the Operator Manual for safety information and operation instructions before machine operation.</p>

1.6.15 Drawbar notice

Drawbar notice	
 <p style="text-align: center;">HAJHE011047990</p>	<p>Adjust the drawbar space with shims.</p> <p>Read the Operator Manual for safety information and operation instructions before machine operation.</p>

The forming shield can be adjusted to make the windrow wider in heavy crop or narrower in light crop. These adjustments give maximum air flow through the windrow for fast crop drying.

2.3.5 Component access

To open a drive shield (1), lift all the way up on the handle (2) and push the drive shield forward.

To close a drive shield, pull rearward on the handle and lower all the way down. Make sure the drive shield's lower lip is behind the support channel.

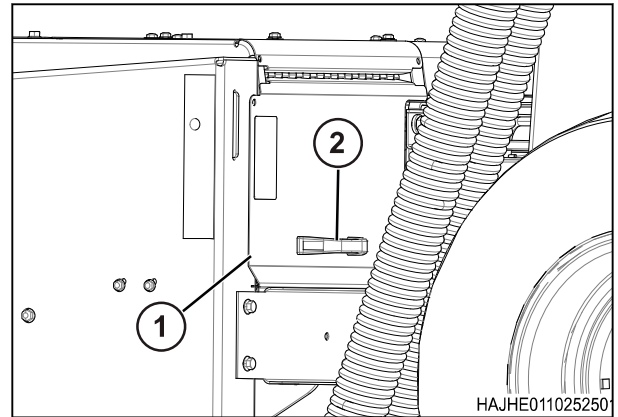


Fig. 4

To open a cutterbed cover (1), lift the cover all the way up. Make sure the cover support (2) engages the notch (3) in the center section.

To close a cutterbed cover, lift the cutterbed cover slightly. Lift the cover support out of the notch in the center cover and lower the cutterbed cover. Make sure the cutterbed cover is all the way down and the curtains held closed by the magnets.

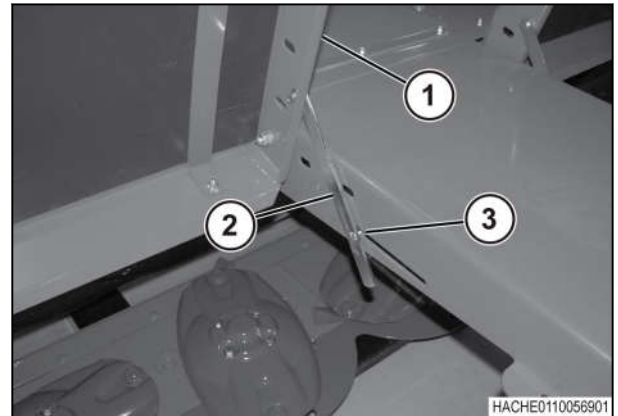


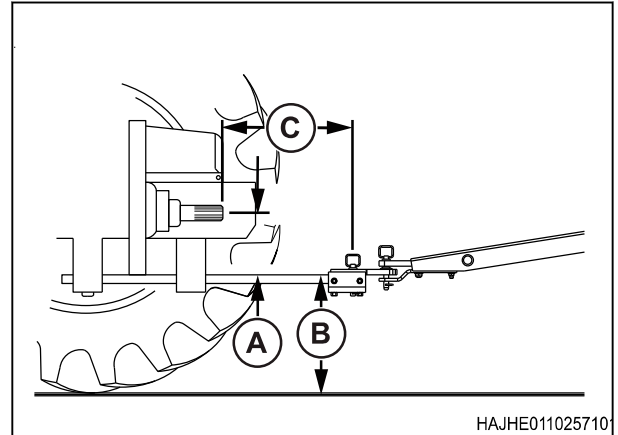
Fig. 5

3.2 Tractor connection

3.2.1 Connect the side pull hitch

Procedure

1. Set the top of the tractor drawbar at a distance (A) of 200 mm to 300 mm below the center of the power take-off (PTO) shaft.
2. Set the top of the tractor drawbar at a distance (B) of 330 mm to 500 mm above the ground.
3. Set the center of the hitch pin hole a distance (C) of 350 mm behind the end of the PTO shaft.



