

Parts & Service



**Big Vac**  
**72-000-A**  
**SN: 72165**

**MARCH 2006**

**Product Support:**

**Hwy 55 & Poplar Ave; Cameron WI 54822**

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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.

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 of the frame.

For easy access record your Serial and Model numbers here.

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



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



## SAFE PRACTICES

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) to protect our 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 machines path during operation. Keep the area of operation clear of all bystanders.
14. Never carry passengers.
15. Use parts and materials supplied by \_\_\_\_\_ 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.

***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.***



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 powershaft. 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 drawbar should be adjusted to the length specified in the driven machine's manual. This will help prevent driveline 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 driveline and the machinery have stopped moving.
9. Warn anyone who might come near an operating PTO about the entanglement hazard.
10. Regularly test driveline guards by spinning or rotating them to ensure they have not become stuck to the shaft.
11. Always use the driveline recommended for your machine. Never switch drivelines 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.

## 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: 13 x 5 x 6 (20 psi (1.4 bar))

### FLUID CAPACITY

|                          |   |
|--------------------------|---|
| Hydraulic Fluid          | 17 gallon (64 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
- 72-245 2<sup>5</sup>/<sub>16</sub> Ball Hitch





**CAUTION**

Before servicing or making adjustments to machine, stop engine on tow vehicle and remove key from ignition.



**NOTE:**

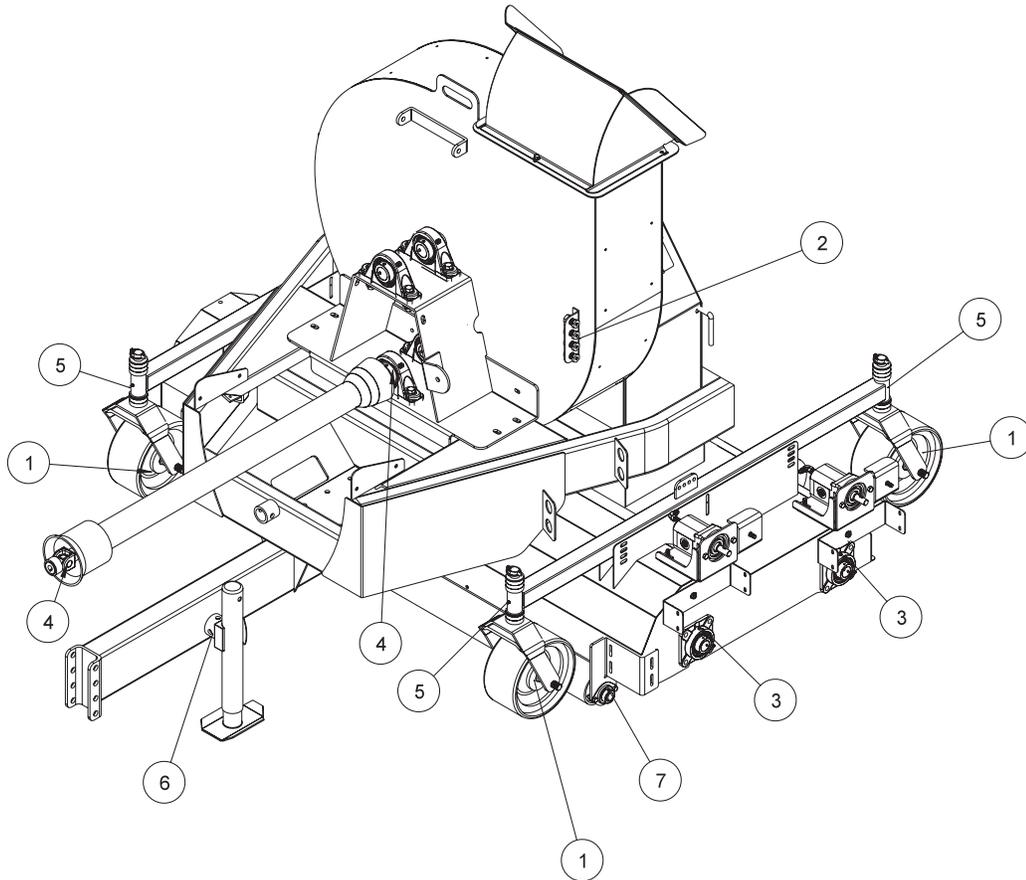
Use all procedures and parts prescribed by the manufacturer's. Read the engine manual before operation.

**LUBRICATION**

Use No. 2 General Purpose Lithium Base Grease and lubricate **DAILY**. The Big Vac has 19 to 25 grease fittings, depending on what sweeper head you are using. All bearings are sealed bearings. When inserting grease, be careful not to ruin the seal, if this happens, replace the bearing at once. Be sure to wipe grease fitting clean before injecting grease. Give only one or two pumps of grease at each lubrication.

**REF# LOCATION**

- 1 One on all four castor wheels.
- 2 Four on the front of the blower that go to pillow blocks on blower and PTO shafts.
- 3 One on each mounted bearing for reel shaft. Two for finger reel. Four for combination head.
- 4 One on each end of the PTO shaft.
- 5 One on all four castor wheel mount brackets.
- 6 One on the jack stand.
- 7 One on each end of roller - Combination head only.



Service

## MAINTENANCE (CONTINUED)

### TIRE PRESSURE

Caution must be used when inflating a low tire to recommended pressure. Over inflating can cause tires to explode. Tires on the machine should be 18 psi (1.3 bar), castor wheels should be 20 psi (1.4 bar). Improper inflation will reduce tire life considerably.

### WHEEL MOUNTING PROCEDURE

1. Turn machine off and remove key.
2. Be sure unit is on a level surface. Unhitch from tow vehicle if possible.
3. Block the opposite wheel then the one you are working on.
4. Loosen nuts slightly on wheel to be removed.
5. Jack up machine being careful not to damage underside of machine.
6. Remove nuts, remove wheel.
7. Place new wheel on hub lining up bolt holes.
8. Torque nuts to 64-74 ft/lb (87-100 Nm) using a cross pattern. Torque again after first 10 hours and every 200 hours thereafter.
9. Lower machine to ground and remove blocks and jack.

### HYDRAULIC OIL

1. Use SAE 10W-40 API Service SJ or higher motor oil.
2. For proper warranty, change oil every 500 hours or annually, which ever is first and change the filter after the first 20 hours, then at 100 hours, then every 250 hours thereafter.
3. Inspect hydraulic lines for damage or leaks. Never use hands to inspect leaks.
4. 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.
5. After changing oil and/or filter, operate the machine for a few minutes. Check oil level and for leaks.
6. Always use caution when filling hydraulic oil tank or checking level to keep system free of contaminants. Check and service more frequently when operating in extremely cold, hot or dusty conditions.
7. If natural color of fluid is now black or smells burnt, it is possible that an overheating problem exists.
8. If fluid becomes milky, water contamination may be a problem.
9. If either of the above conditions happen, change oil and filter immediately after fluid is cool and find cause. Take fluid level readings when system is cold.
10. In extreme temperatures you can use straight weight oil. We recommend SAE 30W API Service SJ or higher when hot (above 90°F (33°C)) and SAE 10W API Service SJ or higher when cold (below 32°F (0°C)) ambient temperature. Use either motor oil or hydraulic oil, but do not mix.
11. Oil being added to the system must be the same as what is already in the tank. Mark tank fill area as to which type you put in.

### VERTICUT REEL VALVE HANDLE

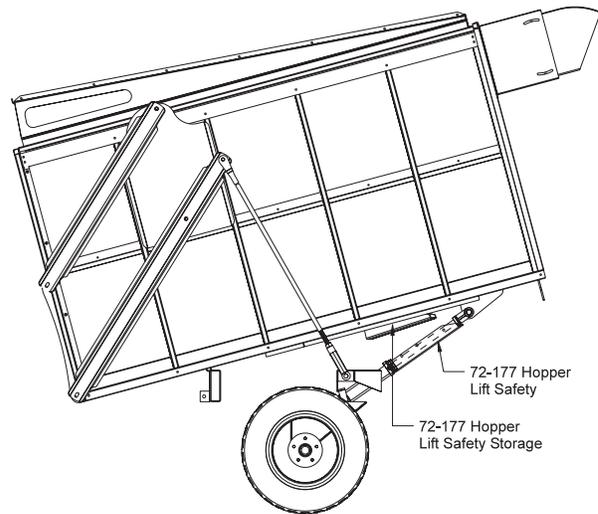


**If the rubber finger sweeper head is installed on your unit and verticut reel handle is activated, the hydraulic system may be damaged due to overheating the oil. Remove the verticut reel valve handle when using the rubber finger sweeper head (72-002).**

## MAINTENANCE (CONTINUED)

### 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.



## OVERLOADING DEBRIS HOPPER AND VACUUM HOUSING WEAR

### 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 husing 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 ti 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 defecative, replacement of this boot is not covered by warranty.



# SERVICE CHART



Before servicing or making adjustments to the machine, stop engine, set park break, block wheels and remove key from ignition.



Follow all procedures and ONLY use parts prescribed by the manufacturer. Read the engine manual before maintenance.

|   | Daily | As Required | 100 Hours | 200 Hours | 250 Hours | 300 Hours | 400 Hours | Every 500 Hours/Yearly |
|---|-------|-------------|-----------|-----------|-----------|-----------|-----------|------------------------|
| Ⓢ Engine Oil                                | C     | R           | R         | R         |           | R         | R         | R                      |
| Engine Oil Filter                           |       |             |           | R         |           |           | R         | R                      |
| Engine for Leaks and Loose Parts            | C     |             | C         | C         |           | C         | C         | C                      |
| ‡ Air Cleaner (Paper Element)               |       | R           | C         | C         |           | R         | C         | R                      |
| ‡ Air Cleaner (Foam Element every 25 hours) |       | R           | C         | C         | C         | R         | C         | R                      |
| Spark Plugs (Clean and Gap/Replace)         |       | R           | C         | C         |           | C         | C         | R                      |
| Valve Clearance                             |       |             |           |           |           |           |           | C                      |
| Idle Speed                                  |       | C           |           |           | C         |           |           | C                      |
| ‡ Cooling System                            | C     |             | C         | C         |           | C         | C         | C                      |
| Belts and Hoses                             | C     |             |           |           | C         |           |           | C                      |
| * Tire Pressure                             | C     |             | C         | C         |           | C         | C         | C                      |
| Visual Inspection of Tires                  | C     |             | C         | C         |           | C         | C         | C                      |
| Fuel Level                                  | C     | C           |           |           |           |           |           |                        |
| Fuel Filter                                 |       | R           |           |           |           |           |           | R                      |
| Hydraulic Oil                               | C     |             | C         | C         |           | C         | C         | R                      |
| †Hydraulic Oil Filter                       |       |             |           |           | R         |           |           | R                      |
| Hydraulic System for Leaks and Loose Parts  | C     |             | C         | C         |           | C         | C         | C                      |
| Battery Electrolyte Level                   |       |             | C         | C         |           | C         | C         | C                      |
| Clean Battery Terminals                     |       |             |           |           | C         |           |           | C                      |
| § Torque Lug Nuts                           |       |             |           | C         |           |           | C         | C                      |
| Lubricate Reel and Blower Shaft Bearings    | C     |             | C         | C         |           | C         | C         | C                      |
| Lubricate Castor Wheels (Every 25 hrs)      | C     | C           |           |           |           |           |           |                        |

C=Check or Clean at specified intervals

R=Replace at specified intervals

\* Tire pressure: Machine Tires 18 psi (1.3 bar) Castor Wheels 20 psi (1.4 bar)

† Replace hydraulic filter after the first 20, 100, and every 250 there after.

§ Torque tire nuts after the first 10 hours and every 200 hours there after (64 to 74 ft/lb (87-100 Nm))

Ⓢ Kawasaki change oil after first 8 hours.

£ Change oil every 25 hours when operating under heavy load or in high ambient temperatures.

‡ Clean more often under dusty conditions or when airborne debris is present, replace air cleaner parts, if very dirty.

The suggested maintenance checklist is not offered as a replacement for the manufacturer's engine manual but as a supplement. You must adhere to the guidelines established by the manufacturer for warranty coverage. In adverse conditions such as dirt, mud or extreme temperatures, maintenance should be more frequent.



# END USER'S SERVICE CHART

|   | Daily | As Required | 100 Hours | 200 Hours | 250 Hours | 300 Hours | 400 Hours | Every 500 Hours/Yearly |
|---|-------|-------------|-----------|-----------|-----------|-----------|-----------|------------------------|
| ☒ Engine Oil                                |       |             |           |           |           |           |           |                        |
| Engine Oil Filter                           |       |             |           |           |           |           |           |                        |
| Engine for Leaks and Loose Parts            |       |             |           |           |           |           |           |                        |
| ‡ Air Cleaner (Paper Element)               |       |             |           |           |           |           |           |                        |
| ‡ Air-Cleaner (Foam Element every 25 hours) |       |             |           |           |           |           |           |                        |
| Spark Plugs (Clean and Gap/Replace)         |       |             |           |           |           |           |           |                        |
| Valve Clearance                             |       |             |           |           |           |           |           |                        |
| Idle Speed                                  |       |             |           |           |           |           |           |                        |
| ‡ Cooling System                            |       |             |           |           |           |           |           |                        |
| Belts and Hoses                             |       |             |           |           |           |           |           |                        |
| * Tire Pressure                             |       |             |           |           |           |           |           |                        |
| Visual Inspection of Tires                  |       |             |           |           |           |           |           |                        |
| Fuel Level                                  |       |             |           |           |           |           |           |                        |
| Fuel Filter                                 |       |             |           |           |           |           |           |                        |
| Hydraulic Oil                               |       |             |           |           |           |           |           |                        |
| †Hydraulic Oil Filter                       |       |             |           |           |           |           |           |                        |
| Hydraulic System for Leaks and Loose Parts  |       |             |           |           |           |           |           |                        |
| Battery Electrolyte Level                   |       |             |           |           |           |           |           |                        |
| Clean Battery Terminals                     |       |             |           |           |           |           |           |                        |
| § Torque Lug Nuts                           |       |             |           |           |           |           |           |                        |
| Lubricate Reel and Blower Shaft Bearings    |       |             |           |           |           |           |           |                        |
| Lubricate Castor Wheels (Every 25 hrs)      |       |             |           |           |           |           |           |                        |

C=Check or Clean at specified intervals

R=Replace at specified intervals

\* Tire pressure: Machine Tires 18 psi (1.3 bar) Castor Wheels 20 psi (1.4 bar)

† Replace hydraulic filter after the first 20, 100, and every 250 there after.

§ Torque tire nuts after the first 10 hours and every 200 hours there after (64 to 74 ft/lb (87-100 Nm))

☒ Kawasaki change oil after first 8 hours.

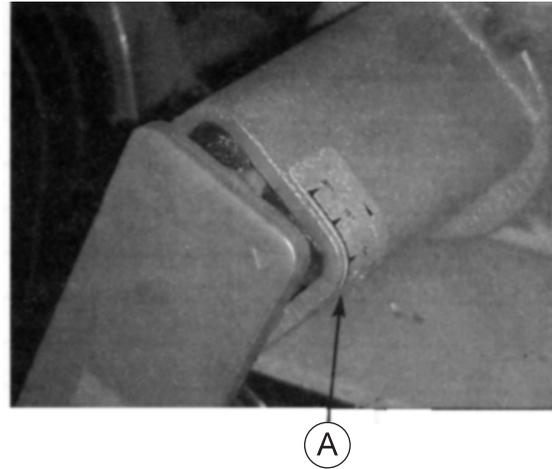
£ Change oil every 25 hours when operating under heavy load or in high ambient temperatures.

‡ Clean more often under dusty conditions or when airborne debris is present , replace air cleaner parts, if very dirty.



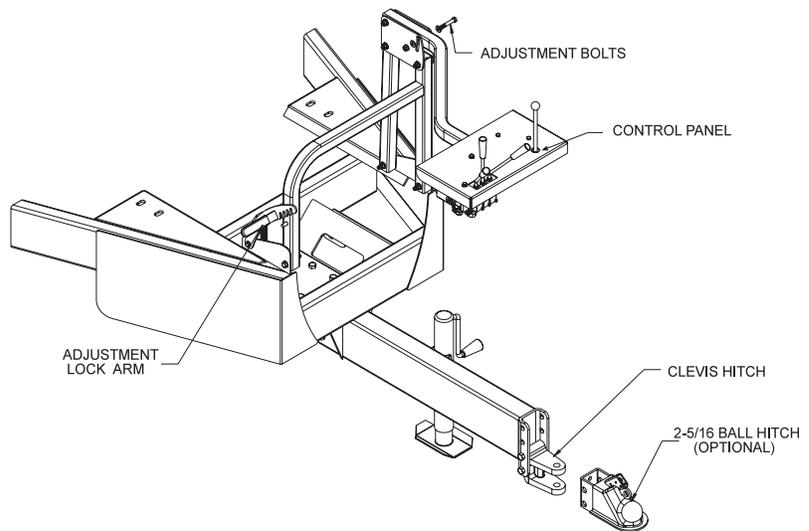
## ADJUSTMENT OF BELT TENSIONER

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.



## 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<sup>5</sup>/<sub>16</sub> ball hitch that is an optional accessory. Both mount in the same location with three different bolt hole options.

## VERTICUT REEL VALVE HANDLE

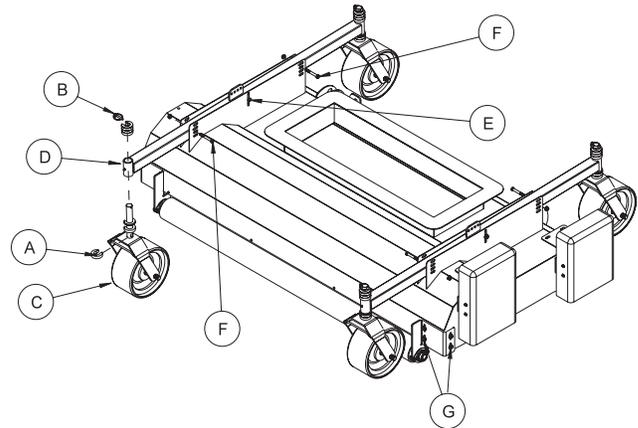


If the rubber finger sweeper head is installed on your unit and verticut reel handle is activated, the hydraulic system may be damaged due to overheating the oil. Remove the verticut reel valve handle when using the rubber finger sweeper head (72-002).

## ADJUSTMENTS

### CASTOR WHEELS

The castor wheel height spacers are quick spacers meaning they have a slot cut out of them. The castor fork shaft has two flats on it near the bottom. To remove the quick spacers (A) lift up on the castor wheel (C) and remove lynch pin (B). Let the castor wheel come down some, take the quick spacer up and turn it until you feel the flats on the shaft then pull out. This removes the spacers below the castor arm (D), reverse the procedure to add spacers. The thin quick spacers must not be placed in line with the flats on the shaft or they will fall out. Check the tire pressure on castor wheels, they should be 20 psi (1.4 bar).

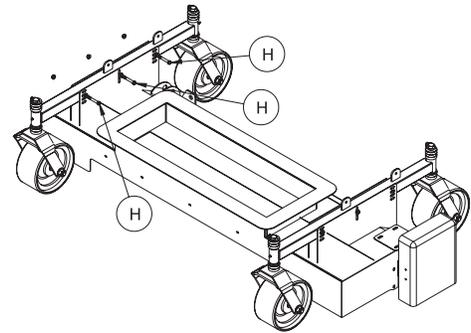


### DOUBLE REEL HOUSING

Normal setting is three slots down in front and two slots down in rear (both sides). You may want to change the normal setting to compensate for wear of the flail blades or sweeper fingers or to sweep without cutting. To do this loosen bolt (E) and remove bolts (F) both sides. Then tip the reel housing to the desired position. Replace bolts and tighten all bolts. This can also be done in conjunction with the castor wheel height adjustment spacers.

