

JOHN DEERE
AG & TURF DIVISION

Material Collection System (MCS)
580H and 580L

OMM164021 A3

OPERATOR'S MANUAL



JOHN DEERE

Original Instruction

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INTRODUCTION

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Introduction

Using Your Operator's Manual

Read this entire operator's manual, especially the safety information, before operating.

This manual is an important part of your machine. Keep all manuals in a convenient location so they can be accessed easily.

Use the safety and operating information in the attachment operator's manual, along with the machine operator's manual, to operate and service the attachment safely and correctly.

If your attachment manual has a section called Preparing the Machine, it means that you will have to do something to your tractor or vehicle before you can install the attachment. The Assembly and Installation sections of this manual provide information to assemble and install the attachment to your tractor or vehicle. Use the Service section to make any needed adjustments and routine service to your attachment.

If you have any questions or concerns with the assembly, installation, or operation of this attachment, see your local John Deere dealer or call the John Deere Customer Contact Center at 1-800-537-8233 for assistance.

Warranty information on this John Deere attachment can be found in the warranty that came with your John Deere tractor or vehicle.

Machine Use

This machine is designed solely for use in customary lawn mowing operations. Use in any other way is considered as contrary to the intended use.

The manufacturer accepts no liability for damage or injury resulting from this misuse, and these risks must be borne solely by the user. Compliance with and strict adherence to the conditions of operation, service and repair as specified by the manufacturer also constitute essential elements for the intended use.

This machine should be operated, serviced and repaired only by persons familiar with all its particular characteristics and acquainted with the relevant safety rules (accident prevention). The accident prevention regulations, all other generally recognized regulations on safety and occupational medicine and the road traffic regulations must be observed at all times.

Setting fuel delivery beyond published factory specifications or otherwise overpowering will result in loss of warranty protection for this machine.

Any arbitrary modifications carried out on this machine will relieve the manufacturer of all liability for any resulting damage or injury.

Product Identification

Product Compatibility

The 580H and 580L Material Collection Systems are compatible with:

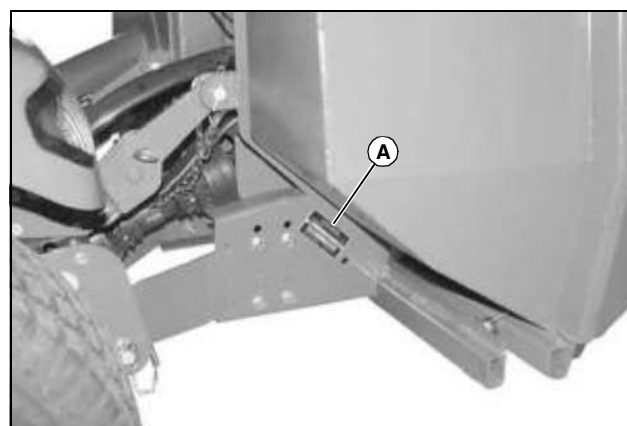
- X740, X748, X749, X750, X754, and X758 Ultimate Series Tractors
- 1025R, 1026R, 2320, 2520, 3320, 3520 and 3720 Compact Utility Tractors.

Installation procedures, components and optional equipment may vary according to application.

PRODUCT IDENTIFICATION

Equipment Configurations For Each Tractor Model

DESCRIPTION		TRACTOR			
		X740 X748 X749 X750 X754 X758	1025R 1026R	2320 2520	3320 3520 3720
Basic equipment		X	X	X	X
Ground level discharge system		X	X	X	X
Direct attach		S	---	---	---
Three point hitch		S	---	---	---
Three point hitch cat. 1		---	X	X	X
Support stands		X	X	X	X
Caster wheel assembly		---	X	O	O
Hopper	580 litres	X	X	X	X
	750 litres	---	---	O	O
Intake ports for different mower widths	1.22m 48C	X	---	---	---
	1.37m 54C	X	X	---	---
	1.57m 62C	X	X	---	---
	1.53m (60 in.) 7-Iron	X	---	---	---
	1.37m (54 in.)	---	---	X	---
	1.52m (60 in.)	---	---	X	---
	1.52m (60 in.)	---	---	---	X
	1.85m (72 in.)	---	---	---	X
X = Standard					
S = Select either Direct Attach or Three Point Hitch feature					
O = Optional					



MX39346

DATE OF PURCHASE:

DEALER NAME:

DEALER PHONE:

PRODUCT SERIAL NUMBER (A):

Additional Equipment

Support stands (all models) and Rear Hydraulic Kit (X700 Series only) are supplied as standard equipment with the MCS.

- Caster Wheel Kit (1000/2000/3000 TWENTY Series only - optional for 580L, required for 580H)
- Fill Gage Kit (optional)
- Light Kit (optional) in accordance with StVZO (German Road Traffic Licensing Regulations)

Record Identification Numbers

580H and 580L Material Collection System

Serial No. MCS580L (RA580L101583 -)

Serial No. MCS580H (RA580H102052 -)

If you need to contact an Authorized Service Center for information on servicing, always provide the product model and serial number.