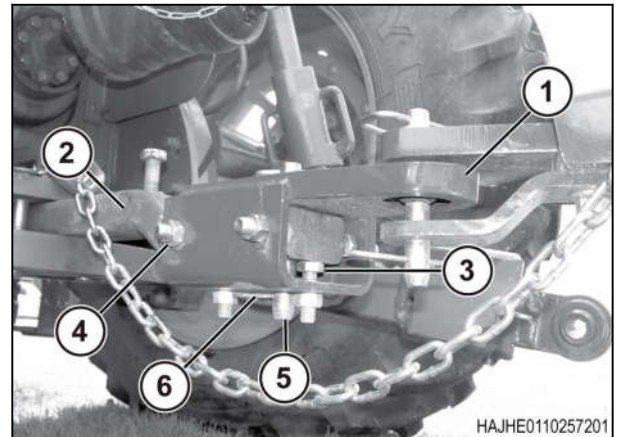
HAJHE011025710

Fig. 1

4. Put a drawbar extension (1) on the tractor drawbar (2).

The drawbar extension has threaded holes for bolts (3) with jam nuts (4). The bolts and jam nuts remove play between the drawbar and the drawbar extension.

5. Insert a hitch pin (5) through the drawbar extension and the tractor drawbar.
6. Put a hairpin (6) through the hole in the hitch pin to hold the hitch pin in location.
7. Loosen the jam nuts.
8. Adjust the bolts on the left side and the right side to center the drawbar extension on the drawbar. Adjust the two bolts on the bottom to remove vertical play.
9. When the bolts are in the correct position, tighten the jam nuts.



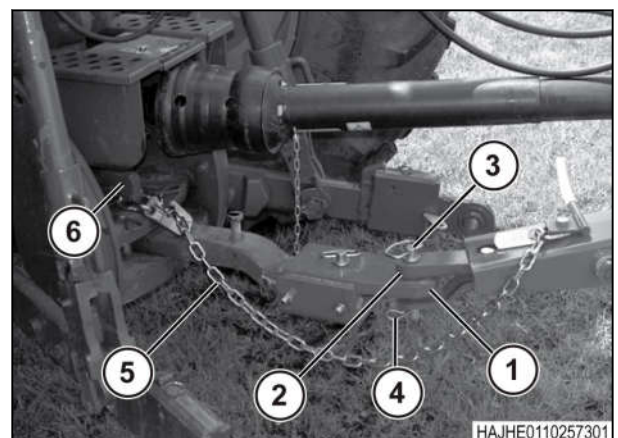
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Fig. 2

NOTE: Do not operate the machine without the drawbar extension. If you operate the machine without the drawbar extension, the constant velocity (CV) joints of the implement driveline (IDL) will be damaged.

10. Back the tractor and align the hole in the drawbar extension (1) with the holes in the clevis (2).
11. Put the hitch pin (3) through the holes in the clevis and in the drawbar extension.
12. Put a hairpin (4) through the hole in the hitch pin.
13. Put the safety transport chain (5) in position. Put the front end of the safety transport chain around the tractor drawbar support structure (6).

Make sure the safety transport chain cannot come loose accidentally.



HAJHE0110257301

Fig. 3

3.4.4 Hay drying time

The following recommendations can reduce the amount of time required to dry hay cut with this header. You must determine the best procedure for your specific crop.

Put the swathboard down to put the hay in a full width swath. This provides the maximum sun and air exposure to dry the hay. It is recommended the hay be raked before total dry down to expose the bottom of the swath for faster drying.

NOTE:

Swathing will permit more moisture into the hay during high humidity or rainfall.

If a tall and tight windrow is formed, the outer layer of hay can dry quickly. This dry layer can prevent the sun and air from reaching the center of the windrow. It is recommended to turn the hay to permit the center to dry.

3.4.5 Engage the header



WARNING:

To prevent serious personal injury, make sure all persons are clear of the area before operating the machine.

Procedure

1. Lower the header to the ground.
2. Put the engine speed at low to middle idle.
3. Engage the tractor power take-off.
4. Increase the engine speed to the rated PTO speed. In some crop conditions, the PTO speed must be slower.
5. Move the machine into the crop.

