



6' UTV V-Plow & 6' UTV Straight Blade Snowplows

Owner's Manual
Original Instructions

▲ CAUTION

Read this document before operating or
servicing snowplow.

This manual supersedes all editions with an earlier date.

OWNER INFORMATION

Register your snowplow online at www.westernplows.com

Owner Name: _____

Date Purchased: _____

Dealer Name: _____ Phone: _____

Dealer Address: _____

Vehicle Model/Year: _____

Snowplow Model/Year: _____

Snowplow Type/Size: _____ Weight: _____ lb/kg

Ballast: No ___ Yes ___ Amount: _____ lb/kg

Hydraulic Unit Serial Number: _____

Blade Serial Number: _____

TABLE OF CONTENTS

PREFACE	6	Adjusting the Skid Shoes	19
SAFETY	7	Adjusting the Blade Tilt	19
Safety Definitions	7	Adjusting the Trip Spring	20
Warning/Caution & Instruction Labels	7–8	Checking Blade for Obstructions	21
Safety Precautions	9	Transporting the Snowplow	21
Hydraulic Safety	9	Driving and Plowing on Snow and Ice	22
Fuses	9	Plowing Snow	22
Personal Safety	10	Parking with Snowplow Attached	23
Fire and Explosion	10	Towing Disabled or Stuck Vehicles	23
Cell Phones	10	DETACHING SNOWPLOW FROM VEHICLE	24
Ventilation	10	Storing the Blade	26
Battery Safety	10	MAINTENANCE	27
Noise	10	Service Intervals	27
Vibration	10	Grease	27
Snowplow Weight	10	Lubricating Blade Pivot Pins	27
Range of Lift	10	Lubricating Lower Actuator Bracket (T-Series) ...	27
Operating Safely	11	Preseason Check	28
Checking Area to be Cleared	11	In-Season Maintenance	28
Avoid Injury from Hitting Obstructions	11	Postseason Maintenance	28
GETTING TO KNOW YOUR SNOWPLOW	12	Storage	28
Snowplow Components	12	Replacing Blade Wear Bar	29
Vehicle Mount Kit	13	Replacing Skid Shoes	29
MOUNTING SNOWPLOW TO VEHICLE	14	Fuse Replacement	30
Loading Cargo Box with Ballast	14	Snowplow Vehicle Battery Best Practices	30
Attaching the Blade	14	Vehicle	30
OPERATING YOUR SNOWPLOW	16	Recycle	30
Daily Operating Checklist	16	Emergency Parts/Tools	30
Raising and Lowering the Blade	16	TROUBLESHOOTING	31
Blade Positions	17		
Setting the Blade Angle	18		

PREFACE

This manual has been prepared to acquaint you with the safety information, operation, and maintenance of your new snowplow. Please read this manual carefully and follow all recommendations.

Before installing a snowplow, make sure your vehicle is equipped with our recommended options for plowing snow. This will help ensure trouble-free operation of your snowplow. Keep this manual accessible. It is a handy reference in case minor service is required.

When service is necessary, bring your snowplow to your local outlet. They know your snowplow best and are interested in your complete satisfaction.

The illustrations found in this manual represent typical components. They may not match your exact installation.

SAFETY

SAFETY DEFINITIONS

⚠ WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

⚠ CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

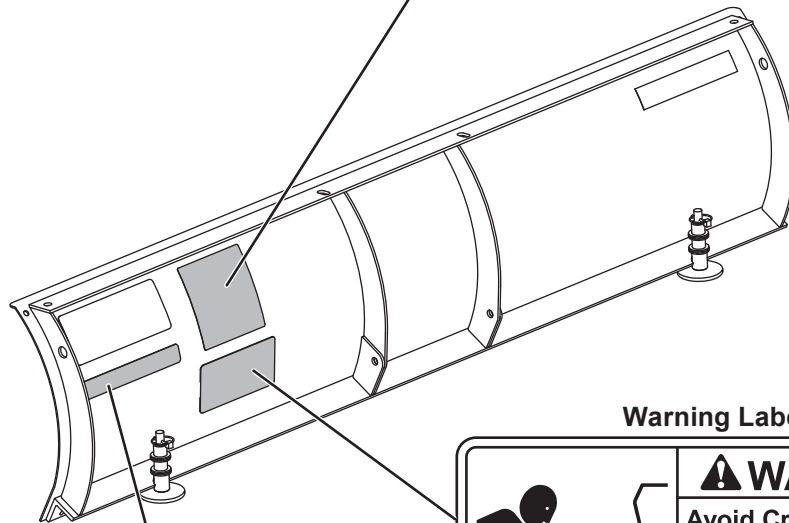
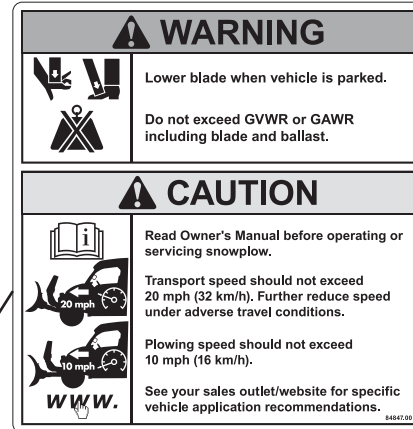
NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

WARNING/CAUTION AND INSTRUCTION LABELS

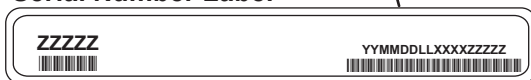
Become familiar with and inform users about the warning/caution and instruction labels on the back of the blade.

NOTE: If labels are missing or cannot be read, see your sales outlet.

Warning and Caution Label

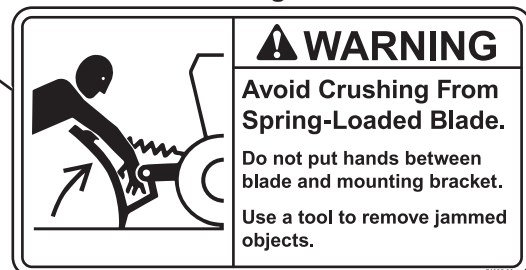


Serial Number Label



Serial No. Code	Definition
YY	2-Digit Year
MM	2-Digit Month
DD	2-Digit Day
LL	2-Digit Location Code
XXXX	4-Digit Sequential Number
ZZZZZ	5- to 7-Digit Blade Assembly PN

Warning Label



SAFETY

SAFETY DEFINITIONS

WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

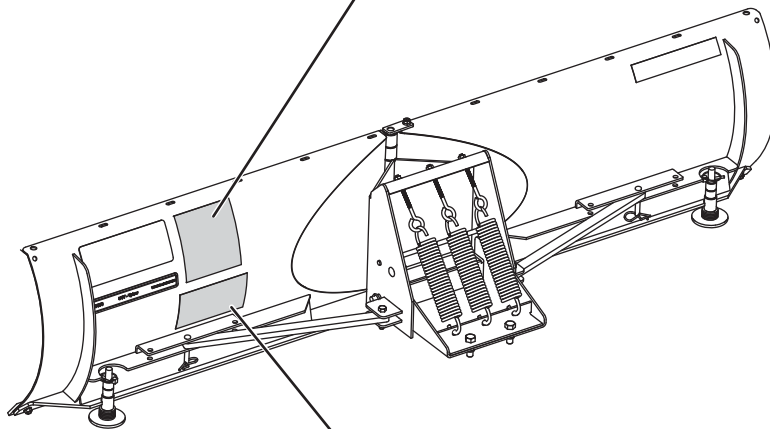
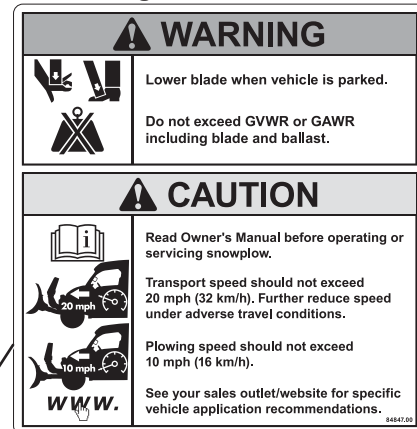
NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

WARNING/CAUTION AND INSTRUCTION LABELS

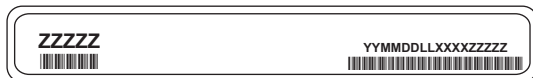
Become familiar with and inform users about the warning/caution and instruction labels on the back of the blade.

NOTE: If labels are missing or cannot be read, see your sales outlet.

Warning and Caution Label

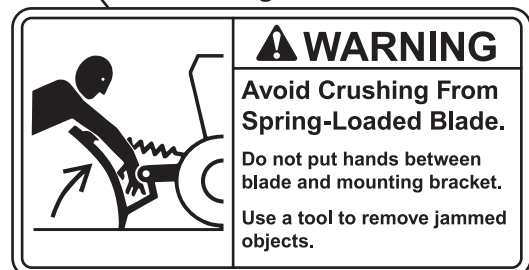


Serial Number Label



Serial No. Code	Definition
YY	2-Digit Year
MM	2-Digit Month
DD	2-Digit Day
LL	2-Digit Location Code
XXXX	4-Digit Sequential Number
ZZZZZ	5- to 7-Digit Blade Assembly PN

Warning Label



SAFETY

SAFETY PRECAUTIONS

Follow all safety and operating instructions in your UTV owner's manual.

Improper installation and operation could cause personal injury, and/or equipment and property damage. Read and understand labels and this Owner's Manual before installing, operating, or making adjustments.

