

**Our associates will ensure the tool works properly before you leave the store. If you experience issues with the tool while completing your project, simply bring it back to the Tool Rental Center to get a replacement. If you purchase Damage Protection at the time of your rental, you are not responsible for repair costs for tools that break due to normal use.**



Auger Bit  
Rented  
Separately

# BRAVE

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## OPERATOR'S MANUAL

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### Safety, Operation & Service Information

#### 200 Series Two-Man Augers

**Model:** BRPA265H/**BRPA270H**

**Form:** GOM08042004US, Version 1.1, 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.
- When ordering replacement parts, please supply the following information: model number, serial number and part number.
- **Customer Service:** 1-800-359-8739
- **Customer Service Telefax:** 1-866-779-9963  
*Note: There is no charge for Customer Service.*
- **Internet Address:** <http://www.braveproducts.com>
- **Email:** [sales@braveproducts.com](mailto:sales@braveproducts.com)

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**NOTICE TO OPERATORS**

IF YOU CAN NOT READ OR DO NOT FULLY UNDERSTAND THE CONTENTS OF THIS MANUAL, PLEASE CONTACT THE FACTORY FOR PROPER ASSISTANCE BEFORE ATTEMPTING TO OPERATE THIS PRODUCT.

SI TU NO PUEDES LE'ER O NO COMPRENDES EL CONTENIDO DE ESTE MANUAL FAVOR DE PONERSE EN CONTACTO CON LA FABRICA PARA ASISTENCIA-APROPIA ANTES DE INTENTAR PARA OPERAR ESTE PRODUCTO.

SOLLTEN SIE DIESE GEBRAUCHSANWEISUNG NICHT LESEN KOENNEN ODER ES NICHT VOLLKOMMEN VERSTEHEN, WENDEN SIE SICH BITTE AN DEN HERSTELLER FUER RICHTIGE HILFE EHE SIE VERSUCHEN DIESES PRODUKT ZU OPERIEREN.

SI VOUS NE LISEZ OU NE COMPRENDRE ENTIEREMENT LES MATIERES DE CE MANUEL, S'IL VOUS PLAIT, CONTACTEZ L'USINE POUR L'ASSISTANCE APPROPRIEE AVANT D'UTILISER LE PRODUIT.

**IMPORTANT:**

- DO NOT allow anyone to operate Auger without first reading this Operator Manual and becoming familiar with Auger operation.
- Manufacturer of this Auger has gone to great extremes to provide owner(s) and/or operator(s) with the finest equipment available for its intended job function of digging vertical holes in unconsolidated and specific semi-consolidated earth formations. Yet, the possibility exists Auger can be utilized in and/or subjected to job applications not perceived and/or anticipated by manufacturer. Such misuse and/or misapplication of Auger can lead to possibility of serious damage, injury or even death.
- It is responsibility of owner(s) and/or operator(s) to determine Auger is utilized and/or operated within scope of its intended job function.
- It is responsibility of owner(s) and/or operator(s) to establish, monitor and constantly upgrade all safety programs and/or practices utilized in and for operation of Auger. Purpose of such programs is to provide for owner(s') and/or operator(s') safety. Operators must be instructed to recognize and avoid unsafe conditions associated with their work (29 CFR 1926.21 (b)(2)) and/or applicable updated revisions.

- It is responsibility of owner(s) and/or operator(s) to determine no modifications and/or alterations have been made to Auger. Modifications and/or alterations can lead to possibility of serious damage, injury or even death. It is responsibility of owner(s) and/or operator(s) to make this Operator Manual available for consultation during all phases of operation.
- Refer to OSHA 2207 and/or applicable updated revisions which contains all OSHA job safety, health rules and regulations (1926 and 1910) covering construction.

**CAUTION**

The concept of portable, one and two man operated, hole digging equipment has been successfully utilized for over forty years as a practical solution to many types of hole digging job requirements. The basic concept is proven and well accepted within the associated marketplaces as an alternative method to manual labor and/or larger, mounted earth drilling machinery.

Use of an Auger requires strenuous work activity. This type of work activity can be considered to be greater in magnitude than that experienced with the use of many other types of both light construction and lawn and garden related equipment. This type of work activity should only be attempted by operators of adequate physical size and stature, mental awareness, and physical strength and condition.

Each operator is required to supply a resultant force that counteracts/balances and/or resists the natural torque and kickback forces generated during the hole digging process. The body parts most noticeably affected during the hole digging process are the arms, hands, wrists, shoulders, lower back and legs. The hole digging process can also produce excessive stress/strain directly to the back muscles, spinal vertebrae and many other body parts. Back related pain can be a side effect of the hole digging process. An operator with a chronic back related problem or a history of back and/or other medically related problems should not attempt to utilize the Auger. Use of the Auger may only aggravate this and any other medically related problem.

