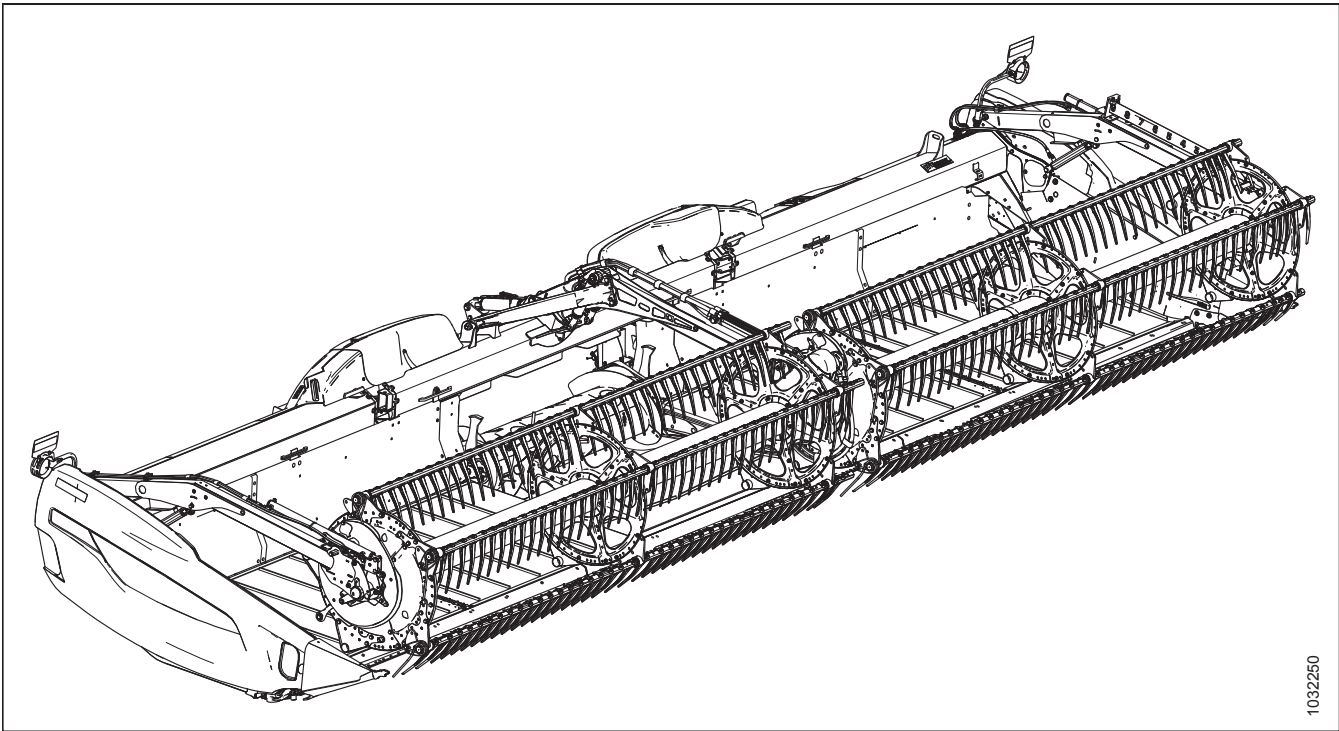


FM200 Float Module

Feed Auger Hub Service Kit (MD #337804)
Installation Instructions

215448 Revision A
Original Instruction

FD2 Series FlexDraper® Header



1032250

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Introduction

This document explains how to replace the hub on the feed auger. A list of parts included in the kit is provided in Chapter 2 *Parts List, page 5*.

Installation time

Installation time for this kit is approximately 1.5 hours.

Conventions

The following conventions are used in this document:

- Right and left are determined from the operator's position. The front of the header is the side that faces the crop; the back of the header is the side that connects to the combine.
- Unless otherwise noted, use the standard torque values provided in the header operator's manual and technical manual.

NOTE:

Keep your MacDon publications up-to-date. The most current version of this instruction can be downloaded from our Dealer-only site (<https://portal.macdon.com>) (login required).

NOTE:

This document is currently available in English only.

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Chapter 1: Safety

Understanding and following safety procedures consistently will help to ensure the safety of machine operators and bystanders.

1.1 Signal Words

Three signal words, **DANGER**, **WARNING**, and **CAUTION**, are used to alert you to hazardous situations. Two signal words, **IMPORTANT** and **NOTE**, identify non-safety related information.

Signal words are selected using the following guidelines:

DANGER

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. It may also be used to alert against unsafe practices.

CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may be used to alert against unsafe practices.

IMPORTANT:

Indicates a situation that, if not avoided, could result in a malfunction or damage to the machine.

NOTE:

Provides additional information or advice.

1.2 General Safety

Protect yourself when assembling, operating, and servicing machinery.

CAUTION

The following general farm safety precautions should be part of your operating procedure for all types of machinery.

Wear all protective clothing and personal safety devices that could be necessary for the job at hand. Do **NOT** take chances. You may need the following:

- Hard hat
- Protective footwear with slip-resistant soles
- Protective glasses or goggles
- Heavy gloves
- Wet weather gear
- Respirator or filter mask

In addition, take the following precautions:

- Be aware that exposure to loud noises can cause hearing impairment or loss. Wear suitable hearing protection devices such as earmuffs or earplugs to help protect against loud noises.



Figure 1.1: Safety Equipment



Figure 1.2: Safety Equipment

- Provide a first aid kit in case of emergencies.
- Keep a properly maintained fire extinguisher on the machine. Be familiar with its proper use.
- Keep young children away from machinery at all times.
- Be aware that accidents often happen when the Operator is tired or in a hurry. Take time to consider the safest way. **NEVER** ignore warning signs of fatigue.