IMPORTANT:

Do not operate machine out of the crop for long periods of time. Operating the machine without a load will increase wear on the cutterbed components.

3.4.6 Header lift

The header is raised and lowered with the lift cylinders (1) on the machine.

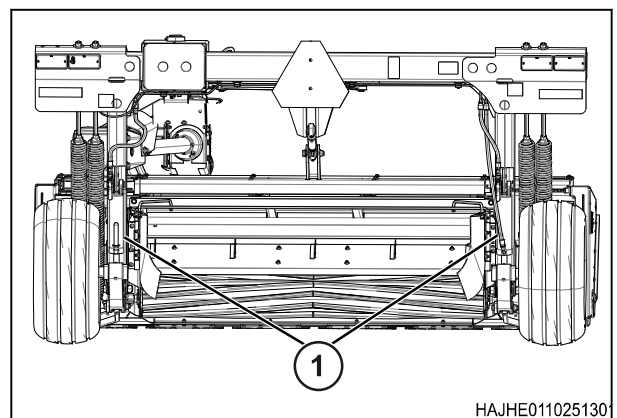


Fig. 17

HAJHE011025130

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3.7 Swathboard

Move the swathboard (1) to set the header for swathing or windrowing.

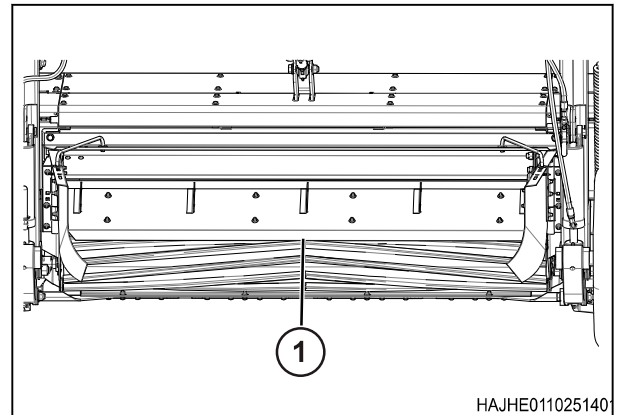


Fig. 35

Swathing

Move the swathboard down behind the conditioner to direct the conditioned crop down into a wide swath. Adjust the forming shields to the wide position. This moves the forming shields out of the path of the crop. This gives maximum exposure to the sun for fast crop drying. This procedure requires additional handling to prepare the crop for most packaging systems.

Windrowing

Move the swathboard all the way up. This moves the swathboard out of the path of the crop. The crop fully engages the forming shields making the most even windrow.

Adjust the forming shields for the desired windrow width.

NOTE:

In some conditions, change the position of the swathboard to change the windrow formation.

3.7.1 Adjust the swathboard

Procedure

1. Open the right top shield.
2. Move the handle (1) to the right.
3. Put the swathboard in the necessary location.
4. Release the handle.
Make sure the pin is engaged in a locking hole.

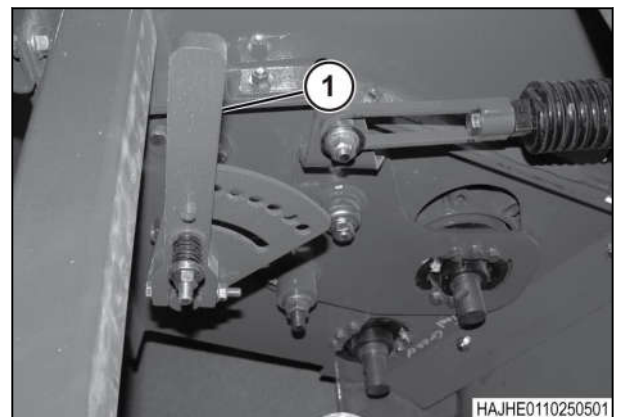


Fig. 36

4.2 Lubrication details

4.2.1 Inspection during lubrication

Always examine for loose, missing, and worn parts when lubricating the machine. Periodically inspect all bolts, nuts, and bearing lock collars to make sure the components are tight.

**DANGER:**

Do not lubricate the machine when the header is engaged and the engine is running.