### ANTI SCALP ROLLER (DOUBLE REEL)

Normal setting for the anti scalp roller is with the machine on a level hard surface. Normal setting is with the bottom of the roller to be ¼ inch above the flail blades, with flail blades in their lowest position. To adjust loosen the four bolts (G) both sides and slide the roller up or down. Tighten all bolts.



### SINGLE REEL HOUSING

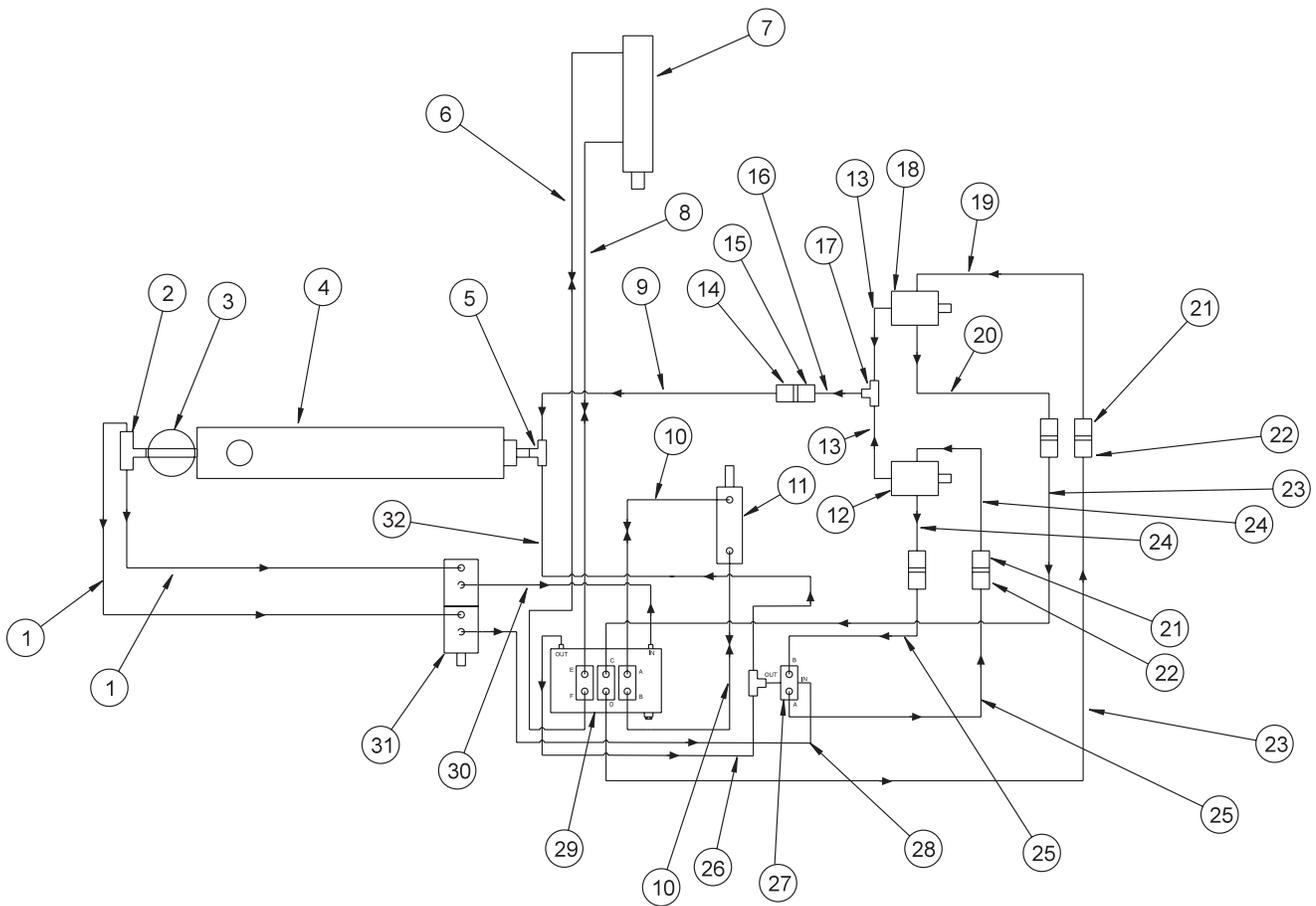
Normal setting is two slots down (H) both front and rear (both sides).

## STORAGE

1. Before storing clean machine thoroughly.
2. Check bolts and nuts, tighten as necessary.
3. Make all repairs that are needed and remove any debris.
4. Store in a clean and dry area.

# HYDRAULIC DRAWING

Diagrams



# HYDRAULIC PARTS LIST

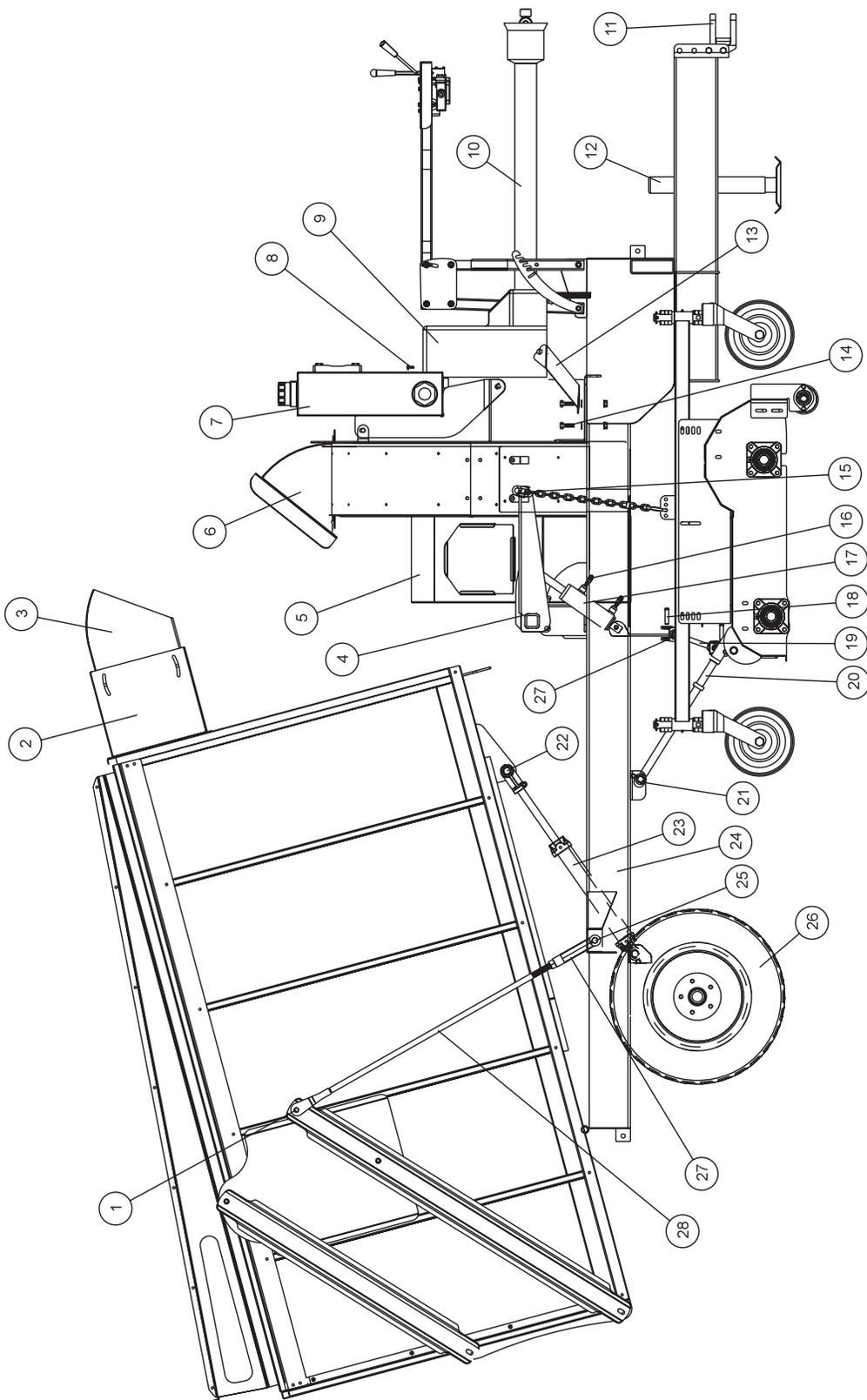
| REF# | PART#     | DESCRIPTION                               | QUANTITY |
|------|-----------|---|----------|
| 1    | 72-079    | Suction Hose                              | 2        |
| 2    | 18-276    | Tee Fitting 1 <sup>1</sup> / <sub>4</sub> | 1        |
| 3    | 72-146    | Filter                                    | 1        |
|      | 60-334    | Filter Element (replacement only)         | 1        |
| 4    | 72-096    | Hydraulic Tank                            | 1        |
| 5    | 18-204    | Elbow                                     | 1        |
| 6    | 72-065    | Hydraulic Hose                            | 1        |
| 7    | 72-040    | Cylinder                                  | 1        |
|      | 72-040-01 | Seal Kit                                  | 1        |
|      | 72-040-02 | Pin with Clips (part of 72-040)           | 2        |
| 8    | 72-064    | Hydraulic Hose                            | 1        |
| 9    | 72-066    | Hydraulic Hose                            | 1        |
| 10   | 72-071    | Hydraulic Hose                            | 2        |
| 11   | 10-187    | Hydraulic Cylinder                        | 1        |
|      | 14-273    | Seal Kit                                  | 1        |
| 12*  | 72-187    | Hydraulic Motor (Thatch Reel)             | 1        |
|      | 72-186-01 | Seal Kit                                  | 1        |
| 13*  | 72-186    | Hydraulic Motor (Reel)                    | 1        |
|      | 72-186-01 | Seal Kit                                  | 1        |
| 14   | 72-075    | Hydraulic Hose                            | 1        |
| 15   | 72-074    | Hydraulic Hose                            | 1        |
| 16   | 72-068    | Hydraulic Hose                            | 2        |
| 17   | 72-074    | Hydraulic Hose                            | 2        |
| 18   | 72-067    | Hydraulic Hose                            | 2        |
| 19   | 72-069    | Hydraulic Hose                            | 1        |
| 20   | 72-151    | Hydraulic Valve                           | 1        |
| 21   | 72-043    | Quick Coupler 1/2 Male End                | 4        |
| 22   | 72-046    | Quick Coupler 1/2 Female End              | 4        |
|      | HRR-150   | Retaining Ring 1 1/2" External            | 8        |
| 23   | 72-063    | Hydraulic Hose                            | 1        |
| 24   | 78-416    | Hydraulic 3 Bank Valve                    | 1        |
| 25   | 72-062    | Hydraulic Hose                            | 1        |
| 26*  | 72-185    | Hydraulic Double Pump                     | 1        |
|      | 72-185-01 | Front Pump Seal Kit                       | 1        |
|      | 72-185-02 | 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                   |

# BIG VAC MAIN DRAWING



Parts

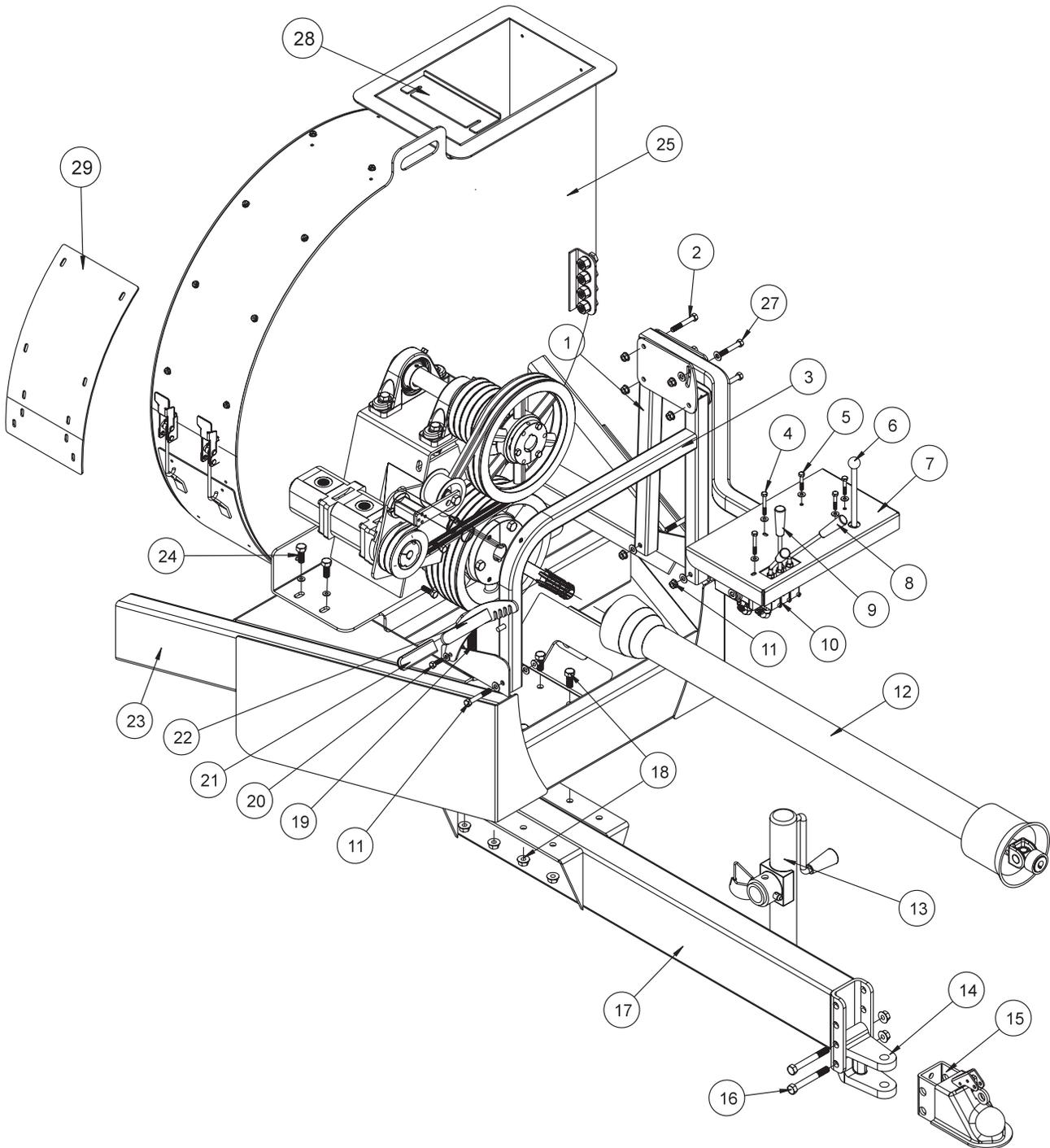
# BIG VAC MAIN PARTS LIST

| REF# | PART#           | DESCRIPTION                                       | QUANTITY |
|------|-----------------|---|----------|
| 1    | HCP-12-175      | Clevis Pin 1/2 x 1 3/4                            | 2        |
|      | HP-18-100       | Cotter Pin 1/8 x 1                                | 2        |
| 2    | 72-110          | Hopper Chute                                      | 1        |
| 3    | 72-111          | Middle Chute                                      | 1        |
| 4    | 72-108          | Reel Lift Cross Bar                               | 1        |
|      | HB-12-13-125    | Bolt 1/2 - 13 x 1 1/4                             | 2        |
|      | HNTL-12-13      | Lock Nut 1/2 - 13                                 | 2        |
| 5    | 72-081          | Vacuum Housing                                    | 1        |
| 6    | 72-109          | Blower Chute                                      | 1        |
| 7    | 72-096          | Hydraulic Oil Tank                                | 1        |
| 8    | HSTP-516-18-075 | Phillips Truss Head Machine Screw 5/16 - 18 x 3/4 | 6        |
| 9    | 72-143          | Front PTO Cover                                   | 1        |
|      | 78-274          | Cage Nuts   | 6        |
| 10   | 72-017          | PTO Shaft   | 1        |
| 11   | 78-244          | 3/4" Clevis                                       | 1        |
| 12   | 78-240          | Jack  | 1        |
| 13   | 72-149          | Right PTO Cover Bracket                           | 1        |
|      | 72-150          | Left PTO Cover Bracket                            | 1        |
| 14   | HB-12-13-150    | Bolt 1/2 - 13 x 1 1/2                             | 4        |
|      | HW-12           | Washer 1/2  | 4        |
|      | HNFL-12-13      | Flange Whiz Lock Nut 1/2 - 13                     | 4        |
| 15   | HCP-12-200      | Clevis Pin 1/2 x 2                                | 2        |
|      | HP-18-100       | Cotter Pin 1/8 x 1                                | 2        |
| 16   | 18-169          | Adapter   | 2        |
| 17   | 10-187          | Hydraulic Cylinder                                | 1        |
|      | 14-273          | Seal Kit  | 1        |
|      | HCP-12-200      | Clevis Pin 1/2 x 2                                | 2        |
|      | HP-18-100       | Cotter Pin 1/8 x 1                                | 2        |
| 18   | HCP-34-200      | Clevis Pin 3/4 x 2                                | 2        |
|      | HP-18-100       | Cotter Pin 1/8 x 1                                | 2        |
| 19   | 72-148          | Sway Bar  | 1        |
| 20   | 72-103          | Reel Lift Rod                                     | 2        |
| 21   | HCP-100-200     | Clevis Pin 1 x 2                                  | 4        |
|      | HHP-18-100      | Bridge Pin 1/8 x 1                                | 4        |
| 22   | 72-040-02       | Pin with Clips (part of 72-040)                   | 2        |
| 23   | 72-040          | Hydraulic Cylinder                                | 1        |
|      | 72-040-01       | Seal Kit  | 1        |
|      | 23-184          | Male Connector                                    | 2        |
| 24   | 72-080          | Main Frame  | 1        |
| 25   | HMB-34-10       | Machine Bushing 3/4 x 10GA                        | 6        |
|      | HP-18-100       | Cotter Pin 1/8 x 1                                | 2        |
| 26   | 72-042          | Tire and Wheel                                    | 2        |
|      | 33-072-01       | Tire W26.5 x 14.00 - 12 4 Ply                     | 2        |
|      | 72-042-02       | Wheel   | 2        |
| 27   | 42-040          | Yoke End  | 4        |
|      | HNJ-34-16       | Jam Nut 3/4 - 16                                  | 4        |
| 28   | 72-099          | Tailgate Lift Rod                                 | 2        |
| 29   | 72-177          | Hopper Lift Safety                                | 1        |
|      | HB-38-16-250    | Bolt 3/8 - 16 x 2 1/2                             | 2        |
|      | HNW-38-16       | Wing Nut 3/8 - 16                                 | 2        |
| 30   | 78-365          | Adapter with Orifice                              | 1        |
| 31   | 72-183          | Guide Bumpers                                     | 2        |
| 32   | 72-198          | PTO Hanger  | 1        |
| NS   | 72-140          | Boot (Connects vacuum hosing to reel deck)        | 1        |

## NOTE:

Note: if you are using the 72-004 Over-The-Road Towing Package, use 72-159 Tire and Wheel.