You will need to locate the model and serial number for the attachment and record the information in the spaces provided below.

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The full manual is available for immediate download.

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SAFETY LABELS

Safety Labels



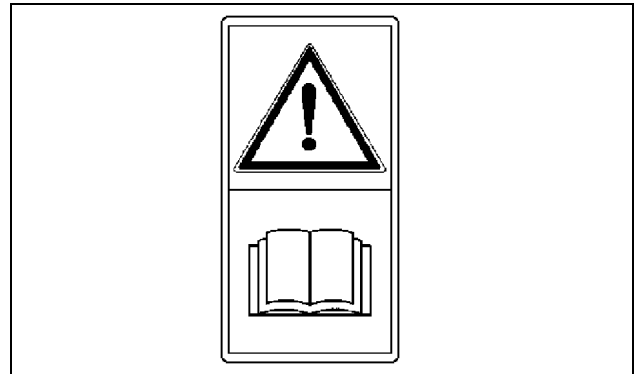
Pictorial Safety Signs

At several important places on this machine safety signs are affixed intended to signify potential danger. The hazard is identified by a pictorial in a warning triangle. An adjacent pictorial provides information how to avoid personal injury.

These safety signs, their placement on the machine and a brief explanatory text are shown in this Safety section.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

Operator's Manual - RA1012523



RA1012523

- This operator's manual contains all important information necessary for safe machine operation. Carefully observe all safety rules to avoid accidents.

Avoid Injury from Crushing - RA1012505

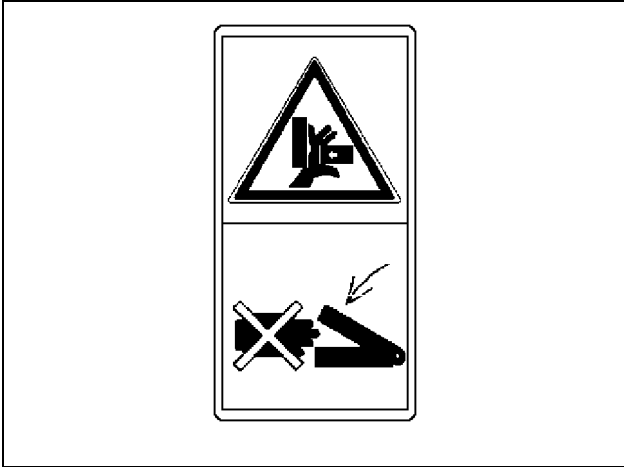


RA1012505

- Avoid injury from crushing. Stay clear of swing area while machine engine is running.

SAFETY LABELS

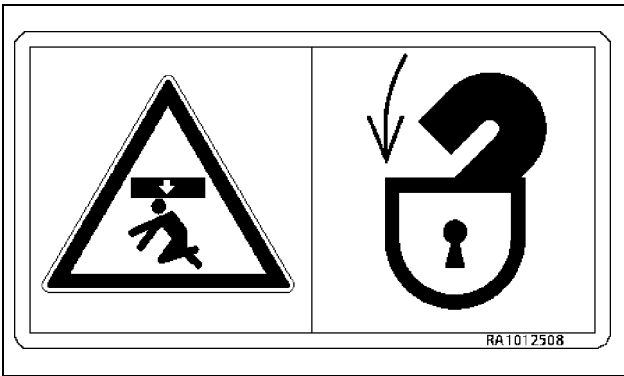
Avoid Injury from Crushing - RA1012506



RA1012506

- Avoid injury from force applied from side-crushing of fingers or hand.
- Never reach into crushing area while parts are moving.

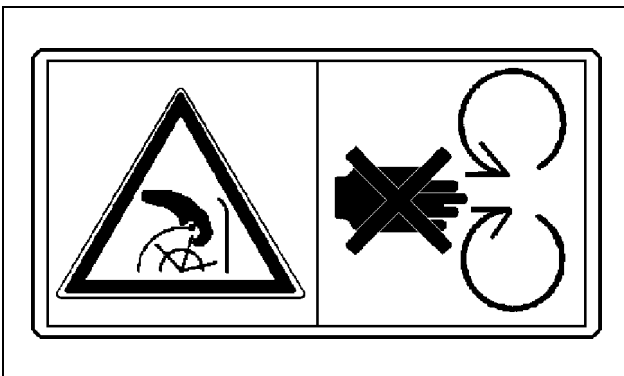
Avoid Injury from Crushing - RA1012508



RA1012508

- Avoid injury from crushing. Engage safety lock before getting into hazardous area.

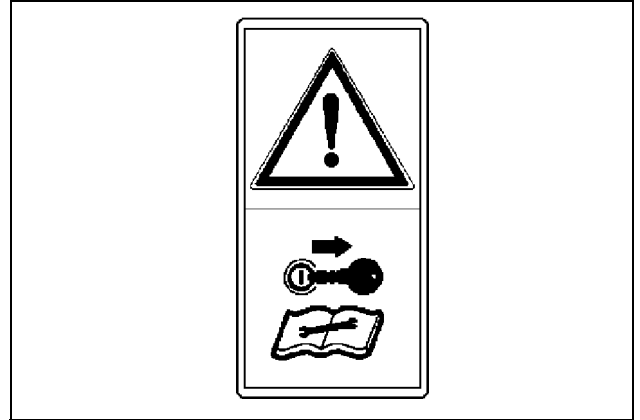
Avoid Injury from Rotating Blower - RA1012507



RA1012507

- Avoid severing of fingers or hand from the rotating blower. Never reach into fan housing while the engine is running.
- Do not open or remove safety shields while engine is running.

