6” & 8” HORIZONTAL POWER HEAD (CE)

OWNER’S & OPERATOR’S MANUAL

Effective September 30, 2008 **Publication No. 1027800-CE**

MODEL NO’S.

B11791A - 6” 1-Belt
B11801A - 6” 2-Belt
B11802A - 6” 3-Belt

B12790A - 8” 1-Belt
B12800A - 8” 2-Belt
BJ08240DH - 8” 2-Belt
BJ08540DH - 8” 3-Belt

CE

Hutchinson/Mayrath
A Division of GLOBAL Industries, Inc.

Hutchinson/Mayrath • P.O. Box 629 • Clay Center, KS. 67432
Ph. 785–632–2161 • Fx. 785–632–5964 • Toll Free 800–523–6993

Hutchinson/Mayrath

*A Division of **GLOBAL** Industries, Inc.*

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 for 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. 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 ti me 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.
(3) Unauthorized alternations 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, nonabrasive 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 THE 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.

SAFETY

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 **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.

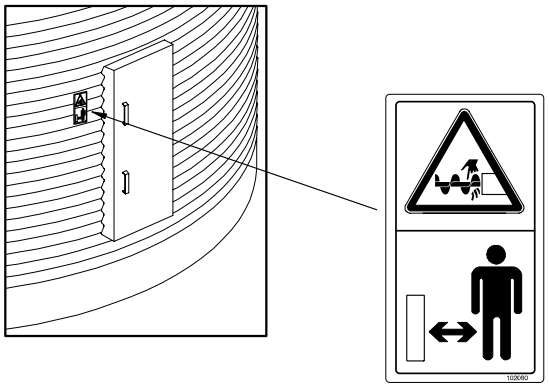
Watch this symbol - it points out important safety precautions. It means - **ATTENTION! Become alert! Your personal safety is involved!** Read the message that follows the symbol when a warning is given, be alert to the possibility of personal injury or death.

BE ALERT!
YOUR SAFETY IS INVOLVED

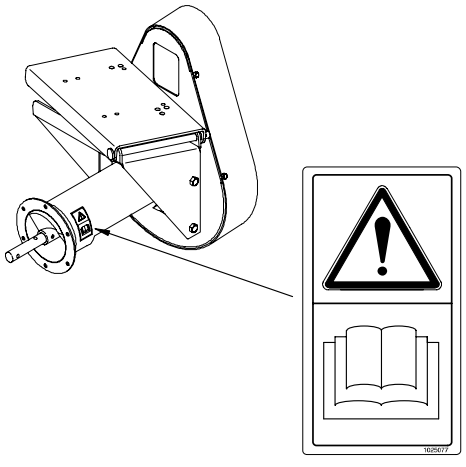
SAFETY DECALS

Check to ensure all Safety Decals are present and in good condition. If a decal cannot easily be read for any reason, or has been painted over, replace the decal immediately. Safety decals are offered free of charge, and can be ordered through your Hutchinson/Mayrath dealer.

Decal No. 1025080 (shown below) is supplied with the silo unloading equipment. This danger sign should be applied to the side of the silo near the opening so it will be viewed by people entering the silo or storage building.



Danger Decal,
Part No. 1025080
Rotating Flight
Never Enter Silo Unless All Power is Disconnected and Locked Out



Caution Decal,
Part No. 1025077
Read and Understand Operator's Manual Before Operating Unit

TABLE OF CONTENTS

OPERATOR QUALIFICATIONS

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.

Operation of this auger shall be limited to competent and experienced persons. In addition, anyone who will operate or work around an auger must use good common sense. In order to be qualified, the operator 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 this auger. It is your responsibility to know what these regulations are in your 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 safe operation and servicing of all equipment which the employee is, or will be involved with.”*
3. Unqualified persons are to stay out of the work area. See page 4.
4. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine.

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

SIGN-OFF SHEET

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

DATE	EMPLOYER SIGNATURE	EMPLOYEE SIGNATURE

MACHINE INSPECTION

Our augers are well made and we are proud of our line of equipment. We would like you, as our customer, to do your part in using caution and good judgement in using our equipment, as well as any other machinery.

After delivery of your new auger and/or completion of assembly and before each use, inspection of the machine is mandatory. Use the assembly instructions in this manual as a reference to determine that the auger is assembled properly. This inspection should include, but not be limited to:

1. Check to see that all guards listed in the assembly instructions are in place, secured and functional.
2. Check all safety signs (decals) and replace any that are worn, missing or illegible. Safety signs may be obtained free of charge from your dealer or ordered from the factory.
3. Check ***all*** fasteners; nuts, bolts, set screws etc. for tightness.
4. Are drive belts properly adjusted (See Maintenance Section).

Obtain any needed replacement parts from your dealer and install *before* using the machine.

MACHINE FEATURES

6" MODELS

- **Housing** - 6" x 16 gauge galvanized. 406 mm (16") long, flanged on both sides.
- **Flight** - 11 gauge on 1" shaft (1-Belt Drive). 11 gauge on 1 1/4" O.D. Tube (2 & 3-belt Drive).
- **Capacity** - Up to 41 tph (1500 bph)

8" MODELS

- **Housing** - 8" x 14 gauge galvanized. 610 mm (24") long, flanged on both sides.
- **Flight** - 7 gauge on 1.9" O.D. Tube
- **Capacity** - Up to 68 tph (2500 bph)

The horizontal unloading kit includes a section of flanged tubing (with flight and stubs) which bolts to the flange on the unloading tube. The motor is mounted on top of the flanged tube. All mounts are designed to take the proper size motor.

The head bearing is sealed and self-aligning.

Drive parts include auger sheave and "B" belts for dependable service.

ELECTRIC DRIVE

The kW power recommendations are based on clean, dry shelled corn or wheat. High moisture grain (above 15%) will require greater power. The maximum possible capacity will be less with high moisture grain than with dry grain.

kw Power Requirements
6" (15.2 cm) Horizontal Power Head
w/Electric Motor Drive

Silo Diameter	Used with Standard Unloading Flight	Used with Power Sweep Units
4.27 m – 4.88 m (14' – 16')	.560 kw (.75 hp)	2.26 kw (3 hp)
5.18 m – 5.79 m (17' – 19')	.745 kw (1 hp)	2.26 kw (3 hp)
6.10 m – 6.71 m (20' – 22')	.745 kw (1 hp)	2.26 kw (3 hp)
7.01 m – 7.65 m (23' – 25')	.745 kw (1 hp)	2.26 kw (3 hp)
7.92 m – 8.53 m (26' – 28')	1.12 kw (1.5 hp)	3.73 kw (5 hp)
8.84 m – 9.45 m (29' – 31')	1.50 kw (2 hp)	3.73 kw (5 hp)
9.75 m – 10.36 m (32' – 34')	1.50 kw (2 hp)	3.73 kw (5 hp)
10.67 m – 11.28 m (35' – 37')	1.50 kw (2 hp)	3.73 kw (5 hp)

kw Power Requirements
8" (20.3 cm) Horizontal Power Head
w/Electric Motor Drive

Silo Diameter	Used with Standard Unloading Flight	Used with Power Sweep Units
4.27 m – 4.88 m (14' – 16')	1.12 kw (1.5 hp)	2.26 kw (3 hp)
5.18 m – 5.79 m (17' – 19')	1.50 kw (2 hp)	2.26 kw (3 hp)
6.10 m – 6.71 m (20' – 22')	1.50 kw (2 hp)	3.73 kw (5 hp)
7.01 m – 7.65 m (23' – 25')	2.26 kw (3 hp)	3.73 kw (5 hp)
7.92 m – 8.53 m (26' – 28')	2.26 kw (3 hp)	3.73 kw (5 hp)
8.84 m – 9.45 m (29' – 31')	3.73 kw (5 hp)	3.73 kw (5 hp)
9.75 m – 10.36 m (32' – 34')	3.73 kw (5 hp)	3.73 kw (5 hp)
10.67 m – 11.28 m (35' – 37')	3.73 kw (5 hp)	3.73 kw (5 hp)
12.50 m – 13.11 m (41' – 43')	3.73 kw (5 hp)	5.60 kw (7.5 hp)
14.33 m – 14.94 m (47' – 49')	3.73 kw (5 hp)	5.60 kw (7.5 hp)

DESIGNATED WORK AREA

Before starting the auger, a designated work area should be established around it. This area shall be marked off with colored rope, or banners, hung as a portable barrier to define the work area.

