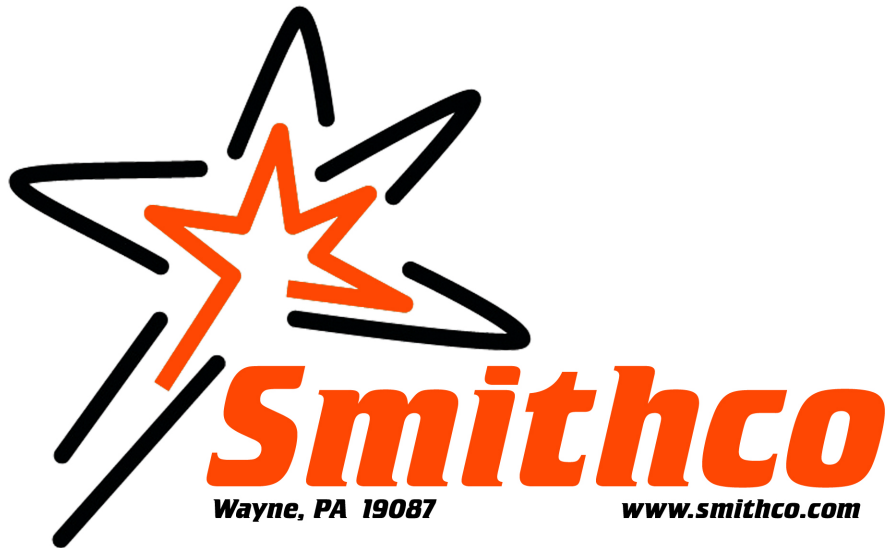


Operator's



**BIG VAC**  
**72-000-A**  
**SN: 72308**

**March 2018**

**Product Support:**      **Hwy 55 & Poplar Ave; Cameron WI 54822**  
**1-800-891-9435      [productsupport@smithco.com](mailto:productsupport@smithco.com)**

# CONTENTS

Introduction

Service

Diagrams

Parts

Accessories

Reference

<b>Introduction</b> .....	<b>1-7</b>
Introduction .....	1
Symbols .....	2
Safe Practices .....	3
PTO Safety Warnings .....	4
Specifications .....	5
OPTional Equipment .....	5
Setup.....	6
Overloading Debris Hopper and Vacuum Housing Wear.....	6
Controls & Instruments .....	7
<b>Service</b> .....	<b>8</b>
Operation .....	8-9
<b>Diagrams</b> .....	<b>10-11</b>
Hydraulic Drawing.....	10-11
<b>Other</b> .....	<b>12-14</b>
Decal Locations .....	12
Declaration of Conformity-English .....	13
Quick Refernece.....	14
Warranty .....	

Thank you for purchasing a **Smithco** product.

Read this manual and all other manuals pertaining to the Big Vac carefully as they contain safety, operating, assembly and maintenance instructions. Failure to do so could result in personal injury or equipment damage. Keep manuals in a safe place after operator and maintenance personnel have read them. Right and left sides are from the operator's seat, facing forward.



## WARNING:

This vehicle may contain chemicals that are known to the State of California to cause cancer, birth defects, and other reproductive harm. For more information visit [www.P65Warning.ca.gov](http://www.P65Warning.ca.gov)

## WARNING

Failure to follow cautious operating practices can result in serious injury to the operator or other persons. The owner must understand these instructions, and must allow only trained persons who understand these instructions to operate this vehicle.

All **Smithco** machines have a Serial Number and Model Number. Both numbers are needed when ordering parts. The serial number plate on the Big Vac is located on the front cross member on the frame. Refer to engine manual for placement of engine serial number.

For product and accessory information, help finding a dealer, or to register your product please contact us at <http://www.Smithco.com>.

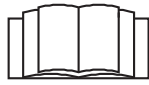
Information needed when ordering replacement parts:

1. Model Number of machine
2. Serial Number of machine
3. Name and Part Number of part
4. Quantity of parts

For easy access record your Serial and Model numbers here.

<b>SMITHCO</b> WAYNE, PENNSYLVANIA 19087 USA 610-688-4009 Fax 610-688-6069			
SERIAL NO.	kW/hp	DATE OF MFG.	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
MODEL NO.	lb/kg Empty	lb/kg Full	
<input type="text"/>	<input type="text"/>	<input type="text"/>	

