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# **BRAVEPRO**

## **OPERATORS MANUAL**

### **WALK-BEHIND POWER TROWEL 36"**

**BRPPT110H**

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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**

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



**WARNING**

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



**CAUTION**

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

### **1.2 Operating Safety**

- DO NOT modify the machine without the prior consent of the manufacturer. Brave does not assume responsibility for any accident due to equipment modification.
- NEVER operate the machine for a 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 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**

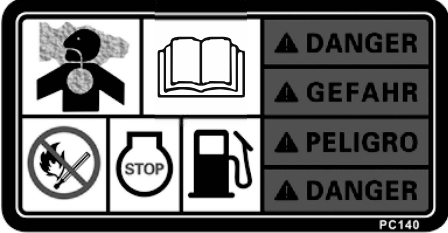
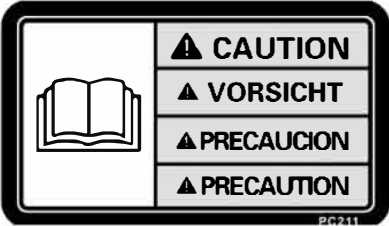



- DO NOT smoke when refueling the engine or operating the machine.
- DO NOT refuel a hot or running engine.
- ALWAYS keep away from all hot or spark-generating objects when refuel the engine.
- ALWAYS refill the fuel tank after the machine has cooled, and in a well-ventilated environments.
- DO NOT spill 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 prolonged breathing of exhaust gases.
- ALWAYS transport and handle fuel only when contained in approved safety containers.
- NEVER 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.
- NEVER run the engine without air filter.









## SAFETY INFORMATION

### 1.5 Safety and Operating Labels

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

Label	Meaning
	<p><b>DANGER!</b> 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.</p>
	<p><b>CAUTION!</b> Read and understand the supplied Operation Manual before operating the machine. Failure to do so increase the risk of injury to yourself or others.</p>
	<p><b>WARNING!</b> Always wear hearing and eye protection when operating the machine.</p>
	<p><b>CAUTION!</b> Lifting point.</p>
	<p><b>CAUTION!</b> Use only clean, filtered fuel.</p>

## SAFETY INFORMATION

Label	Meaning
	<p><b>WARNING!</b> Hot surface!</p>
	<p><b>WARNING!</b> Hand injury if caught in moving belt. Always replace belt guard.</p>
	<p><b>WARNING!</b> Cutting hazard. Always replace blade guard!</p>
	<p>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 is lost or damaged. When requesting service information, the serial number should be specified of the unit.</p>
	<p><b>WARNING!</b> Fire hazard.</p>
	<p><b>WARNING!</b> Exposure hazard.</p>

## **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. The purpose of this switch is to stop the engine in a runaway situation, (i.e. the operator releasing the handle during operation). With the safety switch in the OFF position (hands free) the engine should not start or run. Only when operator squeezes (closes) switch handle to ON position will the engine run.
2. **Adjustable Throttle**—Located in a convenient location, this lever throttle control can be set to provide any blade speed from 50 to 130 RPM, and locked 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 of gravity for increased trowel performance.
6. **Adjustable Handle**—Can be positioned to provide comfort and control for any operator's height.
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 counter-clockwise 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?
- Check engine oil level.
- Check fuel level.

Recommended lubricants are detailed in the engine manual.

## OPERATION

### 2.4 Before Starting

Before starting the machine, check the following items:

- All handles are free from grease, oil and dirt.
- All bolted joints are tightened.
- Fuel level
- Oil level in the engine
- Condition of Ring Guard

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

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## OPERATION

### 2.6 To Start

1. Open the fuel tap by moving the fuel ON/OFF lever fully to the right.
2. If starting the engine from cold, set the choke ON by moving the choke lever fully to the left. If restarting a warm engine, the choke is usually not required. However, if the engine has cooled to a degree, partial choke may be required.
3. Turn the engine ON/OFF switch clockwise to "1" position.
4. Set the throttle to the idle position by moving the throttle lever fully to the right. Do not start the engine on full throttle, as saw blade will begin to rotate as soon as the engine starts.
5. Taking a firm hold of the control handle with one hand, grasp the recoil starter handle with the other. Pull the recoil starter until engine resistance is felt, then let starter return.
6. Taking care not to pull the starter's rope fully out, pull the starter handle briskly.

## **OPERATION**

7. Repeat until the engine fires.
8. Once the engine fires, gradually set the choke lever to the OFF position by moving it to the right.
9. If the engine fails to fire after several attempts, follow the troubleshooting guide on pages 15-16.

### **2.7 To Stop**

1. Before stopping, let engine idle for a few minutes
2. Turn the fuel off.
3. Close the fuel valve.

### **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 Lifting the Trowel**

Remove the auxiliary lifting tube located on top of the main handle. Insert the tube into the socket located on the opposite side of the gearbox from the handle.

Make sure that the hole in the tube engages with the pin in the socket. With one person lifting from the main handle, and another lifting from the auxiliary lifting tube pick up the machine to move onto a slab.

### **2.10 Floating Operation**

Attach float blades to the trowel arms, and when the concrete has set sufficiently to support the weight of the trowel, place the unit on the concrete. Start the unit and engage the blades as previously instructed. Using the tilt adjustment knob to adjust the blades to the float position-blades should be as flat to the concrete as possible with enough tension kept on the tilt adjustment cable to prevent the unit from dancing or chattering.