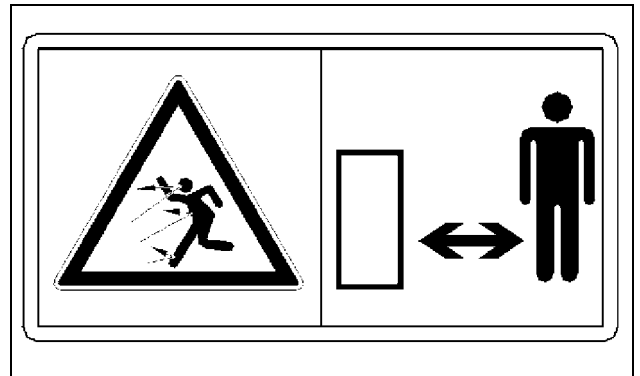
Take Proper Safety Precautions - RA1012512



RA1012512

- This operator's manual contains important information necessary for safe machine operation. Observe all safety rules to avoid accidents.
- Shut off engine and remove key before performing maintenance or repair work.

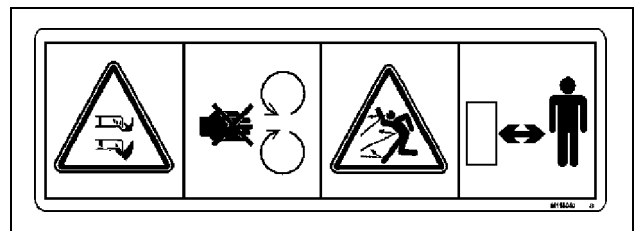
Thrown Objects - RA1012516



RA1012516

- Shut off engine and remove key before opening the cleaning hopper.
- Injury can result from thrown objects.

Rotating Blades / Thrown Objects



M118040

- Do not put hands or feet under or into mower when engine is running.
- Do not operate mower without discharge chute or entire grass catcher in place.
- Keep away from machine while engine is running.

SAFETY

Safety

Read Safety in Machine Operator's Manual

Read the general safety operating precautions in your machine operator's manual for additional safety information.

Operating Safely

Read, understand and follow all instructions in this attachment manual, the machine operator's manual and safety signs on equipment before starting.

Use proper front ballast. Remove ballast when the material collection system is removed.

Hopper extends beyond machine. Be aware of surrounding objects when making short turns.

Do not operate material collection system unless entire grass catcher is fastened in place with hopper securely installed.

Do not let anyone ride on the mower or material collection system. Riders are subject to injury such as being struck by foreign objects or being thrown off. Riders may obstruct the operator's view and cause a collision.

Before hopper removal or installation:

- Stop mower.
- Disengage mower or PTO.
- Stop engine and remove key.
- Wait for engine and all moving parts to stop before leaving the operator seat.

Before backing up machine:

- Stop machine.
- Look behind hopper for children.
- Keep bystanders away when unloading material collection system.

Operate safely on slopes:

- Empty MCS when half full.
- Do not operate on steep slopes.
- Before turning, slow down.
- Avoid sudden starts and stops.
- Do not park machine with material collection system on slopes.

Hose Maintenance:

- Hose is subject to wear and deterioration.
- Check hose frequently; replace when necessary.
- Use John Deere hose or equivalent to comply with safety specifications.

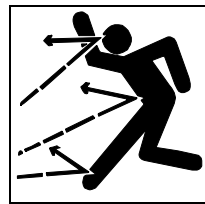
Parking Safely

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.

Protect Children

- Tragic accidents can occur if the operator is not alert to the presence of children. Keep children indoors when the machine and attachment are operated and under the watchful care of another responsible adult.
- Never assume that children will remain where you last saw them. Stay alert to the presence of children. Turn the machine off if a child enters the work area.
- Do not let children or an untrained person operate the machine.
- Do not carry or let children ride on any attachment or machine even with the attachment off. Do not tow children in a cart or trailer.



Avoid Injury From Thrown Objects

- When operating the vehicle with the MCS attachment installed make sure all chutes and hoses are securely in place. Keep hopper closed or MCS in operating position.
- Stop the engine and wait for all moving parts to stop before removing or lifting any attachment components.

- Avoid injury from impeller blades and thrown objects. Remove attachment when operating vehicle in side discharge mode. Make sure deflector shield is in place on mower deck if attachment is removed.



Avoid Injury From Rotating Blades

- Keep hands and feet away from rotating blades and blower assembly when engine is running.

- Stop engine and wait for moving parts to stop before servicing components.
- Do not operate MCS or blower unless all attachment components are in place and latched.

