



SPEEDWING™ & Straight Blade Skid Steer Snowplows

**8600SW, 7600HD, 8000HD, 8600HD, 9000HD
HD A-Frame/Attachment Plate & Hydraulics 69770
SPEEDWING A-Frame/Attachment Plate
& Hydraulics 69880**

Installation Instructions

⚠ CAUTION

Read this document before installing the snowplow.

⚠ CAUTION

See your BLIZZARD® outlet/Web site for specific vehicle application recommendations before installation.

These Installation Instructions are for BLIZZARD SPEEDWING snowplows with serial numbers beginning with 120202 and higher.

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.

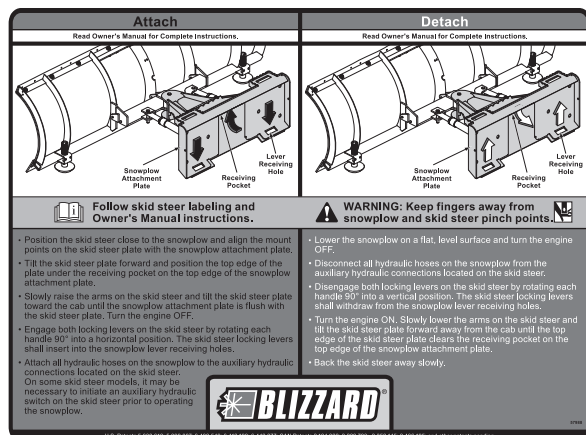
NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

WARNING/CAUTION & INSTRUCTION LABELS

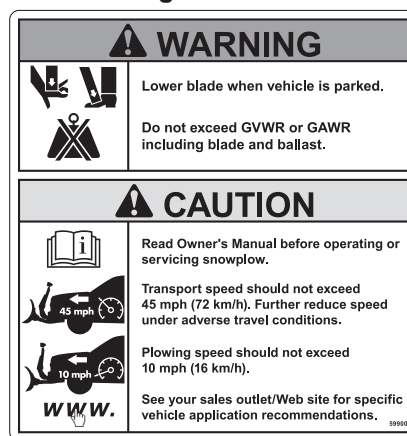
Become familiar with and inform users about the warning and instruction labels on the back of the blade.

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

Instruction Label



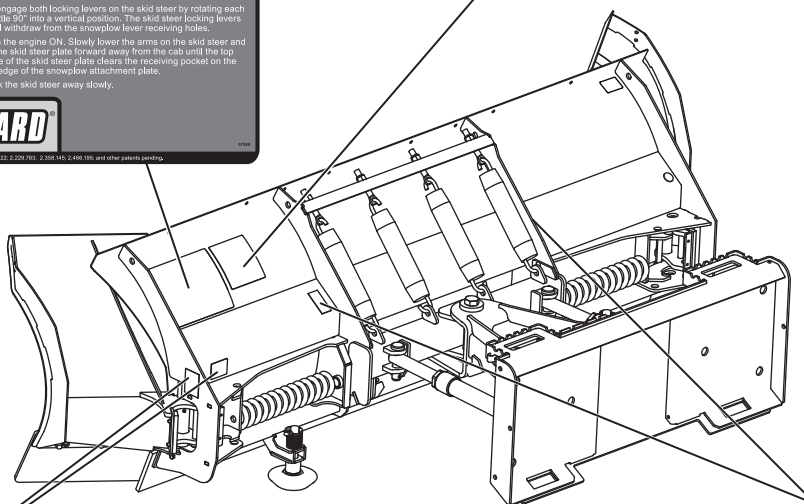
Warning/Caution Label



Multiple Pinch Points Label



SPEEDWING™ only
(both sides)



Crush Hazard Label



SAFETY

SAFETY PRECAUTIONS

Improper installation and operation could cause personal injury and/or equipment and property damage. Read and understand labels and the 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 A-frame when mounting or removing the snowplow. Moving or falling assemblies could cause personal injury.

WARNING

Do not exceed GVWR or GAWR including the blade and ballast. The rating is found in the OEM's owner's manual.

