





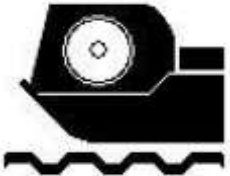


# REVERSIBLE HYDRAULIC COMPACTORS

BR1570, BR2750, BR3570, BR4600, BR5100  
OWNER'S MANUAL



Doc. # OI-B09020  
Orig. Rel. - 07/2017  
Curr. Rev. - 01

## SAFETY PRECAUTIONS

	<p><b>DANGER</b> <b>EXPLOSION HAZARD</b></p> <p>Never operate the machine in an explosive atmosphere, near combustible materials, or where ventilation does not clear exhaust fumes.</p>
	<p><b>WARNING</b> <b>BURN HAZARD</b></p> <p>Never come into contact with the engine or muffler when engine is operating or shortly after it is turned off. Serious burns may occur.</p>
	<p><b>CAUTION</b> <b>MACHINE DAMAGE</b></p> <p>Never operate on hard, unyielding surfaces. Unwarranted damage may result.</p>
	<p><b>CAUTION</b> <b>MOVING PARTS</b></p> <p>Before starting the machine, ensure that all guards and safety devices are in place and functioning properly.</p>
	<p><b>ATTENTION</b> <b>READ OWNER'S MANUAL</b></p> <p>Read and understand owner's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.</p>

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## **QUALITY ASSURANCE/ MACHINE BREAK IN**

The Bartell Vibratory Plate Compactor is the product of extensive engineering development designed to give long life and unmatched performance. The Compactors are shipped completely assembled with the exception of attaching the handle, and only require filling with fuel and a brief check of lubricant levels in preparation for operation. The exciter housing are pre-serviced with oil at factory.

You can help ensure that your Vibratory Plate Compactor will perform at top levels by observing a simple routing on first use. Consider that your new Compactor is like a new car. Just as you would break in a new car to the road or any new machine to the job, you should start gradually and build up to full use. Learn what your machine can do and how it will respond. Refer to the engine manufacturer's manual for run-in times. Full throttle and control may be used after this time period, as allowed by material. This will serve to further break in the machine on your specific application, as well as provide you with additional practice using the machine.

We thank you for the confidence you have placed in us by purchasing a Bartell Vibratory Plate Compactor and wish you many years of satisfied use.

## **WARRANTY INFORMATION**

Bartell agrees to furnish without charge, F.O.B. our plant, a replacement for any part or portion thereof, comprising the main unit of the Bartell Vibratory Plate Compactor, consisting of the exciter housing assembly, save and except drive belts, and power units, prove upon our examination, to be defective in either material or workmanship within a period of twelve (12) months from date of purchase, provided that notice of such defective part or portion thereof is given to Bartell Ltd. within the twelve month warranty period. No further or other guarantee or warranty expressed or implied in connection with the sale of the Compactor is given and our sole liability consists in replacing defective parts or portions thereof. We shall not be responsible for any special, indirect or consequential damages arising in any manner whatsoever.

This guarantee is for the sole benefit of the original purchaser as end user. Our responsibility under this guarantee ends in the case the original purchaser transfers ownership of the Vibratory Plate Compactor, makes any changes or adds any parts or devices not of our manufacture to the Compactor machine.

