

**VARIABLE ANGLE AUGER CONNECTOR
USED WITH LOWBOY
UNLOADING AUGERS**

**OWNER'S & OPERATOR'S
MANUAL**

Effective September 29, 1997

Publication No. 1008469



Hutchinson/Mayrath

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POLICIES AND PROCEDURES

- PRICES:** Prices in effect at time of shipment will apply. Prices are subject to change without notice. All prices are F.O.B. Clay Center, Kansas. Orders shipped from locations other than Clay Center, Kansas will be subject to additional charges, such as back freight and/or additional freight.
- SERVICE CHARGE:** A service charge will be assessed on all past due balances as permitted by state law not to exceed 1-1/2% per month.
- MINIMUM ORDER:** Processing and handling costs necessitate a minimum charge of \$15.00 net on all orders.
- BACK ORDERS:** Back orders will be shipped as they become available. Contact Hutchinson/Mayrath Customer Service for alternative shipping options or if cancellation is desired.
- DAMAGED GOODS:** It is the consignee's responsibility to check all shipments thoroughly upon receipt of goods. If any damage is discovered, it must be noted on the freight bill of lading before signing. The consignee must make necessary claims against the respective freight line. All damage claims must be submitted within 30 days of delivery receipt.
- SHORTAGES:** All shortages must be noted at time of delivery receipt. Shortages must be noted on the freight bill of lading before signing. Hutchinson/Mayrath must be advised of all concealed shortages upon discovery. Once notified of concealed shortages Hutchinson/Mayrath will advise corrective action to be taken.
- RETURN OF GOODS:** All returns must be approved by Hutchinson/Mayrath prior to shipment. All return requests will be issued a return authorization number. **NO RETURNS WILL BE ACCEPTED WITHOUT A RETURN AUTHORIZATION NUMBER AND PRIOR AUTHORIZATION FROM THE FACTORY.** All returns must be shipped prepaid. A 15% restocking charge will be applied to all returned merchandise. Custom Products may not be returned for credit. Only current products in new and salable condition may be returned. No safety devices may be returned for credit.
- MODIFICATIONS:** It is the policy of Hutchinson/Mayrath to improve its product 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.
- LIMITED WARRANTY:**
- (a) For a period of (1) year after receipt of goods by the original consumer buyer, Hutchinson/Mayrath will supply free of charge replacement parts for parts that prove defective in workmanship or material. Defective parts must be returned freight prepaid to a specified Hutchinson/Mayrath location. Only Hutchinson/Mayrath original repair parts may be used for warranty repairs.
 - (b) This limited warranty does not extend to parts designed to wear in normal operation and be replaced periodically; or to damage caused by negligence, accident, abuse or improper installation or operation.
 - (c) **GOODS NOT MANUFACTURED BY HUTCHINSON/MAYRATH CARRY ONLY THE MANUFACTURER'S WARRANTY.**
 - (d) **THIS UNDERTAKING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**
- FAILURE TO FOLLOW THE INSTRUCTIONS CONTAINED IN THE OWNER'S & OPERATOR'S MANUALS AND THE ITEMS LISTED BELOW WILL RESULT IN THE VOIDING OF THIS LIMITED WARRANTY.**
- 1) Improper assembly, including failure to properly install all safety equipment.
 - 2) Improper installation (power & wiring included).
 - 3) Unauthorized alterations of goods.
 - 4) Goods operated when obviously in need of repair.
 - 5) Use of unauthorized repair parts.
 - 6) Irresponsible operation.
 - 7) Used to handle materials other than free flowing, non-abrasive and dry materials, as intended.
 - 8) Damaged through abusive use or accident.
- LIMITATION OF LIABILITY:** BUYER AGREES THAT IN NO EVENT SHALL HUTCHINSON/MAYRATH HAVE LIABILITY FOR DIRECT DAMAGES IN EXCESS OF THE CONTRACT PRICE OF THE GOODS IN RESPECT OF WHICH CLAIM IS MADE. BUYER FURTHER AGREES THAT IN NO EVENT SHALL HUTCHINSON/MAYRATH ON ANY CLAIM OF ANY KIND HAVE LIABILITY FOR LOSS OF USE, LOSS OF PROFITS, OR FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

GENERAL SAFETY STATEMENT

This manual was written with the safety of the operator and others who work with the equipment as our prime concern. The instructions presented will help the reader learn SAFE day to day work practices. We want you as our partner in safety.