# CONTROL PANEL DRAWING

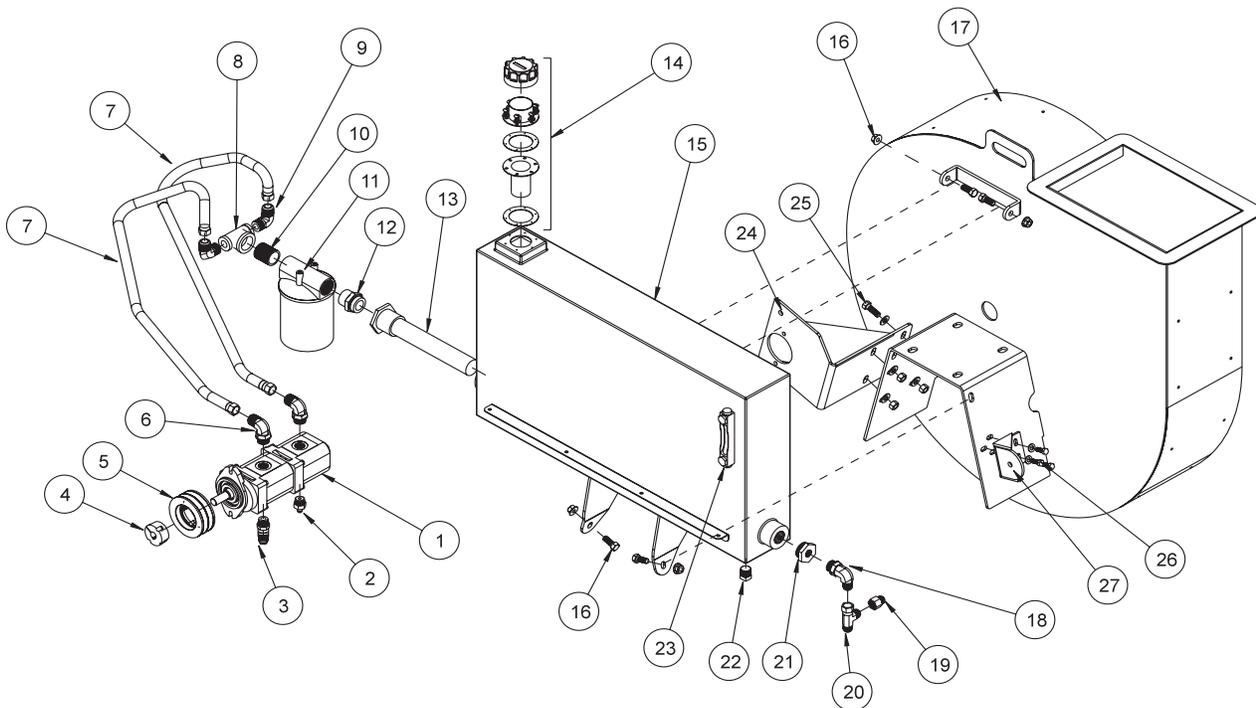


PARTS

# CONTROL PANEL PARTS LIST

| REF# | PART#         | DESCRIPTION  | QUANTITY |
|------|---------------|--|----------|
| 1    | 72-120        | Adjustment Leg   | 1        |
| 2    | HB-38-16-250  | Bolt $\frac{3}{8}$ - 16 x 2 $\frac{1}{2}$                                | 3        |
|      | HNTL-38-16    | Lock Nut $\frac{3}{8}$ - 16  | 3        |
| 3    | 72-121        | Control Panel Leg  | 1        |
| 4    | HB-14-20-200  | Bolt $\frac{1}{4}$ - 20 x 2  | 2        |
|      | HW-14         | Washer $\frac{1}{4}$   | 2        |
|      | HNFL-14-20    | Flange Whiz Lock Nut $\frac{1}{4}$ - 20                                  | 2        |
| 5    | HB-14-20-150  | Bolt $\frac{1}{4}$ - 20 x 1 $\frac{1}{2}$                                | 3        |
|      | HW-14         | Washer $\frac{1}{4}$   | 3        |
|      | HNFL-14-20    | Flange Whiz Lock Nut $\frac{1}{4}$ - 20                                  | 3        |
| 6    | 72-151        | Hydraulic Valve  | 1        |
| 7    | 72-095        | Control Panel  | 1        |
|      | 72-054        | Decal, Control Panel   | 1        |
| 8    | 78-418        | Bent Handle  | 2        |
| 9    | 78-417        | Straight Handle  | 1        |
| 10   | 78-416        | 3-Bank Hydraulic Valve   | 1        |
| 11   | HB-38-16-250  | Bolt $\frac{3}{8}$ - 16 x 2 $\frac{1}{2}$                                | 3        |
|      | HW-38         | Washer $\frac{3}{8}$   | 6        |
|      | HNTL-38-16    | Lock Nut $\frac{3}{8}$ - 16  | 3        |
| 12   | 72-017        | PTO Shaft  | 1        |
| 13   | 78-240        | Jack   | 1        |
| 14   | 78-244        | $\frac{3}{4}$ Clevis   | 1        |
| 15   | 78-245        | 2 $\frac{5}{16}$ Ball Hitch (Optional)                                   | 1        |
| 16   | HB-12-13-350  | Bolt $\frac{1}{2}$ - 13 x 3 $\frac{1}{2}$ (comes with 78-244 and 72-245) | 2        |
|      | HNTL-12-13    | Lock Nut $\frac{1}{2}$ - 13 (comes with 78-244 and 72-245)               | 2        |
| 17   | 72-086        | Tongue   | 1        |
| 18   | HB-12-13-125  | Bolt $\frac{1}{2}$ - 13 x 1 $\frac{1}{4}$                                | 8        |
|      | HNTL-12-13    | Lock Nut $\frac{1}{2}$ - 13  | 8        |
| 19   | 60-323        | Spring   | 1        |
| 20   | HB-516-18-100 | Bolt $\frac{5}{16}$ - 18 x 1   | 1        |
|      | HW-516        | Washer $\frac{5}{16}$  | 2        |
|      | HNTL-516-18   | Lock Nut $\frac{5}{16}$ - 18   | 1        |
| 21   | 15-020        | Grip   | 1        |
| 22   | 72-093        | Adjustment Lock Arm  | 1        |
| 23   | 72-080        | Main Frame   | 1        |
| 24   | HB-12-13-150  | Bolt $\frac{1}{2}$ - 13 x 1 $\frac{1}{2}$                                | 4        |
|      | HW-12         | Washer $\frac{1}{2}$   | 4        |
|      | HNFL-12-13    | Flange Whiz Lock Nut $\frac{1}{2}$ - 13                                  | 4        |
| 25   | 72-181        | Blower Housing   | 1        |
|      | 78-436        | Pipe Plug  | 1        |
| 26   | 72-119        | Control Panel Adjustment Bracket   | 2        |
| 27   | HB-38-16-275  | Bolt $\frac{3}{8}$ - 16 x 2 $\frac{3}{4}$                                | 1        |
|      | HW-38         | Washer $\frac{3}{8}$   | 2        |
|      | HNTL-38-16    | Lock Nut $\frac{3}{8}$ - 16  | 1        |
| 28   | 72-175        | Lining Holder  | 1        |
| 29   | 72-184        | Wear Cover   | 1        |
| 30   | 72-198        | PTO Hanger   | 1        |
|      | HB-38-16-225  | Bolt $\frac{3}{8}$ - 16 x 2 $\frac{3}{4}$                                | 1        |
|      | HNTL-38-16    | Lock Nut $\frac{3}{8}$ - 16  | 1        |

# OIL TANK DRAWING



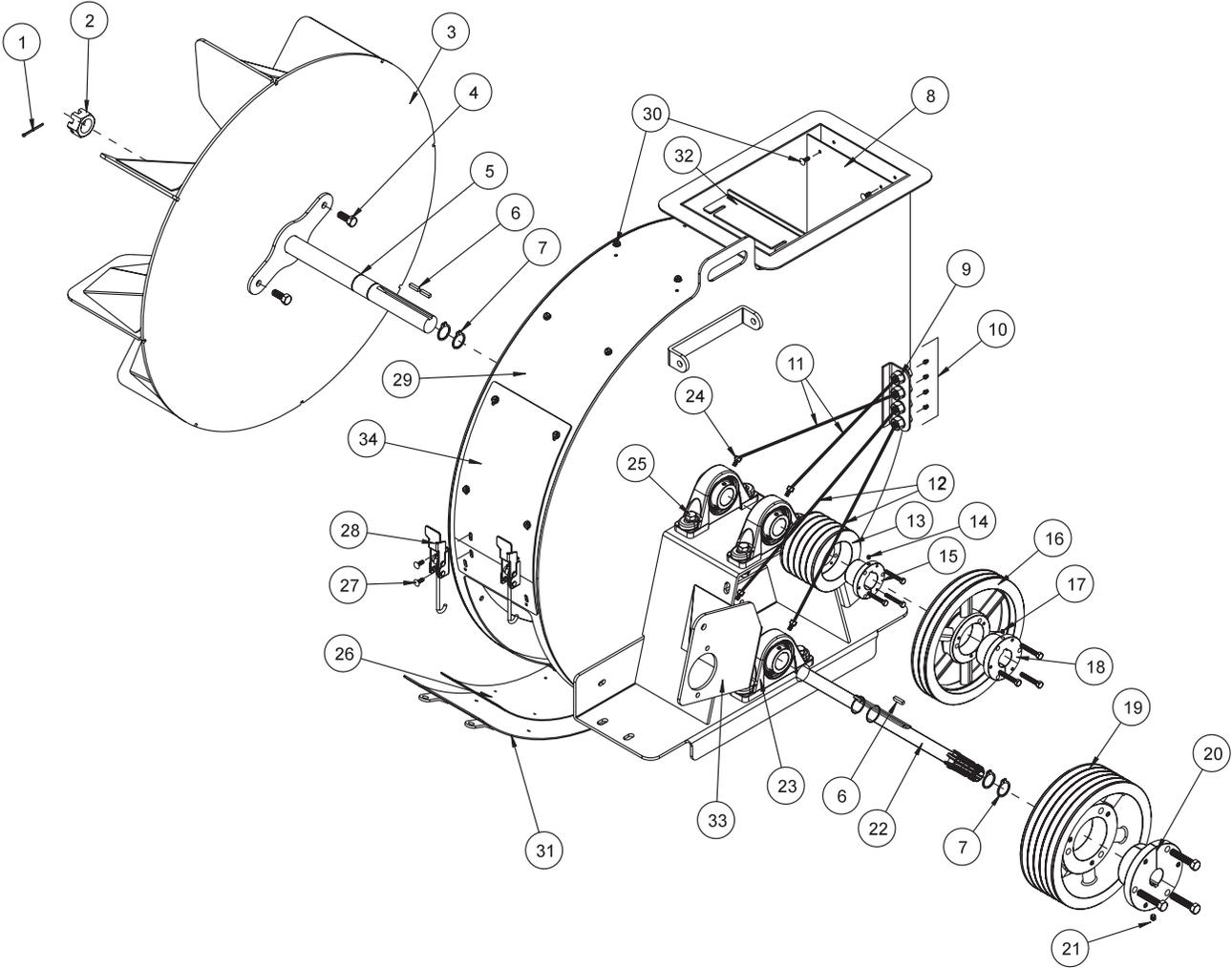
PARTS

# OIL TANK PARTS LIST

| REF # | PART #          | DESCRIPTION  | QUANTITY |
|-------|-----------------|--|----------|
| 1†    | 72-185          | Hydraulic Double Pump  | 1        |
|       | 72-185-01       | Front Pump Seal Kit  | 1        |
|       | 72-185-02       | Rear Pump Seal Kit   | 1        |
| 2     | 18-331          | Adapter  | 1        |
| 3     | 18-265          | Elbow  | 1        |
| 4     | 78-237          | Hub  | 1        |
|       | HSSHS-38-16-063 | Set Screw $\frac{3}{8}$ -16 x $\frac{5}{8}$ (part of 78-237) | 2        |
|       | HWK-316-063     | Woodruff Key   | 1        |
| 5     | 72-033          | Pulley   | 1        |
| 6     | 18-346          | Elbow  | 2        |
| 7     | 72-079          | Suction Hose   | 2        |
| 8     | 18-276          | Tee  | 1        |
| 9     | 18-347          | Male Elbow   | 2        |
| 10    | 18-160          | Nipple   | 1        |
| 11    | 72-146          | Oil Filter   | 1        |
|       | 60-334          | Filter Element (Replacement Only)                            | 1        |
|       | 18-345          | Straight Male Pipe Adapter                                   | 1        |
| 13*   | 72-041-01       | Suction Strainer   | 1        |
| 14*   | 72-041-02       | Filler / Breather  | 1        |
| 15    | 72-096          | Hydraulic Oil Tank (includes all * items)                    | 1        |
| 16    | HB-12-13-125    | Bolt $\frac{1}{2}$ - 13 x $1\frac{1}{4}$                     | 4        |
|       | HNFL-12-13      | Flange Whiz Lock Nut $\frac{1}{2}$ -13                       | 4        |
| 17    | 72-181          | Blower Housing   | 1        |
|       | 78-436          | Pipe Plug  | 1        |
| 18    | HB-38-16-100    | Bolt $\frac{3}{8}$ -16 x 1                                   | 3        |
|       | HW-38           | Washer $\frac{3}{8}$   | 6        |
|       | HNTL-38-16      | Lock Nut $\frac{3}{8}$ -16                                   | 3        |
| 19    | 72-179          | Tensioner Arm  | 1        |
| 20    | 18-204          | Elbow  | 1        |
| 21    | 18-315          | Reducer Bushing  | 1        |
| 22*   | 72-041-04       | Magnetic Drain Plug  | 1        |
| 23*   | 72-041-03       | Sight Gage   | 1        |
| 24    | 72-178          | Hydraulic Motor Mount  | 1        |
| 25    | HB-12-13-150    | Bolt $\frac{1}{2}$ - 13 x $1\frac{1}{2}$                     | 4        |
|       | HW-12           | Washer $\frac{1}{2}$   | 8        |
|       | HNTL-12-13      | Lock Nut $\frac{1}{2}$ - 13                                  | 4        |

† No other parts are replaceable for hydraulic pump

# BLOWER HOUSING DRAWING

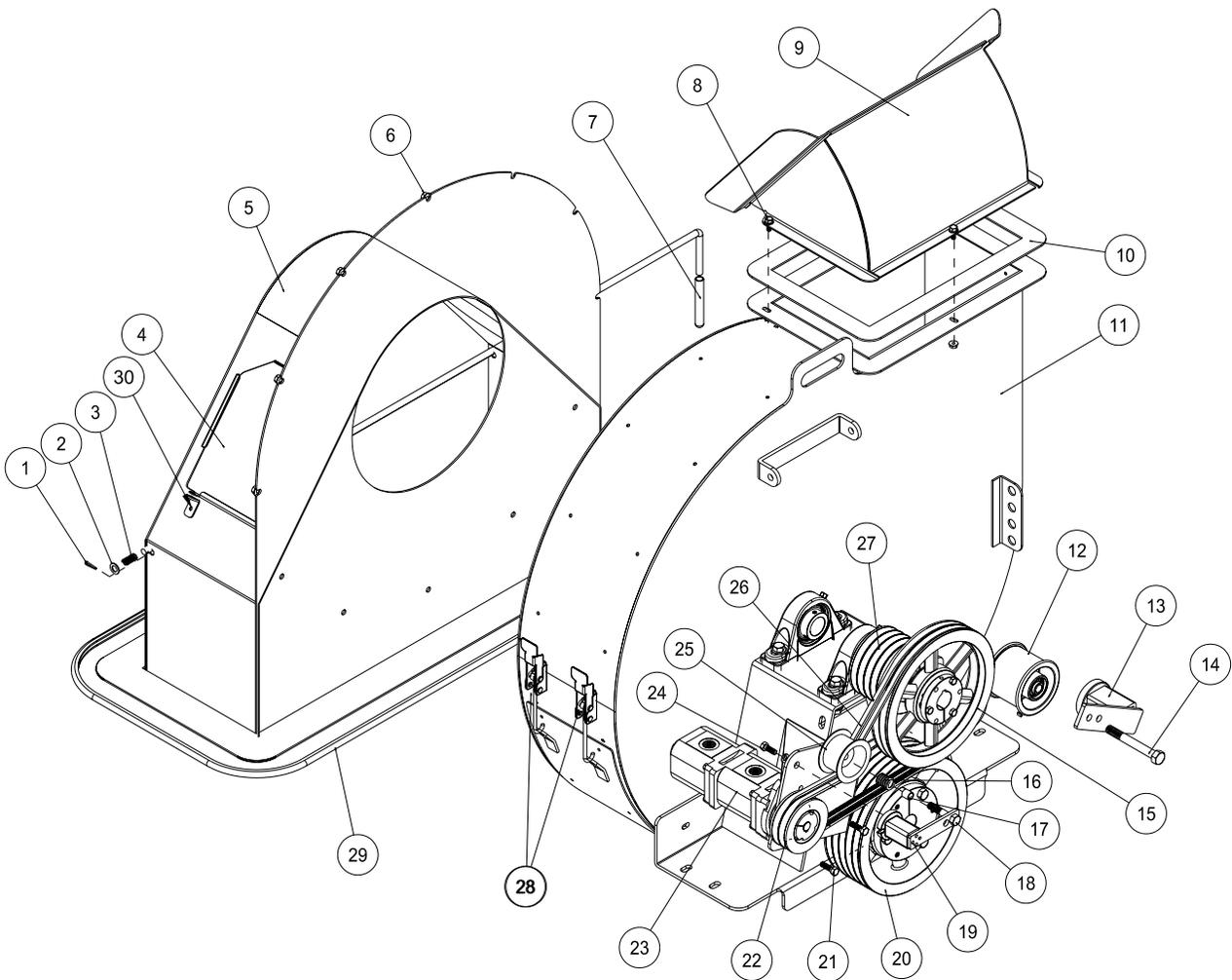


Parts

# BLOWER HOUSING PARTS LIST

| REF# | PART#           | DESCRIPTION  | QUANTITY |
|------|-----------------|--|----------|
| 1    | HP-18-200       | Cotter Pin $\frac{1}{8}$ x 2                                     | 1        |
| 2    | HNAT-114-12     | Thick Axle Nut $1\frac{1}{4}$ - 12                               | 1        |
| 3    | 72-083          | Balanced Fan   | 1        |
| 4    | HB-12-13-125    | Bolt $\frac{1}{2}$ - 13 x $1\frac{1}{4}$                         | 2        |
|      | HNTL-12-13      | Lock Nut $\frac{1}{2}$ - 13                                      | 2        |
| 5    | 72-094          | Blower Shaft   | 1        |
| 6    | HKSQ-14-100     | Square Key $\frac{1}{4}$ x $\frac{1}{4}$ x 1                     | 3        |
| 7    | HRR-150         | Retaining Ring $1\frac{1}{2}$                                    | 4        |
| 8    | 72-156          | Blower Lining 9 x 62   | 1        |
| 9    | 18-339          | Anchor Coupling  | 4        |
|      | 18-338          | Male Connector   | 4        |
| 10   | HG-18-180       | Grease Fitting $\frac{1}{8}$ x $180^\circ$                       | 4        |
| 11   | 72-126          | Brake Line $\frac{3}{16}$ x 24                                   | 2        |
| 12   | 72-127          | Brake Line $\frac{3}{16}$ x 30                                   | 2        |
| 13   | 72-029          | Pulley   | 1        |
| 14   | HSSHS-14-20-025 | Set Screw $\frac{1}{4}$ - 20 x $\frac{1}{4}$ (comes with 72-030) | 1        |
| 15   | 72-030          | Hub  | 1        |
| 16   | 72-027          | Pulley   | 1        |
| 17   | HSSHS-14-20-025 | Set Screw $\frac{1}{4}$ - 20 x $\frac{1}{4}$ (comes with 72-028) | 1        |
| 18   | 72-028          | Hub  | 1        |
| 19   | 72-031          | Pulley   | 1        |
| 20   | 72-032          | Hub  | 1        |
| 21   | HSSHS-38-16-038 | Set Screw $\frac{3}{8}$ - 16 x $\frac{3}{8}$ (comes with 72-032) | 1        |
| 22   | 72-060          | Keyed PTO Shaft  | 1        |
| 23   | 72-024          | Pillow Blocks  | 4        |
| 24   | 18-338          | Male Connector   | 4        |
| 25   | HB-58-11-250    | Bolt $\frac{5}{8}$ - 11 x $2\frac{1}{2}$                         | 8        |
|      | HMB-34-10       | Machine Bushing $\frac{3}{4}$ x 10GA                             | 4        |
|      | HW-58           | Washer $\frac{5}{8}$   | 8        |
|      | HNTL-58-11      | Lock Nut $\frac{5}{8}$ - 11                                      | 8        |
| 26   | 72-158          | Trap Door Lining   | 1        |
| 27   | HSTP-14-20-075  | Phillip Head Machine Screw $\frac{1}{4}$ - 20 x $\frac{3}{4}$    | 4        |
|      | HNTL-14-20      | Top Lock Nut $\frac{1}{4}$ - 20                                  | 4        |
| 28   | 48-115          | Adjustable Draw Latch  | 2        |
| 29   | 72-181          | Blower Housing   | 1        |
|      | 72-157          | Blower Lining 9 x 41   | 1        |
|      | 78-436          | Plug   | 1        |
| 30   | HSTP-14-20-075  | Phillip Head Machine Screw $\frac{1}{4}$ - 20 x $\frac{3}{4}$    | 34       |
|      | HWF-14-150      | Fender Washer, $\frac{1}{4}$ x $1\frac{1}{2}$                    | 34       |
|      | HNTL-14-20      | Top Lock Nut $\frac{1}{4}$ - 20                                  | 34       |
| 31   | 72-196          | Blower Housing Access Door                                       | 1        |
|      | 72-197          | Door Pivot   | 1        |
| 32   | 72-175          | Lining Holder  | 1        |
| 33   | 72-178          | Hydraulic Motor Mount  | 1        |
|      | HB-12-13-150    | Bolt $\frac{1}{2}$ - 13 x $1\frac{1}{2}$                         | 4        |
|      | HW-12           | Washer $\frac{1}{2}$   | 8        |
|      | HNTL-12-13      | Lock Nut $\frac{1}{2}$ - 13                                      | 4        |
| 34   | 72-184          | Wear Cover   | 1        |

