CONGRATULATIONS!

You have invested in the best implement of its type on the market today.

The care you give your Bush Hog implement will greatly determine your satisfaction with its performance and its service life. We urge a careful study of this manual to provide you with a thorough understanding of your new implement before operating, as well as suggestions for operation and maintenance.

If your manual should become lost or destroyed, Bush Hog will be glad to provide you with a new copy. Order from Bush Hog, P. O. Box 1039, Selma, Alabama 36702-1039.

As an authorized Bush Hog dealer, we stock genuine Bush Hog parts which are manufactured with the same precision and skill as our original equipment. Our trained service personnel are well informed on methods required to service Bush Hog equipment, and are ready and able to help you.

Should you require additional information or assistance, please contact us.

YOUR AUTHORIZED BUSH HOG DEALER

BECAUSE BUSH HOG MAINTAINS AN ONGOING PROGRAM OF PRODUCT IMPROVEMENT, WE RESERVE THE RIGHT TO MAKE IMPROVEMENTS IN DESIGN OR CHANGES IN SPECIFICATIONS WITHOUT INCURRING ANY OBLIGATION TO INSTALL THEM ON UNITS PREVIOUSLY SOLD.

BECAUSE OF THE POSSIBILITY THAT SOME PHOTOGRAPHS IN THIS MANUAL WERE TAKEN OF PROTOTYPE MODELS, PRODUCTION MODELS MAY VARY IN SOME DETAIL. IN ADDITION, SOME PHOTOGRAPHS MAY SHOW SHIELDS REMOVED FOR PURPOSES OF CLARITY. NEVER OPERATE THIS IMPLEMENT WITHOUT ALL SHIELDS IN PLACE.
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## RETAIL CUSTOMER’S RESPONSIBILITY UNDER THE BUSH HOG WARRANTY

It is the Retail Customer and/or Operator’s responsibility to read the Operator’s Manual, to operate, lubricate, maintain and store the product in accordance with all instructions and safety procedures. Failure of the operator to read the Operator’s Manual is a misuse of this equipment.

It is the Retail Customer and/or Operator’s responsibility to inspect the product and to have any part(s) repaired or replaced when continued operation would cause damage or excessive wear to other parts or cause a safety hazard.

It is the Retail Customer’s responsibility to deliver the product to the authorized Bush Hog Dealer, from whom he purchased it, for service or replacement of defective parts which are covered by warranty. Repairs to be submitted for warranty consideration must be made within forty-five (45) days of failure.

It is the Retail Customer’s responsibility for any cost incurred by the Dealer for traveling to or hauling of the product for the purpose of performing a warranty obligation or inspection.
Bush Hog warrants to the original purchaser of any new Bush Hog equipment, purchased from an authorized Bush Hog dealer, that the equipment be free from defects in material and workmanship for a period of one (1) year for non-commercial, state, and municipalities’ use and ninety (90) days for commercial use from date of retail sale. The obligation of Bush Hog to the purchaser under this warranty is limited to the repair or replacement of defective parts.

Replacement or repair parts installed in the equipment covered by this limited warranty are warranted for ninety (90) days from the date of purchase of such part or to the expiration of the applicable new equipment warranty period, whichever occurs later. Warranted parts shall be provided at no cost to the user at an authorized Bush Hog dealer during regular working hours. Bush Hog reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

DISCLAIMER OF IMPLIED WARRANTIES & CONSEQUENTIAL DAMAGES

Bush Hog’s obligation under this limited warranty, to the extent allowed by law, is in lieu of all warranties, implied or expressed, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE and any liability for incidental and consequential damages with respect to the sale or use of the items warranted. Such incidental and consequential damages shall include but not be limited to: transportation charges other than normal freight charges; cost of installation other than cost approved by Bush Hog; duty; taxes; charges for normal service or adjustment; loss of crops or any other loss of income; rental of substitute equipment, expenses due to loss, damage, detention or delay in the delivery of equipment or parts resulting from acts beyond the control of Bush Hog.

THIS LIMITED WARRANTY SHALL NOT APPLY:

1. To vendor items which carry their own warranties, such as engines, tires, and tubes.
2. If the unit has been subjected to misapplication, abuse, misuse, negligence, fire or other accident.
3. If parts not made or supplied by Bush Hog have been used in connection with the unit, if, in the sole judgement of Bush Hog such use affects its performance, stability or reliability.
4. If the unit has been altered or repaired outside of an authorized Bush Hog dealership in a manner which, in the sole judgement of Bush Hog, affects its performance, stability or reliability.
5. To normal maintenance service and normal replacement items such as gearbox lubricant, hydraulic fluid, worn blades, or to normal deterioration of such things as belts and exterior finish due to use or exposure.
6. To expendable or wear items such as teeth, chains, sprockets, belts, springs and any other items that in the company’s sole judgement is a wear item.