WARNING

Remove blade assembly before placing vehicle on hoist.

CAUTION

Overtightening springs will not increase blade trip force and can damage the springs.

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.

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.
- 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.

SAFETY

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 road. 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 70 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 the torque chart. Use standard methods and practices when attaching snowplow including proper personal protective safety equipment.

Recommended Fastener Torque Chart (ft-lb)			
Size	Torque		
	 SAE Grade 2	 SAE Grade 5	 SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	150	378	591
1-8	220	583	893
Metric Grade 8.8 (ft-lb)			
Size	Torque	Size	Torque
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155
These torque values apply to fasteners except those noted in the instruction.			

SKID STEER INSTALLATION INSTRUCTIONS – SPEEDWING™

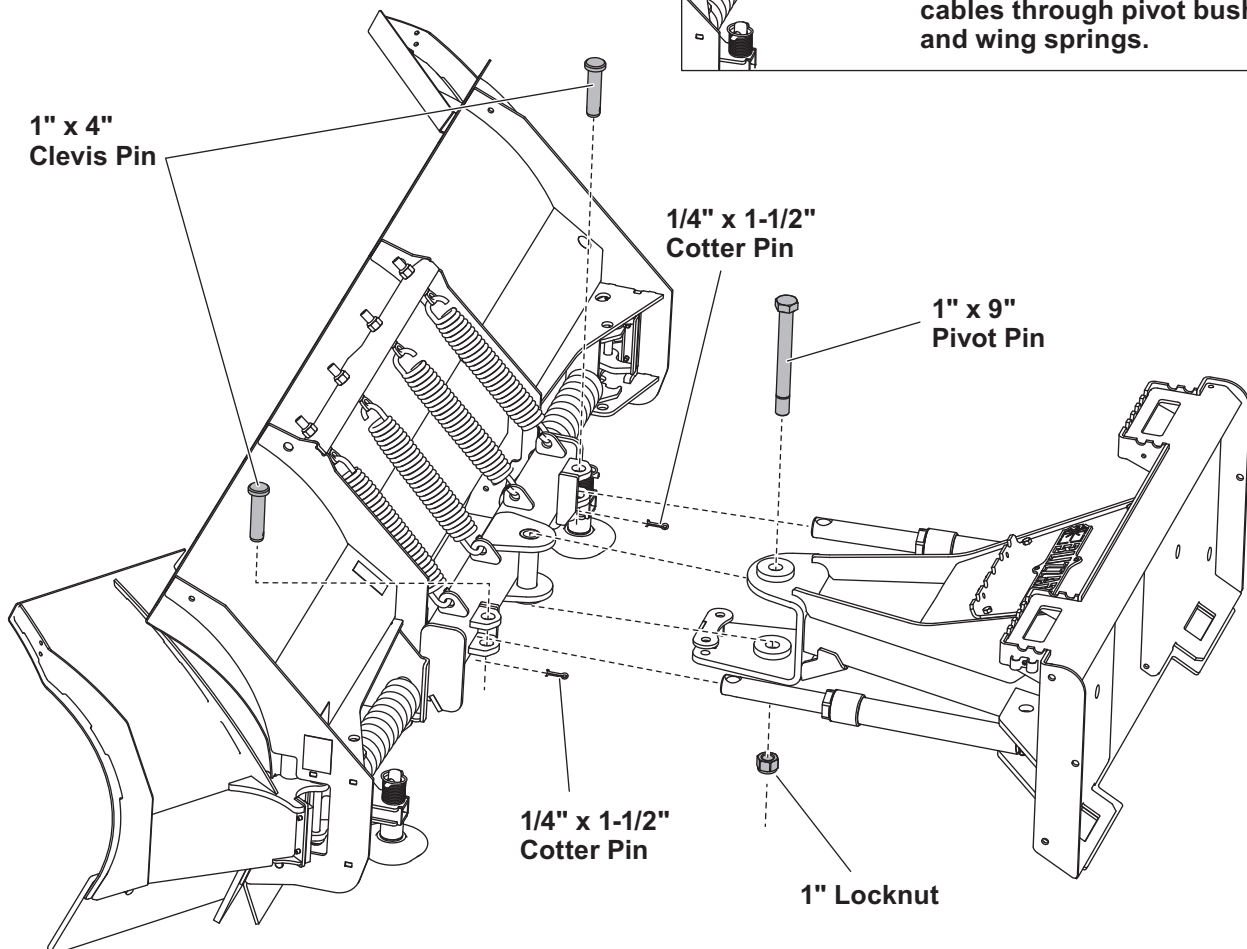
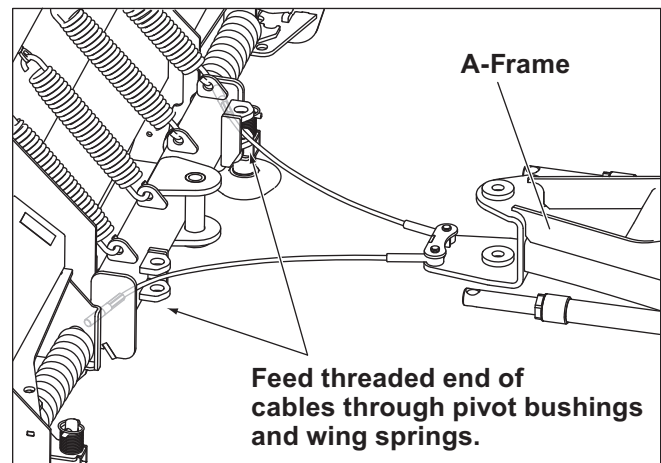
BLADE TO A-FRAME