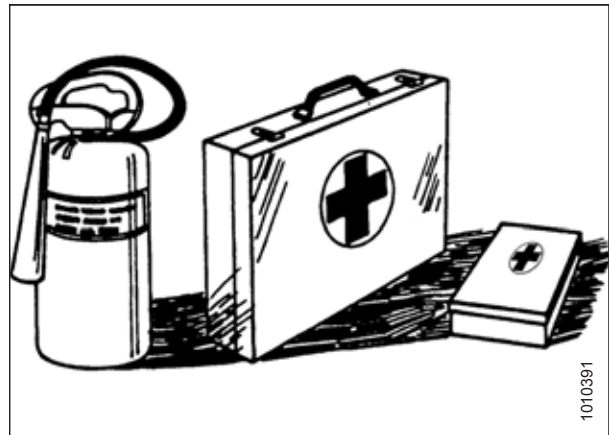


Figure 1.3: Safety Equipment

SAFETY

- Wear close-fitting clothing and cover long hair. **NEVER** wear dangling items such as scarves or bracelets.
- Keep all shields in place. **NEVER** alter or remove safety equipment. Make sure driveline guards can rotate independently of shaft and can telescope freely.
- Use only service and repair parts made or approved by equipment manufacturer. Substituted parts may not meet strength, design, or safety requirements.



Figure 1.4: Safety around Equipment

- Keep hands, feet, clothing, and hair away from moving parts. **NEVER** attempt to clear obstructions or objects from a machine while the engine is running.
- Do **NOT** modify the machine. Unauthorized modifications may impair machine function and/or safety. It may also shorten the machine's life.
- To avoid injury or death from unexpected startup of the machine, **ALWAYS** stop the engine and remove the key from the ignition before leaving the operator's seat for any reason.

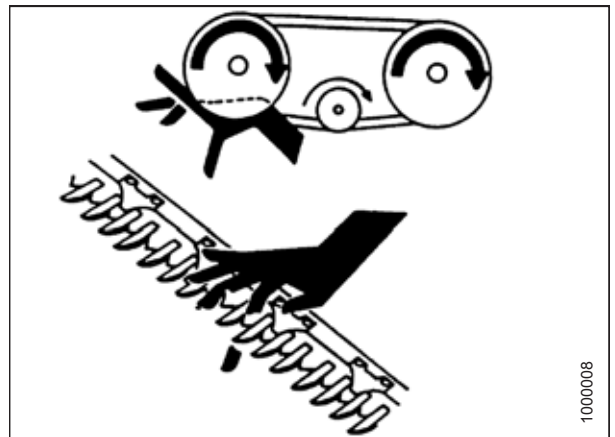


Figure 1.5: Safety around Equipment

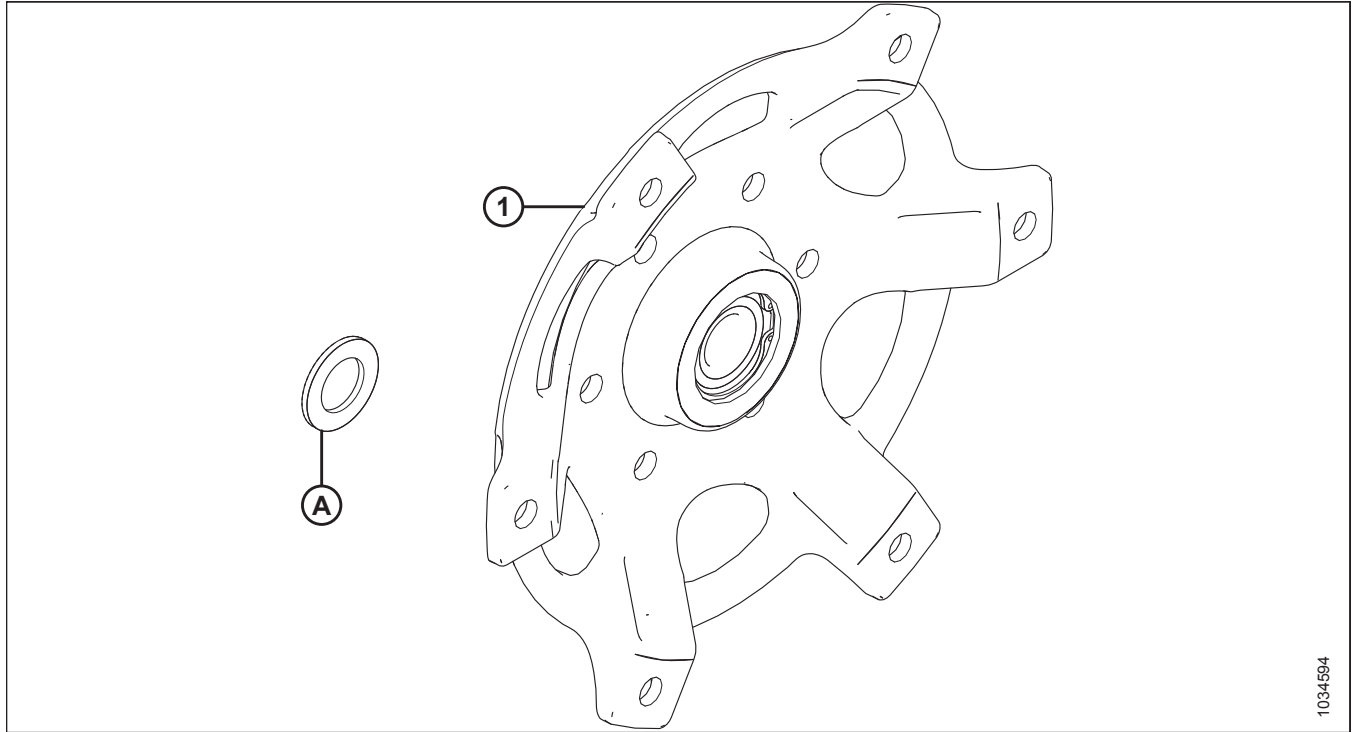
- Keep service area clean and dry. Wet and/or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment. Be sure all electrical outlets and tools are properly grounded.
- Keep work area well lit.
- Keep machinery clean. Straw and chaff on a hot engine are fire hazards. Do **NOT** allow oil or grease to accumulate on service platforms, ladders, or controls. Clean machines before storage.
- **NEVER** use gasoline, naphtha, or any volatile material for cleaning purposes. These materials may be toxic and/or flammable.
- When storing machinery, cover sharp or extending components to prevent injury from accidental contact.



