

**JOHN DEERE**  
**AG & TURF DIVISION**

**Thatcher for X700 Series Tractors**

**OMM169354 D3**

**OPERATOR'S MANUAL**



**JOHN DEERE**

**Original Instruction**

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# INTRODUCTION

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## Introduction

### Thank You for Purchasing a John Deere Product

We appreciate having you as a customer and wish you many years of safe and satisfied use of your machine.

### Using Your Operator's Manual

This manual is an important part of your machine and should remain with the machine when you sell it.

Reading your operator's manual will help you and others avoid personal injury or damage to the machine. Information given in this manual will provide the operator with the safest and most effective use of the machine. Knowing how to operate this machine safely and correctly will allow you to train others who may operate this machine.

If you have an attachment, use the safety and operating information in the attachment operator's manual along with the machine operator's manual to operate the attachment safely and correctly.

This manual and safety signs on your machine may also be available in other languages (see your authorized dealer to order).

Sections in your operator's manual are placed in a specific order to help you understand all the safety messages and learn the controls so you can operate this machine safely. You can also use this manual to answer any specific operating or servicing questions. A convenient index located at the end of this book will help you to find needed information quickly.

The machine shown in this manual may differ slightly from your machine, but will be similar enough to help you understand our instructions.

RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the machine will travel when going forward. When you see a broken line (-----), the item referred to is hidden from view.

Before delivering this machine, your dealer performed a predelivery inspection to ensure best performance.

### Special Messages

Your manual contains special messages to bring attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.



**CAUTION: Avoid injury! This symbol and text highlight potential hazards or death to the operator or bystanders that may occur if the hazards or procedures are ignored.**

**IMPORTANT: Avoid damage! This text is used to tell the operator of actions or conditions that might result in damage to the machine.**

**NOTE: General information is given throughout the manual that may help the operator in the operation or service of the machine.**

### Attachments for Your Machine

There's a John Deere attachment or kit to make your new machine perform more tasks or be more versatile, whether your machine is a lawn tractor or compact utility tractor or a utility vehicle.

You can check out the entire line of attachments for your machine at [JohnDeere.com](http://JohnDeere.com) or ask your John Deere dealer. From aerators to electric lift kits to tillers, there's a John Deere attachment or kit to fill every need.

# PRODUCT IDENTIFICATION

## Product Identification

### Product Compatibility

The Thatcher is compatible with all X700 Series Tractors.

### Record Identification Numbers

Record your purchase information in the spaces provided below.



MX13489

DATE OF PURCHASE:

DEALER NAME:

DEALER PHONE:

## Safety



### Understanding The Machine Safety Labels

The machine safety labels shown in this section are placed in important areas on your machine to draw attention to potential safety hazards.

On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards.

The operator's manual also explains any potential safety hazards whenever necessary in special safety messages that are identified with the word, CAUTION, and the safety-alert symbol.

### CAUTION

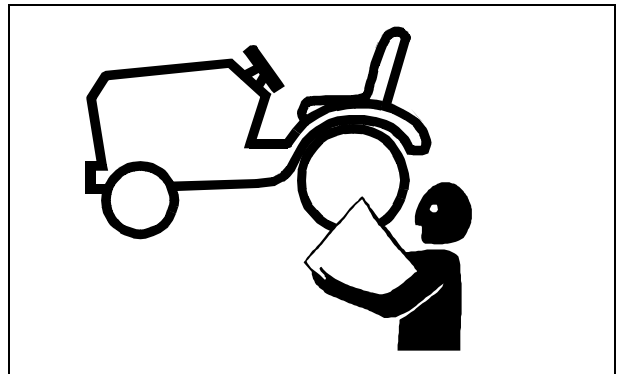


M57684

HELP AVOID INJURY:

- Read operator's manual.
- Make sure the safety rods are securely in place before operating.

