

JOHN DEERE
AG & TURF DIVISION

Material Collection System (MCS)
MC542

OMM163154 L1

OPERATOR'S MANUAL



JOHN DEERE

North American Version
Litho in U.S.A.

Introduction

⚠ WARNING: The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

California Proposition 65 Warning

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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 John Deere Special Services at 1-866-218-8622 for assistance.

Product Identification

Product Compatibility

The MC542 system can only be mounted on a 17P Utility Cart and is then compatible with the following models:

- Select Series X500 Multi-Terrain
- Select Series X700 Ultimate

Record Identification Numbers

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

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

DATE OF PURCHASE:

DEALER NAME:

DEALER PHONE:

PRODUCT MODEL NUMBER:

ENGINE SERIAL NUMBER:

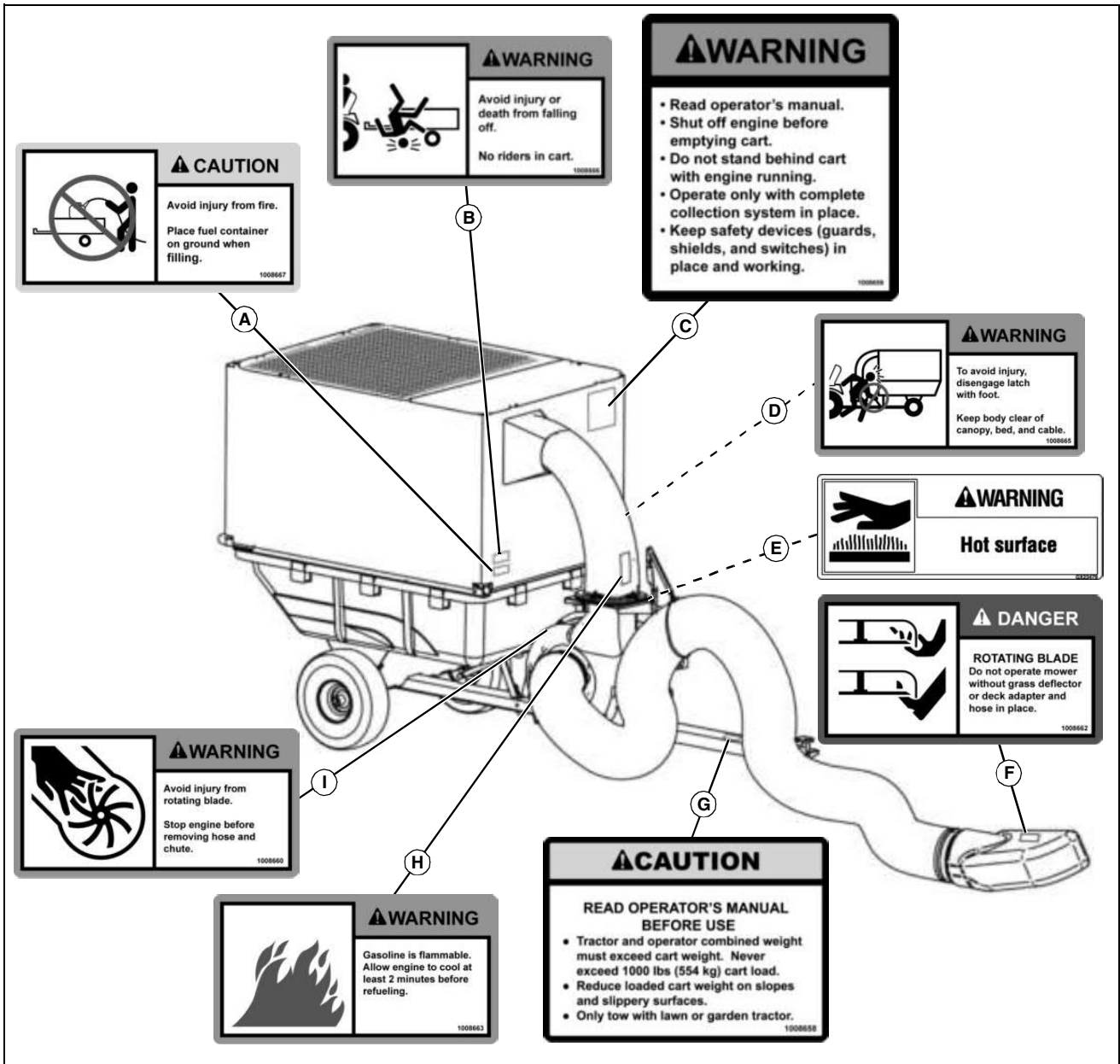
Original Instruction
All information, illustrations and specifications in this manual are based on the latest information at the time of publication. The right is reserved to make changes at any time without notice.

