General®
EQUIPMENT COMPANY

OPERATOR'S MANUAL

Safety, Operation & Service Information

EPIC® 300 Series Two-Man Hole Digger

Model: 332H/348H

Form: GOM08042003EU, Version 1.0, Original Instructions

- **Do not discard this manual.**
- **Keep manual readily available for reference during operation or when servicing product.**
- **Before operation, read and comprehend operator manual content.**
- **Customer Service:** 001 507 451 5510
- **Customer Service Telefax:** 001 507 451 5511
  Note: There is no charge for Customer Service.
- **Internet Address:** http://www.generalequip.com
- **Email:** general@generalequip.com
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EUROPEAN CE REPRESENTATIVE

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Product covered by this manual complies with mandatory requirements of 2006/42/EC.

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1 INTRODUCTION

Congratulations on your decision to purchase a General Equipment light construction product. From our humble beginnings in 1955, it has been a continuing objective of General Equipment Company to manufacture equipment that delivers uncompromising value, service life and investment return. Because of this continuous commitment for excellence, many products bearing the General name actually set the standard by which competitive products are judged.

When you purchased this product, you also gained access to a team of dedicated, knowledgeable, support personnel that stand willing and ready to provide field support assistance. Our team of sales representatives and in-house factory personnel are available to ensure each General product delivers the intended performance and product safety you expect. Our personnel can readily answer your questions or concerns regarding proper applications, service requirements and warranty related problems.

The Hole Digger is intended for use in digging holes outdoors in a variety of soil conditions from soft loams to hard-packed caliche. The machine is operated by two adults of proper operator experience/skill/ common sense, height, weight, strength and physical condition.

If you have any questions or concerns about this product, please feel free to contact our European Representative or Customer Service Department during normal business hours using the contact information located on the front cover of this manual.

Sincerely,
The General Equipment Team

2 SAFETY SYMBOLS

The following safety alert symbols identify important safety messages in this manual. When you see these symbols, be alert to the possibility of personal injury and carefully read the message that follows. Always utilize correct augers, blades and bits when using the Hole Digger.

SAFETY SYMBOLS & MEANINGS

Symbol	Meaning	Symbol	Meaning
	Action Required		General Warning
	Read Manual		Warning, Flammable Material
	Wear Ear Protection		Warning, Explosive Material
	Wear Eye Protection		Warning, Toxic Material
	Wear Protective Gloves		Warning, Electricity
	Wear Safety Shoes		Warning, Body Entrapment
	No Open Flame		Warning, Rotating Parts
	No Smoking		Warning, Hot Surface
	No Active Mobile Phone		Warning, Floor Level Obstacle
	No Food Or Drink		Warning, Drop Off
	No Trash Containers		Warning, Slippery Surface

OPERATIONAL DISCLAIMER
The manufacturer of this Hole Digger makes no warranty or guarantee it is merchantable and/or suitable for a specific job application and that it will have the power required to dig a specific diameter hole down to a specific depth in a specific soil classification.

3 SAFETY INSTRUCTIONS

- **These safety instructions provide guidelines to promote safety and efficiency with the Hole Digger.**
- **No warranty, guarantee or representation is made by manufacturer as to absolute correctness or sufficiency of any information or statement.**
- **Safety instructions are intended to deal with common practices and conditions encountered in use of Hole Digger and are not intended to be all inclusive.**
- **Not following instructions in this manual can result in property damage, personal injury and/or death.**

BEFORE OPERATING

1. BEFORE operating the Hole Digger, read this manual plus applicable information supplied by engine manufacturer to familiarize each operator with correct operating procedures.

2. Visually inspect Hole Digger per MAINTENANCE INSTRUCTIONS STEPS 5 through 15 of this manual.

3. Determine Hole Digger is in original, factory configuration and has not been modified in any manner. If questions arise about possible modifications, contact the European Representative or Customer Service Department BEFORE utilization. There is no charge for this service.

4. Always start and stop Hole Digger according to instructions to minimize possibility of unexpected or uncontrolled auger rotation. Know how to stop unit in an emergency.

Physical Exertion/Body Strain
Operating the Hole Digger requires proper physical stamina, mental alertness and is strenuous. Take work breaks to maintain stamina and alertness. If you have condition(s) that might be aggravated by strenuous work, check with doctor BEFORE operating.

Operator Crew Members
Operators must be of adequate height for any given operating configuration and operator handle(s) must remain below their shoulder sockets. DO NOT operate Hole Digger if this condition is not satisfied. Hole Digger requires both operators be of similar height, weight and strength to maximize digging efficiency and minimize possibility of personal injury.

Vibration
Prolonged use of Hole Digger (or other, similar machines) exposes operators to vibrations which may produce Whitefinger Disease (Raynaud's Phenomenon). Continuous and regular users should closely monitor condition of hands and fingers. After each period of use, exercise to restore normal blood circulation. If any symptoms appear, seek medical advice immediately.

Noise
Hole Digger and actual digging process creates exposure to high noise emission levels that can result in hearing loss or damage. Hearing protection is required while operating or when near operating equipment. Continuous and regular operators should have hearing checked regularly.

Poisonous Gas
Hole Digger is powered by a gasoline engine which produces Carbon Monoxide fumes during combustion process. Carbon Monoxide fumes are poisonous. If Hole Digger is operated in closed area (indoors or outdoors), determine if supplemental ventilation is required to minimize potential effects of Carbon Monoxide to operators.

Clothing
Clothing must be sturdy, snug fitting, but allow complete freedom of movement. Never wear loose fitting jackets, scarves, neckties, jewelry, flared or cuffed pants or anything that could become caught on controls or moving parts. Properly secure eyeglasses, hearing aid devices and other medical related devices. Wear long pants to protect legs. Protect hands and improve grip with heavy duty, nonslip gloves. Wear and properly lace sturdy boots with nonslip soles. Steel-toed safety shoes are mandatory. Wear approved safety hard hat where there is danger of head injuries.

Flying Debris
Hole digging process can result in flying debris. Eye protection and appropriate safety apparel is required when near or operating Hole Digger. DO NOT operate unit with onlookers or animals close by.

Auger Entrapment
Auger is not shielded. Keep body and all foreign objects clear of rotating auger.

Back Care & Proper Lifting Procedures
Operators will be required to lift Hole Digger as demanded by specific job applications. When lifting, two people are required. Maximum lifting weight per person is 23 Kg (50.7 lbs) per NIOSH standards. Utilize proper lifting techniques to minimize fatigue and back-related injuries.

TRANSPORTATION

1. Hole Digger is designed for two operators to transport it by the operator handles to, while on, and from job site.

2. When transporting Hole Digger in/on motor vehicle, gasoline tank breather vent (if so equipped) must be completely closed to eliminate fuel seepage.

3. To minimize damage to Hole Digger, transport in vehicle to job site with auger disconnected and operator handles level with transport surface. This prevents transmission oil entrapment causing clutch drum slippage and/or draining from breather vent plus crankcase oil entering combustion chamber causing hydraulic lock up.

4. DO NOT allow operator handles to contact augers, shovels, or other sharp/abrasive objects during transit or drop Hole Digger to prevent damage to unit.

5. All equipment must be secured in/on vehicles with suitable strapping or tie downs.

DETERMINATION OF POTENTIAL SUBSURFACE HAZARDS IN PROPOSED DIGGING LOCATION(S)

Hole Digger operator handles, grips and throttle control are constructed of non-metallic, composite material and do not guarantee operators will be properly insulated from contact with charged electrical cables. Hole Digger and related accessories are not classified as insulated.

BEFORE attempting to dig any holes, identify/mark all potential subsurface hazards in proposed digging location(s). Many utilities/other agencies will perform these tasks at minimal or no cost. Subsurface hazards may include, but may not be limited to the following:

1. Rocks and roots of any size.
2. Differences and/or variances in specific soil classifications.
3. Buried garbage/other debris.
4. Buried pressurized pipelines (e.g. natural gas, propane, etc.)
5. Buried electrical cables.

