JOHN DEERE
WORLDWIDE COMMERCIAL & CONSUMER EQUIPMENT DIVISION

Snowblower
44-Inch

OMM158542 C8

OPERATOR'S MANUAL

JOHN DEERE

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John Deere Worldwide Commercial and Consumer Equipment Division
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North American Version
Litho in U.S.A.

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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.

Product Identification

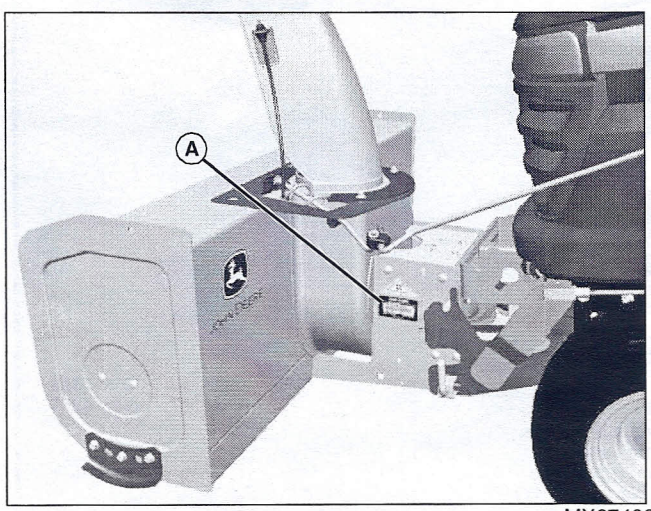
Record Identification Numbers

Snowblower For John Deere X300 Select Series™ and X500 Multi-Terrain™ Select Series™ models.

44-Inch Serial No. (030001 -)

When contacting a John Deere Dealer for information on servicing, always provide the product model and serial number.

Locate the model and serial number for the machine and record the information in the spaces provided below.



MX37403

DATE OF PURCHASE:

_____

DEALER NAME:

_____

DEALER PHONE:

_____

PRODUCT SERIAL NUMBER (A):

Safety

Read Safety in Machine Operator's Manual

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

Safe Operation Practices for Ride On Snow Throwers

This snowthrower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury.

Training

- Read, understand and follow all instructions on the machine and in the manuals before operating this unit. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
- Keep the area of operation clear of all persons, particularly small children.

Preparation

- Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
- Disengage all clutches and shift into neutral before starting the engine.
- Do not operate the equipment without wearing adequate winter garments. Avoid loose fitting clothing that can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.
- Handle fuel with care; it is highly flammable.
  - a. Use an approved fuel container.
  - b. Never add fuel to a running engine or hot engine.
  - c. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
  - d. 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 filling.
  - e. When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
  - f. Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. Do not use a nozzle lock-open device.
  - g. Replace gasoline cap securely and wipe up spilled fuel.
  - h. If fuel is spilled on clothing, change clothing immediately.
- Adjust the collector housing height to clear gravel or crushed rock surface.
- Never attempt to make any adjustments while the engine is running (except when specifically recommended by the manufacturer).
- Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the machine.

SAFETY

Operation

• Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.

• Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.

• After striking a foreign object, stop the engine, remove the spark plug wire, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.

• If the unit should start to vibrate abnormally, stop the engine and check immediately for the cause.

• Stop the engine whenever you leave the operating position, before unclogging the collector or impeller housing, or discharge guide, and when making any repairs, adjustments or inspections.

• When leaving the machine unattended, disengage the power take-off, lower the attachment, lock the park brake, stop the engine, and remove the key.

• When cleaning, repairing, or inspecting, make certain the collector or impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.

• Do not run the engine indoors, except when starting the engine and for transporting the snow thrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.

• Do not clear snow across the face of slopes, go up and down. Exercise extreme caution when operating on slopes. Do not attempt to clear steep slopes.

• Never operate the snow thrower without proper guards, and other safety protective devices in place.

• Never direct the discharge toward people or areas where property damage can occur. Keep children and others away.

• Do not overload the machine capacity by attempting to clear snow at too fast a rate.

• Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when backing.

• Do not carry passengers.

• Never direct discharge at bystanders or allow anyone in front of the unit.

• Disengage power to the collector or impeller when the snow thrower is transported or not in use.

• Use only attachments and accessories approved by the manufacturer of the snow thrower (such as wheel weights, counterweights, and cabs).

• Never operate the snow thrower without good visibility or light.

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.

Clearing a Clogged Discharge Chute

• Hand contact with the rotating impeller inside the discharge chute is the most common cause of injury associated with snowthrowers. Never use your hand to clean out the discharge chute.

• To clear the chute:

a. Shut the engine off.

b. Wait ten seconds to be sure the impeller blades have stopped rotating.

c. always use a clean-out tool, not your hands.

Maintenance and Storage

• Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.

• Never store the machine with fuel in the fuel tank inside a building where ignition sources are present such as hot water and space heaters, and clothes dryers. Allow the engine to cool before storing in any enclosure.

• Always refer to operator's manual for important details if the snow thrower is to be stored for an extended period.

• Maintain or replace safety and instruction labels as necessary.

• Run the machine a few minutes after throwing snow to prevent freeze up of the collector or impeller.

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.

• 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.

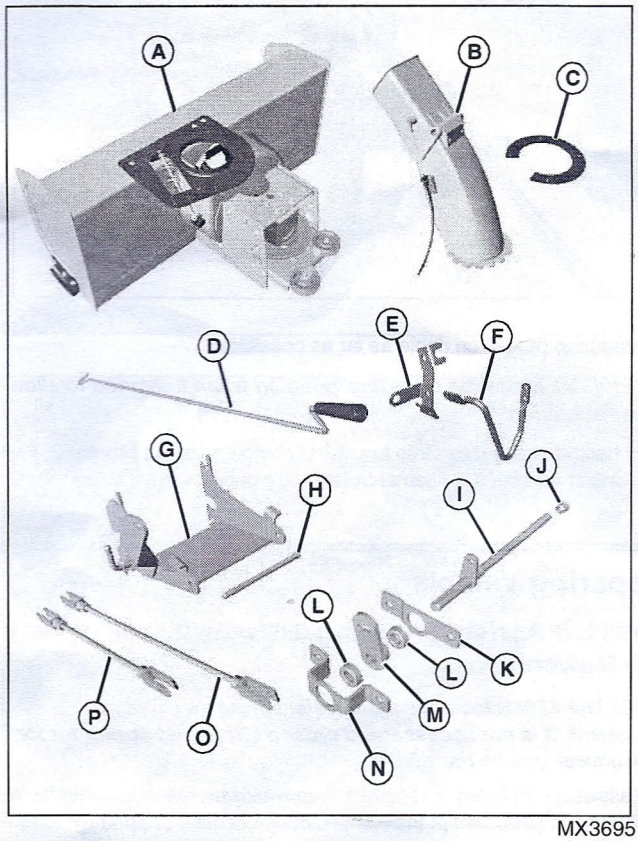
• Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Replace all worn or damaged safety and instruction decals.

• 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.

Assembly

Identify Parts



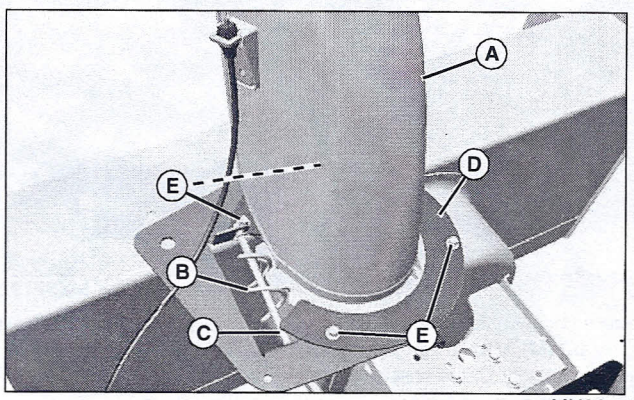
MX36951

A- Snowblower Assembly
B- Chute Assembly (includes Spout and Cable)
C- Chute Retaining Bracket
D- Chute Handle Rod (includes Handle)
E- Chute and Spout Bracket
F- Rotation Handle Bracket
G- Front Attachment Hitch
H- Front Draft Pin
I - Rockshaft
J - Bushing
K- Rockshaft Support Bracket
L - Bearing (2)
M- Rockshaft Bracket
N- Mounting Plate
O- Lift Rod, Outer (Long)
P- Lift Rod, Inner (Short)

Other Parts

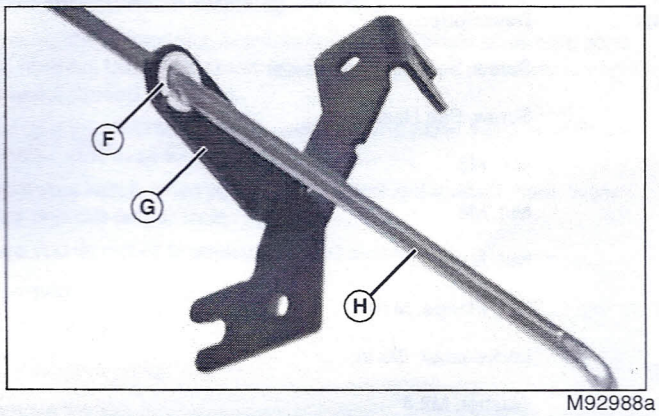
Qty.	Description
3	Bolt, Carriage, M8x20
1	Bolt, Flange Head, M6x16
2	Bolt, Flange Head, M10x30
4	Bolt, Flange Head, M6x45
4	Screw, Self-Tapping, M8x20
1	Screw, Pan Head, M5
1	Nut, M5
5	Nut, M6
2	Nut, M8
2	Nut, Flange, M10
1	Lockwasher, 3/8 in.
1	Washer, M8.4
1	Washer, M10x34ODx3W
1	Washer, M10.5
1	Clamp
4	Spacer, Chute Retaining Bracket
1	Spring Locking Pin, M2.5
1	Spring Locking Pin, M4.5
4	Locking Ring
1	Clevis Pin, M6x40
4	Drilled Pin, M10x28
1	Cotter Pin, M2.5x16
1	Cotter Pin, M2.5x20
1	Cotter Pin, M3.2x32
1	Bearing, Snap-In
1	Knob