# VACUUM HOUSING, BELTS AND TENSIONER DRAWING

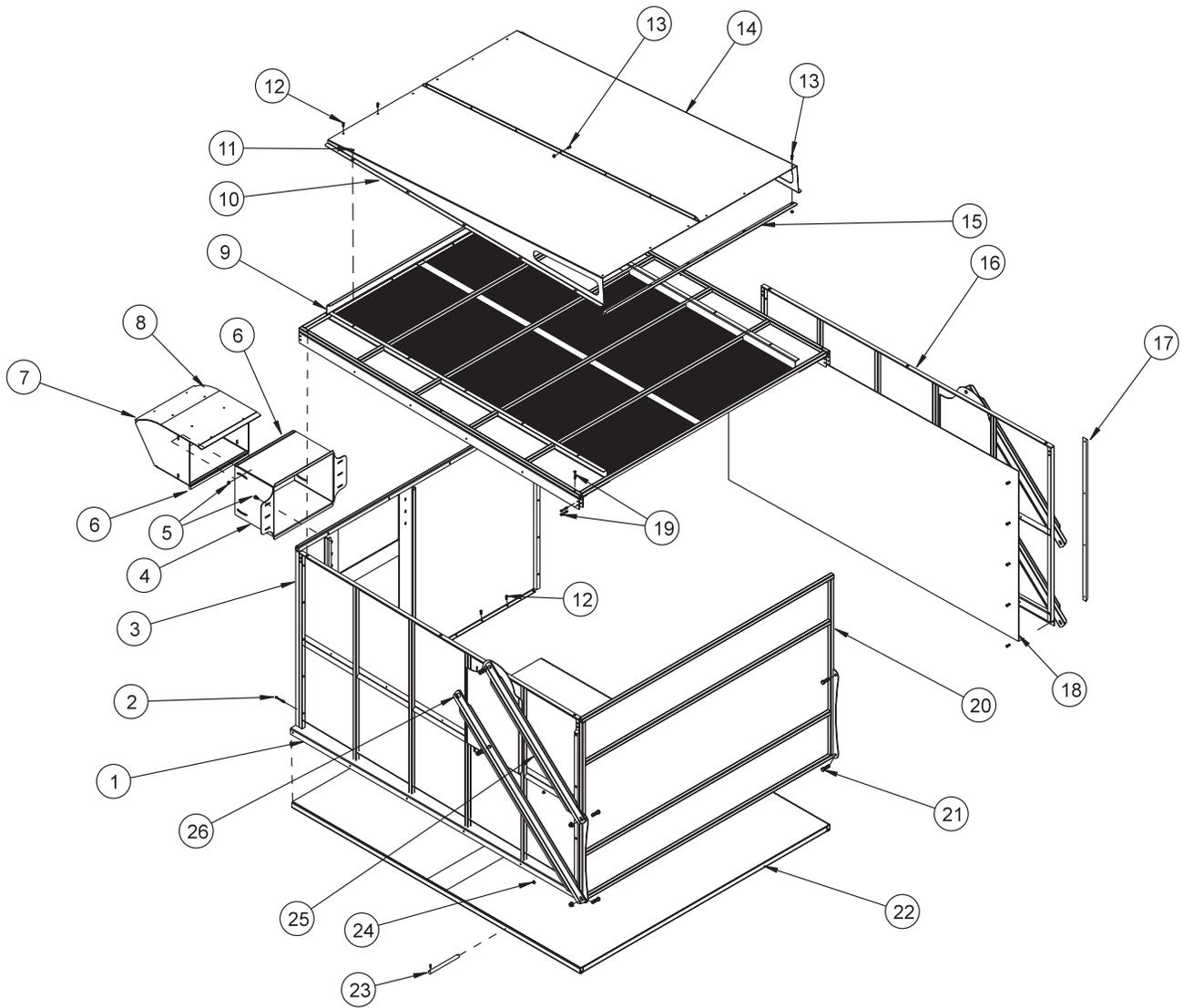


Parts

# VACUUM HOUSING, BELTS AND TENSIONER PARTS LIST

| REF# | PART#           | DESCRIPTION   | QUANTITY |
|------|-----------------|---|----------|
| 1    | HP-18-100       | Cotter Pin $\frac{1}{8}$ x 1                                  | 1        |
| 2    | HMB-12-14       | Machine Bushing $\frac{1}{2}$ x 14GA                          | 1        |
| 3    | 72-132          | Spring  | 1        |
| 4    | 78-293          | Cover Plate   | 2        |
| 5    | 72-081          | Vacuum Housing  | 1        |
| 6    | HNFL-38-16      | Flange Whiz Lock Nut $\frac{3}{4}$ -16                        | 12       |
|      | HBFL-38-16-075  | Flange Bolt $\frac{3}{8}$ - 16 x $\frac{3}{4}$                | 12       |
| 7    | 25-120          | Handle Grip   | 1        |
| 8    | HBFL-516-18-075 | Flange Bolt $\frac{5}{16}$ -18 x $\frac{3}{4}$                | 3        |
|      | HNFL-516-18     | Flange Whiz Lock Nut $\frac{5}{16}$ - 18                      | 3        |
| 9    | 72-109          | Blower Chute  | 1        |
|      | 72-131          | Blower Chute Lining 10 $\frac{1}{2}$ x 15 $\frac{1}{2}$       | 1        |
|      | HSTP-14-20-075  | Phillip Head Machine Screw $\frac{1}{4}$ -20 x $\frac{3}{4}$  | 6        |
|      | HNFL-14-20      | Flange Whiz Lock Nut $\frac{1}{4}$ - 20                       | 6        |
| 10   | 8828-60         | Foam Tape   | 1        |
| 11   | 72-181          | Blower Housing  | 1        |
|      | 78-436          | Pipe Plug   | 1        |
| 12   | 72-050          | Idler Pulley  | 1        |
| 13   | 72-147          | Tensioner   | 1        |
|      | HBM-12-1.75-40  | Metric Bolt 12 - 1.75 x 40 (comes with 72-025)                | 1        |
|      | HWLM-12         | Metric Lockwasher 12 (comes with 72-025)                      | 1        |
| 14   | HB-58-11-500    | Bolt $\frac{5}{8}$ - 11 x 5                                   | 1        |
|      | HNCL-58-11      | Center Lock Nut $\frac{5}{8}$ - 11                            | 1        |
| 15   | 72-027          | Pulley  | 1        |
|      | 72-028          | Hub   | 1        |
| 16   | HMB-12-14       | Machine Bushing $\frac{1}{2}$ x 14GA                          | 6        |
| 17   | 76-275          | Spacer (comes with 78-224)                                    | 1        |
| 18   | HB-12-13-250    | Bolt $\frac{1}{2}$ - 13 x 2 $\frac{1}{2}$ (comes with 78-224) | 1        |
|      | HNCL-12-13      | Center Lock Nut $\frac{1}{2}$ - 13 (comes with 78-224)        | 1        |
| 19   | 78-224          | Tensioner   | 1        |
| 20   | 72-031          | Pulley  | 1        |
|      | 72-032          | Hub   | 1        |
| 21   | HB-38-16-125    | Bolt $\frac{3}{8}$ - 16 x 1 $\frac{1}{4}$                     | 2        |
|      | HNFL-38-16      | Flange Whiz Lock Nut $\frac{3}{8}$ - 16                       | 2        |
| 22   | 72-033          | Pulley  | 1        |
|      | 78-428          | Hub   | 1        |
| 23   | 72-185          | Hydraulic Double Pump   | 1        |
| 24   | HBM-10-1.50-30  | Metric Bolt 10 - 1.5 x 30 (comes with 78-224)                 | 1        |
|      | HWLM-10         | Metric Lockwasher 10 (comes with 78-224)                      | 1        |
| 25   | 16-013          | Idler Pulley  | 1        |
| 26   | 72-036          | Belt 5V x 540   | 2        |
| 27   | 72-029          | Pulley  | 1        |
|      | 72-030          | Hub   | 1        |
|      | 72-036          | Belt 5V x 540   | 5        |
| 28   | 48-115          | Draw Latch  | 2        |
| 29   | 8803-114        | Trim Black  | 1        |
| 30   | 78-433          | Cover Plate Bolt Tab  | 2        |
|      | HB-14-20-075    | Bolt $\frac{1}{4}$ -20 x $\frac{3}{4}$                        | 4        |
|      | HNTL-14-20      | Lock Nut $\frac{1}{4}$ - 20                                   | 4        |

# HOPPER DRAWING

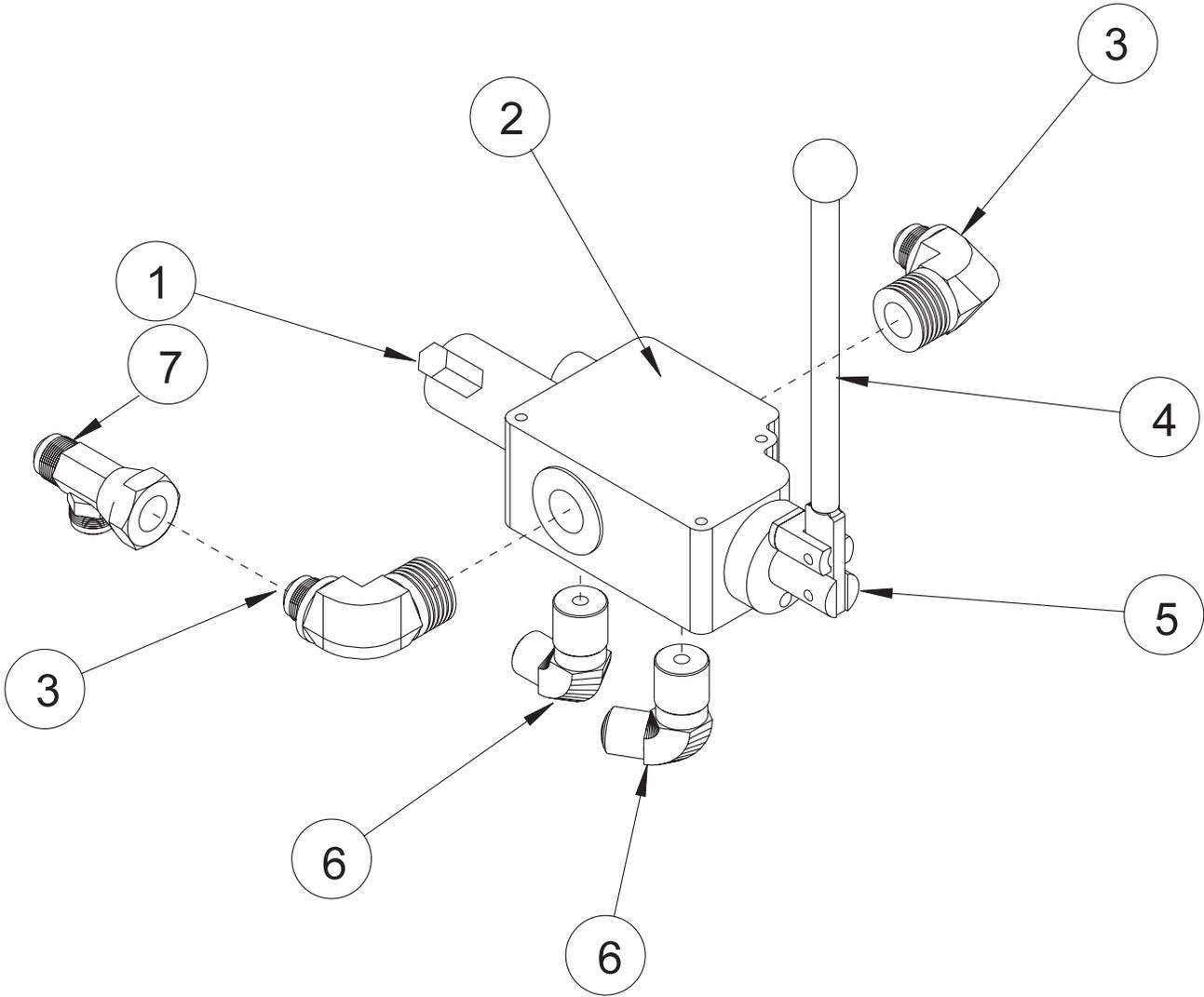


Parts

# HOPPER PARTS LIST

| REF # | PART #          | DESCRIPTION                              | QUANTITY |
|-------|-----------------|--|----------|
| 1     | 72-106          | Left Hopper Side Frame                   | 1        |
| 2     | HB-14-20-250    | Bolt 1/4 -20 x 2 1/2                     | 15       |
|       | HNFL-14-20      | Flange Whiz Lock Nut 1/4 -20             | 15       |
| 3     | 72-115          | Hopper Front                             | 1        |
|       | HSDPS-14-075    | Stainless Pan Head Drill Screw 1/4 x 3/4 | 9        |
| 4     | 72-110          | Hopper Chute                             | 1        |
|       | 72-145          | Hopper Chute Lining                      | 1        |
|       | HSTP-14-20-075  | Phillip Head Machine Screw 1/4 -20 x 3/4 | 6        |
|       | HNFL-14-20      | Flange Whiz Lock Nut 1/4 - 20            | 6        |
| 5     | HBFL-516-18-075 | Flange Bolt 5/16 -18 x 3/4               | 10       |
|       | HNFL-516-18     | Flange Whiz Lock Nut 5/16 -18            | 10       |
| 6     | 8947-18         | Trim Seal                                | 2        |
| 7     | 8980-60         | Edge Seal                                | 1        |
| 8     | 72-111          | Middle Chute                             | 1        |
| 9     | 72-107          | Hopper Top                               | 1        |
| 10    | 72-102          | Left Hopper Cover                        | 1        |
| 11    | HW-14           | Washer 1/4                               | 10       |
| 12    | HSDPS-14-075    | Stainless Pan Head Drill Screw 1/4 x 3/4 | 6        |
| 13    | HB-14-20-075    | Bolt 1/4 -20 x 3/4                       | 23       |
|       | HNFL-14-20      | Flange Whiz Lock Nut 1/4 -20             | 23       |
| 14    | 72-101          | Right Hopper Cover                       | 1        |
| 15    | 72-124          | Hood Stiffener                           | 1        |
| 16    | 72-105          | Right Hopper Side Frame                  | 1        |
| 17    | 72-138          | Slide Strip                              | 2        |
|       | HRS-316-075     | Pop Rivet 3/16                           | 8        |
| 18    | 72-137          | Hopper Side                              | 2        |
|       | HSDPS-14-075    | Stainless Pan Head Drill Screw 1/4 x 3/4 | 82       |
| 19    | HB-14-20-175    | Bolt 1/4 -20 x 1 3/4                     | 14       |
|       | HNFL-14-20      | Flange Whiz Lock Nut 1/4 - 20            | 14       |
| 20    | 72-116          | Tailgate                                 | 1        |
| 21    | HB-12-13-175    | Bolt 1/2 -13 x 1 3/4                     | 4        |
|       | HNFL-12-13      | Flange Whiz Lock Nut 1/2 - 13            | 4        |
| 22    | 72-098          | Hopper Floor                             | 1        |
| 23    | 72-123          | Pivot Pin                                | 2        |
|       | HP-18-100       | Cotter Pin 1/8 x 1                       | 4        |
| 24    | HSTP-14-20-075  | Phillip Head Machine Screw 1/4 -20 x 3/4 | 18       |
|       | HNFL-14-20      | Flange Whiz Lock Nut 1/4 - 20            | 18       |
| 25    | 72-118          | Short Tailgate Lift Arm                  | 2        |
|       | 18-235          | Bushing (part of 72-118)                 | 1        |
|       | HMB-12-14       | Machine Bushing 1/2 x 14 GA              | 6        |
|       | HP-18-100       | Cotter Pin 1/8 x 1                       | 2        |
| 26    | 72-117          | Long Tailgate Lift Arm                   | 2        |
|       | 18-235          | Bushing (part of 72-117)                 | 2        |
|       | HMB-12-14       | Machine Bushing 1/2 x 14 GA              | 6        |
|       | HP-18-100       | Cotter Pin 1/8 x 1                       | 2        |

# 72-151 HYDRAULIC VALVE DRAWING



## 72-151 HYDRAULIC VALVE PARTS LIST

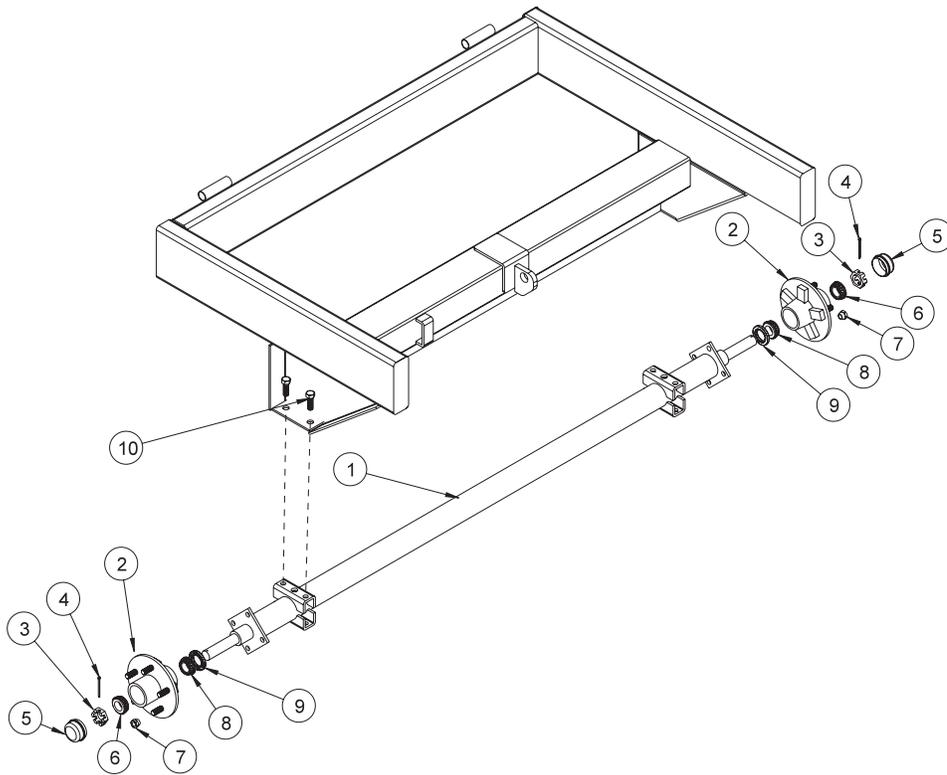
| REF# | PART#     | DESCRIPTION   | QUANTITY |
|------|-----------|---|----------|
| 1*   | 33-066-27 | Detent Housing  | 1        |
|      | 33-066-17 | Detent Plunger  | 1        |
|      | 33-066-29 | Spring  | 1        |
|      | 33-066-19 | Set Screw <sup>5</sup> / <sub>16</sub> – 24 x <sup>3</sup> / <sub>8</sub> | 1        |
|      | 33-066-18 | Washer  | 1        |
|      | 72-151    | Hydraulic valve   | 1        |
| 2    | 18-244    | Male Elbow  | 2        |
| 3    | 72-151-01 | Valve Handle Kit  | 1        |
|      | 33-066-08 | Ball Knob   | 1        |
| 4*   | 33-066-02 | Spool   | 1        |
|      | 33-066-05 | Quad Ring   | 2        |
|      | 33-066-06 | Wiper   | 2        |
|      | 18-246    | Male Elbow  | 2        |
| 6    | 18-337    | Run Tee   | 1        |
| 7    |           |   |          |
| *    | 72-151    | Hydraulic Valve, 2800 psi, 190 Bars (includes all * items)                |          |