WARNING! Under no circumstances should persons not involved in the operation be allowed to trespass into the work area.

It shall be the duty of the operator to see that children and/or other persons stay out of the work area! Trespass into the work area by anyone not involved in the actual operation, or trespass into a hazard area by anyone, shall result in an immediate shut down by the operator.

It shall be the responsibility of the operator to see that the work area has secure footing, is free of debris and tools that may cause accidental tripping or falling. It shall also be their responsibility to keep the work area clean and orderly during the operation.

FLIGHT SPEED INFORMATION

Proper auger flight speed is important for efficient operation of the auger.

1. If the flight speed is too fast, excessive wear will result (See chart below).
2. If the flight speed is too slow and the auger flighting is permitted to "load-up", high torque will be required to turn the auger flighting, this can result in damage to the auger. Use the center well slide-gate to control the amount of grain fed into the unloading tube.

ELECTRIC DRIVE POWER REQUIREMENTS

The conveyor can also be operated using an electric drive motor. Always use a motor with the required power recommended in the chart below. Use a 50 Hz motor that operates at 1460 RPM.

Electric motors and controls shall be installed by a qualified electrician and must meet the standards set by the National Electric Code and all local and state codes.

A magnetic starter should be used to protect your motor when starting or stopping. It should stop the motor in case of power interruption, conductor fault, low voltage, circuit interruption and/or motor overload. The motor should then be restarted manually.

WARNING! A main power disconnect switch that can be locked in only the "OFF" position shall be provided. This shall be locked whenever work is being done on the auger.

The reset and starting controls must be located so that the operator has full view of the entire operation.

***Do Not* enter the grain silo unless all power driven equipment has been shut down and locked out.**

Make certain electric motor is grounded.

Disconnect power before resetting motor overloads.

Shut off power and lockout whenever cleaning or servicing the auger.

Model	Motor Pulley Dia.*	Drive Pulley Dia.	Recommended Auger Speed	Auger Speed Range
6" Standard and Power Sweep Units	102 mm O.D. (4.0" O.D.)	305 mm O.D. (12" O.D.)	487 RPM	450 to 700 RPM
8" Standard Silo Unloader	89 mm O.D. (3.5" O.D.)	305 mm O.D. (12" O.D.)	426 RPM	425 to 600 RPM
8" Unloader for Power Sweep Units	102 mm O.D. (4.0" O.D.)	381 mm O.D. (15" O.D.)	390 RPM	325 to 500 RPM

*** Motor pulleys are not furnished with the auger.**

O.D. = Outside Diameter

BREAK-IN INFORMATION

Any screw type auger when it is new or after it sits idle for a season should go through a "break-in" period. The auger should be run at partial capacity until several hundred tons of grain have been augered to polish the flight and housing. Once this is accomplished, the auger can be run at full capacity.

Never operate the auger when empty for any length of time as excessive wear will result. If at all possible, do not stop or start the auger under load, especially before the flight and housing have become well polished, as this may cause the auger to freeze-up.

OPERATING CAPACITIES

The results or capacities of screw type augers can vary greatly under varying conditions.

Different materials, moisture content, amount of foreign matter, methods of feeding and flight speed all play a role in the performance of the auger.

Twenty-five percent (25%) moisture could cut capacity back by as much as forty percent (40%) under some conditions.

After initial break-in period, and with auger operating at recommended RPM, the 6" auger can achieve a capacity up to 41 TPH (1500 BPH), the 8" auger can achieve a capacity up to 68 TPH (2500 BPH).

START-UP INFORMATION

WARNING! Make certain everyone is clear before operating the equipment.

The operator shall be aware of any unusual vibrations or noises that would indicate the need for service or repair.

Keep all safety shields and devices in place.

Keep hands, feet and clothing away from moving parts.

The operator should have a full view of the entire auger work area and check that all personnel are clear of the designated work area before adding power.

Start-Up Information (con't.)

Start the electric motor that operates the auger, then begin to gradually open the slide gate in the center well. It should not be necessary to open the gate more than 76 mm to 15.2 cm (3" to 6") to acquire a full load. ***Do Not*** overload the auger by opening the slide gate too far.

During the operation of the auger, one person shall be in a position to monitor the operation. Inspect the drive before adding power and know how to shutdown in an emergency (See Shutdown/Lockout). Visually inspect the auger periodically during operation.

IMPORTANT: BEFORE FILLING SILO

Before filling the silo with grain, make sure all slide gates on all wells are closed. If the gates are left open, the wells will fill with grain. Upon start-up, the unload auger would be **under load,** this can result in damage to the auger, the motor or both. Such damage would be considered abuse of the equipment and will void the warranty.

TROUBLE SHOOTING

LOW CAPACITY

- The auger may not be getting enough grain. Check to see that the slide gates are opened.
- Check auger speed. Speeds slower than the recommended RPM's will result in low capacity.

AUGER VIBRATION

- Drive belt may be over tightened, putting head stub and flight in bind, thus causing the noise. Damage usually occurs because of foreign material having been run through the auger. It may be necessary to remove the flighting for inspection.

AUGER PLUGGING

- The auger may be getting too much grain, causing "jamming" inside the housing.
- The motor may be too small or wired improperly.
- Is the auger free of foreign material such as sacks, tarp corners etc? A plug at the discharge end will cause the auger to plug.
- Grain is high in moisture. Excessive feeding of high moisture grain can cause plugging. If wet grain or hard to move material is being augered, use a larger size motor than what is recommended for normal use (See power requirement charts on Page 4).

FULL LOAD OPERATION

WARNING! Observe the work area restrictions.

Make certain everyone is clear of the area before operating the equipment.

To Start Auger

1. Start the electric motor before augering grain.
2. Open the center well slide gate gradually until desired flow is established, it should not be necessary to open the gate more than 76 mm to 15.2 cm (3" to 6") to acquire full load.

   ***Do Not* overload the auger. Starting the auger under load may result in damage to the auger.**
3. If intermediate wells are being used, they should be opened ***after*** grain has stopped flowing into the center well.

To Stop Auger

1. Close the slide gate(s) to allow auger to empty before stopping.
2. Once auger has cleared, shut off electric motor and lockout the power source.

Do Not enter the silo if the grain has "Bridged" or has not flowed normally out of the silo, See Fig's. 1 and 2. The grain may suddenly break loose and bury resulting in suffocation.