## SPECIFICATIONS

	<b>BR1570</b>	<b>BR2750</b>	<b>BR3570</b>	<b>BR4600</b>	<b>BR5100</b>
<b>Dimensions</b>					
Overall Length, mm (in)	886 (35")	1130 (45")	1340 (53")	1570 (62")	1610 (64")
Overall Width, mm (in)	350 (14")	430 (17")	450 (18")	485 (19")	500 (20")
Overall Height, mm (in)	880 (35")	920 (36")	960 (38")	930 (37")	930 (37")
Plate Size (WxL), mm (in)	350x480 (14"x19")	700x430 (17"x29")	450x700 (18"x28")	485x860 (19"x34")	500x900 (20"x36")
<b>Weight</b>					
Net Weight, kg (lb)	80 (177)	160 (353)	240 (529)	350 (772)	450 (992)
Operating Weight, kg (lb)	85 (187.2)	168 (370)	250 (551)	360 (794)	460 (1014)
<b>Performance</b>					
Travelling Speed, m/min (ft/min)	Forward: 0-25 (0-82)	Forward: 0-25 (0-82)	Forward: 0-25 (0-82)	Forward: 0-23 (0-75)	Forward: 0-23 (0-75)
	Backward: 0-25 (0-82)	Backward: 0-25 (0-82)	Backward: 0-25 (0-82)	Backward: 0-23 (0-75)	Backward: 0-23 (0-75)
Vibrating Frequency, Hz (vpm)	100 (6000)	90 (5400)	87 (5200)	73 (4400)	73 (4400)
Centrifugal Force, lbF [kN (kgf)]	3461 [15(1570)]	6063 [27(2750)]	7868 [35(3570)]	10141 [45(4600)]	11244 [50 (5100)]
Water Tank Capacity gal (L)	4 (15)	4 (15)	4 (15)	-	-
<b>Power Source</b>					
Manufacturer	Honda	Honda	Honda	Honda	Subaru
Model	GX160	GX200	GX270	GX390	EX40
Max. Output	4.8(3.6)	5.5(4.1)	8.5(6.3)	8.5(6.3)	9(6.6)
@RPM	3600	3600	3600	3600	4000
Fuel Tank Capacity qt. (L)	3.3(3.1)	3.3(3.1)	5.6(5.3)	5.6(5.3)	6.4(6.1)
Starting System	Recoil	Recoil	Recoil	Recoil	Recoil
Options	-	-	Extension Plate	Extension Plate	Extension Plate





**ROUTINE SERVICE SCHEDULE**

Routine Service Intervals		Each Use	After 1.5 months or 50 hrs	Each 3 months or 100 hrs	Each 6 months or 200 hrs	Each 9 months or 300 hrs	Each 12 months or 400 hrs
<b>General Inspection</b>							
Guards	Check		○	○	○	○	○
Warning Stickers	Check		○	○	○	○	○
Test Run	Check Operation		○	○	○	○	○
<b>Engine</b>							
Engine Oil	Check level	○					
	Change		○		○		○
Air Cleaner	Check-clean	○	○ (1)				
	Replace			○ (1)			
Sediment Cup	Clean			○	○	○	○
Spark Plug	Check-adjust			○	○		○
	Replace					○	
Idle Speed	Check-adjust					○ (2)	
Valve Clearance	Check-adjust					○ (2)	
Combustion Chamber	Clean		After every 500 Hrs. (2)				
Fuel Tank & Filter	Clean		Every 6 months or 100 Hrs. (2)				
Fuel Tube	Check		Every 2 years (Replace if necessary) (2)				
<b>Exciter</b>							
Exciter Oil	Check level	○	○	○	○	○	○
	Change	○			○		○
Drive Belt	Check Tightness	○	○	○	○	○	○
	Change				○		○

- (1) Service more frequently in dusty areas
- (2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda shop manual for service procedures

## ROUTINE SERVICE INTERVALS

Due to the nature and environment of use, plate compactors could be exposed to severe operating conditions. Some general maintenance guidelines will extend the useful life of your machine.

