

4" UTILITY AUGER

OWNER'S & OPERATOR'S MANUAL

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GENERAL SAFETY STATEMENT

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

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

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

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

SAFETY ALERT SYMBOL

The symbol shown below is used to call your attention to instructions concerning your personal safety. Watch this symbol - it points out important safety precautions. It means "ATTENTION! Become alert! Your personal safety is involved!" Read the message that follows and be alert to the possibility of personal injury or death.



BE ALERT! YOUR SAFETY IS INVOLVED.



WARNING

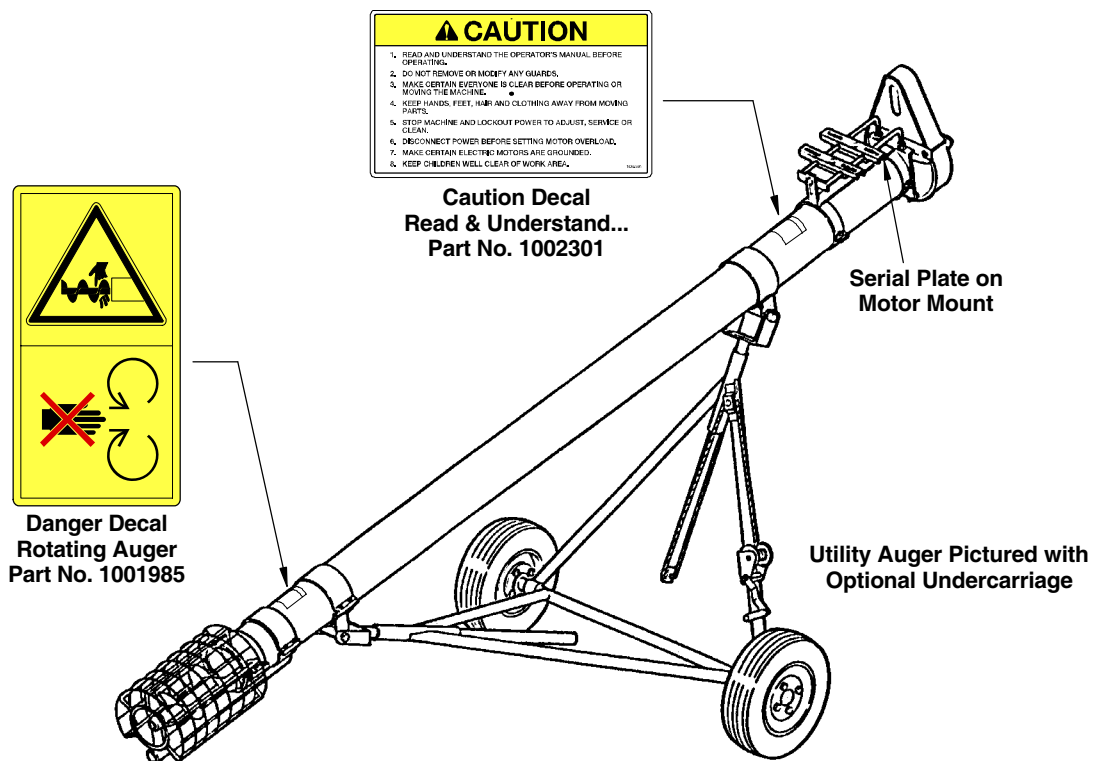
Anyone who will operate or work around this machine shall first read this manual! This manual must be delivered with the equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

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SAFETY DECALS

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



SERIAL NUMBER

To ensure 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.

OPERATING INSTRUCTIONS

Utility Augers are primarily designed as portable units. They are not designed for permanent installations and are not available in special lengths. Whenever you are selecting an auger for permanent installation we recommend the Custom-Built Distributing Auger.

A utility auger has many and varied uses. Since it is not sold with an undercarriage or other means of support, it must be supported by the user adequately for the particular job to be done. Always be sure to fasten the discharge end and intake end in place so the auger will remain in position during operation.



Make certain everyone is clear before operating the machine.