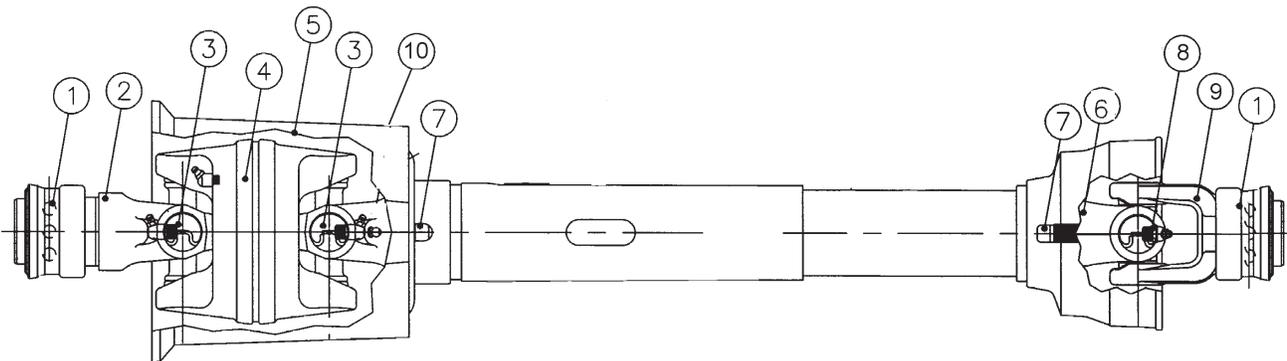
## 78-416 3-BANK HYDRAULIC VALVE PARTS LIST

| REF#        | PART#     | DESCRIPTION                                       | QUANTITY |
|-------------|-----------|---|----------|
| 1*          | 78-416-01 | Body (complete with spacer and check valve)       | 1        |
| 2*          | 78-415-02 | Spool HDM10                                       | 1        |
| 3*          | 78-415-03 | O-Ring Seal                                       | 6        |
| 4*          | 78-415-04 | Flanged Washer HDM10                              | 3        |
| 5*          | 78-415-05 | Spacer  | 3        |
| 6*          | 78-415-06 | A Type Spool HDS11                                | 3        |
| 7*          | 78-415-11 | Positioner HDM10                                  | 2        |
| 8*          | 78-415-08 | Plug  | 3        |
| 9*          | 78-415-09 | Lever Group HDS11                                 | 3        |
| 10*         | 78-415-10 | Metric Socket Screw M5 x .8 x 45                  | 6        |
| 11*         | 78-415-07 | Positioner  | 1        |
| 12*         | 78-415-12 | Check Valve Assembly HDM12                        | 1        |
| 13*         | 78-415-13 | <sup>3</sup> / <sub>4</sub> - 16 SAE 8 Screw Plug | 3        |
| 14          | 78-418    | Bent Handle                                       | 2        |
| 15          | 78-417    | Straight Handle (center)                          | 1        |
| 16          |           | Tapered Knob                                      | 3        |
| 17          | 18-169    | Adapter SAE 3/8                                   | 4        |
| 18          | 18-202    | Elbow   | 4        |
| 19          | 18-168    | Elbow 3/8 Straight Thread                         | 1        |
| *<br>78-416 |           | 3 – Bank Hydraulic Valve (includes all * items)   |          |

# 72-048 AXLE DRAWING



# 72-017 PTO SHAFT DRAWING



Parts

## 72-048 AXLE PARTS LIST

| REF # | PART #       | DESCRIPTION                                       | QUANTITY |
|-------|--------------|---|----------|
| 1     | 72-194       | Axle (includes all items listed below except #10) | 1        |
| 2     | 33-073       | Hub Assembly (includes all * items listed below)  | 2        |
| 3     | HNAR-100-14  | Slotted Jam Nut 1-14                              | 2        |
| 4     | HP-18-200    | Cotter Pin 1/8 x 2                                | 2        |
| 5*    | 33-073-02    | Dust Cap  | 2        |
| 6*    | 78-119       | Outer Bearing                                     | 2        |
| 7*    | HNL-12-20    | Lug Nut   | 10       |
| 8*    | 78-118       | Inter Bearing                                     | 2        |
| 9*    | 33-073-01    | Grease Seal                                       | 2        |
| 10    | HB-12-13-125 | Bolt 1/2 - 13 x 1 1/4                             | 4        |
|       | HNTL-12-13   | Lock Nut 1/2 - 13                                 | 4        |

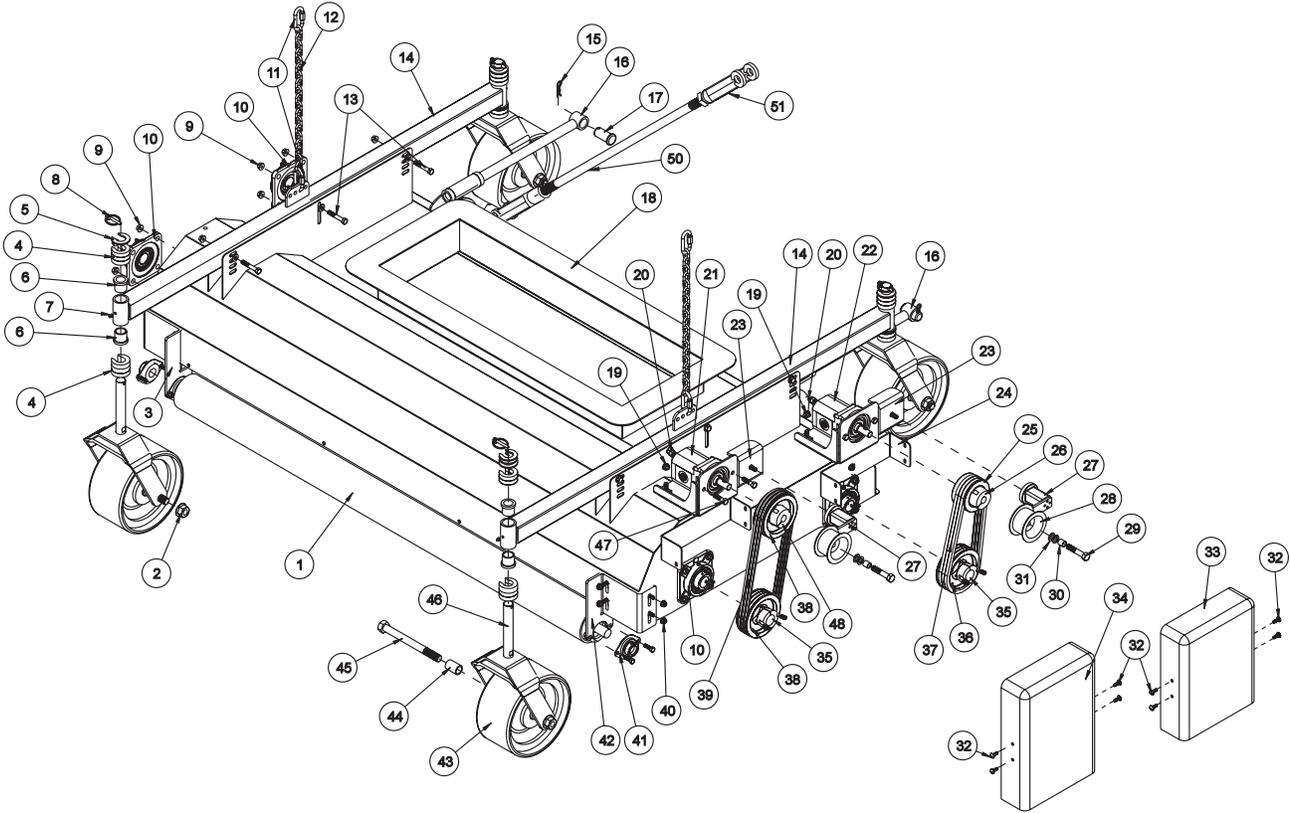
### NOTE:

NOTE: If using the 72-004 Over-The-Road Towing Package, order Hub Assembly Part Number 72-162. Seals, bearings and cap are the same part numbers.

## 72-017 PTO SHAFT PARTS LIST

| REF# | PART#     | DESCRIPTION                           | QUANTITY |
|------|-----------|---------------------------------------|----------|
| 1    | 72-055-01 | Spring - Lok Repair Kit               | 2        |
| 2    | 72-055-02 | Spring - Lok Yoke Assembly            | 1        |
| 3    | 72-055-03 | Cat, 3 Cross and Bearing Kit          | 2        |
| 4    | 72-055-04 | CV Center Housing Assembly            | 1        |
| 5    | 72-055-05 | Bell Extension with Nylon Centralizer | 1        |
| 6    | 72-055-07 | Yoke, Tube and Slip Sleeve            | 1        |
| 7    | 72-055-06 | Nylon Repair Kit                      | 2        |
| 8    | 72-055-08 | 14R Cross and Bearing Kit             | 1        |
| 9    | 72-055-09 | Spring - Lok Yoke Assembly            | 1        |
| 10   | 72-017-01 | Outside Plastic Protection Sleeve     | 1        |
|      | 72-017-02 | Shaft Half with Guard Set             |          |
|      | 72-017-03 | Tube Half with Guard Set              |          |

# 72-001 COMBINATION SWEEPER - VERTICUT HEAD DRAWING



Accessories

## 72-001 COMBINATION SWEEPER - VERTICUT HEAD PARTS LIST

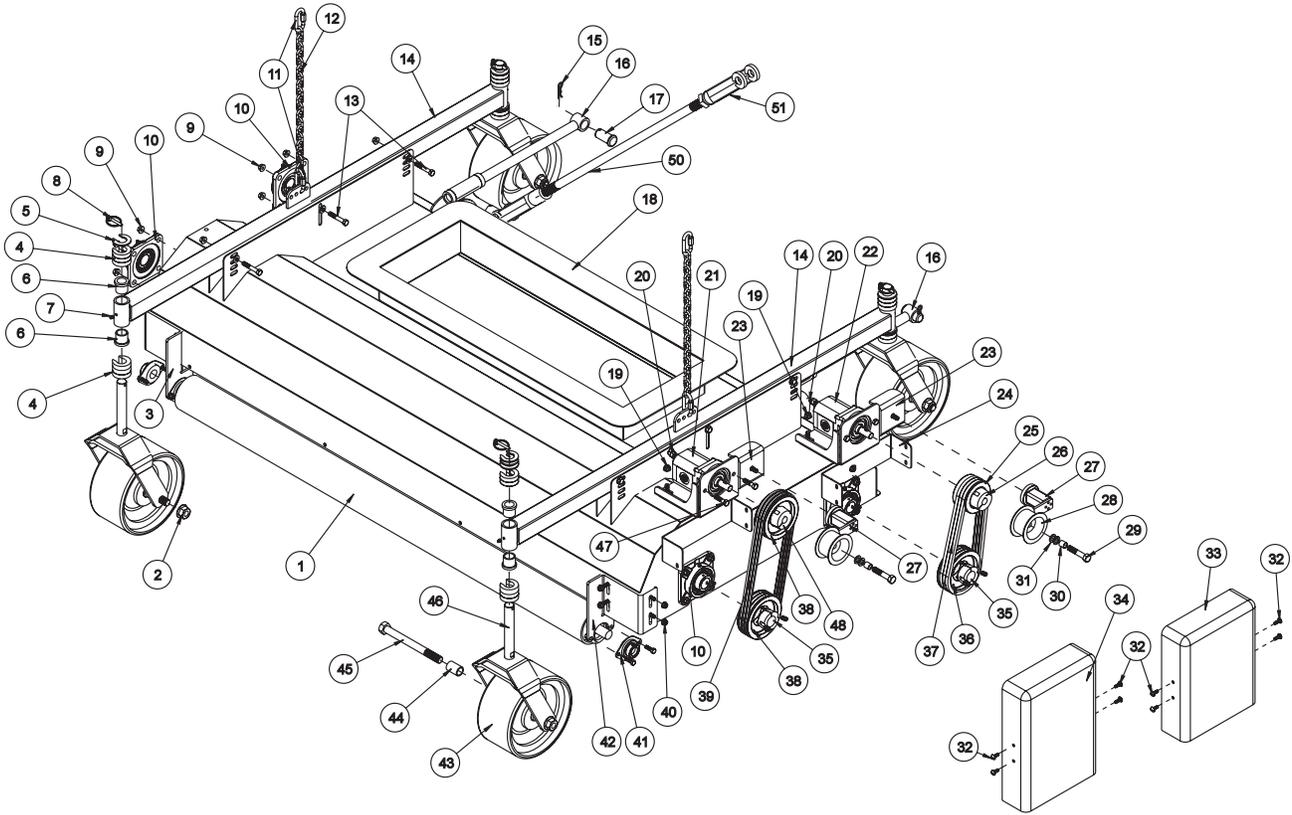
| REF# | PART#          | DESCRIPTION  | QUANTITY |
|------|----------------|--|----------|
| 1    | 72-090         | Anti-Scalp Roller  | 1        |
| 2    | HNTL-34-10     | Top Lock Nut $\frac{3}{4}$ - 10                            | 4        |
| 3    | 72-114         | Left Roller Bracket  | 1        |
| 4    | 72-053         | Quick Spacer $\frac{1}{2}$ "                               | 20       |
| 5    | 72-136         | Quick Spacer 10GA  | 12       |
| 6    | 18-223         | Flange Bushing (part of 72-112)                            | 8        |
| 7    | HG-14-28-180   | Grease Fitting $\frac{1}{4}$ - 28 x 180° (part of 72-112)  | 4        |
| 8    | 42-539         | Lynch Pin $\frac{5}{16}$                                   | 4        |
| 9    | HB-38-16-125   | Bolt $\frac{3}{8}$ -16 x 1 $\frac{1}{4}$                   | 16       |
|      | HNFL-38-16     | Flange Whiz Lock Nut $\frac{3}{8}$ - 16                    | 16       |
| 10   | 72-023         | Flange Bearing   | 4        |
|      | HG-14-28-180   | Grease Fitting $\frac{1}{4}$ - 28 x 180° (part of 72-023)  | 4        |
| 11   | 72-100         | $\frac{5}{16}$ Chain Connector                             | 4        |
| 12   | 8820-19        | Machine Chain Straight Link                                | 2        |
| 13   | HB-38-16-275   | Bolt $\frac{3}{8}$ -16 x 2 $\frac{3}{4}$                   | 6        |
|      | HW-38          | Washer $\frac{3}{8}$                                       | 6        |
|      | HNFL-38-16     | Flange Whiz Lock Nut $\frac{3}{8}$ -16                     | 6        |
| 14   | 72-112         | Castor Wheel Arm   | 2        |
| 15   | HHP-18-100     | Bridge Pin $\frac{1}{8}$ x 1                               | 4        |
| 16   | 72-103         | Reel Lift Rod  | 2        |
| 17   | HCP-100-250    | Clevis Pin 1 x 2   | 4        |
| 18   | 72-085         | Reel Housing   | 1        |
|      | 8803-114       | Trim Black with Lace                                       | 1        |
| 19   | HB-38-16-100   | Bolt $\frac{3}{8}$ -16 x 1                                 | 8        |
|      | HW-38          | Washer $\frac{3}{8}$                                       | 8        |
|      | HNFL-38-16     | Flange Whiz Lock Nut $\frac{3}{8}$ -16 x 1                 | 8        |
| 20   | 18-362         | Straight Threar Reducer                                    | 2        |
| 21*  | 72-187         | Hydraulic Motor (thatcher reel)                            | 1        |
| 22*† | 72-199         | Hydraulic Motor (finger reel)                              | 1        |
| 23   | 72-097         | Motor Mount  | 2        |
| 24   | 72-058         | Belt Guard Mount   | 2        |
|      | HB-516-18-075  | Bolt $\frac{5}{16}$ - 18 x $\frac{3}{4}$                   | 4        |
|      | HW-516         | Washer $\frac{5}{16}$                                      | 4        |
|      | HNFL-516-18    | Flange Whiz Lock Nut $\frac{5}{16}$ - 18                   | 4        |
| 25   | 78-424         | Pulley   | 1        |
| 26   | 78-428         | $\frac{3}{4}$ " Hub  | 1        |
| 27   | 78-224         | Belt Tensioner   | 2        |
|      | HBM-10-1.50-30 | Metric Bolt 10 - 1.5 x 30 (comes with 78-224)              | 1        |
|      | HWLM-10        | Metric Lockwasher 10 (comes with 78-224)                   | 1        |
| 28   | 16-013         | Idler Pulley   | 2        |
| 29   | HB-12-13-250   | Bolt $\frac{1}{2}$ - 13 x 2 $\frac{1}{2}$ (part of 78-224) | 2        |
|      | HNCL-12-13     | Center Lock Nut $\frac{1}{2}$ - 13 (part of 78-224)        | 2        |
| 30   | 76-275         | Spacer (part of 78-224)                                    | 2        |

(Continued on next page)

|    |             |   |       |
|----|-------------|---|-------|
| *  | 72-199-01   | Seal Kit                                    | 1 per |
| *† | HWK-316-063 | Woodruff Key $\frac{3}{16}$ x $\frac{5}{8}$ | 1 per |