- The initial service for your compactor should be performed after 25 hours of use, at which time your mechanic (or authorized repair shop) should complete all of the recommended checks in the schedule above. The chart on page 7 (seven) is handy for keeping a record of the maintenance performed and the parts used for servicing your compactor.
- Regular service according to the schedule above will prolong the life of the plate compactor and prevent expensive repairs.
- Keeping your plate compactor clean and free from debris is the single most important regular maintenance operation, over and above the checks in the service schedule above, that can be performed. After each use your compactor should be cleaned to remove any dust and debris from the undercarriage and surrounding components. Use of a power washer will make clean up quick and easy, especially if a non-stick coating was applied prior to use.
- In the Service Schedule above, items that should be checked, replaced or adjusted are indicated by “o” in the appropriate column. Not all plate compactor models include the same features and options and as such not all service operations may have to be performed. For ease of recording place a checkmark through the “o” when the item is complete. If an item is not required or not completed place an “x” through the “o” in the box.
- All compactors have governed engine speed of 3600 rpm. See engine manufacturer’s manual for exact specifications. Care should be used when making any adjustments to the compactor not to change the governed speed. Running the engine at lower rpm’s will result in a decrease of compaction force and lower travel speed. It will create excessive “out-of-synch” vibrations resulting in poor compaction, maneuverability, excessive wear to the machine, and discomfort to the operator.
- Failure to have your vibratory plate compactor regularly serviced and properly maintained in accordance with the manufacturer’s instructions will lead to premature failure and void the warranty.

## **OPERATING SAFETY PRECAUTIONS**

Bartell plate compactors are equipped with safety guards in accordance with North American and International standards. The fully enclosed belt guard protects the operator from the main drive belt. The handle is equipped with independent vibration isolation from the motor plate, reducing operator discomfort and vibration related injuries.

**IMPORTANT:** NEVER attempt to disable or circumvent these safety devices. They are present for the operator's protection and any tampering will result in substantial risk to the operator and all present at the job site. If your compactor's safety devices have been tampered with, do not use the equipment. Immediately contact your sales representative to obtain replacement parts or return the compactor to your dealer for repairs.

The instructions provided in this manual are done so to ensure the operator's safety as well as that of others, the equipment, and the job site. Failure to follow these guidelines can lead to serious personal injury and even death. The operator and any service personnel should read and understand the entire manual before working with or servicing any Bartell Plate Compactor.

- The Bartell manual should be kept at all times in a place that is accessible to any persons working with the machine. Replacement manuals can be purchased from the equipment manufacturer or from your local dealer.
- Only use parts and attachments supplied or approved by your Bartell equipment manufacturer. The consequences of modifying the design of this equipment can include personal injury, equipment failure, and voiding your warranty. If you are unsure about a repair or an apparent malfunction, contact your Bartell Morrison dealer or the phone contacts at the beginning and end of this manual.
- Technical service bulletins, user's manual updates, and other information are posted on the Bartell website: <http://www.bartellglobal.com>. Check this website periodically for updates or other potentially useful information about your equipment.
- NEVER use a Bartell Plate Compactor in an enclosed space with poor air flow, such as a basement or small room. The gasoline engine produces, among other things, toxic carbon monoxide gas. Without proper ventilation, this gas will build up and cause health effects such as organ damage and death to anyone in the vicinity.
- The Compactor operator should always be lucid and aware of his/her surroundings. NEVER operate the Compactor while under the influence of drugs, alcohol, fatigue, sickness, hangover, extreme depression, emotional distraction, or medications/substances that may affect motor skills or judgment.
- ALWAYS wear the appropriate personal protective equipment (PPE) while operating a Bartell Plate Compactor. This includes (but is not limited to) safety glasses, hearing protection, protective footwear, and heavy or padded gloves. Other safety gear may be jobsite appropriate.
- NEVER leave the equipment unattended while running.