Do Not enter the silo unless all power driven equipment has been shutdown and locked-out.

Never enter the silo unless monitored by another person.

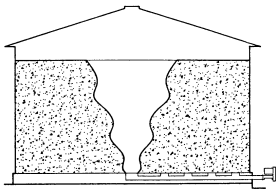


Fig. 1
(Abnormal Flow)

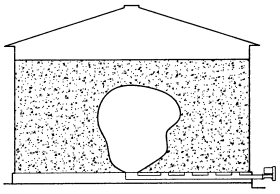


Fig. 2
("Bridging")

SHUTDOWN/LOCKOUT

EMERGENCY SHUTDOWN

Should the auger be immediately shutdown under load, **disconnect** and **lockout** the power source.

Close the center and intermediate slide gates. Clear grain away from the discharge opening.

Reconnect the power source and run the auger to clear the grain. ***Never*** attempt to start when under load.

CAUTION! Starting the unit under load may result in damage to the conveyor. Such damage is considered abuse of the equipment and will not be warranted.

NORMAL SHUTDOWN

When shutting down the auger, close all slide gates and allow the unloading auger to clean out before stopping the unit.

Before the operator leaves the work area, the power source shall be locked-out (See "Lockout").

INTERMITTENT SHUTDOWN

When an auger is stopped and restarted while under full load, it may result in damage to the auger. Therefore, if intermittent operation is to be carried out, it is advisable to reduce the load level.

If an auger is kept from absolute filling, it will make start-up easier and will convey grain more efficiently.

LOCKOUT

The power source shall have a main disconnect box that can be locked only in the "Off" position. This is what "shutdown and lockout" refers to, shut off the main power source and lock the handle or breaker switch in the "Off" position.

WARNING! If the operator must leave the work area, or whenever servicing or adjusting, the conveyor must be stopped and the power source turned off and locked out.

Precaution should be made to prevent anyone from starting or operating the conveyor when the operator is absent from the work area.

6" HORIZONTAL POWER HEAD
(1-BELT DRIVE)

The assembly instructions will show a number in parenthesis ( ), this number refers to the item shown in the assembly illustration.

1. Bolt the head bearing (4) and retainers (3) to the head plate (2) using three 5/16" x 3/4" carriage bolts, lockwashers and non-lock nuts.
2. Install the head flight (5) into the housing (1) and insert the shaft through the bearing previously installed (*Do Not* tighten the locking collar on the bearing at this time).
3. Secure the head plate (2) to the end of the housing flange (1) using six 5/16" x 1" bolts, flat washers and nylon locknuts.
4. Attach the belt guard back (6) to the head plate using the four square holes in the belt guard that are closest to the large round hole in the center of the guard.

   Secure the belt guard back using four 3/8" x 3/4" carriage bolts and nylon locknuts.
5. Position the sheave (7) with the hub facing towards the head plate. Slide the sheave onto the flight shaft while aligning the holes in the hub with the holes in the shaft.

   Secure the sheave to the flight shaft using the roll pin (8) provided.

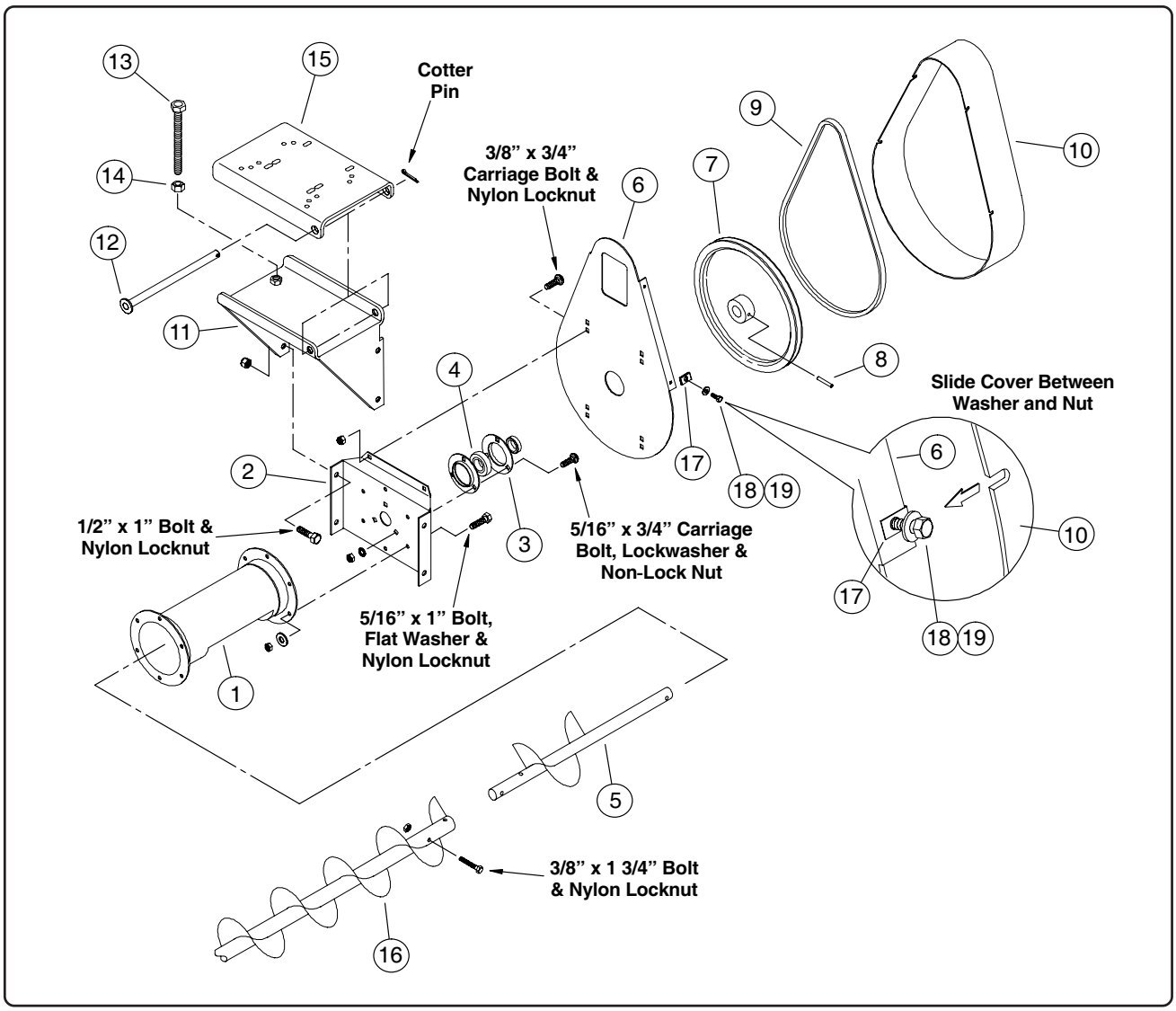


Fig. 3

6" HORIZONTAL POWER HEAD

1-BELT DRIVE (con't.)

6. Slide the sheave towards the belt guard back until the back side of the sheave is 13 mm from the belt guard back.

   Use a long punch and setscrew wrench to tighten the lock collar (access to the lock collar is between the head plate and belt guard back).

7. Attach the motor mount support plate (11) to the head plate using four 1/2" x 1" bolts and nylon locknuts (make sure the bolts are on the inside with the nuts on the outside).

