MacDon

FM100
Float Module

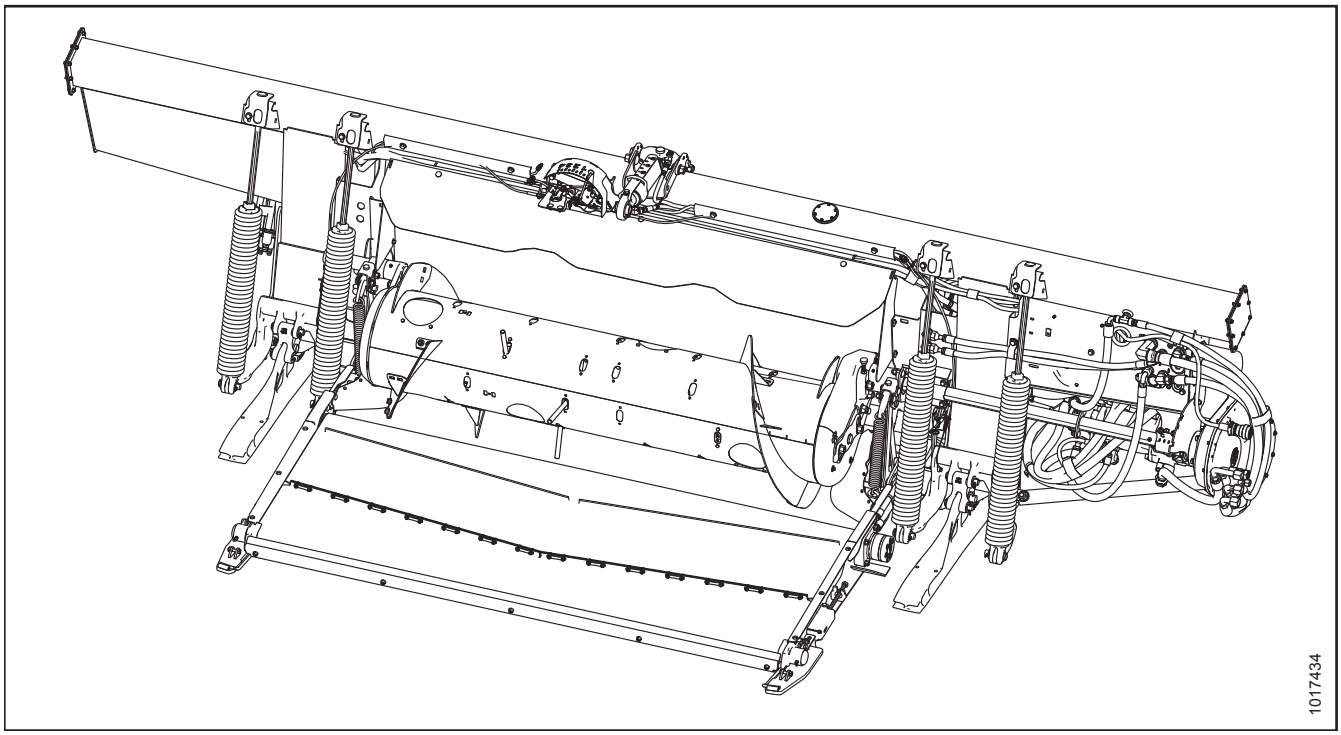
Flat Tilt Float Spacer Kit (MD #335322)
Installation Instructions

215348 Revision A

Original Instruction

The Harvesting Specialists.

FM100 Float Module



Published in November 2020

Introduction

When installed on the FM100 Float Module, the Flat Tilt Float Spacer Kit (MD #335322) prevents side draper contact and stalling when the header angle is set to a flat position, and the header wings are in maximum flex.

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

Installation time

This kit will take approximately 45 minutes to install.

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.

