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

OWNER’S & OPERATOR’S MANUAL

Effective October 6, 2008

Publication No. 1027845CE

IMPORTANT!
The 3:1 Gearbox is shipped **Without Oil**.
Oil must be added before operation.
Refer to the Assembly Section in this Manual.

CE
Original Instructions

HUTCHINSON MAYRATH

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POLICIES and PROCEDURES

Prices: Prices in effect at time of shipment will apply. Prices are subject to change without notice. All prices are F.O.B. Clay Center, Kansas. Orders shipped from locations other than Clay Center, Kansas will be subject to additional charges, such as back freight and/or additional freight.

Service Charge: A service charge will be assessed 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 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 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 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.

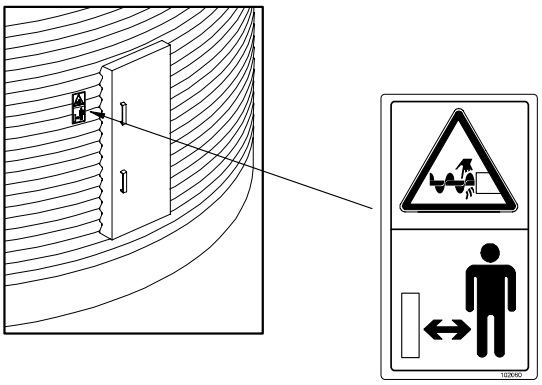
BE ALERT!

YOUR SAFETY IS INVOLVED

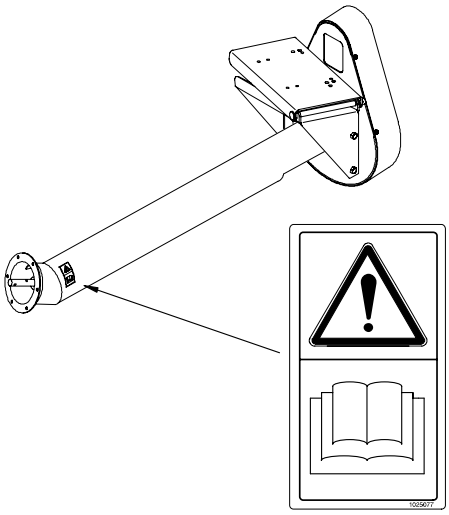
SAFETY DECALS

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

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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. 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).
5. The gearbox for the reducer drive units is shipped **without oil** (Refer to the Assembly Instructions Section for correct filling procedures).

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

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.

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.

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.

ELECTRIC DRIVE POWER REQUIREMENTS

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).

Always use a motor with the required power recommended in the charts on Pages 6 and 7. **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.

FLIGHT SPEED INFORMATION

Proper auger flight speed is important for efficient operation of the auger (see chart below).

If the flight speed is too fast, excessive wear will result. 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.

The chart below shows the recommended flight speed for the specific models listed.

The diameter of the pulleys as well as the motor size determine the speed needed to achieve the proper rpm. Refer to the charts on Pages 6 & 7 for the recommended power requirements.

Flight Speed Information

Model	Motor Pulley Dia.*	Driven (Auger) Pulley Dia.	Recommended Auger Speed	Auger Speed Range
15.2 cm to 15.2 cm (6" to 6")	103 mm P.D. (4.0" P.D.)	30.5 cm O.D. (12" O.D.)	510 RPM	450 to 700 RPM
15.2 cm to 20.3 cm (6" to 8")	103 mm P.D. (4.0" P.D.)	30.5 cm O.D. (12" O.D.)	510 RPM	450 to 700 RPM
20.3 cm to 20.3 cm (8" to 8")	103 mm P.D. (4.0" P.D.)	30.5 cm O.D. (12" O.D.)	510 RPM	450 to 700 RPM
20.3 cm to 25.4 cm (8" to 10")	103 mm P.D. (4.0" P.D.)	38.1 cm O.D. (15" O.D.)	408 RPM	325 to 500 RPM
25.4 cm to 30.5 cm (10" to 12")	90 mm P.D. (3.4" P.D.)	38.1 cm O.D. (15" O.D.)	350 RPM	225 to 400 RPM

* Motor pulleys are not furnished with the auger.

P.D. = Pitch Diameter
O.D. = Outside Diameter

POWER REQUIREMENTS

Use the following Power Requirement Charts according to the length of Horizontal Unloading Flight used.

Used with Standard Bin well

Silo Dia.	All 6"		All 8"		All 10" Commercial	
	Flight Length	kw	Flight Length	kw	Flight Length	kw
4.27 m – 4.88 m (14'–16')	2.67 m (8'-9")	1.5 kw (2 hp)	2.69 m (8'-10")	2.2 kw (3 hp)		
5.18 m – 5.79 m (17'–19')	3.28 m (10'-9")	1.5 kw (2 hp)	3.30 m (10'-10")	2.2 kw (3 hp)		
6.10 m – 6.71 m (20'–22')	3.58 m (11'-9")	2.2 kw (3 hp)	3.61 m (11'-10")	4 kw (5 hp)		
7.01 m – 7.65 m (23'–25')	4.04 m (13'-3")	2.2 kw (3 hp)	4.06 m (13'-4")	4 kw (5 hp)	4.11 m (13'-6")	5.5 kw (7.5 hp)
7.92 m – 8.53 m (26'–28')	4.50 m (14'-9")	2.2 kw (3 hp)	4.52 m (14'-10")	4 kw (5 hp)	4.57 m (15'-0")	5.5 kw (7.5 hp)
8.84 m – 9.45 m (29'–31')	4.95 m (16'-3")	2.2 kw (3 hp)	4.98 m (16'-4")	5.5 kw (7.5 hp)	5.03 m (16'-6")	5.5 kw (7.5 hp)
9.75 m – 10.36 m (32'–34')	5.56 m (18'-3")	2.2 kw (3 hp)	5.59 m (18'-4")	5.5 kw (7.5 hp)	5.64 m (18'-6")	5.5 kw (7.5 hp)
10.67 m – 11.28 m (35'–37')	5.87 m (19'-3")	2.2 kw (3 hp)	5.89 m (19'-4")	5.5 kw (7.5 hp)	5.94 m (19'-6")	5.5 kw (7.5 hp)

Used with Power Sweep Units

Silo Dia.	All 6"		All 8"		All 10" Commercial	
	Flight Length	kw (hp)	Flight Length	kw (hp)	Flight Length	kw (hp)
4.57 m (15')	3.07 m (10-0 3/4")	2.2 kw (3 hp)	3.07 m (10-0 3/4")	4 kw (5 hp)		
5.49 m (18')	3.68 m (12-0 3/4")	2.2 kw (3 hp)	3.68 m (12-0 3/4")	4 kw (5 hp)	3.68 m (12-0 3/4")	
6.40 m (21')	3.98 m (13'-0 3/4")	4 kw (5 hp)	3.98 m (13'-0 3/4")	4 kw (5 hp)		
7.32 m (24')	4.44 m (14'-6 3/4")	4 kw (5 hp)	4.44 m (14'-6 3/4")	4 kw (5 hp)	4.44 m (14'-6 3/4")	7.5 kw (10 hp)
8.23 m (27')	4.90 m (16'-0 3/4")	4 kw (5 hp)	4.90 m (16'-0 3/4")	4 kw (5 hp)	4.90 m (16'-0 3/4")	7.5 kw (10 hp)
9.14 m (30')	5.35 m (17'-6 3/4")	4 kw (5 hp)	5.35 m (17'-6 3/4")	5.5 kw (7.5 hp)	5.35 m (17'-6 3/4")	7.5 kw (10 hp)
10.06 m (33')	5.81 m (19'-0 3/4")	4 kw (5 hp)	5.81 m (19'-0 3/4")	5.5 kw (7.5 hp)	5.81 m (19'-0 3/4")	7.5 kw (10 hp)
10.97 m (36')	6.27 m (20'-6 3/4")	5.5 kw (7.5 hp)	6.27 m (20'-6 3/4")	5.5 kw (7.5 hp)	6.27 m (20'-6 3/4")	7.5 kw (10 hp)

POWER REQUIREMENTS

Use the following Power Requirement Charts according to the length of Horizontal Unloading Flight used.

Used With Commercial Bin Well & Tubes				
	All 8”		All 10” Commercial	
Silo Dia.	Flight Length	kw	Flight Length	kw
7.32 m (24’)	4.42 m (14’-6”)	4 kw (5 hp)	4.42 m (14’-6”)	5.5 kw (7.5 hp)
8.23 m (27’)	4.88 m (16’-0”)	4 kw (5 hp)	4.88 m (16’-0”)	5.5 kw (7.5 hp)
9.14 m (30’)	5.33 m (17’-6”)	4 kw (5 hp)	5.33 m (17’-6”)	5.5 kw (7.5 hp)
10.06 m – 7.65 m (33’ – 34’)	5.94 m (19’-6”)	4 kw (5 hp)	5.94 m (19’-6”)	5.5 kw (7.5 hp)
10.97 m (36’)	6.25 m (20’-6”)	5.5 kw (7.5 hp)	6.25 m (20’-6”)	5.5 kw (7.5 hp)
11.28 m – 11.89 m (37’ – 39’)	6.71 m (22’-0”)	5.5 kw (7.5 hp)	6.71 m (22’-0”)	7.5 kw (10 hp)
12.19 m (40’)	7.01 m (23’-0”)	5.5 kw (7.5 hp)	7.01 m (23’-0”)	7.5 kw (10 hp)
12.80 m (42’)	7.32 m (24’-0”)	5.5 kw (7.5 hp)	7.32 m (24’-0”)	7.5 kw (10 hp)

Used With Commercial Bin Well & Tubes				
	All 8”		All 10” Commercial	
Silo Dia.	Flight Length	kw	Flight Length	kw
14.63 m – 14.94 m (48’ – 49’)	8.23 m (27’-0”)	5.5 kw (7.5 hp)	8.23 m (27’-0”)	7.5 kw (10 hp)
16.64 m – 16.76 m (54’ – 55’)	9.14 m (30’-0”)	5.5 kw (7.5 hp)	9.14 m (30’-0”)	7.5 kw (10 hp)
18.29 m (60’)	10.06 m (33’-0”)	5.5 kw (7.5 hp)	10.06 m (33’-0”)	11 kw (15 hp)
19.20 m (63’)	10.52 m (34’-6”)	5.5 kw (7.5 hp)	10.52 m (34’-6”)	11 kw (15 hp)
20.73 m – 21.03 m (68’ – 69’)	11.43 m (37’-6”)	7.5 kw (10 hp)	11.43 m (37’-6”)	11 kw (15 hp)
21.95 m (72’)	11.89 m (39’-0”)	7.5 kw (10 hp)	11.89 m (39’-0”)	11 kw (15 hp)
22.86 m (75’)	12.34 m (40’-6”)	7.5 kw (10 hp)	12.34 m (40’-6”)	11 kw (15 hp)

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 Pages 6 & 7) or, reduce the amount of grain being fed into 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.

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 slide gate more than 7 cm to 15 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.

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 slide gate more than 7 cm to 15 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.

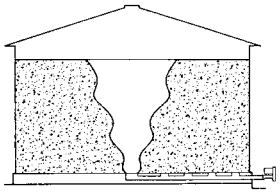


Fig. 1
(Abnormal Flow)

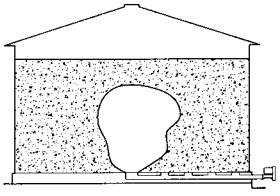


Fig. 2
("Bridging")

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 auger must be stopped and the power source turned off and locked out.

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

BEARING, U-JOINT and BEARING CONNECTING STUB for 6", 8", 10" & 12" 25° UNLOADERS

The reference number in parenthesis ( ), refers to the item shown in the assembly illustration.

On the 6" 25° Unloaders, the flight, hanger bearings, u-joint and bearing stub are pre-assembled at the factory. On the 8", 10" and 12" models the hanger bearing assembly and bearing connecting stub ***have not*** been pre-assembled.

For 6" models, proceed to the Motor Mount Assembly section on Page 11. For 8", 10" and 12" models, continue with the following instructions.