Figure 1.6: Safety around Equipment

Chapter 2: Parts List

A parts list is provided in this instruction so that you can confirm that you have received all required parts before you begin installation.



Ref	Part Number	Description	Quantity
1	NSS ¹	ASSEMBLY – LH HUB WITH BEARING	1
A	123406	WASHER – FLAT	1

1. NSS – not sold separately

Chapter 3: Installation Instructions

To install the kit, follow this procedure.

3.1 Feed Auger Left Side Removal

DANGER

To avoid bodily injury or death from unexpected start-up or fall of raised machine, always stop engine, remove key, and engage safety props before going under machine for any reason.

1. Start the engine. For instructions, refer to the combine operator's manual. For instructions, refer to the windrower operator's manual.
2. Lower the header fully.
3. Raise the reel fully.
4. Engage the reel safety props. For instructions, refer to the header operator's manual.
5. Detach the header from the combine. For instructions, refer to the operator's manual.
6. Shut down the engine, and remove the key from the ignition.

NOTE:

The side flap deflectors have been removed for illustration purposes.

7. Place wooden blocks (A) under the auger to prevent the auger from dropping onto the feed draper and damaging it.

NOTE:

The illustration at right shows the float module detached from the header. This procedure can be performed with the float module attached or detached from the header.

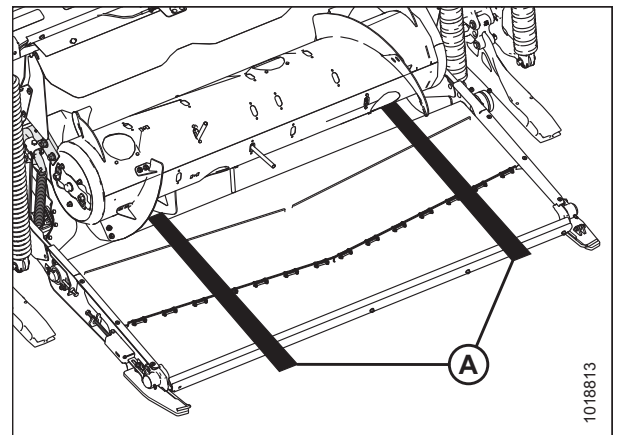


Figure 3.1: Blocks under the Auger

8. Install ratchet strap (A) around the feed auger and the float module frame.

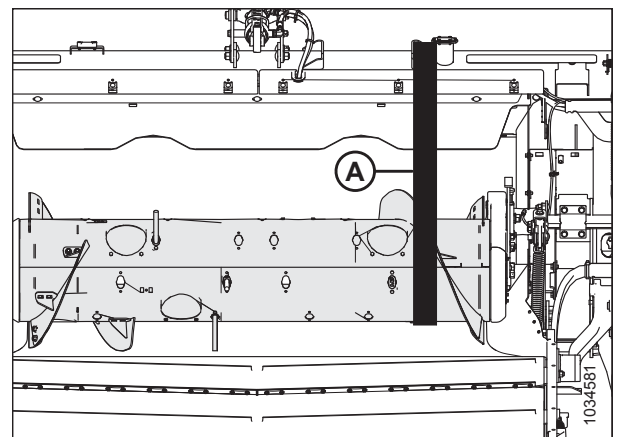


Figure 3.2: Float Module View From the Front

INSTALLATION INSTRUCTIONS

- Loosen two bolts (A) and remove bumper (B).

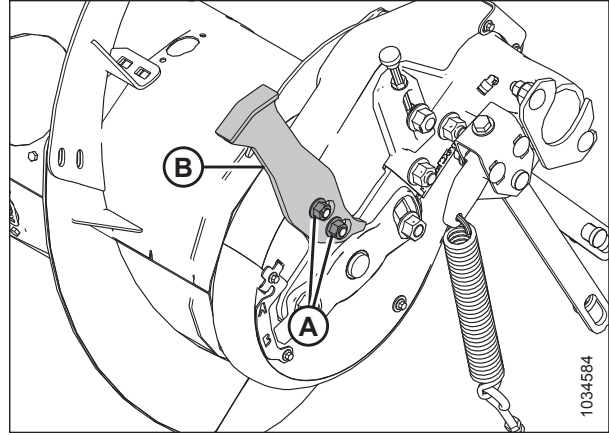


Figure 3.3: Auger Bumper – Left

- On the left side of the auger, remove bolts (E) and remove cover retainer (F).
- Remove four bolts (A) and inspection panel (B).
- Remove bolts (C) and remove indicator/clamp (D) that holds top cover (G) and bottom cover (H) together.
- Remove bolt and washer (J) that secure bottom cover (H).
- Rotate top cover (G) and bottom cover (H) forward to remove from auger.