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Safety Labels

Safety Label Location

Safety Labels



MX45462

Picture Note: Use label number listed in table below to locate complete text of safety label message following this illustration.

- A- CAUTION - 1008667
- B- WARNING - 1008666
- C- WARNING - 1008659
- D- WARNING - 1008665
- E- WARNING - GX23479
- F- DANGER - 1008662
- G- CAUTION - 1008658
- H- WARNING - 1008663
- I - WARNING - 1008660



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.

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Safety Labels

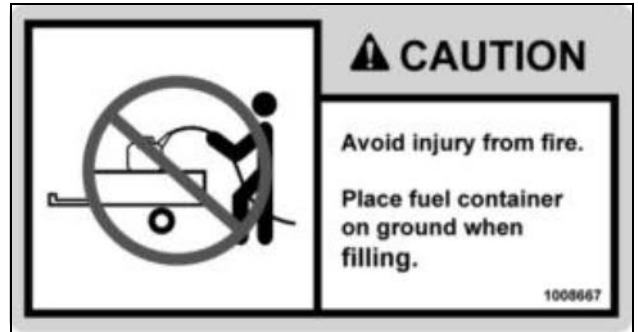
WARNING 1008665



1008665

- To avoid injury, disengage latch with foot.
- Keep body clear of canopy, bed, and cable.

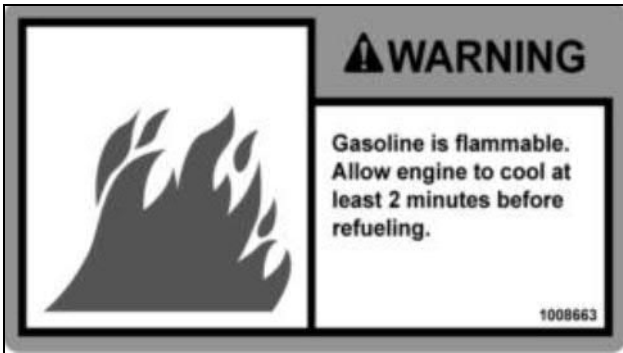
CAUTION 1008667



1008667

- Avoid injury from fire.
- Place fuel container on ground when filling.

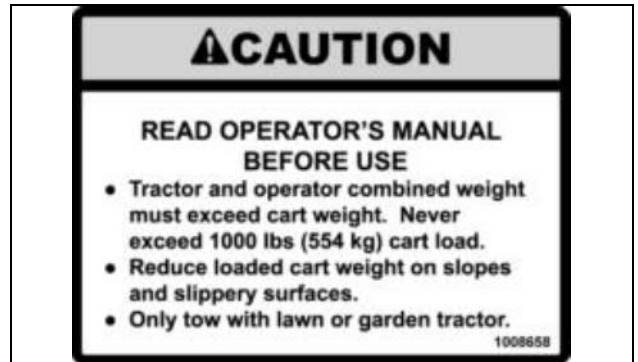
WARNING 1008663



1008663

- Gasoline is flammable. Allow engine to cool at least 2 minutes before refueling.

CAUTION 1008658



1008658

READ OPERATOR'S MANUAL BEFORE USE

- Tractor and operator combines weight must not exceed cart weight. Never exceed 1000 lbs (554 kg) cart load.
- Reduce loaded cart weight on slopes and slippery surfaces.
- Only tow with lawn or garden tractor.

WARNING 1008666



1008666

- Avoid injury or death from falling off.
- No riders in cart.