### Operating Safely



- Read, understand and follow all instructions in the operator's manual, on the machine and on the safety video before starting.
- Only allow responsible adults, who are familiar with the instructions to operate the machine. Local regulations may restrict the age of the operator.
- Do not add weight to the Thatcher tray.
- Be thoroughly familiar with the controls and the proper use of the machine before starting.
- Inspect machine before you operate. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure guards and shields are in good condition and fastened in place. Make any necessary adjustments before you operate.
- Before using, always visually inspect to see that the blades, blade bolts and the mower assembly are not worn and damaged. Replace worn and damaged blades and bolts in sets to preserve balance.
- Be sure all drives are in neutral and parking brake is locked before

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# SAFETY

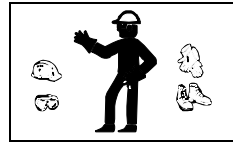
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starting engine. Only start engine from the operator's position.

- Do not change the engine governor settings or overspeed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.
- Do not operate mower without discharge chute or entire grass catcher in place. Never operate with the discharge deflector raised, removed, or altered, unless using a grass catcher.
- Check brake action before you operate. Adjust or service brakes as necessary.
- Stop machine if anyone enters the area.
- If you hit an object or if abnormal vibration occurs, stop the machine and inspect it. Make repairs before you operate. Keep machine and attachments properly maintained and in good working order.
- Be aware of the mower discharge direction and make sure that no one is in the path of the discharge direction.
- Do not leave machine unattended when it is running.
- Only operate during daylight or with good artificial light.
- Slow down and be careful of traffic when operating near or crossing roadways. Stop blades before crossing roads or sidewalks. Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- Do not operate machine if you are under the influence of drugs or alcohol.
- Use only accessories and attachments approved by the manufacturer of the machine. Keep safety labels visible when installing accessories and attachments.
- Older adults are involved in a large percentage of riding mower accidents involving injury. These operators should evaluate their ability to operate a mower safely enough to protect the operator and others from serious injury.
- Do not wear radio or music headphones. Safe service and operation requires your full attention.
- Disengage drive to attachments when transporting or not in use.
- Use care when loading or unloading the machine into or off of a trailer or truck.
- Reduce the throttle setting during engine run-out and, if the engine is provided with a fuel shut-off valve, turn the fuel off at the conclusion of mowing.
- When machine is left unattended, stored, or parked, lower the mower deck unless a positive mechanical lock is used.

## Parking Safely

1. Stop machine on a level surface, not on a slope.
2. Disengage mower blades or any other attachments.
3. Lower attachments to the ground.
4. Lock the park brake.
5. Stop the engine.
6. Remove the key.
7. Wait for engine and all moving parts to stop before you leave the operator's seat.
8. Close fuel shut-off valve, if your machine is equipped.
9. Disconnect the negative battery cable or remove the spark plug wire(s) (for gasoline engines) before servicing the machine.



## Wear Appropriate Clothing

- Always wear eye protection when operating the machine.
- Wear close fitting clothing and safety equipment appropriate for the job.
- While operating this machine, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
- Wear a suitable protective device such as earplugs. Loud noise can cause impairment or loss of hearing.

# PREPARING VEHICLE

## Practice Safe Maintenance



MIF

- Only qualified, trained adults should service this machine.
- Understand service procedure before doing work. Keep area clean and dry.
- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- Never lubricate, service, or adjust machine while it is moving. Wait for all movement to stop on machine before adjusting, cleaning or repairing.
- Keep safety devices in place and in working condition. Keep hardware tight.
- On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.
- Keep hands, feet, clothing, jewelry, and long hair away from any moving parts, to prevent them from getting caught.
- Lower any attachments to the ground before cleaning or servicing machine. Disengage all power and stop the engine. Lock park brake and remove the key. Let machine cool.
- Disconnect battery or remove spark plug wire (for gasoline engines) before making any repairs. Disconnect negative terminal first and positive last. Install positive terminal first and negative last.
- Before servicing machine or attachment, carefully release pressure from any components with stored energy, such as hydraulic components and springs.
- Release hydraulic pressure by lowering attachment or cutting units to the ground or to a mechanical stop and move hydraulic control levers back and forth.
- Keep all nuts and bolts tightened, especially blade attachment bolts.
- Securely support any machine elements that must be raised for service work. Use jack stands or lock service latches to support components when needed.
- Never run engine unless park brake is locked.
- Use care when checking blades. Wrap blades or wear gloves and use caution when servicing them. Only replace blades. Never straighten or weld them.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Replace all worn or damaged safety and instruction decals.
- Grass catcher components are subject to wear, damage, and deterioration which could expose moving parts or allow objects to be thrown. Check components frequently and replace with manufacturer's recommended parts when necessary.
- Charge batteries in an open, well-ventilated area, away from sparks.