**WARNING:**

When working on the header or under the tractor make sure the header is lowered to the ground.

When it is necessary for the header to be in the raised position, raise the header all the way. Engage the header lift cylinder stops, if equipped.

Do not rely on hydraulic pressure to keep the header raised. A sudden loss of hydraulic pressure could cause the header to lower unexpectedly.

4.2.2 Sealed bearings

Sealed bearings are used to give trouble free operation with a minimum of maintenance and lubrication.

Sealed bearings are lubricated for life. Because of the type of seal, lubricant cannot be added.

If a seal is damaged, replace the sealed bearing.

NOTE:

The bearings used on some components must be lubricated.

4.2.3 Grease fittings

IMPORTANT:

- *Do not let grease collect on or around parts, especially when operating in sandy soil.*
- *Make sure to clean the grease fittings fully before connecting the grease gun.*
- *Watch each lubrication point during lubrication to make sure lubricant is applied correctly.*
- *Examine for loose, missing, and worn parts when lubricating the machine.*

4.2.5 Conditioner gearcases

4.2.5.1 Plug location - conditioner gearcases

Conditioner gearcase.

- (1) Drain plug
- (2) Fill plug
- (3) Level plug

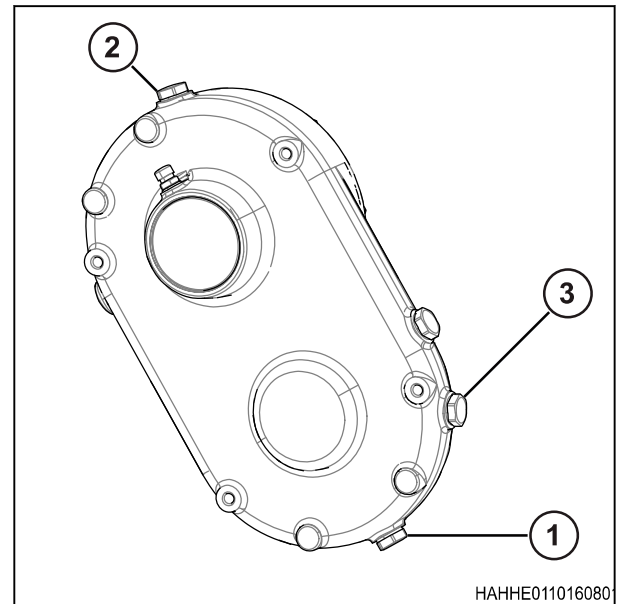


Fig. 16

4.2.5.2 Examine the gearcase oil level

Procedure

1. Remove the oil level plug (1).
2. Make sure the oil level is even with the bottom of the hole.
3. Install the oil level plug.

