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INTRODUCTION

FORWARD

WARNING READ THIS MANUAL CAREFULLY PRIOR TO OPERATING THE EQUIPMENT IN ORDER TO UNDERSTAND HOW TO OPERATE AND SERVICE THE EQUIPMENT CORRECTLY. FAILURE TO PROPERLY REVIEW THIS MANUAL COULD RESULT IN PERSONAL INJURY OR EQUIPMENT DAMAGE.

This manual should be considered a permanent part of the equipment and should remain with the equipment at all times. Please note the following:

- Measurements in this manual are given in metric and standard U.S. measurement equivalents.
- Use only correct replacement parts and fasteners. Fasteners may require specific tools.
- Right and left hand sides are determined by facing forward while sitting in the seat behind the steering wheel.

THIRD-PARTY MANUFACTURER INFORMATION

This equipment contains an engine manufactured by a third-party manufacturer. This engine may be covered by the manufacturer’s standard factory warranty and the manufacturer may require that all repairs and/or service be completed pursuant to its warranty terms and conditions. Please refer to the product manual and Warranty Breakdown for additional information on this warranty and any registration requirements.
GENERAL SAFETY & HAZARDOUS MATERIALS WARNING

WARNING SURFACE PREPARATION EQUIPMENT CAN BE DANGEROUS IF NOT OPERATED PROPERLY. THE OPERATOR IS RESPONSIBLE FOR THE SAFE OPERATION OF THIS EQUIPMENT. The operator must carefully read and follow any warnings or safety instructions provided with the equipment prior to operating the equipment. Do not remove any safety devices or warnings on the equipment.

WARNING FLOOR AND/OR DECK SURFACES MAY BE COATED WITH OR CONTAMINATED BY HAZARDOUS MATERIALS. Typical examples of hazardous materials include (i) tile mastic (likely to contain asbestos); (ii) stained areas near electrical equipment (potentially containing PCBS); (iii) paint (potentially containing lead); (iv) stained floor areas in chemical or other industrial facilities (potentially containing toxic pesticides, cleaning fluids, solvents, or other harmful chemicals).

WARNING Preparation equipment is used to remove surface material from a variety of surfaces. The surface preparation process often generates large amounts of dust and other small particles, which are released into the air. WHEN A SURFACE CONTAINS HAZARDOUS MATERIALS, EXPOSURE TO THE DUST GENERATED BY THE PREPARATION EQUIPMENT MAY POSE A HEALTH RISK. INSPECT ALL SURFACES FOR POSSIBLE CONTAMINATES PRIOR TO USING PREPARATION EQUIPMENT AND CONSULT HAZARDOUS MATERIAL EXPERTS AND GOVERNMENT AUTHORITIES BEFORE OPERATING PREPARATION EQUIPMENT ON SURFACES SUSPECTED OF CONTAINING HAZARDOUS MATERIALS.

WARNING BW MANUFACTURING, INC. IN NO WAY REPRESENTS THAT ITS PREPARATION EQUIPMENT IS SUITABLE OR APPROVED FOR REMOVING HAZARDOUS MATERIALS FROM CONTAMINATED SURFACES. DO NOT ATTEMPT TO USE ANY PREPARATION EQUIPMENT MANUFACTURED BY BW MANUFACTURING, INC. ON ANY CONTAMINATED SURFACE. It is the responsibility of the preparation equipment operator and/or the contractor using the preparation equipment to inspect the proposed worksite for contaminates and obtain approval from contamination experts and/or government authorities before using BW Manufacturing, Inc. preparation equipment. It is also the responsibility of any contractor using preparation equipment to inform its employees or subcontractors of all potential health risks associated with operating preparation equipment and to ensure its employees or subcontractors are protected from exposure to harmful materials.