NO EMPLOYEE OR REPRESENTATIVE OF BUSH HOG IS AUTHORIZED TO CHANGE THIS LIMITED WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY UNLESS SUCH CHANGE IS MADE IN WRITING AND SIGNED BY BUSH HOG’S SERVICE MANAGER, POST OFFICE BOX 1039, SELMA, ALABAMA 36702-1039.

Record the model number, serial number and date purchased. This information will be helpful to your dealer if parts or service are required.

MAKE CERTAIN THE WARRANTY REGISTRATION CARD HAS BEEN FILED WITH BUSH HOG/SELMA, ALABAMA

MODEL NUMBER __________________ SERIAL NUMBER __________________ DATE OF RETAIL SALE __________________
DEALER PREPARATION CHECK LIST

Post Hole Diggers

BEFORE DELIVERING MACHINE - The following check list should be completed. Use the Operator’s Manual as a guide.

☐ Assembly completed
☐ Gear box filled with oil
☐ All safety decals readable (See decal page)
☐ All bolts tight to Torque Specifications given on torque chart
☐ Operator’s manual has been delivered to owner and he has been instructed on the safe and proper use of the post hole digger.

Dealer’s Signature

THIS CHECK LIST TO REMAIN IN OPERATOR’S MANUAL

It is the responsibility of the dealer to complete the procedure above before delivery of this implement to the customer.
IMPORTANT SAFETY PRECAUTIONS

This symbol is used to call attention to safety precautions that should be followed by the operator to avoid accidents. When you see this symbol, carefully read the message that follows and heed its advice. Failure to comply with safety precautions could result in serious bodily injury.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel in the operation, transport, maintenance and storage of equipment. Lack of attention to safety can result in accident, personal injury, reduction of efficiency and worst of all—loss of life. Watch for safety hazards and correct deficiencies promptly. Use the following safety precautions as a general guide to safe operations when using this machine. Additional safety precautions are used throughout this manual for specific operating and maintenance procedures. Read this manual and review the safety precautions often until you know the limitations.

THE TRACTOR

1. Read the tractor operator’s manual to learn how to operate your tractor safely. Failure to do so could result in serious injury or death and equipment damage.

2. It is recommended that tractor be equipped with Rollover Protective System (ROPS) and a seat belt be used for all PHD operations.

3. Add wheel ballast for stability.

4. Move wheels to the tractor manufacturer’s widest recommended settings to increase stability.

5. Stop tractor engine, place transmission in park (or neutral), engage parking brake, lower post hole digger to ground, cycle all hydraulic controls to relieve pressure, allow machine moving parts to stop, remove ignition key to prevent unauthorized person from starting engine before dismounting tractor or servicing, repairing, or making adjustments to the equipment.

6. Wear personal protective equipment (PPE), such as, but not limited to, protection for eyes, ears, lungs, head, hands and feet when operating, servicing, or repairing equipment. Avoid wearing loose clothing or jewelry that may catch and entangle on equipment moving parts.

7. Use sway bars, sway chains or rigid stabilizers to eliminate the 3 point hitch linkage sway and to stabilize post hole digger behind the tractor. As viewed from behind tractor, the 3 point lift arms should be adjusted to position the auger vertically.

8. Never use alcoholic beverages or drugs which can affect alertness or coordination while operating equipment.

THE POST HOLE DIGGER

1. Read the PHD Operator’s Manual. Any person who has not read and understood all operating safety instructions is not qualified to operate this machine. Failure to do so could result in serious injury or death and equipment damage.

2. Become familiar with all the machine’s controls and all the caution, warning and danger decals affixed to the machine before attempting to start or operate.

3. Do not allow children to operate PHD. Do not allow adults to operate PHD without proper instructions.

4. Before starting or operating the machine, make a walk around inspection and check for obvious defects such as loose, damaged or worn components. correct any deficiency before starting.

5. Do not operate without all guards and shields in place and in good condition.

6. Do not operate with worn, broken or missing auger point and cutting blades.

7. Avoid serious injury or equipment damage by replacing spent shear bolts or pins with Bush Hog specified size and grade shear bolts or pins.

CONTINUED ON NEXT PAGE
8. Never use unspecified long pins, bolts, or bars to replace driveline shear bolts, pins or auger bolts. Avoid serious injury or death from entanglement in this long protruding part and damage to driveline, gearbox or auger.