# SYMBOLS



Read Operator's Manual



Engine Stop



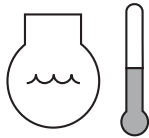
Engine Start



Engine Run



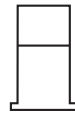
Engine Oil



Water Temperature



RPM



Gasoline



Diesel



Glow Plug



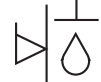
Hour Meter



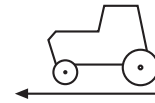
Hand Throttle



Choke



Hydraulic Oil Level



Ground Speed



Park Brake



Park Brake Release



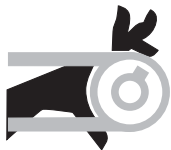
Fast



Slow



Lift Arm



Moving Parts



Pinch Point



Hot Surface



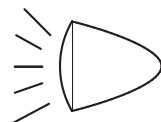
Hydraulic Fluid Penetration



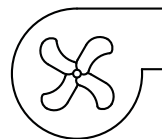
No Riders



Rollover Danger



Headlamp



Blower



Warning Danger Caution



Seat Belt

1. It is your responsibility to read this manual and all publications associated with this machine (engine, accessories and attachments).
2. Never allow anyone to operate or service the machine or its attachments without proper training and instructions. Never allow minors to operate any equipment.
3. Learn the proper use of the machine, the location and purpose of all the controls and gauges before you operate the equipment. Working with unfamiliar equipment can lead to accidents.
4. Wear all the necessary Personal Protective Equipment (PPE) on your head, eyes, ears, hands and feet. **Ear and eye protection are required.** Operate the machine only in daylight or in good artificial light.
5. Inspect the area where the equipment will be used. Beware of overhead obstructions and underground obstacles. Stay alert for hidden hazards.
6. Never operate equipment that is not in perfect working order or without decals, guards, shields, or other protective devices in place.
7. Never disconnect or bypass any switch.
8. Carbon monoxide in the exhaust fumes can be fatal when inhaled, never operate a machine without proper ventilation.
9. Never use your hands to search for oil leaks. Hydraulic fluid under pressure can penetrate the skin and cause serious injury.
10. This machine demands your attention. To prevent loss of control or tipping of the vehicle:
  - A. Use extra caution in backing up the vehicle. Ensure area is clear.
  - B. Do not stop or start suddenly on any slope.
  - C. Reduce speed on slopes and in sharp turns. Use caution when changing directions on slopes.
  - D. Stay alert for holes in the terrain and other hidden hazards.
  - E. Operate equipment up and down slopes, never across the face.
11. Before leaving operator's position for any reason:
  - A. Disengage all drives.
  - B. Lower all attachments to the ground.
  - C. Shut engine off and remove the ignition key.
12. Keep hands, feet and clothing away from moving parts. Wait for all movement to stop before you clean, adjust or service the machine.
13. The rubber fingers, sweeper and vacuum pick up and propel debris and small objects in the machines path during operation. Keep the area of operation clear of all bystanders.
14. Never carry passengers.
15. Use parts and materials supplied by SMITHCO only. Do not modify any function or part.
16. Avoid sharp turns. Watch the tires of the tractor while turning to make sure they do not contact the tongue of the Big Vac.
17. Shut down power source before attempting to unclog any part of the machine.
18. If reel deck and/or blower began to vibrate abnormally, immediately shut off power and determine the cause.
19. Always drive at a safe towing speed relative to conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Smithco recommends a maximum speed of 8mph (12 kph).

***These machines are intended for professional maintenance on golf courses, sports turf, and any other area maintained turf and related trails, paths and lots. No guaranty as to the suitability for any task is expressed or implied.***

## PTO SAFETY WARNINGS

1. Always disengage the PTO, shut off engine and remove the keys before leaving the tractor seat.
2. Keep the tractor's master shield in place at all times.
3. Missing or damaged shielding is the main reason for driveline entanglement. **Keep All Guards** on and in good condition. Check guards frequently.
4. **Never** step across a rotating power shaft. Always walk around the revolving shaft even if guards are in place.
5. Dress for safety. Do not wear loose fitting clothes or jewelry and keep long hair covered or pulled back.
6. The tractor draw bar should be adjusted to the length specified in the driven machine's manual. This will help prevent drive line stress and separation on uneven terrain and in tight turns.
7. A PTO shaft may break or separate during operation if improperly installed or adjusted. Be sure PTO shaft is installed properly.
8. Never perform maintenance or adjustments until both the drive line and the machinery have stopped moving.
9. Warn anyone who might come near an operating PTO about the entanglement hazard.
10. Regularly test drive line guards by spinning or rotating them to ensure they have not become stuck to the shaft.
11. Always use the drive line recommended for your machine. Never switch drive lines among different machines.
12. Reduce PTO shaft abuse by observing the following:
  - a. Avoid tight turns that pinch rotating shafts between the tractor and machine.
  - b. Keep excessive telescoping to a minimum.
  - c. Engage power to the shaft gradually.
  - d. Avoid over tightening of slip clutches on PTO driven machines.

## SAFETY WARNINGS

Read and understand this manual and all safety signs before operating and maintaining. Review the safety instructions and precautions annually.

**TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.**



**Símbolo de alerta de seguridad**

Este símbolo de alerta significa:  
 "¡Preste atención! ¡Está en juego su seguridad!"  
 " Lea atentamente el mensaje que figura a continuación.