## OPERATION

Guide the trowel over the concrete in a circular back and forth motion. Under normal conditions, you should be able to float a 30 x 30 foot area in approximately 15 minutes. This operation will bring the water and fines to the surface, allowing for a smoother finish when finishing the concrete.

### 2.11 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.

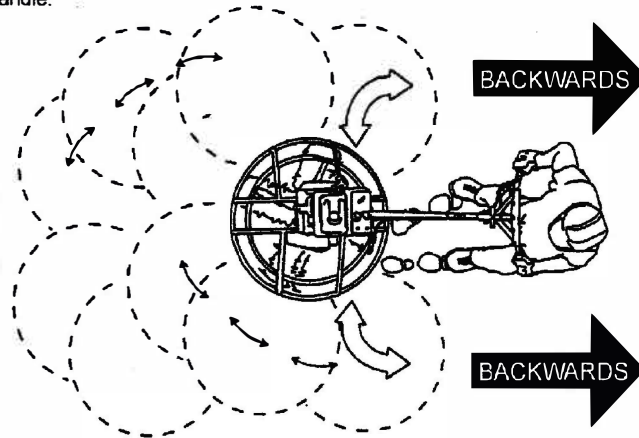
### 2.12 Maneuver Operation

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.

To move the trowel to the operator's left, **lift up** on the handle, to move the trowel to the right **push down** on the handle.

**Remember!** that if you let go of the trowel, just **step away** and let the trowel come to a complete **STOP** before trying to recover the trowel.



The best method for finishing concrete is to slowly walk **backwards** with the trowel, guiding the trowel from side to side. This will cover all footprints on wet concrete.

## 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. Clear trowel after each use to remove concrete splatter.	○					
<del>Check external components</del>	<del>○</del>					
<del>Replace the engine oil</del>	<del>○</del>					
<del>Grease blade arms</del>		<del>○</del>				
<del>Clean air filter</del>			<del>○</del>			
<del>Thrust collar and clutch</del>			<del>○</del>			
<del>Replace blade if necessary</del>			<del>○</del>			
<del>Change the engine oil</del>						
<del>Check V-belt</del>				<del>○</del>		
<del>Clean spark plug</del>				<del>○</del>		
<del>Check and adjust valve clearance Remove, clean, reinstall clutch arm bushing, thrust collar bushing and shaft seal. Check pitch control cable for wear</del>						
Adjust blade speed					○	
						○
						○
						○

## 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.



**WARNING**

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. See engine manual for proper cleaning procedure.



**WARNING**

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

- Always shut off engine when transporting machine.
- Make sure lifting device has enough capacity to hold machine (see identification plate on machine for weight).
- Use lifting tube and lifting hook when lifting machine.



## TECHNICAL DATA

### 4. TECHNICAL DATA

#### BRPPT110H

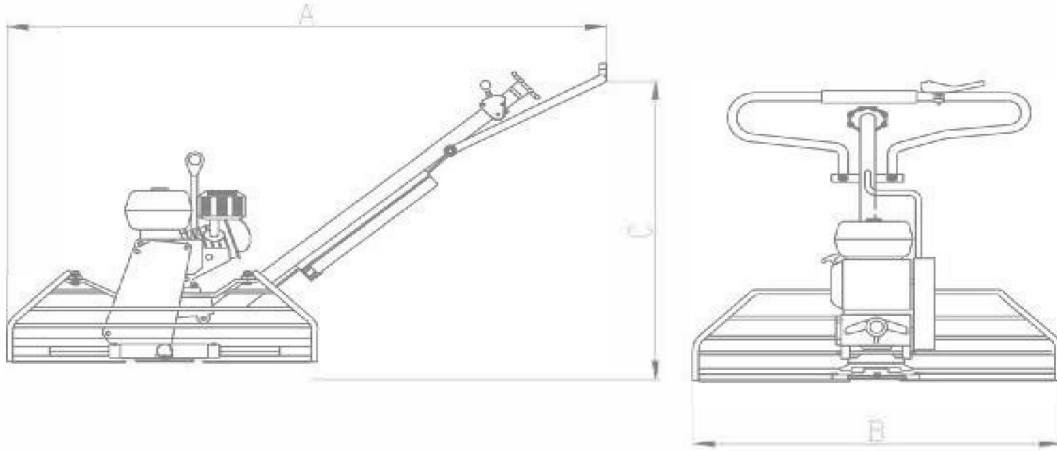
Model	BRPPT110H
Engine type	Honda GX160
Power kw(hp)	4.0(5.5)
Operating Weight kg(lb)	81(179)
Blade Speed rpm	117-167
Rotor Dia. Cm(in)	91(36)
Finishing Blade	6"x14"
Combination Blade	8"x14"
Pan	37"

#### BRPPT120H

Model	BRPPT120H
Engine type	Honda GX270
Power kw(hp)	6.6(9.0)
Operating Weight kg(lb)	107(236)
Blade Speed rpm	117-167
Rotor Dia. Cm(in)	117(46)
Finishing Blade	6"x18"
Combination Blade	8"x18"

## TECHNICAL DATA

### Dimension:



Model	A	B	C
BRPPT110H	1890MM	970MM	900MM
BRPPT120H	2060MM	1220MM	1000MM