1. Insert the connecting stub (Ref. 1) through the hanger bearing (Ref. 2) and secure the stub to the u-joint using the 25 mm *(1")* long square key (Ref.3), and 3/8" bolt and nylon locknut (Ref. 4). On the 8" models the key is 6 mm *(1/4")* sq. x 25 mm *(1")* long and the bolt is 3/8" x 3" Gr 5, on the 10" and 12" models the key is 10 mm *(3/8")* sq. x 25 mm *(1")* long, the bolt is 3/8" x 3 1/2" Gr 5.
2. Position the hanger bearing inside the incline housing and align the mounting hole with the hole on top of the housing. Secure the hanger bearing using one 5/8" x 1" bolt and lock washer for 8" and 10" models, or one 3/4" x 1" bolt and lock washer for 12" models.
3. For units using the adapter plate, attach the plate to the horizontal unloading tube extending from the grain silo. Secure using 5/16" x 3/4" bolts, flat washers, lock washers and non-lock nuts (the 10" to 12" adapter plates only require the flat washers, lock washers and non-lock nuts).
4. Align the incline assembly with the horizontal unloading tube and insert the connecting stub from the incline assembly into the horizontal unloading flight (6" to 6", 6" to 8" and 8" to 8" units secure using two 3/8" x 3" bolts and nylon locknuts, 8" to 10" units use two 7/16" x 3 1/2" bolts and nylon locknuts and 10" to 12" units use two 1/2" x 3 1/2" bolts and nylon locknuts).

It is important that the flight be centered in the housing at the end which is connected to the u-joint. If the flight is closer at the top than the bottom, or closer to the bottom than the top (See Fig. 2) it needs to be adjusted to make it centered.

To adjust the flight, loosen the head bearing lock collar to allow the head stub to move in and out through the bearing. Move the head stub as required to even the gap between the housing and auger, top and bottom. Secure the lock collar once adjustment has been made.

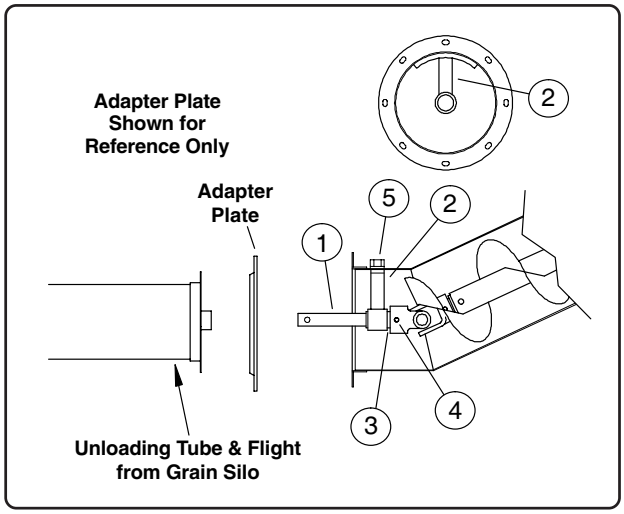


Fig. 1

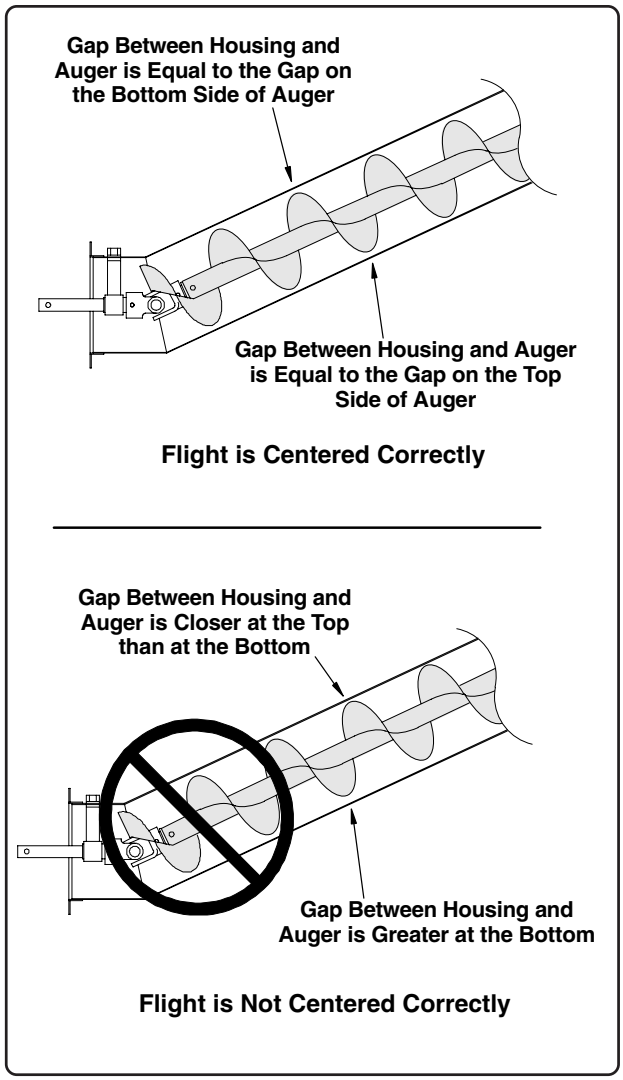


Fig. 2

SUPPORT STAND ASSEMBLY for 25° UNLOADING KIT

The 25° Unloader comes with an adjustable support stand. The support stand should be located at least halfway to three-fourths of the way up on the inclined auger housing (although this may not always be possible because of ground contour etc., try to keep the stand as close to this location as possible).

1. Install the the support stand (Ref. 1) beneath the auger housing as shown in Fig. 3. With the auger housing resting on the support band, adjust the lower portion of the stand until it contacts the ground (it may be necessary to loosen the setscrew to adjust the stand to the appropriate height).
2. Position the 4" wide half-band (Ref. 2) over the top of the auger housing and secure to support stand using four 5/16" x 1 1/2" bolts and non-lock nuts. Check again to make sure the support stand is properly supporting the auger housing. Make any necessary adjustments and when complete, tighten the setscrew.

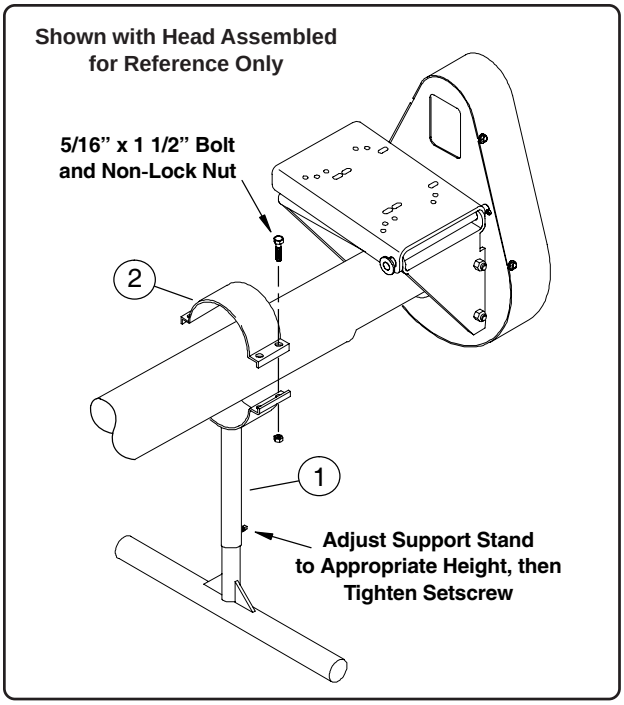


Fig. 3

An optional wheel kit is also available for the 6", 8" and 10" support stand. **Order Part No. B1161B.**

MOTOR MOUNT ASSEMBLY for 6" to 6", 6" to 8" and 8" to 8" 25° UNLOADING KIT

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.

   For 6" units, use the holes located closest to the large round hole; for 8" units use the holes farthest from the large hole (See illustration below).
2. Install the 6 mm *(1/4")* x 51 mm *(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.

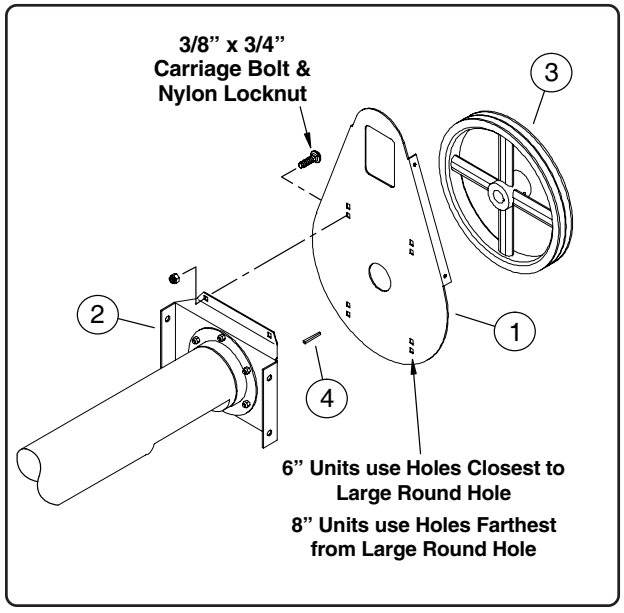


Fig. 4

MOTOR MOUNT ASSEMBLY for 6" to 6", 6" to 8" and 8" to 8" 25° UNLOADING KIT (con't.)

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).
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 51 mm to 76 mm *(2" - 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 10 mm dia. x 23.5 cm long rod (Ref. 9) and cotter pin provided.

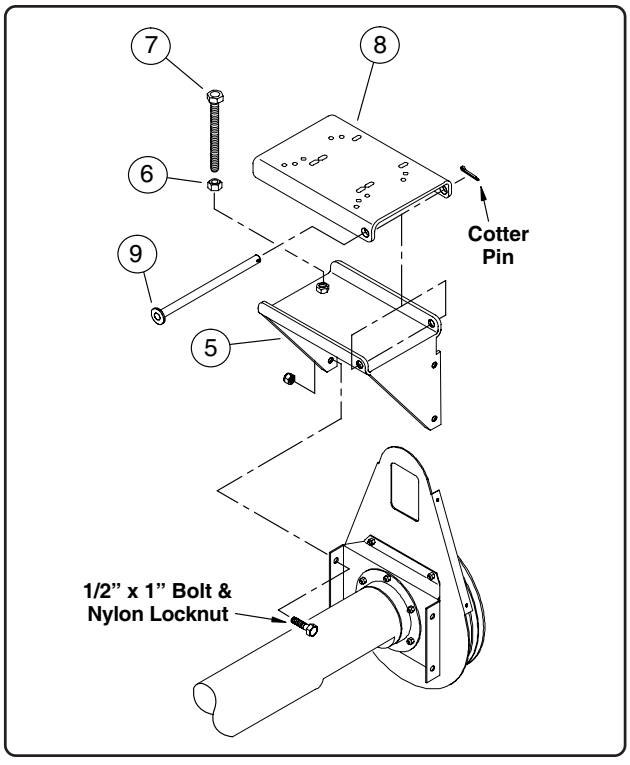


Fig. 5

6. 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 (refer to the chart on Page 5 for proper size motor pulley). Align the motor pulley and 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 13 mm *(1/2")* when firm pressure is applied directly to the belts.

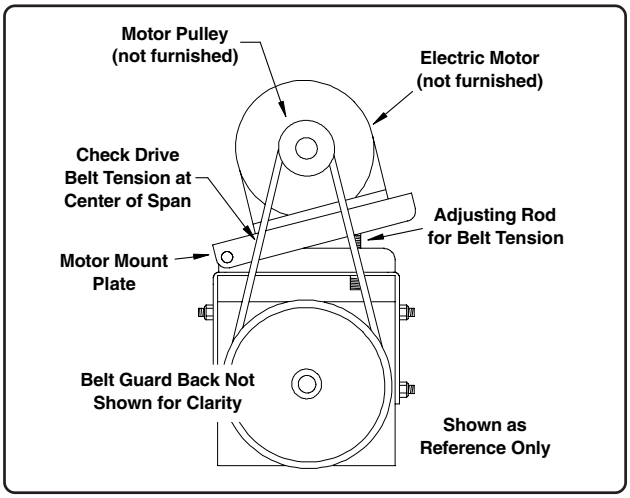
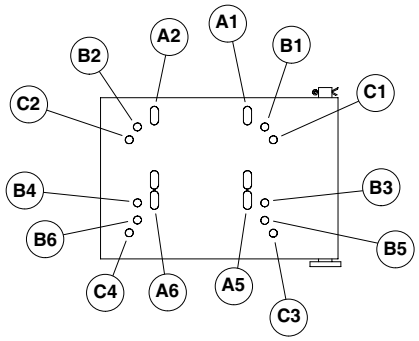


Fig. 6



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
1.50 kW (2 hp)	145T	3/8"	•	•			•	•										
2.2 kW (3 hp)	182T	3/8"							•	•	•	•						
4 kW (5 hp)	184T	3/8"							•	•			•	•				
5.5 kW (7.5 hp)	213T	3/8"													•	•	•	•

MOTOR MOUNT ASSEMBLY for 6" to 6", 6" to 8" and 8" to 8" 25° UNLOADING KIT (con't.)

8. Slide four tinnerman nuts (Ref. 11) over the holes on the lip of the belt guard back. Place a flat washer (Ref. 12) onto four 1/4" x 3/4" bolts (Ref. 13) and thread the bolts into each of the tinnerman nuts (*Do Not* tighten, leave about a 7 mm *(1/4")* space between the washer and the nut).
9. Install the belt guard (Ref. 14) 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. Tighten the bolts.

