25° BIN UNLOADERS
6” to 8”, 8” to 8”, 8” to 10”
10” to 10” and 10” to 12”

OWNER’S & OPERATOR’S
MANUAL

Effective December 1, 2016

Model No’s.
B11622B - 6” to 8” Electric (2-belt)
B12602B - 8” to 8” Electric (2-belt)
B12621B - 8” to 10” Electric (2-belt)
B12631B - 8” to 10” Electric (3-belt)
B13621B - 10” to 12” Electric (2-belt)
B13631B - 10” to 12” Electric (3-belt)
B11622BH - 6” to 8” Hydraulic
B12602BH - 8” to 8” Hydraulic
B12621BH - 8” to 10” Hydraulic
B12622BH - 10” to 10” Hydraulic
B13621BR - 3:1 Reducer (2-Belt)
B13631BR - 3:1 Reducer (3-Belt)

IMPORTANT!
The reducer gear box used with the 10” & 12”
25° Unloaders is shipped Without Oil.
Oil must be added before operation.
Refer to the Lubrication Section in this manual.
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 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.

(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, 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 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.
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 safety symbol shown is used throughout this manual to alert you to information about unsafe actions or situations, and will be followed by the word DANGER, WARNING, or CAUTION.

DANGER - Indicates immediate hazards that may result in severe injury or death. WARNING - Indicates unsafe actions or situations that may cause severe injury, death and/or major equipment or property damage. CAUTION - Indicates unsafe actions or situations that may cause injury, and/or minor property damage.

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

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 No. 1002303 was supplied with the Hutchinson bin unloading equipment. This safety decal should be applied to the side of the bin near the opening so it will be viewed by people entering into the bin or storage structure. Refer to the instructions included with the decal for proper application.
# TABLE OF CONTENTS

**POLICIES AND PROCEDURES** ........................................................ (Inside Front Cover)

**SAFETY** ..................................................................................................................... 1
- General Safety Statement ............................................................................................... 1
- Safety Alert Symbol .......................................................................................................... 1
- Safety Decals .................................................................................................................. 1

**TABLE OF CONTENTS** ............................................................................................ 2

**GENERAL INFORMATION** .................................................................................. 3 - 5
- Operator Qualifications ................................................................................................. 3
- Sign-Off Sheet ................................................................................................................. 3
- Machine Inspection ........................................................................................................ 4
- Designated Work Area .................................................................................................... 4
- Before Filling Bin Information ....................................................................................... 4
- Electric Power Requirements ........................................................................................ 4
- Horse Power Requirements .......................................................................................... 5
- Break-In Information ....................................................................................................... 5
- Flight Speed .................................................................................................................... 5

**OPERATING PROCEDURES** ............................................................................... 6 - 7
- Start-Up ........................................................................................................................... 6
- Full Load Operation ........................................................................................................ 6
- Shutdown/Lockout .......................................................................................................... 7
- Trouble Shooting ............................................................................................................ 7
- Lubrication/Maintenance ............................................................................................... 8

**ASSEMBLY INSTRUCTIONS** ............................................................................ 9 - 22
- Attach 25° Unloader to Horizontal Bin Unload Tube 6” to 8”, 8” to 10” & 10” to 12” (Using Adapter Plate) .................................................................................................................. 9
- Attach 25° Unloader to Horizontal Bin Unload Tube 8” to 8” & 10” to 10” (Not Using Adapter Plate) .................................................................................................................. 10
- Support Stand Installation ............................................................................................ 11
- Motor Mount & Belt Guard Assy. (6” to 8” and 8” to 8” Electric) ................................. 12-13
- Motor Mount & Belt Guard Assy. (8” to 10”, 10” to 10” and 10” to 12” Electric) ........ 14-15
- Hydraulic Motor Installation f/8” ............................................................................... 16-17
- Hydraulic Motor Installation f/10” ............................................................................. 18-19
- Reducer Drive Installation (3:1 Reduction) .................................................................. 20-22

**PARTS LIST** ............................................................................................................ P-1 to P-11

**TORQUE CHART** ..................................................................................................... P-11
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.

4. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine.

*SFederal 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.

<table>
<thead>
<tr>
<th>Training Sign-Off Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
**MACHINE INSPECTION**

After delivery of your new auger 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. Read through the manual to become familiar with the operation and assembly of the machine. Verify all parts are accounted for before assembly.
2. Check to see that all guards listed in the assembly instructions are in place, secured and functional.
3. Check all safety signs and replace any that are worn, missing or illegible (safety signs can be ordered free of charge through your dealer or directly from the factory).
4. Make sure all fasteners, nuts, bolts, setscrews, etc. are tight.
5. Ensure drive belts are tightened properly. Check belts for fraying, wear, cuts and other damage.

**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.

**IMPORTANT: BEFORE FILLING GRAIN BIN**

Before filling the bin 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.

**ELECTRIC DRIVE POWER REQUIREMENTS**

The horsepower 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).

Always use a motor with the required power recommended in the charts on Page 5. Use a motor that operates at 1750 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 bin 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.
Horsepower Requirements

Use the Horsepower Chart according to the length of Horizontal Flight being used.

<table>
<thead>
<tr>
<th>Bin Dia.</th>
<th>Flight Length</th>
<th>Horse Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>14’–16’</td>
<td>8’-10”</td>
<td>3 hp</td>
</tr>
<tr>
<td>17’–19’</td>
<td>10’-10”</td>
<td>3 hp</td>
</tr>
<tr>
<td>20’–22’</td>
<td>11’-10”</td>
<td>5 hp</td>
</tr>
<tr>
<td>23’–25’</td>
<td>13’-4”</td>
<td>5 hp</td>
</tr>
<tr>
<td>26’–28’</td>
<td>14’-10”</td>
<td>5 hp</td>
</tr>
<tr>
<td>29’–31’</td>
<td>16’-4”</td>
<td>7.5 hp</td>
</tr>
<tr>
<td>32’–34’</td>
<td>18’-4”</td>
<td>7.5 hp</td>
</tr>
<tr>
<td>35’–37’</td>
<td>19’-4”</td>
<td>7.5 hp</td>
</tr>
</tbody>
</table>

FLIGHT SPEED INFORMATION

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 and intermediate well slide-gates to control the amount of grain fed into the unloading tube.

Recommended auger speeds shown are also applicable for the hydraulic drive units.

<table>
<thead>
<tr>
<th>Model</th>
<th>Motor Pulley Dia.*</th>
<th>Driven (Auger) Pulley Dia.</th>
<th>Recommended Auger Speed</th>
<th>Auger Speed Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>6” to 8” &amp; 8” to 8”</td>
<td>3.5”</td>
<td>12”</td>
<td>510 RPM</td>
<td>450–700 RPM</td>
</tr>
<tr>
<td>8” to 10”</td>
<td>3.5”</td>
<td>15”</td>
<td>408 RPM</td>
<td>325–500 RPM</td>
</tr>
<tr>
<td>10” to 12”</td>
<td>3.0”</td>
<td>15”</td>
<td>350 RPM</td>
<td>225–400 RPM</td>
</tr>
</tbody>
</table>

*Motor pulleys are not furnished with the auger.
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.

1. Check to see that all belts are tensioned properly.
2. Make sure all safety shields and are in place and properly adjusted for belt and pulley clearance.
3. Check assembly instructions to ensure all parts are assembled correctly and that all fasteners are tight.

The bin wells inside the bin should have a control gate. The gate(s) should be closed before start-up and closed before shut-down to permit the machine to clean out.

Use the control gates to regulate a flow of less than full capacity until several hundred bushels of grain have been augered to polish the flighting and tube (See Break-In Information on Page 7).

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 an important role in the performance of the auger. Twenty-five percent (25%) moisture could cut capacity back by as much as 40% under some conditions.

**Start-Up**

Start the electric (or hydraulic) 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 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.

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 (or hydraulic) 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 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 (or hydraulic) motor and lockout the power source.