NOTE: The parts box contains a bag with two 3/4" x 9" clevis pins and two 1/8" hairpin cotters. Set this bag aside unopened for delivery to the snowplow owner.

NOTE: For easier assembly, skid steer and all snowplow components should be on a smooth, level, hard surface, such as concrete.

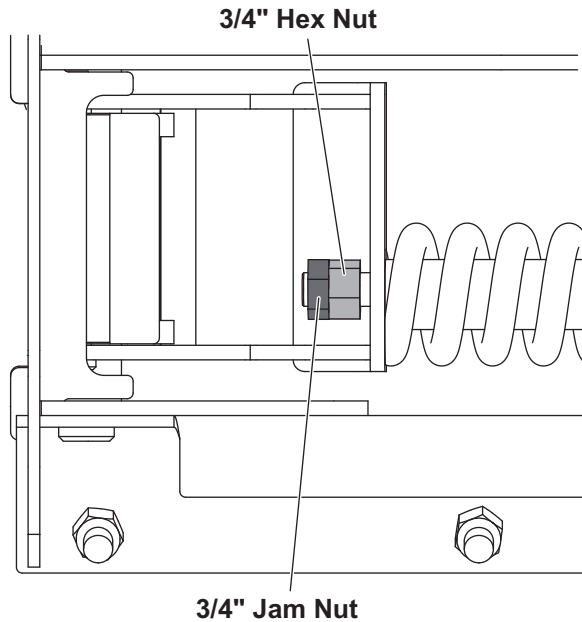
1. Position the A-frame over the pivot beam, aligning the angle ram rods with the brackets.
2. The wing cables come pre-assembled to the A-frame. Slide the threaded ends of the cables out through the pivot bushings on the quadrant/blade assembly. As you position the A-frame over the quadrant, feed the wing cables through to the ends. (See detail illustration at right.)

3. Install the 1" x 9" pivot pin from the top. Secure with a 1" locknut and tighten.
4. Attach the angle ram rods to the brackets with the 1" x 4" clevis pins installed from top. Secure with 1/4" x 1-1/2" cotter pins. Discard the flat washers packaged with the clevis pins and cotters.

