



# POST HOLE DIGGER

EPHD Economy Duty  
RPHD Regular Duty  
HPHD Heavy Duty  
SPHD Super Duty  
Hydraulic Drive

Revised 07/12/02

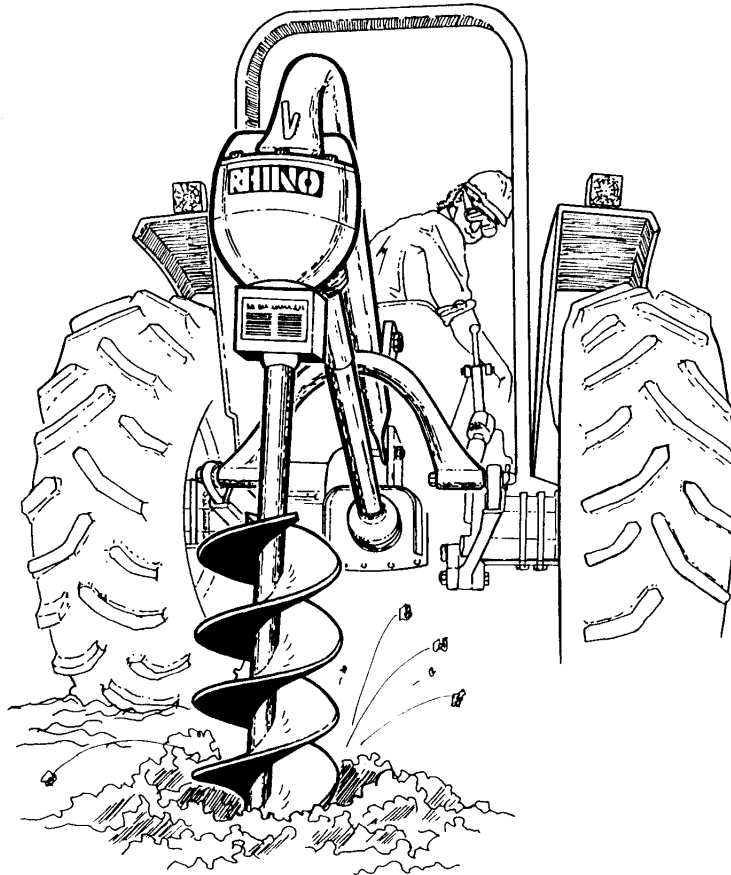
Effective S/N EPHD 10234-Current

Part No. 00764346

RPHD 18438-Current

HPHD 16760-Current

SPHD 17253-Current



## OPERATOR'S MANUAL with PARTS LISTING

**FW McCONNEL LTD**

Temeside Works

Ludlow

Shropshire SY8 1JL

England

An Alamo Group Company

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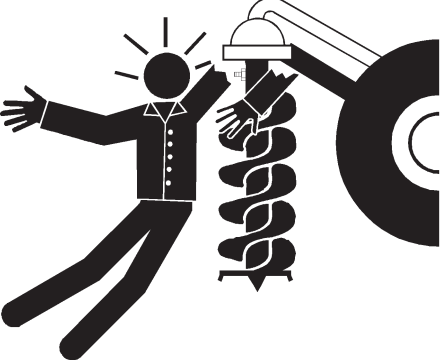
# TO THE OWNER/OPERATOR/DEALER

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

## BEFORE YOU START!!

Read the safety messages on the implement and shown in your manual. Observe the rules of safety and common sense!

## ⚠ DANGER



### To Prevent Serious Injury Or Death From Entanglement with Rotating Parts: KEEP AT LEAST 10 FEET AWAY

- Do not operate unless all Guards are in place.
- Do not use body weight to force auger into ground or position Auger Point when engine is running.
- Make certain Auger Point is right for your job and that the Lead Screw and Bits are in good condition. (See Manual for optional Points and for advice on digging in very hard, rocky, and sticky conditions.)
- Keep away from rotating auger and driveline.

00767037

## ⚠ WARNING

**FAILURE TO FOLLOW SAFE OPERATING PRACTICES & COMMON SENSE CAN LEAD TO BODILY INJURY OR DEATH. KEEP EVERYONE 10 FEET AWAY FROM ROTATING PARTS.**

- Tractor must be equipped with ROPS, Seat Belts, & Stabilizers.
- Always wear safety glasses, safety shoes, hard hat, and gloves and have Seat Belts securely fastened. Adjust Stabilizers snugly.
- Make certain that Auger and Driveline Shields are installed properly. If either is missing, do not operate until all are re-installed properly.
- Do not operate PTO if Auger point is more than 12" above ground to prevent Driveline failure which could cause bodily injury.

- Disengage PTO when transporting to prevent Driveline failure.
- Allow no riders at any time. Falling off can maim or kill.
- Keep bystanders clear. Do not allow children to be in the area.
- Do not exceed 300 RPM PTO speed maximum. (Half Throttle)
- Check with authorities before digging in the area of underground utilities and pipelines to prevent fire, electrocution, and service interruptions which may bring expensive penalties.

00767041

## WARRANTY INFORMATION:

Read and understand the complete Warranty Statement found in this Manual. Fill out the Warranty Registration Form in full and return it within 30 Days. Make certain the Serial Number of the Machine is recorded on the Warranty Card and on the Warranty Form that you retain. The use of "will-fit" parts will void your warranty and can cause catastrophic failure with possible injury or death.

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# **SAFETY SECTION**

# SAFETY

## SAFETY

A safe and careful operator is the best operator. Safety is of primary importance to the manufacturer and should be to the owner/operator. Most accidents can be avoided by being aware of your equipment, your surroundings, and observing certain precautions. The first section of this manual includes a list of Safety Messages that, if followed, will help protect the operator and bystanders from injury or death. Read and understand these Safety Messages before assembling, operating or servicing this implement. This equipment should only be operated by those persons who have read the Manual, who are responsible and trained, and who know how to do so safely and responsibly.

The Safety Alert Symbol combined with a Signal Word, as seen below, is used throughout this manual and on decals which are attached to the equipment. The Safety Alert Symbol means: **“ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!”** The Symbol and Signal Word are intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this equipment..

**Practice all usual and customary safe working precautions and above all---remember safety is up to YOU. Only YOU can prevent serious injury or death from unsafe practices.**

### CAUTION!



The lowest level of Safety Message; warns of possible injury. Decals located on the Equipment with this Signal Word are Black and Yellow.

### WARNING!



Serious injury or possible death! Decals are Black and Orange.

### DANGER!



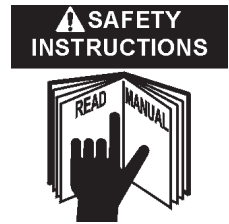
Imminent death/critical injury. Decals are Red and White. (SG-1)

# SAFETY

SAFETY

**READ, UNDERSTAND, and FOLLOW** the following Safety Messages. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards.

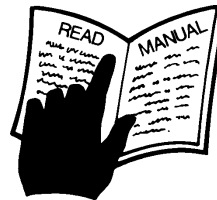
(SG-2)



**PELIGRO!**



Si no lee Ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad. (SG-3)

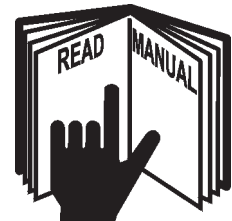


**¡LEA EL INSTRUCTIVO!**

**DANGER!**



Never operate the Tractor or Implement until you have read and completely understand this Manual, the Tractor Operator's Manual, and each of the Safety Messages found in the Manual or on the Tractor and Implement. Learn how to stop the tractor engine suddenly in an emergency. Never allow inexperienced or untrained personnel too operate the Tractor and Implement without supervision. Make sure the operator has fully read and understood the manuals prior to operation. (SG-4)



**WARNING!**



Always maintain the safety decals in good readable condition. If the decals are missing, damaged, or unreadable, obtain and install replacement decals immediately. (SG-5)

**WARNING!**



Make certain that the "Slow Moving Vehicle" (SMV) sign is installed in such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights and follow all local traffic regulations. (SG-6)



**WARNING!**



Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear seat belts. Serious injury or even death could result from falling off the tractor--particularly during a turnover when the operator could be pinned under the ROPS. (SG-7)



**WARNING!**

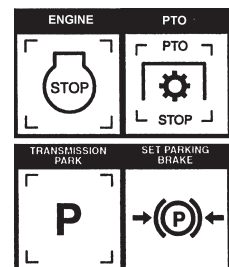


Do not modify or alter this Implement. Do not permit anyone to modify or alter this Implement, any of its components or any Implement function. (SG-8)

**DANGER!**



BEFORE leaving the tractor seat, always engage the brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)



# SAFETY

SAFETY

**DANGER!**



Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)



**DANGER!**



Never allow children to operate or ride on the Tractor or Implement. (SGM-11)



**WARNING!**



Do not mount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. (SG-12)



**DANGER!**



Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)



**DANGER!**



Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause serious injury or even death. (SG-14)



**DANGER!**



Do not operate this Equipment with hydraulic oil leaking. Oil is expensive and its presence could present a hazard. Do not check for leaks with your hand! Use a piece of heavy paper or cardboard. High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15)

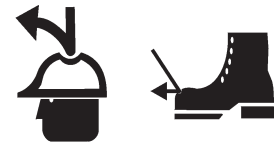


# SAFETY

## WARNING!



The operator and all support personnel should wear hard hats, safety shoes, safety glasses, and proper hearing protection at all times for protection from injury including injury from items thrown by the equipment. (SG-16)



## CAUTION!



**PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!** Tractors with or without an Implement attached can often be noisy enough to cause permanent hearing loss. We recommend that you always wear hearing protection if the noise in the Operator's position exceeds 80db. Noise over 85db over an extended period of time will cause severe hearing loss. Noise over 90db adjacent to the Operator over an extended period of time will cause permanent or total hearing loss. *Note:* Hearing loss from loud noise [from tractors, chain saws, radios, and other such sources close to the ear] is cumulative over a lifetime without hope of natural recovery. (SG-17)



## WARNING!



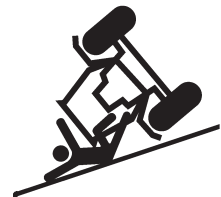
Transport only at safe speeds. Serious accidents and injuries can result from operating this equipment at unsafe speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.



Before transporting the Tractor and Implement, determine the safe transport speeds for you and the equipment. **Make sure you abide by the following rules:**

1. Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum safe transport speed for you and this Equipment.
2. Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that it is safe to operate at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum safe turning speed for you and this equipment before operating on roads or uneven ground.
3. Only transport the Tractor and Implement at the speeds that you have determined are safe and which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)





# SAFETY

SAFETY

**WARNING!**

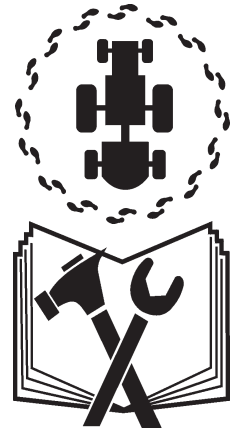


Never attempt to lubricate, adjust, or remove material from the Implement while it is in motion or while tractor engine is running. Make sure the tractor engine is off before working on the Implement! (SG-20)

**WARNING!**



Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21)



**WARNING!**



Always read carefully and comply fully with the manufacturers instructions when handling oil, solvents, cleansers, and any other chemical agent. (SG-22)



**DANGER!**



Never run the tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)

**DANGER!**



**KEEP AWAY FROM ROTATING ELEMENTS** to prevent entanglement and possible serious injury or death. (SG-24)



**DANGER!**



Never allow children to play on or around Tractor or Implement. Children can slip or fall off the Equipment and be injured or killed. Children can cause the Implement to shift or fall crushing themselves or others. (SG-25)

**WARNING!**



Do not exceed the rated PTO speed for the Implement. Excessive PTO speeds can cause Implement driveline or blade failures resulting in serious injury or death. (SG-26)

# SAFETY

## DANGER!



**NEVER use drugs or alcohol** immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operator's alertness and coordination and therefore affect the operator's ability to operate the equipment safely. Before operating the Tractor or Implement, an operator on prescription or over-the-counter medication must consult a medical professional regarding any side effects of the medication that would hinder their ability to operate the Equipment safely. **NEVER** knowingly allow anyone to operate this equipment when their alertness or coordination is impaired. Serious injury or death to the operator or others could result if the operator is under the influence of drugs or alcohol. (SG-27)



SAFETY

## DANGER!



Operate the Tractor and/or Implement controls only while properly seated in the Tractor seat with the seat belt securely fastened around you. Inadvertent movement of the Tractor or Implement may cause serious injury or death. (SG-29)

## WARNING!



Never leave Tractor and Implemented unattended while the implement is in the lifted position. Accidental operation of lifting lever or a hydraulic failure may cause sudden drop of unit with injury or death by crushing. To properly park the implement when disconnecting it from the tractor, lower the stand and put the retaining pin securely in place, or put a secure support under the A-Frame. Lower the implement carefully to the ground. Do not put hands or feet under lifted components. (SPT-1)

## WARNING!



Be particularly careful when transporting the Implement with the Tractor. Turn curves or go up hills only at a low speed and using a gradual steering angle. Rear mounted implements move the center of gravity to the rear and remove weight from the front wheels. Make certain, by adding front ballast, that at least 20% of the tractor's weight is on the front wheels to prevent rearing up, loss of steering control or Tractor tip-over. Slow down on rough or uneven surfaces to prevent loss of steering control which could result in property damage or possible injury. Do not transport unless 3-Point lift lever is fully raised and in the latched transport position. Dropping implement in transport can cause serious damage to the tractor and/or Implement and possibly cause the operator or others to be injured or killed. (S3PT-2)

## DANGER!



A rear Implement can fall if not properly supported. Always use the stand on the front hitch (if equipped) or block up securely to prevent falling and possible crushing injury and/or other injury from holding or lifting heavy components. Use the stand to stabilize the implement during storage. (S3PT-3)

## CAUTION!



Do not back up with this implement. Backing could damage the machine or its components. (S3PT-4)

## WARNING!



Use extreme care when lowering or unfolding the implement's wings. Make sure no bystanders are close by or underneath the wings. Allow ample clearance around the implement when folding or unfolding the wings. Use extreme caution around buildings or overhead power lines. (S3PT-5)

# SAFETY

## SAFETY

### CAUTION!



To prevent tipping of implement when stored in folded position, use carrying wheels or adequate stands on center frame. (S3PT-6)

### DANGER!



There are obvious and hidden potential hazards in the operation of this Implement as in all power-driven or pulled equipment. **REMEMBER!** This machine is often operated in rough terrain conditions that include tall grass, weeds, gullies, holes, slopes, hidden obstructions and the like. Serious injury or even death may occur unless care is taken to assure the safety of the operator and bystanders in the area. Do not operate this machine with anyone in the immediate area. (S3PT-7)

### DANGER!



Make sure the PTO shield, integral driveline shields, and input shields are installed when using PTO-driven equipment. Always replace any shield if it is damaged or missing. (S3PT-8)



### WARNING!



Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Implement on the ground or securely blocked up, disengage the PTO, and turn off the tractor engine. Push and pull the Remote Cylinder lever in and out several times prior to starting any maintenance or repair work. (S3PT-9)



### WARNING!



The rotating parts of this machine continue to rotate even after the PTO has been turned off. The operator should remain in his seat for 60 seconds after the brake has been set, the PTO disengaged, the tractor turned off, and all evidence of rotation has ceased. (SPT-10)

**“Wait a minute...Save a life!”**

### DANGER!



Always disconnect the main PTO Driveline from the Tractor before performing service on the Implement. Never work on the Implement with the tractor PTO driveline connected and running. Rotating Parts, Blades or Drivelines could turn without warning and cause immediate entanglement, injury or death. (S3PT-11)

### DANGER!



All Safety Shields including the Driveline and Gearbox Shields, Tractor PTO Shield, and Output/Auger Shield must be installed and in good condition at all times when operating. **NEVER REMOVE SHIELDS!** When shields are removed for maintenance, all shields must be replaced and be in good condition before operating. Make certain that **DRIVELINE SHIELDS ARE FREE TO ROTATE TOGETHER AND SEPARATELY** to provide the designed protection. (SPHD-1)

### DANGER!



**KEEP AWAY FROM ROTATING ELEMENTS** to prevent entanglement and possible serious injury or death. (SPHD-2)

### WARNING!



Sway Bars, Sway Chains, Sway Blocks or some other equivalent device **MUST** be used to stabilize machine behind tractor. Such devices help locate Auger point correctly and rapidly from the Tractor seat. Adjust the devices as tightly as practical for best performance. (SPHD-3)

# SAFETY

**DANGER!**



**NEVER** put hands on the Post Hole Digger Auger, Gearbox, or Boom to locate the Auger when there is any sign of rotation of the Driveline or Auger. Post Hole Diggers are operated by one person from the tractor seat. Keep all bystanders and/or coworkers away from the Post Hole Digger. (SPHD-4)

**DANGER!**



Make certain that Driveline Yoke-retaining Cotter Pin is spread smoothly around the Yoke and that there are no protruding ends. The Driveline Shield must cover the Cotter Pin as well as the surrounding area to protect against entanglement. (SPHD-5)

**DANGER!**



**NEVER USE A SHEAR BOLT WITH MORE THAN 1/8" OF PROTRUDING THREADS.** Put washer(s) under Nut if necessary. Always use Rhino #7A61622 Grade Two Shear Bolt (3/8 x 2-3/4 Grade 2) or equivalent to prevent entanglement and possible Gearbox, Auger, or Driveline damage. Entanglement could result in serious injury or death. (SPHD-6)

**DANGER!**



Never use a long, unthreaded pin or bar in the place of the regular Shear Bolt. Such an alteration of the machine increases the accidental entanglement potential. Entanglement could result in possible serious injury or even death. (SPHD-7)

**DANGER!**



Never use body weight to try to push Auger into the ground to prevent entanglement and possible serious injury or death. (See Operating Instructions for advice on drilling in hard ground or rocky conditions.) (SPHD-8)

**WARNING!**



Never lift Post Hole Digger more than 12" off ground with PTO operating to prevent rapid wear to U-Joints and possible failure of Drivelines. The exposed rotating auger or failed rotating parts could result in entanglement and cause serious injury or death. (SPHD-9)

**WARNING!**



Never move from hole-to-hole or transport with Auger rotating to prevent possible instantaneous Driveline failure that could lead to being hit by the disconnected parts or to entanglement and cause serious injury or death. (SPHD-10)

**DANGER!**



There are obvious and hidden potential hazards in the operation of this Post Hole Digger. **REMEMBER!** This machine can be operated on hillsides and slopes and in other rough conditions which require increased care and increased awareness of the potential hazards on both the operator's and any bystander's part. Serious injury or even death may occur unless care is taken to insure the safety of the operator, helpers, and any bystanders. (SPHD-11)

# SAFETY

## PARTS INFORMATION

Servis-Rhino mowers use balanced and matched system components for blade carriers, blades, cuttershafts, knives, knife hangers, rollers, drivetrain components, and bearings. These parts are made and tested to Servis-Rhino specifications. Non-genuine "will fit" parts do not consistently meet these specifications. The use of "will fit" parts may reduce mower performance, void warranties, and present a safety hazard. Use genuine Servis-Rhino mower parts for economy and safety. (SPRM-1)

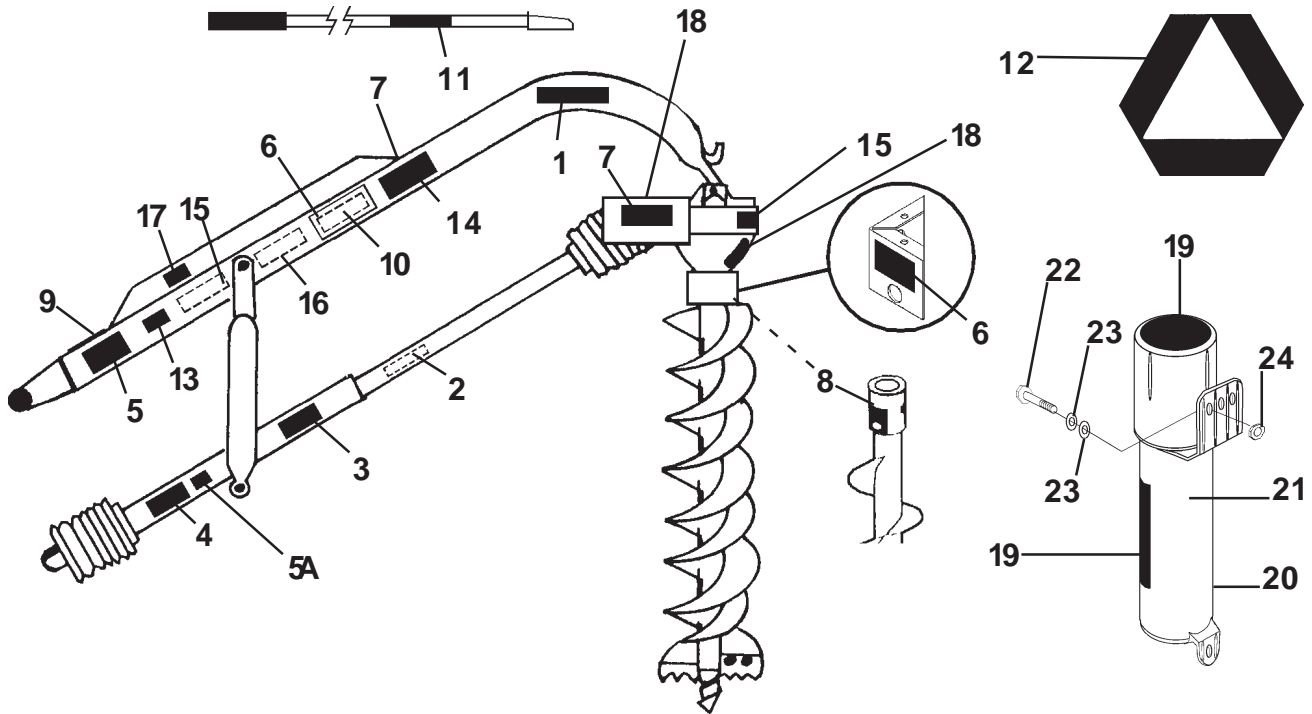
### SEE YOUR SERVIS-RHINO DEALER

In addition to the design and configuration of this Implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the Tractor and Equipment Manuals. Pay close attention to the Safety Signs affixed to the Tractor and Equipment. (SG-18)