**Do Not enter the bin if the grain has “Bridged” or has not flowed normally out of the bin, See Fig’s. below. The grain may suddenly break loose and bury resulting in suffocation.**

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

**Never enter the bin unless monitored by another person.**

“Abnormal Flow”

“Bridging”
OPERATING PROCEDURES

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.
Using a larger diameter auger and reducing its load level will be far better than subjecting a smaller diameter auger to high loads. If an auger is kept from absolute filling, it will make start-up easier and will convey grain more efficiently.
Therefore, if intermittent operation is to be carried out, it is advisable to reduce the load level.

LOCKOUT
The power source for electric units 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.
For hydraulic drive units, shut off the tractor, or other hydraulic power source and remove ignition key, or disconnect coil wire.

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.

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 5).

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.
LUBRICATION

WARNING! Never clean, adjust or lubricate a machine that is in operation. Whenever you must service or adjust your equipment, make sure to stop the motor and lockout the power source.

U-Joint
The u-joint is located in the coupler box at the bottom end of the incline tube. Remove the cover from the top of the coupler box to gain access to the u-joint. Make sure to replace and secure the cover before operating the unit.

Using an S.A.E. multi-purpose grease, lubricate the u-joint approximately every twenty (20) hours of use. Normally two pumps of grease is sufficient.

Head Bearing
The head bearing located at the top of the incline tube is self contained and has been greased at the factory. This bearing only requires lubrication at least once annually. Normally one to two pumps of an S.A.E. multi-purpose grease is sufficient. Do Not over-grease the bearing, too much grease can damage the seals.

There is also a bronze bushing (bearing) located in the hanger that supports the unload flight shaft and lower portion of the u-joint. Although this bearing does not require lubrication, it should be inspected every time the u-joint is lubricated to ensure the hardware securing it is tight and there is no visible sign of wear. If necessary, the bearing can be pressed out and a new one installed.

IMPORTANT! The reducer gearbox is shipped without oil. Oil must be added during assembly. Damage to the gearbox will occur if operated without oil.

1. With the gearbox in the upright position, remove the vented fill plug and the oil level check plug from the gearbox (See Fig. 1A). Add 64 oz. of a non-foaming multi-purpose gear oil (same as used commercially for automotive differentials).

For normal operating temperatures ranging between 40°F-120°F we recommend an SAE 90* weight gear oil, for temperatures below 40°F we recommend an SAE 80 weight gear oil.

Watch the level check opening, when oil begins to leak from the opening, stop adding oil and replace both plugs. Do Not overfill. Additional oil may damage the seals or it may be forced through the vent plug.

Fig. 1

U-Joint – 1 to 2 pumps every 20 hours
Head Bearing – 1 to 2 pumps annually
Bronze Bushing – Replace as needed

25° Unload Auger
Check all connecting hardware, setscrews and bearing lock collars to ensure they are tight.

Check drive belts frequently for fraying, cracking or other damage. Replace as needed.

Check all hydraulic fittings and hoses to see that they are tight and not leaking hydraulic oil. Replace any components as necessary.

Allow the hoses to coil in their natural shape. Avoid pinching or crimping the hoses that would otherwise restrict the flow of the hydraulic system. When not in use, make sure the fittings on the ends of the hoses are protected from dirt and other contaminants.

* For temperatures below 40°F (4.4°C), use an 80 weight oil of the same quality as the 90 weight. Extra pressure additives may be of value in severe applications.
ATTACH 25° UNLOAD AUGER to BIN UNLOAD TUBE

For units using the adapter plate. 6" to 8", 8" to 10" and 10" to 12"

Check the auger assembly, flight, u-joint, etc. for wire or other types of support that may have been used for shipping purposes. These will need to be removed for proper assembly of the components.

1. Install the connecting stub through the bronze bushing on the hanger bearing and connect the stub to the u-joint (See Fig. 2). Secure the stub to the u-joint with one square key and one 3/8" bolt and nylon locknut as listed below.
   - On 8" sizes, key is 1/4" sq. x 1" long and the bolt is 3/8" x 3" long.
   - On 10" & 12" sizes the key is 3/8" sq. x 1" long and the bolt is 3/8" x 3 1/2" long.

2. Attach the hanger bearing to the top of the coupler box using two 3/8" x 1" bolts, flat washers and nylon locknuts.

3. Attach the adapter plate to the horizontal unload tube extending out of the grain bin (See Fig. 3). Secure using the required number of 5/16" x 3/4" carriage bolts, flat washers, lock washers and non-lock nuts.

4. Align the 25° incline assembly with the horizontal unloading tube and insert the connecting stub from the incline assembly into the horizontal flight. Secure using the bolts that were supplied with the horizontal unload kit.

5. Fasten the coupler box from the incline assembly to the adapter plate previously installed onto the horizontal unload tube. Secure using the required number of 3/8" x 1" bolts, flat washers, lock washers and non-lock nuts (See Fig. 3).

NOTE: A quick clamp is also provided to attach the incline coupler box to the horizontal unload tube. This can be used instead of the 3/8" x 1" bolts and hardware.

---

**Fig. 2**

- Insert Connecting Stub Thru Bearing and Attach to U-Joint
- Connecting Stub
- Bearing Hanger
- 1/4" x 1"
- (3/8" x 1") Square Key
- 3/8" x 1" Bolt, Flat Washer & Nylon Locknut
- 3/8" x 3 1/2" (3"
- Bolt, & Nylon Locknut

---

**Fig. 3**

- Attach the Adapter Plate to Horizontal Unload Tube.
- Connect Unload Flight to Incline Connecting Stub.
- Attach Incline Coupler Box to Unload Tube.
- 10" to 12" Adapter Plate
- Attaches to Unload Tube using 5/16" Nuts, Flat Washers & Lock Washers
- 6" to 8" and 8" to 10" Adapter Plate
- 5/16" Carriage Bolt
- 5/16" Flat Washer, Lock Washer & Nut
- 3/8" Flat Washer, Lock Washer & Nut
- 3/8" x 1"
- Bolt

A Quick Clamp is also provided and can be used to attach the Incline Tube to the Horizontal Unload Tube instead of the 3/8" x 1" bolts and hardware.
ATTACH 25° UNLOAD AUGER to BIN UNLOAD TUBE (con’t.)

For units not using the adapter plate.
8” to 8” and 10” to 10”
See Page 10 for units that use the adapter plate.

Check the auger assembly, flight, u-joint, etc. for any wires or other types of support that may have been used for shipping purposes. These will need to be removed for proper assembly.

1. Install the connecting stub through the bronze bushing on the hanger bearing and connect the stub to the u-joint (See Fig. 4). Secure the stub to the u-joint with one square key and one 3/8” bolt and nylon locknut as listed below.
   - On 8” sizes, key is 1/4” sq. x 1” long and the bolt is 3/8” x 3” long.
   - On 10” & 12” sizes the key is 3/8” sq. x 1” long and the bolt is 3/8” x 3 1/2” long.

2. Attach the hanger bearing to the top of the coupler box using two 3/8” x 1” bolts, flat washers and nylon locknuts.

3. Align the 25° incline assembly with the horizontal unloading tube and insert the connecting stub from the incline assembly into the horizontal flight. Secure using the bolts that were supplied with the horizontal unload kit.

4. Fasten the coupler box from the incline assembly to the horizontal unload tube using the required number of 3/8” x 1” bolts, flat washers, lock washers and non-lock nuts (See Fig. 5).

   NOTE: A quick clamp is also provided to attach the incline coupler box to the horizontal unload tube. This can be used instead of the 3/8” x 1” bolts and hardware.

For units not using the adapter plate.
8” to 8” and 10” to 10”
See Page 10 for units that use the adapter plate.

Check the auger assembly, flight, u-joint, etc. for any wires or other types of support that may have been used for shipping purposes. These will need to be removed for proper assembly.

1. Install the connecting stub through the bronze bushing on the hanger bearing and connect the stub to the u-joint (See Fig. 4). Secure the stub to the u-joint with one square key and one 3/8” bolt and nylon locknut as listed below.
   - On 8” sizes, key is 1/4” sq. x 1” long and the bolt is 3/8” x 3” long.
   - On 10” & 12” sizes the key is 3/8” sq. x 1” long and the bolt is 3/8” x 3 1/2” long.