WARNING

Lower the blade when the vehicle is parked. Temperature changes could change hydraulic pressure, causing the blade to drop unexpectedly or damaging hydraulic components. Failure to do this could result in serious personal injury.

WARNING

The driver shall keep bystanders clear of the blade when it is being raised, lowered, or angled. Do not stand between vehicle and blade or within 8 feet of a moving blade. A moving or falling blade could cause personal injury.

WARNING

Keep hands and feet clear of the blade and frame when mounting or removing the snowplow. Moving or falling assemblies could cause personal injury.

WARNING



Do not exceed GVWR, GAWR, or maximum vehicle load capacity, including the blade and ballast.

WARNING

To prevent accidental movement of the blade, always turn the control OFF whenever the snowplow is not in use. The power indicator light will turn OFF.

WARNING

Remove blade assembly before placing vehicle on hoist.

WARNING

Vehicle mount reduces ground clearance. Use additional caution when driving vehicle with mount installed. Remove vehicle mount to restore original vehicle ground clearance at the end of the plowing season.

HYDRAULIC SAFETY

WARNING



Hydraulic fluid under pressure can cause skin injection injury. If you are injured by hydraulic fluid, get medical attention immediately.

- Always inspect hydraulic components and hoses before using. Replace any damaged or worn parts immediately.
- If you suspect a hose leak, DO NOT use your hand to locate it. Use a piece of cardboard or wood.

FUSES

The electrical and hydraulic systems contain several automotive-style fuses. If a problem should occur and fuse replacement is necessary, the replacement fuse must be of the same type and amperage rating as the original. Installing a fuse with a higher rating can damage the system and could start a fire. Fuse replacement information, including fuse ratings and locations, is located in the Maintenance section of this Owner's Manual.

SAFETY

PERSONAL SAFETY

- Remove the ignition key and put the vehicle in PARK or in gear to prevent others from starting the vehicle during installation or service.
- Wear only snug-fitting clothing while working on your vehicle or snowplow.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt, and dust.
- Wear hearing protection such as earmuffs or earplugs as appropriate or required.
- Avoid touching hot surfaces such as the engine, radiator, hoses, and exhaust pipes.
- Always have a fire extinguisher rated BC handy for flammable liquids and electrical fires.

FIRE AND EXPLOSION

⚠ WARNING

Gasoline is highly flammable and gasoline vapor is explosive. Never smoke while working on vehicle. Keep all open flames away from gasoline tank and lines. Wipe up any spilled gasoline immediately.

Be careful when using gasoline. Do not use gasoline to clean parts. Store only in approved containers away from sources of heat or flame.

CELL PHONES

A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the surroundings. Wait until it is safe to operate mobile communication equipment such as cell phones, text messaging devices, pagers, or two-way radios.

VENTILATION

⚠ WARNING

Vehicle exhaust contains lethal fumes. Breathing these fumes, even in low concentrations, can cause death. Never operate a vehicle in an enclosed area without venting exhaust to the outside.

BATTERY SAFETY

⚠ CAUTION

Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks, or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

- Batteries contain sulfuric acid, which burns skin, eyes, and clothing.
- Disconnect the battery before removing or replacing any electrical components.

NOISE

Airborne noise emission during use is below 95 dB(A) for the snowplow operator.

VIBRATION

Operating snowplow vibration does not exceed 2.5 m/s² to the hand-arm or 0.5 m/s² to the whole body.

SNOWPLOW WEIGHT

Size	Blade Assembly (all parts)	Wt (lb)	Wt (kg)
6'	UTV V-Plow Snowplow	202	91.6
6'	UTV Straight Blade Snowplow	170	77

RANGE OF LIFT (with heavy-duty front suspension)

Blade Assembly	Range of Lift	Height	
V-Plow	Above Ground Level	8.5"	21.6 cm
	Below Ground Level	3"	7.6 cm
Straight Blade	Above Ground Level	8.5"	21.6 cm
	Below Ground Level	3"	7.6 cm

SAFETY

OPERATING SAFELY

- This snowplow is intended for light duty moving of snow or other light, loose material and is not intended for digging or grading. Do not misuse this equipment.
- Do not exceed operating speed of 10 mph (16 km/h) when moving material with this snowplow.
- Read, understand, and follow all instructions in the manual and on the vehicle and snowplow before operating.
- Only allow responsible adults who are familiar with the instructions to operate the equipment.
- Inspect the snowplow before you operate. Be sure that hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure that guards and shields are in good condition and fastened in place. Make any necessary adjustments before you operate.
- Stop the vehicle if anyone enters the area.
- If you hit an object, stop and inspect the equipment. Make repairs before you operate. Keep the snowplow properly maintained and in good working order.
- Before operating, make sure that all connections are tight and the blade responds properly to controls. Check all connections periodically for tightness.
- Do not leave vehicle unattended when it is running.
- Only operate during daylight or with good artificial light.
- Be careful of traffic when operating near or crossing roadways.
- Do not wear radio or music headphones while operating the equipment. Safe operation requires your full attention.
- Transport the blade with it raised to the highest position, it should be centered and not at an angle.

- Be aware of the position of the blade ends. The blade makes a wide arc when turning.
- Be aware of the possibility of objects hidden under the snow. Avoid holes, rocks, roots, and other obstructions.
- Avoid the edges of ditches and banks to reduce the possibility of loss of control.
- When plowing material into a pile, travel in reverse before raising the blade.
- Do not ram into a pile of material; slow down before contact is made.
- Lower the blade completely before leaving the operator's seat.
- Lower the blade completely to the ground before servicing the snowplow. Disengage all power and stop the engine. Engage the parking brake and remove the key.
- 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 labels.

CHECKING AREA TO BE CLEARED

- Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
- Keep people and pets out of the work area. Keep children indoors when using the snowplow. Turn the vehicle OFF if anyone enters the area.
- Be extremely careful if you must clear snow from a gravel surface. Adjust the blade height to clear a gravel surface.

AVOID INJURY FROM HITTING OBSTRUCTIONS

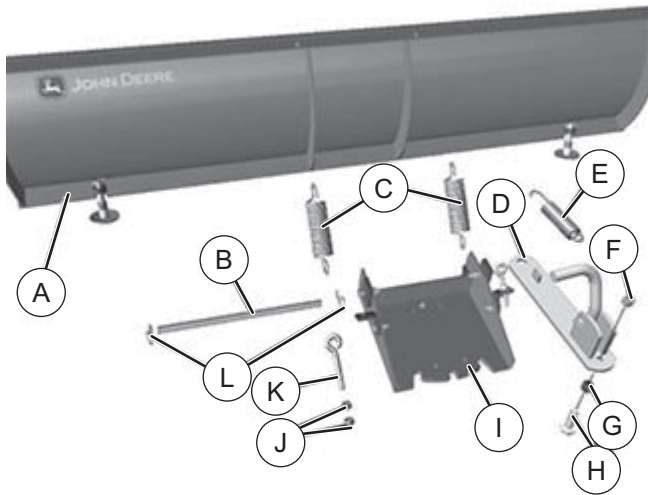
- Raise and center, not angle, the blade when you drive between jobs.
- Slow down when you remove snow. Be cautious on slopes, when you make turns, or when close to buildings or trees.

GETTING TO KNOW YOUR SNOWPLOW

SNOWPLOW COMPONENTS

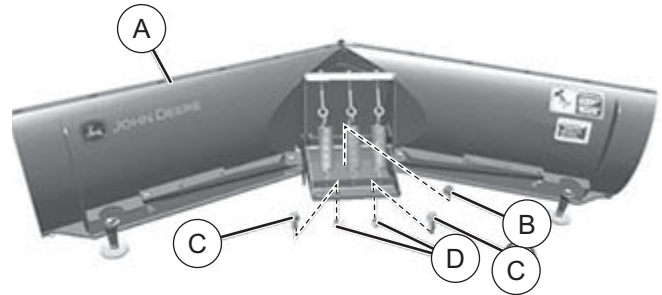
A snowplow consists of all the components that are readily removable from the vehicle as a unit. This includes the blade, frame, headgear, and hydraulic unit. The snowplow is ready and easy to mount when you need to plow snow. When plowing is completed, remove the snowplow.