8. Thread a 5/8" nut (14) onto the threaded adjustment rod (13) until the nut contacts the head of the rod. Install the threaded rod into the nut welded on the support plate (11) until the threaded rod is all the way down.

9. Attach the motor mount (15) to the support plate using the 10 mm dia. x 235 mm long rod (12) and cotter pin provided.

10. Use the chart and diagram below to determine the mounting location for the electric motor you will be using **(motor and motor pulley are not furnished).**

    Install the motor and the motor pulley (the 6" models use a 102 mm O.D. motor pulley, see Page 5).

    Install the belt around the sheave and motor pulley and tighten the belt using the 5/8" threaded rod. Once belt is tight, use the 5/8" nut to lock the adjustment rod into place.

11. Slide four tinnerman nuts (17) over the holes on the lip of the belt guard back (6). Place a flat washer (18) onto a 1/4" x 3/4" bolt (19) and thread the bolt into each of the tinnerman nuts (*Do Not* tighten completely, leave about a 7 mm space between the washer and the nut).

12. Install the belt guard (10) by holding the bottom part of the guard away from the belt guard back while sliding the slots on the top part of the guard between the flat washer and the tinnerman nut.

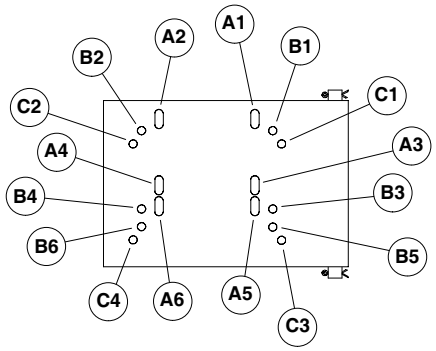
    Once the top of the guard is in position, swing the bottom of the guard down, align the slots between the washers and nuts and push into position (See Fig. 3). Tighten the bolts.

13. Position the completed head assembly so the flight shaft (5) aligns with the unloading flight (16) from the silo. Secure the head flight to the unloading flight using two 3/8" x 1 3/4" bolts and nylon locknuts.

    Use the existing hardware that came with the silo unloading tube cap to secure the head assembly to the silo.

MOTOR MOUNT DETAIL

Use the drawing and table below to determine proper placement of the electric motor.



Motor Mount Hole Location Chart

Motor Size kW (hp)	Motor Frame Size	Bolt Dia. Req'd.	Mount in Holes Marked (•)															
			A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4
.745 kW (1 hp)	143T	3/8"	•	•	•	•												
1.12 – 1.50 kW (1.5 – 2 hp)	145T	3/8"	•	•			•	•										
2.26 kW (3 hp)	182T	3/8"							•	•	•	•						
3.73 kW (5 hp)	184T	3/8"							•	•			•	•				
5.60 kW (7.5 hp)	213T	3/8"													•	•	•	•

6" HORIZONTAL POWER HEAD
2-BELT & 3-BELT DRIVE
(2-BELT DRIVE SHOWN)

Although the 3-belt has a different sheave, with the addition of an extra belt, the assembly procedures are the same for both the 2-belt and the 3-belt.

The assembly instructions will show a number in parenthesis ( ), this number refers to the item shown in the assembly illustration.

1. Bolt the head bearing (3) to the head plate (2) using two 3/8" x 1" bolts and nylon locknuts.
2. Install the head shaft (5) into the end of the head flight and secure using two 3/8" x 1 3/4" bolts and nylon locknuts. Insert the flight and shaft into the housing (1).

   Slide the bearing (attached to the head plate) over the shaft making sure the lock collar (4) is on the shaft as well.
3. Secure the head plate (2) to the flange on the housing (1) using six 5/16" x 1" bolts, flat washers and nylon locknuts.
4. Attach the belt guard back (7) to the head plate using the four square holes in the belt guard that are closest to the large round hole in the center of the guard.

   Secure the belt guard back using four 3/8" x 3/4" carriage bolts and nylon locknuts.
5. Install the 1/4" (6) key into the keyway on the end of the head shaft. Slide the sheave (8) onto the shaft until the sheave is as close as possible to the head bearing without contacting the bearing. Once properly set, tighten the lock collar and the setscrews in the sheave.

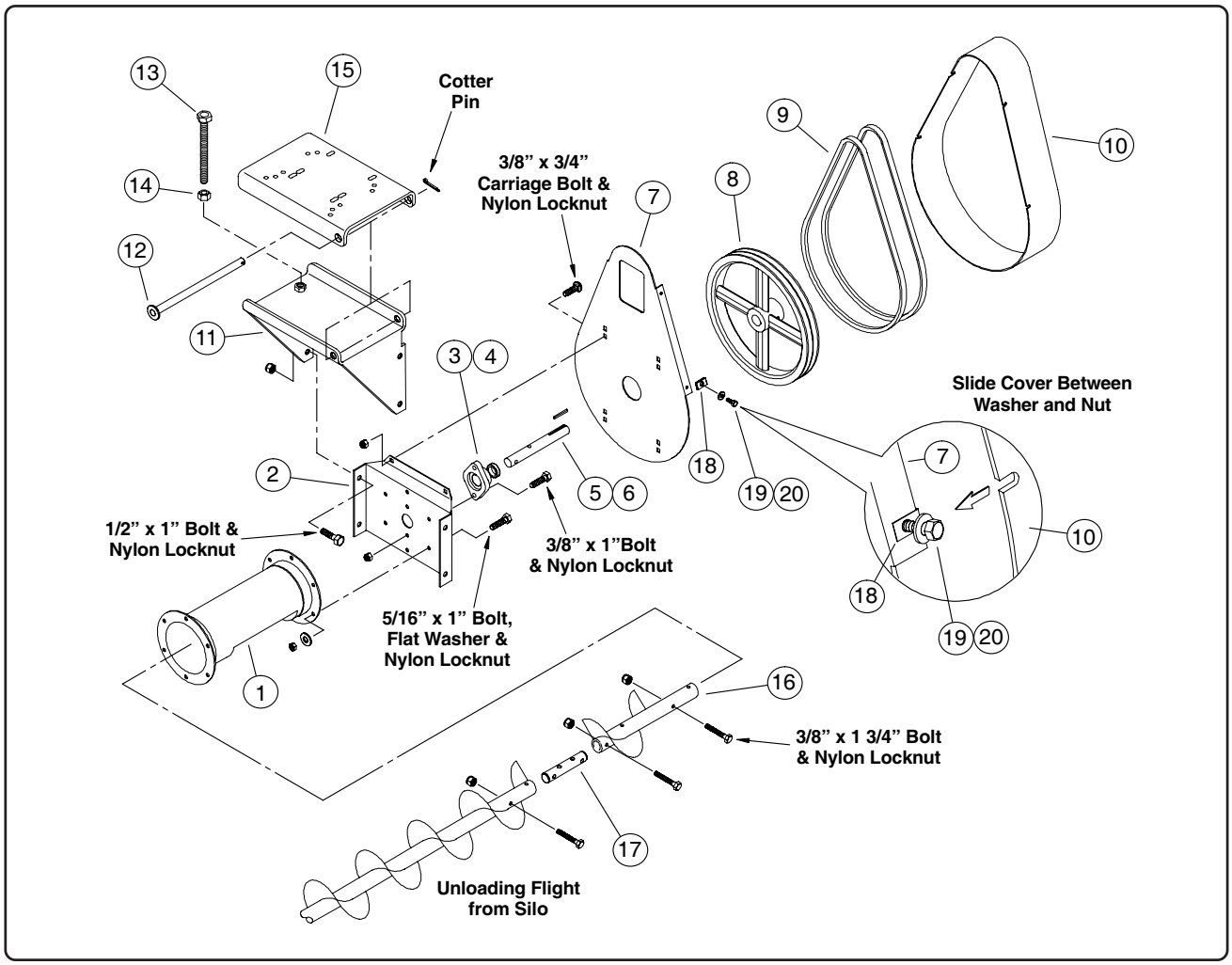


Fig. 4

6" HORIZONTAL POWER HEAD
2-BELT & 3-BELT DRIVE (con't.)