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

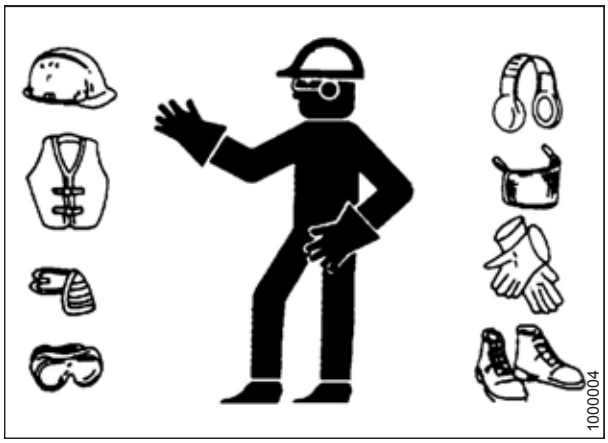


Figure 1.1: Safety Equipment

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 1.2: 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.

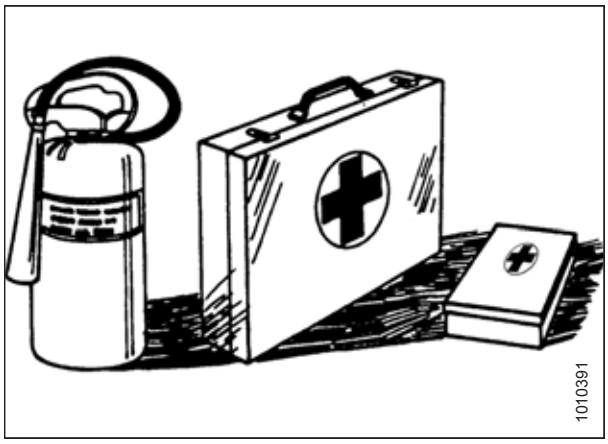


Figure 1.3: Safety Equipment

- 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.

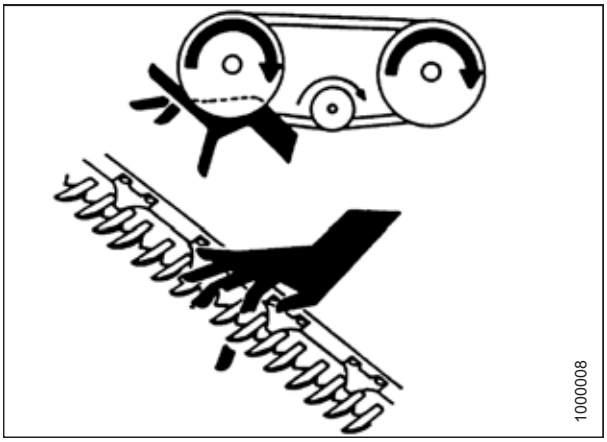


Figure 1.5: Safety around Equipment

- 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.

