

# SERIES 2 CONCRETE VIBRATOR MANUAL

**OWNER'S MANUAL AND PARTS LIST** 





Doc. # OIPB-M19050 Orig. Rel. – 11/2020 Curr. Rev. - 00



## www.BARTELLGLOBAL.com

#### **Bartell Morrison Inc.**

170 Traders Blvd E Mississauga, Ontario, Canada L4Z 1W7

> Tel: (647) 953-4100 Fax: (647) 953-4101

## **SPE International Ltd**

Honeyholes Lane
Dunholme, Lincoln, England
LN2 3SU

Tel: 01673 860709 Fax: 01673 861119

#### **Bartell Morrison USA LLC**

200 Commerce Drive, Unit A Freehold, NJ, USA 07728

> Tel: (848) 225-8100 Fax: (848) 225-8101

#### Innovatech

4701 Allmond Ave Louisville, Kentucky, USA 40209

> Tel: (425) 405-9100 Fax: (425) 405-9101

# ORIGINAL LANGUAGE OPERATING MANUAL FOR CONCRETE VIBRATING EQUIPMENT

### © 2020 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., 170 Traders Blvd., Mississauga, Ontario, Canada, L4Z 1W7

REV.	DATE	DESCRIPTION	APPROVED BY:
00	11/20	ORIGINAL RELEASE	AN



SAFE	SAFETY PRECAUTIONS					
	DANGER EXPLOSION HAZARD  Never operate the machine in an explosive atmosphere, or near combustible materials.					
Zadilida La	WARNING BURN HAZARD  Never come into contact with the motor when operating or shortly after it is turned off. Serious burns may occur.					
	CAUTION  MOVING PARTS  Before starting the machine, ensure that all guards and safety devices are in place and functioning properly.					
	ATTENTION READ OWNER'S MANUAL Read and understand owner's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.					

Personal Protective Equipment (PPE)					
	Hearing Protection  Wear earplugs or earmuffs to protect hearing from potentially damaging noise levels				
	Eye Protection  Wear eye protection to protect eyes from blowing dust, splattering concrete, and other foreign objects				
	Safety Footwear  Wear safety footwear to protect feet from falling objects, compression and punctures or cuts from surrounding and below				
	Hand Protection  Protect exposed skin surfaces when working with fresh concrete to avoid skin irritation or chemical burns				



## **TABLE OF CONTENTS**

QUALITY ASSURANCE/ MACHINE BREAK IN	5
WARRANTY INFORMATION	6
PREVENTATIVE MAINTENANCE AND ROUTINE SERVICE PLAN	7
o ROUTINE SERVICE SCHEDULE	8
SPECIFICATIONS	9
o MAINTENANCE AND CLEANING	9
CONCRETE VIBRATOR INFORMATION	10
o GENERAL HEALTH AND SAFETY TIPS	10
ASSEMBLY INSTRUCTIONS	10
ELECTRICAL INFORMATION	11
o PLUGS, RECEPTACLES AND EXTENSION CORDS	12
OPERATION OF THE CONCRETE VIBRATOR	13
<ul><li>ELECTRIC MODELS</li><li>GAS MODELS</li></ul>	13 14
ASSEMBLY DRAWING AND PARTS LIST	16
PARTS LIST 1 - CONCRETE VIBRATORS	17
<ul> <li>ELETRIC MOTOR ASSEMBLY - SERIES 2</li> <li>PARTS LIST 1: ELECTRIC MOTOR ASSEMBLY</li> </ul>	17 18
PARTS LIST 2 - CONCRETE VIBRATORS	19
<ul> <li>HEAD ASSEMBLY - SERIES 2</li> <li>PARTS LIST 1: HEAD ASSEMBLY</li> </ul>	19 20
PARTS LIST 3 - CONCRETE VIBRATORS	21
<ul> <li>BACKPACK TRANSMISSION</li> <li>PARTS LIST 3: BACKPACK TRANSMISSION</li> </ul>	21 22
PARTS LIST 4 - CONCRETE VIBRATORS	23
<ul> <li>BACKPACK CLUTCH</li> <li>PARTS LIST 4: BACKPACK CLUTCH</li> </ul>	23 24
PARTS LIST 5 - CONCRETE VIBRATORS	25



<ul><li>BACKPACK FRAME</li></ul>	25
o PARTS LIST 5: BACKPACK FRAME	25
PARTS LIST 6 – CONCRETE VIBRATORS	26
<ul> <li>BACKPACK THROTTLE ASSEMBLY</li> </ul>	26
<ul> <li>BACKPACK THROTTLE ASSEMBLY</li> </ul>	26
PARTS LIST 7 - CONCRETE VIBRATORS	26
o BACKPACK ENGINE	26
<ul> <li>BACKPACK ENGINE</li> </ul>	26



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

The Morrison Concrete Vibrator is the product of extensive engineering development designed to give long life and unmatched performance. You can help ensure that your Concrete Vibrator will perform at top levels by observing a simple routing on first use. Consider that your new Concrete Vibrator 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, 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 Morrison Concrete Vibrator wish you many years of satisfied use.



## WARRANTY INFORMATION

All products sold by Bartell Morrison Inc. and Bartell Morrison (USA) LLC (the "Company") are warranted against defects in materials and/or workmanship; excluding normal wear on wearing components and components covered by a separate original manufacturers warranty, for a period of 12 months from the date of sale to the original end user purchaser provided that certain conditions have been met.

#### Conditions:

- 1. The equipment serial number has been registered with the Company or its approved dealers.
- 2. The equipment has been operated in an appropriate manner by qualified individuals.
- 3. The equipment has been properly maintained as per the instructions included in the Owner's Manual.
- 4. All claims for warranty must be filed on proper forms and include the serial number of the equipment along with proof of purchase

Any evidence of failure to meet these conditions may result in a denial of a warranty claim.