Practice Safe Maintenance

- 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 the machine or attachment while it is moving. Keep safety devices in place and in working condition. Keep hardware tight.
- Keep hands, feet, clothing, jewelry, and long hair away from any moving parts, to prevent them from getting caught.
- Lower any attachment completely to the ground or to an existing attachment mechanical stop before servicing the attachment. 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.
- 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.

ASSEMBLY

- Securely support any machine or attachment 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.
- 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.
- Check all hardware at frequent intervals to be sure the equipment is in safe working condition.
- Do not modify machine or safety devices. Unauthorized modifications to the machine or attachment may impair its function and safety.

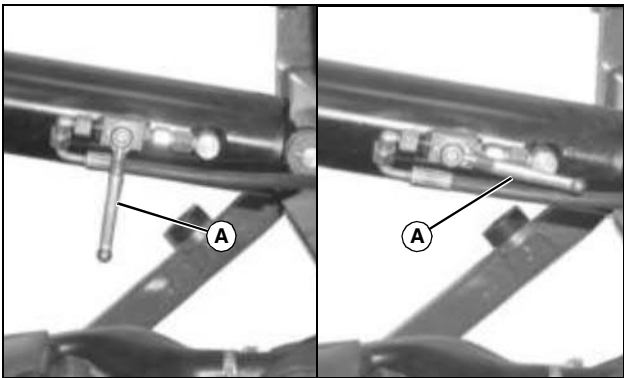
Using the Lift Cylinder Safety Lock

To safely service the machine with the MCS in the raised position, always use the lift cylinder safety lock.



CAUTION: Avoid injury! Attachment is heavy and can crush.

- Support any raised attachment with a mechanical lock or other safe method before servicing.
- Empty all material from any attachment before servicing.



MX13198

- To lock the hydraulic lift in the raised position, turn handle (A) to the left as shown.
- To unlock the hydraulic lift, turn handle (A) to the right as shown.



Avoid High Pressure Fluids

• Hydraulic hoses and lines can fail due to physical damage, kinks, age, and exposure. Check hoses and lines regularly. Replace damaged hoses and lines.

- Hydraulic fluid connections can loosen due to physical damage and vibration. Check connections regularly. Tighten loose connections.
- Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.
- Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A. Information may

be obtained in the United States and Canada only by calling 1-800-822-8262.

Assembly

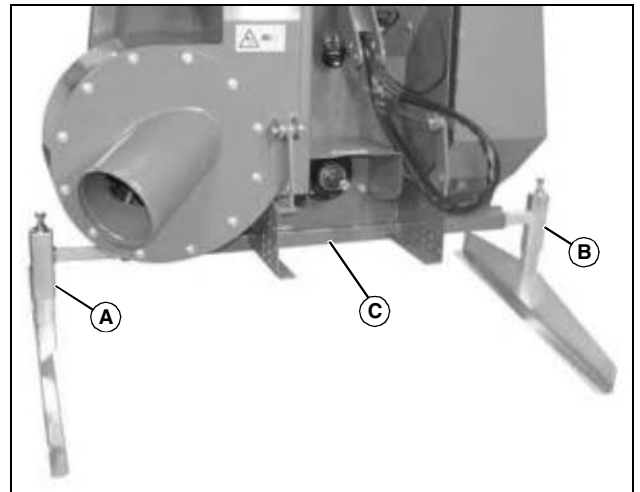
Prepare MCS for Assembly



CAUTION: Avoid injury! Machine component or attachment is heavy. Use a safe lifting device or get an assistant to help lift, install or remove component or attachment.

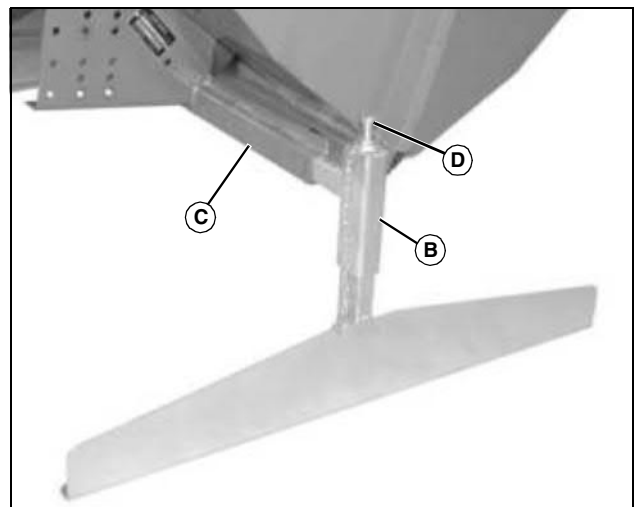
1. Open crate for MCS assembly, connect a suitable hoist or lifting apparatus to the top of the MCS, and carefully lift out of crate.

NOTE: Right side support stand (A) has a longer horizontal tube than the left side support stand (B) to ensure that it inserts far enough into the MCS frame, while maintaining adequate clearance to the blower housing for adjustment.



MX39357

2. Locate the two support stands, right side (A) and left side (B), and insert them into the ends of the MCS frame tube (C).