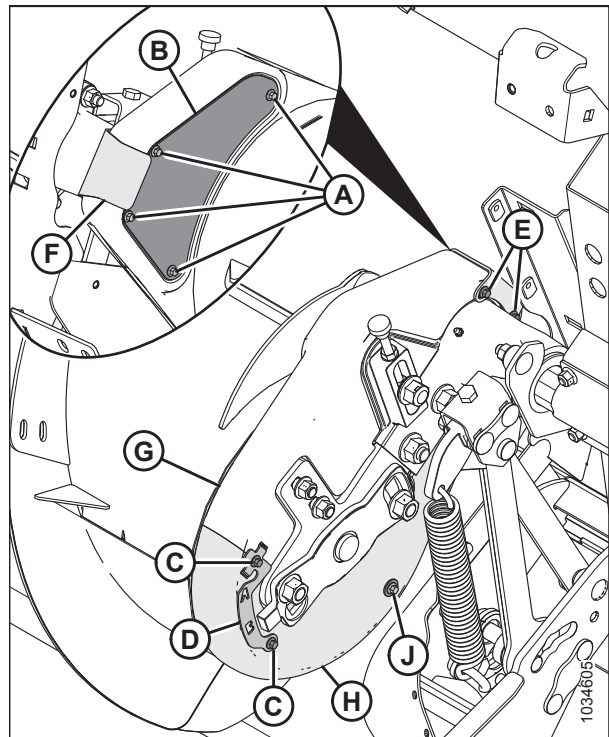


Figure 3.4: Auger Drive

INSTALLATION INSTRUCTIONS

- Loosen jam nut (C) and turn thumbscrew (D) counterclockwise to release the bolt holding sprocket (B) and preventing it from being raised up to release chain tension.

IMPORTANT:

Do **NOT** loosen thin nut (E) on the inboard side of the idler sprocket spindle.

- Loosen idler sprocket nut (A), and raise sprocket (B) to the uppermost position to release the tension on the chain. Tighten nut (A) to hold sprocket in place.
- Remove screw (F) and washer (G).

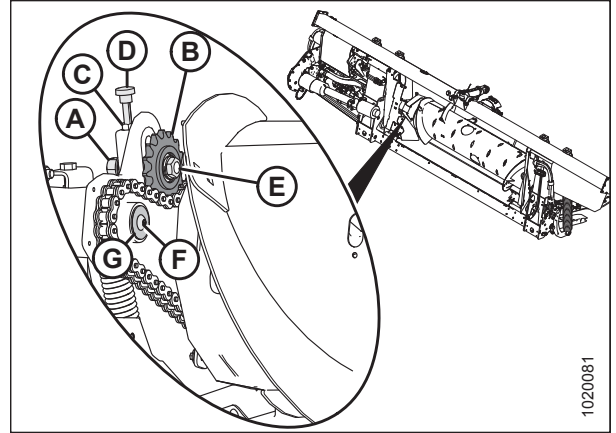


Figure 3.5: Auger Drive

- Remove two bolts and nuts (A).

NOTE:

A second person may be needed to lift or support the auger to completely remove the bolts.

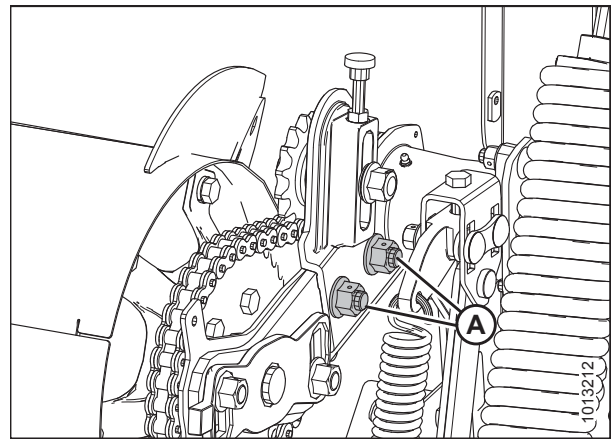


Figure 3.6: Auger Support Arm

- Use a pry bar at location (A) between auger support arm (C) and auger pivot (B). Pry the auger to the right.

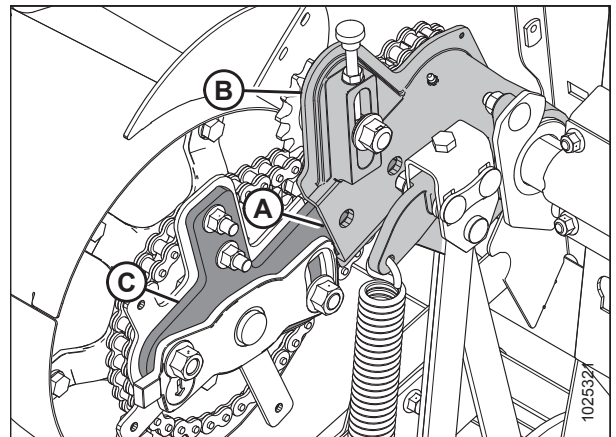


Figure 3.7: Auger Support – Left

INSTALLATION INSTRUCTIONS

NOTE:

Once the drum starts sliding to the right, drive sprocket (A) will fall off the shaft.