DETERMINATION OF POTENTIAL ABOVE SURFACE HAZARDS IN PROPOSED DIGGING LOCATION(S)

Normal Hole Digger use is on level ground. Avoid other terrains which can be dangerous. Special care must be exercised on overgrown, slippery, and/or difficult/uneven terrain. Watch for surface irregularities. Remove any trip/fall hazard, grass or other overgrowth BEFORE operating Hole Digger. Operate only when/where visibility and light are adequate for job at hand. Keep proper footing and balance with good communication between Crew Chief and Crew Member at all times. Engine/engine muffler can become extremely hot with potential to burn operators and/or ignite dried materials such as leaves, grass, etc. Remove such materials where digging with or placing Hole Digger.

OPERATIONAL HAZARDS UNDERSTANDING KICKBACK

Torque and kickback generated by digging process is common with portable, two-man hole diggers. Hole Digger engine torque is transmitted and multiplied by transmission to auger. When auger contacts a buried obstruction, left side operator handles are "thrust" towards operators in a sharp, sudden, counter-clockwise rotation. “Thrusting" force is called kickback and varies depending on speed of handle movement. Kickback force can have magnitude to “throw” operators from Hole Digger and/or inflict damage to hands, arms, and other upper body parts.

Preventive Measures:

- Operators must maintain physical and mental alertness. Be prepared for unexpected auger contact with buried tree roots, rocks, etc., and be capable to sense level of machine control they have.

- DO NOT operate Hole Digger on jobsite where kickback forces can allow body parts to come in direct contact with vertical wall, foundation or other support type structures. Maintain a safe and reasonable distance from these structures.

- Maintaining proper operating stances and applying reactive “body english” is one of the most IMPORTANT and EFFECTIVE procedures to control kickback. Refer to OPERATOR STANCES in OPERATING INSTRUCTIONS section of this manual for more information.

- If operators sense losing full control of Hole Digger for any reason, they should “push” themselves free and clear of operator handles. If machine continues to “spin” about its axis, DO NOT attempt to stop and/or block rotation by grasping operator handles or introducing any foreign object. Instead, allow engine to exhaust its fuel supply.

- “Spinning” about axis is caused by improper engine throttle control adjustment. Refer to INSTALLING OPERATOR HANDLES in MACHINE SET-UP section of this manual to correct situation BEFORE placing machine back into service.

4 MACHINE SPECIFICATIONS

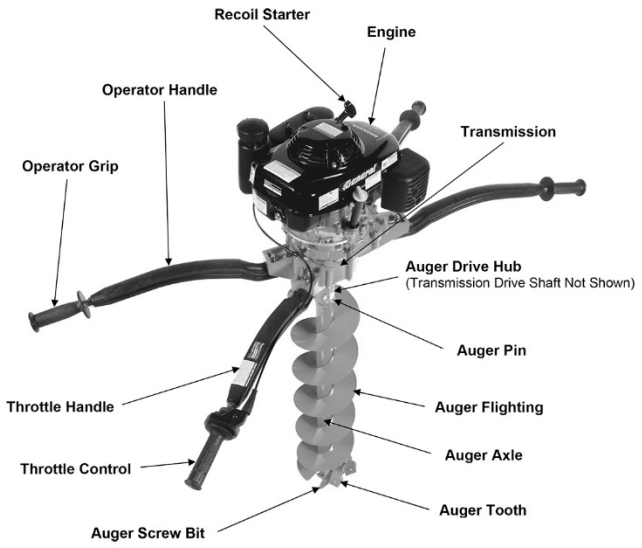

FIGURE 1

ENGINE	
TYPE	Honda GXV160
HIGH SPEED	3800 RPM (No Load)
IDLE SPEED	1600 RPM
SPARK PLUG GAP	0.7 to 0.8 mm (.028 to 031 inch)
FUEL	Unleaded, "regular" grade gasoline (RON 87). Consult engine manufacturer supplied materials for specific information.
FUEL TANK CAPACITY	1.4 L (0.37 US gal)
TRANSMISSION	
TYPE	Enclosed, spur geared, double reduction
REDUCTION RATIO	25 to 1
OIL CAPACITY	0.71 L (24 ounces)
OIL	High quality motor oil, service classification SJ, or higher. Refer to TRANSMISSION OIL RECOMMENDATIONS in MACHINE SET-UP section for specific information.
CLUTCH	4 inch (102 mm) diameter, automatic type centrifugal.
MACHINE WEIGHT	32.0 Kg (71 lbs) (less auger)
AUGER CAPACITY	50.8 mm (2 inch) diameter up to and including 457 mm (18 inch) diameter. Refer to DIGGING OPERATION section in this manual for specific information.
OPERATING ENVIRONMENTS	Non-hazardous type locations.
REQUIRED NUMBER OF OPERATORS	2

NOISE & VIBRATION EMISSIONS

Description	North America	Europe
Model	332H	
Noise Level	85 db	
Vibration Level	51 m/s²	

5 STANDARD PRODUCT & ACCESSORIES

Refer to FIGURE 1 for overview description of standard components included in machine. Included in shipment for Hole Digger should be the following:

1 each, engine/transmission assembly
3 each, curved operator handles with handle grips
1 each, curved operator handle with throttle control assembly
1 each, bag of assorted hardware
1 each, auger pin
1 each, operator manual
1 each, applicable engine manual
1 each, final inspection form

ACCESSORIES

NOTE: All augers, extensions, teeth and screw bits are for use in general purpose projects for a variety of soil conditions unless otherwise specified. All auger and auger extension drive connections are 1-3/8 inch (35 mm) hexagon. Digging depth for all augers is 36 inches (914 mm). Planting auger digging depth is 30 inches (762 mm) and auger extension is 15 inches (381 mm).

	Part #	Description	Cutting Diameter	Weight (in Kg)
	4400-2E3	57 mm (2.25 inch) Auger OD	64 mm (2.50 inch)	5,9
	4400-3E3	83 mm (3.25 inch) Auger OD	89 mm (3.50 inch)	8,6
	4400-4E3	102 mm (4 inch) Auger OD	114 mm (4.5 inch)	8,6
	4450-6E3	152 mm (6 inch) Auger OD	191 mm (7.5 inch)	10,8
	4450-8E3	203 mm (8 inch) Auger OD	241 mm (9.5 inch)	13,6
	4450-10E3	254 mm (10 inch) Auger OD	295 mm (11.6 inch)	16,3
	4450-12E3	305 mm (12 inch) Auger OD	345 mm (13.6 inch)	21,8
	4400-14E3	356 mm (14 inch) Auger OD	396 mm (15.6 inch)	24,5
	4400-16E3	406 mm (16 inch) Auger OD	437 mm (17.2 inch)	27,7
	4400-18P	457 mm (18 inch) Auger OD	500 mm (19.7 inch)	18,1
	5500-15X	No Flighting Auger Extension	NA	3,2
	4400-2CLR	Coupler, 35 mm (1-3/8 inch) hexagon to 21 mm (13/16 inch) hexagon	NA	1,5
	4400-3CLR	Coupler, 35 mm (1-3/8 inch) hexagon to 29 mm (1-1/8 inch) hexagon	NA	1,8
	35PAK7	Standard Dirt Tooth	NA	1,4
	35HFC PAK7	Hardfaced Dirt Tooth	NA	1,5
	5T30PAK3	Chisel Type Dirt Tooth	NA	0.5
	5T30C PAK3	Tungsten Carbide Dirt Tooth	NA	0,6
	1336PAK2	Tungsten Carbide Tooth	NA	0,5
	SB25PAK3	Screw Bit	NA	1,2
	SB25C	Hardfaced Screw Bit	NA	0,5
	SB26PAK3	Screw Bit	NA	1,9
	SB26C	Hardfaced Screw Bit	NA	0,7
	SB35	Screw Bit	NA	0,7
	SB35C	Hardfaced Screw Bit	NA	0,9
	SB45	Screw Bit	NA	1,6
	SB45C	Hardfaced Screw Bit	NA	2,0
	2121PAK3	Auger Pin	NA	0,2

6 MACHINE SET-UP

Open shipping carton immediately upon receipt. Remove Hole Digger from carton. Visually inspect contents of carton for freight damage and/or missing parts. If shipping damage is evident, contact delivering carrier immediately to arrange for an inspection of damage by their claims representative. DO NOT DESTROY OR DISCARD SHIPPING CARTON UNTIL INSTRUCTED BY AUTHORIZED REPRESENTATIVE OF CARRIER OR FACTORY. If missing parts are detected, notify your dealer who will assist you in obtaining them.

