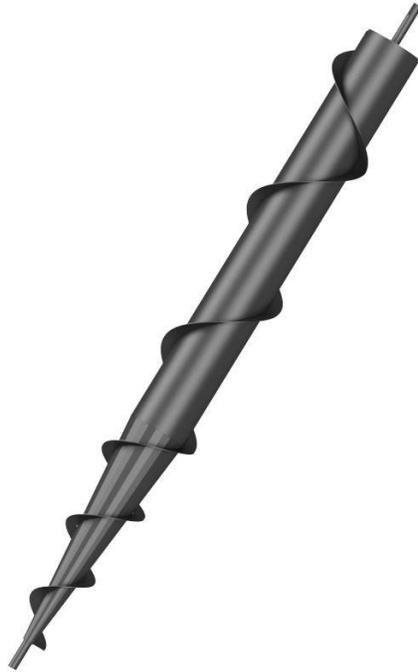


# Snout Cone



**DISTRIBUTED BY**

  
**PATRIOT**  
**EQUIPMENT**

**1302 K ROAD**

**MINDEN, NE 68959**

**308-832-0220 [www.patriotequip.com](http://www.patriotequip.com)**

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# SAFETY AND OPERATION RULES

## GENERAL SAFETY STATEMENTS

Safety precautions are essential when the use of any mechanical equipment is involved. These precautions are necessary when using, storing, and servicing mechanical equipment. Using this equipment with the respect and caution demanded will considerably lessen the possibilities of personal injury. If safety precautions are overlooked or ignored, personal injury or property damage may occur.

This unit was designed for specific applications. It should not be modified or/and used for any application other than which it was designed. If there are any questions regarding its application, please write or call. Do not use this unit until you have been advised. For more information, call 1-800-264-6587.

Read this entire manual carefully. Know your equipment. Consider the application, limitations, and the potential hazards specific to your unit. Occupational safety is of prime concern to us. This manual was written with the safety of the operator and others who come in contact with the equipment. This manual was written to help you understand the safe operating procedures of the Snout Cone. We want you as our partner in safety. A copy of this manual should be available to all persons who may operate this machine.

It is your responsibility as an owner, operator, or supervisor to know what specific requirements, precautions, and work hazards exist and to make these known to all other personnel working with the equipment or in the area, so that they too may take any necessary safety precautions that may be required. Avoid any alterations of the equipment. Such alterations may create a dangerous situation where serious injury or death may occur and will void warranty.

Why is SAFETY important to you?

### 3 BIG REASONS

1	Accidents disable and kill
2	Accidents cost money
3	Accidents can be avoided

### Signal Words

Note the use of the signal words **DANGER**, **WARNING**, and **CAUTION** with safety messages. The appropriate signal word for each message has been selected using the following guidelines:

**DANGER** – An immediate and specific hazard which will result in severe personal injury or death if proper precautions are not taken.

**WARNING** – A specific hazard or unsafe practice which could result in severe personal injury or death if proper precautions are not taken.

**CAUTION** – Unsafe practices which could result in personal injury if proper precautions are not taken or a reminder of good safety practices.

## SAFETY ALERT SYMBOL



The Symbol Shown Above Is Used To Call Your Attention To Instructions Concerning Your Personal Safety. Watch for This Symbol - It Points Out Important Safety Precautions. It Means ATTENTION! Become Alert! Your Personal Safety Is Involved! Read The Message That Follows And Be Alert To The Possibility Of Personal Injury Or Death.

Read this manual before operating or working around a Snout Cone! This manual must be delivered with the equipment to its owner and operator. Failure to read this manual and its safety instructions is a misuse of equipment.

### SAFETY EQUIPMENT

Please, remember safety equipment provides important protection for persons around a Snout Cone that is in operation. Be sure ALL safety shields and protective devices are installed and properly maintained. If you find any shields or guards damaged or missing, contact Patriot Equipment for the correct items.

### SERIAL NUMBER

To ensure efficient and prompt service, please furnish us with the model and serial number of your Snout Cone in all correspondence or other contact.



## SAFETY PROCEDURES **Danger!**

1. Use only lifting equipment with the proper capacity when installing or removing the Snout Cone. Forklifts with too little capacity may tip towards the front where the lifted weight is.
2. Do not operate unit without safety shields or guards in place. The application of the Snout Cone makes them impossible to completely guard so extra caution needs to be given to them when working around them.
3. **IMPORTANT:** Use caution when transporting. Be alert of the transport unit's overall width when approaching obstacles, such as post sign and poles, along the road. Check the transport width of the unit to ensure clearance before entering.
4. Comply with all safety warnings and cautions in this manual and in the combine operator's manuals.
5. Do not allow any riders on the corn head or near the Snout Cone when in use.
6. **In case of any defect or awareness of potential danger, please contact Patriot Equipment at 1-800-264-6587 immediately.**

## LIGHTING AND MARKING

It is the responsibility of the customer to know the lighting and marking requirements of the local highway authorities and to install and maintain the equipment to provide compliance with the regulations. Add extra lights when transporting at night or during periods of limited visibility if necessary.



## **OPERATOR QUALIFICATIONS** Warning!

Operation of this Snout Cone shall be limited to competent and experienced persons. In addition, anyone who will operate or work around a Snout Cone must use good common sense. In order to be qualified, they must also know and meet all other requirements, such as:

1. Some regulations specify that no one under the age of 18 may operate power machinery. This may include the Snout Cone. It is your responsibility to know what these regulations are in your own area or situation.
2. Current Occupational Safety Health Administration regulations state in part: “At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee or user in the safe operation and servicing of all equipment with which the employee or user is, or will be involved.”
3. Unqualified persons are to stay out of the work area.
4. A person who has not read and understood all operating and safety instruction is not qualified to operate the machine.

## **SAFETY OVERVIEW**

YOU are responsible for SAFE operation and maintenance of your Snout Cone.

YOU must ensure that you and anyone who is going to operate and maintain, or work around the Snout Cone must be familiar with the operating, maintenance, and safety information contained in the manual.

Remember YOU are the key to safety. GOOD PRACTICES protect not only you but also the people around you. Make these practices a working part of your safety program. Be certain EVERYONE operating this machine is familiar with the procedures recommended and follows safety precautions. Remember, most accidents can be prevented. Do not risk injury or death by ignoring any information addressed.

Snout Cone owners must give operating instructions to operators before allowing them to operate the Snout Cone. They must be reviewed at least annually thereafter per OSHA regulation 1928.57.

The most important safety device on the equipment is a SAFE OPERATOR. It is the operator’s responsibility to read and understand ALL instructions in the manual and to follow them. All accidents can be avoided!

Any person who has not read and understood all operation and safety instructions is not qualified to operate the Snout Cone. An untrained operator exposes himself and bystanders to possible serious injury or death.

Do not modify the equipment in any way. Unauthorized modifications may impair the functions and/or safety and could affect the life of the equipment.

## **SAFETY AFFIRMATION**

- I have read and understand the operator’s manual and all safety signs before operation, maintenance, adjusting or unplugging the Snout Cone.
- I will allow only trained persons to operate the Snout Cone. \*An untrained operator is not qualified to operate this equipment.
- I have access to a fire extinguisher.
- I have all guards in place and will not operate the Snout Cone without them.
- I will not allow riders on the Snout Cone.

- I understand the danger of moving parts (rotating snout cone, hydraulics, and pinch points) and will stop engine before servicing.
- I recognize the danger of the Snout Cone coming in contact with power lines.
- I have the safety lock up pins and know and understand where and when to use them.
- I understand that any accidents that occur with the Snout Cone are my responsibilities.
- I understand that Patriot Equipment will not be held responsible for any accidents that involve the Snout Cone.

**SIGN OFF SHEET (this should be signed annually as part of your safety program)**

As a requirement of OSHA, it is necessary for the owner/employer to train the employee in the safe operation and safety procedures with this Snout Cone. We include this sign off sheet for your convenience and personal record keeping.

DATE	EMPLOYER SIGNATURE	EMPLOYEE SIGNATURE



Warning!

**MACHINE INSPECTION**

After delivery of your new Snout Cone and/or completion of assembly, and before each use, inspection of the machine is mandatory. This inspection should include, but not be limited to:

1. Check to see that all guards are in place, secured and functional.
2. That all fasteners are tight.
3. That all Hydraulic lines are free from leaks and defects.
4. That all electronics are working properly and wires are in good condition.

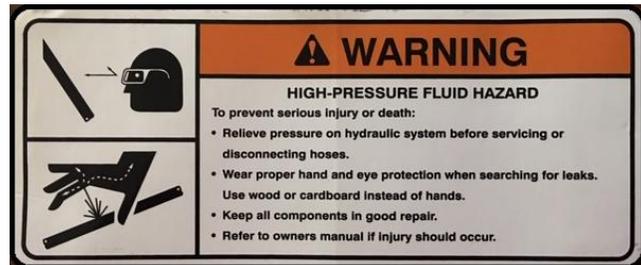
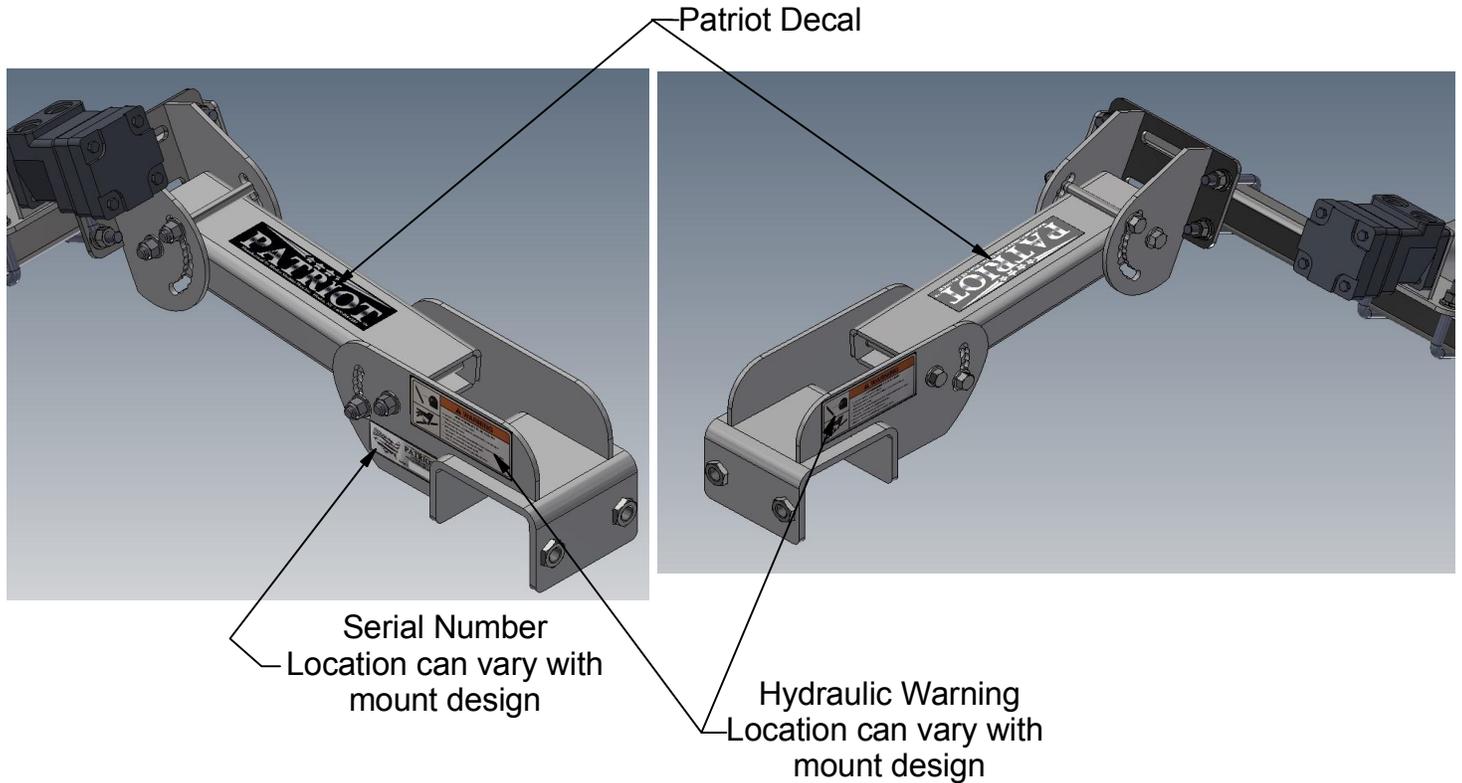
**SAFETY DECALS**

1. Keep safety decals clear and legible at all times.
2. Replace decals and signs that are missing or have become unreadable.
3. Safety signs are available from your Dealer or the Manufacturer.

**How to install Safety Signs**

1. Be sure that the installation area is clean and dry.
2. Decide on the exact position before you remove the backing paper.
3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
4. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
5. Small air pockets can be pierced with a pin and smoothed out using a piece of decal backing paper.

# Decal Locations Snout Cone



BC2515



Caution!

Important: Install new safety decals immediately if the old decals are destroyed, lost, painted over, or cannot be read. When parts are replaced that have safety decals, make sure you install a new decal with each new part. New decals are available from the manufacturer or your authorized dealer.



TS2003

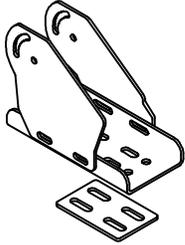


TS2004

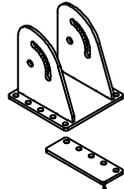
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## Snout Cone Mounts

SNC0020  
Geringhoff 2011 and Prior  
Geringhoff 2012 and Newer  
w/ factory mount

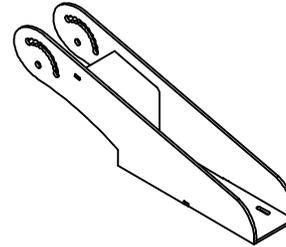


SNC0060  
Gleaner Mount

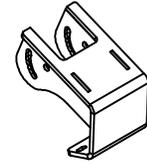


Shim to level  
on angled beam heads

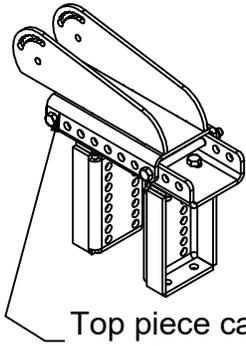
SNC0070  
Geringhoff 2012 &  
newer factory mount



SNC0090  
Gleaner 3300 Series  
Mount



SNC0200  
Universal Mount

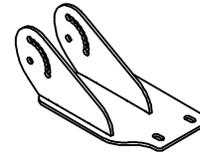


Top piece can be moved forward  
and rearward for correct fit.

Note: The Universal Mount has two different sets of bolts to adapt to different corn heads. Select the correct bolts for the selected corn head. The selected bolts will mount under the beam of the corn head. The universal mount will be placed on top of the corn head beam.