SAFETY

# SAFETY

SAFETY



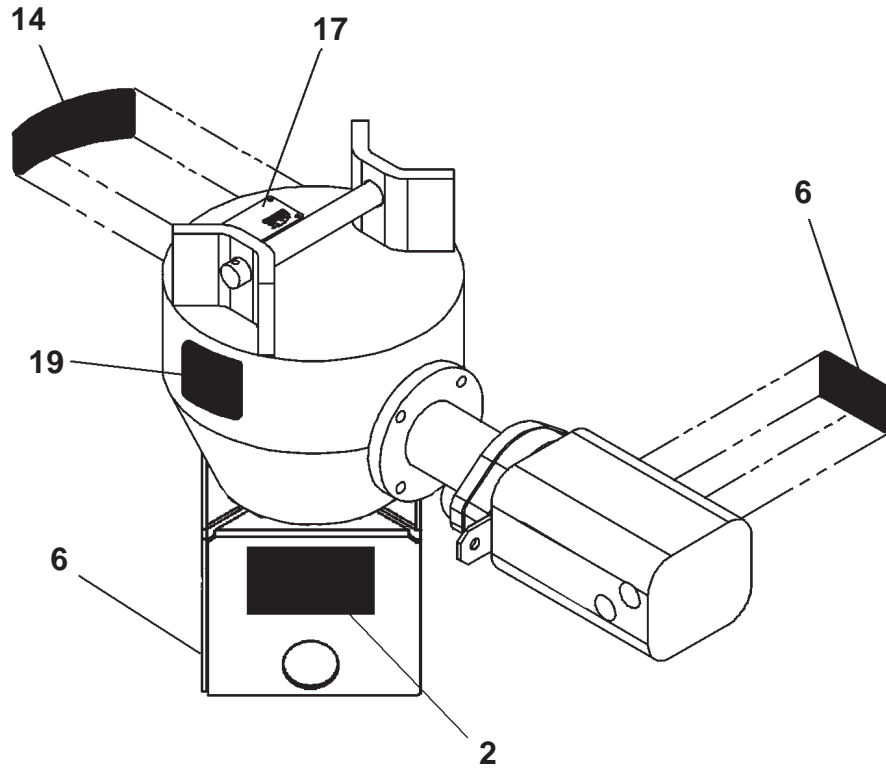
ITEM	PART NO.	QTY	TYPE	DESCRIPTION
1	00725746	1	PELIGRO!	Get Manual Translated
2	00756004	1	DANGER!	D/L Shield Missing
3	00756005	1	DANGER!	Rotating Driveline
4	00756494	1	DANGER!	Driveline Multiple Hazard
5	00760657	1	IMPORTANT	Rhino Genuine Parts
5A	00773723	1	PELIGRO!	Rotating Driveline Translation
6	00767037	2	DANGER!	Entanglement Hazards
7	00776023	2	DANGER!	Shear Bolt Replacement
8	00767039	1	DANGER!	Auger Entanglement
9	00767040	1	DANGER!	Dig From Tractor Seat
10	00767041	1	WARNING!	Multiple Hazard, PHD
11	00767042	1	WARNING!	Guide Lever Hazards
12	03200347	*	REFLECT	SMV Reflector
13	00763977	1	INSTRUCT	Notice to Owner
14	99001	1	LOGO	Rhino (2 x 3-1/4)
15	99101	2	L.NAME	RHINO (2 x 7-3/8)
16	00755485	1	NAME	RHPD
	00755522	1	NAME	HHPD
	00755523	1	NAME	SPHD
	00768286	1	NAME	EPHD
17	nfs	1	SER PLT	Serial Plate
18	00771283	2	INSTRUCT	5-Year Gearbox Warranty
19	00776481	1	INSTRUCT	Operators Manual Inside
20	00776031	1		Canister, Operators Manual
21	01430870C	1		Operators Manual
22	10058000	3		Bolt
23	00024100	6		Flatwasher
24	02959924	3		Locknut

\* Furnished by Tractor Manufacturer

# SAFETY

SAFETY

## Hydraulic Drive



ITEM	PART NO.	QTY	TYPE	DESCRIPTION
6	00767037	1	DANGER	Entanglement
2	00756059	2	WARNING	Oil Leak
19	00771283	1	INSTRUCT	5 YR Warranty (Gearbox)
14	99001	1	LOGO	Rhino
17	nfs	1	SER PLT	Serial Plate

# SAFETY

SAFETY



## DANGER



### GUARD MISSING DO NOT OPERATE

00756004



## DANGER



### GUARD MISSING DO NOT OPERATE

00756004



## DANGER

2 - 00756004



## DANGER



**ROTATING DRIVELINE**  
CONTACT CAN CAUSE DEATH  
**KEEP AWAY!**

DO NOT OPERATE WITHOUT —

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE

00756005

3 - 00756005

- RPHD**
- 16 - 00755485
- HPHD**
- 16 - 00755522
- SPHD**
- 16 - 00755523
- EPHD**
- 16 - 00768286



14 - 99001




15 - 99101

## IMPORTANT

For your safety and to guarantee optimum product reliability, always use Genuine RHINO replacement parts. The use of inferior "will-fit" parts will void Warranty of your RHINO implement and may cause premature or catastrophic failure which can result in serious injury or death. If you have any questions concerning the repair parts you are using, contact Servis-Rhino, 1502 E. Walnut Seguin, TX 78155 (830) 372-3080.




5 - 00760657



## PELIGRO

Si No Lee Ingles, Pida Ayuda a Alguien Que Si Lo Lea Para Que le Traduzca las Medidas de Seguridad.

LEA EL INSTRUCTIVO


00725746


1 - 00725746

### NOTICE TO OWNER

An OPERATOR'S MANUAL (with Repair Parts Listing) and a WARRANTY REGISTRATION CARD were attached to this implement during final inspection at the factory. If they were not attached at the time of purchase, please contact your selling dealer at once.

1. Read and understand Manual before operating the implement.
2. Complete, sign, and mail the Warranty Registration Card in today. 00763977

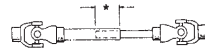
13 - 00763977




## DANGER

1. MAKE CERTAIN DRIVELINES ARE OF THE CORRECT LENGTH AND SECURELY ATTACHED. DRIVELINE SEPARATION AND/OR PTO STUB SHAFT FAILURE CAN CAUSE INJURY OR DEATH. (See Operator's Manual for procedure.)


\* SEE MANUAL FOR MINIMUM OVERLAP & MINIMUM MAXIMUM LENGTHS




BOTTOMING OUT



2. MAKE CERTAIN THAT DRIVELINE SHIELDS ARE INSTALLED CORRECTLY AND TURN FREELY TO PREVENT INJURY OR DEATH FROM ENTANGLEMENT





3. MAKE CERTAIN THAT DRIVELINE IS INSTALLED CORRECTLY ON TRACTOR PTO SHAFT. MOVE YOKE BACK AND FORTH UNTIL LOCKING COLLAR CLICKS FORWARD AND LOCKS YOKE IN PLACE
4. 540 PTO RPM UNLESS SPECIFICALLY MARKED OTHERWISE. 00756494

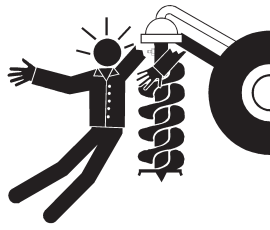
4 - 00756494



# SAFETY

SAFETY

## ⚠ DANGER



To Prevent Serious Injury Or Death From Entanglement with Rotating Parts: **KEEP AT LEAST 10 FEET AWAY**

- Do not operate unless all Guards are in place.
- Do not use body weight to force auger into ground or position Auger Point when engine is running.
- Make certain Auger Point is right for your job and that the Lead Screw and Bits are in good condition. (See Manual for optional Points and for advice on digging in very hard, rocky, and sticky conditions.)
- Keep away from rotating auger and driveline.

00767037

6 - 00767037

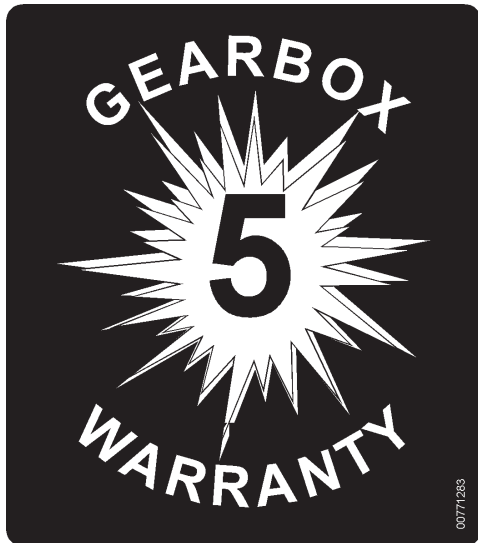
## ⚠ DANGER

To Avoid Possible Entanglement and Bodily Injury or Death:

- Dig holes only while sitting on tractor seat.
- Keep everyone at least 10 feet away.
- 300 PTO RPM maximum.
- Atencion: Lea el Instructivo.

00767040

9 - 00767040



00771283

18 - 00771283

19 00771283 (Hydraulic Drive)

7 - 00776023

## ⚠ DANGER

Use only #00774569 shear pins in the driveline. Always keep an ample supply of shear pins on hand.

- Do Not use a shear pin or bolt that protrudes outside the shear pin yoke to prevent entanglement and possible serious injury or death.
- Do Not modify the shear pin yoke to use a substitute pin or bolt.

00776023

11 - 00767042

## ⚠ WARNING

- Make certain that Guide Lever is adjusted or bent to clear the operator's body and all tractor components.
- Guide Lever can cause head injury and/or crush hand against structure of tractor or ROPS.

00767042

## ⚠ DANGER Shield Missing. Do Not Operate.

Auger Entanglement Can Cause  Injury Or Death.

If auger shield is not at hand, purchase a shield from your dealer and install properly before operating. Keep everyone at least 10 feet away when auger is turning. **KEEP AWAY.**

00767039

8 - 00767039

## ⚠ WARNING

FAILURE TO FOLLOW SAFE OPERATING PRACTICES & COMMON SENSE CAN LEAD TO BODILY INJURY OR DEATH. KEEP EVERYONE 10 FEET AWAY FROM ROTATING PARTS.



- Tractor must be equipped with ROPS, Seat Belts, & Stabilizers.
- Always wear safety glasses, safety shoes, hard hat, and gloves and have Seat Belts securely fastened. Adjust Stabilizers snugly.
- Make certain that Auger and Driveline Shields are installed properly. If either is missing, do not operate until all are re-installed properly.
- Do not operate PTO if Auger point is more than 12" above ground to prevent Driveline failure which could cause bodily injury.
- Disengage PTO when transporting to prevent Driveline failure.
- Allow no riders at any time. Falling off can maim or kill.
- Keep bystanders clear. Do not allow children to be in the area.
- Do not exceed 300 RPM PTO speed maximum. (Half Throttle)
- Check with authorities before digging in the area of underground utilities and pipelines to prevent fire, electrocution, and service interruptions which may bring expensive penalties.

00767041


10 - 00767041

# SAFETY

SAFETY

 <b>PELIGRO</b>	
<p>Un manual de la seguridad de la línea de conducción n/p 00773776 está disponible en español. Llame el número enumerado para una copia gratis.</p>	<p><i>LÍNEA DE CONDUCCIÓN GIRATORIA- EL CONTACTO PUEDE CAUSAR LA MUERTE ¡MANTENERSE LEJOS! NO FUNCIONE SIN QUE-</i></p> <ul style="list-style-type: none"> <li>• Todos los protectores de la línea de Conducción, alimentador y blindajes del Equipo estén en su lugar</li> <li>• Las líneas de conducción estén conectadas con seguridad en ambos extremos</li> <li>• Los protectores de la línea de conducción den vuelta libremente en la línea de Conducción</li> </ul> <p style="text-align: right;">00773723</p>

5A - 00773723


**WARNING**


USE PAPER OR CARDBOARD TO CHECK FOR LEAKS. **NEVER USE YOUR HAND.** IF OIL PENETRATES SKIN, GANGRENE OR OTHER SERIOUS INJURY COULD OCCUR. **GET IMMEDIATE MEDICAL ATTENTION.** See Operator's Manual.



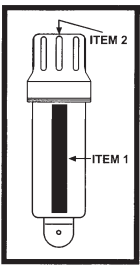
00756059

2 - 00756059  
(Hydraulic Drive)

**OPERATOR'S MANUAL INSIDE**  
READ AND UNDERSTAND Before Operating Tractor & Implement  
 If Manual is missing, obtain one before operating from Dealer or Alamo Group (800) 221-2855



ITEM 2



ITEM 1

00776481 Decal Canister Sheet

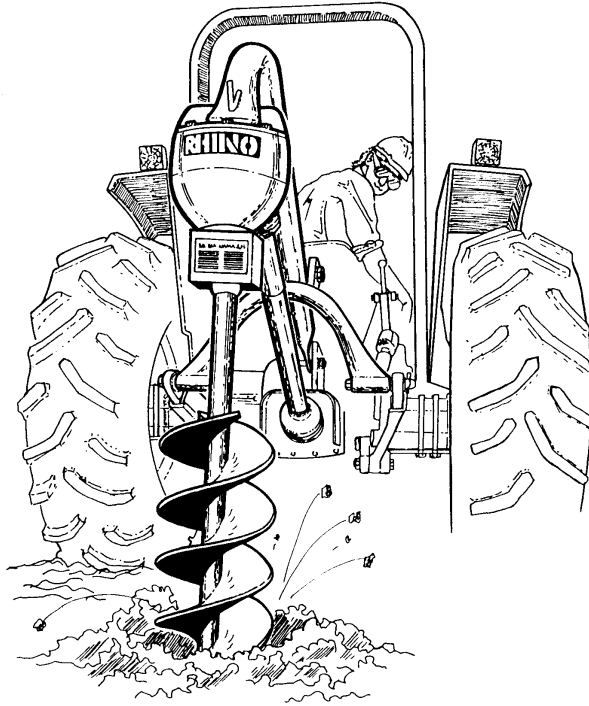
19 - 00776481



# **INTRODUCTION SECTION**

# INTRODUCTION

## INTRODUCTION



The RPHD is designed for use with tractors up to 40 HP. The HPHD model comes with a 3-1/2" reinforced boom to withstand the stress of larger tractors and tougher jobs. For commercial and industrial applications, the SPHD, with its heavy-duty gearbox, and reinforced 3-1/2" boom, will provide years of service. The hydraulic drive units are designed for tractors with up to 20 gallons per minute and up to 3000 psi of hydraulic flow through their remote couplers and can be mounted on a 3-point boom or onto a front-end loader attachment. An optional hydraulic down-pressure kit is available for the SPHD to provide an additional 500 lbs. of down pressure in tough digging conditions. Augers are available in diameters of 6", 9", 12", 18", and 24". Optional shear bolt or radial pin clutch protection is available on all models of Rhino® Post Hole Diggers.

Safety is of primary importance to the owner/operator and to the manufacturer. The first section of this manual includes a list of Safety Messages, that, if followed, will help protect the operator and bystanders from injury or death. Many of the Safety Messages will be repeated throughout the manual. The owner/operator/dealer should know these Safety Messages before assembly and be aware of the hazards which are present during assembly, use, and maintenance. The Safety Alert Symbol combined with a Signal Word, as seen below, is intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this machine.

### CAUTION



The lowest level of Safety Message; warns of possible minor injury. Decals located on the Mower with this Signal Word are Black and Yellow.

### WARNING



Serious injury or possible death! Decals are Black and Orange.

### DANGER



Imminent death/critical injury. Decals are Red and White.

# **ASSEMBLY SECTION**

# ASSEMBLY

## SETTING UP AND OPERATING INSTRUCTIONS

**NOTICE:** Be careful when handling the components during assembly, since the joints can rotate, pinching fingers and hands painfully.

1. Attach the Hitch Frame to the Boom Crane using the Yoke Pin provided in the clips welded to the Hitch Frame.
2. Stand the Gearbox in an upright position with weight on the Shield around the Output Shaft. Attach the Boom Crane to the Gearbox using the Mounting Shaft and Cotter Pins provided on the Gearbox.
3. Attach the straight-bored Driveline Yoke to the Gearbox Input Shaft with the Shear Bolt, Nut, and Lockwasher and the Cotter Pin provided and spread ends until they are flat and wrapped around yoke. Note: This keeps the driveline from flying off the Input Shaft when the Shear Bolt shears, and it must be maintained properly and replaced if worn. Be sure the Yoke and the Gearbox Input Shaft are clean, free of burrs, and are well-lubricated. This must be a slip-fit to prevent galling of the Yoke and Input Shaft when the safety Shear Bolt becomes sheared.

**DANGER!**



Do not allow ends of Cotter Pin to protrude. Wrap tightly around Yoke with both ends opposite to direction of rotation.

**CAUTION!**



Guide Lever (Extra Equipment) can squeeze your hands or hit your body if not properly positioned. Bend, or offset Guide Lever to fit your needs without interfering with tractor, digger, or operators body.

4. Attach Guiding Lever if ordered, to the Gearbox (used on 3.18:1 Gearbox only as extra equipment) by removing two existing Capscrews from the Top Cover of the Gearbox. Fasten Lever using two Gr5 Capscrews and two Flatwashers (furnished with Lever) to Shim at rear hole.
5. To Attach to Tractor

A. For Rhino model RPHD with regular Boom & Hitch Frame, remove tractor top link and attach Boom to same point on tractor with top link pin and Klik Pins securely. Attach Hitch Pins on Yoke to lower links on tractor and latch Klik Pins securely. Tighten Sway Chains.

B. For Rhino models HPHD and SPHD with Heavy-Duty Boom & Hitch Frame, remove tractor top link and attach Boom to same point on tractor with top link pin and Klik Pins securely. Leave the Bushing in place for Category I and remove it for Category II.

C. Attach Hitch Pins to Yoke with 7/8" diameter outward for Category I and 1-1/8" diameter outward for Category II. Install Hitch Pins to lower links on tractor and latch Klik Pins securely.

**WARNING!**



Sway Chains, Sway Bars, Sway Blocks, or some such device must be used to stabilize machine behind tractor to make it easy to locate Auger point correctly and rapidly. Adjust as tightly as practical for best performance.

6. Slowly raise the Digger with the tractor hydraulic system. Watch to see that the Driveline and/or Shield sections do not separate or get into a bind while raising the Digger. Attach the Auger to the Output Shaft of the Gearbox using two Gr5 capscrews with Lockwashers and Hex Nuts.

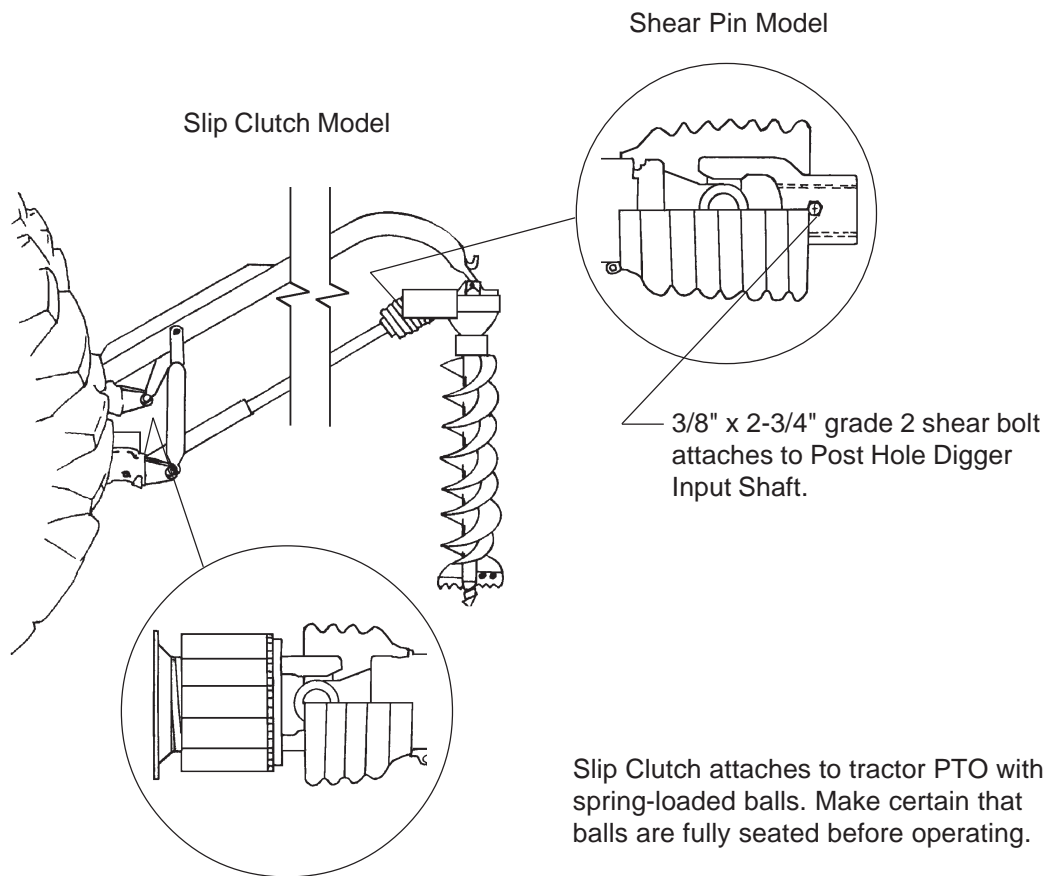
# ASSEMBLY

## To Attach Shear Bolt Input Driveline to Tractor: **Figure 1**

- A
  - 1. Twist Collar on yoke to the left (CCW).
  - 2. Slide yoke (with collar rotated to left) onto tractor PTO shaft.
  - 3. Move yoke back and forth until locking collar "clicks" back to the right, and locks the Yoke to PTO.
- B. Make certain the Tractor Master Shield is in good condition and placed securely onto tractor.
- C. Check to make certain that Shields rotate freely together and seperately.