- ALWAYS ensure that the operators have been properly trained prior to using the equipment.
- Children and small animals should NEVER be present in the work area during operation of a Bartell Plate Compactor.
- ALWAYS check your Bartell Plate Compactor for loose or missing nuts and bolts before starting. Tighten any loose fasteners and replace missing or broken parts.
- Perform all routine maintenance as described within this manual. Failure to do so will void your warranty and will eventually result in premature equipment failure.
- NEVER perform maintenance on a running piece of equipment. Shut down the engine and allow it to cool before servicing a Bartell Plate Compactor, including mechanical work or lubrication.
- ALWAYS replace missing, damaged or unclear safety labels to ensure operator awareness and safety.
- NEVER operate a Bartell Plate Compactor with missing or damaged safety guards. Replace immediately with appropriate parts.
- NEVER put hands, feet, or other appendages (even while wearing protective clothing) inside the belt guard or between the plate and bridge while the engine is running, even at idle, as serious injury may result.
- NEVER wear loose fitting clothing or jewelry around rotating equipment as it may become entangled in the machinery, resulting in serious injury.
- NEVER fuel a Bartell Plate Compactor while the engine is running. Ensure the engine has cooled sufficiently before refueling to avoid igniting gasoline fumes.
- ALWAYS refuel a Bartell Plate Compactor in a well-ventilated area, away from ignition sources such as sparks, flames, and lit cigarettes. Smoking while fueling the equipment may result in explosion.
- NEVER operate a Bartell Plate Compactor in explosive environments such as those where paint fumes, methane, natural gas, fine particulate, aerosol propellant, or solvent fumes are present.
- NEVER smoke near a Bartell Plate Compactor as stray gasoline fumes may ignite. Operating a Bartell Plate Compactor around an open flame may also result in explosion.
- ALWAYS shut down the engine and allow it to cool before lifting or transporting a Bartell Plate Compactor.
- ALWAYS tie down a Bartell Plate Compactor when being transported in a truck or on a flatbed. Empty the fuel tank if transporting over long distances.
- NEVER attempt to lift a Bartell Plate Compactor alone, always lift with a mechanical aid.

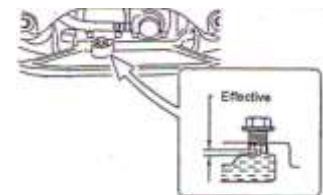
## OPERATION INSTRUCTIONS

### SETTING UP YOUR PLATE COMPACTOR

Your Bartell Plate Compactor can come fully assembled with the handle and engine already installed. If the handle has been removed for shipping, it must be reinstalled before the equipment can be used. Assemble the handle using the included rubber vibration dampers, washers and bolts. Attach the throttle cable to the engine throttle and test the motion of the engine's throttle lever with the motion of the throttle control on the handle. Bartell equipment may be shipped without engine oil or gasoline, so check and fill these fluids per your engine's instruction manual before proceeding. When starting an engine for the first time, or after a long period of storage, several pulls may be required before the engine runs. **NEVER** attempt to add fuel or oil to the engine while it is running. Shut down the engine and allow it to cool before opening the fuel cap for refueling. **NEVER** smoke while handling gasoline. If gasoline is spilled anywhere on or around the equipment wipe it up and allow the fumes to clear before starting the engine.

### PRIOR TO OPERATION

1. Make sure that all dirt, mud, etc., are thoroughly removed from the unit prior to operation. Special effort should be given to the bottom face of the vibrating plate and those areas adjacent to the cooling air inlet of engine, carburetor, and air cleaner.
2. Check all bolts and screws for tightness and make sure all bolts and screws are securely tightened. Loose bolts and screws may cause damage to the unit.
3. Check the V-belt for tightness. The normal slack should be approximately 10-15mm (1/2") when the belts are forcibly depressed in the middle position between the two sheaves. If there is excess belt play, there could be a decrease in the impact force or erratic vibration, causing machine damage.
4. Check the engine oil level and if the engine oil level is low, it should be refilled. Use the proper motor oil as suggested by the engine manufacturer.
5. Remove the oil plug in the exciter base and check the oil level. Make sure the compactor is level when checking. The oil level should be up to the oil plug. Every month or every 200 hours of operation, replace the oil. (Fig.1)
6. Check hydraulic oil level by removing fuel plug at the top of the handle. Oil should be level with the oil level line on back of the hand pump. Top up if oil level is low. See chart below for recommended oil.



**Figure 1**

**IMPORTANT:** When changing the oil, the old oil can be drained by tipping the unit. The oil will drain easily while it is hot. A regular grade gasoline should be used in the engine. When filling the fuel tank, make sure the fuel filter is used.