Straight Blade Components



Qty	Description	Size
1	Blade Assembly (A)	72"
1	Mounting Pin (B)	
2	Spring (C)	
1	Blade Position Bracket (D)	
1	Spring (E)	
1	Nut (F)	M10
1	Spacer (G)	
1	Flange Head Cap Screw (H)	M10 x 40
1	Blade Pivot Bracket (I)	
4	Locknut (J)	5/16"
2	Eyebolt (K)	
2	Hairpin Cotter (L)	

V-Plow Components

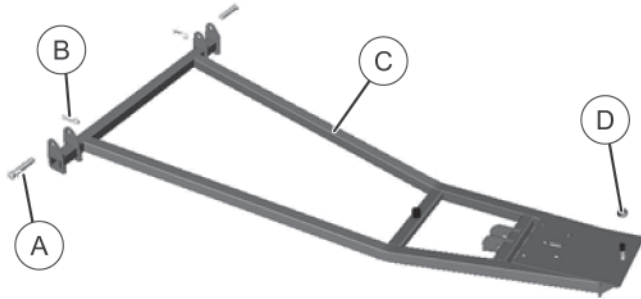


Qty	Description	Size
1	V-Plow Assembly (A)	72"
1	Locknut (B)	5/8"
2	Flanged Head Cap Screw (C)	M12 x 30
2	Locknut (D)	M12

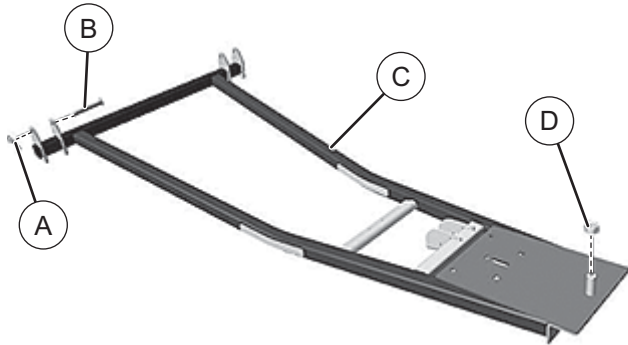
GETTING TO KNOW YOUR SNOWPLOW

Lift Frame Components

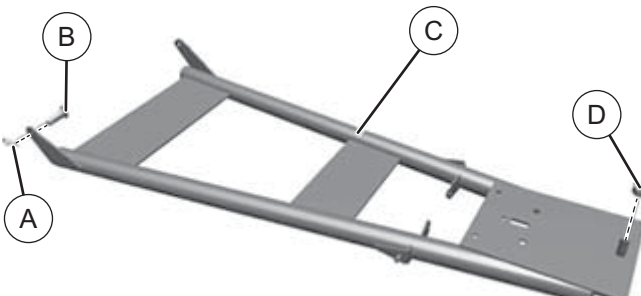
NOTE: Front lift kits must be purchased and installed previous to blade installation. You also have to purchase a separate frame, below, for your vehicle.



XUV 625i, XUV 825i, XUV 855D Lift Frame



HPX, XUV 620i, XUV 850D Lift Frame



T-Series Lift Frame

VEHICLE MOUNT KIT

⚠ WARNING

Vehicle mount reduces ground clearance. Use additional caution when driving vehicle with mount installed. Remove vehicle mount to restore original vehicle ground clearance at the end of the plowing season.

Mount kits have been designed for most UTVs. Due to the differences among vehicle models, the kits are not interchangeable.

The vehicle mount assembly is bolted to the underside of the vehicle frame, and the receiver assembly is attached to the vehicle mount. It is engineered to provide the primary connecting points between the snowplow assembly and the vehicle. The weight of the snowplow system is distributed to the frame of your vehicle by the mount assembly.

Qty	Description	Size
2	Hairpin Cotter (A)	
2	Clevis Pin (B)	
1	Lift Frame (C)	
1	Locknut (D)	5/8"

MOUNTING SNOWPLOW TO VEHICLE

LOADING CARGO BOX WITH BALLAST

⚠ CAUTION

Loads can shift forward. Do not load cargo box above the height of load guard. Do not exceed load capacity of vehicle.

Add weight to the cargo box for proper traction and blade performance. Recommended materials include sand or bagged material. If using another form of ballast, secure it from shifting before operating the vehicle.

See your utility vehicle operator's manual for load recommendations. Do not exceed the load capacity.

ATTACHING THE BLADE TO THE FRAME

⚠ WARNING

Keep 8' clear of the blade when it is being raised, lowered, or angled. Do not stand between vehicle and blade or directly in front of the blade. If the blade hits or drops on you, you could be seriously injured.

⚠ WARNING

Inspect snowplow components and fasteners for wear or damage whenever attaching or detaching the snowplow. Worn or damaged components could allow the snowplow to drop unexpectedly.

⚠ WARNING

Keep fingers away from snowplow and UTV attachment points.

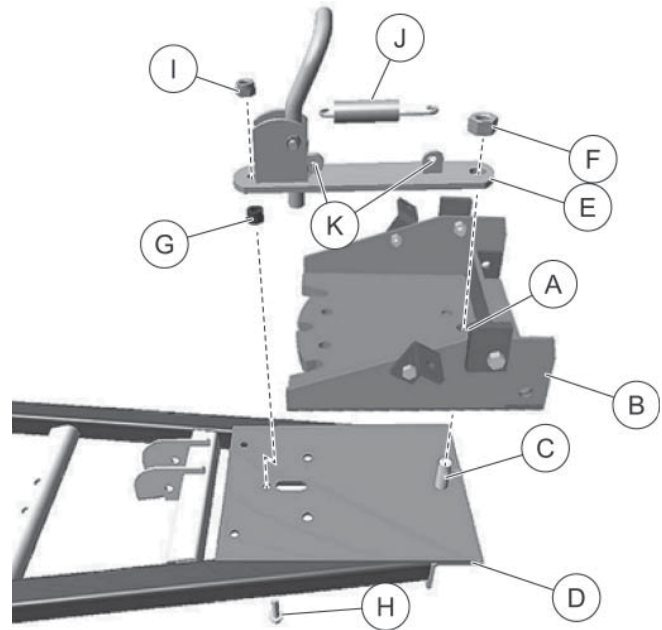
NOTE: For V-plow snowplows, the blade must be in the retracted (vee) position when attaching or detaching the snowplow.

NOTE: Use dielectric grease to prevent corrosion on all connections.

NOTE: Use lubricant on connecting pins to ensure ease of attach/detach.

Straight Blade

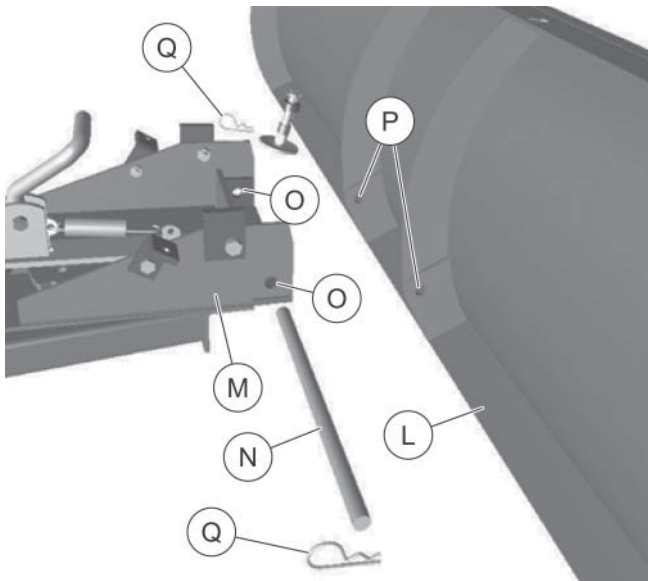
1. Align the front hole (A) in the skid bracket (B) with the bolt (C) welded to the bottom of the frame (D) and lower the skid bracket down onto the bolt.



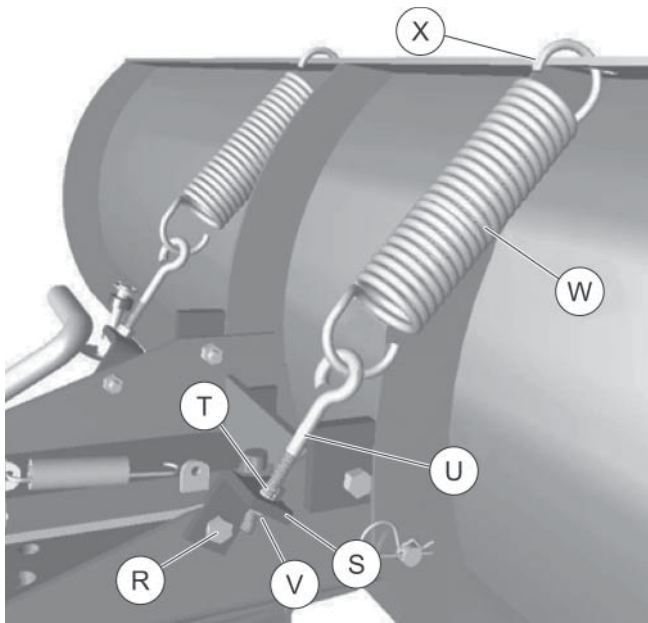
2. Install the blade position lever bracket (E) onto the skid bracket (B) so that the bolt (C) goes through the hole in bracket E. Loosely secure it with a 5/8" locknut (F).
3. Place a spacer (G) between the frame (D) and the blade position lever bracket (E). Secure with a cap screw (H) and locknut (I).
4. Tighten the front 5/8" locknut (F), then loosen it just enough so that the skid bracket can rotate on the frame.
5. Install a spring (J) onto the two holes (K) in the tabs on the blade position lever bracket.

MOUNTING SNOWPLOW TO VEHICLE

6. Center the back side of the blade (L) with the frame assembly (M).



7. Attach the blade to the frame on each side with a mounting pin (N) using the holes (O) in the frame and the holes (P) in the blade. Secure each side with a hairpin cotter (Q).
8. Loosen the cap screw (R) to allow the bracket (S) to rotate freely. Repeat on the opposite side.



9. Install one locknut (T) onto eyebolt (U), and install the eyebolt through the hole in the bracket (S). Install a second locknut (V) onto the eyebolt but do not tighten it completely. Repeat on the opposite side.

⚠ CAUTION

Springs are under high tension and must be installed with hooked ends toward the vehicle to prevent accidental detachment if blade trips.