Assemble Chute and Welded Frame



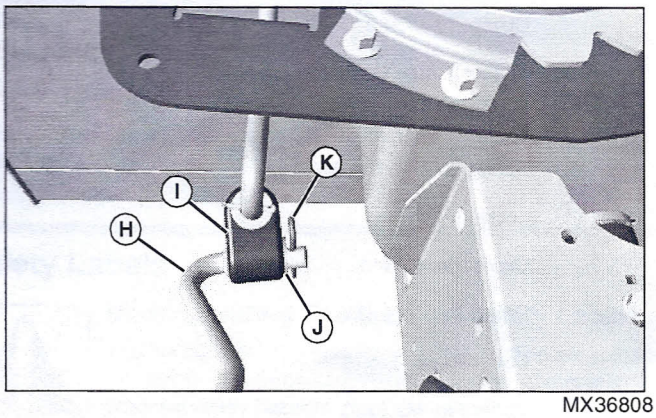
MX36798

1. Install chute assembly (A) on chute base, with teeth on chute aligned with spiral rod (B) on chute rotation rod (C). Secure chute with retaining bracket (D), secured to chute base with four M8x20 self-tapping screws (E), and four spacers between chute and chute base. Tighten hardware.



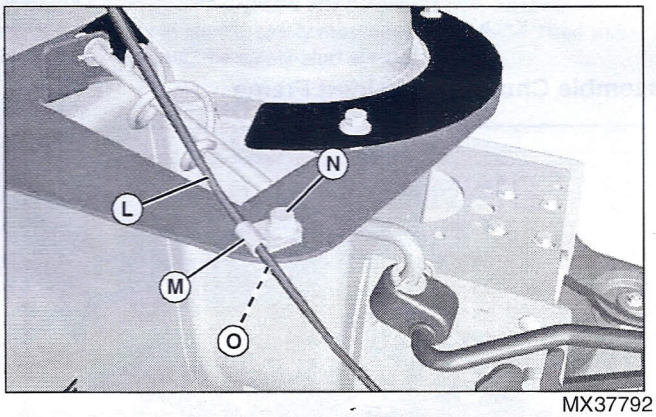
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2. Insert snap-in bearing (F) into chute and spout bracket (G), with wider flange of bearing on handle side of bracket. Slide chute and spout bracket onto chute handle rod (H).



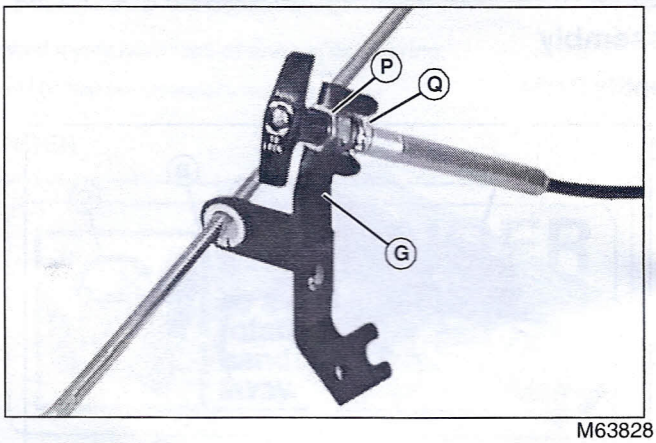
MX36808

3. Insert end of chute handle rod (H) into black plastic U-joint (I) at end of chute rotation rod, and secure with an M10.5 flat washer (J) and M2.5 spring locking pin (K).



MX37792

4. Secure spout cable (L) to the left rear mounting hole in the chute base, using clamp (M), M6x16 flange head bolt (N), and M6 nut (O). Do not tighten completely. Cable should be able to slide in clamp, and clamp should be able to pivot freely.



M63828

5. Thread top nut (P) on cable as far as possible.

NOTE: Handle must be in vertical position when tightened to allow proper operation.

6. Put handle end of cable into top slot of chute and spout bracket (G) with lock washer and nut (Q) against bottom side of bracket.

Preparing Vehicle

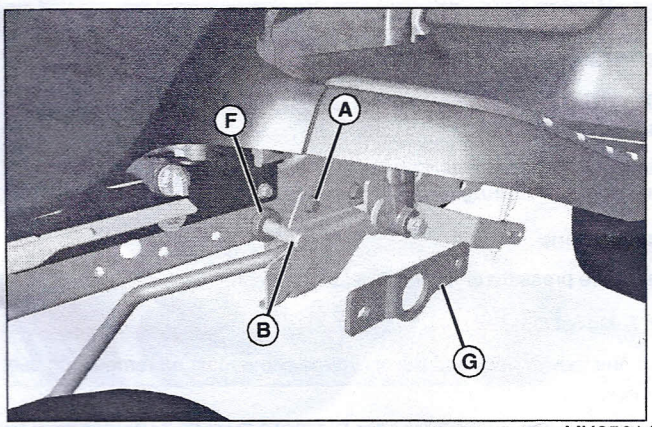
Install Lift Assist Spring (Models with 38 Inch or 42 Inch Mowers)

NOTE: The X300R includes a lift assist spring as standard equipment. It is not necessary to order a Lift Assist Spring Kit for snowblower use on the X300R.

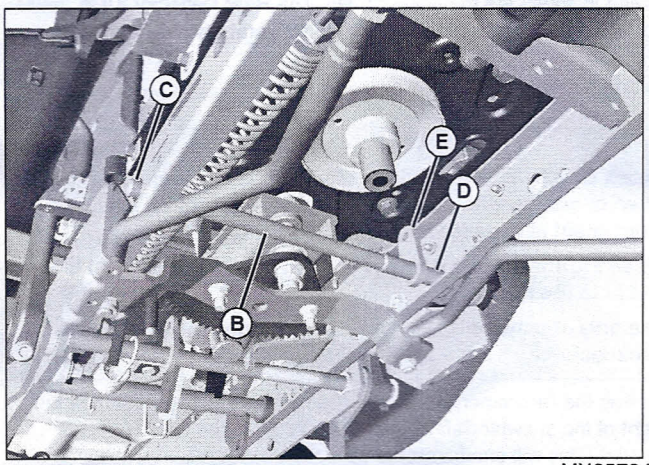
A lift assist spring is required to lift the snowblower; machines with 38 inch or 42 inch mowers, except the X300R, do not come equipped with this spring.

Order Lift Assist Spring Kit (AM136646) for models with 38 or 42 inch mowers, except the X300R.

Install Rockshaft Assembly



MX35614



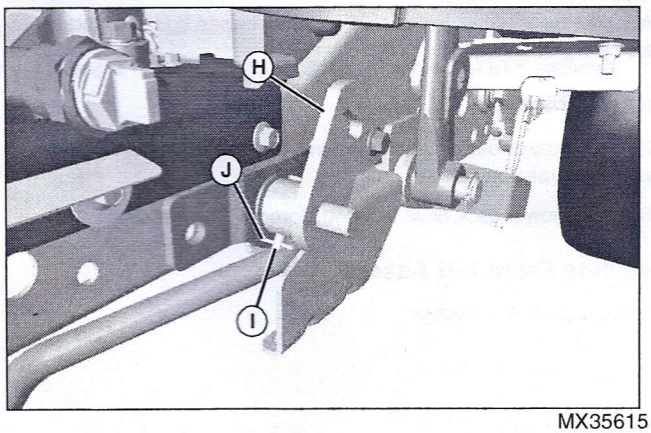
MX35724

1. Remove bolt (A) and nut under left side of fenderdeck.

2. Install small end of rockshaft (B) through hole (C) on right side of machine frame, then pull large splined end through hole (D) on left side of machine frame. Make sure bracket (E) on rockshaft is pointing up.

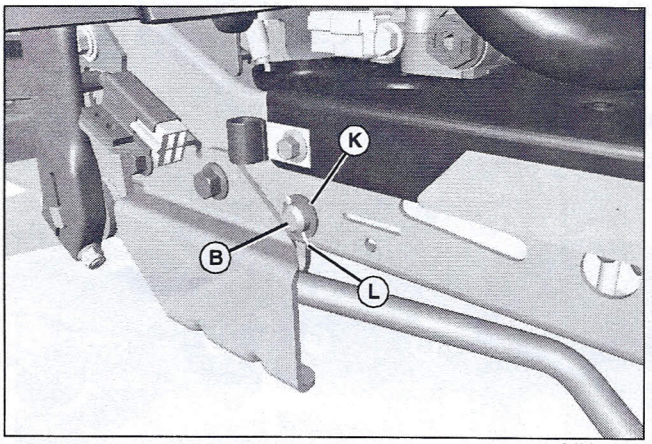
3. Install one bearing (F) on end of shaft, with flange end of bearing against machine frame.