The torque and kickback forces generated and/or encountered correspond to natural laws of physics and are inherent to the hole digging process. They cannot be changed or totally eliminated with portable one and two man operated, hole digging equipment of this design. Proper operating positions and techniques, as outlined in this manual, can be successfully utilized to minimize the effects of the torque and kickback forces upon the human body.

Because of the diverse type of prevailing digging conditions, operator experience levels and operator physical characteristics, no warranty, guarantee, representation and/or liability is made by the manufacturer as to the absolute correctness or sufficiency of any operational procedure, operational position and/or technique. There is no absolute guarantee that an operator of any given experience level, physical size and/or physical condition will be immune to the possibility of and/or probable physical side effects of the normal hole digging process.

Each potential operator of the Auger must be made aware of and assume the operational and physical liability described and/or associated with the hole digging process when utilizing the Auger. **Each potential operator not willing to assume the operational and physical liability described and/or associated with the hole digging process should not operate the Auger.** Proper levels of operator experience, skill and common sense are essential for maximizing the safe and efficient operation of the Auger.

**Record Auger and engine/electric motor serial numbers in spaces provided below.**

Model Number: BRPA270H  
 Serial Number: 177789  
 Engine/Electric Motor Serial Number: \_\_\_\_\_  
 Date of Purchase: 04/16/2021

Specifications and design are subject to change without notice or obligation. All specifications are general in nature and are not intended for specific application purposes. Brave reserves the right to make changes in design, engineering or specifications and to add improvements or discontinue manufacture at any time without notice or obligation. Brave and its agents accept no responsibility for variations which may be evident in actual products, specifications, pictures and descriptions contained in this publication.

**OPERATOR INSTRUCTIONAL DATA SHEET**

The following undersigned operators of Auger described and/or pertaining to this Operator Manual have received formal safety and operational information/instruction from undersigned owner(s)/instructor(s) in accordance to OSHA 29 CFR 1926.21 (b)(2) and/or applicable updated revisions pertaining to, but not necessarily limited to the:

- 1. READING, COMPREHENSION AND ACKNOWLEDGEMENT OF MATERIAL COMPRISING ENTIRE CONTENTS OF APPLICABLE OPERATOR MANUAL.
- 2. FORMALIZED OPERATOR SAFETY PROGRAM TO BE DEvised BY OWNER OF AUGER IN CONJUNCTION WITH CONTENTS OF APPLICABLE OPERATOR MANUAL FOR AUGER.
- 3. OSHA RULES AND REGULATIONS RESEARCHED FOR AND/OR BY OWNER OF AUGER AND DEEMED APPLICABLE TO SAFE AND PROPER USE AND/OR OPERATION OF AUGER FOR ANY SPECIFIC JOB APPLICATION.
- 4. LOCAL LAWS, REGULATIONS AND CUSTOMS RESEARCHED FOR AND/OR BY OWNER OF AUGER AND DEEMED APPLICABLE TO SAFE AND PROPER USE AND/OR OPERATION OF AUGER FOR ANY SPECIFIC JOB APPLICATION.
- 5. FORMALIZED MAINTENANCE PROGRAM FOR AUGER TO BE DEvised BY OWNER OF AUGER IN ACCORDANCE WITH, BUT NOT NECESSARILY LIMITED TO, SPECIFICATIONS, GUIDELINES AND OPERATIONAL INFORMATION CONTAINED IN APPLICABLE OPERATOR MANUAL.
- 6. COMPREHENSIVE OPERATIONAL INSTRUCTIONS FOR CORRECT AND PROPER USE OF AUGER AS PER CONTENTS OF APPLICABLE OPERATOR MANUAL.

_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
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_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date

**NOTE:** INSERT COPIES OF THIS PAGE WITHIN OPERATOR'S MANUAL IF SPACE FOR ADDITIONAL OPERATORS IS REQUIRED.

## 1 INTRODUCTION

Congratulations on your decision to purchase a Brave light construction product. It has been a continuing objective of Brave to provide equipment that delivers uncompromising value, service life and investment return.

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 personnel are available to ensure each Brave 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.

If you have any questions or concerns about this product, please feel free to contact our Customer Service Department during normal business hours using the contact information located on the front cover of this manual. There is no charge for this service.

Sincerely,  
The Brave Team

## 2 INTENDED USE

The Auger 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. Minors should never be allowed to operate the Auger.

Auger is classified as a low cost, hand held, low horsepower, portable type machine. The number of practical and/or suitable job applications for this type equipment is limited. Particular job application variables and operator experience/skill/common sense may require a different type machine, method and/or process to properly complete job efficiently and safely. Contact Customer Service Department for specific information regarding suitable job applications, job sites, soil conditions and operator experience/skill/common sense recommendations for Auger BEFORE utilization.

Never exceed the recommended capacities of Auger. Refer to BEFORE OPERATING and SPECIFICATIONS sections in this manual for more detailed information. Always utilize correct auger bit and auger bit extension series designed for use with Auger. DO NOT use ice augers to dig earth. Use of an incorrect auger or auger bit series can result in property damage and/or personal injury.