2. Attach the hanger bearing to the top of the coupler box using two 3/8” x 1” bolts, flat washers and nylon locknuts.

3. Align the 25° incline assembly with the horizontal unloading tube and insert the connecting stub from the incline assembly into the horizontal flight. Secure using the bolts that were supplied with the horizontal unload kit.

4. Fasten the coupler box from the incline assembly to the horizontal unload tube using the required number of 3/8” x 1” bolts, flat washers, lock washers and non-lock nuts (See Fig. 5).

   NOTE: A quick clamp is also provided to attach the incline coupler box to the horizontal unload tube. This can be used instead of the 3/8” x 1” bolts and hardware.

For units not using the adapter plate.
8” to 8” and 10” to 10”
See Page 10 for units that use the adapter plate.

Check the auger assembly, flight, u-joint, etc. for any wires or other types of support that may have been used for shipping purposes. These will need to be removed for proper assembly.

1. Install the connecting stub through the bronze bushing on the hanger bearing and connect the stub to the u-joint (See Fig. 4). Secure the stub to the u-joint with one square key and one 3/8” bolt and nylon locknut as listed below.
   - On 8” sizes, key is 1/4” sq. x 1” long and the bolt is 3/8” x 3” long.
   - On 10” & 12” sizes the key is 3/8” sq. x 1” long and the bolt is 3/8” x 3 1/2” long.

2. Attach the hanger bearing to the top of the coupler box using two 3/8” x 1” bolts, flat washers and nylon locknuts.

3. Align the 25° incline assembly with the horizontal unloading tube and insert the connecting stub from the incline assembly into the horizontal flight. Secure using the bolts that were supplied with the horizontal unload kit.

4. Fasten the coupler box from the incline assembly to the horizontal unload tube using the required number of 3/8” x 1” bolts, flat washers, lock washers and non-lock nuts (See Fig. 5).

   NOTE: A quick clamp is also provided to attach the incline coupler box to the horizontal unload tube. This can be used instead of the 3/8” x 1” bolts and hardware.

For units not using the adapter plate.
8” to 8” and 10” to 10”
See Page 10 for units that use the adapter plate.

Check the auger assembly, flight, u-joint, etc. for any wires or other types of support that may have been used for shipping purposes. These will need to be removed for proper assembly.

1. Install the connecting stub through the bronze bushing on the hanger bearing and connect the stub to the u-joint (See Fig. 4). Secure the stub to the u-joint with one square key and one 3/8” bolt and nylon locknut as listed below.
   - On 8” sizes, key is 1/4” sq. x 1” long and the bolt is 3/8” x 3” long.
   - On 10” & 12” sizes the key is 3/8” sq. x 1” long and the bolt is 3/8” x 3 1/2” long.

2. Attach the hanger bearing to the top of the coupler box using two 3/8” x 1” bolts, flat washers and nylon locknuts.

3. Align the 25° incline assembly with the horizontal unloading tube and insert the connecting stub from the incline assembly into the horizontal flight. Secure using the bolts that were supplied with the horizontal unload kit.

4. Fasten the coupler box from the incline assembly to the horizontal unload tube using the required number of 3/8” x 1” bolts, flat washers, lock washers and non-lock nuts (See Fig. 5).

   NOTE: A quick clamp is also provided to attach the incline coupler box to the horizontal unload tube. This can be used instead of the 3/8” x 1” bolts and hardware.
ASSEMBLY PROCEDURES

SUPPORT STAND ASSEMBLY for
25° UNLOADING AUGER

The 25° Unloader comes with an adjustable support stand. The support stand should be located at least three-fourths of the way up on the inclined auger tube. The stand should be placed on a hard flat surface, preferably concrete. If necessary, place some type of solid material beneath the stand to keep it secure.

1. Locate the upper and lower portions of the support stand from the kit. Slide the upper section over the lower support leg and position beneath the incline tube about three-fourths the way up the tube. With the incline tube resting on the half band attached to the support stand, allow the lower leg to slide to the ground. Tighten the square setscrew on the support stand to hold into place.

2. Using four 5/16" x 1 1/2" bolts, lock washers and non-lock nuts, secure the 4" wide half-band to the support stand. Check again to make sure the stand is properly supporting the incline tube. Make any necessary adjustments.
ASSEMBLY PROCEDURES

MOTOR MOUNT ASSEMBLY for
ELECTRIC DRIVE 6” to 8” & 8” to 8”

The assembly procedures below show a Ref. No. in parenthesis ( ), this number refers to the item shown in the assembly illustration.

1. Attach the belt guard back (Ref. 1) to the head plate (Ref. 2) using the four square holes in the belt guard. Secure the belt guard back using four 3/8” x 3/4” carriage bolts and nylon locknuts (use the square holes farthest from the larger center hole).

2. Install the 1/4” x 2” key (Ref. 4) into the keyway on the end of the head shaft. Slide the sheave (Ref. 3) onto the head shaft until the sheave is as close as possible to the head bearing without contacting the bearing. Once properly set, tighten the setscrews in the sheave to secure it to the shaft.

3. Attach the motor mount support plate (Ref. 5) 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, See Fig. 8).

4. Thread a 5/8” nut (Ref. 6) onto the threaded adjustment rod (Ref. 7) until the nut contacts the head of the rod. Install the threaded rod into the nut welded on the support plate (Ref. 5) until the threaded rod extends 2” to 3” above the top of the support (final adjustment will be made after installing the motor and belts).

5. Attach the motor mount (Ref. 8) to the support plate using the 5/8” dia. x 13 1/8” long rod (Ref. 9) and cotter pins provided.

6. Use the chart and diagram on the following page to determine the mounting location for the electric motor you will be using (the motor, its mounting hardware and the motor pulley are not furnished). Install the motor and the motor pulley (refer to the chart on Page 5 for proper size motor pulley). Align the motor pulley and incline sheave using a straight edge placed on the face of the pulley and sheave. Secure the motor pulley to the motor shaft.

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

Check belt tension at the center of the span between the motor pulley and sheave. Belts should deflect approximately 1/2” when firm pressure is applied directly to the belts.
8. Slide four tinnerman nuts (Ref. 11) over the holes on the lip of the belt guard back. Thread a wing bolt (Ref. 12) into each of the tinnerman nuts (Do Not tighten, leave about a 1/4" space between the wing bolt and the nut).

9. Install the belt guard (Ref. 13) 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 wing bolt 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 wing bolts and nuts and push into position. Tighten the wing bolts.

CAUTION! Keep all safety shields and devices in place.
ASSEMBLY PROCEDURES

MOTOR MOUNT ASSEMBLY for
ELECTRIC DRIVE, 8” to 10”, 10” to 10”
and 10” to 12”

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

1. Fasten the motor mount support plate (Ref. 1) and belt guard brackets (Ref. 2) to the sides of the head plate (Ref. 3). Secure using four 1/2” x 1 1/4” bolts, lock washers and non-lock nuts (the guard brackets go on the outside of the motor mount support, use the rear set of holes on each side of the motor mount support when attaching to the head plate).

2. Thread the adjusting rod (Ref. 4) into the nut welded to the motor mount support until it extends about 2” above the top of the support (final adjustment will be done after installing the motor and belts). Thread the 3/4” nut (Ref. 5) onto the bottom side of the adjustment rod.

3. Set the motor mount plate (Ref. 6) over the motor mount support and align the pivot shaft holes. Insert the pivot shaft (Ref. 7) and secure each end using the cotter pins provided.

4. Secure the belt guard (Ref. 8) to the guard brackets using four 5/16” x 1” bolts, flat washers, lock washers and non-lock nuts (the guard has two sets of slotted holes, an upper and a lower, use the lower slots of each set).

5. Insert the 3/8” sq. x 2” long key (Ref. 9) into the keyway on the end of the head stub (10” 3-belt drive and 12” 2 & 3-belt drive use 3/8” x 3” lg. key).