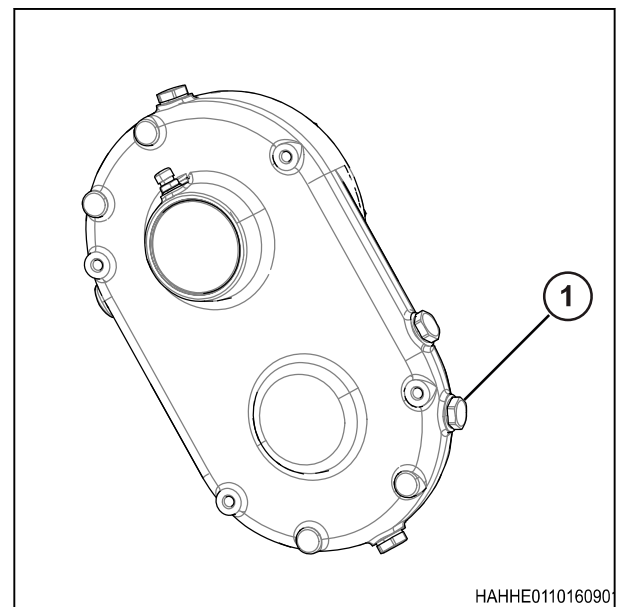


Fig. 17

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4.6.3 Disc rotation

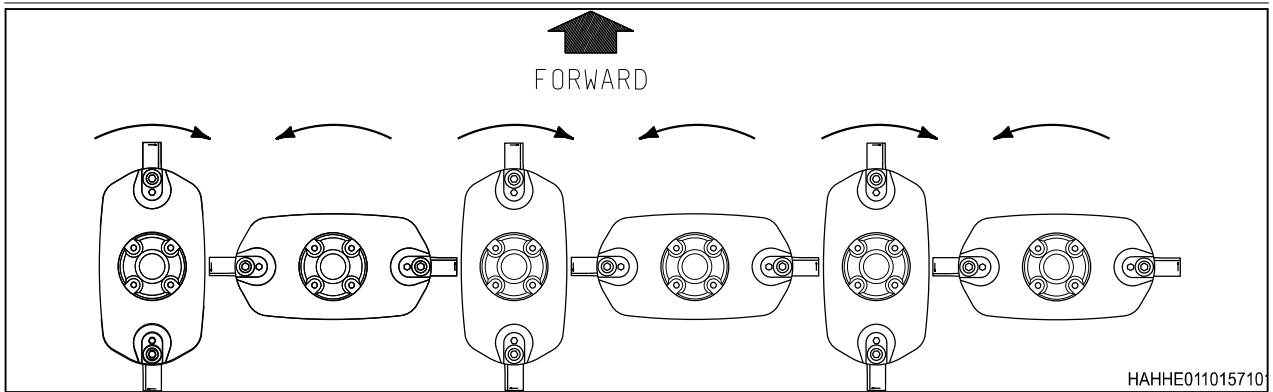


Fig. 29

Knives are made for clockwise or counterclockwise discs. The machine will not cut correctly if knives are not installed in the correct direction.

4.6.4 Replace a fixed blade knife

Make sure the correct knife is installed for clockwise or counter-clockwise rotation.

IMPORTANT:

When a broken, damaged, or missing knife is replaced the opposite knife on the disc must be replaced to keep correct balance.

Procedure

1. Engage the lift cylinder lockout valves.
2. Turn the disc to put the knife at the front of the cutterbed, so that the bolt (1) and hole in the front of the rock guard align.
3. Remove the nut (2).
4. Clean all debris from the knife area on the disc.
5. Examine the bolt and nut for wear or damage. Replace the bolt or nut as necessary.

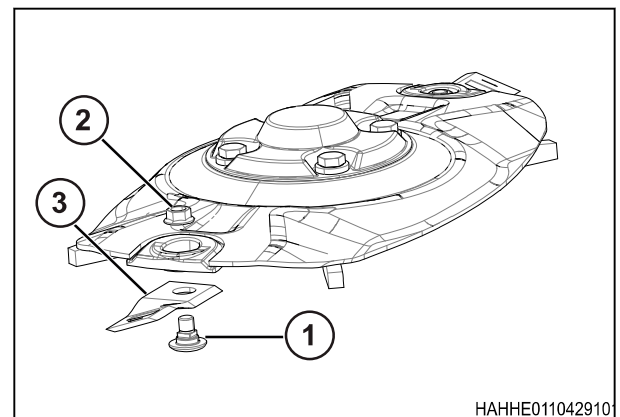


Fig. 30

IMPORTANT:

Use existing knife bolt when you turn over a knife, unless bolt is damaged. Install a new bolt when a new knife is installed.

6. Install a new knife (3) or turn the present knife over.

IMPORTANT:

When a broken, damaged, or missing knife is replaced the opposite knife on the disc must be replaced to keep correct balance.

7. Tighten the nut to the correct torque.
8. Make sure the knife moves freely.

Related Links

[Cutterbed bolt torque](#) page 123

4.10 Storage

When storing the machine at the end of the season, the following steps must be taken to make sure the machine is ready for the next season.

- Store the machine in a dry area.
- Clean the machine. Crop debris and dirt will hold moisture and cause rust. Dried mud can prevent the disc from rotating during starting, causing excessive load on the drive components.
- Lubricate the machine.
- Lubricate the piston rod of the steering cylinder to prevent rust.
- Put blocks under the axle of the machine to take the weight off the tires.

Do not lower the air pressure in the tires.