INSTALLING OPERATOR HANDLES
Tools Required:
2 each, 13 mm (1/2 inch) wrench
1 each, 10 mm (3/8 inch) wrench
1 each, torque wrench, 27 Nm (240 inch pounds) capacity with 13 mm (1/2 inch) socket
1 each, small Phillips screwdriver
1 each, small vice grip pliers
1 each, cut off pliers

Assemble operator handles to transmission on level working platform of appropriate size and height. As an alternative, transmission driveshaft can be securely mounted in suitable bench vice. Open assorted hardware bag into suitable container to prevent component loss.

1. Facing spark plug end of engine, install two curved non-throttle control operator handles into transmission case sockets, arc of curve pointing upward. Use supplied nuts, lock washers and flat washers with threaded end of bolts facing upwards. FINGER TIGHTEN ONLY. DO NOT FINAL TORQUE FASTENERS AT THIS TIME. FIGURE 2

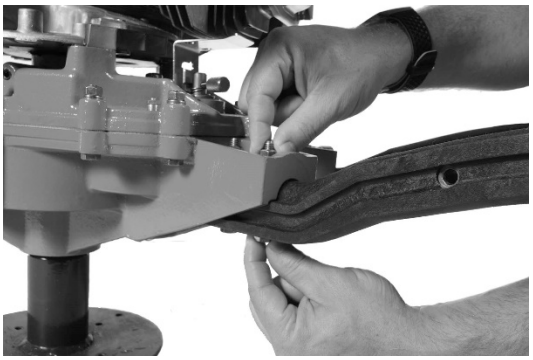

FIGURE 2

2. Facing fuel tank end of engine, install remaining curved non-throttle operator handle into transmission case socket located under engine gas cap/governor control area per Step 1.

3. Install throttle control handle with throttle control grip in remaining transmission case socket. Hole Digger is designed for throttle control grip to be operated by the right hand. DO NOT deviate from assembly and operation of throttle control outlined in this manual. Reduced control of Hole Digger will result.

4. Using torque wrench, torque all handle screws evenly to 27 Nm (240 inch pounds).

5. Check factory installed throttle control cable is properly retained by cable tie mid-point on throttle control handle and runs along inside, side area of handle. FIGURE 3

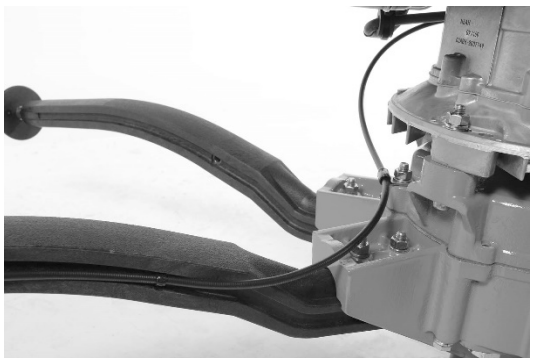

FIGURE 3

6. Using Phillips screwdriver, loosen screw on throttle arm swivel. Route free end of throttle control cable into lower location of throttle cable attach bracket and through hole of throttle arm swivel. Attach bracket should be in full contact with aluminum end of throttle cable. Temporarily secure using Phillips screwdriver. FIGURE 4

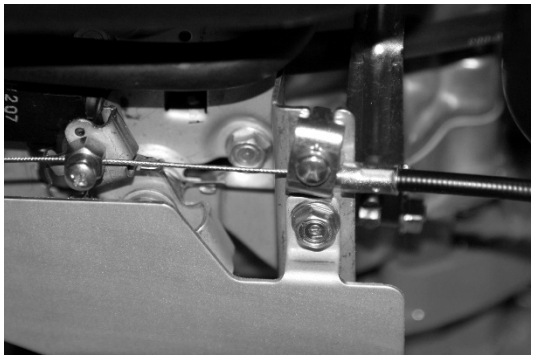

FIGURE 4

7. Using Phillips screwdriver, fully tighten throttle cable attach bracket screw. DO NOT allow bracket to crush aluminum throttle cable end. FIGURE 5

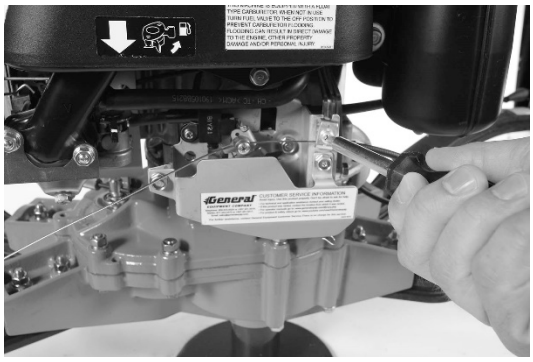

FIGURE 5

8. Using two 13 mm (1/2 inch) wrenches, secure throttle cable to transmission cover below fuel tank with supplied clamp. DO NOT allow clamp to crush throttle cable. FIGURE 6

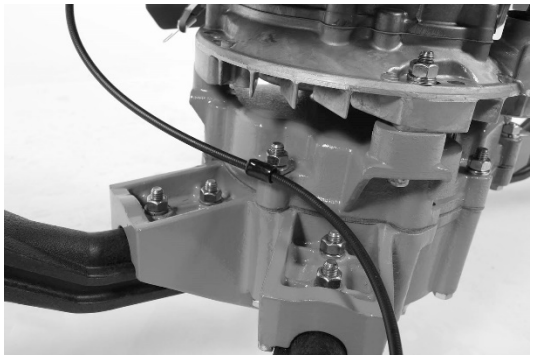

FIGURE 6

9. **EXTREMELY IMPORTANT:** Using vice grip type pliers, remove any excess inner wire slack from throttle control system and tighten swivel assembly screw using Phillips screwdriver and 10 mm (3/8 inch) wrench. Wire pulling movement must not rotate throttle control grip. When throttle control grip is released, throttle arm return spring must immediately cut engine power off. If not occurring, check throttle control grip assembly for binding/movement restrictions. Adjust swivel assembly as necessary for complete freedom of movement. FIGURE 7

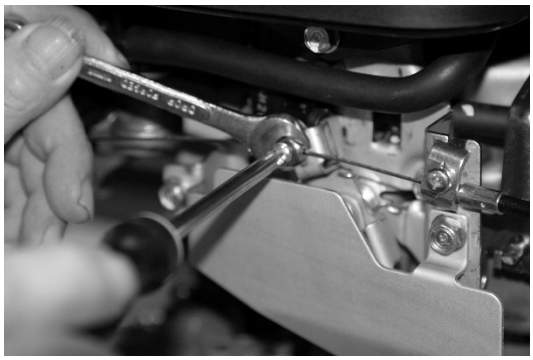

FIGURE 7

10. Rotate throttle control counterclockwise (maximum speed position). Check inner wire pulls throttle lever arm of carburetor forward against stop. Improper adjustment prevents engine to operate at maximum, no load, governed speed and affects overall digging performance of Hole Digger. Adjust swivel assembly and throttle cable attach bracket as necessary for complete freedom of movement.

11. Check throttle cable inner wire for binding/movement restrictions caused by attach bracket. Adjust bracket as necessary for complete freedom of movement.

12. Using cut off pliers, cut remaining inner wire behind swivel arm assembly, leaving approximately 25.4 mm (1 inch) of excess wire. Re-install air intake cover.

13. Check all fasteners for security, tighten as required.

NOTES TO THROTTLE CABLE INSTALLATION

1. The Honda GXV160 engine incorporates a multi-purposed carburetor/throttle arm design allowing use with Bowden (push) and braided wire (pull) type configurations. For simplicity, the Hole Digger incorporates a braided wire (pull) type configuration.

