



EDCO 2 PERSON POST HOLE DIGGER

MODEL: 2PH-00

OPERATOR'S INSTRUCTIONS & PARTS LIST



See page 9 from Quick Start Guide

2 PERSON POST HOLE DIGGERS

SKU #	MODEL #	POWER OPTION
87000	2PH-00 1-3/8 HEX	HONDA GASOLINE ENGINE MODEL GXV160UH2N5AH
87001	2PH-00 7/8 SQUARE	HONDA GASOLINE ENGINE MODEL GXV160UH2N5AH

**READ AND UNDERSTAND THE OPERATOR'S SAFETY MANUAL THOROUGHLY
BEFORE ATTEMPTING TO OPERATE THIS EQUIPMENT.**

Death or serious injury could occur if this machine is used improperly.

READ AND UNDERSTAND THE ENGINE MANUFACTURERS INSTRUCTIONS AND OPERATORS MANUAL BEFORE OPERATION.



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**SAFETY INFORMATION****SAFETY MESSAGES**

- Safety Instructions are preceded by a graphic alert symbol of DANGER, WARNING, or CAUTION.

DANGER

Indicates an imminent hazard which, if not avoided, will result in death or serious injury.

WARNING

Indicates an imminent hazard which, if not avoided, can result in death or serious injury.

CAUTION

Indicates hazards which, if not avoided, could result in serious injury and or damage to the equipment.

GASOLINE / POWERED EQUIPMENT**WARNING**

- Engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

WARNING

• Tilting a gasoline powered machine fitted with an EPA approved vented charcoal filter gas cap, beyond 20° can cause fuel leakage. If a leak occurs, do not start or run the engine until the leak is fixed. Eliminate all other ignition sources in the immediate area (no smoking, flares, sparks or flames). Use approved gasoline absorbing material to contain the fuel leakage. Then use clean, non-sparking tools to collect absorbed materials then dispose of these contaminants properly.



- Gasoline is extremely flammable and poisonous. It should only be dispensed in well ventilated areas, and with a cool engine.
- Small gasoline engines produce high concentrations of carbon monoxide (CO) example: a 5 HP 4 cycle engine operation in an enclosed 100,000 cu. ft. area with only one change of air per hour is capable of providing deadly concentrations of CO in less than fifteen minutes. Five changes of air in the same area will produce noxious fumes in less than 30 minutes. Gasoline powered equipment should not be used in enclosed or partially enclosed areas. Symptoms of CO poisoning include, head-ache, nausea, weakness, dizziness, visual problems and loss of consciousness. If symptoms occur - get into fresh air and seek medical attention immediately.
- Never refuel a hot engine or an engine while it is running.
- Engines are shipped from factory without fuel/oil.

DUST WARNING**WARNING**

- Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects, or other reproductive harm. Materials being removed can be toxic or hazardous. A breathing respirator is required to help protect the operator.
- Some examples of these chemicals are:
- Lead from lead-based paints.
 - Crystalline silica from bricks, concrete and other masonry products.
- Your risk of exposure to these chemicals varies depending on how often you do this type of work. To reduce your risk: work in a well ventilated area, use a dust control system, such as an industrial-style vacuum, and wear approved personal safety equipment, such as a dust/particle respirator designed to filter out microscopic particles.
- See more on the importance of dust prevention and silica warnings at: osha.gov/silica
 - More concrete and silica dust suppression training and educational materials available at edcoinc.com/silica-standards.
 - Written exposure plans are provided at <http://www.edcoinc.com/written-exposure-control-plans/defects>, or other reproductive harm. Materials being removed can be toxic or hazardous.

GENERAL INSTRUCTIONS

- Equipment should only be operated by trained personnel in good physical condition and mental health (not fatigued). The operators and maintenance personnel must be physically able to handle the bulk weight and power of this equipment.
- This is a TWO person tool. Maintain a safe operating distance to other personnel. It is the operators' responsibility to keep other people (workers, pedestrians, bystanders, etc.) away during operation. Block off the work area in all directions with roping, safety netting, etc.
- Failure to do so may result in others being injured by flying debris or exposing them to harmful dust and noise.
- This equipment is intended for commercial use only.
- For the operator's safety and the safety of others, always keep all guards in place during operation.
- Never let equipment run unattended.



- Personal Protection Equipment and proper safety attire must be worn when operating this machinery. The operator must wear approved safety equipment appropriate for the job such as hard hat and safety shoes when conditions require. Hearing protection MUST be used when operational noise levels of this equipment may exceed 85db. Eye protection MUST be worn at all times.



Keep body parts, loose clothing and accessories away from moving parts. Failure to do so could result in dismemberment or death.

- Do not modify the machine.
- Stop motor/engine when adjusting or servicing this equipment. Maintain a safe operating distance from flammable materials. Sparks from the cutting-action of this machine can ignite flammable materials or vapors.



Always contact your appropriate local agencies to determine exact locations of all buried utilities and subsurface hazards. If the EDCO 2PH comes in contact with any subsurface hazard, property damage and/or personal injury will occur.

- Read and follow all safety decals and labels.
- Maintain a safe operating distance to other personnel.
- Be familiar with all aspects of the machine's operation and controls before applying power to the equipment.
- Use the correct accessory for the job being performed and material being removed. Make sure accessories are mounted correctly.
- Never operate this machine while under the influence of drugs or alcohol, while taking medications that impair the senses or reactions, or when excessively tired or under stress.
- Follow the instructions in the operator's manual and exercise caution.
- Comply with all local safety and health regulations as well as EPA and OSHA regulations.

Read/Maintain a copy of the equipment's operator's manual and the engine/motor manufacturers operators manual with the machine for reference at all times.

- Be sure all decals on the machine can be clearly read and understood. Replace worn/missing decals immediately.

OPERATOR'S INSTRUCTIONS & PARTS LIST MANUAL

MODEL 2PH

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HOW TO ORDER REPLACEMENT PARTS

- To insure product safety and reliability, always use genuine EDCO replacement parts when making repairs to the equipment.
- When calling for parts, specify the MODEL and SERIAL number of the machine, which can be found on the NAME PLATE. Keep that information in the space provided. In addition to this information, give part number, description, and quantity as listed on the parts list to your parts representative.
- Please note: Due to improvements and changes in the equipment, the illustrations shown may be different than the actual machine.

FILL IN INFORMATION BELOW

Date of Purchase _____

Model # _____

Serial # _____

SKU # _____

SAFETY SYMBOLS



This symbol means that the guards must remain in place while the engine/motor on the machine is running because death or personal injury may result.
(Yellow background with black pictogram and black outline)



This symbol means that there are moving parts and if feet/fingers/digits are inserted under any edge of the cutter/grinder/saw cover while the engine/motor on the machine is running that personal injury and loss of foot/fingers/digits may result.
(Yellow background with black pictogram and black outline)



This symbol means the surface is HOT and that if fingers/digits/hands or any bare or unprotected skin comes in contact with this surface or hot accessory, possible serious burns and personal injury may result.
(Yellow background with black pictogram and black outline)



This symbol means that potential hazardous voltages are present and the equipment must be properly grounded and extreme caution should be taken. If for any reason maintenance or repair is needed, insure that voltage(s) are disconnected at the machine and the source unless (be cautious) voltage needs to be present to troubleshoot the problem, then only qualified personal should work on "live" systems.
(Yellow background with black pictogram and black outline)



This symbol means that the machine is heavy if the machine needs to be lifted onto or off of a truck, loading dock etc. that proper technique or heavy duty lifting device should be used, personal injury could result.
(Yellow background with black pictogram and black outline)



This symbol means that dangerous chemicals, gases, dust particles and/or fumes are present including carbon monoxide. Proper ventilation must be maintained. Do not use gasoline or diesel powered equipment indoors.
(Yellow background with black pictogram and black outline)



This symbol means that there are sharp components and if feet/fingers/digits come in contact personal injury or death could result.
(Yellow background with black pictogram and black outline)



This symbol means hazardous pressures are present. Caution should be exercised to prevent personal injury or damage to equipment. Face, eye and head protection should be used.
(Yellow background with black pictogram and black outline)



This symbol means explosive and hazardous vapors are present. Caution should be exercised to prevent personal injury to face and eyes. Breathing and personal protection should be used when servicing.
(Yellow background with black pictogram and black outline)

SAFETY SYMBOLS



This symbol means that the Operator's, owners, instruction and/or manufacturer(s) manuals must be read and understood before operating or attempting to operate this electrical, gasoline, diesel or propane powered equipment, failure to do so can result in personal injury and possible death. (Blue background with white pictogram.)