6. Align the keyway in the sheave (Ref. 10) with the key and head stub and slide the sheave onto the head stub until it is as close to the head bearing as possible without actually touching the bearing. Tighten the sheave setscrews to secure it to the head stub.

7. Fasten the electric motor onto the motor mount plate and install motor pulley. Refer to Page 15 for the motor mount hole locations as determined by the size of the motor being used. NOTE: the electric motor, its mounting hardware and the motor pulley are not furnished.

IMPORTANT! Use the proper size and speed motor to ensure satisfactory auger operation. Too small of a motor will not supply the horsepower required to achieve capacity.

Too large of a motor may cause stress on some auger components resulting in a shorter life for those components. See Horsepower requirement Chart on Page 5 for recommended motor size.
**MOTOR MOUNT ASSEMBLY for ELECTRIC DRIVE, 8" to 10", 10" to 10" and 10" to 12"

8. Place a straight edge along the face of the sheave and pulley and when properly aligned, tighten the motor pulley to the motor shaft.

9. Install the belts (Ref. 11 in Fig. 11) onto the pulleys and using the threaded adjustment rod, tighten the belts until there is approximately 1/2" to 3/4" of deflection when firmly pressing at the center of the span between the pulleys. **Do Not overtighten the belts.** Excessive vibration and/or flight shaft breakage can occur.

10. Once belts are properly tightened, tighten the 3/4" nut on the bottom of the adjusting rod to lock into place.

11. Check all hardware and fasteners to ensure they are tight. Verify the belts and pulleys have clearance away from the belt guard and other components, make any necessary adjustments.

---

<table>
<thead>
<tr>
<th>Motor Size H.P.</th>
<th>Motor Frame Size</th>
<th>Bolt Dia. Req’d</th>
<th>Mount in Holes Marked (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>184T</td>
<td>3/8&quot;</td>
<td>• • • • • • • • • • • •</td>
</tr>
<tr>
<td>7.5</td>
<td>213T</td>
<td>3/8&quot;</td>
<td>• • • • • • • • • • • •</td>
</tr>
<tr>
<td>10</td>
<td>215T</td>
<td>3/8&quot;</td>
<td>• • • • • • • • • • • •</td>
</tr>
<tr>
<td>15</td>
<td>254T</td>
<td>1/2&quot;</td>
<td>• • • • • • • • • • • •</td>
</tr>
</tbody>
</table>

*Shown as Reference Only*
HYDRAULIC MOTOR DRIVE
8” DRIVE ASSEMBLY

Follow the assembly instructions on Pages 9 and 10 for incline tube connection to horizontal unload auger and Page 11 for support stand installation.

Once these procedures have been completed, use the following instructions for hydraulic motor installation.

1. Remove the wire used for shipping from the incline flight.
2. Bolt the head stub into the end of the flight using two 7/16” x 2 1/2” bolts and nylon locknuts.
3. Fasten the head bearing and flangettes to the outside of the head plate and secure using three 5/16” x 3/4” carriage bolts and nylon locknuts (bolt heads will be to the inside of the head plate, do not tighten completely at this time. The angles on the head plate will face towards the discharge end as shown below).
4. Slide the head bearing and plate over the head stub and attach the plate to the flange on the incline tube using four 5/16” x 1” bolts, flat washers and nylon locknuts. **NOTE:** Only use the two upper and two lower slotted holes in the head plate for now, the two holes on the sides will be used to fasten the motor mount hinged doors when it is installed. The top and bottom holes in the flanged ring will not be used.

Once the head plate has been attached, tighten the three carriage bolts securing the head bearing and tighten the lock collar into place.

5. Insert the 1/4” sq. x 1 1/4” long key into the keyway on the end of the head stub. Slide the flex coupler half with the pinhole, onto the end of the head stub and key and secure with the 3/8” x 2” roll pin. Tighten the setscrew on the coupler half to secure the square key into place (the flex coupler should set against the head bearing lock collar).
6. Attach the hydraulic motor to the outside of the motor mount and secure using four 3/8” x 3/4” bolts and lock washers (See Fig. 13 on Page 17).
7. Slide the other flex coupler half onto the hydraulic motor shaft and secure with the square key supplied with the motor and the setscrew in the coupler half.
8. Bolt the hydraulic motor mount to the head plate using four 1/2” x 1” bolts and nylon locknuts.
9. Loosen the setscrew in the coupler half attached to the hydraulic motor shaft. Connect the two coupler halves together using the chain and connecting links provided. **NOTE:** Leave an 1/8” gap between the two coupler halves, then retighten the setscrew to secure the coupler half to the motor shaft.

10. Bolt the hinged covers (located on the sides of the motor mount) to the head plate and to the flange on the incline tube. Use two 5/16” x 1” bolts, flat washers and nylon locknuts (See Fig. 13).

**WARNING!** Do Not connect or disconnect hydraulic components when there is pressure within the system. Hydraulic systems are highly pressurized. Escaping hydraulic oil, even an invisible pin hole leak, can penetrate body tissue and cause serious injury.

Use a piece of wood or cardboard when looking for leaks. Never use the hands or other body parts. When reassembling, make absolutely certain that all connections are tight.

If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction can occur if medical attention is not received at once.

11. Apply a thin coat of clean hydraulic oil to the o-rings on the hose ends. Connect the hydraulic hoses to the ports on the motor (o-ring fittings do not require pipe sealant).

**NOTE:** Hydraulic hoses are not furnished, but can be ordered from the factory or obtained locally. The factory hose are Part No. 420030, these hoses are 1/2” x 72” with 7/8-14 O-ring fitting on motor connection end and 1/2” male pipe fitting for tractor connection. **The tractor fitting is not furnished.**

12. Check all fittings, hose connections and fastening hardware to ensure everything is tight.
HYDRAULIC MOTOR DRIVE
10” DRIVE ASSEMBLY

Follow the assembly instructions on Pages 9 and 10 for incline tube connection to horizontal unload auger and Page 11 for support stand installation.

Once these procedures have been completed, use the following instructions for hydraulic motor installation.

1. Remove the wire used for shipping from the incline flight.
2. Bolt the head stub into the end of the flight using two 7/16” x 3” bolts and nylon locknuts.
3. Fasten the head bearing and flangettes to the outside of the head plate and secure using three 3/8” x 1” carriage bolts and nylon locknuts (bolt heads will be to the inside of the head plate, do not tighten completely at this time. The angles on the head plate will face towards the discharge end as shown below).
4. Slide the head bearing and plate over the head stub and attach the plate to the flange on the incline tube using six 3/8” x 1” bolts and nylon locknuts. **NOTE:** Do Not install the bolts on each side of the flange, these holes will be used to fasten the motor mounts’ hinged doors when it is installed.
   Once the head plate has been attached, tighten the three carriage bolts securing the head bearing and tighten the lock collar into place.

5. Insert the 1/4” sq. x 1 1/4” long key into the keyway on the end of the head stub. Slide the flex coupler half with the pinhole, onto the end of the head stub and key and secure with the 3/8” x 2” roll pin. Tighten the setscrew on the coupler half to secure the square key into place (the flex coupler should set against the head bearing lock collar).
6. Attach the hydraulic motor to the outside of the motor mount and secure using two 1/2” x 1 3/4” bolts and nylon locknuts (See Fig. 15 on Page 19).
7. Slide the other flex coupler half onto the hydraulic motor shaft and secure with the square key supplied with the motor and the setscrew in the coupler half.
8. Bolt the hydraulic motor mount to the head plate using four 1/2” x 1” bolts and nylon locknuts.
HYDRAULIC MOTOR DRIVE, 10" DRIVE ASSEMBLY
(con't.)

9. Loosen the setscrew in the coupler half attached to the hydraulic motor shaft. Connect the two coupler halves together using the chain and connecting links provided. **NOTE:** Leave an 1/8" gap between the two coupler halves, then retighten the setscrew to secure the coupler half to the motor shaft.

10. Bolt the hinged covers (located on the sides of the motor mount) to the head plate and to the flange on the incline tube. Use two 1/4" x 1" bolts, flat washers, lock washers and non-lock nuts (See Fig. 15).