2. The GXV160 engine utilizes a two spring loaded screws as stops for carburetor throttle arm. DO NOT alter engine throttle control arm or spring positions. This can lead to excessive engine speed and loss of operator control.

>>>> BEFORE STARTING ENGINE <<<<

FILLING ENGINE CRANKCASE WITH OIL

Tools Required:
1 each, small, clean funnel with a flexible extension spout

Fill engine crankcase with oil on level working platform of appropriate size and height. As an alternative, transmission driveshaft can be securely mounted in suitable bench vise.

1. Wipe any dust/dirt from crankcase dipstick/filler plug area. Remove dipstick/filler plug.

2. Using funnel, add oil to engine crankcase. For proper classifications and/or amount, consult material supplied by engine manufacturer for specific information.

3. Replace dipstick/filler plug and tighten. Wipe off any excess spilled oil. Properly dispose of spilled oil/rags per international and local regulations.

4. Consult material supplied by engine manufacturer for other service related information including oil change interval. DO NOT operate Hole Digger unless proper oil level is maintained. Engine damage can result.

FILLING HOLE DIGGER TRANSMISSION WITH OIL

Tools Required:
1 each, 24 mm (15/16 inch) open or closed end wrench or use a socket/ratchet combination
1 each, small, clean funnel with a flexible extension spout.

1. Position Hole Digger vertically, engine spark plug facing up and bottom of transmission housing facing you. Support to prevent accidental movement. FIGURE 8

2. Wipe any dust or dirt from transmission oil plug area located on transmission bottom. Remove plug with adjustable wrench.

3. Using funnel, pour 0.71 liters (24 ounces) of General Equipment Company Transmission and Engine Oil, PN 999-11, or a high grade, SAE 10W30, service classification SJ or higher motor oil through plug opening. FIGURE 8

4. Maintain oil level in transmission at bottom of oil plug hole. Allow any excess oil to drain out of transmission. This procedure determines correct oil level for transmission. DO NOT operate Hole Digger with improper oil level.

NOTE: Correct oil level is important to ensure proper centrifugal clutch operation. Maintaining oil level too high will cause excessive clutch slippage and result in high oil temperatures. Excessive slippage and high oil temperatures will significantly reduce service life of clutch assembly and affect overall performance of Hole Digger.

NOTE: Use only an oil marked with an engine service classification SJ or higher. As a general rule, transmission usually uses same oil type and weight as the 4-Stroke engine crankcase.

FIGURE 8

5. Reinstall oil plug. Tighten securely with wrench. Wipe off any excess oil spilled on transmission. Properly dispose of spilled oil/rags per international and local regulations.

TRANSMISSION OIL RECOMMENDATIONS

Operating Temperature	Oil Type & Weight
Above 0˚C (32˚F)	SAE 30, 10W30, 10W40, 15W40
Below 0˚C (32˚F)	SAE 5W30

FILLING ENGINE FUEL TANK

Tools Required:
1 each, small, clean funnel.

Hole Digger uses a 4-Stroke engine. DO NOT mix engine oil with gasoline. Damage to engine can result. BEFORE operating Hole Digger refer to MACHINE SPECIFICATIONS section in this manual and engine manufacturer supplied materials for information regarding engine fuel, fueling and lubrication requirements.

1. Use extreme caution handling gasoline. Always use UN marked, European ADR regulation approved container for storage and transportation of fuel. Shut engine off and allow to cool before fueling. Never remove fuel tank filler cap or fill fuel tank while engine is running. Never operate engine without fuel tank filler cap. Select bare ground for fueling and move at least 3.05 M (10 feet) from fueling spot before starting engine.

2. Carefully clean filler cap and surrounding area to prevent dirt/debris falling into fuel tank.

3. Fill fuel tank with fresh, clean, unleaded automotive gasoline. Leaded “regular” grade gasoline is acceptable substitute. DO NOT USE GASOLINE CONTAINING METHANOL (WOOD ALCOLHOL). Gasoline containing maximum 10 percent ethanol/grain alcohol (sometimes referred to as Gasohol) may be used but requires special care when storing engine for extended periods.

NOTE: DO NOT use gasoline left over from previous season for easier engine start-up and prevent poor engine performance.

4. DO NOT completely fill tank. Fill tank to within 6.4 mm (1/4 inch) to 13 mm (1/2 inch) of tank top to allow for fuel expansion. Replace filler cap. Wipe any fuel spillage and oil if leak is detected from engine and Hole Digger BEFORE operating engine. DO NOT operate engine until oil leak is fixed and fuel is wiped away. Properly dispose of any fuel or oil wiped from machine/rags per international and local regulations. DO NOT allow fuel or oil to get on clothing. Change clothes immediately if this happens.

7 APPLICATION THEORY & TECHNIQUES

The Hole Digger operates on principle of accessory augers attached to the transmission drive shaft to rotate and dig holes in a variety of soil types. The combination of auger diameter, blade, screw bit, soil type and down pressure supplied by operators will affect the hole digging rate.

Hole digging process is directly controlled by:

1. Soil type.

2. Auger boring head design and diameter selected.

3. When required, sufficient application and/or reduction of machine weight and/or down force provided by operators to assist auger soil penetration.

4. No two soil types are exactly alike, no two holes can be dug by exact same method, overall operator feed rates vary. The hole digging process, along with operator experience, skill and common sense, suggests hole digging is a matter of trial and error and directly determines overall success of the job application.

HOLE DIGGING TECHNIQUES

1. Normal Hole Digger operation runs engine at full, governed speed allowing centrifugal clutch to become firmly engaged. Technique transmits more usable power to auger, increasing productivity and reducing component wear. For any soil condition, allow auger to dig at rate most comfortable to operators, but not cause centrifugal clutch to overload and slip.

NOTE: Hole Digger is equipped with a centrifugal clutch assembly within the transmission. The clutch assembly is designed to ALWAYS slip (NOT DISENGAGE) when overloaded or if auger contacts buried obstruction. When slipping, clutch still transmits a specific amount of torque to auger. Response time for clutch to react to overload condition is directly proportional to rotational speed. With higher rotational speeds (RPM) of clutch at time of overload, it takes more time for clutch to react and actually slip.

2. In general, pressing down on operator handles is not required to initiate and/or sustain the digging process. In most moderate density soils, auger dig rates will not cause centrifugal clutch to overload and slip. In most soft, low density soils (sandy, etc.), it may be necessary to hold up on operator handles to reduce auger dig rate due to tendency of any auger design to cause centrifugal clutch to overload and slip. In most hard, high density soils (hard clay, etc.), it may be necessary to press down on operator handles to establish and maintain acceptable dig rates.

3. Some soil conditions may require more power to dig than machine is capable of delivering for a given auger diameter. To minimize problem, apply suitable down force by operators and use augers with new screw bits and blades. DO NOT use more than two operators to apply down force.

4. When digging in areas filled with known, buried obstructions such as tree roots, rocks and other debris, operate Hole Digger at less than full (an intermediate) speed for more rapid release of centrifugal clutch when obstruction is encountered. This is an industry wide operating procedure.

5. When digging in areas filled with small tree roots, small rocks or other buried obstructions, allow auger blade to "chip away" at obstruction until auger can pass by (by working object loose) or go through it (as in penetrating tree roots). Technique usually involves holding up on operator handles using minimal auger feed rate. Many times size and nature of buried object will prevent auger from passing by or going through it. Instead, remove buried object with shovel or other suitable tool and proceed to dig to desired depth using Hole Digger.

6. Some job applications may encounter buried obstructions too massive in size or soil classifications too compacted for Hole Digger use. Another type equipment of proper size may be required.

7. In most soil conditions, the auger will retract with less effort if allowed to rotate at slow speed. This procedure, however, will leave more loose soil at bottom of hole. To minimize amount of loose soil remaining at bottom of hole, stop rotation before retracting auger.

8. When restarting a Hole Digger with auger in a partially or completely dug hole extra caution is required. The throttle control can be advanced beyond idle speed before operators can exercise proper control of Hole Digger. The accepted procedure (when not using non-flighted auger extension) is to first remove unit from hole and restart engine per STARTING ENGINE WITH AUGER ATTACHED in OPERATING INSTRUCTIONS section of this manual. Return unit to hole with engine at idle speed and complete hole to desired depth.