## To Attach Slip Clutch Driveline: **Figure 1**

- A
  - 1. Slide Slip Clutch onto tractor PTO Shaft. Pull spring collar toward rear and push Slip Clutch fully onto PTO Shaft.
  - 2. Pull firmly on Clutch to make certain that lock balls have seated in groove in PTO Shaft.
- B. Make certain the Tractor Master Shield is in good condition and placed securely onto tractor.
- C. Check to make certain that Shields rotate freely together and seperately.



**FIGURE 1**



# ASSEMBLY

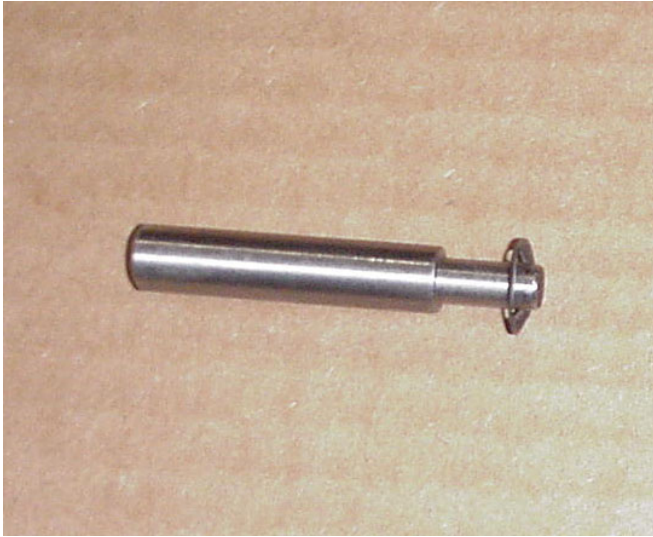


Figure 1

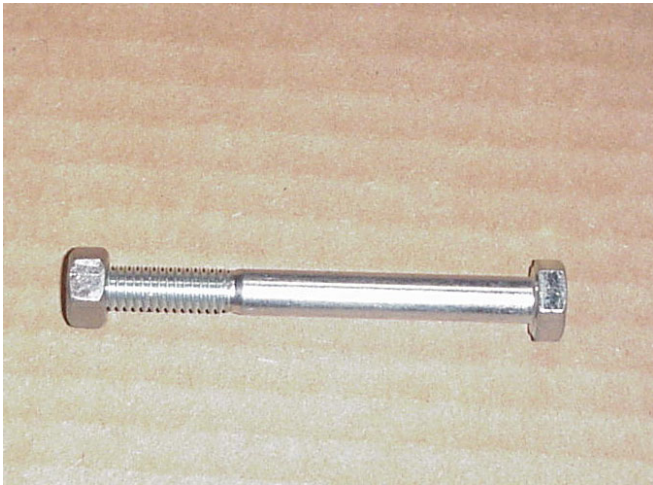


Figure 2

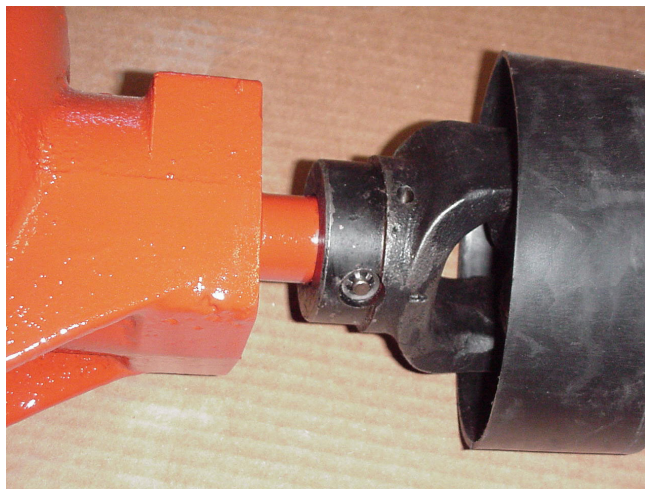


Figure 3

Attach Yoke Collar on Driveline to Input Shaft on Gearbox using Shear Pin and Lock Ring shown in **Figure 1**. Be sure to properly line-up hole in yoke with the hole in shaft.

Once aligned push Shear Pin through until large end is flush with outside of yoke. Retain Shear Pin using Lock Ring supplied. Push Lock Ring onto small end of Shear Pin as far as possible. A simple tool can be made using a 5/16" bolt approximately 2-1/2" long and nut. Screw nut onto bolt 2 turns (Figure 2). Place Lock Ring on end of Shear Pin and push into place by pressing it with nut on end of bolt. Note: Pressure must be held on opposite end of shaft when installing Lock Ring.

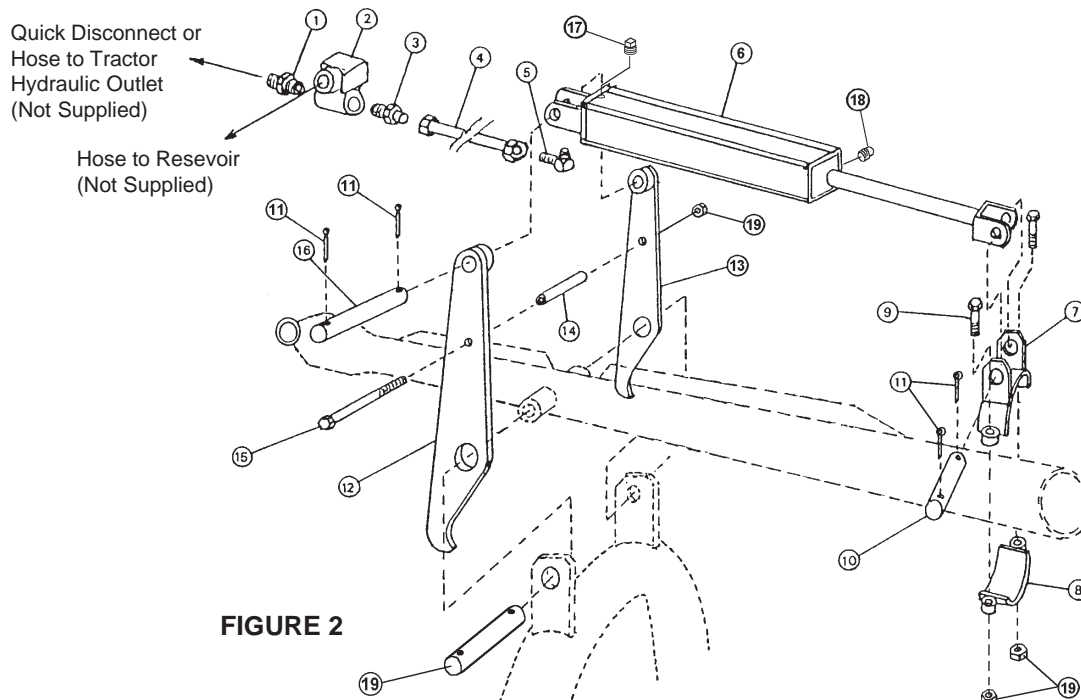
Make sure Lock Ring is securely placed on Pin (**Figure 3**). To remove Pin when sheared see **Maintenance Section**.

# ASSEMBLY

## INSTRUCTIONS FOR ATTACHING DOWN PRESSURE KIT TO RHINO SPHD POST HOLE DIGGER - Figure 2

Tractor must be equipped with at least one remote hydraulic outlet.

1. Remove pin (item #19) securing yoke to boom.
2. Install R.H. cylinder support (item #13) and L.H. cylinder support (item #12) and reinstall yoke to boom pivot tube.
3. Install spacer (item #14) between cylinder supports and secure with bolt (item #15), lock washer, and nut. (Hand tighten only)
4. Attach upper and lower tube clamps (items #7 & #8) to boom, hand tighten only, with bolt (item #9), lock washer and nut.
5. Attach 90 degree hydraulic fitting (item #5) to cylinder (item #6). Do not over tighten. Attach hose (item #4) to 90 degree fitting.
6. Attach boom assembly to tractor three point hitch by following instructions on pages 2-2 & 2-3 of this manual. Start tractor and slowly raise post hole digger to maximum height. Shut off tractor.
7. Attach butt end of cylinder (item #6) to upper ends of cylinder supports (items #12 & #13) with pin (item #16). Secure pin with cotter pins (item #11).  
NOTE: Hydraulic connection, (item #5) must be on **under side** of cylinder.
8. Collapse cylinder to minimum length and attach cylinder rod end to upper clamp (item #7) with pin (item #10). Secure pin with cotter pins (item #11).
9. Push upper ends of cylinder supports (items 12 & 13) forward, so the lower ends of the cylinder supports are resting firmly against the yoke. Pull cylinder rod out 3/4" (approximately) by sliding clamp assembly (items #7 & #8) on boom. Tighten clamp securely to boom in this location.
10. Tighten bolt (item #15) and nut to secure spacer (item #14) between cylinder supports.
11. Attach free end of hydraulic hose (item #4) to adaptor (item #3). Attach adaptor (item #3) to relief valve (item #2). Attach adaptor (item #1) to relief valve (item #2). Connect adaptor (item #1) to quick disconnect or hose (not supplied) leading to tractor hydraulic outlet. Another hose (not supplied) must be routed from the relief valve (item #2) back to the hydraulic reservoir of the tractor.  
NOTE: Do not use torque values supplied for bolts on these hydraulic fittings.

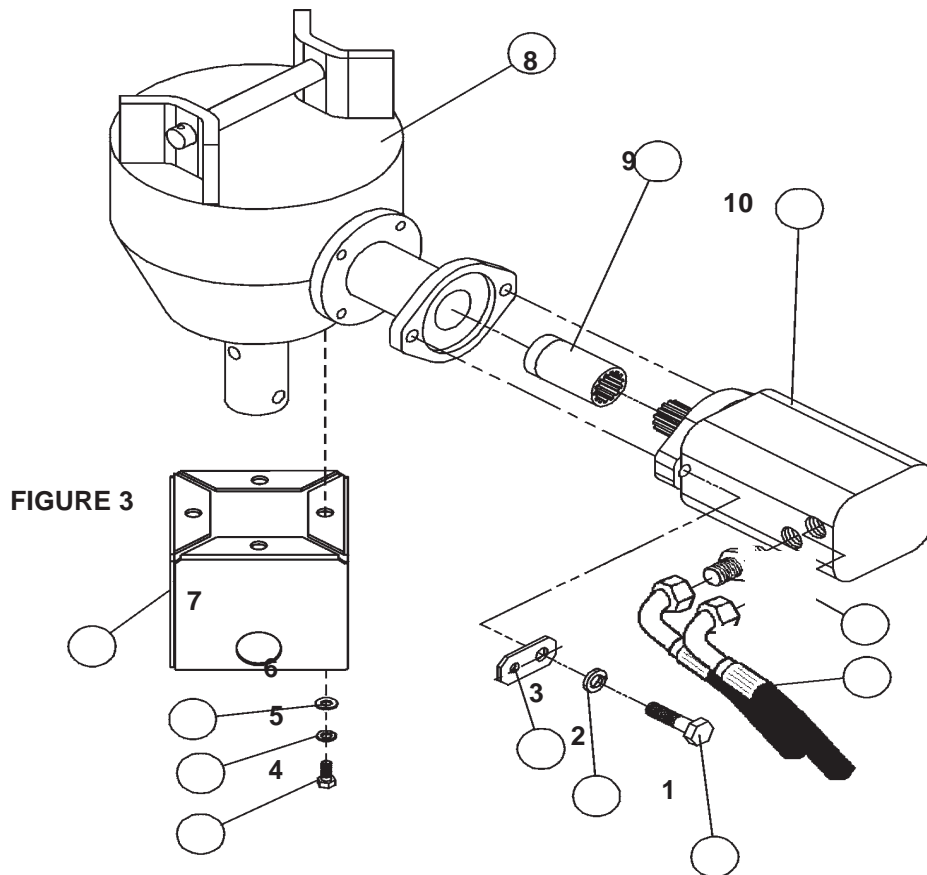


# ASSEMBLY

The Hose and Fittings to connect the valve to the sump should be obtained locally. The connection to sump can be made at an oil fill, oil level check, breather, or drain opening. The Thread at the Valve is 1/2" pipe thread.

Attach a suitable Hose Coupler Tip to the 1/2" nipple of the Valve. The Coupler Tip is not included and must be obtained from the tractor dealer. Connect Coupler Tip and Valve to a remote hydraulic outlet on rear of tractor. If tractor is equipped with a 4-way remote control valve, there will be two outlets. Either one can be used depending upon which direction the operator prefers to move the valve control lever to apply down force.

## ATTACHING HYDRAULIC DRIVE PHD - Figure 3

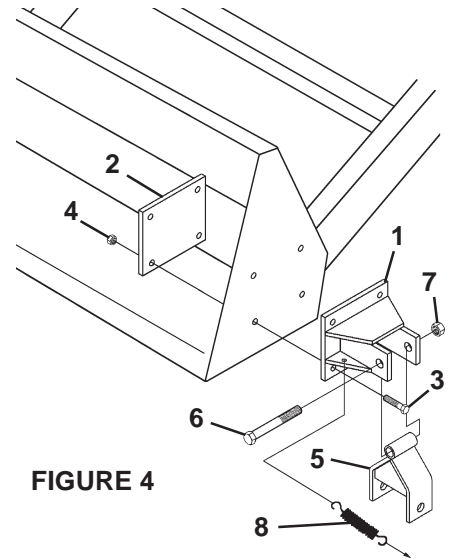


1. Attach Hydraulic Drive Gearbox (8) to Auger Shield (7) using 5/16" x 3/4" Bolts (4), Lockwasher (5), and Flatwasher (6).
2. Place Hydraulic Coupling (9) onto the Hydraulic Motor's (10) spline shaft. Align Coupling (9) and Motor (10) with receiving end of Gearbox as shown in **Figure 3**.
3. Secure Hydraulic Motor (10) to Hydraulic Drive Gearbox (8) using 1/2" x 1-3/4" Bolts (1), Lockwasher (2), and Bar Spring Clip (3).

# ASSEMBLY

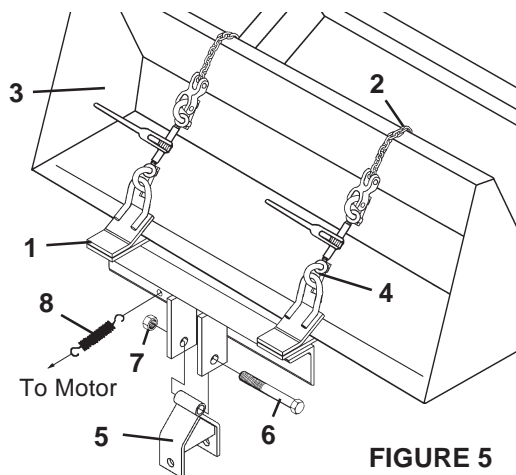
## ATTACHING UNIVERSAL BOLT-ON BUCKET ADAPTER: (Optional) **Figure 4**

- 1) Locate yoke mount (1) in position on bucket where it is most convenient for operator to view operation of auger.
- 2) Use yoke mount as a guide for marking and drilling holes through bucket.
- 3) Attach yoke mount and sandwich bucket between mount and backing plate (2) and bolt together, using 1/2" x 2" bolt (3) and nut (4).
- 4) Attach yoke (5) to yoke mount using 7/8" bolt (6) and nut (7). Attach gearbox to yoke.
- 5) Attach spring (8) between motor and yoke mount.



## ATTACHING UNIVERSAL CHAIN BUCKET MOUNT: (Optional)

- 1) Slide mount bracket (1) into place as shown.
- 2) Attach chain (2) to bottom links and wrap around bucket.
- 3) Attach chain to ratchet binder (3) w/ clevis links (4) and attach other end of binder to the upper links on the mount bracket.
- 4) Tighten ratchet binder until chains are tight. Be careful not to overtighten because damage can result to loader bucket.
- 5) Attach yoke (5) to mount bracket using 7/8" bolt (6) and nut (7). Attach gearbox to yoke.
- 6) Attach spring (8) between motor and mount bracket.



# ASSEMBLY




## PROPER TORQUE FOR FASTENERS

The chart lists the correct tightening torque for fasteners. When bolts are to be tightened or replaced, refer to this chart to determine the grade of bolts and the proper torque except when specific torque values are assigned in manual text.





RECOMMENDED TORQUE IN FOOT POUNDS UNLESS OTHERWISE STATED IN THE MANUAL \*

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

Proper Torque values for bolts that are measured in Inches

Bolt Diameter			
	Head Marking No Marks Grade Two	Head Marking Three Lines Grade Five	Head Marking Six Lines Grade Eight
	Pound - Foot Value Dry	Pound - Foot Value Dry	Pound - Foot Value Dry
1/4"	5.5	9	12.5
5/16"	11	18	26
3/8"	20	33	46
7/16"	32	52	75
1/2"	50	80	115
9/16"	70	115	160
5/8"	100	160	225
3/4"	175	280	400
7/8"	175	450	650
1"	270	675	975
1-1/8"	375	850	1350
1-1/4"	530	1200	1950
1-3/8"	700	1550	2550
1-1/2"	930	2100	3350

Proper Torque values for Metric bolts

Bolt Diameter				
	Head Marking 4.8	Head Marking 8.8 or 9.8	Head Marking 10.9	Head Marking 12.9
	Pound - Foot Value Dry	Pound - Foot Value Dry	Pound - Foot Value Dry	Pound - Foot Value Dry
6mm	4.5	8.5	12	14.5
8mm	11	20	30	35
10mm	21	40	60	70
12mm	37	70	105	120
14mm	60	110	165	190
16mm	92	175	255	300
18mm	125	250	350	410
20mm	180	350	500	580
22mm	250	475	675	800
24mm	310	600	850	1000
27mm	450	875	1250	1500
30mm	625	1200	1700	2000

\* To get Newton-Meters multiply pound-foot of torque by 1.356

# **OPERATION SECTION**

# OPERATION

## DANGER!



**HANDS OFF! KEEP CLEAR!** Do not use hands to locate Auger Point on ground. Do not touch Gearbox, Boom, or Auger when PTO is engaged.

## DANGER

To Avoid Possible Entanglement and Bodily Injury or Death:

- Dig holes only while sitting on tractor seat.
- Keep everyone at least 10 feet away.
- 300 PTO RPM maximum.
- Atencion: Lea el Instructivo. 00767040

1. With your Rhino Post Hole Digger correctly assembled and attached to tractor, engage the tractor PTO (540 RPM) at idling speed to give the unit a test run. Then, disengage PTO drive. Place the point of the Auger at the desired location of your first hole. Very slowly place point on ground, and drive tractor back or forward until the point is approximately 3" back of center of Gearbox. As Auger works into the ground, this slight angle will straighten due to pivoting action of the Boom downward.

## DANGER!



Never locate Auger by putting hands on Auger, Gearbox, or Boom when there is any sign of rotation on the Input Driveline or Auger or if tractor is running.

2. With the Auger Point in the correct position and all persons 10 ft. or more from Auger, engage PTO at 540 RPM position with the engine at a little more than idling speed (150-200 RPM PTO speed, 300 RPM Max.). Move the tractor hydraulic lift arm lever slowly to the down position. Allow the Auger to dig until there is an indication of over loading. Raise the Auger, but do not allow the Auger to come completely out of the hole. This allows Auger to clean itself of loose soil and sling soil away from hole. Lower the Auger into the hole and continue this procedure until the desired depth is reached and hole is cleaned out.

3. Use the Hydraulic Lift of the tractor to keep the Digger from "corkscrewing" into the ground. If Auger does screw around a rock or root, take a pipe wrench and screw Auger backward until it clears.

**NOTICE:** Extreme lifting and/or rocking loads while trying to clear stuck Auger can cause Boom and/or Auger failures.

4. Disengage Tractor PTO before transporting Digger from one hole to the next or before putting Tractor into motion to avoid damage to PTO shaft or Digger.

5. Never raise point of Auger over 12" off ground with PTO operating.

6. Keep safety Shields in place at all times.

7. Never operate PTO at over 300 RPM PTO speed.

8. If difficulty is encountered in digging:

- a. **NEVER USE BODY WEIGHT TO HELP WITH PENETRATION** to prevent entanglement and injury or death. Adding some steel or concrete weight securely is acceptable if you first make certain that all boring parts are in good condition.
- b. Make certain that point and cutting bits are in place and sharp. Grind point in same directions as original contour, if needed, or replace severely worn parts.
- c. Change to a "Boring Head" Auger for extremely hard ground.
- d. Change to a "Fish Tail" Auger for use in loose stones or soils with considerable shale or flat stones.
- e. Install "Down-Pressure Kit". (Extra Equipment)

**NEVER USE BODY WEIGHT TO HELP WITH PENETRATION!**

# OPERATION

9. To assist in locating Auger point precisely:

**NEVER USE HANDS TO ATTEMPT TO LOCATE POINT OF AUGER.** Starting PTO can cause entanglement on rotating parts with limbs or clothing and cause serious injury or death.

- Make certain that Sway Chains or such other device is installed and adjusted as tightly as practical to prevent side-sway.
- Locate point barely clearing the ground and drive or back into approximate position. With Auger swinging, drop Auger at appropriate moment. Drive forward or backward until Auger is leaning approximately three inches toward the front. (Hole will straighten up as Auger enters the ground.)
- On uneven ground, adjust Auger vertically to the side with the lift arm adjustment screw on the tractor.