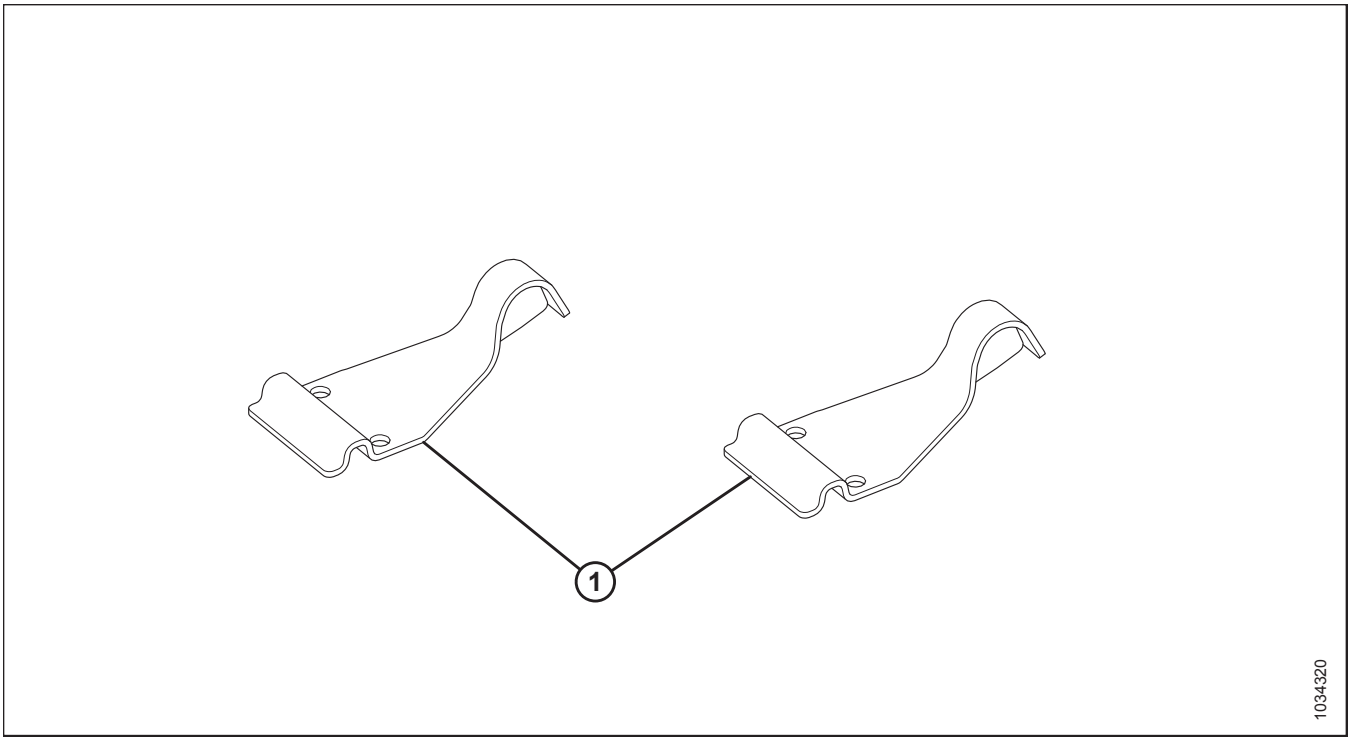


Figure 2.1: Driveline Parts

Ref	Part Number	Description	Quantity
1	304799	STOP – FLAT TILT FLOAT SPACER	2

Chapter 3: Installation Instructions

To install the kit, follow this procedure.

DANGER

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

NOTE:

There is no need to disconnect the hydraulic lines, electrical harness, or center-link to install the Float Spacer Kit.

1. Start the engine and the lower header.
2. Increase clearance under the float module feed draper by tilting the header and fully extending cylinder (B) until indicator (A) is at position **D**.
3. Raise the reel to its full height.
4. Stop the engine and the remove key from the ignition.
5. Engage the reel safety props.

