

OPERATOR'S MANUAL

EDGING POWER TROWEL



WARNING

READ AND UNDERSTAND THIS OPERATOR'S MANUAL COMPLETELY BEFORE USING THIS ATTACHMENT. ASSEMBLE, TEST AND USE ONLY IN ACCORDANCE WITH THE OPERATOR'S MANUAL INSTRUCTIONS.

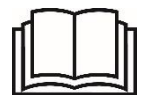


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SAFETY INFORMATION**1.1 Safety Precautions**

Before operating the machine, read both the manual and the engine manual carefully to become familiar with the location and proper use of all controls. Do not allow untrained or unauthorized personnel, especially children, to operate this machine. Use only the parts authorized by the factory for service.

This manual contains DANGER, WARNING, CAUTION callouts which must be followed to reduce the possibility of personal injury, damage to the equipment, or improper service.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates a hazardous procedure which, if not avoided, will result in serious or mortal injury.



WARNING indicates a danger or hazardous procedure which, if not avoided, could result in serious or mortal injury.



CAUTION indicates a danger or hazardous procedure which, if not avoided, could result in damage to machinery or moderate injury.

SAFETY INFORMATION**1.2 Operating Safety**

- DO NOT modify the machine without the prior consent of the manufacturer. We do not assume responsibility for any accident due to equipment modification.
- NEVER operate the machine in purpose for which it is not intended.
- NEVER allow anyone to operate the machine without proper training. People operating the machine must be familiar with the risks and hazards associated with it and be familiar with the safety precautions and operation techniques.
- ALWAYS operate the machine with all safety devices and guards in place and in working order.
- DO NOT wear loosely fitting clothing that might get caught in the machine.
- ALWAYS wear hearing and eye protection when operating the machine.
- DO NOT use the machine near flammable material or in explosive environments. The exhaust pipe can get very hot during operation. Sparks can be emitted from it, and these can ignite flammable material.
- ALWAYS keep the area around the muffler free of debris such as leaves, paper, carton, etc. A hot muffler could ignite the debris and start a fire.
- ALWAYS check that all controls are functioning properly immediately after start-up. DO NOT operate the machine unless all controls operate correctly.
- NEVER operate the machine with the fuel cap loose or missing.
- NEVER touch the engine, exhaust system of the machine. They are extremely hot during operation.
- DO NOT touch the V-belt and the rotating parts during operation.
- DO NOT clean or service the machine when it is running.
- NEVER use the defective parts.
- DO NOT remove blades when the machine is hanging overhead.
- ALWAYS keep the machine clean and labels clear.
- NEVER leave the machine running unattended.
- NEVER lift the machine by the handle only.

SAFETY INFORMATION**1.3 Operator Safety while using Internal Combustion Engines**

- DO NOT smoke when refueling the engine or operating the machine.
 - DO NOT refuel a hot or running engine.
 - ALWAYS keep away from all hot or spark-generating objects when refuel the engine.
 - ALWAYS refill the fuel tank after the machine has cooled, and in a well-ventilated environment.
 - NEVER refuel indoors or in and enclosed trailer.
 - DO NOT spill fuel when refueling the engine.
 - ALWAYS take care to use the right type of fuel.
 - ALWAYS inspect the fuel leakage regularly.
- NEVER perform any work on the machine while it is running. Before working on it, stop the engine and disconnect the spark plug wire to prevent accidental
- starting.
 - Avoid breathing of exhaust gases.
- ALWAYS transport and handle fuel only when contained in approved safety
- containers.
 - Avoid touch or lean against hot exhaust pipes.
 - Allow engine to cool before performing any repairs or service.
- ALWAYS keep the area around the muffler free of debris such as leaves, paper, cartons, etc. A hot muffler could ignite the debris and start a fire.
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SAFETY INFORMATION



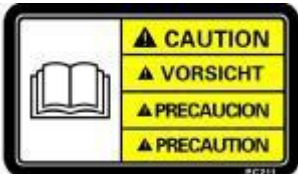






1.4 Label locations



SAFETY INFORMATION

1.5 Safety and Operating Labels

BRAVEPRO machines use international pictorial labels where needed. These labels are described below:

Label	Meaning
	 DANGER! Engines emit carbon monoxide; operate only in well-ventilated area. Read the Operation Manual for machine information. No sparks, flames, or burning objects near the machine. Shut off the engine before refueling. Use only clean, filtered unleaded gasoline.
	CAUTION! Read and understand the supplied Operation Manual before operating the machine. Failure to do so increase the risk of injury to yourself or others.
	 WARNING! Always wear hearing and eye protection when operating the machine.
	 CAUTION! Lifting point.
	 CAUTION! Use only clean, filtered fuel.

