

July 15, 2021
Lit. No. 30654, Rev. 01



MD UTV Straight Blade Manual Angle Winch Lift Snowplow

Installation Instructions

⚠ CAUTION

Read this document before installing the snowplow.

⚠ CAUTION

See your SnowEx® outlet/website for specific vehicle application recommendations before installation. The Power Match selection system has specific vehicle and snowplow requirements.

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 & INSTRUCTION LABELS FOR UTV STRAIGHT BLADE

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

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

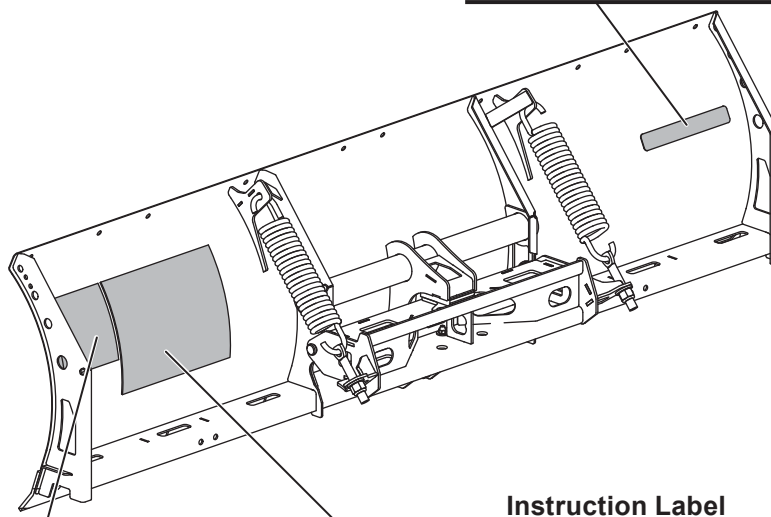
ZZZZZ



YYMMDDLLXXXXZZZZZ



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
ZZZZZZ	5- to 7-Digit Blade Assembly PN



Warning/Caution Label

⚠ WARNING

Blade could drop unexpectedly, crushing or trapping limbs. Lower blade when vehicle is parked.

Overloading could negatively affect vehicle handling. To avoid serious injury or death, do not exceed maximum vehicle load capacity, including blade and ballast.

⚠ CAUTION

Read Owner's Manual before operating or servicing snowplow.

Transport speed should not exceed 20 mph (32 km/h). Further reduce speed under adverse travel conditions.

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

See your sales outlet/website for specific vehicle application recommendations.

Instruction Label

ATTACH

- Slowly drive vehicle forward to engage rear headgear arms into receiver slots, bottoming out headgear arms in slots.
- On driver's side, pull up on headgear to relieve pressure on connecting pins while pulling driver's side connecting pin out. Rotate pin toward mount; insert it into connecting pin hole.
- Verify that connecting pin is engaged in mount (through outside & inside plates) and extends approximately 1/8" through the plate.
- Repeat on passenger's side.
- Remove jack stand wire-lock clevis pin. Fully raise jack stand up. Insert pin in hole and engage wire lock.
- Remove cable-restraining wire-lock clevis pin. Route winch cable/rope around pulley & secure to lift pin. Reinsert clevis pin & engage wire lock.

⚠ WARNING

Keep fingers away from snowplow and UTV attachment points.

ATTACH – Steps 2, 3, & 6

ATTACH – Step 5 & 6

DETACH

- With blade straight, lower snowplow to the ground. Let out approximately 2' more cable after blade contacts the ground.
- Remove jack stand wire-lock clevis pin. Fully lower jack stand. Insert pin in jack stand hole that aligns with hole in angle frame. Engage wire lock.
- On driver's side, pull up slightly on headgear to relieve pressure on connecting pin while removing the pin. Rotate pin & insert into hole in headgear.
- Repeat on passenger's side.
- Remove cable-restraining wire-lock clevis pin. Remove winch cable/rope from lift pin and pulley. Reinsert clevis pin and wire lock. Retract cable fully onto winch.
- Back vehicle away to disconnect headgear from receivers.

DETACH – Step 5

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. Winch rope could fail, causing the blade to drop unexpectedly. 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 or lowered. Do not stand between the vehicle and the 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 sway 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 unplug the winch control whenever the snowplow is not in use.

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.

PERSONAL SAFETY

- Remove the ignition key and put the vehicle in PARK and set the brake 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.

SAFETY

FIRE AND EXPLOSION

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

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.

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.