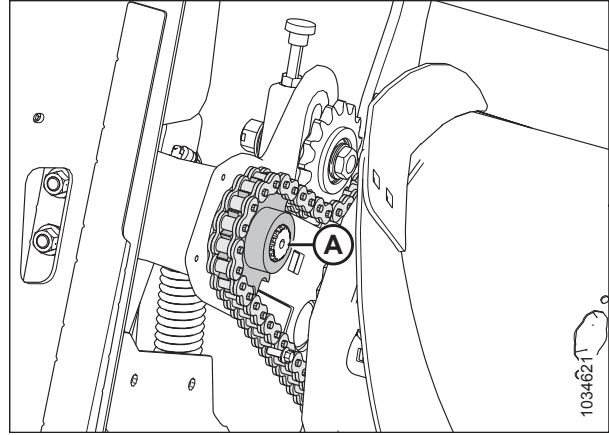


Figure 3.8: Auger Drive – View from Behind

3.2 Feed Auger Left Side Hub Replace

1. Remove outermost left access cover (A) by removing two bolts (B).

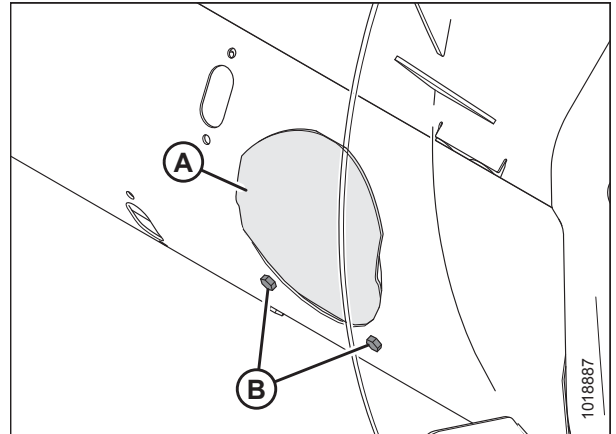


Figure 3.9: Drum Access Cover

2. Inside the drum, place a block (B) under finger shaft (A) to support it when the hub is removed.

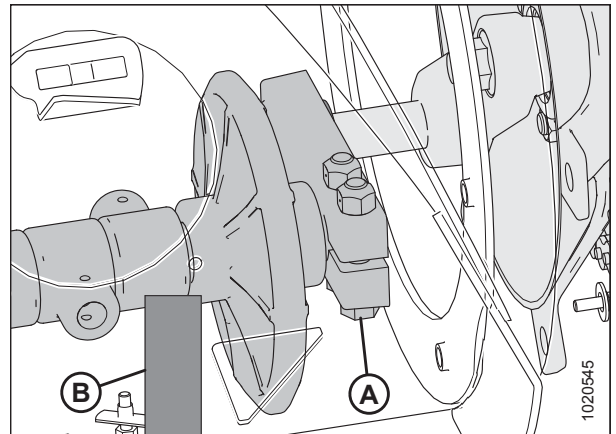


Figure 3.10: Left Pivot Block – Inside Feed Auger

3. Remove six bolts (A) and washers.
4. Remove left feed auger assembly (B).

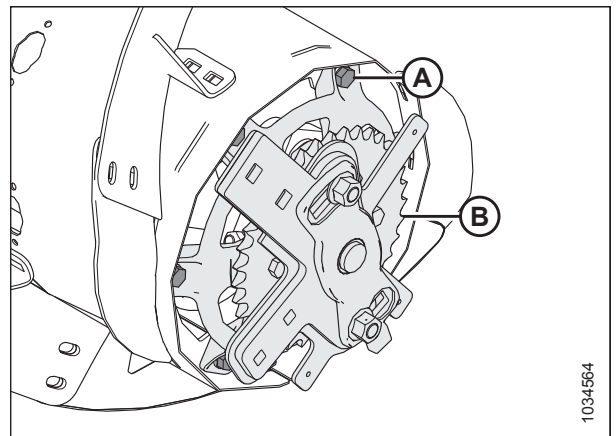


Figure 3.11: Left Assembly

INSTALLATION INSTRUCTIONS

5. Remove nut (A) and finger shaft crank arm (B).
6. Remove woodruff key (C) from shaft.

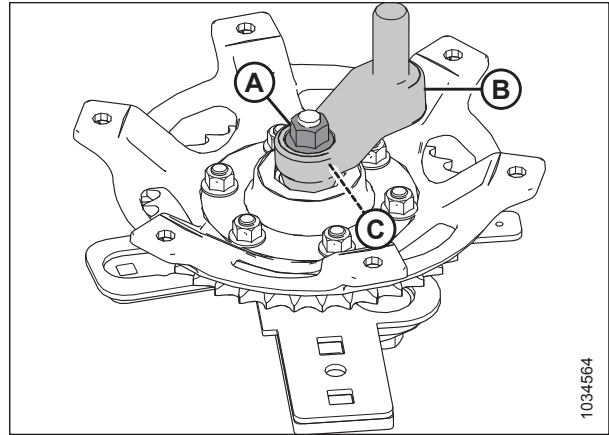


Figure 3.12: Left Assembly

7. Slide hub (A) off of shaft (B).
8. Retrieve washer (MD #123406) from the shipping bag.
9. Install washer (C) onto shaft (B).

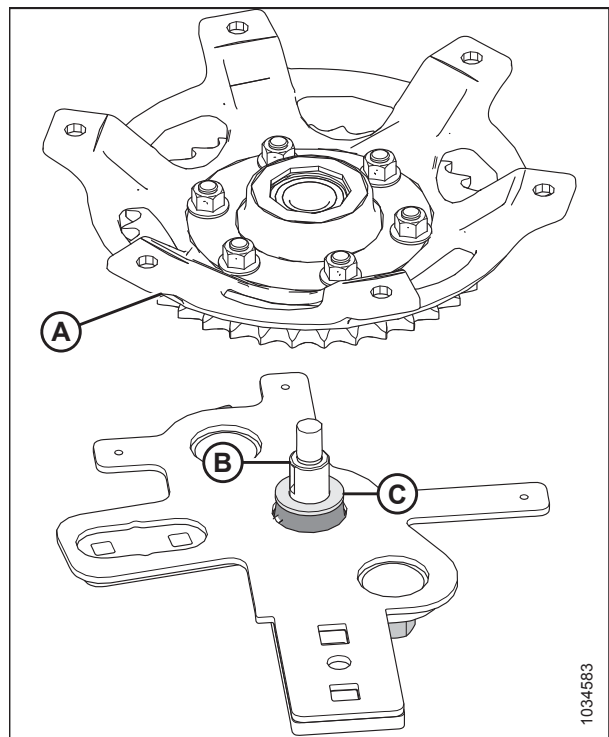


Figure 3.13: Left Assembly

INSTALLATION INSTRUCTIONS

10. Remove six nuts (B) and bolts (A), hub (C), and sprocket (D).
11. Retrieve new hub with bearing from the shipping bag.