Unplug battery charger before connecting or disconnecting from the battery. Wear protective clothing and use insulated tools.

- Do not modify machine or safety devices. Unauthorized modifications may impair its function and safety.
- Check park brake operation frequently. Adjust and service as needed.

## Preparing Vehicle

### Check Tire Pressure

**IMPORTANT: Avoid damage! To prevent tire damage, do not use more than maximum tire pressure shown on sidewall of tire.**

1. Check tire pressure with an accurate gauge.

Tire	Pressure kPa (psi)
Front	152 kPa (22 psi)
Rear (2-ply)	40-70 kPa (6-10 psi)
Rear (4-ply)	40-140 kPa (6-20 psi)

2. Add or remove air as necessary.

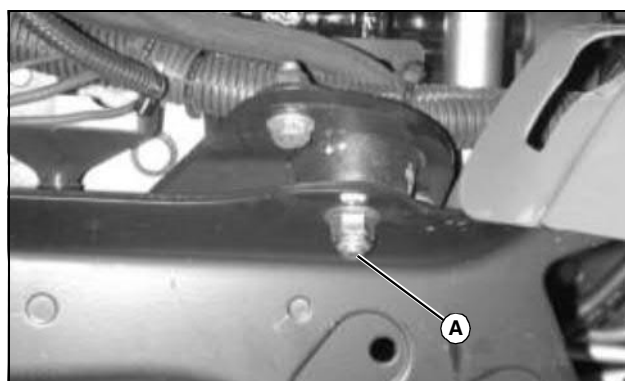
### Install Lift Lock Extension

1. Park machine safely. (See Parking Safely in Safety section.)



**CAUTION: Avoid injury! Touching hot surfaces can burn skin. The engine, components, and fluids will be hot if the engine has been running. Allow the engine to cool before servicing or working near the engine and components.**

2. Allow machine to cool.

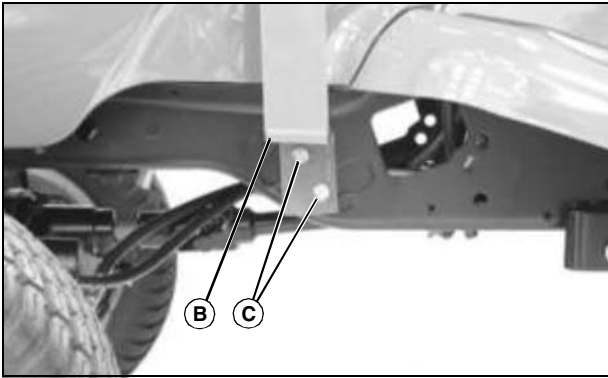


MX13488

3. Remove left, rear machine motor mount bolt (A) and install in opposite direction to clear lift lock extension.

# ASSEMBLY

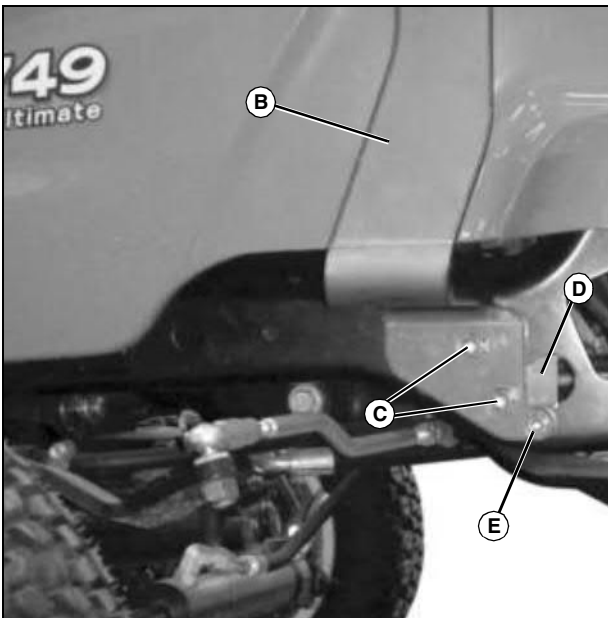
**NOTE:** Lift lock extension must be aligned vertically in order to function properly.