SAFETY INFORMATION

Label	Meaning
	 WARNING! Hot surface!
	 WARNING! Hand injury if caught in moving belt. Always replace belt guard.
	 WARNING! Cutting hazard. Always replace blade guard!
	A nameplate listing the model number and serial number is attached to each unit. Please record the information found on this plate so it will be available if the nameplate lost or damaged. When requesting service information, the serial number should be specified of the unit.
	Brand Decal

OPERATION**2.1 Operating Principle**

The following instructions were compiled to provide you information on how to obtain long and trouble-free use of the machine. Periodic maintenance of the machine is essential. Read the manual carefully and thoroughly familiarize yourself with the machine and all its functions. Failure to do so may injure yourself or a bystander.

2.2 Application—Standard Features

Your new Power Trowel comes standard with many features to enhance productivity, performance and safety. Listed below are just a few of these features.

1. **Safe Stop Switch**—The switching mechanism of this switch should operate freely and should always be kept in this condition. With the switch in the OFF position, the engine should not start or run. The purpose of this switch is to stop the engine in a runaway situation, (i.e. the operator releasing the handle during operation).
2. **Adjustable Throttle**—Located in a convenient location, this push-pull throttle control can be set to provide any blade speed from 50 to 130 RPM and located in place at the desired operating speed.
3. **Bent Arm Adjustable**—Allows blades to be adjusted to compensate for bent arms caused by dropping or mishandling the trowel. Can be easily adjusted on-site for consistent finishing.
4. **Heavy Duty Ring Guard**—Protects operator and unit while providing lower center of gravity which contributes to unit stability and performance.
5. **Cast Iron Spider**—Extra strong for insure alignment. Also contributes to lower center or gravity for increased trowel performance.
6. **Foldable Handle**—Easy for transportation and storage.
7. **Tilt Adjustment Knob** – adjusts the angle of the blades for different curing stages and conditions of the concrete. Turning the knob clockwise increases the angle of the blades to the concrete. Turning the knob counterclockwise flattens or decreases the angle of the blades.

2.3 Delivery Checks

Immediately on taking delivery of your new machine and before putting it into service.

- Read the operation manual completely—it could save a great deal of unnecessary expense.
- Read the engine manual supplied.
- Check the general condition of the machine – has it been damaged during delivery?
- Fill engine with proper oil. See engine manual for specifications.
- Check fuel level.

Recommended lubricants are detailed in the Care and Maintenance section.

OPERATION**2.4 Unfolding Handle**

To unfold and secure the handle assembly:

1. New machine with folded handle.
2. Unfolding the adjustable handle and lock the screw.
3. Straighten the handle and lock the hinge pin.
4. Tighten the adjustable lever to lock the handle in its fully opened position.

**2.5 Before Starting**

Before starting the machine, check the following items:

- All handles are free from grease, oil and dirt.
- All control levers are in the neutral position.
- All bolted joints are tightened.
- Fuel level
- Oil level in the engine
- Air cleaner maintenance indicator

NOTICE: Check the oil level in the engine and machine before starting. The warranties are VOID if the machine run without oil.

2.6 To Start

Before starting the machine must know the location and function of all controls.

Make sure the safety stop switch is in the stop position. If it is not, push the lever down to the stop position before attempting to start the engine. Open fuel valve under fuel tank (if so equipped), open throttle approximately half way down and apply choke. Holding unit handle firmly with one hand, pull the starter rope sharply with the other about (3) times. When engine starts, open choke and adjust throttle as necessary to keep it running. If engine doesn't start after (3) pulls, open choke slightly.

NOTE: These starting instructions are general guidelines only. Since many engine options are available on our power trowels, consult the ENGINE MANUAL included with the unit for specific instructions.

OPERATION

2.7 To Stop

Push the safety stop switch down to the stop position. Close throttle all the way and turn the engine switch to off position.

2.8 Initial Operation

With engine started as instructed previously and at operating temperature, adjust speed to about half throttle. Hold the handle firmly with one hand and move the safety stop switch to RUN position to engage the trowel blades.

2.9 Finishing Operation

After floating, allow the concrete to set until it will support the weight of the trowel. Set the pitch to approximately 1/4" to 3/8" on the blades. If the blades start to dig into the concrete, decrease the amount of pitch.