## OPERATING INSTRUCTIONS FOR RHINO POST HOLE DIGGER WITH DOWN PRESSURE KIT

To apply down pressure to Auger, move the remote control lever in the proper direction to apply pressure at Coupler to which Control Valve is connected. As long as the lever is held in position, force will be applied. When lever is returned to neutral, the down pressure cylinder is automatically connected to the system sump and Digger can be raised, lowered, and otherwise operated in a normal manner.

## OPERATING INSTRUCTIONS FOR RHINO HYDRAULIC POST HOLE DIGGER

Operating the Hydraulic Post Hole Digger is very similar to operating the PTO-driven Post Hole Digger. Attach the hydraulic couplings to one of your tractor remote couplers. Adjust tractors hydraulic flow at the couplers as shown in your tractors operating handbook. Increase flow to speed auger up or decrease flow to slow auger down. You want the auger to turn at a fast enough speed to effectively clean out the hole being dug at a tractor RPM setting of about 2,000 RPM.

Should auger get hung or conditions cause auger to stall, you can reverse the auger by pulling the hydraulic control lever back. Work hydraulic control lever back and forth, which will cause auger to rotate in different directions, until conditions are cleared and digging returns to normal.

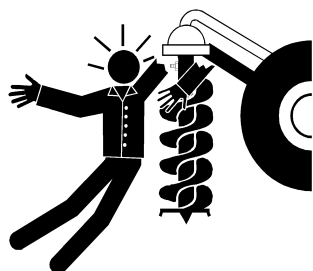
## ⚠ WARNING

**FAILURE TO FOLLOW SAFE OPERATING PRACTICES & COMMON SENSE CAN LEAD TO BODILY INJURY OR DEATH. KEEP EVERYONE 10 FEET AWAY FROM ROTATING PARTS.**

- Tractor must be equipped with ROPS, Seat Belts, & Stabilizers.
- Always wear safety glasses, safety shoes, hard hat, and gloves and have Seat Belts securely fastened. Adjust Stabilizers snugly.
- Make certain that Auger and Driveline Shields are installed properly. If either is missing, do not operate until all are re-installed properly.
- Do not operate PTO if Auger point is more than 12" above ground to prevent Driveline failure which could cause bodily injury.
- Disengage PTO when transporting to prevent Driveline failure.
- Allow no riders at any time. Falling off can maim or kill.
- Keep bystanders clear. Do not allow children to be in the area.
- Do not exceed 300 RPM PTO speed maximum. (Half Throttle)
- Check with authorities before digging in the area of underground utilities and pipelines to prevent fire, electrocution, and service interruptions which may bring expensive penalties.

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## ⚠ DANGER



**To Prevent Serious Injury Or Death From Entanglement with Rotating Parts: KEEP AT LEAST 10 FEET AWAY**

- Do not operate unless all Guards are in place.
- Do not use body weight to force auger into ground or position Auger Point when engine is running.
- Make certain Auger Point is right for your job and that the Lead Screw and Bits are in good condition. (See Manual for optional Points and for advice on digging in very hard, rocky, and sticky conditions.)
- Keep away from rotating auger and driveline.

00767037





# **MAINTENANCE SECTION**

# MAINTENANCE

1. The Gearbox is lubricated at the factory with NLGI000 Grease (3 lbs.-3.18:1 Gearbox, 8 lbs.-4:1 Gearbox). Before leaving the factory, the Gearbox was checked and given a test-run. When adding lubricant, add NLGI 000 Grease, Rhino P/N 00765444.

2. Attach Yoke Collar on Driveline to Input Shaft on Gearbox using Shear Pin and Lock Ring. Be sure to properly line-up hole in yoke with the hole in shaft. Once aligned push Shear Pin through until large end is flush with outside of yoke. Retain Shear Pin using Lock Ring supplied. Push Lock Ring onto small end of Shear Pin as far as possible. A simple tool can be made using a 5/16" bolt approximately 2-1/2" long and nut. Screw nut onto bolt 2 turns. Place Lock Ring on end of Shear Pin and push into place by pressing it with nut on end of bolt. Note: Pressure must be held on opposite end of shaft when installing Lock Ring.

Make sure Lock Ring is securely placed on Pin . See next page for pin removal.

3. Replacements of Seals - NOTE - In event you have a damaged Oil Seal, it is recommended that you return the Gearbox to your dealer. However, it is possible to replace either of the two Seals from the outside of the Gearbox in the following manner: Input Shaft Seal - Remove the Input Driveline from the Gearbox Input Shaft. With a screwdriver, carefully pry out the damaged Seal. Be careful not to scar Shaft in area of Seal. Apply a small amount of lubricant on the new Seal and with the metal flange of the Seal to the outside, carefully install the new Seal in place flush with the face of the casting.

Output Shaft Seal - Remove Shield from the Gearbox and the Auger from the Gearbox Output Shaft. With a screwdriver, carefully pry out the damaged Seal. Be careful not to scar Shaft in area of Seal. Apply a small amount of lubricant on the new Seal; carefully install the new Seal in place flush with the face of the casting with the metal flange of the Seal to the outside of the Gearbox.

4. Grease the universal joint cross and bearing assemblies. Keep the telescoping parts of the Driveline clean and well-lubricated. To grease profile tube, disconnect drive from PTO and pull halves apart. Pump grease into outer profile tube and reinstall together. Raise and lower Auger to spread grease evenly. NOTE: If the telescoping parts of the Driveline are allowed to become dirty or dry, they will bind, greatly reduce the life of the U-Joints, and keep the Auger from going into the ground smoothly.

5. Always keep the Cutting Edges on the Auger tip sharp. Grind to maintain same shape. Replace worn or broken Edges for best performance.

Rhino reserves the right to change the design and specifications at any time.

NOTICE: The decals affixed to your Digger should be retained. If repainted or destroyed, new ones should be ordered from Rhino immediately.

# MAINTENANCE

## Radial Pin Clutch (Refer to Figure 1)

### Disassembly

1. Remove retaining ring (#13)
2. Remove back-up ring (#12), lock collar (#11) compression spring (#10) and locking balls (#6).
3. Remove internal retaining ring (#9)
4. Remove support ring (#8) and seal ring (#7).

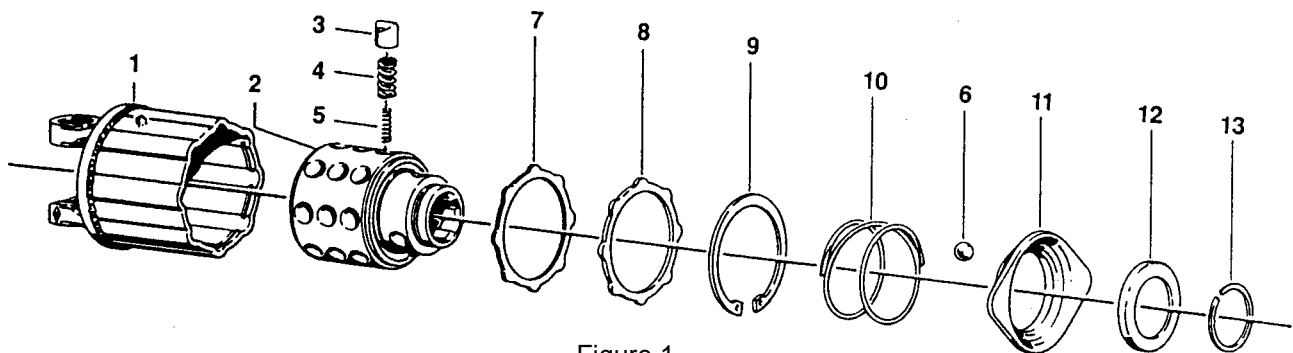


Figure 1

ITEM	DESCRIPTION
1	Clutch housing
2	Hub
3	Cam
4	Outer compression spring
5	Inner compression spring
6	Ball (3 Reqd)
7	Sealing Ring
8	Supporting ring
9	Retaining ring
10	Compression spring
11	Lock collar
12	Back-up ring
13	Snap ring

5. Wrap large shop towel or rag around housing. Pull hub (#2) so that cams (#3) and springs (#4,&5) are caught by rag as they are released. Clutch is now disassembled and can be cleaned, inspected, and repaired as necessary.

### SHEAR PIN REMOVAL

When Shear Pin breaks, the end with the Lock Ring on it will dislodge from the yoke, leaving the center part of the Shear Pin still engaged in the shaft. To remove broken Shear Pin rotate yoke in relation to shaft until Shear Pin aligns with large hole in yoke. Drive broken pin out by inserting 1/4" drift punch into small hole in yoke driving pin out opposite side. Note: Replace Shear Pin by inserting small end first into large hole in yoke and pushing into place.

# MAINTENANCE

## ASSEMBLY

1. Insert all springs(#4 & #5) and cams(#3) into first row on end of hub which must go into housing(#1) first. All cams must be compressed so that hub may be inserted into housing. Use heavy duty hose clamp to compress and hold cams. Insert and tap hub into housing just enough so that first row of cams are engaged. Repeat procedure for second row of cams.
3. Install seal ring(#7), support ring(#8), and retaining ring(#9).
4. Install quick disconnect lock mechanism. Apply grease to balls and insert into holes. Install compression spring(#10), lock collar(#11), and back-up ring(#12). Compress spring so lock collar and back-up ring can be positioned on hub. Install retaining ring.
5. Grease clutch and then reinstall on driveline.

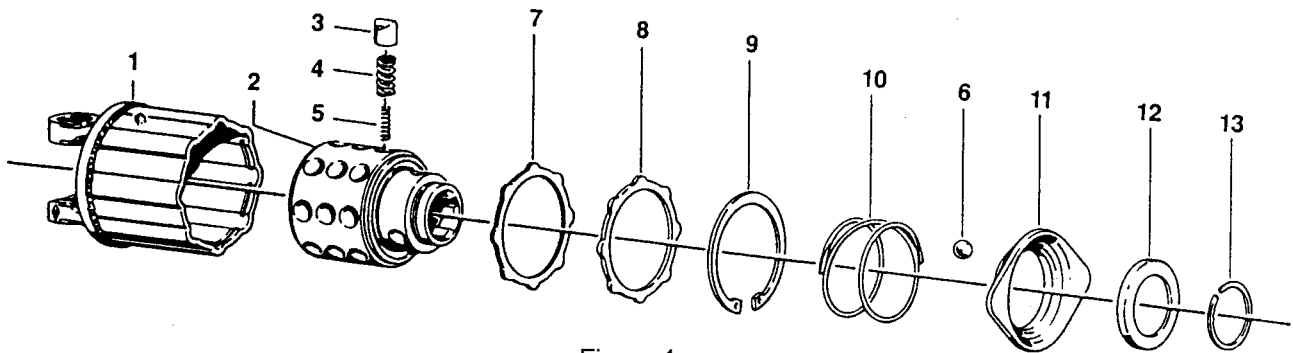


Figure 1

ITEM	DESCRIPTION
1	Clutch housing
2	Hub
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11	Lock collar
12	Back-up ring
13	Snap ring

# **PARTS SECTION**

## PARTS ORDERING GUIDE

The following instructions are offered to help eliminate needless delay and error in processing purchase orders for the equipment in this section.

1. The Parts Section is prepared in logical sequence and grouping of parts that belong to the basic machine featured in this manual. Part Numbers and Descriptions are given to help locate the parts and quantities required.
2. The Purchase Order must include the name and address of the person or organization ordering the parts, who should be charged, and if possible, the serial number of the machine for which the parts are ordered.
3. The Purchase Order must clearly list the quantity of each part, the complete and correct part number, and the basic name of the part.
4. The Manufacturer reserves the right to substitute parts where applicable.
5. Some parts are unlisted items which are special production items not normally stocked and are subject to special handling. Request a quotation for such parts before sending a Purchase Order.
6. The Manufacturer reserves the right to change prices without prior notice.

**NOTE:** Please refer to The Safety Section in the front of this Manual for the proper Part Number when ordering Replacement Safety Decals.



For maximum safety and to guarantee optimum product reliability, always use genuine Alamo Group Parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death. Direct any questions regarding parts to:



Servis-Rhino  
1502 E. Walnut  
Seguin, Texas 78155  
830-372-3080

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# IMPORTANT

**For your safety and to guarantee optimum product reliability, always use Genuine RHINO replacement parts. The use of inferior "will-fit" parts will void Warranty of your RHINO implement and may cause premature or catastrophic failure which can result in serious injury or death. If you have any questions concerning the repair parts you are using, contact Servis-Rhino, 1502 E. Walnut Seguin, TX 78155 (830) 372-3080.**

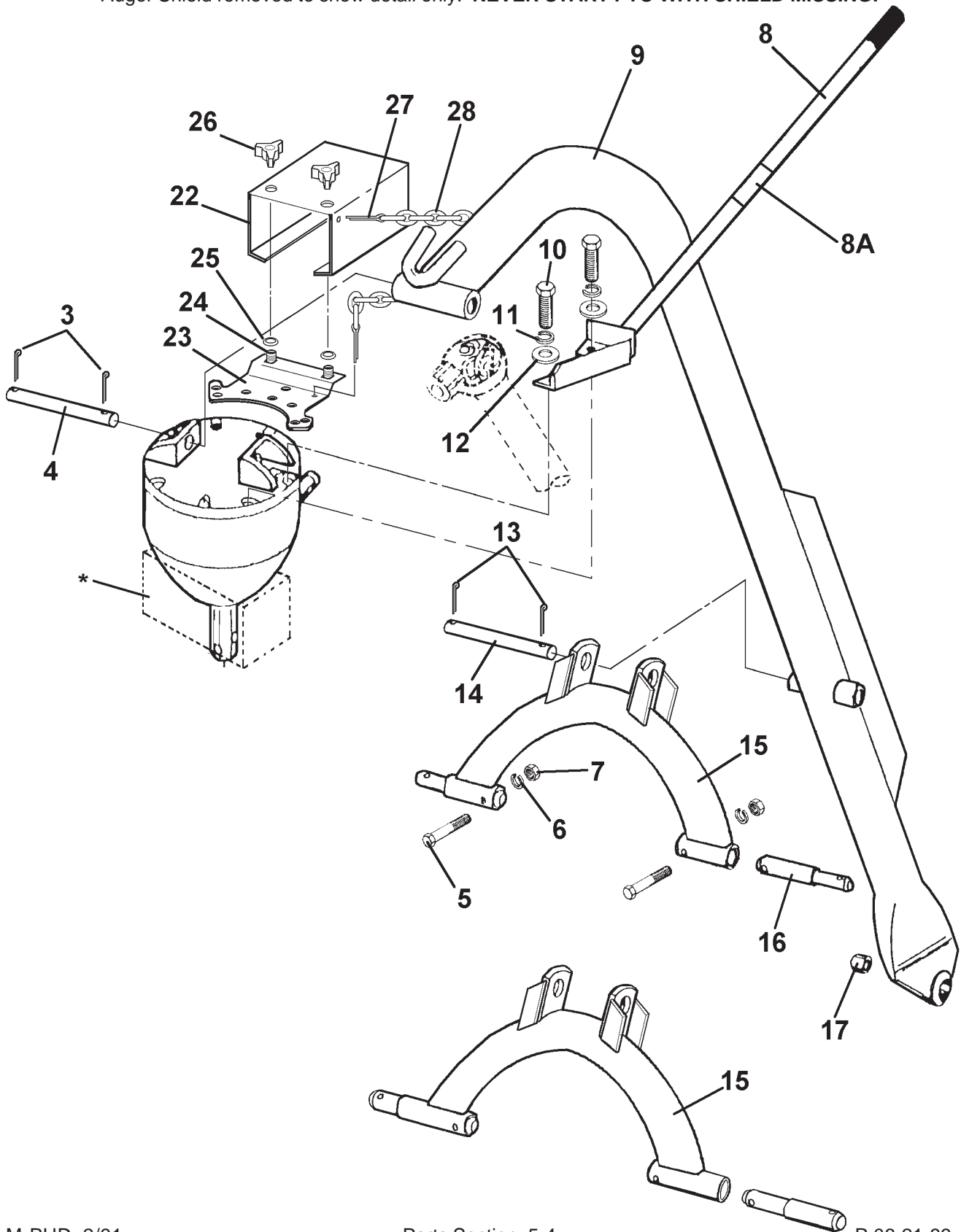




# HITCH AND BOOM PARTS LIST

SERIAL #000100 AND UP

\* Auger Shield removed to show detail only. **NEVER START PTO WITH SHIELD MISSING!**

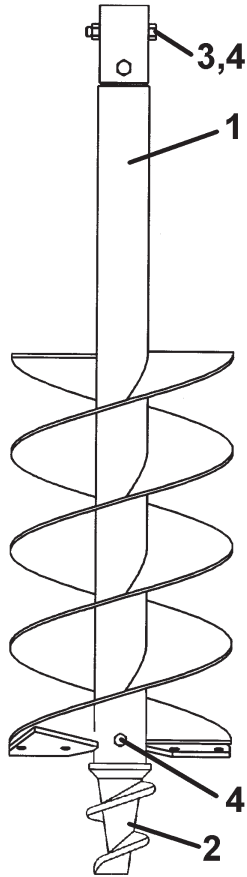


# HITCH AND BOOM PARTS LIST

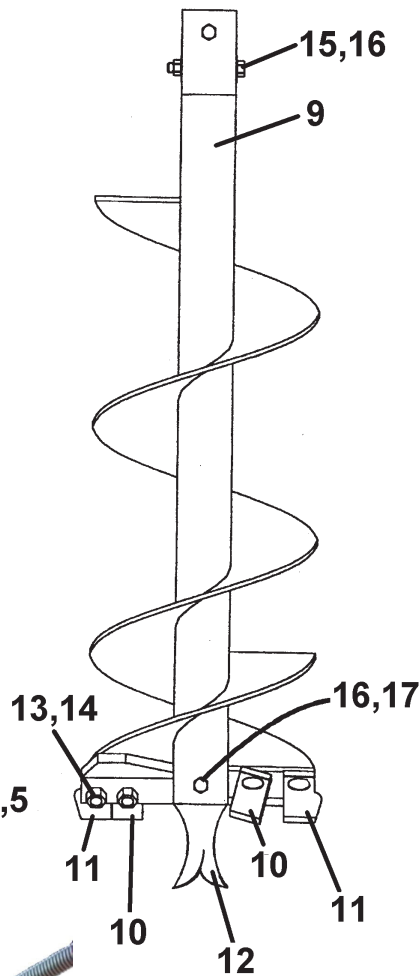
ITEM	PART NO.	DESCRIPTION	QTY. REQ'D			
			RPHD	HPHD	SPHD	EPHD
3	00000400	Cotter Pin	2	2	2	2
4	01430010	Mounting Shaft	1	1	1	1
5	01403020	Bolt	2	2	2	2
6	00012101	Lockwasher	2	2	2	2
7	00013901	Hex Nut	2	2	2	2
8	01A01010	Guiding Lever (N/A for 4:1 Gearbox) (S/N 11158 and Below) (Extra Equipment)	1	1	-	-
	01101280	Guiding Lever (N/A for 4:1 Gearbox) (S/N 11159 and Up) (Extra Equipment)	1	1	-	1
8A	00767042	Guide Level Decal	1	1	1	1
9	01A01100	Boom/Crane (For RPHD)	1	-	-	1
	01A01020	Boom/Crane (For HPHD & SPHD)	-	1	1	-
10	63066100	Grade 2 Capscrew	2	2	-	2
11	00012101	Lockwasher	2	2	-	2
12	00011100	Flatwasher	2	2	-	2
13	00755153	Cotter Pin	2	2	-	2
14	01100020	Yoke Pin - 7-1/8" long (Shown)	-	1	1	-
	01100010	Yoke Pin - 5" long	1	1	-	1
15	01100070	Hitch Frame (Shown)	-	1	1	-
	01100030	Hitch Frame	1	-	-	1
	00766644	Hitch Frame (Cat II)	-	-	1	-
16	01100100	Hitch Pin (Shown) Cat. I & II	-	2	2	-
17	01430140	Bushing (For Cat. I use)	-	1	1	-
22	00770594	Shield (RPHD S/N 14850 and up) (HPHD S/N 14092 and up) (SPHD S/N 14444 and up)	1	1	1	1
	00760700	Shield (RPHD S/N 11729 and 14849) (HPHD S/N 11567 and 14091) (SPHD S/N 11855 and 14443)	1	1	1	-
23	00770592	Shield Brkt Plate	1	1	1	-
	00768467	Shield Brkt Plate (EPHD S/N 10142 and up)	-	-	-	1
24	26168	Carriage Bolt	2	2	2	2
25	02961255	Push Nut	2	2	2	2
26	00769933	Thumb Nut	2	2	2	2
27	4405	Cotter Pin	2	2	2	2
28	00764259	Chain	1	1	1	1
29	00767039	Danger: Shield Missing Decal	1	1	1	1