### SAFETY SIGNAL WORDS

Note the use of the signal words DANGER, WARNING and CAUTION with the safety messages. The appropriate signal word for each has been selected using the following guidelines:



**DANGER**

**DANGER:** Red. Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.



**WARNING**

**WARNING:** Orange. Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



**CAUTION**

**CAUTION:** Yellow. Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



**IMPORTANT**

**IMPORTANT:** Blue. Indicates procedures which should be followed to avoid damage to the machine.

## SPECIFICATIONS FOR BIG VAC

### WEIGHTS AND DIMENSIONS

Length	180" (458 cm)
Width	84" (214 cm)
Height	87" (221 cm)
Weight	3500 lb (1588 kg)

### SOUND LEVEL

At Ear Level	92 dB (Use ear protection while operating)
--------------	--

### PTO SHAFT

Maximum RPM	540
-------------	-----

### TIRES & WHEELS

Two 26.5 - 1400 x 12 (18 psi (1.3 bar)) Fairway Type Turf Tires
Castor: 6 x 12 (20 psi (1.4 bar))

### FLUID CAPACITY

Hydraulic Fluid	64 quarts(60,5 liters)
Grade of Hydraulic Fluid	SAE 10W-40 API Service SJ or higher Motor Oil

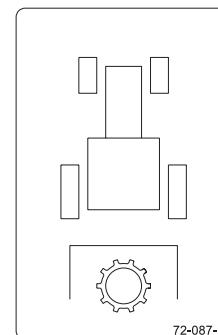
## OPTIONAL EQUIPMENT

- 72-001 Combination Verticut and Sweeper Head
- 72-002 Rubber Finger Sweeper Head
- 72-003 25ft Hand Held Vacuum
- 72-004 Over-the-Road Tow Package
- 72-005 Nylon Brush Sweeper Head
- 72-245 2<sup>5</sup>/<sub>16</sub> Ball Hitch



The Big Vac arrives from **Smithco** with some setup required.

1. The PTO shaft and the rubber boot that goes around the blower and the reel need to be installed.
2. You will need a 40 HP (minimum) tow vehicle to remove the Big Vac from the trailer.
  - a. **Clevis Hitch** - You will need a  $\frac{3}{4}$ " diameter by 4" pin with some type of lock.
  - b. **Ball Hitch (optional)** - You will need a  $2\frac{5}{16}$ " ball and a locking pin for the coupler.
3. Crank the jack on the Big Vac up so you can hook to tow vehicle.
4. Check the tire pressure. **Big Vac:** 18 psi (1.3 bar) **Castor Wheels:** 20 psi (1.4 bar).
5. Check hydraulic fluid level in tank. Look at the sight gauge on the front left side of the tank. The oil level should be at 90°C (194°F). If level is low, add SAE 10W-40 API Service SJ or higher motor oil.
6. Machine should be greased before starting. See Maintenance part of manual.
7. Lower reel all the way down. Place rubber boot onto the bottom of the blower housing. Raise the reel up  $\frac{3}{4}$  of the way. Stretch rubber boot around lip on reel. Lift and lower several times to ensure boot is on properly.
8. When installing PTO shaft be sure the end with the **tractor decal (72-087)** goes to the tow vehicle. If PTO Shaft is put on wrong it will bust when engaged.
9. Read operating instructions before starting.



## OVERLOADING DEBRIS HOPPER AND WEAR ON VACUUM HOUSING

### OVERLOADING DEBRIS HOPPER

Smithco Sweeper-Vacs are designed to carry the following maximum loads:

Model 72-000 Big Vac	1500 lbs. (608 kg)
----------------------	--------------------

### PLEASE NOTE THE FOLLOWING:

1. Loads heavier than that will damage the unit.
2. Such damage is not covered by warranty.
3. Overloading is particularly easy when collecting aerifier cores.
4. The hoppers on the Big Vac and V62 are large in order to hold 7 and 4 cubic yards respectively, of thatch, grass clippings, leaves and trash.
5. They will not hold 7 or 4 cubic yards of aerifier cores.
6. The maximum depth (in the debris hopper) of aerifier cores is:

Model 72-000 Big Vac	12 in. (30 cm)
----------------------	----------------

### VACUUM HOUSING WEAR

The Big Vac & V62 are fitted with a wear resistant liner in the vacuum housing. This will provide additional housing life. Be sure the following points are explained to the user:

1. The vacuum housing and impeller must be cleaned each time the unit is used so the housing liner is inspected daily. Only Smithco Sweeper-Vacs provide a clean out/inspection port for easy inspection and cleaning.
2. When bare steel is visible at any point in the housing lining, the lining must be replaced. It is expected the liner will wear and be replaced. It is a vast improvement over competitive units with no liners.
3. Replacement of the liner or the vacuum housing due to wear is normal and is not covered by warranty.
4. Collection of aerifier cores causes extreme wear on the liner (and if unchecked, on the housing).
5. Caution users that, while Smithco Sweeper-Vacs do an excellent job collecting cores, the lining (and the housing) will wear quickly in such use.