The Universal Mount is used on the following corn heads:  
John Deere  
Case 10 Series  
Case 2000, 3000, & 4000  
Drago  
Lexion

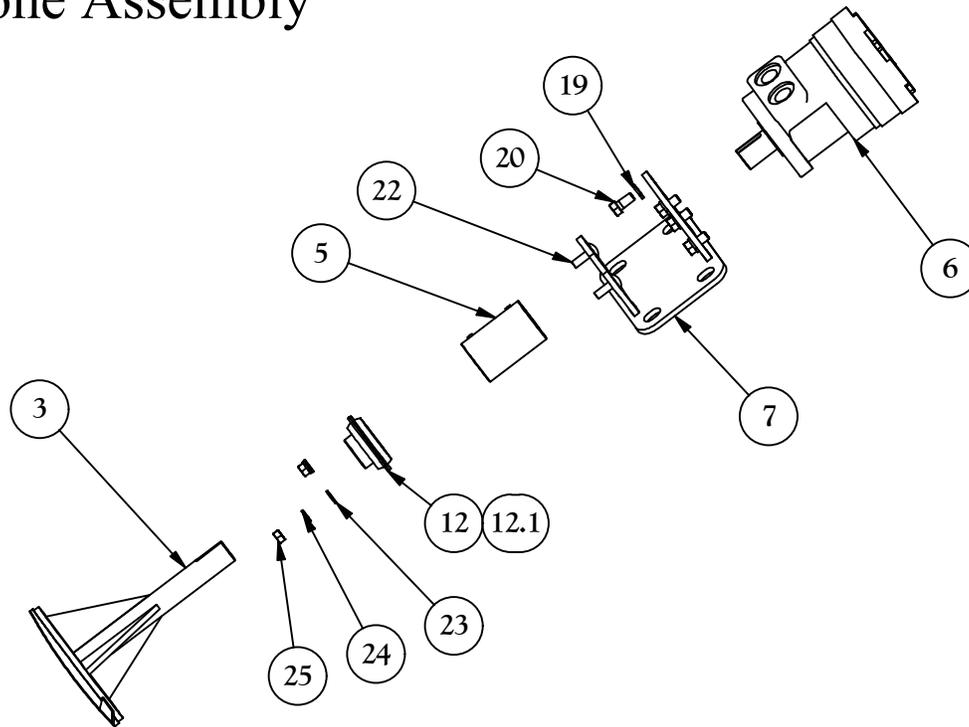
SNC0100  
Fantini Mount  
Left and Right



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# Snout Cone Assembly



## Snout Cone Assembly

1. Locate a bearing assembly (items 12 and 12.1) and a snout cone (item 3 or 4). Slide the locking collar onto the top shaft of the Snout Cone. Be sure the locking side is towards the outside of the shaft.
2. Slide on one side of the bearing flange (Item 12.1) onto the upper shaft of the Snout Cone. Install the bearing (Item 12) with the locking collar towards the installed locking collar.
3. Slide on the other side of the bearing flange (Item 12.1).
4. Install the bearing mount carrier (Item 7) and use two 5/16" x 1" carriage bolts, flat washers, lock washers, and nuts to attach the bearing to the bearing mount carrier. Leave the fasteners loose for now.
5. Locate the key stock and insert it into the keyway on the shaft and then install the shaft coupler (Item 5).
6. Insert a second key stock into the hydraulic motor shaft keyway and insert the motor shaft into the other side of the shaft coupler.
7. Set the distance on the snout cone shaft to the shaft coupler. This is done by having the shaft coupler completely cover the key stock and the securing set screw should set approximately in the middle of the key stock. Tighten this set screw.
8. Attach the bearing mount carrier (Item 7) to the hydraulic motor (Item 6) using the 3/8" x 3/4" bolts and lock washers. The bearing assembly should slide with the bearing mount carrier.
9. Set the distance with the motor and the shaft coupler. Be sure the shaft coupler is not going to hit the hydraulic motor as it turns. The securing set screw should be approximately half way of the length of the key stock. Tighten the securing set screw.
10. Tighten the two 5/16" x 1" carriage bolts that are holding the bearing onto the bearing mount carrier.
11. Tighten the locking collar onto the bearing and then tighten the securing set screw.
12. The assembly should appear like the assembly in the picture below.

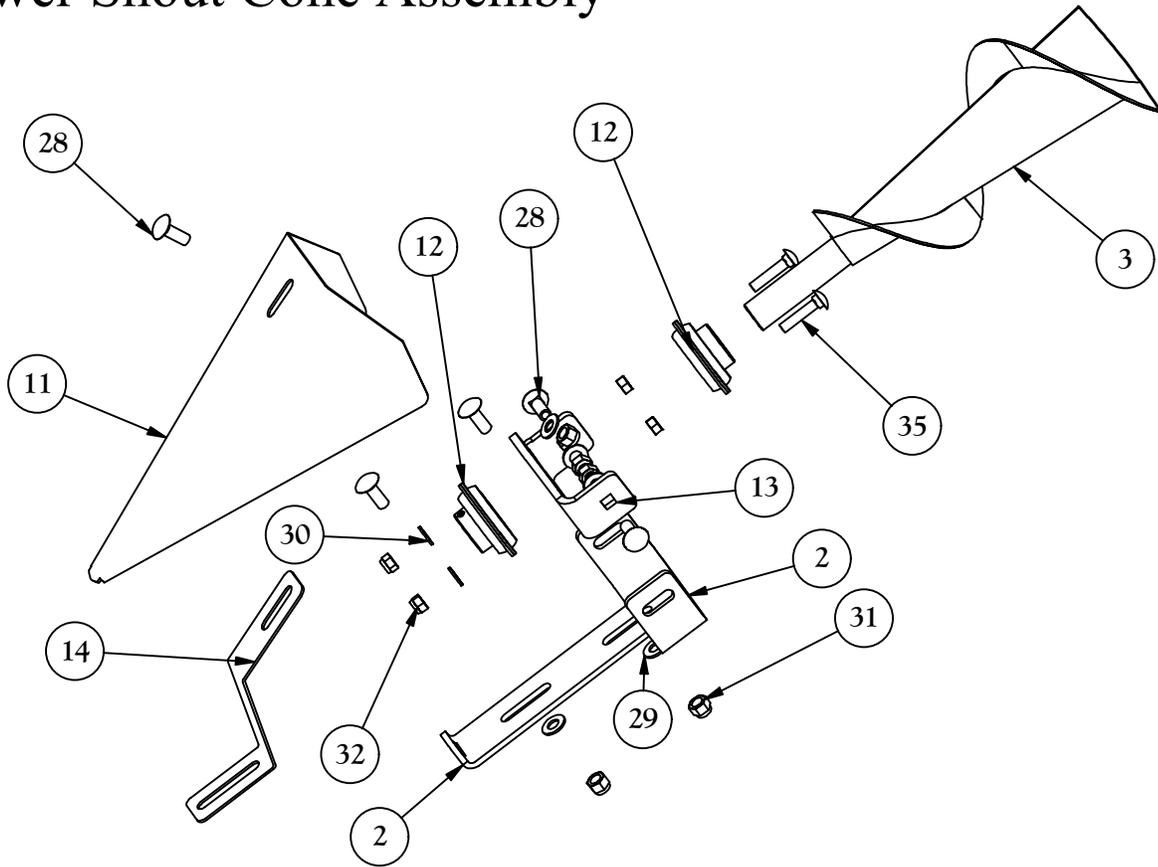


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Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	SNC-A009	Snout Cone Clamp/Mount
2	2	SNC-P040	Case Nose Bearing Mount
3	1	SNC-A003	Snout Cone Screw Section LH
4	1	SNC-A004	Snout Cone Screw Section RH
5	2	SNC-P023	Shaft Coupler
6	2	CR1900	Hydraulic Motor (1" Shaft)
7	2	SNC-A006	Bearing Mount Carrier Weldment
8	2	SNC-A002	Cross Arm Weldment
9	2	SNC-A001	Mid Mount Weldment
10	2	SNC-A005	Extension Weldment
11	2	SNC-A017	Front Nose Guard Weldment
12	6	BR910	205 Series Bearing with locking collar
12.1	12	BR915	2 Bolt Stamped Flange
13	2	SNC-P026	Bearing Lower Baseplate
14	2	SNC-P056	Cone To Snout Back Attachment Plate
15	16	W9/16L	Lock Washer
16	8	B1/2X5.5	Hex Bolt
17	16	N1/2N	Hex Nut
18	8	B1/2X2.0625U	U-Bolt 1/2" x 2 1/16" I.D.
19	8	W3/8L	Lock Washer
20	4	B3/8X0.75	Hex Bolt
21	4	B3/8X0.5	Hex Bolt
22	4	B5/16X1.0CB	Carriage Bolt
23	4	W5/16F	Plain Washer
24	4	W5/16L	Lock Washer
25	8	N5/16N	Hex Nut
26	4	N3/4JN	Hex Jam Nut
27	4	B3/4X2.5	Hex Bolt
28	10	B3/8X1.0CB	Carriage Bolt
29	10	W3/8F	Plain Washer
30	4	W5/16F	Plain Washer
31	10	N3/8NYL	Nylock Nut
32	4	N5/16NYL	Nylock Nut
33	8	N1/2NYL	Nylock Nut
34	32	W1/2F	Plain Washer
35	4	B5/16X1.5CB	Carriage Bolt

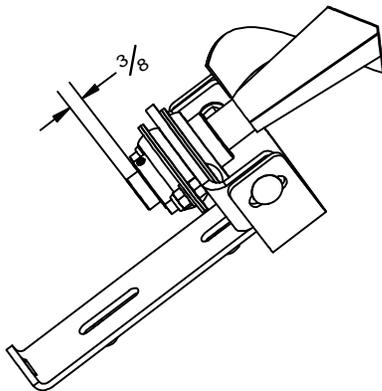
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# Lower Snout Cone Assembly



## Snout Cone Lower Shaft Assembly

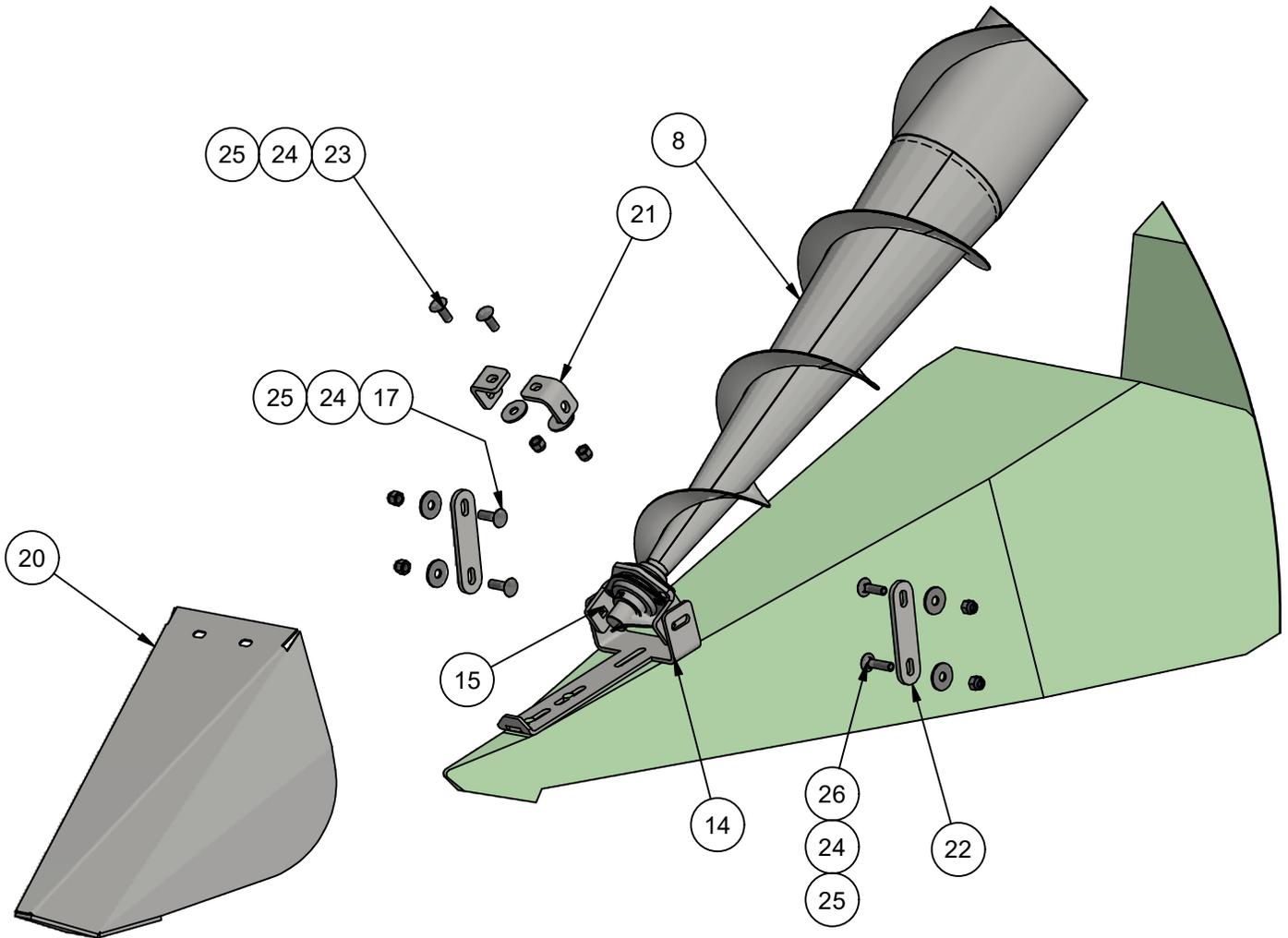
1. Locate a second bearing assembly (Item 12 and 12.1). Install the bearing assembly onto the lower shaft with the locking collar facing towards the snout cone flighting. Be sure to have the 2 bolt flanges on the bearing assembly.
2. Locate Item 13, Bearing Lower Baseplate, and attach it to the previously installed bearing using 2, 5/16" x 1-1/2" carriage bolts and regular nuts (the nuts will be used as spacers for the upcoming second bearing). Tighten the bearing to the baseplate.
3. Locate a third bearing assembly (Item 12 and 12.1). Install the bearing to the 2, 5/16 x 1-1/2" carriage bolts holding the first bearing with the locking collar towards the outside of the snout cone. Tighten the bearing in place using 2, 5/16" flat washers and nylock nuts 3/8" from the end of the shaft (see Detail E).
4. Item 2, Nose Bearing Mount, will be needed next. Attach this bracket to the bearing lower baseplate (Item 13) using 2, 3/8" x 1" carriage bolts, flat washers, and nylock nuts. Tighten the fasteners, but allow them so the bracket will pivot at this point. Leave the Back Attachment Plate (Item 14) and the Nose Guard Weldment (Item 11) off the assembly at this time. The holes in the Nose Bearing Mount will need to be accessed as template holes for attachment to the outside snout. The lower assembly should look like the Detail E below.
5. Repeat the assembly steps for the other Snout Cone.