# AUGER ASSEMBLIES

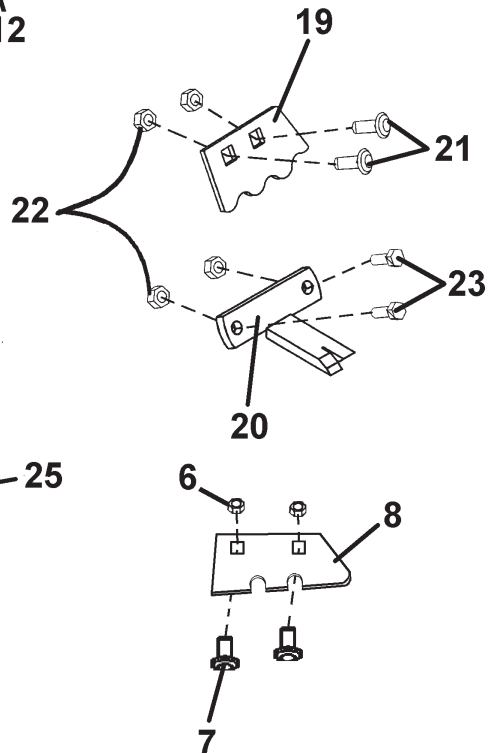
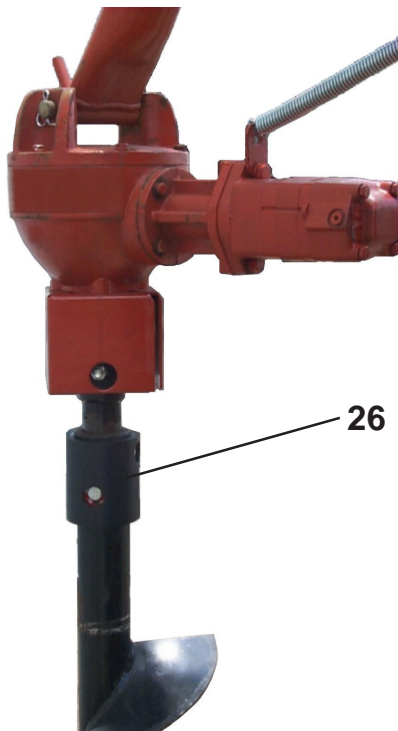
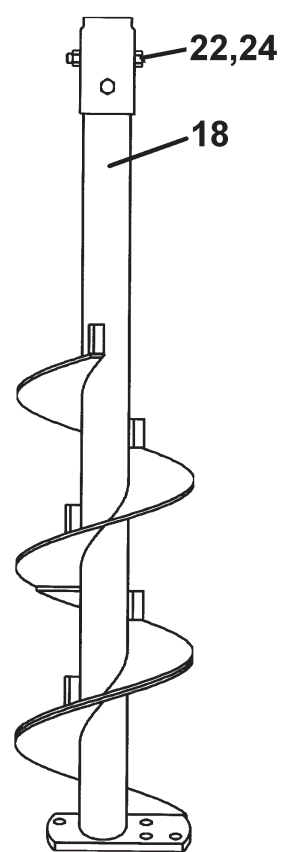
STANDARD AUGER



BORING HEAD AUGER



ROCKY MTN. AUGER



# AUGER ASSEMBLIES

## STANDARD AUGERS AND PARTS

ITEM	PART NO.	DESCRIPTION	QTY. REQ'D	
1	00767673	6" Auger (Used on EPHD Only)		1
	00767674	9" Auger (Used on EPHD Only)		1
	00767675	12" Auger (Used on EPHD Only)	1	
	00767676	14" Auger	1	
	00767677	18" Auger	1	
	01A01240	24" Auger	1	
	2	01100110	Spiral Point	1
01100130		Fishtail Point (Optional)	1	
3	00764375	Bolt	2	
4	00001800	Nut	3	
5	00999418	Bolt (used on 12",14",18" and 24" augers)	1	
	000245	Bolt (used on 6" and 9" augers)		1
6	02957941	Nut	4	
7	01430750	Bolt	4	
8	*01A0106E	6" Cutting EdgeKit	*(Consists of Two Edges & Mounting for Spiral Point Augers)	
	*01A0109E	9" Cutting Edge Kit		
	*01A0112E	12" Cutting Edge Kit		
	*01A0114E	14" Cutting Edge Kit		
	*01A0118E	18" Cutting Edge Kit		
	*01A0124E	24" Cutting Edge Kit		

## BORING HEAD PARTS

ITEM	PART NO.	DESCRIPTION	QTY. REQ'D	
			9" Auger	12" Auger
9	00767686	9" Boring Head Auger	1	-
	00767687	12" Boring Head Auger	-	1
10	00767806	Tooth, Boring Head, Inner	1	2
11	00767807	Tooth, Boring Head, Outer w/ Bulge	2	2
12	01100130	Fishtail Point	1	1
13	37064H5C	Bolt	3	4
14	00695100	Nut	3	4
15	00764375	Bolt	2	2
16	00001800	Nut	3	3
17	00999418	Bolt	-	1
	000245	Bolt	1	-

## ROCKY MOUNTAIN AUGER PARTS

ITEM	PART NO.	DESCRIPTION	QTY. REQ'D	
			9" Auger	12" Auger
18	00771166	9" Rocky Mtn.	1	-
	00771103	12" Rocky Mtn.	-	1
19	00771163	Tooth, 9" Auger		1
	00771097	Tooth, 12" Auger	-	1
20	00771102	Pilot Bit	1	1
21	02886900	Bolt, Auger Tooth	2	3
22	00001800	Nut	6	7
23	00748823	Bolt	2	2
24	00764375	Bolt	2	2

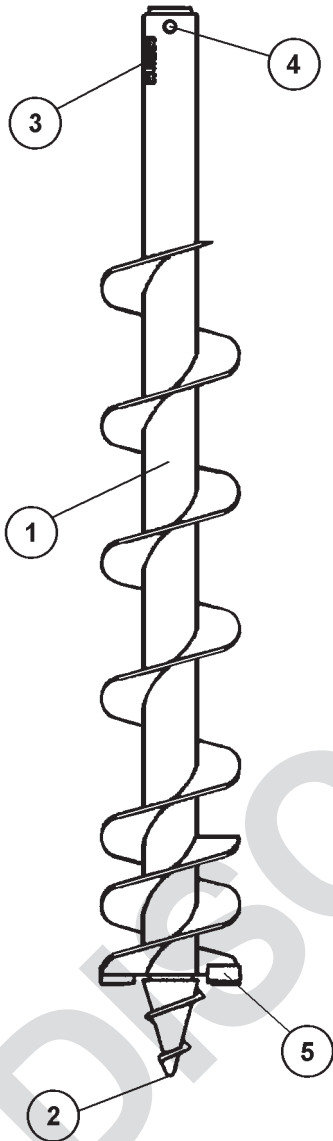
## AUGER EXTENSIONS

25	01100740	7" Auger Extension
	01100760	14" Auger Extension

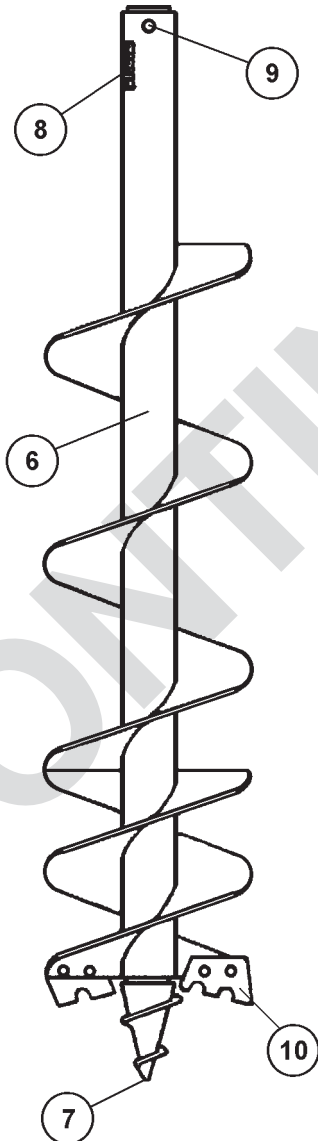
## SAFETY SHIELD

26	00768123	Plastic Extension Shield	1 Per Extension
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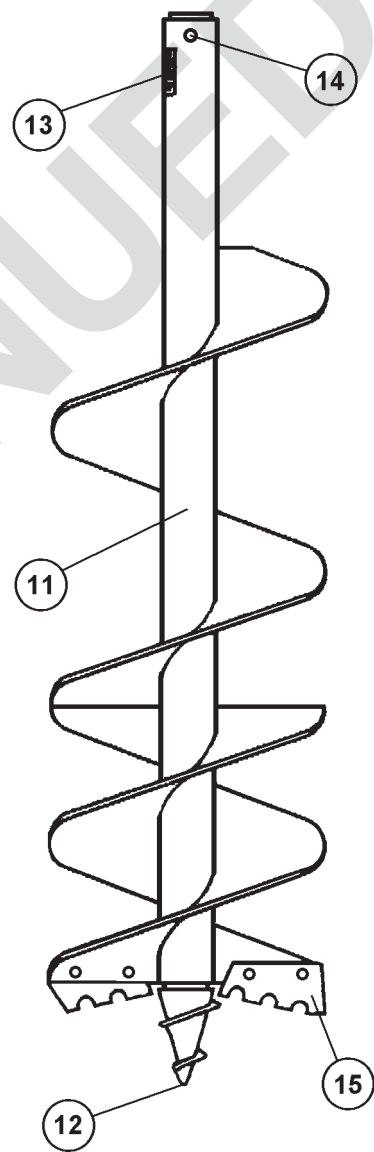
# AUGER ASSEMBLIES - EPHD



00768158



00768159



00768160

# AUGER ASSEMBLIES - EPHD

## 6" AUGER

ITEM	PART NO.	QTY.	DESCRIPTION
1	00768158	1	Auger, 6" - Complete
2	405622	1	Spiral Auger Tip - Screw-In
3	00767039	1	Decal, Auger
4	000245	2	Bolt
	00001200	2	Nut
5	4050456	1	6" Cutting Edge Kit - Weld On

## 9" AUGER

ITEM	PART NO.	QTY.	DESCRIPTION
6	00768159	1	Auger, 9" - Complete
7	405622	1	Spiral Auger Tip - Screw-In
8	00767039	1	Decal, Auger
9	000245	2	Bolt
	00001200	2	Nut
10	3410406	1	9" Serrated Cutting Edge Kit - Bolt On

## 12" AUGER

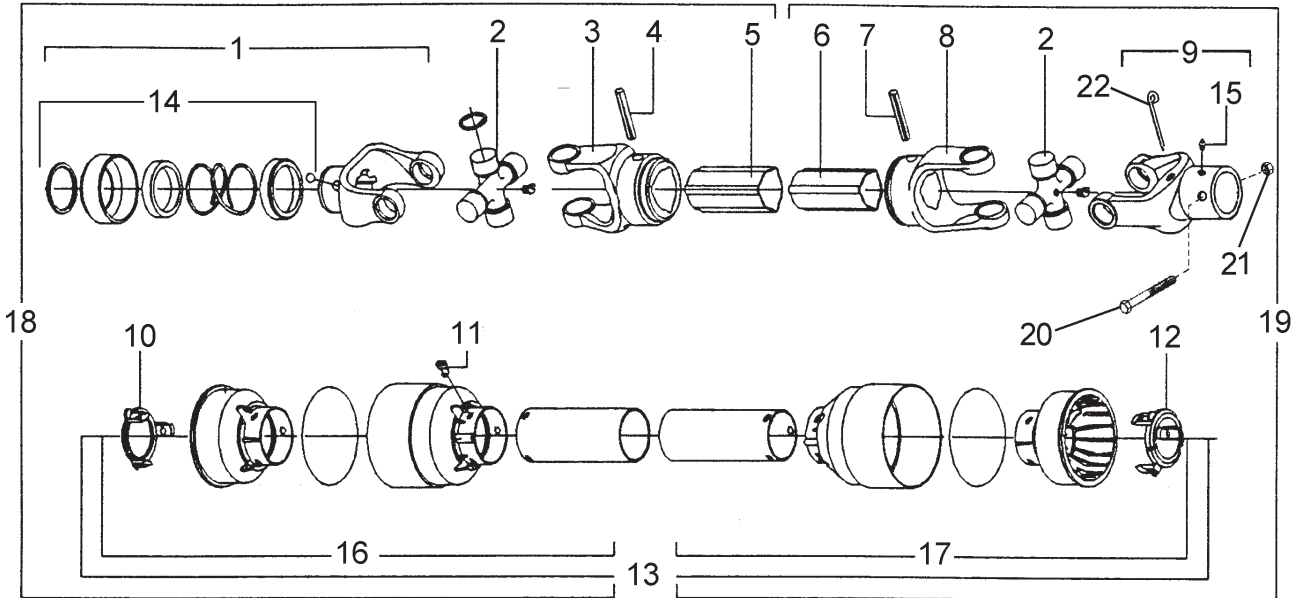
ITEM	PART NO.	QTY.	DESCRIPTION
11	00768160	1	Auger, 12" - Complete
12	405622	1	Spiral Auger Tip - Screw-In
13	00767039	1	Decal, Auger
14	000245	2	Bolt
	00001200	2	Nut
15	3410407	1	12" Serrated Cutting Edge Kit - Bolt On

# DRIVELINE ASSEMBLY - SHEAR BOLT

RPHD-S/N 16506-18437, HPHD-S/N 15520-16759, SPHD-S/N 15900-17252

**DANGER!**

Retaining Cotter must be spread smoothly around yoke. Shear Bolt must not protrude more than 1/8" out of Nut. Do not operate without all shields.



ITEM	PART NO.	QTY	DESCRIPTION
	<b>00773134</b>	-	<b>Driveline Assembly</b>
1	00773137	1	Complete Collar Yoke
2	00773138	2	Cross Journal Set (15/16" Dia.)
3	00773139	1	Outer Yoke
4	00773140	1	Roll Pin
5	00773141	1	Outer Tube
6	00773142	1	Inner Tube
7	00773144	1	Roll Pin
8	00773143	1	Inner Yoke
9	00773145	1	Complete Yoke W/ Grease Nipple
10	00773146	1	Retaining Collar, Outer
11	00754330	6	Bolt
12	00773147	1	Retaining Collar, Inner
13	00773148	1	Complete Guard
14	00757144	1	Collar Kit
15	00764386	1	Grease Fitting
16	00773150	1	Outer Guard Half
17	00773151	1	Inner Guard Half
18	00773135	1	Outer Shaft W/ Guarding
19	00773136	1	Inner Shaft W/ Guarding
20	01403020	1	Shear Bolt (Use Grade 2 only)
21	00013901	1	Nut
22	4407	1	Cotter Pin

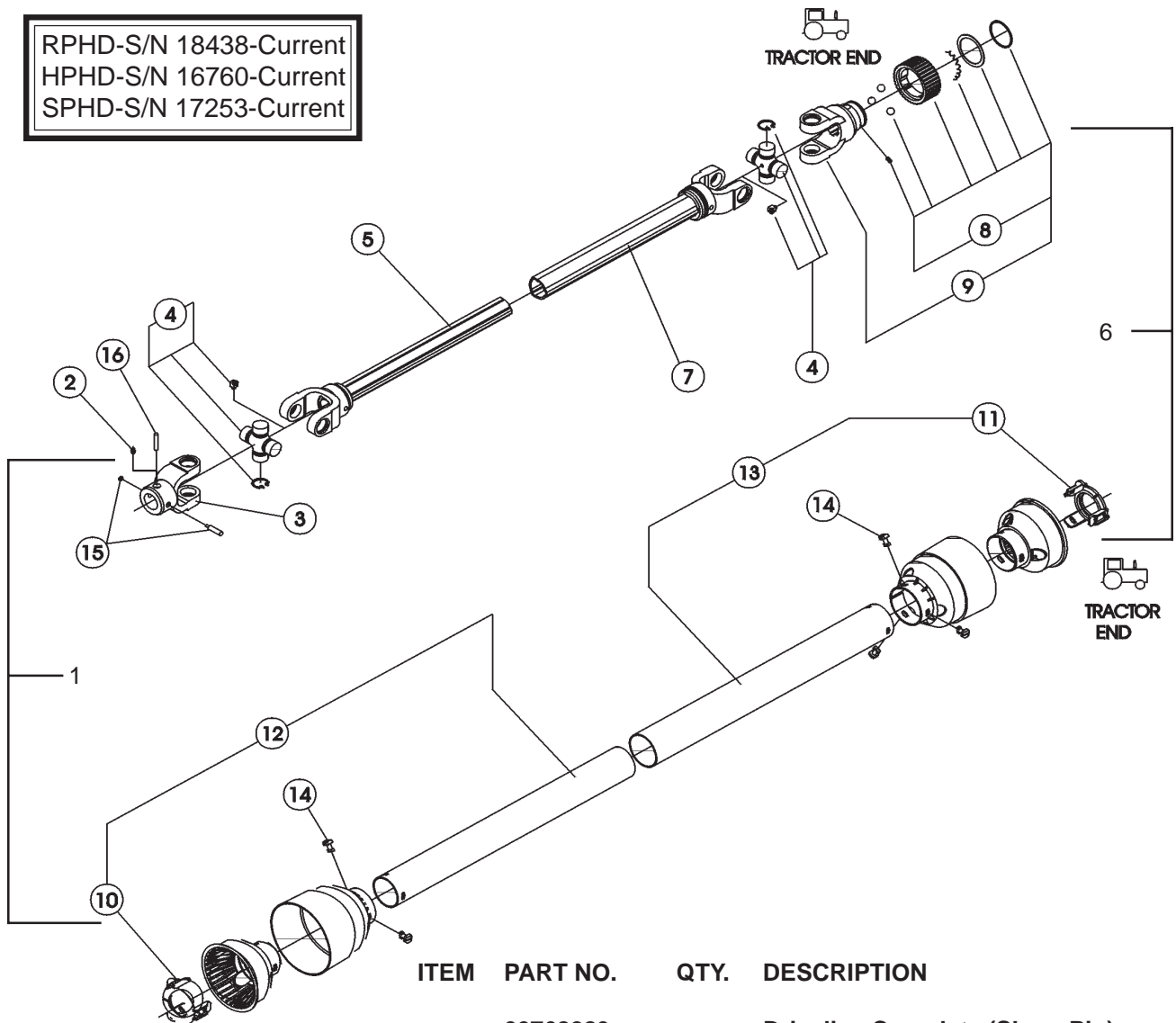
**\*WARNING!**

Do not use a Fastener harder than Grade 2 to protect machine or one that protrudes out of the Nut more than 1/8" to prevent entanglement and possible serious personal injury. Keep a supply of Rhino Shear Bolts on hand. NEVER use a bent rod or longer bolt.



# DRIVELINE ASSEMBLY - SHEAR PIN

RPHD-S/N 18438-Current  
 HPHD-S/N 16760-Current  
 SPHD-S/N 17253-Current



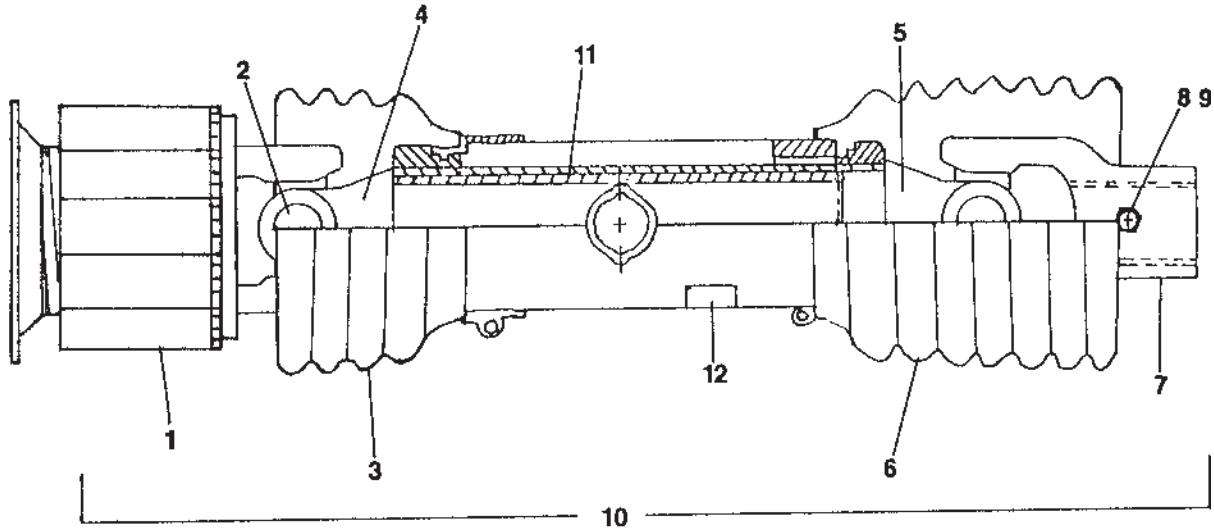
ITEM	PART NO.	QTY.	DESCRIPTION	
	<b>00768283</b>	-	<b>Driveline Complete (Shear Pin)</b>	
1	00768313	1	Inner Shaft & Shield Assembly	
2	001465	1	Grease Fitting	
3	00768312	1	Shear Pin Yoke	
4	00756231	2	Cross & Bearing Assembly Kit	
5	00768295	1	Inner Tube Assembly	
6	00768294	1	Outer Shaft & Shield Assembly	
7	00768293	1	Outer Tube Assembly	
8	00770391	1	Twist Collar Kit	
9	00759170	1	Yoke Assembly	
10	00764507	1	Outer Tube Bearing	
11	00764506	1	Inner Tube Bearing	
12	00775112	1	Inner Half Shield Assembly	
13	00775113	1	Outer Half Shield Assembly	
14	00754506	6	Locking Pin	
Not Supplied w/ Driveline	15	00774569	1	Shear Pin Kit (contains 6 pins & locks)
	16	5427	1	Roll Pin



# DRIVELINE ASSEMBLY - RADIAL CLUTCH (OPTIONAL)

RPHD - S/N 000101-Current  
 HPHD - S/N 000101-Current  
 SPHD - S/N 000101-Current

**DANGER:** Retaining Cotter Pin (Item #9) must be spread smoothly around yoke. Shear Bolt must not protrude more than 1/8" out of Nut. Do not operate without all shields in place



ITEM	PART NO.	QTY	DESCRIPTION
	<b>01A01160</b>	-	<b>Driveline Assembly</b>
1	01430940	1	Radial Pin Clutch
2	01430390	1	Cross Repair Kit
3	01430400	1	Outer Shield w/Cone w/ Decal #00756005
4	01430410	1	Inner Tube & Yoke Assembly
5	01430420	1	Outer Tube & Yoke Assembly w/Decal #00756004
6	01430430	1	Inner Shield w/long Cone
7	01430440	1	Yoke
8*	00758068	1	Bolt (Grade 8)
	00015800	1	Nut
9	01422502	1	Cotter Pin
10	01A01160	1	Driveline Complete
11	00756004	1	Decal - Shield Missing
12	00756005	1	Decal - Driveline Entanglement

**\* WARNING:**



Use a Grade 8 Fastener in place of the Shear Bolt to Drive the machine. Do Not Allow the Bolt to protrude out of the nut more than 1/8" to prevent entanglement and possible serious personal injury. Never use a bent rod or a longer Bolt.