CAUTION! Keep all safety shields and devices in place.

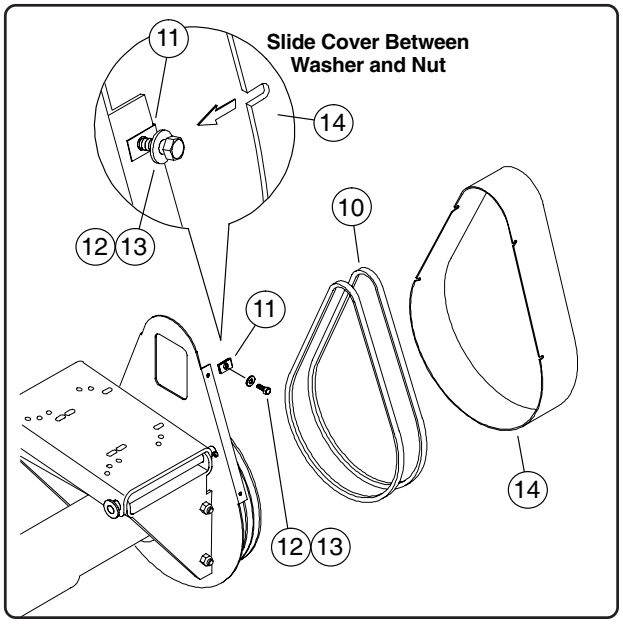


Fig. 7

MOTOR MOUNT ASSEMBLY for 8” to 10” 25° UNLOADING KIT

NOTE: Head plate weldment (Ref. 2) and head bearing have already been installed on the inclined auger tube.

1. Bolt the back support plate (Ref. 3) to the top of the motor mount weldment (Ref. 1) using two 3/8" x 1" carriage bolts and nylon locknuts.
2. Attach the motor mount weldment and back plate to the head plate (Ref. 2) using two 3/8" x 3/4" carriage bolts and nylon locknuts (See Fig. 8).
3. Using the half-band (Ref. 1A) shown in Fig. 8, secure the motor mount weldment to the auger tube using two 5/16" x 1 1/2" bolts and non-lock nuts.

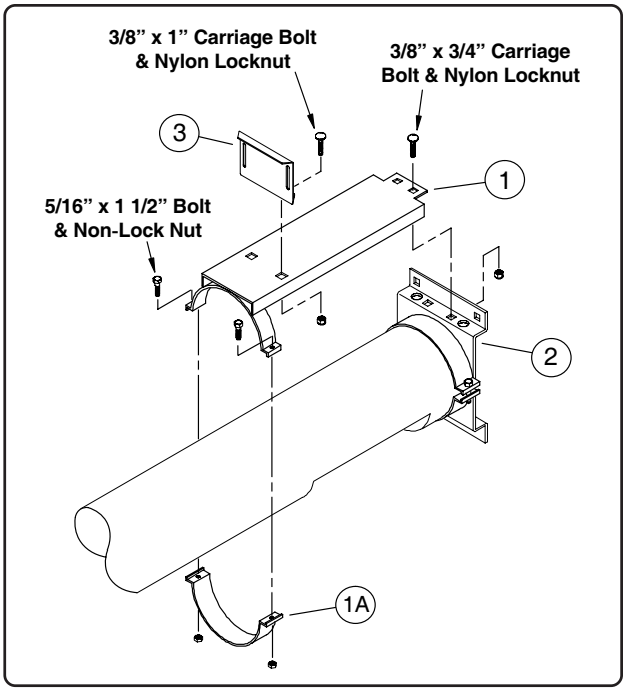


Fig. 8

4. Thread a 7/8” non-lock nut onto the threaded portion of each motor mount rod (Ref. 4), install the nuts until they contact the shoulder of the rod.
5. Insert the rods through the large holes on the top and bottom of the head plate, then install another 7/8” non-lock nut onto each rod (do not tighten at this time, these will be used when adjusting belt tension).
6. Note the bar welded to the end of the motor mount rods, attach this bar to the support plate (Ref. 3) using two 3/8” x 1” carriage bolts, flat wahers, lock washers and non-lock nuts (the bolts will be inserted from the rod side as shown in Fig. 9).

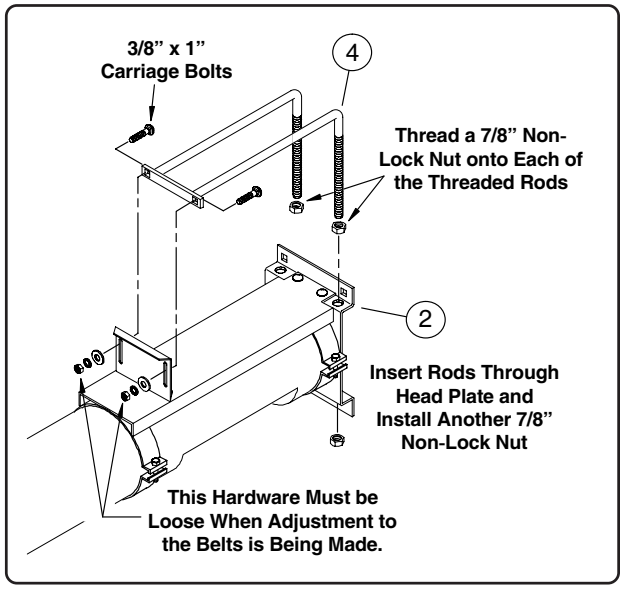


Fig. 9

7. Attach the belt guard (Ref. 5) to the head plate using four 3/8” x 1” carriage bolts and nylon locknuts as shown in Fig. 10.
8. Insert the 10 mm x 76 mm *(3/8” x 3”)* key (Ref. 7 in Fig. 10) into the keyway on the end of the head shaft. Align the key with the keyway in the 38.1 cm *(15”)* pulley and slide the pulley onto the shaft (slide the pulley on until it is as close to the head bearing as possible without contacting the bearing). Tighten the pulley setscrews to secure it to the shaft.
9. Position the motor mount straps (Ref. 8) and clips (Ref. 9) onto the rods as shown in Fig. 10. Secure them together using two 3/8” x 3” carriage bolts, lock washers and non-lock nuts (do not tighten completely, they will be properly positioned when mounting the electric motor).

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 kilowatts 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 recommended motor and pulley sizes.

MOTOR MOUNT ASSEMBLY for 8" to 10"
25° UNLOADING KIT (con't.)

10. Attach the electric motor to the mounting straps (the motor and its mounting hardware are not furnished). Slide the motor towards the belt guard far enough for the motor shaft to pass through and install the motor pulley (pulley not furnished).
11. Place a straight edge on the outer face of the pulleys and when properly aligned, tighten the motor into position.
12. Install the belts (Ref. 10) onto the pulleys and using the four 7/8" adjusting nuts on the motor mount rods, tighten the belts until there is approximately 13 mm *(1/2")* of deflection when firmly pressing on the belts at the center of the span between the pulleys.

    Do Not overtighten the belts. Excessive vibration and/or flight shaft breakage at the bearing can occur.

    NOTE: The hardware securing the rod ends to the support plate (Ref. 3) also need to be loose when making adjustments to the belts (See Fig. 9).
13. Check all fasteners to make sure they are tight.

CAUTION! Keep all safety shields and devices in place.

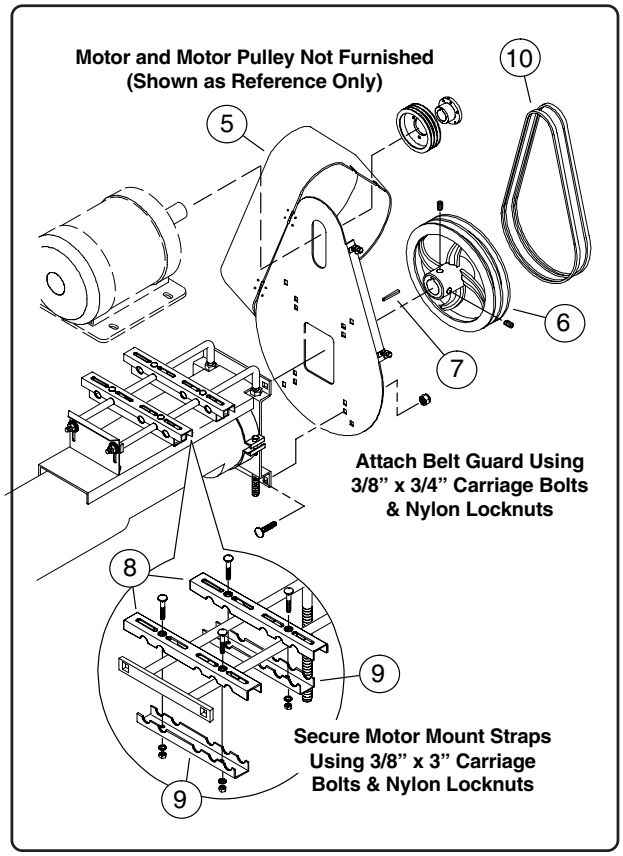


Fig. 10

MOTOR MOUNT ASSEMBLY for 10" to 12" 25° UNLOADING KIT

NOTE: Head plate weldment and head bearing have already been installed on the inclined auger tube.

1. Fasten the motor mount support (Ref. 1) and belt guard brackets (Ref. 2) to the head plate and tube assembly 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, also 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. 11).

2. Thread the adjusting rod (Ref. 3) down through the nut welded to the top of the motor mount support (Ref. 1) until it extends 51 mm to 76 mm *(2" to 3")* above the top of the support (final adjustment will be done after installing the motor and belts).

3. Set the motor mount plate (Ref, 4) over the motor mount support and align the pivot shaft holes. Insert the pivot shaft (Ref. 5) and secure each end using the cotter pins provided.

4. Secure the belt guard (Ref. 6) 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).

5. Insert the 10 mm x 51 mm *(3/8" x 2")* key (Ref. 7) into the keyway on the end of the head shaft [3-belt units use 10 mm x 76 mm *(3/8" x 3")* key].

6. Align the keyway in the 38.1 cm *(15")* pulley (Ref. 8) with the key in the head shaft and slide the pulley onto the shaft (slide the pulley on until it is as close to the head bearing as possible without contacting the bearing). Tighten the pulley setscrews to secure it to the shaft.

   IMPORTANT! Use the proper size and speed motor to ensure satisfactory auger operation. Too small of a motor will not supply the kilowatts 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 recommended motor and pulley sizes.

7. 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 18 for motor mount hole locations). Place a straight edge on the outer face of the pulleys and when properly aligned, secure motor pulley.

8. Install the belts (Ref. 9) onto the pulleys and using the threaded adjustment rod, tighten the belts until there is approximately 13 mm *(1/2")* of deflection when firmly pressing on the belts at the center of the span between the pulleys.

   Do Not overtighten the belts. Excessive vibration and/or flight shaft breakage at the bearing can occur.

9. 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.

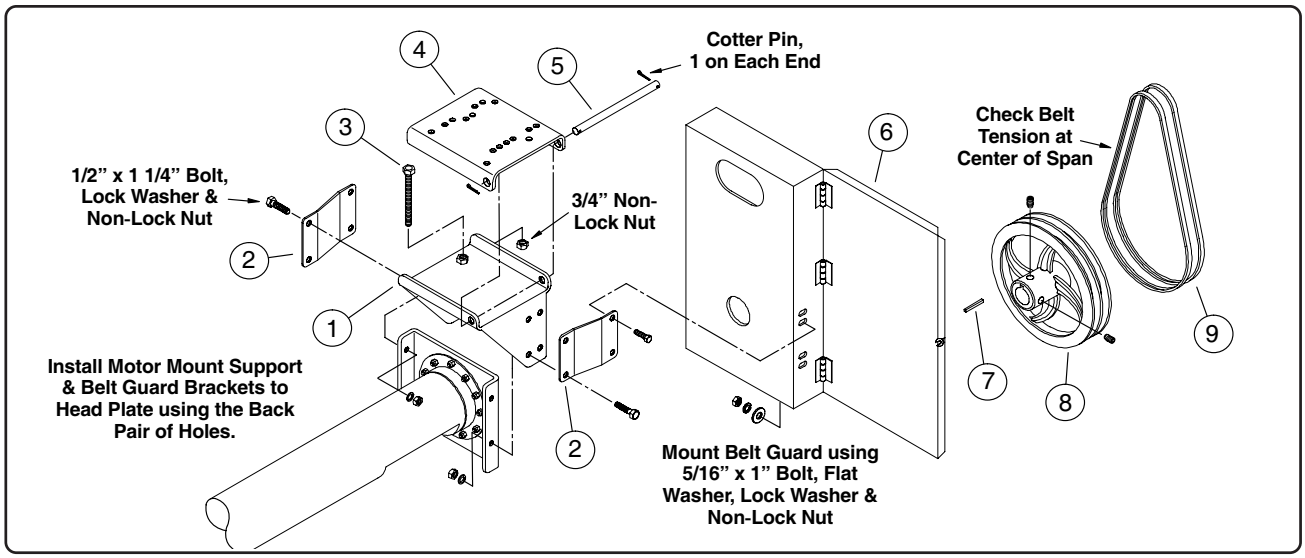


Fig. 11

MOTOR MOUNT ASSEMBLY for 10" to 12" - 25° UNLOADING KIT (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. 12). Add 1.9 liters *(64 oz.)* of a non-foaming multi-purpose gear oil (same as used commercially for automotive differentials).