This symbol means that proper eye protection must be worn/used during the operation of this equipment. There is a potential risk of operator eye damage, injury or loss of sight. This also applies to any personnel standing nearby observing the operation of this equipment. (Blue background with white pictogram.)



This symbol means that proper ear protection should be worn/used during the operation of this equipment. There is a potential risk of operator hearing damage, injury or loss of hearing which will increase based on the length of exposure. This also applies to any personnel standing nearby observing the operation of this equipment. (Blue background with white pictogram.)



This symbol means that proper head protection should be worn/used during the operation of this equipment there is a potential risk of operator head injury from foreign or loose objects the equipment might come in contact with during operation. This also applies to any personnel standing nearby or observing the operation of this equipment. (Blue background with white pictogram.)



This symbol means that proper breathing protection or engineering controls must be worn/used during the operation of this equipment there is a potential risk of operator lung damage. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. In addition, to California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When grinding/cutting/drilling such materials, always follow local respiratory precautions. This also applies to any personnel standing nearby or observing the operation of this equipment. (Blue background with white pictogram.)



This symbol denotes the lifting point and means that if lifting of this equipment is necessary use a lifting device that is designed to accommodate or exceed the weight of this machine. Check the Operator's manual for specifications. Using a device that is not designed to accommodate or exceed the weight of this machine could result in damage to the machine and personal injury. Do not lift equipment over people because death or serious injury could result. (Blue background with white pictogram.)



This symbol means do not insert fingers/digits under any edge of the belt cover while the engine/motor on the machine is running because personal injury and loss of fingers/digits may result. (Black pictogram with red "No" symbol outline)



This GHS pictogram identifies that the chemicals contained present serious health hazards. (Black pictogram with red diamond symbol outline)



**Read and understand this *Operator's Instruction Manual*,
and the *Engine Manufacturer's Owner's Manual*
before operating this equipment.**
Death of serious injury can result if this machine is used improperly.



Safety Guidelines



Maintain a safe operating distance from flammable materials. Sparks from the cutting-action of this post hole digger can ignite flammable materials or vapors.



Operator must wear appropriate clothing and footwear. Do not wear loose clothing or jewelry that can get tangled or caught in moving parts.



Eye and ear protection must be worn at all times when this machine is in use. During normal use, sound levels can exceed 85dBA. Use only ANSI approved safety glasses to help prevent eye injury. Everyday eyeglasses have only impact resistant lenses; they are NOT safety glasses.

- Keep a safe operating distance from other personnel and never leave the machine running unattended.
- Maintain the machine in safe operating condition with all guards in place and secure, all mechanical fasteners tight, all controls in working order and the EDCO 2PH configured for the job application.
- The 2PH is intended to dig vertical holes in unconsolidated earth formations.
- The 2PH is to be operated by two operators, one operator holding two handles and the other holding the other two handles
- Inspect the auger carefully before installing. Do not use any questionable auger since serious personal injury and/or damage to property can result.
- Never operate this post hole digger while under the influence of drugs, alcohol or when taking medications that impair the senses or reactions, or when excessively tired or under stress.
- Always ensure a safe operating program for the post hole digger for the users has been established. This includes, but not limited to OSHA requirements, local laws and regulations and always call before you dig to ensure no underground utilities are in the digging zones.
- Incorrect use of the hole digger can result in property damage, personal injury or even death. To reduce this possibility, give complete and undivided attention to the job at hand and follow these safety precautions.

Safety warnings and guidelines do not by themselves eliminate danger.
They are not given as substitutes for proper accident prevention and good judgement.

Maintenance Schedule



Repairs are to be
done by authorized
EDCO DEALERS

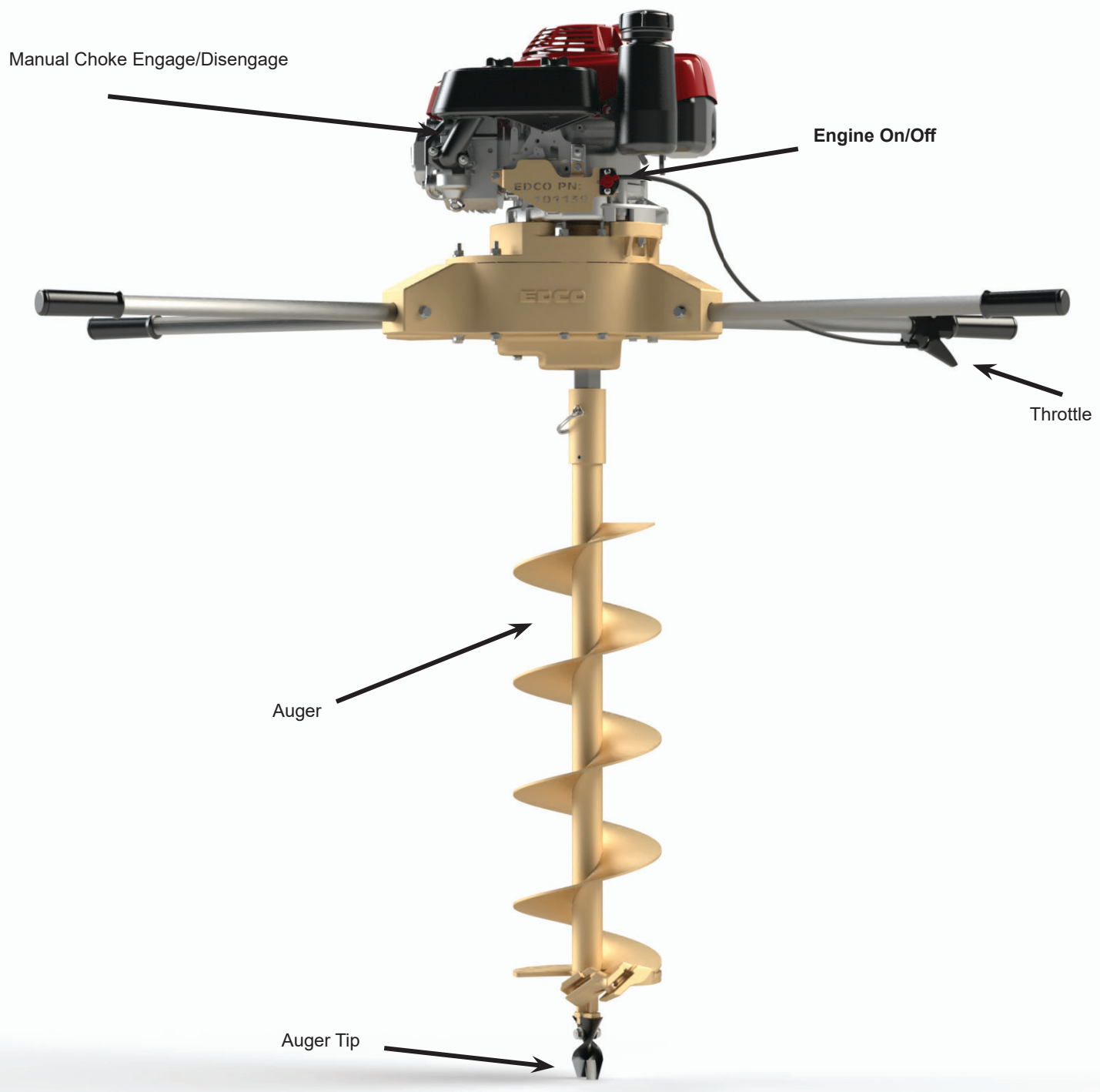


Read and follow instructions
in the Engine Manufacturer's
Manual

Follow Engine Manufacturer's Maintenance Schedule	Before Each Operation	Daily	Every 25 Hours of Operation	As Required
Visual Inspection of Entire Machine	X			
Check Engine Oil*	X			
Change Engine Oil* (Refer to Engine man- ual)				X
Change Transmission Oil			X	
Clean Air Filter Element*		X		
Check/Replace Auger Teeth & Tip	X			
Inspect Throttle Assembly	X			

*** Consult Engine Operators/Owners Manual**

OPERATING CONTROLS MODEL 2PH POST HOLE DIGGER



Please Note:

Controls shown are for the model indicated.

The location of these controls may vary on the different models.

Due to improvements and changes in the equipment, the illustration shown may be different from the actual machine.