4. Install support bracket (G) on end of shaft.



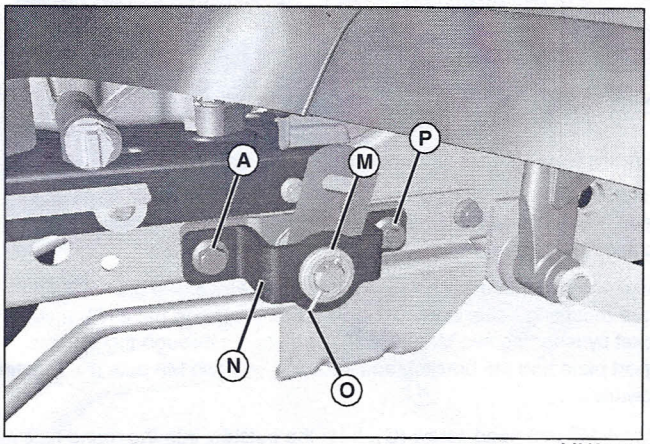
MX35615

5. Install rockshaft bracket (H) facing upward, as shown. Secure with M6x40 clevis pin (I) and M2.5x16 cotter pin (J).



MX35645

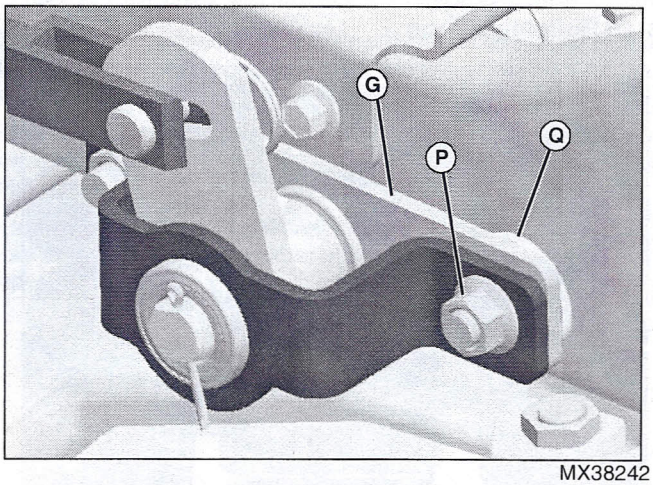
6. Secure right side of rockshaft (B) with bushing (K) and M2.5x20 cotter pin (L).



MX35644

7. Install second bearing (M) onto mounting plate (N), and install assembly onto shaft. Secure with M3.2x32 cotter pin (O).

8. Secure front side of assembly with bolt (A) and nut, removed earlier.



MX38242

Picture Note: X300R model shown.

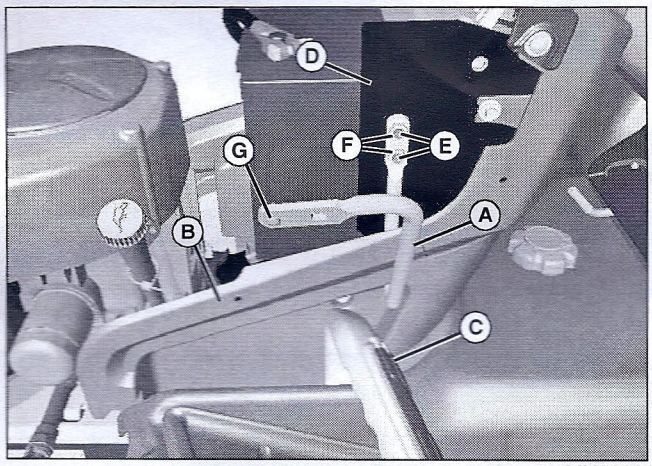
- X300R only: Secure front side of assembly with M10x30 flange bolt and M10 flange nut provided.

9. Secure rear side of assembly with M10x30 flange bolt and M10 flange nut (P).

• X300R only: Secure rear side of assembly with M10x30 flange bolt and M10 flange nut (P), with M10x34ODx3W washer (Q) under bracket (G).

Install Rotation Handle Bracket

1. Raise hood.



MX36896

Picture Note: Model with mechanical lift shown.

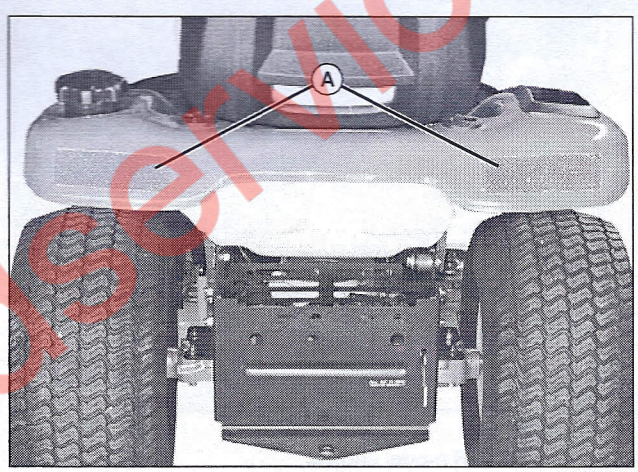
2. Insert straight end of rotation handle bracket (A) through an existing access hole in the removable console panel (B), at the left side of the machine.

3. Align the two mounting holes in the straight end of the bracket with two square mounting holes in the left side console support plate (D). Install bracket by inserting two M8x20 carriage bolts (E) through the console support plate and the bracket, and securing with two M8 nuts (F). Tighten hardware.

4. Install M5 pan head screw (G), from the outside, into the round hole at the end of the bracket, and secure at the inside with an M5 nut. Tighten hardware. The screw head will serve as a locating pin for the chute and spout bracket.

5. Close hood.

Install Reflective Tape



MX36816

Apply reflective tape (A) to rear bumper of machines without reflectors.

Installing

Preparing the Machine

NOTE: Read and complete the assembly procedures if installing the attachment for the first time.

Before installing attachment, remove mower from machine. (See Removing and Storing Mower section in machine operator's manual.)

Machine Setup

• Check tire pressure of machine before operating machine.

X300R Model Only

• Both the mower deck and the discharge chute must be removed to use the snowblower.

• Either the collection hopper or the BM22916 Rear Deflector Kit must be installed to shield the transmission fan. The Rear Deflector Kit is recommended for maximum vehicle maneuverability.

Installing Ballast

CAUTION: Avoid injury! Machine can become unstable when operating with attachment. Ballast is required when the attachment is installed.

When the attachment is removed, also remove any ballast that was added to the machine.

Use only attachments and accessories recommended by the manufacturer.

Installing the recommended rear ballast will help counter-balance the weight of the snowblower. Remove ballast when the snowblower is removed. This will ensure proper operation of the machine when not removing snow.

Recommended Ballast (Except X300R)

NOTE: Rear Weight Bracket Kit, 4-Wheel Steer (BM24011) is required for rear weight use on 4-Wheel Steer models.

• Two 19 kg (42 lb) Rear Suitcase Weights (R66949).

Recommended Ballast (X300R)

NOTE: Tire chains are also recommended for use on the X300R.

• BM19123 Rear Wheel Weight Kit, includes two 14 kg (31 lb) plastic coated weights.

Remove Mower

1. Remove mower deck. (See Removing and Storing Mower section in machine operator's manual.)

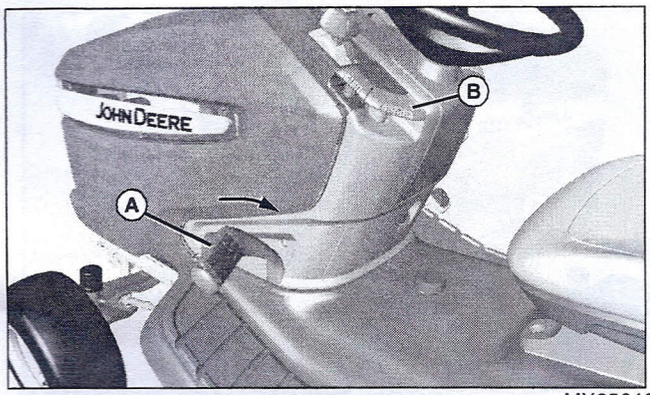
2. Remove mower deck drive belt and store with mower deck.

Installing Front Lift Assembly

1. Lower attachment linkage:

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Models with Mechanical Lift System



MX35646

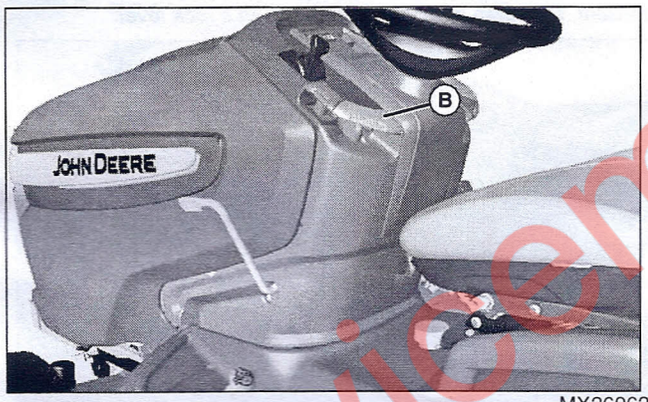
a.Pull lift pedal (A) back by hand to lower linkage to the lower/down position.

CAUTION: Avoid injury! Lift pedal is spring-assisted and may have unexpected movement. Lock lift pedal when installing or removing attachment.

b.Pull lock lever (B) up to lock linkage in the lowered position.