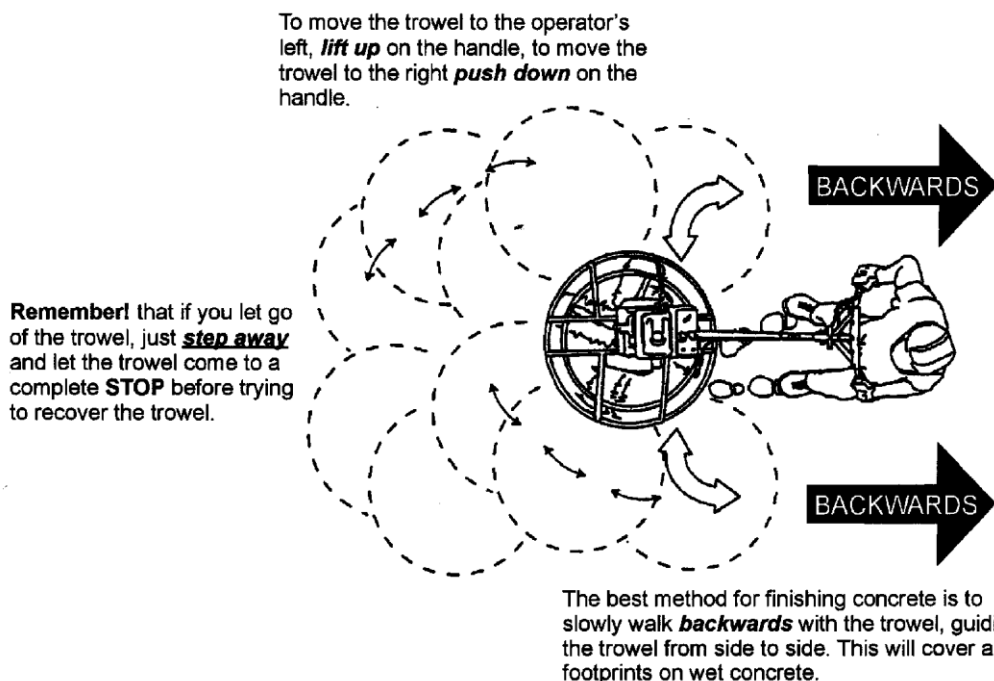
2.10 Lifting the Trowel

Using the lifting hook to move the machine.

2.11 Maneuver Operation

Below (Figure 1) illustrates a typical walk-behind trowel application. Practice maneuvering the trowel. The trick is to let the trowel do the work.

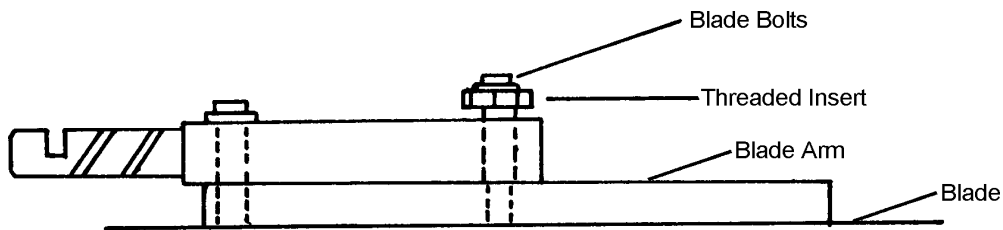
Continue to practice maneuvering the trowel. Try to practice as if you were finishing a slab of concrete. Practice edging and covering a large area. Remember a good finishing technique is to work backwards. Be careful when moving backwards so that hazards can be avoided. The best way to get accustomed to the trowel is repeated use.



OPERATION

2.12 Blade Adjustment

Edging Power Trowel have a blade level adjustment incorporated into the outside bolt hole in the blade arm. This adjustment is a threaded insert in the blade arm, the blade bolt goes through the middle of the insert.

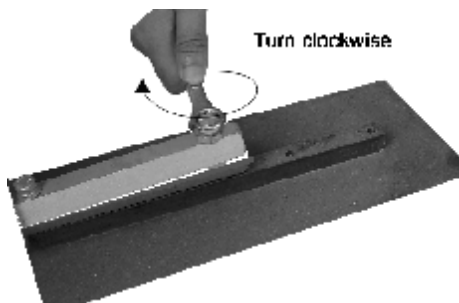


Do not turn the threaded insert when you put new blades onto the machine. If you do, you will put the machine out of balance, these inserts are used to adjust the height of the outside of the machine's blades. This allows you to keep all blades level on the same plane. There are many reasons why adjustment may be necessary, such as, a slightly bent blade arm or wear between the blade arm and the base assembly or the threaded insert was turned when new blades were put onto the machine.