### OPERATIONAL DISCLAIMER

The manufacturer of this Auger 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 TRAINING

Develop a comprehensive program for safe Auger operation by owner(s) and/or operator(s). Program will include, but is not limited to: instructional operation requirements, applicable OSHA requirements, local laws and regulations, job site safety plus Auger maintenance. Constantly examine and upgrade program to guarantee owner(s) and/or operator(s) safety. Each operator must be fully instructed regarding specifics of this safety program.

## 4 SAFETY SYMBOLS

### SAFETY ALERT SYMBOL & SIGNAL WORDS

The safety alert "general warning" symbol indicates a potential personal injury hazard. A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to designate the degree or level of hazard seriousness. Other safety symbols may be used to represent the type of hazard in combination with "general warning" symbol, in highlighted boxes, or individually.

#### DANGER:

Indicates a hazard with a high level of risk which, if not voided, *will* result in death or serious injury.

#### WARNING:

Indicates a hazard with a medium level of risk which, if not avoided, *could* result in death or serious injury.

#### CAUTION:

Indicates a hazard with a low level of risk which, if not avoided, *could* result in minor or moderate injury.

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.

### 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

## 5 SAFETY INSTRUCTIONS



### WARNING

- These safety instructions provide guidelines to promote safety and efficiency with the Auger.
- 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 Auger and are not intended to be all inclusive.
- Not following instructions in this manual can result in property damage, personal injury and/or death.



### DANGER



- This product can expose you to chemicals including greases, lubrication oils, silica dusts and asbestos which are known to the State of California to cause cancer and carbon monoxide (if gasoline engine driven) which is known to cause birth defects or other reproductive harm. For more information: [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**SPARK ARRESTER DISCLAIMER**



**WARNING**



- **DO NOT operate Auger on any forest covered, brush covered, or grass covered, unimproved land unless an approved spark arrester is installed on the muffler. The spark arrester must be maintained in proper working order by the owner and/or operator. In the State of California, the above is required by law. Other states may have similar laws. Laws will apply on US Federal lands. Laws will vary with use in specific countries.**

**BEFORE OPERATING**



1. BEFORE operating the Auger, read this manual plus applicable safety/operational information supplied by engine manufacturer to familiarize each operator with correct operating procedures.
2. Visually inspect Auger per MAINTENANCE INSTRUCTIONS STEPS 4 through 15 of this manual.
3. Determine Auger is in original, factory configuration and has not been modified in any manner. If questions arise about possible modifications, contact the Customer Service Department BEFORE utilization. There is no charge for this service.
4. Always start and stop Auger according to instructions to minimize possibility of unexpected or uncontrolled auger bit rotation. Know how to stop unit in an emergency.

**Physical Exertion/Body Strain**

Operating the Auger requires proper physical stamina, mental alertness and is strenuous. Operators must be in proper physical condition, mental health and not under the influence of any substance (drugs, alcohol, etc.) which might impair vision, dexterity or judgement. 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 Auger if this condition is not satisfied. Augers require both operators be of similar height, weight and strength to maximize digging efficiency and minimize possibility of personal injury.

**Vibration**

Prolonged use of Auger (or other, similar machines) exposes operator to vibrations which may produce Whitefinger Disease (Raynaud's Phenomenon) reducing hand's ability to feel and regulate temperature, produce numbness and burning sensations plus may cause nerve, circulation damage and tissue necrosis. 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**

Auger 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**

Auger is powered by a gasoline engine which produces Carbon Monoxide fumes during combustion process. Carbon Monoxide fumes are poisonous. If Auger is operated in closed area (indoors or outdoors), determine if supplemental ventilation is required to minimize potential effects of Carbon Monoxide to operators. Follow all current OSHA regulations for ventilation.

**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 Auger. DO NOT operate unit with onlookers or animals close by.

**Burns**

An engine muffler can become hot. Remain clear of and DO NOT touch a hot muffler or heat shield.

**Auger Entrapment**

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

**BACK CARE & PROPER LIFTING PROCEDURES**

Operators will be required to lift Auger, auger bit/auger bit extension repetitively as demanded by specific job applications. When lifting, two people are required. Utilize proper lifting techniques to minimize fatigue and back-related injuries.

**Back Anatomy**

The human body is supported by the spinal column consisting of thirty bones called vertebrae, all linked and supported by a series of muscles. Pads called discs separate each vertebrae, acting as cushions to pressure from external forces. Spinal column is wrapped by nerve system with three sections that require being kept in natural alignment to prevent discomfort:

- Cervical: From base of neck to brain.
- Thoracic: From middle to lower back.
- Lumbar: From lower back to buttocks area.