MX12375

**Picture Note: X700 Series (MY 12 or earlier)**

4. X700 Series (MY 12 or earlier): Install lift lock extension (B) using existing holes in left side of machine frame. Secure with two 3/8 x 1-1/4 in. hex bolts and 3/8 in. locknuts (C).



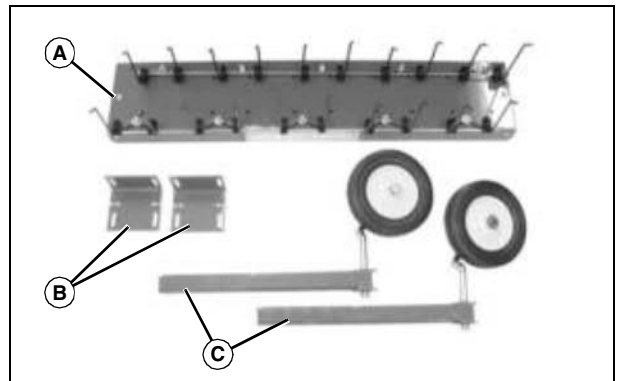
MX52297

**Picture Note: X700 Series (MY 13 or later)**

5. X700 Series (MY 13 or later): Install lift lock extension (B) using three holes in back plate (D) at the left side of the machine frame. Secure the lower right hole with a 5/16 x 1-1/4 in. hex bolt and a 5/16 in. locknut (E). Secure the other two holes with two 3/8 x 1-1/4 in. hex bolts and 5/16 in. locknuts (C).

Part	38-in. Width	46-in. Width	54-in. Width
Thatcher Kit	Required	Required	Required
Frame Mount Kit	Required	Required	Required
Eight-Inch Extension Kit	Not Used	One Required	Two Required

## Identify Parts: Main Frame



MX12395

## Box of Parts

Qty.	Description
1	Main Frame (A)
2	Frame Mounting Bracket (B)
2	Gauge Wheel Assembly (C)
1	Bag of Parts

## Bag of Parts

Qty.	Description
4	Carriage Bolt, 5/16 x 4 in.
4	Carriage Bolt, 5/16 x 1 in.
8	Locknut, 5/16 in.
4	Spacer, 3-1/4 in.

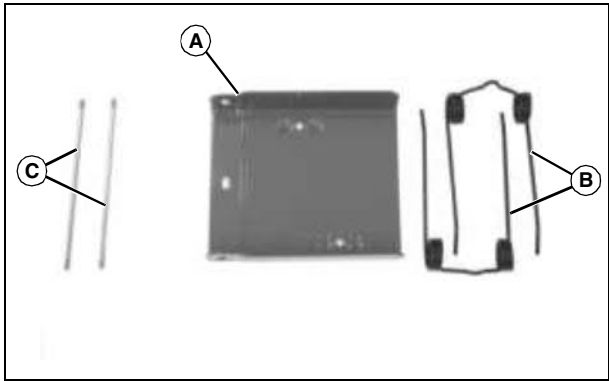
## Assembly

### Parts Required

Thatcher can be configured for 38 in., 46 in. or 54 in. widths.

# ASSEMBLY

## Identify Parts: Frame Extension



MX12396

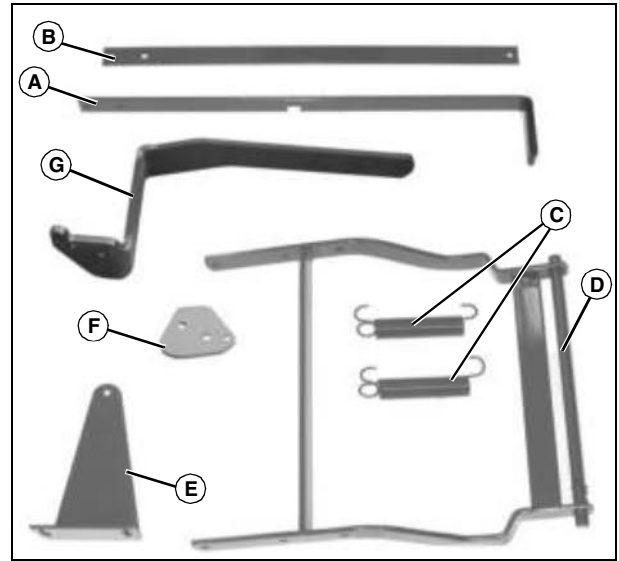
### Box of Parts

Qty.	Description
1	Frame Extension (A)
2	Tine (B)
2	Tine Retention Safety Rod (C)
1	Bag of Parts