X360 with Hydraulic LIft System

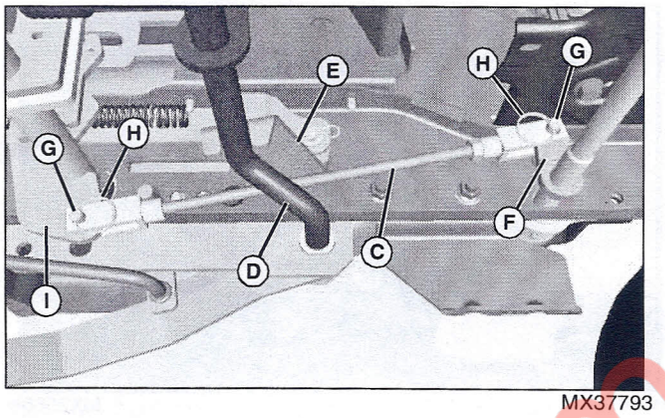
NOTE: On the X360, lift lever (B) raises and lowers the attachment linkage.



MX36962

a.Push down on lift lever (B).

2. Park machine safely. (See Parking Safely in the SAFETY section.)

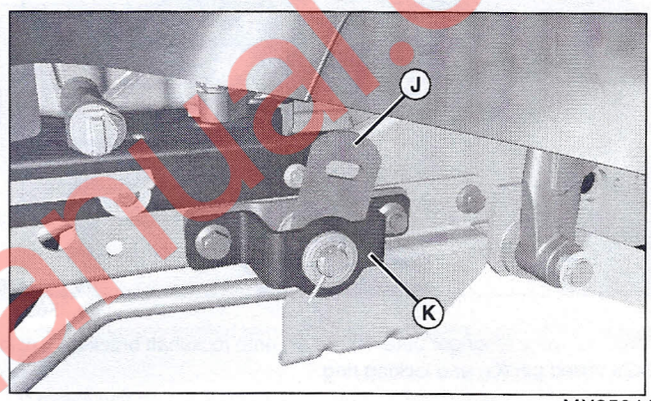


MX37793

Picture Note: View from under right side of machine.

3. Raise shorter inner lift rod (C) into position between brake rod (D) and bracket (E), and install front yoke of lift rod to ear (F) of rockshaft. Secure with M10x28 drilled pin (G), installed from outside in, and locking ring (H).

4. Install rear yoke of shorter inner lift rod to ear (I) of shaft. Secure with M10x28 drilled pin (G) and locking ring (H).



MX35644

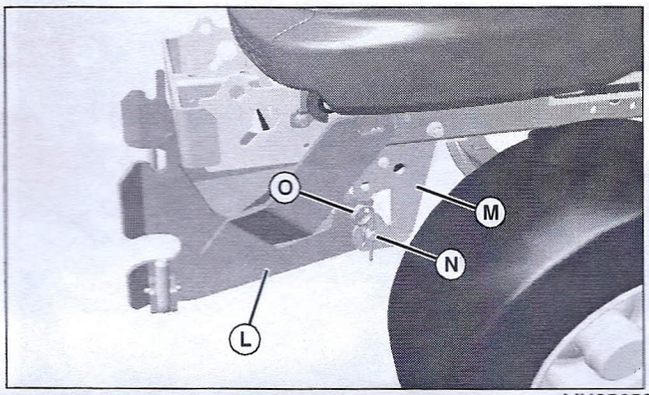
5. Verify that outside rockshaft bracket (J) does not interfere with the mounting plate (K):

- Check for interference, with attachment linkage in lower/down position.

NOTE: For X360 (hydraulic lift), engine will have to be started to raise attachment linkage. Raise slowly and check for interference carefully.

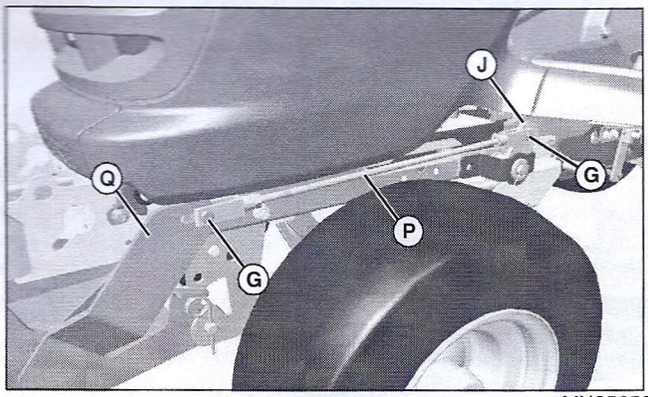
- Pull up on pedal (A), for mechanical lift models, or lift lever (B), X360 with hydraulic lift, and check for interference with attachment in raised/up position.
- If there is interference, disconnect rear end of inner rod, and rotate yoke to shorten or lengthen rod for proper fit. Install inner lift rod and repeat as necessary.

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MX35658

6. Align hole in front attachment hitch (L) with hole in front draft assembly (M) and install front draft pin (N). Secure with large M4.5 spring locking pin (O).



MX35659

7. Install rear yoke of longer outer lift rod (P) onto rockshaft bracket (J) with M10x28 drilled pin (G) and locking ring.

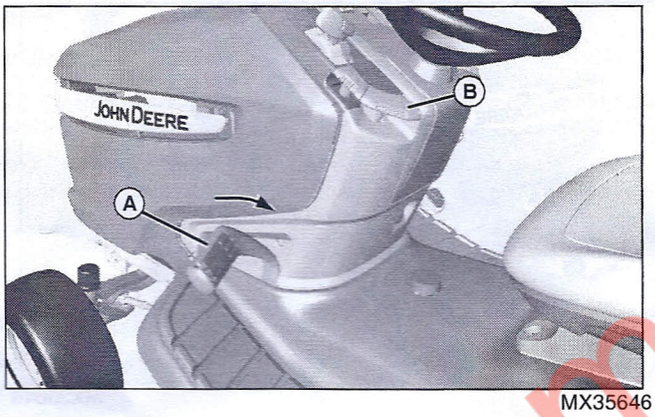
8. Install front yoke of longer outer lift rod onto lift lever bracket (Q) with M10x28 drilled pin (G) and locking ring.

Installing Snowblower

IMPORTANT: Avoid damage! Both the auger gearbox and the blower drive gearbox lubricant levels should be checked, and lubricant added if necessary, before installation. This procedure should be performed with the snowblower removed from the machine. See "Checking Gearbox Lubricant" in the Service section for details.

1. Lower attachment linkage:

Models with Mechanical Lift System



MX35646

a. Pull lift pedal (A) back by hand to lower linkage to the lower/down position.

CAUTION: Avoid injury! Lift pedal is spring-assisted and may have unexpected movement. Lock lift pedal when installing or removing attachment.

b. Pull lock lever (B) up to lock linkage in the lowered position.

X360 with Hydraulic LIft System

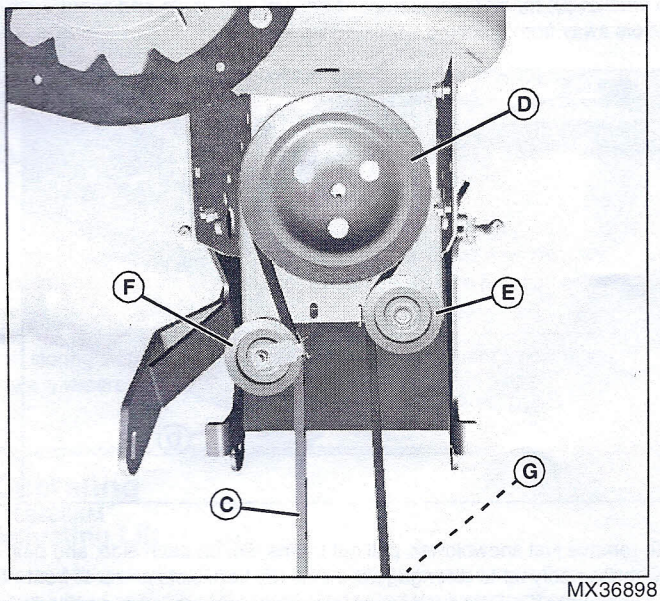
NOTE: On the X360, lever (B) controls the hydraulic lift system to raise and lower the attachment linkage. On models with mechanical lift system, the same lever only functions as a lock lever.



MX36962

a. Push down on lift lever (B).

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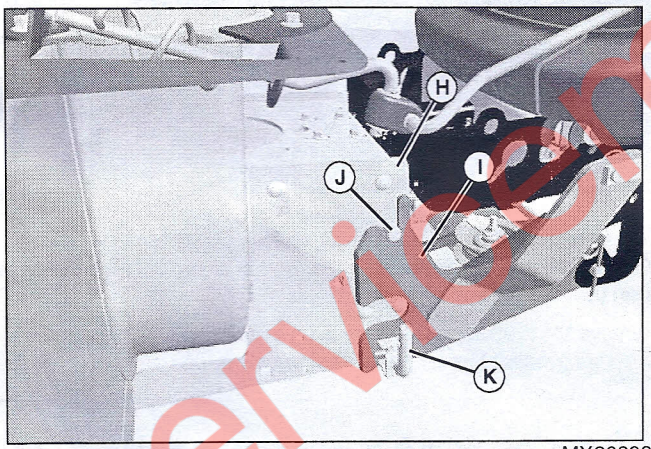


MX36898

Picture Note: Top view with gearbox not shown for clarity.

2. Check snow blower drive belt (C) for wear and proper routing:

- Belt is routed around gearbox drive sheave (D), and inside of belt guards on idler sheave (E) and tensioning sheave (F), then to machine drive sheave (G).
- The tensioning spring connects to the tensioning sheave pivot arm, under the sheave.
- Belt must be installed on gearbox drive sheave from below, if it requires replacement.