9. Clear the work area of objects which might be picked up, thrown or be entangled in the auger.

10. Keep the area of operation clear of all persons particularly small children and pets. Stop operation whenever anyone comes within the operating area.

11. Never operate PHD with anyone near or in contact with the PHD, PTO driveline, or auger.

12. Keep body parts, hands and feet clear of auger, PTO driveline and gearbox during operation.

13. Do not transport persons on tractor or PHD.

14. Do not use body weight to force PHD auger into ground during digger operation or locate auger when turning.

15. Shut off power and stop auger when transporting.

16. Do not raise PHD more than 12 inches off the ground with the tractor PTO engaged.

17. Consult local utility companies before digging to make certain there is no buried gas lines, water lines, electrical cables, etc., in the work area.

---

Model 2101 With Optional Parking Stand and Positioning Handle
IMPORTANT FEDERAL LAWS AND REGULATIONS* CONCERNING EMPLOYERS, EMPLOYEES AND OPERATIONS.

*(This section is intended to explain in broad terms the concept and effect of the following federal laws and regulations. It is not intended as a legal interpretation of the laws and should not be considered as such).

U.S. Public Law 91-596 (The Williams-Steiger Occupational and Health Act of 1970) OSHA

This Act Seeks:
"...to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources..."

DUTIES
Sec. 5 (a) Each employer—
(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
(2) shall comply with occupational safety and health standards promulgated under this Act.
(b) Each employee shall comply with occupational safety and health standards and all rules, regulations and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA Regulations
Current OSHA regulations state in part: “At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved.” These will include (but are not limited to) instructions to:

Keep all guards in place when the machine is in operation;
Permit no riders on equipment;
Stop engine, disconnect the power source, and wait for all machine movement to stop before servicing, adjusting, cleaning or unclogging the equipment, except where the machine must be running to be properly serviced or maintained, in which case the employer shall instruct employees as to all steps and procedures which are necessary to safely service or maintain the equipment.
Make sure everyone is clear of machinery before starting the engine, engaging power, or operating the machine.

EMPLOYEE TRACTOR OPERATING INSTRUCTIONS:
1. Securely fasten your seat belt if the tractor has a ROPS.
2. Where possible, avoid operating the tractor near ditches, embankments, and holes.
3. Reduce speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
4. Stay off slopes too steep for safe operation.
5. Watch where you are going, especially at row ends, on roads, and around trees.
6. Do not permit others to ride.
7. Operate the tractor smoothly - no jerky turns, starts, or stops.
8. Hitch only to the drawbar and hitch points recommended by tractor manufacturers.
9. When tractor is stopped, set brakes securely and use park lock if available.

Child Labor Under 16 Years Old
Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your own area or situation. (Refer to U.S. Dept. of Labor, Employment Standard Administration, Wage & Home Division, Child Labor Bulletin #102.)
SECTION I
INTRODUCTION AND DESCRIPTION

1-1 INTRODUCTION
We are pleased to have you as a Bush Hog customer. Your Post Hole Digger has been carefully designed to give maximum service with minimum down time. This manual is provided to give you the necessary operating and maintenance instructions for keeping your post hole digger in top operating condition. Please read this manual thoroughly. Understand what each control is for and how to use it. Observe all safety precautions decaled on the machine and noted throughout the manual for safe operation or implement. If any assistance or additional information is needed, contact your authorized Bush Hog dealer.

NOTE
All references made in this manual to right, left, front, rear, top, or bottom is a s viewed facing the direction of forward travel with implement properly attached to tractor.

1-2 DESCRIPTION
The post hole digger (Figure 1-1) mounts to the tractor three-point hitch and is powered by the PTO drive. Power from the PTO is transmitted through a reduction gearbox to the auger. An optional power down hydraulic cylinder can be added to Models 2102 and 2103 to give an additional 550 lbs. (250 kg) of pressure to force auger into the ground.

