

Bartell Morrison Inc. 375 Annagem Blvd., Mississauga, ON, Canada

L5T 2A7

Toll Free (N.A.): 1 866 501 1683 Local: +1 905 364 4200 Fax: +1 905 364 4201

## OWNER'S MANUAL

# SINGLE DIRECTION PLATE COMPACTORS



ORIGINAL LANGUAGE

Doc. # OI-B09017 Orig. Rel. - 08/2010 Curr. Rev. - 02 Date - 06/2014 Bartell Morrison (USA) LLC Bartell Morrison (USA) LLC

375 Annagem Blvd. 200 Commerce Drive,

Mississauga, Ontario, Canada Freehold, New Jersey, USA

L5T 3A7 07735

Toll Free (N.A.): (866) 501-1683 Toll Free: 888-999-1570

Phone: (905) 364-4200 Phone: (732) 566-5400 Facsimile: (905) 364-4201 Facsimile: (732) 566-5444

www.bartellmorrison.com www.bmiamerica.com

## ORIGINAL LANGUAGE OPERATING INSTRUCTIONS FOR SINGLE DIRECTIONAL PLATE COMPACTOR

© 2013 Bartell Morrison Inc.

No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system without the prior written permission of Bartell Morrison Inc. unless such copying is permitted by federal copyright laws.

Address inquiries or reference permissions care of:

Bartell Morrison Inc.,

375 Annagem Blvd.,

Mississauga, Ontario,

Canada, L5T 3A7

Revision	Date	Description	Approved by.
0	08/2010	Initial release	RL
1	08/2013	Front page update.	AL
2	06/2014	Address Update	AL

## **TABLE OF CONTENTS**

1.0	YOUR NEW BARTELL PLATE COMPACTOR	4
1.1	EQUIPMENT USE AND CARE	4
1.2	SAFETY FEATURES	4
1.3	TECHNICAL SPECIFICATIONS	5
1.7	LIFTING PLATE COMPACTORS	9
2.0	SAFETY	10
2.1	SAFETY AND OPERATIONAL LABELS	12
3.1	STARTING YOUR BARTELL PLATE COMPACTOR	16
3.0	SETTING UP YOUR BARTELL PLATE COMPACTOR	16
4.0	STORAGE AND SERVICE	17
4.1	PREVENTATIVE MAINTENANCE AND SERVICE PLAN	18
4.2	ROUTINE SERVICE INTERVALS	20
4.3	STORAGE	20



## 1.0 YOUR NEW BARTELL PLATE COMPACTOR

The equipment depicted in these instructions is a pedestrian controlled, gasoline engine powered assembly including an exciter mounted on a weighted, flat plate. The engine, mounted on a vibration-isolated plate, turns a centrifugal clutch that drives the exciter via a drive belt. The exciter causes the weighted plate to vibrate, compacting any material underneath the plate and pushing the assembly forward. For control of this assembly a handle is provided for the operator to grasp and manipulate the travel of the machine on the compacted surface. The assembly includes safety devices in accordance with North American and International standards.

## 1.1 EQUIPMENT USE AND CARE

Bartell plate compactors are designed for use on soil, gravel, sand, and other loose surfaces. It should be operated at all times in accordance with the instructions detailed in this manual:

- Use of this equipment for any purpose other than that stated within creates the risk of personal injury and/or property damage.
- Any modifications to the equipment must be performed by the manufacturer or an authorized dealer and must be authorized in advance by the manufacturer.
- The equipment should be serviced, cleaned, and stored as detailed by this manual.

Failure to follow these guidelines may result in the warranty being void. The manufacturer of this equipment cannot be held responsible for any damages resulting from misuse, abuse, or neglect.

## 1.2 SAFETY FEATURES

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.



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.

## **TECHNICAL SPECIFICATIONS**

B100 PLATE COMPACTOR						
MODEL	PLATE SIZE	CENTRIFUGAL FORCE	CYCLES PER MIN.	TRAVEL SPEED	ENGINE	OPERATING WEIGHT
B100	14" x 20" (36 x 51 cm)	2,360 LBSf (10,5 kN)	5,600 (93,3 Hz)	78 ft/min (24 m/min)	Honda GX120	141 lbs (64 kg)