It is your responsibility as an owner, operator or supervisor to know what specific safety requirements and precautions exist and to make these known to all other personnel working with the equipment or in the area, so that they too may safely perform their duties and avoid any potentially hazardous situations.

Please remember safety equipment provides important protection for persons around a grain handling system that is in operation. Be sure that ALL safety shields and protection devices are installed and properly maintained. If any shields or guards are damaged or missing, contact your dealer to obtain the correct items.

Avoid any alterations of the equipment. Such alterations may create a dangerous situation where serious injury or death may occur.

SAFETY ALERT SYMBOL

The symbol shown below is used to call your attention to instructions concerning your personal safety. Watch 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.



BE ALERT! YOUR SAFETY IS INVOLVED.

WARNING



Anyone who will operate or work around this machine shall first read this manual! This manual must be delivered with the equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

OPERATOR QUALIFICATIONS

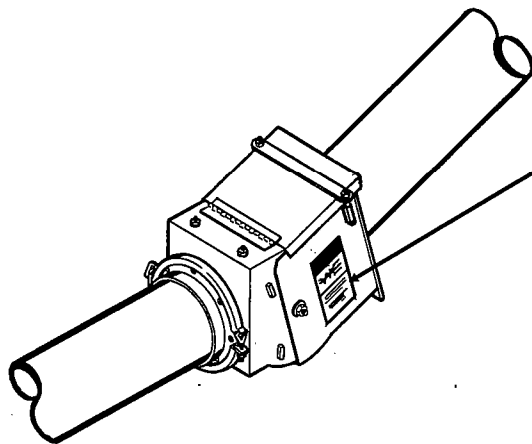
Operation of this auger shall be limited to competent and experienced persons. In addition, anyone who will operate or work the auger must use good common sense. In order to be qualified, he must also know and meet all other requirements, such as:

1. Some regulations specify that no one under the age of 16 may operate power machinery. This includes augers. It is your responsibility to know what these regulations are in your own area or situation.
2. Current OSHA regulations state in part: "At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee 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 instructions is not qualified to operate the auger system.

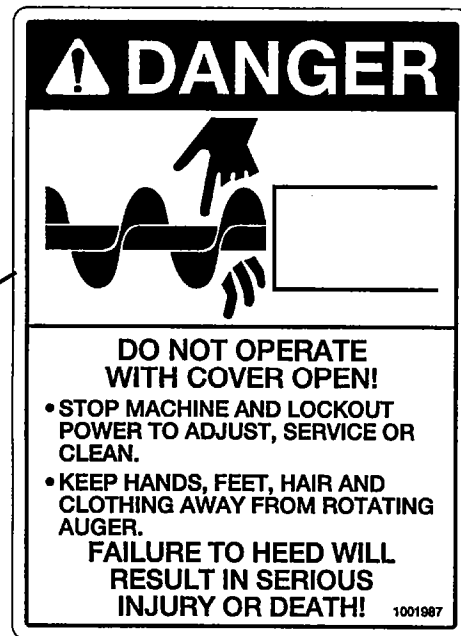
*Federal Occupation Safety & Health Standards for Agriculture Subpart D, Section 1928.57(a)(6).

SAFETY DECALS

Check components as specified below to insure that safety decals are present and in good condition. If a decal cannot be easily read for any reason or has been painted over, replace it immediately. Decals may be ordered through your dealer.



02390A1



"DANGER - DO NOT OPERATE WITH COVER OPEN"