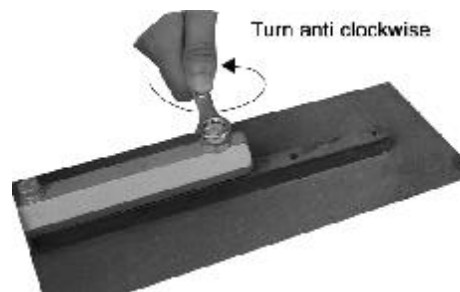
One symptom of misaligned blades is uneven wear along the blade's edge, ideally the blade will wear evenly but if either the inside or outside wears more adjustment will be necessary. Another symptom can be the handle bar moving up & down as the blades rotate. A misaligned arm will either lift or drop the handle bar as it comes around, the machine will feel like it is bouncing. Note: if this is severe it may indicate a bent arm that needs repairing or replacing.

2.13 Arm Screw Adjustment

The bottom of the threaded insert is what the blade is bolted up to. If you turn the threaded insert clockwise you screw the threaded insert through the blade arm and increase the distance between the blade arm and the blade and therefore lower the outside of the blade. Conversely you will raise the outside of the blade if you turn the threaded insert anti clockwise and reduce the distance between the blade arm and blade.



Clockwise increases distance between blade arm and blade.



Anti Clockwise decreases distance between blade arm and blade.

OPERATION

When assembling trowel blades to trowel arms, the adjustment screw part number 10404 should never protrude below the underside surface of trowel arm except when used for emergency on site adjustment to level trowel blades.

If the adjustment screw is not flush with the underside of the trowel arm this will cause the power trowel to bounce and vibrate especially at high speed, causing the trowel blades to leave an uneven finish to concrete due to the blade or blades not being level with one another.

Make certain that adjusting screw is held firmly in place while tightening bolt which secures the blade to trowel arm.

MAINTENANCE

3 MAINTENANCE

3.1 Periodic Maintenance Schedule

To get long use and free of trouble, it is essential to perform periodic maintenance on the engine and machine. A copy of the engine Operation Manual was supplied with the machine.

	Daily	Every 20 hours	Every 50 hours	Every 100 hours	Every 300 hours	Every 2000 hours
Check fuel level.	○					
Check engine oil level.	○					
Inspect air filter. Replace as needed.	○					
Clean trowel after each use to remove concrete splatter.	○					
Check external components.	○					
Replace the engine oil.		○				
Grease blade arms			○			
Clean air filter			○			
Thrust collar and clutch.			○			
Replace blade if necessary.						
Change the engine oil.				○		
Check V-belt.				○		
Clean spark plug				○		
Check and adjust valve clearance.					○	
Check and replace the arm bushing, thrust collar bushing and shaft seal.						○
Check pitch control cable for wear.						○
Adjust blade speed.						○

3.2 Lubrication

The long life and successful operation of any parts of machinery is dependent on frequent and thorough lubrication. Before using the machine, always check the oil and use proper oil with the correct type and grade as recommended.

NOTICE: DO NOT mix types of oil in gearbox and DO NOT overfill the oil. Damage to the machine may occur if oils are mixed or overfilled. See Technical Data for oil quantity and type.

MAINTENANCE**3.3 Spark Plug**

Check and clean spark plugs regularly. A fouled, dirty spark plug may cause hard starting and poor engine performance. Set spark plug gap to recommended clearance. Refer to engine manual.



The muffler and engine cylinder become very hot during operation and remain hot for a while after stopping the engine. Allow engine to cool before removing spark plug.

NOTICE: A loose spark plug can become very hot and may cause engine damage.

3.4 Air Cleaner

Maintaining a clean engine will extend engine life. Keep air filter clean at all times. Clean air filter using the recommended solvent daily. See engine manual for proper cleaning procedure. Let the filter dry before reinstalling.



NEVER use gasoline or other types of low flash point solvents for cleaning the air cleaner. A fire or explosion could result.