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QUICK START GUIDE MODEL 2PH POST HOLE DIGGER

Fill Post Hole Digger Gearcase with Oil –

1. Wipe any dust/dirt from the oil filler plug and area around the oil fill plug. Oil Fill is located on the side of the gear case (See figure 1), while the oil drain is located on the lower portion of the gearcase near the driveshaft. Remove oil fill plug with 12 point, 1/2" socket to avoid stripping. Replacement plugs are available to purchase, part number: 87024.

2. Using a funnel, pour in 1 quart of oil (High Grade SAE 30 Motor Oil, EDCO #: 87042, 1 quart provided) in to the EDCO 2PH transmission gear case oil fill hole. The oil fill hole is in a location designed to drain any oil over the 1 quart limit before replacing the oil fill plug.

3. Replace the oil fill plug securely.

Figure 1

Engine Oil Fill/Dipstick

Gearcase/Transmission Oil Fill

Fill Engine with Oil –

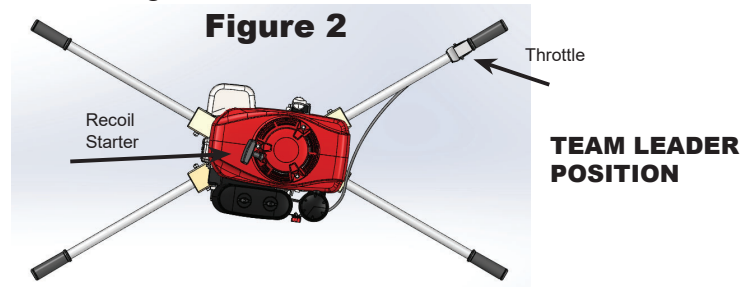
1. Wipe any dust/dirt from the oil filler and area around the oil fill dipstick.

2. Using a funnel, pour in .65 Liter/.69 Quart of 4 stroke SAE 10W-30 Motor Oil (Not Provided) in to the oil fill dipstick oil fill hole of the Honda GXV160 Engine.

3. Replace the oil fill dipstick securely.

Figure 2

**TEAM MEMBER
POSITION**



Assemble Handle bars to gearcase –

1. Attached throttle cable control to handle bar. Slide handle bar in to throttle cable, with handle bar material passing under the throttle lever, then out through the rectangular end. Locate throttle control lever near the hand grip at a comfortable position. Default is facing away from operator for the throttle lever to be engaged by index and middle finger. Tighten set screw on throttle lever bracket. Do not overtighten as the plastic housing will crank with too much tension.

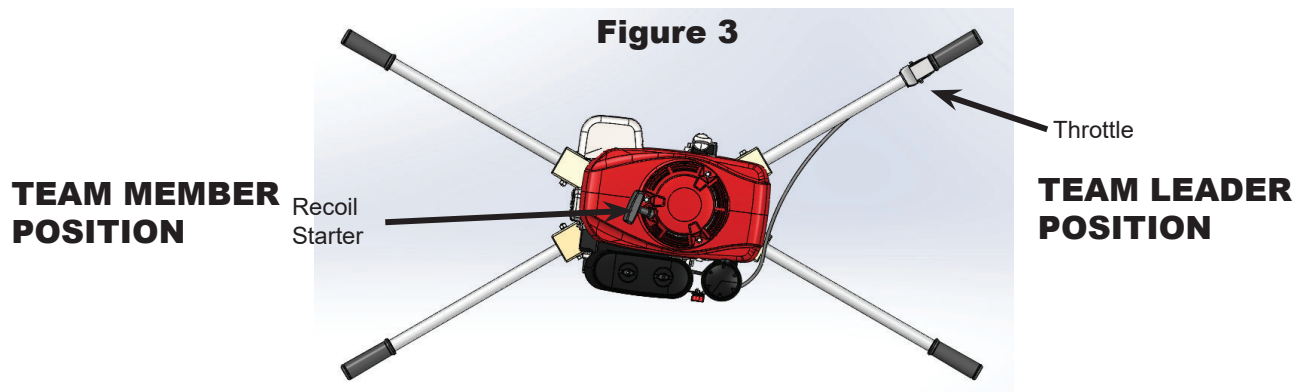
2. Attach the handle bar with the throttle cable utilizing the provided hardware, to the team leader's right hand side. Team leader should be positioned on opposite side of the recoil starter pull cord direction. (See figure 2)

2. Attach the remaining three handle bars to the gear case utilizing the hardware provided.

If the handle bar hardware holes do not match up perfectly between handle bar and hole in gearcase, rotate handle bar 180° and try again.

Operation

- The EDCO 2PH are not sealed or insulated. Do not operate this machine in an explosive atmosphere or near combustible materials. Refer to current OSHA rules and regulations.
- The EDCO 2PH are designed for use by two operators. Use by more than two or fewer than two operators will cause confusion and loss of control, resulting in property damage and/or personal injury.
- Do not operate the EDCO 2PH with onlookers close by. The digging process can result in flying particles at high velocity and striking the operator and/or onlookers. This can result in property damage and/or personal injury.
- Do not utilize any objects to remove loose soil in or around the hole area while the EDCO 2PH is in use. Said object could become entrapped in rotating auger, leading to property damage and/or personal damage.
- Always hold the operators handles firmly. Always determine handle bars and grips are in good working condition and free of dirt/oil/grease/moisture. Never leave EDCO 2PH running unattended.
- Starting the EDCO 2PH should occur in the following process: Team leader regulates the engine speed with the throttle control, while the team member starts the engine with the recoil starter. The team leader is responsible for the verbal commands. Never operate the EDCO 2PH if it requires one person to be responsible for all functions of the engine. This will result in loss of machine control leading to property damage and/or personal injury.
- The EDCO 2PH is designed for two operators; (1) team member, to operate the recoil starter and the choke control. (1) Team leader is responsible for throttle control regulation. (See figure 3)



- The EDCO 2PH operates by engaging the throttle control lever which in turn allows for the engine to increase RPM that engages the featured centrifugal clutch, which only rotates at a designed speed. The engine at idle will not engage the centrifugal clutch, meaning the auger will not rotate. If the throttle control lever is not engaged the machine will not rotate.
- Stop engine with on board ON/OFF switch between each hole. Allowing the engine to operate between each hole increases potential for property damage and/or personal injury.
- The EDCO 2PH is limited in the number of practical and/or suitable job applications. Site, surface conditions, specifications and operator skill may dictate the need for a different type of machine/method to achieve success while remaining safe.

Starting the Machine Once the Auger has Been Attached

Be sure the auger teeth and screw tip are not clogged. Removal of any obstructions before starting the engine and digging operation will increase the effectivity of the auger and auger attachments during use.

Place the EDCO 2PH in a vertical position over the desired hole location. Ensure both operators have firm stances before starting the machine.

During all starting operations and processes ensure that at least three positions of the machine are being supported by team member and team leader. At times during the starting process it is required that the team member, has one hand completing an operation (choke, on/off, fuel valve) and one hand on a handle bar. The team leader is required to maintain a majority of the stability of the machine during these processes. Once the team member completes said operation, they are responsible for replacing their hand on to the handle bars.

To Start:

1. Team member: open the gasoline breather to its most open position to ensure a continuous steady flow of fuel. (See figure 4)
2. Team member: turn ON the engine kill switch. (See figure 5)
3. Team member: engages the choke control if required during cold starts. (See figure 6)
4. Team member: utilizes recoil starter to start the engine. If completing cold start, allow engine to warm up before disengaging choke.
5. Team leader: operates the throttle control lever and provides stability during the starting operation.

DANGER! At NO time should the team leader begin engaging the throttle control lever until both team leader and team member have all four handle bar positions supported. Before engaging the throttle, ensure both team member and team leader have acknowledged to each other they have full control and are ready to begin digging. Failure to comply, can result is personal injury and/or property damage.

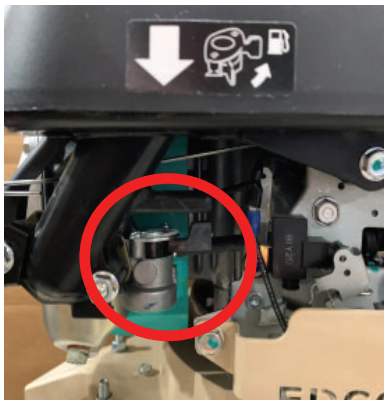


Figure 4

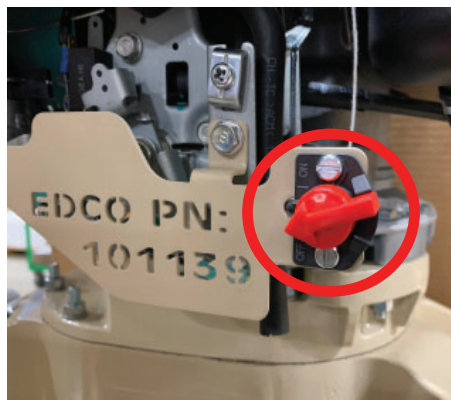


Figure 5



Figure 6

Digging

EDCO does not warranty or guarantee that this machine is suitable for specific job applications and that it will have the required power to dig a specific diameter hole to a certain depth in a specific soil type.