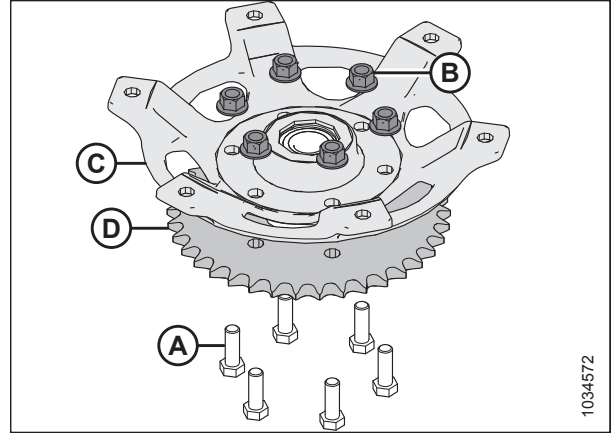


Figure 3.14: Left Assembly

12. Install hub (C) on top of sprocket (D).
13. Install six bolts (A) and six nuts (B).

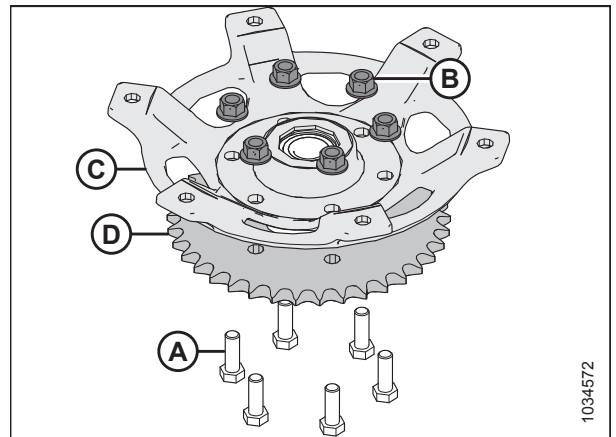


Figure 3.15: Left Hub Assembly

14. Install woodruff key (C) into shaft.
15. Install finger shaft crank arm (B).
16. Apply medium-strength threadlocker (Loctite® 243 or equivalent) to threads and install nut (A). Torque nut 170 Nm (126 lbf·ft).

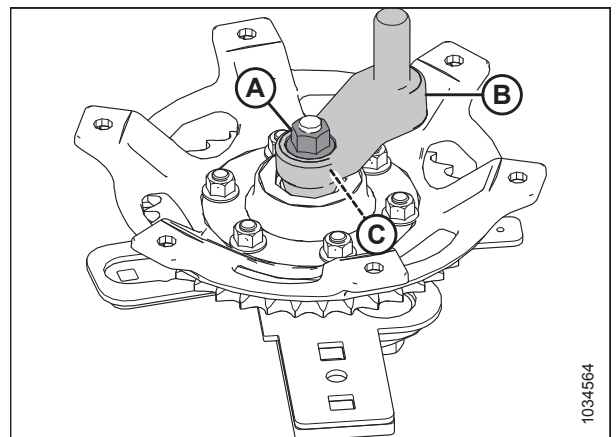


Figure 3.16: Left Assembly

INSTALLATION INSTRUCTIONS

- Slide left feed auger assembly (C) into the drum. Align pivot pin (C) with the bushing in pivot block (A).
- Remove wooden block (B) supporting finger shaft (D).

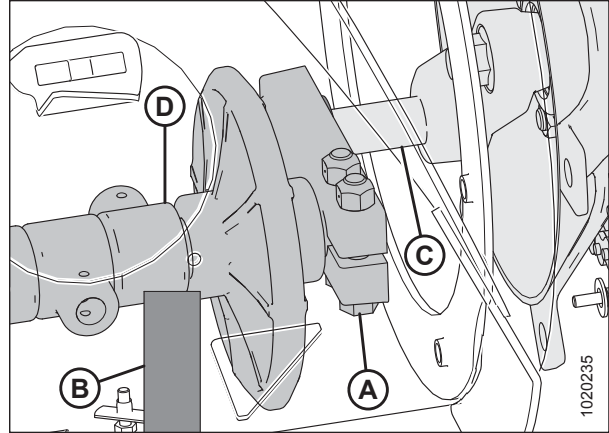


Figure 3.17: Left Pivot Block

- Secure hub (A) to the drum with six bolts and washers (A).

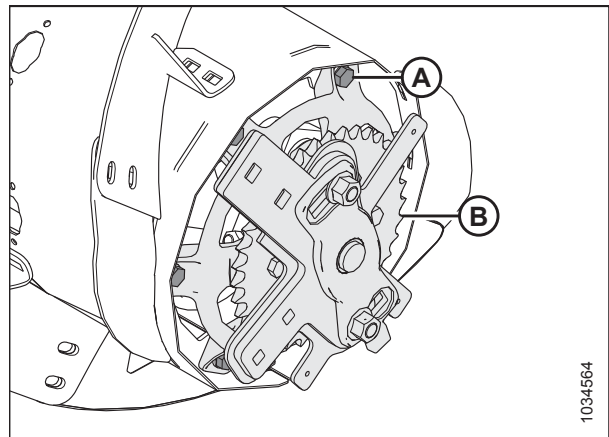


Figure 3.18: Left Assembly

- Install outermost left access cover (A), and secure with two bolts (B).