**Back Care Preventative Measures**

Most occupational physicians agree on several "universal" preventative measures an operator should follow to help lower risk of back-related injuries:

1. Maintain proper body weight.
2. Eliminate/reduce use of tobacco. Smoking reduces oxygen supply and nutrients to discs cushioning vertebrae.
3. Develop a consistent exercise routine.
4. Maintain good posture while walking or sitting.
5. Watch how you twist/bend your body while digging to prevent. Twisting/bending incorrectly can exert too much pressure on discs and vertebrae.
6. Use firm footing, keep intended path clear before carrying Auger.
7. Always use proper lifting techniques as described below.

**PROPER LIFTING PROCEDURES**

The following are guidelines for properly lifting Auger and auger bit/auger bit extension from hole and are not intended to be all inclusive. Plan your path and make sure there are no obstructions or tripping hazards. Consider how you will set the load. The spinal column is a very sensitive mechanism. At any given time, improper lifting procedures can cause damage that can lead to injury.

1. Position feet a comfortable distance (shoulder width) apart to help provide necessary balance.
2. Tighten stomach muscles by pulling in your stomach. Keep back as straight as possible to keep spine, back muscles/ligaments in alignment.
3. Bend at hips and knees as much as possible.
4. Start lifting Auger by thrusting feet while lifting as much as possible with leg muscles. Use smooth movements.
5. Once Auger is lifted, keep it close as possible to the body. Avoid turning at waist. To turn, pivot entire body.
6. Keep shoulders, hips and feet pointed in same direction.
7. Use firm footing, keep intended path clear before carrying Auger.

**TRANSPORTATION**



1. Auger is designed for two operators to transport it by the operator handles to, while on, and from job site.
2. When transporting Auger in/on motor vehicle, gasoline tank breather vent (if so equipped) must be completely closed to eliminate fuel seepage.
3. To minimize damage to Auger, 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 Auger to prevent damage to unit.
5. All equipment must be secured in/on vehicles with suitable strapping or tie downs.
6. Personnel should not be transported in same compartment as equipment and fuel supplies. Consult applicable OSHA regulations for specific information.

**CAUTION**

- Improperly secured Hole Digger and related accessories can fall from moving vehicle and result in property damage and/or personal injury.

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



Auger 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. Auger and related accessories are not classified as insulated.

Auger is not sealed or insulated. DO NOT operate Auger in an explosive atmosphere or near combustible materials. Refer to current OSHA rules and regulations.

**WARNING**

**BEFORE attempting to dig any holes, identify/mark all potential subsurface hazards in proposed digging locations(s). Potential 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.

**DANGER**

- Always assume digging location contains buried underground obstructions.
- BEFORE attempting to dig any holes in proposed location(s), call 811 and/or visit [www.Call811.com](http://www.Call811.com).
- Contact appropriate agencies to determine exact location(s) of all buried pipelines, powerlines and material debris.
- Many utilities and other agencies will perform these tasks at minimal charge or at no cost. Have all subsurface hazards marked for easy recognition.
- Direct contact with these and other subsurface hazards can result in property damage and/or personal injury through such things as electrocution and/or explosion.

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



Normal Auger 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 Auger. 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 Auger.

**OPERATIONAL HAZARDS UNDERSTANDING KICKBACK**



Torque and kickback generated by digging process is common with portable, two-man hole diggers. Auger engine torque is transmitted and multiplied by transmission to auger bit. When auger bit 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 Auger 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.
- 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.
- "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.

**CAUTION**

- Always assume every digging site can include some form of buried obstruction. Always be prepared for unexpected auger bit contact with buried tree roots, rocks, etc.
- Under certain operating conditions, striking a buried obstruction can produce a severe and/or sudden kickback force to hip and/or leg areas.
- Force can have magnitude to "throw" operators from Auger.
- Failure to properly accommodate this phenomenon can result in property damage and/or personal injury.

**WARNING**

**If, during hole digging process, operators lose full control of Auger for any reason, the following procedure is suggested:**

- As a general rule, as soon as operators realize they are in process of losing control of Auger, they should "push" themselves free and clear from operator handles.
- Procedure requires operators fully comprehend they are losing control of Auger and to react accordingly with appropriate body movement.
- Improper reactions to this phenomenon can result in property damage and/or personal injury.

WARNING

- An Auger with improperly maintained engine throttle control will “spin” about its axis when operators lose full control.
- In event of this occurrence, do not attempt to stop engine by grasping rotating operator handles.
- DO NOT introduce any foreign object in an attempt to stop and/or block rotating handles. Instead, allow engine to exhaust its fuel supply.
- Determine that all components of engine throttle control assembly allow for proper function before attempting to further utilize Auger.