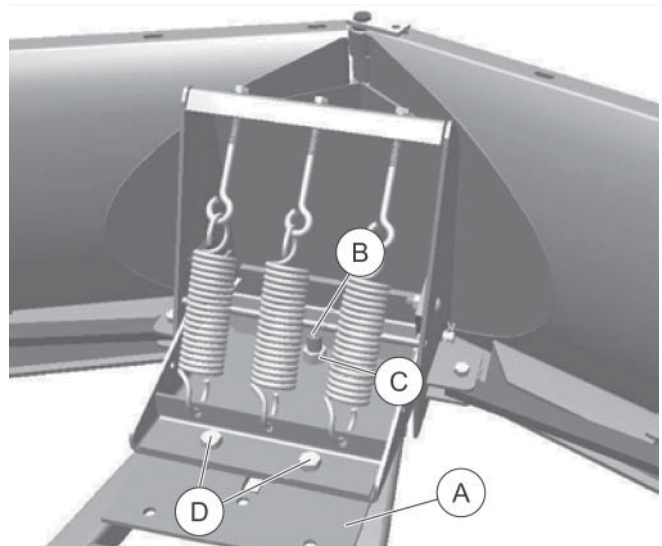
10. Install the springs (W) through the eyebolts and secure to the blade with hooked ends (X) toward the vehicle.
11. Tighten the locknuts (V) on the eyebolts so that 9/16" (15 mm) of thread is exposed. Tighten the top locknut (T) on each side to secure the eyebolt in position.
12. Adjust the trip spring, blade tilt, and the skid shoes before operating.

V-Plow

⚠ CAUTION

Blade and frame components are heavy. Use a safe lifting device or get an assistant to help lift, install, or remove the component.

1. Tip the blade forward and slide it over the frame center bracket (A).



2. Align the front hole in V-plow center bracket with the bolt (B) welded to the bottom of the frame and lower the blade down onto the bolt. Secure with a 5/8" locknut (C) and tighten to 150 ft-lb (203 N·m).
3. Align the two holes in the frame with the holes in the center bracket and attach with two M12 x 30 flange head cap screws (D). Secure with M12 locknuts and tighten to 66 ft-lb (90 N·m).

OPERATING YOUR SNOWPLOW

Daily Operating Checklist

- Check for loose or missing hardware.
- Make sure that all connections are tight.
- Make sure that the attachment responds properly to the controls.
- Check for debris build-up that could obstruct proper motion of the blade trip components.

Raising and Lowering Blade

⚠ WARNING

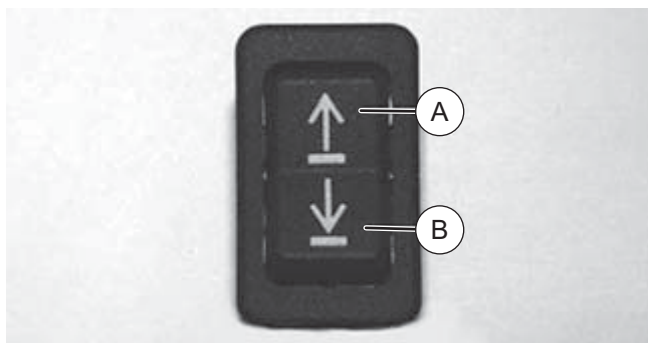
To prevent accidental movement of the blade, always push the ON/OFF button to switch the control OFF whenever the snowplow is not in use. The power indicator light will turn OFF.

IMPORTANT: A "clicking" or "ratcheting" sound when blade is fully raised or lowered indicates actuator clutch slippage. To prevent unnecessary wear or damage, keep clutch slippage to a minimum. Release switch if actuator slippage occurs.

NOTE: Key switch must be in RUN position for blade switch to function.

Raising the Blade

1. Press and hold the top (A) of the switch to raise the blade to the desired height.



2. Release the switch.

Lowering the Blade

1. Press and hold the bottom (B) of the switch to lower the blade to the desired height.
2. Release the switch.

BLADE POSITIONS

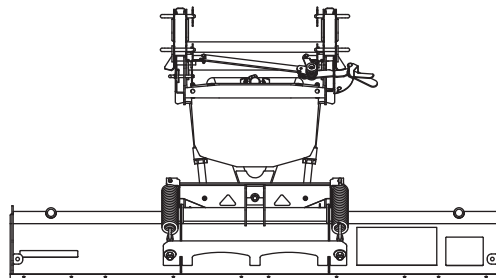
Straight Blade Snowplow

Angling Positions: 3		
Blade Position	Angle	Cutting Width
Straight	0°	72" (1.8 m)
Angled	22° (Left or Right)	66.75" (1.7 m)

The UTV straight blade snowplow can be used in these plowing positions.

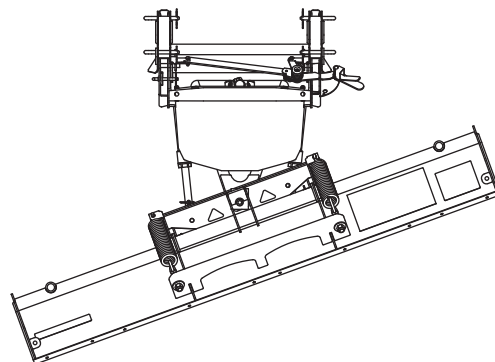
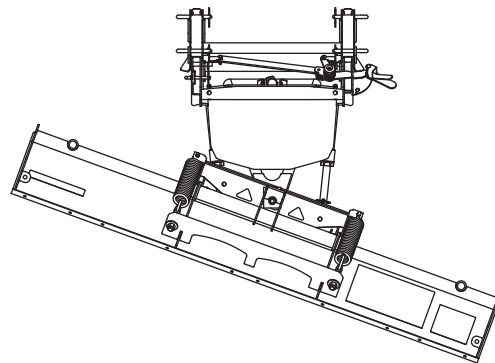
Straight Blade

Use straight blade for wide-path plowing or stacking snow.



Angled Blade

Move the blade in either direction for general plowing and widening.



OPERATING YOUR SNOWPLOW

V-Plow Snowplow

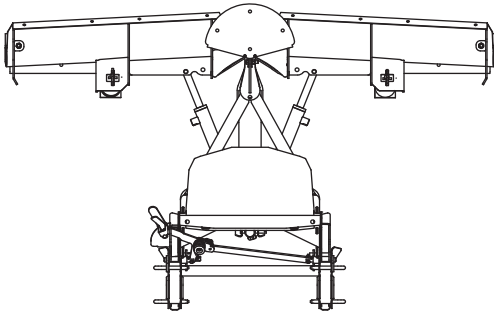
NOTE: For best ground clearance during transport, place the blade halfway between the straight and retracted (vee) positions. The scoop position is **NOT RECOMMENDED** during transport.

Angling Positions: 5			
Blade Position	Angle	Cutting Width	
Straight	0°	72"	(1.8 m)
Retracted (Vee)	—	68"	(1.72 m)
Angled	22° (Left or Right)	66.75"	(1.7 m)
Scoop	—	66"	(1.67 m)

The UTV V-plow snowplow can be used in these five basic plowing positions.

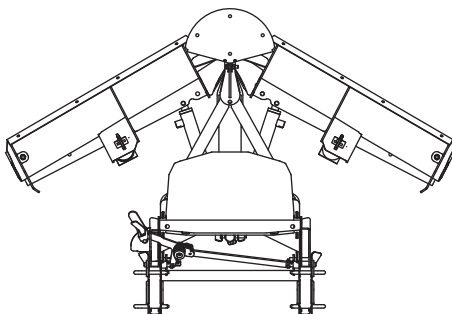
Straight Blade

Move both wings to form a straight blade for wide-path plowing or stacking snow.



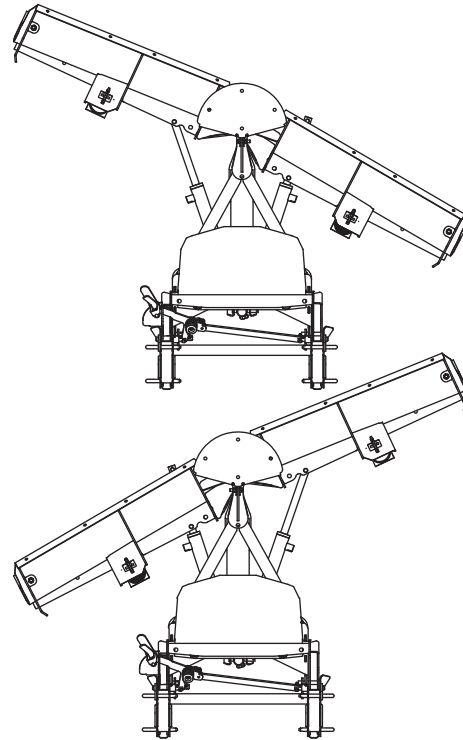
Retracted (Vee) Blade

Move both wings in toward the vehicle for initial break-through plowing and plowing paths or walkways.



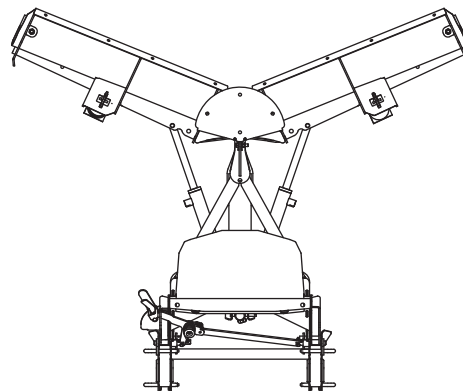
Angled Blade

Move one wing out and the other wing in to form an angled blade in either direction for general plowing and widening.



Scoop Blade

Move both wings out away from the vehicle to form a scoop to carry snow with minimum spillover.