START UP AND BREAK-IN INFORMATION

It is essential to inspect your drive before adding power and know how to shut down in an emergency.

During the operating of your equipment, one person shall be in a position to monitor the operation. Any screw conveyor when it is new or after it sets idle for a season should go through a "break-in" period. The auger should be run at partial capacity until several hundred bushels of grain have been augered to polish the flighting assembly and tube. When the screw and tube are polished and smooth, the auger can be run full.

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



During the initial start up and break-in period, the operator shall be aware of any unusual vibrations or noises.
Keep all safety shields and devices in place.
Keep hands, feet and clothing away from moving parts.

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

1. If the flight is in excess of what is recommended, excessive wear will result.
2. If the flight speed is slow, the auger flighting is permitted to "load up". Then high torque will be required to turn the auger flighting and damage to the auger can result. Use the hopper control gate to control the amount of grain fed into the auger.

OPERATING CAPACITIES

The results or capacities of screw conveyors or augers can vary greatly under varying conditions. Different materials, moisture content, amount of foreign matter, methods of feeding and speed all play a role in the performance of the auger. Twenty-five (25%) moisture could cut capacity back by as much as 40% under some conditions.

FULL LOAD OPERATING PROCEDURES

It is good practice to visually inspect the auger periodically during the actual operation. You should be alert for unusual vibrations, noises and the loosening of any fasteners.



Observe work area restrictions.
Make certain everyone is clear before operating the machine.

OPERATING INSTRUCTIONS

SHUTDOWN

NORMAL SHUTDOWN

Make certain that hopper and incline tube are empty before stopping the unit. Before the operator leaves the work area the power source shall be locked out.

EMERGENCY SHUTDOWN

Should the auger be immediately shut down under load--disconnect and lockout the power source. Clear as much grain from hopper and auger as you can. Never attempt to restart when full.

NOTE: Starting the unit under load may result in damage to the auger. Such damage is considered abuse of the equipment.

Reconnect power source and clear auger gradually.



Whenever you must service or adjust your equipment, make sure you stop motor and lock out your power source!

ELECTRIC MOTOR DRIVE

Always use a motor with required H.P. suggested in chart below. Use 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 Electrical Code and all local and state codes. Reset and Motor Starting Controls must be located so that the operators have full view of the entire operation.

A magnetic starter should be used to protect your motor when starting and stopping. It should stop the motor in case of power interruption, conductor fault, low voltage, circuit interruption or motor overload. Then the motor must be restarted manually. Some motors have built-in thermal over-load protection. If this type motor is used, use only those with manual reset.



Reset and motor starting controls must be located so that the operator has full view of the entire operation. A main power disconnect switch capable of being locked only in the OFF position shall be provided. This shall be locked whenever work is being done on the Utility Auger

HORSEPOWER INFORMATION FOR ELECTRIC MOTOR DRIVE

Use chart to determine the horsepower required.
Horsepower required for standard 4" Utility Augers.

Length: 11' - 15' - 20'
Electric: 1/2 - 1/2 - 3/4

The horsepower recommendations are for augering reasonably dry grain at varying angles. High moisture grain (above 15%) will require greater power if maximum capacity is to be maintained. The maximum possible capacity will be less with high moisture grain than with dry grain. Use an electric motor of the correct size that operates at 1750 R.P.M. Use a 2.5" or 3.0" motor pulley for a recommended auger speed of 550 to 650 R.P.M. Motor pulleys are not furnished with the auger.

OPERATING INSTRUCTIONS

HORSEPOWER INFORMATION FOR ELECTRIC MOTOR DRIVE

Auger speeds in excess of 750 R.P.M. should be avoided as excessive wear will result. Auger speeds below 450 R.P.M. require a flow control to restrict intake to the auger. High torque is required to turn the flighting if it is permitted to "load up" at low speed and damage to the auger can result. An optional control gate is available for this purpose.



Disconnect power before resetting motor overloads.
Make certain electric motors are grounded.

LOCKOUT

If the operator must leave the work area, or whenever servicing or adjusting, the Utility Auger must be stopped and the power source turned off. Precaution should be made to prevent anyone from operating the Utility Auger when the operator is absent from the work area.