9. DO NOT dig an initial “pilot” hole with a smaller auger then use larger diameter auger to “ream” hole to desired size. This method will prevent auger screw bit of larger auger from providing sufficient directional stability during “reaming” process.

10. DO NOT use shovel and/or foreign object to remove loose soil from around hole area while operating Hole Digger. This can result in shovel and/or foreign object to become entrapped by rotating auger.

11. Grass and other overgrowth conditions will hamper digging capability of any auger by becoming "clogged" around auger teeth and screw bit. Removal of such obstructions from hole location BEFORE digging will increase digging efficiency and overall productivity.

8 OPERATING INSTRUCTIONS

INSTALLING AUGER

1. DO NOT connect auger to Hole Digger while engine is running. Refer to STOPPING HOLE DIGGER in OPERATING INSTRUCTIONS section of this manual. To install auger, place Hole Digger with spark plug facing up to minimize potential oil and/or gasoline entering combustion chamber and creating a hydraulic lock up.

2. Connect auger to Hole Digger with correct factory supplied auger pin. DO NOT use any other connecting device, including cap screws, bolts, pins, etc., that can damage Hole Digger driveshaft and/or auger hub.

STARTING ENGINE WITH AUGER ATTACHED

DO NOT attempt to dig with Hole Digger until Crew Chief and Crew Member have acknowledged to each other they are ready and are in full control of machine/accessories. Crew Chief operates engine throttle control with right hand and is responsible for verbal commands. Crew member operates choke control and starts engine.

3. Place Hole Digger in vertical orientation on desired hole location.

4. Crew Member opens fuel tank breather vent (if so equipped) to its maximum set position. Failure to open breather vent prevents engine from receiving continuous supply of fuel.

5. Crew Member opens fuel tank ON/OFF valve located under fuel tank to ON position. FIGURE 9

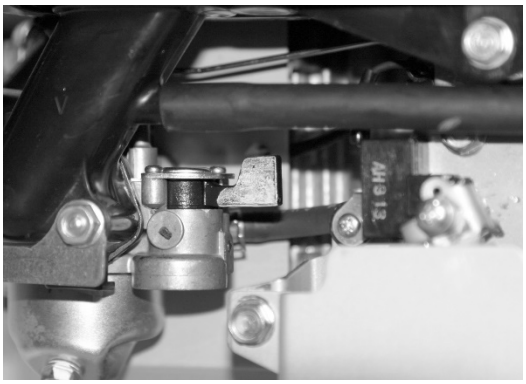

FIGURE 9

6. Crew Chief rotates throttle control counterclockwise (to open) half way against its stop while providing machine stability with left hand/left handle grip.

7. Crew Member closes engine choke pushing control lever to far left position. DO NOT apply excessive force pulling or pushing choke control lever. Excessive force can damage carburetor. FIGURE 10

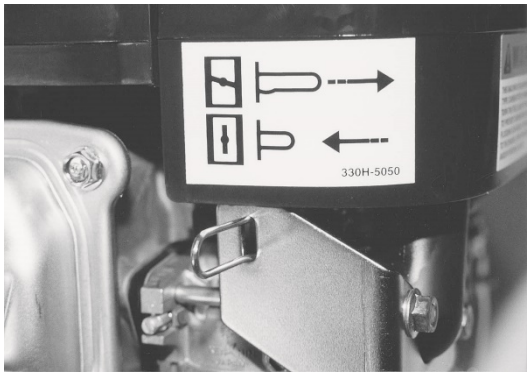

FIGURE 10

8. Crew Member pulls recoil starter handle until resistance is felt (this is the compression point), then gives a fast, short, steady pull. Allow starter rope to retract slowly. If engine does not start in three pulls, consult material supplied by engine manufacturer for specific information. As engine warms up, Crew Member pushes choke control lever to far right "run" position. FIGURE 10

NOTE: Normally, engines not running for some time require three to five pulls to start. Recently run engines usually start on first or second pull. In cold weather, initial starting will require additional pulls due to extremely rich fuel/air mixture.

9. Allow engine to properly "warm up" and operate without requirement for engine choke. Check for proper centrifugal clutch operation, excessive transmission noise and/or vibration.

10. Crew Chief rotates throttle control counterclockwise to increase engine speed/regulate digging process. Auger begins rotation when centrifugal clutch reaches initial engagement speed.

PROPER OPERATOR STANCE (FIGURE 11 & 12)

11. Grasp operator handles firmly. Wrap fingers around handle grips, keeping grips cradled between thumbs and forefingers.

12. Keep wrists as perpendicular to operator handles as feasible while digging. Proper wrist position can minimize and/or reduce stress and strain related damage potential to this body area, plus, operator control is enhanced and fatigue reduced. FIGURE 12

13. Keep left side operator handles as close to waist/leg/arm areas as possible for maximum leverage/control and minimize effects of "kickback" if obstruction is encountered when digging.

14. Keep arms close to upper body, back as vertical as possible, and bend legs as needed to minimize physical stress.

15. Position left foot forward of right foot and a comfortable distance apart.

FIGURE 11

FIGURE 12

NOTE: Not using a proper operator stance (FIGURES 13, 14, 15):

a) Reduces operator control and balance.
b) Increases operator fatigue.
c) Increases risk of property damage and/or personal injury.

FIGURE 13

FIGURE 14

FIGURE 15

REMOVING STUCK AUGER FROM HOLE

16. Usually due to excessive auger feed rate, an auger can "bind" and/or "bury" itself in the hole. This is also common when digging with smaller diameter 50.8 mm (2 inch) to 101.6 mm (4 inch) augers. When this occurs, DO NOT continue to overload and slip clutch assembly. Hole Digger is not capable of transmitting ample power to “free” auger.

IMPORTANT: The Hole Digger uses a manually deployed Auger-LOK® to prevent gear rotation. DO NOT use chains and/or slings wrapped around Hole Digger and/or operator handles connected to external towing device such as a truck or loader to remove Hole Digger from ground. Action can result in damage to Hole Digger and auger. Use the following procedure to remove a stuck auger from hole:

17. Before attempting to remove stuck auger from hole, STOP engine per STOPPING HOLE DIGGER in OPERATING INSTRUCTIONS section of this manual BEFORE moving to step 18 below.

18. Locate Auger-LOK® on top of transmission housing under spark plug/engine cooling fin area of engine. Area can become hot to the touch. Wear gloves for added protection. FIGURE 16

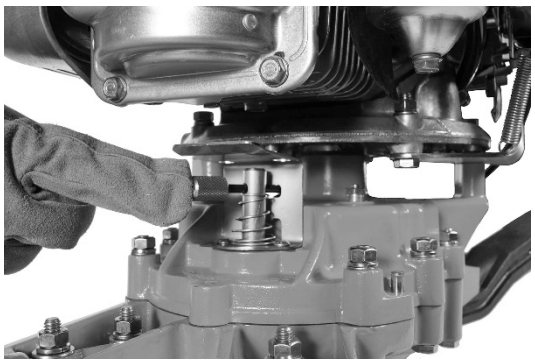

FIGURE 16

19. Push lock handle down slightly to disengage upper detent position. Turn lock handle counterclockwise (to right) until it stops against vertical slot of lock bracket. FIGURE 15

20. Push lock handle down until it stops against bottom slot of lock bracket and engages transmission gear. (Note, it may be necessary to rotate Hole Digger back and forth slightly to allow lock pin to fully engage gear.) Turn lock handle clockwise (to left) until it stops against right side of slot. Release allowing spring to push handle up into lower detent position. In this position, lock device is fully deployed. FIGURE 17

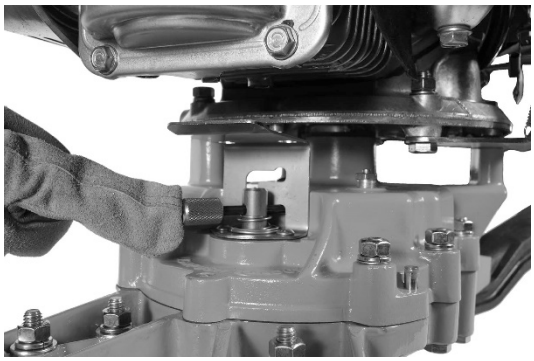

FIGURE 17

IMPORTANT: Lock device spring should always be in direct contact with handle in any position.