WARNING! Do Not connect or disconnect hydraulic components when there is pressure within the system. Hydraulic systems are highly pressurized. Escaping hydraulic oil, even an invisible pin hole leak, can penetrate body tissue and cause serious injury.

Use a piece of wood or cardboard when looking for leaks. Never use the hands or other body parts. When reassembling, make absolutely certain that all connections are tight.

If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction can occur if medical attention is not received at once.

11. Apply a thin coat of clean hydraulic oil to the o-rings on the hose ends. Connect the hydraulic hoses to the ports on the motor (o-ring fittings do not require pipe sealant).

**NOTE:** Hydraulic hoses are not furnished, but can be ordered from the factory or obtained locally. The factory hose are Part No. 420030, these hoses are 1/2" x 72" with 7/8-14 O-ring fitting on motor connection end and 1/2" male pipe fitting for tractor connection. **The tractor fitting is not furnished.**

12. Check all fittings, hose connections and fastening hardware to ensure everything is tight.
ASSEMBLY PROCEDURES

MOTOR MOUNT ASSEMBLY for 10” to 12” - 25° UNLOADER (3:1 Reducer Drive)

IMPORTANT! The reducer gearbox is shipped without oil. Oil must be added during assembly. Damage to the gearbox will occur if operated without oil.

1. With the gearbox in the upright position, remove the vented fill plug and the oil level check plug from the gearbox (See Fig. 16). Add 64 oz. of a non-foaming multi-purpose gear oil (same as used commercially for automotive differentials).

For normal operating temperatures ranging between 40°F-120°F we recommend an SAE 90* weight gear oil, for temperatures below 40°F we recommend an SAE 80 weight gear oil.

Watch the level check opening, when oil begins to leak from the opening, stop adding oil and replace both plugs. **Do Not** overfill. Additional oil may damage the seals or it may be forced through the vent plug.

4. Use four 3/8” x 1” bolts and nylon locknuts to secure the reducer gearbox to the head plate.

5. Fasten the motor mount support (Ref. 3) and belt guard brackets (Ref. 4) to the head plate using four 1/2” x 1 1/4” bolts, lock washers and non-lock nuts (the guard brackets go on the outside of the motor mount support, use the back pair of holes on each side of the support when mounting to the head plate).

Make certain the motor mount support is arranged so that the pivot shaft holes are on the right hand side as seen when looking from the intake end of the auger toward the discharge end (See Fig. 17).

6. Thread the adjusting rod (Ref. 5) down through the nut welded to the top of the motor mount support (Ref. 3) until it extends 2” to 3” above the top of the support (final adjustment will be done after installing the motor and belts).

7. Set the motor mount plate (Ref. 6) over the motor mount support and align the pivot shaft holes. Insert the pivot shaft (Ref. 7) and secure each end using the cotter pins provided.

---

* For temperatures below 4.4°C (40°F), use an 80 weight oil of the same quality as the 90 weight. Extra pressure additives may be of value in severe applications.

---

Fig. 16

2. Attach the head plate (Ref. 1) to the ring flange on the horizontal unload tube (See Fig. 17). Secure the head plate using eleven 3/8” x 1” bolts and nylon locknuts.

3. Secure the output shaft on the 3:1 reducer gearbox (Ref. 2) to the incline flight using two 5/8” x 4” bolts and nylon locknuts (See Fig. 17).
IMPORTANT! Use the proper size and speed motor to ensure satisfactory auger operation. Too small of a motor will not supply the horsepower required to achieve capacity. This can result in motor damage and will void the warranty.

Too large of a motor may cause high stress on some auger components resulting in shorter life of those components. Refer to Pages 5 thru 7 for the recommended motor and pulley sizes.

NOTE: With 12" OD driven (auger) pulley, use 3.5" OD motor pulley to obtain auger speed of 170 RPM.

NOTE: With 12" OD driven pulley, use 5.0" OD motor pulley to obtain auger speed of 245 RPM.

8. Secure the belt guard (Ref. 8) to the guard brackets using four 5/16" x 1" bolts, flat washers, lock washers and non-lock nuts (the guard has two pairs of slots, an upper and lower, use the bottom slot in each pair, See Fig. 18).

9. Install the 12" OD sheave (Ref. 9) and the square 1/4" x 2" long key (Ref. 10) onto the reducer gearbox input shaft as shown in Fig. 18.

10. Install the electric motor onto the mount plate and install motor pulley, the electric motor, its mounting hardware and the motor pulley are not furnished. (refer to Page 22 for motor mount hole locations and the proper size hardware to be used when mounting the motor).

Place a straight edge on the outer face of the pulleys and when properly aligned, secure motor pulley (make sure the sheave and motor pulley do not contact any portion of the belt guard, make adjustments as necessary).

11. Install the belts (Ref. 11) onto the pulleys and using the threaded adjustment rod, tighten the belts until there is approximately 1/2" of deflection when firmly pressing on the belts at the center of the span between the pulleys.

Do Not overtighten the belts as this puts unnecessary load on the gearbox input shaft bearings.

It will be necessary to check belt tension as part of the periodic maintenance schedule.

12. Once belts are tensioned properly, install a 3/4" non-lock nut onto the bottom of the threaded rod and secure it tightly against the bottom of the support plate. Check all fasteners to ensure they are tight.
MOTOR MOUNT HOLE LOCATIONS
25° UNLOADER, REDUCER DRIVE

Motor Mount Hole Location for Reducer Drive Units

<table>
<thead>
<tr>
<th>Motor Size H.P.</th>
<th>Motor Frame Size</th>
<th>Bolt Dia. Req'd.</th>
<th>Mount in Holes Marked (•)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>184T</td>
<td>3/8&quot;</td>
<td>• • • •</td>
</tr>
<tr>
<td>7.5</td>
<td>213T</td>
<td>3/8&quot;</td>
<td>• • • •</td>
</tr>
<tr>
<td>10</td>
<td>215T</td>
<td>3/8&quot;</td>
<td>• • • •</td>
</tr>
<tr>
<td>15</td>
<td>254T</td>
<td>1/2&quot;</td>
<td>• • • •</td>
</tr>
</tbody>
</table>

Motor Pulley (not furnished)

Electric Motor (not furnished)

Adjusting Rod for Belt Tension

Driven Pulley

Belt Guard Bracket

Shown as Reference Only

Belt Guard Bracket

Motor Mount Support

Head Plate
SAFETY DECALS & SIGNS

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 Hutchinson Dealer.

DANGER Sign No. 1002303 was supplied with the bin unloading auger. This safety sign should be applied to the side of the bin near the opening, so it will be viewed by people entering into the bin or storage building.

![Safety Decals & Signs Diagram]

Ref. No.  Part No. Description
1 1002303 Decal: Danger, Rotating Flight
2 1002301 Decal: Caution, General Operator’s Statement
3 1001128 Decal, Hutchinson Globe
(3) 1048742 Decal, NECO logo

SERIAL NUMBER

To insure efficient and prompt service, please furnish us with the model and serial number of your auger in all correspondence or other contacts. The serial plate is located on the motor mount frame.
## 25° UNLOADING AUGER COMPONENTS

### 6” to 8”

All items shown are used for both the electric and the hydraulic drive units except for items 2, 3 & 4 (head plate, head bearing and head stub). These items are used with the electric drive only. See Page P-8 for hydraulic drive components.

The complete incline assembly for 8” electric models can be obtained by ordering Part No. 1034644. The assembly includes all items except - Items 8, 11, 15 & 16.