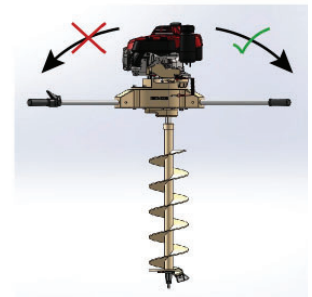
Before attempting to dig with the hole digger, determine any potential subsurface hazards which may exist in the proposed digging location(s) including but not limited to: Rocks, roots, buried materials, pressurized pipes, electrical cables.

DANGER! Always contact your appropriate local agencies to determine exact locations of all buried utilities and subsurface hazards. If the EDCO 2PH comes in contact with any subsurface hazard, property damage and/or personal injury will occur.

The EDCO 2PH is designed to be operated and transported on/around the jobsite by two people.

Connect the auger to EDCO 2PH with the factory supplied clevis pin. When installing the clevis pin, ensure the EDCO 2PH is tilted with the spark plug facing away from the surface, preventing oil and/or gasoline to enter the combustion chamber causing a hydraulic lockup.

Figure 7
Engine Off



Do not connect the auger to the EDCO 2PH while the engine is running.

The factory supplied clevis pin is designed to withstand high stresses encountered under normal digging operations. Use of any other connecting device including screws, bolts, pins, etc. can cause property damage and/or personal injury.

Normal operation of the EDCO 2PH involves a large value of torque being transmitted and multiplied within the gearcase/transmission. This energy is required to dig holes this machine is said to accomplish. In physics, there is always an opposite force to every force. Thus, if the auger encounters an unknown or known obstruction this force will be transmitted to its stationary position (the operators). The operators will feel a thrust of force, relative to the speed the auger is rotating, once the auger has encountered said obstruction. This thrust of force is unavoidable while utilizing an EDCO 2PH.

To offset the velocity of forces felt during the immediate thrust of energy to the handle bar when encountering an obstruction, the operators should position themselves as close as possible to their left handle bar. Keep upper arms as close to the upper body as possible to maximize mechanical body leverage. Keep operators body and back in a most vertical posture as possible and always bend at the legs to accomplish the digging operation. Avoid placing serious strains to the back and other body members. Always lift in a straight line with your legs. Maintain vertical back posture. Avoid bending wrist during the digging process.

Digging Continued

Positioning the left foot ahead of the right foot will increase the body leverage during the digging operation.

Maintain a steady and firm grip on the operator handle bars at all times.

CAUTION! Maintaining all of the above proper operating positions and operating controls is the most important aspect to effective EDCO 2PH operation. Operator fatigue will occur while operating the EDCO 2PH, following the above guidelines will increase the timeframe of when operator fatigue will begin to occur.

The physical makeup of the composite handle bars allow for the handle bars to dampen and absorb some of the energy exerted from the thrust when the auger encounters obstructions.

CAUTION! Do not operate if the handle grips are worn/damaged. Replace any grips that show wear or have holes in the end caps.

EDCO Augers are designed for digging a wide variety of soil types and conditions. In soft soil (moist or sandy) it might be necessary to hold up on the handle bars to resist the machine from screwing the auger in to the ground. In soils with higher proctor densities it may be required of the operators to apply some downward force on the handles to establish and maintain productive digging rates.

Digging with small diameter augers sometimes causes the auger to bury/bind itself or screw in to the surface. This causes the EDCO 2PH to exceed past the designed operating power and overload the clutch. Do not continue to overload or slip the clutch as this causes excessive heat transfer in the gearcase and clutch assembly. Failure to stop operation when the auger becomes stuck can result in property damage and/or personal injury.

If an auger becomes stuck, power OFF the unit, disconnect and remove the EDCO 2PH from the auger, then remove the auger manually by several different industry accepted methods.

Do not attempt to create a pilot drilled hole with the auger, then come back and ream the hole with a larger diameter auger. This will cause for unstable digging operation. Failure to comply will result in property damage and/or personal injury.

Digging Continued

When digging holes where known obstruction are present, allow the auger teeth to chip away the obstruction until the auger can pass by working the obstruction loose. This is usually accomplished by applying upward pressure to the operator handles. At times the obstruction is too large to remove with the EDCO 2PH, continued use or attempts to remove the obstruction will result in machine damage and increase operator fatigue. Instead, remove the auger and EDCO 2PH, then remove obstruction with a shovel or other digging tool.

When retracting or removing the auger and EDCO 2PH after the desired hole depth has been achieved, allowing the auger to slowly rotate will ease the removal of the auger. However, this will also leave some soil to be manually removed from the bottom of the hole.

Stop the EDCO 2PH engine in between each hole. Failing to do so can cause property damage and/or personal injury.

To stop/turn off the EDCO 2PH:

1 - Team leader: Release the throttle control lever and allow the engine to idle. If the throttle is functioning properly the engine will go to idle speed and the clutch will disengage causing the auger to stop rotation. If this does not occur, check the throttle control, throttle linkage and idle speed adjustment on engine. There may be some auger rotation at idle speed due to drag in the clutch assembly. This does not mean the clutch is engaged.

2- Team member: turn the ON/OFF engine switch to the OFF position. (See figure 8)

When you are done operating the machine, turn the fuel valve to the off position (See figure 9) to minimize the possibility of fuel seepage in to the combustion chamber. Property damage can occur if the fuel valve is left open and the engine is tilted to allow fuel in to the crankcase.

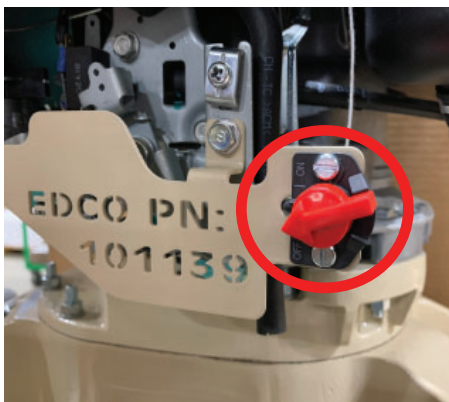


Figure 8

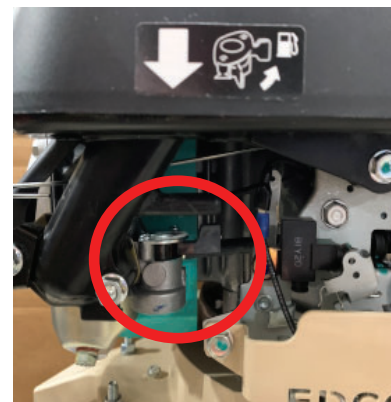


Figure 9

Digging With an Auger Extension

Some applications require additional hole depth beyond the capabilities of a standard EDCO Auger. This is accomplished by utilizing an EDCO auger extension. The addition of auger extensions require additional operator skill and common sense. Each operator must determine they are competent enough to operate the EDCO 2PH with an auger extension attached.

1. Dig to the acceptable full depth of the standard auger. Remove as much of the soil from the hole as possible.
2. Stop the EDCO 2PH, turn the fuel valve to the off position. Disconnect the engine spark plug.
3. Place the unit back in to the dug hole.
4. Disconnect the EDCO 2PH from the standard auger and set aside on a level/horizontal surface, leaving the auger in the hole.
5. Attach the auger extension to the auger that is located in the hole. Secure the auger extension with the supplied clevis pin.
6. Install the EDCO 2PH to the auger extension.
7. Follow the instruction for starting and operating the EDCO 2PH. Extra caution and skill is required to start an begin the continued digging with an EDCO 2PH starting in the existing hole.

There is a maximum allowable limit of one (1) auger extension when utilizing an EDCO 2PH. Failure to comply will result in property damage and/or personal injury.

After the desired depth is achieved while using the auger extension, stop the engine, turn fuel valve off and disconnect the spark plug.

1. Lift the EDCO 2PH and auger/extensions up far enough out of the hole so that the auger extension is above ground level. Utilizing blocking or auger fork supporting the standard length auger in the hole.
2. Disconnect the EDCO 2PH from the auger extension and set the unit aside on a level, horizontal surface. (This may require an additional team member to support EDCO 2PH and auger/extension)
3. Disconnect the auger extension from the standard length auger.
4. Then remove the standard length auger from the hole.