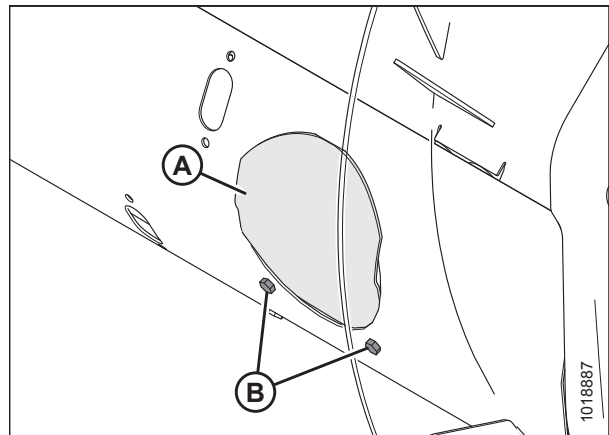


Figure 3.19: Drum Access Cover

3.3 Feed Auger Left Side Install

1. Place drive chain (B) over the sprocket on the drive side of auger (A).

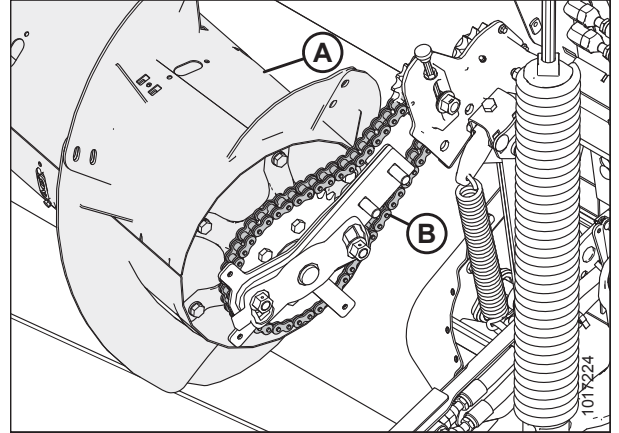


Figure 3.20: Auger Drive

2. Place drive sprocket (B) into chain (A) and align the sprocket onto the shaft.

NOTE:

Shoulder of drive sprocket (B) should face the auger.

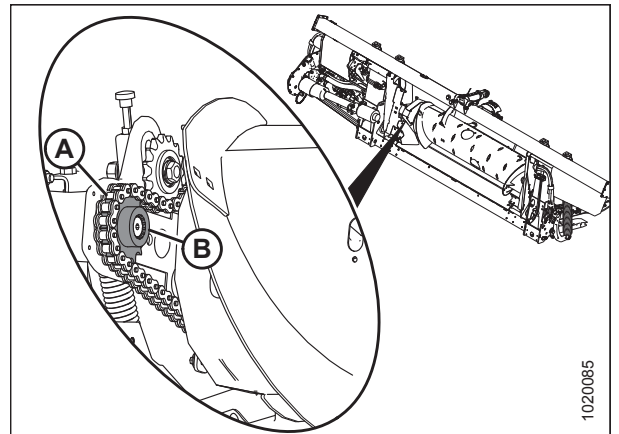


Figure 3.21: Auger Drive

3. Apply medium-strength threadlocker (Loctite® 243 or equivalent) to threads of screw (A).
4. Install washer (B) and secure it with screw (A).

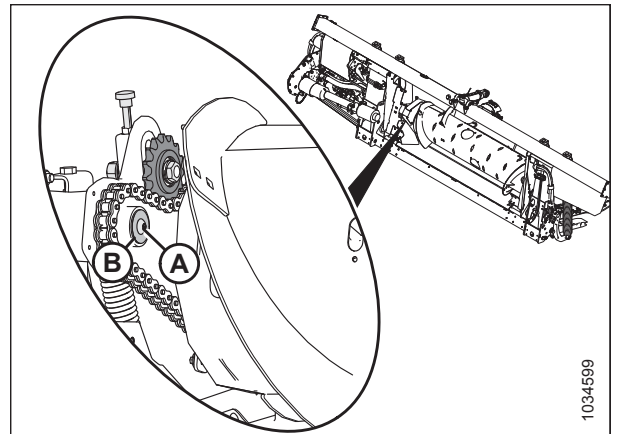


Figure 3.22: Auger Drive

INSTALLATION INSTRUCTIONS

- Align the drive housing from the auger mount bracket. Install two bolts and nuts (A).

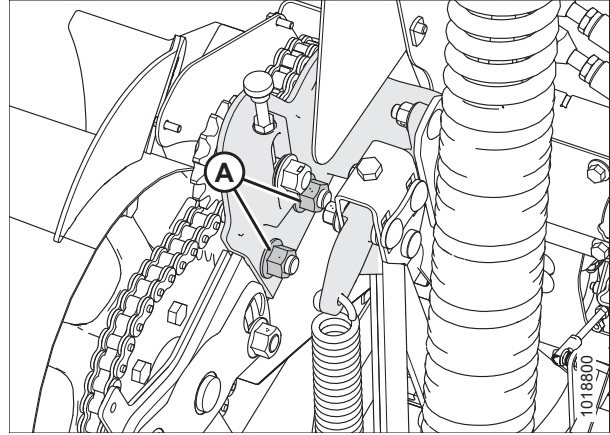


Figure 3.23: Auger Support – Left Side

- Rotate the auger in reverse to take up the slack in the lower strand of the chain.

IMPORTANT:

Do **NOT** loosen thin nut (C) on the inboard side of the idler sprocket spindle.

- Turn adjuster thumbscrew (D) clockwise to move idler sprocket (B) until it is **FINGER TIGHT ONLY**.

IMPORTANT:

Do **NOT** overtighten.

- Tighten idler nut (A) and torque to 258–271 Nm (190–200 lbf·ft).

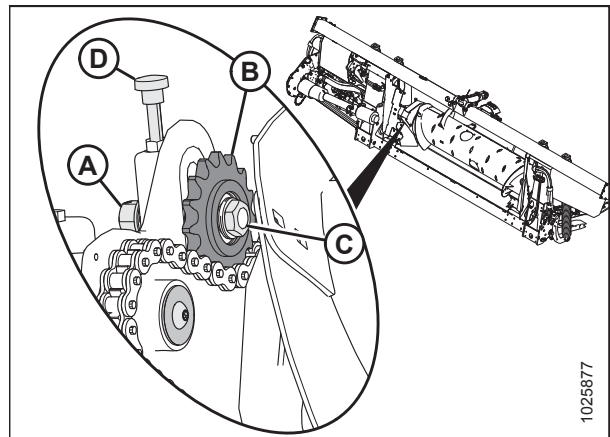


Figure 3.24: Auger Drive

- Tighten jam nut (A).