The complete incline assembly for 8” hydraulic models can be obtained by ordering Part No. 1035027. The assembly includes all items except - Items 2, 3, 4, 8, 11, 15 & 16.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1034629</td>
<td>Incline Tube, f/8”</td>
<td>9</td>
<td>1015304</td>
<td>Stub, f/8” (u-joint to incline flight)</td>
</tr>
<tr>
<td>2</td>
<td>1027804</td>
<td>Head Plate, f/8”</td>
<td>10</td>
<td>4020A1</td>
<td>Key, 1/4” sq. x 1” long, f/8”</td>
</tr>
<tr>
<td>3</td>
<td>8325A</td>
<td>Bearing, 1 1/4” bore (2-hole flange)</td>
<td>11</td>
<td>1016807</td>
<td>Adapter Plate, f/6” to 8”</td>
</tr>
<tr>
<td>4</td>
<td>8326A</td>
<td>Head Stub, f/8”</td>
<td>12</td>
<td>1002301</td>
<td>Decal, Caution - Read and...</td>
</tr>
<tr>
<td>5</td>
<td>1040885</td>
<td>Coupler Box, f/8”</td>
<td>13</td>
<td>1001128</td>
<td>Decal, Hutchinson Logo</td>
</tr>
<tr>
<td>6</td>
<td>1040967</td>
<td>Lid, Coupler Box, f/8”</td>
<td>14</td>
<td>1035028</td>
<td>“Flight, 7” O.D. x 64.5” Ig (f/8”)</td>
</tr>
<tr>
<td>7</td>
<td>1015313</td>
<td>U-Joint, 1 1/4” (f/8”)</td>
<td>15</td>
<td>1230C</td>
<td>Quick Clamp</td>
</tr>
<tr>
<td>8</td>
<td>1036155</td>
<td>Bearing Hanger, f/8”</td>
<td>16</td>
<td>1034715</td>
<td>Stub, f/6” to 8” (u-joint to unload flight)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(16)</td>
<td>1034775</td>
<td>Stub, f/8” to 8” (u-joint to unload flight)</td>
</tr>
</tbody>
</table>

* Not Shown

A Quick Clamp (Item 15) is also provided. This clamp can be used to attach the incline coupler box to the horizontal unload tube instead of using the bolts and hardware as described in the assembly procedures.
### 25° ELECTRIC DRIVE COMPONENTS

**and SUPPORT STAND**

**6” to 8”**

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1042260</td>
<td>Motor Mount Plate, f/8”</td>
</tr>
<tr>
<td>2</td>
<td>1042262</td>
<td>Motor Mount Support, f/8”</td>
</tr>
<tr>
<td>3</td>
<td>1042145</td>
<td>Pivot Shaft, f/8”</td>
</tr>
<tr>
<td>4</td>
<td>1027782</td>
<td>Belt Guard Back, f/8”</td>
</tr>
<tr>
<td>5</td>
<td>1027801</td>
<td>Belt Guard, Plastic f/8”</td>
</tr>
<tr>
<td>6</td>
<td>40152</td>
<td>Sheave, 12” 2-belt f/8”</td>
</tr>
<tr>
<td>7</td>
<td>40117</td>
<td>Belt, B-50 f/8”</td>
</tr>
<tr>
<td>8</td>
<td>5042A1</td>
<td>Half-Band, 4” wide, f/8”</td>
</tr>
<tr>
<td>9</td>
<td>6283A1</td>
<td>Bracket, Support Stand, f/8”</td>
</tr>
<tr>
<td>10</td>
<td>1034763</td>
<td>Support Stand</td>
</tr>
<tr>
<td>11</td>
<td>1034629</td>
<td>Incline Tube, f/8”</td>
</tr>
<tr>
<td>12</td>
<td>1027804</td>
<td>Head Plate, f/8”</td>
</tr>
<tr>
<td>13</td>
<td>1013133</td>
<td>Tinnerman Nut, 1/4-20</td>
</tr>
<tr>
<td>14</td>
<td>1013131</td>
<td>Wing Bolt, 1/4” x 1/2”</td>
</tr>
<tr>
<td>15</td>
<td>D1170</td>
<td>Nut, Non-lock 5/8-11</td>
</tr>
<tr>
<td>16</td>
<td>1027780</td>
<td>Adjustment Rod</td>
</tr>
<tr>
<td>17</td>
<td>4045A1</td>
<td>Key, 1/4” sq. x 2” long</td>
</tr>
</tbody>
</table>

*Slide Cover Between Tinnerman Nut & Wing Bolt*
**PARTS LIST**

**25° UNLOADING AUGER COMPONENTS**

**8” to 10”**

All items shown are used for both the electric and the hydraulic drive units except for items 2, 3 & 4 (head plate, head bearing and head stub). These items are used with the electric drive only. See Page P-8 for hydraulic drive components.

The complete incline assembly for 10” electric models can be obtained by ordering **Part No. 1034677**. The assembly includes all items except, Items 8, 11, 15 & 16.

The complete incline assembly for 10” hydraulic models can be obtained by ordering **Part No. 1035034**. The assembly includes all items except, Items 2, 3, 4, 8, 11, 15 & 16.

A Quick Clamp (Item 15) is also provided. This clamp can be used to attach the incline coupler box to the horizontal unload tube instead of using the bolts and hardware described in the assembly procedures.

---

### Parts List

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1034674</td>
<td>Incline Tube, f/10”</td>
<td>(8)</td>
<td>1034688N</td>
<td>Bearing Hanger f/10” (NECO)</td>
</tr>
<tr>
<td>2</td>
<td>2141C</td>
<td>Head Plate, f/10”</td>
<td>9</td>
<td>1015306</td>
<td>Stubs, f/10” (u-joint to incline flight)</td>
</tr>
<tr>
<td>3</td>
<td>2141CN</td>
<td>Head Plate, f/10” (NECO)</td>
<td>10</td>
<td>1002276</td>
<td>Key, 3/8” sq. x 1” long, f/10”</td>
</tr>
<tr>
<td>4</td>
<td>1010A</td>
<td>Bearing, 1 1/2” bore 4-hole flange (f/10”)</td>
<td>11</td>
<td>1022687</td>
<td>Adapter Plate, f/8” to 10”</td>
</tr>
<tr>
<td>5</td>
<td>1040823</td>
<td>Coupler Box, f/10”</td>
<td>12</td>
<td>1002301</td>
<td>Decal, Caution - Read and...</td>
</tr>
<tr>
<td>(5)</td>
<td>1040823N</td>
<td>Coupler Box, f/10” (NECO)</td>
<td>13</td>
<td>1001128</td>
<td>Decal, Hutchinson (Globe)</td>
</tr>
<tr>
<td>6</td>
<td>1040829</td>
<td>Lid, Coupler Box, f/10”</td>
<td>(13)</td>
<td>1048742</td>
<td>Decal, NECO logo</td>
</tr>
<tr>
<td>7</td>
<td>1015292</td>
<td>U-Joint, 1 1/2” (f/10”)</td>
<td>14</td>
<td>1022613</td>
<td>“Flight, 9” O.D. x 66” lg (f/10”)</td>
</tr>
<tr>
<td>8</td>
<td>1034688</td>
<td>Bearing Hanger, f/10”</td>
<td>15</td>
<td>1330C</td>
<td>Quick Clamp</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td>1034716</td>
<td>Stub, f/8” to 10” (u-joint to unload flight)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Not Shown</td>
</tr>
</tbody>
</table>