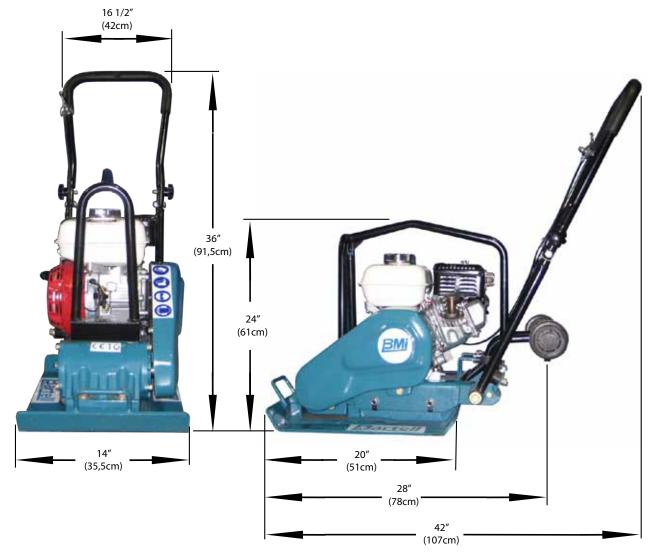


Figure 1: B100 Dimensions (Honda GX120 Engine Shown)

Toll Free 866 501 1683 Phone +1 905 364 4200 Fax +1 905 364 4201 Bartell Morrison Inc. Bartell Morrison (USA) LLC Toll Free 888-999-1570 Phone 1-732-564-5400 Fax 1-732-564-5444

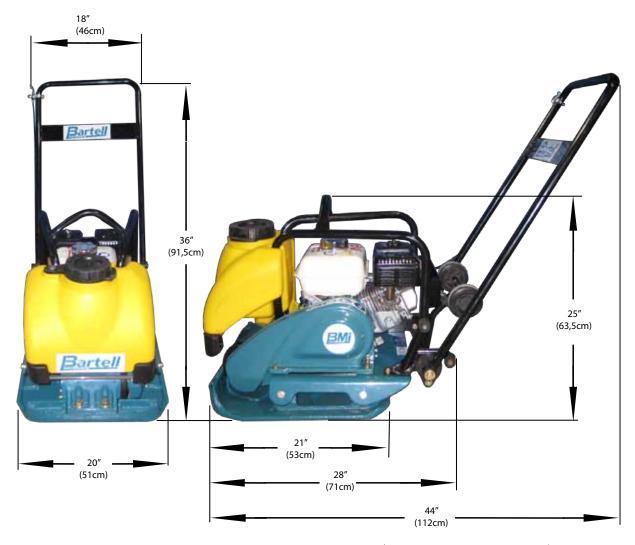


Figure 2: B200 Dimensions (Vanguard 6.5hp Engine Shown)

B200 PLATE COMPACTOR						
MODEL	PLATE SIZE	CENTRIFUGAL FORCE	CYCLES PER MIN.	TRAVEL SPEED	ENGINE	OPERATING WEIGHT
B200	20" x 21" (51 x 53 cm)	2,920 LBSf (13,0 kN)	5,500 (91,7 Hz)	78 ft/min (24 m/min)	Honda GX160 B&S 6.5hp	183 lbs (83 kg)

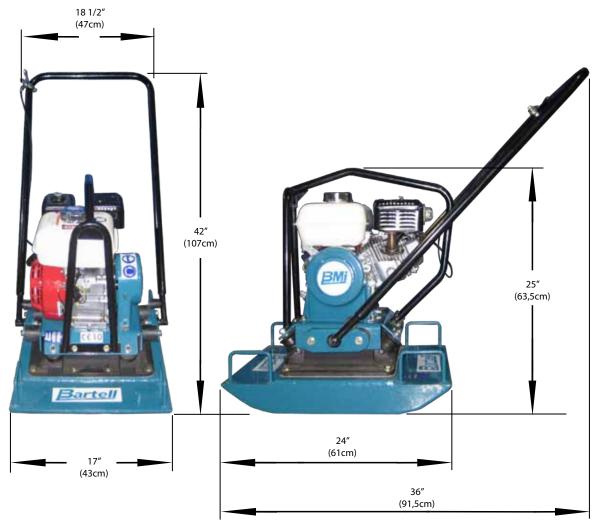


Figure 3: B300 Dimensions (Vanguard 6.5hp Engine Shown)