DIAMOND PRODUCTS LIMITED IS NOT RESPONSIBLE FOR ANY INJURY, ILLNESS, DEATH, OR PROPERTY DAMAGE THAT MAY RESULT FROM IMPROPER USE OF ITS PREPARATION EQUIPMENT OR OTHER PRODUCTS
New filters will flow noticeable dust for the first 10 to 15 minutes of use or until the liter is adequately coated with material. The filters cleans to 99.950 efficiency at 2 microns and therefore the filter will allow a minimal amount of dust through the filter on every pulsation cycle even after filter is fully loaded.

Further tests have shown that humidity and concrete dampness will affect the efficiency of the pulsation system to clean the filter.
CV1900AV GAS VAC
Operating & Maintenance
Instructions

Starting Instructions For Models Equipped With A Gas Engine

Begin by turning the gas valve to the OPEN position (1), then place the power switch in the ON position (2), adjusting the choke (3), place throttle in wide open position (4), and pull the starting handle (5). As motor begins to run you will need to adjust the choke (3) until the engine runs smoothly.

To turn off engine, start by placing the power switch (2) in the OFF position, and return the gas valve (1) to the CLOSE position.

Gas Engine Maintenance Instructions

- Clean engine air filter every day
- Change engine oil after first 20 hours of operation and every 100 afterward.
Attention:
Lift mount (A) MUST be installed before operating machine.

Torque bolts to 40 FT. LBS. (B)
**Greasing The Blower Bearing Housing**

Grease every 8 hours (A)
With high temp silicone grease

**Filter Inspection & Maintenance**

Routine inspection of filters (B)

**To Clean Filter Manually:**

Allow machine to run and pulsate, unattached to any equipment for approx. 10 – 15 min. This will allow the filter to clean itself of built up material. We suggest that you do NOT remove the filter until it need to be replaced.

*(Using filters that are *not designed* for collector systems will cause a decrease in vacuum).*

**Gas Engine & Air Compressor Maintenance**

Change oil every 100 hours of operation. Manufacturer recommends 30 Weight Non-Detergent Oil in air compressor (G) and 10W-30 Oil in Honda Engine (H).

Check air compressor air filter (I) and engine air filter (J) every 8 hours of operation.
To Set Pulsation Board

When power is ON the “OFF” will be displayed on the digital display.

To program:

1. Press “SET” and F02 will show on display. (A)
2. Press “OK” to show Solenoid Valve Activation Time. (D)
3. Press “+” or “-” to adjust to 0.05 (B or C)
4. Press “OK” to show solenoid pulse time (D)
5. Press “+” or “-” to adjust to 003 (B or C)
6. Press “OK” to show Number of Valves (D)
7. Press “+” or “-” to adjust to 02 (B or C)
8. Press “OK” (D)
9. Press “SET” and OFF will show on the display. (A)
CV1900AV
Operating & Maintenance
Instructions

Dust Drum Removal and Installation

To remove drum for emptying, start by turning the winch handle counter clockwise (1) to lower the drum. Once there is slack in the cable, unhook the pulley (2) from either side of the drum and push chassis of vacuum back. Once drum is clear of the chassis it is ready to be emptied of debris and dust.

(Shown with optional drum liner)
CV1900AV
Operating & Maintenance Instructions

Dust Filter Cleaning & Replacement.
Allow machine to run and pulsate, unattached to any equipment for approx. 10 – 15 min. This will allow the filter to clean itself of built up material. We suggest that you do NOT remove the filter until it needs to be replaced.

To determine if you have a bad dust filter.
Watch blower exhaust while the machine is in operation to determine if the filter needs to be replaced. When inspecting filters, if you find a layer of dust on the top of the filter inside the rubber seal ring, this is an indication that the filter is bad and needs to be replaced.