IMPORTANT: Use a main power disconnect switch capable of being locked only in the off position.

CLEAN-UP

1. Check to see that all guards listed in the assembly instructions are in place and secured and functional.
2. Check all safety signs and replace any that are worn, missing or illegible. The safety signs are listed in the front of this manual. Safety signs may be obtained from your dealer or ordered from the factory.
3. Are all fasteners tight?

TROUBLE SHOOTING

AUGER VIBRATION

Driving belt may be overtightened, putting head stub and flight in a bind. Damage can occur to the auger flighting, thus causing noise. Damage usually occurs because of foreign material having been run through the auger. It may be necessary to remove the flighting for inspection.

LOW CAPACITY

The auger may not be getting enough grain. Check to make sure the intake has not bridged over, restricting flow. The exposed flighting at the auger intake should be covered with grain to achieve maximum capacity. Check auger speed. Speeds slower than the recommended speed will result in low capacity.

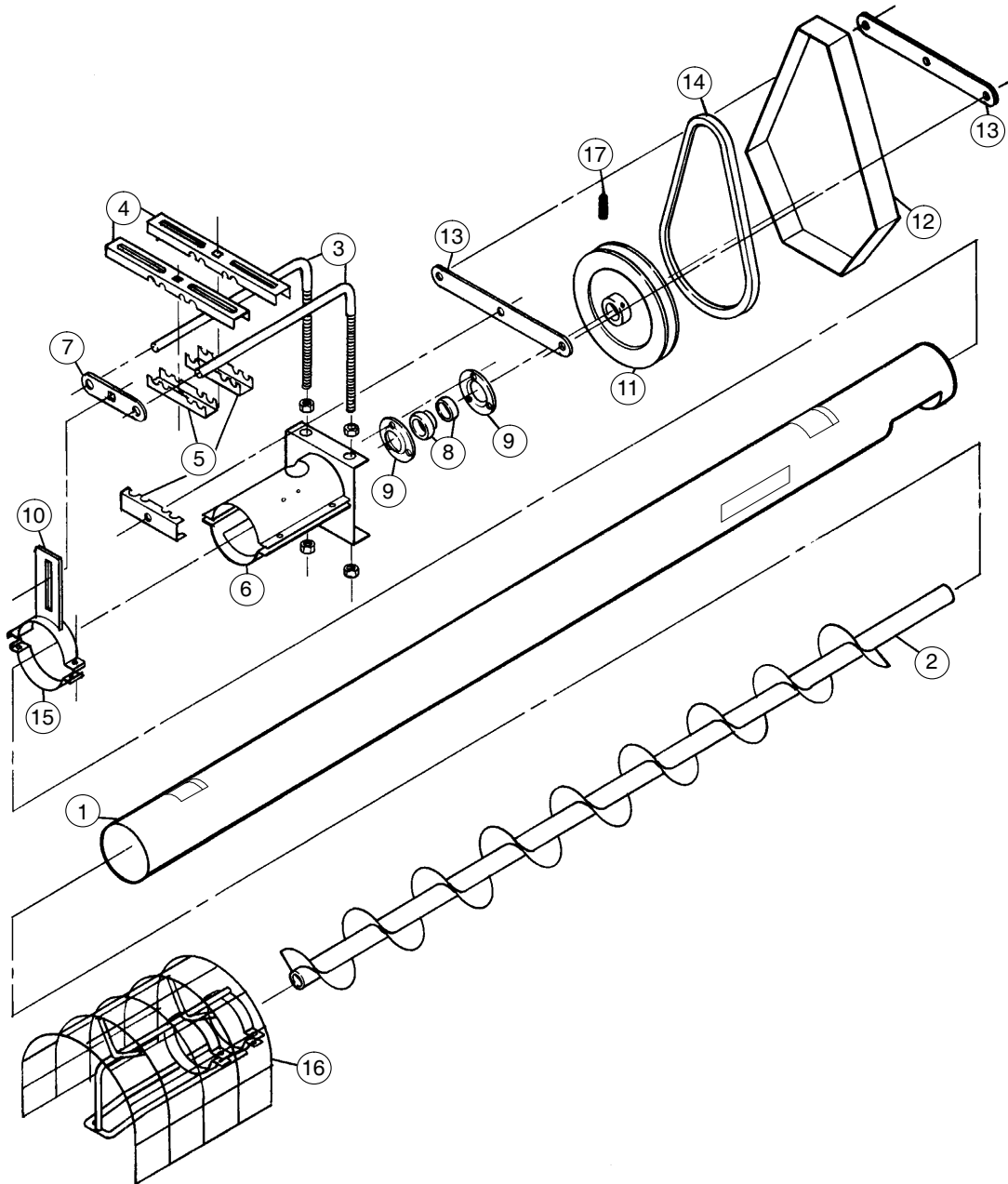
AUGER PLUGS

The auger may be getting too much grain, causing "jamming" inside the housing. The motor may be too small or wired improperly. If the motor is a newer lightweight aluminum type, the next larger size should be considered. If wet grain or other hard-to-move material is being augered, use a larger size motor than recommended for normal use. Is the auger free of any foreign material, such as sacks, tarp corners, etc? A plug of the discharge end will cause an auger plug.

ASSEMBLY INSTRUCTIONS

1. Slide fighting assembly # 2 into housing assembly # 1.
NOTE: If an extension is being used with this auger, see note listed below.*
 2. Bolt head bearing (8) and retainers (9) to head plate assembly (6) using three 5/16" x 3/4" carriage bolts with lockwashers and nuts. Bearing lock collar must be on front of bearing next to pulley.