**DETAIL E**

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# Installation of Over The Tip Snout Cone Cover



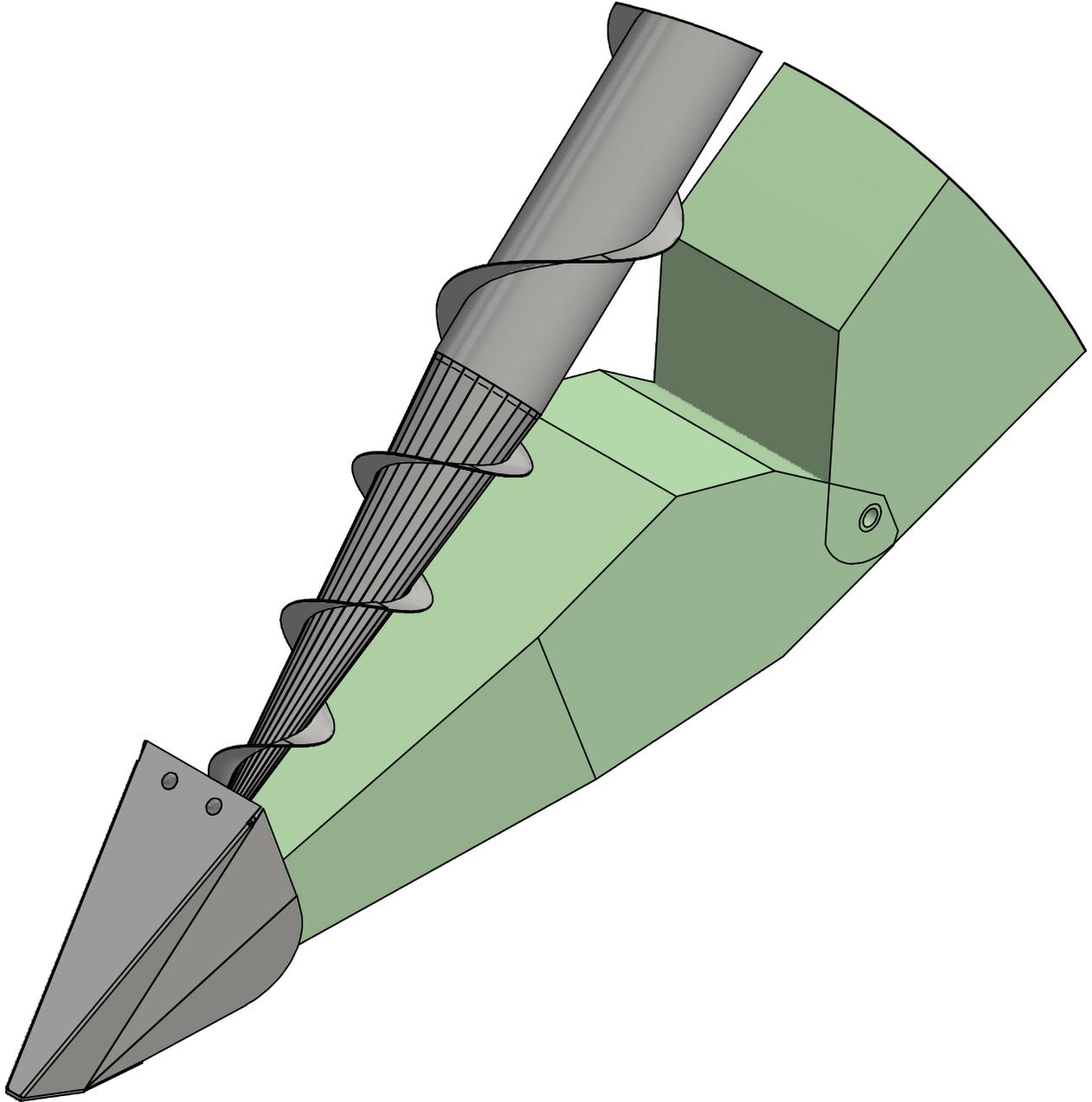
The over the tip snout cover will simply fit over the tip of the corn head snout. Locate items 20, 22, 21, and 14 with the needed carriage bolts, washers, and nuts. Attach item 14 to item 20 (refer to the above diagram) and leave the fasteners loose enough so that the parts can move. Slide item 20 over the end snout. Since item 14 is attached, place item 20 all the way it can go on the snout where the bottom of item 20 is in contact with the corn snout tip. Mark where item 14 fits the best. Remove the assembly from the end corn snout. The mark that was made is where item 14 should be placed. Install the Snout Cones accordingly. Be sure to do this on both sides. Once the Snout Cones are installed, attach items 22 to item 14 using the carriage bolts, washers, and nuts. Attach item 21 to item 22 using the carriage bolts, washers, and nuts. Place item 20 over the end of the end corn snout and be sure it is fully on the snout. Attach item 20 to item 21 using the carriage bolts, washer, and nuts. Again, be sure item 20 is fully on the end of the corn snout using items 22 and 21 to adjust for best fit. When item 20 is in the best position, tighten all carriage bolts, washers, and nuts to keep in place.

## Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
8	1	SNC-A003	Snout Cone Screw Section Driver Side
14	1	SNC-P037	Nose Mount
15	1	SNC-P026	Bearing Lower Baseplate
17	4	B3/8x1.25CB	Carriage Bolt
20	1	SNC-A038	Over Tip Snout
21	2	SNC-P089	L Bracket
22	2	SNC-P090	Flat Linkage
23	2	B3/8X1.0CB	Carriage Bolt
24	7	N3/8NYL	Nylock Nut
25	6	W3/8F	Flat Washer
26	1	B3/8X1.5CB	Carriage Bolt

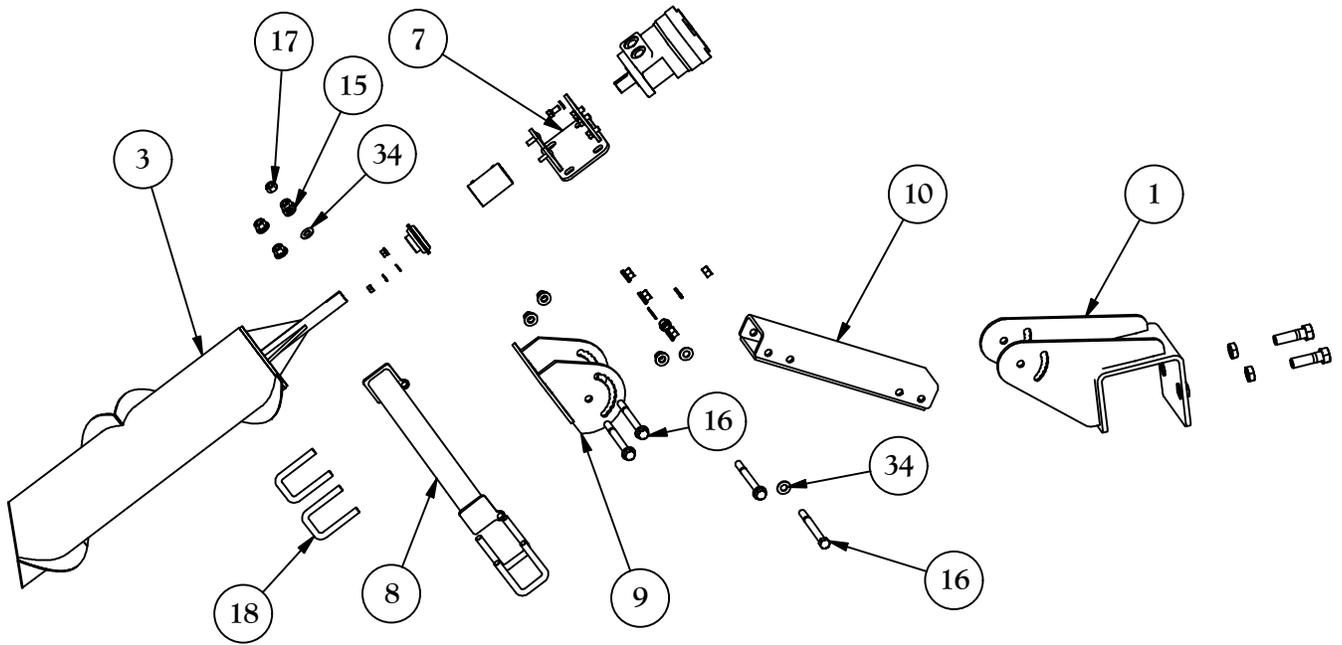
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## Installation of Over The Tip Snout Cone Cover

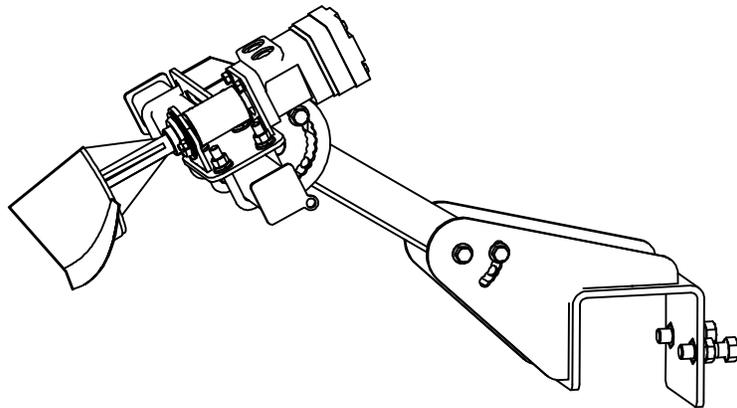


The above illustration details how the over the tip snout cone cover should look when correctly installed.

# Snout Cone Head Mount/Clamp Parts



Exploded view of the Head Mount/Clamp for the Snout Cone. Item 1 will vary with the brand of corn head that is being used. Please see the Snout Cone Head Mount/Clamp page for the head mount/clamp that fits the brand of corn head that is being used.

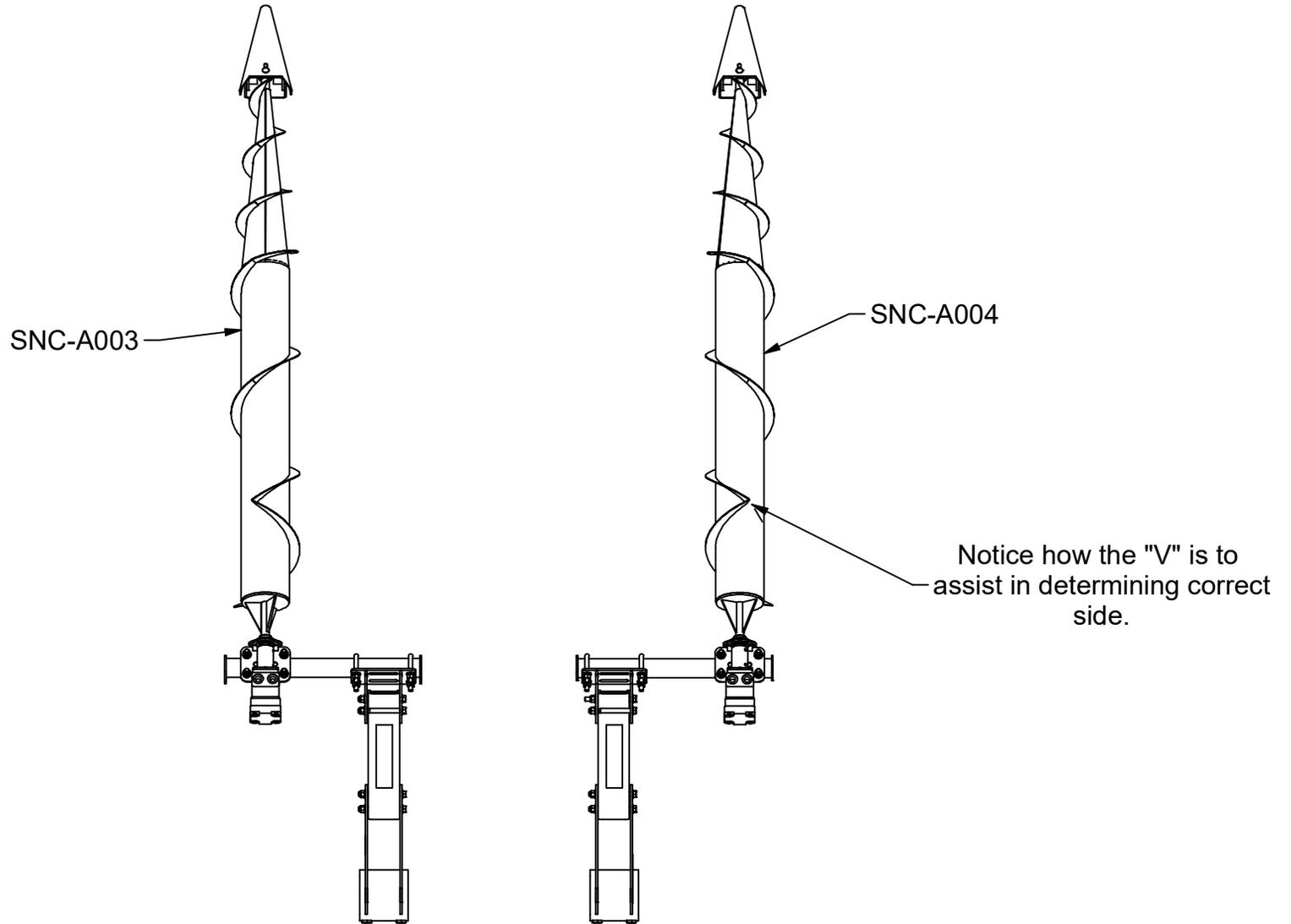


Assembled Snout Cone Head Mount/Clamp. The picture shows the assembly is in the float mode for field use.

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# Determine Left and Right Snout Cone

Top View of Snout Cones



Combine  
Feeder  
House

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# Snout Cone Clamp/Mount Installation



Please see the Snout Cone Clamps/Mounts to correctly identify the mount that came with the kit.

1. Install the mount onto the corn head. Place the mount close to where it will be needed. The snout cone will run in the middle of the outside corn snout of the corn head. Install the mount so that this action can be accomplished.
2. Tighten the mount in place. The mount may need to be adjusted later when mounting the snout cone to get it aligned in the middle of the corn snout.
3. When the mount is in the correct position, be sure to tighten the lock nuts.