6. Attach the motor mount support plate (11) to the head plate using four 1/2" x 1" bolts and nylon locknuts (make sure the bolts are on the inside with the nuts on the outside).

7. Thread a 5/8" nut (14) onto the threaded adjustment rod (13) until the nut contacts the head of the rod. Install the threaded rod into the nut welded on the support plate (11) until the threaded rod is all the way down.

8. Attach the motor mount (15) to the support plate using the 10 mm dia. x 235 mm long rod (12) and cotter pin provided.

9. Use the chart and diagram on Page 9 to determine the mounting location for the electric motor **(the motor and motor pulley are not furnished).**

   Install the motor and the motor pulley (the 6" models use a 102 mm O.D. motor pulley).

   Install the belts (9) around the sheave and motor pulley and tighten the belts using the 5/8" threaded adjustment rod. Once the belts are tight, use the 5/8" nut to lock the adjustment rod into place.

10. Slide four tinnerman nuts (18) over the holes on the lip of the belt guard back (7). Place a flat washer (19) onto a 1/4" x 3/4" bolt (20) and thread a bolt into each of the tinnerman nuts (*Do Not* tighten completely, leave about a 7 mm space between the washer and the nut).

11. Install the belt guard (10) by holding the bottom part of the guard away from the belt guard back while sliding the slots on the top part of the guard between the flat washer and the tinnerman nut.

    Once the top of the guard is in position, swing the bottom of the guard down, align the slots between the washers and nuts and push into position (See Fig. 4). Tighten the bolts.

12. Position the completed head assembly so the head flight shaft (16) aligns with the unloading flight from the silo.

    Bolt the flight connecting stub (17) to the head flight (16) using two 3/8" x 1 3/4" bolts and nylon locknuts.

    Attach the connecting stub on the head assembly to the silo unloading flight using two 3/8" x 1 3/4" bolts and nylon locknuts.

    The head assembly can now be fastened to the unloading tube on the silo. Use the existing hardware that came with the silo unloading tube cap to secure the head assembly to the silo.

NOTE: The belt guard on the 3-belt drive may need to be modified to allow more clearance between the guard and the motor shaft. After the guard has been installed and the belts tightened, determine if there is sufficient clearance to prevent the motor shaft from rubbing against the guard. If necessary, th eguard can be notched to allow for clearance.

8" HORIZONTAL POWER HEAD

The assembly instructions will show a number in parenthesis ( ), this number refers to the item shown in the assembly illustration.

1. Bolt the head bearing (3) to the head plate (2) using two 7/16" x 1 1/4" bolts and nylon locknuts.
2. Install the head shaft (5) into the end of the head flight and secure using two 7/16" x 2 1/2" bolts and nylon locknuts. Insert the flight and shaft into the housing (1).

   Slide the bearing (attached to the head plate) over the shaft making sure the lock collar (4) is on the shaft as well.

3. Secure the headplate (2) to the flange on the housing (1) using six 5/16" x 1" bolts, flat washers and non-lock nuts.
3. Secure the headplate (2) to the flange on the housing (1) using six 5/16" x 1" bolts, flat washers and non-lock nuts.
4. Attach the belt guard back (7) to the head plate using the four square holes in the belt guard that are farthest from the large round hole in the center of the guard.

   Secure the belt guard back using four 3/8" x 3/4" carriage bolts and nylon locknuts.

5. Install the 1/4" (6) key into the keyway on the end of the head shaft. Slide the sheave (8) onto the shaft until the sheave is as close as possible to the head bearing without contacting the bearing. Once properly set, tighten the lock collar and the setscrews in the sheave.

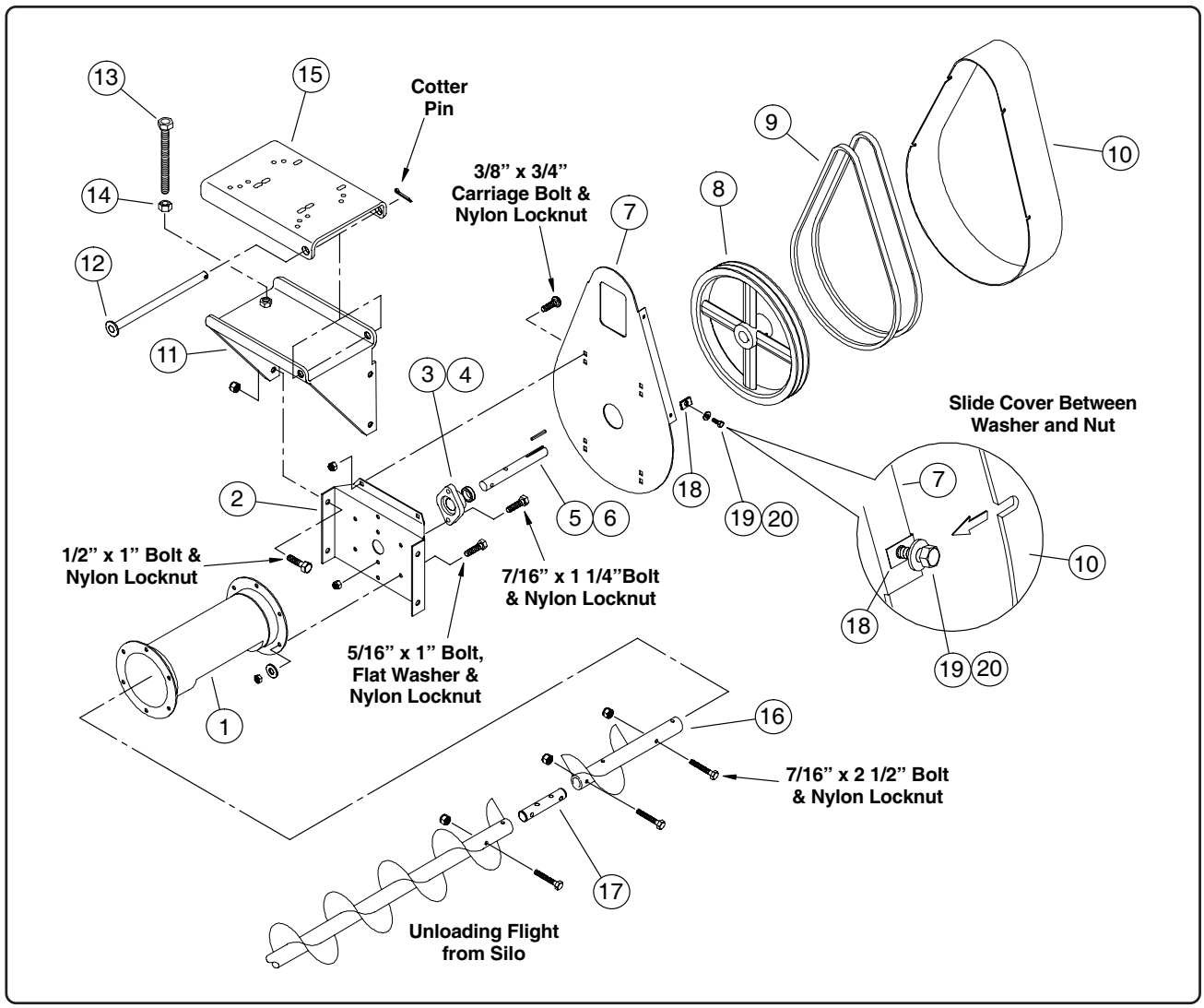


Fig. 5

8" HORIZONTAL POWER HEAD (con't.)