TORQUE CHART

CAUTION





Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to torque chart. Use standard methods and practices when attaching snowplow, including proper personal protective safety equipment.

Recommended Fastener Torque Chart

Inch Fasteners Grade 5 and Grade 8

Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Grade 5	 Grade 8		 Grade 5	 Grade 8
1/4-20	8.4	11.9	9/16-12	109	154
1/4-28	9.7	13.7	9/16-18	121	171
5/16-18	17.4	24.6	5/8-11	150	212
5/16-24	19.2	27.3	5/8-18	170	240
3/8-16	30.8	43.6	3/4-10	269	376
3/8-24	35.0	49.4	3/4-16	297	420
7/16-14	49.4	69.8	7/8-9	429	606
7/16-20	55.2	77.9	7/8-14	474	669
1/2-13	75.3	106.4	1-8	644	909
1/2-20	85.0	120.0	1-12	704	995

Metric Fasteners Class 8.8 and 10.9

Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Class 8.8	 Class 10.9		 Class 8.8	 Class 10.9
M6 x 1.00	7.7	11.1	M20 x 2.50	325	450
M8 x 1.25	19.5	26.9	M22 x 2.50	428	613
M10 x 1.50	38.5	53.3	M24 x 3.00	562	778
M12 x 1.75	67	93	M27 x 3.00	796	1139
M14 x 2.00	107	148	M30 x 3.50	1117	1545
M16 x 2.00	167	231	M33 x 3.50	1468	2101
M18 x 2.50	222	318	M36 x 4.00	1952	2701

These torque values apply to fasteners except those noted in the instructions.