DANGER! Do not attempt to start the EDCO 2PH with an auger and auger extension attached out of an existing hole. Always dig with the standard length auger first, then attach extension as prescribed in the above text. If these instruction are not followed, property damage and personal injury will occur.

Maintenance

Always wear proper personal protective equipment while servicing or maintaining equipment. If you are not competent in doing the work, please reach out to EDCO for advice or where you might be able to have your machine serviced.

Changing the EDCO 2PH transmission oil (Interval: 25 hours)

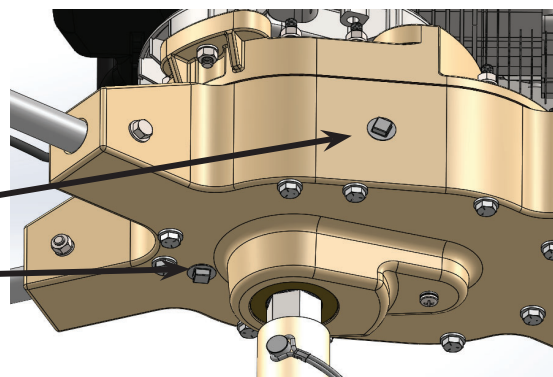
The process requires a level working platform and appropriate working height surface. The EDCO 2PH can also be supported in a vise clamped on to the driveshaft.

1. The transmission oil should be changed as needed or at least every 25 hours of use.
2. Wipe any dust/dirt from the oil filler plug and area around the oil fill plug. Oil Fill is located on the side of the gear case, while the oil drain is located on the lower portion of the gearcase near the driveshaft. (See Figure 10)
3. Remove the fill plug using a 12 point, 1/2" socket to avoid stripping. Doing this while draining the oil through the drain plug will allow for steady flow during the oil draining process.
4. Remove the drain plug with an 12 point, 1/2" socket and allow for oil to drain in to a suitable container. Dispose of the oil based on local ordinances. Once oil has drained completely, replace the oil drain plug securely.
5. Using a funnel, pour in 1 quart of oil (High Grade SAE 30 Motor Oil, EDCO #: 87042) in to the EDCO 2PH transmission gear case oil fill hole. The oil fill hole is in a location designed to drain any oil over the allowed 1 quart limit before replacing the oil fill plug. It is important to allow for any excess oil to drain before reinstalling the oil fill plug.
6. Replace the oil fill plug securely.

Figure 10

Oil Fill

Oil Drain



Replacing Auger Screw Bit

Replace as required.

While replacing the screw bit, inspect the entire auger for cracks, bent axle or any other possible damage before replacing parts.

1. Using two 1/2" wrenches, remove the screw and nut holding the screw bit to the drive lug. Remove the bit and dispose.
2. Inspect the drive lug, if drive lug needs replaced this can be cut off using suitable cut off tools or torch.
3. Replace Auger screw bit with new screw bit and hardware. Tightly fasten with wrenches.

Replacing Auger Teeth

Replace as required.

While replacing auger teeth, inspect the entire auger for cracks, bent axle or any other possible damage before replacing parts.

Maintenance Continued

There are a multitude of auger teeth available on the market. All of them have different capabilities and different lifespans. Most all of the teeth available are interchangeable across all manufacturers of augers.

1. Using a hammer and punch, strike the rear of the tooth accessed through the shank plate teeth access hole until the tooth has come dislodged from the shank plate.
2. Remove any residual rubber from the core of the tooth that may have stuck to the shank plate over time.
3. Inspect the shank plate and the tooth cavity for any fatigue and wear. If required the shank plate can be replaced.
4. Install new tooth in to the tooth pocket utilizing a soft tip mallet. Ensure tooth is completely seated in the pocket. Do not use metal hammer to accomplish this task.

Engine Maintenance and Troubleshooting

Consult the engine operators and owner's manual for proper engine service and maintenance manuals.

The engine ON/OFF switch (PN: 54004) located on the tan sheet bracket (PN: 101139) is are EDCO parts and can only be purchased from EDCO.

The choke bracket (Honda: 16598-Z1V-G00, EDCO: 87011) and choke engage rod (Honda: 16611-Z1V-G00, EDCO: 87012) are Genuine Honda parts, however these parts can be purchased through EDCO.

Ensure Engine ON/OFF switch and fuel valve are in proper positions based on the starting and stopping instruction listed in this manual.

Troubleshooting EDCO 2PH

- Engine bogs down and will not rotate driveshaft upon engaging throttle: clutch is locked up or seized
- Clutch engages at idle speed, or auger rotates at idle speed: Centrifugal clutch is worn out
- Clutch engages at idle speed, or auger rotates at idle speed: Throttle linkage is adjusted improperly
- Clutch engages at idle speed, or auger rotates at idle speed: Engine idle speed is not set correctly
- Hole Digger is not digging or "lacking power" to accomplish task: Centrifugal clutch is worn out
- Hole Digger is not digging or "lacking power" to accomplish task: Auger diameter is too large for soil

Maintenance/Repair/Storage/Transportation

Use only genuine, approved, replacement parts and accessories for replacement and repair.

Always properly maintain the EDCO 2PH. Check all fasteners and individual parts prior to every operation. Designed safety features are only effective if they are maintained and in good working order. All maintenance should be completed by a competent and trained technician or service facility. If proper maintenance is not performed, personal injury and/or property damage will occur.

Review the engine throttle control and throttle cable linkages and ensure they are not damaged and allow for complete range of motion as designed.

Do not operate the EDCO 2PH with a faulty or damaged throttle control and throttle cable linkage.

If any decal becomes damaged and/or illegible, replace with genuine, factory replacement decals only.

Replace the auger teeth and screw tip when signs of excessive wear become apparent. When these components are not replaced, the boring head and auger flighting will begin to wear, causing an inverted cone auger reducing productivity and potential property damage and/or personal injury.

The EDCO 2PH utilizes handle bars specially designed to reduce weight and help absorb the shock loads transmitted to the operator during the digging process. This material is not as abrasion resistant as steel and cannot handle the same amount of surface damage as steel. Do not allow the handle bar material to come in to contact with sharp objects. Keep handles clean and free of dirt and moisture.

Do not utilize chains or slings strapped around the handle bar material to help remove a stuck EDCO 2PH. This will cause damage to the handle bar material and to the transmission.

EDCO 2PH handle bars have a maximum service life of 6 years.

DANGER! The composite handle bar material does not eliminate the potential for property damage or personal injury if the machine is to contact an electrical cable.

Torque Chart

<u>Description</u>	<u>Torque Specification</u>
Driveshaft Nut Illustration 1, Item 5 (Qty: 1)	60 Foot Pounds (81 N.m)
Gearcase Fasteners Illustration 2, Item 23, 24 (Qty: 10)	20 Foot Pounds (27 N.m)

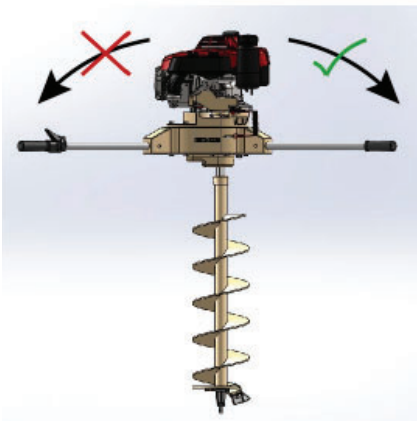
Maintenance/Repair/Storage/Transportation

Storage on the Jobsite (temporary)

There are three acceptable methods to storing the EDCO 2PH on the jobsite. If other methods are used, property damage and/or personal damage will occur. Always store the machine with the engine ON/OFF switch in the off position and the fuel valve in the off position.