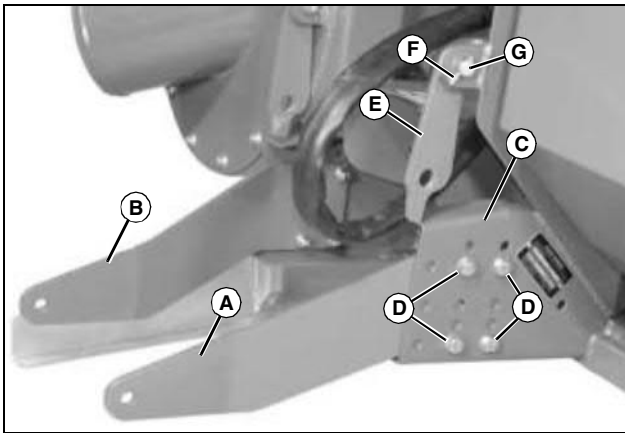
MX39358

3. Alternate adjusting the jack-screw (D) on each support stand until there

ASSEMBLY

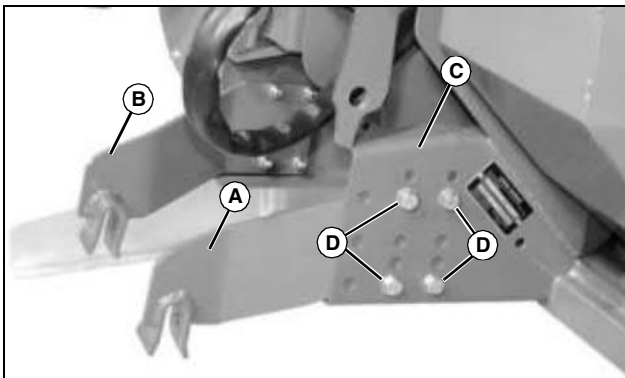
is approximately 20 mm (25/32 in.) of thread showing.

Assemble Connecting Plates to MCS (X Series)



MX39360

Picture Note: For X700 Series with three-point hitch.



MX39359

Picture Note: For X700 Series without three-point hitch.

1. Install the LH (A) and RH (B) connecting plate to the inside of the MCS mounting bracket (C):

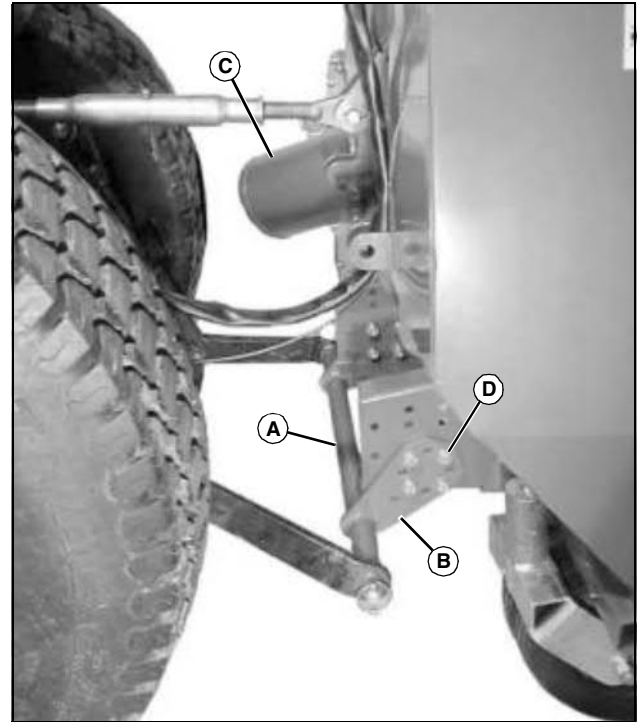
- When properly installed the front ends of the brackets are angled downward and to the inside.
- Align the lower mounting holes in the connector plates with the lowest row of holes in the MCS mounting bracket.
- Align the forward two holes in the connector plates with the middle column of holes in the MCS mounting bracket. The rear set of holes in the connector plates will align with the rear column of holes in the MCS mounting bracket.
- Secure with four M12x35 hex head bolts (D) and M12 washers, installed from the outside, and M12 nylon insert locknuts at the inside. Do not fully tighten hardware at this time.

2. Remove the upper mounting plates (E) - on tractors with three-point hitch only:

- Drive out one of the roll pins (F) securing the drilled pivot pins (G).
- Remove drilled pins and upper mounting plates. These plates are not used when installing the MCS on a tractor with three-point hitch.

Assemble Draft Link Rod to MCS (1000/2000/3000 TWENTY Series)

IMPORTANT: Avoid damage! Close rear window on tractors with cab installed before proceeding.



MX39534

1. Position the draft link rod (A) with the mounting brackets (B) at the outside of the MCS frame.

2. Align mounting holes on the draft link brackets with MCS frame as necessary to fit the draft arms of the tractor, and maintain adequate space between the front of the fan housing inlet (C) and the right rear tire of the tractor. Secure each bracket with four M12x30 hex head bolts (D), installed from the outside, and M12 nylon insert locknuts at the inside.