Table 1-1 Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>2101</th>
<th>2102</th>
<th>2103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input RPM</td>
<td>540</td>
<td>540</td>
<td>540</td>
</tr>
<tr>
<td>Auger RPM</td>
<td>170</td>
<td>170</td>
<td>131</td>
</tr>
<tr>
<td>Digging Depth</td>
<td>48”</td>
<td>48”</td>
<td>48”</td>
</tr>
<tr>
<td>Type Hitch</td>
<td>Cat. I</td>
<td>Cat. I/II</td>
<td>Cat. I/II</td>
</tr>
<tr>
<td>Component Protection</td>
<td>Shear Pin</td>
<td>Shear Bolt</td>
<td>Slip Clutch</td>
</tr>
<tr>
<td>Weight (w/o Auger)</td>
<td>185 lbs.</td>
<td>195 lbs.</td>
<td>256 lbs.</td>
</tr>
<tr>
<td>Auger Diameter</td>
<td>6“ or 9“</td>
<td>6“, 9“, 12“, 15“, 18“, 24“</td>
<td></td>
</tr>
</tbody>
</table>
SECTION II
OPERATING INSTRUCTIONS

2-1 GENERAL SAFETY
Only qualified people should operate this machine. Operator should wear safety glasses, safety shoes, and work gloves. It is recommended that tractor be equipped with Rollover Protective System (ROPS) and a seat belt be used. Before beginning operation, clear work area of objects that could wrap around auger. Check for ditches, stumps, holes, or other obstacles that could upset tractor. Always turn off tractor engine, set parking brake, and allow auger to come to a complete stop before dismounting tractor.

2-2 ATTACHING TO TRACTOR

NOTE
Models 2102 and 2103 have reversible hitch pins which may be set for Category I (small end) or Category II (large end) hitches. Appropriate category ends should extend to the outside of mast.

A. Attach tractor lift arms to post hole digger mast. (Figure 2-1)
B. Remove tractor 3-Point hitch top link. Pin boom into tractor top link hole. NOTE: Model 2101 has four holes in the mast lugs to allow adjustment of the lifting height for various model tractors. Start with the pin through the lowest holes. When the boom is fully raised, there should be adequate clearance between the auger point and the ground for transporting. After attaching to your tractor 3-point hitch, the pivot pin may need to be repositioned. (Figure 2-2)
C. Pull driveline apart. Attach free end to tractor PTO shaft.
D. Raise and lower post hole digger to determine position with greatest distance between PTO shaft and gearbox input shaft. Shut down tractor leaving implement in position of greatest distance.
E. Hold driveline sections parallel to each other and check for minimum 6 inches (15 cm) overlap. (Figure 2-3) If driveline has less than minimum overlap, do not use. Contact authorized Bush Hog dealer.
F. Reassemble driveline and attach to tractor.
G. Connect / adjust stabilizer bars, sway chains or equivalent and level lower lift arms. Refer to tractor operator’s manual.

NOTE
If auger will not clear ground when using Models 2102 or 2103 on a Category I hitch, refer to paragraph 4-3 to make certain power down cylinder is properly assembled.

Figure 2-2 Model 2101 Mast and Boom

A. Attach tractor lift arms to post hole digger mast. (Figure 2-1)
B. Remove tractor 3-Point hitch top link. Pin boom into tractor top link hole. NOTE: Model 2101 has four holes in the mast lugs to allow adjustment of the lifting height for various model tractors. Start with the pin through the lowest holes. When the boom is fully raised, there should be adequate clearance between the auger point and the ground for transporting. After attaching to your tractor 3-point hitch, the pivot pin may need to be repositioned. (Figure 2-2)
C. Pull driveline apart. Attach free end to tractor PTO shaft.
D. Raise and lower post hole digger to determine position with greatest distance between PTO shaft and gearbox input shaft. Shut down tractor leaving implement in position of greatest distance.
E. Hold driveline sections parallel to each other and check for minimum 6 inches (15 cm) overlap. (Figure 2-3) If driveline has less than minimum overlap, do not use. Contact authorized Bush Hog dealer.
F. Reassemble driveline and attach to tractor.
G. Connect / adjust stabilizer bars, sway chains or equivalent and level lower lift arms. Refer to tractor operator’s manual.

NOTE
If auger will not clear ground when using Models 2102 or 2103 on a Category I hitch, refer to paragraph 4-3 to make certain power down cylinder is properly assembled.
2-3 OPTIONAL POWER DOWN CYLINDER CONNECTION
(Model 2102 & 2103 Only)
A. Attach male quick coupler (not supplied) to relief valve pressure port using appropriate adaptor. (Figure 2-4)
B. Plug valve into tractor auxiliary valve quick coupler.
C. A hydraulic hose must be connected from the relief valve tank port to the tractor hydraulic tank. This hose will return relieved hydraulic oil to the tank. Because fittings and hose lengths would vary with each different tractor, they are not supplied. Consult with tractor dealer to determine the best way to make connection to the hydraulic tank on your tractor.

NOTE
Tank port on relief valve requires a 1/2" NPT fitting.