### Bag of Parts

Qty.	Description
3	Carriage Bolt, 5/16 x 3/4 in.
2	Carriage Bolt, 5/16 x 1 in.
5	Locknut, 5/16 in.
4	Locknut, 1/4 in.
2	Two-Hole Washer
2	Washer, 9 x 29 x 3 mm
3	Washer, .344 x .688 x .060 in.

## Identify Parts: Mounting Bracket and Lift Lever



MX52292

### Box of Parts

Qty.	Description
1	Upper Lift Lever (A)
1	Lower Lift Lever (B)
2	Lift Assist Spring (C)
1	Mounting Frame (D)
1	Lift Lever Bracket (E)
1	Back Plate (F)
1	Lift Lock Extension (G)
1	Bag of Parts

### Bag of Parts

Qty.	Description
1	Retainer Strap
1	Handle Grip
2	Hex Bolt, 3/8 x 1-1/4 in.
1	Hex Bolt, 5/16 x 1-1/4 in.
8	Carriage Bolt, 5/16 x 1 in.
1	Carriage Bolt, 5/16 x 1-1/2 in.
2	Locknut, 3/8 in.
10	Locknut, 5/16 in.
1	Spacer, 1/2 in.
1	Drilled Pin, 5/16 x 3/4 in.

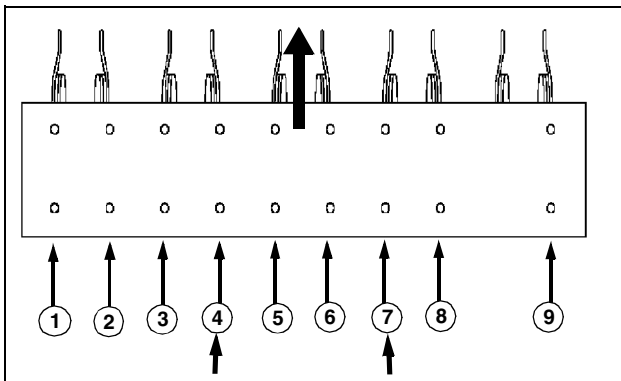
# ASSEMBLY

Qty.	Description
1	Drilled Pin, 5/16 x 1-1/4 in.
2	Quick-Release Pin, 1/8 in.
8	Washer, 5/16 in.

## Assemble Thatcher Main Frame

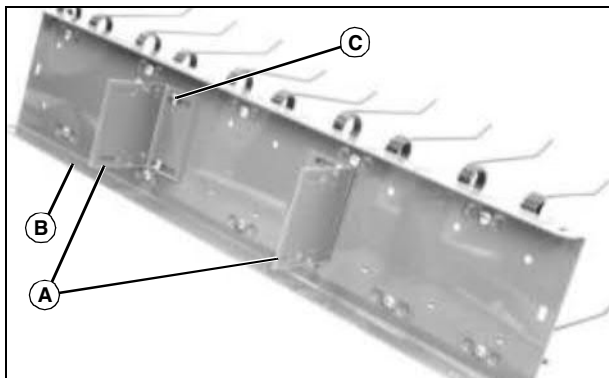
For 38 in. and 54 in. Configurations:

