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Operator's Manual

Keep this manual with the machine at all times

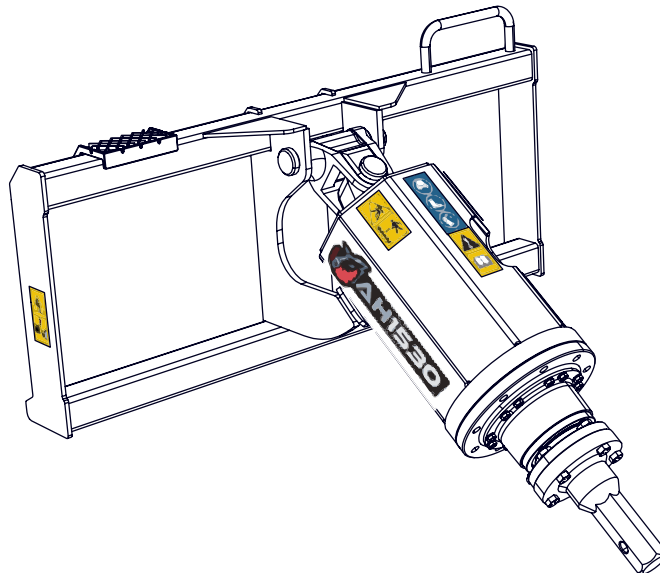
Earth Bore Auger Drives

Models

AS-0615 • AS-1020 • AS-1530 • AS-2035 • AH-1530

Kits:

FDHAS-0615US • FDHAS-1020US • FDHAS-1530US
• FDHAS-2035US • FDHAH-1530US



CAUTION
Operational Hazard

Dig safe - avoid underground utilities!
Always contact your local utility
companies (electrical, telephone, gas,
water, sewer, and others) before digging

CAUTION
Operational Hazard

Personal Protection Equipment
(PPE) is required when operating
or maintaining this machine.



Do not attempt to operate the equipment without thoroughly
reviewing this manual for safe and proper operation.

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INTRODUCTION

Thank you for purchasing your new **Reist Industries Hydraulic Earth Bore Auger Drive**. Your **Auger Drive** has been designed and manufactured to give you many years of dependable service. **AS & AH Series** for auxiliary hydraulic systems operate between 10 to 35 GPM and up to continuous 3000 PSI, their unique design helps to increase productivity by ensuring safe, effective and speedy completion of earth boring tasks at your job site.

The **AH** series feature a bolt on output shaft, for convenient field serviceability.

Safe, efficient and trouble free operation of your auger drive requires that you or any other person, who will be assembling, operating, maintaining or working with this product, are required to read and completely understand the information and instructions contained in this manual.

NOTE: If operating pressures will be higher than 3000 PSI, a cross over relief valve may be purchased from Reist Industries (# 124441) and must be used to reduce the operating pressure to the **Hydraulic Earth Bore Auger Drive**. The relief valve must be set at 3000 PSI or lower.

If anyone does not fully understand every part of this manual, please obtain further assistance by contacting the dealer from which this product was purchased or by contacting Reist Industries with the information listed on the cover of this manual.

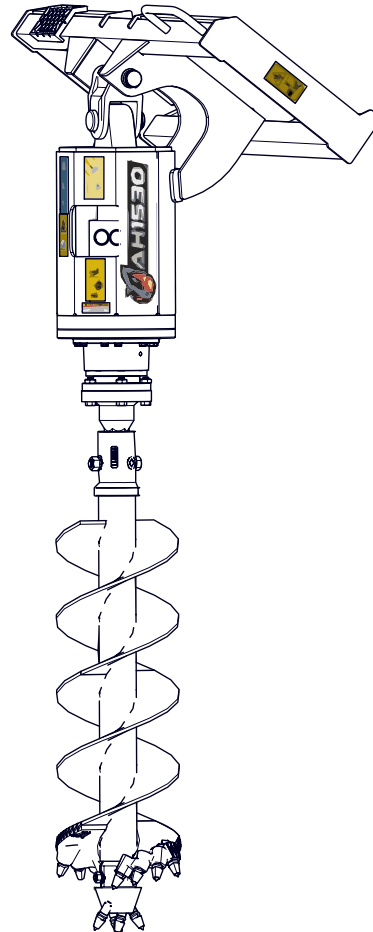
Keep this operators manual available for reference by the operator and to pass on to new owners and or operators .

Assembly may be required depending on how you purchased your auger drive. Follow the assembly procedures as outlined in the manual.

This manual covers models:

AS-0615, AS-1020, AS-1530, AS-2035, AH-1530 &

kits: FDHAS-0615US, FDHAS-1020US, FDHAS-1530US, FDHAS-2035US, FDHAH-1530US



GENERAL INFORMATION

The purpose of this manual is to assist you in safely operating and maintaining your **auger drive** in a safe manner. Read this manual carefully to obtain valuable information and instructions that will help you achieve safe and dependable service. The illustrations and data used in this manual were current at the time of printing, but due to possible engineering and or production changes, this product may vary slightly in detail. Reist Industries reserves the right to update and or change components as necessary without notification.

In this manual the **Earth Bore Auger Drive** series may be referred to as implement, attachment, bore drive, bore or auger drive.

Power unit refers to any powered implement attached to a **Reist Hydraulic Earth Bore Auger Drive**.

INTENDED USE

The **Reist Hydraulic Earth Bore Auger Drive** is intended for attachment and use on qualified power units for the sole purpose of digging vertical holes in the earth for the installation of posts, plants, and other construction and landscaping needs.

CALIFORNIA PROPOSITION 65

You may see a warning label like the following:

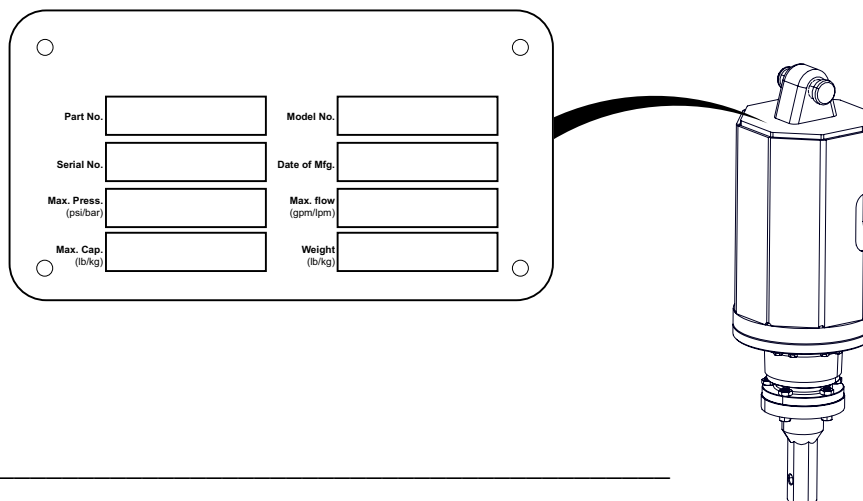


This warning is required by California Proposition 65 (Prop 65), which is meant to notify California residents of exposures to Prop 65-listed chemicals. For more information go to 'www.P65Warnings.ca.gov'.

SERIAL NUMBER LOCATION

The Serial number for your Reist bore is located on the top of the housing.

Please record your serial number here as a handy reference. In case of warranty issues, your dealer will ask for the serial to verify your warranty.



Model Number _____

Serial Number _____

SAFETY



This Safety Alert Symbol means:
ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!

The Safety Alert symbol identifies important safety messages on the implement and in the manual. When you see this symbol, read and understand the message, be alert to the potential hazard in the message. Follow the instructions in the safety message.

SAFETY MESSAGES

Throughout this manual, the terms **DANGER**, **WARNING**, **CAUTION** and **IMPORTANT** are used to indicate the degree of hazard to personnel if proper safety procedures and guidelines are not followed. The appropriate term for each message has been selected using the following guide-lines:

DANGER - Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury, and includes most extreme situations typically for implement components which, for functional purposes, cannot be guarded.

WARNING - Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

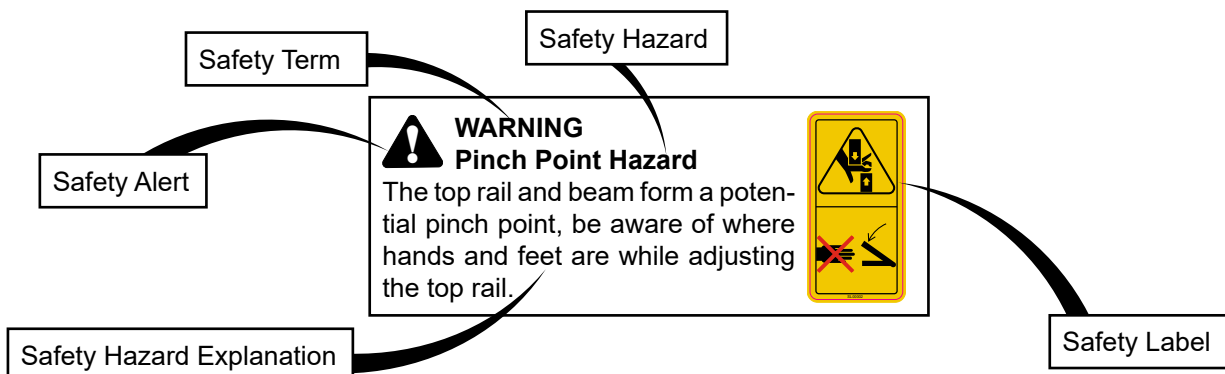
CAUTION - Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

IMPORTANT - Indicates a situation that could result in damage to the implement or other property.

In the owners manual, when a hazard is present you will see a safety message box. The box may contain:

- The safety alert symbol,
- The safety term
- The safety hazard
- The safety hazard explanation

When applicable you may also see the appropriate safety label displayed with the message, as shown below.



The safety information given in this manual does not replace any safety codes, insurance needs, government and local laws.

ACCIDENT PREVENTION

ACCIDENTS CAN BE PREVENTED WITH YOUR HELP!

YOU are responsible for the SAFE operation and maintenance of your implement. **YOU** must ensure that you and anyone else who is going to use, maintain or work around the implement be familiar with the work and maintenance procedures and related SAFETY information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be used.

Remember, **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices an effective part of your day to day work habits. Be certain that EVERYONE using this implement is familiar with the recommended maintenance and work procedures and follow all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.



The best accident prevention is a careful operator.

Horst Welding and your dealer ask that YOU be that careful, responsible equipment operator.

YOU ARE THE KEY TO SAFETY:



• Familiarize yourself, and anyone else who will operate, maintain, or work around this product, with the safety and operation information contained in this manual.