**MINIMIZING KICKBACK FROM A DESIGN STANDPOINT**

1. Auger features the longest operator handles of any machine of its type and/or class. Handles are biomechanically positioned to enhance control, allowing operators to exert "body english" against torque and kickback forces generated by digging process.
2. Auger features operator handles constructed of non-metallic, composite material. Material physical characteristics dampen torque and kickback experienced by operators during digging process.
3. Auger utilizes a twist grip throttle control. Throttle control was selected over other configurations (for operator handle configuration utilized and specific digging power) to allow operator to wrap his/her thumb and forefinger around for effective maximum strength in his/her right hand. Design provides greater operator machine control when counteracting torque and kickback forces during digging process.
4. Auger is designed to utilize Brave PN BR10628 (for model BRPA265H) or PN BR10627 (for model BRPA270H) auger pin for auger bit retention to transmission driveshaft. Pin is not intended to shear and absorb kickback related forces when auger bit comes in sudden contact with buried object.
5. Auger pin is utilized for the following reasons:
  - a. Pin shear would result in extensive physical damage to driveshaft and auger drive hub.
  - b. Potentially unknown/large pin quantity could be required to complete digging of any specific hole even if physical damage to Auger could be eliminated and/or minimized.
  - c. Even if replacement auger pin costs are not a factor, resulting productivity produced by actual process would not be acceptable by industry and/or social standards for Auger.
  - d. Given infinite number of potential operators and methods utilized during digging process, it is impossible to design and supply specific auger pins to shear at a specific torque value and produce acceptable operational results for Auger.
  - e. Given infinite number of potential soil conditions, auger bit diameter, auger boring head condition, digging depth, mechanical operating conditions, operators and operator methods encountered during digging process, it is impossible to design and supply specific auger pins to shear at a specific torque value and produce acceptable operational results for Auger.
6. For comparison purposes, portable electric screwdrivers and drills can utilize a torque limiting or clutch device to allow drill chuck to slip at a limited number of specific torque values. For an Auger, such a device would make the Auger useless due to infinite number of potential operating configurations required and inability to design specific components to meet requirements of each operating configuration.
7. Portable screwdrivers and drills are separate tools designed for different and specific job applications. The drilling process has different requirements than the fastening process for screwdrivers. Portable electric screwdriver and drill operational characteristics cannot be confused and/or substituted for Auger operational characteristics.

**6 MACHINE SPECIFICATIONS**

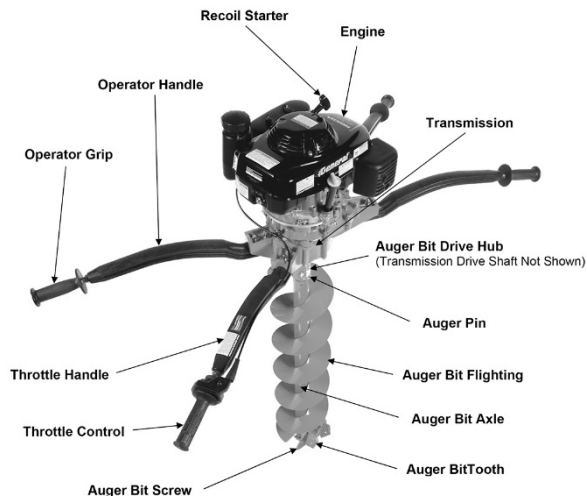



FIGURE 1

<b>ENGINE TYPE</b>	Honda GXV160
<b>HIGH SPEED</b>	3800 RPM (No Load)
<b>IDLE SPEED</b>	1600 RPM
<b>SPARK PLUG GAP</b>	.028 to .031 inch (0.7 to 0.8 mm)
<b>FUEL</b>	Unleaded, "regular" grade gasoline (RON 87). Consult engine manufacturer supplied materials for specific information.
<b>FUEL TANK CAPACITY</b>	1.2 US quart (1.1 L)
<b>TRANSMISSION TYPE</b>	Enclosed, spur geared, double reduction
<b>REDUCTION RATIO</b>	25 to 1
<b>OIL CAPACITY</b>	1 US quart (0.94 L)
<b>OIL</b>	High quality motor oil, service classification SJ, or higher. Refer to TRANSMISSION OIL RECOMMENDATIONS in MACHINE SET-UP section for specific information.
<b>CLUTCH</b>	4 inch (102 mm) diameter, automatic type centrifugal.
<b>MACHINE WEIGHT</b>	71 lbs (32.0 Kg) (less auger)
<b>AUGER CAPACITY</b>	2 inch (50.8 mm) diameter up to and including 18 inch (457 mm) diameter. Refer to DIGGING OPERATION section in this manual for specific information.
<b>OPERATING ENVIRONMENTS</b>	Non-hazardous type locations.
<b>REQUIRED NUMBER OF OPERATORS</b>	2


**NOISE & VIBRATION EMISSIONS**

Description	North America	Europe
Model	BRPA265H/BRPA270H	
Noise Level	85 db	
Vibration Level	51 m/s <sup>2</sup>	

**CAUTION** 

- Restarting engine with auger bit in partially or completely dug hole requires higher degree of operator experience, skill and common sense over introductory or novice level expertise.
- Manufacturer is aware many operators restart Auger's engine with auger bit in partially or completely dug hole on regular basis while in the field.
- Manufacturer also realizes procedure must be utilized when auger bit extension is used to extend digging depth. Manufacturer has no control over experience, skill and common sense levels of each operator of the Auger.
- Manufacturer has no control over each job site or specific job application for the Auger.