   For normal operating temperatures ranging between 4.4°C to 48.9°C *(40°F-120°F)* we recommend an SAE 90* weight gear oil, for temperatures below 4.4°C *(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.

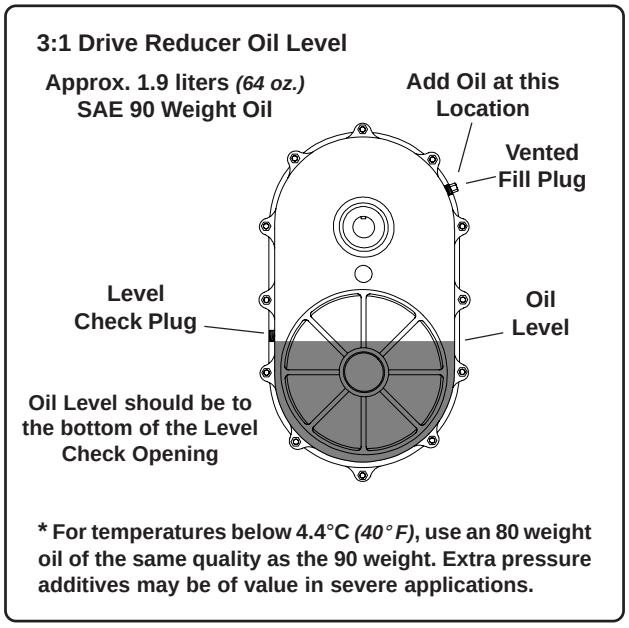


Fig. 12

2. Attach the head plate (Ref. 1) to the ring flange on the horizontal unload tube (See Fig. 13). 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. 13).

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. 13).

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 51 mm to 76 mm *(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.

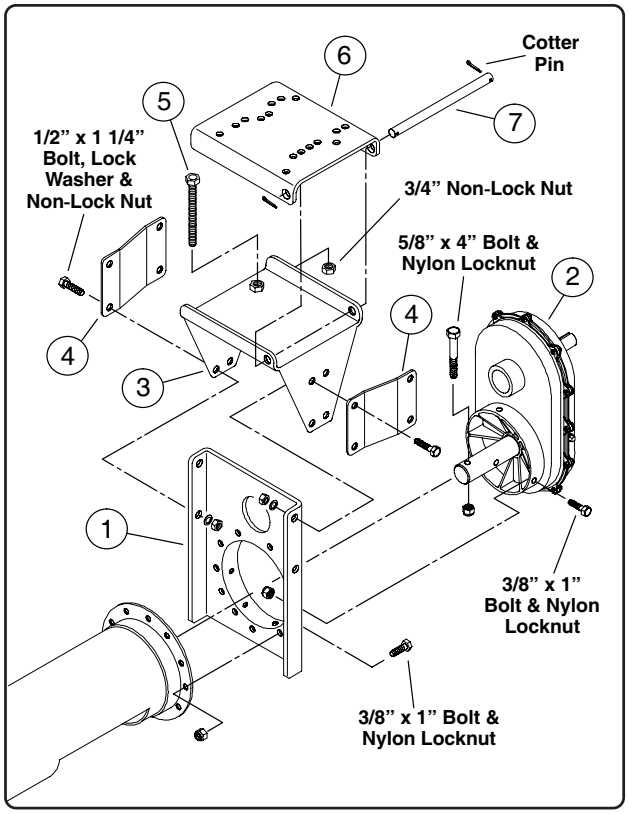


Fig. 13

MOTOR MOUNT ASSEMBLY for 10" to 12" - 25° UNLOADING KIT (3:1 Reducer Drive) (con't.)

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. 14).
9. Install the 30.5 cm O.D. *(12" OD)* sheave (Ref. 9) onto the reducer gearbox input shaft using the QD type hub with key (See Fig. 14).

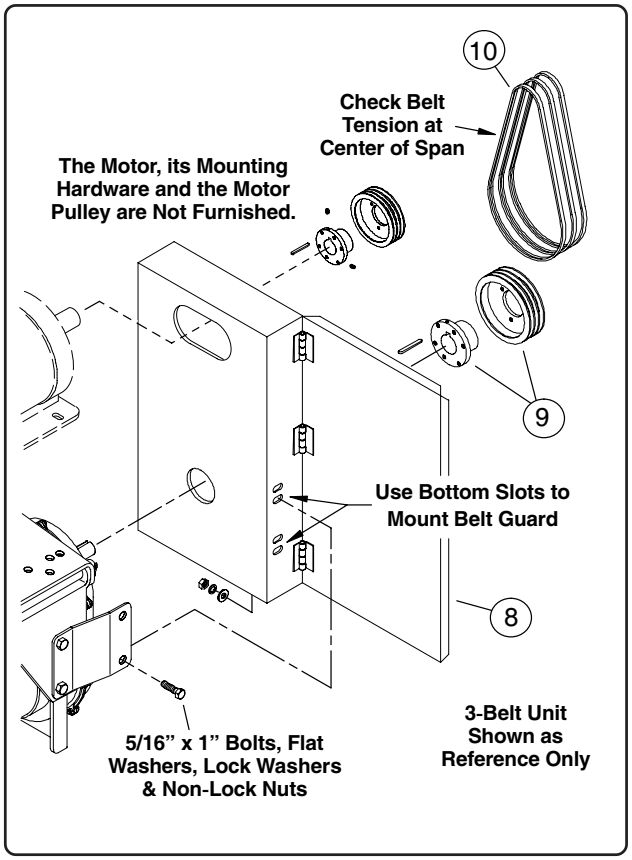


Fig. 14

IMPORTANT! Use the proper size and speed motor to ensure satisfactory auger operation. Too small of a motor will not supply the kilowatts 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 recommended motor and pulley sizes.

NOTE: With 30.5 cm O.D. *(12" OD)* driven (auger) pulley, use 103 mm P.D. *(4.0" PD)* motor pulley to obtain auger speed of 170 RPM.

NOTE: With 30.5 cm O.D. *(12" OD)* driven pulley, use 145 mm P.D. *(5.8" PD)* motor pulley to obtain auger speed of 245 RPM.

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 19 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.

11. Install the belts (Ref. 10) onto the pulleys and using the threaded adjustment rod, tighten the belts until there is approximately 13 mm *(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.

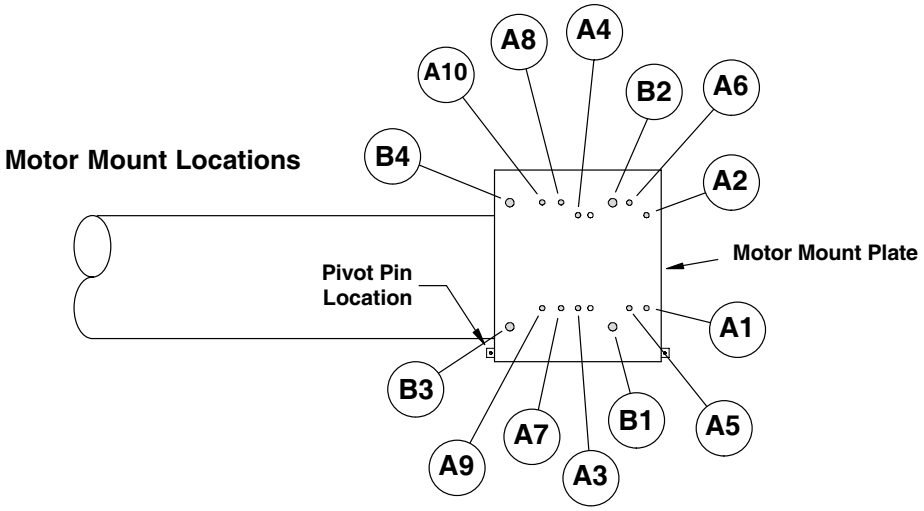
    It will be necessary to check belt tension as part of the periodic maintenance schedule.

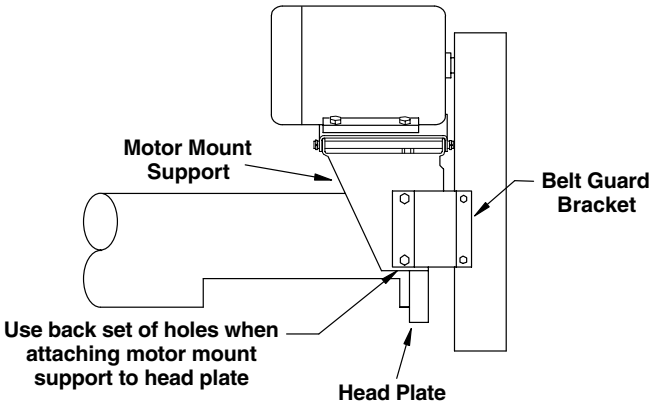
12. Once belts are tensioned properly, install a 3/4" non-lock nut onto the bottom of the threaded rod and secure it tightly against the bottom of the support plate. Check all fasteners to ensure they are tight.

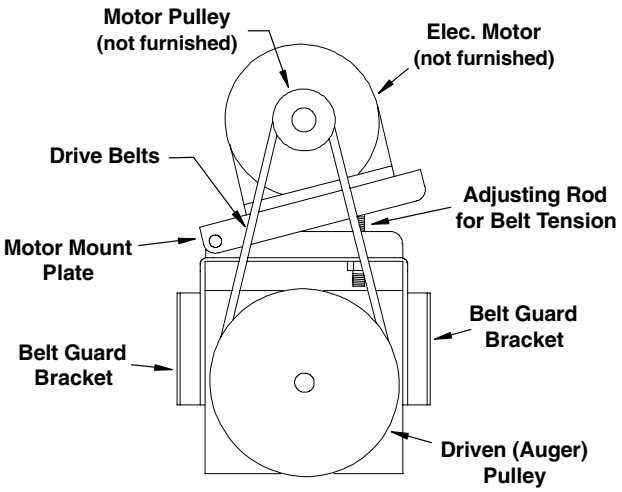
10” to 12” - 25° UNLOADER MOTOR MOUNT HOLE LOCATIONS DIRECT BELT DRIVE & REDUCER DRIVE

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	A7	A8	A9	A10	B1	B2	B3	B4
4 kw *(5 hp)*	184T	3/8”	•	•	•	•										
5.5 kw *(7 1/2 hp)*	213T	3/8”					•	•	•	•						
7.5 kw *(10 hp)*	215T	3/8”					•	•			•	•				
11 kw *(15 hp)*	254T	1/2”											•	•	•	•







Direct Belt Drive Shown as Reference Only, Reducer Drive SImilar

Belt Guard Not Shown for Clarity

TO DEALER/ASSEMBLER NOTICE

The assembly of the auger is complete if all the applicable assembly procedures in this manual have been followed.

A. Be sure all safety shields and safety devices have been properly installed.

B. Check all safety decals to ensure they are clean and legible. If any are missing, damaged, painted over, etc. replace them before delivery to the owner.

   See Pages 1 and P-1 for decal locations. Decals may be obtained free of charge from your dealer, distributor, or ordered directly from the factory.

C. Checl all bolts and fasteners ti see that they are tight and properly secured.

Deliver this Assembly & Operator's Manual to the owner, along with the auger.

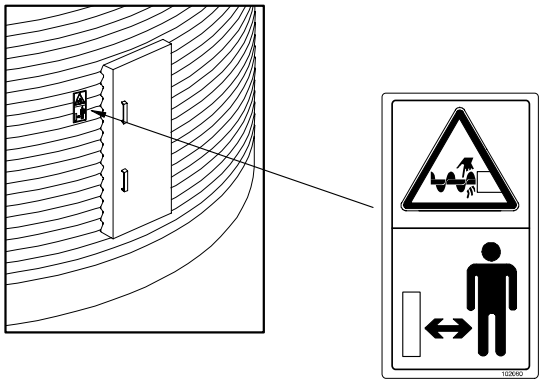
TO OWNER

Use the assembly instructions in this manual as a reference to determine that the auger is assembled correctly.