- Read and understand the safety labeling which appears on the implement.
- Have a first-aid kit available for use should the need arise and know how to use it. 
- Pay attention to the job at hand. Do not let your mind lose concentration on what you are doing. No accident prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the implement.
- Have a fire extinguisher available for use should the need arise and know how to use it. 
- Reduce the risk of injury or death by following all safety precautions and by using good safety practices.
- Accidents can be prevented: that prevention will come from equipment operators who accept their complete responsibility and anticipate the results of their actions.

- Never exceed the limits of the implement. Safety of the operator and safe operation are the main concerns in designing a safe product, however ignoring implement specifications by the operator can result in a accident which could have been prevented.



- Do not allow riders on the implement, loaded or empty.
- Do not operate this implement under the influence of drugs or alcohol.
- Be responsible for the SAFE operation and MAINTENANCE of YOUR implement.
- Wear appropriate personal protective equipment (PPE). This list includes but is not limited to:

- Hard hat
- Heavy gloves
- Hearing Protection
- Protective foot wear
- Protective eye wear
- Safety Vest



CAUTION
Operational Hazard
Personal Protection Equipment (PPE) is required while assembling or maintaining this machine.



SAFETY GUIDELINES

Safety of the operator and bystanders is one of the chief concerns in developing and designing equipment. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more cautious approach to handling equipment.

You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury or death, study the following precautions and insist those working with you, or for you to follow them.

In addition to the design and configuration of this implement, including safety labels and safety devices, hazard control and accident prevention are dependent upon the awareness, concern, and proper training of personnel involved in the operation, transport, maintenance, and storage of the implement. Refer also to safety messages and operation instruction in each of the appropriate sections of the tractor and implement manuals. Pay close attention to the safety labeling affixed to the implement.

1. In order to provide a better view, certain illustrations in this manual may show an assembly with a safety device removed. However, equipment should never be used in this condition. Keep all safety devices in place, if removal becomes necessary for repairs, replace the device prior to use.
2. Replace any safety label or instruction sign that is unreadable or is missing. Location of safety signs is indicated in this manual.
3. Never use alcoholic beverages or drugs which can hinder alertness or coordination while using this implement. Consult your doctor about using this implement while taking prescription medications.
4. Under no circumstances should young children be allowed to work with this implement.
5. This implement is dangerous to persons unfamiliar with its operation. Do not allow persons to use or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works. Review the safety instructions with all users annually.
6. If the elderly are assisting with work, their physical limitations need to be recognized and accommodated. Assistants should be a responsible, properly trained and physically able person familiar with machinery and trained in this implement's operations.
7. Never exceed the limits of the implement. If its ability to do a job, or to do so safely, is in question - DON'T TRY IT.
8. Do not modify the implement in any way. Unauthorized modification may result in serious injury or death and may impair the function and life of the implement.

SAFETY TRAINING

A person who has not been trained or has not read and understood all use and safety instructions is not qualified to use the implement. An untrained operator exposes himself and bystanders to possible serious injury or death.

- Train all new personnel with the instructions alongside the implement. Be certain only a properly trained and physically able person will use the machinery.
- Working with unfamiliar equipment can lead to careless injuries. If this implement is used by any person other than yourself, or is loaned or rented, it is the implement owner's responsibility to make certain that the operator, prior to using:
 - Reads and understands the operator's manuals.
 - Is instructed in safe and proper use of the implement
- If the elderly are assisting with the work, their physical limitations need to be recognized and accommodated.
- Operators or maintenance personnel who are not fully able to read and understand this manual should not operate or work on the implement:
- Make certain that all operators and maintenance personnel have complete understanding of the full and exact contents of this manual and safety labeling.
- ALL information contained in this manual and labeling on the implement must be conveyed CLEARLY and FULLY, in order to be able to operate safely and knowledgeably.
- Review the implement and instructions regularly with existing workers.

PREPARATION

1. Dig safe - avoid underground utilities! Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any underground services in the area. Be sure to ask how close work can be done to the marks they positioned.
2. Inspect implement for shipping damage. If damage does exist, do not use. Notify your dealer immediately to have damaged parts replaced or repaired.
3. Assembly may be required depending on how you purchased your equipment. Follow the assembly procedures as outlined in the manual, ensure all hardware is secure.
4. Ensure safety chain, straps, tires are not damaged and in good condition.
5. Inspect all fasteners that they are not lose or missing. Ensure fasteners and wheel bolts are torqued according to the torque chart at the back of this manual
6. If traveling at night, ensure provincial state and local laws lighting requirements have been met.
7. Ensure that all applicable safety decals are installed and legible.
8. Personal protection equipment (PPE) including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, cleaning, or moving the unit. Do not allow long hair, loose fitting clothing or jewelry to be around equipment.
9. **PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!**
Gas or diesel powered equipment can often be noisy enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis. Noise over 85dB on a long-term basis can cause severe hearing loss. Noise over 90db adjacent to the Operator over a long-term basis may cause permanent, total hearing loss.
10. When not attached to the power unit support the implement to prevent movement.

OPERATION SAFETY

1. NEVER allow helpers or bystanders under or near the machine.
2. All bystanders should be kept a minimum of 10 feet (3 meters) away from working area
3. Inspect all fastening devices, do not use if worn or damaged.
4. Make sure that everyone is clear before moving the implement. NEVER position yourself between the tractor and the implement.
5. Do not permit riders while transporting this implement.
6. Where possible, avoid operating near ditches, embankments and holes.
7. Before exiting power unit, lower the auger to ground, turn off vehicle engine and lock power unit brakes

STORAGE SAFETY

1. Store the unit in an area away from human activity.
2. Do not allow children to play on or around the stored implement.
3. Store the unit in a dry, level area. Cover if stored outside.
4. Guard any sharp corners.
5. Ensure components and safety features are not damaged and in good condition before storing the implement. Make repairs now to be ready for the following season.
6. Secure the implement to prevent unwanted movement.

TRANSPORT SAFETY

1. When traveling on a public road at 32 km/h (20mph) or less, ensure a rear facing slow-moving-vehicle (SMV) emblem has been installed on the power unit.
1. Ensure the auger is safely secured from swinging when transporting a distance to and from job site on private or public roads
2. Tilt the quick attach rearward almost horizontal, till the drive head rests on the cradle to stabilize the auger and keep it from swinging freely. Always travel with the bore in the lowered position and auger not rotating, at least 6" off the ground.
3. If not on a quick attach frame, secure the auger with a chain to stabilize the auger and keep it from swinging freely.
4. Check power unit tires before proceeding:
 - Inflation - correct pressure
 - Tread - unusual wear, exposed cord
 - Rims - damaged or bent
 - Wheel bolts - all secure, not loose
 - Replacement tires must be same type and rating
5. Just before transport, perform a circle check to ensure everything is safe.
6. Be sure all markers required by local traffic regulations are in place, clean and working.
7. Lighting is not required for daytime transport, however generally lighting is required one-half hour before sunset to one-half hour after sunrise and at any other time when there is insufficient light or unfavourable atmospheric conditions.
8. Reduce speed when turning, crossing slopes and rough, slick or muddy surfaces.
9. Stopping distance increase with speed, weight and on slopes.
10. Drive slowly over rough ground and on slopes, raise and tether the auger with a chain, if necessary, to prevent uncontrolled swinging.

MAINTENANCE SAFETY

1. Good maintenance is your responsibility, follow the maintenance schedule. Poor maintenance is an invitation to trouble.
2. Follow good shop practices.
 - Keep service area clean and dry.
 - Be sure electrical outlets and tools are properly grounded.
 - Use adequate light for the job at hand.
3. Never work under or around the implement unless it is blocked securely.
4. Use personal protection equipment (PPE) such as eye, hand and hearing protectors.
5. Never adjust, service, clean or lubricate the implement until all power is shut off when attached to the power unit.
6. Ensure hardware is torqued as noted or according to the torque chart at the back of this manual.
7. Relieve pressure on hydraulic system before maintaining or working on system.
8. All hydraulic work must be done by qualified personnel
9. Do not work on or make any adjustments to the tractor or earth bore while either is in operation. Turn off tractor engine, lower earth bore to the ground and operate earth bore control levers to relieve residual hydraulic pressure before leaving the tractor.
10. Do not leave the earth bore unattended with the auger raised, always lower it to the ground.

SAFE WORK AREA

Not all work spaces are the same, but the principles presented here can be applied to any work space.

For worker safety a site visit is recommended. Make a site plan to identify hidden obstacles and structures and identify the work area.

Dig safe - avoid underground utilities! Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any underground services in the area. Be sure to ask how close work can be done to the location marks.

Survey the work site, remove debris and make note of nearby or overhead obstructions, knowing your work area will make the job easier and safer.

Where possible, avoid operating near ditches, embankments and holes.

Before exiting power unit, lower the auger to ground, turn off vehicle engine and lock power unit brakes.

Be aware of:

Bystanders or any one not directly involved with the work are only allowed outside of the work area and must keep a distance of at least 10 ft from the work area, minimized hazards.

Workers helping the operator must wear the appropriate PPE and must always make eye contact with the operator before entering the work area. Unauthorized Workers or bystanders are not allowed in the work area. Hazards are present.

Operator, do not operate the auger outside of the operator area.

Machinery, know the machinery you are working with. Understand how the machines work, their limits and how to safely operate them.

HYDRAULIC SAFETY

1. Make sure that all the components in the hydraulic system are kept in good condition and are clean.
2. Before applying pressure to the system, inspect for leaks at all components, and that lines, hoses, connections and couplings are not damaged and leak free.
3. Do not attempt any makeshift repairs to the hydraulic lines, fittings or hoses by using tapes, clamps or cements. The hydraulic system operates under extremely high pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.
4. Wear proper hand and eye protection when searching for a high pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.
5. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin surface.
6. Relieve pressure on hydraulic system before maintaining or working on system.
7. All hydraulic work must be done by qualified personnel



WARNING

High Pressure Hazard

Be aware that hydraulic leaks could develop without warning. Do not check for leaks with your hand or fingers while the system is pressurized



SAFETY LABELS

Safety labeling is an important part of the overall safe use of the implement. Safety labeling alerts and warns against potential injury or death, and is important to follow these points to help keep your implement safe for you and others who may be using it.

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replaced parts that displayed a safety sign should also display the current sign.
- Safety signs are available from your authorized distributor or the factory order desk.

SAFETY LABEL DESCRIPTIONS



Caution: read and understand ALL safety and operating instructions in the manual, read and understand ALL safety labels located on the machine. The most important safety device on this equipment is an informed SAFE operator.