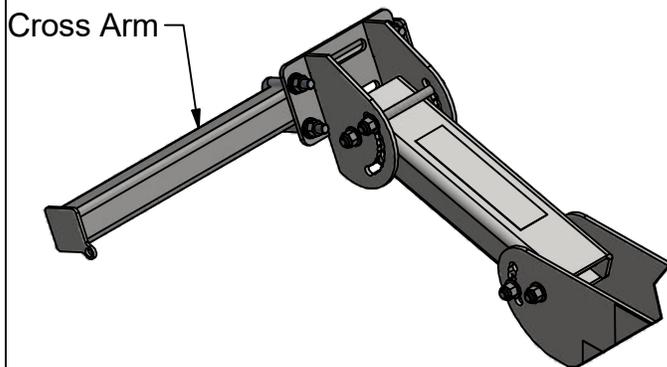
1. Mount the extension arm to the clamp assembly using 2, 1/2" x 5-1/2" bolts, 4, 1/2" flat washers, and 2, 1/2" nylock nuts. Place the extension arm in the middle of the adjustment area for mounting purposes, adjustments can be made here to get the correct clearance for the snout cone to the snout. Once the snout cones are fully installed, they will be put into a floating position so they move with the corn head.
2. Adjustments can be made as the Snout Cones are installed. Once again, the Snout Cones will be placed in floating mode when installation is complete.



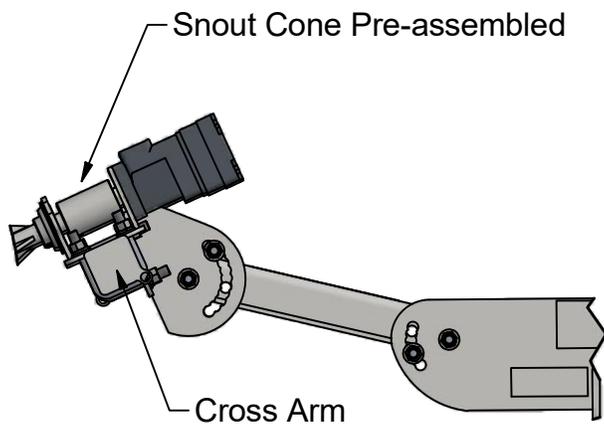
1. Locate the Mid-mount and attach it to the Extension Arm using 2, 1/2" x 5-1/2" bolts, 4, 1/2" flat washers, and 2, 1/2" nylock nuts.
2. This is another adjustment point. To continue with installation, the angle of this mount should be parallel to the angle of the corn snout. This angle will enable the Snout Cones to be parallel to the corn snout as well. Adjustments can be made as installation continues as well. Also, this adjustment point will be put into float position when installation is complete.

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# Snout Cone Clamp/Mount Installation



Locate the Cross Arm. Mount the Cross Arm to the Mid-Mount using 2, 1/2" x 2" x 2" u-bolts with 4, 1/2" flat washers, 4, 1/2" lock washers, and 4, 1/2" nuts. Position the Cross Arm that allows the Snout Cone to be mounted in the center of the end snout of the corn head. Tighten the fasteners when positioned correctly.



Locate the correct pre-assembled Snout Cone for the corresponding side of the corn head (right hand for right side and left hand for left side). The motor and bearing plate will attach to the cross arm using 2, 1/2" x 2" x 2" u-bolts with 4, 1/2" flat washer, lock washers and nuts.

Some setups may be better if the motor and bearing plate are mounted below the cross arm. Be sure there is clearance for the Snout Cone if the motor is mounted this way. The hydraulic motor ports will still need to be up, so remove the four attachment bolts for the bearing plate on the motor, turn the bearing bracket 180 degrees and reinsert the four attachment bolts. The mounting plate will now be facing up with the hydraulic motor ports. Tighten all the fasteners.



Align the snout cone so that the center of the snout cone is in align with the center of the end corn snout. Also, set the desired height of the Snout Cone by moving the 1/2" bolts that are holding the initial angle at the extension arm and the mid-mount. Be sure to have clearance between the Snout Cone and the corn snout as it is mounted.

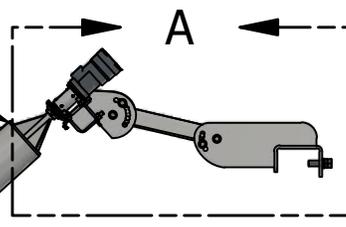
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# Lower Snout Cone to Corn Snout Installation



1. The next step is to mount the nose mount onto the corn snout. The Snout Cone should be assembled and securely mounted to the cross arm located at the rear of the corn head. Adjust the angle/height of the Snout Cone to the end snout of the corn head. The adjustment is made by raising or lowering the extension arm. Be sure to have clearance as the Snout Cone rotates. When the angle/height is satisfactory, place the bolts from the extension arm so that it will be locked in place for now.
2. Use the nose plate as a template to mark the holes that will have to be drilled into the corn snout.
3. Mark the hole placement in the middle of each slotted hole as this will allow for some adjustment when installing.
4. Using a 7/16" drill bit, drill the holes for the bolts
5. After the holes are drilled, realign the nose mount with the holes and place the 3/8" carriage bolts, the 3/8" flat washers, and two 3/8" nylock nuts. Install the cone to snout back attachment brace.
6. Tighten the fasteners. Please note, access holes may need to be installed on the bottom side of some corn snouts to be able to reach to install and tighten the nuts.
7. Install the nose cone bearing guard using a 3/8" x 1" carriage bolt, flat washer and nylock nut.
8. After the nose mount fasteners are tightened, put the Snout Cone into the float position for field operation. Please see Floating Snout Cone Setup.
9. Repeat installation for the other side.
10. When both Snout Cones are installed, install the hydraulics. Please see the hydraulics section.

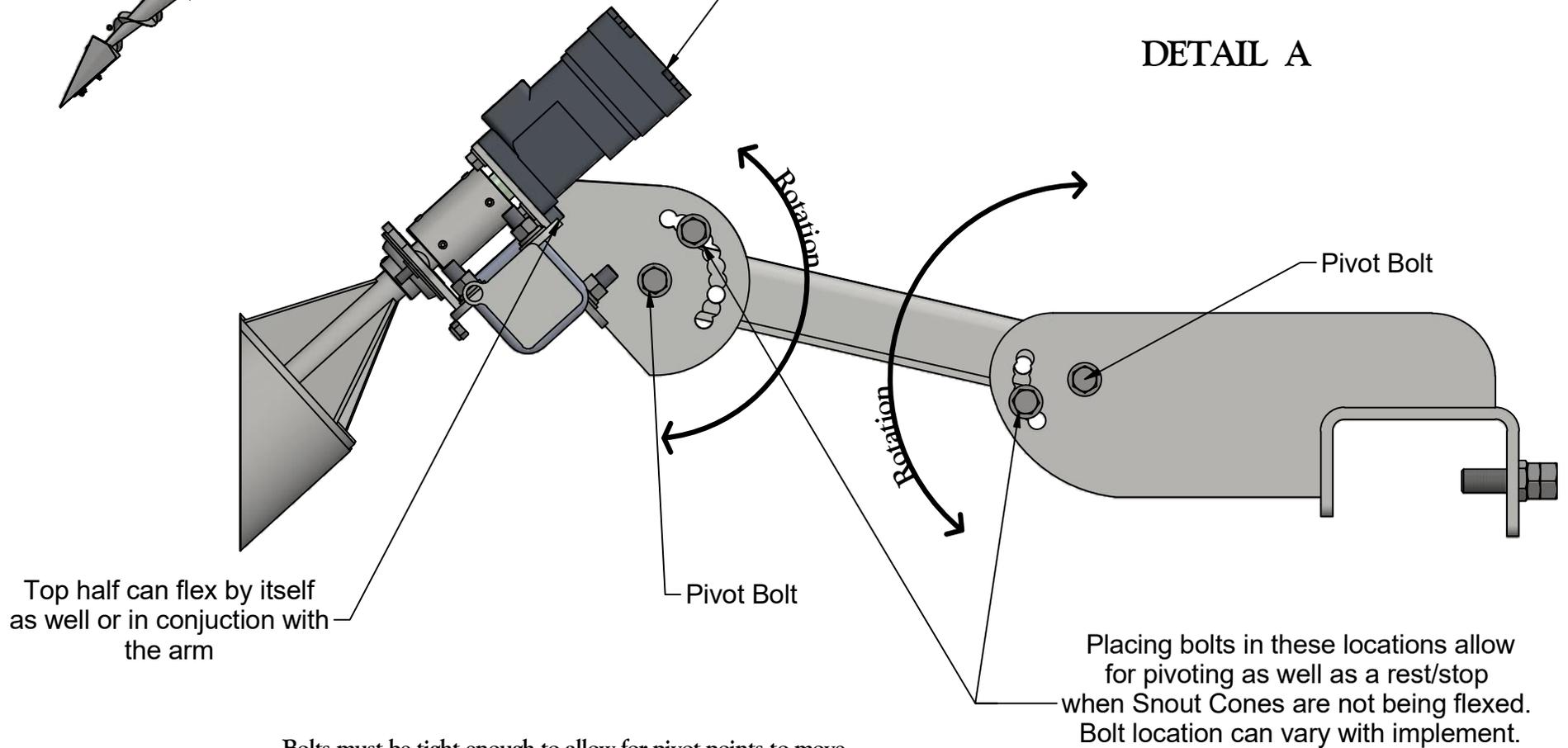
Snout cone motor assembly can be mounted above or below the mounting tube.



## Floating Snout Cone Setup Diagram

Snout Cone motor assembly can be mounted above or below the mounting tube. It depends on how installer feels the fit is best in relation to the corn head.

### DETAIL A



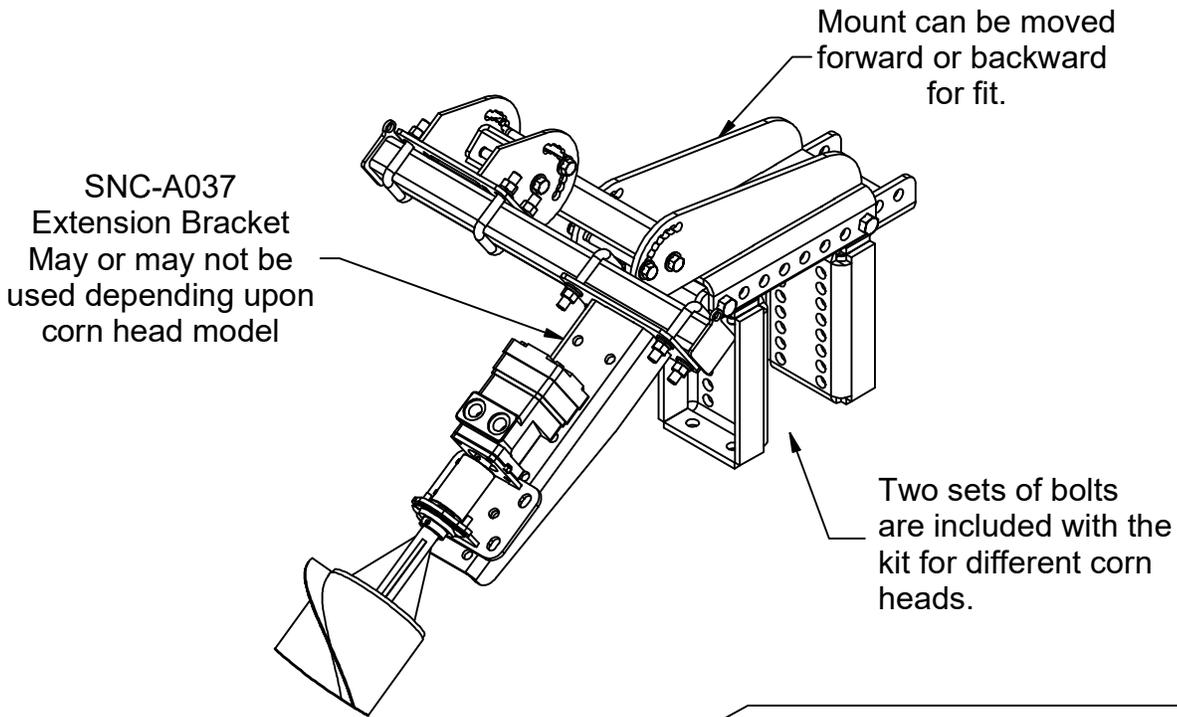
Top half can flex by itself as well or in conjunction with the arm

Bolts must be tight enough to allow for pivot points to move.

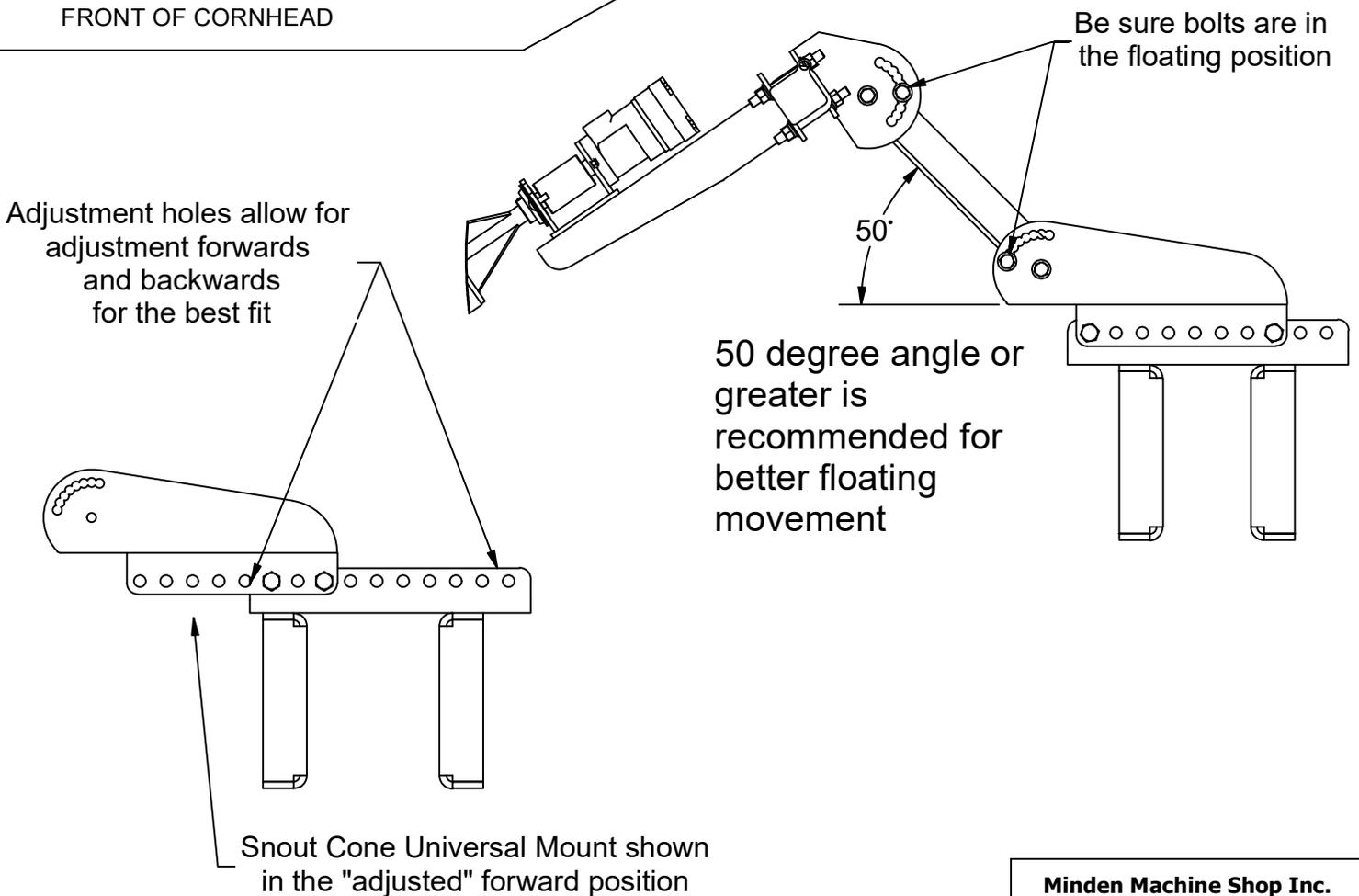
Placing bolts in these locations allow for pivoting as well as a rest/stop when Snout Cones are not being flexed. Bolt location can vary with implement.