B300 PLATE COMPACTOR						
MODEL	PLATE SIZE	CENTRIFUGAL FORCE	CYCLES PER MIN.	TRAVEL SPEED	ENGINE	OPERATING WEIGHT
B300	24" x 18" (61 x 46 cm)	4,450 LBSf (19,8 kN)	7,000 (116,7 Hz)	94 ft/min (29 m/min)	Honda GX160	220 lbs (100 kg)



Figure 4: Compactor Major Components (B200 Model Shown)

#### - Drivetrain:

- **Engine**: B series Plate Compactors are available with three engine options: Briggs & Stratton Vanguard 6.5HP, Honda GC160 (unavailable on B200), and Honda GX160 (GX120 on B100). The engine warranty is provided by the manufacturer. For more details please refer to the engine manual included with your Bartell Plate Compactor. Missing manuals can be replaced by your equipment manufacturer directly or via your local dealer.
- **Clutch and Belt**: The engine of the Compactor drives a centrifugal clutch, allowing the engine to idle without turning the exciter. When the clutch is engaged, the belt drives the pulley of the exciter.
- Exciter: The exciter is completely sealed and designed to avoid any leakage over the equipment's lifetime. It is directly attached to the plate. The pulley attached to the exciter turns an eccentrically weighted shaft at high speed. This causes the plate to vibrate vertically, compacting the material underneath it and driving the compactor forward.

- **Belt Guard:** Designed to protect the operator from the rotating components of the drivetrain, the belt guard mounts directly to the bridge and should never be removed during operation.
- **Bridge:** The engine, lift frame, handle, and belt guard are mounted to the bridge. The bridge is connected to the plate with vibration isolators, providing protection for the engine and operator from the vibration of the plate. The trolley is also connected to the bridge.
- **Plate:** The weighted plate of the compactor is the lower surface that vibrates and compacts the material. While running, the operator should avoid any direct contact with the plate.
- **Handle:** The handle provides the operator with easy and ergonomic control over the compactor. The handle is mounted to the bridge with vibration isolators, providing extra protection and comfort for the operator.
- **Throttle Lever:** The throttle lever provides the operator with quick and reliable control of the engine speed. The lever will move in different directions for different engine configurations. On the Honda GC160 models, setting the throttle lever to minimum will shut down the engine, while the other models will simply set the compactor to idle. The compactor should only be run at full speed when not idling.
- **Trolley:** B100 and B200 Plate Compactors have a built-in trolley for ease of transportation. When not in use the trolley is flipped upright and held in place with a rubber clamp on the lift frame. To deploy the trolley, lift the Compactor forward until the trolley can rotate all the way underneath the plate and rest on its wheels.
- **Water Tank & Sprinkler:** B series Plate Compactors have an optional water sprinkler tank that is designed to cool the plate and reduce airborne dust while compacting particulate or dry soil. The entire tank is removable for refilling and storage.
- **Lift Frame:** The lifting frame provided on all Bartell models provides an easy mechanical lifting point and also acts as a rollover cage in the event that the Compactor tips over.

## 1.7 LIFTING PLATE COMPACTORS



B series Plate Compactors should always be lifted by mechanical means. NEVER attempt to lift by yourself, as this can result in back strain and other injuries, as well as damage to equipment and property. Ensure the engine is not running and has cooled before lifting.

#### 2.0 **SAFETY**

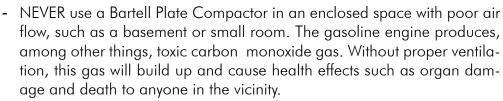


The instructions provided in this manual are done so to ensure the operator's safety as well as that of others, the equipment, and the job site. Failure to follow these guidelines can lead to serious personal injury and even death. The operator and any service personnel should read and understand the 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 bottom of each page of this manual.
- Technical service bulletins, user's manual updates, and other information are posted on the Bartell website: http://www.bartellmorrison.com. Check this website periodically for updates or other potentially useful information about your equipment.





- 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 job-site 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 Nexus 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 fuelling 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.



#### 12 | Operator's Instructions

- 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.

## 2.1 SAFETY AND OPERATIONAL LABELS



Figure 5: Label Locations on the B100 (Honda GX120 Model Shown)



Figure 6: Label Locations on the B200 (Vanguard 6.5 Model Shown)



Figure 7: Label Locations on the B300 (Honda GX160 Model Shown)

#### **14** | Operator's Instructions

1 & 2	Bartell MORRISON INC.  BILLIANS INC.	Bartell Product Brand Labels
3	Bartell Worrison  MODEL/MODELE  SERIAL NO/NO. DE SERIE  AMADE IN FADRICULE AU CANADA CANADA CANADA L-866-501-1683 BRAMPTON, ONT. CANADA 19526	Bartell Product and Serial Number Plate.
4		WARNING: Flammable
5		WARNING: Hot surface, do not touch.