**IMPORTANT: Avoid damage! Tips of tines must face direction of forward travel (John Deere label also faces forward).**



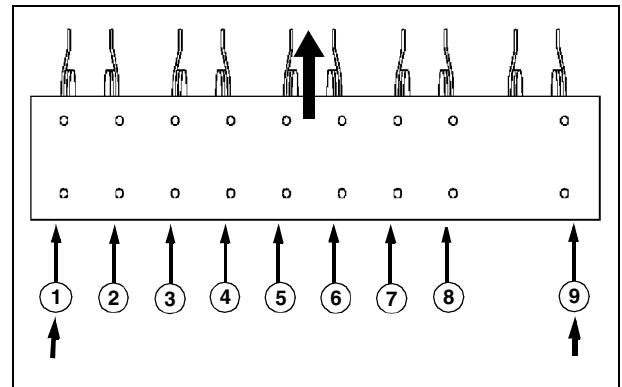
M9117A

1. Locate frame mounting bracket mounting holes 4 and 7 in main frame.



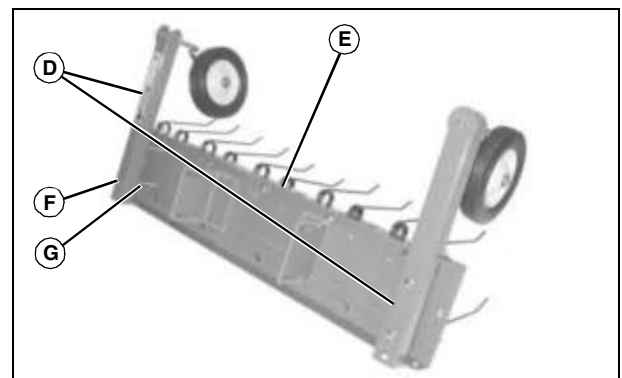
MX12367

2. Attach frame mounting brackets (A) to main frame (B) using four 5/16 x 1 in. carriage bolts (C) and locknuts. Long side of each bracket must face toward outside of frame as shown. Do not tighten.



M9117A

3. Locate wheel support bracket mounting holes 1 and 9 in main frame.

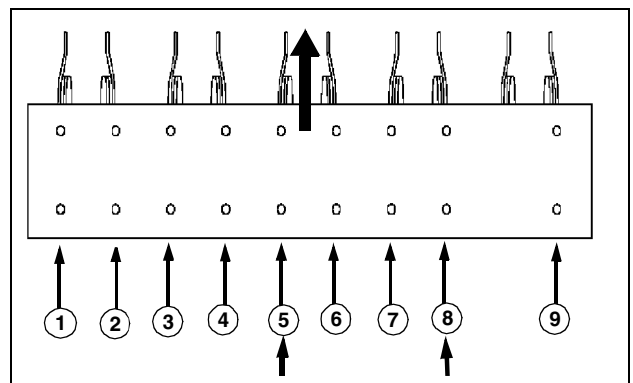


MX12368

4. Fasten wheel supports (D) to main frame (E) using four 5/16 x 4 in. carriage bolts (F), spacers (G) and locknuts.

For 46 in. Configuration:

**IMPORTANT: Avoid damage! Tips of tines must face direction of forward travel (John Deere label also faces forward).**



M9117A

1. Locate frame mounting bracket mounting holes 5 and 8 in main frame.



**Suggest:**

**If the above button click is invalid.**

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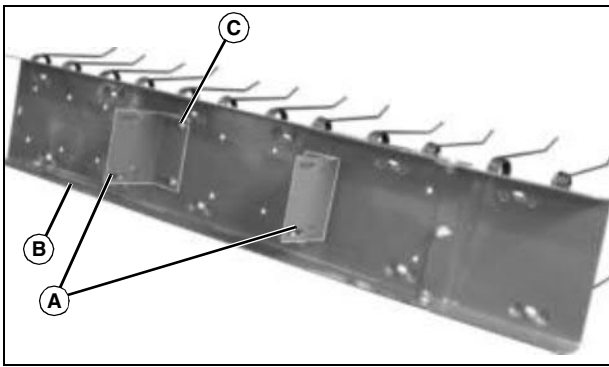
**Thank you so much for reading**

# ASSEMBLY

## 46 and 54 Inch Thatcher Assemble Frame Extensions

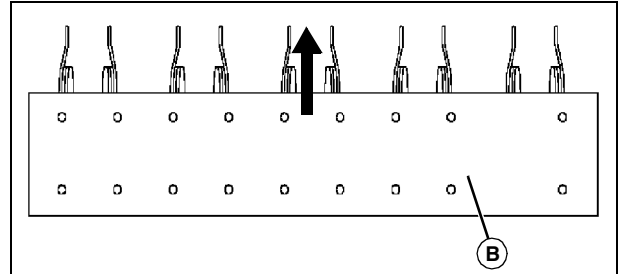
**NOTE: 46" thatcher assembly frame extension note:**