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# Snout Cone Universal Mount SNC0200



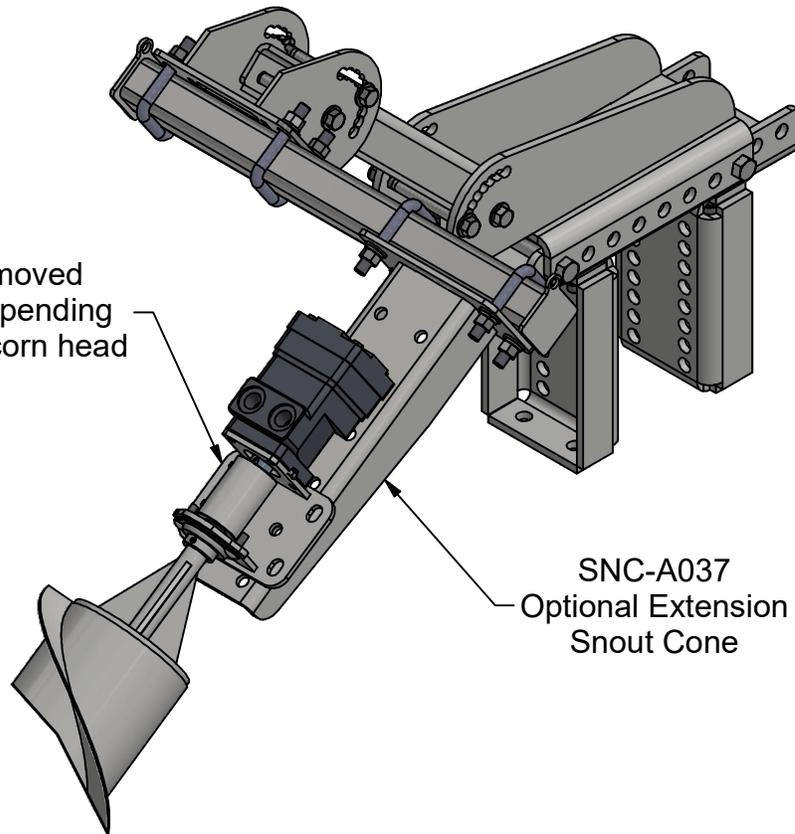
FRONT OF CORNHEAD



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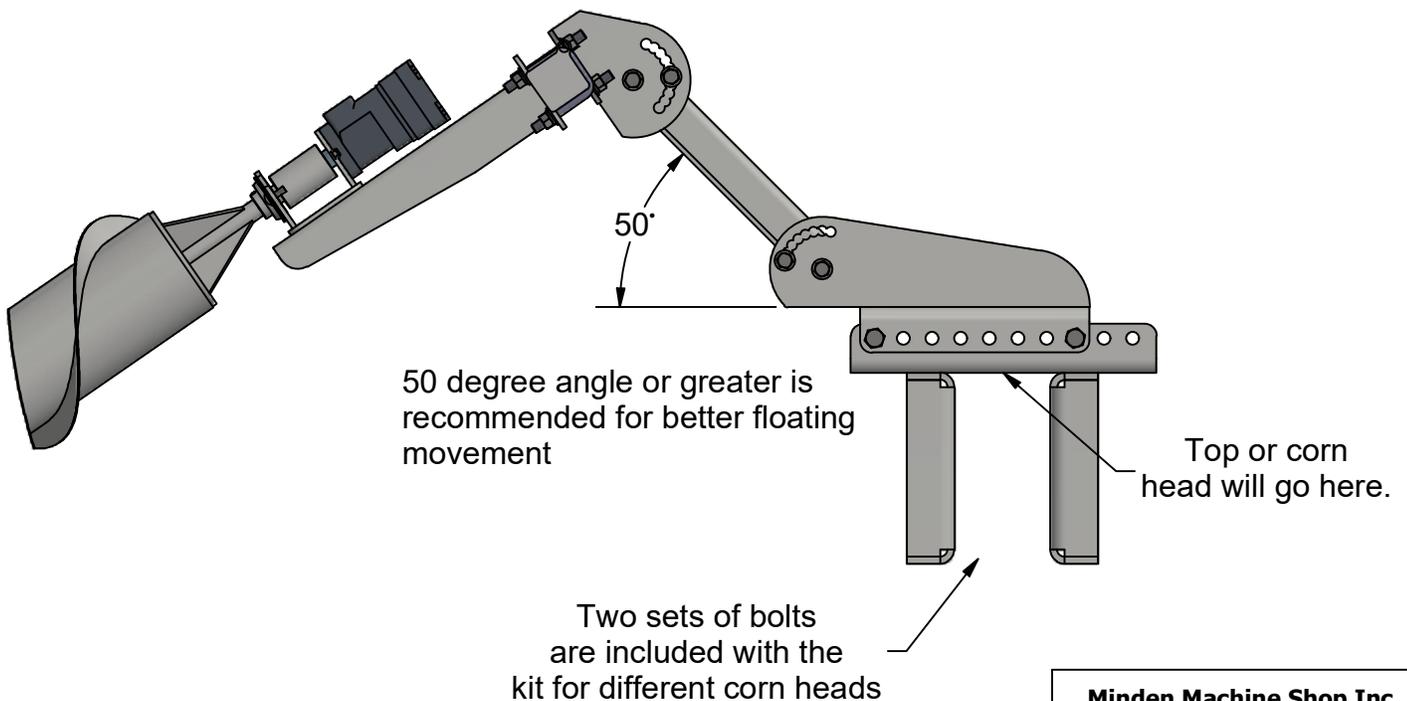
# Universal Snout Cone Mount With Optional Extension

Motor mount can be moved forward or backward depending upon the best fit for the corn head



Front of Corn Head

Snout cone motor can be mounted with the motor and snout cone assembly on top (as shown) or the optional extension bracket can be inverted to have the motor and snout cone mount be on the underside. Installer has the choice as to which setup best fits the associated corn head.



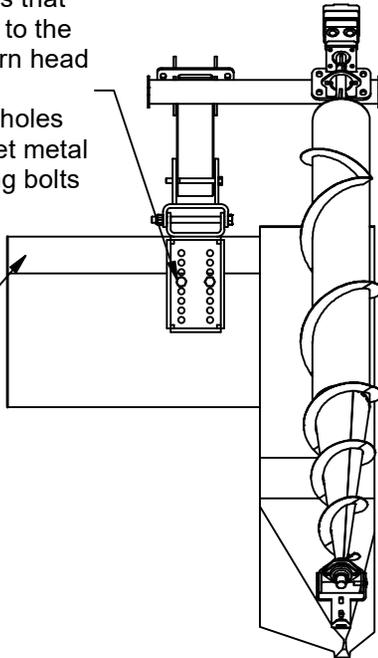
**Minden Machine Shop Inc.**  
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# Universal Mount to 6 Series John Deere Head

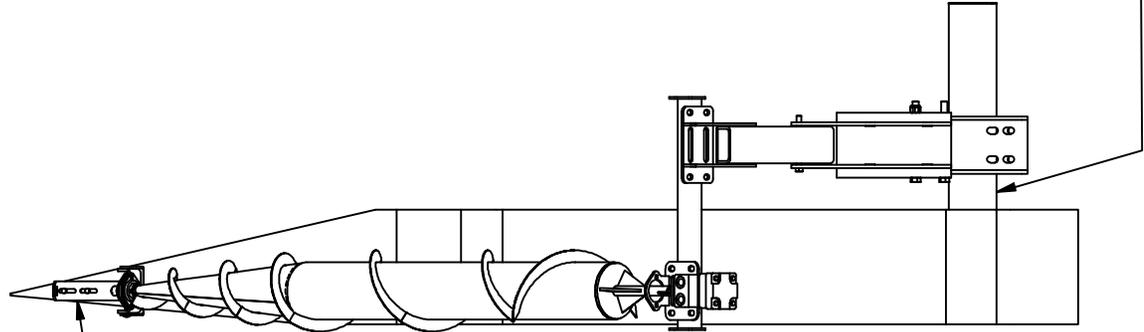
Not all parts are shown for clarity.

Select the holes that are the closest to the bottom of the corn head beam.  
Mark and drill holes through the sheet metal for the mounting bolts

Top Beam

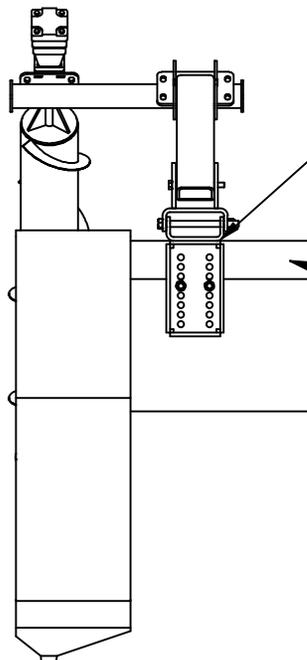


Distance can vary with head model and style



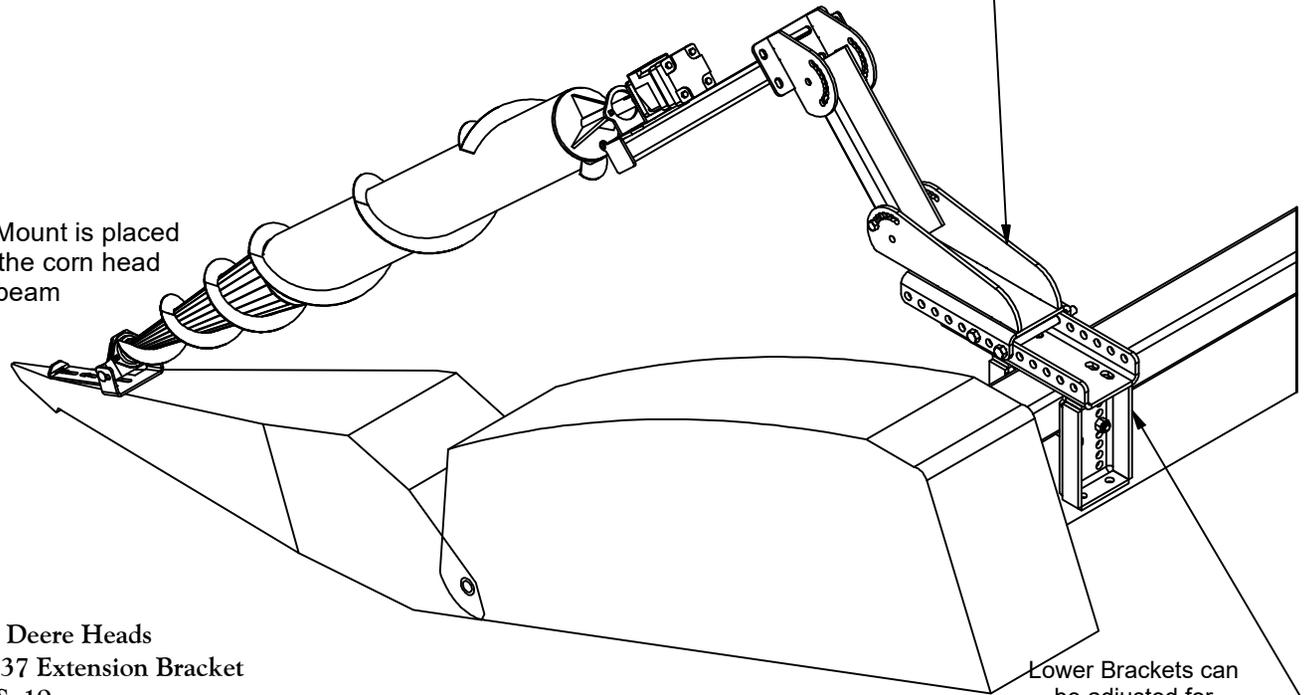
Mount lower carrier with the two bolts for the corn snout bull nose

Universal Mount can be adjusted forward and backward to aid in installation.