- Consideration of warranty claims will be at the sole discretion of the Company, or its authorized dealers, distributors, representatives, or agents.
- The company may, at our discretion, repair or replace a part or the whole of the defective component or equipment.
- Our Warranty coverage is limited to the cost to repair or replace the defective portion of
  the equipment and a reasonable (as determined by the Company) amount of labour to
  conduct the repair or replacement. Under no circumstances shall the Company be liable
  for any additional or exceptional costs beyond the cost to repair or replace the defective
  portion of the equipment. The Company shall not be held accountable for; costs
  associated with travel to inspect or repair defective equipment, costs for transporting
  equipment at any facility other than one authorized by the Company or ancillary damage
  caused by or as a result of the defective equipment.
- Under no circumstances shall equipment be returned to the Company or its authorized dealers, distributors, representatives, or agents without the approval of the company as evidenced by a Returned Goods Number. To obtain a Returned Goods Number, contact the factory or your authorized dealer, distributor, representative or agent.
- This warranty is for the sole benefit of the original end user purchaser and is not transferable to any other company or person.



## PREVENTATIVE MAINTENANCE AND ROUTINE SERVICE PLAN

This MORRISON CONCRETE VIBRATOR has been assembled with care and will provide years of service. Preventative maintenance and routine service are essential to the long life of your Concrete Vibrator. 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 Morrison dealer. For your convenience, we have provided this space to record relevant data about your MORRISON CONCRETE VIBRATOR. 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:	
Dealer Name:	Model:	
Dealer Phone:	Serial Number:	

Replacement Parts Used			Maintenance Log:	
Quantity	Cost	Date	Date	Operation



## **ROUTINE SERVICE SCHEDULE**

INCOTINE OF	KVICE SCHEDULE		<b>F</b> *4		F		<b> </b>
Routine Service Intervals		Each Use	First months or 10 hrs	Every 3 months or 25 hrs	Every 6 months or 50 hrs	Every year or 100 hrs	Every 2 years or 300 hrs
General I	nspection						
Warning Stickers	Check	0	0	0	0	0	0
Test run:	Operation		0	0	0	0	0
Eng	gine						
Engine Oil	Check level	0					
	Change		0		0		
Spark Plug	Check-adjust					0	
	Replace						0
Cooling Fins	Check				0		
Air Cleaner (2)	Check-clean	O (1)		0			
, ,	Replace					0	
Air Intake Line	Check				0		
	Replace						2 yrs
Nuts, bolts,	Check (Retighten	0					
fasteners	if necessary)						
Clutch Shoes	Check				O (2)		
Idle Speed	Check-adjust					O (2)	
Valve Clearance	Check-adjust				O (2)		0
Combustion Chamber	Clean	After every 300 hrs (2)					
Fuel Filter	Clean					O (2)	
Fuel Tank	Clean					O (2)	
Fuel Tubes	Check		Every	2 years (Re	place if nece	essary) (2)	
Oil Tube	Check	Every 2 years (Replace if necessary) (2)					
Electri	c Motor						
Brushes	Check			0		0	
	Replace						0
Air Filter	Check Clean	0		0			
	Replace					0	
Power Cord	Check	0					
Sh	afts						
Inner Core	Check/Lube				0		

- (1) Service more frequently in dusty areas
- (2) Refer to engine owner's manual for servicing instructions and a detailed maintenance schedule. Some 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



## MAINTENANCE AND CLEANING

#### **Electric Motor**

- Keep housing and air filter clean to allow motor to cool properly
- Check brushes, switch boot and electrical cord for wear and replace when worn
- Motor bearings do not require additional lubrication, replace when worn

## **Honda Engine**

- Refer to the Honda owner's manual

#### **Shafts**

Inspect inner cores for lubrication after approximately 50 hours of operation as follows: remove core on a clean surface free of dirt and grit, inspect core for dry areas, if lubrication is required wipe core with cloth, reinsert core in to casing applying approximately 1/16" thick coating of high quality lithium grease. (available in 1lbs cans) Do not over grease the flexible shafts as this will cause excess drag on the motor, and the shaft to get hot.

### Heads

- Heads are sealed at the factory, since it is extremely important to keep contaminants, therefore they require no field maintenance.

## **SPECIFICATIONS**

#### **Electric Versions**

Model	S2MVM134	S2MVM225	S2MVM325
Power, HP (kW)	1.75 (1.30)	2.25 (1.68)	3.25 (2.42)
Voltage	115	115	115
Hz	50/60	50/60	50/60
Amps	13	15	19
Weight lbs (kg)	16.2 (7.3)	17.8 (8)	23.2 (10.5)
Plug (amp)	15	15	20, Twist lock
Max Head Size	1.5 inch	2.5 inch	2.5 inch

#### Gas Version

Model	S2MVBP212
Engine	GXH50
Power, HP (kW)	2.1 (1.6)
Max Head Size IN (MM)	2.5 inch



## **CONCRETE VIBRATOR INFORMATION**

#### **GENERAL HEALTH AND SAFETY TIPS**

- Keep work areas well illuminated and clean.
- Do not operate in areas where flammable liquids or gases are present
- Operate away from bystanders
- Power tool plugs must be matched with the outlet, do not modify the outlet or the power tool plug
- · Avoid contact with earthed or grounded surfaces
- Do not use electric power tools in wet or rainy conditions
- Do not use power tool if cord or plug is broken
- Use suitable extension cords when needed
- Keep alert when using power tools and do not operate if tired, or under the influence of drugs, alcohol, or medication
- Use personal protection equipment when using power tools
- Ensure on/off switch is in off position before plugging tool into power source
- Remove any adjusting keys or wrenches before starting equipment
- Do not overreach and keep proper footing/balance while using power tools
- Do not wear loose clothing or jewelry and tie up long hair. Keep clothing, hair, and gloves away from moving parts
- Do not force the power tool and always use the correct tool for the application
- Do not use power tool if on/off switch is broken
- Disconnect from power source when making any adjustments or tooling changes
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.
- · Keep tools clean before and after use
- Use power tools in accordance with their instructions.