Warning: Be aware of rotating auger. Entanglement danger present, keep hands, feet, loose clothing, and long hair away from rotating auger. Entanglement could result in death or serious injury.



Caution: Hydraulic fluid is under pressure, be aware that hydraulic leaks could develop with out warning. Do not check for leaks with your hand or fingers while the system is pressurized, serious injury could result. Possible burns or poisoning from pressurized fluid injection.



Caution: Personal Protection Equipment (PPE) is required when operating or maintaining this machine. Failure to wear PPE will result in personal injury.



Caution: do not place your hand or any part of your body on or near the front mount while coupling to the power unit. Parts moving together present a pinch point and may cause serious injury. Possible laceration, crushing, amputation hazard.

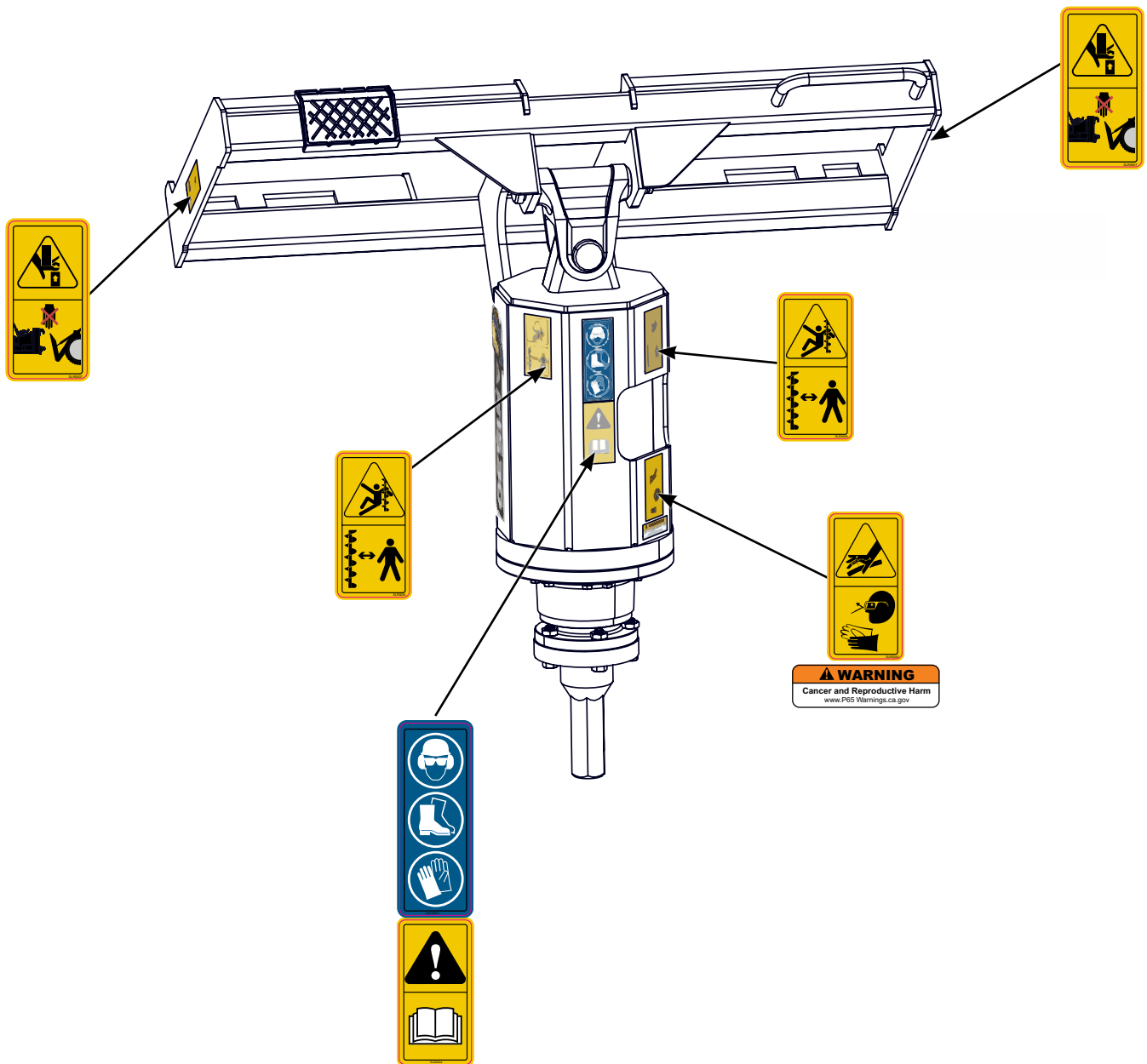
IF LABELS NEED TO BE REPLACED:

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).
- Determine exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.

SAFETY LABEL LAYOUT

Safety signs and locations on the equipment are shown in the illustrations below. The AH1530 is illustrated however label locations are similar for all models, unless otherwise indicated.

Good safety practice requires that you familiarize yourself with the label and the safety message it is delivering. Be aware of the equipment or particular equipment feature that requires your SAFETY AWARENESS.



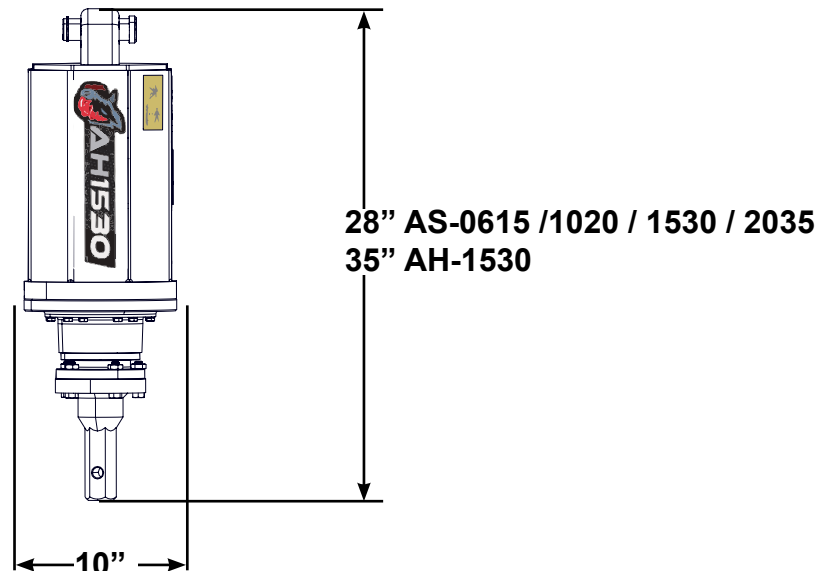
If safety labels have been damaged or removed, new labels must be applied. New safety signs are available from your dealer or contact Reist Industries

SPECIFICATIONS AND DIMENSIONS

SPECIFICATIONS

Specifications	AS-0615	AS-1020	AS-1530	AS-2035	AH-1530
Dimensions (Drive only)	10 X 10 X 28 IN	10 X 10 X 28 IN	10 X 10 X 28 IN	10 X 10 X 28 IN	11 X 11 X 35 IN
Weight Drive	149 LBS.	150 LBS.	150 LBS.	151 LBS.	185 LBS.
Output Shaft Size	2" HEX	2" HEX	2" HEX	2" HEX	2" HEX
Max. Dia. Dirt Auger	18 IN	30 IN	36 IN	36 IN	36 IN
Max. Dia. Rock Auger	18 IN	24 IN	36 IN	36 IN	36 IN
Gear Train Type	PLANETARY	PLANETARY	PLANETARY	PLANETARY	PLANETARY
Hydraulic Flow (GPM)	5 min - 15 max	10 min - 20 max	15 min -30 max	20 min -35 max	15 min - 30 max
Max. Continuous (PSI)	3000 PSI	3000 PSI	3000 PSI	3000 PSI	3000 PSI
Max Intermittent (PSI)	3500 PSI	3500 PSI	3500 PSI	3500 PSI	3500 PSI
Field Serviceable	NO	NO	NO	NO	YES
Kit (Frame, Drive, Hoses)	Ordered to fit the power unit - front loader, skid steer				
Speed Output	AS-0615	AS-1020	AS-1530	AS-2035	AH-1530
6 GPM	36 RPM	NA	NA	NA	NA
10 GPM	61 RPM	53 RPM	NA	NA	NA
15 GPM	91 RPM	79 RPM	55 RPM	NA	45 RPM
20 GPM	NA	105 RPM	73 RPM	61 RPM	60 RPM
25 GPM	NA	NA	92 RPM	76 RPM	75 RPM
30 GPM	NA	NA	110 RPM	91 RPM	90 RPM
35 GPM	NA	NA	NA	106 RPM	NA
Torque Output	AS-0615	AS-1020	AS-1530	AS-2035	AH-1530
2000 PSI	1,008 FT. LBS.	1,165 FT. LBS.	1,674 FT. LBS.	2,016 FT. LBS.	2,041 FT. LBS.
2500 PSI	1,260 FT. LBS.	1,456 FT. LBS.	2,092 FT. LBS.	2,520 FT. LBS.	2,550 FT. LBS.
3000 PSI	1,512 FT. LBS.	1,747 FT. LBS.	2,511 FT. LBS.	3,025 FT. LBS.	3,062 FT. LBS.
3500 PSI	1,764 FT. LBS.	2,038 FT. LBS.	2,929 FT. LBS.	3,529 FT. LBS.	3,572 FT. LBS.