Universal Mount is placed on top of the corn head beam

Top Beam



7 Series John Deere Heads  
Use SNC-A037 Extension Bracket  
See Page 18 & 19

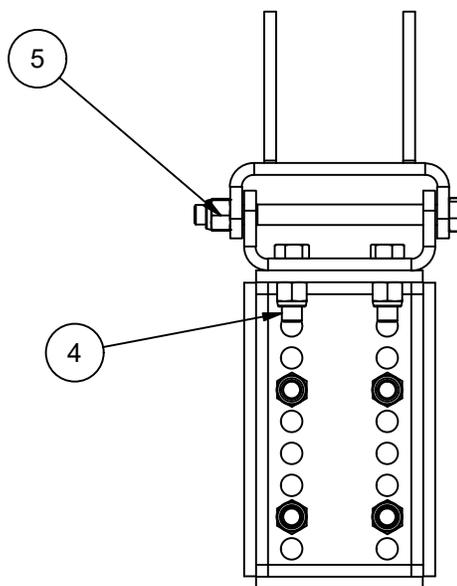
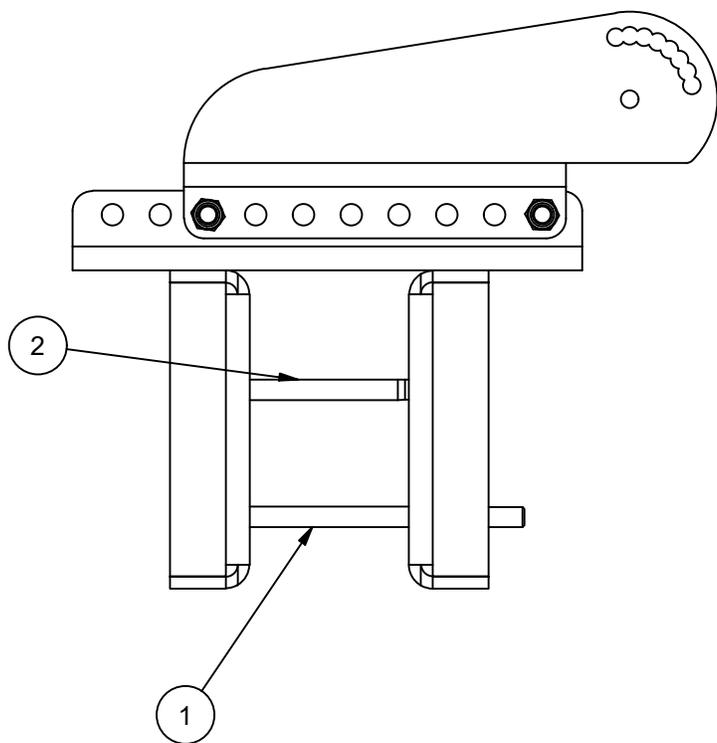
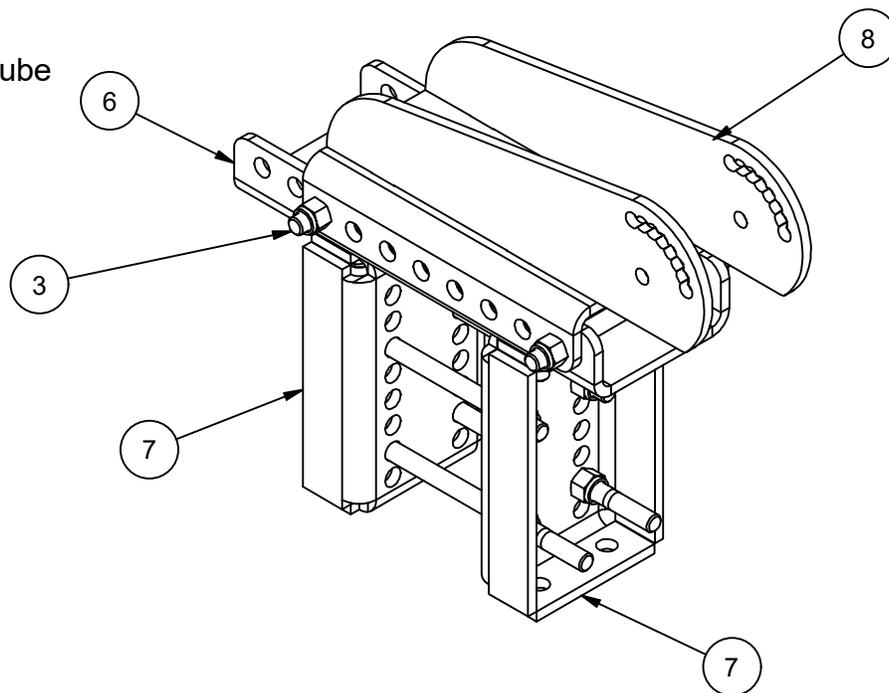
Lower Brackets can be adjusted for best fit

**Patriot Equipment**  
1302 K Road Minden, NE  
308-832-0220

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# Parts Diagrams

SNC-A035  
 Universal Snout Cone Rect/Sq Tube  
 Mount

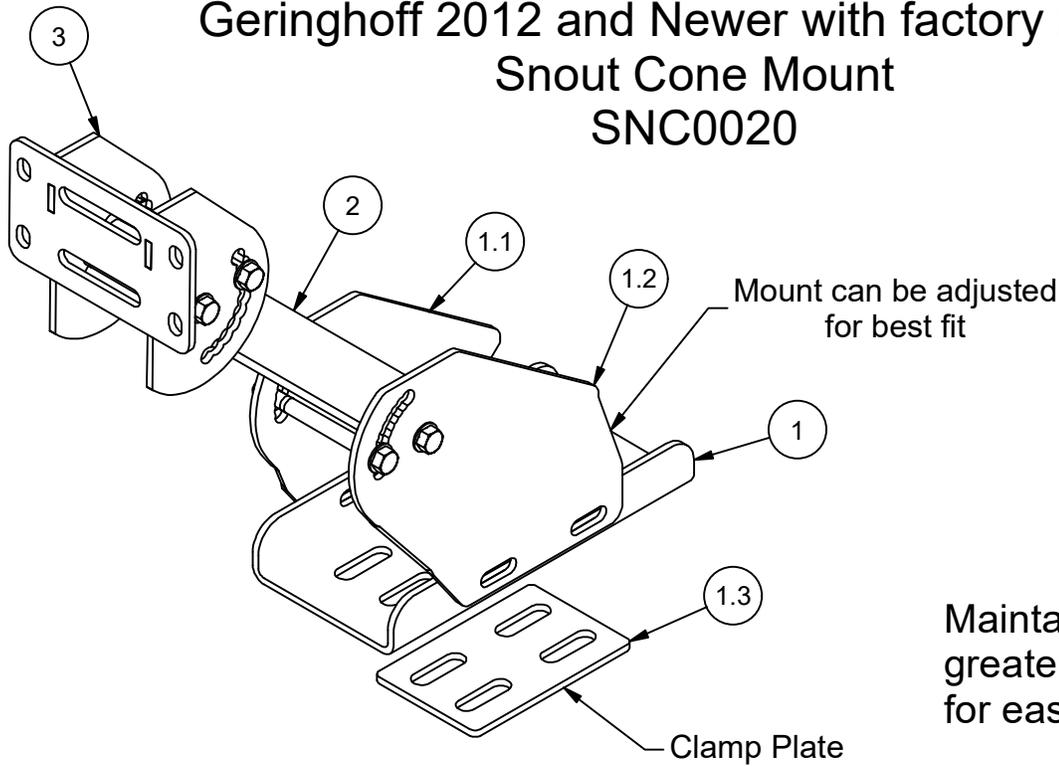


Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	B5/8x9	Hex Bolt
2	2	B5/8x7	Hex Bolt
3	2	B5/8x8	Hex Bolt
4	4	B5/8x2	Hex Bolt
5	10	N5/8NYL	Nylock Nut
6	1	SNC-P081	Lower U Channel Universal Mount
7	2	SNC-P082	Tube Clamp Box Universal Mount
8	1	SNC-A036	Upper Channel Universal Mount

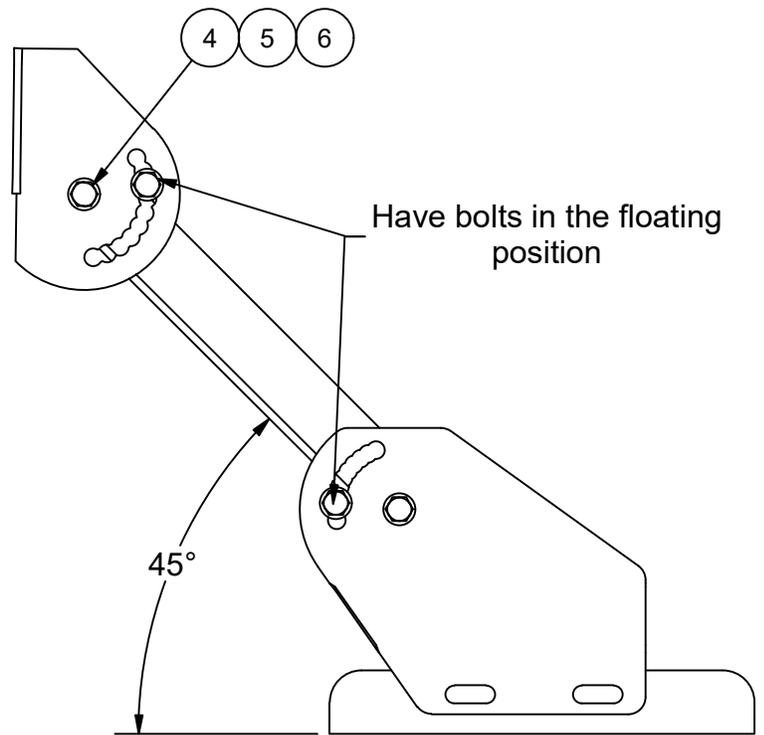
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# Geringhoff 2011 and prior Geringhoff 2012 and Newer with factory mount Snout Cone Mount SNC0020



Test for correct floating action before going to the field.

Front of  
Corn Head

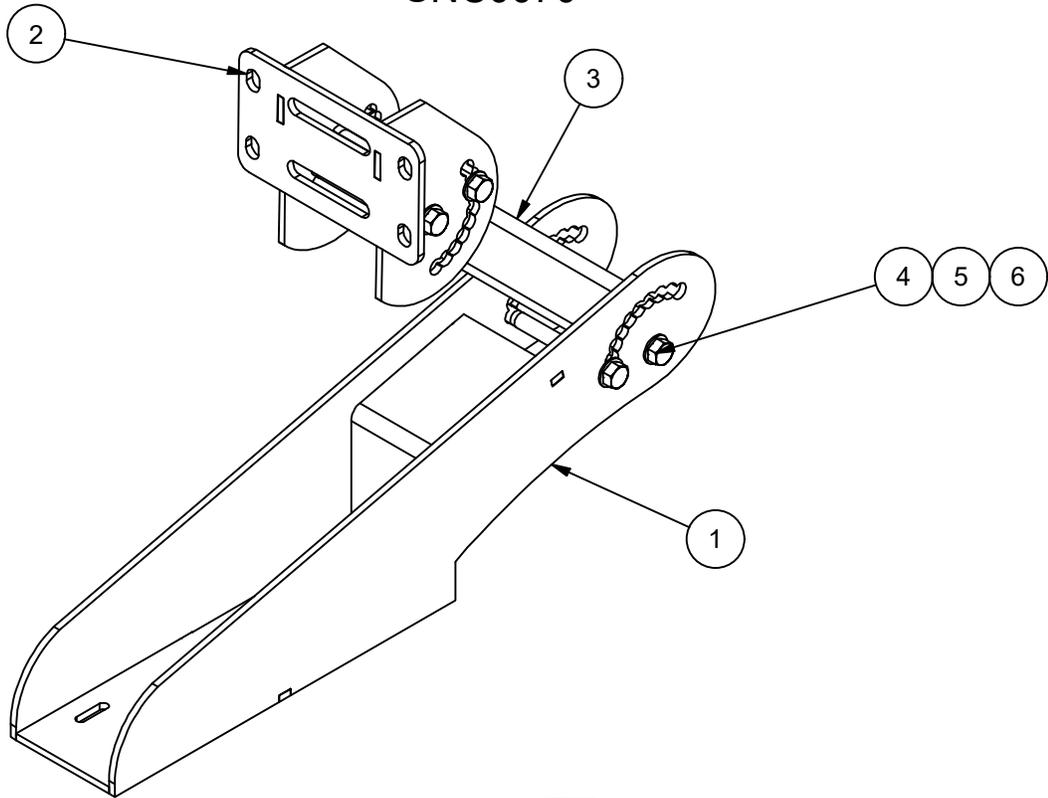


### Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SNC-P063	Base
1.1	1	SNC-P064	Right Upper
1.2	1	SNC-P065	Left Upper
1.3	1	SNC-P066	Clamp Plate
2	1	SNC-A005	Extension Weldment
3	1	SNC-A001	Mid Mount Weldment
4	4	B1/2X5.5	Hex Bolt
5	8	B1/2F	Plain Washer
6	4	N1/2NYL	Nylock Nut

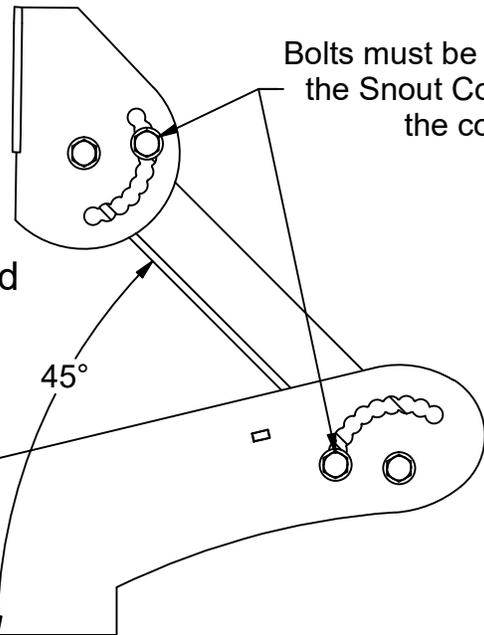
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# Geringhoff 2012 and Newer Factory Mount SNC0070



Front of Corn Head

45 Degree Angle or greater is recommended for better floating movement



Bolts must be installed to allow the Snout Cone to float with the corn head

Front of Corn Head

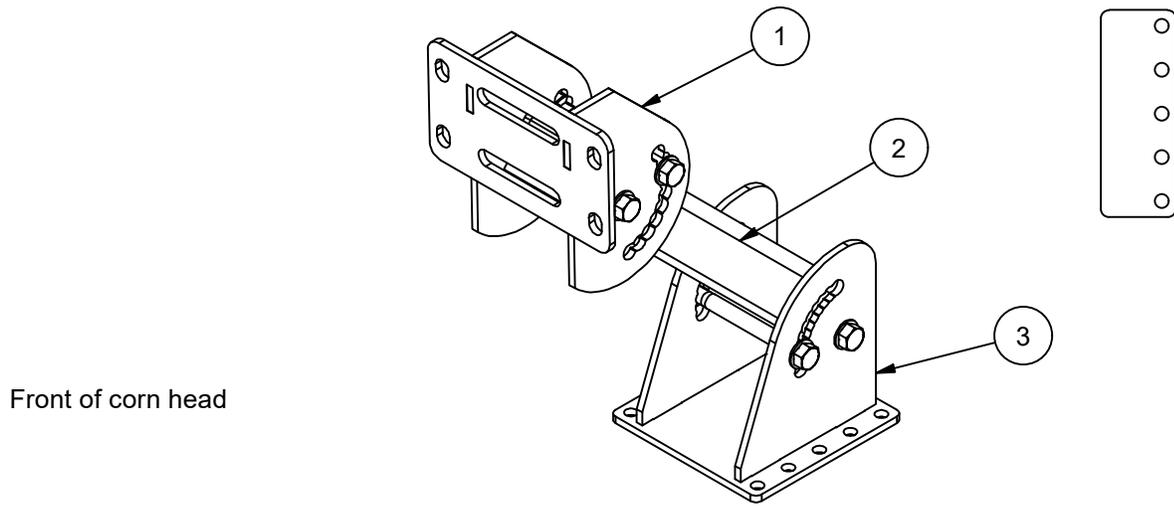
### Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SNC-A010	Geringhoff Clamp Snout Cone
2	1	SNC-A001	Mid Mount Weldment
3	1	SNC-A005	Extension Weldment
4	4	B1/2x5.5	Hex Bolt
5	8	W1/2F	Plain Washer
6	4	N1/2NYL	Nylock Nut