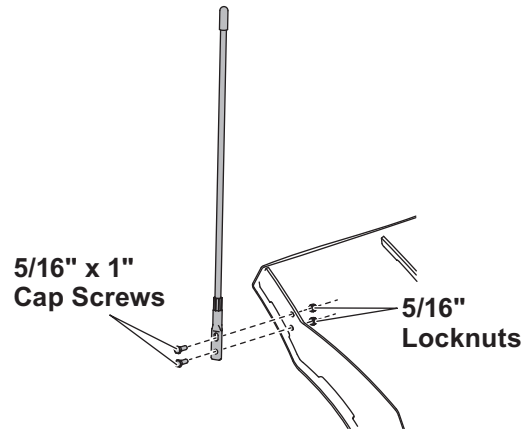


SKID STEER INSTALLATION INSTRUCTIONS – SPEEDWING™

5. Assemble a 3/4" hex nut and 3/4" jam nut loosely onto the threaded end of each cable. Thread the nuts on just flush with the end of the cable.



6. Stand the blade and A-frame assembly upright and support it in a level position using a block under the main A-frame tube. Install the blade guides using 5/16" x 1" cap screws and 5/16" locknuts.

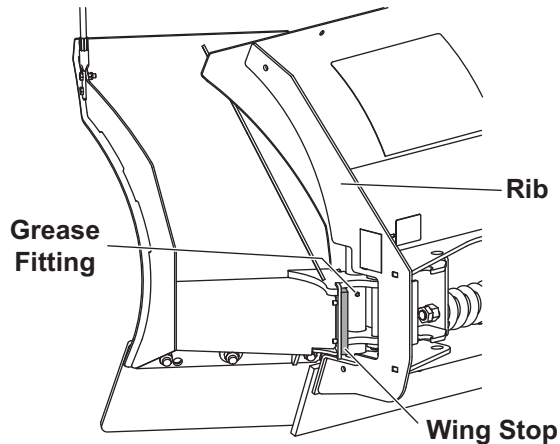


7. Apply the supplied skid steer attach/detach instructions label directly over the current attach/detach label on the back of the blade. If the blade has no current label, place the supplied label on the back of the blade in an area visible during the attach and detach procedure.

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

CABLE ADJUSTMENT

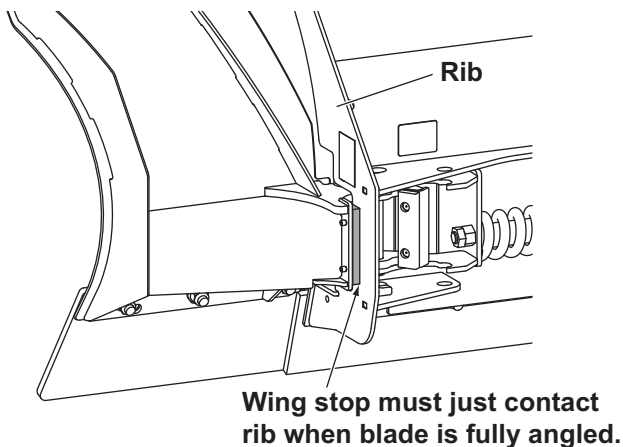
1. Angle the blade fully left and inspect the area between the driver-side wing stop and the end blade rib.



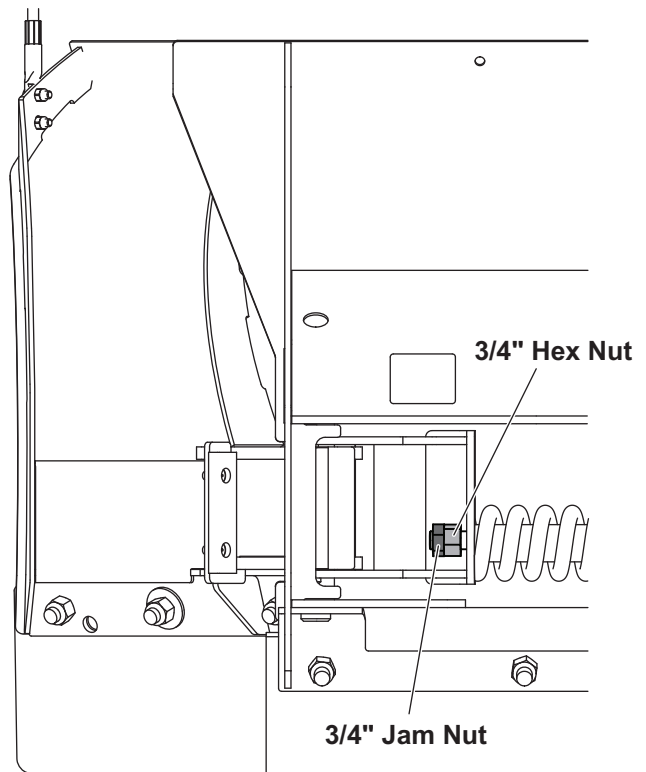
2. If there is a gap between the wing stop and the rib, skip to Step 3.