OPERATING YOUR SNOWPLOW

SETTING THE BLADE ANGLE

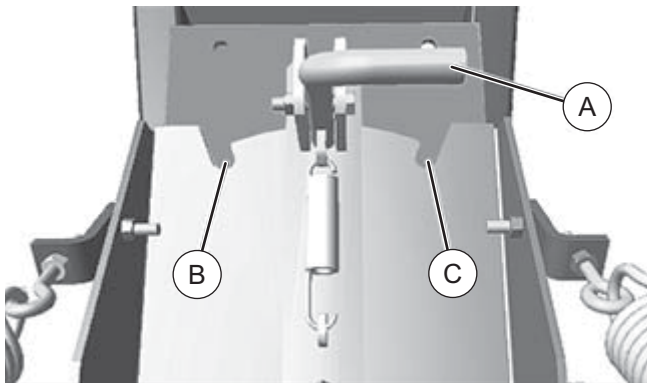
⚠ WARNING

Keep 8' clear of the blade when it is being raised, lowered, or angled. Do not stand between vehicle and blade or directly in front of the blade. If the blade hits or drops on you, you could be seriously injured.

1. Raise blade slightly off the ground.
2. Park the vehicle safely.
3. Adjust blade angle.

Straight Blade

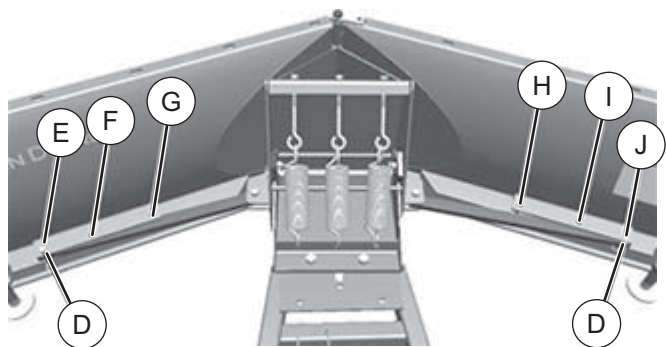
- a. Push down lever (A).
- b. Swing blade to right or left position.
- c. Release lever and make sure it locks into right position notch (B) or left position notch (C).



V-Plow

Install pins and hairpin cotters (D) into holes for desired blade angle:

Holes	Blade Position	Usage
E-J	V	Push material to both sides
F-I	Straight	Push material forward
G-H	Scoop	Guide material forward
E-H	Angled Left	Push material left only
G-J	Angled Right	Push material right only



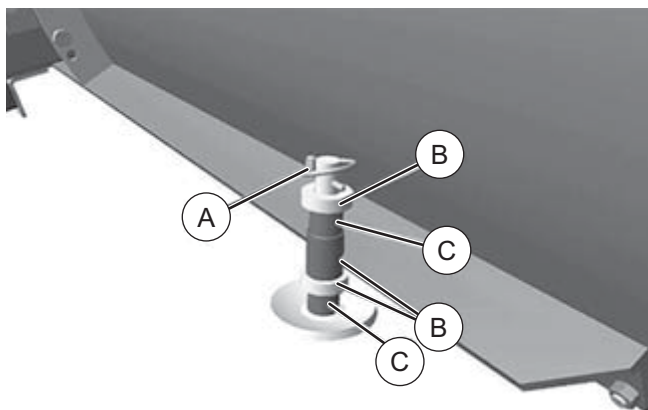
OPERATING YOUR SNOWPLOW

ADJUSTING THE SKID SHOES

⚠ WARNING

Keep 8' clear of the blade when it is being raised, lowered, or angled. Do not stand between vehicle and blade or directly in front of the blade. If the blade hits or drops on you, you could be seriously injured.

1. Raise blade slightly off the ground.
2. Park the vehicle safely. See "Parking With Snowplow Attached."
3. Remove the linchpin (A).



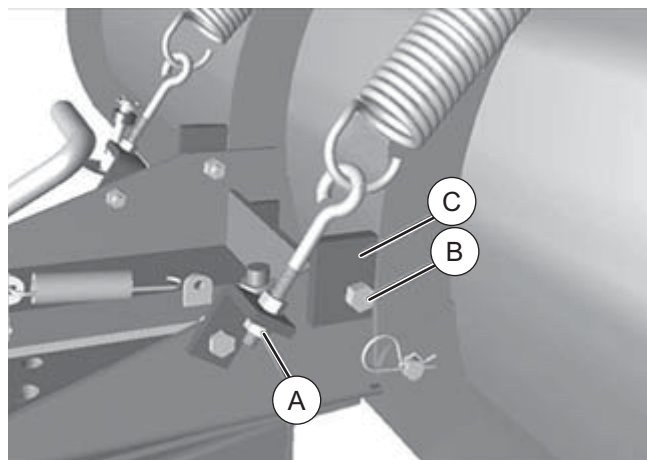
4. Remove or add washers (B) and/or spacers (C) to attain the desired ground clearance.
5. Lower the blade to the ground and check the adjustment.

SETTING BLADE TILT

⚠ WARNING

Keep 8' clear of the blade when it is being raised, lowered, or angled. Do not stand between vehicle and blade or directly in front of the blade. If the blade hits or drops on you, you could be seriously injured.

1. Raise the blade slightly off the ground.
2. Park the vehicle safely. Park the vehicle safely. See "Parking With Snowplow Attached."
3. Loosen locknut (A) on each eyebolt to reduce spring tension.



4. Loosen cap screws (B) on both sides of blade frame.

NOTE: The blade stops can be rotated to allow four possible blade tilt positions. Perpendicular blade position is recommended for best performance. Both stops must be adjusted to the same position.

5. Rotate the blade stop (C) on both sides to the desired tilt position.
6. Tighten the fasteners to 30 ft-lb (41 N•m).

NOTE: Trip spring must be adjusted each time the blade tilt is changed.

7. Adjust the blade trip spring.

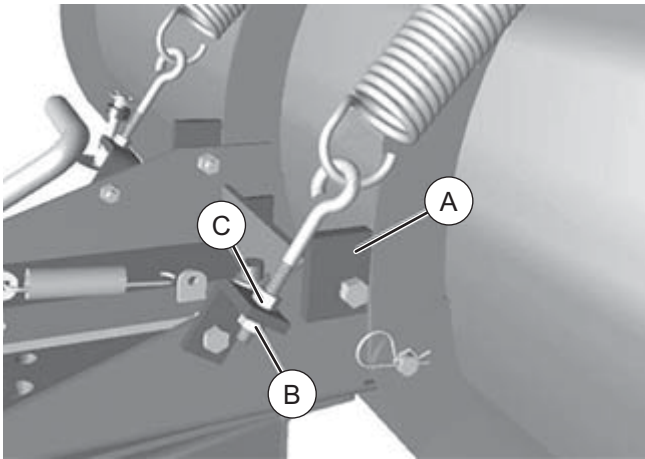
OPERATING YOUR SNOWPLOW

ADJUSTING THE TRIP SPRING

Straight Blade

IMPORTANT: The trip spring feature is designed to protect blade and vehicle from severe impact. Do not overtighten the springs. The trip spring should be adjusted to provide enough tension to keep the blade against the stops (A) when pushing light materials on a hard surface.

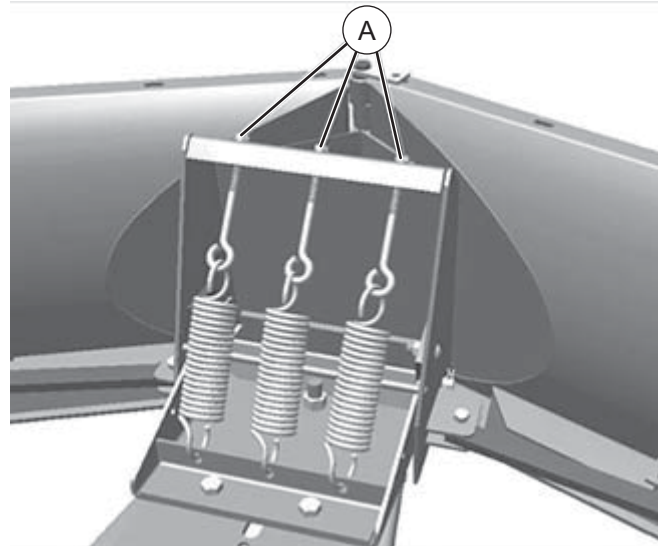
1. Adjust to the initial setting by tightening the locknuts (B) on the eyebolts so that 9/16" (15 mm) of thread is exposed. Tighten the top nut (C).



2. Operate the blade to determine if the spring tension is sufficient for the type of material and terrain conditions.
3. Adjust the trip spring if needed:
 - Tighten locknuts (B) equal amounts to **increase** tension.
 - Loosen locknuts (B) equal amounts to **decrease** tension.
4. Tighten the top locknut (C) to secure the eyebolt position.

V-Plow

1. Adjust to initial setting by tightening the three locknuts (A) on the eyebolts so that 9/16" (15 mm) of thread is exposed.



2. Operate the blade to determine if the spring tension is sufficient for the type of material and terrain conditions.
3. Adjust the trip spring if needed:
 - Tighten locknuts (B) equal amounts to **increase** tension.
 - Loosen locknuts (B) equal amounts to **decrease** tension.