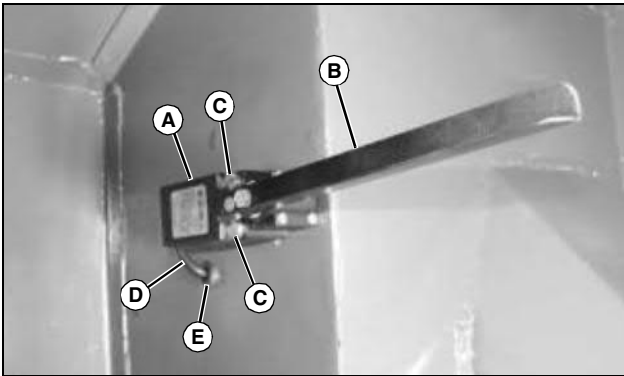
Install Fill Gage

The fill gage kit consists of the switch (w/ lever and wiring harness), a buzzer alarm, wiring connectors, and a second wiring harness with the power connector plug.

NOTE: Location of fill gage switch and buzzer alarm varies between 580L and 580H models.

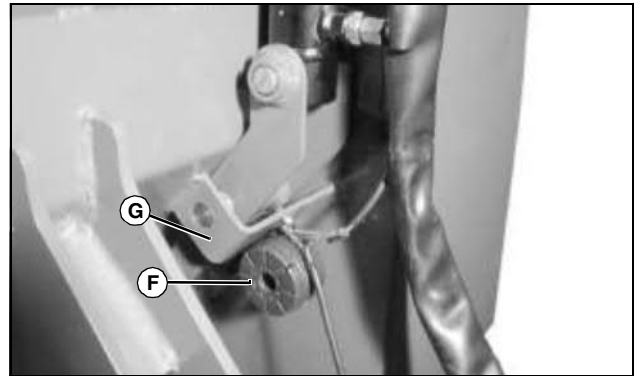
1. Open hopper and engage hopper safety interlock pin. On model 580H, MCS control valve lever must be in position A.

ASSEMBLY



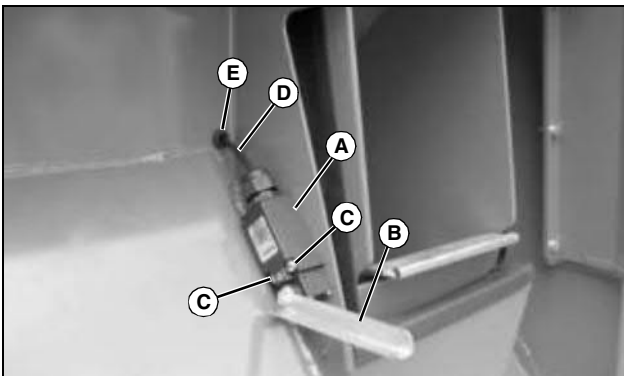
MX39504

Picture Note: 580L model shown.



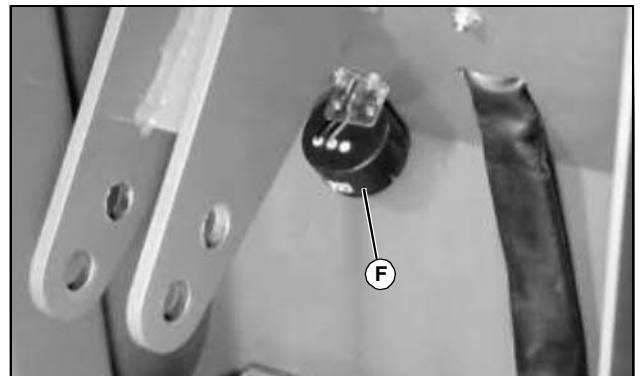
MX39505

Picture Note: 580L model shown.



MX39707

Picture Note: 580H model shown.



MX39506

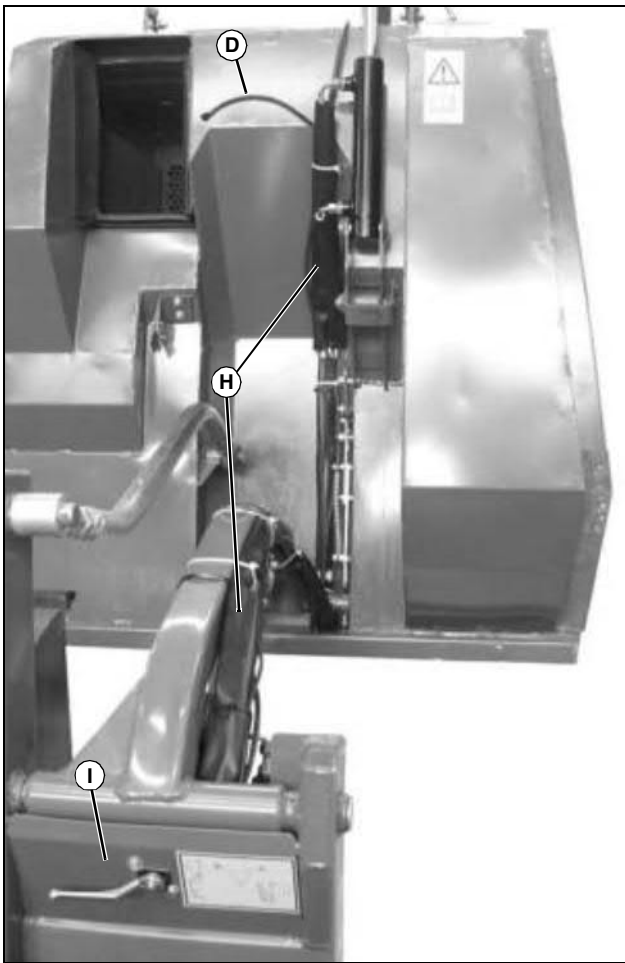
Picture Note: 580H model shown.