If there is no gap, return the blade to the straight position and loosen the 3/4" jam nut and 3/4" hex nut on the end of the cable 1/4 turn. Repeat this adjustment until a gap can be seen.

3. Return the blade to the straight position and adjust the hex nut 1/4 turn clockwise. Angle the blade fully left and inspect the area between the wing stop and the rib again.
4. Continue making this adjustment until the wing stop just contacts the rib when the blade is fully angled left.



5. Once the stop is making contact with the rib, lock the hex nut into position with the 3/4" jam nut.



6. Repeat Steps 1–5 on the passenger side of the blade assembly, this time angling the blade fully to the right.

NOTE: Adjusting the 3/4" hex nut inward too far will cause the wing stop to contact the blade rib before the blade is fully angled. This condition can stretch the cables and shorten their service life.

7. Grease the fittings on the wing hinges.

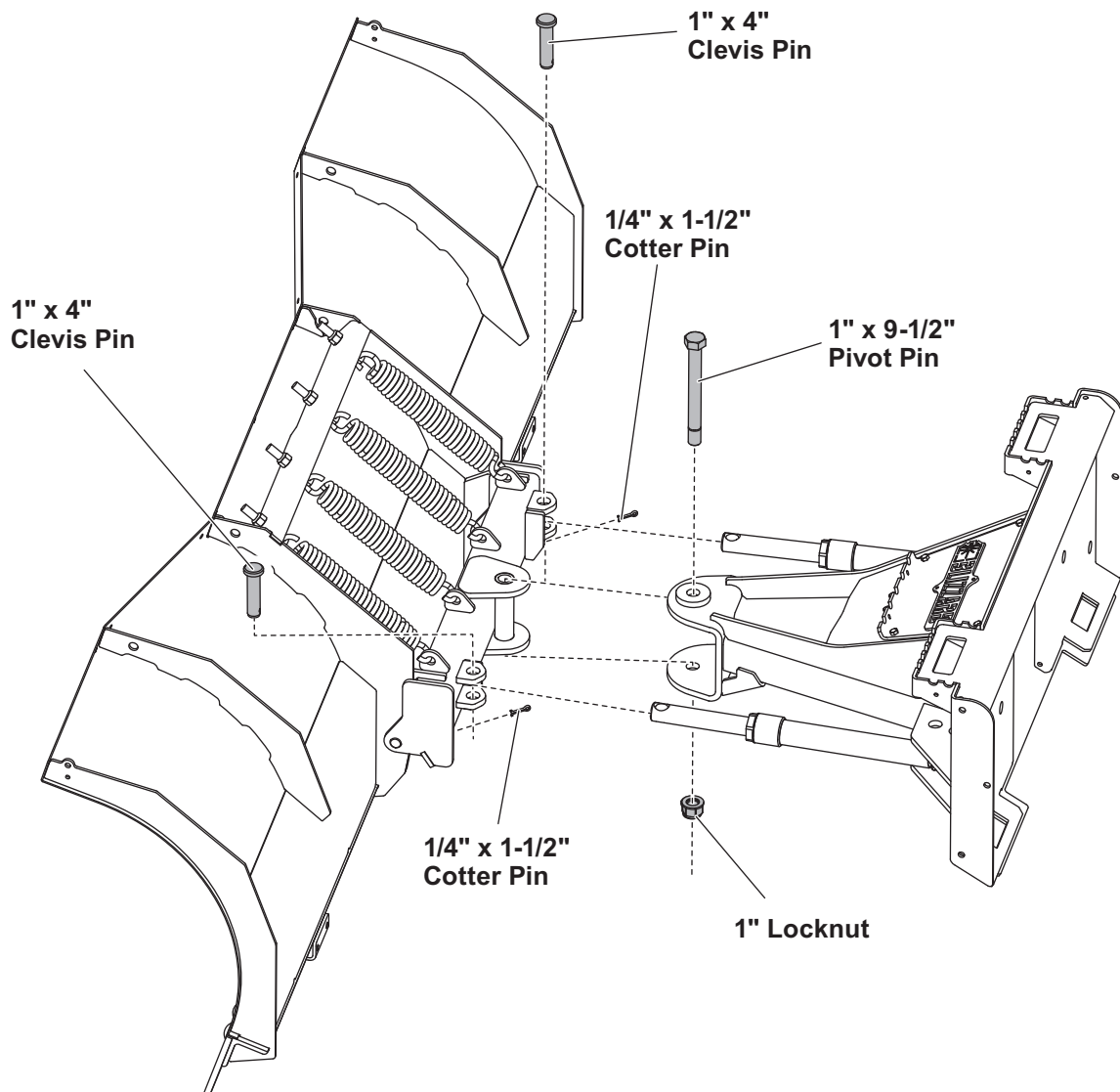
SKID STEER INSTALLATION INSTRUCTIONS – STRAIGHT BLADES