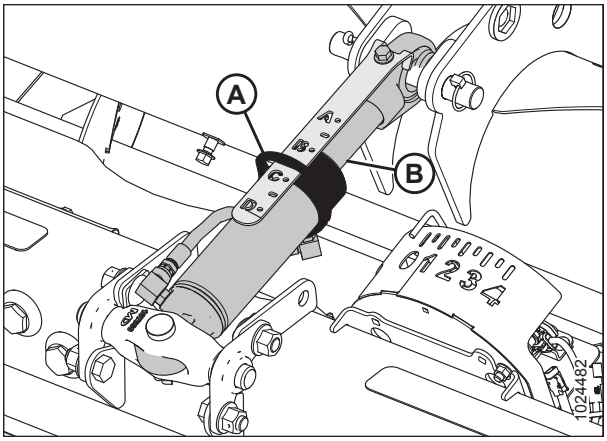


Figure 3.1: Center-Link

6. Move lever (A) to lock position to engage wing locks.

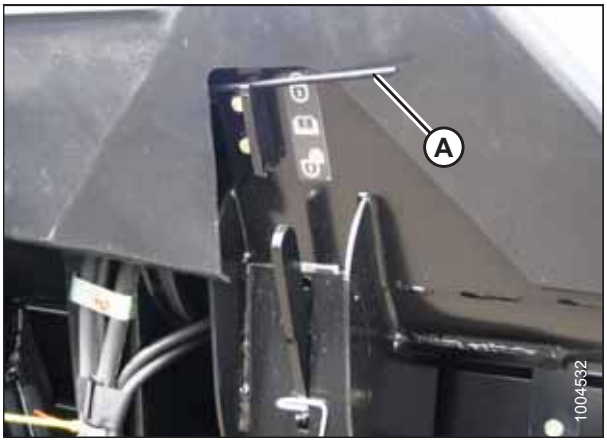


Figure 3.2: Wing Lock

7. Engage the float locks by pulling each float lock handle (A) away from the float module and setting it in locked position (B).

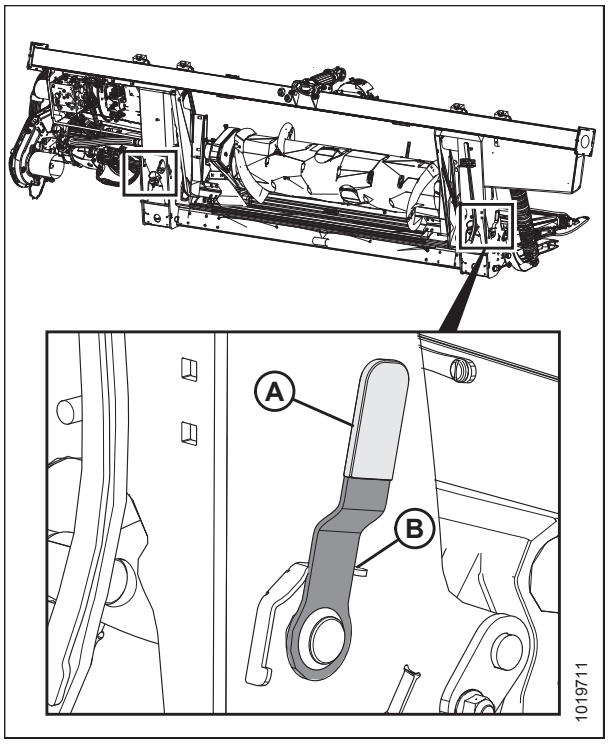


Figure 3.3: Float Lock

8. Remove two bolts (A) and fillers (B) from transition pan support angle (C). Repeat on opposite side. Retain for installation.

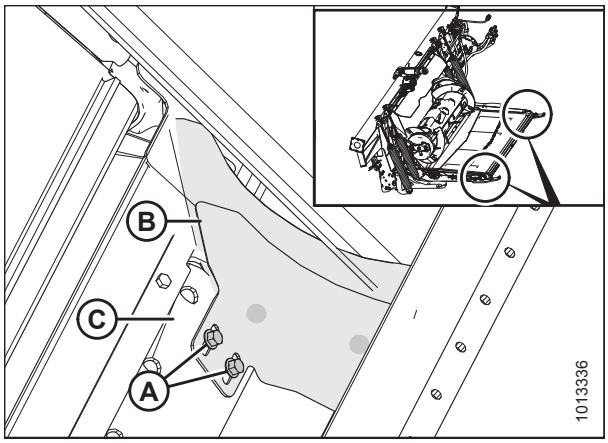


Figure 3.4: Fillers

9. Remove and retain screw (A).
10. Remove the 9/16 in. nut from bolt (B).
11. Use a 24 mm (15/16 in.) wrench on hex bolt (C) to rotate latch downwards and slightly raise the feed deck to remove bolt (B).
12. Rotate latch (C) up and back to lower the float module deck and disengage the transition pan tube.
13. Install screw (A).
14. Repeat for the opposite side of the feed draper deck.