 3. Position rods (3) into head plate assembly (6) so that motor will be behind and above drive pulley (11). Hold rods in place with four 5/8" nuts. Locate two nuts above and two nuts below the head plate.
 4. Slide head plate, bearing and rods assembly over discharge end of auger housing (1). Bolt on head plate assembly using four 1/4" x 1 1/4" hex head bolts and nuts.
 5. Slide fighting shaft through head bearing enough to install 8" pulley on shaft with 5/16" x 2" roll pin.
NOTE: Roll pin side of pulley must be next to bearing lock collar.
 6. Locate head pulley (11) in as close as possible to head bearing (8). Tighten lock collar on bearing.
 7. Position motor mount straps (top) (4) and motor mount clips (bottom) (5) on rods and clamp together with 5/16" x 1 1/2" carriage bolts and nuts.
 8. Slide intake guard (16) onto intake end of auger housing (1). Clamp assembly to auger housing with two 1/4" x 1 1/4" hex head bolts and nuts.
 9. Install motor on motor mount and pulley on motor (motor pulley not furnished). Install 38" belt, tighten belt and lock in place with 5/8" nuts on motor mount rods.
 10. Place support strap (10) on auger housing directly behind head plate assembly, clamp in place with halfband (15) using two 1/4" x 1 1/4" hex head bolts and nuts. Slide rods support (7) over ends of 5/8" motor mount rods and attach to support strap with one 5/16" x 3/4" carriage bolt, flat washer, lock washer and nut.
 11. Insert one belt guard clamp bar (13) between rod assembly and pulley. Clamp to rod assembly with motor mount clip (5) using one 5/16" x 1 1/2" hex head bolt and nut. Position guard to clear belt and hold in place with clamp bar using two 1/4" x 3" bolts and nuts.
- *NOTE:** Slide extension fighting assembly into extension housing assembly. Bolt fighting assemblies together so that the ends of the flight are approximately half turn apart using 5/16" x 1 1/2" hex head bolts and lock nuts. Connect auger housings together with connecting band. Be sure auger housing are tight together. Use bolts already in connecting band. The connecting band should be half on each housing assembly.