6. Attach the motor mount support plate (11) to the head plate using four 1/2" x 1" bolts and nylon locknuts (make sure the bolts are on the inside with the nuts on the outside).
7. Thread a 5/8" nut (14) onto the threaded adjustment rod (13) until the nut contacts the head of the rod. Install the threaded rod into the nut welded on the support plate (11) until the threaded rod is all the way down.
8. Attach the motor mount (15) to the support plate using the 10 mm dia. x 235 mm long rod (12) and cotter pin provided.
9. Use the chart and diagram on Page 9 to determine the mounting location for the electric motor **(the motor and motor pulley are not furnished).**

   Install the motor and the motor pulley (the 8" models may use an 89 mm or 102 mm O.D. motor pulley, depending on the application being used).

   Install the belts (9) around the sheave and motor pulley and tighten the belts using the 5/8" threaded adjustment rod. Once the belts are tight, use the 5/8" nut to lock the adjustment rod into place.
10. Slide four tinnerman nuts (18) over the holes on the lip of the belt guard back (7). Place a flat washer (19) onto a 1/4" x 3/4" bolt (20) and thread a bolt into each of the tinnerman nuts (*Do Not* tighten completely, leave about a 7 mm space between the washer and the nut).
11. Install the belt guard (10) by holding the bottom part of the guard away from the belt guard back while sliding the slots on the top part of the guard between the flat washer and the tinnerman nut.

    Once the top of the guard is in position, swing the bottom of the guard down, align the slots between the washers and nuts and push into position (See Fig. 5). Tighten the bolts.
12. Position the completed head assembly so the head flight shaft (16) aligns with the unloading flight from the silo.

    Bolt the flight connecting stub (17) to the head flight (16) using two 3/8" x 1 3/4" bolts and nylon locknuts.

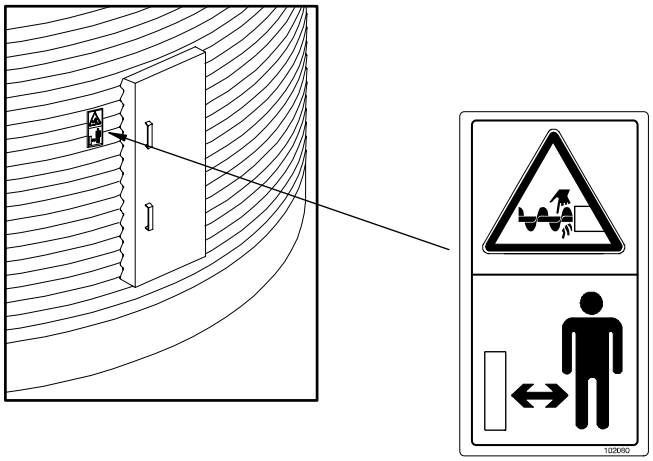
    Attach the connecting stub on the head assembly to the silo unloading flight using two 3/8" x 1 3/4" bolts and nylon locknuts.

    The head assembly can now be fastened to the unloading tube on the silo. Use the existing hardware that came with the silo unloading tube cap to secure the head assembly to the silo.

SAFETY DECALS

Check to ensure all Safety Decals are present and in good condition. If a decal cannot easily be read for any reason, or has been painted over, replace the decal immediately.

Safety decals are offered free of charge, and can be ordered through your Hutchinson/Mayrath dealer or directly from the factory.



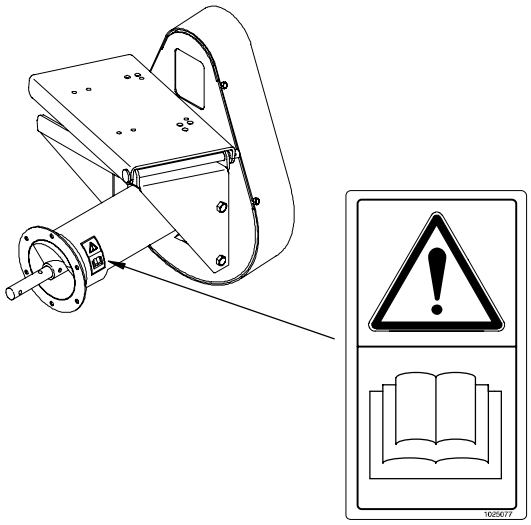
Danger Decal
Part No. 1025080

Rotating Flight
Never Enter Silo Unless
All Power has been
Disconnected and Locked Out

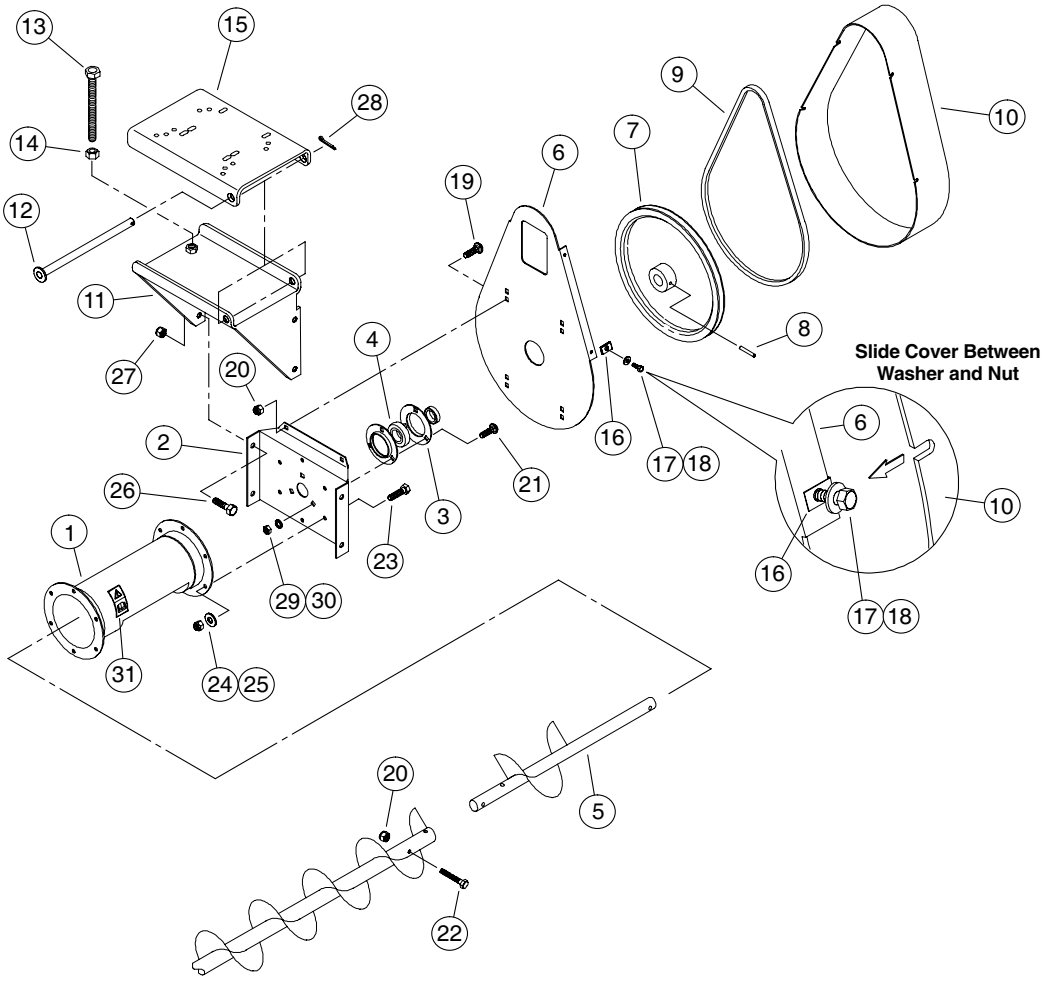
This safety sign was supplied with the bin unloading equipment and should be applied to the outside of the silo near the opening so it will be viewed by people entering into the silo or storage structure.