DIMENSIONS



COMPONENTS AND FEATURES

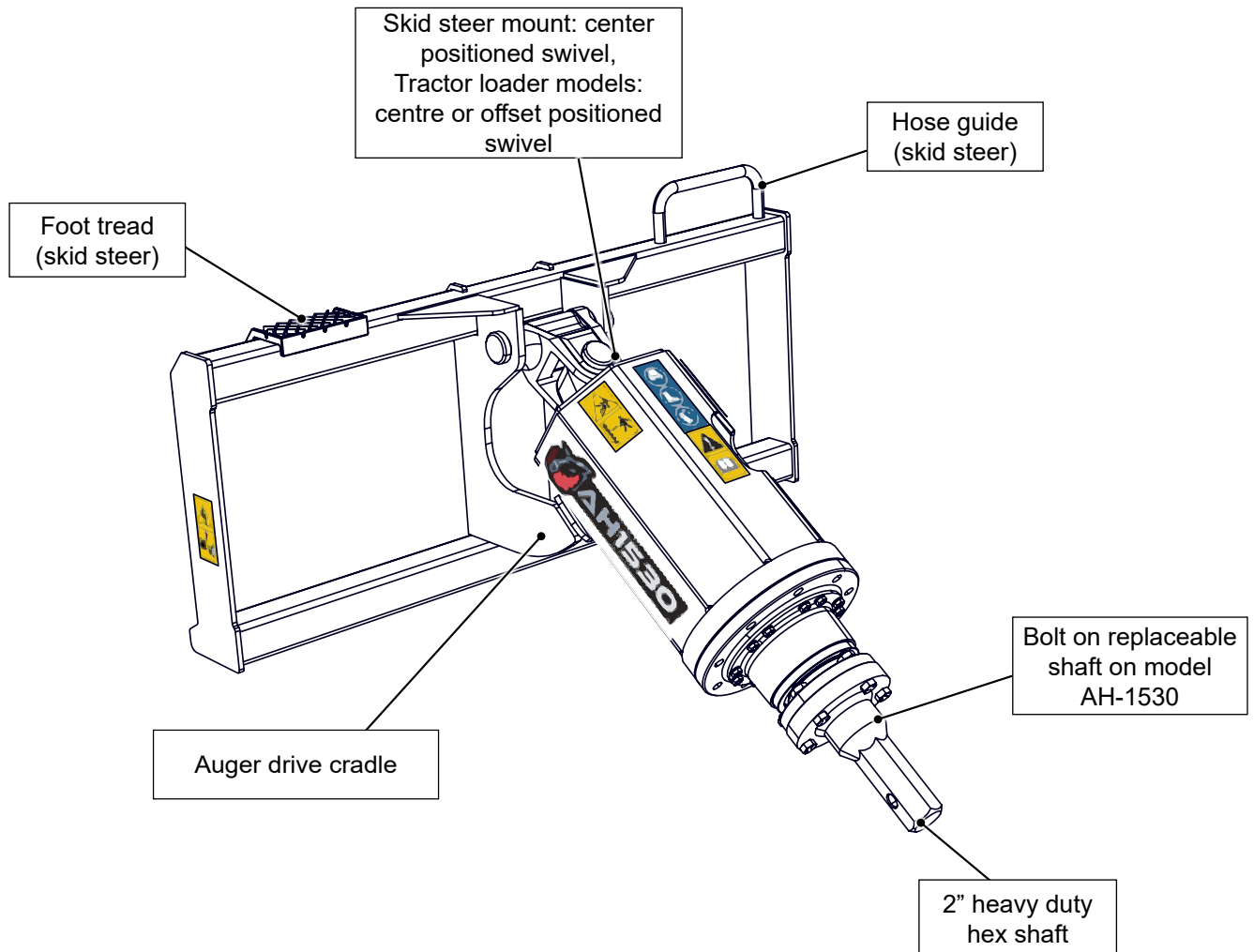
The Reist series auger drives are designed to perform digging chores in a reliable, safe way. Its features make it the best choice for boring holes quickly and easily.

The owner or operator has the responsibility of being familiar with all the features of the Reist auger and know how to operate it. Each owner or operator must train all other operators before they start working with the machine.

Read this section carefully to learn how to use the auger safely and how to set it to provide maximum field efficiency. By following instructions in conjunction with a good maintenance program, your auger will provide many years of trouble-free service.

Do not operate this auger if you are not familiar with its features.

The AH1530 with skid steer mount is illustrated below, showing its basic components and features. Components and features are similar for the auger series unless noted. Review the various components and their position, the names of the components will be used to describe where they are and how they work through out the manual.



INITIAL SETUP

To prevent potential injury during installation and to ensure safe working conditions, avoid working around the power unit while it is running. Shut off the power unit and ensure the brakes are applied or the wheels have been secured with wheel chocks to prevent unwanted movement during the installation process.

Components are heavy, work in pairs (2 skilled operators) whenever earth bore drive unit or components are being assembled or disassembled from the power unit. Always check the power unit has the capacity for handling the weight & hydraulic requirements of the drive.

The following describes the typical connection procedure with required materials. Before proceeding, lubricate pivot points on the unit. Refer to the maintenance section in this manual. Before putting the earth bore drive into service the first time, inspect the drive and auger for shipping damage. If damage does exist, do not use. Notify your dealer immediately to have damaged parts replaced or repaired. Check all bolts for tightness, tighten if required.

The initial setup of the Earth Bore Drive series involves a few basic steps.

- Attach the drive to the adaptor frame mount.
- Install hydraulic hoses.
- Test and inspect.

MOUNTING

Attachment of the bore drive can be easily made to a Reist skid steer or tractor loader mount or attached directly to the power unit. (eg mini excavator)

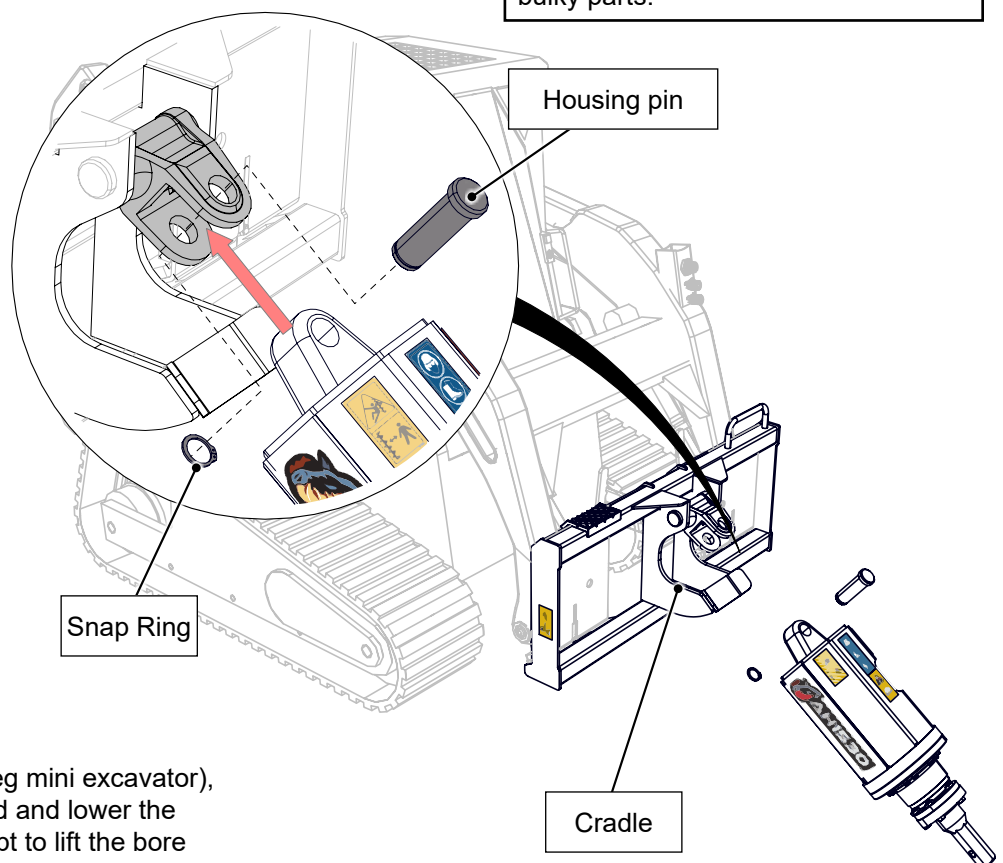
Review your power unit owner manual, determine how mount attachment should be made and what is required.

The bore drive comes with the housing pin secured to the drive with a snap ring.

- Attach and secure the adaptor / quick attach frame to the power unit.
- Remove the housing pin by removing the snap ring with snap ring pliers.
- With a helper, rest the Earth Bore on the cradle and carefully install the housing pin, and secure with the snap ring.

If attaching directly to the power unit (eg mini excavator), ensure the bore is laying on the ground and lower the boom to attach the bore. Do not attempt to lift the bore drive up to the boom. Install and secure the main pin, carefully lift the bore drive.

WARNING
Heavy or bulky parts
Prevent potential strain injury, use approved lifting equipment or ask for help when lifting or moving heavy, bulky parts.



WARNING Pinch Hazard

Keep hands away from mounting points while attaching to the power unit. Potential pinch hazard exist between the facer and power unit



CAUTION Operational Hazard

Personal Protection Equipment (PPE) is required while assembling or maintaining this machine.



HYDRAULICS

If the Earth Bore was purchased as a skid steer kit the hydraulic hoses are pre-attached to the drive complete with flat faced hydraulic quick couplers.

HYDRAULIC HOSES

Warning! Hoses and fittings must have a continuous operating pressure rating of at least 25% higher than highest pressures of the system you are connecting into.

- Determine length of hydraulic hoses required to plumb the drive unit into the outlets on the power unit where you'll be connecting into the hydraulics.
- Fittings on the drive end of the hose should be #10 ORB to fit the drive. Fittings on the power unit end of the hose should match the threads on hydraulic quick couplers to be used.
- Hydraulic hoses are attached at the drive motor thru the opening in the housing.

Reist has hoses available: 96" long with #10 ORB fittings at each end.

MAXIMUM HYDRAULIC FLUID LINE PRESSURE

All Reist hydraulic earth bore attachments are rated to 3000 PSI.



If operating pressures will be higher than 3000 PSI, a cross over relief valve may be purchased from Reist (# 124441) and must be used to reduce the operating pressure to the Reist hydraulic auger drive. The relief valve must be set at 3000 PSI or lower.

The operator is responsible for ensuring the hydraulic power supply does not exceed the maximum fluid pressure.

MAXIMUM HYDRAULIC FLUID FLOW PER UNIT

The following is a list of the maximum continuous hydraulic fluid flow at 3000 psi allowable for each size of hydraulic boring attachment.

MODEL	VOLUME	GALLONS PER MINUTE
AS-0615	06-15	GPM
AS-1020	10-20	GPM
AH / AS-1530	15-30	GPM
AS-2035	20-35	GPM

-  Failure to follow these guidelines will void all warranties!
-  Failure to follow these guidelines can cause serious internal damage and failure of the hydraulic motor and or gearbox!

TEST & INSPECT

- Inspect all attach points and all pins are secured.
- Check hydraulic connections are tight.
- Start up the power unit, check for drive operation and hydraulic leaks.
- Put the power unit through its range of movement, check for proper hose lengths, and that hoses won't be stretched, snagged or pinched.



WARNING

Operational Hazard

Warning: At first use the hydraulic components on this product may contain air or an air-fluid mixture. Failure to remove all the air from the hydraulic components can cause dangerous uneven, jerky movement during use or unwanted movement when not being operated.



WARNING

High Pressure Hazard

Be aware that hydraulic leaks could develop with out warning. Do not check for leaks with your hand or fingers while the system is pressurized



WARNING

Operational Hazard

Warning: Be aware of rotating auger. Entanglement danger present, keep hands, feet, loose clothing, and long hair away from rotating auger. Entanglement could result in death or serious injury.