Season	Temperature	Exciter Oil	Hydraulic Oil
Summer	25C or higher	SAE #30	AW 32
Spring/ Fall	10C- 25C	SAE #30, #20	AW 32
Winter	0C-10C	SAE#10	AW 32

## OPERATION

### **Operating Principle**

Two eccentric weights mounted on respective exciter shafts contained within the exciter housing is driven at high speed by a clutch and belt drive system. This high speed shaft revolution causes the rapid lifting and downward ramming motion of the machine as well as imparting a forward motion. As the direction control handle is moved upwards, hydraulic fluid inside the handle head rotates one eccentric weight from 0° to 180° on its shaft which imparts a gradual stop to reverse motion. The plate compactor is designed to run at an engine speed (engine take off shaft) of 3600 rpm. (Normally considered full throttle). Running the engine at lower rpm's will result in a decrease of compaction force and lower travel speed. It will create excessive "out-of-synch" vibrations resulting in poor compaction, maneuverability, excessive wear to the machine, and discomfort to the operator.

### **Starting Procedure- WARM CLIMATE**

Open fuel valve on gas tank. Set throttle lever to "Fast" idle position, set choke to closed position, and start engine. Open choke slightly to prevent flooding. Move to "Open" or "Run" position when engine is warm, increase throttle to maximum operation position (3600 rpm).

### **Starting Procedure- COLD CLIMATE**

Follow same procedure as above but allow longer warm-up period – 3 to 5 minutes. In cold weather, oil is much heavier to move and requires more time to work its way into the moving parts. If maximum power is not attained, allow further warm-up time.

Fill fuel tank with clean gasoline, use safety approved gas containers. DO NOT MIX OIL WITH GASOLINE – USE UNLEADED GAS ONLY.

### **Stopping Procedure**

1. Throttle engine down.
2. Depress or turn off stop switch.

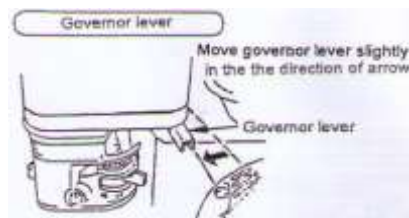


Figure 2

## OPERATION

1. Opening the governor lever sharply causes the compactor to start working (Fig.2). When the engine speed reaches around 2300rpm, centrifugal clutch will be engaged. The lever should be operated quickly without hesitation, because increasing the engine speed slowly causes the clutch to slip.
2. Operate travel lever to have compactor travel forward or reverse. Push the lever forward for forward travel, pull it back for reverse and place it in neutral for vibration in place. (Fig.3)
3. When you work on soil which contains clay, there may be cases where traveling speed drops because compaction plate does not leave ground surface as easily. Check the bottom of plate to see if clay has not stuck there. Incidentally, because compactor cannot be as efficient on clay or high moisture containing soil, dry such soil to appropriate moisture content level or carry out compaction twice.

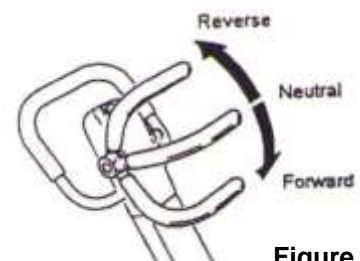


Figure 3

4. To discontinue your work, contrary to the starting time, return the governor lever quickly to LOW position. Do not move it slowly. (Fig.2)

## MAINTENANCE

Proper maintenance, inspection and storage of your Bartell Plate Compactor is vital to preserving the performance of your equipment. The most important daily activity is to keep the equipment clean and prevent the build-up of mud and caked-on dust or particulate. Bartell Plate Compactors can be cleaned with spray from a hose or pressure washer. Remove all dirt and residue from the surface of the equipment, including the space between the bridge and plate.

**AIR CLEANER** - Keep air filter clean at all times. Wash away dust and debris using a non-oil based cleaning solvent. Let the filter dry before re-installing.

**LUBRICATION** – Always check engine oil regularly. Use proper engine oil as recommended. See chart on previous page. Fill crankcase to levels as recommended in manufacture's engine manual.