WARNING 1008659



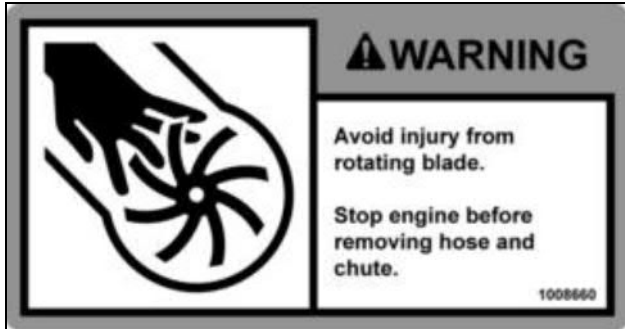
1008659

- Read operator's manual.

Safety

- Shut off engine before emptying cart.
- Do not stand behind cart with engine running.
- Operate only with complete collection system in place.
- Keep safety devices (guards, shields, and switches) in place and working.

WARNING 1008660



1008660

- Avoid Injury From Rotating Blade.
- Stop engine before removing hose and chute.

DANGER 1008662

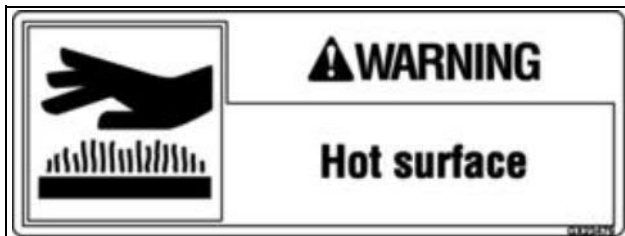


1008662

ROTATING BLADE

- Do not operate mower without grass deflector or deck adapter and hose in place.

WARNING GX23479



GX23479a

Hot surface

- Hot Surface

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.
 - Be sure the area is clear of bystanders before operating. Stop machine and attachment if anyone enters the area.
 - Only allow responsible adults, who are familiar with the machine and instructions operate the machine. Do not allow children to operate this machine.
 - Not for highway use. Watch for traffic when operating near or crossing roadways.
 - Stay focused when operating the machine. Stay alert for holes in the terrain and other hidden hazards.
 - Do not operate unless entire material collection system, chutes and hoses are fastened in place and securely installed.
 - Never operate the blower engine unless it is firmly attached to the MCS chassis.
 - Never open canopy unless blower engine is stopped. Always wear protective eyewear.
 - Hot exhaust can burn, do not stand in the exhaust discharge area when blower or machine engine is running.
 - Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts.
 - Never attempt to clear a clogged material collection system with the engine running.
 - Do not operate the machine and attachment unless the grass deflector or the deck adapter and hose are in place.
 - 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 MCS 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.
 - Always look down and behind before and while backing.
 - 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.

Safety

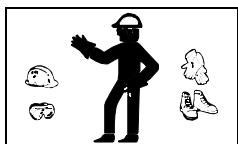
- Avoid sudden starts and stops.
- Do not park machine with material collection system on slopes.

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.



Wear Appropriate Clothing

- Always wear safety goggles, or safety glasses with side shields 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.

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.

Towing Loads Safely

- Stopping distance increases with speed and weight of towed load. Travel slowly and allow extra time and distance to stop.
- Total towed weight must not exceed limits specified in towing vehicle operator's manual.
- Excessive towed load can cause loss of traction and loss of control on slopes. Reduce towed weight when operating on slopes.
- Never allow children or others in or on towed equipment.
- Use only approved hitches. Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the

approved hitch point.

- Follow the manufacturer's recommendations for weight limits for towed equipment and towing on slopes. Use counterweights or wheel weights as described in the machine operator's manual.

- Do not turn sharply. Use additional caution when turning or operating under adverse surface conditions. Use care when reversing.

- Do not shift to neutral and coast downhill.

Protect Bystanders

- Keep bystanders away when you operate a towed attachment.
- Before you back machine and attachment, look carefully behind attachment for bystanders.

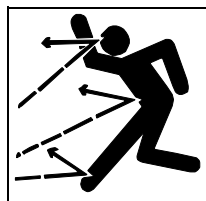
Keep Riders Off Towed Attachment

- Keep riders off of a towed attachment.
- Riders on a towed attachment are subject to injury, such as being struck by objects and being thrown off the attachment during sudden starts, stops and turns.
- Riders obstruct the operator's view, resulting in the attachment being used in an unsafe manner.
- Keep riders off of hitch bracket.