---

8/17 0401598 1034773-P4
### PARTS LIST

#### 25° ELECTRIC DRIVE COMPONENTS and SUPPORT STAND

**8” to 10”**

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1022136</td>
<td>Motor Mount Plate, f/10”</td>
</tr>
<tr>
<td>(1)</td>
<td>1022136N</td>
<td>Motor Mount Plate, f/10” (NECO)</td>
</tr>
<tr>
<td>2</td>
<td>1009097</td>
<td>Belt Guard Mount Bracket, f/10” 3-belt</td>
</tr>
<tr>
<td>(2)</td>
<td>1009099</td>
<td>Belt Guard Mount Bracket, f/10” 2-belt</td>
</tr>
<tr>
<td>3</td>
<td>1022139</td>
<td>Motor Mount Support, f/10”</td>
</tr>
<tr>
<td>(3)</td>
<td>1022139N</td>
<td>Motor Mount Support, f/10” (NECO)</td>
</tr>
<tr>
<td>4</td>
<td>1018789</td>
<td>Pivot Shaft, f/10”</td>
</tr>
<tr>
<td>(4)</td>
<td>1018789N</td>
<td>Pivot Shaft, f/10” (NECO)</td>
</tr>
<tr>
<td>5</td>
<td>1009102</td>
<td>Belt Guard, f/10”</td>
</tr>
<tr>
<td>(5)</td>
<td>1009102N</td>
<td>Belt Guard, f/10” (NECO)</td>
</tr>
<tr>
<td>6</td>
<td>4073A1</td>
<td>Key, 3/8” sq. x 3” (f/10” 3-belt)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>1038D</td>
<td>Key, 3/8” sq. x 2” (f/10” 2-belt)</td>
</tr>
<tr>
<td>7</td>
<td>40159</td>
<td>Sheave, 15” 2-belt (f/10”)</td>
</tr>
<tr>
<td>(7)</td>
<td>40162</td>
<td>Sheave, 15” 3-belt (f/10”)</td>
</tr>
<tr>
<td>8</td>
<td>40122</td>
<td>Belt, B-62 (f/10”)</td>
</tr>
<tr>
<td>9</td>
<td>5044A1</td>
<td>Half-Band, 4” wide (f/10”)</td>
</tr>
<tr>
<td>10</td>
<td>6284A1</td>
<td>Bracket, Support Stand (f/10”)</td>
</tr>
<tr>
<td>(10)</td>
<td>6284A1N</td>
<td>Bracket, Support Stand, f/ 10” (NECO)</td>
</tr>
<tr>
<td>11</td>
<td>1034763</td>
<td>Support Stand f/ 10”</td>
</tr>
<tr>
<td>(11)</td>
<td>1034763N</td>
<td>Support Stand f/ 10” (NECO)</td>
</tr>
<tr>
<td>12</td>
<td>1034674</td>
<td>Incline Tube (f/10”)</td>
</tr>
<tr>
<td>13</td>
<td>2141C</td>
<td>Head Plate, f/10”</td>
</tr>
<tr>
<td>(13)</td>
<td>2141CN</td>
<td>Head Plate, f/10” (NECO)</td>
</tr>
</tbody>
</table>
PARTS LIST

25° UNLOADING AUGER COMPONENTS
10” to 12”

All items shown are used for both the electric and the hydraulic drive units except for items 2, 3 & 4 (head plate, head bearing and head stub). These items are used with the electric drive only.

See Page P-8 for 10” hydraulic drive components.

The complete incline assembly for 10” & 12” electric models can be obtained by ordering Part No’s. 1034699 for 12” models and 1034677 for 10” models.

Both assemblies include all items except, Items 8, 11, 15 & 16.

See Page P-4 for 10” hydraulic incline assembly information.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1034674</td>
<td>Incline Tube, f/10”</td>
<td>(8) 1034688N</td>
<td>Bearing Hanger, f/10” (NECO)</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>1034697</td>
<td>Incline Tube, f/12”</td>
<td>(8) 1034714</td>
<td>Bearing Hanger, f/12”</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2141C</td>
<td>Head Plate, f/10”</td>
<td>(8) 1034714N</td>
<td>Bearing Hanger, f/12” (NECO)</td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>2141CN</td>
<td>Head Plate, f/10” (NECO)</td>
<td>9 1015306</td>
<td>Tail Stub, f/10” to 10” (u-joint to incline flight)</td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>2229C</td>
<td>Head Plate, f/12”</td>
<td></td>
<td>Tail Stub, f/10” to 12” (u-joint to incline flight)</td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>2229CN</td>
<td>Head Plate, f/12” (NECO)</td>
<td>(9) 1015305</td>
<td>Tail Stub, f/10” to 12” (u-joint to incline flight)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1010A</td>
<td>Bearing, 1 1/2” bore 4-hole flange (f/10”)</td>
<td>10 1002276</td>
<td>Key, 3/8” sq. x 1” long, f/10” &amp; 12”</td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>2214C</td>
<td>Bearing, 2” bore 4-hole flange (f/12”)</td>
<td>11 2203J</td>
<td>Adapter Plate, f/10” to 12”</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1060D</td>
<td>Head Stub, f/10”</td>
<td>12 1002301</td>
<td>Decal, Caution - Read and...</td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>2220C</td>
<td>Head Stub, f/12”</td>
<td>13 1001128</td>
<td>Decal, Hutchinson (Globe)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1040823</td>
<td>Coupler Box, f/10”</td>
<td>(13) 1048742</td>
<td>Decal, NECO logo</td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>1040823N</td>
<td>Coupler Box, f/10” (NECO)</td>
<td>14 1022613</td>
<td>“Flight, 9” O.D. x 66” lg (f/10”)</td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>1040894</td>
<td>Coupler Box, f/12”</td>
<td>(14) 1022623</td>
<td>“Flight, 11” O.D. x 66” lg (f/12”)</td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>1040894N</td>
<td>Coupler Box, f/12” (NECO)</td>
<td>15 1330C</td>
<td>Quick Clamp</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1040829</td>
<td>Lid, Coupler Box, f/10”</td>
<td>16 1034716</td>
<td>Stub, f/10” to 10” (u-joint to unload flight)</td>
<td></td>
</tr>
<tr>
<td>(6)</td>
<td>1040964</td>
<td>Lid Coupler Box, f/12”</td>
<td>(16) 1034717</td>
<td>Stub, f/10” to 12” (u-joint to unload flight)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1015292</td>
<td>U-Joint, 1 1/2” (f/10” &amp; 12”)</td>
<td></td>
<td>* Not Shown</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1034688</td>
<td>Bearing Hanger, f/10”</td>
<td></td>
<td>* Not Shown</td>
<td></td>
</tr>
</tbody>
</table>

A Quick Clamp (Item 15) is also provided. This clamp can be used to attach the incline coupler box to the horizontal unload tube instead of using the bolts and hardware described in the assembly procedures.
### 25° ELECTRIC DRIVE COMPONENTS and SUPPORT STAND

**10” to 12”**

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1022136</td>
<td>Motor Mount Plate, f/10” &amp; 12”</td>
</tr>
<tr>
<td></td>
<td>1022136N</td>
<td>Motor Mount Plate, f/10” &amp; 12” (NECO)</td>
</tr>
<tr>
<td>2</td>
<td>1009097</td>
<td>Belt Guard Mount Bracket, f/10” 3-blt</td>
</tr>
<tr>
<td></td>
<td>1009099</td>
<td>Belt Guard Mount Bracket, f/10” 2-blt</td>
</tr>
<tr>
<td></td>
<td>1022156</td>
<td>Belt Guard Mount Bracket, f/12” 2-blt &amp; 3-blt</td>
</tr>
<tr>
<td>3</td>
<td>1022139</td>
<td>Motor Mount Support, f/10”</td>
</tr>
<tr>
<td></td>
<td>1022139N</td>
<td>Motor Mount Support, f/10” (NECO)</td>
</tr>
<tr>
<td></td>
<td>1022140</td>
<td>Motor Mount Support, f/12”</td>
</tr>
<tr>
<td></td>
<td>1022140N</td>
<td>Motor Mount Support, f/12” (NECO)</td>
</tr>
<tr>
<td>4</td>
<td>1018789</td>
<td>Pivot Shaft, f/10” and 12”</td>
</tr>
<tr>
<td></td>
<td>1018789N</td>
<td>Pivot Shaft, f/10” and 12” (NECO)</td>
</tr>
<tr>
<td>5</td>
<td>1009102</td>
<td>Belt Guard, f/10” and 12”</td>
</tr>
<tr>
<td></td>
<td>1009102N</td>
<td>Belt Guard, f/10” and 12” (NECO)</td>
</tr>
<tr>
<td>6</td>
<td>4073A1</td>
<td>Key, 3/8” sq. x 3” lg (f/10” 3-blt &amp; 12” 2 &amp; 3-blt)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>41519</td>
<td>Sheave, 15” 2-blt (f/10” &amp; 12”)</td>
</tr>
<tr>
<td></td>
<td>40162</td>
<td>Sheave, 15” 3-blt (f/10” &amp; 12”)</td>
</tr>
<tr>
<td>8</td>
<td>40122</td>
<td>Belt, B-62 (f/10”)</td>
</tr>
<tr>
<td></td>
<td>40124</td>
<td>Belt, B-66 (f/12”)</td>
</tr>
<tr>
<td>9</td>
<td>5044A1</td>
<td>Half-Band, 4” wide (f/10”)</td>
</tr>
<tr>
<td></td>
<td>5271A1</td>
<td>Half-Band, 4” wide (f/12”)</td>
</tr>
<tr>
<td>10</td>
<td>6284A1</td>
<td>Bracket, Support Stand, f/10”</td>
</tr>
<tr>
<td></td>
<td>6284A1N</td>
<td>Bracket, Support Stand, f/10” (NECO)</td>
</tr>
<tr>
<td>11</td>
<td>1034763</td>
<td>Support Stand, 10” &amp; 12”</td>
</tr>
<tr>
<td></td>
<td>1034763N</td>
<td>Support Stand, 10” &amp; 12” (NECO)</td>
</tr>
<tr>
<td>12</td>
<td>1034674</td>
<td>Incline Tube (f/10”)</td>
</tr>
<tr>
<td></td>
<td>1034697</td>
<td>Incline Tube (f/12”)</td>
</tr>
<tr>
<td>13</td>
<td>2141C</td>
<td>Head Plate, f/10”</td>
</tr>
<tr>
<td></td>
<td>2141CN</td>
<td>Head Plate, f/10” (NECO)</td>
</tr>
<tr>
<td></td>
<td>2229C</td>
<td>Head Plate, f/12”</td>
</tr>
<tr>
<td></td>
<td>2229CN</td>
<td>Head Plate, f/12” (NECO)</td>
</tr>
</tbody>
</table>
25° UNLOADING AUGER COMPONENTS