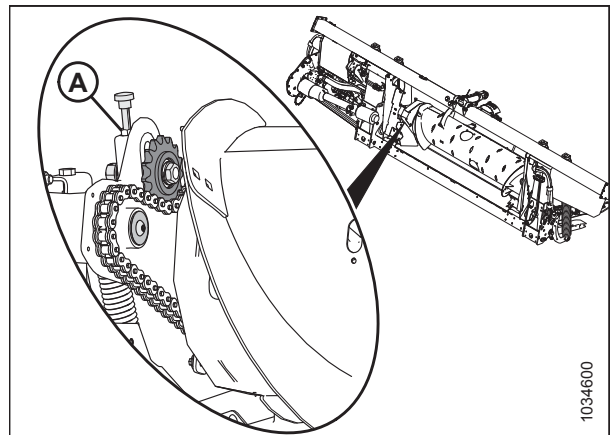


Figure 3.25: Auger Drive

INSTALLATION INSTRUCTIONS

10. If installed, install bumper (B) and tighten two bolts (A) on the left side of the auger.

Install bumper (B) and tighten two bolts (A) on the left side of the auger.

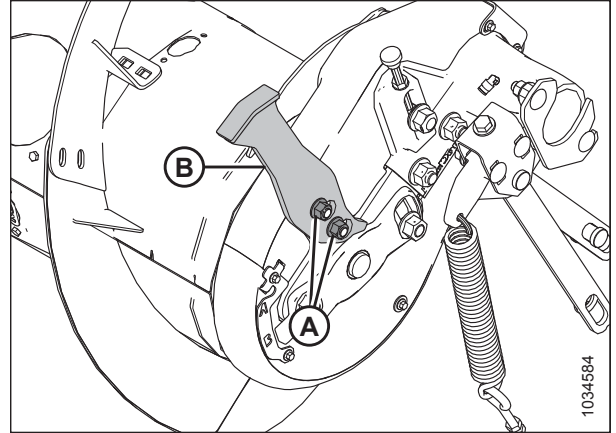


Figure 3.26: Auger Drive – Left

11. Position bottom cover (H) and secure with bolt and washer (J).
12. Position top cover (G). Secure top and bottom covers with clamp/indicator (D) and bolts (C).
13. Install inspection panel (B) and secure with four bolts (A). Tighten bolts (A) and torque to 2.7–4.1 Nm (24–36 lbf-in).
14. Install cover retainer (F) and secure with two bolts (E).

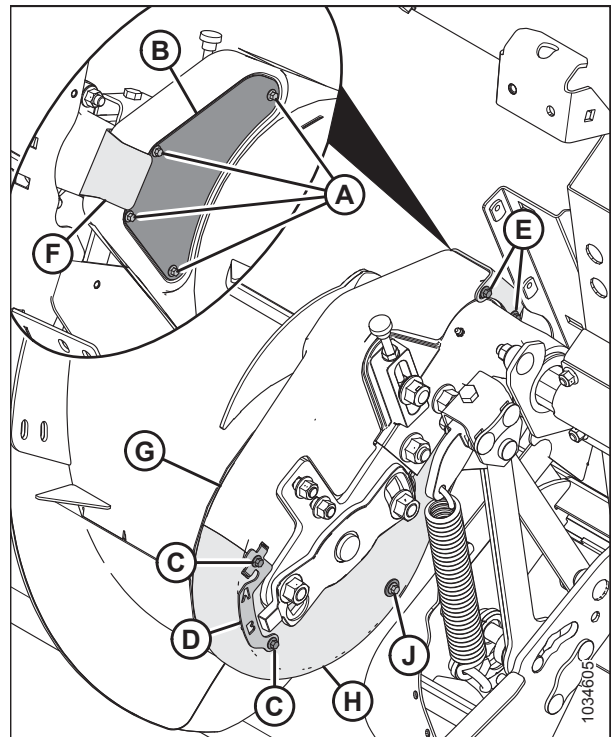


Figure 3.27: Auger

INSTALLATION INSTRUCTIONS

15. Remove ratchet strap (A) from around the drum and the float module frame.

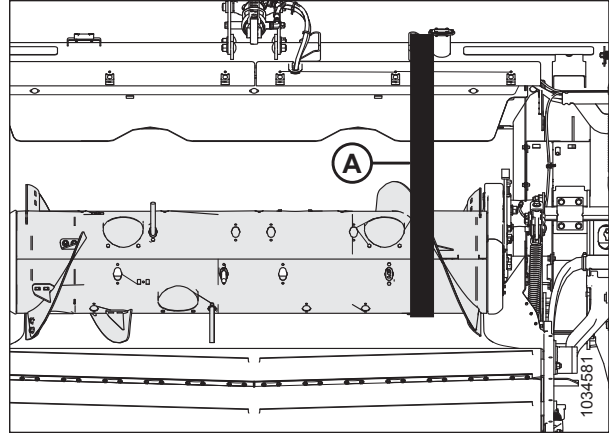


Figure 3.28: Float Module View From the Front

16. Remove wooden blocks (A) from the top of the feed draper.

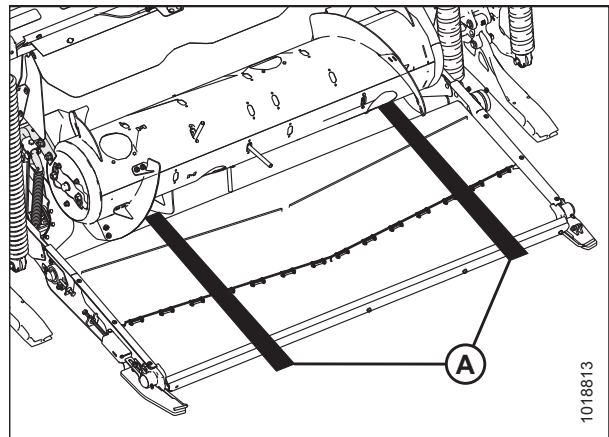


Figure 3.29: Blocks under the Auger

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