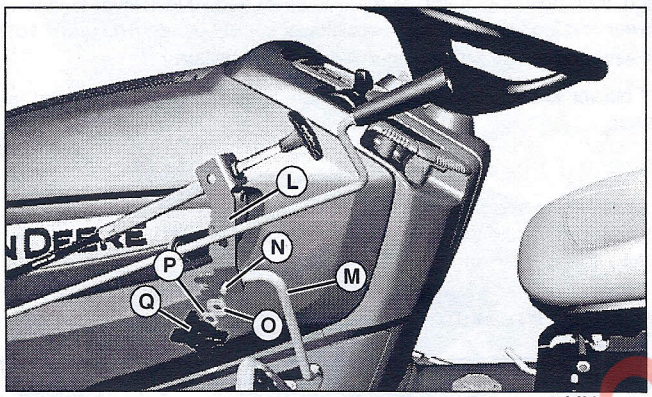


MX36899

3. Align blower support (H) with front attachment hitch (I).

4. Secure blower support pins (J) onto top slots in front attachment hitch.

5. Pull L-pins (K), on each side, outward and lower blower support bracket. Release L-pins and lock blower support in place.



MX36939

6. Align the slot at the bottom of the chute and spout bracket (L) over the locating screw at the outside of the rotation handle bracket (M).

7. Insert an M8x20 carriage bolt (N), from the inside, through the square mounting hole in bracket (M), and the mounting hole at the bottom of bracket (L). Secure with an M8.4 washer (O), 3/8 in. lock washer (P), and knob (Q).

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

Keep bystanders, especially children, away when lowering attachment.

Support raised attachment with a mechanical stop or lower completely to the ground before servicing.

8. Install drive belt on machine drive sheave:

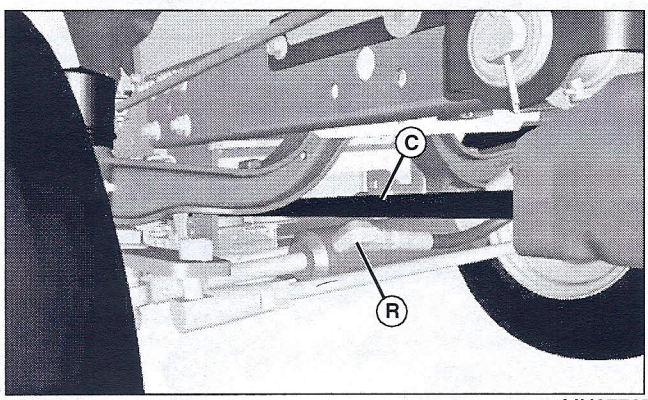
a. Raise and block-up snowblower.

b. Pull on spring-loaded tensioning sheave arm to remove tension on belt.

c. Install belt on machine drive sheave (PTO clutch).

d. Release tensioning sheave arm.

e. Raise snowblower, remove support, and lower snowblower to ground.



MX37797

9. Check for interference between drive belt (C) and the left side fitting (R) on the machine steering cylinder. If necessary, rotate fitting down approximately ten degrees to eliminate interference and premature belt wear.

10. Raise snowblower fully to test lift adjustment:

Models with Mechanical Lift System

- Pull up slightly on foot pedal and push down on lock lever to unlock

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latch, then push foot pedal all the way down and lift lock lever to lock blower in raised position.The snowblower should be approximately 10.2 cm (4 in.) off the ground when in fully raised position.

- If blower will not lock in raised position, adjust lift height down and re-check.

X360 with Hydraulic Lift System

- Start engine and pull up on lift lever to fully raise blower. The snowblower should be approximately 10.2 cm (4 in.) off the ground when in fully raised position.

Check Tire Pressure

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

NOTE: See your Machine Operator's Manual for correct tire pressure.

Check tire pressure with an accurate gauge.

Add or remove air, if necessary.

Removing and Storing

Removing Snowblower

NOTE: X300R only - The inner lift rod (shorter of the two lift rods), installed as part of the snowblower front lift assembly, must be removed before installing the mower deck to avoid interference with the fan housing. Store inner lift rod with other snowblower components to avoid loss during the off-season, and install again prior to seasonal installation of the snowblower, if applicable.

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

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

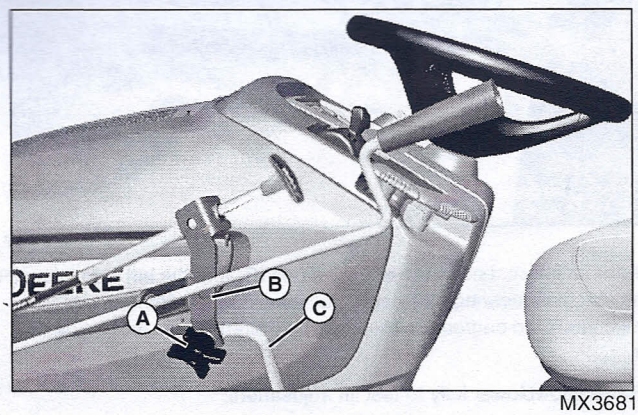
Keep bystanders, especially children, away when lowering attachment.

Support raised attachment with a mechanical stop or lower completely to the ground before servicing.

2. Raise and block-up the snowblower.

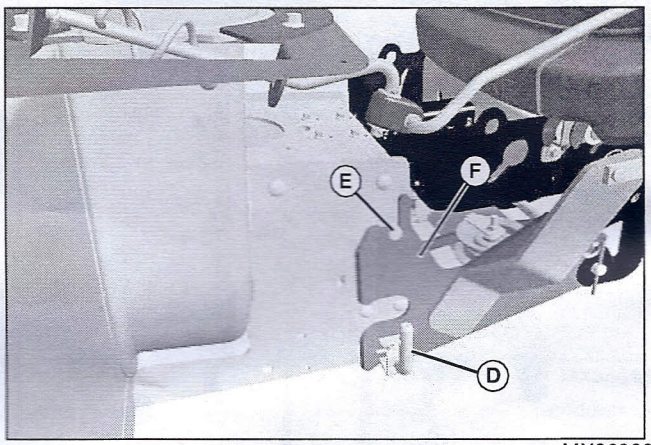
3. Remove drive belt from machine drive sheave.

4. Remove block and lower snowblower.



MX36819

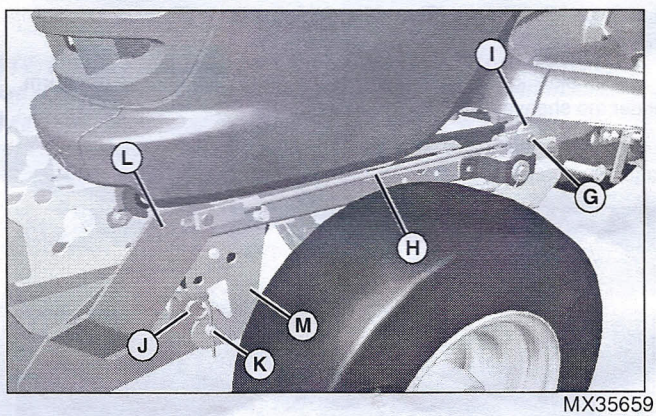
5. Remove knob (A), and retaining hardware securing chute and spout bracket (B) to rotation handle bracket (C). Install knob and hardware back into bracket (B) for storage, then pivot bracket with chute and spout controls away from machine.



MX36899

6. To remove just snowblower, pull out L-pins (D), on each side, and pull blower assembly up to disengage two pins (E) from slots at top of front hitch assembly (F). Remove snowblower from machine, and pivot or tilt chute and spout controls out of the way for storage.

NOTE: Install pins, locking ring, and spring locking pin in front hitch assembly for storage.



MX35659

7. To also remove front hitch assembly, remove rear locking ring and M10x28 drilled pin (G), and remove rear side of lift rod (H) from rockshaft bracket (I).

8. Remove M4.5x90 spring locking pin (J) and front draft pin (K), and remove front hitch (L) from front draft assembly (M).

CAUTION: Avoid injury! When the attachment is removed, also remove any ballast that was added to the machine.

Use only attachments and accessories recommended by the manufacturer.

9. Remove any weights that were installed when preparing machine.

Storing Attachment

NOTE: Some of the following steps may not apply to your attachment.

1. Remove attachment from machine.

2. Clean attachment and driveline, if equipped.

3. Remove any shields if needed to clean out all debris.

4. Repair or replace worn, bent, or damaged parts. Tighten loose hardware.

5. Apply paint to painted surfaces where needed to prevent rust.

6. Apply thin coat of grease to blades to prevent rust.

7. Lubricate any pivot points with engine oil to prevent rust.

8. Lubricate any grease points.

IMPORTANT: Avoid damage! Abrasive surfaces can damage attachment. Store attachment on non-abrasive surface or on wooden blocks.

9. If storing attachment outdoors, block up attachment if possible and place a waterproof cover over it.

Operating

Adjusting Lift Height

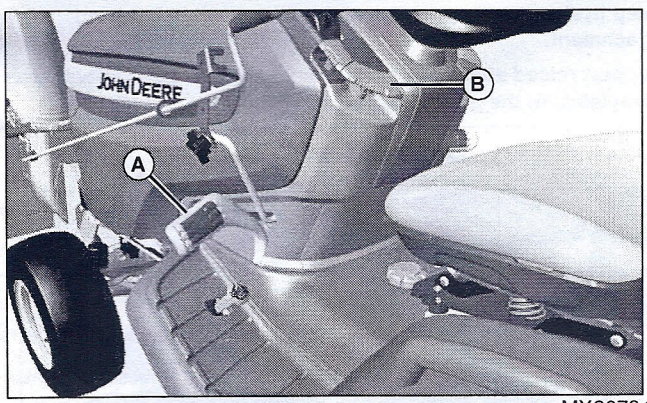
The snowblower should be approximately 10.2 cm (4 in.) off the ground when fully raised. If the lift height is adjusted too high, the front hitch pivot will bottom out, and the lift pedal lock handle will not engage (models with mechanical lift system). The lift height will be slightly less if machine is equipped with HDAP tires.