OPERATING YOUR SNOWPLOW

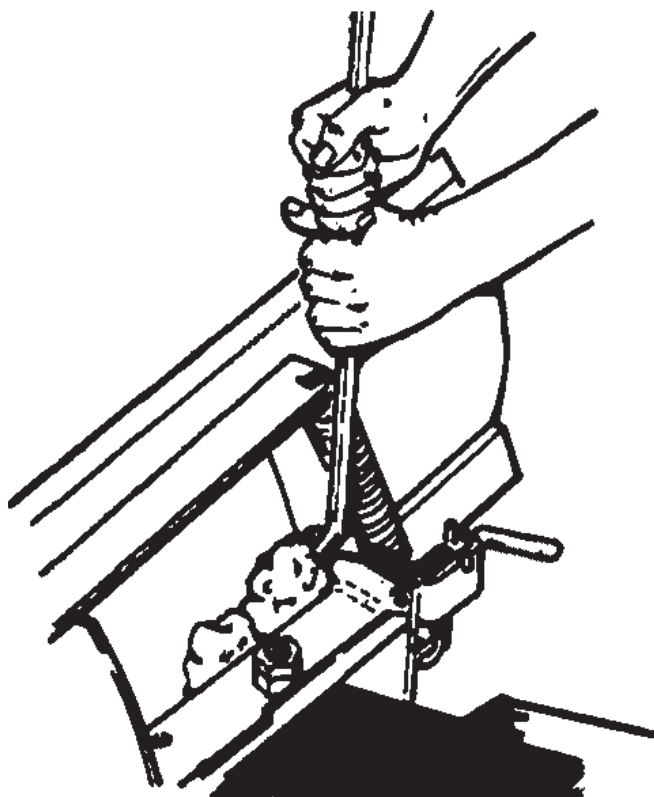
CHECKING BLADE FOR OBSTRUCTIONS

1. Lower the blade to the ground.
2. Park the vehicle safely. Park the vehicle safely. See "Parking With Snowplow Attached."

⚠ WARNING

Fingers and hands can be pinched or crushed. Be aware of potential pinch points and keep hands away.

3. Check for obstructions around the springs and between the blade and blade frame. Use a long pry bar to remove obstructions.



TRANSPORTING THE SNOWPLOW

⚠ WARNING

Position the blade so it does not block the vehicle headlamp beams.

Do not change blade position while traveling. You could suddenly lower the blade accidentally.

1. Completely raise the blade.
2. Adjust the blade height for maximum vehicle headlamp illumination.
3. Adjust the blade to the straight position.
4. Transport with blade raised to the highest position and centered. Do not exceed 5 mph (8 km/hr).
5. Move the control ON/OFF switch to OFF to lock the blade in place.
6. Avoid contact with objects such as trees or fences. Be aware of the blade end position while transporting. The blade makes a wide arc when turning.

NOTE: For best ground clearance during transport of V-plow snowplows, place the blade halfway between the straight and retracted (vee) positions. The scoop position is NOT RECOMMENDED during transport.

NOTE: Overheating is unlikely under normal driving conditions, but occasionally the snowplow may be positioned so it deflects air away from the radiator. If this occurs, stop the vehicle and raise, lower, or angle the snowplow slightly to correct overheating.

NOTE: Only the driver should be in the vehicle cab when the snowplow is attached.

OPERATING YOUR SNOWPLOW

DRIVING AND PLOWING ON SNOW AND ICE

WARNING

Drinking then driving or plowing is very dangerous. Your reflexes, perceptions, attentiveness, and judgment can be affected by even a small amount of alcohol. You can have a serious or even fatal collision if you drive after drinking. Please do not drink and then drive or plow.

Refer to the vehicle owner's manual instructions for driving in snow and ice conditions. Remember, when you drive on snow or ice, your wheels will not get good traction. You cannot accelerate as quickly, turning is more difficult, and you will need longer braking distance.

Wet and hard-packed snow or ice offers the worst tire traction. It is very easy to lose control. You will have difficulty accelerating. If you do get moving, you may have poor steering and difficult braking, which can cause you to slide out of control.

Here are some tips for driving in these conditions:

- Drive defensively.
- Do not drink, and then drive or plow snow.
- Plow or drive only when you have good visibility for operating a vehicle.
- If you cannot see well due to snow or icy conditions, you will need to slow down.
- If you are tired, move indoors and rest.
- Keep your windshield and all glass on your vehicle clean to see around you.
- Dress properly for the weather. Wear layers of clothing. As you get warm, you can take off layers.

PLOWING SNOW

WARNING

Never plow snow with head outside of the vehicle window or rollover protection system. Sudden stops or protruding objects could cause personal injury.

CAUTION

Wear a seat belt when plowing snow. Hidden obstructions could cause the vehicle to stop suddenly, resulting in personal injury.

CAUTION

Flag any obstructions that are hard to locate under snow, to prevent damage to product or property.

CAUTION

Never stack snow with the blade angled. This could damage the snowplow or the vehicle bumper.

CAUTION

Plowing speed should not exceed 10 mph (16 km/h).

NOTE: Only the driver should be in the vehicle cab when the snowplow is attached.

General Instructions

1. Before plowing, make sure you know of any obstructions hidden beneath the snow, such as curbs, sidewalk, shrubs, fences, or pipes sticking up from the ground. If you are unfamiliar with the area to be plowed, have someone familiar with the area point out obstacles.
2. If possible, and when you have good visibility, plow during the storm rather than letting snow accumulate.
3. Do not exceed 10 mph (16 km/h) when plowing snow.
4. When you are stacking snow, begin raising the blade as you come close to the stack. This will let the blade ride up the stack.

OPERATING YOUR SNOWPLOW

Hard-Packed Snow

1. On blades equipped with a shoe kit, raise the antiwear shoes so that the cutting edge comes into direct contact with the pavement.
2. Use lowest gear to place maximum power behind the cutting edge.
3. An angled blade is more effective for removing hard-packed snow.

Deep Snow

1. Shear off top layers by plowing with the blade raised 3 to 4 inches for the initial pass.
2. Bite into the edges using only partial blade width until job is cut down to size for full-blade plowing.

Rule of thumb:

3" of snow — plow with entire blade width

6" of snow — plow with 3/4 blade width

9" of snow — plow with 1/2 blade width

Experience and "feel" are the best guides.

3. When plowing deep snow, be sure to keep the vehicle moving.
4. Ballast is suggested for maximum traction. Secure ballast behind the rear wheels. Do not exceed the vehicle's GVWR and GAWR.
5. For increased traction, use tire chains where legal.

Clearing Driveways

1. Head into the driveway with the blade angled and plow the snow away from any buildings. Widen the driveway by rolling the snow away from buildings.
2. If a building is at the end of the driveway, plow to within a vehicle length of the building. Push as much snow as possible off the driveway.
3. With a raised blade, drive through the remaining snow to the building. Drop the blade and "back drag" snow away from the building at least one vehicle length. Repeat if necessary.
4. Back the vehicle to the building and plow forward, removing the remaining snow. Check municipal ordinances for proper disposal of snow.

PARKING WITH SNOWPLOW ATTACHED

WARNING

Lower the blade when the vehicle is parked. Keep 8' clear of the blade. Failure to do this can result in serious personal injury.

Whenever you park your vehicle, completely lower the blade to the ground.

1. Stop the vehicle on a level surface, not on a slope.
2. Lower the attachments to the ground.
3. Lock the parking brake.
4. Stop the engine.
5. Remove the key.
6. Wait for engine and all moving parts to stop before leaving the operator's seat.
7. Close the fuel shut-off valve, if your vehicle is equipped.
8. Disconnect the NEGATIVE (–) battery cable or remove the spark plug wire (for gasoline engines) before servicing the vehicle.

TOWING DISABLED OR STUCK VEHICLES

Do not use any snowplow components as an attachment point when retrieving, towing, or winching a disabled or stuck vehicle.

DETACHING SNOWPLOW FROM VEHICLE

DETACHING THE SNOWPLOW

⚠ WARNING

Keep 8' clear of the blade when it is being raised, lowered, or angled. Do not stand between vehicle and blade or directly in front of the blade. If the blade hits or drops on you, you could be seriously injured.

⚠ WARNING

Inspect snowplow components and bolts for wear or damage whenever attaching or detaching the snowplow. Worn or damaged components could allow the snowplow to drop unexpectedly.

⚠ CAUTION

- Vehicle 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 vehicle.
- Use only attachments and accessories recommended by the manufacturer.

NOTE: For V-plow snowplows, the blade must be in the retracted (vee) position when attaching or detaching the snowplow.

NOTE: Place blade on a firm, level surface for ease of removal.

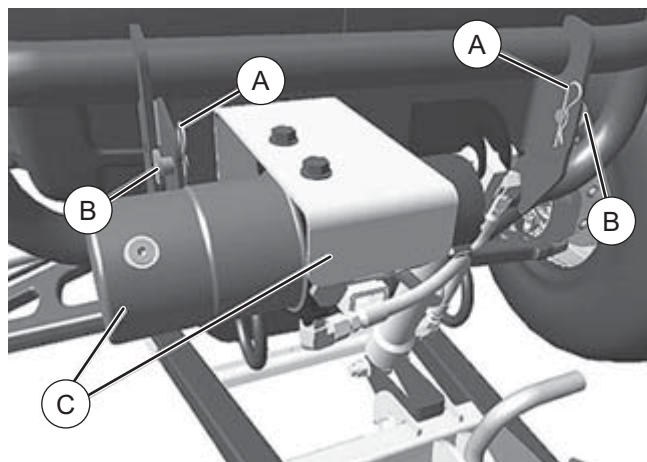
1. Remove any added ballast from the vehicle. Park the vehicle safely. See "Parking With Snowplow Attached."
2. For V-plow snowplows, fully retract blade wings in the compact (vee) position. Lower the snowplow to the ground. Activate FLOAT, then turn the plow control in the vehicle OFF. Apply the vehicle parking brake.