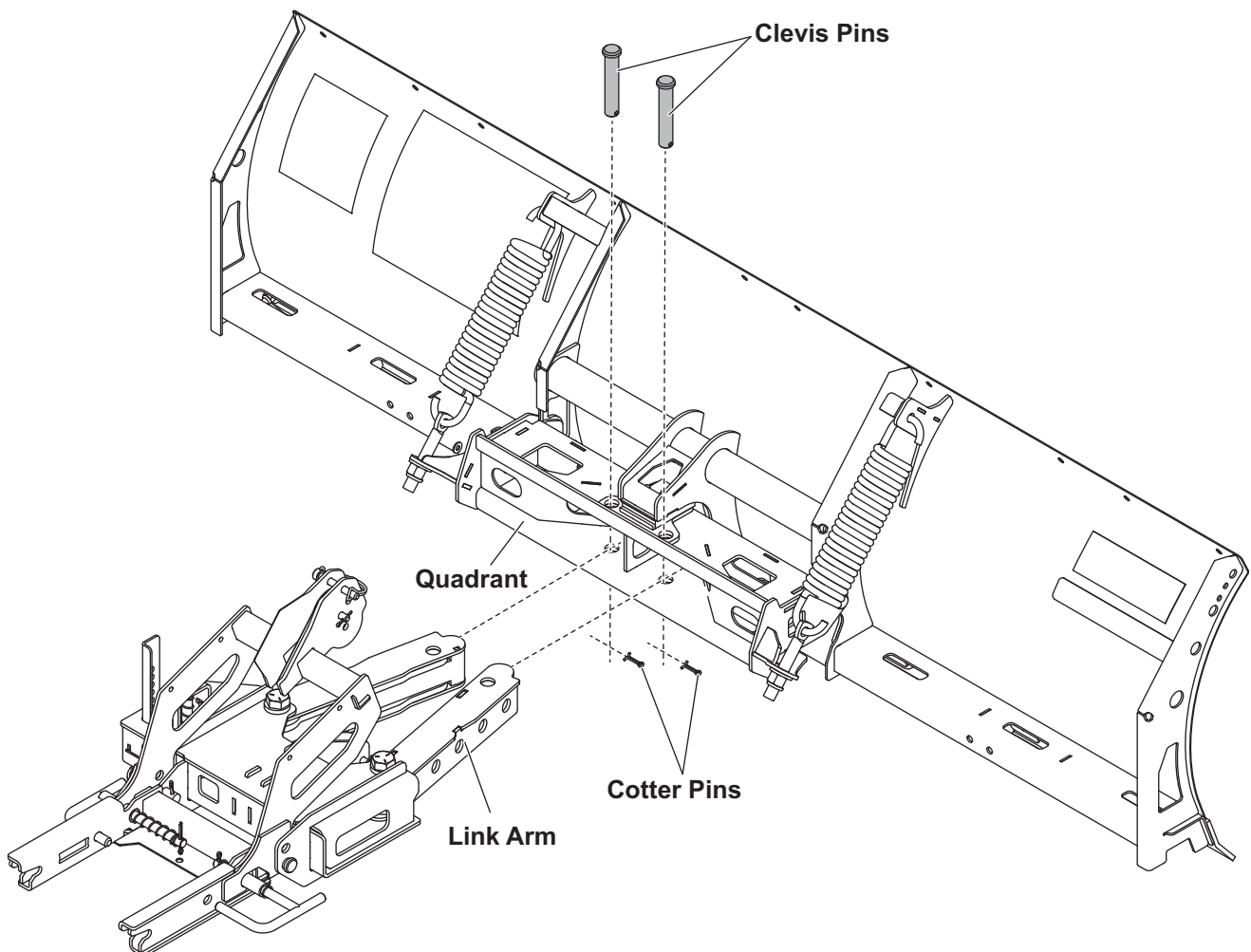
INSTALLATION INSTRUCTIONS

UNPACKING

1. Uncrate the blade by removing the top four 2'-long 2x4s. Remove the shipping brackets that attach the cutting edge to the bottom of the crate by removing the 3/8" nuts. Remove the screw that secures the shipping bracket to the lower blade crate. Reattach the 3/8" nuts to secure the cutting edge to the blade. Remove the blade from the crate.
2. Remove the plow gear from the carton.

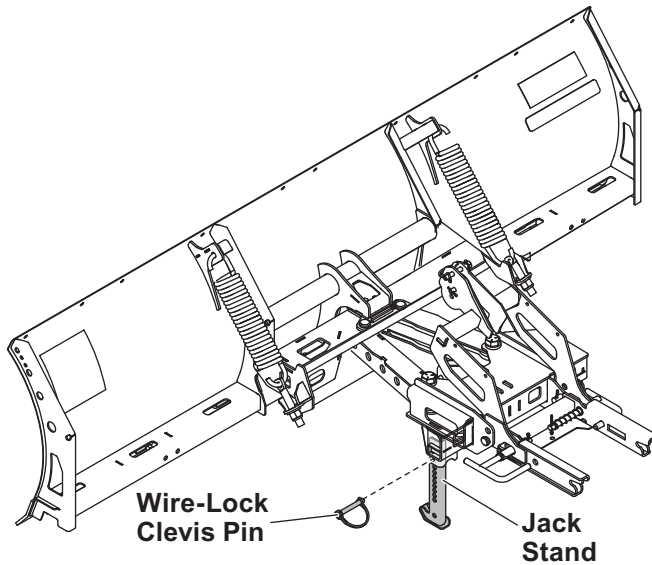
PLOW GEAR TO BLADE ASSEMBLY

1. Locate and remove the clevis pins and cotter pins inserted in the link arms.
2. Align the holes in the link arms with the holes in the quadrant. Insert the clevis pins through the quadrant and link arms to secure the blade assembly to the plow gear assembly.
3. Secure the clevis pins with the cotter pins.