Caution Decal
Part No. 1025077

Read and Understand
Operator's Manual
Before Operating Unit

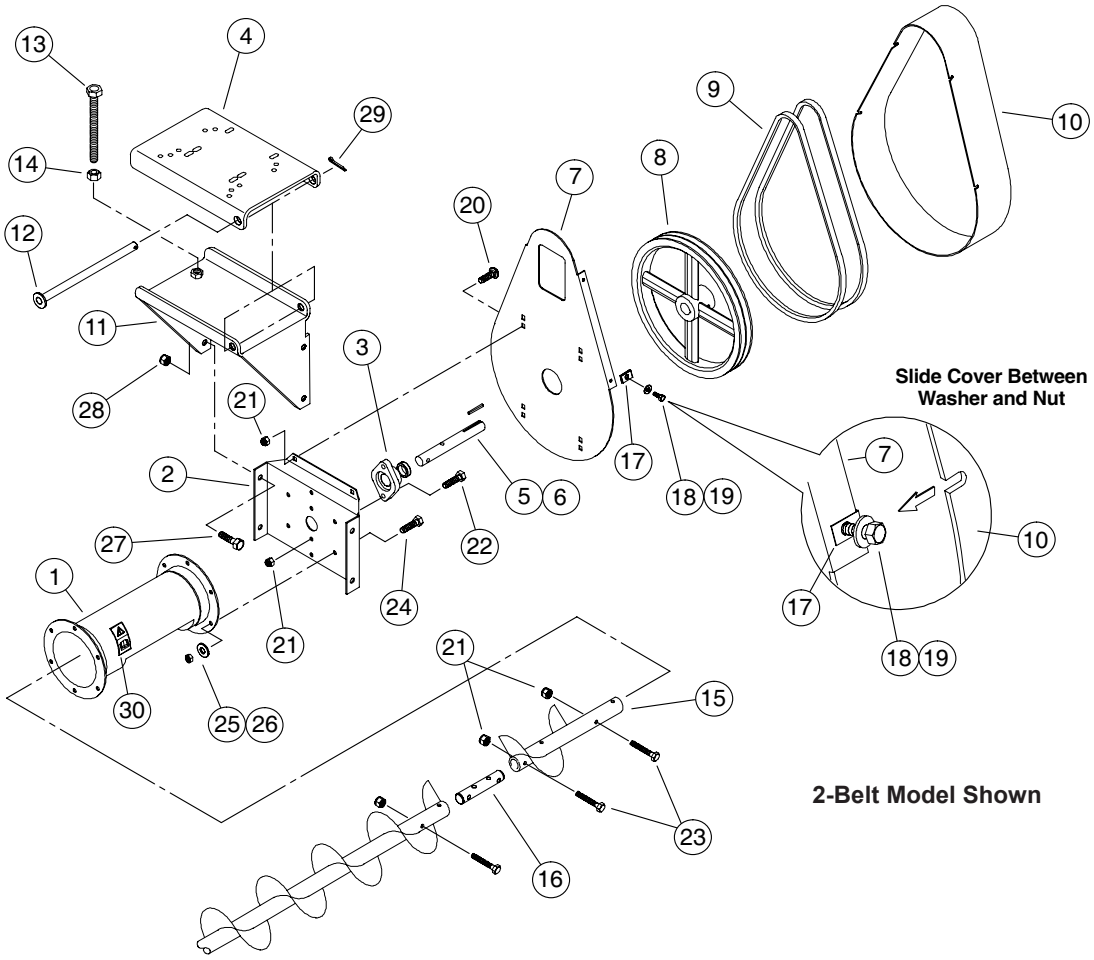


6” (15.2 CM) HORIZONTAL POWER HEAD
1-BELT DRIVE



REF. NO.	PART NO.	DESCRIPTION
1	1027802-GLV	Flanged Housing, 152 mm x 406 mm long
2	1027776	Head Plate
3	6383C	Bearing Retainer
4	6390D	Bearing, 25 mm Bore w/Lock Collar
5	1022580	Head Flight, 127 mm O.D. on 25 mm Shaft
6	1027782	Belt Guard Back
7	40184	Sheave, 1-Groove 305 mm O.D. x 25 mm Bore
8	6386C	Roll Pin, 8 mm x 51 mm long
9	40117	Belt, B-50
10	1027801	Belt Guard, Plastic
11	1027777	Motor mount Support Bracket
12	1016578	Pin, 16 mm dia. x 235 mm long
13	1027780	Adjustment Rod
14	D1170	Nut, 5/8-11 Non-lock PLT
15	1027779	Motor Mount Plate
16	1013133	Nut, 1/4-20 Tinnerman
17	4605-1	Bolt, 1/4-20 x 3/4”
18	33022	Flat Washer, 1/4”
19	1002247	Bolt, 3/8-16 x 3/4” Carr. G5 PLT
20	33136	Nut, 3/8-16 Nylon Lock PLT
21	1002238	Bolt, 5/16-18 x 3/4” Carr. G5 PLT
22	33064	Bolt, 3/8-16 x 1 3/4” G5 PLT
23	33046	Bolt, 5/16-18 x 1” G5 PLT
24	33023	Flat Washer, 5/16” PLT
25	33135	Nut, 5/16-18 Nylon Lock PLT
26	33294	Bolt, 1/2-13 x 1” G5 PLT
27	33138	Nut, 1/2-13 Nylon Lock PLT
28	33161	Cotter Pin, 3 mm x 25 mm
29	33144	Lock Washer, 5/16” PLT
30	33151	Nut, 5/16-18 Non-lock PLT
31	1025077	Caution Decal