Removing the Blade (HPX, XUV 620i, XUV 850D)

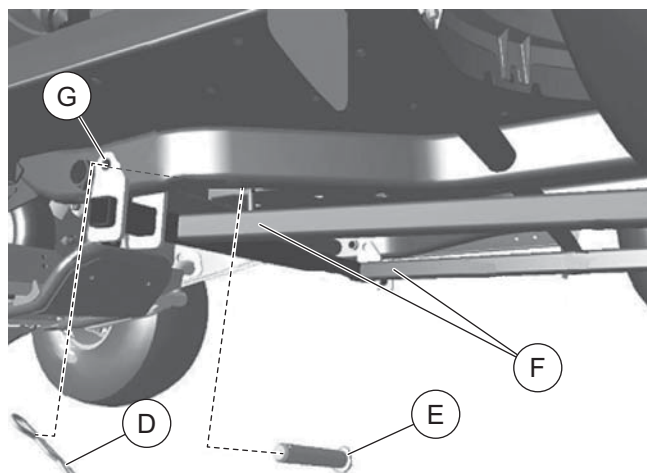
1. Disconnect wiring harness connector from hydraulic cylinder connector. (Use electrical tape or tie strap to secure wiring harness to front bumper, be sure harness is away from front wheels or driving surface.)

NOTE: After each disconnection of the snowplow, reapply dielectric grease to the electrical plugs to maintain the protective coating on the terminals.

2. Remove hairpin cotters (A), clevis pins (B), and lower hydraulic lift assembly (C), being careful not to pinch or damage hydraulic lines when lowering onto implement frame.

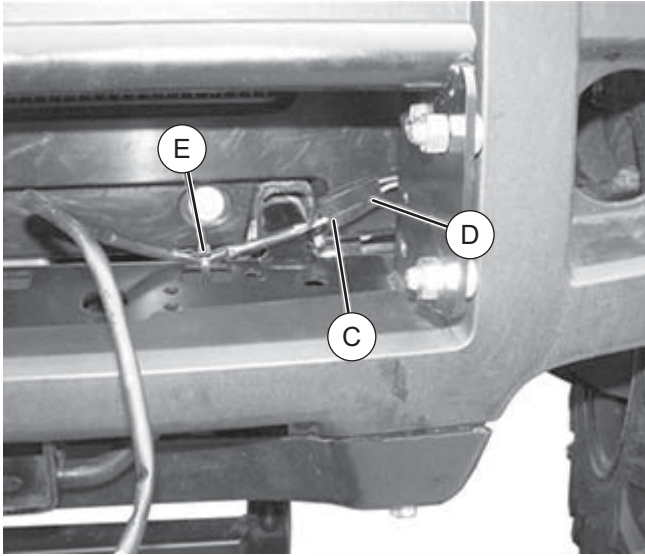


3. Remove the hairpin cotter (D) and clevis pin (E) at both sides of the blade frame (F). Install the pins to the holes in the frame plates (G) for storage.



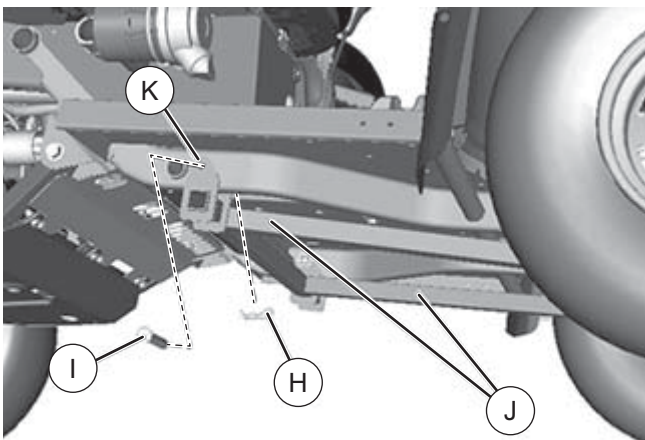
DETACHING SNOWPLOW FROM VEHICLE/STORING THE BLADE

4. Disconnect the wiring harness connector (C) from the hydraulic cylinder connector (D). (Remove the tie strap (E) and use electrical tape or tie strap to secure the wiring harness to the frame. Be sure that the harness is away from the front wheels or driving surface.)



NOTE: If you do not have a brush guard installed, you will need to remove two M12 x 25 bolts instead of the two M12 x 30 carriage bolts.

5. Remove two M12 x 30 carriage bolts (F), two washers (B), and M12 locknuts, and lower the upper pivot bracket and blade frame (G) from the front bumper bracket, being careful not to pinch or damage electrical wiring when lowering components.
6. Remove the hairpin cotter (H) and clevis pin (I) at both sides of blade frame (J). Install the pins to the holes in the frame plates (K) for storage.



STORING THE BLADE

1. Remove the blade from the vehicle.
2. Clean the blade. Check for worn, missing, or damaged parts. Replace parts as needed.
3. Paint all scratched or worn areas to prevent rust.
4. Store the blade on a firm, level surface.
5. If storing the blade outside:
 - a. Block up the blade and frame to prevent contact with ground moisture.
 - b. Place a waterproof cover over the blade and frame.
6. Make sure that the switch harness is disconnected from the switch and is secured.

MAINTENANCE

Your snowplow is designed for rugged, dependable service. However, like the vehicle on which it is mounted, it needs regular care and maintenance.

⚠ WARNING

Lower the blade when the vehicle is parked. Keep 8' clear of the blade. Failure to do this can result in serious personal injury.

SERVICE INTERVALS

NOTE: Operating in extreme conditions may require more frequent service intervals.

Daily

- Check for loose or missing hardware.
- Make sure that all connections are tight.
- Make sure that the plow responds properly to controls.
- Check for debris build-up that could obstruct proper motion of the blade trip components.

Every 10 Hours of Use

- Lubricate fittings on the lower actuator bracket.
- Check the pump oil level.

GREASE

IMPORTANT: Avoid damage! Use recommended grease to avoid component failure and premature wear. The recommended grease is effective within an average air temperature range of -20° to 275°F (-29° to 135°C). If operating outside that temperature range, contact your dealer for a special-use grease.

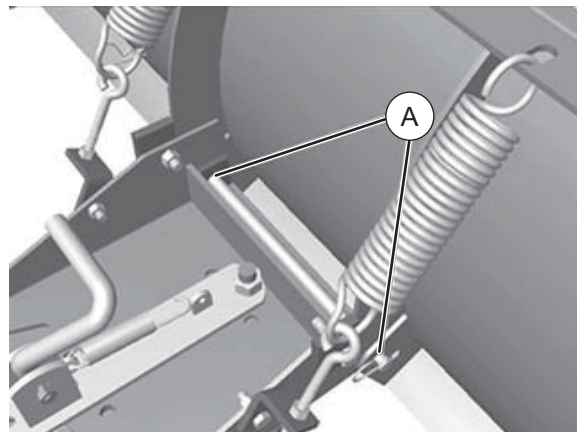
If not using the preferred grease, be sure to use a general all-purpose grease with an NLGI grade No. 2 rating.

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

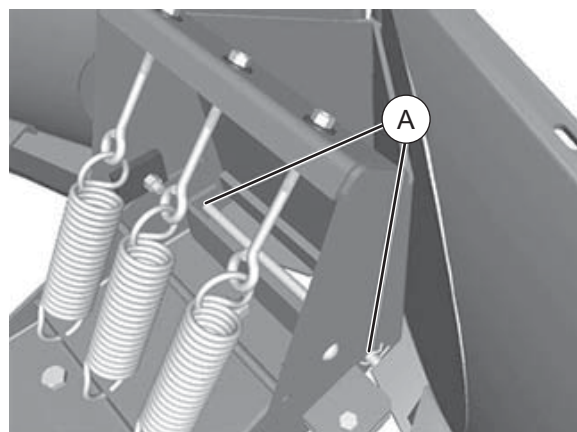
NOTE: Some types of grease thickeners are not compatible with others. Consult your grease supplier before mixing different types of grease.

LUBRICATING BLADE PIVOT POINTS

Lubricate two pivot points (A) on lower actuator bracket with recommended grease, shown below.



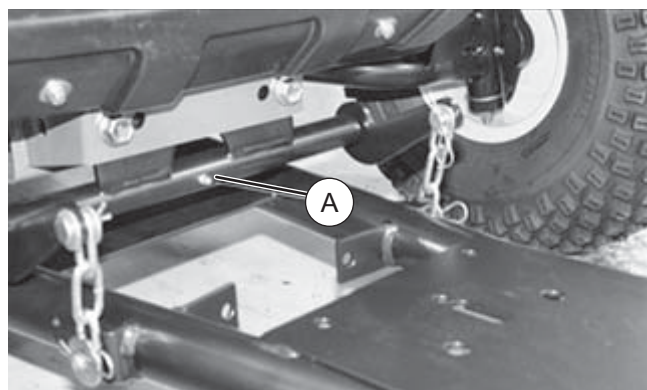
Straight Blade



V-Plow

LUBRICATING LOWER ACTUATOR BRACKET (T SERIES)

Lubricate grease fitting (A) with recommended grease.



MAINTENANCE

PRESEASON CHECK

Before the snow season, check your equipment to make sure it is in working condition.

- Clean and tighten all electrical connections and coat with dielectric grease to prevent corrosion.
- Check the hydraulic system for leaks and cracked or damaged hoses.
- Drain the hydraulic system and refill it with recommended hydraulic fluid.
- Replace worn or damaged parts.
- Check all mounting points and tighten fasteners on both the snowplow and the vehicle.
- Repaint the blade assembly and attachments, as necessary, to protect the metal.
- Install auxiliary and flashing lights for compliance and visibility in accordance with local regulations.
- Check the vehicle for proper operation.
- Inspect and test your battery. Recharge or replace it as necessary.
- Ballast may be necessary, or beneficial, on some vehicles to provide maximum traction, braking, and handling.
- Any ballast material (such as sand and blocks) must be solidly secured to the vehicle, preventing it from moving under harsh plowing conditions.