1. Leave the EDCO 2PH and auger connected, then dig a shallow hole or place the unit in a pre-existing dug hole that will support the EDCO 2PH and auger in a vertical position.
2. Leave the EDCO 2PH and auger connected (no extension), tilt the machine and rest on the two handle bars opposite of the spark plug (spark plug facing up).
3. Disconnect the EDCO 2PH from the auger and/or auger extension. Set the EDCO 2PH on to a level/horizontal surface

Engine Off
Figure 1



Engine On
Figure 2

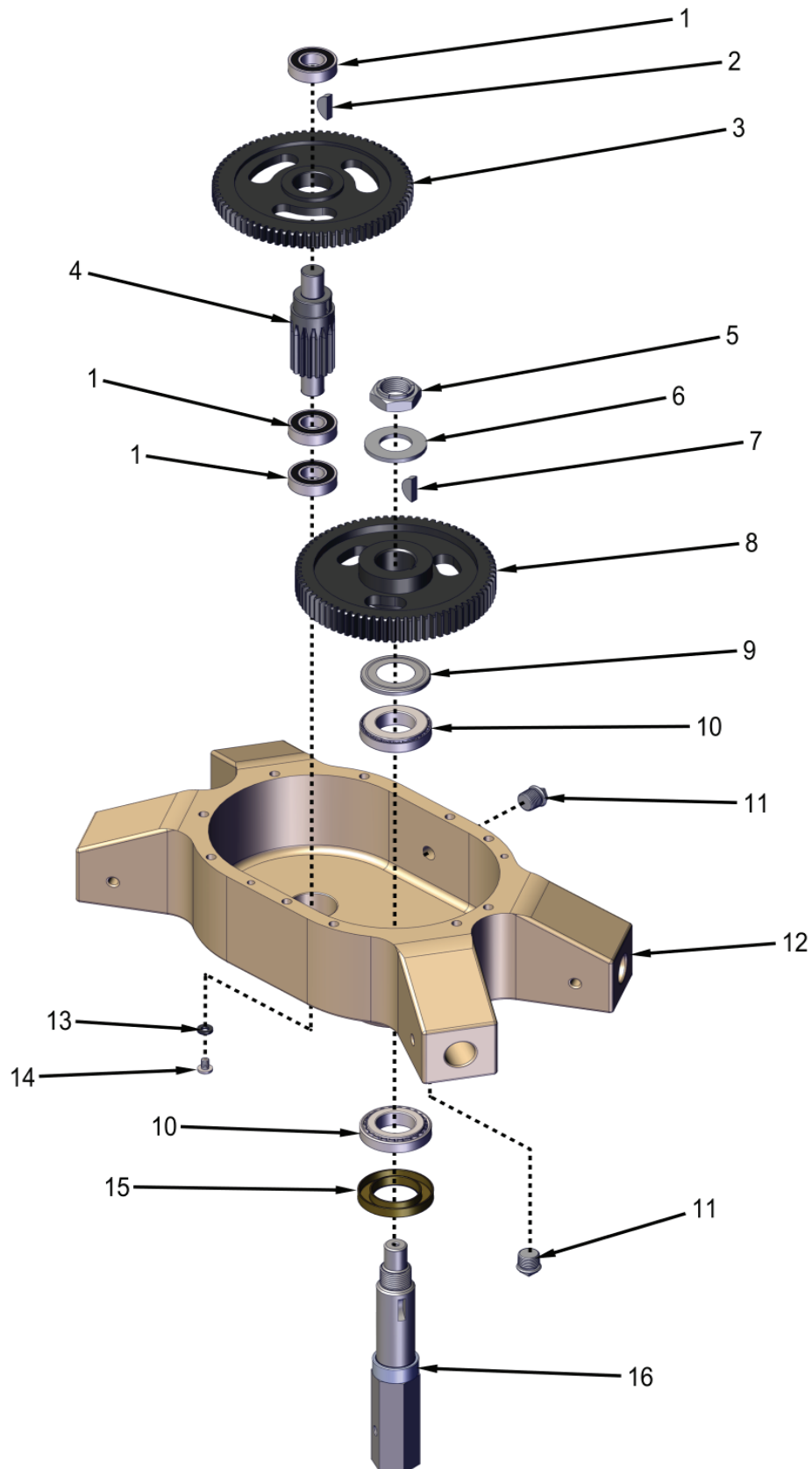


Transporting:

When transporting an EDCO 2PH the gasoline breather vent must be completely closed to eliminate potential fuel seepage and fire hazards.

Always transport the machine to the job site without the auger attached.

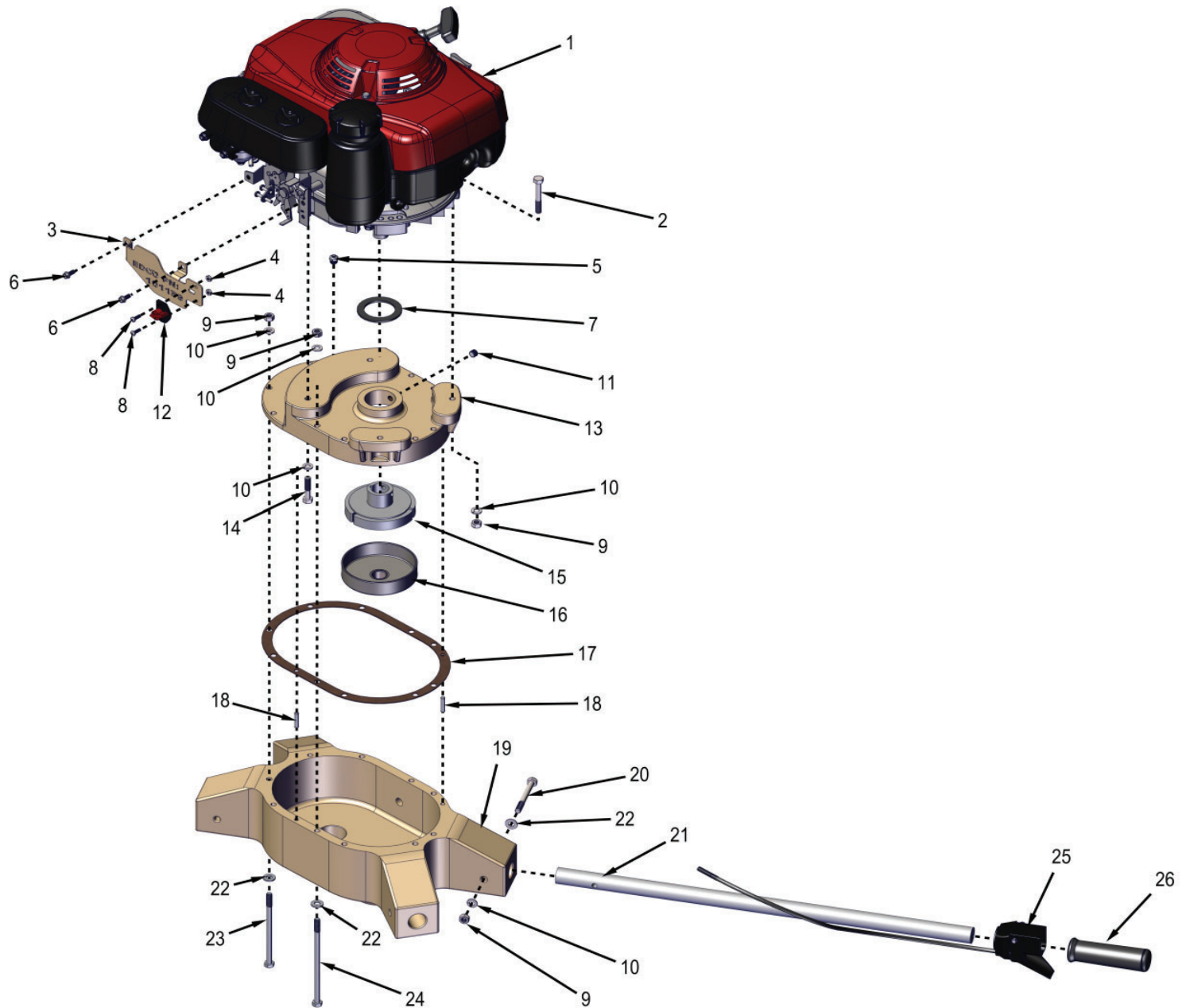
Failure to transport the machine in a vertical manner, disconnected from the auger, can cause gearcase oil to become trapped in the centrifugal clutch causing excessive slippage in the clutch assembly diminishing the service life of the clutch assembly.