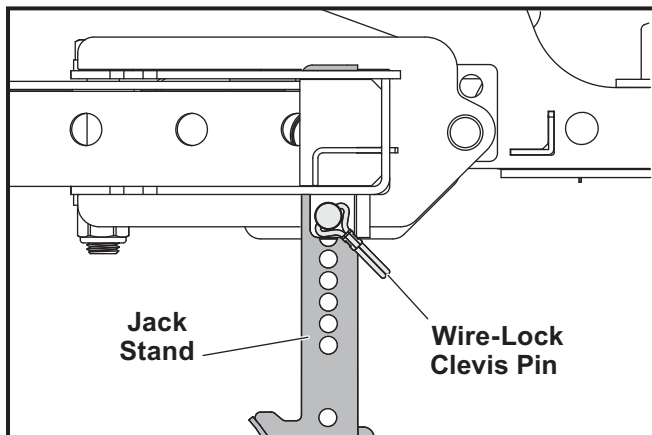


INSTALLATION INSTRUCTIONS

4. With the angle frame parallel to the ground, remove the wire-lock clevis pin. Fully lower the jack stand.

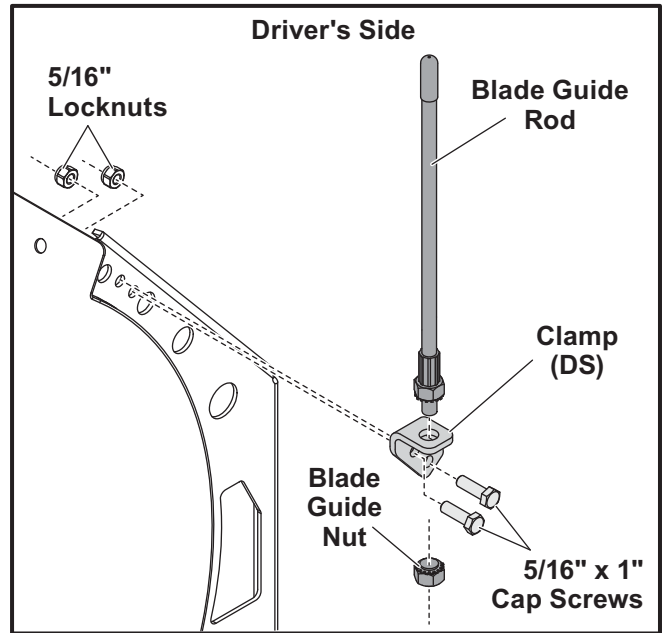


5. Insert the wire-lock clevis pin in the jack stand hole that aligns with the hole in the angle frame. Engage the wire lock.

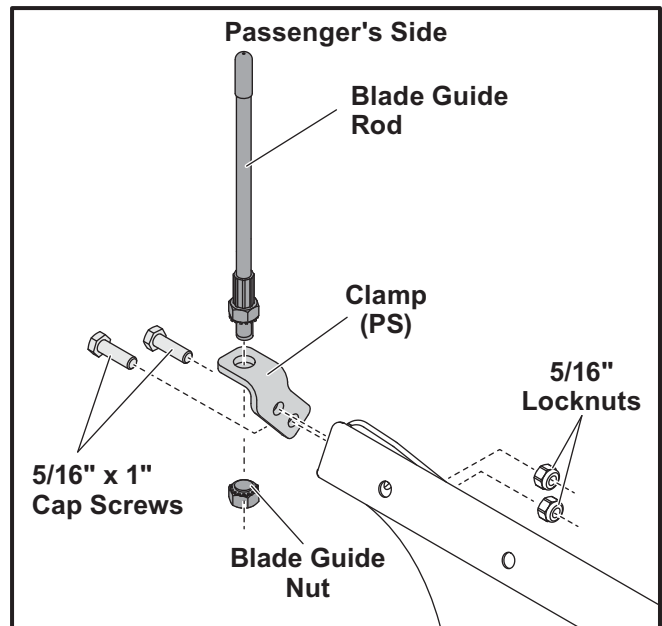


INSTALL BLADE GUIDES

1. Secure the driver-side clamp to the outermost rib on the driver's side of the blade using two 5/16" x 1" cap screws and 5/16" locknuts. Tighten the fasteners to 18 ft-lb.



2. Remove the nut from the bottom of the blade guide. Insert the blade guide rod into the hole in the top of the clamp and secure it with the blade guide nut.



3. Repeat Steps 1 and 2 for the passenger's side.

MOUNTING SNOWPLOW TO VEHICLE

ATTACHING THE SNOWPLOW

⚠ WARNING

Keep 8' clear of the blade when it is being raised or lowered. 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.

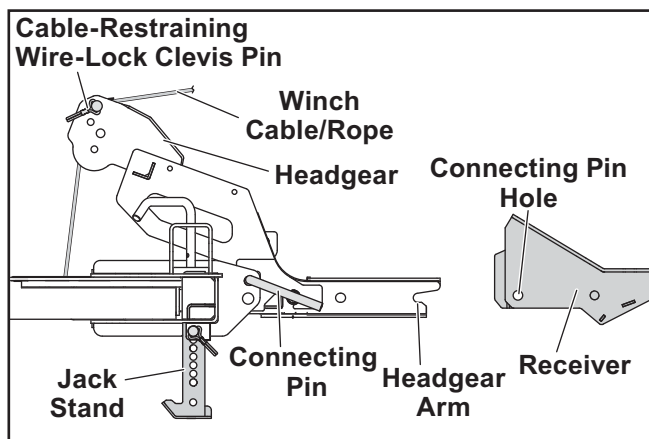
⚠ WARNING

Keep fingers away from snowplow and UTV attachment points.