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

**CAUTION** 

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

**WARNING** 

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


## 10 OPERATING INSTRUCTIONS



**IMPORTANT:** DO NOT operate Auger until each operator completely comprehends contents of this manual, plus applicable safety and operational information supplied by engine manufacturer.


### INSTALLING AUGER BIT

- Refer to STOPPING AUGER in OPERATING INSTRUCTIONS section of this manual. To install auger bit, place Auger with spark plug facing up.


**DANGER** 

- DO NOT connect auger bit to Auger with engine running.
- A sudden change in engine speed will result in property damage and/or personal injury.

- Connect auger bit to Auger with correct factory supplied auger pin. Model BRPA265H Auger uses 3/8 inch (9.5 mm) diameter pin P/N BR10628. Model BRPA270H Auger uses 5/16 inch (8 mm) diameter pin P/N BR10627.

**CAUTION** 

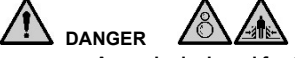
- When installing auger bit and auger pin, always place Auger with engine spark plug in upward position to minimize potential for oil and/or gasoline to enter combustion chamber and create a hydraulic lock up.
- Such occurrence can result in property damage and/or personal injury.

**CAUTION** 


- DO NOT use any other connecting device except auger pin supplied with Auger which is designed to withstand high stresses encountered while digging.
- Use of any other connecting device, including cap screws, bolts, pins, etc., can result in damage to Auger driveshaft and/or auger bit drive hub.
- Improper connecting devices can cause property damage and/or personal injury.

### STARTING ENGINE WITH AUGER BIT ATTACHED


DO NOT attempt to dig with Auger 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.

**DANGER** 

- Auger is designed for two operators. Use by only one operator or by more than two operators will lead to confusion and loss of control, resulting in property damage and/or personal injury.
- Start engine according to instructions outlined below to minimize possibility of unexpected auger bit rotation.
- Unexpected auger bit rotation can result in loss of machine control and possibility of property damage and/or personal injury.

**DANGER** 

- To reduce potential for personal injury, stop Auger between each hole.
- DO NOT choose to save time (time required to restart engine), money (if Auger is being rented) or gain added convenience by electing to keep engine running between each hole.
- Actions can lead to loss of control, resulting in property damage and/or personal injury.

**CAUTION** 

- If Auger and/or an individual component/accessory does not appear to function properly, STOP and DO NOT operate Auger until corrective action has been completed.
- If you have any questions regarding proper operation of Auger, contact Customer Service Department for assistance BEFORE using. There is no charge for this service.

- Place Auger in vertical orientation on desired hole location.
- 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.
- Crew Member opens fuel tank ON/OFF valve located under fuel tank to ON position as shown. 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 located above carburetor by pulling control lever out to its detent position. FIGURE 10

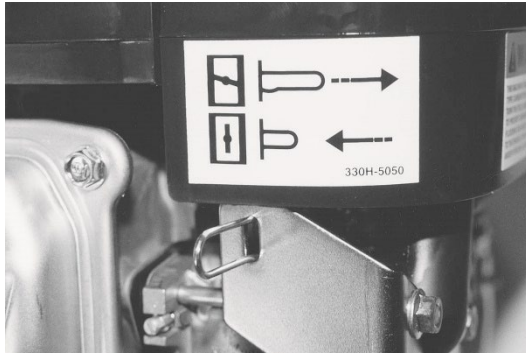



FIGURE 10



FIGURE 11

 **CAUTION**

- DO NOT apply excessive force when pulling or pushing choke lever control.
- Excessive force can damage carburetor.

8. Crew Member pulls recoil starter handle slowly 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 into its detent 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 bit 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 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 BIT FROM HOLE**

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

**WARNING**

- Transmission lock is designed for manual engagement and activation by the operators.
- **DO NOT** use chains and/or slings wrapped around Auger and/or operator handles connected to external towing device such as a truck or loader to remove stuck auger bit.
- Improper action can result in property damage and/or personal injury.

**NOTE:** The Auger uses a manually deployed transmission lock to prevent gear rotation. Use the following procedure to remove a stuck auger bit from hole:

17. Before attempting to remove stuck auger bit from hole, STOP engine per STOPPING AUGER in OPERATING INSTRUCTIONS section of this manual BEFORE moving to step 18 below.
18. Locate transmission lock on top of transmission housing under spark plug/engine cooling fin area of engine. FIGURE 16

**CAUTION**

- Area can become hot to the touch.
- Wear gloves for added protection.