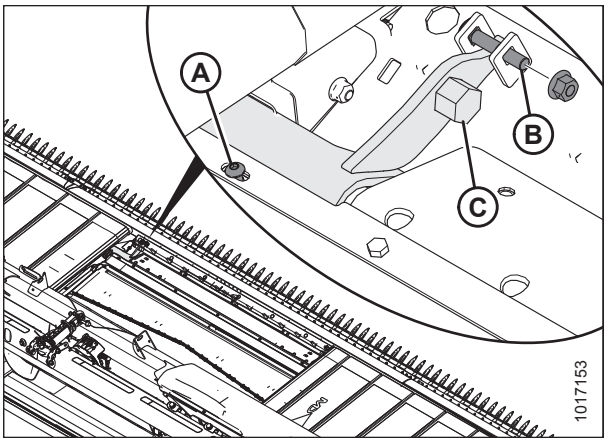


Figure 3.5: Float Module Latch

DANGER

Never start or move the machine until you are sure all bystanders have cleared the area.

15. Disengage the reel safety props, start the engine, lower the reel, and fully raise the header.
16. Stop the engine, remove the key from the ignition, and engage the combine safety props.
17. Loosen nut and bolt (A), and disengage hook (B) from leg on both sides of float module.

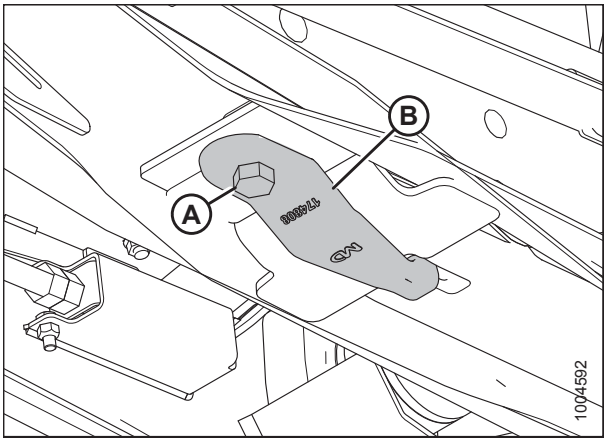


Figure 3.6: Float Module Underside

18. Rotate hook (B) 90° for storage, and retighten bolt (A) and nut.

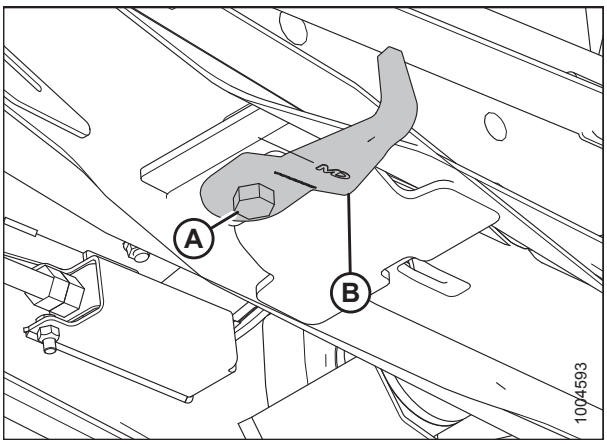


Figure 3.7: Float Module Underside

19. Place a 150 mm (6 in.) block (A) under the header leg.
20. Disengage the combine lift cylinder locks, start the engine, and lower the header until the header leg rests on the block or stabilizer wheels are on the ground.
21. Carefully back the combine with FM100 attached away from the header, just enough to clear the transition pan.

    IMPORTANT:

    The hydraulics, electrical, and center-link are still connected so back away carefully and just enough to clear the transition pan.
22. Lower the FM100 until there is enough room to install the flat tilt float spacer.