## **ASSEMBLY INSTRUCTIONS**

Be sure concrete vibratory is switched off and unplugged before proceeding.

## Installing the Head to the Shaft

- Use an adhesive sealant on the shaft threads to prevent water from entering the head as well as securing the head to the shaft
- Then screw on the head by hand and use a wrench and the provided wrench flats on the head to secure the head to the shaft.

## Installing the motor quick disconnect to the shaft

- Screw on the Quick Disconnect onto the shaft and use a wrench and the provided wrench flats on the Quick Disconnect to secure Quick Disconnect to the shaft.

#### Installing the Shaft to motor

- Once the quick Disconnect is secured to the shaft. Slide the Quick Disconnect into the Quick Disconnect receiver on the motor, while you are pulling the pin on the receiver out.
- When fully inserted, release the pin and rotate the shaft until the pin drops into a hole in the Quick Disconnect and locks in place



## **ELECTRICAL INFORMATION**

When using electric vibrators, basic safety precautions should always be followed to eliminate the risk of electricity shock, fire, personal injury, and property damage.

Any tool not in proper working order, or one that develops a defect, should not be used until properly repaired.

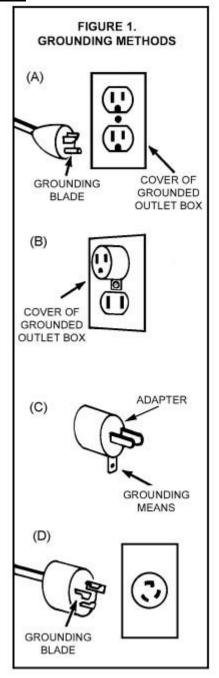
# FOR ALL GROUNDED TOOLS GROUNDING INSTRUCTIONS

This tool should be grounded while in use to protect the operator from electric shock.

The tool is equipped with a 3-conductor cord and a 3-prong grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.

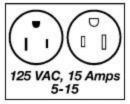
- If your unit is for use on less than 150 volts, it has a plug that looks like that shown in sketch [A].
- If your unit is for use on 150 to 250 volts, it has a plug that looks like shown in sketch [D].
- An adapter, shown in sketches [B] and [C] is available for connecting sketch [A] type plugs to 2-prong receptacles. The green coloured rigid ear, lug, or the like, extending from the adapter must be connected to a permanent ground, such as a properly grounded outlet box.
- No adapter is available for a plug as shown in sketch [D]
- Morrison Motors operate on 115V single phase 60-cycle (230V optional).
- They will also operate on 50-cycle AC current.
- All motors have AC/DC universal Windings.
- Frequencies range from 10,000 to 12,000 vibrations per minute.

See next page for extension cord specs.

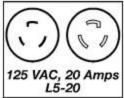




## PLUGS, RECEPTACLES AND EXTENSION CORDS



Morrison Models S2MVM134 and S2MVM225 have a male 15A plug (NEMA 5-15P), which plugs into a 15A female receptacle (NEMA 5-15R).



Morrison Model S2MVM325 have a male 20A plug (NEMA L5-20P), which plugs into a 20A female receptacle (NEMA L5-20R)

#### **Extension Cords**

- Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole receptacles that accept the tool's plug. Repair or replace damaged cords.
- Always use the right extension cord, too light an extension cord can cause poor performance and motor burnout.

MINIMUM GAGE FOR EXTENSION CORDS, PER UL SPECIFICATIONS							
<b>Morrison Model</b>	Amperes @120V	50ft	100ft	150ft	200ft	300ft	
S2MVM134	13	14	12	10	8	8	
S2MVM225	15	14	12	8	8	8	
S2MVM325	19	12	12	8	8	8	



## **OPERATION OF THE CONCRETE VIBRATOR**

#### **ELECTRIC MODELS**

- Match vibrator motor, shaft, and head to the job. Select the largest vibrator suitable for the job. Select the shortest shaft possible to do the job to assure maximum power to the vibrator head.
- Avoid sharp bends in the flexible shaft for highest efficiency
- Use the toggle switch to turn the motor ON and OFF. "I" = ON, "O" = OFF
- Insert vibrator vertically, allow it to sink into desired depth by its own weight; forcing it may lock between rebars.
- Hold the vibrator 5-15 seconds then slowly lift vibrator up, staying behind the trapped air's upward movement, allowing about 15 seconds for a 2-foot distance, to avoid trapping air.
- A slight up and downward movement will close the hole formed by the vibrator.
- Withdraw the vibrator quickly when near the top, to prevent churning air into the top layer.
- Move vibrator and re-insert at a distance of 1 1/2 times the Radius of Action.
- Allow vibrator to penetrate 3 to 6 inches into the preceding layer to knit the two layers together to prevent "lift lines" when forms are removed.
- Try to limit pours to 2 feet high, so air has less resistance to escape.
- Do not use Vibrator to move concrete laterally as it can cause segregation (use a shovel).
- Place vibrator in center of mounds to knock them down.
- Never operate head out of the mix for more than a few minutes to prevent overheating.
   Wet concrete keeps head at proper operating temperature.