6		EYE PROTECTION: Ensure to wear appropriate eye protection when operating machine.
7		HEARING PROTECTION: Ensure to wear appropriate hearing protection when operating machine.
8	Str. Str.	HAND PROTECTION: Ensure to wear appropriate hand protection when operating machine.
9		FOOT PROTECTION: Ensure to wear appropriate foot protection when operating machine.
10		READ MANUAL: Make sure to read manual before and when unsure about operation.
11	ALWAYS STOP ENGINE BEFORE ADDING FUEL OR MAKING ADJUSTMENTS	DANGER: Always stop engine before adding fuel or making adjustments.

## **SETTING UP YOUR BARTELL PLATE** 3.0 **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 is shipped without engine oil or gasoline, so 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.

Please refer to your engine's manual for details and troubleshooting. The startup procedure is the same for all 3 engine options:

- 1. Set the engine's fuel flow valve lever to "ON".
- 2. Set the engine choke to "ON".
- 3. Set the engine's master switch to "ON". For the Honda GX160 and Vanguard 6.5 engine options there is a physical ON/OFF switch on the engine. The Honda GC160 includes the ON/OFF switch on the throttle mechanism (see next step).
- 4. Set the throttle to idle. For the Honda GX160 and Vanguard 6.5 engines, this means setting the throttle lever to minimum. For the Honda GC160, which includes a shut down switch at the minimum throttle setting, set the throttle lever to the idle position, about 1/3 away from minimum setting. Observe the throttle lever on the engine to better judge what position is appropriate.



ALWAYS set the throttle to idle during startup. Failure to do so will cause the exciter to start turning immediately, risking personal injury.

5. Grab the starter cord with your right hand. Firmly pull the starter cord as directed in your engine's manual (see Figure 11).

#### STORAGE AND SERVICE 4.0

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.



ALWAYS set the throttle to idle during startup. Failure to do so will cause the exciter to start turning immediately, risking personal injury.

- Maintain the engine of your Bartell Plate Compactor as described in the included engine owner's manual. Missing manuals can be replaced by contacting your equipment's manufacturer or searching online.
- The exciter is entirely self-contained and sealed. If it is opened for servicing the oil inside must be replaced. Failure to do so will result in equipment damage. Frequently inspect the shaft seal for oil leaks as this will indicate a worn-out seal. Any strange or grinding noises from the exciter may indicate the requirement for bearing servicing.
- The drivetrain should be frequently cleaned and inspected for dirt build-up. The drive belt should be inspected for tension and wear. The clutch should be inspected if the equipment experiences a sudden drop in performance or loud belt squeal.



NEVER service your Bartell Plate Compactor while the engine is running. Observe all fire and safety protocols outlined in the "Safety" section of this manual.



### PREVENTATIVE MAINTENANCE AND 4.1 **SERVICE PLAN**

This Plate Compactor has been assembled with care and will provide years of service. Preventative maintenance, routine service, and proper use are essential to the long life of your equipment. Your dealer is interested in your new machine and has the desire to help you get the most value from it. After reading through this manual thoroughly, you will find that you can do some of the regular maintenance yourself. However, when in need of parts or major service, be sure to see your Bartell dealer. For your convenience we have provided this space to record relevant data about your Bartell Plate Compactor. When in need of parts or service be prepared to provide your serial number. Locate the serial number now and record in the space below.

Date Purchased:	Type of Machine:	Plate Compactor
Dealer Name:	Model:	В
Dealer Phone:	Serial Number:	

	Replacem	ent Parts Use	∍d	Ma	intenance Log
Part No.	Quantity	Cost	Date	Date	Operation