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

2. Set mower height of cut knob to lowest position.

3. Lower attachment.

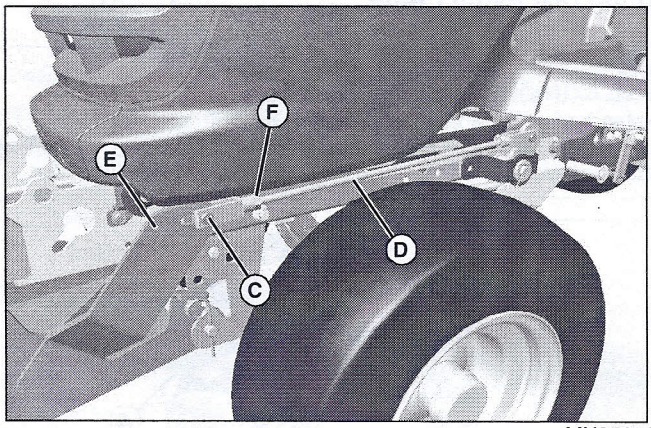
CAUTION: Avoid injury! Lift pedal is spring-assisted and may have unexpected movement. Lock lift pedal when installing or removing attachment.



MX36794

Picture Note: Model with mechanical lift system shown.

4. Models with mechanical lift system - With attachment lowered, pull back firmly on lift pedal (A), then pull up on lift lock handle (B) to lock the pedal.



MX35659

5. Remove front locking ring and 10 x 28 mm drilled pin (C), and remove front of outer lift rod (D) from front attachment hitch bracket (E).

6. Loosen nut (F) and turn end of outer lift rod clockwise to gain lift height, and counterclockwise to reduce lift height. Tighten nut (F).

7. Install front of lift rod with drilled pin and locking ring.

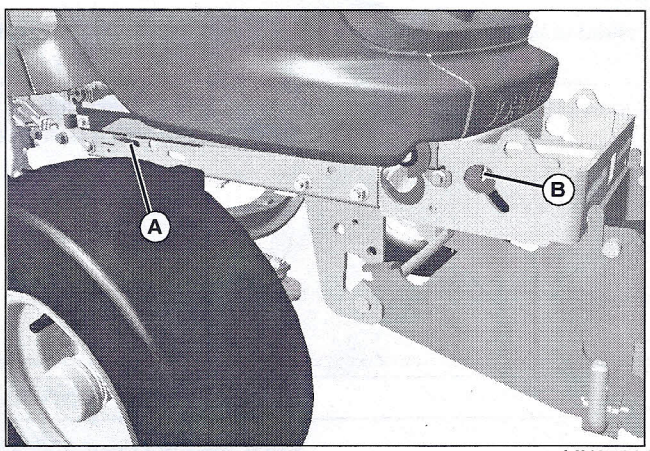
8. Lift snowblower fully, engage lift lock handle (models with mechanical lift system), and check lift height measurement.

9. Repeat above steps, if necessary.

Adjusting Lift Pedal Spring Tension

1. Lower snowblower.

2. Park machine safely. (See Parking Safely in the SAFETY section).



MX35661

3. Make sure yellow indicator (A) at front of lift assist spring is aligned with proper mark for snowblower model. If not, adjust lift assist spring so indicator is aligned with correct mark on decal.

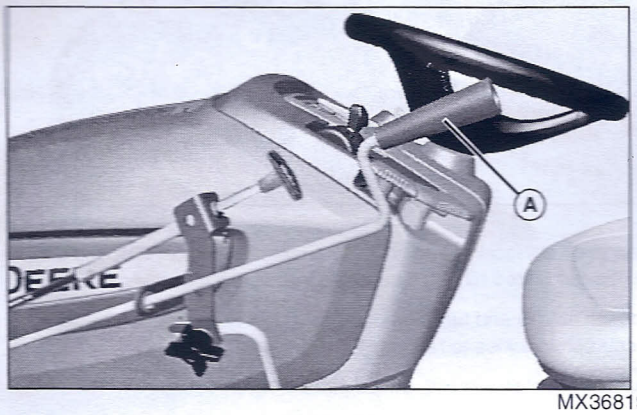
4. Turn adjusting bolt (B) in right front frame tunnel to adjust lift assist spring:

- Clockwise - Increases spring tension and moves indicator toward front of machine. This will reduce lift pedal effort.
- Counterclockwise - Decreases spring tension and moves indicator toward rear of machine.

Too much spring tension may cause snowblower to "float" too easily, reducing effectiveness.

Turning Discharge Chute

CAUTION: Avoid injury! Never direct discharge at bystanders or allow anyone in front of the unit. Change the discharge direction to avoid bystanders, buildings, and automobiles.

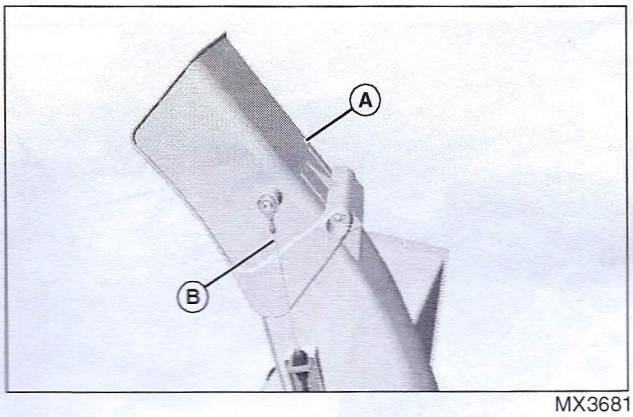


MX36819

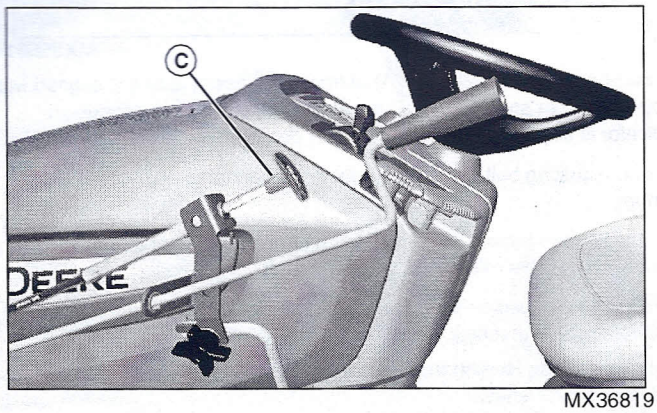
- Turn handle (A) counter-clockwise to rotate chute to the right.
- Turn handle (A) clockwise to rotate chute to the left.

Adjusting Spout

NOTE: Pivot tension of spout (A) is not adjustable. A return spring in the chute / spout assembly assists the spout cable (B) to adjust spout angle.



MX36818



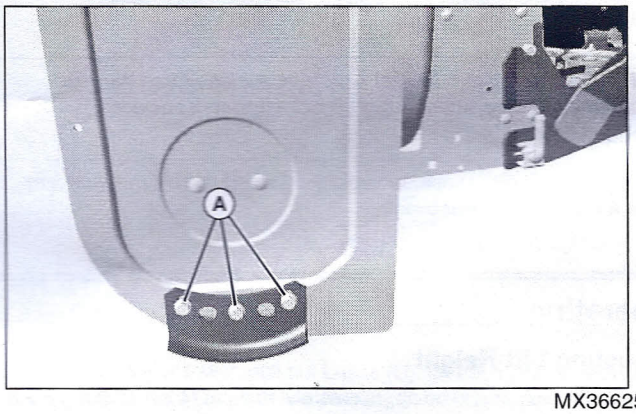
MX36819

1. Pull handle (C) to pivot spout down.
2. Push handle (C) to pivot spout up.

Adjusting Skid Shoes

NOTE: Before using snow removal attachment on gravel or uneven surfaces, lower skid shoes fully. Both skid shoes must be in the same position.

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



MX36625

2. Loosen bolts (A) on each skid shoe.
3. To clear snow from a flat surface, lower skid shoes so that scraper blade is 2–3 mm (1/16–1/8 in.) above surface.
4. To clear snow from a rough or a gravel surface, raise skid shoes so that scraper blade has maximum clearance.
5. Tighten bolts.

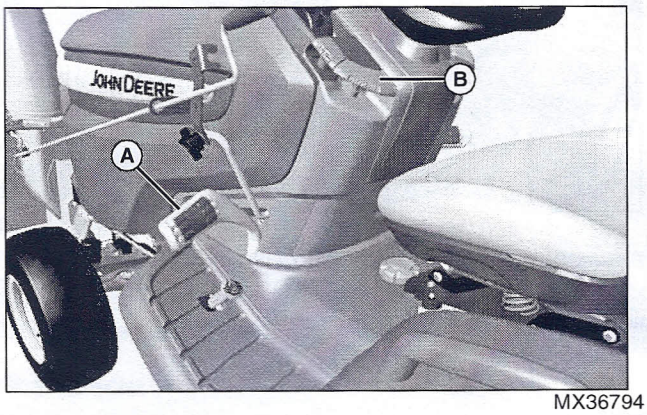
Raising and Lowering Snowblower

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

Keep bystanders, especially children, away when lowering attachment.