**No other parts are replaceable for hydraulic motors.**

# 72-001 COMBINATION SWEEPER - VERTICUT HEAD DRAWING



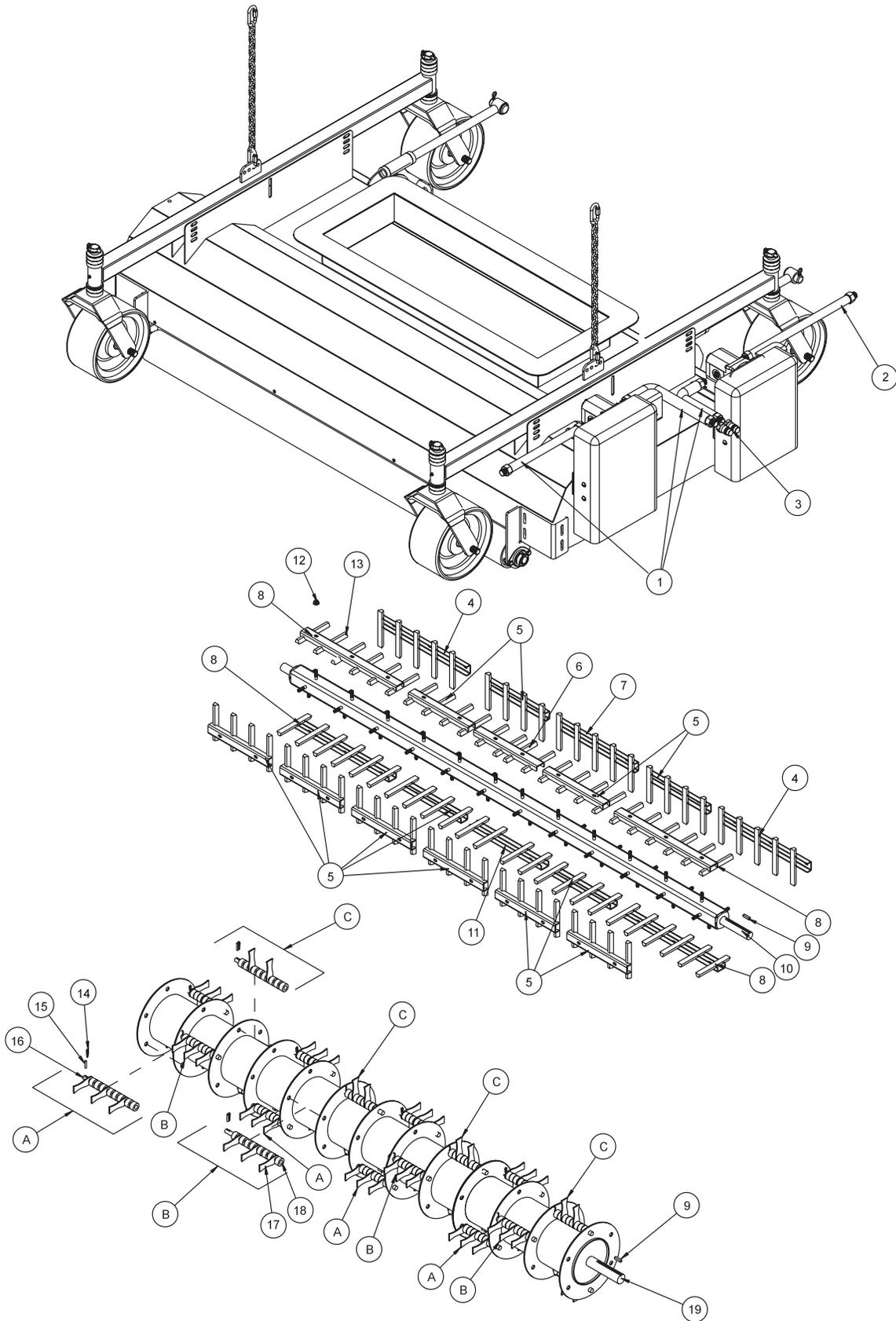
Accessories

## 72-001 COMBINATION SWEEPER - VERTICUT HEAD PARTS LIST

| REF# | PART#          | DESCRIPTION                          | QUANTITY |
|------|----------------|--------------------------------------|----------|
| 31   | HMB-12-14      | Machine Bushing 1/2 x 14GA           | 4        |
| 32   | HSTP-14-20-075 | Phillip Machine Screw 1/4 - 20 x 3/4 | 8        |
|      | 78-274         | Cage Nut                             | 8        |
| 33   | 72-056         | Belt Guard 13"                       | 1        |
| 34   | 72-057         | Belt Guard 15"                       | 1        |
| 35   | 78-431         | 1 1/4 Hub                            | 2        |
| 36   | 78-425         | Pulley                               | 1        |
| 37   | 72-038         | Belt                                 | 3        |
| 38   | 78-430         | Pulley                               | 2        |
| 39   | 72-037         | Belt                                 | 3        |
| 40   | HB-516-18-075  | Bolt 5/16 - 18 x 3/4                 | 8        |
|      | HW-516         | Washer 5/16                          | 8        |
|      | HNFL-516-18    | Flange Whiz Lock Nut 5/16 - 18       | 8        |
| 41   | 13-391         | 1" Flange Bearing                    | 2        |
|      | HB-516-18-100  | Bolt 5/16 - 18 x 1                   | 4        |
|      | HWL-516        | Lockwasher 5/16                      | 4        |
|      | HN-516-18      | Nut 5/16 - 18                        | 4        |
| 42   | 72-113         | Right Roller Bracket                 | 1        |
| 43   | 78-012         | Tire and Wheel                       | 4        |
|      | 78-012-01      | Bearing (part of 78-012)             | 4        |
| 44   | 72-135         | Castor Wheel Spacer                  | 8        |
| 45   | HB-34-10-800   | Bolt 3/4 - 10 x 8                    | 4        |
| 46   | 72-134         | Castor Fork                          | 4        |
| 47   | HB-38-16-125   | Bolt 3/8 - 16 x 1 1/4                | 4        |
|      | HW-38          | Washer 3/8                           | 4        |
|      | HNTL-38-16     | Lock Nut 3/8 - 16                    | 4        |
| 48   | 42-246         | Hub                                  | 1        |
| 50   | 72-148         | Sway Bar                             | 1        |
| 51   | 42-040         | Yoke End                             | 2        |
|      | HNJ-34-16      | Jam Nut 3/4 - 16                     | 2        |
|      | HCP-34-200     | Clevis Pin 3/4 x 2                   | 2        |
|      | HHP-18         | Bridge Pin 1/8 x 1                   | 2        |

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# 72-001 COMBINATION SWEEPER - VERTICUT REEL DRAWING

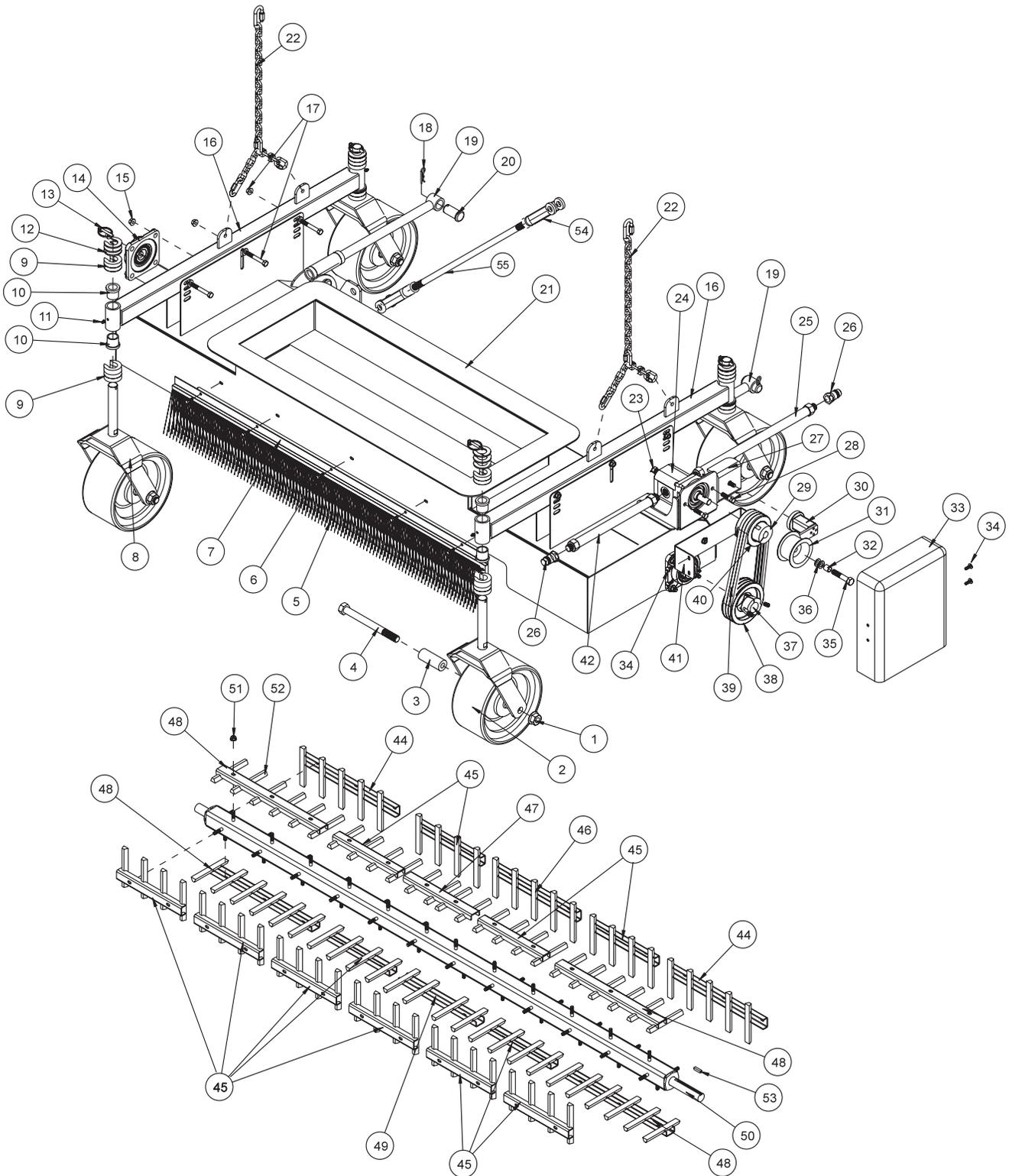


Accessories

## 72-001 COMBINATION SWEEPER - VERTICUT REEL PARTS LIST

| REF# | PART#       | DESCRIPTION                                   | QUANTITY |
|------|-------------|---|----------|
| 1    | 72-074      | Hydraulic Hose 39"                            | 3        |
| 2    | 72-075      | Hydraulic Hose 48"                            | 1        |
| 3    | 72-043      | 1/2 Male Quick Coupler                        | 2        |
| 4    | 72-091      | Finger Clamp 14 <sup>3</sup> / <sub>4</sub> " | 2        |
| 5    | 78-297      | Finger Clamp 10"                              | 12       |
| 6    | 78-327      | Finger Clamp 10 <sup>1</sup> / <sub>2</sub> " | 1        |
| 7    | 78-287      | Finger Clamp 13"                              | 1        |
| 8    | 72-092      | Finger Clamp 16"                              | 4        |
| 9    | HKSQ-14-100 | Square Key 1/4 x 1/4 x 1                      | 2        |
| 10   | 72-125      | Finger Reel                                   | 1        |
| 11   | 78-326      | Finger Clamp 12"                              | 1        |
| 12   | HNFL-516-18 | Flange Whiz Lock Nut 5/16 - 18                | 48       |
| 13   | 8969-5.250  | Sweeper Finger                                | 96       |
| 14   | HP-316-100  | Cotter Pin 3/16 x 1                           | 24       |
| 15   | HRP-316-100 | Roll Pin 3/16 x 1                             | 24       |
| 16   | 72-104      | Blade Rod                                     | 24       |
| 17   | 72-039      | Flail Blade                                   | 66       |
| 18   | 72-051      | Spacer  | 192      |
| 19   | 72-122      | Thatch Reel Balanced                          | 1        |

# 72-002 RUBBER FINGER SWEEPER HEAD DRAWING



Accessories

## 72-002 RUBBER FINGER SWEEPER HEAD PARTS LIST

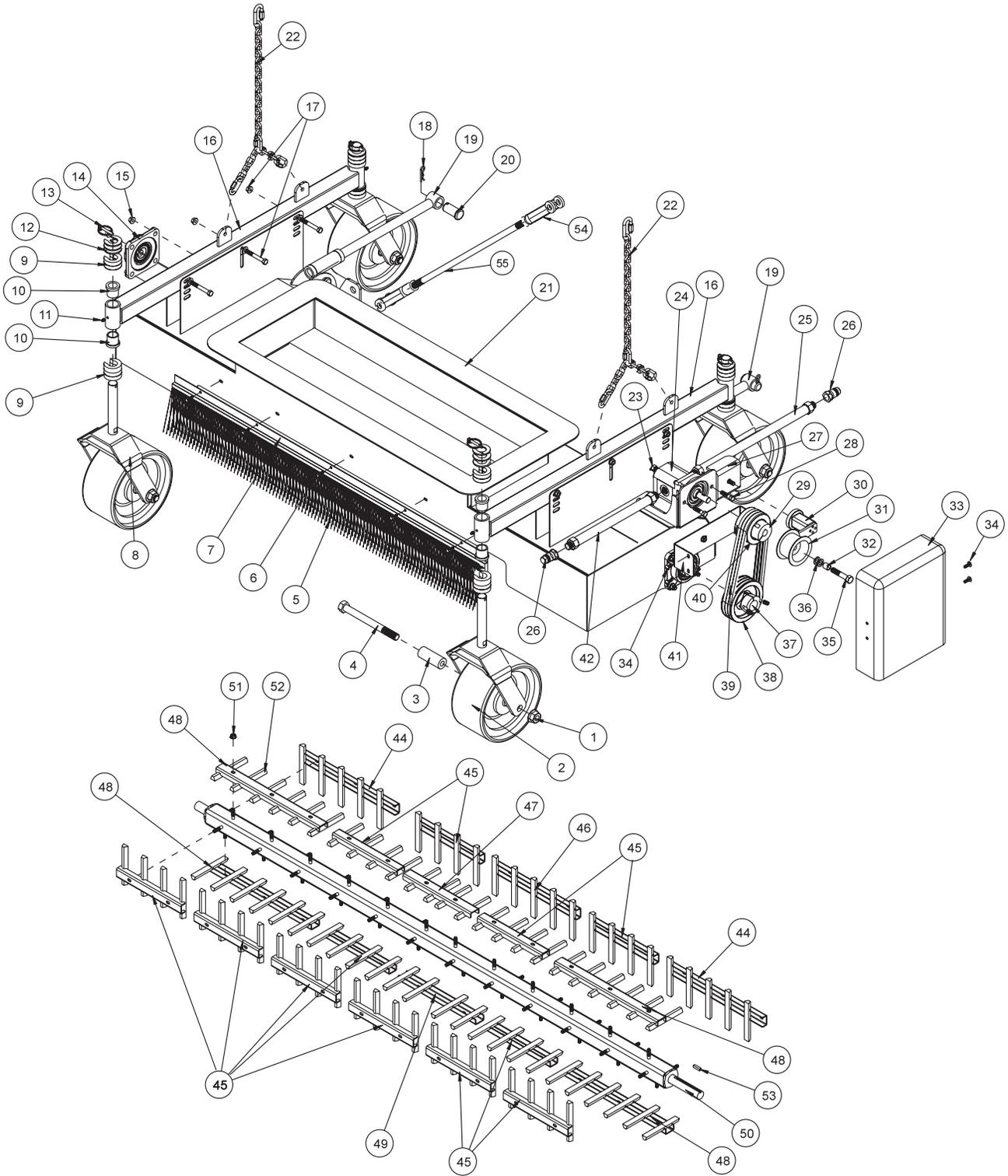
| REF# | PART#           | DESCRIPTION   | QUANTITY    |
|------|-----------------|---|-------------|
| 1    | HNTL-34-10      | Lock Nut $\frac{3}{4}$ - 10                                   | 4           |
| 2    | 78-012          | Tire and Wheel  | 4           |
|      | 78-012-01       | Bearing (part of 78-012)                                      | 2 per Wheel |
| 3    | 72-135          | Castor Wheel Spacer   | 8           |
| 4    | HB-34-10-800    | Bolt $\frac{3}{4}$ - 10 x 8                                   | 4           |
| 5    | 78-322          | Brush   | 1           |
| 6    | HB-14-20-075    | Bolt $\frac{1}{4}$ - 20 x $\frac{3}{4}$                       | 5           |
|      | HNFL-14-20      | Flange Whiz Lock Nut $\frac{1}{4}$ - 20                       | 5           |
| 7    | 78-344          | Brush Holder  | 1           |
| 8    | 72-134          | Castor Fork   | 4           |
| 9    | 72-053          | Quick Spacer $\frac{1}{2}$ "                                  | 20          |
| 10   | 18-223          | Flange Bushing (part of 72-139)                               | 8           |
| 11   | HG-14-28-180    | Grease Fitting $\frac{1}{4}$ - 28 x 180° (part of 72-139)     | 2           |
| 12   | 72-136          | Quick Spacer 10GA   | 12          |
| 13   | 42-539          | Lynch Pin $\frac{5}{16}$                                      | 4           |
| 14   | 72-023          | Flange Bearing  | 2           |
|      | HG-14-28-180    | Grease Fitting $\frac{1}{4}$ - 28 x 180° (part of 72-023)     | 2           |
| 15   | HNFL-38-16      | Flange Whiz Lock Nut $\frac{3}{8}$ - 16                       | 8           |
|      | HB-38-16-125    | Bolt $\frac{3}{8}$ - 16 x $1\frac{1}{4}$                      | 8           |
| 16   | 72-139          | Single Castor Wheel Arm                                       | 2           |
| 17   | HB-38-16-275    | Bolt $\frac{3}{8}$ - 16 x $2\frac{3}{4}$                      | 6           |
|      | HW-38           | Washer $\frac{3}{8}$  | 6           |
|      | HNFL-38-16      | Flange Whiz Lock Nut $\frac{3}{8}$ - 16                       | 6           |
| 18   | HHP-18-100      | Bridge Pin $\frac{1}{8}$ x 1                                  | 4           |
| 19   | 72-103          | Reel Lift Rod   | 2           |
| 20   | HCP-100-250     | Clevis Pin 1 x 2  | 4           |
| 21   | 72-133          | Single Reel Housing   | 1           |
|      | 8803-114        | Trim Black with Lace 114"                                     | 1           |
| 22   | 72-144          | Single Reel Lift Chain  | 2           |
| 23   | 18-362          | Straight Thread Reducer                                       | 1           |
| 24†  | 72-199          | Hydraulic Motor   | 1           |
| 25   | 72-075          | Hydraulic Hose 48"  | 1           |
| 26   | 72-043          | $\frac{1}{2}$ " Male Quick Coupler                            | 2           |
| 27   | 72-097          | Motor Mount   | 1           |
|      | HB-38-16-100    | Bolt $\frac{3}{8}$ - 16 x 1                                   | 4           |
|      | HW-38           | Washer $\frac{3}{8}$  | 4           |
|      | HNFL-38-16      | Flange Whiz Lock Nut $\frac{3}{8}$ - 16                       | 4           |
| 28   | HB-38-16-125    | Bolt $\frac{3}{8}$ - 16 x $1\frac{1}{4}$                      | 2           |
|      | HW-38           | Washer $\frac{3}{8}$  | 2           |
|      | HNTL-38-16      | Lock Nut $\frac{3}{8}$ - 16                                   | 2           |
| 29   | 78-428          | Hub   | 1           |
|      | HSSHS-38-16-063 | Set Screw $\frac{3}{8}$ - 16 x $\frac{5}{8}$ (part of 78-237) | 2           |

(Continued on next page)

|   |             |   |       |
|---|-------------|---|-------|
| † | 72-199-01   | Seal kit                                    | 1 per |
|   | HWK-316-063 | Woodruff Key $\frac{3}{16}$ x $\frac{5}{8}$ | 1 per |