DECAL NO. 1001987

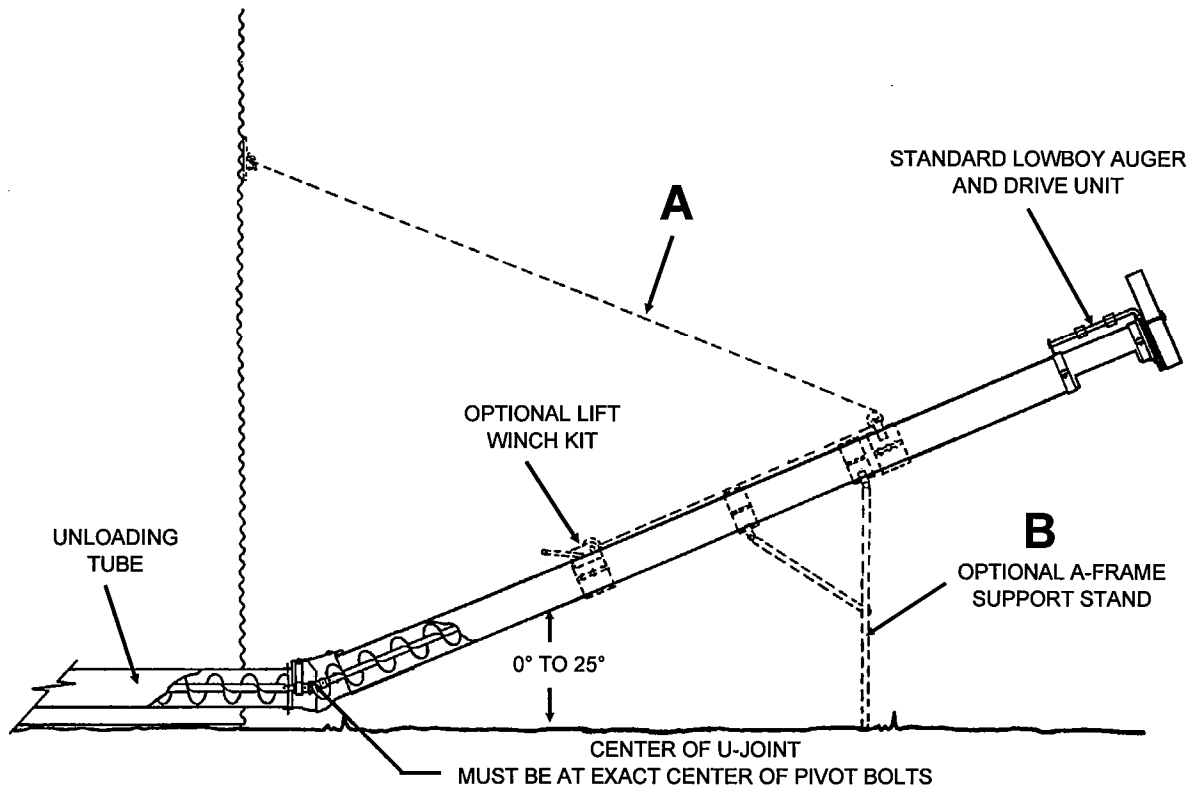
Color red & white

Size - 4" x 5 1/2"

One safety decal is located
on each side of connector box.

INSTALLATION

The Variable Angle Auger Connector has numerous applications. With an operating range of 0° to 25°, it can fill many needs. The input side will attach to standard flange rings, thus allowing connection to Hutchinson's standard bin unloading flight and tubes. The output side of the connector box can bolt to the lowboy tube flange.



The drawing above shows a connector box attached to unloading tube and flight on the input side and to a lowboy power head on the output side.

INCLINED AUGER SUPPORT

NOTE: The connector box cannot support the weight of the auger system attached to the output side of the connector box.

The drawing above shows two different methods of supporting the inclined auger.

- A. Optional winch kit provides an easy means to adjust the discharge height of the inclined auger. The kit includes winch, winch mount, roller assembly, roller assembly mounts, lift cable and hardware.

NOTE: (1.) The connector box will not raise higher than 25°. (2.) Loosen lid strap on connector box before raising or lowering the inclined auger.

- B. Optional A-frame support stand provides a band-on solid support for an inclined auger. The frame can be banded on at different point along the auger housing to achieve various operating angles.

INSTALLATION - CONT.

CONNECTOR BOX ANGLE ADJUSTMENT



**DO NOT ADJUST ANGLE WHILE AUGER IS IN OPERATION.
STOP MACHINE AND LOCKOUT POWER TO ADJUST, SERVICE OR CLEAN.**

1. First loosen the cover strap on the connector box before changing the angle of operation.
2. Change angle of the inclined auger, by resupporting the inclined auger at the desired angle.
NOTE: The inclined auger must always be supported. The connector box cannot support the weight of the auger system attached to the output side of the connector box.
3. Check to see if the u-joint is centered with pivot bolts, or if the input flight is rubbing on the bearing or bearing hanger on the inside of the connector box.
4. Close cover and secure the cover strap.



DO NOT OPERATE WITH COVER OPEN!