IMPORTANT

Operational Hazard

Some auxiliary outlets are one way circuits only and turn on flow abruptly with such force that can cause damage to hydraulic motors and other parts of system and will not reverse auger drive to free the auger if it becomes lodged. Check the power unit before installing on one of these outlets.



WARNING

High Pressure Hazard

Hoses and fittings must have a continuous operating pressure rating of at least 25% higher than highest pressures of the system you are connecting into.



FIELD OPERATION

This section describes how to safely and effectively operate the Earth Bore Auger Drive in the field of operation. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the work site. Not all situations and conditions can be addressed, proceed with care & caution and use safety as your guide.

The owner or operator has the responsibility of being familiar with the operation of the Earth Bore Auger Drive and must train all other operators before they start working with the machine.

Work in a safe manner and follow all instructions exactly, safety is everyone's business. Untrained operators are not qualified to use the machine.

OPERATION SAFETY CHECKLIST

- ✓ NEVER allow helpers or bystanders under or near drive unit while the power unit is running.
- ✓ Make sure that the drive unit is securely mounted to the power unit before moving or using.
- ✓ Inspect all fastening devices, do not use if worn or damaged.
- ✓ Make sure that everyone is clear before moving the implement. NEVER position yourself between the power unit and the implement.
- ✓ Where possible, avoid operating near ditches, embankments and holes.
- ✓ When changing augers, ensure the brakes are on prevent the power unit from moving.
- ✓ Do not permit riders while using or transporting.

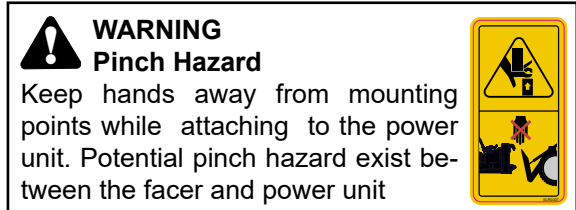
PREPARE

- Transport to the work site, review '**Transport Safety**'
- Clear the area of bystanders, especially small children.
- Training: each operator must be trained and familiar with the set up and operation of the product and its components.
- Each Earth Bore unit has unique specifications, the power unit must be equipped to meet these specifications:
- Review:
 - Components and Features
 - Operation Safety Checklist
- For worker safety review the site plan to identify hidden obstacles and structures and identify the work area.
- Dig safe - avoid underground utilities! Ensure local utility companies (electrical, telephone, gas, water, sewer, and others) have inspected and marked the location of any underground services in the area before digging. Be sure to ask how close work can be done to the location marks.
- Survey the work site, remove debris and make note of nearby or overhead obstructions, knowing your work area will make the job easier and safer.
- Where possible, avoid operating near ditches, embankments and holes.
- It is recommended that each person wear appropriate Personal Protective Equipment (PPE) whenever working in the vicinity. This equipment is designed to prevent injury to any personnel in the area. This list includes but is not limited to:
 - Safety shoes with slip resistant soles.
 - Safety glasses.
 - Hearing protection.
 - Heavy or leather gloves
- Before use, inspect the power unit and drive unit
 - Check all nuts, bolts and screws and ensure they are all properly secured
 - Check all attachment pins and clips are secure.
 - Check hydraulic connections are secure and that hoses are undamaged and in good condition.

MOUNT EARTH BORE

Ensure your attachment system is in good condition.

- Prepare your particular attachment system, follow the attachment instructions for your power unit.
- Position the hydraulic connectors away from the quick attach points to prevent damage from pinching while mounting.
- Mount the quick attach, close and secure any locks or pins to lock the quick attach to the power unit.
- When traveling from point to point:
 - **Reist Quick Attach:** Tilt the quick attach rearward so the bore is almost horizontal and the drive head rests on the cradle to stabilize the auger drive and keep it from swinging freely. Always travel with the bore in the lowered position and auger not rotating, at least 6" off the ground.
 - **Direct attach to power unit:** always travel with the auger not rotating. Secure the auger drive with a chain to stabilize the auger and keep it from swinging freely.



INSTALL THE AUGER BIT

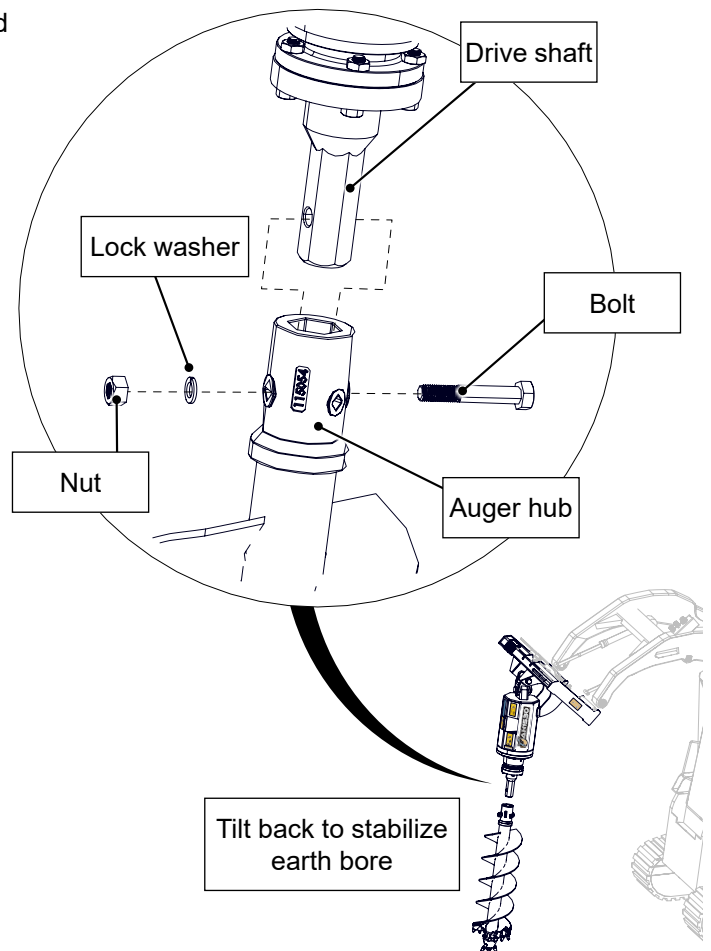
Park the power unit on a level surface, engage the parking brake. Prepare the auger by removing the nut, lock-washer and bolt from the auger hub.

REIST QUICK ATTACH:

- Raise the loader arms and tilt the quick attach rearward so the drive head rests on the cradle to stabilize it.
- Shut off the engine, remove the key and set the brake.
- With a helper, maneuver the auger hub into the end of the drive shaft.
- Align the bolt holes and secure the auger to the drive shaft with a nut, lock-washer and bolt.

DIRECT ATTACH TO POWER UNIT:

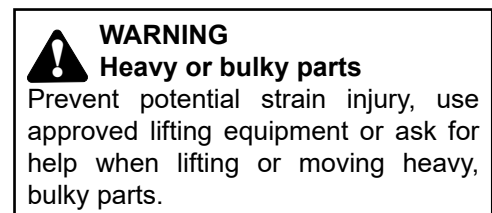
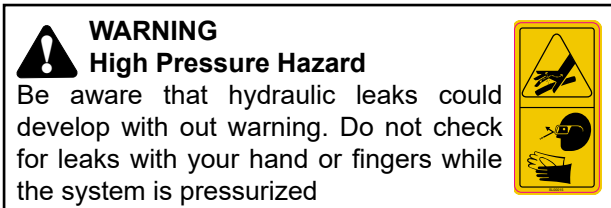
- Lower the boom so the bore is laying on the ground.
- With a helper, maneuver the drive shaft into the end of the auger shaft or extension.
- Secure the auger to the drive shaft with the nut, lock-washer and bolt., carefully lift the bore drive.



CONNECT HYDRAULICS

Review the auxiliary connection and operating instructions for your power unit.

- Connect the bore hydraulic hoses to the power unit's auxiliary hydraulic connectors.
- Ensure the connection is secure and the hoses are free to move without snagging or stretching.



OPERATING THE EARTH BORE

With the Earth Bore Auger set up and ready to run, work may begin after the work site has been inspected and any underground utilities marked, .

BORING PROCEDURE

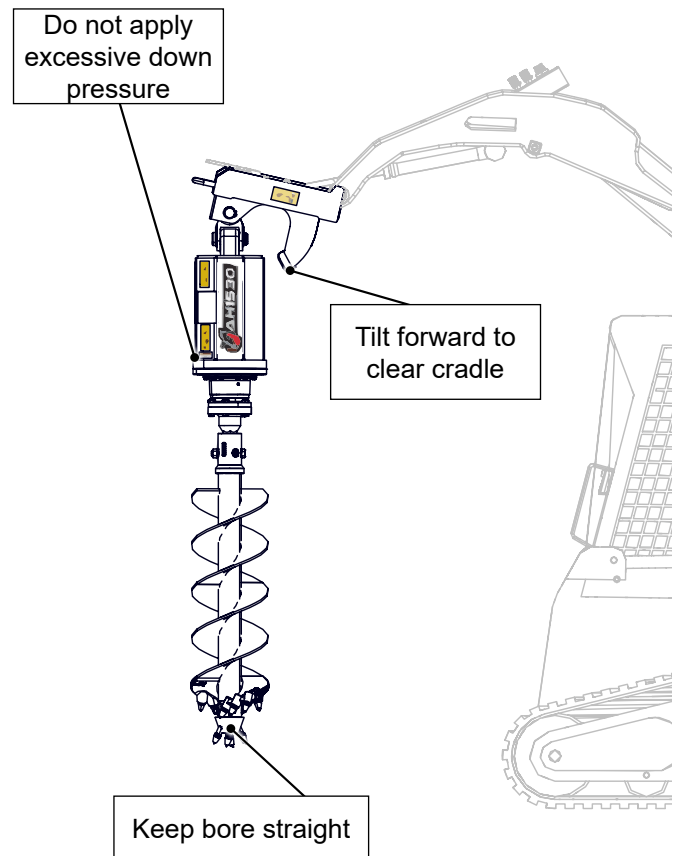
- With the auger raised off the ground and the power unit engine set at a low RPM, activate the earth bore control valve to determine the position the control valve lever must be turned to turn the auger in a forward (clockwise) rotation.
- Before beginning to dig, experiment with auger speed to determine a suitable auger RPM. To increase auger RPM, increase power unit engine RPM, to decrease auger RPM, decrease engine RPM:
- Generally in light and sandy soils a high RPM is desirable.
- In hard, rocky or frozen soils a slower RPM is desirable.
- Ensure the quick attach frame is tilted forward to provide clearance from the cradle during the boring procedure.
- Return earth bore control valve to neutral position to stop the auger. Lower the auger to the ground so that only the center point penetrates the ground about 2".
- Activate the earth bore control valve so the auger is turning in a forward (clockwise) rotation. Use only enough down pressure to assure positive penetration of the auger into the ground.
- Lower the earth bore slowly as the soil is loosened. As you dig deeper, move the power unit backward or forward as required to keep the bore straight.
- Ease up on down pressure if auger rotation slows down drastically. If the auger stalls, engage the reverse flow hydraulics, and slowly raise the auger out of the hole.