Avoid Injury From Drawbar

Before you disconnect an attachment from machine hitch plate:

- Unload attachment.
- Stop attachment on level ground.
- Stop machine engine.
- Lock machine park brake.
- Block attachment wheels.
- Make sure hands, feet or other body parts are not under drawbar.



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

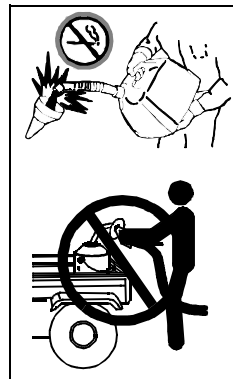
- Only qualified, trained adults should service this machine.

Safety

- 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.
- If you strike a foreign object, stop and inspect the machine. repair, if necessary, before restarting.
- 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.
- Stop engine, disconnect battery or remove spark plug wire (for gasoline engines) before servicing, cleaning, or installing hose or chute.
- 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.
- 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 blower 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.

Prevent Fires

- Machine fires and structure fires can occur if a machine is stored before allowing it to cool, if debris is not removed from critical areas of the machine, or if machine is stored near combustible materials.
- Remove grass and debris from engine compartment and muffler area, before and after operating machine.
- Always shut off fuel when storing or transporting machine, if the machine has a fuel shutoff.
- Do not store machine near an open flame or source of ignition, such as a water heater or furnace.
- Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.



Handling Fuel Safely

To avoid personal injury or property damage, use extreme care in handling fuel. Fuel is extremely flammable and fuel vapors are explosive:

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only an approved fuel container. Use only non-metal, portable fuel containers approved by the Underwriter's Laboratory (U.L.) or the American Society for Testing & Materials (ASTM). If using a funnel, make sure it is plastic and has no screen or filter.
- Never remove the fuel tank cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never add fuel to or drain fuel from the machine indoors. Move machine outdoors and provide adequate ventilation.
- Clean up spilled fuel immediately. If fuel is spilled on clothing, change clothing immediately. If fuel is spilled near machine, do not attempt to start the engine but move the machine away from the area of spillage. Avoid creating any source of ignition until fuel vapors have dissipated.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or other appliance.
- Prevent fire and explosion caused by static electric discharge. Static electric discharge can ignite fuel vapors in an ungrounded fuel container.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before fueling.
- Remove fuel-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a fuel dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until the fueling is complete. Do not use a nozzle lock-open device.
- Never overfill fuel tank. Replace fuel tank cap and tighten securely.
- Replace all fuel container caps securely after use.
- For gasoline engines, do not use gas with methanol. Methanol is harmful to your health and to the environment.

Handling Waste Product and Chemicals

Waste products, such as, used oil, fuel, coolant, brake fluid, and batteries, can harm the environment and people:

- Do not use beverage containers for waste fluids - someone may drink from them.
- See your local Recycling Center or authorized dealer to learn how to recycle or get rid of waste products.
- A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques. The seller of the chemical products used with your machine is responsible for providing the MSDS for that product.

Using a Spark Arrestor

The California Public Resources Code, section 4442.5 provides as follows:

No person shall sell, offer for sale, lease, or rent to any person any internal combustion engine subject to Section 4442 or 4443, and not subject to

Assembly

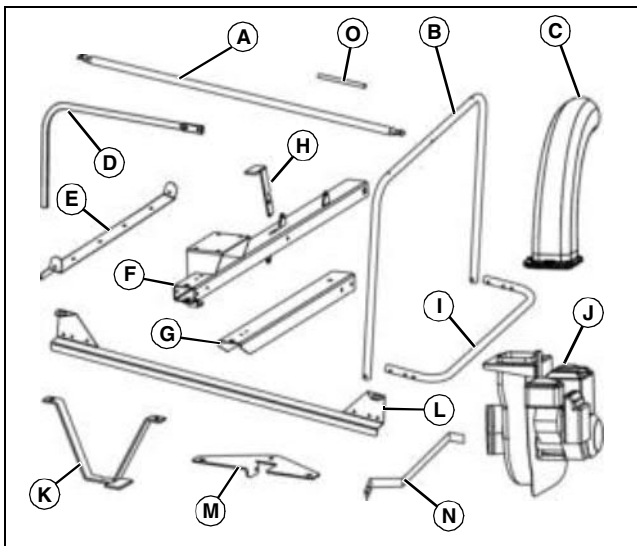
Section 13005 of the Health and Safety Code, unless the person provides a written notice to the purchaser or bailee, at the time of sale or at the time of entering into the lease or rental contract, stating that it is a violation of Section 4442 or 4443 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land unless the engine is equipped with a spark arrestor, as defined in Section 4442, maintained in effective working order or the engine is constructed, equipped, and maintained for the prevention of fire pursuant to Section 4443. Cal. Pub. Res. Code 4442.5.