### RUBBERIZED BOOT

The rubberized boot between main unit and sweeper head is subject to wear and damage from debris. Unless defective, replacement of this boot is not covered by warranty.

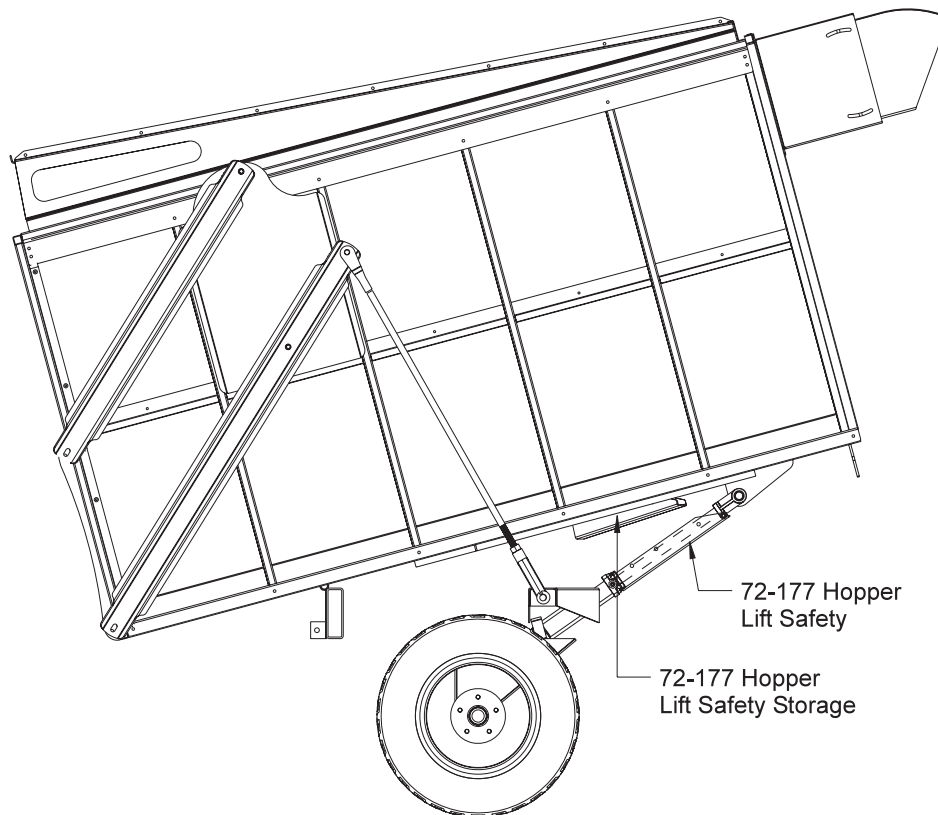
## CONTROLS & INSTRUMENTS

- A. **Hopper Lever** - The hopper lever is used to lift and lower the hopper which also opens and closes the tailgate. Refer to decal for direction.
- B. **Finger Reel Off-On Valve** - Turns the reel on or off. Refer to decal for direction.
- C. **Deck Lift Lever** - The deck lift lever is used to raise and lower the reel. Refer to decal for direction.
- D. **Thatch Reel Off-On Valve** - Turns the reel on or off. Refer to decal for direction.



### HOPPER LIFT SAFETY

The Hopper Lift Safety is used to support the ram on the hopper bottom in the extended position so you may service or repair the machine under the hopper. When not in use the Hopper Lift Safety can be stored on the hopper bed frame.



Before operating this machine, become familiar with all controls and functions of this unit and the tow vehicle. Also complete all maintenance requirements and read all safety warnings. By knowing both machines thoroughly, how it operates and by doing the prescribed maintenance steps, you can expect relatively trouble-free operation for years to come.

## TOW VEHICLE

You will need a 40 HP minimum tow vehicle.

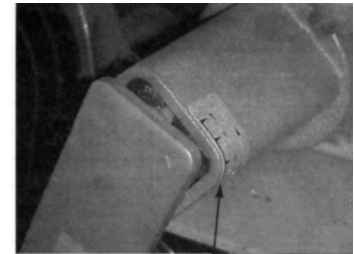
1. **Clevis Hitch** - You will need a  $\frac{3}{4}$ " diameter by 4" pin with some type of lock.
2. **Ball Hitch** - You will need a  $2\frac{5}{16}$ " ball and a locking pin for the coupler.