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
General Ins	pection:						
Guards	Check		0	0	0	0	0
Warning stickers	Check		0	0	0	0	0
Test run	Check operation		0	0	0	0	0
Engin	e:						
Engine oil	Check level	0	0	0	0	0	0
	Change		0		0		0
Engine oil filter	Replace				0		0
Oil cooler	Clean			0	0	0	0
Cooling Fins	Clean		0	0	0	0	0
Air cleaner	Check	0	0	0	0	0	0
	Replace						0
Air Intake Line	Check				0		
	Replace						2 yrs
Fan Belt	Check Tightness				0		0
	Replace						500 hrs
Valve clearance	Check-adjust				0		0
Fuel filter	Check & Clean			0	0	0	0
	Replace				0		0
Fuel Tank	Clean						500 hrs
Engine wiring	Check						0
Excite	er:						
Exciter oil	Check Level	0	0	0	0	0	0
	Change	0			0		0
Drive belt	Check Tightness	0	0	0	0	0	0
	Change				0		0
Water Drip System:					_		
Water flow operation		0					
Spray nozzle	Clean	0					
Retardant Fluid	Check Levels	0					

#### **ROUTINE SERVICE INTERVALS** 4.2

Due to the nature and environment of use, Bartell Plate Compactors could be exposed to severe operating conditions. Some general maintenance guidelines will extend the useful life of your compactor.

- The initial service for your Plate 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 on Page 20. The "Routine Service Intervals" chart is handy for keeping a record of the maintenance performed and the parts used for servicing your equipment.
- Regular service according to the previous schedule will prolong the life of your Bartell Plate Compactor and prevent expensive repairs.
- Keeping your equipment 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 Plate 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. All Plate Compactors have governed engine speed of 3600 rpm. See the engine manufacturer's manual for exact specifications.
- Failure to have your B series Plate Compactor regularly serviced and properly maintained in accordance with the manufacturer's instructions will lead to premature failure and void the warranty.

#### 4.3 **STORAGE**

The following steps should be taken to prepare your Bartell Plate Compactor for extended storage:

- 1. Clean all dirt and caked particulate from the equipment.
- 2. Close the fuel shut-off valve.
- **3**. Siphon all possible gasoline from the fuel tank.
- **4.** Start the engine with the fuel shut-off valve still closed and let it run until it stops on its own. This prevents the build-up of residue in the carburetor.
- 5. Remove the spark plug and pour 2 oz. of SAE-30 or SAE-40 motor oil into the cylinder. Slowly crank the engine 2-3 times to distribute the oil throughout the cylinder to prevent corrosion during storage.
- **6.** Store the Compactor upright in a cool, dry, well-ventilated place.

We: Bartell Morrison Inc. 375 Annagem Blvd. Mississauga, Ontario, Canada

L5T 3A7

Tel: 905 364 4200 Fax: 905 364 4201

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 comformidade com os seguintes documentos legais ou normas directivas.

Dichiariamo sotto la ns. unica responsibilita 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 - Minimym gaps to avoid crushing 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 Airbourne noise emitted by construction equipment inended for outdoor use - Method for determining compliance with noise limits.
EN ISO 5349-1:2001	Mechanical vibration. Measurement and evaluation of human exposre to hand-transmitted vibration. General requirements.
2:2001	Mechanical vibration. Measurement and assessment of human exposure to hand-transmitted vibration. Practical guidance for measurement at the worplace.

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 Prodct Safety Directive			
2002/95/EC	Reduction of Hazardous Waste Directive			

#### **22** | Operator's Instructions

Technical Characteristics:

Caractéristiques techniques:

Technisch gegevens:

Características Técnicas:

Caracteristicas Técnicas:

Qualitàs di tecnico:

Model Modéle Type Modelo Modelo Modello	Machine Serial Number Numéro de Série machine Serienummer machine Máquina número de série Numero de serie da maquina Numero di seria la macchina	Weight Masse Gewicht Masa Massa Massa
		Lbs (kg)
Bartell Plate Compactor		220max (100)

Noise Level Puissance acoustique Geluidniveau Nivel Sonoro Nivel del Ruido Potenza Acustica	Pressure level Pression acoustique Geluidsdrukniveau Nivel Acustico Pressão Acústica Pressione Acustica	Vibration level Niveau de vibration Vibratieniveau Nivel de Vibracion Nivel de Vibração Livello di Vibrazione
Lwa (dB)	Lpa (Db)	ahv (m/s2)
98	99	1.5





## **BARTELL MORRISON INC.**

375 Annagem Blvd. Mississauga, Ontario, Canada L5T3A7

Toll Free: 866-501-1683 Local: 905-364-4200 Fax: 905-364-4201 www.bartellmorrison.com



## **BARTELL MORRISON (USA) LLC.**

200 Commerce Dr. Freehold, New Jersey, USA 07728

Toll Free: 888-999-1570 Local: 732-566-5400 Fax: 732-566-5444 www.bmiamerica.com