### **GAS MODELS**

- Your Morrison Backpack unit is equipped with a Honda 4-Stroke gas engine and has specific lubrication and fueling requirements. Please refer to the Honda Engine Owner's Manual enclosed.
- Place the Backpack on an elevated flat level surface (such as a table). This will enable you to get the unit on your back after you start it.
- To start the motor, brace it with one hand. Pull the recoil handle and guide the line back (just like a lawnmower engine).
- Your Backpack unit attaches very much like a hiker's knapsack. Place your arms through the space between the shoulder straps and frame.
- Adjust any straps to your comfort and preference.
- Squeeze the throttle to increase the engine speed which will engage the clutch causing the vibrator head to vibrate
- Insert vibrator vertically, allow it to sink into desired depth by its own weight; forcing it may lock between rebars.
- Hold the vibrator 5-15 seconds then slowly lift vibrator up, staying behind the trapped air's upward movement, allowing about 15 seconds for a 2-foot distance, to avoid trapping air.
- A slight up and downward movement will close the hole formed by the vibrator.
- Withdraw the vibrator quickly when near the top, to prevent churning air into the top layer.
- Move vibrator and re-insert at a distance of 1 1/2 times the Radius of Action.
- Allow vibrator to penetrate 3 to 6 inches into the preceding layer to knit the two layers together to prevent "lift lines" when forms are removed.
- Try to limit pours to 2 feet high, so air has less resistance to escape.
- Do not use Vibrator to move concrete laterally as it can cause segregation (use a shovel).
- Place vibrator in center of mounds to knock them down.
- **Never** operate head out of the mix for more than a few minutes to prevent overheating. Wet concrete keeps head at proper operating temperature.





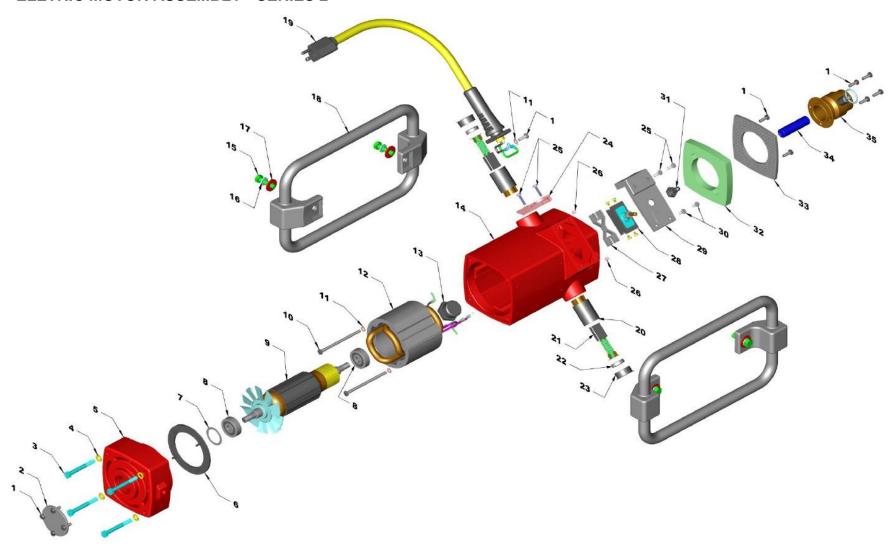
# **ASSEMBLY DRAWING AND PARTS LIST**





# PARTS LIST 1 – CONCRETE VIBRATORS

## **ELETRIC MOTOR ASSEMBLY - SERIES 2**





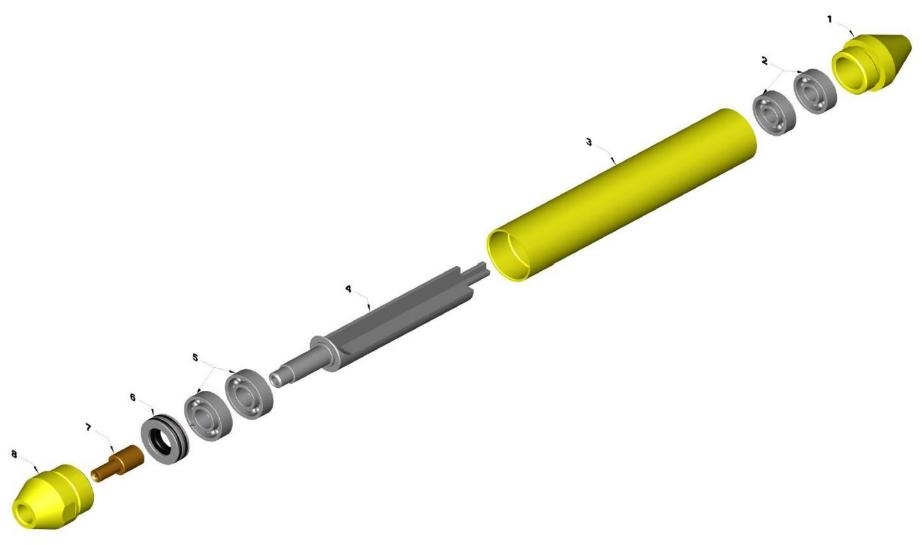
## **PARTS LIST 1: ELECTRIC MOTOR ASSEMBLY**