2. Install the fill gage switch (A), with moveable arm (B) attached, to the inside of the MCS case using existing holes. Secure with two M5x35 slotted head screws (C), installed from the inside, and M5 washers and hex nuts at the outside.
3. Route the wiring harness (D) to the outside of the MCS case through an existing hole next to the switch, and install grommet (E) to protect the wiring.

4. Secure the buzzer alarm (F) at the front of the MCS (580H), or at the front of the latch pivot bracket (G) (580L), using two M5x16 hex head bolts and M5 nylon insert locknuts in existing holes. For 580H model, route the buzzer alarm wires through the MCS housing to the rear and install grommet for protection.

5. 580H model only - Move MCS control valve lever to position B, raise MCS case to comfortable working height, and engage lift cylinder safety interlock.

ASSEMBLY

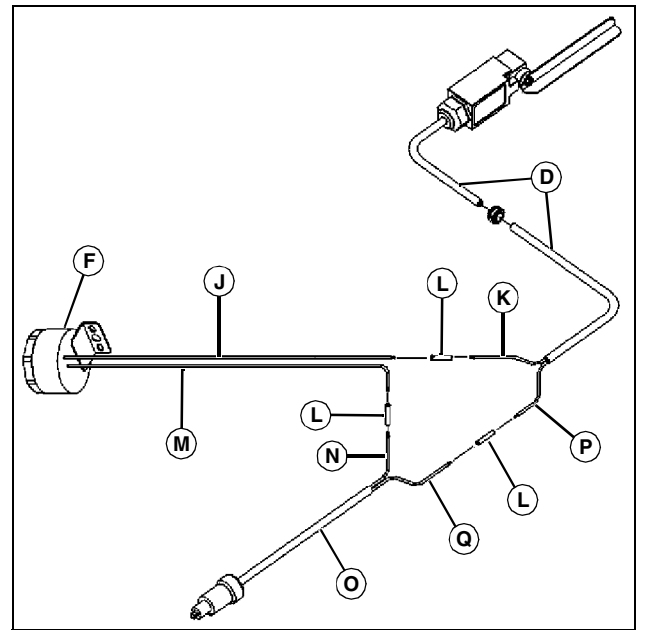


MX39708

Picture Note: 580H model shown, hopper closed.

6. Route the switch harness to the buzzer alarm:

- 580L model - Route the switch harness straight down to the buzzer alarm behind the hopper cylinder. A retainer clip can be installed in the MCS case to secure the harness away from the cylinder.
- 580H model (shown) - Route the switch harness (D) over to the hydraulic hose bundle (H), then route along with the hydraulic hoses to the buzzer alarm at the back of the MCS housing (I).



MX39536

7. Connect wiring:

NOTE: On 580H models, the end of the power plug harness with stripped wire ends must be inserted through the opening in the MCS housing from the front (next to the hydraulic hoses), so that the wiring leads are next to the buzzer alarm wiring leads behind the housing.

- Connections - With the ends of the two harnesses routed to the buzzer alarm, splice the red wire (J) from the buzzer alarm to the blue wire (K) from the switch harness (D) using a connector (L). Splice the black wire (M) from the buzzer alarm to the blue wire (N) from the power plug harness (O) using a connector (L). Splice the brown wire (P) from the switch harness to the brown wire (Q) from the power plug harness using a connector (K).
- 580L - After completing connections, secure the power plug harness to the buzzer mounting bracket with a tie strap to eliminate pressure on the connectors.
- 580H - After completing connections, secure both the switch harness and power plug harness to the hydraulic hose bundle with a tie strap to eliminate pressure on the connectors.

8. Unlock lift cylinder interlock, lower MCS case, and move MCS control valve lever to position A (580H model only).



Suggest:

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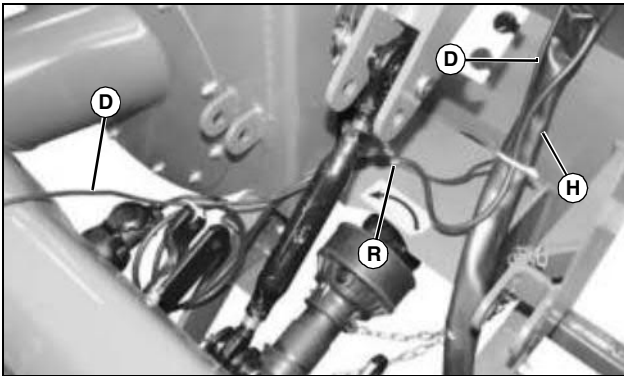
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ASSEMBLY