Other states or jurisdictions may have similar laws. A spark arrestor for your machine may be available from your authorized dealer. An installed spark arrestor must be maintained in good working order by the operator.

Assembly

Parts in Kit

MC542 Parts



MX45554b

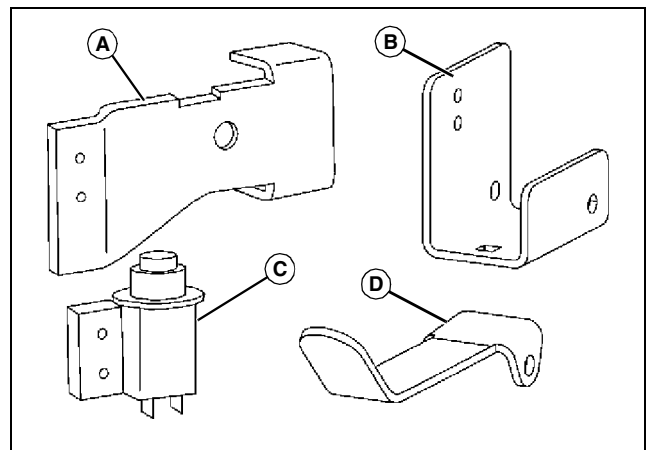
Qty.	Description
2	Tube, Canopy Top (A)
2	Tube, Canopy End (B)
1	Chute (C)
1	Rod, Hose Support (D)
1	Bracket, Front (E)
1	Towbar, Rear (F)
1	Towbar, Tongue (G)
1	Handle, Bed Release (H)
1	Handle, Rear (I)
1	Engine/Blower Assembly (J)
1	Bracket, Lock (K)
2	Bracket, Side (L)

Qty.	Description
1	Stop Bracket (N)
1	Bracket, Gas Spring (M)
1	Canopy
2	Baffle
1	Rod, Threaded
1	Hose, Blower
1	Gas Spring
1	Cable
3	Tubing, Black (O)
2	Clamp, Hose, 8 in.
1	Bungee Cord, 36 in.

Parts in Bag 1007266

Qty.	Description
2	Bolt, 5/16x3/4 in.
1	Bolt, 5/16x4 in.
1	Bolt, 3/8x3-1/2 in.
1	Bolt, 1/2x1 in.
4	Washer, Flat, 5/16 in.
5	Locknut, 5/16 in.
1	Locknut, 3/8 in.
1	Locknut, 1/2 in.
2	Ball Stud
1	Spring, Latch

Parts in Bag 1007267



MX45566a

Assembly

Qty.	Description
1	Switch Bracket, Towbar (A)
1	Switch Bracket, Blower Housing (B)
2	Switch (C)
1	Pivot Plate (D)
2	Backing Plate
1	Wire Harness, Engine
1	Vinyl Grip
4	Bolt, Carriage, 1/4x1-1/4 in.
4	Screw, Round Head, #10x3/4 in.
1	Bolt, 1/4x2-1/4 in.
4	Locknut, 1/4 in.
4	Locknut, #10
1	Locknut, Metal, 1/4 in.
2	Tie Strap

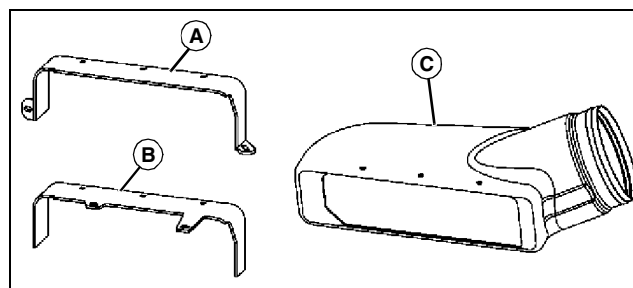
Qty.	Description
11	Clip, Canopy
2	Spacer
4	Washer, Fender, 5/16 in.