- Put blocks under header, and lower lift cylinders completely.
- Release tension on header drive belt and on the conditioner drive belt.
- Release tension on the drive belt(s).
- Paint all surfaces where paint has worn. Apply some form of rust inhibitor to the components in the cutting area.
- Make notes of replacement parts required for next season, and order replacement parts early.



WARNING:

Do not allow children to play on or around the machine at any time.

Related Links

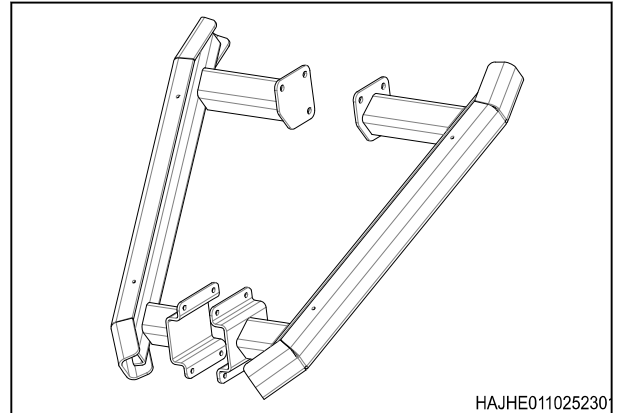
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7.1.6 Bumper kit

A bumper kit is available from AGCO parts for a side pull tongue.



HAIJHE011025230

Fig. 6

8.2.4 Install the clutch shaft and the steering arm

Procedure

1. Remove the steering arm from the steering arm support (1). Keep the hardware.
2. Remove the steering arm support from the gearbox (2). Keep the hardware.
3. Clean all lubricant off the header drive gearbox input shaft.
4. Move the clutch assembly (1) onto the shaft, align the bolt holes in the hub with the groove in the gearbox input shaft.
5. Install two 1/2-13 x 2-1/4 hex flange screws (2) and 1/2-13 top lock nuts (3) in the slip clutch yoke. The bolts must be installed from opposite directions.
6. Tighten the bolts alternately and equally 27 to 41 Nm (20 to 30 lbf ft) at a time. Tighten the bolts to 120 Nm (90 lbf ft).



WARNING:
A yoke that is not installed correctly can slip off a shaft and result in injury or damage. The clamp bolts must be tightened to the correct torque. After you install a yoke, pull on the yoke to make sure the yoke cannot be pulled off the shaft.

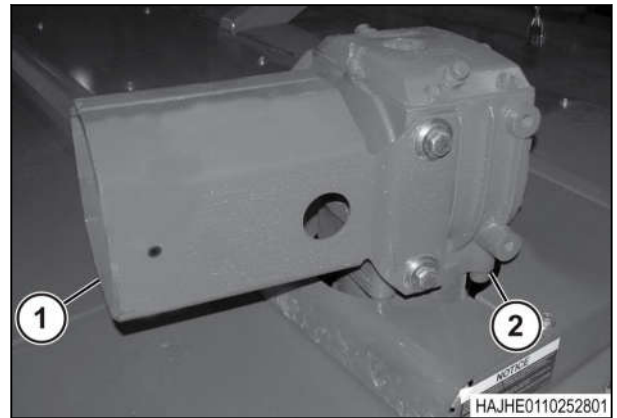


Fig. 14

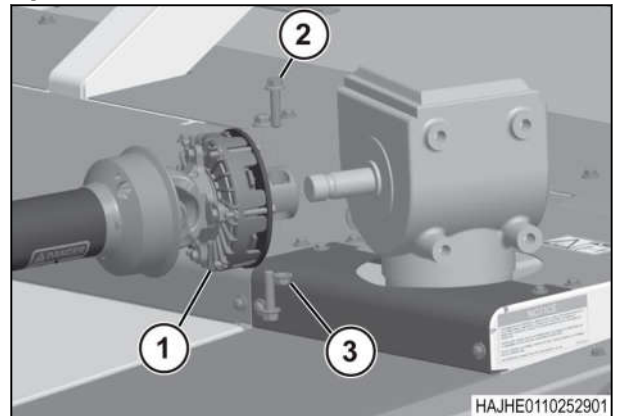


Fig. 15



Fig. 16

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