2-4 TRANSPORTING
Do not engage tractor PTO drive with post hole digger fully raised to transport position. When implement is transported on road or highway, day or night, use tractor flashing warning lights unless prohibited by law. A slow moving vehicle (SMV) sign must be visible from the rear by approaching vehicles. Do not exceed 15 mph (24 kph).

2-5 OPERATION

WARNING
CONSULT LOCAL UTILITY COMPANIES TO MAKE CERTAIN THERE ARE NO BURIED GAS LINES, ELECTRICAL CABLES, ETC. IN THE WORK AREA BEFORE BEGINNING OPERATION. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY OR DEATH.

A. Perform BEFORE EACH USE maintenance listed in paragraph 3-1.
B. Make certain all bystanders are clear of tractor and implement. With tractor at idle speed and tip of auger 6 inches (152 mm) above ground, engage tractor PTO drive to give unit a test run. Disengage tractor PTO drive.

CAUTION
NEVER ENGAGE PTO WHEN AUGER POINT IS MORE THAN ONE FOOT (30 CM) ABOVE GROUND.

DANGER
STAND CLEAR OF AUGER AND DRIVE SHAFT WHEN IN OPERATION. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.
C. Place auger point at desired location of first hole. Drive tractor forward to create an angle 3" (76 mm) back of center of gearbox. (Figure 2-5) As auger works into ground, the slight angle will straighten due to pivoting action of boom.

E. (15" - 18" - 24" Augers - Models 2102 & 2103) With the auger point in the correct position and all persons 10 ft. or more form auger, engage PTO with the engine at a little more than idling speed. Move the tractor hydraulic lift arm lever slowly to the down position. Allow the auger to dig until there is an indication of overloading. Disengage PTO, lift the auger up until point is 152.4 mm (6") above the ground. Engage PTO, flinging soil off auger. Repeat this procedure until the desired depth is reached.

To clear the dug hole of loose soil, stop the auger at its deepest position in the hole, lift out of ground until the point is about 152.4 mm (6") above and start it again, flinging soil off auger. Repeat until hole is clean.

F. If at any time the auger fails to dig, check for the following:
- Grass, roots or clay lodged around blades.
- Foreign objects such as tin cans or wire hung on blades.
- Point or blades loose or excessively worn.
- Tractor lift arms not allowing auger to penetrate full depth with ease.

2-6 OPERATION OF OPTIONAL POWER DOWN HYDRAULIC CYLINDER (Model 2102 & 2103)
If auger hits hard ground and will not penetrate, activate cylinder to force auger into ground. Once auger begins digging, return valve to center (neutral) position. Three-point lift control should be set to allow 3-point lift arms to travel down when cylinder is activated. If this is not done, cylinder will push against lift arms accomplishing nothing.

NOTE
If hydraulic cylinder is completely stroked before auger reaches maximum depth, refer to paragraph 4-3 to make certain power down cylinder is properly assembled.

To remove auger from hole, place power down control valve in float position or position opposite power down. This allows cylinder to retract during removal. If cylinder is fully retracted, this is not necessary.

2-7 DISLODGING AUGER

This step is done only with the tractor shut off.

If auger becomes lodged on an obstruction below ground, to prevent damage to the yoke and boom, do not attempt to raise auger by hydraulic lift power alone until auger has been turned several revolutions in reverse. A chain wrench may be used on the auger to dislodge from obstruction. After auger is freed, apply lift power and slowly rotate PTO shaft to raise auger.
2-8 PARKING STAND OPERATION
For easier attaching and detaching of your post hole digger, the optional parking stands are very convenient. First, with the 3-point hitch in the fully raised position, remove the pins from the pipe legs, lower the legs and repin in the lowered position. (Figure 2-6)

Lower the digger point to the ground and slowly drive the tractor forward while lowering the lift arms until the pipe legs and arm weldments contact the ground. Boom and hitch pins may then be disconnected from the tractor. (Figure 2-7)

Figure 2-6  Driving Forward To Lower Parking Stands To Ground   Pipe Legs Pinned In Lowered Position

Figure 2-7  Post Hole Digger Ready For Reattaching
SECTION III
MAINTENANCE

3-1 MAINTENANCE CHECK LIST
Perform scheduled maintenance as outlined below. Lower implement to ground, turn off tractor, and set parking brake before doing maintenance inspections or work. All bolts should be torqued as recommended in the torque chart on page 16 unless otherwise indicated.