8” HYDRAULIC DRIVE
and 10” HYDRAULIC DRIVE

This key supplied with hydraulic motor.

8” Hydraulic Drive Shown as Reference Only

The hydraulic hoses are not furnished. These can be obtained locally, ordered from the factory or through your dealer. The factory Part No. is 420030, these hoses are 1/2” x 72” lg. with 7/8-14 O-Ring fitting on the motor connection end and 1/2” male pipe fitting for tractor connection. The tractor connection fitting is not furnished.
25° UNLOADER AUGER
3:1 REDUCER DRIVE COMPONENTS

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1022995</td>
<td>Head Plate</td>
<td>7</td>
<td>1011904</td>
<td>Reducer, 3:1 Reduction</td>
</tr>
<tr>
<td>(1)</td>
<td>1022995N</td>
<td>Head Plate (NECO)</td>
<td>8</td>
<td>1009101</td>
<td>Belt Guard</td>
</tr>
<tr>
<td>2</td>
<td>1022987</td>
<td>Motor Mount Support</td>
<td>(8)</td>
<td>1009101N</td>
<td>Belt Guard (NECO)</td>
</tr>
<tr>
<td>(2)</td>
<td>1022987N</td>
<td>Motor Mount Support (NECO)</td>
<td>9</td>
<td>40152</td>
<td>Sheave, 12” O.D. (2-Belt)</td>
</tr>
<tr>
<td>3</td>
<td>1022136</td>
<td>Motor Mount Plate</td>
<td>(9)</td>
<td>40154</td>
<td>Sheave, 12” O.D. (3-Belt)</td>
</tr>
<tr>
<td>(3)</td>
<td>1022136N</td>
<td>Motor Mount Plate (NECO)</td>
<td>10</td>
<td>4045A1</td>
<td>Key, 1/4” sq. x 2” long</td>
</tr>
<tr>
<td>4</td>
<td>1018789</td>
<td>Pivot Pin</td>
<td>11</td>
<td>40119</td>
<td>Belt, B-54 (for 12” sheave w/3.5” motor sheave)</td>
</tr>
<tr>
<td>(4)</td>
<td>1018789N</td>
<td>Pivot Pin (NECO)</td>
<td>(11)</td>
<td>40120</td>
<td>Belt, B-57 (for 12” sheave w/5” motor sheave)</td>
</tr>
<tr>
<td>5</td>
<td>1022381</td>
<td>Adjustment Rod</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1026507</td>
<td>Belt Guard Bracket</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ref. No.</td>
<td>Part No.</td>
<td>Description</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1001523</td>
<td>Aluminum Casting (inside)</td>
<td>Roll Pin, 5/16&quot; x 2 1/2&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1003044</td>
<td>Aluminum Casting (outside)</td>
<td>Seal, Output Shaft, 1 1/2&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1001847</td>
<td>Chain, #80 - 36 Pitch (includes connecting link)</td>
<td>Seal, Input Shaft, 1 1/4&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1001573</td>
<td>Gasket</td>
<td>Key, 1/4&quot; sq. x 1&quot; long</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>106322</td>
<td>Bearing Cone, 1 1/4&quot; (Timken No. 15123)</td>
<td>Key, 3/8&quot; sq. x 1&quot; long</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>035439</td>
<td>Bearing Cone, 1 1/2&quot; (Timken No. LM29749)</td>
<td>Drain Plug, 3/8&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1001841</td>
<td>Sprocket, 1 1/2&quot; Bore - 27 tooth</td>
<td>Bearing Cup, 1 1/4&quot; (Timken No. 15245)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1011905</td>
<td>Stub, Output Shaft, 2&quot;</td>
<td>Bearing Cup, 1 1/2&quot; (Timken No. LM29710)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1001850</td>
<td>Stub, Input Shaft, 1 1/4&quot;</td>
<td>Pipe, vented plug, 3/8&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1001840</td>
<td>Sprocket, 1 1/4&quot; Bore - 9 tooth</td>
<td>Cap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>4727-1</td>
<td>Bolt, 5/16-18 x 1 1/4&quot;</td>
<td>Cap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>33144</td>
<td>Lock Washer, 5/16&quot;</td>
<td>Roll Pin, 5/16&quot; x 2&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>33151</td>
<td>Nut, 5/16-18 Lock</td>
<td>Decal, Fill With Oil...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## TORQUE CHART

**General Torque Specification Table**

*Use the Following Torques When Special Torques Are Not Given*

Note: These values apply to fasteners as received from supplier, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly-disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

<table>
<thead>
<tr>
<th>SAE Grade No.</th>
<th>SAE 2</th>
<th>SAE 5</th>
<th>SAE 8*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Torque Foot Pounds</td>
<td>Newton-Meters</td>
<td>Torque Foot Pounds</td>
</tr>
<tr>
<td>1/4</td>
<td>6.35</td>
<td>9</td>
<td>6.8</td>
</tr>
<tr>
<td>5/16</td>
<td>7.94</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>3/8</td>
<td>9.53</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>7/16</td>
<td>11.11</td>
<td>30</td>
<td>64</td>
</tr>
<tr>
<td>1/2</td>
<td>12.70</td>
<td>45</td>
<td>96</td>
</tr>
<tr>
<td>9/16</td>
<td>14.29</td>
<td>65</td>
<td>132</td>
</tr>
<tr>
<td>5/8</td>
<td>15.88</td>
<td>95</td>
<td>180</td>
</tr>
<tr>
<td>3/4</td>
<td>19.05</td>
<td>150</td>
<td>203.3</td>
</tr>
<tr>
<td>7/8</td>
<td>22.23</td>
<td>160</td>
<td>216.8</td>
</tr>
<tr>
<td>1</td>
<td>25.40</td>
<td>250</td>
<td>338.8</td>
</tr>
<tr>
<td>1 1/8</td>
<td>25.58</td>
<td>300</td>
<td>406.5</td>
</tr>
<tr>
<td>1 1/4</td>
<td>31.75</td>
<td>350</td>
<td>580</td>
</tr>
<tr>
<td>1 3/8</td>
<td>34.93</td>
<td>400</td>
<td>786.5</td>
</tr>
<tr>
<td>1 1/2</td>
<td>38.10</td>
<td>450</td>
<td>943.8</td>
</tr>
</tbody>
</table>

*Thick nuts must be used with Grade 8 bolts*