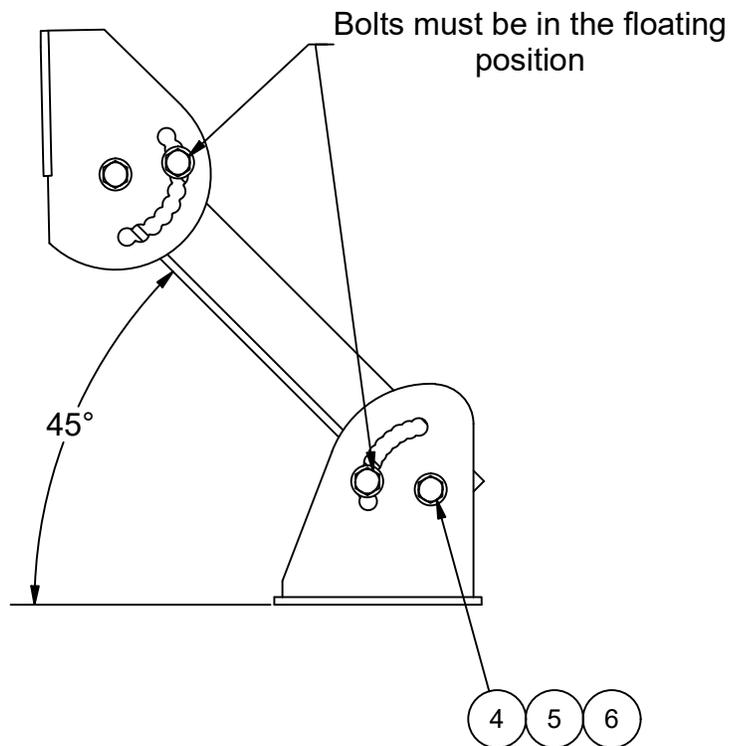
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# Gleaner Snout Cone Mount SNC0060

Be sure to install the flat plate for the angle correction on the angled corn head



Front of corn head



Bolts must be in the floating position

Front of Corn Head

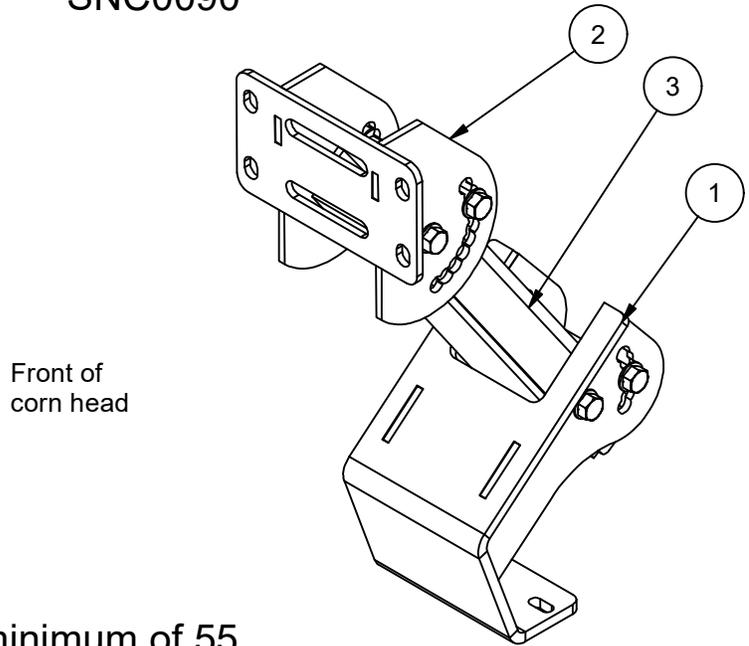
Mount at a 45 degree angle or greater

## Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SNC-A001	Mid Mount Weldment
2	1	SNC-A005	Extension Weldment
3	1	SNC-A022	Gleaner Clamp Snout Cone
4	4	B1/2x5.5	Hex Bolt
5	8	W1/2F	Plain Washer
6	4	N1/2NYL	Nylock Nut

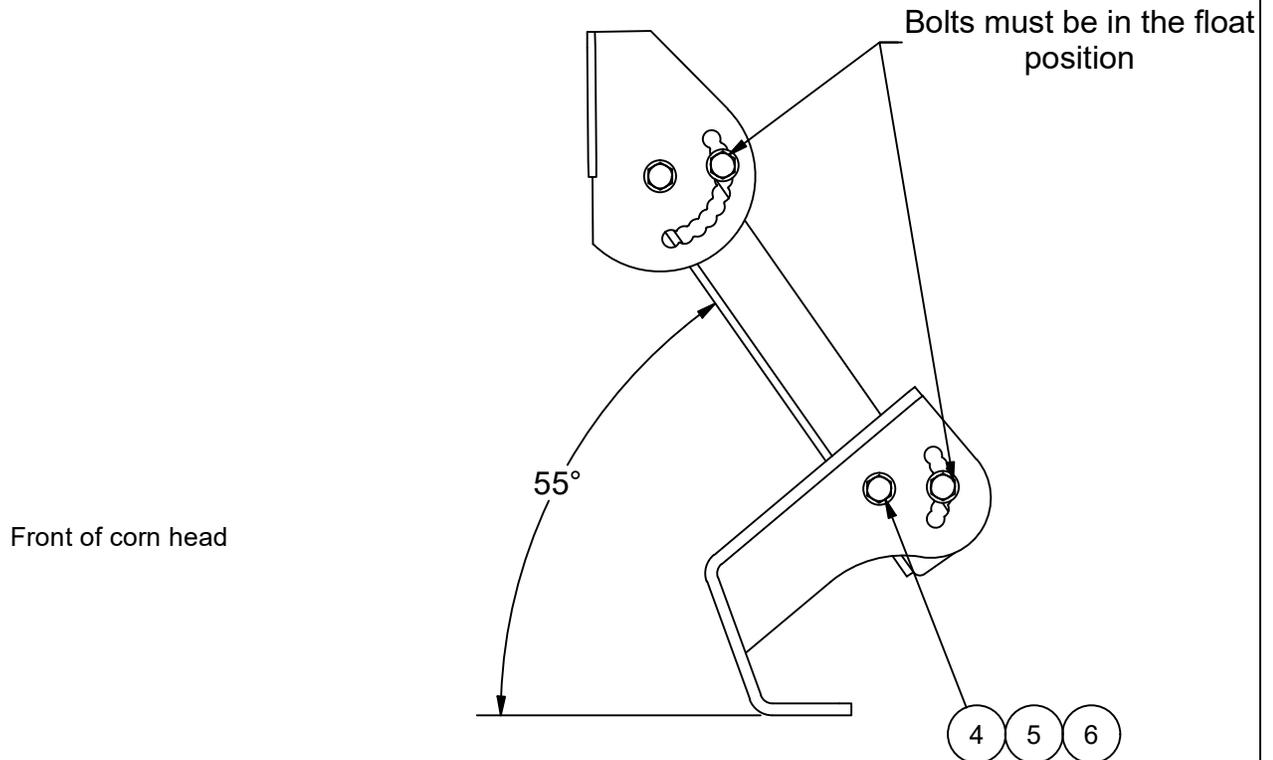
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# Gleaner 3300 Series Snout Cone Mount SNC0090



Front of  
corn head

The mount assembly is set at a minimum of 55 degrees.



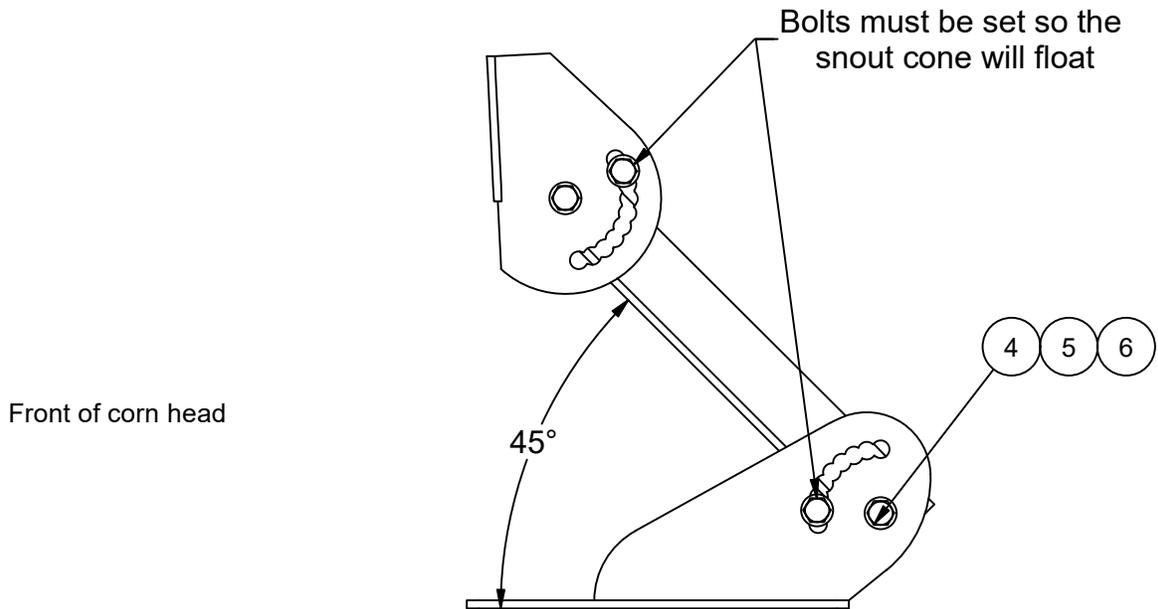
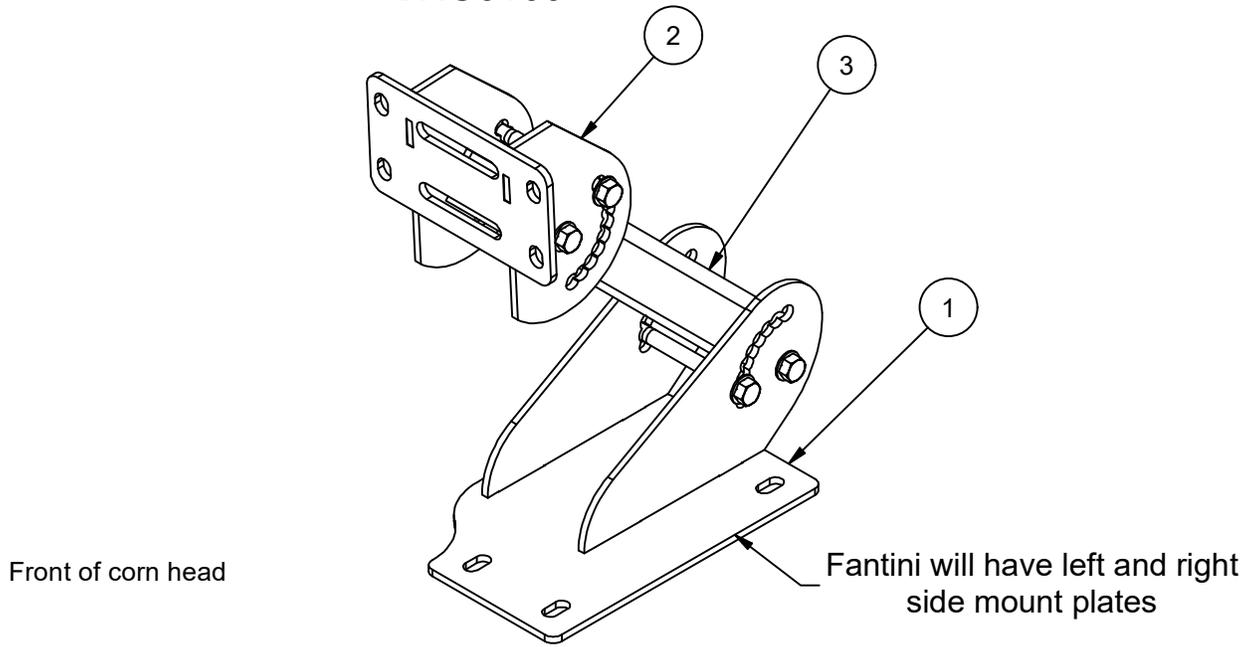
Front of corn head

## Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SNC-A028	Gleaner 3300 Series Clamp Snout Cone
2	1	SNC-A001	Mid Mount Weldment
3	1	SNC-A005	Extension Weldment
4	4	B1/2x5.5	Hex Bolt
5	8	W1/2F	Flat Washer
6	4	N1/2NYL	Nylock Nut

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# Fantini Snout Cone Mount SNC0100



A 45 degree angle or greater must be set for the floating to be efficient.

### Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SNC-A034	Left Mount Weldment
1.1	1	SNC-A033	Right Mount Weldment
2	1	SNC-A001	Mid Mount Weldment
3	1	SNC-A005	Extension Weldment
4	4	B1/2x5.5	Hex Bolt
5	8	W1/2F	Plain Washer
6	4	N1/2NYL	Nylock Nut

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# Hydraulics

## Hydraulics



Danger!

Hydraulic Hazards: Be aware of the hazards of pressurized hydraulic:

1. Wear personal protective equipment, such as gloves and safety glasses, whenever servicing or checking a hydraulic system.
2. Assume that all hydraulic hoses and components are pressurized. Relieve all hydraulic pressure before disconnecting any hydraulic line.
3. Never try to stop or check for a hydraulic leak with any part of your body; use a piece of cardboard to check for hydraulic leaks.
4. Small hydraulic hose leaks are extremely dangerous and can inject hydraulic oil under the skin, even through gloves.
5. Infection and gangrene are possible when hydraulic oil penetrates the skin. See a doctor immediately to prevent loss of limb or death.



Danger!

### Rotating Parts

The Snout Cones will rotate when in operation

1. Establish a safe work zone when operating the Snout Cones. The safe work zone should be large enough to keep all persons at least 10 feet away from the Snout Cones when operating
2. Never allow riders on the Snout Cones
3. Never operate the snout cones without all safety shields in place.
4. Shut off the combine engine and relieve hydraulic pressure if the Snout Cones need servicing or maintenance.
5. Avoid wearing loose clothing which can easily be caught in moving parts.
6. Stop the Snout Cones immediately if any problems arise.
7. Keep hands, feet, hair, jewelry, and clothing away from moving parts.
8. Always perform maintenance/servicing of the Snout Cones on a level surface with the combine engine off and the header on the ground.

The hydraulic hoses come in a kit depending upon the size of the implement. If the implement is larger than the appropriate kit, a hydraulic hose extension kit is used to meet the required width. The hydraulic hose extension kit will attach to the current hydraulic hose and just makes the hose longer to meet the additional length requirement. See table.