## DAILY CHECKLIST

1. Check engine oil level in tow vehicle. Add as needed. DO NOT OVERFILL.
2. Tire pressure should be 18 psi (1.3 bar) on Big Vac tires and 20 psi (1.4 bar) on castor wheels.
3. Check hardware for loose or missing nuts, bolts, screws, etc., and tighten or replace as needed.
4. Inspect hydraulic lines for damage or leaks. Never use hands to inspect leaks.
5. Check hydraulic fluid level in tank. Look at the sight gauge on the front left side of the tank. The oil level should be at 90°C (194°F). If level is low, add SAE 10W-40 API Service SJ or higher motor oil.
6. Check controls for smooth, proper working operation. Lubricate as needed.
7. Check and clean all debris from blower housing.

## ADJUSTMENT OF BELT TENSIONER

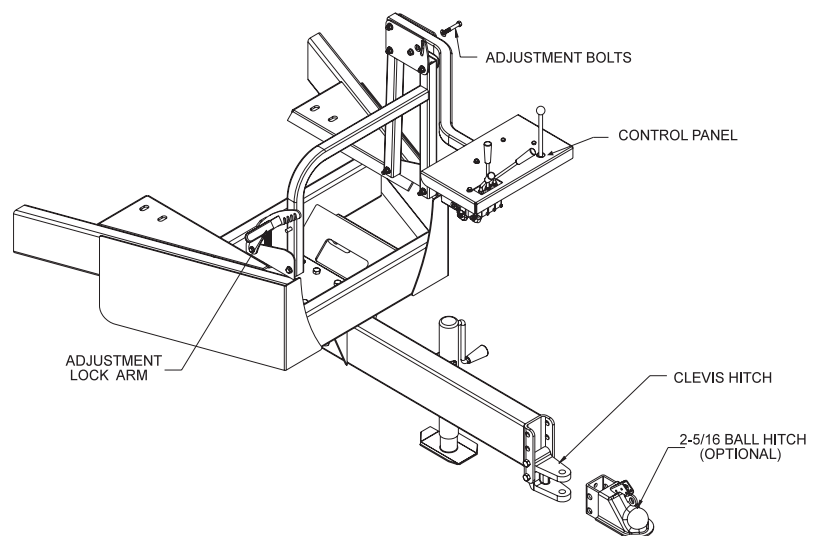
There are four maximum belt tensioners on the Big Vac. Two control the tension on the belts on the blower housing, one each on the finger reel and the thatcher reel. The proper tension of the idler should be 12 to 15 as per the gauge (A) on the side of the tightener. Over tightening the belt will shorten the life of the belt and the machine may not perform to the best of its ability. To adjust belt tensioner, loosen bolt holding tensioner. Bring idler pulley tight to belts and turn tensioner into belts to 15°. Tighten holder bolt.