ILLUSTRATION 1: GEARBOX GROUPING

PARTS LISTING 1: GEARBOX GROUPING
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PARTS LISTING - ILLUSTRATION 1 : GEARBOX GROUPING			
ITEM #	PART #	DESCRIPTION	QTY.
1	87020	BEARING, RADIAL BALL	3
2	87025	KEY, WOODRUFF	1
3	101133	SPUR GEAR, 5/8"	1
4	101135	PINION GEAR	1
5	87022	NUT, SELF LOCKING	1
6	87021	WASHER	1
7	87026	KEY, WOODRUFF	1
8	101134	SPUR GEAR, 1"	1
9	87036	SHIELD, OIL/DIRT	1
10	87018	BEARING, CUP	2
	87019	BEARING, CONE	2
11	87024	PLUG	2
12	101129	GEARCASE, BOTTOM	1
13	87044	WASHER, GASKET	1
14	87043	SCREW, 1/4-20 X 3/8	1
15	87023	SEAL, OIL	1
16	101137	OUTPUT SHAFT, 1-3/8 HEX	1
	101136	OUTPUT SHAFT, 7/8 SQUARE	

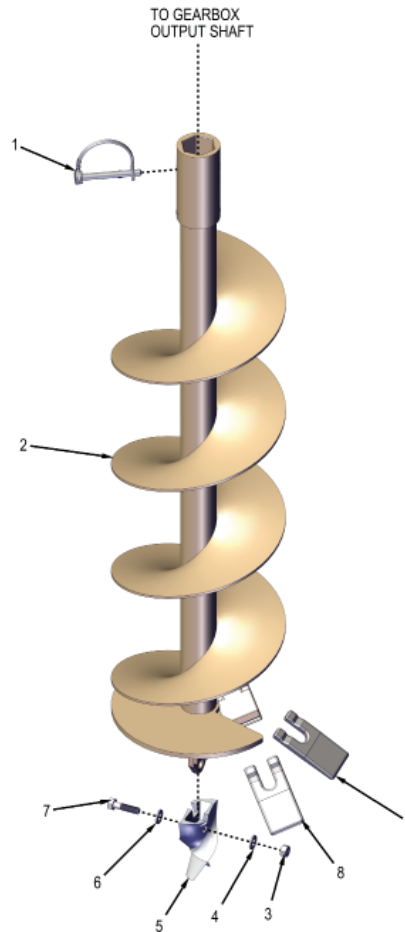
ILLUSTRATION 2: ENGINE AND HANDLE GROUPING



PARTS LISTING 2: ENGINE AND HANDLE GROUPING

PARTS LISTING - ILLUSTRATION 2 : ENGINE AND HANDLE GROUPING			
ITEM #	PART #	DESCRIPTION	QTY.
1	87010	ENGINE, GXV160	1
		NOT PICTURED:	
	87046	MUFFLER DEFLECTOR	1
	101174	GROUND WIRE ASSEMBLY (GROUND WIRE FOR SWITCH)	1
	101175	SWITCH WIRE ASSEMBLY (SWITCH TO ENGINE INC. SWITCH)	1
2	10341	SCREW, 5/16-18 X 2.25	2
3	101139	BRACKET, SWITCH	1
4	10462	NUT, KEPS 8-32	2
5	87038	VALVE, PRESSURE RELIEF	1
6	*	SCREW, M6-1.0 X 10MM (INCLUDED W/ ENGINE)	2
7	87037	SEAL, GASKET	1
8	10362	SCREW, 8-32 X 3/4	2
9	10054	NUT, HEX 5/16-18	16
10	10801	WASHER, LOCK 5/16	18
11	87030	PLUG	1
12	54004	SWITCH, ON/OFF	1
13	101128	GEARCASE, TOP	1
14	11691	SCREW, HEX CAP 5/16-24 X 1.5	2
15	101131	CLUTCH, ROTOR	1
16	101132	CLUTCH, DRUM	1
17	101130	GASKET	1
18	87029	PIN	2
19	101129	GEARCASE, BOTTOM	1
20	11734	SCREW, HEX CAP 5/16-18 X 3	4
21	101138	HANDLE BAR	4
22	10213	WASHER, FLAT 5/16	14
23	87039	SCREW, HEX CAP 5/16-18 X 5	4
24	87040	SCREW, HEX CAP 5/16-18 X 6	6
25	101140	THROTTLE	1
26	10608	HANDLE GRIP	4

ILLUSTRATION 3: AUGER GROUPING



PARTS LISTING - ILLUSTRATION 3 : AUGER GROUPING

ITEM #	PART #	DESCRIPTION	QTY.
1	87031	PIN, CLEVIS	1
2	101147 101149	AUGER, 8", 1-3/8 HEX AUGER, 12", 1-3/8 HEX	1
3	10054	NUT, 5/16-18	1
4	10213	WASHER, 5/16	1
5	87106	PILOT BIT	1
6	10801	WASHER, LOCK 5/16	1
7	10342	SCREW, HEX CAP 5/16-18 X 1.5	1
8	87105	PENGO, TOOTH	*

DECALS

EDCO Dirt
P/N 87017 2PH 11x14

CAUTION

MACHINE IS ASSEMBLED WITHOUT TRANSMISSION OIL (SAE 30) OR ENGINE OIL (10W30). PLEASE READ OPERATORS MANUALS FOR GETTING STARTED INSTRUCTIONS AND OIL FILLING INSTRUCTIONS.



CAUTION

TO STORE ON JOB SITE:

IF UNABLE TO STORE IN AN EXISTING HOLE, FOLLOW THESE INSTRUCTIONS:

- 1: TURN ENGINE SWITCH TO OFF POSITION
- 2: TURN FUEL VALVE TO OFF POSITION
- 3: POSITION HOLE DIGGER AS SHOWN TO PREVENT DAMAGE TO MACHINE, PROPERTY, AND/OR PERSONAL INJURY

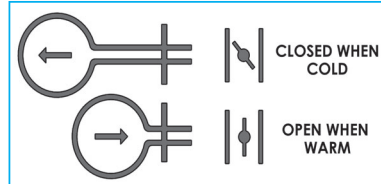


CAUTION

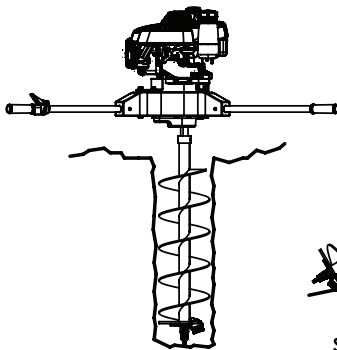
THIS MACHINE IS EQUIPPED WITH A FLOAT TYPE CARBURETOR. WHEN NOT IN USE TURN FUEL VALVE TO THE OFF POSITION TO PREVENT CARBURETOR FLOODING. ENGINE FLOODING CAN RESULT IN DIRECT DAMAGE TO THE ENGINE.



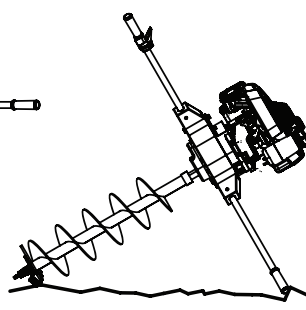
YOU MUST READ OPERATOR'S INSTRUCTION MANUAL BEFORE OPERATING



STORE IN EXISTING HOLE WHEN POSSIBLE



SPARK PLUG FACING UP
FUEL VALVE TO OFF POSITION



NEVER STORE MACHINE WITH
SPARK PLUG FACING GROUND

WARNING

KEEP ALL BODY PARTS, LOOSE CLOTHING AND FOREIGN OBJECTS CLEAR OF ROTATING SHAFT AND AUGER. THIS AUGER IS NOT TO BE UTILIZED AS AN ANCHORING DEVICE OR TO BE UTILIZED TO INSTALL EARTH ANCHORING DEVICES.

WARNING

DO NOT BEGIN TO DIG A HOLE WITH THE EXTENSION ATTACHED BETWEEN THE AUGER AND THE POST HOLE DIGGER. THE OPERATING HEIGHT WILL CREATE AN UNSAFE WORKING POSITION AND REDUCTION IN MACHINE CONTROL. THIS CAN RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE. SEE OPERATORS MANUAL FOR PROPER AUGER INSTALLATION PROCESS



WARNING: California Proposition 65

Proposition 65 applies to any company operating in California, selling products in California, or manufacturing products that may be sold in or brought into California. The purpose of Proposition 65 is to inform the public about exposure to these chemicals. EDCO has not shifted manufacturing processes, this is strictly an updated warning procedure required by the state of California. While the exposure from EDCO products may be negligible or well within the “no significant risk” range, out of an abundance of caution, EDCO has elected to provide these Proposition 65 warnings.

Depending on machine/part model the following warnings may apply:



WARNING: Cancer and Reproductive Harm -
For more information go to: www.P65Warnings.ca.gov



WARNING: Batteries, battery posts, terminals and related accessories can expose you to chemicals including lead and lead compounds, and other chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. WASH HANDS AFTER HANDLING. For more information go to www.P65Warnings.ca.gov



WARNING: This product can expose you to chemicals including soots, tars, and mineral oils, which are known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov



WARNING: This machine used in its application on concrete/cement/brick surfaces can expose you to chemicals including crystalline silica which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

For more information regarding exposure to California's Proposition 65 listed chemicals from an EDCO machine or part, please contact techsupport@edcoinc.com.