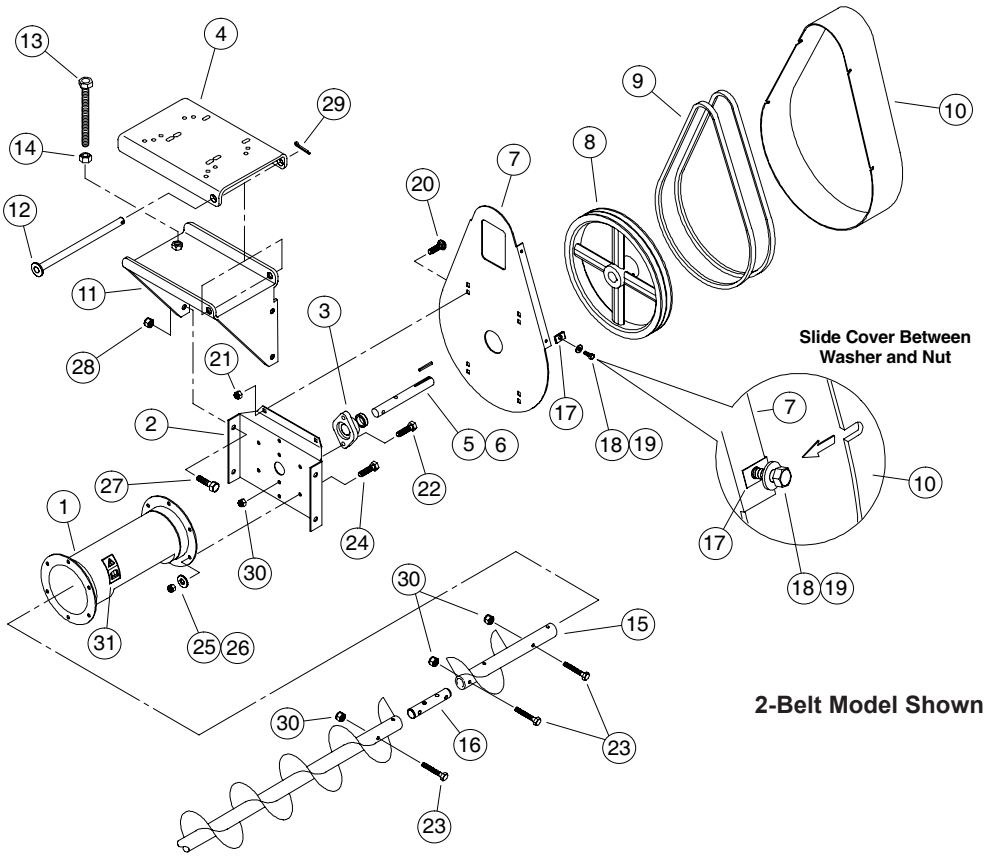
6" (15.2 CM) HORIZONTAL POWER HEAD
2-BELT & 3-BELT DRIVE



REF. NO.	PART NO.	DESCRIPTION
1	1027802-GLV	Flanged Housing, 152 mm x 406 mm long
2	1027803	Head Plate
3	6818D	Bearing, 25 mm Bore w/Lock Collar
4	1027779	Motor Mount Plate
5	6332G	Head Stub, 25 mm dia. x 254 mm long
6	4045A1	Key, 6 mm square x 51 mm long
7	1027782	Belt Guard Back
8	40184	Sheave, 2-Groove 305 mm O.D. x 25 mm Bore (f/2-belt)
(8)	40153	Sheave, 3-Groove 305 mm O.D. x 25 mm Bore (f/3-belt)
9	40117	Belt, B-50 (f/2-belt drive)
(9)	611039	Belt, B-51 (f/3-belt drive)
10	1027801	Belt Guard, Plastic
11	1027777	Motor mount Support Bracket
12	1016578	Pin, 16 mm dia. x 235 mm long
13	1027780	Adjustment Rod

REF. NO.	PART NO.	DESCRIPTION
14	D1170	Nut, 5/8-11 Non-lock PLT
15	6814P	Head Flight, 381 mm long
16	1722C	Connecting Stub, 25 mm dia. x 241 mm long
17	1013133	Nut, 1/4-20 Tinnerman
18	4605-1	Bolt, 1/4-20 x 3/4"
19	33022	Flat Washer, 1/4"
20	1002247	Bolt, 3/8-16 x 3/4" Carr. G5 PLT
21	33136	Nut, 3/8-16 Nylon Lock PLT
22	33060	Bolt, 3/8-16 x 1" G5 PLT
23	33064	Bolt, 3/8-16 x 1 3/4" G5 PLT
24	33046	Bolt, 5/16-18 x 1" G5 PLT
25	33023	Flat Washer, 5/16" PLT
26	33135	Nut, 5/16-18 Nylon Lock PLT
27	33294	Bolt, 1/2-13 x 1" G5 PLT
28	33138	Nut, 1/2-13 Nylon Lock PLT
29	33161	Cotter Pin, 3 mm x 25 mm
30	1025077	Caution Decal

8" (20.3 CM) HORIZONTAL POWER HEAD
1-BELT, 2-BELT & 3-BELT DRIVE



2-Belt Model Shown

REF. NO.	PART NO.	DESCRIPTION
1	1023092-GLV	Flanged Housing, 203 mm x 610 mm long
2	1027804	Head Plate
3	8325A	Bearing, 32 mm Bore w/Lock Collar
4	1027779	Motor Mount Plate
5	8379D	Head Stub (f/1-belt drive) 32 mm dia. x 241 mm long
(5)	8338A	Head Stub (f/2-belt & 3-belt drive) 32 mm dia. x 254 mm long
6	4045A1	Key, 6 mm square x 51 mm long
7	1027782	Belt Guard Back
8	40150	Sheave, 1-Groove (f/1-belt) 305 mm O.D. x 32 mm Bore
(8)	40152	Sheave, 2-Groove (f/2-belt) 305 mm O.D. x 32 mm Bore
(8)	40158	Sheave, 2-Groove (f/2-belt) 381 mm O.D. x 32 mm Bore
(8)	40161	Sheave, 3-Groove (f/3-belt) 381 mm O.D. x 32 mm Bore
9	40117	Belt, B-50 (f/305 mm sheave)
(9)	1023004	Belt, B-59 (f/381 mm sheave)
10	1027801	Belt Guard, Plastic
11	1027777	Motor Mount Support Bracket

REF. NO.	PART NO.	DESCRIPTION
12	1016578	Pin, 16 mm dia. x 235 mm long
13	1027780	Adjustment Rod
14	D1170	Nut, 5/8-11 Non-lock PLT
15	630468	Head Flight, 584 mm long
16	8320A	Connecting Stub, 32 mm dia. x 241 mm long
17	1013133	Nut, 1/4-20 Tinnerman
18	4605-1	Bolt, 1/4-20 x 3/4"
19	33022	Flat Washer, 1/4"
20	1002247	Bolt, 3/8-16 x 3/4" Carr. G5 PLT
21	33136	Nut, 3/8-16 Nylon Lock PLT
22	1002202	Bolt, 7/16-14 x 1 1/4" G5 PLT
23	1002253	Bolt, 7/16-14 x 2 1/2" G5 PLT
24	33046	Bolt, 5/16-18 x 1" G5 PLT
25	33023	Flat Washer, 5/16" PLT
26	33135	Nut, 5/16-18 Nylon Lock PLT
27	33294	Bolt, 1/2-13 x 1" G5 PLT
28	33138	Nut, 1/2-13 Nylon Lock PLT
29	33161	Cotter Pin, 3 mm x 25 mm
30	33137	Nut, 7/16-14 Nylon Lock PLT
31	1025077	Caution Decal

Hutchinson/Mayrath

*A Division of **GLOBAL** Industries Inc.*

Hutchinson/Mayrath • P.O. Box 629 • Clay Center, KS. 67432
Ph. 785–632–2161 • Fx. 785–632–5964 • Toll Free 800–523–6993