21. With Crew Chief and Crew Member on each side of hole digger, grasp operator handles and rotate Hole Digger/auger counterclockwise (to left). DO NOT FORCE. Apply steady pressure until auger loosens in ground, continuing rotation until auger is freed from obstruction and Hole Digger/auger can be lifted from hole.

22. Inspect Hole Digger/auger for damage. Remove any obstruction from auger and/or hole.

23. Reverse locking device process to disengage locking pin from gear. Check spring positions handle in upper detent position of locking bracket to prevent inadvertent lock deployment.
24. Reconnect spark plug wire. Start engine and resume digging process per STARTING ENGINE WITH AUGER ATTACHED in OPERATING INSTRUCTIONS section of this manual.

ADDING/REMOVING NONFLIGHTED AUGER EXTENSION

For holes deeper than standard augers provide, a non-flighted auger extension increases digging depth 381 mm (15 inches). Additional operator experience, over introductory/novice skill levels, is required when using. Follow this accepted procedure to add non-flighted extension:

25. Dig to approximate full depth of auger following operating instructions. Remove as much loose soil from hole as possible per STEP 7 of HOLE DIGGING TECHNIQUES in APPLICATION THEORY & TECHNIQUES section of this manual.

26. STOP Hole Digger per STOPPING HOLE DIGGER in OPERATING INSTRUCTIONS section of this manual.

27. Remove Hole Digger/auger from hole. Disconnect auger from Hole Digger. Place auger in hole. Attach auger extension to auger and secure with auger pin. The Hole Digger can now be connected to auger extension using auger pin.

IMPORTANT: DO NOT dig using more than one auger extension in combination with auger and Hole Digger. Loose dirt cannot be removed from hole and auger can "bury" itself with potential of losing control of machine.

28. Per STARTING ENGINE WITH AUGER ATTACHED in OPERATING INSTRUCTIONS section of this manual, dig to desired depth or to full depth of auger extension. To remove auger extension, follow this accepted procedure:

29. STOP Hole Digger per STOPPING HOLE DIGGER in OPERATING INSTRUCTIONS section of this manual.

30. Remove as much loose soil from hole as possible per STEP 7 of HOLE DIGGING TECHNIQUES in APPLICATION THEORY & TECHNIQUES section of this manual.

31. Lift auger extension/auger/Hole Digger up far enough out of hole so bottom end of auger extension is clear. FIGURE 18. Block remaining auger with auger fork to prevent falling back into hole. An additional Crew Member will usually be required. FIGURE 19

FIGURE 18

FIGURE 19

32. Disconnect Hole Digger from auger extension. Disconnect auger extension from auger.

33. Reconnect Hole Digger to remaining auger and remove power unit/auger from hole. Reconnect spark plug wire.

34. Per STARTING ENGINE WITH AUGER ATTACHED in OPERATING INSTRUCTIONS section of this manual dig next hole based on job application. If project is complete, store Hole Digger per STORAGE section of this manual.

STOPPING HOLE DIGGER
NOTE: Stop Hole Digger between each hole. Never leave Hole Digger running and unattended.

35. Stop Hole Digger by releasing throttle control grip. Power to engine should be immediately cut off. FIGURE 20

FIGURE 20

NOTE: If engine power does not cut off, check throttle control grip, throttle cable, and engine throttle control arm for binding and/or improper adjustment.

36. Disconnect spark plug wire to prevent accidental engine starting.

37. When engine is not in operation or is to be stored, close fuel tank breather vent (if so equipped). Turn fuel tank ON/OFF valve to OFF position to minimize fuel flooding carburetor and/or entering engine crankcase and/or impacting upon environment.

9 MAINTENANCE INSTRUCTIONS

For routine maintenance, the following information should be followed once per week or 40 hours of use at minimum for maximum performance and return on investment unless otherwise indicated. Information is for reference only and is not intended to be all inclusive.

1. Use factory approved replacement parts/accessories only for maintenance and repair.

2. All maintenance/repairs not described in this operator manual must be done by a dedicated service center following a specific service/repair manual.

3. STOP Hole Digger BEFORE performing maintenance and service per STOPPING HOLE DIGGER in OPERATING INSTRUCTIONS section of this manual.

4. DO NOT perform service and/or repair with Hole Digger mounted to 999 Series Display Stands. Stands are not designed and/or intended for these functions.

5. Inspect for loose or broken parts. Inspect all fasteners, individual parts, operator controls and safety devices for proper function. Tighten fasteners as necessary. Replace any worn or damaged part or assembly.

6. Remove all loose accumulations, dirt, grease to prevent safety hazards, poor performance and reduced service life using safety type solvent.

IMPORTANT: Use safety type solvent. DO NOT use thinner, benzene, or other volatile solvents that will attack rubber/plastic components when cleaning Hole Digger. Provide adequate ventilation. Dispose of rags/solvents per international and local regulations.

7. Inspect engine throttle control arm and throttle cable assemblies are not damaged, bent, abraided or parts missing, are in correct operating position and allow for complete freedom of movement. DO NOT operate Hole Digger with damaged engine throttle control arm and/or throttle cable assembly.

8. Inspect operator grips, and throttle control grip are free of moisture, pitch, oil or grease and are not cracked, damaged or worn. DO NOT operate Hole Digger until such handles and/or grips are repaired and/or replaced to prevent aggravated effects of “kickback and/or loss of operator control when digging.

IMPORTANT: Keep external condition of operator handles, grips and throttle control free of accumulation of moisture, dirt, pitch and other foreign substance that can provide a conductive pathway for energy to be transmitted. Throttle control should be maintained in clean, dry condition and free of all foreign materials.

IMPORTANT: Regardless of actual use, operator handles have a maximum service life of 6 years. Replace any operator handles meeting this time limit. Handle material used reduces (but does not eliminate) long term effects of ultraviolet radiation from sun.

9. Inspect operator handle full length and attach areas for signs of cracking, fatigue, deformation, nicks or gouges. If cracking or deformation is detected or cuts or abrasions greater than 3.2 mm (0.125 inch) deep are present, replace. Keep handles clean and free of dirt, moisture, grease, oil and other, foreign material accumulations.

10. Inspect centrifugal clutch assembly properly disengages at specified engine speed or slips during overload conditions.

11. Inspect engine muffler for wear or damage and replace as necessary to minimize fire hazard and hearing loss risk. If muffler is equipped with a spark arresting device, check for proper working condition. If not, replace with approved replacement from engine manufacturer.

12. Inspect all safety and operation decals. If any decal becomes damaged and/or unreadable, replace.

13. Hole Digger may utilize self-locking type hexagon nuts to minimize effects of vibration. If worn or damaged, replace.

14. Inspect auger for bent or damaged axle that will cause auger to “wobble” during use and can cause loss of machine control. Maximum allowable auger wobble is 6.4 mm (0.25 inch) total indicator runout (TIR). Augers with TIR in excess of this value must be removed from service and scrapped.

15. Inspect auger blade and screw bit for excessive wear, cracking, sharpness and missing parts. Replace as required to prevent undo wear to boring head and inverted cone configuration to auger flighting. The end result is substandard productivity and usually requires complete auger replacement. FIGURE 21. Auger service life can be greatly extended with constant auger wear part maintenance.

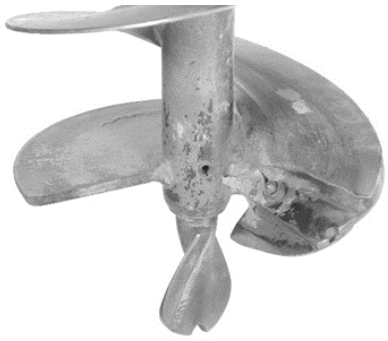

FIGURE 21

NOTE: Worn boring head may only be capable of digging a hole 60 to 75% of auger nominal diameter. This will allow auger to “bind” in hole reducing operator control and productivity.