LIMITED EQUIPMENT WARRANTY OF SALE

Equipment Development Company, Inc. herein referred to as EDCO (Seller) warrants that each new unit manufactured by EDCO to be free from defects in material and workmanship in normal use and service for a period of (1) one year (except for the cutter drum assembly on all model concrete/asphalt planers AND the chisel head assembly on all model ALR's & ALR-BS in which case the warranty period shall be 90 days) from date of shipment to the original retail or equipment rental center owner.

Accessories or equipment furnished and installed on the product by EDCO but manufactured by others, including, but not limited to engines, motors, electrical components, transmissions etc., shall carry the accessory manufacturers own warranty.

EDCO will, at its option, repair or replace, at the EDCO factory or at a point designated by EDCO, any part which shall appear to the satisfaction of EDCO inspection to have been defective in material or workmanship.

EDCO reserves the right to modify, alter and improve any part or parts without incurring any obligation to replace any part or parts previously sold without such modified, altered or improved part or parts.

This warranty is in lieu of and excludes all other warranties, expressed, implied, statutory, or otherwise created under applicable law including, but not limited to the warranty of merchantability and the warranty of fitness for a particular purpose in no event shall seller or the manufacturer of the product be liable for special, incidental, or consequential damages, including loss of profits, whether or not caused by or resulting from the negligence of seller and/or the manufacturer of the product unless specifically provided herein. In addition, this warranty shall not apply to any products or portions thereof which have been subjected to abuse, misuse, improper installation, maintenance, or operation, electrical failure or abnormal conditions and to products which have been tampered with, altered, modified, repaired, reworked by anyone not approved by seller or used in any manner inconsistent with the provisions of the above or any instructions or specifications provided with or for the product.

TERMS AND CONDITIONS

(NOT APPLICABLE TO SALES THROUGH AUTHORIZED DISTRIBUTION)

FORCE MAJEURE

Seller's obligation hereunder are subject to, and Seller shall not be held responsible for, any delay or failure to make delivery of all or any part of the Product due to labor difficulties, fires, casualties, accidents, acts of the elements, acts of God, transportation difficulties, delays by a common carrier, inability to obtain Product, materials or components or qualified labor sufficient to timely perform part of or all of the obligations contained in these terms and conditions, governmental regulations or actions, strikes, damage to or destruction in whole or part of manufacturing plant, riots, terrorist attacks or incidents, civil commotions, warlike conditions, flood, tidal waves, typhoon, hurricane, earthquake, lightning, explosion or any other causes, contingencies or circumstances within or without the United States not subject to the Seller's control which prevent or hinder the manufacture or delivery of the Products or make the fulfillment of these terms and conditions impracticable. In the event of the occurrence of any of the foregoing, at the option of Seller, Seller shall be excused from the performance under these Terms and Conditions, or the performance of the Seller shall be correspondingly extended.

This document sets forth the terms and conditions pursuant to which the purchaser ("Purchaser") will purchase and Equipment Development Co. Inc. ("Seller") will sell the products, accessories, attachments (collectively the Products) ordered by the Purchaser. These terms and conditions shall govern and apply to the sale of Seller's Products to Purchaser, regardless of any terms and conditions appearing on any purchase order or other forms submitted by Purchaser to Seller, or the inconsistency of any terms therein and herein.

1. PRICE

All prices set forth on any purchase order or other document are F.O.B. Seller's facility or distribution point, as may be determined by Seller (F.O.B. Point). All prices are exclusive of any and all taxes, including, but not limited to, excise, sales, use, property or transportation taxes related to the sale or use of the Products, now or hereafter imposed, together with all penalties and expenses. Purchaser shall be responsible for collecting and/or paying any and all such taxes, whether or not they are stated in any invoice for the Products. Unless otherwise specified herein, all prices are exclusive of inland transportation, freight, insurance and other costs and expenses relating to the shipment of the Products from the F.O.B. point to Purchaser's facility. Any prepayment by Seller of freight insurance and other costs shall be for the account of Purchaser and shall be repaid to Seller.

2. PAYMENT TERMS

Payment terms are as follows. 2% 10 days (to approved and qualified accounts). Net 30 days. This is a cash discount for invoices paid within 10 days after the invoice date, regardless of date of receipt of shipment. This is not a trade discount and will not be granted to accounts that do not adhere to stated terms.

*All past due accounts are subject to a late payment fee of 1.5% per month or a maximum allowed by law if different, along with the expenses incidental to collection including reasonable attorney's fees and costs.

*Seller reserves the right to hold shipments against past due accounts.

*Seller reserves the right to alter payment terms.

3. FREIGHT TERMS

All shipments will be made F.O.B. shipping point as designated in these Terms and Conditions, and title shall pass at the F.O.B. point. Delivery to the initial common carrier shall constitute delivery to the Purchaser. Any claims for loss or damage during shipment are to be filed with carrier by the Purchaser. Seller will not assume responsibility for the performance of the carrier.

Back orders will be shipped in the most practical fashion with charges consistent with our freight policy established with the original order. UPS, FED EX, MAIL or shipments by other couriers are subject to the same terms and conditions as outlined in paragraph #3 "Freight Terms".

4. DELIVERY, DAMAGES, SHORTAGES

Seller shall use reasonable efforts to attempt to cause the Products to be delivered as provided for in these Terms & Conditions. Delivery to the initial common carrier shall constitute the delivery to the Purchaser. Seller's responsibility, in so far as transportation risks are concerned ceases upon the delivery of the Products in good condition to such carrier at the F.O.B. point and all the Products shall be shipped at the Purchaser's risk. Seller shall not be responsible or liable for any loss of income and/or profits, or incidental, special, consequential damages resulting from Seller's delayed performance in shipment and delivery.

5. RETURN OF DEFECTIVE PRODUCTS

Defective or failed material shall be held at the Purchaser's premises until authorization has been granted by Seller to return or dispose of Products. Products that are to be returned for final inspection must be returned Freight Prepaid in the most economical way. Credit will be issued for material found to be defective upon Seller's inspection based on prices at time of purchase.

6. PRODUCTS ORDERED IN ERROR

Products may be returned, provided that claim is made and Seller is notified within 7 days of receipt of Products, and the Products are in original buyer's possession not more than 30 days prior to return, subject to Seller's approval. If Products are accepted for return, they must be Freight Prepaid and buyer will be charged a minimum of 15% restocking charge, plus a charge back for outbound freight charges if the original order was shipped prepaid. Returns are not accepted for any Products that are specifically manufactured to meet the buyer's requirement of either specifications or quantity.

AGREEMENTS

These Terms and Conditions constitute the entire agreement between Seller and Purchaser as it relates to terms and conditions of sale, and supersedes any and all prior oral or written agreements, correspondence, quotations or understandings heretofore in force between the parties relating to the subject matter hereof. There are no agreements between Seller and Purchaser with respect to the Product herein except those specifically set forth in and made part of these terms and conditions. Any additional terms, conditions and/or prices are rejected by Seller.

These terms and conditions may be modified, cancelled or rescinded only by a written agreement of both parties executed by their duly authorized agents.

USE ONLY GENUINE EDCO PARTS & ACCESSORIES

For your own safety, the safety of others and the life of your machine.

SUBMIT ALL WARRANTY CLAIMS AT:

edcoinc.com/customer-support/warranty-claim-form/



BEFORE USING THIS PRODUCT

Have You Used EDCO's Online Customer Support??



Scan This QRC or Visit
www.edcoinc.com/customer-support



READ: EDCO Owner's Manuals and Parts Listings share basic information and parts of each product. Download and print them whenever needed.



WATCH: EDCO Product Training Videos show how to use products, install tooling, and perform basic maintenance.



Example Only

FIND: Somewhere on this product is an **EDCO QRC Training Decal**. Scanning this code provides owner's information, videos, and other training content anywhere/anytime on your mobile device.



JOIN: **EDCOed.com** is a free, 24-hour training space. Each certification track focuses on a specific EDCO product group. The information in these tracks help businesses be successful with those products.

EDCO is always updating online training / information so you always have the most recent content.

Also see Operator's Safety & Limited Warranty Manual

Equipment Development Co., Inc. • 800.638.3326 • techsupport@edcoinc.com