BLADE TO A-FRAME

1. Position the A-frame over the pivot beam, aligning the angle ram rods with the brackets.

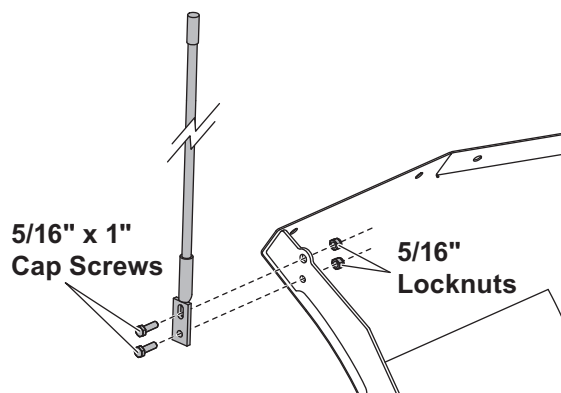
Install the 1" x 9-1/2" pivot pin from the top. Secure with a 1" locknut and hand tighten.

Attach the angle ram rods to the brackets with 1" x 4" clevis pins installed from top. Secure with 1/4" x 1-1/2" cotter pins. Discard the flat washers packaged with the clevis pins and cotters.

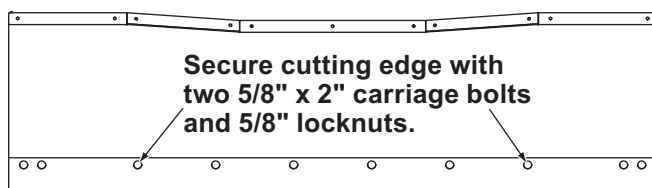


SKID STEER INSTALLATION INSTRUCTIONS – STRAIGHT BLADES

2. Install the blade guides using 5/16" x 1" cap screws and 5/16" locknuts.



3. Finish securing the cutting edge with two 5/8" x 2" carriage bolts and 5/8" locknuts.



4. Apply the supplied skid steer attach/detach instructions label directly over the current attach/detach label 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 visible during the attach and detach procedure.

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

OWNER'S MANUAL PACKET / SPEEDWING™ PARTS BAG

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.

If the snowplow is completed prior to delivery to the purchaser, attach the Owner's Manual Packet to the step plate for safekeeping.

SPEEDWING BLADES — WING LOCK PINS

The parts box contains a bag with two 3/4" x 9" clevis pins two 1/8" hairpin cotters for pinning the wings in the straight position as a plowing option.

Give this parts bag to the snowplow owner. The Owner's Manual contains instructions for using the wing pins.



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