**No other parts are replaceable for hydraulic motors.**

# 72-002 RUBBER FINGER SWEEPER HEAD DRAWING



Accessories

## 72-002 RUBBER FINGER SWEEPER HEAD PARTS LIST

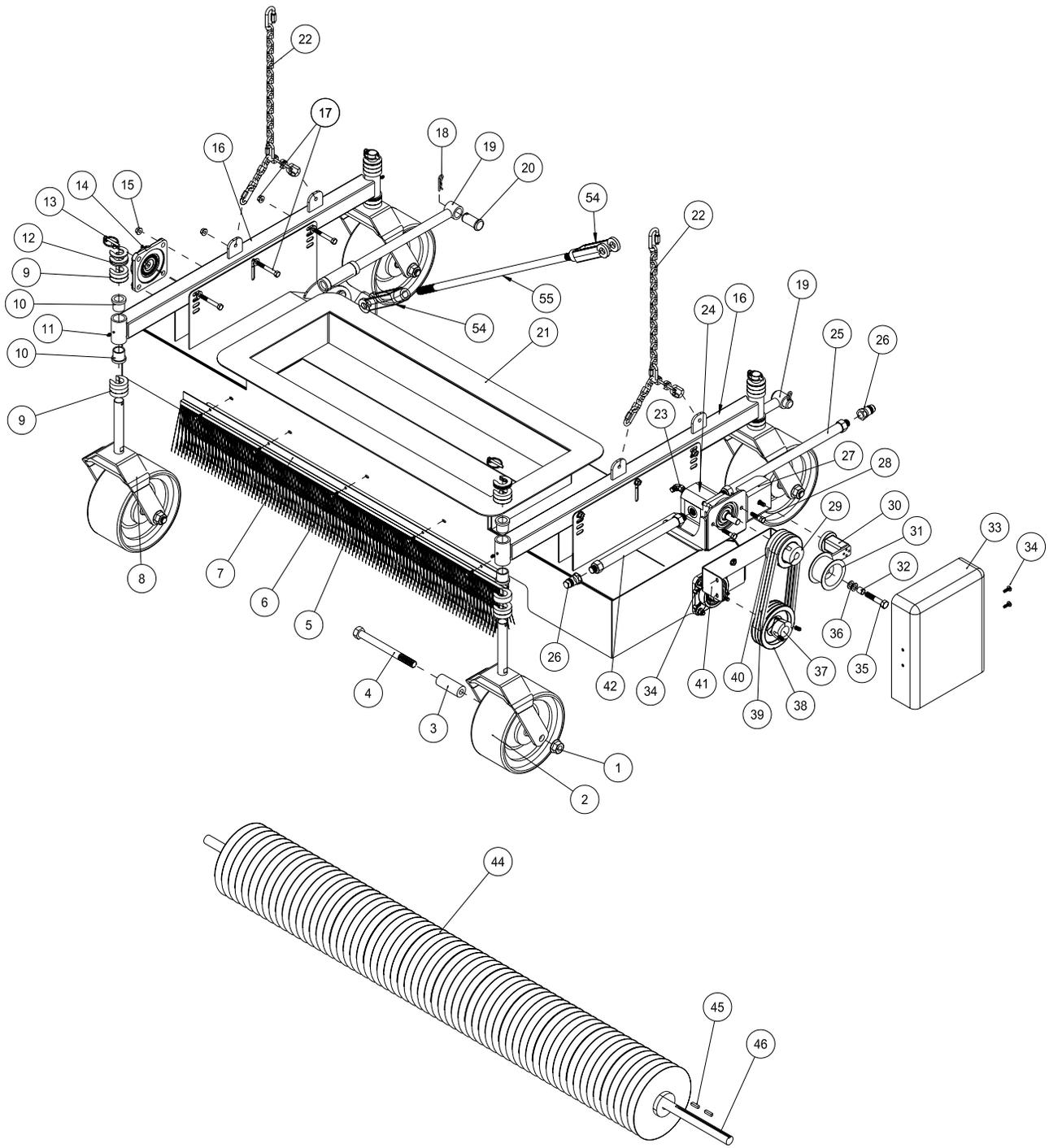
| REF# | PART#           | DESCRIPTION   | QUANTITY |
|------|-----------------|---|----------|
| 30   | 78-224          | Belt Tensioner  | 1        |
|      | HBM-10-1.50-30  | Metric Bolt 10 - 1.50 x 30 (part of 78-224)                   | 1        |
|      | HWLM-10         | Metric Lockwasher 10 (part of 78-224)                         | 1        |
| 31   | 16-013          | Idler pulley  | 1        |
| 32   | 76-275          | Spacer (part of 78-224)                                       | 1        |
| 33   | 72-056          | Belt Guard  | 1        |
| 34   | HSTP-14-20-075  | Phillip Head Machine Screw $\frac{1}{4}$ - 20 x $\frac{3}{4}$ | 4        |
|      | 78-274          | Cage Nut  | 4        |
| 35   | HB-12-13-250    | Bolt $\frac{1}{2}$ - 13 x $2\frac{1}{2}$ (part of 78-224)     | 1        |
|      | HNCL-12-13      | Center Lock Nut $\frac{1}{2}$ - 13 (part of 78-224)           | 1        |
| 36   | HMB-12-14       | Machine Bushing $\frac{1}{2}$ x 14GA                          | 2        |
| 37   | 78-431          | Hub $1\frac{1}{4}$  | 1        |
|      | HSSHS-38-16-063 | Set Screw $\frac{3}{8}$ - 16 x $\frac{5}{8}$ (part of 72-035) | 2        |
| 38   | 78-425          | Pulley  | 1        |
| 39   | 72-038          | Belt  | 3        |
| 40   | 78-424          | Pulley  | 1        |
| 41   | 72-058          | Belt Guard Mount  | 1        |
|      | HB-516-18-075   | Bolt $\frac{5}{16}$ - 18 x $\frac{3}{4}$                      | 2        |
|      | HW-516          | Washer $\frac{5}{16}$   | 2        |
|      | HNFL-516-18     | Flange Whiz Lock Nut $\frac{5}{16}$ - 18                      | 2        |
| 42   | 72-074          | Hydraulic Hose 39"  | 1        |
| 44   | 72-091          | Finger Clamp 14 $\frac{3}{4}$ "                               | 2        |
| 45   | 78-297          | Finger Clamp 10"  | 12       |
| 46   | 78-287          | Finger Clamp 13"  | 1        |
| 47   | 78-327          | Finger Clamp 10 $\frac{1}{2}$ "                               | 1        |
| 48   | 72-092          | Finger Clamp 16"  | 4        |
| 49   | 78-326          | Finger Clamp 12"  | 1        |
| 50   | 72-125          | Finger Reel   | 1        |
| 51   | HNFL-516-18     | Flange Whiz Lock Nut $\frac{5}{16}$ - 18                      | 48       |
| 52   | 8969-5.250      | Sweeper Finger  | 96       |
| 53   | HKSQ-14-100     | Square Key $\frac{1}{4}$ x $\frac{1}{4}$ x 1                  | 1        |
| 54   | 42-040          | Yoke End  | 2        |
|      | HNJ-34-16       | Jam Nut $\frac{3}{4}$ - 16                                    | 2        |
|      | HCP-34-200      | Clevis Pin $\frac{3}{4}$ x 2                                  | 2        |
|      | HHP-18          | Bridge Pin $\frac{1}{8}$ x 1                                  | 2        |
| 55   | 42-148          | Sway Bar  | 1        |

### VERTICUT REEL VALVE HANDLE



If the rubber finger sweeper head is installed on your unit and verticut reel handle is activated, the hydraulic system may be damaged due to overheating the oil. Remove the verticut reel valve handle when using the rubber finger sweeper head (72-002).

# 72-005 BRUSH REEL SWEEPER HEAD DRAWING



Accessories

## 72-005 BRUSH REEL SWEEPER HEAD PARTS LIST

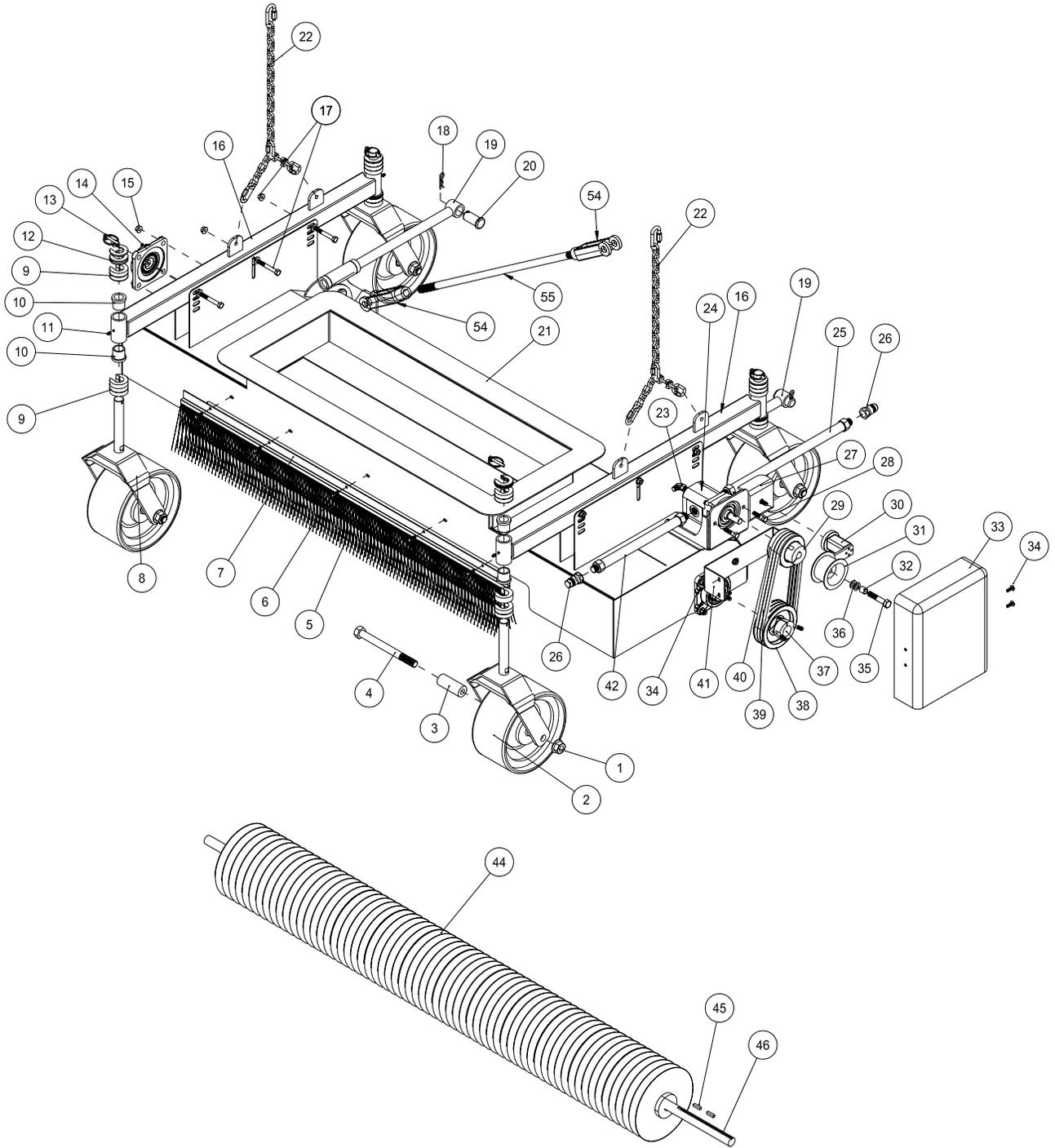
| REF# | PART#           | DESCRIPTION   | QUANTITY    |
|------|-----------------|---|-------------|
| 1    | HNTL-34-10      | Lock Nut $\frac{3}{4}$ - 10                                   | 4           |
| 2    | 78-012          | Tire and Wheel  | 4           |
|      | 78-012-01       | Bearing (part of 78-012)                                      | 2 per Wheel |
| 3    | 72-135          | Castor Wheel Spacer   | 8           |
| 4    | HB-34-10-800    | Bolt $\frac{3}{4}$ - 10 x 8                                   | 4           |
| 5    | 78-322          | Brush   | 1           |
| 6    | HB-14-20-075    | Bolt $\frac{1}{4}$ - 20 x $\frac{3}{4}$                       | 5           |
|      | HNFL-14-20      | Flange Whiz Lock Nut $\frac{1}{4}$ - 20                       | 5           |
| 7    | 78-344          | Brush Holder  | 1           |
| 8    | 72-134          | Castor Fork   | 4           |
| 9    | 72-053          | Quick Spacer $\frac{1}{2}$ "                                  | 20          |
| 10   | 18-223          | Flange Bushing (part of 72-139)                               | 8           |
| 11   | HG-14-28-180    | Grease Fitting $\frac{1}{4}$ - 28 x 180° (part of 72-139)     | 2           |
| 12   | 72-136          | Quick Spacer 10GA   | 12          |
| 13   | 42-539          | Lynch Pin $\frac{5}{16}$                                      | 4           |
| 14   | 72-023          | Flange Bearing  | 2           |
|      | HG-14-28-180    | Grease Fitting $\frac{1}{4}$ - 28 x 180° (part of 72-023)     | 2           |
| 15   | HNFL-38-16      | Flange Whiz Lock Nut $\frac{3}{8}$ - 16                       | 8           |
|      | HB-38-16-125    | Bolt $\frac{3}{8}$ - 16 x $1\frac{1}{4}$                      | 8           |
| 16   | 72-139          | Single Castor Wheel Arm                                       | 2           |
| 17   | HB-38-16-275    | Bolt $\frac{3}{8}$ - 16 x $2\frac{3}{4}$                      | 6           |
|      | HW-38           | Washer $\frac{3}{8}$  | 6           |
|      | HNFL-38-16      | Flange Whiz Lock Nut $\frac{3}{8}$ - 16                       | 6           |
| 18   | HHP-18-100      | Bridge Pin $\frac{1}{8}$ x 1                                  | 4           |
| 19   | 72-103          | Reel Lift Rod   | 2           |
| 20   | HCP-100-250     | Clevis Pin 1 x 2  | 4           |
| 21   | 72-133          | Single Reel Housing   | 1           |
|      | 8803-114        | Trim Black with Lace 114"                                     | 1           |
| 23   | 18-362          | Straight Thread Reducer                                       | 1           |
| 24†  | 72-199          | Hydraulic Motor   | 1           |
| 25   | 72-075          | Hydraulic Hose 48"  | 1           |
| 26   | 72-043          | $\frac{1}{2}$ " Male Quick Coupler                            | 2           |
| 27   | 72-097          | Motor Mount   | 1           |
|      | HB-38-16-100    | Bolt $\frac{3}{8}$ - 16 x 1                                   | 4           |
|      | HW-38           | Washer $\frac{3}{8}$  | 4           |
|      | HNFL-38-16      | Flange Whiz Lock Nut $\frac{3}{8}$ - 16                       | 4           |
| 28   | HB-38-16-125    | Bolt $\frac{3}{8}$ - 16 x $1\frac{1}{4}$                      | 2           |
|      | HW-38           | Washer $\frac{3}{8}$  | 2           |
|      | HNTL-38-16      | Lock Nut $\frac{3}{8}$ - 16                                   | 2           |
| 29   | 78-428          | Hub   | 1           |
|      | HSSHS-38-16-063 | Set Screw $\frac{3}{8}$ - 16 x $\frac{5}{8}$ (part of 78-237) | 2           |

(Continued on next page)

|   |             |   |       |
|---|-------------|---|-------|
| † | 72-199-01   | Seal kit                                    | 1 per |
|   | HWK-316-063 | Woodruff Key $\frac{3}{16}$ x $\frac{5}{8}$ | 1 per |

**No other parts are replaceable for hydraulic motors.**

# 72-005 BRUSH REEL SWEEPER HEAD DRAWING

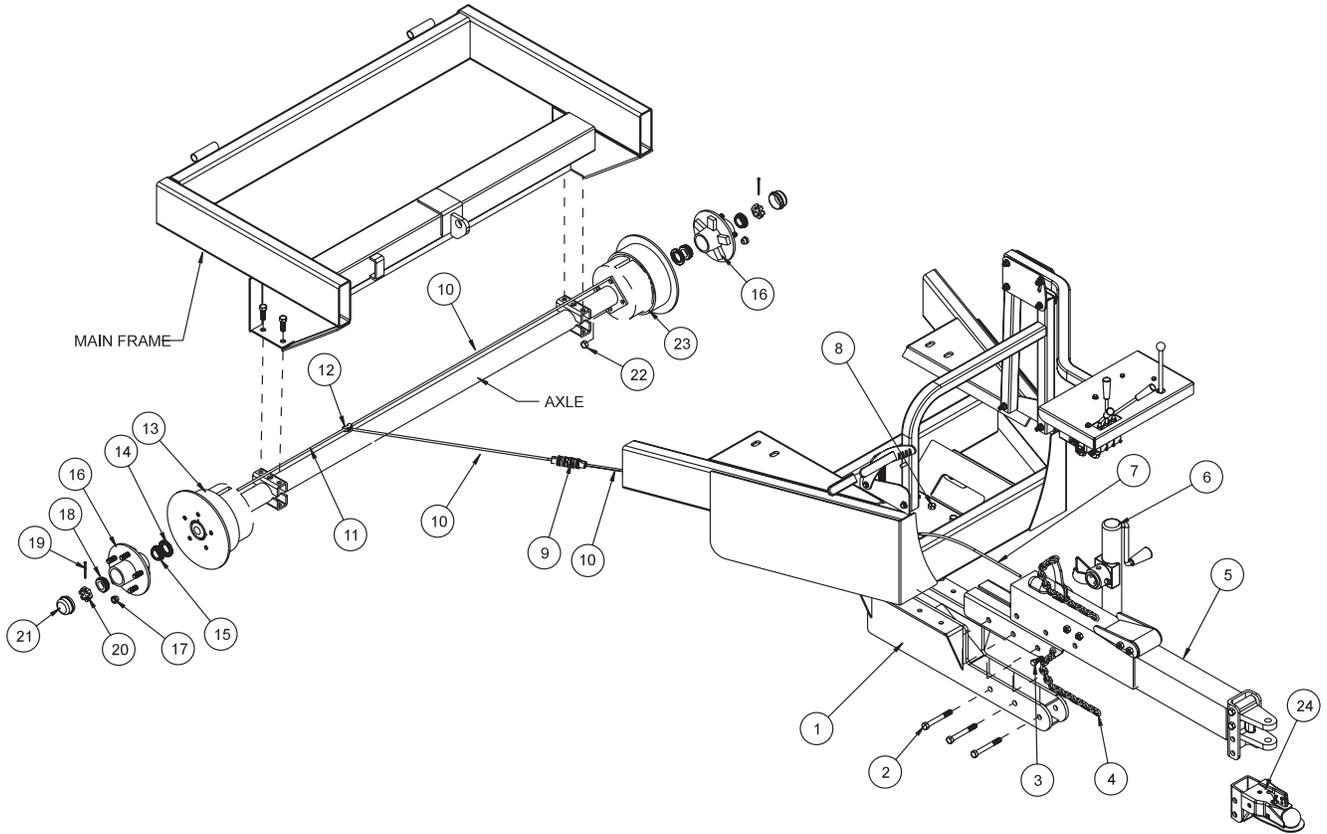


Accessories

## 72-005 BRUSH REEL SWEEPER HEAD PARTS LIST

| REF# | PART#           | DESCRIPTION   | QUANTITY |
|------|-----------------|---|----------|
| 30   | 78-224          | Belt Tensioner  | 1        |
|      | HBM-10-1.50-30  | Metric Bolt 10 - 1.50 x 30 (part of 78-224)                   | 1        |
|      | HWLM-10         | Metric Lockwasher 10 (part of 78-224)                         | 1        |
| 31   | 16-013          | Idler pulley  | 1        |
| 32   | 76-275          | Spacer (part of 78-224)                                       | 1        |
| 33   | 72-056          | Belt Guard  | 1        |
| 34   | HSTP-14-20-075  | Phillip Head Machine Screw $\frac{1}{4}$ - 20 x $\frac{3}{4}$ | 4        |
|      | 78-274          | Cage Nut  | 4        |
| 35   | HB-12-13-250    | Bolt $\frac{1}{2}$ - 13 x $2\frac{1}{2}$ (part of 78-224)     | 1        |
|      | HNCL-12-13      | Center Lock Nut $\frac{1}{2}$ - 13 (part of 78-224)           | 1        |
| 36   | HMB-12-14       | Machine Bushing $\frac{1}{2}$ x 14GA                          | 2        |
| 37   | 78-431          | Hub $1\frac{1}{4}$  | 1        |
|      | HSSHS-38-16-063 | Set Screw $\frac{3}{8}$ - 16 x $\frac{5}{8}$ (part of 72-035) | 2        |
| 38   | 78-425          | Pulley  | 1        |
| 39   | 72-038          | Belt  | 3        |
| 40   | 78-424          | Pulley  | 1        |
| 41   | 72-058          | Belt Guard Mount  | 1        |
|      | HB-516-18-075   | Bolt $\frac{5}{16}$ - 18 x $\frac{3}{4}$                      | 2        |
|      | HW-516          | Washer $\frac{5}{16}$   | 2        |
|      | HNFL-516-18     | Flange Whiz Lock Nut $\frac{5}{16}$ - 18                      | 2        |
| 42   | 72-074          | Hydraulic Hose 39"  | 1        |
| 44*  | 72-188          | Spiral Brush  | 1        |
| 45*  | HKSQ-14-100     | Square Key $\frac{1}{4}$ x $\frac{1}{4}$ x 1                  | 2.       |
| 46*  | 72-189          | Shaft   | 1        |
| 47   | 72-144          | Single Reel Lift Chain  | 2        |
| 48   | 72-148          | Sway Bar  | 1        |
| 49   | 42-040          | Yoke End  | 2        |
|      | HNJ-34-16       | Jam Nut $\frac{3}{4}$ - 16                                    | 2        |
|      | HCP-34-200      | Clevis Pin $\frac{3}{4}$ x 2                                  | 2        |
|      | HHP-18          | Bridge Pin $\frac{1}{8}$ x 1                                  | 2        |
| *    | 72-006          | Brush Head Only (includes * items)                            |          |