16. Consult material supplied by engine manufacturer for specific information relative to proper operation, lubrication and storage requirements.

CHANGING HOLE DIGGER TRANSMISSION OIL
Tools Required:
1 each, 23 mm (7/8 inch) open or closed end wrench or use a socket/ratchet combination
1 each, small, clean funnel with a flexible extension spout.

1. Change transmission oil every 25 hours of operation, or more often as necessary, if Hole Digger is operated in extremely dusty or dirty conditions.

2. STOP Hole Digger per STOPPING HOLE DIGGER in OPERATING INSTRUCTIONS section of this manual.

3. Drain fuel from fuel tank into a UN marked, European ADR regulation approved fuel container. Wipe any excess spilled fuel and dispose of excess fuel and/or rags per international and local regulations.

4. Position Hole Digger vertically, engine spark plug facing up and bottom of transmission housing facing toward you. Support to prevent accidental movement. Refer to FIGURE 8, FILLING HOLE DIGGER TRANSMISSION OIL in MACHINE SET-UP section of this manual.

5. Wipe any dust or dirt from oil plug area located on transmission bottom. Remove plug with adjustable wrench.

6. Tilt unit forward to allow oil to completely drain from transmission into a suitable container.

7. Re-position unit back to vertical position with spark plug facing up. Using funnel, pour 0.71 liters (24 ounces) of General Equipment Company Transmission and Engine Oil, PN 999-11, or a high grade, SAE 30 Detergent or 10W30 motor oil through plug opening.

8. Maintain oil level in transmission at bottom of oil plug hole. Allow any excess oil to drain out of transmission. This procedure determines correct oil level for transmission. DO NOT operate Hole Digger with improper oil level.

NOTE: Correct oil level is important to ensure proper centrifugal clutch operation. Maintaining oil level too high will cause excessive clutch slippage and result in high oil temperatures. Excessive slippage and high oil temperatures will significantly reduce service life of clutch assembly and affect overall performance of Hole Digger.

NOTE: Use only an oil marked with an engine service classification SJ or higher. As a general rule, transmission usually uses same oil type and weight as 4-Stroke engine crankcase.

9. Inspect oil plug gasket, replace if worn. Reinstall oil plug. Tighten securely with wrench. Wipe off any excess oil spilled on transmission. Dispose of used oil/rags per international and local regulations.

MAGURA® THROTTLE CONTROL MAINTENANCE PROGRAM
For every 8 hours of actual operation and whenever throttle cable is replaced, the following maintenance program is to be followed:

1. Remove plastic cover to properly inspect internal components. If damaged or worn, replace. FIGURE 22

FIGURE 22

2. Inspect idler pulley. Normal use will produce a wear pattern into idler pulley by throttle cable. Maximum allowable groove wear depth created by cable is 1.1 mm (0.045 inch). Wear depth in excess of this limit requires idler pulley replacement.

3. Inspect throttle cable for excessive wear and fraying of area in direct contact with idler pulley. Abnormal wear or fraying requires replacement of throttle cable.

4. Inspect barrel end of throttle cable for proper retention. Properly retained barrel end will have no relative movement between it and inner cable. Any relative movement requires throttle cable replacement. FIGURE 23

FIGURE 23

5. Inspect receptacle area of throttle control which retains barrel end of throttle cable. Properly fitted barrel fitting should have complete freedom of movement with no binding restrictions or excessive play due to wear. Barrel fitting which is binding within receptacle requires throttle cable replacement. Excessive receptacle wear requires specific component assembly replacement. FIGURE 24

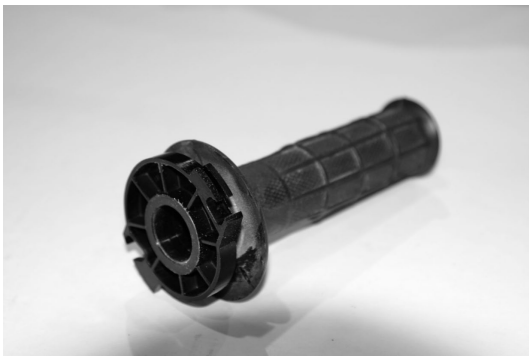

FIGURE 24

6. Apply appropriate preservative to rubber boot assembly to protect internal components from foreign material accumulations. DO NOT operate Hole Digger without rubber boot in proper location or in poor condition to prevent foreign material accumulation within throttle control assembly.

7. If regular throttle control inspection determines carburetor return spring does not properly return to engine cut-off position, remove throttle control grip tube from throttle control handle. Inspect tube and operator handle surface area for accumulation of foreign material, including dirt, moisture, etc. Remove any accumulation, clean as necessary. DO NOT apply external lubrication to this area during reassembly process.

8. Inspect throttle control grip proper attachment to throttle control assembly. Replace grip which fits loose or has become worn/damaged.

REPLACING WORN AUGER SCREW BIT
Application: All 4400, PLDBH/PSD Series augers.

Tools Required:
1 each, safety glasses
1 each, hammer
2 each, 1/2 inch (14 mm) wrenches

Parts Required:
1 each, PN SB25 Screw Bit for 2 inch (50.8 mm) and 14 inch (355.6 mm) to 18 inch (457.2 mm) diameter augers
1 each, PN SB26 Screw Bit for 6 inch (152.4 mm) to 12 inch (304.8 mm) diameter augers
1 each, PN SB35 Screw Bit for 3 inch (76.2 mm) diameter auger
1 each, PN SB45 Screw Bit for 4 inch (101.6 mm) diameter auger

NOTE: Tungsten Carbide versions of each screw listed above are available. These optional hardfaced screw bits will not increase overall productivity rates, but will increase anticipated service life of the screw bit.

NOTE: Replacement of auger screw bit will require a level working platform of appropriate size and height.

1. Using wrenches, remove cap screw retaining screw bit to the auger drive lug. Remove screw bit and properly dispose of.
2. Inspect auger drive lug for signs of excessive wear and/or damage. To replace drive lug, remove by using suitable saw or cutting torch.

3. Install replacement screw bit and retaining hardware. Hardware is unidirectional. Secure tight with wrenches.

4. Return auger back to service.

REPLACING WORN AUGER TEETH
Application: All 4400, PLDBH/PSD Series augers.

Tools Required:
1 each, safety glasses
2 each, 1/4 inch (6.4 mm) diameter drift punch.
1 each, plastic hammer or soft type hammer designed for impact use.

Parts Required:
Required Quantity, PN 35 Standard Dirt Tooth or,
Required Quantity, PN 35HFC Hardfaced Dirt Tooth or,
Required Quantity, PN 5T30 Chisel Tooth or,
Required Quantity, PN 5T30C Tungsten Carbide Chisel Tooth or,
Required Quantity, PN 1336 Tungsten Carbide Tooth

NOTE: Replacement of auger blade will require level working platform of appropriate size and height.

1. Using hammer and drift punch, strike the visible end of tooth located in tooth retention slot. Repeat action until worn tooth becomes loose and can be removed. FIGURE 25

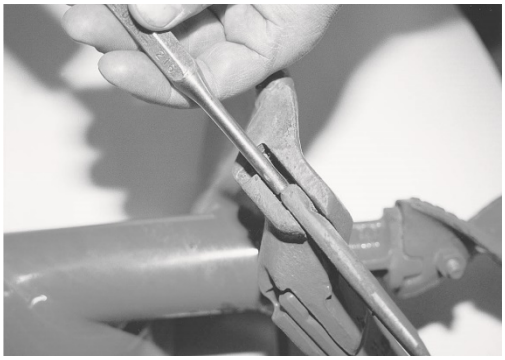

FIGURE 25

2. Remove worn rubber lock from tooth retention slot. Both round and flat locking device configurations are utilized.

3. Inspect tooth retention slot area of casting for excessive wear and/or damage.

NOTE: A tooth retention socket with excessive wear will not properly support a replacement tooth. Excessive wear usually indicates an auger is worn beyond its useful service life and should be removed from service. An auger with excessive wear is depicted in FIGURE 26.