3.5 Lifting

1. Before lifting the machine, ALWAYS turn off the engine and pull out the key from the machine.
2. Make sure lifting device has enough capacity to hold machine (see identification plate on machine for weight).
3. DO NOT lift the machine overhead with a float pan attached.
4. NEVER lift the machine by the handle only.
5. Use lifting points (see safety label on the machine) when lifting the machine.

MAINTENANCE

3.6 Troubleshooting

SYMPTOM	POSSIBLE CAUSES	SOLUTION
Engine running rough or not at all.	Safety switch malfunction?	Make sure that the safety switch is ON or replace switch if necessary.
	Fuel?	Look at the fuel system. Make sure there is fuel being supplied to the engine. Check to ensure that the fuel filter is not clogged.
	Ignition?	Check to ensure that the ignition switch has power and is functioning correctly.
Safety switch not functioning.	Bad contacts?	Replace switch.
	Loose wire connections?	Check wiring. Replace as necessary.
	Other problems?	Consult engine manufacturer's manual.
If trowel "bounces, rolls concrete, or makes uneven swirls in concrete".	Blades? Spider?	Make certain blades are in good condition, not excessively worn. Finish blades should measure no less than 2" (50mm) from the blade bar to the trailing edge, combination blades should measure no less than 3.5" (89mm).
	Bent trowel arms?	Check that all blades are set at the same pitch angle as measured at the spider.
	Trowel arm bushings?	Check the spider assembly for bent trowel arms. If one of the arms is even slightly bent, replace it immediately.
	Thrust collar?	Check the trowel arm bushings for tightness. This can be done by moving the trowel arms up and down. If there is more than 1/8" (3.2mm) of travel at the tip of the arm, the bushings should be replaced. All bushings should be replaced at the same time.

MAINTENANCE

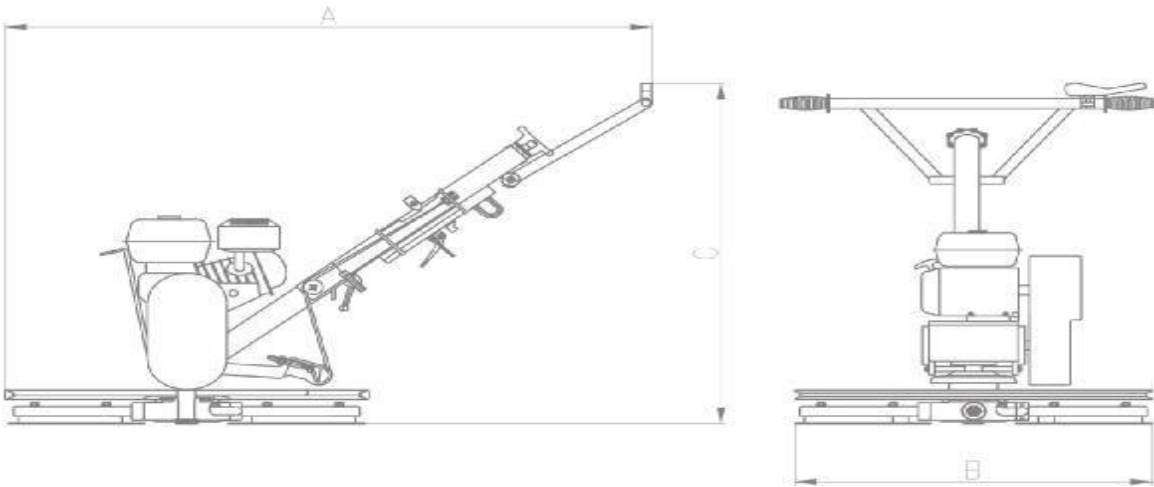
	Thrust collar bushing?	Check the thrust collar by rocking it on the spider. If it can tilt more than 3/32" (2.4mm) [as measured at the thrust collar O.D.], replace the bushing in the thrust collar.
	Thrust bearing worn?	Check the thrust bearing to see that it is spinning free. Note: Thrust cap, replace if necessary.
Clutch slipping or sluggish response to engine speed change.	Worn V-belts?	Replace V-belt.
	Dirty centrifugal clutch?	Disassemble and clean clutch.
	Defective or worn-out centrifugal clutch?	Replace entire clutch.
	Worn bearings in gearbox?	Rotate input shaft by hand. If shaft rotates with difficulty, check the input and output shaft bearings. Replace as necessary.
	Worn or broken gears in gearbox?	Verify that the gearbox shaft rotates when the input shaft is rotated. Replace both the worm and worm gear as a set.