Boot Kit Parts

NOTE: Installation of the MC542 will require one of four available Boot Kits to complete the installation:

- LP23080 - 48 in. Deck
- LP23081 - 54 in. Deck
- LP23082 - 60 in. Deck
- LP23083 - 62 in. Deck

The bag of parts provided is universal to all boot kits available and contains hardware that will not be used in every application.



MX45546

Parts in Bag Z-1820-B

Qty.	Description
3	Screw, Round Head, 5/16x1-1/4 in.
6	Washer, Flat, 5/16 in.
3	Lockwasher, 5/16 in.
3	Nut, 5/16 in.

Qty.	Description
1	Bracket, Deck Boot <ul style="list-style-type: none"> • 48, 54, 62 in. (A) • 60 in. (B)
1	Deck Boot (C)
2	Bolt, Carriage, 5/16x3/4 in.
3	Bolt, Carriage, 5/16x1-1/4 in.
1	Bolt, Hex Head, 1/4x1 in.
3	Nut, 5/16 in.
2	Washer, Flat, 1/4 in.
7	Washer, Flat, 5/16 in.
1	Locknut, 1/4 in.
5	Locknut, 5/16 in.

NOTE: Retain these installation instructions with the machine operator's manual.

Parts in Bag Z-1953

Qty.	Description
7	Bolt, Carriage, 1/4x1-1/2 in.
4	Bolt, 1/4x1-1/2 in.
6	Bolt, 5/16x1-1/2 in.
5	Bolt, 5/16x2 in.
2	Bolt, 5/16x2-1/4 in.
2	Bolt, 5/16x2-1/2 in.
2	Nut, 5/16 in.
13	Washer, Flat, 1/4 in.
13	Washer, Flat, 5/16 in.
1	Bracket, Quik Link
1	Link, Quik, 3/16 in.
14	Locknut, 1/4 in.
17	Locknut, 5/16 in.

Prepare 17P Cart

NOTE: These assembly instructions were created to assemble the MC542 Material Collection System (MCS) to a Model 17P Utility Cart that has been previously assembled. These procedures involve certain cart components that will require removal and replacement.

To avoid confusion with assembly procedures if the 17P cart has not yet been assembled, review this ASSEMBLY section completely



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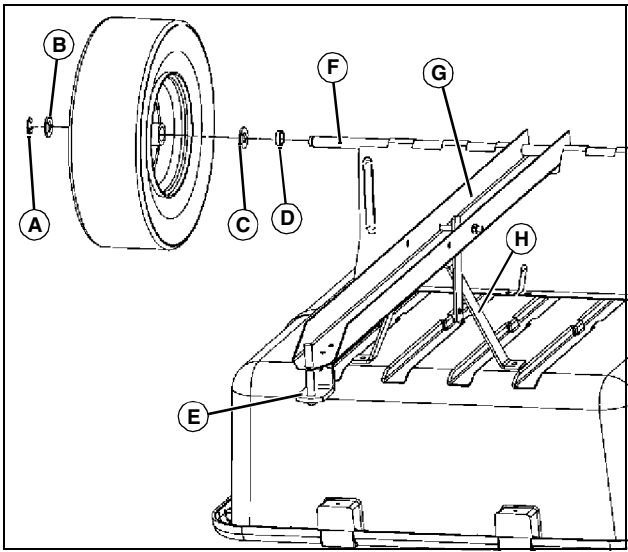
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Assembly

before beginning cart assembly.

NOTE: The cart is prepared using hardware in the Z-1820-B parts bag.