HORSEPOWER FOR AN AUGER SYSTEM WITH AN INCLINED DISCHARGE

Use the chart below to figure the horsepower required for the auger system.

1. Determine the overall length of auger system (horizontal plus inclined unit).
2. Multiply the total auger system length by the horsepower per foot from the chart below.
3. Round up HP to next common size motor.

AUGER DIA.	6"	8"	10"
Per foot Horsepower Multiplier	.1	.15	.23

The horsepower recommendations are for augering reasonably dry grain at varying angles. High moisture grain (above 15%) will require greater power and maximum possible capacity will be less with high moisture grain than with dry grain.

- Example - 6" Unit:
1. 16' Horizontal portion and 11' inclined portion = 27' total length of auger system
 2. $27 \times .1 = 2.7$ HP
 3. Rounded up to 3 HP motor.

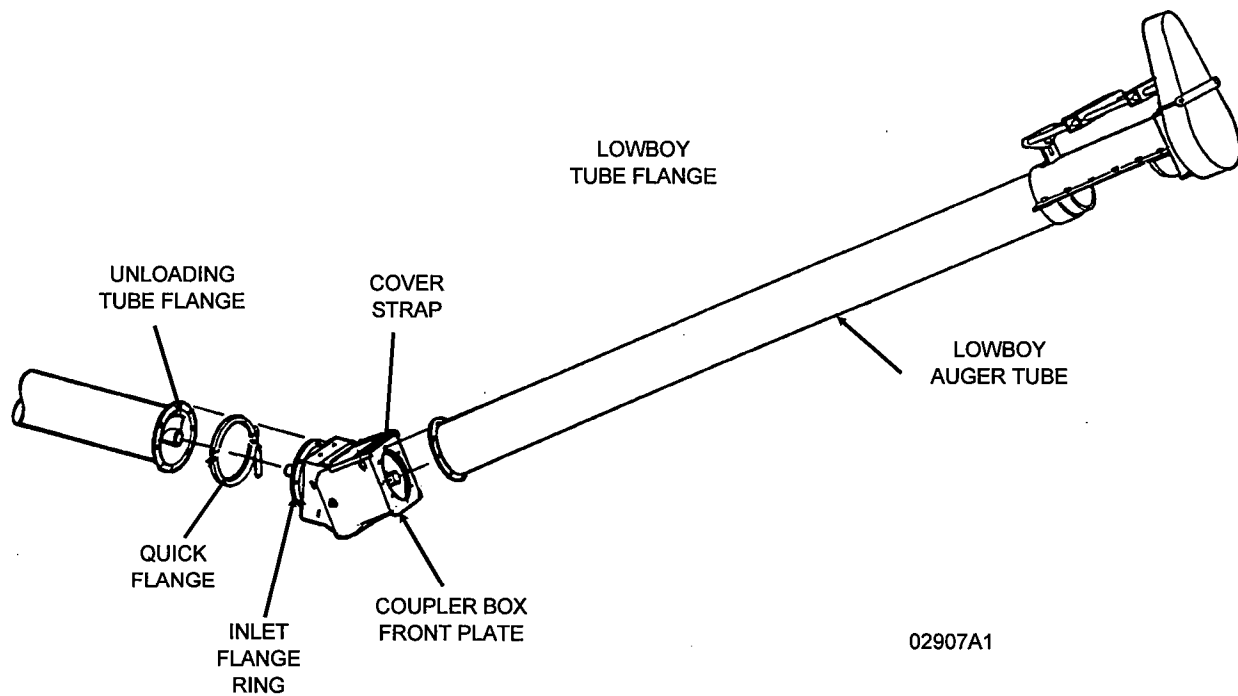
IMPORTANT:

Refer to the Operator's Manual received with the unloader equipment for information on operating procedures (such as start-up & break-in, full load operation, shutdown, lockout, power source and trouble shooting.)