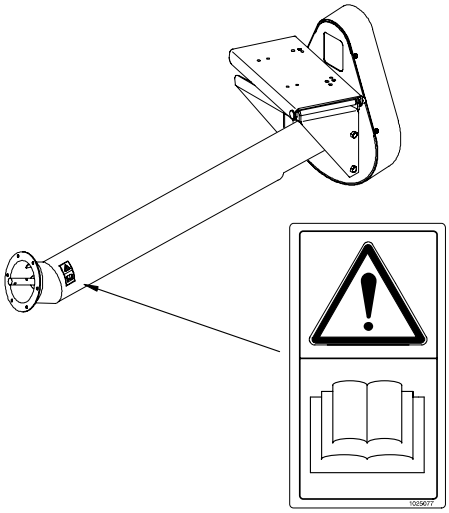
SAFETY DECALS

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 dealer, distributor, or directly from the factory.

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.

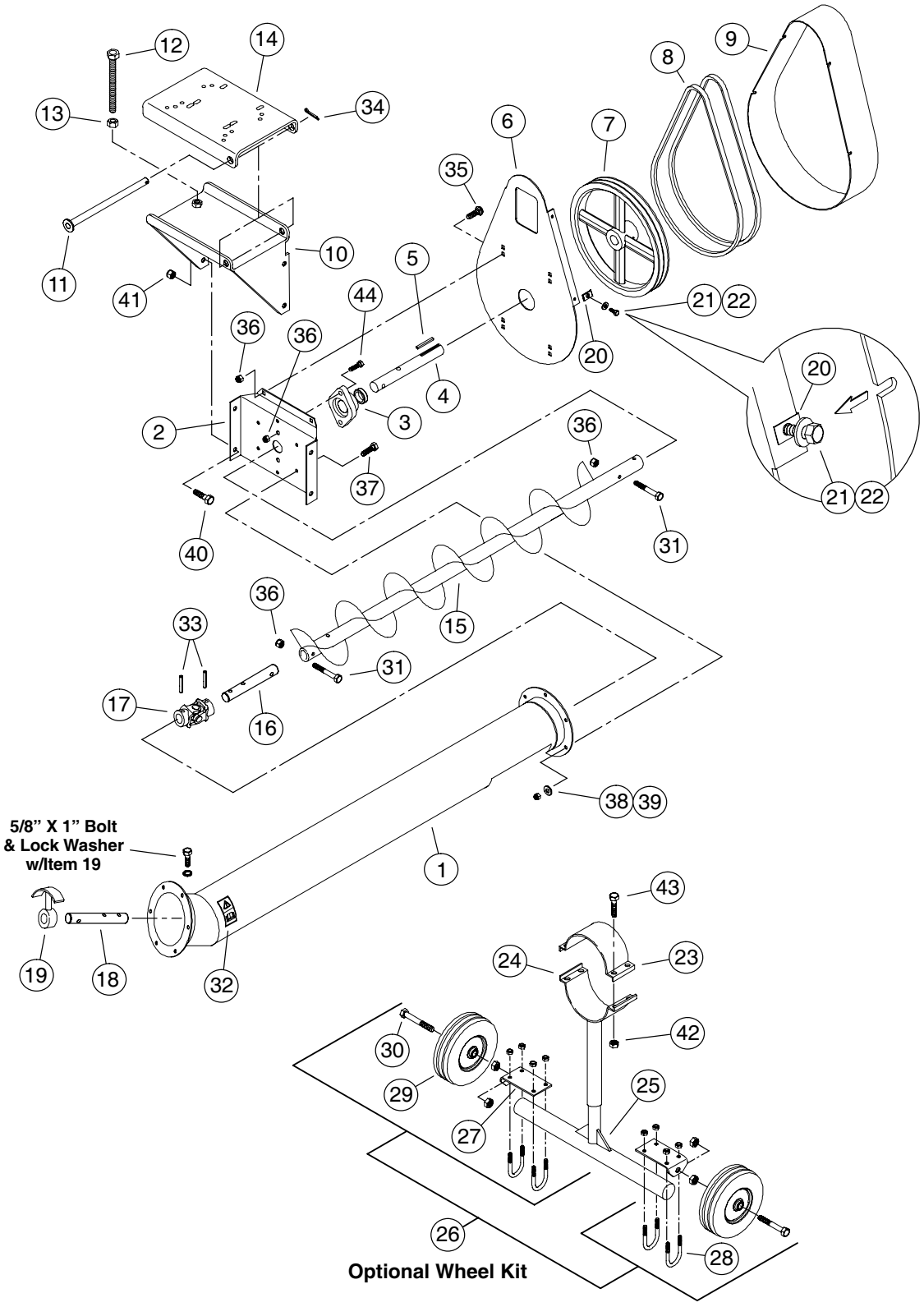


Danger Decal,
Part No. 1025080
Rotating Flight
Never Enter Silo Unless All Power is Disconnected and Locked Out



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

6” to 6” - 25° UNLOADING KIT

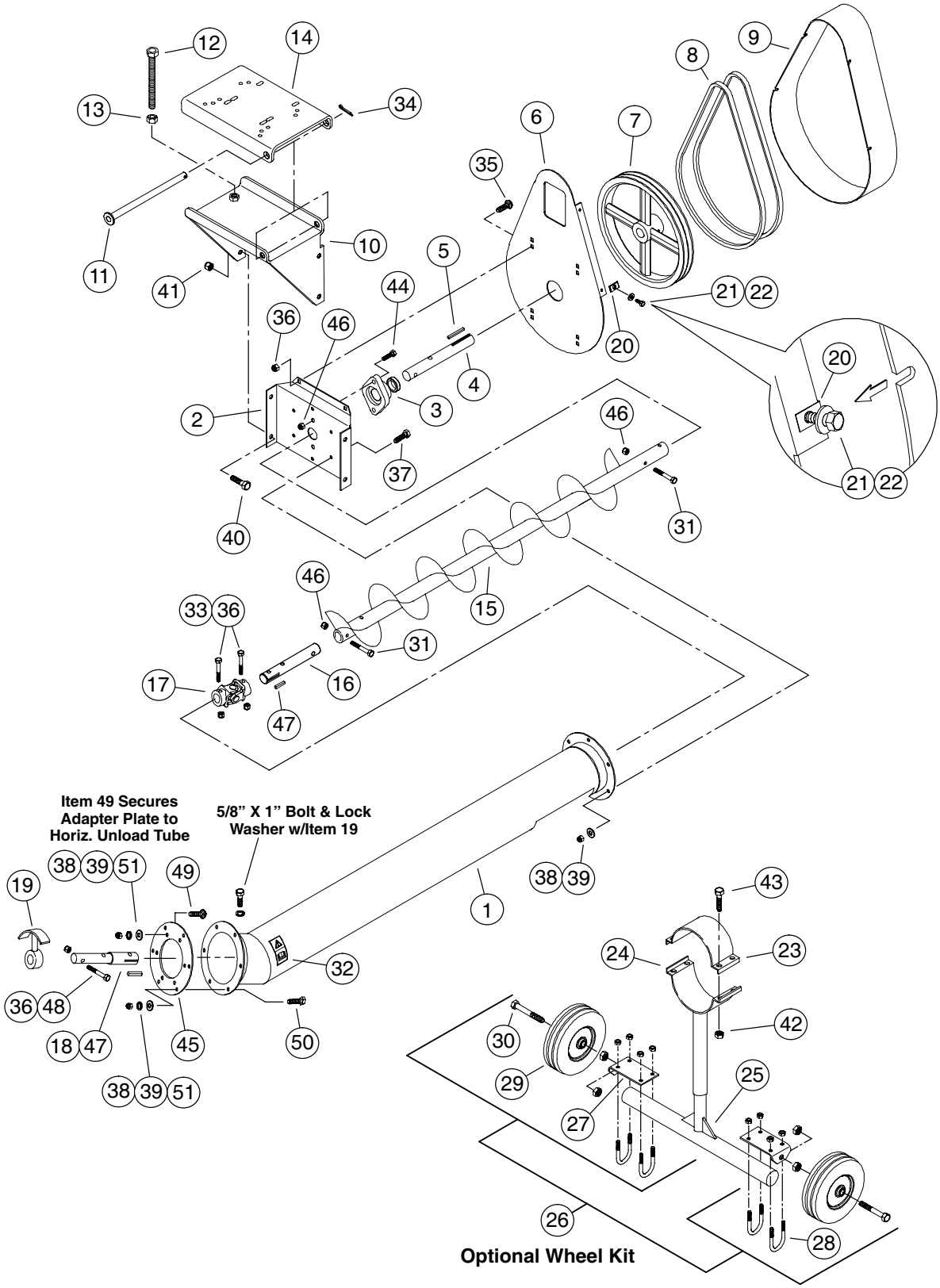


6” to 6” - 25° UNLOADING KIT

REF. NO.	PART NO.	DESCRIPTION
1	1027867-GLV	15.2cm *(6”)* Auger Housing, 1.78 m *(5’-10”)* long, w/25° elbow
2	1027803	Head Plate
3	6818D	25 mm *(1”)* Bore Bearing w/lock collar
4	6332G	Head Stub, 25 mm *(1”)* dia. x 25.4 cm *(10”)* long
5	4045A1	Key, 6 mm *(1/4”)* square x 51 mm *(2”)* long
6	1027782	Belt Guard Back
7	40151	Sheave, 2-Groove, 30.5 cm O.D. *(12”)* x 25 mm *(1”)* Bore
8	40117	Belt, B-50
9	1027801	Belt Guard, Plastic
10	1027777	Motor mount Support Bracket
11	1016578	Pin, 16 mm *(5/8”)* dia. x 23.5 cm *(9 1/4”)* long
12	1027780	Adjustment Rod
13	D1170	Nut, 5/8-11 Non-lock PLT
14	1027779	Motor Mount Plate
15	630008	Flight Assembly, 1.58 m *(5’–2 5/16”)* long
16	6359E	Connecting Stub, 25 mm *(1”)* dia. x 14.3 cm *(5 5/8”)* long
17	6340A	U-Joint, 25 mm to 25 mm *(1” to 1”)*, 12.7 cm *(5”)* long
18	1022598	Bearing Connecting Stub, 25 mm *(1”)* dia., 21 cm *(8 1/4”)* long
19	6314F	Internal Bearing Ay. w/bushing, bracket, bolt & lock washer
	6303D	•Bronze Bushing, 25 mm *(1”)*
20	1013133	Nut, 1/4-20 Tinnerman
21	4605-1	Bolt, 1/4-20 x 3/4”
22	33022	Flat Washer, 1/4”
23	5046A1	Half-Band, galv. 15.2 cm *(6”)* x 10.2 cm *(4”)* wide
24	630005-GLV	Stand Bracket for 6” Models
25	8808J-GLV	Stand Base
26	B1161B	Optional Wheel Kit
27	51179	•Wheel Mounting Bracket
28	3060A1	•U-Bolt, 3/8” with 51 mm *(2”)* span
29	5338A	•25.4 cm *(10”)* Wheel Assembly
30	1002204	•Bolt, 5/8” x 4” G5 PLT
31	D1174	Bolt, 3/8” x 2 1/4” G5 PLT
32	1025077	Caution Decal
33	33243	Roll Pin, 8 mm x 44 mm long *(5/16” x 1 3/4”)*
34	33161	Cotter Pin, 3 mm x 25 mm *(1/8” x 1”)*
35	1002247	Bolt, 3/8-16 x 3/4” Carr. G5 PLT
36	33136	Nut, 3/8-16 Nylon Lock PLT
37	33046	Bolt, 5/16-18 x 1” G5 PLT
38	33023	Flat Washer, 5/16” PLT
39	33135	Nut, 5/16-18 Nylon Lock PLT
40	33294	Bolt, 1/2-13 x 1” G5 PLT
41	33138	Nut, 1/2-13 Nylon Lock PLT
42	33151	Nut, 5/16-18 Non-lock PLT
43	4736	Bolt, 5/16-18 x 1 1/2” G5 PLT
44	33060	Bolt, 3/8-16 x 1” G5 PLT

• Indented parts names indicate these parts are included in the previous assembly.