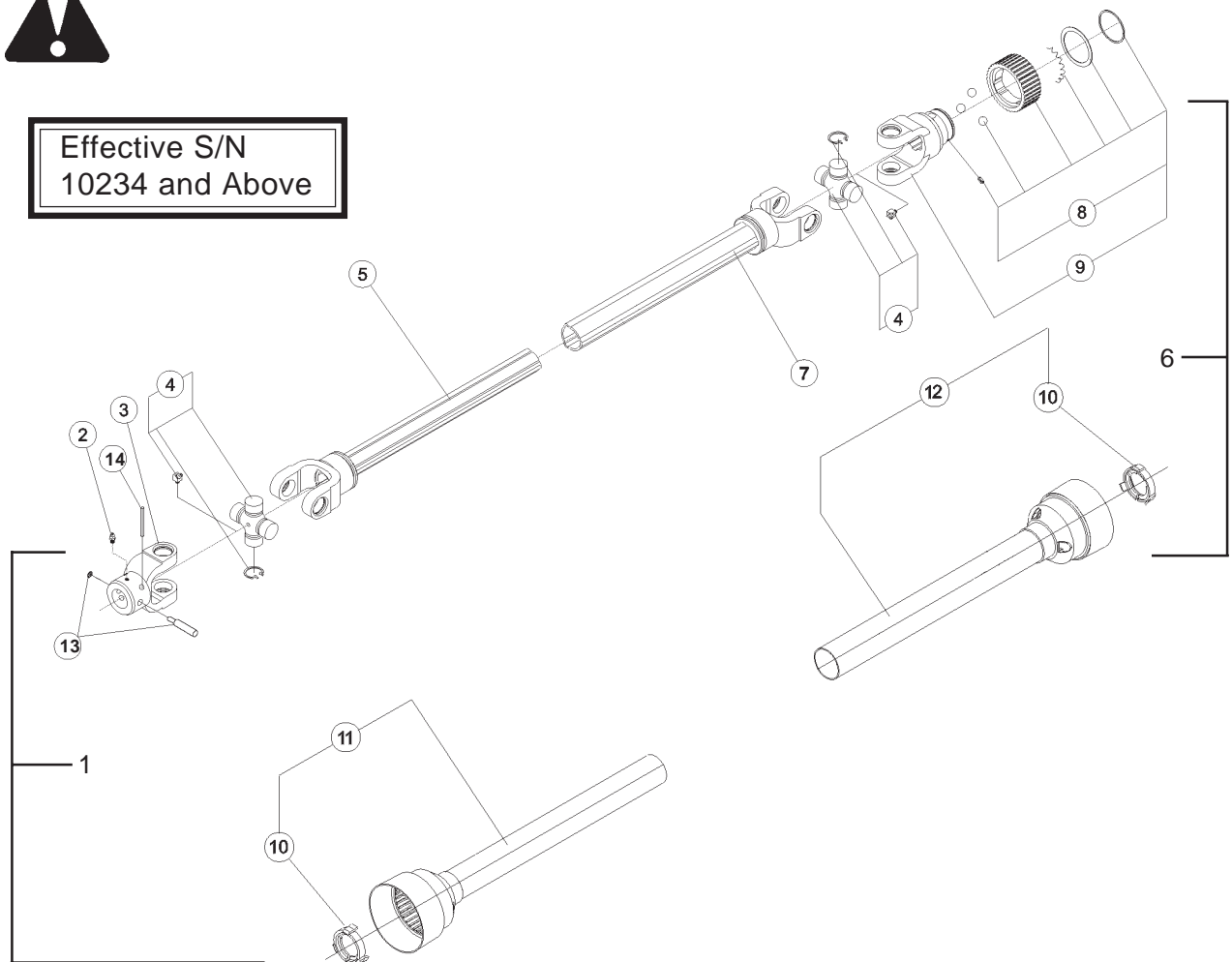
# DRIVELINE ASSEMBLY - SHEAR PIN EPHD

**DANGER!**



Retaining Cotter must be spread smoothly around yoke. Shear Bolt must not protrude more than 1/8" out of Nut. Do not operate without all shields.

Effective S/N  
10234 and Above



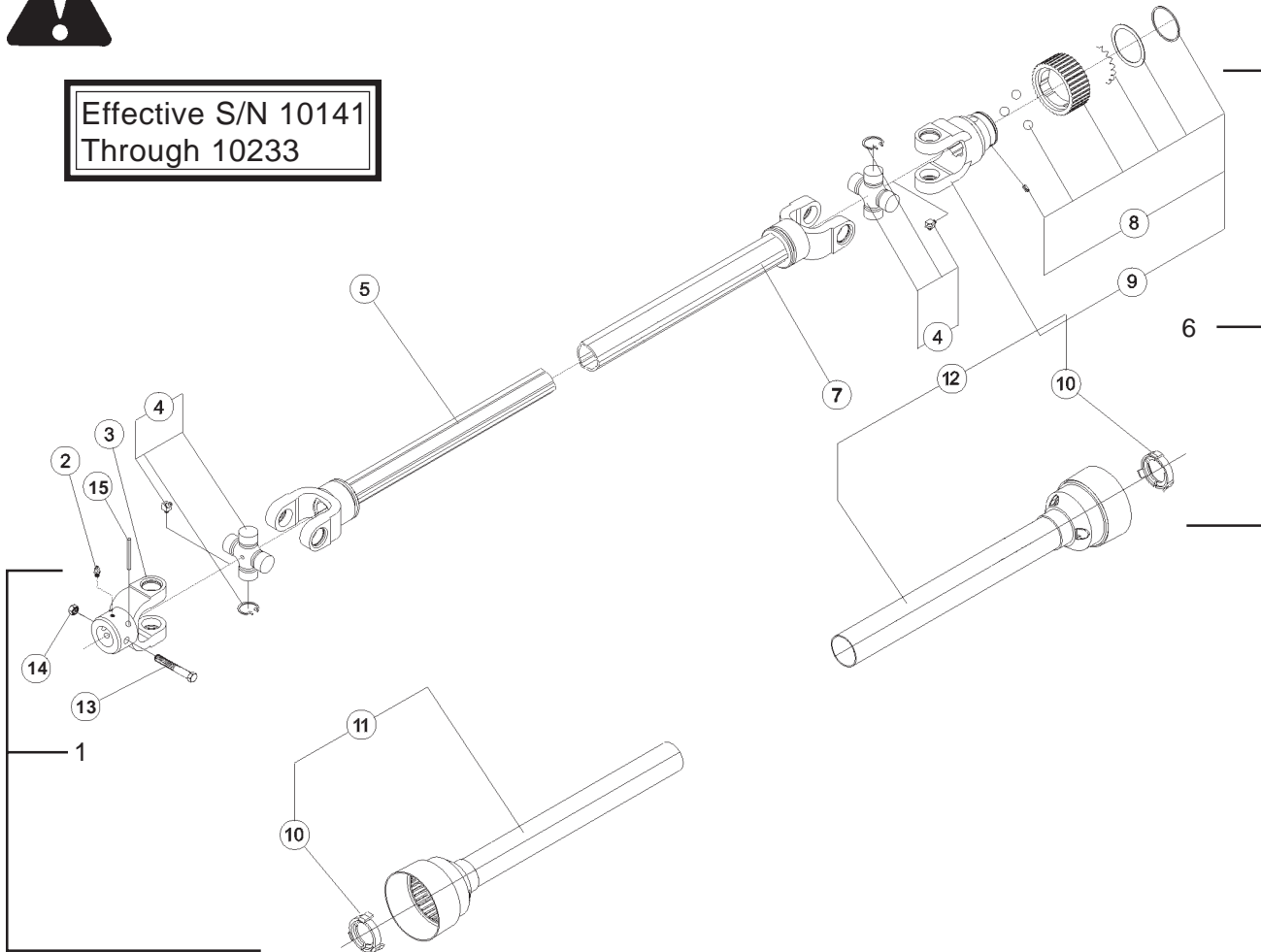
ITEM	PART NO.	QTY.	DESCRIPTION
	<b>00768360A</b>	-	<b>Driveline Complete (Shear Pin)</b>
1	00768438	1	Inner Shaft & Shield Assembly
2	001465	1	Grease Fitting
3	00768439	1	Shear Pin Yoke
4	00768356	2	Cross & Bearing Assembly Kit
5	00768355	1	Inner Tube Assembly
6	00768354	1	Outer Shaft & Shield Assembly
7	00768353	1	Outer Tube Assembly
8	00770391	1	Twist Collar Kit
9	00768352	1	Yoke Assembly
10	00768363	2	Tube Bearing
11	00768362	1	Inner Half Shield Assembly
12	00768361	1	Outer Half Shield Assembly
Not Supplied w/ Driveline	13	00774569	1 Shear Pin Kit (contains 6 pins & locks)
	14	5427	1 Roll Pin

# DRIVELINE ASSEMBLY - SHEAR BOLT EPHD

**DANGER!** Retaining Cotter must be spread smoothly around yoke. Shear Bolt must not protrude more than 1/8" out of Nut. Do not operate without all shields.



Effective S/N 10141  
Through 10233



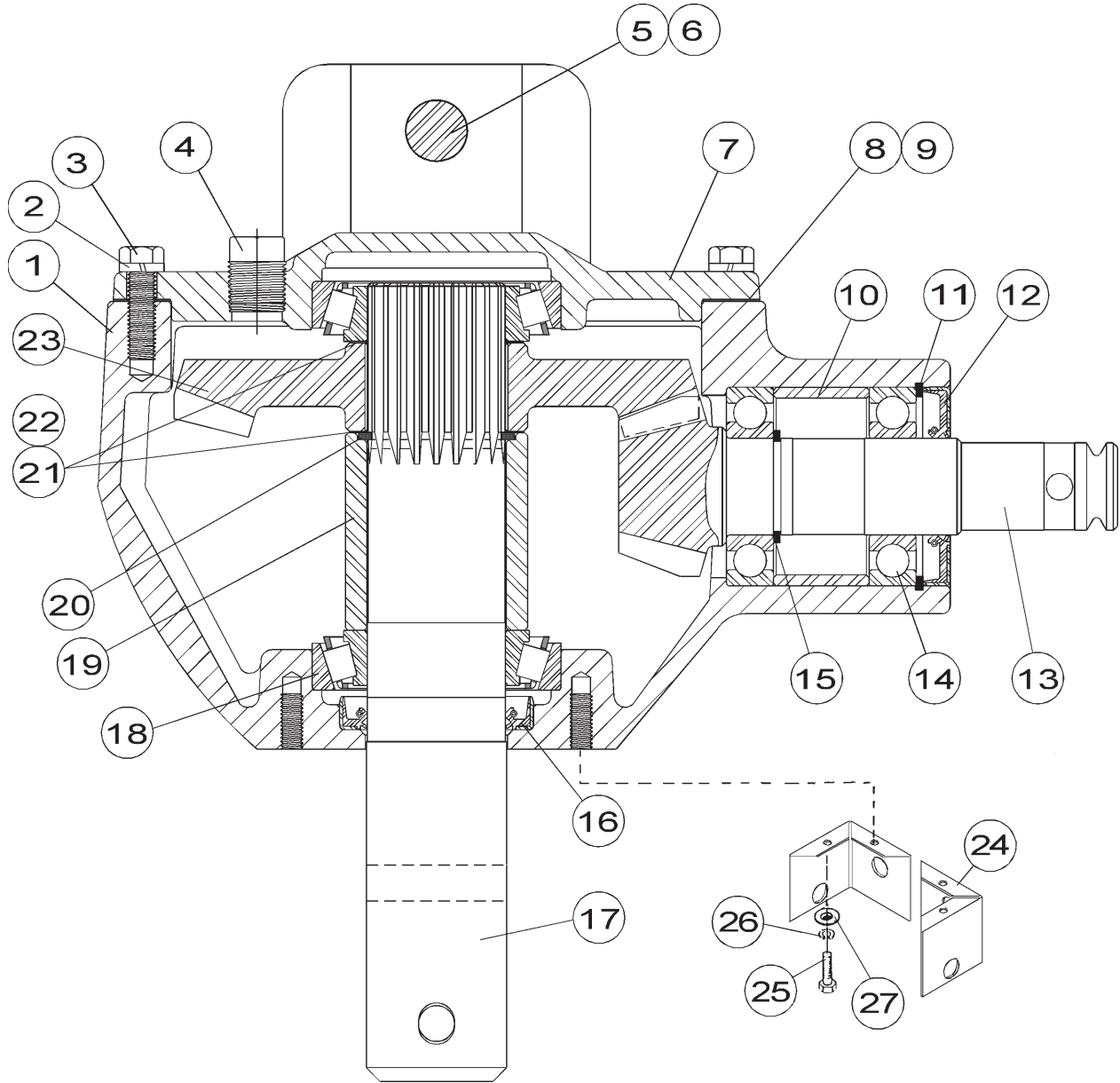
ITEM	PART NO.	QTY.	DESCRIPTION
	<b>00768360</b>	<b>1</b>	<b>Driveline Complete (Shear Bolt)</b>
1	00768358	1	Inner Shaft & Shield Assembly
2	001465	1	Grease Fitting
3	00768357	1	Shear Bolt Yoke
4	00768356	2	Cross & Bearing Assembly Kit
5	00768355	1	Inner Tube Assembly
6	00768354	1	Outer Shaft & Shield Assembly
7	00768353	1	Outer Tube Assembly
8	00770391	1	Twist Collar Kit
9	00768352	1	Yoke Assembly
10	00768363	2	Tube Bearing
11	00768362	1	Inner Half Shield Assembly
12	00768361	1	Outer Half Shield Assembly
13	7A61622	1	Shear Bolt
14	00015800	1	Nut
15	20BH5012	1	Roll Pin

Not Supplied  
w/ Driveline

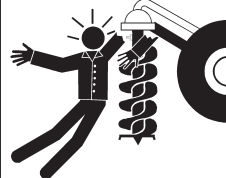
# NOTES

# Gearbox Assembly WW 3.5 DH 3.5:1 Gear Reduction 1-1/4 Shaft for Rhino RPHD & HPHD

RPHD - P/N 01101240 - S/N 11341-Current  
HPHD - P/N 01101240 - S/N 11213-Current



## ⚠ DANGER



**To Prevent Serious Injury Or Death  
From Entanglement with Rotating Parts:  
KEEP AT LEAST 10 FEET AWAY**

- Do not operate unless all Guards are in place.
- Do not use body weight to force auger into ground or position Auger Point when engine is running.
- Make certain Auger Point is right for your job and that the Lead Screw and Bits are in good condition. (See Manual for optional Points and for advice on digging in very hard, rocky, and sticky conditions.)
- Keep away from rotating auger and driveline.

00767037

**Gearbox Assembly WW 3.5 DH 3.5:1 Gear  
Reduction 1-1/4 Shaft for Rhino RPHD & HPHD**

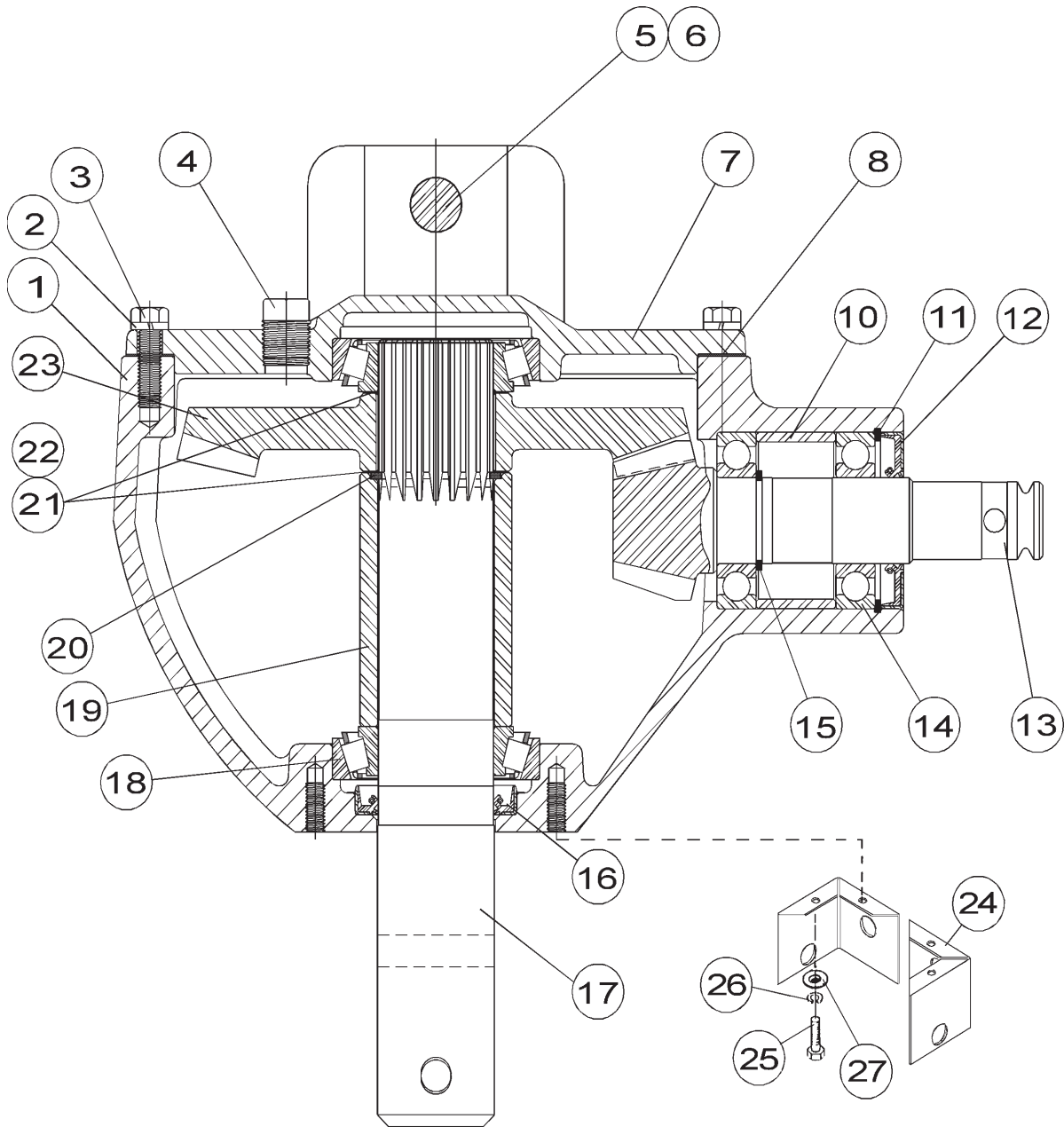
RPHD - P/N 01101240 - S/N 11341-Current  
HPHD - P/N 01101240 - S/N 11213-Current

ITEM	PART NO.	QTY	DESCRIPTION
1	01431320	1	Housing
2	00755954	8	Lockwasher
3	00758659	8	Capscrew
4	00749508	2	Pipe Plug
5	01431250	1	Hanger Shaft
6	00606000	2	Cotter Pin
7	01431390	1	Hanger Cap
8	01431360	VAR.	Output Cap Gasket 0.10
9	01431370	VAR.	Output Cap Gasket 0.30
10	01431310	1	Bearing Spacer
11	01431280	1	Retaining Ring
12	00770827	1	Input Seal (1 Piece Seal)
	00564200	1	Seal (Use w/Seal Adapter #01431290)
13	01431400	1	11 Tooth Pinion & Shaft
14	00564800	2	Ball Bearing
15	01431270	1	Retaining Ring
16	00758674	1	Output Seal
17	01431330	1	Output Shaft
18	00755628	2	Bearing Assembl
20	00770827	1	Retaining Ring
21	00758667	1	Gear Adjusting Shim 0.30
22	00758668	1	Gear Adjusting Shim 0.50
23	01431350	1	Output Gear 38 Tooth
24	01100550	1	RPHD-Output/Auger Shield S/N 11341-12749 HPHD-Output/Auger Shield S/N 11213-12350
	00762815	2	RPHD-Output/Auger Shield S/N 12750 and above HPHD-Output/Auger Shield S/N 12351 and above
25	00035900	4	Capscrew
26	00011700	4	Lockwasher
27	00023500	4	Flatwasher