Item #   S2MVM134   Part # P	IANIOL	.ioi i. LLLCiki	O MICTOR ACC			
Part #	Item #				Description	OTY
2         78215M1         78215M1         78215M1         END CAP         1           3         78280A225         78280A225         78280A225         BOLT         4           4         78285A250         78285A250         10.CKWASHER         4           5         78420B1         78420B1         78285A250         LOCKWASHER         4           5         78420B1         78420B1         78420D1         END BELL         1           6         78470E1         78470E1         78470F1         BAFFLE FILTER (END BELL SIDE)         1           7         78380A1         78380A1         78380A1         SPRING WASHER         1           8         78140C300         78140C300         BALL BEARING         2           9         78475B1         78475C1         ARMATURE         1           10         78190E127         78190E135         78190E140         SCREW         2           11         78295A187         78285A187         78285A187         LOCK WASHER         3           12         78490B1         78400B1         78490C1         FIELD         1           13         78400B1         78400B1         78490B1         MOTOR HOUSING         1					·	
3						
4         78285A250         78285A250         78285A250         LOCKWASHER         4           5         78420B1         78420B1         78420D1         END BELL         1           6         78470E1         78470E1         78470F1         BAFFLE FILTER (END BELL SIDE)         1           7         78380A1         78380A1         78380A1         SPRING WASHER         1           8         78140C300         78140C300         BALL BEARING         2           9         78475B1         78475A1         78475C1         ARMATURE         1           10         78190E127         78190E135         78190E140         SCREW         2           11         78285A187         78285A187         78285A187         LOCK WASHER         3           12         78480B1         7840B1         7840B1         SERVICE PORT         1           13         78400B1         7840B1         7840B1         SERVICE PORT         1           14         78105AC1         78105AC1         78105AG1         MOTOR HOUSING         1           15         78280A312         78280A312         78280A312         BOLT         4           16         78230A312         78280A312         7828						
5         78420B1         78420B1         78420D1         END BELL         1           6         78470E1         78470E1         78470F1         BAFFLE FILTER (END BELL SIDE)         1           7         78380A1         78380A1         78380A1         SPRING WASHER         1           8         78140C300         78140C300         BALL BEARING         2           9         78475B1         78475A1         78475C1         ARMATURE         1           10         78190E127         78190E135         78190E140         SCREW         2           11         78285A187         78285A187         78285A187         LOCK WASHER         3           12         78480B1         78480A1         78480C1         FIELD         1           13         78400B1         78400B1         78400B1         CAP FOR COMUTATOR SERVICE PORT         1           14         78105AC1         78105AC1         78105AC1         78105AC1         78105AC1         78105AC1           15         78280A312         78280A312         78280A312         BOLT         4           16         78285A312         78285A312         78285A312         BOLT         4           17         78370A312					_	
6         78470E1         78470E1         78470F1         BAFFLE FILTER (END BELL SIDE)         1           7         78380A1         78380A1         78380A1         SPRING WASHER         1           8         78140C300         78140C300         78140C300         BALL BEARING         2           9         78475B1         78475A1         78475C1         ARMATURE         1           10         78190E127         78190E135         78190E140         SCREW         2           11         78285A187         78285A187         LOCK WASHER         3           12         78480B1         78480A1         78480C1         FIELD         1           13         78400B1         78400B1         78400B1         CAP FOR COMUTATOR SERVICE PORT         1           14         78105AC1         78105AC1         78105AC1         MOTOR HOUSING         1           15         78280A312         78280A312         78280A312         BOLT         4           16         78285A312         78285A312         78285A312         WASHER         4           17         78370A312         78370A312         78370A312         WASHER         4           18         78490C1         78440C1						4
6         78470E1         78470E1         78470F1         SIDE)         1           7         78380A1         78380A1         78380A1         SPRING WASHER         1           8         78140C300         78140C300         78140C300         BALL BEARING         2           9         78475B1         78475A1         78475C1         ARMATURE         1           10         78190E127         78190E135         78190E140         SCREW         2           11         78285A187         78285A187         LOCK WASHER         3           12         78480B1         78480B1         78480C1         FIELD         1           13         78400B1         78400B1         78480C1         FIELD         1           14         78105AC1         78105AC1         78105AG1         MOTOR HOUSING         1           15         78280A312         78280A312         78280A312         BOLT         4           16         78285A312         78280A312         78285A312         LOCK WASHER         4           17         78370A312         78370A312         78370A312         WASHER         4           18         7849CC1         78440C1         78440D1         FRAME ASSE	5	78420B1	78420B1	78420D1		1
8         78140C300         78140C300         78140C300         BALL BEARING         2           9         78475B1         78475A1         78475C1         ARMATURE         1           10         78190E127         78190E135         78190E140         SCREW         2           11         78295A187         78285A187         T8285A187         LOCK WASHER         3           12         78480B1         78480A1         78480C1         FIELD         1           13         78400B1         78400B1         78400B1         CAP FOR COMUTATOR SERVICE PORT         1           14         78105AC1         78105AG1         MOTOR HOUSING         1           15         78280A312         78280A312         78280A312         BOLT         4           16         78285A312         78285A312         BOLT         4           16         78285A312         78285A312         WASHER         4           17         78370A312         78370A312         78370A312         WASHER         4           18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78495A1         78495A1         78495A1         BRUSH HOLDER         2 <td>6</td> <td>78470E1</td> <td>78470E1</td> <td>78470F1</td> <td>SIDE)</td> <td>1</td>	6	78470E1	78470E1	78470F1	SIDE)	1
9         78475B1         78475A1         78475C1         ARMATURE         1           10         78190E127         78190E135         78190E140         SCREW         2           11         78285A187         78285A187         LOCK WASHER         3           12         78480B1         78480B1         78480B1         78480C1         FIELD         1           13         78400B1         78400B1         78400B1         CAP FOR COMUTATOR SERVICE PORT         1           14         78105AC1         78105AC1         78105AG1         MOTOR HOUSING         1           15         78280A312         78280A312         BOLT         4           16         78285A312         78285A312         BOLT         4           16         78285A312         78285A312         WASHER         4           17         78370A312         78370A312         WASHER         4           18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78490A1         78490A1         78490A1         78490A1         BRUSH HA						
10			78140C300			
11         78285A187         78285A187         78285A187         LOCK WASHER         3           12         78480B1         78480A1         78480C1         FIELD         1           13         78400B1         78400B1         78400B1         CAP FOR COMUTATOR SERVICE PORT         1           14         78105AC1         78105AC1         78105AG1         MOTOR HOUSING         1           15         78280A312         78280A312         78280A312         BOLT         4           16         78285A312         78285A312         78285A312         BOLT         4           16         78285A312         78285A312         WASHER         4           17         78370A312         78370A312         WASHER         4           18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78495A1         78495A1         BRUSH HOLDER         2           21         78490A1         78490A1         BRUSH CAP         2           22         78500A1         78490A1         78490A1         BRUSH CAP         <	9	78475B1	78475A1	78475C1	ARMATURE	
12         78480B1         78480A1         78480C1         FIELD         1           13         78400B1         78400B1         78400B1         CAP FOR COMUTATOR SERVICE PORT         1           14         78105AC1         78105AC1         78105AG1         MOTOR HOUSING         1           15         78280A312         78280A312         78280A312         BOLT         4           16         78285A312         78285A312         78285A312         LOCK WASHER         4           17         78370A312         78370A312         78370A312         WASHER         4           18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78495A1         78495A1         BRUSH HOLDER         2           21         78490A1         78490A1         78500A1         BRUSH CAP         2           22         78500A1         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         78400C1         BURSH CAP         2           24         78215CC1 <t< td=""><td>10</td><td>78190E127</td><td>78190E135</td><td>78190E140</td><td>SCREW</td><td></td></t<>	10	78190E127	78190E135	78190E140	SCREW	