6” to 8” - 25° UNLOADING KIT

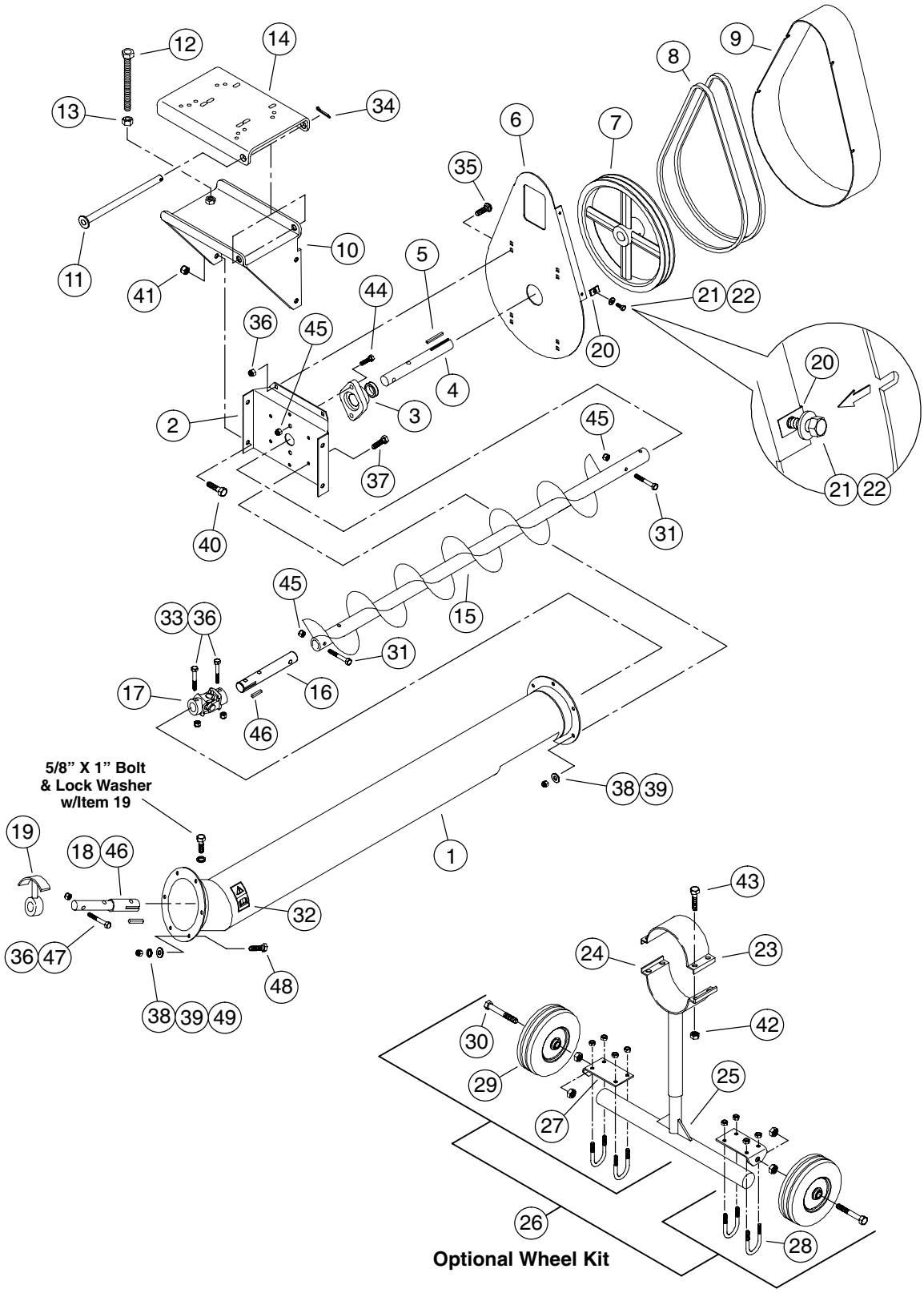


6” to 8” - 25° UNLOADING KIT

REF. NO.	PART NO.	DESCRIPTION
1	1027847-GLV	20.3 cm *(8”)* Flanged Housing, 1.75 m *(5’–9”)* long with 25° elbow
2	1027804	Head Plate
3	8325A	32 mm *(1 1/4”)* Bore Bearing w/lock collar
4	8326A	Head Stub, 32 mm *(1 1/4”)* dia. x 26.7 cm *(10 1/2”)* long
5	4045A1	Key, 6 mm *(1/4”)* square x 51 mm *(2”)* long
6	1027782	Belt Guard Back
7	40152	Sheave, 2-Groove, 30.5 cm O.D. *(12”)* x 32 mm *(1 1/4”)* Bore
8	40117	Belt, B-50
9	1027801	Belt Guard, Plastic
10	1027777	Motor mount Support Bracket
11	1016578	Pin, 16 mm *(5/8”)* dia. x 23.5 cm *(9 1/4”)* long
12	1027780	Adjustment Rod
13	D1170	Nut, 5/8-11 Non-lock PLT
14	1027779	Motor Mount Plate
15	1022614	Flight Assembly, 1.64 m *(5’–4 1/2”)* long
16	1015304	Connecting Stub, 32 mm *(1 1/4”)* dia. x 14.6 cm *(5 3/4”)* long
17	1015312	U-Joint, 32 mm to 32 mm *(1 1/4” to 1 1/4”)*, 12.7 cm *(5”)* long
18	1022600	Bearing Connecting Stub, 32 mm *(1 1/4”)* dia., 21 cm *(8 1/4”)* long
19	8392C	Internal Bearing Ay. w/bushing, bracket, bolt & lock washer
	8379C	•Bronze Bushing, 32 mm *(1 1/4”)*
20	1013133	Nut, 1/4-20 Tinnerman
21	4605-1	Bolt, 1/4-20 x 3/4”
22	33022	Flat Washer, 1/4”
23	5042A1	Half-Band, galv. 20.3 cm *(8”)* x 10.2 cm *(4”)* wide
24	6283A1-GLV	Stand Bracket for 8” Models
25	8808J-GLV	Stand Base
26	B1161B	Optional Wheel Kit
27	51179	•Wheel Mounting Bracket
28	3060A1	•U-Bolt, 3/8” with 51 mm *(2”)* span
29	5338A	•25.4 cm *(10”)* Wheel Assembly
30	1002204	•Bolt, 5/8” x 4” G5 PLT
31	1002253	Bolt, 7/16-14 x 2 1/2” G5 PLT
32	1025077	Caution Decal
33	33068	Bolt, 3/8-16 x 3” G5 PLT
34	33161	Cotter Pin, 3 mm x 25 mm *(1/8” x 1”)*
35	1002247	Bolt, 3/8-16 x 3/4” Carr. G5 PLT
36	33136	Nut, 3/8-16 Nylon Lock PLT
37	33046	Bolt, 5/16-18 x 1” G5 PLT
38	33023	Flat Washer, 5/16” PLT
39	33135	Nut, 5/16-18 Nylon Lock PLT
40	33294	Bolt, 1/2-13 x 1” G5 PLT
41	33138	Nut, 1/2-13 Nylon Lock PLT
42	33151	Nut, 5/16-18 Non-lock PLT
43	4736	Bolt, 5/16-18 x 1 1/2” G5 PLT
44	33257	Bolt, 7/16-14 x 1 1/2” G5 PLT
45	1016807	6” to 8” Adapter Plate
46	33137	Nut, 7/16-14 Nylon Lock PLT
47	4020A1	Key, 6 mm *(1/4”)* x 25 mm *(1”)*
48	33064	Bolt, 3/8-16 x 1 3/4” G5 PLT
49	1002238	Bolt, 5/16-18 x 3/4” Carr. G5 PLT
50	4701–1	Bolt, 5/16-18 x 3/4” G5 PLT
51	33144	Lock Washer, 5/16”

• Indented parts names indicate these parts are included in the previous assembly.

8" to 8" - 25° UNLOADING KIT

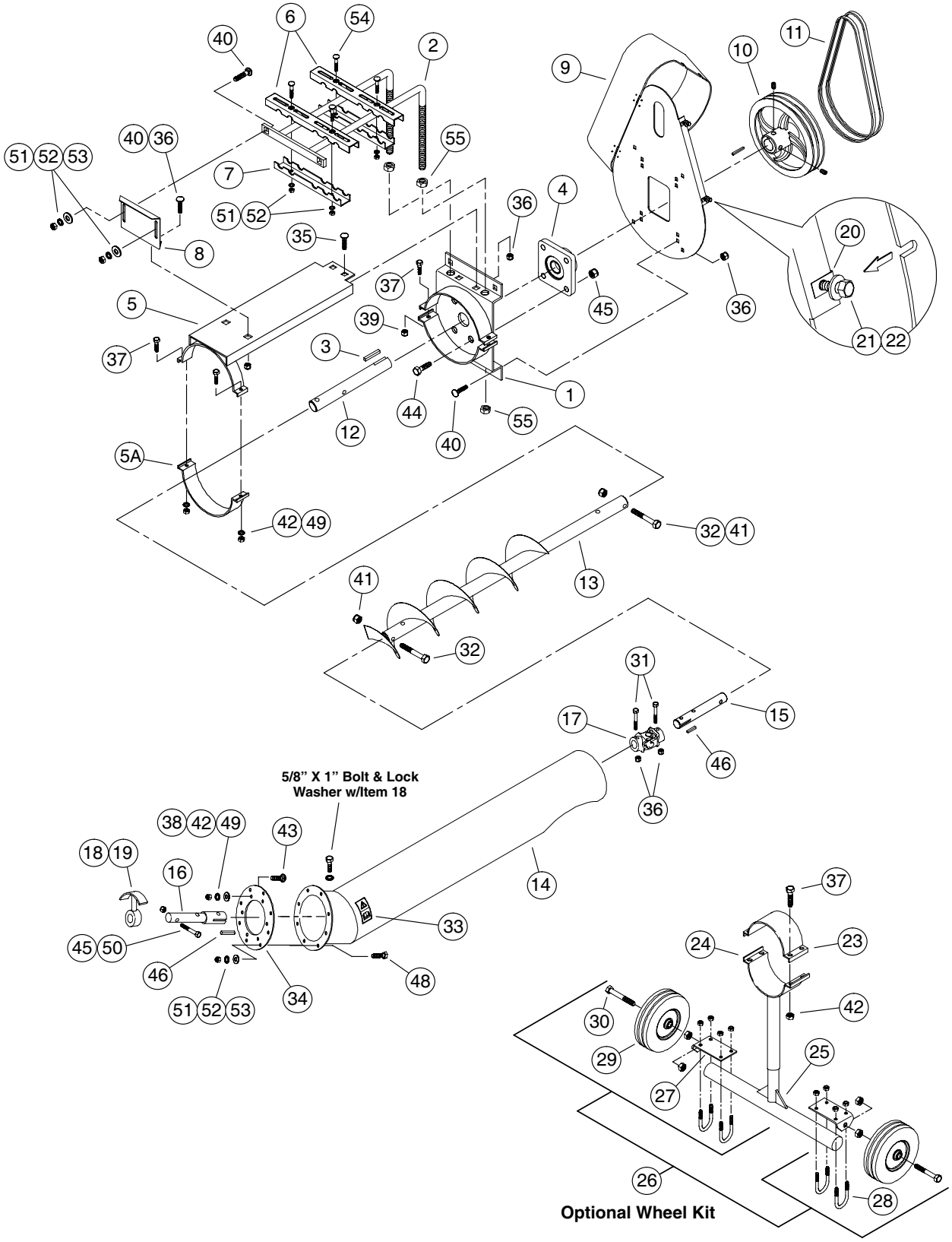


8" to 8" - 25° UNLOADING KIT

REF. NO.	PART NO.	DESCRIPTION
1	1027847-GLV	20.3 cm *(8")* Flanged Housing, 1.75 m *(5'–9")* long with 25° elbow
2	1027804	Head Plate
3	8325A	32 mm *(1 1/4")* Bore Bearing w/lock collar
4	8326A	Head Stub, 32 mm *(1 1/4")* dia. x 26.7 cm *(10 1/2")* long
5	4045A1	Key, 6 mm *(1/4")* square x 51 mm *(2")* long
6	1027782	Belt Guard Back
7	40152	Sheave, 2-Groove, 30.5 cm O.D. *(12")* x 32 mm *(1 1/4")* Bore
8	40117	Belt, B-50
9	1027801	Belt Guard, Plastic
10	1027777	Motor mount Support Bracket
11	1016578	Pin, 16 mm *(5/8")* dia. x 23.5 cm *(9 1/4")* long
12	1027780	Adjustment Rod
13	D1170	Nut, 5/8-11 Non-lock PLT
14	1027779	Motor Mount Plate
15	1022614	Flight Assembly, 1.64 m *(5'–4 1/2")* long
16	1015304	Connecting Stub, 32 mm *(1 1/4")* dia. x 14.6 cm *(5 3/4")* long
17	1015313	U-Joint, 32 mm to 32 mm *(1 1/4" to 1 1/4")*, 12.7 cm *(5")* long
18	1022600	Bearing Connecting Stub, 32 mm *(1 1/4")* dia., 21 cm *(8 1/4")* long
19	8392C	Internal Bearing Ay. w/bushing, bracket, bolt & lock washer
	8379C	•Bronze Bushing, 32 mm *(1 1/4")*
20	1013133	Nut, 1/4-20 Tinnerman
21	4605-1	Bolt, 1/4-20 x 3/4"
22	33022	Flat Washer, 1/4"
23	5042A1	Half-Band, galv. 20.3 cm *(8")* x 10.2 cm *(4")* wide
24	6283A1-GLV	Stand Bracket for 8" Models
25	8808J-GLV	Stand Base
26	B1161B	Optional Wheel Kit
27	51179	•Wheel Mounting Bracket
28	3060A1	•U-Bolt, 3/8" with 51 mm *(2")* span
29	5338A	•25.4 cm *(10")* Wheel Assembly
30	1002204	•Bolt, 5/8" x 4" G5 PLT
31	1002253	Bolt, 7/16-14 x 2 1/2" G5 PLT
32	1025077	Caution Decal
33	33068	Bolt, 3/8-16 x 3" G5 PLT
34	33161	Cotter Pin, 3 mm x 25 mm *(1/8" x 1")*
35	1002247	Bolt, 3/8-16 x 3/4" Carr. G5 PLT
36	33136	Nut, 3/8-16 Nylon Lock PLT
37	33046	Bolt, 5/16-18 x 1" G5 PLT
38	33023	Flat Washer, 5/16" PLT
39	33135	Nut, 5/16-18 Nylon Lock PLT
40	33294	Bolt, 1/2-13 x 1" G5 PLT
41	33138	Nut, 1/2-13 Nylon Lock PLT
42	33151	Nut, 5/16-18 Non-lock PLT
43	4736	Bolt, 5/16-18 x 1 1/2" G5 PLT
44	33257	Bolt, 7/16-14 x 1 1/2" G5 PLT
45	33137	Nut, 7/16-14 Nylon Lock PLT
46	4020A1	Key, 6 mm *(1/4")* x 25 mm *(1")*
47	33064	Bolt, 3/8-16 x 1 3/4" G5 PLT
48	4701–1	Bolt, 5/16-18 x 3/4" G5 PLT
49	33144	Lock Washer, 5/16"

• Indented parts names indicate these parts are included in the previous assembly.