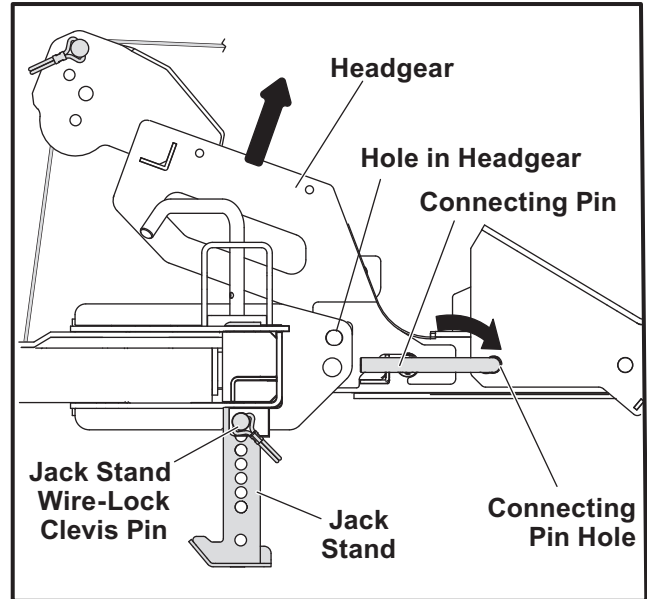
NOTE: Use dielectric grease to prevent corrosion on all connections.

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

1. Slowly drive vehicle forward to engage rear headgear arms into receiver slots, bottoming out headgear arms in slots.



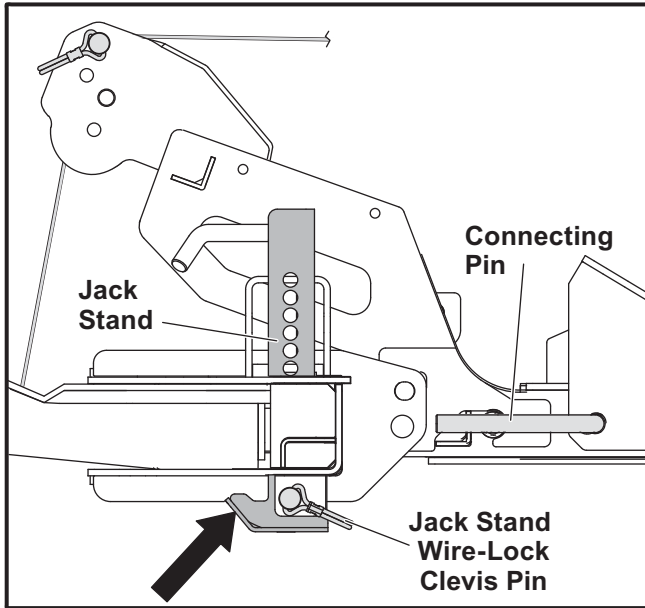
2. On driver's side, pull up on headgear to relieve pressure on connecting pins while pulling driver's side connecting pin out. Rotate pin toward mount; insert it into connecting pin hole.



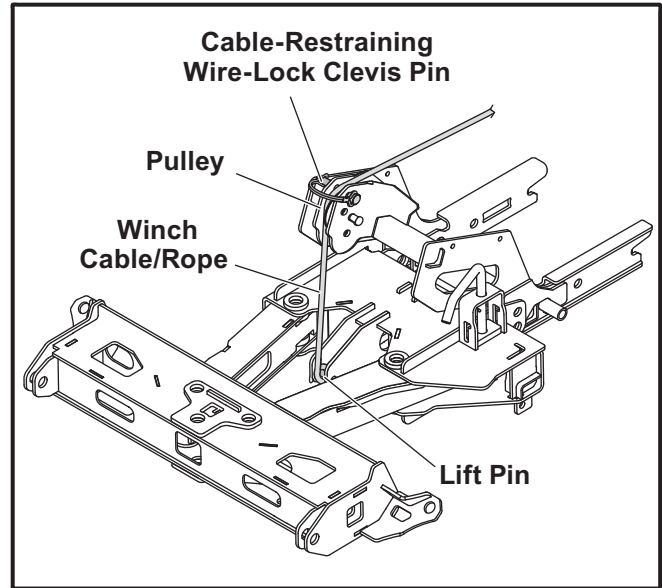
3. Verify that connecting pin is engaged in mount (through outside and inside plates) and extends approximately 1/8" through the plate.
4. Repeat on passenger's side.

ATTACHING YOUR SNOWPLOW

1. Remove jack stand wire-lock clevis pin. Fully raise jack stand up. Insert pin in hole and engage wire lock.



2. Remove cable-restraining wire-lock clevis pin. Route winch cable/rope around pulley and secure to lift pin. Re-insert clevis pin and engage wire lock.