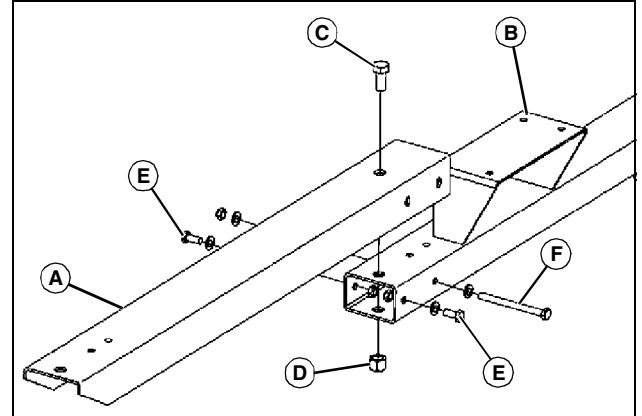
MX45467

1. Remove retaining ring (A), washer (B), wheel, washer (C) and spacer (D) from each side of cart and set aside.
2. Remove clevis (E) and clevis hardware from towbar and set aside.
3. Remove axle (F) and towbar (G) from cart. Set axle aside and save towbar for reuse (Permanent MC542 removal).
4. Remove lock bracket hardware and lock bracket (H). Save for reuse (Permanent MC542 removal).

(K), two 5/16 in. flat washers (L), one 5/16 in. lockwasher (M) and one 5/16 in. nut (N) at each of three locations.

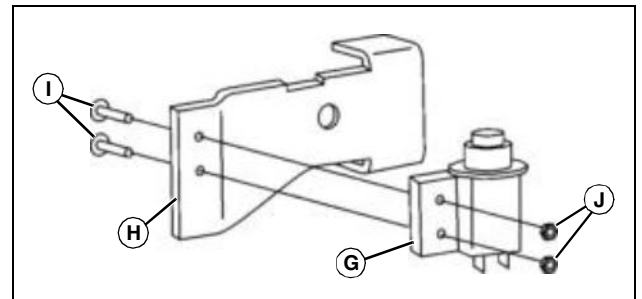
Install Towbar

NOTE: The towbar is assembled and installed using hardware in the 1007266 and 1007267 part bags.



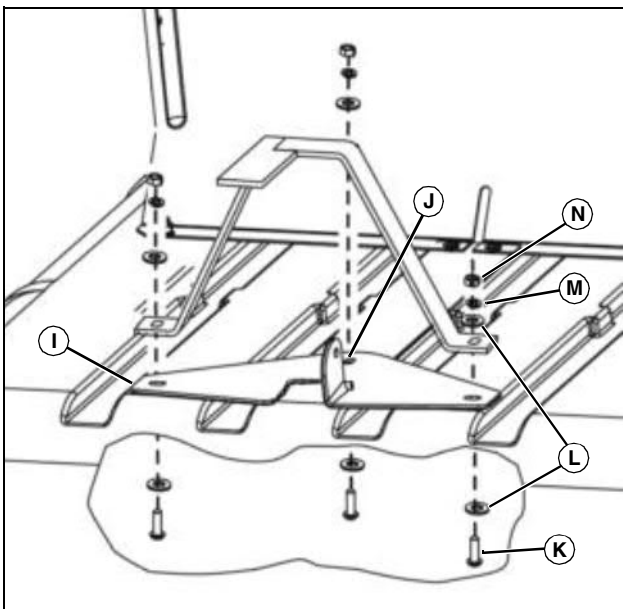
MX45469

1. Assemble towbar tongue (A) to rear towbar (B) and secure as follows:
 - a. Loosely install one 1/2x1 in. bolt (C) and one 1/2 in. locknut (D).
 - b. Loosely install two 5/16x3/4 in. bolts (E), two 5/16 in. flat washers and two 5/16 in. locknuts.
 - c. Loosely install one 5/16x4 in. bolt (F), two 5/16 in. flat washers and one 5/16 in. locknut.
 - d. Tighten all hardware securely.



MX45470a

2. Install switch (G) to towbar switch bracket (H) using two #10x3/4 in. screws (I) and two #10 locknuts (J).



MX45468b

5. Position gas spring bracket (I) on bottom of bed, aligning the outer mounting holes with those in the bed. Mark the location of the center bracket hole (J) on the bed and remove the bracket.
6. Drill a 8.7 mm (11/32 in.) hole in the bed at the marked location.
7. Position the gas spring bracket and lock bracket from the kit on the bed. Secure both brackets to bed using one 5/16x1-1/4 in. round head screw

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