13         78400B1         78400B1         78400B1         CAP FOR COMUTATOR SERVICE PORT         1           14         78105AC1         78105AC1         78105AG1         MOTOR HOUSING         1           15         78280A312         78280A312         78280A312         BOLT         4           16         78285A312         78285A312         78285A312         LOCK WASHER         4           17         78370A312         78370A312         WASHER         4           18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78495A1         78495A1         BRUSH HOLDER         2           21         78490A1         78490A1         78490A1         BRUSH CAP         2           22         78500A1         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         78400C1         BURSH CAP         2           24         78215CC1         78215CC1         78215CC1         SCREW         4           25         78190F875         78190F875	11	78285A187	78285A187		LOCK WASHER	3
13	12	78480B1	78480A1	78480C1	FIELD	1
15         78280A312         78280A312         78280A312         BOLT         4           16         78285A312         78285A312         78285A312         LOCK WASHER         4           17         78370A312         78370A312         WASHER         4           18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78495A1         78495A1         BRUSH HOLDER         2           21         78490A1         78490A1         BRUSH HOLDER         2           22         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         78400C1         BRUSH CAP         2           24         78215CC1         78215CC1         78215CC1         BURSH CAP         2           24         78215CC1         78215CC1         78215CC1         BURSH CAP         2           25         78190F875         78190F875         SCREW         4           26         78190F875         78190F875         SCREW         2           27         78467C	13	78400B1	78400B1	78400B1		1
16         78285A312         78285A312         78285A312         LOCK WASHER         4           17         78370A312         78370A312         78370A312         WASHER         4           18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78495A1         78495A1         BRUSH HOLDER         2           21         78490A1         78490A1         BRUSH HOLDER         2           21         78490A1         78490A1         BRUSH CAP         2           22         78500A1         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         78400C1         BURSH CAP         2           24         78215CC1         78215CC1         78215CC1         BURSH CAP         2           25         78190F875         78190F875         78190F875         SCREW         4           26         78190F875         78190F875         78190F875         SCREW         2           27         78467C1         78467C1         FELECTRIC WIRE CLIP         1<	14	78105AC1	78105AC1	78105AG1	MOTOR HOUSING	1
17         78370A312         78370A312         78370A312         WASHER         4           18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78495A1         78495A1         BRUSH HOLDER         2           21         78490A1         78490A1         78490A1         BRUSH CAP         2           22         78500A1         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         78400C1         COUTER PROTECTIVE BURSH CAP         2           24         78215CC1         78215CC1         78215CC1         ELECTRIC CORD MOUNTING PLATE         1           25         78190F875         78190F875         78190F875         SCREW         4           26         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78215CB1         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           29         78215CB1	15	78280A312	78280A312	78280A312	BOLT	4
18         78440C1         78440C1         78440D1         FRAME ASSEMBLY         2           19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78495A1         78495A1         BRUSH HOLDER         2           21         78490A1         78490A1         78490A1         BRUSH CAP         2           22         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         COUTER PROTECTIVE BURSH CAP         2           24         78215CC1         78215CC1         78215CC1         MOUNTING PLATE         1           25         78190F875         78190F875         SCREW         4           26         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         78425B1         ELECTRIC SWITCH (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2	16	78285A312	78285A312	78285A312	LOCK WASHER	4
19         78505H1         78505H1         78505J1         GROUNDED ELECTRICAL CORD         1           20         78495A1         78495A1         78495A1         BRUSH HOLDER         2           21         78490A1         78490A1         78490A1         BRUSH CAP         2           22         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         COUTER PROTECTIVE BURSH CAP         2           24         78215CC1         78215CC1         T8215CC1         ELECTRIC CORD MOUNTING PLATE         1           25         78190F875         78190F875         78190F875         SCREW         4           26         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         78425B1         WITCH MOUNT PLATE         1           29         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         SWITCH MOUNT PLATE         1 <td>17</td> <td>78370A312</td> <td>78370A312</td> <td>78370A312</td> <td>WASHER</td> <td>4</td>	17	78370A312	78370A312	78370A312	WASHER	4
19	18	78440C1	78440C1	78440D1	FRAME ASSEMBLY	2
21         78490A1         78490A1         78490A1         BRUSH         2           22         78500A1         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         78400C1         COUTER PROTECTIVE BURSH CAP         2           24         78215CC1         78215CC1         78215CC1         ELECTRIC CORD MOUNTING PLATE         1           25         78190F875         78190F875         SCREW         4           26         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         F8425B1         ELECTRIC SWITCH (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         SWITCH MOUNT PLATE         1           32         78470A1         78430A1         78430A1         AIR FILTER         1           32         78470A1         78470A1         AIR FILTER         1	19	78505H1	78505H1	78505J1		1
22         78500A1         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         78400C1         COUTER PROTECTIVE BURSH CAP         2           24         78215CC1         78215CC1         FLECTRIC CORD MOUNTING PLATE         1           25         78190F875         78190F875         SCREW         4           26         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         78425B1         ELECTRIC SWITCH (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	20	78495A1	78495A1	78495A1		2
22         78500A1         78500A1         78500A1         BRUSH CAP         2           23         78400C1         78400C1         78400C1         COUTER PROTECTIVE BURSH CAP         2           24         78215CC1         78215CC1         FLECTRIC CORD MOUNTING PLATE         1           25         78190F875         78190F875         SCREW         4           26         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         78425B1         ELECTRIC SWITCH (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	21	78490A1	78490A1	78490A1	BRUSH	2
23         78400C1         78400C1         78400C1         BURSH CAP         2           24         78215CC1         78215CC1         ELECTRIC CORD MOUNTING PLATE         1           25         78190F875         78190F875         SCREW         4           26         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         78425B1         (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	22	78500A1	78500A1	78500A1	BRUSH CAP	
24         78215CC1         78215CC1         78215CC1         MOUNTING PLATE         1           25         78190F875         78190F875         78190F875         SCREW         4           26         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         78425B1         ELECTRIC SWITCH (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	23	78400C1	78400C1	78400C1		2
26         78190B125         78190B125         78190B125         SET SCREW         2           27         78467C1         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         78425B1         ELECTRIC SWITCH (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1					MOUNTING PLATE	1
27         78467C1         78467C1         78467C1         ELECTRIC WIRE CLIP         1           28         78425B1         78425B1         78425B1         ELECTRIC SWITCH (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         78160CW1         CORE ADAPTOR         1						
28         78425B1         78425B1         78425B1         ELECTRIC SWITCH (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         78160CW1         CORE ADAPTOR         1						
28         78425B1         78425B1         78425B1         (W/TERMINAL SCREW)         1           29         78215CB1         78215CB1         SWITCH MOUNT PLATE         1           30         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	27	78467C1	78467C1	78467C1	ELECTRIC WIRE CLIP	1
30         78190F850         78190F850         78190F850         SCREW         2           31         78430A1         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	28	78425B1	78425B1	78425B1		1
31         78430A1         78430A1         78430A1         WATER RESISTANT SWITCH SEAL         1           32         78470A1         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	29	78215CB1	78215CB1	78215CB1	SWITCH MOUNT PLATE	1
31         78430A1         78430A1         78430A1         SWITCH SEAL         1           32         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	30	78190F850	78190F850	78190F850	SCREW	2
32         78470A1         78470A1         78470A1         AIR FILTER         1           33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         CORE ADAPTOR         1	31	78430A1	78430A1	78430A1		1
33         78215N1         78215N1         78215X1         AIR FILTER COVER         1           34         78160CW1         78160CW1         78160CW1         CORE ADAPTOR         1	32	78470A1	78470A1	78470A1		1
34 78160CW1 78160CW1 78160CW1 CORE ADAPTOR 1	33	78215N1	78215N1	78215X1		1
						1
		78150DE1				1