ASSEMBLY INSTRUCTIONS



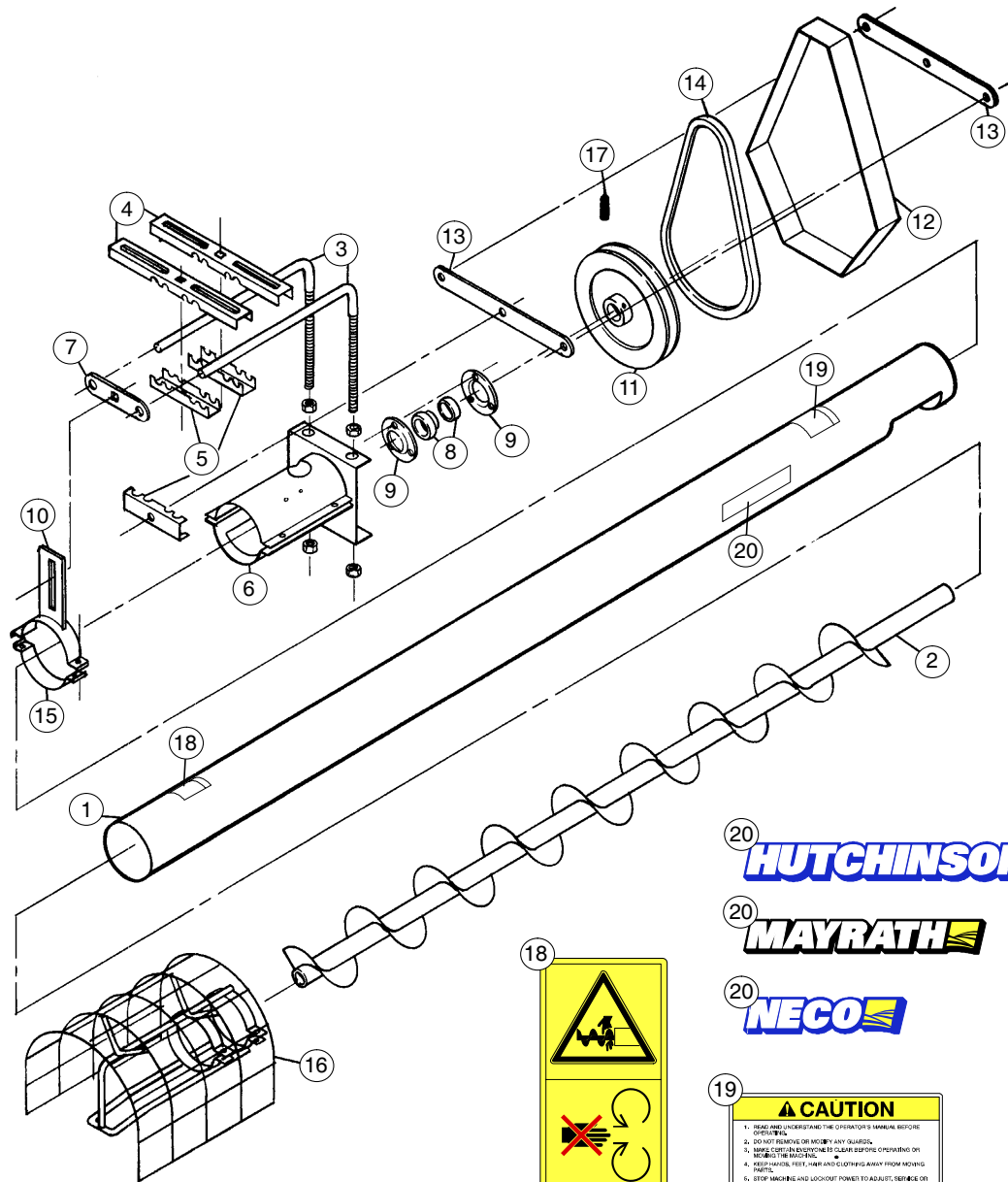
PARTS LIST

4" UTILITY AUGER

REF. NO.	PART NO.	DESCRIPTION
1	4300C	Auger Housing for 11' Model (10'-6" long), Hutch
(1)	4300CN	Auger Housing for 11' Model (10'-6" long), NECO
(1)	1002584	Auger Housing for 11' Model (10'-6" long), Mayrath
(1)	1002584N	Auger Housing for 11' Model (10'-6" long), NECO
(1)	4301A	Auger Housing for 15' Model (14'-6" long), Hutch
(1)	4301AN	Auger Housing for 15' Model (14'-6" long), NECO
(1)	1002585	Auger Housing for 15' Model (14'-6" long), Mayrath
(1)	1002585N	Auger Housing for 15' Model (14'-6" long), NECO
(1)	4302A	Auger Housing for 20' Model (19'-6" long), Hutch
(1)	4302AN	Auger Housing for 20' Model (19'-6" long), NECO
(1)	1002586	Auger Housing for 20' Model (19'-6" long), Mayrath
(1)	1002586N	Auger Housing for 20' Model (19'-6" long), NECO
--	4316C	Auger Housing Extension (5'-0" long)
--	4317C	Auger Housing Extension (10'-6" long)
--	4362A	Auger Housing Connecting Band (12" long)
2	6977A1-A	Flighting Assembly for 11' (11'-2 1/2" long)
(2)	6977A1-B	Flighting Assembly for 15' (15'-2 1/2" long)
(2)	6977A1-C	Flighting Assembly for 20' (20'-2 1/2" long)
--	4320C	Flighting Assembly Extension (5'-0" long)
--	4321C	Flighting Assembly Extension (10'-6" long)
--	4164A	Flighting Connecting Stub, 13/16" x 5 1/2" long
3	3000A1	Motor Mount Rods
4	5024A1	Straps f/ Motor Mount (top section)
5	5025A1	Clips f/ Motor Mount (bottom section)
6	6004A1	Head Plate Weldment
7	5012A1	Rod Support
8	6390D	1" Retainer Bearing w/ Lock Collar
9	6383C	3-Hole Retainer f/ Bearing (2 req'd.) without ears