NOTE: Excessive down pressure will cause the auger drive to stall frequently.

- When the auger has penetrated the ground about 24" (610mm), raise the auger from the hole to clean the dirt out. Repeat this procedure until the desired hole depth is obtained.
- Once required hole depth is reached, allow the auger to turn a few seconds at this depth to clean the hole.
- Return the earth bore control valve to the neutral position to stop the rotation of the auger. Raise the auger out of the hole, move away from the hole, then activate the earth bore control valve to spin the loose soil off of the auger.


NOTE: Do not reverse the auger rotation to remove from the hole as loose soil on the auger flights will fall back into the hole.

- If necessary, repeat the previous two steps to obtain a cleaner hole.




WARNING
Operational Hazard

Warning: Be aware of rotating auger. Entanglement danger present, keep hands, feet, loose clothing, and long hair away from rotating auger. Entanglement could result in death or serious injury.



CAUTION
Operational Hazard

Personal Protection Equipment (PPE) is required while assembling or maintaining this machine.



EARTH BORE OPERATION TIPS

- Allow the earth conditions to determine the best RPM or how much down pressure you use for each hole. Bore just enough dirt with each pass to clear efficiently without overloading the earth bore, auger or power unit. Experience is your best tool.
- Choose the appropriate auger for the job at hand. Reist Industries feature a variety of auger types in various sizes.
- In some soil conditions when excessive down pressure is applied, the auger may “screw” itself into the ground and become stuck causing earth bore to stall. If this happens:
 - Reverse the auger rotation (counter-clockwise) by moving the control valve lever to the reverse position.
 - Slowly raise the auger out of the hole.
 - Once unstuck, return the control valve lever to the forward rotation position and continue digging.
- If the auger becomes lodged under rocks, roots or other large obstructions follow the previous procedure for proper steps to relieve the auger.
- If the auger hits a large obstruction the vehicle hydraulic relief valve will open and bypass the oil to stall (stop) the auger. This does not damage the unit in anyway but serves as a protection device. Whenever this happens simply reverse the auger rotation and raise the auger. Once unstuck you can continue digging.
- Avoid moving the power unit away too far from the hole while digging. This causes excessive side loading on earth bore which can cause drive unit or auger damage.
- Keep auger teeth and points in good condition. Check frequently and always keep spares on hand so they can be replaced as wear is detected to avoid damage to tooth holders and auger flighting.
- Clean hydraulic oil is essential! 80% of all hydraulic component failures are caused by contamination of the hydraulic oil. Always keep all dirt and other contaminants from entering hydraulic system during disconnect and connect operations.
- Always use dust caps and plugs on all quick disconnects when not in use. Tightly cap all hydraulic openings to hold oil in and keep dirt and other contaminants from entering hydraulic system.



WARNING **Operational Hazard**

Warning: Be aware of rotating auger. Entanglement danger present, keep hands, feet, loose clothing, and long hair away from rotating auger. Entanglement could result in death or serious injury.



WARNING **Operational Hazard**

Warning: Bystanders or any one not directly involved with the work are only allowed outside of the work area and must keep a distance of at least 10 ft from the work area, minimized hazards.

STORAGE

STORAGE SAFETY CHECKLIST

- | | |
|--|---|
| ✓ Store the implement away from work area's and livestock. | ✓ Do not permit children to play on or around the stored machinery. |
| ✓ Ensure all pins, latches and locks are secure. | ✓ Guard any sharp corners |



After the season's use or when the machine will not be used for a period of time, completely inspect all parts of the earth bore. Replace or repair any worn or damaged components to prevent any unnecessary down time at the beginning of the next season. Your implement is an important investment. Spending some time to protect it from rust and corrosion will result a safer, longer service life and better performance..

PLACING IN STORAGE:

1. Thoroughly wash the machine with a pressure washer or water hose to remove all dirt, mud or debris.
2. Remove all remaining material and debris from the machine.
3. Inspect auger flighting for wear, bends, cracks or worn parts. Repair or replace before next season.
4. Replace any missing or unreadable safety decals.
5. Repaint any chipped or scraped areas to prevent rust and corrosion.
6. It is best to store the machine inside in a dry clean area. If that is not possible, cover with a waterproof tarpaulin and tie down securely.

LONG TERM STORAGE:

- Be sure drive unit hydraulic motor and hoses are full of clean hydraulic oil.
- Be sure planetary gear reduction is full of clean lubricant: top up to the recommended capacity for each model as outlined the maintenance section.
- Drive unit output shaft, inside of auger collar, variable auger extension collar and all connecting pins should be coated liberally with grease to prevent rust and reduce wear.
- Any paint that has been worn off of auger may be coated liberally with grease, as required, to prevent rusting.

 CAUTION Operational Hazard Personal Protection Equipment (PPE) is required while assembling or maintaining this machine.	
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SERVICE & MAINTENANCE

Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.

To keep your Reist Earth Bore Auger Drive in good working condition, and increase machine life as well as maintain ease of operation, periodic lubrication is essential.

By following a careful service and maintenance program for your machine, you will enjoy many years of trouble-free operation.

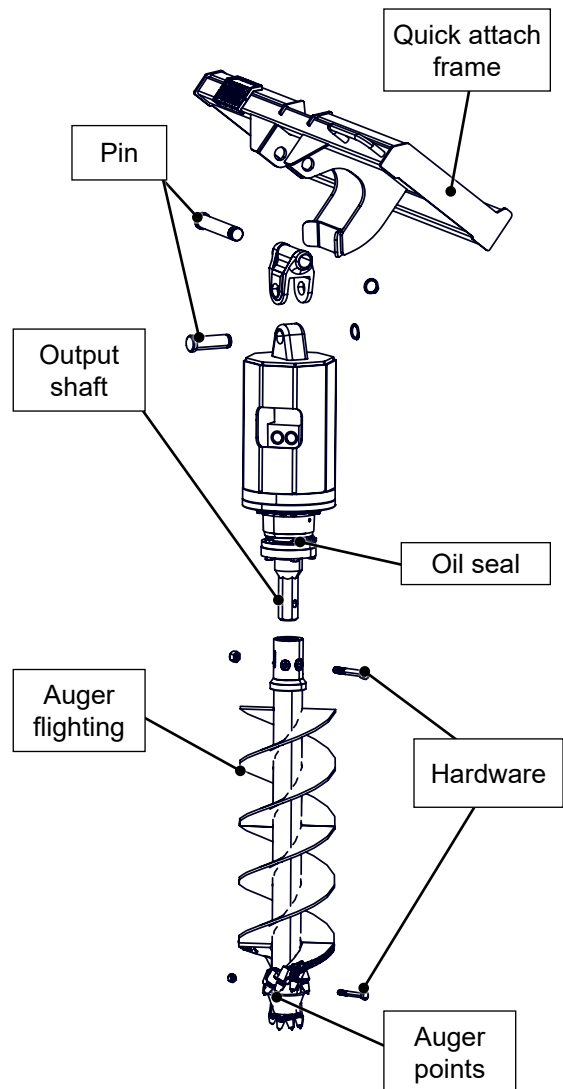
Replacement of parts should be done by a qualified personnel only. Keep a record of all maintenance, to ensure scheduled inspections and maintenance are performed.

MAINTENANCE SAFETY CHECKLIST

- ✓ Follow good shop practices.
- ✓ Keep service area clean and dry.
- ✓ Use adequate light for the job at hand.
- ✓ Never work under equipment unless it is blocked and supported securely.
- ✓ Parts replacement should be performed by qualified personnel to ensure safe and complete installation.
- ✓ A fire extinguisher and first aid kit should be kept readily accessible.
- ✓ Always use personal protection devices such as eye, hand, foot and hearing protectors.
- ✓ Use heavy gloves when handling heavy or sharp components.
- ✓ Ensure the drive is disconnected from the power unit and secured to prevent unexpected movement.

DAILY INSPECTIONS:

- Replace all worn, damaged, or illegible safety labels by obtaining new labels from your dealer or Reist.
- Inspect auger point and teeth for wear and loose fit. Keep cutting edges sharp. Sharp cutting edges dig easier and better and will prevent excessive load on the drive.
- Inspect gearbox, if leaking oil is observed the seal should be examined for damage or wear, and replaced if necessary. Inspect gearbox for any other damage, which could be causing leakage of oil, and if necessary repair and refill with lubricant.
- Inspect output shaft for bend and wear. Replace if required.
- Inspect all connecting pins and hardware for wear, bend, and loose fit. Replace if required.
- Inspect auger mounting hardware for wear, bend, and loose fit. Replace if required
- Inspect auger flighting for wear, bend, and cracks. Repair or replace if required
- Inspect and lubricate the pin and pin mounts, use a light lubrication or spray lubricant.
- Inspect quick disconnects, always use dust caps and plugs on all quick disconnects when not in use.
- Inspect hydraulic connectors and hoses that they are secure, in good condition and not leaking.
- Inspect drive mounting or quick attach frame for damage, cracks or bent components.



HYDRAULICS:

Clean hydraulic oil is essential!

80% Of all hydraulic component failures are caused by contamination of the hydraulic oil. Always keep all dirt and other contaminants from entering hydraulic system during disconnect and connect operations. Always use dust caps and plugs on all quick disconnects when not in use. Tightly cap all hydraulic openings to hold oil in and keep dirt and other contaminants from entering hydraulic system.

Check hydraulic oil daily for quality.

Hydraulic oil level should be checked daily, and the quality of the oil should be inspected every 50 hrs. If the oil is dirty or smells burnt, it should be replaced immediately. If contamination is present, determine the source of the contamination and correct the problem.

Inspect all hydraulic hose assemblies daily.


Replacement of hoses before failure will prevent loss of hydraulic oil, time consuming “bleeding” of the system, or hydraulic oil cavitation. It will also reduce the chance of personal injury caused by hydraulic fluid.