TECHNICAL DATA

4. TECHNICAL DATA

Model	BRPPT105H
Engine type	Honda GX160
Power	5.5 HP(4.0KW)
Operating Weight	124 Lb. (56Kg.)
Blade Speed rpm	109-156
Rotor Dia. C	24 "(61cm)
Combination Blade	4.75"x9"
Pan	25"

Dimension:



Model	A	B	C
BRPPT105H	59 in.	27 ½ in.	35 ½ in.

**BRAVE**

20195 South Diamond Lake Road, Suite 100 • Rogers, MN 55374
Toll-Free: 800-350-8739 • Website: braveproducts.com • Email: sales@braveproducts.com

Dear Valued Customer:

The Brave product you just purchased is built with the finest material and craftsmanship. Use this product properly and enjoy the benefits from its high performance. By purchasing a Brave product, you show a desire for quality and durability. Like all mechanical equipment this unit requires a due amount of care. Treat this unit like the high-quality piece of machinery it is. Neglect and improper handling may impair its performance.

Thoroughly read the instructions and understand the operation before using your product. Always contact Brave Product Support at 1-800-350-8739 prior to having any service or warranty work performed, as some services performed by parties other than Brave approved service centers may void this warranty. This limited warranty is in lieu of any other warranty expressed or implied, written, or oral and Brave assumes no other responsibility or liability outside that expressed within this limited warranty.

Limited Warranty for Brave Power Trowel:**Model BRPPT105H**

	Consumer Warranty Period	Commercial Warranty Period
Weldments		
	2 years from date of purchase by user	2 years from date of purchase by user
Wear Parts	In addition to the normal warranty, Brave shall warrant some normal wear items from defects in material or workmanship for a period of 30 days from the date of purchase by user. Normal wear items covered under this warranty are limited to: High impact wear related components such as standard retention hardware for wear items, chains, bits, sprockets, bearings, belts and bushings, centrifugal clutch components such as shoes, springs, drum and rotor assembly, rotors, rubber drapes or flaps, drive, and driven pulleys. Routine maintenance items such as lubricants, clutch adjustments, tune ups are not covered under warranty.	
Engines	The engine warranty is covered under the terms and conditions as outlined by the engine manufacturer's warranty contained herein and is the sole responsibility of the engine manufacturer. Normal engine maintenance such as spark plugs, oil changes, air filters, adjustments, fuel system cleaning and obstruction due to build up is not covered by this Brave limited warranty.	

"Consumer use" means personal residential household use by a consumer. **"Commercial use"** means all other uses, including, but not limited to, use for commercial, income producing or rental purposes or when purchased by a business.

This limited warranty applies to the original purchaser of the equipment (verification of purchase, in the form of a receipt, is the responsibility of the buyer), is non-transferable, and covers parts and labor. Parts will be replaced or repaired at no charge, except when the equipment has failed due to lack of proper maintenance. If a part is no longer available, the part may be replaced with a similar part of equal function. Any misuse, abuse, alteration or improper installation or operations will void the warranty. Determining whether a part is to be replaced or repaired is the sole decision of Brave. Brave will not provide replacement of complete products due to defective parts. Any costs incurred due to replacement or repair of items outside of a Brave approved facility is the responsibility of the buyer and not covered under warranty. Transportation costs to and from the service center and/or service calls are the responsibility of the customer.

This limited warranty specifically excludes the following: failure of parts due to damage caused by accident, fire, flood, windstorm, acts of God, applications not approved by Brave in writing, corrosion caused by chemicals, use of replacement parts which do not conform to manufacturer's specifications, damage related to rodent and/or insect infestation and damage caused by vandalism. Additional exclusions: loss of running time, inconvenience, loss of income, or loss of use, including any implied warranty of merchantability of fitness for a specific use. Also, outdoor power equipment needs periodic parts and service to perform well, and this limited warranty does not cover instances when normal use has exhausted the life of a component or the engine.

This limited warranty does not cover any personal injury or damage to surrounding property caused by failure of any part, misuse, or inability to use the product. Alteration of the product, including safety features, shall void this limited warranty.

Repair or replacement of parts does not extend the warranty period. This limited warranty gives you specific legal rights. You may also have other rights that vary by state. Please have model number, item number and serial number on hand prior to making a warranty claim or inquiry

For products purchased on or after January 1, 2024



BRAVE

20195 S. Diamond Lake Rd, Ste 100
Rogers, MN 55374
1-800-350-8739

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