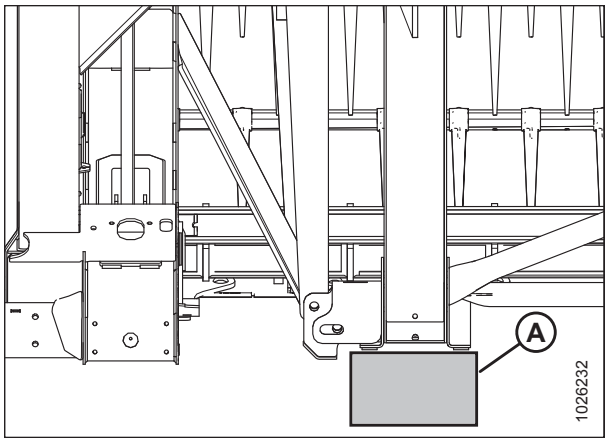


Figure 3.8: Header Leg on Block

23. Remove and retain two bolts and washers (A).
24. Remove and discard clamp (B).

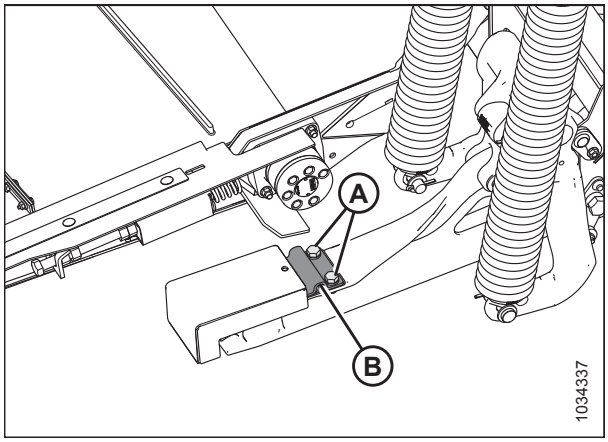


Figure 3.9: FM100 Left Header Support Arm

25. Position flat tilt float spacer stop (A) (MD #304799) on left header support arm and secure with two bolts and washers (B) retained in Step *23, page 10*.
26. Repeat Step *23, page 10* to Step *25, page 10* at the opposite side of FM100.

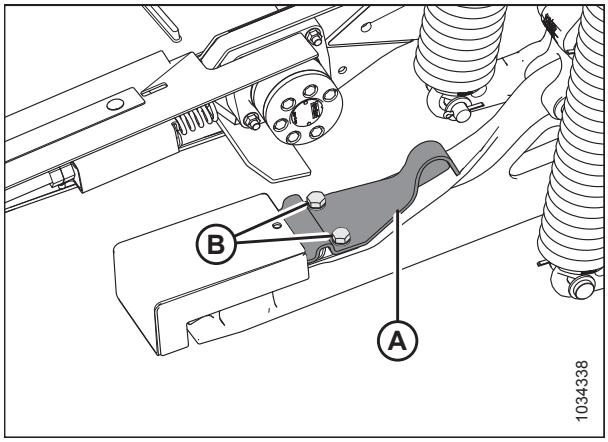


Figure 3.10: FM100 Left Header Support Arm with Flat Tilt Float Spacer Installed

27. Ensure latches (A) at the front corners of the float module are rotated towards the rear of the float module.

CAUTION

Be sure all bystanders are clear of machine before starting engine or engaging any header drives.

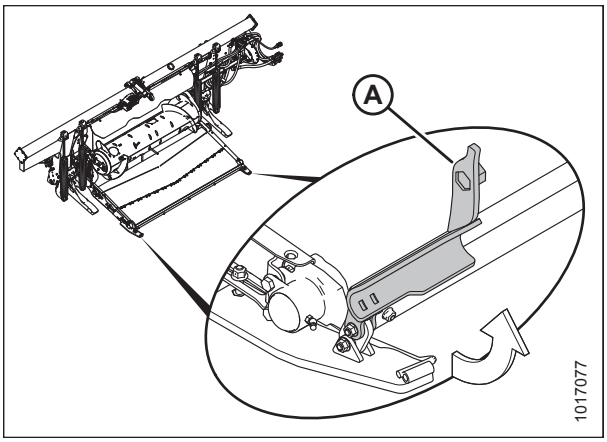


Figure 3.11: Latch

28. Start engine, and lower the combine feeder house so that float module arms (A) are aligned with header balance channels (B).
29. Keep float module arms (A) just under balance channels (B) to ensure float module legs seat properly in the header linkage supports at location (C).