IN-SEASON MAINTENANCE

- Apply dielectric grease to the joystick or hand-held control connector monthly.
- Store the control in a protected location when it is not in use. Do not leave it in the vehicle. The control can fail prematurely if it is exposed to the elements when not in use.
- Before each storm and frequently throughout season, check that all fasteners, mounting bolts, and hydraulic and electrical connections are tight. Also check all plugs and seals for leaks. Repair as necessary.
- Lubricate all moving parts for ease of operation.

POSTSEASON MAINTENANCE

WARNING

Vehicle mount reduces ground clearance. Use additional caution when driving vehicle with mount installed. Remove vehicle mount to restore original vehicle ground clearance at the end of the plowing season.

- Clean and paint blade and attachments as needed.
- Coat ram rods with general purpose petroleum grease.
- Lubricate all pivot points (for example, the connecting pin assembly) with general purpose petroleum grease.

NOTE: Coat all electrical connections with dielectric grease to maintain the protective coating on the terminals.

STORAGE

Your snowplow is designed to be moved into a storage location using your vehicle and plow attachment system. For easier reattachment, store the snowplow on a hard, level surface.

1. Remove the blade from the vehicle.
2. Clean the blade.
3. Check for worn, missing, or damaged parts. Replace parts as needed.
4. Paint any scratched or worn areas to prevent rust.
5. Store the blade on a firm, level surface.
6. If storing the blade outside:
 - a. Block up the blade and the frame to prevent contact with ground moisture.
 - b. Place a waterproof cover over the blade and the frame.
7. Make sure that the switch harness is disconnected from the switch and is secured.

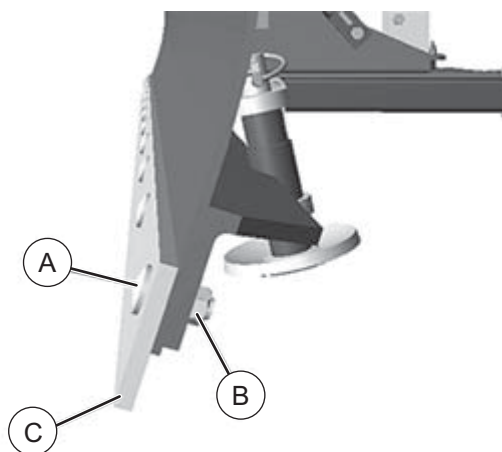
MAINTENANCE

REPLACING BLADE WEAR BAR

⚠ WARNING

Blade can drop unexpectedly. Place frame on jack stands. Failure to do so could result in serious personal injury.

1. Raise the blade slightly off the ground.
2. Park the vehicle safely. (See "Parking with Snowplow Attached.")
3. Place jack stands under the blade frame. Lower the blade frame onto jack stands so that the bottom blade edge remains off the ground. Remove the key from the ignition.
4. Remove bolts (A) and nuts (B) securing wear bar (C) to blade.



Straight blade shown.

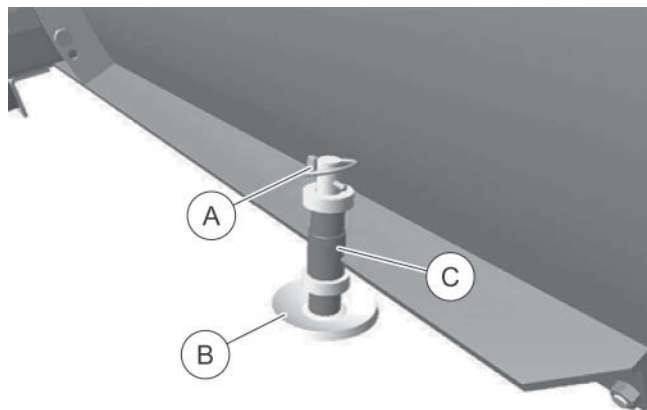
5. Discard old wear bar.
6. Place new wear bar into position so it extends below bottom edge of blade. Loosely install the attaching hardware.
7. Tighten all hardware completely.
8. Raise blade slightly. Remove blocks from under frame.
9. Lower blade to the ground. Remove key from ignition.

REPLACING SKID SHOES

⚠ WARNING

Keep hands and feet clear of the blade and frame when mounting or removing the snowplow. Moving or falling assemblies could cause personal injury.

1. Raise the blade slightly off the ground.
2. Park the vehicle safely. (See "Parking with Snowplow Attached.")
3. Place jack stands under T-frame. Lower the T-frame onto stands so that the bottom blade edge remains off the ground. Remove the key from the ignition.
4. Remove the linchpin (A), skid shoe (B), and spacing hardware from the welded skid shoe bracket (C).



5. Discard old parts.
6. Install the new skid shoe and spacing hardware to the bracket.
7. Adjust the skid shoes.
8. Raise the blade slightly. Remove the jack stands from under the frame.
9. Lower the blade to the ground. Remove the key from the ignition.

MAINTENANCE

FUSE REPLACEMENT

The vehicle control harness contains one 2A automotive-style fuse.

The control fuse is "hot" when the vehicle ignition switch is ON.

Your system may also include a 200A fuse between the battery and vehicle battery cable.

If a problem should occur and fuse replacement is necessary, the replacement fuse must be of the same type and amperage rating as the original. Installing a fuse with a higher rating can damage the system and could start a fire.

SNOWPLOW VEHICLE BATTERY BEST PRACTICES

- Keep all battery connections tight and clean. Poor connections cause higher power consumption.
- Before the snow season, confirm that the battery is fully charged: 12.7V to 12.8V with the engine OFF. Beginning the plowing season with a weak battery results in deep-cycle depletion of the battery charge.
- If the battery charge level is low or questionable, hook up a battery charger when the vehicle is not in use. If the battery cannot achieve or maintain a full charge, replace it. (On dual-battery vehicles, always replace both batteries even if only one of them is bad.)
- Avoid leaving the snowplow vehicle parked (unused) for 3 weeks or longer.
- Parking a vehicle with the battery in a discharged state can result in permanent battery damage.
- Avoid operating the snowplow without the vehicle engine running.

VEHICLE

The snowplow operating vehicle shall be maintained according to manufacturer's recommendations. Tire pressure shall be maintained according to manufacturer's recommendation.

RECYCLE

When your snowplow has performed its useful life, the majority of its components can be recycled as steel or aluminum. Balance of parts made from plastic shall be disposed of in customary manner.

EMERGENCY PARTS/TOOLS

- 10" adjustable wrench
- Medium screwdriver
- Pliers
- 2A automotive-style fuses
- 12V DC test light
- Flashlight
- 11/16" and 3/4" open-end wrenches
- 1/4" ratchet, 6" extension, 5/16" socket
- Electrical tape

TROUBLESHOOTING

USING THE TROUBLESHOOTING TABLE

If you experience a problem that is not listed in the table below, see your authorized dealer for service.

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

IF...	CHECK...
Blade angle is difficult to set.	<ul style="list-style-type: none">• Straight Blade: Obstruction in angle rotation mechanism.• V-Plow: Damaged lock pins or wing adjustment tubes.
Blade will not raise or lower.	<ul style="list-style-type: none">• Low battery output.• Sulfated or worn out battery.• Faulty relay, switch, or fuse.• Loose or corroded electrical connections.• Damaged actuator pivot plate.
Rear wheels slip when moving material.	<ul style="list-style-type: none">• Install weight in cargo box.• Install tire chains.
Blade gouges or digs too deeply.	<ul style="list-style-type: none">• Skid shoes not adjusted properly.• Blade tilt not adjusted properly.• V-Plow: Damaged hinge pin in the center section of blade.
Vehicle engine lugs under certain load conditions.	<ul style="list-style-type: none">• Blade not angled properly.• Load too heavy, lessen load.
Excessive belt and/or chain wear.	<ul style="list-style-type: none">• Load too heavy, lessen load.
Blade trips too easily.	<ul style="list-style-type: none">• Blade spring trip not adjusted properly.• Load too heavy, lessen load.

If you have followed all of the guidelines in the Maintenance section of this manual and cannot resolve issues with the operation of your WESTERN® snowplow, contact one of our authorized outlets for repair information, or visit us online at www.westernplows.com. Our website has a complete listing of authorized outlets in your area as well as a complete library of Parts Lists, Mechanic's Guides, and service information to assist the qualified mechanic with repair.

Western Products does not recommend repairs by other than our factory-trained outlets. Failure to use an authorized outlet could affect the warranty coverage on your snowplow.





Western Products
PO Box 245038
Milwaukee, WI 53224-9538
www.westernplows.com

 A DIVISION OF DOUGLAS DYNAMICS, LLC

Copyright © 2020 Douglas Dynamics, LLC. All rights reserved. This material may not be reproduced or copied, in whole or in part, in any printed, mechanical, electronic, film, or other distribution and storage media, without the written consent of Western Products. Authorization to photocopy items for internal or personal use by Western Products outlets or snowplow owner is granted.

Western Products reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. Western Products or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. This product is manufactured under the following US Patents: 7,400,058; 7,737,576; 9,200,418. Western Products offers a limited warranty for all snowplows and accessories. See separately printed page for this important information. The following are registered (®) or unregistered (™) trademarks of Douglas Dynamics, LLC: WESTERN®.

Printed in U.S.A.