Support raised attachment with a mechanical stop or lower completely to the ground before servicing.

Models with Mechanical Lift System

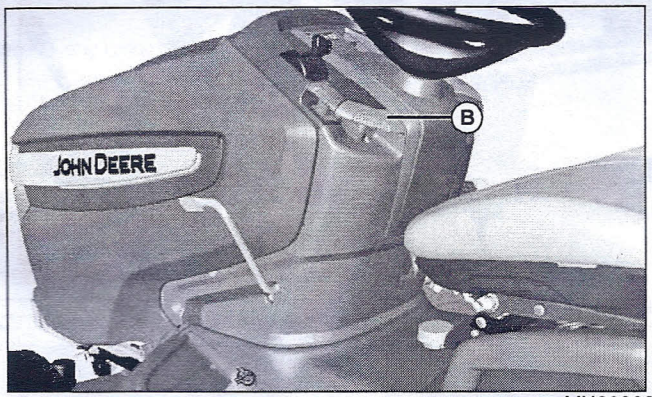


MX36794

- To raise snowblower: Push lift pedal (A) forward.
- To lock snowblower in raised / transport position: Push lift pedal (A) forward fully and pull up on lift lock lever (B).
- To lower snowblower: Push lift pedal (A) partway, push down on lift lock lever (B) to unlock, then slowly release pressure on lift pedal.

X360 with Hydraulic Lift System

NOTE: On the X360, lever (B) controls the hydraulic lift system to raise and lower the attachment linkage. On models with mechanical lift system, the same lever only functions as a lock lever.



MX36962

- To raise snowblower, pull up on lift lever (B). Engine must be running to raise attachments with hydraulic lift system.
- To lower snowblower, push down on lift lever (B).

Using Winter Grille Covers (Optional Accessory)

Winter Grille Covers are available as an accessory for the Select Series™ X300 and air-cooled X500 Multi-Terrain™ models.

When operating in certain cold weather conditions, a winter grille cover can be installed to prevent snow from entering the air supply system. The winter grille cover should only be used on models with air-cooled engines; do not use the winter grille cover on models with liquid-cooled engines.

Remove the winter grille cover when the outside temperature reaches 4 degrees C (40 degrees F) or higher.

Contact your John Deere servicing dealer for ordering information.

Operating Snowblower

1. Lower snowblower.
2. Unlock park brake.

IMPORTANT: Avoid damage! To help prevent damage to PTO clutch:

- **Do not engage PTO with throttle in the fast position.**

3. Engage PTO.

NOTE: Operate snowblower at full throttle for best performance.

4. Move throttle lever to full throttle position.

CAUTION: Avoid injury! Look down and behind before and while backing. Clear area of all bystanders before backing machine.

NOTE: It is necessary to engage the RIO (Reverse Implement Option) while beginning tractor movement to allow the attachment to continue running in reverse.

5. Push down on forward or reverse foot control pedal to begin movement.

Stopping Snowblower

1. Slow the machine forward speed.
2. Move the throttle to slow speed.
3. Run snowblower for several minutes after blowing snow to prevent freeze-up of the auger and impeller.
4. Disengage PTO and allow auger to stop.
5. Clean snow from snowblower before storing the machine.

Inspect, Unplug, or Park Attachment Safely

1. Stop machine.
2. Lower attachment to the ground.
3. Disengage PTO.
4. Lock park brake.
5. Stop engine.
6. Remove key.

CAUTION: Avoid injury! Rotating parts can catch fingers, loose clothing, or long hair. Wait for engine and all moving parts to stop before leaving operator's station to adjust or service machine.

7. Wait for engine and all moving parts to stop before leaving operator's seat.

Transporting

CAUTION: Avoid injury! Use extra care when loading or unloading the machine into a trailer or truck.

Close fuel shut-off valve, if your machine is equipped.

IMPORTANT: Avoid damage! Always lower attachment to trailer deck when transporting.

1. Drive machine and attachment onto heavy-duty trailer equipped with lights and signage required by law.
2. Lower attachment to trailer deck.
3. Stop engine.
4. Lock park brake.
5. Fasten machine and attachment to deck with straps, chains, or cables.

Service

Service Intervals

IMPORTANT: Avoid damage! Operating in extreme conditions may require more frequent service intervals:

- **Engine components may become dirty or plugged when operating in extreme heat, dust or other severe conditions.**
- **Engine oil can degrade if machine is operated constantly at slow or low engine speeds or for frequent short periods of time.**

Each Use

- Check for broken shear bolts, replace if necessary.
- Check to make sure chute rotates freely, lubricate if required.

Beginning of Season

- Check auger gearbox oil level.

- Check snowblower gearbox oil level.
- Check drive belt for extreme wear, replace if worn.

Grease

IMPORTANT: Avoid damage! Use recommended John Deere greases to avoid component failure and premature wear.

The recommended John Deere greases are effective within an average air temperature range of -29 to 135 degrees C (-20 to 275 degrees F).

If operating outside that temperature range, contact your Servicing dealer for a special-use grease.

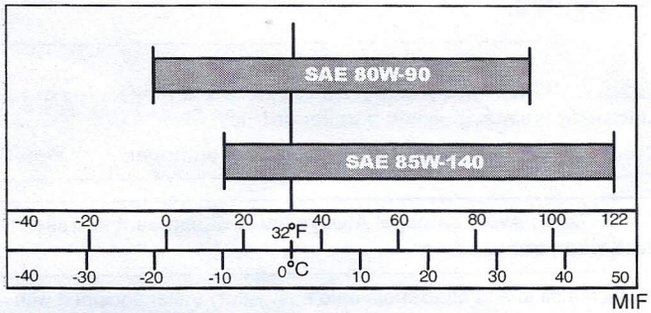
The following greases are preferred:

- John Deere Multi-Purpose SD Polyurea Grease
- John Deere Multi-Purpose HD Lithium Complex Grease

If not using any of the preferred greases, be sure to use a general all-purpose grease with an NLGI grade No.2 rating.

Wet or high speed conditions may require use of a special-use grease. Contact your Servicing dealer for information.

Gear Case Oil



MIF

Use oil viscosity based on the expected air temperature range during the period between oil changes

The following John Deere gear case oil is preferred:

- GL-5 GEAR LUBRICANT® (SAE 80W-90)

The following John Deere gear case oil is also recommended if preferred oil is not available:

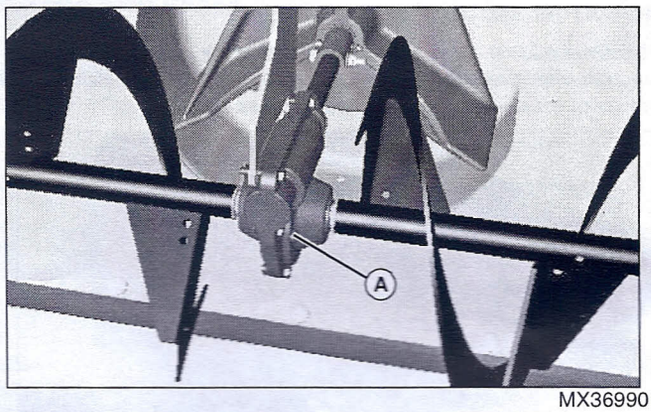
- GL-5 GEAR LUBRICANT® (SAE 85W-140)

Other gear case oils may be used if recommended John Deere gear case oils are not available, provided they meet the following specification:

- API Service Classification GL–5.

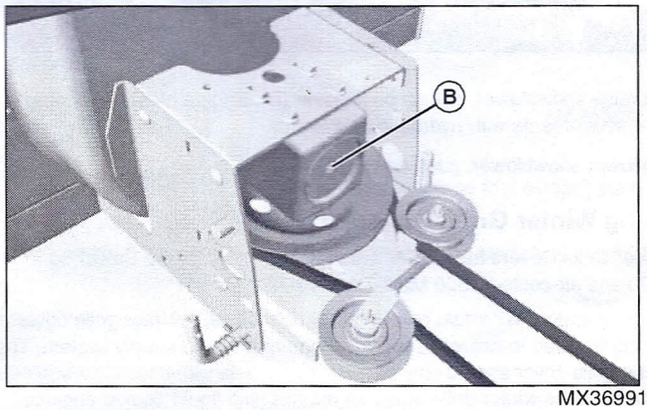
Checking Gearbox Lubricant

Neither the front, auger gearbox, or the rear, blower drive gearbox have serviceable components. However, both gearboxes have removable plugs for checking gearbox lubricant level, and adding lubricant, if necessary.



MX36990

Picture Note: Front, auger gearbox.



MX36991

Picture Note: Rear, blower drive gearbox.

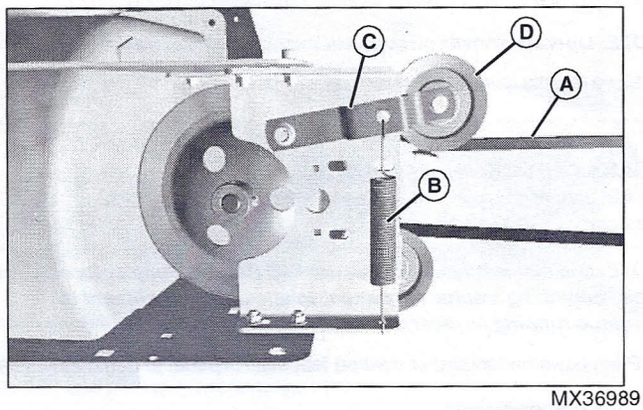
To check gearbox lubricant level:

1. This service should be performed with the snowblower removed from the machine.

2. With blower gearboxes approximately level, remove plug (A) from front, auger gearbox. Lubricant level should be to the bottom of the check plug hole. Add, 80W-90 GL-5 Gear Oil, if necessary.