3. Apply the supplied manual angle winch lift blade attach/detach instruction label directly over the current attach/detach label located on the back of the blade. If the blade has no current label, place the supplied label on the back of the blade in an area that is visible during the attach and detach procedure.

Thoroughly clean and dry the existing label or blade surface area before applying the new label.

OPERATIONAL TEST AND FINAL ADJUSTMENTS

WINCH CAPACITY

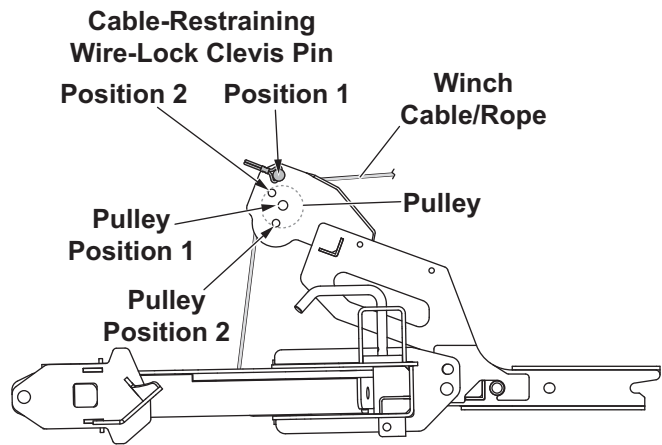
This snowplow has been designed for use with a winch rated 2,500 lb to 5,000 lb.

NOTE: Continuing to press the cable retract button on the winch control after the blade is fully raised could damage the winch, winch cable, plow headgear, and/or drain the vehicle battery.

PULLEY HEIGHT ADJUSTMENT

To reduce the chance of premature wear of the winch cable or rope, the cable or rope should leave the winch and fairlead assembly as horizontally as possible. The pulley on the headgear can be adjusted vertically to one of two positions to minimize the angle of the cable or rope as it leaves the fairlead. Place the pulley in the position that results in the most horizontal direction.

Adjust the cable restraining wire-lock clevis pin to the corresponding hole on the lift frame based on the pulley position chosen. The cable restraining pin should allow the cable to pass freely over the pulley but will prevent excess slack from de-routing the cable over the pulley during winch operation or while plowing.



When the plow is fully raised there should be no contact between the cable ferrule or hook and the headgear pulley. If contact occurs, the winch hook should be removed and the cable loop should be directly connected to the lift pin on the sway frame.

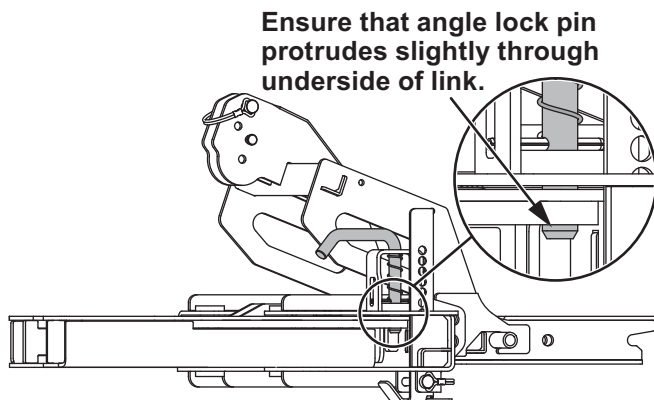
OPERATIONAL TEST AND FINAL ADJUSTMENTS

BLADE ANGLE

Pull up on the angle lock pin to release the blade. Rotate the angle lock pin handle counter clockwise to latch it in the unlocked (up) position using the detent incorporated into the angle pin holder on the sway frame.

Move to the side of the blade. Position the blade in the approximate desired angled position by pushing or pulling the end of the blade toward or away from the vehicle. Rotate the angle lock pin clockwise slightly to unlatch it from the detent. The angle lock pin is now spring-biased downward to lock the blade angle once it aligns with one of the five angle position holes.

If the pin does not fully engage the drive link, adjust the blade angle position slightly until the pin drops into the closest angle position holes. Ensure that the angle lock pin is completely engaged into the drive link and protruding slightly through the underside of the link before plowing.



OWNER'S MANUAL PACKET

If the completed snowplow will be delivered immediately, the Owner's Manual should be reviewed with and given to the purchaser according to the snowplow checklist.

If the snowplow is completed prior to delivery to the purchaser, attach the Owner's Manual packet to the cable of the winch control for safekeeping.



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