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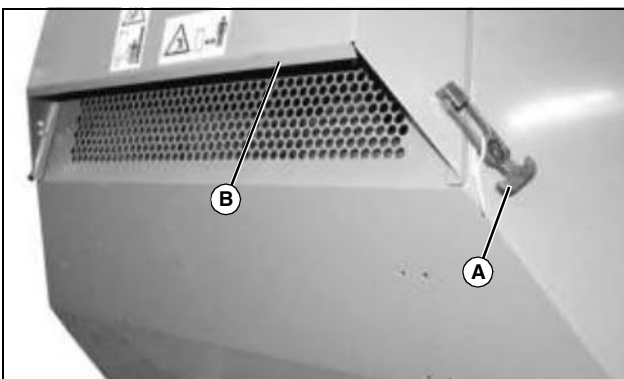
Picture Note: X700 Series w/ three-point hitch, 580H model, and optional light kit shown.

9. Finish routing the fill gage harness (D) along with the hydraulic hoses (H), and over to the drive bearing cover, and position the harness to avoid contact with other components. Position a brass clip (R) to secure the harness location, then mark and drill two holes in the drive bearing cover, and secure with provided screws and nuts.
10. Secure fill gage harness to hydraulic lines with tie strap.
11. Finish routing the harness forward and plug into the accessory power outlet on the tractor.
12. Loop excess harness and secure to available bracket with tie straps, as necessary.
13. Turn key switch on and manually raise switch arm to test alarm function.
14. Close hopper.

Install Light Kit (Optional)

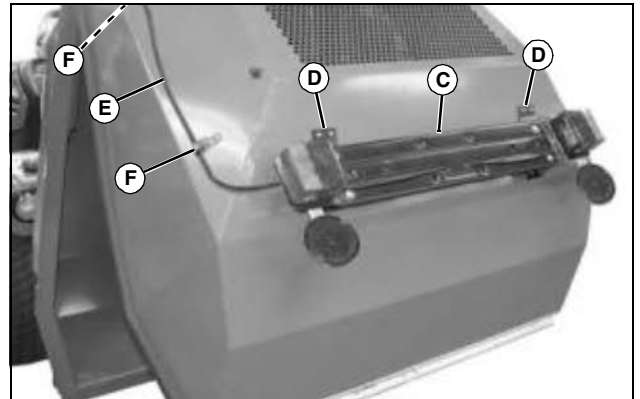
NOTE: The light kit includes two kinds of harness retainer clips - plastic (self-stick) and metal (secure with supplied screws and nuts). The metal clips are shown and described in the instruction. If desired, just substitute the plastic clips and eliminate steps to drill holes and install hardware.

1. Open hopper and engage safety interlock pin. On model 580H, MCS control valve lever must be in position A.



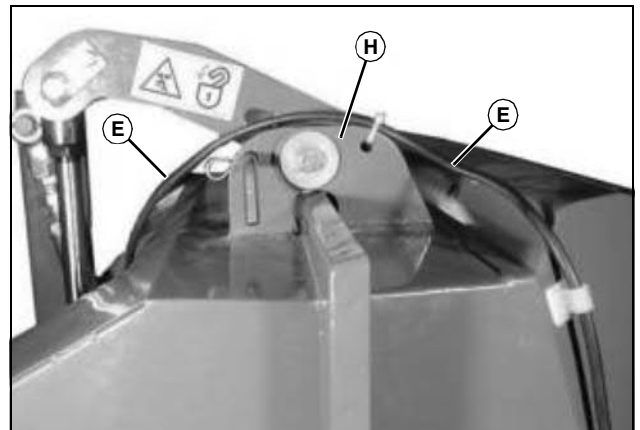
MX39528

2. Disengage the two latches (A) and tilt the hopper exhaust cover (B) fully forward (optional).



MX39709

3. Assemble light bar (C) (including safety reflectors) to hopper, using existing holes. Secure each light bar bracket (D) with four M10 hex head bolts, installed from the outside, and M10 flat washers, lock washers and hex nuts at the inside.
4. Disassemble connector plug from end of harness. Save components for later assembly.
5. Route light kit wiring harness (E) up left side of hopper. The harness must not interfere with closing the hopper exhaust cover (B).
6. Position two brass retainer clips (F) to secure proper location of harness (the mounting holes for the clips should be inward of the harness). For each clip, mark location of the two mounting holes, drill holes, deburr as necessary, and secure clips to hopper with provided screws and nuts.



MX39710

Picture Note: 580H model and optional plastic harness retainer shown instead of brass retainer on hopper.

7. Route harness (E) from the top of the hopper across the top of the case next to the hopper lift arm (H). Secure harness to existing hole in hopper lift arm with tie strap.
8. Move hopper safety interlock pin to unlocked position, and close hopper.
9. 580H model only - Move MCS control valve lever to position B, raise MCS case to comfortable working height, and engage lift cylinder safety interlock.

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