    IMPORTANT:

    Keep hydraulic hoses clear to prevent damage when driving into header.
30. Continue forward until float module arms (A) contact stops in balance channels (B).
31. Slowly raise the float module while making sure the float module legs engage the header legs.
32. Raise the header to its full height, stop the engine, and remove the key from the ignition.
33. Engage combine safety props.
34. Loosen nut and bolt (A), and reposition hook (B) as shown to engage float module arm. Tighten bolt and nut (A).

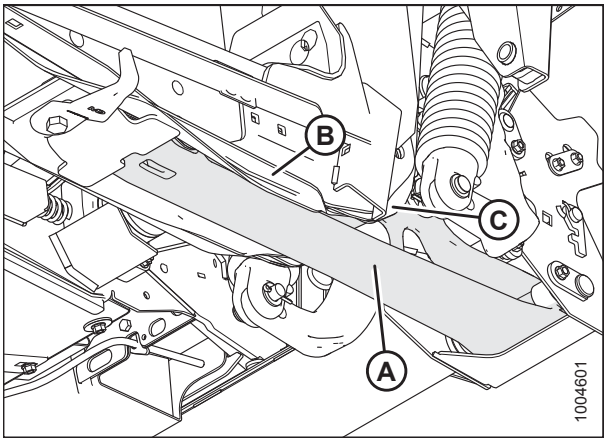


Figure 3.12: Float Module Underside

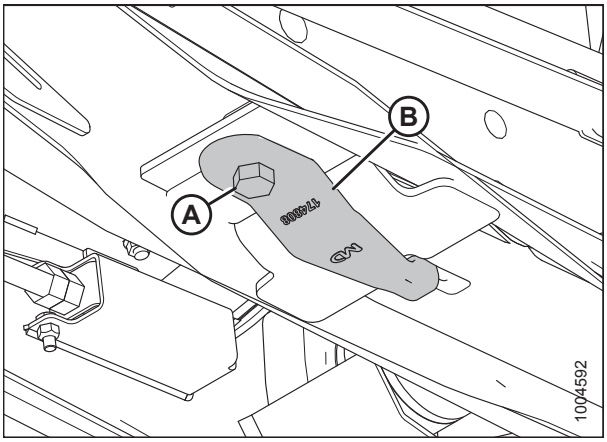


Figure 3.13: Float Module Underside

WARNING

Keep hands clear of the area between guards and knife at all times.

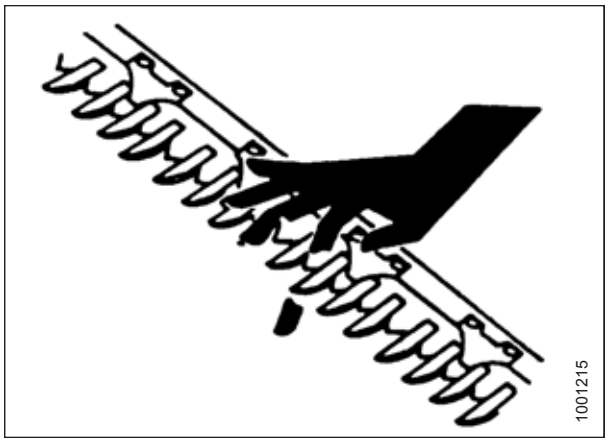


Figure 3.14: Cutterbar Hazard

36. Remove screw (A) and remove nut and bolt (B) from both sides of the opening to allow the attachment of the float module deck.
37. Rotate latch (C) forward and down to engage the transition pan tube.