*When installing only one frame extension kit, it must be installed on the "Right" side (B) of the tray when viewed from the angle in graphic below to enable proper centering of the unit.*

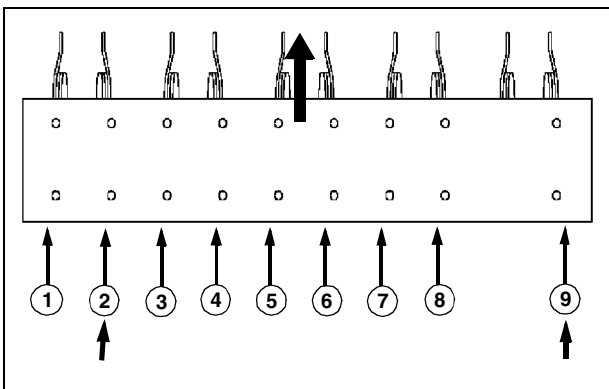


MX52293

2. Attach frame mounting brackets (A) to main frame (B) using four 5/16 x 1 in. carriage bolts (C) and nylon locknuts. Short side of each bracket must face toward center of frame as shown. Do not tighten.

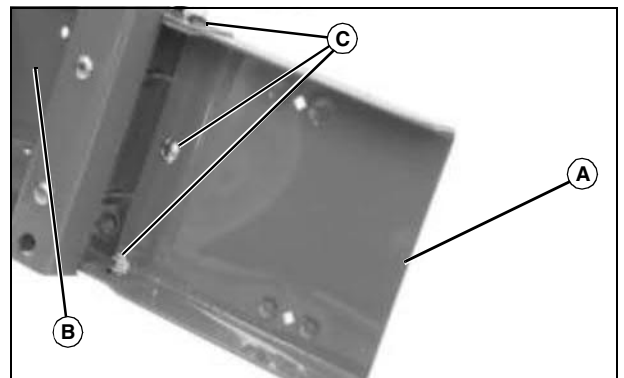


M9117A



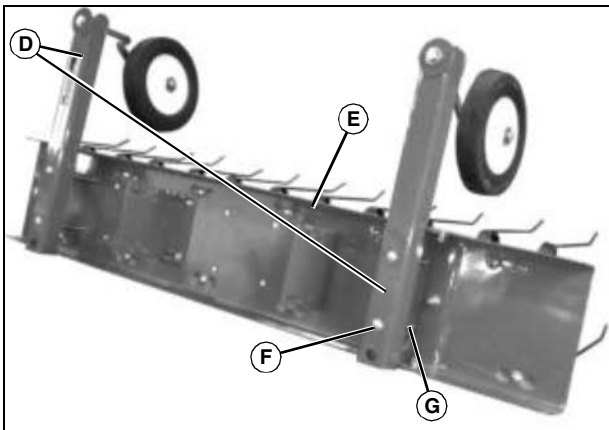
M9117A

3. Locate wheel support bracket mounting holes 2 and 9 in main frame.



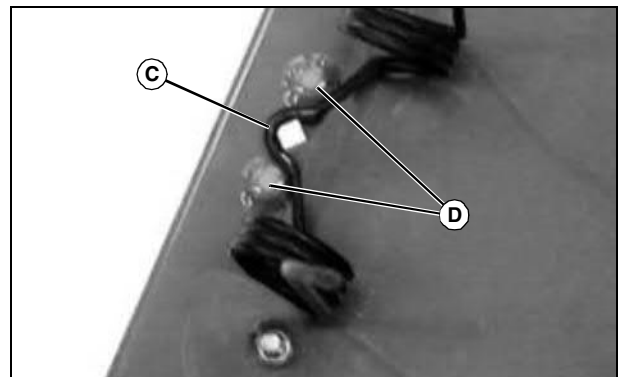
MX12369

1. Install frame extension (A) on right side of main frame (B) using three 5/16 x 3/4 in. carriage bolts (C), washers and locknuts.



MX52294

4. Fasten wheel supports (D) to main frame (E) using four 5/16 x 4 in. carriage bolts (F), spacers (G) and nylon locknuts.



M63097A

2. Position offset (C) in line between two extension frame extrusions (D).

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