10	6049A1	Support Strap Weldment
11	40182	Pulley, 8"
12	4313C	Belt Guard
13	4314C	Belt Guard Clamp Bar x 10 1/2" long
14	40105	Belt, A-38
15	5261A1	Half Band, 4" x 2" wide (galv.)
16	4318A	Intake Guard
--	4057A	Control Gate
17	6386C	Roll Pin, 5/16" x 2" long
18	1001985	Decal, Danger: Rotating Auger
19	1002301	Decal, Caution: Read and Understand...
20	1001128	Decal, Hutchinson
(20)	1048742	Decal, NECO
(20)	1018383	Decal, Mayrath

PARTS LIST

4" UTILITY AUGER



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CAUTION

1. READ AND UNDERSTAND THE OPERATOR'S MANUAL BEFORE OPERATING.
2. DO NOT REMOVE OR BYPASS ANY GUARDS.
3. MAKE CERTAIN OBSTRUCTIONS ARE CLEAR BEFORE OPERATING OR ENGAGING THE MOTOR.
4. KEEP HAIR, FEET, HAIR AND CLOTHING AWAY FROM MOVING PARTS.
5. STOP HANDING AND LOCKOUT POWER TO ADJUST, SERVICE OR CLEAN.
6. DISCONNECT POWER BEFORE SETTING MOTOR OVERLOAD.
7. MAKE CERTAIN ALL THE FACTORS ARE IN CHECK.
8. KEEP CHILDREN WELL CLEAR OF WORK AREA.

WARRANTY

AG GROWTH INTERNATIONAL INC. – FORM OF LIMITED WARRANTY

Ag Growth International Inc. (“AGI”) warrants that the goods and/or services being supplied (the “Goods”) will be free from defects in materials and workmanship under normal conditions, use, service, and maintenance, for a period of twelve (12) months from the date of first operation of the Goods, but in no event more than eighteen (18) months from the date of delivery of the Goods to the end-user (the “Warranty Term”). If the Goods are being used for rental purposes, the Warranty Term for the subject Goods shall be limited to 90 days.