A

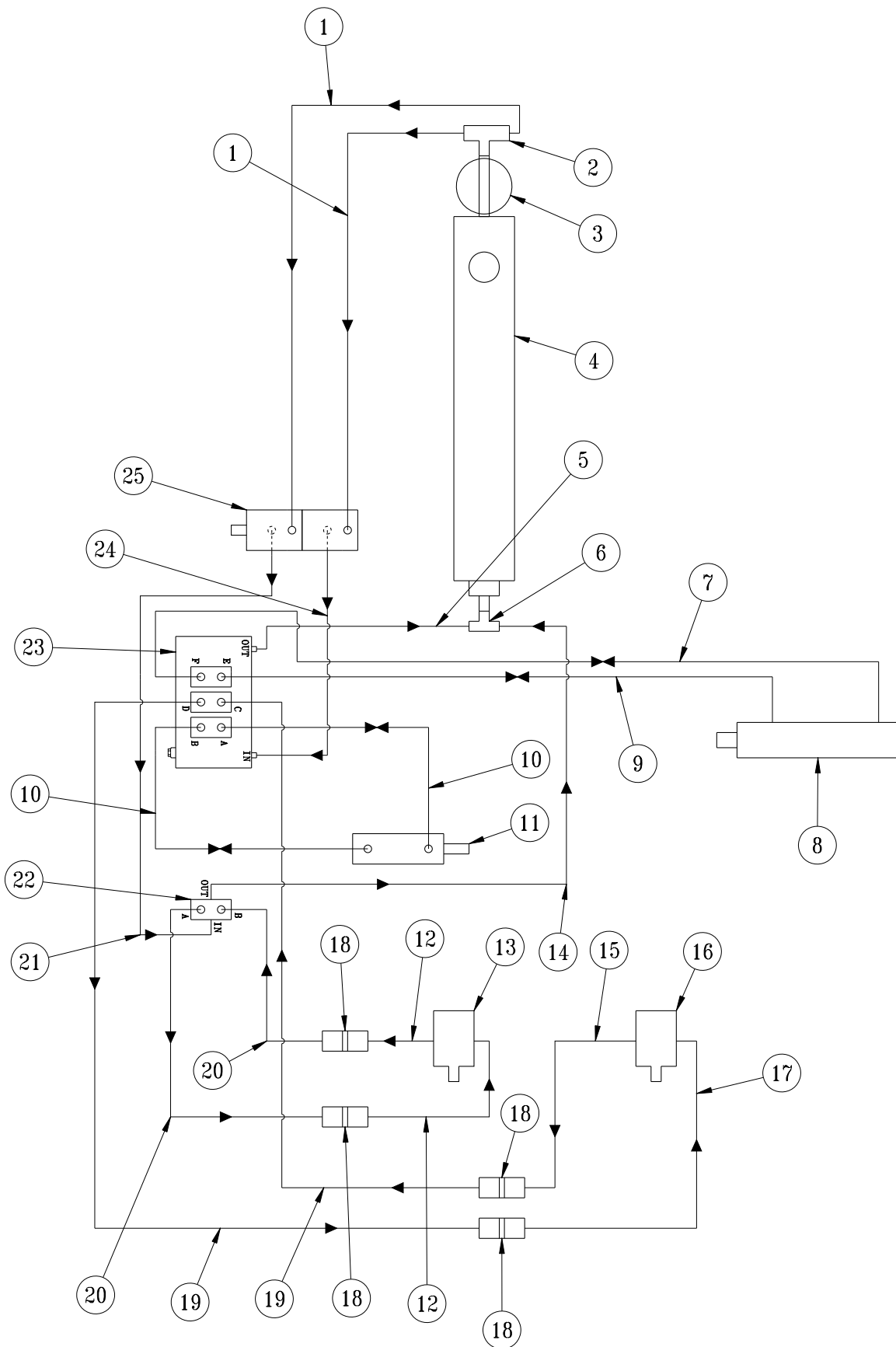
## CONTROL PANEL ADJUSTMENT ARM

On the right hand side of machine is the adjustment lock arm, by lifting up you can adjust the control panel by moving it forward or rearward. Make certain that the lock arm is locked back in place after adjustment. For up and down adjustment loosen the four adjustment bolts place the control panel to where you want it and tighten the four bolts.



## HITCH OPTIONS

You may use the clevis hitch that is shipped with your machine or a  $2\frac{5}{16}$ " ball hitch that is an optional accessory. Both mount in the same location with three different bolt hole options.



# HYDRAULIC PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	72-079	Suction Hose	2
2	18-276	Tee Fitting 1 <sup>1</sup> / <sub>4</sub>	1
3	72-146	Filter	1
	60-215	Filter Element (replacement only)	1
4	72-041	Hydraulic Tank	1
5	73-029	Hydraulic Hose	1
6	18-447	Run Tee	1
7	72-065	Hydraulic Hose	1
8	72-040	Cylinder	1
	72-040-01	Seal Kit	1
	72-040-02	Pin with Clips (part of 72-040)	2
9	72-064	Hydraulic Hose	1
10	72-071	Hydraulic Hose	2
11	10-187	Hydraulic Cylinder	1
	14-273	Seal Kit	1
12	72-074	Hydraulic Hose	2
13*	72-187	Hydraulic Motor (Thatch Reel)	1
	72-186-01	Seal Kit	1
14	72-066	Hydraulic Hose	1
15	72-074	Hydraulic Hose	1
16*	72-186	Hydraulic Motor (Reel)	1
	72-186-01	Seal Kit	1
17	72-075	Hydraulic Hose	1
18	72-043	Quick Coupler 1/2 Male End	4
	72-046	Quick Coupler 1/2 Female End	4
	HRR-150	Retaining Ring 1 1/2" External	8
19	72-068	Hydraulic Hose	2
20	72-067	Hydraulic Hose	2
21	72-069	Hydraulic Hose	1
22	72-151	Hydraulic Valve	1
23	78-416	Hydraulic 3 Bank Valve	1
24	72-062	Hydraulic Hose	1
25*	72-185	Hydraulic Double Pump	1
	78-413-01	Front Pump Seal Kit	1
	72-185-01	Rear Pump Seal Kit	1

\* No other parts are replaceable for hydraulic motor or pump.