**SPARK PLUG** – Check and clean spark plugs regularly. A fouled, dirty or carboned spark plug causes hard starting and poor engine performance. Set spark plug gap to recommended clearance. Refer to engine manual.

### **BELT TENSION – IMPORTANT!**

If there is excessive belt play, there will be a decrease in the impact force and erratic vibration, which could cause machine damage. The normal belt play should be 10-15mm (1/2") which is attained by forcibly depressing the middle section of the belt. When adjusting the belt make sure that the clutch is in alignment with exciter pulley. Tighten all engine mounting bolts and secure the belt cover.

## STORAGE

The following steps should be taken to prepare your plate compactor for extended storage.

1. Close fuel shut off valve.
2. Siphon excess gasoline from tank.
3. Start engine until it stops from lack of fuel. This will use up all the fuel in the carburetor and prevent formation of deposits due to evaporation of fuel. Remove spark plug and pour 2 oz. of SAE 10W-30 motor oil into the cylinder. Slowly crank the engine 2 or 3 times to distribute the oil throughout the cylinder.
4. This will help prevent rust during storage. Replace spark plug.
5. Store the unit in an upright position in a cool, dry, well ventilated area.



## **DECLARATION OF CONFORMITY**

Declaration of Conformity / Certificat de conformité / Gelijkvormigheids certificaat Declaración de Conformidad/Declaração de Conformidade/Dichiarazione Di Conformita

We:	Bartell Morrison Inc. 375 Annagem Blvd. Mississauga, Ontario, Canada L5T 3A7 Tel: 647-953-4100 Fax: 647-953-4101	Bartell Morrison (USA) LLC. 200 Commerce Drive, Unit A Freehold, New Jersey, United States of America 07735 Tel: 848-225-8100 Fax: 848-225-8101
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Declare under our sole responsibility that the product to which this declaration relates is in conformity with the following standard(s) or other normative documents.

Déclarons sous notre responsabilité que le produit cette déclaration est conforme aux normes suivantes ou d'autres documents habituels.

Verklaren onder onze verantwoordelijkheid dat het product naar welke de verklaring verwijst conform de volgende standaards of anders gebruikelijke documenten is.

Declaramos bajo nuestra única responsabilidad que el producto en lo que esta declaración concierne, es conforme con la siguiente normativa u otros documentos.

Declara sob sua responsabilidade que o produto a quem esta declaração interessar, está em conformidade com os seguintes documentos legais ou normas directivas.

Dichiariamo sotto la ns. unica responsabilità che il prodotto al quale questa dichiarazione si riferisce, è fabbricato in conformità ai seguenti standard e documenti di normative.

EN 349:1993	Safety of Machinery - Minimum gaps to avoid crushing of parts of the human body.
EN 418:1993	Safety of Machinery - Emergency stop equipment, functional aspects - Principles for design
EN 12100-1:2003	Safety of Machinery - Basic Concepts, general principles for design - Part 1: Basic Terminology, methodology
EN 12100-2:2003	Safety of Machinery - Basic Concepts, general principles for design - Part 2: Technical Principles
EN ISO 4872:1978	Acoustics - Measurement of Airborne noise emitted by construction equipment intended for outdoor use - Method for determining compliance with noise limits.
EN ISO 5349-1:2001	Mechanical vibration. Measurement and evaluation of human exposure to hand-transmitted vibration. General requirements
EN ISO 5349-2:2001	Mechanical vibration. Measurement and assessment of human exposure to hand-transmitted vibration. Practical guidance for measurement at the workplace.

Following the provisions of Directive(s):

Suivant les directive(s) déterminées:

Volgens de vastgestelde richtlijnen:

Siguiendo las directiva(s):

No seguimento das clausulas da Directiva(s):

Seguendo quanto indicato dalla Direttiva(s):

98/37/EC	Machinery Directive
2000/14/EC	Noise Directive
2001/95/EC	General Product Safety Directive
2002/95/EC	Reduction of Hazardous Waste Directive

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