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 16
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 Auger 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

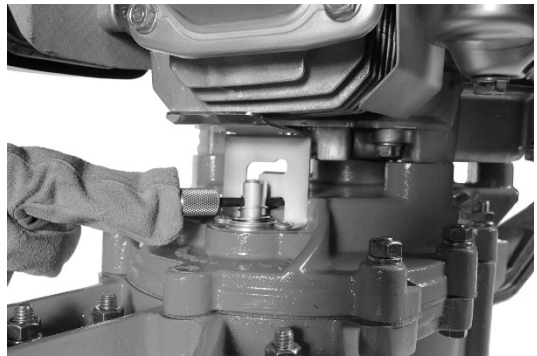


FIGURE 17

21. With Crew Chief and Crew Member on each side of Auger, grasp operator handles and rotate Auger/auger bit counterclockwise (to left). **DO NOT FORCE.** Apply steady pressure until auger bit loosens in ground, continuing rotation until auger bit is freed from obstruction and Auger/auger bit can be lifted from hole.
22. Inspect Auger/auger bit for damage. Remove any obstruction from auger bit 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.

**CAUTION**

- Lock device spring should always be in direct contact with handle in any position.
- If this does not occur, lock device can become inadvertently deployed, resulting in property damage and/or personal injury.
- Replace worn or damaged spring with factory approved replacement part only.

24. Reconnect spark plug wire. Start engine and resume digging process per STARTING ENGINE WITH AUGER BIT ATTACHED in OPERATING INSTRUCTIONS section of this manual.

**ADDING/REMOVING NONFLIGHTED & FLIGHTED AUGER BIT EXTENSION**

For holes deeper than standard auger bits provide, a non-flighted auger bit extension increases digging depth 15 inches (381 mm). A flighted auger bit extension increases digging depth 36 inches (762 mm). Additional operator experience, over introductory/novice skill levels, is required when using. Follow this accepted procedure to add non-flighted bit extension:

25. Dig to approximate full depth of auger bit following operating instructions. Remove as much loose soil from hole as possible per STEP 6 of HOLE DIGGING TECHNIQUES in APPLICATION THEORY & TECHNIQUES section of this manual.
26. STOP Auger per STOPPING AUGER in OPERATING INSTRUCTIONS section of this manual.
27. Remove Auger/auger bit from hole. Disconnect auger bit from Auger. Place auger bit in hole. Attach auger bit extension to auger bit and secure with auger pin. The Auger can now be connected to auger bit extension using auger pin.



FIGURE 18

**CAUTION**

- Utilization of non-flighted/flighted auger bit extensions requires additional operator experience, skill and common sense over introductory or novice level of expertise.
- Manufacturer has no control over experience, skill and common sense levels of each operator of Auger.
- Each operator must decide if his experience, skill and common sense level is sufficient to allow him to proceed with use of non-flighted/flighted auger bit extensions for any given and/or specific job application.

**WARNING**

- **Never utilize more than one non-flighted auger bit extension to increase overall digging depth.**
- **Non-flighted auger bit extensions are not equipped with auger flighting to elevate loose borings from hole.**
- **Multiple use of non-flighted auger bit extensions will allow auger to “bury” itself in hole. Such use can lead to loss of operator control and/or personal injury.**



FIGURE 19

28. Per STARTING ENGINE WITH AUGER BIT ATTACHED in OPERATING INSTRUCTIONS section of this manual, dig to desired depth or to full depth of auger bit extension. To remove auger bit extension, follow this accepted procedure:
29. STOP Auger per STOPPING Auger in OPERATING INSTRUCTIONS section of this manual.
30. Remove as much loose soil from hole as possible per STEP 6 of HOLE DIGGING TECHNIQUES in APPLICATION THEORY & TECHNIQUES section of this manual.
31. Lift auger bit extension/auger bit/Auger up far enough out of hole so bottom end of auger bit extension is clear. FIGURE 18. Block remaining auger bit with auger fork to prevent falling back into hole. An additional Crew Member will usually be required. FIGURE 19

32. Disconnect Auger from auger bit extension. Disconnect auger bit extension from auger bit.
33. Reconnect Auger to remaining auger bit and remove power unit/auger bit from hole. Reconnect spark plug wire.
34. Per STARTING ENGINE WITH AUGER BIT ATTACHED in OPERATING INSTRUCTIONS section of this manual dig next hole based on job application. If project is complete, store Auger per STORAGE section of this manual.



**STOPPING AUGER**

35. Stop Auger by releasing throttle control grip. Power to engine should immediately be 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.

 **WARNING** 

- Stop Auger between each hole.
- Never leave Auger running and unattended.
- Not doing so can result in property damage and/or personal injury.


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.

**11 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.

 **WARNING**



- Operating Auger utilizing components not meeting minimum operational standards can result in property damage and/or personal injury.

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 Auger BEFORE performing maintenance and service per STOPPING AUGER in OPERATING INSTRUCTIONS section of this manual.