# PARTS LIST 2 - CONCRETE VIBRATORS

## **HEAD ASSEMBLY - SERIES 2**





## **PARTS LIST 1: HEAD ASSEMBLY**

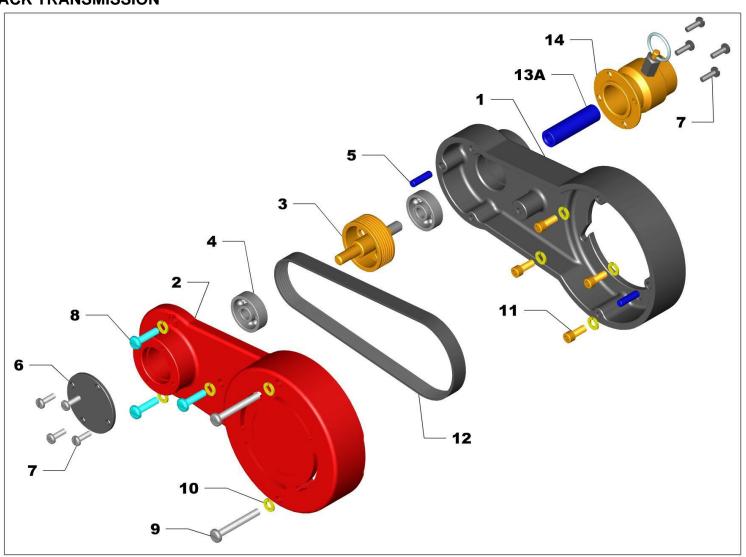
	MVH75P	MVH100	MVH125	MVH112		
Item #	¾" Head	1" Head	1 1/4" Head	1 1/2" Head	Description	QTY
	Part #	Part #	Part #	Part #		
1	78100A75	78100B1	78100C12	78100D15	NOSEPIECE	1
2	78140F4	78140A608	78140A000	78140A201	BEARING (NOSE	2
	7014074	70140A000	76140A000	70140AZ01	END)	2
3	78105A75	78105B1	78105C12	78105D15	SHELL	1
4					ROTOR	1
5	78140F4	78140A608	78140A000	78140A201	BEARING (CASING	2
5	7014074	70140A000	70140A000	70140AZ01	ADAPTOR END)	2
6	78110A1	10A1 78125H1	78125J1	78125K1	SEAL CARRIER	1
					ASSEMBLY	
7					CORE ADAPTOR	1
8					CASING ADAPTOR	1

	MVH134	MVH200	MVH212		
Item #	1 ¾" Head	2" Head	2 ½" Head	Description	QTY
	Part #	Part #	Part #		
1	78100E17	78100F2	78100G25	NOSEPIECE	1
2	78140A301	78140A302	78140A205	BEARING (NOSE	2
				END)	
3	78105E17	78105F2	78105G25	SHELL	1
4				ROTOR	1
5	78140A203	78140A204	78140A205	BEARING (CASING	2
3	70140A203	70140A204	70140AZ03	ADAPTOR END)	
6	78125L1	78125M1	78125N1	SEAL CARRIER	1
6				ASSEMBLY	
7				CORE ADAPTOR	1
8				CASING ADAPTOR	1