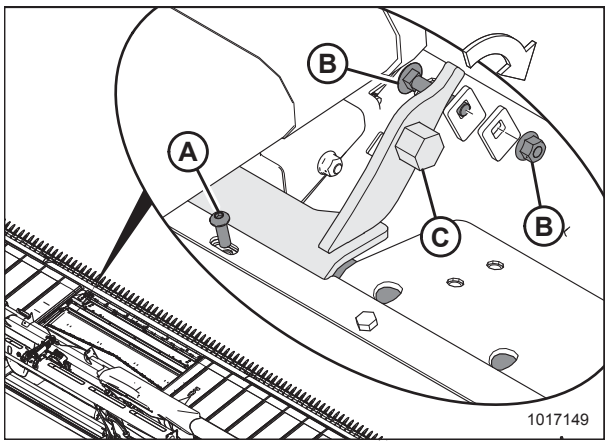


Figure 3.15: Float Module Latch

38. Use a 24 mm (15/16 in.) wrench on hex bolt (C) to rotate latch downwards and slightly raise the feed deck. Install nut and bolt (B) to lock the latch position.
39. Install screw (A).
40. Repeat for the opposite side of the feed draper deck.

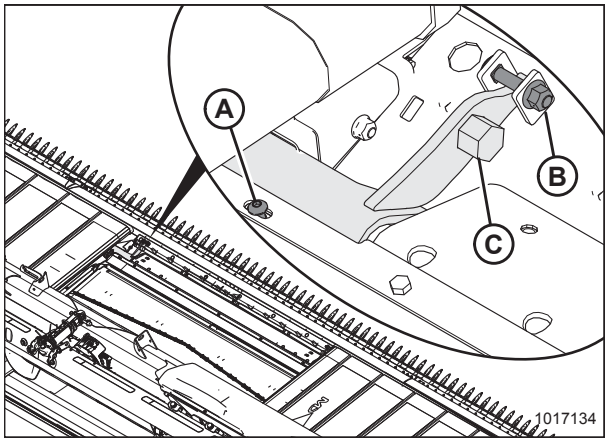


Figure 3.16: Float Module Latch

41. Install fillers (B) on transition pan support angle (C) using two bolts (A).
42. Check the float and confirm the header is level. For instructions, refer to the header operator's manual.

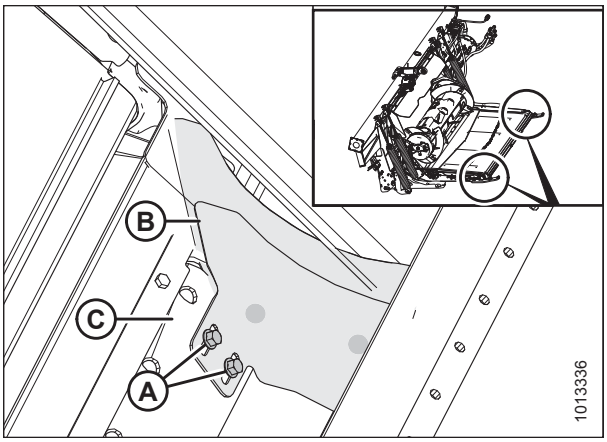


Figure 3.17: Fillers

MacDon

MacDon Industries Ltd.
680 Moray Street
Winnipeg, Manitoba
Canada R3J 3S3
t. (204) 885 5590 f. (204) 832 7749

MacDon, Inc.
10708 N. Pomona Avenue
Kansas City, Missouri
United States 64153-1924
t. (816) 891 7313 f. (816) 891 7323

MacDon Australia Pty. Ltd.
A.C.N. 079 393 721
54 National Boulevard, Campbellfield, Victoria,
Australia 3061
t. +61 3 8301 1911 f. +61 3 8301 1912

MacDon Brasil Agribusiness Ltda.
Rua Grã Nicco, 113, Sala 404, B. 04
Mossunguê, Curitiba, Paraná
CEP 81200-200 Brasil
t. +55 41 2101 1713 f. +55 41 2101 1699

LLC MacDon Russia Ltd.
123317 Moscow, Russia
10 Presnenskaya nab, Block C
Floor 5, Office No. 534, Regus Business Centre
t. +7 495 775 6971 f. +7 495 967 7600

MacDon Europe GmbH
Edisonstrasse 63
Haus A, 12459 Berlin
Germany
t. +49 30 408 172 839

CUSTOMERS
MacDon.com

DEALERS
Portal.MacDon.com

Printed in Canada