Subject to AGI’s sole discretion, if the Goods, or a component thereof, are found to have a default in materials and/or workmanship within the Warranty Term, AGI will, at its own option and expense, repair or replace the subject Goods or refund the purchase price for the applicable Goods. Any warranty related expenses incurred on behalf of or by the end-user without the prior written consent of AGI shall be the sole responsibility of the end-user. Expenses relating to travel, customs or import duties and tariffs, equipment rental, and any costs associated with accessing the Goods are the sole responsibility of the customer. Warranty shall be void in the event the Goods are returned or disposed of without the written consent of AGI.

The customer shall not assert a claim that the Goods are defective unless the customer gives written notice to AGI of such defect within forty-eight (48) hours of discovering such defect. In the event of a warranty claim, the customer must complete any and all information required by AGI in order to properly assess or investigate the claim. AGI shall be given a reasonable opportunity to inspect and test the Goods in question. Failure by the customer to notify AGI of such claim within 48 hours shall operate as a waiver of any and all such claims by the customer.

THIS IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY AGI WITH RESPECT TO THE GOODS AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHETHER OR NOT THE PURPOSE OR USE HAS BEEN DISCLOSED TO SELLER IN SPECIFICATIONS, DRAWINGS, OR OTHERWISE, AND WHETHER OR NOT AGI’S GOODS ARE SPECIFICALLY DESIGNED AND/OR MANUFACTURED BY AGI FOR BUYER’S USE OR PURPOSE.

This limited warranty extends solely to Goods manufactured by AGI and does not cover any third-party parts, components, or materials. To the extent permitted by the manufacturer, AGI will pass on applicable warranties on third-party parts, components or materials to the end-user. This warranty does not extend to any losses or damages due to misuse, use of a kind and/or to a degree not reasonably expected to be made of the Goods, any use of the Goods which is not an intended use as specified in AGI’s published product literature or otherwise specified by AGI in writing, accident, acts of God, abuse, neglect, normal wear and tear (including corrosion and cosmetic issues), any equipment attached to or used in conjunction with the Goods, any field modifications or substitutions to original Goods, component damage incurred during shipping and handling, unauthorized modification or alteration, used beyond rated capacity, or improper installation, maintenance or application.

THE SOLE AND EXCLUSIVE REMEDY FOR ANY CLAIM HEREUNDER SHALL BE LIMITED TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE. AGI SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL AGI’S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PURCHASE PRICE OF THE GOODS. BUYER AGREED THAT IN NO EVENT SHALL AGI’S

LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES. THE TERM "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, BUT NOT BE LIMITED TO, LOSS OF ANTICIPATED PROFITS, LOSS OF USE, LOSS OF REVENUE, FAILURE TO MEET GOVERNMENT AND/OR ADMINISTRATIVE REQUIREMENTS, CLEAN UP COSTS, COST OF CAPITAL AND DAMAGE OR LOSS TO OTHER GOODS, PROPERTY OR EQUIPMENT.

To the fullest extent permitted by law, Buyer, on behalf of itself, its suppliers, their agents, employees or any entity or person for which Buyer is or may be responsible ("Indemnitors") shall fully indemnify, save and hold AGI, its agents, employees, officers, directors, partners and related entities harmless from and against all liability, damage, loss, claims, demands, actions and expenses of any nature whatsoever, including, but not limited to reasonable attorney's fees which arise out of or are connected with: (a) any negligent act, error or omission by any Indemnitor in the performance of this agreement; (b) the failure of the Indemnitor to comply with the laws, statutes, ordinances or regulations of any governmental or quasi-governmental authority; or (c) the material breach of any term or condition of this agreement by any of the Indemnitors. Without limiting the generality of the foregoing, the indemnity hereinabove set forth shall include all liability, damage, loss, claims, demands, and actions on account of personal injury, death or property loss to any third party, any Indemnitee, any of Indemnitee's employees, agents, licensees or invitees. The indemnity set forth herein shall survive any termination of this agreement.

THIS WARRANTY IS NON-TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL END-USER AND SHALL BE CONSIDERED VOID IF NOT REGISTERED WITHIN 30 DAYS OF RECEIPT OF THE GOODS BY THE ORIGINAL END USER.

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