BEFORE EACH USE
1. Inspect auger to be sure that no foreign objects such as wire or steel strapping bands are wrapped around it.
2. Make certain driveline shields are in place and in good condition.
3. Check cutting blades, point, and flighting for wear or damage. Repair or replace as necessary.
4. Inspect hydraulic components for wear or leaks. Repair or replace as necessary.

5. Perform BEFORE EACH USE lubrication per paragraph 3-2.
6. During operation, listen for abnormal sounds which might indicate loose parts, damaged bearings, or other damage.

AFTER EACH USE
1. Clean all debris from machine.

3-2 LUBRICATION (Figures 3-1, 3-2, 3-3)
NOTE
The multi-purpose grease referenced in this section is NLGI Grade 2 type grease.

BEFORE EACH USE
1. Driveline Universal Joints - Apply multi-purpose grease to fittings.
2. Driveline Guard - Apply 2-3 shots of multi-purpose grease to plastic fittings.
3. Driveline Shaft - Disconnect PTO driveline, pull two sections apart, and apply thin coat of multi-purpose grease to inside of outer (female) section. Reassemble sections and install. Pull each section to be sure driveline and shields are securely connected. Make certain PTO shielding is in good condition.
4. Gearbox - Add EP80W-90 gear oil as necessary to bring oil level to check plug. Capacity for Models 2101 and 2102 is 68 ozs. (2 litres) Capacity for Model 2103 is 115 ozs. (3.4 litres) 40 HOURS
5. Yoke (Model 2101 and 2102) Apply multi-purpose grease to fitting on shear pin yoke. It is important that this fitting be greased regularly to prevent yoke from seizing to input shaft rendering shear pin useless.

WARNING
USE A PIECE OF CARDBOARD OR WOOD RATHER THAN HANDS AND WEAR EYE PROTECTION WHEN SEARCHING FOR HYDRAULIC LEAKS. ESCAPING HYDRAULIC OIL UNDER PRESSURE CAN PENETRATE THE SKIN. IF OIL IS INJECTED INTO SKIN, IT MUST BE SURGICALLY REMOVED WITHIN A FEW HOURS BY A DOCTOR OR GANGRENE MAY RESULT.

5. Perform BEFORE EACH USE lubrication per paragraph 3-2.

Figure 3-1 Lubrication

(2) Before Each Use
(3) Before Each Use
(1) Before Each Use
(5) 40 Hours

To remove yoke shield: Turn slotted head 90° with screwdriver, remove turn screw and slide cover back.

Figure 3-2

(4) Before Each Use

Check Plug
Fill Plug
2101 Shear Pin
2102 Shear Bolt

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3-3 OVERLOAD PROTECTION

The Model 2101 uses a threaded shear pin with lock nut through the gearbox input shaft to provide protection for the gearbox and driveline. A sheared pin should be driven out and a new pin installed through the large hole in the yoke. Before installing new pin, make certain yoke will be retained in place by set screw and yoke will rotate around shaft. To prevent damage to the implement, use only a Bush Hog replacement shear pin.

The Model 2102 uses a 3/8 x 2-1/2” Grade 2 shear bolt and locknut in the gearbox input shaft to protect gearbox and driveline. A sheared bolt should be driven out and replaced with a bolt of the exact same size and grade. Before installing a new shear bolt, make certain yoke will be retained in place by set screw and yoke will rotate around input shaft. To prevent damage to the implement, use only a Bush Hog replacement shear pin.

The Model 2103 is equipped with a slip clutch to protect the gearbox and driveline. The slip clutch is factory adjusted to match the rating of the implement.

After the implement has been stored for 30 days or more, perform the following operational check:

A. Shut down tractor.
B. Loosen eight nuts retaining clutch springs 1/3 turn or until spring can be turned with fingers.
C. With tractor at idle speed, engage tractor PTO drive for 2-3 seconds. Clutch should slip without turning auger. If clutch does not slip, contact your authorized Bush Hog dealer.
D. Retighten nuts to original position. Initial spring length is shown in Figure 3-4.

3-4 AUGER POINT AND BLADES

The auger point, tip and blades are replaceable. The point is held in place with a 1/2 x 3-1/2” Grade 5 bolt, lockwasher and nut. The cutting blades are held in place with 1/2 x 1-1/4” bolts and locknuts. The tip is held in place with a roll pin. (Figure 3-5)
SECTION IV
ASSEMBLY

4-1 BASE UNIT MODELS 2101 AND 2102
(Figure 4-1)

A. Hitch pins are reversible and should be installed with appropriate Category (I or II) ends to outside of mast. (Model 2102 Only)
B. Attach mast to boom using pin and two 3/16” x 1-3/8” roll pins. (For Model 2101, refer to Section 2-2 B.)
C. Attach gearbox to boom using pin and two cotter pins.