**Gearbox Assembly WW4DH 4:1 Gear Reduction  
1-1/4 Shaft for Rhino SPHD**

**P/N 01101250**

**THESE PARTS ARE FOR SERIAL NO. 11159-Current**



**Gearbox Assembly WW4DH 4:1 Gear Reduction  
1-1/4 Shaft for Rhino SPHD**

THESE PARTS ARE FOR SERIAL NO. 11159-Current

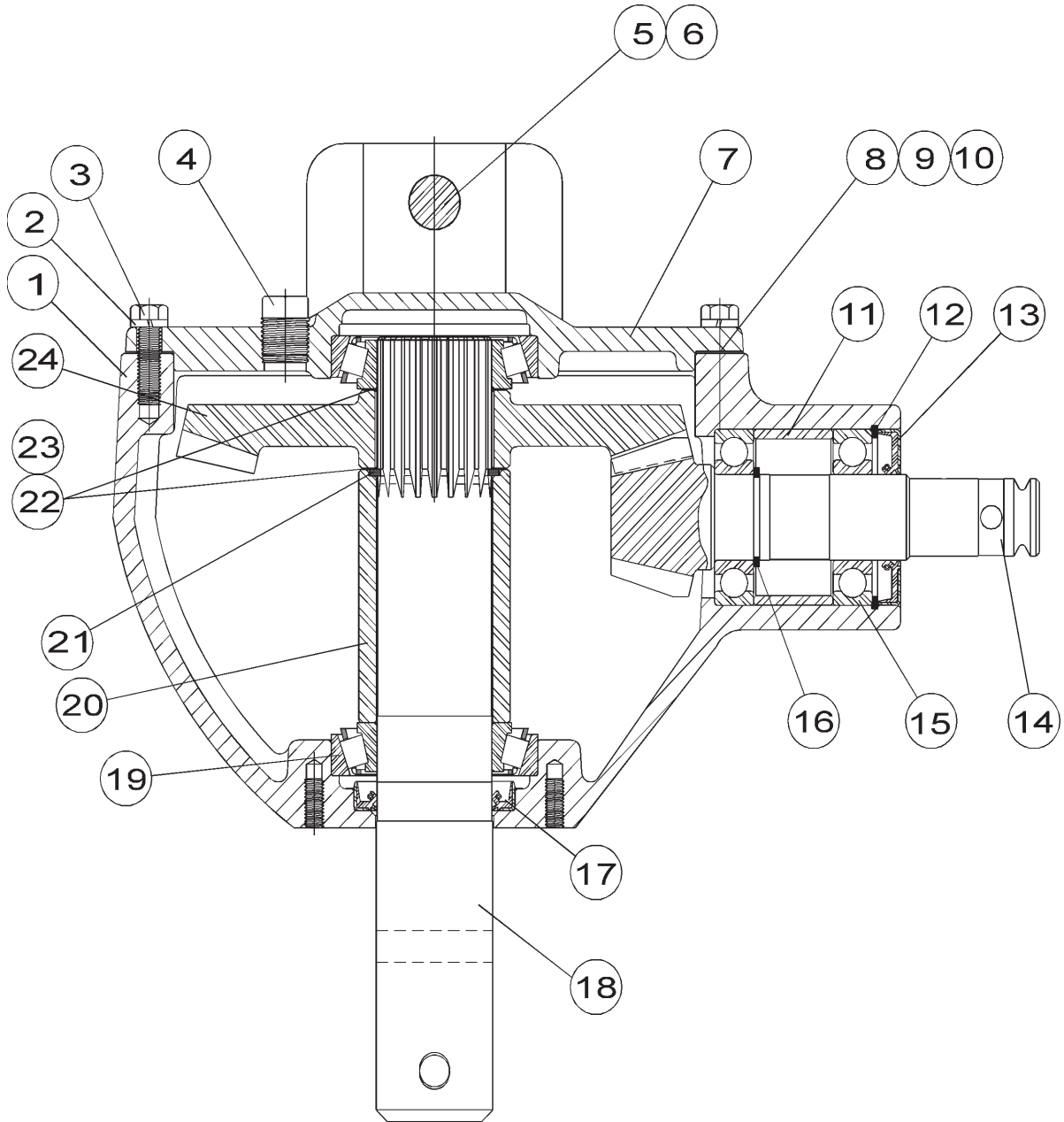
ITEM	PART NO.	QTY	DESCRIPTION
	<b>01101250</b>	-	<b>Gearbox Assembly</b>
1	01431180	1	Housing
2	00755954	8	Lockwasher
3	00758659	8	Capscrew
4	00749508	2	Pipe Plug
5	01431250	1	Hanger Shaft
6	00606000	2	Cotter Pin
7	01431260	1	Hanger Cap
8	01431220	VAR.	Hanger Cap Gasket 0.10
	01431230	VAR.	Hanger Cap Gasket 0.25
	01431240	VAR.	Hanger Cap Gasket 0.50
10	01431310	1	Bearing Spacer
11	01431280	1	Retaining Ring
12	00770827	1	Input Seal
13	01431300	1	11 Tooth Pinion & Shaft
14	00564800	2	207K Ball Bearing
15	01431270	1	Retaining Ring
16	00758674	1	Output Seal
17	01431190	1	Output Shaft
20	00770827	1	Retaining Ring
21	00758667	1	Gear Adjusting Shim 0.30
22	00758668	1	Gear Adjusting Shim 0.50
23	01431210	1	Output Gear 44 Tooth
24	01100550	1	Output/Auger Shield S/N <u>11159</u> - S/N <u>12820</u>
	00762815	2	Output/Auger Shield S/N <u>12821</u> and <u>above</u>
25	00035900	4	Capscrew
26	00011700	4	Lockwasher
27	00023500	4	Flatwasher



# GEARBOX ASSEMBLY - EPHD

P/N 00770816P

THESE PARTS ARE FOR SERIAL NO. 10141-Current

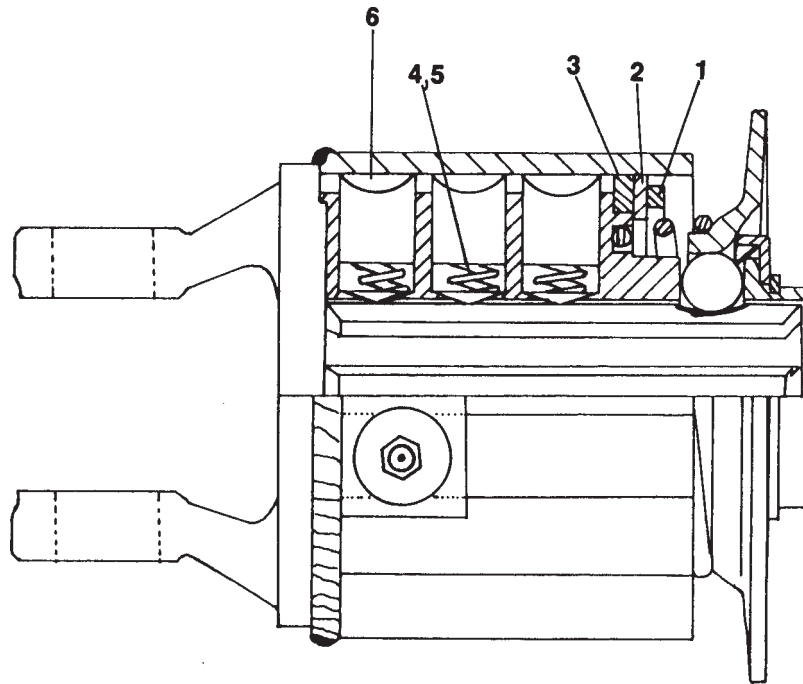


# GEARBOX ASSEMBLY - EPHD

THESE PARTS ARE FOR SERIAL NO. 10141-Current

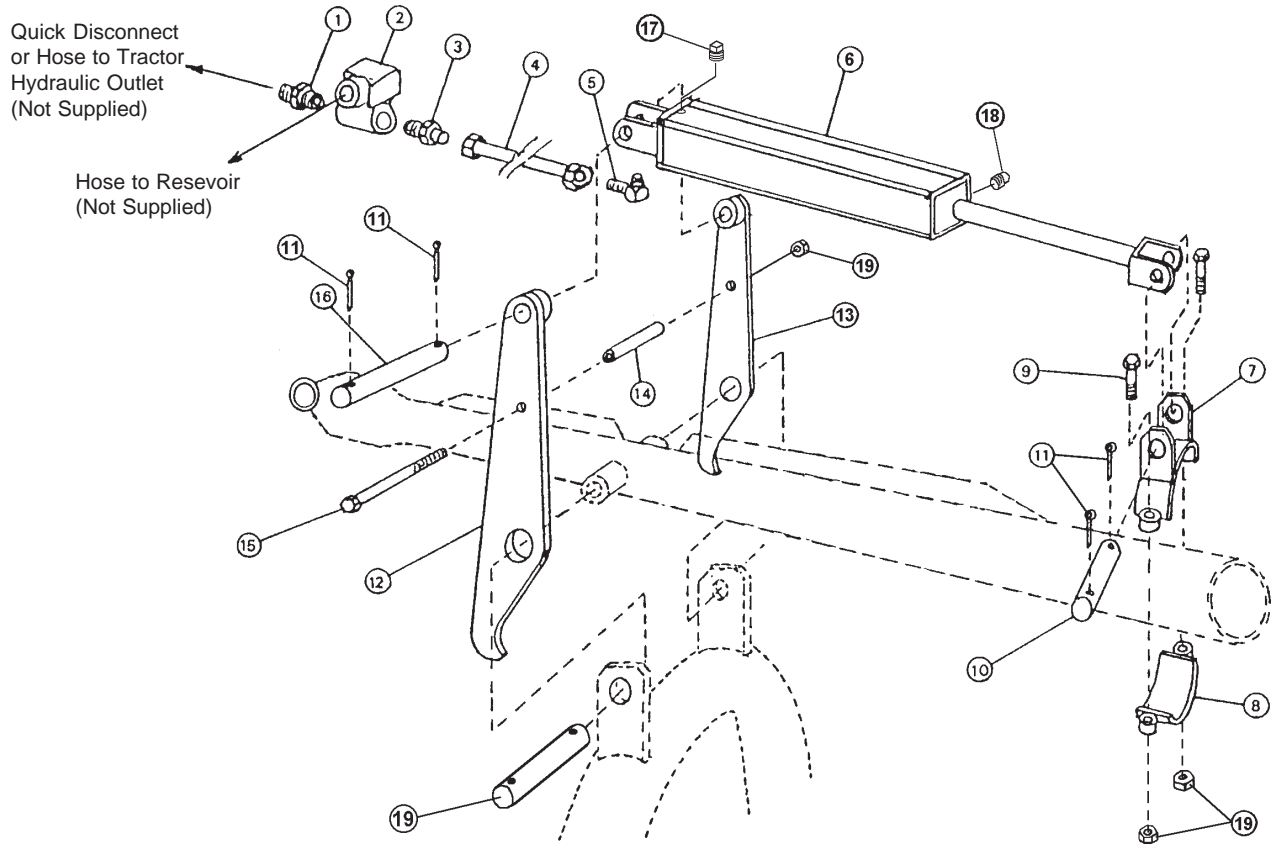
ITEM	PART NO.	QTY	DESCRIPTION
	<b>00770816P</b>	-	<b>Gearbox Assembly</b>
1	00770820	1	Housing
2	00755954	8	Lockwasher
3	00758659	8	Capscrew
4	00749508	2	Pipe Plug
5	01431250	1	Hanger Shaft
6	00606000	2	Cotter Pin
7	00770823	1	Hanger Cap
8	00770824	VAR.	Hanger Cap Gasket 0.30
9	00770825	VAR.	Hanger Cap Gasket 0.25
10	00770826	VAR.	Hanger Cap Gasket 0.40
11	01431310	1	Bearing Spacer
12	01431280	1	Retaining Ring
13	00770827	1	Input Seal
14	00770828	1	11 Tooth Pinion & Shaft
15	00564800	2	207K Ball Bearing
16	00770829	1	Retaining Ring
17	00758674	1	Output Seal
18	00770830	1	Output Shaft
19	00769938	2	Tapered Bearing Assembly
20	00770831	1	Output Bearing Spacer
21	00758660	1	Retaining Ring
22	00758667	VAR.	Gear Adjusting Shim (0.30)
23	00758668	VAR.	Gear Adjusting Shim (0.50)
24	00770822	1	33 Tooth Output Gear

# CLUTCH - RADIAL PIN



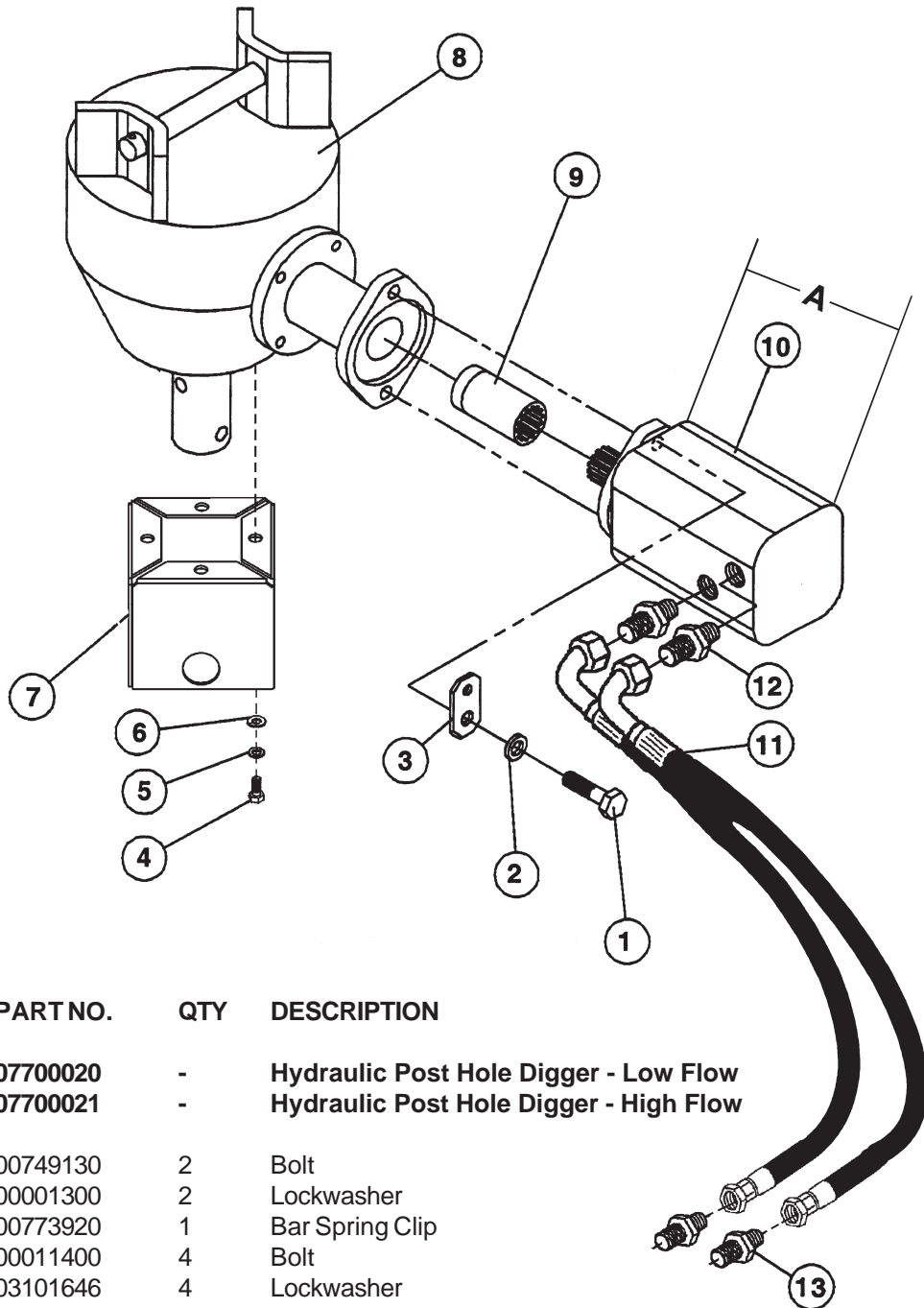
ITEM	PART NO.	QTY	DESCRIPTION
	<b>01430940</b>	-	<b>Radial Pin Clutch Assy</b>
1	01431020	1	Retaining Ring
2	01431010	1	Thrust Ring
3	01431000	1	Seal Ring
4	01430990	12	Inner Spring
5	01430980	24	Outer Spring
6	01430970	24	Cam
-	01430950	ref	Flange Kit

## DOWN PRESSURE KIT (EXTRA EQUIPMENT - USED w/SPHD ONLY)



ITEM	PART NO.	QTY	DESCRIPTION
	<b>01A01150</b>	-	<b>Down Pressure Kit Assy</b>
1	02960460	1	Straight Adapter
2	01430480	1	Relief Valve
3	61027400	1	Adapter
4	01430500	1	Hose
5	02221600	1	Elbow
6	01100140	1	Cylinder
	00757290	1	Seal Repair Kit(not shown)
7	01100150	1	Upper Clamp Assembly
8	01100160	1	Lower Clamp Assembly
9	02788400	2	Bolt Gr5
10	01100170	1	Clevis Pin(1" x 3-7/8")
11	00755153	4	Cotter Pin
12	0110019L	1	Left Cylinder Support
13	0110019R	1	Right Cylinder Support
14	01100200	1	Spacer
15	02014200	1	Bolt
16	01100180	1	Clevis Pin
17	00757291	1	Pipe Plug
18	00750596	1	Breather Plug
19	00001800	3	Nut
20	01100020	ref	Yoke Pin (SPHD Only)

# HYDRAULIC DRIVE ASSEMBLY

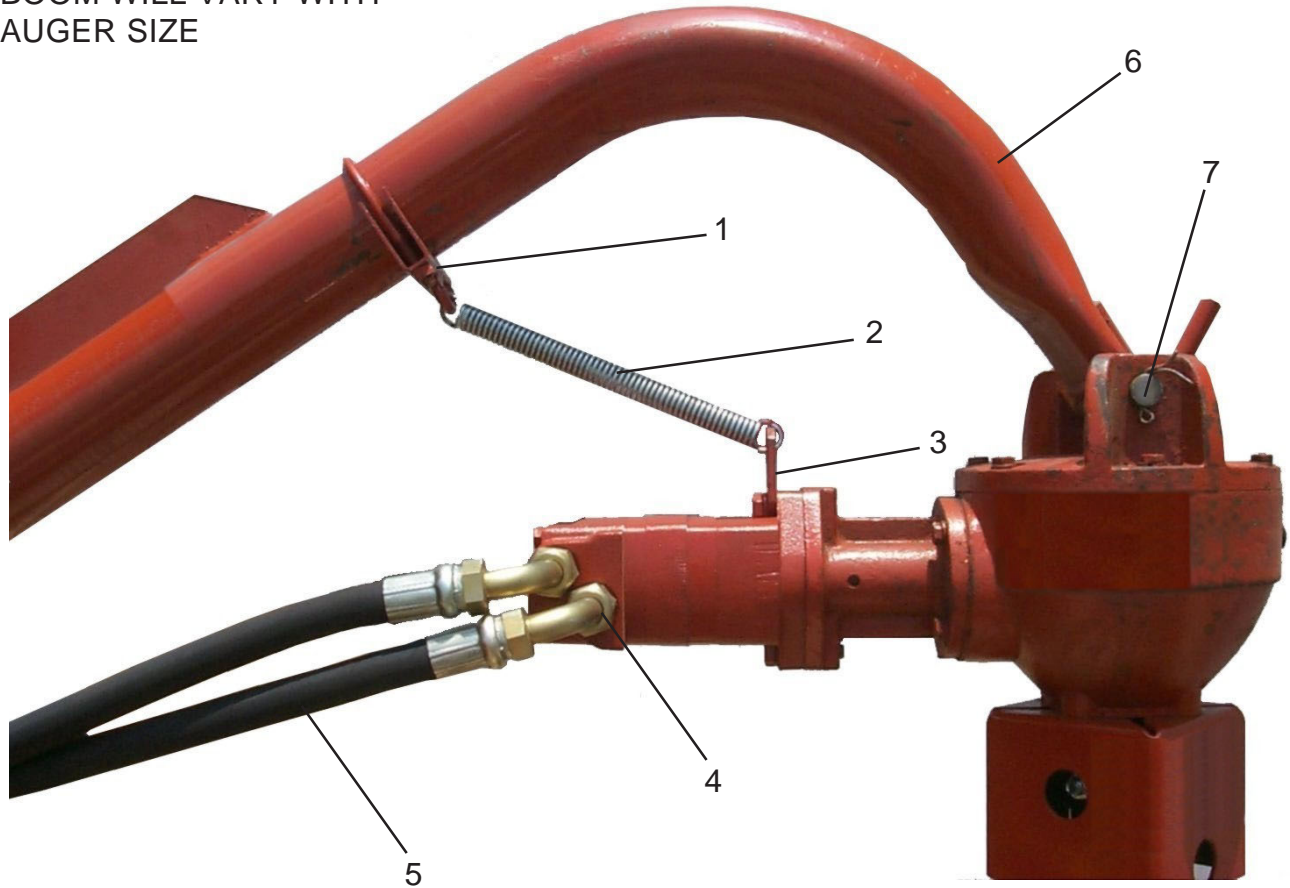


ITEM	PART NO.	QTY	DESCRIPTION
	<b>07700020</b>	-	<b>Hydraulic Post Hole Digger - Low Flow</b>
	<b>07700021</b>	-	<b>Hydraulic Post Hole Digger - High Flow</b>
1	00749130	2	Bolt
2	00001300	2	Lockwasher
3	00773920	1	Bar Spring Clip
4	00011400	4	Bolt
5	03101646	4	Lockwasher
6	00011100	4	Flatwasher
7	00762815	2	Shield Auger
8	00773906	1	Gearbox Auger Hydraulic Drive
9	00773410	1	Coupling Hydraulic PHD
10	00773908	1	Motor Hydraulic - Low Flow A= 7-5/8
	00773907	1	Motor Hydraulic - High Flow A= 8-3/4
11	00773922	2	Hose (provided w/ chain & bucket mount option)
	02905600	2	Hose (provided w/ 3-point hitch kit option)
12	00773923	2	Straight Adapter (provided w/ attachment option)
13	00768031	2	Straight Adapter (Tractor End)