Inspect all hydraulic hose assemblies daily

For cracked and brittle covers caused by excessive heat. Reduced viscosity of hydraulic oil occurs at higher operating temperatures and causes a breakdown of fluid additives such as wear inhibitors. Excessive heat will cause higher internal leakage in drive unit motor, which will make the drive unit less efficient. It can also cause seals in the drive unit motor to become brittle and crack.

WARNING
High Pressure Hazard

Be aware that hydraulic leaks could develop with out warning. Do not check for leaks with your hand or fingers while the system is pressurized



PLANETARY GEAR CASE

CHANGE PLANETARY GEAR REDUCTION OIL.

- First 50 hours of use.
- 1000 hours or annually.

To change the gear reduction oil, find the oil plug in the side of the gear case

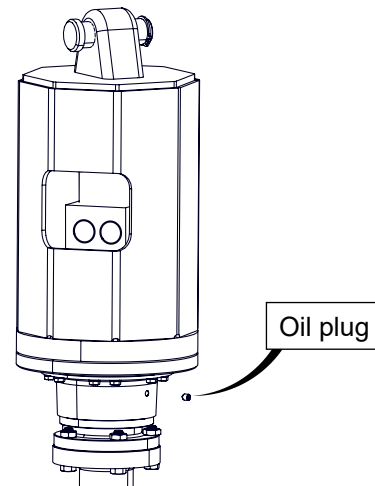
The Planetary reduction gearbox has been filled with lubricant at the factory.

Inspect the seal, if leakage of oil is observed around the seal, the seal should be replaced.

Inspect gearbox for any other damage, which could be causing leakage of oil, and if necessary repair and refill with lubricant. Parts replacement should be performed by qualified personnel to ensure safe and complete installation.

Refer to the chart to determine how much fluid is required per model.

- Lubricant: Use API-GL-5 No. 80 or 90.



API-GL-5 No. 80 or 90.	
Model	Qty
AS-0615	25.0 oz
AS-1020	25.0 oz
AS-1530	25.0 oz
AS-2035	25.0 oz
AH -1530	27.0 oz

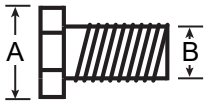
BOLT TORQUE TABLE

These tables are offered as the suggested maximum torque values for dry (not lubricated) threaded products and are only a general guide.

Check tightness of bolts periodically, replace hardware with the same strength bolt.

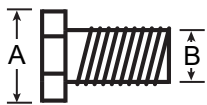
Torque specification for bolts are identified by their head markings as shown.

METRIC TORQUE SPECIFICATIONS



Wrench Size: "A"	Thread Size: "B" Fine	Class 8.8		Class 10.9		Thread Size: "B" Coarse	Class 8.8		Class 10.9	
		N-m	lbs-ft	N-m	lbs-ft		N-m	lbs-ft	N-m	lbs-ft
10 mm	6 x 0.75	---	---	---	---	6 x 1.0	11.3	8.3	16.5	12.2
13 mm	8 x 1.0	27	20	38	28	8 x 1.25	27.3	20.1	40.1	29.6
16 mm	10 x 1.25	52	38	73	54	10 x 1.5	54	40	49	36
18 mm	12 x 1.25	95	70	135	100	12.1.75	93	69	137	101
21 mm	14 x 1.5	150	111	210	155	14 x 2.0	148	109	218	161
24 mm	16 x 1.5	225	166	315	232	16 x 2.0	230	170	338	249
27 mm	18 x 1.5	325	240	460	339	18 x 2.5	329	243	469	346
30 mm	20 x 1.5	460	339	640	472	20 x 2.5	464	342	661	487
34 mm	22 x 1.5	610	450	860	634	22 x 2.5	634	468	904	667
36 mm	24 x 2.0	780	575	1100	811	24 x 3.0	798	588	1136	838
41 mm	27 x 3.0	---	---	---	---	27 x 3.0	1176	867	1674	1234
46 mm	30 x 2.0	---	---	---	---	30 x 3.0	1597	1178	2274	1677

SAE TORQUE SPECIFICATIONS



Wrench Size: "A"	Thread Size: "B" Fine	SAE 2		SAE 5		SAE 8		Thread Size: "B" Coarse	SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
7/16"	1/4-28	6	8.1	10	13.6	14	19.0	1/4-20	5	6.8	8	10.8	12	16.3
1/2"	5/16-24	13	17.6	19	25.7	27	36.6	5/16-18	11	14.9	17	23.0	25	33.9
9/16"	3/8-24	23	31.2	35	47.4	49	66.4	3/8-16	20	27.1	31	42.0	44	59.6
5/8"	7/16-20	36	48.8	55	74.5	75	101.6	7/16-14	32	43.4	49	66.4	70	94.9
3/4"	1/2-20	55	74.5	85	115.2	120	162.6	1/2-13	49	66.4	75	101.6	107	145.0
13/16"	9/16-18	79	107.0	122	165.3	172	233.1	9/16-12	70	94.9	109	147.7	154	208.7
15/16"	5/8-18	110	149.1	170	230.4	240	325.2	5/8-11	97	131.4	150	203.3	212	287.3
1-1/8"	3/4-16	192	260.2	297	402.4	420	569.1	3/4-10	173	234.4	266	360.4	376	509.5
1-5/16"	7/8-14	184	249.3	474	642.3	668	905.1	7/8-9	166	224.9	429	581.3	606	821.1
1-1/2"	1.0-12	274	371.3	705	955.3	995	1348.2	1.0-8	250	338.8	644	872.6	909	1231.7

TROUBLE SHOOTING

On the following page, we have listed many of the causes and solutions to issues that you may encounter. Any hydraulic tool will perform only as well as the hydraulic system supplying it. Earth Bore Drive Unit speed (RPM) is dependent upon the system pump output in gallons (liters) torque (power) is dependent upon the relief valve pressure setting-PSI (kg/cm2)

If you encounter a issue that is difficult to solve, even after having read through this trouble shooting section, please call your local dealer. Before you call, please have this Operator's Manual and serial number ready

Problem	Cause	Solution
Auger will not dig	Excessive wear of auger teeth or point.	Sharpen or replace teeth.
	Auger is turning too fast and bouncing.	Reduce engine speed. Do not exceed rated rpm or flow.
	Auger is encountering rocks, roots, or other obstructions.	Lift auger from hole and remove obstruction or change location.
	Low System Pressure	Check Pressure Gauge. If low, investigate cause.
	Relief Valve damaged or setting incorrect	Adjust or replace as required.
	Excessive Load	Reduce load to within machine specs
	Power unit hydraulic pump worn or damaged	See power unit dealer for repair
	Tractor/skid steer is not positioned properly.	Reposition skid steer/tractor.
Auger digs so far, but will not dig deeper	Soil could have hardpan layer below surface.	Use power unit to push auger into ground. An extension may be required .
Auger is digging at an angle	Skid steer/tractor moved on its own while auger was in the hole.	Always make sure gear selector is in neutral or park and brakes are set.
	Operator moved skid steer/tractor excessively with auger in hole to try to straighten hole being dug at an angle.	Be careful not to damage gearbox or auger when moving. While digging, move skid steer/tractor in small increments to keep the hole straight.
	Auger is encountering rocks, roots, or other obstructions.	Lift auger from hole and remove obstruction or change location.
Excessive oil heating	Flow in hydraulic line is restricted.	Flush dirt particles in fittings and untwist hydraulic hoses that may be pinched or kinked.
	Defective or mismatched coupler.	Replace with proper couplers.
	Hydraulic fluid is dirty.	Replace hydraulic fluid and filter.
	Insufficient quantity of hydraulic fluid.	Fill reservoir to proper level. Increase reservoir storage capacity.
	Excessive Load	Reduce load to within machine specs
	Auger motor does not match power units hydraulic flow.	Discontinue use, obtain earth drill with correct specs
Jerky operation	Air in hydraulic lines.	Run earth drill with out load till jerky movement subsides.
	Hydraulic system not working properly.	See skid steer/tractor Operator's Manual.
Oil leaks	Loose or damaged hoses.	Tighten or replace hydraulic hoses.
	Loose or damaged fittings.	Tighten or replace hydraulic fittings.
	Gear box seal leaking	Inspect gearbox seal and replace
	Hydraulic motor seals and gaskets are worn or damaged.	See Dealer for repair.
Auger speed is slow	Low hydraulic flow through the system.	Check with flow meter. If low, investigate and correct.
	Hydraulic oil too hot	Find source of over heating oil. Excessively hot oil will greatly reduce the drive unit performance, as well as damage seals, hoses and other hydraulic system components.
	Flow in hydraulic line is restricted.	Flush dirt particles in fittings and untwist hydraulic hoses that may be pinched or kinked.
	Defective or mismatched couplers	Replace with proper couplers.
	Fittings / hoses / connectors are too small.	Replace with proper size fittings / hose / connectors.
	Dirty oil filter.	Replace oil filter.
	Worn or damaged hydraulic pump.	See dealer for repair
	Excessive wear of auger teeth or point.	Replace auger teeth and/or point.



CAUTION
Operational Hazard
 Personal Protection Equipment (PPE) is required while assembling or maintaining this machine.