NOTE:
If optional parking stands will be installed refer to Section 4-6, page 17.

D. Install the input shaft shield to the front of the gearbox by utilizing the existing bolts and lockwashers. Install the output shaft shield using the four 3/8 x 5/8” bolts and lockwashers that are provided.
E. Slide driveline yoke onto gearbox input shaft aligning screw hole with groove in the gearbox shaft. (Figure 3-2) Install socket head (Allen) screw into yoke turning down until point of screw reaches bottom of groove. Do not tighten. Install jamnut onto socket head screw tightening nut against yoke. Check to be sure yoke will rotate around shaft but will not come off.
F. (Model 2101 Only) Align holes in yoke with holes in gearbox shaft. Drive threaded shear pin into large hole in yoke, and retain with lock nut.
G. (Model 2102 Only) Align holes in yoke with holes in gearbox shaft. Install 3/8” x 2-1/2” Grade 2 shear bolt through yoke and shaft retaining with locknut.
H. Slide auger over gearbox output shaft and secure using two 1/2” x 3” Grade 5 bolts and locknuts.
I. Fill gearbox with 68 ozs. (2 litres) of EP80W-90 gear oil. Do not over fill.
4-2 BASE UNIT MODEL 2103 (Figure 4-2)

A. Hitch pins are reversible and should be installed with appropriate Category (I or II) ends to outside of mast.

B. If post hole digger is equipped with a down pressure hydraulic cylinder, perform steps in paragraph 4-3. If not, attach mast to boom using 7/8" x 7-3/8" pi and two 3/16" x 1-3/8" roll pins.

C. Bolt mounting plates to top set of holes each side of gearbox. Use two 16 mm x 38 mm bolts and lockwashers per plate.

D. Attach gearbox to boom using a 7/8" x 11-3/4" pin and cotter pin.

E. Install large plastic clutch shield to input side of gearbox using four 8 mm x 15 mm bolts and flatwashers.

F. Remove bolts from splined end of clutch. Slide clutch onto gearbox input shaft and secure with bolts and locknuts.

G. Install small metal auger shield to output side of gearbox using four 8 mm x 15 mm bolts and flatwashers.

H. Slide auger over gearbox output shaft and secure using two 1/2" x 3" Grade 5 bolts and locknuts.

I. Fill gearbox with 115 oz. (3.4 liters) of EP140 gear oil. Do not over fill.

4-3 OPTIONAL POWER DOWN HYDRAULIC CYLINDER (Model 2102 & 2103 Only)

On post hole diggers that have been assembled, the pin securing boom to mast must be removed.

A. Pin rod end of cylinder to anchor on top of boom. (Figure 4-3)
B. Assemble cylinder mounting plates to base end of cylinder and boom using threaded pins, bushings, and nuts. Note that Category I hitches require mounting plates to be attached differently than Category II as shown in Figure 4-4.

C. Attach mast to boom using 7/8” x 11-3/4” pin and two 3/16” x 1-3/8” roll pins.

D. Plumb hydraulic cylinders as shown in Figure 4-3.

---

**4-4 OPTIONAL AUGER POSITIONING HANDLE (Model 2101 and 2102)**

A. Remove the 3/8” x 1” bolt from top, right side of gearbox. (Figure 4-5)

B. Remove the 3/8” x 1-1/2” bolt and nut from the handle holder. Discard nut.

C. Fasten handle holder to gearbox using the 3/8” x 1-1/2” bolt as a replacement for original bolt.

D. Loosen set screw and adjust handle to desired length. Retighten set screw. The handle can be bent to the most convenient position.

---

**4-5 OPTIONAL AUGER POSITIONING HANDLE (Model 2103)**

A. Remove nuts from handle mounting bolts.

B. Mount handle to plate on side of gearbox. (Figure 4-6)

C. Bend handle to desired working position.

---

Figure 4-4 Cylinder Mounting Plate Assembly

Figure 4-5 Models 2101 & 2102

---

Figure 4-6 Model 2103

---
4-6 OPTIONAL PARKING STAND

A. (2101 & 2102) Remove bolts which fasten shield to bottom of gearbox. Assembly shield and bracket to gearbox as shown using 3/8" x 7/8" bolts, lockwashers and flatwashers. (Figure 4-7)

B. Fasten arm weldments (along with leveling handle mount assembly) to bracket using 5/8" x 1-1/2" bolts, lockwashers and nuts.