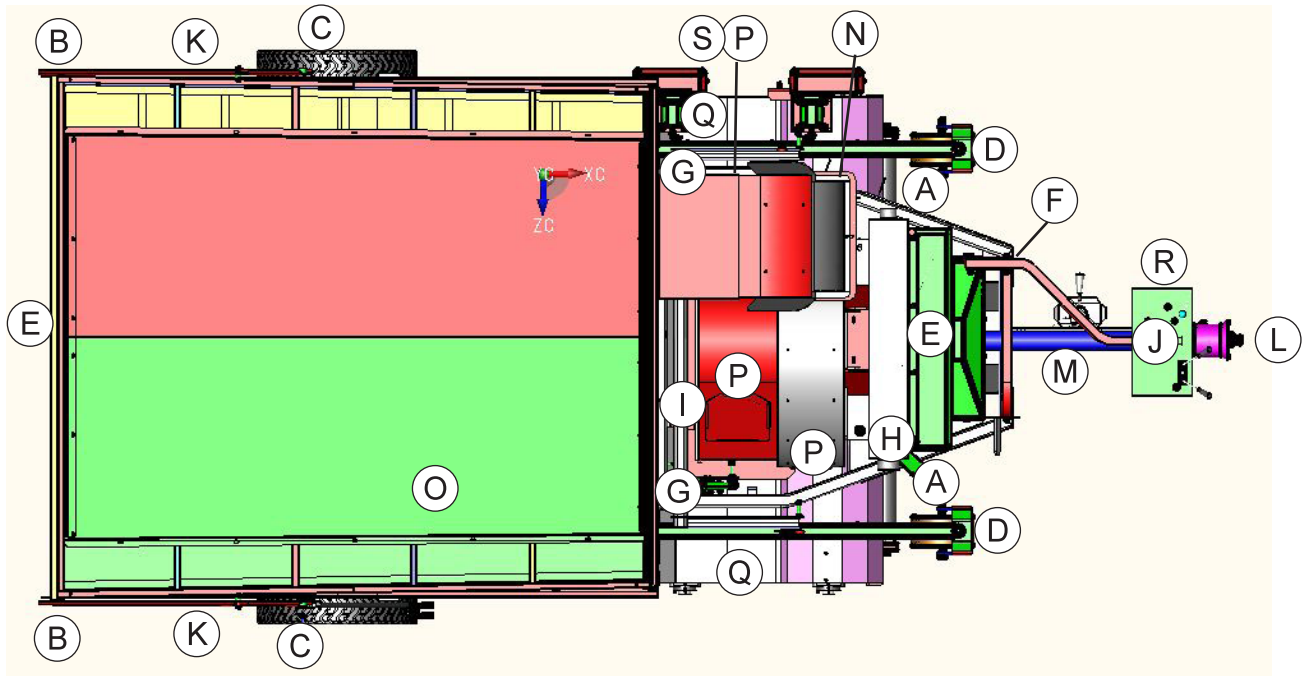
## HYDRAULIC PRESSURES

	FRONT	REAR
Pump Displacement	.90 in <sup>3</sup> /rev	.40 in <sup>3</sup> /rev
Pump Input Speed (up to)	4000 rpm	4000 rpm
Max. Operating Pressure	3600 psi	3600 psi
Max. Inlet Vacuum	10 in. Hg	10 in. Hg
Max. Case Pressure	80 psi	80 psi

# DECAL LIST

REF#	PART#	DESCRIPTION	QUANTITY
A	25-279	Decal, Safety Warning	3
B	25-286	Decal, Pinch Point	2
C	25-355	Decal, Tire Pressure 18 PSI	2
D	25-356	Decal, Tire Pressure 20 PSI	2
E	25-374	Decal, Smithco 12"	2
F		Decal, Serial Tag	1
G	25-363	Decal, Max. Depth	2
	72-182	Decal, Max. Load	2
H	27-093	Decal, Hydraulic Oil	1
I	72-047	Decal, Big Vac (Large)	1
J	72-054	Decal, Control Panel	1
K	72-061	Decal, Big Vac (Small)	2
L	72-087	Decal, Tractor PTO	1
M	72-088	Decal, Danger Guard Missing	2
N	72-089	Decal, Hose Routing	1
O	75-651	Decal, Hopper Lift Safety	1
P	76-305	Decal, Rotating Parts	2
Q	76-307	Decal, Tower Warning	2
R	72-016	Decal, Hang Tag Dumping	1
S	78-552	Decal, Open/Close	1

Service



# EC Declaration of Incorporation

*In accordance with EN ISO 17050-1:2004*

We

Smithco Inc.  
34 West Avenue  
Wayne, PA USA  
19087-3311

*In accordance with the following Directive:*

2006/42/EC

The Machinery Directive

*hereby declare that for the partly completed machinery identified as :*

Equipment                      Sweep Star Big Vac V72  
Model number                  72-000  
Serial Number                  72233 - 72800

*the following EHSRs have been complied with:*

ANSI/OPEI B71.4-2012  
BS EN ISO 13857  
BS EN 349: 1993+A1:2008

Comercial Turf Equip. Safety Specification  
Safety of Machinery upper and lower limbs  
Safety of Machinery Crushing hazards

*and the technical documentation is compiled in accordance with Annex VII(B) of the Directive.*

We undertake to transmit, in response to a reasoned request by the appropriate national authorities, relevant information on the partly completed machinery identified above. The method of transmission shall be electronically

The machinery is incomplete and must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the Directive.