 **WARNING**

- DO NOT perform service and/or repair related functions with Auger mounted to 999 Series Display Stands.
- Stands are not designed and/or intended for hole digging and service functions.
- Such use can result in property damage and/or personal injury.

4. 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.
5. Remove all loose accumulations, dirt, grease to prevent safety hazards, poor performance and reduced service life using safety type solvent.

 **DANGER** 

- Use safety type solvent.
- DO NOT use thinner, benzene, or other volatile solvents that will attack rubber/plastic components when cleaning Auger.
- Provide adequate ventilation.
- DO NOT smoke while using cleaning solvents.
- DO NOT use solvents with engine running or if it is hot.
- Allow ample time for engine to cool BEFORE using solvents.
- An ignition source in close proximity to hot engine can be the source of an explosion, resulting in property damage and/or personal injury.

6. Inspect engine throttle control arm and throttle cable assemblies are not damaged, bent, abraded or parts missing, are in correct operating position and allow for complete freedom of movement. DO NOT operate Auger with damaged engine throttle control arm and/or throttle cable assembly.
7. 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 Auger 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.
8. 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 0.125 inch (3.2 mm) deep are present, replace. Keep handles clean and free of dirt, moisture, grease, oil and other, foreign material accumulations.

**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 ultra violet radiation from sun.

9. Inspect centrifugal clutch assembly properly disengages at specified engine speed or slips during overload conditions.
10. 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.
11. Inspect all safety and operation decals. If any decal becomes damaged and/or unreadable, replace.
12. Auger may utilize self-locking type hexagon nuts to minimize effects of vibration. If worn or damaged, replace.
13. Inspect auger bit for bent or damaged axle that will cause auger bit to "wobble" during use and can cause loss of machine control. Maximum allowable auger bit wobble is 0.25 inch (7 mm) total indicator runout (TIR). Auger bits with TIR in excess of this value must be removed from service and scrapped.

14. Inspect auger bit teeth 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 bit replacement. FIGURE 21. Auger bit service life can be greatly extended with constant auger bit wear part maintenance.



FIGURE 21



**WARNING**

- **DO NOT** use auger bit with auger teeth and screw worn past their specific service limits.
- Excessive wear to auger teeth and screw bit will allow auger bit flighting to wear in a tapered or inverted cone configuration.
- A worn boring head may only be capable of digging a hole 60 to 75 percent of auger bit nominal diameter.
- Configuration will allow auger bit to "bind" in hole and substantially reduce operator control and productivity.



**DANGER**

- **DO NOT** operate auger bit which has bent or damaged axle with total indicator runout exceeding maximum allowable limit.
- Excessive auger bit wobble can reduce operator control, resulting in property damage and/or personal injury.

**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 Auger.

**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.

FIGURE 22



**DANGER**



Under Title 13 if the California Code of Regulations, the California Air Resource Board (CARB) has identified several important engine service related subjects. The material supplied by specific engine manufacturer will include the following:

1. statement of compliance
2. engine oil recommendations
3. engine fuel recommendations
4. maintenance information
5. other information as required by (CARB)
6. emission component warranty statement

If you have any question regarding emission components, warranty rights and responsibilities for a specific engine used on Auger, contact Customer Service Department for specific information. There is no charge for this service.

### 13 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.

#### AUGER LACKS POWER

Possible Cause	Correction
Incorrect transmission oil level.	See FILLING AUGER 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 BIT 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.

### 14 STORAGE

#### TEMPORARY STORAGE (On Job Site)

Auger 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 Auger per STOPPING AUGER in OPERATING INSTRUCTIONS section of this manual.
  - a. Dig shallow hole and leave Auger connected to auger bit. FIGURE 41



FIGURE 41

- b. Disconnect Auger from auger bit and/or auger bit extension and store in level configuration. FIGURE 42

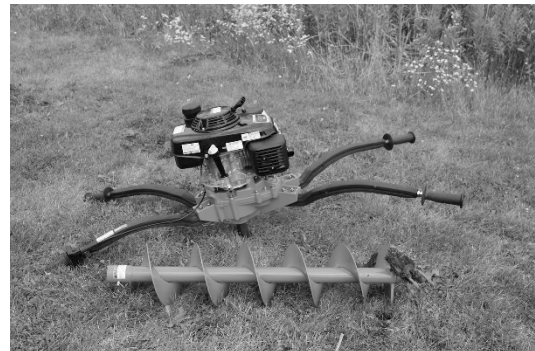


FIGURE 42

- c. Store Auger connected only to lead auger bit with engine spark plug facing upward to minimize potential for crankcase oil entering combustion chamber and causing hydraulic lock up. FIGURE 43



FIGURE 43

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



#### WARNING

- DO NOT drop or impact Auger against ground.
- Action can damage twist grip throttle control, engine and result in property damage and/or personal injury.