# CLAMP MOUNT ASSEMBLY (OPTION)

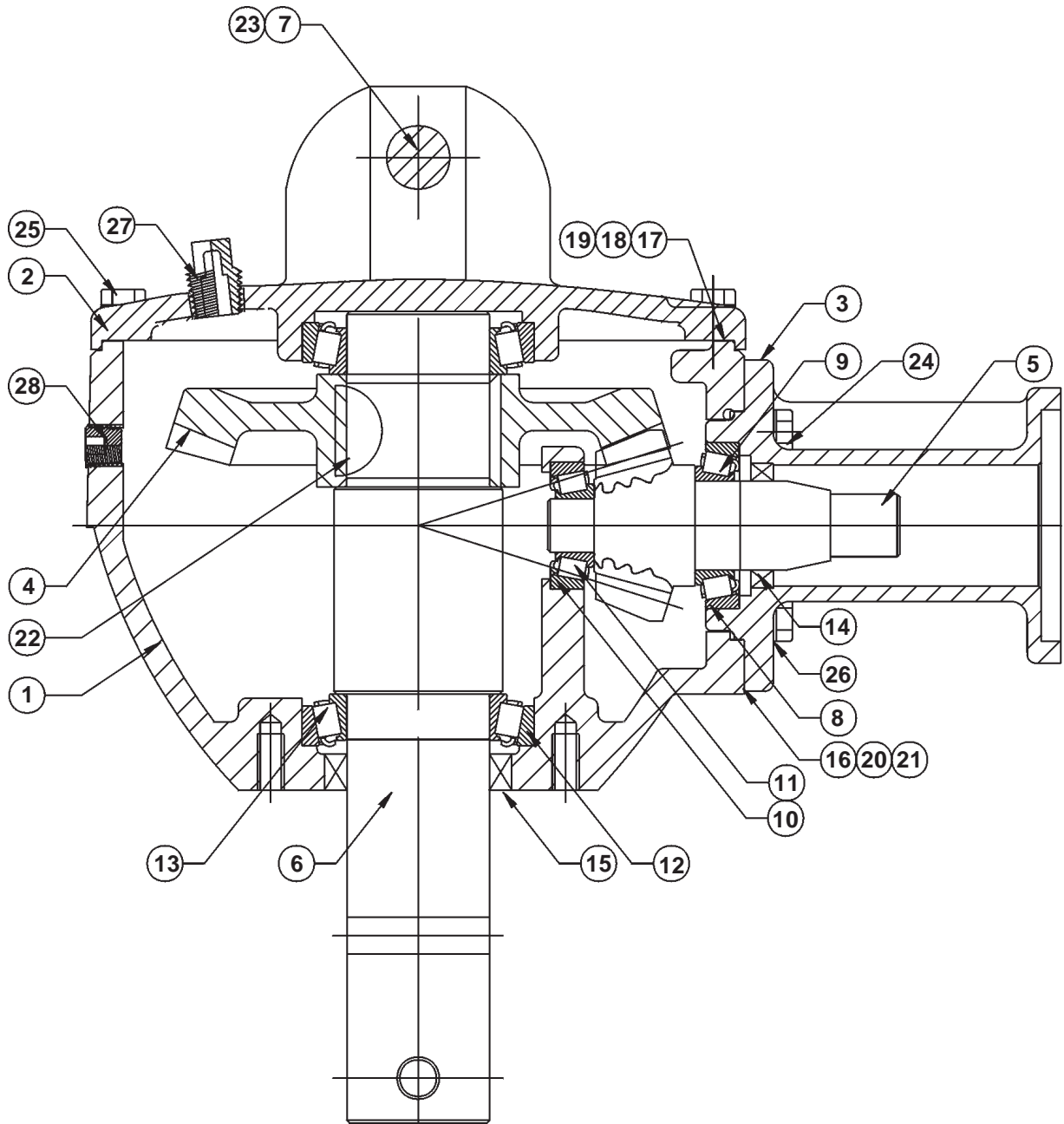
**NOTE:**

CLAMP LOCATION ON  
BOOM WILL VARY WITH  
AUGER SIZE



ITEM	PART NO.	QTY	DESCRIPTION
1	00773921	1	Wldmt. Spring Clamp 4"
2	00773909	1	Spring Tension
3	00773920	1	Bar Spring Clip
4	00773923	2	St. Adapter
5	02905600	2	Hose
6	01A01020	1	Boom Crane
7	00000400	2	Pin Cotter
	01430010	1	Mounting Shaft

# GEARBOX ASSEMBLY- HYDRAULIC DRIVE



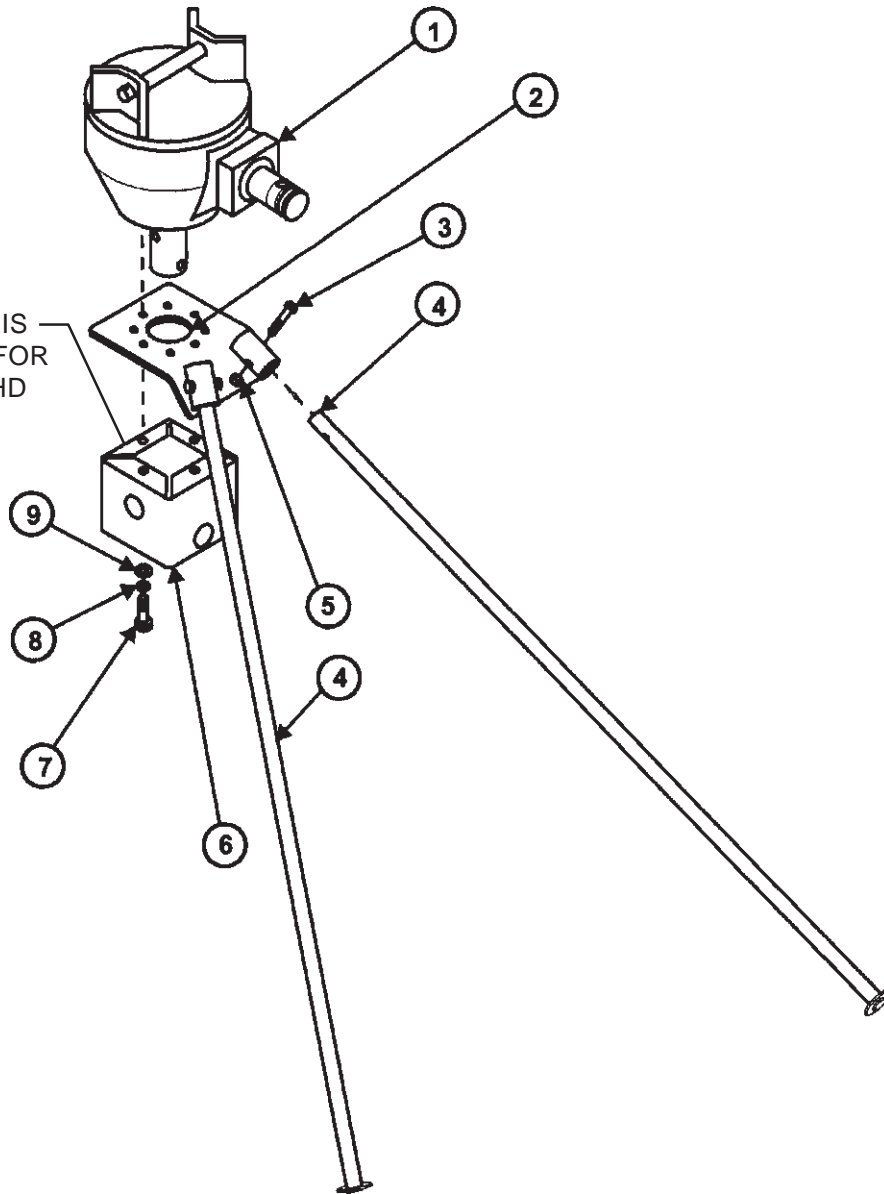
# GEARBOX ASSEMBLY- HYDRAULIC DRIVE

ITEM	PART NO.	QTY	DESCRIPTION
	<b>00773906P</b>	-	<b>Gearbox Assembly - Hydraulic Drive</b>
1	00774181	1	Housing
2	01430030	1	Top Cap
3	00774183	1	Input Cap
4	01430070	1	Gear, 35 Teeth
5	00774184	1	Input Pinion, 13 Teeth
6	01430080	1	Output Shaft
7	01430010	1	Mounting Shaft
8	70048	1	Bearing Cup
9	70049	1	Bearing Cone
10	01610020	1	Bearing Cup
11	01610030	1	Bearing Cone
12	01600000	2	Bearing Cup
13	01600010	2	Bearing Cone
14	01610000	1	Input Seal, 2 Lip
15	01610010	1	Output Seal, 2 Lip
16	01430120	var.	Input Gasket (0.50mm)
17	01430060	var.	Top Gasket (0.10mm)
18	01430050	var.	Top Gasket (0.15mm)
19	01430060	var.	Top Gasket (0.50mm)
20	00774190	var.	Input Gasket (0.15mm)
21	00774191	var.	Input Gasket (0.10mm)
22	994615	1	Key
23	00000400	2	Cotter Pin
24	00011400	4	Bolt
25	00753642	6	Bolt
26	03101646	10	Lockwasher
27	00753630	1	Plug
28	00749508	1	Plug



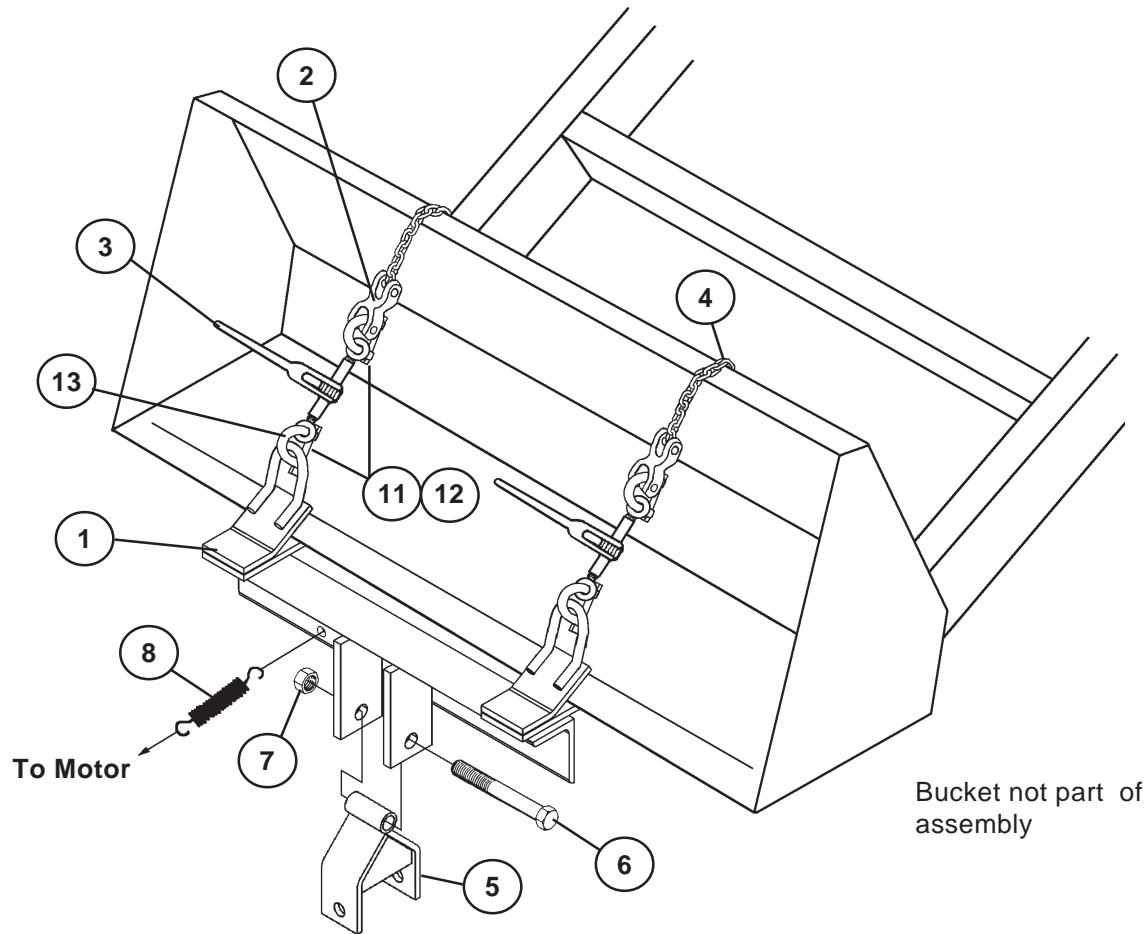
# DISPLAY STAND ASSEMBLY (OPTION)

NOTE: SHIELD IS ROTATED 45° FOR HYDRAULIC PHD MOUNTING



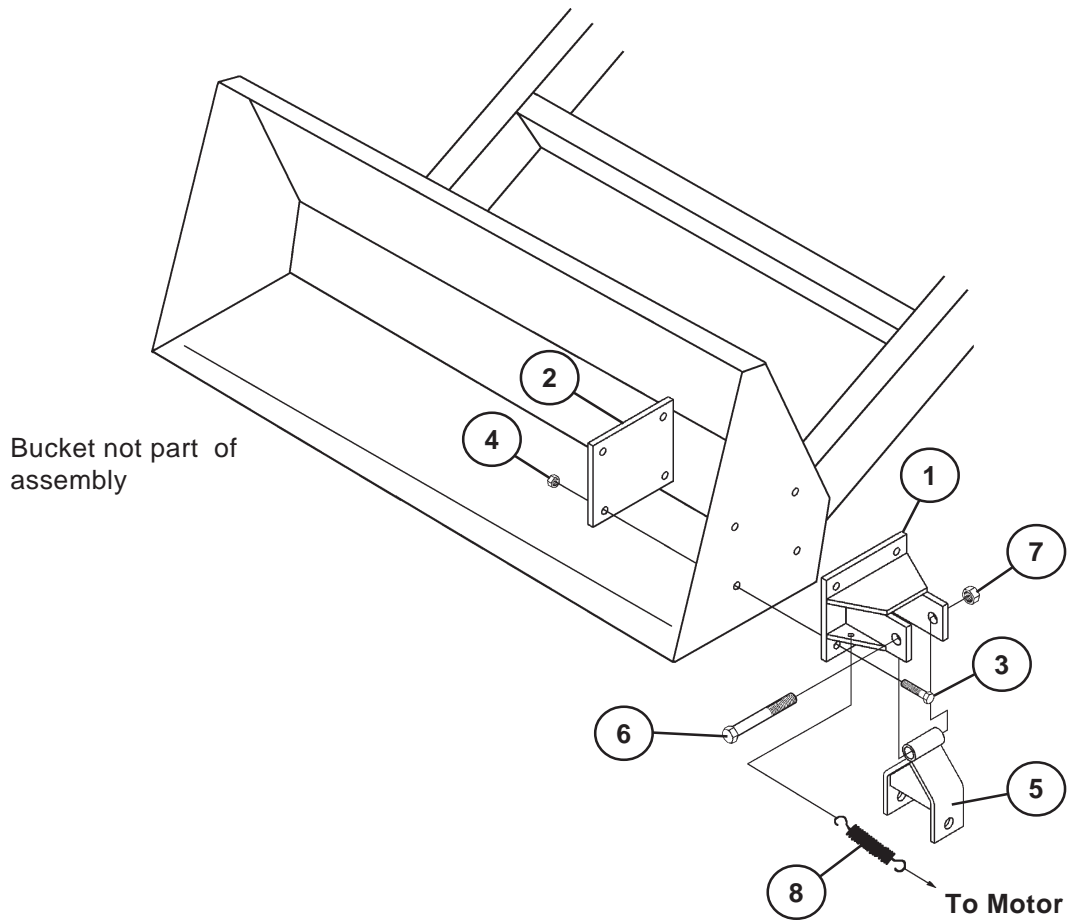
ITEM	PART NO.	QTY	DESCRIPTION
	<b>00771973</b>	-	<b>Display Stand Assy</b>
1	Ref.	1	Gearbox
2	00771987	1	Stand Wldmt
3	00010600	2	Bolt
4	00767750	2	Support Leg
5	00015800	2	Nut
6	00762815	2	Shield, Gearbox
7	00011400	4	Bolt (Hydraulic PHD)
	10119000	4	Bolt (Regular PHD)
8	00011700	4	Lockwasher (Regular PHD)
	03101646	4	Lockwasher (Hydraulic PHD)
9	00023500	4	Flatwasher (Regular PHD)
	00011100	4	Flatwasher (Hydraulic PHD)

# UNIVERSAL CHAIN MOUNT ASSEMBLY (OPTION)



ITEM	PART NO.	QTY	DESCRIPTION
	<b>00773911</b>	-	<b>Universal Chain Mount Assembly</b>
1	00773229	1	Universal Bucket Mount
2	00773914	4	Clevis Link
3	00773913	2	Binder
4	00773912	2	Chain
5	00773226	1	Mount Yoke
6	00760266	1	Bolt
7	5JRC1490	1	Nut
8	00773909	1	Spring
9	00773922	2	Hose (Not Shown)
10	00773923	2	Straight Adapter (Not Shown)
11	00754881	4	Bolt
12	02957941	4	Nut
13	100761	4	Ring

# BOLT-ON BUCKET MOUNT ASSEMBLY (OPTION)



ITEM	PART NO.	QTY	DESCRIPTION
	<b>00773910</b>	-	<b>Universal Chain Mount Assembly</b>
1	00773233	1	Bolt-on Mount
2	00773234	1	Bolt-on Mount Plate
3	00013300	4	Bolt
4	00001800	4	Locknut
5	00773226	1	Mount Yoke
6	00760266	1	Bolt
7	5JRC1490	1	Nut
8	00773909	1	Spring
9	00773922	2	Hose (Not Shown)
10	00773923	2	Straight Adapter (Not Shown)

# SERVIS-RHINO

## LIMITED WARRANTY

### 1. LIMITED WARRANTIES

- 1.01. Servis-Rhino warrants for one year from the purchase date to the original non-commercial, governmental, or municipal purchaser ("Purchaser") and warrants for six months to the original commercial or industrial purchaser ("Purchaser") that the goods purchased are free from defects in material or workmanship.
- 1.02. Manufacturer will replace for the Purchaser any part or parts found, upon examination at one of its factories, to be defective under normal use and service due to defects in material or workmanship.
- 1.03. This limited warranty does not apply to any part of the goods which has been subjected to improper or abnormal use, negligence, alteration, modification, or accident, damaged due to lack of maintenance or use of wrong fuel, oil, or lubricants, or which has served its normal life. This limited warranty does not apply to any part of any internal combustion engine, or expendable items such as blades, shields, guards, or pneumatic tires except as specifically found in your Operator's Manual.
- 1.04. Except as provided herein, no employee, agent, Dealer, or other person is authorized to give any warranties of any nature on behalf of Manufacturer.

### 2. REMEDIES AND PROCEDURES.

- 2.01. This limited warranty is not effective unless the Purchaser returns the Registration and Warranty Form to Manufacturer within 30 days of purchase.
- 2.02. Purchaser claims must be made in writing to the Authorized Dealer ("Dealer") from whom Purchaser purchased the goods or an approved Authorized Dealer ("Dealer") within 30 days after Purchaser learns of the facts on which the claim is based.
- 2.03. Purchaser is responsible for returning the goods in question to the Dealer.
- 2.04. If after examining the goods and/or parts in question, Manufacturer finds them to be defective under normal use and service due to defects in material or workmanship, Manufacturer will:
  - (a) Repair or replace the defective goods or part(s) or
  - (b) Reimburse Purchaser for the cost of the part(s) and reasonable labor charges (as determined by Manufacturer) if Purchaser paid for the repair and/or replacement prior to the final determination of applicability of the warranty by Manufacturer.The choice of remedy shall belong to Manufacturer.
- 2.05. Purchaser is responsible for any labor charges exceeding a reasonable amount as determined by Manufacturer and for returning the goods to the Dealer, whether or not the claim is approved. Purchaser is responsible for the transportation cost for the goods or part(s) from the Dealer to the designated factory.

### 3. LIMITATION OF LIABILITY.

- 3.01. MANUFACTURER DISCLAIMS ANY EXPRESS (EXCEPT AS SET FORTH HEREIN) AND IMPLIED WARRANTIES WITH RESPECT TO THE GOODS INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- 3.02. MANUFACTURER MAKES NO WARRANTY AS TO THE DESIGN, CAPABILITY, CAPACITY, OR SUITABILITY FOR USE OF THE GOODS.
- 3.03. EXCEPT AS PROVIDED HEREIN, MANUFACTURER SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO PURCHASER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS, OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY THE GOODS INCLUDING, BUT NOT LIMITED TO, ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE GOODS OR ANY BREACH OF THIS WARRANTY. NOT WITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, MANUFACTURER'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY PURCHASER OR OTHERS SHALL NOT EXCEED THE PRICE OF THE GOODS.
- 3.04. NO ACTION ARISING OUT OF ANY CLAIMED BREACH OF THIS WARRANTY OR TRANSACTIONS UNDER THIS WARRANTY MAY BE BROUGHT MORE THAN TWO (2) YEARS AFTER THE CAUSE OF ACTION HAS OCCURRED.

### 4. MISCELLANEOUS.

- 4.01. Proper Venue for any lawsuits arising from or related to this limited warranty shall be only in Guadalupe County, Texas.
- 4.02. Manufacturer may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.
- 4.03. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.
- 4.04. Applicable law may provide rights and benefits to purchaser in addition to those provided herein.

### KEEP FOR YOUR RECORDS

ATTENTION: Purchaser should fill in the blanks below for his reference when buying repair parts and/or for proper machine identification when applying for warranty.

Servis-Rhino Implement Model \_\_\_\_\_ Serial Number \_\_\_\_\_

Date Purchased \_\_\_\_\_ Dealer \_\_\_\_\_

ATTENTION:  
READ YOUR OPERATOR'S MANUAL

**SERVIS-RHINO**

An Alamo Group Company  
Post Office Drawer 712  
Seguin, Texas 78156  
830-372-3080





McConnel Limited, Temeside Works, Ludlow, Shropshire SY8 1JL. England.  
Telephone: 01584 873131. Facsimile: 01584 876463. [www.mcconnel.com](http://www.mcconnel.com)