FIGURE 26

4. Lubricate round replacement rubber lock with water. DO NOT use oil. Install rubber lock into hole in tooth retention slot. FIGURE 27

NOTE: A flat type locking device installs around the tooth retention slot.

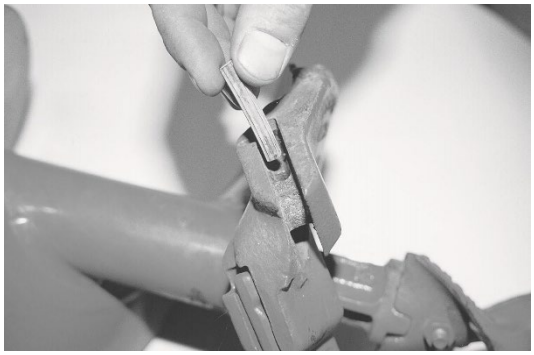

FIGURE 27

5. Install replacement tooth into tooth retention slot by striking cutting edge of tooth with hammer. Use a smooth movement and wood block to protect tooth cutting edge from damage.

6. Determine replacement tooth is properly seated within tooth retention slot of casting. If excessive casting wear is present, tooth will not seat properly allowing it to become loose and fall out.

7. Return auger back to service.

10 TROUBLESHOOTING

NOTE: If troubleshooting information does not correct situation, all maintenance/repairs not described in this operator manual must be done by a dedicated service center following a specific service/repair manual.

ENGINE WILL NOT START

Possible Cause	Correction
Fuel valve in off position.	Turn fuel valve to on position.
Ignition cut-off switch (if equipped) improperly adjusted.	Adjust throttle cable.
Incorrect carburetor adjustment.	See engine manufacturer supplied information.
Ignition wire to spark plug loose or disconnected.	Reconnect.
Fuel supply exhausted.	Refill fuel tank.

ENGINE LOSES POWER

Possible Cause	Correction
Incorrect carburetor adjustment.	See engine manufacturer supplied information.
Water in fuel supply.	Drain and replace fuel.
Plugged engine exhaust ports.	See engine manufacturer supplied information.
Dirty spark plug.	See engine manufacturer supplied information.
Incorrect throttle control/cable adjustment.	See MACHINE SET-UP this manual.
Gasoline tank breather vent closed (if so equipped).	Open vent.
Dirty air filter.	See engine manufacturer supplied information.

ENGINE OVERHEATS

Possible Cause	Correction
Incorrect carburetor adjustment.	See engine manufacturer supplied information.
Cooling fins clogged with debris.	Remove engine blower housing and clean cooling fins.

HOLE DIGGER LACKS POWER

Possible Cause	Correction
Incorrect transmission oil level.	See FILLING HOLE DIGGER WITH TRANSMISSION OIL in MACHINE SET-UP this manual.
Centrifugal clutch assembly worn.	Replace.
Incorrect throttle control/cable adjustment.	See MACHINE SET-UP this manual.

AUGER ROTATES AT IDLE SPEED

Possible Cause	Correction
Incorrect throttle control/cable adjustment does not permit proper engine idle speed.	See MACHINE SET-UP this manual.
Centrifugal clutch worn.	Replace.
Incorrect engine idle speed.	See MACHINE SET-UP this manual and/or engine manufacturer supplied information.

11 STORAGE

TEMPORARY STORAGE (On Job Site)

Hole Digger can be temporarily stored on job site by one of three acceptable methods. Method chosen by operator is based on personal preference and/or job site conditions.

1. In all three storage methods, STOP Hole Digger per STOPPING HOLE DIGGER in OPERATING INSTRUCTIONS section of this manual. DO NOT store Hole Digger with engine operating.

    a. Dig shallow hole and leave Hole Digger connected to auger. FIGURE 28

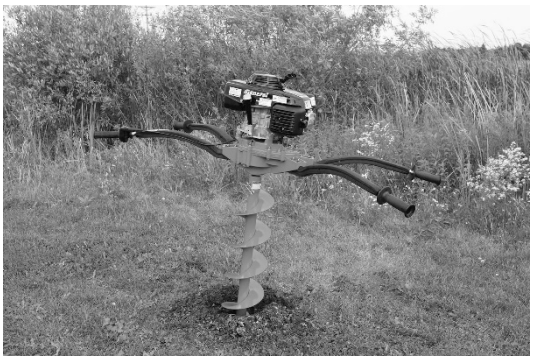

FIGURE 28

    b. Disconnect Hole Digger from auger and/or auger extension and store in level configuration. FIGURE 29

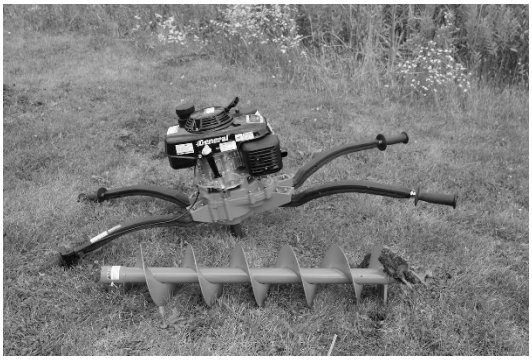

FIGURE 29

c. Store Hole Digger connected only to lead auger with engine spark plug facing upward to minimize potential for crankcase oil entering combustion chamber and causing hydraulic lock up. FIGURE 30

FIGURE 30

2. Protect operator handles from external sources of damage. DO NOT allow handles to contact augers, shovels, or other sharp/abrasive objects during transit whether stacked or thrown against handles. DO NOT drag Hole Digger with handle or throttle grips contacting ground. Damage can result.

LONG TERM STORAGE
Procedure for Hole Digger long term storage will protect against effects of corrosion and damage. If Hole Digger is not to be operated for a period of 30 days or more, proceed to store as follows:

1. STOP Hole Digger per STOPPING HOLE DIGGER in OPERATING INSTRUCTIONS section of this manual. DO NOT store Hole Digger with engine operating.

2. Disconnect auger from Hole Digger.

3. Drain transmission and refill with clean oil per CHANGING HOLE DIGGER TRANSMISSION OIL in MAINTENANCE INSTRUCTIONS section of this manual.

4. Follow procedure as outlined in material supplied by engine manufacturer detailing long term storage of engine.

5. Clean all accumulated dirt and grease from Hole Digger utilizing an appropriate solvent. Provide adequate ventilation and observe all applicable safety precautions for solvent.

IMPORTANT: Use safety type solvent. DO NOT use thinner, benzene, or other volatile solvents that will attack rubber/plastic components when cleaning Hole Digger. Provide adequate ventilation. Dispose of rags/solvents per international and local regulations.

6. Inspect all visible parts for wear, breakage or damage. Replace any part required to make necessary repair with factory approved parts only.

7. Apply light coat of protective grease to transmission driveshaft to prevent formation of rust.

8. Store Hole Digger with operator handles level with ground to prevent transmission oil draining from breather vent and damaging surrounding environment and to minimize potential for crankcase oil entering combustion chamber and creating hydraulic lock up.

9. DO NOT allow handles to come in contact with augers, shovels, or other sharp and abrasive objects during storage to prevent damage.

10. Store Hole Digger inside. If Hole Digger must be stored outside, protect it and each auger with a suitable covering.

12 END OF LIFECYCLE

If the machine comes to the end of its lifecycle, destruction of the machine must be conducted according to international and local environmental regulations.

13 DECLARATION OF CONFORMITY

We, General Equipment Company, 620 Alexander Drive SW, P.O. Box 334, Owatonna, MN 55060, USA declare under our sole responsibility that the portable hole digger product: 332H

To which this declaration relates is in conformity with the following standards or standardization documents:
- EN-ISO 12100:2010

According to the provisions of the European directive:
- 2006/42/EC

Manufactured at: Owatonna, Minnesota 55060, USA
Beginning with serial number: 174809

Signature: Dennis Von Ruden
Position: President
Date: September 14, 2020

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