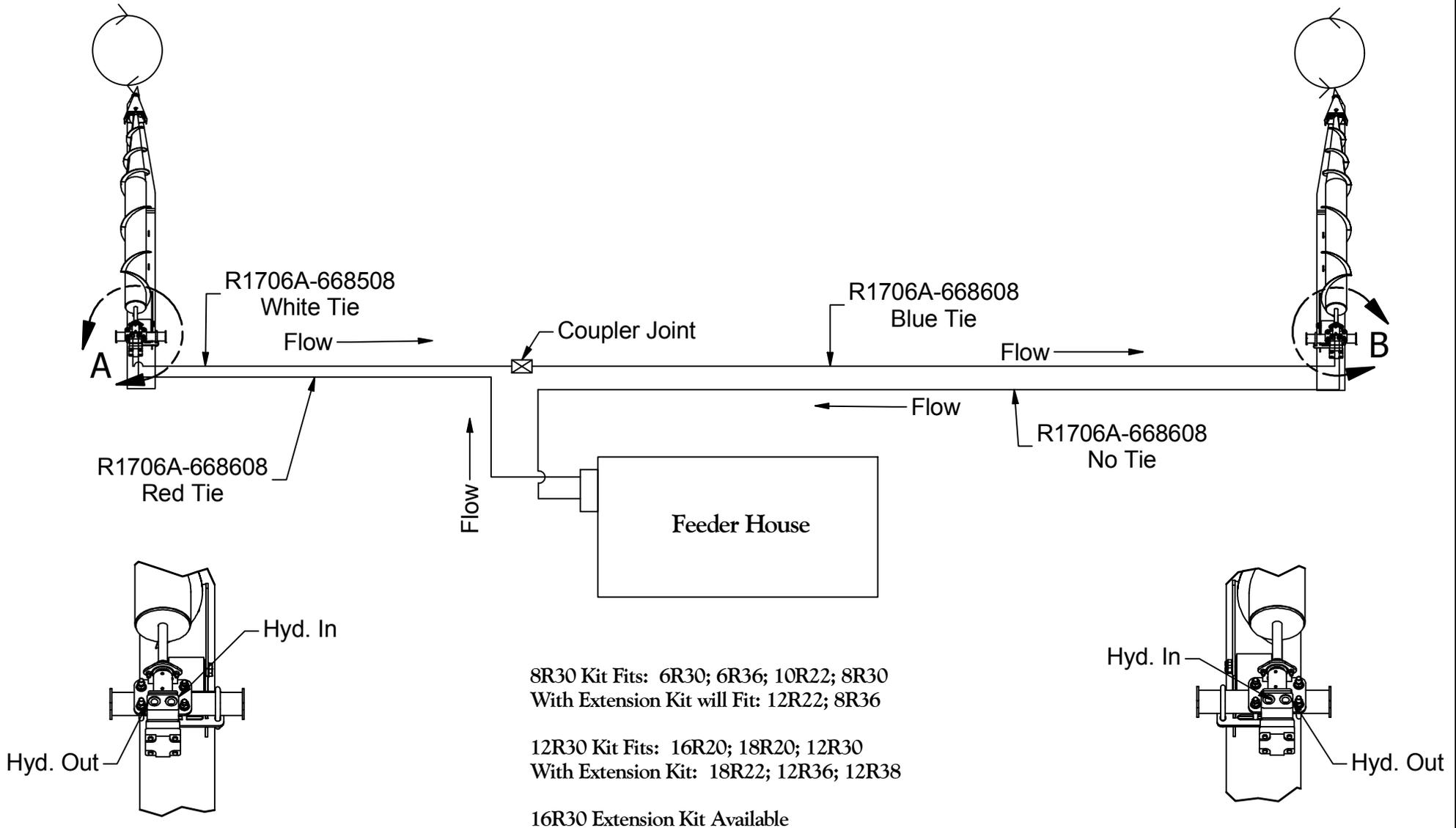
Left Side

Hydraulic Plumbing Snout Cone

Right Side

Clockwise Rotation

Counter Clockwise Rotation



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## Hydraulic Plumbing Snout Cones

The source for the hydraulics is the reel drive which is found on the side of the feeder house of the combine. The hydraulic diagram details how the hydraulic hoses are attached. The hydraulic motors will use the 6400-08-10, which is a straight fitting and converts from a #10 O-ring fitting to a #8 JIC male fitting. Use the fitting in both ports of both hydraulic motors. Be sure the fittings are tightened properly. Locate the correct hydraulic tips for the combine hydraulic system available. The adapter fitting 6400-08-10 or 6400-08-08 will adapt from the O-ring fitting of the tip to a male JIC fitting. Tighten the adapter fittings into the tips properly. Find the hose with the red tie. This hose will be the "supply" hose to the left side hydraulic motor. Attach one end of the hose to the motor adapter fitting located on the right port of the motor. This will be the hydraulic in. Now, locate the hose with the white tie. Attach the female JIC end to the adapter fitting on the left side of the hydraulic motor (hydraulic out port). Route the hose along the top frame of the combine head.

Locate the hose with the blue tie. The hose will connect to the white tie hose on one end and the other end will connect to the left side port of the right motor. The port is labeled "Hyd. In" on the diagram. The final hose to attach is the hose with no tie. This hose is the return hose to the hydraulic block of the combine. One end of the hose will connect to the right side port of the right motor labeled "Hyd. Out" on the diagram and the other end will connect to the tip that will fit into the combine port using 6400-08-10 or the 6400-08-08 adapter fitting. Check to make sure all the hydraulic connections are tight before the equipment is operated.

## Hydraulic Plumbing Reel and Snout Cones

The Snout Cones can be operated with the Crop Sweeper reel or the Corn Reel. Please refer to the "Hydraulic Plumbing Crop Sweeper to Snout Cones" diagram. The hydraulic reel motor will connect to the hydraulic oil supply from the combine using the hydraulic hose that came with the reel. Next, the return line of the reel hydraulic motor (also came with the reel) will connect to the red tie hydraulic hose of the Snout Cone kit. The JIC union will make this connection. The red tie hose will connect to the left Snout Cone motor on the right port. Locate the white tie hose from the Snout Cone kit. The white tie hydraulic hose will connect to the left port of the left Snout Cone hydraulic motor (return side). The other end of the white tie hydraulic hose will connect to the blue tie hydraulic hose that is in the Snout Cone kit. The hoses should connect together with their respective JIC connections. The blue tie hydraulic hose will connect to the right side Snout Cone hydraulic motor at the left port. The final hydraulic hose will be the hydraulic hose with no tie. Connect the hydraulic hose with no tie to the right side Snout Cone hydraulic motor at the right port. Connect the other end of this hose to the combine return line. Be sure to check all the hydraulic connections making sure they are tightened. When the test run is performed, if the reel or the Snout Cones turn in the wrong direction, check the hoses to make sure they are in the correct port.

## Snout Cones Hydraulics

SNCHK1	<u>8R30 KIT</u>			Tie Color	<u>Hose Kits for:</u>
	1	1 ea	R1706A-668608-12000	Red	6R30, 6R36, 10R22, 8R30
	2	1 ea	R1706A-668508-11400	White	
	3	1 ea	R1706A-668608-17400	Blue	With Extension Kit
	4	1 ea	R1706A-668608-19200	No tie	12R22, 8R36

SNCHK2	<u>12R30 KIT</u>				<u>Hose Kits For</u>
	1	1 ea	R1706A-668608-18000	Red	16R20, 18R20, 12R30
	2	1 ea	R1706A-668508-14400	White	
	3	1 ea	R1706A-668608-26400	Blue	With Extension Kit
	4	1 ea	R1706A-668608-25200	No tie	18R22, 12R36, 12R38

	<u>Extension Kit</u>	
SNCHK48	4 ea	R1706A-608508-04800

	<u>Extension Kit</u>	16R30 Only
SNCHK60	4 ea	R1706A-608508-06000

<u>Fittings Req'd</u>		
4 ea	6400 08 10	Male JIC x Male ORB Motors/Single point Connector
6 ea	6400 08 08	Male JIC x Male ORB Single point Connector

<u>Fittings</u>	When Connecting to Crop Sweeper	
1 ea	2403 08 08	JIC Union Male #8 Connection to crop sweeper hydraulic motor hose

<u>KEY</u>	
1	Single point connector to left side motor
2	Left motor to right motor short hose
3	Right motor to left motor long hose
4	Right motor to single point connector

## Snout Cones Hydraulics

### Hydraulic Hose Kit Key:

Hose: 1706		3/8" Diameter ( working 3000 psi)
Hose Crimp Fittings:	668	3/8" hose x #8 Female JIC Swivel, 90 Standard
	608	3/8" Hose x #8 Female JIC Swivel, Straight
	508	3/8" Hose x #8 Male JIC
EX: 668608		One end of the hose has the 668 and the other has the 608
Hose Length:	EX: 12000	120" long
	EX: 04800	48" long

## Snout Cone Operation

After the Snout Cones are completely installed, it is recommended that the Snout Cones be operated before heading to the field. Perform a pre-operational inspection every time before the Snout Cones are operated. The Snout Cones are controlled from the Reel Drive hydraulic circuit of the combine which allows for an increase or decrease in RPM.

### Pre-operational Check List:

1. Check to make sure all bolts are properly tightened.
2. Check that all hydraulic lines are properly tightened.
3. Make sure all hydraulic lines are secured and will be out of the way during operation. Check for and repair any hydraulic leaks. **DO NOT USE YOUR HANDS OR ANY BODY PART TO CHECK FOR HYDRAULIC LEAKS!**
4. Confirm the Snout Cones are in the floating position.
5. Check that the Snout Cones are adjusted for necessary clearance and will not have any obstructions.
6. Check that all guards and shields are in place and secure.
7. Confirm that all personnel are in the safe zone before starting and engaging the machine and the Snout Cones.

### First Time Operation:

1. Check to make sure that the supply hoses are in the Reel drive hydraulic circuit of the combine. If the rotations of the Snout Cones are reversed, reverse the hydraulic hose connections at the combine.
2. The hydraulic lines will need to fill with hydraulic fluid, so it may take a short time before the Snout Cones will start to operate.
3. The Snout Cones should be operated at a low RPM to make sure all connections are correct, confirm no leaks, and for correct clearance.
4. Increase and decrease the RPM of the reel and confirm that the Snout Cones adjust accordingly.

### Sitting in the operator seat:

The left Snout Cone should rotate to the right (clockwise) and the right Snout Cone should rotate to the left (counter clockwise).

Once the Snout Cones have passed the pre-operational check list and are working correctly, they are ready for field operation.

## Snout Cone Field Operation

When the head is engaged for operation, the Snout Cones will start rotating as well. The Snout Cones will need to be in the floating position for field operation. This position allows the Snout Cones to move with the end corn snout if it should have to move.

The RPM of the Snout Cones can be adjusted with the reel speed control in the operator's area of the machine. Set the RPM for what works the best in the given field conditions.

# Minden Machine Shop Inc

## LIMITED WARRANTY

Minden Machine Shop Inc warrants all products manufactured by it to be free of defect in material and workmanship for a period of one (1) year from the date of purchase.

This Minden Machine Shop Inc. warranty does not cover:

1. Parts and accessories supplied by Minden Machine Shop Inc. but manufactured by others. Minden Machine Shop Inc. will facilitate the other manufacturer warranty for the benefit of the purchaser but will not be bound thereby (example: augers, motors, trailers, tanks, etc.).
2. Products that have been altered by anyone other than a Minden Machine Shop Inc. employee or are used by the purchaser, for purposes other than what was intended at time of manufacture or used in excess of the “built specifications”.
3. Products that are custom manufactured by Minden Machine Shop Inc. utilizing the purchaser’s design which deviates from Minden Machine Shop Inc. normal production line manufactured or customized features of the products.
4. Malfunctions or damages to the product from misuse, negligence, customer alteration, accidents, or product abuse due to incoming material or poor material flow ability or lack of required performance or required maintenance (e.g., poor material flow ability caused by incoming wet fertilizer or hot soybean meal, etc).
5. Loss of time, inconvenience, loss of material, down time or any other consequential damage.
6. Product use for a function that is different than designed intent (e.g., storing soybean meal in grain bin, unacceptable material in the bin such as hot bean meal when product originally designed for other application, etc).
7. Minden Machine Shop Inc is not responsible for any equipment that this product is attached to or mounted on.

To activate this warranty, the purchaser must make contact in writing with Minden Machine Shop Inc. within one (1) year of date of purchase. After contact, Minden Machine Shop Inc. has the right to determine the cause and qualify the legitimacy of the claim. Minden Machine Shop Inc., upon acceptance of a warranty claim, shall have a reasonable time to plan any repair or replacement and may affect repair or replacement out of its factory or through contract with a local repair service. If a purchaser, after warranty notice is made, chooses to make the repair itself, Minden Machine Shop Inc. must approve any expenses before they are incurred to be responsible for customer reimbursement. Minden Machine Shop Inc. shall be liable on a warranty claim for repair or replacement of any defective products and this is the purchaser’s sole and exclusive remedy. Minden Machine Shop Inc. will not be liable for any other or further remedy including claims for personal injury, property damage or consequential damage. The law of the State of Nebraska shall govern and any such claim and any issues with regard to the same shall be resolved in the Nebraska District Court for the county of Kearney.

## RETURN OF MERCHANDISE

Merchandise may not be returned without written approval from the factory. All returns must have a return authorization number. Obtain this number before the return and show it on all return items. A 15% restocking charge is made on merchandise returned. Returned merchandise must be shipped pre-paid.

## RECEIVING MERCHANDISE AND FILING CLAIMS

When receiving merchandise, it is important to check both the number of parts and their description with the packing slip. The consignee must make all claims for freight damage or shortage within 10 days from the date of delivery.

When the material leaves the factory, it becomes the property of the consignee. It is the responsibility of the consignee to file a claim on any possible damage or loss. Please list your preferred routing on purchase orders.

## MODIFICATIONS

It is the policy of Minden Machine Shop Inc. to improve its products whenever possible and practical to do so. We reserve the right to make changes, improvements and modifications at any time without incurring the obligation to make such changes, improvements and modifications on any equipment sold previously

# WARRANTY REGISTRATION

To register equipment, or file a claim, fill out the appropriate information completely, copy and email it to [larry@mindenmachine.com](mailto:larry@mindenmachine.com) with the subject as EQUIPMENT WARRANTY, or fill it out and fax it to 308-832-1340 or fill the form out and mail to:

Minden Machine Shop, Inc  
PO Box 356  
Minden, NE 68959

**Dealer Information:** Not Applicable, check here: [ ]

Dealer Name:

Address:

City:

State:

Zip Code:

Phone #:

Email:

**End User Information:**

Purchaser:

Address:

City:

State:

Zip Code:

Phone #:

Email:

Equipment:

Serial #:

Date Of Purchase:     /     /