3. Remove plug (B) from rear, blower drive gearbox. Lubricant level should be to the bottom of the check plug hole. Add, 80W-90 GL-5 Gear Oil, if necessary.

Adjusting Drive Belt Tension



MX36989

Picture Note: Bottom view, some parts removed.

Proper tension is maintained on the drive belt (A) by the tensioning spring (B), connected to the tensioning arm (C).

If tensioning problems exist, check to verify that:

- Tensioning arm pivots freely.
- Tensioning sheave (D) rotates freely, and is not damaged.
- Tensioning spring is connected to tensioning arm, and is not damaged.

Remedy any defects, if applicable.

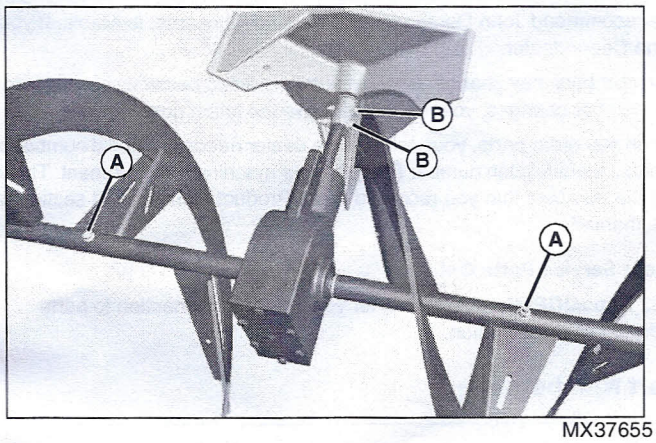
Replacing Shear Bolts

IMPORTANT: Avoid damage! Replacement shear bolts must be same as original shear bolts on attachment:

- **Softer bolts can shear too easily.**
- **Harder bolts may not shear and attachment can be damaged.**

NOTE: Four spare M6x45 auger shear bolts and M6 nuts are provided in the bag of parts.

1. Lower snowblower to ground.
2. Stop machine.
3. Lock park brake.
4. Remove key.

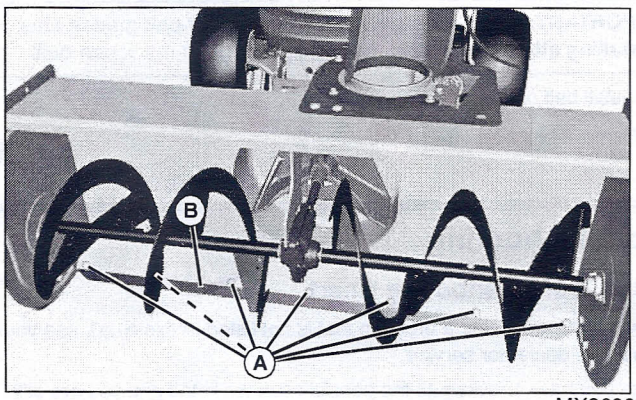


MX37655

5. Inspect to determine which shear bolt has broken. There are four shear bolts:
   - One M6x45 bolt (A) and M6 nut on each auger shaft.
   - Two M6x45 bolts (B) and M6 nuts securing the impeller to the auger drive shaft.
6. Find and correct the cause for shearing.
7. Lineup auger and / or impeller properly. Install new shear bolts that are same size as original.

Replacing Scraper Blade

Replace scraper blade when blade is bent, or blade edge is rough or worn. Scraper blade is not reversible.

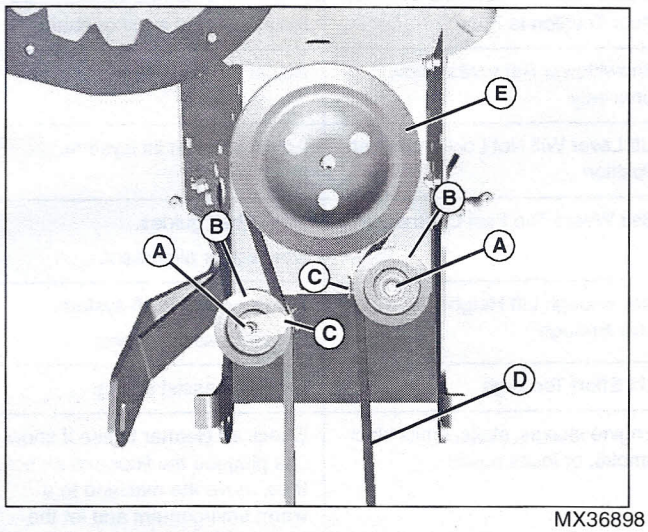


MX36988

1. Remove and retain seven M8x20 carriage bolts (A), secured at the backside with M8 locknuts.
2. Remove and replace scraper blade (B).
3. Secure scraper blade with hardware removed earlier. Tighten hardware.

Replacing Drive Belt

1. Raise snowblower and temporarily block up to support.
2. Remove drive belt from machine drive sheave.
3. Remove block and lower blower.



MX36898

Picture Note: Top view with gearbox removed for clarity.

4. Loosen nuts (A) on idlers (B) to loosen belt guides (C).
5. Remove belt (D) from blower drive sheave (E).
6. Remove belt from idlers.
7. Remove old belt.
8. Install new belt:
   - Install belt on blower drive sheave (E), from below, with V-shaped side of belt in groove of sheave.
   - Route belt to inside of idlers (B), with flat side of belt against idlers.
   - Position belt guides (C) close to, but not touching, belt. Tighten nuts (A).
   - Make sure belt is free of twists.
9. Raise and block up snowblower.

IMPORTANT: Avoid damage! Check position of belt guides after installing attachment on machine. Guides must not touch belt.

10. Install belt on machine drive sheave.

11. Remove block and lower snowblower.

Troubleshooting

Using Troubleshooting Chart

If you are experiencing a problem that is not listed in this chart, see your authorized dealer for service.

When you have checked all the possible causes listed and you are still experiencing the problem, see your authorized dealer.

Troubleshooting

IF	CHECK
Auger Will Not Turn	Worn or broken drive belt. Broken shear bolt.
Snowblower Operation Is Erratic	Damaged scraper blade. Worn or broken drive belt.
Rear Traction Is Poor	Install weights and / or chains.
Snowblower Removes Snow Unevenly	Adjust lift assist spring.
Lift Lever Will Not Lock In Raised Position	Adjust yoke on lift lsystem.
Belt Wears Too Fast Or Breaks	Adjust belt guides. Check idler alignment.
Not Enough Lift Height Or Not Low Enough	Adjust yokes on lift system. Adjust lift assist spring.
Lift Effort Too High	Adjust lift assist spring.
Engine misses, stalls, emits black smoke, or loses power.	Check air cleaner to see if snow has plugged the filter and air box. If so, move the machine to a warm environment and let the snow melt. There is an optional Winter Grill Cover available for use when operating in certain cold weather conditions. Contact your John Deere servicing dealer for ordering information.

Specifications

Snowblower

Overall Length ..... **77.5 cm (30 1/2 in.)**
Clearing Width ..... **1.1m (43 1/4 in.)**
Scraper Blade ..... **Replaceable**
Height to top of housing ..... **46cm (18 in.)**
Height to top of spout ..... **100cm (40 in.)**
Auger Speed ..... **110 rpm**
Auger Diameter ..... **30.5 cm (12 in.)**
Impeller Speed ..... **1060 rpm**
Impeller Diameter ..... **35.5 cm (14 in.)**
Lift Height (above ground level) ..... **10cm (4 in.)**
Lift Height (below ground level) ..... **5 cm (2 in.)**
Discharge Chute Rotation ..... **200 Degrees**
Net Weight ..... **82 kg (180 lb)**

(Specifications and design subject to change without notice.)

Getting Quality Service

Service Literature

If you would like a copy of the Parts Catalog or Technical Manual for this machine call:

- **U.S. & Canada**: 1-800-522-7448.
- **All Other Regions**: Your John Deere dealer.

Parts

We recommend John Deere quality parts and lubricants, available at your John Deere dealer.

Part numbers may change, use part numbers listed below when you order. If a number changes, your dealer will have the latest number.

When you order parts, your John Deere dealer needs the serial number or product identification number (PIN) for your machine or attachment. These are the numbers that you recorded in the Product Identification section of this manual.

Order Service Parts Online

Visit **http://JDParts.deere.com** for your Internet connection to parts ordering and information.

Part Numbers

Item	Part Number
Snowblower Drive Belt	M149970
Auger Shear Bolt (M6x45)	19M7834
Auger Shear Bolt Nut (M6)	14M7397
Impeller Shear Bolt (M6x45)	19M8321
Impeller Shear Bolt Nut (M5)	14M7375
Scraper Blade	M155105

(Part numbers are subject to change without notice. Part Numbers may be different outside the U.S.A.)

John Deere Quality Continues with Quality Service

John Deere provides a process to handle your questions or problems, should they arise, to ensure that product quality continues with your John Deere dealer's parts and service support.

Follow the steps below to get answers to any questions you may have about your product.

1. Refer to the appropriate attachment, machine or equipment operator manuals.

2. Contact your John Deere dealer with unanswered questions.

3. In North America or Canada, call the John Deere Customer Contact Center.

- Call 1-800-537-8233 and provide product serial number and model number.