NOTE
The model 2103 requires the arm weldments to fasten directly to the existing holes in the sides of the gearbox. (Figure 4-8)

C. Fasten the pipe assembly bracket weldments to the rear sides of the mast using the 1/2" u-bolts, lockwashers and nuts provided. (Figure 4-9) During operation the pipe legs should be pinned in the raised position.
SAFETY DECALS

To promote safe operation, Bush Hog supplies safety decals on all products manufactured. Because damage can occur to safety decals either through shipment, use or reconditioning, Bush Hog will, upon request, provide safety decals for any of our products in the field at no charge. Contact your authorized Bush Hog dealer for more information.

---

**CAUTION**

- READ OPERATOR’S MANUAL AND DECALS BEFORE OPERATING.
- ROPS AND SEAT BELT EQUIPPED TRACTOR IS RECOMMENDED FOR OPERATOR USE IN ALL OPERATIONS.
- ALLOW NO CHILDREN OR UNQUALIFIED PERSONS TO OPERATE EQUIPMENT.
- OPERATE ONLY FROM TRACTOR SEAT.
- KEEP ALL SAFETY SHIELDS IN PLACE.
- KEEP PERSONS AWAY FROM TRACTOR AND EQUIPMENT ROTATING PARTS.
- STOP POWER TAKE OFF AND MOVING PARTS BEFORE DISMOUNTING TRACTOR.
- KEEP AUGER POINT GROUND HEIGHT BELOW 12 INCHES WITH ENGAGED PTO.
- CLEAR WORK AREA OBJECTS THAT MAY BE THROWN OR ENTANGLE AUGER.
- USE EXTRA CAUTION WHEN OPERATING ON ROUGH TERRAIN AND WHERE ROCKS OR DEBRIS ARE PRESENT.
- CONTACT UTILITY COMPANIES TO LOCATE GAS, WATER, AND ELECTRIC LINES BEFORE DIGGING.
- WEAR PERSONAL PROTECTIVE EQUIPMENT AND AVOID WEARING LOOSE CLOTHING THAT MAY BECOME ENTANGLED IN MOVING PARTS.

---

**DANGER**

TO AVOID INJURY OR DEATH:

- KEEP CLEAR OF OPERATING AUGER AND ROTATING DRIVELINE.
- DO NOT FORCE OR LOCATE TURNING AUGER INTO GROUND BY BODY WEIGHT.

---

**DANGER**

GUARD MISSING
DO NOT OPERATE

KEEP CLEAR!
ENTANGLEMENT HAZARD

---

**CAUTION**

USED ON MODEL 2101 ONLY

---

**CAUTION**

DO NOT USE AUGERS GREATER THAN 9” IN DIAMETER ON THIS POST HOLE DIGGER. AUGERS GREATER THAN 9” IN DIAMETER CAN CAUSE DRIVE SHAFT FAILURE AND POSSIBLE INJURY TO THE OPERATOR. REFER TO OPERATORS MANUAL.

---

Used On Model 2101 Only
**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

**CAUTION**

BE SURE TO PURGE ALL THE AIR FROM THE HYDRAULIC SYSTEM BEFORE ATTEMPTING TO RAISE OR LOWER THIS MACHINE. REFER TO OWNERS MANUAL FOR FURTHER DETAILS.

**IMPORTANT**

TO PREVENT PTO SHAFT OR GEAR DAMAGE, USE ONLY BUSH HOG SHEAR PIN PART NO. 83379.

**IMPORTANT**

TO AVOID DAMAGE AND MAINTAIN DIGGING EFFICIENCY:

REPLACE ANY WORN, BROKEN OR MISSING DIGGER COMPONENTS, INCLUDING AUGER POINT AND CUTTING BLADES.

**Model 2101 Shear Pin**

**Model 2102 Shear Bolt**
TORQUE SPECIFICATIONS

Proper torque for American fasteners used on Bush Hog equipment.
Recommended Torque in Foot Pounds (Newton Meters).*

<table>
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<tr>
<th>WRENCH SIZE (IN.) “A”</th>
<th>BOLT DIAMETER (IN.) “B” AND THREAD SIZE</th>
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<th>SAE GRADE 5</th>
<th>SAE GRADE 8</th>
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<td>8 (11)</td>
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<td>14 (18)</td>
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<td>17 (23)</td>
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Proper torque for metric fasteners used on Bush Hog equipment.
Recommended torque in foot pounds (newton Meters).*

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*Use 75% of the specified torque value for plated fasteners. Use 85% of the specified torque values for lubricated fasteners.