The technical documentation for the machinery is available from:

2006/42/EC Annex II 1A: 10  
Dawn Bryngelson  
Technical Documentation Advisor  
Smithco West Inc.  
200 West Poplar Avenue  
Cameron, WI 54822 USA  
15-Mar-18

2006/42/EC Annex II 1A: 2  
John Moore  
Sales, Director, Owner  
Moore Turf Care  
Thieplatz 4  
49583 Lienen Germany

Document ref. No. 720002018-1

# QUICK REFERENCE REPLACEMENT PARTS

## REPLACEMENT FILTER

60-334 Hydraulic Oil Filter Element

## REPLACEMENT BELTS

72-036 Belt 5V x 540 (2 for pump 5 for blower)

72-037 Belt 3V x 400 (thatcher reel) 3

72-038 Belt 3V x 315 (finger reel) 3

## SEAL KITS

72-151 Hydraulic Valve (no seal kit see drawing)\

78-416 Hydraulic Valve 3 Bank

10-187 Hydraulic Cylinder

14-273 Seal Kit

72-040 Hydraulic Cylinder

72-040-01 Seal Kit

72-040-02 Pin with Clips (2 per cylinder)

\*72-187 Hydraulic Motor (thatcher reel)

\*72-199 Hydraulic Motor (finger reel)

72-199-01 Seal Kit

\*72-185 Hydraulic Double Pump

78-413-01 Front Seal Kit

72-185-01 Rear Seal Kit

72-077 Hearing Protection

\* NO OTHER PARTS ARE REPLACEABLE FOR HYDRAULIC MOTOR OR PUMP

## HYDRAULIC FLUID

SAE 10W-40 API Service SJ or higher motor oil



# The Smithco Commercial Products Two-Year Limited Warranty

Smithco, Inc. (Smithco) warrants your 2016 or newer Smithco Commercial Product ("Product") purchased after October 1, 2016 to be free from defects in materials or workmanship for the period of time listed below. Where a warrantable condition exists, Smithco will repair the Product at no cost to you including diagnosis, labor (at the Smithco standard labor rate, subject to the Smithco flat rate schedule), and parts.

## Warranty Duration is:

- (1) Two years, 1500 operational hours\* from the date of delivery to the original purchaser or Five years from the date of original manufacturer of the product, whichever occurs first. (\*Products equipped with hour meter).
- (2) Products used in rental situations are covered for 90 days from date of delivery to original user/renter.

## Owner Responsibilities:

As the Product owner, you are responsible for required maintenance and adjustments stated in your Owner's Manual. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim. **You are particularly responsible to train all present and future operators of this product on the safe operation of this product at your location.**

## Instructions for Obtaining Warranty Service:

You are responsible for notifying the Authorized Smithco Products Distributor from whom you purchased the Product as soon as you believe a warrantable condition exists and not later than 30 days from discovery of the condition.

If you need help locating an Authorized Smithco Distributor, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Smithco Product Support Department  
200 West Poplar Ave.  
Cameron, Wisconsin 54822  
Telephone: 800-891-9435 E-Mail: [ProductSupport@Smithco.com](mailto:ProductSupport@Smithco.com)

## Maintenance Parts:

Parts scheduled for replacement as required maintenance ("Maintenance Parts"), are warranted for the period of time up to the scheduled replacement time for that part.

## Items/Conditions Not Covered:

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. The items/conditions listed below are not covered by this warranty:



Product failures which result from the use of non-Smithco replacement parts, or from installation and use of add-on, modified, or unapproved accessories are not covered.



Product failures which result from failure to perform required maintenance and/or adjustments are not covered.



Product failures that result from operating the Product in an abusive, negligent or reckless manner are not covered.



This warranty does not apply to parts subject to consumption through use, unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to: blades, tines, teeth, scarifiers, rakes, plates, wear plates, castor wheels, tires, batteries, filters, belts, nozzles, etc.



This warranty does not apply to failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, or chemicals, etc.



This warranty does not apply to normal “wear and tear” items. Normal “Wear and Tear” includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.



Smithco may require the return of failed parts or components in order to determine the validity of any warranty claim.



Smithco will not be obligated to replace components of other manufacturers if inspection by the original component manufacturer indicates that failure was due to normal wear and tear, expected consumption through use or improper care or service.

#### **Other Legal Disclaimers:**

The above remedy for product defects through repair or replacement by an authorized Smithco distributor or dealer is the purchaser’s sole remedy for any defect. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**THERE ARE NO OTHER EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH ABOVE. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE DURATION OF THE LIMITED WARRANTIES CONTAINED HEREIN.**

Some states may not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

**THE SMITHCO COMPANY IS NOT LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE PRODUCT, INCLUDING ANY COST OR EXPENSE OF PROVIDING A SUBSTITUTE PRODUCT OR SERVICE DURING PERIODS OF MALFUNCTION OR NON-USE.**

Some states may not allow the exclusion of indirect, incidental or consequential damages, so the above exclusion may not apply to you.

**Smithco neither assumes, nor authorizes any person to assume for it, any other liability in connection with the sale or use of this product.**