# 72-004 OVER-THE-ROAD TOWING PACKAGE DRAWING



## 72-004 OVER-THE-ROAD TOWING PACKAGE PARTS LIST

| REF#      | PART#         | DESCRIPTION  | QUANTITY  |
|-----------|---------------|--|-----------|
| 1         | 72-172        | Surge Brake Mount  | 1         |
| 2         | HB-58-11-500  | Bolt $\frac{5}{8}$ - 11 x 5                                | 3         |
|           | HNTL-58-11    | Top Lock Nut $\frac{5}{8}$ -11                             | 3         |
| 3         | HB-716-14-125 | Bolt $\frac{7}{16}$ - 14 x $1\frac{1}{4}$                  | 2         |
|           | HNCL-716-14   | Center Lock Nut $\frac{7}{16}$ - 14                        | 2         |
| 4         | 72-168        | Safety Chain 32"   | 2         |
| 5         | 72-173        | Surge Brake  | 1         |
| 6         | 78-240        | Jack (part of machine)                                     | 1         |
| 7         | 72-164        | Rubber Brake Hose  | 1         |
|           | 21-067        | Clip   | 2         |
|           | HSD-8-050     | Pan Head Drill Screw #8 x $\frac{1}{2}$                    | 2         |
| 8         | HB-12-13-125  | Bolt $\frac{1}{2}$ - 13 x $1\frac{1}{4}$ (part of machine) | 8         |
|           | HNTL-12-13    | Top Lock Nut $\frac{1}{2}$ -13 (part of machine)           | 8         |
| 9         | 72-165        | Brake Line Coupler   | 1         |
| 10        | 72-166        | 60" Brake Line   | 3         |
|           | 21-067        | Clip   | 3         |
|           | HSD-8-050     | Pan Head Drill Screw #8 x $\frac{1}{2}$                    | 3         |
| 11        | 72-167        | 20" Brake Line   | 1         |
| 12        | 18-089        | Brake Line Tee   | 1         |
| 13        | 72-161        | Right Brake  | 1         |
| 14*       | 33-073-01     | Grease Seal  | 2         |
| 15*       | 78-118        | Inner Bearing  | 2         |
| 16        | 72-162        | Hub Assembly (includes all * items)                        | 2         |
| 17*       | HNL-12-20     | Lug Nut $\frac{1}{2}$ - 20                                 | 10        |
| 18*       | 78-119        | Outer Bearing  | 2         |
| 19        | HP-18-200     | Cotter Pin $\frac{1}{8}$ x 2 (part of machine)             | 2         |
| 20        | HNAR-100-14   | Slotted Jam Nut 1 - 14 (part of machine)                   | 2         |
| 21*       | 33-073-02     | Dust Cap   | 2         |
| 22        | HN-716-20     | Nut $\frac{7}{16}$ - 20                                    | 8         |
|           | HWL-716       | Lockwasher $\frac{7}{16}$                                  | 8         |
| 23        | 72-160        | Left Brake   | 1         |
| 24        | 78-245        | $2\frac{5}{16}$ Ball Hitch (optional)                      | 1         |
|           | 78-356        | 2" Ball Hitch (optional)                                   | 1         |
| Not Shown |               |  |           |
| A         | 8898          | Brake Fluid  | 1.5 Pints |
| B         | 72-159        | Tire and Wheel   | 2         |
|           | 72-159-01     | Tire   | 2         |
|           | 72-159-02     | Wheel  | 2         |
| C         | 22-075        | 14" Tie Strap  | 10        |
| D         | 5-041         | Towing Lights  | 1         |

## INSTALLATION INSTRUCTION

- The brakes come completely installed. The tires installed on the unit are towing tires. You also receive the two original turf tires.
- The lights (72-171) are magnetic, so they can be placed on any metal piece on the back of the unit. We suggest you mount them to the bottom of the hopper floor pointing down. One on each side.
- Run the wire harness from the lights up the main frame to the control panel. Hold in place with the 10 tie downs (22-075).
- There are two different types of plug-ins on the end of the light wire harness. Use which ever end suits the tow vehicle the best.
- Test brakes and lights before putting machine in service.



## TOWING SAFETY WARNINGS

1. Connect safety chains properly EVERY TIME YOU TOW. Cross chains under coupler. Attach securely to the hitch or tow vehicle so they can't bounce loose. Leave only enough slack to permit full turning. Too much slack may prevent chains from maintaining control if other connections separate. Don't let chains drag on the road.
2. Make towing light and surge brake connections EVERY TIME YOU TOW, no matter how short the trip. Check operation before getting on the road.
3. Check tire inflation often (min. 35 psi). Follow tow vehicle manufacturers recommendations. Improper tire inflation can cause sweeper to sway.
4. Never allow people in or on sweeper while towing, under any circumstances.
5. The additional weight of a sweeper affects acceleration, braking and handling. Allow extra time for passing, stopping and changing lanes. Severe bumps can damage your towing vehicle, hitch and sweeper. Drive slowly on rough roads. Stop and make a thorough inspection if any part of your towing system strikes the road. Correct any problems before resuming travel.
6. Check for excessive sway and eliminate it. Excessive sway can lead to loss of control. Sway motion should settle out quickly. Sway tends to increase on a downgrade. Starting slowly, increase speed in gradual steps. If sway occurs, adjust load and equipment. Repeat until the trailer is stable at highway speed.
7. Turbulence from another vehicle, a wind gust, or a downgrade can cause sudden sway. So can a shift of the sweepers load or a tire blowout. If the trailer sways it is the driver's responsibility to assess the situation and take appropriate action. Below are suggestions that may apply, depending on conditions:

### SAFE TOWING TIPS

#### DO

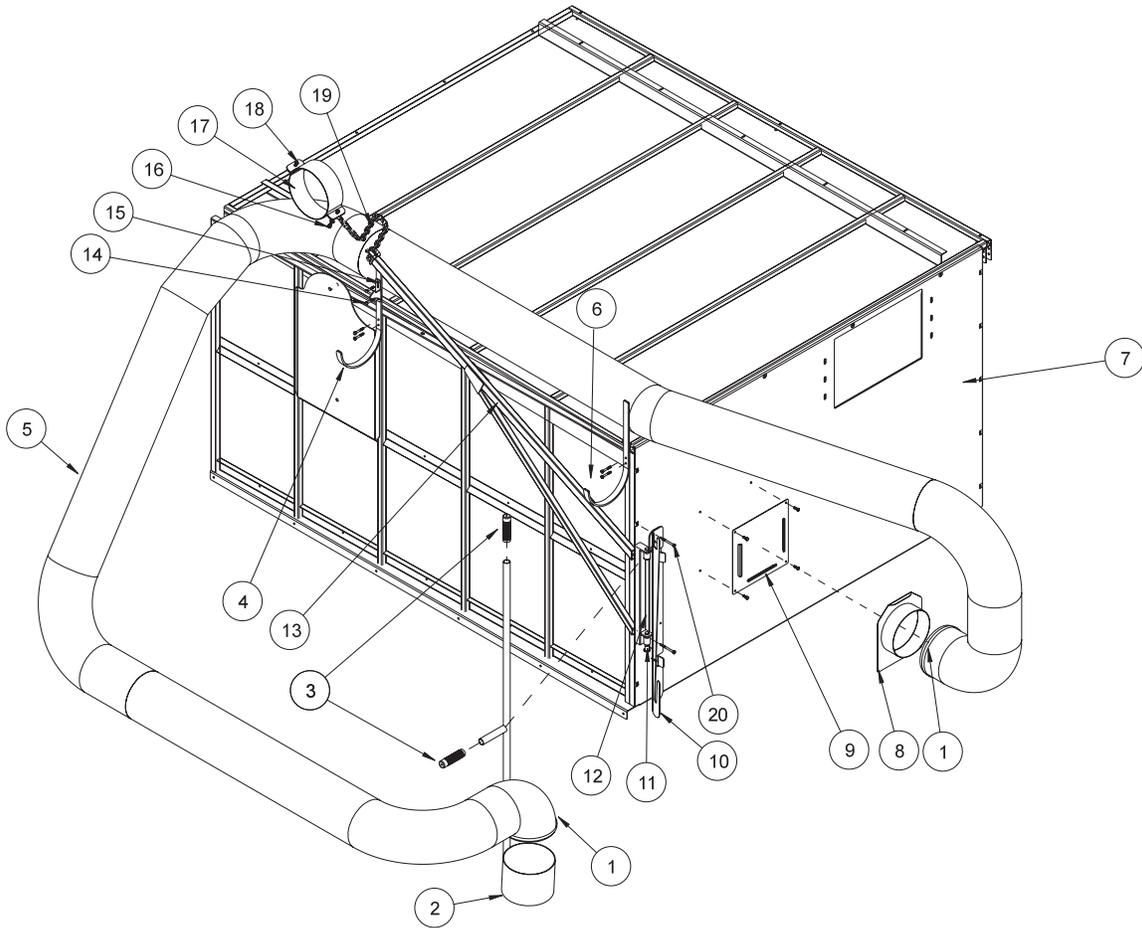
- Reduce your speed gradually
- Hold the steering wheel as steady as possible
- Apply the sweeper brakes alone, without using the tow vehicles brakes.

#### DON'T

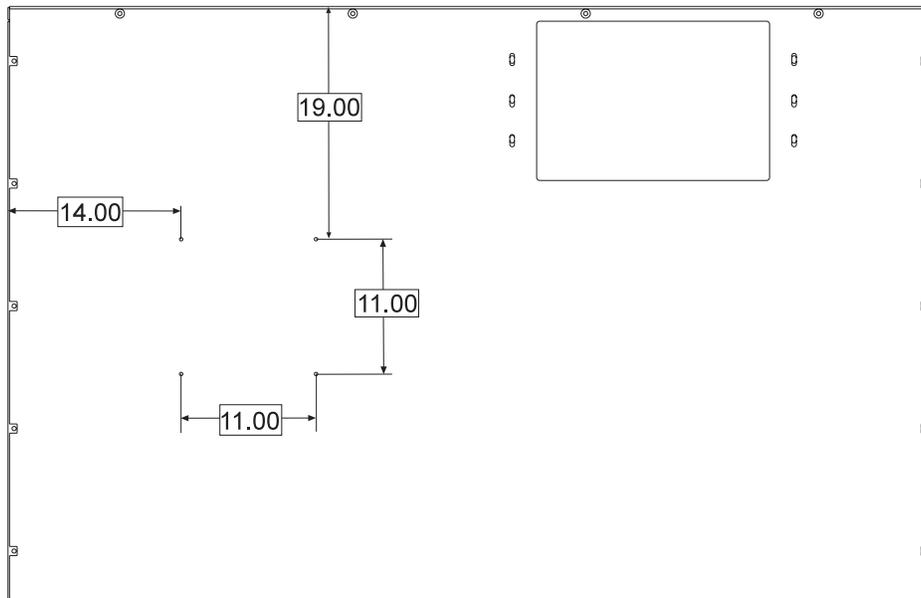
- Don't hit your brake pedal hard unless absolutely necessary. A "jackknife" can result.
- Don't try to steer out of the sway condition. Sudden or violent steering can make it worse.
- Don't speed up. Sway increases as you go faster.
- Don't continue towing a sweeper that tends to sway. You may lose control during an emergency maneuver or if the conditions listed above occur.



# 72-003 HAND HELD VACUUM HOSE DRAWING



## FRONT VIEW HOLE LOCATION



Accessories

## 72-003 HAND HELD VACUUM HOSE PARTS LIST

| REF# | PART#          | DESCRIPTION                                      | QUANTITY |
|------|----------------|--|----------|
| 1    | 18-340         | Hose Clamp                                       | 2        |
| 2    | 78-354         | Hose Handle                                      | 1        |
| 3    | 15-019         | Round Grip                                       | 2        |
| 4    | 72-142         | Hose Hanger                                      | 2        |
|      | HB-14-20-175   | Bolt $\frac{1}{4}$ - 20 x $1\frac{3}{4}$         | 4        |
|      | HNFL-14-20     | Flange Whiz Lock Nut $\frac{1}{4}$ - 20          | 4        |
| 5    | 8970-300       | Vacuum Hose                                      | 1        |
| 6    |                | Hopper Right Side                                |          |
| 7    |                | Hopper Front                                     |          |
| 8    | 78-314         | Remote Hose Connection                           | 1        |
| 9    | 72-141         | Hose Plate                                       | 1        |
|      | HB-14-20-075   | Bolt $\frac{1}{4}$ - 20 x $\frac{3}{4}$          | 4        |
|      | HNFL-14-20     | Flange Whiz Lock Nut $\frac{1}{4}$ - 20          | 4        |
| 10   | 78-350         | Handle Holder                                    | 1        |
|      | 8803-17        | Trim, Black                                      | 1        |
| 11   | 18-043         | Flange Bushing (part of 72-153)                  | 2        |
| 12   | 72-153         | Boom Mounting Bracket                            | 1        |
|      | HP-18-100      | Cotter Pin $\frac{1}{8}$ x 1                     | 2        |
| 13   | 72-155         | Vacuum Hose Boom                                 | 1        |
| 14   | HSTP-14-20-075 | Machine Screw $\frac{1}{4}$ - 20 x $\frac{3}{4}$ | 2        |
|      | HNFL-14-20     | Flange Whiz Lock Nut $\frac{1}{4}$ - 20          | 2        |
| 15   | 72-152         | Latch Bracket                                    | 1        |
| 16   | HB-516-18-075  | Bolt $\frac{5}{16}$ - 18 x $\frac{3}{4}$         | 1        |
|      | HW-516         | Washer $\frac{5}{16}$                            | 1        |
|      | HNFL-516-18    | Flange Whiz Lock Nut $\frac{5}{16}$ - 18         | 1        |
| 17   | 72-154         | Hose Clamp                                       | 2        |
| 18   | HB-516-18-075  | Bolt $\frac{5}{16}$ - 18 x $\frac{3}{4}$         | 1        |
|      | HNFL-516-18    | Flange Whiz Lock Nut $\frac{5}{16}$ - 18         | 1        |
| 19   | 8820-25        | Straight Link Chain 25"                          | 1.       |
| 20   | HB-14-20-275   | Bolt $\frac{1}{4}$ - 20 x $2\frac{3}{4}$         | 2        |
|      | HNFL-14-20     | Flange Whiz Lock Nut $\frac{1}{4}$ - 20          | 2        |

(Continued on next page)

## INSTALLATION INSTRUCTIONS

You will need two people and the tailgate open with an empty hopper **and the machine not operating.**

1. Drill (4)  $\frac{9}{32}$  holes in front panel (Ref 7) to the left side, see drawing. Start with the top left hole at 19 inches down from the top and 14 inches in from the left.
2. Proceed to drill the three remaining holes in a square pattern at 11 inches apart center to center. Deburr holes and mount the hose plate (Ref 9) and secure with four (4)  $\frac{1}{4}$  -20 x  $\frac{3}{4}$  bolts and flange whiz lock nuts.
3. Next mount the handle holder (Ref 10) facing the front panel, at the left are a vertical row of hex bolts. Remove the second and fourth bolts. Cut 5 inches off of the trim and put it into the top U shaped slot of handle holder. Put the remaining piece into the bottom slot. Install boom mount bracket (Ref 12) between hopper and handle holder. Use  $\frac{1}{4}$  -20 x  $2\frac{3}{4}$  bolts and flange whiz lock nuts (Ref 20). Pull boom mount bracket outward in the slots and tighten bolts.
4. Mount the hose hanger (Ref 4) on the right hand side (Ref 6), in the upper right hand corner. Remove and save the two bolts and nuts that are already in the upper right hand corner. Mount one hose hanger here using the bolts and nut you just removed.
5. To mount the second hose hanger, remove the drill screw in the front upright near the plate for the door arms is welded. Using the screw hole, drill a  $\frac{9}{32}$  hole completely through to the inside and deburr. Mount the hanger with one  $\frac{1}{4}$  - 20 x  $1\frac{3}{4}$  bolt and flange whiz lock nut in the lower hole of the hanger. With the hanger in the vertical position, use the remaining hole as a guide to drill a second mounting hole through to the inside. Deburr and install the remaining bolt and nut.
6. Install latch bracket (Ref 15) using two  $\frac{1}{4}$  - 20 x  $\frac{3}{4}$  machine screws and flange whiz lock nuts (Ref 14).
7. Next install boom (Ref 13) onto boom mount bracket. Hold in place with two  $\frac{1}{8}$  x 1 cotter pins (Ref 11). To adjust, swing boom back alongside the hopper until support comes in contact with the latch bracket. Slide latch bracket upward in the slot holes until it lifts boom  $\frac{1}{8}$ ". Tighten the bolts (Ref 14).
8. Next connect the hose to the hose handle (Ref 2) with hose on the same side as the long handle and secure with one hose clamp (Ref 1). At the other end of the hose connect the remote hose connector and secure with the other hose clamp.
9. Bolt hose clamps (Ref 17) together over the 8" Hose, close to center. Use the  $\frac{5}{16}$  - 18 x  $\frac{3}{4}$  bolt and flange whiz lock nut (Ref 18) on one side. Use the  $\frac{5}{16}$  - 18 x  $\frac{3}{4}$  bolt, washer and flange whiz lock nut (Ref 16) on the other end with the washer between the bolt and the chain. The bolt must go through the end link in the chain first then through the clamp.
10. Put the two round grips (Ref 3) on to the hose handle.
11. For storage place remote hose connector in hose plate (Ref 9) on the front panel. Drape hose over the top and go toward the back of machine. Just past the rear hose hanger bring hose to the side of machine and up into the hose hangers. At the front place the hose handle (Ref 2) into the handle holder (Ref 10).
12. To use the remote vacuum remove the cover plate from either side of the vacuum housing and place the remote hose connector (Ref 8) there. Place the cover plate into the hose plate (Ref 9). Before using the vacuum the lever on the left side of the vacuum housing must be pulled out and turned clockwise 90° and pushed in.
13. You may want to remove the hose handle, hose and remote hose connector if you are not going to use the remote vacuum for an extended amount of time.

## DECAL LIST

|        |                             |   |
|--------|-----------------------------|---|
| 25-279 | Decal, Safety Warning       | Oil tank; Right and left frame fronts.                      |
| 25-286 | Decal, Pinch Point          | Right and left tailgate lift arms.                          |
| 25-355 | Decal, Tire Pressure 18 PSI | Rear Wheels   |
| 25-356 | Decal, Tire Pressure 20 PSI | All Castor Wheels.  |
| 25-358 | Decal, Smithco 12"          | Front of oil tank.  |
| 25-359 | Decal, Smithco 17"          | Tailgate  |
| 25-361 | Decal, Technical Assistance | Main Frame  |
| 25-363 | Decal, Max. Depth           | Front Hopper  |
| 27-093 | Decal, Hydraulic Oil        | Right side oil tank.  |
| 72-047 | Decal, Big Vac (Large)      | Front blower housing  |
| 72-054 | Decal, Control Panel        | Control Panel   |
| 72-061 | Decal, Big Vac (Small)      | Each side of hopper by tailgate arm                         |
| 72-087 | Decal, Tractor PTO          | Two on PTO shaft, Tractor end                               |
| 72-088 | Decal, Danger Guard Missing | PTO Shaft   |
| 72-089 | Decal, Hose Routing         | Left side frame in front                                    |
| 72-182 | Decal, Max Load             | Front Hopper  |
| 75-651 | Decal, Hopper Lift Safety   | Hopper Lift Safety  |
| 76-305 | Decal, Rotating Parts       | Right and left side of Big Vac cover plates and above door. |
| 76-307 | Decal, Tower Warning        | One on each side of deck.                                   |

# 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)

\*72-186 Hydraulic Motor (finger reel)

72-186-01 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