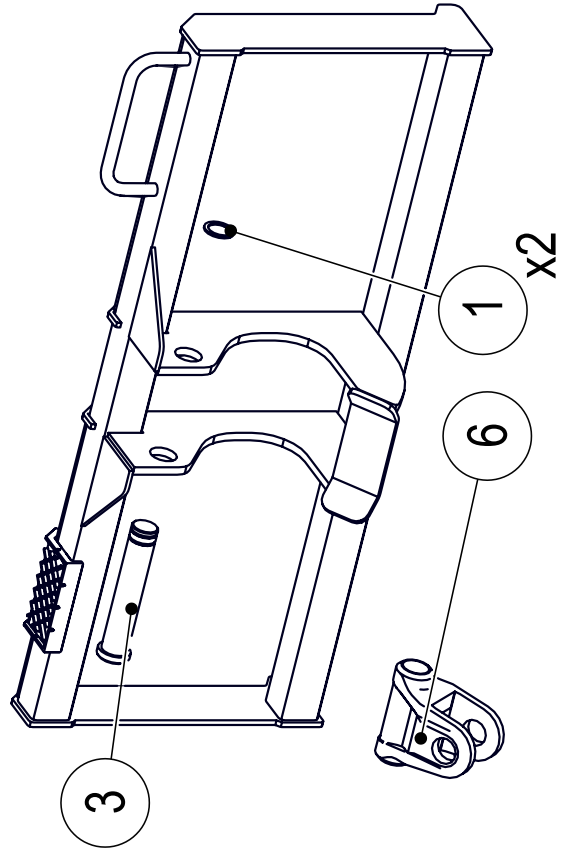
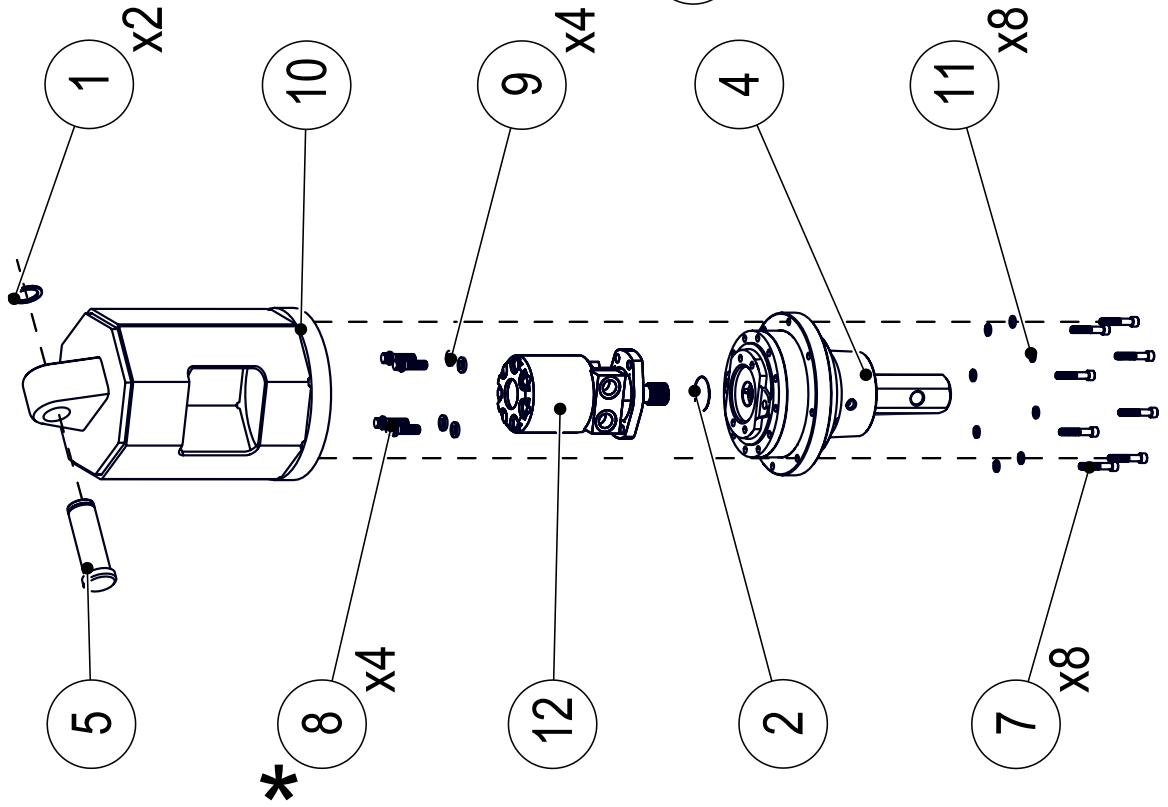


PARTS

AS-0615 / AS-1020 / AS-1530 / AS-2035

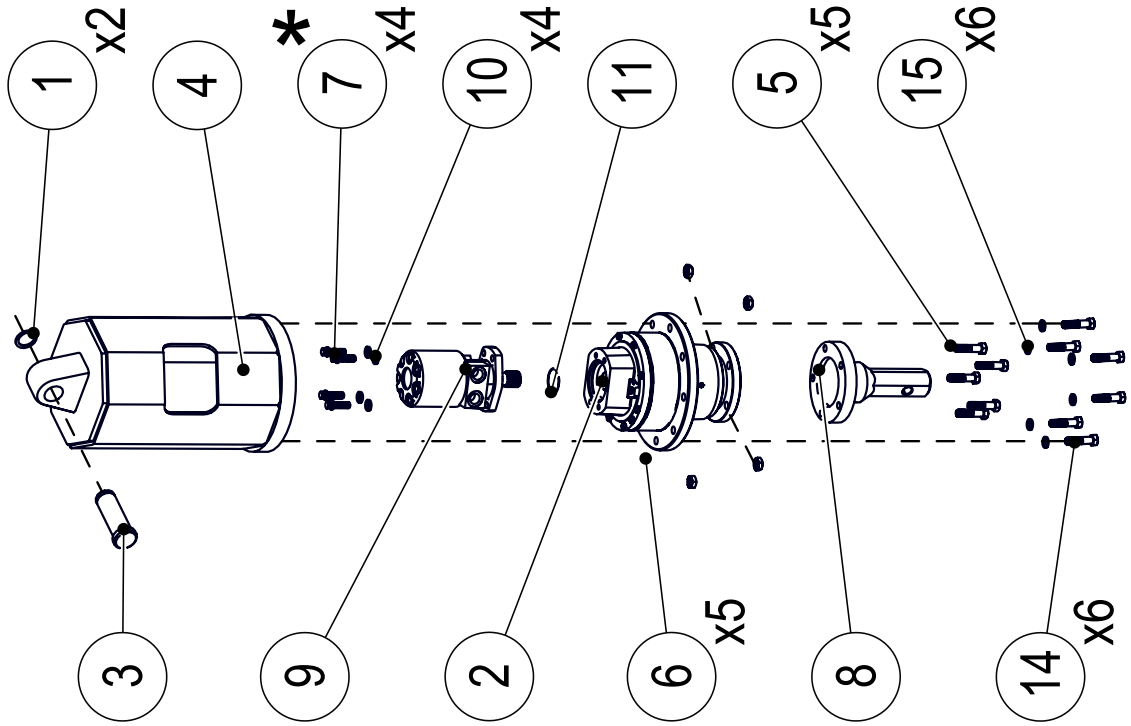
! *TORQUE TO 70LB/FT (95Nm)
USE BLUE THREAD LOCK ON
ALL HARDWARE

ID	Qty	Part Number	Description
1	2	124463	Snap Ring
2	1	042	O-Ring
3	1	124461	Swivel Frame Pin
4	1	124459	Gearbox - AS Drive
5	1	124462	DRIVE MOUNT PIN
6	1	124457	Swivel Casting
7	8	382CSH	Socket Head
8	4	12L	LOCKWASHER 1/2" ZP
9	4	CS-216	BOLT, 1/2"-13X1-1/2" GR5Z 12PT
10	1	124448	AS Drive Housing
11	8	38L	Lock Washer
12	1	124467	MOTOR, HYDRAULIC AS-1020 10-20GPM
13	1	124469	MOTOR, HYDRAULIC AS-2035 20-35 GPM
14	1	124470	MOTOR, HYDRAULIC AS-0615 6-15 GPM
15	1	124468	MOTOR, HYDRAULIC AS-1530 15-30GPM

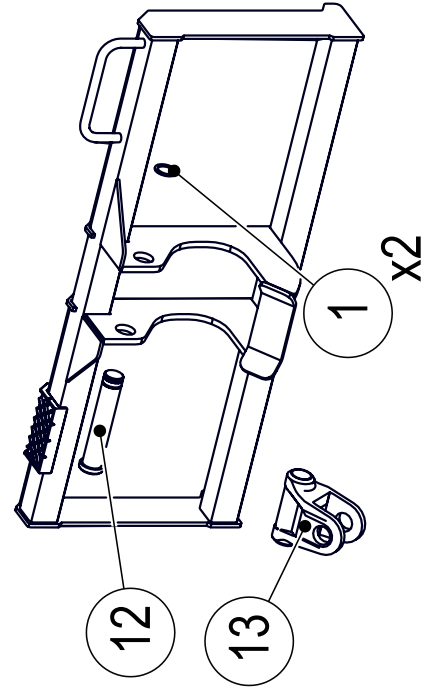


AH-1530

! *TORQUE TO 70LB/FT (95Nm)
USE BLUE THREAD LOCK ON
ALL HARDWARE



ID	Qty	Part Number	Description
1	2	124463	Snap Ring
2	1	124465	Gearbox - AH Drive
3	1	124462	Drive Mount Pin
4	1	124460	AH Drive Housing
5	5	916214	Hex Bolt
6	5	916CLN	Lock Nut
7	4	CS-216	Bolt 1/2-13 x 1 1/2 GR5Z 12 PT
8	1	124466	Output Shaft Hex Universal
9	1	124471	Motor Hyd AH-1530
10	4	12L	Lock Washer
11	1	042	O-Ring
12	1	124461	Swivel Frame Pin
13	1	124457	Swivel Casting
14	6	916134CSH	Socket Head
15	6	916L	Lock Washer



ACCESSORIES

For accessories or replacement parts, call your dealer for pricing and availability or go to reistindustries.com and click on 'Distributor Locator'.

DIRT AUGERS

ROCK AUGERS

TREE SHRUB AUGERS

EXTENSIONS

ADAPTERS

MOUNT PARTS

WEAR PARTS: AUGER TEETH & PILOTS



WARRANTY

**Four Year Warranty for Planetary Gear Warranty for models:
AS-0615, AS-1020, AS-1530, AS-2035**

Five Year Warranty for Planetary Gear Warranty for models: AH-1530

Lifetime Warranty for AH-1530 output shaft

All new Reist machinery is warranted to be free from defects in material or workmanship, which may cause failure under normal usage and service when used for the purpose intended, for a period of 12 months. This warranty applies only to a new Reist product, there being no warranty of any nature in respect to new products that have been modified or altered, repaired, neglected, or used in any way, which, in the opinion of Reist adversely affects its performance.

In the event of failure of a part or parts, and upon inspection, Reist is satisfied that failure is due to defective material or workmanship within 12 calendar months, from the date of delivery to an end user, such defective part or parts will be repaired or replaced by Reist at his business location. It is the responsibility of the buyer, at his expense, to transport the machine or equipment to the manufacturer service shop or, to an authorized service depot or, alternatively, to reimburse Reist for any travel or transportation expense involved in fulfilling this warranty.

When requested by Reist, part or parts shall be returned for inspection, transportation prepaid, to a place designated by Reist. IN NO EVENT SHALL THE BUYER BE ENTITLED TO RECOVER FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PRODUCT, INCONVENIENCE, RENTAL OR REPLACEMENT EQUIPMENT, LOSS OF PROFIT, OR OTHER COMMERCIAL LOSS.

This warranty becomes void and null if the equipment is modified, breaks down as the result of an accident, is not operated according to manufacturers recommendations, damaged by negligence or if maintenance has not been carried out as specified.

THIS WARRANTY IS NOT TRANSFERABLE

Notes

Notes



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www.reistindustries.com