# PARTS LIST 3 – CONCRETE VIBRATORS

## **BACKPACK TRANSMISSION**





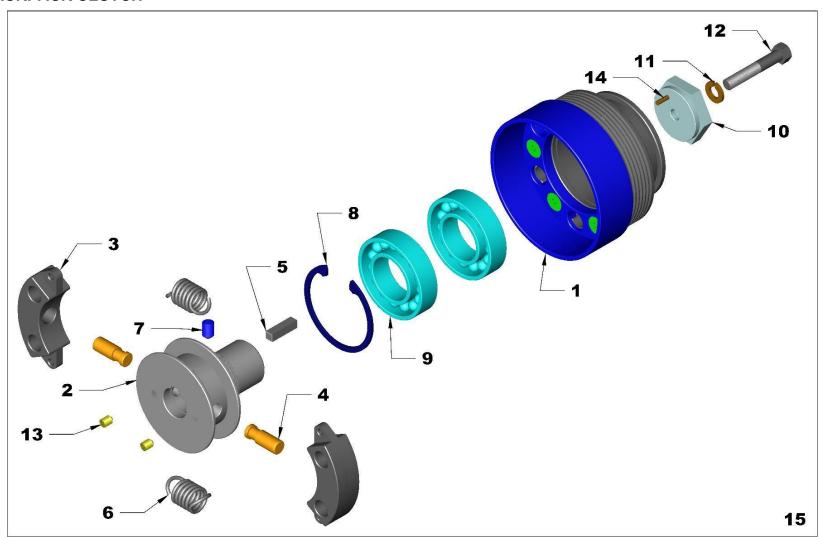
## PARTS LIST 3: BACKPACK TRANSMISSION

Item #	Part #	Description	QTY
1	78635A1	TRANSMISSION BOX	1
2	78635B1	TRANSMISSION BOX COVER	1
3	78295N1	DRIVEN PULLEY	1
4	78140C300	BEARING, DOUBLE SEALED	2
5	78180G87	DOWEL PIN	2
6	78215M1	END CAP	1
7	78190F150	SCREW	8
8	78190F208	SCREW	3
9	78190F220	SCREW	2
10	78285A250	LOCK WASHER	9
11	78320B206	SOCKET CAP SCREW	4
12	78390B1	MICRO V BELT	1
13A	78160CW1	L.H. DRIVE CORE ADAPTOR	1
13B	78160CW2	R.H. DRIVE CORE ADAPTOR (NOT SHOWN)	1
14	78150DE1	CASING ADAPTOR	1



# PARTS LIST 4 – CONCRETE VIBRATORS

## **BACKPACK CLUTCH**





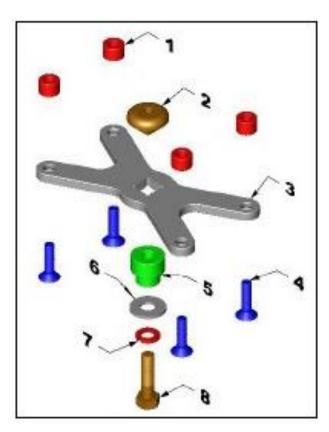
## **PARTS LIST 4: BACKPACK CLUTCH**

Item #	Part #	Description	QTY
1	78295S1	PULLEY, CLUTCH DRUM ASSEMBLY	1
2	78630A1	CLUTCH ADAPTOR	1
3	78625A1	CLUTCH SHOE	2
4	78180F308	DOWEL PIN	2
5	78575D75	KEY	1
6	78465D1	CLUTCH SPRING	2
7	78320A203	SET SCREW	1
8	78255F1	RETAINING RING	1
9	78140D005	BEARING, DOUBLE SHEILD	2
10	78370D1	WASHER	1
11	78285A250	LOCK WASHER	1
12	78280B150	SCREW	1
13	78190B125	SET SCREW	2
14	78180A1	SPRING PIN	1
15	7825BA1	COMPLETE CLUTCH ASSEMBLY	1



# PARTS LIST 5 – CONCRETE VIBRATORS

## **BACKPACK FRAME**





## **PARTS LIST 5: BACKPACK FRAME**

Item #	Part #	Description	QTY
1	78200AJ1	STAND-OFFS ENGINE PLATE	4
2	78211F1	NUT, FRAME	1
3	78215BR1	ENGINE MOUNTING PLATE	1
4	78190J30	SCREW ENGINE MOUNT	4
5	78200AW1	SPACER, FRAME	1
6	78370A312	WASHER	1
7	78285A312	LOCK WASHER	1
8	78280A312	BOLT	1
9	78440AT1	FRAME	1
10	78445E1	PAD, FRAME	1
11	78440AV1	COMPLETE FRAME ASSEMBLY	1



## **PARTS LIST 6 – CONCRETE VIBRATORS**

## **BACKPACK THROTTLE ASSEMBLY**



## **BACKPACK THROTTLE ASSEMBLY**

Item #	Part #	Description	QTY
1	78605F1	THROTTLE CONTROL ASSEMBLY	1
2	78190F217	SCREW	1

## **PARTS LIST 7 – CONCRETE VIBRATORS**

### **BACKPACK ENGINE**



### **BACKPACK ENGINE**

Item #	Part #	Description	QTY
1	816850X1	ENGINE, HONDA GXH50	1





**Bartell Morrison Inc.** 

170 Traders Blvd E Mississauga, Ontario, Canada L4Z 1W7

Tel: 1-647-953-4100 Fax: 1-647-953-4101



**Innovatech** 

4701 Allmond Ave Louisville, Kentucky, USA 40209

Tel: (425) 405-9100 Fax: (425) 405-9101



### **Bartell Morrison (USA) LLC**

200 Commerce Drive, Unit A Freehold, New Jersey, USA 07728

Tel: 1-848-225-8100 Fax: 1-848-225-8101



## **SPE International**

Honeyholes Lane Dunholme, Lincoln, UK LN2 3SU

Tel: +44 (0)1673 860709 Fax: +44 (0)1673 861119