8” to 10” - 25° UNLOADING KIT

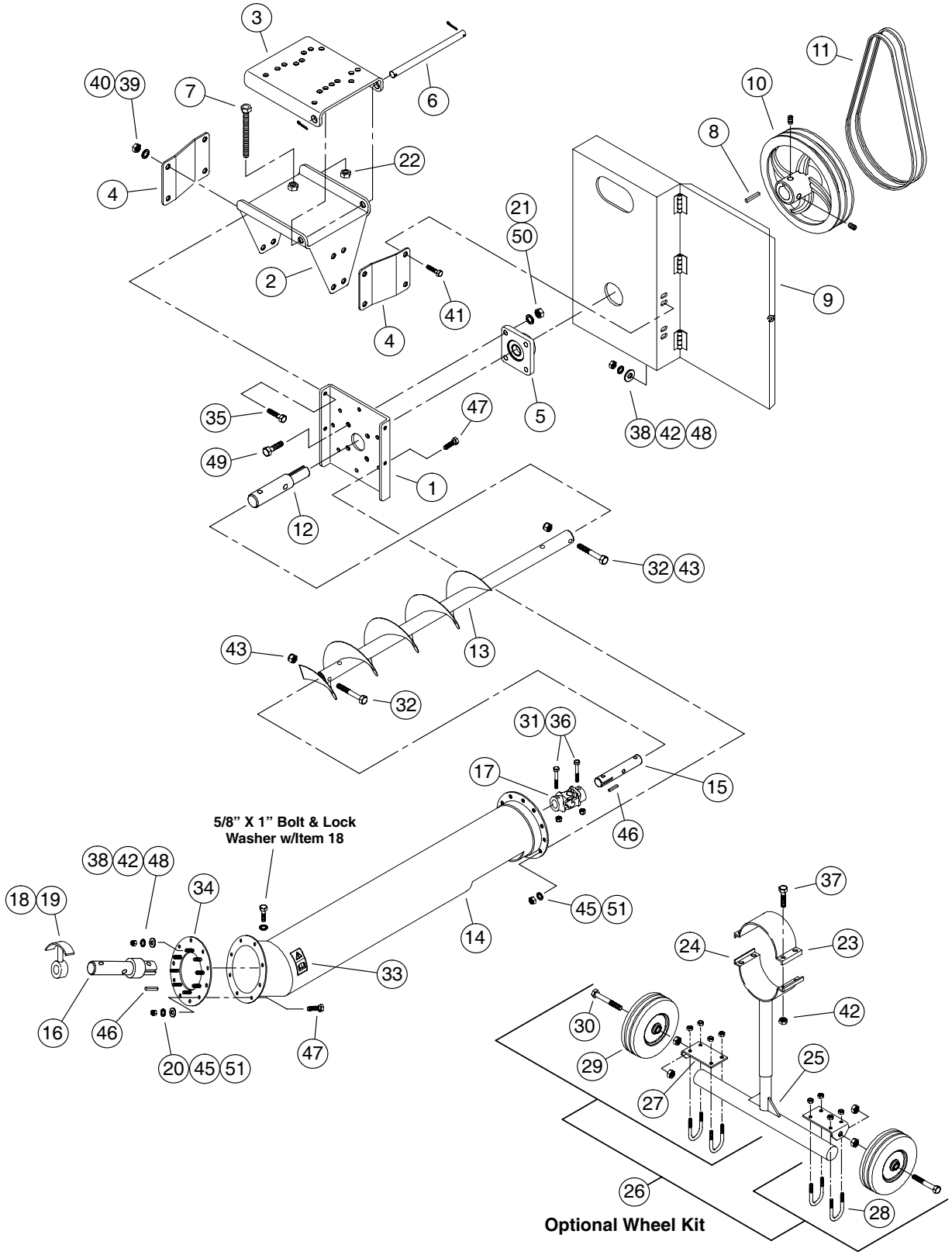


8” to 10” - 25° UNLOADING KIT

REF. NO.	PART NO.	DESCRIPTION
1	1013379	Head Plate Weldment
2	1013381	Motor Mount Rod Weldment
3	4073A1	Key, 10 mm *(3/8”)* square x 76 mm *(3”)* long
4	1010A	Head Bearing, 38 mm *(1 1/2”)* Bore, 4-Hole
5	1013380	Motor Mount Weldment
5A	5035A1	Half Band, 25.4 cm *(10”)* x 51 mm *(2”)* Wide
6	50435A1	Top Motor Mount Strap
7	50434A1	Bottom Motor Mount Clip
8	1013169	Back Support Plate
9	1013429	Belt Guard
10	40159	Sheave, 2-Groove x 38.1 cm *(15”)* w/38 mm *(1 1/2”)* Bore
(10)	40162	Sheave, 3-Groove x 38.1 cm *(15”)* w/38 mm *(1 1/2”)* Bore
11	1023004	Belt, B-59
12	1060D	Head Stub, 38 mm *(1 1/2”)* x 29.2 cm *(11 1/2”)*
13	1022613	Flight Weldment
14	1022617-GLV	Auger Housing
15	1015306	Connecting Stub, 38 mm *(1 1/2”)* dia. x 15.2 cm *(6”)* long
16	1022602	Bearing Connecting Stub, 32 mm to 38 mm *(1 1/4” to 1 1/2”)*21.9 cm *(8 5/8”)* long
17	1015292	U-Joint, 38 mm to 38 mm *(1 1/2” to 1 1/2”)*
18	1055D	Internal Bearing Ay. w/bushing, bracket, bolt & lock washer
19	1051D	•Bronze Bushing, 38 mm *(1 1/2”)*
20	1013133	Nut, 1/4-20 Tinnerman
21	4605-1	Bolt, 1/4-20 x 3/4”
22	33022	Flat Washer, 1/4”
23	5044A1	Half-Band, galv. 25.4 cm *(10”)* x 10.2 cm *(4”)* wide
24	6284A-GLV	Stand Bracket for 10” Models
25	8808J-GLV	Stand Base
26	B1161B	Optional Wheel Kit
27	51179	•Wheel Mounting Bracket
28	3060A1	•U-Bolt, 3/8” with 51 mm *(2”)* span
29	5338A	•25.4 cm *(10”)* Wheel Assembly
30	1002204	•Bolt, 5/8” x 4” G5 PLT
31	4827	Bolt, 3/8-16 x 3 1/2” G5 PLT
32	33091	Bolt, 1/2-13 x 3” G5 PLT
33	1025077	Caution Decal
34	1022687	Adapter Plate, 20.3 cm to 25.4 cm *(8” to 10”)*
35	1002247	Bolt, 3/8-16 x 3/4” Carr. G5 PLT
36	33136	Nut, 3/8-16 Nylon Lock PLT
37	4736	Bolt, 5/16-18 x 1 1/2” G5 PLT
38	33023	Flat Washer, 5/16” PLT
39	33135	Nut, 5/16-18 Nylon Lock PLT
40	1001631	Bolt, Carriage, 3/8-16 x 1” G5 PLT
41	33138	Nut, 1/2-13 Nylon Lock PLT
42	33151	Nut, 5/16-18 Non-lock PLT
43	1002238	Bolt, Carriage, 5/16-18 x 3/4” G5 PLT
44	1002202	Bolt, 7/16-14 x 1 1/2” G5 PLT
45	33137	Nut, 7/16-14 Nylon Lock PLT
46	1002276	Key, 10 mm *(3/8”)* x 25 mm *(1”)*
48	33060	Bolt, 3/8-16 x 1” G5 PLT
49	33144	Lock Washer, 5/16”
50	1002253	Bolt, 7/16-14 x 2 1/2” G5 PLT
51	D1149	Nut, 3/8-16 Non-lock PLT
52	D1150	Lock Washer, 3/8”
53	33024	Flat Washer, 3/8” PLT
54	1002249	Bolt, Carriage, 3/8-16 x 3” G5 PLT
55	D1232	Nut, 7/16-14 Non-lock PLT

• Indented parts names indicate these parts are included in the previous assembly.

10” to 12” - 25° UNLOADING KIT
DIRECT BELT DRIVE



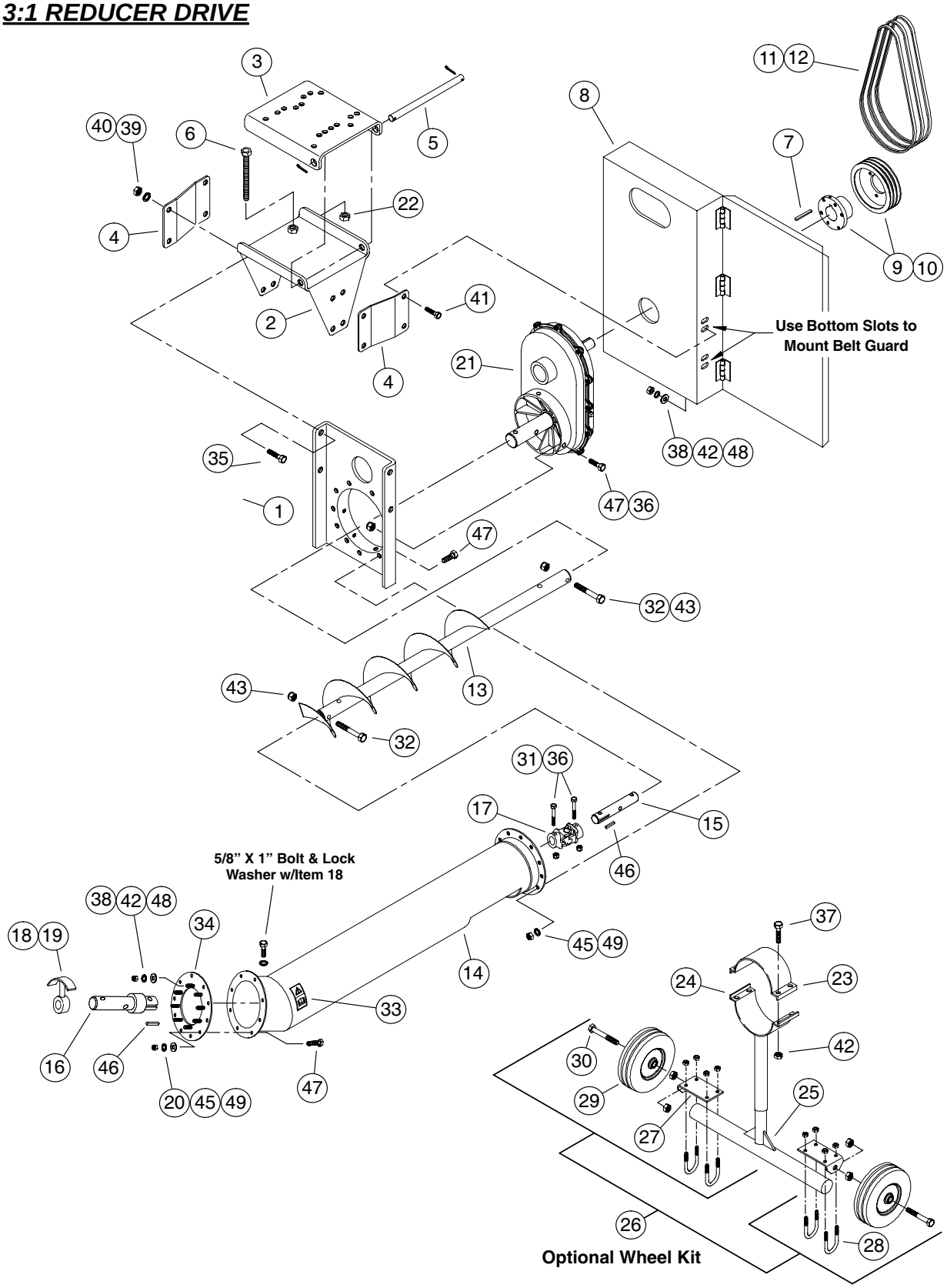
10” to 12” - 25° UNLOADING KIT
DIRECT BELT DRIVE