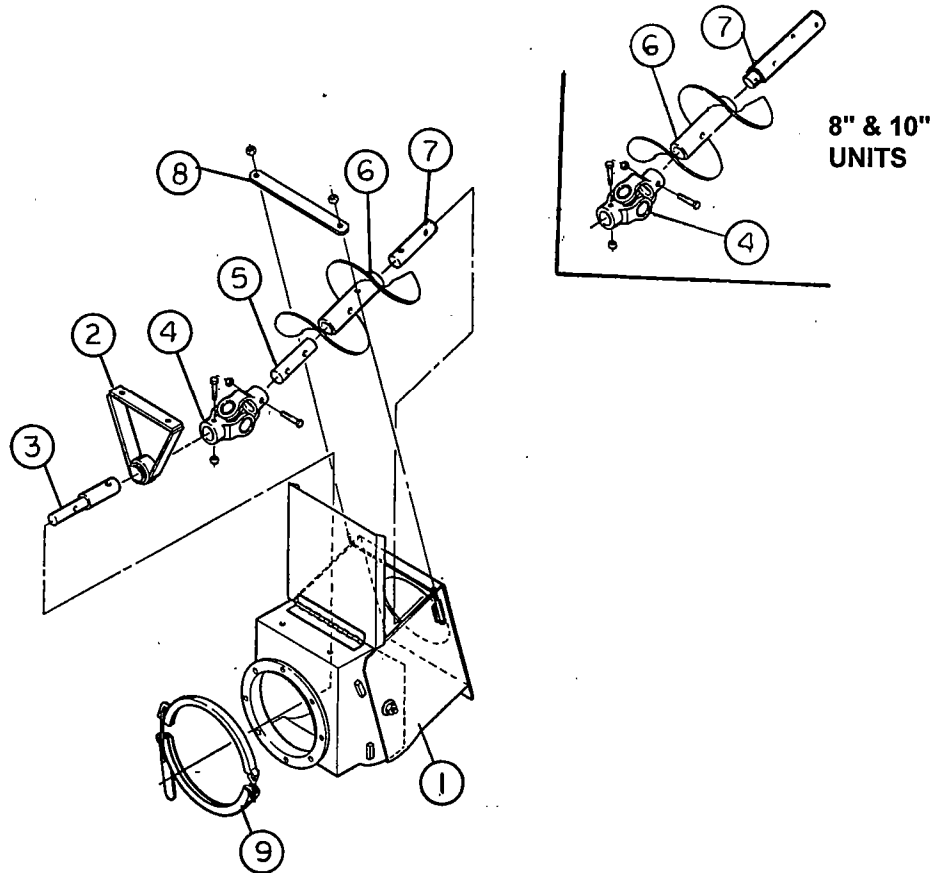
ASSEMBLY STEPS

1. Fasten the bin unloading flight to inlet stub.
2. Attach the box weldment inlet flange to the unloading tube flange. Use the quick clamp provided or bolt the flanges directly together.
3. Remove cover strap.
4. Attach the lower end of lowboy auger flight to outlet connecting stub. Replace cover strap.
5. Bolt the lowboy tube flange to the front of the coupler box.

NOTE: The connector box can **not** support the weight of the auger system attached to the output side of the connector box. See page 3 for possible ways of supporting the auger system.



PARTS LIST



REF. NO.	PART NO.	DESCRIPTION
1	---	Box Weldment
	1006620	w/6" Inlet Flange
	1006594	w/8" Inlet Flange
	1006648	w/10" Inlet Flange
2	---	Bearing Hanger w/Bronze Brg.
	1004169	f/6" (1" I.D.)
	1006598	f/8" (1 1/4" I.D.)
	1006556	f/10" (1 1/2" I.D.)
3	---	Inlet Stub
	54740	f/6" (13/16" to 1" x 5 3/8" lg.)
	54982	f/8" (1" to 1 1/4" x 7 7/8" lg.)
	1006562	f/10" (1 1/4" to 1 1/2" x 8 1/8" lg.)
4	---	U-Joint
	6340A	1" to 1" Bore (6N) f/6" & 8"
	1014J	1 1/4" to 1 1/4" Bore (12N) f/10"
5	1006644	U-Joint Stub f/6" only (1" x 3 3/4" lg.)

REF. NO.	PART NO.	DESCRIPTION
6	---	Flight Weldment
	1006601	f/6"
	1006602	f/8"
	1006583	f/10"
7	---	Connecting Stub
	1008470	f/6" Lowboy
	1008471	f/8" Lowboy
	1006555	f/10" Lowboy
8	---	Cover Strap
	1006604	f/6" (9 1/2" lg.)
	1006603	f/8" (10 3/16" lg.)
	1006564	f/10" (12 1/8" lg.)
9	---	Quick Clamp Assembly
	1130C	f/6"
	1230C	f/8"
	1330C	f/10"



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