(Using filters that are not designed for collector systems will cause a decrease in vacuum and will reduce paddle and liner life).
CV1900AV Parts
Body Group

1. 2506774 Belt Guard
2. 2505833 Wire Rope Clip
3. 2506767 Collector Lid
4. 2506771 Intake Assembly
5. 2505860 Caster (Stationary)
6. 2505862 Caster (Swivel) Timer
7. 2508910 Board Assembly

1. 2508538 Winch
2. 2506765 Collector Body
3. 2506157 Drum Assembly w/ Casters
4. 2505839 Pulley W/Hook
5. 2509773 Handle
6. 2506130 Fork Guard
CV1900AV Parts
Body Group

1. 2506781 Lift Bracket
2. 2506777 Lid seal (not shown)
3. 2506757 Cap 5”
4. 2506771 Intake Pipe
5. 2505846 Lanyard
6. 2505859 Cap 2” x 2
7. 2506778 Drum seal (not shown)
8. 2506770 Pulley
9. 2506769 Drum Strap

1. 2506772 Dust Deflector
2. 2505797 Filter (spun bond w/ PTFE coating) (standard)
3. 2505796 Filter (blend) (optional)
4. 2506764 Filter Nut
CV1900AV Parts
Body Group

1. 2505868   Clutch (Gas)
2. 2505836   Idler Pulley
3. 2505832   Belt Tensioner
4. 2505864   Belt
5. 2505837   Blower Sheave
6. 2506775   Blower Mount

1. 2508911   Motor Sheave (220V)
2. 2505836   Idler Pulley
3. 2505832   Belt Tensioner
4. 2508912   Belt
5. 2505837   Blower Sheave Blower
6. 2506775   Mount
1. 2506756  Blower Fan
2. 2508802  Blower Fan Bolt
3. 2506761  Blower Hub
4. 2505829  Blower Fan Bearing
5. 2505831  Blower Fan Main Shaft Snap Ring
6. 2506760  Blower Fan Main Shaft
CV1900AV Parts
Air Group

1. 2506763  Air compressor filter
2. 2505840  Air Compressor
3. 2506768  Air Compressor Sheave
4. 2508913  Heat Deflector
5. 2508914  90 degree Adaptor
6. 2508915  Adaptor

Aerial view of heat deflector and filter

1. 2508916  Adapter
2. 2505825  Compressor Fitting
3. 2505873  Air Compressor Air
4. 2505822  Line Adapter
5. 2505852  Pipe Nipple (not shown)
CV1900AV Parts
Air Group

1. 2508917  Air Tank
2. 2508918  Poppet Valve
3. 2505851  Air Fitting (90 deg.)
4. 2505819  Pressure Relief Valve

1. 2505848  Orifice Bushing Poppet
2. 2508918  Valve
3. 2508805  Poppet Valve Repair Kit
**CV1900AV Parts Electric Group**

*GAS MODEL ONLY*

1. 2508920  Timer Board & Enclosure Timer  
2. 2508919  Board Fuse  
3. 2508921  Voltage Regulator  
4. 2508922  Cushion Strap  
5. 2508923  Battery  
6. 2509103  Switch  
7. 2508910  Timer Board Complete Assembly  

1. 2508924  Solenoid Valve (not shown)  
2. 2508925  Coil
CV1900AV
Additional Spare Parts

2505835
5" x 15' Vac Hose
(Standard)

2506155
2" x 15' Vac Hose

2505797 (Standard)
Spun Bond Poly w/ PTFE Coating 99.995% Efficiency @ .03 Microns

2506156
30 Gallon Drum Liner (4 mil)
EQUIPMENT AND PARTS WARRANTY

Diamond Products warrants all equipment manufactured by it against defects in workmanship or materials for a period of 90 Days from the date of shipment to Customer. The responsibility of Diamond Products under this Warranty is limited to replacement or repair of defective parts at Diamond Products’ Elyria, Ohio factory, or at a point designated by it, of such parts as shall appear to us upon inspection at such parts, to have been defective in material or workmanship, with expense for transportation and labor borne by Customer. In no event shall Diamond Products be liable for consequential or incidental damages arising out of the failure of any Product to operate properly.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND ALL SUCH OTHER WARRANTIES ARE HEREBY DISCLAIMED.