REF. NO.	PART NO.	DESCRIPTION
1	2229C	Head Plate
2	1022140	Motor Mount Support Weldment
3	1022136	Motor Mount Plate
4	1022156	Belt Guard Bracket
5	2214C	Head Bearing, 51 mm *(2”)* Bore, 4-Hole
6	1018789	Pivot Pin
7	1022381	Adjusting Rod
8	1038D	Key, 10 mm x 51 mm *(3/8” x 2”)* for 2-Belt Drive
(8)	4073A1	Key, 10 mm x 76 mm *(3/8” x 3”)* for 2-Belt Drive
9	1009102	Belt Guard
10	40159	Sheave, 2-Groove x 38.1 cm *(15”)* w/38 mm *(1 1/2”)* Bore
(10)	40162	Sheave, 3-Groove x 38.1 cm *(15”)* w/38 mm *(1 1/2”)* Bore
11	40124	Belt, B-66
12	2202C	Head Stub, 51 mm to 38 mm x 30.5 cm *(2” to 1 1/2” x 12”)*
13	1022623	Flight Weldment
14	1022618-GLV	Auger Housing
15	1015305	Connecting Stub
16	1022603	Bearing Connecting Stub
17	1015292	U-Joint, 38 mm to 38 mm *(1 1/2” to 1 1/2”)*
18	1264D	Internal Bearing Ay. w/bushing, bracket, bolt & lock washer
19	1254D	•Bronze Bushing, 51 mm *(2”)*
20	33024	Flat Washer, 3/8” PLT
21	D1170	Nut, 5/8-11 Non-lock PLT
22	D1152	Nut, 3/4-10 Non-lock PLT
23	5270A1	Half-Band, galv. 30.5 cm *(12”)* x 10.2 cm *(4”)* wide
24	6285A1-GLV	Stand Bracket for 12” Models
25	8808J-GLV	Stand Base
26	B1161B	Optional Wheel Kit
27	51179	•Wheel Mounting Bracket
28	3060A1	•U-Bolt, 3/8” with 51 mm *(2”)* span
29	5338A	•25.4 cm *(10”)* Wheel Assembly
30	1002204	•Bolt, 5/8” x 4” G5 PLT
31	4827	Bolt, 3/8-16 x 3 1/2” G5 PLT
32	1002204	Bolt, 5/8-11 x 4” G5 PLT
33	1025077	Caution Decal
34	2203J	Adapter Plate, 25.4 cm to 30.5 cm *(10” to 12”)*
35	1002227	Bolt, 1/2-13 x 1 1/2” G5 PLT
36	33136	Nut, 3/8-16 Nylon Lock PLT
37	4736	Bolt, 5/16-18 x 1 1/2” G5 PLT
38	33023	Flat Washer, 5/16” PLT
39	D1169	Nut, 1/2-13 Non-Lock PLT
40	D1143	Lock Washer, 1/2”
41	33046	Bolt, 5/16-18 x 1” G5 PLT
42	33151	Nut, 5/16-18 Non-lock PLT
43	33139	Nut, 5/8-11 Nylon Lock PLT
44	3337A1	Cotter Pin, 5 mm x 38 mm *(3/16” x 1 1/2”)*
45	D1149	Nut, 3/8-16 Non-lock PLT
46	1002276	Key, 10 mm *(3/8”)* x 25 mm *(1”)*
47	33060	Bolt, 3/8-16 x 1” G5 PLT
48	33144	Lock Washer, 5/16”
49	33244	Bolt, 5/8-11 x 2” G5 PLT
50	D1171	Lock Washer, 5/8”
51	D1150	Lock Washer, 3/8”

• Indented parts names indicate these parts are included in the previous assembly.

10” to 12” - 25° UNLOADING KIT

3:1 REDUCER DRIVE

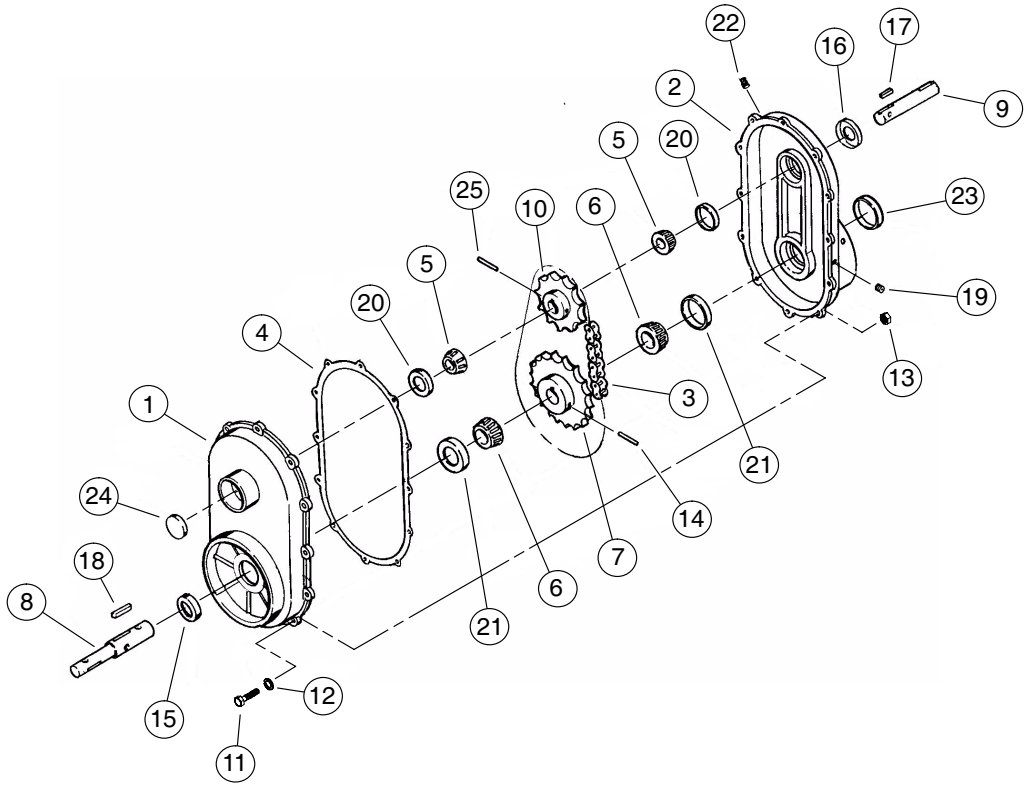


10” to 12” - 25° UNLOADING KIT
3:1 REDUCER DRIVE

REF. NO.	PART NO.	DESCRIPTION
1	1022995	Head Plate
2	1022987	Motor Mount Support Weldment
3	1022136	Motor Mount Plate
4	1015737	Belt Guard Bracket
5	1018789	Pivot Pin
6	1022381	Adjusting Rod
7	4046A1	Key, 6 mm x 51 mm *(1/4” x 2”)*
8	1009101	Belt Guard
9	40152	Sheave, 2-Groove x 30.5 cm *(12”)* w/32 mm *(1 1/4”)* Bore
10	40154	Sheave, 3-Groove x 30.5 cm *(12”)* w/32 mm *(1 1/4”)* Bore
11	40119	Belt, B-54 f/30.5 cm (12”) Sheave w/89 mm *(3.5”)* motor pulley
12	40120	Belt, B-57 f/30.5 cm (12”) Sheave w/12.7 cm *(5”)* motor pulley
13	1022623	Flight Weldment
14	1022618-GLV	Auger Housing
15	1015305	Connecting Stub
16	1022603	Bearing Connecting Stub
17	1015292	U-Joint, 38 mm to 38 mm *(1 1/2” to 1 1/2”)*
18	1264D	Internal Bearing Ay. w/bushing, bracket, bolt & lock washer
19	1254D	•Bronze Bushing, 51 mm *(2”)*
20	33024	Flat Washer, 3/8” PLT
21	1011904	3:1 Reducer Gearbox, Enclosed Chain Drive
22	D1152	Nut, 3/4-10 Non-lock PLT
23	5270A1	Half-Band, galv. 30.5 cm *(12”)* x 10.2 cm *(4”)* wide
24	6285A1-GLV	Stand Bracket for 12” Models
25	8808J-GLV	Stand Base
26	B1161B	Optional Wheel Kit
27	51179	•Wheel Mounting Bracket
28	3060A1	•U-Bolt, 3/8” with 51 mm *(2”)* span
29	5338A	•25.4 cm *(10”)* Wheel Assembly
30	1002204	•Bolt, 5/8” x 4” G5 PLT
31	4827	Bolt, 3/8-16 x 3 1/2” G5 PLT
32	1002204	Bolt, 5/8-11 x 4” G5 PLT
33	1025077	Caution Decal
34	2203J	Adapter Plate, 25.4 cm to 30.5 cm *(10” to 12”)*
35	33082	Bolt, 1/2-13 x 1 1/4” G5 PLT
36	33136	Nut, 3/8-16 Nylon Lock PLT
37	4736	Bolt, 5/16-18 x 1 1/2” G5 PLT
38	33023	Flat Washer, 5/16” PLT
39	D1169	Nut, 1/2-13 Non-Lock PLT
40	D1143	Lock Washer, 1/2”
41	33046	Bolt, 5/16-18 x 1” G5 PLT
42	33151	Nut, 5/16-18 Non-lock PLT
43	33139	Nut, 5/8-11 Nylon Lock PLT
44	3337A1	Cotter Pin, 5 mm x 38 mm *(3/16” x 1 1/2”)*
45	D1149	Nut, 3/8-16 Non-lock PLT
46	1002276	Key, 10 mm *(3/8”)* x 25 mm *(1”)*
47	33060	Bolt, 3/8-16 x 1” G5 PLT
48	33144	Lock Washer, 5/16”
49	D1150	Lock Washer, 3/8”

• Indented parts names indicate these parts are included in the previous assembly.

3:1 REDUCER GEARBOX
ENCLOSED CHAIN DRIVE



REF. NO.	PART NO.	DESCRIPTION
1	1001523	Aluminum Casting (inside)
2	1003044	Aluminum Casting (outside)
3	1001847	#80 Roller Chain, 36 Pitch (includes connecting link)
4	1001573	Gasket
5	106322	32 mm *(1 1/4")* Bearing Cone (Timken No. 15123)
6	035439	38 mm *(1 1/2")* Bearing Cone (Timken No. LM29749)
7	1001841	Sprocket, 38 mm *(1 1/2")* Bore, 27 tooth
8	1011905	Stub, Output Shaft, 51 mm *(2")*
9	1001850	Stub, Input Shaft, 32 mm *(1 1/4")*
10	1001840	Sprocket, 32 mm *(1 1/4")* Bore, 9 tooth
11	4727–1	Bolt, 5/16-18 x 1 1/4" G5 PLT.
12	33144	Lock Washer, 5/16" PLT
13	33151	Locknut, 5/16" PLT

REF. NO.	PART NO.	DESCRIPTION
14	33190	Roll Pin, 8 mm x 64 mm *(5/16" x 2 1/2")*
15	035860	Output Shaft Seal, 38 mm *(1 1/2")*
16	835168	Input Shaft Seal, 32 mm *(1 1/4")*
17	4020A1	Key, 6 mm sq. x 25 mm *(1/4" x 1")*
18	1002276	Key, 10 mm sq. x 25 mm *(3/8" x 1")*
19	458026	Drain Plug, 3/8" NPT
20	106323	Bearing Cup, 32 mm *(1 1/4")* (Timken No. 15245)
21	035440	Bearing Cup, 38 mm *(1 1/2")* (Timken No. LM29710)
22	1001438	Vented Plug, 3/8" NPT
23	1001851	Cap
24	1001852	Cap
25	33193	8 mm x 51 mm *(5/16" x 2")* Roll Pin
26 *	1002275	Decal, "Fill with Oil"

* Not Shown

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